GUIDE TO PORT ENTRY

M–Z

SHIPPING GUIDES LTD
NAUTICAL ADVISERS AND PUBLISHERS
75 BELL STREET, REIGATE, SURREY RH2 7AN, ENGLAND

ROBERT'S
MARKED
COPY

Produced by
Colin Pielow

MARK INDEX IN A-Z

M-Z.

SHIPPING GUIDES LTD.

GUIDE TO
PORT ENTRY

1989 – 90

VOLUME 2

NATIONS
M – Z

GUIDE TO
PORT ENTRY

Produced by

COLIN PIELOW

M.R.I.N., A.M.N.I.,
M.I.C.S.

SHIPPING GUIDES LTD
NAUTICAL ADVISERS AND PUBLISHERS

SHIPPING GUIDES HOUSE, 75, BELL STREET, REIGATE, SURREY RH2 7AN, ENGLAND
TEL: REIGATE (0737) 242255/6/7 TELEX: 917070 FAX: (0737) 222449 CABLES: SHIPGUIDE REIGATE

WARNING

Every effort has been made to ensure that the information contained in this *Guide* is correct. However, it will be clearly understood that this book is intended as a guide only, that the information cannot be *Guaranteed* correct and that final responsibility must (as always) rest with the Shipmaster.

At certain ports, items of navigational routeings and aids have been included as a means of general guidance only. Shipmasters should have in mind that full and due reference MUST ALWAYS be made to corrected charts of the area, to the appropriate Notices to Mariners, and all or any other navigational notices, warnings or amendments issued by proper Authorities and/or navigational aid services.

The sketch maps are for general assistance and must not be used for navigational purposes. In particular, the shapes of buoys should be disregarded since these are indicated by varying symbols which may be consequent upon local usage and without resemblance to internationally applied symbols.

PLANS

All plans, unless otherwise stated, are reproduced by kind permission of the Port Authority.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photo-copying, recording or otherwise without the prior permission of the publishers.
© Shipping Guides Limited, 1989.

Published by Shipping Guides Limited.
Photoset by Shipping Guides Ltd., Reigate, England
Printed and bound in Great Britain at The Bath Press, Avon, England

CONTENTS
VOLUME 2
NATIONS M – Z

Page

WARNING NOTICE iv

TEXT (The text has been arranged alphabetically by Countries and also by Ports within the Countries) .... 1027 – 2011

TEXT INDEX (Countries and Ports) .... (First Tinted Section)

PLANS .... P697 – P1409

PLAN INDEX .... (Second Tinted Section)

LATE REPORTS:

ALGERIA	Algiers
ANGOLA	Cabinda
	Quinfuquena
AUSTRALIA	Barrow Island
	Melbourne
	Sydney
CHILE	General
	Antofagasta
	Arica
	Barquito
	Caldera
	Calderilla
	Chacabuco
	Chanaral
	Coquimbo
	Coronel
	Guayacan
	Huasco
	Iquique
	Lota
	Puerto Montt
	Punta Arenas
	Quintero
	San Vicente
	Talcahuano
	Valparaiso
CHINA, People's Republic of	Basuo
	Haikou
	Sanya
	Yingkou
CYPRUS	Limassol
ECUADOR	General
EGYPT	Hamrawein
	Suez Canal
FRANCE	Dunkirk
	Le Havre
	Marseilles
	Sete
GABON	Ovendo
GERMANY F.R.	Hamburg
GHANA	General

GUINEA BISSAU	Bissau
GUYANA	Georgetown
HONG KONG	Hong Kong
INDONESIA	Lhokseumawe
IRAN	Bandar Abbas
	Kharg Island
	Lavan Island
	Sirri Island
ITALY	La Spezia
	Salerno
	Taranto
JAPAN	Nakanoseki
JORDAN	Aqaba
KOREA, Republic of	Busan
LIBYA	Bouri
MALAYSIA	Bintulu
MARTINIQUE	Fort de France
MOROCCO	Mohammedia
NETHERLANDS	Rotterdam
NORWAY	Aaheim
	Heroya
	Sture
OMAN	Port Qaboos
PAKISTAN	Port Muhammed Bin Qasim
PERU	General
	Callao
PHILIPPINES	Villanueva
SAO TOME	Sao Tome
SAUDI ARABIA	Rabigh
SINGAPORE	Singapore
SWEDEN	Stenungsund
THAILAND	Krabi
TURKEY	Golovasi
UNITED KINGDOM	New Holland
UNITED STATES OF AMERICA	Baton Rouge
	New Haven
VENEZUELA	Orinoco
VIETNAM	Ho Chi Min City
	Vung Tau
YEMEN A.R.	Ras Isa Marine Terminal

LATE PLANS:

ANGOLA	Quinfuquena
BELGIUM	Zeebrugge
FRANCE	Sete
GABON	Ovendo
GUYANA	Georgetown
HONG KONG	Hong Kong
JAPAN	Nakanoseki
LIBYA	Bouri

MALAYSIA	Bintulu
MARTINIQUE	Fort de France
NORWAY	Sture
THAILAND	Krabi
TURKEY	Golovasi
UNITED STATES OF AMERICA	Baton Rouge
	New Haven
YUGOSLAVIA	Bar

Shipmasters, Shipowners or Managers, Port Authorities, Administrators and Agents, are earnestly requested to assist our work in up-dating the Guide *by providing written comment, information, amendments or corrections, plus additional details of any ports or terminals, to the following address:*

SHIPPING GUIDES LIMITED,
SHIPPING GUIDES HOUSE,
75 BELL STREET,
REIGATE,
SURREY,
RH2 7AN,
ENGLAND

All communications will be acknowledged and will be most useful, since it is only by this means that the *Guide* will remain of great value to the user and will be up to date and thoroughly professional in content.

N.B. PLANS, DIAGRAMS, DRAWINGS AND SKETCHES: As you will note, this 1989/90 edition of "Guide to Port Entry" contains over two thousand eight hundred port plans and mooring diagrams that have been reproduced from plans and drawings very kindly sent to us by numerous Port Authorities, Agents and shipboard personnel. We hope that the special plan section will prove interesting and useful.

Presently however, the special plan section is to an extent incomplete, since there are many ports and mooring facilities for which we have not yet received the necessary plans for reproduction purposes. We are anxious to secure plans, diagrams, drawings or sketches of ports and facilities not presently shown in our special plan section, and therefore request that Port Authorities and/or Agents at the places concerned be kind enough to pass us this data together with the necessary permission for reproduction. We would also be very grateful if ship's officers calling at ports not already covered in our special plan section, could find it possible to provide us with diagrams or sketches of the facilities which would be suitable for reproduction in our later editions and/or which might be re-drawn as required by our own art department prior to reproduction.

Madeira

FUNCHAL: 32.38 N. 16.55 W. (See Plan)

DOCUMENTS:

Maritime Declaration of Health Form.
5 Crew Lists.
12 Lists of Passengers Finally Landing.
5 Lists of Passengers in Transit.
1 List of Stores and Provisions, including Deck and Engine Stores.
1 List of Contents of Shops on board.
6 Copies of Manifest of Cargo for Discharge.
2 Copies of each B/Lading of Cargo for Discharge.
1 Copy of Manifest of Cargo in Transit.
1 List of Passengers Finally Landing, visaed by Portuguese Consul at original port.

All other entry and clearance documents are arranged by the Agents.

PILOTAGE: Vessels should radio their ETA to Agents who order Pilot. 24 hours' notice requested. Pilot launch flies "H" flag during day. Exhibits bright white light over red at night. To request Pilot on approach by day fly international "G" flag, or give 2 long and 1 short blast on whistle. At night flash 2 long 1 short. For vessels berthing alongside Pilot boards in bay; for vessels anchoring Pilot does not board but pilot launch indicates where vessel should anchor. Pilot boat equipped with VHF, Channel 16 (calling) and Channel 6 (working).

ANCHORAGE: Permitted anchorage within 800 m. – 900 m. East from end of breakwater or 300 m. – 500 m. South of breakwater within a limit of 400 m. from shore.

RESTRICTIONS: None.

MAX. SIZE: No limit to size of vessels which can anchor, but all anchorage positions should be indicated by pilot launch. For vessels berthing alongside quay max. permissible length 990 ft. max. draft 36 ft. Oil carriers discharge at buoys at Praia Formosa 3 miles to West of Funchal. Max. length of oil tankers than can berth at oil discharge buoys 665 ft. max. draft 36 ft.

HEALTH: Free Pratique may be arranged by Master sending wireless message addressed "Port Doctor Funchal" – "Request Free Pratique arriving . . . from . . . sailing to . . . number passengers . . . landing . . . number passengers in transit . . . number of crew . . . all well. Master".

In event suspected disease or fever on board Master should wireless either Port Doctor direct or to ship's Agents, who will inform Port Doctor. The Master will then be instructed what further action he is to take.

When vessel other than of national flag arrives after calling at another port in same country usual procedure applies, i.e. Masters' radio for Free Pratique or Pratique granted by Doctor visiting in bay.

RADIO: Maderia Radio Station, call sign "CUB" 500 kHz. Same station normally used by Agent when communicating with vessel.

TUGS: Two tugs each of 1,000 h.p. – 1,100 h.p. (bollard pull 18 tons) are available.

N.B. Vessels up to 2,000 gross tons are not obliged to use tugs.

Vessels of between 2,000 and 15,000 gross tons are obliged to use 1 tug. Vessels over 15,000 gross tons are obliged to use 2 tugs.

BERTHING:

Quay No. 1	Length 139 m., depth 6 m.
	Length 41 m., depth 7 m.
	Length 19 m., depth 8.5 m.
Quay No. 2	Length 425 m., depth 11 m.
Quay No. 3	Length 347 m., depth 11 m.

CONTAINER FACILITIES: Container Terminal: Length 190 m. Depth 7.0 m.

Equipment: 1 Crane, 25 tons at 20 m.
1 Crane, 30 tons at 30 m.
1 Mobile Crane, 22 tons at 20 m.
1 "Travelift" of 45 tons capacity.
4 Container Handling Cranes with extendable spreaders for 20 ft., 30 ft. and 40 ft. containers.

STEVEDORES: When ships require labour, Agents must be notified before 1600 hrs. on working days and on Sundays and holidays before 1100 hrs., after these hours labour not available for last minute engagement. On Christmas Eve work stops at noon, even if ships loading or discharging. No labour available Christmas Day, New Year's Day or Easter Sunday.

Grain cargoes can only be worked from 0800 hrs. to 2000 hrs. daily, including Sundays, and a maximum of 4 gangs only can be worked simultaneously.

Bulk cargoes such as potash and fertilisers need to be bagged on board. Receivers supply the bags – and this generally applies to grain. Bulk cement, clinker and granulated plaster is discharged by grabs.

MEDICAL: Advance notice is required by Agents for any medical attention required. Hospital facilities available. No inoculations required.

TANKERS: Diameter of connection of discharge lines 8 in. into pipelines of 12 in. diameter for black fuel and 10 in. diameter for white fuel. 1 anchorage buoy berth with max. draft of 36 ft.

DENSITY: Salt water.

FRESH WATER: Available at all berths. Order through Agent. Approximate delivery rate 60 t.p.h.

FUEL: Fuel oil available from 3,500 seconds Redwood 1 to 200 seconds Redwood 1. Also marine diesel and gas oil. 12 hours' minimum notice required.

FIRE PRECAUTIONS: At discharging buoys usual non-smoking precautions.

GANGWAY/DECK WATCHMEN: Gangway watchmen recommended.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CUSTOMS ALLOWANCES: Tobacco, Wine and Spirits: Moderate supplies allowed for personal use during ship's stay.

CARGO GEAR: No specific local safety regulations. Vessels discharging must provide strops, slings and nets. Lifts over 5 tons must be effected by ship's gear.

10 mobile cranes are available.
1 crane – 6 tons at 12 m., 3 tons at 24 m.
3 cranes – 5 tons at 20 m.
3 cranes – 3 tons at 12 m.
1 crane – 15 tons at 13 m.
1 crane – 45 tons at 3 m.
1 crane – 20 tons at 3 m.

A floating crane is available which can lift up to 27 tons from the water line up to 8 m. This same crane can lift up to 20 tons from the water line to 12 m.

IDENTIFICATION CARDS: Required.

CONSULS:

Austria	21057	Monaco	20041
Belgium	20255	Netherlands	20317
Brazil	20355	Norway	20541
Costa Rica	24888	Panama	20091
Denmark	22031	Peru	21375
Dominican Republic	21057	Spain	20535
Finland	20596	Sweden	20121
France	21445	Switzerland	22101
Germany F.R.	20338	United Kingdom	21221
Greece	20824	United States	23309
Guatemala	20824	Uruguay	20535
Italy	23890	Venezuela	24050

REPAIRS: Repair yard available which can carry out most engine repairs on board except removing or replacing main engines. Hull work limited to removing riveting or replacing hull plates above water line, electric and oxy-acetylene welding. Most electrical work can be effected but notice required in regard to materials necessary. Foundry where castings can be made up to one ton weight.

DRY DOCKS: None.

REPATRIATION: Limited facilities for crew changes. Necessary repatriations can be made.

AIRPORT: At Santa Cruz, 20 km. East of Funchal. Service between Funchal and Lisbon operated by national airline TAP, 19 flights weekly Funchal/Lisbon/Funchal.

TIME: GMT maintained throughout year.

HOLIDAYS: New Year's Day (totally unworkable); Easter Sunday (totally unworkable); Municipal Holiday (local) (workable, 50% overtime); Camoes Day (workable, 50% overtime); Corpus Christi (workable, 50% overtime); Assumption (workable, 50% overtime); Proclamation of the Republic (workable, 50% overtime); All Saints (workable, 50% overtime); Independence of Portugal (workable, 50% overtime); The Immaculate Conception (workable, 50% overtime); Christmas (totally unworkable).

Workers' Day, Portugal Day and Good Friday are also totally unworkable.

Saturday is an ordinary working day. December 24 (workable up to 1500 hrs. only).

POLICE/AMBULANCE/FIRE: Police 22022; Ambulance 22122; Fire 21163.

SHORE LEAVE: All crew visiting shore must be in possession of special Landing Card, plus Identity Cards, Discharge Books or Passports, which must be shown to Immigration Officer at gangway. Crew Landing Cards must be stamped by Immigration Officer before crew can proceed ashore.

GENERAL: There is a Marina for 200 craft with depths between 3 m. and 6 m.

AUTHORITY: Capitania do Porto do Funchal, 9000 Funchal, Madeira.

Direccao Regional dos Portos da Madeira, Av. Arriaga, 50. 9000 Funchal, Madeira. *Postal Address:* Apartado 246, 9003 Funchal. *Tel:* 21041/2. *Telex:* 72290 Dipmad P. *Contact:* Duarte Nuno da Silva Gomes, Director.

Malagasy Republic

ANTSIRANANA (Diego Suarez): 12.14 S. 49.26 E.

MCD

DOCUMENTS:
Documentation on Arrival:

Customs:
- 2 Crew Lists.
- 2 Personal Effects Lists.
- 2 Stores Lists (Bonded).

Immigration/Police:
- 4 Crew Lists and inspection of vessel and Seamen's Book.

Port Health:
- 1 Vaccination List and inspection of Derat Certificate.

Agents:
- 3 Crew Lists.
- Ship's Register to be lodged ashore.
- Clearance from Last Port.

Documentation on Departure:

An Official from the Port and the Agent visit and will wish to see:

For a Liner:
- Load Line Certificate.
- Safety Equipment Certificate.
- Derat Certificate.

For a Cargo Ship:
- Load Line Certificate.
- Safety Construction Certificate.
- Safety Equipment Certificate.
- Safety Radio Equipment.
- Derat Certificate.
- Ship's Register (held by the Agent).

After checking all these an Outward Clearance Certificate will be presented. One is then free to leave the Port, the Agent having given an undertaking that all Port dues have been paid.

APPROACHES/PILOTAGE: Tides run fast in the Orangea Pass, but seem to follow the pattern as per the Admiralty Pilot. Until experience is gained it should only be taken in the hours of daylight. There are numerous natural transit marks available to the navigator, all very clearly described in the 'Pilot'. For this reason it would be essential to take this in fine visibility. Pilot can be taken at Cape Mine but this can be difficult and dangerous in the S.E. Trade season and ships are advised that they can proceed on into the Bay right up to Port Antsiranana Point.

Harbour is large and commodious but subject to very strong N.E. winds from May to October, width of entrance 300 m. Tidal current in Roads, which may attain 3 knots. HWST 2.36 m., LWST 3.56 m., HWNT 1.63 m., LWNT 0.99 m. Pilotage compulsory for vessels of 150 n.r.t. and more. For obtaining Pilot, ETA must be sent 24 hours in advance including ship's characteristics. Course to steer: From Lat. 12° 13′ 09″ S., Long. 49° 26′ 00″ E. Entrance 275° thence beacons in line heading 230°.

ANCHORAGE: There are many splendid anchorages available in this vast Bay. Vessels can anchor 2 cables off the N.W. corner of the wharf at Antsiranana (Diego Suarez).

RESTRICTIONS: No entry for vessels or crews from: Formosa, South Africa and South Korea.

MAX. SIZE: No restriction except max. draft alongside 11 m.

HEALTH: Yellow fever/cholera certificates required for vessels coming from African/Indian countries. Pratique is automatic for vessels entering after calling at another port in the same country.

RADIO: Radio station is "Diego Radio".

VHF: Harbour Master's Office does not have VHF. Navy have VHF Channel 16.

TUGS: Three small tugs available (belonging to Navy and require 24 hours' notice).

BERTHING: Ocean Vessel Wharf: Length 300 m., max. depth 11 m. HW.
Coaster Quay Wharf: Length 60 m., max. depth 4.20 m.
With Pilot, vessel can come alongside day or night.

CRANES: Two port cranes, only used for small coasters. 1×5 tons and 1×2 tons.

STEVEDORES: Advise before 0700 hrs. in order to commence the same day and before 1700 hrs. in order to commence next day at 0600 hrs. with maximum gangs.
Working Hours: 0700 – 1100 hrs., 1300 – 1700 hrs. Overtime Working: 0600 – 0700 hrs., 1100 – 1300 hrs., 1700 – 0600 hrs. No half shifts.

MEDICAL: Difficult to find medicines. In case of serious illness hospital facilities available.

TANKERS: See "Berthing". Discharging rate 200 cu.m.p.h. with flexible hose. Loading rate 30 – 50 t.p.h., depending on ship.

FRESH WATER: Available.

FUEL: Not available.

GANGWAY/DECK WATCHMEN: Trade Union on the spot can supply.

OPENING/CLOSING HATCHES: Usually by ship's crew.

SPECIAL PORT REGULATIONS: See "Restrictions".

CONSULS: French Consul.

REPAIRS: All types of deck and engine repairs can be carried out.

DRYDOCK: *Shipmaster's Report:* 1975.

Length overall	199.05 m.	653.00 ft.
Subdivided into sections	128.96 m. 70.09 m.	424.00 ft. 229.00 ft.
Breadth at Bottom	28.40 m.	93.00 ft.
Breadth at Coping	36.60 m.	120.00 ft.
Depth at sill and blocks at MHWS	10.42 m.	34.40 ft.

Yard Services: Nothing was too much trouble for any of their staff attending this ship. Power was a bit of a problem but they did everything to help. Fire mains, fresh water, cranes were all good. Toilets and shower-rooms were more than adequate especially after we were given our keys and had them cleaned.

Workshops: A modern well equipped yard with every conceivable service from an iron foundry to upholstery shops. A clean, well kept set of shops including the building of small craft. The Engineers of this ship were very favourably impressed with the shops and technical services.

From time to time, the yard meet with certain material supply difficulties to satisfy full needs for ship repairs. It is recommended that Owners interested in docking their vessels at this yard study this matter before contracting.

Firms Address: Societe d'Exploitation pour la Construction et la Raparation Navale, B.P. 135, Antsiranana, Madagascar. Tel: General Manager (Home) 221-70, (Office) 226-84, Central 212-65 and 222-98. Telex: 93 103. Cables: Secren, Diego Suarez.

SURVEYORS: There is no Lloyd's Surveyor in the country. Often when required Lloyd's Representative flies up from Durban. Sometimes it is agreed that the resident Bureau Veritas Surveyor will subsititute. M. Ralibera Henri in Tananarive is the principal B.V. Surveyor in Madagascar. M. Ralibera received agreement from his head office in Paris to act as non-exclusive surveyor of N.K., N.V. and local insurance company.

CUSTOMS ALLOWANCES: (Tobacco/wine, spirits) Quantity permitted to be held out of bond is only for the personal consumption of each crew member.

CARGO GEAR: Load/discharge effected by ship's gear, no heavy lift cranes available.

REPATRIATION: For crew changes Entry-Visa is required and repatriation can be carried out according to Harbour Master's Certificate and Immigration permission.

AIRPORT: AirMad Services are available each day to connect with the international Air France flights to Orly from the local airfield about 8 miles from the town.

TIME: Local time is GMT plus 3 hours.

HOLIDAYS: Sunday, but can be worked on overtime from 0600 hrs. to 1400 hrs.

New Year's Day, Commemoration of 29th March 1947, Easter Sunday and Monday, May 1st, Ascension Day, Whit Monday, Independence Day (June 26th), Assumption BV Mary (August 15th), All Saints' Day (November 1st), Christmas Day, Anniversary of the Democratic Republic of Madagascar (December 30th). No work possible on these holidays. Overtime rates for all other holidays.

TELEPHONES: No telephones placed on board.

SERVICES: Facilities for compass adjusting, radar and radio repair by Secren (see "Drydock").

BANKS:

Bankin'Ny Indostria (BNI), Angle Rue de France et Rue Colbert, B.P. 4., Antsiranana, Madagascar. Tel: 221-46, 221-52.

Banky Fampandrosoana Ny Varotra (BFV), (Banque Nationale Pour Le Commerce), Rue Richelieu, B.P. 18. Tel: 211-89.

Bankin'Ny Tantsaha Mpamokatra (BTM), (Banque Nationale Pour Le Developpement Rural), Rue Richelieu, Antsiranana, Madagascar.

STORING: Local stores can be delivered directly on board even during loading/discharging, by the ship chandler. Agent will arrange Customs formalities.

SHORE LEAVE: Crew members are allowed ashore.

IDENTIFICATION CARDS: Seamen's Book is sufficient.

REGULATIONS: Any repair work involving even small temporary repairs only with Harbour Master's permission. Using vessel's lifeboat subject to Harbour Master's and Customs permission. Landing of foreign currency is strictly prohibited. Possession of local currency must be justified.

DELAYS: None.

AUTHORITY: Service Provincial de la Marine Marchande, au Port, P.O.Box 109, Antsiranana, Madagascar. *Tel:* 211-33.

AGENT: SCAC Transport International, Box Poste 384, Antsiranana, Madagascar, Malagasy Republic. Tel: Antsiranana 21327 and 21549. Telex: 93102. Cables: Freight Antsiranana.

FORT DAUPHIN: 25.02 S. 47.02 E.

DOCUMENTS:
- Manifest of Cargo for discharge.
- Manifest of Cargo in transit.
- Ship's Stores List.
- List of Passengers Landing.
- Crew List.
- Franchise Certificate (for mail-carrying vessels).

PILOTAGE: The port is an open roadstead and pilotage not required.

ANCHORAGE: In depths of 8 m. Vessels anchoring are charged with port dues.

RESTRICTIONS: Port is normally used by coastal trading vessels. In case of liners handling cargo exceeding 150 tons, special permission required which is obtained by Agent.

HEALTH: Pratique should be requested from the Health Department, Tel: 36.

RADIO: Fort Dauphin Radio, call sign 5RD, between 0400 and 1630 hrs. GMT on following frequencies: 458, 500, 2182 and 2712 kHz.

TUGS: None available.

BERTHING: There are no berths alongside. Vessels work cargo at anchorage.

STEVEDORES: Arranged by the Fort Dauphin Lighterage Company. Advance notice of ETA required to arrange gangs. Average loading/discharging rate is 10 tons per hold per hour.

MEDICAL: 2 hospitals available in the town.

TANKERS: 1 buoy berth for tankers.

FRESH WATER: No water barge. Only small quantities can be supplied in emergency.

FUEL: Not available.
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: Opening and closing hatches carried out by stevedores.
CUSTOMS ALLOWANCES: 1 carton of cigarettes per man. No alcohol.
CONSULS: No local representatives.
REPAIRS: Only facilities available for repairing lighters.
REPATRIATION: No facilities for effecting crew changes.
AIRPORT: Situated 5 km. from the port, 4 regular flights per week.
TIME: GMT plus 3 hours all year round.
HOLIDAYS: Days on which work is normally carried out with overtime payment: Easter; Ascension Day; Whitsun; Assumption; Christmas.

Official holidays on which work can be arranged by special permission: 1st January; 1st May; 26th June (Independence Day); 14th October; Festival of the Republic.
FIRE/POLICE/AMBULANCE: Police Tel: 49; Fire 19; Ambulance 36.
SHORE LEAVE: Not permitted.
AUTHORITY: Service des Ports' Phares et Balises, Tananarive.

AGENT: SCAC Transport International, BP 425, Tananarive, Madagascar. Tel. 22864. Cables: "Freight Tananarive". Telex 22251.

MAHAJUNGA (Majunga): 15.44 S. 46.20 E.

DOCUMENTS:
List of Crew Members.
List of Passengers.
Customs Documents.
Health Documents.
Manifests.
Bills of Lading.
Ship's papers.
PILOTAGE: Vessels requiring Pilot must apply by cable to Mahajunga Harbour Master's office at least 24 hours before arrival. Pilot embarks at Narcissus buoy.
ANCHORAGES: Indicated to Ship's Master by cable from Mahajunga Harbour Master's office.
RESTRICTIONS: Ships can enter day and night. Max. draft allowed 10 m.
MAX. SIZE: No restriction except for max. 10 m. draft.
HEALTH: Pratique automatic when vessel comes from a Madagascar port. Pilot is health agent.
RADIO: Radio Mahajunga.
STEVEDORES: Vessel informs Agent by telegraph 24 hours in advance of number of gangs needed.
MEDICAL: Hospital available.
TANKERS: 1 berth, max. draft 10 m.
FRESH WATER: Unlimited drinking water.
CERTIFICATES: See "Toamasina".
CUSTOMS ALLOWANCES: See "Toamasina".
CONSULS: French and Greek Consulates.
REPAIRS: Minor repairs only.
REPATRIATION: All facilities available.
AIRPORT: Served by regular airlines; 7 km. from town.
TIME: GMT plus 3 hours.
HOLIDAYS: Catholic and official holidays. Commercial transactions possible on public holidays.
POLICE/FIRE/AMBULANCE: Police 24–85; Fireman 13; Hospital 29–15.
AUTHORITY: Harbour Master.

AGENT: SCAC Transport International, B.P. 256, Mahajunga. Tel. 22387 and 22008. Telex: 62710. Cables: Freight Mahajunga.

TOAMASINA (Tamatave): 18.08 S. 49.22 E. **(See Plan)**

DOCUMENTS:
Merchant Marine Department:
Safety Certificates.
Crew List.
Passengers List.
1 Full Set Cargo Manifest.
Health:
International Maritime Certificate of Health.
List of Passengers Disembarking.
Transit Passengers List if any.
Derat Certificate.
Crew List.
Immigration:
List of Passengers Disembarking (required on arrival and before ship's departure).
Transit Passenger List if any.
4 Copies Crew Lists.
Customs:
Ship's Register.
3 Stores Lists.
3 Crew Effects Lists.
3 Crew Lists.
5 Full Sets Cargo Manifests.
3 Lists Passengers Disembarking and Transitting if any.
Port:
4 Full Sets Cargo Manifests.
4 Dangerous Cargo Lists.
Agents:
2 Full Sets Cargo Manifests.

PILOTAGE: Compulsory. Telegraphic address: Porttave Toamasina. Telex: 55619 Port Mg. Ships advise Agents hour of ETA. Pilots informed by Agents. Due to the extension of breakwater, the South Pass is closed to deep-sea ships, except small coastal vessels. For large vessels, the pilot boat waits on the East Pass on line 277° True or range approximately 3.3 miles S.S.E. of Prunes Island Lighthouse.

The pilot boat is fitted with a small portable VHF set (Channels 16, 12, 9 and 6) but its effective range is only about 5 miles.
ANCHORAGES: No special anchorage. If no berth available on ship's arrival, Pilots put ships at best anchorage, according to draft and length of ship, between Reef and shore.
RESTRICTIONS: Ships enter and sail day and night any time. Max. tide only 3 ft. However, tankers berth in daytime only between 0500 hrs. and 1500 hrs.
MAX. SIZE: For Roads, max. length about 200 m. (concerns only passenger ships). For cargo vessels max. length 180 m.; max. draft 31 ft. 2 in. (9.5 m.).

For tankers, max. LOA 230 m., max. beam 31 m., max. draft 12.20 m. in salt water. Distance from stern to manifold 110 m.
HEALTH: Quarantine message sent to Agents who inform Health Service. "Q" flag must be hoisted during daytime or red over white light at night time if health satisfactory. Master presents Maritime Declaration of Health. Health Officer and Immigration board at Quarantine Anchorage.
RADIO: Toamasina Radio, call sign 5RS.
VHF: Toamasina Radio – Channels 16, 26 and 27.
TUGS: 1 tug of 1,750 h.p. available to assist berthing. One tug 200 h.p. for towing fresh water barge.
BERTHING: 4 berths for deep-sea ships and 2 berths for coastal ships. Ships moored at berth in order of arrival and according length and draft. Mooring has to be very strong, due to swell that may sometimes enter harbour when S.E. trade winds are strong, or if cyclone in vicinity. Swell is so dangerous that ships have to go to anchorage or put to sea until weather improves.
CRANES: 3 ton and 6 ton cranes available for hire. Floating crane 80 ton capacity and mobile crane 45 tons also available.
STEVEDORES: ETA to Agents must give hatches, tonnages, and all information about cargo.

Working hours: 1st shift 0700 – 1400 hrs., 2nd shift 1400 – 2100 hrs. On Sundays there is one shift 0700 – 1400 hrs. at overtime rates.
MEDICAL: Preferable to inform Agents in advance. All hospital facilities available.
TANKERS: 1 refinery imports crude oil and exports fuel and refined oils. Tankers moored using anchors forward, and moorings aft.

Diameter of lines 12 in. No slop discharge facilities. If tanks are to be washed, slops must be discharged outside harbour.

Shipmaster's Report: A brief description of the berthing manoeuvre is as follows:

About 350 m. from the berth, let go starboard anchor and swing around to starboard with the assistance of a tug, slacking the cable all the time. As vessel completes swing, let go Port anchor, then slack down both anchors. Vessel usually finishes up with about 9 shackles on each anchor. Aft, vessel secures with 4 lines from the starboard quarter to the buoy and 4 lines from the port quarter to the quay. The mooring operation takes about 2.5 hours and unmooring about 1.5 hour.

Facilities:

1. One 12 in. rubber hose, connected always from the starboard side. You can expect 4-5 hours for connecting up the hose and about 2-3 hours for disconnecting.
2. The shore tanks are situated about 5 km. from the vessel, and have a total storage capacity of about 100,000 cu.m. The tanks are located about 4 m. above sea level, the heights of the tanks being approximately 13 m.
3. The main pipe-line is 20 in. diameter by 5 km. long.
4. Maximum back pressure permitted is 6-7 kg. However, in view of the length and size of the line it is very difficult to obtain such a pressure, even with all 3 pumps going all out. Understand from the refinery Superintendent that maximum back pressure so far attained was 4 kg. The back pressures are monitored by gauges fixed on the manifold and on the quay.
5. The maximum draft permitted at the Tanker mooring is 40 ft. Fully laden tankers arriving can berth only in daylight hours. However, 24 hour sailing is possible.
6. The cargo discharging operations are as follows: The main pipe-line is kept constantly filled with bunker fuel and has a capacity of approximately 1,000 cu.m. After connecting up vessels commence discharge of their crude. The bunker fuel in the line is thus pushed back and stored in a separate tank ashore. The vessel then continues to discharge her full cargo. After completing discharge, all tanks are inspected and a dry certificate obtained. The refinery then pushes back the pipe-line crude (1,000 cu.m.) and about 1,200 cu.m. of bunker fuel, which must be stored on the ship in separate tanks. Thereafter, the vessel must discharge all crude, and finally the bunker fuel.

   Thus the pipe-line is constantly kept filled with bunker fuel.

   The drawbacks to the vessel are obvious. 3 individual stripping operations are involved viz. stripping the crude during completion of discharge, stripping of pipe-line crude stored in the ship and stripping of the bunker fuel.

   Note: Capacity of shore pumps (when transferring oil back to ship) is 800 t.p.h.
7. Communications: A telephone is installed aboard for contact between ship and shore. This however, never seems to be at its best when you need it most. Other difficulties are the language barrier (French being spoken). Notwithstanding, the slow rate of discharge obtainable, helps to offset in part the lack of communications.
8. Out-turn quantities: It is understood that these are checked by sounding shore tanks.

9. Bunkers are available on 24 hours notice. Range Redwood 1,000–1,500 seconds.
10. Diesel oil is available, however, as the supply barge has been out of commission for sometime now, supply cannot be depended upon.
11. Fresh Water available.
12. Connection and disconnection of the cargo pipe-line is undertaken by the refinery personnel.

DENSITY: 1023.5.

FRESH WATER: Delivered by water-boats at rate of about 100 t.p.h.

FUEL: Available alongside. Gas oil and diesel oil at 70 t.p.h. Fuel oil at 110 t.p.h.

FIRE PRECAUTIONS: 1 fire-boat stationed near tankers.

GANGWAY/DECK WATCHMEN: Recommended. Very low cost.

OPENING/CLOSING HATCHES: Booms always operated by crew. If hatches are Macgregor type, by crew; otherwise by stevedores.

CERTIFICATES: Safety Certificates (3), Derat or Exemption Certificate, Register, Load Line Certificate.

CUSTOMS ALLOWANCES: 200 cigarettes. Wine/Spirits, 1 opened bottle.

IDENTIFICATION CARDS: Only seaman's papers required.

CONSULS:

Denmark Tel: 2615	Great Britain Tel: 2680
Netherlands Tel: 2632	Norway Tel: 2549
France Tel: 2721	Sweden Tel: 2136

REPAIRS: Only small repairs possible.

REPATRIATION: Possible, arranged by Agents.

AIRPORT: Served by regular airlines. 1 flight a day by Air Madagascar to Tananarive and 4 to 6 flights a week from Tananarive to Africa and Europe.

TIME: Local time GMT plus 3 hours.

HOLIDAYS: 13 holidays per year. Cargo work cannot be arranged on holidays but can be on about every second Sunday.

TELEPHONES: 2 connections at 2 berths used for passenger ships, but may be requested by other ships.

SHORE LEAVE: Permitted.

DELAYS: Not fixed. When all berths occupied, ships wait at anchorage.

GENERAL: 2 cranes of 3 tons each. 1 floating crane for max. 80 tons weight. Small tugs and lighters for ships operating on roads. 1 port launch for crews of ships at anchor.

DEVELOPMENTS: New quay recently constructed.

AUTHORITY: Societe d'Exploitation du Port de Toamasina, B.P. 492, Republic of Malagasy. *Tel:* 321-55/56, 327-60/68/69/71. *Telex:* 55619 Port Mg.

AGENT: SCAC Transport International, Rue du Capitaine-Shoel, BP 411, Toamasina, Madagascar. Tel. 5320-48; 5320-49; 5326-80; 5326-81. Cables: "Freight Toamasina".

NOTES

Please also advise Shipping Guides Ltd.

Malaysia

BINTULU TERMINAL: 03.16 N. 113.04 E. (See Plan)

LOCATION: The single buoy mooring is positioned at Lat. 3° 20′ N., Long. 113° 01′ E. and can accommodate tankers with max. SDWT of 320,000 tonnes.

DOCUMENTS:

Last Port Clearance.
9 Crew Lists
3 Malaysia Crew Lists (Provided on arrival).
2 Copies General Stores Lists.
1 Shipping Arrival Report (Provided on arrival).
1 Application for Clearance (Provided on arrival).
5 Passenger Lists.
3 Narcotics Lists.
3 Arms and Ammunitions Lists.
2 Crew Personal Declaration Lists.
2 Vaccination Lists.
3 Copies Inward Manifest ("Nil" Manifest required).
International Maritime Health Form, provided by Agent.

Note: If vessel from an infected port of which the state of health is suspect, the Medical Officer may board in order to inspect crew and relevant international medical certificates.

PILOTAGE: Bintulu Port Authority Pilot, Loading Master, assistant and surveyors board at pilot boarding and disembarking position Lat. 03° 22.0′ N., Long. 112° 58′ E. Derrick to be rigged on starboard side prior to arrival. The regulation pilot ladder should be rigged well aft on the lee side. Prior to moving to berth mooring equipment is loaded onto vessel's forecastle.

Loading Master and about 4 shore personnel including Agent remain on board during loading operations.

ANCHORAGES: A petroleum anchorage bounded by the following co-ordinates has been established:

Lat. 03° 24.4′ N., Long. 112° 57.3′ E. Thence to position
Lat. 03° 21.3′ N., Long. 112° 59.6′ E. Thence to position
Lat. 03° 22.0′ N., Long. 113° 02.4′ E. Thence to position
Lat. 03° 26.0′ N., Long. 113° 01.2′ E. Thence along the limits of the port to position Lat. 03° 24.4′ N., Long. 112° 57.3′ E.

Use of ship's anchors is strictly prohibited except in extreme emergency. The anchors must never be released or brought anywhere near the entire length of the submarine pipe-line nor closer than 350 m. radius from the SBM. Both anchors should be secured prior to berthing operations.

RESTRICTIONS: None. Berthing and unberthing is carried out night and day.

MAX. SIZE: The minimum water depth in the manoeuvring area is 62 ft. and the max. permissible draft 52 ft. Max. distance bow to centre manifold 590 ft.

DEPARTURE ROUTE: For deep draft vessels the following departure routes (approaching – opposite course) are recommended:

North-West Route:

From SBM steer 304° to position: Lat. 3° 51′ N., Long. 112° 14′ E.

Along this route 2 navigational light buoys have been laid both South Cardinal:

1. Parsons Shoal (Beting Tugau) position: Lat. 3° 52′ 22″ N., Long. 112° 16′ 06″ E.
2. South Acis Shoal (Beting Likau) position: Lat. 3° 35′ 50″ N., Long. 112° 39′ 36″ E.

North-East Route:

From SBM steer 015° to position: Lat. 3° 35′ 25″ N., Long. 113° 05′ 25″ E., which is marked by East Cardinal light buoy (Beting Nabau).

Onward course 042° to position: Lat. 3° 52′ N., Long. 113° 20′ E.

The N.N.E.'ly tip of the Cochrane Bank is marked by an East Cardinal light buoy (Permating Payong) in position: Lat. 3° 51′ 38″ N., Long. 113° 18′ 06″ E.

A 36 in. gas trunk line has been laid to the North and East of the SBM.

HEALTH: See "Documents".

RADIO: Vessels are required to advise SSB/Respective Agents of their ETAs 72 hours and again 36 hours prior to arrival. Telexes or telegrams should be sent to MA74306 or Saroilco Miri, respectively.

6 hours and again 3 hours prior to arrival, vessels are required to confirm their ETA to Bintulu Terminal on VHF Channel 18.

W/T traffic should be passed through Singapore Radio, Kuching or Miri Radio.

Information Required Prior to Arrival: Standard message to Masters of vessels calling at SBM. Please advise.

AAA	ETA and draft at Bintulu SBM.
BBB	Customs and Health requirements.
CCC	Is vessel equipped with bow chain stopper, Smit Brackets and large central Panama Chock. (This information required from unknown vessels only.)
DDD	Are manifold connections as per OCIMF specifications.
EEE	Rig starboard derrick to maximum SWL (minimum acceptable 7 tons).
FFF	Have 2×16 in. diameter manifold connections ready on starboard side.
GGG	Be advised that vessel must maintain full readiness to manoeuvre during stay at SBM.

Berthing Instructions: After ETA advice one of the following messages will be transmitted to the Master.

AAA	Based on your ETA . . . present intention is to berth you on arrival.
BBB	Pilot will board at the boarding area of 2 miles diameter in the following position: Lat. 03° 22′ N., Long. 112° 58′ E.
CCC	Confirm ETA at least 48 hours in advance. When within range you are required to confirm your ETA 3 hours prior to arrival at Bintulu Terminal on VHF Channel 18 or 16.
DDD	Please keep us advised of any changes in your ETA. Onus of ETA confirmation rests with vessel.
EEE	After having established radio contact on VHF you will receive further instructions.

VHF: Bintulu Port Control operates on VHF Channels 12, 14 and 16 and Bintulu Terminal on Channel 18, ships should inform Bintulu Port Control on Channel 12 and Bintulu Terminal on Channel 18 of their ETA at least 3 hours before arrival at pilot boarding point or as soon as VHF contact can be established. Bintulu Port Authority requires every vessel whilst underway within port limits and in the approaches thereto to maintain continuous watch on Channel 12.

TUGS: Tugs available. The Port Authorities make it compulsory for tankers to use a tug for berthing/unberthing.

BERTHING:

Floating Mooring Rope Assembly: The buoy to tanker mooring comprises 2×12 in. × 150 ft. nylon double braided ropes. At the buoy end, the hawsers are joined to the pad eyes of the Rotating Mooring Arm with heavy duty shackles. Each hawser of the dual floating mooring hawser is fitted with a 3 in. diameter chafing chain.

The pick-up assembly consists of:

(i) 10 in. circumference polypropylene messenger rope with spliced eyes on each side. Length 150 ft.
(ii) 10 in. circumference polypropylene pick-up rope with spliced eyes of 2 ft. on each side. Length 45 ft.
(iii) Pick-up support buoy.

Mooring Craft: A mooring launch will be in attendance. The launch is used to send the messenger end of the mooring ropes to the vessel. On completion of mooring the launch picks up the hoses for connection and remains at the vessel until the completion of loading.

Mooring Procedure: Before the arrival of the tanker, the Berthing Master has to go to the SBM at least 1 hour early to check and make sure that the hoses are not fouled. The mooring craft proceeds to the vessel to disembark the Berthing Master and offload the mooring gear.

During the approach the mooring boat tows the port mooring rope around the buoy so that it is out of the way when the starboard inner one is being worked on. The starboard inner rope is then run out to its full length.

When the end of the messenger is within range the vessel's bow is approximately 115 m. from the SBM i.e. 70 m. to go to the final secured position. The approach speed at this point should not exceed 0.5 knots.

As the vessel slowly closes in on the buoy the messenger pick-up rope and chafing chain are hove on board until the chafing chain is in position in the fairlead (marker buoy just outboard of the fairlead). The special shackle on the nylon snotter is then connected to the triangle plate or alternatively the chain is secured in the bow stopper and the inner mooring is then fast.

While the inner mooring rope is being tended to, the mooring boat clears the (port) outer mooring rope from the buoy. This rope is then hove on board and connected in the same way as the inner one.

The vessel should have 2 mooring ropes ready on the forecastle and mooring is carried out by ship's crew.

Unmooring: Weight on the mooring ropes may be taken off by using ship's engines. The polypropylene pick-up ropes, which remain connected to the triangle plates of the chafing chains, are lead to the winch, and the weight is taken off the bow stopper or nylon snotter as the case may be. The bow stoppers are released or special shackles disconnected, and the moorings and pick-up ropes lowered from the bow into the water.

When both moorings have been let go, the tanker is given sternway until the bow is well clear of the hose strings. The mooring and hose connection equipment is then transferred to the mooring launch.

LOADING:

Cargo Loading Operation: Throughout the vessel's stay at the SBM, the Berthing Master will remain on board to co-ordinate ship/shore operations and one launch will remain at location as a safety precaution.

Hoses: 2×16 in. diameter floating hose strings of 810 ft., in length are connected to the turntable. The strings terminate in a 16 in. diameter rail hose for direct connection to the tankers starboard manifold. The last 3 units of the 16 in. diameter tail hoses are electrically discontinuous, such that stray currents from the crude carriers are not carried on to the buoy.

Connecting Hoses: Hose connection is carried out by ship's crew.

The hoses are lifted and connected one at a time. The forward or 'inner' hose is tended to first. The derrick runner is hooked into an enlarged link in the hose lifting chain and the hose end is then lifted out of the water until sufficient length is available for direct connection to the tanker' manifold. The weight of the hose in this position is transferred to the hose hang-off chain and the hose end is then lowered onto the deck. The blank flange is removed and the hose connected to the vessel's manifold. After connecting, the hoses are supported at the tanker side by flat webbing slings hung from the derrick runner in order to maintain a reasonable radius of bend. They are also suitably lashed to the hose bar of the side rail to reduce movement caused by sea conditions. In seas exceeding 5 ft., the floating hose strings become lively and require attention. Excessive movement of the hoses will result in chafe and strain on the flanges in way of the manifold. This can be reduced to a minimum by a suitable suspension of the hoses from the derrick runner backed up by rope lashings at the side rails or hose bars. Such preventive measures depend largely on the construction and layout of the tanker in the manifold area, also on the distance of the manifold from the vessels' side.

Loading Procedure: Bintulu Crude is loaded at Bintulu Terminal. The quantities loaded are checked by the terminal at frequent intervals and vessels are requested to verify the shore figures.

The terminal is capable of giving maximum loading rates of up to 7,000 cu.m.p.hr. and a maximum back presssure at 120 p.s.i. at the terminal end. The Berthing Master also acts as Loading Master and as the terminal's representative he will attend to all cargo formalities (SSB Forms, Safety Check List, etc.).

Prior to and during loading operations the following procedure will apply:

(a) A joint inspection is carried out by ship and terminal representative to ensure all requirements on the Safety Check List have been complied with.
(b) The methods of communication between ship and shore are clearly established and understood. This includes procedures for normal and emergency stops of cargo loading operations. Test calls are made to ensure the system is operating satisfactory.
(c) Ship and shore to confirm readiness to start cargo loading operations.
(d) Commencement of loading to be at slow rate.
(e) Lines and hoses are checked and faults rectified. Launch to patrol around vessel to check for oil leakages into the sea.
(f) When the ship confirms receipt of cargo, test the emergency trip. After the test is completed start pumping and gradually increase to agreed loading rate.
(g) Lines, hoses and the water around the vessel are again checked.
(h) Ship and shore figures are to be compared every 3 hours and discrepancies investigated.
(i) At least 15 minutes notice should be given to the terminal before each stop or in regard to slowing down the loading rate for "topping off".

Suspension of Loading Operation: If loading operations are suspended for an excessive period (e.g. leakage), hoses should be disconnected, blank flanged and made ready for lowering into the sea.

Disconnecting Hoses: The "after" or outer hose is disconnected first. It must be assured that all the bolts are fitted and properly tightened. The gasket must be in good condition and changed regularly. As soon as the hoses have been disconnected from the tanker's manifold, the blank flanges are fitted and the hose support buoy as well as the free end of the "hose hang-off chain" are shackled to the lug on the spool piece. Each hose is lowered over the side and towed clear from the tanker's side or temporarily secured to the SBM in a bight to prevent possible entanglement with the tanker's propeller.

BALLAST: Vessels must arrive with sufficient ballast for safe manoeuvring into the berth.

There are no facilities for the shore reception of ship's ballast. Vessels are accepted for loading on the express understanding that only clean ballast will be discharged into the sea.

Deballasting prior to the ship being fully secured to the buoy is only allowed after consultation with the Berthing Master.

DENSITY: Varies between 1020 and 1025.

FRESH WATER: Can be supplied by water boat.

FUEL: Not available.

REPAIRS: No facilities available.

TIME: GMT plus 8 hours.

GENERAL:

Weather: All the SBMs concerned are positioned in the open sea. The weather in this region is basically good for tanker operations.

The seasonal weather patterns are broadly divided into 3 and the terminology used is consistant with that of South East Asia. These 3 types are:

(1) S.W. Monsoon (June-October).
(2) N.E. Monsoon (December-March).
(3) Transitions between the Monsoons.

Persistant bad weather occurs during the N.E. Monsoon. High swell conditions can persist for periods of 3 to 4 days and in extreme conditions for up to a week. During the S.W. Monsoon winds are generally light to moderate, but during brief surges (generally lasting less than 36 hours) winds are occasionally strong, and local gale force squalls are experienced. The most favourable time for tanker operations is during the transition periods. Winds are lighter and variable. Seas in this period are rarely more than very slight. The only troublesome periods are the occasional severe squalls that originate from inland, which are associated with cumulonimbus clouds and thunderstorms.

The basic patterns of these squalls are vigorous thunderstorms inland, increasing as the storm approaches. Just before the onset of torrential rain, the wind backs rapidly towards the land and increases violently to the peak gust.

Immobilisation: Immobilisation of engines is not permitted at any time during the vessel's stay at the SBM.

Transmission of Ship's Radio: Use of the ship's radio transmitter is prohibited during the vessel's stay at the SBM.

AGENT: See "Sibu".

KERTEH TERMINAL: 04.34 N. 103.28 E. (See Plan)

PORT LIMITS: The port area is enclosed between Latitudes 4° 30′ N. and 4° 37′ N. and between Longitudes 103° 26.8′ E. and 103° 33′ E.

LOCATION: The Kerteh Port Marine Terminal is situated off the East Coast of Peninsular Malaysia in the South China Sea approximately 13 miles South of Kuala Dungun.

The marine facilities consist of 3 single buoy moorings located in a 20 square mile Restricted Area which extends about 5 miles from the coast.

One CALM operated by Petronas Penapisan (Terengganu) Sdn. Bhd. (PP(T)SB), suitable for vessels ranging from 15,000 d.w.t. – 35,000 d.w.t. or partially loaded vessels ranging from 15,000 d.w.t. – 35,000 d.w.t. or partially loaded vessels up to 85,000 d.w.t. (limited by loaded draft of 11.1 m.) is used for loading refined products from the Petronas Refinery.

Two SALMs, operated by Esso Production Malaysia Inc. (EPMI) are used for loading crude oil from the Terengganu Crude Oil Terminal (TCOT).

DOCUMENTS: Masters are required to prepare documents prior to arrival in port such as:

Last Port Clearance.
Ship's Certificate.
Manifests (List of Cargo onboard).
12 Crew Lists.
2 Store Lists.
2 Personal Effects Lists.
2 Lists of Narcotics.
1 Vaccination List.
1 List of Arms/Ammunition.

Boarding and Duty Personnel: Tankers will be boarded, normally on arrival, by Mooring Masters, Loading Operators, Customs, Agents, Surveyors and Petronas Representatives. They will usually stay onboard till the vessel's departure and should be provided with meals and suitable accommodation. However, alcoholic beverages should not be offered to shore personnel, nor should vessel's personnel consume alcoholic drink during the vessel's stay at the terminal. A very serious view is taken of the matter which is an important aspect of vessel and terminal safety.

PREPARATIONS: Vessels should prior to arrival prepare:

(a) *Pilot Ladder:* Safely and securely rigged a combination of pilot ladder with 2 side ropes and ship's accommodation gangway, so arranged that personnel can first use the pilot ladder until part way up the vessel's side, and then transfer to the accommodation ladder. Vessels with less than 15 ft. freeboard need only rig the pilot ladder with 2 side ropes. Air operated pilot hoists are not acceptable. A light heaving line should be ready to take the Mooring Masters' and Loading Operators' equipment onboard.
(b) *Derricks:* Derricks to be rigged on both sides.
(c) *Bow Arrangements:* Vessels should be prepared to be moored to the SPM's, with pick-up ropes, Smit Brackets, chain stoppers or wire snotters on the bow.
(d) *Reducers:* The port side manifold is to be prepared for either 12 in. (PP(T)SB) or 16 in. (TCOT) hoses.

PILOTAGE: Two Mooring Masters normally board tankers at the Anchorage Area from a launch or tug. During the N.E. monsoon period (November-March) vessels may be requested to pick-up personnel at a position off Tanjong Berhala about 20 miles S.E. of the terminal area.

Masters should ensure that the Malaysian Flag together with the appropriate International signals are displayed for a vessel approaching port.

NAVIGATION: *Charts:* U.S. 71024, B.A. 770, B.A. 1374, B.A. 2660 (a), B.A. 2414, B.A. 3543 and Mal 1641 (Kertah Port approach chart. Published by the Royal Malaysian Navy).

Approaches: Approaching the anchorage area from the N.E. – S.E. quadrant, there are no outlying dangers.

Pulau Tenggol, a steep-to 900 ft. high island, situated 20 miles N.E. of the terminal area, and Bukit Labohan, a 1,200 ft. high hill just South of the terminal, are excellent radar targets, easily identified.

The Kerteh Port Marine Control is equipped with a radar-based vessel tracking and traffic management computer system, and will advise vessels when VHF contact has been established.

CAUTION:

(i) Beware of the presence of fishing craft as normally they do not show any lights at night.
(ii) The refinery flare and gas plant flare are visible at a great distance, but should not be relied upon for position fixing purposes as they may not be burning at all times.
(iii) Vessels should give all structures and working vessels a wide berth and not approach closer than 2 miles.

Restricted Area: The Restricted Area is bounded by imaginary lines connecting the following points:

1. Lat. 4° 34′ N., Long. 103° 28′ E. 3. Lat. 4° 32′ N., Long. 103° 33′ E.
2. Lat. 4° 37′ N., Long. 103° 31′ E. 4. Lat. 4° 33′ N., Long. 103° 28′ E.

Vessels should under no circumstances enter the Restricted Area without the service of the Mooring Master.

NAVIGATION AIDS: In addition to the navigational aids noted on the Navigation Charts, the following Navigational Lights and buoys are placed:

1. Kerteh Port Sea Buoy:

Position	Lat. 4° 32′ N., Long. 103° 34′ E.
Shape	Pillar
Colour	Red and white vertical stripe
Light Characteristic	Fl. (W) every 10 secs.
Visibility	8 nautical miles
Radar Reflector	8 nautical miles

2. Paton Bank Buoy:

Position	Lat. 4° 32′ 41″ N., Long. 103° 31′ 27″ E.
Shape	Can
Colour	Red
Light Characteristic	Fl. (R) 5 secs.
Visibility	8 nautical miles
Radar Reflector	8 nautical miles

3. Tg. Labohan Light:

Position	Lat. 4° 31′ 18″ N., Long. 103° 28′ 18″ E.
Characteristic	Fl. (W) 4 secs.
Visibility	15 nautical miles

4. Danger Line Buoys:

These buoys are 1,000 m. apart and indicate the 15 m. (50 ft.) Admiralty Chart Datum line.

Shape	Pillar
Colour	Yellow
Light Characteristic	N1 – Fl. Y 4 secs. N2 – Gp. Fl. Y (3) – 5 secs. N3 – Gp. Fl. Y (4) – 10 secs.
Visibility	2 nautical miles

Positions as follows:

B-4 Danger Buoy N1	Lat. 4° 33′ 33.7″ N., Long. 103° 28′ 46.7″ E.
B-3 Danger Buoy N2	Lat. 4° 34′ 06.5″ N., Long. 103° 28′ 38.3″ E.
B-2 Danger Buoy N3	Lat. 4° 34′ 35.9″ N., Long. 103° 28′ 29.1″ E.

5. Refinery SBM:

Position	Lat. 4° 34′ 32.2″ N., Long. 103° 29′ 02.1″ E.
Colour	Orange
Light Characteristic	White, Fl. Letter U (· · –) every 15 secs.
Visibility	2 nautical miles
Hose Strings Lts	Flashing red in unison

6. SALM No. 1:

Position	Lat. 4° 34′ 21.9″ N., Long. 103° 30′ 18.1″ E.
Colour	Yellow with black vertical stripes
Light Characteristic	White, Fl. Letter U (· · –) every 7.5 secs.
Visibility	2 nautical miles

7. SALM No. 2:

Position	Lat. 4° 33′ 26.5″ N., Long. 103° 30′ 45.4″ E.
Colour	Yellow with black vertical stripes
Light Characteristic	White, Fl. Letter U (· · –) every 15 secs.
Visibility	2 nautical miles

The above buoys with the exception of the SBM and SALM's are subject to shift position and should not be relied upon for navigational purposes.

When approaching the Terminal, Kerteh Port Marine Control will advise if the above buoys are in position.

ANCHORAGE: The Anchorage area is 4 miles square bounded by Lat. 4° 30.0′ N. and Lat. 4° 32′ N., and Long. 103° 32.0′ E. and Long. 103° 34.0′ E.

Vessels are strictly prohibited to anchor in any position, whether inside or outside the Restricted Area other than in the designated Anchorage Area. Crude and gas pipe-lines and a telephone cable are laid in the vicinity and are not shown on all charts.

During severe weather conditions it is not advisable to anchor as holding ground is poor and vessel should slowly steam 5 to 10 miles off the coast, and remain within VHF radio range.

In the event VHF radio contact cannot be established, Masters are advised not to anchor but keep to seaward of the Anchorage Area and the Restricted Zone. Contact will then be made by the Terminal's Support Craft.

HEALTH: Radio Pratique should be requested through a local shipping Agent.

ACCEPTANCE CRITERIA:

PP(T)SB: (Product).

I-*SPM Limitations:*

(i) SPM is designed to handle vessels of 15,000 to 35,000 d.w.t. However, partially loaded vessels up to 85,000 d.w.t. can also be accommodated up to a maximum draft of 11.1 m.

(ii) SPM is equipped with 2 mooring hawsers fitted with 2 in. diameter chafing chains which requires Panama leads with minimum diameter of 16 in. Bollards with snotter wires and bow shackles (See III-(x)) can be used as an alternative to secure the chafing chains.

(iii) Maximum loading rate of 20,000 bbls.p.h.

(iv) Minimum flow rate of 3,100 bbls.p.h. is acceptable for initial loading and topping-off operations. The operation at this flow rate should not exceed 15 minutes.

(v) Maximum loading temperature 75°C.

(vi) Maximum allowable working pressure of hoses 225 p.s.i. (15.8 kg./sq.cm.).

(vii) Weather Limitation: Vessels to stop loading when wind speed reaches 22 knots. When wind speed reaches 36 knots and 10 ft. swell, vessel to disconnect hose and be ready to vacate berth. However, final decision to vacate the berth lies with the Mooring Master at the scene.

II-*Port Limitation Ex-Kerteh Refinery-Safe-Dimensions of Vessel:*

	Vessel Data	
	Min.	*Max.*
Size	15,000 d.w.t.	85,000 d.w.t.
Length	163 m.	265 m.
Width	20 m.	38 m.
Loaded Draft	8.8 m.	11.1 m.

III-*Tanker Requirements:*

(i) The tanker must be able to handle the hose rigging on the port side and must be able to lift and swing safely 5 ton over and above the ship's rail. Hose has to be lifted to a height of 15 ft. – 20 ft. above ship's rail.

(ii) The tanker must have sufficient clear deck area adjacent to the cargo manifold. Distance from manifold to ship's rail should be a minimum of 12 ft. Free area around centreline of manifold must be 36 in. as the end of the rail hose near the loading flange has a 30 in. diameter.

(iii) Tanker must have 12 in., 150 p.s.i. ASA (or ANSI) manifold flange connection on port side to fit on a 12 in. camlock coupling loading/discharge hose.

(iv) Tanker must have sufficient chain falls and rigging gear to secure the loading hose.

(v) Product tankers must be able to receive water plug of 300 bbls. in a segregated tank or clean slop tank prior to commencement of loading. The water plug to be pumped back on completion of the loading.

(vi) Tankers must have sufficient ballast for safe manoeuvring at all times (i.e. propeller must be adequately submerged).

(vii) Refinery cannot receive slop or oily ballast.

(viii) Minimum 10 ton capacity port side derrick required.

(ix) Tanker's crew are responsible for mooring, hose connection and unmooring.

(x) Mooring of product tankers at Kerteh SPM: (PPTSB)

All product carriers proposing to use the SPM facilities at Kerteh or other SPMs, should have available onboard in case of requirement the following:

2×12 m.×54 mm. dia. (for tankers up to 40,000 d.w.t.) or 2×12 m.×64 mm. dia. (for tankers above 40,000 d.w.t.) wire rope bridles (fibre core) with a thimbled eye at one end and a soft eye on the other end.

2×50 ton safe working load bow shackles.

2×100 m.×30 mm. messenger lines.

The Loading Operator, who is responsible for the loading operations, will inspect the ship on arrival to ensure the ship's compliance to Kerteh Terminal's requirements for final acceptance.

Note: There are no ballast receiving facilities and ballast pumped overboard must be absolutely clean.

TCOT: (Crude)

Tankers between 40,000 and 250,000 d.w.t. can be accepted at the TCOT SALMs provided they:

1. Re: Mooring equipment, etc. comply with "Standards for Equipment Employed in the Mooring of Ships at Single Point Moorings", published by OCIMF 1978, particularly Section 6.1 to 6.5. i.e. in brief:
   (i) Tankers of under 100,000 d.w.t. to have bow mooring arrangement suitable for connecting a single 54 mm. (2.125 in.) chain.
   (ii) Tankers between 100,000 and 150,000 d.w.t. to have bow mooring arrangements for connecting a single 76 mm. (3 in.) chain.
   (iii) Tankers over 150,000 d.w.t. to have bow mooring arrangement for connecting 2×76 mm. (3 in.) chains.
   (iv) Bow fairleads for 54 mm. chain to measure at least 400 mm. (16 in.) in diameter, and bow fairleads for 76 mm. (3 in.) chain to measure at least 600 mm.×450 mm.
   (v) All tankers to have bitts, bollards, bow stoppers, or Smit type brackets of minimum SWL:

Under 100,000 d.w.t.:	1×100 tonnes.
100,000 – 140,000 d.w.t.:	1×200 tonnes.
Over 150,000 d.w.t.:	2×200 tonnes.

with adequate forward winch heaving capacity for heaving up corresponding chain system with buoy.

Note: It is recommended that all tankers calling at this terminal be fitted with approved bow stoppers for safe and efficient mooring and unmooring operations.

2. Have 1×16 in. standard ANSI-B 16.5, BS 1560 Series 150 or equivalent flange ready at port side manifold, with bitts, straps, tuggers, etc. ready for connecting 1×16 in. over-the-rail hose to the manifold. The connecting 16 in. manifold flange shall be fitted to a spool piece of minimum length 200 mm. to allow sufficient space to connect the camlock coupling of the hose end. Port side manifold arrangement to comply with OCIMF "Standard for Oil Tanker Manifolds and Associated Equipment" – page 17. SWL of port side derrick to comply with ISGOTT (Appendix C.10.2 weight of hose strings) for single buoy moorings i.e.: Minimum SWL 10 tonnes for port side derrick is required.
3. Maximum vessel loaded draft at SALM-1 is 17.4 m. (57 ft.). Maximum vessel loaded draft at SALM-2 is 20.4 m. (67 ft.).
4. Have on arrival adequate clean or segregated ballast for safe manoeuvring and be able to limit freeboard by loading crude and discharge segregated/clean ballast simultaneously.

During the N.E. monsoon season (November-March), vessels must arrive with adequate ballast or cargo onboard to have propeller covered and with no more than 6 ft. trim by the stern. Vessels with only ballast on board must be able to retain ballast or to load and discharge simultaneously.

NOTE: There are no ballast receiving facilities and ballast pumped overboard must be absolutely clean.

RADIO: All radio traffic to be channelled through Singapore Radio. Vessels to maintain radio watch on the same station.

(a) Cables for Petronas to be addressed to PP(T)SB, Kerteh. Telex: Petref MA 51326 and copy to "International Marketing, Petronas", Kuala Lumpur. Telex: Petron MA 30032 or MA 30696.

(b) Cables for EPMI to be addressed to TCOT, Kerteh. Telex: MA 51384 with copies to Ofprod Kuala Lumpur OFPROD MA 51744 and Essosupply Kuala Lumpur EFPROD MA 30280.

Singapore Radio works on the following frequencies:–

Call Sign	*Transmit (kHz)*	*Receives (kHz)*	*Watch (GMT)*	*Remarks*
9VG4	2182	2182	0000–2400	Call, replay and safety
9VG87	4125	4125	0000–2400	
9VG88	6215.5	6215.5	0000–2400	
9VG89	8780	8257	0000–2400	Common calling frequencies
9VG90	13162.9	12392	0000–2400	
9VG91	17294.9	16522	0000–2400	
9VG5	2760	2527	0000–2400	Working frequencies for passing of radio telegrams
9VG60	4369.8	4075.4	0000–2400	
9VG63	8728.2	8204.3	0000–2400	
9VG67	13156.6	12385.8	0000–2400	
9VG52	2780	2685	On demand	Connection to telephone system
9VG61	4376	4081.6	On demand	
9VG62	6509.5	6203.1	On demand	
9VG64	8762.3	8238.1	On demand	
9VG65	8790.2	8266.3	On demand	
9VG66	13147.3	12376.5	On demand	
9VG68	17270.1	16497.2	On demand	
9VG69	17356.9	16584	On demand	
9VG70	22630.1	22934.1	On demand	

Traffic lists will be transmitted on the following listed frequencies, except during transmitter maintenance periods when the list will be broadcast on the two frequencies consecutively.

Transmit (kHz)	*Receives (kHz)*	*Time (GMT)*
2760	2527	0005, 0405, 0805 and 1205
8728.2	8204.3	
2760	2527	1605
4369.8	4075.4	

Approximate geographical location of Singapore Radio Station is Lat. 01° 20′ N., Long. 103° 40′ E.

Notice of Arrival:

Upon departure from last port or immediately after having received instructions to proceed to Kerteh Port Marine Terminal, Master is requested to cable to either EPMI (if scheduled to load crude) or to PP(T)SB (if scheduled to load product) the following:

AAA Vessel name, previous name (if any), call sign and flag.
BBB ETA, date and local time (GMT + 8 hours).
CCC Master's name.
DDD G.r.t., n.r.t., d.w.t., s.d.w.t. and Light Displacement Tonnages.
EEE Last discharge port and intermediate ports.
FFF Next discharge port and intermediate ports.
GGG Number of crew.
HHH Number of passengers.
III Grade and Quantity of cargo on arrival, previous cargo and cargo to be loaded at Kerteh Marine Terminal and loading rate per manifold.
JJJ Whether previous cargo or any cargo on board has high H_2S contents and H_2S concentration in tank vapour spaces.
KKK Malaysian light dues receipt number and date.
LLL Arms on board.
MMM Deballasting time prior loading if any or whether vessel is able to load and deballast simultaneously.
NNN Arrival drafts.
OOO Any leaks which could cause pollution or affect loading.
PPP Pratique Granted: Place/Date. If any sickness on board or of clean bill of health.
QQQ Confirm inert gas system operational and whether all cargo tanks in inert atmosphere on arrival.

All vessels loading at Kerteh Port Marine Terminal for the first time are to include the following *additional* information:

RRR Length overall and bow to centre of manifold distance.
SSS Size of port manifold flange and confirm that 2×12 in. (150 p.s.i.) ASA flanges are available for product tankers on port side manifold or confirm that 1×16 in. 150 ASA flange is available for crude tankers on port side and able to connect camlock couplings.
TTT Confirm that combination of gangway and pilot ladder ready on arrival. Only pilot ladder is required if freeboard is less than 15 ft.
UUU If loading products, is vessel fitted with 2-valve separation for parcels?
VVV Is vessel fitted with segregated ballast tanks?
WWW Is vessel diesel or turbine powered?
YYY Confirm that vessel can moor to an SPM and indicate what bow connection equipment is available. (See "Berthing").
ZZZ What is SWL of port side derricks for hose hoisting.

Updated ETA to be reconfirmed 72, 48, 24 and 12 hours prior arrival.

VHF: When within range, vessels should contact Kerteh Port Marine Control initially on Channel 16 for berthing instructions and assignment of working channel.

Working Channels are: 9, 18, 21, 69 and 73.

The language of the Terminal is *English*.

Arrival Procedures: Masters should endeavour to establish contact with Kerteh Marine Control as soon as they are within VHF radio range.

Instructions thereafter will be given for further approach procedures.

RADAR: Marine control tower has radar.

TUGS: A tug and mooring launch will be in attendance during mooring operation.

SBM: One tug of 2,600 h.p. and 2 launches.

SALMs: Two tugs, 3,500 h.p. and 800 h.p.

Note: Tugs are time chartered to suit size of tankers.

BERTHING: *Petronas Penapisan (Terengganu) Sendirian Berhad (PP(T)SB) SPM:* The Catenary Anchor Leg Mooring (CALM) is located in 60 ft. of water in position Lat. 04° 34.5′ N., Long. 103° 29′ E. It is designated for 85,000 d.w.t. tankers on restricted draft. The SBM is fitted with 2 mooring hawsers and 2 strings of loading hoses, one for loading black oil and one for loading clean products.

CAUTION: The SBM is only a distance of 1 nautical mile from the beach. The bottom shelves from the SPM for a distance of approximately 5 cables (900 m.) to a Danger Line of 3 buoys in 50 ft. A.C.D. of water.

When the SBM is at maximum excursion, i.e. 2 mooring chains tight on the weather side, no vessels, such as tugs or standby boats, can approach this SBM closer than 50 ft. Otherwise, they will foul the anchor chain.

Therefore the terminal insists that vessel engines and crew are at all times on standby whilst moored to this SBM.

TCOT SALMs: SALM 1 is located in 85 ft. of water in position: Lat. 04° 34.4′ N., Long. 103° 30.3′ E. It is designed for fully loaded 140,000 d.w.t. tankers.

SALM 2 is located in 92 ft. of water in position: Lat. 04° 33.5′ N., Long. 103° 30.7′ E. It is designed for fully loaded 250,000 d.w.t. tankers with certain limitations.

Both SALMs are fitted with a single hawser system terminating in a 3 in. chafing chain. Vessels over 150,000 d.w.t. will be moored at SALM 2 and a second hawser, also terminating in a 3 in. (76 mm.) chain, will be fitted.

Berthing and Mooring: Prior to berthing the Mooring Master will discuss with the Master the berthing and mooring operations and ascertain that the vessel is fully manoeuverable. He will also inspect the vessel's ballast to ensure that only clean ballast is carried and its disposal overboard will be safely carried out simultaneously with the loading of cargo.

The second Mooring Master will discuss with the Officer on the bow the mooring operation and will via the Officer supervise the mooring operation performed by the vessel's crew.

After ensuring that the manoeuvring area is clear of other traffic and weather and sea conditions are suitable, the vessel will be manoeuvred for the approach to the mooring buoy. The heading of the vessel will normally be such that she will have the wind ahead but tidal effects may have to be taken into account. A tug of suitable power and a mooring launch will be in attendance. During the final approach, the mooring launch will pick up a messenger line from the vessel's bow and maintain station approximately 300 ft. ahead of the vessel. When the mooring launch reaches the end of the mooring system's pick-up line, the vessel's messenger line will be made fast and the vessel's crew will heave in the slack as the vessel moves closer to the mooring buoy.

When the pick-up line is on board the crew will commence heaving on this line the chafing chain is on board and secured.

The Refinery *SBM is fitted with 2×2 in. diameter chafing chains* which require *Panama Leads with a minimum diameter of 16 in.* It is the vessel's responsibility to ensure that the 2 chafing chains on the Refinery SBM are brought on board in equal lengths in order to share the load equally between the 2 mooring hawsers which are seperate and not mated or secured together in any way.

The crude oil *SALMs are fitted 1×3 in. diameter chafing chain,* which requires a Panama Lead with a minimum diameter of 16 in. Vessels greater than 150,000 d.w.t. will be berthed at SALM No. 2 and two chain mooring systems will be connected.

Chafing chains will be connected to Smits Brackets or bow stoppers whenever possible. An alternative connecting system will be used when vessels are not fitted with the connections mentioned above. Bollard with 6 m. long×64 mm. diameter snotter wire and bow shackles can be used as an alternative to secure the chafing chain.

HOSES: *Connection Hoses:* Once the vessel is moored, the floating hose(s) will be towed alongside and connected to the vessel's port manifold.

Connecting and disconnecting of hose(s) will be the responsibility of the vessel's crew.

While vessels are moored, it is imperative that a careful watch is maintained on the mooring systems and cargo hose.

Main engines should be kept on standby and should be ready for immediate use in the event the vessel starts to ride up on the mooring buoys.

On the Refinery SBM the floating hose strings are 12 in. ASA on the rail and have a total length each of 230 m. Camlock couplings are fitted.

On the crude SALMs 1 floating hose string terminates in 16 in. ASA flange on the rail and is fitted with butterfly valve – lock arrangements with camlock. (Also See "Radio" – SSS).

LOADING: *Loading Rate:* Prior to the commencement of loading operations, an agreed upon oil transfer plan must be established. This will include commencement, maximum and topping off loading rates and emergency stop procedures.

Maximum loading rate at the Refinery SBM will be approximately 20,000 bbls.p.h. through each hose and at the crude SALM, approximately 45,000 bbls.p.h. Vessels take maximum flow, with due regard to safety, in order to expedite turn around time. Care should be taken not to overload. Topping up rate for products is between 2,100 – 3,800 bbls.p.h.

Vessels with or without permanent ballast tanks should retain ballast onboard until the vessel has taken sufficient cargo to be manoeuvrable, after which simultaneous loading and deballasting operations could commence. Such practice improves turnaround time and keeps the windage area down to acceptable levels. Vessels with excessive deballasting time may incur considerable delay in berthing.

Closing Valves Against Oil Flow: Warning is given of the danger of closing valves against an incoming oil stream. This will create excessive pressure which may result in damage to the loading hoses and Terminal facilities. Vessels will be held liable for damages resulting from failure to observe this precaution. Both the Refinery and TCOT will automatically stop pumping when back pressure reaches 220 p.s.i.

Electrical Storms: Loading will be suspended when severe Electrical Storms are in the near vicinity to prevent the possibility of cargo gases igniting.

SAFETY/FIRE/POLLUTION:

General: A Ship/Shore Safety and Pollution Check List is used at the terminal and all operations closely follow recommendations in the International Safety Guide for Oil Tankers and Terminals.

Fire: In the event of fire onboard: Immediately stop loading, advise the Mooring/Loading Master onboard and prepare to disconnect hoses and evacuate the berth. A well-equipped tug is standing by and may assist under the Mooring Master's guidance. In case of VHF communications failure sound 10 short blasts on the ship's whistle.

Pollution: The terminal is located in an extremely pollution sensitive area, a short distance from high amenity beaches with a valuable and vulnerable marine life. It is therefore imperative that all pollution of the sea is avoided. Master will be held liable for all clean-up-costs and third party claims and Owners promptly advised in case of pollution.

Deballasting: Ballast water pumped overboard should not contain oil or mixture containing oil (a mixture with an oil content of 100 parts or more in 1 million parts of the mixture) in accordance with the Section 27(1) of the Environmental Quality (Amendment) Act, 1985 (See "Below") with regard to Malaysian waters and Section 10(1) of the Exclusive Economic Zone Act, 1984 (See "Below") with regard to the exclusive economic zone.

Vessels ballast tanks will be carefully inspected. Vessels with dirty or doubtful ballast water will not be accepted unless analysis of water samples for oil content show otherwise.

Oil Spills: Should an overflow or hose leak occur during loading; immediately advise shore to stop loading and retain oil onboard and clean-up or recover oil.

The stand-by tug is equipped with spill-booms, skimmers and oil spill dispersant spraying booms. However, spraying of chemicals should only be done as a last resort after clearance from the relevant Authorities has been obtained.

Garbage Disposal: Dumping of garbage overboard, of whatever kind, is strictly forbidden.

Appendix:

SECTION 10(1), EXCLUSIVE ECONOMIC ZONE ACT, 1984

If any oil, mixture containing oil or pollutant is discharged or escapes into the exclusive economic zone from any vessel, land-based source, installation, device or aircraft, from or through the atmosphere or by dumping:

(a) the Owner or Master of the vessel, if the discharge or escape is from a vessel;

(b) the Owner or occupier of the place on land, if the discharge or escape is from land;

(c) the Owner or person in charge of the installation or device, if the discharge or escape is from an installation or a device; or

(d) the Owner or Pilot of the aircraft, if the discharge or escape is from an aircraft,

shall each be guilty of an offence and shall be liable to a fine not exceeding 1,000,000 ringgit.

SECTION 27(1), ENVIRONMENTAL QUALITY (AMENDMENT) ACT, 1985

No person shall, unless licensed, discharge or spill any oil or mixture containing oil into Malaysian waters in contravention of the acceptable conditions specified under Section 21.

NOTES: (i) SECTION 21, ENVIRONMENTAL QUALITY ACT, 1974

The Minister, after consultation with the Council, may specify the acceptable conditions for the emission, discharge or deposit of wastes or the emission of noise into any area, segment or element of the environment and may set aside any area, segment or element of the environment within which the emission, discharge or deposit is prohibited or restricted.

(ii) SECTION 2, ENVIRONMENTAL QUALITY ACT, 1974

"Mixture containing oil" means a mixture with such oil content as may be specified by the Minister or, if such oil content is not specified, a mixture with an oil content of one hundred parts or more in one million parts of the mixture.

MEDICAL: No doctor or clinic available, however in emergencies, exceptions may be permitted for humanitarian reasons.

DENSITY: 1025.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: None.

REPAIRS: Not possible.

Note: Vessels are strictly prohibited to carry out hot work or repairs of any kind which could cause fire hazard *or* immobilise engine at the berth or within the port area except at the designated anchorage area, with the approval of Terminal Superintendent or Representative.

SURVEYORS: Trident Malaysia Sdn. Bhd., Straits Trading Building, Lebuh Pasar Besar, Kuala Lumpur. Tel: 03-926410. Telex: MA 39551.

Caleb Brett Malaysia Sdn. Bhd., Room 301, 3rd Floor, Bangunan Yayasan Selangor, Jln. Bukit Bintang, Kuala Lumpur. Telex: MA 30579.

CUSTOMS ALLOWANCES: Usual allowance for ports in Malaysia.

REPATRIATION: Not possible.

TIME: GMT plus 8 hours.

WEATHER: The seasonal weather patterns are broadly divided into three types and the terminology used is consistent with that of S.E. Asia. These three types are:

1. S.W. Monsoon (May to September): Winds are generally from the South or S.W. during this period and can reach gale force in local squalls.

2. N.E. Monsoon (November to March): Intermittent bad weather occurs during this monsoon and high sea and swell conditions can persist for extended periods.

3. Transition Periods (April and October): Winds are generally variable during the monsoon transition periods but may freshen in the late afternoon and early evening with the sea breeze effect. Occasionally, local gale force squalls may occur but these are generally of short duration.

CAUTION: The severe squalls often occur suddenly without warning. It is therefore important whether at anchor or moored that an alert deck watch is kept.

Refer to China Sea Pilot – Volume 1 for further meteorological information.

TIDES AND CURRENTS: *Currents:* The tides off Kerteh vary widely, with periods of only one HW and one LW each lunar day, there are also marked inequalities in times and heights of high and low waters.

The tides at Kerteh are on average 30 minutes earlier than the standard Port of Tanjung Gelang but there are wide variations.

The ocean currents off the Kerteh Coast are the result of the monsoon wind pattern, setting South during the N.E. Monsoon and North during the S.W. Monsoon. The average currents are:

January	1.0 knot	180°
April	0.5 knots	170°
July	1.0 knot	010°
October	0.5 knots	variable

Combination Tide and Current: The strength of the current is dependent on the strength of the monsoon wind and when winds are strong the current can increase to 2 knots or more.

Thus in the N.E. Monsoon the combination of current and flood tide can produce a South running stream of 3 knots or more, and with a very weak North running stream. The same occurs in reverse during the S.W. Monsoon.

CAUTION: When at anchor it should be noted that with the tidal streams and currents in "conjunction" they can exceed 3 knots in strong winds and as the holding ground is not good, it is important that a very careful check is kept on the ship's position at all times.

EMERGENCY CO-ORDINATING CENTRE: Contact Marine Control Tower on VHF Channel 16 or other assigned working Channels, 9, 69 and 73. Tel: 09-871 277 Control Room. Telex: MA 51397.

SHORE LEAVE: No shore leave.

GENERAL: *Language:* The language of the Terminal is English.

Mail: (a) Mail for tankers loading at PPTSB or Petronas cargoes at TCOT should be addressed to the ship's Agent.

(b) Mail for personnel on incoming crude tankers loading an Esso cargo may be sent to EPMI's Kuala Lumpur Office marked for the attention of the "TCOT Marine Superintendent" for transmission to the vessel when it arrives at Kerteh Port Marine Terminal.

Personnel: Only authorised personnel are permitted to board vessels while berthed.

Provisions: Not available.

Ballast: No dirty ballast or slop disposal.

Terminal: The Kerteh Port Marine Terminal is located off-shore and the only means of transportation available to the shore is by marine support craft to Tanjong Berhala Supply Base situated 24 miles to the S.E. As such, the terminal can offer no logistical support to the vessels calling at the Kerteh Port.

AUTHORITY:

(a) Petronas Penapisan (Terengganu) Sendirian Berhad (PP(T)SB),
24300 Kerteh,
Terengganu, Malaysia.
Tel: 09-871244/871234.
Telex: Petref MA 51326.

(b) Petroliam Nasional Berhad (Petronas),
International Marketing Division,
9th Floor, Menara Dayabumi,
P.O.Box 12444,
50778 Kuala Lumpur, Malaysia.
Tel: 03-2743833/2748011/2748022.
Telex: Petron MA 30032 or MA 30696.

(c) Esso Production Malaysia Inc.,
Terengganu Crude Oil Terminal (TCOT),
66th Mile Kuantan/Kuala Terengganu Highway,
24300 Kerteh,
Terengganu, Malaysia.
Tel: 09-871277/871278.
Telex: TCOT MA 51384 (24 hours).

(d) Esso Production Malaysia Inc.,
Komplex Esso,
P.O.Box 1,
24207 Kemasek, Terengganu, Malaysia.
Tel: 09-540400.
Telex: Ofprod MA 51744.

(e) Esso Malaysia Berhad,
Supply Department,
P.O.Box 10601,
50718 Kuala Lumpur, Malaysia.
Tel: 03-2485022.
Telex: Essosupply MA 30280.

AGENT: See "Port Kelang".

KOTA KINABALU (including Sapangar Bay), Sabah: 05.59 N. 116.00 E. **(See Plan)**

PORT LIMITS: Gaya Bay and waters to the S.W. bounded by a line joining Tanjong Aru and the Northern point of Pulau Gaya thence a line to Gaya Head including rivers entering same for a distance of 600 ft. inland from the mouth of the river.

DOCUMENTS:

Documents to be produced on arrival:

- Port Clearance from Last port.
- 6 copies Inward Cargo Manifests.
- 2 copies Hatch List, *or*
  - 1 copy Stowage Plan.
- 9 copies Crew Lists.
- 9 copies Passenger Lists.
- 2 copies Bonded Stores Lists (incl. Arms and Ammunition Lists).

In addition, the Master has to complete a Shipping Arrival Report Form and a Maritime Declaration of Health Form.

Notes: (a) If vessel arrives from any port outside those declared infected.

(b) These 2 copies (Inward Cargo Manifests) must be certified by the Master as follows: "I hereby certify that to the best of my knowledge and belief this manifest is complete and correct. . . . .Master".

To be Supplied to Ship before Departure:

- 1 set Agents Outward Manifests.
- 2 copies Passenger Lists for Immigration.*
- 1 copy Passenger Lists for Customs.*
- 1 set Manifests for Customs.*

*To be supplied by Agent.

If vessel departs to a port outside Sabah, 2 copies outward crew list are also required for Immigration.

Where possible, cargo manifests and stowage plans should be forwarded in advance to local Agents and Port Authority ahead of vessels.

PILOTAGE: Not compulsory. Pilot normally available between 0600 hrs. and 1800 hrs. only. Applications normally made by Shipping Agents with advance notice of 24 hours prior to actual time that Pilot Services are required. Pilot boats are between 30 ft. – 40 ft. length and equipped w
VHF/AM sets – 80.4 MHz frequency. Pilot station at Port Office (M
Department) and location for vessel awaiting Pilot is within po
Marine Department Tel. 52213.

ANCHORAGES: (Also see "Health").

Special Anchorages and Prohibited Areas

(1) *Prohibited Anchorage:* No vessels shall anchor as to swing within 3,000 ft. of the F.R.G. Light on the N.N.E. end of the Authority Wharf in approx. position Lat. 05° 59′ 51″ N., Long. 116° 04′ 30″ E. Vessels under 150 ft. in length may anchor within this area, East of a line joining the F.R.G. Light and Gueritz Shoal Light Beacon.

(2) *Prohibited Area:* Except with the previous permission in writing of the Authority, no logs or timber shall be allowed to lie afloat within the area – Eastward of a line drawn in a 172° direction from Grieve Reef Beacon.

(3) *Explosives and Dangerous Goods Anchorage:* Vessels having explosives and Dangerous Goods on board shall anchor within a line drawn from a position in Lat. 06° 01′ 21″ N., Long. 116° 05′ 45″ E. thence in a 360° direction for 6.5 cables thence in a 270° direction for 10 cables thence in a 180° direction for 6.5 cables thence in a 090° direction for 10 cables to the starting point.

(4) *Dangerous Petroleum Anchorage:* A vessel having dangerous petroleum on board shall anchor within a line drawn from a position in Lat. 06° 00′ 42″ N., Long. 116° 05′ 45″ E. thence in a 270° direction for 10 cables thence in a 360° direction for 6.5 cables thence in a 090° direction for 10 cables thence in a 180° direction for 6.5 cables to the starting point.

(5) *Quarantine Anchorage:* A vessel which is required to proceed to a Quarantine Anchorage shall anchor within an area bounded by a radius of 3 cables from a position in Lat. 06° 01′ 34″ N., Long. 116° 03′ 46″ E.

RESTRICTIONS:

1. Entering. Vessels with dangerous cargo such as benzene are not allowed to stay alongside wharf or to berth after 1800 hrs. Vessels arriving from any port within hours of day-light not allowed to berth until they see the signals at the Customs House directing them. This applies equally to vessels arriving on schedule as well as unscheduled vessels and any infringement of these regulations can have very serious consequences.

Master of ship not sailing within 48 hours after port clearance to report to Harbour Master reason for not sailing, and, if so required obtain a fresh port clearance.

2. Shifting. The Authorities must be informed prior to shifting.

3. Immigration. No person may leave ship before clearance has been given by Customs/Immigration Officers.

4. Currency. No restriction on amount of currency which can be brought into this State but max. amount allowed to be taken out is MAL$100. Foreign exchange must be conducted through recognised banks.

MAX. SIZE: Max. size at general cargo berths is 20,000 d.w.t.

HEALTH: (Also see "Regulations"). *(a)* Sabah Government are signatories to WHO convention on Quarantine regulations. Port Health Doctor will not board unless vessel comes from infected port. Instead, Maritime Declaration of Health to be filled out and handed to Boarding Officer of Health Department who will require 1 copy of Crew List and 1 copy of Passenger List. Vessels should cable Agent prior arrival advising last port of call and whether vessel is healthy. Pratique normally cabled to ship but if unreceived, vessel need not proceed to Quarantine anchorage unless coming from infected port.

(b) Vessels arriving from ports outside the State will anchor until boarded by Authorities unless previously instructed by telegram to come alongside.

RADIO: Singapore Radio recommended. (Also see "Health"). Local radio call sign "Control K.K.".

Berthing Application: Application for berthing has to be made 24 hours prior to actual time when berthing is required.

Details and Requirements: Name of vessel, gross and net tonnage, length overall, draft (fore and aft) ETA at berth, ETD from berth, nature and tonnage of cargo to be discharged/loaded, number of gangs required, amount of water, Pilot requirements. Vessels given berth on first come, first served basis.

Tankers: As much notice of arrival as possible is essential.

(a) If first port in Sabah and communication is difficult send message through Singapore Radio.

(b) If to be second or subsequent port in Sabah ensure that Agent/Installation Representative in the previous port gets an accurate ETA before vessel's departure so that this can be passed on by telephone.

VHF: Port Control on VHF Channels 12 and 16 (office hours only).

To reach the Agents directly during office hours contact 9WH26 on VHF Channel 26. The call charges will be reversed by 9WH26 which is an unofficial telecommunications VHF station.

TUGS: Tug 280 h.p. available to assist vessels berthing and unberthing without a Pilot at inner berth. Ship's lines used.

BERTHING:

Berth	*Berth Length*		*Depth*	*Capacity*
No.	(m.)	(ft.)	(m.)	DWT
1	137	450	9.45	20,000
2	107	350	9.45	20,000
3	107	350	9.45	20,000
4	122	400	7.62	5,000
5	113	370	5.79	3,000
6	92	300	5.79	4,000
7	122	400	7.62	7,000
8	122	400	6.88	18,000
9	92	300	6.88	4,000
10	122	400	7.5	5,000
11	122	400	5.5 – 6.8	700
12	98	322	5.5 – 6.8	2,000

Note: The Old Wharf was closed to berthing and operations with effect from 31st December, 1987.

Ro-Ro: Facilities available at the Fast Erect Jetty.

CARGO HANDLING FACILITIES: *Cargo Handling Equipment:*

Equipment	*Manufacturer*	*No. of Unit*
Forklifts	Mitsubishi FD20	2
	Mitsubishi FD30	12
	Toyota 3FD30	56
	Komatsu FD30-8	8
	Toyota 3FD60	4
	Toyota FD190	2
	Toyota FD250	1
Towing Tractors	Chamberlain	8
	Toyota TD20	25
	Toyota 42-3TD20	6
Trailers (5,000 kg.)	Hargill (Volvo)	30
	T.S. Engineering	18
	Besi Asia Engineering	21
Trailers (20,000 kg.)	Hargill Malaysia	6
	Rumpun Hijau	2
Trailers (30,000 kg.)	Wagon Engineering	2

Pallets, Pallet Bridles, Wire Net Slings, Car Slings and Lorry Sling are also available for hire.

Storage Facilities:

Godown 1: 6,693 sq.m.
Godown 2: 8,366 sq.m.
Godown 3: 4,648 sq.m.
Godown 4: 2,789 sq.m.
Godown 5: 2,882 sq.m.

Container Yard (bitumen)	9,880 sq.m.
Container Yard (Concrete)	9,250 sq.m.
Open Storage Area 1 (between bridges)	6,420 sq.m.
Open Storage Area 2 (opposite canteen)	6,770 sq.m.
Open Storage Area 3 (behind Godown 3)	6,330 sq.m.
Open Storage Area 4 (behind Godown 4)	2,700 sq.m.
Wharf Deck Storage Area (Northern extensions)	2,700 sq.m.
Ideal for sawn timber (7 days' free storage)	16,500 sq.m.

STEVEDORES: Stevedores provided by SPA; labour supplied for working in ships' holds and on ships' winches (if required). For cargo delivered direct ex-wharf consignee provides wharf labour; cargo for Sabah Ports Authority godown labour provided by Sabah Ports Authority.

Arrangement of stevedores should be made with 48 hours' notice to Shipping Agent. Average gang performance is 20 tons per gang hour for conventional traffic (excluding vehicles) and 40 tons per gang hour for pre-palletised cargo (excluding vehicles). Cargo work is carried out in 3×4 hour periods namely:

1st Period	0730 – 1130 hrs.
2nd Period	1300 – 1700 hrs.
3rd Period	1800 – 2200 hrs.

Work outside these hours is by prior application.

CARGO: (Also see "Berthing".)

1. Tally: The Agent can provide tally clerks at ship's expense.

2. Inward cargo: Ship's responsibility ceases as soon as consignees take delivery ex-sling.

3. Transhipment cargo: Transhipment cargo handles via Port Authority Godown.

4. Outward cargo: All cargo is brought to the ship alongside wharf either by tractors and trailers.

5. Special cargo regulations:

(a) Dangerous Cargo: Vessels carrying explosives as cargo: All vessels arriving at, or remaining within the limits of, any port with explosives on board shall fly the gunpowder flag at the foremast.

No vessel having explosives on board shall, without the permission in writing of the Harbour Master, come or remain within 500 yards of the shore or any other vessel:

Provided that such a vessel may, with the written permission of the Harbour Master, come and remain within such limit where:

(i) such explosives are wholly and exclusively of Class V (Fulminate) or Class VI (Ammunition) or both such classes in the second schedule; and

(ii) the total quantity of such explosives does not exceed two thousand pounds; and

(iii) such explosives are carried in a properly constructed magazine duly certified as such by a British Board of Trade Surveyor or by an officer fulfilling similar functions appointed by a Government of any British possession or the vessel has a certificate from one of Her Majesty's Inspectors of Explosives or from an Officer fulfilling similar functions appointed by the Governments of Singapore, the Federation of Malaysia or Hong Kong and approved by the Governor that all the explosives on board such vessel have been properly stored and the Master of such vessel further certifies in writing that no other dangerous cargo is carried by the vessel; or where:

(iv) such explosives are wholly and exclusively explosives of one or any of Class III (Nitro-compound), Class IV (Chlorate mixture) or Class VII (Firework); and

(v) the total quantity of such explosives does not exceed three thousand pounds.

No such explosive shall be landed, shipped or transhipped between sunset and sunrise without the previous permission in writing of the Harbour Master. Any Master of a vessel offending against the provisions of this section shall be liable to a fine of MAL$1,000.

(b) Livestock: Pigs or cattle may not be loaded or discharged on any wharf without permission of the S.P.A.

MEDICAL: Medical Officer of Health: Medical Services Department, Tel. 54303. Vaccination and inoculation (incl. Yellow Fever) can be arranged via Agent at any time during working days. In case of death on board, Agent and Harbour Master as well as the Police to be informed.

TANKERS: The port operates on a "first come-first served" basis in allocating the jetty but palletised vessels will get priority. Port Rules state that no other vessel allowed alongside when tanker discharging A-class products. As cargo vessels stop discharging at 2200 hrs., tankers are normally allowed to discharge A-class cargo until the following morning at 0600 hrs.

Berth is timber piled with concrete deck jetty, continuous 650 ft. by 40 ft. wide. Maximum displacement allowed – 13,000 tons. Maximum draft allowed – 22 ft.

Vessels berth either port or starboard side alongside according to the weather and tidal conditions prevailing at the time of berthing. Tankers berth on the outer side of the jetty only.

Fresh water available from wharf only. Vessels to provide hoses. Advance notice of requirements advisable. Rate 25 t.p.h.

Shore Line System:

(a) For Mogas, 1,440 ft.×8 in.

(b) For Jet A.1/Kerosene 1,450 ft.×8 in.

(c) For Gasoil/Light Fuel Oil, 1,380 ft.×8 in. hoses used to connect ship and shore.

(d) For Bitumen, 1260 ft.×8 in.

Sapangar Bay Oil Terminal: *Location:* 06° 05′ 10″ N., 116° 07′ 19″ E.

Pilotage: Pilotage at Sapangar Bay Oil Terminal is optional. Vessel's Master is advised to contact the Marine Department at Kota Kinabalu with any enquiries. Pilot boarding and anchorage position is at the Petroleum Anchorage at Lat. 06° 01′ 00″ N., Long. 116° 05′ 15″ E.

Navigational Aids: 5 channel markers with flashing lights are provided at Sapangar Bay. Three of the markers have red flashing lights and two have green flashing lights. The location of all the markers are as follows:

Marker No.	*Location*		*Light*
1	6° 4′ 39.5″ N.	116° 6′ 6″ E.	Red
2	6° 5′ 15″ N.	116° 6′ 46″ E.	Red
3	6° 5′ 30″ N.	116° 7′ 19″ E.	Red
4	6° 5′ 19″ N.	116° 7′ 34″ E.	Green
5	6° 4′ 39″ N.	116° 7′ 5.5″ E.	Green

Jetty Head: The jetty head/main berth is located at Lat. 06° 05′ 10″ N. and Long. 116° 7′ 19″ E.

Restrictions: Berthing and unberthing possible daily between 0600 hrs. and 1800 hrs.

Max. Size: 30,000 d.w.t. Max. draft 36 ft. Max. LOA 815 ft.

Radio/VHF: Radio/VHF facilities not available, terminal uses Kota Kinabalu Marine Tower facilities only.

Tugs: Tugs not available. Shipping Agents are required to contact Marine Department or private company.

Berthing: Length of jetty head 82.32 m. Depth alongside 12.2 m. Tidal rise 2.3 m.

Pipe-lines: There are a total of 8 common users' pipe-lines and 1 single user pipe-line between the jetty head and the individual user's boundaries.

Discharge pipe-line – common users	*Max. discharge rate*
10 in. dia. Gasolene (Premium and Regular)	500 t.p.h. at 150 p.s.i.g.
10 in. dia. Diesel (DE 1)	500 t.p.h. at 150 p.s.i.g.
10 in. dia. Jet A-1 (DPKE)	500 t.p.h. at 150 p.s.i.g.
10 in. dia. Domestic Kerosene (DKE)	500 t.p.h. at 150 p.s.i.g.
10 in. dia. Light Fuel Oil (LFO)	500 t.p.h. at 150 p.s.i.g.
3 in. dia. LPG (V)	500 cu.m.p.h. at 150 p.s.i.g.
6 in. dia. LPG (L)	500 cu.m.p.h. at 150 p.s.i.g.
Discharge pipe-line – Single users	
10 in. dia. Bitumen (B)	500 t.p.h. at 150 p.s.i.g.
Bunkering pipe-line – Common users	
6 in. dia. Diesel (DE 2)	200 t.p.h. at 150 p.s.i.g.

Bitumen and bunkers handled through hoses and all other products by marine loading arms.

Security: The Authority provides its own security personnel.

Fire Fighting Facilities: 2 Tower Fire Monitors are available at the Jetty Head which are capable of delivery of sea water or foam at 1,350 u.s.g.p.m. each. The monitors are hydraulic powered and electrically controlled remotely at the foam making plant about 150 ft. behind the jetty head.

Medical: Medical facilities only available at Menggatal town about 11 km. from Sapangar Bay.

Fresh Water: Fresh water is available at the jetty head at a pumping rate of about 50 tonnes per hour.

Slop Facilities: Not available.

Authority: Sapangar Bay Oil Terminal, Pejabat Pengurus Terminal, P.O.Box No. A/150, Teluk Sapangar, 89357 Inanam. Tel: (088) 411069, 411079, 411090. Telex: Saport MA80074. Contact: Terminal Manager.

DENSITY: Average 1020.

FRESH WATER: Can be supplied from wharf. Supply rate is 20 tons per hose per hour.

FUEL: Not available.

GANGWAY/DECK WATCHMEN: Not necessary. Agents may exercise option.

OPENING/CLOSING HATCHES: Normally by stevedores.

CERTIFICATES: Registry, Load Line, Radio, Safety Equipment and Derat Exemption.

CUSTOMS ALLOWANCES: Tobacco, wine and/or spirits: No control, up to discretion of Officer of Customs and Excise.

CARGO GEAR: Ship's gear used, also for containers ex-feeder ships and heavy lifts in major ports.

IDENTIFICATION CARDS: Not required.

CONSULS: Denmark, Indonesia, Japan and United Kingdom.

REPAIRS: Some private firms and workshops undertake small engine and deck repairs in Kota Kinabalu.

DRY DOCKS: See "Labuan" and "Sandakan".

REPATRIATION: Normally arranged by Agents.

AIRPORT: Some airports in State are between 4 km. to 10 km. from town centre.

TIME: Local time is 8 hours ahead of GMT. No alteration to clocks.

HOLIDAYS: Cargo work can be arranged if necessary during official holidays but not for Hari Raya Puasa, Chinese New Year and Christmas Day. Also see "Sandakan".

POLICE/AMBULANCE/FIRE: Police/Fire, Tel: 088-54111. Hospital, Tel: 088-54911.

SERVICES: Tank cleaning services can be arranged with Agents. Marine Department deals with compass adjustments.

DELAYS: Due to weather conditions only.

TELEPHONES: Available.

SHORE LEAVE: Crew members allowed ashore after inspection by Immigration Officer.

REGULATIONS: *(a)* Arrival and Departure:

1. The Owner or Agent of every vessel other than a small ship intending to call at a port shall, as soon as possible, and in any case not later than 36 hours prior to the estimated time of arrival of the vessel, give notice in writing to the Authority of such arrival and, if so desired, the requirement for a berth at a wharf.

2. The notice under this regulation shall be in a form prescribed by the Authority and shall contain full particulars regarding the cargo to be discharged and loaded, the embarkation and disembarkation of passengers, heavy lifts, special or perishable cargo, hazardous and dangerous goods (whether to be discharged at the port or not), and any other matters of importance relating to the working or safety of the vessel in the port.

3. The Master of every vessel entering or leaving a port between sunrise and sunset shall cause to be hoisted the national colours and the signal letters, if any, of the vessel. The national colours shall be exhibited from 0800 hrs. to sunset whilst the vessel remains in port.

4. The Master of every vessel arriving from outside the State of Sabah shall exhibit the Immigration and Quarantine signals contained in the First Schedule and shall also at the request of a Customs officer hoist the Customs signals. Such signals shall remain exhibited until the appropriate officer has given permission for them to be lowered.

5. No vessel shall approach within 600 ft. of any other vessel exhibiting the Immigration, Health or Customs signals.

6. No person other than a Pilot may board or disembark from any vessel until the vessel is cleared inwards and the Immigration, Quarantine and Customs signals have been lowered.

7. Every vessel entering a port shall be anchored or efficiently secured to a wharf or buoy before commencing the loading or discharging of cargo and/or the embarkation or disembarkation of passengers.

8. No vessel shall leave any port unless in possession of a valid Port Clearance issued by or on behalf of the Director of Marine.

(b) Special signals.

Significance	*By Day*	*By Night*
Immigration (for ships not carrying passengers)	International Code Signal "2 5"	Two green lights, 6 ft. apart, hoisted vertically where best seen.
Immigration (for ships carrying passengers)	International Code Signal "3 4"	Two green lights, 6 ft. apart, hoisted vertically where best seen.
Quarantine (vessel is Healthy request Pratique)	International Code Signal "Q"	Nil
Quarantine (vessel is suspect)	International Code Signal "Q Q"	A red light over a white light and a separate hoist of red light over a green light and hoisted vertically 6 ft. apart where best seen.
Quarantine (vessel is infected)	International Code Signal "Q L"	
Quarantine (not received Pratique)	Nil	A red light over a white light 6 ft. apart hoisted vertically where best seen.
Request Police Assistance	International Code Signal "S T"	A green over a white light, 6 ft. apart hoisted vertically where best seen.
Request Medical Assistance	International Code Signal "W"	A red light over a green light, 6 ft. apart, hoisted vertically where best seen.

(c) Priority. First come first served.

GENERAL: Ship Chandlers: All kinds of stores and provisions available.

Recreation facilities. Two cinemas in town which show English films frequently. Three tennis courts available and football matches may be arranged. Sports Club is next to town Padang, about half a mile from wharf and golf and yacht clubs situated on beach at Tanjong Aru, 4 miles from town.

Surveyor: Harrisons & Crosfield (S) Ltd. are Lloyd's Sub-Agents and can arrange a surveyor provided prior warning is given.

Fumigation: No facilities.

AUTHORITY: Sabah Ports Authority, Head Office, P.O.Box 1430, SPA Headquarters Building, Kota Kinabalu, Sabah, Malaysia. *Tel:* Kota Kinabalu 56155, 55233, 52140. *Telex:* Saport MA 80074. *Contact:* General Manager.

Office of Port Manager, Wisma Pelabuhan, Jalan Tun Fuad, Tanjung Lipat, 88617 Kota Kinabalu. *Tel:* 088-211511. *Telex:* Saport MA 80074. *Contact:* Augustine Yapp, Acting Port Manager.

AGENT: Pesaka Jardine Shipping Agencies Sdn. Bhd., Unit 9.1, 9th Floor, Wisma Perkasa, Tanjung Lipat, Jalan Gaya, 88800 Kota Kinabalu, Tel: (088) 234245. Telex: MA81186 Jaship. Cables: "Jarship Kota Kinabalu".

Associated with Jardine Shipping Agencies.

KUANTAN: 03.58 N. 103.26 E. (See Plan)

LOCATION: Kuantan Old Port: 03° 50′ N., 103° 19′ E. Located at Kuantan River. Kuantan New Port: 03° 58′ N., 103° 26.4 E. Located at Tanjung Gelang.

PORT LIMITS: The seaward limits of Port of Kuantan are contained between Lat. 4° 03′ N. and Lat. 3° 45′ N. and Long. 103° 34′ E.

DOCUMENTS: Following documents should be kept ready for submission:

Document	*Number of Copies* *Port*	*Customs*	*Immigration*	*SD Police*	*Harbour Master*	*Port Health*
Declaration of Health	–	–	–	–	–	1
Crew List	1	1	3	1	1	1
Passenger List	1	1	1	1	1	1
Vaccination Certificates	–	–	–	–	–	Orig.
Derat/Derat Exemption Certificates	–	–	–	–	Orig.	Orig.
Transit Order	–	–	–	–	–	Orig.
Crew Identification Documents	–	–	Orig.	R	–	–
Stowaway List	–	1	1	1	1	1
Bonded Stores/Personal Effects	–	1	–	–	–	–
Port Clearance	P.C.	Orig.	–	–	Orig.	–
Import Manifest	2	2	–	–	–	–
Transhipment Cargo Manifest	–	2	–	–	–	–
Arms/Ammo List	–	1	–	1	–	–
Drugs List	–	1	–	1	–	–
Certificate of Registry	–	–	–	–	Orig.	–
Safety Equipment Certificate	–	–	–	–	Orig.	–
Loadline Certificate	–	–	–	–	Orig.	–
Radio Safety Certificate	–	–	–	–	Orig.	–
Ship Construction Certificate	–	–	–	–	Orig.	–
Tonnage Certificate	–	–	–	–	Orig.	–
Ship's Articles	–	–	Orig.	–	Orig.	–

Note: Numerals indicate number of copies.
'Orig.' indicates original
'R' indicates on request
'P.C.' indicates photocopy

Identification documents should be arranged in the same sequence as Crew List.

PILOTAGE: Pilotage is compulsory. Ships should advise their ETA at least 24 hours in advance by telegram or telex (MA 50234) marked for the attention of Marine Manager. ETA Pilot Boarding Station (Tanjung Gelang Lt. Ho 305°×3.9 miles) is to be reported to Port Control by VHF Channels 12 or 16 at least 2 hours in advance.

Pilot boats are painted international orange with white superstructure and the word "Pilot" written in black letters. Ships awaiting Pilot should display international code flag signals and sound or flash "G", if specifically requested by the port. Adequate anchorage is available. Pilot Boarding Station: Lat. 03° 55′ 33″ N., Long. 103° 29′ 30″ E.

Ships are expected to come up to the Pilot Boarding Station for the Pilot, provide a good lee for the pilot boat and rig the pilot ladder, manrope and light (at night) in accordance with IMO requirements (SOLAS 1977) and to be clear of all discharges and outlets and all outboard fittings which might foul the pilot boat.

During very bad sea conditions small vessels may be requested to follow the pilot boat and to pick up the Pilot inside the enclosed harbour.

Arriving/Departing vessels are required to produce Port Clearance to the Pilot for verification.

APPROACH CHANNEL: A straight 220 m. wide channel aligned on 311°(T) leads from Pilot Boarding Station to Harbour Entrance. Length of this channel is 4.8 km. The dredged length (6.5 cables) is marked by 3 pairs of light buoys. Leading lights mark the centre line of the channel with minimum depth of 12.6 m. During N.E. monsoons underkeel clearance (allowance) of 3.5 m. is required.

The following navigational aids are available within the port approaches:

Designation	*Lat. (N.)*	*Long. (E.)*	*Light Characteristics*
Channel Buoys:			
No. 1	3° 57′ 02″	103° 27′ 57″	Fl. G. 5 secs.
No. 2	3° 56′ 52″	103° 27′ 50″	Fl. R. 5 secs.
No. 3	3° 57′ 26″	103° 27′ 29″	Gp.Fl. (2) G.10 secs.
No. 6	3° 57′ 03″	103° 27′ 36″	Gp.Fl. (2) R.10 secs.
North Breakwater Lt.	3° 58′ 11″	103° 26′ 37″	Gp.Fl. (4) G.Ev 12 secs.
South Breakwater Lt.	3° 58′ 05″	103° 26′ 25″	Gp.Fl. (4) R.Ev 12 secs.
Front Transit Lt.	3° 58′ 56″	103° 25′ 59″	Fl. Amber 4 secs.
Rear Transit Lt.	3° 58′ 57″	103° 25′ 36″	Fl. Amber 4 secs.
Tg. Gelang Lt. Ho.	3° 57′ 49″	103° 26′ 19″	Gp.Fl. (3)W. 10 secs.

Tidal streams: – During HW, direction is Southward and during LW, direction is Northward. Tidal range is 3.5 m. at springs.

ANCHORAGES: Reserved anchorages are available for ships carrying general cargo, explosives and petroleum products, suspect or unhealthy ships and men-of-war (B.A. Chart No. 1379). Pilotage is compulsory except for men-of-war. Drafts of up to 11.5 m. can be accommodated safely.

RESTRICTIONS: The port is open 24 hours but is subject to occasional restrictions due to weather or other similar constraints. Passage of ships drawing more than 11 m. is subject to tide.

MAX. SIZE: Max. LOA permissible 228 m.

Berth	*Restriction* *LOA* (m.)	*Draft* (m.)	*Displacement* (tons)
Nos. 1 to 4	200	11.2	45,500
Palm Oil Berth (Outer)	180	11.5	54,400
Palm Oil Berth (Inner)	125	8.0	8,000
Mineral Oil Berth	125	8.0	8,000
Ro-Ro ramp (Berth No.4)	150	6.5	Liveload 360 tons

HEALTH: Healthy vessels are brought to berth. Suspect or infected vessels are taken to Quarantine Anchorage to await clearance from Port Health Authorities. Automatic health clearance is not granted.

RADIO: All communication must be routed through Penang Radio, which provides telegram, telex and telephone facilities.

VHF: 24 hour watch is maintained on VHF Channel 12 and 16 by the Port Control, additional operational channel is Channel 20.

At least 2 hours before arrival at pilot station, following particulars are to be conveyed by VHF: Name, official number, nationality, g.r.t., n.r.t., LOA, Summer d.w.t., deepest arrival draft and arrival displacement, quantity and commodity of cargo onboard and dangerous cargo, if any. Last port of call, last port clearance number and date, ETA pilot station and special berthing requirements, if any.

Ships sailing are required to confirm their readiness by displaying "Pilot Required" signals and VHF report to Port Control at least 2 hours in advance.

Tugs and pilot boats work on Channel 12 but can switch over to other channels if required.

TUGS: The port operates 2 tugs of 2,800 b.h.p. Ropes are used from the ship or the tug as demanded by situation. Tug operations on VHF Channel 20.

BERTHING: Total quay wall length is 725 m. divided into 4 berths numbered from seaward. Berth Nos. 1, 2 and 3 handle general cargoes of all types and are provided with transit sheds and apron width of 25 m. Berth No. 4 handles container and Ro-Ro cargoes.

Cranes are not provided at the berths. See "Equipment".

Quay bollards live load: 75 tons per bollard.

EQUIPMENT: The port has adequate numbers of forklifts, tractor heads, trailers for handling general cargo and a limited number of containers. 5 mobile cranes, 1×90 tons, 1×20 tons and 3×5 tons are available.

BULK CARGO FACILITIES: Bulk cargoes can be handled for direct delivery at any of the berths and conveyor system is likely to be provided in future.

SPECIALISED CARGO HANDLING FACILITIES: Berth No. 4 (length 225 m.) is designed for container handling and other cargoes requiring open storage with priority berthing for container carriers. A container handling crane is proposed in future. Ro-Ro ramp (stern ramp) is fitted at the end of No. 4 berth.

Ro-Ro cargoes can also be handled by vessels fitted with side ramps.

TANKERS: Palm Oil Berth (POB) and Mineral Oil Berth (MOB) handle bulk edible oils (250-300 t.p.h.) and petroleum products (200 t.p.h.) respectively. Loading hose diameters are 10 in. for crude palm oil, 8 in. for refined palm oil and 6 in. for petroleum products.

DENSITY: 1025.

FRESH WATER: Available at all berths at a rate of 25 t.p.h. Water barge supply not available.

FUEL: Vessels up to 125 m. length can bunker at Mineral Oil Berth only, for diesel. Diesel can also be supplied through road tankers at all general cargo berths. Bunkering facilities for Heavy Fuel Oil are not available to date.

HATCHES: Mechanical hatch covers must be operated by ship's crew. Stevedores handle 'lift and place' type covers including beams, if any.

CUSTOMS ALLOWANCES: Cigarettes, tobacco, wine and liquor allowed by Customs per day as follows:

i) Spirits/Liquor – 0.125 qt. per person per day or;
Wine – 1 qt. per person per day or;
Beer/Stout – 1 qt. per person per day.
ii) 25 cigarettes per person per day or;
8 cigars per person per day or;
1 oz. tobacco per person per day or;
1 oz. snuff per person per day.

CARGO GEAR: Normal cargo handling gear is provided by stevedores but ships have to provide heavy lift and special cargo gear.

REPATRIATION: Facilities are available.

AIRPORT: Airport handling domestic flights is 41 km. (25 miles) from the port and international connections are available at Subang Airport, Kuala Lumpur and Singapore. It is also possible to drive to Subang Airport (5 hours) and Singapore Airport (7 hours). Taxis and buses operate at frequent intervals.

TIME: GMT plus 8 hours.

HOLIDAYS: Port is closed for Chinese New Year, Aid il Fitri, National Day (31st August), Deepavali and Christmas Day (25th December) – total 5 days. Overtime is payable for work on Sundays and public holidays. Vessels are handled during "Port Closed Days" on request.

POLICE/AMBULANCE/FIRE: Fire and ambulance assistance is provided by the Port Fire Department, telephone 433200 ext. 333, or 433282. Nearest Police Station is at Beserah, telephone number 587222.

TELEPHONES: Public telephone available in Port Area. International telephone calls possible at Telecom Office, Kuantan Town (25 km.).

SHORE LEAVE: Ship's crew are permitted to land and are required to carry their passports.

REGULATIONS: No special regulations.

DELAYS: Average time from pilot station to berth is 1.5 hours. Minimal delay may be experienced in commencement of cargo loading due to Customs and Immigration formalities, normally 30 minutes.

STORING: Ships' stores can be taken over the wharf. Lorries can go alongside except at dolphin berths where they have to park about 100 m. away. Forklifts are available. Shore gangs may be used with prior arrangement.

BANKS: Bank Bumiputra Sdn. Bhd. operates a branch in Kuantan Port providing full banking facilities.

SURVEYORS: Caleb Brett maintain an office in Kuantan. Other surveyors may be contacted in Kuala Lumpur, Port Kelang or Singapore.

GENERAL: *Signals:*

Significance	*By Day*	*By Night*
1. Immigration and Customs (for ships not carrying passengers)	International Code Signal "25"	Two all-round green lights, in vertical line, 2 m. apart seen all round the horizon at a distance of at least 3 km.
2. Immigration and Customs (for ships carrying passengers)	International Code Signal "34"	Two all-round green lights, in vertical line, 2 m. apart seen all round the horizon at a distance of at least 3 km.

Significance	*By Day*	*By Night*
3. Quarantine (vessel is healthy requests Pratique)	International Code Signal "Q"	Two all-round lights in a vertical line 2 m. apart, the top of which is red and the bottom white, seen all round the horizon at a distance of 3 km.
4. Quarantine (vessel requires health clearance)	International Code Signal "QQ"	Two all-round lights in a vertical line 2 m. apart, the top of which is red and the bottom white, seen all round the horizon at a distance of 3 km.
5. Quarantine (vessel is infected)	International Code Signal "QL"	Two all-round lights in a vertical line 2 m. apart, the top of which is red and the bottom white, seen all round the horizon at a distance of 3 km.
6. Request Police Assistance	CB 3	Two all-round lights in a vertical line 2 m. apart, the top light being red, and the lower light white, seen all round the horizon at a distance of at least 3 km.
7. Port is closed and vessel not allowed to enter the breakwater mouth	Answering Pennant	Two all-round lights in a vertical line 2 m. apart, the top of which is green and the bottom red, seen all round the horizon at a distance of 5 km.

Supplies: Small quantities of provisions are available in Kuantan Town. General stores can be arranged through Ship Chandlers/Agents. Bonded Stores are not available.

DEVELOPMENTS: Construction of 4 additional berths under Phase II development is expected to commence in 1990/1992.

AUTHORITY: Kuantan Port Authority, P.O. Box 161, 25720 Kuantan, Pahang, Malaysia. *Tel:* (09) 433200 (10 lines). *Telex:* Plara Ma 50234. *Contact:* General Manager: Haji Fadzil bin Mohd Yusof, Traffic Manager: Haji Mohamed bin Awang Tera. Harbour Master: Captain Ibrahim Lambay.

AGENT: Pesaka Jardine Shipping Agencies East Coast Sdn. Bhd., Lot 4, Tingkat 3, Bangunan Perdagangan, Lembaga Pelabuhan Kuantan, 25720 Kuantan. Tel: (09) 433509. Telex: MA50363. Cables: "Jarship Kuantan".

Associated with Jardine Shipping Agencies.

KUCHING, Sarawak: 01.34 N. 110.21 E. **(See Plan)**

DOCUMENTS:

Port Clearance to be surrendered to Customs when boarding.

Crew Lists and Passenger Lists, 2 copies for Immigration Department, 2 copies for Kuching Port Authority, 3 copies for Customs, 1 copy for Port Health Officer.

List of Ship's Stores (2 copies for Customs).

List of Ammunition (3 copies for Customs).

Health Documents (Vaccination Certificates and Cholera Inoculation Certificates to be examined by Health Inspector).

Manifests (3 sets for Customs, 5 sets for Kuching Port Authority, 1 set for Health Inspector).

Ship Stowage Plan (2 copies for port).

Customs: Permit to go alongside a legal landing place or an ocean-going vessel within the port limits is required by Customs 24 hours prior to berthing.

PILOTAGE: Pilotage services are provided by the Marine Department. Application for pilots could be made by giving at least 24 hours' notice of arrival by telegram to "Shipping Kuching" or telex to MA 70933. Vessels are requested to report to Marine Signal Station/Biawak Signal Station on Channel 20 at least 2 hours before arrival and listen on the above channel for information on pilotage and berthing information.

The pilot station is at one mile North East of Tanjong Po Lighthouse at Latitude 1° 44.2′ N., Longitude 110° 31.8′ E. During the North East Monsoon (October to March) the station is moved to the Embang and Senari Leads 1° 39.3′ N., 110° 31.3′ E (Admiralty Chart 1822).

APPROACHES: The Channel from the pilot station to the Wharf is buoyed and is restricted by the presence of two bars. The outer bar, hard sand bottom, lies about 2 miles East South East of Tg. Po, has a depth of 5.2 m. above Chart Datum and the inner bar which lies approximately one nautical mile East by South of Tg. Muara Tebas, has a depth of 5.1 m. above Chart Datum.

Recent survey indicates that shoaling has occurred in certain parts of the river. Vessels drawing more than 5.0 m. (especially during the N.E. Monsoon, October to March) on account of the swell, are advised to ensure an under-keel clearance of at least 2.0 m. when approaching and crossing the bars.

ANCHORAGES: The existing Explosives Examination Anchorage is shifted temporarily to the bay opposite Tanjong Renard owing to the wreck at Kampong Sijingkat and is bounded by the following co-ordinates:

(i) 1° 36.60′ N. 110° 27.54′ E.
(ii) 1° 36.60′ N. 110° 27.35′ E.
(iii) 1° 35.70′ N. 110° 27.75′ E.
(iv) 1° 35.26′ N. 110° 27.62′ E.
(v) 1° 35.05′ N. 110° 27.62′ E.

Vessels loading logs under pilotage may anchor at the prohibited anchorage which is bounded by the following co-ordinates:

(i) 1° 35.10′ N. 110° 27.22′ E.
(ii) 1° 35.10′ N. 110° 26.55′ E.
(iii) 1° 35.35′ N. 110° 26.55′ E.
(iv) Along the coast of Batu Blat to the explosive and dangerous goods anchorage at Lat. 1° 34.69′ N., 110° 24.63′ E.
(v) Across the River to Tanjong Bako at 1° 34.55′ N., 110° 24.86′ E.
(vi) Along the coast to Tanjong Bako, Tanjong Buaya, Tanjong Sedup and the White Disc Beacon at 1° 34.86′ N., 110° 27.22′ E.

Vessels drawing less than 4.0 m. draft may anchor at Beting Tanju which is bounded by the following co-ordinates:

(i) 1° 35.55′ N. 110° 27.46′ E.
(ii) 1° 35.10′ N. 110° 27.22′ E.
(iii) 1° 35.10′ N. 110° 26.55′ E.
(iv) 1° 35.35′ N. 110° 26.55′ E.

The Explosive and Dangerous Goods Anchorage is 16 miles from the pilot station and is suitable for one vessel of not more than 100 m. in length.

RESTRICTIONS: Tide restriction and max. draft 5.18 m. at high tide. Not advisable to enter port at Tanah Puteh at night.

MAX. SIZE: Max. permissible length overall for vessel entering port at Tanah Puteh is 100 m. and max. draft 5.18 m. Max. overall length for oil carriers proceeding to oil installation at Baiwak Wharf, Pending Point is 110 m., and max. draft 6.4 m. At Pelabuhan Datuk Sim Kheng Hong (Pending), the LOA of ship permissible is 150 m. with a max. draft of 7.62 m.

RADIO: ETA cable to ship's Agent can be sent to Department of Telecommunications, Kuching. Code words, Kuching Radio.

VHF: All ships equipped with the Hague Plan Radio Equipment and within 40 km. to 50 km. of the Kuching Port will be able to establish communications on the following channels:

Channel No. 16 – Safety, calling and distress: A 24 hour listening watch is maintained on this channel by the Syarikat Telekom Malaysia in Kuching. (Call sign: Kuching Exchange).

Channels No. 24 and 26 – Public Correspondence: All ships after having established initial contact with the Syarikat Telekom Malaysia on Channel 16 can communicate with telephone subscribers on this channel.

Channel No. 20 – Port Operations: A 24 hour listening watch is maintained on this channel by the Marine Department, Kuching. (Call sign: Marine Signal). For pilotage, river traffic control and berthing information.

Channel No. 18 – Port Operations: A 24 hour listening watch is maintained on this channel by the Kuching Port Authority (Call sign: Kuching Port Control). For berthing and unberthing, loading and unloading of cargoes.

TUGS: 2 × 1,000 h.p. and 1 × 164 h.p. 3 mooring boats available.

BERTHING: Application for berth must be made by Agents at least 24 hours before berthing.

Tanah Puteh Terminal 244 m. wharf of the deck on piles with shore-bridge type with 13,600 sq.m. of covered storage space and 14,864 sq.m. of open storage space, depth at lowest water 5.18 m.; at *Pending Terminal* 613 m. marginal wharves, depth at lowest water 8.53 m. with 26,800 sq.m. covered storage space and 26,743 sq.m. of open storage. Feeder Container Services are available but ship must provide lift-on/lift-off gear for ship/shore and vice versa operations. Ro/Ro ramp, pontoon (40 m.×25 m.) and berth located at Eastern end of Pending Terminal.

Shore based container handling equipment: 1×42 tonne front loader with telescopic spreader. 2×35 tonne front loaders with 20 ft. and 40 ft. spreaders. 4 prime movers. 6×20 ft. trailers. 6×40 ft. semi-trailers.

STEVEDORES: Normal port operating hours are as follows:

(a) Discharging and loading of cargoes, First shift, weekdays including Saturdays and Sundays 0730 – 1200 hrs.; 1300 – 1530 hrs.; Second Shift, 1530 – 1700 hrs., 1730 – 2300 hrs., Fridays, First Shift, 0730 – 1130 hrs.; 1430 – 1530 hrs.

(b) Delivery of Cargoes/Receiving of export cargoes, Monday to Thursday 0730 – 1200 hrs., 1300 – 1645 hrs., Fridays 0730 – 1130 hrs. – 1430 – 1645 hrs. Saturdays 0730 – 1145 hrs.

Arrangements can be made for delivery of perishable cargo during the weekends and public holidays provided prior approval of the Customs Department is obtained.

Tractor/trailer trains are used for transfer of cargoes within the port area while forklift trucks are used for stacking palletised/unitised cargoes and storage pallets.

Cargo handlers who are stevedores as well as longshoremen working under a fully integrated gang system are employees of the Authority. The Authority receives gang orders daily between 1400 and 1500 hours on normal working days and between 1000 and 1030 hours on the days preceding Sundays and public holidays. Gang orders are placed on a shift basis.

CRANES: *Cargo Handling Equipment:* 21 units towing tractors; 58 units forklift trucks (4,000 – 18,000 lbs.); 31 units trailers (3 – 20 tons); 2 units 35 ton mobile cranes.

MEDICAL: Necessary for Agents to receive advance notice of required medical attention at least 24 hours before arrival. Hospital facilities available. Crew should possess Cholera inoculation and Vaccination Certificates.

TANKERS: Tankers berth at Biawak Oil Jetty for discharge of their oil. Diameter of pipe-line 6 in. Two tankers can berth at a time and max. draft is 6.4 m.

Berthing carried out near to the time of High Water. Starboard side alongside using port anchor. No berthing during darkness. Unberthing on flood tide. Mooring boat required, supplied by Kuching Port Authority.

Shorelines:

Mogas and Avgas	Single 8 in. discharging line.
Gasoil	Single 8 in. discharging line.
Jet A1	Single 8 in. discharging line.
Bitumen 80/100	Single 8 in. discharging line.
LPG	Single 4 in. discharging line, 3 in. vapour line.
Light F.O.	Single 6 in. discharging line.

DENSITY: 1008.

FRESH WATER: Available and can be supplied to vessel alongside Authority's Wharf by hose about 25 t.p.h.

FUEL: High-speed diesel fuel oil can be supplied to vessel by making arrangement with either Shell or Esso Oil Installation at Biawak.

GANGWAY/DECK WATCHMEN: Usually available. Ship should also provide own watchmen.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CERTIFICATES: Ship's should possess all relevant certificates on board in case required for reference.

CUSTOMS ALLOWANCES: Tobacco: 1 oz. tobacco or 25 cigarettes or 8 cigars permitted for each crew member daily. Up to three days ration in port. Wines and/or Spirits, 0.125 qt. bottle of spirits or 0.25 qt. of beer or 1 qt. of wines is permitted for each crew member daily. Up to 3 days' ration in port.

CARGO GEAR: Ship provides own gear especially for handling heavy lifts, vehicles, etc. Rope slings, pallets and safety nets, etc., will be provided by the Authority.

IDENTIFICATION CARDS: Required.

CONSULS: Indonesia.

REPAIRS: Minor repairs to vessels only.

DRY DOCKS: Not suitable for sea-going vessels. Coastal vessels up to 220 ft. long.

REPATRIATION: Facilities available.

AIRPORT: Airport about 10 km. from port at Tanah Puteh. It is served by MAS which operate daily flights to Kuala Lumpur, Singapore and Kota Kinabalu.

TIME: Local time GMT plus 7.5 hours.

HOLIDAYS: Port work can be arranged on all official holidays on overtime rates except Chinese New Year Day, Hari Raya Puasa Day, International Labour Day (1st May), Dayak Festival Day (1st June), and Christmas Day, during which the port at Tanah Puteh and Pending will be closed.

POLICE/AMBULANCE/FIRE: For emergency call, Tel: 999 is applicable to all these three services. Individual call: Central Police Station Tel: (082) 22181; General Hospital Tel: (082) 57555; Fire Station Tel: (082) 21033.

SHORE LEAVE: Crew members are allowed ashore provided permission is granted by Immigration Department.

REGULATIONS: Refer to Sarawak Merchant Shipping Ordinance and Kuching Port Authority's Ordinance and Bye-laws.

DELAYS: At present ships can normally secure a berth within 24 hours of arrival if tide is right.

AUTHORITY: Kuching Port Authority, P.O.Box 530, 93710 Kuching, Sarawak, Malaysia. *Tel:* Headquarters and Pending Terminal – 082-482144 (10 lines). Tanah Puteh Terminal 082-333122 (5 lines). *Telex:* 70420 MA Kuport. *FAX:* 082-481696. *Cables:* Kuport, Kuching. *Contact:* The General Manager.

AGENT: Pesaka Jardine Shipping Agencies Sdn. Bhd., Lot 8235, Section 64, No. 7, 1st Floor, 2 1/2 Miles Jalan Pending, 93450 Kuching, Sarawak, East Malaysia. Tel: (082) 334268, 334287. Telex: MA70207 Jaship. Cables: "Jarship Kuching".

Associated with Jardine Shipping Agencies.

KUNAK, Sabah: 04.41 N. 118.15 E. (See Plan)

Sabah Government Requirements

(a) Customs will treat port as sufferance wharf as defined in Section 2 of Customs Ordinance (Cap. 33), with control from Lahad Datu. Agent will be required to make application to Customs for sufferance facilities in respect of each vessel, on appropriate form. Officer-in-Charge of Customs, Lahad Datu will arrange to send a supervising officer with ship; this officer will attend vessel's inward and outward Customs clearance. Transport, food and shelter of Customs Officer are for vessel's account, though it is envisaged that his transport can be concurrent with boarding and departure of the Pilot, i.e. per Marine Department launch.

(b) Immigration requires that vessel shall be cleared inwards and outwards in Lahad Datu. As Marine Department launch will be required to run mooring lines at Kunak, it will not be available to transport Immigration Officer who will *not* accompany vessel. His transport will therefore be a matter for Agent to arrange.

(c) Medical will grant Pratique by radio by Medical Officer, Lahad Datu: whose right to carry out full inspection is not affected thereby. This will only be exercised, it is anticipated, when vessel has called at an infected port within prescribed period. Radio messages should therefore give this information, e.g. "Malay Maru Hongkong Twentieth Tokyo Thirtieth Manila Second All Well Request Pratique Master".

(d) Marine Dept. In the case of a vessel arriving from foreign ports will ultimately place a Pilot on board in Lahad Datu, if requested.

(i) Pilot will receive vessel's arrival report and sight her last port clearance. Pilotage will commence at any such point on route as Master may request, at rates laid down in the Merchant Shipping (Fees) Regulations, 1961. The Pilot launch carrying berthing crew will arrive in advance of vessel at Kunak and assist in making fast.

(ii) As there is no accommodation available at Kunak, the Pilot it is hoped, can be accommodated on board ship during her stay.

(iii) Return to Lahad Datu will follow as in sub-para (i) with the Pilot issuing Port Clearance on completion of Immigration formalities.

(iv) Requests for Pilot should be made *at least* 24 hours in advance to Marine Sandakan via Sandakan Radio, 9WHZ1. Initially this service will be offered from Sandakan, and ships proceeding Kunak from there will retain the Pilot on board. Ships from foreign ports will be served by air; charges to their account. There is now a Pilot based at Tawau, who will berth vessels at Kunak.

For information the port limits of Lahad Datu are "a line drawn from Tanjong Melandong on the South-west point of Darvel Peninsula to the most Westerly point of Sakar Island and thence to the mainland, etc." From this it can be seen that large vessels need not enter the narrow waters of the inner bay.

BERTHING: 1. Wharf consists of:

(a) A raised cement platform 30 ft.×30 ft. on wooden piling.

(b) Three lazy piles with rubber fendering situated 20 ft. from the front edge of the platform and 125 ft. in each direction from the centre of the platform.

(c) Two cement mooring dolphins 20 ft.×20 ft. situated 350 ft. each side of the platform and 50 ft. from the rear edge of the platform.

(d) A metal jetty approach 10 ft. wide×350 ft. long.

(e) A coral bund 24 ft. wide at the base and approximately 16 ft. wide at the top.

(f) Mooring Buoy placed 600 ft. off head of jetty.

2. Depth of water alongside: Minimum depth of water outside the lazy piles is in excess of 35 ft. datum.

3. Bulk oil will be pumped from installation along a metal pipe via coral bund and metal jetty. At a point approximately 15 ft. before cement platform the pipe bifurcates and the two terminals are situated two-thirds the way along each side of platform. To these terminals will be attached a flexible steel hose for connection with ships. Hose will be provided by shippers, and is 400 ft. long if required.

4. Pumping capacity. Maximum overall rate of pumping palm oil will be 100 t.p.h. Palm oil pipe is of 6 in. diameter.

AUTHORITY: Francis Lee Fah Hin, Port Manager, Tawau.

LABUAN, Sabah: 05.17 N. 115.15 E. (See Plan)

Island of Labuan is 12 miles long and 7 miles wide lying off N.W. coast of Borneo at entrance at Brunei Bay. It is part of State of Sabah and is only 4.5 miles from mainland and some 77 miles from the State Capital of Kota Kinabalu.

DOCUMENTS:

(a) On arrival, when vessel has arrived from ports outside Sabah, Health Officer, Boarding Officer, Customs and Immigration or their representatives will board vessel. Agent cannot board until ship has been cleared.

(b) Health Officer will require Maritime Declaration of Health duly completed together with 1 copy of Passenger List and 1 copy of Crew List whenever vessel's last port of call has been outside State of Sabah.

(c) Boarding Officer will require 1 copy of Shipping Arrival Report, 1 copy of Passenger List and 1 copy of Crew List. He will also inspect various Certificates such as Load Line, Life Saving Equipment, etc.

(d) Following is summary of documents required:

	Customs	*Immigration*	*Boarding Officer*	*Agent*	*M.O.*
Passenger List	2	2	1	1	1
Crew List	2	2	1	1	1
Stores List	2	—	—	1	—
Maritime Declaration of Health	2	—	—	—	1

(e) To be supplied before Departure:

Manifests as necessary.

Master's copies of Bills of Lading.

Port Clearance.

Customs Clearance.

Certificate of *(a)* Buoys and Lights Dues and *(b)* Port and Harbour Dues.

PILOTAGE: Pilot available if adequate notice given but pilotage not compulsory. Vessels normally berth between 0600 hrs. and 1800 hrs., unberthing at any hour, day or night, provided that notice of such movements received between 0800 hrs. and 1600 hrs.

ANCHORAGES: Good anchorage for large vessels in a least depth of 5.75 fathoms South and S.E. of No. 6 Beacon.

Quarantine: Vessels arriving from an unhealthy port should proceed to Quarantine Anchorage for Pratique. This anchorage is bounded on North by a line drawn 090° from Harbour Shoal Beacon to Eastern Harbour Limit; South by a line drawn between S.W. point of Papan Island and Enoe Beacon; on West by Eastern Boundary Limit of Explosives Anchorage (as under). If vessels arriving from healthy port and healthy themselves, they need not proceed to Quarantine Anchorage.

Explosives: No vessels having explosives on board may come or remain within 500 yards of shore or of any other vessel; such vessels shall fly Gunpowder Flag at foremast, and should anchor in Explosives Anchorage which is within a line drawn from Enoe Beacon to Harbour Shoal Beacon thence in 090° for 6 cables thence in 180° direction until it joins line between S.W. point of Papan Island and Enoe Beacon.

Dangerous Petroleum: A vessel having dangerous petroleum on board shall anchor within a line drawn from Harbour Shoal Light Beacon in a 360° direction for 2,500 ft., thence in a 090° direction for 3,600 ft., thence in a 180° direction to join Northern Boundary Limit of Explosives Anchorage.

Prohibited Anchorage: No vessel shall anchor within 2,000 ft. from the light of Southernmost dolphin of Liberty Pier.

RESTRICTIONS: Tides. Subject to diurnal inequalities but usually one HW and one LW a day. Average HW is 6.5 ft. and LW 3 ft. above datum of soundings.

Clearance: Port is open from 0600 hrs to 1800 hrs. although vessels can be cleared later than 1800 hrs. on application provided they are sighted from Papan Lighthouse at 1800 hrs.

HEALTH: See "Regulations" and "Anchorages".

RADIO: Information required before ship's arrival. ETA Labuan, with as much prior notice as possible. Number of gangs required. Quantity of fresh water required. Whether Pilot required for berthing.

Labuan has no radio facilities and messages are received via Kota Kinabalu, Miri, Singapore, etc.

Port VHF Service operates on Channels 16 and 12, between 0530 and 2400 hrs.

Also see "Tankers" – Communications.

TUGS: One tug, 750 b.h.p., twin screw, available to assist with berthing and unberthing.

BERTHING: 1. Wharves:

(a) Liberty Wharf: A permanent concrete wharf, measuring 800 ft. with dolphins 100 ft. off each end – least depth of water is 28.5 ft.

(b) Victoria or Small Ships' Wharf (marked on Chart as H. & C.'s Wharf): A wooden structure – length 270 ft. with min. depth of 12 ft. No longer usable except by kumpits. No vehicles allowed on wharf.

(c) New Shell Installation Wharf: Concrete jetty 170 ft. long with 2 dolphins at each end with a total length between of 700 ft., least depth of water 31 ft.

Shore Lines:

1. For Mogas 8 in. × 1,200 ft.
2. For D.P. Kero 8 in. × 1,250 ft.
3. For Gasoil 8 in. × 1,350 ft.
4. For Fuel Oil 8 in. × 1,350 ft.

8 in. hoses used to connect ship and shore.

(d) Brown & Root Jetty: A timber decked jetty with following dimensions:

Length of main jetty – 160 ft., width 40 ft.
Length of causeway – 476 ft., width 22 ft.
Least depth alongside approximate 28 ft.
Max. load (proven) – 800 lb./sq.ft.
Max. single approximate 100 short tons.

2. Buoys: No mooring buoys in Labuan.

3. Monsoons: N.E. monsoon prevails from December to April and S.W. monsoon from middle of May to middle of October. Harbour is well sheltered from both monsoons.

4. Flags and Berthing Signals:

(a) When entering port vessel should fly Signal Letters, Mail Flag if applicable, and "G" flag if requiring Pilot, and also Quarantine Flag.

(b) Berthing Signals: Following berthing signals will be used at Labuan and will be displayed from Flagstaff in Harbour Office in vicinity of Liberty Wharf, Victoria Harbour. A red and white chequered flag and International Code numbered pendant will indicate berth number allocated. Berth numbers have been allocated as follows:

(c) Berth and Pendant No.

1. Esso Wharf.
2. LCT. Landing Ramp.
3. Victoria Wharf (small ships) S.E. Section.
4. Old Liberty Wharf (inner section).
5. Old Liberty Wharf (outer section).
6. New Liberty Wharf (inner section).
7. New Liberty Wharf (outer section).
8. Brown & Root Jetty.
9. Shell Installation Jetty.
10. Anchor.

On receipt of berthing signal, vessel should acknowledge in the usual manner with the answering pendant and proceed to berth.

(d) Tidal Signal: A tidal signal consisting of a cone and ball is hoisted in conjunction with berthing signal showing state of tide at berth indicated. A cone point down signifies flood tide (West-going), a cone point up ebb tide (East-going), a ball slack water.

(e) Facilities: Max. single load without special precautions on Old Liberty Wharf is 25 tons and New Liberty Wharf is 650 lbs./sq.ft. i.e. 180 tons four axle vehicles. Any load over this figure will require to be distributed over two or more panels of 10 ft. by 10 ft. each according to weight. However, special arrangements must be made prior to discharge, and Agent should be consulted in advance.

BULK HANDLING FACILITIES: Rancha Rancha Industrial Estate: One jetty for iron ore carriers up to 150,000 d.w.t. nearing completion. Unloading rate 2,000 t.p.h.

STEVEDORES: Supplied by contractors as arranged by Agent. Working hours 0800 – 1200 hrs., 1300 – 1700 hrs. Working outside these hours on Sundays and Public holidays is overtime.

CARGO: 1. Inward: Inward cargo is tallied out of ship on to wharf or into lighter. Damaged cargo is surveyed on the spot, otherwise no liability of the vessel is acknowledged. Discharge is carried out after permission has been obtained from Customs after manifest of inward cargo has been deposited. Cargo is delivered to consignees against production of relative Bill of Lading. Ship's responsibility to consignees ceases at ship's side but, in the case of shortlanded cargo, reasonable proof must be given to Customs that the cargo has not been landed. A shortlanded Memo certified by the Chief Officer is usually accepted as proof.

2. Transhipment: After discharge of cargo from the 1st carrier, transhipment cargo is placed under supervision of Customs, unless it is possible to arrange direct transhipment into small coastal vessel. Customs do not accept responsibility for cargo in Customs Bond.

3. Refrigerated: Only small quantities of refrigerator cargo loaded or discharged.

4. Explosives: Explosives must be discharged into lighters under police escort and transported to an approved police store. A licence for their importation must be obtained from the police prior to arrival of cargo, and harbour and police authorities must be informed of arrival of explosives in port either for discharge or as through cargo.

MEDICAL: Hospitals. Not possible for Government Medical Officer to visit ships but patients can be sent to Cottage Hospital. Four 1st class beds, 10 2nd class beds, 46 3rd class beds. Two private clinics, Dr. Chan Clinic and Dr. Wong Clinic, are located in town.

Dentist. A Government Dental Clinic, located in Cottage Hospital area. In addition, a dentist is available in town.

TANKERS: *Labuan Terminal (Shell):* The SBM is positioned at Lat. 5° 15′ 59″ N., Long. 115° 07′ 08″ E. designed for tankers with max. s.d.w.t. 320,000, but presently fitted for a max. B/CM of 520 ft.

The minimum water depth in the manoeuvring area is 84 ft. and the max. permissible draft 74 ft.

Pipe-lines and Cargo Hoses: A 48 in. submarine/land pipe-line connects the SBM with the storage tanks on shore. Beneath the SBM, the pipe-line terminates in a manifold (PLEM) for connecting the underwater hoses of the buoy. The PLEM is fitted with 2 non-return, non-slam "mockveld" valves to eliminate potential leakage and surge pressure being built up from shore to the SBM.

Two underwater hoses, each 120 ft. in length, connect the SBM to the PLEM with a lazy 'S' configuration. Each string consists of 4×30 ft. lengths of hose.

One 20 in. diameter floating hose string of 700 ft. length is connected to the turntable. The string terminates in 1×16 in. and 1×12 in. diameter rail hose for direct connection to the tanker's starboard manifold. The 12 in. hose is connected to the forward and the 16 in. hose to the aft manifold line. The last 3 units of the tail hoses are electrically discontinuous, in order that stray currents from the crude carriers are not carried on to the buoy. Max. B/CM 520 ft.

Information Required Prior to Arrival: Standard message to Masters of vessels calling at SBM. Please advise.

AAA	ETA and draft at Labuan SBM.
BBB	Customs and Health requirements.
CCC	Is vessel equipped with bow chain stopper, Smit brackets and a large central Panama Chock? (This information required from unknown vessels only.)
DDD	Are manifold connections per OCIMF specifications?
EEE	Rig starboard derrick to maximum SWL (minimum acceptable 7 tons).
FFF	Have 16 in. and 1×12 in. manifold connections ready on starboard side.
GGG	Be advised that vessel must maintain full readiness to manoeuvre during stay at SBM.

Berthing Instructions: After ETA advice one of the following messages will be transmitted to the Master.

AAA	Based on your ETA . . . . present intention is to berth you on arrival.
BBB	Pilot will board at the boarding area 2 miles W.S.W. of SBM in the following position: Latitude: 05° 15′ 00″ N. Longitude: 115° 04′ 00″ E.
CCC	Confirm ETA at least 48 hours in advance. When within range you are required to confirm your ETA 3 hours prior to arrival to Labuan Terminal on VHF Channel 16 with Channel 14 as a working channel.
DDD	Please keep us advised of any changes in your ETA. Onus of ETA confirmation rests with vessel.
EEE	After having established radio contact on VHF you will receive further instructions.

Mooring Operation: Vessels are programmed for day and night berthing. Use of the ship's anchors is strictly prohibited except in extreme emergency. The anchors must never be released or brought anywhere near the entire length of the submarine pipe-line nor closer than 350 m. radius from the SBM. Both anchors should be secured prior to berthing operations.

Floating Mooring Rope Assembly: The buoy to tanker mooring comprises 2×12 in. circumference×150 ft. nylon double braided ropes. At the buoy end, the hawsers are joined to the pad eyes of the Rotation Mooring Arm with heavy duty shackles. Each hawser of the dual floating mooring hawser is fitted with a 3 in. diameter chafing chain.

The pick-up assembly consists of:

(i) 10 in. circumference polypropylene messenger rope with spliced eyes on each side. Length 450 ft.
(ii) 10 in. circumference polypropylene pick-up rope with spliced eyes 2 ft. on each side. Length 45 ft.
(iii) Pick-up support buoy.

Mooring Craft: A mooring launch will be in attendance. The launch is used to send the messenger end of the mooring ropes to the vessel. On completion of mooring the launch picks up the hoses for connection and remains at the vessel until the completion of loading.

Pilotage: Pilotage is compulsory within port limits for the size of vessels calling at the SBM. The Pilot will board at the boarding area 2 miles W.S.W. of the SBM for both arriving vessels and the vessels which have be anchored there awaiting berth.

Mooring Procedure: Before the arrival of the tanker, the Berthing Master has to go to the SBM at least one hour early to check and make sure that the hoses and mooring ropes are not fouled. The mooring craft proceeds to the vessel to disembark the Berthing Master and offload the mooring gear.

During the approach the mooring boat tows the port mooring rope around the buoy so that it is out of the way when the starboard inner one is being worked on. The starboard inner rope is then run out to its full length.

When the end of the messenger is within range, the vessel's bow is approximately 115 m. from the SBM, i.e. 70 m. to go to the final secured position. The approach speed at this point should not exceed 0.5 knots.

As the vessel slowly closes in on the buoy the messenger pick-up rope and chafing chain are hove on board until the chafing chain is in position in the fairlead (marker buoy just outboard of the fairlead). The special shackle on the nylon snotter is then connected to the triangle plate or alternatively the chain is secured in the bow stopper and the inner mooring is then fast.

While the inner mooring rope is being tended to, the mooring boat clears the (port) outer mooring rope from the buoy. This rope is then hove on board and connected in the same way as the inner one.

The vessel should have 2 mooring ropes ready on the forecastle and mooring is carried out by ship's crew.

Cargo Loading Operations: Throughout the vessel's stay at the SBM, the Berthing Master will remain on board to co-ordinate ship/shore operations and one launch will remain at location as a safety precaution.

Connecting Hoses: Hose connection is carried out by ship's crew.

The hoses are lifted and connected one at a time. The forward or 'inner' hose is tended to first. The derrick runner is hooked into a enlarged link in the hose lifting chain and the hose end is then lifted out of the water until sufficient length is available for direct connection to the tanker's manifold. The weight of the hose in this position is transferred to the hose hang-off chain and the hose end is then lowered onto the deck. The blank flange is removed and the hose connected to the vessel's manifold. After connecting, the hoses are supported at the tanker's side by flat webbing slings hung from the derrick runner in order to maintain a reasonable radius of bend. They are also suitably lashed to the hose bar of the side rail to reduce movement caused by sea conditions. In seas exceeding 5 ft., the floating hose strings become lively and require attention. Excessive movement of the hoses will result in chafe and strain on the flanges in way of the manifold. This can be reduced to a minimum by a suitable suspension of the hoses from the derrick runner backed up by rope lashings at the side rails or hose bars. Such preventive measures depend largely on the construction and layout of the tanker in the manifold area, also on the distance of the manifold from the vessel's side.

Loading Procedure: Labuan Crude is loaded at Labuan Terminal. The quantities loaded are checked by the terminal at frequent intervals (3 hours) and vessels are requested to verify the shore figures.

The terminal is capable of giving maximum loading rates of up to 7,000 cu.m.p.hr. and a maximum back pressure of 120 p.s.i. at the terminal end. The Berthing Master also acts as Loading Master and as the Terminal's Representative he will attend to all cargo formalities (SSPC forms, safety checklist, etc.).

Prior to and during loading operations the following procedure will apply:

(a) A joint inspection is carried out by ship and Terminal Representative to ensure that all requirements on the Safety Check List have been complied with.
(b) The methods of communication between ship and shore are clearly established and understood. This includes procedures for normal and emergency stops of cargo loading operations. Test calls are made to ensure the system is operating satisfactorily.
(c) Ship and shore to confirm readiness to start cargo loading operations.
(d) Commencement of loading to be at a slow rate.
(e) Lines and hoses are checked and faults rectified. Launch to patrol around the vessel to check for oil leakages into the sea.
(f) When the ship confirms receipt of cargo, test the emergency trip. After the test is completed start pumping and gradually increase to agreed loading rate.
(g) Lines, hoses and the water around the vessels are again checked.
(h) Ship and shore figures are to be compared every 3 hours and discrepancies investigated.
(i) At least 15 minutes' notice should be given to the terminal before each stop or in regard to slowing down the loading rate for "topping off".

Ballast: Vessels must arrive with sufficient ballast for safe manoeuvring into the berth.

There are no facilities for the shore reception of ship's ballast. Vessels are accepted for loading on the express understanding that only clean ballast will be discharged into the sea.

Deballasting prior to the ship being fully secured to the buoy is only allowed after consultation with the Berthing Master.

Suspension of Loading Operations: If loading operations are suspended for an excessive period (e.g. leakage), hoses should be disconnected, blank flanged and made ready for lowering into the sea.

Disconnecting Hoses: The "after" or outer hose is disconnected first. It must be assured that all the bolts are fitted and properly tightened. The gasket must be in good condition and changed regularly. As soon as the hoses have been disconnected from the tanker's manifold, the blank flanges are fitted and the hose support buoy as well as the free end of the "hose hang-off chain" are shackled to the lug on the spool piece. Each hose is lowered over the side and towed clear from the tanker's side or temporarily secured to the SBM in a bight to prevent possible entanglement with the tanker's propeller.

Unmooring: Weight on the mooring ropes may be taken off by using ship's engines. The polypropylene pick-up ropes, which remain connected to the triangle plates of the chafing chains, are lead to the winch, and the weight is taken off the bow stopper or nylon snotter as the case may be. The bow stoppers are released or special shackles disconnected, and the moorings and pick-up ropes lowered from the bow into the water.

When both moorings have been let go, the tanker is given sternway until the bow is well clear of the hose strings. The mooring and hose connection equipment is then transferred to the mooring launch.

Communications: Vessels are required to advise SSPC/Respective Agents of their ETA's 72 hours and again 36 hours prior to arrival. Telexes or telegrams should be sent to MA74306 or Saroilco, Miri, respectively.

6 hours and again 3 hours prior to arrival, vessels are required to confirm their ETA to Labuan Terminal on VHF Channel 14.

Weather: All the SBM's concerned are positioned in the open sea. The weather in the region is basically good for tanker operations.

The seasonal weather patterns are broadly divided into three and the terminology used is consistent with that of S.E. Asia. These three types are:

(1) S.W. Monsoon (June-October)
(2) N.E. Monsoon (December-March)
(3) Transitions between the monsoons.

Persistent bad weather occurs during the N.E. monsoon. High swell conditions can persist for periods of 3 to 4 days and in extreme conditions for up to a week. During the S.W. monsoon winds are generally light to moderate, but during brief surges (generally lasting less than 36 hours) winds are occasionally strong, and local gale force squalls are experienced. The most favourable time for tanker operations is during the transition periods. Winds are lighter and variable. Seas in this period are rarely more than very slight. The only troublesome times of the periods are the occasional severe squalls that originate from inland, which are associated with cumulonimbus clouds and thunderstorms.

The basic patterns of these squalls are vigorous thunderstorms inland, increasing as the storm approaches. Just before the onset of torrential rain, the wind backs rapidly towards the land and increases violently to the peak gust.

Immobilisation: Immobilisation of engines is not permitted at any time during the vessel's stay at the SBM.

Transmission of Ship's Radio: Use of the ship's radio transmitter is prohibited during the vessel's stay at the SBM.

FRESH WATER: Only available in small quantities (usually 30 tons maximum) and at restricted hours.

FUEL: Bulk furnace oil and high speed diesel usually available but 48 hours' notice of requirements must be given.

FIRE PRECAUTIONS: In case of fire, the Harbour Master, OCPD, and Agent should be telephoned immediately. A mobile gas turbine fire pump is available.

CONSULS: None.

REPAIRS: Marine Department operates engineering workshops at Labuan.

DRY DOCKS: Marine Department has 3 Slipways in Labuan which are capable of slipping vessels of 60 tons, 200 tons and 500 tons displacements.

A Government-owned shipyard/dry dock known as Sabah Building, Repairing and Engineering Sdn. Bhd. exists in Labuan to undertake full repairs services has been established for ocean-going vessels.

POLICE/AMBULANCE/FIRE: Medical Officer 224; Asst. Commissioner of Customs 201; OCPD 400; Police Station 297; Hospital 222.

REGULATIONS: *(a)* Arrival and departure.

1. The Owner or Agent of every vessel other than a small ship intending to call at a port shall, as soon as possible, and in any case not later than 36 hours prior to the estimated time of arrival of the vessel, give notice in writing to the Authority of such arrival and, if so desired, the requirement for a berth at a wharf.

2. The notice under this regulation shall be in a form prescribed by the Authority and shall contain full particulars regarding the cargo to be discharged and loaded, the embarkation and disembarkation of passengers, heavy lifts, special or perishable cargo, hazardous and dangerous goods (whether to be discharged at the port or not), and any other matters of importance relating to the working or safety of the vessel in the port.

3. The Master of every vessel entering or leaving a port between sunrise and sunset shall cause to be hoisted the national colours and the signal letters, if any, of the vessel. The national colours shall be exhibited from 0800 hrs. to sunset whilst the vessel remains in port.

4. The Master of every vessel arriving from outside the State of Sabah shall exhibit the Immigration and Quarantine signals contained in the First Schedule and shall also at the request of a Customs Officer hoist the Customs signals. Such signals shall remain exhibited until the appropriate officer has given permission for them to be lowered.

5. No vessel shall approach within 600 ft. of any other vessel exhibiting the Immigration, Health or Customs signals.

6. No person other than a Pilot may board or disembark from any vessel until the vessel is cleared inwards and the Immigration, Quarantine and Customs signals have been lowered.

7. Every vessel entering a port shall be anchored or efficiently secured to a wharf or buoy before commencing the loading or discharging of cargo and/or the embarkation or disembarkation of passengers.

8. No vessels shall leave any port unless in possession of a valid Port Clearance issued by or on behalf of the Director of Marine.

(b) Special signals.

Significance	*By Day*	*By Night*
Immigration (for ships not carrying passengers)	International Code Signal "2 5"	Two green lights, 6 ft. apart, hoisted vertically where best seen.
Immigration (for ships carrying passengers)	International Code Signal "3 4"	Two green lights, 6 ft. apart, hoisted vertically where best seen.
Quarantine (vessel is Healthy request Pratique)	International Code Signal "Q"	Nil
Quarantine (vessel is suspect)	International Code Signal "Q Q"	A red light over a white light and a separate hoist of red light over a green light and hoisted vertically 6 ft. apart where best seen.
Quarantine (vessel is infected)	International code Signal "Q L"	
Quarantine (not received Pratique)	Nil	A red light over a white light 6 ft. apart hoisted vertically where best seen.
Request Police Assistance	International Code Signal "S T"	A green over a white light, 6 ft. apart hoisted vertically where best seen.
Request Medical Assistance	International Code Signal "W"	A red light over a green light, 6 ft. apart, hoisted vertically where best seen.

GENERAL: *Surveyors:* Harrisons & Crosfield are Lloyd's Sub-Agents in Labuan and may appoint a surveyor as necessary.

Ship Chandlers: Fresh fruits, vegetables and fish available and price list can be obtained from ship chandler through Agent. Cold storage with limited supplies.

Recreation Facilities: If owners pay a monthly subscription to the Labuan Recreation Club, ship's crew are automatically members. Football and cricket, etc., can usually be arranged on application to Agent. Two cinemas in town which show American, English, Chinese, Malayan and Indian films.

Good beaches all round island, however, it is strongly recommended that bathers should remain in shallow water. It is not considered safe to bathe from the ship.

Victoria Hotel situated in town. All rooms air-conditioned and have private bathrooms or showers attached. Lodging house accommodation available in town for Chinese Crew members.

A newly constructed 12 storey Labuan Hotel is situated in the town. All rooms air-conditioned with bathroom attached.

A nine-hole golf course situated about 1 mile away from town.

DEVELOPMENTS: See "Bulk Handling Facilities".

AUTHORITY: Harbour Master.

AGENT: Pesaka Jardine Shipping Agencies Sdn. Bhd., Lot No. 17, 2nd Floor, Jalan Bunga Dahlia, WDT No. 81, 87009 Ft. Labuan. Tel: (087) 413568/9. Telex: MA85065. Cables: "Jarship Labuan". Fax: (087) 413480.

Associated with Jardine Shipping Agencies.

LIMBANG, Sarawak: 04.48 N. 115.05 E.

Limbang is the principal town of the Fifth Division and is situated 8 miles above the entrance of the Limbang River. There is an anchorage for ocean-going steamers 5 miles below the Limbang Bar Buoy with a least depth of 26 ft.

Depth on Bar. The least depth reported on the bar is about 2 ft. with a highest rise of 12 ft. The channel is marked by stakes with red/white and black/white top markers and a flashing light buoy Fl.1 sec. at the entrance.

Every vessel arriving in quarantine shall fly or show the appropriate International Quarantine Signal; and no person other than a Pilot, Port Officer, Port Health Officer, Immigration Officer or Officer of Customs shall board the vessel; and no person shall disembark therefrom until the vessel has been cleared by the Port Health Officer.

The Master of every vessel of over 15 tons about to depart from a port for any place outside Sarawak shall cause the "Blue Peter" (International Code Flag "P") to be hoisted, during daylight hours, for at least 12 hours before the vessel is due to sail, or if the vessel is in port for less than 12 hours, for the period of her stay in the port.

(1) The Master or the Agent of every vessel about to depart from a port shall, on demand by the Port Officer, produce for inspection the Port Clearance.

(2) The Port Clearance shall be in the form of an endorsement on the form of clearance prescribed under the Customs Ordinance or in such other form as may be approved by the Director.

A vessel arriving in, leaving from or shifting berth within a port shall hoist her signal letters, if any, whilst under way.

BANKS: Malayan Banking Berhad and Kongming Bank Bhd.

STORING: See "Prelims".

1. By truck.
2. —
3. Yes.
4. Yes.
5. —
6. Yes.

SURVEYORS: Cargo inspectors available. Local marine surveyor available.

AUTHORITY: Marine Department, Limbang, Sarawak, Malaysia. *Tel:* 21130 (office), 21167 (home). *Cables:* Shipping Limbang. *Contact:* Port Officer.

LUMUT, Malaya: 04.14 N. 100.38 E.

SHIPMASTER'S REPORT:

DOCUMENTS:

Customs:

4 Crew Lists.
2 Report of Arrival – Appendix "A".
1 Passenger List ("Nil" certificate required).
2 Dutiable Stores Statements.
5 Inward Manifests (prepared by Agent).
1 Personal Effects List.
1 List of Cargo in Transit.
1 Lists of Arms and Ammunition ("Nil" certificate required).
Last Port Clearance.
2 Copies Loading Manifests.
3 Outward Manifests (prepared by Agent).
1 List of Narcotics ("Nil" certificate required).

Immigration:

2 Crew Lists.
1 Passenger List.
All passports and seaman's books.

Boarding Office (Port Authority):

2 Reports of Arrival.
2 Crew Lists.
Register, Load Line, Derat Certificate.
Radio, Safety Equipment and Safety Construction Certificates.

Port Health:

2 Vaccination Lists (Cholera).
2 Health Forms.
Derat Certificate.
All International Health Certificates (Yellow Books).

Traffic Control Officer:

1 Crew List.
1 Passenger List.
1 Arms and Ammunition List. ("Nil" certificate required).
1 Narcotics List.

Clearance of vessel carried out on arrival at Lumut Anchorage or berth before loading or discharging is allowed. Usually Customs', Immigration, Traffic Control Officer, Health will come together on board and Free Pratique issued by Health Officer.

PILOTAGE: Pilot boarding position Lat: 4° 10′ 50″ N., Long. 100° 35′ E., which is 1 mile South of Pangkor Island S.E. Point light. Berthing and unberthing will only be carried out during daylight hours and at slack water or beginning of flood tide. Pilot comes from Penang for berthing and unberthing. Pilot leaves vessel at Hospital Rock on departure. Pilot launch painted blue with white superstructure and named "King Miller". Pilot rates: Launch fee M$400 in and out minimum M$750 – maximum M$2,800, depending on d.w.t. of vessel.

ANCHORAGE: Just inside harbour limits, 7 cables South of S.E. Point Light in about 12 fathoms. Bottom said to be sand and shells and reputed good holding ground.

MAX. SIZE: Max. length on grain berth 575 ft.

Max. draft into port 30 ft. 6 in. salt water on Spring tides. This is due to a bar at the entrance of Dindings River and a rather sharp turn around buoy of 125° to miss rocks marked by unlit buoy. (Lloyd Rocks B.A. Chart 792 vicinity of River Passage).

HEALTH: See "Documents".

RADIO: *ETAs:* Sent through Penang or Singapore Radio to Flourmill Lumut, Flourmill Kuala Lumpur and ship's Agents. 72, 24 and 12 hours notice required. Agents will keep Flourmill Lumut and Pilots informed. Authorities like 5 days notice of a vessel's impending visit. Telex: MA 44285 Miller.

VHF: There are VHF communications in the port with pilot boat on Channel 12.

TUGS: There are no tugs at Lumut – nearest Penang (small) and Singapore (large).

BERTHING: Port side to at Malayan Flour Mill Private Wharf in position Lat: 4° 16′ N., Long: 100° 39.5′ E., ship's head in. Depth of water at wharf is 32 ft. 6 in. A modern wharf supporting two movable discharging elevators. Conveyor belt runs under wharf.

South side of dock is used by coastal tankers and has 20 ft. of water. Dock is of concrete construction with heavy wood and steel girder fendering which is rubber mounted. End of wharf has a separately fendered concrete construction which is fitted with rubber shock absorber.

STEVEDORES: Mill employs own stevedores and work continues throughout 24 hours. No cargo work on Sundays and Public Holidays unless requested by either party when the overtime charges will be borne by the said party. Discharge rate is about 118 m.t.p.h. with 2 suckers (wheat). Reported to be about 100 m.t.p.h. with corn.

MEDICAL: Doctor in Lumut and Sitiawan (7 miles from Lumut). Local hospital usually has large queue, therefore better to attend private doctor. Private doctor may be called onboard if necessary.

DENSITY: Water is brackish both at anchorage and berth. About 1022 ozs/cu. ft. at berth.

FRESH WATER: Available at berth, arranged through Flour Mill at $7.00 per ton during working hours. 24 hours' notice required.

FUEL: By arrangement and brought to ship in road tankers. Cargo cannot be discharged while bunkering as the trucks are not able to pass under the grain discharger (Agent informs that one weeks' notice required for bunkers). Fuel and diesel supplies come from Mobil Oil Depot at Batu Undan about 1.5 miles from mill.

REPAIRS: Minor repairs only at mills workshop, firms can be called in from Kuala Lumpur or Singapore or Ipoh.

SURVEYORS: Trident Malaysia Sdn. Bnd. in Penang.

GANGWAY/DECK WATCHMAN: Private wharf and protected area - no shore watchman required on board - only ship's watchman for ropes and safety. Shore mill patrol is armed with shotgun.

REPATRIATION: Can be arranged but make sure travel documents, i.e. passports are valid and air tickets are ready.

AIRPORT: Nearest local airport is Ipoh and then fly or by road to Kuala Lumpur International Airport. Ipoh is about 1 hour's drive and Kuala Lumpur 4 hours drive.

TELEPHONE: On berth and in Flour Mill entrance hall during office hours only.

SHORE LEAVE: Local leave only, except with special permission and pass. Boats to be laid on by ship for crew shore leave to Lumut and this is about a 20 minute boat ride to shore. Charges – $25 per trip. A boat from the anchorage may be laid on. Boat service is run by Mr. Loo Chong Lin/Mr. Loo Yean Lai – Titi Panjang Road, Lumut – They can usually be found on waterfront by Customs office. Also to Sitiawan about 7 miles from Lumut. To Ipoh 52 miles by taxi $6.00 per person one way. Special Immigration pass is required and can be arranged through Agent.

BANKS: The Chartered Bank, Jalan Lumut, Sitiawan, Perak; Malayan Banking Berhad, Lumut, Perak; Bank Bumiputra Malaysia, Lumut, Perak. Money Changer at Malaysia Raya Restaurant.

EMERGENCY CO-ORDINATION CENTRE: Harbour Master, Penang or Port Kelang.

STORING: See "Prelims".

1. Yes, both.
2. Yes.
3. Yes.
4. Yes.
5. Prior approval must be obtained.
6. No.

GENERAL: The Flourmill is situated on the N.E. side of Lumut about 40 miles by road and 20 minutes by launch from Lumut town. There is a good canteen at the Flourmill which serves Chinese and Muslim foods, soft drinks and beer. Ship's personnel are allowed and welcome to use these facilities.

There are 3 reasonable hotels in Lumut, Dindings Hotel which has only 3 rooms air conditioned, The Rest House which is not air-conditioned and Lumut Country Resort, a 3 star hotel with 40 air-conditioned rooms. If possible book in advance especially on Saturdays, Sundays and Holidays.

At Pangkor Island there are good hotels; Sea View Hotel, Beach Hut Hotel, Pan-Pacific Resort with 100 air-conditioned rooms and Pangkor Laut Resort, both are of International Standard. At Teluk Batik 10 chalets available, about 5 miles from Lumut town.

Football matches can be arranged and Customs, Flourmill etc. are all very keen to play ships visiting the port. Hire of the football pitch which is in the centre of town and very good is only $5.

A soya bean mill has been completed and is in production and using the same wharf for discharge of their cargoes.

Customs: Allowances very small – 75 cigarettes per man for 3 days and one bottle of spirits for 8 men every 3 days. Customs office is on shore near to ferry berth. One and sometimes two, Customs men remain on vessel throughout and accommodation is to be provided for them.

Immigration: No immigration if from Malaysian ports but clearance required when from foreign.

Tide: Ebbs for 5.25 hours on berth. Tides times are based on Port Kelang – difference is minus 1 hr. 40 min. Rise and fall about 2 m. – see Admiralty Tide Tables and Admiralty N.P. 214, Malacca Strait and Southern Approaches to Malacca Strait. Atlas of Tides and Tidal Streams.

Provisions/Stores: Bonded items, beer and cigarettes and fresh provisions available but advisable to give 24 hours notice as some of the items come from outside Lumut. Fruit and vegetables are available in season from local supply and are reputed to be reasonably priced. Some fruit and vegetables imported and may be expensive. Chandlers can be arranged by Agent.

Laundry; Arranged by Chandler (see above), takes about three days as is done by hand.

Charts: BA 1009 Perak River & Approaches when approaching from South and BA 792 Dinding River & Approaches with inset covering flour mill wharf.

AUTHORITY: Malayan Flour Mills Berhad, Jalan David Sung, Batu Undan, Lumut, Perak, Malaysia. *Telex:* Miller MA 42285. *Cables:* Flourmill Lumut, Perak, Malaysia. *Contact:* Raja Toran Shahriman, Chief Administration Officer.

Port Office, Marine Department, 32200 Lumut, Perak. *Tel:* 05-935477. *Contact:* Mr. Mior Manaf, Deputy Port Officer.

MALACCA, Malaya: 02.15 N. 102.15 E.

DOCUMENTS:

1. *Malacca Port Authority*
   (a) Ship's arrival advice on prescribed form.
   (b) Ship's Manifests (2 copies).
   (c) Dangerous Goods Declaration.
   (d) Passenger List (if any).
2. *Harbour Master's Office*
   (a) "Report of Arrival of Vessel" on prescribed form obtainable from Harbour Master's Office on arrival.
   (b) One copy Passenger List, specifying names and nationalities and required to report any casualties, accidents, births or deaths that have occurred during the voyage to the passengers, crew, ship or cargo.
   (c) Port Clearance from last port and copy of Manifest of Cargo to be discharged.
   (d) List of all arms and explosives on board.
   (e) In the case of a British or Malaysian vessel and vessels belonging to a nation not having a Consular Officer at the port produce to Port Officer the Certificate of Registry and ship's Articles.
   (f) All ship's certificates such as Safety Equipment Certificate, Radio Certificate, Load Line Certificate, Safety Construction Certificate, Ship's Registry, Passengers' Certificate, Derat Certificate and all Certificates of Competency of all Officers on board.
   (g) Crew List.
3. *Immigration Authorities*
   (a) Crew List (3 copies).
   (b) Passenger List (3 copies).
   (c) Produce all Passengers Passports/Visas.
   (d) Produce all Seaman's Cards/Books.
   (e) Fill embarkation/disembarkation card obtainable from Immigration Department on arrival.
4. *Port Health*
   (a) Crew List showing last date of vaccination.
   (b) Passenger List, showing the last date of vaccination.
   (c) Produce all Seamen's and Passengers' vaccination cards.
5. *Customs Department*
   (a) Crew List (2 copies).
   (b) Passenger List (2 copies).
   (c) Personnel Effects List (2 copies).
   (d) Cargo Manifests (4 copies).
   (e) Last Port Clearance.
   (f) Bonded Stores List (2 copies).
   (g) Full and correct statement of dutiable goods carried as ship's stores (2 copies).
   (h) Customs Form CD 15 obtainable from Customs Department on arrival.

APPROACHES: No difficulty from North or South. No sand bar at river mouth. Harbour open all year round.

PILOTAGE: Pilotage service is compulsory for vessels entering or leaving port limits. Vessels to give Malacca Port Authority 4 hours notice. Vessels from West take Pilot 2.75 miles W.S.W. of Tanjong Keling and vessels from East take Pilot 5 miles S.S.W. of Tanjong Keling.

ANCHORAGES: For ocean-going and coastal vessels anchorage between 1 – 1.5 miles off Malacca Harbour. Between 3 – 6 fathoms depth. No specific prohibited anchorage. Discharging into lighters at anchorage.

TUGS: None.

BERTHING: A deepwater berth – least depth alongside 36 ft. Jetty "T" head connected to shore at Tanjung Bruas (approximate position Lat. 02° 13′ N., Long. 102° 09′ E.) by approach bridge. Length of berth 368 ft. *Storage Areas:* A modern covered godown of 2,005 sq.m. and open storage yard of 3,135 sq.m.

STEVEDORES: Discharging cargo capacity per day – 1,000 tons. Working on 2 shifts.

MEDICAL: Modern Government hospital and private clinics.

FRESH WATER: Available from elevated water tank of 50,000 gallons capacity.

FUEL: ~~None~~. NOT AVAILABLE

CUSTOMS ALLOWANCES: Tobacco, cigarettes 25 in number per man per day, or cigars, 8 in number per man per day, or Tobacco, 1 oz. per man per day, or snuff, 1 oz. per man per day.

Wine and/or Spirit: Spirit, 0.125 quart per man per day, or wines, 1 quart per man per day, or beer or stout, 1 quart per man per day.

REPAIRS/DRY DOCKS: None.

HOLIDAYS: *Port Closed Days:* Chinese New Year, Aid il Fitri (1 Syawal), Deepavali, National Day and Christmas Day.

AIRPORT: Batu Berendam, 6 miles from port.

AUTHORITY: Malacca Port Authority, Jeti Tanjung Bruas, Port Kelang, Melaka, Malaysia.

MIRI, Sarawak (incl. Lutong, Kl. Baram, Kl. Niah & Kl. Suai): 04.26 N. 113.55 E. (See Plan)

Miri Roads is an open roadstead in a shallow bay, bounded at North by Tanjong Baram and at South by Tanjong Lobang.

PORT LIMITS: All navigable waters up to the high water mark and all land from the high water mark to the land boundary within the following limits:

Inner Limit:

Batang Baram within the high water lines, from the line delineating the Coastal High Water Line at the river mouth, upstream to the geographical parallel across the river at Lat. 3° 45′ 00″ N.

Outer Limit:

(i) From a point on the Coastal High Water line on the Sarawak/Brunei International Boundary, Lat. 4° 00′ 18″ N., Long. 114° 36′ 27″ E. (approx.)

(ii) Thence along the Coastal High Water Line in a generally Southwesterly direction to a point on the Miri/Bintulu District Boundary, on the N.E. bank of Sungai Selungun, Lat. 3° 35′ 19″ N., Long. 113° 20′ 18″ E. (approx.)

(iii) Thence along a line drawn in a 324° direction to its intersection with the limit of the Sarawak Territorial Sea, Lat. 4° 48′ 30″ N., Long. 113° 20′ 18″ E. (approx.)

(iv) Thence Northeasterly along the boundary of Sarawak Territorial Sea to its intersection with the International Boundary between Sarawak and Brunei on the Continental Shelf, Lat. 4° 48′ 36″ N., Long. 113° 57′ 12″ E. (approx.)

(v) Thence along the same International Boundary to the initial point defined in Clause (i) above.

DOCUMENTS: (a) Health. Vessels exempted from inspection (see "Health") should deliver to Berthing Master on arrival, a Declaration of Health, Last Port Clearance and 2 Crew and Passenger Lists.

(b) Inward Clearance (also see "Anchorage"). All vessels calling Miri Roads for passengers or cargo must be cleared by Immigration and Customs and, if necessary, by Port Health.

Inward Clearance effected only between 0600 and 1800 hrs. and following signals must be shown: if passengers carried, flags "3" and "4"; if no passengers carried, flags "2" and "5"; if Free Pratique requested, flag "Q".

Following papers will be required on arrival for inward clearance:

Port Health:

Declaration of Health.
1 Crew List.
1 Passenger List, inward and through.

Customs Boarding Officer:

As above, if not boarded by Health Officer, and 2 Inward Cargo Manifests.

(c) Outward Clearance. All vessels will be issued a Port Clearance by Customs Officer after the application has been verified by Port Officer at their respective office. Papers required are 2 Outward Manifests, 2 Crew Lists and, if any embarked, 2 Outward Passenger Lists.

APPROACHES: The loom of gas flares on Seria Oilfields 30 miles N.E. of Miri are a general guide at night but should not be used as a bearing because flares movable within area of oilfield and liable to be extinguished at any time. Following bearings exist. By night, three lighthouses:

(a) *Tanjong Baram:* Lat. 04° 35′ 47″ N., Long. 113° 58′ 25″ E., white single light 680,000 candle power, visibility 17 miles, elevation 120 ft. in grey steel lattice tower, group flash 3 every 20 secs.

(b) *Lutong:* Lat. 04° 28′ 30″ N., Long. 113° 59′ 46″ E., white single light, 13,500 candle power, visibility 10 miles, elevation 80 ft. in grey steel lattice tower, group flash 2 every 10 secs.

(c) *Tanjong Lobang:* Lat. 04° 21′ 48″ N., Long. 113° 57′ 36″ E., white single light 20,150 candle power, visibility 18 miles, elevation 155 ft. in grey steel lattice tower, 60 ft., flash 1 every 10 secs.

By day, above lighthouses difficult to distinguish and following may be used for day-time bearings:

(a) Lutong radio mast F.R 210 ft., position Lat. 04° 26′ 25″ N., Long. 113° 59′ 54″ E.

(b) Tanjong Lobang radio masts as marked on chart.

PILOTAGE: No official Pilot stationed at Miri but Shell Company provide Berthing Masters to moor vessels at their Lutong Moorings (see "Tankers").

ANCHORAGE: For tankers, please refer to "Tankers". For cargo, passengers or clearance, the outer area within an area to Northward of Lat. 04° 25′ 42″ N., Eastward of Long. 113° 55′ E. and Southward of Lat. 04° 23′ 42″ N. It is recommended that vessels of less than 5 m. draft may anchor close inshore directly opposite Miri River Mouth, but caution must be exercised as sudden squalls and swell up to 1.5 m. can occur, for which allowance should be made. For logs at Kl. Baram it is recommended that vessels anchor close inshore S.W. of Baram River Mouth, but caution must be exercised as sudden squalls and swells up to 2 m. can occur, for which allowance should be made. Extra caution must be exercised not to intrude the prohibited anchorage area at the further end of S.W. of Baram River Mouth and the numerous submarine gas lines around the area. For logs at Kuala Niah and Kuala Suai it is recommended that vessels anchor close inshore directly opposite Niah River Mouth and Suai River Mouth, but caution must be exercised as sudden squalls and swell up to 1 m. can occur, for which allowance should be made.

Cargo usually worked into or from wooden lighters or steel dumb barges ranging from 30 tons – 300 tons capacity. Swell often restricts work to landward side only and swell or wind often make it difficult to work Hatch No. 1 in some vessels. Accommodation ladder should be lowered on landward side to enable shore personnel to board.

Prohibited Anchorage and Berthing Area. From *(a)* Lat. 4° 30′ 54″ N., Long. 113° 56′ 19″ E. in a 090° direction to the shore; and from *(a)* to *(b)* in Lat. 4° 27′ 30″ N., Long. 113° 47′ 01″ E., thence in a 090° direction to the shore.

HEALTH: Every vessel arriving in quarantine shall fly or show the appropriate International Quarantine Signal; and no person other than a Pilot, Port Officer, Port Health Officer, Immigration Officer or Officer of Customs shall board the vessel; and no person shall disembark therefrom until the vessel has been cleared by the Port Health Officer.

Free Pratique granted without health inspection to vessels calling to lift bunkers only at Lutong Moorings, provided ship healthy. Vessels with unclean bill of health or vessels which have not declared themselves healthy in their arrival notice telegram are subject to normal Port Health inspection procedure. Therefore of utmost importance that arrival notice is sent not less than 24 hours before arrival and contains all information requested (see "Radio") in order to prevent unnecessary delay.

RADIO: Miri Radio, call sign 9 WW21, frequency 500 kHz, operates at following hours local time: 0800 – 0830, 0900 – 0930, 1200 – 1230, 1600 – 1630. Present station has a limited range and if difficulty is experienced making contact or contact outside the above hours, vessels should pass messages through other stations, such as Kuching Radio or Singapore Radio, or through other ships in close vicinity of Miri.

Arrival notice must be telegraphed at least 24 hours before arrival and should contain following information:

All vessels

(a) expected time of arrival (local time GMT plus 8 hours);

(b) name of last port of call and next port of call, if not previously advised;

(c) whether or not ship is healthy.

For bunkers

(d) quantity of bunkers required, in long tons at least 48 hours' notice is required;

(e) provisions or medical attention required, if any.

For cargo

(f) tonnage to discharge, if any;

(g) number of gangs required to load;

(h) number of winchmen required to load.

Passengers

(i) number of passengers to disembark.

Also see "Tankers" – Communications.

VHF: Vessels arrived at the anchorages and wishing to contact their local/abroad Agents should contact "Miri Control" by Channel 16 which will be subsequently transferred to either Channel 25 or 27 for through calls. "Miri Control" operates 24 hours daily.

BERTHING: Cargo vessels – see "Anchorage", oil carriers – see "Tankers".

MEDICAL: Treatment of urgent cases available on shore subject weather conditions. Early notice should be telegraphed of medical requirements.

TANKERS: There are 4 Single Buoy Moorings at Miri Terminal which are in the following positions:

SBM No. 1	Lat. 04° 28′ 21.9″ N. Long. 113° 56′ 20.8″ E.	Max. SDWT: 30,000 tonnes Max. draft: 37 ft. Min. water depth in manoeuvring area 40 ft.
SBM No. 2	Lat. 04° 28′ 48.9″ N. Long. 113° 56′ 33.0″ E.	Max. SDWT: 75,000 tonnes Max. draft: 37 ft. Min. water depth in manoeuvring area 40 ft.
SBM No. 4	Lat. 04° 30′ 15.5″ N. Long. 113° 56′ 26.3″ E.	Max. SDWT: 100,000 tonnes Max. draft: 39 ft. Min. water depth in manoeuvring area 42 ft.
SBM No. 5	Lat. 04° 26′ 49″ N. Long. 113° 53′ 48″ E.	Max. SDWT: 125,000 tonnes Max. draft: 56 ft. Max. loading rate: 2,700 cu.m.p.h. Min. water depth in manoeuvring area 66 ft.

The riser platform acts as a distributing point where all the valves to the SBMs are located and is positioned at Lat. 04° 29′ 33″ N., Long. 113° 56′ 37″ E.

Pipe-lines and Cargo Hoses:

SBM No. 1: Operational for the export of refined products only.

The connection between the distribution platform and the SBM consists of 3 × 12 in. and 1 × 6 in. diameter pipe-lines/underbuoy hoses.

2 × 12 in. and 1 × 6 in. diameter hose strings are connected to the turntable and joined together with buoyancy tanks, terminating in 2 × 8 in. and 1 × 6 in. diameter hose strings of 5 lengths each for direct connection to the tanker's starboard manifold. An additional 6 in. diameter self-floating hose string of 17 lengths is connected to the turntable.

The total length of the hose strings is 544 ft. allowing a maximum distance from ship's bow to manifold of 330 ft.

The maximum permissible draft is 37 ft.

SBM No. 2: Operational for the export of crude oil and fuel oil.

The connection between the distribution platform and the SBM consists of 3 × 12 in. and 1 × 6 in. diameter pipe-lines/underbuoy hoses.

2 × 12 in. and 1 × 6 in. diameter hose strings are connected to the turntable and joined together with buoyancy tanks, terminating in 8 lengths of hose for direct connection to the tanker's starboard manifold.

The total length of the hose strings is 634 ft. allowing a maximum distance from ship's bow to manifold of 400 ft.

The maximum permissible draft is 37 ft.

SBM No. 4: Operational for the export of crude oil and fuel oil.

The connection between the distribution platform and SBM consists of 3 × 12 in. and 1 × 6 in. diameter pipe-lines/underbuoy hoses.

2 × 12 in. and 1 × 6 in. diameter hose strings are connected to the turntable and joined together with buoyancy tanks, terminating in 5 lengths of hose for direct connection to the tanker's starboard manifold.

The total length of the hose strings is 648 ft. allowing a maximum distance from ship's bow to manifold of 450 ft.

The maximum permissible draft is 39 ft.

SBM No. 5: Operational for the export of crude oil only. The connection between the distribution platform and SBM consists of 2 × 16 in. and 2 × 16 in. diameter pipe-lines/underbuoy hoses.

2 × 16 in. and 2 × 16 in. diameter hose strings are connected to the turntable and joined together with buoyancy tanks, terminating in 27 lengths of hose for direct connection to the tanker's starboard manifold.

The total length of hose strings is 814 ft. allowing a maximum distance from ship's bow to manifold of 560 ft.

The maximum permissible draft is 56 ft.

Information Required Prior to Arrival: Standard message to Masters of vessels calling at SBM.

Please advise:

AAA	ETA and draft at Miri SBM
BBB	Customs and Health requirements
CCC	Is vessel equipped with bow chain stopper, Smit brackets and a large central Panama Chock? (this information required from unknown vessels only)
DDD	Are manifold connections as per OCIMF specifications?
EEE	Rig starboard derrick to maximum (minimum acceptable 7 tons)
FFF	Have 2 × 12 in. manifolds ready on starboard side.
GGG	Be advised that vessel must maintain full readiness to manoeuvre during stay at SBM.

Berthing Instructions: After ETA advice one of the following messages will be transmitted to the Master.

AAA	Based on your ETA ....present intention is to berth you on arrival.
BBB	Pilot will board at Pilot anchorage area at the following coordinates: Lat. 04° 25′ N., Long. 113° 54′ E. Lat. 04° 27′ N., Long. 113° 56′ E.
CCC	Confirm ETA at least 48 hours in advance. When within range you are required to confirm your ETA 3 hours prior to arrival to Miri Terminal on VHF Channel 18 with Lutong Radio.
DDD	Please keep us advised of any changes in your ETA. Onus of ETA confirmation rests with vessel.
EEE	After having established radio contact on VHF you will receive further instructions.

Mooring Operation: Vessels are programmed for day and night berthing. Use of ship's anchors is strictly prohibited except in extreme emergency. The anchors must never be released or brought anywhere near the entire length of the submarine pipe-line nor closer than 350 m. radius from the SBM. Both anchors should be secured prior to berthing operations.

Floating Mooring Rope Assembly: The buoy to tanker mooring comprises of 2×15 in. circumference×150 ft. single braided ropes. At the buoy end, the hawsers are joined to the pad eyes of the Rotating Mooring Arm with heavy duty shackles. Each hawser of the dual floating mooring hawser is fitted with 50 ft.×1.5 in. diameter chafing wires.

The pick-up assembly consists of:

(i) 8 in. circumference polypropylene messenger rope with spliced eyes on each side. Length 150 ft.

(ii) 8 in. circumference polypropylene pick-up rope with tail-end spliced directly to chafing wire.

(iii) Pick-up support buoy.

(iv) 50 ft.×1.5 in. diameter chafing wire.

Mooring Craft: A mooring launch will be in attendance. The launch is used to send the messenger end of the mooring ropes to the vessel. On completion of mooring the launch picks up the hoses for connecton and remains at the vessel until the completion of loading.

Pilotage: Pilotage is compulsory within port limits for the size of vessels calling at the SBM. The Pilot will board at the Pilot anchorage area for both arriving vessels and the vessels which have been anchored there awaiting berth.

Mooring Procedure: Before the arrival of the tanker, the Berthing Master has to go to the SBM at least one hour early to check and make sure that the hoses and mooring ropes are not fouled. The mooring craft then proceeds to the vessel to disembark the Berthing Master.

During the vessel's approach the mooring boat tows the port mooring rope around the buoy so that it is out of the way when the starboard inner one is being worked on. The starboard inner rope is then run out to its full length.

When the end of the messenger is within range, the vessel's bow is approximately 115 m. from the SBM, i.e. 70 m. to go to final secured position. The approach speed at this point should not exceed 0.5 knots.

As the vessel slowly closes in on the buoy the messenger, pick-up rope and chafing wire are hove on board until the chafing wire is in position in the fairlead (marker buoy just outboard of fairlead). The chain stopper is secured to the chafing wire, while the eye is put on the ship's bollard to make fast.

While the inner mooring rope is being tended to, the mooring boat clears the (port) outer mooring rope from the buoy. This rope is then hove on board and connected in the same way as the inner one.

The vessel should have 2 mooring ropes ready on the forecastle, and mooring is carried out by ship's crew.

Cargo Loading Operation: Throughout the vessel's stay at the SBM, the Berthing Master will remain on board to co-ordinate ship/shore operations and one launch will remain at location as a safety precaution.

Connecting Hoses: Hose connection is carried out by ship's crew.

The hoses are lifted and connected one at a time. The forward or 'inner' hose is tended to first. The derrick runner is hooked into an enlarged link in the hose lifting chain and the hose end is then lifted out of the water until sufficient length is available for direct connection to the tanker's manifold. The weight of the hose in this position is transferred to the hose hang-off chain and the hose end is then lowered on to the deck. The blank flange is removed and the hose connected to the vessel's manifold. After connecting, the hoses are supported at the tanker side by flat webbing slings hung from the derrick runner in order to maintain a reasonable radius of bend. They are also suitably lashed to the hose bar of the side rail to reduce movement caused by sea conditions. In seas exceeding 5 ft., the floating hose strings become lively and require attention. Excessive movement of the hoses will result in chafing and strain on the flanges in way of the manifold. This can be reduced to a minimum by a suitable suspension of the hoses from the derrick runner backed up by rope lashings at the side rails or hose bars. Such preventive measures depend largely on the construction and layout of the tanker in the manifold area, also on the distance of the manifold from the vessels' side.

Loading Procedure: Miri Light Crude and refinery products are exported from the Miri Terminal. The quantities loaded are checked by the terminal at frequent intervals and vessels are requested to verify the shore figures.

The shore maximum back pressure is 180 p.s.i. The Berthing Master also acts as Loading Master and as the Terminal's Representative. He will attend to all cargo formalities (SSB forms, Safety Check List, etc.).

Prior to and during loading operations the following procedure will apply.

a. A joint inspection is carried out by ship and terminal representative to ensure all requirements on the Safety Check List have been compiled with.
b. The methods of communication between ship and shore is clearly established and understood. This includes procedures for normal and emergency stops of cargo loading operations. Test calls are made to ensure the system is operating satisfactorily.
c. Ship and shore to confirm readiness to start cargo loading operations.
d. Commencement of loading to be at slow rate.
e. Lines and hoses are checked and faults rectified. Launch to patrol around the vessel to check for oil leakages into the sea.
f. When the ship confirms receipt of cargo, test the emergency trip. After the test is completed start pumping and gradually increase to agreed loading rate.
g. Lines, hoses and the water around the vessel are again checked.
h. Ship and shore figures are to be compared every 2 hours and discrepancies investigated.
i. At least 15 minutes' notice should be given to the terminal before each stop or in regard to slowing down the loading rate for "topping off".

Ballast: Vessels must arrive with sufficient ballast for safe manoeuvring into the berth.

There are no facilities for the shore reception of ship's ballast. Vessels are accepted for loading on the express understanding that only clean ballast will be discharged into the sea.

Deballasting prior to the ship being fully secured to the buoy is only allowed after consultation with the Berthing Master.

Suspension of Loading Operation: If loading operations are suspended for an excessive period (e.g. leakage), hoses should be disconnected, blank flanged and made ready for lowering into the sea.

Disconnecting Hoses: The "after" or outer hose is disconnected first. It must be assured that all the bolts are fitted and properly tightened. The gasket must be in good condition and changed regularly. As soon as the hoses have been disconnected from the tanker's manifold, the blank flanges are fitted and the hose support buoy as well as the free end of the "hose hang-off chain" are shackled to the lug on the spool piece. Each hose is lowered over the side and towed clear from the tanker's side or temporarily secured to the SBM in a bight to prevent possible entanglement with the tanker's propeller.

Unmooring: Weight on the mooring ropes may be taken off by using ship's engines. The polypropylene pick-up ropes, which remain connected to the triangle plates of the chafing chains, are lead to the winch, and the weight is taken off the bow stopper or nylon snotter as the case may be. The bow stoppers are released or special shackles disconnected, and the moorings and pick-up ropes lowered from the bow into the water.

When both moorings have been let go, the tanker is given sternway until the bow is well clear of the hose strings.

Communications: Vessels are required to advise Sarawak Shell Berhad/Respective Agents of their ETA's 48 hours and again 24 hours prior to arrival. Telexes or telegrams should be sent to MA74306 or Saroilco Miri, respectively.

6 hours and again 3 hours prior to arrival, vessels are required to confirm their ETA to Miri Lutong Terminal on VHF Channel 18.

During office hours "Shell Marine" can be contacted on Channel 18, but this radio has a limited range.

Weather: The SBMs are positioned in the open sea. The weather in this region is basically good for tanker operations.

The seasonal weather patterns are broadly divided into three and the terminology used is consistent with that of South East Asia. These three types are:

(1) S.W. Monsoon (June–October)
(2) N.E. Monsoon (December–March)
(3) Transitions between the monsoons.

Persistent bad weather occurs during the N.E. monsoon. High swell conditions can persist for periods of 3 to 4 days and in extreme conditions for up to a week. During the S.W. monsoon winds are generally light to moderate, but during brief surges (generally lasting less than 36 hours) winds are occasionally strong, and local gale force squalls are experienced. The most favourable time for tanker operations is during the transition periods. Winds are lighter and variable. Seas in this period are rarely more than very slight. The only troublesome features of the periods are the occasional severe squalls that originate from inland, which are associated with cumulonimbus clouds and thunderstorms.

The basic patterns of these squalls are vigorous thunderstorms inland, increasing as the storm approaches. Just before the onset of torrential rain, the wind backs rapidly towards the land and increases violently to the peak gust.

Immobilisation: Immobilisation of engines is not permitted at any time during the vessel's stay at the SBM.

Transmission of Ship's Radio: Use of the ship's radio transmitter is prohibited during the vessel's stay at the SBM.

FRESH WATER: No fresh or boiler water available.

FUEL: No ex-barge facilities but bunkers obtained from Lutong Terminal.

Nos. 2 and 4 Sealines. Available for bunkering dry-cargo vessels. Ship's spring wire will be used to haul ends of mooring wires on board and mooring winches should be double gear and in all respects ready for use. All other gear for mooring and connecting pipes is brought on board with Berthing Master at Pilot Station. Bunkers will be supplied through 8 in. flexible hose brought up on starboard side amidships and appropriate flange on ship's connection should be removed in advance. Berthing Master will remain on board throughout bunkering operation and will leave after vessel has unberthed. Mooring and unmooring operations each require about 1.5 hours and bunkering rate usually 45 t.p.h. – 75 t.p.h.

REPAIRS: Emergency deck and hull repairs can be carried out offshore. Please contact Harbour Master for arrangements if required. Tel: 085-32911 (office hours) or 085-33232 (outside office hours).

CUSTOMS ALLOWANCES: Bonded Store on vessels other than those berthing at Lutong Moorings for bunkers only and exempted from formal clearance, sealed by Customs after allowing a daily ration for duration of stay in port.

1 Customs Officer will remain on board all vessels anchored in Miri Roads and accommodation, if necessary, should be arranged for them. The Agents' staff will remain on board throughout all cargo operations and it would be highly appreciated if meals could be supplied to them and to the Customs Officer in view of the long time occupied travelling by launch between ship and shore.

REPATRIATION: Crew changes and repatriation can be carried out at Marine Office, Kubu Road, Miri with little difficulty.

AIRPORT: Distant 10 km., daily, day and night flights.

TIME: GMT plus 8 hours. Permanent.

HOLIDAYS: New Year's Day; Chinese New Year; Good Friday; Labour Day; Wesak Day; Dayak Festival Day (Gawai); Yang Dipertuan Agong's Birthday; Hari Raya Puasa; T.Y.T. Yang Dipertua's Birthday; Natiomal Day; Hari Raya Haji; Awal Muharram; Prophet Mohammad's Birthday; Christmas Day.

Chinese New Year; Dayak Festival Day (Gawai); Hari Raya Puasa normally has 2 days holiday.

SHORE LEAVE: It is regretted that both passengers and crew must be dissuaded from coming ashore other than for medical attention, owing to weather and tidal restrictions.

IDENTIFICATION CARDS: Seaman's Record Book is sufficient.

REPAIRS: No facilities for repairs.

LUBRICANTS: Generally, lubricants not available but in emergency certain grades sometimes obtainable in very limited quantities.

PROVISIONS: Limited fresh provisions and ex-bond stores available for which vessels should give 72 hours notice of requirements so that arrangements can be made to secure the required supplies.

REGULATIONS: The Master of every vessel of over 15 tons about to depart from a port for any place outside Sarawak shall cause the "Blue Peter" (International Code Flag "P") to be hoisted, during daylight hours, for at least 12 hours before the vessel is due to sail, or if the vessel is in port for less than east 12 hours before the vessel is due to sail, or if the vessel is in port for less than 12 hours, for the period of her stay in the port.

(1) The Master or the Agent of every vessel about to depart from a port shall, on demand by the Port Officer, produce for inspection the port clearance.

(2) The Port Clearance shall be in the form of an endorsement on the form of clearance prescribed under the Customs Ordinance or in such other form as may be approved by the Director.

A vessel arriving in, leaving from or shifting berth within a port shall hoist her signal letters, if any, whilst under way.

POLICE/AMBULANCE/FIRE: Tel: 999.

AUTHORITY: Marine Officer, Marine Department, Kubu Road, Miri, Sarawak, Malaysia. *Tel:* 085-32352; 085-32911, 085-33301. *Cables:* "Shipping Miri".

General Manager, Miri Port Authority, River Road, P.O.Box 1179, Miri, Sarawak, Malaysia. *Tel:* 085-38481; 085-38529. *Cables:* "Mirport".

AGENT: See "Kota Kinabalu".

PASIR GUDANG, Malaya: 01.26 N. 103.54 E.

(See Plan)

LOCATION: The port is situated on the Malaysian Coast of the Straits of Johore, 10 nautical miles East of Johore Bahru Town. The approximate position is Lat. 01° 26′ 06″ N., Long. 103° 54′ 25″ E.

DOCUMENTS:

Customs:

2 Personal Effects List,
2 Narcotics Lists,
2 Arms and Ammunition Lists,

2 Stores Lists made out on ships forms only, no special forms issued by the port. Customs Boarding Officer also requires a full and correct statement of all dutiable liquor and tobacco carried as ship's stores, the statement which is to be submitted in duplicate on forms provided by the Boarding Officer is to show in detail the quantities of dutiable goods held:–

(a) in the ship's stores, bars and shops;
(b) in the possession of Officers and Crew.

Immigration: 3 Crew Lists, all Crew Seaman's Books for entry visa stamp.

Port Health: 1 Vaccination List, Maritime Declaration of Health.

Police: 1 Crew List, 2 Narcotics Lists, 2 Arms and Ammunition and Explosives Lists.

PILOTAGE: Pilotage is compulsory for vessels either exceeding 45 m. in length and/or with height structure above 30 m. or without any radio communication on board, entering or leaving the Port Water Limits. Pilotage is provided by the Authority. The pilot boarding point is in the vicinity of position Lat. 01° 18′ 54″ N., Long. 104° 07′ 12″ E.

APPROACHES: *Fairway:* There is no limitation imposed on size of vessels passing through the fairway except for the draft. The main channel in the East Johore Strait has a depth of water up to approximately 12.5 m. (41 ft.) ACD up to the Port Waterfront and 11.6 m. (38 ft.) ACD for areas beyond up to the Causeway.

ANCHORAGE: Anchorage areas have been designated within the port water limits and as indicated in all navigational charts for the following:

(a) General purposes.
(b) Dangerous goods and explosives.
(c) Quarantine.
(d) Petroleum.
(e) Lay-up.

RESTRICTIONS: A 24 hour pilotage service for all vessels entering or leaving Johore Port is provided. However, the following restrictions are imposed.

1. *Recommended Speed:*

(a) The maximum recommended speed should not exceed 8 knots and when passing Fairy Point, the speed should not exceed 6 knots.
(b) Vessels are required to slow down when passing Johore Port area, Malaysia Shipyard Engineering (MSE) and Sembawang Shipyard areas.

2. *Reporting:*

When entering, transitting or leaving the East Johore Strait, all ships of 2,000 g.r.t. and above or whose masts or superstructures exceed 30 m. above the waterline or where the vessel is under tow and the combined length of the towing vessel and the tow exceed 30 m. are requested to comply to the contents of the Port of Singapore Circular No. 23 of 1981 (see "Traffic Information") in providing the following data:–

(a) Name and Call Sign of vessel;
(b) Type of vessel (stipulate floating crane, oil rig, etc.);
(c) Max. height above waterline in metres:
(d) Destination (Sembawang port, name of shipyard, etc.);
(e) Point of origin (Sembawang port, Johore Port, Johore Shoal Buoy, etc.);
(f) ETA at Johore Shoal Buoy or ETD.

on VHF Channels 11, 21 and 63.

3. *Tugs:*

Tug services are available for towage, berthing and unberthing operations within the port's water limits. This service is provided by the Authority's tugs and supplemented by privately operated tug companies. The tugs are mostly equipped with fire fighting and anti-pollution equipment.

(a) VLCCs or vessels of more than 280 m. in length are to be provided with at least 2 escort tugs when transitting the East Johore Strait.
(b) Vessels of more than 240 m. in length are required to be provided with 1 escort tug when transitting the East Johore Strait.

4. *General:*

(a) When a nuclear powered ship is underway in the East Johore Strait no vessel should be underway forward of her.
(b) Vessels above 180 m. in length will not be programmed to pass any vessel exceeding 280 m. in length transitting the East Johore Strait between Changi and Sembawang Shipyard.
(c) VLCCs or vessels of more than 280 m. in length will be programmed to transit the Fairy Point/Changi area during slack water or stemming the tidal current.
(d) Vessels of more than 240 m. in length will be permitted to transit the East Johore Strait only during daylight hours.
(e) Vessels of between 210 m. and 240 m. in length are permitted to transit East Johore Strait during non-daylight hours provided they have full use of engines and are programmed to transit during slack tide or stemming the tidal current.
(f) Anchoring is prohibited in the main channel. Any unauthorised anchoring must be reported immediately to Johore Port Authority and Sembawang Control.
(g) During the hours of darkness, tows are generally not permitted to transit East Johore Strait.

For the purposes of the above guidelines:–

(a) A VLCC (very large crude carrier) is deemed to be a tanker of 150,000 d.w.t. and above.
(b) Length of vessel refers to her overall length.
(c) Daylight hours means from 0700 hrs. to 1900 hrs.

VHF: Vessels can communicate direct with the pilot control station tower via ship to shore VHF on the following Channels:

Channel	*Ship Stations*	*Shore Stations*
11	156.550 MHz	156.550 MHz
21	157.050 MHz	161.650 MHz
(Listening Frequency only) 63	156.175 MHz	160.775 MHz

VHF network links the tugs, launches and the Authority's personnel working on board vessels at the anchorages.

TUGS: See "Restrictions" and "Facilities".

FACILITIES: *Oil Jetty:* Depth of water 10.2 m. (33 ft.), L-shaped with 2 berths.

Dangerous Cargo Jetty: Depth of water 11.0 m. (36 ft.), length 216 m. (708 ft.).

Ocean Wharves: Depth of water 12.2 m. (41 ft.), length 1,093 m. (3,583 ft.).

Coastal Wharf: Depth of water 5.0 m. (16 ft.), length 107 m. (350 ft.).

Transit Shed: (2) 21,256 sq.m.

Godown: (3) 23,411 sq.m.

Open Storage Yard: 2.05 hectares.

Container Yard: 44,175 sq.m.

Container Freight Station: 7,750 sq.m.

Palm Oil Tank Installation: Present capacity for crude and refined palm oil 121,000 tonnes.

Petroleum and Petroleum Products: Storage capacity 63,000 tonnes.

Grain Silos: 72,000 tonnes.

Fertiliser Storage: 59,000 tonnes.

Clinker and Gypsum: 27,000 tonnes.

Timber Terminal: 4.36 hectares.

Other facilities such as bauxite, ore and woodchip jetties as well as a shipyard (Malaysian Shipyard and Engineering) are available and operated by private companies. The shipyard undertakes repairs and docking to vessels up to 400,000 d.w.t.

Shore Equipment:

	Capacity	*Unit*
Forklift Trucks	8 tonnes	6
	6 tonnes	3
	2 tonnes	22
	2.8 tonnes	10
Towing Tractor	1.3 tonnes	1
	1.8 tonnes	1
	3.5 tonnes	2
Trailers	1.5 tonnes	5
	3.5 tonnes	2
Continuous Unloaders	800 tonnes/hr.	2
Level-Luffing Crane	15/400 tonnes/hr.	1
Multi-purpose Crane	35/400 tonnes/hr.	1
Container Crane	36 tonnes	1
Straddle Carriers	36 tonnes	2
Transfer Cranes	36 tonnes	2
40 ft. Skeletal Semi-trailers		18
Container Terminal Tractors		10

Floating Equipment:

Tugs	1 – 3,200 b.h.p.
	2 – 1,800 b.h.p.
	1 – 1,240 b.h.p.
	1 – 750 b.h.p.
	2 – 350 b.h.p.
Launches	2 – pilot launches
	4 – security launches
Lighters	8 – 80 tonnes capacity steel barges
	2 – 200 tonnes capacity steel flat-top water barges
Passenger Boats	6

STEVEDORES: Stevedore and shore labour undertaken by the Port Authority and shift times are as follows:–

0700 – 1500 hrs.
1500 – 2300 hrs.
2300 – 0700 hrs.

Stevedores may undertake work of opening/closing of hatches but rigging of gear must be done by the crew.

FRESH WATER: Fresh water connections are on the berth. The rate of supply being 20 t.p.h.

FUEL: All grades of Bunkers are available at short notice.

REPAIRS/DRY DOCKS: Situated in Pasir Gudang Industrial area is Malaysia Shipyard & Engineering Sdn, Bhd. MSE is a fully equipped up-to-date engineering establishment. With facilities for ship repairing, new-building up to 12,000 d.w.t. and general engineering works.

(1) Dry dock, length 395 m., width 80 m., depth 14 m., capable of handling ships of 400,000 d.w.t.

(2) No. 2 dry dock, length 270 m., width 46 m., depth 12.5 m. capable of handling up to 140,000 d.w.t.

(3) Newbuilding dock, length (approx.) 123 m., width 25 m., depth 8.0 m., capacity approx. 12,000 d.w.t.

Berthage: No. 1 quay, 390 m. long × 7 m. draft. 1 × 15 ton luffing crane. No. 2 quay, 268 m. long × 7 m. draft. 1 × 15 ton luffing crane. No. 3 quay, 268 m. long × 7 m. draft. 1 × 15 ton luffing crane.

SURVEYORS: Classification Surveyors are available from Singapore and Kuala Lumpur. Cargo Surveyors are represented locally by Caleb Brett, General Superintendents and Trident Malaysia.

GANGWAY/DECK WATCHMEN: The Port Authority has a Security Division responsible for the general security of the port area. The force consists of a detachment of trained armed guards. Their services are available if requested through the Agents.

CUSTOMS ALLOWANCES: Spirits: 0.125 of a quart per man per day or wine 1 quart per man per day; beer 1 quart per man per day, cigarettes: 25 in number per man per day or cigars 8 in number per man per day or tobacco 1 oz. per man per day.

Customs will issue allowance for total of 3 days, and on request to a Proper Customs Officer the seal may be broken for further issues.

CARGO GEAR: When possible all loading and discharging are carried out with ship's gear. Shore equipment comprises – 1 side loader capacity 52,000 lbs., 5 side loaders of capacity 9,000 lbs., each 2×28 tonne mobile cranes, and 2×10 tonne mobile cranes. For bulk cargoes, grains, fertilisers, sulphurs, etc., shore grabs of 2 tonne capacity connected to ship's gear.

REPATRIATION: Ship's crew with valid or recognised International Passport are permitted to enter and sign-off through Malaysia/ Singapore checkpoint at Causeway, provided they obtain a transit visa from the Malaysia Authorities through the ship's Agents. Ship's crew without International Passport, and only Seamen's Books must join/ leave ships via Kuala Lumpur.

TIME: GMT plus 8 hours.

HOLIDAYS: *Port closed Holidays:* The port is operationally closed during the following festival days:–

1. Hari Raya Puasa (Muslim Aid II Fitri);
2. Chinese New Year;
3. Malaysia National Day;
4. Deepavali;
5. Hari Raya Haji (Muslim Aid II Adha).

TELEPHONES: Telephones may be placed on board at a connection charge of $/M25.00 per day.

SERVICES: *Provisions:* 2 licensed ship chandlers are able to provide and attend to all requirements.

SHORE LEAVE: Shore leave for crew members is permissible. The nearest town is Masai approx. 5 miles from the port. Johore Bahru is approx. 23.5 miles from the port by road. Crew members are allowed to cross the Causeway into Singapore, providing they obtain the necessary permit from the Immigration Authorities through the ship's Agent.

DEVELOPMENTS: Johore Port has plans for the construction of 5 more wharves. The proposed berths are for dry bulk materials, general cargo and containers. The berths will serve the needs of specialised industries such as fertilisers, feedmeal, and grains. The construction of silos, storage area, and other processing plants is to be undertaken by the companies concerned. A second container crane of 36 ton capacity with 36 m. outreach will be installed mid-1989.

TRAFFIC INFORMATION:

Port of Singapore Authority – Port Circular No. 23, dated 20th March, 1981.

To: Shipping Community

Traffic Information System for Ships Transitting Serangoon Harbour: 1. In exercise of the powers conferred by section 65 of the Port of Singapore Authority Act (Cap 173) 1970, I hereby direct that Masters of vessels entering, transitting or leaving the traffic information area shall, in the case of vessels having a gross registered tonnage of 2,000 and above or whose masts or superstructures exceed 30 m. above the waterline or where the vessel is under tow and the combined length of the towing vessel and the tow exceeds 30 m., comply with the new VHF reporting system which is given in this circular with effect from 1st June, 1981.

2. *Method of Communication:*

2.1 The VHF traffic is conducted on VHF Channel 21 and Masters of vessels are required to listen to this Channel continuously while their vessels are entering, transitting or leaving the traffic information area.

2.2 In the event that Channel 21 is inoperative, Channel 13 will be used. Masters of vessels are required to contact Port Operations on Channel 12 for confirmation of breakdown of Channel 21 prior to using Channel 13 for communication with the PSA Control Station.

3. *Notification:*

3.1 Master of vessels mentioned in paragraph 1 intending to enter or transit the traffic information area shall give at least 24 hours notice to the PSA Control Station. The information required together with this notice are:

(a) Name and Call Sign of Vessel;
(b) Type of vessel (stipulate floating crane, oil rig, etc.);
(c) Max. height above waterline in metres;
(d) Destination (Sembawang Port, name of shipyard, etc.);
(e) Point of Origin (Sembawang Port, Johore Port, JSB, etc.);
(f) ETA at Johore Shoal Buoy or ETD.

3.2 This notification may be given to the PSA Control Station by telephone, VHF, telex, public telegram or W/T.

3.3 Between 2 and 3 hours before arrival at Johore Shoal Buoy (approx. positon Lat. 01° 18′ 53″ N., Long. 104° 05′ 00″ E.) or 3 hours before departure from a berth within East Johore Strait, Masters of vessels mentioned in paragraph 1 shall notify and seek permission from the PSA Control Station on Channel 21. In seeking permission from the Control Station, the following information is required.

(a) Eastbound:
    ETD from berth
    ETA at Perimbi Buoy (approx. position Lat. 01° 25′ 50″ N., Long. 103° 53′ 21″ E.).
    ETA at Malang Papan Beacon (approx. position Lat. 01° 24′ 07″ N., Long. 103° 59′ 27″ E.).
    ETA at Malang Tiga Buoy (approx. position Lat. 01° 23′ 09″ N., Long. 104° 01′ 33″ E.).

(b) Westbound:
    ETA at Johore Shoal Buoy (approx. position Lat. 01° 18′ 53″ N., Long. 104° 05′ 00″ E.).
    ETA at Malang Tiga Buoy.
    ETA at Malang Papan Beacon.
    ETA at Perimbi Buoy (if applicable).

Following approval from the PSA Control Station, Masters of Westbound vessels when passing Johore Shoal Buoy and Angler Buoy (approx. position Lat. 01° 21′ 06″ N., Long. 104° 03′ 07″ E) shall confirm or update their ETAs at Malang Tiga Buoy and Malang Papan Beacon.

3.4 Masters of Eastbound vessels shall confirm or update their vessels' ETAs at Malang Papan Beacon and Malang Tiga Buoy when passing Punggol Beacon (position Lat. 01° 25′ 19″ N., Long. 103° 54′ 48″ E.) and Squance Buoy (approx. position 01° 23′ 43″ N., 103° 58′ 00″ E.).

3.5 Masters of vessels should check their vessels declared ETAs at Malang Tiga Buoy and Malang Papan Beacon when their vessels are between Angler Buoy and Squance Buoy. Should the new ETAs at Malang Tiga Buoy and Malang Papan Beacon differ by 5 minutes or more from the last declared ETAs, they should update their vessels' ETAs with the PSA Control Station.

4. Masters of vessels failing to comply with these directions shall be guilty of an offence punishable under section 66 of the Port of Singapore Authority Act.

Signed: Port Master, Port of Singapore Authority.

SHIPMASTER'S REPORT: February 1979. (Updated 1986).

Port Limits: All the area of water enclosed on the West by a line drawn due South from Tanjung Bin (Lat. 01° 20′ 00″ N., Long. 103° 32′ 48″ E.) on the North by the Southern shores of the State of Johore, on the East by a line drawn 229° from Tanjung Stapa (Lat. 01° 20′ 36″ N., Long. 104° 08′ 12″ E.) and on the South by the limits of territorial waters of Johore, including the Johore River up to the bridge where the Johore Bahru to Kota Tinggi road crosses.

Documents: Agent: Last Port Clearance, Manifest, Bills of Lading, Ships Certificates, Crew Agreement (Articles).

Pilotage: Pilots board off Johore Shoal Buoy, request for Pilot to be made via Agents. Confirmation of Pilot boarding obtained from Johore Port Control, VHF Channels 11, 21 and 63.

Pilot launch is a fast motor cruiser.

Pilotage is compulsory for all vessels over 45 m. in length.

Anchorage: Ships proceeding to call at any of the docks within Johore Port Limits, may be requested to use the anchorage to the East of the pilot boarding point. Vessels may also anchor approx. 0.6 miles E.S.E. off Pasir Gudang wharf, for large vessels there is a mooring buoy to restrict swinging into the channel.

Max. Size: The navigational conditions in the Straits are adequate for vessels of sizes expected to call at Johore Port as determined by depths at Ocean Wharf, Oil Jetty, and Coastal Wharf. No limitations on the size of vessel passing through the fairway except for controlling draft in the East Johore Channel of up to approx. 11.6 m. Large vessels up to 400,000 d.w.t. can navigate the Straits in ballast proceeding to Malaysia Shipyard also situated in Pasir Gudang.

Health: Vessels Agent to give advance notification to the Health Officer, if possible 48 hours prior to ETA of vessel, together with a list of ports visited within the preceding 14 days. Vessels from infected ports, or without valid Derat Exemption Certificates, or with cases of sickness or death on board, must fly the quarantine flag, and proceed to quarantine anchorage until boarded by the Port Health Officer.

Radio: Singapore Radio 9VG is the most reliable, and messages are telexed direct to local Agent in Johore Baru.

VHF: The base station is situated at Pasir Gudang, Channels presently in use are 11, 21 and 63.

Tugs: 2 tugboats of 3,200 h.p., 2 tugboats of 350 h.p. Tugs normally meet vessels off the wharf, or at anchorage when mooring to buoy. Tugs lines used.

Berthing: Oil Jetty: Depth alongside 10.2 m.; "L" shaped jetty, with 2 berths.

Ocean Wharves: Depth alongside 12.5 m.; length of wharf 1,093 m.

Coastal Wharf: Depth alongside 5.0 m.; length of wharf 107 m.

The Ocean berth is designed for general cargo vessels, and bulk carriers, of approx. 20,000 – 60,000 d.w.t.

All cargo work is carried out by ship's gear, shore equipment is available, e.g. mobile cranes, side loaders, vacuvators.

Specialised Cargo Handling Facilities: Oil Jetty capable of handling Palm oil shipment. Liquid chemical installation of 21,500 tonnes capacity. Grain silos, 72,000 tonnes capacity. Fertiliser storage 59,000 tonnes. Timber terminal 4.36 acres.

Medical: Medical service is available from the nearby town of Pasir Gudang, which is only a short distance from the port. There is a General Hospital situated in Johore Baru to attend to serious cases.

Fresh Water: Fresh water is available through hydrants installed at frequent intervals on the wharves and the breasting island of the oil jetty. Fire fighting hydrants are installed throughout the port area, using separate fresh water, and sea water systems. Fresh water may also be supplied to vessels in the anchorage if required by water barge.

Fuel: Bunkers are available by pipe-line installed along the quay, or alternatively by barges. Bunkering is undertaken by Petronas.

Fire Precautions: The Port Authority maintains a fire and rescue service, with trained firemen responsible for fire fighting on board, and on shore. The brigade is equipped with modern fire fighting appliances, and salvage equipment. Tugs are also equipped with fire fighting equipment, and anti-pollution equipment.

Consuls: Nearest Consuls are situated in Singapore, and arrangements can be made to obtain Visa to proceed to Singapore to carry out ships business.

Hatches: Preferably all opening/closing to be carried out by ship's crew, as the stevedoring labour is inexperienced.
Services: The Malaysia Shipyard & Engineering Co. has an agreement with the Port of Singapore Authority for the use of a slop barge which may be sent to the Johore Anchorage to receive slops from tankers which are proceeding to MSE for repairs. Numerous other services, and local representation for engineering and marine equipment available from Singapore.

SHIPMASTER'S REPORT: April 1979. (Updated 1986).
Position: The port is situated at the Southern tip of the Malaysian peninsula on the East of Johore Straits, about 10 miles East of Johore Bahru town. The straits separating Malaysia and Singapore provides good shelter and safe anchorage.

The exact position is Lat: 1° 26′ 06″ N., Long: 103° 54′ 25″ E.
Approaches: Pilot is picked up at Johore Shoal buoy. Pilots can be contacted on VHF Channels 11, 21 and 63. The access route for vessels proceeding to the port branches via the buoy off Johore Shoal, passes through Kuala Johore and the bend off Serangoon North of Pulare Ubin. From Serangoon the route leads straight N.W. of the port. The East Johore channel has a depth of 38 ft.
Berths: There are at present 10 berths in the port.
Boarding Officials: Since this vessel came from Singapore, all clearances were arranged by the Agent there. The Customs boarded to check the seal on the bond. The Immigration, Port Health, etc. also boarded for a cursory check.
Discharging: Discharging was carried out using grabs which were attached to the ship's cranes. There are no facilities ashore for any type of discharging, except a small conveyor which is used for grain only. The grabs had no weight marked on them, hence it was insisted that the grab along with one full lift of cargo be weighed. This was done and the average weight of the grab was found to be 2 tons and the maximum cargo possible that could be lifted was 2.5 tons.

This port apparently handles a lot of fertiliser, but never in large parcels. This parcel of 6,000 tons was the second largest discharged. 4 cranes were used throughout and the discharge rate worked out to nearly 2,000 tons/day. The stevedores were initially warned against mishandling the cranes, and it was found that the operators handled the cranes very slowly and carefully.
Provisions: Available, but slightly more expensive than Singapore. No bonded stores available at this port.
Density: Varied from 1018 to 1021.
Shore Leave: There is no restriction on shore leave. No special permits/passes are issued, but the Agents suggested that persons going ashore should preferably carry their Passports/Discharge Books. The nearest city is Johore Bahru which is 20 miles away. Ample transport is available at moderate rates. About 4 miles away from the port there is also a village called Masai.
Medical: All types of normal medical attention available.

AUTHORITY: The Chairman, Johore Port Authority, P.O. Box 66, 81707 Pasir Gudang, Johore, Malaysia. *Tel:* 07-512601-8. *Telex:* MA 60717/60192. *FAX:* 07-512609. *Cables:* Johan Pasirgudang. *Contact:* Operations, Tel. 511766.

AGENT: Pesaka Jardine Shipping Agencies Sdn. Bhd., Container Building, P.O.Box 51, 81707 Pasir Gudang, Johore. Tel: (7) 514312/3. Telex: MA65084. Cables: "Jarship Pasir Gudang". Fax: (7) 514314.

Associated with Jardine Shipping Agencies.

PENANG, Malaya: 05.25 N. 100.21 E. (See Plan)

DOCUMENTS:

The Report of Arrival (provided in Marine Shipping Ordinance, 1952).
A copy of Passenger Statistics on prescribed forms.
A List of Crew Members.
A List of Passengers.
Evidence of last Port Clearance.
All Ship's Documents (Safety Equipment, Derat, Radio, Load Line and Register).
Maritime Declaration of Health.
International Health Certificate for passengers and crew.
Vaccination List, for Cholera, for passengers and crew.
Departures: Port Clearance Certificate signed by the Port Health Officer, to be shown to the Port Officer issuing clearance.
Clearance also required from Immigration.

For oil tankers, a copy of Ship's Manifest to be submitted. Ship carrying explosives, Master required to fill prescribed form "D" stating quantity of explosive cargo ship is carrying together with copy of Ship's Manifest.

PILOTAGE: Vessel approaching port has to send telegram to Pilot Office direct (cable address "Pilots Penang") or to ship's Agent stating "ETA North Channel Light Float" or in case of South Channel "ETA Pulau Rimau". Draft of vessel to be given. The Pilot Office could be contacted direct on VHF Channel 12 or through Penang Radio Exchange on VHF Channel 16 to local telephone No. 613313. At least 3 hours' advance notice should be given before arrival at Pilot point.

Pilot boat painted with International red colour hull with white upperworks with "Pilot" written in bold letters on both sides of boat and fitted with VHF which operates on Channel 12.

Pilot is usually taken onboard in vicinity of the North Channel Light Float in position Lat. 5° 35.9′ N., Long. 100° 12.45′ E. for vessels entering the harbour through the North Channel. For entry through the South Channel the Pilot will be taken onboard in vicinity of Rimau Wreck Buoy 1 mile South of Pulau Rimau Lighthouse.

Vessels awaiting Pilot can anchor, in case of North Channel, in the Pilot waiting area within the following co-ordinates:

1.	Lat. 05° 35.8′ N.	Long. 100° 10.9′ E.
2.	Lat. 05° 34.3′ N.	Long. 100° 10.9′ E.
3.	Lat. 05° 32.7′ N.	Long. 100° 13.0′ E.
4.	Lat. 05° 34.2′ N.	Long. 100° 13.0′ E.

An approach channel of 10 nautical miles × 183 m. wide for 1 line of traffic has been dredged at the North Channel. The available depth of water at the channel is periodically declared to port users. Current depth available is – 10.2 m. A.C.D.

Approach through the South Channel is restricted to vessels of 28 m. air draft - due to existence of the Penang Bridge. Current depth 5.8 m. A.C.D. Must comply to Merchant Shipping Ordinance 1952. Under Penang Port (Navigation within the area of the Bridge) Rules 1986.

Pilotage is compulsory for all vessels navigating in pilot district of Penang with the exception of fishing vessels and vessels of 600 g.r.t. and below.

ANCHORAGES: The Man of War, Petroleum, Quarantine, Explosive and local vessel anchorages are marked on Charts of the Penang Harbour (A.C. No. 3732).

There is no specific anchorage area in the harbour for vessels other than mentioned above. These other vessels are normally anchored South of Lat. 5° 26′ N. and North of Lat. 5° 22.80′ N. between the mainland and the island, clear of the berths, fairways and shallow areas.

RESTRICTIONS: No entry restrictions imposed other than those dictated by state of tide and draft of vessel.

Also see "Pilotage".

RADIO: Penang Radio, call sign 9MG. Channel 16 VHF for ship/shore telephone.

VHF: The Penang Port has various working Channels as follows:

Channel 16 – Watching Channel.
Channel 7 – Port Police.
Channel 12 – Pilotage.
Channel 20 – Port Operations/ferries.
Channel 13 – Working Channel between tugs/Pilot.

TUGS: May be required to berth vessels at all berths in the port. 3 tugs available, 2,000 b.h.p., 1,320 b.h.p. and 1,200 b.h.p.

BERTHING: Berthing facilities are available at Butterworth Wharves, Vegetable Oil Tanker Pier, Bulk Cargo Terminal, Prai (all of which are located on the Mainland) and Swettenham Pier on the island of Penang.

Conventional Cargo handled at Butterworth Wharves and Swettenham Pier.

Butterworth Wharves: 4 ocean berths with a total quay length of 717 m. Depth alongside 9.7 m. There are 4 transit sheds of 10,823 sq.m. and 6 storage godowns with an area of 24,526 sq.m. An open-sided timber shed of 3,623 sq.m. and an open storage area of 13,006 sq.m. are also available.

Swettenham Pier: 2 berths with a total quay length of 366 m. Depth alongside 10.0 m. There are 2 transit sheds of 4,464 sq.m. and 8 storage godowns of 12,530 sq.m. This terminal which is equipped with a modern passenger terminal also caters for cruise liners from all over the world.

Also see "Equipment".

BULK HANDLING FACILITIES: *Bulk Cargo Terminal:* A bulk cargo terminal has been constructed to service dry and liquid bulk carriers. The terminal comprises 2 berths of 338.2 m. length. The first berth is 140.2 m. long and is equipped with a conveyor belt system to handle dry bulk cargo. Private pipe-lines are used for the handling of liquid cargo. The second berth has a dual berthing face for vessels. The main berth is 198 m. long while the inner berth is 154 m. long. Depth alongside is 10.2 m. The berths are linked to the storage area by a 1,219 m. access bridge. An area of 30.6 hectares forms the back-up for the storage sheds, stockpiling and tank farms.

Vegetable Oil Tanker Pier: A dolphin-type berth used exclusively for the Butterworth Vegetable Oil Installations. Pipe-lines connect the tanks to the berth providing speedy and efficient loading and discharge of vegetable oil, particularly palm oil, direct to and from the vessels. Depth alongside is 9.7 m.

Also see "Equipment".

EQUIPMENT:

Butterworth Wharves:	*No. of Units*	*Capacity*
Mobile cranes	6	1.5 tons each
Prime movers	8	12 tons each
Forklifts	40	1.5-2 tons each
Trailers	12	12 tons each
Tractors	1	—
Swettenham Pier:		
Mobile cranes	3	1.5 tons each
Shore cranes	2	2.5 tons each
Electric cranes	3	2.5 tons each
Container:		
Gantry cranes	2	35 tons each
Transtainers	5	30-35 tons each
Trailers	57	20-40 tons each
Prime movers	23	20-40 tons each
Front-end loaders	5	25-30.5 tons each
Clamp forklift	1	2 tons each
Forklifts (LPG)	7	3 tons each (for CFS operation)
Power points for refrigerated containers	70	
Bulk Cargo:		
Bulk Cargo Terminal		
Kangaroo crane	1	12.5 tons
Payloaders	2	5 tons each
Mobile crane	1	1.5 tons

For liquid bulk cargo, pipelines connect the berths to the tanks, located outside the Port area.

CONTAINER HANDLING FACILITIES: The Port has 2 container berths with total quay length of 322 m. Berth No. 6 is equipped with a Ro/Ro ramp of 8 m. wide and 28 m. long to service container and Ro/Ro vessels.

An 11.6 hectare marshalling yard with a static storage capacity for 7,845 TEU of containers, 2 freight stations of 11,892 sq.m. and 70 units of power points for refrigerated containers.

Also see "Equipment".

LIGHTERAGE: In the event of a vessel working in the Roads, lighterage is available for the transport of goods to and from the vessel. There are about 126 lighters operated by private companies.

BRIDGE: Channel width 156 m. Overhead clearance 28 m.

STEVEDORES: Stevedores and cargo handlers are obtainable from registered labour contractors. A Port Labour Board exists to register and control the employment of all categories of port labour.

Working Hours:

The Port operates round the clock. The working hours are as follows:
1st shift 0730 – 1530 hrs. (meal break 1130 – 1230 hrs.)
2nd shift 1530 – 2300 hrs. (meal break 1930 – 2030 hrs.)
3rd shift 2330 – 0730 hrs. (meal break 0330 – 0430 hrs.)

MEDICAL: Advance notice is necessary if medical attention is required so that arrangements can be made with Medical Department by Agents.

TANKERS: See "Fuel".

FRESH WATER: Fresh water is available at all times for supply to ships. Delivery can be through hydrants for vessels alongside wharf or by means of water-boats to vessels anchored in the Roads.

FUEL: Bunkering facilities are available from Shell Malaysia Ltd. and Esso Standard (M) Ltd., at their own wharves at Butterworth with a depth of 8.2 m. and from Caltex Ltd. at its wharves at Prai with alongside depth of 10.7 m.

CONSULS: Danish Royal Consulate, Consulate of the Republic of France, Consulate of the Federal German Republic, Honorary British Representative, Consulate of the Republic of Indonesia, Consulate General of Japan, Consulate of the Netherlands, Royal Norwegian Consulate, Swedish Consulate, Thai Royal Consulate General.

GANGWAY/DECK WATCHMEN: Services of a watchman recommended.

OPENING/CLOSING HATCHES: Normally carried out by stevedores.

IDENTIFICATION CARDS: Needed only when a crew member is discharged after hospitalisation or when he is repatriated.

REPAIRS/DRY DOCKS: The Port Commission operates the Bagan Dalam Dockyard on the mainland for minor and urgent repairs of vessels up to 700 tons displacement. All floating craft of the Commission are serviced at the Dockyard.

REPATRIATION: Facilities exist for effecting crew changes and arranging necessary repatriation.

AIRPORT: Distance from port to airport approximately 18.3 km. Served by both international and local airlines.

TIME: 7.5 hours ahead of GMT. No alteration to clocks during year.

HOLIDAYS: The 3 annual port holidays are the first day of Hari Raya Puasa, Hari Raya Haji (according on the Muslim Calendar) and National Day (31st August).

POLICE/AMBULANCE/FIRE: Dial 999.

TELEPHONES: A telephone is placed on every ship that berths alongside. This is one of services provided under a common charge known as the Wharf Service Charge.

BANKS: Algemene Bank, Nederland NV, Bank Hin Lee Bank Bhd., Bank Bumiputra (M) Bhd., Bank Pusat Kerjasama Bhd., Chung Khiaw Bank Ltd., Citibank NA, Development & Commercial Bank (Ltd.) Bhd., Hong Kong & Shanghai Banking Corp., Lee Wah Bank Ltd., Malayan Banking Bhd., MUI Bank, Overseas-Chinese Banking Corp. Ltd., Overseas Union Bank Ltd., Public Bank Bhd., Southern Bank Bhd., Standard Chartered Bank, United Asian Bank Ltd., United Malayan Banking Corp. Bhd.

SERVICES: Some of the minor marine services provided by private firms are draft survey, general conditioning of ships, valuation of ships, accident survey, inspection of refrigeration, radar adjusting service, compass adjusting and tank cleaning.

SHORE LEAVE: Allowed.

REGULATIONS: When a vessel calls at port, Customs search party may go on board vessel to search for contraband goods.

DELAYS: Rain is only factor that may delay a ship's discharging or loading operations.

DEVELOPMENTS: The Penang Port Commission has planned for the North Butterworth Container Terminal to cater for the increase in container traffic at the Port.

SHIPMASTER'S REPORT: April 1986.

Fresh Water Supply to Anchorage: Water boat has to be hired from the quay and until it returns to the quay, and pumps slowly. Maximum capacity 200 tons which may cost up to MYR.3,700/–. It is cheaper to take vessel alongside, paying wharfage, 2 Pilots, 2 tugs for amounts over 150 tons. Especially if there is a delay in cargo work.

AUTHORITY: The Penang Port Commission, P.O.Box 143, 10710 Penang, Malaysia. *Tel:* 04-612211. *Telex:* Pelpin Ma 40157. *Cables:* "Wharves Penang". *Contact:* General Manager or Chief Marine Officer.

AGENT: Pesaka Jardine Shipping Agencies SDN. BHD., 39C, Weld Qury, Wisma Saw Chong Thuah, 10810 Penang. Tel: (04) 624144. Telex: MA40073 Jaship. Fax: (04) 626531.

Associated with Jardine Shipping Agencies.

PORT DICKSON, Malaya: 02.31 N. 101.47 E.

DOCUMENTS:

1. *Harbour Master's Office or Marine Department*
   - *(a)* "Report of Arrival of Vessel" on prescribed Form (Marine 28) obtainable from Harbour Master's Office on arrival.
   - *(b)* One copy, Passenger List, specifying names and nationalities and required to report any casualties, accidents, births or deaths that have occurred during the voyage to the passengers, crew, ship or cargo.
   - *(c)* Port Clearance from last port and copy of Manifest of Cargo to be discharged.
   - *(d)* List of all arms and explosives on board.
   - *(e)* In the case of a British or Malaysian vessel and vessels belonging to a nation not having a Consular Officer at the port, produce to Port Officer the Certificate of Registry and ship's Articles.
   - *(f)* All ship's certificates such as Safety Equipment Certificate, Radio Certificate, Load-line Certificate, Safety Construction Certificate, Ship's Registry, Passengers' Certificate, Derat Certificate and all Certificates of Competency of all Officers on board.
   - *(g)* Crew List.
2. *Immigration Authorities*
   - *(a)* Crew List (3 copies).
   - *(b)* Passenger List (3 copies).
   - *(c)* Produce all passengers passports/visas.
   - *(d)* Produce all Seaman's Cards.
   - *(e)* Forms A and B – "Immigrant and Emigrant" obtainable from Immigration Department on arrival.
3. *Port Health*
   - *(a)* Crew List showing last date of vaccination.
   - *(b)* Passenger List showing the last date of vaccination.
   - *(c)* Produce all seamen and passengers' vaccination cards.
4. *Customs Department*
   - *(a)* Crew List (2 copies).
   - *(b)* Passenger List (2 copies).
   - *(c)* Personnel Effects List (2 copies).
   - *(d)* Cargo Manifests (2 copies).
   - *(e)* Last Port Clearance.
   - *(f)* Bonded Stores List (2 copies).
   - *(g)* Full and correct statement of dutiable goods carried as ship's stores (2 copies).
   - *(h)* Customs Form C.D.15 obtainable from Customs Department on arrival.

APPROACHES: Deep water approach channel from N.W., marked by 5 light buoys, presents no difficulties and is clear.

PILOTAGE: The Port Dickson area does not constitute a Compulsory Pilotage District under provisions of Merchant Shipping Ordinance, 1952. Private pilotage services are, however, operated by Shell and Esso for vessels making use of their respective marine installations. Mooring Master boards tankers at Banbeck Shoal Buoy. Pilots on VHF Channel 19.

Ship's Officer's Report: Pilot boards one mile off Fairway Buoy. However, vessels of less than 30,000 d.w.t. holding Admiralty Chart No. 1140 may be requested to proceed inwards, Pilot boarding at No. 1 Buoy. Coasters proceeding to Headlands Jetties may be required to do own pilotage.

ANCHORAGES: *(a)* Good anchorage may be obtained in depths from 15 to 20 fathoms, Westward and South-Westward of Tanjong Kamunin. Small vessels may obtain anchorage in depths from 4 to 5 fathoms North-Eastward of Pulau Arang Arang, but holding ground is poor.

(b) Prohibited Anchorage Area indicated by pecked lines on chart and described under Port (Negeri Sembilan) (Amendment) Rules, 1963. This area contains a tanker SBM, with extensive ground tackle and floating hose attachments, which is connected to the shore by a submarine pipeline. Passage between the buoy and the shore is also prohibited.

RADIO: *Ship's Officer's Report:* Send ETA 96 hours and 24 hours in advance. Two hours before arrival keep listening watch on Channel 16. Shell Oil Terminal on VHF Channel 16 and 19. Cargo operations are carried out on Channel 9.

TUGS: No tug-boats available.

MAX. SIZE: Up to 49 ft. draft at S.B.M. terminal.

BERTHING: Port installations at Port Dickson comprise the following:

A small boat harbour contained in the curve of the stone approach to the Railway Jetty which affords little shelter against Southerly winds dries out at low water.

The Shell Jetty – property of the Shell Refining Co. (Malaysia) Ltd. (Private). Reinforced concrete jetty 700 ft. with "T" head 170 ft.×36 ft.

The Esso Jetty – property of the Esso Standard Malaya Ltd. (Private). Reinforced concrete island jetty 200 ft.×24 ft.

The Railway Jetty – property of the Malayan Railway Administration. Stone pier 600 ft. length terminating in a crosshead 150 ft. long with steel piling and wooden deck.

The Joint Shell/Esso single-buoy Tanker Mooring and Crude Oil Discharging Terminal (see "Tankers").

Stone ramp on foreshore usable by lighters at high water.

MEDICAL: District hospital with 150 beds.

TANKERS: *Cautionary Advice - Operating Conditions - Esso SBM:* Strong local winds, ("Sumatras"), often occur during darkness and without any advance warning. For this reason, it is essential that arrangements be made during the early part of discharge in order that a sufficient number of tanks are ready to receive ballast as soon as required.

In order to safeguard the SBM installation and the ship, no large crude carrier is permitted to fully discharge without having ballasted to at least 15% of her deadweight. For ships completing discharge and sailing during daylight hours, a 20% minimum deadweight is usually acceptable but all cases are treated on an individual basis, season of year, present weather conditions, tidal stream, etc. being considered.

If during discharge of cargo, stoppage of some hours is advised by the installation, then opportunity should be taken, after joint consultation between ship and shore, to ballast to normal sea ballast condition, to avoid a delay after the cargo discharge is finally completed, assuming that the Master wishes to take ballast additional to his permanent ballast prior to sailing.

Upon arrival, ullages and samples are taken by shore representatives. Prior commencing ballasting, tanks are certified dry by a shore representative. Likewise if ballast is taken on board prior to completion of cargo, tanks should be inspected.

Shore will instruct at what stage of the operation the compartments containing the residues and the load on top or parcels should be discharged.

Vessels moored at the SBM must keep engine ready on short notice. Immobilisation of engine is not permitted. Propeller of turbine engine should be turned at minimum revolutions. This point should be discussed and co-ordinated with the Marine Superintendent since higher revolutions may cause vessel to surge forward and damage SBM, hoses and ropes.

On approach of the "Sumatras" engine should be immediately put on standby. The critical moment is when a vessel lying with the tide is caught by the wind and swung around the buoy. During the swinging-process the vessel may gain great momentum and put the hawsers under heavy strain.

The Marine Superintendent does not remain on board the vessel during the discharge, but may be reached at any time via VHF Channel 9.

A launch remains in attendance at the ship for tending hoses, mooring, etc. In addition to the VHF radio operators, 2 workers, per shift, remain on board.

The terminal requires that a seaman from the vessel is stationed on the forecastle to watch moorings at all times and alert the Master whenever vessel's bow tends to touch the SBM and/or at anytime anything is going wrong with mooring arrangements.

General: The Shell/Esso SBM is located West of the town of Port Dickson. It is used for the crude discharge by Exxon controlled tonnage and by Shell for both crude discharge and fuel oil loading. The SBM is operated by Shell. In addition each company also operates a conventional type of wharf for export cargoes.

Communications: Radio traffic to and from vessels to be directed via Penang Radio. Vessels to monitor Penang Radio or Singapore Radio for traffic list.

Vessels should listen on VHF Channel 16 (alternate 9) 2 hours before arrival. Call sign "Shell Port Dickson".

Arrival Advice: Vessels should include in their arrival message, ETA at Fairway Buoy, draft forward and aft, Bill of Lading figures in barrels and Long Tons, number and location of tanks where slops were consolidated prior to loading and amount of water, residues and cargo loaded on top. Also include measurements of bow openings, cargo manifold and lifting capacity of ship's boom, if problem is foreseen. For crude oil washing request "Essoref PortDickson" well in advance for the COW questionnaire to be completed and cabled back to 'Essoref'.

Preparations: Crude vessels bound to SBM should have their accommodation ladder rigged on the starboard side. Port and Starboard derricks rigged. 2 good mooring ropes should be readily available on the forecastle head to be used as messenger lines. "Panama" centre fairlead to be uncovered.

Navigation: On approaching the Fairway Buoy moored in position Lat. 02° 30′ 00″ N., Long. 101° 42′ 48″ E.; the National Electricity Board Power Station chimneys provide a prominent landmark. The refinery flares also provide landmarks which can be easily identified. It should be borne in mind that the 2 gas flares may be extinguished at times. Position of NEB Power Station: Lat. 02° 31′ 58″ N., Long. 101° 47′ 30″. Painted white horizontal bands and red horizontal fixed lights at top and mid height. Height above sea level 307 ft.

Position of Shell flare: Lat. 02° 32′ 02.3″ N., Long. 101° 48′ 45.3″ E.

The Esso flare is about 1 mile East of the Shell flare.

Fishing boats may be encountered in the approaches to the Fairway Buoy and they may present a navigational hazard.

Anchorages: It is sometimes necessary for vessels to anchor to await berth or suitable tides for berthing. Anchoring position for large crude carriers is 1 mile North of Fairway Buoy. If wait at anchorage is expected to be more than 3 days then vessel to anchor about 1.5 miles East of Fairway Buoy in order not to hamper navigation of other vessels in the Fairway Channel. Masters not familiar with this port should not enter the channel without a Pilot and should drop anchor outside at the Fairway Anchorage.

Product vessels routinely trading Port Dickson normally enter the channel and anchor about 0.5 miles N.E. of Buoy No. 2.

Pilots and Tugs: The Shell Refinery Marine Superintendent will board crude vessels for pilotage and mooring at the anchorages or 1 mile off the Fairway Buoy while underway if vessel is to berth on arrival. Anticipated time of boarding, etc. will be advised by Radio W/T or VHF. The Shell Marine Superintendent monitors VHF Channel 16 (alternate 9) on 24 hours basis. No tugs are available.

Esso/Shell SBM: General: The SBM is moored in position Lat. 02° 31′ 19.6″ N., Long. 101° 47′ 03.5″ E. (Pulau Arang Lighthouse bearing 122° 8 cables distance).

The SBM is moored in 16 fathoms of water and the least depth within a radius of 1,000 ft. from the SBM is 53 ft.

Berth Approach: Vessels from the anchorage proceed towards the SBM through the buoyed channel at the time established by the Marine Superintendent. Vessels up to 30,000 d.w.t. berth at any stage of the tide. Vessels in excess of 30,000 d.w.t. generally moor at SBM during ebb tide when N.W. tidal stream is running. There are no night restrictions for berthing.

Mooring: Vessels are moored to the SBM by means of 2×120 ft.×12 in. nylon ropes with a breaking strength of 125 tons each which are connected to 6 in. wire snotters secured on the ship's bollard. Hawser's chafing chains are, if possible, led through the ship's centre line "Panama" type fairlead. Large crude carriers may connect a third nylon preventer rope.

Mooring/unmooring is done by a shore gang, but assistance of the ship's crew will be required to operate all ship's equipment, winches, etc.

Certain mooring equipment, i.e. shackles, wires, snotters, etc. will be brought on board from the pilot mooring launch.

When the vessel is about 600 ft. from the SBM the mooring launch will run out to the vessel's port bow with one 12 in. nylon rope to which is connected a 10 ft. length of 2.25 in. diameter chain and a monkey face. To this monkey face, the launch will have connected a 500 ft. long 10 in. polypropylene pick-up rope. The tanker then lowers a ship's rope as a messenger from the port bow to the launch, which will connect the ship's rope to the polypropylene pick-up. The tanker will then heave up on the messenger and the pick-up until the monkey face is in-board when it will be shackled to the 6 in. wire snotters already fastened around the ship's bollards. When the launch has made fast the port messenger connection to the ship's rope, she will then run out the second ship's rope to the buoy and connect the second 12 in. buoy assembly line. Whether the third 12 in. nylon preventer should then be connected will be advised by the Marine Superintendent.

There is no night restriction for unberthing but awaiting of flood current is strongly recommended.

Cargo Operations: There are 2×16 in. hoses, each string 700 ft. long supported by flotation beads.

Each string terminates at the ship's end with a keystone valve having a flange of 12 in. ASA (150 psi).

Connecting and disconnecting of hoses is done by shore gang with the assistance of ship's crew and under ship's responsibility. A large crude tanker in empty condition is required to have derricks with safe lifting capacity of 10 tons to take the weight of a full hose. Hoses are fastened to the ship's main deck and are supported by means of chains. Connections from the SBM to the 30 in. diameter submarine pipe-line to the shore is by means of 2×16 in. diameter submarine hoses. Hydraulically shore operated valves are fitted at the connecting points on the sea bed.

The line from the shore to the refineries is 31 in. diameter – about 2 miles long to Shell and 3 miles to Esso.

The shore system has proved capable of handling rates of 5,500 cu.m.p.hr. but the governing factor at all times is the Ship's Rail Pressure. Ship's Rail Pressure must never exceed 120 p.s.i. (10 kg./sq.cm.).

Due to the SBM being a jointly owned facility, the system will on occasions contain oil owned by the other party, or another grade of crude oil. It is therefore often necessary for line clearing operations to be carried out before bulk discharge commences. Ship's manifold should remain closed when no cargo is being discharged as there may be static head back pressure of some 30 p.s.i. (2 kg./sq.cm.) once the shore lines are opened.

Line clearing involves the pumping of approximately 1,500 tons of cargo to shore tanks. The exact figure will be advised and controlled by shore; ships are, however, required to keep a close check in order that over clearance be avoided or in case radio contact is lost. Esso Refinery representative will board the vessel when berthed and will advise the quantity and procedures to be followed. Once line clearance has been completed and the necessary tanks lined up, readiness to receive cargo will be advised by shore. Discharge should commence using one pump first when oil is being received by shore, the ship will be advised to increase the pumping rate, until 120 p.s.i. at rail is reached.

Due to refinery operating requirements, it will sometimes be necessary to stop pumping during the change over of shore tanks. Shore will give ship at least 20 minutes notice before the ship is required to stop.

Advice to stop pumping will be confirmed 5 minutes before actual stoppage is required. If at that time, or any other time, radio contact is lost the ship should stop pumping until contact is re-established.

Every hour the quantities received ashore are advised by the refinery control. Ships are asked to check that these figures tally with the amount discharged.

The stripping and draining of cargo tanks should be commenced as soon as possible and every endeavour made to keep ahead of discharge, in order that no delay be incurred by draining. It is also essential that sufficient tanks be drained during the early part of the discharge, as it may at any time be necessary to suspend discharge and commence ballasting due to weather deterioration. This applies particularly to vessels without permanent ballast tanks or vessels whose permanent ballast is less then 20% of deadweight. In Port Dickson, experience has shown that a good trim is required for an efficient and quick draining. This is of particular importance for vessels stripping high vapour pressure crudes.

Two battery operated VHF radios on Channel 9, with an operator on a 6 hour shift, will be placed on board for all ship/shore contact throughout a vessel's stay at the SBM. It is suggested these should be sited in the ship's office or in some convenient room near the centre of operations (Cargo Control Room).

Ship/shore radio checks are to be made every hour, or more frequently if reception conditions are poor and if contact is lost cargo operations should cease immediately. Ship's VHF should be ready at all times to be used in case of failure of the portable sets.

Environmental Conditions: Strong local winds, known as "Sumatras" occur during the period May to October. They blow usually from a southwesterly to a Northwesterly direction, are of short duration (1 to 4 hours average) and velocities of between 40 and 50 knots have been experienced. They are usually followed shortly after onset by very heavy rain.

Direction of the tidal current at the SBM is approximately 326°-146° with a maximum rate of 3 knots. The Northwesterly current (ebb) which normally flows for 6 hours starts 3-4 hours after HW and ends about 3-4 hours before HW. Port Dickson tides are semi-diurnal.

Density of water at the SBM varies between 1018-1023.

Safety, Fire and Protection: General: A Safety and Pollution Check List is used at each terminal and international accepted safety and pollution rules are strictly enforced. Discharge should be stopped immediately and the Marine Superintendent advised promptly in case of pollution incident.

Fire Fighting: In the event of fire on board, cargo operations should be stopped immediately, valves closed and terminal's superintendent advised.

No fire fighting facilities are available. The Marine Superintendent will be available to advise Masters and to assist if feasible in moving the vessel to an anchorage clear of the berth.

In case of breakdown of communications via VHF ships should use their whistle (six long blasts).

Security: No security problems have been reported, and shore leave is permitted.

Services: Fresh Water: Fresh water requirements should be cabled to the Agent prior arrival. It is supplied by a 180 ton steel barge.

Bunkers: All grades of bunkers are available alongside at both Esso and Shell Product Piers. No bunker barges are available to supply crude vessels at SBM or at anchor.

Provisions, Laundry, etc.: Fresh and dry provisions are available through a ship chandler. Limited selection of bonded stores also available. 24 hour laundry service available, if arranged prior to arrival. No deck/engine store available.

Tank Cleaning: There are no tank cleaning facilities. Facilities for receipt of dirty ballast are limited to Esso and Shell product piers.

Crew Change and Repatriation: Available through Kuala Lumpur airport.

Esso Product Jetty: Berth is constructed of reinforced concrete. The island jetty is 200 ft.×24 ft. with 4 off-lying mooring buoys inshore for mooring purposes. Accommodation for one vessel on outer face only.

Max. LOA 575 ft.; max. draft 34 ft.; max. size 19,500 d.w.t.

Shore connections:
1×20 in. black oil/ballasting
1×16 in. white oil line
1×10 in. LPG line
1× 4 in. inert gas line
1 crane to handle hose

FRESH WATER: Available at Shell and Railway jetties.

FUEL: Bunker fuel oil available. No diesel.

CUSTOMS ALLOWANCES: Tobacco, cigarettes 25 in number per man per day, or cigars 8 in number per man per day, or tobacco 1 oz. per man per day, or snuff 1 oz. per man per day. Wine and/or spirits, spirit 0.175 qt. per man per day, or wines 1 qt. per man per day, or beer or stout 1 qt. per man per day.

REPAIRS/DRY DOCKS: None.

HOLIDAYS: Official holidays in the state as follows: New Year's Day, 1 day; Chinese New Year's Day, 2 days; Muslim New Year's Day, 2 days; Wesak's Day, 1 day; His Majesty's Birthday, 1 day; Prophet Mohammed's Birthday, 1 day; His Excellency Governor's Birthday, 1 day; Malaysia Day, 1 day; Deepavali, 1 day; Hari Raya Huji, 2 days; Christmas Day, 1 day. No cargo is worked on any of the above gazetted public holidays – port closed.

AIRPORT: None.

DEVELOPMENTS: Proposal to enlarge facilities and to provide deep-water berths.

AUTHORITY: See "Malacca".

PORT KELANG, Malaya: 03.00 N. 101.24 E. (See Plan)

PORT LIMITS: *Northern Limits:* A line from Beacon B running N.W. towards Pulau Angsa Lighthouse until it intersects Lat. 3° 07′ 24″ N., thence extending due East along this latitude till it meets the mainland; *Southern Limits:* A line from Tanjung Ru running West along Lat. 2° 50′ 21″ N. till it intersects Long. 101° 14′ 00″ E., thence extending due North along this longitude till it meets Pulau Pintu Gedong;

There shall be included within the limits all waters in the Klang Straits, Selat Lumut, Sungai Puluh, Sungai Aur, Sungai Langat and other waterways contained within the Lat. 3° 07′ 24″ N. and 2° 50′ 21″ N., and Westwards towards the coast from Long. 101° 28′ 30″ E. (which passes through Connaught Bridge): including all piers, jetties, landing places, wharves, quays, docks and other similar works whether within or without the line of high-water mark and any position on the shore or bank within 45.72 m. of the high-water mark, subject to any rights of private property therein.

APPROACHES: Ships from and to Penang enter and leave the port by the North Klang Straits, and ships from and to Singapore enter and leave by the South Klang Straits. The entrance channel at the North Klang Straits is dredged to 11.3 m. below datum. A very large deep water anchorage for ships is available at the North Klang Straits. Ships can also navigate in and out of Port Kelang through a secondary channel at the South Kelang Straits. At all times the channel is dredged to 9.1 m. below datum.

DOCUMENTS: *(a) For Agent.* Vessels required to fill in arrival report which may be obtained from Agent at Singapore or Penang or Boarding Agent on arrival. This should be completed and handed to Boarding Agent together with last Port Clearance and one copy each of Crew List and Passenger Lists for submission to Marine Department.

Vessels should have ready and hand to Boarding Agent on arrival the following:
Arrival Report.
Last Port Clearance.
Two copies of Crew List.
Two copies each of Disembarking and Transit Passenger Lists (if any).
List of Explosives, dangerous cargo on board.

Following documents should also be handed to Boarding Agent on arrival and will be returned to vessel after perusal by Marine Department:
Malaysian Light Dues Receipt (if any).
Ship's Register.
Radio Safety Certificate.
Safety Equipment Certificate.
Load Line Certificate.
Derat Certificate.

Port Health Officer now requires all vessels arriving from foreign ports to submit an "Entry Declaration" on form Health 43, on the International "Maritime Declaration of Health" form or on a similar copy, and this should be handed to Boarding Agent, together with copy of Crew List, in cases where vessels are not in Quarantine, in which case doctor does not attend on board.

Note: Endorsement of Port Clearance must be obtained from Port Office at Marine Office before a fresh Port Clearance can be issued by local Customs Authorities and handed to vessel before sailing.

(b) Immigration
2 copies Crew List.
2 copies Passenger List (Disembarking and Transit).

(c) Customs
2 copies Customs List (CD.15).
1 Crew List.
1 Passenger List.

FLAGS: The Malaysian flag. Flag "Q" meaning Health Clearance required. *Flag 2/5 meaning no passengers on board, or *flag 3/4 meaning passengers on board. Pennant Zero is not required since Boarding Officers do not board the ship on arrival. Flag "H" meaning Pilot on board. (*Applies only to vessels arriving from foreign ports, which includes Singapore.)

Note: Except for vessels under way, no vessel in port may use its siren except in case of an emergency when no other means of communication is available. The Authorities strictly enforce this rule and vessels infringing it become liable to heavy fine.

Shipmaster's Report: June 1983: Flags 2/5 must be flown by day, or green/green lights shown by night until Immigration clearance has been obtained, otherwise the ship is liable to be fined.

PILOTAGE: Available 24 hours a day. Pilotage compulsory.

(a) Application. Piloting carried out by Kelang Port Authority. Masters to cable "Pilots Port Kelang" giving ETA and point of arrival, i.e. Pintu Gedong or Pulau Angsa and draft at least 4 hours before arrival, as Pilots will not leave shore until confirmation received from vessel or Agent. Both North and South Channels are well marked and Pilots consider it quite safe to arrive and depart at any hour.

Vessels approaching this port normally apply through Agent, giving ETA Pintu Gedong, Pulau Angsa or Deep Water Point, together with draft and port of departure.

(b) VHF. If vessels wish to communicate direct all pilot boats are fitted with VHF for use between pilot office, pilot boats, pilot boat to pilot boat and where necessary to vessels arriving at this port. Operated on Channel 12 of International Maritime VHF radio telephone bands, and of a range of 20–25 miles.

(c) Recognition. Pilot boats painted orange and have white superstructure.

(d) Boarding. Unless advised otherwise Pilots will be ordered to board vessels at Pulau Angsa (North Channel), or Pintu Gedong South of the Seaward Bar Buoy.

Pilot ladders should be of approved Standard pattern internationally used.

(e) Waiting for Pilot. Location for a vessel awaiting Pilot is at Pintu Gedong 5 cables South of Seaward Bar Buoy, at Pulau Angsa 1 mile East of Pulau Angsa Island, and at Deep Water Point where anchorage is available according to number of vessels already anchored.

ANCHORAGES: Per latest Admiralty charts. Vessels may load timber and ore from privately owned junks at Deep Water Point Anchorage. In exceptional cases and with permission of Port Authority it is also possible to work with Authority Lighters at Deep Water Point.

Special Anchorages: The Port Authority provides an explosives anchorage and a LASH anchorage situated North of Tanjong Bakau in the North Kelang Straits. The quarantine anchorage is located North-West of the North Port wharves.

RESTRICTIONS: (See "Max. Size"). At Pintu Gedong, the Southern Channel Pilot Station, there is a restriction which vessels will be advised of when giving their ETA.

MAX. SIZE: Maximum length of vessels using South Port is: Dry cargo vessels, 600 ft. LOA and draft of 32 ft.; tankers, up to 560 ft. LOA and draft 32 ft. Tidal conditions govern movements of all vessels over 300 ft. LOA in the South Port but not at the North Port. At the North extension wharves container ships of 950 ft. can be berthed.

RADIO: ETA cables normally routed via Singapore or Penang as no radio station in Port Kelang. Such messages when received are transmitted by telephone to Agents/and or Pilots at Port Kelang.

VHF: (See "Pilotage"). Ship to shore telephones available at all berths at North Klang Straits, and VHF sets available for ships in moorings. Klang Exchange keeps a 24-hour watch on Channel 16 and will connect the vessel to any telephone receiver ashore (Channels 24, 26 and 27). For local calls the cost is $1.92 for three minutes (approx.).

TUGS: Supplied by Port Authority and normally "stand-by" vessels berthing at wharves as and when required. Tugs towing use ship's lines, tugs pushing use their own lines. 8 tugs available (800 h.p. – 2,700 h.p.) to assist in berthing and unberthing and are equipped with fire-fighting appliances and radio communications system. When vessels berth or unberth at wharf tugs ordered by Agent in consultation with Pilots and once in attendance are charged for whether used or not. Tugs are also used to swing vessels in stream which are stemming ebb tide on departure.

BERTHING: There are 2 ports viz: the South Port and the North Port. Vessels berthing in the South Port are governed by tidal conditions which vary considerably. Vessels over 525 ft. LOA are usually berthed port side to on the ebb and then only when tides are favourable. There is usually no objection to vessels unberthing from the wharves at night although generally speaking vessels will not be berthed at night.

(a) South Port: 4 ocean wharves of 2,190 ft. in length out of which 3 wharves are with 33 ft. of water alongside, and 1 wharf with 30 ft. of water alongside. 4 coastal shipping wharves of 1,320 ft. length. Of these, 1 wharf with 20 ft. of water alongside and 3 wharves with 18 ft. of water alongside and 2 anchorage. 3 to 4 vessels of not more than 250 ft. in length and with drafts of up to 18 ft. can be accommodated at the North shore anchorage.

Berth Nos. 1 – 4 are for ocean-going vessels while Berth Nos. 5, 6, 7 and 7A are used principally by coastal vessels with a maximum size of about 6,000 deadweight tonnes. The wharf apron is 15.2 m. (50 ft.) wide and carries 3 rail tracks.

(b) North Port Wharves: There are 17 ocean wharves with a total length of 12,120 ft. Of these, 2 are container berths with 44 ft. of water alongside, 1 Ro/Ro berth with a depth of 36 ft., 4 general cargo berths with 30 ft. of water alongside, 6 general cargo berths with 38 ft. of water alongside, 2 dry bulk berths with 36 ft. of water alongside for bulk carriers of 36,000 d.w.t., and 2 dolphins for tankers up to 60,000 displacement tonnes.

There are 5 container cranes on the container wharves.

Depth of water alongside is 44 ft. 62 acres of stacking area, capacity 10,800 TEU's (excluding 100 reefer points). Freight station measures 600 ft.×120 ft.

Container Handling Equipment: 5 container cranes of 35 tons capacity each.

21 straddle carriers of which 11 have a lifting capacity of 30 tons and 10 with 35 tons capacity.

36 tractors.

40 × 20 ft. and 31 × 40 ft. trailers.

58 forklifts with capacity 3 tons – 15 tons.

(c) General:

Facility		*Depth Below New A.D.C.* (ft.)
North Klang Straits Approach		36
Pintu Gedong Bar		19
Labohan Garap Bar		24
No. 1 Wharf	580 ft. length	33
No. 2 Wharf	580 ft. length	33
No. 3 Wharf	550 ft. length	33
No. 4 Wharf	480 ft. length	30
No. 5 Wharf	350 ft. length	20
No. 6 Wharf	300 ft. length	18
No. 7 Wharf	310 ft. length	18
No. 7A Wharf	310 ft. length	18
No. 8 Wharf (Ro/Ro Containers)	700 ft. length	36
No. 9 Wharf (Containers)	1,050 ft. length	44
No. 10 Wharf (Containers)	1,050 ft. length	44
No. 11 Wharf	580 ft. length	30
No. 12 Wharf	580 ft. length	30
No. 13 Wharf	580 ft. length	30
No. 14 Wharf	580 ft. length	30
No. 15 Wharf (Dolphin Berth)	550 ft. length	30
No. 16 Wharf	700 ft. length	38
No. 17 Wharf	700 ft. length	38
No. 18 Wharf	700 ft. length	38
No. 19 Wharf	700 ft. length	38
No. 20 Wharf	700 ft. length	38
No. 21 Wharf	700 ft. length	38
No. 22 Wharf } (Dolphin Berth)	700 ft. length	38
No. 23 Wharf	700 ft. length	38
No. 24 Wharf	700 ft. length	36
No. 25 Wharf	700 ft. length	36

(d) Berth No. 8, is for Ro/Ro as well as container traffic. The Ro/Ro ramp at the Southern end of the berth is 45 m. (147 ft.) long and 8 m. (27 ft.) wide. The maximum gradient is 1:10 at tides between +0.3 m. (1 ft.) and +5 m. (17 ft.). There are 3 forklifts of 22.5 tonnes capacity specially for Ro/Ro operations, as well as 3 tractors and 3 trailers. The berth can cope with ships of up to 40,000 tonnes and is capable of accommodating vessels with 20 m.to 32 m. beams and 1.0 m. to 4.5 m. freeboards.

HEALTH: Port Health Officer will board vessels arriving from infected ports, or carrying deck passengers at Deep Water Point at any time of day.

All vessels should include in arrival cables confirmation that all well on board and also that all health papers in order. It should be understood that the health papers referred to include Derat, or Derat Exemption Certificate. Also it is necessary to furnish information on the last 5 ports called within 14 days and the expiry date of Derat Certificate.

LIGHTERAGE: Wharf facilities are supplemented by lighterage. Two anchorage points are provided in the Anchorage Reach through which vessels pass on their way to and from the South Port.

Four vessels with length not exceeding 76 m. (250 ft.) and with draft not exceeding 5.5 m. (18 ft.) can anchor along the North Shore. As the size of the vessels which can use these moorings is limited, large bulk carriers have to anchor in the Deep Water Point opposite the North Port. Shore facilities for lightering cargoes at the North Port and South Port are provided by the Port Authority.

A skeleton lightering service of 12 lighters are in use to handle small amounts of break bulk general cargo and explosives.

Stream Berths for Lighterage Working:

	Swing	*Permissible LOA*	*Depth Available*
Anchorage	183 m.	167.6 m.	9.1 m. (30 ft.)
No. 6	152.4 m.	137 m.	12.2 m. (40 ft.)

BULK HANDLING FACILITIES:

South Port: Berths Nos. 1 – 3 are equipped with pipe-lines to handle bulk liquid cargoes such as palm oil, latex, petroleum and other petroleum products, coconut oil and tallow.

Bulk liquid installations and pipe-lines are owned by the operators.

Other facilities for the discharge of liquid cargoes are provided at the coastal palm oil jetty and private Shell Oil jetty. The coastal palm oil jetty in Sungei Aur is used by tankers of up to 76.2 m. (250 ft.) in length which load at plantation jetties and discharge their cargoes to the storage installations at the South Port. The Shell Oil jetty is used for the discharge of petroleum products principally for the BP storage and distribution depot nearby.

Storage capacity for the various bulk liquid cargoes is as below:

Palm oil and kernel oil	159,512 tonnes
Latex	42,418 tonnes
Vegetable oil	3,048 tonnes
Coconut oil	2,062 tonnes
Tallow	2,032 tonnes
Alkane	1,282 tonnes

Berth No. 4 has special equipment for the discharge of wheat grains in bulk by means of suction units. The wheat is then delivered by an overhead conveyor to a flour mill situated to the rear of Berths 3 and 4. Estimated discharging rate is 1,016 tonnes per day.

North Port: Berth No. 12 is provided with portable hoppers and conveyors to handle sugar from bulk carriers using their own cranes. The sugar is transported by conveyors to a sugar storage godown onshore. The discharging rate for 24 working hours is about 1,000 tons.

Dry bulk cargoes are handled at Berth Nos. 24 and 25. Bulk handling system recently installed to handle fertilisers, wheat, sugar, maize and salt. 2 grab cranes each with a capacity of 420 t.p.h.; 2 feed hoppers and conveyor system of 840 t.p.h. capacity make up the system.

Bulk Facilities in the North Port: Several specialised facilities have been set up at the North Port Second Extension. They include specialised terminals for timber, liquid bulk cargo, dry bulk cargo and bunkering facilities.

The handling of liquid bulk cargo is now carried out only in South Port. However, the latter has no space for expansion and insufficient wharves to cater for the increasing size of tankers calling at the port. An area of 31.3 hectares (77 acres) in the North Port has been developed to handle liquid cargo such as chemicals and refined palm oil.

The dry bulk cargo terminal on a 13.2 hectare (34 acre) site to cater for the handling of dry cargo such as artificial fertilisers, salt and sugar has been developed.

Timber which is at present largely shipped through private jetties is another cargo being given attention to by the Authority. The Malaysian Timber Industries Board will operate the terminal through its subsidiary company. The terminal is on a 18.5 hectare (45.6 acre) site at the Second Extension.

Petronas, the national petroleum company, has set up bunkering facilities at the Second Extension. The Authority reserved 5 hectares (20 acres) for this purpose.

CRANES: *South Port:* 2×10.6 tonne mobile cranes and 5×5 tonne mobile cranes.

North Port: Mobile cranes – 7×5.08 tonne, 3×7.1 tonne, 2×10.1 tonne, 3×17.2 tonne, 1×25.4 tonne and 1×30.4 tonne.

STEVEDORES: Almost all timber loaded from private junks for which no lighter gangs needed. Average working rate, subject to stow, for timber in loose pieces is 4 – 6 t.p.h., and in bundles 6 – 8 t.p.h. Not more than 2 lighters or "tongkangs" may lie alongside any vessel abreast of each other and not more than 2 lighters shall be moored astern of a vessel.

Rubber, latex in drums, etc., loaded by Port Authority and lighter/wharf gangs are required. Average working rate for these commodities is 14 t.p.h.

The average rate of discharge at North Port (North Klang Straits) wharves is 14 – 16 t.p.h.

On-board stevedores provided by the Port Authority. Requirements for the 1st shift should be made known by 1930 hrs. the previous day and for 2nd shift by 1130 hrs. same day and the 3rd shift not later than 1930 hrs. the same day.

Working hours throughout the port: 1st shift 0800 to 1600 hrs. (meal break 1200 – 1300 hrs.). 2nd shift 1600 to 2300 hrs. (meal break 2000 – 2100 hrs.). 3rd shift 2400 to 0800 hrs. (meal break 0400 – 0500 hrs.).

MEDICAL: A number of private doctors in Port Kelang and it is often not necessary to give any advance notice of medical attention being required. In event of vessel requiring urgent medical attention on arrival, advisable for Master to cable Agent in advance. At present 2nd class medical facilities available in Kelang and 1st class facilities only available in Kuala Lumpur. As vessels arriving at Port Kelang normally do so after calling at Penang or Singapore no inoculation, vaccination or fever certificates are required unless either Singapore or Penang is declared an infected port.

TANKERS: Tankers always berth port side to on ebb and near slack water. Vessels with bulk liquid cargoes to load or discharge will berth at wharves 1, 2, or 3. When a number of pumping vessels in port, vessels will usually occupy these wharves only for the time it takes to complete pumping and may then have to shift to stream or another wharf. Three of the ocean wharves are provided with facilities for handling liquid cargo. Liquid cargoes now being handled are: latex, palm, coconut oil, petroleum products, alkane, tallow and fuel oil.

Shell Company has a private jetty on which vessels up to 320 ft. in length with drafts not exceeding 20 ft. can be berthed.

Also see "Bulk Handling Facilities".

DENSITY: Varies considerably with state of tide and heavy monsoon rains.

FRESH WATER: 3 waterboats of total capacity 750 tons, available to supply vessels in South Port and at Deep Water Point with fresh water. As much notice as possible should be given if waterboat required. At North Port (North Klang Straits) water available from wharf. Pumping rate about 20 – 25 t.p.h.

FUEL: Bunkers are available.

FIRE PRECAUTIONS: In respect of tankers loading or discharging inflammable cargo, necessary to have wharf cordoned off and "No Smoking" signs exhibited prominently. Port Fire Brigade required to be on stand-by at wharf whilst operation in progress. Vessel may not disable engines whilst alongside wharf and shall have axes ready in event has to leave wharf urgently and necessary to cut ship's lines. Port Fire Service on duty 24 hours a day throughout year. Service is capable of fighting all types of fire whether on land or on sea. Fire service has following equipment: 3 fire engines, 1 Land Rover fire engine, 2 trailer pumps, 3 fire fighting tugs, 1 elevated tank in South Port (capacity 200,000 gallons), 2 elevated tanks in North Port (capacity 200,000 gallons), 3 vans at the fire brigade station, 4 ambulances, fresh water hydrants at various points in the Ports.

OPENING/CLOSING HATCHES: Normally carried out by stevedores.

CUSTOMS/IMMIGRATION: Customs Officer will board vessel soon after arrival to seal the "Bonded stores". For vessels staying in port some time it is usual to issue 3 days supply – a further issue may be made on request after 3 days.

Immigration Officer will clear vessels arriving from foreign ports on a 24 hour basis. No one may board or leave or approach within one cable length of such vessel without special permission until vessel has been cleared by Immigration Officer and Immigration Signal is hauled down. No Immigration formalities required for vessels arriving from or leaving for other West Malaysian ports (Malacca and Penang).

IDENTIFICATION CARDS: Advisable that members of crew carry identification cards when leaving ship.

CONSULS: Consulates/Embassies/High Commissions in Kuala Lumpur (28 miles from Port Kelang).

Australian High Commissioner's Office.
Austrian Embassy
High Commission of the People's Republic of Bangladesh
Belgian Embassy
Embassy of the Republic of Bolivia
Consulate of Brazil
British High Commission
Burmese Embassy
Canadian High Commission
Consulate of the Republic of China
Royal Danish Embassy
Embassy of the Arab Republic of Egypt
Consulate of Finland
Embassy of France
West German Embassy
Indian High Commission
Embassy of the Republic of Indonesia
Embassy of the Republic of Italy
Embassy of the Republic of Iraq
Embassy of Japan
Embassy of the Republic of Korea
Royal Embassy of the Netherlands
New Zealand High Commission
Consulate of Norway (at Penang only)
Consulate of Panama (at Penang only)
Pakistan High Commission
Embassy of Philippines
Embassy of the Polish People's Republic
Honorary Consul of Portugal
Embassy of the Romania Socialist Republic
Singapore High Commission
Embassy of Royal Saudi Arabia
Royal Swedish Embassy
Sri Lanka High Commission
Embassy of Switzerland
Royal Thai Embassy
Turkish Embassy
Embassy of the United States of America.
Embassy of the U.S.S.R.
Embassy of the Republic of Vietnam
Yugoslavia Embassy

REPAIRS/DRY DOCKS: There are no major ship repair facilities at the port. The Authority operates 3 slipways for its own crafts.

Slipway No. 1 can accommodate vessels up to 27.4 m. long with a 3.10 m. draft and a displacement of 150 tonnes.

Slipway No. 2 designed for flat bottomed vessels, can cater only for craft up to 23.1 m. length, 2.1 m. draft and with a displacement of 100 tonnes.

Slipway No. 3 can accommodate vessels up to 45.7 m. in length, 4.4 m. draft and with a displacement of 450 tonnes.

REPATRIATION: Crew changes and repatriation must be arranged by Agent. Harbour Master attends signing-on and signing-off of the crews on ship's articles.

AIRPORT: Subang International Airport approximately 20 miles from port on main trunk route to Malaysian capital of Kuala Lumpur and served by regular domestic flights and international flights.

HOLIDAYS: Port Closing Days. *Hari Raya Puasa; *Chinese New Year; Malaysia Day (31st August); *Deepavali; Christmas Day (25th December). *Dates subject to changes as festivals coincide with Mohammedan, Chinese and Hindu calendars.

TELEPHONES: At North Port (North Klang Straits) Wharves telephones installed on board if required. At wharves in South Port there is always a telephone within easy reach at Wharf Office.

VHF radio sets available to vessels at anchor or moored to buoys.

GENERAL: *(a)* Ship-Shore Communication. When vessels are berthed in stream or at Deep Water Point a 24 hour launch service can be supplied. Arranged by Agent in consultation with Master to suit requirements of ship.

Vessels permitted use own boats with proper navigation lights at night.

(b) Seamen's Club. "Mariner's Club" for officers and seamen outside No. 3 Gate of South Port. Club has swimming pool, bar, restaurant and accommodation.

(c) Diving. Diving services available for salvaging lost cargoes, examining underside of ships, etc. Divers capable of deep-sea diving down to 120 ft.

DEVELOPMENTS: Construction of 2,800 ft. of wharves at an island called Pulau Lumut, opposite the South Port is planned. 1st phase of the project scheduled for completion in 1990.

Bulk cement terminal completed. Discharge rate 250 t.p.h. bagging facilities at the silo.

Also see "Berthing – North Port" and "Bulk Handling Facilities"

SHIPMASTER'S REPORT: May 1986.

The following advices were received from our Agents in Port Kelang.

Water Supply to Ships: Owing to lack of facilities presently in the port, the Port Authority is unable to supply fresh water to vessels promptly.

Compulsory Pilotage in Port Kelang: We would advise you that pilotage is compulsory throughout the pilotage district of Port Kelang.

In order to ensure that the Pilot boards your vessel immediately on your arrival at the Pulau Angsa/Pintu Gedong Pilot Station (North/South Entrance Pilot Station), please cable us and "Pilot Portkelang" advising your ETA, deepest draft and vessel's Readiness to Load (if berth required for that purpose) as soon as possible.

Panamanian Vessels: We would advise you that quite a number of Panamanian vessels have experienced extreme difficulties in obtaining Sailing Clearances from the Harbour Master, Port Kelang, owing to expiry of Crew Rolls and/or absence of Panama Consul's endorsements on signed on/signed off entries in the Crew Rolls.

To avoid encountering this problem at Port Kelang, please ensure that your Crew Roll is valid and in order.

For your information, there is no Panama Consulate in Kuala Lumpur. The nearest one in this region is in Singapore where you can have your Crew Roll validated, if necessary.

AUTHORITY: Kelang Port Authority, Jalan Pelabuhan, Mail Bag Service 202, 42005 Port Kelang, Malaysia. *Tel:* 3688211 (20 lines). *Telex:* MA 39524. *FAX:* 03-3670211. *Contact:* Mohd. Hashir H. Abdullah, General Manager. Kwek Chee Wah, Chief Commercial Officer, Commercial Department.

AGENT: Pesaka Jardine Shipping Agencies Sdn. Bhd., 145A Persiaran Raja Muda Musa, Wisma NG Chin Chye, 42007 Port Kelang. Tel: (03) 3684118. Telex: MA 39477, MA 39701 Jaship. Fax: (03) 3680391. Cables: "Jarship Port Kelang".

Associated with Jardine Shipping Agencies.

✓

ROMPIN (Kuala Rompin) inc. Pahang, Malaya: 02.43 N. 103.30 E.

DOCUMENTS:

Register.
Last Port Clearance.
7 copies Crew List and 4 for Agent.
5 copies Passenger List (if any).
5 copies Stowaway List (if any).
2 copies Stores List (including firearms and ammunition).
2 copies Dutiable Liquor and Tobacco List.
2 copies Crews Declaration List (cameras, radios, etc.).
1 copy Vaccination List.

Masters of vessels to fly the necessary following flags on arrival as required under Section 448 of the Merchant Shipping Ordinance and Sub-Section (9) of the Federation Port Rules, 1953.

(1) The Federation of Malaysia Flag.
(2) The Pennant "O" Flag (Request Port Officer).
(3) The "Q" Flag (request Port Health Officer).
(4) The Pennant "2"; "5" Flags if no passengers and "3"; "4" Flags if there are passengers on board (Immigration).

PILOTAGE: Compulsory to the loading berths. Extra charge for pilotage outside normal office hours and holidays.

ANCHORAGE: On arrival, vessels required to anchor about 1 mile outside berthed ships to obtain pratique. An accommodation ladder must be rigged on lee side to allow Port Authorities to board.

READINESS: Notice of Readiness cannot be accepted until vessel is in Free Pratique, Customs Inward Examination completed, and in all respects ready to load.

LOADING. *(a)* Ladders. Masters particularly advised to see that a sound and adequate ladder provided at each lighter to allow labourers engaged in loading to pass to and from ship with no undue risk. Regulations are provided in the Merchant Shipping Ordinance, Section 445, Sub-Section (O) which takes care of this requirement and failure to take adequate precaution in seeing regulation is observed may result in serious consequence to those responsible.

Masters requested to ensure that in addition to ladders for labourers, an extra ladder, preferably a clean pilot ladder, be made available at all times for the Agent for boarding. This ladder should be made fast on lee side, just forward of any scuppers in vicinity, and a heaving line from ship's rail made fast to bottom rung. When ladder not in use, bottom of ladder can be pulled up a few feet with heaving line to prevent labourers from using it or damage from lighters.

(b) Winches. All winches must be in single gear at all times.

(c) Derricks. Practice to work 2 sets of derricks to 1 lighter where practicable.

(d) Trimming. No manual trimming undertaken.

(e) Damages. In the event of your vessel sustaining damage by stevedores during loading, you are requested to inform the clerk and foreman on board immediately and as soon as practicable confirm same in writing to the Eastern Stevedoring Co. Ltd., Kuala Rompin, with copies to Hong Kong & Eastern Shipping Co. Ltd., Hong Kong, and Malay States Shipping Ltd., Kuala Rompin. It is important that full details of damage are given, together with measurements whenever possible.

Minor damage has occurred on vessels due to hatch beams not being bolted or lashed. Masters therefore requested ensure all beams adjoining working parts of hatches either bolted or lashed, otherwise stevedores will repudiate liability for any damage incurred.

OPENING/CLOSING HATCHES: Removal and replacement of hatch beams and covers must be done by ship's crew. Ship's Officers should see that any tween-deck beam removed is replaced before ore reaches that height.

CUSTOMS: Customs office hours 0830 to 1630 Monday to Friday, 0830 to 1300 hrs. Saturday.

IDENTIFICATION CARDS: Every member of crew must produce Identity Document or Shore Leave Pass at Customs House when landing and again when returning to vessel.

HOLIDAYS: New Year's Day; Hari Raya Puasa, 2nd day; Chinese New Year, 2nd day; Hari Raya Haji, 2nd day; First Day of Muharram; Vesak Day; Birthday of Sultan of Pahang; Birthday of H.M. The Yang Di-Pertuan Agong; Birthday of Prophet Muhammad; Malaysia Day; Deepavali; Christmas Day.

Note: Where a holiday falls on a Sunday, the following day will be observed as a holiday, and if such latter day is already a holiday, then the day following shall be a public holiday.

GENERAL: *(a) Scrap Iron.* Steel mills in Japan complain from time to time of finding pieces of scrap iron in the iron ore cargoes. If this scrap is not found it will cause serious damage to the plant and occasion considerable delay to production: furthermore, should scrap iron enter the machinery there is always the possibility of it endangering life, and several fatal accidents have been attributed to this cause.

The assistance of officers and crew is requested in reporting any scrap iron they see being loaded, advising shippers into which hold it went and number of the lighter it came from to enable us to take appropriate action.

(b) Whistle, Radio. Wireless Transmitters, Whistles and Sirens etc., must not be used by vessels at anchor off Kuala Rompin.

(c) Stores. Bonded stores can be obtained from Kuala Lumpur and Kuantan at prices roughly same as Singapore. Essential, view Customs formalities, that Masters give Malay States Shipping Ltd., Kuala Rompin 6 days prior notice of requirements.

SHORE LEAVE: No seaman may proceed more than 3 miles from Kuala Rompin Customs House. The Officer in Charge Customs, as acting Immigration Officer, has authority to limit or prohibit shore leave in all cases.

SABAH (Minor Ports): (See Plan)

KUDAT: 06.53 N. 116.51 E. ✓
LAHAD DATU: 05.02 N. 118.20 E. ✓
SEMPORNA: 04.29 N. 118.37 E. ✓

DOCUMENTS: 8 copies all usual documents, i.e. Crew List, Passenger List, Manifest. Others include Store List, Stowage Plan, Sea Worthiness Certificate and Last Port Clearance Certificate. Where possible, Cargo Manifests and Stowage Plans should be forwarded in advance to local Agents and Port Authority ahead of vessels.

PILOTAGE: Applications normally made by Shipping Agents with advance notice of 24 hours prior to actual time that Pilot services required. Pilot boats between 30 ft. – 40 ft. length and equipped with VHF/AM Sets – 80.4 MHz frequency. Pilot station at Port Office (Marine Department) and location for vessel awaiting Pilot is within port limit.

MAX. SIZE: There is no limit on cargo vessels worked at anchorage. Also see "Berthing".

HEALTH: To obtain Pratique, arrange with Shipping Agent. Pratique for vessel entering, after calling at another port in same state, is not required. Anchor in quarantine anchorage if vessel is suspect and display following signals: *By Day:* International Code Signal "QQ". *By Night:* A Red light over a White light and a separate hoist of Red light over a Green light. Hoisted vertically 6 ft. apart where best seen.

ANCHORAGE: All ports within bays and they provide good safe anchorages.

RESTRICTIONS: No restrictions for vessels entering port at night.

RADIO: Singapore Radio recommended.

BERTHING: Application for berthing has to be made within 24 hours prior to actual time that berthing is required.

Details and Requirements: Name of vessel, gross and net tonnage, length overall, draft (fore and aft), ETA at berth, ETD from berth, nature and tonnage of cargo to be discharged/loaded. No priority for berthing ships and the turn is, first come first served.

Kudat: L-shaped wharf with 2 berths. Western berth – length 370 ft. min. depth 21 ft. Eastern berth – length 300 ft., min. depth 21 ft.

Lahad Datu: Outer Berth: Length 320 ft. Depth 36 ft. Max. size 25,000 d.w.t.

Inner Berth: Length 240 m. Depth 30 ft. Max. size 2,000 d.w.t.

Semporna: T-shaped wooden wharf with 2 berths. Outer berth, length 150 ft. min. depth 26 ft. Inner berth, length 127 ft., min. depth 20 ft.

The wharf is operated by the State Government.

STEVEDORES: Arrangement of stevedores should be made with 48 hours' notice to Shipping Agent. Average gang performance is 20 ton-per-gang-hour for conventional traffic (excluding vehicles) and 40 ton-per-gang-hour for pre-palletised cargo (excluding vehicles). Cargo work is carried out in 3 × 4-hour periods namely:–

1st Period 0730 hrs. to 1130 hrs.
2nd Period 1300 hrs. to 1700 hrs.
3rd Period 1800 hrs. to 2200 hrs.

MEDICAL: Arranged on arrival by Shipping Agent.

DENSITY: Average density in the ports 1020.

FRESH WATER: Available at General Cargo Wharves at a rate of 20 t.p.h.

GANGWAY/DECK WATCHMEN: Not necessary. Agents may advise option.

OPENING/CLOSING HATCHES: Normally by stevedores.

CERTIFICATES: Registry, Load Line, Radio, Safety Equipment and Derat Exemption.

CUSTOMS ALLOWANCES: Tobacco, Wine and/or Spirits: No control and up to discretion of Officers of Customs and Excise.

CARGO GEAR: Ship's gear used also for containers ex-feeder ships and heavy lifts in major ports.

IDENTIFICATION CARDS: Not needed.

CONSULS: Consulates in Kota Kinabalu exist for the following countries:–

United Kingdom
Indonesia
Japan
Denmark

REPAIRS: Marine Department operates engineering workshops at Labuan and Sandakan. Some private firms and workshops also undertake small engine and deck repairs in Kota Kinabalu.

DRY DOCKS: Marine Department has 3 slipways in Labuan which are capable of shipping vessels of 60 tons, 200 tons and 500 tons displacements. One in Sandakan for vessel up to 120 tons.

REPATRIATION: Normally arranged by Agents.

AIRPORT: Most airports in State between 4 km. to 10 km. from the town.

TIME: Local time is 8 hours ahead of GMT. No alteration to clocks.

HOLIDAYS: Cargo work can be arranged if necessary during official holidays, but not for Hari Raya Puasa, Chinese New Year and Christmas Day. Also see "Sandakan".

POLICE/AMBULANCE/FIRE:

	Fire/Police	*Hospital*
Kudat	333	335
Lahad Datu	81999	81522
Semporna	SPA 599	SPA 522

SERVICES: Tank cleaning services can be arranged with Agents. Marine Department deals with compass adjustments.

SHORE LEAVE: Allowed.

DELAYS: Due to weather conditions only.

AUTHORITY: Sabah Ports Authority, Kota Kinabalu, Sabah. *Tel:* 088-56155/088-52140. *Telex:* Saport MA80074. *Contact:* The General Manager.

Lahad Datu: Sabah Ports Authority, P.O.Box No. 143, 91107 Lahad Datu. *Tel:* 81244, 81610, 81213. *Telex:* MA 83207.

SANDAKAN, Sabah: 05.50 N. 118.07 E. ✓ (See Plan)

FLAGS: Signal letters, Mail flag (if any mail on board for discharge); "Q" flag is essential if Sandakan is the first Sabah port at which a vessel calls. If ship carrying passengers it should fly Immigration Signal Nos. 3 and 4; if no passengers Nos. 2 and 5.

PORT LIMITS: The limits of the port of Sandakan shall be Sandakan Bay bounded by a line drawn in a West-South-West direction from the Northern point of Pulau Berhala to the mainland, and by another from the same point on Pulau Berhala to the most Eastern extremity of Tanjong Aru and thence to the opposite bank at the entrance of Trusan Duyong, including all passages and rivers entering the same for a distance of 600 ft. inland from the mouth of the river.

DOCUMENTS: 5 sets of Inward Manifest in the prescribed form to be airmailed to Agent to arrive at least 48 hours before the vessel.

(a) To be Produced on Arrival:

1 Sabah Lights and Harbour Dues form
2 Manifests in the prescribed form
3 Crew Lists
1 Last Port Clearance
3 Stores Lists
3 Passenger Lists
2 Arms Lists
3 Narcotics Lists
2 Parcels Lists

(b) Required by Agent:

2 sets of Inward Manifests for all inward cargo
5 sets of Transhipment Manifests for all cargo to be transhipped at Sandakan.
2 copies of Hatch List.
1 copy of Passenger List.
1 copy of Crew List.
1 copy of List of Arms and Ammunition.
1 copy Narcotics List.
1 copy Stores List.

(c) To be Supplied to Ship before Departure:

Manifests, as required by vessels.
Master's copy of Bills of Lading.
Port Clearance and Customs Clearance.
Sabah Lights and Harbour Dues form.

(d) Immigration: Immigration Officer will board vessel on arrival and clear her inward. No restrictions on crew and/or passengers going ashore. Immigration require 2 copies of Crew List and 2 copies of Passenger List. Vessels cleared inward until 1800 hrs. only. If there are special circumstances arrangements can be made to clear vessels inward after this time.

(e) Marine Department: Shipping Arrival Report to be signed by Master of Vessel.

PILOTAGE: Pilotage not compulsory but if required the Harbour Master acts as Pilot. At least 24 hours' notice should be given and position where Pilot is required to embark (i.e. the bar buoy or within harbour limits) should be included in the message.

ANCHORAGES: For loading timber: A black and white conical buoy situated 1.2 miles S.W. from Government Wharf indicates the anchorage. It is important that vessels should anchor as close to this buoy as possible, when anchored further from shore it may take up to an hour longer for launches towing rafts of timber to reach ship and in addition there is less shelter from wind and weather and consequently raftsmen have to cease work earlier.

For discharging: Unless it is intended to come alongside the wharf, vessels discharging should anchor 4 cables due South of wharf. Wharf is 750 ft. long with dolphins placed 100 ft. from each end giving a total length of 950 ft. If discharging into lighters and loading log timber simultaneously vessels should proceed to Timber Anchorage.

RESTRICTIONS: *(a)* Shifting: Vessels may not berth alongside after dark without special permission but they may leave the wharf, having given prior notice.

(b) Special Cargo Regulations: No vessel with dangerous cargo may be alongside after sunset, except at discretion of Harbour Master. No dangerous cargo may be discharged simultaneously with general cargo except with permission of Harbour Master. Livestock: subject to approval of Veterinary Authority. Certain animals, including cattle, are prohibited imports and exports except under licence.

MAX. SIZE: Draft restriction is 24 ft. on the Bar plus the height of tide, mean high water being about 6 ft.

HEALTH: (Also see "Radio" and "Regulations"). If Sandakan is first port of entry into Sabah a vessel must proceed to quarantine anchorage until cleared by Health and Immigration Officials.

The Sabah Government are signatories to the WHO convention on quarantine regulations. If vessel comes from outside State of Sabah then Port Health Authority will require to board in quarantine anchorage before vessel can proceed to wharf or timber anchorage. If, however, vessel is not coming from an infected port Pratique may be granted providing vessel cables Agent prior arrival advising last port of call and whether vessel healthy. Pratique normally cabled to ship but if unreceived, vessel must proceed to quarantine anchorage.

Port Health Authority require completed copy of Maritime Declaration of Health, and copies of Crew, Passenger and Narcotics Lists.

RADIO: Singapore Radio recommended.

(Information required before ship's arrival.) ETA, number of passengers, health situation, Manifest, amount of water required. Vessels not allowed to use their radio in port.

VHF: Marine signal station keeps watch on VHF Channel 16, from 0530 to 2000 hrs.

TUGS: A tug of 636 h.p. stationed at Sandakan.

BERTHING: (Also see "Anchorages").

(a) Mooring: The numbers of a vessel which is berthing alongside will be shown from signal station on Eastern end of Customs House. In addition, a cone indicating tidal stream will be hoisted pointed end of cone down indicates flood tide and pointed end up indicates ebb tide. Linesmen are on hand to receive a vessel's lines, a mooring boat will be provided by Marine Department if it is necessary to send lines to dolphins. Old Government Wharf, least depth 19 ft.

(b) Buoys: No mooring buoys.

(c) Lighters: No lighter fleet. The timber companies have their own lighters and scows which can sometimes be hired if not being used by these companies.

Rectangular Island Wharf: The particulars of the berths are as follows:

Berth No.	*Length (m.)*	*Depth (m.)*
1	213	9.1
2	122	6.4
3	76.2	6.1
4	164	6.4

The berths are constructed to receive containers.

Covered Storage:

(a) One transit shed 90,000 sq.ft. at new port site.

(b) New godown at new port – 52,520 sq.ft.

Equipment: New equipment only listed below:

(a) 4 towing tractors.

(b) 47 forklifts 3-6 tonnes capacity and 1×25 ton and 1×19 ton capacity for container handling.

(c) 24×5 ton trailers and 4×20 ton trailers for container handling.

STEVEDORES: Stevedoring in hands of Port Authority who supply gangs as required.

(a) Working hours, 0730 – 1130, 1300 – 1700 and 1800 – 2200. Gangs ordered at least 12 hours before a vessel arrives.

(b) Overtime. When working in stream, overtime usually from 1100 to 1200 and 1800 to 2200 hrs. Application for permission to work overtime must be made to Customs not later than 1500 hrs. on the afternoon that overtime is to be worked or 1100 hrs. on Saturday for weekend overtime.

(c) Working Sundays and holidays. Work is normally carried out Sundays and it is sometimes possible to arrange for work on some public holidays. Application must be made to Customs for permission to work Saturday afternoons, Sundays and public holidays.

See "Holidays".

(d) Rate. Log loading is good, comparing more than favourably with other Borneo ports. Rate of loading about 800 cu. ft. hoppus (20 B/L tons) per gang hour for logs, and 6 B/L tons per gang hour for sawn timber. Discharging general cargo about 20 tons per gang hour. Palletised cargoes about 40 tons per gang hour.

CARGO: (a) Tally: Tally clerks supplied by Agent if required. Sawn timber tallied on to scows by timber companies' clerks and tallied into ship by ship's tally clerks. Ship responsible for total number of pieces of timber shown on Mate's receipts. Letters of Credit do not allow the clause: "A quantity said to be" to be inserted on the B/Lading. Log timber tallied into ship by checking against specifications supplied by timber companies.

(b) Inward Cargo: Is tallied out of ship on to wharf or into lighter. Local watchmen can be supplied by Agent if necesary but it is generally found to be more satisfactory if these duties are carried out by crew. Damaged cargo is surveyed on the spot, otherwise no liability of vessel is acknowledged. Discharge carried out after permission has been obtained from Customs after manifest of inward cargo has been deposited. Cargo is delivered to consignees against production of relative Bill of Lading. Ship's responsibility to consignees ceases at ship's side but, in the case of short-landed cargo, reasonable proof must be given to Customs that cargo has not been landed. A short-handed Memo certified by Chief Officer is usually accepted as proof.

(c) Heavy Lifts: Usually landed overside on flat-top scows for delivery to private jetties, where they are man-handled to required site. Occasionally consignees provide low-loaders.

(d) Transhipment Cargo: After discharge of cargo from first carrier, transhipment cargo placed under supervision to Ports Authority, unless it is possible to arrange direct transhipment into small coastal vessels.

(e) Outward Cargo: Main export is log timber and is towed out to loading vessels in rafts, each one accompanied by 2 raftsmen. Loading is on a single swinging derrick with gun tackle; the other derrick being used for pulling the logs into position in the holds. Vessels should have, if possible, 2 snatch blocks available at each hatch where log timber is being loaded. Sawn timber loaded in normal manner from scows and lighters. Documents required are shipping order issued by Agent and list of specifications supplied by timber companies. Other exports are rubber, copra, coconuts, palm oil, jungle and sea produce.

(f) Refrigerated cargo: Only small quantities of refrigerated cargo loaded or discharged. No formalities or certificates being required other than compliance with Customs and Agriculture Department Regulations. Inward fridge cargo is confined to foodstuffs, meat, etc., and outward to frozen prawns. 1×65 amp and 3×30 amp reefer points available.

(g) Explosives: Explosives must be discharged into lighters under police escort and transported to an approved police store. A licence for their importation must be obtained from police prior to arrival of cargo, and Harbour and Police authorities must be informed of arrival of explosives in port either for discharge or as through cargo.

(h) Damaged Cargo: Direct delivery/cargo surveyed at shipside. Cargo discharged into godowns surveyed jointly between Port Authority and ship's representative in damaged cargo lockers.

MEDICAL: *(a)* Hospitals: Duchess of Kent Hospital will receive sick seamen or officers. Three classes of wards, also isolation wing. Hospital equipped to carry out normal surgery.

(b) Inoculation: PHO will vaccinate or inoculate crew members at Duchess of Kent Hospital.

(c) Death on Board: PHO and Police to be informed immediately. They will then make an investigation into cause of death. If satisfied that death was due to natural causes, a certificate will be issued, and arrangements may then be made for interning the body. Harbour Master must also be informed in the case of seamen.

TANKERS: Two bulk oil installations at Karimunting (Pavitt Point). Esso, with storage capacity of 2,080 tons and Shell, with storage capacity 15,730 tons.

Shell Jetty extends 550 ft. from shore, is 128 ft. long with mooring dolphins 125 ft. from each end. Min. depth alongside 24 ft.

S.P.A. Oil berth, 1,000 ft. length between dolphins, with central discharging pier. Least depth alongside 30 ft. This berth also used for loading palm oil in bulk. Max. size 30,000 d.w.t.

FRESH WATER: Can normally be supplied from wharf at rate of 20 t.p.h. Private water boat available on request. Occasionally water is not available and, at such times, Agent warns Principals in advance.

FUEL: Lubricants can be obtained in drums and bulk diesoline available at Shell/Esso jetty. Approval must be obtained first from Customs Department and Ministry of Trade and Industry before loading.

FIRE PRECAUTIONS: No fire-floats and in case of a vessel alongside, fire brigade should be summoned by dialling 999. The OCPD should be informed also.

WATCHMEN: No regulations regarding use of watchmen, who, however, can be supplied if required. There have been only very isolated reports of pilferage in Sandakan.

OPENING/CLOSING HATCHES: Normally by stevedores.

CONSULS: At Kota Kinabalu.

CERTIFICATES: Registry, Load Line, Radio, Safety Equipment and Derat Exemption.

CUSTOMS ALLOWANCES: Tobacco, wine and/or spirits: No control, up to discretion of Officer of Customs and Excise.

CARGO GEAR: Ship's gear used, also for containers ex-feeder ships and heavy lifts in major ports.

IDENTIFICATION CARDS: Not required.

REPAIRS: Marine Department operates engineering workshops at Sandakan.

DRY DOCKS: One in Sandakan for vessels up to 120 tons.

A Government-owned shipyard/dry dock known as Sabah Building, Repairing and Engineering Sdn. Bhd. exists in Labuan to undertake full repairs services has been established for ocean-going vessels.

HOLIDAYS:

Closure of SPA Ports
During Sabah State Public Holidays – 1988:

All ports under the jurisdiction of the Authority shall be closed completely during the following public holidays:–

a) New Year	Friday	1st January
b) Chinese New Year	Wednesday	17th February
c) Good Friday	Friday	1st April
d) Labour Day	Sunday	1st May
e) Hari Raya Puasa (2 days)	Tuesday & Wednesday	17th & 18th May
f) Harvest Festival	Monday	30th May
g) Hari Raya Haji	Sunday	24th July
h) Birthday of Sabah Head of State	Friday	16th September
i) Christmas Day	Sunday	25th December

The ports will however remain open during other public holidays.

Note: These are the 9 occasions when the Ports of Sabah will be closed completely every year although the dates may vary.

REPATRIATION: Normally arranged by Agents.
AIRPORT: Some airports in State are between 4 km. to 10 km. from town centre.
TIME: Local time is 8 hours ahead of GMT. No alterations to clocks.
POLICE/AMBULANCE/FIRE: Ambulance: Duchess of Kent Hospital, tel. 2111; Police/Fire: Police Station Emergency, tel. 999.
TELEPHONES: Available.
SERVICES: Tank cleaning services can be arranged with Agents. Marine Department deals with compass adjustments.
DELAYS: Due to weather conditions only.
GENERAL: *(a) Surveyors:* Harrisons & Crosfield (Sabah), Sdn. Bhd. are Lloyd's Agents, neither Bureau Veritas nor the American Bureau of Shipping are represented.

(b) Fumigation: No facilities.

(c) Ship Chandlers: All kinds of stores and provisions can be supplied at reasonable prices.

(d) Call Signals and Call Flags: (i) Continuous watch kept by signal station during day-light hours. In emergency such as serious injury or fire a ship should hoist appropriate International Code signal and blow whistle or siren to attract attention. Apart from these circumstances and for purposes of navigation vessels are prohibited from using sound signals for any other reason.

(ii) Signals for attracting Public Service Launch: By day: International Code Pendant No. 8. By night: Three red lights vertical. Owing distance of anchorage from jetty these signals often indistinguishable by hire launches unless they are cruising in the harbour. Regular launch services can be arranged if required by Master. No restrictions against a vessel using its own launch or motor lifeboat but it must not land anywhere other than at Customs wharf.

(e) Recreation Facilities: Three cinemas in town which show English-language films. Cricket, football, and hockey matches can be arranged with local teams and several tennis courts available. Only suitable swimming beaches at Berhala Island at mouth of harbour. Yacht Club and Golf Club for members only, but several Shipping Companies pay Corporate Membership fee which enables all officers and first-class passengers to use club. Recreation Club offers facilities for large variety of sports and entertainment; visitors must be accompanied by a member. Churches in town for Anglican, Catholic, Seventh Day Adventist and Lutheran worship.

REGULATIONS: 1. Arrival and Departure. The Owner or Agent of every vessel other than a small ship intending to call at a port shall, as soon as possible, and in any case not later than 36 hours prior to the estimated time of arrival of the vessel, give notice in writing by filling in Form "A" – "Notice of Arrival" to the Authority of such arrival and, if so desired, the requirement for a berth at a wharf.

2. The notice under this regulation shall be in a form prescribed by the Authority and shall contain full particulars regarding the cargo to be discharged and loaded, the embarkation and disembarkation of passengers, heavy lifts, special or perishable cargo, hazardous and dangerous goods (whether to be discharged at the port or not), and any other matters of importance relating to the working or safety of the vessel in the port.

3. The Master of every vessel entering or leaving a port between sunrise and sunset shall cause to be hoisted the national colours and the signal letters, if any, of the vessel. The national colours shall be exhibited from 0800 to sunset whilst the vessel remains in port.

4. The Master of every vessel arriving from outside the State of Sabah shall exhibit the Immigration and Quarantine signals contained in the First Schedule and shall also at the request of a customs officer hoist the Customs signals. Such signals shall remain exhibited until the appropriate officer has given permission for them to be lowered.

5. No vessel shall approach within 600 ft. of any other vessel exhibiting the Immigration, Health or Customs signals.

6. No person other than a Pilot may board or disembark from any vessel until the vessel is cleared inwards and the Immigration, Quarantine and Customs signals have been lowered.

7. Every vessel entering a port shall be anchored or efficiently secured to a wharf or buoy before commencing the loading or discharging of cargo and/or the embarkation or disembarkation of passengers.

8. No vessel shall leave any port unless in possession of a valid Port Clearance issued by or on behalf of the Director of Marine.

9. Special signals.

Significance	*By Day*	*By Night*
Immigration (for ships not carrying passengers)	International Code Signal "2 5"	Two green lights, 6 ft. apart, hoisted vertically where best seen.
Immigration (for ships carrying passengers)	International Code Signal "3 4"	Two green lights, 6 ft. apart, hoisted vertically where best seen.
Quarantine (vessel is Healthy request Pratique)	International Code Signal "Q"	Nil
Quarantine (vessel is suspect)	International Code Signal "Q Q"	A red light over a white light and a separate hoist of red light over a green light and hoisted vertically 6 ft. apart where best seen.
Quarantine (vessel is infected)	International Code Signal "Q L"	
Quarantine (not received Pratique)	Nil	A red light over a white light 6 ft. apart hoisted vertically where best seen.
Request Police Assistance	International Code Signal "S T"	A green over a white light, 6 ft. apart hoisted vertically where best seen.
Request Medical Assistance	International Code Signal "W"	A red light over a green light, 6 ft. apart, hoisted vertically where best seen.

AUTHORITY: Sabah Ports Authority, Pejabat Pengurus Pelabuhan, Peti Surat 1368, 90008 Sandakan, Sabah, East Malaysia. *Tel:* Sandakan (089) 612411-8 (PABX), 612751 (Direct line). *Telex:* MA 82013. *Cables:* Saports. *Contact:* Francis Lee Fah Hin, Port Manager.

AGENT: See "Kota Kinabalu".

SARAWAK COASTAL PORTS

Coastal anchorages at Sibuti, Niah and Suai, 28, 30 and 47 miles S.W. of Miri respectively are being used increasingly for the export of round logs, good holding ground is to be found approximately 3.5 miles offshore in 30 ft. of water. Caution should be observed in the event of sudden wind squalls from the West.

Vessels destined for coastal ports should report to Miri for Customs and Immigration Clearance.

Every vessel arriving in quarantine shall fly or show the appropriate International Quarantine signal; and no person other than a Pilot, Port Officer, Port Health Officer, Immigration Officer or Officer of Customs shall board the vessel; and no person shall disembark therefrom until the vessel has been cleared by the Port Health Officer.

The Master of every vessel of over 15 tons about to depart from a port for any place outside Sarawak shall cause the "Blue Peter" (International code Flag "P") to be hoisted, during day-light hours, for at least 12 hours before the vessel is due to sail, or if the vessel is in port for less than 12 hours, for the period of her stay in the port.

(1) The Master or the Agent of every vessel about to depart from a port shall, on demand by the Port Officer, produce for inspection the port clearance.

(2) The Port Clearance shall be in the form of an endorsement on the form of clearance prescribed under the Customs Ordinance or in such other form as may be approved by the Director.

A vessel arriving in, leaving from or shifting berth within a port shall hoist her signal letters, if any, whilst under way.

AUTHORITY: Kuching Port Authority, P.O.Box 530, 93710 Kuching, Sarawak. *Tel:* (082) 482144. *Telex:* MA 70420-Kuport. *FAX:* (082) 481696. *Cables:* Kuport Kuching. *Contact:* General Manager.

SEJINGKAT (Sungei Sarawak), Sarawak:
01.35 N. 110.26 E.

Anchorage off Kampong Sejingkat approximately 14 miles from mouth of river and 3 miles below Pending Point. (See "Kuching".)

Main timber loading point for the First Division of Sarawak. Loading used to be seasonal due to log rafts having to be towed from felling areas along coast. Since this is not possible during North-east monsoon season shippers now stockpile during favourable weather and loading continues throughout monsoon period.

Vessels up to 580 ft. length and 25 ft. draft regularly use anchorage. No facilities for obtaining fuel. Fresh water obtainable through Marine Department.

Pilots may be picked up off Tanjong Po in the area marked "Pilots" on Admiralty Chart 1822 or at Sejingkat. In rough weather it may be necessary for a ship to follow or meet the pilot launch at the junction of Embang and Senari leads. Pilots for the Batang Lupar, Triso or Lingga Anchorages are also normally embarked off Tanjong Po by arrangement.

Every vessel arriving in quarantine shall fly or show the appropriate International Quarantine signal; and no person other than a Pilot, Port Officer, Port Health Officer, Immigration Officer or Officer of Customs shall board the vessel; and no person shall disembark therefrom until the vessel has been cleared by the Port Health Officer.

The Master of every vessel of over 15 tons about to depart from a port for any place outside Sarawak shall cause the "Blue Peter" (International Code Flag "P") to be hoisted, during daylight hours, for at least 12 hours before the vessel is due to sail, or if the vessel is in port for less than 12 hours, for the period of her stay in the port.

(1) The Master or the Agent of every vessel about to depart from a port shall, on demand by the Port Officer, produce for inspection the port clearance.

(2) The port clearance shall be in the form of an endorsement on the form of clearance prescribed under the Customs Ordinance or in such other form as may be approved by the Director.

A vessel arriving in, leaving from or shifting berth within a port shall hoist her signal letters, if any, whilst under way.

AUTHORITY: Kuching Port Authority, P.O. Box 530, 93710 Kuching, Sarawak, Malaysia. *Tel:* 082-482144. *Telex:* MA 70420-Kuport. *FAX:* 082-481696. *Cables:* Kuport Kuching. *Contact:* General Manager.

SIBU, Sarawak (incl. Bintangor, Sarikei and Sungei Merah):
02.24 N. 111.56 E. (See Plan)

Sibu is the capital of the Third Division of Sarawak. There are 2 navigable routes *(a)* via Paloh River and *(b)* via Rajang River and a third entrance from the North i.e. via Igan River, is uncharted. Sibu is 61 miles from the sea via Paloh, and 70 miles via Rajang.

APPROACHES:

(a) Paloh Channel: The bar was resurveyed in 1975 and shoaling was reported in 1981 to depths of 2.7 m. below chart datum at the middle of the Fairway and Inner Buoys. Masters of ships are advised to consult their tide tables before entering. The buoys are fitted with radar reflectors and the Fairway Buoy is visible for a distance of 10 miles. A conspicuous wreck in position Lat. 2° 28′ N., Long. 111° 14.6′ E. has 2 posts above chart datum, serves as a good approach to the Kuala Paloh entrance, and Tanjong Sedi which is on the North bank of the river is marked by a light beacon.

Vessels using this entrance are restricted to a maximum length of 130 m. and drafts of 5.5 m. during the S.W. Monsoon and 4.5 m. during the N.E. Monsoon. During the N.E. Monsoon periods, vessels of 5.5 m. have entered the Paloh Channel but entrance depends on the state of the sea.

When crossing the Kuala Paloh Channel, strong currents and swell (especially during the N.E. Monsoon period) are liable to be encountered thus necessitating caution.

An Inner Bar with at least depth of 3.7 m. exists where the Paloh joins the Seredang at Tanjong Gelang. This crossing is marked by unlit transits and is sheltered.

(b) Rajang Entrances: Vessels intending to use the Rajang River to Sibu are restricted to 60 m. in length and 4 m. in draft as after Tg. Manis deepwater anchorage, the river is winding, narrow and shallow. The depth of the bar is 5.8 m. below chart datum. 2 wrecks in position Lat. 2° 07.6′ N., Long. 111° 7.25′ E. and another in position Lat. 2° 8.7′ N., Long. 111° 14.2′ E. are marked by starboard hand buoys. There is a bar situated about 3 miles below Sarikei with at least depth of 3.9 m. below chart datum.

From Sarikei to Bintangor the river is winding with some shallow patches. Lebaan Corner which is 15 miles below Sibu has a charted depth of 2.2 m.

There is an obstruction off Tanjong Ensurai approximately 6.25 miles upriver from Lebaan with a depth of 4.6 m. Caution should also be exercised when rounding Tanjong Binjei due to 3 shoals across the river, one of which has at least depth of 3 m.

Vessels using this route to Sibu are advised to navigate with caution as tugs towing barges and logs of 100 m. or more are often encountered.

DOCUMENTS: Port Clearance to be surrendered to Customs when boarding.

Crew Lists and Passenger Lists, 2 copies for Immigration Department, 2 copies for Rajang Port Authority, 2 copies for Customs, 1 copy for Port Health Officer and 1 copy for Port Officer.

List of ship's stores (2 copies for Customs).

List of ammunition (2 copies for Customs).

Health Documents (Vaccination certificates and Cholera Inoculation Certificates to be examined by Health Inspector).

PILOTAGE: Pilots are provided by the Marine Department for Sibu and Sarikei for the Paloh and Rajang entrances respectively. Movements of vessels are restricted to daylight hours only. The Pilots use 5 m. fibreglass speedboats which are fitted with VHF.

(a) Kuala Paloh. The Pilots embarked off Tanjong Sedi, at position Lat. 2° 25.5′ N., Long. 111° 18′ E. and application for Pilots should be made giving at least 24 hours notice of arrival to "Shipping" Sibu.

(b) Pilots for Sarikei, Bintangor and Sibu via this river normally embarked in buoyed channel West of Jerijeh Lighthouse but it may be necessary for a ship to follow the pilot speedboat to sheltered waters inside turning buoy. Application for Pilots should be made giving at least 24 hours notice of arrival to "Shipping" Sarikei.

ANCHORAGES: *(a)* Sibu Anchorage. Some foreign-going vessels load, with Customs permission, at the mid-stream anchorage.

(b) Restricted Anchorages.

(i) The Anchorage defined by a line running 045° 2.6 cables from position: Lat. 02° 16.89′ N., Long. 111° 49.28′ E. on Pulau Kerto, thence 135° 8 cables to position; Lat. 02° 16.5′ N., Long. 111° 50.4′ E. thence 225° 1.9 cables to shore on Pulau Kerto. For loading and discharging dangerous goods other than petroleum.

(ii) The berth alongside the Sungei Merah Wharf in position approximately 2 miles downstream from the junction of the Rajang/Igan River on the true right bank. For loading and discharging petroleum.

MAX. SIZE: Largest vessel to berth Sibu was 7,372 gross tons and overall length 137 m.

Deepest drafted vessel to berth Sibu was 7.1 m.

Also see "Approaches".

HEALTH: Every vessel arriving in quarantine shall fly or show the appropriate International Quarantine signal; and no person other than a Pilot, Port Officer, Port Health Officer, Immigration Officer or Officer of Customs shall board the vessel; and no person shall disembark therefrom until the vessel has been cleared by the Port Health Officer.

BERTHING:

(a) Principal wharves at Sibu.

1. Rajang Port Authority Wharf 450 m. long with minimum depth of 6.1 m.
2. Sungei Merah Oil Wharf is a 48.8 m. concrete wharf with at least depth of 4.9 m.

(b) Sarikei Wharf.

Rajang Port Authority Wharf 60.4 m. with at least depth of 7.6 m.

(c) Bintagor Wharf.

Rajang Port Authority Wharf 48.8 m. with at least depth of 4.6 m.

STEVEDORES: The Rajang Port Authority provide all labour necessary for loading and discharging at Sibu, Sarikei and Bintangor.

REPAIRS: Sibu is one of the major shipbuilding and repair ports in Sarawak and there are 8 shipyards with slipways of which one of them can accommodate vessels up to 2,000 gross tons.

GENERAL: Small quantities of diesel oil bunkers available, also provisions and fresh water. Principal exports rubber, pepper, timber and sago.

REGULATIONS: The Merchant Shipping (Ports and Rivers) Regulations, 1961:–

8. The Master of every vessel of over 15 tons about to depart from a port for any place outside Sarawak shall cause the "Blue Peter" (International Code Flag "P") to be hoisted, during day-light hours, for at least 12 hours before the vessel is due to sail, or if the vessel is in port for less than 12 hours, for the period of her stay in the port.

9. (i) The Master or the Agent of every vessel about to depart from a port shall, on demand by the Port Officer, produce for inspection the Port Clearance.

(ii) The Port Clearance shall be in the form as prescribed under the Customs Ordinance or in such other form as may be approved by the Director.

10. A vessel arriving in, leaving from or shifting berth within a port shall hoist her signal letters, if any, whilst under way.

50. No oil, oily bilge water or substance containing oil of any description shall be discharged or allowed to escape from any vessel or allowed to run off any wharf, into any river or port.

AUTHORITY: Rajang Port Authority, 96000 Sibu, Sarawak, Malaysia. *Tel:* 319004-9. *Telex:* LPR MA 72121. *FAX:* 318754. *Cables:* Raport. *Contact:* Mohidin Hj. Seman, General Manager.

Marine Department, Sibu, Sarawak. *Tel:* 332754, 332752. *Cables:* "Shipping" Sibu.

AGENT: Pesaka Jardine Shipping Agencies Sdn. Bhd., 13, 3rd Floor, Brooke Drive 1, P.O.Box 1507, 96008 Sibu, Sarawak, East Malaysia. Tel: (084) 332673. Telex: MA72194. Cables: "Jarship Sibu".

Associated with Jardine Shipping Agencies.

SIPITANG, Sabah: 05.03 N. 115.31 E.

SHIPMASTER'S REPORT: February 1987.

LOCATION: A new jetty called the "SFI Jetty" has been built for vessels up to about 15,000 Tons deadweight at Sipitang in Brunei Bay. Approximate position of jetty is Lat. 05° 02.7′ N., Long. 115° 30.65′ E.

DOCUMENTS: Before proceeding to Sipitang we called at Labuan Quarantine Anchorage to meet Authorities (Customs, Quarantine and Immigration Officers) after which vessel proceeded to Sipitang Anchorage. A pilot was not supplied for above manoeuvring.

ANCHORAGE: When anchoring at Sipitang, vessels should not proceed nearer than 2.5 miles to 3.0 miles off the jetty as there are fishing stakes in the vicinity and 2 obstructions located at Lat. 05° 02.4′ N., Long. 115° 29.35′ E. and Lat. 05° 03.3′ N., Long. 115° 29.4′ E.

APPROACHES: The light which should be in position Lat. 05° 03.65′ N., Long. 115° 30.1′ E. was not in position.

RESTRICTIONS: Great care should be taken when crossing Brunei Bay at night as there are many unlit laid-up tankers and small fishing boats in the area.

TUGS: One tug available.

BERTHING: When going alongside the tug makes fast aft. The starboard anchor was dropped to stop the bow and vessel berthed port side alongside.

Vessel Particulars:

Length	172.0 m.	
Breadth	25.9 m.	
G.R.T.	16,703	
Arrival Draft	Forward	28 ft. 00 in.
	Aft	31 ft. 00 in.

Cargo Discharged: Wood Pulp from West Coast U.S.A./Canada.

GENERAL: There are no banks or chandlers at Sipitang.

We obtained fresh fish and vegetables at the local market and rice, flour, sugar, eggs, cooking oil, etc., at a local store called Rocky Liam.

TANJONG MANIS, Sarawak: 02.09 N. 111.21 E.

PILOTAGE: Pilots embarked, weather permitting in the buoyed channel West of Jerijeh Lighthouse but occasionally the Pilot will request ships to proceed into sheltered waters as they use 5 m. fibre-glass speedboats, fitted with VHF.

Application for Pilot should be made giving 24 hours notice of arrival to "Shipping Sarikei" and Masters can call "Rajang Pilot" before arrival.

APPROACHES: Rajang River entrance has at least depth of 5.8 m. below chart datum. The entrance is well lit by two lighthouses and one light beacon and the bar is marked by two light buoys.

There is a wreck situated at Lat. 2° 7.6′ N., Long. 111° 7.25′ E. which is approximately 8 cables S.E.×E. of the inner Fairway Buoy marked by a starboard hand buoy and about 7 miles further inwards South-West of Kampong Rajang another wreck at Lat. 2° 8.7′ N., Long. 111° 14.12′ E. which is also marked by a starboard hand buoy.

ANCHORAGE: *Tanjong Manis Anchorage:* This is a deepwater anchorage 20 miles from the Fairway Buoy, used by vessels loading timber. The anchorage can accommodate approximately 3 vessels of 183 m. and 12 vessels of 120 m. – 150 m. in length.

Restricted Anchorage: Abeam of Loba Selemit on the North bank of the Rajang river in position Lat. 2° 08′ N., Long. 111° 16′ 35″ E. is restricted to loading and discharging any dangerous goods.

MAX. SIZE: The maximum length of a vessel permitted is 183 m. and max. draft 8.4 m.

AUTHORITY: Rajang Port Authority, 96000 Sibu, Sarawak, Malaysia. *Tel:* 319004-9. *Telex:* LPR MA 72121. *FAX:* 318754. *Cables:* Raport. *Contact:* Mr. Mohidin Hj. Seman, General Manager.

Marine Department, Sibu, Sarawak. *Tel:* 332754/332752. *Cables:* "Shipping" Sibu.

TAWAU, Sabah: 04.14 N. 117.52 E. (See Plan)

PORT LIMITS: The Port of Tawau shall comprise the waters of Cowie Bay and Wallace Bay and rivers entering same contained within the following limits:

A line from Lat. 4° 13.3′ N., Long. 118° 00.0′ E. to the National boundary mark on the Eastern shore of Sebatik Island, thence to the National boundary mark on the Western shore of the said island, thence in a 270°(T) direction to the shores at Burs Point, thence in a 311°(T) direction to Lat. 4° 20.0′ N., Long. 117° 25.9′ E. thence in a 070°(T) direction to Lat. 4° 25.0′ N., Long. 117° 40.0′ E., thence in a 120°(T) direction to the point of commencement.

DOCUMENTS:

(a) To be Produced on Arrival:

Customs

2 Manifests in prescribed form.
2 Crew Lists.
1 Last Customs Clearance.
2 Stores Lists.
2 Passenger Lists.
2 Arms Lists.
2 copies Through Cargo Manifest.
2 copies Crew Personal Effects List.
2 copies Parcels List.
2 copies Narcotic & Dangerous Drugs List.
2 copies Customs Clearance (Last Port).
1 copy Ship's Arrival Report.
2 copies General Information or Vessel's Particulars.

Marine

1 Marine Dept. Boarding Report, required to be completed.
1 Last Port Clearance.
1 Crew List.
1 Passenger List.

Agent

4 (2 for SPA) Manifests in the prescribed form.
1 Crew List.
1 Passenger List.

Immigration

2 Crew Lists.
2 Passenger Lists.

Travel Control Office

2 each, Crew Lists and Passenger Lists.

(b) To be Supplied to Ship before Departure:

Manifests, as required by vessel.
1 Port Clearance and 1 Customs Clearance.
3 copies of Passenger List.

(c) To be supplied by ship prior to arrival:

Where possible, cargo manifests and stowage plans should be forwarded in advance to local Agents and Port Authority ahead of vessels.

PILOTAGE: Not compulsory. A Pilot is available from 0600 to 1800 hrs. for berthing vessels given reasonable notice (48 hours). Marine Department Tel: 73510.

Applications normally made by Shipping Agents with advance notice of 24 hours prior to actual time that Pilot Services are required. Pilot boats are between 30 ft. – 40 ft. length and equipped with VHF/AM sets – 80.4 Mc/s. frequency. Pilot station at Port Office (Marine Department) and location for vessel awaiting Pilot is within Port Limits.

ANCHORAGES: Good anchorage in 8 fathoms 1,000 yd. to 1,300 yd. W.N.W. of wharf; and 350 yd. South there is an anchorage in 8.5 fathoms.

Petroleum Anchorage: An area bounded by parallels of Lat. 04° 15′ N. and Lat. 04° 16′ N. and meridians of Long. 117° 51′ E. and Long. 117° 52′ E. This area is to be marked "Petroleum Anchorage".

Explosives Anchorage: An area bounded by parallels of Lat. 04° 12′ N. and Lat. 04° 13′ N. and meridians of Long. 117° 52′ E. and Long. 117° 53′ E. This area is to be marked "Explosives Anchorage".

Quarantine Anchorage: An area bounded by parallels of Lat. 04° 12.5′ N. and Lat. 04° 13.5′ N. and meridians of Long. 117° 54′ E. and Long. 117° 55′ E. This area is to be marked "Quarantine Anchorage".

RESTRICTIONS: *(a)* Communication ship/shore when lying on Roads: Regular launch services difficult to arrange if required by Master. No recognised signals for summoning a launch, as distance between small boat jetty and anchorage is too great for flag signals to be recognised. No restrictions against a vessel using its own launch or motor life-boat apart from fact that it must not land anywhere other than at Ports Authority Wharf.

(b) Explosives: No vessel carrying explosives shall come within 500 yards of shore or any other vessel except with written permission of Port Manager which will be given provided that:

(i) quantity does not exceed 2,000 lb. of explosives of Class V and VI and are carried in a certified magazine, and there is no other dangerous cargo on board as certified in writing by the Master.
(ii) quantity does not exceed 3,000 lb. and are exclusively of one of the following classes III, IV or VII.

Danger flag must be flown by day and a red light by night.

HEALTH: *(a)* Quarantine: The Sabah Government are signatories to WHO convention on Quarantine regulations. Port Health Doctor will not board, unless vessel comes from an infected port. Instead Maritime Declaration of Health is to be filled out and handed to Boarding Officer of Marine Department, who will require one copy of crew list and one copy of passenger list. Vessels should cable Agent prior arrival advising last port of call and whether vessel healthy.

(b) Immigration: Immigration officer will board vessel on arrival and clear her inwards. No restrictions on crew and/or passengers going ashore. Immigration will require 2 copies of Crew List and 2 copies of Passenger List. Vessels are cleared inward until 1800 hours only. If there are special circumstances arrangements can be made to clear vessels inward after this time.

RADIO: Singapore Radio recommended.

Application for berthing has to be made 24 hours prior to actual time when berthing is required.

Details and requirements:

Name of vessel, gross and nett tonnage, length overall, draft (fore and aft) ETA at berth, ETD from berth, nature and tonnage of cargo to be discharged/loaded, number of gangs required, quantity of fresh water required. Vessels given berth on first come, first served basis.

VHF: A Maritime VHF radio telephone service now operates in the Port of Tawau on Hague Plan Channels 16 and 12.

Continuous listening watch is kept on Channel 16 and the station is operative between the hours of 0600 and 2000 daily.

Vessels are requested to make use of the above facility for notifying ETA, pilotage requirements etc. Berth availability will be notified on vessel's call.

TUGS: No tugs available.

BERTHING: *(a)* Wharf Light at Tawau in position on N.W. end of Old Wharf, Lat. 04° 14′ 32″ N., Long. 117° 52′ 56″ E.

(b) Tides/Linesmen. The numbers of a vessel which is berthing alongside will be flown from signal station. In addition a cone, indicating tidal stream will be hoisted, pointed end of cone down indicates flood tide and pointed end up indicates ebb tide. Linesmen are on hand to receive a vessel's lines; a motor boat can be hired to assist in berthing if prior advice is given.

(c) Old Wharf. Berth Nos. 1 and 2: Consists of a 220 ft. long approach causeway extending from a reclamation area and a 650 ft. long wharf, 40 ft. wide with a dolphin in line +100 ft. off each end. Least depth 24 ft.

New Wharf. Berth Nos. 3, 4, 5 and 6: Located 400 ft. North West of Old Wharf. 3 berths on the outer side (No. 3, 4 and 5) with depth 9.75 m. and total length 1,000 ft. 1 berth on inner side (No. 6) with depth of 5.49 m. and length of 500 ft.

(d) Monsoon. During strong wind from S.E. and S.W. ships are liable to range alongside wharf, and during S.W. monsoon sea breeze may make it difficult for ships to leave wharf in the afternoon.

(e) Buoys: No mooring buoys in Tawau.

(f) Lighters: No lighters available except a few wooden and steel lighters owned by Bombay Burmah Trading Corpn. Ltd. and Borneo Abaca Limited. Hire of these lighters can be arranged when they are not being used by owners, which is seldom.

Also see "Developments".

CARGO HANDLING FACILITIES: 46 Fork-lift trucks 3-6 tonnes capacity; 19 Towing tractors; 51 Trailers 5-7 tonnes.

Container Facilities: 2 forklifts, 25 tonne and 19 tonne. 6 Trailers, 20 tonnes. 3 towing tractors.

STEVEDORES: *(a)* Stevedoring in the hands of Sabah Ports Authority who will supply gangs as required.

(b) Working hours 0730 – 1130 hrs., 1300 – 1700 hrs., 1800 – 2200 hrs.

(c) Overtime: Overtime working hours are from 1800 to 2200 hrs. Application must be made to Customs 1 day in advance; double rate charged.

(d) Sundays and holidays: Work normally carried out on Sundays and holidays (See "Sandakan"). Application must be made to Customs for permission to work Saturday afternoons, Sundays and public holidays.

(e) Handling Rate: (Net).

Conventional Vessel	:	25 t.p.h./gang
Palletised Vessel	:	32 t.p.h./gang
Container Vessel	:	150 t.p.h./gang

CARGO: *(a)* Special Cargo Regulations: No vessel with dangerous cargo may be alongside after sunset except at discretion of Port Manager. No dangerous cargo may be discharged simultaneously with general cargo except with permission of Port Manager.

Heavy lifts usually handled at new wharf only. Customs bonded store is available with about 4,000 sq. ft. of space including Customs Liquor and tobacco store. There are no private bonded warehouses to date. There are no facilities for handling or storing bulk cargoes in any quantity.

Livestock: Subject to approval of Veterinary Authority, certain animals including cattle are prohibited imports and exports except under licence.

(b) Damage. Ship's survey should be carried out on all cargo discharged in a damaged condition and Chief Officer should note extent of damage, and sign, certifying same. Cargo coming alongside in a damaged condition should be noted and M/R claused accordingly. Chief Officers are reminded that it is most unwise to load any copra which is rain or salt water damaged.

(c) Tally: Tally clerks can be supplied by Agent if required, on receiving advance notice.

(d) Inward. Inward cargo is tallied out of ship onto wharf or into lighter. Damaged cargo surveyed on the spot, otherwise no liability of the vessel is acknowledged. Discharge carried out after permission has been obtained from Customs after manifest of inward cargo has been deposited. Cargo delivered to consignees against production of relative Bill of Lading. Ship's responsibility to consignees ceases at ship's side, but, in the case of short-landed cargo, reasonable proof must be given to Customs that cargo has not been landed. A short-landed Memo certified by Chief Officer is usually accepted as proof.

(e) Transhipment. After discharge of cargo from first carrier, transhipment cargo is placed under the supervision of the Customs, unless it is possible to arrange direct transhipment into small coastal vessel.

(f) Outward. When vessels berth alongside, packages are brought by motor transport and lighters; when in roads, by lighters.

(g) Refrigerator. Only small quantities of refrigerated cargo loaded or discharged. No formalities or certificates being required other than compliance with normal Customs Regulations. Inward refrigerated cargo is confined to foodstuffs, meat, etc., and outward to frozen fish.

(h) Explosives. Explosives must be discharged into lighters or immediately on arrival onto wharf under police escort and transported to an approved police store. A licence for their importation must be obtained from police prior arrival of cargo, and Harbour and Police authorities must be informed of arrival of explosives in port either for discharge, or as through cargo.

TANKERS: Shell Jetty, least depth 14 ft.
S.P.A. Oil Jetty: Length 240 ft. Depth alongside 32 ft. The jetty is about 2.4 Km. from the general cargo berths.

Also see "Shipmaster's Report".

MEDICAL: *(a)* Hospitals. Government General Hospital is only hospital in town, and will receive any sick seamen or officers. 3 classes of wards, but first class ward can only accommodate 2 persons. Hospital is equipped to carry out normal surgery.

(b) Inoculation. Port Health Officer will vaccinate or inoculate Crew members at General hospital.

(c) Port Health Officer. General Hospital, General Office 73533, 72191. Medical Officer-in-Charge 71206. M.O.'s Residence 72239.

DENSITY: 1020 (approx.).

FRESH WATER: Can only be supplied at wharf. 24 hours' notice should be given of a vessel's water requirements. Usual rate of supply is about 15 t.p.h. A water barge is available but no guarantee of availability.

FUEL: Not available except diesoline in drums.

FIRE PRECAUTIONS: No fire floats and in the case of a vessel alongside catching fire, the fire brigade should be summoned by dialling 2999. The OCPD should also be informed.

CONSULS: At Kota Kinabalu.

REPAIRS: No facilities.

GANGWAY/DECK WATCHMEN: Not necessary. Agents may exercise option.

OPENING/CLOSING HATCHES: Normally by Stevedores.

CERTIFICATES: Registry, Load Line, Radio, Safety Equipment and Derat Exemption.

CUSTOMS ALLOWANCES: Tobacco, wine and/or spirits: No control, up to discretion of Officer of Customs and Excise.

CARGO GEAR: Ships gear used, also for containers ex-feeder ships and heavy lifts in major ports.

IDENTIFICATION CARDS: Not required.

REPATRIATION: Normally arranged by Agents.

AIRPORT: Some airports in State are between 4 km. to 10 km. from town centre.

TIME: Local time is 8 hours ahead of GMT. No alteration to clocks.

HOLIDAYS: See "Sandakan".

SERVICES: Tank cleaning services can be arranged with Agents. Marine Department deals with compass adjustments.

DELAYS: Due to weather conditions only.

POLICE/AMBULANCE/FIRE: *(a)* Police/Fire, Tel. 089-73111; Ambulance/Hospital, Tel. 089-73533.

(b) Accidents: Hoist a two-flag signal and give a blast of the whistle to call attention of signal station. Police and the hospital should be informed immediately of any untoward incident.

TELEPHONES: Available.

GENERAL: *(a) Surveyors:* Harrisons & Crosfield (Sabah) Ltd., as Lloyd's sub-Agents, may appoint a Surveyor if a survey is requested.

(b) Fumigation: No facilities.

(c) Ship Chandlers: Fresh vegetables obtainable in limited quantities early every morning from vegetable market.

(d) Priority: Vessels are berthed on a "First come first served" basis. Vessels with palletised cargo get priority.

(e) Watchmen: These can be supplied if required.

DEVELOPMENTS: Major expansion work was completed in 1982 under Phase 1 of the development programme. Included in the expansion works are facilities, modelled after those in the Kota Kinabalu port, to service feeder container traffic. These new facilities are expected to be sufficient to cater for traffic volume up to the end of the 1990's

It is envisaged that further expansion of port facilities will become necessary for the years beyond 1990. Reserve land has been acquired for this purpose.

The berth facilities in the old port are expected to be upgraded considerably during the next expansion programme.

SHIPMASTER'S REPORT: 1976.

Government Oil Wharf:

Position: Lat. 04° 15.5′ N., Long. 117° 50′ E. 2 miles N.W. of Main Cargo Pier.

Least depth in channel from sea to berth — 30 ft. Vessels to be ballasted to 1/3rd deadweight. Density, 1025. Vessel docks daylight only, undocks anytime at any stage of tide. Anchorage 0.5 mile S.W. of jetty. 5 lengths of ship's hose required. Manifold, 10 in. Length of shoreline 3,000 ft. All products handled. Shore booster pump cannot be used. No steam.

Pilot boards at Quarantine Anchorage. 48 hours notice required. No tugs available. Accommodation ladder required for Quarantine but not at berth.

Fresh water available ex-barge. Other services available: Fresh provisions, repairs, Machine Shop, Airport, Lloyd's Surveyor, Telex, Doctor, Hospital, Laundry, Groceries and Meats. No slop tanks.

REGULATIONS: *(a)* Arrival and Departure. The Owner or Agent of every vessel other than a small ship intending to call at a port shall, as soon as possible, and in any case not later than 36 hours prior to the estimated time of arrival of the vessel, give notice in writing to the Authority of such arrival and, if so desired, the requirement for a berth at a wharf.

2. The notice under this regulation shall be in a form prescribed by the Authority and shall contain full particulars regarding the cargo to be discharged and loaded, the embarkation and disembarkation of passengers, heavy lifts, special or perishable cargo, hazardous and dangerous goods (whether to be discharged at the port or not), and any other matters of importance relating to the working or safety of the vessel in the port.

3. The Master of every vessel entering or leaving a port between sunrise and sunset shall cause to be hoisted the national colours and the signal letters, if any, of the vessel. The national colours shall be exhibited from 0800 hrs. to sunset whilst the vessel remains in port.

4. The Master of every vessel arriving from outside the State of Sabah shall exhibit the Immigration and Quarantine signals contained in the First Schedule and shall also at the request of a Customs Officer hoist the Customs signals. Such signals shall remain exhibited until the appropriate officer has given permission for them to be lowered.

5. No vessel shall approach within 600 ft. of any other vessel exhibiting the Immigration, Health or Customs signals.

6. No person other than a Pilot may board or disembark from any vessel until the vessel is cleared inwards and the Immigration, Quarantine and Customs signals have been lowered.

7. Every vessel entering a port shall be anchored or efficiently secured to a wharf or buoy before commencing the loading or discharging of cargo and/or the embarkation or disembarkation of passengers.

8. No vessel shall leave any port unless in possession of a valid Port Clearance issued by or on behalf of the Director of Marine.

(b) Special signals:

Significance	*By Day*	*By Night*
Immigration (for ships not carrying passengers)	International code Signal "2 5"	Two green lights, 6 ft. apart hoisted vertically where best seen.
Immigration (for ships carrying passengers)	International Code Signal "3 4"	Two green lights, 6 ft. apart hoisted vertically where best seen.
Quarantine (vessel is Healthy request Pratique)	International Code Signal "Q"	Nil
Quarantine (vessel is suspect)	International Code Signal "Q Q"	A red light over a white light and a separate hoist of red light over a green light and hoisted vertically 6 ft. apart where best seen.
Quarantine (vessel is infected)	International Code Signal "Q L"	
Quarantine (not received Pratique)	Nil	A red light over a white light 6 ft. apart hoisted vertically where best seen.
Request Police Assistance	International Code Signal "S T"	A green light over a white light, 6 ft. apart hoisted vertically where best seen.
Request Medical Assistance	International Code Signal "W"	A red light over a green light, 6 ft. apart, hoisted vertically where best seen.

AUTHORITY: Sabah Ports Authority, Peti Surat 335, 91007 Tawau, Sabah, Malaysia. *Tel:* (089) 773700. *Telex:* MA 83127. *Contact:* Thomas Soon Min On, Port Manager.

TELOK EWA, Malaya: 06.26 N. 99.46 E.

SHIPMASTER'S REPORT: December 1987.

Telok Ewa Port is one of the newest ports on the Malayan Peninsular. The port is designed to handle Bulk (both dry and liquid) petroleum products as well as general cargo. Major exports are clinker and bulk/bagged Cement. The port is approximately 80 nautical miles North of Penang Island, and in position Lat. 06° 25′ 36″ N., Long. 99° 46′ E.

PORT LIMITS: All the waters enclosed within the area bounded by a line drawn from a point at Lat. 06° 30′ N., Long. 99° 52′ E. in a Southeasterly direction to Lat. 06° 25′ N., Long. 99° 58′ E., thence in a Southerly direction to Lat. 06° 08′ N., Long. 99° 58′ E., thence in a Westerly direction to Lat. 06° 08′ N., Long. 99° 37′ E., thence in a Northerly direction to Lat. 06° 27′ N., Long. 99° 37′ E. and thence in a Northeasterly direction back to Lat. 06° 30′ N., Long. 99° 52′ E. and any navigable waters therein.

DOCUMENTS:

Crew List.
Vaccination List.
Stores List.
Personal Declaration.
Drug & Narcotic List.
Passenger List.
Last three ports of call.

PILOTAGE: Pilotage is compulsory for all vessels exceeding 30 m. in length entering or leaving the port limits. Pilots are available throughout 24 hours and the boarding point is in position Lat. 06° 27.8′ N., Long. 99° 45.5′ E.

While rounding off Tanjung Chinchin it is preferable to keep North of the fairway during the N.E. monsoon as considerable S./S.W. set is experienced with strong and persistent E./N.E. winds.

ANCHORAGES: Anchorage area is situated East of Pilot boarding station marked on BA. Chart No. 3943.

MAX. SIZE: There is a restriction of 9.0 m. draft at present alongside. Permission to exceed 9.0 m. may be given under exceptional circumstances with a tug on stand-by during manoeuvres.

HEALTH: Health Official boards vessel when alongside. A close check is carried out on Vaccination List.

TUGS: One tug of 1,500 b.h.p. available at present. It is only used during deep draft vessels unberthing. Usually ships berth heading into the wind/tide using the off-shore anchor.

CRANES: For clinker and bulk cement, Kedah Cement, the operators of the terminal, use one shoot of about 500 t.p.h. capacity and for raw material imports such as Bauxite/Iron ore a grab crane of 11.2 tonnes SWL is in operation at present. For loading bagged cement, ship's own gear is used.

STEVEDORES: Arranged by Kedah Cement. They usually need notice of 7 days, 72 hours, 48 hours and 24 hours.

MEDICAL: There is a hospital, for minor surgery only, at Kuah which is 24 km. from the berth. For serious cases, patients to go to the mainland, one hour further by ferry.
DENSITY: 1020/1021.
FRESH WATER: Available at the berth, rate about 100 t.p.h.
REPAIRS: All repairs are carried out on the mainland.
AIRPORT: There are daily flights to Penang and Kuala Lumpur.
TIME: GMT plus 8 hours all year round.
STORING: Fresh provisions can be obtained locally but at least 2 days notice required as some items may have to be brought from the mainland.
DELAYS: None, except rain.
GENERAL: Well organised port with efficient and skilled labour and a very co-operative stevedore. No thefts reported on board. When nearing 9.0 m. draft it is preferable to check depths even though we found 9.6 m. up to chart datum at the general cargo berth.
AUTHORITY: Marine Department, Telok Ewa, 07000 Langkawi, Malaysia.

AGENT: Malaysian Shipping Agencies, 116 Phase-B, KCSB Telok Ewa, 07000 Langkawi. Telex No. MA 42096.

NOTES

Please also advise Shipping Guides Ltd.

Maldives

MALE: 04.10 N. 73.31 E.

RADIO: ETA to be sent to Maldives Ports Authority 24 hours prior to arrival.

Coastal Radio, Department of Posts and Telecommunication
Call sign: 802
Tel. No.: 325557
Telex: 66069 MALRAD

VHF: Channel 12 used to contact Maldives Ports Authority.

STEVEDORES: Ships arriving at Male Commercial Harbour have an average ship turnaround of 3.9 days. Total port hours amount to 45 hours. Gang start work at 0730 hrs. and stop work at 2230 hrs. 15 lighters are available to work on ships, including forklifts that could work in hatches.

CRANES: Coles and Mitsubishi cranes are used, all are shore cranes with a maximum capacity of 25 tons. All vessels anchored at outer harbour should use their own gear.

At present there are 11 lighters available from 75 tons – 150 tons.

MEDICAL: No advance notice required, except in case of serious illness which is to be included in arrival cable.

FRESH WATER: Fresh water should be ordered through the Agent.

FUEL: Fuel should be ordered through the Agent, delivery could be undertaken by the Maldives Ports Authority.

CONSULS:

Bangladesh	India	Sri Lanka
Germany F.R.	Pakistan	U.S.A.

HATCHES: Opening and closing of hatches will be undertaken by ship's crew.

AIRPORT: Distance to airport 0.75 km., served by many international airlines.

POLICE/AMBULANCE/FIRE: Police 111; Ambulance 102; Fire 101 **EMERGENCY CO–ORDINATION CENTRE:** Male Coastal Radio, Department of Posts & Telecommunication.

VHF	Channel 16
R/T	821 kHz 1221 kHz
W/T	8363.6 kHz
R/T Distress & normal calling	2182 kHz Simplex
Distress & Supplementary calling	6215.5 kHz, 4125 kHz
Range	3,000 km.

BANKS: State Bank of India, Habib Bank Ltd., Bank of Ceylon, Bank of Maldives, Bank of Credit & Commerce International.

SHIPMASTER'S REPORT: May 1982 (Updated 1986).

Approaches: Except in very heavy rain during the S.W. monsoon, the visibility is good and landfall can be made easily. The T.V. Tower, South of Male in position: Lat. 04° 10.2′ N., Long. 73° 30.9′ E. is visible at a distance of 30 miles. The dome of the Islamic Centre in position: Lat. 04° 10.7′ N., Long. 73° 30.85′ E. and the minaret of Grand Mosque (Islamic Centre) in position: Lat. 04° 10.59′ N., Long. 73° 30.83′ E. are also visible for approaching vessels.

Recommended entrance to Male is via East Male Passage. As many small fishing, passenger/pleasure vessels are crossing the passage, approaching vessels should be very careful and proceed at slow speed if necessary. Beacons mentioned below are still non-existent, therefore night approach should be avoided.

As there are a number of fishing vessels and other small vessels anchored at Male anchorage, Masters of vessels anchoring should give special care while approaching the anchorage.

The Northern route via Kaduoigiri Passage as described in the Sailing Directions was taken. Apart from a very strong Westerly set near the reef N.W. of Kaduoigiri Island no particulars were observed.

Beacons in the following positions non-existent:

A. Lat. 04° 11.75′ N., Long. 73° 31.05′ E. (West of Dunidu Island).
B. Lat. 04° 12.37′ N., Long. 73° 30.43′ E. (Reef between Dunidu & Ferdo).
C. Lat. 04° 13.45′ N., Long. 73° 31.54′ E. (Vehamanafushi).

Mooring Buoy (private) in position: 04° 11.45′ N., 73° 30.97′ E. non-existent.

Navigation Warning: Unmanned/unlighted fishing vessel (approximately 60 tons gross) anchored in position: 04° 11.2′ N., 73° 30.55′ E.

Documents: Papers Required: Security: 1 Crew List (search party, search all cabins for weapons/pornographic material).

Doctor: Port Health Form (Male Issue), Vaccination List (Cholera Vaccinations).

Immigration: 2 Crew Lists (all passports checked).

Customs: Last Port Clearance, 1 Crew List, Cargo Manifests, Store List from Head of Catering. Customs will also check whether the vessel is carrying valid Safety Certificates on board, i.e. Safety Construction Certificate, Safety Equipment Certificate, Loadline and Safety Radio Telephony Certificate. Importing of alcohol without prior permission is prohibited. Whatever is on board may be sealed in the ship's bond. Import of Narcotic Drugs is totally prohibited into the Republic of Maldives. Whatever found on board will be confiscated, penalties levied and the Owner/Master and crew will be prosecuted. Customs also gave the ship a "Notice to Ships Calling at the Port of Male". See "Notice".

Agents: 1 Crew List. All passports taken ashore to be returned upon departure with Customs Clearance.

Cargo Handling: (Chief Officer's Report):

Arrived 20th May, 1982. Sailed 24th May, 1982. Port hours: 94 hours 11 minutes.

Three gangs are available in Male to work on board ships, of which 2 were supplied on 20th, 21st and 22nd May. One gang on 23rd May.

The gangs arrived diligently between 0750 hrs. and 0800 hrs. in the morning and worked till about 2220 hrs. except on the Thursday, when they worked till 1730 hrs. and on the 21st when work was interrupted from 1000 hrs. till 1415 hrs. being a Muslim religious festival.

No forklift trucks are available for work on board ships in Male and cargo stacked on pallets had to be dragged from the sides of the holds under the hook. This was the cause of damaged bags of flour and cartons of provisions.

There are 6 lighters available. Empty lighters were regularly supplied, except after rainy periods, when discharging of lighters alongside the wharf is interrupted.

Shore tally staff seemed to be very dedicated in their duties and were accompanied by a Customs Officer/Clerk.

Nett tonnages per hour:

Hatch No. 1: 12.1 t.p.h. (182 tons discharged).
Hatch No. 2: 12.2 t.p.h. (216 tons discharged).
Hatch No. 6: 16.8 t.p.h. (411 tons discharged).

A boat schedule was arranged upon arrival but a regular boat service was never carried out. The Agency appeared not to be in possession of any documentation (manifests, stowage plans, etc.) of the cargo to be discharged.

Developments: 1986. A new quay to bring lighters alongside, with Customs House and warehouses is under construction at N.W. end of Male, to be completed in 1986. On completion of the project the cargo handling will increase.

NOTICE: Issued by Maldive Customs.

Notice to Ships Calling at the Port of Male

1. All ships are required to submit a Port Clearance, Cargo Manifest, Passenger and Crew List and where available any other relevant documents.
2. Departure time should be notified and a Port Clearance obtained.
3. All visitors, officers and crew and passengers of ships are requested to use the Customs Jetty when arriving or leaving Male.
4. All articles are subject to inspection by the Customs.
5. All ships anchored at Male Harbour should exhibit on board the under mentioned lights between sunset and sunrise.
   a. White anchor light of all round visibility.
   b. White stern light with 135° illuminated sector.
   c. Mast light with all round visibility.

The Law On Prohibited Imports into Maldives

1. *Prohibited Items of Import Except for the Use of the State:*
   a. Any type of gun powder.
   b. Weapons of war.
   c. Opium, ganja, cocaine and any other item which could be used as an intoxicant.

Articles carried by foreign distinguished personnel signifying their ranks, titles or honours and articles carried in connection with such ranks, titles or honours by those who accompany such distinguished guests shall be exception to this Article.

2. *Prohibited Items of Import Without a Permit from the Ministry of Home Affairs Except for the Use of the State:*
   a. All forms of poisons and sulphuric acid.
   b. Nitrates.
   c. Dangerous animals.
3. *Totally Prohibited Items of Imports Into Maldives:*
   a. Pornographic literature and posters.
4. *Prohibited Items of Import Without a Permit from the Ministry of External Affairs Except for the Use of the State:*
   a. Alcoholic drinks.
   b. Dogs.
   c. Pigs or pork.
   d. Statues (used for worship).

In addition to items stipulated in this Bill, the Principal Collector of Customs shall withhold such items, the import of which is in his opinion shall be prohibited and bring the matter to the notice of the Department of Finance. The final settlement will be in accordance with the decision of that Department.

AUTHORITY: Ministry of Transport and Shipping, Male (20-05), Republic of Maldives. *Tel:* 2413. *Cables:* Mintrans, Maldives. *Contact:* Ahmed Shareef, Director of Marine Affairs.

Maldives Ports Authority, Male, Republic of Maldives. *Tel:* 325681, 325240, 325237. *Contact:* Mohamed Zaki, Deputy Director.

Malta

VALLETTA (Including Marsaxlokk): 35.54 N. 14.31 E.

(See Plan)

DOCUMENTS: On arrival the Master has to fill the Pratique Deposition, the Stores List, the Crew Declaration, and the Crew List (two copies). The forms for the Pratique Deposition and for the Store List are supplied by the Customs Boarding Officer.

Arrival Notice: In accordance with the Port's Regulations Master or Agent of a vessel should give the ETA to the Port Department on a form prescribed by the regulations as early as possible prior to arrival and 48 hours in the case of vessels carrying petroleum or other hazardous cargoes.

PILOTAGE: Pilotage is compulsory for vessels above 500 g.r.t. Pilots for Valletta and Marsaxlokk board vessels at Fairway Buoy, weather permitting. Pilots available round the clock all the year round. In bad weather Pilots board vessels inside entrance, subject to size of vessels, Master's knowledge of the port and Master's willingness to bring vessel up to Bighi Bay.

Pilot boat is equipped with VHF on Channels 12, 14 and 16.

ANCHORAGES: Anchorage in territorial waters and in other harbours is prohibited unless expressly authorised by the Port Department.

RESTRICTIONS: Maximum depth at entrance is 16 m. Nature of bottom in entrance channel, rock and mud. Harbour channels – mud.

Harbour entrance and approaches affected by current. With North-Westerly winds there is a set of up to 0.5 knots from N.W. to N.E.

Port is subject to closure in gregale (N.E. gale) conditions – Winter months occasionally, not more than 4 times a year.

MAX. SIZE: Discharging Berths:

Deep Water Quay – 500 m. long, depth 10 m.

Crucifix Wharf: 264 m. long, depth 10 m.

Flagstone Wharf: 217 m. long, depth 13.7 m. Can handle bulk coal carriers and tankers.

Magazine Wharf: Combined with Laboratory Wharf has total length of 440 m. Depth 12.2 m. – 15.0 m. Equipped to handle bulk grain carriers up to 80,000 d.w.t. Capacity of silos 86,000 tons. Maximum discharge rate 1,100 t.p.h. Maximum loading rate 1,250 t.p.h.

Berth Nos. 1, 2 and 3 have maximum depth of water alongside of 9.75 m. Maximum displacement tonnage of 15,000 tons.

Berth No. 4 has the same depth of water and can take maximum displacement of 25,000 tons.

Laboratory Wharf has a length of 220 m. with a depth of 12 m. Two other small berths adjacent to the main wharf are used for Ro/Ro and direct deliveries.

There are other berths at Coal Wharf (length 275 m., depth 7.0 m.) for cargoes intended for discharging direct to trucks. There are various berths for various sizes of ships at Bighi Bay, Fish Market, Fuel Wharf and Bridge Wharf.

Also see "Developments".

HEALTH: Port Medical Officer grants Pratique after boarding vessels on arrival. Accelerated Pratique may be granted through Agent provided crew are all in good health and ship has not called at any infected port during previous 15 days and is coming from a European port.

RADIO: Call sign 9HD. Radio telephone working frequency 2625 kHz. Listening watch 2182 kHz.

RADAR/VHF: No radar service available. VHF available at Port Signal Station. Operating on VHF Channels 11, 12, 14 and 16.

Also see "Pilotage".

TUGS: Meet vessels just inside harbour entrance. Lines given at discretion of ship's Master under advice from Pilot.

BERTHING: Berthing conference held at the Port Department daily at 1100 hrs. between Monday and Saturday when berths are allocated for expected ships. No specific requirements necessary. Once berth has been allocated by Port Department vessels can berth at any time at the allocated berth (container and Ro/Ro berths are available).

Also see "Developments" and "Plan".

EQUIPMENT: One gantry crane maximum lifting capacity 35 tons. One mobile crane maximum lifting capacity 250 tons. Two mobile cranes with maximum lifting capacity of 75 tons (for container handling). Various other mobile cranes. Fork lift trucks 2×40 tons. Various other smaller fork lift trucks and other cargo handling equipment.

STEVEDORES: Ship Agents of liner vessels normally act as stevedores. Port workers for stevedoring are ordered by Shipping Agents and labour is allocated from a pool operated by the Manager of port workers.

Working Hours: 0800 – 1200 hrs., 1300 – 1700 hrs. Vessels may work till 2100 – 2200 hrs. to complete. Nightwork: 1900 – 0400 hrs. (mainly containers).

Work may be arranged on Saturdays, Sundays and Holidays at special rates.

MEDICAL: Notice must be given to Agents as early as possible. Hospital facilities available. Crew must be in possession of inoculation/vaccination certificates.

TANKERS: Vessels must be gas-free except for the tank cleaning berth. Facilities for discharging slop or residue are available.

N.B. Vessels not gas-free are not allowed to enter port between sunset and sunrise.

FRESH WATER: Limited amount ex-barge subject to permission from Water Authority. Notice, as long as possible required.

FUEL: Sea Malta Co. Ltd. Grades handled include gas oil, fuel oil, thin fuel oil 30 cST up to 380 cST.

FIRE PRECAUTIONS: Precautions as laid down in Ports Regulations for cargo ships and as in Petroleum Ships Regulations for tankers. Civil tugs partly equipped with fire fighting equipment.

GANGWAY/DECK WATCHMEN: Gangway recommended. Deck compulsory.

OPENING/CLOSING HATCHES: By ship's crew or shore labour.

CERTIFICATES: Ship's Register; Load Line Certificate; Derat Certificate; Factory Act Book.

CUSTOMS ALLOWANCES: 200 cigarettes for each crew member, plus one bottle spirits (officers only).

CARGO GEAR: Certificates of cargo handling gear have to be valid before cargo work can commence. Factory Act Book to be endorsed quadrienially and annually.

IDENTIFICATION CARDS: A personal identification card not required. Passports or seamen's books will suffice.

CONSULS:

Embassies in Malta for following countries:

Australia	38201/5	Korea (D.P.R.)	800003
People's Republic of China	34695	Kuwait	37131
Czechoslovakia	511330	Socialist People Libyan Arab Jamaharija	34947
Arab Republic of Egypt	34769	Spain	514164
France	31107	Sudan	—
Federal Republic of Germany	36531	U.K.	621285
Israel	513094	U.S.S.R.	515703
Italy	621985	United States of America	621240

Consul Generals (and Honorary):

Austria	29182/627356	Netherlands	624858
Denmark	624858	Norway	625488
Japan	623977	Pakistan	27401
Liberia	623977	Sweden	624858
Republic of Korea	22372	Turkey	624306
Monaco	625488		

Consuls (and Honorary):

Belgium	28180	Portugal	626333
Brazil	25966	Senegal	20064
Greece	606788	Spain	28180
Honduras	—	Switzerland	624159
Iceland	621207	Thailand	30924
Mexico	605802	Tunisia	407000

Vice Consuls in Malta for following countries:

Austria	29182	Spain	28180

REPAIRS: Malta Dry Docks has the capability to carry out normal and specialised engine, hull and machinery repairs such as:

Engine, (diesel, steam, turbine)
Auxiliaries (turbine and diesel)
Turbine re-blading
Propeller servicing, repairs including re-tipping (tips cast in yard) and balancing
Dynamic balancing of rotors
Boiler and heat exchanger chemical cleaning
Rudder and tailshaft alignment and repairs
Gritblasting (internal/external) to all standards
Hull cleaning by high pressure water jet
Refrigeration system repairs
Replacement of lignum vitae stern tube bearings
Installation of Deutsche Werft Simplex stern tube sealings
Internal/external cathodic protection
Combustion control system repairs
Re-tubing of boilers, brickwork and lagging
Renewal of heating coils, cargo and stripping lines
Hull repairs (welded and rivetted)
Jumboizing.

Travelling Repair Parties:

Malta Dry Docks Travelling Repair Parties are available to carry out repairs at sea both as an emergency repair, or as a means of reducing lay-up time during normal voyage repairs or classification surveys.

It is possible to shorten the time of refits by employing a travelling repair party to commence work before entering or complete after leaving the Dry Docks, non-critical items being completed on passage.

Malta allows the maximum use to be made of Travelling Repair Parties, situated as it is in the centre of the Mediterranean, midway between Gibraltar and Port Said. It is ideally placed on the shipping lanes between the East and West and connected by daily air services to Europe and North Africa.

Malta Dry Docks Travelling Repair Parties are equipped to carry out the following work:

1. Repairs to main and auxiliary boilers, including re-tubing, renewal of brickwork and insulation and fitting of new furnaces in Scotch type boilers.
2. Overhauling and repairing deck and engine room auxiliary steam and diesel plant, cargo systems and valves.
3. Repairs or replacement of cargo tank heating and stripping line systems, in cast iron, steel or aluminium/brass.
4. "Metalock" cold repairs to castings by trained specialists.
5. Gas or electric welding to Classification Society requirements for steelwork repairs and reinforcements.
6. Repair or renewal of electrical wires and cables.
7. Overhaul or installation of any electrical machinery.
8. Repair or installation of all navigational aids, i.e., radar, radio, auto-pilots, gyros by qualified personnel.

Any enquiry will receive immediate attention by radio, telex or telephone.

DRY DOCKS: Malta Dry Docks.

Docking Facilities:

Dock Number	*Length* (m.)	*Inside Beam* (m.)	*Depth* (m.)	*Cranes Capacity* (tons)	*Other Facilities**
1	153.92	21.64	5.57	1×50 1×5	A–S–FW–SW
2	169.6	24.68	9.96	1×4 3×5 1×20	A–S–FW–SW
3	142.9	17.67	9.55	1×4 2×10 1×20	A–S–FW–SW
4	262.5	39.6	10.3	1×5 1×10 1×50	A–S–FW–SW
5	216.4	28.04	10.52	1×5 1×10 1×50	A–S–FW–SW
6	360.0	62.0	10.72	1×150 12×30	A–S–FW–SW O–P
7	100.0	35.35	4.32	1×150	FW–SW–A

*A – Compressed Air FW – Fresh Water O – Oxygen
S – Steam SW – Salt Water P – Propane

Capacity of No. 6 Dock 300,000 d.w.t.

SERVICES: Tank cleaning and underwater hull cleaning undertaken by Malta Dry Docks.

Ricasoli Tanker Cleaning Installation:

The tanker cleaning installation at Ricasoli accepts cleaning for dry docking, repairs and survey for upgrading tankers.

The jetty area consists of a 100 m. jetty, situated immediately inside the Grand Harbour, and capable of berthing tankers up to 100,000 d.w.t. at a maximum draft of 8.5 m. in 10 m. of water.

Tankers are assured of immediate attention on arrival from a trained crew of tank-cleaning personnel. Work is continuous 24 hours per day from the time of arrival of the vessel, together with a 24-hour security watch.

1. Washing: The installation supplies hot wash water at a temperature of 60°C and a pressure of 14 kg./sq.cm. to operate 4 washing machines simultaneously, with a delivery rate of 30 – 34 t.p.h. The discharge of slops and/or ballast is at a maximum of 1,200 t.p.h. Chemical cleaning is also undertaken and Malta Dry Docks holds stocks of well-known chemicals.
2. Gas-freeing: The installation operates 3 compressors and 6 Meco ventilators, together with trunking, are available for gas-freeing.
3. Steam Supply: This is available at the jetty when required. All associated tank-cleaning equipment is available for ship's use.

Full fire-fighting facilities are available at the jetty.

The installation also makes distilled water for sale to ships and a separate line is available at the jetty for the discharge of this product.

The reception and treatment area incorporates reception tanks, treatment tanks and an observation tank with separating baffles and oil sump. In addition there is an oil storage tank and a distilled water storage tank.

The boiler house accommodates 3 Scotch boilers with all associated auxiliary equipment. The steam supply is extensively used in the plant area for heating and treatment purposes. An evaporator-distiller is incorporated in the Boiler House for the production of distilled water.

The whole area has been designed to be perfectly safe and is to the standards laid down by the Institute of Petroleum Safety Codes for Installations storing Class A Petroleum. Strict safety regulations are applicable to the whole plant and the tank-cleaning crew has been thoroughly trained in these matters.

Mediterranean Oilfield Services Co. Ltd.:

Address: Manoel Island, Malta. Tel: 36408, 36409, 39656, 31411, 38195. Telex: MW1273, MW1485. Cables: Medserv, Malta.

24 hour service, 7 days a week.

Devoted solely to the oil industry. 800 ft. deep water quay frontage. 1,722 sq.ft. bonded warehouse. 40,000 sq.ft. covered storage. 20 acres open storage. Office space. Catering services.

One operation for loading mud, cement, water, pipes, fuel and other supplies. Labour contractors.

SURVEYORS: Lloyd's Register of Shipping; The London Salvage Association; American Bureau; U.S. Salvage Association; Det Norske Veritas; Registro Navale Italiano; Bureau Veritas; Germanischer Lloyd; Panama Bureau of Shipping; Nippon Kaiji Kyokai.

BANKS: Bank of Valletta, Central Bank of Malta, Lombard Bank (Malta) Ltd., Mid-Med Bank Ltd., Melita Bank International Ltd.

REPATRIATION: Facilities exist for crew changes and repatriation by air.

AIRPORT: Luqa Airport is 4 miles from port, served by Air Malta and other airlines. Daily flights to London and Rome. Also other flights to other countries.

TIME: GMT plus 1 hour in Winter. Summer time kept from last Sunday in March until last Sunday in September.

HOLIDAYS: New Year (1st January – no work); St. Paul's Shipwreck (10th February); St. Joseph's Day (19th March); National Day (31st March); Good Friday (no work performed at all on this holiday and in the afternoon of Tuesday Carnival); St. Joseph the Worker (1st May); Ascension Day (date changes); St. Peter and St. Paul (29th June); Assumption of B.V. Mary (15th August); All Saints' Day (1st November); Immaculate Conception (8th December); 13th December (Republic Day); Christmas Day (25th December); (no work performed at all).

POLICE/AMBULANCE/FIRE: Police 28135; Ambulance 961; Shore Fire Brigade 99.

TELEPHONES: Can be arranged at the Dry Dock Berths, and on buoys.

GENERAL: Important that tankers are gas-free before entering, and that vessels do not carry explosives.

DEVELOPMENTS: *Marsaxlokk:* To be developed as a transhipment port. In the first stage (completed) the following is available.

Berth	*Length* (m.)	*Depth* (m.)	*Remarks*
A-B	70	3.0	Service Berth
B-C	80	3.5	General Cargo and Containers
C-D	167	9.5	
D-E	550	13.5	

In the second stage a breakwater berth, length 1,030 m., and depth alongside 14.25 m. – 18.75 m., is being constructed. When fully operational the Breakwater Berth will be able to accommodate bulk carriers up to 80,000 d.w.t.

Stage three will consist of Container/Ro-Ro Berths and Bulk Terminal. Total length of quays will be 1,330 m. and dredged depths will range from 12 m. to 22 m.

The port is expected to be operational early 1989. 2 gantry cranes will be available to handle third and fourth generation container ships.

AUTHORITY: Director of Ports, Port Department, Marina Pinto, Valletta. *Tel:* 222679. *Telex:* 1110 Regship MT. *Contact:* Director of Ports.

AGENT: Kirton & Co. Ltd., 18/19 Floor 3, Europa Centre, Floriana, Malta. Cable address: "Kirton Malta". Tel: 234360. After hours 820599. Telex: MW 1241. Sole and exclusive Agents for Lambert Brothers Ship Agencies Ltd.

NOTES

Please also advise Shipping Guides Ltd.

Commonwealth of the Northern Mariana Islands

SAIPAN (Commercial Port): 15.13 N. 145.44 E.

(See Plan)

DOCUMENTS:
5 General Declarations
5 Crew Manifests
5 Passenger Manifests
4 Crew Personal Effects Lists
3 Sealed Stores Lists (food, medication, etc.)
3 Cargo Manifests
3 Dangerous Cargo Lists
2 Crew Vaccination Lists
2 Entry Permits

Note: Entry permit may be requested via cable to Northern Marianas Immigration or through local Agent.

PILOTAGE: Pilot available on request. Advance notice of least 24 hours required. Pilot boards at Tango Buoy (15° 12′ 07″ N., 145° 40′ 20″ E.).

ANCHORAGES: Outside harbour at Garapan Anchorage and inside harbour basin.

RESTRICTIONS: No waste discharge within harbour or within territorial waters (3 miles). Harbour depth restricted to 30 ft. MSL.

MAX. SIZE: Berth space limited to 500 ft. at longest portion of dock. Vessels longer than 500 ft. require special permission from Port Superintendent.

HEALTH: No formal clearance required; however, authorities may demand proof of immunisation against certain communicable diseases if ship is coming from infected countries.

VHF: Saipan Port Control on Channel 16 for berthing assignment. U.S. Coastguard on Channel 16 for emergency.

RADAR: Not available.

TUGS: None.

BERTHING: Berth No. 1, length 200 ft.; Nos. 2 and 3, length 500 ft.; No. 4, length 200 ft.

CRANES: 2×50 ton cranes; no heavy lifts available.

BULK CARGO FACILITIES: None.

SPECIALISED CARGO HANDLING FACILITIES: None.

BRIDGES: None.

STEVEDORES: Available on request prior to arrival of vessel, at least 24 hours advance notice required.

MEDICAL: At least 48 hours advance notice for requests other than emergencies. Hospital facility is limited.

TANKERS: Discharging or loading of fuel at Berth Nos. 2 and 3 only. 1×2 in. connection, standard thread.

FRESH WATER: Available between the hours of 0600 – 2000 hrs. local time. Rate approximately 100 gallons per minute. Cost – 30 cents per ton.

FUEL: Mobil diesel fuel ASTM No. 2 D grade, flash point 150°, API 34 – 42, viscosity SSU at 100°F. 33 – 45.

REPAIRS: No repair facilities.

DRY DOCKS: None.

SURVEYORS: None.

GANGWAY/DECK WATCHMEN: None.

HATCHES: Stevedore in charge.

CUSTOMS ALLOWANCES: 1 case beer; 0.6 gallons spirits; 3 cartons cigarettes, duty free for personal consumption.

REPATRIATION: Not possible.

AIRPORT: Approximately 9 miles from port. Continental Airlines and Japan Air Lines serving Saipan from Guam and Japan, 3 times daily and 4 times a week, respectively.

TIME: GMT plus 10 hours.

HOLIDAYS: New Year's Day (January 1st); Commonwealth Day (January 8th); President's Day (February 21st); Covenant Day (March 24th); Memorial Day (May 30th); Liberation Day (July 4th); Labour Day (1st Monday of September); Discovery Day (October 10th); Thanksgiving Day (last Thursday of November); Constitution Day (December 8th); Christmas Day (December 25th).

POLICE/AMBULANCE/FIRE: Police Tel: 234-6333 and 234-6431. Ambulance Tel: 234-6222 and 234-6115. Fire Tel: 234-9222 and 234-6222.

EMERGENCY CO-ORDINATION CENTRE: U.S. Coast Guard Tel: 234-6101. Civil Defence (local) Tel: 234-6592.

SERVICES: Scuba divers available.

BANKS: Bank of Guam, Telex: 607. California 1st Bank, Telex: 634. Bank of Saipan, Telex: 682. Bank of Hawaii, Telex: 621.

SHORE LEAVE: Crew members are allowed on shore once cleared by Immigration and Customs.

DELAYS: Due to limited berthing space, vessels are usually delayed until the berth is vacant.

AUTHORITY: Commonwealth Ports Authority, P.O.Box 1055, Saipan, MP 96950, Commonwealth of the Northern Mariana Islands. *FAX:* (670) 234-5962. *Contact:* Carlos A. Shoda, Executive Director. *Tel:* (670) 234-8315/16/17. Jose L. G. Diaz, Port Superintendent. *Tel:* 322-9865, 322-9973.

NOTES

Please also advise Shipping Guides Ltd.

Martinique

FORT DE FRANCE: 14.36 N. 61.04 W. (See Plan)

PORT LIMITS: The seaward limit of the port is the broken line joining the following points: Extremity of Pointe des Negres, South of Fort Saint Louis, Red Buoy No. 3, Black/Yellow Buoy S., Green Buoy No. 6L and Pointe Desgras.

DOCUMENTS:

Maritime Declaration of Health.
4 Crew Lists.
2 Provisions Lists.
2 Lists of Passengers in Transit.
5 Lists of Passengers Disembarking.
2 Lists of Crew Personal Effects.
2 Vessel's Particulars Declarations.
2 Cargo Manifests.

Tankers Only: Certificate of Insurance against Oil Pollution.

PILOTAGE: Call Pilot by International Code flag "G" or by sounding "G" on whistle. Pilot launches are painted black. The Pilot joins vessel on arrival at Pointe des Negres. If Pilot not available, vessel must anchor in the Baie des Flamands, East of Point des Negres to await Pilot.

ANCHORAGES: In Baie des Flamands in front of the town. Depths of 10 m. – 14 m.

MAX. SIZE: Length: 180 m. for vessels with one right hand propeller and without bow-thruster. 250 m. if vessel has two propellers and bow-thruster. See also "Tankers".

HEALTH: Request Free Pratique by radio or can be obtained on arrival when Master completes Health Declaration and presents Health Certificates.

RADIO: Fort de France Radio, call sign FFP. ETA message to Agent required 24 hours before arrival on working days or 48 hours on holidays. Message to include number of crew on board, flag, ship's name, tonnage, length, beam, max. draft on arrival, date and time of arrival.

VHF: Port Authority on Channel 16.

RADAR: None.

TUGS: None available or required.

BERTHING:

Quay	*Length* (m.)	*Depth* (m.)	*Remarks*
Avisos – Arsenal	106	6.5	French Navy
Ouest	138.5	7.5	Naval repairs have priority
Tableau Ouest	93	6.5	
Bassin Radoub	200	8	Dry Dock
Oil Quay – Aux Huiles	88.5	7	French Navy
Grands cargos	135	8	Large cargo vessels
Darse	110	9	
Annexes	113	8.5	
Tableau Tourelles	83	11	
Tourelles	320	11	Cruise Ships have priority North end of Tourelles Quay
Poste Ro/Ro			
Battellerie	135	5.5	Fishing vessels have priority
Phares – Balises	50	4	Reserved for Lighthouse and Buoy Tenders
Hydrobase	390	11	
A conteneurs	250	12	2 Container Gantries

Container Quay: Length 250 m., depth 12.0 m. 2 Paceco gantry cranes with lifting capacity of 40 tonnes. Available on reservation 10 days in advance to Chambre de Commerce et d'Industrie de la Martinique (C.C.I.M.), 50 Rue Ernest Deproge, B.P. 478, 97205 Fort-de-France Cedex. Telex: Chamco 912633.

CRANES: None available.

MEDICAL: Doctor and hospital facilities available.

TANKERS: *Petrol Pier:* Depth alongside 17 m., can accommodate tankers up to 300 m. length and 120,000 tonnes displacement. Crude discharge through 2×12 in. Chicksan Arms, capacity 4,500 t.p.h.

DENSITY: About 1028.

FRESH WATER: Available from quay in unlimited quantity except during dry season. Rate 50 t.p.h. – 80 t.p.h.

FUEL: All grades available subject to 12 hours' advance notice.

GANGWAY/DECK WATCHMEN: Recommended. Performed by crew members.

OPENING/CLOSING HATCHES: Can be performed by crew.

CUSTOMS ALLOWANCES: 200 cigarettes per man. All alcohol to be declared.

IDENTIFICATION CARDS: Seaman's Book.

CONSULS:

Belgium
Colombia
Cuba
Denmark
Germany F.R.
Haiti
Italy
Netherlands
Norway
Panama
Portugal
Spain
Sweden
U.S.A.
Venezuela

REPAIRS: Minor repairs possible.

DRY DOCK: 1×200 m. length, 21 m. wide. Equipment restricted.

REPATRIATION: Facilities for crew change and repatriation.

AIRPORT: 7 miles from the port, served by regular airlines.

HOLIDAYS: 1st January, Shrove Tuesday, Ash Wednesday, Easter Monday, 1st May, Ascension Day, Whit Monday, 14th July, 15th August, 1st November, 25th December.

POLICE/AMBULANCE/FIRE: Police, Tel: 17 or 71 00 24; Ambulance, Tel: 17 or 71 59 58 or 70 36 48 or 71 48 88. Fire, Tel: 18 or 71 22 64.

SURVEYORS: *Lloyd's:* Porry Paul, Immeuble Transat, Route du Lamentin. Tel: 71 93 45.

Veritas: Rue Victor Hugo No. 17. Tel: 71 30 78.

TIME: GMT minus 4 hours.

TELEPHONES: Available in cruise ship reception building at Quai des Tourelles.

SERVICES: No tank cleaning equipment, tank-washing, or compass adjusting.

SHORE LEAVE: Permitted.

DEVELOPMENTS: There is a plan to install a third container gantry in 1990.

Cruise ship terminal at Baie de Flamands will be available late 1989.

AUTHORITY: Direction Departementale de l'Equipment (DDE), B.P. 661, Boulevarde du General de Gaulle, 97262 Fort de France Cedex. *Tel:* 63 00 31. *Telex:* 912529 Mr. *Contact:* Monsieur Fourlon, Port Director.

Direction Departementale de l'Equipement, Arrondissement Special, B.P. 625, 97261 Fort de France Cedex. *Tel:* 63.40.74. *Telex:* 912854 Mr.

Capitainerie du Port, B.P. 625, 97261 Fort de France Cedex. *Tel:* 63.40.74, 70.20.73. *Telex:* 912854 Mr. *Contact:* M. Gibon, Port Captain.

NOTES

Please also advise Shipping Guides Ltd.

Mauritania

NOUADHIBOU: (Port Etienne): (See Plan)

POINT CENTRAL: 20.49 N. 17.03 W.

DOCUMENTS:

3 Crew Lists.
2 Stores Lists.
2 Crew Declaration Lists.
2 Passenger Lists (even if "NIL").
2 Ports of Call Lists of the last 30 days.
1 Health Declaration.
1 Vaccination List.

Maritime Gendarmerie: Officers of the Maritime Gendarmerie of Nouadhibou may come on board. They mainly control if the Mauritanian flag (must be flown day and night) is hoisted and check very closely the concordance between the Ship's Articles, the Seaman's Books and the Crew List.

If any difference is found between these three documents a fine may be given to the ship.

Immigration/Police: Crew members are not allowed to go ashore without a safe conduct given by the police. The list of the men asking to go ashore has to be given to Agent on arrival.

Money: On principle, foreign money is not allowed in Mauritania, but Agent may change money into local currency.

No Mauritanian money (Ouguiya) may be kept on board and if the crew have not spent their local money they have to give it back to the Agency (10 Ouguiya about 1 French Franc).

PILOTAGE: Compulsory for vessels calling at Point Central.

An outer pilot station is situated in the vicinity of No. 2 Buoy, bearing 037° distance 4.4 miles from Fairway Buoy No. 0 (Lat. 20° 40′ N., Long. 17° 04′ 30″ W.). Also see "Shipmaster's Report (1977)".

The inner pilot station is 1 mile from the Mineral Wharf bearing East.

ANCHORAGES: Ships waiting can anchor N.E. of No. 2 Buoy, distance 1 mile in 20 m. of water, good holding ground. Another anchorage on the roadstead, the wharf bearing N.W./N.N.W. distance 1 mile can be used by ships prior to berthing.

RESTRICTIONS: Minimum depth of water below chart datum is 17 m. in the buoyed channels and swinging area. Outer channel width is 400 m. but it varies from 250 m. to 400 m. for the inner channel; the radius of the swinging circle being 500 m.

MAX. SIZE: Not to exceed 310 m. in length and 47 m. in breadth, the extreme reach of the shiploader arm being 28.5 m. from ship's side. At the limit an extreme breadth of 48 m. could be accepted after advice from the DCFP. If possible drawing should be sent prior to acceptance for vessels of more than 100,000 d.w.t.

The recommended draft for large vessels in ballast, or partially loaded is 12 m. on arrival. Smaller ships should have on board a quantity of ballast equal to half their cargo capacity.

Maximum freeboard under shiploader arm is 14 m. With hatch covers opening crosswise (abreast) the maximum freeboard must be understood as the height from sea level to the upper part of hatch covers.

On departure a draft of 16.15 m. is usually admitted.

Essential: All vessels greater than 100,000 d.w.t., which have never visited the port before must have prior approval of the DCFP.

HEALTH: Free Pratique is usually granted after vessel has berthed. Yellow fever vaccination certificates required.

TUGS: None available.

BERTHING:

Mineral Wharf: The ore loading terminal of "Societe Nationale Industrielle & Miniere de Mauritanie" (SNIM) is located at mid distance between Cap Blanc and Nouadhibou, geographical position: Lat. 20° 49′ N., Long. 17° 02′ W. It consists of a platform, 20 m. wide oriented North and South, resting on 8 dolphins, 13 m. in diameter each and 32 m. distant one from the other. The platform supports a conveyor belt and one single shiploader. The maximum travel of the shiploader from one end of the rails (railway) to the other is 165 m.; the virtual loading capacity would be 5,000 t.p.h. while the actual output varies from 2,000 to 4,000 t.p.h. according to ship's size and on condition there is only one quality and grade of ore to load.

To maintain a depth below LLWT (lowest low water astronomical tides) of 16 m. at the berth, ships are laid against 2 big outrigger pontoons leaning on the dolphins and protected on the ship's side by heavy but efficient rubber rollers acting as shock-absorbers.

Ships are generally made fast port side to the quay, coming alongside with the help of the anchors which should be kept at the ready.

Shipmaster's Report: March 1983.

Heavy lifts up to 24 tonnes were discharged alongside the berth with vessel's gear.

TANKERS: Oil Wharf: It consists of a light platform placed on top of 3 dolphins of the same diameter as above but 64 m. apart, adjoining the mineral wharf to the Southward. A wooden decking supports the oil pipes which are connected abreast of dolphin No. 10 to the tanker lying port side to the quay, the stern is made fast to a mooring buoy.

DENSITY: Point Central 1026–1027.

FRESH WATER: *Shipmaster's Report:* March 1983. Fresh water available in limited quantities (approx. 100 tonnes) at a cost of US$1.50 per tonne.

FUEL: Not available at the moment. An oil refinery has been built which will eventually supply fuel.

MEDICAL: There are hospital and medical facilities at the port.

CUSTOMS: Regulations are very strict, and a careful declaration of all bonded stores must be made before berthing. Ships have been fined for quantities in excess or missing even when small.

GENERAL: (a) Radiotelegrams stating the date and ETA at pilot station and addressed to SNIM Nouadhibou should be transmitted 72 and 24 hours beforehand via Nouadhibou coast radio station (5 TA) working hours 0800 – 1800 or Dakar (6 VA) hours: Continuous.

Shipmaster's Report: 1977. Telegrams to Agents through Dakar Radio 6 VA only.

(b) It is of interest to Pilots when coming on board, to know whether the ship is powered by a steam-turbine or diesel engine whether the propeller is left or righthand and if it is a variable pitch propeller, how she behaves when the engine is running astern.

GANGWAY/DECK WATCHMEN: Recommended as stowaways try to board at night.

SURVEYORS: Bureau Veritas, Lloyd's, Salvage Association.

DEVELOPMENTS: Extensions to the Mineral Port are being studied.

SHIPMASTER'S REPORT: 1975. Vessel 169,000 d.w.t.

Iron Ore Marine Loading Terminal:—

Approach to Cap Blanc and Baie du Levrier: Approach was from the Southward. From Dakar the course was laid to cross the 100 fathom line at 20° 04′ N., 17° 41′ W., this being a precipitous shelf, when crossed with D.F. bearings from the Radio Beacon at Port Etienne gave a reasonable fix. Vessel then steamed across the main flow of North/South traffic at quite a broad angle heading for the landfall buoy 6 miles West by South of Cap Blanc. A dense concentration of fishing vessels extending Westwards from Banc Vilmorin offered little hindrance to our landfall. The light of Cap Blanc lighthouse was visually observed in the pre-dawn darkness at 26 miles and radar contact of Cap Blanc was established at 23 miles. The landfall buoy fitted with a radar reflector, gave radar contact at 15 miles.

Pilotage: A Pilot boards in the vicinity of No. 2 Fairway Buoy from a black-hulled, white superstructure, 40 ft. high-speed motor launch with "Pilote" written on the side. VHF contact is made on Channel 16, working frequency Channel 14. Call "Nouadhibou Pilot". The Pilot, a Frenchman, had a good understanding of English and proved to be very competent. The transit inwards and through the Passe du Levrier was at half speed but the last mile towards the berth only an occasional Dead Slow ahead movement was made to maintain steerage way.

Tide/Currents: Berthing for large vessels is on the ebb tide with a Southerly set of about 1 knot. South of the headland the set is to the Eastwards again about 1 knot i.e. directly across the channel. Unberthing is made on the flood tide setting Northerly along the jetty again about 1 knot. Rise and fall is in the region of 1.6 m.

Wind: Ranges from North by West to North by East (May). During darkness it abated to about Force 3 but from early morning through to sunset gusted up to Force 6 causing a short steep sea to run. The Pilot stated that in August and September Easterly winds often occurred hence the placing of 2 mooring buoys about 1 cable off the berth to assist vessels warping clear when leaving.

Tugs: None available.

Quay: Stout cylindrical rubber fenders are chained to the sides of 2 floating pontoons laying to the quay face. An adequate number of bollards are placed along the length of the quay. 3 dolphins, connected by a catwalk, extend the Southern length of the quayside for ship mooring purposes.

Moorings: When approaching and lying off the jetty 2 motorised mooring boats will run ashore 1 synthetic fibre rope (no wire ropes at this stage) from forward and 1 similar rope from the Poop. Vessel is then to warp alongside with these 2 lines aided by helm and small engine movements. Once alongside a spring from the after extremity of the Poop is to be sent away and a forward spring. Vessel secured to the berth with 1 headline to a mooring buoy North of the jetty, 3 forward breast lines, 1 forward spring, 2 stern lines, 2 after breast lines 1 spring from the Poop, and 1 spring from the normal position on the after deck.

Gangway: The accommodation ladder could not be used because of the space between the pontoons lying between ship's side and the quay. A pilot ladder was the means of access to the after pontoon from which access could be obtained to the quay.

Depths alongside: At the first low water soundings were taken around the ship and when reduced to chart datum — obtained from a monthly tide table loaned by the Pilot – a least depth of 16.2 m. was found on the inboard side with depths generally about 18/19 m. elsewhere.

Draft: Maximum permitted for berthing 12 m. Maximum permitted draft for sailing is 16.16 m. (53 ft.) at any state of the tide.

Airdraft: Maximum 14.5 m. In our case several thousand tonnes of hold ballast had to be taken once secure alongside, this delayed loading for 5 hours.

Shiploader: This is a single conveyor belt fed gantry having a range of travel of 165 m. along the quay but the loading arm has no facility to slew horizontally. It can only be luffed in the vertical plane. The maximum outreach was stated to be 23 m. which combined with the airdraft limitation of 14.5 m. made it extremely difficult to plumb the centre of the holds. For the majority of our loading period the ship had a port list (this was exaggerated by the free surface effect of the 4 ballasted holds). To keep the loading arm from fouling the ship's structure and assisting the arm to plumb centre all the port side side-rolling hatch lids were only partially opened.

Shifting: This had to be done on 2 occasions but was successfully achieved by hauling on the 2 spring wires aft and 1 headline to warp a distance of 6 m. forward and heaving on the forward spring and stern lines to warp 26 m. aft. The shifting was necessitated by the fact that the distance centre to centre of our extreme loading hatches was 191 m.

Agency: This was conducted by SNIM, Societe Nationale Industrielle & Miniers, their telegraphic address is "Snimport – Nouadhibou".

Documents: Required are:

4 Crew Lists.
2 Stores Lists.
2 Crew Declaration Manifests.
2 Vaccination Lists.
3 Passenger Lists.
3 Ports of Call of the Last Month Lists.
2 Ballast Manifests.

The latter 3 lists can be made on 1 sheet of paper (in triplicate). No Maritime Health Declaration was asked for. All these documents were passed to the Agent, no Customs, Port Health, Immigration or Police visited the ship. Although some crew members were without Yellow Fever vaccination certificates this posed no problem with the Agent, he declared no vaccinations can be done here. Nor can the Derat Exemption Certificate be renewed.

Port Restrictions: The Agent warned that crew members could not use pounds sterling, U.S. dollars, Dutch guilders or other foreign currency ashore for fear of confiscation by the "authorities". The local currency is the Ouguiya, 100 of which are on par with £1 (approx.).

Port Capacity: The Pilot stated previous largest ships had been:
(i) *"Atland"* Obo Swedish 84,229 g.r.t.
(ii)*"Thor"* Bulk German 79,270 g.r.t.
(iii) *"Lilyprima"* Obo Italian 72,68 g.r.t.
However, our claim to be the largest vessel to call being 169,080 d.w.t. is unsubstantiated. The Agent claims a shipment of 139,000 metric tonnes is the largest cargo exported from the port.

Loading Rate: The installation foreman claimed a rate of 4,000 t.p.h. Our rate, allowing for the frequent short stoppages, was 2,813 t.p.h.

Ore: The grade "Siliceous Iron Ore Fines XBF" was extremely dusty. About 10 grades of ore are available from 3 different mines.

Water Density: From our observations at low water 1024 ozs./cu. ft. and at high water 1025 ozs./cu. ft.

Cargo Figures: All tonnages quoted this port are metric tonnes. Ship's figure was about 1,300 tonnes less than the shore quantity, however, the ship's figure was accepted and the foreman stated the shore installations were usually 1% high of the ship figure. Ship was loaded to the maximum draft of 53 ft. but a great deal of difficulty was experienced reading the draft due to the seaway.

Unberthing: This was carried out on the flood tide. Single up to the 2 spring wires aft, using small astern movements and helm movements which aided by the anchor will cant the head from the quay. When the anchor is aweigh, slip the springs and steam ahead of the jetty then using full ahead power and starboard rudder followed by full astern power the vessel is swung well within the turning area to head seawards.

Depths in Channel: Except for the area of the channel abreast Cap Blanc lighthouse where less than 1 m. beneath the keel the remaining parts of the channel showed 3 m. – 4 m. underkeel clearance.

Conclusion: It would appear impractical to enter ships of a larger physical size than ourselves at this port because of airdraft/outreach limitations, draft restriction and manoeuvrability problems. Although we were fortunate in having a trouble–free berthing and unberthing procedure serious problems could be foreseen if a vessel had a main engine failure or a sudden deterioration of the weather occurred during these manoeuvres.

SHIPMASTER'S REPORT: 1977. The landfall buoy 6 miles West- by-South from Cape Blanco does not exist. Buoy No. 0 approx. position 20° 40′ N., 17° 04.7′ W. has been removed.

SHIPMASTER'S REPORT: June 1978. The following is a brief account of the port which is in addition to the information supplied in the "Guide", which may be read as being correct. The port, formerly Port Etienne, is in Mauritania, I found travellers are afforded every courtesy. There are two flights per week from Paris via Air Africa who are very good. The flights arriving here on Tuesday and Thursday. The plane returning from Dakar Wednesday and Friday. Spare parts can be landed here and taken out to the ship with minimum of Customs formalities though it would prove to be an expensive exercise. It must also be pointed out that it is not always possible for the plane to land here due to high cross winds and resultant sand storms at the runway, in which case the plane then proceeds to Dakar direct.

Custom Authorities are most interested in the amount of foreign currency brought in as there is a strict levy on this, care must be exercised in this respect. They are also most interested in the stores on board the ship and these must be strictly accounted for precisely.

The town itself of which I did not visit is a separate community from the mining town itself. The mining town itself is self-sufficient and both French and Mauritanians live here. There is a hotel, which is practical and clean with reasonable food. There is also a club with tennis courts, a post office, power station and cinema and a hospital where major surgery can be carried out. There is also an oil refinery which is uncompleted. Refined products are imported via a modern berth. Bunkers and fresh water are available here but in limited quantities and I would imagine costly.

There are no tugs. According to the Agent wireless telegraphy may be used alongside the berth although there is a Telex ashore. I found the Agent to be most helpful.

I was assured that seamen joining or leaving here do not require a visa only a passport and discharge book are required, which I personally was never asked to produce.

The iron ore mine is approximately 650 miles from the loading berth, all the ore coming by rail and attacks are frequent by bandits and guerillas. This can cause lengthy delays to the ship as very little ore is stockpiled.

Loading is carried out by one loading arm which pours approximately 4,000 tonnes per hour. Weights loaded can be measured ashore and have proved to be quite accurate, however it is normally the practice to accept the ship's figures.

SHIPMASTER'S REPORT: September 1986.
Vessel: Ore carrier – 117,600 d.w.t.
Telegrams: Telegrams to our Agents (SNIM) were sent through St. Lys Radio in France, and were received without delay at the Agency.
Water: Requirement should be stated in the 72 hour notice of ETA cable.
Navigation: 2 Pilots working this port now.
Still no tugs available.
All buoys in the Approach Channel are unlit.
Buoy Nos. 1 and 3, (B.A. Chart No. 1699, 1983 edition), are missing.
Cape Blanc Lighthouse unreliable as extinguished at times.

Stowaways: The possibility of stowaways still exists. Local guards have been placed on the quay to stop unauthorised people from getting aboard, but it is recommended to have ship's crew as watchmen as well.

SHIPMASTER'S REPORT: August 1987.
Vessel: 24,750 d.w.t. 170 m. length.
Location of Oil Terminal: 20° 49.8′ N., 17° 01.75′ W.
Documents:
6 copies Crew List.
3 copies Crew Personal Effects List.
2 copies Stores List.
1 copy Health Declaration.

Ship's documents not required. Vaccinations not possible. It is not possible to renew the Derat Certificate.

Pilotage: Not compulsory. Pilot may be contacted on VHF Channel 16.
Anchorage: Location clearly shown on chart.
Approaches: Vessels should only approach the Pilot station and fairway buoy in daylight hours.

The buoys are in the positions shown on the chart but are incorrectly numbered and are not lit at night. The lighthouse at Cape Blanco was not working. However, the African Pilot Volume No. 1 and the chart provided sufficient information for safe approach.

Approaching without an efficient radar is not safe as the visibility is normally very poor and many fishing vessels may be in the area.

The Channel from the Pilot Station to the oil pier is dredged to 15.5 m.

Restrictions: Berthing and unberthing during daylight hours only.
Max. Size: Max. draft 15.0 m.
Tugs: Vessel berthed without tugs as none available.
Berthing: Dolphin type berth with 7 Chicksan arms connected direct to the shore.

Dirty ballast can be discharged ashore.

Fresh Water: Not available.
Fuel: Not available.
Delays: Strong winds may delay tankers berthing.

SHIPMASTER'S REPORT: September 1987.
Documents:
4 copies Crew List.
3 copies Stores List.
3 copies Crew Declaration.
3 copies Passenger List.
2 copies Ammunition List.
2 copies Stowaway List.
3 copies Ports of Call List for the last 30 days.
2 copies Health Declaration.
3 copies Vaccination List.
2 copies Currency Declaration List.

The above documents, especially Crew Personal Effects List, Bonded Stores and Steward's Stores and Provisions List should be correctly declared, otherwise vessel will be fined by the Customs and other authorities.

Pilotage: Pilotage is compulsory for vessels calling at Nouadhibou. Vessel should anchor one mile South East of Buoy No. 2 if she has to wait for berth. Constant communication with the Pilot is necessary in order to determine time for berthing. Agent could not be contacted by VHF.

Approaches: If approaching Nouadhibou during the night a vessel must be very careful as there are scattered fishing vessels in the vicinity. The fishing vessels of various nationalities are found up to 30 miles from the shore and their nets are obstructions to navigation.Navigational aids in this port are very poor, Cape Blanco lighthouse and the (7) channel buoys are not lit. Buoy "A"or the Sea Buoy has moved 1.5 cables N.W. of the charted position, the others are in their charted position. The top mark of Buoy No. 2 is broken and was difficult to identify at a distance greater than 3 miles. All the buoys in the channel are unlit. Master was informed by the Pilot that there would be no movements during the night and pilotage service will be rendered only during day time. It is recommended by the Pilot that vessels arrive at Nouadhibou during daylight.

Restrictions: Depth of water in the buoyed channel is 16.0 m.. This was monitored by our fathometer during the passage. On the Oil Berth the Pilot usually docks the vessel on slack tide, and normally port side to, using the starboard anchor with two shackles in the water. Services of the Pilot are good and satisfactory.

Communications: When the vessel is at anchor and waiting for berth communication with the agent and the terminal is difficult. If you call them on the VHF they never answer, the language barrier is the problem. The service of the Agent was poor, he did not meet the vessel even when it was berthed. At the time of our departure we waited over an hour for our Departure Clearance.

Health: Free Pratique is usually granted when the vessel is on the berth. Cholera and Yellow Fever Vaccination Certificates are required.

Tugs: Not available. Vessels with bow thrusters have no problems.

Tanker Berth: The tanker berth is constructed of light materials and cement, the floor of the platform is wood, the length of the berth is about 165 m. It has 6 loading arms of 8 in. diameter. The fenders on the pier are hard rubber supported with springs. Two mooring boats will assist with the mooring lines of the vessel being berthed. A five man mooring gang will receive the lines. Slops or dirty ballast can be received ashore at the refinery facilities. Only the Loading Master could speak a little English, so language is the main problem with the operations.

Fresh Water: Not available.

Customs: Only 2 Customs Officers boarded the vessel,they scrutinize every paper or document presented to them, especially Bonded Stores List, Steward's Stores List, and Personal Effects Lists. If a mistake is found they will start to talk about fines to the vessel. It is therefore advisable to itemise the Declaration of the Bonded Store, Steward's Stores and Provision, and Crew Personal Effects Lists in order to avoid fine or any other problems. During our stay in port the Customs Officers boarded three times.

Gangway: The vessel has to provide her own gangway as there is no shore or terminal gangway provided. Ship's personnel should keep a constant watch on the gangway during the change of tide as the current is very strong and the range of tide is about 5 ft.

AUTHORITY: Societe Nationale Industrielle et Miniere (SNIM), B.P. 42, Nouadhibou, Mauritania. *Tel:* 100, 114. *Telex:* 459 Snim Ndb, Snim 426 MTN. *Contact:* Mohamed Salem Ould Cheikh, Chief of Port Department.

NOUADHIBOU HARBOUR: 20.54 N. 17.03 W.

LOCATION: Position of Trading Port 20° 53′ 48″ N., 17° 03′ 10″ W.

DOCUMENTS:

3 Crew Lists.
2 Stores Lists.
2 List of Personal Effects.
2 Lists of Ports of Call.
Cargo Manifest, even if nil.
Manifest of Passengers Disembarking or in Transit, even if nil.
1 List of Foreign Currency held by ship and crew.

PILOTAGE: Not compulsory but recommended, effected by SNIM/Cominor. Pilotage not available at night.

RESTRICTIONS: Depth of buoyed Channel 24 ft. Anchorage strictly prohibited in the Channel.

RADIO: Nouadhibou Radio – Call sign 5TA. Hours 0800 – 1800 daily.

It is recommended that vessels advise their Agent of ETA 72 hours prior to arrival.

VHF: Request Pilot through Port Captain on VHF Channel 16.

TUGS: One tug, 150 h.p.

BERTHING: Pier of 125 m. length connected to shore by a 150 m. long bridge.

Outside general berth for ships with a 24 ft. draft and a 160 m. max. length. According to certain vessel's accommodations, the extreme hatches cannot be discharged through quayside.

Inside berth for ships with a 15 ft. max. draft and a 80 m. max. length.

The maximum payload authorised on the bridge connecting the pier to the warehouses and the storage areas being limited to 10 tons, all heavy lifts over 10 tons are to be compulsorily discharged on lighters.

Lighterage Piers: Southern quay = length 80 m; depth 10 ft.
Western quay = 180 m.; depth 10 ft.

The Southern quay is connected to SNIM/Cominor railroad network, allowing the loading of heavy lifts on railcars.

2 covered sheds: total 3,500 sq.m.

1 area with macadamised roads offering 30,000 sq.m. of storage connected to SNIM/Cominor railroad system.

Lighterage: Compulsory for any ship whose characteristics do not allow a safe berth. Compulsory for any loading or unloading of heavy lift over 10 tons.

Not compulsory in case berths are occupied and if manpower and equipment are still available.

CARGO HANDLING EQUIPMENT: 1 lighter × 150 tons, 2 flat top lighters × 200 tons.

14 cranes × 4 tonnes.
2 cranes × 15 tonnes.
4 stacker trucks × 3 tonnes.
1 stacker truck × 8 tonnes.
6 tractors.
16 trailers.
1 rail mounted crane × 70 tonnes (SNIM Property).
1 mobile crane × 50 tonnes, available on request for heavy lifts.
2 cranes on rails for containers.

STEVEDORES:

Working Hours. Normal hours: from 0800 to 1200 and 1400 to 1800 from Saturday to Wednesday.

Overtime: Saturday to Wednesday: 1200 – 1400 hrs. 1800 – 2000 hrs. Thursday: 0800 – 2000 hrs. Fridays and holidays: 0800 – 2000 hrs.

Nightwork possible after 2000 hrs. in order to finish.

During the time of Ramadan work finishes at 1800 hrs.

There is no work on the following holidays: New Year's Day (Jan. 1); Tabaski (El Aid) (variable date); Day of Reunification, (Feb. 26); El Mouloud (variable date); Labour Day (May 1); Africa Liberation Day (May 25); Korite (El Fatar) (variable date); Independence Day (Nov. 28); Christmas (Dec. 25); 1st Moharam (variable date).

The holidays corresponding to the Islamic Religious holidays are calculated from Arabic calendar.

FRESH WATER: Available in small quantities.

FUEL: Available in small quantities.

CARGO GEAR: Ship's gear used.

GENERAL: *Winds:* Mainly N./N.E. in the morning, N./N.W. in the evening. Wind force: variable from August to January, rather strong from February to July. Tidal current running North during Flood, and South during Ebb (1.5 to 2.5 knots).

Swell: 0.80 m. max. Strong surge alongside all berths.

Rise and Fall: HW 2.35 m. LW 0.35 m. difference = 2 m.

SURVEYORS: Bureau Veritas, Lloyd's and Salvage Association.

AUTHORITY: Port Autonome de Nouadhibou, B.P. 236, Nouadhibou. *Tel:* 21-34, 22-35, 22-76. *Telex:* 441 Mtn.

NOUAKCHOTT: 18.02 N. 16.02 W. (See Plan)

NOTE: All information below, except the Shipmaster's Reports dated October 1987 and March 1988, is for the old port.

LOCATION: Nouakchott Wharf (old port) is situated in position Lat. 18° 02′ 08″ N., Long. 16° 01′ 43″ W., being about 7 km. S.S.W. of Nouakchott.

Vessels anchor off the port and movement of cargo is undertaken by barges and lighters.

WIND: The direction of the wind varies from N.N.W. to N.E. The predominant winds affecting navigation are from the N.N.W.

The rapid onset of bad weather should be noted. When conditions are bad vessels should weigh anchor and proceed seaward as the coast offers no natural shelter.

CURRENTS: There is an almost permanent North-South current running at about 0.5 knots; it reverses South-North on a few days during the year.

SWELL: 2 kinds of swell have been observed: Local swell due to the coastal winds, varying from North to N.W. in dry weather, and turning between N.W. and S.W. during the wet season.

ANCHORING ROADS CONDITIONS: The periods during which climatic conditions are liable to upset work are as follows: Strong swell, January/March; rain, July/August/September.

This virtually allows the port to be used during 200 days in the year.

WORKING CONDITIONS: Vessels must locate themselves as closely as possible, where they can anchor without risk, to the wharf, within the limits of their drafts (generally between 0.5 and 0.25 miles), in line. At the lighterage quay there is a depth of water of 7 m. – 8.5 m. It is preferable for a ring of lines to be placed in advance around the sides of the vessel to which barges may tie up.

Experience shows that the tonnage unloaded currently by the wharf is 400 to 500 t.p.d. where goods in sacks are concerned. It is possible to work 2 vessels at once, but each will only work half of this tonnage.

Work is currently carried out on board by private companies, and on land, in the launches and lighters by the Wharf Organisation personnel.

As far as wharf personnel are concerned, during working days, the normal working hours are from 0800 to 1600 hrs.

Overtime day hours are from 1600 to 1900 hrs.

Night time working is considered to apply between the hours of 1900 and 0600 hrs. (currently impossible).

It should be noted that there is an overtime hour at the beginning and end of work, which is the time required to launch or bring barges on to the landing-stage.

RECOMMENDATIONS TO MASTERS OF VESSELS: Vessels must be at all times capable of gaining the open sea rapidly, since bad weather comes up very quickly, and the coast affords no natural protection.

WHARF: The working platform is 86 m.×21 m. and lies in a N.W.-S.E. direction; it is connected to the shore by a gangway 246.5 m. length and 7 m. wide.

The wharf is designed to take a load of 2 lorries of 25 tons (2 axles of 10 tons and 1 axle of 5 tons) or an overload of 1 ton/sq.m.

The Wharf Manager's office together with Police, Customs and radio office are located on the shore.

WHARF EQUIPMENT: 3 cranes with capacities of 20, 8 and 5 tons respectively.

FLOATING EQUIPMENT: 1 launch of 50 h.p., 2 launches of 100 h.p., 10 steel barges, internal dimensions 10 m.×3 m.×1.25 m. with capacity for 20 tons cargo. 1 steel barge, internal dimensions 13 m.×4 m.×1.35 m. with capacity for 30 tons cargo.

LAND EQUIPMENT: Goods are transported from the wharf to the storage area by 18 trailers each with a capacity of 8 tons. The port is also equipped with 2 tractors of 80 h.p. and 5 fork-lift trucks with capacity of 3.5 tons.

TANKERS: Dakar oil companies are presently building a hydrocarbon oil depot about 400 m. North of the wharf.

The depot will be fed from tankers by means of 2 sea-lines of 900 m. length.

SHIPMASTER'S REPORT: August 1978 (Old Port).

The following is to be read in conjunction with the information above.

Currents: Reversal of current is unpredictable and may last for several days on each occasion.

Anchoring Roads Conditions: While in the main the holding ground is good, there appears to be patches of hard sand where the anchor cannot take hold.

Working Conditions: It is practical to work 4 vessels at once plus one of up to 5,000 d.w.t. at the new extension to the pier.

Present (August 1978) hours for ships at anchor are 0800 to 1600 hrs. (Ramadan) but Sunday overtime can be worked if vessel gives authority. It seems that this is very expensive as so many are involved.

At the pier extension work has been observed from 0800 to 2400 hrs. and a mobile crane is available there to assist ship's gear.

Wharf Equipment: There are 7 cranes with various capacities, two being used for lifting out barges for repairs and to house the tug launches at night. The mobile crane is backed up by some 8 small fixed jib carriers.

Tankers: The sea berth North of the pier is in operation.

Documentation: See "Nouadhibou".

Customs Control: The officer will not board until the Agent has entered the vessel with the necessary documents, hence there will always be a time interval between arrival and being boarded for inspection. So financial loss must be expected accordingly.

General Observations: Due to the lack of any VHF or similar communication system, it is difficult to assess the true performance of this port. It is most uncomfortable for any vessel of more than 7,500 d.w.t. unless the barges are prepared to come out to 7 or more cables from the pier. In the recommended anchorage the effect of swell and surf is such that the vessel frequently swings through a wide arc and the chances of breaking out the anchor are very real. The erratic current direction may also swing the ship towards the pier hence the above opinion. Other vessels may also anchor so as to swing across one's own cable and anchor.

SHIPMASTER'S REPORT: October 1979 (Old Port).
Anchorage: Vessel anchored in position Lat. 18° 02.2′ N., Long. 16° 02.7′ W. (with the lighthouse tower on the jetty bearing 101° distance 3.3 cables).
General: City of Nouakchott (the capital) is in position Lat. 18° 05′ N., Long. 15° 58′ W. The port jetty is in position Lat. 18° 02.1′ N., Long. 16° 01.55′ W. being about 7 km. S.S.W. of the city. The official languages are Arabic and French. There are asphalt roads, one which leads to Dakar. There is an airport (close South of the city) with connections to Dakar and Casablanca. Scheduled flights being published in the daily newspapers.
Time: GMT.
Authorities: No authorities come on board on arrival, however, after a few days an agent's clerk comes on board and takes all port forms and documents ashore. No store rooms are sealed but stores list is to be filled in properly.
Documents: Two copies of each of the following are required:

(a) Crew List.
(b) Health Declaration.
(c) Vaccination List.
(d) List of Ports of Call.
(e) List of Arms and Ammunition.
(f) Ship's Register and Tonnage Certificate.
(g) Ship's Stores List.
(h) Crew's Personal Effects Declaration.
(i) Notice of Readiness/Manifest & Stowage Plans.

With regard to Notice of Readiness it is advisable to send cable via Dakar Radio. It is also advisable to ask the clerk for his identification card and ask him to sign a receipt for the above.
Shore Leave: Passports are needed for going ashore, only method of going ashore is by ship's own lifeboat or during working hours by the motor launches used for transporting barges.
Consuls: Germany F.R., China and U.K.
Medical: All services can be arranged by Agent.
Stores: Limited amounts of vegetables, cereals, coffee (instant) and milk (condensed) can be arranged by agent (all items are imported). There is no ship chandler.
Repairs: No facilities.
Fresh Water: There is no possibility of supplying fresh water to vessels, therefore rationing of water is recommended on arrival due to the fact that turn of 30 – 40 days is normal for general cargo, bulk cargoes and bagged cargoes. Priority being given to vessels with cement cargo as construction of a new port is taking place 1.5 miles to the South. At most times there are 15 – 20 vessels at the anchorage.
Repatriation: Can be arranged by Agent via Dakar.
Weather: See "African Pilot", Volume 1 and supplements. During the time the vessel was at the port (mid-September to mid-October) there was hardly any rain. Temperatures ranged from 20°C to 42°C depending on the direction of the wind. The barometric pressure was 1008 mb. (min.) to 1012 mb. (max.). Winds normally from the North to N.W., being influenced by anticyclones in the Dakar and Casablanca areas. Occasionally winds were from the West, S.W., South, S.E. and East. The wind was from Force 3-5/6 for short periods which quickly caused deep swell and surf.

Easterly winds caused sand storms and visibility becomes poor.

The swell is reported to reach high levels in the first and last quarter of the year and vessels are advised to leave the anchorage when the rapid increase in wind appears. These winds come from two directions, namely, Northerly and Northwesterly.
Approaching/Pilotage: No Pilot available. Charts B.A. 3247 and B.A. 2078 Plan (1976/correction 1978). Vessels should approach the coast heading 090° from the 20 fathom line 9 miles to the West of the charted lighthouse (Chart B.A. 3247). The jetty is a good radar target at 37 – 40 miles and the radio beacon at Nouakchott "KC" on 297 kHz in position Lat. 18° 04.3′ N., Long. 15° 58′ W., is an excellent aid. The depths on this track are between 20 fathoms and a minimum of 30 ft., close to the shore line (0.25 miles offshore). There are no dangers or difficulties encountered approaching.
Navigational Aids: B.A. Chart 2078 Plan (1976/correction 1978) most charted buoys are not in correct position. The unlit wreck buoy in position Lat. 18° 01′ 32.2″ N., Long. 16° 02′ 48.8″ W., marks a wreck to the S.E., the wreck is not visible and the position is doubtful. For further information see the plan of the port made by the ship's officers.
Anchoring/Berthing: Anchorage is recommended in the area to the North of the green wreck buoy and between 0.25 and 0.5 nautical miles from the shore. A close anchorage is required during discharge to avoid long distances for the lighters and tugs. The jetty berth (N.W. end) could be used by vessels during calm weather and low swell. The berth is 52 m. in length and the jetty which runs in a N.W./S.E. direction is 86 m. long with a width of 21.17 m. If berthed alongside, good fenders must be available at all times and crew must stand by the mooring ropes.

Remarks: Receivers sometimes require a vessel to berth at the jetty but care should be taken, as if vessel causes any damage during the difficult approach or by swell, the authorities may sue the Master/Owners with high penalties and detain the vessel until payment is made. There has been an instance where a Master has been placed under "hotel arrest" and all papers and documents for the vessel kept ashore, resulting in a delay to the vessel of 40 days.
Stevedoring/Port Equipment: The stevedore company is So Ge Co Nouakchott, Societe Generale de Consignation.

The jetty wharf is connected to the shore by a 246.5 m. long bridge with two lanes each of 7 m. width. There is an old pipe-line in the centre of the bridge between the two lanes. The bridge runs in a 104° direction to the shore. At the Southern side of the jetty-platform there are 7 cranes (one damaged) with lifting capacities of 12.5 to 25 tonnes.

There are 5 motor launches (50 – 100 h.p.) for towing lighters to and from the vessels. There are also 10 steel barges (lighters) with a capacity from 20 – 70 tonnes. At night the launches are lifted onto the jetty and the lighters are either moored alongside the jetty or at buoys.

In addition to the 7 cranes there are available on the jetty and wharf area 10 mobile cranes and 5 forklift trucks (3.5 tonnes) and 2 tractors for transporting goods on trailers (total 18), capacity of the trailers being from 8 – 20 tonnes.

Cargo is discharged into the barges and transported to the shore. Net slings mostly being used for bagged cargo and general cargo. There are stacking areas of 70,000 sq.m. and 45,000 sq.m. near the wharf. So Ge Co have 2 cold rooms (6 m. × 3 m.). There are 4 sheds, storage area 2,000 – 4,000 sq.m. capacity.

Signals: When loaded barges alongside the vessel are to be collected by the launches, vessel is to sound 2 long blasts on the ship's whistle.

Average discharge rate: Bulk cargo 7.5 tonnes per gang hour and bagged cargoes 15 tonnes per gang hour, however, this is dependent upon barges and launches. The average tonnage discharged per day/gang is for general cargo 15 – 35 tonnes and bagged cargoes 35 –86 tonnes.

Working hours: Monday to Friday 0800 – 1600 hrs. Saturday 0800 – 1200 hrs. Sundays and local holidays are on overtime.
Note: It is compulsory that 1 hour prior to and 1 hour after working hours is counted as overtime for shore gear preparation.
Agency: Care should be taken when appointing Agents as agency fees, handling fees and port expenses can vary enormously.

SHIPMASTER'S REPORT: October 1987 (New Port).
Port: Port de L'Amitie.
Location: 3 miles South of Nouakchott Wharf.
Pilotage: Pilot (Chinese) boards between the first buoy and the wharf.
Anchorage: Vessel anchored 1.5 miles West of berth in a depth of 12.5 m.
Restrictions: No berthing on Friday.
Max. Size: Depth alongside 10.0 m. Vessel entered and sailed with a draft of 8.6 m. To the West of the port entrance there is a depth of 11.0 m.
Radio: ETA messages sent via St. Lys. It is not possible to telephone Nouakchott direct or through Nouadhibou Radio.
VHF: The Port Captain (Chinese) located at Nouakchott Wharf, 3 miles to the North, is on Channel 16 from 0800 hrs. – 1400 hrs. (except Friday). They will advise pilot and tugs of vessel's ETA.

The Agent (Compagnie Mauritanienne de Navigation) is on Channel 16 from 0730 hrs. – 1530 hrs. (except Friday).

Pilot and tugs on VHF when working.
Tugs: 2 tugs available.
Berthing: The approach jetty runs East–West and is 700 m. in length. The wharf at the western end is 585 m. long and 100 m. wide and lies in a NE'ly–SW'ly direction (060° – 240° T). The depth alongside is 10.0 m. The jetty head (length 100 m.) is protected from swell from the West.

Two buoys mark the land-side of the port limits. The wharf has an open storage shed of 50 m. length.
Stevedores: Fairly good at handling containers.

As there is a heavy swell it is preferable to use steel wire slings. Ship's derricks used as no shore facilities. Containers loaded direct on to lorries at Nouakchott Wharf (6 km.), by forklift trucks and transported to the berth.

Stevedores work from 0800 hrs. to 1700 hrs. with the possibility of overtime. No work on Friday.
Documents: Usual Declarations required plus a Foreign Currency Declaration. The Agent takes all documents ashore.
Customs: Customs make an inspection but do not seal any of the stores.
Port Captain: The Chinese Port Captain checks all Safety Certificates.
General: The port presents difficulties when there are strong trade winds as the vessel is poorly protected.

Because of the swell, the sea can come over the open storage area. Mooring should be frequently checked.

SHIPMASTER'S REPORT: March 1988 (New Port).
Please Note: The following Report translated from French.
Approaches: Coming from the North, landfall at 18° 02.5′ N., 16° 28′ W., then steer 100° to come to the South of the new port.

At 20 miles from the coast weak echoes from the town and a few buildings close to the pylon in position 18° 08.5′ N., 16° 00.5′ W. observed on the radar.

At 15 miles echoes from the new port and the old wharf appear. The coast only appears at 9 miles on the radar as the coast is dunes and swamps.

In the event of electricity power failure in the town, only the light at the end of the new port operates. This light was observed at 5 miles. This small lighthouse is a white pylon of concrete, about 10 m. high, and with a white light on top (2 secs. on, 3 secs. off).

The new port is 2.6 miles to the South of the old wharf (see "Plan" – "radar picture at 6 miles"). On land to the N.E. of the access to the port is a modern lighthouse with white and black stripes (see "Plan"). The light is Iso. white (5 secs. on, 5 secs. off). Height 37.1 m., range 16 miles (information obtained from authorities).

It is possible to distinguish an approach alignment (085°) formed by two iron pylons on top of which is a white and red diamond formation, and carrying lights (see "Plan" — "radar picture at 1.5 miles"). On this alignment and at 1.8 miles from the jetty, was a landing buoy (disappeared). The alignment brings the vessel close to the jetty.
Pilotage/Tugs: Pilot and Port Captaincy contacted on Channel 16. If entering, the Pilot requests vessels to anchor between 0.5 – 1 miles from the jetty(s). It is preferable to remain to the S.W. of the jetty at 0.8 miles. Depth of water from 9.0 m. – 10.0 m., and this for short duration of anchoring. The Pilot comes onboard when anchoring, and comes with a tug. The tug ties up near to the pilot ladder.

Do not lower the anchor until the pilot is on board (fairly long operation).

The port has 2 tugs of 980 h.p. (theoretical power), but they barely make 500 h.p. A single tug operates, and has a mixed Chinese-Mauritanian crew. There is one Chinese pilot and 2 Mauritanian trainee pilots.

NOTE: In the event of anchoring for a long time, remain in depths of 12 m. – 15 m., towards the old landfall buoy, at the North axis of the channel. No entry or sailing at night.

Port: A long arm of 750 m. is aligned East-West, followed by a 580 m. mole with 3 berths. This mole is equipped with red coloured cranes, of 10 tons lifting power. The mole runs at 240°. An 80 m. long breakwater orientated at 190° and formed by concrete blocks extends from this mole. Near to the end of this breakwater is the little white lighthouse (2 secs., 3 secs).

On land near to the access to the arm are 4 large light green sheds and a container park.

Two yellow-black and yellow-black-yellow buoys indicate the sand bank in the port. The marks are respectively N. and W. The indicator of the North buoy is partly broken away. Buoys are not lit.

Fairly strong undertow is experienced in the port, and vessel rolls almost continuously whilst at the quay. There are good fenders along the quay.

AUTHORITY: Monsieur le Directeur du Port de Nouakchott, Ministere de l'Equipement, Nouakchott, Mauritania.

Societe Nationale Industrielle et Miniere, P.O.Box 1260, Nouakchott. *Tel:* 22-74. *Telex:* 551 Snim Nkc.

AGENT: Societe Mauritanienne de Peche et de Navigation (S.M.P.N.), 13 Avenue Bourguiba, B.P. 6254, Nouakchott, Mauritania. Tel: 53638, 53703. Telex: 847 MTN SMPN. Fax: 53787.

NOTES

Please also advise Shipping Guides Ltd.

Mauritius

PORT LOUIS: 20.09 S. 57.30 E. (See Plan)

PORT LIMITS: The commercial area of the port is the area inside the port bounded by the Entrance Buoys and the shore line of the Inner Harbour. Vessels at the Outside Anchorage lie within the limits of the port defined by an imaginary line joining Pointe Aux Sables and Pointe Aux Piments. In this area commercial activities are restricted to bunkering, ship repair and the landing of passengers or personnel.

PILOTAGE: Compulsory for vessels over 100 tons. Vessels are piloted inwards and outwards at any time of the day or night if circumstances permit. Inward bound vessels are met about 1 mile seaward of the Entrance Buoys though they may, in some circumstances have to be boarded at a greater distance offshore.

Once the Pilot boards the maximum distance to any berth is 1.5 miles. Both anchors should be ready for use and ships' lines prepared for making fast tugs before entering the channels.

Anchors are often used to assist in turning vessels.

ANCHORAGES: Open roadstead with anchorages for vessels of any draft. Admiralty Chart No. 713 refers.

RESTRICTIONS: Vessels carrying highly inflammable products are only berthed during daylight hours.

MAX. SIZE: Harbour Entrance depths from 12.8 m. to 36.3 m. Channel dredged to 12.1 m. Also see "Berthing".

RADIO: The Port Master requires to be notified of the date of the vessel's arrival, the length and draft and purpose of call, by radio as soon as it is possible for Master to communicate with Harbour either:

1. By CW transmission through the Government Radio Station (3 BA) at Vacoas on 500 kHz.
2. By R/T transmission through Port Louis Harbour Radio Station (3 BB 3) on 2182 kHz.

VHF: Port Louis Harbour Radio Station is equipped with VHF and maintains 24 hour watch on Channel 16.

TUGS: 2×830 h.p. diesel-engine tugs, *Betty Des Mascareignes* and *Winnie Des Mascareignes*. These tugs are available for deep-sea towage and salvage and are fitted with fire-fighting equipment, R/T and VHF. 3 smaller tugs of 320 h.p. are also available for harbour work and fitted with VHF.

A new Voith Schneider tug of 2,670 h.p., *Sir Seewoosagur*, is available for deepsea towage and salvage and is fitted with fire fighting equipment, SSB and VHF. It is available for harbour work.

BERTHING:

Quay No.1: Length 122 m., maximum draft 11 m. at any state of tide, vessels up to 183 m. overall length can be accommodated. This berth is designed mainly for discharging petroleum products (Esso, Shell and Caltex), ammonia and bulk fertiliser. General cargo vessels and passenger ships are occasionally berthed at the Quay.

This is a common user berth on the port side of the Entrance Channel. This berth handles the largest vessels in port but due to the low power of the tugs the maximum displacement is limited to 33,000 tons.

Ships approaching the berth from seaward in daytime are swung to port with the aid of tugs and berth starboard side to the quay. At night the berthing is always port side-to, however, night berthing is rare. The ship will be turned in daytime when leaving the port.

As winds are often fresh and passing traffic can cause surging, moorings should be carefully tended.

The quay is of concrete construction. It is well fendered, but there is little or no resilience in the fendering rubber rollers so heavy landing must be avoided.

Quay Nos. 2-3: Marginal quays having a total length of 366 m.; maximum draft 10.2 m.; vessels up to 195 m. overall length can be accommodated. Berth No. 2 will continue to be used for general cargo operations whereas Berth No. 3 will be restricted as far as possible to container operations.

Quay No. 4: (Container Terminal): Length 183 m., maximum draft 10.2 m. This berth is for container operations. A Container Park of 6 hectares is available for storage of containers. 2 heavy duty Hyster forklifts of 26 tons, 2 Lancer Boss forklifts of 35 tons, 1 Hyster forklift of 18 tons for handling of laden containers and 2 Hyster forklifts of 10 tons for handling of empty containers are available in addition to one Ferranti type 2 K90 gantry crane of 30 tons capacity.

Vessels must use their own gear to discharge/load containers. The movement from the hook to the Container Park and vice versa is carried out by tractor/trailer system.

Quay D: This is a common user berth near the inner end of the harbour on the port hand when entering. Length 149 m., maximum draft 9.3 m. can take a vessel up to 183 m. overall length. This berth is used for discharging of petroleum products and loading of bulk molasses. Passenger vessels are also berthed alongside the quay.

Vessels follow the Entrance Channel leading to a position off the berth where they are swung with the aid of tugs to berth port or starboard side to quay depending on wind conditions.

Wire moorings will be accepted, but for the ease of handling fibre/synthetic tails are preferred.

Cautionary Advice:

(a) The quay is of concrete construction protected with modern rubber fendering. The fendering is not resilient and heavy landings must be avoided.
(b) The berth is little affected by passing traffic but fresh offshore winds may be experienced, especially during the afternoon.
(c) Although 2 policemen are usually stationed on the quay when tankers are discharging, there is no real control over access. Ships should appoint their own gangway guard to prevent unauthorised boarding.

Quay C: Length 121 m., maximum draft 5 m. Berth can take a vessel of up to 92 m. length berthed port side to. This berth is used mainly for the inter-island trade and discharge of cattle.

Sugar Terminal: A Bulk Sugar Terminal constructed on the South side of the harbour came into operation in 1980. Sugar is now loaded in bulk at a maximum rate of 1,400 t.p.h. Vessels up to 198 m. overall length can be accommodated at the terminal. Maximum draft for vessels loading sugar is 11 m. Two sheds capable of storing 175,000 tons of sugar each have been constructed. The Bulk Sugar Terminal is operated by the Mauritius Sugar Corporation.

Facilities are also available on this quay for fuel oil discharge, which is connected by pipe-line to storage tanks for the power station.

Ships approaching the berth from seaward are swung to starboard with the aid of tugs and berth head out alongside in the normal manner.

Winds are often fresh and passing traffic can cause surging so moorings and anchors if used should be carefully tended.

Bulk Cement Berth: A bulk cement discharge point lies between Quay Nos. 1 and 2. Cement vessels up to 135 m. are regularly accommodated at this berth. Vessels up to 183 m. may be occasionally accommodated subject to adjacent berths being vacant.

Buoy Berths: 2 berths capable of taking ships up to 10.7 m. draft.

Length of ships berthed at the mooring buoys varies between 137 m. to 183 m.

Vessels are berthed/unberthed at any state of tide. Tidal range is about 0.8 m. maximum.

Fishing Quay: Length 162 m., maximum draft 4.5 m. Berth can take vessels of up to 70 m. length.

SPECIALISED CARGO HANDLING FACILITIES: LPG carriers berthed at Quay D. The Port offers full containerisation facilities. Quay Nos. 3 and 4 are specially designed to receive container vessels. Cement discharging facilities also available. Rate of discharge 500 t.p.h.

STEVEDORES: Undertaken by the Cargo Handling Corporation Ltd. (CHC Ltd.).

Working hours: Monday to Fridays from 0700 to 1500 hrs., Saturdays from 0700 to 1300 hrs. Sundays and public holidays from 0700 – 1100 hrs. Overtime work is carried out during weekdays as well as on Sundays and Public Holidays if necessary.

However, a double-shift system has been introduced at Berth No. 4 with the following working hours:

Mondays to Fridays:	1st shift – 0700 hrs. to 1500 hrs. 2nd shift – 1500 hrs. to 2300 hrs.
Saturdays:	No shift – 0700 hrs. to 1800 hrs.
Sundays:	No shift – 0700 hrs. to 1100 hrs.

MEDICAL: Arrangements for medical attendance should be made through ship's Agent. Private clinics available.

TANKERS: There are no deballasting or slop facilities.

Bulk Sugar Terminal: Fuel oil is discharged through a single 8 in. hose with ASA bolted flange which forms the link between ship's manifold and the jetty. Ships' derrick should be plumbed mid-manifold for lifting the hose. Weight approximately 2 tons. Bunkers are supplied through the same line.

Quay D: 2×12 in. pipe-lines run under the quay, one for fuel oil which goes to Shell Depot only, and one for all other products. One or two 16 in. hoses can be used to link each line to the ships' manifold (ASA bolted flange).

There is also an LPG line to the Shell Depot from near the end of the quay, but this is only used for very small ships.

Quay No. 1: Cargo transfer facilities are not permanently installed on the jetty. 8 in. hoses are carried to the quay when required and connected to the single pipe-line which is buried in the quay. No water flush of the line is required between the products. Max. rate for gas oil is 700 t.p.h. Max. rail pressure 100 p.s.i. Max. rate for Mogas 600 t.p.h. at the same pressure as gasoil.

Also see "Berthing".

FRESH WATER: Fresh water supplied by barges at any berth between 0700 hrs. and 1600 hrs. Arrangements can be made for supply before 0700 hrs. and after 1600 hrs. on payment of overtime. The loading rate is about 25 – 30 t.p.h. 4 barges of 50, 75, 85 and 110 tons respectively are available.

FUEL: Gas oil, marine diesel and furnace oil obtainable. (Arrangements must be made in advance between Owners and Shell Co.). The pumping capacity of the installations at Port Louis for furnace oil is between 150 t.p.h. and 200 t.p.h., and for marine diesel oil and gas oil 50 t.p.h. Marine diesel oil and furnace oil (35 secs. to 1,000 secs.) is supplied at Quay D. Furnace oil 1,000 secs. only is supplied on No. 5 West Berth.

A 400 ton bunkering barge is available to supply vessels in harbour and outside anchorage.

REPAIRS: Almost any type of repair can be undertaken in Port Louis.

DRY DOCK: Stevenson Dry Dock. Largest vessel that can be docked: 100 m. × 15 m., with a max. draft of 9.0 m.; vessels of up to 109 m. × 15.3 m. can also be docked, but at least 15 days' notice should be given.

CONSULS: *Consulates:* Australian, Austrian, Belgian, Canadian, Danish, Dutch, Finnish, German (Federal Republic), Norwegian, Portuguese, Spanish and Swedish. *Embassies:* Egyptian, French, Malagasy, Pakistan, Peoples' Republic of China, U.S.S.R. and U.S.A. *High Commissions:* British and Indian.

HOLIDAYS: (1988). New Year, Friday 1st January and Saturday 2nd January; Thaipoosam Cavadee, Tuesday 2nd February; Maha Shivaratree, Tuesday 16th February; Chinese Spring Festival, Wednesday 17th February; Independence Day, Saturday 12th March; Ougadi, Friday 18th March; Labour Day, Sunday 1st May; Id-El-Fitr, Wednesday 18th May; Ganesh Chaturthi, Friday 16th September; All Saints Day, Tuesday 1st November; Divali, Wednesday 9th November; Christmas Day, Sunday 25th December.

DEVELOPMENTS:

(i) Construction of a Grain Complex.
(ii) Extension of Fishing Quay.
(iii) Extension of Container Park.
(iv) Dredging and Reclamation of Mer Rouge and Chien de Plomb.
(v) Renovation of Control Tower at Fort William.
(vi) Flour Mill under construction. Completion expected late 1988/early 1989. Rate of discharge into silo 150 t.p.h.–200 t.p.h.

POLICE/FIRE: Police Tel: 999. Fire Tel: 08-3741.

TIME: Local time GMT plus 4 hours.

SHIPMASTER'S REPORT: June 1982.

Off Limits Call for Stores, Mail and Crew Changes:

Documents: (All local foms). 1 Parcels List, 1 Shipmaster's Report Inwards, 1 Ship's Record, 1 P.F. 102 – Certificate Finder Act No. 20 of 1973 for Immigration, 1 Maritime Declaration of Health, 1 Crew Declaration, 4 Crew Lists.

Anchorage: Possible but not necessary for the 2 hour stop.

Max. Size: No limit.

Health: Vessel is boarded by 2 Quarantine Officials who grant Free Pratique.

Radio: An amended ETA had not been received 6.5 hours after transmission.

VHF: Port Louis Harbour Radio very helpful and will pass messages. We were not able to contact them until about 30 nautical miles to the West.

General: Vessel is also boarded by, 1 Customs Official, 1 Immigration Official and the Agent. After entry formalities are completed the ship-chandler boards together with any new crew. Despite cabled request our stores were not pre-slung and had to use ship's net slings. Require derrick amidships for stores and good lee, usually port side. Stores' boat is separate from Officials' boat.

SHIPMASTER'S REPORT: July 1982 (Updated 1988).

Port Limits: The commercial area of the port is the area inside the port bounded by the Entrance Buoys and the shore line of the Inner Harbour. Vessels at the outside anchorage also lie within the limits of the port defined by a line joining Pte. Aux Sables and Pte. Aux Piments. In this area commercial activities are restricted to bunkering, ship repair and the landing of passengers and personnel.

Documents: Immigration: 2 Crew Lists, 2 Passenger Lists, 1 Certificate under Act No. 20 of 1973 (Form PF102).

Health: 1 Declaration of Health, 1 Vaccination List.

Customs: 1 Customs Form (Form F24), 1 Parcel List (Form F17), 1 Ship's Report – Inward, 1 Narcotics List, 1 Arms and Ammunition List.

Agent: 2 Crew Lists, 2 Passenger Lists, 1 Ship's Record – Port of Port Louis.

Note: Declare ship's cameras, VHF's, TV's, etc. in bonded section of F17. If space allocated on F17 for crew "other items" is insufficient, use of a supplementary list is acceptable.

Clearance: Health, Customs and Immigration board on entrance. Clearance may be obtained at the Outer Anchorage but is subject to availability of personnel and may be limited to the purposes of anchoring listed in "Port Limits" above.

Approaches: Approach directions are well covered in the Sailing Directions and Chart No. 61592. The Citadel is easily recognised from considerable distance during the day. Closer in, the middle and upper ranges are visible, but the separation is not sufficient for good accuracy. The lower range is an orange daymark, located on the red roof of the Port Office, both faded to a rust colour. It is very difficult to locate and can be confused with the daymark on the light located on "B" Berth. The Northern red can buoy is large and makes a good radar target. The Southern BW is of skeleton construction and is subsequently harder to pick up visually or with radar. There is a tidal current that sets across the channel and at right angles to it.

Pilotage: Compulsory for vessels over 100 g.r.t. Vessels are piloted inwards and outwards at any time of day or night if circumstances permit. Inward bound vessels are met about 1 mile seaward of the Entrance Buoys. The pilot boat is a white launch with a deck height of approximately 4 ft. There are only 2 Pilots, so movements may be delayed by congestion and night entrance curtailed.

Anchorage: Open roadstead with anchorages for vessels of any draft. Consult Chart No. 61592.

Radio: Government Radio Station 3BA at Vacoas is on 500 kHz. and also has high frequency Channels. Port Louis Harbour Radio Station has 2182 kHz. and VHF Channel 16. They do not have regular traffic lists but are easily reached, particularly around weather reporting times.

The Port Master requires to be notified of the date of vessel's arrival, length, draft and purpose of call, by radio, as soon as practical with the above stations.

Tugs: 2 tugs of 830 h.p. and 3 smaller units of 320 h.p. for inner harbour work, and one new multi-purpose high powered tug of 2,670 h.p.

Berthing: There are numerous speciality docks and berths for smaller vessels. The main deep-draft berth has 2 sheds for unitised and general cargo with one open container section. This new dock has excellent fenders but the older docks have virtually nothing. Bag goods are generally worked into lighters at mooring buoys.

When berthing to buoys, the vessel is berthed head-out on 2 anchors with additional headlines to a buoy. The stern is secured to the buoy by 4 ship's lines and a heavy shore wire. A messenger is necessary for taking the wire, and lashing straps to tie the eyes to the mooring rings must be supplied by the ship. The wire is taken through the centre stern chock, and one set of bitts must be kept free for it. Chafing gear on stern lines is advisable. Vessels berthed at the container berth may be required to send 4 lines to a buoy about 100 ft. off the corner of the dock.

Medical: Medical and dental facilities are available with arrangements to be made through the Agent. Repatriation can be arranged. Radio Pratique is not available. Cholera and yellow fever vaccinations are required for arrivals from infected areas.

Consuls: The U.S. Embassy is located about 200 yards outside the main harbour gates and is easily recognised. The office is on the 4th floor of Rogers House. Working hours are 0900 – 1200 Monday – Friday.

Watchmen: 3 shifts: 0700 – 1500 hrs., 1500 – 2000 hrs. and 2000 – 0700 hrs. Number is at discretion of ship, but heavy pressure is applied to the Chief Officer to employ extra, claiming these are "normal" or "routine". If cargo is *free out,* watchmen are hired and paid by receivers, with vessel only providing meals. Quality is poor to fair. If vessel is at Outer Anchorage, no watchmen are available. There have been frequent incidents of thefts by bum-boats, so an adequate crew watch is recommended.

Customs Allowance: On arrival, officers and crew may have in their possession, an 8 day allowance of tobacco products and 4 day allowance of spirits per daily schedule of: Master: 1 oz. tobacco, 0.25 pint of spirits, 1 quart of wine, 1 quart of beer: Other Officers: 0.75 oz. tobacco, spirits same; Crew: 0.5 oz. tobacco, spirits same. (200 cigarettes for the 8 days is accepted as within amounts listed). 2 Customs Officers will be assigned to vessel, usually just during working hours, with vessel expected to provide a suitable room and meals.

Supplies: General supplies are available through Agents and private ship chandlers, though prices can be expected to be high for consumable stores and equipment. Repairs can be performed, but the shipyard dry dock is too small for larger vessels. Foodstuffs are not recommended. Fresh water is about $2/ton via barge. Fuel is expensive, about $45/bbl. for Bunker C. Numerous ship chandlers will solicit the vessel, many falsely claiming to be sent or approved by the agency.

Time: GMT plus 4 hours.

Holidays: There are 13 official holidays, and numerous others are observed in various degrees due to the mixed Chinese, French and Indian heritages.

SHIPMASTER'S REPORT: October 1983 (Updated 1988).

Off Limits Call for Mail, Stores and Crew changes:

Documents: Documents required may be:

1 Shipmaster's Report Inwards – for Customs.
1 Parcels List Customs F.17.
1 Customs F.16 – Crew Declaration although they *may* accept ship's own form.
2 Copies Master's Report for Mercantile Marine Office, also an addendum in duplicate, and these forms are taken ashore by the Agent.
1 P.F. 102 – Certificate Finder Act No. 20 of 1973 for Immigration.
3 Crew Lists on arrival.
2 Crew Lists on departure – to show newly joined personnel.

!mmigration require international embarkation and disembarkation cards for all joining and departing personnel.

Port Health require Marine Declaration of Health.

All these papers are required, even though the vessel is only there between 1 and 2 hours.

Ship's Spares: Any package for the vessel arriving from abroad should preferably be at the airport at least 2 days prior to the vessel's arrival as it takes time to clear such packages through Customs.

General: The Mauritius Sailors Home Society will exchange paperbacks – arranged through Agents.

AUTHORITY: Mauritius Marine Authority, P.O.Box 379, Port Louis, Mauritius. *Tel:* 08-0415. *Telex:* 4238 Mauport IW. *FAX:* 08-0856. *Contact:* Director General.

NOTES

Please also advise Shipping Guides Ltd.

Mexico

ACAPULCO: 16.50 N. 99.54 W.

DOCUMENTS:
Health Clearance from previous port.
Health Pratique.
4 Stores Lists.
4 Lists of Crew's Personal Effects.
12 Crew Lists.*
2 Passenger Lists.*
12 Manifests of cargo for the port.*
*One copy to be visaed by Mexican Consul.

PILOTAGE: Pilot is ordered by Agent on the basis of Master's ETA, which should be given accurately at least 24 hours before arrival. Pilot boards at the port limits, approx. 1 mile from the entrance. Pilot station on VHF Channel 16 when vessel expected.

ANCHORAGES: Vessels may anchor in the middle of the bay as indicated by the Pilot. Depths up to 150 ft.

RESTRICTIONS: The Bay of Acapulco is a natural harbour surrounded by mountains, approx. 4 miles across at its widest part and 2.5 miles across at its narrowest. There are 2 entrances, 1 called Boca Grande and the other called Boca Chica.

Boca Grande is between Punta Siclata on Isla de la Roqueta and Punta Bruja. The channel is 3,000 m. wide with a depth of 31 fathoms in mid-channel.

Boca Chica Channel, between Isla de la Roqueta and the Peninsula of Las Playas is 300 m. wide with a depth of 14 fathoms in mid-channel.

MAX. SIZE: For berthing alongside max. draft 28 ft. 6 in.

HEALTH: When vessel arrives at the port the following Authorities will board: Port Health Authority, Customs and Immigration, accompanied by the ship's Agent.

RADIO: Coastal station of Acapulco receiving on 8374 kHz in daytime and on 4180 kHz at night. Transmitting on 8514 kHz in daytime and 4250 kHz at night. Radiotelephone receiving and transmitting on 2715 kHz during the day and on 2182 kHz from 2000 – 0600 hrs. local time.

VHF: Service available from 0630 to 2300 hrs.

TUGS: *Shipmaster's Report:* December 1984.
There are no tugs at Acapulco. Berthing and unberthing are unproblematic because of the use of anchor and aft buoy line and furthermore the help of mostly weak prevailing winds which blow parallel to the pier.

BERTHING:

	Length (m.)	*Depth* (m.)
Fiscal Quay	198	8.0
Coastal Quay	150	4.0
Passenger Quay	206	10.0
Fishing Quay	173	4.0
Yacht Quay	340	3.0

MEDICAL: Agent should be advised by radio in advance if any medical assistance required. Hospital facilities available.

TANKERS: Tanker moorings operated by Petroleos Mexicanos situated on the Eastern side of the bay. It is strictly prohibited to discharge oily residues in the bay or within 40 miles of the port.

FRESH WATER: Can be supplied from the quays using ship's hoses, rate about 15 t.p.h.

FUEL: Available.

OPENING/CLOSING HATCHES: Performed by stevedores.

CUSTOMS ALLOWANCES: Crew members are only allowed to retain cigarettes, tobacco and liquor sufficient for their own consumption while vessel is in port.

IDENTIFICATION CARDS: Not required.

CONSULS:

Denmark	Tel: 2.11.11	Norway	Tel: 2.19.56
France	Tel: 2.43.83	United Kingdom	Tel: 2.29.21
Italy	Tel: 2.25.10		

REPAIRS: Minor engine repairs can be effected. No dry docks, only a slipway for vessels up to 100 tons.

Vessels may carry out own repairs only after permission obtained.

REPATRIATION: Can be arranged.

AIRPORT: International Airport situated 22 km. from the port, daily flights to all parts of the world.

TIME: GMT minus 6 hours all through the year.

HOLIDAYS: The following holidays can only be worked in case of emergency: 1st January; 5th February; 21st March; 1st May; 5th May; 16th September; 12th October; 25th December; and in addition 23rd May, Anniversary of the Stevedores' Union.

POLICE/FIRE/AMBULANCE: Police Tel: 2.00.40; Fire Tel: 2.00.42; Ambulance (Red Cross) Tel: 2.02.41. and/or 2.00.88.

TELEPHONES: Cannot be connected on board the ship but Master may make calls from the quay.

SHORE LEAVE: Allowed. Crew List to be left with gate.

AUTHORITY: Delegacion Coordinadora, Costera Miguel Aleman No. 320, 4th Floor, Office No. 2, Fiscal Quay Warehouse No. 2. *Tel:* 2-54-95.

Empresa de Servicios Portuarios, Costera Miguel Aleman, Free Zone Area. *Tel:* 3-56-58 and 3-56-59.

Comision Nacional Coordinadora de Puertos, Cuernavaca No. 5. Mexico, II D.F. *Tel:* 553 87 11.

CAYO ARCAS: 20.11 N. 91.59 W. (See Plan

SHIPMASTER'S REPORT: January 1982.

DOCUMENTS: *Agents, Customs and Immigration:* The Charterer Agents dealing with the paperwork when loading at Cayo Arcas ar Benjamin Negroe Pawling, Consignatario de Buques, Calle 31 No. Ciudad del Carmen, Campeche, Mexico. They only deal with the entr and clearance of the ship and preparation of the cargo papers. The also prepare and obtain a visaed Crew List irrespective of the fact tha one might have been prepared and visaed at the previous discharg port.

The Customs and Immigration come by helicopter to the storag tanker and clear the ship when alongside. However, they will also clea the ship in the anchorage coming out on one of the tugs.

Papers Required: 6 Visaed Crew Lists (or plain Crew Lists with a lette from the Agent at the previous port stating that there was no Cons available).
2 Visaed Manifests for cargo on board.
2 Vaccination Lists.
4 Crew Declarations of Personal Effects.
2 Copies of Stores Lists.

During the 3 loadings at Cayo Arcas and the time spent at anchor o Coatzacoalcos no mention was ever made to the Work Permits whic it was understood had to be obtained when working on the Peme Charter. Perhaps these will be issued when the vessel loads at a po on the coast.

ANCHORAGES: 4 to 8 miles to the East of the flare in 25 fathom bottom sand, mud and shell. Good holding ground using 9 shackles cable.

RESTRICTIONS: See "Loading".

RADIO: Radio communication via XFF2 . . . . Pemex Pajaritos, traff list even hour GMT plus 30 minutes . . . . sometimes 5 to 10 minute delay. No charges are made for any cables to Pemex.

Transmits:	Receives:
4346	4191
6442.5	6286.5
8690 (8690.5 Off Tune)	8382
12790 (12790.5 Off Tune)	12573
17075.5	16764

Always on 8 MHz, transmits on 12 MHz, receives 16 MHz.

During the course of the voyage, in addition to the arrival ar departure cables, Pemex require the vessel's noon position each da the ETA at the next port and any requirements such as bunkers ar water. No acknowledgement is ever received and very few cables a sent to the ship by Pemex. Telex orders and instructions are routed v the Agent in the discharging port.

On approaching Cayo Arcas and the storage tanker, due to languag problems (the Pemex operatives only speaking Spanish) all VHF cal are made through the English speaking officers on the tugs 'Elisk Theriot' and 'Martha Theriot' whose calling and working frequency Channel 9. One of these English speaking officers also accompanie the Mexican Pilot-Berthing Loading Master and Pemex Representativ to act as an interpreter when required and also when communicatio problems arise during cargo operations.

When at anchor off Cayo Arcas, information is usually obtainable v the 'Theriot' tugs.

BERTHING: Vessel moors port side to, alongside the storage tanke This requires 8 parts of rope both forward and aft, 6 ship's lines ar 2 from the storage tanker. All wires have to be fitted with rope pennant Great care must be taken when going alongside to ensure that the ship lines do not foul underneath the Yokohama fenders. Two tugs are attendance, one forward and one aft using the tugs' lines. These a very heavy and require a messenger to heave them on board.

LOADING: Three lines are connected; these being 16 in. flexible rubb hoses with 12 in. reducers to the ship's manifold. They are connecte by Pemex personnel but it is essential to have ship's staff operating th winch and the derrick gear. The API of the Maya Crude Oil is abo 22.6 and the average loading temperature about 108°F. The maximu loading rate is 30,000 bbls./hr., however if the ship is receiving dire from the field, the rate drops to 15,000 bbls./hr.

It is advisable to leave the loading plan flexible as Pemex are like to cease loading without prior warning and sail the vessel wi deadfreight. The reasons for this can be due to the onset of bad weathe or to ensure the ship leaves the storage tanker in sufficient time to enab the next ship to berth before dark. Unberthing is possible during th hours of darkness but the Pilots do not berth ships alongside the storag tanker between the hours of sunset and sunrise. The terminal require 2 hours' notice prior to completion of loading and 10 minutes to sto operations. Communications between the ship and storage tanker is b a manifold watchman with a radio. These persons have a casu approach to their responsibilities and must be watched closely to mak sure they are at the manifold when required.

Charles Martin Surveyors attend the vessel before and after carg operations and insist on a visual inspection and manual dipping of th tanks. But they do not require water dips of the ship's tanks, a percentag allowance being noted on the Bills of Lading for these impurities.

Hydrogen Sulphide Content of Mexican Crude Oils: The H_2S conte of the Maya Crude Oil is extremely high and all necessary safe precautions must be followed and adhered to.

FRESH WATER/FUEL: Fresh water, fuel oil and diesel oil are a available and are delivered to the ship by small coastal tanker or oil- supply tenders. They have to be ordered via Pemex preferably on th departure cable after leaving the discharge port. Whilst Pemex prefe to deliver bunkers when the ship is at the loading port, these commoditie can be obtained in Curacao where Pemex have rented bunker storag facilities. Ships can avail themselves of this service when bunkers wer not delivered in Mexico due to bad weather or some other cause.

DEVELOPMENTS: At the moment the only buoy in operation is No. 1 to which the storage tanker is moored. 'Boya Fija No. 3' and 'Boya No. 2' are in position as is the base for the hotel block 'HB CA1' and the de-gassing plant 'PBE-CA1'. It is understood the present completion date for these new installations is late March 1982 and production commencing some time after.

SHIPMASTER'S REPORT: May 1982.

DOCUMENTS:

Last Port Clearance.
5 Copies Crew List.
2 Copies Stores List.

PILOTAGE: Compulsory. Pemex Pilot boards 2 miles East of the berth.
ANCHORAGES: Depth 45 m. – 50 m. Bottom is sand.
RESTRICTIONS: Berthing daylight hours only. Unberthing at anytime.
MAX. SIZE: 350,000 d.w.t.
HEALTH: Pratique available day and night.
RADIO: Lantana Radio (WOE).
VHF: Terminal on Channel 11 only.
TUGS: 2 × 8,500 h.p. Both tugs required for docking and undocking.
BERTHING: Vessel berthed at No. 1 berth. Max. size permissible 110,000 d.w.t. Depth of water 42 m. Bottom is sand. Hoses connected on port side. No. 1 berth is alongside the storage tanker. However, after June 1st, 1982 the vessel will berth direct to the SBM.

Loading is through 3×12 in. hoses. Cargo is Maya Crude (API 22) which comes directly from oil production wells, through a gas separator. H_2S content is very high and dangerous.

The storage vessel is equipped with Yokohama fenders and also passes over 3 ropes forward and 1 rope aft.

Berth No. 2 (SBM): Max. size 250,000 d.w.t., hoses connected on port side.

Berth No. 3 (SBM): Max. size 350,000 d.w.t., hoses connected on port side.

No facilities for dirty ballast.

FRESH WATER: Not available.
FUEL: Not available.
REPAIRS: Not possible.
MEDICAL: Services available.

SHIPMASTER'S REPORT: May 1984.

LOCATION: Lat. 20° 12.5′ N., Long. 91° 57.5′ W.

The port of Cayo Arcas Terminal is an open sea terminal located in the Campeche Bank, some 85 miles almost West of Campeche and 90 miles North of Puerto del Carmen. The Middle Cay is the biggest with a lighthouse (round concrete tower) elevation 75 ft., Fl. (2) 14 s. 14 M.

The terminal is formed by:

1. One platform gas stabiliser (called "Cabezal de Valvulas" on Chart 28260) located in position 20° 09.6′ N., 91° 57.8′ W., with a gas burning flare (conspicuous) visible at 30 miles equipped with Racon "C" (– · – ·).
2. One old gas burning structure located 1 mile S.W. of the above platform.
3. SBM No. 1 in position 20° 10.0′ N., 91° 59.0′ W.
4. SBM No. 2 in position 20° 08.8′ N., 91° 59.0′ W.
5. One fixed structure in 20° 11.4′ N., 91° 59.5′ W. to which is permanently moored the storage tanker "Venture Europe", capacity over 2 million barrels.

The platform and both storage tankers are very good radar targets at 24 miles.

DOCUMENTS: 6 Crew Lists visaed by the Mexican Consul of the last foreign port or 6 Crew Lists and a statement from the Agent at the last foreign port that no Consul in the area. 3 Ship's Stores Declarations and 4 Crew Declarations.

CLEARANCE/OUTWARD DOCUMENTS: The Agent will prepare on board after loading, all required documents already signed and stamped by the due Authority. The Agent will also prepare the Bill of Lading and Cargo Manifest with the quantities given by cargo and Pemex Inspectors.

PILOTAGE: Compulsory for berthing/unberthing. Pilot boards 2 miles S.W. of the platform and he remains on board during all operations. Accommodation and meals must be provided.

ANCHORAGES: Outside Prohibited Zone about 8 miles East of the platform or 4.5 miles S.S.E. of the platform in approximately 50 m. of water. Good holding with 9 shackles in winds up to 35 knots.

COMMUNICATIONS: ETA for Cayos Arcas Terminal: Send ETA to Pemex (Petroleos Mexicanos) Pajaritos via Pajaritos Radio Station, XFF2, working frequencies:

Transmits	*Receives*
4346	4191
6442	6286.5
8690	8382
12790	12573
17075	16764

Of the above frequencies only checked on 8 MHz.

Traffic list on even hours plus 30 minutes although some 5 to 10 minutes delay can be expected. Only listening to this station when South of Florida.

ETA to Pemex Pajaritos can also be sent via Lantana Radio Station, WOE when far from Cayo Arcas.

When close to Cayos Arcas communication with Port Control (stationed aboard "Venture Europe") via VHF on Channel 9.

ETA to Agent can first be sent via telex to Tampa Office relay Ciudad del Carmen and then by cable via Veracruz Radio Station, XFU.

BERTHING: When mooring at any of the SBMs have ready the port crane or boom to pick up gear. In the forecastle 1 mooring rope (not wire) with a tail of 3 fathoms length and 2.5 in. circumference to lash the shore rope. One gang of 10 men board the vessel with the Pilot to assist in mooring/unmooring and connection/disconnection of hoses. These 10 men remain on board throughout during vessel's stay and accommodation and meals must be provided.

2 Cargo Inspectors and 1 Pemex Inspector, and sometimes the Agent board the vessel with the Pilot. Accommodation and meals must be provided.

When mooring alongside the storage tankers, only 3 or 4 people remain aboard.

Mooring to Storage Tankers: Both storage tankers have Yokohama fenders on starboard side. Mooring port side alongside using 3 head ropes, 2 breast and 2 spring ropes fore and aft plus 2 breast ropes from the storage tanker forward. 2×12 in. hoses used.

Mooring to SBM Nos. 1 and 2: One tug is used (tug's wire) on starboard bow to assist in the mooring. One shore polypropylene rope 9 in. circumference to which a chain is attached must be heaved on deck. Minimum opening of the bracket or stopper 15 in. × 7 in., otherwise 2 shackles with a thick wire must be attached to the chain and passed around the bitt. 2×16 in. hoses used.

FRESH WATER: Not available.
FUEL: Not available.
REPAIRS: Not possible.
REPATRIATION: Embarking crew have to get permission from Immigration at Ciudad del Carmen before joining the vessel.

Disembarking crew cannot disembark, even if the Agent makes a request, until Immigration has cleared the vessel.

GENERAL:

Authorities: By helicopter from Ciudad del Carmen to "Venture Europe" and then by tug. Accommodation ladder requested.

Agent: Consignaciones de Buques, Canega Inc., with offices in Tampa, Florida. Telex: 803757 Canega B and Ciudad del Carmen, Campeche. Cable Address: Negroe, Ciudad del Carmen.

Charts: U.S.N.O. 28031, 28260.

SHIPMASTER'S REPORT: March 1987 (Updated Sept 1987).

VESSEL: 117,000 d.w.t.

DOCUMENTS:

5 Crew Lists.
3 Ship's Stores Lists (including Bond).
3 Personal Manifests.
Last Port Clearance.
Ship's Register.

Personnel: 1 Agent, 1 Immigration Officer, 3 Cargo Surveyors, 1 Loading Master and 10 Mooring/Pipe-line personnel join with Pilot. 1 Pilot, 1 Loading Master, 3 Cargo Surveyors and 1 Agent remain on board and require meals. Accommodation required only if night loading.

Departure Documentation: This takes up to 4 hours but the vessel must be ready to leave the mooring on completion of ullaging and sampling, drifting clear of the area whilst the cargo calculations are completed.

September 1987: Documentation took about 3 hours, but the vessel can start to unberth 2 hours after disconnecting.

PILOTAGE: Pilot boards from a supply boat about 2.5 miles S.W. of the platform.

APPROACHES: Normal direction of approach to berths is from the S.W. When proceeding to an SBM, the supply vessel lands all pipe-line equipment on board (port side), approximate weight 500 kgs.

Navigational lights marked on chart are extinguished. Flare marked on chart is also extinguished.

Racon on the oil platform S.S.E. of island showed well at 16 miles.

Approaching from the West, there were no problems when keeping well to the South of the 'Area to be avoided'.

September 1987: There is a radar watch on the platform, using a Norcontrol System. All headings and distances to reach the anchorage are given through "Marine Control". Anchorage this time 4 miles to the East of platform. Depth 47 m., mud bottom.

Chart: B.A. 2626.

RADIO: All ETA messages sent to ship's Agents.

Prior to arrival call 'Marine Control' on VHF Channel 16. Working Channels are 9 and 11, they were clearly heard at 20 miles. Vessel was instructed to anchor 5 miles East of platform, this was between the 'Area to be avoided' and the marked anchorage in approximately 42 m., mud bottom.

Information required by VHF: Nationality, draft, quantity of ballast and de-ballasting time.

After anchoring call 'Marine Control' with arrival time, anchoring time, quantity of bunkers and fresh water on arrival.

TUGS: 5 tugs of varying sizes, 2 supply vessels also used as tugs and several work boats. All equipped with VHF.

BERTHS: There are 3 loading berths.

(a) Storage vessel "Texaco Veraguas" moored to SPM – Maya Crude.
(b) No. 1 SBM – Maya Crude.
(c) No. 2 SBM – Maya Crude.

Storage vessel ((a) above) has fenders in place on the starboard side and loading vessels berth port side to, using 1 tug on the starboard bow and 1 tug on the starboard quarter.

Moorings depend on the size of the vessel.

Maximum size vessel: 100,000 d.w.t.
Hoses: 2×12 in.
Loading rate: 5,800 t.p.h.

September 1987: Berth used this time: VLCC "Texaco Veraguas", port side to, 4 floating fenders and 1 bow/quarter fender. Connections 2×12 in., only used VLCC's boom.

Loading vessels berth bow on to SBM ((b) and (c) above) using 1 tug on the starboard bow. Vessel picks up 1×80 mm. diameter messenger which is attached to a mooring chain for use with a Smit Bracket/AKD stopper.

Maximum size vessel: 216,000 d.w.t.
Hoses: 2×16 in. on port side.
Loading rate: 3,300 t.p.h. direct from the oil well.
Loading temperature: Up to 45°C.

Berthing is done in daylight hours only, unberthing day or night.

Tugs/supply vessels use their own lines when making fast for mooring. In calm weather 1 tug makes fast aft to hold vessel off the SBM.

The 10 man mooring/pipe-line squad stand-by forward and by the manifold whilst the vessel is at the SBM.

Ship's personnel are required only to work the winches when mooring/unmooring, connecting and disconnecting the hoses.

CARGO: *Caution.* Maya Crude has an extremely high Hydrogen Sulphide content.

MEDICAL: A doctor is available on the platform but facilities are limited.

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: No facilities available.

CUSTOMS: Customs allowance seems to be a 'reasonable amount'. There was no query over 200 cigarettes and 1 bottle of spirits per person.

The bond is not sealed but the Immigration Officer checked two or three items against the Ship's Store List.

GANGWAY: Accommodation ladder is required on the port side at SBM.

SHORE LEAVE: Not permitted.

REPATRIATION: Personnel are taken by helicopter from Cayo Arcas to Ciudad del Carmen, 90 miles to the South, and then by plane to Mexico City where there is an International Airport. There is no limit on the number of personnel travelling.

TIME: GMT minus 6 hours all year round.

GENERAL *Stores:* None available, but fresh prawns can be obtained from supply vessels/tugs.

Mail: Takes approximately 15 days to U.K./Europe but a courier service via the Agents is available taking only 5 days.

COATZACOALCOS: 18.08 N. 94.25 W.

PORT LIMITS: From the centre of the channel at the bar with a radius of 0.5 miles to seaward.

DOCUMENTS:

Customs:

Cargo Manifest, original and 4 copies visaed by Mexican Consul at place of origin. If no cargo carried for this port a certificate and 2 copies stating the fact.

Stores List, original and 1 copy.

Personal Effects List, original and 1 copy if vessel is arriving from another Mexican port. Customs release from that port must be produced.

Port Captain:

Clearance from Last Port.

2 copies Crew List.

3 copies Manifest of cargo for this port.

Immigration:

Crew List, original and 1 copy, bearing consular visa.

Passenger List, original and copy, visaed by consul.

All Crew Passports or I.D. Cards.

Health:

2 copies Crew List.

2 copies Passenger List.

Crew Vaccination Certificates.

Derat Certificate.

When vessels are anchored beyond the breakwater authorities board from the pilot launch.

The following must be made available for inspection.

- Registration Certificate of Vessel.
- Certificate of Inspection of Deck Machinery.
- Certificate of Inspection of Machinery.
- Freeboard Certificate.
- Tonnage Certificate.
- Radio Certificate.
- Radio-telephony Certificate.
- Emergency Procedure in the Case of Abandoning Ship.
- Emergency Procedure in the Event of Fire.
- Vessel Insurance Policy.
- Copy of the Charter Party (where applicable).

PILOTAGE: Compulsory. Pilot meets vessel off the jetties at Coatzacoalcos Estuary. Master should give Agent information not less than 24 hours prior arrival stating vessel's name, flag, and ETA as well as draft.

Pilot boat black hull, white housing and red deck. 2 launches, *Alcion* and *Vencedora*. The sound signal for calling the Pilot is 2 long blasts and 1 short blast. The light signal is a blue Bengal light.

There is a new cutter *Siriux*. The pilots' office has a VHF radio station, listening out on Channel 16.

ANCHORAGES: Ample anchorage grounds available outside the Bar of the Coatzacoalcos River.

Two anchorage areas have been established and are bounded by lines joining the following positions:

West Area:	A.	Lat. 18° 12′ 30″ N.,	Long. 94° 26′ 57″ W.
	B.	Lat. 18° 12′ 30″ N.,	Long. 94° 25′ 54″ W.
	C.	Lat. 18° 10′ 54″ N.,	Long. 94° 26′ 57″ W.
	D.	Lat. 18° 10′ 54″ N.,	Long. 94° 25′ 15″ W.
East Area:	A.	Lat. 18° 12′ 32″ N.,	Long. 94° 25′ 22″ W.
	B.	Lat. 18° 12′ 32″ N.,	Long. 94° 23′ 46″ W.
	C.	Lat. 18° 10′ 54″ N.,	Long. 94° 24′ 51″ W.
	D.	Lat. 18° 10′ 54″ N.,	Long. 94° 23′ 22″ W.

Anchorage exposed during Northerly winds when it is advisable to weigh anchor and proceed to sea.

RESTRICTIONS: Access Channel: 5,200 m. in length, depth 12.0 m.

Secondary Channel: 2,200 m. length, depth 14.0 m.

MAX. SIZE: Max. draft crossing the bar is 39 ft. The Pajaritos Channel to the bar reaches 42 ft. (will shortly be 45 ft.)

Free Zone: Max. length during the day 200 m., at night 125 m. Max. draft 31 ft.

Pajaritos: Max. length 225 m. Max. draft 39 ft.

Report: 1985. Pilot office announced that they will not manoeuvre vessels with a draft of more than 38 ft. 00 in. (forward) and 38 ft. 06 in. (aft).

HEALTH: Pratique never given by radio. Vessels granted Free Pratique when berthed alongside if no contagious illnesses aboard.

RADIO/VHF: Telegraphic transmitter type TH 600-M with an open sea range of 500 miles radius, frequencies of 512, 500, 432, and 419.5 kHz. Telephonic transmitter type TSB-500-Be with approx. range of 500 km., frequencies of 2182, 2270, 2542 and 2665 kHz. RDF transmitter type TT-1017-B with approx. range of 300 miles, frequency 312 kHz. Transmitter/Receiver for radiotelephony VHF type VFD-50PT/PR, with approx. range of 50 miles, frequencies in Simplex operation: Channel 12-156.6 MHz and Channel 16 International call-up 156.8 MHz. Duplex operation: Channel 26: Transmission 161.9 MHz, reception 157.30 MHz. Channel 27: Transmission 161.95 MHz and receiving channel 157.35 MHz. At the moment, there is a point to point link-up with national and coastal telegraphs, as well as teleprinters for national and international service No. 078-835 (the latter is said already to be installed and will shortly be operating normally).

Tankers: In addition local requirements are that ETA messages should be sent to Pajaritos PEMEX Terminal, Call Sign XFF2 as soon as possible after departure from the previous port and updated at least 72, 48 and 24 hours prior arrival, using following frequencies: 4191 kHz, 6286.5 kHz, 8382 kHz, 12573 kHz, 16764 kHz, 22253 kHz or 25094 kHz.

TUGS: The Free Zone has the "Servicios Portuarios del Istmo de Tehuantepec S.A de C.V.", who own the tugs *Quetzalcoatl* 2,400 h.p., *Olmeca* 1,600 h.p. and *P.L.M.8* with 600 h.p. for operations in the Free Zone and the Pajaritos Terminal, the first being able to undertake salvaging work due to extensive range of action.

A tug is obligatory for mooring, unmooring or changing position in the port. 1 tug for vessels of 2,500 g.r.t. and 2 tugs for vessels larger than 4,000 g.r.t. The signal for calling up tugs is 2 long and 2 short blasts on the vessel's siren. The signal for the tug to withdraw is 1 short, 1 long and 3 short. The tug will repeat the signal to indicate that it has been heard. Tugs are fitted with VHF radio listening out on Channel 16 and during working, on the channel which the tug captain is ordered to use.

BERTHING: *Free Zone:* This has a quay length of 1,900 m. (1, 2, 3, 4, 5, 6, 7, 8) with varying depths of water from 29 ft. to 31 ft. All necessary services for vessels are available. During the day, vessels up to 200 m. overall length can manoeuvre, and at night only vessels up to a max. length of 125 m.

Restrictions: Night service is suspended during times of strong currents in the Coatzacoalcos river.

Pajaritos Terminal: In this terminal PEMEX has 3 quays operating and 1 being constructed, those operating being PX1E and PX1W with operational depth of 33 ft. and 30,000 tons gross with lengths of 200 m. PX2E and PX2W with operational depths on the Eastern side of 33 ft. and with 37 ft. on the Western side, admits vessels of 225 m. overall length and 35,000 g.r.t. The Provisional Quay admits vessels with 37 ft. draft and 35,000 g.r.t. At this terminal, Pemex exports crude oils, fuel oils, and at the PX1E quay, ethylene is loaded specifically. In the Western part of the lagoon, there is a manoeuvring basin with a radius of 300 m.

F.F.M. Quay: In the Eastern part of the Lagoon of Pajaritos, the Empresa Fertilizantes Fosfatados Mexicanos S.A. have their plants and a quay of 425 m., running E. — W., this quay being used for discharge of phosphoric rock in 4 mobile hoppers. Also, liquid sulphur is discharged, phosphoric acid is loaded, as are sulphuric acid and superphosphates. It has an operational draft of 33 ft., and takes vessels of 35,000 g.r.t.

STEVEDORES: No ETA advice necessary. Free Port: Straight working hours: from 0800 to 1200 hrs. and from 1400 to 1800 hrs. Overtime 100% overcharged according Tariffs. Latest times to order gangs: 0730, 1330 and 1730 hrs. Straight time above hours Monday through Saturday. Sunday and holidays allowed to work except "Legal Holidays". Loading and discharging rates: 25 tons gang/hour using ship's derricks. No shore cranes available. Loading sulphur by conveyor belts at 500 t.p.h., working around the clock.

Private FFM Berth: Loading or discharging operations performed by their own personnel working 24 hours per day. Rate of loading by conveyor belt: 500 t.p.h. Rate of discharging 1,100 tons per day with ship's gear.

CRANES: 300 ton crane for handling containers.

MEDICAL: Hospital facilities available. Inform Agent in advance if treatment required.

TANKERS: Also see "Berthing" and "Rabon Grande". Tankers regularly moor in the Pajaritos Roads. There are 4 large quays for mooring 7 vessels up to 233 m., with max. depth at the quay of 33 ft.

The Provisional Quay has 2 lines of operation of 24 in. with 3×8 in. for crude oil.

Bunkers and Lubricants: Not available.

Fresh Water: Available at jetties but should *not* be used for drinking water.

Stores and Laundry Facilities: Available, but no bonded stores.

Limited dirty ballast facilities available. Vessels sould arrive with clean ballast. Failing to do so can result in excessive delays.

All tanks lids must be closed when entering or leaving the port.

It is strictly prohibited to emit excessive amounts of smoke from the funnel.

Shore leave is normally permitted by the local Immigration Authorities, however the shore passes are only valid inside the city limit. Severe penalties will be imposed for crew members found outside City Limits. Pajaritos crude oil contains hydrogen sulphide – H_2S.

During rainy season (May/June and November/December) currents of up to 6 knots can be experienced in the river.

Also see "Shipmaster's Reports".

DENSITY: Average 1012.
FRESH WATER: Available at berths in Free Port area, delivered by 1.5 in. hose. Loading rate about 8 t.p.h.
FUEL: Fuel can be supplied at Coatzacoalcos port by tank-trucks when vessels need small quantities. Petroleos Mexicanos (PEMEX) has, at Nanchital, a loading terminal which is about 3 miles up-river from Coatzacoalcos (max. draft 27 ft. 6 in.) where Bunker C fuel available.

Diesel oil only available at Minatitlan, about 17.5 miles up-river from Coatzacoalcos (max. draft 21 ft.). If vessel bunkers at Nanchital or Minatitlan there will be at least 1 day delay and heavy extra expenses.

Gas freeing equipment for Gas tanker at Nanchital.
CUSTOMS ALLOWANCES: No restriction for free use on board.
CONSULS: Norway and Netherlands.
REPAIRS: Minor repairs may be effected. Electronic repairs possible.
DRY DOCK: No dry dock available.
AIRPORT: At Minatitlan, about 40 minutes car drive away. 2 regular flights to Mexico City.
TIME: GMT minus 6 hours.
HOLIDAYS: No work performed on following legal holidays: January 1st; March 21st; May 1st; May 5th; September 16th; October 12th; November 20th; December 25th; and December 1st every six years when Federal Government changes President.
TELEPHONES: No facilities for placing telephones on ships.
POLICE/AMBULANCE/HOSPITAL: Police Tel: 2 01 22, Red Cross Tel: 2 02 85; Hospital Tel: 2 00 30.
SHORE LEAVE: Possible. Crew must have I.D. cards or passports. Passengers must have passports.
DEVELOPMENTS: The entrance channel up to Pajaritos roads has been dredged up to 42 ft. The quays in the Free Zone have been completely reinforced, vessels up to 31 ft. draft being able to come alongside. The warehouses for general cargo at quays 2 and 3 have been completed, with a covered area of 4,000 m. and normal loading capacity of 10,000 cu. m. There are sufficient open areas for positioning heavy loads or machinery. Apart from the lighthouse on the Gavilan Hill, in the Allende area (left bank), the port has light towers indicating the main entrance channel, another 2 to indicate the channel leading to Pajaritos roads. All 4 have flashing lights. The branch leading onwards to the Free Zone is indicated by a small tower with flashing white light. The lights of the promontories of the 2 headlands;— the East light is green, and the West light is red. The channel is marked with black coloured buoys with odd numbers, on the port side entering, and red with even numbers on the starboard side. Both sets of lights are of the flashing type. When continuing upstream towards Nanchital or Minatitlan, the bridge has to be passed under. Its characteristics are: Length 1,375 m. vertical clearance with the bridge up 35 m., with the bridge down 8.84 m. Horizontal clearance which can be used: 60 m. To have the bridge raised, vessels must give 3 long and 2 short blasts on the siren.

SHIPMASTER'S REPORT: October 1985 – LPG Carrier 35,800 cu.m.
Approaches: Present charts are not appropriately scaled, coming off Bay of Campeche chart to chart 373 which is only a port plan, and does not extend out to the SBMs. This was partly overcome by a 'home-made' extension to chart 373, which of course lacked soundings, but was only slightly in error by using the given Latitudes and Longitudes for marking the SBMs. The 4 fathoms rock indicated in sailing directions is said to be much closer to shore (by local knowledge) and is not close West of the new anchorage area for gas carriers. We anchored 4 miles due North of breakwaters in 28 m. of water, and soundings in the approach appeared uniform. This was just at the North limit of the dirty water from the river outflow, so vessels with a long waiting time needing to make fresh water would need to be about 6 miles off. Current was running to the East, fairly strong inside 5 miles off, at least 3 knots at times (despite freshening winds in squalls from the North, the vessel secured at No. 1 SBM was seen to be on a constant Westerly heading – a tug secured to the stern appears to be standard practice at the SBM, so it is possible the current changes at certain times). Radar targets were visible from 20 miles off, and the breakwaters were discernable on radar from 10 miles off, thus a good fix is obtainable well in the offing.
Anchorage: There were many ships at the anchorage, most of whom had taken up a position between 3 miles and 6 miles off in the N.E./N.W. vector. Holding appears to be good in this area.
Inward Transit: Pilot calls on VHF and asks vessel to meet him at the boarding ground. Pilot will accept hoist or combination ladder. Vessel is about 1 mile from breakwaters by the time Pilot reaches the bridge, so only a little time for discussion of berthing plan. Full ahead is needed to overcome outflow between breakwaters, where rate can reach 8 knots, (4.5 knots on this occasion). Good steering is essential at all points and ability to 'feel' sheer developing, but Pilots are steady and well experienced and know exactly when bow and then stern will be affected when crossing from river into Pajaritos Channel. Tugs meet vessel just after this crossing point and tie-up shoulder and quarter. Speed is reduced in the Cut to enter the basin at about 3 knots. As can be seen from chart, very little lining-up is needed for Pier 3. The same Pilot berths the vessel. This is a straight forward manoeuvre, springs first to final position, then tugs push vessel to maintain position.
Moorings: The dolphins are well placed/spaced and have good swivel slip-hooks, however there are no capstans available. The mooring gang appeared to be about 30 persons, and they eventually carried the aft back spring along the catwalk to the corner of the main platform. The mooring boat towed the messengers for the remainder of the after wires across the dolphins, while forward we used a running messenger and pulled the wires out to the hook.
Gangway: There are no shore gangways. Landing area for ships is very limited. Situation was made as safe as possible throughout, but far from comfortable.
Terminal: Pajaritos Terminal is situated within Laguna de Pajaritos which is entered via a cut-off channel from Rio Coatzacoalcos about 1.25 miles inside the breakwaters. The plan is to dredge it out to a uniform depth and face all four sides of the laguna, and build further finger piers. At present only the Western half (approx.) is in use.
Depths: It was reported that there is now a uniform depth of 42 ft. within the Western side of the laguna to a line joining the root of Jetty No. 9 with the E.N.E end of the fertiliser jetty, and outwards in the channel and river and on the leading lines outwards to the pilot boarding position, thence to seaward there are no lesser depths. This sets the controlling maximum draft for all tankers and gas carriers at 39 ft.
Berths: There are currently 10 berths in use for tankers, these being 1W, 1E, 3W, 3E, 4W, 4E, 5, 6, 7W and 7E. No. 2 has been destroyed and not yet re-built. No. 8 has not yet been built. No 9 has been built and all fendering is in position, but no pipe-lines yet connected, it is currently in use as a lay-by berth. All berths have modern hydraulic type fendering, adequate mooring sliphooks (but no capstans), and Chicksans of varying number and dimensions. Nos. 1, 3 and 4 are for products, with No. 3 currently temporary fitted up for LPG via hose. Nos. 5 and 6 have larger Chicksans for black products and crude blends etc., while No. 7 is currently for virgin crudes.

Berth Nos. 5 and 6 are at the Southern end of a continuous concrete jetty which extends the whole length of the Western side of the laguna from abreast the lower leading light to the S.W. corner, and the Northern part of this jetty is used for materials/pipes/service craft, etc. (The recessed berth shown on Admiralty Chart 373 is not now correct).

Vessels berth head-in, that is heading South on all berths with the exception of Nos. 7 and 9 where it is head North (thus nomination for 3E means starboard side to).
Tugs: There are 4 tugs currently on charter to Pemex, and it is normal to take 2 tugs in and out. Tugs are strapped up alongside 'American style' and are well fendered. 3 tugs were seen handling a 70,000 ton loaded tanker with comfort.
Pilots: Pilots come under the Harbour Master of Coatzacoalcos, but all movements to and from the Oil jetties are under the control of the Pemex Port Captain, who allocates berths. Night movement of LPG carriers is not permitted.
Customs/Immigration: Vessels are boarded on arrival alongside, Pratique being granted before any operations may commence. Pajaritos Oil Terminal is *not* part of the free port area. Vessels without Visaed Clearance/Crew Lists should produce a copy of diversionary telex. Shore leave without a pass system is normal, and boats are arranged by Agents from the stern dolphin of each pier to the town ferry landing.
Fuel: There is one header on each jetty for Fuel and Gas oil. However delays or shifting ships are possible if other vessels loading these grades.
LPG cooldown: This is possible using slow loading method, not known whether there is a by-pass system at the pumphouse to control rate, there is no by-pass system on the jetty headers.
LPG Loading: Temporarily at Jetty No. 3 only, using 150 mm. flexible hose from base of jetty abaft the chicksans. No vapour return. Loading rate 450 cu.m/hr.
Standard Time: Nautical Almanac states Vera Cruz Province keeps a Summer Time. This is not so. Time here all year is 6 hours behind GMT.

SHIPMASTER'S REPORT: November 1985.

This report from sister ship confirms and updates report above dated October 1985.

Vessel was directed to proceed to Pajaritos to load a cargo of Butane and LPG Mix. The vessel arrived at Pajaritos anchorage and in keeping with the received instructions anchored well off the port to await orders. The anchorage chosen was in a position with Pajaritos breakwaters bearing 171°×13.6 miles, in 36 m. of water. 6 shackles were used and even though the wind freshened considerably during the time at anchor, no dragging occurred. That the wind did indeed freshen is made apparent by the fact that the port was closed for 3 days. When the port reopened, we were instructed by local Agents to proceed to the pilot station to take on a Pilot for berthing. This was duly done.
Approaches: As in the case of our sister ship a "home-made extension" was made for chart No. 373, which chart is totally inadequate for approach to the port. I can confirm that a strong East-going current was encountered inside 5 miles off on the approach to the Pilot, but radar targets are good, especially the breakwaters which show up well. On this vessel's approach the port had, as noted, been closed, with a consequent build-up in ships awaiting Pilots.
Inward Approach: Once Pilot was safely on board vessel proceeded inwards. The approaches through breakwaters and into outer harbour are clearly marked with leading line beacons. Vessel had to enter between breakwaters at full ahead due to the strong outfall, estimated on this visit at about 5 knots. The Pilots however, are capable and very experienced, and inward passage to berth was similar to that of our sister ship. We entered the Laguna at about 3 knots, slowly reducing speed and with tugs in attendance forward and aft, on shoulder and quarter. The tugs are of ample power and well handled.

Vessel moved straight onto berth, in this case Berth No. 3 E, with no difficulties whatsoever being encountered. Berth was starboard side to and vessel moved into position immediately. Problems now arose however, due to the inability of shore mooring gang to handle the heavy mooring wires of the vessel's mooring complement. On this occasion no mooring boat was available and shore gang amounted to about 10 men, split fore and aft. As a result vessel resorted to running messengers to heave the wires ashore and onto the sliphooks. The jetty appears to be well constructed but alas no capstans are fitted to heave moorings to shore.
Gangway: Still no shore gangway available at this berth so ship's gangway used to the small area available, in a not wholly satisfactory position.
Cargo: Shore require vessel to present 1×10 in. (150 ASA) connection. No vapour return to shore available. 1×6 in. flexible cargo hose available, therefore only one grade at a time can be worked. For grade changes shore drain flexible hose to the sea via a small drain line on jetty, then disconnect shore end of hose and move on the jetty to the

new grade shore manifold. This involves several men plus the use of ship's crane and takes from 2 hours – 4 hours.

There is no recirculation system on the shore line system, so when initially loading any grade the temperature can be anything up to 20° above normal loading temperature, resulting in a very high boil off. This can cause problems if trying to cool down a tank to load LPG Mix at −34°C, when tank had previously held Butane at −2°C. An estimated line clearance of 80-100 tonnes is received on board before liquid temperatures drop to normal, and certainly ships maximum reliquifying capacity is required during the initial loading phase, even at very low rates.

Once the bulk loading stage is reached, an average of 240 tonnes/p.h. was achieved on both Butane and LPG Mix parcels. The rate is controlled by shore pump house, working on shore line back pressure.

The vessel is required to fill in a shore document every 6 hours, giving amount of cargo received, rate, quantity remaining to load and estimated time of completion.

Loading can, and was, stopped if a Pemex priority ship berths on the adjacent jetty (No. 3W), as shore can only load one ship, one grade at a time. Shore will also stop loading when other ship connecting loading line. This vessel suffered stoppages amounting to 44 hours due to this reason, plus a change of grade to LPG Mix during the loading of the Butane parcel.

On this occasion the cargo surveyors employed by Charterers were Redwood, employing local staff. They had a reasonable command of English. These surveyors make the initial and final calculations and the Bills of Lading are based on these figures. No shore metering or tank gauging is possible as the two shore tanks are being filled continuously as the ship loads. Surveyors require 4-5 hours to calculate figures for arrival/departure.

As shore tanks are in use at all times, no shore tank densities are available. Redwood surveyors and Pemex chemists take samples from ships tanks loaded or loading at 50% to determine density of cargo loaded and for cargo analysis.

The surveyors are available throughout the loading on VHF Channel 16 and proved very helpful when communications with shore installation became difficult.

On completion, Redwood supply vessel with copies of ullage reports, density sheets and analysis reports.

On this occasion densities as follows:

LPG Mix: 0.5365 at 60°F in vacuum, loaded at −34°C

Butane: 0.576 at 60°F in vacuum, loaded at −6°C.

Communications: Initial contact with Agent is made via telex. However, whilst the Agent can receive telex messages, they are unable to send via telex to ships at sea. As an alternative, they send messages via Mobile Radio or Alabama Radio, call sign WLO, which station vessels should monitor until within VHF range of Pajaritos Agent. As Tomas Ruiz are also Pemex Agents ETA's etc., can also be sent to them. Agency monitors VHF Channel 16 and works on Channel 72.

There is no Health Clearance via radio for Pajaritos. Port officials board at berth, but no difficulties experienced.

Length/Draft: Informed by Agent that the following ship lengths/safe drafts apply:

Ship length	*Minimum safe draft*	
	Forward	Aft
150 m. – 175 m.	12 ft.	22 ft.
175 m. – 200 m.	14 ft.	24 ft.
200 m. – 225 m.	16 ft.	26 ft.
225 m. – 250 m.	18 ft.	28 ft.

250 m. is the maximum length that can be handled.

Radio – Loading: Communications during cargo operations caused some problems and a Letter of Protest on this subject was issued to the shore installation. All stops/starts information etc. is given to ship and ship to shore via VHF radio on Channel 16 and working Channels 9 or 11, call sign Pemex Operations. Their operators have a reasonable command of English, but can be very hard to raise at times. Also vessel was supposedly able to communicate with loading supervisor and pump house directly on Channel 9, but this proved impossible as no English was spoken or understood by these operatives, hence the Letter of Protest. After this was sent to shore Pemex operations communicated directly with the ship instead of the loading supervisor and standards were markedly improved. Even so, on 2 occasions vessel observed that loading had been suspended without any information being given to ship.

For the completion of each grade an English speaking supervisor boarded vessel to assist should any language problems arise. However, when "stop loading" was given, the pump house reaction was immediate. Paperwork for cargo, safety etc., as per normal.

Once the language problems and frequent changes to loading programme were overcome, the loading operation ran very smoothly.

A further Letter of Protest was also issued due to the shore stopping loading before the requested quantity was received on board, there being no way they would restart loading to complete.

Outward Transit: No difficulties experienced leaving jetty. Vessel moved off stern first, assisted by a tug fore and aft, then swung in the laguna. The unberthing Pilot however took some time to become accustomed to the rapid swinging of the vessel. This was especially evident in the passage through the Outer Harbour and breakwaters, being accentuated by again a strong outfall of approximately 4 knots – 5 knots. After clearing entrance vessel was swung to the West to clear passage for incoming vessels and Pilot departed when West of breakwaters.

Points of Interest: At the time of our visit to Pajaritos there was an abnormal amount of plant and vegetable material both floating and in suspension in the water, from the Outer Harbour to the berths. This material resulted in frequent cleaning of sea intake filters, some of them on a daily basis. It is not known if this condition applies on a year round basis, but certainly it was a problem in November.

SHIPMASTER'S REPORT: Pajaritos. October 1987.

Pilotage: Pilot boards from a small open, orange painted launch that is of the same design as local fishing boats.

Restrictions: Agent advised that there is no berthing or unberthing between 1800 hours and 0600 hours.

Shore Leave: There is a frequent ferry service from the oil terminal to the town which takes 30 minutes and is free.

Draft: The following letter was received from the terminal:

Quote:

Master . . . . Date . . . .
In Port . . . . Pier Number . . . .

The Harbour Master has instructed us that the following minimum draft will be required for manoeuvring into and out of this port (including Pajaritos Lagoon):

Vessel's Length	*Minimum Draft*	
(m.)	Fwd (ft.)	Aft (ft.)
50 – 100	4	14
100 – 125	8	18
125 – 150	10	20
150 – 175	12	22
175 – 200	14	24
200 – 225	16	26
225 – 250	18	28

Please comply with the above instructions, in any other condition Pilots will not manoeuvre your ship.

On behalf of Petroleos Mexicanos

....

Unquote.

AUTHORITY: Delegacion Coordinadora, Edificio Zona Franca, Antiguo Puertos Libres. *Tel:* 2-19-46 and 2-10-00.

Empresa de Servicios Portuarios, Edificio Zona Franca. *Tel:* 2-30-89 and 2-03-46.

Comision Nacional Coordinadora de Puertos, Cuernavaca No. 5, Mexico, 11 D.F. *Tel:* 553 8711.

DOS BOCAS: 18.37 N. 93.10 W.

LOCATION: SBM No. 1, Lat. 18° 37′ 33″ N., Long. 93° 09′ 37″ W.

SBM No. 2, Lat. 18° 37′ 36″ N., Long. 93° 11′ 00″ W.

PILOTAGE: Compulsory. Pilot boards 2 miles N.W. or North of the SBMs. Accommodation ladder to be rigged 15 ft. above the water.

ANCHORAGES: North of SBMs in 20 fathoms.

The anchors should be secured with stoppers during loading and whilst manoeuvring.

MAX. SIZE: 250,000 d.w.t. Max. LOA 345 m.

VHF: Pemex on Channels 9 and 16.

TUGS: 1 tug available to make fast aft in an emergency. Tug keeps watch 24 hours on VHF Channels 16 or 9.

Mooring boats are only available for assisting with mooring, connecting, disconnecting the hoses and unmooring, no boat service available.

BERTHING: The terminal of Dos Bocas, Tabasco, Mexico, is equipped with 2 SBMs capable of loading vessels from 150,000 – 250,000 d.w.t.

The maximum LOA permitted is 345 m. (1,131 ft.) The maximum distance from bow to the ship's manifold is 183 m. (600 ft.) and the minimum distance is 149 m. (490 ft.).

SBM No. 1: Ships must have at the manifold 3 cargo connections each of 16 in. diameter (150 lbs.) with 1.4375 in. flange thickness (ANSI specifications) and should be able to receive Camlock connections.

SBM No. 2: Ships must have at the manifold 3 cargo connections each of 16 in. diameter (150 lbs.) with 1.4375 in. flange thickness (ANSI specifications) and should be able to receive Camlock connections.

The distance between centres of cargo connections must be at least 2,500 mm., and from cargo line to fuel line must be 2,000 mm. the min. distance from cargo manifold to the ship's side should be 4,600 mm.

The height from the centre of the cargo line to drip tray must be 900 mm., and to the deck 2,100 mm. maximum.

The height from deck to manifold will not be less than the height from deck to hose rail.

The cargo lines at the manifold must have one pressure gauge and drain valve.

The drip tray must be fitted with rounded edges to protect the hoses and must have Irving screen or similar.

The minimum S.W.L. of the booms should be 15 tons. The distance from deck to the top of the boom, not be less than 10 m. (33 ft.) in the working position.

The runner wire must have appropriate cargo hook.

Before vessel moors to the SBM, the boom has to be ready to work on the port side to lift the mooring equipment. The hoses will be connected on the same side.

The vessel must have 2 Panama leads forward with a minimum clearance of 600 mm. by 450 mm. with a distance between centres of 2.0 m. – 3.0 m. The vessel should preferably have AKD chain stoppers.

The minimum distance, from the Panama lead to the forward bitts should be not less than 2.7 m. (9 ft.) and not more than 8 m. (25 ft.).

The vessel has to supply a winch operator when vessel is mooring or connecting the hoses. In the event of mooring line damage the vessel has to provide lines as necessary.

Vessel will supply one messenger rope.

The terminal requests that vessel arrives with clean or segregated ballast.

Cargo and deballasting operations, must be planned in such a way that the vessel will be as close as possible to a safe draft for manoeuvring of the buoys in case of an emergency.

Vessels are requested to arrive with a trim not greater than 10 ft. by the stern.

The Loading Master and assistants have a portable walkie-talkie (VHF), to communicate with shore, however the vessels VHF set must also be available.

One of the riggers will be required to watch the deck from the wheelhouse for early warning of leaking or spillage and maintain communications with the shore terminal.

In the event of bad weather conditions, the Pilot may take the decision to stop the loading operations and take the vessel off the SBM. However, the Ship Master's responsibility will not cease.

Pilots, Loading Master and Mooring Personnel: When vessel moors, the Pilot, Pemex Loading Master and 10 riggers will board the vessel.

The vessel has to provide meals and cabins of officers standard for the Pilot and Pemex Loading Master. The riggers will have meals of crew standard. All will remain on board the vessel during all the loading operations.

The Loading Master is a Pemex representative and coordinates operations between shore and vessel and he has control of the operations. He will deliver to the Master or Chief Officer the cargo orders, the General Safety Regulations and the notice to avoid pressure surges. When Owners or Charterers and Pemex instructions disagree, agreement must be made prior to mooring.

On completion of loading operations the vessel will be disconnected from the buoy. Cargo calculations and clearance will be carried out whilst drifting or at anchor.

Tanks: 10 tanks for crude oil, each 500,000 barrels capacity.

DEVELOPMENTS: Project included supply port to service drilling rigs, petroleum port with 3 piers which will be able to load 12 vessels up to 60,000 d.w.t. simultaneously with liquid gas and petroleum products, 3 piers for loading crude carriers up to 100,000 d.w.t. and a container terminal.

SHIPMASTER'S REPORT: December 1984.

Shore Location: Lat. 18° 26.5′ N., Long. 93° 11′ W.

Sea Terminal: There are 2 SBMs 11 miles to the North.

SBM 1: 2 lines on port side of the ship, diameter 16 in.

SBM 2: 3 lines on port side, 16 in. diameter.

Documents: Customs Officer comes onboard with the Agent before mooring. Documents required:

Last Port Clearance.
6 Crew Lists with vaccination dates.
2 Passenger Lists.
2 Arms Lists.
3 Stores Lists.
3 Crew Personnel Effects Declarations.

Anchorage: See British Admiralty Chart No. 2626. Located between 5 miles and 10 miles to the North of the SBM. As it is not very good holding ground, pilots usually recommend a position to the N.W. 4 miles or 5 miles from the SBM, as less threatening in case of ship dragging (in Winter there may be Northerly gales).

Pilotage/Berthing: Before arrival call on VHF Channel 16 or 9 for Pemex Operations. Pilot boards at 1.5 miles West or N.W. of SBM with a tug bringing out mooring equipment and shore crew. The tug assists with mooring, then goes aft and passes a line to the poop. No berthing at night time.

Crude oil: Same as Rabon Grande. Loading rate 15,000 – 45,000 bbls.p.h.

Persons on board: During vessel's stay:

1 Pilot.
1 Loading Master.
1-2 Pemex representatives.
1 Inspector (Redwood, etc.).

9 or 10 crew required for mooring, connecting and loading watches (One man permanently on the forecastle deck and one on the bridge).

Repatriation: Crew changes may be arranged.

Shore Leave: It is not possible to have regular connection with the shore.

Ship Chandler: Available via pilot boat, but food very expensive.

SHIPMASTER'S REPORT: September 1985.

Location: The Pemex Oil Terminal at Dos Bocas consists of two SPMs.

Anchorage: Anchorage for vessels awaiting berth is centred on position Lat. 18° 45.25′ N., Long. 93° 10.5′ W., 7 miles North of the SPMs.

Documents:

5 copies Crew List.
Last Port Clearance.
2 copies Stores List.
2 copies Personal Effects Declaration.
1 copy Vaccination List.

Health: Radio Pratique is obtainable by forwarding the following information to the Agent at least 24 hours prior to arrival.

a) Vessel's name and nationality.
b) Master's name.
c) Total number of crew onboard.
d) Last port.
e) Port and date of issue of Derat Certificate.
f) ETA local time (GMT – 6 hours).

Radio: Vessel is required to send its ETA and cargo requirements to the Agent and Petroleos Mexicanos at least 72 hours in advance and thereafter the ETA is to be updated 48 hours and 24 hours in advance of arrival.

Loading: The standard hose connections are 16 in. SPM No. 1 has 2 hoses and SPM No. 2 has 3 hoses. The average loading rate is 40,000 bbls.p.h. There are no facilities for receiving dirty ballast ashore and vessels must arrive with clean ballast.

Completion of documents: On completion of loading a further delay of about 2 hours is expected before cargo papers are finalised. The vessel may either anchor or drift in the vicinity until these documents are completed.

Accommodation: The Mooring Master, Loading Master, two Cargo Surveyors and 10 crew for handling hoses. They expect accommodation and meals to be provided.

SHIPMASTER'S REPORT: July 1987.

Anchorage Area:

1.	18° 42′ 30″ N.	93° 08′ 00″ W.
2.	18° 47′ 30″ N.	93° 08′ 00″ W.
3.	18° 47′ 30″ N.	93° 13′ 15″ W.
4.	18° 42′ 30″ N.	93° 13′ 15″ W.

Location of Buoys:

Buoy No. 1: Lat. 18° 37′ 35.2″ N., Long. 93° 09′ 57.29″ W.
Buoy No. 2: Lat. 18° 37′ 35.5″ N., Long. 93° 10′ 59.84″ W.

Arrival Draft: Vessel size 135,900 d.w.t. Initially required 20 ft. forward and 34 ft. aft. This was later changed to 18 ft. forward and 30 ft. aft and was finally changed to 16 ft. forward and 30 ft. aft.

Radio: Vessel used radio stations WLO and WDP. ETA advices to be sent to the Agent and PEMEX, 72 hours, 48 hours and 24 hours prior to arrival. Any changes in ETA should be notified to Agent and PEMEX immediately. PEMEX (Exports) Telex No. 1773171/1773671, PEMEX (Maritime Transportation) Telex No. 1773986.

Pre-Arrival Information: The following must be advised with the vessel's ETA:

1. Name of Master.
2. Number of crew and nationality.
3. Gross and nett tonnage.
4. Arrival draft, fore and aft.
5. Approximate departure draft, fore and aft.
6. Type and amount of ballast on board and time required for deballasting.
7. Derat or Exemption Certificate, together with date and port of issue.
8. To whom Notice of Readiness to be tendered (for Agent).
9. Type of cargo and amount required.
10. Last port of call.
11. Discharge port for present voyage.

All of the above information is required in order that vessel may obtain berthing date and export licence from PEMEX.

VHF: Initial communications with PEMEX prior to arrival was made on VHF Channel 16. When at the terminal, communications are made on Channel 9 (calling) and Channel 8 (working Channel).

Berthing: Mooring of the vessel is supervised by a Government pilot and a shore gang of 8 persons. The shore gang connect and disconnect hoses and are assisted by the ship's crew. Whilst the vessel is loading the personnel maintain a watch on the forecastle, manifold and bridge.

Accommodation is required for one pilot, one PEMEX representative, one inspector and 8 crew. Mooring is carried out with the assistance of one tug which remains with the vessel at all times while cargo operations are under way. One rope is required aft for the tug.

Cargo Information: Grades available: Isthmus Crude and Maya Crude. Vessel loaded Isthmus Crude API 34.4, temperature on board 32.5° C. and Maya Crude API 22.0, temperature on board 44° C.

3×16 in. hoses were connected and the loading rate was 50,000-55,000 barrels per hour.

The Bill of Lading figures were established on board when the vessel was clear of the SBM. The ship's ullages were used to obtain the figures. Taking of ullages and paperwork takes approximately 5 hours and is prepared jointly by PEMEX inspectors, independent inspectors and ship's personnel.

General: Documents required on arrival are those required at other Mexican ports. If vessel has no Mexican forms on board they will be filled in by Agent from the ship's documents.

Repairs: Immobilisation of the engine not permitted while vessel is at the SBM.

Stores: A small amount of stores are available.

ENSENADA: 31.51 N. 116.38 W.

RESTRICTIONS: *Access Channel:* Length 1,000 m. Depth 10.0 m.

VHF: Port Authority on VHF Channel 16.

BERTHING:

	Length (m.)	*Depth* (m.)
Coastal vessel quay	483.0	4.0 – 9.5
Deep sea quay	725.0	10.5

Storage: Warehouses 15,024 sq.m. Open areas 40,000 sq.m. Covered areas 30,789 sq.m.

BULK HANDLING FACILITIES: Conveyor belt for handling limestone. Suction units for handling bulk cargoes at high capacity. Mechanical means for discharging tuna and anchovies.

MEDICAL: Hospital services available.

FRESH WATER: Available.

FUEL: Available.

REPAIRS: Mechanical, electrical and electronic repairs possible.

DRY DOCK: Floating dock for vessels up to 1,400 tons displacement.

AIRPORT: International airport at Tijuana.

DEVELOPMENTS: Breakwater under construction.

AUTHORITY: Delegacion Coordinadora, Boulevard Teniente Azueta No. 101. *Tel:* 8.35.80 and 8.13.20.

Empresa de Servicios Portuarios, Teniente Azueta No. 224. *Tel:* 8.23.68 and 8.28.60.

Comision Nacional Coordinadora de Puertos, Cuernavaca No. 5, Mexico, II D.F. *Tel:* 553.87.11.

GUAYMAS: 27.54 N. 110.52 W. (See Plan)

DOCUMENTS:
5 Crew Lists.
6 Passenger Lists.
5 Stowaway Lists.
1 Personal Effects Lists.
2 Stores Lists.
2 Provisions Lists.
2 Arms and Ammunition Lists (1 copy visaed).
4 Cargo in Transit Lists.
Ship's Official Documents.
Ballast Certificate.
Clearance from last port.
International Health Declaration.
Derat Certificate.
Manifest of Cargo for Discharge visaed by Mexican Consul (original and 5 copies).

PILOTAGE: Compulsory. Pilot available throughout 24 hours. Pilot meets vessel at Fairway Buoy.

ANCHORAGES: Good anchorage in the vicinity of the Fairway Buoy. Depth 14.5 m. Bottom mud.

RESTRICTIONS: *Entry Channel:* Length 3,500 m., width 75 m., depth 10.5 m.

HEALTH: Free Pratique available by radio on arrival.

RADIO: Guaymas Coast Radio, "XFY". Receives on 425, 454, 468 and 480 kHz. Transmits on 429 and 489 kHz.

VHF: Pilot and Port Authority on VHF, but communications not reliable.

TUGS: 1×2,250 h.p.

BERTHING:

	Length (m.)	Depth (m.)
East Quay	323	10.0
South Quay	350	11.0

Storage: Warehouses 4,800 sq.m., open areas 141,000 sq.m., covered areas 6,772 sq.m.

BULK HANDLING FACILITIES: The port has a specialised installation for the handling of dry bulk cargo, provided and operated by Almacenes Nacionales de Deposito S.A.

Characteristics: Warehousing capacity 68,000 tonnes. 36 silos arranged in 2 batteries. Conveyor belts permitting simultaneous filling of 4 holds of the vessel, with an absolute maximum rate of loading of 900 tonnes/p.h. Truck tipper. Hydraulic ramp for discharging road transport.

CARGO HANDLING FACILITIES: Loading and discharge of vessels is at the following rates:
General cargo – 22 tons/hr./hook (average).
Dry bulk cargo – 32 tons/hr./hook (average).
Bales of cotton: average handling rate 100 hr./hook.
Railroad and road transport up to alongside ship.

Vehicle ferries of Caminos y Puentes Federales de Ingresos, connect this port with La Paz and Santa Rosalia.

The port has equipment for handling all types of goods.

The Free Zone permits a more rapid transit of goods through the port, and a very great saving in Customs procedures.

Fumigation is provided for cargo, vessels, road and rail transport vehicles.

Lighting for night work permits work throughout 24 hours.

STEVEDORES: Working hours: 0800 – 1200 hrs. and 1400 – 1800 hrs.

MEDICAL: Doctors and hospital available.

TANKERS: Pemex Jetty – depth 10.0 m.

FRESH WATER: Available.

FUEL: Available.

REPAIRS: Mechanical, electrical and electronic repairs possible.

DRY DOCK: Slipway for vessels of less than 800 tons displacement (1,250 d.w.t.). Also see "General".

AIRPORT: International Airport in Guaymas, 10 km. from town.

GENERAL: *Shipyards:* This is an important industry in the port with five shipyards handling the construction of fishing vessels for tuna, sardines and shrimps, with technology of international prestige. There is a slipway for repair of vessels drawing up to 15 ft., with a 135 m. long underwater ramp.

The Rodolfo Sanchez Taboada industrial zone managed by the National Fund for Port Development was created to activate industrial development in the port, and started with promoting industries allied to fishing, there being currently two fishmeal processing plants, a fishing vessel shipyard, and it is planned to install 25 more industries and a shipyard for construction of deep draft vessels covering an area of 173 ha. This complex has asphalted roads, electricity and drinking water supplies.

AUTHORITY: Delegacion Coordinadora, Muelle Patio, Edificio Zona Franca. *Tel:* 2-22-50, 2-34-35 and 2-33-70.

Comision Nacional Coordinadora de Puertos, Cuernavaca No. 5, Mexico, 11 D.F. *Tel:* 553-87-11.

Servicios Portuarios de Guaymas, S.A. de C.V., P.O.Box 197, Guaymas, Son., Mexico. *Tel:* 2-32-33, 2-53-60, 2-34-35. *Telex:* 5719 Spgyme. *Contact:* Rafael Castillo, General Manager.

LAZARO CARDENAS: 17.55 N. 102.10 W. (See Plan)

PORT LIMITS: Area within limits of anchoring described below. For "Arrived Ship", pilotage limits 1 mile to seaward from breakwaters.

DOCUMENTS:
7 Crew Lists.
2 Vaccination Lists.
1 Sanitary Health Declaration.
3 Stores Lists.
2 Personal Effects Lists.
Clearance From Last Port.
Voyage Memorandum, showing also Ship's Registry.
Derat Certificate and Cargo Gear Certificate regarding cargo.
5 Cargo Manifests.
5 Bills of Lading.

PILOTAGE: 24 hours advance notice through coastal station, addressed to "Puerto" Lazaro Cardenas, Mich. A VHF watch on Channel 16 is maintained Monday to Friday, 0800 to 1900 hrs. and at any time previously requested by ship's Agent. VHF range 45 miles. Pilot will board normally either at Sea Buoy (17° 53.1′ N., 102° 09.6′ W.) or at the anchorage, and at Master's request further out if required. In the event of heavy sea, vessel will be instructed accordingly via VHF.

ANCHORAGES: One mile West of Sea Buoy. Very good holding ground, care should be taken not to anchor on, or near leading line (304°) due to a submarine canyon with over 100 fathoms depths at 1 mile off the breakwater.

RESTRICTIONS: Vessels up to 200 m. LOA and up to 35 ft. salt water draft may enter or leave the port 24 hours a day, larger vessels or those with deeper draft only with daylight. Vessels with over 42 ft. salt water draft must wait for tide.
Access Channel: Length 1,400 m., depth 14.5 m.
Secondary Channel: Length 500 m., depth 14 m.
Turning Basin: 600 m. diameter and 14 m. depth.

HEALTH: Pratique can be granted by VHF radio. Automatic Pratique is granted when coming from another Mexican port.

RADIO: Radio Maritima Manzanillo "XFM" and Radio Maritima Mazatlan "XMA" are recommended coastal stations through which to route ETAs. Initial contact on 2182 kHz.

VHF: At port, 25 watt 45 mile range. Channels 6, 16, 26, 11, 12, 13 and 69. Initial contact to be made on Channel 16, manoeuvring on Channel 6, port operations on Channels 11, 12 and 13.

RADAR: No radar service available.

TUGS: 1 tug stationed permanently at port 1,900 h.p. twin-screw. Tug's lines used, no charge for lines. Vessels over 50,000 tons displacement should apply to Manzanillo for another tug through Agent.

BERTHING:

	Length (m.)	Depth (m.)
Metal and Mineral Quay	650	14
Container Quay	284	12
General Cargo Quay	504	9.7 – 9.4

Shore cranes and sometimes ship's gear used for steel products. Significant cargoes are steel structure, coke-breeze, pig iron and finished steel products, also grain and sugar.

BULK CARGO FACILITIES: There is a shore crane clam-bucket type 250 t.p.h. capacity capable of loading and unloading. Clearance from boom to MLLW 35 m. Conveyor belt system in operation.

CRANES: One container crane 40 tons lifting capacity is available. Clearance from boom to MLLW 31.2 m. Also 3×75 ton movable cranes (self-powered) can work anywhere on quay, 4 additional mobile cranes of 20 ton capacity are available.

SPECIALISED CARGO HANDLING FACILITIES: Berth No. 1 can handle containers and heavy lifts up to 40 tons. Berth No. 2 can handle bulk and ores.

BRIDGES: No bridges.

STEVEDORES: Agents will arrange for stevedores with Lazaro Cardenas Port Services Co.

MEDICAL: Advance notice required by Agents when medical assistance required, emergencies can be routed via VHF at pilot station (Channel 16). 2 hospitals and 2 clinics with a total of 40 beds available plus a new hospital with 50 bed capacity will accept seamen. Yellow fever and cholera vaccination desirable.

TANKERS: Mineral Wharf has 10 in. diameter lines to discharge fuel oil.

DENSITY: Highly variable, can range from 1024 in dry season to 1012 in rainy season.

FRESH WATER: Available. 3 in. pipe on Mineral Wharf (American standard thread), but is recommended to boil it for drinking purposes.

FUEL: No fuel available for vessels, only diesel of specific gravity 0.85 available in trucks.

FIRE PRECAUTIONS: Tankers should fit a good ground connection to quay and have 2 lines hanging fore and aft ready for emergency towing.

CONSULS: No consuls available at present.

REPAIRS: Small and medium size repairs can be done at the workshop of the steel works if previous advice sent to Agent and Port Services Company.

DRY DOCKS: No dry docks available.

SURVEYORS: Two independent surveyors available for draft surveys, on/off hire and damage, can be contacted through Agents.

GANGWAY/DECK WATCHMEN: Not necessary or recommended.

HATCHES: Normally done by crew members, or by stevedores at ship's request.

CUSTOMS ALLOWANCES: There are no regulations. It is according to the Master's judgement for his needs for the stay in the port.

CARGO GEAR: Normally done with ship's gear but shore cranes are available upon request. Heavy lift cranes up to 40 tons.

REPATRIATION: All facilities for crew changes.

AIRPORT: Zihuatanejo Airport, nearest 135 km. 5 daily flights to Mexico City with connections to all parts of the world.

TIME: GMT minus 6 hours.
HOLIDAYS: 1st January, 1st February, 5th February, 21st March, 1st May, 16th September, 20th November, 25th December, 1st December every 6 years when there is change of President
POLICE/AMBULANCE/FIRE: Police Tel: 2-0154. Ambulance Tel: 2-05-75. Fire Tel: 2-03-33 ext. 1020 and 1000
TELEPHONE: No shore connection available.
SERVICES: Only ship chandler and laundry.
SHORE LEAVE: Crew members allowed shore leave without any special permit.
IDENTIFICATION CARDS: Seaman's Book is sufficient.
REGULATIONS: No special regulations.
DELAYS: No delays expected.
GENERAL: Salinity in basin and docks always changing and subject to tides and river flow, recommend taking at least 5 samples from keel to surface to get an adequate average of salinity.
DEVELOPMENTS: Fertimex Berth: Phosphate rock, length 509 m., depth from 12 m. to 14 m. 1 screw unloader with capacity of 600 t.p.h. for rock and sulphur and 500 t.p.h. for salt. The facilities were damaged by an earthquake in September 1985 and repairs underway.

Grain Berth: 250 m., depth from 12 m. to 15 m.; "L" shaped berth, outside 250 m., inside 210 m. with depth 11 m. Silo with capacity 80,000 tons nearing completion. Capacity of unloader 600 t.p.h.

AUTHORITY: Oficina de Operacion y Desarrollo Portuario. Unidad Administrativa S.C.T. *Tel:* 2-01-97, 2-17-79 and 2-01-24.

Port Services Company: Empresa de Servicios Portuarios, Rio Tepalcatepel No. 29, Lazaro Cardenas, Mich. Mexico. *Tel:* (Operations) 2-00-37, (Administration/Management) 2-17-22, 2-17-23, 2-20-64 and 2-20-65. *Telex:* 01772873 Cplcme.

Comision Nacional Coordinadora de Puertos, Cuernavaca No. 5, Mexico 11, D.F. *Tel:* 553-87-11.

MANZANILLO: 19.03 N. 104.20 W. (See Plan)

DOCUMENTS:
14 Crew Lists.
20 Passenger Lists.
Derat Certificate.
Vaccination Certificate for each crew member.
Cargo Manifest and one copy to be visaed.
8 additional copies of Cargo Manifest, unvisaed.
10 Bills of Lading, one copy to be attached to each cargo manifest.

PILOTAGE: Pilot station on VHF Channel 16, only keeps watch when vessel expected. Pilots are ordered by Agents basis Master's ETA.

Pilot boat is black with white wheel-house on which is painted letter "H". International Code signals used. Pilot normally boards vessel about 1 or 2 miles from breakwater but if requested in advance the pilot boat will come out to 5 or 6 miles. Pilot cannot board in rough weather. Vessels waiting for Pilot may anchor about 2 – 3 miles N.W. of breakwater in depths of 12-15 fathoms.

ANCHORAGES: Vessels may anchor in the whole North part of the Bay where depths are 12-15 fathoms at a distance of 1 – 2 miles from the coast.
RESTRICTIONS: Vessels may enter at any time day or night.
Access Channel: Length 450 m. Depth 12.0 m.
MAX. SIZE: No limitation for anchoring in the bay. For mooring alongside, max. length 200 m., max. draft 32 ft.

Also see "Tankers".

HEALTH: Port Health Officer and Immigration Officers board vessel at anchorage. Passengers and crew may be required for inspection.
RADIO: Coastal station Manzanillo Radio, call sign XFM, operating 0600 – 1800 hrs. local time.
VHF: See "Pilotage".
TUGS: 1 tug available, compulsory to use tug when mooring alongside. Tug will join vessel as ordered by the Pilot.
BERTHING: Old Port:

Name	*Length* (m.)	*Depth* (ft.)
Muelle Fiscal Quay		
East Side	230	36 (Outer end) 16 (Inner end)
West Side	220	36 (Outer end) 20 (Inner end)
Coastal Quay	305	13 – 20
Naval Quay	165	13 – 37

New Port:
1,092 m. of New Quays with depths 32 ft. – 36 ft. completed.
685 m. of new quay under construction, depth alongside 14 m.
Depth in channel and South End of Basin is 36 ft.

STEVEDORES: Advise Agent in advance number of gangs required. Discharge rate approximately 20 t.p.h. – 25 t.p.h. per gang.
MEDICAL: Agent should be advised in advance if medical attendance required on board. Hospital facilities available.
TANKERS: 2 berths available, max. length 650 ft. No restriction on beam. Max. draft: N.E. side 31 ft. (Forward) and 38 ft. (Aft). S.E. side 33 ft. (Forward) and 38 ft. (Aft).
New Pemex Jetty: Located on the inner side of the west breakwater. "T" shaped berth with length of Approx. 110 m. on outer side. Depth alongside 52 ft. (inner) and 64 ft. (seaward end). 8 cargo arms available.
FRESH WATER: Should be ordered in advance. Rate of 10 t.p.h. Vessels must furnish own hose for pumping, 2 in. coupling. No barges available for delivery at anchorage.
FUEL: Should be ordered in advance. All grades available. May be expensive due Customs fees.
GANGWAY/DECK WATCHMEN: No shore service available.
OPENING/CLOSING HATCHES: Normally performed by crew members.
CUSTOMS ALLOWANCES: Each crew member may retain 1 carton of cigarettes, and 1 bottle wine/spirits for his own use. No alcohol may be taken ashore.
IDENTIFICATION CARDS: Not required. A Crew List should be left at the gate for checking crew.
CONSULS: Nearest are at Colima and Guadalajara.
REPAIRS: Only repairs to auxiliary machinery can be effected with permission. At Guadalajara hull repairs may be effected provided dry dock not required.
REPATRIATION: Can be arranged.
AIRPORT: Local airport only for internal traffic.
TIME: GMT minus 6 hours all the year round.
HOLIDAYS: The following holidays can only be worked in case of emergency: 1st January; 5th February; 21st March; 1st May; 5th May; 16th September; 12th October; 25th December; and in addition 23rd May, Anniversary of the Stevedores' Union.
POLICE/FIRE/AMBULANCE: Police Tel: 4; Fire Tel: 23; Ambulance Tel: 96.
TELEPHONES: Cannot be connected on board ships.
SHORE LEAVE: Permitted, except for crews of Russian, Cuban and Communist Chinese vessels.

Crew members left behind by vessel must be covered by 10,000 Pesos bond to guarantee repatriation expenses.

DEVELOPMENTS: Improvements are in progress to accommodate vessels up to 30,000 tons with a draft of 40 ft.
Shipmaster's Report: December 1984. A new port is under construction in Laguna de San Pedrito close East of the Old Port. There are already piers to accommodate 4 medium size vessels, and cement poles are being rammed all around the Lagoon, also dredgers are dredging the Lagoon to an expected depth of about 14 m.
AUTHORITY: Delegacion Coordinadora, Teniente Azueta – S/No., Port Operation Buidling. *Tel:* 2-07-89 and 2-00-04.

Empresa de Servicios Portuarios, Fraccionamiento Plaza Azul, Lote 9. *Tel:* 2-12-54 and 2-13-72.

Comision Nacional Coordinadora de Puertos, Cuernavaca No. 5, Mexico, II D.F. *Tel:* 553 87 11.

MAZATLAN: 23.11 N. 106.26 W.

DOCUMENTS:
Port Clearance from previous port.
4 Stores Lists.
12 Crew Lists.
2 Passenger Lists or "Nil" Passenger List.
(All to be stamped by Mexican Consul or a representative of a friendly country).

On arrival the following officials board:
Port Health Authority.
Customs.
Agricultural Department Authority for checking ship's provisions, mainly vegetables.
Doctor for checking 'meat' in the fridge room.
Immigration.
Ship's Agent.
Port Authority representative.

The (provisions) meat room is sealed after inspection by the doctor; every morning the seal is broken and resealed after the day's provisions are taken out.

PILOTAGE: Pilots can be contacted on VHF Channel 16. Pilots board in position Lat. 23° 10′ 24″ N., Long. 106° 26′ 24″ W. with Creston Island Light bearing 116° (T) × 0.4 miles.
APPROACHES: The approach is clear with no obstructions except Piedra Negra Rock which is just 7 ft. above the water. Vessel should head for Creston Island Light, keeping at least 2 cables clear of Piedra Negra Rock.
ANCHORAGES: *Shipmaster's Report:* Anchorage is not in the position marked on the British Admiralty Chart. I was told about this by the Pilot when he boarded. The anchorage is now shifted and a vessel should anchor East of a line drawn North/South through the Eastern tip of Island Chivas, East and clear of Piedra Negra Rock but outside the 10 fathom line. The holding ground is not good. Creston Island Light is a very powerful light, but its characteristic is now Fl. white every 8 sec. and not as marked on the chart.
RESTRICTIONS: *Access Channel:* Length 1,500 m. Depth 10 m.
Secondary Channel to Fishing Port: Length 1,400 m. Depth 7 m.
RADIO: Mazatlan has a coastal radio station but only works on medium frequency.
VHF: See "Pilotage."
TUGS: Only 1 tug is available, if a second tug is required it has to be called from another port.
BERTHING:

	Length (m.)	*Depth* (m.)
Main Quays	981	10
Ro/Ro Berths	2 berths	10

TANKERS: Max. draft 29 ft. and LOA 590 ft., however tankers of 629 ft. LOA have discharged.
STEVEDORES: Gangs work from Mondays to Saturdays from 0800 to 1700 hrs. Any work after 1700 hrs. till 0700 hrs. next day and from 1700 hrs. on Saturday till 0700 hrs. Monday is overtime. Cotton bales are loaded at the rate of 85 to 90 bales per hour per gang. The bales stow at 29/30 cu.ft. per bale.

FUEL: Can be supplied, but has to be arranged in advance through PEMEX (Petroleos Mexicanos) office in New York. Diesel oil is normally supplied by trucks.
FRESH WATER: Can be obtained at any time and is supplied by hoses (ship's hoses) from the quay at about 9 Pesos per ton.
REPAIRS: Workshop for mechanical repairs. Electrical and electronic repairs possible.
DRY DOCK: Shipyard and slipway for small vessels.
STORES: Provisions are available, however it is difficult to get a variety and frozen vegetables are not available.
MEDICAL: Assistance available.
IDENTIFICATION CARDS: Not required, crew can go ashore, there are no restrictions, but all Passports and Seamen's Books are kept in the custody of the Master.
REPATRIATION: Can be arranged via Mazatlan Airport or Mexico City.
TIME: GMT minus 7 hours throughout the year.
AIRPORT: International Airport.

SHIPMASTER'S REPORT: December 1978.
Pilotage: Pilot compulsory. Pilot boards 1.5 cables off the South breakwater. ETAs and amendments to be sent as soon as possible after leaving previous port.
Restrictions: Vessels can enter and leave day and night. However, they can only sail on the flood tide. Tidal range approximately 3 ft.
Tugs: Tugs available but power not known.
VHF: Pilot, Port Authority and Agent on Channel 16.
Services Available: Fresh water (must be boiled for drinking). Fresh provisions. Airport (3 miles from city). Salvage Surveyor. Laundry service. Bunker fuel oil. Doctor and Hospital. Groceries and meats.
Density: 1020.
Charts: U.S. Chart 21301. B.A. Chart 3060.
Ship Anchored: 4 cables S.W. of Cerro del Creston Light in dense morning fog, depth 13 fathoms.
Pilot Boat: Low power, black hull with white superstructure, only came out to ship when the fog cleared. Requested first a gangway to board but afterwards changed his mind for a pilot ladder in view of a slight swell. Pilot boat also handled the ship's mooring lines at the berth.
Breakwater: Quite narrow to pass through.
Buoys: Mostly all covered in guano.
Berth No.3: As there was a bulk carrier on the next berth the ship had to overhang the berth by approximately 12 m. However there were bollards on shore away from the quay to provide suitable leads for stern lines. The quay was low, lying approximately 3 m. above the water with 1 m. maximum rise and fall of tide.
Note: Admiralty Tide Tables do not give any data for this port other than its range. U.S. tide tables give all required information.
Depth of Water: Average depth after sounding round hull was approximately 9.5 m., shallowest depth 8.5 m.
Officials: There is a Customs and Police gate on the quay.
Cargo Work: The ship loaded from refrigerated road trucks. The labour set their own derricks and took out the beams and plugs. However, it was over two hours before the first sling came onboard. Meal breaks were long necessitating the covering of open decks with plastic sheets to keep the cold air in. The cargo was not stowed very well, most of it was very crooked with large gaps between the deckhead and cargo. Gross hourly cargo rate is approximately 8 t.p.h.
Pilfering: There did not appear to be much pilfering. Keeping the offshore doors and the store rooms locked is a good precaution.
Early Morning Fog: On two mornings we had fog, clearing between 1030 and 1200 hrs.
Fresh Water: Available alongside the berth, appears to have no meter on it and we had to use our own hose and coupling. However pipe was left connected and we could top up whenever required.
Painting: No objection was made to painting the ship's side from a painting punt.
Lifeboat: Starboard lifeboat was used for a trip to the beach, boat however should not be landed because of the heavy swell.

SHIPMASTER'S REPORT: August 1979.
Navigation: Best chart is American. U.S. Chart No. 21301.
Anchorage: Recommended position with Cerro del Creston Lighthouse bearing 310° distant 2 miles in approximately 10 fathoms.
Approach: Straightforward but note that the small island off harbour entrance (Piedra Island) is often unlit.
Communications: Mazatlan Radio (XFL) has a range of 2,000 miles.
VHF: Pilots have Channel 16, also tugboats.
Pilots: Compulsory, board at anchorage or about 1 mile from breakwater entrance. Use a variety of craft. Board via pilot ladder.

No large ship movements permitted at night or during strong tidal streams.

Ro-Ro ferries, which also take Pilots in and out, have priority at all times.
Tugs: 1 only, low powered.
Draft: Presently restricted to 30 ft. salt water.
Cargo Facilities: Discharged 18,100 tons bulk soya bean in 10 working days. Discharge rate very dependent on transport and truck (rail) availability. 24 hour working with 6 gangs into hoppers. All grain type cargoes from South America must be fumigated if loaded onto road trucks, this takes approximately 2 days. Ship's gear usually used for cargo operations.
Authorities: Require the following in addition to ship's certificates:

- 12 Crew Lists
- 12 Passenger Lists
- 2 Crew Effects Lists
- Crew Passports
- 6 Stores Lists.

The meat store of the vessel may be sealed if the Government Inspector considers that the meat is from an unsuitable country.
Repair Facilities: Minimal, mostly involved with the upkeep and repair of very large fishing fleet.
Surveyors: Nil – Nearest ABS Surveyor is in Mexico City 350 miles away, but will attend at two days' notice.
Medical: Good local facilities with English speaking staff.
Provisions: Excellent fruit, fish and vegetables. Meat of poor quality and expensive.
Hatches: Mechanical hatches operated by crew. Essential to have adequate crew available at night in rainy season (August to October) while working cargo at night.
Watchmen: Not required or compulsory. Little thieving experienced.
Laundry: Excellent quality and price.
Cash: Both Mexican pesos and U.S. Dollars available.
Time: GMT minus 7 hours.
Repatriation: Several flights daily from local airport direct to Southern and Western U.S.A. airports. This avoids having the Agents post a 'bond' if travelling via Mexico City.
Agents: Most have telex, either via Mexico City or direct international. Telephoning overseas reasonably efficient. Mail services 7 days to Europe.
Fresh Water: Available at piers – should be chlorinated prior to use.
Bunkers: Only diesel oil available – sole supplier Government owned 'Petromex'.
Shore Labour: Not available as heavy port congestion at present.
General: Mazatlan is one of the largest ports in Mexico, 6 berths and is also a large resort with excellent hotels and large numbers of tourists. It is also the largest fishing port on the West coast of Mexico.

Port delays – Bulk carriers 4 days.
– General cargo ships 2 days.

(As at mid August) – this could change for the worse once the rainy season starts.

AUTHORITY: Delegacion Coordinadora, Av. Miguel Aleman 120-Oriente, Desp. 2. *Tel:* 1-69-45.

Empresa de Servicios Portuarios, Av. Emilio Barragan y Vicente Guerrero, Recinto Portuario. *Tel:* 2-02-78 and 2-38-11.

Comision Nacional Coordinadora de Puertos, Cuenavaca No. 5. Mexico, 11 D.F. *Tel:* 553 87 11.

MINATITLAN: 17.54 N. 94.35 W.

DOCUMENTS: See "Coatzacoalcos".
PILOTAGE: See "Coatzacoalcos – Pilotage". Port about 17.5 miles up-river from Coatzacoalcos. Vessels are piloted either up-river or down-river to and from Minatitlan.
ANCHORAGES: Only at Coatzacoalcos. At Minatitlan river is narrow and anchorage not permitted.
RESTRICTIONS: Vessels may enter harbour only in daylight. Latest time for entry and sailing to and from Minatitlan is 1500 hours.

Access Channel: Width 70 m. Depth 7 m.
Manoeuvring Basin: 850 m. × 190 m. Depth 7 m. – 11 m.

MAX. SIZE: Max. LOA at Pemex berths: 475 ft. Max. LOA at Fiscal berth: 440 ft. No breadth restrictions at both. Max. draft permitted: 21 ft. in fresh water.
HEALTH: Pratique never given by radio. Vessels granted Pratique at anchor at Coatzacoalcos. Vessels must prepare accommodation ladder, to be boarded by port authorities.
TUGS: 1 tug required to accompany vessels past the Coatzacoalcos Bridge. Tugs rejoin vessels in the river on arrival at berth. Tug's lines used. For vessels over 2,000 g.r.t. 1 tug required; over 3,000 g.r.t. 2 tugs required.
BRIDGES: See "Coatzacoalcos – Developments".
BERTHING: Normally vessels dock starboard side to. Petroleos Mexicanos (Pemex) has 8 berths for tankers, where they can load crude, fuel oil, gasoline, benzene, xylene, metaparaxylene, toluene and other petroleum derivates. Fiscal berth has a length of 73 m. depth alongside of 7.5 m. Actually only used to discharge harmless bulk fertilisers. Discharge performed by elevator at a rate of 800 tons per 24 hours, also by ship's gear using buckets at a rate of 200 tons per day per hatch.
TANKERS: No ballast to be discharged in the river. All ballast to be discharged to shore tanks through 2×6 in. pipe-lines.

PEMEX No. 1 Marginal Berth:	Location 78 m. downstream from the South Face of the Lazaro Cardenas Refinery.
	Arrangement: Marginal.
	Length: 34 m.
	Width: 12.4 m.
	Useful Berthing Length: 34 m.
	Height Above Average Low Tide: 3.43 m.
	Depth: 3.5 m. at Average Low Tide.
PEMEX No. 2 Marginal Berth:	Location: Immediately after Berth No. 1.
	Arrangement: Marginal.
	Length: 103 m.
	Width: 9 m.
	Useful Berthing Length: 103 m.
	Height Above Average Low Tide: 3.43 m.
	Depth: 3.5 m. at Average Low Tide.
PEMEX Quay No. 3:	Location: 507 m. downstream from the South Face.
	Arrangement: T Shaped.
	Length: 12.5 m.
	Width: 4.6 m.
	Useful Berthing Length: 12.5 m.
	Height Above Average Low Tide: 3.6 m.
	Depth: 8.5 m. at Average Low Tide.
	Services: Drinking water, 13 product loading and discharge lines.

PEMEX Quay No. 4: Location: 667 m. from the South Face.
Arrangement: Pier.
Length: 17.9 m.
Width: 14.8 m.
Useful Berthing Length: 37.8 m. with the aid of 2 Dukes of Alba.
Height Above Average Low Tide: 4 m.
Depth: 9.4 m. at Average Low Tide.

PEMEX Quay No. 5: Location: 824 m. downstream from the South Face.
Arrangement: Pier.
Length: 21.5 m.
Width: 15.6 m.
Useful Berthing Length: 31.6 m. with the aid of 2 Dukes of Alba.
Height Above Average Low Tide: 3.7 m.
Depth: 3.6 m. at Average Low Tide.

PEMEX Quay No. 8: Location: 1,063 m. downstream from the South Face.
Arrangement: Marginal.
Length: 91.7 m.
Width: 6.1 m.
Useful Berthing Length: 91.7 m.
Height Above Average Low Tide: 3.9 m.
Depth: 1.5 m. at Average Low Tide.

PEMEX Quay No. 9: Location: 1,178 m. downstream from the South Face.
Arrangement: Marginal.
Length: 240 m.
Width: 29.1 m.
Height Above Average Low Tide: 3.73 m.
Depth: 3.1 m. at Average Low Tide.
Services: Track for mobile crane, bitts, lighting and water (fresh), gas feed points.

Tanks: Tanks which PEMEX has within the General Lazaro Cardenas Refinery.

No. of Tanks	*Content*	*Capacity Millions of Litres*
10	Wax Crude	108.3
1	Non-wax Crude	5.3
10	Petrol	93.2
11	Diesel	94.7
7	Primary Paraffin	32.3
7	Turbosine	12.8
9	Fuel Oil	90.2
5	FR-3 Asphalt	20.3
11	Hexane Aromatics	8.8
2	Heptane Aromatics	0.9
1	Betolime	0.7
20	E. Benzine	13.1
7	Toluene	8.3
9	Xylene	6.8
2	Aromine	1.5
4	F.C.C. Catalytic	19.4
2	Heavy Aromatic	2.3
1	Reformed Naphtha	6.5
2	Formed Wood Spirit	11.6
1	Poli Gasoline	1.7
1	Refined	7.3
1	Primary G.	7.3
4	Absorption Liquid	7.6
3	Recuperated Oil	21.8
8	Neutral Lubricants	5.2
17	Finished Lubricants and those in preparation	2.2
9	Finished Lubricants and those in preparation.	1.5
11	Balance Tanks	81.0

STEVEDORES: No ETA advice necessary. Agent of Receivers of cargo order gangs to discharge. Straight working hours from 0700 to 1500 Mondays through Saturdays. Latest time to order gangs 0645 and 1445 hrs.
DENSITY: Averages 1006.
MEDICAL: Hospital facilities available.
FRESH WATER: Available at all berths, but is not recommended.
FUEL: Marine diesel oil and Bunker "C" obtainable at Pemex berths. Bunker "C" also obtainable by barge, and diesel oil only by tank truck.
CUSTOMS ALLOWANCES: No restrictions. Free use on board. 2 Customs guards remain on vessel while alongside.
REPAIRS: No dry docks available, but small repairs can be done in shore repair shops.
AIRPORT: About 15 minutes' car drive away. Regular flights to Mexico City.
TIME: GMT minus 6 hours.
TELEPHONES: No facilities for placing telephones on ships.
DEVELOPMENTS: Constant programmes for more berths, sheds, dredging and equipment are under way, but rather slow.
AUTHORITY: Comision Nacional Coordinadora de Puertos, Cuernavaca No. 5, Mexico, 11 D.F. *Tel:* 553 87 11.

MORRO REDONDO, Cedros Island: 28.03 N. 115.11 W. (See Plan)

LOCATION: Morro Redondo: Bulk Salt Terminal Lat. 28° 10' N., Long. 115° 11' W.
DOCUMENTS:
3 Crew Lists in Spanish, visaed by Mexican Consulate in previous port.
12 Ordinary Crew Lists.
3 Stores and Provisions Lists.
3 Lists of Crew Effects.
1 List of Crew Vaccinations.
Clearance from Last Port.
Certificate of Registry.

The Authorities such as Port Health, Customs and Immigration together with the Agent will board after the vessel has berthed. Only in exceptional circumstances will the Authorities board at anchor or off the berth.
PILOTAGE: Pilotage available day and night. Pilot arranged by Agent on the basis of ship's ETA. Pilot boards when ship is within 1 to 3 miles of the berth, from a small MFV type pilot launch, painted black with white cabin and red deck. No radio.
ANCHORAGES: Good holding ground is found 1 – 3 miles North of the berth in 20 to 35 fathoms with the ship loading tower in line with the Morro Redondo Lighthouse.
RESTRICTIONS: None. Vessels enter and clear 24 hours a day on a first come first served basis. Height of chute above MLLW is 48 ft.
MAX. SIZE: Minimum depth alongside 17 m. Largest ship to date 160,000 d.w.t.
HEALTH: Pratique granted by Port Health Doctor who boards on arrival. Requires Crew Vaccination Certificates and Master's Declaration of Health.
RADIO: Vessels can transmit and receive through KFS San Francisco Radio or KOK Los Angeles Radio.
VHF: Loading installation calls VHF Channel 16 when ship is expected and gives any information at this time. VHF is normally manned on Channel 12 so further communication is available.
RADAR: None.
TUGS: 5 tugs are available ranging from 2,500 h.p. to 3,200 h.p. each. 2 tugs are normally used for berthing, 1 tug for unberthing. Tugs' lines at no extra charge.
BERTHING: 1 berth only, 710 ft. in length consisting of steel dolphins and wood facings, also large mooring buoys, 1 ahead and 1 astern, each about 600 ft. distance from berth. 2 mooring ropes must be bent together to reach buoys.

The large stockpile of salt at the root of the pier is conspicuous.
CRANES: None.
BULK CARGO FACILITIES: Port is solely for the purpose of loading solar salt in bulk. Loader is belt and spout type and is fixed in position. Vessel must be shifted from hatch to hatch by ship's crew.
STEVEDORES: No special requirements. Average loading rate 2,000 t.p.h.
MEDICAL: No advance notice required, doctor will attend on board at dock. Limited hospital facilities available.
DENSITY: 1026.
FRESH WATER: Not available.
FUEL: Not available.
FIRE PRECAUTIONS: No smoking allowed on dock.
CONSULS: None.
REPAIRS: No repairs possible.
GANGWAY/DECK WATCHMEN: Shore gangway only, electrically operated and tended by stevedores. Deck watchmen required.
HATCHES: Opened and closed by ship's crew.
CARGO GEAR: One fixed loader only, controlled by stevedores.
REPATRIATION: Possible, with advance notice to Agent.
AIRPORT: Close to berth. Average 3 flights per week to mainland.
TIME: Standard time GMT minus 8 hours. Daylight saving time GMT minus 7 hours from last Sunday in April to last Sunday in October.
HOLIDAYS: Cargo is worked every day of the week including Sundays and holidays (except Labour Day – 1st May).
TELEPHONES: No telephone contact with mainland.
TELEGRAPH: Government public telegraph services available in village about 11 km. from port.
SHORE LEAVE: Allowed. No special shore passes required.
AUTHORITY: Exportadora de Sal, S.A. de C.V., P.O.Box 150, San Diego, CA 92112, U.S.A. (530 "B" Street, No. 1740, San Diego, CA 92102, U.S.A.) *Tel:* San Diego (619) 239 0131. *Telex:* San Diego 697829. *Cables:* Essa San Diego. *Contact:* Mr. M. Guzman, General Manager.

There is no telephone or telex on Cedros Island.

NANCHITAL: 18.00 N. 94.27 W.

DOCUMENTS: See "Coatzacoalcos".
PILOTAGE: See "Coatzacoalcos Pilotage". Port about 3 miles up-river from Coatzacoalcos.
ANCHORAGE: See "Coatzacoalcos Anchorage".
RESTRICTIONS: Vessels may enter Coatzacoalcos only with daylight. Navigation from Coatzacoalcos to Nanchital remains closed from 1630 hrs. to 0700 hrs.
MAX. SIZE: Max. LOA 580 ft. No breadth restrictions. Max. draft permitted 27 ft. 06 in.
HEALTH: See "Coatzacoalcos".
TUGS: When vessels proceed to Nanchital, 1 tug accompanies vessel to pass the Coatzacoalcos bridge, according to Port Regulations. Tugs again join vessels when arriving at Nanchital berths. Tug's lines used. For vessels over 4,000 g.r.t. 2 tugs used.

BERTHING: Normally vessels dock port side alongside. When current and circumstances permit vessel is turned around and docked starboard side to. There are 2 docks at Nanchital, called Old Pier and New Pier. Both to load crude oil, No. 6 fuel oil by pipe-line of 6 in. and up to 10 in. Mooring, unmooring, connecting and disconnecting hoses performed by Pemex own labourers.

Old Pemex Quay:
Location: Right bank of Rio Coatzacoalcos 10.5 km. from the mouth of the port.
Built: 1950.
Arrangement: T-shaped.
Length: 88.3 m.
Width: 12.4 m.
Useful Berthing Length: 95 m. including Dukes of Alba.
Height Above Average Low Tide: 1.8 m.
Useful Depth: 8 m. at average low tide.
Services: Fresh water, lighting, bollards, fuel supply points.

New Pemex Quay:
Location: Facing the Pemex installations at Nanchital.
Built: 1969.
Arrangement: T-shaped.
Length of Platform: 32.4 m.
Width of Platform: 13 m.
Useful Berthing Length: 86.7 m. using 2 Dukes of Alba.
Height Above Average Low Tide: 2.71 m.
Depth: 9 m. at average low tide.
Services: Fresh water, lighting, fuel supply points, loading hoses.

Marginal Quay:
Location: On right bank of Rio Coatzacoalcos 11 km. upstream from port entrance.
Built: 1959.
Arrangement: Marginal.
Length: 239 m.
Width: 30 m.
Useful Berthing Length: 239 m.
Height Above Average Low Tide: 2.05 m.
Depth: 8 m. at average low tide.
Use: By Pemex.

Tanks: Used by Pemex:
3 for crude oil (8.2 million litres).
1 for fuel oil (15.2 million litres).
Located within inhabited area:
2 for diesel (1.59 and 8.7 million litres).
1 for fresh water (10.3 million litres).

MEDICAL: Hospital facilities available only at Coatzacoalcos.
TANKERS: See "Berthing".
BALLAST: Special regulation for tankers that no ballast water to be discharged in the river. Deballasting performed by 2 pipe-lines of 6 in. diameter to shore tanks.
DENSITY: Average 1006.
FRESH WATER: Available at both berths but is not recommended for drinking.
FUEL: Available only at the Pemex Oil Terminal at any time.
CUSTOMS ALLOWANCES: No restrictions. Free use on board. 2 Customs guards stay on board. Vessel to provide them boarding and lodging.
CONSULS: None.
REPAIRS/DRY DOCKS: No dry docks available, but small repairs can be done in shore repair shops.
AIRPORT: At Minatitlan, about 1 hour car drive away. 2 regular flights to Mexico City.
TIME: GMT minus 6 hours.
TELEPHONES: No facilities for placing telephones on ships.
DEVELOPMENTS: Constant programmes for more berths, sheds, dredging and equipment are under way, but rather slow.
AUTHORITY: Comision Nacional Coordinadora de Puertos, Cuernavaca No. 5, Mexico, 11 D.F. *Tel:* 553 87 11.

PROGRESO: 21.17 N. 89.39 W.

DOCUMENTS:
Crew List visaed by the Mexican Consul and 7 simple copies.
Derat Exemption Certificate.
Passports or Seaman's Book for all crew.
Clearance from last Port of Call.
Passenger List visaed by Mexican Consul and 7 copies.
6 Stores Lists.
7 Bills of Lading (2 to be visaed).
Tonnage Certificate.
Certificate of Free Pratique.

PILOTAGE: Compulsory. Pilot boards about 3.5 miles North of the lighthouse from a fast launch. International signals to be used to call Pilot day and night. ETA should be passed to Agent via radio station at least 24 hours before arrival.
ANCHORAGES: Vessels waiting for a berth anchor 3 miles off the Fiscal Quay. The anchorage is marked on Chart H.O. 0966.
RESTRICTIONS: No night restrictions. No facilities for tankers.
MAX. SIZE: Max. LOA, 190 m. Max. draft 16 ft. (arriving). 16 ft. 06 in. (sailing).
HEALTH: The doctor boards the vessel at the quay. Where illness or fever is suspected on board, international rules are followed. If the vessel is arriving from another Mexican port, there is no health inspection. Radio Pratique is not obtainable.

Authorities require valid Derat Exemption Certificate.

RADIO: Progreso Radio XFN works from 0600 to 1900 hrs. every day and listens on frequencies 2,182 kHz and Channel 16 VHF on radio-telephony, and 500, kHz on radio-telegraphy. Working frequencies are 2,756 kHz, Channel 14, Channel 13 and Channel 12 VHF for radio-telephony, and 420 and 429 kHz on radio-telegraphy. ETA can be passed through this station 24 hours in advance.
TUGS: 2 × 1,200 h.p.
BERTHING: One pier heading 355° True. Berth available on both sides, East and West, with 204 m. length on each side, and both with 18 ft. depth alongside.
STEVEDORES: No ETA advice necessary if stowage plan received in advance by Agent. Otherwise, ETA advice for gangs required 6 hours prior to arrival. Stevedores' General Cargo discharging and loading rate about 12 tons per gang/per hour.
MEDICAL: Attention available. The port has 4 clinics. Hospitals are situated in Merida, 12 miles from the port.
TANKERS: One berth available. Max. LOA 130 m. Max. draft 17 ft. Max. size 30,000 bbls. (approx.).
DENSITY: Average 1015.
FRESH WATER: Available from pier by hoses. Fresh water is treated in the plant.
FUEL: Bunkers are available. Delivery by tanker truck equipped with pumps. Diesel and fuel supplied. Agent requires 24 hours' notice.
FIRE PRECAUTIONS: No smoking allowed aboard vessels.
GANGWAY/DECK WATCHMEN: Not necessary, although sometimes Masters require them.
OPENING/CLOSING HATCHES: This work is normally carried out by stevedores, but sometimes is carried out by crew in order to save time in loading or unloading.
CUSTOMS ALLOWANCES: Any quantity to be used on board is permitted.
IDENTIFICATION CARDS: Not necessary, but crew must carry passport or Seaman's I.D.
CONSULS: The Consular Offices are located in Merida, the capital of State of Yucatan (20 minutes from Progreso by taxi):

Cuba	Tel: 1 66 77	Switzerland	Tel: 1 75 00
France	Tel: 1 60 13	United Kingdom	Tel: 1 67 99
Germany F.R.	Tel: 1 21 77	USA	Tel: 1 60 30
Lebanon	Tel: 1 77 76		

REPAIRS: Small repairs can be carried out in shore shops. No dry docks available.
REPATRIATION: There are facilities for effecting crew changes and arranging necessary repatriation. All matters are handled by the Office of Immigration.
AIRPORT: International Airport in Merida, about 30 minutes from Progreso by taxi. Daily services to Miami, Fla., by Pan American World Airways and New Orleans, La., every 2 days. Other flights to Central America, Jamaica and Germany.
POLICE: Police Tel: 5 00 26.
HOLIDAYS: January 1st; February 5th; March 21st; May 1st (Labour Day); September 16th (Independence Day); November 20th (Revolution Day); December 1st (every 6 years); December 25th. It is possible to work, paying 100% additional.
TELEPHONE: It is not possible to place telephones on board.
SHORE LEAVE: Crew members are allowed ashore.
DEVELOPMENTS: The port is being extended by building a pier 4,500 m. straight North from the Fiscal Quay. Berthing will be available for 5 vessels with max. draft 26 ft. Completion expected December 1988.
AUTHORITY: Direccion General de Marina Mercante, Apartado No. 21, (Calle 78, No. 146), Progreso, Yuc. 97320. *Tel:* (993) 5-00-90. *Contact:* Captain Gilberto Andrade Castro, Captain of the Port.

Comision Nacional Coordinadora de Puertos, Cuernavaca No. 5 Mexico, 11 D.F. *Tel:* 553 87 11.

PUERTO MADERO: 14.44 N. 92.25 W. (See Plan)

PORT LIMITS: A vessel is considered an "arrived ship" when it is alongside the berth.
DOCUMENTS:
10 Crew Lists (Spanish language), 3 stamped.
10 Passenger Lists (Spanish language) 3 stamped.
10 Stores Lists (Spanish language).
10 Cargo Manifest (Spanish language), 3 stamped.
3 Arrival Reports.
10 Bills of Lading.
3 Crew Customs Manifests.
1 W.H.O. Form.

All papers must be correct, Immigration Officer checks Crew List against all Passports/Seaman's Books.

Vessels are boarded on arrival by 7 officials.

PILOTAGE: Compulsory. Pilot will board vessel 1 mile S.E. of Fairway Buoy, depth approximately 8 fathoms.

Vessel must send ETA 24 hours in advance of arrival. Ship's Agent to request services of Port Pilot in advance. Pilot will reply by giving instructions to be followed on arrival.

ANCHORAGES: Call the Pilot on VHF Channel 16 and agree on the position of anchorage and the side where the gangway will be positioned.

As a secondary area, vessels may anchor about 2 miles to the S.W. of the Port Entrance in 10 fathoms of water.

The bottom is muddy at the anchorage and throughout the port.

RESTRICTIONS:
Channel between Breakwaters: Length 1,167 m. Width 80 m. Depth 9.7 m.
Manoeuvring Basin: Length 450 m. Width 80 m. Depth 9.5 m.
Channel to Main Dock: Length 350 m. Width 80 m. Depth 9.15 m.
Access Channel to Fish Dock and Navy Dock: Length 650 m. Width 60 m. Depth 7.0 m.

MAX. SIZE: Max. LOA 165 m. Max. beam 25 m. Max. draft 8 m.

Measurements are in accordance with the manoeuvring area and the depth of water throughout the port.

Tankers are not received in the port as there are no discharge lines, and the manoeuvring area does not permit it.

HEALTH: Request Free Pratique 48 hours and 24 hours in advance of arrival via Salina Cruz.

Report any suspicious illness to Agent prior to arrival in order that vessel may be directed to Quarantine Anchorage.

Health Officials require:
Health Declaration.
Derat or Exemption Certificate.
Crew Vaccination Certificates.
Crew List.

RADIO: Via Manzanillo or Salina Cruz, ETA 48 hours and 24 hours prior to arrival.

All vessels approaching the port to berth, and when effecting manoeuvres within the area of the port or when leaving the port, must effect all communications by VHF Channel 16.

Additional communication or for safety provided by the Naval (Coast Guard) on 500 kHz. International Call Sign for Aid to Fishing Vessels 2182 kHz on R/T or Channel 16 VHF.

VHF: Salina Cruz and Puerto Madero on VHF Channel 16.

RADAR: There is a radar system but it is only used by the Naval "Coast Guard", and no contact with this system is possible, although all vessels approaching this port are detected by this radar.

TUGS: There is a service tug (750 h.p.) which comes alongside the vessel at the port entrance, working with vessel until she is berthed alongside a quay. The services of the tug are compulsory for all shipping.

BERTHING: There are 2 reaches, an expansion basin, a turning basin and a general cargo berth 150 m. length, the depth is 9.2 m. at LW (salt water).

Vessels usually moor port side alongside and drop the starboard anchor with 3 or 4 shackles. The cargo handling is by means of ship's own gear and there are four conveyor belts for the handling of boxed bananas.

CRANES: The port has no cranes, discharge and loading has to be with the ship's derricks.

BULK CARGO FACILITIES: In the port is a single general cargo berth. Bulk cargo is handled directly from the hold to the lorry or railway trucks using hoppers and scoops and loaded into the hold and raised by the ship's derrick.

At present the port handles bananas and coffee outwards and bulk fertilisers (and in sacks) inwards. Also bagged cement and heavy machinery for hydro-electric stations.

SPECIALISED CARGO HANDLING FACILITIES: There is no equipment for handling container vessels.

BRIDGES: The entry of vessels is free, there being no bridges over the channel.

STEVEDORES: Masters of vessels must request the requisite number of gangs 24 hours in advance via the ship's Agent.

General cargo – 18 to 20 tonnes/p.h./hook.
Bananas – 3,000 cases per hour by the side-port system.

MEDICAL: 24 hours notice for requesting medical assistance.

A sick person can be hospitalised if the Master so requests by radio. International Health requires certificates of vaccination and where necessary personnel can be vaccinated if required.

TANKERS: No facilities.

DENSITY: Average 1025.

FRESH WATER: The port quay has drinking water hydrants controlled by the Superintendency of Port Operations.

FUEL: It is possible to provide bunkers in small quantities via pipes, average supply 15,000 litres.

In cases of emergency, bunkers can be requested by radio from the ship's Agent.

FIRE PRECAUTIONS: Those normal for a cargo vessel.

CONSULS: There are no Consulates in the port. There is one in the town of Tapachula, Chiapas, 28 km. from the port.

Consul of Guatemala: 2a Calle Oriente No. 33, 30700 Tapachula, Chiapas. Tel: 6-12-52.

REPAIRS: It is possible to have repairs made to engines of small vessels in the town of Tapachula.

DRY DOCKS: None.

SURVEYORS: None.

GANGWAY/DECK WATCHMEN: It is necessary to post a watchman of the Immigration Service on the gangway when the vessel is berthed in the port.

HATCHES: Opening and closing of hatches by the crew or stevedores.

CUSTOMS ALLOWANCES: 200 cigarettes or 50 cigars or their equivalent; 1 litre of spirits.

CARGO GEAR: Loading/discharging is carried out by means of the ship's derricks.

REPATRIATION: Possible.

AIRPORT: 12 km. from the port is the new International Airport of Tapachula.

Regular Flights – Aeromexico:

Mexico/Tuxtla Gtz./Tapach LA: Arrival at Tapachula at 1155 hrs. departure at 1255 hrs.

Mexico/Oaxaca/Tapachula: Arrival at Tapachula at 0855 hrs., departure at 0920 hrs.

Aviacion de Chiapas: Tapachula/Tuxtla Gutierrez: Arrival 0800 hrs. leave 0830 hrs. Arrive 1300 hrs. leave 1330 hrs.

In Tuxtla Gutierrez there is a connection with the whole state of Chiapas and part of the state of Tabasco.

Executive Air Services: To any part of the country and Central America.

TIME: Local time is GMT minus 6 hours throughout the year.

HOLIDAYS: 1st January, 5th February, 21st March, 1st May, 16th September, 20th November, 25th December, 1st December every 6 years when the Executive Power is transferred.

Loading and discharge services can be provided on these days, but it is considered as overtime.

POLICE/AMBULANCE/FIRE: Police Headquarters Tel: 6-10-93, Tapachula, Chiapas.

Mexican Red Cross Tel: 6-19-49, Tapachula, Chiapas.

Fire Brigade Tel: 5-20-65, Tapachula, Chiapas.

EMERGENCY CO-ORDINATION CENTRE: Headquarters of the 22nd Military Naval Area on 500 kHz. Also see "Radio".

TELEPHONES: There is no telephone service available in the port.

SERVICES: No tank cleaning or dirty ballast facilities.

BANKS: Bancomer, S.N.C., Central Poniente y 4a Avenida Norte, 30700 – Tapachula, Chiapas. Tel: 6-12-20. Telex: Bcchme – 77715, Bcchme – 77716.

Banamex, S.N.C., 4a Avenida Norte y 1a Calle Poniente, 30700 – Tapachula, Chiapas. Tel: 6-29-24. Telex: Bntpme – 77714.

Banca Serfin, S.N.C., 6a Avenida Norte No. 8, 30700 – Tapachula, Chiapas. Tel: 6-1/-70. Telex: Serfme – 77735.

Multibanco Comermex, S.N.C., 6a Avenida Norte y 5a Calle Poniente, 30700 – Tapachula, Chiapas. Tel: 6-15-22.

Banco de Credito Rural del Istmo, S.N.C., 6a Avenida Norte y 1a Calle Poniente, 30700 – Tapachula, Chiapas. Tel: 6-14-20.

Banco Mexicano Somex, S.N.C., Central Poniente y 2a Avenida Norte, 30700 – Tapachula, Chiapas. Tel: 6-27-60. Telex: Bmsome – 77731.

Banco Nacional Pesquero y Portuario, S.N.C., Central Oriente No. 42, 30700 – Tapachula, Chiapas. Tel: 5-03-52.

Banobras, S.N.C., 6a Avenida Norte No. 4, 30700 – Tapachula, Chiapas. Tel: 5-15-58.

Banco Internacional, S.N.C., 1A Poniente y 2a Avenida Norte, 30700 – Tapachula, Chiapas. Tel: 6-28-00. Telex: Bichme – 77733.

Banpais, S.N.C., 4a Avenida Norte y 1a Calle Poniente, 30700 – Tapachula, Chiapas. Tel: 5-00-31.

Banco del Atlantico, S.N.C., Central Norte No. 18, 30700 – Tapachula, Chiapas. Tel: 5-12-90.

SHORE LEAVE: Possible.

IDENTIFICATION CARDS: A Seaman's Book is sufficient for going as far as the town of Tapachula, Chiapas.

DELAYS: There are no delays, on arrival a Pilot proceeds to bring the vessel into port, and the work gangs are already on the quay, commencing work as soon as the vessel is secured.

DEVELOPMENTS: It is planned to extend the breakwaters.

GENERAL: The port is relatively new, it lacks port infrastructure for loading/discharge of goods. But in order to handle any type of cargo, equipment can be brought from the nearest port if the ship's Agent requests it 48 hours in advance and at the same time presents the list of cargo so as to ascertain the type of equipment required. With regard to the labour force, the gangs can alternate to provide 24 hour working.

AUTHORITY: *Port Captaincy:* Captain Guadalupe Javier Rivera Barrera, Operations Office, 30830 Puerto Madero, Chiapas, Mexico.

Apartado Postal No. 117, 30700 Tapachula, Chiapas, Mexico.

Superintendency of Port Operations: Jose Luis Velasco Carrillo, Operations Office, 30830 Puerto Madero, Chiapas, Mexico.

Apartado Postal No. 214, 30700 Tapachula, Chiapas, Mexico.

National Port Co-ordination Commission: Cuernavaca No. 5, Colonia Condesa, Delegacion Cuauhtemoc, 06140 Mexico, D.F.

Co-ordination Delegation for Puerto Madero: Jaime Vidal Hernandez Lopez, 3a Calle Poniente No. 2-302.

Apartado Postal No. 436, 30700 Tapachula, Chiapas, Mexico. *Tel:* (91-962) 634-46.

AGENT: Jose Antonio Tellez, P.O.Box 198, Tapachula, Chiapas (Province), Mexico. Tel. Office 612-40, Home 622-54.

Fruit Agent: Jose Leyba, P.O. Box 311, Tapachula, Chiapas (Province), Mexico. Tel: 615-31.

RABON GRANDE: 18.14 N. 94.23 W.

SHIPMASTER'S REPORT: September & October 1982.

LOCATION:

SBM No. 1 Lat. 18° 13′ 34″ N., Long. 94° 23′ 07″ W. Light "S".
SBM No. 2 Lat. 18° 13′ 34″ N., Long. 94° 20′ 29″ W. Light "O".

PILOTAGE: Pilot boards in a position midway between the two buoys. Tug rendezvous in same position with mooring equipment which is loaded on the port side.

ANCHORAGES: Anchorage position as advised by the Pilot is to the N.W. of a line joining the 2 SBMs and about 2 miles distant. A point of note is that there were at least 20 vessels anchored to the North and West of the port entrance, mostly oil tankers awaiting berth in the inner harbour. A U.S. Government chart covers the port area and SBM berths but was not available through the local Agency.

While the vessel was lying off in the rendezvous position waiting for Pilot and mooring equipment a very strong set to the S.E. was experienced, the wind being Northerly, Force 6 throughout the afternoon. Also during the vessel's stay it was noted that the wind increased to Force 5 – 6 every afternoon and gusting to Force 6 – 7 during the night time squalls.

Shipmaster's Report: January, 1982. Not same vessel.

Anchorage 2 to 8 miles Northwards from the breakwater. Poor holding ground anywhere in the area due to the river discharge giving a muddy ooze bottom. Even with over 9 shackles out in 18 fathoms of water, ships drag anchor when subject to the gales which blow from the Northern quadrants.

The onset of these gales are sudden and fierce, blowing towards the shore. Apart from the very accurate weather reports advising that a front is approaching, it was noted that an appreciable rise in barometric pressure preceeded the gale. The normal practice in the event of a gale being forecast was to have the engines on 10 minutes' notice and if the vessel began to drag, the anchor was weighed and the vessel cruised off the area until the storm abated.

RESTRICTIONS: Mooring to SBM in daylight hours only but unmooring allowed at anytime. Both operations depending on prevailing weather conditions.

Recommended arrival drafts are as follows:

Length O.A. (m.)	*Draft Forward* (ft.)	*Draft Aft* (ft.)
175 – 200	14	24
200 – 225	16	26
225 – 250	18	28
over 300	20	32

RADIO: Communication between ship and shore is by vessel's VHF set and constantly monitored by shore personnel.

Radio Pratique is obtainable by forwarding the following information to the Agent at least 24 hours before arrival:

(a) Vessel's name and Nationality
(b) Master's name
(c) Total crew on board
(d) Last port.
(e) Derat Certificate – Port and date of issue
(f) ETA local time (GMT minus 6 hours.)

It is also advisable to establish as soon as possible which grade the installation require to load first.

Communications with the Agency was by Telex via Portishead and/or Mobile, Ala., the latter preferred by the Agency until within range of the local station.

Pajaritos Radio Station: Call sign XFF2: Station operated by Pemex. Traffic lists are broadcast on the even hour plus 30 minutes. Weather forecast at 0830, 1430, 2030 hrs. local time. Local time is GMT minus 6 hours.

Ship (Tx.) kHz	*Shore (Tx.)* kHz	*Times*
4191.0	3700.0	Night only
6286.5	6442.5	Day and night
12573.0	12790.0	Day and night
8382.0	8690.0	Day and night
16764.0	17075.0	

It is advisable to pass cargo information, grades, quantities and order of loading through this station as sometimes the Agencies fail to pass on information received from vessels to Pemex, the operating oil company.

On this visit (October 1982) all radio traffic was passed through Mobile Radio Station Alabama, and was received within a reasonable time at Coatzacoalcos.

BERTHING/LOADING: The 2 SBMs are fitted with 2×16 in. hoses with connection to port side of vessel.

Two grades are available, Isthmus Crude and Maya Crude and the line clearing amount is 34,000 barrels.

Loading rates vary from 17,000 to 35,000 U.S. bbls./p.h. depending on stocks and number of vessels loading. During heavy squalls and/or electrical storms loading is suspended. While secured to the buoy engines required on immediate/minimum notice.

During loading operations and while secured to the buoy the Pilot, Loading Master, 2 Petroleum Inspectors and 8 Hose Crew remain on board and have to be fed and housed. The Hose Crew change every morning and the Loading Master every third day or thereabouts.

October 1982: Once again loading on the SBM. 2 grades of oil, Maya and Isthmus Crude oils. The rate of loading varied from 12,000 to 25,000 bbls./p.h.

SHIPMASTER'S REPORT: July 1984.

Vessel (140,000 d.w.t.) anchored 320° (T) 2.1 nautical miles from No. 2 SBM which flashes 'U' every 15 seconds. Bottom was glutenous mud. Accommodation required for 1 Pilot, 1 Loading Master, 2 Cargo Surveyors and 8 hosemen. The 8 hosemen work in shifts so only require 4 beds.

Agent receives all Immigration, Customs and Health Papers. Documents required were 4 Crew Lists (1 visaed), Personnal Effects Lists and Stores Lists.

Launch service to shore available at times agreed with Agent.

In the event of squalls/thunderstorms tug will tow from the stern.

Stores are available and from the quality of items seen ashore – mangoes, avocadoes and fresh fish appear to be of good quality.

SHIPMASTER'S REPORT: September 1985.

DOCUMENTS:

5 copies Crew List.
2 copies Stores List.
2 copies Personal Effects List.
1 copy Vaccination List.

FRESH WATER: Fresh water can be arranged through Pemex or vessel's agent.

ROSARITO: 32.20 N. 117.05 W. (See Plan)

SHIPMASTER'S REPORT: 1975.

GENERAL: There is no port or approaches chart for Rosarito.

There are 3 sea berths only, 2 using anchors and stern buoys, and 1 single point mooring platform due to come into service in 1976. There is a continuous Westerly swell (July) and the berth is very exposed.

Discharging a full cargo, it is advisable to commence ballasting as soon as possible to maintain a reasonable draft. There is no objection to this by the receivers.

DOCUMENTS: As for other Mexican ports re visaed Crew Lists, etc. Suppliers in Curacao supplied all cargo documents with correct number of copies.

PILOTAGE: Pilot boards about 1 mile West of the berths from a black pilot launch equipped with VHF Channel 9. He speaks good English. The Boarding Officer boards with the Pilot. He speaks no English. The Pilot and Boarding Officer remain on board throughout cargo operations, also pilot/mooring launch is at hand at all times. All cargo operation liaison with the shore is by VHF operated by the Boarding Officer, who also does all Customs, Immigration work, etc., with the Pilot as interpreter.

APPROACHES: Straight forward, with a shelving bottom and ample depth of water up to the berths. Anchorage was found about 1.2 miles off the South buoy berth in 14 fathoms with good holding. Approach in poor visibility, common at this time of year, presented little difficulty once a position of berths is ascertained. Coronado Islands are good radar targets for position fixing.

RADIO: Communications to Agents in Ensenada through Manzanillo Radio XFM and then Ensenada Radio XFE on HF.

Petroleos Mexicanos (PEMEX), the Charterers, have their own station at Rosarito which supplies berthing instructions, etc. Station XIB83 working on 8690 kHz and 500 kHz. They also keep a listening watch on VHF Channel 9.

OPERATIONS: Local flag tonnage gets preference for the berths. This should have little effect with the single point mooring coming into operation shortly, giving 2 product berths.

The pipe-line is handled by ship's staff. All ullaging etc. done by ship's staff. A comparison between ship's figures, B/Ladings and shore figure is made on completion of discharge, before clearance is issued by the Boarding Officer.

No difficulty was encountered in maintaining the requested back pressure of 6 kg. at the manifold using 1/2 pumps. Liaison with the shore is excellent, by Boarding Officer on VHF with hourly checks.

SUPPLIES: No bunkers or fresh water. Provisions can be obtained in small quantities but are difficult to get on board and expensive. Medical assistance can be obtained ashore, but again with the difficulty in getting ashore it would be only in a serious case.

AGENT: Only communication was on the second day by VHF but did not attend on board ship. This may be explained by the fact that due to the heavy swell it is difficult and sometimes dangerous to clear the breakwater by boat. This is endorsed wholeheartedly by Officers joining the vessel. However they were well attended by the Agent ashore. It is recommended that this port is not used for reliefs unless absolutely necessary. There was no shore leave allowed by me due to this.

SALINA CRUZ: 16.10 N. 95.12 W. (See Plan)

RESTRICTIONS: *Access Channel:* Length 760 m., depth 9.7 m.

BERTHING: Length of quays 915 m., depth alongside 9.5 m.

Repair Quay: Length 382 m., depth 1.5 m. – 4.0 m.

Storage Areas: Warehouses 20,160 sq.m.

MEDICAL: Hospital available.

FRESH WATER: Available.

FUEL: Available.

TANKERS: Tankers of 250,000 d.w.t. berth at the Offshore Terminal.

Sea buoy: Lat. 16° 05′ N., Long. 95° 11′ W. Make the arrival to this location about 5 miles S.S.E. of breakwaters.

Charts: For approach H.O. No. 21441; for arrival and entry H.O. No. 21442; regular traders should have Mexican chart SM No. 667 on board.

General: Salina Cruz is located on the West coast of Mexico, at the head of Gulf of Tehuantepec.

Note: North winds blow strongly from the Isthmus into the Salina Cruz coastal lowland, particularly during the winter. However, these Northern gales are not forecasted. The hurricane season is from June to October, the most common hurricane path is Westward, parallel to the coast, offshore.

South winds can be very strong in May and June, ships may have to leave the anchorage and the loading buoys.

The currents are unpredictable, in the Gulf of Tehuantepec and close inshore the set is either East or West.

Tanker Terminals: There are 2 tanker loading/discharging berths in the Inner Harbour, at Shed No. 4 and No. 5. There are 3 single point mooring buoys Southwestward of Salina Cruz: SPM No. 1 and No. 2 are used to load product tankers for domestic distribution up the coast. SPM No. 3 is used to export crude oils.

Communications: Standard communications procedures, through the local coast station at Salina Cruz.

Voice communications are via the Petroleos Mexicanos Marine Operations Office – Pemex Operations VHF, calling on Channel 16 or 9, the office is manned throughout 24 hours.

Caution: Internal communications within Mexico are occasionally delayed, therefore, ETA notices and other messages must be sent at the earliest possible time.

Pilotage: The Pilot boards from Pemex workboat either at the anchorage, or 1 mile South of the breakwaters, or 1 to 2 miles to the S.E. of the SPM location.

Anchorage: Tankers should anchor East of the entrance range line 346°, not closer than 0.5 miles. The holding ground is only fair. Anchorage is prohibited in the pipeline area within 0.75 miles of the SPMs and North to the coastline.

Tugs: 2 harbour tugs of about 2,400 h.p. each are kept at this port by Pemex. The tugs are used regularly to assist tankers berthing at Nos. 4 or 5 and at the SPMs. 2 workboats are available and are normally used when berthing at the SPMs. Tugs and launches are equipped with VHF.
Entering and Berthing: The short West Breakwater by the Outer Harbour Entrance was lengthened about 0.3 miles to the South; 2 new breakwaters, 0.4 to 0.2 miles long were built off the beach about 0.8 and 1.1 miles West of the Outer Harbour Entrance. Work in progress is not shown on available nautical charts.

Tankers berthing at the Inner Harbour Berth No. 4 (No. 5 used mainly by smaller ships) proceed on the leading range 346° with a tug aft. The tug should have a rope through the centerline fairlead proceed at minimum steering speed and drag the port anchor on a short scope of chain. As soon as the stern clears the entrance, the ship is turned to the E.N.E. with the assistance of the tugs, and the engine run astern to stop the ship. When the ship is stopped in the basin, she is then backed to her berth with the tugs working alongside, her bow close to the tip of the West pier. Tankers are normally moored with 5 ropes forward and 5 ropes aft. The dock fendering is of old tyres so it is imperative to berth the ship very softly.
Note: The opening between the East and West pier is 50 m., the stone and concrete tips of these piers are fendered with rotating tyre-like rubber fenders; however, precise positioning and control of the vessel, turning and stopping quickly once inside the basin is most important.

The basin is silted up along the North Quay face, sufficient depth for a tanker drawing 30 ft. may extend only 250 m. N.E. of the entrance. The basin is dredged to maintain depth and turning basin size, it is necessary to obtain up-to-date information from the Pilot, also to plan and agree on the manoeuvre, before entering.

Work in progress: a) wharf building on the East side of other basin and on the N.E. corner of the Outer Harbour, b) dredging at different locations, c) construction of a new LPG berth in the N.W. side of the Outer Harbour. The Master should verify with the Pilot that works in progress do not interfere with ship's operations.
Restrictions: Entering and sailing during daylight hours only.
Hoses/Cargo: Normally gasolines, DO, FO, are loaded on tankers, through 8 in. hoses, for distribution along the coast. Isthmus crude can be loaded at No. 4 and 5 for export. Products and chemicals are occasionally received.
Note: Ships sailing from Berth No. 5 are frequently turned on the tip of the pier. This operation is undesirable; moreover it is not necessary as tugs are being used. The Master should discuss the unberthing/turning operation with the Pilot, making sure the ship will not be damaged.
Berthing at the SPMs: The 2 smaller SPMs No. 1 and No. 2 have been in use several years. Tankers in coastwise traffic only are berthed during daylight hours with the assistance of Pilot and one or two tugs and workboat. Cargo is normally gasoline, diesel oil and fuel oil.

The larger SPM No. 3 became operational in 1982, to load crude oils for export on large ships (from 100,000 to 250,00 d.w.t.) Tankers pull up 2 floating nylon hawsers (18 in. diameter and 50 m. long) with chafing chain. The use of mooring brackets is preferred, however, the ship's officer must supervise the seamen sent by Pemex to ensure the proper lead of messenger ropes and the proper use of brackets.
Note: The responsibility, for satisfactory moorings and proper use of the mooring brackets, rests completely with the ship's Master. Pemex provides a group of seamen, usually lead by a bosun and/or a young tanker's officer, to help and assist the tanker's crew in mooring, to handle equipment straps and shackles which may be shore supplied for mooring, and for the hose connections.

Combination accommodation ladder/pilot ladder should always be rigged ready when operating at the SPMs.
Hoses and Cargo: 3 floating hoses respectively of 910, 945, 980 ft. total length, carry flashing red marker lights. The connections are standard 16 in. quick coupling with valve. There is one crude oil pipeline 48 in. and 1×30 in. pipeline, length 15,000 ft. to the beach. Either crude, Isthumus or Maya, is loaded and the rate is from 40,000 – 60,000 bbls./p.h. Pemex expects that all large tankers shall be gas inerted and are able to load/deballast simultaneously.
Note: The 3 SPMs are fitted with flashing light and diaphone, however, reliance should not be placed on these navigation aids; this is valid for the other navaids as well, which do on occasion fail without being reported.

It is recommended to obtain from the local radio station the status of navaids, and also check the status with Pemex Operations on VHF.

SPM 1 – Flashing white, diaphone, letter R, 16° 8.5′ N., 95° 12.9 W.
SPM 2 – Flashing white, diaphone, letter M, 16° 8.5′ N., 95° 13.7 W.
SPM 3 – Flashing white, diaphone, letter U, 16° 6.9′ N., 95° 13.3 W.

The approach to Salina Cruz should not be attempted during periods of heavy rain. The breakwaters, the port area and the hills behind the port give a good radar picture at greater than 10 miles distance.
Ballast: The SPM 30 in. pipeline is designated for ballast, however, it may well be used for cargo instead. Tankers should always arrive with clean ballast only. Tankers in ballast must adhere to usual requirements; i.e., draft and trim satisfactory for safe manoeuvring, taking into consideration the ever present strong wind.
Pollution Control: The Mexican rules against pollution are strictly enforced, however, very little equipment is available locally for prevention and clean-up. No oil dispersant in stock, nor are the tugs or workboats equipped for spraying. The Master must obtain, from the Agent and the Pemex representative a copy of local regulations relating to pollution prevention, and advice as to how to handle and report pollution.
Firefighting: The town fire brigade and the Navy are able to fight fires on ships berthed in the Inner Harbour. Ships at the SPM have to rely on their equipment only, with possible minor assistance from the tugs.
Services: Bunkers available at the Inner Harbour Berths, also at SPM Nos. 1 and 2. Fresh water is piped to Berth Nos. 4 and 5, but it is recommended that drinking water be taken only in emergency. Shore leave. Crew changes, delivery of spare parts, should not be scheduled at Salina Cruz. Small amounts of provisions and stores can be obtained. Minor repairs can be arranged with workshops. Surveyor, Divers, Mexican nautical publications must be requested before arrival.
REPAIRS: Workshops for mechanical, electronic and electrical repairs.
DRY DOCKS: Drydock for vessels up to 21,000 tons displacement (25 ft. draft) and syncro-lift for vessels up to 8,000 tons displacement. Slipway for small craft.
DEVELOPMENTS: Breakwater under construction.

SHIPMASTER'S REPORT: May 1982.
Berth: New container terminal in Outer Harbour. Length 240 m., depth alongside by sounding 8.8 m. – 12.0 m.
Pilotage: Pilot boards 1 mile South of harbour entrance.
Wharf: Concrete structure on concrete piles, protected by rubber fenders.
Chart: B.A. Chart No. 659.
Tugs: 2 tugs available.
Berthing: To prevent damage to vessel and gantry crane it should be ascertained that the gantry crane has been moved to the North end of the wharf before berthing.

SHIPMASTER'S REPORT: October 1983.
Documents:
Last Port Clearance.
12 Crew Lists.
3 Vaccination Lists.
6 Ship's Stores Lists.
6 Crew Manifest Declarations.

The local Authorities will board vessel on arrival.
Approaches: The Lighthouse of Salina Cruz and the Pemex tanks are easily seen when Bahia de Bamba is abeam to port at a distance of 7 miles.
Pilotage: Pilot will board vessel at position Lat. 16° 08.15′ N., Long. 95° 11.4′ W., if berthing on arrival.
Anchorages: A good holding anchorage at position: 1 mile E.N.E. of Buoy No. 3.
Radio: All telegrams via Mazatlan Radio/XFM or MW Salina Cruz/XFQ.
VHF: VHF Channel 9 is for Pilots/Pemex Operations. VHF Channel 13 is working channel and Channel 16 is for the Agent.
Tugs: Two tugs are used for mooring. One of 4,500 h.p. and the second of 2,600 h.p.

On completion of mooring, the second tug will make fast astern in order to hold vessel away from SBM at all times. It is wise to have engines stand-by on 10 minutes' notice in case of sudden Southern winds and to prevent any damage to the SBM.
Berthing: There are 3 SBMs (Monobuoys). No. 1 has 12 fathoms, No. 2 has 15 fathoms and No. 3 has 20 fathoms depth.
Loading: Two lines of 16 in. each which are connected with the main line of 36 in. to the shore.

Though "Pemex" (suppliers) tanks are placed high above sea level in the mountains, Pemex use 6 loading pumps with a rate of about 12,000 bbls./hr. each.

Cargo is Mexican Blend Crude Oil. API 33.5, temperature 90°F (approx.).
Ballast: There are no facilities for discharging dirty ballast to shore tanks or pits. Vessels must arrive with clean ballast.
Medical: Local Hospital and a Navy Doctor from Pemex available.
Density: 1025.
Fresh Water: Available by barge.
Fuel: Can be obtained via Pemex.
Consuls: None.
Repairs: Available for vessels up to 13,000 gross tons.
Surveyors: Lloyd's Surveyor can be reached via the local Agency.
Repatriation: Repatriation can be arranged. One must take the bus to the "Capital" of the State (2 hours' ride). Thence to Mexico City by plane.
Time: GMT minus 6 hours (Standard Time).
Shore Leave: Pemex has a launch which will serve the vessel at certain hours. Agent to be notified of vessel's requirements. No shore-pass requested.
Developments: Port of Salina Cruz is now under construction. Calculated to be completed in three years' time.
General: N.N.E. winds are standard at Salina Cruz, rising up to 40 knots in Summer. Other seasons up to Force 5-6 (Beaufort).

Fresh provisions available at a very fair price.

The language is Castellanos (Spanish). Only "Pemex" representatives speak reasonable English.

REPORT: April 1985.
Tankers: 3 SBMs located in position Lat. 16° 06′ 54.5″ N., Long. 95° 13′ 15.7″ W. about 5 km. S.W. of Salina Cruz Inner Harbour Entrance. Max. depth at single point type mooring is 98 ft. Max. allowed d.w.t. 250,000. Maximum/minimum LOA allowed 338 m. – 320 m. No shore ballast facilities so vessel must have clean/segregated ballast. Manifold to be fitted with 16 in. (150 p.s.i.) reducers. Port side derrick/boom to have 15 tons capacity. Bow fairlead to have minimum diameter of 18 in. distance bow fairlead to forward bollard to be between 2.7 m. – 8.0 m. Average pumping rate 60,000 – 70,000 bbls./p.h.
Note: Buoy Nos. 1 and 2 are for handling domestic traffic (gasoline, diesel oil, heavy oil, etc.) up to 60,000 d.w.t.

AUTHORITY: Delegacion Coordinadora, Av. Tampico No. 39-B Altos. *Tel:* 4-04-36, 4-04-46.

Empresa de Servicios Portuarios, Recinto Portuario. *Tel:* 4-01-01 and 4-00-44.

Comision Nacional Coordinadora de Puertos, Cuernavaca No. 5, Mexico, 11 D.F. *Tel:* 553-87-11.

SAN CARLOS: 24.47 N. 112.08 W. (See Plan)

PORT LIMITS: The limit of the port is up to parallel 24° 39′ 41.5″ N. which passes through the position of the East Buoy of the channel entrance on Mexican Chart F.H.614.

DOCUMENTS:

Port Captaincy:

Clearance from Last Port.
Crew List.
List of Passengers.
Voyage memorandum including dates and ports visited during the previous 3 months.

Port Operations:

Stowage Plan.
Certificate of cargo handling equipment on board.
List of peculiarities of the vessel.

Health:

List of Vaccination Certificates of the crew.
List of Vaccination Certificates of passengers for the port.
Derat or Exemption Certificate.

Immigration:

Visaed Crew List.
List of Passengers for the port, also visaed.

Maritime Customs: Vessels without cargo, and arriving from abroad:

Declaration of arrival in Ballast.

Vessels coming from abroad with cargo for the port:

General Manifest for the port.
List of Passengers for the port.
List of Explosives, Corrosives, Flammables for the port, visaed.

Vessels coming from a Mexican port to load:

Customs Clearance.

Vessels coming from a Mexican port to unload:

Customs Clearance.
Cargo Manifest, visaed.
List of Passengers for the port.
List of Explosives, Corrosives, Flammables for the port.

Inspection of Animal Health:

List of Meats (tinned or fresh or refrigerated or in deep freeze).

Vessels bringing animals to the port:

Veterinary Health Certificate.
Transport Permit.
List of Meats (See above).

Inspection of Vegetable Health:

When products are not brought for discharge:

Derat Certificate or Exemption.

When products brought for discharge:

Derat Certificate or Exemption.
Vegetable Health Certificate.
Importation Permit from the Secretariat of Agriculture and Cattle Breeding of Mexico.

PILOTAGE: The Port Captaincy has VHF Channel 16 for receiving ETAs. The Pilot comes on board vessels by motor launch from San Carlos 2 miles from the entrance to the channel.

ANCHORAGES: Any location between meridians 112° 05.0′ W. and 112° 03′ W. and parallels 24° 38.5′ N. and 24° 37.5′ N. Depths approximately 105 ft., sandy bottom.

RESTRICTIONS: With 26 ft. draft, vessels may navigate the Channel between Buoys "C" and "D" to "5" and "8". With a tidal rise of 4 ft., vessels enter and leave with a draft of 30 ft. at high tide.

MAX. SIZE: LOA 600 ft., beam 100 ft. and draft 30 ft.

HEALTH: When coming from abroad, hoist the yellow flag. Inspection is effected when the vessel is berthed or at the Inner Anchorage. If the vessel is coming from another Mexican port, the Health Authority's visit is not necessary.

TUGS: None available.

RADIO: La Paz Coastal Radio: Call sign "XFK".

VHF: Port Captaincy on VHF Channel 16, operates between 0800 hrs. and 1800 hrs.

RADAR: This service does not exist.

BERTHING: The "L" shaped quay is made of concrete and has 102 m. of berthing length. There are two "Dukes of Alba" making up a length with the quay for berthing of 204 m. Also there are 2 mooring buoys, one at each end of the berth. The minimum depth at LW is 37 ft. in the berthing area. Loading and discharging is effected using the vessel's own gear. It is possible to work in 2 or 4 gangs, according to the type of vessel and cargo.

CRANES: None.

BULK CARGO FACILITIES: On the quay there are installations of "CONASUPO" with a tower for shipment of grain, located in the angle of the "L". The grain generally shipped is wheat at the rate of 200 t.p.h. The height of the end of the grain output tube above sea level at full tide is 12 m.

SPECIALISED CARGO HANDLING FACILITIES: Vessels berth at the same quay as above with ammonia, unloading by means of installations located in the angle of the "L". These installations are owned by Fertimex.

BRIDGES: None.

STEVEDORES: Vessel's Agent submits a request 24 hours in advance for stevedoring services through the Superintendent of the Port Operations. Three products are mainly handled in the port: Cotton at a rate of 90 bales per hr. gang. Bulk wheat at a rate of 200 t.p.h., bagged at the rate of 25 t.p.h. Fertilisers in bags at a rate of 25 t.p.h. Since the mechanical equipment on shore is sufficient for 2 gangs in the case of cotton, stevedores are requested for this number of gangs. As far as wheat is concerned, the loading rate drops to 80 t.p.h. when the warehouse has little wheat in it.

Stevedores work from 0800 hrs. to 0200 hrs. of the following day i.e. they work 18 hours in 24 hours.

MEDICAL: There is a civil hospital in Ciudad Constitucion 45 minutes away from San Carlos. There is a telephone service available for calling ambulances. There are 6 doctors in the port.

TANKERS: No facilities.

DENSITY: 1023.

FRESH WATER: This is supplied when the vessel is berthed. There are various 2 in. hydrants. The rate of supply is 10 t.p.h., and the approximate cost is 6.90 Mexican Pesos per ton.

FUEL: Moderate quantities of diesel oil can be supplied, and it is brought by road tanker from La Paz, the vehicles themselves pumping supplies to the vessel.

CONSULS: There are no consuls in the port.

REPAIRS: There are workshops at Ciudad Constitucion 45 minutes away by road.

DRY DOCKS: None.

GANGWAY/DECK WATCHMEN: This service does not exist.

HATCHES: Hatches are opened and closed by the stevedores.

SURVEYORS: None.

CUSTOMS ALLOWANCES: Tobacco, wine and spirits are placed under seal.

CARGO GEAR: For loading and discharge, ships' gear is used. There are no cranes in the port.

REPATRIATION: There are Immigration Authorities in the port. There are no hotels, however, there are several in Ciudad Constitucion and in La Paz. La Paz, is the capital of the State of Southern Lower California, and is approx. 3 hours away by road.

AIRPORT: None in the port. Airport at La Paz where there is an international airport called General Marquez de Leon.

TIME: GMT minus 7 hours. There are no seasonal time changes.

HOLIDAYS: 1st January, 5th February, 21st March, 1st May, 16th September, 20th November, 25th December, and 1st December (every 6 years). These dates are all obligatory.

POLICE/AMBULANCE/FIRE: In the port there are Municipal and Prison Police, Tel: 25. Ambulance and fire fighting services come from Ciudad Constitucion.

TELEPHONES: No service for installing phones on board vessels, but in the port there is a telephone service for communications with any part of the world.

SERVICES: None available.

SHORE LEAVE: No restrictions.

IDENTIFICATION: Seaman's Book is sufficient.

REGULATIONS: No naked lights when there is cotton in the port or ammonia is being discharged.

DELAYS: As there is only one berth, there are times when the berth is occupied, but this does not occur often. Berthing is done in shifts.

DEVELOPMENTS: At the moment, there is no programme.

GENERAL: *Post Office:* At the moment, there is no Post Office in San Carlos.

Telegraph Office: There is a telegraph office but the service is not for maritime traffic. For such purpose, vessels must send their ETA via La Paz Coastal Radio Station.

SHIPMASTER'S REPORT: 1976.

Documents:

Visaed Crew List by Mexican Consul and 9 copies.
Visaed Cargo Manifest from each loading port and 4 copies.
Derat Exemption Certificate.
Passport or Seamen's Book for all on board.
Clearance from last port of call.

Approaches: A very strong current was experienced running from S.E.-N.W. when entering Bahia Magdalena at Pta. Redondo. Caution should be exercised making this approach, because currents can be strong and unpredictable in this area.

Pilotage: Compulsory. Pilot boards at Lat. 24° 39′ N., Long. 112° 05′ W. from small boat with outboard engine.

Anchorage is also good in this position should it be necessary to await Pilot or berth. The 2 buoys marking the entrance make good radar targets and are distinctive.

Restrictions: Channel must be navigated at suitable time of tide giving careful consideration to vessel's draft, in order to clear numerous shallow patches. Max. draft to date of vessel navigating channel was 30 ft. 4 in. on top of high water.

Radio: La Paz Radio (XFK) 500 kHz and 441 kHz. Working hours appear to be uncertain, but there is a working arrangement with Agent to transmit messages free of charge.

Charts: Chart used to navigate channel was Mexican No. FH. 614. Masters are strongly advised to obtain this chart.

Berthing: 1 pier 420 ft. long.

Fresh Water: Available at pier at 10 t.p.h.

Communications: Very poor. No telex, no telephone and no cable service. Telephone available at Villa Constitucion 57 km. away by paved highway. Plans are in force to introduce a telephone service in the fairly near future.

Consul: If consular advice is required it is best to contact the British Embassy in Mexico City. Tel: 5 11 48 80.

Laundry Service: None.

Ship Chandler: None. A pick-up wagon can be supplied by Agent to obtain essential stores from supermarket at Villa Constitucion.

AUTHORITY: Capitania de Puerto de San Carlos.

SAN JUAN DE LA COSTA: 24.24 N. 110.40 W. (See Plan)

SHIPMASTER'S REPORT: April 1985.

LOCATION: 4.1 miles South of Pta. Coyote in position: Lat. 24° 23.5′ N., Long. 110° 40.4′ W.

PILOTAGE: Compulsory. Pilot boards 1 mile to 2 miles East of berth.

ANCHORAGE: Vessels have to wait at anchor if wind exceeds Force 2 on the Beaufort Scale. Berthing only carried out in calm weather.

TUGS: Not available.

BERTHING: Open berth exposed to Easterly winds. Depth alongside 32 ft. Vessels berth port side alongside only.

There are 2 mooring buoys located about 140 m. from each end of the berth to the seaward side, used to make fast 2 slack ropes (1 forward and 1 aft) in order to assist vessel to sail, sailing mostly without Pilot.

Approach to berth is free of dangers.

On average 3 vessels a month load at the berth.

LOADING: Fixed loading installation (conveyor belt) with loading capability of about 600 – 700 t.p.h. Cargo loaded was rocky phosphate in bulk.

Vessel has to shift for loading each hold. During shifting special care should be taken as shifting is considered extremely dangerous, especially for loading extreme holds on account of short length of berth (for vessels above 180 m. in length) in combination with the prevailing winds.

FRESH WATER: Not available.

REPATRIATION: Can be arranged from the nearest port (La Paz).

GENERAL: *Provisions:* Fresh provisions not available.

TAMPICO: 22.16 N. 97.47 W. (See Plan)

PORT LIMITS: Vessels in Mexican ports are considered to be arrived vessels as soon as permission to moor has been granted by the Port Authorities.

Permission to tie up will be granted on the quay or whilst in midstream, and occasionally during periods of very good weather a vessel is authorised to anchor in the port entrance.

DOCUMENTS:

1 Crew List visaed by Mexican Consul.
9 simple copies of Crew List.
1 Visaed Cargo Manifest from each loading port.
4 simple copies of Cargo Manifest.
1 Visaed Passenger List or visaed Statement to the effect of no passengers, and 5 simple copies.
2 copies of Stores List.
2 copies of Personal Effects List.
Derat Exemption Certificate.
Passports or Seaman's Books of all crew.
Clearance from Last Port of Call.
3 copies of lists of packages containing explosives, flammable or corrosive materials.

PILOTAGE: Pilot ordered by Agent who requires 24 hours' notice of vessel's arrival. Pilots board vessels 2 miles off the breakwater. Vessels may anchor about 2 miles off the breakwater waiting for Pilot. Pilots have radio-telephone, frequency 2182 and VHF Channel 16.

ANCHORAGES: About 2 miles East of breakwater in 40-60 fathoms of water.

RESTRICTIONS: There are no restrictions for movements at night. The drafts of the vessels will be governed by the mooring zones in which they are working. The depths at these berths are as follows:

*Free Zone Quay	30 ft.
Minera Autlan Quay	32 ft.
Petroleos Mexicanos Quay	30 ft.
Mexican Gypsum Quay	26 ft.
Metals and Minerals Quay	29 ft.
Anahuac Cement Quay	23 ft.

The navigation channel to the Mexican Petroleum Maritime Terminal has a depth of 38 ft. and that to the Free Zone 31 ft.

*This depth is subject to constant dredger maintenance, the draft being reported weekly to the Ship Agents.

MAX. SIZE: The max. length is 656 ft. There are no restrictions for beam. The drafts will be those admissible in the corresponding berth used.

HEALTH: No Radio Pratique. Pratique granted after docking and presentation of documents to Port Authorities. In case of disease or fever on board, Master to give notice to Agent before arrival.

RADIO/VHF: Tampico has a coastal station with frequency 2182, as have the Port Captain, the Pilots' Office and Gulf Tugs' Office. All have the same frequency and VHF Channel 16.

TUGS: 3 tugs are available, intended solely for port manoeuvres, comprising *Guayalejo* 2,000 h.p., *Tamesi* 1,000 h.p., and *Panuco* 800 h.p. Also Petroleos Mexicanos have tugs whose power varies between 1,000 and 3,000 h.p.

BERTHING:

1 berth at the Minera Autlan quay where manganese is moved by moving belt at the rate of 1,200 t.p.h.

5 berths at the Pemex Quay, where oil and its derivates are moved at the rate of 600-800 t.p.h., by means of 4 in., 6 in., 8 in. and 10 in. pipes.

1 berth at the Mexican Gypsum quay where calcium sulphate is moved by moving belt at the rate of 500 t.p.h.

2 berths at the Metals and Minerals Quay, where bulk minerals are moved by 4 moving belts at the rate of 125 t.p.h. per belt.

1 berth at the Anahuac Cement quay, where bulk cement is moved by means of 10 in. pipes at the rate of 250 tons per pipe, there being 2 ducts.

7 berths at the Tampico Free Zone, where general cargo is moved at the rate of 20 t.p.h. per gang.

Berth	Length	Berth	Length
1	145 m.	5	145 m.
2	145 m.	6	145 m.
3	145 m.	7	180 m.
4	145 m.		

Depth alongside 10.5 m. Official fresh water draft 9.14 m.

All quays have lighting for night operation and telephone facilities.

CRANES: Heavy lift crane, capacity 300 tons.

STEVEDORES: No ETA advice necessary if Stowage Plans received in advance by Agent, otherwise ETA advice for gangs appreciated 48 hours prior to arrival. Stevedores' general cargo discharging and loading rate about 20 t.p.h. per gang. Mineral loading at Metals Pier about 125 t.p.h. per belt (2 conveyor belts available to service both berths).

MEDICAL: Hospital facilities available. No advance notice required.

TANKERS: See "Berthing". Dirty ballast is received ashore.

DENSITY: Average 1006.

FRESH WATER: Available on written request from ship's Agent. Drinking water delivered by pump at the rate of 12 cu.m. per hour.

FUEL: Available preferably at the Petroleos Mexicanos Quays, although with 1 week's advice prior to arrival this service can be provided at the public service quays.

CUSTOMS ALLOWANCES: No allowances to be taken ashore, but reasonable amounts of tobacco and spirits are allowed to be taken out of bond, but to be kept on board for use of crew and passengers only.

CONSULS: Belgium, Brazil, Peru, Germany F.R., Netherlands, Norway, Sweden, Italy, U.K., Uruguay and Lebanon.

REPAIRS: Hull repairs can be effected, as can work on steering system, machinery, marine auxiliaries and other equipment of less importance.

There are specialist workshops attached to the dock.

DRY DOCKS: Length 250 m., depth 9.5 m., width 37 m. Max. size 55,000 d.w.t.

GANGWAY/DECK WATCHMEN: No watchmen necessary. Customs guard keeps watch at gangway while vessel alongside.

REPATRIATION: In the port there is an office of the Administrative Secretariat, where the repatriation of any crew member can be negotiated. This negotiation will be for the account of the ship's Agent, who is required to deposit a bond of $20,000 per person.

AIRPORT: At a distance of 10 km. from the port, there are regular flights to Monterrey, Nuevo Laredo, and Mexico City with connections in any direction.

TIME: GMT minus 6 hours.

HOLIDAYS: January 1st; February 5th; March 21st; May 1st; September 16th; November 20th; December 25th; December 1st (every 6 years).

FIRE/AMBULANCE/POLICE: Fire Department Tel. 2 12 22; Red Cross Tel. 2 13 33; Police Tel. 2 11 57; Police (Jail) Tel. 2 10 32.

DEVELOPMENTS: Constant programming for more space at wharves, sheds, warehouses, continuous dredging and increasing capacity of operational equipment.

Altamira: Approximate position: 22° 29.5′ N., 97° 51.7′ W. Depth in channel and alongside 12.5 m. Width of channel 300 m. facilities for container and Ro-Ro vessels. Port under construction.

SHIPMASTER'S REPORT: September 1980.

Pilotage & Radio: 2182 kHz does not appear to be in use but 500 kHz and VHF are the popular mode, most Agencies having the latter.

Restrictions:

Minera Autlan Quay for manganese loading: 33 ft.
Muelles des Minerals (Metals & Minerals Quay): 30 ft.

Max. Size: All vessels in river berths moored starboard side to, head up, and if at Muelles des Minerals and over 500 ft. length, the vessel will have to drop down river stern first before turning aided by tugs.

Berthing: Muelles des Minerals: This open apron berth adjacent to the railway sidings at Colonia del Golfo is situated before the sharp bend leading to the main wharfage at Tampico and the bulk cement wharf by the entrance to the Canal Cortadura.

The method of loading is to wheel portable belts adjacent to the hatch in conjunction with another belt lifted aboard and a chute that is suspended from the vessel's gear and braced for direction by guys.

The mineral is dumped into the hopper at the lower end by bulldozer and it will depend upon the situation of the pile as to the speed that can be obtained. Thus if the cargo is in railway gondolas it will be grabbed out by rail cranes into trucks for transport to the apron where a pile is created for the bulldozers, a method which has several areas of slow working or waiting time.

Ideally the cargo has been stockpiled on the rear side of the quay from which it can be lifted directly by the bulldozers for dropping into the belt hoppers. It is this system that can achieve a good rate.

Fresh Water: Observed delivered by road tanker.

AUTHORITY: Delegacion Coordinadora, Edificio Secretaria de Marina, 1er, Piso, Zona Franca. *Tel:* 2-57-44 and 2-27-36.

Empresa de Servicios Portuarios, Madero y Alfaro. *Tel:* 2-20-28, 2-58-35 and 2-10-77. *Telex:* 01-447 Guatam Mex.

Comision Nacional Coordinadora de Puertos, Cuernavaca No. 5, Mexico 11, D.F. *Tel:* 553 8711.

TOPOLOBAMPO (Punta Mapam): 25.36 N. 109.03 W. (See Plan)

SHIPMASTER'S REPORT: January 1986 (Updated 1988).

PORT LIMITS: Precise limits could not be established, however any reasonable distance from the Fairway Buoy is acceptable. See anchorage positions below.

DOCUMENTS:

3 copies Crew Lists.
3 copies Crew Personal Declaration.
3 copies Bonded/Slop Chest Stores List.
3 copies Steward's Stores List.
3 copies Vaccination List.

Manifests not always necessary for Pemex purposes.

Bills of Lading, necessary, these included with Clearance from last port and from loading port. Clearance very important.

Ship's certificates, not asked for, except ship must have licence to trade coastwise, issued by the Mexican Authorities.

PILOTAGE: Compulsory. Daylight only. Pilot on VHF Channel 16. Pilot boat is a small yellow dinghy with an outboard motor. In rough weather Pilot boards from tug 'Pemex 45' or 'Lobo'.

Pilot boards in vicinity of Fairway Buoy.

ANCHORAGE: Not defined, but in vicinity of Fairway Buoy. A good anchorage has been found in position 25° 29.3′ N., 109° 10.8′ W. in 17.6 m. of water, with the Fairway Buoy bearing 032° by 0.87 miles. On another occasion vessel anchored in position 25° 28.99′ N., 109° 12.05′ W., with Fairway Buoy bearing 057° by 1.75 miles. Positions by Satellite Navigator.

RESTRICTIONS: See "Max. Size".

MAX. SIZE: Maximum draft for crossing the bar is 31 ft. (SW).

In March 1988 the main channel entrance will be in operation with a new configuration (width 200 m. and depth 31 ft.) with no restrictions for entry. The new channel will be aligned 051° (T) with leading line towers on the shore. The front tower on Baviri Hill is 35 m. high and the rear tower on Panal Hill is 74 m. high. Both towers are white skeleton towers.

There is a new Sea Buoy located in position Lat. 25° 31.2′ N., Long. 109° 12′ W. The channel is marked with lighted buoys.

RADIO: In our case Charterer's private radio station was used. For commercial purposes Guaymas Rádio is probably best.

VHF: Pilot on VHF Channel 16.

TUGS: 2 tugs available, 2,500 – 2,800 h.p.

BERTHING: Pemex Berth at Punta Mapam:

The berth is located 0.5 miles East of the derelict Pemex Berth in Topolobampo. The jetty is approximately 250 m. in length and aligned 087° – 267° with a depth of 14.0 m. on the South side.

Berthing at the Pemex Jetty:

North Berth: Port side to, head out to sea. Starboard anchor is let go off the berth.

South Berth: Port side to, Head in.

Unberthing from Pemex Jetty:

North Berth: Starboard anchor used to assist moving vessel off berth. HW not necessary but consider depths over the bar.

South Berth: Best just before HW when flood used to advantage to help move vessel off berth.

Currents at the Berth: Tidal stream currents set heavily across the berth so that on the flood, a vessel on the North Berth is pushed towards the berth and a vessel on the South Berth is pushed off the berth. When the tide is ebbing a vessel on the North Berth is pushed off and a vessel on the South Berth is pushed on to the berth.

Cargo Handling: Chicksan type cargo arms with 10 in. diameter for diesel oil and gasoline, sizes for other grades not checked but thought to be the same. In the case of our vessel (LOA 170 m.) the diesel arm was aligned with the manifold, but the gasoline arm was too far off forward of the manifold on the South Berth (and too far aft on the North Berth) and therefore a length of flexible 8 in. hose was used between the manifold and the cargo arm. Shore tanks were said to be 2 km. away and 42 m. above sea level.

FRESH WATER: Available, using international shore connection and ship's hoses from fire tower on jetty. Sailing directions recommend boiling before use.

SURVEYOR: Can be arranged through Lloyd's in Mexico City.

CUSTOMS ALLOWANCES: Usual allowances for Mexico.

REPATRIATION: Possible via Los Mochis, 12 miles inland.

AIRPORT: At Los Mochis, 12 miles away. Los Mochis can be reached by bus or taxi.

TIME: GMT minus 7 hours throughout the year.

SHORE LEAVE: No restrictions, identification cards not necessary.

DELAYS: Departure from tanker berth dependant upon state of tide and in daylight only. Other berths unknown.

SHIP'S OFFICERS REPORT: Small scale B.A. Chart No. 2323 used for approach. Large scale B.A. chart for Topolobampo not available, therefore Mexican Chart S.M. 337 used.

When approaching from the vicinity of Cabo Corrientes, the best course has been found to be 327° to approximate position 25° 18.3′ N., 109° 18.0 W. when Farallon de San Ignacio will be dead ahead by 10 miles. Course is then altered to 030° for 13 miles for the Fairway Buoy. On this course the Fairway Buoy should be in line with an identifiable hill (see "Plan"). The Fairway Buoy has been fixed using Satellite Navigator derived positions at anchor and visual bearings together with radar ranges and found to be in 25° 29.93′ N., 109° 10.44′ W.

In rough or rainy weather the buoy may be difficult to see. With radar the channel buoys present slightly better echoes and may be recognised by comparison with the channel shape from the chart.

GENERAL: *Agent:* Agencia de Buques Zamorano, Domicilio Conocido, Topolobampo, Sinaloa. Tel: 2-00-11.

Storing: Limited facilities.

DEVELOPMENTS: In early 1989 vessels of 50,000 d.w.t. will be able to enter the port.

AUTHORITY: Capitania de Puerto, Apartado Postal No. 10, 81370 Topolobampo, Ahome, Sinaloa, Mexico. *Tel:* 91-686, 2-01-28. *Contact:* Captain Ricardo Flores Bravo, Port Captain.

TUXPAN: 20.57 N. 97.24 W.

SHIPMASTER'S REPORT: January 1982.

LOCATION: Tuxpan is situated on the North bank of the Rio Tuxpan. On the opposite side (the South bank) is situated part of Tuxpan called Santiago de la Pena.

The entrance of the Rio Tuxpan is situated at Lat. 20° 58.2′ N., Long. 97° 18.1′ W. Breakwaters on both sides of the river mouth. Approximately 100 m. and 120 m. seaward of the mole heads is a bar with quick changing depth over it. The bottom of the bar is sand, covered with a thin layer of mud. After a strong North wind the depth on the bar is one foot less than the day before. The permissible entering draft is 18 ft. – 20 ft. at HW and calm sea with nearly no swell. Occasionally vessels with 21 ft. draft can enter. Normally there is a low swell from the East all the year. After a strong North wind (Norte) you can expect a Northerly swell of 2 ft. – 4 ft. for 1 to 2 days. A dredger is working in the river entrance most of the time.

PORT LIMITS: One mile off all port installations and structures, including SBM and breakwaters.

DOCUMENTS:

1 original and 4 copies B/L's of all Tuxpan cargo.
12 Cargo Manifests.
1 Health Declaration.
8 Crew Lists.
8 Passenger Lists (even when none/nil – lists).
4 Stores Lists.
2 Personal Effects Lists.
(No special forms required/IMO-Forms are sufficient).

Documents which have to be shown to Port Authorities:

Tonnage Certificate.
Ship's Register.
Derat Certificate.
Seaman's Books or Passports.

PILOTAGE: Pilotage is compulsory. Pilot boards vessel approximately 2 miles to 2.5 miles East of entrance. Pilot boat: A white 20 ft. boat with white cabin and blue/white deck.

Equipped with VHF Channel 16. Pilot Office open from sunrise to sunset and listening on VHF Channel 16. Call: "Tuxpan Pilot".

The Pilot has to be ordered by Agent 24 hours in advance.

ANCHORAGES: East of breakwaters from 2 miles – 4 miles on a breadth of 1 mile North and 1 mile South of this line.

Caution: Many submerged gas and oil-pipes in the vicinity of entrance to Rio Tuxpan.

Best anchorage: North mole head bearing 270° (T) and 2.8 miles off. Ground: Muddy sand, good holding.

RESTRICTIONS: Entering port and river only in daytime. Departing vessels have to pass the bar at river entrance before sunset.

MAX. SIZE: Length of ships handled is 190 m., always in accordance with the draft.

HEALTH: There is a hospital at Tuxpan. Surgeons and Dentists are available. No vaccinations can be done.

Meat and vegetable rooms are sealed and opened once a day to take provisions. Garbage has to be kept on board in watertight and covered containers.

RADIO: No radio station at Tuxpan. Closest Tampico or Vera Cruz. Good communication between Tuxpan and these radio stations.

There is no repair of radars, VHF or other electric and electronic equipment possible. If required, technicians and spare parts have to be ordered from Tampico.

VHF:

Port Authorities	Channel 16
Pilot	Channel 16
Pemex	Channel 16
Tecomar (Agency)	Channel 68

TUGS: 2 privately owned tugs are available. One of 500 h.p. and one of 600 h.p. Tugs to be ordered by Agent in advance. The tugs are very helpful when turning in the river.

RIVER: Ground: Mud. Density of water: Approximately 1005.

The current in the river is nearly always outwards and is from 0.5 knots in the dry season up to 6.5 knots in rainy season.

At Tuxpan there is a stationary bridge, which can only be passed by very small ships.

BERTHING: (Places for dry cargoes):

	Length (m.)	*Depth Alongside* (ft.)
Muelle Fiscal		
(Extension under construction)	152	23
Grain Dock	70	22
Ro/Ro Berth	—	18
Berth for the Dredger (North bank)	60	18
Berth for Fishing Boats	80	15

CARGO HANDLING FACILITIES: No shore cranes, no forklifts, 2 small mobile cranes of unknown capacity; 2 special mobile cranes on container yard (these 2 cranes cannot be rented).

Four mobile grain elevators.

Several oil companies have own small berthing places and handle their cargoes themselves.

STEVEDORES: Agent has to order gangs from Port Operations 24 hours in advance. Approximately 120 men available.

Working Hours: 0800 – 1600 hrs. = 1st shift
1600 – 2400 hrs. = 2nd shift
0000 – 0800 hrs. = 3rd shift

Saturday and Sunday also, but all at overtime rates.

TANKERS: Tankers up to 6,000 tons gross can be taken inside the river to the oil companies' small jetties.

Offshore there are 2 SBMs in position:
No. 2 = Lat. 21° 02.58′ N., Long. 97° 17.43′ W. and
No. 1 = 135° – 1.9 miles from No. 2 SBM.

Tankers with 55 ft. draft acceptable. These SBMs are mainly used by Pemex. 2 additional buoys are to be installed.

FRESH WATER: No potable water available. Small quantities of wash-water can be delivered by trucks.

FUEL: Small quantities of clean diesel oil can be delivered by trucks. No marine diesel oil or heavy fuel oil available.

DRY DOCKS: None.

SHIPYARD: For fishing boats, some slipways available.

REPAIRS: Minor repairs can be done by the fishing boat shipyards.

REPATRIATION: Repatriation is possible via Tajin Airport to Mexico City. Tajin Airport is approximately 30 miles from Tuxpan and can be reached by a good road.

At Tuxpan on the left (North) riverbank is a small Airport (Fausto Vega Santander) only for VFR flights. Runway 1,600 m. No commercial flights.

HOLIDAYS: 1st January, 1st May, 5th May, 16th September, 25th December.

TIME: GMT minus 6 hours throughout the year.

TELEPHONE: No telephone connections at the piers.

Useful telephone numbers: Police, 40252; Port Captain, 40020; Pilot Office, 40043; Custom's Office, 40055.

Office Hours: Monday – Friday 0800 – 1500 hrs.

Some offices are also open on Saturday from 0800 – 1300 hrs.

SHORE LEAVE: Allowed without restrictions. No special identification cards required.

PROVISIONS: No ship chandlers at Tuxpan. Small quantities of vegetables and fish can be bought at the local market. For this Agent obtains a permission from Customs Office.

If necessary ship's stores can be ordered within 24 hours from Tampico.

VERA CRUZ: 19.12 N. 96.08 W. (See Plan)

PORT LIMITS: Area bounded by the reef lighthouses outside the breakwater.

DOCUMENTS: See "Coatzacoalcos".

PILOTAGE: Compulsory, advise Agent 24 hours before arrival giving name, flag, ETA and draft.

The Port Captain is to be given a minimum of 2 hours' notice by the Agent. This to be done between 0800 – 1800 hrs. (Pilot office hours). Orders for Pilots between 1800 – 0800 hrs. to be made between 0800 – 1800 hrs.

The Pilot normally boards 3 miles N.E. of harbour entrance, but if his services are requested outside such limits the Pilot will proceed to the location, i.e. the anchorage.

The pilot launch leaves from a "T" shaped pier when expected vessel is sighted. The launch has a black hull with white superstructure and false funnel painted black.

ANCHORAGES: In good weather, vessels may anchor in the outer area off the port, in the case of bad weather, to the South of the Isle of Sacrifices (Isla de Sacrificios). If the vessel prefers to anchor within the port limits, it must request the services of the Pilot and on anchoring for its own account within this sector must pay the fees due to the pilotage service.

RESTRICTIONS: In normal weather conditions there are no restrictions on entry and departure, the sole consideration being the draft of the vessel, since if this exceeds 29 ft. the time of the tide must be taken into consideration, and also after a strong North wind, a vessel drawing more than 24 ft. must wait for the tide. Depth in access channel 10 m. – 12 m.

MAX. SIZE: Length 200 m., at Berth Nos. 4 and 6 or the oil terminal.

HEALTH: The International Health Office gives a 24-hour service for the arrival and departure of vessels. To obtain Free Pratique on arrival of vessels there is a medical inspection, with submission of the Maritime Health Declaration, signed by the Master, and examination of documents of Derat Certificate, certificates of vaccination of the crew and passengers; cholera, yellow fever, (dependent upon the location from which the ship has come); examination of crew members or passengers who might be declared as suffering from contagious illnesses. With these formalities fulfilled, Free Pratique is granted. Free Pratique can be granted by radio, provided it is considered that the vessel's arrival will not give rise to the introduction or propagation of illnesses covered by the regulations, and that also the following requirements are fulfilled:

1. Exercise of greater epidemiological vigilance in respect of illnesses covered by International Health Regulations.
2. The Master's radiogram must be presented to the International Health Delegation 8 hours in advance and must invariably fulfil all the stipulations as set out in the attached form.
3. Without prejudice to the foregoing, the Healh Doctor or whomsoever he may designate, and where it is considered appropriate, shall go on board for the purpose of receiving the Maritime Health Declaration so that enquiries and verifications as may be considered necessary may be carried out.

Once the vessel has called at a national port, in subsequent national ports the requirements for obtaining Free Pratique will not be required, provided there does not exist on board any alteration in the health conditions as established in the Maritime Health Declaration.

Medical service to crew members and passengers on board foreign flag vessels is provided by doctors and private hospital institutions, through the intermediary of the consignee ship's Agent.

For possible handling of disease covered by the Health Regulations (cholera, yellow fever, bubonic plague), there are isolation wards in the Official Hospitals "Aquiles Serdan" and "Regional de Veracruz".

The Office of International Health has immunisation services required for the diseases covered by the Regulation, which are certified on special international forms, with any cost, to crew members and passengers.

RADIO: Radio station Vera Cruz Radio, call sign XFU. Transmits on 420 and 451 kHz and listens on 425, 454, 463 and 480 kHz. Also VHF Channels 12, 16, 26 and 27.

VHF: Pilot on Channels 16, 12 and 20 throughout 24 hours.

TUGS: 4 tugs available, 810, 900, 1,000 and 1,200 h.p.; tugs' lines used at no extra charge. Tugs join vessels inside breakwater.

BERTHING:

Berth	Capacity	Length (m.)	Depth (m.)
No. 1	2 vessels	384.50	10
No. 2	2 vessels	431.00	9 to 10
No. 4	5 vessels	795.20	9 to 10
No. 6	5 vessels	725.00	9 to 11
No. 7	5 vessels	548.00	6 to 8
Grain Quay	1 vessel	250.00	9 to 10
Container Quay	1 vessel	170.00	10
Pemex	2 vessels	958.00	10

STEVEDORES: *Handling rates:* General cargo, 12 tons/per hook hour. Bulk cargo, 30 tons/per hook hour.

BULK HANDLING FACILITIES: Handling of grain at a mechanised plant, with storage capacity of 25,000 tons and an average discharge rate of 250 t.p.h. and loading rate of 400 t.p.h.

Handling of bulk sugar by mechanised installations, with storage capacity of 40,000 tons and an average loading rate of 800 t.p.h.

Handling of aluminium, coal brickettes, cement, latex, crystallised honey, chemical products, vegetable oils and crude oil.

MEDICAL: Doctors, dentists and hospital facilities available (see "Health").

TANKERS: Petroleos Mexicanos berth located in Northern part of port. Max. draft 28 ft. Berthing for 2 vessels of 170 m. LOA. Berth provides 5×8 in. lines for discharge of refined product and 2×12 in. lines for fuel oil.

DENSITY: 1025.

FRESH WATER/FUEL: Available.

Berth	*Location*	*Water connection*	*Diesel connection*
Pier No. 1	North	4 × 2.5 in.	
	Head		
	South	3 × 2.5 in.	
Pier No. 2	North	3 × 2.5 in.	3 × 6 in.
	Head	2 × 2.5 in.	1 × 6 in.
	South	3 × 2.5 in.	3 × 6 in.
Pier No. 4	North	7 × 2.5 in.	2 × 6 in.
	Head	2 × 2.5 in.	3 × 6 in.
	South	8 × 2.5 in.	4 × 6 in.
Pier No. 6	North	3 × 2.5 in.	
	Head	2 × 2.5 in.	
	South	6 × 2.5 in.	5 × 6in.
Coasting	North	6 × 2.5 in.	
	Head	1 × 2.5 in.	
	South	5 × 2.5 in.	
Marginal	Single	4 × 2.0 in.	9 × 3 in. 1 × 2 in.
Pemex	Single	7 × 2.5 in. APL	6 × 8 in. refined
		1 × 4.0 in. (C/I) 2 × 3.0 in. (C/I) 4 × 2.5 in. (C/I)	10 × 12 in. fuel-oil

CONSULS:

Belgium
Brazil
Costa Rica
Cuba
Denmark
Dominican Republic
El Salvador
Finland
France
Germany F.R.
Guatemala
Honduras
Netherlands
Panama
Spain
Sweden
Switzerland
U.K.
U.S.A.

REPAIRS: Hull and machinery repairs can be effected by "Astilleros de Veracruz" (Vera Cruz Shipyard Company).

DRY DOCKS: "Astilleros de Veracruz S.A." has 4 docks, 2 floating and 2 dry docks. The largest of them is Floating Dock No. 4 with the following characteristics:

Length on stocks	169.210 m.
Internal useful beam	30.400 m.
Height of keel stocks	1.400 m.
Max. draft on keel stocks	8.200 m.
Lifting capacity	30,000 d.w.t.

Dock No. 2: With capacity for vessels up to 10,000 tons

Useful length	154.000 m.
Useful beam	19.400 m.
Draft	5.180 m.

Served by a 45 ton capacity crane

Floating Dock No. 3: With 3,000 ton capacity lifting capacity

Useful length	25.900 m.
Useful beam	13.550 m.
Draft	5.800 m.

Served by 2 cranes of 10 ton capacity each.

Dry Dock No. 1

Length	45.720 m.
Useful beam	7.920 m.
Draft	2.130 m.

SURVEYORS: Lloyd's, Norske Veritas and Germanischer Lloyd.

GANGWAY/DECK WATCHMEN: Available if required.
OPENING/CLOSING HATCHES: Mechanical hatches usually opened by crew, otherwise by stevedores.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle of spirits per man and will attend as necessary for further issues.
CARGO GEAR: Piers 1 and 2, 4×20 tons, 6×10 ton, 3×5 ton and 10×4 ton mobile cranes. Various cranes at piers 4 and 6. 2 floating cranes available max. lift 46 tons.
REPATRIATION: Possible, arranged by Agent.
AIRPORT: 8 km. from Vera Cruz, flights daily to Mexico City.
TIME: GMT minus 6 hours all year round.
HOLIDAYS: During the year the following holidays are observed: 1st January, 5th February, 21st March, 1st May, 5th May, 16th September, 12th October, 20th November and 25th December.
POLICE/FIRE/AMBULANCE: Police – 2.28.23, Fire Brigade – 2.25.00, Red Cross – 2.01.40.
TELEPHONES: Available on most piers but not on vessels.
SERVICES: Provisions, laundries, and dunnage available. Garbage must be removed every 48 hours.
SHORE LEAVE: Possible.
GENERAL:
Government Secretariat – Local Administration Office

In accordance with the stipulations of Article 75 of the General Local Administration Law, vigilance of foreign crew members in vessels of any nationality tied up in national ports, together with visits or stays by the said crew members will be subject to the following requirements:

I. Heads of Local Government will designate accordingly personnel who will carry out vigilance of the vessel, in accordance with the provisions of Section II of Article 29.

II. Crew members may visit ports during the stay of the vessel, provided they deposit at the Local Administration Office their identity documents which for such purpose may be issued to them and their passports and other documents, all of which will be returned to them on re-embarkation.

III. Shipping companies, their Agents or consignee firms, for all legal purposes shall be responsible for the complete embarkation of crew members and for the costs involved in repatriating any who may remain behind after the vessel sails. When a crew member wishes to stay in the country, he must obtain documentation in compliance with one of the categories as set out in the appropriate Law and Regulations.

DEVELOPMENTS: A new petroleum quay is to be constructed to take 2 tankers of 40,000 tons.

A transtainer, portainer crane and other equipment will be acquired in the near future.

SHIPMASTER'S REPORT:
Documents:
1 Visaed and 9 Plain Spanish Crew Lists.
1 Visaed and 5 Plain Passenger Lists.
1 Visaed and 2 Plain Spanish Stores Lists.
2 Crew Customs Declarations.
5 Cargo Manifests.
1 Arrival form.

The Customs require a complete list of all shop goods priced in U.S. Dollars, failure to produce this will cause confiscation and $10,000 fine. The Customs thoroughly check bond and beer locker and seal same. All storerooms are also checked.

The Agricultural Inspector insists that all dry stores are fumigated and kept under seal for 24 hours. All refrigerated stores – except U.S.A. meat is sealed up.
Pilotage: Pilot boards 1 mile W.N.W. of Angeguda de Adentro Light beacon from black boat flying pilot flag.
Tugs: 2 tugs available for berthing.
Restrictions: Port open day and night. Prevailing Northerly winds are sometimes too strong to allow ship's movement in harbour.
Health: Health authorities board after berthing.
Radio: ETA to be sent 48 hours in advance via XFB Cuidad de Carmen. Agent orders Pilot.
Fuel: Bunker C and Diesel are available. A mixing machine is being installed to supply intermediate. Bunkers are supplied from most quays and are expensive for foreign ships.
Consul: There is a British Consul.
Repairs: There are 3 drydocks and all repairs can be done.
Airport: The airport is 6 km. from Vera Cruz with twice daily flights to Mexico City.

AUTHORITY: Delagacion Coordinadora, Edificio Oficinas Ligadas al Puerto, Plaza de la Republica No. 210, 5th floor. *Tel:* 2-13-19 and 2-30-40.

Empresa de Servicios Portuarios, Plaza de la Republica No. 210. *Tel:* 2-92-22, 2-40-22 and 2-74-11.

Comision Nacional Coordinadora de Puertos, Cuernavaca No. 5, Mexico, 11 D.F. *Tel:* 553 87 11.

NOTES

Please also advise Shipping Guides Ltd.

Federated States of Micronesia

TOMIL HARBOUR, Yap: 09.31 N. 138.10 E. (See Plan)

PORT LIMITS: Vessel is considered an "Arrived Ship" on reaching Buoy No. 1. Laytime commences at this time.
DOCUMENTS: All necessary documents required by the Clearance Department shall be prepared before arrival. (e.g. Crew Lists, Passenger Lists, Customs, Health Documents, Manifests, Bills of Lading, Ship's Papers, Ship's Certificates etc.)
PILOTAGE: All pilotage services must be requested by the Master or his Agent on their behalf 24 hours prior to vessel's arrival.

ETA messages for Pilotage are best routed through Port Control on VHF Channel 16.
ANCHORAGES: Inside Tomil Harbour, depth is 84 ft. MLW. Distance from dock, 3,000 ft.
RESTRICTIONS: There is no restriction in accordance with the state of tide and draft. However, restriction imposed upon vessel entry after 1800 hrs. and before 0600 hrs. because the channel is marked by an unlit buoy and can. Except in case of emergency arrival/departure will be limited to daylight hours.
MAX. SIZE: The length of the channel is 9,600 ft., breadth is 300 ft. Max. size for any vessel entering the port and for tankers is 6,000 g.r.t. Depth in the channel 78 ft.
HEALTH: Master of vessel or designated Agent should advise Port Authority 24 hours in advance of her arrival of any communicable diseases, sickness or injury found among its crew even if the vessel's last port of call was in the Federated States of Micronesia.
RADIO: Vessel should route her ETA via Yap Port Radio by using 5,205 kHz or use VHF Radio Channel 22A or 16.

Also see "Pilotage".
VHF: Port Control Radio – Channels 16 and 22A.
RADAR: No port radar.
TUGS: None.
BERTHING: Dock is 451 ft. long, depth is 78 ft. MLW, max. size permissible at LW (salt water) is 6,000 gross tons.
CRANES: None. Discharge is by ship's gear.
BRIDGES: None.
STEVEDORES: ETA advices required 24 hours before arrival in order to arrange Terminal personnel.

Terminal Operator: Waab Trans Co. Inc., P.O.Box 177, Yap, Western Caroline Islands 96943. Tel: 2301/2302.
MEDICAL: Advise Agent prior to arrival if medical assistance required.
TANKERS: Load/discharge lines are 6 in. diameter.
DENSITY: Average 95% salt water, 5% fresh water.
FRESH WATER: Available on pier apron using fire hose connected to fire hydrant for drawing fresh water.
FUEL: Advance notice required through Agencies' Offices in order to arrange fueling with Mobil Oil Inc. Plant. Fuel line available at the dock.
CONSULS: No consuls available.
REPAIRS: Deck and engine repairs are possible upon request of the Ship's Master. Location for such repairs will be designated by the Sea Port Manager.
DRY DOCKS: Not available.
SURVEYORS: ABS.
HATCHES: Normally opened/closed by combination of crew and stevedores.
CUSTOMS ALLOWANCES: Each crew member is permitted to hold out of bond a maximum of 2 bottles of wine, 2 cartons of cigarettes, 12 cans of beer, etc.
CARGO GEAR: Discharge is by ship's own gear. Other relevant gear such as forklifts and trucks provided by the Terminal Operator (see "Stevedores").
REPATRIATION: Effecting crew changes will be arranged by the proper Agency Office.
AIRPORT: Distance from Sea Port to Airport is 2.5 miles, served by regular airline with 3 flights per week on Tuesdays, Thursdays and Saturdays.
TIME: GMT plus 10 hours. No alterations made throughout year.
HOLIDAYS: Cargo work can be arranged on holidays, except Christmas Day.
POLICE/AMBULANCE/FIRE: Police tel: 3333, Ambulance tel: 3444, Fire Department tel: 3222.
TELEPHONES: Placement available only for Yap State owned vessels. Telephone available at the dock terminal for other vessels.
SERVICES: Tank cleaning equipment, discharge of slops, compass adjustment, etc., are not available in this port.
SHORE LEAVE: Crew members are allowed ashore if no communicable disease found onboard.
IDENTIFICATION CARDS: Seamen's book is sufficient.
DELAYS: Usually depends on the quantity of cargo, especially bulk cargo.
GENERAL: *Garbage:* Disposal of garbage in port is strictly prohibited.
DEVELOPMENTS: There are expected draft increases. New facilities and installations are expected in the foreseeable future.
AUTHORITY: The Port Manager – Tomil Harbour, Yap Transportation Division Office, P.O.Box 290, Yap, Western Caroline Islands 96943, Federated States of Micronesia. *Tel:* 2178. *Cables:* Sto Yap. *Contact:* Frederick Figir, Port Manager.

NOTES

Please also advise Shipping Guides Ltd.

Monaco

MONACO: 43.44 N. 07.26 E. (See Plan)

PORT LIMITS: The seaward boundaries of the port commence by the 2 breakwaters at the Eastern entrance.

DOCUMENTS:
2 Crew Lists.
2 Passenger Lists – 3 Landing Passenger Lists.
2 Store Lists.
1 Manifest (cargo).
1 Bill of Health.
Ship's Register.

PILOTAGE: ETA via Monaco Radio – Channels 16, 12, within range. Pilot boat is a small white boat with a black "Pilote" painted on the side of the cabin. Meets vessels 1 mile radius from the harbour entrance.
Pilotage available: 1st May – 30th September (0800 hrs. – 2300 hrs.).
1st October – 30th April (0800 hrs. – 2000 hrs.).
Pilotage compulsory for all vessels over 30 m. LOA.

ANCHORAGE: One half mile East of the Southern breakwater lighthouse. Depth at the anchorage 68 m.

MAX. SIZE: Max. length 130 m. Stern to the pier on the West side or alongside the North quay, only from October to March and with 8 days' notice. Max. draft allowed: West Pier 8 m; North Quay, 7 m.

HEALTH: Health Declaration must be handed to the Customs. If coming from neighbouring countries (France, Italy, Spain) not requested.

RADIO: Monaco Radio (Tel. 93.30.13.13). VHF Channel 16. Port Operations Channel 12. Public telephone calls Channels 20, 22, 28 and 86.

RADAR: No port radar service.

TUGS: Pilot boats (2×158 h.p.) available without notice. 1 tug boat 200 h.p. with notice and 1 tug boat 450 h.p. available with notice.

BERTHING: All 3 quays plus inner sides of the breakwaters and Western "T" pier are available for mooring yachts stern to. The port may be congested during the Summer season. The possibility remains of anchoring off the dock.

CRANES: 1×10 tonne mobile crane.

MEDICAL: There is a state hospital fully equipped for surgery, etc.

FRESH WATER: Can be supplied at all berths alongside the quay. If vessel on Roads, water may be provided by barge up to 500 tons per day, with one week notice. Tel. Cannes 93.39.36.12.

FUEL: There is a fuel berth in S.W. area of port for ships up to 80 ft. LOA. Bunkers are available on the quay by truck but no heavy fuel available.

CONSULS: Most countries are represented in Monaco.

CUSTOMS ALLOWANCES: Same as in French ports.

REPAIRS: Only for yachts.

DRY DOCKS: 1 slipway × 100 tons, 1 slipway × 40 tons, 1 crane × 10 tons.

REPATRIATION: Good railway connections.

AIRPORT: Nice – Cote d'Azur. Distance 25 km.

TIME: GMT plus 1 hour. May to September GMT plus 2 hours.

HOLIDAYS: New Year; National Holiday, (Jan. 27th); Easter Monday, (May 1st); All Saints' Day; His Serene Highness' birthday, Nov. 19th. Harbour services work on Sundays and Holidays.

POLICE/FIRE/AMBULANCE: Maritime Police, Quai Antonie 1st Tel. 93.30.22.39; Ambulance/Police Secours Tel. 17; Fire brigade Tel. 18.

TELEPHONE: Available at all berths.

SERVICES: Engine repairs. Electronics. Maintenance for yachts. 220 volts available at all berths. TV aerial sockets at all berths free of charge.

SHORE LEAVE: Crew members allowed ashore.

DEVELOPMENTS: The new yacht harbour at Fontvieille (West of the old town of Monaco) is now open. It is a private harbour with about 100 berths for yachts up to 35 m. All berths are fitted with water and electricity. Port Office Tel. 93.50.80.99.

This new port provides very good shelter regardless of wind direction.

REGULATIONS: Recommendations to Ship-Owners, Masters and Crew Members: Ship-owners, Masters and Crew members are strongly requested not to dispose of hydrocarbon, household refuse and other rubbish into the Monaco harbour (i.e. cartons and mainly plastic containers).

Used motor oils and other petroleum residues must be transferred into tanks exclusively provided for this purpose at the beginning of the North and South jetties and on the landing stages facing the Rainier III swimming pool.

These tanks are signposted with panels bearing the words "Huiles Usees" (used oil) in red letters on a white background.

Household refuse and other rubbish is to be put into garbage containers located around the harbour throughout the year. Furthermore, during the Summer, special individual bags are made available free of charge to all in-coming vessels.

Those responsible for ships equipped with used water tanks or bilges are requested to empty these containers off the coasts of the Principality at a minimal distance of 6 miles.

Those whose ships are not equipped with these used water tanks are requested not to dispose of their used water during their stay in the Monaco harbour, and to use the sanitary installations and facilities made available to them within the harbour.

Offenders infringing the above provisions will be penalised in accordance with the stipulations of Law No. 954, dated April 19th, 1974, dealing with the fight against water and air pollution.

AUTHORITY: Directeur du Port et du Service de la Marine, B.P.468, 98012 Monaco Cedex. *Tel:* 93.30.76.87 or 93.30.19.21. *Telex:* 489035 MC. *Contact:* Captain Philippe Haquette, Harbour Master.

NOTES

Please also advise Shipping Guides Ltd.

Morocco

AGADIR: 30.25 N. 09.38 W. (See Plan)

DOCUMENTS:

Health Declaration.
4 Cargo Manifests.
6 Stores Lists.
6 Crew Lists.
6 Passenger Lists.

PILOTAGE: Compulsory. Pilot boards at port entrance. International code signals used. Pilot on VHF Channel 16, day and night.
ANCHORAGE: Good anchorage in open roadstead.
MAX. SIZE: Up to 29 ft. draft. Max. LOA 160 m., however vessel with LOA 190 m. has been accepted.
HEALTH: Pratique given immediately after berthing when port doctor boards.
TUGS: 3 tugs available, 1×350 h.p., 1×1,275 h.p., 1×1,500 h.p.
RADIO: Agadir Radio operates 24 hours a day.
BERTHING:

No. of Berths	*Length (m.)*	*Depth (m.)*	*Remarks*
4	150	9.0	—
1	110	7.0	Ro/Ro.
3	100	6.0	Oil tankers and butane carriers.
1	—	6.0	Used by Moroccan tankers only.
1	120	5.0	Equipped with fish pumps.

STEVEDORES:
Working Hours: 0700 – 1200 hrs., 1400 – 1800 hrs. , 2000 – 0600 hrs. (With 24 hours' notice of ETA).

New times to be introduced but date not fixed: 0700 – 1500 hrs. and 1500 – 2300 hrs.

CRANES: One Titan crane of 40 tons capacity.
MEDICAL: Doctor and hospital facilities available.
FRESH WATER: Available from pipe-line at berths.
FUEL: Fuel and gas oil available from pipe-lines at berths.
GANGWAY/DECK WATCHMEN: Available but not compulsory.
OPENING/CLOSING HATCHES: Performed by stevedores.
CUSTOMS ALLOWANCES: Crew allowed normal daily consumption of tobacco, wine and spirits.
IDENTIFICATION CARDS: Required.
CONSULS:

	Tel.		*Tel.*
Belgium	217 00	Norway	238 40
France	228 29	Spain	221 26
Italy	226 66	U.K.	209 05 (Casablanca)

REPAIRS: Small machinery (up to 500 h.p.) and electronic repairs can be effected.
POLICE/FIRE/AMBULANCE:

	Tel.		*Tel.*
Police	19	Hospital	224 77
Fire/Ambulance	15	Port Police	223 49

TIME: GMT. No changes.
HOLIDAYS: Fete du Trone, (Throne holiday); 3rd March; Fete du Travail (Labour Day); 1st May; Al Massira Al Khadra, 6th November; Fete de l'Independance (Independence Day) 18th November; Aid El-Fitr, (1st and 2nd Chaoual); 1st January; Aid Adha (10 et 11 Hija); Le Premier Moharrem (The first Moharrem) and Aid Maouloud Annabaoui (12 et 13 Rebia I).
Note: Chaoual, Hija and Rebia are months in the Muslim calendar.

The following days are movable feasts governed by the Arabian Calendar – 1/2 Choual, 10/11 Diahijja, 1 Moharram, 1/13 Rabia I.

Work may be arranged on all holidays.

SHORE LEAVE: Allowed.
DEVELOPMENTS: New port of Anza under construction in position Lat. 30° 26′ N., Long. 09° 35′ W.

The new port is expected to be operational in 1988. Facilities will include 3,500 m. of quays, a Ro/Ro terminal and ship repair facilities. Depths alongside 10.5 m. – 15.0 m.

SHIPMASTER'S REPORT: November 1979.
Documents:
3 Copies Crew's Personal Effects.
6 Crew Lists.
3 Stores Lists.
3 Vaccination Lists.
Anchorage: Vessel anchored 0.5 miles South of breakwater.
Pilotage: Compulsory. Pilot boards 0.5 miles S.W. of the outer buoy. 1 hour's notice required.
Restrictions: Vessel can enter and sail during hours of darkness and at any stage of the tide.
Max. Size: Max. LOA 600 ft. (approx.) and max. draft. 26 ft. (approx.). Size of vessel limited by the swinging room.
Radio: Agadir Radio.
VHF: Pilot and Port Authority on Channel 16.
Tugs: Two available.
Berthing: Vessel berthed at No. 8 berth on the South mole which is about 7 cables from the harbour entrance. Max. LOA approximately 600 ft. and max. draft approximately 26 ft. Least depth of water in channel from sea to berth is approximately 30 ft. The bottom at the berth is sand and mud and the density is 1025.

There are no special bulk handling facilities. There are 10 cranes with safe working load of 10 tonnes. Ro/Ro facilities available, no floating cranes. There is ample equipment for handling palletised cargoes also storage space for palletised and break bulk cargoes. Containers are handled by ship's gear and storage space for containers is limited.
Facilities: The following are available: Fresh water (poor quality), fresh provisions, small repairs, there is a small machine shop, airport, Lloyd's Surveyor and laundry service.

AUTHORITY: Ministry of Equipment, Agadir Port Directorate, Agadir, Morocco. *Contact:* M. Abdelali, Port Director.

CASABLANCA: 33.36 N. 07.37 W. (See Plan)

PORT LIMITS: Vessels considered as "arrived" when passing Buoy CA 5 in position Lat. 33° 37′ 05″ N., Long. 7° 35′ 02″ W.
DOCUMENTS:

Certificate of Registration.
Cargo Manifests.
Stores List.
Crew Lists.
Passenger Lists.
Customs Declaration.
Bill of Health.
Ship's Entry Declaration.
International Tonnage Certificate.

All Stores Lists must be completed prior to arrival. If any errors found, vessel is heavily fined.

PILOTAGE: Compulsory for all merchant vessels of 100 tons and over, in the area between the meridians 7° 37′ 10″ W. (the foot of Jetee Moulay Youssef) and 7° 33′ 50″ W. (Table d'Oukacha) and South of the parallel 33° 37′ 4″ N. Pilotage is available day and night. The Pilot meets vessel at the CA5 buoy.

A red flag displayed at the signal station by day indicates that the Pilot cannot come out, on account of the sea, but vessels may enter the port at their own risk, and the Pilot will await them under the shelter of Jetee Moulay Youssef. Should bad weather prevent the Pilot from coming out, a vessel should not attempt to enter the harbour at night. The Master may contact the Pilot station for port radar service by VHF Channel 12.

ANCHORAGES: The anchorage outside Casablanca Harbour is partially protected from winds between South and West but a Westerly swell finds its way into the bay. With a heavy Westerly or Northwesterly swell the anchorage becomes dangerous.

The holding ground in most places outside the harbour is poor, but a berth with good holding ground may be obtained in a depth of 13 fathoms North of Jetee Moulay Youssef. There are numerous anchorage berths in the harbour, some at mooring buoys, in depths up to 12.8 m. (42 ft.).

MAX. SIZE: Max. length permissible, about 884 ft.; max. breadth permissible, about 105 ft.; max. draft permissible, about 32 ft.; but normally 30 ft. for berthing alongside. Tankers: up to 37 ft. draft.
Report: A vessel's agent has reported that for tankers discharging crude oil at the Crude Oil Berth the Max. draft is 35 ft. and Max. LOA 250 m.
HEALTH: Masters must fill in the Declaration of Health and display the "Q" flag, to obtain Pratique. In the event of any suspected disease or fever on board, Masters have to warn their Agent before the ship's arrival.
RADIO: The name of radio station for ETA cables to Agents, receivers, etc., is Casablanca Radio.
TUGS: There are 6 tugs of 800 – 1,500 h.p. 3 of them are sea-going tugs fitted with modern salvage apparatus. Normally tugs join the vessel at port entrance. To call them, 4 long blasts and 1 short for 1 tug, 4 long blasts and 2 short for 2 tugs, etc. Ship's lines are mostly used.
BERTHING: To arrange berth, ETA message should be given 24 hours before the ship's arrival.

Mooring: When making fast to the jetty by the stern, the anchor should be let go at a sufficient distance from the jetty to allow for a good scope of hawsers.

Vessels are recommended to secure with special 10 in. coir hawser tailed with wire. It is recommended to moor head to the swell, but in bad weather a vessel should be ready to leave at short notice.

CRANES: Floating crane, 45 tonnes capacity.
CARGO HANDLING: Phosphate loading: up to 5,000 t.p.h. Depth alongside 32 ft. to 26 ft.

Grain Handling: discharging 800 t.p.h., loading 400 t.p.h. Depth at silo berths 30 ft.

Containers: straddle carrier for handling up to 20 ft. containers.

Roll-on/Roll-off: Three berths for Ro/Ro vessels, depth 30 ft.

STEVEDORES: There are 13 stevedoring companies. Normal working days are in two shifts (from 0700 to 1500 hrs. and 1500 to 2300 hrs.). Ship's Agents arrange gangs in connection with stevedores. Two daily orders (at 1100 hrs. and 1600 hrs.) are made to fix the number of gangs.
MEDICAL: It is necessary for Agent to receive advance notice of required medical attention. Hospital facilities available.
TANKERS: There are 4 tanker berths, *(a)* one for Import and Export of white products and max. permitted draft 37 ft. (Berth P3). *(b)* three berths for Import and Export of black products. These berths (No. 60, 61 and 62) are situated inside the harbour, vessel's draft should not exceed 30 ft. Security tug necessary when handling certain petroleum products.
Report: December 1982: Vessel with LOA 237 m. (77,000 d.w.t.) berthed at No. P 3 and parted 11 mooring lines. For this reason owners believe the berth is unsafe for a vessel of this size with a swell running.
FIRE PRECAUTIONS: Two firemen remain on board tankers while vessel berthed alongside. One fireman is required for other vessels carrying dangerous cargo.
FRESH WATER: Numerous feeders along berths. Also delivery by barges is possible.
FUEL: All grades available. Ex-wharf or by barge.
CONSULS: The following countries are represented by consuls in Casablanca:

Algeria
Argentina
Austria
Belgium
Brazil
Denmark
Finland
France
Germany F.R.
Greece
Haiti
Italy
Netherlands
Norway
Panama
Poland
Portugal
Spain
Sweden
U.K.
U.S.A.
Yugoslavia

GANGWAY/DECK WATCHMEN: It is necessary to have watchmen on board. They are hired by the ship's Agent.
OPENING/CLOSING HATCHES: This work is normally carried out by stevedores.

CUSTOMS ALLOWANCES: 200 cigarettes are permitted for each crew member to be held out of bond.
IDENTIFICATION CARDS: Needed.
REPAIRS: Only small repairs and dry docking works are carried out.
DRY DOCKS: One large dry dock, 152 m. long and 22 m. wide (lifting power 10,000 tons). Three slips for ships up to 700 tons.
REPATRIATION: Facilities exist for effecting crew change and arranging any necessary repatriation.
AIRPORT: Distance from airport, 25 miles. International connections.
TIME: GMT. No changes.
POLICE/AMBULANCE/FIRE: Police, 2210-74 or 19; Ambulance, 15; Fire, 15.
TELEPHONES: Only arrangements for placing telephones on board passenger ships are possible.
SHORE LEAVE: Crew members are allowed ashore.
AUTHORITY: Directeur du Port.

EL AAIUN (Laayoune): 27.04 N. 13.28 W.

LOCATION: Lighthouse at phosphate terminal in Lat. 27° 03′ 55″ N., Long. 13° 27′ 45″ W.
DOCUMENTS: See "Casablanca".
APPROACHES: There is a light located at the end of the bulk phosphate terminal in position Lat. 27° 03′ 09″ N., Long. 13° 27′ 07″ W. at the top of mineral silos, at a height of 180 ft. 1 flash every 5 seconds, range 10 miles.

There is also a fixed green light located at the Northern part of the terminal, range 10 miles, and a fixed red light at the Southern part of the terminal, range 10 miles.

The phosphate terminal installations give a good radar target at a distance of 25 miles. Vessels approaching from the North should keep 10 miles off the coast until the pier is bearing 090° and then steer towards the pier.

At night the installation lights are always visible and with a clear atmosphere can be seen from 25 miles off the coast.
PILOTAGE: Compulsory. Pilot boards about 0.75 miles off the pier head.
ANCHORAGES: Good anchorages can be found in 10 fathoms of water. When waiting for the Pilot it is recommended to anchor 0.75 miles Westward of the pier. No shelter in strong winds. Service of powerful auxiliary boats is available when lying at anchor.
MAX. SIZE: Depth 17.0 m. at LWL at the phosphate terminal berth, and 8.0 m. LWS at the berth for general cargo ships, located at the middle of the pier.
HEALTH: Valid Yellow Fever and Cholera Certificates are required. Otherwise, usual clearance.
RADIO: There is no coast radio station in El Aaiun. VHF radio communication is being placed at the phosphate terminal to work on Channels 12 and 16.

Ships calling at the terminal are required to send ETA cables or telegraph 72, 48 and 24 hours prior arrival to "Phosboucraa el Aaiun".
TUGS: 2 tugs, each 960 h.p., are available to assist vessels.
BERTHING: Aaiun Mineral Terminal located approx. 6.5 miles South of El Aaiun City.

The terminal head is in a North-South direction. Vessels are moored alongside dolphins that cover the three loading stations for 100,000 (non-inclinable), 40,000 and 20,000 d.w.t. ships. The loading pier has a height above water of 50 ft. and the dolphins approx. 20 ft.

Facilities consist of modern equipment available for handling phosphate in bulk at a loading rate of 4,000 t.p.h. in 2 of the stations, and 2,000 t.p.h. at the 3rd. The phosphate is loaded by means of movable loading machines with telescopic spouts to permit perfect trimming.

Facilities at the general cargo berth available for vessels up to 8,000 d.w.t. are 2 cranes of 6 tons each, and 1 derrick of 150 tons capacity.

No gangway to be rigged at this terminal. Communication from ship-to-shore is by means of elevator from the loading machines.
AIRPORT: Aaiun (30 km. from harbour).
TIME: GMT. No changes.
REPAIRS: No repairs can be effected at this port.
BUNKERS: No bunkers available.
PROVISIONS: Provisions may be obtained.
AUTHORITY: Phosboucraa – Laayoune, B.P. 76, Laayoune, Morocco. *Tel:* 22-36-28, 22-36-29, 22-36-30. *Telex:* 31727 M. *Contact:* Port Manager.

Operator: DC/AV Casablanca and DC Paris.

EL JADIDA (Mazagan): 33.15 N. 08.31 W. (See Plan)

DOCUMENTS: As for "Casablanca".
PILOTAGE: Arranged by Agent, basis vessel's ETA given in advance. Pilot boards about 2 miles from the port entrance.
ANCHORAGES: About half a mile from head of North jetty in depths of 13 m. to 14 m. Hard rock bottom covered in sand. Holding ground is fair only.
RESTRICTIONS: The port comprises an entrance channel 50 m. wide and an outer harbour area 7 hectares, partially dredged to 3 m. depth to make a waiting basin. In the Southern part of the outer harbour is a quay, called the barge quay, 120 m. long, dredged to 6 m. depth.
MAX. SIZE: No limitations for vessels anchoring. For entering harbour, max. length 80 m., draft 5 m., entering at high water.
RADIO: No local radio station. Use Casablanca Radio for messages to Agent.
TUGS: Available. Normally join vessel 2 miles from port entrance.
CRANES: 2 electric cranes and 2 diesel cranes available.
MEDICAL: Hospital facilities available. Vaccinations can be arranged.
FRESH WATER: Available at the quay.
FUEL: Can be supplied subject to 24 hours' notice.
WATCHMEN: Recommended to employ watchmen.
OPENING/CLOSING HATCHES: Work performed by ship's crew.
CONSULS: The only consular representatives are those of France and Portugal.
REPATRIATION: Can be arranged via Casablanca.
REPAIRS: Small repairs can be done on board, or parts sent to Casablanca. One small dry dock reserved for Port Authority vessels and fishing boats.
AIRPORT: Nearest commercial airport is at Casablanca.
TIME: GMT. No changes.
HOLIDAYS: Sundays and holidays, except for National holidays, can be worked on payment of overtime.
POLICE/AMBULANCE/FIRE: Police, Tel: 19; Ambulance, Tel: 15; Fire, Tel: 15.
TELEPHONES: Cannot be connected to vessel, but telephone situated on the quay.
AUTHORITY: Arrondissement de L'Equipment et de la Promotion Nationale.

JORF LASFAR: 33.08 N. 08.38 W. (See Plan)

SHIPMASTER'S REPORT: May 1984.
LOCATION: The Port of Jorf Lasfar is situated approximately 62 nautical miles by sea, and 120 km. by a good tar sealed surfaced road from the town of Casablanca, in Morocco. The natural deep water bay along the coast has afforded the development of an industrial complex, designed for the export of phosphates and minerals, also phosphoric acid and sulphuric acid.

Local sources of information have indicated to me that development began some 7 years ago. Large earth moving equipment carved away the hillsides, moving several million cu.m. of rock and earth, and transformed an area approximately 2,200 m. × 1,700 m. which now forms the complex harbour and Port of Jorf Lasfar. The port area and wharves are enclosed by a man made breakwater.

The principal breakwater, (Outer Breakwater) extends in a direction N.W. from the shore, 1.75 miles S.S.E. of Cap Blanc du Nord, on which is erected a "Yellow" square tower 31 m. in height with a black top, the position of which is Lat. 33° 09.8′ N., Long. 08° 37.6′ W. The light exhibited from tower is occulting white and red 6 secs., eclipse 1.5 secs. White visibility 9 miles 018° – 190° (172°), red visibility 6 miles, 190° – 018° (188°). The breakwater then turns S.W. and S.S.W. for a total length of 3,100 m. The Contre Digue or Lee Breakwater extends 1,250 m. N.W. from the shore 1 mile S.S.W. of the root of the Outer Breakwater.

Light structures stand each side of the entrance, on the Outer Breakwater about 500 m. N.N.E. of its head, and on the head of the Lee Breakwater (Contre Digue).

On arrival and during the vessel's stay in port (April 1984), these lights were unlit.

Local Authorities advise me that as electric power has not yet been laid on to the port area the lights are functioning by gas, but whether it was for economical purposes, or any other reason, as already reported, the lights were not functioning. Unless for some specific reason, this is of no consequence as entry into the port is only permitted in daylight hours.

Development appears to progress very slowly as will be seen from the facilities at present available. Local Authorities assured me that the port will be fully operational in 1985. Our stay was 22 days to discharge a cargo of bulk wheat and corn (55,000 tons).
APPROACHING: *Noon, day before arrival:* Position Lat. 33° 00′ N., Long. 12° 59′ W. Course 088°(T) allowed 2° set Gyro course 086°.
Day of Arrival: 0139 hrs. Sat. Nav. fix Lat. 33° 04′ N., Long. 09° 39′ W., disallowed set.

Radar observation of the coastline was made when 43 miles off (radar JMA 159B/3 cm.) but no positive fix. Vessel running in on Sat. Nav. D/R position.

0443 hrs. Radar fix obtained of Cap Blanc du Nord, 25 miles.

As vessel had no port information or charts ETA given as 0700 hrs. (Sunrise 0612 hrs. GMT).

Called Casablanca Port Control on Channel 16 from 0530 hrs. Reception was poor and distorted.

Called Jorf Lasfar Pilot on Channel 12 . . . No reply.

About 7 miles off, the Principal Breakwater was clearly outlined on radar screen, and observed 1 small coaster at anchor off the port.

Weather was cloudy, visibility clear, a light Easterly wind was blowing, slight sea with low, heavy, Westerly swell.

When about 4 miles off, contact was made with the Pilot. Due to the berthing of the coaster, we were delayed, and vessel was turned around on reciprocal course. At 0745 hrs. turned vessel around and made approach to embark Pilot, on his advice.
Embarking of Pilot: Under normal circumstances a pilot launch is available. Unfortunately for us, the launch was under repair and Pilot came out to embark on a rather large tug. Not a very suitable proposition at the best of times.

No positive position for Pilot Boarding has yet been established and no Sea Buoy to indicate any approach.

Ladder was rigged on starboard side. The tug had great difficulty to manoeuvre to come alongside, but after several attempts and much helm and engine movements, further hampered by the heavy swell running for both vessel and tug, the Pilot (French) boarded without any incident.

I am of the opinion, that the Pilot should board approximately 1.0 to 1.5 miles off the Principal Breakwater Head, by pilot launch, with vessel's speed about 5 knots, to afford a good lee and counteract the swell. The tugs should be secured before the ship enters the port as there is about a 90° to 120° port turn to line up with the entrance, with very little room for error. Both anchors to be ready for letting go. Once the turn into the entrance is made, the way must be taken off the vessel quickly and stopped, to effect a port swing again of 90° to back into the berth, for starboard side alongside berthing at Quay No. 2 where vessel berthed.

The 2 tugs attending, "El Hafid" and "Casablanca", 2,000 h.p. and 1,600 h.p. respectively, were adequate under the prevailing conditions. Both tugs used ship's lines. Vessel was secured with 5 head and 5 stern lines also 2 springs forward and aft.

Whilst alongside with a heavy swell outside the harbour area, surge was experienced alongside. Rope springs are suggested for use, or wire springs with rope tails.

The foregoing was a deeply laden vessel, length 224.5 m., draft 38 ft. salt water even keel.

PORT LIMITS: The seaward boundaries of the port have not yet been defined. There are no designated anchorages off the port for vessels carrying the various categories of cargo.

There is no designated Pilot Boarding Ground.

There is no Sea Buoy, or Channel Marker Buoys to indicate a safe Fairway.

Charterer's particular requirements to vessel's Agents to be sent through Casablanca Radio, CNP (8 MHz).

We were able to contact Casablanca Radio, 5 days prior to arrival (1,600 miles).

Preliminary "Notice of Readiness" was tendered to Agents and receivers of cargo by radio on arrival (0700 hrs.).

I prepared 5 copies of my own "Notice of Readiness" which was handed to the Agent on berthing. He signed in acknowledgement, for transmission to the receivers.

"Notice of Readiness" was accepted at 0830 hrs., which was office opening hours on our arrival day.

DOCUMENTS:

Crew List, 6 copies.

Passenger List, 6 copies.

Customs Crew Personal Effects Declaration, 1 copy and 1 copy for Agent.

Ship's Stores List, 1 copy and 1 copy for Agent.

Ship's Manifests. If on board for delivery to Agent.

Bills of Lading. If on board for delivery to Agent.

Ship's Particulars, 1 copy for Agent's use.

Ship's Certificates: To produce Ship's Register, Safety Equipment, Ship Construction, Safety Radio, Tonnage Certificate, Derat Exemption.

PILOTAGE: Give ETA to Agent at Casablanca. He arranges Pilot and tugs. Pilot comes by road from Casablanca.

Apparently 1 tug is always stationed at Jorf Lasfar port, but is not manned. A second tug comes from Casablanca. (Ordered by Agent, who arranges time). Two tugs seemed adequate for this vessel under the prevailing conditions. Advise Agent accordingly if you require more. Pilots consider 2 tugs are adequate.

Minimum 24 hours' notice is required for Pilot and tugs.

Pilot Launch: Approximately 7 m. in length, black hull, white topsides, with the word "Pilote" painted in white bold lettering on each side. (Also see "Approaching".)

ANCHORAGES: See "Port Limits".

Pilots recommended 2 miles off breakwater, keep entrance to harbour clear. Holding ground good. Obstructions not charted.

Keep well clear of Cap Blanc du Nord. I have seen heavy breakers 0.5 miles to 0.75 miles off this point in strong Westerly winds and heavy swell/sea.

Depth lines showing a 1 m. difference in soundings have been charted on locally produced chart.

RESTRICTIONS: Movements, entry and departure are restricted to daylight hours only. From observations (personal) tidal range at spring tides is approximately 8 ft. No tidal predictions are as yet available.

We entered with a draft of 38 ft. (11.58 m.) salt water even keel. No adverse effect, or ground effect noticeable. Be careful of lift and fall in heavy swell, and rolling which will increase draft. As previously stated, apart from the light on Cap Blanc du Nord, no other lights are as yet available as an aid to navigation.

Depths: Entrance Channel 17 m. No. 1 Berth 13.5 m. (phosphate).

MAX. SIZE: Nothing yet stipulated by Port Authority.

Our vessel: Overall length 224.50 m. Moulded breadth 32.20 m. Max. Summer draft 12.956 m. Max. d.w.t. (Summer) 64,931. G.r.t. 35,417, N.r.t. 21,296. Panamax bulk carrier.

Also see "Restrictions" and "Cargo Gear".

HEALTH: Pratique free from one Moroccan port to next Moroccan port.

Master to send cable 24 hours prior to arrival to Agent. Cable to include following information: Number of crew (including Master) on board, certify vessel free of infectious disease, all crew healthy, and in possession of valid health and travel documents (passports) and last port or ports of call (21 days prior) arrival, and request Agent to supply for Radio Pratique and Immigration Clearance.

Prepare Health Declaration Papers if on board, otherwise Agent will prepare on arrival at berth, for signature.

Vaccination Lists, 2 copies.

RADIO: "Casablanca Radio". Call sign CNP on 8 MHz.

We made contact 5 days (approximately 1,600 miles from Casablanca) prior to arrival.

VHF: Use Casablanca. Call CNP2. Frequency Channels 16, 12 and 14.

When you know from the Agent that the Pilot will board on arrival at Jorf Lasfar, then call "Jorf Lasfar Pilot" on Channel 12.

Also see "Approaching".

RADAR: Not available.

TUGS: Tugs do not have their own lines, ship's lines are used.

Also see "Approaching" and "Pilotage".

BERTHING:

Berth No.	*Depth Alongside* (m.)	*Length of Wharf* (m.)	*Width of Wharf* (m.)	*Surface Area* (sq.m.)
1	15.60	300	82.28	24,684
2 – 3	12.50	180	75.00	13,500
4 – 5	12.80 – 11.50	180	30.00	5,400
6 – 7	11.50	45	30.00	1,350
8 (Oil Berth)	15.60	45	15.00	675
9 (Oil Berth)	12.70	45	15.00	675
Q.C./10	5.25 – 6.75 – 9.00	360	20.00	7,200
Q.S.	3.50 – 4.00 – 5.00	215	20.00	4,200

Note: The above information has been obtained from the Port and Harbour Authority. The maximum permissible draft for our vessel at Berth No. 10 was declared as 26 ft. This information was given by the Pilot who shifted the vessel from Berth No. 2 to Berth No. 10 and agreed to by the Port and Harbour Authority. I requested this in writing before shifting the vessel.

From the above legend for the Quai de Commerce (Berth No. 10) the shallowest part is at the Eastern end near the Ro/Ro adjustable run-off. *Berth No. 10* Surface unsealed, and consists of loose metal/ sand/ stones, many potholes, dry grass, and totally unsuitable for discharge of grain.

Note of Protest and Indemnification of Liability served on the receivers by the vessel's command through the Agents. Receivers accepted it without question.

I am led to understand that the port is to be divided into 2 sections.

Berth Nos. 1 to 7 will be privately operated, and the remainder of the port will be operated by the government.

On some plans, a grain silo is shown on the Southern side of "Quai de Commerce", adjacent to the Ro/Ro terminal. This I believe will now not be developed, and Jorf Lasfar will not be used as a grain port. At times vessels use Jorf Lasfar to lighten ship to 30 ft. and then proceed to Casablanca for further discharge.

Berth use (on completion of port):

No. 1	Phosphates	Nos. 8 & 9	Petroleum
No. 1 Bis	Coal	Nos. 10 & 10 Bis	General
No. 2	Phosphates	No. 11	Service
No. 2 Bis	Coal	No. 12	Fish
No. 3	Phosphates	No. 3	Ro/Ro
No. 3 Bis	Minerals	No. 14	Cereals
Nos. 4 & 5	Sulphur	No. 15	Containers
Nos. 6 & 7	Acid		

CRANES: There are no permanent cranes to speak of at any of the berths.

6 mobile cranes were made available for the discharge of our vessel.

Type: Gottwald/Dusseldorf, luffing and slewing, diesel/motors.

Capacity: 6 tons × 8 m., 6 tons × 25 m.

Outreach: With base spreaders out, and tyres afloat, and in position the cranes could not plumb further than the centreline of the ship. (Beam 32.2 m. max., fenders alongside wharf).

No heavy lift cranes ashore or afloat available.

While in port 3 vessels were seen discharging heavy lifts for the industrial complex with their own gear.

One vessel discharged machinery and general cargo with ship's cranes.

Note: 1. Gearless ships would be serviced by the above mentioned mobile shore cranes.

2. Vessels with their own gear would have no difficulty to discharge cargoes such as grain/ores/coal/fertilisers/sulphurs/copra, etc.

BULK CARGO FACILITIES: Refer to legend of berths, cranes, and additional notes.

SPECIALISED CARGO HANDLING FACILITIES: A container terminal is envisaged but at time of writing is non-existent, (wharf or cranes).

Berth is available for Ro/Ro vessels with adjustable ramp, (power facilities and terminal non-existent).

Berth for tankers (Berths No. 8 and 9), available but as yet no pipelines to storage tanks, behind the ridge of hills in the background of the port, have been laid on.

Berths available for liquid chemicals, (see plan), but no pipe-lines or facilities as yet available.

No facilities for LPG/LNG.

BRIDGES: None.

STEVEDORES: Agent will organise gangs with receivers.

Port Working Hours: Monday to Saturday inclusive 0700 – 2300 hrs. over 2 consecutive shifts 0700 – 1500 hrs. and 1500 – 2300 hrs. Overtime, Sundays and holidays when available and/or compulsory. A third shift overtime also possible when ordered by receivers and agreed by Port Authority (2300 – 0700 hrs.).

There appeared to be no "meal breaks" or "smokos".

There is a language barrier unless you speak French and/or Arabic.

MEDICAL: See "Documents".

There is a private clinic, and 3 hospitals for the general public, available at a town called El Jadida, about 25 km. from Jorf Lasfar.

Notify Agents who will make the necessary arrangements. Preferably 24 hours' notice is required due to the fact that there is no communication available from the ship or wharves (telephone). There is a telephone available at the Port Authority Office some 1.5 miles distant from the wharf area, but the office is not open day and night, also the Agent lives at Casablanca some 120 km. distant. My crew were cautioned to exercise care in their work habits to avoid accidents. Shore labourers will request first aid from the ship for minor cuts and bruises.

Dental treatment is also available at El Jadida.

It is advisable to have Cholera/Yellow Fever inoculations. Some charterers include this as a must in their charter parties. There is a Port Health Officer stationed at El Jadida, who clears the vessel on arrival.

TANKERS: Two berths. No pipe-lines laid at present.

DENSITY: During vessel's stay, when cargo discharged, calculations and final draft survey by ship was necessary. The average salinity (density) corrected for temperature was 1027.5/1028. Temperature varies between 16°C – 25°C.

FRESH WATER: No fresh water available at Jorf Lasfar, nor are there any facilities yet laid on the wharf for this purpose.

Vessel maintained consumption, average 12 tons per day (which included domestic, culinary, toilet flushing purposes and laundry) from the water made by evaporator at sea on passage and prior to arrival.

Agents advise me that in very urgent circumstances, fresh water is available by tug, approximately 40 tons maximum, from Casablanca, but very expensive. (Not less than US$2,500 per 40 ton delivery.)

FUEL: Not available.

FIRE PRECAUTIONS: Normal ship safety fire precautions. No equipment available from wharf. Nearest available fire brigade is from El Jadida.

CONSULS: None available at Jorf Lasfar, or El Jadida, nearest is Casablanca. British Consul will act for certain Marine matters for British registered vessels.

I was able to have an extension to the vessel's "Safety Equipment Certificate" done in 30 minutes.

Take your passport to the British Embassy to gain entry. This will be checked after you have filled in a small form to indicate the purpose of your call.

REPAIRS: There are no facilities available for ship repairs, deck or engine.

The nearest repair yards and facilities are available at Casablanca. From the port plan, it would appear that there is to be 2 small docks or slipways, with workshop attached.

DRY DOCKS: None.

SURVEYORS: 1. Cargo Surveyors/Inspectors not available at Jorf Lasfar.

2. Ship's Surveyors (Lloyds/ABS/BV) not available at Jorf Lasfar.

Agents will arrange for Surveyors from Casablanca to attend. I was able to get the Lloyd's Surveyor at Casablanca to extend vessel's "Safety Construction Certificate". It took 7 days. Lloyd's Surveyor: Mr. A. Hamad.

GANGWAY/DECK WATCHMEN: Compulsory. Two per vessel, one for ship and one on the wharf. It was noticed that they do a 24 hour shift. It is not essential to victual them, but as there is food available, it would seem the best idea to feed them and get good co-operation and service. The watchmen are ex-seamen and understand English. Agent will sign the victualling voucher.

HATCHES: Opening and closing by ship's crew.

CUSTOMS ALLOWANCES: 200 cigarettes and 750 ml spirits per man/per week. They will open the bond stores for further issue weekly. Cost of obtaining Customs Officials per week 600 Dirhams which is about US$75.

Beer is not sealed.

If vessel's stay is to be an extended one, obtain permission and take out the required amount for the stay, on *arrival*. This will save you the charge each time the bond store is opened. The Agent only advised me of this after the first request for additional allowance.

Customs Officials will examine personnel and their baggage on leaving ship and returning from shore.

CARGO GEAR: Discharge was effected by shore gear, as our vessel is a gearless vessel.

Grabs were used, of which there were 8. They leak like sieves. ("Note of Protest" for loss of weight/quantity was served on receivers). The grabs are not the automatic open release type. They were landed on the hopper steel framework to effect release. The crane hooks were not moused, thus several times the grab wires came unsecured.

6 hoppers, the sides were not high enough, hence constant spillage.

A corkscrew type shaft, with an 8 in. tubular outer casing powered with a small electric motor at its head, driven by portable mobile electric generator, is used as a mini-elevator to load the grain which is dumped on the wharf into trucks and transported to the various consignees is one of the methods employed.

Cargo is also bagged from this stockpile on the wharf and carried and stacked on flat top trucks (240 bags per truck average) for delivery to consignees.

Canvas tarpaulins are used to cover the grain, in the event of rain.

We experienced 2 heavy downpours lasting about 3 to 5 hours, when pools and deep puddles of water developed (Berth No. 10), and 2 to 3 light rain periods lasting about 1 hour.

Include in your protest on arrival "Ship not responsible for damage due to discharge in wet or inclement weather, or for contamination and deterioration". This will be accepted by the receivers without question.

Direct loading from grab to hopper to trucks is also carried on. There is no weighbridge for weight checking.

Also see "Port Nador" – "Report, January 1984".

REPATRIATION: Crew members are able to join vessels or be repatriated.

Visas are required for certain citizens, whose country of domicile do not have diplomatic reciprocal consulates. Therefore please check before effecting any crew replacement.

On arriving at "Mohammed V" Airport at Casablanca, Immigration Authorities will endorse your passport with an entry permit. Cable or advise Agent the flight number and request Agent to assist in Immigration entry facilities.

You will have a baggage check at the airport.

When cleared you have to proceed to El Jadida where the Immigration will again endorse your passport. You will possibly have another baggage check at Customs in El Jadida and then proceed to Jorf Lasfar. This is because Jorf Lasfar is outside the jurisdiction of Casablanca.

AIRPORT: "Mohammed V" Airport is situated approximately 35 km. from Casablanca, allow 45 minutes driving time from the heart of the city. The airport is serviced by a great many airlines, to name but a few, Royale Air Maroc, Iberia, Air France, Sabena, K.L.M., Swiss Air, Aeroflot, Lufthansa, British Airways, Iraqi Airways, Kuwait Airways, Libyan Arab Airlines.

Internal domestic flights are available to Agadir (on the coast), Marakesh and Ouarzazate (inland), Rabat the capital city of Morocco and Tangier.

There is no airport at Jorf Lasfar.

TIME: GMT. No changes.

HOLIDAYS: There are 5 official governmental holidays.

There are 3 religious holidays (movable dates).

New Year's Day (English calendar).

On the above days "No Work is performed". This is questionable as we did work and sail on May 1st (Labour Day), which is one of the supposedly official holidays.

POLICE/AMBULANCE/FIRE: As yet there are no facilities available at the wharf in Jorf Lasfar. There are facilities at El Jadida 25 km. away. No assistance will be afforded the Master if he wishes security escort or Immigration facility for discharging crew members who are being dismissed for offences aboard ship, and have to be lodged in hotels prior to repatriation. They will only assist if there has been criminal assault on board.

EMERGENCY CO-ORDINATION CENTRE: None available at Jorf Lasfar. The Agent is your co-ordinator.

TELEPHONES: None at all available on ship, or wharf, at time of writing. Also see "Medical".

Overseas calls are possible from the Post Office at El Jadida or some of the 4 or 5 star hotels at Casablanca. There are no direct dialling facilities. Connections are made through Paris.

I had difficulty contacting my Owners at Singapore, so had to use the telex from the hotel and request them to call me, which did not take long.

SERVICES: None available at Jorf Lasfar. Casablanca is the nearest town to offer facilities for radio and radar repairs, through the Agents.

BANKS: None available at Jorf Lasfar. "Banque Credite Maroc" operates in El Jadida. Casablanca is the nearest city to offer any facilities for transactions.

STORING: Vessels can be stored by truck.

No barges available. No launches available, only the pilot launch. In due course when the port becomes fully operational storing from barge on the offside will be possible with ship's gear.

No regulations in force regarding storing at present.

Trucks can proceed alongside ship at the berths.

Fork lift trucks (2 available – 3 ton) belonging to the port. 1 front end loader rubber tyre was available.

Customs Regulations: Ship's machinery, spare parts, deck stores, goods shipped from overseas, are subject to Customs clearance.

VERY IMPORTANT: Declarations/invoices *must* be in the French language, proper, clear and precise nomenclature for *every item*, with the cost per individual item.

e.g. It took 9 days to clear a container (LCL) containing equipment for the installation of "Halon 1301" after the container was landed at Casablanca to be delivered to ship's side.

SHORE LEAVE: Shore leave is permitted for ship's Officers and crew. Passes are issued by the Immigration Authorities, after the vessel has berthed.

You must be in possession of your Pass when ashore.

If intending to stay at an hotel in El Jadida or Casablanca take your passport to check in at the hotel, as without it, you might not gain entry. Your passport will be held at the reception desk until account settled prior to checking out.

There is no way to obtain a taxi *from* the port.

Cargo transport trucks, initially offered crew transportation to El Jadida or Casablanca. Transport is available (taxis) from Casablanca or El Jadida, to the ship. Cost varies (day or night). Normal fare: El Jadida to ship 50 Dirhams (US$6). Casablanca to ship 350 Dirhams (US$42). Small mini-taxis are available for short distance transport in Casablanca. They do not have meters, 10 Dirhams seem to be the normal fare, for reasonably short distances.

"Siesta Time" is from 1330 to 1500 hrs. Business Houses (offices) close from 1300 to 1430 hrs. Working hours from 0830 to 1300 hrs. and 1430 to 1830 hrs.

Hotels: Casablanca: Several from 3 star to 5 star and prices range from 135 – 300 Dirhams for a single. Hyatt, 500 – 600 Dirhams. Consult tourist guide for information.

El Jadida: 2 hotels, the "Salam" and "Dounia", on the beach front. The former is more modern.

Sunbathing and swimming permitted in and around the hotel swimming pools. Tennis courts, volley ball, archery, horse riding, indoor dance and disco.

IDENTITY CARDS: See "Shore Leave".

REGULATIONS: No regulations as yet promulgated by the Port Authority. A Moroccan Harbour Master was appointed 1 week before we sailed.

As mentioned earlier Pilots are ordered by the Agent and come from Casablanca. The Harbour Master will not be doing pilotage.

DELAYS: We had none, having berthed on arrival. However, I would expect some delay if the wharf area has not been cleared from the previous vessel's cargo.

WEATHER: *April:* During the vessel's stay in port, strong winds Beaufort Force 7 were logged, coming from a West to W.N.W. direction. Winds backed to South and East, Beaufort Force 5. Heavy rain showers accompanied the winds. Temperatures ranged from 15°C at night to a maximum of 25° – 27°C during the day. Heavy dew after sunset.

AGENT: The Charterers and Owners both used the services of the same Agency.

Lasry Maroc, 30 Avenue de l'Armee Royale, Casablanca. Telex: 21949, 21092. Tel: 31.38.75, 31.19.54. Cables: Jolasry.

The above Agent has an office equipped with telex and telephone facilities at El Jadida.

Lasry Maroc, 2 Rue William Redman, El Jadida. Telex: Jolasry 78990 M. Tel: 3276, 3370. Cables: Jolasry, El Jadida.

Note: 1. The telex number at Casablanca we used was Sagnav 24646 M.

2. The telephone numbers at Casablanca shown above are those printed on Agent's visiting cards.

SHIPMASTER'S REPORT: April 1988.

We were contacted by the pilot from the pilot station at El Jadida. Pilot boarded the vessel one mile off breakwater. Due to heavy swell, a good lee has to be provided for the pilot vessel. Breakwater lights were found to be working, but the light (Occ.W.R.10, 6M.) was not functioning. 2 – 3 tugs are available for assistance. There are 2 mobile cranes fitted with grabs at Berth No. 4. Each grab discharges about 8,000 tonnes per day. Heavy surging of the vessel takes place alongside and continuous attendance to moorings and gangway is required. Gangway has to be rested on uneven surface of the wharf. Fresh water is available alongside at a cost of US$1.00 per ton. Nearest place for provisions, medical assistance, etc., is El Jadida, which is about 25 minutes drive by taxi and costs US$30.00.

KENITRA: 34.17 N. 06.30 W.

Situated on the left bank of the Oued Sebou, 17 km. from the Atlantic.
PILOTAGE: Pilotage is compulsory for entering and leaving port. Vessels must wait outside the port entrance for the tide. It is possible to enter from 2 hours before until 1 hour after HW during the night, and from 3 hours before until 2 hours after HW during the day. The Pilot boards vessels at river mouth. The Pilot will be on station 2 hours before HW.

On arrival at the Roads or after 0830 hrs., call the Pilotage Department and advise arrival time at the Roads and draft. Pilotage Department on VHF Channel 16 and 2182.

RESTRICTIONS: From the mouth of the river up to the port is a dredged channel. Depths are 4.20 m. during neap tides and 5.40 m. during spring tides. Height of tide during neap tide is 2.60 m. Height of tide during spring tide is 3.80 m. The constant is 1.60 m.

During the Winter it is recommended to stay outside the port in strong squalls. Ships are advised by Kenitra port radio of the possibilities for entering port.

Between November and April there is a total of 6 or 7 individual days when the port is closed to navigation, due to weather conditions.

Vessels are berthed and unberthed in daytime only at present time.

RADIO: Messages to ship's Agent should be sent through Casablanca Radio. In the ETA message to Agent, also advise vessel's draft. There is a radio station at Kenitra for port use only. Watch-keeping hours are only during HW, on 2182 kHz.

TUGS: Two tugs of 250 h.p. and one of 130 h.p.

BERTHING: The outer port used only by trawlers, and a mooring quay of 360 m. length belonging to the Royal Moroccan Navy. The length of main quay is 870 m. and includes 10 berths. In addition to the above there is a jetty for wine vessels, and a jetty for oil tankers.

FRESH WATER: Supplied alongside the quays.

FUEL: There are supplies of diesel oil, gas oil and petrol in the port. These products supplied by tanker lorry along the quay.

REPAIRS: There are workshops for small running repairs in the port. There is a slipway for ships up to 400 tons.

CONSULS: The Consular representatives at Kenitra are those of Belgium, France and Portugal.

AIRPORT: The nearest commercial airport is that of Rabat-Sale and there is a small airfield at Kenitra.

TIME: GMT. No changes.

AUTHORITY: Port of Kenitra, B.P.23, Kenitra, Morocco. *Telex:* 91952. *Contact:* O. Ajebli, Port Director.

AGENT: Consortium Industriel Commercial et Maritime, 19 Boulevard Imam Ali, Kenitra. Tel: 22 56 (3 lines). Telex: 91030 Boutrans and/or 91966 Incomar. Cables: "Incomar Kenitra".

MOHAMMEDIA: 33.45 N. 07.22 W. (See Plan)

DOCUMENTS:
Bill of Health.
Derat Certificate.
8 Crew Lists.
3 Passenger Lists.
3 Provisions Lists.
Ship's Certificates.
Personal Effects Lists.
Cargo Documents.
Dangerous Cargo List.
Clearance from Last Port.

PILOTAGE: Compulsory for vessels entering or leaving the harbour or shifting berth. Pilot may be contacted on VHF Channels 16 and 11. Pilot Station Tel. 47-91.

ANCHORAGES: For vessels entering the basin, 3 good anchorages in depths of 11 to 6.5 fathoms about one mile N.E. of the entrance.

RESTRICTIONS: Vessels with a draft over 15 ft. wishing to berth in the basin are obliged to wait for tide. No berthing at night time. Vessels may leave day and night, except gas tankers. All movements in the basin to be effected when conditions are favourable.

MAX. SIZE: *Basin:* Max. LOA 130 m. Max. draft 6.7 m. (22 ft.).
New Terminal: Berth A: Tankers up to 100,000 d.w.t. Max. draft 16.0 m.
Berth B: Tankers up to 150,000 d.w.t. Max. draft 17.0 m.
Sealine: Mooring buoy removed. Berths not in use.
Berth No. 1: Tankers up to 100,000 d.w.t.
Berth No. 2: Tankers up to 120,000 d.w.t.

HEALTH: Port Sanitary Control Officer boards immediately after arrival for Pratique delivery. In the event of any suspected disease or fever on board, it is necessary to advise by radio to Agent 24 hours before arrival. Pratique is automatic after calling at another port of Morocco.

RADIO: Casablanca Radio Station.

TUGS: 3 tugs of 2,600 h.p. available day and night. Additional tugs, if necessary, can be ordered from Casablanca which is 16 miles away.

BERTHING: Vessels up to 130 m. in length and drawing up to 6.7 m. (22 ft.) at Spring tides and 5.4 m. (18 ft.) at Neaps.

Quay No. 1 has a length of 70 m. with a depth of 7.0 m. (23 ft.).

Quay No. 2 has a length of 170 m. with a depth of 6.20 m. Max. LOA 120 m. Max. draft 6.0 m.

Quay No. 6 has a length of 60 m. with a depth of 6.10 m. Max. LOA 90 m. and max. draft 6.0 m.

TANKERS: New terminal in position Lat. 33° 43′ 45″ N., Long. 07° 23′ 24″ E. for crude oil, LPG and naphtha.

Diameter to swinging area 1,000 m. Vessels may be berthed in day time only but can sail at night. Mooring is effected with 20 nylon ropes (8 head/stern lines, 4 breast lines and 8 spring lines). Wires may also be used but must have nylon tails, length of each wire to be 200 m.

Connections: Berth A: Length of berth 260 m. Three discharging arms of 12 in. diameter (maximum pressure 15 Bar), one loading arm of 8 in. diameter and one deballasting arm of 8 in. diameter.

Berth B: Length of berth 260 m. Three discharging arms of 16 in. diameter for crude oil and 2 discharging arms of 12 in. diameter for LPG.

Also see "Shipmaster's Report" and "Chief Officer's Report".

STEVEDORES: The loading and discharging capacity of general cargo or timber is 300 tons per day. Gangs are arranged by the stevedores according to the cargo plan given by the consignee to the harbour authorities.

MEDICAL: There is the hospital and clinic in Mohammedia. Vaccinations can be arranged.

DENSITY: 1025.

FRESH WATER: Water can be supplied at any time in the basin and at the new oil terminal.

FUEL: Available from Casablanca at 48 hours' notice.

FIRE PRECAUTIONS: All tankers are confined by gates and watched over by special firemen.

GANGWAY/DECK WATCHMEN: Watchmen are recommended.

OPENING/CLOSING HATCHES: This work is normally carried out by crew. When carried out by stevedores the cost is charged.

IDENTIFICATION CARDS: Passport and Police Permit required for leaving the harbour.

CONSULS: There is no consul in Mohammedia. All are in Casablanca.

AIRPORT: The nearest airport for international flights is Mohamed V (Casablanca).

TIME: GMT. No changes.

HOLIDAYS: 1st January; 1st May; 3rd March; 23rd May; 9th July; 14th August; 6th and 18th November; and any other religious holidays which are not at regular dates.

POLICE/AMBULANCE/FIRE: Police, 44.66; Ambulance/Fire, 15.

SHORE LEAVE: Allowed.

CHIEF OFFICER'S REPORT: (L.P.G.) May 1987.

Charts: BA. Charts No. 3257 and 806.

Anchorage: The anchorage used was that indicated on BA. Chart No. 806. This anchorage being 1 mile off the outer leading lights and in 10 fathoms of water. There are unlit mooring buoys off the outer mole.

Pilotage: The Pilot boards from a black hulled launch off the inner harbour. Communications with the Pilot are on VHF Channel 11.

Berthing: Vessel berthed at the first berth inside the harbour on the starboard side. One tug is used to push the bow around to enable vessel to berth port side to with the bow out. The pilot boat runs the head lines to buoys. Vessel secures with 2 lines and 2 springs. The maximum draft at the berth is 20 ft. and the clearance is about 2 ft.

Berthing and unberthing is carried out at high water and in daylight hours only.

Ship's gangway used.

Cargo: A small arm 4 in., 300 ASA, is connected and disconnected by shore personnel.

Ethylene discharge at the berth (temperature −102.5°C). 3 pumps used with air back pressure of 3 Bar. Average rate of discharge 170 tonnes per hour.

Difficulties can be found when starting due to auto valve in shore line which closes in when the shore tank pressure is high. Pumps then trip out on low amps.

Ideally, vessel should start with 1 pump for 30 minutes so that shore can ascertain pressures.

Shore tank capacity 3,000 tonnes. The dewpoint was checked but no samples were taken.

There are 2 reliquefaction plants at the terminal.

Customs: The bond is sealed.

General: It is about 15 minutes walk to the town. There are a few small shops outside the gate which sell fresh vegetables and fruit, etc.

The fresh water supply on the quay is metered.

SHIPMASTER'S REPORT: (L.P.G.) April 1988.

Chart: B.A. Chart No. 860 and 861.

Port: Mohammedia. In some publications the port is known as Port Fedala.

Pilotage: The pilot boards from a black hulled launch off the inner harbour (Jetty Nord).

Pilot can be contacted on VHF Channel 11.

Anchorage: The anchorage is that indicated on B.A. Chart No. 861. Vessel anchored one mile NW of Point Sidi in a depth of 19.0 m. This anchorage was exposed.

The inner anchorage is about 0.5 miles N.E. of Jetty Nord but is very restricted.

Tugs: 3 tugs available. 1×3,000 h.p., 1×2,500 h.p. and 1 small pusher tug of 500 h.p.

Berthing: Vessel berthed at Berth No. 6 to discharge ethylene. Maximum draft over the bar is 6.6 m. at HW. Berth No. 6 accepts vessels up to 90.0 m. length. Depth at the berth is 7.0 m. at LW.

One tug used for berthing, ship's line. The tug pulls the vessel's bow round to starboard off the berth and vessel berths port side to, head out. The pilot boat runs the headlines to the buoy. Moorings forward consisted of 2 headlines and 3 springs. Similar moorings required aft.

Berthing is carried out during daylight hours only and at or near to high water, depending on draft. Berthing is carried out with a wind force up to Force 5.

Departure depends on draft but usually 3 hours either side of high water.

Ship's gangway used.

Berth No. 1, which is just West of Berth No. 6, handles vessels up to 125.0 m. LOA with a maximum draft inward of 6.6 m. The depth alongside the berth is 8.0 m. at low water. Berth No. 1 is used for chemical handling.

Cargo: Ethylene is discharged through 1×4 in. 300 ASA arm. Shore personnel connect and disconnect arm. The best discharge temperature is −102.5° C. The pumping rate varies with the temperature and ranges from 170 t.p.h. to 60 t.p.h. if the discharge temperature is high. The auto valve ashore closes if the temperature rises. The ethylene storage tank is a short distance from the berth and holds 2,800 tonnes. The tank is cooled to −103° C by vapour boil – off pumped by two Sulzer compressors to VCM production tank some distance away.

The discharge pressure gain varies as temperature, but at full rate, back pressure was about 3 Bar.

When discharging, it is advisable to use one pump for about 30 minutes so that the shore can ascertain pressures. Trouble can be found when starting, due to the auto valve in the shore line, which closes when shore tank pressure is high, pumps then trip out at low amps.

About 1,500 tonnes of ethylene is imported each month.

Customs: The bond is sealed.

Shore Leave: Shore passes are issued, these are to be returned prior to departure. There is a guard on the gate.

General: It is about 15 minutes walk to the town.

The exchange rate for the Pound Sterling on our visit was 14 Dirams to the Pound Sterling.

There are a few shops outside the gate which sell fresh vegetables, fruit, etc.

Fresh water available on the quay and is metered.

All services are available from Casablanca which is about 15 miles to the South.

Doctor available locally.

Developments: There is a new jetty for tankers inside the new outer breakwater. There are 2 berths for handling of LPG, chemicals, Naphtha and crude oil through chicksan arms. Vessels berth head out.

AUTHORITY: Office d'Exploitation des Ports, Direction d'Exploitation du Port de Mohammedia, B.P. 98, Mohammedia, Morocco. *Tel:* 47-92. *Telex:* 22969 M. *Contact:* Harbour Master (Capitainerie).

PORT NADOR (Beni Enzar): 35.17 N. 02.56 W.

SHIPMASTER'S REPORT: November 1979.

DOCUMENTS:
6 Crew Lists.
3 Stores Lists.
Vaccination List.

PILOTAGE: Compulsory. Pilot boards off the breakwater and requires 1 hour's notice.

ANCHORAGE: About 0.5 miles N.E. of the breakwater.

RESTRICTIONS: Vessel is able to enter and leave at any stage of the tide, day or night.

MAX. SIZE: LOA 500 ft. (approx.). Max. draft 8.5 m. (approx.). Size of vessel limited by swinging room. Underkeel clearance of 1.5 m. required.

RADIO: Nador Radio.

VHF: Port Authority and Pilot on Channel 16.

TUGS: One tug of 600 h.p. An additional tug of 1,500 h.p. may be available.

BERTHING: *Berth No. 1:* The berth is close to the entrance and the max. size permissible is approximately 400 ft. LOA and approximately 8.5 m. draft. The least depth in the channel from sea to the berth is 13 m. The nature of the bottom at the berth is sand and mud and the density is 1025.

Cargo Facilities: There is 1 ore loader for small vessels. There are 4 mobile cranes with safe working load of 6 tonnes. No Ro/Ro facilities. There is ample mechanised equipment for handling palletised cargoes. There is storage space for break-bulk cargoes and storage for palletised cargoes, however, there is little covered space. There is no equipment for handling containers and there is no storage space for containers as there is no hard ground.

FACILITIES: The following are available: fresh water, fresh provisions, small repairs, small machine shop, airport (at Oudja 140 km.), Lloyd's Surveyor, Salvage Surveyor, laundry service, doctor and hospital, groceries and meats.

CONSULS: Spanish Consul located in the port. British and French Consuls at Oudja.

TIME: GMT. No changes.

GENERAL: Port Nador is situated next to Melilla, and the same entrance between the breakwaters is used for entering, although both ports are run entirely separately, Melilla being Spanish and Port Nador being Moroccan. The Moroccans are sure that Melilla will soon be theirs, then it will become one large port.

The port under construction is to have 14 berths, at the moment there are only 2 berths working, both of which are only partially completed. The only shed constructed is used for palletising and storing fruit.

Maximum intended draft when all is completed will be 13 m.

DEVELOPMENTS: Port construction is taking place at the present time and eventually 14 berths will be available and when this is completed Melilla and Port Nador are expected to become one port. There will be 1 oil/mineral berth with depth of 12.5 m., 2 berths with 8.5 m., 1 berth with 6.5 m. and 1 berth with 5 m. in the initial stages.

REPORT: Dated September 1980.

This port is still under construction but for the last 2 years has been open for trade of iron ore, lead and citrus fruit (seasonal). There are 3 piers now in use as follows:

Mole No. 1 (S.W. side) for the shipping of iron ore.
Mole No. 2 (N.E. side) for lead and general cargo.
Mole No. 2 (S.W. side) for citrus fruit.

The N.E. side of Mole No. 1 will also be for minerals but is still under construction.

REPORT: January 1984.

Ships have discharged on voyage charter at Nador on two occasions with similar experiences in the discharge of grain. Ships berthed at an open quay and the cargo was 'dumped' by portable cranes of light construction which are fitted with anemometers, in an area too far from the side of the ship to allow the use of ship's cranes. When the wind reaches Force 4 it is considered too dangerous to continue discharge and work ceases.

Charterers claim that work is stopped by the Port Authorities and that such time lost does not count as laytime, claiming it is a non weather working day.

This method of discharge is used because of a shortage of lorries, which, if they were available, could be loaded using ship's gear alongside the ship during such stoppages for wind.

Whilst no delays have been experienced at the port of Jorf Lasfar, the Master informed us that the same method of discharge was used at that port.

Owners should endeavour to protect themselves when fixing business which is likely to include discharge at this port as the wind seems to reach Force 4 on many days and a lot of time is lost resulting in costly delays.

AUTHORITY: R.A.P.C.

SAFI: 32.19 N. 09.12 W.

DOCUMENTS: Clearance procedure is very simple. 3 Crew Lists, 1 Personal Effects Lists, 3 Passenger Lists and 1 Stores Lists only are required. Other documents are presented on berthing.

PILOTAGE: Arranged by vessel's Agent, to whom a correct ETA should be given. There is VHF radio contact with the pilot station and Harbour Master's Office. The pilot boat is located inside the harbour and the Pilot boards in position Lat. 32° 19′ N., Long. 9° 16.1′ W. Pilot ladder only is required.

ANCHORAGE: Recommended anchorage is S.W. of harbour entrance. Safe holding ground for 25,000 d.w.t. vessels. Vessels should keep port entrance clear.

MAX. SIZE: Vessels with a draft of more than 28 ft. and up to a max. of 30 ft. enter and sail at high water.

Also see "Shipmaster's Report".

HEALTH: Health Officer boards shortly after berthing but Agent must be advised before arrival if suspected disease or fever on board. Health clearance in one Moroccan port holds good for the next.

RADIO: Casablanca Radio for normal traffic or Safi Radio for local R/T traffic. Harbour Radio VHF Channel 16.

TUGS: Tugs stand by vessel inside breakwater and, usually, ship's lines are used.

BERTHING: Vessels berth in order of arrival. Port used for export of manganese and barytes. No night entry after 1900 hrs.

STEVEDORES: Gangs are arranged by vessel's Agent. Night work is possible from 1800 to 2200 hrs. and, very exceptionally, until 2400 hrs.

MEDICAL: Advance notice of required medical attendance is advisable but not essential. Modern hospital and clinic are available. Vaccination is only necessary when vessels have called at cholera and yellow fever ports.

TANKERS: Only small tankers used in this port. White products and gas oil imported; no export. Ammonia tanker berth max. draft HW 30 ft.

DENSITY: Density varies between 1024 and 1026.

FRESH WATER: Availability not limited; by hoses from quay.

FUEL: Limited supplies gas oil; diesel available but must be stemmed. Fuel oil and large quantities diesel, gas oil can be delivered by tanking lorry from Casablanca.

GANGWAY/DECK WATCHMEN: Watchmen necessary. One watchman day and night.

OPENING/CLOSING HATCHES: Normally done by crew but can be arranged by stevedores with advance notice.

CUSTOMS ALLOWANCES: 200 cigarettes, and one open bottle of spirit allowed each man. Bond is sealed and heavy fines are imposed by Customs for smuggling.

IDENTIFICATION CARDS: These are needed.

CONSULS:

Denmark	Tel: 30.39	France	Tel: 27.97
El Salvador	Tel: 28.76	Portugal	Tel: 23.58
Finland	Tel: 31.40	Sweden	Tel: 29.06

REPAIRS: Major repairs not possible; small workshops only for repairing fishing boats.

REPATRIATION: Repatriation by air or sea through Casablanca, 150 miles away.

AIRPORT: Nearest at Casablanca, served by principal European airlines.

TIME: GMT. No changes.

HOLIDAYS: On the following holidays no work is possible: 1st January (New Year's Day); 3rd March (Coronation Day); 1st May (Labour Day); 18th November (Independence Day). Other Moslem and Christian holidays are subject to last minute decisions as far as tariff is concerned, but work can be arranged.

TELEPHONES: No telephones can be placed on board. Public telephone available on the quay during working hours only.

GENERAL: Masters are strongly advised to take local currency from their Agent. Landing of foreign currency encourages black market transactions and incurs confiscation and heavy fines as well as delays by the Customs Authorities.

SHORE LEAVE: Police permits are required by crew and are delivered by Immigration Authorities.

SHIPMASTER'S REPORT: January 1983.

Max. Size: Maximum draft on entry was said to be 35 ft. (10.67 m.) on HW.

At Phosphate Wharf vessels loading to more than 8.8 m. must – due to berth/draft restrictions – work for completion on HW. Max. LW draft at inner end was given as 9.3 m. minus 0.5 m. for surge effect.

Air draft problems affect large vessels in ballast and it is advisable to keep tank ballast in until alongside.

Conveyor outreach limits can cause problems for wide beam twin hatch vessels.

Berthing: Restriction on night entry on longer vessels applicable. (This vessel sailed at 2300 hrs. on HW with a draft of 10.54 m. Pilot transferred to another large deep draft vessel which was to move into our berth after we cleared).

Stevedores: At Phosphate Wharf, 24 hour working to suit tides, via 2 conveyors each of capacity 750 t.p.h., weights found to be accurate.

General: Small amounts of foreign currency may be taken/used ashore; occasionally gate officials enter amount on back of landing permit.

Phosphate company generally require all final ships' paperwork to be signed in their office ashore.

AUTHORITY: Capitainerie de Port.

TANGIER: 35.47 N. 05.48 W. (See Plan)

PORT LIMITS: To the South by the coast and port installations and to the North by a line joining Pointe de Malabata and the Mouth of L'Oued el Youd.

DOCUMENTS: Required on arrival:
Health Declaration.
2 Crew Lists.
7 Cargo Manifests.
5 Lists of Passengers Disembarking.
4 Lists of Passengers in Transit.
Required on departure:
5 Cargo Manifests.
5 Manifests of Passengers Embarking.

PILOTAGE: Pilotage is compulsory for ships of more than 50 g.r.t. for entering, leaving and shifting in harbour. Departure possible throughout 24 hours, entry up to the last departure. Pilot on VHF Channel 16 throughout 24 hours. Vessels should advise arrival 6 hours and 1 hour in advance.

Pilot boards 0.5 miles North of head of breakwater.

ANCHORAGES: There are good anchorages to the East and Southeast of the breakwater head in depths of 10 m.–16 m.

RESTRICTIONS: The harbour area between the breakwater and the extremity of the main pier has a minimum depth of 9 m.

Wreck Buoy: It is very important that vessels keep the wreck buoy (35° 47.27' N., 05° 47.05' W.) on their port side when entering the port.

HEALTH: Apart from the international laws which must be obeyed, vessels coming from an infected area must send in advance (12 hours) a telegram to "Saniport Tangiers" describing the state of the vessel and persons on board.

Vessels having a sick person on board to be landed at the port must send a telegram as soon as possible to "Saniport Tangiers" with all details concerning the case to be brought ashore and await the corresponding reply.

Hospitalisation will be in a State hospital, or, if needs be, in a clinic. No disembarkation of a sick person may take place without the presence or ruling of the health authorities of the port.

Vaccinations necessary in case of need are carried out on the spot, and in accordance with the requirements of the OMS.

Evacuation of sick persons is effected by ambulance, either municipal or private, after having advised the Port Health authorities.

RADIO: Tangiers Radio listens on 2182 kHz and VHF Channel 16. Weather forecast at 0915 hrs. and 1630 hrs. GMT on 1911 kHz.

TUGS: The port owns 1 tug of 1,500 h.p. and 1 tug of 2,500 h.p. equipped with fire-fighting equipment.

BERTHING:

Quay	*Berth* No.	*Length* (m.)	*Depth* (ft.)	*Remarks*
No. 1	P.4	200	14.0	Small cargo vessels
No. 2	T.C	120	28.5	Various
New Mole	C.1	100	28.5	Cereals
	C.2	100	28.5	Cereals
	P.1	100	28.5	Citrus fruit and various
	P.2	100	20.0	Various
	P.3	100	20.0	Various
Quai du P.M. 900	P.9	72	28.5	Tankers and butane
Quai des Paquebots	P.6	96	28.0	Cruise ships and various cargoes
	P.7	100	28.0	
	P.8	100	28.0	
Quai des Voyageurs	T.1	100	15.0	Small car ferries
	T.2	100	15.0	Small car ferries
	T.3	100	16.5	Small car ferries and Ro/Ro
	T.4	100	20.0	Large car ferries and Ro/Ro

CRANES: 9 mobile cranes, lifting capacity 6 tonnes. 1 Titan rail mounted crane with capacity of 100 tonnes. 1 container crane, 99 tonnes at 3.5 m.

STEVEDORES: Normal working hours are from 0800–1200 hrs. and from 1400–1800 hrs. Overtime: 1200–1400 hrs. and 1800–2400 hrs. Usual loading and discharging rates are as follows: 15–18 t.p.h. goods in sacks; 12–15 t.p.h. for bales; 10 t.p.h. for general cargo; 7–8 t.p.h. for cork.

MEDICAL: Hospital available.

TANKERS: Length of berth 72 m. Butane gas carriers also handled.

FRESH WATER: Replenishment of fresh water can be made at all times alongside the quays at the rate of 30 t.p.h.

FUEL: There are no refuelling installations at the quays. Only very small quantities can be supplied by tanker lorries belonging to the oil companies.

GANGWAY/DECK WATCHMEN: Advisable, order through Agent.

CONSULS:

Finland	320-85	Spain	356-25
France	320-39	Sweden	358-72
Italy	310-64	Switzerland	347-21
Netherlands	312-45	United Kingdom	358-95
Norway	371-73	U.S.A.	359-04
Portugal	317-08		

REPAIRS: Slipway for small vessels, no shipyard.

AIRPORT: International airport 12 km. from port on the road to Rabat.

TIME: GMT. No changes.

TELEPHONE: Installation only possible at the jetty.

POLICE/AMBULANCE/FIRE: Police: Tel. 19; Town Ambulance: Tel. 324-44, 342-42 and 376-83; Private Ambulance: Tel. 210-89; Fire Brigade: Tel.15.

GENERAL: *Tides:* Height of Springs, 2.20 m. Height of neaps, 0.50 m.

Wind: (October – May) W. and S.W., (May – October) E.N.E. (sometimes Force 8).

Swell: From the N.W. in Winter which creates fairly rough seas in the port.

Currents: Insignificant.

DEVELOPMENTS: 5 cranes on rails will be installed on the new mole in the near future. 7 mobile cranes will also be available.

AUTHORITY: Direction d'Exploitation du Port de Tanger, B.P.305, Tangier, Morocco. *Tel:* 360-40/45. *Telex:* 336-90. *Contact:* Port Director.

TAN-TAN: 28.29 N. 11.01 W.

The following is a translation of French Notices to Mariners.

The new fishing port of Tan-Tan is situated close to and to the S.W. of Cape Nachtigal. The main breakwater is 1,698 m. long, running N.E. for about 900 m. and then to the East towards the coast. The counter-dyke (230 m.) is perpendicular to the main breakwater at about 100 m. from its end. In the extension of the counter-dyke, and starting from the coast, the cross dyke is 548 m. long.

The port entrance faces S.W., the passage is about 100 m. wide between the ends of the counter-dyke and the cross dyke.

The port has 2 berths with 6 m. and 4 m. depth, one berth on the cross dyke and the other on the main breakwater. It also has a slipway 100 m. long and 50 m. wide.

Inside the port care must be taken when the winds are from West to North which produce a fairly strong undertow.

In October 1979 there were no lights or buoys. Arrival by day is recommended. A characteristic gap in the cliff and buildings to the N.E. of the port, together with a mountainous summit to the South will be seen. To the North of the main breakwater, the sea breaks over a barrier reef. Near the port the current runs Southwards.

Anchoring is possible in 12 m. – 13 m. of water, with sandy bottom and very firm, 1.2 miles to the W.S.W. of the end of the main breakwater. A shallow of 6.4 m. is located 0.5 miles to the West of the end of this breakwater.

VILLA CISNEROS (Dakhla): 23.42 N. 15.55 W.

DOCUMENTS: *Foreign Vessels*

- Crew List.
- Health Pratique.
- Passenger List.
- Cargo Manifest.
- Safety Equipment Certificate.
- Radio Safety Certificate.
- Seaworthiness Certificate.

PILOTAGE: Pilot is necessary to cross the bar and for river navigation. Pilot joins at anchorage. Pilotage compulsory for all vessels over 50 g.r.t. Contact Pilot by radio-telephone, via Port of Villa Cisneros Radio operating on 2182 and 2626 kHz from 0800 to 1300 hrs. and from 1500 to 2000 hrs. GMT.

ANCHORAGES: In depths of more than 10 m. about 0.6 miles East of the breakwater head. This situation is well protected from swell from the S.W. but open to winds from the N.E. which are frequently strong creating difficult conditions for very small vessels. There are no mooring buoys.

Vessels loading transhipment cargo anchor in position with Punta Galera Light bearing 030°T, 1.2 miles off. The prevailing winds blow mostly from the North up to Force 3 with a long low swell mostly from a Northwesterly direction.

MAX. SIZE: Length 100 m., beam 12 m., draft 5 m.

HEALTH: Masters are required to complete a health certificate for the Port Captaincy declaring that the vessel has not called at any infected ports.

TUGS: None available, only one small launch which may assist.

BERTHING: Breakwater of 750 m. length extends towards the S.E., berths alongside the last 200 m., 1 concrete pier for small vessels, 3 small jetties enclosing 2 docks, can be used by vessels of medium size.

STEVEDORES: Employed by Port Authority and engaged by ship's Agent.

MEDICAL: Hospital available for any kind of medical attention; doctors and ambulance service available.

TANKERS: Moor at Jetty No. 2. Pipe-lines 4 in. diameter.

FRESH WATER: On the quays are 3 hydrants, capacity 3 t.p.h. and 4 of 2 t.p.h.

FUEL: Atlas Company can supply fuel subject to advance notice.

OPENING/CLOSING HATCHES: Opened and closed by crew.

CUSTOMS ALLOWANCES: Crew are allowed to take only sufficient tobacco ashore for their own consumption. It is not permitted to take alcohol ashore.

IDENTIFICATION CARDS: Seamen going ashore must take an identity card or a shore pass, issued by the Master.

CONSULS: No local representation.

REPAIRS: Only facilities for very minor repairs.

REPATRIATION: Can be arranged provided that documentation is in order.

AIRPORT: Situated 1 km. from the port. 5 flights per week.

TIME: GMT is used all year round.

HOLIDAYS: Mohammedan Holidays: Aid el Queber (2 days); Aid el Mulud (1 day); Aid el Seguer (2 days).

POLICE/FIRE/AMBULANCE: Police Station situated 100 m. from the quays. Fire, Tel: 18. Ambulance, Tel: 17.

SHORE LEAVE: Allowed without restriction.

NOTES

Please also advise Shipping Guides Ltd.

Mozambique

BEIRA: 19.46 S. 34.50 E. (See Plan)

PORT LIMITS: Vessels are considered to be "arrived ships" when they enter the pilotage area, i.e. when they enter within a radius of 5 miles from the pilot boat. The custom of the port is that vessels are in "Free Pratique" only when they have entered port and have been cleared by the Immigration Authorities. Immigration will only clear vessels in port.

DOCUMENTS:
Customs Clearance from last port.
Health Certificate.
8 Crew Lists.
8 Lists Passengers in Transit.
8 Lists Passengers Disembarking.
2 Stores Lists.
2 Lists Deck Stores.
2 Lists Cargo in Transit (main items of cargo only).
8 copies of Manifest of Beira Cargo.

Shipmaster's Report: March 1981.
Customs Clearance from Last Port.
Declaration of Health (Form Modelo No. 101-s.s.).
2 Sets Vaccination Lists.
7 Crew Lists.
7 Passenger Lists (with Passport Nos.)
2 Stores Lists (Lista De Mantimentos).
2 Crew Declarations (Company Form).
3 In-Transit Cargo Lists (Tonnage and Main Items) Company Form/Letter.
3 Hazardous Cargo Manifests.
Register of Entrance (Form DSM-079) (To Pilot).
Note: Shore passes issued at gate in exchange for Seaman's ID Card/Book. Radio Pratique not available.

PILOTAGE: Compulsory for all ships other than naval vessels. Ship's name, ETA and draft should be radioed via Beira Radio, call sign CRS, 24 hours in advance to Port Captain Beira and owner's Agent.

The pilot boat – black hull, grey upperworks, black funnel with white "P" – is stationed Lat. 19° 52′ 47″ S., Long. 34° 57′ 21″ E. Pilot boat call sign CRL H – W/T: listens on 500 kHz, replies on 480 kHz, – R/T: listens on 2,182 kHz, replies on 2,341 kHz. – VHF: frequency 156.6 MHz. (Channel 12).

Unless instructed to the contrary by the pilot boat, vessels with a draft under 25 ft. anchor by "P" Buoy, 19° 52′ 47.3″ S., 34° 57′ 21.1″ E., and vessels with draft over 25 ft. anchor between "P" and "A" Buoys, 19° 56′ 20.1″ S., 35° 02′ 44″ E.

In bad weather pilot boat may leave above position and enter port. In such cases vessels should anchor as indicated above, weather permitting.

ANCHORAGES: At Bar, "P" and "A" Buoys as indicated above. There is anchorage for 4 – 6 ships, depending on size, in inner harbour off Cabedelo sand-pit.

RESTRICTIONS: Ships with draft 16 ft. and under can enter at any time. Ships with draft over 16 ft. generally enter 2 hours either side of high water.

MAX. SIZE: Max. permissible length about 800 ft. Max. permissible drafts between 33 ft. – 36 ft. at springs, about 27 ft. – 29 ft. at neap tides.

HEALTH: Vessel to radio "Sanidade Maritima", Beira, their ETA and "All Well". If "All Well", Health Certificate given by Pilot.

RADIO: Vessels to route messages through Beira Radio – call sign CRS. Agents radio ships through same station. Naval Radio Station – call sign CRX 3 available for distress signals.

TUGS: Join incoming vessels at inner anchorage, about 1 mile distant from quays. Ship's lines used. 4 tugs available, up to 3,200 h.p.

BERTHING: No night berthing done unless with prior consent of Chief Pilot, otherwise no specific requirements.

Pungue Wharf:

Berth No.	*Depth* (ft.)	*Length of Berth* (ft.)	*Cranes* (Electric)
1	27	580	2× 6 tons 4× 3 tons
2	27	530	2× 6 tons 4× 3 tons
3	27	530	3× 6 tons 3× 3 tons
4	30	525	2× 6 tons 3× 3 tons
5	30	530	2×3.5 tons 1× 5 tons 1× 3 tons
6	30	540	1× 10 tons 5× 5 tons
7	31	540	1× 10 tons 5× 5 tons
8	31	630	Conveyor Belt
9	31	540	1× 10 tons 5× 5 tons
10	31.5	550	1× 20 tons 5× 5 tons

Note: Wharf No. 1 is generally used by trawlers, No. 2 by trawlers and coasters, No. 3 by vessels loading cement, Nos. 4, 5, 6, 7, 9 and 10 for general cargo. Ro/Ro facilities available.

Range of Tides: 15 ft. – 21 ft. Maximum depth of water should only be taken as an approximate guide as actual depths are dependent on the port dredging programme. Maximum permissible draft for turning ships round at or off the wharves is 30 ft.

CARGO HANDLING FACILITIES: There is a mechanical appliance at No. 8 Berth Pungue Wharf, used for coal. This appliance is new and has never been used but it has been designed to achieve 700 t.p.h. It is also equipped with 1 spout.
Mobile Cranes: 25 cranes with capacity 1-10 tons.
Electric Cranes: See "Berthing" – Pungue Wharf.
Molasses: Storage tanks, capacity 18,000 tons. Served via No. 8 Berth.
Vegetable Oils and Tallow: 5 tanks with total capacity 1,800 tons.

STEVEDORES: Ordered by Agent. Vessels should advise Agent their ETA at least 12 hours in advance (weekdays), 24 hours in advance (week-ends).
Port Cargo Working Hours: (3 shifts throughout all days): 0700 – 1300 hrs., 1300 – 1900 hrs., 1900 – 0200 hrs.
From 1300 hrs. Saturday until 0200 hrs. Monday – all overtime.

MEDICAL: No advance notice required for medical attention, unless urgent assistance necessary. Hospital facilities available. Crew members and passengers should be in possession of valid cholera and yellow fever certificates on international forms. Vaccination/ fever inoculations and certificates may be obtained ashore if required.

TANKERS: Discharge lines white and black oils, 2×10 in. lines feeding into 12 and 14 in. lines leading to storage tanks. Also a 22 in. discharge line for crude oil. No slop discharge facilities. 2 tanker berths, max. permitted drafts about 31 ft.

DENSITY: In harbour area allow 3 to 4 in.

FRESH WATER: Available at all Pungue Wharf berths, pumping rate about 50 t.p.h.

FUEL: Fuel oil 1,000 Secs R. viscosity, marine diesel 43.1 Secs R., diesel 34.1 Secs R. 3 – 4 days' advance notice required. Bunkers delivered when alongside, no bunkering barge available.

GANGWAY/DECK WATCHMEN: Compulsory to employ watchmen to prevent pilferage.

OPENING/CLOSING HATCHES: Can be done by either crew or stevedores. Often done by crew.

CUSTOMS ALLOWANCES: There is no restriction on crew member holding in his cabin any amount of tobacco/wine, spirits.

SHIP CERTIFICATES: Tonnage Certificate to be produced to Pilot, as certain port dues are based on vessel's registered tonnage.

CARGO GEAR: All gear supplied by stevedores except rope slings, rain tents, and spreaders for heavy lifts.

IDENTIFICATION CARDS: Required. Passport if possible, otherwise Seamen's Book.

CONSULS: Germany D.R., Netherlands, Portugal, U.S.S.R.

REPAIRS: Most types of deck and engine repairs are possible, but major repair jobs are not undertaken.

DRY DOCKS: 1 dry dock 115 m.×17 m.×8.5 m., suitable for ships up to 5,000 tons, LOA 377 ft. and max. beam 55 ft.

REPATRIATION: Facilities exist and a valid passport is necessary as Immigration Authorities do not recognise a Seamen's Book as a valid travel document.

AIRPORT: Beira Airport situated 7 miles from sea port and is served only by domestic airline which maintains 2 flights per day to Maputo from where international connections available and 1 weekly flight to Harare (Zimbabwe).

TIME: Local time 2 hours ahead of GMT. No alterations made to clocks during year.

HOLIDAYS: January 1st (New Year's Day); February 3rd (Hero's Day); April 7th (Woman's Day); May 1st (Labour Day); June 25th (Independence Day) and September 25th (Army Day).

POLICE/AMBULANCE/FIRE: Port Police (Tel. 22920); Ambulance (Tel. 22442); Fire (Tel. 22222).

TELEPHONES: No telephones placed on vessels.

SERVICES: Services normally available for tank cleaning, compass adjusting, minor repairs to radar and radio.

SHORE LEAVE: Crew members and officers are allowed ashore, and shore passes are issued against Seaman's Book or Passport.

DELAYS: Generally no delays, but sometimes 24 – 48 hours' delay following rain or bunching of arrivals.

GENERAL: Beira port works 20 hours per day, 7 days a week (except 1st January) and overtime working is compulsory.

DEVELOPMENTS: A long term master plan is to be undertaken.

The plan includes a new oil terminal for tankers up to 50,000 d.w.t., new coal terminal for vessels up to 125,000 d.w.t., new bulk terminal for sugar and cereals and a container/multi-purpose terminal (length 650 m., by converting Berths No. 2 – 5). The access channel will also be deepened in order to accommodate larger vessels.

AUTHORITY: Direccao do Porto da Beira.

AGENT: Manica Freight Services (Moc) SARL, Largo Joao Coutinho No. 148, P.O.Box 44 or 258. Tel: 25163/9. (After hours 23456). Telex: 7343/7345. Cables: "Freights".

MAPUTO: 25.59 S. 32.34 E.

DOCUMENTS:
6 Crew Lists.
1 Stores List.
6 Passenger Lists.
Last Port Customs and Port Clearance.
1 List of Ports of Call.
1 Health Declaration (given by Pilots on arrival).
1 Entrance Report (given by Pilot on arrival).
1 Customs Entrance (given by Agent on arrival).
1 Railway Statistics Form (given by Agent on arrival).

Shipmaster's Report: March 1981.
Same as Beira Report except:
6 Crew Lists (1 to Pilot).
1 Stores List.
6 Passenger Lists.
1 Crew Declarations.
1 List Ports of Call.
In Transit and Hazardous Cargo List is required.

Notes: Immigration requires all-hands muster with I.D. Card/Book on entering and sailing.

Immigration Clearance: Inwards: 0600 – 1800 hrs. only inside harbour proper. Outwards: 0600 – 2400 hrs. except in special circumstances.

N.B. Vessels at the pilot station cannot obtain Pratique because this includes Immigration Clearance and can therefore be considered as not having arrived or not being in all respects ready to load.

PILOTAGE: Compulsory. Available during daylight hours only.

Pilot granted only if 16 hours' notice of ETA given.

On arrival vessels can contact Pilot on VHF Channel 16 (working on Channel 14).

The pilot ladder is used together with the accommodation ladder in order that the Pilot has a climb of 9 ft. on the pilot ladder.

Pilot Boarding Position: Pilot boards at Buoy No. 4 (South).

ANCHORAGES: Inside harbour: One each for vessels drawing 33 ft., 31 ft., 27 ft. and 26 ft. respectively. Six for vessels between 17 ft. and 19 ft. Vessels delayed in berthing are brought in from pilot station at port's convenience.

RESTRICTIONS: Berthing and Unberthing only during daylight hours.

MAX. SIZE: Maximum draft is 7.5 m. plus height of tide (Max. 3.8 m. HWST) = 11.3 m. Also see "Berthing".

The controlling factor is the depth in Polona Channel, which in August 1988 was 35 ft.

HEALTH: Pratique granted by Pilot unless disease prevalent on board when Masters should telegraph "Saude" Maputo.

RADIO: Advice of arrival 16 hours before to the Harbour Master or Chief Pilot and Port Health should be sent through the station C9C (Naval), operating 24 hours on 500 kHz, replying on 487 kHz, also 2000 to 0500 hrs. GMT on 8356 kHz to 8376 kHz (replying 8642 kHz) and 0800 to 2000 GMT on 12534 kHz and 12564 kHz (replying 12990 kHz). All other non-official messages through station CRL, operating 0200 – 1800 GMT on 8 MHz at even hours, 0400 to 1800 GMT on 4 MHz at even hours plus 30 minutes (answering on 4259 kHz). Continues watch 0200 – 0400 GMT on 4 MHz. Radio telephone through CRL on 2132 kHz at even hours plus 45 minutes 0600 – 1700 GMT answering on 4415 kHz.

VHF: Pilot boat and Port Radio operate on Channel 16 (calling) and Channels 12 and 14 (working) from 0530 to 1830 hours.

TUGS: 2 tugs available, 3,200 h.p. and 2,300 h.p.

BERTHING: *Main Wharf:* All facilities owned and operated by Caminhos de Ferro de Mocambique (CFM), including stevedoring.

Dimensions: Wharf is in an uninterrupted line running roughly N.E./S.W., accommodating 12 – 15 vessels. Length: 3,275 m. Depth 9.0 m.

Grain: For loading or discharging bulk grain there are 2 Buhler machines at a berth with 33 ft. depth of water LWOST. About 120 t.p.h. A recent vessel averaged 2,900 tons per day. Bagging plants handle 1,000 bags per hour.

Bulk Loading Terminal: Length 210 m., depth 10.0 m. (max. sailing draft 11.3 m. (HWST) and 10.0 m. (HWNT). Terminal equipped with 2 shiploaders, 2 discharge/reclaimers, 2 wagon tipplers and conveyor system.

Coal: The best loading rate, in theory, is about 12,000 tons per day, however, in practice, allowing for shunting trucks, warping ship, etc., average rate is about 4,000 – 4,500 tons per day. In mid-1988 a vessel achieved 18,000 tons in 24 hours.

The length of the chute is 181 m. and it operates between angles of 46° and 58° to the perpendicular. At 46° the tip of the chute is 4.80 m. above wharf level and 9.50 m. from the wharf edge. At 58° the tip of the chute is 7.60 m. above wharf level and 11.80 m. from the wharf edge. At lowest spring tide the water at the coaling berth is 5.90 m. below wharf level and at highest spring tide 2.15 m., the difference between max. extremities being 3.75 m.

Sugar Terminal: Terminal equipped with 2 shiploaders and conveyor system from storage sheds. Sugar discharged from railway wagons by overhead cranes and grabs into hoppers which feed conveyors to storage sheds. The daily intake capability of installation is 2,000 tonnes and it has storage facilities in three sheds with a capacity of 40,000 tonnes each. Daily discharge rate 10,000 tons. Length of berth 200 m. Depth alongside 9.7 m.

Also see "Shipmaster's Report" – July 1988.

Steel Terminal: Adjacent to the Container Terminal. Length 200 m., depth 9.7 m. Terminal equipped with 4×20 tonnes electric quayside cranes and 20 tonnes capacity forklift trucks. Storage area for approximately 20,000 tonnes.

Container Terminal: Length 300 m., depth 9.7 m. Terminal equipped with 2×35 tonnes ship to shore gantry cranes for 20 ft. – 40 ft. containers, 1×35 tonnes and 8×20 tonnes forklift trucks, 10 MAFI/tugs and trailers and 3×40 ton heads/trailers. Storage capacity of terminal approximately 1,300 teu's.

LPG Carriers: Berth at Matola Ore Berth.

Timber: Vessels berth at Matola, Post No. 1 (P.I.). Max. draft 32 ft. Max. LOA, 600 ft. Vessels over 550 ft. LOA and draft over 25 ft. berth and sail during daylight hours only.

STORAGE CAPACITIES:

Ore and Coal Dumps: Gorjao Wharf.

	Tons
Coal	200,000
Ores	20,000
Copper	40,000
Vermiculite	4,000
Steel, Beams and Billets	100,000
Vanadium	7,000
Containers	1,000 TEU

Oil: Storage capacity 200,000 tons.

Molasses: 4 tanks, capacities 6,000, 9,000, 11,000 and 7,000 tons.

Fruit: 7,500 tons (1.133 cu.m./ton) in 100 chambers.

Fish: 200 tons.

Ore: Via Ro-Con unit attached to container cranes, rate 5,000 tons per day.

Sugar: See "Berthing".

CRANES: *Electric Cranes:* 75 units with capacity 3 tons to 60 tons.

Mobile Cranes: 15 units with capacity 3 tons to 20 tons.

Heavy lift crane with capacity of between 60 tons – 80 tons.

STEVEDORES: *Working Hours Monday through Sunday:*

0700 – 1100	1300 – 1700
1900 – 2300	0000 – 0600

All above periods are considered normal time.

TANKERS: Matola Mineral Wharf, 35 ft. LWOST, max. length of vessel 200 m.

Tanker Terminal: "T" jetty, 60 m. in length with mooring dolphins. Depth alongside 10.0 m. Pipeline from jetty to oil storage farm.

DENSITY: Average 1022.

FRESH WATER: Available at all berths, not available ex-barge.

FUEL: Vessels can be supplied from pipe-lines whilst working at all berths, including the Matola Appliance and Tanker jetty, but excluding the new wharf extension, where pipes have been laid but the system is not yet ready for delivering bunkers. The rate of delivery varies between 300 to 500 tons per hour depending on the type of vessel taking bunkers. At present, supplies of gas oil and marine diesel oil are not in very plentiful supply, recommended to stem as far in advance as possible.

MEDICAL: No advance notice required for medical attention, unless urgent assistance necessary. Hospital facilities available. Crew members and passengers should be in possession of valid yellow fever certificates (cholera certificate too if cholera area) on international forms. Vaccination/fever inoculations and certificates may be obtained ashore if required. Men for sick parade must first go through the port doctor whose hours are week-days 0800 – 1130 hrs. and 1400 – 1730 hrs.; Saturdays 1000 – 1130 hrs., but always available on an emergency call.

REPAIRS: No dry dock except for small coasters. Facilities for most normal work, except underwater riveting, cutting and welding, and shaft balancing.

CONSULS:

Belgium
Brazil
Bulgaria
China
Congo
Cuba
Czechoslovakia
Egypt
France
Germany D.R.
Germany F.R.
Greece
Guine Conakry
Hungary
India
Iran
Italy
Korea
Lesotho
Libya
Netherlands
Nicaragua
Nigeria
Pakistan
Poland
Portugal
Romania
Spain
Swaziland
Sweden
Switzerland
Tanzania
United Kingdom
U.S.A.
U.S.S.R.
Vietnam
Yugoslavia
Zaire
Zambia
Zimbabwe

IDENTIFICATION CARDS: Crew and passengers are issued with Immigration Boarding Permits and they must be carried at all times. (Such permits to be returned to Immigration Officer prior to sailing.)

WATCHMEN: Strongly recommend employing services of a local watchman, who will also control visitors and labour passes.

OPENING/CLOSING HATCHES: Can be done by either crew or stevedores. Often done by crew.

CERTIFICATES: Tonnage Certificate to be produced to Pilot, as certain port dues are based on vessel's registered tonnage.

REPATRIATION: Facilities exist for nationals of those countries maintaining diplomatic relations with Mozambique. A valid passport and visa is necessary as Immigration Authorities do not recognise a Seaman's Book as being a valid travel document.

AIRPORT: Maputo International Airport 4 km. from port.

CUSTOMS ALLOWANCES: Bonded stores are usually not sealed.

HOLIDAYS: No cargo work on 1st January, on other holidays, work continues normally in the port.

TIME: Local time GMT plus 2 hours. No alterations made to clocks during the year.

SHORE LEAVE: Crew are allowed ashore, from 0600 hrs. – 1700 hrs. excepting nationals of those countries not maintaining diplomatic relations with Mozambique.

TELEPHONES: A telephone will be placed on board the vessel.

GENERAL: Crew and passengers not to take photographs in the dock area. Permission through Agent required to lower any boats or gear overside into the water or on to the wharf.

Do not immobilise main engines or carry out engine trials at the wharf until permission has been obtained by the Agent as the Authorities require vessels to maintain sufficient steam for main engines to be used at 2 hours' notice.

Customs guards to be supplied with meals and accommodation whilst at Inner Anchorage and alongside the wharf otherwise cost per guard will have to be paid by Agent on Owner's behalf.

DEVELOPMENTS: New buoyage system being installed, completion 1989.

Dredging in progress.

SHIPMASTER'S REPORT: April 1987.

The following navigational problems were encountered when arriving from South:

Canal Do Sul: The Canal Do Sul is closed and the buoys indicated on BA. Chart No. 644 no longer exist. All ships have to proceed via Canal Do Norte.

Canal Do Norte: It is advisable to proceed in daylight only as most of the buoys are missing or out of position.

Pilot boarding position is at Buoy No. 4 (25° 56′ S., 32° 45′ E.). No pilot launch available during our visit so outbound and inbound ships sometimes exchange Pilot with their own lifeboats. If one of the tugs is in operation, pilot will embark with that tug.

Berthing and unberthing was made without tugs using one anchor.

Most of the cranes were non-operational.

Before departure a thorough search for stowaways is to be made.

Due to problems of pilot transportation Masters are sometimes asked to proceed outbound without pilot through Canal da Polana, this means dropping Pilot at Buoy No. 15. This is not to be recommended as positions of buoys are doubtful and numerous small fishing craft cross the channel.

When a tug is available the Pilot disembarks at Buoy No. 10.

Special attention has to be paid to Xefina Bank which is extending southwards.

SHIPMASTER'S REPORT: July 1988.

Vessel: 20,900 d.w.t.

Cargo: Loaded 17,500 tonnes of bulk raw sugar at the Sugar Terminal. Vessel used 2 loaders alternately at 500 t.p.h.

Sailing Draft: Forward: 9.2 m. Aft: 9.3 m.

Approaches: North Channel: Navigation limited to daylight hours only as some channel buoys are missing and some are unlit. IALA system used, red to port and green/black to starboard.

B.A. Chart 644:

Lacerda lighthouse unlit.

Macomana lighthouse unlit.

Necessary care must be taken when approaching No. 2 N. Buoy for clearing Baixo Cutfield Shoals.

No. 2 N. Red buoy missing.

No. 4 N. Red buoy in position but unlit.

No. 1 N. Black buoy missing.

No. 3 N. Black buoy missing.

No. 6 N. Red buoy in position but unlit and rusted.

No. 3 Black buoy in position but unlit.

No. 3 A. Green buoy is a new buoy laid in position Lat. 25° 55.5′ S., Long. 32° 51.2′ E. (approximate).

After No. 3 Buoy, steer to pass close East of No. 3 A Green buoy and then with approximate course 268° to No. 4 Red buoy which is the Pilot's boarding position.

Pilotage: Pilots are experienced and cooperative. Pilot ladder required on the leeside, combination with accommodation ladder not needed.

Tugs: Two tugs available. One is used for mooring/unmooring and the other for pilot service at Buoy No. 4.

Watchman: Local watchman is compulsory. Special attention is required prior to sailing as stowaways may try to board.

Fresh Water: Plentiful supply, rate about 25 t.p.h.

Provisions: Fresh fruit and vegetables and good provisions available from local market.

General: Extreme caution must be taken when navigating in the North Channel when in a loaded condition, between Buoys No. 4N – No. 6N. In this area the echo sounder shows approximately 30 cm. under keel clearance.

Dredger was working in the Inner Channel, close to Maputo Port.

Passage close to Baixo Rebeiro Beacon not recommended, when in a loaded condition due to suspect depths and at times a strong current.

Most buoys of the Inner Channel was discoloured and rusted.

AUTHORITY: National Directorate of Ports and Railways (DNPCF), P.O.Box 276, Maputo, Mozambique. *Tel:* 28790, 25152. *Telex:* 6-438, 6-208. *Contact:* Mr. F. Ferreira Mendes, National Director.

Maputo Port (CFM-S), P.O.Box 276, Maputo. *Tel:* 27173. *Telex:* 6-208. *Contact:* Dr. F. I. Diniz, Executive Director. Issufu D'Amarcy, Port Director.

AGENT: Manica Freight Services SARL. P.O.Box 292, Maputo. Tel: 23021. Telex: 6512. FAX. 29742. Cables: Reniform/Confa.

Branch Office: Praca dos Trabalhadores No. 51. Tel: 23082/9, 25042/5. Telex: 6224, 6218, 6221, 6227. After office hours Tel: 744908, 27298, 742169, 22249, 27276, 30498, 744167, 32776.

MOZAMBIQUE: 14.58 S. 40.45 E.

DOCUMENTS:

Customs Clearance from last port.
Port Clearance.
Health Certificate.
6 Crew Lists.
6 Passenger Lists in Transit.
7 Passenger Lists Disembarking.
2 Stores Lists.
2 Lists Deck Stores.
2 Lists Cargo in Transit (main items of cargo only).
6 copies of Manifest of Mozambique Cargo.

PILOTAGE: One Pilot available, 24 hours pilot boat is black and grey. Ships take Pilot near Buoy No. 2 (Red Buoy) placed off Goa Island. At night ships should send Morse signals with Aldis lamp to the middle of Mozambique Island (location of port office). ETA should be given as soon as possible to pilot station off Mozambique Island and/or to ship's Agent.

ANCHORAGES: When waiting for Pilot, or due to their draft (more than 30 ft.) ships may drop anchor off red Buoy No. 2 (0.5 miles seawards). Depths between 60 ft. and 90 ft. Bottom with sand and some broken coral; current from North to South, sometimes up to 4 knots.

MAX. SIZE: Only ships with drafts less than 30 ft. can cross the bar and enter the Port.

HEALTH: Quarantine flag should be flown, even after calling at other ports in this country. Health Certificate given by Pilot.

RADIO: Radio Mozambique, call sign CRQ. Also available Maputo or Beira Radio Stations.

TUGS: Tugs are not necessary in this port.

BERTHING: No quay berths. Vessels work cargo at anchor.

STEVEDORES: All requirements on this purpose must be sent to the Agent.

MEDICAL: Medical assistance can be given at any time, even to vessels unable to cross the bar because of draft. Hospital with adequate facilities, and emergency services available.

FRESH WATER: Always available in any quantity. Supplied by barge of 40 tons capacity.

FUEL: Small quantities available.

OPENING/CLOSING HATCHES: By stevedores.

CARGO GEAR: Vessels anchor in bay and load and discharge by lighter and barges.

IDENTIFICATION CARDS: Required.

CONSULS: No local representatives.

REPAIRS: Light repairs can be effected.

HOLIDAYS: 1st January; 2nd March; 1st and 10th June; 15th August; 5th October; 1st November; 1st December; 8th December; 25th December. Cargo handling can be arranged on these days.

POLICE/AMBULANCE/FIRE: Maritime Police, Customs and Agents will always be on board during stay.

TELEPHONES: No telephones, but walkie-talkies are available; arrange with Agent.

AUTHORITY: Capitania do Porto de Mocambique.

NACALA: 14.32 S. 40.37 E.

PORT LIMITS: The line joining Ilha Goman to Cabo Columulomo Light at the entrance of Bay of Fernao Veloso.

DOCUMENTS:

Customs Clearance from last port.
Port Clearance from last port.
Health Certificate.
7 Crew Lists.
7 Lists of Passengers In Transit.
7 Lists of Passengers Disembarking.
4 Stores Lists.
4 Lists of Deck Stores.
4 Lists of Cargo In Transit (main items of cargo only).
10 Copies of Manifests of Nacala Cargo.
4 Lists of Dangerous Cargo.
6 Copies, Ports of Call of Present Voyage.

Shipmaster's Report: March 1981.

Same as Beira Report except:
5 Passenger Lists.
6 Lists Ports of Call.
In Transit & Hazardous Cargo not required.

PILOTAGE: Compulsory for berthing/unberthing. Normally working throughout 24 hours. Vessels come inside the bay and wait for Pilot at inner anchorage.

ANCHORAGE: Fine natural harbour. Entrance half a mile wide, depths up to 60 m. Good anchorage for any size vessels. Sand and mud bottom.

MAX. SIZE: For anchoring, no restrictions. For berthing, up to 31 ft. draft.

RADIO: Pilot station on VHF.

HEALTH: Due to poor communication, health services should be contacted by Agents.

VHF: Channel 16.

TUGS: One available, 1,000 h.p.

BERTHING:

North Wharf: There is a pier with berths for 4 vessels with a length of 426 m.

Depths: Wharf 1: 24 ft.
" 2: 21 ft.
" 3: 30 ft.
" 4: 30 ft.
Cranes: 11 cranes available 8×5 tons
2×10 tons
1×20 tons

South Wharf: There is a pier to berth 2 vessels.

Depth: 45 ft.
Cranes: 5×5 tonne cranes.

BULK CARGO FACILITIES: Not available, bulk cargoes discharged through buckets at an average of 400/500 tons per day of 24 hours. 3 gangs working from 0600 – 2200 hrs. and 1 gang 2200 – 0600 hrs.

SPECIALISED CARGO HANDLING FACILITIES: Two 20 ton forklifts available for handling containers. Containers handled at the South Wharf at an average of 600 per month Imports/Exports. Vessel to be geared as no shore cranes on container berth. If vessel ungeared, berth at general cargo wharf No. 2, where 20 tons crane available and quantity normally limited to 5 containers.

At container berth, a gantry crane available for loading/unloading of the wagons cannot be used for vessel's handling. 2×32 ton and 1×42 ton forklifts with spreaders for 20 ft. and 40 ft. containers and 3 tugs and 11 trailers for containers.

Ro/Ro vessels also able to berth and load/discharge at South Wharf. No special equipment available to handle Ro/Ro vessels.

STEVEDORES: Working hours 0700 to 1500 hrs., 1500 to 2300 hrs. (2300 – 0700 for container vessels) weekdays, Saturday and Sundays. One stevedoring firm in operation, under Port Railway control.

Gang requested at the following hours:

0930 –	for day shifts –	1500 – 2300
1500 –	for night shifts –	2300 – 0700
	for day shifts –	0700 – 1500
1000 –	for Saturday and – Sunday	For whole weekend until 0600 – 1400 hrs. on Monday

Very important that Agents are advised of accurate ETA as vessels normally not berthed or worked if gangs not requested. If gangs are requested and vessel not available, standby fines paid.

On average, 3 gangs are worked per vessel per shift.

FRESH WATER: Only available at General Cargo Berth.
FUEL: Only available if requested from Petrmoc at Maputo.
CONSULS: Not available locally, only at Maputo/Beira.
REPAIRS: Not available.
DRY DOCKS: Not available.
SURVEYORS: Lloyd's Sub-Agent is Manica Freight Services (Moc) SARL, see "Agent".
CUSTOMS ALLOWANCES: No restrictions provided quantities in crew's possession declared on vessel's arrival.
AIRPORT: The only commercial airport is Nampula Airport, 200 km. from Nacala.
MEDICAL: No advance notice required for medical attention, unless urgent assistance necessary. Hospital facilities available. Crew members and passengers should be in possession of valid yellow-fever certificates, cholera certificate compulsory. Vaccination/fever inoculations and certificates may be obtained ashore if required.
GANGWAY/DECK WATCHMEN: Compulsory, under supervision of Immigration Department.
OPENING/CLOSING HATCHES: By ship's crew.
CERTIFICATES: Tonnage Certificate to be produced to Pilot, as certain port dues are based on vessel's registered tonnage.
REPATRIATION: Facilities exist for nationals of those countries maintaining diplomatic relations with Mozambique. A valid passport is necessary as Immigration authorities do not recognise a Seaman's Book as being a valid travel document.
TIME: Local time 2 hours ahead of GMT. No alterations made to clocks during year.
POLICE: Tel. No. 2820, 2710.
AMBULANCE: No telephone. Contact must be done through Agents, local hospital Tel. No. 2347.
TELEPHONES: Not possible to place telephones on board.
SERVICES: Not possible to perform any service to the vessels, as no facilities.
SHORE LEAVE: Crew members are allowed ashore, excepting nationals of those countries not maintaining diplomatic relations with Mozambique, weekdays from 1800 – 2400 hrs. only. Saturdays from 1400 – 2400 hrs. and Sundays/Holidays from 0800 – 2400 hrs.

Passports/Seaman's Book to be remitted at Immigration premises, 50 m. outside the gate. As shore leave hours often vary, times should be confirmed with Immigration when Port Clearance is given.

HOLIDAYS: New Year's Day (1st January); Mozambican Hero's Day (3rd February); Mozambican Woman's Day (7th April); Workers' Day (1st May); Independence and Frelimo's – Foundation Day (25th June); Lusaka Agreement Day (7th September); Revolution and Forcas Populares de Libertacao de Mozambique's Day (25th September); Family Day (25th December).

Normally no cargo work on 1st January and 1st May; while on other days work continues with reduced personnel.

REGULATIONS: Crew are not allowed to take cameras on shore also are not allowed to take photographs in the port area.

When vessels are at anchor, special attention must be taken with the small fishing boats whose owners normally approach the vessels and try to exchange local goods with clothes, soaps, etc. These transactions must be avoided at all costs otherwise Masters will be subject to heavy fines.

SHIPMASTER'S REPORT: June 1988.

Port Limits: Vessel considered arrived when at entrance off Pta. Narenque. Free Pratique only granted after boarding by Immigration authorities at inner anchorage (off Baiai De Bengo) or at berth.

Documents: Last Port Clearance, 8 copies Crew Lists, Stores List, Crew Personal Property List, Manifest, Vaccination List and Agent's Forms (given on arrival). Shore passes issued at gate in exchange for Passport, shore leave up to 2200 hrs. only.

Pilotage: Available off Fernao Veloso, with prior arrangement. If BA Chart No. 649 on board, then advisable to move in without pilot, as delays are quite normal. Similarly, if outbound it is at Master's discretion to drop pilot off the berth or retain his services until past Pta. Narenque.

Pilots can be called on VHF Channels 12 and 16.

Advisable to approach at daybreak as lighthouses are unlit. For the same reason berthing/unberthing carried out in daylight hours only. A small pilot boat is available and Pilot is accompanied by a trainee.

Draft: Very deep water exists. Vessels with depths up to 14.0 m. can berth at New SW Container Terminal. NW Quay has drafts up to 9.5 m. and Berth No. 4 at NE end of NW Quay, used for product tankers, has depths of 12.0 m.

DRAFTS
DEPTH

ETA: Messages to be radioed via Maputo Agents, who then inform Nacala branch by radio. At least 24 hours to be allowed for this information to reach Nacala.

Tug: One tug available, using ship's lines.

Medical: Minor medical complaints can be attended to by doctor arranged via agent.

Tankers: Discharge through 1×8 in. connection leading to storage tanks about 2 km. away. BP Mocambique in charge of liason, etc. We discharged 3,000 tons of jet fuel in 36 hours.

Fresh Water: Available ex-jetty, but as jetty infested by rats and cockroaches it is not advisable to use same for drinking.

Fuel: Not available.

Watchmen: As per Port Regulations, one watchman is compulsory.

Customs Allowance: No particular restrictions.

Ship's Certificates: Not required to be taken ashore.

Consuls: None.

Repairs: No facilities.

Repatriation: Not possible, except in extreme emergency. Nearest operational airport is at Nampula, about 200 km. away.

Time: GMT plus 2 hours throughout the year.

Provisions: Minimum amounts of fresh vegetables available locally at market. Currency must be changed officially through agent only and excess returned.

AUTHORITY: Direccao Nacional dos Portos, Direccao do Porto de Nacala, Caixa Postal No. 70, Nacala, Mozambique. *Contact:* Carlos F. Bambo Nhangou, Port Director.

AGENT: Manica Freight Services (Moc) SARL, Predio Pelotas, P.O.Box 144, Nacala. Cables: Corymann.

PEMBA: 13.00 S. 40.28 E.

DOCUMENTS:
6 Crew Lists.
6 Lists of Passengers Disembarking.
6 Lists of Passengers in Transit.
1 Master's Declaration.
1 Stores and Provisions List.
1 Health Declaration.
5 Sets of Cargo Manifests.
2 Sets of non-negotiable Bills of Lading.
Clearance Documents from last port.

PILOTAGE: It is necessary to order by radio request to Agent 14 hours before arrival.
ANCHORAGES: Vessels may anchor South of the dock about 300 m. off. Other suitable anchorages will be indicated by the Pilot.
RESTRICTIONS: Vessels may enter with Pilot at any hour day or night.
MAX. SIZE: Draft up to 27 ft. 6 in. for berthing.
HEALTH: In case of contagious disease on board, the Port Health Authorities must be advised in advance.
RADIO: Send messages through Beira radio.
TUGS: None available
BERTHING: One berth, length 182 m., depth alongside 28 ft.
STEVEDORES: In ETA message to Agent, indicate number of gangs required and advise quantity and description of cargo for discharge.
MEDICAL: In case of urgency advise Agent by radio before arrival. Hospital facilities available. Vaccinations can be performed.
FRESH WATER: Available.
FUEL: Available.
GANGWAY/DECK WATCHMEN: Not necessary as there is a permanent guard on board.
OPENING/CLOSING HATCHES: Performed by stevedores.
CUSTOMS ALLOWANCES: Bond is not sealed and no restrictions made.
IDENTIFICATION CARDS: Required by police.
REPATRIATION: Can be arranged.
AIRPORT: Situated 7 km. away. Flights to Beira and Maputo daily.
TIME: GMT plus 2 hours. No alterations during the year.
HOLIDAYS: No work performed from 1700 hrs. Christmas Eve until 0600 hrs. 26th December; no work performed from 1700 hrs. New Year's Eve until 0600 hrs. on 2nd January. Work may be arranged on the following holidays: 1st January, 3rd February, 7th April, 1st May, 25th June and 25th September.
POLICE/FIRE/AMBULANCE: Police, Tel: 2828; Hospital, Tel: 2211.
SHORE LEAVE: Allowed. Except for nationals of countries not maintaining diplomatic relations with Mozambique.
AUTHORITY: Capitao do Porto de Pemba.

Namibia

LUDERITZ: 26.39 S. 15.09 E. (See Plan)

PORT LIMITS: East of the line from Angra Pt. to a point 1,097 m. due North thereof, thence by a line from the latter point to the South shore extremity of N.E. Point.

DOCUMENTS:

1 copy Arrival Form T958 for Agent.
2 copies Crew List.
2 copies Passenger List.
Certificate of Ship's Registry.
Ship's Articles.
Manifests.
Charter Party.
Bills of Lading.
Official Log Book.
List of Dutiable Stores.
Ship's Radio Station Licence.
Safety Certificate.

PILOTAGE: ETA at least 72 hours in advance if possible; unless in an emergency. Cables addressed to Harbourmaster Luderitz.

All pilotage inside port limits is compulsory.

Pilot Boarding Positions: 1 mile North of Angra Point. Contact Pilot on VHF Channels 16 and 12.

Pilot Vessels: "Fisant": Black hull, white wheelhouse and yellow roof. Yellow funnel. "Tern": Black hull, white upperworks, wooden wheelhouse. Yellow funnel.

Specific Requirements:

2 manropes at ladder.
Lifebuoy at ladder.
Ship's officer in attendance when Pilot embarking or disembarking.

At night, the ladder is to be lit without blinding Pilot. No broken or slippery ladder rungs.

ANCHORAGES: Outside port limits: Shearwater Bay: Between Diaz Pt. and Angra Pt. Good holding ground. Depth up to 20 m.

Inside port limits: Luderitz Harbour: between Angra Pt. and Shark Island. Good holding ground. Depth up to 16 m.

Robert Harbour: Between Shark and Penguin Islands. Good holding ground. Depth up to 9 m. Confined anchorage.

RESTRICTIONS: Docking and undocking may take place between 0600 hrs. and 2200 hrs. or at any other time in an emergency.

MAX. SIZE: Shearwater Bay: No restrictions. Luderitz Harbour: No length restrictions, draft 15 m. Robert Harbour: Length approx. 140 m., draft 7.5 m. Alongside main jetty: Length up to 150 m., draft 6.0 m. (In an emergency 6.1 m.)

HEALTH: Arrange for Pratique via Agent.

RADIO: Radio-telephone calls, cables etc. to Agents, Shippers, etc, through Walvis Bay Radio; call sign ZSV. Frequencies as per International Telecommunication Union list of Coast Stations.

VHF: VHF contact with Port Control on Channels 16 and 12. Working Channels: 6, 8, 9, 10, 11, 13, 14, 17, 67, 68, 69, 70, 71, 72, 73 and 74. Same VHF channels apply to Pilot and Tugs.

Diaz Point Lighthouse maintains a 24 hour watch on VHF Channel 16; with working channels as for Port Control. If no reply from port control, contact Diaz Point Lighthouse.

RADAR: No port radar service.

TUGS: Two small tugs are stationed at the Port: "Tern" (diesel) of 850 h.p. length 26 m. and "Fisant" (diesel) of 220 h.p. length 14 m.

Tugs usually join vessel at head of the channel in Robert Harbour. Tugs lines' are used; at no extra charge.

Tugs are equipped with fire fighting hoses and salvage pumps.

BERTHING: Entrance Channel: Length 708 m., width 60.9 m., depth 6.1 m.

Turning Basin: 236 m. by 198 m., depth 6.1 m.
Main Jetty: Length 242 m. Two berths of 92 m. length, depth 6.1 m.
Wooden Jetty: Length 168 m., depth 3.5 m.

One berth is available on each side of the main jetty for vessels up to 150 m. in length. A draft restriction of 6 m. at low tide exists. Sea bottom alongside berths and entire channel is soft mud and silt.

The wooden jetty is used mainly for the local fishing fleet of small wooden boats.

No specialised berths exist at Luderitz, at present.

CRANES: 2×4 ton cranes able to work over either side of jetty but unable to work in tandem. Any heavier lifts by ship's gear only.

STEVEDORES: 72 hours' notice is required in order to arrange gangs. Average rates: Frozen fish 18 t.p.h. General cargo 32 t.p.h. Timber 45 t.p.h.

MEDICAL: 2 doctors, one hospital (36 beds), one hospital (160 beds), notice of 4 hours required, except emergencies.

TANKERS: 2×10 in. diameter DGO pipe-lines, all necessary fittings ashore. SG 0.854.

DENSITY: 1025.

FRESH WATER: Available on jetty by pipe-line through meter at approximately 25 t.p.h.

FUEL: Gas oil connections to 2×254 mm. pipe-lines from shore tanks.

Gas oil bunkers points on the main jetty supply at approximately 25 t.p.h. 1,200,000 litres of gas oil are available.

Small quantities of gas oil by 6,819 litre capacity road tanker are also available at immediate notice.

CONSULS: None.

REPAIRS: Light engineering facilities exist. Underwater inspections and working divers available.

DRY DOCKS: One slipway of 400 tons capacity and 1×150 ton capacity. Used mainly by local fishing boats.

SURVEYORS: Department of Transport surveyor is available at Walvis Bay. Cargo surveys, underwater surveys and other independent surveys are available by Master Mariner (foreign-going).

GANGWAY/DECK WATCHMEN: Not necessary but available if required.

HATCHES: Opened and closed by crew.

CARGO GEAR: Alongside jetty by shore cranes (4 ton capacity) by ship's gear at anchor when using lighters. Eight lighters, 26 m. long, 150 ton capacity are stationed at the port.

REPATRIATION: Handled by Agent.

AIRPORT: 12 km. from harbour. 6 flights a week (Air Cape) to and from Windhoek, Cape Town and Walvis Bay. Charter flights may be arranged.

TIME: GMT plus 2 hours.

HOLIDAYS: Cargo can be worked on any day.

POLICE/AMBULANCE/FIRE: Police: 10111, Ambulance: 2266, Fire: 2607.

TELEPHONES: Available R30.00 per connection plus usage.

SERVICES: Compass adjusting, diving and cargo surveys.

SHORE LEAVE: 24 hours at anchorage, launch available. No restrictions when alongside.

IDENTIFICATION CARDS: Seaman's Book.

DELAYS: No delays normally, except due to weather.

SHIP SUPPLY SERVICE: An Off-Shore Ship Supply Service is operated by the Namibian Transport Services (Harbours) by means of a small tug and (occasionally) by means of a launch.

If the vessel does not have an Agent at the port, a deposit is required before the service will be rendered. The service is provided on a 24 hour basis, provided (except in an emergency) the necessary arrangements are made during normal office hours.

The tug has a capacity of approximately 3 tons and 24 passengers, but the capacity of the launch is severely limited.

The normal rendezvous position is approximately 3 miles N.E. of Diaz Point Lighthouse (Position of lighthouse: Lat. 26° 38.2′ S., Long. 15° 05.6′ E.) but the tug, by special arrangement, will proceed further to seaward if required. The depth of water at the normal rendezvous position is 22 m.

GENERAL: Fresh provisions, supplies and services available by arrangement with Agent.

Basic weather conditions: Summer – South to S.W. wind up to 35 knots frequently experienced. Winter – winds variable but mainly North up to 20 knots. Fog is frequently experienced West of Angra Pt.

Charts: BA. 3861 and 3863; South African Naval Charts: 1002 and 1003.

DEVELOPMENTS: The buoyage system used in the port is IALA Maritime Buoyage System "A".

SHIP'S OFFICER'S REPORT: December 1983.

Medical: No facilities for blood tests; these can only be done when there is a direct flight to Capetown.

Surveyors: Pilot/Harbour Master acted as Cargo Surveyor.

Customs: Very strict regarding magazines. These should be sealed in bonded store, otherwise fines payable.

Shore Leave: Possible from anchorage using tug.

Stores: Fresh vegetables available, but at very high prices.

AUTHORITY: Namibian Transport Services, P.O.Box 88, Luderitz 9000. *Tel:* 2337 or 21240. *Cables:* Harbour Master and Pilot.

AGENT: King & Sons (Pty.) Ltd. P.O.Box 11, Luderitz 9045. Tel: (06331) 2054. Telex: 0908-796. Cables: Baronet.

WALVIS BAY 22.57 S. 14.30 E. (See Plan)

PORT LIMITS: The area bounded on the West by a line drawn from Pelican Point Lighthouse to a point North (true) for a distance of 4 km; on the North by a line from this point drawn East (true) to the mainland; together with the foreshore therein and the jetties, harbour works and harbour lands vested in the Government. For the purposes of calculating port charges a vessel is regarded as an "arrived ship" when it enters the dredged channel in Walvis Bay Harbour or when the vessel anchors in the port limits.

DOCUMENTS:

5 copies Crew List.
8 copies Passenger List.
2 copies Report Inwards/Outwards.
2 Certificates of Clearance DA3.
2 copies Transire DA4 for each port of call.
Manifest of Cargo in duplicate.
3 copies Manifest of Stores DA5.
1 SATS Clearance.
Shipping Master's Certificate.
Immigration Certificate.
Post Office Certificate.
Income Tax Certificate.
Safety Equipment Certificate.
Safety Radio Certificate.
Load Line Certificate.

PILOTAGE: Pilotage is compulsory. The vessel's Master must radio his ETA to his local Agent, who completes Form T.958 for submission to the Port Authority.

Channel 16 on VHF radio can be used to call the Port Control Office, working Channel 12. Pilot boats are normally black with a white superstructure and have a yellow funnel with horizontal green stripes.

The Pilot boards at a point approximately 0.5 miles North of the Fairway Buoy (Entrance Channel Buoy) in the direction of the Bell Buoy (Pelican Point Spit Buoy).

The Pilot will inform the Master by means of the VHF on which side the pilot-boarding ladder and manropes are required.

ANCHORAGES: Varying in depth from 13 m. – 14 m. at LWOST 1.0 miles North of Fairway Buoy. Bottom – sand and silt. (Please also see "Africa Pilot" Vol. II).

RESTRICTIONS: The movement of Oil Tankers and vessels carrying explosives or dangerous goods are restricted to daytime hours (berthing 0600 hrs. – 2000 hrs., unberthing up to 2145 hrs). The maximum permissible draft is 9.9 m.

MAX. SIZE: Max. LOA 224 m., max. draft 9.9 m.

HEALTH: Master to contact Port Health via Walvis Bay Radio to request Pratique. Same procedure applicable if disease reported.

RADIO: Call sign ZSV. VHF radio in Port Captain's Office.

VHF: Port Control equipped with VHF Channels 16 – 12. Port working Channels 9 – 11.

RADAR: Radar is fitted to the harbour tugs and pilot boats. Master to contact Port Control for radar service.

TUGS: Two first-class tugs equipped with radar, wireless telegraph and telephone, direction-finding apparatus and salvage and fire-fighting appliances; 2 Pilot boats and 1 launch.

Tugs normally join a vessel on Pilot's request in the entrance channel and are secured by means of the tugs' wires.

BERTHING: 8 berths available excluding tanker berth. Quay length 1,409 m., max. permissible draft 9.9 m. (salt water). Load/discharge by shore cranes unless cargo of such nature that it is essential to use ship's derricks. Berth Nos. 1 – 6 general cargo, No. 7 container berth and No. 8 berth allocated to bulk loaders, also utilised as repair berth.

CRANES: 18 cranes available, 17 × 4 tons, 1 ×15 tons.

BULK CARGO FACILITIES: Berth Nos. 1 – 6 utilised if necessary. Berth No. 8 exclusively used for salt loading as this utilises ship's gear only. Berth Nos. 1 – 6 served by shore cranes. Max. draft 9.9 m. (salt water). Bulk cargoes at Walvis Bay consist of salt/petalite. Loading rate salt by shore crane approximately 95 t.p.h., petalite approximately 30 t.p.h.

SPECIALISED CARGO HANDLING FACILITIES: Berth No. 7 utilised as container berth. Ro/Ro vessels berthed at No. 6, liquid chemicals at Berth No. 5. Container stacking area and 2 container stacking cranes available. Ship's gear will still be required for loading and unloading containers. Liquid chemicals are handled in tank containers.

STEVEDORES: Stevedoring is undertaken by private enterprise and stevedores are appointed by Ships' Agents.

Stevedores require minimum notice 72 hours prior arrival. Main export salt in bags rate 18/25 t.p.h. depending on method of delivery to ship's side (rail/road).

MEDICAL: Hospitals are available but prior arrangements have to be made with Agents for medical assistance.

TANKERS: Only one berth available. Max. length of vessel accommodated 650 ft. Diameter of load/discharge lines 10 in. and 12 in. Discharge rate 10 in. – 240 t.p.h. and 12 in. – 350 t.p.h. Max. draft 9.9 m.

DENSITY: 1025.

FRESH WATER: Available and delivered by hose ex-wharfside – hydrant at 35 t.p.h.

FUEL: Gas oil only available, 12 hours' notice required. Delivery by pipe-line or tank truck.

FIRE PRECAUTIONS: When berthed alongside a wharf or jetty, a ship having explosives or any other goods of a dangerous nature, the Master shall, if the Port Captain so directs, have a fireman in attendance, the cost whereof shall be borne by the Owner of the ship and the Master of any such ship shall also, at the expense of the Owner of the ship, adopt such other or further precautionary measures as the Port Captain may consider reasonably necessary for ensuring the safety of the harbour, the ship or the cargo.

CONSULS: France.

REPAIRS: All types of deck and engine repairs possible.

DRY DOCK: There are no dry-docks available at this port. A syncrolift with a lifting capacity of 2,000 tons, maximum permissible length of 72 m., max. beam 13 m., and a depth of 10 m. is operated and owned by the Department of Sea Fisheries.

SURVEYORS: Lloyd's and N.V. represented.

GANGWAY/DECK WATCHMEN: Arrangements have to be made with vessel's Agents to secure services of gangway/deck watchmen.

HATCHES: Opened by crew.

CUSTOMS ALLOWANCES: Officers: 200 cigarettes, wine 3 litres, spirits 1 litre, beer 2 litres.

Crew: 3 litres wine, 200 cigarettes.

Allowances are based on 4 day issues.

CARGO GEAR: Loading/discharging of cargo is effected by means of shore cranes. 30 ton mobile crane available in case of emergency.

REPATRIATION: All facilities available.

AIRPORT: Situated 14 km. from Walvis Bay. Served by Namib Air/Air Cape, 3 flights per week, Wednesday/Friday/Sunday.

TIME: GMT plus 2 hours.

HOLIDAYS: New Year's Day (1st January); Good Friday; Easter Monday; Ascension Day; Day of Covenant (16th December); Christmas Day; Boxing Day (26th December).

Cargo worked on all holidays except Christmas.

POLICE/AMBULANCE/FIRE: Police Tel. 10111; Ambulance Tel. 3441; Fire Department; Municipal: Tel. 3117.

TELEPHONES: Arrangements have to be made with Post Office to have a telephone connected.

SERVICES: 24 hour launch service available, divers inspect fouling, underwater photography, tank cleaning, hold cleaning, compass adjusting, radar repairs, hull cleaning.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Seaman's Book sufficient.

REGULATIONS: A copy of the Regulations are supplied gratis to Masters on arrival.

DELAYS: Most delays caused by fog.

GENERAL: Various sports and recreational facilities exist.

AUTHORITY: S.A. Harbours, Private Bag 19, Walvis Bay, Namibia. *Tel:* 2-077. *Telex:* 09295. *FAX:* 8390. *Contact:* The Port Director.

AGENT: King & Sons (Pty.) Ltd., P.O.Box 529, Walvis Bay 9190. Tel: (0642) 2771. Telex: 0908-3504. Cables: Baronet, Walvis Bay.

NOTES

Please also advise Shipping Guides Ltd.

Republic of Nauru

NAURU: 00.32 S. 166.56 E. (See Plan)

PORT LIMITS: Vessels to arrive approximately 4 miles on the West side of the island and establish contact with Harbour Master on VHF Channel 16 to obtain further instructions. Vessels are advised not to approach closer than 0.5 miles off the island, due to very strong variable currents.

DOCUMENTS:

International Declaration of Health, 1 copy.
Clearance from Last Port.
Crew Lists, 2 copies.
Passenger Lists, if any, 2 copies.
Manifest, 1 copy.

PILOTAGE: Pilotage is compulsory and available without charge. The Pilot Station is 2 – 3 cables North-West of the Northernmost buoy, off the Northern set of cantilevers (Cantilever No. 2), on the West side of the island, which is 0.5 miles from the shore. Masters should inform Harbour Master of their ETA 72 hours and 24 hours before arrival. ETA messages to be sent through Nauru Radio or through Sydney Radio to telegraphic address 'NAURUPHOS NAURU' or telex No. ZV 33082 NRUPHOS for attention Harbour Master. If there is any message for the Master, "Nauruphos" will advise through Nauru Radio or Sydney Radio on receipt of the second ETA message. In case of adverse weather or congestion, vessels will be notified by radio or by VHF Channel 16. Vessels are berthed during daylight hours only and should fly the National flag when approaching the island.

A safe and clean pilot ladder should be provided on the port side of the vessel about 2 ft. from the waterline. Vessels, as far as possible, should approach the pilot station from the north side of the island, with the ship's heading between 180° and 250°.

ANCHORAGES: No sea anchorage is available at Nauru due to extreme depths of water all around the island. Vessels unable to moor due to adverse weather, berth occupancy or late arrival drift off the port and return by daylight next morning, or when advised to do so by the Harbour Master. There are no shallow patches while approaching the island, but vessels are advised not to approach closer than 0.5 miles from ashore, due to very strong variable currents.

RESTRICTIONS: Tide and draft have no bearing on entry but it is normal not to handle vessels into berth in darkness. However, vessels are unmoored at all hours.

MAX. SIZE: Vessels have been handled up to an overall length of 630 ft. (192.02 m.). Beam should not exceed 93 ft. (28.34 m.). A fully laden vessel on departure from Nauru loading berth, should not exceed 42,000 tonnes displacement, as the moorings are designed for the above tonnage.

HEALTH: Masters of vessels approaching Nauru are required to send a telegram or telex directly to the Quarantine Officer, Nauru, not more than 24 hours or less than 12 hours before arrival either through Nauru Radio or Sydney Radio. The quarantine message should state the name of the last port, the date of departure from the last port, the number of crew and passengers, and the presence of any infectious disease. If no reply is received by the vessel from the Quarantine Officer then the vessel should call Nauru Radio on VHF Channel 16 and obtain pratique clearance, after arrival off the island. Messages to Quarantine Officer can also be sent on Telex No. ZV 33086 NRUMIC.

RADIO: Nauru Radio Station, call sign C2N, operates 7 days a week, during the hours of 0800 – 1642 Local Time. Should, through atmospheric conditions, difficulty be found in raising Nauru, it is suggested that the message be passed through Sydney or any other convenient coastal station. Messages to the Nauru Radio Station can also be passed on Telex No. ZV 33086 NRUMIC or ZV 33081 GOVNRU.

There is a SSB radio at the Harbour Master's Office and contact can be established on 2182, 6215.5, 6221.6 and 16590.2 kHz.

VHF: Harbour Master's Office (Port Control) has VHF with a range of 20 miles to the West side of the island. Calling Channel 16. Working Channel 14 for the port.

Nauru Radio station has VHF with Channels 16, 11, 12, 26 and 68.

TUGS: No tugs available.

BERTHING: Special requirements which relate to berthing in the port are contained in the booklet "Information for Masters of vessels proceeding to Nauru" issued by the Nauru Phosphate Corporation. The gear for making fast to the mooring system and for heaving into the inner berth is supplied from ashore and the shore mooring gangs which board the vessel at pilot station, carry out the operation under the direction of the Duty Harbour Master (Pilot) on board. All Harbour Masters are qualified Master Mariners.

A vessel is moored initially to the outer buoys which are anchored in approximately 600 m. deep water and then hove to an inner buoy system, where the vessel lies in about 30 m. of water when in the loading position, 18 m. – 24 m. from the reef edge.

Loading of phosphate is by shore equipment at the rate of 3,000 t.p.h. Discharging and loading of all other cargoes is by ship's gear to and from the lighters.

STEVEDORES: As stevedoring is carried out by Nauruphos, no separate advice is required. Loading rate of bulk phosphate is as high as 3,000 t.p.h.

MEDICAL: Medical treatment can be given at short notice. Limited hospital facilities are available, and emergency surgery can be carried out. Cholera vaccinations are required if the vessel has come from an infected area. However, if the vessels are calling at the island only for medical assistance, message should be sent directly to the Principal Immigration Officer, Nauru on Telex No. ZV 33086 or ZV 33081.

TANKERS: Lengths and drafts as for bulk phosphate vessels. 8 in. discharge line to shore storage tanks.

DENSITY: Normal salt water all states of tide.

FRESH WATER: Island water is imported, and water will be supplied only in cases of emergency and in very small quantities.

FUEL: Island stocks are imported for use in the phosphate industry, and limited quantities of heavy fuel or diesel oil can be made available in cases of extreme urgency.

CONSULS: Australian High Commissioner and Consul General for Republic of China are resident on the Island.

REPAIRS: The phosphate industry requires good workshop facilities of various kinds for maintenance of their own heavy plant and such workshops are kept busy at all times. Small repairs such as welding, brazing, lathe work, etc., can be carried out, but only when essential to allow the vessel to proceed on its voyage. Main engines cannot be immobilised whilst the vessel is moored to any section of the buoy system.

GANGWAY/DECK WATCHMEN: Not required.

OPENING/CLOSING HATCHES: Carried out by crew.

SHIP CERTIFICATES: Derat Certificate only.

CUSTOMS ALLOWANCES: No restrictions apply.

CARGO GEAR: Cargo gear should be up to the standard demanded in Australian ports.

REPATRIATION: Repatriation can be arranged. No facilities for crew changes.

AIRPORT: Airport is 1 km. from the Harbour Master's office. Air Nauru operates twice weekly to Melbourne, and Fiji, and a weekly service to New Zealand, Hong Kong, Manila and Honiara. Other routes include Japan, Majuro, Samoa and Vila.

TIME: Local time is GMT plus 12 hours. No alterations during the year.

HOLIDAYS: Christmas Day, New Year's Day, and Good Friday are normally closed holidays. Other National holidays occur during the year but normally work continues on these days.

POLICE/AMBULANCE/FIRE: All emergencies are handled by the Harbour Masters, one of whom remains aboard the vessel throughout the time the vessel is attached to the mooring system.

TELEPHONES: Telephones are placed aboard for the use of island staff working the vessel.

BANKS: Bank of Nauru is the only bank on the island, and is situated at the Civic Centre, which is 0.5 km. from the Harbour Master's office. The address of the bank is Bank of Nauru, P.O.Box 289, Republic of Nauru, Central Pacific. Telex No. ZV 33085 BANKNRU. Tel. No. 5239 and 5240.

SHORE LEAVE: This may be granted at the discretion of the Master in consultation with the Harbour Master on board. It should be borned in mind that in the event of adverse weather during loading operations the Harbour Master on board will decide to unmoor the vessel.

CREW IDENTIFICATION CARDS: Some form of identification, passport, discharge book, or identity card should be carried by crew members.

PORT REGULATIONS: No vessel may immobilise main engines whilst moored to the buoy system. Main engines should be on instant readiness, deck power should be available at all times, and the vessel must proceed to sea when instructed to do so by the Harbour Master on board.

DELAYS: Normally no delays should be expected. Vessels could wait a day, or possibly 2 due to port congestion, but this seldom happens; but delays can occur due to adverse weather, the duration of which is unpredictable.

Vessels to stock sufficient fuel, fresh water and provisions, in case of adverse weather which can cause the vessels to drift off the island, for several weeks.

AUTHORITY: Marine Department, Nauru Phosphate Corporation, Aiwo District, Republic of Nauru, Central Pacific. *Tel:* 4192, 4191. *Telex:* ZV 33082 NRUPHOS "Attn. Harbour Master". *Cables:* Nauruphos, Nauru. *Fax:* Area Code 674, No. 411. *Contact:* Harbour Master, Tel. Office 4189. Residence 4459.

Netherlands

AMSTERDAM: 52.22 N. 04.54 E. (See Plan)

PORT LIMITS: Notice of Readiness will only be accepted (subject to C/P terms) if vessel has actually arrived at Amsterdam, which means that vessels have to enter from sea and pass the locks at Ymuiden, proceeding through the North Sea Canal to Amsterdam. There are various buoys and quays available where vessels can be moored waiting for final discharging berth.

DOCUMENTS:

Health Certificate. Forms obtainable from sea Pilot.
Crew List in triplicate.
2 copies of Crew Manifest for cigarettes, cigars, spirits, etc., belonging to crew.
Passenger List in triplicate.
1 copy of Manifest.
1 copy of Bills of Lading.
Dangerous Cargo List.
Ship's Register.
1 copy Stores List.

PILOTAGE: Pilotage is compulsory. Pilot boards from tender in the vicinity of Ymuiden between the light whistle buoy and the moles.

In order to avoid delays, Masters who require a Pilot must advise their ETA not less than 4 hours in advance to "Traffic Centre Ymuiden". This advice must be amended, if vessel's ETA changes more than 2 hours from the original advice.

The text of the message must contain: *(a)* the words "ETA-Pilot", *(b)* expected time arrival (group of 4 figures) in middle European time, *(c)* draft with indication of unit applied, *(d)* port of destination.

"Traffic Centre Ymuiden" can be informed via Scheveningen Radio or via VHF Channel 12. Pilotage and navigation is possible at night.

Pilotage by Helicopter: When the pilot service by tender has been suspended owing to weather conditions it is possible to take a Pilot on board vessels by helicopter. Helicopter pilotage is carried out for vessels which have an obstacle free hoisting area on deck of minimum 4.6 m. in diameter. Deck plans should be provided in advance.

Vessels with draft of over 45 ft. (S.W.) will use helicopter pilotage.

Restrictions:

1. Min. visibility 800 m. at 150 ft. above sea level.
2. Max. wind Force 10 (55 knots).
3. Severe turbulence and icing conditions at or below 150 ft.

Pilot Ladders: Pilots strictly adhere to Regulation 17b, Chapter V of the International Convention for the Safety of Life at Sea, which reads as follows:

"Whenever the distance from sea level to the point of access to the ship is more than 30 ft. (9 m.), access from the pilot ladder to the ship shall be by means of an accommodation ladder or by another equally safe and convenient means".

ANCHORAGE: Anchoring in Ymuiden outer harbour, North Sea Canal and in harbour of Amsterdam is prohibited.

RESTRICTIONS: Entry possible at night.

MAX. SIZE: Vessels proceeding to Amsterdam have to pass locks at Ymuiden. Dimensions of Northern lock (largest): 400 m. long, 50 m. width and 15.00 m. deep at N.A.P. (N.A.P. is 1.13 m. above LLWS.) Max. LOA 325 m. Max. width 45 m.

The official max. draft to enter Ymuiden is 54 ft. salt water. Vessels with a draft of 43 ft. to 45 ft. salt water may enter Ymuiden and proceed to Amsterdam.

RADIO: Cable Agents giving ETA, draft, cash and other requirements via Scheveningen Radio/PCH.

RADAR/VHF: *Radio Communications With Shipping:* 1. The following radio telephone channels have been designated by DGSM for communications with shipping in the Ymuiden – North Sea Canal area:

(a) In the approach area to Ymuiden, West of the area of the sea that is indicated by a circle with a radius of 5 miles from the piers, vessels should communicate with the Traffic Centre in the Harbour Operations Centre on VHF Channel 12.

Call sign: 'Ymuiden Port Control' or 'Ymuiden Haven'. For short messages concerning passage through the North Sea Locks, after calling 'Ymuiden Port Control' or 'Ymuiden Haven' add 'Locks or 'Sluis'. The Traffic Services in the Lock. Tower may reply direct on VHF Channel 9.

(b) Within the area with a radius of 5 miles from the piers to the North Sea Locks, vessels should communicate with the Traffic Centre in the Harbour Operations Centre on VHF Channel 9.

Call sign: 'Ymuiden Port Control' or 'Ymuiden Haven'.

For short messages concerning passage through the North Sea Locks, after calling 'Ymuiden Port Control' or 'Ymuiden Haven' add 'Locks' or 'Sluis'. The Traffic Service in the lock tower may reply direct on VHF Channel 9.

(c) In the area in the North Sea Canal East of the locks to the Hemferry, or up to the moment the area as a whole is left or entered, vessels should communicate on Channel 11.

Call sign: 'Ymuiden Locks' or 'Ymuiden Sluis'.

(d) Communications with shipping are maintained on Channel 11 on the Western side and Channel 14 on the Eastern side of the Hemferry.

2. In Amsterdam Docks, both East and West of the Hemferry, Amsterdam Port Authority prescribes Channel 14.

3. Use of radio telephone in conditions of poor visibility:

In conditions of poor visibility Ymuiden Traffic Centre may deviate from the Channel listed in 1 and designate the following Channels for radar assistance.

(a) For the area West of the Ymuiden Fairway Buoy, Channel 12.

Call sign: 'Traffic Centre Ymuiden' or 'Verkeersdienst Ymuiden'.

(b) For the area between Ymuiden Fairway Buoy and the outer pierheads, Channel 19.

Call sign: 'Ymuiden Port Control' or 'Ymuiden Haven'.

(c) For the area between the heads of the new piers and the North Sea Locks, Channel 9.

Call sign: 'Ymuiden Port Control', or Ymuiden Haven'.

4. Listening:

Without prejudice to the provisions in 3 and with reference to the 'Beschikking vaartuigen met radar' (Ministerial Order on Vessels with Radar) (Government Gazette 1980, 209), vessels sailing in poor visibility with the aid of radar are obliged to listen to the following VHF Channels:

(a) In the area between the outer pierheads and the North Sea Locks, Channel 9.

(b) In the North Sea Canal East of the locks to the Hemferry, Channel 11.

(c) In the North Sea Canal East of the Hemferry, Channel 14.

5. Instructions and recommendations: Shipping must follow the instructions given by Traffic Control in the interests of safety in the area. All shipping is urged also to use the channels referred to in 1 and 2 for brief navigational communications, in addition to the obligation contained in 4 or at least to listen to the channels specified above.

6. All VHF calls, regardless of the channel used, are automatically logged by date and time group at the Port Operations Centre.

Radar: Radar assistance available at all times from Ymuiden Traffic Centre, the range of the radar is 20 miles.

TUGS: Sea-going tugs available between piers at Ymuiden assisting vessels, into locks or outer harbour. Harbour tugs available in locks assisting vessels to Amsterdam. The rates include use of tug hawser.

BERTHING: Possible at night. If no berth available vessels may be moored on buoys.

Length of quays for sea-going vessels and depth of adjacent navigable water.

Quay	*Length* (m.)	*Depth* (m.)
Amerikahaven	250	15.00
ADM	1,530	7.00 – 15.50
Australiehaven	—	15.00
Aziehaven	—	13.50
Dokhaven A.D.M.	310	7.00 – 9.00
Westhaven	2,174	15.00 – 10.00
Sonthaven	88	13.50 – 10.00
Suezhaven	1,108	10.00
Beringhaven	262	9.50
Hornhaven	537	12.50 – 10.00
Jan van Riebeeckhaven	170	13.50 – 8.50
Adenhaven	180	10.00
Usselincx-haven	—	13.00 – 14.00
Petroleumhaven	—	10.50 – 11.00
Coenhaven	3,835	10.00
Mercuriushaven	500	10.50 – 15.50
Vlothaven	2,318	15.00 – 12.00
Neptunushaven	220	10.00
Nieuwe Houthaven	—	7.50 – 6.50
Noordzeekanaal (Superfosfaatfabriek)	310	10.20
NSM	800	7.50 – 9.00
Minervahaven	—	6.50
Oude Houthaven	—	10.00 – 6.00
Silokade	170	8.50
De Ruyterkade	130	7.50
Cornelis Douweskanaal (West)	—	4.00 – 15.80
Joh. van Hasseltkanaal (East)	400	7.00 – 6.50
Joh. van Hasseltkanaal (West)	350	3.50 – 3.00
Kop O. Handelskade	80	7.70
Oostelijke Handelskade	1,885	9.80 – 7.70
Javakade	1,100	7.70
Sumatrakade	1,383	9.80
Surinamekade	792	9.80
Levantkade	580	8.50
Ertskade (Ertshaven)	315	8.50
Panamakade	724	7.50 – 9.00
Spoorwegbassin (South)	780	6.50 – 11.00
Borneokade	815	7.50
Zeeburgerkade	185	7.50

Length of Quays for Inland Craft: In the port area 5,990 m., in town about 5,000 m. All quays provided with railway-connections (115 km.)

34 Buoys for sea-going vessels offering a berth for 24 sea-going vessels.

CRANES:

	Capacity	*Number*
General cargo cranes	1 – 30 tons	67
General cargo cranes for inland craft	1.5 – 5 tons	3
Bulk-cargo cranes (shipping)	2 – 16 tons	10
Container cranes	50 tons	3
Mobile container cranes	35 & 45 tons	2
Container railway cranes	35 tons	2
Van carriers	30 tons	3
Table cranes	5 – 30 tons	7
Transporter bridges	7 – 50 tons	8
Floating bulk cargo cranes	2.5 – 16 tons	8
General cargo cranes (industry)	1 – 40 tons	13
Bulk cargo cranes (industry)	1.5 – 6 tons	10
Mobile cranes (shipping)	1 – 6.5 tons	12
Floating derricks	10 – 300 tons	12

STEVEDORES: In order to enable Agents to order gangs in time it is recommended to keep Agents duly informed about ETA. No ETA to stevedores necessary.

MEDICAL: If immediate medical assistance will be required in the locks at Ymuiden, Agents must receive advance notice.

CARGO HANDLING FACILITIES: Grain:

I.G.M.A. (Internationale Graanoverslag Mij. Amsterdam B.V.): The grain terminal is specially designed for the fast discharge and transhipment of grain and derivatives.

Depth alongside 49 ft. 3 in.

A fast conveying installation transports grain into the silos or to receiving ships. Capacity of the silos: 52,700 tonnes. Also soyabeans are transhipped to the soya oil extraction plant next to the I.G.M.A. silo.

Equipment: The installation has a main jetty of 1,200 ft. length to accommodate 2 vessels up to 100,000 d.w.t. The ships are unloaded by 2 mobile pneumatic suckers, with a capacity of 400 t.p.h., 2 screw grain dischargers with a capacity of 800 t.p.h. each and 1 floating elevator with a capacity of 200 t.p.h. for heavy grain. Two crane/weigh tower combinations with a capacity of about 400 tons heavy grain each. A floating crane, capacity 15 tonnes is available for handling stores, spare parts, etc.

Despatch: With the modern equipment and the efficient way of handling, a good despatch can be realised. If two or three discharge units are available, a bulk carrier with 30,000 tons will be completed within 2 days. Daily discharge capacity in total is about 40,000 metric tons.

Supplies: Water obtainable from ashore, stores must be transhipped on barge at the quay as jetty is not accessible to trucks; bunkers by barge.

Pier C: Alongside this berth bulk carriers and tankers can be accommodated to load directly ex-silo. Max. draft 30 ft., max. airdraft 30 ft. Loading capacity 2,000 t.p.d.

Cargill B.V.: Located adjacent to the IGMA Grain Terminal.

Importing vessels are berthed alongside the IGMA pier and the plant receives the soyabeans directly by conveyor belt.

The finished products are loaded into coasters which moor alongside the jetty of the plant along the Mercurius Harbour. Loading capacity: About 200 t.p.h.

Ore, Coal, Agricultural Products, Derivates, etc.:

B.V. Overslagbedrijf "Amsterdam": This stevedoring company for the transhipment and storage of all kinds of dry bulk cargoes is situated in the West Dock, only 10 miles from Ymuiden. Along the quay with a length of 2,600 ft., large bulk carriers with a draft up to 45 ft. salt water can be accommodated. Vessels up to 54 ft. can be lightened at Ymuiden to a maximum draft of 45 ft. salt water.

There are no restrictions as to the length, height or beam of the ships. Maximum outreach of loading/discharging gear over water: 164 ft.; maximum height of loading/discharging gear above water level: 80 ft. 5 in.

Equipment: 4 high speed gantry cranes, gross lifting capacity 3×30 tons (20 tons net) and 1×50 tons (30 – 33 tons net) with built-in electronic weighing system. The 3×30 tons gantries have a maximum outreach over water of 131 ft., allowing a maximum airdraft of 50 ft., whereas for the 50 tons gantry the maximum outreach over water is 164 ft., allowing a maximum airdraft of 80 ft.

Double independent conveyor belt-system (length 5 km.) for simultaneous stockpiling/reclaiming into barges and/or railcars with separate cranes for that purpose.

Loading machines for (push) barges and sea-going vessels up to 18,000 d.w.t.

Discharging equipment for railcars. Double track rail connection with Dutch Railway System with automatic weighing equipment. Storage capacity up to 3 million tons.

Capacity: Total discharging rate of gear: For ore up to 100,000 tons per 24 hours; for coal up to 60,000 tons; for derivatives up to 25,000 tons. Loading rate of gear into seagoing vessels from stockpile: up to 2,000 t.p.h. Ex barges: depending on size of barges.

Supplies: Water, stores and bunkers can be delivered by truck and/ or barge.

Anthraciet Handels Vereniging: On the Adenhaven, quay of 180 m., water depth 33 ft., 1 table crane of 7.5 tons.

Scheepvaart en Steenkolen Maatschappij: In the Spoorweghaven, quay length 40 m., water depth 25 ft., 1 table crane of 6 tons.

Havenbedrijf de Rietlanden B.V.: Handles coal, minerals, ore, derivatives and fertilisers at 2 locations in the Port of Amsterdam, one in the Eastern port area, directly at the head of the Amsterdam Rhine Canal, the other in the Western port area.

Equipment: 2 gantry cranes with a capacity of 7 tons each; 2 floating cranes with a capacity up to 16 tons;

Excellent rail connections and weighing bridge;
Screening installations for coal and coke;
Storage capacity up to 200,000 tons;
Vast paved storage areas.

Very reasonable dispatch. Capacity about 15,000 tons per running day; with combined working of gantries and floating cranes even more. Quays with length of 4,800 ft. can accommodate large bulk carriers with a draft of 35 ft. With the floating cranes, vessels drawing up to 45 ft. can be handled at any place in the Port of Amsterdam.

Supplies: Stores, bunkers can be delivered by truck, and/or barge.

Phosphate: *Amfert B.V.*

At the fertiliser works, rock phosphate is discharged and after manufacture the ready product (fertiliser) shipped in bulk.

Equipment and berth: The main jetty has a depth alongside of 35 ft. and 2 vessels of up to about 25,000 tons can be accommodated. With the 2 grab cranes a daily out turn of 5,000 tons phosphate is reached.

Container and Ro-Ro/Ferry Terminals:

Combined Terminals Amsterdam V.O.F. (C.T.A.): Combined Terminals Amsterdam V.O.F. offer a complete container terminal service on the West Terminal which is located in the Westhaven.

Container Freight Station and Intercontainer Railway Terminal incorporated on the terminal site.

Roll-on/Roll-off ramp especially constructed for heavy axle loads. Car terminal facilities for handling large quantities of factory automobiles/ trucks.

Berths:

Berth No. 1:	Length 250 m. Depth alongside 13 m. (42 ft.)
No. 2:	Length 215 m. Depth alongside 11.5 m. (37 ft.)
No. 3:	Length 140 m. (Ro/Ro) Depth alongside 11.0 m. (35 ft.)
No. 4:	Length 290 m. Depth alongside 11.0 m. (35 ft.)

Equipment: 3 Portainers, with lifting capacity 50 tons each, outreach 36 m. (116 ft.), rail width 20 m. (65 ft.) and backreach 24 m. (80 ft.) with 20 ft., 30 ft., 40 ft. and adjustable spreaders, also to lift two 20 ft. containers simultaneously.

Four multi-purpose-rail mounted dock cranes with lifting capacity of 30 tons on 20 m. (66 ft.) and 12 tons on 40 m. (131 ft.) outreach.

Two rail mounted transtainers, capacity 35 tons and 45 tons with 28 m. (90 ft.) and 40 m. (129 ft.) span rotating and adjustable spreader serving 3 railway tracks.

Eight van carriers, terminal tractors and chassis and heavy lift trucks equipped for containers, steel coils and pulp.

Facilities: Container storage yard 165,000 sq.m.

Car park 140,000 sq.m. (28 acres).

Container freight station 3,000 sq.m. (33,000 sq.ft.) 46 doors.

Two transit sheds 16,000 sq.m. (172,000 sq.ft.).

Workshop for the maintenance and repair of containers and road chassis.

40 reefer receptacles at the required voltages.

Depot of lease containers and road chassis. Container railway terminal.

Working Hours: Usually around the clock, 7 days per week.

Supplies: Fresh water obtainable from the quay, bunkers by barge.

Verenigd Cargadoorskantoor: VCK operates 2 modern stevedoring terminals of which one is equipped for Ro/Ro and passenger traffic: the Scandia Terminal. Regular ferry services sail from there to Norway (Summer passenger service) and Finland (cargo service).

Scandia Terminal: Scandia Terminal in the Suezhaven and Beringhaven, 10.5 nautical miles from the sea-locks in Ymuiden. Total area 105,080 sq.m., marshalling area 84,785 sq.m., quay length 771 m., 3 Ro/Ro ramps, one in Suezhaven and two in Beringhaven, shed space 20,295 sq.m., modern passenger building.

Vlothaven Terminal: 1 mobile container crane of 45 tons. 11 breakbulk cranes of 2 tons – 10 tons. Total area: 5,600 sq.m., quay length: 570 m., shed space: 13,700 sq.m. Marshalling area: 42,340 sq.m.

Also available on both terminals: side loaders (20 tons), tugmasters, slave trailers, flats, containers and forklift trucks.

P. Ter Haak & Zn. B.V.: Double berth Ro/Ro Terminal – Draft 39 ft. Regular Ro-Ro Service to East Coast of Sweden.

Molasses: Tradax–2 jetties, max. draft 11.30 m. receiving capacity 1,000 t.p.h. Max. d.w.t. 65,000 tons (approx.). Connections 8 in.

Minerals: Eggerding & Co. B.V. Length of quay 400 m. Depth alongside 33 ft. Discharge is carried out by floating cranes.

TANKERS: *Oiltanking B.V.:* 1 jetty for 2 vessels of 100,000 tons. Max. LOA 310 m., max. draft 15.0 m., 2 jetties for 2 vessels of 3,500 tons, 1 jetty (used in case of fire). One jetty for 1 ship up to 45,000 d.w.t. Pipe-line connection 6 in. and 8 in. Receiving rate 2,000 t.p.h. LPG loading rate 2,000 t.p.h. depending on grade and condition. Fresh water available from jetty, fuel by barge. Stores by barge or trucks. (Jetty not accessible to trucks). Dirty ballast by barge.

Mobil: 2 jetties, 1 for vessel of 30,000 tons and another for vessel of 80,000 tons. Max. LOA 255 m., max. draft 13.7 m. Pipe-line connections 10 in. and 12 in.

One jetty for coast tankers or LPG tankers up to 2,500 tons.

The receiving rate for crude oil is 4,000 cu.m./hr. The loading rate varies from 400–1,900 cu.m/hr. depending on grade.

Fresh water available from jetty. Fuel available, pipe-line 8 in. Facilities available for dirty ballast if vessel to load at berth. Max. capacity 10,000 tons. Stores by barge or truck (Jetty not accessible to trucks).

Amatex: 4 jetties, max. LOA 250 m., max. draft 10.5 m. Pipe-line connections 6 in. – 12 in.

Receiving rate, up to 2,000 t.p.h. depending on grade and back pressure, if any. The loading rate is about 1,000 t.p.h. depending on grade.

Fresh water available by barge. Fuel available by barge. There are facilities for dirty ballast under special conditions. Stores mainly by truck (Jetties not accessible to trucks).

Riebeeckhaven: Max. LOA 300 m. Max. draft 12.50 m.

Comos: Two jetties, max. LOA 300 m., max. draft 13.5 m. Pipe-line connections 8 in. and 12 in. Four jetties available for seagoing vessels and barges up to a max. draft 14 ft. 9 in.

The receiving capacity is about 2,000 t.p.h. and loading rate up to about 1,000 t.p.h.

Fresh water available by barge. Fuel available by barge or pipe-line. Stores by truck. There are no facilities for dirty ballast.

Smid & Hollander: 2 berths for receiving crude oil, max. LOA 245 m., max. draft 12.5 m. Fuel available at berth. Fresh water available by barge. Stores by truck (Jetty not accessible to trucks). There are no dirty ballast facilities.

Noord Europees Wijnopslagbedrijf B.V.: One jetty, max. draft 41 ft. For wines, fruit juice and alcohol. Fresh water and fuel available by barge. Stores by truck.

Cindu: Located in Petroleumhaven. Max. LOA 170 m., max. draft 10 m. Fresh water and fuel available by barge. No dirty ballast facilities.

De Humber: Located in Petroleumhaven. Max LOA 150 m., max. draft 10.0 m. Fresh water and fuel available by barge. No dirty ballast facilities.

Marbon: Located in Hornhaven. Max. LOA 100 m., max. draft 5.50 m. Fresh water and fuel available by barge. No dirty ballast facilities.

Schuurman: Located in Usselincxhaven. Max. LOA 180 m., max. draft 11.30 m. Receives molasses at up to 1,000 t.p.h. Fresh water and fuel available by barge. No dirty ballast facilities.

DENSITY: Amsterdam is not a tidal port. The water is brackish to fresh.

FRESH WATER: Drinking and boiler water can be supplied by barge, or if connection available, from shore. Price depends on quantity ordered.

FUEL: All grades of fuel are available and delivered mainly by barge. Advance notice 48 hours.

FIRE PRECAUTIONS: No repair work to be carried out to tankers without permission of Harbour Authorities. Usual non-smoking precautions, etc.

GANGWAY/DECK WATCHMEN: Not required. Dependent on commodity of cargo.
OPENING/CLOSING HATCHES: Liner vessels by crew or by stevedores, payable per man per hour. Tramp vessels as per Charter Party.
CERTIFICATES:

Ship's Register.
Usual Cargo Certificate.
Safety Radio.
Safety Equipment Certificate.
Crew Roll.
All usual certificates required for navigation.

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes per man or equivalent of tobacco or cigars. Wine and/or Spirits: 5 litres of wine per man. Spirits: total 5 litres for the whole ship.
CARGO GEAR: Usual cargo certificate.
IDENTIFICATION CARDS: Not needed.
CONSULS: In Amsterdam only. Many countries represented in The Hague and Rotterdam.
C = Consul. C.G. = Consul-General.
Consulates and Embassies:

	Tel: (Area Code 020)
Argentina (C.G.)	232723
Austria (C.G.)	268033
Bangladesh (C.)	263456
Belgium (C.)	248771
Bolivia (C.)	796612
Brazil (C.)	624085
Central African Republic (C.)	730079
Chile (C.G.)	246403
Colombia (C.G.)	717867
Cyprus(C.)	235177
Denmark (C.G.)	234145
Dominican Republic (C.G.)	447111
Ecuador (C.G.)	252830
Finland (C.G.)	249090
France (C.G.)	225811
Germany F.R. (C.G.)	736245
Great Britain (C.G.)	764343
Greece (C.)	243671
Haiti (C.)	764844
Iceland (C.G.)	262658
Italy (C.G.)	240043
Ivory Coast (C.)	225533
Jamaica (C.)	243412
Japan (C.G.)	243581
Luxembourg (C.)	231486
Madagascar (C.)	460417
Mauretania (C.)	431869
Mauritius (C.)	251255
Mexico (C.)	730230
Monaco (C.G.)	702104
Morocco (C.G.)	736215
Nepal (C.)	250388
Norway (C.G.)	242331
Peru (C.G.)	228580
Philippines (C.G.)	221944
San Marino (Embassy)	719198
Spain (C.G.)	796591
Surinam (C.G.)	426717
Sweden (C.)	234145
Switzerland (C.G.)	644231
Thailand (C.)	220078
Togo (C.)	445790
Uganda (C.)	5124444
Uruguay (C.)	799182
U.S.A. (C.G.)	790321
Venezuela (C.G.)	228301

REPAIRS: All types of deck and engine repairs are possible including gas-freeing and tank-cleaning.
DRY DOCKS: Ship and engine repairs. Maintenance, survey, damage repairs, lengthenings, conversions, voyage repairs to vessels lying at berths from Amsterdam to Ymuiden. Repair, maintenance and construction of offshore equipment.

At the site of Shipdock Amsterdam B.V. dry docks are available capable of taking vessels up to 70,000 d.w.t.
Maximum sizes of vessels to be dry docked.

Graving docks	Length × Breadth × Depth (in feet)	Dock capacity in D.W.
No. 1	439 × 63 × 16.1	10,000
No. 2	518 × 69.5 × 19.0	18,000
No. 3	639 × 86 × 26.6	32,000
No. 4	803 × 117 × 24.3	72,000

Total quay length 5,500 ft.
equipped with 11 cranes up to 60 tons.

Oranjewerf B.V.:

Floating docks	Length (ft.)	Breadth (ft.)	Depth on sill (ft.)	Lifting capacity (in tons)
1 floating dock	426	88	18	4,000
1 Transverse slipway	328	115	11	2,200

SURVEYORS:

	Tel:
Lloyd's Register of Shipping, 159 Pr. Hendrikkade	23 23 88
Bureau Veritas, 13 Stationsplein, Room 8371	24 45 47
American Bureau of Shipping, 32 v.d. Helstlaan, Naarden	(02159) 4 53 78
Det Norske Veritas, 75 Klaprozenweg	31 52 01

REPATRIATION: Facilities for repatriation of crew to any destination are available.
AIRPORT: Distance to Schiphol Airport (served by regular airlines) 15 km.
TIME: GMT plus 1 hour. Summer time GMT plus 2 hours.
HOLIDAYS: New Year's Day; Good Friday; Easter Sunday; Easter Monday; Queen's Birthday (April 30th); Ascension Day; Whit Sunday; Whit Monday; Christmas Day and Boxing Day.

Cargo can be worked during these days subject to labour being available at premium rates.

POLICE/AMBULANCE/FIRE: Police 222222; Ambulance 555555; Fire 212121.
TELEPHONES: Telephone connections on board are only possible on certain quays (passenger ships). It is possible to rent portable mobile phones.
BANKS:

	Tel:
Alcredis Bank B.V., 541 Herengracht	5 20 49 22
Algemene Bank Nederland, 32 Vijzelstraat	29 91 11
American Express Int. Banking Corp., 13-15 Leidsegracht	22 93 22
Amsterdam-Rotterdam Bank N.V. (AMRO), 47 Rembrandtplein	28 93 93
Amsterdamse Crediet & Handelsbank N.V., 553 Herengracht	24 34 99
Banco de Brasil s.a., 457 Herrengracht	25 59 42
Banco de Jerez, 471 Keizersgracht	23 81 55
Banco de Viscaya, 479 Herengracht	26 30 33
Banco do estado de Sao Paulo, 565 Keizersgracht	22 45 22
Banco Exterior Nederland N.V., 31b Leidseplein	26 12 61
Banco Popular Espagnol, 28/1 Rokin	26 15 51
Bank Kyowa Ltd., 1 Frederiksplein	26 91 31
Bank of America, 617 Keizersgracht	5 57 19 11
Bank of Tokyo, 603 Keizersgracht	5 20 89 11
Banque Chaabi du Maroc, 87 Rokin	23 47 05
Banque Paribas, 539-543 Herengracht	5 20 49 11
Banque de Suez Ned. N.V., 320 Herengracht	22 97 26
Banque National de Paris, 477 Herengracht	5 50 12 12
Barclays Bank Intern. Ltd., 500 Herengracht	26 22 09
A. de Bary & Co. N.V., 448-454 Herengracht	5 55 49 11
Canadian Imperial Bank, 79 Vijzelstraat	22 93 97
Chase Manhattan Overseas Corp., 478 Herengracht	25 56 44
Dai-Ichi Kangyo Bank, 540 Singel	26 41 82
Daiwa Europe N.V., 344 Singel	22 99 77
First National City Bank, 545 Herengracht	26 44 55
Gilissen N.V., Theodoor, 12-14 Nwe Doelenstraat	24 73 73
Grenswisselkantoren, Hal Central Station	22 13 24
Hollandsche Bank-Unie N.V., 434-440 Herengracht	29 92 22
Hollandse Koopmansbank, P.O.Box 569	23 66 60
Hongkong and Shanghai Banking Corp., 499 Herengracht	22 02 67
Indonesian Overseas Bank, 662 Keizersgracht	5 51 77 11
Jugobanka, 512 Singel	24 92 74
Kas-Associatie N.V., 172 Spuistraat	21 25 21
Korea Exchange Bank, 31 Sarphatistraat	25 40 22
Labouchere & Co. N.V., 12 Tesselschadestraat	16 00 11
Lloyds Bank Int. Ltd., 29 Leidseplein	26 35 35
Mees & Hope, 548 Herengracht	5 27 91 11
Mendes Gans & Co. N.V., 619 Herengracht	23 81 81
Midland Bank, 26 Weteringschans	26 34 59
Nederlandsche Bank N.V., 1 Westeinde	5 24 91 11
Nederlandsche Credietbank N.V., 458 Herengracht	21 27 27
Nederlandsche Middenstandsbank N.V., 2 E.v. Beinumstraat	5 43 91 11
Nederlandse Overzeebank N.V., 542 Herengracht	5 27 91 11
Nomura Europe N.V., 7 De Boelelaan	44 48 60
Philippine National Bank, 272 Herengracht	23 25 40
Pierson, Heldring & Pierson, 214 Herengracht	21 11 88
Ship Mortgage Int. Bank, 530 Keizersgracht	22 29 11
Slavenburg's Bank N.V., 179-181 Herengracht	22 72 20
Soc. Generale, 17 Museumplein	76 83 21
Tokai Bank, 431 Keizersgracht	23 96 25
Yamaichi International, 1 Frederiksplein	24 24 56

SERVICES: Compass adjusting/direction finder calibration, representatives of all leading radio installations, radar and other nautical instruments available.
Tanker Cleaning Amsterdam B.V.:
The largest jetty can accommodate vessels up to 120,000 d.w.t. Advantage may be taken of the water depth of 33 ft. alongside the berth to hydraulically test cargo tanks.

2 jetties are available for smaller tankers up to 260 ft. in length (about 2,000 and 16,000 d.w.t. respectively) and have a water depth alongside of 18 ft.

Cold work may be carried out in the engine room during gas freeing operations in the cargo tanks subject to prior consultation and approval of the management and local authorities.

Barges are available for taking slops or contaminated oil.

Specialised equipment for alongside can be supplied for taking oil-spillages.

SHORE LEAVE: Crew members allowed ashore.
DELAYS: Usually no congestion.
AUTHORITY: Gemeentelijk Havenbedrijf Amsterdam. (Port Management of Amsterdam), De Ruyterkade, 7, 1013 AA Amsterdam. *Tel:* 20-221201. *Telex:* 12247 Ampor NI. *FAX:* 20-266215. *Contact:* K. d'Angremond, Managing Director, or The Harbour Master (Tel: 20-221515).

DELFZIJL: 53.20 N. 06.56 E. (See Plan)

LOCATION: On the estuary of the River Ems, opposite Emden.
DOCUMENTS: See "Rotterdam".
PILOTAGE: Pilot boats normally cruise at Wester-Ems Buoy. During bad weather they withdraw into estuary, but never further than Borkum Roads. Pilot boats listen on Channel 6 and 16 and Pilot Office on Channel 14 VHF; distance from pilot station to Delfzijl 36 miles. Pilot service compulsory for all vessels drawing over 2.2 m. Foreign vessels may call Pilot on 2182 kHz. Traffic between the cutter and the vessel will be held on 1657 kHz. Tel: 05960-14988. Telex: 53785.

Approaching vessels from sea should inform the Pilot Commissioner of their ETA in M.E.T. with a notice at least 12 hours in advance via a coastal radio station; the pilot cutter may be informed via VHF at least 4 hours in advance.

The ETA message should contain the following details: *(a)* ETA Pilot Westereems (time in M.E.T. in a group of 4 figures); *(b)* Draft; *(c)* Port of destination; *(d)* Name, Call Sign and Gross Tonnage.

Departing vessels should apply for a Pilot at least 1 hour before ETD; the request should be made to the Office of the Inspector of Pilotage.

Pilotage from Delfzijl to Emden is not compulsory. On request however a Pilot may be put at the Master's disposal for a trip to Emden. This is not applicable for a trip from Emden to Delfzijl or Eemshaven.

ANCHORAGE: Vessels up to 4,000 tons d.w.t., which for some reason have to anchor outside the piers can do this East of the harbour entrance near Oterdum. Anchorage is situated within the following area: a line connecting the buoys 53/PS-55-57 and PS2-BW28. Request for anchorage at the Pilot Office, VHF Channel 14. Larger vessels should seek an anchorage in the Doekegat. There is no anchorage inside the harbour.

ENTRANCE: The harbour entrance lies opposite the former village of Oterdum. The entrance extends to reach the deep water of the Bocht van Watum, and lies opposite the dredged channel between the Bocht van Watum and the Oostfriese Gaatje near Paapsand Sud.

The harbour entrance has an initial depth of N.A.P. −10 m., and a bottom width of 208 m. The harbour channel has the same depth, and a width of 100 m.

Depths: All depths are indicated in relation to N.A.P. LLWS at Delfzijl lies 2.03 m. below N.A.P. (Normal Amsterdam Level).

Tides: The range at Springs is 3.26 m. and at Neaps 2.59 m. Tidal movement is diurnal with an average range of 2.99 m.

MAX. SIZE: The harbour entrance has a depth of 8 m. at LLWS. Vessels drawing up to 9.3 m. can enter under normal HW circumstances; a keel clearance of 10% of the draft will be maintained. Masters of vessels with large draft are recommended to contact the Pilot Service in good time with regard to the water level to be expected near Paapsand-Sud and in the Zeehavenkanaal. In the harbour "always afloat" can be guaranteed along the entire length of the Handelskade West for vessels with a draft up to 8.7 m. See "Depths" above.

TUGS: Tugs up to 32 tons bollard pull available. Additional tugs can arrive within 3 hours from Emden.

RADIO: Cable to Agents via Radio Scheveningen (PCH) on VHF Channel 27.

VHF: The Pilot Office and Port Office at Delfzijl and Eemshaven are equipped with a VHF installation Channel 14. The stations are constantly manned 24 hours a day.

The Eemskanaal – Lockmaster's Office is equipped with a VHF installation, Channel 11, which is constantly manned from Monday 0000 hrs. till Saturday 2400 hrs.

"Weiwerderbrug" (brug = bridge) is equipped with a VHF installation, Channel 22. The VHF station is manned from Monday 0600 hrs. till Saturday 1400 hrs. For bridge passage outside these hours call Port Office Delfzijl, Channel 14.

"Heemskesbrug": For bridge passage call Port Office Delfzijl, Channel 14.

RADAR: An integrated German/Dutch radar chain has been installed along the River Eems. The chain comprises the radar stations "Borkum" (German), "Oudeschip" (Dutch), "Emden" (German) and "Wybelsum" (German). The coordination of the stations has been centralised at Emden.

Radar assistance can be given when visibility decreases to a distance less than 2,000 m. The radar stations are working on a regular basis. Guidance and assistance can be given according to the table below.

Station	*Area*	*VHF channel*
"Borkum Radar"	River Eems from Westereems Buoys 1/2 or Huibertgat Buoys H1/H2 to Buoy 33	18
"Emden Radar"	River Eems from Buoy 33 to entrance Port of Delfzijl Buoys 56/57	20
"Wybelsum Radar"	River Eems from Buoys 56/57 to entrance Port of Emden	21
"Eemshaven Radar"	River Eems from Buoy 31 or Buoy 35 to a berth at Eemshaven (on request with 1 hour's notice; request to Pilot Boat on VHF Channel 6 or Pilot Station Delfzijl on VHF Channel 14).	4

BRIDGES: Bridge to the Damsterhaven may always be worked. Bridge to the Oosterhornhaven will be handled from Monday to Saturday (see "VHF – Weiwerderbrug"). On Sunday bridge may be opened on special request at the Harbour Master's Office.

BERTHING: The Outer Harbour is divided into 3 communicating basins: Handelshaven, Balkenhaven and Zeehavenkanaal.

Handelshaven, in the Western part of the Outer Harbour, has a deepwater quay, 570 m. long, with a depth of 11 m. alongside; A floating jetty of 320 m. length in a depth of 11 m. also jetties 110 m. and 130 m. in length, with a depth of 7 m. alongside.

Balkenhaven, East of Handelshaven, has depths of 8.5 m. to 5.5 m.; there are berths at 4 mooring buoys for small sea-going vessels.

Zeehavenkanaal is the Eastern part of the Outer Harbour and is being developed as a deep-sea harbour; it has a depth of 10.0 m. – 10.5 m. There are several private mooring facilities in the Sea Harbour Channel, from West to East:

a. Private quay of Wagenborg Terminal B.V. Length of quay 110 m. 1×35 ton crane. Depth 7.0 m.;
b. Private jetty of the Medalco Factory. Tankers up to 25,000 d.w.t., LOA 200 m. and draft 9.0 m. can be accommodated. Loading capacity 250 t.p.h.; discharging capacity 350 t.p.h.;
c. Private jetty of N.A.M. Tankers up to 6,000 d.w.t. loading condensate can be handled. Vessels berth starboard side alongside. Depth alongside 9.5 m.;
d. Private jetty of AKZO is equipped with a loading station with a loading capacity of 1,200 tons salt/hour. Ships up to 25,000 d.w.t. can be accommodated here; depth alongside 11 m.;
e. Private jetty of the Methanol Chemie Nederland (M.C.N.) equipped with a loading station with a loading capacity of 500 tons of methanol per hour. Tankers up to 200 m. LOA accepted. Vessels berth starboard side alongside. Depth 10.0 m.;
f. Private jetty of Aluminium Factory equipped with 1 crane and is able to accommodate ships up to 30,000 d.w.t., LOA 200 m. and draft 9.0 m. Discharging capacity 300 t.p.h.

The Oosterhornhaven behind the dyke is a basin with a total length of 3,100 m. and a width of 60 m.

Navigating Oosterhornhaven is prohibited for vessels having a LOA exceeding 75 m. and/or having a maximum beam exceeding 12.50 m. and or having a draft exceeding 4.50 m., unless a special permission is obtained from the Harbour Master subject to certain conditions.

Amongst others there are mooring facilities located in this canal alongside the yard of Azko, Methanol Chemie and Upjohn Polymer, equipped with loading installation and a tanker jetty.

The Eemskanaal:

Several private mooring facilities are located here. These are the following:

Name	*Type*	*Suitable for*
Jonker's Terminal	Potatoflour, bulk term	Coasters
Aceco	Grain elevator	Inland vessels/Coasters
Terminal Delfzijl	Timber Terminal	Coasters
North Sea Petroleum	Oil storage	Inland vessels
O.M.D.	Oil storage	Inland vessels/Coasters
Eemsmond	Cement factory	Inland vessels/Coasters
Mulder/Marne	Grain elevator	Coasters
Cebo Holland	Mud/Cement Storage	Inland vessels/Coasters

The Sea Locks:

The link between the Outer Harbour and the Eemskanaal and also the Oosterhornhaven of the port area is formed by the provincial sea locks. Sea-going vessels up to 6,000 tons d.w.t. with a beam of 16 m., a length of 120 m., and a draft of up to 5 m. can use these locks. As this will generally apply to vessels in ballast, the locks for this size of vessel are only of importance for the Groningen Shipyards.

For loaded vessels, the limit lies between 2,000 and 2,200 d.w.t. In the Outer Harbour of the locks sufficient berths have been provided for vessels waiting to pass through the locks.

Dimensions of Locks:

The Western (small) Lock has a length of 123 m. at falling tide and 81 m. at rising tide, a width of 7 m., a depth of sill outside 4.2 m. inside 2.4 m.; across each lock head lies a bascule bridge. The Eastern (large) Lock has a length of 120 m., a width of 16 m., depth of sill 5.4 m.; across each lock head lies a drawbridge. The opening times of the locks are continuous on weekdays.

Sheds and Warehouses:

There are several sheds and warehouses (total capacity: 3,250 sq.m.); also open storage. Grain silo with a storage capacity of 2,000 tons loose and 500 tons in bags. Also several private sheds, warehouses and grain silos.

CRANES: There are 6 shore cranes at Handelskade West with capacities up to 30 tons for handling general cargoes and bulk commodities, a floating 60 ton crane and mobile cranes.

STEVEDORES: *Working Hours:* Work carried out 24 hours. 0600 – 1400 hrs., 1400 – 2200 hrs. and 2200 – 0600 hrs. Each shift has 30 minutes' break.

Work on Saturdays and Sundays: Work on Saturdays and Sundays can be arranged in the same manner as this is done in the ports of Rotterdam and Amsterdam, *viz.* in consultation with the stevedores.

DENSITY: Ranging between 1012 and 1018, depending on the tide and the season.

FRESH WATER: Water obtainable alongside the quays or can be delivered by motor tankers, capacity 20 t.p.h.

FUEL: Fuels in limited quantities for coasters are always available. For bunkering of larger vessels, arrangements should be made in advance.

GANGWAY/DECK WATCHMEN: According to Port Regulations, Master has to keep watchmen on board.

AIRPORT: Eelde (Groningen).

OPENING/CLOSING HATCHES: Normally carried out by ship's crew.

CONSULS:

At Delfzijl		*At Groningen*	
Denmark	Tel: 05960-15820	Belgium	Tel: 050-141555
Finland	Tel: 05960-16016	France	Tel: 050-345322
Norway	Tel: 05960-15820		

REPAIRS: Most engine and deck repairs can be carried out by a local shipyard.

DRY DOCKS: At the Eemskanaal at the inner side of the locks a dockyard for ships up to 3,000 tonnes d.w.t. and a draft not exceeding 32 dm. is available.

In the Southern part of the Handelshaven a floating dock is situated. Ships with max. sizes of length 125.0 m.; breadth 19.0 m. and draft 7.2 m. may dock here. Lifting capacity of the dock is 5,000 tonnes.

For larger vessels, dry-docking facilities exist in the nearby Port of Emden (Germany).

CERTIFICATES: The Tonnage Certificate should be shown to Harbour Master on first call every year.

HEALTH, MEDICAL ATTENDANCE, HOLIDAYS, LOCAL TIME, CUSTOMS ALLOWANCES: See "Rotterdam".

REGULATIONS: *Regulations for Arrival and Departure of Sea-Going Vessels:*

1. The arrival of a sea-going vessel, other than vessels passing through the port, must be reported in writing by the Master, or his local representative at the Harbour Master's Office 24 hours prior to arrival;
2. The declaration of arrival must contain:
   a. name and flag of vessel;
   b. nature and amount of the cargo to be discharged and/or loaded;
   c. dangerous goods, according to the IMO Code;
   d. last port of call;
   e. ETA and next port of call.
3. Declaration of Arrival must be made on the special forms or per teleprinter (53299 Hsddz);
4. At least 3 hours before departure the Master, the shipping company or its local Agent must notify the Harbour Master's Office of the intended departure, stating the estimated time of departure and the destination of the vessel.

AUTHORITY: Port of Delfzijl/Eemshaven Authority, Noordersingel 1, 9934 AK Delfzijl or P.O.Box 20004, 9930 PA Delfzijl. *Tel:* 05960 – 14966. *Telex:* 53299 Hsddz. *FAX:* 05960-30424. *Contact:* C. Biemond, Port Director. Captain R. K. Mast, Harbour Master. Captain J. Stokross, Deputy Harbour Master.

DORDRECHT: 51.49 N. 04.40 E. (See Plan)

LOCATION: At the junction of four important rivers, the "Merwede", which is the lower end of the Rhine and main route of all inland water traffic to Germany, France and Switzerland; the "Noord" leading to Rotterdam; the "Dordtse Kil" leading to Antwerp and Belgium and the "Oude Maas" giving Dordrecht its own open connection with the North Sea. Vessels up to 31 ft. can be accommodated.

Entrance: The main entrance is via Maasmond (see "Rotterdam"), Rotterdam Waterweg and Oude Maas, a distance of 26 miles above Hook of Holland, with a least depth of 32 ft. below NAP.

DOCUMENTS:

2 copies Cargo List.
3 copies Crew List.
Health Certificate.
Also see "Rotterdam".

PILOTAGE: Compulsory. Vessels have to enter New Waterway at Hook of Holland and proceed to Dordrecht via this New Waterway and the River Oude Maas. Masters of vessels bound for Dordrecht should state destination in ETA message as Pilots for Dordrecht embark from pilot cutter at roads. Deep-drafted vessels may have to exchange Pilots just inside breakwaters at Hook of Holland. (See Rotterdam "Ordering a Pilot").

ANCHORAGE: At sea off Hook of Holland (see "Rotterdam"). No anchorage between entrance to New Waterway and Dordrecht.

RESTRICTIONS: Maximum L.B.P.P. 175 m., beam 25 m., draft 31 ft. (MHW). Vessels exceeding maximum length or beam could be allowed to navigate the Oude Maas under certain conditions.

For dangerous cargoes, see "Rotterdam".

The Pilot will decide the number of tugs required for passage on the Oude Maas, usually a minimum of 3 – 4 tugs.

Vessels exceeding 135 m. LOA or 17.5 m. beam must give notice to the Harbour Co-ordination Centre (H.C.C.) before navigating the Oude Maas. (H.C.C. Tel: 010-764855, Telex: 27370 Drhcc NL.)

Notice should contain: Ship's name, call sign, nationality, g.r.t., length, beam and draft, first port of call and berth (port and berth in case of ships leaving or shifting berth), ETA in Oude Maas or time of departure if leaving/shifting berth, Agent's name.

Tides and Currents; The tides are diurnal, with a daily rise and fall of 1 m. – 1.2 m. The current turns about half an hour after HW and LW.

RADAR: Radar service provided by V.T.S. and Dordrecht Radar Post.

RADIO/VHF: See "Rotterdam".

TUGS: Tugboats ordered by Pilot when entering New Waterway. Tugs normally meet vessels at Dordrecht.

BERTHING: *Harbours:* There are 6 basins for sea-going vessels.

Wilhelmina Harbour: Has a water area of 52 acres, can accommodate ocean-going vessels with a draft of about 31 ft. A 300 ft. wide pier with railway connections, a spacious transit shed and an open storage site of 200,000 sq.ft. for bulk cargo has been constructed. Furthermore, at a distance of 80 ft. from this pier, there is a jetty 900 ft. long and 31 ft. wide with a depth alongside of about 31 ft. below NAP. Rivercraft can moor either directly alongside the large vessels or in the basin between pier and jetty. The basin has a depth varying between 13 ft. and 20 ft. below NAP. There are 9 mooring buoys.

Juliana Harbour: 3 basins, has a water area of 67.5 acres and a depth of about 29 ft. below NAP. The basins are mainly in use for handling of mineral oils and chemicals. The Gebr. Broere B.V. has established a big tank storage installation with a capacity of 250,000 cu.m.

The storage terminal has 7 jetties by which quick despatch can be given to sea-going tankers and river-tankcraft. Moreover, its situation is excellent for further distribution by river tankcraft, rail and road-tankers to inland destinations. Three smaller companies handle gasoline and grease-oil. There are 2 sand and gravel jetties, 1 jetty for fertiliser and dry bulk cargo, 1 jetty for blasting grit and dry bulk cargo and 1 cattle fodder jetty owned by the Fret Co. This last jetty has a depth of 27 ft. alongside. There are 2 sheds for general cargo with a capacity of 30,000 sq.ft.

The Mallegat: 2 basins, has been closed by 2 dams, one 500 m. North of the Wilhelmina Harbour entrance and the other 600 m. South of the Juliana Harbour entrance. By closing the Mallegat, the area of the harbours of Dordrecht has been increased by about 40 acres. The North basin with a water area of 18 acres and a depth of 16 ft. below NAP. The South basin with a water area of 22 acres and a depth of 24 ft. below NAP. Besides, as a sea harbour. Dordrecht is an important centre of inland navigation.

Principal Riverside Quays:	*Length*	*Depth – NAP*
Buitenkalkhaven	1,000 ft.	12 ft.
Hooikade	550 ft.	10 ft.
Groothoofd		
Passenger Landing Pier	290 ft.	13 ft.
Merwekade	1,050 ft.	13 ft.
Handelskade	450 ft.	16 ft.

Coasters can be accommodated at the Handelskade, Buitenkalkhaven, 2nd and 3rd Merwedehaven. For clearance of inward and outward bound coasters, the lower part of the Handelskade has been reconstructed. Mooring free of harbour dues is restricted to the time needed for clearance only.

Principal Harbours – Inland Vessels and Coasters:	*Length*	*Width*	*Depth – NAP*
Binnenkalkhaven	800 ft.	230 ft.	11 ft.
Bomhaven	265 ft.	165 ft.	10 ft.
Wolwevershaven	1,000 ft.	165 ft.	8 ft.
Riedijkshaven	650 ft.	120 ft.	10 ft.
1st Merwedehaven	2,000 ft.	400 ft.	10 ft.
2nd Merwedehaven	2,000 ft.	450 ft.	15 ft.
3rd Merwedehaven	2,000 ft.	600 ft.	15 ft.

CRANES: 2 Transporting bridges 15 tons each, 2 Portal cranes 12.5 tons each, 1 Portal crane 7 tons, 1 cargo crane 5 tons capacity.

BRIDGES: Bridges across the River Oude Maas are opened day and night. Sea traffic has preference over shore traffic.

Immediately above its confluence into Nieuwe Maas, the Oude Maas is spanned by 2 lifting bridges:

1. The Botlek Bridge with a free width of 53.80 m.
2. The Spijkenisse Bridge with a free width of 80.00 m.

A secondary entrance is from S.W. via Roompot and Hollands Diep, a distance of 58 miles with least depth of 5.2 m. (17 ft. 6 in.), or 7.6 m. (25 ft.) at HW. The S.W. approach through Roompot is spanned by the Zeeland-Bridge, a 3-mile long road-bridge with only 11.5 m. (38 ft.) clearance under the middle of each passage span. A bascule span at the Northern end has a free width of 35 ft.

STEVEDORES: Working hours: 0730 hrs. on Monday until 1900 hrs. on Saturday.

TANKERS: Oil installation of Gebr. Broere N.V. has 7 tanker berths. Max. draft 9.0 m. There are other tanker berths for small tankers. No slop (residue) storage facilities.

DENSITY: Fresh water.

REPAIRS: B.V. Scheepswerf en Machinefabriek "De Biesbosch" Maasstraat 24, 3313 CR Dordrecht, Tel: 078-14 70 77, Telex: 29494 Biesb. NL.

Machinefabriek L. Straatman B.V. Kuipershaven 61, 3311 AM Dordrecht. Tel: 078-14 24 22.

B.V. Scheepswerf Hoebee, Merwedestraat 56, 3313 CS Dordrecht. Tel: 078-13 00 88.

Machinefabriek C.P. Bolier B.V., Grevelingenstraat 21, 3313 LB Dordrecht. Tel: 078-16 41 11, Telex: 29329 Bomak. N.L.

FRESH WATER: At oil installations fresh water can be supplied from shore or supply by waterboat.

FUEL: Available by barge.

CONSULS: Denmark Tel: 132177, Norway Tel: 132177. Other consulates at Rotterdam at 20 km. distance.

POLICE/AMBULANCE/FIRE: Tel. Police 339911; Ambulance and Fire 133333.

AIRPORT: Rotterdam and Amsterdam airports at a distance of 25 km. and 90 km. respectively served by regular airlines.

PILOT CUTTERS, HEALTH, MEDICAL ATTENDANCE, BUNKERS, CUSTOMS ALLOWANCES: See "Rotterdam".

HOLIDAYS: New Year's Day, Easter Day, H.M. Birthday (30th April), Ascension Day, Whit Sunday, Christmas Day.

TIME: GMT plus 1 hour. Summer plus 2 hours.

AUTHORITY: Gemeentelijke Havendienst der Gemeente Dordrecht, Binnen Kalkhaven 47, 3311 JC Dordrecht, Netherlands. *Tel:* 078-134211. *Telex:* NL 29492 Haven. *FAX:* 078-312141. *Contact:* J. Maat, Harbour Master.

EEMSHAVEN: 53.27 N. 06.50 E. (See Plan)

LOCATION: On the Western shore of the River Eems, about 15 km. N.W. of Delfzijl.

PILOTAGE: See "Delfzijl".

ANCHORAGE: Near the Western Mole of the Eemshaven is an anchorage with a depth of about 16 m.

RESTRICTIONS: The entrance channel Doekegatkanaal has a depth of 11.5 m. thus enabling ships with draft up to about 11 m. to enter at HW.

Tides: The range at Springs is 2.78 m. and at Neaps 2.13 m. Tidal movement is diurnal with an average range of 2.49 m. (all approx.).

Depths: All depths are indicated in relation to N.A.P. LLWS at Eemshaven lies 1.84 m. below N.A.P. (Normal Amsterdam Level).

RADIO/TUGS/VHF/RADAR: See "Delfzijl".

BERTHING: The harbour is divided into 4 communicating basins:

Doekegatkanaal: Has a width at the entrance of 325 m. and a bottom width of 200 m. over the rest of the channel. At the end of the Doekegatkanaal is a turning basin with a diameter of 500 m. and a depth of 10 m.

Wilhelminahaven: East of the turning basin is a special basin for tankers with a depth of up to 15 m. and a bottom width of 200 m. This basin has a length of 600 m. Mooring facilities will be constructed by future industries.

Julianahaven: Located West of the turning basin. This basin has a length of 1,200 m. and a width of 250 m. to 300 m. ultimately. The depth of this basin varies between 12 m. and 15 m.

To the South of this basin a quay has been constructed with a length of 1,150 m. and a width of 300 m. This private quay is operated by two stevedoring firms:

1. Transit Center Eemshaven:
Quay length 469 m. 6 electrical cranes up to 20 tons lifting capacity; storage area 100,000 sq.m.; 35,000 sq.m. shed space. Handling general cargo and containers. A new sugar terminal will be operated in 1989, loading capacity bags 250 t.p.h., bulk 750 t.p.h.

2. Terminal Eemshaven:
Quay length 664 m.; 3 electrical spiralveyors; 2 electrical cranes of 5 ton lifting capacity; several mobile cranes up to 200 tons lifting capacity. Handling general cargo, containers and Ro/Ro traffic. The Ro/Ro ramp has a capacity of 92 tons and a ramp width of 7.0 m.

General cargo shed of 6,500 sq.m.; air-conditioned cold store, divided into 12 boxes with a total capacity of 13,500 pallets. Each box can be cooled down to temperatures from −2° C. to 14° C. for all kinds of fruit.

Emmahaven: Has been constructed South of the quay and West of the swinging basin. This basin with a length of 600 m. and a width of 130 m. has been dredged to 10 m.

In the N.W. corner a Ro/Ro facility is operated by A. G. Ems-Nederland b.v., serving the island of Borkum and can also be used for International Ro/Ro traffic. For trailers and cars, a fenced parking area is available.

A floating jetty for inland ships with a length of 225 m. has been constructed and is operated by the Port Authority.

SUPPLIES: Fuel oil and provisions should be arranged in advance.

REGULATIONS: See "Delfzijl".

AUTHORITY: Port of Delfzijl/Eemshaven Authority, Noordersingel 1, 9934 AK Delfzijl or P.O.Box 20004, 9930 PA Delfzijl. *Tel:* 05960-14966. *Telex:* 53299 Hsddz. *FAX:* 05960-30424. *Contact:* C. Biemond, Port Director. Captain R. K. Mast, Harbour Master. Captain J. Stokross, Deputy Harbour Master.

FLUSHING (Vlissingen): 51.27 N. 03.35 E. (See Plan)

DOCUMENTS:

2 Crew Lists.
2 Passenger Lists.
1 Store List.
1 Personal Effect List.
Ship's Register.
1 Manifest or Bill of Lading.

ANCHORAGE: The Roads of Flushing offer a safe and spacious anchorage with a sandy bottom. Vessels anchoring in the Roads are recommended to do so Southward of the Koopmanshaven (the Western harbour of Flushing) at not less than 0.75 miles from the Northern Coast. In this part of the Roads depths vary from 10 m. (33 ft.) to 26 m. (85 ft.).

The greatest depths and the strongest tides are encountered on the Southern part of the Roads. When lying there vessels are less exposed to the risk of collision in foggy weather etc. and are well away from vessels proceeding up and down the river, manoeuvring for the purpose of landing and/or embarking Pilots, and from ferry boats crossing between Flushing and Breskens.

At the Northern part of the Roads the tidal stream slackens gradually until HW is reached and under normal conditions of tide and wind the ebb stream is already felt along the shore from half an hour after HW until 1 hour after LW. From 1 hour after LW the flood tide sets in again and is felt until shortly after HW.

At the South side of the Roads the tidal stream is running until slightly over an hour after HW when the stream slackens and turns. 2 hours after HW the stream is running in N.W. direction gradually veering West.

A new anchorage Wielingen Noord, North of the line of the lightbuoys W6 and W10, is marked by yellow conical buoys. It is strongly recommended that vessels carrying dangerous cargoes anchor there, exceptional circumstances excepted and weather permitting.

PILOTAGE: Position of pilot cutters in the Scheldt Estuary: Pilotage is compulsory.

Wielingen (Southern Approach) or via Scheur: Vessels approaching the Scheldt Estuary from the English Channel pass the lightvessels Sandettie Banks and West Hinder. The Belgian pilot cutter *Wandelaar* is stationed near Buoy A1 at Lat. 51° 22′ N., Long. 02° 53′ E. This cutter has a black hull with a white number on her bow, a yellow funnel with black top and flies a red flag with the letter "P" in white.

A vessel bound for Flushing to discharge, bunker, load, to embark or disembark passengers or for repairs will be provided with a Dutch Pilot, who will take the vessel into harbour. Other vessels for Flushing (sheltering, awaiting orders, unplanned repairs, etc.) will be provided with a Belgian Pilot to Flushing Roads, where a Dutch Pilot comes on board to take the ship into harbour.

Oostgat (Northern Approach): Vessels approaching the Scheldt Estuary from the North can take a Pilot in the vicinity of the S.B.Z. Lightbuoy (Lat. 51° 42.3′ N., Long. 03° 14.3′ E.) where a Dutch pilot cutter is stationed, flying a blue flag with the letter "L" in white. As a rule vessels bound for Flushing are provided with a Dutch Pilot.

ETA Messages: Masters' telegrams via Scheveningen Radio, call-sign PCH, are passed on to Agents 24 hours a day, week-ends inclusive.

For this reason it is advisable that Masters communicate with Agents via Scheveningen Radio, via which station Agents also route their messages to vessels.

Vessels bound for the River Scheldt should cable, at least 4 hours in advance, their:

1. ETA "Wandelaar" (Southern Approach) to: "Pilotage Ostend", via Ostend Radio (OST):
2. ETA "Steenbank" (Northern Approach) to: "Pilotage Flushing", via Scheveningen Radio (PCH).

The ETA message should contain the following details: *(a)* the words "ETA Pilot Wandelaar or Steenbank". *(b)* ETA central European time shown in a group of four figures. *(c)* draft (S.W. or FW) with indication of unit applied. *(d)* port of destination and berth.

Pilot cutters may be contacted on VHF Channel 6.

During bad weather both pilot cutters shift to Flushing Roads.

APPROACHES: Approaches to the Scheldt Estuary (Depth, etc. in decimetres):

	MLWS	*Rise Spring*	*Rise Neap*
South Channel:			
Wielingen	80	47	38
Scheur	139	47	38
North Channel:			
Oostgat	80	39	30

MAX. SIZE: *Flushing East Harbour:* Entrance 41 ft. at MLWS. A depth of 38 ft. (length 550 m.) and 41 ft. (length 350 m.) alongside the quay. Max. draft at Buoys 41 ft. (2 berths).

Outer Harbour: West side, max. draft 40 ft.

Inner Docks: Max. depth 24 ft.

Total: Max. length 280 m., max. draft 49 ft. (S.W.), max. d.w.t., 100,000 tons. However, draft is controlled by the depth in the approach channels.

HEALTH: No certficates required. In event of any disease or fever contact Agents.

RADIO: All messages to Agents via Scheveningen Radio.

Flushing Radio can be reached by VHF Channel 21. Harbour tugboats and pilot cutters operate on VHF Channel 6. Port Authority VHF Channel 9.

RADAR/VHF: Port radar service available. River service under consideration. Flushing Radio Channel 21 VHF. Every 5 minutes each hour this station transmits information regarding visibility, water-level, hindrances, anchorages, etc. Harbour tugs Channel 6.

TUGS: Join vessels in Flushing Roads. Vessel's lines usually used. Extra for tug lines. For contract holders 5% reduction.

BERTHING: *Outer Harbour:* West side, quay of 1,150 ft. long, depth of water 40 ft. LWOST. Quay height above sea level 2 m. at high tide and 7 m. at low tide. Opposite the West Side Quay is an oil jetty with depth of 31 ft. alongside (LLWS). The jetty is owned by the Oil Terminal Flushing. In Northern part of Outer Harbour a landing stage with length of 360 ft. Depth at low tide 20 ft. Depth at HW 29 ft.

Flushing East Harbour: Quay length 1,740 ft., depth 38 ft. LWOST and 1,030 ft., depth 41 ft.

The Bijleveld Harbour, situated in the North West part of Flushing East Harbour is operational. The harbour has a public quay with a length of 600 m. and depth alongside of 31 ft. (LLWS). The quay will be used for the transhipment of refrigerated products and steel. The extension of another 600 m. will be completed in 1989.

The new Kaloothaven Terminal, situated in the South part of Flushing East Harbour is operational. The quay is 250 m. in length and has a depth at LLWS of 10.5 m. alongside the quay wall, and a depth of 16.5 m. with floating cranes placed between vessel and quay. The terminal is a coal transhipment facility and can handle vessels of 150,000 d.w.t. Coal is handled by floating cranes of 25 tons capacity. The stockyard has a capacity for 230,000 tons.

Inner Docks: A double lock and sluice give access from Outer Harbour to inner docks and canal through Walcheren. Largest lock length 455 ft., width 72 ft., depth on still LWOST of 17.5 ft. The other lock is 213 ft. long, 26 ft. wide, and 10 ft. deep. Sluice 113 ft. wide, 28 ft. deep. Constant depth of water at quay 24 ft.

STEVEDORES: Provided by N.V. Haven Van Vlissingen (Port of Flushing Limited). Tel: 01184-26000. Telex: 37837 A.

Stevedore Company – Westerschelde. Tel: 01184-60020. Telex: 37798.

Flushing Stevedoring Co. Tel: 72800.

MECHANISED CARGO HANDLING: Quay length 2,800 ft. equipped with 2 portainers (65 tons capacity), suitable for handling 20 ft. up to 40 ft. containers. Straddle carriers capacity 32 tons and fork-lifts capacity 32 tons available.

Roll-on/Roll-off service between Flushing and Sheerness. Service twice a day. Vessels berth in the Outer Harbour at the Olau Line Terminal. At Flushing-East, Ro/Ro facilities for deep sea vessels, as well as Ro/Ro facilities for short sea Ro/Ro traffic.

LPG HANDLING FACILITIES:
Eurogas Terminal, Flushing East: The Eurogas Terminal is dedicated solely to storage and throughput of Liquefied Petroleum Gases and Chemical Gases.
Documents: Eurogas has been authorised by the Dutch Customs Authorities to prepare and complete all necessary Customs and transportation documents, which reduces waiting time to an absolute minimum.
Pilotage: In close co-operation with Eurogas, the shipping Agent and the Pilot, the Harbour Authorities control the arrival and subsequent mooring in the Quarles Harbour.
Max. Size:

Vessel Size	*Length* (m.)	*Beam* (m.)	*Draft* (m.)	*Facilities* *Refr.*	*Press.*
Jetty 1	213	38	9.5	×	×
Jetty 2	295	44	13.5	×	×
Jetty 3	110	12	5.0	–	×
Jetty 4	110	12	5.0	–	×

The harbour has a depth of 16 m. NAP (13.50 m. LLWS) and is therefore accessible to all existing fully loaded LPG-carriers. Maximum drafts may also be dependent on the prevailing least depth in 'Het Scheur' and the near approaches to the jetties and are conditional on the agreed procedures and Port Authority requirements for the safe movement of LPG-carriers. For safety reasons loading/unloading can be stopped due to high wind forces depending on wind direction.
Berthing: Jetty 1: At which inland barges and oceangoing vessels with a draft of max. 9.5 m., overall length of max. 213 m., a max. bow to manifold distance of 115 m., a max. stern to manifold distance of 108 m. and a max. beam of 38 m. can safely reach and leave and at which such vessels can always lie safely afloat.

Loading and discharging shall normally be allowed to continue as long as the ship's manifold connection stays within the reach of the loading arm of Eurogas.

The reach of the loading arm can accommodate:
- max. height +14.0 m. NAP (Nieuw Amsterdams Peil) which is comparable with approx. 11.5 m. above water-level at HW.
- minimum height −1.5 m. NAP which is comparable with approx. 1 m. above water-level at LW.
- range out of centre loading arm parallel to berthing line approx. 5 m.
- range out of – and perpendicular on berthing line approx. 7 m.

Jetty 2: At which inland barges and oceangoing vessels with a draft of max. 13.5 m., overall length of max. 295 m., a max. bow to manifold distance of 150 m., and a max. stern to manifold distance of 150 m. and a max. beam of 44 m. can safely reach and leave and at which vessels can always lie safely afloat.

Loading and discharging shall normally be allowed to continue as long as the ship's manifold connection stays within the reach of the loading arm of Eurogas.

The reach of the loading arm shall be able to accommodate:
- max. height +28 m. NAP which is comparable with approx. 25.5 m. above water-level at HW.
- minimum height −1.5 m. NAP which is comparable with approx. 1 m. above water-level at LW.
- range out of centre loading arm parallel to berthing line approx. 7 m.
- range out of – and perpendicular on berthing line approx. 12 m.

Jetty 3/4: At which inland barges and coastal vessels with a draft of max. 5 m., overall length of max. 110 m., a max. bow to manifold distance of 40 m. (Jetty 3), and 55 m. (Jetty 4), a max. stern to manifold distance of 50 m. and a max. beam of 12 m. can safely reach and leave and at which vessels can always lie safely afloat.

Jetty 4 is also suitable for small coastal vessels (max. deadweight approx. 1,500 tonnes), ship size depending on manifold allocation.

Loading and discharging shall normally be allowed to continue as long as the ship's manifold connection stays within the reach of the loading arm of Eurogas.

The reach of the loading arm shall be able to accommodate:
- max. height +14.0 m. NAP.
- minimum height −1.5 m. NAP.
- range out of centre loading arm parallel to berthing line approx. 5 m.
- range out of – and perpendicular on berthing line approx. 6 m.

Discharging: Eurogas operate 24 hours a day, 7 days a week.

Eurogas and the independent surveyor check the facilities of the vessel and the quantity of the cargo before discharge commences.

Receiving Capacities at Various Jetties (all in cu.m./hr.)

	Into refrigerated tanks	*Into pressure tanks or to other jetties*
Jetty 1	1,000 (per tank)	500
Jetty 2	3,200 (per tank)	500
Jetty 3	—	500
Jetty 4	—	500

In order to minimise laytime on jetties, refrigerated propane and butane can be discharged simultaneously at Jetty 1 and 2.

Additionally, all pipe-lines on shore can be cooled down before the arrival of a vessel by means of separate cool-down lines. All jetties are equipped with vapour return facilities including a blower-system at Jetty 2.

Board/board transfers between all the jetties can be realised with or without the use of 2 heaters. These heaters have a capacity of 500 cu.m./hr. each, with a temperature differential of up to 47°C under all weather conditions.
Loading: 4 vessels/barges, 3 railcars and 4 road trucks can be loaded simultaneously with capacities as described below.

Railcars and road trucks are each loaded on a weighbridge. The consecutive loading of 2 products into 1 railcar/road truck can take place without disconnecting and reconnecting of loading arms and necessary shunting/shifting to another loading point.

Loading Capacities in cu.m./hr.	*Product.* *Refrig.*	*Press.*
1. From the refrigerated tanks:		
To Jetty 1 or 2 (per tank)	600	–
To Jetty 3 or 4	–	–
Via heater to pressure tank	–	500
Via heater to Jetty 1, 2, 3 and 4	–	500
2. From the pressure tanks:		
To Jetty 1, 2, 3 or 4	–	350
To each railcar loading point	–	120
To each roadtruck loading point	–	80

Storage: The terminal consists of 6 pressure tanks with a gross capacity of 3,369 cu.m. each, and 2 refrigerated tanks of 55,000 cu.m. each. Total capacity is therefore 130,000 cu.m.

The refrigerated tanks are constructed with double integrity steel inner tanks and a concrete outer wall capable of holding refrigerated product.

In the pressure tanks, chemical gases can also be stored.
Product List:

1. Refrigerated tanks: propane, butane and/or mixtures.
2. Pressure tanks: butane, isobutane, butadiene, butylene, isobutylene, cyclopropane, propane, propylene-oxide, propylene.

Products for the pressurised storage are:

Spheres 1, 2, 3, 4, 5 and 6. Butane, isobutane, butadiene, butylene, isobutylene, cyclopropane, propane, propylene-oxide. Spheres 4 and 5 also propylene.

A. Pressure tanks: Product stored in tanks 1, 2, 3 and 6 shall have a vapour pressure of less than 13.5 bar gauge at 30°C.

B. Pressure tanks: Product stored in tanks 4 and 5 shall have a vapour pressure of less than 16.5 bar gauge at 30°C.

C. Refrigerated tanks: 2% mol. max. ethane content in propane was the design basis for the refrigerated system. The tolerances on the compressors and the cooling system are the technical limitations on storage of products with higher ethane contents.
Safety: E.S.D. systems (Emergency Shut Down systems)

Activated by:
(a) Gas detection system.
(b) Loading arms limit switches.
(c) Ship's E.S.D. system.
(d) Control-room.
(e) Local push buttons.
(f) General E.S.D. pressure storage fill system.
(g) Fill shut down (overflow).
(h) Shut down sendout system.

Gas Detection System.
Sensors located at:
(a) Annular space tanks.
(b) Fan intake.
(c) Roof tanks.
(d) Relief valves' exhaustline.
(e) Area general.
(f) Process area.
(g) Boiler house.
(h) Office heating air intake.
(i) Jetties.
(j) Existing pressure storage.
(k) Generators' area.
(l) Expansion-tank water/glycol system.

Firefighting: The terminal site has been equipped with all sorts of fire-fighting apparatus like:

– 45 water guns, which can spray 1,600 litres per minute each over a distance of 70 m;

– sprinkler installations at all vital points;

– 2 separated pumping systems, to be sure of water supply under all circumstances; 1 at the harbour with 2 diesel-powered pumps with a total capacity of 2,000,000 litres water per hour, the other 65,000,000 litres at the pond which is constructed on the site.

– Eurogas has its own fire brigade, with a special fire-fighting truck which can also travel on rails. In this way every part of the terminal site and its perimeter can be reached with the greatest possible speed.
Operator: Eurogas Terminals C.V.

Head-Office: Van Vollenhovenstraat 3, 3016 BE Rotterdam. Tel: 010-366955. Telex: 25338.

Terminal: Frankrijkweg 4, 4455 TR Nieuwdorp. Tel: 01196-12820. Telex: 55684.

TANKERS: Vessels carrying over 4,400 gallons of combustible liquids with a flash point up to 21°C, or over 22,000 gallons with flash point up to 55°C require Harbour Master's permission for entry.

2 discharging berths alongside the quay. Discharge lines 3×8 in. diameter with capacity of about 2,000 t.p.h.
Total: See "Max. Size".

One jetty for tankers up to 100,000 d.w.t. and 3 jetties for barges and coasters with depth of 20 ft. and 30 ft.
Cautionary Advice: Due to adverse tidal conditions, vessels may tend to drift away from jetty during period before high tide. It is, therefore, very important that ships pay particular attention to moorings.
Connections:

Commodity	Loading arms
Fuel oil	2×12 in.
Clean products	2×10 in.
Bunkers (fuel oil only)	1× 8 in.

The two fuel oil loading arms can also be used for the discharge of crude oil. The loading arms are hydraulically operated.
Deballasting: One 12 in. and one 10 in. loading arm can also be used for the discharge of dirty ballast water in unlimited quantities at the rate of about 1,000 t.p.h.
Capacities: Discharging rate of crude oil 3,000 t.p.h. and the loading rate of fuel oil about 2,700 t.p.h.
Supplies: Water obtainable from jetty. Bunkers by barge. Stores by small vehicles max. axle load 12 tons.

MEDICAL: Two hospitals available.
DENSITY: About 1024.
FRESH WATER: Can be supplied either alongside the quay or by water boat. Possible to supply fresh water in Flushing Roads weather permitting.
FUEL: All grades obtainable from major oil companies and supplied by barge only.

Economical bunkering arrangements can be made at the sheltered anchorage Schaar van Everingen, a few miles up river from Flushing. No harbour dues. Max. draft HW Neaps 42 ft. Springs 45 ft.(S.W.).
GANGWAY/DECK WATCHMEN: Available but not compulsory or necessary.
OPENING/CLOSING HATCHES: On liners by crew or stevedores, ship's option.
CERTIFICATES: On arrival, ship's register only.
CUSTOMS ALLOWANCES: 200 cigarettes for each member of crew and total on board out of bond 5 litres spirits and 100 litres wine.
CARGO GEAR: The port is equipped with modern mobile cranes, which can be used both in the outer harbour and in the inner docks, with the following capacities:

2 cranes – 30 tons
2 cranes – 25 tons
3 cranes – 12 tons
2 cranes – 10 tons
1 crane – 8 tons

Floating cranes are available with capacities of 225, 75, 40 and 8 tons.
IDENTIFICATION CARDS: Not required.
CONSULS:

Belgium	Tel: 66989	Germany F.R.	Tel: 01188-1764
Denmark	Tel: 14272	Norway	Tel: 12272
France	Tel: 12373	Sweden	Tel: 16828

REPAIRS: All repairs possible.
DRY DOCKS: Largest (Graving) 712 ft. 5 in., width 98 ft. 4 in. Draft 28 ft. 6 in., 45,000 d.w.t. and 4 smaller docks.

A dry dock with 300,000 metric d.w.t. capacity is planned.
REPATRIATION: All facilities available for crew changes; good railway connections.
AIRPORT: Rotterdam (Zestienhoven) 125 km.; Brussels (Melsbroek) 150 km.; Amsterdam (Schiphol) 180 km.
TIME: GMT plus 1 hour. Summertime, GMT plus 2 hours.
HOLIDAYS: New Year's Day (January 1st); Easter Monday; Queen's Birthday (April 30th); Ascension Day (May 15th); Whit Monday; Christmas Day (December 25th); Boxing Day (December 26th).

Work can be arranged on above days, however dependent upon permission of the Docker's Inspection.
POLICE/AMBULANCE/FIRE: Police 13333; Ambulance and Fire 14444.
TELEPHONES: Possible to place telephones on board and for vessels berthing at the shipyard "De Schelde".
SERVICES: Compass Adjuster; Radio/radar services also calibration of the Direction Finder, Seamen's Home (Mission to Seamen); Lloyd's Sub-agents; Ship's Laundries.
SHORE LEAVE: After clearing inwards, crew members are allowed to go ashore without special permission.
AUTHORITY: Flushing Ports Authority, Engelandweg, Sloehaven, Vlissingen-Oost, P.O.Box 1056, 4388 ZH Oost-Souburg, Netherlands. *Tel:* 01184-68080. *Telex:* 37865 Haven Nl. *Contact:* Captain H. Th. Giezen, Harbour Master. Tel: 01184-70270 (Residence). Captain J. Verkiel, Deputy Harbour Master.

GRONINGEN: 53.15 N. 06.34 E. (See Plan)

The port is connected with the Ems Estuary via the Eemskanaal and the lock at Delfzijl.
DOCUMENTS: Clearing is done at Delfzijl.
PILOTAGE: For the approach of the lock see "Delfzijl".

The length of the lock is 120 m. and the width 16 m. Depth over sill at LW 3.9 m. and at canal level 6.07 m.

On the locks Canal-Pilots are available but pilotage on the canal is not compulsory. The length of the canal is 14 miles and it has a least depth of 5.2 m. There are 4 bridges all 16 m. wide.
MAX. SIZE: Maximum size for ships passing lock and navigating canal; beam 13 m. and draft 4.5 m. (Vessels with greater beam and draft possible with permission of the Canal Authority.)
TUGS: Available at Delfzijl and Groningen.
BERTHING: *Hunzehaven:* South side 300 m. quayage, railway connected, max. draft 4.5 m., 3 grab cranes 3.5 tons.
Oosterhaven: North side 75 m. quayage, max. beam 12 m., max. draft 3.6 m.
Deense Haven: 3 mooring buoys, max. draft 4.5 m. One private grab crane on wharf, capacity 8 tons.
Eemskanaal: Private silo. Max. beam 12 m., max. draft 3.6 m., private timber yard max. beam 12 m., max. draft 3.6 m.
Van Starkenborghkanaal: Private silo. Max. beam 9.6 m., max. draft 2.9 m., private timber yard max. beam 9.6 m., max. draft 2.9 m.
CRANES: Floating sheerlegs up to 250 tons.
STEVEDORES: Available.
MECHANICAL CARGO HANDLING: Silos with equipment for bulk-handling of grain on Eemskanaal and Van Starkenborghkanaal.
MEDICAL: 3 hospitals available.
FRESH WATER: Supplied by Authority's water boats.
FUEL: By barge only.
CERTIFICATES: On arrival, Ship's Register only.
CONSULS: Belgium, Tel: 138222; Norway, Tel: 189444; Spain, Tel: 137879.
REPAIRS: All repairs possible at Delfzijl.
DRY DOCKS: Transverse slipway at Delfzijl.
AIRPORT: Eelde, 10 km. from Groningen, daily services to Schiphol.
HOLIDAYS: New Year's Day, Easter Monday, Queen's Birthday (30th April), Ascension Day, Whit Monday, Christmas Day, Boxing Day.
POLICE/AMBULANCE/FIRE: Police Tel: 121212; Ambulance Tel: 123456; Fire Brigade Tel: 123456.
TELEPHONES: Can be placed on board alongside Hunzehaven Quay.
AUTHORITY: Gemeentelijk Havenbedrijf Groningen, Bornholmstraat 4, 9723 Ax Groningen. *Tel:* 050-120306 and 125777. *Contact:* A. J. F. van Kuik, Harbour Master. *Tel:* 05960-23376 (Private).

ROTTERDAM: 51.55 N. 04.24 E. (See Plan)

DOCUMENTS: The following documents have to be handed to Customs and Immigration Authorities:

3 copies General Declaration.
2 copies Crew List.
2 copies Passenger List.
2 copies Crew Customs Declaration (Personal Effects List).

In addition to the above the following documents have to be available on board for inspection by Customs and Immigration Authorities:

Ships Register or Certificate of Registry.
Cargo List, manifest or certificate.
Bill of Lading.
Log Book.
Crew Roll.
Stores List.
Health Certificate or Declaration of Health.
Tonnage Certificate.
*Tanker Check List.
*Tovalop Certificate.
*Dangerous Cargo List.
*Gas Free Certificate.
Safety Equipment Certificate.
Certificate of Depth.

*If appropriate, depending on the type of vessel.

Also see "Shipmasters Report – 1981".

Oil Pollution Damage Certificate: Tankers carrying over 2,000 tons of oil or oil products in bulk have to produce in Dutch ports a certificate of insurance in respect of civil liability for oil pollution damage (TOVALOP Certificate). Fines will be imposed if vessels do not comply with these international regulations and authorities will not allow such vessels to leave the port.
DEEP SEA PILOTAGE: See "Brixham" or "Cherbourg".
REMOTE PILOTAGE:
UNOFFICIAL TRANSLATION – THE DUTCH TEXT WILL REMAIN BINDING

NOTICE TO SHIPPING No. 65/1987

Roads Hook of Holland/Approach Rotterdam Waterway
Shore-based radar assistance/Remote Pilotage

The Director of the Directorate-General Shipping and Maritime Affairs, Rijnmond District, at the same time Government Harbour Master, announces the following, thereby withdrawing Notice to Shipping No. 24/1983:

In order to promote the safety and the smooth handling of maritime traffic, it is possible to provide "Remote Pilotage" besides (informative) shore-based radar assistance, at those places where shore-based radar equipment is operational.

This means that the Pilot, insofar as he is unable to board the vessel to be piloted, can also perform his task from another vessel or from the shore.

There are a number of conditions attached to "Remote Pilotage" of which the most important are stated below.

In connection with the foregoing, the sectors where informative shore-based radar assistance is being rendered from the various shore-based radar stations located in Traffic Centre Hook of Holland, required some adjustment.

1.0 *Informative shore-based radar assistance:*

As a result of extension of the shore-based radar cover outside, and an increase of range of the VHF Channels concerned in seaward direction,

The Shore-Based Radar Sectors, as seen from the sea:

- Maas Approach
- Pilot Maas and
- Maas Entrance

were changed as follows, as from August 1st, 1986.

With the coming into use of the Vessel Traffic System (VTS) "Rotterdam Waterway" the VHF frequencies have changed (see "Notice to Shipping No. 13/1987"). Since then the situation with regard to "Remote Pilotage" is as follows:

1.1 *Maas Approach Radar:*

- Communication VHF Channel 1.
- The radar working area involves the sea area, including the anchorages within the sector with a radius of 23 nautical miles, calculated from the position of the light-platform Goeree (approx. position 51° 55′ N., 03° 40′ E.), with the exception of the working area of "Pilot Maas" situated within this sector.

"Maas Approach" gives general nautical information and renders (informative) shore-based radar assistance, up to the following shore-based radar sector "Pilot Maas", where the pilot cruising ground is, or up to one of the anchorages.

In order to make early identification, c.q. information possible, "Maas Approach" is to be contacted, if possible, 3 hours prior to arrival at the pilot cruising ground "Maas Centre", but in any case for traffic coming from the South-West near the "M W 1 Buoy" and for traffic coming from the North, near the platform "PD 15".

These rules do not alter the instructions for obtaining a Pilot in the Rijnmond District, as stated in the Notice to Shipping No. 06/1986 of February 6th, 1986.

1.2 *Pilot Maas Radar:*

Communication VHF Channel 2.

The radar working area involves that part of the legally determined pilot-water in the sea area just off Hook of Holland, within which the pilot cruising grounds are located.

In the Pilot Maas-sector (advisory) shore-based radar assistance is rendered with respect to embarkation/disembarkation of the Pilot.

1.3 *Maas Entrance Radar:*

Communication VHF Channel 3.

The radar working area involves that part of the legally determined pilot-water in the sea area off Hook of Holland, East of the sector-limit Pilot Maas, Maas Entrance up to Calandcanal and the Rotterdam Waterway up to kilometre pole 1031.

Maas Entrance Radar provides the informative shore-based radar assistance.

2.0 *Remote Pilotage in DGSM-Rijnmond District:*

During periods in which pilot-boats cannot be operational at sea on account of weather circumstances, it frequently happens that seagoing vessels enter or leave the Hook of Holland estuary without a Pilot.

Other vessels have to anchor in one of the anchorages, or will be kept outside, due to the impossibility of taking a Pilot on board.

In order to promote the safe and smooth handling of these vessels and other maritime traffic, the estuary of Hook of Holland has been provided with the so-called "Remote Pilotage" since August 1st, 1986.

This takes place according to the following principles:

2.1 During the periods, from the moment that the Pilot Boats Service outside – on account of weather circumstances – will be suspended for "small vessels", until the time that pilot service will be resumed.

Furthermore, "Remote Pilotage" can be used occasionally during normal weather conditions, in case the construction of certain vessels make it impossible to embark/disembark the pilot outside.

2.2 "Remote Pilotage" takes place on the route pilot waters from the pilot cruising grounds (pilot cruising area) outside up to within Maas Entrance near TCH, and vice-versa.

2.3 The pilots perform their tasks from the traffic stations Pilot Maas (VHF Channel 2) and Maas Entrance (VHF Channel 3).

2.4 In case the Master of a vessel with compulsory pilotage indicates that he wants to enter Maas Entrance during the period as described under 2.1, he will be informed by Traffic Station Maas Approach that "Remote Pilotage" can be provided, taking into account all relevant factors of the admission policy for such a vessel.

The Master should explicitly accept this proposal, since the present Pilot Act does not yet provide a formal basis for this kind of pilotage.

The Master of a vessel with Non-Compulsory Pilotage can, at his request, also make use of "Remote Pilotage".

2.5 In view of the entire admission policy, it will be considered with regard to each vessel, whether it is acceptable – in view of the circumstances and taking into account all relevant legislation, rules and regulations in connection with the safety of shipping and surroundings – that the vessel concerned enters or leaves Maas Entrance without a Pilot, whether or not using "Remote Pilotage".

Masters of vessels, with whom good communication is not possible due to inadequate communication equipment (VHF) on board or insufficient knowledge and/or understanding of the English language, cannot use "Remote Pilotage".

2.6.1 Sea-going vessels with Compulsory Pilotage should stay outside if they do not want to make use of the possibility to enter by means of "Remote Pilotage".

2.6.2 Sea-going vessels with Compulsory Pilotage on account of their cargo should, with respect to the "Regulations Dangerous Goods Sea-going Vessels" and/or the Government Harbour Master's Notice to Shipping No. 50/1967 of 28-11-1967, in principle, remain outside, if they do not want to use "Remote Pilotage" for entering.

2.7 With respect to the vessels mentioned under 2.6.2 that should have a Pilot on board, it will be considered whether these vessels, dependent on among other things their size and the Master's knowledge of the area, can be allowed to enter Maas Entrance with "Remote Pilotage", all in view of the admission policy.

2.8 Large sea-going vessels, as mentioned in the Special Rules and Regulations Rotterdam Waterway, art. 16, 17, 18 and 19, can only navigate in Eurochannel, Maaschannel and Maas Entrance if a qualified and – for this purpose – trained Pilot is *on board* as stated in the Government Harbour Master's Notice to Shipping No. 92/1984 of 01-11-1984.

2.9.1 In principle, outbound seagoing vessels with Compulsory Pilotage, in particular those with dangerous cargo, as mentioned under 2.6.2. should, also in view of 2.4 and 2.5, actually have a Pilot on board until the pilot cruising grounds.

2.9.2 In view of 2.4, 2.6.1. and 2.6.2, vessels with "Mandatory" pilotage should on no account disembark at the Berghaven.

2.10 Vessels or coupled vessels which, in view of among others The Inland Navigation Police Regulations art. 1.06 and 1.21 and the Special Rules and Regulations Rotterdam Waterway, art. 15, are judged by the Government Harbour Master to be "Special Transport", should have a qualified Pilot on board.

2.11 Requests for "Remote Pilotage" should be made to:

– inward bound: Maas Approach Radar

– outward bound : (before departure) Harbour Co-ordination Centre Rotterdam, Central Traffic Controller DGSM, Rotterdam (VHF – Channel 14).

Rotterdam, September 22nd, 1987

Director Shipping and Maritime Affairs
Rijnmond District, also Government
Harbour Master.

PILOTAGE: River pilotage compulsory from sea to harbour area and vice versa, except vessels in ballast drawing less than 7 ft. 3 in.

Harbour pilotage compulsory from fairway to berth in harbour area and vice versa, except for vessels under 475 g.r.t.

Pilot Cutters: Cruising continuously, day and night, off entrance to New Rotterdam Waterway, one North of line North Mole/Maasbuoy and one near Maasbuoy. Characteristic signals:

1. By day pilot flag, being a blue flag with white letter "L", displayed from main top mast.
2. At night, lights as prescribed by Regulations for Preventing Collisions at Sea.
3. During bad visibility the fog signal prescribed by Rule 35 of these Regulations.

Ordering a Pilot:

1. Vessels bound for New Rotterdam Waterway must cable, at least 6 hours in advance, ETA pilot station, gross tonnage and draft to:
   (a) Pilotage Hook of Holland via Coastal Station Scheveningen Radio (PCH) or
   (b) Coastal Station Maassluis Radio (Radio Dirkzwager) by VHF Channel 12 (Port Operations) or
   (c) Pilot Approach at Hook of Holland by VHF Channel 1.
   This ETA notification shall, with due observance of the aforementioned 6 hours period, be rectified if the ETA will be more than 1 hour later than the ETA last reported.
   Without prejudice to this provision the Master shall indicate his requirement for a Pilot by displaying the prescribed visual signals when his vessel arrives within visual range of the pilot vessel.
   The ETA message shall contain:
   (a) The words "ETA Pilot"
   (b) ETA (group of 4 figures) in Central European Time
   (c) Draft of vessel including unit of measurement (feet or decimetres)
   (d) Port of destination.
   Please note that vessels which do not comply with the above-mentioned Regulations and fail to state their ETA timely or accurately, may only be provided with a Pilot 6 hours after their arrival at the pilot station, provided that other vessels which reported themselves correctly will not be delayed.
2. Vessels bound for Port of Dordrecht should also state their destination, as Pilots for Dordrecht embark from pilot cutter on roads.

On arrival at pilot station vessels requiring Pilot are to display following signals, separately or together:

1. *By day:* International code signal "G". Pilot flag, viz., vessel's National Flag with white border from foremast.
2. *By night:* Morse signal "G" by flash light. Blue lights at intervals of 15 minutes. A bright white light shown just above bulwark for 1 minute at short intervals.
3. *During bad visibility:* At least 3 seconds after the normal fog signal the international code signal "G". Pilot vessel will answer: the normal fog signals, followed after at least 3 seconds by international code signal "H" (I have Pilot on board).

Vessels constrained by their draft (68 ft. – 74 ft.) are to announce their expected time of arrival as follows:

The announcement shall be reported at least 24 hours before arrival at the rendezvous, "13 miles North from Cap de la Hague" if the Pilot is to be embarked in the channel.

Also see "Deep Draft Planning Guide, Greenwich Buoy to Europort for vessels with a draft between 20.7 m. (68 ft.) and 22.52 m. (74 ft.)" issued by Dienst van de Hydrografie. (Not reproduced).

Pilotage for Deep Draft Vessels and Helicopter Service: Vessels drawing 57 ft. (SW) and over must make use of the "Eurochannel" between the "Euro Buoy" and the "Maas Centre Buoy". Pilots board by helicopter in position Lat. 52° 00′ N., Long. 03° 00′ E. Helicopter may ask vessel to work on Channel 6 or 16 (See "KLM Helicopters Circular No. 8"). (Not reproduced).

Radio communication:

1. HF frequency 5645 kHz: Ships will be informed by telegram of the time of departure from base and ETA of the helicopter over the ship, which must be acknowledged. Listening watch should be maintained by the vessel on HF freq. 5645 kHz as from the advised departure time of the helicopter. Urgent messages for the vessel may be sent on this frequency by the helicopter and/or KLM Helicopters home-base. The ship may close down listening watch on this HF frequency only after VHF contact with the helicopter has been established.

2. VHF frequency 156.30 MHz (Channel 6): The helicopter will contact the vessel on the VHF-FM voice frequency Channel 6 or Channel 16, when within range (usually between 20 and 40 nautical miles distance from the ship). The helicopter may request the ship to change to another VHF Channel if radio traffic requires this. All instructions from the helicopter pilot to the vessel and vice versa will be on this VHF frequency. The call sign of the helicopter is the word 'helicopter' followed by the group of registration letters, of which the ship is informed in the departure telegram.

3. Operational information: As soon as VHF contact is established (normally initiated by the helicopter), the vessel shall advise the helicopter pilot of its position, courses, speed (when under way), the actual wind direction and speed over the deck, pitch, roll and condition of deck (e.g. dry, spray, wet, etc.). The helicopter pilot will confirm the acceptability of those conditions, or ask for a possible change in heading and/or speed.

For vessels drawing over 57 ft. (SW) 1.5 times the pilotage tariff Sea – Hook of Holland is applicable.

Restrictions:

1. Min. visibility 800 m. at 150 ft. above sea level.
2. Max. wind Force 10 (55 knots.).
3. Severe turbulence and icing conditions at or below 150 ft.

Pilot Ladders: Vessels with a freeboard over 9 m. must provide an accommodation ladder in addition to the pilot ladder. If boarding equipment does not strictly comply with the SOLAS provisions, Pilots must be embarked/disembarked by helicopter. Generally Pilots refuse to use mechanical pilot hoists or other constructions not within the recommendations of the "European Maritime Pilots Association".

Notice:

Informal Translation of the Neth. N.t.M. 112/84.

Netherlands Regulations for requesting a Pilot in the District "Rijnmond".

The Director of the District "Rijnmond" (D.G.S.M.): paying attention to Article 38 of the Algemeen Loodsreglement (General Pilotage Regulations), (Stb. nr. 433 van 1932); announces:

Article 1.

The expected time of arrival (ETA) at the pilot stations "Maas Centre" or "MW 5" has to be announced as follows:

(a) The announcement shall be reported at least 6 hours before arrival at the pilot station concerned;
(b) The announcement shall be transmitted to Scheveningen-Radio (call sign PCH) or directly via VHF Channel 1 to Traffic Centre "Maas Approach" at Hook of Holland;
(c) The announcement is to be addressed to D.G.S.M. District "Rijnmond-HCC", Rotterdam;
(d) The announcement shall, include the following particulars:
  1. Vessel's name, call sign and gross tonnage;
  2. The words "ETA-Pilot";
  3. Port of destination;
  4. The ETA (group of 4 ciphers) in Central European Time;
  5. The max. draft of the vessel, on arrival (feet or decimetres);
(e) The announcement shall be rectified if a delay of 1 hour or more is being expected.

Article 2.

Vessels constrained by their draft are to announce their ETA as follows:

(a) The announcement shall be reported at least 24 hours before arrival at the rendezvous "13 sea-miles North from Cap de La Hague" if the Pilot is to be embarked in the Channel;
(b) Other vessels constrained by their draft are to announce their arrival at the rendezvous (Lat. 52° 00′ N., Long. 03° 00′ E.) at least 8 hours in advance
(c) Article 1, sub (b), (c), (d) and (e), is applicable accordingly;
(d) By or on behalf of the Director of the District "Rijnmond" further particulars can be requested.

Article 3.

The Master of a vessel lying in a port in District "Rijnmond" requiring a Pilot, shall make an application for a Pilot at least 3 hours in advance to the "Loodsenbesteldienst" of the D.G.S.M. District "Rijnmond-HCC" Rotterdam (Tel: 010-4251433. Telex: 24045. Fax: 010-4710800. D.G.S.M. District "Rijnmond").

In case of vessels constrained by their draft, the request is to be made at least 6 hours in advance.

The request should include the following particulars:

(a) Vessel's name;
(b) Nationality;
(c) Gross tonnage;
(d) Maximum draft;
(e) Port of destination;
(f) Nature of cargo;
(g) Berth;
(h) Means of transport by Pilot;
(i) Name of Master and/or shipbroker's clerk, as well as the telephone number(s) where they are attainable;
(j) Agency with telephone number;
(k) Expected date and time of departure as well as the time upon which the Pilot is required.

The request for a Pilot is to be rectified as soon as possible, if it appears, that the ship's departure may be delayed by 1 hour or more.

Note: The corrections mentioned in Neth. N.t.M. 151/84 are incorporated.

(Gids Ned. Kust 1979 blz. 45 t/m 48).
(Nr. 3 and 10/84 D.G.S.M. Rijnmond: Hydr. L23).
Rotterdam, April 1984.

ANCHORAGES:

The following 5 anchorages are available:

1. Long term anchorage for deep draft vessels.
2. For deep draft vessels which have to wait for a short period (for tide or pilotage) before they can enter the DW route to Rotterdam-Europoort.
3. For vessels which on account of their draft cannot normally anchor in 4 or 5.
4. "Maas West".
5. "Maas Noord".

See Chart L (D2-D5) 3371.

RESTRICTIONS:

Dangerous Goods:

General Information:

Regulations are based on several Governmental laws and Municipal bye-laws.

The "Dangerous Goods Department" of the Municipal Port Management is the centre where all information on dangerous goods on board vessels is collected, administrated and distributed to those concerned.

Inspection on board vessels berthed in the Port of Rotterdam will be carried out mainly by inspectors of the Municipal Dangerous Goods Department, although in certain cases (e.g. explosives), Governmental Dangerous Goods Inspectors are in charge as well.

For detailed information the following Regulations should be consulted:

Rotterdam Port Bye Laws (Havenverordening Rotterdam)
Order of the State Secretary for Traffic and Public Works No. i-3/V20146 of 10 Jan. 1980
(Beschikking van de Staatssecretaris van Verkeer en Waterstaat Nr. i-3/V20146 of 10 Jan. 1980)
Notice to Shipping of the Governmental Harbour Master No. 11/1980 (Bekendmaking aan de scheepvaart No. 11/1980)
Notice to Shipping of the Dept. of Public Works No. 50/1967 (Bekendmaking aan de scheepvaart No. 50/1967)

From these Regulations the following significant obligations have been extracted:

1. Signals: Vessels carrying:

In Packages

(a) More than 100 kg. gross of IMO class 1.1 and 1.5
(b) More than 1,000 kg. gross of IMO class 1.2, 1.3, 1.4 (explosives) and 5.2 (organic peroxides).
(c) More than 1,000 kg. poisonous gases of IMO class 2.

In Bulk

(d) Any dangerous substances in any quantity. Also empty tanks which are not certified as being clean by an acknowledged expert should hoist the following signals before entering the Rotterdam Waterway area:
  I. by day: the International signal "B";
  II. by night: 1 red light at the same level at a distance of 1 m.

2. Prior Notification: Masters of vessels carrying:

a. Dangerous goods of class 1 and 5.2 in packages;
b. More than 1,000 kg. gross weight per substance of the other IMO classes in packages.
c. Dangerous substances in bulk: Report these commodities to the Dangerous Goods Dept., of the Municipal Harbour Master 24 hours before arrival.

3. Explosives:

There is a restriction on the carriage of explosives by ships, dependent on kind, quantity and stowage of the explosives.

Permission to deliver explosives is given by the Minister of Transport. Masters of vessels are advised to make sure whether such a permission has been granted.

4. Dangerous Cargo List:

Apart from these obligations the Rotterdam Port Bye Laws prescribe that a vessel having any dangerous cargo on board is prohibited from being in the harbour unless there is a list on board and an identical list has been submitted to the Harbour Master, stating the correct technical names, IMO class flashpoint if below 61° C and the stowage of these materials.

5. Operational Notice:

Masters of vessels showing the signals as mentioned above ("B" flag or 1 red light) shall give notice to "Pilot Maas" on VHF Channel 1 on arrival.

This notice shall be given at least half an hour but not more than 1 hour before the ship enters the Rotterdam Waterway area or if sailing from the Europoort area.

Upon departure: On Channel 14 to "Central Post".

This notice shall contain: ship's name, position, destination and expected time needed for passage in the port area.

Should there be considerable alteration in this time, "Pilot Maas" should be notified again 30 minutes in advance.

After the first notice and during the further voyage on the Rotterdam Waterway, VHF Channel 13 should be kept on stand-by and a listening watch should be kept.

When visibility is less than 500 m., ships are prohibited from navigating the Rotterdam Waterway, unless permission has been obtained from State Harbour Master on VHF Channel 14.

6. Pilotage: Ships carrying:

a. more than 1,000 kg. explosives (IMO Class 1), liable to mass explosion;
b. substances of IMO Class 2, Class 3 (not miscible with water) or Class 6.1 in bulk, must have a Pilot on board when entering the Rotterdam Waterway area. At least 24 hours and 4 hours before arrival and 1 hour before departure the following particulars shall be given to the Governmental Harbour Master via the H.C.C. (Harbour Co-ordination Centre)
  1. Name and call sign;
  2. Nationality;
  3. Gross tonnage and draft;
  4. Nature and quantity of dangerous cargo;
  5. Berth;
  6. ETA/ETD;
  7. Agent.

Incoming ships shall also give notice 4 hours before arriving at the Pilot Cruising Station stating:

1. Name and call-sign;
2. Draft;
3. ETA;
4. The code word "IMO".

by radio telegram via the Netherlands Coastal Radio Station (PCH) addressed to: "Pilotage Hook of Holland" or by VHF on Channel 12 to "Maassluis Radio" (Dirkzwager).

Navigation on the Rotterdam Waterway might be prohibited if circumstances make this necessary.

Alterations:

For commodities in quantities above those mentioned in the list, there might be restrictions on certain berths.

Name of Dangerous Goods or Group of Dangerous Goods	Limited Quantity
1. Chlorine	1,000 kg.
2. Phosgene	1,000 kg.
3. Fluorine	1,000 kg.
4. Hydrogen Cyanide	5,000 kg.
5. Hydrogen Sulphide	5,000 kg.
6. Carbon Disulphide	5,000 lit.
7. Hydrogen Bromide	10,000 kg.
8. Hydrogen Chloride	10,000 kg.
9. Hydrogen Fluoride	10,000 kg.
10. Sulphur Dioxide	10,000 kg.
11. Methyl Bromide	10,000 kg.
12. Acetone Cyanohydrin	40,000 lit.
13. Acrylonitrile	40,000 lit.
14. Acrolein	40,000 lit.
15. Allyl Alcohol	40,000 lit.
16. Allyl Chloride	40,000 lit.
17. Epichlorohydrin	40,000 lit.
18. Acetonitrile	40,000 lit.

For bigger amounts apply to the Harbour Master.

Remarks:

a. Particular berths are the Eemhaven basins and the harbour basins to the West of them on the South bank of the New Rotterdam Waterway.

b. Liquid dangerous cargoes in bulk only in the oil harbours.

Restrictions for entering:

Fog: Tankers and vessels carrying poisonous and/or explosive cargoes may not be allowed to manoeuvre in fog with visibility of less than 500 m. (1,640 ft.).

Entry times: Depend on prevailing circumstances, as follows:

Europoort: Tankers:
up to 61 ft. (SW) draft – Any time.
over 61 ft. (SW) draft – 1 hour before until 2 hours after high water at Hook of Holland.

Vessels with a draft of 57 ft. (SW) or more and/or a length of 250 m. or more must comply with the "Shipping rules for large vessels".

On entering Europoort, tugboats are made fast just inside the breakwaters. On departure tug's hawsers must be used aft.

The time at which deeply loaded vessels destined for Europoort enter the New Waterway depends on the prevailing circumstances and is always subject to agreements made between the Pilot Service and the Harbour Master.

Botlek:

Max. draft 44 ft. (SW), exceptionally 45 ft. (SW), under certain conditions. To obtain permission one should apply to the State Harbour Master at H.C.C. in writing, if possible 10 days before arrival, giving particulars of call and vessel.

Vessels exceeding 270 m. in length and drawing 44 ft. (SW) may have to lighten at Europoort/Maasvlakte.

As a rule entering times are as follows: (Salt Water draft).
33 ft. – 37 ft. Anytime, except from 4.5 hours before, till HW at Rotterdam.
37 ft. – 39 ft. At Slack Low or at Slack High Water, depending on the prevailing circumstances.
39 ft. – 44 ft. At Slack High Water.

Vessels with a length of over 200 m. (656 ft.) only enter at slack tide.

Vessels which have been lightened at Europoort/Maasvlakte terminals should arrive at the Botlek entrance at about 1 hour after high water at the Hook of Holland.

Waalhaven:

Vessels with a draft of 36 ft. salt water, or a length of over 200 m. should arrive at the entrance of the Waalhaven at slack water Rotterdam.

Other basins:

Vessels with a draft of 28 ft. or more and a length of over 180 m. are generally tidebound.

All harbours in the Rotterdam area can be entered at any time during day and night.

Restrictions for several harbours are made on some drafts and ships' lengths as follows: (To be read in conjunction with the above).

Botlek and 3rd Petroleum Harbour: For ships with a length over 200 m. or a draft over 33 ft.
U.K.F.: Draft over 30 ft., no length restriction.
1st Petroleum Harbour: Draft over 31 ft. or longer than 200 m.
2nd Petroleum Harbour: Draft over 31 ft. or longer than 200 m.
Vulcaanhaven Vlaardingen: Draft over 30 ft.
Eemhaven: Draft over 36 ft. or longer than 245 m.
Schiedam, Shipyard Wilton: Ships longer than 200 m.
Schiedam, Wilhelminahaven: Draft over 21 ft. or longer than 200 m.
Shipyard R.D.M.: Ships longer than 180 m.
Waalhaven: Draft over 36 ft. or longer than 200 m.

MAX. SIZE:

Entrance and river area	Channel width in m.	Max. SW draft (High tide)	Keel-clearance
Euro Buoy – Euro 11	1,200	74 ft.	1.0 m.
Euro Buoy – Euro 11	600	74 ft.	1.0 m.
Euro 11 Buoy – Maas Centre	1,200	74 ft.	1.0 m.
Euro 11 Buoy – Maas Centre	600	74 ft.	1.0 m.
Maas Centre Buoy – Entrance	600–400	74 ft.	1.0 m.
Entrance – Europoort	400–350	74 ft.	1.0 m.
Entrance – Botlek	250	44 ft.	10%
Botlek – Waalhaven	250	40 ft.	10%
Waalhaven – Rijnhaven	200	34 ft.	10%

Shipping Rules for Large Vessels:

Vessels drawing 17.4 m. (57 ft.) (SW) or more must make use of the approach channels "Eurogeul" and Maasgeul". Such vessels must report, at least 8 hours prior to their arrival at the Pilot "rendezvous" position 52° N. 03° E., by radio telegram to D.G.S.M. District Rijnmond-H.C.C. Rotterdam as well as to Harbour Co-ordination Centre, Rotterdam via Scheveningen Radio (PCH) or to Dirkzwager Maasluis Telex No. 26751 if vessel equipped with "Telex Over Radio" and/or Inmarsat the following information:

a. Name and call sign of the vessel.
b. G.R.T. and deepest arrival draft in S.W.
c. ETA at "rendezvous" position.
d. Port of destination.
e. Name of Agent.
f. Confirmation of correct functioning of:
    1. Gyro compass.
    2. Radar installation.
    3. VHF, operational on Channel 1, 9, 11 and 13.
    4. Decca receiver mark XII of Mark XXI provided with a connection for the so-called Brown Pattern Indicator (Brown Box Connection).

Vessels with a length of 250 m. or more but with a draft of less than 57 ft. S.W. (not bound to use the approach channels) must report, at least 6 hours prior to their arrival at the Maasbuoy, the information mentioned under a, b, c, d, e and f 1, 2 and 3.

The intention to leave Europoort must be reported by the Master or the Agents, at least 3 hours prior to departure to D.G.S.M. District Rijnmond H.C.C. Rotterdam and Harbour Co-ordination Centre, Rotterdam, giving the information stated under a, b, c, d, e and f 1, 2 and 3. For leaving Europoort also f 4.

The 6 hours' report prior to arrival will also be considered the 6 hours' ETA message for obtaining a Pilot.

Vessels equipped with a "T.O.R." or Maritex installation can send their messages to D.G.S.M. District Rijnmond H.C.C. Rotterdam and Harbour Co-ordination Centre Rotterdam via Dirkzwager's message relay and ships reporting station: Telex No. 26751 "dirk nl".

Outward bound vessels drawing 57 ft. (SW) or more, having to make use of the "Maasgeul" and "Eurogeul" must give 12 hours Notice of Departure to the Harbour Coordination Centre/Municipal Harbour Service through their Agent.

Vessels drawing 20.7 m. (68 ft.) up to 22.56 m. (74 ft.) which must make use of the selected route via Strait of Dover and the Southern North Sea to the "Eurogeul" are moreover recommended:

1. To act in accordance with the instructions of the manual "Deep Draft Planning Guide, Greenwich Buoy to Europoort for vessels with a draft between 68 ft. and 74 ft." published by the Hydrographic Service.
2. Preferable to make use of the services of a certified North Sea Pilot as from Greenwich Buoy.
3. To report 24 hours prior to arrival at the rendezvous area near Cherbourg, by telegram to the Harbour Co-ordination Centre Rotterdam and D.G.S.M. District Rijnmond-H.C.C. Rotterdam via Scheveningen Radio (PCH) or Dirkzwager Maasluis, Telex No. 26751, and ask for sailing conditions with regard to sea and swell in the Twin-area for the selected route and order a river pilot. The telegram should contain:
    a. Name and call sign of the vessel.
    b. G.R.T. and deepest arrival draft in salt water.
    c. ETA pilotage location near Cherbourg, at about 13 miles North of Cap de la Hague.
    d. The order for a river pilot for the "Eurogeul" to be embarked by helicopter near Cherbourg.
    e. Confirmation of the correct functioning of:
        1. all nautical equipment in good working condition.
        2. VHF, operational on Channels 1, 9, 11 and 13.
        3. Decca receiver, stating the type, requiring Mark XII or Mark XXI, provided with connection for the so-called Brown Pattern Indicator (Brown Box Connection).
    f. If necessary,required expert assistance for equipment mentioned under e.
4. To confirm or amend via Scheveningen Radio the telegram mentioned under 3, 12 hours before arrival "rendezvous" location Cherbourg or by T.O.R. and/or Inmarsat via Dirkzwager Maasluis, Telex No. 26751.
5. To make use of Dutch seacharts published by the Hydrographic Service:
    No. 1971 – Sandettie to North Hinder.
    No. 1972 – North Hinder to Europoort.

Shifting: Vessels which have lightened at Europoort/Maasvlakte terminals should arrive at the Botlek entrance at about one hour after high tide at the Hook of Holland.

Shifting rules Europoort-Botlek:

Length overall	Max. draft allowed
up to 260 m. (up to 853 ft.)	44 ft. S.W.
260 m.-270 m. (853 ft.-885 ft.)	42 ft. S.W.
270 m.-280 m. (885 ft.-918 ft.)	41 ft. S.W.
over 280 m. (918 ft.)	39 ft. S.W.

Minimum draft allowed: 27 ft. (trim 3 ft.).

Tidal Information:
The mean height of sea-level off the Hook of Holland = 42 cm. above DATUM (=N.A.P.).

LLWS (Low Low Water Spring) = 84 cm. below DATUM
MLW (Mean Low Water) = 64 cm. below DATUM

All permissible drafts and depths of water mentioned are given at MLW, unless otherwise mentioned.

Tidal Range:

	Neap Tides	*Spring Tides*
Mean Rise above DATUM	82 cm.	121 cm.
Mean Fall below DATUM	64 cm.	63 cm.
TIDAL RANGE	146 cm.	184 cm.

Duration of the flood tide: .... 6 hrs. 47 min.
Duration of the ebb tide: .... 5 hrs. 38 min.

DEPTHS:

Location	*Depth** (m.)
Waalhaven	13.50
Eemhaven	
Entrance and Channel	13.50
1st Eemhaven	4.65
Prins Johan Frisohaven	10.65
Prinses Beatrixhaven	11.65
Prinses Margriethaven	13.65
Prinses Willem Alexanderhaven	12.65
Merwehaven	10.65
Pernis	
1st Petroleumhaven	12.50
2nd Petroleumhaven	12.00
Botlek	
Botlek	14.60
3rd Petroleumhaven	12.65
Chemiehaven	12.65
St. Lauresnhaven	14.60
Torontohaven	13.65
Europoort (East Side)	
Seinehaven	6.65
Brittanniehaven	12.65
Europoort (West Side)	
7th Petroleumhaven	21.65
5th Petroleumhaven	21.65
4th Petroleumhaven	17.65
Scheurhaven	6.15
Beneluxhaven	21.65
6th Petroleumhaven	22.25
Dintelhaven	4.65
Maasvlakte	
Mississippihaven	24.00
Hartelhaven	6.00
Europahaven	13.65
8th Petroleumhaven	24.00

*N.A.L. (Normal Amsterdam Level)

Notice: Notice to Shipping No. 02/1987:
Approach Rotterdam Waterway/
Conditional Admission of Vessels with a Draft of 21.95 m. up to 22.50 m.

The Director of the Directorate-General of Shipping and Maritime Affairs, District Rijnmond, also Government Harbour Master,
In view of Articles 4 and 16, sub 2, of the Special Regulations Rotterdam Waterway.
Makes known:

1. The navigation of the category of vessels with a draft of 21.95 m. up to 22.50 m. coming from sea with destination Europoort, can be allowed under favourable circumstances, as of February 1st, 1987.
2. The safe and smooth handling of the vessels mentioned under 1 demands that agreements are made well in advance.
3. In order to make such agreements, Central Post, DGSM, Traffic Service, Harbour Co-ordination Centre (HCC), Rotterdam (Europoint B), Tel: 010-4251410. Telex: 27370. Telefax No. 4773489, is to be contacted by or on behalf of the Master before loading in the place of loading.
4. Aforementioned agreements shall contain at least:
   a. Date and time of arrival;
   b. the procedure to be followed on account of congestion of the Eurochannel, due to swell conditions;
   c. compliance with the urgent recommendations as stated in Notice to Shipping No. 92/1984;
   d. urgent recommendations with respect to "en route" procedures while navigating through the Channel.
5. In view of the marginal nature of navigation through the Eurochannel by vessels with a draft of 21.95 m. up to 22.50 m., Masters are urgently recommended to comply with the above mentioned.
   Deviations can lead to refusal of permission or serious delay in handling, apart from dangerous situations.

HEALTH: Master has to fill in and sign Maritime Declaration of Health which is handed to him by Pilot. Vessels subject to medical inspection have to hoist flag signal according to Pilot's orders.

RADIO: *E.T.A. messages and T.O.R./Maritex:*

Masters' telegrams via Scheveningen Radio, call-sign P.C.H., are passed on to Agents 24 hours a day, weekends inclusive. For this reason it is advisable that Masters communicate with Agent via Scheveningen Radio, via which station they also route messages to vessels.

Ships equipped with "Telex Over Radio" may, outside office hours, channel their messages to Agent via Dirkzwager's message relay and ships' reporting station at Maassluis, Telex No. 26751, Answerback "Dirk NL". Such messages are passed on to Agent immediately, also during weekends.

Combination Carriers (OBO and O/O Carriers):

Combination carriers must, as per Rotterdam Bye-laws, comply with the following regulations when calling here to load and/or discharge dry cargo:

a. The dry cargo holds may not have any remnants (gas and/or liquid) of oil.
b. The spaces adjacent to the dry cargo holds must be either gasfree or properly inerted or free from oil remnants.
c. Slops of previously carried oil cargoes may not be stowed adjacent to a dry cargo hold and must be blanketed by inert gas.

At least 24 hours prior to arrival the following information must be cabled:

1. That vessel has no slops on board and is certified gas free, or alternatively
2. a. Correct name of liquid cargo carried last, with place and date of discharge
   b. Stowage of cargo residues (gases and/or liquids) and whether mixed with water or not.
   c. Whether non-gasfree spaces are adjacent to dry cargo holds and if so, what holds
   d. What spaces contain inert gas.

In case of repairs, tankcleaning or delivery of slops, a combination carrier is considered to be a tankvessel and should comply with the regulations applicable to this kind of ship.

RADAR/VHF: Chain of 26 shore-based radar stations permits navigation during all weather conditions. Radio and Radar station Maas Approach, at Hook of Holland, communicates via VHF Channel 1 (Port Operations).

VHF range = about 30 miles.
Radar range = about 20 miles around the Goeree Platform.

Masters are requested to call this station, especially during bad visibility, well in advance of arrival at pilot station. Maas Approach provides vessels within range with nautical information and acts as a link with pilot cutters.

Radio-Radar Station: The radio station, "Traffic Centre Hook" (TCH), in Hook of Holland acts as a Communication Centre and a Traffic-Regulating Station near the entrance and on the New Waterway. The station provides weather forecasts on request by VHF Channel 13. Radar assistance is provided on VHF Channel 66 from "CA2-NW1" Separation Buoy into Europoort and vice versa.

Information on berths, Harbour Pilots, tugboats and linesmen in Europoort can be obtained on Channel 11.

VTMS: A Vessel Traffic Management System (VTMS) is in operation for the approaches to Europoort and in New Waterway; for details see Admiralty List of Radio Signals.

Vessels approaching Europoort and New Waterway should maintain continuous listening watch on VHF when East of Sandettie. Vessels which are unable to participate in the system should report, if possible, before entering the area to Haven Coordinatie Centrum (HCC), Rotterdam through Scheveningen Coast Radio Station or by telephone, telex or VHF.

TUGS: Tugs normally join vessel on river when nearing the basin where vessel will be accommodated. Vessel's towing lines used. On departure from Europoort the tow ropes, secured to the stern, must be supplied by the tugs.

BRIDGES: New Waterway connects Port of Rotterdam with North Sea, without any locks or bridges. Only to reach some shipyards, situated East of Rotterdam, vessels have to pass the "Maas-Bridges" (Koningshaven), which are on working days opened at regular times.

To reach berths in Brittanniehaven vessels have to pass the Calandbridge. To reach berths in Seinehaven and Neckarhaven vessels have also to pass the Rozenburg locks (between the Calandcanal and Hartelcanal).

GENERAL CARGO FACILITIES: *Muller-Thomsen Rotterdam B.V. (M.T.R.):*

Muller-Thomsen Rotterdam B.V. operates one terminal at Prinses Beatrixhaven specialising in the handling of forest products, pipes and other steel products, containers and general cargo.

For the handling of containers and other unit loads (such as steel and pipes) this terminal has 25 heavy cranes of which 2 mobile cranes have a maximum capacity of 67 tons (40 tons at 46 m.). The terminal is equipped with a transtainer, hydraulic lifting cars, tractors and spreaders. A workshop for repair and maintenance of containers is available.

Together with 55,770 sq.m. covered storage area for general cargo and forest products, Beatrixhaven forms a multi-purpose terminal.

For the handling of steel and forest products special gear is used. Vacuum spreaders for the discharging and loading of pipes from or into vessels have been developed by M.T.R. engineers.

These spreaders, which meet all safety standards, allow M.T.R. to handle different kinds of pipes (various diameters, with or without coating, welded or seamless, etc.) without causing damage.

Technical Data:

Maximum draft:	10.65 m. (35 ft.)
Quay length:	2,000 m.
Marshalling area:	210,000 sq.m.
Sheds:	7
Covered storage area:	55,770 sq.m.
of which temperature controlled	6,800 sq.m.
Open storage area:	100,000 sq.m.
No. of cranes (capacity):	25 (up to 67 tons)

There are a large number of forklift trucks up to 42 tons. The Prinses Beatrixhaven terminal is also equipped with 20 ft. and 40 ft. Ro/Ro trailers, 9 tugmasters, 2 locomotive engines and 2 weigh-bridges.

Seaport Terminals: The "Multi-Purpose Terminal" of Messrs. Seaport Terminals is situated in the Brittanniehaven, in the Eastern part of Europoort, 10 nautical miles from the entrance.

Technical Data:
Maximum draft: 12.65 m.
Quay length: 930 m.
Ro/Ro ramps: 2 adjustable of 300 tons each.
Cranes: 1 mobile crane, 50 tons.
1 gantry crane, 70 tons.
4 level luffing cranes, 25 – 40 tons.
Terminal size: 220,000 sq.m.
Terminal width: 270 m.
Sheds: 1 × 11,300 sq.m.
1 × 18,900 sq.m.

Seaport Terminals also have a terminal at Merwehaven with special cold stores and temperature controlled sheds, for the storage of fresh fruit and vegetables.

The total capacity of the Merwehaven area is:
Quay length: 1,900 m.
Cranes: 32 (5 up to 35 tons)
Sheds: Total space 60,000 sq.m.

Quick Dispatch: Quick Dispatch operates a specialised car terminal in the Brittanniehaven, Europoort. This terminal handles approximately 200,000 cars annually.

East of this terminal Quick Dispatch (Nedlloyd) and Messrs. Broekman Motorships are operating an installation named "Rotterdam Car Centre". This terminal is used for storage, cleaning (deconservation) and distribution of cars.

Messrs. Quick Dispatch also have a Container/Ro-Ro multi-purpose terminal at Prinses Beatrixhaven.

Deka Transport: Seinehaven (East Europoort):
The company is owned by Deutsche Metall Gesellschaft.
Terminal area: 9 hectares (24 acres)
Quay length: 250 m.
Cranes: 2 fixed
3 mobile
1 transtainer
Sheds: 2

Uniport Stevedoring Company N.V.: Lloydkade/Schiehaven.
Terminal for general cargo and semi-container vessels.
Quay length: 1,050 m.
Max. draft: 9 m. (30 ft.) F.W.
Cranes: 2 heavy lift cranes, 45 tons (40 m. reach)
13 General Cargo cranes, 5 tons.
Terminal Area: 70,000 sq.m.
Shed space: General Cargo 10,000 sq.m.
Shed space: Stuffing/stripping 2,000 sq.m.
Open space: 35,000 m.

Multi-Terminals Waalhaven B.V.: Pier 2 Terminal: Equipped for the handling of conventional semi-container and Ro/Ro vessels.

Hanno Rotterdam B.V.: Multi-purpose terminal. Maashaven – North side.
Max. draft: 9.20 m. (30 ft.) F.W.
Future draft: 11.60 m. (38 ft.) F.W.
Quay length: 2,000 m.
Storage capacity: 7,500 TEUs
Sheds: 13 sheds, 14,000 sq.m.
Cranes: 16 general cargo cranes, 8 tons.
4 container cranes, 39 tons.

Nederlands Transport Bureau B.V.: Waalhaven - North side. General cargo handling. Fertiliser loading, both bagged and in bulk.

Quay length	*Max. draft*
200 m.	12 m. (39 ft. 3 in.) F.W.
1,200 m.	10 m. (32 ft. 8 in.) F.W.
150 m.	9 m. (29 ft. 6 in.) F.W.

FRUIT: There are modern fruit terminals in the Merwehaven.

1. Rotterdam Fruit Pier (R.F.P.) owned by the fruit importers:
Velleman & Tas
Jan van den Brink
Citronas
Internationale Fruit Mij.

2. Fruit Terminal Rotterdam (F.T.R.) owned by Rotterdam Fruit Pie (R.F.P.) and Fruit Stevedores Rotterdam (F.S.R.), which company i owned by the Stevedores.

Fruit Stevedores Rotterdam (F.S.R.) are acting as stevedoring operators on all fruit terminals in the Merwehaven.

Shed One: Temperature controlled warehouse of 11,000 sq.m.
Dimensions: 120 m.×90 m.×7 m.
Temperature: 4°C – 8°C
Ventilation capacity: 20,000 cu.m.p.h.

The largest palletised fruit carrier can be completely discharged int the warehouse. The short side of the shed runs parallel to the quay. Via 2 sets of doors in the long sides, 48 lorries can be loaded simultaneously. Rail connection is available.

Shed Two: This shed has the same capacity as Shed No. 1, but i addition 2 separate temperature controlled cool-cells are added with dimensions 15 m.×45 m.×5 m. each, suitable for fruit storage for longe periods. 8 cranes of 8 tons each and one of 17.5 tons are available t handle the discharging operations.

Future Planning: Sufficient space is available for further sheds/col stores and for facilities to handle Ro/Ro vessels and containerised frui shipments. Realisation will be effected in the next few years.

Juice Terminal: In the Ijselhaven, Eurobraz Terminal B.V. operate a transhipment and storage installation for concentrated fruit juices from Brazil.

The juices arrive at a temperature of −10°C and are stored i 16 stainless steel tanks for 1,000 tons concentrated juices each.

Cold store: HIWA Rotterdam Port Coldstores are enlarging their presen cold store capacity of 40,000 cu.m. in the Ijselhaven in 1988 t 70,000 cu.m. and in 1989 their total capacity will be 100,000 cu.m.

HIWA specialises in the deep frozen storage of fruit juices in meta drums.
Maximum draft 33 ft. F.W.
Quay length: 310 m.

BULK HANDLING FACILITIES: Also see "Tables" and "Radio".
Europees Massagoed – Overslagbedrijf (EMO), B.V.: (European Bul Transhipment Company (EMO) B.V.).

World's largest bulk transhipment and storage installation is situated on the Maasvlakte, which has been reclaimed from the North Sea 3 fully loaded bulk carriers up to 300,000 d.w.t. can be discharged simultaneously.

EMO B.V. is an executing company which concludes transhipmen contracts, primarily for ores and secondly for coal. Participants in thi company are: SNV, Frans Swarttouw and Manufrance.

A.G. Messrs. EMO operate 2 transhipment installations.

A conveyor belt system connects the discharging pier in the Mississippihaven with the barge loading section in the Hartelhaven and with the stockpiling area.

Technical data:
Discharging quay, length 1,050 m., draft 72 ft. S.W.
Loading barges, length 700 m., draft 15 ft. F.W.
2×50 ton unloaders, capacity 11,000 t.p.h. (max.)
1×85 ton unloader, capacity 6,000 t.p.h. (average)
3 stackers/reclaimers, capacity 11,000 t.p.h.
1 loading machine, 5,000 t.p.h.
2 barge loaders, 11,000 t.p.h. (max.), 6,000 t.p.h. (average)
1 railway loader, 2,500 t.p.h.
(Bulk Handling Facilities continued after Tables).

GRAIN HANDLING FACILITIES: *(Also continued after "Bulk Handling Facilities" – Table).*

		Max. draft at MLW	*Quay Length*	*Number of Elevators*	*Total Discharge Capacity*	*Loading Capacity*	*Silo Capacity (tons)*
1.	**G.E.M. Europoort Terminal 1**						
	Discharging pier, outside	59 ft. SW	580 m.	4 shore	4,000 t.p.h.		110,000 (vertical silo)
	Discharging pier, inside	42 ft. 6 in. SW	370 m.				
	Dolphins	59 ft. SW		5 floating	4,400 t.p.h.	1,000 t.p.h. (up to 100,000 t)	
	Coaster piers for loading of coasters/seagoing vessels	23 ft. SW 36 ft. SW	2×150 m. 170 m.	8 loading spouts 4 loading spouts		2,400 t.p.h. 1,200 t.p.h.	
	Barge piers	21 ft. FW		16 loading spouts		4,800 t.p.h.	
2.	**GEM Europoort Terminal II**						
	Discharging pier	52 ft. 6 in. SW	230 m.	3 shore	3,000 t.p.h.	2,000 t.p.h.	100,000 (vertical silo)
	Coaster Pier	13 ft. SW 21 ft. SW				2,000 t.p.h. 2,000 t.p.h.	
3.	**GEM Botlek Terminal Rotterdam Ports**						
	Discharging Pier	42 ft. 6 in. SW	2×245 m.	5 shore	3,500 t.p.h.		60,000 (vertical silo) 32,000 (flat store)
	Loading pier (main jetty)	32 ft. 6 in. SW	2×142 m.	6 loading spouts		2,400 t.p.h.	
	Floating unloader			6	2,600 t.p.h.		
4.	**Grainwave B.V.** Botlek, Rotterdam, – Port Areas	—	—	1 floating 1 floating	 600 t.p.h. 1,000 t.p.h.		
5.	**Maashaven-Silo**	26 ft. FW	150 m.	5	700 t.p.h.		90,000

BULK HANDLING FACILITIES: (continued)

Installation		Quay-length (m.)	Max. depth at MLW		Equipment	Discharging rate (t.p.h.)	Max. outreach discharging gear	Max. height of gear above MHW	Loading rate (t.p.h.)	Max. outreach loading gear	Capacities	
1. EMO B.V. Massvlakte	Sea Quay	1,050	72 ft.	SW	3 grab unloaders 1 continuous shiploader 3 stacker/reclaimers	Max. 11,000 Average 6,000	45 m. (148 ft.)	30 m. (98 ft.)		36 m. (118 ft.)	Storage	8 million tons
	Barge Quay	950	15 ft.	FW	2 loading machines 1 wagon loading inst. 1 loading machine Conveyor belt installation				Max. 5,000 Max. 14,000	20 m. (65 ft. 8 in.)		
2. Europoort C.V.	disch. section	645 395	59 ft. 74 ft.	SW SW	3 unloading towers conveyor-belts 4 stacker/reclaimers	Max. 6,900 Average 4,500	34.75 m. (114 ft.)	24 m. (78 ft. 8 in.)			Storage	3.5 million tons
	loading	850	20 ft.	SW	2 loading machines				Max. 6,000	18.1 m. (59 ft. 4 in.)		
3. G.E.M. Europoort Terminal II		230	54 ft. 6 in.	SW	3 unloading towers 1 weighing tower conveyor-belts, silos loading installation	Max. 3,800	25.3 m. (83 ft.)	20 m. (66 ft.)	Max. 2,000 for vessels up to 30,000 d.w.t.	24 m. (79 ft.)	Silo	100,000 tons
4. G.E.M. Europoort Terminal I	disch. section	580 370	59 ft. 42 ft. 6 in.	SW SW	4 shore elevators 5 floating elevators	Max. 4,000 Max. 5,400	28 m. (91 ft. 7 in.)	23.8 m. (77 ft. 10 in.)	Vessels at buoys: up to 30,000 d.w.t.: 1,000		Silo	110,000 tons
	loading	2×150 1×170	23 ft. 36 ft.	SW SW	8 loading pipes 2 loading pipes	Max. 4,800 Max. 1,200	35.2 m. (115 ft.)	23 m. (75 ft.)	At installation: up to 8,000 d.w.t.: 2,400 up to 25,000 d.w.t.: 1,200			
5. G.E.M. Botlek Terminal/ Rotterdam Ports	disch. section	2×245	42 ft. 6 in.	SW	5 shore elevators conveyor-belts and silos 6 floating elevators	Max. 3,500 Max. 2,600	20 m. (65 ft.)	18 m. (59 ft.)			Silo	60,000 tons
	loading	1×142	32 ft.	SW	4 loading pipes		18 m. (59 ft.)	18 m. (59 ft.)	Max. 1,600 up to 25,000 d.w.t.	13.5 m. (44 ft. 4 in.)		
6. Frans Swarttouw St. Laurenshaven Botlek	disch. section	835	42 ft. 8 in.	SW*	2 transporter bridges	Max. 1,400	44.5 m. (146 ft.)	25.2 m. (82 ft. 10 in.)	If direct overboard dependent on size	If direct overboard see discharging gear	1.5 million tons open storage 34 silos/sheds – 350,000 cu.m.	
					1 transporter bridge	Max. 650	40.8 m. (134 ft.)	16.5 m. (54 ft. 2 in.)				
					3 cranes	Max. 400/650	32 m. (105 ft.)	35.8 m. (117 ft. 6 in.)				
	loading	180	23 ft.	SW	2 loading machines				Max. 1,000	16.5 m. (54 ft. 2 in.)		
Frans Swarttouw Botlek terminal	disch. section	250	42 ft. 8 in.	SW*	2 unloaders	Max. 2,000	19.5 m. (64 ft.)	14.6 m. (48 ft.)			Storage	1.3 million tons
		250	38 ft.	SW	conveyor-belt 1 stacker	Average 1,600			Max. 4,400 Average 1,000 for vessels up to 15,000 d.w.t.			
	loading	200	29 ft.	SW	1 reclaimer 2 loading machines 1 wagon loading inst.					20 m. (65 ft.)		
					1 floating crane	Average 1,000	29.5 m.	32 m.				
Frans Swarttouw Vulcaanhaven Vlaardingen		440	quay 34 ft. 6 in.	FW*	3 transporter bridges	Max. 1,950	42 m. (138 ft.)	16 m. (52 ft. 6 in.)			0.7 million tons open storage paved	
			buoys 40 ft.	FW	2 electric cranes	Max. 600	36 m. (118 ft.)	18 m. (59 ft.)	Phosphates via belt Max. 600		8 silos – 80,000 cu.m. 7 sheds – 60,180 cu.m.	
					1 bulk loading machine 3 floating cranes	Max. 800				20 m. (66 ft.)		
7. Interstevedoring B.V. Hometerminal Waalhaven Pier I		Buoys various basins			3 floating cranes	Max. 1,000	40 m.	36 m.				
					1 floating crane	Max. 1,000	30 m.	23 m.				
					1 floating crane	Max. 450	25 m.	15 m.				
					1 floating crane	Max. 300						
					1 floating crane	Max. 200						
					4 floating weigher/ loaders	Max. 30,000 tons/24 hours						

*Max. draft allowed at HW in Botlek 44 ft. (SW), under certain conditions 45 ft. (SW) and in Vulcaanhaven 39 ft. (FW). Bulk cargoes are also handled at the buoys in various basins by floating cranes of Messrs. Aegir, S.H.V. and Interstevedoring.

Ertsoverslagbedrijf Europoort C.V.:
This transhipment installation, specialised in the handling of iron ore, is situated between Caland Canal and Dintelhaven.

A conveyor belt system connects the discharging quay in the Caland Canal with the barge loading section in the Dintelhaven, both direct and via the stockpiling area. For further details of this installation see "Tables".

Technical data:
Quay length discharging section – 645 m. and 395 m.
Max. draft allowed at MLW – 59 ft. and 75 ft. respectively SW.
No. of cranes – 3.
Max. capacity – 6,900 t.p.h.
Average discharging rate – 4,500 t.p.h.
Outreach discharging gear – 34.75 m. (114 ft.)
Max. height of gear above MHW – 24 m. (78 ft. 8 in.)
Storage capacity – 3.5 million tons
Transhipment capacity – 15 million tons/year.

GRAIN HANDLING FACILITIES: *(Continued).*

Weighing: During transhipment and storage operations agri-bulk cargoes are weighed accurately at both shore and floating installations by means of computerised weighing equipment.

This equipment is checked several times per week by the Royal Dutch Grain & Feed Trade Association. Loaded weight certificates can be provided.

Overtime: No extra expenses for work in overtime are charged by the stevedores except for work on Sundays and holidays and the nights preceding and following them.

CONTAINER HANDLING FACILITIES:

Europe Container Terminus B.V.: At their home terminal in Eemhaven and Delta Terminal on the Maasvlakte E.C.T. handles 3rd generation container vessels and containers of all sizes and weights around the clock.

Partners: Internatio-Muller
Nedlloyd
Dutch Railways

About 40 container lines including a number of feeder services are operating from the E.C.T. 50 container trains are dispatched to 45 destinations in Europe weekly. Daily shuttle trains run to and from the E.C.T. Venlo Terminal, which is located near the German border.

E.C.T. Home Terminal: Prinses Margriethaven and Prins Willem Alexanderhaven.
Max. draft: 40 ft. SW
Water depth: 41 ft. 4 in. SW
Quay length: 3,000 m.
Marine terminal: 85 ha. marshalling area
Land terminal: 11 ha. storage area
Control terminal: 6 ha. administration

Equipment:
14 container cranes
5 stacking cranes
1 barge crane
3 rail tracks of 500 m.
3 multi trailer trains
18 heavy duty forklifts
2 railway gantry cranes
1 Ro/Ro ramp
525 terminal chassis
75 terminal trucks
40 van carriers

Number of containers handled:
1985..............1,045,450
1987..............981,000

E.C.T. Delta Terminal: E.C.T. Delta Terminal, the most modern and fastest container terminal in the world, suitable to handle fourth generation container vessels.

Technical details:
Terminal area: 81 ha. (200 acres)
Future: 300 ha. (750 acres)
Annual capacity: 600,000 containers
Future: 1,500,000 containers
Quay length: 1,200 m.
Ro/Ro ramp: 1
Cranes: 7 Conrad Stork, fitted with 2nd trolley system
Lifting capacity: 67 tons
Barge Terminal:
Cranes: 2
Quay length: 260 m. (future: 750 m.)

Communications: A special infra-red communication system transmits instructions to colour screens of straddle carriers while driving on top speed. The central computer and planning office is connected by glass-fibre with the main computers of E.C.T. in the Eemhaven.

Unitcentre B.V.: Waalhaven Pier 7. Container terminal
Annual capacity: 500,000 containers.

Technical data:
Maximum draft 12.2 m. (40 ft. FW)
Quay length 800 m.
Pier width 250 m.
Storage and marshalling area 250,000 sq.m.

	number	capacity	outreach
Container gantry cranes	5	60 tons	45 m.
Rail-mounted gantry cranes for stacking	6	45 tons	45 m.
Railway tracks	5		
Reefer station	124 connections		

Ro/Ro ramp: For vessels with an angled or slewing ramp a special outer ramp is available.

Container/Ro-Ro Terminal Heijplaat and CFS: This is a container/Ro-Ro terminal with an annual throughput capacity of 115,000 containers. There is a quay length of 760 m. provided with 4 cranes having a maximum capacity of 60 tonnes at 24 m. outreach and 40 tonnes at 40 m. There is common user Ro-Ro berth having a length of 270 m. and a ramp width of 9 m.

This location is planned to be moved to Waalhaven Pier 6 in 1989.

Bell Lines: Bell Lines have handled their container vessels in a liner service between Rotterdam, Teesport, Newport, London and Waterford (Ireland) since 1967. As from October 1985, the terminal has also been available for other vessels.
Location: Brittanniehaven, Europoort.
Capacity: 140,000 TEUs (in 1985).

Uniport: Multipurpose Terminals B.V.: A new multipurpose terminal for middle sized container carriers is available in the Merwehaven.

Technical Data:
Quay length: 350 m.
Maximum draft: 10 m. (32 ft. 8 in.)
1 gantry crane: 45 tons (reach 35 m.)
1 heavy lift crane: 45 tons (reach 40 m.)
2 stacker cranes: 45 tons
Terminal Area: 35,000 sq.m.
Shed space for stuffing/stripping: 2,000 sq.m.
Transhipment capacity: 60 TEUs/hr.
Annual capacity: 50,000 TEUs
Future capacity: 70,000 TEUs

The terminal is planned to be extended either by the middle pier in Merwehaven or in the Schiehaven.

SPECIALISED CARGO-HANDLING FACILITIES: Quick dispatch, Brittanniehaven Car Terminal. Quay length 300 m., storage capacity about 15,000 cars.

Ro/Ro Facilities:

Company	*Location*	*Number of ramps*
Maatschappij Zeeland	Hook of Holland	2
Multi-Terminals B.V.	Waalhaven (pier 2)	2
Unitcentre B.V.	Heyplaat	1
Seaport Terminals B.V.	Prins Johan-Frisohaven	2
	Brittanniehaven	2
Quick Dispatch B.V. (Tor Line)	Prins Johan-Frisohaven	2
Quick Dispatch B.V.	Prinses Beatrixhaven	3
Europe Container Terminus B.V.	Prinses Margriethaven	1
	E.C.T. Delta Terminal	1
North-Sea Ferries B.V.	Beneluxhaven	2
P & O Ferries	Beneluxhaven	1
D.S.C.	Merwehaven	1

L.A.S.H.: Vessels discharge and load at buoys in Waalhaven. Average permissible draft at buoys is 36 ft. (FW).

Max. draft at Buoys 37, 38 and LASH buoys (No. 26 and 27) 40 ft. (SW).

Esso Chemie N.V.: The fertiliser plant in Europoort produces ammonia, urea, nitric acid, calcium ammonium nitrate.

Max. size: 30,000 d.w.t., length 690 ft., draft 42 ft. 6 in. in SW.

TANKER BERTHS:

Europoort *Installation*	*Basin*	*No. of berths*	*Max. SW draft*	*Hoses*
Shell (No. 104)	Beneluxhaven	1	68 ft.	4 × 16 in.
(No. 103)	4th Petr. haven	1	57 ft.	4 × 16 in.
(No. 102)	4th Petr. haven	1	52 ft.	4 × 12 in.
(No. 101)	4th Petr. haven	1	46 ft.	4 × 12 in.
Maatschap	4th Petr. haven	2	46.5 ft.	3 × 12 in.
(Texaco/Esso)	5th Petr. haven	2	68 ft.	3 × 16 in.
Kuwait Petroleum Corp	5th Petr. haven	1	68 ft.	4 × 12 in.
		1	43 ft.	5 × 10 in.
B.P.R.N.	6th Petr. haven	2	68 ft.	4 × 12 in.
		1	43 ft.	4 × 10 in.
		1	40 ft.	4 × 10 in.
		2	38 ft. and 32 ft.	
Maatschap Europoort Terminal (Mobil)	7th Petr. haven	2	68 ft.	4 × 16 in.
Paktank Europak	7th Petr. haven	2	68 ft.	4 × 16 in.
Matex	7th Petr. haven	1	68 ft.	
		1	51 ft. 4 in.	
MOT	8th Petr. haven	2	74 ft.	
Botlek				
Esso	3rd Petr. haven	2	38 ft.	2 × 10 in.
		1	25 ft.	
Tank Terminal Rotterdam	Torontohaven	4	42 ft.	
Matex	3rd Petr. haven	6	39.5 ft. (FW)	4, 6, 8, 12 and 16 in.
	Vlaardingen	3	39 ft. (FW)	
Paktank	3rd Petr. haven	4	39.5 ft. (FW)	4, 8 and 14 in.

Installation	*Basin*	*No. of berths*	*Max. draft*	*Hoses*
Pernis (Max. LOA 810 ft.)				
Paktank	2nd Petr. haven	2	37.5 ft. FW	10 and 14 in.
Panocean	1st Petr. haven	2	41 ft. FW	8 and 10 in.
	Chemiehaven	3	41 ft. FW	
Shell	1st Petr. haven	7	28 ft. FW	4 × 8 in.
	2nd Petr. haven	7	39.5 ft. FW	4 × 8 in.
Texaco	2nd Petr. haven	1	32 ft. FW	3 × 12 in.
		1	35 ft. FW	3 × 12 in.
Mobil	2nd Petr. haven	1	33 ft. FW	6 and 8 in.

No facilities for discharging dirty ballast at Mobil at 2nd Petrol Haven, Texaco/Esso at 5th Petrol Haven, Tank Terminal Rotterdam, Panocean and Paktank.

No bunkers (ex-installation) at MOT, Mobil Oil, Esso, Tank Terminal Rotterdam, Panocean, Matex, Esso and Texaco.

Tank Cleaning – Ballast Water:

Messrs. Tankcleaning United C.V. and Booy Clean have floating and rolling equipment for all cleaning jobs and for the collection of contaminated ballast water.

Shore installation at Verolme Tankcleaning, Botlek.

Crude Oil Washing System:

For applying the crude washing system to tankers the permission of the oil installation, the Charterers and the Port Authorities is required.

Moerdijk:

The route New Waterway, Oude Maas and Dordtse Kil is frequently used by 20,000 ton tankers, loaded for 70%, proceeding to and from the Petrochemical installations of Shell Moerdijk, which are connected by pipe-lines to Shell-Chemie at Rotterdam-Pernis. Cleaning/gas-freeing is not allowed in this area.

Dimensions of sea-going ships on the river Oude Maas: Permission is required to navigate the rivers Oude Maas and Dordtse Kil with sea-going ships of a length greater than 135 m. or a breadth of more than 17.5 m. The maximum length allowed is 175 m. and breadth 23 m.

This permission must be applied for to the Harbour Co-ordination Centre in good time, in writing either by Telex or Fax.

"In good time" is understood to be: for incoming ships, at least 24 hours prior to entering the River Oude Maas. For outgoing ships and ships shifting berth, at least 24 hours prior to leaving the berth.

The application for permission for these ships should contain the following data:

1. Ships's name and call sign.
2. Nationality.
3. Length and breadth in metres.
3. Expected date and time of arrival at the Oude Maas, Dordtse Kil or of departure from the berth.
5. Gross tonnage and deepest draft on arrival. Draft in fresh water.

The address for permission is:

Harbour Co-ordination Centre,
Dept. Verkeersdienst/DGSM,
15 Galvanistraat,
3029 AD Rotterdam.
Tel: 010-4764855. Telex: DGSM-27370.
010-4251410. Fax: 010-4773489.

Restrictions:

Max. draft Oude Maas 31 ft., max. draft Dordtse Kil 25 ft. 6 in.; max. length 175 m., max. width 25 m., max. height 41 m., channel width 250 m.

The use of tugboats is compulsory for certain categories of vessels, the number of which depends upon length, draft and circumstances.

Also see "Shipmaster's Report" – June 1987.

DENSITY: *Europoort:* At high water 1025; at low water 1022.

Botlek: At high water 1014; at low water 1001.

Waalhaven and other basins in the Rotterdam port area: at high water 1004; at low water 1000. All depending upon amount of fresh water carried down river.

STEVEDORES: *1. Bulk Cargoes other than Agribulk:*

EMO B.V. and Europoort C.V.: Around the clock, weekends inclusive. Other bulk stevedores: Monday 0730 hrs. – Saturday 1400 hrs. continuously. For work between Saturday 1400 hrs. and Monday 0730 hrs. permission is required from the labour authorities and unions.

Labourers are only available on a volunteer basis.

2. Agribulk – GEM Europoort Terminal I and II:

Monday 0730 hrs. until Saturday 1530 hrs.

Meal breaks: 1130 hrs. – 1200 hrs.
1930 hrs. – 2000 hrs.
0330 hrs. – 0400 hrs.

In principle, no work is performed on Saturday nights, Sundays and holidays.

Botlek and Rotterdam:

Monday-Friday	Monday-Thursday
0700 hrs. – 1130 hrs.	1530 hrs. – 1930 hrs.
1200 hrs. – 1530 hrs.	2000 hrs. – 2400 hrs.
Saturday	Friday night
0730 hrs. – 1130 hrs.	1530 hrs. – 2100 hrs.
1200 hrs. – 1530 hrs.	

Overtime: The Grain Elevator Company *does not charge* any overtime expenses, except for work on Sundays and holidays and the nights preceding and following them.

For weekend work after Saturday 1530 hrs. permission will normally only be granted when the operations can be completed on Sunday-morning early. Labourers have to be obtained on a volunteer basis.

Permission to work on Sunday from 0045 hrs. until 2200 hrs. is granted in exceptional cases only.

Official Office Hours at Rotterdam:

Monday – Friday 0900 – 1700 hrs.
Saturday 0900 – 1200 hrs.

Off-Port Notice Clause: In view of the fact that for large vessels a restricted number of berths is available only, such vessels frequently have to wait for a berth outside at sea.

In such cases laytime will count only in case the relevant Charter Party contains a proper off-port notice clause.

Lay-by Berth: In case the off-port notice clause stipulates the use of a lay-by berth, the vessel, in such a berth, should be at the immediate and effective disposition of the charterers.

In order to avoid heavy extra shifting expenses the charter party should stipulate that such a lay-by berth should be situated in that part of the port where the discharge will be actually effected (Europoort or Botlek).

Shifting Expenses: Berths midstream at the buoys in Botlek, Waalhaven and at the dolphins in Rijnhaven and Maashaven are recognised regular discharging berths where bulk cargoes are handled by means of floating equipment.

Disputes about shifting expenses from the buoys, especially when no work has been done there, to the Botlek shore installation can be avoided by stipulating for whose account shifting expenses between "berths" are.

Oil: At the oil refineries of Shell, Texaco, Esso, Kuwait Petroleum Europoort (K.P.E.) and B.P., tankers can discharge continuously, including week-ends without extra charge. This also applies to the Maasvlakte Oil Terminal, Maatschap Europoort Terminal (M.E.T.) and Europak.

The oil storage companies operate around the clock at overtime rates:

Paktank	2nd and 3rd Petroleum Harbour
Matex Nederland	Vlaardingen and 3rd Petroleum Harbour
Panocean	Chemiehaven, Botlek 1st Petroleum Harbour
Tank Terminal Rotterdam	Torontohaven, Botlek

General Cargo: The shift hours are as follows:

Day shift	0730 – 1600
Evening shift	1600 – 0015
Night shift	0000 – 0730

Normal working hours are during the day shifts and the evening shifts on Monday to Friday as well as the day shift on Saturday. Generally, gangs will be allocated on the basis 2 for the day shift and 1 for the evening shift.

For the night shift overtime has to be paid, as well as for work on Sundays and holidays, starting as from the end of the day shift on the preceding day until the beginning of the day shift on the next day.

No work is permitted:

24th December 1600 hrs. – 26th December 0730 hrs.
31st December 1600 hrs. – 1st January 1700 hrs.

Containers: The large container terminals E.C.T. and Unitcentre operate around the clock, week-ends inclusive. No work is permitted: 24th December 1530 hrs. – 26th December 0715 hrs. and 31st December 1530 hrs. – 1st January 1515 hrs.

Agents should be kept closely advised of vessel's position. In view of ordering gangs for next morning/evening Master's final ETA message is required before 1400 hrs. For work on Monday mornings a final ETA is required before Friday 1400 hrs.

MEDICAL: All medical facilities available. Advance notice only in emergency or if attendance required during week-end.

OPENING/CLOSING HATCHES: On liners by stevedores. On tramp vessels by crew; stevedores lift beams.

FRESH WATER: Can be supplied ex-quay at many berths. Where no shore connections are available and at buoys: by waterboat.

Fresh water can also be supplied in the Roads off the Hook of Holland, weather permitting.

FUEL: All types of oil bunkers can be supplied by means of barges or ex-shore installations for tankers. Coasters can take bunkers ex-installation during their inward or outward passage. Advance notice is required for vessels which are only 24 hours or less in port and for bunkering during week-ends.

FIRE PRECAUTIONS: No floating objects are allowed alongside tankers during discharge or loading of dangerous cargoes and during ballasting.

CUSTOMS ALLOWANCES: Spirits: first arrival each month, 5 litres per vessel plus 1 bottle per man. Otherwise, 0.75 litre per man with a max. of 5 litres per vessel. Wine: 5 litres per man.

Each Crew member permitted out of bond 200 cigarettes, or 25 cigars, or 500 gm. tobacco.

GANGWAY/DECK WATCHMEN: Recommended.

CERTIFICATES: Ship's Register and Derat Exemption Certificate.

Tankers bound for a general cargo basin or a shipyard need to have a Gas Free Certificate (issued by a recognised Marine Chemist after inspection), before entering into the basin.

CONSULS: Area code 010

	Street	*Telephone No.*
Belgium	11 Koningin Emmaplein	363633
Bolivia	222 Westblaak	333444
Brazil	45 Stationsplein	119656
Cape Verde Islands	326 Mathenesserlaan	778977
Chile	48e Schiedamsevest	116898
Costa Rica	106 Meent	130320
Cuba	45 Stationsplein	128970
Cyprus	56 Westerstraat	131809
Denmark	27 Westerkade	360440
Dominican Republic	567 s-Gravelandseweg, Schiedam	739444
El Salvador	28 Parklaan	361343
Ethiopia	30 St. Jobsweg	767196

Finland	28 Parklaan	365500
France	57 Eendrachtsweg	116315
Germany F.R.	36 Parklaan	365133
Greece	9 Westplein	365600
Haiti	51 Mecklenburglaan	138937
Honduras	1 Zalmstraat	549911
Iceland	25 Scheepmakershaven	117580
Ireland	23 Willemskade	143322
Italy	24 Eendrachtsweg	139361
Japan	89 Coolsingel	632818
Korea, Rep. of South	2 Scheepsmakershaven	332633
Lebanon	134 Meent World Trade Center	147425
Luxembourg	44 Kraandrijverstraat	845011
Madagascar	46 Schiedamse Vest	122268
Malawi	15 Galvinistraat	894151
Malta	8 Westplein	364088
Morocco	42 Eendrachtweg	143088
Mexico	45 Stationsplein	126084
Monaco	233 Mathenesserlaan	760055
Nepal	160 Gordelweg	656566
Nicaragua	53a Havenstraat	254546
Norway	12 Willemskade	144488
Pakistan	41 Calandstraat	362988
Panama	723 Weena	138512
Paraguay	66 Oostzeedijk	139801
Peru	21 Houtlaan	176600
Philippine Republic	21 Houtlaan	176319
Portugal	18 Willemskade	111540
Spain	19c Delftsestraat	133400
Sweden	6 Westblaak	132835
Switzerland	723 Weena	139535
Syria	50 Westerstraat	148166
Thailand	58 Coolsingel	130866
Tunisia	30 St. Jobsweg	763099
Turkey	67 Eendrachtsweg	132270
United States of America	1 Vlasmarkt	117560
Uruguay	75 Coolsingel	118382

REPAIRS: (Also see "General"). A variety of shipyards and workshops are available for engineering and all types of repairs. Various yards have specialised in the construction of dredgers, ferry boats, offshore equipment, heavy derrick vessels and/or in the jumboizing of vessels.

The largest drydocks in the Rotterdam port area are owned by the following shipyards of the Rhine-Schelde-Verolme group:

Verolme Dock- and Shipbuilding Company	Graving dock 7	500,000 d.w.t.
Wilton-Fijenoord, Schiedam	Graving dock 8	160,000 d.w.t.

Wilton-Fijenoord and Verolme Rozenburg have combined their fleet of tugboats for assistance at the R.S.V. shipyards in the New Waterway area.

If VLCCs with a length of over 270 metres do not have full engine power for manoeuvring or have not made sufficient engine trials after repairs they must be escorted to and/or from the repair yards by two tugboats of sufficient capacity.

The Government Harbour Master (Rijkshavenmeester) must be notified in this respect 12 hours prior to arrival or departure.

Tank cleaning facilities are available.

Voyage repairs are carried out in the entire port area including Botlek and Europoort/Maasvlakte.

Some shipyards are situated beyond the bridges across the river Maas, East of Rotterdam. They can be reached via the Koningshaven, where a traffic and a railway bridge have to be passed.

Max. draft at HW: 21 ft. FW.
LW: 17 ft. FW.

Opening Times of the Koningshaven Bridge:

Open	*Closed*
0032 hrs.	0045 hrs
0159 hrs.	0216 hrs.
0325 hrs.	0342 hrs.*
0435 hrs.	0450 hrs.
0558 hrs.	0618 hrs.
0659 hrs.	0719 hrs.
0940 hrs.	0955 hrs.
1040 hrs.	1100 hrs.*
1240 hrs.	1300 hrs.
1440 hrs.	1500 hrs.
1639 hrs.	1654 hrs.
1840 hrs.	1900 hrs.*
2040 hrs.	2056 hrs.
2240 hrs.	2255 hrs.*

*Also on Sundays.

Boele's Scheepswerven en Machinefabriek B.V., Bolnes: Postal Code 2980 DA, Ridderkerk, Holland. Tel: 0 1804-18555. Cables: Boele, Bolnes. Telex: 20012 Boele Nl.

UK Agents: G. C. Ridley & Co. Ltd., 15 St. Helen's Place, London EC3A 6DH. Tel: 01-588 5125. Telex: 885852.

Docks: 4. Lengths, 184.4 m. × 33.5 m. × 15.3 m.; 175.2 m. × 25.9 m. × 13.41 m.; 160 m. × 23.7 m. × 12.8 m.; 105 m. × 19.25 m. × 14 m.

Extreme Breadth: 41 m., 32.6 m., 30.6 m., 26.4 m. respectively.

Draft over Blocks: 8.4 m., 6.8 m., 7 m., 7.20 m. respectively.

Lifting Capacities: 22,500 tons, 13,000 tons, 11,000 tons, 5,000 tons respectively.

Slipways: 3. Patent electric side-slips, 122 m. long, up to 7,000 d.w.t.

Repair Quays: 8.

Engine Repairs: All types, steam and diesel.

Repair licensees, for Doxford, Gotaverken, Mirrlees Blackstone, Pielstick, Grandi Motori (Fiat) and Sulzer, Burmeister & Wain, Akasaka, Mitsubishi-UE, Kobe Diesel.

D. Van de Wetering B.V.: Bunschotenweg 134, 3089 KC Rotterdam, Holland. Tel: 010-29.62.55 (day and night) Telex: 28122 NL.

U.K. Agents: G. C. Ridley & Co. Ltd., 15 St. Helen's Place, London EC3A 6DH. Tel: 01-588 5125. Telex: 885852.

Engine Repairs: All types.

Specialised work: Port repairs for hulls, deck and electrical equipment. Cleaning and engine repairs.

Other work: After-sales service and spare parts for Daihatsu and Hanshin diesels, Thune Eureka pumps, Pusnes deck machinery. Tanabe compressors, Naniwa pumps, Hitma Crosby safety valves.

DRY DOCKS: Largest dry dock for vessels up to 500,000 d.w.t. with tank cleaning installation for largest vessels. See "Repairs".

REPATRIATION: All arrangements for crew changes and repatriation can be made.

AIRPORT: Rotterdam airport Zestienhoven (distance 6 km.) and Amsterdam airport Schiphol (distance 70 km.) are served by regular airlines.

TIME: During Winter GMT plus 1 hour. During Summer GMT plus 2 hours.

HOLIDAYS: New Year's Day; Easter Monday; Queen's Birthday (30th April); Ascension Day; Whit Monday; Christmas Day (25th December) no work; Boxing Day (26th December).

POLICE/AMBULANCE/FIRE: Police head office tel. 14.31.44; Alarm and accidents tel. 14.14.14; Ambulance tel. 33.33.00; Fire tel. 29.29.29.

TELEPHONES: At major shipyards, oil and grain terminals telephone is placed on board without extra charge.

DEGASSING/CLEANING: Free translation of circular issued 17th April 1973 by the Docks Industry of the Municipality of Rotterdam, reads: Safety requirements in regard to degassing/cleaning of tanks and/or holds on board ocean tanker vessels.

A recent accident during cleaning activities of tanks having contained combustible gases or liquids, poisonous or not, has resulted in the following directives to maintain the safety and to protect the environment in the dock area.

The articles 55 and 56 of the Port Regulations Rotterdam (Municipal Gazette 1971, No. 3) prescribed a written consent of the Port Superintendent for degassing/cleaning. To obtain such a written consent on behalf of an ocean tanker vessel, the Master should apply to the Office of the Port Superintendent, Department of Dangerous Substances, at least 24 hours before the actual cleaning. Conditions may be made in respect of, and amongst other things:

(a) safe cleaning procedure, and

(b) presence of an expert.

To that effect an investigation may be held on board as to a safe rinsing procedure, and relevant subjects, in consultation with the ship's management.

A statement may be demanded from the Master stating whom he charges with the supervision of the activities. From this person expertise is demanded, to the satisfaction of the Port Superintendent. This "Expert" may be a member of the ship's crew, respectively a person to be designated by the Owner (e.g. a laboratory expert). Without the express consent of the Port Superintendent cleaning must not be started.

These measures have become effective at once and are applicable to all ocean tanker vessels, of which the tanks to be cleaned have contained a combustible liquid as its last contents with a flash-point lower than, or equal to, 55° C.

For ships berthed at a shore tank-cleaning station and handled by that company, the cleaning-company concerned shall be liable for a safe treatment and consequently no separate consent shall be required.

In the following summary, the ship's data necessary to obtain a consent has been stated.

The cleaning of tanks, as indicated in this circular, is not permitted without the consent of the Port Superintendent of Rotterdam. Concerning stench-causing substances further directives will be issued.

It will be tried to restrict the delays possibly occurring as a result of this new regulation minimum.

Summary: By "degassing" to be understood: Degassing or ventilating a tankage, steaming or cleaning and the activities related thereto.

Reporting: At least 24 hours before commencement of the cleaning activities the ship (ship's Agent) should make a request by Telex to the Port Superintendent of Rotterdam (Port co-ordinating centre) to obtain a consent pursuant to Art. 55 or 56 Port Regulations.

The following data should be stated when making the application: (1) name ship; (2) nationality; (3) tonnage in g.r.t.; (4) name Agent; (5) berth where cleaning is to be carried out; (6) indication of tanks to be cleaned; (7) correct technical denomination of the last 2 products carried in these tanks; (8) expected time of commencement cleaning; (9) cargo still on board; (10) by whom cleaning will be carried out (ship's own crew respectively name cleaning company); (11) destination slush (remaining on board respectively discharge to . . .).

GENERAL:

Ship Repairing: For repairing (except cold work outside the cargo-area) on board any vessel outside a ship-repair yard permission from the Municipal Harbour Master is required.

Dependent on nature and location of repairs a certificate may be required to be issued by a recognised marine chemist after inspection.

For sea-going tank vessels an application for permission shall be made by telex to the Harbour Master of Rotterdam (Harbour Co-ordinating Centre, Dangerous Goods Department. Telex GEVST 25720), containing the following information:

1. Ship's name.
2. Date of commencement repairs.
3. Duration of repairs.
4. Berth.
5. Nature of repairs.
6. Location of repairs.
7. By whom repairs will be carried out.
8. Any cargo-operations, bunkering etc., during repairs.
9. Cargo on board and stowage.

10. Effect of repairs on ship's manoeuvrability and time and duration of immobilized situation.

The Municipal Dangerous Cargo Department will contact the Harbour-Inspectorate, which organisation is in charge of the National law: cleaning and repairing of tank vessels.

Inspection of International Safety Certificates:

As from January 1st, 1979 Harbour Pilots on board foreign vessels entering the port area of Rotterdam will keep a check on the presence of valid International Safety Certificates according to the "International Convention for the Safety of Life at Sea 1960" and the "International Convention on Loadlines 1966".

This check will be executed on behalf of the State Shipping Inspection to which Harbour-Pilots have to report. The Harbour-Pilots entrusted with this inspection are in the possession of an authorisation provided with photograph issued by the State Shipping Inspection (Scheepvaartinspectie). Should the reporting of a Harbour-Pilot be negative, any measures to be taken will solely remain the task and responsibility of the State Shipping Inspection.

"Off-Port Notice" clause:

Large grain vessels still often have to wait off the port for a berth. For that reason a proper "Off-Port Notice" clause is still recommended in order to avoid loss of time and sometimes heavy shifting expenses.

Control on delivery of cargo:

At Rotterdam, bulk grain cargoes are mainly discharged direct overboard into receivers' barges. Therefore, a careful supervision by an independent control company is recommended so as to make sure that no cargo is delivered to receivers before original Bills of Lading have been presented.

DEVELOPMENTS:

Waalhaven: Pier 6: Unitcentre is to expand its container facilities by building a new berth with length 445 m. and depth 14.15 m. below N.A.P. Work commenced 1988 and will be completed by early 1989.

Botlek: Kramer Container Service have constructed a berth with a depth of 10.65 m. below N.A.P. in Werkhaven. Length of berth 300 m.

Maashaven: Hanno Stevedoring Company have constructed a deep berth on the North side of Maashaven with a length of 350 m. and a depth of 11.65 m. below N.A.P. The berth will be commissioned late 1988.

Maasvlakte: A deepwater bulk cargo terminal is to be built for Frans Swarttouw. Completion expected late 1990. The terminal will handle 250,000 d.w.t. vessels with a draft of 68 ft. Once the deepwater terminal is in operation, the handling of coal and iron-ore at the Botlek Terminal will be discontinued.

ECT: Between 1988 and 1993, ECT will build a new terminal on the Maasvlakte alongside the existing Delta Terminal.

At the new ECT/Sea-Land Delta Terminal, container transport to and from the quayside gantry cranes will be carried out by automated guided vehicles (AGV's). Handling and storage of containers in the yard is furthermore automated through the application of remote controlled rail-mounted gantry cranes.

Major project characteristics:

Total Facility Area:	150 acres.
Quay wall:	3,200 ft.
Max. draft at low water:	44 ft. (achievable depth 55 ft.).
Gantry quay cranes:	8
Yearly throughput capacity:	500,000 containers

SHIPMASTER'S REPORT: November 1981.

On Stores Lists, wines and spirits should be total amounts in litres.

Require 4 Crew Lists, 2 Stores Lists and 2 Crew Declarations. Immigration board and take one Crew List and leave one stamped. Any personnel joining should have their particulars put on the back of this crew list which will be collected by the Agent prior to departure.

Regulations regarding craft coming alongside are very strict. Basically, once discharging, ballasting or gas-freeing operations have commenced then no craft is allowed to come alongside a vessel if its engine is running when it is less than 25 m. from the vessel. Therefore, if bunkering or storing from barges these craft must be alongside before discharge etc., commences.

SHIPMASTER'S REPORT: July 1984.

Agents required us to use Dirkzwager Radio for all communications to them, chandlers and shore authorities. COW permissible but only after inspection by harbour authorities. Berthing Pilot boards around entrance to Europoort.

SHIPMASTER'S REPORT: June 1987.

Moerdijk.

Chart: BA. Chart No. 137.

Documents:

6 copies Crew List.
2 copies Crew Declaration.
2 copies Manifest.
1 copy Health Declaration.
3 copies Crew Manifest.

Anchorage: Vessels use anchorages in the Hook of Holland area.

Pilotage: Pilot normally boards at the Maas Centre Buoy except when there is very poor weather when small vessels that know the area (with hydrocarbons) can proceed inside the Hook of Holland breakwaters and embark the Pilot there.

There is a special Pilot for Dordrecht and Moerdijk.

The average pilotage time to Moerdijk, depending on the state of the tide, is 4 hours.

River Passage: Pilots like to take small vessels up river on automatic pilot. On reaching the Oude Maas bridges, about 30 minutes after Botlek, the Pilot requires a man forward and changes to manual steering.

Berthing: Vessel berthed at Shell Moerdijk at Jetty "T" where there are 4 berths for small vessels. The largest vessel handled is about 20,000 d.w.t. The maximum draft is 9.0 m. (there is a tunnel under the Oude Maas near Dordrecht).

Vessels with a draft of 6.5 m. can navigate at any state of the tide, there is a shoal patch near Moerdijk.

Larger vessels are berthed against flat face of the "T". Ethylene is handled at Berth No. 2 on the "T" flat face and on Berth No. 3 on the inside South part of the "T". Normally vessels berth head in port side to, without the use of tugs. However, should the vessel have to berth starboard side to, a tug is required.

Mooring consisted of 2 head/stern lines and 2 springs. A mooring boat is provided and the fenders are good. Shore gangway provided.

When entering and leaving the pilot has to be very careful that the bow overhang does not hit the Chicksans on Berth No. 3.

Cargo: Vessels discharge ethylene. However, vessels are also able to load at this berth.

If 2 vessels are carrying the same product, only 1 vessel is allowed to discharge at one time.

There is one Chicksan (8 in. 150 ASA) for discharge at both Berths No. 2 and 3. Rate of discharge 80 t.p.h.

Samples are taken about 3 hours after commencement of discharge.

Fresh Water: Fresh water is available on both berths from a hydrant and is metered. The charge is DFL 2.75 per tonne.

General: All services are provided from Rotterdam. A telephone is placed on board but there is no meter. The meter indicating the total charges is at the gate office. Cost of call to UK is DFL 1.20 per minute and to Rotterdam DFL 0.25 per minute.

Vessel used Dirkzwager message agency at Maassluis (Telex 21058 dirknl) for all communications with Pilot and Harbour Authority prior to arrival. This service can also be used for after hours messages to the agent, etc.

There is a lay-by berth available at Shell Moerdijk for small vessels.

Should the vessel be taking on stores, the truck is only allowed as far as the car park which is about 300 m. from the vessel.

The best way to Dordrecht or Rotterdam is by train from Zevenbergen Station. Taxi from the car park to the station costs DFL15.0.

ADD S.T.R.

AUTHORITY: Port of Rotterdam, P.O.Box 6622, 3002 AP Rotterdam. *Tel:* 010-4894120. *Telex:* 23077 (Eurot Nl). *FAX:* 010-4778240. *Cables:* Eurogate. *Contact:* ECZ Department.

SCHEVENINGEN: 52.06 N. 04.16 E. (See Plan)

PILOTAGE: For Pilot service via the Hook Tel: (01740) 38800 and for service via Ijmuiden Tel: (02550) 64500.

MAX. SIZE: Max. draft 4.80 m. (afloat).

VHF: Port Radar Services on Channel 21, Port Operations on Channel 14.

TUGS: Available up to 700 h.p.

BERTHING: First Harbour, depth 6 m.
Second Harbour, depth 4 m.
Third Harbour, depth 6 m. Two Ro/Ro berths available.

FUEL: Available.

FRESH WATER: Available.

REPAIRS: Possible.

POLICE/AMBULANCE/FIRE: Police Tel: (070) 104911. Fire Tel: (070) 490490.

SHIP SUPPLY SERVICE:

Tender Service B.V., Doorniksestraat 7, 2587 XJ 's-Gravenhage.
Rederij Trip B.V., Dr. Lelykade 3, 2583 CL 's-Gravenhage.
G. de Ruiter's Scheepsagenturen, Statenlaan 156, 2582 GX 's-Gravenhage.
Jaczon Offshore B.V., Vissershavenweg 38, 2583 DK 's-Gravenhage.

AUTHORITY: Gemeentelijke Dienst Van Haven – En Marktwezen, Visafslagweg 1, 2583 DM Scheveningen, Netherlands. *Tel:* 070-527700. *Telex:* 33378 Gdhmw Nl. *FAX:* 070-505764. *Contact:* Harbour Master.

SCHIEDAM: 51.54 N. 04.25 E.

DOCUMENTS: See "Rotterdam".

PILOTAGE: See "Rotterdam".

ANCHORAGES: See "Rotterdam".

RESTRICTIONS: See "Rotterdam".

MAX. SIZE: *Wilhelminahaven:* Length 260 m., draft 24 ft.
Wiltonhaven (private): Length 305 m., draft 33 ft.

HEALTH: See "Rotterdam".

RADIO: See "Rotterdam".

VHF: See "Rotterdam".

RADAR: See "Rotterdam".

BERTHING: Offshore facilities operated by Brown & Root B.V. at the Wilhelminahaven. Several berths for all kinds of offshore vessels are available.

H. C. G. Schiedam, Offshore Production Yard, Westfrankelandsedijk, 9, P.O.Box 212, 3100 AE Schiedam. Tel: 010-4264580. Telex: 27188 hcgsc nl. Jetty of 200 m. available, water depth 30 ft., all facilities available.

P.v.d. Kooij Transport, transport and transhipment at Wilhelminahaven. Length of berth 100 m. Tel: 010-4737422.

Yeoman Stone B.V., broken stones; road building/concrete construction. Tel: 010-4270915. Selling – agency Tel: 010-4270949. Berth on North bank of Nieuwe Maas.

J. Soufflet Holland B.V. import French and British cereals for transhipment at Wilhelminahaven. Length of berth 100 m.

CRANES: None.
BULK CARGO FACILITIES: None.
SPECIALISED CARGO HANDLING FACILITIES: None.
BRIDGES: None.
STEVEDORES: None.
MEDICAL: Full hospital facilities available.
DENSITY: 1000.
FRESH WATER: See "Rotterdam".
FUEL: See "Rotterdam".
FIRE PRECAUTIONS: Specific precautions for tankers during repairs at "Wilton-Fijnoord B.V." are according to the Harbour Regulations Schiedam.
REPAIRS/DRY DOCKS: Largest dry dock 1,000 ft. long and a depth of 35 ft. (graving dock). One graving dock 656 ft. in length and 98 ft. wide at entrance with 2 building berths; 2 graving docks each 700 ft. long, 93 ft. wide at entrance, and with a depth of 32 ft.

One of the largest floating docks in Europe – extreme length 760 ft., width at entrance 128 ft., depth on blocks 33 ft.

There are 3 other floating docks with lifting capacities of 3,700 – 12,500 and 21,500 tons respectively.

International Service Center Schiedam. In-harbour repair and maintenance; sea-going repair and maintenance. Pier and workshop facilities in Wilhelminahaven, Schiedam. Tel: 010-4264060.

Stork-Werkspoor Diesel, Service Repair Workshop. Fully equipped for repair and reconditioning of diesel engines and fuel injection components. Berth alongside workshop. Tel: 010-4260055. Telex: 25037.

SURVEYORS: See "Rotterdam".
GANGWAY/DECK WATCHMEN: Not necessary.
CUSTOMS ALLOWANCES: See "Rotterdam".
REPATRIATION: See "Rotterdam".
AIRPORT: Zestienhoven, 6.4 km. (Rotterdam). Schiphol 96 km. (Amsterdam).
POLICE/AMBULANCE/FIRE: Police, Tel: 4260760; Ambulance, Tel: 4333300; Fire, Tel: 4735544.
TELEPHONES: This service is available aboard vessels at all berths at the shipyard.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not required.
AUTHORITY: Municipal Harbour Master, Havenstraat 6, 3115 HD, Schiedam. Postal Address: P.O.Box 79, 3100 AB Schiedam. *Tel:* 010-4622222 (ext. 168-169). *Telex:* 24407 Onsdm Nl. *Contact:* Captain Th. Sabel, Harbour Master.

TERNEUZEN: 51.20 N. 03.50 E. (See Plan)

LOCATION: At mouth of the ship canal from the River Scheldt to Ghent. Lat. 51° 20′ 14″ N., Long. 3° 49′ 39″ E.
DOCUMENTS: Customs clearance takes place in the docks, except vessels bound for Belgium. Clearing of ships comprises the production of a document signed by the Master, accompanied by the following documents in triplicate: Cargo and Crew Manifest, and Stores List. Masters are requested to have Crew List completed beforehand to avoid delay in the lock.

Also see "Rotterdam".

PILOTAGE: Compulsory for all sea-going vessels entering, leaving, and navigating inland waterways. Sea Pilot meets inward vessels at Buoy A1, Lat. 51° 22.00′ N., Long. 2° 53.24′ E. for ships entering by Wielingen Channel; or at Middensteen Bank Buoy, Lat. 51° 39.30′ N., Long. 3° 19.00′ E. for ships entering by the Oostgat Channel.

In Wielingen Channel Belgian and Dutch Pilots available. In Oostgat Channel a Dutch pilot cutter is stationed. Belgian pilot boat carries at the masthead a red flag with a white letter "P", the Dutch pilot boat has a blue flag with a white letter "L". Communicate with pilot cutter by VHF Channel 6.

Also see "Ghent – Pilotage" in Belgium.

Warning: In approaches Masters may encounter fishing boats steaming a parallel course about 300 ft. apart. The net is being towed between the two vessels. If there is danger of fouling the net, the fishing vessels will display by day International Code flag "D", or by night a searchlight from each vessel.

ANCHORAGE: Vessels anchor outside fairway where depth is at least 49 ft. Mud bottom and good holding ground.
RESTRICTIONS: No restrictions on night entry.
MAX. SIZE: Controlling depth 31 ft. 4 in. Keel clearance 3 ft. 0 in. Height of tide 12 ft. to 15 ft. A vessel of max. draft 40 ft. 6 in. can reach Terneuzen in most circumstances.

Ships not exceeding the following dimensions are allowed to pass through West lock and canal: length 256 m., breadth 34 m., draft in fresh water (canal) 12.25 m.

Vessels loading a maximum cargo for Ghent should not exceed 12.25 m. draft.

Also see "Ghent" – "Shipmaster's Report".

Also see "Berthing".

HEALTH: Arriving vessels are only subject to medical examination when arriving from countries where contagious diseases reported or when such cases suspected on board. Medical Officer will board in Terneuzen Roads or Outer Harbour.

RADIO/RADAR: Communicate via Traffic Control Terneuzen on Channel 3 between Buoy Nos. 17 and 35 including the Braakmanhaven West, East and Ferry Harbour.

Radar Control also operates between Buoy Nos. 17 and 35 on Channel 3. 24 hour watch maintained.

Every hour plus 5 minutes a weather-bulletin, navigation reports and warnings are given.

Communicate on the Canal via Traffic Control Terneuzen, Channel 11.

TUGS: Towage not compulsory. Tugs can be ordered from Terneuzen Tugboat Company or Towage and Salvage Union Ltd. respectively by Channel 72 and Channel 32. Both companies maintain continuous listening watch on Channels 3, 6, 11 and 14.
BERTHING: The port has 4 outer harbours: Braakman, West, East and Ferry. The Braakman Harbour is only in use for handling chemical products. There are 2 jetties, also see "Dow Chemical". Braakman Jetty 450 m. in length, max. length of ship 140 m. Ocean Dock 350 m. length, least depth 14.5 m., max. length of ship 275 m. The West Harbour has 2 locks (West and Middle), which is mainly used by sea-going vessels. The East Harbour has 1 lock (East Lock) for inland craft, while the Ferry Harbour (no locks) is used mainly by fishing craft and yachts. Ships not exceeding the following dimensions are allowed to pass through the West Lock and Canal: length 256 m., breadth 34 m., fresh water draft (canal), 12.25 m. East Lock: ships of a length 183 m., breadth 22.80 m., draft 4.0 m. can pass. This lock is used by inland craft. Sea-going vessels with a max. length of 70 m. and a max. draft of 4.0 m. may also pass through the East Lock.

There are 4 harbours on the East bank of the canal situated about 1 mile South of Terneuzen Locks.

Noorderkanaalhaven (Northern Canal Harbour): Length of North Quay, 170 m., max. draft 5.50 m.; South Quay, 192 m., max. draft 5.50 m.; in the middle of the harbour max. draft 7.50 m.

Zuiderkanaalhaven (Southern Canal Harbour): Length of North Quay, 225 m., max. draft 2 m.; South Quay, 230 m., max. draft 5.75 m.; in the middle of the harbour max. draft 8.25 m. and 5 m.

Massagoedhaven (Bulk Harbour): Length of North Quay 504 m., max. draft 12.25 m. and 7.50 m. Length of South Quay 275 m., max. draft 7.50 m.

Zevenaarhaven (Zevenaar Harbour): Length of North Quay 1060 m., max. draft 12.25 m.; South Quay, 790 m., max. draft 8 m., in the middle of the harbour max. draft 12.25 m.

New terminal (August de Meyer B.V.) built by extending Zevenaar Harbour. The basin has been extended by 300 m. and deepened to 13.5 m. to provide accommodation for vessels, up to 65,000 d.w.t. The terminal is equipped with 2 Kangaroo cranes (36 tons capacity), each with a capacity of 440 t.p.h. and fitted with dust-free grabs. The 2 warehouses will have a capacity of 130,000 tons in total.

Sluiskil (sub-port, about 4 miles South of Terneuzen) length of quay, 900 m., max. draft 10 m. to 10.50 m.

Sas van Gent (sub-port, on the canal about 7 miles South of Terneuzen) length of quay, 210 m., max. draft 7.00 m.

There are several sheds and warehouses, total capacity 160,000 sq.ft., also open storage, total capacity, 100,000 sq.ft. Grain silo with a storage capacity of 10,000 tons. Vessels up to 80,000 d.w.t. which for some reason have to anchor outside the piers can do so on the River Scheldt near Buoy No. 27. Ships with max. draft of 40 ft. 6 in. can reach Terneuzen under practically all circumstances.

Cranage: 10 movable cranes of 5 tons capacity; 4 floating cranes, 1×8.5 tons and 3×16 tons; 1 floating derrick of 40 tons. At Sluiskil there are 2 coke-loading plants, 3 cranes of 15 tons and 4 loading bridges. Sas van Gent has 2×5 ton cranes. Water and provisions available.

Container and Ro/Ro Facilities: Ro/Ro Harbour, width 24 m., max. draft 7.25 m. In Zevenaarharbour a Ro/Ro berth for 2 vessels, depth 9 m. and 8.50 m.

Ore and Bulk Cargo Facilities: Available at the Massagoed Harbour.

Dow Chemical: *On the Scheldt River – The Scheldt Jetty:* The Scheldt Jetty provides 1 berth only and is suitable for accommodating vessels, ranging from barge-size up to ocean-going ships with a maximum of 22,500 tonnes deadweight (d.w.t.).

The jetty has no draft limitations and the maximum allowable length of the vessels (LOA) is 200 m. Also see "Product Handling Facilities".

In the Braakman Harbour – The Barge and Coaster Docks: The Barge and Coaster Docks have 3 platforms, providing 5 berths for loading and unloading purposes.

Berth A (East) is for the handling of barges only and excluded for the accommodation of seagoing vessels.

Certain draft limitations as well as size restrictions for the various berths have to be taken into account. See "The Braakman Harbour". For product handling facilities at the Barge and Coaster Docks see "Product Handling Facilities".

In the Braakman Harbour – The Ocean Dock: The Ocean Dock provides 2 berths and is suitable for accommodating vessels, ranging from barge-size up to ocean-going ships with a maximum of 100,000 tonnes deadweight (d.w.t.).

Certain draft limitations as well as size restrictions have to be taken into account, see "Braakman Harbour". For product handling facilities at the Ocean Dock see "Product Handling Facilities".

Berthing: A seagoing vessel calling at the Ocean Dock has to be:

(a) Moored with the bow in N.W. direction. Except as otherwise agreed by the Harbour Master.
(b) Turned away from the Ocean Dock.

A seagoing vessel calling at the Barge and Coaster Dock has to make its turn to starboard unless wind or other circumstances justify a different decision.

Masters must ensure that their vessels remain afloat under all circumstances.

Masters must moor their vessel in such a manner that the berth can be left without delay, unless decided otherwise by, or on behalf of the Harbour Master. At least 1 steel cable must be positioned on both the bow and the stern of the vessel. Each cable must be properly attached and adjusted for easy pick-up by a tug.

General Facilities and Limitations: Bunkering facilities are not available.

Supplies of bunker oils, fresh water or large quantities of stores can be supplied with a barge alongside the vessel. In this case the cargo operations have to be interrupted for the time the barge is alongside. Depending on conditions in the port such operations will as a rule be limited to those vessels for which bunkering on the roads is legally not allowed (LPG vessels).

Bunkering at the berth requires 24 hours' notice and will be co-ordinated by the Loading Master. Limited quantities of stores can be taken on board via the jetties.

If for bunkering or any other reason a barge or boat has to moor alongside a ship, moored on one of the Dow Jetties, the Loading Master has to be informed 24 hours before the operation.

With the permission of the Loading Master it is allowed to transport cylinders with acetylene, nitrogen, helium, hydrogen, freon and oxygen from the jetty on board the moored ships and vice versa. By hoisting the cylinders it is obliged to use the specially made blue hoisting-containers from Dow. The cylinder valves must be protected by the screw-caps.

Slops or ballast water cannot be received.

Tank cleaning of oil or chemical tankers is not permitted alongside the jetties. LPG vessels can be purged. Nitrogen and methane for purging purposes are available.

Vessels, moored at the Dow Jetties, have to comply with the International Ship/Shore Safety Checklist and the additional Dow Marine Safety Regulations.

An intercom set and a telephone will be placed on board immediately after berthing. The intercom is for direct communication with the Loading Master

Charges for the telephone will be made via the ship's Agency. The telephone number of the set placed on board depends on the berth where the vessel is moored.

The following numbers are in use:

A West:	01150 – 72653
A East:	None
B West:	01150 – 72899
B East:	01150 – 72899
C:	01150 – 72679
OD North:	01150 – 73118
OD South:	01150 – 73118
Scheldt Jetty:	01150 – 19637 – 72211

The Braakman Harbour: General lay-out: See "Plan".

It should be noted that given water depths on the plans are valid immediately after dredging. A certain siltation should be taken into account. *The average rate of the siltation is unknown.*

Given water depths are translated to the General Mean Level for the Netherlands (N.A.P.). For the calculation of actual water depths, undermentioned tidal differences should be taken into account.

Tidal differences in metres:
High Water Spring (HWS) +2.7
High Water (HW) +2.0
Mean Level (N.A.P.) ±0.0
Low Water (LW) −2.0
Low Water Spring (LWS) −2.6

Barge and Coaster Docks:
Dock A (West) – Max. size 10,000 d.w.t. Depth 11 m.
Dock A (East) – Barges only. Depth 7.5 m.
Dock B (West) – Max. size 15,000 d.w.t. Depth 11 m.
Dock B (East) – Max. size 8,000 d.w.t. Depth 9.5 m.
Dock C (West) – Max. size 10,000 d.w.t. Depth 11 m.

In addition to the information, given on the Plan, the following "General Directives" should be observed:

For all berths, the overall length of vessels is restricted to a maximum of 140 m.

Berth A (East) is reserved for the accommodation of barges only.

Mooring at Berth B (East) is limited to the port side only.

The Ocean Dock: North and South Berth: Max. d.w.t. 100,000 tonnes. Max. length 275 m. Depth 18.0 m.

In addition to the information, given on the Plans, the following "General Directives" should be observed:

Time of berthing at/or departing from the Ocean Dock depends on tidal conditions and max. d.w.t. or draft of each vessel and will be appointed by the pilotage.

The maximum allowable draft of vessels is determined by the water depth at the Scheldt River Entrance, at Scheur. At present max. draft is at least 43 ft. (approx.). New figures are published every month.

Berthing with ship's bow pointing seaward is compulsory.

Port Regulations: To maintain Order and Safety of Navigation and based on Article 7 of the Port Regulations, the Director of the Port Authority of Terneuzen has announced the following with regard to the Braakman Harbour and the berths, situated therein:

Admittance into the Harbour:

1. The largest admissable lengths and/or widths are for:

Sea-going vessels:	
– in the harbour	: length overall 275 m.
– along the Ocean dock	: length overall 275 m.
– along the B & C docks	: length overall 140 m.
inland craft	: length 140 m.
push barges	: length 185 m. width 22.8 m. An additional length of 8 m. is permitted, provided that the maximum length of the barge does not exceed 153 m. and the pushtug is lashed in the axis of the barge.
lashed barges	: length 110 m. width 22.8 m.

2. It is prohibited to enter the harbour with vessels or boats which:
   a. Do not have to load or unload in the harbour.
   b. Do not have to carry out any work.
   c. Are not equipped with an VHF radio, suitable for transmitting and receiving on Channel 3.

3. Dispensation from measurements and conditions as mentioned above can be granted by the Director of the Port Authority or his Substitute. Dispensation can also be granted by the Harbour Master or his substitute except for the max. admittable length of 275 m. LOA.

Dow Chemical Marine Department can be contacted by VHF radio on Channels 6, 8, 13 and 34. Constant radio watch is kept on Channels 13 and 34.

Traffic Control:

1. Traffic is controlled by the Terneuzen Traffic Control Station. Tel: 01150-95651. (Traffic leader Tel: 01150-12161). Telex: 55482. FAX: 20527. VHF: Channel 3. Call sign: Post Terneuzen.

2. The procedure of "Reporting in Writing" is also compulsory for inland craft, whereby the term of 3 hours also applies for the activities as mentioned below.

Masters of seagoing vessels and inland craft must report by VHF on Channel 3 to Terneuzen Traffic Control Station, call sign "Post Terneuzen", when:

(a) On the Western Scheldt River with destination Braakman Harbour and:

Ascending the river: Entering the radio area "Post Terneuzen" and in the neighbourhood of buoy 22.

Sailing down the river: Entering the radio area "Post Terneuzen" and in the neighbourhood of buoy 22.

(b) Entering or leaving the harbour.
(c) After berthing and before unberthing.
(d) Changing berth.

4. All traffic inside the harbour or harbour entrance is obliged to have VHF radio tuned to Channel 3.

5. If necessitated by weather, or other circumstances, the required number of tug boats will be determined by the Harbour Master.

6. *Seagoing* vessels, having to carry the signals in accordance with Article 22 of the Decree of the Ministry of Transport and Public Works, dated 31/12/1971 Nr.A-5/071054 (Regulations for Dangerous Goods) are not allowed to enter the harbour if the visibility is 500 m. or less.

Inland craft, having to carry the signals in accordance with Article 10 of the Decree of the Ministry of Transport and Public Works, dated 31/12/1971 (Regulations of Dangerous Goods) are not allowed to enter the harbour if the visibility is 500 m. or less.

During approach under the above conditions vessels may be ordered by the Harbour Master, to berth or drop the anchor at a suitable place.

Dispensation from the paragraphs as provided above may be granted by the Harbour Master.

7. Entering and leaving the harbour is prohibited if a red light is shown below the green and red harbour lights.

Mooring:

1. Masters must ensure that their vessels remain afloat under all circumstances.

2. Masters must moor their vessel in such a manner that the berth can be left without delay, unless decided otherwise by, or on behalf of the Harbour Master.

At least 1 steel wire must be positioned on both the bow and the quarter of the ship. Each wire must be properly made fast and adjusted for easy pick-up by a tug.

Pilotage: Pilotage is compulsory for sea-going vessels, entering, leaving or manoeuvring in the harbour.

Dispensation may be granted by the Harbour Master.

Marking:

1. The entrance of the harbour is marked by a fixed green, and a fixed red light on top of piles on West side and East side of the white leading lights.

2. Night and day, the axis of the harbour entrance is marked by 2 synchronous interrupted white leading lights (iso 2 sec.) located on the Southern Harbour Dyke. Bearing is 191°.

3. The green and red harbour lights are located respectively 170 m. and 215 m. from the axis, indicated by the white leading lights.

The minimum width of the harbour entrance on either side of the axis, measured at right angles, is 112 m.

4. Night and day the centre of the turning-basin, West of the Ocean Dock, is indicated by interrupted green leading lights (3 sec. on, 1 sec. off). These lights are located on the Southern Harbour Dyke. Bearing is 211.5°.

5. The centre of the almost circular turning basin lies at the intersection of the green leading lights and the Westward lengthened axis of the Ocean Dock. The radius of the turning basin is 200 m.

6. During fog, 2 sodium fog-lights are lit underneath the green light of the harbour entrance.

One of these fog lights is directed towards the Scheldt River, the other one towards the harbour.

During the night and poor visibility, the piles, marking the harbour entrance are illuminated by floodlights.

7. The shoal in the harbour, extending from the South side of the Barge and Coaster Docks to further Southward is covered by 3 light buoys, located on a water depth of N.A.P. −7.5 m.

Depths:

1. The dredged bottom-depths in the harbour are:

In the Harbour Entrance	: N.A.P − 15 m.
In the Turning Basin	: N.A.P − 16 m.
The Western Berths of the B & C Docks	: N.A.P − 11 m.
B & C Dock Berth B-East	: N.A.P − 9.5 m.
B & C Dock Berth A-East	: N.A.P − 7.5 m.

The above mentioned bottom depths are typical figures and certain deviations as a result of siltation can occur.

2. Information with regard to permitted draft can be obtained from the Harbour Masters' Office or from the Traffic Control Station.

Tugs: A sea-going vessel mooring, or leaving a berth has to be assisted by at least:

(a) 1 tug if the length overall is less than 100 m.

(b) 2 tugs with sufficient power if the overall length exceeds 100 m. unless the vessel is equipped with a functioning bow-thruster when only 1 tug is required.

(c) The number of tugs may be 1 less when leaving Berths B-West or B-East and when moored with the bow to the North.

Assisting tug must be attached to the towing lines on the sea-going vessel.

Loading/Discharging:

Manifold Position:

The manifold position for ships bound for Terneuzen should be:

- about midships.
- 2 m. minimum from rail.
- 1 m. minimum above deck.
- Flange connection 6 in. minimum.

A well supported manifold is required and the space around and above the manifold should be free of obstructions.

Product Handling Facilities and Capabilities:

Marine Loading Equipment: All LPG products are loaded/unloaded at the Barge and Coaster Docks. Butane and propane can also be loaded/unloaded at the Ocean Dock. The following equipment is available:

B & C (A-West): 2 stainles steel loading arms for propane, nominal diameter 6 in., minimum temp. −104°C.

1 carbon steel loading arm for butane and propane, nominal diameter 6 in., with integrated vapour return line, nominal diameter 4 in., minimum temp. −10°C.

B & C (A-East): 1 carbon steel loading arm for butane and propane, nominal diameter 6 in., with integrated vapour return line, nominal diameter 4 in., minimum temp. −10°C.

B & C (B-West): 1 carbon steel loading arm for butane and propane, nominal diameter 8 in., with integrated vapour return line, nominal diameter 4 in., minimum temp. −10°C.

B & C (B-East): 1 carbon steel loading arm for butane and propane, nominal diameter 8 in., with integrated vapour return line, nominal diameter 4 in., minimum temp. −10°C.

B & C (Dock C): 2 stainless steel loading arms for propane, nominal diameter 6 in., minimum temp. −104°C.

O.D. (South): 2 low temperature steel loading arms for butane and propane, nominal diameter 10 in., minimum temp. −50°C.

O.D. (North): 2 low temperature steel loading arms for butane and propane, nominal diameter 12 in., minimum temp. −50°C.

Except for the carbon steel loading arm on Berth A (West and East), all other arms are equipped with an emergency shut-off/disconnecting device and a fire fighting nozzle, directed on the ship's cargo line manifold.

On the Braakman Jetty a C-4 vaporiser and booster pump are available for C-4 unloading from barges which do not have own discharge facilities.

Propane can be unloaded with this booster-pump as well.

Nitrogen or methane supply from shore is necessary to produce enough over-pressure in the ship tanks, when unloading C3's.

Purging:

Purging of LPG vessels with nitrogen or methane can be carried out at the Barge and Coaster Docks. Maximum delivery rate of nitrogen is 2,000 N cu.m./hr., methane 1,800 N cu.m./hr.

Nitrogen can be heated to a temperature of +70°C to increase the drying effect of the vessel's cargo tanks which were waterwashed prior to the purge. Prior to loading LPG, vessels must meet the requirements as laid down in the "Guidelines for Cargotank Condition".

Conditions for Unloading Propane and Butane:

All refrigerated propane and butane vessels should arrive with tanks over-pressure not exceeding 60 mb. to achieve maximum discharge rates.

Unloading of propane and butane is without vapour return.

Transfer Capabilities:

Discharge rates for refrigerated propane and butane are about 1,100 cu.m./hr.

Loading rates for refrigerated propane and butane are about 800 cu.m./hr.

Loading rates for pressurised propane and butane are about 250 cu.m./hr.

Storage:

Butane and propane are stored in refrigerated and pressurised tanks and loaded/unloaded at either ambient temperature or refrigerated. Refrigerated propane delivery is at −38°C and butane delivery is at −5°C.

LPG Storage Tanks:

2×50,000 cu.m. propane/butane fully refrigerated.
1×15,000 cu.m. butane fully refrigerated.
1×5,000 cu.m. butane pressurised.
2×3,000 cu.m. propane/butane pressurised.

Ventmasts must have clearly marked purge connections for either steam or nitrogen.

The vessel must have updated cargo-piping diagrams on board. Copies of drawings must be submitted to Dow on request.

Inspection – Visual Inspection:

Cargo tanks, pumps and refrigeration plants shall be easily accessible for inspection, and crew will upon request open the blinds, valves, drums, etc., as appropriate in accordance with vessel's safety practices.

Cargo Transfer Operations:

Loading or unloading will not start until the appropriate safety and operating procedures have been communicated by the Loading Master to the responsible ship's officer. The vessel must be securely moored alongside the jetty. If requested by the Loading Master additional mooring lines should be attached.

The Loading Master must be informed about the true set pressure of the cargo tank safety valves.

Non-used line ends must be blanked off. All bolt holes must be filled at all pipe connections.

Gas detection on board must be in good order. The Master must permit testing upon request. Master must allow the installation of additional shore gas detectors on deck during loading/unloading operations.

In case of inerted tanks and/or void-spaces, the Master is fully responsible for the necessary warning tags.

If a sprinkler test is requested by the Loading Master or Government Representatives, this must be permitted. If an ESD test is requested by the Loading Master or Government Representatives, this must also be permitted. Upon request the Master must state the valve closure time of his ESD system, to assure safe transfer at short ESD valve closing times. Dow reserves the right to the product transfer rates in order to keep the pressure, as a result of an activated ESD system, below the safety valve settings at no cost to Dow.

Pneumatic ESD connections for shore connections must be clearly marked.

(ESD = Emergency Shut Down.)

At the berth, the venting of gas through ventstacks is not permitted.

Upon request of the Loading Master, cargo pumps must be checked for proper functioning. Leakage of gas must not exceed a concentration of 30% LEL outside a circle of 25 cm. If the vessel's cargo compressors have to be used for loading or unloading operations, they will be tested as well. The Master must give full co-operation for these tests.

Safety:

1. Fire/emergency: In case of Fire/emergency (including personal accidents).

(a.) Inform jetty operator.

(b.) Dial 94982, report name, position, emergency situation and required help.

2. Communication: Ship to jetty and Marine office by means of portable telephone or intercom on board. Telephone: dial 18920, ext. 2563 Marine office, ext. 3165 Loading Master.

3. Use of intercom: Push button and call operator or office. Release button and wait. Always mention your ship's name. (If there are more ships alongside).

4. Emergency shutdown: Loading: To prevent overloading of ship's tanks and emergency shutdown can be carried out on deck by means of "the emergency shutdown switch" after which the shore-valve will immediately close.

5. Fire on board: Stop loading/unloading operations. Inform shore personnel.

6. Fire ashore or on other vessels: Stop loading/unloading operations. Make ship ready for departure. Wait for instructions.

7. Supervision: At all times during loading/unloading operations, adequate supervision must be carried out on deck and in the cargo-control room.

8. Tank cleaning: Tank cleaning or gas venting into the atmosphere alongside the jetty is strictly prohibited.

9. Deballasting: No deballasting of cargo tanks is allowed without permission of the Loading Master or his representative.

10. After loading: The loading arm will be blown with Nitrogen under pressure. You will receive approximately 3 cu.m. more.

Alarm signals: (Every Monday at 1200 hrs. there is an alarm test). Sounding of following signals:

Attention: 5 3 5 3 5 3 seconds: Stop cargo transfer, wait for instructions.

Evacuation: 1 1 1 1 1 1 seconds: Prepare ship for departure.

All clear: 20 seconds: Recommence operations (contact jetty operator). In case of loading: Loading will be stopped from: Ship/shore.

MEDICAL: Two modern hospitals available.

TANKERS: Slop tanker available. Also see "Berthing" – Dow Chemical.

FRESH WATER: Available from water barge.

FUEL: Fuel oil and lubricating oil available from lighter or tanker barge. Bunker coal available by prior arrangement.

GANGWAY/DECK WATCHMEN: Available. Tariff increase 100% on Sundays and holidays.

OPENING/CLOSING HATCHES: Can be effected by crew or stevedores.

CUSTOMS ALLOWANCES: See "Rotterdam".

IDENTIFICATION CARDS: Not required.

CONSULS: Belgium, France, Finland, Norway and Spain.

REPAIRS: Terneuzen Shipbuilding Yard situated at junction of East and West Canal branches. Able carry out hull and engine repairs. Floating cranes and diving equipment available.

SURVEYORS: See "Flushing" or "Rotterdam".

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: See "Rotterdam".

SERVICES: Repairs of radio, radar, etc., can be effected.

BANKS: Amsterdam-Rotterdam Bank, Herengracht 15, 4531 GM Terneuzen. Tel: 94041. Telex: 55249.

Raiffeisen-Boerenleenbank, Herengracht 1, 4531 GM Terneuzen. Tel: 94651. Telex: 55260.

Algemene Bank Nederland, Herengracht 11, 4531 GM Terneuzen. Tel: 95051. Telex: 55429.

EMERGENCY CO-ORDINATION CENTRE: Harbour-Control Terneuzen continuous watch on VHF Channel 11. Tel: 12161. Telex: 55482.

STORING: Vessels can be stored by barge and truck. At Braakman Harbour only with special permission of Dow Chemical Company, and not during loading and discharging. Trucks can proceed alongside at the berth except at Braakman Harbour. Approximate distance from truck to ship at Braakman Harbour, about 300 m.

At Braakman Harbour, no forklift trucks can be used to handle stores.

For Customs Regulations, see "Rotterdam".

Local Riggers can be employed to assist with storing.

SHORE LEAVE: Allowed.

DEVELOPMENTS: Plans made to widen and deepen Outer Harbour.

SHIPMASTER'S REPORT: May 1988.
Chart: B.A. Chart No. 120.
Pilot: Vessels arriving from the West take Pilot at Wandelaar "A1" Buoy. Pilot on VHF Channel 6 and Telex No. 4682125.

If vessel arriving from the North, Pilot is taken at Steenbank. Pilot on VHF Channel 6 and Telex No. 4437811.

Gas ships with tank capacity over 1,500 cu.m., passage has to be via Schooneveld. If under 1,500 cu.m. the inside route via Oostgat can be used.

Under normal circumstances the Pilot taking the vessel to Terneuzen will also berth the vessel.

Anchorage: Vessels with dangerous cargo awaiting a berth at Terneuzen should anchor at Wielingen North Anchorage which is 3 miles West of Flushing, depth of water 7 fathoms.

Flushing Control monitors VHF Channel 61.

Everingen anchorage, off Terneuzen, may be used for bunkers and repairs only. Loaded gas ships cannot wait at this anchorage.

If vessel awaiting orders she should stay to the North of "A1" Buoy.

Tugs: If berthing at Dow Chemical, vessels up to 100 m. LOA require 1 tug and if over 100 m. LOA, 2 tugs are required. We used 1 tug aft with the tug's line but the tug was too powerful for a small vessel.

Berths: For gas ships there are 4 berths available. These berths are both sides of Berth A and the West side only of Berths B and C. Vessels head North at all berths. Shore gangway used at all berths and the fendering was good. Depth alongside at low water 8.5 m.

Pilots advise that the maximum permissible draft at Ocean Pier is 14 m. and at any tide 10 m.

Cargo: Shore capacity for ethylene is 10,000 tonnes. Normal production 200 tonnes per day. Ethylene is normally exported from Terneuzen but at present there are problems with the production plant.

At present the shore reliquefaction plant is not working at full capacity and this is restricting discharge rate.

For handling of ethylene a 6 in. arm and a 4 in. vapour return line are used. Hot gas blown from ship on completion.

Berth C handles ethylene, propane, styrene, cumene, naphtha, resin oil and aromatic oil. Discharge rate for ethylene is 111 t.p.h. It takes about 3 hours for samples.

General: At present the maximum draft to Antwerp is 50 ft. if using 2 tides and 48 ft. if proceeding on 1 tide.

Fresh water is not available at Dow Chemical berths. Fresh water is provided by barge from Terneuzen.

Whilst at Flushing Anchorage, Ostend Radio is best for public correspondence, vessels can also use PCH. If anchored off Terneuzen it is best to use Antwerp Radio.

Barges with stores may proceed alongside before discharging, whilst sampling or after discharge. Stores can also be brought down the jetty with the aid of shore trolleys and crane. Bunkers may only be taken after completion of discharge.

Officials: Customs and Immigration board on arrival at the Berth. There was also an immigration check whilst at anchor off Flushing as the vessel had Eastern Block crew.

AUTHORITY: Havenschap Terneuzen, Maritiem District Scheldemond, Buitenhaven 1, P.O.Box 1033, 4530 GA Terneuzen. *Tel:* 01150-95651. *Telex:* 55494. *Contact:* H.D.J. Wolfensberger, Harbour Master.

VLAARDINGEN: 51.54 N. 04.20 E.

On the Waterway about 5 miles from Rotterdam.
DOCUMENTS: See "Rotterdam".
PILOTAGE: Harbour Pilots are always available.
VHF: Port Authority on Channel 20.
TUGS: Available.
BERTHING: *Old Harbour (Municipal):* Berths No. 656-660 and 701-705. For tugs and inland craft. Depth at entrance 10 ft. at LW. Total length of quay 2,000 m.

Koningin Wilhelmina Harbour (Municipal): Berths No. 634-653. Depth 12 to 17 ft. at LW. Length of quay 1,300 m.

Vulcaan Harbour (Private): Berths No. 601-620. Suitable for vessels up to a draft of 10 m. (33 ft.) at LW. Stevedoring by: Frans Swarttouw's Havenbedrijf.

Length of quay for cargo-handling: 750 m. Phosphate loading jetty (on riverside) for barges 140 m. 3 electric 16-ton cranes, 3 electric 6-ton cranes and two 5-ton mobile-cranes. Belt conveyors on phosphate jetty. Large shed with a capacity of 30,000 tons and 6 storage tanks with a total capacity of 90,000 tons for various bulk cargoes.

Nieuwe Matex Wharves (Private): Berths No. 622-633. 3 berths for sea-going vessels on riverside up to 35 ft. draft at LW. Several berths for barges and coasters on inner side of jetty up to 22 ft. draft.

Large tank installation; bonded warehouses. 424 storage tanks (total) capacity 450,000 cu.m. for vegetable and mineral oils, molasses, latex and chemicals.

Lensveld Wharf (Private): Berth No. 654. For general cargo and timber, max. draft 14 ft. at LW.

Lever-Sunlight Jetty (Private): Berth No. 712. Jetty 75 m. max. draft 10 ft. at LW. (no harbour dues).

N.V. Van Neerbos Ind. en Handel My. Jetty (Private): Berth No. 715. Length of jetty 70 m., max. draft 10 ft. at LW. 1 electric 3-ton crane.

Mosbert Absorbents Jetty (Private): Berth No. 716. Max. draft 20 ft. at LW.

Windmill Holland Fertiliser Works Harbour (Private): Berths No. 731-744. Length of harbour 300 m. max., draft 11 ft. to 14 ft. at LW. Two jetties on riverside: Phosphate discharging jetty, max. draft 16 ft. and acid discharging jetty, max. draft 23 ft. at LW. Harbour dues by arrangement.

FRESH WATER: Available by barge.
FUEL: Available by barge.
REPAIRS: *Ship Repair Yard "Vlaardingen Oost":* All kinds of repairs undertaken. Outfitting quay of 1,100 ft. length. Anchor and chain factory.
Machinefabriek Kreber: Builders and repairers of boilers, engines and various kinds of dredgers.
SURVEYORS: Saybolt Cargo Inspectors available at Vlaardingen, others (Caleb Brett, Bureau Verwey, etc.) at Rotterdam.

Lloyd's Register, American Bureau, Bureau Veritas and Det Norske Veritas Surveyors available at Rotterdam.

DRY DOCKS: Three dry docks (capacity 3,500, 4,200 and 5,300 tons) and one broadside slipway of 400 ft. (capacity 3,500 tons) in Vulcaan Harbour (Western part).
AIRPORT: Rotterdam Airport (designed for international short and medium haul air traffic) lies at a distance of 10 km. from the Vlaardingen port area.
EMERGENCY CO-ORDINATION CENTRE: Alarmcentrale Politie. Tel: 434 44 44. VHF Channel 11 (Port of Rotterdam).
AUTHORITY: Port of Vlaardingen, Gemeentewerken, Hoflaan 27, P.O.Box 141, 3130 AC Vlaardingen, Netherlands. *Tel:* 010 – 4608333/4342370. *Telex:* 27245. *Contact:* Mr. S. van Berge, Harbour Master.

YMUIDEN (Ijmuiden): 52.28 N. 04.34 E. (See Plan)

Also refer to "Amsterdam".

DOCUMENTS:
2 Personal Effects Lists.
2 Stores Lists.
3 Crew Lists.
3 Passenger Lists.
Declaration of Health.

PILOTAGE: On entering and leaving Ymuiden Government pilotage is compulsory. Pilots will board ships at sea, being transported from shore to the pilot boarding position by means of a sea-going tender. The boarding position is in the vicinity of the outer buoy.

In order to avoid delay, Masters, who require a Pilot must advise their ETA not less than 4 hours in advance to "Traffic Centre Ymuiden". This advice must be amended, if vessel's ETA changes more than 2 hours from the original advice.

The text of the message must contain:
a. The word "ETA-Pilot".
b. Expected time arrival (group of 4 figures) in middle European time.
c. Draft with indication of unit applied.
d. Port of destination.

"Traffic Centre Ymuiden" can be informed via Scheveningen Radio or via VHF Channel 12. Pilotage and navigation are possible at night.

Pilot Ladders: Pilots strictly adhere to Regulation 17b, Chapter V of the International Convention for the Safety of Life at Sea, which reads as follows:

"Whenever the distance from sea level to the point of access to the ship is more than 30 ft. (9 m.), access from the pilot ladder to the ship shall be by means of an accommodation ladder or by another equally safe and convenient means".

Pilot from Helicopter: When the pilot service per pilot tender has been suspended owing to weather conditions it is possible to take a Pilot on board vessels by helicopter. Helicopter pilotage is carried out for vessels which have an obstacle free hoisting area on deck of minimum 15 ft. in diameter. Deck plans should be provided in advance.

Vessels over 45 ft. draft always take helicopter pilotage.

Helicopter rates:
Dfl. 5,045. – per flying hour/pro rata exclusive fuel costs.
Dfl. 305. – per hoist transfer.
Dfl. 432. – Additional charge per flying hour from 1800 until 0600 hrs. and on Saturdays, Sundays and Dutch public holidays.

A variable fee per flying hour for fuel consumption fluctuating monthly.

Restrictions
1. Minimum visibility 800 m. at 150 ft. above sea level.
2. Maximum wind Force 10 (55 knots).
3. Severe turbulence and icing conditions.

Remote Pilotage (RP): During periods that pilot service is suspended for (small) vessels, shipping approaching Ymuiden can obtain the information and advice of a pilot at the Port Operation Centre, under the following conditions and provisions:
1. RP is for shipping for which pilotage is compulsory and vessels which voluntarily wish to make use of the service of a pilot.
2. RP will only be provided when it is impossible to board a vessel because of the weather conditions or for other reasons.
3. The Master explicitly announces that he wishes to approach the harbour using RP and that there is no objection to this under the terms of the access policy conducted.
4. The Master is obliged to take the pilot on board between the breakwaters.

ANCHORAGE: Vessels may anchor off Ymuiden outside the breakwaters.
APPROACHES: In September 1985 the approach channel "IJ-geul" was officially opened for navigation for ships with a draft of up to 54 ft. (16.5 m.). The channel leads to the Port of Ymuiden. Until recently this channel was only navigable for ships with a draft of up to 45 ft.

Approach Channel "IJ-geul": The newly deepened navigation channel, officially known as the IJ-geul, has a width of 450 m. and is 21 km. long, when measured up to the piers at Ymuiden. The section of the channel within the piers is 4 km. long, and it is considerably narrower at some places.

Navigation: A number of measures have been taken to ensure a safe passage through the navigation channel. Ships which, due to their draft, need to use the new channel are obliged to take a Pilot on board. In other words it is prohibited to enter the channel without a Pilot. The Pilot boards the ship from a helicopter about 45 km. from the coast or is taken off at the Hook of Holland.

The deep draft ships can only sail in during a certain period of the tide (approx. 3 hours after flood-tide). Certain conditions (excessively high waves) can lead to a temporary closure of the channel. A special system has been developed to recognise and to forecast these conditions. A navigation plan that takes account of the water level prediction, weather and wave height forecasts and the draft of the ship in question is prepared and relayed to the Pilot. The conditions are continuously monitored and, if necessary, the plan is adjusted. Use is also made of a portable Decca receiver, which the Pilot takes on board with him. These portable receivers make use of more than the 2 customary transmitting stations, which means a considerable improvement in the determining of position – and as a consequence – improved navigation. Furthermore, these receivers are specially adapted to the situation at Ymuiden. Altogether this means that the Pilot can ascertain the position of the ship quite accurately, even at night or in fog, which leads to considerable improvement in safety.

A circular emergency anchorage area has been planned with a diameter of 1,600 m. about 10 km. from the pier. This emergency anchorage area is desirable because, should a disaster occur, the harbour mouth could suddenly become obstructed, preventing the ships in the channel from entering, whilst they would be unable to retrace their course back due to the approaching ebb-tide.

RESTRICTIONS/MAX. SIZE: All drafts listed below have been calculated in salt water with a specific gravity of 1.026.

Maximum Dimensions of Vessels: The approach channel to the port mouth of Ymuiden (IJ-geul) and the fairway in the Outer Harbour of Ymuiden via the Northern fairway to the Outer Quay No. 2 of Hoogovens is accessible for vessels with a maximum draft of 54 ft. in salt water. The maximum length of a vessel with a draft of 54 ft. that must swing is 300 m. Before vessels with a length of 250 m. – 300 m. and a draft of 49 ft. 3 in. can swing, consultation should be made as to the time of the swing manoeuvre in connection with the water level. Maximum draft of vessels longer than 300 m. to a maximum length of 350 m., that must swing, is 39 ft. 9 in. Ships with a draft of more than 45 ft. must remain in the channel and therefore should, when making a sailing plan, report at least 48 hours before entering Dutch waters.

In addition to the above mentioned report vessels restricted to the channel should report at least 24 hours before passing the Western border of the approach area. This approach area is located between the co-ordinates:

Lat. 52° 31′ 47″ N., Long. 3° 48′ 29″ E. and
Lat. 52° 27′ 25″ N., Long. 3° 41′ 20″ E.

This report should be corrected if there is more than 1 hour deviation, and should in any case be repeated at least 6 hours before arrival at the approach area.

Maximum dimensions for the North Sea Canal via the Northern fairway and the Northern Lock.

1. *Without a Licence:*
   Length: 325 m.
   Beam: 42 m.
   Draft: 131 dm. (43 ft.)
2. *With Licence:*
   Beam: 45 m.
   Draft: 137 dm. (45 ft.)

Note: Should the beam exceed 43 m., restrictions will apply regarding the maximum permitted draft. Applications of such a licence are judged on basis tentatively fixed criteria per case.

Licences to exceed the maximum permitted draft and/or beam, to sail with an irregular transport should be applied for at least 7 days in advance.

Address: Directorate-General Shipping and Maritime Affairs, Head Traffic Service, Postbox 121, 1970 AC Ymuiden. Telex: 71169 HOCYM NL. FAX: 02550-35144.

HEALTH: Pratique granted automatically on arrival after completion of Maritime Declaration of Health. In case of suspected disease on board notify Agent by radio before arrival advising full details.

RADIO: *Obo-Carriers:* Masters of this type of vessel must, when calling to load and/or discharge dry cargo, cable at least 24 hours prior to arrival, the following information:

1. That vessel has no slops on board and is certified gas free or alternatively;
2. a. Correct name of liquid cargo carried last, with place and date of discharge.
   b. Stowage of cargo remnants (gases and/or liquids) and whether mixed with water or not.
   c. Whether non-gas free spaces are adjacent to dry cargo holds and if so, which holds.
   d. Which spaces contain inert gas.

RADAR/VHF: The port is equipped with a shore based radar installation to facilitate navigation if necessary. Ymuiden has a VHF installation and Masters of vessels entering or leaving the port area are strongly recommended to contact the Port Operations Centre (callsign – Ymuiden Port Control) by VHF to obtain information for safe navigation and rapid locking.

New Maritime Traffic Control Centre in operation.

VHF Channels:

- In the approach area to Ymuiden seawards from the outer buoy: Channel 2 (Traffic Centre Ymuiden).
- From the outer buoy to the locks: Channel 9 (Ymuiden Port Control).
- On the North Sea Canal from the locks to kilometre 12.4: Channel 11 (Traffic Service North Sea Canal).
- On the North Sea Canal Eastwards at kilometre 12.4: Channel 14 (Traffic Service North Sea Canal).
- In the Port of Amsterdam: Channel 14.

TUGS: Available. Meet vessel in harbour entrance if required.

BERTHING: Steelworks Harbour (Private): Coal and ore cargoes discharged to Blast Furnace and Steel Works Company in Outer Harbour.

Quay 1: Length of quay: 1,360 ft. Depth alongside quay: 29 ft. 6 in. LLWS.

Opposite the quay there are 3 dolphins available where one vessel can wait for a loading/discharging berth (up to 34 ft. depth).

Equipment:
2 cranes, lifting capacity 30 tons, max. outreach 57 ft.
1 crane, lifting capacity 30 tons, max. outreach 63 ft.

Finished products such as rolling mill products, pig-iron, cast iron, steel ingots, slabs and coils are handled.

Supplies: Water obtainable from quay. Stores can be delivered by truck, bunkers by barge.

Quay 2: Length of quay: 1,800 ft. Depth alongside quay: 45 ft. (East) and 52 ft. (West) at LLWS.

Max. draft: The entrance to Outer Harbour is accessible to vessels up to 43 ft. draft and with special permission of the Harbour Authorities up to 45 ft. draft salt water.

Equipment:
3 bridge cranes, lifting capacity 40 tons each, max. outreach 115 ft.
2 conveyor belt systems (capacity 6,000 t.p.h.).

Despatch:
About 60,000 tons iron ore per 24 hours. About 50,000 tons coal per 24 hours.

Supplies: Water obtainable from quay. Stores can be delivered by truck, bunkers by barge.

Quay 3: Length of quay: 825 ft. Depth alongside quay: 31 ft. 6 in. LLWS. With special permission of the harbour authorities, max. sailing draft 34 ft. West of the quay are 4 dolphins available where a vessel can wait for a loading/discharging berth (up to 31 ft. 6 in. draft).

Equipment: 2 cranes with a capacity of 60 tons each. Outreach 70 ft.

Inner Harbours: These harbours are mainly used for loading or discharging smaller vessels having drafts between 11 ft. and 20 ft.

Finished products such as rolling mill products, pig-iron, cast iron, steel ingots, slabs, coils but also fertilisers are handled.

CRANES: Inner Harbour No. 1 – 1 portal crane.
Inner Harbour No. 2 – 1×7.5 ton portal crane.
Inner Harbour No. 3 – 3×30 ton portal cranes.

STEVEDORES: *Working Hours:* In the Outer Harbours round the clock, also on Sundays and holidays.

In the Inner Harbour round the clock except from 1400 hrs. on Saturdays until 0600 hrs. on Monday.

FRESH WATER: Available from quay.

FUEL: Available by barge.

MEDICAL: Doctors, hospital and all services available.

REPAIRS: Possible.

DRY DOCKS: None.

CUSTOMS ALLOWANCES: 200 cigarettes for each crew member; 5 litres spirits for whole ship.

CONSULS: And all general information; refer to "Amsterdam".

AUTHORITY: Directorate General of Shipping and Maritime Affairs, Head of Traffic Service, Postbos 121, 1970 AC Ymuiden. *Tel:* 02550-34542. *FAX:* 02550-35144. *Telex:* 71169 HOCYM NL.

ZAANDAM (Zaanstad): 52.26 N. 04.49 E. (See Plan)

LOCATION: Zaandam lies on the Northern side of the North Sea Canal, near to Amsterdam. See "North Sea Canal" and "Amsterdam" plans. The Port of Zaanstad is divided into two parts by "Wilhelmina" sluice, the outer harbour being for large vessels and the inner harbour for coasters, etc.

PORT LIMITS: A line drawn from the Western side of Nieuwe Zeehaven entrance to the Eastern side of Zijkanaal "G" entrance defines the port limits.

DOCUMENTS: IMO crew list, IMO fal form 5, other Customs papers to be supplied by Agents.

PILOTAGE: Procedure, etc. same as for Amsterdam. Not compulsory, but recommended. Pilot will take vessels all the way to Zaanstad. Amsterdam Harbour Service should be notified on VHF Channel 14 of vessel's intentions, they will arrange for Zaanstad Harbour Service vessel to meet the vessel at the entrance to Zijkanaal "G" and direct it to its berth. When a vessel is leaving for sea, notice should be given to the Sluice Command via VHF Channel 11.

ANCHORAGE: It is prohibited to anchor in the port of Zaanstad.

RESTRICTIONS: Vessels with dangerous cargoes will not be handled at night.

All Zaandam harbours have direct unrestricted connection with the North Sea Canal.

LOCKS: Wilhelmina Sluice is 116.8 m. long, 12 m. wide and has a depth of 2.80 m.

MAX. SIZE: Max. draft 9.0 m.

HEALTH: Same as Ymuiden.

RADIO: Scheveningen Radio.

VHF: Wilhelmina Sluice – Channel 20. Alexander Bridge – Channel 20.

RADAR: No port radar service.

TUGS: Available.

BERTHING: (Docks)

Isaac Baarthaven: Length 900 m., width 70 m., depth 9 m. Quayage 370 m., with depths of 5 m. – 9 m. alongside. Ro/Ro quay available.

Dirk Metselaarhaven: Length 600 m., width 112 m., depth 10 m. Quayage 180 m., for transshipping liquids only (Private).

NOTES

Please also advise Shipping Guides Ltd.

Zijkanaal E: Length 400 m., width 45 m. depth 7 m. Quayage 40 m., for transhipping only.
Old Timber Harbour:
Quay length 230 m., Depth 9 m.
Quay length 300 m., Depth 5 m. – 9 m.
Havenstraat, 4 Dolphins, 170 m. Depth 5 m.
Quayage, Pont-south, 90 m., Depth 5 m.
Quayage, Pont-north, 90 m., Depth 8 m.
Slipways only for small ships.
4 Ro-Ro berths, Width approximately 20 m. each, depth 9 m.
Nieuwe Zeehaven: Length 700 m., Width 130 m., Depth 9 m. Vessels up to 9 m. draft can berth. No bridges and no locks.
CRANES: Mobile cranes only.
BULK CARGO FACILITIES: None.
SPECIALISED CARGO HANDLING FACILITIES: Ro/Ro vessels can be discharged in Oude Haven and Isaac Baarthaven.
STEVEDORES: *Working Hours:* Monday – Friday 0600 – 2130 hrs.
Overtime possible from 2130 – 0600 hrs. and Saturday and Sunday.
MEDICAL: Full hospital facilities available without prior notice. Tel. 075-502911.
DENSITY: 1015.
FRESH WATER: Available.
FUEL: Arranged from Amsterdam.
REPAIRS: Possible.
DRY DOCKS: At Amsterdam, and Zaandam (Max. 90 m.).
CONSULS: Ghana, Tel: 075-351631.
All others at Amsterdam (20 km.).
REPATRIATION: Possible.
AIRPORT: Schiphol Airport (Amsterdam) 20 km.
POLICE/AMBULANCE/FIRE: Tel: 075-32 32 32.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: Port holidays similar to major Dutch ports, plus 2 extra holidays (Whit Tuesday and 1st May).
GENERAL: *Dirty Ballast:* Facilities available at Amsterdam.
Provisions: Available locally.
Chart: No. 124.
Prevailing Wind: Westerly.
AUTHORITY: Municipality of Zaanstad, Westkade 2, 1506 BA Zaandam, Netherlands. *Tel:* 075-512888. *Contact:* P.C.C. Majoor, Harbour Director. (Tel. 075-512526, 0600 hrs. – 2100 hrs.).

Netherlands Antilles

BARCADERA, Aruba: 12.29 N. 70.00 W. (See Plan)

LOCATION: The industrial harbour of Aruba is situated 3 miles S.E. of Oranjestad.
DOCUMENTS: Documents and all general information, refer to "Oranjestad".
PILOTAGE: Compulsory.
RESTRICTIONS: Harbour open day and night. Depth of water in entrance is 36 ft. Depth of water alongside is 31 ft. Swinging basin width 1,000 ft.
MAX. SIZE: Max. LOA 185 m., max. draft 31 ft.
TUGS: Available.
BERTHING: 1,150 ft. of dockside accommodation.
FRESH WATER: Not available.
FUEL: Can be supplied.
AUTHORITY: See "Oranjestad".

BONAIRE TERMINAL (Brasil): 12.13 N. 68.23 W. (See Plan)

OPERATORS: Bonaire Petroleum Corporation N.V. Terminal is capable of handling all types of crude oil and heavy oils (bunker C and residual fuels). Heated and non-heated storage tanks are available for storage, blending and transhipment.
LOCATION: No. 1 Jetty is situated on the South coast of the Northern portion of the Island of Bonaire in Lat. 12° 13′ 12.9″ N., Long. 68° 23′ 17.2″ W.
DOCUMENTS:
5 Crew Lists.
2 Stores List.
2 Lists of Personal Effects of Crew.
5 Medicine and Drugs Lists.
1 Vaccination List.
PILOTAGE: Compulsory. The Pilot-Berthing Master will board the vessel at the established arrival point in Lat. 12° 10′ N., Long. 68° 25′ W., which is 2.5 miles, 235° True from No. 1 Jetty.

The Pilot will embark from one of the tugs or launches assigned to assist the vessel in the berthing operation. The Pilot will assist the Master in every way possible to manoeuvre the vessel from the arrival point into the berth with the assistance of 2, or in case of a VLCC/ ULCC 3 to 4 tugs and utilising the services of 1 mooring launch to run mooring lines from the vessel to the mooring dolphins.
ANCHORAGE: There is no anchorage area at Bonaire for tankers; therefore, if the berth is occupied, vessels will be appropriately instructed to remain within radio/telephone (VHF Channels 16 and 13) radius pending advice with respect to a clear berth or other advices.
NAVIGATION: Navigable waters surrounding Bonaire Island are clear; however, the coasts of the Island are steep-to and should be avoided. The currents in the offing and off the points of the Island set Westward. On days with little wind a weak current sets to the Westward, generally parallel with the coast from Kralendijk Roads toward Wekoewa Point and parallel to the coast line in way of the jetty. It is urged that reference be made to the British Admiralty South American Pilot Volume V or United States HO Pub. 22 Sailing Directions for the West Indies Volume II or equivalent publication of the Netherlands Government.

Lacre Point, on which a light is shown, is at the Southern extremity of Bonaire. A light is situated on Boca Spelonk, the Eastern mid-point of the Island. Seroe Bentana Light, situated near the Northern extremity of the Island, is visible for approach from the N.E. through N.W. South of 250°/070° on the West side of the Northern end of the Island this light is obscured and then jetty lights and Radio Netherland Towers may be used for bearings.

Prevailing winds are the E.N.E. trade winds.
HAZARD ZONE: *Radio Transmitting Installation:* Vessels approaching Bonaire should remain clear of an area within a radius of 3 nautical miles from the Radio Netherlands Towers situated on the Island of Bonaire in Lat. 12° 13′ N., Long. 68° 19′ 15″ W. This area is noted as a danger area due to strong radiation from the powerful radio transmitters on shore. Bonaire Terminal is situated sufficiently West of this area to be well clear of any radio radiation influence.
RADIO: When a vessel leaves its loading port, the shipper should advise the date of anticipated arrival at Bonaire. For vessels departing from remote loading ports, the estimated arrival date should be revised at least once each week while the vessel is en route.

A government wireless/telegraph station operates daily from 0700 to 2130 hrs. local time (1100 to 0130 hrs. GMT). Vessels bound for Bonaire should route their messages for Bonaire through Curacao Radio (PJC).
Arrival Advice: The Master should advise his estimated time of arrival not less than 72 hours in advance, again 48 hours in advance and again 24 hours prior to arrival, and this last message should be revised if an unusual change in the ETA should occur. Wireless telegraph messages of this nature must be sent to the ship's Agent who, in turn, will immediately relay the information to the Terminal Management.

Tankers from Mediterranean, Africa and Middle East should give ETAs 10 and 5 days as well as 72, 48 and 24 hours.

The text of any one of the arrival advices should contain the following data in addition to the declared time of arrival:
1. Draft of vessel, fore and aft.
2. Available fittings, i.e. number and diameter of connections at deck manifold system for prompt connecting of 2×24 in. and/or 2×12 in. steel swivel loading arms.
3. Any conditions which may affect loading or unloading operations.
4. Any unusual condition which may require abnormal attention prior to berthing.
5. Quantity of ballast and estimated time of deballasting.

VHF: International VHF Maritime Band Communication should be commenced within a radius of 30 miles from the Terminal, or more, if possible. The Terminal may be called on International VHF Channel 16 (156.800 MHz). When radio/telephone contact with the Terminal has been established, communication should then be shifted to Channel 13 (156.650 MHz).

After initial radio/telephone contact has been established, radio/telephone communication with the Terminal will remain on Channel 13. This will include communication with the 2 tugs and the 2 mooring launches on standby, all of which will be available to assist the vessel into the berth.
Mooring, Unmooring VHF Communication: Communication on Channel 13 during the immediate approach and mooring procedure will be confined rigidly to berthing operations which includes all directives from the Berthing Master to the tugs, the mooring launches and the jetty. The only messages which may interfere with these communications will be those caused by an extreme emergency.

After the vessel has been secured in the berth and the Berthing Master has cleared all berthing operations, communication on VHF Channel 13 will be secured and all base VHF receivers will be returned to guard Channel 16 pending an emergency or when the Berthing Master resumes his function for a departing vessel. It is to be noted that hand radio/telephone sets transmit and receive only on Channel 13. The base sets in the Terminal Office (Control Room) and on each of the tugs and launches is equipped with radio/telephone equipment for transmitting and receiving on Channels 16 and/or 13.
Radio/Telephone UHF (Private Frequency): Communication between the platform and the vessel and the Terminal before, during and after transfer of product will be via portable intrinsically safe, hand carried, radio/telephones supplied by the shore on a private UHF frequency.
Radio/Telephone VHF Resume Use Departing: When the vessel is ready to depart and the Berthing Master has boarded and resumes his function, VHF radio/telephone communication will again be established on International Maritime Channel 13 between the vessel's bridge, the 2 or 3 tugs, the mooring launches and the jetty, so that the casting off operation may be properly accomplished.
Radio Telephone – Guard Call Channel 16: After the Berthing Master disembarks and the tugs are dismissed, and the vessel has departed full away, it is expected the vessel will resume a guard watch on Channel 16. The terminal station may be called on Channel 16 and/or 13.
Radio Repairs: A Radio Holland Service Engineer available and can be arranged through the Agent.
TUGS: Tug assistance is compulsory. Mooring launch is available.

Normally 2 tugs are used for ships up to 150,000 d.w.t., from 150,000 to 350,000 d.w.t. 3 tugs, and above 350,000 d.w.t. 4 tugs will be used for docking.

When 2 tugs are used both will make fast on the port side main deck fore and aft; using tugs' lines. In case of VLCC or ULCC whereby 3 or 4 tugs are required, the Pilot determines the position where the tugs are to make fast. When sailing only 2 tugs can be used under normal weather conditions.
HEALTH: There are no health formalities.
CUSTOMS/IMMIGRATION: When the vessel is secure in the berth and the gangway is landed on deck, the Immigration Officer, the Customs Officer and the Agent will board to attend formal entry of the vessel. The Immigration Officer may act on behalf of the Quarantine Service.
Immigration: Two copies of the crew list are to be ready for presentation to the Immigration Officer. Crew List is to be delivered to the Terminal Gate for Security Control, therefore no Gate Passes are required.
Customs: The Customs Officer will require 1 Crew List, 1 Stores List, 1 List of Personal Effects for those crew men leaving the vessel at Bonaire and 1 List of all Medicines and Drugs. The Customs Officer with the assistance of the ship's Agent will prepare the Inward Clearance document. This document is to be signed by the Master. Upon completion of the above formalities, the vessel is declared free and shore leave may be granted.
BERTHING: Berth No. 1: Max. size vessels 500,000 d.w.t. on full draft and no restrictions for length and beam. Depth of water 97 ft.

Minimum size vessels approximately 25,000 d.w.t. due to distance between the Inner Breasting Dolphins Nos. BD2 and BD3.
Mooring Facilities: Berth No. 1 consists of an operating platform 132 ft. 10 in. (40.48 m.) long facing the sea and 94 ft. (28.65 m.) wide toward the shore with 2×24 in. and 16 in. swivel jointed steel loading arms for the transfer of petroleum products. Loading arms are equipped with hydraulic quick couplings and will fit on all standard ASA/DIN flanges. The 24 in. loading arms are constructed to fit on 16 in., 18 in. and 24 in. ship connections and the 16 in. loading arms are constructed to fit on 10 in., 12 in., 14 in. and 16 in. ship connections. The waterfront side of the platform is 22 ft. 3 in. (6.787 m.) inside and away from the ship's side.
Breasting Dolphins: There are 6 breasting dolphins, 4 of which are designed for the vessel to rest against and to which forward and back spring lines are to be secured to heavy quick-release mooring hooks. At each end of the system of breasting dolphins there is 1 landing dolphin offset to allow a vessel 5° off the parallel line to land against the berth system. These are noted "a" for the offset dolphin and the main dolphin is noted "b". The dolphins are numbered from No. BD1a and BD1b in the West and through BD2, BD3 and BD4 and BD4a to the East. The centre line of the berthing facility is 17 ft. 5 in. (5.3 m.) East of the centre line of the operating platform. This point is well marked on the seaward panel of the platform with a 4 in. wide white reflecting vertical stripe. BD2 and BD3 are each 135 ft. (41.148 m.) West and East of this white vertical stripe. BD1b is 80 ft. (24.4 m.) further West from BD2 and BD4 is 119 ft. (36.4 m.) further East from BD3.
Mooring Dolphins: Inshore 215 ft. (65.532 m.) perpendicular from the berthing line are 6 mooring dolphins. These dolphins are numbered from MD1 in the West to MD6 in the East, MD3 and MD4 are each 350 ft. (106.680 m.) West and East from the centre line of the mooring structure system noted by the white vertical stripe on the seaward face of the operating platform. MD2 and MD5 are each 250 ft. (76.200 m.) West

and East respectively, from MD3 and MD4. MD1 and MD6 are each again 250 ft. (76.200 m.) West and East respectively, from MD2 and MD5.

Berth No. 2: Max. size vessels 150,000 d.w.t. with limited ballast or cargo quantity on board, down to 90,000 d.w.t. fully loaded. Max. depth of water on mooring line is 49 ft. 6 in. (Ship's Master reported depth as 51 ft. 6 in. in May 1987).

Minimum size vessels approximately 25,000 d.w.t. due to distance between the Inner Breasting Dolphin Nos. BD2 and BD3.

Mooring Facilities: Berth No. 2 consists of a triangular platform 49 ft. (14.94 m.) long, facing the sea and 42 ft. 6 in. (12.95 m.) wide towards the shore with 3×12 in. swivel jointed steel loading arms for the transfer of petroleum products. The waterfront side is 11 ft. 6 in. inside and away from the ship's side. All loading arms are equipped with hydraulic quick couplings and will fit on all standard ASA/DIN flanges of 10 in., 12 in., 14 in. and 16 in. on ship's manifold.

Breasting Dolphins: There are 4 breasting dolphins for the vessel to rest against and to which forward and back springs are to be secured to heavy quick-release mooring hooks. The dolphins are numbered BD1 and BD2 on the West side of the platform and BD3 and BD4 on the East side. BD2 is located 139 ft. 4 in. (42.5 m.) West of the centre line of the platform and BD3 is located 123 ft. (37.5 m.) East of the centre line. BD1 and BD4 are each 5.7 m. further West and East respectively from BD2 and BD3.

Mooring Dolphins: Inshore, 164 ft. perpendicular from the berthing line are 3 mooring dolphins of which 2 are on the East side and 1 on the West side to handle respectively the head and sternlines. These dolphins are numbered MD1, MD2 and MD3 from West to East. MD1 is 328 ft. (100 m.) West of the centre line of the operating platform. MD2 is 328 ft. (100 m.) East of the centre line of the operating platform, MD3 is 262 ft. (80 m.) East of MD2.

GENERAL INFORMATION APPLICABLE FOR BOTH JETTIES:

Capstans: On each of the breasting and mooring dolphins there is a small capstan with sufficient power to heave up on to the deck of the dolphin a ship's mooring line for securing to the heavy quick-release hooks.

Mooring Lines: Prior to coming alongside, the vessel must have all mooring lines on station and available on that side which will be to the berth (normally port side to). Bearing in mind that the product transfer is via steel swivel loading arms, it is imperative that the forward and back spring lines be adequate to maintain a minimum fore and aft motion of the vessel to remain within the limitation of the envelope of loading arms.

Spring, Breasting, Head and Sternlines: The first lines lead out are headlines to the mooring dolphin, immediately followed by the forward and back springs to the breasting dolphins. Hereafter respectively the forward and after breasting lines are lead out to the appropriate mooring dolphins and finally the sternlines to the mooring dolphin. The procedure may be altered in accord with physical equipment on the ship, weather and sea conditions, along with other circumstances, all subject to the Berthing Master's requirements and combined approval of the Master and terminal management.

Mixed Mooring Lines Prohibited: Mixed moorings are prohibited, i.e. a wire and a fibre rope in parallel service is undesirable due to unequal elasticity. All mooring lines must be so arranged that loss of effect cannot occur when slacking off or heaving in one line, as required, due to the rise or lowering of the vessel during discharge or loading of cargo.

Mooring Machinery – Deck Winches: All deck machinery used for the heaving in and control of mooring lines must be operable. A vessel having deck machinery in poor state of maintenance to that point where mooring lines cannot be hove tight or brakes that tend to slip under tension will be sufficient reason to require consideration of terminal management to refuse connecting of the steel loading arms, or if same are already connected and the mooring lines become insecure, all transfer of product will be stopped and the steel loading arms disconnected pending correction of the mooring situation.

Surge-Tension Controls Prohibited: Wire mooring lines not on winch drums are not to be used for spring lines. Mooring wires secured on surge and tension controlled winches are prohibited. All mooring lines must be secured positively, i.e. on winch drums with the brake properly drawn tight or properly secured on bitts.

Power to Deck Machinery: At no time during the period the vessel is in berth is the power to operate deck machinery to be shut off.

Motion of Vessel in Berth: The vessel, while loading arms are connected, must not be permitted any motion alongside or away from its proper position in berth.

Surveillance of Mooring Lines: Mooring lines must remain under constant surveillance during unloading and loading operations. Failure to ease tension on mooring lines during unloading or failure to maintain proper tension on mooring lines while loading will be sufficient reason to stop transfer of product.

Fire Warp – Emergency Towing Wire: After the vessel is all fast fore and aft, an emergency wire of suitable quality and strength to tow the vessel should be positioned on the offshore bow and the after offshore quarter of the ship. This towing wire should be secured so that the eye may be readily picked up by a towing vessel. It is required that the length of the wire hawser should be not less than one-half again that of the highest freeboard of the vessel at the point of its location on the ship where the ship end is well fast on bitts.

EMERGENCY SIGNAL: In the event of any form of emergency such as fire, bursting of transfer piping, Operating Platform emergency signal will be an intermittent signal on the general alarm system for not less than 15 seconds. Since a shore radio is supplied to the vessel for proper communication, this radio must be used in the event of an emergency to inform the Loading Master. The vessel will use its own emergency signals in the event of any emergency on board.

To co-ordinate any emergency procedure, the personnel on the Operating Platform must be advised of the vessel's emergency signals.

In the event of any emergency either on board the vessel or the operating platform all oil transfer must be stopped and all oil transfer valves closed.

LOADING: *Electric Bond – Earthing:* Prior to manoeuvring the loading/unloading steel mechanical loading arms toward the vessel from the Operating Platform, the electric bond wire must be connected to a clean metal contact on the vessel in the area of the manifold.

The electric bond wire shall not be disconnected until the loading/unloading mechanical arms have been disconnected and manoeuvred well clear of the vessel.

The flame proof switch on the jetty will remain open until the electric bond wire has been connected to the ship. Prior to disconnecting the electric bond wire from the ship, the flame proof switch on the jetty will have been opened.

Connection to Oil Transfer Piping System: On both jetties there are steel pipe swivel jointed loading/unloading arms. (See also "Berthing").

This equipment is controlled either from the deck of the Operating Platform or from the ship's deck by using a remote control panel. Connections of the fittings requires clean flat faced flanges on the vessel's manifold, using a O-ring gasket, to ensure a secure tight connection.

Cargo and Ballast Transfer: Before transfer of cargo or ballast may be started, the Chief Officer and the Terminal Representative will ensure that all necessary controls and safety measures have been attended. A Declaration of Inspection is to be signed by a responsible Ship's Officer and the Terminal representative certifying that all precautionary measures have been taken, that all equipment used in the transfer operation is in proper order and that all concerned are in agreement on the proper procedure of the operation.

Discharge of Cargo: Upon advice from the Terminal Loading Master to the Ship's Officer in charge that oil transfer may be started, the Officer will arrange for the initial flow to be slow with sufficient pressure to permit inspection of all transfer piping and connections for any leakage. When the terminal personnel advise they are receiving product, the flow may be increased to the rate agreed upon.

Completion of Cargo Discharge: After all cargo tanks have been drained and the pumps have lost suction and the discharge of cargo has been declared finished, the flow of product will have stopped. With the agreement between the Ship's Officer and the Terminal Marine Supervisor, the oil transfer valves on the Operating Platform will be closed. All product remaining in the unloading arms will be drained back into the vessel. If the vessel's pipe-line system does not allow the complete draining of the unloading arm, then arrangements must be made to drain the arm into a container or via a drain hose led into a cargo tank. *No product will be permitted to drain out onto the open deck of the vessel!* After the arms have been completely drained, they may be disconnected and the ends blanked off to prevent any drippage of oil.

Loading of Cargo: Upon advice from the Ship's Officer in charge that oil transfer may be started, the Terminal Loading Master will arrange for the initial flow of product into the vessel. When the Ship's Officer advises that he is satisfied that product is flowing in accord with the loading programme, he will advise the terminal personnel and the flow will be increased to the rate agreed upon.

Communication, Audible, Visual: Constant contact with the personnel on the Operating Platform during the topping off procedure is mandatory! The rate of flow of product is to be adjusted to that point where complete control is constant and that in the event of an emergency immediate shut down will not create any pressure surge on the shore transfer piping.

Topping Off of Cargo Tanks: Every precaution must be observed to avoid over-filling of any tank or causing any listing of the vessel. Observance of the trim by the stern shall be constant to avoid any undue strain upon the vessel's longitudinal structure. The cargo tanks and pipelines thereto on most tankers are segregated into groups. One tank in each group should be selected for the overflow relief tank by maintaining the level of liquid considerably lower than the other filling tanks to permit prompt relief of that tank reaching an overfilled level.

Completion of Loading: After all cargo has been loaded all product remaining in the loading arms will be drained into the vessel. If the vessel's pipe-line system does not permit complete draining of the loading arms, then arrangements must be made to drain the arm into a container or via a drain hose led into a cargo tank. *No product will be permitted to drain out onto the open deck of the vessel!* After the arms have been drained they may be disconnected and the ends blanked off to prevent any drippage of oil.

CRUDE OIL WASHING: Crude Oil Washing (C.O.W.) must be requested before arrival to obtain approval of the Terminal Manager.

It is the terminal's intention to allow vessels to C.O.W. at the terminal. However, the vessel must strictly adhere to the International Safety Guide for Oil Tankers and Terminals Guidelines pertaining to C.O.W. procedures and a terminal representative will check the procedure before and during the C.O.W.

BALLAST: *Ballast Loading:* Should the vessel have permanent ballast tanks with entirely separate pipe-lines and ballast transfer system sea water ballast may be loaded in accord with the Master's requirements.

Sea water ballast is not to be loaded into any cargo tanks or through any oil transfer system while there is any cargo on board the vessel. In the event of an emergency, special arrangements must be agreed upon with the terminal management for the loading of ballast into any cargo tanks before all of the cargo has been completely discharged.

The vessel's Senior Officer in charge will personally supervise the arrangement of the pumproom system for the ballasting operation. The Public Cargo Inspector will accompany the Officer into the pumproom to break the seals on the sea suction valves.

No sea suction valve may be opened until all down coming pipe-lines have been drained and are completely free of product and the down coming valve closed. In most instances the pumps should be operating just prior to opening the sea suction valve.

Ballast loading will be under the entire control of the ship's personnel and it is expected that all normal loading precautions will be observed.
Deballasting: En route to Bonaire the vessel should have thoroughly cleaned certain appropriate tanks for the containment of clean ballast for discharge overboard. Only dirty ballast (oil contaminated sea water) and tank cleaning slops are to be discharged into the terminal's ballast receiving system.
Ballast, Oily Water, Discharge: Under no circumstances will dirty ballast water be discharged overboard within a radius of 50 miles from any Netherlands Antilles Island.
Ballast Discharge to Shore: After the steel loading arm to be used has been connected to the ship's manifold, the discharge of ballast water will be accomplished in the same manner as the discharge of cargo.
Tank Bottoms and Slops: Upon completion of the deballasting operation, all of the vessel's tanks will be inspected and approved for the reception of cargo. The sea suction valves will then be sealed in the closed position by the public inspector or by a Bonaire Petroleum Corporation N.V. representative. Any bottoms and slops remaining must have the approval of terminal management prior to "loading on top".
MEDICAL: Modern facilities are available for medical and dental treatment. A "Medical Service Request" form must be signed by the Master for crew members requiring medical or dental attention.

In the case of crew members having to be left behind at Bonaire for hospitalisation or otherwise, Master must sign authorisation guaranteeing expense of attention rendered and repatriation.
FUEL: Bunkers for steam propelled tankers are available.
Bunker Transfer: During the period of time the vessel is in berth, the transfer of bunkers from one tank to another is prohibited. All bunkers to be consumed while in port must be available in that tank from which bunkers are normally consumed.
Fuel: Marine gasoil is available in small quantities from a shore storage tank. Limited Luboil available and supplied in drums. Water and fuel oil chemical treatment is available in drums by Drew Chemical.
FRESH WATER: Fresh water on Bonaire is desalinised sea water and the supply is minimal, but available. 72 hours' notice is requested and maximum 100 tons can be supplied.
REPAIRS: There are no repair facilities on the Island of Bonaire. Upon sufficient advance notice, special service personnel and minor mechanical repair work may be arranged from Curacao. Transportation for such service personnel is via scheduled airline.
POLICE/AMBULANCE/FIRE: Tel. 8000 via Terminal's Control Room or Office.
CARGO INSPECTION: Along with the Government Boarding Officers the representative of the petroleum inspecting organization mutually engaged by the Shipper and Bonaire Petroleum Corporation N.V. will board the vessel for the purpose of gauging the cargo tanks, obtaining the temperature of the cargo and obtaining required samples. His function is to protect the interest of the vessel as well as the Shipper and the consignee. Every assistance is to be rendered to expedite his function on board the vessel. An Officer should accompany the Inspector while on board and should assist by making available all information requested such as cargo tank calibration tables, etc. Cargo transfer may not be commenced without the approval of the Inspector.
Completion of Discharge of Cargo – Inspection: Upon completion of discharge of the cargo, the Inspector will examine all of the cargo tanks and will sign the tank inspection certificate.
Loading Cargo, Inspection: In the case of a vessel arriving to load cargo, the Inspector will examine all of the cargo tanks to determine the condition of the cargo tanks for reception of the cargo. Upon completion of loading all of the cargo, the Inspector will gauge the cargo tanks, take temperatures and samples as required.
Incomplete or Part Cargo: In the event the vessel does not complete the discharge of cargo, or does not load a full cargo, the Inspector will board the vessel to gauge the cargo tanks to record the amount of cargo in the vessel after transfer operations have been completed.
Cargo Pumproom Sea Suctions: Prior to loading or unloading the Public Inspector will certify that the sea suction valves connected to the vessel's oil transfer system are closed, lashed and sealed. *Do not lock these valves under any circumstances.* These valves are to be sealed in the *Closed* position and sufficiently lashed so they may not open due to vibration or any other reason.
STORES/PROVISIONS/LAUNDRY: All stores and provisions are available. There are no deck and engine stores available. Upon sufficient advance notice, all items not available on Bonaire may be obtained from Curacao.

Laundry service may be arranged through the ship's Agent and available for unlimited quantities. Advance notice required.
DEVELOPMENTS: Clean product storage, available for light distillates such as diesel, gasoil, No. 2 fuel oils, kerosene, naphthas and other finished stocks, 650,000 barrels of tankage and dedicated lines (with pumps) to the jetty area. At the moment in process for converting two 170 MB tanks from crude oil into clean products handling.

The process unit is in operation and unit capable for heavy crude processing, residual oil processing, MDO processing, distillate correction and emulsion breaking.

SHIPMASTER'S REPORT: 1977. *In his report the Master called the port – "Brasil".*
Documents:
5 Crew Lists.
3 Stores Lists.
3 Personal Effects Lists.
1 Vaccination List.

Immigration Officer acts on behalf of Quarantine service. State of health on board to be given in 72 hour ETA message.
Services: Fresh water by truck from Kralendijk and very expensive. Very limited quantities of shipchandlery supplies. No deck or engine stores. Gas oil limited and by drums only. Bunker "C" only. Lube oil limited to some brands and limited supply by drums. Water and fuel oil chemical treatment available. Radio Holland Service Engineer available. Repair men can be flown in from Curacao. Very limited laundry service. If required at least 4 days' notice advisable. Tankers from Mediterranean, Africa and Gulf should give ETAs 10 and 5 days as well as 72/48/24 hours, any of which to give arrival draft F & A, number and diameter of connections, any condition affecting loading or discharging, ballast quantity, clean or otherwise and slops quantity. Pilot advised that 10 days longest, so far, that vessel waited off for berth. Have adequate fresh water on board for this contingency.
Berthing: No. 1 Jetty: Least depth alongside 110 ft.
Loading/discharging Chiksans 2×24 in. and 2×12 in.

Max. Size 500,000 d.w.t.

No. 2 Jetty: Least depth alongside 60 ft. Loading/Discharging Chiksans 3×12 in. Max. size 80,000 d.w.t. Product handled: Crude. Max. pressure; 125 p.s.i.

VHF contact with BOPEC on Channel 16 at 25 miles, then stand-by on Channel 13 for instructions. On berth VHF supplied to maintain shore contact with control who pass messages to Agent at Kralendijk.

Immobilising of engines or transfer of bunkers not permitted on berth. Port side alongside always.

SHIPMASTER'S REPORT: May, 1979.
Documents: Immigration require 2 Crew Lists on IMO forms. One additional Crew List to be supplied to Agent and another to the security gate also required are 2 Personal Effects Lists and 3 Stores Lists.
Pilotage: The Pilot requires a combination of accommodation ladder and pilot ladder. He will not use the pilot hoist.
Berthing: For vessels of about 140,000 d.w.t. 2 tugs are used, 1 each at the fore and aft ends of the main deck. Each tug supplies 2 lines.

When unberthing the tugs push and do not make fast.

Tankers of 250,000 d.w.t. use 3 tugs.
Moorings: 3 head lines are passed ashore first, followed by 2 breast lines and 2 forward springs. At the after end 2 spring lines are passed ashore first followed by 2 breast lines and finally 3 stern lines. Only one mooring boat is used and he passes forward shore lines ashore first.

SHIPMASTER'S REPORT: February, 1980.
Documents: 3 Crew Lists for Agent and 2 for Immigration.
Pilotage: Pilot requires accommodation ladder (usually starboard side) when disembarking for VLCCs.
Tankers: Crude oil washing permitted only for tanks which will be used for ballast.
Shore Leave: Passes not required.

AUTHORITY: Bonaire Petroleum Corporation N.V., Bopec Building, P.O.Box 117, Kralendijk, Bonaire, Netherlands Antilles. *Tel:* 8177 (Terminal). *Telex:* 1284 (Terminal). *Contact:* Ir. E. G. van Dam Merrett, Managing Director.

BULLEN BAY, Curacao: 12.11 N. 69.01 W. (See Plan)

LOCATION: Bullen Bay is an open bay on the South coast of Curacao, 8 miles N.W. of Willemstad.
DOCUMENTS: Documents and all General information, refer to "Willemstad".
PILOTAGE: Pilotage is compulsory and rendered day and night. There is no resident Pilot at the Bay. Ships arriving are piloted by government Pilots supplied from Willemstad. Ships leaving are piloted by Pilots employed by Isla Curacao S.A.
Pilot Station: 1 mile S.W. of Cape St. Marie (that is the cape on the West side of Bullen Bay).
Communications: Ships destined for Bullen Bay are to inform Traffic Control at Willemstad (call "Fort Nassau" on VHF Channel 16) and also Isla Terminal at Bullen Bay (VHF Channel 11) of their approach. The Pilots at Bullen Bay operate on VHF Channel 9.
ANCHORAGE: There is no anchorage in the bay. Ships that have to wait for berth are to remain in the vicinity within VHF radio range.
MAX. SIZE:

Jetty No.	*Max. LOA* (ft.)	*Max. Draft* (ft.)
1	1,120	69
2	850	40-42
3	900	56
4	1,350	94
5	900	63
6	No limit	94

TUGS: Compulsory. There are 2 tugs of 3,852 h.p. with 53 tons and 60 tons bollard pull and 1 tug of 2,500 h.p. with 35 tons bollard pull, stationed at Bullen Bay. 2 tugs will assist the tankers on their arrival and departure. 3 tugs will assist the VLCCs on their arrival and 2 tugs will assist on their departure.
BERTHING: The terminal located at Bullen Bay facilitates economical trans-shipment of Eastern hemisphere crude arriving in very large crude carriers (VLCCs) for storage and on-carriage in smaller ships to draft restricted U.S. ports.
Jetties: Ships moor port side alongside.

Tanker jetties from East to West:
No. 1: 250,000 d.w.t. 4×12 in. connections, heading 196°
No. 2: 70,000 d.w.t. 4×12 in. connections, heading 177°
No. 3: 100,000 d.w.t. 4×12 in. connections, heading 146°
No. 4: 530,000 d.w.t. 4×16 in. connections, heading 129°
No. 5: 100,000 d.w.t. 4×12 in. connections, heading 127°
No. 6: 530,000 d.w.t. 4×16 in. connections, heading 124°
The tugboat jetty is located between Jetties No. 2 and 3.

Total tank capacity: 17,750,000 barrels.

1 –	1,000,000 barrels capacity –	1,000,000
16 –	750,000 barrels capacity –	12,000,000
6 –	375,000 barrels capacity –	2,250,000
38 –	small tanks capacity –	2,500,000

Pipe-lines: Main track consists of 5 strings of 36 in. pipe. The jetties carry 2 strings of 36 in. pipe in a loop. The loading rate is up to 12,000 t.p.h. Tankers' discharge rate is up to 25,000 t.p.h.

Deballasting: Capacity 4,000 t.p.h. per jetty. Ballast treatment produces affluent of less than 20 parts per million (20 ppm) oil content. *Throughput:*

Transhipment	1,200,000 barrels per day
Refinery import	250,000 barrels per day

Operator: Refineria Isla (Curacao) S.A.

FRESH WATER: Fresh water available at the piers.

FUEL: Bunker facilities for all grades are available at a rate of 3,800 bbls.p.h.

NAVIGATIONAL AIDS: There is a leading range of 043° True bearing on the West side of the bay for ships entering the bay, running 851 m. (approx. 4.5 cables) clear of the shore near Cape St. Marie, with red daymarks and a green and (yellowish) red light at night.

SHIPMASTER'S REPORT: February 1979.

Restrictions: Crude oil washing permitted subject to notice below. Tank wash piping must be tested before arrival and oxygen metres calibrated.

Health: As for U.S.A.

VHF: Channel 9 to give Notice of Readiness and for berthing with Pilot and tugs. Call Agent on Channel 25.

Berthing: Shore gangway at 2 largest berths.

Notice No. 1: Issued by Isla Curacao S.A.

Crude Oil Washing

Only tankers equipped with a well constructed inert gas installation and provided with fixed tank washing machines connected to the tank wash piping system by means of fixed steel piping may crude wash cargo tanks under the following conditions:

1. Oxygen content in cargo tank may not exceed 5% (*metres calibrated*).
2. Minimum inert gas pressure in cargo tank to be 250 mm. (10 in./water column) (0.025 kg/sq.cm. = −0.36 lb./sq.in).
3. Continuous supervision by a specifically appointed and experienced operator is mandatory.
4. The "in-line" O_2 analyser must be arranged to allow for calibration during inert gas operation.
5. The hydrants of the tankwash piping must be equipped with screwed-on heads.
6. Tankwash piping must be tested for tightness.
7. Exceed of discharge time will be for ship's account.

For each "crude washing" a request for cleaning must be submitted to the Head Operations of Isla.

Please sign for receipt: Isla Curacao S.A.

Signed..........................

____

Master

____

Operation Manager

Notice No. 2: Issued by N.V. Curacaosche Scheepvaart Maatschappij. Emmastad, Curacao, N.A.

CUSTOMS REGULATIONS
BONDED STORES

In connection with revised Customs Regulations for the ports of Curacao, we draw your attention to the following:

1. All stores on board of vessel on arrival, also personal effects, must be declared to Customs Officials when clearing in vessel.
2. While ship is in port, Customs Officials may seal bonded stores, e.g. beer, wine, spirits, cigarettes and tobacco.

   When sealing bonded stores, permission may be granted by the Customs Officials, to take out a certain amount of these stores, from the bonded store-room, before sealing the store-room.
3. Stores on board, which are *not* sealed by the Customs Officials, may be used on board vessels, but may not be taken ashore without permission of Customs.
4. All stores ordered in bond at the port of Curacao, MUST REMAIN UNBROACHED, until departure of vessel from Curacao, and it is more likely than not, that Customs Officials will board before departure for control. If bonded stores are found opened up, or missing, Customs will charge import duties, whilst the possibility exists that the ship may be fined for such breach of law.

SHIPMASTER'S REPORT: December, 1982.

Customs require one Narcotics List and will seal beer store if it contains more than 100 cases of beer.

If vessel requires to use shore crane for stores, etc., written permission must be obtained. This permission is supplied by Loading Master.

AUTHORITY: Harbour Master of Curacao. See "Willemstad".

AGENT: See "Willemstad".

CARACAS BAY, Curacao: 12.04 N. 68.52 W.

LOCATION: Caracas Bay is an open bay on the South coast of Curacao, 5 miles S.E. of Willemstad. This port, mainly used by tankers, bunker ships and large passenger liners, is specially fitted as an oil terminal.

DOCUMENTS: Documents and all general informations, refer to "Willemstad".

PILOTAGE: Pilotage is compulsory and rendered day and night. There is no resident Pilot at the bay. Ships at Caracas Bay are piloted by government Pilots supplied from Willemstad.

Pilot station: 1 mile SW of Lijhoek (that is the cape on the West side of Caracas Bay).

ANCHORAGE: There is no anchorage in the bay.

MAX. SIZE: Vessels with a max. overall length of 1,050 ft. and max. draft of 45 ft. can be accommodated. Max. displacement 100,000 tons.

VHF: Ships destined for Caracas Bay are to inform traffic control at Willemstad (call "Fort Nassau" on VHF Channel 16) of their approach. There is no VHF radio station at Caracas Bay.

TUGS: Tugboats operate from Willemstad. Tug assistance only for ships arriving. Tugs are automatically provided:

1 tug for tankers up to 20,000 gross tons.
2 tugs for tankers above 20,000 gross tons.
1 tug for cargo and passenger ships exceeding 16,000 g.r.t. and 600 ft. length.
2 tugs for cargo and passenger ships exceeding 30,000 g.r.t.
Ships leave without tug assistance.

BERTHING: 2 piers are at the East side of the bay, naturally protected from prevailing wind and sea, with depths up to 47 ft. alongside. Vessels dock directly with their port side along the piers.

Pier No. 2, with a depth alongside of 46 ft., and Pier No. 3, with a depth alongside of 46 ft., are concrete piers/quays, modern and equipped for handling oil in bulk, with enough platform to serve also as passenger terminal. The largest cruise ships moor along these piers regularly.

The oil is transported through pipe-lines from the refinery at Emmastad to the storage tanks at Caracas Bay. 2 ships can bunker simultaneously. Electrically-driven centrifugal pumps, metering and blending equipment at the bay reduce bunkering time. Subject only to the capacity of ships receiving connections, loading rates up to 2,000 t.p.h. of bunker oil can readily be achieved.

FUEL: The piers are built as oil piers, modern and equipped to supply any kind of bunker or lubricating oil to any vessel.

FRESH WATER: Fresh water can be obtained via pipe-line on the wharves.

STEVEDORES: Lighters and longshoremen are supplied from Willemstad.

REPAIRS: Small repairs can be done at the bay through working barges alongside.

GENERAL: Clearance, port administration, port charges and regulations are the same as at Willemstad.

SHIPMASTER'S REPORT: March 1986. Vessel 95,000 d.w.t.

Pilots usually request access on port side (due prevailing wind) but will accept starboard side if given a good lee. Pilot boards from tug which then makes fast through centre lead forward. As vessel gets into the bay a second tug makes fast on the main deck forward, then first tug lets go and makes fast starboard main deck aft. Tugs lines used.

Berth is not designed for vessels over 800 ft. in length. Forward moorings: 3 headlines, 2 springs, 2 breasts in that order. Aft moorings: 2 springs, 2 breasts, 3 stern lines in that order. Only 1 mooring boat was available so forward end was made fast first. Shore gangway used and shore passes required. Fresh water is available US$6.00/ton. No dirty ballast facilities. Trade wind normally prevails but is liable to change during hurricane season.

AUTHORITY: Curacao Port Authority, N.V., Werf de Wilde Z/N, P.O.Box 689, Willemstad, Curacao, Netherlands Antilles. *Tel:* (9) 611133, 611740. *Contact:* Captain E.P. Sint Jago, Nautical Director.

FUIKBAY, Curacao: 12.03 N. 68.50 W.

LOCATION: Fuikbay, on the South coast of Curacao, 7 miles S.E. of Willemstad, is an inland bay with a 147 ft. wide navigable entrance. The depth of this harbour is 26 ft.

DOCUMENTS: Documents and general information, refer to "Willemstad".

PILOTAGE: Pilotage is compulsory.

ANCHORAGE: There is an anchorage area in the West side of the bay.

RESTRICTIONS: As a rule vessels only enter this port during daylight. Sailing can take place day and night.

MAX. SIZE: Vessels can enter and leave with a max. draft of 24 ft. and a max. length of 360 ft.

BERTHING: This bay is mainly used as a loading terminal of the "Mining Company Curacao" for export of phosphate rock mined out of the "Tafelberg".

There is one berth under the conveyor which transports the phosphate rocks from shore into the holds of the vessel alongside. Depth alongside is 28 ft.

There is also a 84 ft. berth available for handling explosives or other cargo, usually named Westwerf. Only small vessels with a max. draft of 12 ft. can come alongside. Vessels with a greater draft can moor with the help of floats between ship and quay.

The piers are privately owned by "Mining Company Curacao" situated on private territory of this company.

FUEL: This port has no bunker facilities, so vessels bound for this port must take bunkers in Caracas Bay or Willemstad before or after calling at this port if bunkers are desired.

GENERAL: Other services such as tugboats, repairs, power, etc. are rendered from Willemstad. 5 ton mobile crane available.

AUTHORITY: Curacao Port Authority N.V., Werf de Wilde, P.O.Box 689, Willemstad, Curacao, Netherlands Antilles. *Tel:* (9) 611133, 611740. *Contact:* Captain E.P. Sint Jago, Nautical Director.

KRALENDIJK, (including Salina) Bonaire: 12.09 N. 68.17 W. **(See Plan)**

PORT LIMITS: Within 3 miles of the Port.

DOCUMENTS:

	Customs	*Immigration*	*Agent*
Passenger List	1	2	2
Crew List	1	2	2
Personal Effects List of Crew	1		
Store List	1		
Curio List	1		

PILOTAGE: Pilot service is compulsory. Pilot meets vessels 0.75 miles S.W. of the berths. Pilot boat flies "H" flag by day and red over white light at night. The pilot boat is either a small tugboat or a fast speed GRP boat, orange hull, white superstructure with words "Pilot" on both sides.

ANCHORAGES: Unlimited. Depth 30 ft. and over.

RESTRICTIONS: Notify the Agent at least 24 hours in advance. No tide.

MAX. SIZE: Length 1,050 ft., also see "Berthing".

INWARD CLEARANCE: Inward clearance is effected on board immediately on docking. Immigration Officer arrives on board immediately after docking. Passengers disembarking at Bonaire must present themselves for documents check.

Customs Officer boards immediately after docking and together with a representative of the Agency's Shipping Department the inward clearance document of the vessel (in ballast or with cargo in transit, as the case may be) is prepared and signed. This document must be signed by the Master. Occasionally the Customs Officer may insist that the Master sign in his presence. Only upon completion of the above formalities, usually carried out in a very short time, is the vessel declared free and passengers and crew may go ashore. It is recommended that one of the public rooms be made available for the purpose of inward clearance in order to avoid congestion in the Purser's Office.

HEALTH: Free Pratique is granted by the Pilot.

RADIO: The Government Harbour Pilot Office operates on Channel 16 VHF on a daily basis from Monday through Friday, between the hours of 0730 to 1200 and 1330 to 1700 hrs. Outside these hours and at weekends and official holidays the office remains unattended.

Any vessel bound to Bonaire after the normal working hours should route their messages to BOPEC Oil Terminal which operates VHF radio Channels 16 and 13 on a 24 hour basis, who in turn will relay the vessel's message to their Agent for pilot and berthing instructions. The Government Radio and Telephone Station maintains daily telephonic communications with Curacao, U.S.A., Europe, etc.

VHF: Call sign "Bonaire Pilots". Calling Channel 16, working Channel 11. Rescue operations Channel 6. Watchkeeping 0730 – 1200 hrs. and 1330 – 1700 hrs. except Saturdays, Sundays and holidays. Plans being made for 24-hour service.

RADAR: There is no Radar Port Control.

TUGS: 2×3,400 h.p. tugs are available. Vessels which require tug assistance for berthing should advise their Agent in advance in order to make necessary arrangements with the Bonaire Petroleum Company.

BERTHING:

*North Pier:**

Berthing space	225 ft.
Depth	30 ft. alongside at LW
Height	6 ft.

Max. permitted load factor on pier is 2,000 kilos per sq.m.

Vessels of max. 30,000 g.r.t. or a max. length of 738 ft. are allowed to berth alongside.

*North Pier not in use at present as major repairs required for reconditioning.

Southern Pier:

Length	394 ft.
Width	46 ft.
Depth	50 ft.alongside
Height	6 ft.
Length of connecting bridge from shore to pier	199 ft.
Width of connecting bridge from shore to pier	68 ft.
Max. LOA	1,050 ft.

Mooring Facilities:

A: Double Mampaey easy-release electrical capstans (100 tons each)
B: Two (2) bollards 50 tons each
C: Double Mampaey easy-release electrical capstans (100 tons each)
D: Bollards of 50, 25 and 10 tons (every 20 m.)

Fendering: Vredestein Gigant Fenders; Block fenders and D-fenders (made of rubber).

Roll-on/Roll-off Facilities: At the South Pier a small Ro-Ro Platform for "coaster-size" ships and small "landing-craft" type. Max. permitted load factor 2,000 kilos p.sq.m. Depth 5 m.

Off the Harbour Office between the North Pier and the South Pier a Ro-Ro Pier for ships up to 3,000 gross and/or a max. length of 90 m. Max. permitted load factor unlimited. Depth 6 m. Max. size: LOA 300 ft. Draft 15 ft.

For the mooring and unmooring at the pier shore labourers are engaged by Agents at the expense of the shipping line. Motor-boats are available for running lines.

Salina: Position: Lat. 12° 05.3′ N., Long. 68° 16.7′ W. This port is situated 4 miles South of Kralendijk and is owned by the Antilles International Salt Co., loading of salt in bulk only can be carried out at this pier. Pilot boards 0.75 miles from jetty.

Vessels of approximately 40,000 tons d.w.t. can be accommodated.

Depth alongside 45 ft. The Pilot will board vessels destined for this port 0.75 miles West of the jetty, from a motorboat displaying the signals as referred to for Kralendijk. Also see "Bulk Cargo Handling Facilities".

CRANES: There are 2 mobile cranes available 1×18 tons and 1×24 tons lifting capacity.

BULK CARGO FACILITIES: Salt in bulk is handled at the Port of Salina. The pier consists of 5 breasting dolphins and 2 mooring dolphins. The loading chute is situated on the centre breasting dolphin. Loading rate approximately 2,000 t.p.h. The chute is fixed and for shifting ship there are 2 mooring buoys, one on each side of the pier. The total length of the pier is 614 ft. and the max. draft is 45 ft. although the max. size of vessel which can be accommodated is approximately 40,000 d.w.t.

SPECIALISED CARGO HANDLING FACILITIES: There are no liquid, chemicals and LPG facilities. For Roll-on/Roll-off facilities see "Berthing".

BRIDGES: There are no bridges in the port of Bonaire.

STEVEDORES: There are no regular stevedores (longshoremen) available in Bonaire. For cargo handling operations ordinary labourers are engaged by the Agents for account and risk of the ship.

Working Hours: Monday-Friday 0700 – 1200 and 1300 – 1600. Overtime possible.

MEDICAL: Modern facilities are available for medical and dental treatment. A "Medical Service Request" form must be signed by the Master or other authorised officer for crew members requiring medical or dental treatment. In case of crew members having to be left behind at Bonaire for hospitalisation or otherwise, Master must sign an authorisation guaranteeing expense of treatment and repatriation.

TANKERS: There is no tanker facility in the port.

DENSITY: Average salinity of water is 1025.

FRESH WATER: Fresh water from the Government water distillation and power plant can be supplied at the pier.

FUEL: On advance request, bunkers are delivered by craft at rates comparable to those in Curacao or Aruba.

FIRE PRECAUTIONS: No specific precautions.

CONSULS: Venezuela and Colombia.

GANGWAY/DECK WATCHMEN: Watchmen are not necessary but recommended; Overtime as usual.

OPENING/CLOSING HATCHES: This work is normally carried out by crew.

IDENTIFICATION CARDS: Passengers: No landing cards required, but some ships carrying a large number of passengers furnish landing cards to passengers for their own control of passengers returning on board. Crew: No landing cards required.

REPAIRS: There are no facilities for carrying out major repairs. Qualified technicians are available for electronic instrument repairs.

DRY DOCKS: No dry dock facilities.

SURVEYORS: No classification surveyors available, nearest port is Curacao. Cargo inspectors Saybolt and Caleb Brett. Independent Maritime Bureau represents ICS, P and I club nautical and technical inspectors, inspectors for Liberian Bureau of Maritime Affairs.

CUSTOMS ALLOWANCES: No specific regulations, customs allow only a reasonable quantity out of bond.

CARGO GEAR: Load/discharge operations always by ship's gear.

REPATRIATION: All facilities exist for crew changes. Good connections, several times a day to Curacao and several times a week to U.S.A. and Europe.

HOLIDAYS: New Year's Day; Monday after Carnival; Good Friday; Easter Monday; Queen's Birthday (April 30th); Labour Day (May 1st); Ascension Day; Bonaire Day (September 6th); Christmas Day and Second Christmas Day.

TIME: 4 hours behind GMT. No summer time kept.

AIR SERVICES: There is a good daily air service between Bonaire and Curacao. 8 to 10 flights a day with good connections at Curacao with the international services to and from many parts of the world.

CUSTOMS OFFICERS ON BOARD: 1 or 2 Customs Officers will remain on board during the vessel's stay in port. Such officer(s) must be furnished meals at regular meal hours.

POLICE/AMBULANCE/FIRE: Police, tel. 8000; Ambulance, 8000; Fire, Tel. 8000.

TELEPHONE: Telephone connection on board is possible, to be arranged by ship's Agent in advance.

SERVICES: No tank cleaning equipment or facilities for discharge of tank washings. Compass adjusting, draft and quantity surveys, damage surveyors, marine consultants. Survey of tanks and machinery contact Independent Maritime Bureau, Tel: 8151.

SHORE LEAVE: No restrictions for shore leave.

REGULATIONS: No particular or unusual regulations for the port.

DELAYS: As a rule there is no delay in berthing, loading or discharge. Delay in loading or discharging may be caused by rain.

BANKS: ABN Bank, Simon Bolivarstraat, Tel: 8417 and 8429.

Maduro and Curiel's Bank, P.O.Box 66. Tel: 8420 and 8414. Telex: 1201 Mcbon NA.

Banco Barclays Antillano N.V., Breedestraat, Tel: 8295.

EMERGENCY CO-ORDINATION CENTRE: Nearest Emergency Co-ordination Centre is the Rescue Co-ordination Centre of the Royal Netherlands Air Force on Curacao, Tel: Curacao 81622 and 81628.

STORING: As a rule the vessel is stored by truck. Trucks can proceed alongside at the berth. Forklifts can be used on jetty to handle stores.

No particular Customs Regulations regarding storing.

Local people can be employed for storing, contact ship's Agent.

GENERAL:

Live Animals: The importation of dogs, cats, horses and certain other animals is permitted, provided these animals are accompanied by a certificate issued at place of origin by a licensed Veterinarian, stating that the animal in question is free from any contagious disease. Dogs must have, in addition, a Certificate of Rabies Inoculation. All animals imported (including birds) will moreover be examined on arrival.

Prohibited Imports: The importation of the following is strictly prohibited: Parrots and parakeets, absinth, explosives, firearms, ammunition and firework, except with prior permission from local authorities. All kinds of narcotics and drugs, the sale and use of which is regulated by International Conventions, except for legitimate use by and for sale to drugstores by duly accredited importers. Unauthorised reprints of copyrighted scientific and literary works of art. Copper, bronze and nickel coins, except for account of the Government of the Netherlands Antilles. Obscene printed matter.

Immigration Law: All passengers disembarking in Bonaire as temporary visitors, for business purposes, on vacation, or in transit to other destination, must be in possession of:

(a) Valid passport/birth certificate.
(b) One passport photograph.
(c) A return ticket, through ticket or passenger-order to next destination outside of the territory of the Netherlands Antilles.
(d) All documents and visas necessary for continuing to next destination or return to place of origin.
(e) Sufficient means to be able to support themselves during their stay in the territory.

No visa is required from a Netherlands Consul on any of the aforementioned documents.

DEVELOPMENTS: Feasibility study underway for port improvements.

AUTHORITY: Bonaire Port Authority, Harbour Office, Kralendijk, Bonaire, Netherlands Antilles. *Tel:* 8151. *Telex:* 1292 Gobon NA. *Contact:* Captain Celestino M. Semeleer, Harbour Master.

ORANJESTAD, Aruba: 12.31 N. 70.02 W. (See Plan)

DOCUMENTS:

Clearance from Last Port.
Derat Exemption Certificate.
Ship's Register.
Manifest of Cargo (or ballast), or Bills of Lading for import goods and transit goods separately.
Crew List (4 copies).
List of Stores on Board (2 copies).
Consignee Mail (if cargo for discharge).
Passenger List (if any passengers).

The Passenger List must carry full names, ages, sex, nationality and occupation of passengers landing at Aruba. The ultimate destination of in-transit passengers must also be shown on the Passenger List.

Derat Exemption Certificates can be renewed at Oranjestad, Barcadera and St. Nicholas.

Outward clearance, cargo documents and list of outgoing passengers are delivered on board by the Agent's representative, thereby making it unnecessary for Masters to visit the Customs Office to obtain outward clearance.

PILOTAGE: Masters are requested to advise Agents of their expected time of arrival at least 48 hours in advance. Arrival messages should include advice regarding cash or other requirements. This information is particularly necessary in order to give prompt attention to vessel's requirements and to avoid delay after arrival.

Pilots are government employees and pilotage is compulsory for vessels from 50 g.r.t. upward entering or leaving the harbour. Pilots board inbound vessels within 2 miles of shore. The Agent's representative will arrange for Pilots to board vessels as necessary. Inbound vessels should close the West entrance of the harbour as near as prudently possible and make a lee to facilitate the Pilot's boarding.

Every vessel arriving or departing must provide and properly secure a pilot ladder which conforms with the standards of construction normally accepted by international safety standards. Failure to provide such a ladder may result in the Pilot's refusal to board a vessel.

ANCHORAGE: Anchorages, suitable even for deepest draft vessels, are located outside the protecting reef along the whole length of the Western and S.W. coast. The depth of water ranges from 10 to 35 fathoms. Because of the sharply shelving nature of the bottom in this area, it is recommended that the services of a Pilot be obtained in taking up an anchorage. Ships are anchored only during daylight hours.

MINIMUM DRAFTS: For tankers arriving or sailing in ballast the following minimum drafts are required for manoeuvring under normal weather conditions:

G.R.T.	*Forward*	*Aft.*
16,600 (T-2)	8 ft.	18 ft.
18,000	8 ft.	18 ft.
27,000-30,000	10 ft.	20 ft.
30,000-36,000	14 ft.	22 ft.
37,000	14 ft.	24 ft.
46,000	16 ft.	26 ft.

MAX. SIZE: The harbour itself has a depth of 36 ft. at MLW. The safe salt water draft approved for docking at the Long Pier is 30 ft. and in the two Western Basins is 28 ft. Vessels normally enter via the West channel and depart via the East channel.

HEALTH: The Port Doctor will visit an arriving ship only if there is a case of quarantinable disease on board, if the ship has no clean Bill of Health or if one of the preceding ports of call has been declared to harbour a quarantinable disease. The Netherland Antilles Bill of Health is free of charge.

RADIO: Shore station for R/T communication with 24-hour service. VHF Channel 16, 156.80 MHz (calling); Channel 11, 156.55 kHz (working channel).

HF 2182 kHz, 2558 kHz (working frequency transmitter), 2158 kHz (receiving frequency SSB).

TUGS: 2 tugs available, 2,200 h.p. and 3,500 h.p. Both fitted with VHF Channel 16 (working Channel 11).

BERTHING: In total there are 4,070 ft. of dock length available to accommodate ocean-going vessels and 1,090 ft. of dock for small craft, of which:

1,720 ft. with 36 ft. of water alongside
2,350 ft. with 34 ft. of water alongside
460 ft. with 16 ft. of water alongside
230 ft. with 10 ft. of water alongside
400 ft. with 6 ft. of water alongside

CONTAINER FACILITIES: 30 acre container terminal in operation. Length of quay 255 m., depth alongside 12.0 m. 1×50 ton container crane. 2×35 ton forklifts. 1 back-up mobile crane of 140 tons available.

STEVEDORES: Stevedoring is performed at a fairly fast rate compared with other ports in the Caribbean area. All cargoes are handled by shore cranes. The terminal has extensive electrical installations for refrigerated container cargoes.

MEDICAL: Excellent medical and dental attention is available at any hour of the day or night to crew members of all vessels.

FRESH WATER: Boiler and drinking water of purest quality is supplied by hose from the docks at a rate of 200 t.p.h. (in special cases 400 t.p.h.).

FUEL: The port of Oranjestad is an official Esso bunker station. All grades of bunker fuels can be supplied from shore tanks at a rate of 1,500 bbls./p.h. A minimum of 48 hours advance notice is required.

REPAIRS: There are no facilities at Aruba for major ship repairs. Local workshops can do repairs of minor nature. Preliminary advice regarding such minor repairs should be included in ETA messages and work requisitions for repairs should be prepared for handing to the Agent's representative immediately upon arrival.

Radar, radio and gyro repairs can be carried out. However, it is important that Masters radio in their requirements as early as possible and give a brief reference as to the nature of the breakdown or fault of the equipment concerned.

While alongside vessels must be prepared to move at 1 hour's notice. Engine repairs to the effect of demobilizing the vessel may only be carried out with special permission.

SURVEYORS: Representatives of the American Bureau of Shipping, the Lloyd's Register of Shipping and the Norske Veritas are resident in the area. Masters may request the surveyors' services through the Agent.

BALLAST: Vessels must arrive with sufficient ballast to permit safe handling. All vessels should enter port with clean ballast that can be pumped over board when alongside, as it is prohibited to pump dirty ballast into the harbour.

GANGWAY/DECK WATCHMEN: An efficient and continuous watch must be maintained on deck and in the engine-room of all ships while in port, and a sufficient number of men must be on board at all times to move vessels either for harbour operations purposes or in emergency situations.

OPENING/CLOSING HATCHES: This work is normally carried out by the crew.

AIRPORT: The Port of Oranjestad – the commercial and tourist harbour of Aruba – is only 5 miles by road from the airport. The connection by air with the U.S.A. and Europe is very good and frequent (TCA, KLM, VIASA); other airlines operating in Aruba are: ALM, LAV, Aerocondor, and Caribbair.

POLICE/AMBULANCE/FIRE: Police, Oranjestad, Tel: 1000; Ambulance, Oranjestad, Tel: 2010/1234; Fire Alarm, Tel: 00.

CONSULS: The following countries have consular representatives at Aruba:

Brazil
Chile
Colombia
Costa Rica
Denmark
Dominican Republic
El Salvador
Germany F.R.
Guatemala
Haiti
Italy
Lebanon
Liberia
Nicaragua
Norway
Panama
Peru
Portugal
Spain
Sweden
Switzerland
United Kingdom
Venezuela

Necessary for Masters of Panamanian and Italian flag vessels to visit Consulates at Oranjestad to present documents and receive despatches. Other Consulates have similar requirements. Masters may check with Agent for clarification.

TIME: Local time is 4 hours behind GMT. Vessels are requested to use local time in ETA messages and when dealing with their Agents.

CUSTOMS GUARDS: Local authorities assign 1 or more Customs guards to each vessel during its stay in port; the charges for guarding are for the account of the vessel. These officials must be provided with meals on board at regular meal hours.

SHORE LEAVE: Under normal circumstances no restrictions are imposed by the Government Immigration Authorities on shore liberty. Masters are requested to endeavour to have all crew members on board prior to departure time, so that the ship will have no delay in sailing.

AUTHORITY: Aruba Ports Authority N.V., L. G. Smith Boulevard 23, Oranjestad, Aruba, Netherlands Antilles. *Tel:* 297-8-26633. *Telex:* 5120 Hafar NA. *Contact:* Harbour Master – Aruba.

PHILIPSBURG, St. Maarten: 18.05 N. 63.10 W. (See Plan)

LOCATION: Philipsburg, capital of Netherlands St. Maarten, lies in a well-protected bay in the S.E. corner of the island. The only obstruction to the harbour is "Proselyte Reef" or "Man-of-War-Shoals", located Lat. 17° 56′ N., Long. 63° 04′ W., with a minimum depth of 2.5 fathoms. Entrance to the harbour can be accomplished by passing either to the North or the East of this reef.

PILOTAGE: Pilotage is compulsory and performed by Government Pilots. Ships bound for the pier at Philipsburg should await the Pilot at a max. distance of 1 mile from the line Point Blanche-Fort Amsterdam. Pilotage service available day and night.

Pilot Ladder: Jacob's ladder, in clean and sound condition is sufficient.

Time to Berth: From pilot station to pier, about 15 to 30 minutes.

DOCUMENTS:

Crew List: Immigration 1 copy.
Agent 1 copy.
Passenger List: Immigration 1 copy.
Agent 1 copy.
Stores List: None required.
Ship's Register: Pilot will require to see this document for obtaining the official tonnage.

Note: No special form is prescribed for the above documents, consequently these may be made out in Company's regular form.

No consular visa required on any of the above documents.

Immigration: Immigration Officer boards ship immediately after docking. Passengers and crew are usually free to disembark immediately after boarding.

Agency Personnel: Agency personnel board immediately after vessel is docked together with Immigration Officer.

ANCHORAGE: Ample suitable anchorage area available with sufficient depths of water for several large ships simultaneously.

A good anchorage can be found in 40 ft. depth at the cross point of line joining the pier and Fort Amsterdam (Fl. ev. 4.5 secs.) and line joining radio masts and the mountain "Naked Boy".

If and when the pier is already occupied by another cruise-ship, cruise-ships can proceed to anchorage, in which case communications between ship and shore to be by ships' own launches.

For ships proceeding to anchorage, pilotage is also compulsory.

MAX. SIZE: 1 berth (North side of pier) max. LOA 300 ft. and draft 30 ft. 1 berth (South side of pier) max. LOA – no limit, max. draft 30 ft. Vessels berth portside alongside. 1 berth (East side of pier) max. LOA 360 ft. and maximum draft forward 12 ft.

RADIO: The Government radio and telegraph service operates daily from 0700 L.T. to 2400 L.T. worldwide.

Radio Telephone: VHF Channel 16.

ETA Messages: ETA messages should be sent to Agent preferably in local time at least 24 hours in advance and any changes occurring thereafter should be advised.

Use of Ship's Radio in Port: Prohibited.

TUGS: None available.

BERTHING: *A. C. Wathey Pier:* The new concrete pier at Philipsburg is located at Point Blanche in Great Bay and has a length of 210 m., with an additional 60 m. of berthing space, located at a 60° angle to the finger pier. Minimum depth is 34 ft. of water. 4 jumbo rubber fenders are located along the berthing space.

Height from sea-level to the deck of the pier at high tide is 4.02 m., at low tide 4.48 m. Ship will lie with port side to the pier.

Mooring and Unmooring: 3 dolphins are located in an extended line of the berthing space for mooring. Minimum required size of openings in shackles is 40×50 cm. Mooring boat is available.

Equipment: Cranes are available with a capacity of 20 tons max. Forklifts up to 40 tons for handling 20 ft. and 40 ft. containers and sufficient flat-bed trailers and low-buoys are also available.

STEVEDORES: There are 3 gangs available. Each gang has a total of 9 workers.

MEDICAL: Government physicians are available in Philipsburg and there is also a small, but up-to-date hospital operated by the Netherlands Antillean Government. A "Medical Service Request" form must be signed by the Master or other Authorised Officer for crew members requiring medical treatment.

Dental facilities available.

FRESH WATER: Available.

REPAIRS: ~~**FUEL:**~~ No facilities for carrying out repairs except for radio and radar (Radio Holland).

SURVEYORS: There is a representative of Lloyd's on the island.

AIRPORT: The island is served by A.L.M. (Dutch Antillean Airlines), Air France, Eastern Airlines, K.L.M. (Royal Dutch Airlines), L.I.A.T. (Leeward Island Air Transport), Prinair.

There are direct almost daily flights to and from New York and Miami connecting to other major places.

TIME: GMT minus 4 hours.

HOLIDAYS: The following Official holidays are observed in St. Maarten: New Year's Day (January 1st); Good Friday (varies); Easter Monday (varies); Queen's Birthday (April 30th); Labour Day (May 1st); Ascension Day (varies); Whit Monday (varies); St. Maarten Day (November 11th); Kingdoms Day (December 15th); Christmas Day (December 25th); Boxing Day (December 26th).

TELEPHONE: Service from ship to shore is not available.

GENERAL:

Ship's Bars and Shops: No restrictions and these may remain open for business while in port.

Laundry: Available.

Wind: Prevailing winds on the island between the months of March and December are East to South, velocity 6 to 10 knots. Between December and March winds are generally North to East at a velocity of 8 knots to 15 knots.

Tide: The tidal range in Philipsburg is at most 2 ft., but regularly not more than 1 ft.

Current: The current outside Philipsburg Harbour changes from Easterly to Westerly, with a max. velocity of 2 knots. At the Pier the current generally runs from North to South, with an average velocity of 0.5 knots.

Gangways: No gangways are available from the pier and ship's gangways will have to be used.

Ship's Launches: There are no restrictions on the use of ship's launches.

Stores: Available.

Garbage: No disposal facilities available.

Port Health: No regulations or requirements.

Customs: None.

AUTHORITY: Harbour Office, Philipsburg, St. Maaten, Netherlands Antilles. *Tel:* 2307-2348. *Contact:* John Ph. F. Craane, Harbour Master.

ST. EUSTATIUS: 17.29 N. 63.00 W. (See Plan)

LOCATION: Statia Terminals N.V.'s jetty and shore facilities are located at Tumbledown Dick Bay on the Northwest shore of the island in position Lat. 17° 29′ 39″ N., Long. 63° 00′ 28″ W.

The jetty extends approximately 0.5 miles seaward and can accommodate a vessel on each side.

Vessels of up to 175,000 tons can be accommodated in the Southern berth and up to 100,000 tons on the Northern berth.

A barge loading berth and tug berth are located inshore of the platform on the South side of the pier.

Vessels are also bunkered at the anchorage which lies to the South of the jetty.

DOCUMENTS:

2 copies Crew Lists.
2 copies Passenger Lists.

PILOTAGE: The Pilot will normally board vessels 2 miles from the end of the finger jetty.

Pilotage to the terminal berths is compulsory.

Pilotage to the anchorage is not compulsory but is available on request.

ANCHORAGE: The recommended anchorage is off the village of Oranjestad where a shelf with depths of up to 90 ft. extends almost 2 miles offshore.

Vessels awaiting bunkers by barge should anchor in the Northern part of the anchorage off Fort Royal (Interlopers Point), which is closer to the barge loading facility.

The anchorage area provides good holding ground throughout.

MAX. SIZE: See "Berthing".

HEALTH: Pratique will normally be granted when the Pilot boards. Masters must report on any communicable disease which may have occurred on board prior to arrival.

RADIO: Statia Terminal and the pilot station maintain listening watch on Channel 9. Channel 9 is used as a working Channel between ship and shore.

Vessels to make contact on Channel 9, 4 hours prior to arrival for berthing/anchoring instructions.

ETA: ETA should be sent 72, 48 and 24 hours prior to arrival. Fullest details of the vessel and her cargo should be sent in the initial message. Cables should be addressed to "Staterm, Saint Eustatius" and sent via Radio Curacao (PJC).

TUGS: Two twin screw Kort nozzle tugs, "Friesland" (33 tons bollard pull) and "Saba" (34 tons bollard pull), assist vessels at the terminal.

The Pilot will normally board from one of the tugs.

BERTHING:

Berth	*Max. d.w.t.*	*Max. Draft (ft.)*	*Loading Arms*
No. 1 (South Berth)	175,000	55	3×12 in. 1×6 in.
No. 2 (North Berth)	100,000	55	4×12 in. 1×6 in.

Bunker "C", I.F.O. and M.D.O. can be handled at both berths.

Connection to the shore is by Chicksan loading arms which the vessel's crew will connect under the supervision of a responsible officer.

Discharge is by ship's pumps assisted by shore booster pumps as required.

Loading is by gravity and/or shore pumps.

Both berths can accommodate vessels of up to 55 ft. draft.

Maximum discharge rate is 25,000 bbls./hr. and loading rate 30,000 bbls./hr.

The bunker "C" and I.F.O. arms on the jetties are fitted with 12 in. presentation flanges, and the diesel and gas oil arms are fitted with 6 in. presentation flanges.

Both berths are fitted with gangways for ships' use.

Ballast Facilities: The terminal can receive up to 63,000 barrels of dirty ballast, which is processed at 2,800 bbls./hr. The terminal will not accept ballast containing any chemical which may affect the processing systems.

MEDICAL: A qualified general practitioner practices on the island and there is a local hospital in Oranjestad.

In the case of more serious illness the patient can be evacuated for hospitalisation at St. Kitts or St. Maarten.

FRESH WATER: Not available.

FUEL: All grades of bunkers can be supplied at the terminal berths.

In addition, Statia Terminals operates a bunker barge which can deliver all grades of bunkers in the anchorage area.

SAFETY/FIRE PRECAUTIONS: The provisions of the current edition of the "International Safety Guide for Oil Tankers and Terminals" will be observed by vessels alongside the terminal facilities, and a copy of the Company's "Terminal Information and Regulations" booklet will be given to the Master by the Pilot on boarding.

REPAIRS: There are very limited repair services on the island.

AIRPORT: Windair services the island with four flights per day to and from St. Maarten, where international connections can be made.

CUSTOMS: There are no Customs restrictions.

TIME: Local time is GMT minus 4 hours.

BANKS: Barclays Bank of the Netherlands Antilles N.V. operates a sub-office in Oranjestad, St. Eustatius. The address of the main office in St. Maarten is P.O.Box 141, Front Street, Philipsburg, St. Maarten, Netherlands Antilles. Tel: 3511. Telex: 8022.

SHIPMASTER'S REPORT: June 1983.

Approaches: Except for the Saba Bank about 10 miles to the West of the Island, the waters in the vicinity of St. Eustatius Island are generally clear of obstructions. However, vessels are advised to heed the cautionary notices on the charts of the area regarding the existence of shoal patches, and should keep outside the 200 m. line where possible. The bottom slopes gently all around the Island and in the terminal area the depth one mile off shore is 150 ft.

The Island, and the neighbouring islands of St. Kitts and Saba, are steep to and present excellent radar targets. The mountains on all 3 islands also provide good visual bearings during the approach. The Southern portion of the Island is dominated by an extinct volcano 600 m. high (the Quill) while a lesser hill 289 m. high (Boven) is located at the Northern end.

Statia Terminals maintains a navigational light on the seaward mooring dolphin of the jetty. The position is Lat. 17° 29′ 39″ N., Long. 63° 00′ 28″ W., at a height of approximately 9 m. The characteristic is flashing white every 5 seconds and the light has a nominal visual range of 10 miles.

Documents: 2 copies Crew List.
2 copies Passenger List.

Pilotage: Pilotage to and from the jetty berths is compulsory.

Pilotage to the anchorage is not compulsory but is available on request.

Pilotage is available around the clock and is provided under the terms and conditions of the Statia Pilotage/Towage Certificate. The terms and conditions contained in the Conditions for Use of Terminal Facilities control the legal and practical relationship between Statia and the vessels using the terminal. The Statia Pilotage/Towage Certificate summarises these terms as well as providing data necessary for controlling terminal operations. The Certificate must be signed by Masters of all vessels using the terminal.

The Pilot will board incoming vessels about 2 miles from the end of the finger jetty. Communications with the Pilot is by VHF radio. Contact should be established on Channel 9 after which vessels will be asked to shift to another Channel.

Pilot ladders must conform to internationally accepted standards of construction. When vessels arrive at the pilot station, a good lee should be provided for the Pilot who will normally board from one of the tugs attending the vessel.

Radio: ETA must be communicated 72, 48 and 24 hours prior to arrival by cable addressed to Staterm St. Eustatius via Radio Curacao (PJC). Thereafter if ETA varies by more than 2 hours, the terminal must be advised. The initial message should include the following:

Discharging Vessels:
1. Name of vessel, call sign.
2. ETA St. Eustatius.
3. Draft on arrival.
4. Gross barrels and temperature on arrival (by grade).
5. Expected discharge rate.
6. Number and size of manifold connections.
7. Ballast hours required after completion.
8. Bunker requirements: quantity and grade.

Loading Vessels:
1. Name of vessel, call sign.
2. ETA St. Eustatius.
3. Draft on arrival.
4. Ballast: quantity and discharge time.
5. Last cargo carried.
6. Ability to load while deballasting.
7. Maximum loading rate.
8. Number and size of manifold connections.
9. Departure draft.
10. Bunker requirements: quantity and grade.
11. Slops retained: quantity and grade.

Tugs: Statia has 2 tugs to assist vessel to and from the berths. These vessels, the "Statia" and the "Saba", are twin screw and twin rudder vessels and are fitted with Kort Nozzles producing a 34 ton bollard pull. The tugs are equipped with fire fighting monitors capable of delivering either water or foam.

The lines needed for use with the tugs will be provided by the tugs. Tugs are normally made fast alongside the vessel, forward and aft.

Berthing: The axis of the jetty lies in a direction 245° 42′, and construction is of steel pilings supporting a trestle catwalk and loading platform. The co-ordinates of the seaward dolphin of the jetty are: Lat. 17° 29′ 25.8″ N., Long. 63° 00′ 08″ W.

Vessels lie alongside flexible, woodfaced breasting dolphins fitted with Yokohama fenders on either side of the jetty. Vessel mooring lines are secured to mooring dolphins fitted with quick release hooks. Spring lines are secured to the breasting dolphins. Vessels are usually moored with their bows shoreward.

Berth No. 1 on the South side of the jetty can accommodate vessels from 20,000 d.w.t. to 175,000 d.w.t. in 62 ft. of water, and Berth No.2 on the North side of the jetty can accommodate vessels from 20,000 d.w.t. to 100,000 d.w.t. in 62 ft. of water. The water inshore along the jetty shoals gradually. The tug and barge berths are at the shore end of the jetty.

The normal tidal range at the jetty does not exceed 2.5 ft.

Loading arms are used for the transfer of cargo and bunkers.

Fire fighting monitors are installed on the loading platform.

Fresh Water: Not available.

Fuel: Vessels using the jetty will generally be bunkered from the terminal jetty. Vessels not using the jetty will be bunkered from the barge "St. Thomas", capable of handling gas oil, marine diesel, intermediate fuel oils, bunker C and potable water.

General: Between the months of May and October hurricanes may develop in the Caribbean area although St. Eustatius is outside the normal hurricane tracks. However, in the event that hurricanes should threaten, all seamanlike precautions should be taken by vessels using the anchorage and terminal facilities.

SHIPMASTER'S REPORT: March 1986.

Tanker of 95,000 d.w.t. called for bunkers only.

Vessels normally berth with bow heading out. 2 tugs with tug's lines. Forward tug at port bow and after swinging, second tug makes fast aft.

When berthing on Eastern side of jetty use the port anchor. A strong Westerly set can be experienced and may appear during berthing.

Require ship's messengers fore and aft as there are no winches ashore.

Moorings: 2 springs, 2 breasts, 3 head/stern lines in that order.

Ship's personnel not allowed on jetty. Shore leave permissible by boat.

OPERATOR: Statia Terminals, N.V., Staterm Building, P.O.Box 170, Oranjestad, St. Eustatius, Netherlands Antilles. *Tel:* 2300, 2395. *Telex:* 384-8029 Term NA. *FAX:* 2259. *Contact:* Marine Superintendent.

Statia Terminals Inc., Two Datran Center, 9130 South Dadeland Boulevard, Suite 1508, Miami, Fl. 33156. *Tel:* (305) 670-0700. *FAX:* (305) 670-0709.

SAN NICOLAS, Aruba: 12.26 N. 69.55 W. (See Plan)

DOCUMENTS/HEALTH and all General Information, refer to "Oranjestad".

PILOTAGE: (Inner Harbour) Pilotage is compulsory. Pilot boards 1.5 miles S.W. of the West Entrance Buoy.

A pilot service for anchoring off the Terminal is available upon the Master's request, providing radar and echo sounder are functioning properly.

ANCHORAGES: There are 3 anchoring areas off Aruba.

1. About 3 miles W.S.W. of Noordwest Point.
   This anchorage can be affected by swell so equipment and personnel changes can be risky in poor weather. Because of the changeable weather this anchorage is not recommended for vessels staying for long periods or for VLCCs. When anchoring care should be taken to avoid the submarine cable in this vicinity.
2. About 6 miles S.W. of Oranjestad.
   This anchorage is generally quieter than the one described above, however, transport to the shore may take longer. This area is suitable for all ship sizes and with many years of experience there have been no reported problems of anchors dragging.
3. The "Restricted Anchorage".
   There is a Restricted Anchorage about 2 miles off-shore and some 4 miles N.W. of Oranjestad. This anchorage is only to be used by vessels engaged in operations requiring assistance from the shore. Operations would include repairs, hull cleaning or tank cleaning. Vessels proceeding to this anchorage will be specially advised by Charterers or Owners. For anchoring Masters are recommended to take a Pilot.

It should be noted that in all the anchorages described above inward clearance and other formalities are not necessary, as long as there is no direct contact with the shore. If crew changes or other direct contact with the shore is to take place then normal procedures have to be followed.

Tug and launch services are available at all the anchorages for stores or personnel reasons.

Whilst waiting for orders or acting as floating storage, vessels are required to take every precaution to avoid all forms of pollution including dumping of floating garbage.

Prohibited Anchorage: Lat. 12° 25.83′ N., Long. 69° 55.52′ W., in the vicinity thereof.

Report: 1982.

Due to the high aesthetic value and pollution sensitivity of the West and S.W. coast, it is prohibited for vessels to anchor in the area bounded on the North by a line drawn with California Light (Noord Westpunt) bearing 025° True and on the South by a line drawn with Hooiberg Peak bearing 090° True.

Vessels should anchor about 12 miles West of San Nicolas Harbour. Loaded ULCC's should not anchor off the coast of Venezuela.

Another anchorage is located outside the reef South of San Nicolas Harbour. This anchorage is intended for vessels that have to perform small repairs and for which repair, parts are required from shore. These vessels are requested to proceed to the Outer Anchorage as soon as they have completed the repairs. Lightering vessels, before proceeding to the lightering area, will also be anchored off the reef in order to put the Yokohama fenders alongside. Pilots are available to anchor vessels at the Reef Anchorage 24 hours a day. All navigational equipment (fathometer, radar, etc.) must be in good working order.

APPROACHES: *Report:* 1982. The predominant wind in the area comes from an Easterly direction and the main ocean current sets in a Westerly direction. The tourist industry is an important economic factor in Aruba, and to avoid the possibility of vessels being erroneously accused of contributing to oil pollution of the North Coast and resort beaches, it is recommended that vesels, when practical, approach San Nicolas from the West.

RESTRICTIONS: The port is open for day navigation. The safe salt water draft approved for entering is 39 ft. and 40 ft. for leaving. Vessels normally enter via the West channel and depart via the East channel.

Tides: Diurnal with max. amplitude of 18 in. Datum used is MLW., water level never falls more than 6 in. below MLW.

MAX. SIZE: *Reef Berths:* Tankers up to 550,000 d.w.t. No. 2 Reef berth, depth alongside, 105 ft. MLW. Also see "Reef berths".

Inner Harbour: 90,000 d.w.t.

Also see "Berthing" – "Note".

VHF: "Oranjestad Pilot Station" on VHF Channel 16.

TUGS: 2 diesel-powered tugs are used for berthing and unberthing. For vessels over 50,000 d.w.t. a third tug is used.

?

BERTHING: The max. limitations for vessels using San Nicolas facilities are:

Berths	*Length* (ft.)	*Beam* (ft.)	*Salt water max. draft* (ft.)	*Bow to manifold* (ft.)	*Approx.* **d.w.t.**
1 South	710	UNL	38	340	50,000
1 North	690	110	37	340	50,000
2 South	800	120	39	400	50,000
2 North	720	120	38	350	50,000
3 South	870	130	39	440	90,000
3 North	760	120	39	380	80,000
HDS Pier	600	90	30	UNL	30,000 (dry cargo only)

The max. entering draft is 39 ft. even keel salt water. The maximum sailing draft from No. 2 South, No. 3 South and No. 3 North is 40 ft.

The following is the suggested ballast draft for vessels.

MDWT	*Fore* (ft.)	*Aft* (ft.)
10 – 20	8	18
20 – 30	10	20
30 – 40	14	22
40 – 50	14	24
50 – 100	16	26

Note: Since the Refinery shutdown on 31st March 1985, Esso Petrolera S.A. is only using No. 3 Finger Pier. Max. size and limitations are as follows:

Max. Ship's Length: 265 m. (870 ft.)
Max. Ship's Beam: 39 m. (130 ft.)
Max. Ship's Draft: 12.1 m. (40 ft.)
Max. Ship's Displacement: 100,000 tons
Max. Distance
  Bow to Manifold: 134 m. (440 ft.)
  Stern to Manifold: 134 m. (440 ft.)
Max. Height of Manifold
  Above Waterline: 16.1 m. (53 ft.)
Minimum Distance
  Manifold to Rail: 1.2 m. (4 ft.)
Max. Distance
  Manifold to Rail: 6.7 m. (22 ft.)
Max. Arrival Draft: 11.9 m.(39 ft.)

REEF BERTHS: (Not in use).

VLCC anchorage: When anchoring is necessary, Masters of VLCCs may wish to anchor in the following position; 12° 24′ N., 70° 07′ W., approx. 12 miles West of San Nicolas Harbour in approx. 25 fathoms.

Pilot Station: 2 miles to 3 miles West of San Nicolas Harbour entrance. When Pilot is boarding, the vessel should be on an Easterly course with a speed of not more than 2 knots.

Embarking Pilot, Loaded VLCCs: On the port side with either pilot hoist or conventional pilot ladder.

Ballast VLCCs: On the port side with a combination of accommodation ladder and conventional pilot ladder, or with only accommodation ladder.

Disembarking Pilot, Loaded VLCCs: On the starboard side with either pilot hoist or conventional pilot ladder.

Ballast VLCCs: On the starboard side with a combination of accommodation ladder and conventional pilot ladder, or with only accommodation ladder.

Tugs: Normally 4 tugs used for tankers over 250,000 d.w.t. 2 on long lines, 1 forward and 1 aft and 2 alongside starboard side. Tug's lines used.

Docking: Always portside to, with starboard anchor ready, walked out to 1 shackle in the pipe.

Approach Velocity: RB II is equipped with a Doppler traffic light system.

Approach velocity 00–12 ft./min.=green.
12–20 ft./min.=amber.
above 20 ft./min.=red.

When the vessel is receding, the light is always green.

Mooring Launch: Used for all lines, except for the spring lines fore and aft. Forward moorings first, after moorings second.

Mooring Capstans: All mooring and breasting dolphins are equipped with capstans, 2 ton pull capacity, 100 ft./min. line hauling capacity.

Max. Size:

	MDWT	*Max. LOA* (ft.)	*Beam*	*Depth* (ft.)	*Max. draft* (ft.)	*Pier Heading*	*Approach angle*
RB I	40–400	1200	UNL	80	75	130° true	15°
RB II	40–550	1400	UNL	105	95	114° true	10°

Sailing Draft Ballast VLCCs: about 25 ft. fore and 35 ft. aft.

Lines and Winches: Mooring lines assumed to be 1.625 in. diameter steel wire with a breaking strength of 90 – 100 tons.

Mooring winches assumed to have about 25 metric tons heave capacity and 55 metric tons brake holding capacity (minimum).

Combination of a wire and a synthetic line to a single dolphin will not be permitted.

Mooring lines must not be stressed beyond 55% of their breaking strength.

Self tensioning is not permitted. Automatic winches should be used on manual brake.

Synthetic tails on wires should have a higher breaking strength than the wire to which they are connected. The eyes of the tails should be protected from abrasion with suitable coverings, and tails should be connected to wires with suitably designed shackles.

A maximum of only 2 layers of line to be allowed on working or tension drum of split drum winches.

Current and Wind: Current is less than 0.5 of a knot 90% of the time. Wind is less than 20 knots 70% of the time, and less than 25 knots 97% of the time.

Wind direction True	*% of time*
20° – 40°	2
50° – 60°	6
70° – 80°	33
90° – 100°	40
110° – 120°	13
140° – 170°	1
220°	5

Current direction True	*% of time*
40° – 70°	24
100° – 110°	17
140° – 240°	10
260° – 290°	24
320° – 340°	25

Wind tolerance: At 30 knots steady, loading will be discontinued, and the loading arms will be drained, engine to be confirmed ready for use.

At 35 knots steady, arms will be disconnected and tugs will be on stand-by.

Loading Arms: RB I; four 16 in. cargo arms with 16 in. bolted flange connections. One 8 in. bunker arm (No. 5 arm, the most Westerly arm). RB II; five 16 in. cargo arms with 16 in. connections.

Discharge/Loading Lines: RB I 36 in., 3,000 ft. long. RB II 56 in., 4,000 ft. long.

Radio Contact: Contact between Loading Master, control room, marine office by VHF and UHF. Particulars will be given by Loading Master.

Bunkers: RBI; through bunker arm (No. 5). RB II; through No. 1 or No. 5 loading arms with reducers.

Water: Not available.

Provisions: By launch; to be taken on board by ship's lifting gear on the port quarter.

Shore Leave: No pedestrian traffic allowed between ship and main gate. Arrangements for crew transportation can be made with Agent.

LIGHTERING OPERATIONS: (No lightering taking place at present, pending a decision for re-opening the terminal for ULCC's and VLCC's.) VLCCs discharging at Aruba may be called upon to discharge part of their cargo by ship-to-ship transfer off Aruba. The lightening operation is carried out by vessels suitably equipped for ship-to-ship transfer operations, and is under the control of Exxon's Lightening Master on the lightening vessel.

The Lightening Master will board about 1.5 miles off San Nicolas Haven to discuss the operations. A derrick or crane should be ready on the lee side to pick up various equipment for the mooring and pipe-line connection. A Lightening Assistant stays on board to advise and assist with mooring procedures.

The VLCC and the Lightening vessel rendezvous in position: Lat. 12° 24′ N., Long 70° 14′ W. Communications are by portable radio placed on board and/or VHF Channel 8. The designated lightening area is bounded by the following positions:

(1) Lat. 12° 25′ N., Long 70° 04.4′ W.
(2) Lat. 12° 25′ N., Long 70° 10.3′ W.
(3) Lat. 12° 30′ N., Long 70° 13.5′ W.
(4) Lat. 12° 30′ N., Long 70° 07.2′ W.

The mooring takes place whilst steaming into the prevailing wind on an Easterly course at about 3 knots. Thereafter the VLCC anchors within the designated lightening area for the ship-to-ship transfer. Wind speeds in excess of 23 knots are considered unsuitable for the mooring and the lightening operations to take place.

Masters need not come ashore to clear ship with Customs. The ship's Agent can do this by proxy. Ship's papers for clearance and signed proxy will be picked up from ship off port by tug or launch.

FRESH WATER: Not available.

FUEL: All grades of bunkers available.

Berth: Vessels arriving for bunkers only with a draft greater than 39 ft. or over 90,000 d.w.t. must use the Reef Berths. As the berth is used for crude oil trans-shipment bunkering vessels can expect delays. Also the following considerations apply:

1. Vessels working cargo have priority over vessels bunkering.
2. In assigning tugs, vessels working cargo take priority. (2 to 3 hours tug service required at the sea berth.)
3. Vessels using the Reef Berths must have at least 12 good mooring lines. All mooring winches and equipment will be inspected and must be in good order. Vessels may not be docked if equipment is faulty.
4. In the event of marginal weather, deep draft vessels calling for bunkers may not be docked.

REPAIRS: A local workshop can do minor repairs.

PORT FIRE PROTECTION: The Port of San Nicolas is very well equipped with modern equipment for fire-fighting and fire prevention.

BALLAST: Vessels must arrive with no more than 8% d.w.t. dirty ballast. Clean ballast will be discharged overboard after docking. Slops can be discharged to the disposal facilities ashore. Shore reception facilities are limited.

SPECIAL REGULATIONS: Strict compliance with Harbour Safety Regulations is mandatory. Stringent regulations prohibit the transportation of alcoholic beverages through the refinery and harbour area. No liquor or beer may be taken on board or removed from vessels except only bonded stores ordered by the Master.

SHORE LEAVE: As all ship's personnel when going ashore have to pass through the docks and the company's concession, every seaman must carry an identity card to check off against ship's Crew List at main gate. Seamen must have special pass to use any other gate than refinery main gate.

POLICE/AMBULANCE/FIRE: Dial 2222 on jetty telephone. Call "Lagomarine" on UHF set which is supplied to every ship whilst alongside.

AUTHORITY: Esso Petrolera S.A., Seroe Colorado, Aruba, Netherlands Antilles. *Tel:* 9-2067. *Telex:* 5026. *Cables:* Essolago Aruba.

Also see "Oranjestad".

31

SINT MICHIELSBAY, Curacao: 12.09 N., 69.01 W.

LOCATION: Sint Michielsbay, on the South coast of Curacao, 5 miles West of Willemstad, is an open bay, naturally protected from prevailing winds and sea.
PILOTAGE: Compulsory.
ANCHORAGE: In the bay 650 ft. out of the coast in 130 ft. water is laid a S.P.M. buoy, which gives a good anchorage to vessels up to 350,000 d.w.t. which, because of dangerous cargo, quarantine or because of a defect cannot enter another port of Curacao.
BERTHING: Vessels are moored with their stern to the buoy and their bow anchors are heaved out to hold the foreship from the coast.
REPAIRS: Repairs or handling cargo can be carried out by way of barges. A landing jetty for barges is available.
GENERAL: Other services as tugboats, lighterage, stevedoring, etc. are rendered from Willemstad.
AUTHORITY: Curacao Port Authority, N.V., Werf de Wilde Z/N, P.O.Box 689, Willemstad, Curacao, Netherlands Antilles. *Tel:* (9) 611133, 611740. *Contact:* Captain E.P. Sint Jago, Nautical Director.

WILLEMSTAD/EMMASTAD, Curacao: 12.06 N. 68.56 W. (See Plan)

DOCUMENTS:
For Immigration:
2 copies of Crew List.
2 copies of List of Passengers. Passenger Lists should indicate full names, age, sex, civil state, and occupation. Passengers must show proof of citizenship (a passport, voter's registration or birth certificate is acceptable).
For Customs:
1 copy of List of Stores (deck, engine and stewards department).
Manifest of Cargo for Curacao, if any, in duplicate, on special form called "Vrachtlijst" itemising the cargo by lots of the same mark and showing numbers, kind of packages, general description of contents and weights in kilograms or pounds of each lot.
Manifest of Cargo for Curacao, in transit, for transhipment through Curacao to other ports, if any, in duplicate for each different port separately on special form and itemised as indicated above.
Manifest of Cargo on board, in transit, if any, in duplicate on special form as indicated above, showing only the total number of packages on board, general description of the merchandise and total weight in kilograms or pounds; if the cargo is in bulk, this is indicated accordingly.
2 copies of tally books of cargo for discharge at Curacao, if any.
1 copy of Crew List plus 1 copy of Personal Effects List.
1 copy Passenger List landing at Curacao.
If the ship is in ballast, only the Stores List is required.
The Customs Officer will then make out his "Akte van inklaring" (Certificate of Entry).
The above documents have to be signed by the Master. They may be made out in Dutch, English, Spanish or French.
PILOTAGE: Pilotage is compulsory. Rendered day and night. Pilots are government officials and are stationed at Willemstad. The Harbour Master is also the head of the Pilot Service.

Vessels must provide a lighted, manned, properly secured and clean pilot ladder, fitted with sufficient spreaders.

A life buoy fitted with a Holmes light, as well as a reliable heaving line, should be placed close to the pilot ladder and the embarkation and disembarkation should be supervised by an officer. Vessels arriving or leaving with a freeboard exceeding 30 ft. must use the accommodation ladder in conjunction with the pilot ladder (Safety of Life at Sea Convention 1960).

Vessels bound for Curacao should proceed to Willemstad Harbour except when they have specified orders for another bay.

Vessels in sight of Willemstad will be contacted by the signal station at Fort Nassau for further orders. From this same station, lights are shown to direct the traffic in port.

Vessels should stay 1 mile off shore S.W. of the harbour entrance to await Pilot. Both anchors should be ready for immediate use. Defects of engines, steering gear, anchor gear and other defects which influence the manoeuvring ability of the vessel should be reported before entering to the Harbour Master.

The pilot motorboat is identified by a blue flag with the letter "L" in daytime, and a red light above a white light at night.
ANCHORAGE: As a rule there is no anchorage area in the harbour, but in the Eastern part of the Schottegat there is a dolphin with mooring buoy on each side available to await berth or orders for limited time, subject to permission and conditions from the Harbour Master.

4 vessels, 2 vessels alongside each other can be safely moored at these buoys. Depth: 40 ft.; distance between each buoy and dolphin 1,000 ft. Furthermore, in the Southern part of the harbour a set of 2 dolphins can accommodate 2 vessels with length up to 600 ft. and a max. draft of 20 ft.
RESTRICTIONS: The harbour of Willemstad consists of a 1,400 yd. long and min. 270 ft. broad channel, the Santa Anna Bay, with depths from 50 ft. to 79 ft. and an adjacent inner bay, the Schottegat, a 150-acre body of water with a depth of more than 10 ft. and a maximum of 79 ft.

The navigable portion of the entrance of the port is 865 ft. wide, marked on either side by a light-buoy, and the minimum depth is 50 ft.

Required minimum draft for tankers arriving, shifting and sailing:

g.r.t.	fwd. ft.	aft. ft.
up to 11,000	10	16
11,000–15,000	11	18
15,000–19,000	13	19
19,000–25,000	14	20
25,000–29,000	15	21
29,000–35,000	17	23
35,000–43,000	18	24
43,000–45,000	19	25
45,000–47,000	20	25
47,000–50,000	21	26
50,000–55,000	22	28
55,000–60,000	22	29
60,000–65,000	23	30
65,000–70,000	23	31
more than 70,000	24	32

Maximum trim for tankers: 10 ft. by the stern, 2 ft. by the head.
BRIDGES: Santa Anna Bay is crossed by 2 bridges, the Queen Emma floating pontoon bridge and the new Queen Juliana fixed bridge.

The pontoon bridge opens day and night for in and outgoing vessels. There will no longer be any waiting period at the harbour entrance. Automobile traffic will be diverted to the new bridge and those on foot will have continuous ferry service available. Ships will have overall preference for openings.

The fixed arch bridge, dominating Willemstad's skyline and the entrance to Schottegat Bay, is 183 ft. high, (clearance 180 ft.) enabling the biggest vessels to pass under. The bridge is of box girder construction and is open to automobile traffic only. Glare-proof lights are installed to prevent interference with light signals that harbour Pilots rely on when bringing a ship through the channels.

Tankers passing through the Santa Anna Bay must have all tank-lids properly closed, even if they are gas free. This is a harbour regulation.
MAX. SIZE: Length 850 ft., draft 45 ft. Vessels with a LOA of 1,000 ft. have been piloted in the harbour.
HEALTH: The Port Doctor will visit only if there is a case of quarantinable disease on board. The Netherlands Antilles Bill of Health is free of charge.
RADIO: VHF Radio-telegraph and radio-telephone. PJC Coast Station operated by the Netherlands Antilles.

Location : Curacao.
Call Sign : PJC.
Frequencies (Telegraph) : 438/500 kHz, 4334, 8694, 13042.5 and 17170.5 kHz. Schedules as indicated in the List of Coast Stations.
Frequencies (Telephone) : 2182, 2550, 4125, 4379.1, 8725.1, 13119.4 and 17251.5 kHz. Schedules as indicated in the List of Coast Stations.
Watchkeeping : 24 hours.
Range : Mid-Atlantic and Caribbean area.

VHF: *Port Operations Station (Operated by Harbour Authorities):* Location, Fort Nassau. Call sign, Fort Nassau. Frequencies, International Channels 16 (156.80 MHz), calling and safety; 12 (156.60 MHz), working, first choice; 14 (156.70 MHz). Watchkeeping, 24 hours on Channel 16. Type of operation, Simplex, Frequency modulated. Range, 20 to 25 miles.

Main Private Station. Operated by Isla (Refineria Isla Curacao S.A.): Location, Emmastad. Call sign, Refinery Isla Curacao. Frequency, international Channel 19 (receiving, 156.950 MHz); (transmitting, 161.55 MHz). Type of operation, Duplex working, frequency modulated; operated by remote control from Isla's telephone exchange; ask operator for connection with party desired. Range, 20 miles. Watch-keeping, 24 hours on Channel 19; normal daily business, 0730 hrs. till 2400 hrs.; urgent business only, 2400 hrs. till 0730 hrs.

Tug Base Station:
Location : Parera/Emmastad Refinery.
Call Sign : Marine Department – For tug movements only and in an emergency to direct the tugs at Refineria Isla (Curacao) S.A. Watchkeeping during office hours on Channel 19.
Central Post – For tug movements only. Watchkeeping 24 hours on Channel 19.
Tugboat Jaro/Tugboat Lima – For emergency calls to tugs on Channel 14 and Channel 19. Watchkeeping 24 hours on Channel 14 and 19. Telephone 662927/662187.
Frequency : International Channel 14 (156.700 mHz)
Operation : Simplex.

Tug Mobile Stations: Location, 1 on each tug. Call sign, Balau, Piku, Lima, Jaro, Gutu and Buni. Frequency, International Channels 16, 12, 14, 9, 8 and 6. Watchkeeping, 24 hours on Channel 14. Operation, Simplex – frequency modulated.

Curacao Drydock Co.
Location : Koningsplein (Schottegat Harbour).
Call Sign : Curacao Drydock.
Frequencies: : International Channels 13 (156.650 MHz), and 6 (156.300 MHz).
Watchkeeping : 0730 hrs. till 2400 hrs.
Operation : Simplex.

TUGS: Compulsory for all tankers exceeding 3,000 g.r.t. Tankers exceeding 700 ft. LOA must make one tug fast forward before entering.

S.I.A. (Smit International Antilles N.V.) has 2 modern powerful tugs stationed at Bullen Bay, for rendering services to tankers calling at Bullen Bay.

The "Piku", 4,000 h.p., 59 tons bollard pull, built in 1974.
The "Buni", 4,000 h.p., 59 tons bollard pull, built in 1975.
They are also used by "ship to ship transfer" in the coastal waters South of Curacao.

All tugs are provided with extensive firefighting and salvage equipment, and each tug carries some 25 tons of oil dispersant together with a spray system to be utilised in case of oil spill.

Another tug the "Balau", 2,800 h.p., 37 tons bollard pull and built in 1976 is stationed in the harbour of Willemstad for rendering towage and salvage assistance both inside and outside the harbour.

K.T.K. (Kompania di Tou Korsou) has 2 seagoing motor tugs stationed at Willemstad.

The "Lima", 2,250 h.p. GRT 162, bollard pull 30 tons.

The "Jaro", 2,250 h.p. GRT 162, bollard pull 30 tons.

The tugs can be engaged for rendering towage assistance both inside and outside the harbour. As a rule, however, all vessels dock or undock at all wharves and enter or leave the port without tug assistance. In case of abnormal circumstances or in case the Harbour Master may require tug assistance.

Tugs can be requested by the Master for speeding up docking or undocking the vessel.

There are about 20 small harbour tugs available, varying from 60 h.p. to 300 h.p. and about 80 lighters, to receive cargo or bring it alongside a vessel, varying from 60 tons to 250 tons capacity.

Also see "Services".

BERTHING: There are berths on either side of the Santa Anna Bay North of the pontoon bridge, with depths varying from 18 ft. to 33 ft. alongside, generally used for bunker, cargo and passenger ships.

On the Eastern side four wharves: the Handelskade, depth 18 ft.; the Kleinewerf, depth 24 ft.; Grotewerf, depth 31 ft.; and Salazarwerf, depth 24 ft.

On the Western side there are 6 wharves: the Matheywerf, depth 23 ft.; Westwerf I, 25 ft.; Westwerf II, 36 ft.; Nieuwewerf, 33 ft.; Motetwerf, 33 ft.; Oranjewerf, 19 ft.

In the Schottegat there are seven more berths, generally used for bunker, cargo or passenger ships.

Prins Hendrikwerf which closes the Western corner Santa Anna Bay/Schottegat, has a depth of 34 ft.; however, ships with a draft of more than 35 ft. can be moored by way of placing rafts of 10 ft. width between vessel and the quay.

At the Eastern part of the Schottegat are the Admiral Brion Wharves, which have 3,000 ft. docking space available with 33.5 ft. depth alongside.

In the Schottegat on the peninsula of Asiento are situated the 10 jetties owned by Isla, which are mostly used by tankers; however, other vessels are able to use these jetties for bunker facilities. Jetty No. 1 may be used for general cargo.

The Schottegat also has about 6,000 ft. of quay available for repairs. The names of the wharves, lengths and depths alongside are: Beatrix I and II, 1,300 ft. (each) – 20 ft.; Beatrix III, 400 ft. fore, 10 ft. aft – 35 ft.; Beatrix IV, 350 ft. – 31 ft.; Beatrix V and VI, 1,000 ft. (each) – 35 ft.; Repair Quay, 1,650 ft. – 35 ft.

There are sufficient covered and open storage places available on the wharves to load or unload a ship, generally dry cargo. Total covered storage area: 57,650 sq.ft., open storage: 500,000 sq.ft.

These areas can be used for transit as well as local cargo.

In the N.E. part of the Schottegat LASH lighters can be moored at 2 sets of buoys, depth 20 ft.

Storage capacity for liquid petrol products is 4,600,000 tons in tanks of Isla Refinery.

All Isla piers are modernly equipped to handle oil in bulk, safely, and speedily, in order to make the turn around of the vessels as short as possible. Sufficient hose connections are installed to load or discharge oil, water-ballast or residue, and to supply steam and fresh water.

The wharves in Santa Anna Bay and the Brion Wharves are all modernly equipped to supply different kinds of bunkers and also handle cargo simultaneously. Normally, general cargo is handled with the ship's gear.

Sufficient pallets and fork-trucks are available. Mobile cranes are available if needed up to 140 tons.

At the container terminal there is a modern container gantry crane with capacity 50 tons (40 tons with spreader).

Docking of cruise ships and cargo vessels in Willemstad harbour: The following piers operated by Curacao Port Services Inc., are regularly used by cruise ships and rarely by cargo ships:

Nieuwewerf, Motetwerf: West side St. Anna Bay. Type: Quay. Construction: Sheet piling, concrete top, stelcon plates floor. Length: 1,200 ft. Draft: 33 ft. Height above water: 4 ft. One transit shed each: Nieuwewerf, width 65 ft., length 216 ft., area 14,000 sq.ft. Motetwerf, width 65 ft., length 216 ft., area 14,000 sq.ft. Open space area 200,000 sq.ft. One warehouse facility 6,500 sq.ft.

Oranjewerf: On West corner St. Anna Bay/Schottegat. Type: Quay. Construction: Iron piles, concrete top, concrete floor. Length: 418 ft. Draft: 19 ft. Height above water: 6 ft. Special bunker pier.

Prins Hendrikwerf: In the Schottegat near West corner Santa Anna Bay. Type: Quay. Construction: Iron piles, concrete top, concrete floor. Length: 690 ft. Draft: 34 ft. Height above water: 5 ft. One transit shed: width 65 ft., length 385 ft., area 25,000 sq.ft. Open space area 120,000 sq.ft. No warehouse facilities. Bunker facilities, water.

Admiral Brion Wharves: Nos. 1, 2, 3, 4, 5 and 6 situated at the East side Schottegat. Type: Quay. Construction: Sheet iron cells with concrete top, asphalt floor. Total length: 3×1,000 ft. Depth: 34 ft. Height above water: 5 ft. Two transit sheds; one with width 65 ft., length 680 ft., area 44,000 sq.ft.; one with width 65 ft., length 210 ft., area 13,650 sq.ft. Open space area 500,000 sq.ft. Two platforms for Ro-Ro ships are available. Max. draft 23 ft. – 33 ft.

Kleinewerf, Grotewerf, Salazarwerf: East side of St. Anna Bay. Type: Quay. Construction: Sheet piling, concrete top, asphalt floor. Total length wharf: 1,470 ft. Maximum depth alongside 24 ft. – 31 ft. Height above water: 2 ft. One transit shed, width 65 ft., length 330 ft., area 21,500 sq.ft. Open space area 154,000 sq.ft. No bunkering facilities.

Matheywerf: West side Santa Anna Bay. Type: Quay. Construction: Sheet piling, concrete top, asphalt floor. Total length wharf: 640 ft. Draft: 23 ft. Height above water: 4.5 ft. Open space area: 36,000 sq.ft.

Westwerf I: West side Santa Anna Bay. Type: Quay. Construction: Sheet piling, concrete top, asphalt floor. Length: 480 ft. Draft: 25 ft. Height above water: 4.5 ft. One transit shed: width: 61 ft., length: 396 ft. Area: 20,000 sq.ft. Open space area: Nil.

Westwerf II: West side Santa Anna Bay. Type: Quay. Construction: Sheet piling, concrete top, asphalt floor. Length: 430 ft. Draft: 36 ft. Height above water: 4.5 ft. Open space area: 18,000 sq.ft.

Bunker facilities. Water only available through fire hose from Nieuwewerf.

Container Terminal: This terminal offers a 500 m. (1,650 ft.) quay length with 1 Lo-Lo berth, 1 Ro-Ro berth and 1 combined Ro-Ro/Lo-Lo berth. The Ro-Ro berths are 25 m. length, each with a depth alongside of 40 ft.

At the terminal, an area of 100,000 sq.m. (about 25 acres) of container storage space, including reefers and modern repair and maintenance facilities is available.

A very modern gantry crane now handles approximately 25 moves per hour in order to despatch ships as fast as possible.

The reefer parking area is to be equipped with 195, 220, 380 and 440 volt connections.

Designed for up to 50,000 moves per year (with possibilities for further extension), the terminal is now handling 25,000 TEU moves each year.

Cruise Terminal: Located on the Mattheywerf in the Santa Anna Bay.

The terminal has a covered area of 745 m. (8,080 ft.) and is provided with all necessary facilities to embark and disembark passengers and has Customs and Immigration offices and counters, telephone (local and international) and tourist information office.

An extensive facelift is presently under way at the Matthey Cruiseship Wharf which is conveniently located within walking distance of the downtown area. When completed, facilities will include a covered open-air area with chairs, a snack bar and kiosks offering information on Curacao and booking for sightseeing trips, car rentals, etc., as well as restrooms.

Cargo handling and bunkering can be carried out simultaneously.

Besides the wharves mentioned above, there are 10 oil piers in the Schottegat for discharging crude oil and feedstocks for the Isla Refinery and loading products. These wharves are therefore used mainly by tankers. They are all equipped to provide bunkers.

All main grades of marine lubricants are stocked at the Port of Curacao. Shell Marine lubricants and Marine technical service with laboratory facilities for the examination of used oil samples are available 24 hours a day.

STEVEDORES: Gangs must be engaged between 0600 and 0630 hrs. for the day, on weekends and Saturdays. For work on Sundays and holidays, gangs must be ordered between 0600 and 0630 hrs. on Saturday or the workday preceding the holiday. Masters of vessels carrying out cargo operations are consequently recommended to advise Agents their ETA well in advance of above deadlines.

MEDICAL: 750 bed hospital available.

TANKERS: Besides the wharves mentioned in "Berthing", there are 13 oil piers in the Schottegat for discharging crude oil and feed-stocks for the Isla Refinery and loading products. These wharves are therefore used mainly by tankers. They are all equipped to provide bunkers.

All main grades of marine lubricants are stocked at the port of Curacao. Marine lubricants and Marine Technical Service with laboratory facilities for the examination of used oil samples are available 24 hours a day.

Name	*Max. Draft* (ft.)	*Max. Displ.* (tons)	*Max. Length* (ft.)
Isla Jetty 1	27	25,500	580
Isla Jetty 2	31.5	25,500	575
Isla Jetty 3	33	25,500	575
Isla Jetty 4	38	54,000	775
Isla Jetty 5	45	100,000	850
Isla Jetty 6	39	54,000	750
Isla Jetty 7	31	25,000	560
Isla Jetty 8	45	100,000	850
Isla Jetty 9	33.5	40,000	850
Isla Jetty 10	For'd 21 Aft 31	40,000	850

SLOP RECEPTION FACILITIES: Available at all terminals.

FRESH WATER: Fresh water for drinking and use in boilers is available day and night in sufficient quantities at all wharves through pipe-lines. Fresh water is distilled from sea water by one of the biggest distillation plants in the world. The quality is very good and chemically pure.

Fresh water is also delivered alongside by means of water barges. 5 water barges are available. Each barge can deliver 50/100 tons of fresh water per hour. The rate of delivery depends on the quantity required and how many barges can simultaneously deliver fresh water to the vessel. It also depends on the amount of connections on board the vessel and the height above water to be lifted.

On the *Motetwerf, Nieuwewerf* and *Prins Hendrikwerf* water can be delivered by means of a pipe-line.

FUEL: Besides the Isla piers there are 2 bunkering installations: namely, the "Admiral Brion Wharves" comprised of 6 berths and the "Motet" bunkering installation comprised of 4 berths.

The "Admiral Brion Wharves" bunkering installation is directly supplied from the refinery by means of 2 pipe-lines with diameters of 12 in. and 8 in. The pipe-lines run the full length of the piers, each with 5 bunkerpits, from which the oil can be delivered directly to the ships via a mobile blending unit if this is required. The capacity of the pipe-line and the pumps is 600 t.p.h. for fuel oil and 300 t.p.h. for diesel oil. Gas oil is also available.

The bunkering facilities of the "Motet" installations in Otrabanda, which are comprised of 7 storage tanks and pumping facilities, are supplied through 2 pipe-lines of 12 in. and 6 in. diameter from the refinery. The rate of delivery, by gravity and pumps, is 600 t.p.h. for fuel oil and 500 t.p.h for diesel oil.

Modern fuel blending facilities are available at all installations in Willemstad.

Note: Vessels calling exclusively for bunkers have free wharfage, provided they do not discharge and/or load in total more than 2 tons of cargo, land and/or embark in total more than 5 passengers. (Not valid at Refinery wharves).

CONSULS:

	Tel.		*Tel.*
Belgium	613791/613094	Haiti	612436
Bolivia	612792	India	612262
Canada	613515	Israel	77068
Chile	613650	Italy	611615
Colombia	614663	Japan	613075
Costa Rica	611833	Liberia	75011
Denmark	614032	Mexico	614900
Dominica	73478	Norway	611100
Dominican Republic	75676	Panama	75292
Ecuador	613222	Peru	613311
El Salvador	75411	Portugal	88677
Finland	611949/70695	Spain	615699/615888
France	70649	Suriname	611842
Germany F.R.	613433/613870	Sweden	76255
Great Britain	76500	Uruguay	76615
Grenada	81446	Venezuela	614140/613100
Guatemala	75011	U.S.A.	613066

REPAIRS/DRY DOCKS: The Curacao Drydock Company Inc. has repair yards, 2 graving docks laid out in the Schottegat and 1×10,000 ton capacity floating dock.

The largest graving dock is 919 ft. long, width of entrance between wheel fenders 152 ft. and a depth of water over sill of 27 ft. Suitable for up to 155,000 d.w.t. Movable cranes of 25 and 75 tons lifting capacity are fitted alongside the dock.

The Curacao Drydock Company Inc. has 6,000 ft. of repair wharf with varying depths up to 40 ft. Cranes alongside up to 75 tons lifting capacity. Mobile truck cranes of 140 tons are also available.

Electric shore-power A.C., D.C. 110, 220 or 440 volts can be supplied directly from shore at wharves of Isla and at other wharves from generators on barges. Isla can also supply steam directly from the shore at a pressure of 8–15 kg./cm.

SURVEYORS: A.B.S., Lloyd's, N.V., B.V., R.I., G.L. and others.

Caleb Brett, Independent Marine Bureau, Redwood, Saybolt, Chas. Martin, Caribbean Marine Consultants, J. Mesas and R. Lapre.

TIME: GMT minus 4 hours.

HOLIDAYS: New Year's Day, Carnival Monday (February), Good Friday, Easter Monday, Coronation Day (April 30th), Labour Day, Ascension Day, Flag Day (July 2nd), Christmas Day, Second Christmas Day. "No work", holidays for cargo operations: New Year's Day, Good Friday, Labour Day and Christmas Day.

POLICE/AMBULANCE/FIRE: Police and Fire, Tel: 44444. Ambulance Tel: 625822.

EMERGENCY CO-ORDINATION CENTRE: Curacao is a major Search and Rescue Centre in the Southern Caribbean and has the following resources at its disposal:

Communications: Curacao Radio listens on the standard frequencies (VHF Channel 16) – (2182 kHz. (voice) and 500 kHz (morse) Fort Nassau (Channel 12 and 16) is the harbour semaphore and traffic control centre.

Co-Ordination: KLU (Royal Netherlands Air Force) Rescue Co-Ordination Centre (Curacao Rescue) at the Dr. Albert Plesman International Airport. Tel: 81628 (24 hours service).

During the emergencies the following frequencies are being used: 2182 kHz and VHF Channel 16.

The Curacao RCC maintains a communication link with the United States Coast Guard RCC in San Juan (Puerto Rico) and can use the AMVER information.

Air Search: In case of a missing aircraft or vessels the following forces are available for conducting Search and Rescue missions under control of the Curacao RCC:

2 Fokker F-27 maritime aircraft of the RNN long range patrol type. (Both aircraft can communicate on Channel 16 and 2182 kHz).

Coast Guard Auxiliary (CITRO) short range aircraft. Consisting of single and twin-engined light aircraft flown by Civil Pilots under RCC direction. Some of them can communicate on Channel 16.

Helicopters are unavailable.

Rescue Units: Commercial tugboats. Coast Guard Auxiliary (Citizens Rescue Organisation of the Netherlands Antilles – CITRO), using private boats.

Royal Netherlands Navy. If available the station vessel (a destroyer and a minesweeper) will be despatched for emergencies.

Merchant Navy ships of convenience; in general Merchant Navy vessels which will be directed by the aircraft described before, to emergencies. This in accordance with the Mersar-booklet on Search and Rescue.

GENERAL: Customs Officers remain on board on duty during the vessel's stay in port. They must be fed by the ship and are entitled to the equivalent of officers' mess or first-class dining saloon.

REGULATIONS: Both anchors should be ready for immediate use. Defects of engines, steering gear, anchor gear and other defects which influence manoeuvring abilities of the vessel should be reported before entering, to the Harbour Master.

Dangerous Cargo: Explosives, ammunition, fireworks, radio active material and other dangerous cargo.

All vessels carrying explosives or other dangerous cargo, for discharge at Curacao, for transhipment or in transit without transhipment, *require special permission in writing, obtained prior to arrival,* for entering any port in the island of Curacao. Full details must be furnished in advance.

Only limited quantities of explosives, etc., are permitted in the port of Willemstad. For calls with larger quantities outports are used. Details of the regulations in force on the subject will be furnished on request by shipping Agents.

Entry permit required for ships carrying dangerous and/or hazardous cargo. Cost of form including stamp is fls. 4.00. Additionally administration fee is charged on the following basis:

Cargo in transit not being off-loaded from the ship – Nil. Local cargo to be discharged from the ship:

Up to 500 kilos	NAfls. 5.00
500 kilos to 5 tons	NAfls. 15.00
5 tons up to 25 tons	NAfls. 30.00
25 tons to 50 tons	NAfls. 45.00
over 50 tons	NAfls. 60.00

Transhipment cargo landed from one ship and reloaded on another ship: Double the local charge, indicated above.

At the discretion of the Harbour Master a special guard may be assigned onboard vessels handling or having dangerous and/or hazardous cargo on board. The charge, if and when incurred, is NAfls. 15.00 per hour in straight time and NAfls. 30.00 in overtime. Please note that this happens very seldom.

AIRPORT: There are daily international flights from Dr. Albert Plesman Airport.

ALM: Frequent daily trips to Aruba and Bonaire. Daily flights to Miami and New York. Regular air services to St. Maarten, Caracas, Maracaibo, Colombia, Haiti, Sto. Domingo, Puerto Rico, Trinidad and Paramaribo.

Eastern Airlines: Daily flights to Puerto Rico and Miami and transfers to all points.

American Airlines: Daily flights to New York and transfers to all points.

VIASA: Regular scheduled flights to Caracas, Sto. Domingo, Paris and Amsterdam.

Avianca: Daily flights to Colombia.

LAV: Many daily flights to Caracas.

KLM: Daily flights to Amsterdam, Lisbon, Madrid, Frankfurt, Zurich and Central and South America.

Ferry: Ferry's Del Caribe S.A. runs a regular service with a new modern ferry which carries 1,200 people and 120 automobiles. This ferry has regular service between Curacao and Coro, Venezuela on Monday, Tuesday, Wednesday and Thursday. On Thursday the ferry also goes to Aruba and Punto Fijo, Venezuela.

SERVICES: *Salvage, etc.:* A supply vessel is permanently stationed at Willemstad by "Smit Tak International Antilles N.V." on a 24 hours service base. She is provided with extensive salvage equipment such as pumps, hoses, burning and welding equipment and an hydraulic crane with a capacity of 10 tons.

Facilities for divers such as compressors, decompression tank, etc., are on board. The ship is furthermore very suitable for bringing stores, spare parts, packed oil products, crew on board, passing, or on the roads, waiting ships.

Underwater Cleaning/Underwater Services:

Cleaning of submerged hull sections of ships while afloat. This cleaning can take place while the ship is moored in the main harbour at Willemstad and also at other locations, such as Caracas Bay, Bullen Bay and St. Michiels Bay.

Cleaning of cruise ships takes place while bunkering and the passengers are ashore.

A local company has developed its own underwater cleaning apparatus which cleans ships up to 250,000 d.w.t. within 24 hours. Also the rudder and propeller are properly cleaned. The cleaning does not affect the paint but only removes the very thin upper layer of spent anti-fouling paint, leaving the active anti-fouling exposed.

The company carries out various kinds of underwater works e.g. sealing off sea-intakes and ropeguard, all other kinds of cutting and welding works, underwater inspections, made by certified divers, which can be combined with photographing of bottom condition in colour and black and white. Closed circuit underwater television with video-tape recorder is available.

It is the largest professional salvage and underwater cleaning company in the Netherlands Antilles and has experienced divers able to make certified damage reports. (Contact via Curacao Drydock co,. Inc.).

Peteres Divers Company Ltd.: The following underwater services are carried out by Peters Divers Company Ltd. Underwater hull cleaning by means of the "Scamp" makes it possible to clean the largest VLCC's during loading or discharging.

The average cleaning time for a VLCC is 12 hours. Underwater T.V. system for underwater surveys and inspections are available.

Further underwater services are: welding, cutting, photographing of the bottom condition, etc. in colour and black and white, sealing of intakes, etc. All inspections are carried out by licensed marine engineers.

SHIPMASTER'S REPORT: November 1986.

For "off-limits" call at Curacao stores and spares come out on pilot boat. Customs official will be on boat, and Agent or ship chandler will board. No official papers required, just sign and stamp Customs' stores receipt.

AUTHORITY: Curacao Port Authority N.V., Werf de Wilde Z/N, P.O.Box 689. Willemstad, Curacao, Netherlands Antilles. *Cables:* Harbour Office Curacao. *Tel:* (9) 611133, 611740. *Contact:* Captain E. P. Sint Jago, Nautical Director.

AGENT: SEL Maduro & Sons (Curacao) Inc., Maduro Plaza, P.O.Box 3304, Willemstad, Curacao, Netherlands Antilles. Tel: 599-9-76564/76352. Telex: 1092, 3325 or 3393. Selms NA. FAX: (5999) 76131. Cables: "Maduroship".

New Caledonia

BABOUILLAT: 20.23 S. 164.08 E.

SHIPMASTER'S REPORT: October 1983.

LOCATION: Babouillat is a village located at the Northern part of the Island of New Caledonia at approximate position Lat. 20° 23.2′ S., Long. 164° 07.6′ E., at Baie De Nehoue which is incompletely surveyed. There is a chrome ore mine nearby operated by International Nickel France.

DOCUMENTS: Last Port Clearance, 1 Health Form, 2 Store Lists, 2 Personal Effects Lists, 3 Crew Lists. Customs Officers and Agents board vessel on arrival at anchorage. As Agents come from Noumea, 450 km. away from Babouillat (takes 5 hours by car), they come only on arrival and on departure. Any contact should be made by telegram through Noumea Radio Station.

PILOTAGE: Pilot is picked up on arrival at Deverd Passage, Lat. 20° 44′ S., Long. 164° 12′ E., marked by Fl.4s. light buoy. An accurate ETA message is required 24 hours prior to arrival as Pilot comes from Noumea by tug.

Only day time pilotage is possible to Babouillat. Vessels with draft not exceeding 25 ft. can use Inner Route, otherwise the vessel must drift outside Gazelle Passage with Pilot aboard and pass through Gazelle Passage in daylight. Vessels can also await daylight at anchor in Deverd Passage with the Pilot aboard.

For departure, Noumea Pilots require 24 hours' notice. Latest departure time is 1530 hrs.; earliest departure time 0545 hrs. Pilot disembarks at Gazelle Passage.

Also see "VHF".

ANCHORAGES: The anchorage is located at Lat. 20° 22.2′ S., Long. 164° 06.1′ E., 3 cables South of Ilit Ti (80 m. high), with depths from 13.5 m. to 18 m. and good holding ground.

Vessels load high grade low silica fines (refractory), which are chrome ore concentrates of Tiebaghi Area, at the anchorage from barges.

RADIO: Noumea Radio Station.

VHF: Pilot has a portable VHF with Channel 16. Tug which brings Pilot from Noumea has no VHF.

BULK CARGO FACILITIES: Loading effected by ship's gear (cranes) and shore equipment (shovel like 12 tonne capacity equipment which are filled in the barge with a bulldozer and mechanically discharged into the hold). It is possible to load 3,000 to 3,500 tonnes per day with 3 gangs and work from 0500 hrs. to 2200 hrs.

MEDICAL: Doctor is available at Coumac Hospital located at Lat. 20° 34′ S., Long. 164° 16.5′ E. The boarding representative of shippers can make the necessary arrangements.

REPATRIATION: All facilities exist to foreign countries for crew changes and repatriation through Noumea Airport.

AUTHORITY: Port Autonome de Noumea, P.O.Box 14, Noumea. *Tel:* 275966. *Telex:* c/o Comin, 045 NM. *Contact:* Captain Jean Louis Boglio, Port Captain – Noumea.

AGENT: Establissement Ballande. Telex: Ballande 025 NM. Cable Address: Ballande, Noumea.

NOUMEA: 22.16 S. 166.27 E. (See Plan)

PORT LIMITS: *Port Area:* Main Harbour as far as entrance between Port Lestelle and Point Kongou.

Secondary Harbour and Orphelinat Bay as far as the entrance between Brun Islet and Point Denouel.

DOCUMENTS:

8 Copies Cargo Manifest.
2 Copies Manifest of parcels to be unloaded for New Caledonian Residents.
2 Copies List of Personal Objects.
(detailing photographic material, audio-visual equipment, watches, etc.).
2 Copies List of Foreign Currency.
2 Copies List of Provisions.
2 Copies Inventory of Consumable Matter.
2 Copies List of Drugs and Narcotics.
(which *must* remain on board).
2 Copies List of Weapons and Ammunition.
(under Master's responsibility).
4 Copies List of Crew Members.
4 Copies List of Disembarking Passengers.
(or notification of no Disembarking Passengers).
4 Copies Transit Passenger List.
1 Copy Maritime Health Certificate.
4 Copies Declaration of Vessel's Specifications.
1 Copy Submission Form.

PILOTAGE: Compulsory for foreign vessels (exemption for vessel with French Registery under 60 m. LOA), pilotage rendered day or night. Ladder to be 1.5 m. above water.

Pilot boats are wooden launches about 15 m. long, with black hull, equipped with VHF (permanent reception on Channel 16. Channels 12, 14 and 17 working). Pilot boats also transmit on 2182, 4072.3 and 8207.4 and receive on 2197.5, 4366.7 and 8731.3

Two access channels to Noumea through reef.

Boulari Channel: (Lat. 22° 30′ S., Long. 166° 26′ E.)

Pilot boards 1 mile off, on the Leads of Amedee Lighthouse.

Havannah Channel: (Lat. 22° 21′ S., Long. 167° 03′ E.)

Pilot boards off Goro Lighthouse on the Leads of Cap N'Dua by day, and off Port Boise at night.

In bad weather, pilot launches remain on leads as close as possible to entrance.

Pilot should be ordered at least 6 office hours before departure or moving.

ANCHORAGES: In Great or Small Road. Prohibited zone shown on chart in vicinity of underwater sealine.

RESTRICTIONS: Vessels may enter and anchor at any time, mooring may be effected at night, except for tankers at buoys.

MAX. SIZE:

Cargo Vessels: Max. draft 10.30 m.
Tankers: Max. LOA – 300 m. Max. draft 14.80 m.

HEALTH: If vessel is "healthy", Pratique is accorded by the Pilot at the entrance, or by the Harbour Master (VHF).

In the case of contagious disease or death on board the Harbour Master must be notified by radio (VHF) before entering inner reef and the vessel must anchor at the Quarantine Station at N'Die (East of Freycinet Islet in Dumbea Bay).

Port Regulations: All vessels must comply with current Quarantine Regulations and if necessary undergo fumigation and disinfestation before tying up.

Before docking, any vessel arriving from a country infected by Rhino Beetle (*Oryctes Rhinoceros*) must:

a) Anchor 400 m. from the coast between sunrise and sunset, keeping holds closed.

b) Be visited by a Quarantine Inspector and if necessary disinfested.

c) Holds must remain closed 2 hours after fumigation.

Infected Countries: Fiji, Tonga, Samoa, Wallis/Futuna, Bismarck Archipelago (New Britain, New Ireland, New Hanover), Sarmi, Manokwari Sorenarwa (Western Irian Jaya), Palau Islands (Carolines), Indonesia, Philippines, Taiwan, Japan, Dominican Republic/Haiti, Cuba.

d) Any ship coming from Japan is inspected to prevent contamination by *Papillia Japonica*.

e) Any vegetable goods to be unloaded must be accompanied by a Quarantine Clearance Certificate.

f) Special permit is necessary from the New Caledonian Agricultural Department prior to importation of plants and seeds, etc.

Hygiene: All ships alongside must be equipped with rat guards.

RADIO: All messages by Coast Station Noumea, call sign FJP. Harbour Master's Office equipped with VHF Channels 16, 12 and 14, operated during normal working hours.

Arrival Advice: To Agent 48 hours before arrival: Indicate: Arrival time at Pilot pick-up point; name of pass; overall length; forward and aft drafts of vessel; damage or mechanical problems, if any to vessel's apparatus and cargo; tonnage to be unloaded; dangerous cargo, explosives, etc.

Note: This information must be lodged with the Harbour Master's Office 24 hours before arrival.

VERY IMPORTANT: Tankers carrying hydrocarbons must notify their Agent as to whether they have or have not the International Certificate for Prevention of Pollution by Hydrocarbons.

To Agent and Pilot Station 24 hours prior to arrival: Confirmation of arrival time at Havannah Passage or passes outside the Southern Zone.

12 hours prior to arrival: Confirmation of arrival time at Boulari Pass.

Note: Application for a Pilot must be made to the Pilot Station during official office hours (Monday to Friday 0700 hrs. to 1100 hrs. and 1330 hrs. to 1730 hrs.; Saturday 0700 hrs. to 1100 hrs.), either by telephone or telegram by the ship's Master addressed to the Pilot Headquarters and transmitted to the Coastal Communications Centre (Tel: 27.32.74).

TUGS: Tug's service is compulsory for vessels over 60 m. LOA. One tug of 1,200 h.p. and 2 of 400 h.p. available to assist. Tugs equipped with VHF Channels 16, 12 and 14.

BERTHING:

Petite Rade (Small Road):

Berth	*Length* (m.)	*Depth* (m.)
Main Wharf (Berth Nos. 1–3)	428	5.50 – 7.00
Coaster Wharf	190	3.50 – 5.50
Coastal Trader Wharf	140	3.50 – 4.50
Tourist Vessel Wharf	75 (with 2 dolphins 155 m. apart)	9.50 (For vessels up to 170.0 m. LOA)

Grande Rade (Great Road):

Fishing Vessel Wharf	121	8.00
Coaster Wharf	140	3.80 – 5.00
Main Wharf (Berths Nos. 4–7)	694	10.00 – 10.50

Note: Access to Berth No. 4 limited to 8.80 m. by shoal 70 m. off wharf.

There is one mooring buoy 160 m. from the N.W. corner and in line with the main wharf.

BULK HANDLING FACILITIES:

Grain: 3 grain silos of 815 tonnes each.

Cement Berth: Private berth located in Baie de Numbo (position: Lat. 22° 15′ S., Long. 166° 25′ E.). Initially designed for vessels of LOA 135 m. but can handle vessels with a max. LOA not exceeding 168 m. and draft not exceeding 9 m. Vessels berth alongside 3 dolphins 110 m. apart with mooring buoys fore and aft. Middle dolphin equipped with crane, hopper and conveyor. Fresh water available.

Usine le Nickel: Private wharves with 3 berths for ore carriers, tankers and freighters.

Quai Sud: 1 berth, length 170 m., depth 9 m. Equipped with 3 shore cranes for unloading ore carriers.

Quai Nord Ouest: 2 berths. Total length 397 m. Berth No. 3/4 depth 9 m. Berth No. 5/6 depth 10 m. Loading of processed metal and unloading of tankers on behalf of Shell.

Also see "Tankers".

EQUIPMENT: Stevedore Company equipment:

Societe du Chalandage:

Fork Lift Trucks: 6×1.5 tons, 10×2.5 tons, 12×4.0 tons, 3×5.0 tons, 4×6.0 tons, 10×10.0 tons.

Forklift/Frames (for Ro-Ro/Spreaders): 1×30 tons, 1×25 tons, 2×22 tons, 1×12 tons.

Karry Crane: 5×3 tons (6 tons doubled).

Tractors for Vehicles: 2.

Cranes: Poclain P.P.M. automotive, 14 tons (4 – 5 tons useful load). Richier on carrier (jib 24 m.) 40 tons (at 3 m.).

Self-Loading Trailers for Container Vessels: 20 tons (1 container 20 ft.). 30 tons (containers 20 ft. – 40 ft.)

Spreaders for Containers: 3 automatic for 20 ft., 1 automatic for 40 ft.

Trucks with Crane: 2 with jib 6 m., 7.5 tons/m., 1 with jib 7 m., 9 tons/m.

Semi-Trailer: 10×12 m. long. 7 Espadon type.

SOFRAC:

Crane Belotti: 1×22 tons with directional spreader.

Forklifts: 2×22 tons with frontal frame.

Forklifts: 3×8.5 tons, 2×6.5 tons, 1×6 tons, 1×5 tons, 3×4 tons, 2×3 tons, 1×3 tons (lowered for unloading containers), 1×2.5 tons (lowered for unloading containers), 2×2 tons (lowered for unloading containers).

Karry Crane: 1×3 tons (6 tons doubled).

Semi-Trailers for Containers: 6 for 20 ft., 24 tons. 4 for 20 ft. – 40 ft., 24 tons.

Heavy Duty Tractors: 6 for loads from 38 tons to 60 tons.

Tank Trucks: 1×35 cu.m. (1 tank), 22 tons. 1×24 cu.m. (2 tanks), 22 tons.

Automatic Spreaders: 2 for containers 20 ft., 25 tons. 1 for containers 40 ft., 30 tons.

Suction Pumps for Grain: 1×140 t.p.h., nominal 40 – 45 t.p.h. 1×35 t.p.h., nominal 25 t.p.h. 1×200 t.p.h.

Semi-Trailer with Worm: 1 for unloading grain containers.

S.A.T.O.:

Forklift Trucks: 2×2.5 tons (on board), 4×4 tons, 3×6 tons, 1×8 tons, 1×12 tons, 1×25 tons.

Karry Crane: 1×3 tons (6 tons).

Automatic Spreader for Containers: 1×20 ft., 25 tons.

TANKERS:

SBM: (Societe le Nickel): In the entrance to Grande Rade (position: Lat. 22° 14′ 15″ S., Long. 166° 23.4′ E.). Mooring during daylight only. Max. LOA 300 m. Max. draft 14.80 m. Pumping rate for No. 2, heavy fuel oil 3,000 cu.m./h.

Baie des Dames: (Mobil Oil Australia). (Position: Lat. 22° 14′ S., Long. 166° 24′ E.).

1. 5 mooring buoys (max. distance between East and West Buoys 361 m.) 2×8 in. lines for clean and black oils (each marked by a Spar Buoy and a Marker Buoy). Max. LOA 200 m., max. draft 10 m. The buoy mooring is used to discharge Mobil/Total tankers and bunker cargo vessels, liners and ore carriers.

2. "T" shaped jetty, length 9 m. 4 mooring dolphins and 2 mooring buoys (110 m. apart). Max. LOA of tankers 100 m., max. draft 5 m. Berth used for discharge of tankers and liquid gas carriers, bunkering of vessels and loading of tankers.

Also see table below.

Oil Terminals:

	Bay des Dames		*SBM (SLN)*	*Doniambo (SLN)*
	Mooring	*Anchorage*	*Main Harbour*	*Shell Tankers*
Position	22° 14.3′ S. 166° 24.1′ E.	22° 14.5′ S. 166° 24.1′ E.	22° 14.5′ S. 166° 23.4′ E.	22° 15.6′ S. 166° 25.9′ E.
Controlling Depth	12 m.	12 m.	16.8 m.	10 m.
Nature of Bottom	Mud	Mud	Mud	Mud
Description of berth	Berths at jetty/ 4 dolphins and 2 buoys	5 buoys	1 buoy 3 m. high 11.5 m. dia.	Berths/wharf
Companies using oil terminal	Mobil Shell Total	Mobil Shell Total	SLN	Shell
Tanker:				
d.w.t.	1,200	28,000	100,000	28,000
LOA (m.)	100	200	200	200
Beam (m.)	—	25	—	—
Draft (m.)	5	10	14.8	10
Grades handled	Light oil Black oil	Light oil Black oil	— Black oil (Black Fuel Oil No. 2)	Light oil —
Max. weight cargo hoses (tons)		3		2
Pump Rate (t.p.h.)				
Discharging Clean oil	100	280	—	150/200
Discharging Black oil	80	340	3,000	—
Bunkering Clean oil	70	120	—	—
Bunkering Black oil	80	100	—	—
Min. quantity	50	50	—	—
Pressure kg/sq.m.				
Clean oil	7	7	—	7
Black oil	7	7	10	—
	These two terminals are operated by Mobil Oil and are used for discharging and loading tankers as well as for bunkering all types of vessels.		Terminal owned by SLN who makes available its berthing Master. Follow instructions SLN/SIE 146, September 1979.	For tankers containing products for Shell.

LPG Terminal:

Gas carriers berth port side to wharf, against the jetty and the 4 dolphins which make up the Mobil Oil installations in Bay des Dames.

Limits: Overall length : 100 m. Draft: 5 m.

Capacity of reservoirs: 3,115 tons. Sphere No. 1: 330 tons; Sphere No. 2: 560 tons; Sphere No. 3: 2,225 tons.

All the spheres can be used for stocking butane.

Sphere No. 1 can also stock propane.

Average density of butane gas: 0.580.

Maximum pressure of liquid: 15 kg/sq.cm.

Normal delivery pressure: 7 kg/sq.cm.

Maximum vapour pressure: 5 kg/sq.cm.

Pumping speed: Maximum 70 t.p.h. Minimum speed: 10 t.p.h.

Hoses used by vessel: 1 hose for liquids 4 in. diameter; 1 hose for vapours 3 in. diameter.

Obligatory requirements for tankers carrying Hydrocarbons: Masters of all vessels carrying hydrocarbons and on the point of entering New Caledonian waters are under obligation to send to the Marine Commander in Noumea (F.U.J.), a message, indicating:

(1) Intended course.
(2) Navigation and manoeuvring possibilities.
6 hours before entering territorial waters.
6 hours before sailing.

Note: During sojourn or transit in New Caledonian waters, permanent radio contact is observed; international radotelephonic call frequency on the maritime metric band.

Tankers must use the following passes:

Havannah or Boulari: Tankers carrying less than 8,000 tons of petroleum products and less than 8 m. draft.

Pilot pick-up point 5 nautical miles off Boulari:

1. Entry via Boulari Pass if less than 20,000 tons of petroleum products and draft under 10 m. (night or day);

2. Entry via Dumbea Pass if more than 20,000 tons of petroleum products or more than 20 m. draft (daytime only).

Thio and Poro:

Tankers: Less than 20,000 tons of products and draft under 10 m.

Very Important:

Docking of tankers is in accordance with the possession of:

International Certificate for the Prevention of Pollution by Hydrocarbons; consequently:

This must be indicated to ship's Agent 48 hours prior to arrival.

Certificate must be shown to Pilot at the entrance, and to the Harbour Master or his representative upon docking.

STEVEDORES: Service provided by three private companies. 2 or 3 days' notice required to arrange work.

Working Hours: Normal Hours: Monday to Friday 0700 hrs. – 1100 hrs. and 1300 hrs. – 1700 hrs. Overtime: Monday to Friday 1800 hrs. – 2300 hrs., Saturday 0700 hrs. – 1100 hrs. and 1300 hrs. – 1700 hrs.

MEDICAL: Clinique de Magenta, Rue du 18-Juin, Magenta, Box H5. Tel: 28.49.29.

Clinique Magnin: Route Territoriale No. 13, Vallee des Colons, Box 64. Tel: 27.26.01.

Hospital Gaston-Bourret, Avenue Paul-Doumer, Noumea, Box C5. Tel: 27.21.21.

Polyclinique de l'Anse-Vata, Route de l'Anse-Vata. Tel: 26.14.22.

Note: Numerous dispensaries located in villages and mining centres of the interior. If necessary, urgent medical evacuation possible by plane or helicopter.

DENSITY: 1026.

FRESH WATER: Supplied by pipe-line at the quays in the Commercial Port, S.L.N. and Numbo Private Cement Factory; rate, 40 t.p.h.

FUEL: Refuelling with marine diesel oil (M.D.O.) or bunkering fuel oil (B.F.O.) is possible.

Authorisation previously obtained by the shipowner from the Australian or French Head Offices of the 3 companies present in Noumea can aid local formalities:

Mobil Tel: 27.31.52
Shell Tel: 28.57.20
Total Tel: 27.52.91

"Light" fuels can be delivered by tanker, but "heavy" fuels must be loaded at the Mobil refuelling post, Bay des Dames.

Docking: LOA 100 m. draft 5 m.

Mooring to buoys: LOA 183 m., draft 10 m.

Note: When tying up to buoys: One must count 3/4 hours' lost time for the various operations. A derrick capable of lifting the hose (3 tons) is necessary.

GANGWAY/DECK WATCHMEN: Recommended, but not compulsory.

OPENING/CLOSING HATCHES: Can be performed by stevedores.

CUSTOMS ALLOWANCES: 200 cigarettes per man(400 cigarettes at Outports). Additional allowance can be made after 10 days. Maximum 2 bottles of spirits per man. Wines and beer not limited. Landing of cigarettes, wines and spirits prohibited.

IDENTIFICATION CARDS: Recommended that crew carry Seamen's Books.

CONSULS: Australia, 19-21 Avenue du Marechal-Foch, Noumea. B.P. 22. Tel: 27.24.14. Cables: Austcom. Telex: 087 NM.
Belgium, 13 Rue Jules-Ferry, Noumea. Box 2683. Tel: 28.46.46.
Indonesia, 4 Rue de Strasbourg, Noumea. Box 26. Tel: 28.25.74.
New Zealand: 4 Boulevard Vauban, Noumea. Box 2219. Tel: 27.25.43. Cables: Kereru. Telex: 036 NM.

SURVEYORS: *Marine Surveyors:*

Bureau Naval Serve, 32 Rue du General-Gallieni, Noumea. Tel: 28.25.02.

Bureau Veritas, 21-23 Rue de l'Alma, Noumea. Tel: 27.20.31.

Lloyd's Register of Shipping, 7 Rue Anatole-France, Noumea. Tel: 27.20.83.

For all problems relating to cargo and/or vessel damages.

Draft surveys for estimation of nickel ore loads per ship.

Classification Societies:

Lloyd's Register of Shipping, Societe W. A. Johnston, 7 Rue Anatole-France, Noumea, Box 445. Tel: 27.20.83. Cables: Johnston. Telex: 070 NM.

Bureau Veritas, Societe des Etablissements Ballande, 21-23 Rue de l'Alma, Noumea, Box C4. Tel: 27.20.31. Cables: Ballande. Telex: 025 NM.

Germanischer Lloyd and Nippon Kaiji Kyokai. Bureau Naval Serve, 32 Rue Gallieni, Noumea, Box 2387. Tel: 28.25.02. Cables: Surveyor. Telex: Gemar 065 NM.

REPAIRS: Many engine, hull and electronic repairs can be effected. Slipway for small vessels. One slipway, to lift vessels of 1,000 tonnes.

CARGO GEAR: Ship's gear normally used. Possibility of hiring cranes 10 tons – 104 tons.

REPATRIATION: All facilities available for crew change and repatriation.

AIRPORT: Tontouta Airport situated 50 km. from Noumea. Several connections a week to all parts of the world.

TIME: GMT plus 11 hours. N.B. Daylight saving is sometimes introduced between December and February.

HOLIDAYS: 1st January, Easter Monday, 1st May, Pentecost Monday, Ascension Day, Whit Monday, 14th July, 15th August, 24th September, 1st November, 11th November, 25th December. Work may be arranged on Sundays and holidays.

POLICE/AMBULANCE/FIRE: Police, Tel: 17; Fire, Tel: 18; Ambulance, Tel: 27.21.21.

EMERGENCY CO-ORDINATION CENTRE: Call "Noumea Marine" on VHF Channel 11.

BANKS: Banque de l'Indochine et de Suez, Corner of Rue de l'Alma and Avenue du Marechal-Foch, Noumea. Box G5 Tel: 27.22.12. Cables: Indosuez. Telex: 023 NM.

Banque Nationale de Paris/Nouvelle-Caledonie. 60 Avenue de la Victorie, Noumea. Box K3. Tel: 27.55.55. Cables: Natio Par. Telex: 022 NM.

Banque de Nouvelle-Caledonie Credit Lyonnais. 75 Rue de Sebastopol, Noumea. Box L3. Tel: 28.50.69. Cables: Calbank. Telex: 091 NM.

Banque de Paris et des Pays-Bas-Nouvelle-Caledonie. Corner Rue del'Alma et Rue Georges-Clemenceau, Noumea. Box J3. Tel: 27.51.81. Cables: Paribas. Telex: 086 NM.

Societe Generale Caledonienne de Banque. 56 Avenue de la Victorie, Noumea. Box G2. Tel: 27.22.64. Cables: Pacsoge. Telex: 067 NM.

STORING: See "Prelims".

1. By Truck.
2. None.
3. Yes.
4. Yes.
5. Duty Free.
6. Yes.

WEATHER: *Wind:* The prevailing wind is the South-Easterly Tradewind blowing regularly from June to October.

N.B.: The Tradewind freshens with the sun.

Close to shore: Maximum around 1400 hrs.

Open Sea: Maximum around 1800 hrs.

Cyclone Season: From November to April (variable winds, rain, gusty conditions).

Rainfall: Dry season: Minimum 50 mm./month.

From January to March: Heaviest rainfall owing to the Cyclone season.

Rainfall varies between coasts depending on their exposure to winds.

Temperature: Average temperature: 24°C.

The maximum temperatures are during the month of February: 34°C.

Tides: Semi-diurnal type affected by daily inequalities. The high and low April tides are on an average 0.40 m. higher/lower than the October tides.

SHORE LEAVE: Allowed.

SHIPMASTER'S REPORT:

Communications: Radio W/T. Short wave service and MF service very good. First message to state which passage used – Draft – Tonnage – and nature of dangerous cargo, this should be sent at least 24 hours before arrival, Agent and Harbour Master required this message.

Shore Telephone. Service available as receivers can be connected.

VHF. Available to Harbour Office and pilot station during office hours 0700 hrs. to 1100 hrs. and 1300 hrs. to 1700 hrs. Monday to Friday. Pilot vessel when at Havannah Passage keeps VHF watch 1 hour before the last given ETA. In our case we made contact with the pilot vessel when 12 miles from Havannah Passage. If at anchor VHF contact to Agents can be made via Harbour Office.

Pilotage: Boarding ground. Canal de Havannah. The Pilot boards the vessel when on the leads, but inside the reef, when the vessel is off Port Goro. The 3 leading lights stand out well at night time, each light is individually powered in case of failure, in our case they were seen 25 miles away. During strong S.W'ly winds the Pilot will board in the lee of Ioro Reef. As the leads do not stand out so well in day time, night time seems to be the best arrival time. This channel has been swept to a depth of 34 ft. Strong cross currents can be expected at the entrance to Havannah Passage.

Anchorages. See CHINPACS for area dangerous due to mines. Otherwise vessel anchors Grande Rade.

Quarantine. Pratique granted by Pilot, Health Signal not required unless notifiable sickness on board.

Controlling Factors: Berthing times. Vessels are now berthed at any time, the usual side to being Starboard side, a 1,200 h.p. tug being used to assist.

Length. No limit at berth.

Berthage. 700 m. at the New Wharves.

Stevedoring. Working time. 0700 hrs. to 1100 hrs. then 1300 hrs. to 1700 hrs. and overtime from 1800 hrs. to 2200 hrs. The labour will also clean out the hatches provided one gang is actually working cargo, otherwise they stop when cargo work is all finished. Saturday is not an overtime day. Only Sunday is an overtime day. Good Friday and Easter Saturday are considered normal working days. The Stevedoring is good, with a fast working rate, but I regret to state that some pillage took place. As regards unprotected cars, the most minor marks were claimed against the vessel, these were repudiated.

Documents:

1 Cargo Manifest.
1 List of Dangerous Cargo.
2 Crew Lists.
1 Crew Personal Effects List, this list to include currency held, (French Forms accepted).
1 Bonded Stores List.
1 Health Form.

OUTPORTS: (See Plan).

For Ore loading vessels:

Nepoui: Lat. 21° 20.1′ S., Long. 164° 25.5′ E.

LOA vessel 163 m. Draft 8.7 m. Telescopic shuttle clearance 12.5 m. Loading rate 1,250 t.p.h.

1 Launch available.

Tankers: 6 in. flexible hose, weight 2 tons, 8 in. pipe-line. Pumping rate 200 t.p.h. Pressure 7 kg./sq.cm.

Thio: Lat. 21° 37.5′ S., Long. 166° 15.5′ E.

LOA vessel 170 m. Draft 10.8 m. Telescopic shuttle clearance 11 m. Loading rate 686 t.p.h.

1 Launch available.

Tankers: 6 in. flexible hose weight 2 tons. 6 in. pipe-line. Pumping rate 130 t.p.h. Pressure 7 kg./sq.m.

Kouaoua: Lat. 21° 24′ S., Long. 165° 49.8′ E.

LOA vessel 150 m. Draft 8.5 m. Telescopic shuttle clearance 10.5 m. Loading rate 628 t.p.h.

2 Launches (1 shared with Poro) available.

Poro: Lat. 21° 19′ S., Long. 165° 44′ E.

LOA vessel 169 m. Draft 9 m. Telescopic shuttle clearance 11.05 m. Loading rate 900 t.p.h.

2 Launches (1 shared with Kouaoua) available.

Tankers: 8 in. flexible hose, weight 2 tons. Pipe-line 6 in. Pumping rate 130 – 150 t.p.h. Pressure 7 kg./sq.cm.

Baie Ugue: Lat. 21° 09′ S., Long. 165° 33′ E.

LOA vessel 170 m. Draft 11 m. Telescopic shuttle clearance 12 m. Loading rate 600 t.p.h.

1 Launch and 1 tug 400 h.p. available.

Loading of Ore by Lighters:

Vessels anchored in bays, sheltered from the ocean swell by the barrier reef, but not sheltered from heavy seas caused by wind.

West Coast: Poum/Paagoumene, Karembe, Teoudie, Poya, Bourail (anchorage and mooring buoy), Bay N'Go (anchorage and mooring buoy).

East Coast: Moneo, Kouaoua, Nakety, N'Goye, Ouinne (anchorage and mooring buoy).

Loading Operations: Loading is carried out under supervision of the miner and his stevedore who embarks and lodges part of his personnel on board the vessel.

1. Lighter train towed by a tug, runs a shuttle between the loading wharf and the anchored vessel. Very few powered lighters.
2. Trucks empty their load into lighters.
3. Lighters are emptied by unloading apparatus on board vessel.
4. Ore estimations (richness and humidity) are carried out on shore by the miner and a Japanese representative of O.M.I.C., and a sample is placed on board for the smelter, another sample being reserved for the Department of Mines.
5. Non-stop loading, except in some bays where tide flow inhibits loading lighters at low tide.

Loading rate: From 1,500 to 9,000 tons per day.

Depending on:

1. Whether port is sheltered or not;
2. Distance between loading point and anchorage.
3. Tide flow at lighter loading point;
4. Number of lighters and tugs used by the stevedore.

OFF-LYING ISLANDS: (See Plan).

Art Island – Wala Wharf: Lat. 19° 43′ S., Long. 161° 19′ E. Wharf orientated N.N.E./S.S.W., parallel to shore. Length 30 m. framed by 2 dolphins each 15 m. Width 7 m. Wharf top 3.50 m. above low tide. Depth 4 m. Roadway: 85 m. long, 2.7 m. wide with 2 footpaths 80 cm. wide, supporting vehicles of up to 19 tons (axle 13 tons).

Ouvea Island – Wadrilla Wharf: Lat. 20° 35′ S., Long. 166° 33′ E. Wharf orientated W.N.W./E.S.E., perpendicular to shore. Length 40 m. with mooring buoy 35 m. from the end. Width 7 m. Wharf top 3.5 m. above low tide. Depth 4 m. Roadway: 220 m. long, 2.7 m. wide with 1 footpath 80 cm. wide, supporting vehicles of up to 19 tons (axle 13 tons).

Lifou Island – We Wharf: Lat. 20° 55′ S., Long. 167° 17′ E. Wharf orientated N.E./S.W., parallel to shore. Length 40 m. prolongated to the N.E. by a dolphin 15 m. away. Width 7 m. Wharf top 3.5 m. above low tide. Depth 5.5 m. Roadway: 90 m. long, 4 m. wide, supporting vehicles of up to 19 tons (axle 13 tons).

Mare Island – Tadine Wharf: Lat. 21° 33′ S., Long. 167° 53.5′ E. Wharf orientated N.N.E./S.S.W. Length 48 m. with an adjacent wharf 13 m. long (150 in. lower). Width 2 m. Wharf top 2.8 m. above low tide. Depth 3 m.

Isle of Pines – Kuto Wharf: Lat. 22° 39.7′ S., Long. 167° 26′ E. Wharf orientated W.N.W./E.S.E., parallel to shore. Length 30 m. framed by 2 dolphins 15 m. away. Width 11 m. Wharf top 3.35 m. above low tide. Depth 4 m. Roadway: 118 m. long, 2.70 m. wide with one footpath 80 cm. wide, supporting vehicles of up to 19 tons (axle 13 tons).

Touho Bay: Wharf orientated E.N.E./W.S.W., parallel to shore – 4 bollards. Length 12.6 m. Width 6.7 m. Wharf top 4 m. above low tide. Deep water at 20 m. from end of wharf.

Paagoumene Wharf: Lat. 20° 29.2′ S., Long. 164° 10.5′ E. Wharf orientated N.E./S.W. Length 15.6 m. N.E. section: Length 30.5 m. S.W. section: Length 43 m. Overlapping landing stage, 2.14 m. Wharf top 3.83 m. above low tide.

AUTHORITY: Port Autonome de Noumea, Avenue Cook, P.O.Box 14, Noumea. *Tel:* 27.59.66. *Telex:* Care of "Comin" 045 NM. *Contact:* Andre Courtot, Port Director. Jean Louis Boglio, Port Captain.

NOTES

Please also advise Shipping Guides Ltd.

New Zealand

GENERAL: All ports.

AGRICULTURE:
The New Zealand Ministry of Agriculture and Fisheries requires a Shipmaster's Bond and Guarantee (Form Ag.L35) to be completed in triplicate if vessel is carrying animals, i.e. cats, dogs, fish, birds, etc.

In addition, the Masters of all overseas vessels are required to complete in duplicate a Ship's Meat Locker Certificate (Form Ag.L36). Ship's Meat Lockers (chambers) containing prohibited meat from overseas countries are sealed on arrival at the first port in New Zealand, and must remain sealed during the vessel's stay on the New Zealand coast.

All goods of an agricultural nature must be held until they have been inspected and a Permit to Land (Form Ag.G.78) issued by the Ministry of Agriculture and Fisheries.

Crews signing-off are required to check with the Agriculture Quarantine Officer and obtain Release/Treatment of any agriculture items which they wish to take ashore.

Authority: Ministry of Agriculture & Fisheries, Gillingham House, 101-103 The Terrace, Wellington. *Tel:* (04) 720-367. *Telex:* MAF WN NZ 31532. *Contact:* National Manager, Border Control.

SHIPMASTER'S REPORT:
Health: Coming from an Australian port the clean Bill of Health was accepted.

Documents:

2 Poison Lists (if there is poison in the cargo).
2 Reports of Pillaged Cargo (marks and numbers).

Cargo Gear: When working general cargo with derricks "in union purchase" without preventer guys, ship (via Agent) must seek an exemption from Regulation 2 (a) of the General Harbour (Safe Working Load) Regulations 1935 Amendment No. 5 by applying for dispensation from the Chief Surveyor of Ships, Marine Department, Ministry of Transport, Private Bag, Wellington.

AUCKLAND: 36.51 S. 174.45 E. (See Plan)

PORT LIMITS: South of a line drawn from Toroa Point to the S.W. Point of Rakino Island.

DOCUMENTS:

3 Copies Passenger List.
3 Copies Crew List.
1 Copy Search List (Form 2).
1 Copy Stores List (Form 3).
1 Copy Prohibited and Restricted Immigrants.
1 Copy Poisons List.
1 Copy Animals and Birds List.
1 Copy List of Firearms (not cargo).
1 Copy Arrival Manifest (Form 1), plus 2 for other ports visited (Reg. Form 16 refers).
1 Copy of List showing the gross tonnage of cargo for discharge in New Zealand.
3 Copies Shipmaster's Bond and Guarantee (Form Ag.L35).
2 Copies Meat Locker Declaration (Form Ag.L36).

Ship's Register to be presented to the Harbour Master on first visit to the port.

Also see "Health".

PILOTAGE: Vessel approaching port to give 24 hours' notice by radiotelegraphy and addressed "Harbourmaster Auckland". A second notice by radiotelephone confirming or amending first to be sent 4 hours before expected time of arrival. Signal Station on Mt. Victoria, call sign "Auckland Harbour Radio", calling frequency 2182 kHz, working frequency 2012 kHz. VHF, call sign "Auckland Harbour Radio", Channel 12 and 16. Continuous listening watch on Channel 16.

Pilot launch is 20.0 m. long, single mast, painted white. Name is *Akarana*. Standard flag and lights are shown. Word "Pilot" painted in black on white above cabin. Pilots board 1 mile North of Rangitoto Beacon, but will proceed farther when necessity arises. Good pilot ladder with manrope required to within 1.5 m. of water-line with proper lighting at night. Heaving lines will be needed for mail.

ANCHORAGES: For vessels waiting Pilot: (Bearings and distances from Rangitoto Beacon). Gulf Anchorage No. 1 bearing 000° distance 2 miles; No. 2 bearing 006° distance 2.5 miles; No. 3 bearing 012° distance 3 miles.

All inner anchorages in pilotage area can be indicated by Pilot. All anchorages are in 11 m. – 18 m. with good holding ground.

RESTRICTIONS: Ships may enter harbour at any time of day or night. Main channel has least depth of 11 m. chart datum. Vessels with greater draft must wait for tide to make and enter at Harbour Master's orders. Tankers not berthing immediately on arrival anchor as directed at one of Gulf Anchorages.

See "Bridges".

MAX. SIZE: No limits, within reason, on the length or breadth. Controlling depth at chart datum: entrance 11 m.; Rangitoto Channel 11 m.; anchorages 9.8 m. – 15.0 m.; berths 6.09 m. – 12.20 m.

HEALTH: 12 – 24 hours before arrival time, despatch message to Port Health, Auckland. Message to state ETA, last port, and date of departure therefrom, number of crew, number of passengers and state of health and indicate if there is a doctor amongst the crew. 12 hours before arrival confirm ETA.

Doctor boards by way of vessel's shipside gangway (not pilot ladder) when in harbour. This gangway to be ready immediately on arrival in order to avoid any delay. A responsible person should meet doctor at head of gangway and conduct him to appropriate person.

Papers Required:

Completed Maritime Declaration of Health.
Derat Certificate.
Complete Crew List with dates of last vaccinations.
N.B. Crew and Passenger Lists to be certified as being correct by the Master.
List of Addresses of Disembarking Passengers.
List of Dangerous Cargo on board.

Pratique is granted initially, and covers all subsequent coastal movements in New Zealand for that voyage. Radio Pratique can be granted only after prior approval from New Zealand Health Department.

Vessels requesting Pratique should exhibit appropriate International Code Signals by day and night until Pratique is granted.

RADIO: Station for routing traffic to the Auckland area is Auckland Radio. Call sign ZLD. Working both W/T and R/T on continuous watches.

VHF: See "Pilotage".

RADAR: Radar station with range of 72 km. located on Mt. Victoria Lat. 36° 49′ 42″ S., Long. 174° 47′ 57″ E. Masters may call on radio telephone and request particulars of their bearing and range as shown on radar screen. Responsibility for the use of this information rests entirely with Master of vessel.

TUGS: 3 working tugs available, 1 on stand-by. Tugs join vessel East of Eastern Tide Wall. Tugs supply lines at no extra charge.

BERTHING: Tankers berth at Wynyard Wharf depot. Tankers must arrive at pilot station not later than 30 minutes before sunset, otherwise berthing will be postponed until following morning.

Depth of Water: Bledisloe 10 m.; Captain Cook 8 m. – 10.5 m.; Hobson 4 m. – 6 m.; Jellicoe 10 m. – 11 m.; Bledisloe West 12 m.; Marsden 3.5 m. – 8 m.; Princes 10 m. – 11 m.; Queens 9 m. – 11 m.; Wynyard 9 m. – 11 m.; Freyberg 10 m. – 11 m.; Fergusson 11 m. – 12.2 m.

CRANES: At Fergusson Container Terminal there is 1 twin lift container crane of 45.72 tonnes capacity and 2 single lift container cranes of 40.64 tonnes capacity. In the conventional cargo port quay-side cranes of 5 tonne capacity are provided at all except 2 berths. At the bulk fertiliser berth there are 5.5 tonne capacity multi-wire grabbing cranes and at the bulk sugar berth there is a 5 tonne capacity gantry grabbing crane. Self propelled floating crane 101.6 tonnes capacity.

BULK CARGO FACILITIES: *Cement:* A special berth is provided where bulk cement is discharged pneumatically via pipe-line to privately owned silos. Depth at chart datum 6.0 m., quay length 94 m.

Sugar: Bulk sugar is discharged at Chelsea Wharf. This wharf is equipped with a 5 tonne capacity gantry grabbing crane and a conveyor system connected to the refinery store. Depth at chart datum 9.9 m. Quay length 91 m.

Fertiliser: 1 berth is set aside for the discharge of bulk fertiliser bases. 5.5 tonne capacity multi-wire grabbing cranes are available. Depth at chart datum 11.0 m. Quay length 335 m.

4 other berths can also be made available for discharge of dry bulk cargo as required.

See "Bridges".

SPECIALISED CARGO HANDLING FACILITIES:
Tanker Terminals: 2 berths are at a continuous quay 486 m. long, depth at chart datum 9 m. – 11 m. The berths are connected by pipe-line to adjacent tank farms.

Container and Ro/Ro Facilities: Fergusson Wharf Container Terminal: Quay length 610 m. Depth at chart datum 12.2 m. The terminal is equipped with 3 Vickers Hoskins/Paceco gantry container cranes, 2 single lifts of 40.64 tonnes capacity and a twin lift of 45.72 tonnes capacity. Total back-up area of the terminal is 21.71 hectares of which 17.41 hectares is used for container handling and storage and 4.30 hectares is used for container repairs and LCL containers. Included in the latter area is the Monash Street Container Base which provides 7,432 sq.m. of covered transit storage for LCL cargo. Rail exchange sidings are located immediately adjacent to the terminal. There are power outlets for 1,424 refrigerated containers. Container terminal equipment includes 17 straddle carriers as well as various tractors and fork lift trucks. The terminal is operated by the Auckland Harbour Board.

Freyberg Wharf: A common user Ro/Ro berth for quarter ramp vessels up to 228 m. in length is provided at Freyberg Wharf.

Bledisloe Ro/Ro Terminal: Quay length No. 1 Berth 137 m., No. 2 Berth 224 m. Depth at chart datum 9.5 m. Each berth is equipped with a link span with a fork lift axle load capacity of 56.9 tonnes and a low loader capacity of 182.9 tonnes. No. 2 Berth can accept ships equipped with a port quarter ramp. A total back-up area of 4.8 hectares is provided including a cargo shelter of 4,000 sq.m. and rail exchange sidings.

Bledisloe West Wharf: Length 285 m. Depth alongside 12.3 m. Handles ships with unitised cargo, including container ships. A total back-up area of 2.8 hectares is served by 1 × 35 ton Samba gantry crane and 4 heavy duty forklift trucks.

BRIDGES: Navigation in daylight hours only under Auckland Harbour Bridge. Navigation span is 45.2 m. – 43 m. above MHWS for 76 m. each side of centre. Only ships berthing at Chelsea Wharf sugar berth need pass under the bridge.

STEVEDORES: Labour commences at 0730 hrs. In order to ensure labour for this time ETA should be received at Agent's office before 1500 hrs. previous day, or before 1500 hrs. previous Friday for a Monday start. Delays on radio messages may be up to 3 hours.

MEDICAL: In case of urgent medical attention being required, Agents can arrange for doctor to board in stream at any notice. Hospital and ambulance services available 24 hours.

TANKERS: See "Special Cargo Handling Facilities".

Any size pipe-lines can be used, oil companies have all reducing pieces needed.

No facilities for slop discharge.

DENSITY: Always 1025.

FRESH WATER: Fresh water always available. Delivery rate 80 t.p.h., through canvas hoses. AHB supplies all equipment.

FUEL: Light fuel oil, diesel, gas oil and heavy fuel are available. To be ordered in ETA notice.

FIRE PRECAUTIONS: In addition to usual precautions, Class I tankers are under extra security with a nightwatchman from Harbour Master's staff in addition to the normal tanker guard.

CONSULS: (Consuls, Trade Commissioners, etc.): Australia, Belgium, Brazil, Costa Rica, Denmark, El Salvador, Fiji, Finland, France, Germany F.R., Greece, Ireland, Italy, Japan, Korea (South), Nauru, Netherlands, Norway, Peru, Philippines, Portugal, Sweden, Switzerland, Tonga, Turkey, U.K., U.S.A., Venezuela, Western Samoa.

REPAIRS: Any ship repairs can be carried out. A slipway can take vessels of 600 tons displacement and up to 64 m. LOA.

DRY DOCKS: Max. size of vessel that can be accommodated in Calliope Dry Dock operated by the Ministry of Defence is 181.35 m. LOA and 19.8 m. beam. Water on sill at MHWS 10 m.

SURVEYORS: American Bureau of Shipping, Bureau Veritas (Paris), China Corporation Register of Shipping, Det Norske Veritas, Germanischer Lloyd, Lloyd's Register of Shipping, Nippon Kaiji Kyokai, Registro Italiano Navale, USSR Register of Shipping.

GANGWAY/DECK WATCHMEN: Watchmen are necessary. Best to use crew. Also see "Fire Precautions".

OPENING/CLOSING HATCHES: Crew open completely mechanical hatches only. All other hatches opened by waterside workers.

CERTIFICATES: Register, Derat, Load Line, Safety Equipment, Safety Radio, Articles of Agreement, are main Certificates required.

CUSTOMS ALLOWANCES: 1 bottle of spirit (in use) *or* 1 bottle of wine (in use) *and* 12 quart bottles (or the equivalent) of beer, 200 cigarettes *or* half a pound of tobacco *or* 50 cigars. For ship use only. To be declared on Search List. Also gifts up to a total value of $100.0 may be landed.

CARGO GEAR: Preventer guys must be entirely wire. All blocks and shackles must be moused. Safety strops on all heel blocks. All wires, ropes, chains and blocks to have Certificate of Test.

REPATRIATION: All facilities exist for repatriation.

AIRPORT: 23 km. from harbour to airport. Served by all major international airlines.

TIME: Local time is GMT plus 12 hours, add 1 hour for Summertime, October to March.

HOLIDAYS: Only the Container Terminal works during the following holidays. New Year's Day (1st January); Good Friday; Easter Monday; Anzac Day (25th April); Queen's Birthday (first Monday in June); Labour Day (fourth Monday in October); Boxing Day; Waitangi Day (early February). In addition, each Province has an Anniversary Day and a Waterside Workers' Picnic Day. In Auckland these are in last half January.

POLICE/AMBULANCE/FIRE: All emergency services are called through one telephone number. Dial 111 and state service required.

TELEPHONES: Telephones at all berths. Cost is $3.02 fee phone per day, plus the cost of any overtime incurred in connecting or disconnecting any such telephone. Telephones (coin operated) may be hired for use of crew on application to Post Office.

SERVICES: Services include tank cleaning, compass adjusting, all cargo surveying, average adjusting, etc. Tank washings may be pumped to road tankers.

GENERAL: *Refuse Disposal:*

It is important that no refuse be allowed to pass into tidal waters either directly or indirectly. This is covered by strict Government Regulation.

Masters should ensure that refuse is lowered into refuse boat "Manui" and not thrown into boat from any great height.

No refuse will be collected from stern of vessel as this is hazardous for collection craft. A suitable site in way of the flat side of the vessel on off shore side should be chosen.

SHORE LEAVE: Crew members may go ashore.

IDENTIFICATION CARDS: Not required.

REGULATIONS: All guests aboard vessel in the evening must have passes signed by the Master. All visitors' passes expire at 2300 hrs. All ships in port are subject to the Rules and Regulations contained in the Harbours Act 1950, and the By-laws of the Auckland Harbour Board. On first visit to the Port copies of these and other relevant Regulations are supplied to ships.

DELAYS: Average delay 10 hours for container ships. Seldom any delays awaiting other berths.

AUTHORITY: Auckland Harbour Board, 1 Queen Street, Private Bag, Auckland, New Zealand. *Tel:* 795-950. *Telex:* NZ 2705. *FAX:* 776-000. *Cables:* Haboard, Auckland. *Contact:* G. J. Bissell, Secretary. G. R. Mowday, General Manager.

BLUFF: 46.37 S. 168.22 E. (See Plan)

DOCUMENTS: See "Auckland".

PILOTAGE: Pilotage is compulsory. Pilots board vessels from launch in position Lat. 46° 39′ S., Long. 168° 21′ E. Arrangements regarding boarding will be made by VHF Channel 16 with Bluff Harbour Radio.

Vessels, other than those which are exempt from pilotage, must not proceed within the pilotage area without a Pilot.

A 24 hour pilotage service for tidal conditions. Vessels generally enter and leave the port at slack HW and slack LW.

Caution: Vessels stopping to pick up a Pilot are particularly warned not to approach entrance shoal too closely, especially during flood stream as stream sets strongly on to entrance shoal, North-Eastward.

Coastal Pilots: Coastal Pilots are available on 24 hours' notice for piloting service from Tairoa Head to Milford Sound.

Stewart Island Pilotage: The area within the Stewart Island Pilotage District is a Compulsory Pilotage District. The definition of this area can be obtained from the Southland Harbour Board who are the Stewart Island Port Authority and provide Pilots.

ANCHORAGE:

Southward of Stirling Point: In fine weather, vessels missing tide may anchor in 10 to 12 fathoms with Stirling Point lighthouse bearing about 356° and Dog Island lighthouse bearing about 108°.

Eastward of Dog Island: Anchorage for vessels delayed longer than 6 hours awaiting to enter Bluff is situated 5 miles East of Dog Island.

Safe anchorage in heavy Westerly weather may be found off the N.W. coast of Stewart Island between Otaku Point and Gull Rocks, position: Lat. 46° 47′ S., Long. 168° 02′ E.

RESTRICTIONS: The safest time to enter the harbour is at slack water. Strict attention should be paid to radio messages passed from the Harbour Authority Operations Office. No vessel should attempt to enter without a Pilot, unless possessing local knowledge.

Least depth in fairway is 8.53 m. on Northern edge of Channel Rocks; also 7.62 m. (about 1 cable West North-Westward of the tidal beacon).

MAX. SIZE: Length 198 m., beam 29 m. Vessels of over 182 m. length and/or 28 m. beam are restricted to HW arrival and departure. Vessels up to Panamax size 225 m.×33 m. will be handled at a reduced draft at the Harbour Master's discretion.

Max. draft is 9.7 m. ordinary HW and up to 10.0 m. at HW Springs. LW max. draft is 7.0 m. up to 7.5 m. at Neap tides.

HEALTH: Radio Pratique available at Berth.

RADIO/VHF: A continuous watch is maintained by the Harbour Authority Operations Department and vessels can communicate by radio-telephone or VHF. Call sign is "Bluff Harbour Radio", calling frequency is 2182 kHz, and the working frequency is 2012 kHz. VHF radio having Channels 16 and 12. A continuous watch is maintained on 2182 kHz and VHF Channels 16 and 12.

TUGS: Two tugs are available. Both twin-propulsion Voith Schneider vessels of 1,200 i.h.p. and 15.3 tons static pull and 2,600 h.p. and 30 tons. Both vessels are equipped for fire fighting and salvage. Tugs supply towing lines.

BERTHING:

Wharves	*Length Wharf* (m.)	*Max. Length Vessel* (m.)	*Berth Depth MLWS* (m.)	*Max. Draft* (m.)	*Deck Above MLWS* (m.)
Island Harbour No. 1	160	150	8.0	7.7	4.37
Island Harbour No. 2	190	170	8.0	7.7	4.37
Island Harbour No. 3a	152	150	9.4	9.15	4.37
Island Harbour No. 3	426	198 (1981)	10.7	9.7	4.37
Island Harbour No. 4		198 (1981)	10.7	9.7	4.37
Island Harbour No. 6	135	90	8.0	7.6	4.37
Island Harbour No. 5	213	198 (1981)	10.7	9.7	4.37
Island Harbour No. 7	100 (1981)	90 (1981)	9.1	8.5	4.37
Island Harbour No. 8	230	198 (1981)	12.0	10.0	3.77
Town Wharf No. 11	210	192	10.0	9.7	3.46
Town Wharf No. 12	183	180	9.0	8.7	3.46
Town Wharf No. 14	157	140	8.3	8.0	3.46
Ferry Wharf	200	150	7.0	6.5	4.19
Tiwai Wharf –	200	250	11.5	11.0	5.68

(273 m. including mooring dolphin)

All Island Harbour Berths except Nos. 6, 7 and 8 have rail access. No rail at Tiwai Wharf.

Bulk phosphate or sulphur cargoes are discharged at Berth Nos. 11 or 12 into hoppers thence road trucks.

A Ro/Ro linkspan is situated at Berth No. 1.

A bulk grain facility serves Berth No. 2. Silo capacity 6,600 tonnes, loading rate 500 tonnes/p.h. Bulk tallow is loaded at Berth Nos. 3 and 3A. Ten storage tanks with total capacity of 4,775 tonnes are connected to ship's side by a 300 mm. diameter heated pipe-line giving a loading rate of 400 tonnes/p.h.

Four all weather meat-loaders are situated at Berth No. 5.

Berth No. 8 is a bulk woodchip loading facility (via conveyor) and also serves the log and sawn timber trade. Grain is also loaded at No. 8 Berth via truck ramp to conveyor.

Bulk cargoes for Tiwai Aluminium Smelter are discharged at the Tiwai Wharf by a mobile twin unit pneumatic unloader with a capacity of 300 tonnes/p.h. A dedicated vessel "TNT Altrans" discharges alumina via air slide to smelter at over 800 t.p.h.

STEVEDORES: Agents require ETA in advance to arrange labour for cargo handling.

MEDICAL: Port doctor available through Agents. Nearest hospital is at Invercargill City, 16 miles from Bluff. Medical service whilst at sea through Awarua radio.

TANKERS: Tankers are berthed at Berth No. 11 Town Wharf. Side connections are to be used. Only 1 pipe-line connection on wharf. Black products are handled through 250 mm. lines, white products through 200 mm. lines. Bitumen tankers discharge at No. 12 Berth.

No vessel carrying a cargo of motor spirit or having discharged such cargo will be handled during the hours of darkness.

Oil cargoes for Tiwai Point discharged at Tiwai Wharf via manifold and 300 mm. pipe-line.

DENSITY: 1025.

FRESH WATER: Available alongside all berths, rate 20 tonnes/p.h.

FUEL: Bunkering facilities are available. Boiler fuel is supplied by 8 in. diameter pipe-line located at Berth No. 11, Town wharf. Delivery rate 240 t.p.h. Limited quantities of coal, light diesel oil and lubricating oil can be arranged for delivery by road or rail to the wharves.

Gas oil available by pipe-line at Berth Nos. 11, 12 and 14 and by road tanker at all other berths.

GANGWAY/DECK WATCHMEN: Available.

OPENING/CLOSING HATCHES: Usually carried out by stevedores, by crew if automatic hatches.

CUSTOMS ALLOWANCES: See "Auckland".

IDENTIFICATION CARDS: Not required.
DRY DOCKS: The Board operates a "Syncrolift" docking facility capable of accommodating vessels with a displacement up to 1,000 tonnes on a platform 40.3 m. × 13.4 m. The installation is designed for future extension to a capacity of 1,700 tonnes on a platform 65.6 m. × 13.4 m.
REPAIRS: Major repair work can be undertaken by the following: 2 small machine shops at Bluff; a foundry at Invercargill. A diver is available for underwater inspections through Agents.
REPATRIATION: Facilities exist.
AIRPORT: Internal air services from City Airport, Invercargill, 16 miles by road connecting with international airports of Christchurch, Wellington and Auckland.
TIME: GMT plus 12 hours. Summer Time GMT plus 13 hours from November to February inclusive.
HOLIDAYS: Christmas Day; Boxing Day; New Year's Day; Second of January; Watersiders' Picnic Day (4th Monday, January); Good Friday; Easter Saturday (except by special arrangement); Easter Monday; Easter Tuesday; Labour Day; Anzac Day; Reigning Sovereign's Birthday.
POLICE/AMBULANCE/FIRE:

	Tel. (Emergency)	*(Other)*
Ambulance	Bluff 111	Inv'gill 81-949
Police	Bluff 111	8844
Fire Brigade	Bluff 111	

TELEPHONES: By arrangement, all vessels can be connected with telephone system.
SERVICES: Compass adjusting, refuse collection daily.
SHORE LEAVE: Allowed.
AUTHORITY: Southland Harbour Board, P.O.Box 1, Bluff, New Zealand. *Tel:* 02137-8159. *Telex:* 5206 Onebluf NZ. *FAX:* 02137-8685. *Cables:* "Harbluff" for general messages or "Harbour Master Bluff" for arrival messages. *Contact:* N. C. Cantrick, General Manager. Captain J. A. Henderson, Operations Manager. Captain L. Mounsey, Harbour Master.

GISBORNE: 38.42 S. 178.02 E. (See Plan)

PORT LIMITS: All of Poverty Bay within a line from the Northern point of Young Nick's Head to Tuaheni Point.
DOCUMENTS: See "Auckland".
PILOTAGE: Telegraphic address – Harbour Master, Gisborne. Advance notice – 24 hours before ETA. VHF Channel 16 and 12.

Pilot boat is painted white with word "Pilots" on both sides, 13.71 m. in length; exhibits pilot flag or lights. Pilot boards on line of leads (332°) 2 miles from breakwater light.
ANCHORAGE: Vessels awaiting Pilot and berth anchor with Tuaheni Light bearing 084° 3.2 miles in 18.29 m. of water.
RESTRICTIONS: Vessels may be berthed at night according to size, draft and weather conditions.
MAX. SIZE: Maximum length 173.72 m. Beam, no restriction. Draft, 8.6 m. at HW, 7.0 m. at LW. Contact Harbour Master for current situation as there can be slight variations according to heights of tide and weather conditions.
HEALTH: Same procedure as "Auckland".
RADIO: Auckland Radio ZLD, Wellington ZLW.
VHF: Signal station not permanently manned. Listening watch Monday–Friday 0800 – 0815 hrs.; 1130 – 1145 hrs.; 1330 – 1345 hrs.; 1600 – 1615 hrs. Signalman in attendance 1 hour before vessel's arrival. Call sign: "Gisborne Harbour Radio", Channel 16 and 12.
TUGS: Tug joins vessels in channel outside breakwater. Normally use tug's lines, no extra charge.

A twin screw Schottel Rudder/Propeller 22 m. steel tug is in service. Bollard pull 14 tonnes, 1,000 h.p.
BERTHING: 213.35 m. at 9.75 m. depth at LW; 426.7 m. at 5.49 m. – 6.1 m. depth at LW.
Moorings: Shore hawsers placed on vessels on arrival.
SPECIALISED CARGO FACILITIES: Two 1,000 tons silos for bulk grain, etc. behind No. 7 berth and a conveyor for loading grain, etc. in ships. Loading rate 400 t.p.h. There is also a fish unloader, rate 40 t.p.h.
STEVEDORES: Advice of ETA and particulars of stowage required in order that required number of gangs can be ordered. Hours of work, Monday to Friday, 0700 – 1200 hrs., 1300 – 1800 hrs.; Saturday, 0700 – 1200 hrs. Extended hours by agreement.
MEDICAL: No advance advice required for medical attention. Full hospital facilities available.
TANKERS: Tankers discharge petrol and diesel oil.
DENSITY: 1025 at all stages of tide.
FRESH WATER: Available by 63 mm. (2.5 in.) hoses at approx. 20 t.p.h. per hose.
FUEL: Fuel is at present only available by rail tanker and should be ordered through ship's Agent in advance.
GANGWAY/DECK WATCHMEN: Ships provide own watchmen.
OPENING/CLOSING HATCHES: Stevedores normally carry this out.
CUSTOMS ALLOWANCES: See "Auckland".
IDENTIFICATION CARDS: Not required.
CONSULS: None.
REPAIRS: Normal maintenance repairs.
SURVEYORS: 1. Ministry of Transport Surveyors in Napier for grain cargo. Private surveyors available in Gisborne.

2. Lloyd's Register available on request, also A.B.S.
DRY DOCKS: One 400 ton slipway.
REPATRIATION: Full facilities available for effecting crew changes and repatriation.
AIRPORT: 3.5 miles. Regular internal service.
TIME: Standard Time is 12 hours ahead of GMT. Daylight time GMT plus 13 hours from last Sunday in October to first Sunday in March normally.
EMERGENCY CO-ORDINATION CENTRE: Local Police Station for minor emergency operations otherwise all Search and Rescue Co-ordinated from Wellington.

Local Police	Tel: 79059 or 111
Wellington S.A.R.	Tel: 721 – 253

STORING: See "Prelims".
1. By truck or launch – only.
2. Not applicable.
3. Trucks can come alongside at berths, only restricted for Tankers.
4. Fork Lifts available and used.
5. Customs clearance required for bonded goods.
6. Yes.

AUTHORITY: Gisborne Harbour Board, P.O.Box 549, Gisborne, New Zealand. *Tel:* (079) 85129. *FAX:* (079) 78084. *Cables:* Harbour Board. *Contact:* Captain R.T.W. Dunn, Harbour Master. Mr. B.M. Tahata, Secretary/Treasurer.

LYTTELTON: 43.35 S. 172.42 E. (See Plan)

PORT LIMITS: All those tidal waters of the Port of Lyttelton comprised within the area enclosed by the arc of a circle having a radius of 3 nautical miles from the Northernmost point of Adderley Head.
DOCUMENTS: Customs procedure: Overseas vessels, on arrival in New Zealand, should have following papers ready to produce to Customs Officers:

Particulars of Ship's Certificates.
List of Persistent Oils (Tankers only).
Notification of Liability to pay entry tax (Fishing vessels only).
Register.
Names of Owners and Agents.
Crew List.
Passenger List.
List of Prohibited or Restricted Immigrants.
Search List.
Stores List.
List of any stock or birds on board.
List of Poisons.
List of Firearms.
Statement of excess Tonnage of Cargo.
Statement of quantity of Fuel Oil in double bottoms.
Declarations by Passengers arriving in New Zealand.
Baggage Declarations by Passengers for duty purposes.

On departure for overseas, Master or his Agent is required to produce:

Manifest of Cargo.
Stores List.
Crew List.
Passenger List (if any).
Clearance from the Marine Department (if a British ship).

A home trade vessel under *transire* is required to produce her cargo book to Collector of Customs and such particulars as to passengers, crew, and cargo as the Collector may at any time demand. Cargo book shall contain name and port of registry of ship, Name of Master, and date of arrival at, and departure from each port. Particulars as to dates of arrival and departure must be entered not later than 24 hours after time of such arrivals and departures.
PILOTAGE: Masters requiring services of a Pilot must notify Harbour Master of their estimated time of arrival and maximum draft not later than 1600 hrs. on day prior to arrival (Monday to Friday). If estimated time of arrival is on a Saturday, Sunday or any public holiday which falls on a Monday, notification must be given before 1600 hrs. on previous Friday. International Code of Signals or Morse Code used for communicating with signal station. Station also equipped with radio telephone. Call sign is "Lyttelton Harbour Radio", calling frequencies is 2182 kHz and working frequencies are 2012 kHz and 2162 kHz, a continuous listening watch being maintained. Radio telephone equipment also installed in the tug, pilot cutter and Harbour Master's office, and same call signs, frequencies and watches are employed. VHF in operation on International Channels 12, 14 and 16.

Pilot vessel is 16.46 m. in length. Equipped with radar, radio telephone and echo sounder. The pilot vessel is located at the tug wharf in inner harbour and any vessel awaiting arrival of the Pilot, should anchor about 1.5 miles to seaward of Godley Heads, in a depth of 16 m. to 18 m. and await instructions.

The limit of pilotage is a line joining Godley and Adderley Heads.

Every facility must be provided to ensure safe boarding of the Pilot.
ANCHORAGES: Camp Bay: Permission must be obtained from the Harbour Master before using this anchorage and draft of vessel is restricted to 8.5 m. All vessels drawing more than 8.5 m., whether awaiting a Pilot or not, must use the outside anchorage. Vessels using Camp Bay anchorage should anchor with the anchorage lighted leading beacons, situated on the Southern shore of Camp Bay, in transit, bearing 195.5°. Each beacon is painted white and exhibits a fixed red light. Vessels may anchor to the Westward of this bearing but must not proceed Westward of a line bearing 345° from the rear anchorage beacon.
Note: Anchoring in or near the dredged channel which extends 2 km. inside Heads is not permitted.

Also see "Pilotage".
RESTRICTIONS: Tankers are berthed during hours of daylight only. All vessels can depart from their berths during hours of darkness. Vessels holding pilotage exemptions may also enter or depart during the hours of darkness.

The following are the controlling depths at mean low water springs, mud bottom in each case;

Entrance to port 14.6 m.
Dredged channel 12.0 m.
Inside anchorage 11.0 m. (Camp Bay)
Approaches to berth 11.6 m. – 9.8 m.
Alongside berths 12.20 m. – 8.60 m.

MAX. SIZE: Max. draft permissible for entering or leaving: 12.0 m. at high water and 9.75 m. at low water. Vessels drawing less than 9.75 m. can enter at any state of the tide. Max. size permissible for entry: length 260 m. at Cashin Quay, any additional length contact Harbour Master, 230 m. at Inner Harbour. No limit on vessel's beam.

HEALTH: Master of every ship about to enter a New Zealand port shall, not later than 12 hours and not earlier than 24 hours before expected time of arrival at that port, inform Port Health Officer by radio of last port of call, date of departure therefrom, and state of health of vessel.

Arrival of vessels: On arrival, vessel showing International Code quarantine signal, should proceed to inspection area to await arrival of Port Health Officer. Inspections are normally carried out at berth.

Radio Pratique: Certain ships may be granted Pratique by radio and hence need not be visited by a Port Health Officer, provided that medical officer carried as part of ship's complement.

Maritime Declaration of Health: Masters of all vessels arriving in New Zealand from any port beyond New Zealand shall complete and deliver to Port Health's Officer a Maritime Declaration of Health countersigned by the ship's medical officer, if required.

Crew List and Passenger List: Master of every ship liable to quarantine should be prepared to furnish Port Health Officer a list of all passengers, showing in respect of each passenger, name, sex, race, age, and port of embarkation; and a list of crew giving the name, nationality, and rating of each member.

RADIO: Wellington Radio, call sign ZLW; Awarua, call sign ZLB; or Auckland, call sign ZLO.

TUGS: Normally join vessel at Parsons Rock Beacon. Tug lines are used, charge for which is included in the overall hire for tug. Number of tugs required depends on type of vessel and draft.

BERTHING: Requirements for berthing at Berths 2, 3, 4, 5, 6 and 7 for vessels over 1,000 tons net are; bow out, the anchor to be used and gangway turned in until vessel secured at berth.

STEVEDORES: Waterside labour can be ordered after arrival of ship at 0630 hrs. up to 0900 hrs. For work on Saturdays orders must be placed by 0900 hrs. Friday. Saturday afternoon work to be ordered by 1030 hrs. Saturday.

For supplementary hours labour must be requisitioned by 1500 hrs. previous Friday and confirmed by 0700 hrs. Monday and daily.

SPECIALISED CARGO HANDLING FACILITIES:
No. 1 Cashin Quay: Grain silos. 12,000 tonnes capacity, 400 t.p.h. loading rate for coastal and overseas shipments. Bulk Loading Facilities: Woodchips, grain and coal. Coal storage 200,000 tonnes, loading rate 600 tonnes/p.h.

No. 2 East: Bulk cargo discharges: 6×5 ton electric cranes, 3×100 ton mobile bulk hoppers.

No. 3 Cashin Quay: Lo/Lo Container Terminal. Heavy duty berth 285 m., depth alongside 12.6 m., draft 12.0 m., terminal area 8 ha., container slots 1,600 stacked two high, 546 reefer electrical connections, one Paceco 40 tonne single-lift container crane, seven Clark No. 520 straddle carriers – forklifts, container washing and repairs, CFS – No. 2 transit shed 6,680 sq.m., Operator – Lyttelton Harbour Board.

Gladstone Pier, West: Roll-on/Roll-off Coastal and Trans-Tasman Cargo Terminal.

No. 2 Jetty West, Inner Harbour: Roll-on/Roll-off, Passengers and Cargo Terminal.

MEDICAL: Hospital facilities are available at Christchurch, 12 km. from port, and international regulations apply in regard to inoculations, vaccinations, etc. Agents can be notified at any time of medical allocation required, preferably with 24 hours' notice.

TANKERS: All tankers berth alongside oil wharf in Inner Harbour. One berth only is available with a max. draft of 11.60 m. A 10 in. line is used for discharging and loading with suitable fittings for reduction to 8 in. Slop or oily residue facilities are not available.

Oil hoses can be connected and disconnected during hours of darkness with Harbour Master's permission. Side connections are connected to discharging arms situated at the middle of the oil wharf.

Berthing is generally starboard to, head out.

DENSITY: 1025, salt water.

FRESH WATER: Available at all berths delivered by hose at a discharge rate of 20 t.p.h.

FUEL: Bunkering facilities available. Boiler fuel oil, supplied by 4 in. and 6 in. diameter bunker hose connected to an 8 in. diameter pipe-line, located on the oil wharf.

FIRE PRECAUTIONS: Tankers are not permitted to immobilise engines at the oil wharf. Repairs may be carried out at other wharves with Harbour Master's permission. Boiler and galley fires are not required to be extinguished when loading or discharging. All scuppers are to be plugged and cemented in case of spillages.

GANGWAY/DECK WATCHMEN: All ships must be provided with a watchman whilst at oil wharf; a shore watchman is also required. Watchmen can be ordered at any time by contacting Union Maritime Services, Lyttelton 7149.

OPENING/CLOSING HATCHES: This work is carried out by waterside labour.

CONSULS: At Christchurch.

Australia	66-221	Japan	60-446
Belgium	77-905	Netherlands	65-669
Denmark	899-099	Norway	65-079
Finland	60-709	Sweden	65-179
France	60-085	U.S.A.	65-864
Italy	62-799		

CUSTOMS ALLOWANCES: 8 ounces and/or 200 cigarettes per man. 1 bottle of wine and/or 1 bottle of spirits per man.

IDENTIFICATION CARDS: Passes are necessary at oil wharf but not required otherwise.

REPAIRS: Major work can be undertaken at Lyttelton where a machine shop and foundry are available.

DRY DOCK: A graving dock is available for vessels up to 6,500 gross tons and dimensions of dock are: Floor length 137.15 m., top length 146.75 m., top width 25 m., entrance width 18.90 m., width in way of ship's bilge 16.61 m., sill depth at MHWS 6.63 m. Max. draft entering drydock 5.0 m. A patent slip is available for vessels up to 231 tons.

REPATRIATION: Facilities available.

AIRPORT: Distance from Christchurch – 12 km., served by regular airlines.

TIME: Local time is 12 hours ahead of GMT. N.Z. daylight time from 0200 hrs. (NZST) on last Sunday in October until 0200 hrs. (NZST) on the first Sunday in March – 13 hours ahead of GMT.

HOLIDAYS: Holidays throughout year shall be New Year's Day; Anzac Day; Provincial Anniversary Day; Waitangi Day; Good Friday; Easter Monday; Labour Day; Birthday of Reigning Sovereign; Christmas Day; Boxing Day; and the Harbour Board's employees picnic day (to be held on same day as the Waterside Workers' Union picnic day. No cargo work is carried out on these days.) Container terminal only stops work on Christmas Day.

POLICE/AMBULANCE/FIRE: For emergency calls from ship's telephones, dial 111 and ask the operator for service required.

TELEPHONES: Arrangements can be made with Harbour Master for telephones to be placed on board.

SERVICES: Tank cleaning and tank washing facilities are available as well as a compass adjuster.

SHORE LEAVE: Crew members are allowed ashore.

AUTHORITY: Lyttelton Harbour Board, Norwich Quay, Lyttleton. Postal Address: P.O.Box 2108, Christchurch, New Zealand. *Tel:* (03) 28-8198. *Telex:* NZ 4141. *FAX:* (03) 28-8627. *Cables:* Harbaboard. *Contact:* I. H. Brokenshire, General Manager. P. G. Morgan, Deputy General Manager.

NAPIER: 39.29 S. 176.54 E. **(See Plan)**

DOCUMENTS: See "Auckland".

PILOTAGE: Pilotage is compulsory.

Pilot boards in position: Lat. 39° 28′ S., Long. 176° 57.6′ E. Refer to New Zealand Port Information Manual Part I, Admiralty Pilot No. 51 (New Zealand Pilot), Chart NZ 5713.

ANCHORAGES: No. 1 Anchorage – 2 miles East of breakwater with Southern Leading Beacons in line. 9.5 fathoms, sand, mud.

No. 2 Anchorage – 1 mile NE of North Pania Buoy with Northern Leading Beacons in line. 11 fathoms, sand.

RESTRICTIONS: Vessels are berthed between 0500 hrs. and sunset. Other times by arrangement. Vessels up to 8.6 m. draft may berth at any state of tide.

MAX. SIZE: Max. LOA 230 m.; beam, no limit; draft, 10.4 m.

HEALTH: Cable Port Health Napier 24 hours before arrival. Port Health will board on arrival.

RADIO: Radio telephone - Napier Watch tower listens on 2182 kHz for 15 minutes. Call sign "Napier Harbour Radio ZMH 75" at following times; 0400, 0800, 1200, 1600, 2000, 2400 hrs., and by arrangement. Working frequency is 2162 kHz. VHF listening watch as above for R/T and continuous during office hours.

TUGS: Two tugs available.

BERTHING: Vessels at max. draft limited to HW for arrival and/or departure. Vessel's ETA must be given to Harbour Master, Napier, 24 hours before arrival or on departure from previous port if less than 24 hours, and amended 4 hours prior to arrival. Max. draft arrival to be included.

Vessels arriving during a weekend, ETA to be given by 1500 hrs. Friday and at 1500 hrs. on a day preceding a public holiday.

SPECIALISED CARGO FACILITIES: *Woodpulp Storage:* Adjacent Higgins Wharf, Shed Nos. 7 and 9. Total capacity, 49,000 tons.

Bulk Fertiliser Storage: Adjacent Higgins Wharf, Shed No. 8 – rock phosphate, capacity 60,000 tons; Shed No. 10 – fertiliser bases, capacity 32,000 cu.m.

General Cargo Sheds: Adjacent Geddis, Herrick & Kirkpatrick Wharves, Shed Nos. 1, 2 and 3, size 5,300 sq.m.

Container Packing/Devanning: Adjacent Kirkpatrick Wharf, Shed No. 5, size 3,000 sq.m.

Electric power and storage for 240×20 ft. reefers. 4 acre paved dry box yard. Serviced cleaning yard for 20×20 ft. reefers.

Tanks for tallow and edible oils.

Cement Silos.

STEVEDORES: ETA required for discharging ships 24 hours before arrival. Loading ships 48 hours before arrival with proposed stowages and vacant spaces. Advise number of gangs able to work. All work done by ship's gear.

MEDICAL: No prior notice required for medical attention. Hospital facilities available. Advice would be needed of any contagious disease on board in advance, in accordance with Port Health Regulations.

TANKERS: Standard size discharge lines. All connections supplied by oil companies. 5 berths available: 2 berths, max. length 200 m., draft 10.4 m.; 1 berth, max. length 230 m., draft 10.0 m.; 2 berths, max. length 180 m., draft 9.2 m.

DENSITY: Variable, generally 1020 – 1025.

FRESH WATER: Available all berths 20 t.p.h. per hose.

FUEL: 220 and 1,000 sec. Oil available ex-pipe-line at 110 t.p.h. Marine diesel and gas oil ex-road tanker. All at immediate notice. Lubricating oil available. 1 week's notice. Residue service available when tank vessels discharging/loading or having hazardous goods in transit.

FIRE PRECAUTIONS: Watchman supplied on wharf at ship's expense.
GANGWAY/DECK WATCHMEN: All ships must have gangway watchmen. Cargo and deck watchmen available on request.
OPENING/CLOSING HATCHES: Hatches normally opened and closed by stevedores unless automatic type.
CERTIFICATES:

Ship's Register.
Health Certificate.
Cargo Safety Certificate.
Radio Safety Certificate.
Load Line Certificate.

CUSTOMS ALLOWANCES: See "Auckland".
IDENTIFICATION CARDS: Not required.
REPAIRS: First class service available.
REPATRIATION: On arrangement with Customs and vessel's Agents.
AIRPORT: Hawke's Bay Airport, served by internal airline 3 miles from port.
TIME: Winter GMT plus 12 hours. Summer GMT plus 13 hours.
HOLIDAYS: New Year's Day; 2nd January; Picnic Day (last Monday in January); Anniversary Day (2nd to last Monday in January); Good Friday; Easter Monday; Anzac Day (25th April); Queen's Birthday (1st Monday in June); Labour Day (nearest Monday 25th October); Christmas Day; Boxing Day. Vessels berthed but cargo not worked on any of these holidays.
POLICE/AMBULANCE/FIRE: Emergency telephone 111.
TELEPHONES: Connections at all berths.
SHORE LEAVE: No restrictions.
AUTHORITY: Hawkes Bay Harbour Board, Private Bag, Napier, New Zealand. *Tel:* (070) 51-190. *Telex:* NZ3694 Napharb. *FAX:* (070) 351728. *Cables:* Napharb. *Contact:* Captain J. Hazell, Harbour Master.

NELSON: 41.16 S. 173.17 E. (See Plan)

PORT LIMITS: Within 3 miles radius of Old Lighthouse on Boulder Bank.
DOCUMENTS: See "Auckland".
PILOTAGE: Compulsory for vessels of 100 g.r.t. and over. 24 hours' notice of ETA to Harbour Master. Confirm ETA before 1500 hrs. Friday if arriving during weekend or public holiday.

Radio telephone 2182 kHz and 2162 kHz, call sign "Nelson Harbour Radio". Listening watch 10 minutes every 4 hours commencing at 0000 hrs. After contact has been established a further listening schedule can be arranged.

VHF on Channel 16 listening and Channel 12 working. Pilots board inward-bound vessels 2 miles to seaward of main entrance.

Anchorage awaiting Pilot in depth about 30 ft., and with Old Boulder Bank Lighthouse (conspic.) bearing 180° distance 1.8 miles. By night landfall light (K 4224) bearing 160° distance 2 miles. Pilot vessel 40 ft. planing hull, speed 19 knots, painted orange.
ANCHORAGES: Anchorage as indicated in pilotage or further seaward according to weather conditions, draft and length of stay at anchor.
RESTRICTIONS: Vessels may enter, berth, unberth, or leave during hours of darkness. Overseas vessels (over approx. 116 m.) enter port on flood tide and usually swing and berth port side to.
MAX. SIZE: Max. permissible length 200 m. Beam 32.5 m. Draft limits 9.2 m. Max. draft at Main Wharf is 7.9 m.
Note: Max. draft of 9.2 m. may be exceeded at Harbour Master's discretion.
HEALTH: Radio Pratique usually granted. Pratique automatic after clearance at first port. If suspected disease or fever on board advise Medical Officer of Health, Nelson, by radio and await instructions.
RADIO: ZLW Wellington Radio; ZLB Awarua Radio; ZLD Auckland Radio.
TUGS: Two tugs available, join vessel inside harbour. Tug's own line used on berthing. Tugs are equipped for fire-fighting.

Also see "Ship Supply Service".
SPECIALISED CARGO-HANDLING FACILITIES: Facilities are available at one general cargo berth for discharging motor spirits and oil. Another berth is used for loading wood chips pneumatically (the loading equipment is owned by Nelson Pine Forest Limited, Nelson). Common user Roll-on/Roll-off Linkspan.
STEVEDORES: Labour ordered 0700 hrs. for weekday work; 0900 hrs. Friday for Saturday work. ETA should be received by Agents before these times.
MEDICAL: Advise Agents of any medical attention required, giving up to 24 hours' notice. Hospital facilities are obtainable.
TANKERS: Diameter of discharge pipe, 10 in. white products; 8 in. black oil. No slop discharge facilities. Oil tanker berth, one only. Max. draft at berth 7.9 m.
DENSITY: Average sea water, 1025.
FRESH WATER: Obtainable at any time. Approximately 20 t.p.h. delivery rate.
FUEL: Marine fuel oil, gas oil. Notice required, 24 hours.
GANGWAY/DECK WATCHMAN: Watchman necessary but usually provided by ship's crew. Shore watchman can be engaged if requested by vessel. Cost in accordance with national award.
OPENING/CLOSING HATCHES: By stevedores only.
CUSTOMS ALLOWANCES: See "Auckland".
IDENTIFICATION CARDS: Not required.
REPAIRS: Deck and engine repairs are possible. Limited underwater repairs available and hull cleaning service.
DRY DOCKS: Slipway available for up to 1,500 ton vessels.
REPATRIATION: Facilities exist.
AIRPORT: Distance 3 miles. Served by internal airline only.
TIME: GMT plus 12 hours. Daylight saving in Summer months, advance clocks 1 hour to GMT plus 13 hours.
HOLIDAYS: New Year's Day (1st January); 2nd January; Picnic Day (usually near end January); Anniversary Day (1st Monday in February); New Zealand Day (6th February); Good Friday; Easter Monday; Queen Elizabeth II Day (1st Monday in June); Labour Day (4th Monday in October); Christmas Day; Boxing Day. No cargo work on these days.
POLICE/AMBULANCE/FIRE: Police 88309; Ambulance 88299; Fire 81589; Emergency calls, dial 111.
EMERGENCY CO-ORDINATION CENTRE: S.A.R. Emergency Centre situated in Wellington covers the whole country.
TELEPHONES: Can be connected on board.
STORING: Vessels can be stored by truck (no barges available) which may proceed alongside (except tankers). Fork lift trucks available, however no riggers available.
SHORE LEAVE: Allowed.
SHORE POWER: 400 v., 3 h.p. 50 Hz, 60 amps maximum.
SHIP SUPPLY SERVICE: The Nelson Harbour Board operates 2 tugs and one pilot vessel. The larger tug, "Huria Matenga", is 3,000 h.p. Niigata Z pellar, the smaller tug, "W. H. Parr" is 1,500 h.p. Schottel, and the pilot vessel, "Waimea" is a 40 ft. planing hull vessel with a top speed of 19 knots.

Nelson also has a locally based helicopter firm of Helicopters (N.Z.) Ltd. based at Nelson Airport, who undertake contract work, as well as emergency work. Their helicopters also have marine VHF Channel 16.
AUTHORITY: Nelson Harbour Board, P.O.Box 844, Nelson, New Zealand. *Tel:* NN 82099. *Telex:* Nelharb NZ 31066. *Cables:* Nelharbour. *Contacts:* Harbour Master, Captain B. J. Westbrooke (after hours *Tel:* 4-6877). Deputy Harbour Master, Captain J. G. Tregidga (after hours *Tel:* NN 521125).

NEW PLYMOUTH, Port Taranaki: 39.03 S. 174.03 E. (See Plan)

PORT LIMITS: All waters contained within the area of a circle with radius 2.5 nautical miles whose centre is the trig station on Mount Moturoa in position Lat. 39° 03′ 56.8″ S., Long. 174° 01′ 44.9″ E.
DOCUMENTS: *Customs:* See "Auckland".

Agriculture: Shipmaster's Bond List. Meal Locker Declaration Form AGL 36 (2 copies).

Health: Maritime Declaration of Health (issued by Port Health Officer).
PILOTAGE: Compulsory. Telegraphic address "Harbour Master, New Plymouth". 3 days' notice preferable with 1 day confirmation. VHF Channel 16. R/T 2182 kHz.

Pilot boat white with buff deckhouse, either "Rawinia" or "Pilot" in black on side. Pilot taken on board about 1.5 miles due North of Main Breakwater Head.
ANCHORAGE: Vessels can anchor to the West of a line due North from the Main Breakwater head seaward of the 10 fathom line. Good holding on sandy bottom. Not recommended in Northerly weather conditions.
RESTRICTIONS: Ships not berthed during hours of darkness although permitted to sail. Draft max. 30 ft. (9.15 m.) may be exceeded after prior consultation with Harbour Master. Ships under 21 ft. not affected by state of tide. In range 21 ft. to 30 ft. (9.15 m.) time of berthing relevant to high tide.
MAX. SIZE: Max. LOA 700 ft. (213.4 m.), breadth no limit.

Outward vessels from Tanker Terminal (Berths No. 1 and 2) and Blyde Wharf (Berths No. 1 and 2) may load to 9.65 m. Inward maximum draft for all berths is 9.14 m.
HEALTH: Port doctor boards on arrival at berth. In event of suspected disease on board, will board in pilotage area. Pratique automatic if vessel has already called at another New Zealand port.
RADIO: Radio telephone system operates watches for 15 minutes every 4 hours from midnight. Call sign New Plymouth Harbour Radio, call frequency 2182 kHz. Working frequency 2012 and 2162 kHz. 24 hour watch maintained on VHF Channel 16. ETA cables generally received through Wellington Radio. All outward messages routed through Wellington Radio.

Oil and chemical tankers must send cargo details 48 hours prior to arrival.
TUGS: 2 tugs available. 1×7 ton and 1×30 ton bollard pull.
BERTHING: In general all ships are swung in basin coming alongside berth stern first. Shore moorings are used.
Breakwater: Length 122 m., width 10 m., depth alongside LWOST 6.5 m. For use by oil field barges, supply vessels and fishing vessels. Road transport only.
Moturoa Wharf: Length 335 m., width 27.4 m.

East side of wharf: 1 berth 260 m. long, depth alongside LWOST 10 m. Urea loader with capacity 500 tonnes/p.h. 1 berth 76 m. long, depth alongside LWOST 6.5 m.

West side of wharf: 1 berth 137 m. long, depth alongside LWOST 7.9 m. Bunkering point on No. 2 berth. Road and rail transport may be used to load and discharge dry cargo.
Newton King Wharf: Tanker use only. Max. LOA 211 m. Motor Spirit, Bitumen, Oils, Caustic, Chemicals. Exports: Condensate, Methanol and LPG, Synthetic Petrol. Depth alongside LWOST 11.5 m.
Blyde Wharf: West side of the wharf: Length 426 m., width of apron 19 m., width including open storage 82 m., depth alongside LWOST 11 m. Rail and road transport may be used to load and discharge cargo. Limited open hard standings for transit cargo storage are available, a small container facility is provided handling approximately 20 self-sustaining vessels annually. Refrigeration for 76 (reefer) and 72 (integral) containers.

East side of the wharf: Length 80 m., width 5.5 m. and 13.4 m., depth alongside LWOST 5.5 m. Road transport only. For use by oil field supply vessels.

Two mobile heavy lift cranes, capacity 70 tonnes each, available for use on Blyde Wharf and Breakwater Berth.

STEVEDORES: Labour must be engaged between 0700 – 0900 hrs. Monday to Friday. Agents should be advised ETA at least 24 hours, preferably 72 hours, in order arrange cargo if vessel loading. Normal cargo working hours Monday – Friday 0700 – 1200 hrs., 1300 – 1700 hrs. Saturday 0700 – 1200 hrs. Supplementary hours may be worked Monday – Friday 1700 – 2300 hrs. if labour available. No work on Sundays.
MEDICAL: Hospital services available.
TANKERS: Black oils 10 in. pipe-line; white oils 8 in. pipe-line. 2 berths available for tankers, max. draft 30 ft. (9.15 m.). Private de-ballasting tank available 22,000 tonnes. Condensate S.G. 0.7738. Loading rate about 1,250 t.p.h.
DENSITY: Sea water.
FRESH WATER: Available all berths from main supply at about 100 t.p.h. Cost 80 cents per tonne.
FUEL: Gas oil line at Blyde No. 3, Moturoa Berths and Newton King Wharf.
FIRE PRECAUTIONS: Tanker berths closed to public. Harbour Board watchman in attendance.
GANGWAY/DECK WATCHMEN: Available but not compulsory.
OPENING/CLOSING HATCHES: Stevedores must carry out this work.
CERTIFICATES:
Normal Safety Certificates.
Ship's Register.
CUSTOMS ALLOWANCES: See "Auckland".
IDENTIFICATION CARDS: Not required.
CONSULS: None available locally.
REPAIRS: All repairs except underwater work of a major nature.
SURVEYORS: Surveyors can be arranged.
REPATRIATION: Facilities exist.
AIRPORT: 7 miles from city, 10 miles from port. Served by domestic service only, 2 flights Northbound and Southbound each daily.
TIME: 12 hours ahead of GMT. N.Z. Daylight time observed.
HOLIDAYS: New Year's Day; 2nd January; Stevedores Picnic (4th Monday in January); Waitangi Day (6th February); Provincial Anniversary Day (2nd Monday in March); Good Friday; Easter Monday; Anzac Day (25th April); Queen's Birthday (1st Monday in June); Labour Day (4th Monday in October); Christmas Day; Boxing Day.
POLICE/FIRE/AMBULANCE: Telephone numbers respectively, 75449, 75505, 75439.
EMERGENCY CO-ORDINATION CENTRE: Police, Tel: 75449. Co-ordinate S.A.R. and emergencies other than fire.
TELEPHONES: Can be connected on board.
STORING: By road or rail truck to shipside. Tankers by road to wharf gate and hand truck to shipside approx. 400 ft. Customs available. Ship's crew to be used for stores.
SHORE LEAVE: No restriction.
GENERAL: Ship's garbage must be in covered containers supplied by Harbour Board and removed daily. Any meats on board vessel on arrival which have been supplied from other than Australia or New Zealand will be sealed off and fresh supplies obtained.
DEVELOPMENTS: Harbours Board is undertaking dredging of the entrance and fairway to Newton King Tanker Terminal. This project will provide a dredged depth of 11 m. below water in the fairways, 11.9 m. at the berths, and 13 m. at the entrance. The work, commenced in June 1984, is expected to be finished by June 1988.
AUTHORITY: Taranaki Harbours Board, P.O.Box 348, New Plymouth, New Zealand. *Tel:* (067) 510-200. *Telex:* NZ 3500. *Cables:* Taragate. *Contact:* Captain D. C. Giles, Harbour Master.

ONEHUNGA: 36.56 S. 174.47 E. (See Plan)

PORT LIMITS: All that area of water contained within an area bounded to seaward by an arc of a circle 4 miles radius from the Southern extremity of Paratutai Island.
DOCUMENTS: See "Auckland".
PILOTAGE: Not compulsory, but arrangements can be made with the Harbour Master at Auckland to supply the services of a Pilot if required. A Pilot will then board a vessel off Te Pirau, situated about 2 miles N.E. of South Head main light.
Pilotage District: All those waters of the Manukau Harbour contained within a line drawn 180° to the South shore from Jackie Hill on Kaiteke Point 015.5° – 2.85 miles approximately from the Southern extremity of Paratutai Island.

The signal station is equipped with both medium frequency and VHF radiotelephone. Call sign is "Manukau Harbour Radio" and VHF Channels 10, 11, 12, 13, 14 and 16.

Listening watches are maintained as follows:
0800 to 0830 – Call 2182 kHz, work 2012 kHz.
0830 to 0900 – Calling and working 2012 kHz.
1800 to 1830 – Calling 2182 kHz, working 2012 kHz.
1830 to 1900 – Calling and working 2012 kHz.
0800 to 0900 – VHF Channel 16.
1800 to 1900 – VHF Channel 16.
Other times by arrangement.

Note: Should a vessel be crossing the bar during the scheduled watch periods, the signalman will be working on 2012 kHz with that vessel and not listening on 2182 kHz.

Vessels equipped with radiotelephone must maintain contact with the signal station while crossing the bar.

Weather conditions permitting, information concerning bar conditions will be supplied on request from the signal station. Such information can only be regarded as a guide, as observations are made from the signal station which is situated about 5 miles from the bar and elevated 243.84 m. (800 ft.).

Radiotelephone – Onehunga: A radiotelephone is installed at the office of the Officer-in-Charge at Onehunga. The call sign is "Onehunga Harbour Radio" and the working frequency 2012 kHz.

Vessels equipped with radiotelephone, when within Puponga Point, must maintain a listening watch on 2012 kHz for information relative to berthing, harbour traffic or other harbour conditions.

No regular watches are maintained.
ANCHORAGES: After crossing the bar it is not advisable to anchor until after rounding Puponga Point, if proceeding to Onehunga; or after rounding Kauri Point (situated about 15 miles S.E. of Puponga Point), if proceeding to the Southward.
Prohibited Anchoring and Fishing Area: Within an area extending 2 miles from Destruction Gully front beacon in a 182° direction and having a width of 152 m. (500 ft.) on each side of the transit of Destruction Gully beacons.
Prohibited Anchorage: Within 91 m. (300 ft.) of a sewage submarine pipe-line laid in a 152° direction across Wairopa Channel about 1 mile Westward of Onehunga Wharf. On the Northern shore, 2 white triangular beacons, each bearing the word "Sewer" in black letters, mark the middle of the Prohibited Anchorage. The pipe-line lies approximately 3 m. (10 ft.) to the Eastward of the beacons when in transit.
Prohibited Anchoring and Fishing Area: Anchoring and fishing are prohibited within an area bounded by a line commencing at the South end of Renton Road (Lat. 37° 00.08′ S., Long. 174° 45.2′ E.); thence running 180° for 2,590 m.; thence 090° for 5,291 m.; thence 050° to the shore. The Northern boundary commences at Nganui Point (Lat. 37° 00′ S., Long. 174° 48.4′ E.); thence 090° to the opposite shore.

The above area, adjacent to Auckland International Airport, is marked by following lights and beacons, bearings and distances from Aero light (37° 00′ 48″ S., 174° 47′ 31″ E., approx.).

Light F. 058° 45′ – 1,936 m.
Beacon 259° 30′ – 3,185 m.
Beacon 220° 45′ – 2,848 m.
Beacon 183° 15′ – 1,890 m.
Beacon 143° – 2,317 m.
Light Beacon Qk.Fl. 239° – 3,642 m.
Light Beacon Fl.R.2 secs. 122° 45′ – 3,466 m.
Light Beacon Fl.R.2 secs. 112° 45′ – 3,261 m.
Light Beacon Fl.R.2 secs. 108° 30′ – 2,453 m.

RESTRICTIONS: Berthing and unberthing during the hours of darkness is not recommended.

	Controlling Depths Below Chart Datum	*Nature of Bottom*
Entrance to port (Southwest Channel)	5.48 m.	Sand.
Anchorages	5.486 m. – 7.62 m.	
Channel	3.048 m.	Mud, Shell,
Approaches to berth	3.048 m.	and Sand.
Berth (Onehunga)	3.3 m. – 4.7 m.	

MAX. SIZE: LOA, 95 m. Beam, No limit. Draft 4.7 m.
HEALTH: See "Auckland".
RADIO: See "Auckland".
VHF: See "Pilotage".
RADAR: A radar station having a maximum range of 72 miles is operated by the Auckland Harbour Board at South Head Signal Station Lat. 37° 03.2′ S., Long. 174° 32.6′ E. Masters may call on radio telephone and request particulars of their bearing and range as shown on the radar screen. Responsiblity for the use of this information rests entirely with the Master of the vessel.
TUGS: 1 twin screw *Manukau* is available. 52.5 tonnes gross, 400 b.h.p., static pull 3.5 tonnes. Tug is equipped with both medium and VHF Radiotelephone.
BERTHING: The principal wharf is situated at Onehunga and is a ferro-concrete structure 293 m. in length which includes a launch jetty of 17 m. at the Eastern end, and with a width of 49 m. A grid for the use of small craft has been constructed immediately North of the wharf. There is a small jetty at Cornwallis.

The deck level of the wharf is 6.401 m. above chart datum.

The wharf is connected to the railway system and the distance from the outside face of the wharf to the centre of the railway track is 3.73 m.
CRANES: No quay-side cranes. One 12.5 tonne capacity mobile crane available. For heavier loads cranes available for hire from outside port.
BULK CARGO FACILITIES: Eastern end of quay is equipped with a pipe-line for the discharge of bulk cement to adjacent privately owned silos.
SPECIALISED CARGO HANDLING FACILITIES: No facilities.
BRIDGES: None.
STEVEDORES: Arranged by Agents. See "Auckland".
MEDICAL: See "Auckland".
TANKERS: No facilities.
DENSITY: 1025.
FRESH WATER: Available.
FUEL: Boiler fuel oil, diesel oil, and lubricating oil are available from tank wagons; delivery at the rate of 13,500 litres per hour through a 50 mm. hose. Coal is not kept in stock but can be obtained.
CONSULS: See "Auckland".
REPAIRS: Outside firms are available to do machine shop and foundry work.
DRY DOCKS: No facilities.
SURVEYORS: See "Auckland".
GANGWAY/DECK WATCHMEN: See "Auckland".
HATCHES: See "Auckland".
CUSTOMS ALLOWANCES: See "Auckland".
CARGO GEAR: See "Auckland".
REPATRIATION: Full facilities exist.
AIRPORT: 8 km. from port. Served by major international airlines.
TIME: See "Auckland".
HOLIDAYS: See "Auckland".
POLICE/AMBULANCE/FIRE: All emergency services are called through one telephone number. Dial 111 and state service required.
SERVICES: No special services.

SHORE LEAVE: Crew members may go ashore.
REGULATIONS: See "Auckland".
IDENTIFICATION CARDS: Not required.
DELAYS: Seldom any delays.
DEVELOPMENTS: None currently in progress.
AUTHORITY: Auckland Harbour Board, Princes Wharf, Quay Street, Private Bag, Auckland, New Zealand. *Tel:* 795-950. *Telex:* NZ 2705. *FAX:* 776-000. *Cables:* Haboard, Auckland. *Contact:* G. J. Bissell, Secretary. G. R. Mowday, General Manager.

OPUA: 35.19 S. 174.07 E. (See Plan)

PORT LIMITS: Commencing at Northern extremity of Cape Wiwiki, thence by a straight line to the Eastern extremity of the Nine Pins, thence by a straight line to the North Western extremity of Cape Brett.
DOCUMENTS: See "Whangarei".
PILOTAGE: Compulsory Southward of a line from the Western extremity of Kororareka Point following a true bearing of 253° towards the flagstaff at Waitangi Treaty House. Pilotage shall be optional within the waters contained Northward of the above mentioned line and Westward of a line commencing from the Eastern extremity of Tapeka following a 350° True bearing to the Eastern extremity of the Black Rocks, thence in 271° True direction to the mainland. Pilots are available all hours day and night subject to prior minimum notice of 24 hours being received during normal weekday working day. Second notice confirming or amending first to be sent 4 hours before expected arrival. The Pilot supplies Harbour By-laws. Pratique, Agriculture and Customs clearance is normally undertaken on arrival at berth. Pilot vessel under private contract. No VHF contact. Pilot from Whangarei.
ANCHORAGE: Renown Anchorage as per Bay of Islands Chart N.Z. 5122.
RESTRICTIONS: Veronica Channel dredged to 7 m. at Chart Datum. Max. draft is 8.53 m.
RADIO: See "Whangarei".
TUGS: Available by arrangement with Northland Harbour Board, Whangarei. At least 72 hours' notice required.
BERTHING: Total length 214 m., width 12.5 m., overseas berthage on Eastern side of wharf. Depth at berth is 9.45 m. at MLWS. Wharf is serviced by rail.
CARGO HANDLING: Ship's own gear. 2 permanent gangs available subject to Stevedore requirements as per Whangarei.
MEDICAL: Hospital and Ambulance at Kawakawa, 12.8 km. (8 miles) from Opua. Port Doctor at Paihia, 8 km. (5 miles) away.
DENSITY: 1025.
FRESH WATER: Fresh water available – 200 tonnes in storage. 60 cents per 1,000 litres.
FUEL: By arrangement with oil companies via road transport.
CUSTOMS ALLOWANCES: See "Whangarei".
CONSULS: See "Whangarei".
REPATRIATION: See "Whangarei".
TIME: See "Whangarei".
HOLIDAYS: See "Whangarei".
POLICE/AMBULANCE/FIRE: See "Whangarei".
TELEPHONES: Telephones available.
SHORE LEAVE: See "Whangarei".
SURVEYORS: See "Whangarei".
AIRPORT: See "Whangarei".
REGULATIONS: See "Whangarei".
DELAYS: See "Whangarei".
AUTHORITY: Northland Harbour Board, Private Bag, Whangarei, New Zealand. *Tel:* (089) 487-099. *Telex:* NZ 2955. *FAX:* (089) 485-769. *Cables:* "Harbour". *Contact:* Captain P. J. R. Wavish, Harbour Master.

OTAGO, (includes Dunedin, Port Chalmers and Ravensbourne): (See Plan)

PORT CHALMERS: 45.49 S. 170.38 E.
DUNEDIN: 45.53 S. 170.31 E.

PORT LIMITS: The harbour limits are defined by a line extending from Heyward Point Trig Station in an 020°T direction for 3 miles thence 126°T for 1.75 miles thence 200°T to the shore off Howlett Point.

The entrance to Otago Harbour is situated in the bay between Heyward Point and Taiaroa Head.

Within the entrance the harbour extends about 13 miles South-Westward and at its head stands the city and Port of Dunedin. The town and port of Port Chalmers is situated about 6 miles within the harbour entrance.

About 1 mile Southward of Port Chalmers, the Portobello Peninsula, with Quarantine Point at its head, together with the adjacent Quarantine and Goat Islands, form a natural barrier across the Otago Harbour inlet. That part of the harbour which lies North-Eastward of this barrier is the "Lower Harbour" and that which lies South-Westward is the "Upper Harbour".
DOCUMENTS: See "Auckland".
PILOTAGE: Address "Harbour Master, Dunedin." Through coastal radio stations ZLW (Wellington) or ZLB (Awarua) giving ship's name, draft, and ETA. First message 72 hours out, revise 24 hours out: if from another New Zealand port (coastwise) similar message as soon as possible after leaving that port. Subsequent contact with port private radio station Taiaroa Heads on 2182 kHz or VHF Channel 16. Pilot boat is 16.76 m., white launch, also fitted with VHF frequencies, which meets vessels as required but does not remain on station otherwise. Boarding position is with Taiaroa Head Lighthouse bearing 180° distant 2 miles; good anchorage with Taiaroa Head Lighthouse bearing 160° – 2 miles, depth 12 fathoms. Pilots can board in this vicinity provided Master has ship under way at slow speed and obeys Pilot's instructions. Vessels arriving to work general cargo should endeavour to embark Pilot by 0500 hrs. in order to be alongside berth ready to take labour on board at normal commencing hour of 0700 hrs.
ANCHORAGES: *Anchorage Outside the Harbour Entrance:* A recommended anchorage which is considered safe in all winds except rare Easterly gales is, in a least depth of 13 fathoms (23.8 m.), sand, with Taiaroa Head Lighthouse bearing 160°T and Heyward Point Light Tower bearing 220°T.
Note: There is no anchorage inside the Harbour entrance, but in a case of emergency, vessels up to 500 ft. (152.4 m.) long may be able to anchor in the swinging basin at Port Chalmers.
Prohibited Anchorage: Anchorage is prohibited in the vicinity of a submarine power cable laid between Battery Point, Port Chalmers, and Quarantine Point at the North-Western end of Portobello Peninsula.

The cable is marked on its North-Western end by 2 beacons situated approximately 1.5 cables South by West and approximately 2.25 cables South by East from Observation Point. Both beacons are rectangular in shape and painted in green and white horizontal stripes. The latter beacon also serves as No. 31 channel beacon, and exhibits a flashing green light – these beacons when in line bearing 139.5° T indicate the route of the power cable across the channel.
APPROACHES: *Harbour Entrance Channel:* A sand bank extends about 1.25 miles Northward of Taiaroa Head, and the dredged entrance channel effectively divides this into Eastern and Western banks. There is a least depth of 21 ft. (6.4 m.) on the Eastern bank, and the sea can break dangerously over it in heavy weather. The Western bank has a least depth of 28 ft. (8.5 m.).

The entrance channel extends from the seaward (Northern) edge of the bank to a gap between North Mole and Taiaroa Head. The channel is dredged to 45 ft. (13.7 m.), and is 600 ft. (183 m.) wide – it is unprotected and sea and swell can cause vessels to pitch, roll, and lift bodily in the approaches.

North Mole, an artificial rock breakwater, extends about 4,000 ft. (1,219 m.) N.E. from the low sand spit on the Western side of the entrance. The underwater toe extends about 400 ft. (122 m.) N.E. of the visible head.

The tidal range in the entrance channel is 6.5 ft. (2.0 m.) at Springs, and 4.3 ft. (1.3 m.) at Neaps. Tidal streams run generally along the axis of the channel at rates up to 2 knots on flood and ebb but, near the harbour entrance, vessels may be set to the Westward on the flood stream, and to the Eastward on the ebb stream.
RESTRICTIONS: Tankers proceeding to or from the oil jetty at Dunedin make passage of the upper harbour in daylight hours only. Also see "Max. Size".
Entering and Leaving: Any vessel wishing to enter, leave, or move within the Port of Otago must first obtain permission to do so from the signal station at Taiaroa Head, or that at Dunedin, and this directive shall include any boat or yacht exceeding 11 m. in length wishing to enter the Upper Harbour.
Upper Harbour – Overhead Power Line: An overhead power line from Port Chalmers to Portobello crosses the channel via Goat and Quarantine Islands, supported by steel lattice-work towers painted in bands of orange and silver. The vertical clearance beneath the power line where it crosses the channel is 168 ft. (51.2 m.) at MHWS.
Upper Harbour – Submarine Power Cables: A power cable buried 10 ft. (3.1 m.) below the sea bed runs across Victoria Channel between beacons No. 40 and 41. From beacon No. 41 the cable is laid on the sea bed in a 280°T direction to the shore. From beacon No. 40, 3 cables are laid on the sea bed in 115°T, 118°T, and 131°T directions to the shore. Anchoring is prohibited in this vicinity.
MAX. SIZE: *Lower Harbour to Port Chalmers:* Vessels up to 850 ft. (259 m.) length overall, and 38 ft. (11.6 m.) draft can transit the Lower Harbour to and from Port Chalmers by day and night. Longer vessels may be handled by prior arrangement with the Harbour Master.

The maximum draft permissible at LW is 36 ft. (11 m.) which may be further reduced to a minimum of 32.5 ft. (9.9 m.), if there is a heavy swell in the entrance channel.
Upper Harbour to Dunedin: Vessels up to a maximum of 604 ft. (184 m.) length overall, 90 ft. beam (27.4 m.) and 26 ft. (7.9 m.) draft can transit the Upper Harbour channel to Ravensbourne and Dunedin. Non gas-free tankers, and vessels over 550 ft. (167.6 m.) in length transit the Upper Harbour in daylight hours only, but all other vessels can be handled both day and night. The maximum draft permissible at LW is 21 ft. (6.4 m.).
HEALTH: Master to radio to Port Health Officer (entry port in N.Z. only) 24 hours before ETA requesting Free Pratique or declaring adverse state of health. Agents will advise Port Health Officer and Health Department inspectors who will board vessel on arrival, alongside actual wharf if Free Pratique requested. N.Z. regulations will require sealing of domestic meat chambers and purchase of local meats for use coastwise.
RADIO: Through Awarua Radio ZLB or Wellington Radio ZLW.
RADAR/VHF: A signal station is situated on Taiaroa Head about 1 cable Southward of the lighthouse. Vessels can communicate with the signal station by flashing lamp or radiotelephone.

VHF and MF radiotelephones are fitted in the signal station and continuous watch is maintained on VHF Channel 16 (156.8 MHz) and 2182 kHz. The call sign is "ZMH 32".

If using VHF, initial contact should be made on Channel 16 (156.8 MHz), and Channels 14 (156.7 MHz) or 12 (156.6 MHz) should be used for subsequent working.

If using MF, initial contact should be on 2182 kHz, 2162 or 2012 kHz should be used for subsequent working. In addition to these frequencies the MF radiotelephone is fitted with the following crystal tuned frequencies:

Transmitter: 2045, 2129, 4125 and 4419.4 kHz.

Receiver: 2045, 2129, 2444, 2638, 4125, 4419.4, 6215.5 and 6218.6 kHz.

Dunedin Signal Station: A radio station is situated in the Otago Harbour Board Office at the Western end of Birch Street Wharf. Continuous watch is maintained on VHF Channel 16 (156.8 MHz), and Channels 14 (156.7 MHz) and 12 (156.6 MHz) are fitted as working frequencies. The call sign is "Dunedin Harbour Radio".

Notice of Arrival: Estimated times of arrival together with maximum draft must be passed to the Harbour Master by radio 12 hours, and confirmed 4 hours, before reaching the pilot station. This is in addition to any previously submitted notification. Radar operated at station on request has range in excess of 20 miles to North and East.

TUGS: 2 tugs, each 2,000 h.p. (30 ton bollard pull). Tug's used in vicinity of wharves turning, berthing and unberthing, etc. Tug's lines used without charge.

CRANES: The Container terminal is equipped with 2 Vickers Hoskins Paceco 40 tonne Mach Container Gantry Cranes with an outreach of 33.22 m. and a backreach of 10.67 m.

Also see "Berthing".

STEVEDORES: Labour for Saturday work must be ordered by 0830 hrs. Fridays, otherwise by 1430 hrs. for following day. Advise Agents of firm ETA in time to judge this.

Wharf working hours are the same as for most other New Zealand ports: 0700 – 1200 hrs. and 1300 – 1700 hrs. Monday to Friday inclusive with option of additional work 1800 – 2100 hrs. to finish a vessel. 0700 – 1200 hrs. on Saturday, with option of additional work 1300 – 1700 hrs. to finish a vessel.

No wharf work on Sundays or public holidays, but ships are berthed or sailed as required.

Container Terminal shifts: 0700 – 1430 hrs. and 1430 – 2200 hrs. every day of the year.

MEDICAL: Emergency medical services and full hospital services always available at short notice. Emergency advice by radio available. Top priority given arrangements for landing urgent cases for medical treatment.

TANKERS: Diameter of lines 200 mm.; minor slop facilities only; one tanker discharge berth 220 m. long, 7.5 m. depth alongside at low water. Max. size 184 m. long.

DENSITY: Harbour density 1024 at all states of tide.

FRESH WATER: Fresh water is available at all berths. Delivery rates are approximately 15 tonnes/p.h. at Dunedin wharves and 25 tonnes/p.h. at Port Chalmers.

CONSULS: Consular Agencies: Denmark, France, Germany F.R., Italy, Netherlands, Norway, Portugal, Sweden.

FUEL: Marine diesel, heavy and light fuel oils, and lubricating oils are usually available. Small quantities can be delivered to any berth by tank trucks, and larger quantities can be loaded by pipe-line at the Oil Jetty at a rate of about 100 tonnes/p.h.

GANGWAY/DECK WATCHMEN: Shore watchman not normally required except at entry to oil jetty, such watchman arranged for by ship's Agents. Ships required to maintain own gangway surveillance.

OPENING/CLOSING HATCHES: Automatic hatch gear may be operated by ship's personnel. Manual hatches by shore labour only.

CERTIFICATES: Normal cargo gear and equipment certificates as required for British ports; also Fumigation (Derat) or Exemption Certificate.

CUSTOMS ALLOWANCES: See "Auckland".

IDENTIFICATION CARDS: Not required for British subjects. Alien identification cards to be retained on board in case of need.

REPAIRS: Private companies capable of undertaking all forms of repair work are established in Dunedin and Port Chalmers. There is no dry dock, but a 500 tonne slipway capable of accommodating vessels up to 120 ft. (36.6 m.) long is available.

DRY DOCKS: None.

REPATRIATION: Repatriation arrangements can be made.

AIRPORT: Dunedin is served by all internal main airlines with connections to overseas via Christchurch, Wellington and Auckland. Airport 35 minutes (25 km.) from Dunedin City by car.

TIME: N.Z. Standard Time throughout year is GMT plus 12 hours, except that Summer time now operates from last Sunday in October to first Sunday in March. (Add 1 hour).

HOLIDAYS: As for all N.Z. ports, i.e. January 1st and 2nd; Good Friday and Easter Monday; Anzac Day (April 25th); 1st Monday in June; Labour Day (Monday, nearest October 24th); Christmas Day and Boxing Day; Waterside Picnic Day (Monday at end January). Where New Year and Christmas holidays coincide with Saturdays and/or Sundays, holidays are taken following Monday and/or Tuesday. General cargo not worked on these days nor on Sundays; tankers discharge 365 days; ships arrive and depart regardless of holidays. Container ships worked all days except Good Friday and Anzac Day.

POLICE/AMBULANCE/FIRE: Police 776011; Ambulance 777111; Fire Brigade 779111; Hospital 740999; Emergency (serious) dial 111 and ask for any service needed.

TELEPHONES: Slot telephones can be put on board with all local calls free, others by cash in slot.

SERVICES: Radar and gyro compass technicians available. Good shop and providore facilities. Compass adjuster usually available. Divers employed by a private company are available for underwater inspections.

REGULATIONS: No special local regulations, but all N.Z. ports have very strict rules for garbage collection and disposal, etc. and against oil spillage.

BERTHING:

						Cranes		
Berth	*Length (m.)*	*Depth (m.)*	*Max. Draft (m.)*	*Height Above Datum (m.)*	*Decking*	*No.*	*S.W.L. (tonnes)*	*Out-reach (m.)*
Port Chalmers								
George Street (Container Terminal)	274.3	12.0	11.70	4.6	Concrete	2	46.0	32.4
Beach Street	335.3	10.20	9.9	4.6	Concrete	2	5.08	16.7
Dunedin								
Victoria Wharf – T & U	175.3	7.9	7.6	4.6	Concrete	4	5.08	16.7
Ro/Ro	152.4	7.4	7.0	3.8	Concrete	—	—	—
Rattray Street	254.8			4.6	Wood	—	—	—
Rattray Street Q		6.1	5.8					
Rattray Street Qa		6.1	5.8					
Rattray Street R		6.8	6.5					
Rattray Street S		6.8	6.5					
Victoria Wharf – X & Y (Fishing)	213.4	7.2	6.9	4.6	Wood	—	—	—
Birch Street (Fishing)	304.8	7.0	6.7	3.8	Concrete and Wood	2	5.08	16.7
Cement Wharf	137.2	5.5	5.2	4.1	Wood	—	—	—
Oil Jetty	219.5	7.4	7.1	4.6	Concrete	—	—	—
Ravensbourne (Fertiliser)	149.0	8.0	7.7	4.4	Wood	—	—	—
L.P.G. (Dolphins)	49.0	6.0	5.4	3.9	Concrete	—	—	—

Port Chalmers

Beach Street Wharf: 2 berths with a total length of 375 m., each with road and rail connections. 2×5 ton electric cranes and a large transit shed 152.4 m.×30.48 m. Half the shed is used as a container packing depot, the remainder being available for use by conventional cargo vessels. The outer berth is supported by 9 acres of reclaimed land used mainly for the storage of export logs and woodchips. Depths alongside are 10 m. LWOST.

Container Terminal: A 274.3 m. concrete container berth has been constructed at Port Chalmers capable of accommodating vessels up to 260 m. in length at a maximum draft of 11.68 m. LWOST. 2×46 tonne portainer cranes in operation and a 12.54 hectare storage area.

Dunedin:

Wharves with a total length of 950 m. Depths alongside being 8.53 m. at main berths and 7.62 m. to 6.10 m. at coastal berths. All berths have transit sheds with a total floor space of 3,600 sq.m. All berths have roads at sheds, Victoria Wharf has a rail connection. There are 6 × 5 ton electric cranes, 16 fork lift trucks and 10 tractors available for use at wharves.

Roll-on/Roll-off Terminal: A special Ro/Ro ferry wharf 152 m. long with adjustable stern ramp is supported by 2.83 hectares of paved storage and sheltered shed. Depth alongside being 7.4 m. LWOST.

Ravensbourne Wharf: Situated 1 mile from Dunedin is available for the discharge of bulk phosphate and sulphur via hoppers and conveyor belt direct into works. Maximum size of ship for this jetty 184.1 m. overall. Depth alongside 8.0 m.

LPG Berth: A dedicated berth for coastal gas tankers has been constructed 300 ft. (91.5 m.)×106°T from end of Ro/Ro wharf.

All berths in the port have fresh water connections, ample floodlighting and telephone facilities.

GENERAL: No special moorings are required. Harbour, though tidal, is landlocked and there is no surge at any berth. Tide rise averages 6 ft. above datum (extremes 1.52 m. and 2.44 m.).
Harbour Chart: N.Z.6612 Otago Harbour.
Adjacent Coastal Charts: N.Z.64 Banks Peninsula to Otago Peninsula. N.Z.66 Taiaroa Head to Nugget Point.
Sailing Directions: New Zealand Port Information Manual.
New Zealand Pilot.
Communications: Dunedin and Port Chalmers are connected with the post, telegraph, telephone, and telex systems.

State Highway No. 1 and the main trunk railway line both pass through Dunedin. Regular road and rail services operate to other South Island towns.

SHORE LEAVE: Crew members not restricted ashore.
DELAYS: Ample berths normally available. Occasional delays for labour shortage or wet weather (rainfall average 762 mm. per year). Small quantities bunkers available ex-tank wagons at any berth. Larger quantities obtainable by shifting to oil jetty outside cargo work hours or as otherwise convenient.
DEVELOPMENTS: The depths at most berths are presently below standard due to siltation but it is intended that restorative dredging will be implemented to achieve the following objectives in due course:

Berth	*Intended Depth*	
George Street	12.2 m.	(40 ft.)
Beach Street	10.7 m.	(35 ft.)
T & U	8.5 m.	(28 ft.)
Oil Jetty	8.5 m.	(28 ft.)
Ravensbourne	8.5 m.	(28 ft.)

AUTHORITY: Otago Harbour Board, P.O.Box 1, Dunedin, New Zealand. *Tel:* (024) 740-881. *Telex:* Ohbterm NZ 5250. *Cables:* Koputai. *Contact:* Captain K. Plate, General Manager. Captain J. M. Harger, Harbour Master.

PICTON: 41.17 S. 174.00 E. (See Plan)

PORT LIMITS: Inside straight lines from Cape Jackson to Cape Koamaru and from East Head to West Head at Tory Channel Entrance.
DOCUMENTS: See "Auckland".
PILOTAGE DISTRICT: *Queen Charlotte Sound:* Inside a straight line drawn in a 303° direction from Paparoa Point on Arapawa Island to the opposite shore, and the arc of a circle radius 1 mile centred on West Head Light.
Pelorus Sound: Inside a straight line drawn in a 121° direction from Paparoa Point (East of Harding Point) to Alligator Head.
PILOTAGE: Pilotage is compulsory inside a straight line drawn in a 180° direction from Snake Point to the opposite shore, including all the waters of Tory Channel. Pilotage in the Outer Reaches of Queen Charlotte Sound and in Pelorus Sound is optional. Unless otherwise requested, Pilot will board vessels in a position 090°T, 0.6 miles from Motuara Island Light Tower. By arrangement with the Harbour Master, Pilots will board vessels in a position 045°, distance 2.5 miles from Deiffenbach Point Light Tower, East of Snake Point, where a Pilot is not required in the optional pilotage area. By arrangement with the Harbour Master, vessels may enter and leave via Tory Channel, subject to weather, when Pilot will board and leave in a position 135°T, distance 1 mile from West Head Light Tower. Application for a Pilot must be made at least 4 hours before the estimated time of arrival. For vessels arriving at night or during the weekend, application should be made no later than 1530 hrs. on the last previous working day. Pilot boat 14.6 m. in length equipped with VHF radio Channel 16. Call sign "Picton Pilot Launch".
ANCHORAGES: Except during strong N.W. winds, there is a good anchorage Northward of Mabel Island in 16 fathoms for vessels of all sizes.
Quarantine Anchorage: Within the navigable area to Westward of Mabel Island enclosed between the foreshore and a line from Kaipupu Point 047° to the Western extremity of Mabel Island, thence 349° to Wedge Point. Vessels not in quarantine can use this anchorage.
RESTRICTIONS: Controlling depth in approaches to anchorage is 13 m. MLWOS.
MAX. SIZE: Max. length 201 m. Draft 11 m. aft, 8 m. – 10 m. forward depending on length. Vessels of this size can berth at any state of the tide. Longer vessels may be accommodated by arrangement with the Harbour Master.
HEALTH: First entry at a New Zealand port Pratique is granted after vessel berths provided she has a clean bill of health from her last port, otherwise vessel would anchor in the Quarantine Anchorage, where port Health Officer would board. Once clear at the first port in New Zealand no further Pratique is required.
RADIO: Port is equipped with medium frequency and VHF, call sign "Picton Harbour Radio", calling frequency 2182 kHz. Watch is maintained Monday to Friday, 0900 to 0933, 1140 to 1203, 1540 to 1603 hrs. daily and at other times by arrangement. In addition the following schedule is maintained for communication with the road/rail ferries: 0103, 1140, 1640, 2020, 2050 hrs. Sundays only: 1603 hrs.
TUGS: None.
BERTHING: One overseas wharf 240 m. length with accommodation for 2 vessels. Depth at wharf up to 11.58 m.

Two road/rail ferry berths 152 m. long with modern terminal facilities for Roll-on/Roll-off traffic.

STEVEDORES: Agents will provide gangs and other facilities provided Master gives prior notice of his requirements.
MEDICAL: It is necessary for Master to give his Agent as much advance notice as possible. Two doctors reside in the port. Hospital at the port and main hospital at Blenheim, 35 km. by road. Ambulance service available.
DENSITY: 1025.
FRESH WATER: Supplies available at 30 t.p.h. Cost 29 cents/tonne.
FUEL: By tank wagon only.
GANGWAY/DECK WATCHMEN: Required by general harbour regulations and is generally carried out by ship's deck hands.
OPENING/CLOSING HATCHES: Performed by stevedores.
CUSTOMS ALLOWANCES: See "Auckland".
CARGO GEAR: Marine Department control this and regulations are issued accordingly. These regulations are very similar to those in the United Kingdom.
IDENTIFICATION CARDS: Not required.
CONSULS: At Wellington.
REPAIRS: Small repairs undertaken by three companies.
SURVEYORS:

1. Cargo Surveyors available.
2. Lloyd's Register available. Other societies available from Wellington.

REPATRIATION: Crew changes can be made.
AIRPORT: Woodbourne – 36 km. by road from Picton, served by feeder services to Wellington – Christchurch. Local seaplane service from Picton Harbour.
TIME: GMT plus 12 hours. Daylight saving time, plus 1 hour, in force from October to March.
HOLIDAYS: New Year's Day, Anniversary Day, Good Friday, Easter Monday, Labour Day, Sovereign's Birthday, Christmas Day, Boxing Day, Anzac Day, Waterside Workers Picnic Day, New Zealand Day.
POLICE/AMBULANCE/FIRE: Police Tel: 439. Ambulance, through doctor or in case of emergency Tel: 207. Fire, ring exchange operator.
EMERGENCY CO-ORDINATION CENTRE: S.A.R. Co-ordination Centre, Wellington. Tel: 881035. If in port contact Harbour Master.
TELEPHONE: Facilities exist to place telephones on board.
BANKS: Bank of New Zealand, High Street, Picton.
STORING: See "Prelims".

1. Storage from trucks only available.
2. No restrictions on storing.
3. Trucks can proceed alongside berth.
4. Forklift trucks can be used to handle stores.
5. Purchase of stores requires Customs Dept. approval.
6. Stevedores available for loading stores.

SHORE LEAVE: Allowed.
SHIP SUPPLY SERVICE: No ship supply services operate in this area.

Notwithstanding the above, there are a number of commercial operators in the district who have the capability to provide a variety of supply services.

There are sheltered areas in the outer reaches of the Marlborough Sounds which would be ideal for vessels transiting Cook Strait to take advantage of a ship supply service, incurring a minimum of delays in the process.

The Customs Department have advised that by prior arrangement it would be possible for a vessel in transit to take aboard mail and/or goods from a launch without completing full Customs formalities.

1. *Emergencies:*
   Contact: Marlborough Harbour Board, Picton.
   Telegrams: "Marlharb" Picton.
   Radio Call Sign: "Picton Harbour Radio".
   Radio frequencies: MF 2182 kHz or VHF Channel 16.
   Notice Required: 4 hours if possible.
   (NB: Helicopter available ex-Wellington).
2. *General Supply Services:*
   Various Commercial launch and barge services are available from Picton (Queen Charlotte Sound and Approaches) and Havelock, (Pelorus Sound and D'Urville Island). For further information contact Marlborough Harbour Board.

Rendezvous points would depend on the needs of the vessel requiring the service, survey limits of the vessel providing the service and weather conditions prevailing at the time.

DEVELOPMENTS: 6 deep water berths may be built at Shakespeare Bay with depth alongside 20.0 m.
AUTHORITY: Marlborough Harbour Board, P.O.Box 84, Picton, New Zealand. *Tel:* Picton (057) 37691. *Telex:* 30602. *Cables:* Marlharb. *Contact:* The General Manager or D. I. Jamison, Harbour Master.

TAHAROA: 38.11 S. 174.42 E.

LOCATION: The Port of Taharoa is situated on the West Coast of the North Island of New Zealand, in Lat. 38° 10.7′ S., Long. 174° 42.4′ E. It is one of the few ports in the world where a solid cargo, ironsand, is pumped in a slurry form and loaded into ships moored at a single point mooring buoy.
Kawhia Extended River Limits: Taharoa Harbour lies within the Kawhia Extended River Limits, which is delineated by a straight line commencing near Taranaki Point in a 270° direction to the East Point of Gannet Island, then 180°×15.5 miles, thence 090° to the shore.
PORT LIMITS: The port limits is the arc of a circle radius 2 miles centred on the pumping station, Lat. 38° 10.7′ S., Long. 174° 42.4′ E. and the pilotage district is the arc of a circle of radius 3 miles also centred on the pumping station.

There are no known dangers in the pilotage district, and the sea bed depth increases at a reasonably uniform gradient from the beach seaward.

The Motunau Beacons, which are unlit, are established some 4 miles South of the SBM in line bearing 158° (T). This line passes 835 m. inshore of the SBM, and from the North to the point where it crosses the Southern prohibited anchorage line gives a least depth of 22 m.

A 1.5 m. diameter wave rider buoy, which is difficult to see, is positioned some 0.5 miles E.S.E. of the SBM.

PILOTAGE: Pilotage is compulsory in the Pilotage District. Application for a Pilot should be made to New Zealand Steel Mining Limited, telegraphic address "Ironsands Taharoa", via Awarua Radio.

Pilots embark and disembark by helicopter. Ships awaiting the Pilot, should lie, head to wind, about 3 miles W.N.W. of the buoy.

Depending on weather conditions ships can be berthed by day or night though much better conditions are required for night berthing. As a general but not absolute rule, ships can be berthed with a significant wave height of up to 3.5 m. and a maximum wind gust of 40 knots. While at night the maximum wave height must be less than 2.0 m., and the wind gusts less than 15 knots.

Also see "General".

ANCHORAGE: Ships awaiting the berth are normally anchored about 2 miles W.N.W. of the buoy in good holding ground. The anchorage is exposed to the Westward, and in weather conditions in which it is not possible to moor, ships should head out to sea.

Prohibited Anchorage: All that area bounded by straight lines, commencing at the low water mark in position Lat. 38° 10.8′ S., Long. 174° 42.4′ E. Thence to Lat. 38° 11.1′ S., Long. 174° 40.1′ E. Thence to Lat. 38° 10.3′ S., Long. 174° 42.15′ E., thence to the point of commencement.

The Northern and Southern limits are marked by rectangular beacons painted in red and white vertical bands. The Northern Beacons are in line bearing 088° (T), and the Southern Beacons in line bearing 081° (T).

NAVIGATION: *Lights:* Taharoa Main Light, exhibited from a 16 m. high frame work tower painted in red and white bands, in position Lat. 38° 10.1′ S., Long. 174° 42.15′ E. has the characteristics group flash 2 white every 20 secs. A fixed red obstruction light is also exhibited on the tower.

The SBM has white light flashing every 5 secs.

The wave rider buoy light has the characteristics group flash 3 white every 15 secs.

The prohibited anchorage beacons each exhibit a fixed red vertical light.

RESTRICTIONS: Arrival draft should be: Forward – 3 per cent of the vessel's overall length and Aft – propeller submerged.

HEALTH: *Quarantine:* 24 hours before the expected time of arrival, ships must send to New Zealand Steel Mining Limited for onward transmission to the Department of Health in Hamilton, a message detailing the last port of call, the date of departure, and the state of health on the vessel.

Vessels calling regularly at Taharoa are usually given Pratique by radio, though Quarantine Officers reserve the right to inspect the vessel at any time.

RADIO/VHF: *Communications:* Ship loading at Taharoa must advise New Zealand Steel Mining Limited of their departure from the last port before arriving in Taharoa, and give their ETA.

The ETA must be updated 7 days, 3 days and 24 hours before arrival.

The ETA 3 days before arrival is particularly important, as special shift patterns have to be set for loading, which by agreement with the unions, are based on this arrival time.

The Port Operations Centre, which is manned only when a ship is in port or expected, is equipped with radio. (Medium frequency 2182 kHz, single side band, and VHF Channels 9, 10 and 16).

Ships calling at Taharoa should maintain a listening watch on 2182 kHz, at 0833 and 1503 New Zealand standard time, the day before arrival, and call up the Port Operations Centre, call sign "Port Taharoa", on Channel 9 when 2 hours out.

Radio messages to New Zealand Steel Mining Limited should be addressed to "Ironsands Taharoa", via Awarua Radio, or alternatively Auckland Radio.

BERTHING: The berth is a single point mooring buoy, 11 m. in diameter designed by SBM Inc., using a catenary anchor leg mooring (CALM), to secure it to the sea bed. It is capable of mooring ships up to 150,000 tonnes deadweight.

There are 6 anchor legs, arranged radially 60° apart, each consisting of some 347 m. of 102 mm. chain, attached to a 9,000 kg. Bruce Mk II anchor. Each leg is pre-tensioned to 220 tonnes, and has a holding power of 400 tonnes.

The buoy is 1.64 miles offshore in position: Lat. 38° 10.6′ S., Long. 174° 40.25′ E. The depth of water at the buoy is 30 m. at MWL.

Loading: Loading rate 1,200 dry tonnes/p.h. on each line. Sand density 4.64 average.

MOORING: *Mooring Rope:* The mooring rope is a 52 m. endless grommet of 168 mm. diameter two-in-one braided nylon rope, which has a breaking strain of 1,000 tonnes. One end of the grommet is attached to the buoy, and the other end, when the ship is moored, is placed over the ship's single centreline mooring post.

The ship's end of the rope has a 5.5 m. soft eye protected with a chafing sleeve. An heaving eye, which is attached to a 60 m. heaving tail of 80 mm. two-in-one braided polypropylene rope, breaking strain 76 tonnes, is attached 1.5 m from the crown on one part of the ship end eye.

Ship's Equipment: To moor at Taharoa, a ship should be fitted with a mooring post (700 mm. diameter) on the centreline, between 2.0 m. and 3.5 m. from the fairlead. The post should be about 750 mm. in height and the top should slope forward.

The centreline fairlead should have minimum dimensions of 1,400 mm.×1,700 mm., and the bearing surface lined with stainless steel; if this lining is not fitted, all paint should be removed from the fairlead, and the bearing surface coated with tallow, before the ship arrives. Tallow will be supplied by New Zealand Steel Mining Limited, but the ship must provide a suitable bucket, so that it can be transported from the Operation Centre on the helicopter.

A roller on a stand, 1 m. in height, should be positioned about 2.0 m. abaft the mooring post, and set slightly off the centreline.

The ship should have a 300 m.×80 mm. strand polypropylene messenger line, either on a warping drum, or suitably flaked out. To one end of the messenger line a 16 mm. polypropylene heaving line should be attached. The heaving line is then passed through the centreline fairlead, and led down the ship's side, (usually the port side, though the Pilot will confirm this when he boards) to about the after end of No. 1 hatch, from where it will be passed to the service vessel.

MOORING PROCEDURE: The service vessel will have checked the buoy, mooring rope and hoses before the ship arrives, and when the Pilot boards will stand off and wait for the ship to close the buoy. The Pilot will manoeuvre the ship to approach the buoy usually along the line of the hoses, and when about 300 m. from the buoy will instruct the service vessel to pick up the heaving line. The service vessel will then manoeuvre close alongside abreast of where the heaving line is prepared. The heaving line should be thrown to the service vessel foredeck, from where the crew will pass it aft to their winch. When this is done, the service vessel will steam ahead, to a position about 100 m. ahead of the ship, winching in the mooring messenger until there is about 6 m. inboard.

As both the ship and the service vessel steam slowly towards the buoy, the line should be paid out so as to keep the rope slack at all times, but at no stage should the rope be allowed to run aft of the ship's stern.

When the service vessel is close enough, the messenger line will be connected to the heaving tail. As the ship will be moving ahead while this is being done, any slack should be picked up, but under no circumstances should the rope be lifted out of the water between the ship and the service vessel.

As soon as the connection between the messenger and the heaving tail is made, the service vessel will steam clear, and the rope should be heaved in at a steady rate. Normally, the mooring line is stored on a platform on the buoy, so that sufficient weight must be put on the messenger to heave the mooring line into the sea. Once the mooring rope is clear, it is important that as the ship closes the buoy, only the slack in the ropes is picked up.

When the ship is about 15 m. from the end of the main mooring rope, the ship's end eye and 2 flotation covers may be lifted out of the water. Gradually, as the ship moves closer to the buoy, a little more of the rope may be lifted out of the water, until with the ship end eye of the main rope at the bull nose, there is about 15 m. from the stem to the point where the rope touches the water. Should the bows pay off, or the ship move astern, the heaving tail should be slacked down immediately, so as to maintain a minimum distance of 15 m. from the stem to the point where the rope touches the water.

When the rope is actually being made fast, it should hang almost vertically from the centreline fairlead.

HOSES: *Equipment:* The ship's manifold should be on the starboard side, abreast No. 1 hatch, loading through either 1 or 2 lines. The flanges must be standard 150 lb. ASA 12 in. flange, with 12×1 in. holes, 1 hole at the exact top. The hose handling derrick should be capable of plumbing over the manifold with sufficient height to lift a 10.7 m. hose just clear of the deck, and have a SWL of 8 tonnes.

4×15 mm. wire pennants 3.0 m. long, and 4 chain blocks, or tackles, will be required to make fast the hose hang off chains.

Picking up the Hose: As soon as the ship is fast, the service vessel will put a dinghy in the water, to bring the No. 1 hose pick-up line to the ship's side. An heaving line should be passed to the dinghy, so that the pick-up line can be brought on board. The pick-up line, which is a 55 m. length of 56 mm. square line polypropylene rope is then used to winch the first hose of the string to deck level where the derrick hook can be attached, and the hose lifted to its full extent.

In marginal weather conditions, a second heaving line should be passed to the dinghy, while the first is still being heaved in. This, when attached to the No. 2 hose pick-up line, is secured to the rail, and can be heaved in later. The dinghy can then be released, reducing the time it has to spend in the water.

When lifting the hose, the derrick should be plumbed about 1.5 m. inboard from the ship's side. This keeps the hose against the ship's side thus reducing the oscillating effect in marginal weather conditions.

With the first hose in the string lifted to its full extent, the hang-off chains can be grappled, brought on board and secured to a 15 mm. diameter wire pennant, attached to a chain block or tackle, so that the length of the unit can be adjusted if necessary.

Letting go the Hose: A small wire strop is passed through one of the eyes on the hose nipple, and anchored by an 80 mm. long by 24 mm. diameter stainless steel bar, to which is attached a heaving line. The lifting wire is hooked into the strop, and when all the connecting bolts are removed, the hose is lifted to its full extent and wire pennants disconnected from the hang off chains. The hose is then lowered into the water and when the weight comes off the lifting wire, the bar can be pulled clear.

MEDICAL: There is no resident doctor or nurse. The nearest hospital is in Te Kuiti about 1 hour's drive away over a bad winding road.

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: Not possible.

GENERAL: *Provisions:* Supply of provisions, which come from Hamilton, can be arranged if adequate notice is given.

Weather: The prevailing wind is Southwesterly. The winds are usually stronger in Winter and Spring than at other times of the year, though gales can occur at any time, from any direction.

The significant height of the combined sea and swell is above 1.5 m. for 50% of the time, and the maximum recorded sea height has been 12 m.

Customs and Agriculture: Officials from the Departments of Customs and Agriculture will clear the vessel on arrival, and before departure.

Regulations: The general harbour regulations for New Zealand are applicable.

Tidal Streams and Currents: The tidal stream sets Northward with a rising tide and Southward with a falling tide, but these are weak and generally do not affect mooring.

During Southwesterly weather an intermittent current sets Northward parallel to the coast, and can reach a velocity of 1.0 – 1.5 knots.

Agency: New Zealand Steel Mining acts as its own Agent, and will act for others when prior arrangements have been made.

Administration: The Port is under the jurisdiction of the Marine Division of The Ministry of Transport, but is leased to New Zealand Steel Mining Limited, who own the buoy and the loading equipment.

The Pilots are contracted to New Zealand Steel Mining Limited, and remain on board during the time the ship is moored, acting as Loading Masters. A change of Pilots usually takes place at 0630 hrs. and 1830 hrs.

OPERATOR: New Zealand Steel Mining Ltd., Taharoa, Te Anga, Private Bag, Te Kuiti, New Zealand. *Tel:* Te Anga (0813 67) 859. *Telex:* NZ 21172. *FAX:* Auckland (09) 393 794 (Group 3). *Cables:* Ironsands Taharoa. *Contact:* P.C. Brady, Operations Manager.

TAURANGA (Mount Maunganui): 37.39 S. 176.11 E.

(See Plan)

PORT LIMITS: An arc of a circle of 2.5 nautical miles radius running from the landward boundary of the Eastern foreshore on Matakana Island, and thence into the Bay of Plenty and thence to the landward boundary of the foreshore of the mainland Southeast of Trig. Station A, Mount Maunganui, Block VI, Tauranga Survey District, and having as its centre the said Trig. Station A, Mount Manuganui.

DOCUMENTS:
6 Crew Lists.
6 Passenger Lists.
1 Search List (on regulation form).
1 Bonded Store.
1 Gift List.
1 Declaration by Master of Restricted Immigrants.
1 M.O.T. Declaration of Safety Certificate.
1 Maritime Declaration of Health.
1 Cargo Manifest (for each Port of discharge).
1 Derat Certificate.
1 Clearance, Last Port.
1 Poisons on Board.
1 Firearms on Board.
1 Ship's Papers.
2 Master's Certificates (Form AGL36).
2 Master's Bond and Guarantee (only if animals are being carried).

PILOTAGE: Pilotage is compulsory for merchant vessels of over 100 tons net tonnage; Pilot boards vessel about 2.5 miles N.E. of Mount Maunganui light structure. All vessels inward bound must give 24 hours' notice by radio of their ETA off the port limits. If bound from Auckland or near ports, vessels send their ETA immediately on departure from that port.

A second message confirming or amending the first is to be sent 4 hours before the ETA. Should, however, the vessel expect to arrive later than her 24-hour message, her 4-hour message shall be sent 4 hours before the ETA given in her original message.

All communications, which should be addressed to "Harbour Master, Tauranga", will be attended to at all hours of the day or night.

Two pilot launches. One with length 14.6 m. speed 10 knots, painted international rescue orange. And the other, length 13.7 m., speed 18.5 knots, aluminium hull, with cabin painted international rescue orange. Both fitted with radar, VHF standby on Channels 16, 12. Working Channels 14 and 11.

Vessels awaiting to enter Port may find suitable anchorage in 12 fathoms, 2 miles N.E. of Mount Maunganui. The holding in sand and shell is good in all but extreme conditions.

RESTRICTIONS: Vessels may enter, berth, unberth, or depart during hours of darkness. Vessels over 100 m. generally enter or depart on HW or slack LW.

MAX. SIZE: Max. length permissible is 225 m. (over 225 m. at Harbour Master's discretion), no restrictions on beam. Max. arrival and departure draft at high water is 10.7 m. and at low water 9.20 m.

HEALTH: Radio notification to be sent to "Port Health Tauranga", regarding state of health of crew and ETA 24 hours before arrival requesting Radio Pratique.

Pratique is granted by Port Health Officer on arrival if Radio Pratique not requested or granted. Notification should be made by radio to Port Health in case of suspected disease or fever on board.

Pratique is automatic if vessel has been previously cleared at another New Zealand port.

RADIO: Nearest coastal radio station to Port of Tauranga is "Auckland Radio" – call sign ZLD.

The Port of Tauranga Signal Station is fitted with radar, VHF and R/T and is manned 24 hours a day. Listening watch on 2182 kHz, 4125 kHz and VHF Channels 16 and 12.

RADAR/VHF: Radar in signal station, pilot launches and two tugs. VHF in Signal Station, pilot launches and three tugs. Channels 16, 14, 12 and 11.

TUGS: 2 tugs are available, each with a bollard pull of approximately 28 and 15 tons. They usually join inward vessels in the vicinity of the Harbour entrance. Tug's lines are normally used, for which there is no extra charge. A third tug (bollard pull 15 tonnes) available if requested.

STEVEDORES: ETA to stevedoring companies is usually worked in conjunction with ETA to Harbour Master.

MEDICAL: Unless specifically required for arrival, Agents do not require advice. Local medical practitioners are consulted and services of one public and one private hospital are utilised.

TANKERS: Discharge of black and white products is carried out at a specially built tanker berth, permissible draft presently 10.7 m. Both products are discharged through 250 mm. pipe-lines. The flexible connection to ship is 200 mm.

Chemical tankers discharge and load at the same facility. There are no slop facilities available.

Cement/Woodchips: Bulk cement discharged via pipeline on tanker berth to adjacent silos. Woodchip carriers loaded by conveyor across tanker berth from adjacent stockpile.

BERTHING: Berthing normally takes place 30 minutes after negotiating harbour entrance at HW or slack LW. The quay type concrete wharf 2,057 m. in length, (nominally 11 berths), is fitted with wooden spring piling and rubber buffers. A linkspan is situated in the centre of the wharf area.

A 40 tonne SWL multi-purpose crane is in operation on the Southernmost 450 m. of Mount Maunganui Wharf.

Mobile cranes are available for hire.

Berthing Facilities: Commencing from the North, berths are numbered accordingly.

No.	*Length* (m.)	*Distance from North End* (m.)	*Depth* (m.)	*Max. Draft at HW* (m.)
1	195	0 – 195	10.4	9.8
2	200	195 – 395	10.4	9.8
3	200	395 – 595	10.4 – 9.5	9.8 – 9.0
4	225	595 – 820	9.5	9.0
5	150	890 – 1040	10.4	9.8
6	180	1040 – 1220	10.4	9.8
7	200	1220 – 1420	11.6	10.7
8	200	1420 – 1620	11.6	10.7
9	220	1620 – 1840	11.6	10.7
CT	80		11.6 (current) 12.8 (designed)	

Also see "Tankers".

DENSITY: Salt water, 1025.

FRESH WATER: Fresh water is supplied by pipe-line at 20 tonnes/p.h., prior arrangements must be made with the Harbour Master for quantities in excess of 1,000 tonnes.

FUEL: Bunkering connections are placed at all berths. Quantities of L.F.O., 200 secs, Redwood No. 1 and H.F.O. 1,000 secs, Redwood No. 1 can be supplied by prior arrangement with the Oil Companies.

FIRE PRECAUTIONS: The tanker berth is securely fenced and the gate is manned by the Board's Security Staff to prevent entry by unauthorised persons. A pass system operates. Normal precautions are taken. The berth is equipped with a remotely controlled foam monitor and 2 of the Board's tugs are equipped with foam.

OPENING/CLOSING HATCHES: Usually performed by stevedores.

CUSTOMS ALLOWANCES: 200 cigarettes or 250 grams tobacco. 1 part bottle of spirits or wine. 2 cases of beer issued every 10 days.

IDENTIFICATION CARDS: Not required, but crew list should be handed to the Security Staff. At the Master's discretion temporary passes may be issued for crew guests to gain access to the berth.

REPAIRS: All types of engine and deck repairs are possible. A slipway can take vessels of 610 tonnes displacement and up to 56 m. length.

SURVEYORS: *Registered Cargo Surveyors:* Camping & Rutherford, P.O.Box 5001, Mount Maunganui. Tel: Tauranga 56-988.

Caleb Brett & Sons Ltd., New Zealand. Representatives: G. W. Dunsford & Associates Ltd., 42 Custom Street, Auckland. Tel: 797-171. Telex: NZ 2437. Cables: Dunship, Auckland.

Classification Societies – Surveyors: American Bureau of Shipping: Surveyor N. K. Farell, P.O.Box 1974, Auckland. Tel: 31284. Telex: 21638. Cables: "Record".

Bureau Veritas: Surveyor – J. C. Edwards, P.O.Box 1284, Auckland. Tel: 779-095. Telex: NZ 2531. Cables: "Randship".

Lloyd's Register of Shipping, Principal Surveyor: P. Betteridge, P.O.Box 2682, Auckland. Tel: 733-311. Telex: NZ 21157. Cables: "Lloydsreg".

United States Salvage Association Inc., Non-exclusive Representatives: G. W. Dunsford and Associates Ltd. P.O.Box 4076, Auckland.

REPATRIATION: All facilities exist.

AIRPORT: The airport is situated 1.6 km. from the wharf and is served with regular internal flights to other main centres where overseas flights may be connected with.

TIME: GMT plus 12 hours. GMT plus 13 hours in Summer.

HOLIDAYS: New Year's Day; 2nd January; Picnic Day and Anniversary Day, both in latter part of January; Waitangi Day, 6th February; Good Friday; Easter Monday; Anzac Day, 25th April; Queen's Birthday, early June; Labour Day, late October; Christmas Day and Boxing Day (12 days).

POLICE/AMBULANCE/FIRE: All connected through automatic exchange, Emergency No. 111.

EMERGENCY CO-ORDINATION CENTRE: When vessels are in port, any queries should be directed to the Harbour Board's Signal Station which is manned 24 hours per day. For specific emergencies (Fire, Police, Ambulance) dial 111.

TELEPHONES: Telephones are placed on board all ships when they arrive.

SERVICES: Local compass adjusters are available. Ship's stores can be provided by local Providore firms. Fumigation can be arranged. Ships' garbage is collected daily. No facilities for discharge of tank washings exist.

STORING: Vessels can be stored by truck – barges not used. Trucks can proceed alongside at the berth and remain close alongside if not interrupting cargo operations.

Forklift trucks may be used to handle stores but normally not necessary. Customs regulations in force when Bonded Stores are being loaded. Not customary for local riggers to be employed to assist with storing.

SHORE LEAVE: Crew are permitted ashore at Master's discretion.

SHIP SUPPLY SERVICE: A small scale launch service is available when required for the ship-to-shore transport of personnel and/or essential stores and/or sick crew members. This can be arranged through local shipping agents.

DEVELOPMENTS: Harbour bridge (position: Lat. 37° 40.6′ S., Long. 176° 10.46′ E.) completed March 1988.

Wharf extensions 80 m. North and 130 m. South. Completion May 1988 (Extensions 10-11).

AUTHORITY: Port of Tauranga Ltd., Private Bag, Mount Maunganui. *Tel:* (075) 51-899 (Tauranga). *Telex:* Patga NZ 2378. *FAX:* (075) 51-800. *Cables:* "Harboard". *Contact:* F. M. Williams, General Manager. Captain D. E. Sayle, Harbour Master. A. J. Herbert, Secretary.

TIMARU: 44.24 S. 171.19 E. (See Plan)

PORT LIMITS: 1.5 miles radius with centre at Eastern Extension Light.

DOCUMENTS: See "Auckland".

PILOTAGE: Pilotage is compulsory, and Pilots are available day and night. A vessel requiring a Pilot should remain 1.5 miles seaward of Eastern Extension Mole, near and to South of Entrance Beacon. Vessels should not proceed Northward of line of leading lights on Benvenue Cliff.

Contact Pilot on VHF Channels 16 and 12 ("Timaru Harbour Control"). Pilot boards vessel at Fairway Buoy.

ANCHORAGES: A vessel should anchor in a depth of not less than 12.8 m., sand, and Eastward of harbour light structure, and not within 1.5 miles of Eastern Extension Mole.

RESTRICTIONS: Tidal conditions may affect time of entering harbour.

MAX. SIZE: Length, 198 m. (LOA 227 m. if fitted with bow and stern thrusters); Beam, no limit; Max. permissible draft 10.0 m. HWOST. Time of berthing vessels of over 8.4 m. draft will depend on tidal conditions and at Harbour Master's discretion.

HEALTH: Due to exposed nature of anchorage, incoming vessels are examined and Pratique is granted after a vessel berths. In event that vessel is quarantined, she will be required to return to anchorage without any contact being made with shore.

RADIO/VHF: Timaru Harbour Board has a radio telephone station equipped with both medium frequency and VHF installations.

Call sign "Timaru Harbour Radio", calling frequency 2182 kHz, working frequency 2162 kHz. Fixed watches maintained for a period of 15 minutes every 4 hours, e.g.: 0345 – 0400, 0745 – 0800, 1145 – 1200, 1545 – 1600, 1945 – 2000, 2345 – 2400 hrs. (New Zealand Standard Time) and at other times mutually arranged. VHF call sign is "Timaru Harbour", Channels 6, 12, 16.

TUGS: 1 tug, 3,000 h.p. and Pilot launch/tug, 460 h.p. available.

BERTHING: Berthing space available, 947 m. with 9.75 m. at LWOST, 197 m. with 9.29 m. at LWOST, and 465 m. with 9.1 m. at LWOST. Loading and unloading by ship's gear; railway lines on all wharves. Rail to Christchurch and Dunedin.

SPECIALISED CARGO HANDLING FACILITIES: *All Weather Mechanical Loaders:* 4 all-weather mechanical meat loaders. Each machine is capable of loading 720 units per hour, to a max. of 2,500 units per hour. Also butter, cheese, frozen vegetables and fish can be handled. Can be used to unload suitable cargoes, e.g. fruit.

Ro/Ro - Lo/Lo Container Terminal: Terminal available for handling overseas Ro/Ro vessels. Port currently has services to Japan, Taiwan, all parts of South East Asia, South Pacific and Europe. Discharge and loading by ship's equipment. Containers handled by forklift, crane/ship's gear. Container cleaning and inspection facilities available.

BULK HANDLING FACILITIES: Two silos with total holding capacity of 2,200 tonnes. Loading rate, 300 tonnes/p.h. into vessel; into silo 120 tonnes/p.h. A modern bulk handling installation with 10 silos providing storage for 19,200 tonnes of grain. Loading in rates by road and/or rail transport, up to 300 tonnes/p.h. Ship loading rates, lucerne 650 tonnes/p.h., grain 700 tonnes/p.h. Wharf conveyor has maximum belt rate of 1,000 tonnes/p.h. Plant able to handle lucerne, all grains and certain types of minerals.

Fertilisers and Sulphurs discharged through 6 mobile hoppers 27 cu.m. capacity each.

CRANES: 1×30 tonne mobile crane, 1×48 tonne crawler crane, 1×30 ton crawler crane.

STEVEDORES: Gangs must be ordered before 0700 hrs. weekdays, and before 0900 hrs. Friday for Saturday work.

MEDICAL: Full medical facilities are available as required, including an excellent public hospital.

TANKERS: 1 tanker berth, discharge through 8 in. hoses.

DENSITY: Specific gravity 1025 at all states of tide.

FRESH WATER: Available at all berths, delivered at up to 25 t.p.h. (cost 53 cents per 1,000 litres).

FUEL: Bunkers available, heavy and medium fuel oil. 24 hours advance notice required.

FIRE PRECAUTIONS: When tankers are discharging, access to wharf is prohibited except to those holding passes. Fire-fighting equipment is placed in readiness on wharf.

GANGWAY/DECK WATCHMEN: Available if required.

OPENING/CLOSING HATCHES: Carried out by stevedores.

CUSTOMS ALLOWANCES: See "Auckland".

IDENTIFICATION CARDS: Not required.

SURVEYORS: Lloyd's Surveyor – Captain A. Grieve.

REPAIRS: Most deck and engine repairs can be undertaken.

REPATRIATION: Facilities exist for effecting crew changes and arranging necessary repatriations.

AIRPORT: Two flights each day to and from Wellington. Christchurch International Airport is 160 km. North of Timaru.

TIME: Approximately March-October New Zealand Standard Time (GMT plus 12 hours). Approximately November-February New Zealand Daylight Saving Time (GMT plus 13 hours). Actual dates of changeover to and from Daylight Saving Time decided annually.

HOLIDAYS: New Year's Day; 2nd January; Picnic Day (port holiday Monday of the week in which 29th January falls); New Zealand Day, (6th February); Good Friday; Easter Monday; Anzac Day (25th April); Queen's Birthday (first Monday in June); Dominion Day (third Monday in September); Labour Day (last Monday in October); Christmas Eve (work ceases midday); Christmas Day; Boxing Day. Work can be arranged only by private negotiation on a voluntary basis.

POLICE/AMBULANCE/FIRE: Emergency No. 111 and ask operator for service required. Other than emergency calls: Police, 84-199 Timaru; Ambulance, 47129 Timaru; Fire Brigade, 47089 Timaru.

EMERGENCY CO-ORDINATION CENTRE: If within the port area contact Harbour Master's Office, in Ritchie Street. Tel: 44199.

TELEPHONES: Can be supplied to vessels at all berths, rental N.Z.$12.00 per day.

STORING: See "Prelims".

1. Storing by truck only.
2. N/A.
3. Yes.
4. If necessary.
5. None.
6. If necessary.

SHORE LEAVE: Allowed.

SHIP SUPPLY SERVICE: Harbour Board craft will assist with transfer of sick crew.

DEVELOPMENTS: A 150 m. extension to the North Mole Berth is programmed for construction. This is a heavy berth with planned depth alongside of 11 m.

AUTHORITY: Timaru Harbour Board, P.O.Box 76, Timaru, New Zealand. *Tel:* (056) 44199. *Telex:* NZ 4773 Timport. *Cables:* Centreport. *Contact:* The General Manager.

WANGANUI: 39.57 S. 175.00 E. (See Plan)

PORT LIMITS: Arc of a circle of 3 nautical miles radius centred at the flagstaff at Castlecliff, sited Lat. 39° 56′ 49″ S., Long. 174° 59′ 23″ E.

DOCUMENTS: See "Auckland".

PILOTAGE: If Wanganui is first N.Z. port, initial application for Pilot and vessel's ETA should be passed to local Agent by radio through one of three Post Office radio stations. If not first N.Z. port, this information should be given to local Agent by Agent at previous port. Final details settled when R/T contact made between pilot station and ship.

Pilot launch "Karere", LOA 41 ft. painted white, high midship wheelhouse. Pilot boards at anchorage position. International signals for Pilot should be used if no R/T contact made.

ANCHORAGES: One anchorage for vessels awaiting to enter.

RESTRICTIONS: Port worked day or night at HW when bar conditions are suitable.

MAX. SIZE: Length 120 m., beam 20 m., draft dependent on bar depths at particular time but usually 5.0 m. max. at HWS. No installations outside main port area.

HEALTH: See "Auckland".

RADIO: Wellington Radio ZLW. R/T frequencies 2182, 2162, 2012, 2045, 4419.5 and 6818.8 kHz.

VHF: Channels 16, 12, 9, 68 and 14.

TUGS: No tug available. Pilot launch used for swinging.

BERTHING: Berthing takes place at HW.

SPECIALISED CARGO HANDLING FACILITIES:

No. 6 Berth: Pipe-line for bulk cement connecting wharf with adjacent silos.

No. 1 Wharf: Direct handling into cool store. Fishing berth and fish unloader for hire and rail sidings.

Portable hoppers used for bulk cargoes to load directly into road trucks.

There are no facilities for containers, Roll-on/Roll-off traffic, liquid chemicals or LPG carriers.

CRANES: One mobile crane, capacity 4 tons. 3–20 ton from contractor.

STEVEDORES: Requirements for labour by arrangement.

MEDICAL: 24 hours' notice required if possible. Hospital facilities available. Inoculations, certificates, etc.

DENSITY: 1020 at HW. 1005 at LW. These figures vary greatly according to amount of fresh water in river.

FRESH WATER: Plentiful supply through wharf hose connections. Rate of delivery depends on height of ship's filling pipe above wharf level.

FUEL: All grades available but ship has to pump out of road tankers. Amount of notice depends on grade required.

GANGWAY/DECK WATCHMEN: Watchman necessary, either crew member or shore watchman.

OPENING/CLOSING HATCHES: Carried out by stevedores.

CUSTOMS ALLOWANCES: See "Auckland".

IDENTIFICATION CARDS: Not required.

REPAIRS: Minor deck and engine repairs possible.

REPATRIATION: Facilities exist but more easily accomplished at a main port.

AIRPORT: About 4 miles. Airport caters for internal services only which can connect with international services.

TIME: N.Z. Standard Time (12 hours in advance of GMT). N.Z. Daylight Time (13 hours in advance of GMT) is kept from last Sunday in October until first Sunday in March.

HOLIDAYS: As Auckland, except Anniversary Day holiday which is that held in Wellington Province. No cargo is worked on these days.

POLICE/AMBULANCE/FIRE: Ambulance, 53909; Police, 54488; Fire Brigade, Wanganui, 58505; Fire Brigade, Emergency 111.

TELEPHONES: Arrangements can be made for placing telephones on board.

SHORE LEAVE: Allowed.

DELAYS: Fresh onshore winds could make entrance unworkable for a vessel waiting to enter. Cargo work stops in rain and in unusually strong wind. Bunkering would be slow if large amount of bunkers required.

DEVELOPMENTS: Development plan in course of preparation but as yet no details of size of any possible new installations or draft increases.
AUTHORITY: Wanganui Harbour Board, P.O.Box 8001, 507 Heads Road, Castlecliff, Wanganui, New Zealand. *Tel:* (064) 45562. *Cables:* Harboard. *Contact:* Captain T. H. Gibson, Port Captain.

WELLINGTON: 41.17 S. 174.46 E. (See Plan)

PORT LIMITS: All the waters comprised within the harbour of Wellington having as their outward seaward limit the arc of a circle running from the landward boundary of the foreshore at Baring Head and thence into Cook Strait and thence to the landward boundary of the foreshore at Owhiro Bay, such arc being an arc of a circle 3.85 nautical miles radius and having its centre at a point on the Outer Rock of Barrett Reef in the harbour of Wellington.
DOCUMENTS:
Port Health Authorities:
Maritime Declaration of Health (1 copy).
Crew List, stating name, rank, sex and nationality (1 copy).
Current International Derat Exemption Certificate.
Customs Authorities: See "Auckland".
Agent:
Crew List, stating name, rank-rating, sex and nationality (1 copy).
Freight Manifest (3 copies).
Note: Manifests should be airmailed by loading port to arrive in New Zealand at least 1 week prior to vessel's arrival.
Stowage Plan, airmailed same as Manifest (2 copies).
Agricultural Authorities:
Agriculture Quarantine Service – Ship's Meat Locker Regulations 1966. A Master's Certificate is required if there are pets on board.
PILOTAGE: The Pilotage District is the arc of a circle 3.0 nautical miles in radius centred on the outer rock of Barrett Reef. Pilotage is compulsory within that area of the pilotage district being Northward of a line drawn 090° from Gordon Point through the rear leading light on Hope Shoal to the Eastern shore, for all merchant vessels over 200 g.r.t., except vessels whose Masters have Pilotage Exemption Certificates and to which exemption applies.
Pilot Transfer Position (Helicopter): On the leading line, 202.5° × 3.4 miles, from Pencarrow Light.
Also see "Helicopter Pilotage."
Pilot Boarding Place-Launch: Pilots will normally embark West of the line of the leads in a position 232° × 2.1 miles from Pencarrow Light. In heavy Southerly weather it may be necessary to embark or disembark the Pilot in smoother water at or near the compulsory limit. The Master will be advised by the Pilot if this is necessary.
Pilotage by Leading or Signalling: Extract of Wellington Harbour Board Byelaws: 1985 Part 3, 3.5a

3.5: Pilotage by leading. The leading of ships by or signalling to ships from a pilot boat under the conduct of a Pilot shall be pilotage which may be requested by a Master as a service for his ship if:

(a) By reason of adverse sea or weather conditions or otherwise the Pilot available to pilot the ship decides that he is not or will not be able with safety to board or disembark from the ship requesting his services.
Notice for Requiring Pilot: All vessels requiring a Pilot are required to give 24 hours notice by radio of their estimated time of arrival (ETA) at the Pilot Boarding Station. An updated ETA is required 4 hours before arrival in every case. If the vessel will be late arriving, a new ETA must be sent 4 hours before the expected time of arrival given in the original ETA. All communications, apart from telex, to the Harbourmaster, Wellington will be attended to at all hours of the day or night. Telex should only be used during ordinary business hours. If VHF contact cannot be made with Wellington Harbour Radio, contact should be made on 2182 kHz or 500 kHz with the local coast radio station.

If no Notice of Arrival is given, it may be 2 hours after a vessel is sighted by the Beacon Hill Signal Station before a Pilot arrives.
Helicopter Transfer: In addition, vessels pass a further ETA to Wellington Harbour Radio (VHF Channel 16) one hour prior to arrival at the transfer position.
HELICOPTER PILOTAGE:

HELICOPTER PILOT TRANSFERS
INFORMATION FOR MASTERS

Transfers will be made by winching.

Transfers by Helicopters (NZ) Limited, who were founded in Timaru in 1956 and have been involved in offshore support since 1968. The company have operated twin-engined helicopters since 1975. A Bell 212 helicopter will be used. It has 2 Pratt & Whitney PT 6-3 engines and full offshore support equipment. The Bell 212 has single engine hover capability during Pilot transfers.

1. *Pilot Transfer Area:* The transfer area will be 202.5° × 3.4 miles from Pencarrow Lighthouse.

2. *Communications:* Ships' Masters should give their ETA in the usual manner, i.e. 24 hours prior to arrival and 4 hours prior to arrival.

In addition ships' Masters should pass a further ETA to Wellington Harbour Radio (VHF Channel 16), 1 hour prior to arrival at the transfer area.

When airborne the helicopter will contact the ship on VHF Channel 16 and VHF Channel 13 will be selected for ship/helicopter communication whilst the transfer takes place.

The helicopter pilot will require information from the ship's Master on:
Ship's course.
Ship's speed.
Relative wind direction and wind speed.
Information on pitch and roll will be required.
Ship's position, if the vessel is not at the transfer area.

An alteration in the ship's course or speed may be required to facilitate the Pilot transfer.

3. *Requirements – Daylight Operations:*
(a) Markings – no requirements.
(b) Safety equipment – hoses, fire party, etc. The helicopter operators do not have any specific requirements. However, provision of firefighting equipment, as specified in the ICS guide, is at the discretion of the ship's Master.
(c) A flag, as a wind indicator, is to be flown in a prominent position.
(d) An Officer must be in attendance at the winching area. The Officer must be in radio contact with the ship's bridge.
Requirements – Night Operations:
(a) Safety equipment (as above).
(b) An illuminated flag flown in a prominent position.
(c) Illumination – ship to be illuminated overall. Lights must be left on until the helicopter indicates, on VHF Channel 13, that the tranfer has been completed.
Caution: Lights *MUST NOT* be directed upwards towards the helicopter.
Additional Requirements for Tankers:
(a) Cargo tanks and cargo pumproom to be battened down.
(b) All tanks adjacent to the winching zone should be vented to atmosphere within 30 minutes prior to the transfer in order to avoid venting of petroleum gases whilst transfer is taking place.
Container Vessels: Winching on to containers will not be undertaken.

4. *Safety:* Handling of winch wire – the winch hook *MUST NOT* be attached to the ship's structure under any circumstances.

Loose equipment and rubbish must be removed from the winching area, or secured.

Ship's crew must remain outside the manoeuvring zone during a transfer, unless the Harbour Pilot indicates that he requires assistance.

Camera flashlights must not be used.
ANCHORAGES: Depth in anchorages 15 m. to 22 m.
Fairway: Within portion of harbour lying inshore and to Westward of a line drawn from Post Point, the Easternmost point of Oriental Bay, in a 349° direction, to Kaiwharawhara Shore.
Inner Anchorage: Within portion of harbour lying between the Seaward boundary of Fairway and a line drawn from Point Jerningham, in a 359° direction to Kaiwharawhara Shore.
Outer Anchorage: Within portion of harbour Eastward of Inner Anchorage.
Note: Vessels anchoring in Outer Anchorage should take up a position well up towards Kaiwharawhara.
Explosives Anchorage: Within that portion of the harbour contained in a circle with a radius of 0.3 nautical miles having as its centre a point bearing 000° true, distant 1.45 nautical miles from Point Halswell Light Beacon or in such other place within the Harbour of Wellington as may be specified by the Harbour Master on any occasion having regard to weather conditions.

Caution: It is advisable when anchoring (especially when in light draft) to drop 2 anchors in an Easterly and Westerly direction, veering from 75 to 90 fathoms of cable, as it frequently blows hard with heavy gusts of wind off the high land that surrounds the harbour, causing a vessel to sheer about. In very strong winds a ship will lie much easier by having both anchors down. A strict visual and radio watch should be kept.
Prohibited Anchorages:
(a) Anchorage is prohibited within 152 m. of the jetty situated on the north-eastern side of Somes Island.
(b) Within one cable of any power or telephone cable (see below).
(c) Within one cable of the dry dock.
Telephone Cables: Three telephone cables are laid as follows from a position on Somes Island, 002° 2.4 cables approximately from the light tower on the island.
(i) In 315° direction to the mainland (abandoned).
(ii) In a 259.5° direction for 61 m. (200 ft.), thence 315° for 320 m. (1,050 ft.), thence 348.5° for 2,408 m. (7,900 ft.), thence 040.5° for 884 m. (2,900 ft.), thence 009° to the shore.
(iii) In a 259.5° direction for 152 m. (500 ft.), thence 351.5° for 2,682 m. (8,800 ft.), thence 028.5° for 701 m. (2,300 ft.), thence 009° to the shore.
Submarine Power Cables:
(i) Somes Island. From a position 039° 2.8 cables from Somes Island light in a 086° direction for 192 m. (630 ft.), thence 032.5° for 332 m. (1,089 ft.), thence 019° for 622 m. (2,041 ft.), thence 025.5° for 525 m. (1,722 ft.), thence 034° for 485 m. (1,591 ft.), thence 048.5° for 442 m. (1,450 ft.) thence 057.5° to the Petone foreshore.
(ii) Rear Leading Light Beacon. From Rear Leading Light Beacon in a 124.5° direction to Point Arthur.
(iii) Rear Leading Light Beacon to Front Leading Light Beacon. The cable is laid in a direct line between these two beacons.
(iv) Front Leading Light Beacon. From Front Leading Light Beacon in a 064° direction to Point Arthur.
(v) Steeple Rock Light. From Steeple Rock Light beacon 257° to the shore.
(vi) Jerningham Light. From Jerningham Light beacon 180° to Jerningham Point.
(vii) Floating Dock Guide Dolphins. From No. 2 Berth Road Rail Ferry Terminal to all four guide dolphins.
(viii) Carter Memorial Fountain. From the eastern side of the Rotunda, Oriental Bay, to the fountain situated 122 m. (400 ft.) from the centre of the outer edge of the Rotunda.
(ix) Evans Bay Marina. From the seaward end of the northern marina jetty to the end of the breakwater.
(x) Thorndon Container Terminal. From the Southeast corner of Thorndon Container Terminal to a Pile Light Beacon (K.4046). Occ. Green 3 secs. Ht. 6 m. Ra Reflector.
(xi) Kings Wharf. From South end of Kings Wharf to a Pile light beacon. (K.4043). F.W. (vertical neon strip). Ht. 6 m. Ra Reflector.

Caution: Masters of vessels and others, especially persons in charge of yachts and fishing boats, are cautioned against anchoring within one cable of these cables. White triangular beacons, situated on the foreshore, mark the ends of the cables.

RESTRICTIONS: *Entering and Leaving:* All vessels may enter or depart during the hours of darkness. Berthing is carried out at any state of the tide. Deep draft vessels (over 9.8 m.) may be required to wait for the tide to enable them to transit the entrance channel.

The berthing and sailing of vessels is co-ordinated to the normal cargo operations of the port (between 0630 hrs. and 2300 hrs.).

MAX. SIZE: Max. draft permissible: 9.8 m. plus the height of the tide in moderate conditions. Also see "Berthing".

Max. length of vessel – No limit. Max. beam of vessel – No limit.

Tides: Tidal range: Neaps 0.92 m., Springs 1.04 m. Tidal stream in Entrance Channel: Max. 0.8 knots. Minimum 0.3 knots.

Currents caused by wind may increase or decrease the effect of tidal streams, according to direction. Currents are usually 0.2 knots or less.

HEALTH: *Health Officer's Examination Ground:* Within that portion of the harbour contained in a circle with a radius of 0.2 nautical miles, having as its centre a point bearing 347° (true), distant 0.56 nautical miles from Point Jerningham Light Beacon or in such other place within the Harbour of Wellington as may be specified by the Harbour Master on any occasion having regard to relevant circumstances. Until Pratique has been granted vessels arriving from ports beyond New Zealand must not proceed inwards beyond the limits of this area.

RADIO/VHF: *Radio Telephone:* Beacon Hill Signal Station is equipped with both medium frequency and VHF radiotelephones.

VHF: Call sign is "Wellington Harbour Radio". Calling, Channel 16. Working, Channel 12, 13 and 14. A continuous watch is maintained on Channel 16.

Medium Frequency: Call sign is "Wellington Harbour Radio", calling frequency only 2182 kHz, working frequency 2012 kHz. A continuous watch is maintained on 2182 kHz.

Port Operations: Vessels equipped with radiotelephone when within harbour limits must maintain a listening watch on 2182 kHz or Channel 16 to ensure immediate contact if required. Only calls for information on harbour conditions, berthing, or safety of navigation will be accepted.

Vessels are notified of their berth by radio telephone (VHF or MF) from Beacon Hill (viz Wellington Harbour Radio).

Signal Stations: Beacon Hill: A signal station (Wellington Harbour Radio) is situated on Beacon Hill, about 2 miles N.N.W. of Pencarrow Head. A continuous visual watch is maintained.

TUGS: The Harbour Master may direct the Master of any vessel to engage the services of a tug or tugs and also direct the manner in which the tug or tugs shall be used. 3×2,700 b.h.p. Voith Schneider tugs, guaranteed bollard pull 28 tons, speed 12 knots, 2 of which are equipped for fire fighting and salvage duties. The tugs are owned by Wellington Harbour Board.

BERTHING:

Wharf	Berth No.	Length of wharf (m.)	Maximum length of vessel (m.)	Maximum draft (m.)
Overseas Terminal (Clyde Quay Wharf)	2	238	195	9.2 and 8.4
Overseas Terminal (Clyde Quay Wharf)	3	259	195	9.2
Taranaki Street (Breastwork)	—	233	213	7.5
Taranaki Street (Wharf)	—	152	132	7.4
Queen's Wharf	1	224	204	7.4 and 6.5
Queen's Wharf	2	93	73	4.8
Queen's Wharf	3	92	72	5.2 and 4.3
†Queen's Wharf	4	114	94	7.0 and 5.5
Queen's Wharf	5	79	59	4.8 and 2.8
¶Waterloo Quay	2	110	90	6.0 and 6.1
¶Waterloo Quay	3	107	87	5.0
Inter Island Wharf	2	150	130	6.9
Inter Island Wharf	3	213	183	8.4 and 7.5
Glasgow Wharf	1	84	64	3.4 and 3.0
Glasgow Wharf	2	218	198	8.4, 6.3 and 5.7
Glasgow Wharf	3	240	220	8.4 and 7.2
King's Wharf	1	91	71	3.9
King's Wharf	2	251	231	8.5 and 6.5
Thorndon Container Wharf	1	292	272	11.1
Thorndon Container Wharf	2	292	272	10.6
Aotea Quay	1-6	1,115	No limit	8.4 to 9.8
Rail/Road Ferry Terminal	1	143	133	8.5
Rail/Road Ferry Terminal	2	147	137	9.2
Rail/Road Ferry Terminal Jetty	—	68	58	6.1
Seaview Wharf	—	250	250	11.2
Petone Wharf	—	110	90	1.8 to 3.1
Burnham Wharf	—	257	247	8.2 and 7.1
Miramar East Wharf	—	140	120	4.2 and 2.2
Miramar West Wharf	—	165	160	9.0 and 7.3

†Berths for tugs and pilot launches
¶Berths for fishing vessels

CRANES:

Wharf	Berth No.	No. of Cranes	S.W.L. (tonnes)	Outreach wharf fender (m.)
Glasgow Wharf	2	4	3.5	18.5
Glasgow Wharf	3	5	3.5	18.5
Thorndon Container Wharf	1	1	40.6	35.0
Thorndon Container Wharf	2	2	45.0	35.0
Aotea Quay	1-6	4	3.05	15.5
Aotea Quay	1-3	2	4.57	13.4

CARGO HANDLING EQUIPMENT:

6 Mobile Cranes (lift 10 tonnes)
2 forklift trucks 25 tonnes lift
2 forklift trucks 20.5 tonnes lift
1 forklift truck 30 tons
11 forklift trucks 4 to 7 tonnes lift
8 cargo tractors
36 trailers for transporting General Cargo (2 to 5 tonnes)
5 container trailers (max. load 20 tonnes)
22×1.5 to 5 tonnes lift overhead travelling electric cranes in transit sheds.

SPECIALISED CARGO HANDLING FACILITIES:

Container Facilities: The container handling complex at Thorndon comprises 2 berths each 292 m. in length and back-up area (including facilities) amounting to 24.3 hectares. 3 quayside container cranes are available.

Storage of containers: 5,500 (two high) with power outlets for up to 1,376 refrigerated containers.

The Harbour Board owns and operates the container handling cranes and the complex is operated by an independent operator (Container Terminals Ltd.) using straddle carriers.

Roll-on/Roll-off Facilities: There are Ro/Ro facilities at the Rail Road Ferry Terminal (2 berths) used exclusively by the N.Z. Railways Corporation, which operates a Cook Strait Ferry Service. Ro/Ro berth also available at Aotea Quay.

Bulk Cargo Facilities: At Aotea Quay there are bulk cement handling facilities operated exclusively by the Golden Bay Cement Co. Ltd. and N.Z. Cement Holdings Ltd. Other bulk handling facilities include those for petroleum products at tanker terminals, bulk bitumen at Burnham Wharf, bulk molasses and wheat at Aotea Quay and bulk tallow at city wharves.

STEVEDORES: Available. No particular ETA advice required except as normally sent by Master.

MEDICAL: 4 hours' notice is sufficient for Agent to mobilise the service concerned. For minor attention it is sufficient that Master advises Agent on arrival. Hospital facilities are available.

TANKERS: Tankers can berth alongside Seaview, Aotea Quay, Burnham and Miramar Wharves. See also "Restrictions-Entering and Leaving".

Side hose connections are to be used at all wharves. Boiler and galley fires are not required to be extinguished.

Discharge of oil cargoes is permitted during hours of darkness. During the hours of darkness pipe-lines must not be disconnected without first obtaining permission of the Harbour Master. All precautions must be taken to avoid oil pollution of the harbour. Scuppers must be plugged and absorbent material kept at hand in case of spillage.

Seaview Wharf is exposed to the weather and in the event of a Southerly gale special attention must be paid to the vessel's moorings.

Details of licenced industry oil and chemical pipe-lines serving these wharves are as follows:

Seaview Wharf:	1×150 mm. pipe
	3×100 mm. pipes
	2×350 mm. pipes
	1×250 mm. pipe
	1×200 mm. pipe
Aotea Quay:	1×300 mm. pipe
	1×200 mm. pipe
Burnham Wharf:	1×250 mm. pipe
	1×250 mm. pipe (bitumen)

DENSITY: Water salinity varies but at approaches to berths it is between 32 and 36 parts per thousand.

FUEL: Lubricating oil: Available at all wharves by road transport.

Bunker fuel: Available at Aotea Quay:

1. Light marine fuel oil 40
2. Marine gas oil

Available at Seaview wharf:

1. Heavy fuel oil 220
2. Marine gas oil

FRESH WATER: Available at all wharves.

DRY DOCKS: *Floating Dock:* A floating dock capable of lifting a vessel of 16,000 tons displacement is available. The principal dimensions of the dock are:

Length over platforms	178.00 m.
Length over keel blocks	162.46 m.
Overall width	35.81 m.
Clear width between fenders	26.52 m.
Depth of water over keel blocks	7.62 m.
Height of side walls	10.67 m.

The dock is fitted with fire and wash-down services, air compressors, telephone and electrical plant for lighting and power distribution. A 5 tonne electrical portal travelling crane of the mast type is installed on the Eastern wall of the dock.

Four guide dolphins are situated at the entrance of the floating dock to facilitate the working of vessels entering or leaving.

REPAIRS: Major repairs can be undertaken. There are machine shops and foundries. Diving equipment and the services of trained divers are available for underwater inspections and repairs. Marine Radio and Radar Services, licensed compass adjusters.

SURVEYORS: Marine surveyors from the Marine Division, Ministry of Transport and Lloyd's Surveyors are available.

GANGWAY/DECK WATCHMEN: Shore watchmen available.

OPENING/CLOSING HATCHES: Work normally carried out by stevedores. Only time crew are to open and close top hatches is when advised by stevedore. In case of hydraulic hatches in tweendecks, crew are to open and close, not stevedores.

REPATRIATION: Facilities are available for crew changes and arranging any necessary repatriations.

AIRPORT: Situated 7 km. S.E. of City Wharves by road; regular internal and Australian services.

CERTIFICATES: Customs Department require Ship's Register on arrival.

Marine Division, Ministry of Transport require:
Load Line Certificate.
Tonnage Certificate.
Certificate of Registry.
Convention Certificates, i.e.
Safety Equipment Certificate.
Safety Radio-telegraphy Certificate.
Safety Construction Certificate.
Exemption Certificate (if any).
If passenger ship, Passenger and Safety Certificate.
Cargo Gear Register.
Certificates for all Cargo Gear, i.e. runners, spans, shackles, swivels, etc.
Derat Certificate.
Oil Pollution Certificate.

CUSTOMS ALLOWANCES: See "Auckland".

IDENTIFICATION CARDS: Not required.

CONSULS: Argentina, Australia, Austria, Belgium, Canada, Chile, People's Republic of China, Czechoslovakia, Denmark, Ecuador, Egypt, Finland, Fiji, France, Germany F.R., Greece, Iceland, India, Indonesia, Ireland, Israel, Italy, Japan, Republic of Korea, Malaysia, Mexico, Netherlands, Norway, Papua New Guinea, Peru, Philippines, Poland, Portugal, Romania, Singapore, Sweden, Switzerland, Thailand, United Kingdom, U.S.A., U.S.S.R., Western Samoa, and Yugoslavia.

TIME: Local time is GMT plus 12 hours in Winter, (Daylight saving of one extra hour during Summer months, October to March).

HOLIDAYS: New Year's Day (1st January); 2nd January; Wellington Province Anniversary Day (22nd January); Waterside Workers Union Picnic Day (generally observed on Monday of the week 29th January falls); Waitangi Day, (6th February); Good Friday; Easter Monday; Anzac Day (25th April); Sovereign's Birthday Observance (first Monday in June); Labour Day (fourth Monday in October); Christmas Day (25th December); Boxing Day (26th December).

Note: Pilotage services available public holidays. Container vessels at container berths work on public holidays.

POLICE/AMBULANCE/FIRE:

	Routine	Emergency
Wharf Police	723-000	Dial 111 and ask operator for service required
Ambulance	722-999	
Fire Brigade	850-188	

TELEPHONES: Vessels may be connected to telephone system at city berths by application to the Harbour Master.

SHORE LEAVE: Crew members are allowed shore leave at all times.

SERVICES: *Shore Electricity:* Available at all berths. Type AC, voltage 230 or 400, 3 phase 60 amps (or more on request) 50 Hertz.

BANKS: The following banks have branches and agencies in Wellington:

	Telex
ANZ Banking Group N.Z. Ltd	NZ 3385
Bank of New Zealand	NZ 3344
National Bank of N.Z. Ltd	NZ 31388
Westpac Banking Corporation	NZ 3884

STORING: Vehicles can proceed alongside ships to load and unload stores.

GENERAL: For nautical and more detailed information on New Zealand ports, refer to the following publications which are kept up to date by the issue of Notices to Mariners in respect of nautical matters:

New Zealand Port Information Manual
New Zealand Pilot
New Zealand Nautical Almanac

These publications and up to date charts are available from New Zealand Government Shipping Offices.

Garbage: Garbage may only be disposed of in accordance with strict Government regulations and must be arranged with the Harbour Board. Special cans will be supplied as required and collected regularly by truck. Cans must not be placed on the wharves.

DEVELOPMENTS:
Kaiwharawhara: Future reclamation planned.

AUTHORITY: Wellington Harbour Board, Queen's Wharf, Wellington. P.O.Box 893. *Tel:* 728-899. *Telex:* NZ 30504. *Cables:* "Harbord Wellington". *Contact:* G. B. Page, General Manager; K. S. Renner, Deputy General Manager; F. J. Roil, Operations Manager; Captain R. H. L. Culleton, Harbour Master.

WESTPORT: 41.45 S. 171.40 E. (See Plan)

LOCATION: The port is situated at the mouth of the Buller River and has a bar at its entrance. Two breakwaters approximately 155.5 m. apart form the entrance and farther within are 3 tide training walls.

Passage over the bar is considered impracticable when the river is in flood or during a N.W.'ly gale. In bad weather the sea breaks heavily over the outer part of the bar.

The town of Westport and wharves are situated on the Eastern bank of the Buller River, about 1.5 miles within the entrance.

PILOTAGE: Pilotage is compulsory. All vessels should notify the Harbour Master of their intention to enter at least 12 hours before arrival. No vessel must attempt to enter the port until authority to do so is received from the signal station. In the event of a Pilot being unable to board, a vessel will be led through the bar.

Pilotage District: All the waters comprised within the harbour of Westport having as their outward seaward limit the arc of a circle running from the landward boundary of the foreshore Westward of the Western Breakwater and thence into the Tasman Sea and thence to the landward boundary of the foreshore Eastward of the Eastern Breakwater such arc being the arc of a circle 1.5 nautical miles radius having as its centre the signal station on the Western Breakwater.

Old Signal Station: The old signal station is in a square concrete building with a white lattice signal mast and is situated about 1.5 cables within the head of the Western Breakwater. It has a large white diamond painted on the seaward wall and white horizontal bands on the East and West walls.

New Signal Station: The new signal station is situated at the harbour office at the northern end of the main wharf, 1.2 nautical miles within the harbour entrance. Vessels can communicate by radiotelephone, VHF, or by morse signalling lamp. Call sign: "Westport Harbour Radio".

Visual watches are maintained for pilotage purposes and for all vessels entering and leaving harbour (at the Harbour Office situated at the lower end of the Crane Wharf).

APPROACHES: *Cape Foulwind:* A light flashing every 12 seconds, visible 21 miles (nominal range 14), is exhibited at an elevation of 70.40 m. (231 ft.) from a white concrete tower situated on Cape Foulwind, a headland about 6 miles Westward of the harbour entrance. The light is obscured when bearing more than 242°.

Main Harbour Light: A light flashing every 5 seconds (flash 1 sec.), visible 8 miles, is exhibited at an elevation of 19.8 m. (65 ft.) from a white lattice tower on the old signal station situated about 1.5 cables from the head of the Western breakwater.

Caution: At night, care must be taken not to mistake the powerful electric lights of a coal industry situated about 9 miles Eastward of Westport, or the lights of cement works about 3 miles Westward of Westport, for the harbour lights.

Directional Light (occasional): A fixed red, white, and green directional light is exhibited from the same tower as the Main Harbour Light. This light is redirected to suit the best water over the bar. The arcs of the sectors from East to West are red 12°, white 2°, and green 6°, and their nominal ranges 12, 16, and 12 miles respectively.

Radio Masts: Red fixed obstruction lights are shown from radio masts situated about 8 cables S.S.W. and 5.5 miles Westward of the main harbour light.

Landmark: Three chimney stacks, each 60.7 m. (199 ft.) in height, close together with two adjacent silos, are situated about 4 miles Westward of Westport. They are of white appearance and are conspicuous from seaward.

Entering: When within 2 miles of the harbour entrance or on the Harbour Master's advice, steer to bring the main leading beacons on the Eastern Full-tide Wall in line. On entering between the breakwaters, the inner leads will be in line at approximately abeam of the old signal station and course should be altered to starboard to maintain the inner leads in line. Pass the white flashing light on the Western Half-tide Wall on starboard hand. These inner leads direct ships between the Western Half-tide Wall and the Eastern Full-tide Wall. When abeam of the fixed light on the Eastern Full-tide Wall, this light will change colour to fixed green; on observing this change steer for the wharves.

Note: Wharf working lights close to the line of the outer leads will be extinguished as and when required for vessels which have notified their intention to enter.

Floodlights: Two powerful floodlights are exhibited from two lattice-work towers, 29 m. (95 ft.) in height, situated in the railway yards at Westport. These lights, about 3.75 cables apart, are in line bearing 163°. They must not be used for navigational purposes.

ANCHORAGES: Vessels can anchor in Buller Bay in depths from 18.3 m. to 23.7 m. (10 to 13 fathoms). A recommended berth is in a position 2 miles Northward of the old signal station.

Caution: There is poor holding ground Eastward of the entrance to the harbour and in the S.W. part of Buller Bay. Vessels should be prepared to proceed to sea directly there are signs of wind rising from the West to North quarter, as anchorage in Buller Bay is unsafe during N.W. gales. A falling barometer and lightning Westward and S.W. of Westport are almost certain indications of deteriorating weather conditions.

Quarantine Anchorage: In the open roadstead within the navigable area enclosed in a circle having a radius of 2 nautical miles from the old signal station, or such other position within the aforesaid area as may be indicated by the Westport Harbour Authorities in accordance with existing local weather conditions.

RESTRICTIONS: All vessels, may, depending on weather, bar and draft conditions, enter, berth, unberth, and depart during the hours of darkness. Vessels berth and unberth at or near HW.

MAX. SIZE: LOA 131.7 m. Beam – no restriction.

Bar Depths: Depths over the sand and shingle bar vary between 1.8 m. (6 ft.) and 3.6 m. (12 ft.) at chart datum.

River Depths: There is ample depth in the river for all vessels which can cross the bar. Vessels up to 106.7 m. (350 ft.) in length can turn in the harbour at HW neaps provided they do not draw more than 4.9 m. (16 ft.) forward; vessels up to 131.7 m. (432 ft.) in length can use the port, but there is only swinging room if drawing not more than 4.6 m. (15 ft.) forward.

VHF: Westport Harbour Radio and tug on VHF.

RADAR: A radar station, having a maximum range of 15 miles, is operated from the old signal station by the Westport Harbour Authorities. (Position of scanner Lat. 41° 43′ 54″ S., Long. 172° 35′ 15″ E.). A second radar has been established at the new signal station (position of scanner: Lat. 41° 44′ 50.77″ S., Long. 171° 35′ 40.31″ E.). Range 12 miles. Masters of vessels equipped with VHF or radiotelephone may request from the Harbour Master's Office, during conditions of restricted visibility, particulars of their bearing and range as shown on the radar screen. The information given will be in the following form:

According to my observation you are bearing .... degrees .... miles from the Westport Radar Old/New Station.

TUGS: A single-screw tug of 329 h.p., the "James O'Brien", is equipped with VHF and radiotelephone. The tug can be made available for use at short notice. The radio call sign is ZMYT; watches are kept only when the tug is in use.

BERTHING: *Crane Wharf:* A quay-type wharf 670.6 m. (2,200 ft.) in length of wooden construction which has 243.8 m. (800 ft.) of usable berthage with depths of 5.8 m. (19 ft.) below chart datum alongside. The bottom is shingle.

The deck level is 7.2 m. (23 ft. 6 in.) above chart datum.

Merchandise Wharf: A quay-type wharf of wooden construction situated about 243.8 m. (800 ft.) farther Southward to Crane Wharf. Maximum berthage is 152.4 m. (500 ft.) with depths alongside of from 4.3 m. to 5.2 m. (14 ft. to 17 ft.) below chart datum. The bottom is shingle.

The deck level is 6.5 m. (21 ft. 3 in.) above chart datum.

In the inlet to the lagoon, from the seaward end of the Crane Wharf, there is a wharf used for Harbour Authority vessels.

CRANES: 1×15.2 tonne and 1×12 tonne movable electric crane with 18.3 m. (60 ft.) outreach are situated on Crane Wharf.

MEDICAL: Local hospital for minor ailments. Base hospital at Greymouth. Dentist locally available.

FRESH WATER: Available.

FUEL: Diesel and lub oil available in limited quantities in drums.

REPAIRS: One foundry and one machine shop for minor repairs.

SURVEYORS: Stationed at Greymouth and Christchurch.

GENERAL: *Berthing Signals:* These are given from the new signal station. Vessels drawing more than 2.4 m. (8 ft.) must inform the new signal station on arrival of their draft.

Tidal and Bar Information: All information regarding bar conditions and tides is communicated by radiotelephone, VHF, or morse signalling lamp.

Tides: Heights of tides above chart datum are:

MHWS	3.30 m. (10.8 ft.)	MHWN	2.54 m. (8.33 ft.)
MLWS	0.28 m. (0.91 ft.)	MLWN	0.91 m. (2.98 ft.)
Range	3.12 m. (10.23 ft.)	Range	1.63 m. (5.35 ft.)

A tidal gauge, situated in the Harbour Master's Office, shows automatically the depth above chart datum.

For information concerning heights and times of high and low water see New Zealand Nautical Almanac.

Tidal Streams and Currents: Outside the bar the flood stream sets Westward and the ebb stream Eastward. The rate of the tidal stream is least about the time of HW and during 1 to 2 hours before and after HW.

During river freshes, which may occur at any time of the year, the river current in the harbour attains a rate of from 8 to 10 knots.

The tides rise highest with Easterly winds and lowest with Westerly winds.

Currents set across the bar according to the direction and force of the wind. Strong winds from the West and S.W. cause Easterly sets with rates of up to 6 knots; Easterly winds cause sets to the Westward with less effect.

Berthing Light: A small quick-flashing amber light is placed on the berth at night to indicate where the vessel's bridge should be placed alongside.

Garbage: Refuse must be kept on board. No arrangement is made for its collection.

Communications: Westport is on the railway. For freight purposes only, there are connections to Christchurch and Greymouth and Nelson by bus on weekdays. The domestic airport lies South of the port with flights to Wellington and Christchurch most days.

Customs: Westport is a Customs sub-port controlled by the Collector of Customs, Greymouth.

REGULATIONS: The Master of any vessel which touches the bar when outward bound shall inform the Harbour Master by radiotelephone, VHF, or morse signalling lamp after he is clear of the bar. This will be acknowledged by the Harbour Master or the watchkeeper on duty at the Harbour Master's Office.

AUTHORITY: Ministry of Transport – Marine Division, P.O.Box 125, Palmerston Street, Westport, New Zealand. *Tel:* (0289) 7248. *Contact:* Captain C. S. Baugh, Harbour Master.

WHANGAREI: 35.45 S. 174.21 E. (See Plan)

PORT LIMITS: From a point due South of the summit of Sentinel Rock, thence to a point 5 cables due East of Sentinel Rock, thence to a point 5 cables due East of Bream Head, thence to a point 5 cables due East of Tutukaka Head, thence to Tutukaka Head.

DOCUMENTS:

- 3 copies Passenger List.
- 3 copies Crew List.
- 1 copy Search List (Form 2).
- 1 copy Stores List (Form 3).
- 1 copy Prohibited and Restricted Immigrants.
- 1 copy Poisons List.
- 1 copy Animals and Birds List.
- 1 copy List of Firearms (not cargo).
- 1 copy Arrival Manifest (Form 1).
- 1 copy List showing the gross tonnage of cargo for discharge in New Zealand.

PILOTAGE: Compulsory. Pilots embark on the line of leads 141°/321° at the seaward extremity of Pilotage District, i.e. up to 1.5 miles South-Eastward of the Fairway Buoy. In heavy Easterly weather, it may be necessary for pilot vessel to lead ship in through the Outer Channel and embark in the lee of Frenchman Island.

Pilots are available all hours day and night subject to prior minimum notice of 24 hours being received during normal week-day working hours. Second notice confirming or amending first to be sent 4 hours before expected arrival. The Pilot supplies a set of Harbour bylaws. Pratique, Agriculture and Customs clearance is normally undertaken on arrival at berth.

Pilot boat is equipped with VHF. Working frequency is Channel 11, but Channels 6, 8 and 16 are also fitted. Pilot vessel *Manaia* – call sign ZM3830; pilot vessel *Ngapuhi* – call sign ZM2146. Range approximately 20 miles. *Manaia* painted blue, varnished housing, yellow funnel: *Ngapuhi* painted blue, white housing, yellow capping rails.

Pilot ladder with manropes required.

ANCHORAGE: Situated 5 to 10 cables Eastward of the Fairway Buoy in 12 to 20 fathoms (21.63 m. – 36.57 m.) of water in the section enclosed by the Fairway Buoy bearing 225° T to 315° T. Holding ground good in fine sand, but exposed to Easterly weather.

Harbour Anchorage: At Marsden Point, 2 cables West of Passage Island Light, in 5 fathoms (9.14 m.) of water. Max. draft 7.31 m. (24 ft.). Good holding ground, sand and shell bottom.

RESTRICTIONS: Controlling depth in entrance channel 15.24 m. (50 ft.) MLWS. Depth in upper harbour channel maintained at 8.53 m. (28 ft.) MLWS.

MAX. SIZE: Marsden Point: Oil Refinery dolphin berths, LOA no restriction, draft 15.24 m. (50 ft.), Cargo berth LOA 182.88 m. (600 ft.), draft 8.52 m. (28 ft.)

Port Whangarei: LOA 182.88 m. (600 ft.), draft 9.44 m. (31 ft.).

HEALTH: All vessels examined by Health Officer on arrival.

RADIO/VHF: The station is Marsden Point, Whangarei. Call sign "Whangarei Harbour Radio" Continuous 24-hour watch is maintained on VHF Channels 16 and 11, range 40 miles. Medium frequency, call sign ZLKW, listening watch on 2182 kHz., working frequency range 200 miles. Station transmits on 2012, 2045, 2162 and 4139 kHz.

RADAR: Tugs and pilot boat *Manaia* fitted with radar.

TUGS: Available. Tugs equipped with VHF. Tugs usually secure to vessels entering in vicinity of Frenchman Island. Numbers of tugs normally used are: 1 tug for vessels up to 25,000 d.w.t., 2 tugs for vessels up to 55,000 d.w.t., 3 tugs for vessels over 55,000 d.w.t. Unberthing: 1 tug is normally required for vessels under 25,000 d.w.t., and 2 tugs for all other vessels, subject weather conditions.

BERTHING: Marsden Point Oil Berths (2) – operated by the New Zealand Refining Company, Marsden Point. LOA no restriction. Max. draft 15.24 m. N.Z. Refining Co. places restrictions on vessels in excess of 125,000 tonnes displacement.

Marsden Point Cargo Berth (1), LOA 182.88 m., max. draft 8.53 m.

Port Whangarei berths (3), LOA 182.88 m., max. draft 9.44 m.

Portland berths (2), bulk cement berth; LOA 82.89 m., max. draft 5.63 m. cargo berth; LOA 106.68 m., max. draft 5.63 m.

SPECIALISED CARGO HANDLING FACILITIES: Portland bulk cement loading jetty.

Port Whangarei, 7 portable hoppers for use discharge of bulk cargoes. Cargon system of butter loading.

STEVEDORES: Confirmation of arrival time 4 hours before ETA or revised ETA, whichever is earlier is required. Notice of arrival during a week-end or public holiday must be given not later than 1400 hrs. on the last working day preceding arrival.

MEDICAL: Hospital and dental services available.

TANKERS: *ETA Advice:*

96 hours before arrival:

(a) ETA to Agent, and if more than one grade, state discharge preference.

Whether the vessel can discharge two grades simultaneously if required.

Best estimate of discharge and ballasting times including details of any mechanical defect which may hinder the discharge.

Quantity and origin of "slops" on board.

Amount of free water in the "slops" and stowage of same, i.e. in a special "slop" tank or commingled with the cargo. If the latter is the case, the total contents of the tank is also required.

Amount of water in the main cargo.

Also arrival draft fore and aft.

(b) Request for permission to lie alongside for repairs if so required.

(c) Bunker, fresh water, stores, medical, repairs, and all other requirements.

(d) If ship's first visit then advise full details of manifold connections.

24 hours before arrival:

Confirmation of ETA to Agents and Harbour Master. If ETA is Saturday, Sunday or a Monday Public Holiday, notice must be given before 1400 hrs. on previous Friday. Also, advise that vessel is oil tight.

4 hours before arrival:

Final ETA to Harbour Master, confirming or amending 24 hour advice. Also see "Radio/VHF".

Berthing: Marsden Point Oil Berths – Vessels up to approximately 30,000 d.w.t. are berthed at any state of the tide and swing bow to tide before berthing.

Vessels in excess of 30,000 d.w.t. are berthed at high and low slack water only. Max. draft LW 13.1 m.; max. draft HW 15.24 m. Ship's gangway should be positioned 6.09 m. upstream of hose connections prior to arrival.

The Pilot will board approximately 1.5 hours before high or low water for vessels in excess of 30,000 d.w.t.

Restrictions: Due to limited operating height of hose gantry at both berths, vessels must at all time restrict the vertical distance from top of manifold to waterline to 15 m. or less. Experience has shown that, as a general rule, vessels with a moulded depths of 17.4 m. (57 ft.) or less, can comply, whereas vessels over this moulded depth would have to work ballast and cargo concurrently, either permanent ballast only, or permanent ballast and cargo tank ballast. On some ships, the latter may necessitate suspension of discharge to avoid cargo contamination.

During the ballasting operation a safe trim must be maintained and every care must be taken to ensure that no oil escapes into the waters of the harbour.

Loading/Discharging: Slop reception facilities are available. Diameter of load/dischage line 10 in. ASA.

Regulations: Vessels must be oil tight. Prior to entering an inspection is made by the pilot boat to confirm this.

All deck scuppers must be plugged and made oil tight.

Masters must ensure that all doors, openings, etc. are kept closed during discharge/loading or ballasting operations.

All tank openings, sighting and ullage ports must at all times be fitted with antiflash gauze covers.

DENSITY: 1025.

FRESH WATER: At Northland Harbour Board wharves by hose 15 – 20 t.p.h. at 40 cents per 1,000 litres. Refinery jetties limited and arranged by Refinery.

FUEL: Available from berths (viscosities 3,500 secs. Red 1. 1,500 secs. Red 1 and MDO).

OPENING/CLOSING HATCHES: Usually carried out by stevedores.

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes or 250 gm. tobacco or 50 cigars permitted each crew member. Wine/spirit: one opened bottle wine/spirits for each crew member.

A New Zealand flag ship arriving from overseas may have a concessionary allowance.

IDENTIFICATION CARDS: Refinery passes are required when berthed at the Refinery wharves. Passes are brought on board by Agent.

CONSULS: None.

REPAIRS: Most repairs undertaken.

DRY DOCKS: None. One slipway capable of receiving vessels up to 1,500 tonnes/d.w.

REPATRIATION: Facilities exist.

TIME: GMT plus 12 hours. Daylight saving time observed from early October to early March.

HOLIDAYS: The following are recognised holidays: New Year's Day; 2nd January; Anniversary Day (usually last week in January); Waitangi Day (6th February); Good Friday; Easter Monday; Anzac Day (25th April); Sovereign's Birthday (first Monday in June); Labour Day (fourth Monday in October); Christmas Day; Boxing Day; Waterside Workers Picnic Day.

POLICE/AMBULANCE/FIRE: Telephone 111 for emergency, and ask for service required.

EMERGENCY CO-ORDINATION CENTRE: Contact any harbour radio station or police station.

TELEPHONES: Available at wharves.

SHORE LEAVE: Allowed.

FIRE PRECAUTIONS: Tugs have fire-fighting capability. Tankers to have fire wires fore and aft.

SURVEYORS: 1. Cargo Inspectors are readily available and are employed by ships' Agents, usually in the form of a reputable Master Mariner working for the Harbour Authority.

2. Surveyors for Lloyd's, American Bureau, Bureau Veritas, etc., should be arranged through the offices of the surveyor required in Auckland.

AIRPORT: 12.8 km. (8 miles) from Port Whangarei; regular daily internal flights.

SERVICES: Tank cleaning, radio and radar repairs. Compass adjuster from Auckland.

SHIP SUPPLY SERVICE: Harbour Board craft will assist with transfer of crew and stores in an emergency.

REGULATIONS: Issued by Pilot on arrival.

DELAYS: Tidal delays and berth vacancies.

AUTHORITY: Northland Harbour Board, Private Bag, Whangarei, New Zealand. *Tel:* (089) 487-099. *Telex:* NZ 2955. *FAX:* (089) 485-769. *Cables:* Harbour Whangarei. *Contact:* Captain P. J. R. Wavish, Harbour Master.

NOTES

Please also advise Shipping Guides Ltd.

Nicaragua

GENERAL

DOCUMENTS: *Consular Documents:*

The Consular Law of October 26, 1904, amended by a decree of September 5, 1952, provides that "Nicaraguan Consuls must, regardless of the flag of the vessel, visa, certify or draw up in conformity with the Master; the Crew List and the Passenger List, or the "no passengers" declaration, or changes in any of the lists, when for that voyage, the lists were visaed, certified or formulated by the Nicaraguan Consul, or where there is none, by the Consul of a friendly country".

There is much confusion in enforcing of the Consular Regulations, since often consular clearances in ports of loading that are not the last port of call before reaching Nicaragua are complete, that is with visa of all forms, not merely the manifest. Visa of the original bill of lading by the shipper is also required, a procedure that is later monitored by Customs through the import policy. The fine for failure to comply with this requirement is 100% of the FOB value of the goods.

Required Prior to Arrival:

Arrival Notice:

48 hours before the vessel's arrival in the Pilot Waiting Area, the Shipping Agency must submit to the Port Authority the form entitled "Arrival Notice" in 5 copies.

24 hours before, the ship's arrival is reported in writing to the Captain of the Port, Customs, Maritime Health and the Delegation of the Agricultural Ministry.

Information on Cargo for the Port:

The arrival notice is accompanied by a stowage plan, if any, plus a breakdown of the cargo to be unloaded. At least the total tonnage of cargo to be handled is to be reported.

Additional Requirements:

If the ship carries export cargo, that fact must be reported to the Port Authority 2 to 6 days in advance, according to the amount of cargo, so that the ship can tie-up at the pier most suitable for unloading its cargo.

On Arrival:

Type of Document	*Number and Distribution of Documents*						
Basic Forms	*Captain of Port*	*Customs*	*Security*	*Maritime Health*	*Agriculture*	*Port Authority*	*Total*
General Declaration	1	3	–	–	1	2	7
Cargo Manifest	2	2	–	–	1	2	7
Crew List	1	1	1	1	1	1	6
Passenger List	1	2	–	–	1	1	5
Ship's Stores List	1	2	1	–	1	1	6
Crew Effects Declaration	–	1(a)	1(a)	–	–	1(a)	3(a)
Maritime Health Declaration	–	–	–	1	–	–	1
Mail List	–	–	–	–	–	–	1
Additional Documents:							
Clearance from Last Port(b)(c)	1	1	–	–	–	–	2
Consular Manifests	–	3(d)	–	–	–	–	3(d)
Crew List(c)	–	1	–	–	–	–	1
"No Passenger" Declaration	1	2	–	–	1	1	5
List of Passengers or "No Passengers" Declaration(c)	–	1	–	–	–	–	1
Manifest of Missing or Extra Packages	5	–	–	–	–	2	7
Sets of Bills of Lading	–	–	–	–	–	1	1
Dangerous Cargo List	–	–	–	–	–	2	2
List of Cargo to be Loaded	–	–	–	–	–	–	1
Stowage Plan of Cargo to be Loaded	–	–	–	–	–	2	2
Tally Books	1	7	–	–	1	7	16

(a) This form is not required, but if it is available, carry 3 copies.
(b) Customs checks the clearance from the last port and remits it to the Captain of the Port.
(c) With consular visa.
(d) 3 visaed manifests for each port of loading are required, but 1 visaed and 2 without visa are acceptable.

Other Requirements:

In the port of Corinto, the following documents must be submitted: *Basic Forms:* Cargo Manifest, 20 copies, 3 of which must be visaed. Crew List, 8 copies, 3 of which must be visaed. Passenger List, 8 copies, 3 of which must be visaed. Ship's Stores List, 8 copies, 3 of which must be visaed. Maritime Health Declaration, 2 copies.

Additional Documents: Clearance from the last port, certified. Ballast Manifest, 12 copies, 5 of which must be visaed. Voyage Memorandum, 10 copies. Bill of Lading, 3 sets for each port of loading. Stowage Plan, 3 copies. List of Cargo Distribution, 4 copies. Tally Books, 10 copies.

Prior to Departure:

Before clearance, a report is submitted to Customs on export cargo, so that it can be compared with the export policies.

The vessel's clearance permit is requested from the Captain of the Port, which requires payment of 84 cordobas for this service, and for the official visit.

Customs considers the ship cleared and countersigns the clearance permit when the following payment vouchers have been submitted to it:

Mayor's Fee	300.00 cordobas
Municipal Welfare Fund	300.00 cordobas
Maritime Health Official Visit	56.00 cordobas
Agriculture Official Visit	30.00 cordobas
Customs Administration Fees	14.00 cordobas for unloading 21.00 cordobas for loading and unloading or, loading only

Certification that the vessel's documents were approved by the Nicaraguan Consul at the last port of call before arrival in the country. If there is no consulate, the Port Captain's declaration is accepted. If the documents are visaed and stamped "fees to be collected in Nicaragua", the fees amount to 207 cordobas (US$31), which are divided as follows:

Clearance Permit	US$ 9.00
Manifest	US$10.00
Crew List	US$ 6.00
Passenger List	US$ 6.00

If consular visa is not obtained, Customs charges twice the rates mentioned.

If the cargo comes from other ports and is bound for Nicaragua, only a visaed manifest is required, which costs US$10. Failure to comply with this requirement is punishable by a fine of US$50 for each manifest.

PIRACY: Report dated 1982.

"Our vessel was off the East coast of Nicaragua at Lat. 14° 10′ N., Long. 83° 07′ W., on the morning of January 31st. The main engine was stopped for minor repairs when an armed motor boat with seven men and no identification attacked our ship, putting hundreds of bullet holes in the bridge, funnel and elsewhere but not injuring any crew. The attack commenced at 1115 hrs. and was broken off at 1145 hrs., when the vessel got back under way".

CORINTO: 12.30 N. 87.11 W. (See Plan)

ARRIVED SHIP: Vessels are considered as arrived only after having negotiated the entrance channel and are safely inside the proper harbour; vessels at the Pilot station are not considered as having arrived.

DOCUMENTS: (Also see "General" before first port).

For the official clearance, the following authorities will board the vessel:

The Port Captain
The Operations Chief
The Public Health Delegate
The Delegate from the Ministry of Agriculture and Livestock
A representative of the Port Authority
Two Customs Officers
A representative of the steamship agency.

Each vessel must present documents legalised by the Nicaraguan Consul from the port of origin of the cargo as well as from the last port of call before Corinto. The documents required are the following:

	Legalised	Non-legalised
From the port of origin of the cargo:		
Cargo Manifest	3	18
Bills of Lading	—	2
Tally Books	—	14
From the last port of call:		
Manifest	3	18
Clearance	1	—
Crew List	—	6
Passenger List	3	6
Stores List	—	6
Health Declaration	—	1
Voyage Memorandum	3	10

In the cases where there is no Nicaraguan Consul at the port of origin of the cargo or at the last port of call, the documents may be legalised by the Consul of a friendly nation or can be certified by some competent authority of the port certifying that there is no Nicaraguan Consul in said port. When a vessel brings cargo for Corinto from the last port of call, then it must also bring both sets of documents mentioned above, the manifest in the second group being replaced by the Cargo Manifest.

Once these documents are satisfactorily received, the vessel is declared in "Free Pratique" or rather, officially cleared and numbered by the Port Authorities.

Vessels are cleared, numbered and attended in their successive order of arrival with the exception of vessels loading perishable cargo (bananas). In Corinto there is no preferential treatment given to these vessels since they operate on their own special berth.

To clear the vessel for sailing, the only requirement is the presentation of a Customs Solvency Certificate and the Clearance for the next port of call extended by the Port Captain.

Customs: Customs assigns 2 Customs Guards to each vessel docked or anchored, the vessel being under the obligation to provide these guards 3 meals daily. Besides meals, guards on anchored vessels must be given a cabin since watches are made in shifts.

PILOTAGE: The Port Authority must receive in writing from Agents advice regarding vessel's ETA 72 hours prior to vessel's arrival and a confirmation 12 hours prior to arrival. All advice must be sent through Agents by cable via Balboa or Limon Station. Pilotage is compulsory on all vessels exceeding 500 g.r.t or exceeding 7 ft. draft. Pilot boards 1 mile off Isla de El Cardon.

ANCHORAGES: The anchorage inside the harbour can accommodate 5 vessels, depending on size and draft.

RESTRICTIONS: The port is open 24 hours; however, entry is restricted in accordance with tide and vessel's draft. Access channel and turning basin dredged to 13.5 m. Due allowance should be made for heavy swell if necessary. Speed limit 8 knots in Corinto Bay, and 5 knots in the vicinity of berths or other craft.

MAX. SIZE: Maximum permissible length 650 ft., 80 ft. beam. Draft controlled by depth of water in approach channel and state of swell (typical draft 13.5 m.).

RADIO: ETA cables are generally routed via NBA Balboa Station or TIM Limon Station.

VHF: The Port Authority has a VHF station to communicate directly with all vessels nearing the port.

HEALTH: After entry and vessel has berthed or anchored, 3 long blasts are given requesting Free Pratique; after these blasts the Authorities board the vessel together with the Agent's representative and proceed with distribution of the documentation. In the event of any suspected disease on board, the action to be taken will be given by the Representative of the Health Department. There is no automatic Pratique even though vessel is proceeding from another port in the same country.

Although the port is open 24 hours, vessels arriving after 2100 hrs. are not boarded by the Authorities until 0600 hrs. the following day, unless the vessel will berth and commence operations immediately. This being the case, Free Pratique is granted regardless of the hour. This arrangement is restricted to 0100 hrs. as gangs are not allowed to commence operations after that hour.

TUGS: Compulsory for berthing and unberthing. The tug joins vessel just after vessel passes Buoy No. 7. Tug's lines are generally used: however, at times ship's lines are used. There is no charge for use of tug's lines. 1 tug of 2,182 h.p. (30 ton bollard pull), 1 tug of 1,100 h.p. and one launch of 167 h.p. available.

BERTHING: There is no preferential berthing, and berthing is indicated by the Port Authority. Vessels are attended to in the manner "first come first served".

Berthing facilities are as follows:

1. Container Pier, length 240 m. Depth alongside 13 m. (Designed for 25,000 d.w.t. vessels).
2. Concrete Pier (Container Pier extension of this Pier). Length 370 m. (2 berths). Depth alongside 12.1 m.
3. A special berth with conveyor-belt system for loading of carton boxes such as bananas, frozen meat, as well as the handling of inbound and outbound cargoes such as fertiliser and cottonseed meal. Bananas can be loaded into 4 hatches at one time at a rate of 4,500 boxes per hatch per hour. Depth alongside at LW is 11.2 m.

Port Authority equipment includes fork-lift trucks with capacity up to 7,000 lb., 6 tractors with 5,000 lb. capacity, 95 trailers with 4,000 lb. capacity, 10 trailers of 40 tons for 20 ft. and 40 ft. containers, 3 front end loaders for 20 ft. and 40 ft. containers and 3 barges (2×60 ton and 1×80 ton capacity).

CRANES: Two mobile cranes, capacity 30 tons and 25 tons and 1×40 ton crane for containers.

STEVEDORES: *Working Hours:* The Port gives service 24 hours a day under the following schedule:

From 0700 to 1200
From 1300 to 1800
From 1900 to 2400
From 0001 to 0600

Each shift is of 8 hours. Meal hours are from 0600 to 0700; 1200 to 1300 and 1800 to 1900. The first shift commences at 0700 and is completed at 1600; the second shift is from 1600 to 2330. When a vessel announces with sufficient notice its intention to work during night-time continuously until the following day then a second shift does not work a full 8 hours but is relieved at 2200 hrs. and completely new gang takes over from 2200 until 0600 the following day.

When a vessel does not wish to work during the entire night, it may do two things: (1) Suspend all operations at 2330; (2) Work with the gangs of the second shift up until 0230 hrs. of the following day after which time the gangs of said second shift cannot continue working. Normally gangs are called at the following fixed official hours: 0630, 0930, 1230, 1530, 1830 and 2130, however on special occasions and with the approval of the syndicate, it is possible to integrate gangs at any hour of the day.

Average Cargo Handling Rates:

	Tonnes per gang hour
Exports:	
Cottonseed meal in bulk	48
Raw sugar in bulk-dumped by hand	48
Cottonseed in bags	45
Coffee in bags	45
Sesame seed in bags	45
Cotton in bales of 250 kilos each	40
Frozen meat	28
Lumber	12

	Tonnes per gang hour
Imports:	
Drums	40
Wire rolls	40
Bulk cargo (discharged by clam-shells)	35
Fertilisers – insecticides in bags	30
Vehicles (by weight)	30
Paper rolls	27
Wheat (by aspirators)	20
Oats (by aspirators)	15
General cargo	15

TANKERS: The only tankers which frequent this port are those of Esso Standard and Parcel Tankers. There is one tanker berth; depth alongside 12.2 m. and each of the above-mentioned companies have their particular load/discharge lines.

The Esso tankers only discharge oils, the Parcel tankers discharge solvents and occasionally others load cotton seed oil.

There are 9 lines belonging to the consignees ranging from 4 in. to 12 in.

Loading rates:		Tonnes per hour
Molasses	12 in. pipe	140
Bunker or asphalt	8 in. pipe	409
Aviation gasoline	6 in. pipe	237
Hexane	6 in. pipe	240
Aromatics	6 in. pipe	203
Chemical Products	6 in. pipe	210
Turpentine	6 in. pipe	125
Coconut oil	4 in. pipe	60
Lubricants	4 in. pipe	45
Tallow	4 in. pipe	35

MEDICAL: There are several doctors in the port and most of the Agents have a particular doctor to their service. Hospital facilities are also available. No particular inoculation is required.

DENSITY: (Average) Rainy season 1014, dry season 1020.

FRESH WATER: Fresh water is available and is supplied from connections on the pier, by gravity, at a rate of approximately 10 t.p.h.

FUEL: Corinto cannot supply bunkers. In emergencies small quantities of bunkers and/or diesel oil may be supplied by private firms.

GANGWAY/DECK WATCHMEN: After entering, 2 Custom Officers are placed on board all vessels and their meals must be furnished on board.

OPENING/CLOSING HATCHES: If vessel is equipped with regular hatch boards or pontoons, stevedores open and close hatches as well as swing out booms. However, if covers are of the MacGregor type or mechanical, the crew has to do the job.

CERTIFICATES: Ship's Registry Certificate is required from ships making their first call at the port.

CUSTOMS ALLOWANCES: There is no limit on tobacco allowance to be held out of Bond but crew members are only permitted to take 2 packages of 20 cigarettes ashore. Crew not permitted to take any alcohol ashore. Anyone trying to do so will be subjected to heavy fine through Master of their vessel.

IDENTIFICATION CARDS: Crew members allowed ashore if they wish to do so after being previously identified by means of a Seaman's Book or a passport. This document is kept by the Customs Guard at the foot of the gangway and given back to the crew member when he returns to the vessel.

CONSULS: In Corinto:

Colombia
Costa Rica
Denmark
Ecuador
El Salvador
France
Honduras
Mexico
Sweden
Venezuela

REPAIRS: There are no shipyards; no large scale repairs available. Small motors and generators may be repaired in shops in Corinto and Chinandega.

AIRPORT: The airport at Managua is approximately 150 km. from the port and served by regular airlines with daily flights.

REPATRIATION: Can be effected.

SERVICES: *Provisions:* There are several ship chandlers operating in the port who are in position to supply vessels with provisions necessary and required by stewards, engine or deck departments.

Laundry: The same ship chandlers can take care of any amount of laundry. Drycleaning can be done by these suppliers in the nearby city of Chinandega.

Cleaning: There are special gangs of labourers in the port who work on vessels doing odd jobs such as cleaning, chipping, painting, etc.

Transportation: For anchored vessels, there is a very efficient ship-to-shore launch service.

There is taxi service available for transportation by day or night to any part of the country. There is an air-conditioned express bus service between Corinto and Managua under the following schedule:

From Corinto	0400 hrs.	arrive Managua	0645 hrs.
From Corinto	0600 hrs.	arrive Managua	0845 hrs.
From Managua	1445 hrs.	arrive Corinto	1800 hrs.
From Managua	1745 hrs.	arrive Corinto	2030 hrs.

Hotels: There is a small third-class hostel in the port, however in the city of Chinandega there is the Hotel Cosiguina with all the modern conveniences and facilities desired. Chinandega is connected to Corinto by a modern highway.

TIME: Local time is Central Standard Time, GMT minus 6 hours. There are no alterations during the year.

HOLIDAYS: Official holidays are: January 1st (New Year's Day); Holy Thursday; Good Friday; May 1st (Labour Day); May 3rd (Local Patron Saint's Day); July 14th (Annullment Chamorro-Bryan Treaty); September 14th (San Jacinto Independence Battle Day); September 15th (Independence Day); October 12th (Columbus Day); December 25th (Christmas Day).

In accordance with regulations, no work will be done on these days, however, from experience, with the only exception of May 1st (Labour Day), all other holidays are workable under special arrangement.

POLICE/AMBULANCE/FIRE: Police 269; Ambulance 313; Fire 421.

SHORE LEAVE: Allowed. See "Identification Cards".

DEVELOPMENTS: Projected installation of bulk handling plant, additional warehouses and extension of pier by 1,500 ft. with 2 transit sheds, new administration building, stevedores shed, equipment shed and repair shops; re-designing of range lights and buoys and increasing amount of same, also area for Industrial Park.

A 40 ton container handling crane, 70,000 lb. capacity front loader, tractors and trailers have been ordered for the container berth.

SHIPMASTER'S REPORT: August 1981.

Documents:

12 copies Ship's Particulars.
3 Legalised and 7 without Visa Ballast Manifests.
3 Legalised and 7 without Visa Passenger Lists.
10 copies Negative List.
3 Legalised and 7 without Visa Crew Lists.
3 copies Crew Declaration List.
3 Legalised and 7 without Visa Stores Lists.
7 copies Mail List.
Vaccination List.
Health Declaration Form.

Pilotage: Compulsory. Pilot boards by Buoy No. 2. Notice required 72 hours.

Anchorage: 3 miles West of Isla Cardon Lt. Depth at LW is 48 ft.

Max. Size: LOA 700 ft., max. draft 28 ft., mean tidal range 8 ft.

Restrictions: Vessels may enter and leave anytime, day or night.

Radio: Limon Radio.

VHF: Port Authority on Channel 16.

Tugs: None available at time of visit.

Berthing: Vessel berthed at Banana Pier (Lat. 12° 28.6′ N., Long. 87° 10.2′ W.). Distance from entrance to berth is 4 miles. Max. LOA 600 ft., max. draft 25 ft. Least depth in Channel to berth 26 ft. 6 in. Density 1016.

Services: The following are available: Fresh water, fresh provisions, Lloyd's Surveyor, telex, diesel oil (expensive), doctor and hospital.

General: On arrival at the Pilot Station the Pilot will board accompanied by a member of the Quarantine Department who will insist on going into every cabin, Store Room, etc., armed with a pressurised can of insecticide for fumigation purposes. This will take approximately 1 hour. The vessel is not allowed in the channel until the Quarantine fumigation formalities are over so it is advisable to approach the Pilotage Station No. 2 Buoy at right angles to the channel.

Once safely secured and if in convenient position to lower the accommodation ladder it must be lowered or B.O.T. gangway rigged to one of the dolphins. Ensure that the Board of Trade ladder is in good condition and the wheels running free as the vessel tends to roll a little at the Banana Pier if there is any swell outside. No official or stevedore labour will climb a pilot ladder so it is essential to have one of these access ready on arrival.

The Doctor will board and after medical clearance the Port Officials (Army) and Immigration Officer will board. They will browse through the various documents whilst Immigration Officer will check all Passports, I.D. Cards, etc., and eventually he will physically check that everyone is on board. These Officials and Immigration Officer do not speak a word of English, the Agent is conversant in English and is most helpful.

On completion of Immigration formalities, 2 Ship's Officers are required to escort two groups of Port Authority Officials who will search every cabin except the Master's for drugs. On completion the Customs Officer will seal the bond and beer lockers. Beer is allowed out of the locker before it is sealed. There is no set allowance for cigarettes and spirits within reasonable bounds.

Shore leave; if anyone requires shore leave a form is furnished by the Immigration Official which must be filled in. Shore leave is allowed from 1700 hrs. to 2200 hrs. Anyone extending this period will be fined U.S.$25.

Time taken for clearance is approximately 2 hours.

Clearing vessel outwards most Immigration Officers want to physically check everyone on board, this takes 1.5 hours.

It is essential that rat guards are fitted to *all* ropes, if not a heavy fine will be imposed.

Navigation: Pilots are satisfactory. The depths of water on the Chart are dubious. Have echo sounder on at all times. If docking or undocking between tides, both Ebb and Flood tides are very strong and there is no tug.

At the Banana Pier there is an unprotected dolphin (solid concrete) at the North end and one at the South end, the others are fendered.

SHIPMASTER'S REPORT: February 1987.

1. On anchoring, the Pilot, doctor and assistant board the vessel. After inspecting vaccination lists, and all cabins are sprayed, permission is given to weigh anchor.
2. Pilot very capable. 1 tug available.
3. Documents required when alongside:
   - 14 copies Manifest in Ballast.
   - 17 copies Manifest of Cargo (3 copies visaed).
   - 14 copies Bills of Lading.
   - 17 copies Crew List (3 copies visaed).
   - 17 copies Stores List (3 copies visaed).
   - 8 copies Money List.
   - 8 copies Personal Effects Lists.
4. During our stay at La Guaira the following were visaed: Crew Lists, Passenger Lists, Arms and Ammunition Lists, Narcotics List. The Nicaraguan Consul at Caracas charged U.S.$175.00 for this service.
5. Authorities were polite. Before sealing stores it was possible to take out immediate requirements (cigarettes, spirits, etc.).
6. All crew members to be present and passed by Immigration Officer one by one, in order to obtain shore passes.
7. Shore leave possible at following times: Master/Chief Officer/Chief Engineer from 0800 – 2400 hrs. Others 0800 – 2200 hrs.
8. All cabins and decks inspected by 1 Customs Officer and 2 soldiers.
9. It is possible to contact Agent 24 hours a day on VHF Channels 16 and 12, even on holidays.
10. Departure depends on Immigration Officer. All crew members to be passed by the Officer.
11. Pilot boards after clearance given.
12. It is possible to shift cargo, even containers, via the quay.
13. All stevedores equipment is up to date.
14. Consult "Guide to Port Entry" for further navigation details.

AUTHORITY: Autoridad Portuaria de Corinto, Apartardo Postal No. 11, Corinto, Nicaragua. *Tel:* 211-214. *Telex:* 1294. *Contact:* The General Manager.

Empresa Nacional de Puertos, Apartado Postal No. 3570-2727, Managua, Nicaragua. *Tel:* 74452, 74430, 74383. *Telex:* 2422. *Contact:* Cesar Delgadillo Machado, Director General.

PUERTO CABEZAS: 14.01 N. 83.23 W.

DOCUMENTS: (Also see "General" before first port).

1 Clearance from Last Port.
10 Voyage Memorandums.
11 Crew Lists.
10 Passenger Lists.
10 Stores Lists.
1 Bill of Health.
12 Ballast Manifests.
13 Manifests of Cargo.
4 Bills of Lading.
10 sets Tally Books.

PILOTAGE: ETA required 24 hours before arrival at the port. The Pilot uses a boat with an outboard motor and boards about 1 mile off the port. Agent advises the Pilot the date of arrival, he goes out when he sees vessel.

ANCHORAGES: Vessels can anchor about 0.5 mile South of the wharf. Depths in anchorage 20 ft. – 22 ft.

MAX. SIZE: Max. length 400 ft. Draft 19 ft. 6 in. Difference between high and low tide is 18 in.

1/

HEALTH: The inspection takes place on arrival. It is not necessary when the vessel comes from another port in Nicaragua.

RADIO: The Port has a radiotelephone for personal use, but they make contacts with vessels. The frequency is 2738 kHz..

TUGS: There is no tug service.

BERTHING: One wooden quay, length 683 m. Width 8.4 m. and depth 6.7 m. at the seaward end. There is the wreck in front of the wharf. The location is: Lat. 14° 0′ 57″ N., Long. 82° 22′ 4″ W., 1,200 yd. from wharf end.

STEVEDORES: The Agent advises stevedores of arrival of vessel. They discharge 8 tons of general cargo each hatch (one gang) per hour.

MEDICAL: Not necessary to advise the need of a doctor, only for emergencies. One hospital and two other doctors, apart from the official doctor of the port.

TANKERS: There are 2 pipes of 6 in. diameter on the wharf. There is no special berth for oil tankers.

DENSITY: 1025.

FRESH WATER: Fresh water is carried to the wharf by truck or from one pipe on the wharf. Boiler water is carried to the vessel by the pipe on the wharf.

FUEL: Gasoline, diesel oil and lubricants are supplied by Texaco. Arrangements are made when the vessel arrives.

GANGWAY/DECK WATCHMEN: Not compulsory. It is customary to have two Customs guards on the gangway.

OPENING/CLOSING HATCHES: The opening and closing of hatches is done together by the crew of the vessel and the stevedores.

CUSTOMS ALLOWANCES: Each of the crew can have 2 packs of cigarettes with the seal broken, and one bottle of wine or liquor opened.

IDENTIFICATION CARDS: Not needed, just passport or Seaman's Book.

CONSULS: Only consul of Panama available locally.

REPAIRS: Minor repairs only can be effected.

REPATRIATION: It is possible and only a passport needed. Necessary to go to the capital by air, thence to any part of the world.

AIRPORT: Distance to airport from wharf is about 2 km. Service every day to the capital except Sundays and holidays. The name of the only airline is Aeronica.

TIME: Local time is Central Standard Time, GMT minus 6 hours.

HOLIDAYS: Holidays are 1st January; Holy Thursday; Good Friday; 1st May; 14th July; 14th and 15th September; 12th October and the 25th December.

SHORE LEAVE: The crew is allowed to go ashore after the vessel is received by the Authorities.

DELAYS: Delays in berthing can be expected due to bad weather.

DEVELOPMENTS: A hydrographic survey has been completed in the port zone and surrounding area to establish the best place for future port facilities or whether expansion should be made to the existing port. This survey is being effected in view of projected installation of paper and pulp industry and forthcoming development of agricultural and mineral products which could be exported through the port.

The Port Authority is taking the necessary steps to get technical and financial help to make a general survey of the zone in order to find an adequate and/or protected site to place the new port installations. Port plans are combined with the paper and pulp industry, which is supposed to be installed in the next few years.

AUTHORITY: Empresa Nacional de Puertos, Apartado Postal No. 3570, Managua, Nicaragua. *Tel:* 74430, 74452, 74383. *Telex:* 2422. *Contact:* Cesar Delgadillo Machado, Director General.

PUERTO SANDINO: 12.12 N. 86.46 W. (See Plan)

DOCUMENTS: (Also see "General" before first port).

Clearance from previous Port.
6 copies Voyage Memorandum.
6 Stores Lists.
6 Passenger Lists or negative declaration, 3 to be visaed.
6 Crew Lists.
8 Cargo Manifests, 3 to be visaed.
8 Tally books.
6 Lists of Mail, Explosives or Drugs if carried.

9 Crew Lists and 6 Stores Lists should be despatched by the Nicaragua Consul at loading port if possible, otherwise they are forwarded by Agents from the Panama Canal.

PILOTAGE: Optional; by local Pilots. Leading lights are installed, at the entrance to the port, prominently sited on a hill. Several buoys indicate exact anchorage positions.

Tankers: A Pilot is provided by the oil company in agreement with the Panama Canal Authority. Pilot boards about 0.5 mile West of the sea berth.

ANCHORAGES: About 1.75 miles off port entrance, depth is 30 ft. at low water, and about 45 ft. at high water.

APPROACHES: *Shipowner's Report:* 1981. Charted positions of the mooring buoys, navigation aids and other coastal landmarks are unreliable and may be off by two miles.

It is strongly recommended that approach to the coast not be made at night-time unless radar-assisted navigation is possible. The radar should be used while making the approach. Vessels may anchor about one mile S.W. of the radar/light buoy No.1 which is positioned W.N.W. of the mooring buoys.

Vessels are cautioned against proceeding North and East of the radar/light buoy No.1. The recommended approach to the anchorage and the pilot boarding area is made on a course of 045° with volcano Momotombo dead ahead.

If a night-time approach to the anchorage is made, it is best to determine well in advance (using radar and visual means) that the sea-buoy is lighted. There have been reported instances of this light being extinguished on occasion.

RESTRICTIONS: Port is open day and night without exception.

MAX. SIZE: Tankers at Sea Line Terminal up to 850 ft. length and 41 ft. draft.

HEALTH: Port Health Inspector boards all vessels on arrival.

RADIO: Nicaragua does not have a coast radio station. All traffic should be sent via Balboa. Ships transitting the Panama Canal bound for Puerto Sandino shall give the agent at the Panama Canal, prior to departure from Balboa, their ETA message for transmittal to Nicaragua.

VHF: The office of the Captain of the Port has a VHF. Normally Channel 6 and 16 are used for calling. If no answer try Channel 13 as this is usually the channel used for communication. If VHF communication cannot be established proceed to anchorage.

TUGS: Not available for manoeuvring vessels. 5 small tugs employed for shifting lighters.

BERTHING: No quays for ocean-going vessels. Vessels work cargo to lighters at the anchorage.

2 lighters (100 ft. × 30 ft.) each with capacity of 400 tons.

STEVEDORES: Port has 4 gangs of 40 men each for boarding vessels.

TANKERS: *Sealine Terminal:* The sea berth is situated in approximate location Lat. 12° 10′ N., Long. 86° 49′ W., about 2 miles offshore in a depth of 47 ft. Discharge rate 7,500 bbls./p.h.

Strong winds may delay berthing or cause vessel to vacate the berth once moored. Sailing at night is not recommended for safety reasons. The discharge hose is lifted on the port side by ship's crew.

Mooring Masters: The services of a Mooring Master/Adviser is provided by Esso.

The Mooring Master will either board ship West of the sea berth or prior arrangements will be made with owners and/or Agent to have the Mooring Master embark and disembark at Balboa, and accompany vessel for the voyage.

The Mooring Master and Refinery Representative will remain aboard at all times while the vessel is moored in the berth. A mooring launch is kept standing-by the ship to let go lines in case it should become necessary to vacate the berth due to bad weather. It is imperative that this launch be kept at the ship at all times.

Moorings: The sea berth consists of 5 mooring buoys, 2 forward and 3 astern. Usually 4 to 5 lines are required forward and 8 lines aft. The approach to the berth with the Mooring Master on board is made on an Easterly course, turning Southward between Buoys No. 3 and 4. The ship's starboard anchor is occasionally dropped, to steady her head in the berth. One or two shackles of chain are used. 2 line boats take the ship's lines to the buoys, usually in the following sequence. (See "Plan")

1) 2 lines to buoy No. 5; 2 lines to Buoy No. 1.
2) 2 lines to buoy No. 3; 2 lines to Buoy No. 2.

The crew should be ready to bend mooring lines together, so as to reach the forward buoys. Once berthed, the tankers should have the following mooring lines out:

Buoy No.	Nos. of Lines	Approximate Distance, Ship to Buoy	
1	2 – 3	855 ft.	250 m.
2	2	700 ft.	200 m.
3	2	330 ft.	100 m.
4	2	430 ft.	130 m.
5	4	300 ft.	90 m.

Steel mooring wires cannot be used as the size and capability of the line boats prohibit this.

Vessels moor and unmoor in daylight hours only.

Tugs: Not available.

Hoses and Ship's Boom: Ship's crew assists with hose connecting. A 12 in. diameter submarine hose is lifted on the port side.

The ship's boom (minimum 5 tons SWL) must be in readiness for hose lifting on the Port side.

Gangway: It is necessary to rig an accommodation ladder. A good clean pilot ladder is satisfactory. If the ladder is rigged on the port side, it must be shifted to starboard after vessel is secure in the sea berth.

Oil Pollution Prevention: The usual sensitivity as to oil pollution exists in this area. There are no oil dispersants or spray equipment available ashore. A customs guard remains aboard each ship during entire port stay and reports any oil spills to his supervisors ashore.

Bunkers and Fresh Water: Not available.

Fire Fighting: Ships should have all fire fighting equipment in readiness while in berth. There are no floating fire fighting units available in this area to assist tankers.

Repairs: No ship repair facilities are available. Divers can be made available with advance notice.

Ship's Stores and Provisions: No facilities.

MEDICAL: Doctor available in case of emergency. Nearest hospital at Leon, 35 km. away.

FRESH WATER: Not available for supply to ships.

FUEL: Not available for supply to ships.

OPENING/CLOSING HATCHES: Normally performed by stevedores. Mechanically operated hatches are opened by ship's crew.

CUSTOMS ALLOWANCES: Each crewman allowed two packets of cigarettes. No wine/spirits allowed to be taken ashore.

IDENTIFICATION CARDS: Seaman's Book required for going ashore.

CONSULS: Nearest at Leon, 35 km. distant.

REPAIRS: Small items for repair can be sent to Leon.

REPATRIATION: No facilities for crew changes. If crew member left behind, Agents are responsible for his repatriation at vessel's expense.

AIRPORT: Las Mercedes international airport at Managua, 75 km. away.

TIME: Central standard time, GMT minus 6 hours. No alterations.

HOLIDAYS: All holidays can be worked.

POLICE/FIRE/AMBULANCE: Police available locally. Nearest fire and ambulance stations are at Leon, 35 km. away.

SHIPMASTER'S REPORT: 1976.

Port Authorities board the vessel at 0600 hrs., either at outer anchorage or at discharging anchorage. There is no night work performed unless the vessel reaches discharging anchorage with last daylight.

In general, stevedores are well acquainted with handling cars. Vessels carrying cars for Pto. Sandino should avoid loading No. 1 hatch for this port, as there is a permanent swell at anchorage, barges cannot lie safely under No. 1 hatch.

There is a Pilot available, on request, who also acts as stevedore-foreman.

SHIPMASTER'S REPORT: 1978.

Approach: Coastwise from the North, no difficulties being encountered.

Anchorage: Vessel anchored in position with the rear leading light bearing 088°(T) – 2.1 miles, starboard anchor used, 4 shackles in 8 fathoms of water.

It is advisable to run in to the anchorage slightly to the North of the leading line, thus avoiding the shoal patches on and to the Southward of the line. The anchor should, however, be let go right on the leads, otherwise the vessel will be required to shift anchorage, as happened in our case.

Buoyage was as per B.A. Chart 1960.

Point Penas del Tiscuco: Now has a large power station on it, not shown on the Chart. This is a good land mark when making the port. The shape of the point, as observed on Radar, appeared slightly different from the shape shown on the Chart.

Pilotage: Pilot is available if required, but was not used. I would advise a deep draft vessel to take a Pilot.

Communications: For long distance communications, it is best to maintain radio watches.

The Charterer's Agents have a VHF set in their Office at Corinto and contact can be maintained for day to day matters in this way.

Charterer's Agents: They have a resident water clerk at Pto. Sandino, who can be contacted on Channel 27, VHF. He is available from 0800 to 1200 hrs. and from 1400 to 1800 hrs.

Under normal circumstances, a representative from Corinto will meet the vessel on arrival and visit her prior to departure, but this was not possible on this occasion.

Documents required: As per "Guide to Port Entry".

Officials: Were helpful. 1 Customs guard is on duty at all times, but the Guards are regularly relieved from the shore and the ship is not required to provide accommodation for them.

Cargo Work: Continuous and fast. Large, modern lighters, towed by powerful tugs, were used. Due to the swell, these lighters ranged heavily alongside. Although the lighters were well fendered, several indentations were caused in the ship's side. Delays due to lack of lighters were minimal.

Rate of discharge, net of delays, was 60 tons per gang hour, steel coiled rod.

Pratique: Granted on arrival.

Provisions: Not purchased.

Fresh Water: Unobtainable.

Shore Leave: Under normal circumstances, can be arranged by using the lighters.

AUTHORITY: Empresa Nacional de Puertos, Apartado Postal No. 3570, Managua, Nicaragua. *Tel:* 74430, 74452, 74383. *Telex:* 2422. *Contact:* Cesar Delgadillo Machado, Director General.

SAN JUAN DEL SUR: 11.15 N. 85.53 W.

SHIPMASTER'S REPORT: December 1984 (Updated 1986).

DOCUMENTS:

10 copies Passenger Declaration.
10 copies Ballast Declaration.
10 copies General Declaration (Ship's Particulars).
6 copies Provision and Store Lists.
6 copies Personal Declaration.
1 copy Ammunition List.
12 copies Crew List.
Clearance from last port.

Authorities: The following Authorities board after anchoring: Customs, Immigration, Captain of the Port, Doctor, Military.

A Customs search will probably be made. It takes 4 hours to clear vessel.

PILOTAGE: Pilot available. We arrived after dark and had to wait until 0600 hrs. the following day for the Pilot.

ANCHORAGES: Vessel anchored about 1.5 miles out in 15 fathoms to await Pilot.

Discharging anchorage is about 0.5 miles from the jetty in 5 fathoms. We anchored about 1 mile from the jetty in 10 fathoms as another vessel occupied the innermost anchorage. Walking back anchor to bottom and paying out cable as ship falls astern is recommended. When anchor was dropped in 15 fathoms area it took some time to hold.

The holding ground at the working anchorage was good, both vessels lying to 1 anchor in Force 6 – 7 winds and choppy seas.

APPROACHES: Straight in from sea on an 067° (T) course to anchorage. At the time of the vessel's visit the light on the headland South of the bay (Fl. 6 secs.) and 1 red leading light were extinguished.
TUGS: There is a small tug which is used to tow barges, also numerous launches.
EQUIPMENT: 3 barges of 150 tons – size about 24 m. × 5 m. 2 barges of 40 tons – size about 12 m. × 3 m.

Barges are open and are fitted with tyre fenders. Barges can also be obtained from nearby ports.

4 Fork lift trucks of 8 tons and 2 of 2.5 tons capacity. (Not all of these trucks were sighted).

3 mobile cranes for discharging barges ashore. There are also tractors ashore.

Storage: There is a large storage shed and an unsurfaced storage yard.
STEVEDORES: Port Authority stevedores. The port works 24 hours a day as follows:

From 0700 – 1200 hrs. Straight time.
From 1300 – 1800 hrs. Straight time.
From 1900 – 2200 hrs. Straight time.
From 2200 – 0600 hrs. Double time.
Sundays and holidays triple time.

Labour works 24 hours and are then replaced by other gangs.

Meal hours are from 0600 – 0700, 1200 – 1300 and 1800 – 1900 hrs., however, these hours are flexible often expanding to 2 hours. Labour go ashore for their meal hour.

The steel was discharged at about 35 tons per gang hour.
FRESH WATER: Not available.
FUEL: Not available.
GANGWAY/DECK WATCHMEN: One armed military guard, an Immigration Officer and 1 Customs Officer live on the vessel during vessel's stay.
OPENING/CLOSING HATCHES: MacGregor hatches opened by the crew, we also used crew for pontoons.
CERTIFICATES: Certificates inspected on board, not taken ashore.
CUSTOMS ALLOWANCES: Not known. The Master of another vessel advised that the Customs were quite generous.
SHORE LEAVE: Passes are issued to the crew. 3 senior officers are given 24 hour passes, other officers and crew required to be on board by 2200 hrs.
CONSULS: None.
REPAIRS: Noted that barges were being constructed at San Juan and it is possible that steel work could be done in an emergency.
AIRPORT: At Managua some 2 hours by road.
TIME: GMT minus 6 hours.
DEVELOPMENTS: It is planned to build a pier in order that vessels may berth alongside.
GENERAL:
Charts and Publications: General Chart BA 1049 – Ellana bay to San Jose.

Harbour Chart BA 1960 – Plans on West Coast of Central America.

Port Information: Admiralty Sailing Directions Vol. 8, Eighth Edition, "Pacific Coasts of Central America" and United States Pilot.
Weather: Winds from N.E. Force 6 – 7 from December to February.

Winds from S.W. in July and August.
Squalls experienced in May and October.
Refer to Admiralty Sailing Directions.

Hotels: One small third class hotel and a number of boarding houses. A tourist hotel is being built but is not complete.
Communications: Post Office can place telephone calls internally and internationally, reception on international line bad.

The Post Office is equipped with an internal telex machine.
Operations: Good. The speed at which a vessel can be discharged depends on the availability of gangs and lighters. The turnaround time of barges is quite rapid and the gangs work well. We achieved 35 tons per gang hour and the other vessel, discharging bagged beans, did equally as well.

NOTES

Please also advise Shipping Guides Ltd.

Nigeria

GENERAL

RADIO:
Accurate ETA Required:
The following circular has been received from the Nigerian Ports Authority (N.P.A.):

Quote:

It is observed with regret that ships arrive in our territorial waters/roads long before their published Expected Time of Arrival, thus building up unnecessary congestion which Decree 40 of 1975 (now Act 40) was promulgated to check. The effect of this phenomenon is that the control built into the 'Ship Entry Notice' is neutralised and abused.

To give the desired effect to the control of ships inflow as intended in the 'Ship Entry Notice' no ships arriving 7 days earlier or later than their Expected Time of Arrival will be treated as Arrived Vessels and therefore will not be accorded berthing facilities. Action will be taken to clear such ships from our roads to the high seas and such Owners or Agents will be blacklisted.

With the Federal Government's relaxation of import restrictions which is followed by a progressive rise in the number of ships calling, the need for rigid application of the provisions of Act 40 cannot be over-emphasised. It will therefore be in the best interest of all concerned to co-operate in this direction with a view to controlling a possible build-up of waiting vessels.

Shipping companies are invited to take advantage of other ports outside Lagos and Port Harcourt, where facilities are under-utilised, such as Calabar and the Delta ports.

Fines will be imposed if vessels arrive early.

Unquote.

Notice: Issuance of Ship Entry Notice (SEN) and Decree (ACT) 40 of December 1975 (amended July 1986).

The following received from the Nigerian Port Authority is for Principals information and guidance.

Efficient port operation which is necessary to give the desired quick turn round to ships can, among other steps, only be attained through effective allocation and use of available resources in terms of berthing facilities and other port inputs. In addition there is also the need on the part of all port users to abide with laid down rules and procedures for maximum benefit. In view of the fóregoing and in order to rationalise sailings to all Nigerian ports, you are hereby reminded on the provisions of Decree (ACT) 40 of December 1975 which stipulates:

3 weeks' notice to be given for applications for ships scheduled to Nigeria before they could be considered for SEN (Ship Entry Notice).

You are also advised to take advantage of the facilities available at the under-utilised ports of Warri, Port Harcourt and Calabar, which equally have connecting links with the hinterland of the country.

Note: The SEN is not applicable to vessels carrying crude oil or petroleum products in bulk.

ANCHORAGE:
Thefts from Vessels at Anchorage: There have been recent reports of vessels being boarded and robbed of ship's stores (tarpaulins, paint, ropes, etc.) while the vessels were laying at anchor in the Lagos Roads and the Bonny River.

In some cases the thieves were seen to be armed.

We regret to have to caution Masters of the danger of theft, and to ensure attractive goods are kept under safe lock. Guards should be posted at night, whether in port or in the Roads. Alternatively, while in the roads, vessels could steam out a further few miles out of reach of small boats. Also see "Bonny" – "Piracy".

CARGO GEAR: N.P.A. inspect all cargo gear certificates on arrival.

SURVEYORS: If a Lloyd's Surveyor is required at any port other than Lagos at least 3 days' notice is required to make travel arrangements.

BONNY RIVER PORTS: *Compulsory Pilotage:*
Pilotage is now compulsory for all classes of vessels including service boats, fishing boats, etc. Harbour Master Bonny has been instructed that no vessel shall be allowed to enter Bonny town anchorage until all NPA dues are fully paid in advance and clearance for entry is received from the Chief Port Harbour Master, Port Harcourt.

All vessels will therefore be piloted to their various berths by Nigerian Ports Authority Pilots only and no exception will be granted and all genuine unexpired local pilotage licences are now revoked.

REPATRIATION/CREW CHANGES: Immigration Authorities now insist that expatriate crew members should obtain entry visa prior to coming into Nigeria to join any vessel trading within Nigerian Territorial Waters. The entry visa should be valid for 3 months and at the expiration can be extended for another 3 months and no more.

DOCUMENTS: The Port Authorities have to be provided with 26 copies of the Cargo Manifest 14 days before the vessel berths (distribution: NPA 17 sets, Customs 5 sets, Agencies 2 sets and Container Control 2 sets).

From Port Manager – River Ports.
Central Planning and Information Centre: It will be mandatory on all Shipping Companies Agents and others intending to work their vessels in our ports to submit the underlisted documents to the Principal Traffic Officer in charge of C.P. & I.C. at the former office of the Deputy Dock Superintendent inside the wharf at least 7 days before the commencement of discharging operations of their vessels:

(a) Ship's Entry Notice (SEN).
(b) Ship's Manifest.
(c) Stowage Plan.
(d) Hatch List.
(e) Bulk Item List.
(f) Special/Valuable Cargo List.
(g) Hazardous/Dangerous Cargo List.

This stipulation came into effect as from 22nd August, 1983. It should be emphasised that as from that date preference is given to any ship which complies with the above stipulation.

Port State Control: The Surveyor of Ships, Federal Ministry of Transport, has issued the following circular letter:

"Following the ratification of SOLAS 1974 and Resolution A466 (XII) by the Federal Government of Nigeria, the Maritime Administration has decided to implement Port State Control which entails:

1. Maritime Surveyors boarding all flag state ships in the harbours for purposes of inspecting all international certificates of ships.
   a. International Cargo Ship Safety Certificate,
   b. International Cargo Ship Radio Telegraphy Certificate,
   c. International Load Line Certificate,
   d. International Safety Construction Certificate,
   e. Classification Certificate, and
   f. Certificate of Registry.
2. Manning: (a) particulars of Masters, (b) particulars of Chief Engineer.
3. General inspection – if the Surveyor considers the ship to be sub-standard and if found un-seaworthy, vessel will be detained until defects are rectified.
4. It is therefore pertinent that all shipping Agents bring this new dimension of safety inspection by national Surveyors to all their shipping Masters calling at any port in Port Harcourt and all other ports in Nigeria where we have our Surveyors".

Report: 1986.

Master's only to declare cargo for Nigerian port and not to include In-transit cargo in order to avoid difficulties with the N.P.A.

LOADING: *Oil Terminals:* A new regulation which took effect from 3rd December 1984, applies to all oil terminals in Nigeria. Vessels must load up to 90% of their deadweight. The remaining 10% being allowance for bunkers/water. Vessels are permitted to load part cargo at more than one terminal/port within Nigeria. This means that a vessel can load part cargo at one terminal and then complement loading at another terminal also within Nigeria. Vessels coming into Nigeria to load crude oil must arrive in ballast without part cargo from another country, otherwise such a vessel will not be allowed to load.

Since introducing the law that vessels with part cargo from another country cannot call at a Nigerian terminal the following new regulations have come into force.

Quote:

Tankers coming into Nigeria may now come in with part cargo provided that:

1. The quantity of the cargo to be brought in and its source are given at the time the tanker is nominated.
2. All details about the incoming cargo are declared to the Customs on arrival at the Nigerian terminal.
3. Such vessels will be fully loaded within the operational tolerance limit as set in (1) above before departing from Nigeria.

However, still in force is the 90% loading at offshore terminals of d.w.t. for tankers which arrived in ballast. Vessels are not permitted to load part cargo but can complement loading at more than one terminal provided within Nigeria.

Unquote.

FUEL: Some companies have now been licensed for the purpose of bunkering vessels. The stipulations in NPA Harbour Master's Notice No.2/83 (see "Lagos") must however be strictly adhered to. The Master should contact the Agent in this regard.

BOYCOTT: Any vessel which has called at any South African Port, cannot call at any Nigerian Port until a period of 6 weeks has elapsed between the time the vessel called at a South Africa Port and her call to a Nigerian Port.

WATCHMEN: Compulsory. Tankers require 4 men and general cargo vessels 16 men.

SHIPMASTER'S REPORT: 1978.
No ship is to enter Nigerian waters unless issued with a Ship's Entry Number.

ANTAN TERMINAL: 04.13 N. 08.20 E. (See Plan)

LOCATION: Antan Oil Terminal is located offshore of Nigeria, at Lat. 04° 13′ N., Long. 08° 20′ E. in a water depth of 126 ft.

The terminal consists of the tanker-based floating production, storage and offloading system "FPSO VI" of 285,000 d.w.t., moored by means of a stern yoke to a platform mounted single point mooring. The "FPSO VI" has a crude oil storage capacity of some 230,000 tons. The "FPSO VI" contains equipment necessary for production, storage and transhipment of crude oil. The Antan Marine Terminal offices, testing laboratory and accommodation for terminal personnel are also located on board the "FPSO VI".

To comply with international regulations, during the hours of darkness the "FPSO VI" will show lights with the distinctive characteristics of the Morse code letter "U". In periods of poor visibility the fog signal will sound the Morse code for the letter "U".

Vessels using the terminal will be moored in tandem, bow to bow, to the storage tanker and loading will be by means of a floating hose between the vessels.

DOCUMENTS: The following forms are required by Customs and Health Officials:
1 copy Vessel Registration Certificate
1 copy Last Port Clearance
8 copies (for past 6 weeks) Ports of Call List
3 copies Store List
7 copies Arms and Ammunition List
4 copies Master's Declaration
9 copies Crew List
3 copies Crew Declaration List
9 copies Passenger List
9 copies Kroo Boy List
3 copies Stowaway List
3 copies Vaccination List
5 copies Animal List

Note:

(a) Also on arrival, 20 copies of Notice of Readiness.

(b) Before sailing and immediately upon completion of loading, vessel must provide 20 copies of Ullage Report. Government Officials representing various departments may, at their discretion, board the vessels in the Terminal area.

ESSENTIAL REQUIREMENTS: *Summary of most essential requirements to be met by tankers lifting oil at Antan Oil Terminal:*

1. Berthing and unberthing shall only be permitted at the absolute discretion of SBM's Terminal Superintendent.
2. No dirty ballast disposal.
3. Advise arrival time by radio.
4. SBM's Mooring Master together with Custom Officials meet ships in suggested anchorage area.
5. Make a lee for SBM's Mooring Master and Officials to board.
6. Have ready: 2 messenger lines forward; ship's derrick on port side, port manifold with 16 in. connection.
7. Vessel's Master responsible for safety of own ship at all times.
8. Lifting vessel's crew performs all operations of mooring, connecting and disconnecting hoses, and unmooring aboard lifting vessel.
9. Do not close valves against crude flow.
10. Emergency flow stop signal if all communications fail will be a continuous sounding of ship's whistle from either lifting vessel or "FPSO VI".
11. No shore leave or crew changes are permitted.
12. When arriving: by day fly flag "Q"; by night display red light over white light for Quarantine Service.
13. Vessel's anchors to be secured against accidental use from the time the SBM Mooring Master boards.
14. All vessels must exhibit the Nigerian National Ensign from their foremast or other appropriate place while in the vicinity of the moorings.
15. Smit connector of lifting vessel if fitted, is free, greased and ready for use. A large 14 lb. hammer should also be available.
16. During loading: by day fly flag "B"; by night display red light.

Note:

Antan local time is GMT plus 1 hour throughout the year.

No supplies of any kind or medical services (except in case of emergency and subject to a doctor being available), or other services of any kind are available at Antan Oil Terminal.

PILOTAGE: Pilot boards at the anchorage.

RESTRICTIONS: Day and night-time mooring/unmooring of vessels at the terminal is possible. However, night-time mooring is permitted only at the sole discretion of the Terminal Superintendent, weather conditions permitting.

ANCHORAGE: Suggested anchorage area: Lat. 04° 09′ N., Long. 08° 20′ E. with 1.5 miles radius.

MAX. SIZE: The terminal is designed for tandem off-loading of shuttle tankers from 100,000 d.w.t. to 270,000 d.w.t. Although there is no specific allowable maximum draft, shuttle tankers berthing at the terminal are expected to have sufficient ballast/or cargo already on board of up to 25% deadweight.

Minimum size 100,000 d.w.t. Max. size 270,000 d.w.t. There is no draft restriction.

HEALTH: The vessel shall have a clean Bill of Health or equivalent document from the last port of call. The vessel's Master and all members of the crew shall possess International Certificates of Health showing such valid Vaccination Certificates as all required by current Nigerian Law. From time to time Cholera Vaccination Certificates may be required and it is, therefore, prudent that all crew members be in possesion of valid Cholera Vaccination Certificates.

RADIO: 1. It is most important that incoming tankers advise their ETA, 72 hours, 48 hours, 24 hours and 4 hours in advance of arrival, stating GMT or local time.

Call sign 3EYH3.

Terminal listens to Portishead Radio at 1000-1100Z and 1900-2000Z daily on 17236 kHz.

Local R/T Frequency: 6,992.1 A3J 24 hours (Alternative 6,218.0).
Inmarsat Telex No: 1331763. Answerback 1331763 FPSO X.
Selcall No: 1C 21876.
VHF working channel: 6.

Once direct communication has been established, the terminal will provide a pre-arrival message.

The following information shall be included in the message given 72 hours in advance:
1) Name of tanker and radio call sign.
2) ETA.
3) Cargo requirements.
4) Deballast time.
5) Maximum loading rate capabilities in t.p.h.
6) Estimated draft on arrival.
7) If there is any sickness aboard or clean bill of health.
8) Last port of call.
9) Any hull, bulkhead, valve or pipe-line leaks on vessel which could negatively affect loading or cause pollution.
10) Distance in feet from the bow to tanker's loading manifold, and from port rail to manifold.
11) Agreement of Compliance with these Antan Oil Terminal user Regulations and Procedures.,

All vessels shall confirm ETA 24 hours and 4 hours distant or any time a 1 hour change of ETA is determined.

2. On receipt of the first message from the lifting vessel, Ashland Oil (Nigeria) Company will respond to the tanker giving preliminary requirements of the Terminal. Vessel's Masters will comply with these requirements in all details in order to facilitate Vessel turnaround and government formalities.

3. Once ships are within 4 hours of Antan Oil Terminal, communication should begin with the "FPSO VI" on VHF Channel 16. When contact has been made on this channel, further communication will be conducted on a mutually compatible channel, normally Channel 6.

4. The SBM Mooring Master will carry a VHF/FM Radio-Telephone when he boards the Tanker.

5. The 4 hour signal should confirm information on the time required to discharge ballast after arrival and should establish a better ETA.

6. Insufficient or inaccurate ETA messages can cause delays as Government officials have to come from elsewhere. Acceptance of Notice of Readiness may be affected by such insufficiency or inaccuracy.

TUGS: *Mooring Launches:* The terminal maintains boats to assist in mooring and unmooring vessels. These are under the direct supervision and control of the Mooring Master.

TERMINAL FACILITIES: 1. Vessels using the terminal will be moored bow to bow (tandem), to the "FPSO VI" by means of a 150 ft. nylon mooring rope. On the outer end of the mooring rope is a short length of chain ending in a triangle plate for connection to the lifting vessel's Smit connector. For vessels not equipped with a Smit connector or chain stopper, extra equipment consisting of a 82 ft.×17 in. snotter, with special shackle can be supplied.

2. During the period the lifting vessel is on the berth a tug/supply vessel furnished by the terminal will remain secured to the stern of the lifting vessel. The lifting vessel shall have no authority to direct or control the tug/supply vessel.

3. The loading hose connection is ASA 150 16 in. I.D.

4. Loading rates at the terminal will be governed by either the lifting vessel's maximum loading rate, or the maximum pumping rate of the "FPSO VI" whichever is the lesser.

5. The companies do not perform general agency functions. Owners or Charterers of vessels calling at the terminal must arrange for their own Agents.

BERTHING: 1. Lifting vessels will normally be accepted and berthed in chronological order of arrival provided such vessels have current nomination for cargo valid at the time of tender, carry clean ballast, if any, and have cargo tanks in a fit condition to receive cargo. Also, they must be in all respects properly equipped, manned and ready to moor. Should berthing be delayed on account of bad weather, vessels will keep their position in line.

2. Vessels required to leave the terminal area on account of bad weather should keep in contact with the terminal via the Radio Telephony Station at Antan Oil Terminal, in order that they may be available when the weather is fit for resumption of operations. SBM reserve the right to load vessels out of turn followng the return of good weather. Further, SBM reserves the right to decline to moor a specific vessel if its condition or facilities are unsafe for mooring or loading even though the terminal may be open to other vessels.

3. The decision of SBM's Terminal Superintendent on berthing will be final.

4. A lifting vessel will be expected to have ready on the forecastle head the following equipment: windlass ready for use, Smit connector free, open and greased: a large coil of messenger line and a large 14 lb. hammer.

5. On approaching the berth, the messenger line is lowered to a small boat. This boat will take the end of the messenger line and attach it to the end of a floating rope. SBM Mooring Master will then instruct the crew to heave in the ropes successively until the chafe chain is in the fairlead and the triangle plate is in a position to be fitted to the Smit connector.

6. Once the lifting vessel is connected to the mooring, its engines, on request of SBM's Mooring Master, may have to be run "very slowly" astern in order to avoid contact between the two vessels until the tug/supply vessel has been made fast to the stern of the lifting vessel.

VESSEL'S GEAR: 1. SBM's Mooring Master may reject a ship if it is not, upon inspection, properly equipped or if it is not suitably manned or if he deems it to have dirty ballast or tanks unsuitable for receiving the cargo. A vessel is suitably manned only if it has a full complement of officers and crew in a sober condition, competent and willing to carry out their duties and orders, and sufficient English is spoken so that SBM's Mooring Master can understand and be understood.

2. All vessels must be equipped with a good working propulsion unit as passed by an appropriate classification society. Inoperative vessels or partially inoperative vessels will be rejected. Should vessels become inoperative while on the berth, they may be removed from the terminal area by the Company at the expense of the Owners or Charterers of the vessel.

3. Additionally, a vessel must have both bower anchors and ground tackle in good working condition and in such sizes and amounts as to meet either "Lloyds" or "ABS" standards although they may be in fact classified by other societies. On instruction from SBM's Mooring Master, the vessel's anchors must be properly secured against accidental dropping.

4. All vessels must carry suitable stoppers for all manila or synthetic lines for mooring use.

5. All vessels must have suitable winches or capstans in good operating condition on the forecastle deck.

6. All vessels must be adequately equipped with a 10 ton derrick boom, blocks, tackles, wire runners and sundry equipment on both sides to efficiently hoist the hoses to the loading position. Sundry equipment

should include wrenches, drift pins, nuts and bolts, wire and fibre strops, drip pans, gaskets, etc. To assist in vessel's turnaround, the vessel should have all necessary booms and cargo gear rigged and ready before being boarded by SBM's Mooring Master. All vessels which consider the lifting capacity of their gear to be marginal should strengthen their gear accordingly. This does not relieve the vessel of the necessity to provide adequate lifting gear as already described for Antan Oil Terminal operations.

7. The vessel's manifold should be prepared for 16 in. 150 ASA hose connection prior to the vessel's arrival. Where no crossover valves exist on loading manifolds it is recommended that loops between loading lines on the starboard side of these manifolds be fitted. Vessels equipped with smaller than 16 in. hose connections at the loading manifold should arrive with such hose connections suitably adapted for 16 in. hose so that maximum flow through the 16 in. cargo hose will be achieved.

Vessels equipped with larger than 16 in. hose connections at the loading manifold should provide their own reducers.

MOORING/UNMOORING: 1. The SBM Terminal Superintendent shall be the sole authority as to when the terminal is open or closed for normal working due to weather conditions. Night time berthing will only be permitted at the sole discretion of SBM's Terminal Superintendent.

2. Vessels to be moored, anchored or manoeuvred at Antan Oil Terminal will be boarded by SBM's Mooring Master in the close vicinity of the anchorage area. No lifting vessel may enter the terminal area unless SBM's Mooring Master is on board. SBM's Mooring Master will advise the vessel's Master on approaches to the berth, mooring, unmooring, tug handling, connecting and disconnecting the hoses and other operations within the anchorage and terminal area. All such manoeuvring of vessels shall be carried out only in accordance with the advice of SBM's Mooring Master, except where the vessel's Master believes such advice to be contrary to the proper navigation and safety of the vessel and crew, and subject to the understanding that in all cases and circumstances the Master of the vessel being manoeuvred shall remain solely responsible on behalf of his vessel's Owners or Charterers for the safety and proper manoeuvring of the vessel. The vessel's Master or one of his designated qualified deck officers specifically appointed by him at the time must be on the navigation bridge at all times while the vessel is being manoeuvred.

3. Vessels will provide a lee for the SBM Mooring Master's boat while the Mooring Master is boarding and leaving. All vessels are requested to have a pilot ladder safely and securely rigged and ready for immediate use and long enough to reach the Mooring Master's boat. A combination of a pilot ladder and vessel's accommodation ladder so arranged that personnel can first use the pilot ladder part way up the vessel's side and then transfer to the accommodation ladder is recommended, especially on very large vessels. A light line should be ready to take aboard the Mooring Master's portable radio. There should be adequate lighting at night.

4. The SBM Mooring Master will be in direct control of all the vessel's communications while in the terminal area. Any unauthorised communications will at the option of SBM's Mooring Master be cause for the cessation of all operations except clearing of the berth, and the vessel's Notice of Readiness will immediately be nullified.

5. Raising, lowering, connecting and disconnecting of oil loading hoses, as well as all other labours and duties on board will be performed by the vessel's crew under advice of the SBM Mooring Master (see "Vessel's Gear").

6. SBM's Mooring Master will report unsatisfactory conditions to the SBM Terminal Superintendent who may at his discretion reject the vessel until corrections are fully made. All costs or liabilities accruing therefrom will be to the vessel's account.

7. The services of SBM's Mooring Master are provided without charge upon the express understanding and conditions that when the Mooring Master goes on board the vessel for the purpose of assisting such vessel, he becomes for such purposes the servant of the Owners or Charterers of the vessel, and the Companies shall not be liable for any damage or injury resulting from any advice or assistance or actions given or made by the Mooring Master.

8. SBM's Mooring Master may require the vessel to unmoor at any time he deems it necessary for the safety of the vessel or mooring or both, or for infringement of these Terminal Regulations.

9. Various combinations of wind, sea and tidal conditions, also the size, length, ballasted trim, and handling qualities of a vessel can affect the decision to berth a vessel at Antan Oil Terminal. All these factors have to be evaluated before a final berthing decision is made and agreed by the vessel's Master and SBM's Mooring Master. The Companies will not be liable for any demurrage, loss, claims or demands resulting from suspension, delay or unberthing due to to bad weather conditions or non compliance by the vessel, its Owners, Charterers, or Master with these Terminal User Regulations and Procedures.

Connecting Hoses: 1. After the vessel is securely moored the cargo hose will be hoisted aboard, normally on the port side. The berth is equipped with a single 16 in. loading hose string, the weight of the hose lift being approximately 7 tons. Therefore, all lifting equipment and tackle should have a safe working load of at least 10 tons. The hose is lifted by vessel's gear and crew, and all connecting of the hose will be carried out by them. The lifting derrick, equipment, tackle, etc., should be topped off and ready on arrival. Terminal loading hoses are fitted with ASI 150 flat face flanges with Camlock couplings and vessels should have adapters and fittings to enable these hoses to be connected to the vessel's manifold. SBM's Mooring Master advises the vessel's personnel on hose lifting and connecting procedures; however, a vessel's Master or deck officer must be present and must direct the vessel's crew in all handling. SBM's Mooring Master may reject a vessel for unsatisfactory hose handling.

2. When SBM's Mooring Master is assigned to a vessel, the vessel at her cost will supply him with meals at the same time and in the same manner as for comparable personnel of the vessel. The vessel will also provide a suitable cabin and smoking facilities.

LOADING: *Loading Readiness and Arrival Time:* 1. SBM will make every effort to moor offtaking vessels upon arrival in daylight, weather permitting. Night-time berthing shall only be permitted at the absolute discretion of SBM's Terminal Superintendent.

2. Notice of Readiness will not be accepted at the time of arrival unless the vessel is in all respects ready to load including compliance with all terms of these Antan Oil Terminal Regulations. Arrival time will be considered as the time when SBM's Mooring Master boards the vessel, or the time the vessel reaches the deep water Anchorage area, whichever occurs first. The approved Anchorage area is shown (see "Plan"). Notice of Readiness shall be in English. If a vessel arrives while the terminal is closed, Notice of Readiness will be accepted from the time the terminal re-opens.

3. During loading the International Code Flag "B" shall be displayed from a top-most signal halyard during daylight hours. During hours of darkness a red light shall be displayed; visible at a distance of at least one mile and show an unbroken light all around the horizon.

BALLAST: *Regulations require either:*

1. Segregated or dedicated ballast facilities.

or

2. Ballast able to be discharged and cargo loaded concurrently.

or

3. Tanker arrives partially loaded.

All vessels must maintain a minimum of 25% Summer deadweight at all times while at the terminal.

Disposal of Ballast: 1. Owners and Masters are responsible for complying with all International Conventions and Nigerian Laws concerning pollution of the sea, having particular regard for the offshore sector. The Nigerian Authorities are becoming increasingly concerned at the rising level of pollution in these waters and any infringement of the International Laws regarding pollution of the sea by oil will be dealt with most severely. Pollution of the sea by dirty ballast water, bilge discharge or any other means will result in heavy fines being imposed, and in severe cases may result in imprisonment or confiscation of the vessel concerned.

2. There are no facilities for disposal of dirty ballast. It is the Master's responsibility to see that no oil of any kind is pumped or spilled overboard from his vessel. This includes oily water from bilges, crude residue from previous voyages or any other matter that may result in pollution of the sea. Any fines imposed or third party claims shall be for the vessel's account.

3. In addition to the lights usually displayed, vessels discharging ballast or loading cargo during darkness will illuminate the area around the vessel to the satisfaction of the SBM Mooring Master, in order that any oil on the surface of the sea may be readily detected and appropriate action taken. Vessels unable to illuminate the sea satisfactorily may not discharge ballast during darkness. Vessels should provide suitable floodlights for work on deck during night operations.

4. If evidence of oil appears during deballasting, the vessel will be rejected forthwith and will not be accepted until satisfactory evidence is produced that such ballast was disposed of in a proper manner. If during inspection or during progress of loading it is revealed that the vessel's tanks are not tight or that oil is leaking from the vessel, the vessel may be rejected or refused further loading. The vessel will not be later accepted for loading, unless satisfactory evidence of repair is submitted, duly certified by "Lloyds", "ABS", or other recognised surveyors. Any vessel rejected because of dirty ballast or sea pollution will automatically nullify her "Notice of Readiness" and will lose any priority of position for loading. SBM at its sole discretion may suspend, delay or unberth any vessel which is under suspicion of oil pollution. The Company will not be liable for any demurrage, loss claims or demands resulting from such suspension, delay or unberthing.

5. All vessels must have proper trim and sufficient ballast and/or cargo already on board for safe handling having due regard to existing weather and sea conditions. (Normally 25% of d.w.t.) The vessel's Master shall maintain a careful watch on the weather and sea conditions and frequent exchange of information between vessel and terminal. Through his knowledge of the behaviour of his own vessel, the Master, if satisfied that it is safe to do so, may come to the terminal with a minimum of ballast and thus lessen any possibility of sea pollution or infringement of regulations.

6. Vessels equipped with a separate system of ballast tanks will be allowed to discharge ballast and load oil simultaneously, providing approval is first obtained from the Antan Terminal Superintendent.

7. All spillage of oil must be reported immediately to the SBM Terminal Superintendent and a detailed report must be written, signed and submitted by the Master of the lifting vessel concerned.

DENSITY: 1025.

SURVEYORS: Caleb Brett available from Port Harcourt.

WATCHMEN: The Terminal Regulations stipulates the shuttle tanker is to have not less than 1 deck officer and 3 seamen on duty and available at all times. One of the seamen shall also keep watch at the bow to avoid shuttle tanker contact with FPSO IV (Antan Terminal).

WEATHER: The navigator is referred to published sailing instructions for this area for information on winds, tides and currents, viz: United States Hydrographic Office Publications 121 and 123, "Sailing Directions for the South Atlantic Ocean" and "Sailing Directions for the South West Coast of Africa" published by the U.S. Government Printing Offices Washington D.C. British Admiralty: Africa Pilot Vol. 1, Published by the Hydrographer of the Navy London.

Tides: The maximum range of tide in this area is about 6.5 ft.

Currents: The general set of current in the area is Eastward except during the Harmattan season, from November to February, when it is Westward. Within depths of 50 ft. or 60 ft. the current is irregular with many eddies. Outside those depths the speed of the current is about half a knot.

Winds: The Guinea Monsoon is the prevailing Southwesterly to Westerly wind (average speed 5-10 m.p.h.) which is strongest in the months March through November (average speed 10-20 m.p.h.). During the months of July through September the Guinea Monsoon is strengthened in speed because of the Saharan heat blow. The Guinea Monsoon is moisture laden and causes heavy rainfall in Nigerian area. Waves and swell in the area are mostly Westerly.

Harmattan winds occur intermittently during December-February period. The Harmattan winds are dry and often laden with Saharan dust. They are offshore winds and do not develop waves of significant height.

Waves: Waves are generally from Westerly direction and average about 2 to 4 ft., increasing in height with the stronger Monsoon wind during the months of July through November when the average height is about 4 ft. to 6 ft.

Rainfall: The heaviest average rainfall is in July (442 mm.). During the Harmattan season in January the rainfall averages about 42 mm.

GENERAL: *Charts:* British Admiralty Charts Nos. 1357 and 1860 and U.S. Navy Charts No. 57160 and 57163.

Repairs: Should it be necessary to supply divers, a boat, materials, equipment or labour, to carry out repair work to enable the vessel to continue loading, any costs involved will be charged to the vessel's account at rates to be established at that time. These services will only be provided in emergencies.

Services: There will be no bunkers, no fresh water, no small boat hire, no shore leave, no shore services, and no medical assistance (except in cases of emergency) available at the Terminal. Information on port services in the area should be obtained from the vessel's Agents.

Shore Leave/Repatriation: Crew members cannot leave the vessel at Antan Oil Terminal except in cases of extreme urgency. Even in an emergency it should be noted that Seamen's books may not be valid under the local Government Law. A valid passport is required. No crew changes will be permitted during the period a vessel is in the terminal area.

Documents: After each tanker lifting, the terminal will prepare all necessary loading documents. Documentation will be finalised on board the lifting vessel as soon as practicable after loading operations are completed.

Visitors: Visitors must obtain a special pass from the SBM Terminal Superintendent. Visitors will be restricted to a minimum due to the hazards involved

OPERATOR: Ashland Oil (Nigeria) Company, P.O.Box 2629, Lagos, Nigeria. *Telex:* 21877 and 22175, attention General Manager. *FAX:* 611943. *Contact:* The General Manager.

BONNY: 04.26 N. 07.09 E. (Inshore Terminal)
04.11 N. 07.14 E. (Offshore Terminal)

(See Plan)

IMPORTANT NOTICE: The Company, as Operator for the NNPC/Shell Joint Venture, has been directed that the following vessels will not be permitted to enter Nigerian Waters to load Nigerian Crude Oil:

(A) Any vessel which is owned directly or through subsidiaries or chartered or managed by Companies or Persons in South Africa, Namibia or Israel, or is registered in any of these countries.

(B) Any vessel which has called at a port in South Africa, Namibia or Israel during a period of 6 weeks immediately preceding her arrival off any of the Company's Terminals. (A Port Call includes the calling off or near a port for the purpose of receiving services from the shore by helicopter or launch/boat.)

(C) Any vessel which has among its officers, crew, passengers or supernumeraries any person who is a national or resident of South Africa, Namibia or Israel or who has visited any of these countries as evidenced by an entry in that person's passport or other identity document.

Vessels arriving off the Company's Terminals are subject to check by Government Authorities to ensure that the above-mentioned provisions have been adhered to. Any infringement is liable to cause serious consequences for the Master, Manager, Charterer and/or Owner of the vessel.

Vessels lifting crude oil must in addition comply with any other restrictions that may be generally imposed by the Government of the Federal Republic of Nigeria on vessels entering Nigerian Waters for any purpose whatsoever.

DOCUMENTS:

3 Copies Stowaway List.
6 Crew Lists.
3 Vaccination Lists.
1 Maritime Declaration of Health.
4 Lists of Last Port of Call (6 weeks).
5 Lists of Birds & Animals.
5 Passenger Lists.
4 Stores List.
4 Personal Effects Lists.
5 Arms & Ammunition Lists.
3 Narcotics Lists.
3 Kroo Boy Lists.
1 Clearance Last Port.

Agent: Requires NPA Lights and Buoy Dues form.

PILOTAGE: *Inshore berths:* Pilotage is compulsory. Pilots board off Fairway Buoy; incoming ships must *not* enter Bonny Channel without a Pilot on board.

Offshore berths (SBMs): Berthing Master will board vessel on arrival or at anchorage, and remains on board throughout and acts as Loading Master. On arrival at anchorage contact Berthing Master on VHF Channel 10, call sign "Ocean Berthing Master".

N.B. Also contact Bonny Terminal on Channel 8 on arrival at Offshore anchorage to ensure vessel's arrival, etc. is recorded.

ANCHORAGES: *Inner Berths:* Consult chart.

Outer Berths: 3 miles South of manifold platform in position Lat. 4° 11.2′ N., Long. 7° 14.2′ E.

Vessels must not proceed inshore of this position without a Pilot. When at anchor listening watch must be kept on VHF Channel 8 and this Channel must not be used for inter-ship communication.

RESTRICTIONS: *Inshore berths:* Tide, no night pilotage.

Offshore berths: Worst weather period June – September, when heavy swell may be encountered.

Inshore berths: The maximum draft to which a vessel can load at Bonny is governed by three factors *viz.*

1. Datum Depth in Bonny Channel.
2. Height of the tide.
3. The underkeel clearance allowed.

Datum depth of the Bonny Channel is dependent on the amount of dredging; at present time the Datum depth is 10.2 m. (33 ft. 04in.)

Note: This depth can change and Operators and Charterers of vessels stemmed for the Inshore berths are reminded to ensure that they are in possession of the latest depths which can be obtained on application from their Agents.

Tide is variable but the relevant factor is the height of the tide at the time the vessel will transit the Channel. The underkeel clearance allowed is dependent on the time of the year and is related to the height of the swell expected to be encountered in the Bonny Channel.

The present allowances during the year are as follows:

1/1	to 15/2	= 2 ft. 6 in.	–	0.76 m.
16/2	to 15/3	= 2 ft. 9 in.	–	0.84 m.
16/3	to 31/3	= 3 ft. 0 in.	–	0.91 m.
1/4	to 30/4	= 3 ft. 3 in.	–	0.99 m.
1/5	to 15/5	= 3 ft. 6 in.	–	1.07 m.
16/5	to 31/5	= 3 ft. 9 in.	–	1.14 m.
1/6	to 31/8	= 4 ft. 0 in.	–	1.22 m.
1/9	to 15/9	= 3 ft. 0 in.	–	1.14 m.
16/9	to 30/9	= 3 ft. 6 in.	–	1.07 m.
1/10	to 15/12	= 3 ft. 3 in.	–	0.99 m.
16/10	to 31/10	= 3 ft. 0 in.	–	0.91 m.
1/11	to 15/12	= 2 ft. 9 in.	–	0.84 m.
16/12	to 31/12	= 2 ft. 6 in.	–	0.76 m.

Thus it can be seen that the maximum draft at any particular time is equal to:

Datum Depth plus Height of Tide minus Underkeel Clearance Allowance.

A typical calculation would be as follows:

		ft.	in.
Datum Depth	=	33	4
Height of Tide		+ 7	0
		40	4
Underkeel Clearance Allowance		3	9
Max. Draft	=	36	7

DEADFREIGHT: Due to draft limitation at Bonny Inshore, Deadfreight applies (when necessary). This means that the Terminal will obtain approval from the Minister of Petroleum and Energy for the Deadfreight. Also see "General".

MAX. SIZE: *Inshore Terminal:* Min. size approximately 18,000 tonnes SDWT or 161 m. (530 ft.) LOA. Max. length 320 m. (1,050 ft.). Max. beam no restriction. Max. SDWT – 135,000 tonnes, subject to review during wet season, i.e. May to October. Max. draft, see "Restrictions", draft may be reduced due to silting (mud and sand shifting, caused by current).

Offshore Terminal: Min. SDWT 45,000 tonnes. Max. SDWT 320,000 tonnes. Max. length no restriction. Max. beam no restriction. Max. Draft 22.8 m. (75 ft.).

Also see "Port Harcourt" – "Report".

HEALTH: "Q" flag to be shown on arrival, except if from another Nigerian port, yellow fever inoculations compulsory. In case of suspected disease on board, advance notice to Agent advisable. Valid Yellow Fever Certificates to be produced for all crew members. Also Derat Exemption Certificate.

RADIO: Original ETA messages should be sent via Lagos Radio to the Lagos Agents at least 72 hours before arrival. 48 hours before arrival at the Fairway Buoy a further ETA message should be sent to Lagos Agents. When approaching or anchored at the Fairway Buoy vessels should contact Bonny Terminal on Channel 8 and Bonny Harbour Master on Channel 14 when bound for the Bonny Inshore Berths passing date and time of arrival, thereafter keeping watch on VHF Channels 8 and 16. Failure to comply with the requirements for ETA messages may result in delays in berthing the ship.

ETA by Radio for all Ships: In view of communication difficulties with our terminals at Bonny and Forcados and in order to avoid undue delays, in addition to normal W/T advices to Agents and Shell Lagos we wish to inform you about the possibility of passing to us your ETA via M.V. "Oil Maintainer", call sign GYEU.

The "Oil Maintainer" (Golf Yankee Echo Uniform) keeps a daily listening watch on R/T on following frequencies and times:

From 1600 to 1620 hrs. local time 16587.1 kHz (Tx/Rx)
From 1620 to 1640 hrs. local time 12435.4 kHz (Tx/Rx)
From 1640 to 1700 hrs. local time 8294.2 kHz (Tx/Rx)

Please advise 72 hours before arrival Bonny:

1. Vessel's Name.
2. ETA.
3. To load .... tons .... grade.
4. Last Port.
5. First Nigerian port to load.
6. Any other Nigerian ports to load.
7. Name of Shipping Agency.
8. Next discharge port.

The "Oil Maintainer" will acknowledge only, and further calls are not required unless ETA changes by 2 hours or more.

VHF: NPA Bonny Harbour Master – Channels 14 and 16. Bonny Terminal – Channels 8, 16 and 10.

Special Regulations: It is essential for ships proceeding to inshore berths to pass time of arrival on VHF Channel 14 as soon as possible on arrival off Fairway Buoy.

Also see "Radio".

Shipmaster's Report: 1987.

The following are alterations to VHF Channels at Bonny Offshore Terminal.

Channel 10 – Bonny Offshore Terminal and Bonny Offshore Pilot.
Channel 8 – Shell Bonny.
Channel 14 – Bonny Signal Station.

Bonny Signal Station must be called before arrival/departure giving all usual information on ship's particulars, cargo information required when loaded, voyage details, etc.

TUGS: None available.

BERTHING: *Inshore Terminal:* There are 3 berths (CBMs) designated A, B and C, from upstream. A and C consisting of 5 buoys (1 astern, 1 on each quarter, 1 ahead and 1 on the inshore bow). A and C are flood tide berths. B is ebb and flood tide berth consisting of 6 buoys, the 6th buoy is on the offshore bow or quarter depending on which direction the ship is berthed.

Tankers berth on the flood tide (or ebb at berth B) using the offshore ship's anchor as an additional mooring point. Ships moor by means of 40 mm. wires (provided by the Terminal). One 40 mm. wire is picked up from each of the buoys and ship's ropes are not normally used. Mooring is carried out by ship's crew; and care must be taken to ensure that the mooring wires are laid out in a seamanlike manner to prevent the formation of runs and kinks. Mooring wires must not be kept on tension winches, but stoppered off by means of Carpenter's stoppers provided by the Terminal, and then "turned up" on the bitts. Two men from the Terminal are put on board the vessel to assist the ship's crew to position and set up the Carpenter's stoppers.

Vessels must be equipped with hose handling derricks with a SWL of not less than 5 tonnes.

Vessels must arrive with clean ballast.

Load-on-top system operates at Bonny. Slops cannot be accepted ashore. Maximum loading rate: 5,000 t.p.h.

Grades handled: both light and medium crudes.

Offshore Terminal: 2 SBMs fitted with 2 OCIMF standard 15 in. nylon moorings and 1 hose string terminating in 2×16 in. diameter end hoses.

No. 1 SBM is S.S.W. of the Platform. No. 2 SBM is S.S.E. of the Platform and they are designated Bonny West and Bonny East respectively.

Berthing effected under guidance of Berthing Master and assistant who both remain on board throughout loading operations. Accommodation for both to be provided. Whilst berthed a mooring rope must be ready on the poop deck so that the mooring launch (line boat) may, in the event of the vessel riding up on the SBM, make fast and tow to re-align vessel.

Vessels must be equipped with hose handling derricks with a capacity of not less than 10 tonnes.

Vessels must arrive with clean ballast.

Load-on-top system operates at Bonny. Slops cannot be accepted ashore. Max. loading rate: 6,000 t.p.h. Grades handled: Bonny light crude.

HOSES: *Inshore Terminal:* (Amidships). Vessels should endeavour to present 2×12 in. diameter 150 ASA connections on the port side of the vessel when berthing at A and C berths. On B berth 2×12 in. 150 ASA connections should be provided on the port or starboard sides of the vessel – dependent on whether the vessel is berthing on ebb or flood tides. Vessel's hose handling derrick to be rigged and plumbed overside. Hoses will be connected by shore labour, but winchmen must be supplied to operate the ship's lifting gear. The derrick runner must be equipped with a suitable hook. The estimated weight of each hose string at berths A and C, when lifting with the ship in light condition is between 3 tonnes and 5 tonnes. Ships fitted with only 5 tonne derricks should exercise care when lifting to avoid shock loads. On "B" the estimated lifting weight is between 5 tons and 7 tons.

Weight of Hoses: The following table gives the approximate weights of hose strings in tonnes (including fittings, floats and pick-up buoy) with all hoses full of crude oil S.G. 0.850. The assumed total lift is 7.5 m. (25 ft.) above deck level, with the tanker on light draft.

Size of Tanker *d.w.t.*	*12 in. I.D. Hoses* *tonnes*
100,000	5.1
70,000	4.9
50,000	4.7
35,000	4.5
18,000	4.2

Offshore Terminal: Port or starboard side amidships (dependent on which SBM is used). Vessels should endeavour to present 2×16 in. standard 150 ASA connections on arrival. Ship's crew are required to connect and disconnect the hoses under the advice of the Berthing Master and/or his assistant. A derrick SWL at least 10 tonnes must be rigged ready on both port and starboard sides and plumbed clear of the side. Derrick runner must be equipped with suitable hook.

Weight of Hoses: The following table gives the approximate weights of hose strings in tonnes (including fittings, floats and pick-up buoy) with all hoses full of crude oil S.G. 0.850. The assumed total lift is 7.5 m. (25 ft.) above deck level, with the tanker on light draft.

Size of Tanker *d.w.t.*	*16 in. I.D. Hoses* *tonnes*
500,000	11.4
330,000	9.4
270,000	9.1
200,000	8.7
100,000	7.5
70,000	7.1

SHORE LINE SYSTEM: *Inshore Terminal:* Crude oil is loaded at berths A and C via 32 in. submarine lines and 2 strings of flexible hoses consisting of 6 lengths of 12 in. hose and 5 lengths of 12 in. hose respectively.

At Berth B, loading is via a 28 in. submarine line and 2 strings of 12 in. flexible hose, each consisting of 7 hose lengths. Reducers are made available by the Terminal on request.

Offshore Terminal: Vessels load through SBM from shore through a 48 in. diameter line, thence through a 24 in. diameter floating hose which is terminated by a "Y" piece and two 16 in. diameter hose tails which connect to the ship's manifold. Loading rates up to 6,000 t.p.h. may be expected. The 48 in. submarine loading line from the Terminal is some 20 miles in length, therefore great care must be exercised during loading when ship's valves are manipulated to avoid pressure surges. Pressure recorders are normally fitted at the spool piece between ship's manifold and tail end of the hose string to monitor pressure changes generated on board the vessel.

BALLAST: No facilities for dirty ballast, no tank cleaning facilities.

MEDICAL: Hospital at Bonny.

DENSITY: *Inshore Terminal:* 1020 at HW. 1015 at LW during rainy season.

Offshore Terminal: Salt.

FRESH WATER: Available by barge at rate of 15 t.p.h. 48 hours' advance notice required as barge comes from Port Harcourt.

FUEL: Available only by barge from Port Harcourt.

WATCHMEN: Whilst berthed at the SBM a security watch must be kept on the forecastle head by member(s) of the ship's crew throughout the hours of darkness, to raise the alarm and advise the Berthing Master on the approach of local small craft. Instances have occured at Nigerian offshore terminals where a nylon mooring rope has been cut and stolen with the vessel in the berth. The Berthing Master should also be advised in the event that the vessel rides up to the SBM. Also see "Notice" and "Piracy".

CUSTOMS ALLOWANCES: 200 cigarettes per man per 7 days. 1 bottle of wine or 1 bottle of spirits per officer per 7 days.

IDENTIFICATION CARDS: Crew to carry passport or seaman's book whilst ashore.

CONSULS: Nil.

REPAIRS: Nil. See "General".

REPATRIATION: Possible via Port Harcourt and Lagos.

AIRPORT: 28 miles by river, to Port Harcourt, then 30 km. by road, flights twice daily to Lagos, 5 international flights per week to London, Rome and Amsterdam.

TIME: GMT plus 1 hour, no change.

POLICE/AMBULANCE/FIRE: Contact via Harbour Master, or Shell on VHF Channel 8.

SHORE LEAVE: Not permitted.

GENERAL: Accommodation ladder must be rigged – used in conjunction with pilot ladder at offshore terminal – and for direct access in inshore terminal.

Limited medical assistance available but in extreme emergencies only. Treatment of minor ailments and vaccinations, etc. is under no circumstances available. It may be possible in the event of an accident to obtain medical advice.

Pollution of the sea by dirty ballast, bilge discharge or any other means will result in heavy fines, or in severe cases, imprisonment.

Any attempt on the part of the boarding officers to persuade the Master to supply more than normal representation should be resisted. In the event of any problem arising over such a matter full details should be *reported to the Agent.*

Nigerian flag to be flown.

Air letter forms are not acceptable unless with Nigerian stamps.

Delays: Inshore berths: None if the channel buoys are lit. Otherwise, only daylight pilotage.

Offshore berths: Worst weather period June–September when heavy swell may be encountered.

Immobilisation of engines: Not permitted at the inshore berths. Not permitted at SBMs. Not advised at sea anchorage due to indifferent holding ground and the existence of obstructions and foul ground in the vicinity.

Loading: Ships are required to load cargo as rapidly as possible by day and night in accordance with the terms of their charter parties.

This means that ships are expected to load as fast as the Company can supply or they can safely receive. The question of how fast a ship can load is the responsibility of the Master having regard to his Owner's instructions, the charter party and the experience of ship's personnel. However, as further guidance and in absence of any instructions to the contrary, ships are accepted by the Company on the understanding that ships will be able to accept a bulk loading rate per hour of not less than ten per cent of the summer deadweight of the vessel.

At offshore berth the Berthing Master acts as Loading Master during loading operations and is provided with walkie-talkie radio to ensure adequate ship/shore communication.

Loading Masters visit each vessel, and Masters are requested to co-operate in the completion of the Company's Tanker Port Performance Time Sheet by ship and shore personnel. Only crude oil is handled at Company's terminals, loading temperatures and specific gravities of the two grades of crude, Bonny Light and Bonny Medium are reasonably constant and are approximately:

Bonny Light	0.8365 at loading temperature
Bonny Medium	0.9044 at loading temperature

Early Departure Procedure: There is no Early Departure Procedure at either Bonny Inshore or Offshore Terminals.

Documents are brought to the ship for signature after completion at loading.

Customs and Agency representatives will normally board vessels before commencement of loading. Depending on other commitments of the offshore launch, it may be necessary to request Masters to provide temporary accommodation for these officials.

NOTICE: *Special Notice to all Masters:*

There have been recent cases of serious theft from vessels in the Port of Bonny. It appears that the intruders who invariably gain access to the vessel via the anchor hawse pipe have on occasions been armed.

In your own interest we would advise you to arrange to have a strong jet of water running down the hawsepipe of the anchor in use. The other anchor should be stowed in the pipe and not left hanging off. In addition, you should implement the normal standard precautions of augmenting deck watches and arranging over-board floodlights where possible. Jets of water around the stern will also deter intruders from gaining access by other means.

All the assaults on ships have been made from canoes; therefore we suggest that traders and other persons in canoes be discouraged from coming close to your vessel.

Should unauthorised persons gain access to your vessel, instruct Shell Company Radio Operator to contact the terminal who in turn will contact the local police. Also see "Piracy".

PIRACY: February 1986: An act of piracy took place at Bonny Offshore in February 1986. About 8-10 pirates were involved, they boarded the vessel via the hawse pipe. A seaman was bound hand and foot and guarded while the other pirates went to the ship's stores. It is suggested that Shipowners and Operators urge their ships' crews to take extra care when in this vicinity.

April 1987: Vessel attacked by 6 pirates at night whilst waiting to load.

August 1987: A vessel lying 15 miles South of Bonny Fairway Buoy was boarded by 30 armed men who attacked and seriously injured 2 crewmen and made off with some walkie talkies and the hawsers.

February 1988: Whilst waiting at anchor at Bonny River Fairway Buoy to proceed to Port Harcourt, vessel was boarded by a gang of about 10 pirates who broke the locks/chains to the Fore Peak strong room. The gang left the vessel when discovered by the vessel's watchmen who sounded the ship's whistle and flashed the searchlights.

Notice issued by N.P.A. at Port Harcourt:

Sea Piracy at Bonny Fairway Buoy: While the Nigerian Navy is geared to combat the ugly situation of piracy on board deep sea vessels anchored offshore of Bonny awaiting berth, it is recommended that the Masters of such vessels should screen all the visitors accompanying Customs/Immigration and Security Agents and unscrupulous men be kept out of the vessels.

As a precaution against undesirables having easy access to the vessels, it is also recommended that the Pilot ladder is hoisted back aboard the vessel after use and not left hanging over the ship's side.

SHIPMASTER'S REPORT: January 1983.

Pilot on arrival and departure requires 4 copies NPA Master's Declaration.

Immigration liable to check all Discharge Books.

Health Doctor liable to check all vaccination dates in books.

Shore boat keeps a constant check on ballast discharge.

According to Customs no 'Ladies' are allowed to visit and if any found on board then Customs are liable to rummage vessel.

There was no night navigation in channel as buoys were unlit.

Vessels normally unberth at half tide and if waiting for daylight channel navigation, will anchor in the Prohibited Anchorage Area off berths.

SHIPMASTER'S REPORT: November 1983.

Documents: Also required:

3 copies Kroo Boy List (People under 18 years.)

3 copies Currency List.

Pilotage: Inshore Terminals: Pilot boards at Buoy No. 29 (former Buoy "N") Nomination of buoys changed and now green buoys at starboard side with odd numbers and red buoys at port side with even numbers in white.

AUTHORITY: Nigerian Ports Authority.

Operator: The Shell Petroleum Development Company of Nigeria Ltd., Freeman House, 21-22 Marina, Private Mail Bag 2418, Lagos, Nigeria. *Tel:* 601600 (17 lines), 601820 (9 lines). *Telex:* 21235. *Cables:* "Shell, Lagos". *Contact:* Marine Co-ordinator.

BRASS TERMINAL: 04.04 N. 06.17 E. (See Plan)

LOCATION: Brass Terminal is an open mooring located 13.5 miles off the South Nigerian coast at: Lat. 4° 04′ N., Long. 6° 17′ 10″ E.

Chart of the area is BA 1863.

Brass Terminal operates on a 24 hours, seven days a week basis, including public holidays.

PORT LIMITS: The limit within which a vessel is considered arrived and to be within operational waters is 3 miles seaward of the BOP.

FLAG: All vessels are required to fly the Nigerian Flag on the foremast during daylight hours.

GENERAL:

Description: Brass Terminal consists of 2 SBMs. These buoys serve as a single mooring point for a tanker and enables it to freely rotate a full 360° angle while handling cargo. Each ground mooring consists of 6 sets of radial chains, each set is attached to an anchor pile. The 6 mooring legs are made of 3.25 in. diameter chain. Water depth is approximately 90 ft. Two strings of floating hoses connect each buoy with the header at the end of the sea line. The system is built to provide a safe mooring for tankers up to 300,000 d.w.t. under the following environmental conditions:

(a) Max. wind speed of 30 knots and max. significant wave height of 9 ft.

(b) Max. wind speed of 20 knots and max. significant wave height of 10 ft.

(c) Max. wind speed of 10 knots and max. significant wave height of 11 ft.

However maximum overall length should be 1,200 ft., and the minimum 720 ft.

Signals: Each single buoy is equipped with:

Radio Beacon – Racon (the ship's radar must operate at X band 3 cm., 9300 to 9500 MHz and with horizontally polarized radiation. The controls for radar gain, sea clutter and differentiator FTC should be set at normal position).

NOTICE OF READINESS: Notice of Readiness will be tendered on arrival provided that vessel is ready to load in all respects and after Free Pratique has been granted. Lay time will commence 6 hours after acceptance of Notice of Readiness for vessels arriving within agreed ETA range or when loading commences whichever is earlier.

DOCUMENTS: To be submitted on arrival:

Maritime Declaration of Health
4 copies Vaccination List
8 copies Arrival Crew List
6 copies port of call list —for the past 6 weeks or 3 previous ports with dates of Arrivals/Departures)
6 copies Passenger List
6 copies Animal or Livestock List
6 copies Arms and Ammunitions List
4 copies Store List
4 copies Crew Declaration List signed by all crew members
Customs Clearance for last Port of Call.

The Naval Office in charge of the task force on crude oil liftings at Brass Terminal has advised that all tankers calling at Brass from other Nigerian Ports must obtain, in addition to the normal Customs Clearance, a Health Clearance Certificate from the first Port of Call.

PILOTAGE: The Mooring Master will board the tanker in the anchorage area and all manoeuvring of ships within the Terminal area shall be done only in accordance with advice of the Mooring Master subject to the understanding that in all cases and circumstances the Master of the vessel being manoeuvred shall remain solely responsible for the safety and proper manoeuvring of the vessel and possible damage to the Terminal or service boats.

The Berthing Master and 3 local assistants remain on board throughout loading operations and accommodation to be provided.

ANCHORAGE: Vessels awaiting the Mooring Master should anchor in a position approximately 2.5 miles N.E. of the terminal. Depth of anchorage area range from 15 fathoms to 16 fathoms. Holding ground is fairly good.

Un-nominated Vessels: Tankerships arriving at the terminal un-nominated, that is, not yet formally programmed to load at Brass River for that current month or vessels standing-by awaiting instructions from Owners/Charterers or under-going repairs are advised to anchor outside the terminal operational waters as given in "Port Limits".

APPROACHES: *Agbara Field:* One drilling Platform, has been installed in position 03° 56.5′ N., 06° 23.8′ E. (about 10.12 miles S.E. of the NAOC BOP). This structure is equipped with necessary navigational aids including warning lights and fog horn.

HEALTH: Masters are advised, for avoidance of delays, to have valid cholera and yellow fever papers before departure last port of call. However, medical and health requirements are to be included in notices of ETA transmitted to Agents. Such information is also to be confirmed by VHF Radio immediately on arrival to the port.

RADIO: VHF radio telephone Channel 16 (156.8 MHz) is in use 24 hours a day as a stand-by Channel. A not too busy Channel (6, 8, 10, 12 or 14) will be used as working channel by the Marine Office/Berthing Master acting as Loading Master during Mooring/Loading operations. They are provided with walkie talkie radios to ensure adequate ship/shore communications.

Cablegrammes: Cables to Brass Terminal may be sent to LAGOS RADIO and addressed to AGIPOIL LAGOS and FREIGHT LAGOS.

Acceptance Procedures: The following vessels are not permitted to enter Nigerian territorial waters:

(a) Any vessel which is owned directly or through subsidiaries or chartered or managed by companies or persons in South Africa, Namibia or Israel, or is registered in any of these countries.

(b) Any vessel which has called at a port in South Africa, Namibia or Israel during a period of 6 weeks immediately proceeding her arrival off any of the Nigerian Terminals (a port call includes the calling off or near a port for the purpose of receiving services from the shore by helicopter or launch boat).

(c) Any vessel which has as officers, crew, passengers or supernumeries who are nationals or residents of South Africa, Namibia and Israel.

All vessels must give the Company at least 5 days' notice of arrival at Brass; this ETA to be updated 72, 48 and 24 hours prior to arrival by cablegramme sent via Lagos Radio and addressed to: AGIPOIL LAGOS and FREIGHT LAGOS.

The messages should specify cargo requirement, ANSI diameter of flanges used for loading connections, safe working load of port derrick, advise whether a Smit's towing bracket is available, last port of call and final (discharging) port, sickness on board if any.

Vessels should contact the Brass Marine Office by VHF as soon as possible.

Upon arrival of vessel off the Terminal, Government Authorities shall check to ensure that the above mentioned provisions, set in points (a), (b) and (c), have been adhered to. Any infringement of said provisions may have serious consequences for the Master, Owner or Charterer of the vessel.

Shipping Agents: The only Shipping Agent – Alraine Agency, operating in the port for and on behalf of other shipping Agents has been provided with marine VHF Radio set. Masters of vessels when within range can contact the Agent on Channel 16. Advance report of ETA to the port must be made available to the Agent through their office in Lagos: Mail address – 26 Creek Road, Apapa., P.O.Box 2206, LAGOS; Telex 21244; Freight – Lagos.

BERTHING:

Mooring: *Fore:* Each single buoy mooring is equipped with a mooring line system. The chain is fitted with a special open link which can be used if the vessel is equipped with Smit's bracket.

Aft: Whilst berthed, mooring rope must be ready on the poop deck so that the mooring launch (line boat) may in the event of the vessel riding up on the SBM make fast and tow to realign vessel. Whilst berthed at an SBM a security watch must be kept on the forecastle head by member(s) of the ship's crew throughout the hours of darkness to raise the alarm and advise the Berthing Master on the approach of any local small craft.

Instances have occurred at Nigerian offshore Terminals where a nylon mooring rope has been cut and stolen with the vessel in the berth.

LOADING: The line boat will tow the end of the floating hoses to the point below the tanker's port cargo manifold. The safe working load of the tanker's port derrick should be at least 7 tons.

Loading Operations can commence only after the Loading Permit is issued by the Custom Authorities, NNPC inspectorate and Navy Commander.

Ships are requested to load cargo as rapidly as possible by day and night in accordance with the terms of their Charter Party.

Ships are expected and nominations of vessels are accepted by NAOC on the understanding that ships will be able to accept a bulk loading rate per hour of not less than 10% of the Summer d.w.t. of the vessel or at the optimum terminal loading rate, whichever is lower.

It is extremely dangerous to close ship's valves against the oil stream as such operation may create excessive pressure in terminal piping and hoses.

Should damage result from failure to observe this precaution the Master of the vessel will be held responsible.

During the loading operations the following signals shall be displayed: International Code Flag "B" during daylight. By night a red light, visible all round the horizon at a distance of at least 2 miles.

Brass Blend crude oil loading temperature is reasonably constant as well as API gravity at approximately:

Brass Blend 85°F 40.00 API R.V.P. 10.00 (approx.)

The approximate loading rate is 5,000 t.p.h.

Also see "General" before first port.

POLLUTION: Pollution of rivers and beaches by oil is a serious matter. The Mooring Master shall inspect tanker's ballast so that there will be no chance of even a small amount of pollution when the ballast is pumped out, thereby lessening any possibility of infringement of the pollution restrictions envisaged by Nigerian law.

Pollution of the sea by dirty ballast, bilge discharge or any other means will result in heavy fines or in severe cases, imprisonment.

MEDICAL: Although medical assistance is normally not available locally, Agency will provide medical assistance to the tankers' personnel when required in advance. In case of emergency the Terminal medical facilities will be at tanker's disposal.

FUEL: Not available.

FRESH WATER: Available.

REPAIRS: There are no facilities available in the Terminal for vessel repairs. However, in case of necessity contact Agent.

REPATRIATION: Permitted only in cases of emergency and only if the person concerned holds the necessary documents, i.e. Yellow Fever Certificates.

SHORE LEAVE: Crew members cannot leave the vessel at Brass except in cases of emergency.

MAIL: Ship's mail and personal mail will be handed through vessel's Agent.

SAFETY:

Smoking, lighters, matches: Smoking is prohibited on board during loading operations except those areas in the accommodation jointly agreed to by the Master and the Terminal Representative. Personnel on board the vessel other than in the accepted areas, must not carry lighters or matches.

Portable equipment: Any electrical equipment which is not wholly within an approved explosion proof container, an approved air pressurised container or any equipment which is not intrinsically safe, must be disconnected from the power supply.

Hand Torches: Only those hand torches provided with a Certificate of Approval delivered by a recognised authority are allowed.

Radio transmitters, radar: The main transmitting aerials must be grounded. VHF apparatus are allowed provided their output power is not higher than one watt.

Portable radio transmitter must be of approved type for safe operation in flammable gas areas.

Radar must be switched off.

Doors and portholes: Amidship doors and portholes are to be kept closed during loading operations except for entering or leaving accommodation.

Doors and portholes on the fore-end of the after accommodation must be kept closed.

Access to the after accommodation may be from the stern or from the side doors.

Air conditioning: Central air-conditioning is allowed but air intakes must be shut off and full circulation must be adopted.

All window type coolers must be disconnected unless the units are safe to operate in flammable gas areas (as certified by a recognized authority).

Ventilators: Should any doubt arise that flammable gases may enter the area, ventilators must be completely closed.

Galley: Gas, oil or coal fires are prohibited. Only approved flame-proof electrical equipment or steam heated galleys are permitted.

Lights: During loading operations vapour-proof electric lights only are allowed.

Moored vessels discharging ballast or loading cargo during period of darkness will brilliantly illuminate the sea around the ship so that any pollution can be readily observed.

Cargo and unused connections: A deck officer is also requested to inspect cargo connections and hoses to ensure that they are in good condition.

All unused connections must be blanked.

Cargo tanks: All tank lids are to be kept closed. The method of venting requested by the terminal is the closed system.

Should the ship not be equipped with the closed venting system, tank portholes will be opened for intermittent periods but such portholes will be protected with flame arresters.

Main engines: The ship's engines must remain ready for immediate use in case of emergency. Therefore no engine repairs or overhauling are allowed.

Boilers: Blowing of boiler tubes is forbidden whilst moored.

Vessel maintenance: During the time a vessel is moored at Brass Terminal, use of tools which may cause sparks or fire is forbidden in dangerous areas.

Fire fighting: The Master of the vessel must keep a continuous fire watch during loading operations. All fire equipment must remain ready for immediate use.

Unsafe operations: The Master of the vessel will remain solely responsible for damage of any sort that may occur and which is due in whole or in part to infringement of aforesaid safety regulations.

Lifebuoys: Lifebuoys should be available in loading manifold area and at the entry and exit from ship, e.g. at the pilot ladder.

Scuppers: All scuppers must be plugged with leak-proof plugs, and remain plugged until all hoses are disconnected.

WEATHER: *Climate:* The weather is generally fine from November to April, but it is unfavourable during the remaining period of the year owing to the high humidity degree. The temperature varies comparatively little from 70°F to 100°F and averages over 80°F.

Winds: Most winds are from South-Westerly direction with a normal speed range 5 to 18 knots.

Tides: The tidal mean range is 4.6 ft. Main values (referred to chart datum) are as follows:

Mean LW spring level	0.2 ft.
Mean HW spring level	6.1 ft.
Lowest LW level	0.6 ft.
Highest HW level	7.1 ft.

Currents: Maximum total strength of the current (tidal + density + wind drift) is about three knots.

Direction: North-North Westerly for approximately 75% of the year, South-South Easterly for the remainder. The currents often reverse direction very quickly causing the tanker to swing heavily at the buoy.

SHIPMASTER'S REPORT: 1976.

Documents:

1 Maritime Declaration of Health.
2 Vaccinations Lists.
6 Crew Lists.
4 Passengers Lists.
2 Stores Lists.
2 Personal Effects Lists.
4 Arms and Ammunitions Declarations.
4 Lists of Animals and Birds.
4 Lists of Ports of Call (last 6 weeks).
Clearance from last port.

Approaches: Coast line is well defined on high definition radar at a distance of 12 miles to 15 miles and sounding machine will assist efficiently while approaching.

Terminal consists of a central platform showing 2 flashing lights (one red and one white) – letter "U".

Two SBMs: No. 1 situated 1 mile East of the platform is equipped with a Racon (letter "A"). No. 2 situated 1 mile West of the platform.

Pilotage: Berthing Master will board the vessel 2.5 miles North East of the platform. Contact "Brass Terminal" on VHF Channel 16 for berthing instructions and immediately on anchoring to ensure that vessel's arrival is recorded.

Anchorage: 2.5 miles N.E. of the platform.

Restrictions: Vessels berth in daylight hours only.

Max. Size: About 250,000 d.w.t.

Pratique: Agent, Health and Customs Officers board at same time as Berthing Master.

Radio: ETA to be given via Lagos Radio, 120, 72, 48 and 24 hours before arrival at the Terminal anchorage.

Tugs: None available.

Berthing: Effected under the guidance of Berthing Master assisted by a party of 4 Nigerian people and ship's crew.

Whilst berthed a mooring rope must be ready on the poop deck so that the mooring launch, in the event of the vessel riding up on the SBM, may make fast and tow to realign the vessel.

Each SBM is fitted with 2 nylon mooring ropes connected on a single chain and two hose strings with 16 in. end hoses. Position of hose connection: amidships port side. Vessel should endeavour to present on arrival 2×16 in. connections on port side. A derrick of 7 to 10 tons SWL with a suitable hook must be rigged ready on port side.

Medical: No facilities but assistance may be given on an emergency basis.

Fuel: Not available.

Fresh Water: Not available.

Density: About 1025.

Repatriation: No crew changes possible.

Shore Leave: Not permitted.

General: Crude oil handled is: Light Nigerian Crude API=44.0. Temperature about sea temperature, R.V.P.=10.5. Two of the four Nigerian crew stay on the forecastle head and maintain security watch throughout loading operations. Accommodation must be provided for Berthing Master and 2 men. Accommodation ladder is not required. Pilot ladder or pilot hoist are more suitable because of the swell. Immobilisation of engine is not permitted at SBMs.

Early Departure Procedure: Masters are required to sign all documents in blank. On completion of loading, seals are controlled by customs officer and Agents complete Master's and Consignee's copies of documents whilst ship is disconnecting and leaving berth.

SHIPMASTER'S REPORT: May 1980.
Documents: 5 each of Passengers or Nil passengers, Nil stowaways, Nil distressed seamen, Nil birds and animals, Narcotics List, Ports of Call, Clearance Last Port and 3 copies Deviation Cable.
Customs: All lengths of cloth to be placed under seal.

AUTHORITY: *Operator:* Nigerian AGIP Oil Co. Ltd. Head Office, 9/11 MacCarthy Street, Lagos. P.O.Box 1268, Lagos. *Tel:* 600880/9 (10 lines) *Cables:* Agipoil – Lagos. *Telex:* 21268

District, New Base Mile 4 – Port Harcourt, P.O.Box 923. *Tel:* 300400/20 (21 lines). *Cables:* Agipoil – Port Harcourt.

AGENT: Alraine (Nigeria) Ltd., 26 Creek Road, Apapa. P.O.Box 265, Apapa and P.O.Box 2206, Lagos. Tel: 47770. Telex 21 244. Cables: "Freight Lagos".

BURUTU: 05.21 N. 05.31 E. (See Plan)

No commercial vessels are today using the Port of Burutu. Future developments include the construction of a major ship repair facility with graving dock, capacity 150,000 d.w.t.

CALABAR: (See Plan)
Old Port: 04.58 N. 08.17 E.
New Port: 05.04 N. 08.16 E.

LOCATION: New Calabar Port (Lat. 05° 04′ N., Long. 08° 17′ E.) is situated about 84 km. from the Fairway Buoy in Calabar River going through a well marked channel by 58 buoys (IALA System). The channel is dredged to 7 m. chart datum with 150 m. width. Old Port is 74 km. from Fairway Buoy.
DOCUMENTS:
Nigerian Ports Authority:
7 copies of Manifest.
1 SEN (Ship Entry Notice).
Agent to pay in advance for ship.
Clearing Agent to pay wharfage and wharfinger.
4 Stowage Plans.
4 Hatch Lists.
3 Hazardous Cargo Lists.
4 Container Lists.
4 Master's Declarations. (2 inward, 2 outward)
5 Passenger Lists.
Customs:
2 Crew Lists.
2 Stores List.
List of Ports of Call.
1 Animals List.
1 Arms and Ammunition List.
1 Passenger List.
1 Crew Personnel Effects List.
Quarantine:
2 Crew List.
1 Inoculation List.
2 Derat Certificates.
1 Clearance from Last Port of Call.
1 Stores List.
Vaccination Certificates.
PILOTAGE: Compulsory pilotage from anchorage area which is between Buoys Nos. 24 and 25 (near Parrot Island). Ship calls Calabar Port Control on VHF Channel 16 asking for advice from 0600 – 1800 hrs. Ship will be advised when the Pilot will board her, normally it takes about 1.5 hours for the Pilot to reach the ship. There is no Pilot vessel but a pilot cutter flying "H" flag. The vessel is normally allowed to enter after the Agent books a Pilot, and dues are paid,.
ANCHORAGES: The area between Buoy Nos. 24 and 25 is a good area for anchorage. The depth is about 7 m. – 8 m., with 3 – 4 shackles the ship holds well. There is a deeper area called "Parrot Deep" which varies between 10 m. – 11 m. chart datum.
RESTRICTIONS: When a vessel arrives at the Fairway Buoy Lat. 04° 18′ 31.7″ N., Long. 08° 14′ 51.3″ E., which can be passed on either side, the vessel can call "Calabar Port Control" or "Harbour Master's Office" on VHF Channel 16 and if no contact made, vessel may proceed to Parrot Island. No night navigation in channel.
MAX. SIZE: Length 170 m. and draft 7 m. at HW. Old Port: LOA – 170 m.
RADIO/VHF: No radio service in Calabar at present. "Port Control" operates from 0600 – 1800 hrs. on VHF Channel 16. Steps are in hand to extend the service for 24 hours and to establish S.S.B. 2182 kHz.
RADAR: No radar service.
TUGS: 4 small tugs of 240 h.p. 1 manoeuvring tug of 2,400 h.p. Ship's lines to be used if towing, at a charge.
STEVEDORES: Supplied on request of Agent round the clock if required.
MEDICAL: There is private clinic as well as Government Hospitals. Swiss Air Ambulance also available for repatriation. Ikpeme Clinic at 18/20 Ambo Street in Calabar is very modern.

BERTHING: Old Port:
Ashland Oil Co. – Mellerio Wharf (Private): Length 51 m., max. draft 8 m. Can accommodate vessels up to 150 m. LOA.
Ashland Oil Co. – Jackson Wharf (Private): Length 27 m., max. draft 8 m. Can accommodate vessels up to 100 m. LOA.
Calcemco Wharf (Private): Jetty 75 m. but the depth is affected at the moment, and draft is restricted to 4 m. Can accommodate vessels up to 160 m. LOA.
Calabar Shipping Lines – MacIver Jetty (Private): 55 m. long, max. draft 5.5 m. Used by lighters.
New Port: Length of berth 860 m., can accommodate 4 – 5 vessels of 150 m. LOA with a depth alongside of 9 m. Distance between bollards 30 m.
Pool: 11 mooring buoys can accommodate 10 vessels, length between buoys varies from 220 m. to 130 m.
CARGO FACILITIES: 3 transit sheds, each 175 m. long by 40 m. wide. 2 warehouses of the same dimensions, fire station, fully equipped with up-to-date fire fighting appliances.
Cargo Equipment: 19 forklift trucks, 3 – 6 tons capacity. 6 mobile cranes, 25 tons capacity. 20 trailers of 40 – 60 tons capacity. 6 Mafi tractors. 3 freight lifters of 25 tonnes and 6 freight lifters of 13 tonnes. 6 Portal cranes 10 – 25 tons capacity. 2 tower cranes 36 tons capacity.

Modern Gear Store with new cargo handling gear including spreaders and wires for 20 ft. containers plus lorry and lifting gear. (Note: Shipping Companies should provide their own gear for heavy lifts and 40 ft. containers).
Barges and Pontoons: There are a number of barges and pontoons for seaward-side or mid-stream discharge – tonnages vary between 60 tons and 500 tons.
Container Areas:

A.	Pack I	5,500 sq.m.
B.	Pack II	4,000 sq.m.
C.	Pack III	4,000 sq.m. for empty containers only.

FRESH WATER: Can be supplied in the New Harbour. (2 water tanks, 2,400 litres each).
FUEL: Diesel oil can be supplied by motor tankers (30 tons each).
REPAIRS: Minor repairs only. Spares often in short supply.
WATCHMEN: Security men are compulsory and supplied by the Agent.
OPENING/CLOSING HATCHES: By crew.
REPATRIATION: A good air link from Calabar Airport to different places in the world via Port Harcourt, Lagos and Douala.
POLICE/AMBULANCE/FIRE: Contact Harbour Master and Agent.
CUSTOMS ALLOWANCES: See "Lagos".
IDENTIFICATION CARDS: See "Lagos".
SHORE LEAVE: See "Lagos".
DEVELOPMENTS: Steps in hand to bring the depth to 9 m. chart datum and to widen the channel.

SHIPMASTER'S REPORT: October 1986.
Re: "Buoyage System at Calabar River".

1. For a Vessel approaching Calabar Fairway from South it is very difficult to distinguish at night the Fairway Buoy, because of the density of platforms and pipes and also their dense illumination. On the other hand, for vessels approaching from Westwards (their draft permitting), it is easier sailing between the shoreline and the platforms determining their position by land and on their arrival at Fairway Buoy having a fix with the West Point. The Fairway Buoy lies near and S.E. of a platform the position of which is: Lat. 04° 21.70′ N., Long. 08° 14.80′ E.

Position of the Fairway Buoy: Lat. 04° 20.70′ N., Long. 08° 15.30′ E.

2. Because of the strong tidal currents prevailing in the area of the river's estuary, the lateral buoys constantly drift, and as a result of this, their charted positions are not to be relied upon and some of them do not even exist.

The following buoys were missing:
No. 1. Red.
No. 2. Red.
No. 3. Red.
No. 4. Red.
No. 5. Green.
No. 8.
No. 9.
No. 11.

3. The positions of the following buoys were altered as follows:
No. 6. Red. In position: Lat. 04° 27.38′ N., Long. 08° 20.82′ E.
No. 7. Green. In position: Lat. 04° 27.40′ N., Long. 08° 20.63′ E.
No. 13. Constantly drifts between the positions: Lat. 04° 32.17′ N., Long. 08° 23.18′ E. and Lat. 04° 32.27′ N., Long. 08° 23.08′ E.
No. 16. Red. In approx. position Lat. 04° 37.61′ N., Long. 08° 22.35′ E.
No. 17. In its position is now No. 14.

4. The following buoys were found in their correct positions:
No. 18 Red. Lat. 04° 40.45′ N., Long. 08° 21.75′ E.
No. 19A Green. Lat. 04° 40.55′ N., Long. 08° 21.90′ E.
No. 19 Green. Lat. 04° 41.92′ N., Long. 08° 21.32′ E.
No. 20 Red. Lat. 04° 41.85′ N., Long. 08° 21.20′ E.
No. 21 Green. Lat. 04° 43.90′ N., Long. 08° 20.55′ E.
No. 22 Red. Lat. 04° 44.70′ N., Long. 08° 20.11′ E.

From No. 22 buoy to Parrot Island the channel buoys are in their positions.

5. During the navigation from No. 19 buoy all the way through to Parrot Island anchorage, extreme caution is needed because of the floating tree trunks drifting outwards and inwards in the river following the current, of which only a small part is distinguishable above water.

6. Because of the doubtful positions of the buoys the safest way to navigate is determining the vessels' position by the river banks' line as shown on the radar. The following points are characteristically conspicuous on the radar screen especially with HW, all of them lying on the port side for inbound vessels:
1. West Point.
2. Okposo.
3. Tom Shot Point.

4. The edge of Red Cliff.
5. Jackdaw Point.
6. Sandy Point (on the starboard side).

AUTHORITY: Nigerian Ports Authority, Private Mail Bag: 1014, Calabar, Cross River State, Nigeria. *Managed By:* Port Manager – Tel: 221179, 225111 Office; 221192 House. Traffic Manager: Tel: 220189, 225112 Office; 221561 House. Asst. Chief Port Harbour Master – Tel: 221562 225113 Office; 222480 House. *Cables:* "Genports" Calabar.

AGENT: Intertrans (Nigeria) Ltd. P.O.Box 10, Calabar. Tel: 087-222-554. Telex: Via Lagos 21244. Attn: Calabar.

DEGEMA (Including Abonnema): 04.44 N. 06.46 E.

LOCATION: Degema and Abonnema are very close to each other on the Sonbreiro River and are divided by a Creek through which launches and small craft sail to Port Harcourt.

PILOTAGE: Compulsory through Boler Creek. Pilots embark at Bonny.

BERTHING: The ports are approached from Bonny via Boler Creek, which has a depth of 4.88 m. at HW. Anchorages for 3 vessels in harbour to load/discharge, max. draft 16 ft. (limited by depth of Boler Creek). Cargo is handled by lighters.

Bulk Oil Plants of Nigeria Ltd. operate a berth for the loading of bulk palm oil onto main line vessels.

AUTHORITY: Harbour Master, Port Harcourt.

ESCRAVOS: 05.30 N. 05.00 E. **(See Plan)**

DOCUMENTS: Required and brought out by Pilot:

4 Nigerian Ports Authority/Master's Declaration.
2 Customs and Excise (Form C 13).
4 Ship's Report (Gulf).
2 Requests for Service } on behalf of Agent.

An extra set of documents is put aboard for the vessel's next visit.

The sailing clearance will be completed after B/L figure of cargo loaded is available, and will be delivered to the ship before sailing.

Shipmaster's Report: November 1982.

Papers required:

1 Crew List.
2 Passenger or Nil Passenger Lists.
2 Animal Lists.
2 Narcotics Lists.
2 Arms & Ammunition Lists.
1 Stores List.
1 Crew Declaration.

Pilot gives Master a form for signing. This form is then sent ashore and Terminal will not start loading until they have received this form. It is advisable to obtain a receipt for this form from whoever takes it ashore.

In addition Master to sign two forms.

1. CERTIFICATE OF UNDERTAKING

As a result of excessive ship/shore difference of . . . . . . Long Tons, ship's figures higher, I, ... the Master of the above named vessel undertake to furnish you with out-turn figures at the port of discharge.

Signed . . . . Master.

2. In addition to the conditions of use of the Terminal Facilities (see Escravos Terminal Booklet – pp. 11 – 14 Loading Procedures and Responsibility of the Master) the tanker will be loaded under the direction and full responsibility of the ship's personnel with the co-operation of the Mooring Master acting as liaison for radio contacts between ships and Terminal.

Stoppage of loading at the completion of cargo will be ordered exclusively by the ship's Master or his delegate to the Mooring Master who will transmit the order to the Terminal.

Therefore it is understood that in no event the Gulf Oil Company (Nig.) Limited could be held liable for deadfreight incurred by the vessel and should the vessel require the Terminal to stop loading at the predetermined quantity, the vessel remains the sole responsibility for any difference occurring in cargo figures and subsequent deadfreight or overweight.

Please acknowledge receipt of this letter by signing the attached copies.

Signed . . . . Master.

PILOTAGE: Compulsory. Boarding area is in a position approximately 3 miles W.N.W. of the Berth Operations Platform. Also see "General".

Supervisor Pilot's Report: From my personal experience here at the Tank Farm, I can add that in poor visibility or when Tankers approaching this Terminal are having difficulties with their Radars, I am guiding them to proper anchorage using a small R.D.F. which is located at the local airport – Heliport in the Tank Farm and used by local aircraft traffic. The signal comes as "ES" (· ···) on 305 kHz and gives a good bearing from a distance of 30 miles. This is not an official Navigational Aid, but I have used it successfully for many years and besides, when you have nothing else in the area, this is a great help to obtain a line-position.

NAVIGATION AIDS: *Berth Operations Platform:* This is a conspicuous steel structure 85 ft. high (Position 05° 30′ 32″ N., 05° 00′ 19.5″ E.), between the berth and the shore. On top of this structure is a heliport, which at night is surrounded by red lights. In the event of a power failure a green intermittent light will be shown from one corner of the seaward side of the platform.

A RACON reflector is mounted on this platform for easy identification of the Gulf sea loading area. Radar transmission from the incoming vessel triggers the RACON Unit which responds with the Morse Code letter "G" (– – ·), followed by a solid tail. This signal is observed visually on the ship's radar screen and appears very close to the point where the radar echo of the berth operations platform itself should appear.

Berth No. 2 – SBM: Light: White. Light 6.0 secs., Eclipse 4.0 secs. Range 5 miles. Radar Reflector.

Foghorn: Electric air oscillator. Range 0.5 miles, blast every 15 secs. Blast 2.0 secs., silence 13.0 secs.

Berth No. 3 – SBM: Light: White. Light Fl. 10 secs. Range 4.5 miles. Radar Reflector.

Foghorn: Range 2 miles, blast two secs. on and 13 secs. off.

Charts: B.A. 1862 and B.A. 3304.

ANCHORAGE: Vessels required to anchor on arrival will anchor in position approx. 3 miles W.N.W. of the Berth Operations Platform, i.e. in a position Lat. 05° 31′ 00″ N., Long. 04° 57′ 30″ E., or as otherwise instructed.

On approaching the terminal, VHF contact can be established with the Mooring Master on Channel 10, 10A and 16 and the vessel will be advised of which berth has been nominated for her cargo. At the same time, the vessel will be advised where the Mooring Master will board. In cases where VHF contact is not made, the vessels will remain in the anchorage area until such time as contact is made by radio or the pilot boat. Vessels are advised to anchor only in the stated area due to the existence of submarine pipe-lines in other areas.

Anchorage is forbidden in the mooring area.

RESTRICTIONS: Mooring and unmooring operations will be undertaken by day and by night under normal weather conditions.

Notice of Readiness will be accepted by the Company representative on arrival providing that the ship is in all respects ready to load.

MAX. SIZE: The Escravos Terminal consists of two Single Buoy Mooring Berths Nos. 2 and 3 only, the conventional Sea Berth (Berth No. 1) having now been de-commissioned.

The location of the Sea Terminal Berth No. 2 (SBM) for vessels up to 120,000 d.w.t. is off the North of the Escravos River in a position Lat. 5° 30′ 37″ N., Long. 4° 59′ 25″ E., and has a minimum depth of water of 65 ft. at LWS.

Berth No. 3 (SBM) is situated 4.25 miles W.S.W. of No. 2 berth in a position Lat. 5° 29′ 29″ N., Long. 4° 55′ 54″ E., and will accommodate vessels up to 300,000 d.w.t. in a minimum depth of 100 ft. at LWS on a year round basis, but during the dry season, October to March, vessels up to 350,000 d.w.t. will be accommodated on receipt of their acceptability by the Terminal.

RADIO: Vessels bound for Escravos must advise their ETA to Gocon, Lagos, 72 hours and 24 hours before arrival – the message to contain the vessel's name, ETA, Master's name. A 24 hour watch is maintained on VHF Channel 16, in the Senior Mooring Master's Office, and ships are usually able to make contact on this Channel at a distance of 20 miles to 40 miles on the seaward side of the Berth Operations Platform. Channels 10 and 10A used for internal traffic and ship berthing operations. Also see "Anchorage".

MOORING: Before arrival at the pilot boarding area, it will be necessary to ensure that the following moorings are ready for use on arrival at the berths:

Forward: 2 mooring ropes on forecastle – buoyant lines if possible, e.g. polypropylene, on the forecastle head.

When the vessel is within reasonable distance of the buoy, 1 ship's line will be carried by the mooring launch to the floating buoy lines and secured to same, this line will then be heaved aboard. As the buoy rope comes clear of the water it will be noted that a chain is attached to it. This chain is to be secured to either a bow stopper or a towing bracket if fitted on the vessel otherwise terminal provided Pelikan hooks will be used, the latter being secured to a set of bitts on the vessel. This chain is to be secured in such a manner that the mooring rope is outside of the extreme length of the vessel; i.e. so that the chain will absorb any chafing if the buoy line crosses the bow.

Power must be available at all times on deck winches and windlass while vessel is at the berth.

Aft: A mooring line must be available aft, secured to the bitts and of sufficient length to enable a tug-boat to pick up the eye and tow on it to realign the vessel if necessary. If available, a buoyant line is also preferred in this position.

There are no special arrangements for unmooring.

CARGO: Nigerian Light Crude - API 37° approx. Temperature 85°F. (fairly steady throughout the year).

HOSES: Lifting, connecting, disconnecting, lowering and other handling of hoses will be performed by the ship's crew, as advised by the Company representative, and where possible the Company will provide a pipe-line gang to assist the ship's crew. At all times a deck officer must be in attendance.

Both derricks must be rigged and ready for use on arrival and vessels are cautioned that the weight of each hose is at least 7 tons under favourable conditions. Where possible, it is requested that the derrick runner is on one winch and the topping lift on another, as this will make the hose-handling operation much smoother and faster. In any case, members of the ship's crew will be required to operate the winch or winches.

Particular care should be taken during the hose handling operations in order to avoid serious damage to the hoses, the plastic floats and buoys on the plate edges, rails, etc. The cargo hoses are fitted with Camlock connections, blank flanges and chafing plates.

As no equipment will be supplied from the shore; it is essential that all vessels nominated for this port have an adequate supply of gaskets, nuts, bolts, spanners, tools, etc. ASA reducers for use with the Camlock connections can be supplied in an emergency in the standard sizes. Failure to have these items will lead to delay in berthing and could even lead to a situation where the vessel may no longer be accepted by the terminal. Such delays would be for the ship's account.

Before hose handling operations begin, materials must be near the manifold and remain near the manifold to cope with any escape of oil, i.e. drip trays, sand, detergent, etc., and must in the event of a spill be utilised as rapidly as possible.

Berth No. 2: Loading is through an SBM which is approx. 40 ft. in diameter and held in position by 4 chains secured to piles sunk into the seabed. 1×24 in. floating hose is secured to buoy and has 2×12 in. tail pieces attached to it with 12 bolt holes ASA 150 flanges; they are also fitted with Camlock connections.

Berth No. 3: Same as No. 2 but improved type and more heavily moored with 8 chains secured to piles sunk into the seabed. There is 1×24 in. floating hose with 2×16 in. tail pieces. There are ASA flanges with Camlock connections, similar to those at Berth No. 2.

There are 2 SBM Berths only at this terminal – the conventional berth (No. 1) has been de-commissioned. The max. loading rate is 30,000 b.p.h. (approximately 4,000 t.p.h.).

LOADING/BALLAST: Deballasting and Loading Procedures: Vessels proceeding to Escravos to load must arrive with sufficient clean ballast for safe manoeuvring. A vessel arriving with dirty ballast will incur costly delays as it is not permitted to discharge dirty ballast to the sea. The "Load on top" system is accepted at this terminal and vessels are requested to arrive with the slop tank "settled out" as far as is possible and so avoid any chance of pollution of the Terminal waters from this particular tank.

The Nigerian Government has very strong views on pollution and vessels are warned that a very careful watch is kept at all times to ensure that pollution does not take place, or that if pollution should occur it is controlled as quickly as possible.

All vessels are cautioned to keep a close watch on the floating hose (or hoses) towards the end of deballasting, as it is possible, under certain conditions of weather and tide for the hose to become trapped under the fore-foot of the vessel. Should this situation appear likely to arise vessels are requested to attempt to keep the fore-foot submerged by transfer of water or bunkers, etc. If the hose becomes foul, it must be disconnected and towed clear causing considerable delay to the vessel.

During the hours of darkness it is requested that searchlights from bridge wings and approved floodlights be used to illuminate the surrounding water to facilitate detection of oil and assist generally in loading operations. Vessels are advised that failure to supply sufficient lighting could result in cargo operations not being allowed during the hours of darkness. Such delay would be for the ship's accounts.

After the ballast tanks have been inspected and found to be satisfactory, deballasting will commence on the advice of the Company Representative. When all the ballast has been discharged, the tanks will again be inspected and if ready for cargo a Dry Certificate, if presented, will be signed by the Company representative. In any case, cargo will be loaded when both ship and shore are ready to commence operations. In no circumstances will the vessel be expected to load at a faster rate than that requested by the Master. It is the ship's responsibility to check that the requested loading rate is not being exceeded. The Company for their part will make every effort to maintain the requested rate and will advise of any alteration of loading rate immediately; prior warning being given if circumstances permit.

Simultaneous Deballasting and Loading: In order to reduce the turn around time at this Terminal, but with close attention to safety, vessels will be permitted to load cargo and discharge ballast simultaneously, provided that no contamination of cargo or pollution of the Terminal waters can occur. Vessels desirous of adopting this method of loading can do so, but will be required to advise the Company in writing, stating that the vessel accepts full responsibility if this method of loading results in contamination of cargo and/or pollution of the Terminal waters.

Throughout the deballasting and cargo operations, a deck officer must be on deck with sufficient crew members to safely handle the operation. Company representatives will be on board throughout to co-ordinate terminal and marine operations and will be in constant communication with the terminal by portable and/or ship's VHF sets. Before loading commences the amount of cargo required must be given to the Company Representative in writing and the Terminal will, in conjunction with the vessel, arrange to stop the flow of cargo at this predetermined figure.

THERE ARE NO FACILITIES AVAILABLE TO DISCHARGE EXCESS CARGO SHOULD THE VESSEL OVERLOAD.

When requesting the tonnage required in writing, a statement should be included, and will be deemed to include, that Gulf Oil Company (Nigeria) Limited will not be held responsible for any errors or any costs or claims arising directly or indirectly from such errors. Such statement is a condition of loading. It is recommended that frequent checks are made on the loading speed and the quantities received and required so that, if possible, adjustments can be made.

The Company Representative will advise on the detailed procedure for shutting down and disconnecting, but briefly, after cargo is completed and oil has ceased to flow, loading valves on the shore and Berth Operation Platform (BOP) will be closed. Then and not before, the vessel's manifold valves may be closed.

Do not close ship's valves against incoming oil as such procedure creates excessive pressure which may damage hoses, terminal facilities, or ship's piping. Vessels will be held liable for damages resulting from failure to observe this precaution. In addition to the above, serious pollution could result which will involve the vessel in further claims and/ or fines. Therefore, for the sake and safety of all parties concerned, please use the utmost care and vigilance when loading at this terminal.

Figures taken after completion will be passed to the shore by VHF and a ship/shore difference obtained. On request, full sets of cargo papers will be prepared and delivered to the Master as speedily as possible. However the briefer form of documentation is used at this terminal, and the remainder of the documents will be forwarded by airmail. At the same time the Company will arrange clearance for the vessel.

Loading signal to be displayed is the International Code flag "B" from a conspicuous halyard during the hours of daylight. During the hours of darkness a red light visible all around the horizon at a distance of at least one mile is to be exhibited.

REPAIRS: No facilities of any kind are available at this port.

Under no circumstances are engine repairs or the immobilisation of main engines permitted within the port limits.

REPATRIATION: Not permitted except in grave emergency and then only if the person concerned holds all the necessary valid certificates and documents, e.g. valid Cholera and Yellow Fever Certificates.

WEATHER AND CURRENTS: Wind and swell are mostly from a South-westerly direction. The weather is generally good from November to May, but is unfavourable during the wet season, i.e. May to November. For approximately 75% of the year the current sets in a N.N.W. direction and for the remainder of the year it is reversed, i.e. S.S.E. The strength of the current varies from 0.5 to 1.5 knots, and the currents frequently reverse direction very quickly causing the vessel to yaw (swing) heavily at the berth.

FRESH WATER: Not available.

FUEL: Available. A fuel barge from Warri can go alongside vessels whilst still at anchor.

MEDICAL: Not available except in an emergency.

STORES: Stores are not available at this Terminal and urgent spares/ equipment forwarded by air can take up to 3 weeks to clear formalities. In view of this it is essential that Gulf be advised of the airwaybill number at the earliest opportunity to avoid further delays.

NATIONAL FLAG: Available from the Company.

GENERAL: In view of the exposed location of the berths, the Mooring Master and pipe-line gang will have to remain on board throughout the vessel's stay at the berth and, therefore, it will be necessary for the vessel to arrange food and accommodation for this period. A pipe-line gang will usually consist of four men, but this number may be varied at the discretion of the Company.

It is assumed that the Mooring Master will be accommodated in the Pilot Room; but where such a room does not exist on board, then accommodation equivalent to a minimum standard required for a Senior Officer is to be provided. In the case of meals, due allowance and provision is to be made for the fact that irregular hours of work by day and night may be involved.

TIME: Local time is GMT plus one hour throughout the year.

SHORE LEAVE: In view of the isolated positions of the buoy moorings (approx. 15 and 19 miles from shore) Masters are strongly advised not to grant shore leave. The weather and swell conditions could result in persons being injured either embarking or disembarking from the vessel, and in addition the boat journey will take approx. 2 – 2.5 hours. Should the weather deteriorate, it could mean delay to the vessel as outward clearance would not be granted until all the crew were on board the vessel. As the terminal does not own any suitable boats, it would be necessary for the vessel to charter one for shore leave purposes.

In view of the foregoing, the terminal does not recommend shore leave being granted.

AGENCY: The Gulf Oil Company (Nigeria) Ltd. will assist with the Agency work for vessels calling at the Terminal but does not perform a general Agency function. Owners of vessels calling at the Terminal can arrange for their own Agents. All payments to the Company while assisting the Agents should be sent to: Gulf Oil Company (Nigeria) Ltd., 19 Tinubu Square, Private Mail Bag No. 2469, Lagos, Nigeria. Tel: 650820. Telex: 21314. Cables: Gocon.

OPERATOR: Gulf Oil Company (Nigeria) Limited (see "Agency" above).

FORCADOS (Offshore Terminal): 05.10 N. 05.10 E.

(See Plan)

IMPORTANT NOTICE: The Company, as Operator for the NNPC/Shell Joint Venture, has been directed that the following vessels will not be permitted to enter Nigerian Waters to load Nigerian Crude Oil:

(A) Any vessel which is owned directly or through subsidiaries or chartered or managed by companies or persons in South Africa, Namibia or Israel, or is registered in any of these countries.

(B) Any vessel which has called at a port in South Africa, Namibia or Israel during a period of 6 weeks immediately preceding her arrival off any of the Company's Terminals. (A Port Call includes the calling off or near a port for the purpose of receiving services from the shore by helicopter or launch/boat.)

(C) Any vessel which has among its officers, crew, passengers or supernumeraries any person who is a national or resident of South Africa, Namibia or Israel or who has visited any of these countries as evidenced by an entry in that person's passport or other identity document.

Vessels arriving off the Company's Terminals are subject to check by Government Authorities to ensure that the above-mentioned provisions have been adhered to. Any infringement is liable to cause serious consequences for the Master, Manager, Charterer and/or Owner of the vessel.

Vessels lifting crude oil must in addition comply with any other restrictions that may be generally imposed by the Government of the Federal Republic of Nigeria on vessels entering Nigerian Waters for any purpose whatsoever.

DOCUMENTS:

	Customs	*Health*	*Agent*
Vaccination List	1	1	3
Maritime Declaration of Health	1	1	3
List of Last Port of Call (6 weeks)	1	1	3
List of Arms and Ammunition	2	—	3
List of Animals and Birds	2	1	3
Crew Labour List	—	—	3
Passenger List	1	1	3
Stowaway List	1	1	3
Personal Effects List	1	—	—
Clearance from Last Port of Call	1	—	—

Derat Exemption Certificate to be produced.
Vaccination Booklets for all crew to be sighted.

APPROACHES: An efficient sounding machine and a high definition radar will assist in making the terminal for the first time. A heavy cluster of radar echoes from the Escravos area may be recorded on passing the 100-fathom line. On making the 20 fathom line, it is reported that the coastline from North Point to Moore Point and from South Point to Ajamabri shows on the radar screen with good chart comparison.

Once the vessel's position is ascertained and the course for Forcados adopted, the first and most obvious sighting, at night, will be that of the platform, which is marked with numerous fixed lights at several levels. The platform, which also serves as a helicopter platform, is in close proximity to the two SBMs.

PILOTAGE: Berthing Master will board vessel on arrival or at anchorage, and remains on board throughout. Contact Berthing Master on VHF Channel 8. Call sign "Forcados Offshore Pilots". *N.B.:* Also contact "Forcados Terminal" on Channel 8 immediately on anchoring to ensure that vessel's arrival is recorded and that berthing turn will be in correct sequence.

Arriving tankers are to make a good lee for the embarking Pilot. Boarding facilities such as pilot ladders must not be made of nylon rope.

ANCHORAGES: 3 miles West of or 2 miles N.W. of Production Platform in position Lat. 5° 10′ 17″ N., Long. 5° 10′ 42″ E.

Vessels must not proceed inshore from these positions without a Pilot. When at anchor a listening watch is to be maintained on Channel 8 and this Channel must not be used for ship-to-ship exchanges.

Note: A 14 mile × 48 in. pipe-line extends from the coast at South Point near Forcados to the manifold Platform and thence to the SBMs. Vessels are warned not to anchor in the vicinity of the pipe-line.

RESTRICTIONS: Vessels berth at any state of tide, night or day.

Also see "Max. Size".

MAX. SIZE: Minimum size 45,000 tonnes Summer d.w.t. Max. size 320,000 tonnes Summer d.w.t. Vertical distance bow fairlead to water line not to exceed 60 ft. at any time. No restriction on length and beam. Max. draft 65 ft.

PRATIQUE: Health and Customs Officers board at a convenient hour and come from Forcados, 20 miles distant from the buoys. Normally travel by high-speed launch, but may occasionally use helicopter.

RADIO: All ships to radio their ETA via Lagos Radio to the Lagos Agents at least 72 hours before vessel's ETA at the terminal anchorage.

ETA also to be reconfirmed 48 hours prior to arrival.

ETA by Radio for all Ships: In view of communication difficulties with our terminals at Bonny and Forcados and in order to avoid undue delays, in addition to normal W/T advices to Agents and Shell Lagos as contained in Port Information Book, we wish to inform you about the possibility of passing to us your ETA via M.V. "Oil Maintainer", call sign GYEU.

The "Oil Maintainer" (Golf Yankee Echo Uniform) keeps a daily listening watch on single side band R/T on following frequencies and times:

From 1600 to 1620 hrs. local time 16587.1 kHz (Tx/Rx)
From 1620 to 1640 hrs. local time 12435.4 kHz (Tx/Rx)
From 1640 to 1700 hrs. local time 8294.2 kHz (Tx/Rx)

Please advise 72 hours before arrival Forcados:

1. Vessel's Name.
2. ETA.
3. To load ...... tons ...... grade.
4. Last Port.
5. First Nigerian port to load.
6. Any other Nigerian ports to load.
7. Name of Shipping Agency.
8. Next discharge port.

The "Oil Maintainer" will acknowledge only and further calls are not required unless ETA changes by 2 hours or more.

TUGS: No tugs required and none available.

BERTHING: Effected under guidance of Berthing Master and local assistant who both remain on board throughout loading operations. Accommodation for both to be provided. Whilst berthed a suitable buoyant mooring rope must be ready on the poop deck so that the mooring launch (line boat) may, in the event of the vessel riding up on the SBM, make fast and tow to realign vessel.

Two SBMs each fitted with 2 OCIMF standard 15 in. × 150 ft. nylon grommet ropes and 1 hose string some 870 ft. long with 2×16 in. end hoses. No. 1 SBM is South of platform and No. 2 is West.

Position of hose connections: Amidships on starboard side. Vessels should endeavour to present 2×16 in. (400 mm.) (150 ASA) connections on arrival. Ship's crew are required to connect and disconnect the hoses under the advice of the Berthing Master and/or his assistant. A derrick, SWL at least 10 tonnes, must be rigged ready on both sides and plumbed clear of ship's side. Derrick runner must be equipped with suitable hook.

In the case of vessels with a heavy multisheaved block a short wire strop of adequate strength with a hook should be provided.

Weight of Hoses: The following table gives the approximate weights of hose strings in tonnes (including fittings, floats and pick-up buoy) with all hoses full of crude oil of SG 0.850. The assumed total lift is 7.5 m. (25 ft.) above deck level, with the tanker on light draft.

Size of Tanker	*16 in. Inside Diameter Hoses*
500,000 d.w.t.	11.4
330,000 d.w.t.	9.4
270,000 d.w.t.	9.1
200,000 d.w.t.	8.7
100,000 d.w.t.	7.5
70,000 d.w.t.	7.1

Loading: Load-on-top system operates at Forcados. Slops cannot be accepted ashore. Vessels must arrive with clean ballast. Maximum loading rate 11,000 t.p.h.

A single grade of crude oil is handled which is known as "Forcados Blend".

Shore Line System: Vessels load through SBM from shore through 48 in. line to SBM. The 48 in. submarine line to the SBM is some 14 miles in length, therefore great care must be exercised during loading when ship's valves are manipulated to avoid pressure surges. Pressure recorders are normally fitted at the spool piece between ship's manifold and tail end of the hose string to monitor pressure changes generated on board the vessel.

MEDICAL: Limited medical assistance available but in extreme emergencies only. Treatment of minor ailments and vaccinations, etc. is under no circumstances available. It may be possible in the event of an accident to obtain medical advice. Contact Terminal VHF Channel 8 in first instance.

DENSITY: 1025.

FUEL: Not available.

FRESH WATER: Not available.

REPATRIATION: No crew changes possible.

SHORE LEAVE: Not permitted.

GENERAL: Nigerian flag to be flown.

Air letter forms are not acceptable unless used with Nigerian stamps.

Freeboard: The maximum forward freeboard is 60 ft. while vessel is moored to the SBM. Masters are requested to comply with this limitation.

Loading: Ships are required to load cargo as rapidly as possible by day and night in accordance with the terms of their charter parties.

This means that ships are expected to load as fast as the Company can supply or they can safely receive. The question of how fast a ship can load is the responsibility of the Master having regard to his Owner's instructions, the charter party and the experience of ships' personnel. However, as further guidance, and in absence of any instructions to the contrary, ships are accepted by the Company on the understanding that ships will be able to accept a bulk loading rate per hour of not less than 10% of the summer deadweight of the vessel.

At offshore berth the Berthing Master acts as Loading Master during Loading Operations and is provided with "walkie-talkie" radios to ensure adequate ship/shore communication.

Loading Masters visit each vessel, and Masters are requested to co-operate in the completion of the Company's Tanker Port Performance Time Sheet by ship and shore personnel. Only crude oil is handled at the Company's terminal, loading temperature and specific gravity of the grade of crude, Forcados Blend is reasonably constant and is approximately: 0.8837 at loading temperature.

Immobilisation of Engines: Not permitted at SBMs. Not advisable at sea anchorages as there are many obstructions if vessel drags anchor.

Restrictions Which May Cause Delays: Weather. Worst period June–September when heavy swell may be encountered.

Early Departure Procedure: There is no Early Departure Procedure at Forcados Terminal. Completed documents are brought to the ship for signature after completion of loading.

Customs and Agency representatives will normally board vessels during daylight hours. Government regulations require that all vessels are cleared inwards before commencement of loading. Depending on other commitments of the offshore launch, it may be necessary to request Masters to provide temporary accommodation for these officials. Any attempt on the part of the boarding officers to persuade the Master to supply more than normal representation should be resisted. In the event of any problem arising over such a matter full details should be reported to the Agent.

WATCHMEN: Whilst berthed at an SBM, a security watch must be kept on the forecastle head by member(s) of the ship's crew throughout the hours of darkness to raise the alarm and advise Berthing Master on the approach of local small craft. Instances have occurred at Nigerian Offshore Terminals where nylon mooring ropes have been cut and stolen with the vessel in the berth. The Berthing Master should also be advised in the event that the vessel rides up to the SBM.

SHIPMASTER'S REPORT: The SBMs are sited about 11 miles offshore.

Moorings: Starboard derrick topped and doubled up. If accommodation ladder rigged, then on port-side. Not necessary for vessels up to 50,000 d.w.t.

Hoses: All sizes of reducers available.

SHIPMASTER'S REPORT: 1979.

Documents: Ship's stamp to be on all documents.

5 lists ports of call; 5 arms and ammunition (3 for Agent, 2 for Customs); 4 each of vaccinations; nil passengers; nil stowaways; crew labour list (presumably DBS); 1 copy of diversion cable; 4 lists "Nil" animals or birds.

Pilotage: Require accommodation ladder with pilot ladder for large vessels due to swell.

VHF: Channel 8 for all communications with Pilot, Loading Terminal, and Cargo Operations.

Berthing: Line required aft should preferably be polypropylene or one that floats.

Tankers: Loading temperature about 99°F, will vary slightly depending on loading rate.

OPERATOR: The Shell Petroleum Development Co. of Nigeria Ltd., Freeman House, 21-22 Marina, Private Mail Bag 2418, Lagos, Nigeria. *Tel:* 601600 (17 lines), 601820 (9 lines). *Telex:* 21235. *Cables:* Shell, Lagos. *Contact:* Marine Co-ordinator.

S.M.R.

KOKO: 06.01 N. 05.29 E. (See Plan)

DOCUMENTS: See "Lagos".
APPROACH: Escravos Fairway Buoy Lat. 05° 30′ N., Long. 05° 04′ E. for entry to Escravos River. Present draft limit 6.4 m. Dredging of channel from Escravos down to 10 m. expected to be completed soon.
PILOTAGE: On arrival at Escravos Fairway Buoy the Master should call Delta Pilots Union on VHF Channel 16 to send a River Pilot onboard to pilot vessel to the mid-stream of Koko for further pilotage alongside the port by the NPA Harbour Pilot. Daylight pilotage only.

The mouth of Escravos River (Lat. 05° 35′ N., Long. 05° 10′ E.). is the main entrance for the Delta Creek ports of Warri, Koko, Burutu and Sapele. Before entering any of the creeks, rivers or channels from Escravos to the above mentioned ports, vessels are required to broadcast their intentions and to keep constant VHF radio watch. Positions and movements must be exchanged with other vessels in the vicinity.

The pilot station at Escravos is located 0.5 miles North of the Escravos Beacon. The boarding position of the Pilot is 1.0 miles West of Buoy No. 5 (close to the breakwater) when vessel is ready for proceeding inward. Vessel will always drop anchor at Escravos Inner Breakwater Anchorage until further instruction is received from the Port Authority.

In addition; On arrival of vessels at Escravos the Pilot normally boards with 1 helmsman and remains onboard until vessel's departure.
RADIO: See "Lagos" for ETA advices to Agent. Warri Harbour Master at Warri, or Beach Master at Koko to be contacted on VHF Channel 16.
VHF: Contact Pilot VHF Channel 16. Contact Agent in Warri on VHF Channel 16.
BERTHING: Two hard quay berths giving a total quay length of 137 m. and max. draft of 7.32 m. Berthing during daylight hours only.
MEDICAL: Facilities available.
FRESH WATER: Available and delivered by barge.
FUEL: Diesel oil available locally and delivered by barge. Fuel oil available by barge from Warri and arranged through Agent, both products in limited supply.
FIRE PRECAUTIONS: No local facilities.
REPAIRS: No local facilities. See "Warri".
GANGWAY/DECK WATCHMEN: Compulsory during the night while in port.
REPATRIATION: By road to Benin or Warri, both connected with Lagos by regular air service.
TIDE: Range approx. 2 m., and velocity up to 3.5 knots.
DENSITY: Salt.
SHORE LEAVE: See "Lagos".
IDENTIFICATION CARDS: See "Lagos".
TELEPHONES: Not available for placing on board. Available in Post and Telegrams Office in Sapele, and at Agent's Office at Warri.

SHIPMASTER'S REPORT: 1977.
Documents: Livestock List also required.
Pilotage: Request Creek Pilots through Escravos Pilot on VHF Channel 16. The Pilots are local fishermen and race each other to the vessel to offer their services. They will not proceed beyond the breakwater. Special care must be taken when entering, as many of the buoys are out of position.

A strong N.W. current runs by the breakwater, also there is a heavy swell which makes steering difficult.

Draft varies but seems to be not less than 18 ft. at LW to 24 ft. at HW. In Escravos not only a Pilot boards the ship but a helmsman too. The latter is quite useful especially in the narrow part of Nana creek.

Koko has a VHF station Channel 16 for port operations.

Cargo shed capacity is insufficient, so more often than not this shed is full and cargo is discharged into "direct delivery". But because of the bad infrastructure of this port and the frequent lack of lorries, this discharge is a slow operation (sometimes less than 100 tons per day).

Ships waiting for berthing at Koko can anchor downstream or upstream of the berth. The anchorage is good and the "Creekpilots" stay onboard, i.e. they stay till the ship's return to Escravos, where they boarded.
Repatriation: By road to Warri and there by small plane to Port Harcourt or Lagos.

LAGOS (including Apapa and Tin Can Island): 06.27 N. 03.24 E. (See Plan)

DOCUMENTS:
Documentation Procedures:

1) By Federal Decree 3 weeks prior to vessel's arrival the Agent requires certain information from Principals in order to register the vessel with NPA for obtaining the Ship Entry Notice (SEN). Not applicable to vessels carrying petroleum products in bulk, or in ballast.

Without SEN the vessel cannot enter Nigerian territorial waters (30 nautical miles).

Information required is as follows: Name of ship, nationality, g.r.t., n.r.t., draft, LOA, Port of Registry, Certificate of Registry Number, Owners and/or Agents in Nigeria, Port of Origin, Port(s) desired in Nigeria, ETA, Total Tonnage of Cargo to be Carried (Outward and Inward), Description of Landings and Loadings for which permission is sought, e.g. General Cargo, Containers (in container vessel or mixed cargo vessel). Cement, Bulk Liquid, etc.

In addition, for preparation of preliminary Manifest, the following are required: Shipper, name and address, Consignee, name and address, Cargo Marks, Cargo Quantities (numbers), Cargo Description, whether Freight Prepaid or Collect, Estimated Time of Departure from Port of Loading.

2) 14 days prior to arrival Agent requires:
10 Manifests.
3 Stowage Lists.
3 Hatch Lists.

3) On arrival at Lagos, Master must be prepared to present:
5 Ports of Call Lists (last voyage).
5 Crew Lists.
4 Kroo Boy Lists.
4 Animal Lists.
*4 Arms and Ammunition Lists (if none on board only 2).
1 Extra Manifest for transhipment (if applicable).
1 Stores List.
1 Crew Declaration List (personal effects).
1 Declaration of Health.
1 Vaccination List.
1 Narcotics List
1 Parcel List.
5 Passengers Lists.
1 Stowaway List.
1 Declaration – fuel in double bottom tanks.
Currency List (for National Safety Organisation). Foreign currency may have to be deposited ashore.

*Ship's Master allowed 1 gun and 100/150 rounds of ammunition.

Where not applicable all documents still to be prepared bearing the marking "Nil".

Other forms prepared by the Agent and furnished on arrival.

4) For departure all documentation prepared by the Agent.

Berthing Procedures:

1) Master to cable Agent via Lagos Radio ETA 7, 4, 2 and 1 day prior to arrival enabling Agent to declare vessel at the Berthing Committee Meeting well in advance.

2) Master to contact Agent on VHF Channel 16 prior to arrival at anchorage (range approximately 30 miles).

3) On arrival at anchorage Master to contact Lagos Port, Call Sign "East Mole Station" giving all vessel and cargo particulars, Agent's name, SEN No. and date of issue. Vessel also to cable Harbour Master's Office for identical information. Thereafter watch on VHF as per Agent's instructions.

4) Only on arrival and strictly after declaration can Agent book Pilot and time for boarding will be advised.

5) The pilot station (Call sign "Chief Pilot's Office") will contact vessel well in advance to allow her to proceed to the Fairway Buoy for boarding of Pilot.

6) The Agent with the Health, Immigration and Customs and Excise Authorities board the vessel after berthing.

Unberthing Procedures:

1) Agent prepares (outward) Customs clearance and delivers a copy to Master.

2) Agent books Pilot and advises time for boarding.

3) Vessel keeps continuous watch on VHF for instructions from the Chief Pilot's Office.
PILOTAGE: Compulsory. Hoist "G" flag. Contact Pilot by VHF Channel 16. No pilot boat stationed outside. Daylight service only (until 1600 hrs.).

Only on arrival, and strictly after declaration, can Agent book Pilot; time for boarding will be advised.

The pilot station (call sign "Chief Pilot's Office") will contact vessel well in advance to allow her to proceed to the Fairway Buoy for boarding of Pilot.
ANCHORAGES:

	Length	Draft
Pool 1	480 ft.	24 ft.
Pool 2	600 ft.	28 ft.
Pool 3	450 ft.	26 ft.
Pool 4	450 ft.	26 ft.
Badagry Creek	380 ft.	22 ft.

Vessels not permitted to remain at anchor at Pool 1 during hours of darkness due to poor holding ground.

4 vessels, maximum length 380 ft. can anchor at Badagry Creek Anchorage. Max. draft 22 ft.
RESTRICTIONS: Max. draft Pool Anchorage 8.23 m., Bruce Mooring Buoys 8.23 m., Marina Mooring Buoys 8.23 m., Apapa Hard Quay Nos. 1 – 14, 8.23 m., Apapa Hard Quay Nos. 15 – 20 10.50 m. and Tin Can Island Berth Nos. 1 – 10, 9.50 m.
MAX. SIZE: Max. draft 10.0 m. (salt water)
HEALTH: Port Health Officer boards vessel on arrival. ETA's must be advised by ship or Agent direct to Port Health. Pratique automatic when from Nigerian port. Also see "General".
RADIO: Master to cable Agent via Lagos Radio ETA 7, 4, 2 and 1 day prior to arrival, enabling Agent to declare vessel at the Berthing Committee Meeting well in advance.

Master to contact Agent on VHF Channel 16 prior to arrival at anchorage (range approx. 30 miles).

On arrival at anchorage, Master to contact Lagos Port, call sign "Signal Station" giving all vessel and cargo particulars, Agent's name, SEN No. and date of issue. Vessel also to cable Harbour Master's Office identical information. Thereafter watch on VHF as per Agent's instructions.
TUGS: No specific joining position, depending on tide and on Pilot's request, otherwise close to berth. Normally ship's line used. 1 tug 1,800 h.p., 1 tug 1,226 h.p., 1 tug 825 h.p. and several smaller tugs for towing lighters. 24 hour service available. Also see "General".

BERTHING: Daylight hours only.

No specific arrival time is required for berths, except for Petroleum Wharf where tankers need high water. Berthing on ebb tide required for Fish Wharf and Ijora Wharf.

Unberthing: See "Documents".

Apapa Berths: 19 general cargo berths, 1 bulk cargo berth at Ijora, 6 container berths including 1 Ro/Ro ramp. Also 3 petroleum berths, 1 gas oil, 3 bulk oil and 1 grain berth, 5 storage sheds, although no cold storage available. Quay cranes not operative. The third Apapa Wharf extension is now completed and in full use. Container Quay 1,005 m. 2 gantry cranes with 40 tons lifting capacity have been installed and are in use with stacking area for Ro/Ro and containers. General cargo quay 525 m. Depth alongside 10.5 m. Vessel's Agent to make arrangements for discharge of 40 ft. containers due to lack of equipment.

Tin Can Island Berths: Tin Can Island Port (TCIP) is situated N.W. of Apapa, North of Badagry Creek.

Draft Restrictions: Berths 1 – 10, 9.50 m.

Tugs: 2 of 1,400 h.p.

Accommodation: Area 73 hectares, quay length of 3.5 km. Extensive quay apron 40 m. wide with berthing capacity for 10 – 15 vessels, of which 3 for Ro/Ro, depending on size of vessels and one of which has fixed stern ramp. Bulk berth for handling bulk commodities. Two service berths for tugs and light craft.

Dredged Channel is 200 m. wide with turning basin.

Two fresh water wells (250 m. deep) with purification plant.

Ten quayside cranes – 8 of 6 tonnes at 28 m. radius, 2 of 10 tonnes at 25 m. radius, transit sheds and warehouse each of 7,000 sq. m. area.

No cold storage.

Midstream Berth: 8 Marina Buoys and 1 Bruce Buoy.

CRANES: 1 floating crane of 100 metric tonnes and 1 of 250 metric tonnes. Apapa and Tin Can Island equipped with mobile cranes, forklift trucks, tractors, freight lifters, conveyors, trailers and container handlers.

250 ton crane: 50 ton lift at 31 m.
100 ton lift at 28 m.
150 ton lift at 21 m.
250 ton lift at 10 m.

STEVEDORES: Available. First shift: 0730 – 1530 hrs.; 2nd shift: 1530 – 2230 hrs.; 3rd shift: 2230 – 0730 hrs. Overtime is paid for 2nd and 3rd shifts. Saturdays 0730 – 1530 hrs.

Overtime, Sunday and third shift not always worked as NPA making cutbacks.

MEDICAL: Agents to be given advance notice of medical attention required as early as possible. Hospital facilities available. International Certificates of yellow fever required.

TANKERS: 3 berths operated by the Port Authority. Length 177 m. Max. draft 7.62 m. No night berthing. Water and bunkers available. (Subject to tidal restriction).

Atlas Cove Berth: The Atlas Cove Jetty has 2 berths of LOA 180 m. and 80 m. and draft of 10.7 m. and 6.3 m. respectively.

Report: October 1981

Facilities for tankers discharging clean products.

(a) No Ship Entry Notice is required for tankers coming into Nigeria to load/discharge cargo.

(b) There are three main oil tanker jetties available in Lagos namely PWA, NOJ and BOP each with max. LOA of 175 m. and max. draft. 7.6 m. There is also another jetty called "Ijora Wharf" from which Mobil Oil mostly take delivery of their cargo. This jetty has max. LOA of 115 m. and 18ft. 6 in. draft.

(c) Bunkers are supplied to vessels at these jetties by pipe-line as well as by barges.

(d) Fresh water is also available from both NPA and private barges but difficult in most cases.

DENSITY: 1012.

FRESH WATER: Delivery by barges at between 20 to 40 t.p.h. Advance notification needed. Available by pipe-line at Tin Can Island.

Notice: February 1984.

It is hereby notified to Owners/shipping companies including their Agents that owing largely to the limited quantity of available fresh water in the port, the maximum quantity of fresh water to be approved to any vessel for one request is 50 tons only.

Other new requests for the same vessel will not be approved until all requests previously recorded before them are supplied. The Assistant Harbour Masters will not allow any request for more than 50 tons of fresh water to be paid for. Please ensure strict compliance.

FUEL: Fuel oil available by barge only, coal bunkers obtained from Ijora Wharf. A guarantee of sufficient bunkers to last the period of stay on a berth will be one of the conditions to be satisfied before a vessel is allocated a berth.

SEN also required for vessels taking bunkers only.

Also see "General – Notice No. 2/83".

FIRE PRECAUTIONS: Tankers and vessels with explosives: fire-boat always in attendance with fire-control depot ashore working in conjunction with the Harbour Master on VHF Channel 16. Port area tugboats also equipped for fire fighting.

GANGWAY/DECK WATCHMEN: Compulsory during night while in port. Recommended at night also for vessels anchored Lagos roads unless at least 20 miles offshore as pirates may attack vessel.

If vessel is attacked blow whistle continuously to attract attention of Security Agents.

OPENING/CLOSING HATCHES: Stevedores/crew.

CUSTOMS ALLOWANCES: Tobacco allowance: 200 cigarettes per person, re-issue after 7 days. Wine/Spirit: 1 part bottle, re-issue to officers after 7 days.

IDENTIFICATION CARDS: Passports or identity cards.

CONSULS: Most countries maintain Embassies/High Commissions or Consuls.

REPAIRS: Major repairs available. Spares often in short supply.

DRY DOCKS: Authority maintains large, well-equipped dockyard, which, while primarily for maintenance of Authority's own fleet, provides facilities to commercial interests. There is a modern floating dock which has lifting capacity of 4,000 tons. Max. draft 18 ft. Synchro-lift available lifting capacity 100 tons max.

In addition to facilities offered by Authority's dockyard, major shipping agencies in port maintain dockyard installations, including slipways for taking smaller vessels and lighters; can provide first-aid repair for main line vessels.

Bull Nose – No. 1 – can accommodate a vessel of 380 ft. in length and max. draft 16 ft. 6 in.

Bull Nose – No. 2 – can accommodate a vessel of 250 ft. in length and max. draft 16 ft. 6 in.

REPATRIATION: Facilities available for effecting crew changes and arranging any necessary repatriations.

AIRPORT: Ikeja 14.4 km. from port, served by regular airlines.

TIME: GMT plus 1 hour.

HOLIDAYS: Fixed: New Year's Day (1st January); National Day (1st October); Christmas Day (25th December); Boxing Day (26th December). Variable: Good Friday; Easter Monday; Eid-El-Fitir Festival; Eid-El-Kebir Festival; Maolud Nabiyyi (Mohammed's Birthday). Port closed on National Day, Good Friday and Christmas Day.

POLICE/AMBULANCE/FIRE: Police Apapa 45798, Lagos Custom 20030; Ambulance Apapa 41341/227; Fire Apapa 41741, Lagos Custom 20777, General Emergencies 199.

TELEPHONES: No arrangements for telephones on board.

SERVICES: Small services available.

SHORE LEAVE: Crew members allowed ashore after clearance by Port Health and Immigration Authorities.

GENERAL: Notice issued by the Harbour Master in May, 1976:

Will all ships' Agencies note that from the date of this circular letter, Lagos Radio has been instructed to reject any telex messages from any ship addressed to the Harbour Authority unless the itemised particulars are included:

(a) Ship's name.
(b) Ship's call sign.
(c) Ship's Agent's name.
(d) Ship's length overall.
(e) Ship's tonnage loaded.
(f) Ship's draft.
(g) Nature of cargo (i.e. cement, general cargo, etc.).
(h) Last port of call.

Notice issued by the Nigerian Federal Ministry of Health in May, 1976:

Please communicate to all Masters that request for Radio Pratique either by international sanitary codes or otherwise must state clearly the following:

(a) Last port of call.
(b) Number of crew.
(c) Vaccination and inoculation of crew.
(d) Date and time of arrival.
(e) Condition of ship.
(f) Number of passengers onboard.
(g) Name of Agent.

Notice dated 1982 issued by NPA.

The following documents must be despatched with manifest from the last loading port in order to report vessel in advance to the Department of Customs and submit advance manifest to facilitate payment of NPA dues to berth vessel on arrival.

1. Crew Declaration.
2. Crew List.
3. List of Arms and Ammunition.
4. Passenger List.
5. Animals List.
6. List of Ports of Call.
7. Mail List.
8. Authority to Act as Agents.

Two copies of each of the documents are necessary.

NPA Harbour Master's Notice No. 2/83:

"BUNKERING IN PORT

Further to my previous circulars concerning bunkering in port, it is still observed that Masters/Agents of vessels calling at port of Lagos are not advising the Harbour Master before bunkering the vessel about their intention to bunker the vessel.

It is imperative that Masters/Owners of vessels/Agents should, before 'repeat' before bunkering the vessel, forward to the Harbour Master, the N.N.P.C. document showing that the supplier is an authorised one and the NPA Licence permitting the barge to supply vessels with bunkers.

This notice should also be in good time before bunkering the vessel to enable the Harbour Master to advise the Chief Fire Officer about the operation. This instruction should be carried out whenever a vessel is getting bunker to ensure that N.N.P.C. instructions and NPA regulations are complied with, failing which heavy fines must be imposed."

AUTHORITY: Nigerian Ports Authority, Private Mail Bag 12588, 26-28 Marina, Lagos, Nigeria. *Tel:* 655020. *Cables:* Genports.

AGENT: Alraine (Nigeria) Ltd., 26 Creek Road, Apapa, Lagos. P.O.Box 2206, Lagos. Tel: 803470/1/2/3/4. Cables: "Freight Lagos". Telex: 21244. Fax: 874542.

PENNINGTON OFFSHORE TERMINAL:

04.15 N. 05.36 E. **(See Plan)**

COURTESY FLAG: All vessels must exhibit the Nigerian National Ensign from their foremast or as appropriate while in the vicinity of the moorings.

LOCATION: The floating storage vessel, is the VLCC m.v. "Oloibiri" (272,535 d.w.t.) moored to SPM–A, one of two single point mooring berths.

1. SPM-A is located approximately 20 miles off the mouth of Fishtown River in a position
   Lat. 4° 14′ 35.2″ N.
   Long. 5° 36′ 53.2″ E.
2. The Export Tanker Buoy (SPM-B) is capable of accommodating vessels up to 250,000 d.w.t. and is located at
   Lat. 4° 15′ 0.0″ N.
   Long. 5° 36′ 10.5″ E.

on a bearing of North 60° West and a distance of approximately 5,000 ft. from SPM-A. The minimum water depth at SPM-B is approximately 88 ft.

APPROACHES: Incoming tankers should make their terminal approach from a Westerly direction to a point not less than 2 miles Westward of the Export Tanker Berth. At this location the Mooring Master will board the vessel, or will direct the vessel to the Anchorage (2.5 miles S.W. of the terminal).

Pilot's Report: June 1986. B.A. Chart No. 1863. – 10 fathom depth reported by Pilot to extend 1.5 nautical miles to seaward of the charted position.

DOCUMENTS: Following documents required by Customs and Health Officials.

Last Port Clearance.
Ship's Register.
3 copies Vaccination List.
1 copy Stores List.
1 copy Crew Declaration.
4 copies Crew List.
4 copies Passenger List.
5 copies Animal List.
4 copies Ports of Call (last 6 weeks).
5 Arms and Ammunition List.
3 copies Stowaway List.
3 Crew Labour Lists.
20 Copies Dry Tank Certificate.

Also on arrival, 20 copies of Readiness Letters.

Before sailing and immediately upon completion of loading, vessel must provide 20 copies of Ullage Report.

Government Officials representing various departments may, at their discretion, board the vessels in the Terminal area.

PILOTAGE: (See "Approaches"). The Company Mooring Master, together with Customs Officials will board incoming vessel about 2 miles Southwestward of the Terminal Export buoy. Vessel's Master will be advised on approach to the berth details in respect of mooring, unmooring, connecting and disconnecting hoses, loading operations and departure from the berth.

Vessels are requested to have a combination ladder safely and securely rigged for immediate use, and long enough to reach the Mooring Master's launch. A light line should be ready to take on board the Mooring Master's radio and/or briefcase.

The Mooring Master will remain on board during loading operations and he will be in direct control of all ship communications while in Terminal area.

RESTRICTIONS: Operation of the terminal is on a 24 hour, seven days a week basis, weather and other circumstances permitting.

MAX. SIZE: Max. displacement 250,000 tons.

RADIO: Vessels proceeding to be loaded at the Terminal must cable their ETA to the Company (Cable Address: "Topcon – Lagos") 96 hours and again 24 hours prior to arrival. The Company in Lagos will then notify the Marine Superintendent Topcon, Warri. Also as early as possible prior to arrival, vessels should establish direct communication with the Terminal. The Terminal radio station watch keeping is for 5 minutes at 0700 – 1100 – 1500 – 1900 hrs. GMT.

Call Letters: 5 NDF (Oloibiri)
On A1 Listen on 8362 – 8365 kHz
On A2 Listen on 500 kHz.

Ship to Terminal communication while vessels are in the export tanker berth will be by portable VHF radio-telephone units, provided by Terminal.

The Company Mooring Master will advise ship's Master regarding emergency whistle signals set up for use in event radio-telephone units become inoperative. Use of ship's radio station and/or battery charging is prohibited while loading is in progress.

VHF: When in VHF range vessels shall contact the Terminal on VHF Channel 16 (156.8 MHz).

TUGS: *SPM Vessels:* The Terminal will have available 2 line handling vessels and one SPM-Hose maintenance vessel. These 3 vessels are under the control of the Mooring Master and are used to assist the mooring of the Tanker as required. These service vessels are not available to the Tanker for any other work.

READINESS: The Company will make every effort to load vessels upon arrival, or as promptly as berth is available, weather permitting.

"Notice of Readiness" will be accepted as at time of arrival, provided vessel is in all respects ready to load and subject to task force clearance.

Arrival time will be considered as at the time Mooring Master boards vessel, or at the time vessel anchors off the terminal, which ever occurs first.

The Mooring Master may reject a vessel if in his judgment she is not properly equipped or suitably manned, or if, upon inspection, he deems her to have dirty ballast or tanks unsuitable for cargo. However, Company will not issue any certificate or representation purporting to state that vessel's tanks, pipes and pumps and appurtenances are clean or acceptable for receiving cargo nor will the Company assume any responsibility for "contamination of cargo aboard ship caused by condition of ship's tanks, pipes, pumps or appurtenances".

The vessel shall have in readiness 2 nylon ropes with a minimum diameter of 2 in., each approximately 200 ft. long and each terminated with 2×2.25 in. joining shackles to attach and retrieve the SPM mooring lines.

Vessels must be adequately equipped with blocks, tackle and booms to hoist the floating hose string in a safe, efficient and expeditious manner. Vessels must also have an adequate supply of nuts, bolts, gaskets and wrenches to connect cargo hoses system.

BALLAST: Absolutely no provision is made for dirty ballast. Vessels with dirty ballast will be rejected and all costs therefrom will be to the vessel's account.

It is the Ship Master's responsibility to see that no oil or oily ballast is pumped or spilled overboard. Drip pans must be used at all times and all scuppers must be plugged. The waters in and adjacent to the Terminal must not be polluted, and only clean oil-free ballast and/or clean bilge water may be discharged at the Terminal.

As soon as practicable after arrival, and prior to acceptance for loading, all vessel's tanks will be inspected for evidence of oil in ballast, and during discharge of ballast, similar inspections will continue. If evidence of oil appears at these inspections, the vessel may have to vacate berth. Upon her return, vessel will be obliged to tender new "Notice of Readiness".

If, during the first inspection or during process of loading it is revealed that vessel's tanks are not oil-tight, she will be rejected, or refused further loading.

In addition to lights usually displayed, vessels discharging ballast or loading cargo during darkness will illuminate the area around the ship to satisfaction of the Mooring Master, in order that any oil on the surface of the sea may readily be detected and appropriate action taken. Vessels unable to illuminate sea satisfactorily may not discharge ballast during darkness. Vessels should provide suitable floodlights for working on deck during night operations.

In the event any vessel should accidently discharge dirty ballast or spill oil in the vicinity of the Terminal, the Company shall have the right to take any action that may be necessary to clean up or remove any contamination or pollution resulting from such discharge of dirty ballast or spillage. In addition, the Company shall have the right to settle any claims of third parties arising from such contamination or pollution. All costs and expenses incurred by the Company to carry out the cleaning up of such contamination or pollution or the settlement of third party claims, shall be the joint and several liability of the Vessel, its Owners and Managers, and the Company shall be entitled to claim reimbursement accordingly in any jurisdiction.

Vessels properly equipped will be encouraged to discharge clean ballast and load simultaneously.

BERTHING: All manoeuvring of vessels within the loading berth area is to be done only in accordance with advice of the Company's Mooring Master, subject to the understanding that in all cases and circumstances the Master of the vessel being manoeuvred shall remain solely responsible for the safety and manoeuvring of the vessel. Vessel's Master or a qualified Deck Officer must be on bridge at all times during manoeuvring.

EXPORT TANKER BERTH FACILITIES: The Export Tanker Buoy is a conventional SBM which is 10 m. in diameter and held in position by 6 chains secured to piles sunk in the seabed. Two mooring hawsers with one chain and a single floating hose string extend from the buoy.

CONNECTING MOORING LINES: When the vessel is within reasonable distance of the SPM-B, ship's line will be carried by a line handling launch to the floating buoy line and secured. This line will then be heaved aboard. As the buoy ropes come clear of the water it will be noted that chains are attached to them. This chain is to be secured to the bits in such a manner that the nylon is outside of the extreme length of the ship; i.e. so that the chain will absorb any chafing if the buoy line crosses the bow. Power must be available at all times on all winches and windlass while vessel is at the berth.

HOSES: The hose system is 910 ft. long (26 sections)×16 in. hose.

LOADING: During loading, the International Code Flag "B" shall be displayed from top-mast signal halyard during daylight hours. During hours of darkness, a red light shall be displayed, visible at a distance of at least 1 mile, and showing unbroken light all around the horizon.

Raising, connecting, disconnecting and lowering of the floating hose system will be performed by vessel's crew under direction and supervision of an appropriate vessel's Officer as advised by the Mooring Master, who will remain on board while the vessel is in moorings.

After the vessel is securely moored the floating hose will be lifted to the rail on the port side amidships. The weight of the lift is approximately 7 tons and is lifted with the vessel's gear. The Mooring Master advises the vessel's personnel in the lifting, connecting, disconnecting and lowering of the hose system. A vessel's Deck Officer must be present, and direct the crew in all hose handling. There must be sufficient crew on deck to perform this work.

The vessel's Master is responsible for own vessel at all times. The max. loading rate is about 22,000 bbls.p.h. and the Company Mooring Master will advise in respect to loading pressures and hazards, but will not direct the loading except as may be necessary to protect the Terminal facilities. Manipulation of the vessel's valves is the direct responsibility of vessel's personnel.

Prior to commencement of loading, the Chief Officer will assure the Mooring Master that sea suction valves are *closed* and he will make note to that effect in Mooring Master's log before cargo loading is started. Final ullaging and computation of cargo will be done by an Officer of the vessel who will hand this information to the Mooring Master for transmittal to the Terminal for use in comparing metered-out cargo.

Caution: The incoming oil stream is controlled by the Terminal and it is extremely dangerous to close a cargo valve against the incoming stream. Such a procedure creates excessive pressure, which may damage hoses, piping or Terminal facilities. Vessels will be held liable for damages resulting from failure to observe this precaution.

Emergency Signal: When normal ship-to-Terminal communications fail, the emergency signal to stop the flow of oil will be a continuous blast on the whistle until oil ceases to flow. Steam or air should never be shut off from the whistle during loading. Whenever emergency whistle is used, all loading operations will be shut down until communications can be re-established.

Fire on Board of Export Tanker: The emergency signal must be given immediately to the Terminal. A vessel's Deck Officer with sufficient crew members must be ready and when so ordered by Mooring Master, close the manifold, disconnect the hose and standby on fo'castle ready to let go of the mooring line.

Terminal Stops: Request for the Terminal to stop the flow of cargo at a predetermined tonnage must be made in writing. Requests must include the statements that the Company will not be held responsible for any error and in case of overloading, the excess cargo cannot be pumped back to the Terminal. Some delays are always incurred when such a Terminal stop request is made.

SAFETY: The vessel's personnel are responsible for the safety of the vessel, and must take all necessary precautions whether or not so advised by the Mooring Master. Any safety precautions imposed by the Company Mooring Master and disregarded by ship's Officers or Crew, will be considered just cause for rejection of the vessel and all expenses and liabilities related thereto will be for account of the tanker.

Not less than 1 Deck Officer and 3 seamen shall be available on deck at all times while vessel is in the moorings.

One of those to be kept always on look-out on the bow to avoid contact with the SBM.

Power must be available at all times on deck winches and windlass while vessel is in the moorings.

The presence of unauthorised craft alongside is extremely hazardous and Masters are requested to require all unauthorised craft to clear the vessel's side prior to ballast pumping and cargo loading.

Mooring Masters are authorised to shut down loading operations during severe electrical storms, if another vessel or craft of any description comes alongside the loading vessel, and under any other circumstances which imperil loading operations.

MEDICAL: Medical assistance on an emergency basis only.

REPAIRS: No facilities of any kind are available. Pennington Offshore Terminal is considered an open roadstead and under no circumstances may engines be shut down for repairs while a vessel is moored in the Export Tanker Berth. The vessel must be able to depart from the berth immediately on instructions to do so.

WEATHER/CURRENTS: Wind and swell are mostly from a Southwesterly direction. The weather is generally good from November to May but is unfavourable during the wet season months of May to November. The currents are irregular and at times strong. The Mooring Master will provide the Master with this information when boarding the vessel.

FRESH WATER: Not available.

FUEL: Not available.

STORES: Not available.

REPATRIATION: Not permitted except in grave emergencies.

SHORE LEAVE: Not permitted.

GENERAL: Cargo inspection services are available from several companies who have offices in Lagos. The use of this service will be for account of vessel or Consignee.

Cash and laundry service not available.

SHIPMASTER'S REPORT: December 1983 (updated 1988).

Radio: Export tanker radio transmits on 8385 kHz and receives on Channels 5/6. Advisable to give tanker a 2 day ETA.

Berthing: During vessel's stay 1 Berthing Master, 1 Cargo Surveyor and 2 Nigerians stay on board and require food and accommodation.

The 2 Nigerians keep a buoy watch together with the vessel's own watchman.

Loading: API is usually 36.9 at 60°F. Loading rate approx. 3,000 t.p.h at 84°F.

After loading there is no EDP and it is necessary to leave the berth, anchor and wait about 2 hours for paperwork.

Customs: Customs inspect store rooms.

SHIPMASTER'S REPORT: January 1986.

Vessel loaded 1,000,000 barrels of Pennington light crude oil.

Documents: The authorities now require 6 copies Vaccination List, 4 copies Stores List and 11 copies Crew List.

Approaches: The Mooring Master boarded the vessel 1.2 miles West of the export tanker buoy.

Radio: The following Standard Messages were received from the storage tanker "Oloibiri":

Standard Message No. 1:

Quote

Note to Master –

On arrival have ready on starboard side the combination ladder (gangway plus pilot ladder) STOP on port side have boom ready to lift the mooring equipment STOP on forecastle have one 1 in. diameter messenger line 600 ft. long STOP on stern have towing line ready for handing to the tug STOP after mooring you will be connected with 1×16 in. hose on your port side STOP please call Pennington Terminal on VHF Channel 16 two hours before arrival STOP thank you STOP Pennington Terminal – MASTER Oloibiri/5NDF +

Unquote

Standard Message No. 2:

Quote

In addition to messages to Topcon Lagos please advise following information to this terminal –

1 – eta Pennington Terminal (4° 14′ 35.2″ N., 05° 36′ 53.2″ E.).
2 – cargo quantity to load.
3 – deballasting time.
4 – last port of call.
5 – next port of call.
6 – port at which cargo to be discharged.
7 – note – loading rate approximately 21,000 barrels per hour. Crude oil API 36.5. Approximate temperature 82° F. Any ballast to be discharged must be clear. – Topcon Warri – Master Oloibiri +

Unquote

Tugs: 2 tugs assist with berthing. 1 tug remains and tows aft throughout the entire stay at the SBM.

Hose Connecting/Mooring: In addition to the Mooring Master, 2 men board the vessel on arrival. They assist with mooring and connecting the hose. They stay on board all the time until the vessel is unmoored.

Surveyor: 1 cargo surveyor stayed on board whilst the vessel was at the SBM.

AGENCY: The Company does not perform general agency functions. Owners of vessels calling at the Terminal may arrange for their own Agents, although due to the location of the Terminal there are no Agent's offices in the area. For this reason the Company will arrange for the minimum agency service necessary to document and clear vessel and export cargo through Nigerian Customs. Costs of this Agency service will be charged back to appropriate parties.

NOTE: Should any vessel or craft sink or become an obstruction in the vicinity of the Terminal or at the Terminal, the Terminal Operator shall be empowered and shall have the right to take any steps it may deem necessary to remove the obstruction without notice to the owners. All expenses of such removal shall be borne by the vessel or craft or by those owning it at the time of the accident causing the obstruction, and the Terminal Operator shall be entitled to reimbursement by them for any such expenses incurred by it.

OPERATORS: Texaco Overseas (Nigeria) Petroleum Company, P.O.Box 1986, Lagos, Nigeria.

PORT HARCOURT (incl. Okrika Refinery):
04.46 N. 07.00 E.

DOCUMENTS: Ship Entry Notice, See "Lagos".

14 days prior arrival Agent requires:

16 Manifests.
3 Stowage Plans.
3 Hatch Lists.

On arrival at Port Harcourt, Master to present:

7 Ports of Call Lists.
7 Crew Lists.
2 Kroo Boy Lists.
3 Animal Lists.
5 Arms and Ammunition Lists.
1 extra Manifest for transhipment is applicable.
4 Stores Lists.
3 Crew Declaration Lists (belongings).
1 Declaration of Health List.
4 Vaccination Lists.
3 Narcotics Lists.
2 Parcel Lists.
6 Passenger Lists.
2 Stowaway Lists.

Where not applicable, forms to be marked "nil". All other forms including departure documentation prepared by Agent.

PILOTAGE: Compulsory from Bonny Fairway buoy. The pilot station for Port Harcourt is at Bonny, 15 miles from Fairway Buoy, 28 miles from Port Harcourt. The Harbour Master keeps watch on VHF Channels 16 and 14 and on 2182 kHz from 0700 hrs. to 1800 hrs. Pilot boards at Fairway Buoy from pilot-cutter green hull, stone colour superstructure.

Position of Fairway Buoy: Lat. 4° 12′ 56″ N., Long. 7° 00′ 28″ E.

It should be noted that Bonny is an Oil Terminal and as such heavy traffic of tankers is continuous. In extreme circumstances vessels may be requested by Harbour Master to pass the channel from Fairway Buoy at Bonny, and anchor at Bonny without a Pilot, in which case latest Notices to Mariners should be studied in order not to damage oil pipelines in prohibited anchorage areas.

ANCHORAGES: Position West of Fairway Buoy, depths 8–9 fathoms. Also on Bonny River at Bonny Town.

RESTRICTIONS: Vessels for Okrika and Port Harcourt can only navigate during daylight.

MAX. SIZE: Also see "Berthing" and "Report". Max. draft is 7.32 m. at HW. Max. length 600 ft., no restrictions on beam. Ebb tide reaches a max. of 3 knots off the berths and 2.5 knots in the river, flood tide 2.5 knots off berths and in the river.

HEALTH: Q-flag to be shown on arrival, except if from another Nigerian port. Yellow fever inoculations compulsory.

TUGS: 3 N.P.A. tugs of about 1,000 h.p.

RADIO: Master to cable "Agent" Lagos via Lagos Radio ETA 7, 4, 2 and 1 day prior arrival. Master to contact Bonny Harbour Master on VHF Channel 14 on arrival at anchorage giving all vessel and cargo particulars, Agent's name, SEN No., and date of issue.

Master also required to advise Port Harcourt Harbour Master identical information through Lagos Radio and to contact Port Harcourt Agent on VHF Channel 14, keeping watch on this Channel per Agent's instructions.

BERTHING: *Port Harcourt:* 8 berths for general cargo at hard quays. Maximum practical draft 7.32 m.

8 dry cargo berths depth 33 ft. – 35 ft.

Mooring buoys, Dockyard Creek with 5 buoys, max. draft 7.62 m.; Dawes Island anchorage discharging for about 12 vessels, max. draft 8.23 m.; Pool 4 buoy berths max. draft 6.01 m.; Tanker buoy 1 berth.

B.O.P. Berth. This berth lies outside the Quay area, and is for the loading of palm oil by means of a direct pipe-line from the installation of Bulk Oil Plants (Nigeria) Limited. It consists of a central "T" jetty with dolphins and is capable of berthing vessels up to 480 ft. in length. It is also used for the discharge of explosives as such cargo is not permitted to be handled across the general cargo Quay.

Oil is supplied by a 6 in. diameter pipe at a maximum rate of 250 t.p.h.

Coal Handling Facilities: Facilities for loading coal have been completed and a conveyor capable of loading about 60 t.p.h. is working. Max. draft at the coal berth is 7.62 m. This berth is situated at the Northern end of the port, berth No 8.

Okrika Oil Refinery: (Lat. 04° 44′ N., Long. 07° 05′ E.). Okrika lies on the Bonny River, 56 km. from the sea. The approach over the bar is by a channel 12.8 km. in length. Depth in channel: See "Bonny". The river from Bonny to Okrika has been dredged as necessary to a depth of 8.84 m. Chart Datum. The bar channel and river are well buoyed with light buoys, port and starboard. There are also beacons in the river. Jetty at the oil refinery suitable for berthing coastal and ocean tankers up to 33,000 d.w.t. The jetty is "L" shaped with a square dolphin at the end of the arm. Ocean tankers secure on the outside of the jetty making fast to two sets of mooring dolphins each end. The coastal vessels and barges are berthed on the inside of the jetty. Oil is supplied via gantry hoses on either side.

Max. draft limit for tankers sailing from port 9.67 m., draft for berthing 7.92 m.

Fresh water available from the jetty.

The tugs based at Port Harcourt are available if required.

Pilotage is compulsory from the Fairway Buoy to the Refinery Jetty except for Naval vessels and vessels of less than 1,000 tonnes whose Master holds a licence issued by the Nigerian Ports Authority. All vessels using the Refinery Jetty will berth and unberth on the flood tide only during daylight hours until further notice.

Also see "Report".

STEVEDORES: Gang requirements and hatch distribution should be included in 48 hours ETA cable to Agent. Discharging general cargo 8 tons per gang/hour, cement 15 tons per gang/hour, bagged cargo 20 tons per gang/hour, loading produce 15–20 tons per gang/hour.

MEDICAL: Doctors available 24 hours, but limited supply of medicines available. Yellow fever vaccination required.

TANKERS: See "Berthing".

DENSITY: Approx. 1015.

FRESH WATER: Limited supply by barge.

FUEL: Most standard lubricants available, fuel and gas oil available by barge or road tanker. Requirements by 48 hours ETA cable.

GANGWAY/DECK WATCHMEN: Compulsory. Tankers take 4 watchmen and cargo vessels take 16 watchmen. Acts of piracy have taken place at the port. See "Bonny" – "Piracy".

OPENING/CLOSING HATCHES: Normally by crew.

CUSTOMS ALLOWANCES: 200 cigarettes per man per 7 days. 1 wine or 1 bottle spirits per officer per 7 days.

IDENTIFICATION CARDS: Crew to carry passport or seaman's book whilst ashore.

REPAIRS: Only very minor repairs available, no spares.

REPATRIATION: Possible via Lagos or Port Harcourt.

AIRPORT: Port Harcourt International Airport 30 km. from port. International and domestic flights.

TIME: GMT plus 1 hour, no changes during the year.

HOLIDAYS: See "Lagos".

POLICE/AMBULANCE/FIRE: All can be contacted by telephoning 999.

SHORE LEAVE: Allowed provided crew carry passport or seaman's book.

REPORT: September 1984.

(a) Okrika sailing draft now 31 ft. 9 in.

(b) Compulsory pilotage for all classes of vessels including service boats is now in force.

(c) All vessels are to direct radio messages/cables advising ETA's to the port of destination and not to N.P.A. headquarters in Lagos to avoid delays.

(d) Station Tanker "Maryland" – 152,035 d.w.t., LOA 915.34 ft. Summer draft, 58 ft. and operating on max. draft of about 40 ft. with which she is capable of lifting 85,000 tonnes of product. Vessel's position is approximately Lat. 4° 25′ N., Long. 7° 08′ E. at Bonny Inner Anchorage.

SHIPMASTER'S REPORT: 1977.

The ETA for this port should be sent via Lagos Radio, but much earlier than 48 hours. Better as soon as possible, for communication between Lagos and the out-ports is poor.

The normal practice at the moment is that the Master enters the Bonny River himself after permission from Bonny Harbour Master. The anchorage position on Bonny roads is given by Harbour Master and vessel can proceed as far as buoy 1A. (A few miles up Bonny River).

Discharging at Port Harcourt not only occurs alongside, but from Dawes Island upwards to Port Harcourt. Ships are discharged while laying at anchor. No buoys available. The cement cargo ships especially are discharged this way.

At Dawes Island the Bonny River Pilot leaves the ship and is replaced by a Port Harcourt Pilot.

Tugs are not available for mooring.

SHIPMASTER'S REPORT: May 1982.

Documents: 6 Crew Lists, 5 Passenger Lists (or negative), 8 Arms and Ammunition Lists (or negative), 6 Livestock Lists (or negative), 7 Ports of Call Lists, 2 Bonded Store Lists, 5 Vaccination Lists, 2 Crew Declarations.

As we were a tanker in ballast we did not present any Manifests and Bills of Lading. However, the Immigration Officer asked for a declaration from Master that there were no stowaways on board. No special form used.

Pilotage: Pilot keeps watch on Channel 14 and all traffic passed from this Channel to others (12, 13). As there is a shortage of Pilots, sometimes one Pilot comes out at Fairway Buoy and boards the first vessel to enter. The two or three other vessels entering at same time are directed to follow the vessel with the Pilot on board through the entrance channel to Bonny. When no Pilot waits at "N" buoy, the Pilot on board the first vessel will direct the others to the anchorages at Bonny as far as Buoy 1A.

During our stay it was observed that sailing out was performed at any hour but sailing in was only performed during daylight hours.

As the channel from Fairway Buoy and Bonny is a one-way channel all traffic is controlled by Bonny Signal Station who keep watch on VHF Channel 14 continuously and gives permission to vessels who intend to use the channel regarding the other vessels who are using it.

The Pilot from Port Harcourt to Bonny will normally disembark at Bonny outward bound. However, if another vessel is waiting at the fairway buoy to proceed inward or if requested by Master, Pilot will take vessel to the fairway buoy.

Our Pilot left at Bonny Pilot Station and vessel can proceed to sea after getting permission from Bonny Signal Station to do so. If outward channel is not clear from inbound vessels you are requested to wait until the last vessel reaches "N" buoy. In some circumstances they will allow vessels to cross each other near "M" buoy but no further than that.

On this occasion it was noted that "L" buoy (starboard) was missing.

Tankers between Bonny and Port Harcourt can only proceed with Pilot and during daylight hours. When proceeding to Okrika the Pilot boards at Bonny Pilot Station or at Bonny Anchorage and conducts vessel up river to Okrika and berths vessel. If possible he starts from Bonny when tide begins flooding up river, it takes about two hours for tide to reach Okrika and vessels take about same time in steaming, so when we reached Okrika the tide begins flooding.

Tankers berth port side to and use starboard anchor to make the turn. Pass a line to a mooring buoy so that it will be on starboard bow when the vessel is berthed to assist the berthing. After completion of berthing this line is taken in, as it has no more use and on account of thieves. Vessels remain secured by 3 breast lines to dolphins forward and aft and 1 spring line to jetty forward and aft.

When sailing, after taking in all lines, the last ones being one breast line forward and aft, the starboard anchor will assist the vessel to leave the jetty and reach the middle of the channel.

Maximum draft for sailing out of Okrika Terminal is 32 ft. (9.75 m.), when berthed port side to the jetty. If berthed starboard side to the jetty the maximum sailing draft is 25 ft. (7.60 m.). It is convenient when sailing at maximum draft to go to the jetty always port side as if going starboard side to when loaded to 25 ft., vessel has to stop loading, unberth, turn and berth one more time and all these operations must be performed only during daylight hours and at special stages of tide.

Sailing out from Okrika with 32 ft. will be performed in daylight and vessels must leave jetty two hours before high tide at Bonny.

The channel from Okrika to Bonny has been kept dredged to the Chart Datum, it was well buoyed and was made by the vessel loaded without any difficulties. Our sailing draft was 32 ft.

Health: "Q" flag to be shown on arrival, on river and on berth, till the Health Authorities board the vessel and give clearance.

Okrika Jetty: Further to the information above there is a new jetty, down river, close S.E. of the former, which is ready as a normal quay, but will have to have oil loading facilities and pipe-lines, connected to the existing ones at the middle of the connection to shore of the former jetty. The new jetty is provided with six buoy fenders (cylindrical type), four of them in the middle, (the small type) and two (large type) near the extremities of jetty. It is expected that the mounting of pipe-lines, oil loading facilities and other facilities will take about 2–3 years.

Density: During our stay, May 6th – 9th, we experienced the following: at LW 1018; at HW 1019; water temperature 30°C.

Fuel: Fuel oil, diesel oil and gas oil are available. We took gas oil without difficulty but fuel oil takes a long time as occasionally they need to flush all lines and this takes time. Orders must be placed well in advance as it takes a long time to get confirmation from Lagos about the supply.

Shore Leave: No difficulties, but recommended in daylight hours.

Communications: Between Lagos and Port Harcourt are very poor. Telex lines were inoperative at time of our stay and all messages between Lagos and Port Harcourt Agency Offices were passed by radio or telephone with delays.

AUTHORITY: Nigerian Ports Authority.

AGENT: Alraine (Nigeria) Limited, P.M.Bag 622, Port Harcourt. Tel: 084 222.531. Telex: Freight Lagos 21244 attention – Port Harcourt.

QUA IBOE: 04.20 N. 07.59 E. (See Plan)

LOCATION: The Terminal is located on the Eastern side of the estuary of the Qua Iboe River in approximate position Lat. 4° 33′ 00″ N., Long. 7° 59′ 30″ E.

The crude oil storage facilities consist of seven tanks each of 500,000 barrels capacity.

At the present time considerable work is being carried out in the area.

ESSENTIAL REQUIREMENTS:

1. No dirty ballast.
2. Advise arrival time.
3. Vessel to have ready prior to arrival:
   (a) Two ships' ropes on the bow, or long nylon messenger 1.5 in. diameter. One floating ship's rope (polypropylene) on the stern for the mooring boat to tie-up.
   (b) Port side derrick, and gear rigged to lift floating hoses.
4. Mooring Master meets vessel in the suggested safe anchorage area.
5. Have pilot accommodation ladder combined ready, *or air hoist*.
6. Make a lee for the Mooring Master to board the vessel.
7. The Master of the vessel is responsible for the safety of his ship at all times.
8. Ship's crew perform all operations of mooring, unmooring, connecting and disconnecting hoses on board ship.
9. No shore leave.
10. Whilst arriving fly the Nigerian Ensign (Green-White-Green, vertically arranged). By day: Fly flag "Q" for quarantine service. By night: Display red over white light.
11. Nigerian time is GMT plus 1 hour.
12. No supplies of any kind, no medical services (except in cases of emergency) or other services are to be expected at Qua Iboe Terminal.
13. No Agency.

All vessels loading at Qua Iboe must have 2 bow anchors and a minimum of 10 working shots of chain attached to each anchor.

DOCUMENTS:

The following documents are required by the Nigerian Government Customs Representative at Qua Iboe Terminal:

4 Copies Crew List.
4 Copies Ports of call within the last three months.
2 Copies List of Birds and Animals.
1 Copy Passenger List.
1 Copy Stores List.
2 Copies List of Arms and Ammunitions.
1 Copy Crew Personnel Effects List.
3 Copies Vaccination List.

Attached to the store list, should be a list of Narcotics.

If the vessel has a clearance for another port the deviation cable has to be shown to the Customs Officer.

PILOTAGE: Vessels loading at Qua Iboe will be boarded by a Company Mooring Master either at the anchorage or where directed.

The Mooring Master will advise the ship's Master in regard to the approaches to the berth; and the mooring, unmooring, connecting, disconnection of hoses, departure from the berth and loading operations.

All vessels must have upon arrival a pilot ladder in good, clean condition safely and securely rigged. A vessel arriving with freeboard of 30 ft. or more must use its accommodation ladder in conjunction with the pilot ladder unless a "pilot hoist" or similar arrangement is available.

In the event that a vessel is deemed by the Mooring Master to be improperly or insufficiently equipped with adequate mooring facilities, lines or gear, then he shall so inform the ship's Master. In such an event the vessel will not be brought into the mooring until satisfactory gear or equipment is provided.

ANCHORAGE: Numerous submarine pipe-lines and structures exist in the approaches and close vicinity of the loading berths.

Under no circumstances whatsoever should vessels anchor except in the approved anchorage described below.

The safe Anchorage Area is located 2 miles S.E. of the Berth Operation Platform (BOP) and clear of the SPMs between the parallels of Latitude 4° 10′ North and 4° 13′ North and meridian 8° 03′ East and 8° 07′ East.

Vessels bound for the Qua Iboe Terminal should proceed with extreme caution from the S.E. to the safe Anchorage Area. If uncertain of the vessel's position because of poor visibility stay S.E. and clear of the safe Anchorage Area until visibility has improved.

HEALTH: Pratique may be granted by radio (Lagos Radio).

The vessel should have a clean Bill of Health or an equivalent document from the last port of call. The vessel's Master and all members of the crew shall possess International Certificates of Health showing valid Cholera and Yellow Fever Vaccination Certificates.

MAX. SIZE:

Berth	*Length*	*Beam*	*Draft*
No. 2 (SPM1)	No restriction	No Limit	72 ft.
No. 3 (SPM2)	No restriction	No Limit	72 ft.

RADIO: Cable address: Mobil Oil Lagos. Telex: 21228, 22608 and 21801.

Vessels proceeding to load at Qua Iboe must radio:

1. Mobil Oil, Lagos indicating their cargo requirements, last port of call and ETA 7 days prior to arrival. When their passage time is such as to not permit a 7 day ETA then the maximum possible advance notice must be given.
2. Mobil Oil, Lagos, confirming or amending the ETA given in (1) above at 72 hours and 24 hours prior to arrival.
3. The Nigerian Government Port Health Officer at Lagos at least 72 hours before arrival advising the following:
   (a) Vessel's name and call sign.
   (b) ETA Qua Iboe Terminal.
   (c) Last port of call.
   (d) Cargo requirements.
   (e) Number of crew and whether healthy or not.
   (f) Whether or not a doctor on board.
   (g) Requesting Free Pratique.

If the request for Free Pratique is granted, the Port Health Officer will so advise by radio. If the request has not been radioed to the vessel, the yellow flag "Q" by day or red over white lights by night must be displayed on arrival at Qua Iboe.

In addition, as soon as possible prior to arrival vessels should establish direct communication with the Terminal ("Qua Iboe Control") on VHF international calling Channel 16 (156.8 MHz).

Vessels not equipped with VHF or whose equipment is not fully functional should advise Mobil Oil, Lagos, at the time of their ETA messages previously referred to.

The (BOP) Berth Operation Platform is fitted with a racon and transmits the Morse signal "K" (– · –). All vessels equipped with 3 cm. radar will be able to pick this up on their radar screen at a distance of approximately 17 miles – 20 miles. The B.O.P. is located in position: Lat. 04° 14′ 11″ N., Long. 08° 02′ 25″ E.

After direct contact has been established with the vessel, Qua Iboe Control will transmit preliminary requirements and berthing instructions.

VHF: The primary system of communication with the terminal while in berth shall be through the Mooring Master by means of a portable VHF unit provided by the company.

TUGS: None. Terminal launches assist in berthing.

BERTHING: The tanker loading facilities consist of 2 berths:

No. 2 Berth: A Single Point Mooring (SPM) Buoy located in a position Lat. 04° 13′ 05″ N., Long. 08° 02′ 45″ E., approximately 19.4 nautical miles 170° from the terminal tank farm. Depth of water at manifold 85 ft. Max. draft 72 ft.

No. 3 Berth: A Single Point Mooring (SPM) Buoy located in a position Lat. 4° 13′ 30″ N., Long. 08° 03′ E., approximately 18.8 nautical miles 165° from the terminal tank farm. Depth of water at the manifold 85 ft. Max. draft 72 ft.

All vessels must be equipped with adequate on-deck and overside lighting. A spotlight should be rigged on the bridge when berthing during the hours of darkness.

To assist in the vessel's turnaround, tankers should have all booms and cargo gear rigged on the port side before the ship is boarded by the Mooring Master.

Berthing Requirements: Berth Nos. 2 and 3: All vessels proceeding to the SPM must secure their anchors with chain stoppers or compressors. Floating hoses taken aboard on the port side.

The moorings have been designed in general accordance with the recommendations of the SPM Forum. The mooring lines consist of 2×18 in. braided nylon ropes each 160 ft. long with floats attached.

In order to heave the mooring lines aboard, the vessel should have ready on the forecastle a ship's rope or a rope messenger not less than 1.5 in. in diameter and a minimum length of 120 fathoms. The rope messenger is led through a fairlead, large enough to permit the entry of a 3.25 in. diameter chafing chain, on port side or centre line (Panama Lead) down to the water clear of the ship's bulbous bow. This rope must have a good lashing attached to the eye.

The terminal line boat assisting in mooring, will proceed to the vessel, as soon as she is within her reach, to pick up the ship's rope and to make the connection with the terminal provided 12 in. circ. polypropylene rope. The ship will then heave steadily on the rope until the chafing chain lies across the fairlead of the vessel.

Tenders by vessels to load crude oil cargo at Qua Iboe, will be normally accepted and berths assigned to vessels in chronological order of arrival providing such vessels have current nomination for cargo valid at the time of tender, carry clean ballast, if any, and have cargo tanks in a fit condition to receive cargo. Also they must be in all respects properly equipped and ready to moor. Should berthing be delayed on account of bad weather, vessels will keep their position in line.

HOSES: Berth Nos. 2 and 3 SPMs are equipped with 2 floating hose strings. 29 hoses on the left hand and 28 hoses on the right hand facing the buoys. The over-the-rail hoses have a 12 in. ASA connection provided with a butterfly-valve at the end.

Tanker on Light Draft: Weights of Hose Strings for SPM: Indication of hose strings approximate weights of hose strings in *long tons* (including fittings and floats) with all hoses full of crude oil S.G. 0.850. Assumed total lift 25 ft. above deck level.

Size of Tanker	Inside Diameter of Hoses 12 in. – 16 in.×30 ft.
285,000 d.w.t.	6.8 tons
200,000 d.w.t.	6.0 tons
100,000 d.w.t.	5.2 tons
80,000 d.w.t.	5.0 tons
50,000 d.w.t.	4.5 tons

LOADING: All vessels must be adequately provided with bollards or cruciforms and suitable leads to facilitate the hanging off of the hoses during the lifting operation.

The Mooring Master will inspect the vessel's cargo tanks and will sign the Dry Certificate prior to the commencement of loading.

The Mooring Master may reject a vessel if it is not upon inspection properly equipped or if it is not suitably manned or if deemed to have dirty ballast or tanks unsuitable to receive cargo. Any vessel rejected because of being insufficiently equipped, will automatically nullify her (NOR) "Notice of Readiness" and will not be accepted until satisfactory evidence is produced, that the vessel's gear is in good working condition.

The ship's Master or a suitable Qualified Officer must be on duty on the bridge at all times while the ship is manoeuvring, mooring and unmooring or whenever requested by the Mooring Master.

All mooring, unmooring and hose connection and disconnection must be carried out by the ship's crew under the supervision of a suitable Qualified Officer acting on the advice of the Mooring Master.

Ship's loading manifolds should be prepared for 2×12 in. hose connections prior to arrival at the Qua Iboe Terminal. Sundry equipment should include tools to connect the hoses, nuts, bolts, gaskets and rope strops as none of these items are supplied by the Terminal. All 12 in. hoses have ASA flanges.

The Notice of Readiness will be signed by the Mooring Master on behalf of the Company. The time for giving the Notice of Readiness is the time of the vessel's arrival at the usual anchorage, or the time of boarding of the Mooring Master, whichever is the earlier. Notice of Readiness will not be accepted unless the vessel is ready to load.

Loading rates will vary according to conditions but can be expected to be up to 62,000 bbls.p.h. at the SPMs.

Information as to the anticipated loading rate should be obtained from the Mooring Master who will also advise the expected specific gravity and loading temperature.

The maximum possible notice in regard to slowing the loading rate for "topping off", etc. should be given to the Mooring Master.

Pressure Surges: Because of the long lengths and large diameters of the pipe-lines, ships' loading valves must not be closed against the flow of oil.

Vessels provided with mechanically or hydraulically operated valves whose closing time is less than 30 seconds must advise the Mooring Master accordingly. In such circumstances the loading rate may have to be reduced.

EARLY DEPARTURE PROCEDURE: The Early Departure Procedure will be used at the Qua Iboe Terminal. The procedure is as follows:

(All vessels are advised in advance of EDP)

1. Official declaration indicating Acceptance will be signed by Master on arrival.
2. Bill of Lading and Cargo Manifest will be prepared in advance except for cargo figures and be presented to Master for signature. Master will authorise MPN as Agent to sign all documents on his behalf.
3. Copies of the above documents will be retained on board as indicated by Documentation Instructions.
4. On completion of loading it is the Mooring Master's responsibility to ensure that all data is correctly recorded on the proper form, and that all EDP documents are filled out in full, before sailing, he then will sign all cargo documents on behalf of the company.

BALLAST: There are no facilities for the shore reception of ship's ballast. Vessels are accepted for loading on the express understanding that only clean ballast will be discharged into the sea.

Masters are required to sign oil pollution advice form letters on arrival. If a vessel is observed to be discharging dirty ballast, then it may be liable to prosecution or penalty and all further discharge will cease. The discharge of oil from bilges or other spaces is similarly strictly prohibited.

A vessel must have sufficient ballast for safe manoeuvring into the berth.

Vessels equipped with a separate system of ballast tanks will be allowed to discharge ballast and load simultaneously; providing approval is first obtained from the Company Operations Superintendent.

DENSITY: 1018.

FRESH WATER: Not available.

FUEL: Not available.

STORES: Not available.

MEDICAL: Only emergency medical facilities.

TIME: Nigerian local time is GMT plus 1 hour throughout the year.

CUSTOMS ALLOWANCES: Nigerian Government Customs Officials will board the vessel as soon as possible after arrival to give inward clearance and "Free Pratique" service. Nigerian Government Regulations are strictly enforced.

Cigarettes, cigars, tobacco, matches, spirits, wines, perfumes, arms, ammunition and possible other items have to be locked under Customs seal from time of arrival of ship in port until time of leaving territorial waters.

Each person is allowed 200 cigarettes per week of stay or equivalent amount of tobacco or cigars in lieu thereto. Each person is allowed 1 bottle of spirit and 1 case of beer. Special allowances are made for Masters under special circumstances. If the slop chest items and the bonded store items are not combined in one locker, the Customs Officer has to be informed.

REPATRIATION: Crew changes not possible.

SHORE LEAVE: Not possible.

GENERAL: *Agency:* The Company will handle documentation requirements for vessels loading at the Terminal. It does not carry out general vessel agency functions. Ship's mail and personal mail will be handled through the Mooring Master.

Courtesy Ensign: All vessels must exhibit the Nigerian National Ensign from the foremast or as appropriate while in the vicinity of the moorings.

"B" Flag: During loading, the International Code Flag "B" must be displayed from a topmast signal halyard during daylight hours. During hours of darkness a red all around light must be displayed where it can best be seen.

Charts: The following charts and nautical publications may be used to assist vessels bound for Qua Iboe.

British Admiralty Chart: No. 1860
British Admiralty Sailing Direction: Africa Pilot Vol. I
U.S. Naval Oceanographic Chart: No. 2352, 2353
U.S. Naval Oceanographic Sailing Directions No. 50-S. West Coast
Also appropriate tide and tidal stream tables.

Weather: Throughout the year a long low Southwesterly swell is prevalent. During the wet season, June to November, this swell together with a rough sea becomes very high, especially during heavy squalls.

Local winds have on rare occasions been recorded at 55 – 60 knots in the vicinity of the berths. Heavy rain, thunder and lightning may accompany these winds. They are unpredictable in direction and force and precautions are necessary to avoid difficulties.

Tidal currents prevailing in Easterly/Westerly direction of some 3 knots to 4 knots can be experienced. At times, the direction of these currents is variable.

SHIPMASTER'S REPORT: December 1984.

1 Pilot and 1 cargo surveyor live on board.

Immigration and Customs Officials board for usual formalities and store room inspection.

Lineboat tows astern most of time using ship's line.

Although EDP is supposedly used, vessel does not obtain clearance until ship's figures checked against shore figures, after which, Customs Clearance is received. This can involve a wait of several hours. Vessel has to complete consignees' papers after sailing. Supernumeraries may cause difficulties with Immigration, it is best to have everyone signed on.

For vessels waiting, a good anchorage can be obtained in position 03° 55′ N., 05° 46′ E., taking care to avoid the 120 fathom hole in position 03° 55.5′ N., 05° 42.9′ E. When hove up, the cable was very clean with only a little mud on the anchor.

OPERATOR: Mobil Producing Nigeria – Qua Iboe Terminal, Marine Office, c/o Bookshop House, 50 Broad Street, Private Mail Bag 12054, Lagos Nigeria. *Tel:* 630216. *Telex:* 21801, 21228 and 22608. *Cables:* Mobiloil Lagos. *Contact:* Captain P. F. Obersteller, Chief Mooring Master; Captain N. A. M. Austwick, Mooring Master, Qua Iboe Terminal. Captain P. B. Etim, Mooring Master, Qua Iboe Terminal. J. R. Gaca, General Manager – Lagos. G. O. Adamolekun, Area Operations Manager – Eket.

SAPELE: 05.55 N. 05.42 E. **(See Plan)**

PORT LIMITS: Escravos Fairway Buoy.

DOCUMENTS: See "Warri".

APPROACHES: Escravos fairway buoy Lat. 05° 30′ N., Long. 05° 04′ E. for entry to Escravos River. Present draft limit 6.4 m. Dredging of channel 100 m. from Escravos down to 10 m. expected to be completed soon.

PILOTAGE: River Pilot takes vessel all the way to Koko Anchorage during daylight only. NPA Pilot takes vessels from Koko Anchorage to Sapele Port with a tug. Contact Pilot on VHF Channel 16.

The mouth of Escravos River (05° 35′ N., 05° 10′ E.) is the main entrance for the Delta Creek ports of Warri, Koko, Burutu and Sapele. Before entering any of the creeks, rivers or channels from Escravos to the above mentioned ports, vessels are required to broadcast their intentions and to keep constant VHF radio watch. Positions and movements must be exchanged with other vessels in the vicinity.

The Pilot Station at Escravos is located 0.5 miles North of the Escravos Beacon. The boarding position of the Pilot is 1.0 miles West of buoy No. 5 (close to the breakwater) when vessel is ready for proceeding inward. Vessel will always drop anchor at Escravos inner breakwater anchorage until further instruction is received from the Port Authority.

In addition; on arrival of vessels at Escravos the Pilot normally boards with one helmsman and remains onboard until vessel's departure.

ANCHORAGES: At Koko with max. LOA 170 m. and max. draft 6.4 m.

MAX. SIZE: Max. permissible length 170 m., draft 6.4 m., depth alongside berths 10.0 m.

HEALTH: See "Lagos".

RADIO: See "Lagos" for ETA advices to Agent. Port Authority Sapele to be contacted on VHF Channel 16.

TUGS: A tug is available as Koko to Sapele is a compulsory pilotage district.

BERTHING: Six berths (incl. one Ro-Ro) at new port. Mooring during daylight hours only.

MEDICAL: NPA Port Clinic with a doctor and a number of para-medical staff available Monday to Saturday.

FRESH WATER: Available in Sapele and supplied by water hydrant and by barge.

FUEL: Fuel oil available by barge from Warri. Diesel available locally. Both products in limited supply.

GANGWAY/DECK WATCHMAN: Compulsory during hours of darkness while in port or at Koko Anchorage.

CLOSING/OPENING HATCHES: Either by crew or stevedores.

CUSTOMS ALLOWANCES: See "Lagos".

IDENTIFICATION CARDS: See "Lagos".

REPAIRS: No facilities.

DRY DOCKS: None.

REPATRIATION: By road to Benin, or Warri, both connected with Lagos by regular air service.

TIME: GMT plus 1 hour.

POLICE/FIRE: Police/fire services are available in the port every day throughout the year.

TELEPHONES: External (P. & T.) and internal telephones are available in the port.

SHORE LEAVE: See "Lagos".

AUTHORITY: Nigerian Ports Authority, Sapele Port Complex, Private Mail Bag 4024, Sapele, Nigeria. *Cables:* Genports. *Contact:* The Port Manager.

AGENT: Alraine (Nigeria) Ltd., P.O.Box 4030, Sapele.
Tel. 177. Telex: Lagos 21244.
N.B. Correspondence should be addressed to Warri office.

WARRI: 05.30 N. 05.44 E. (See Plan)

DOCUMENTS:

(a) Ship Entry Notice, SEN. (See "Lagos").
(b) 14 days prior arrival Agent requires:
- 12 Copies of Manifest.
- 5 Stowage Plans.
- 5 Hatch Lists.

(c) On arrival Master to present:
- 7 Ports of Call Lists.
- 8 Crew Lists.
- 5 Kroo Boy Lists.
- 2 Vaccination Lists.
- 5 Animal Lists.
- 4 Arms and Ammunition Lists.
- 1 Extra Manifest for Transhipment (if applicable).
- 1 Store List.
- 1 Crew Declaration List (crew belongings).
- 1 Maritime Declaration of Health.
- 2 Narcotics List.
- 2 Parcel Lists.
- 5 Passenger Lists.
- 1 Stowaway List.

All above to be prepared and if not applicable to be marked nil. Other forms prepared by Agent and furnished on arrival.

(d) Warri Ro/Ro Terminal Company require:
- 12 Copies of Manifest.
- 4 Copies of Dangerous/Hazardous Cargo List.
- 4 Copies of Discharge Plan.
- 2 Copies General Arrangement Plan for each vessel.

PILOTAGE: Compulsory. Berthing in daylight only. Whenever ships are bound for Warri Port, on arrival at Escravos Fairway Buoy the Master should call Delta Pilot Union Escravos on VHF Channel 16. A local River Pilot will then be sent aboard before the breakwater to Pilot vessel to Bennet Island where the NPA Harbour Pilots normally come aboard to take vessel alongside.

The mouth of Escravos River (Lat. 05° 35′ N., Long. 05° 10′ E.) is the main entrance for the Delta Creek ports of Warri, Koko, Burutu and Sapele. Before entering any of the creeks, rivers or channels from Escravos to the above mentioned ports, vessels are required to broadcast their intentions and to keep constant VHF radio watch. Positions and movements must be exchanged with other vessels in the vicinity.

The pilot station at Escravos is located 0.5 miles North of the Escravos Beacon. The boarding position of the Pilot is 1.0 miles West of Buoy No. 5 (close to the breakwater) when vessel is ready for proceeding inward. Vessel will always drop anchor at Escravos Inner Breakwater Anchorage until further instruction is received from the Port Authority.

In addition; on arrival of vessels at Escravos the Pilot normally boards with one helmsman and remains onboard until vessel's departure.

ANCHORAGES: 1 anchorage known as "the pool", opposite Okorodudu Town; max. draft for pool anchorage 14 ft. MLWS. Further anchorage at Forcados for vessels waiting to proceed to Burutu or Warri.

APPROACHES: Escravos Fairway Buoy Lat. 5° 30′ N., Long. 5° 04′ E. for entry to Escravos River. Present draft limit 6.4 m. Dredging of channel from Escravos down to 10 m. expected to be completed soon.

MAX. SIZE: LOA 156 m., and due to Escravos bar max. draft 6.4 m.

HEALTH: International Pratique Regulations prevail. Pratique *not* necessary when coming from another port in Nigeria.

RADIO: See "Lagos" for ETA advices to Agent. Contact Port Authority and Agent via VHF Channel 16.

TUGS: NPA's 2,100 h.p. tug with fire fighting equipment on board.

BERTHING:

Warri: The new Warri Port facilities now include:

11 hard quay berths of which 1 equipped with ramp for Ro/Ro.

10 buoy berths. Berthing daylight hours only. New Warri Port quay length 1,600 m. and depth alongside 11.50 m. 4 new sheds with total 28,800 sq. m.

Warri Refinery: 2 oil loading jetties and 2 cargo jetties specially for refined products. Berthing only during daylight hours. Refinery jetties total quay length 121.2 m. and depth alongside 7 m. Products available for lifting: AGO, HPFO, LPFO, DPK, PMS, LPGO Butane and Propane. Fresh Water available.

Private Jetty: Delta Steel Corporation at Aladja can accommodate vessels with max. draft 6.4 m.

CRANES: NPA Warri has got one 250 metric tonne floating crane and portal cranes of 10 metric tonnes and 6 metric tonnes. Mobile cranes also available.

UNBERTHING: Agent prepares outward Customs Clearance Certificate and delivers copy to Master. Agent books Pilot and advises Master time of boarding. Vessel to keep continuous watch on VHF Channel 16 for instructions from Harbour Master and Agent.

STEVEDORES: See "Lagos".

TANKERS: See "Berthing".

MEDICAL: Facilities available.

DENSITY: Brackish.

FRESH WATER: Available; delivered by barge or via hydrant.

FUEL: See "Lagos".

FIRE PRECAUTIONS: NPA provides modern fire-fighting equipment.

GANGWAY/DECK WATCHMAN: Compulsory in port and at anchorage Bennet Island during darkness.

OPENING/CLOSING HATCHES: By crew.

CUSTOMS ALLOWANCES: See "Lagos".

IDENTIFICATION CARDS: See "Lagos".

REPAIRS: Minor repairs only. *N.B.* Spare parts in short supply.

REPATRIATION: Regular airline services between Warri and Lagos.

TIME: GMT plus 1 hour.

POLICE/AMBULANCE/FIRE: All these services available in port area.

TELEPHONES: Not available – see Agent.

SHORE LEAVE: See "Lagos".

SHIPMASTER'S REPORT: January 1983.

The vessel departed from Apapa, Nigeria, on the 13th January, 1983, drawing 8 ft. 6 in. forward and 13 ft. 1 in. aft, arriving at Escravos, the entrance of Warri River, on the morning of the 14th January, 1983.

The approach to the Fairway Buoy (Escravos Pilot Station) was impaired by very limited visibility (Harmattan) and the presence of numerous oil platforms and tanker buoys, their positions being unreliable. The coast near the breakwaters has extended by about 1.5 miles, whilst the position was impossible to fix through the lack of a clear picture on the radar screen (Raytheon – 10 cm.), which was in an optimum condition. The Satnav provided the best aid and navigating prudently the Fairway Buoy with "Escravos" painted on it, was sighted. To double check, course was set to Buoy No. 1, which verified our position.

The Agency at Apapa had advised us to engage a Pilot named Bob Gula, but on approach, when calling him over the VHF, numerous rival Pilots tried to contact us. A pilot launch, near us and carrying a placard "Delta Pilots" and flying "U.P." was contacted and a Pilot engaged, there being no sign or word from Bob Gula. The Pilot proved to be a very capable navigator. Fully informed about all aspects concerning the directions to Warri and keeping in close contact with Warri Harbour Control about shipping movements, most essential in these narrow waters.

The Delta Pilots Union is a branch of the Nigerian Union of Seamen and Transport Workers which has a roster of 35 Pilots. Their aim is, and they are succeeding, to provide an efficient and reliable service to vessels and to eliminate the so-called "Pirate" Pilots, who refuse to join the Union and who create chaos on the VHF.

The entrance to Warri River, near the breakwaters, which on departure disappeared from our radar screen at 1.5 miles, very low, is now marked by a pylon, Qk. Fl. (unlit) Nauto, and a pair of buoys, red and green, Nos. 5 and 6. The next ones are numbered 7 and 8, etc. B.A. Charts 3304 and 3305 were used, albeit positions and numbers were incorrect. Except for a few buoys all are unlit, hence only daylight pilotage. At some parts buoys are in pairs, at some parts only single buoys. Least depth sounded was 28 ft., reduced to mean level 24 ft. We were told that 24 ft. vessels are being berthed.

At Bennett Island a Harbour Pilot boards the vessel for berthing. One large and several small tugs are available.

The River Pilot remains on board for the return trip. Accommodation plus food has to be provided.

If anchoring is required, 3 anchorages are available in the vicinity of:
a. Excravos Lighthouse.
b. Warri Point.
c. Bennett Island.

AUTHORITY: Nigerian Ports Authority, Burutu.

AGENT: Intertrans (Nigeria) Ltd., 4 Khalil Road, POB 374, Warri. Tel: Warri 341. Telex: Via Lagos 21.244. Attention "Warri".

Norway

GENERAL:

REGULATIONS:

The following was translated by Shipping Guides Ltd.

REGULATIONS FOR NAVIGATING AND APPROACHING THE MARITIME DISTRICT OF GRENLAND:

Compiled by the Fisheries Department on 21st January 1988 in accordance with Section 6 of the Law of 8th June 1984, No. 51 covering ports and navigable waters.

Section 1:

Geographical and Appropriate Scope of Effect:

The Regulations are valid for navigable waters to the North of a straight line through the Northernmost point of Molen and the Northernmost point on Sasteinen.

The Regulations are valid for vessels over 50 g.r.t. or where the vessel is not measured with the greatest length over 24 m. with lesser other dimensions as determined in the individual paragraphs. They are also valid for tugs with the greatest length or beam exceeding 24 m. Vessels which push, or those which are pushed shall be reckoned as a vessel in accordance with these regulations.

Within the category of vessels with hazardous cargoes shall also be included those which have very combustible gases on board with a flash point lower than 23° C and which in ballast are not gas-free.

For the transport of bulk chlorine on all occasions the special regulations appertaining thereto are also valid.

Section 2.

Definitions:

Vessels are deemed in these regulations, and as governed by the Law of 8th June 1984 covering ports and navigable waters, to be any floating installation which can be used as a means of transport, navigation, support, production or storage, including underwater vessels of every kind. Also included are hovercraft. The Department, on application will determine by individual resolution or further regulations, what may be determined as a vessel.

G.R.T. means gross registered tons in accordance with the Ships' Measurement Convention of 1947. Conversion of gross tons in accordance with the 1969 Convention to gross registered tons shall be effected in accordance with the Maritime Navigation Directorate Regulations of 14.6.1982 covering measurement of vessels, with subsequent amendments.

For vessels with International Measurement Certifications (1947 Conventions) showing two different gross registered tonnages, the greater tonnage shall be deemed to be valid.

Hazardous Cargo shall be termed as:

1. *Packed hazardous goods and solid bulk loads* which are covered by the terms set out in the International Maritime Safety Convention SOLAS 1974 Chapter VII, Part-A and which are listed in the respective code International Maritime Dangerous Goods Code (IMDG-code) and Code of Safe Practice for Solid Bulk Cargoes (BC-code) Appendix B, with subsequent amendments, the quantity of which is 10 tons or more.
2. *Liquid bulk chemicals* which are covered by the terms set out in the International Maritime Safety Convention SOLAS 1974, Chapter VII, Part B. The materials are set out in codes:

   For new vessels (built after 1st July 1986) International Code for the Construction and Equipment for Ships Carrying Dangerous Chemicals in Bulk (IBC Code) Chapter 18 with subsequent amendments.

   For existing vessels (built before 1st July 1986) Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (BCH-code) Chapter 6 with subsequent amendments.
3. *Liquid gases in bulk* which are covered by the terms set out in the International Maritime Safety Convention SOLAS 1974 Chapter VII, Part C. The materials are set out in codes:

   For new vessels (built after 1st July 1986) International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code) Chapter 19 with subsequent amendments.

   For existing vessels (built after 31st October 1976, but before 1st July 1986) Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (Gas Carrier Code) with subsequent amendments.

   For existing vessels (built before 31st October 1976) IMO Code for existing gas carriers with subsequent amendments.

   Materials which have a flashpoint of 23° C or more shall not be considered as dangerous cargoes.

Furthermore, the following materials shall not be considered as hazardous cargoes.

Product name	*Chemical formula*	*UN No.*	*UN Class*
Ammonium nitrate	NH_4NO_3	1942	5.1
Amm. nitrate fertiliser		2067	5.1
Amm. nitrate fertiliser		2068	5.1
Amm. nitrate fertiliser		2069	5.1
Amm. nitrate fertiliser		2070	5.1
Amm. nitrate fertiliser		2072	5.1
Amm. nitrate fertiliser		2071	9
Argon	Ar	1006/1951	2
Potash lye	KOH	1814	8
Carbon dioxide	CO_2	1013/2187	2
Formic acid	HCOOH	1779	8
Magnesium granules	Mg	2950	4.3
Sodium hypochloride	NaOC1	1791	8
Sodium lye	NaOH	1824	8
Spent caustic			
Nitrogen	N_2	1066/1977	2
Salmiac spirit	NA_4OH	2672	8
Nitric acid	HNO_3	2031	8
Salt acid	HC1	1789	8
Sulphuric acid	H_2SO_4	1830	8
Titanium trichloride	T_1Cl_3	2441	4.2

The Coastal Directorate will be able to determine whether new materials may be considered as hazardous cargoes. Their deliberations will be based on whether possible damage may result to the environment as the consequence of grounding, collisions, etc.

Section 3

Traffic Centre:

The Traffic Centre at Brevik can set in motion the safety measures considered to be necessary to afford maritime traffic the highest degree of safety at all times. The Traffic Centre cannot actively intervene in the sailing and navigation of a vessel. These regulations do not detract in any way from the responsibility of a Ship's Master for her movement, navigation and manoeuvring.

The Traffic Centre shall see to it that these regulations and orders are complied with.

Vessels approaching or already in navigable waters must address all information and inquiries concerning their sailing and navigation to the Traffic Centre by VHF radio telephone Channel 80, or by telephone or telex. Radio traffic concerning a vessel's commercial operations must be directed over the nearest coastal radio station.

Section 4

Permission:

Vessels wishing to use the navigable waters, must seek prior permission from the Traffic Centre. Permission must be requested in good time and at least 1 hour prior to the arrival of the vessel in the navigable waters or before leaving her berth, anchorage or other mooring installation in the navigable waters.

Vessels carrying hazardous cargo must, however, report their arrival in the navigable waters 24 hours in advance.

The Traffic Centre can, where necessary to ensure safe traffic development, amend, withdraw or set special conditions for permission.

The Traffic Centre can, in individual cases, give a vessel permission to use parts of the navigable waters.

When applying for permission, the following details must be given to the Traffic Centre:

a. Name of Vessel.
b. Call Sign.
c. Nationality.
d. Name of Master.
e. Length Overall.
f. Beam.
g. Draft.
h. GRT.
i. Port of destination.
j. Type of cargo.
k. Amount of hazardous cargo in tons.
l. Estimated time of arrival.
m. Estimated time of departure.

Vessels are required to give further information which the Traffic Centre may deem essential for a safe and effective development of traffic or which the Master of the vessel considers to be necessary.

Section 5

Position reporting and requirements for listening:

Vessels intending to use the navigable waters, must be equipped with fully operative maritime VHF radio telephone.

Such VHF radio installations must be operated from the vessel's mains voltage, but must have the facility for rapid changeover to battery operation, or the vessel must be equipped with portable VHF with battery charger. Such portable VHF must have sufficient range.

All communications with the Traffic Centre on VHF Channels 80, 16, 14, 13 and 12 are automatically recorded on magnetic tape.

Vessels must send a position report on:

a. Passing the Southern limit of the navigable waters.
b. Leaving the quay, anchorage or mooring installation.
c. Arrival at the quay, anchorage or mooring installation.
d. Passing other positions which may be determined by the Traffic Centre.
e. In the event of accident.
f. The request of the Traffic Centre.

Reports must contain the following information:

On entry:

Name of vessel.

New time of passing the Southern limit of the navigable waters.

New estimated time of arrival at the quay, anchorage or mooring installation.

New time of arrival at the quay, anchorage or mooring installation.

On sailing:

Name of vessel.

Time of leaving the quay, anchorage or mooring installation.

Estimated time of passing the Southern limit of the navigable waters.

Actual time of passing the above limit.

On sailing within the navigable waters:

Name of vessel.

Sailing time from quay, anchorage or mooring installation.

Estimated time of arrival at the quay, anchorage or mooring installation.

Time of arrival at the quay, anchorage or mooring installation.

The position report must be addressed to the Traffic Centre on VHF Channel 80.

If this position report cannot be given directly to the addressee VHF station, it must be transmitted without delay by another means, in port by the use of telephone or telex, and at sea over Tjome Radio.

Vessels underway in the navigable waters must listen out continuously on VHF Channels 16 and 80.

This requirement is valid for all vessels equipped with VHF radio telephones, irrespective of the vessel's size.

Section 6
Limitation of visibility:

Where visibility is less than 1 nautical mile (1,852 m.) in the navigable waters or a part of them, the Traffic Centre will hold back all vessels with hazardous cargoes.

Where an anchored vessel with hazardous cargo has free visibility to the quay or mooring installation, the Traffic Centre may, nevertheless, permit her to proceed to such quay or mooring installation where the Centre considers it to be appropriate. The same holds good for movement from the quay or mooring installation to a nearby anchorage.

Section 7
Capacity limitations:

On passing Dypingen, Kalven and Brevikstrommen, no vessel may have an overall length, beam and draft exceeding those quoted below:

Dyping:

LOA	198.1 m. – 650 ft.
Beam – vessel with hazardous cargo	27.4 m. – 90 ft.
Beam – other vessels	30.5 m. – 100 ft.
Draft	10.4 m. – 30 ft.

Kalven:

LOA	274.3 m. – 900 ft.
Beam	45.7 m. – 150 ft.
Draft	13.4 m. – 44 ft.

Brevikstrommen:

LOA	198.1 m. – 650 ft.
Beam – vessel with hazardous cargo	27.4 m. – 90 ft.
Beam – other vessels	30.5 m. – 100 ft.
Draft	9.9 m. – 32.5 ft.

Pilots in Grenland can, in special circumstances, give vessels with a draft up to 10.4 m. (34 ft.), without hazardous cargo, permission to pass Brevikstrommen in daylight.

Section 8
Traffic separation:

The Traffic Centre indicates which course the vessel must use between Langsundsbukta and Brevik when she applies for permission to enter the navigable waters.

Section 9
Anchoring:

Vessels may only anchor if it is necessary. Before a vessel proceeds to an anchorage, permission must be obtained from the Traffic Centre. The Traffic Centre, on the grounds of safety, may indicate a specific anchorage to which the vessel may proceed. Anchoring, with undernoted exceptions, may only take place in the following areas and positions:

Helgerofjord:
A. Amlirogna Light in a straight bearing 062°, 0.6 nautical miles distant.
B. Amlironga Light in a straight bearing 046°, 0.4 nautical miles distant.

Eidangerfjord:
C. North on a line running East-West through Southernmost point of Orviktangen.

Frierflaket:
D. Ringsholmen Light in straight bearing 192°, 1.1 nautical miles distant.
E. " " " " " 207°, 1.1 " " "
F. " " " " " 202°, 0.9 " " "
G. " " " " " 212°, 0.9 " " "
H. " " " " " 219°, 0.7 " " "
I. " " " " " 226°, 0.9 " " "

Herrebukta:
J. Rafsnes Quay No. 3 in straight bearing 125°,0.7 nautical miles distant.
K. Rafsnes Quay No. 3 in straight bearing 125°, 0.4 nautical miles distant.

Traffic Centre can in special cases indicate other anchorages.

A vessel may anchor outside these areas where it is necessary to avoid danger. The Traffic Centre must then be informed immediately.

The Traffic Centre can refuse to give vessels at anchor permission to leave the anchorage, and can order already expedited vessels to leave anchorages.

Section 10
Use of Tugs:

Vessels over 500 g.r.t. carrying liquid condensed gases and vessels over 2,000 g.r.t. carrying hazardous cargo in bulk as defined in these Regulations must have tugs attached during entry and leaving and during manoeuvring to and from quays, mooring installations or anchorages.

The Traffic Centre can instruct a vessel which is under the above-mentioned tonnage limits and which is carrying gas or other hazardous cargoes in bulk to use tugs.

On entry, the tow lines must be connected immediately after the Pilot has come on board, insofar that wind and sea conditions do not prevent it. On sailing, tugs must be attached before vessels leave the quay, mooring installation or anchorge, and until they have passed Arøya.

The Traffic Centre can, when from a safety aspect it is deemed necessary, order the use of several tugs.

Vessels without hazardous cargo, but which exceed one or more of the following dimensions,

LOA	182.9 m. – 600 ft.
Beam	26.2 m. – 86 ft.
Draft	9.9 m. – 32.5 ft.

must have tugs attached when underway in a zone which in the South is limited by a line on bearing 045°/225° True, through Gjermesholmen Light and in the North limited by a line on bearing 270° True, through Saltbuodden Light.

Tugs used must have the capacity to control the movements of a vessel at all times.

Section 11
Tow lines:

During entry and sailing, vessels with hazardous cargo must have attached and lowered to the water fore and aft a spark-preventing and fire-resistant tow line with eye.

Section 12
Pleasure boat traffic:

Pleasure boats and open craft must refrain from entering the paths of large vessels and vessels navigating at night. They must as far as possible sail along the coast within a distance of 100 m.

Pleasure boats and open craft must not cross the path or course in such a way that the progress of a vessel which can only sail safely in such path or course is prejudiced. Sea Navigation Regulations 44 and 9 also apply.

The current section covers pleasure boats and open craft irrespective of their size.

Section 13
Dispensations:

In very special cases, the Coastal Directorate can give dispensation from these regulations. Application for dispensation must be submitted in writing to the Coastal Directorate as far as possible 1 month prior to the vessel's arrival. The Traffic Centre may in very special circumstances grant dispensation from the terms covering permission in accordance with Section 4.

Section 14
Penalties:

Where intentional or inadvertent transgressions of these regulations occurs, penalties in accordance with Penal Law Section 418 will be applied, unless stronger penalties are deemed necessary.

Section 15
Validity:

These Regulations enter into force on 1st March 1988. From that date, the Regulations covering entry in the port districts in Grenland as promulgated by the Fishery Department on 1st March, 1984, are cancelled.

(Coastal Directorate/Nautical Department, Oslo, 5th February 1988).

PILOTAGE:

REGULATIONS FOR THE USE OF PILOTS IN THE GRENLAND AREA

Issued by the Fishery Department 25th March 1988 in conjunction with the law governing the use of pilots of 9th April 1948. No. 2 Section 5, confirmed by Royal Resolution 29th April 1977.

Section 1

State Pilots must be used by vessels over 100 g.r.t. navigating in the waters to the North of a line through the North point of Molen – North point of Sasteinen. Furthermore, to the South of a straight line from Herreelva in Bamble to the Southern end of the Western Quay at Porsgrunn Factory.

Section 2

Vessels in these regulations are, in the law covering pilot usage of 9th April 1948 Section 1, also include lighters, loaded barges, pontoons, drilling platforms and similar floating installations, floating docks and dredgers.

G.R.T. means gross registered tons in accordance with the Ships' measurement Convention of 1947. Conversion of gross tonnage in accordance with the 1969 Convention to gross registered tons is effected in accordance with the Maritime Directorate Regulations of 14th June 1982 covering measurement of vessels, and subsequent amendments.

For vessels with International Measurement Certificate (1947 Convention) which indicates two different gross registered tonnages, the highest tonnage shall be taken as that valid.

Section 3

The Coastal Authority's No. 1 District or those which it authorises can give dispensation from the conditions in Section 1 for vessels under 500 g.r.t. which are not carrying hazardous cargo, when the ship's Master can prove that he frequently visits ports in the area and has therefore gained knowledge of the navigable waters and has always complied with the rules and conditions valid on each occasion for sailing and navigating in the navigable waters.

Furthermore, dispensation can also be given for vessels under 2,000 tons g.r.t. which are not carrying hazardous cargoes or cargoes covered by the rules in the International Convention governing the prevention of Pollution for ships MARPOL 73/78, where the Master or principal helmsman can prove that he has frequently visited ports in the area and has gained navigational knowledge of an adequate nature, and that he is well acquainted with the regulations and conditions which on every occasion are valid for navigation and sailing in the navigable waters. For principal helmsmen it is required that in such cases they fulfil the conditions for acting as Masters of incoming vessels.

Dispensation may also be forthcoming on some strict conditions from the terms of Section 1 for vessels of 2,000 g.r.t. or more which are not carrying hazardous cargoes or cargoes which are covered by the rules in the International Convention covering prevention of Pollution from ships MARPOL 73/78. Ships' Masters or principal helmsmen must in such cases also be able to prove that within the last 24 months they sailed in the navigable waters under the guidance of a State Pilot in the vessel in question or corresponding with at least 8 voyages in the navigable waters. Furthermore, ships' Masters or principal helmsmen must present themselves to the Pilotage Authority in Grenland for examination concerning knowledge of the navigable waters and current regulations. The Coastal Directorate will give more precise details of this on application.

Requests for dispensation must be sent through the ship's Agent to the Pilotage Authority in Grenland. Dispensations given are valid for up to 2 years but can, however, be extended.

Section 4

When dispensation is used, there must be a navigator on the bridge who, in accordance with the conditions of Section 3, fulfils the requirements for navigation in the area without the use of a State Pilot.

Section 5

Where intentional or inadvertent transgressions of these regulations occur, penalties in accordance with Penal Law Section 418 will be applied, unless stronger penalties are deemed necessary.

Section 6

These regulations permit no alterations in the rules for the use of a state pilot for foreign non-military vessels over 50 g.r.t. as per Royal Resolution of 9th February 1968 covering forbidden maritime areas on Norwegian territory.

Section 7

These regulations come into force on 1st April 1988.

From the same date, the Regulations covering the use of pilots in the Grenland area as promulgated by the Fishery Department on 21st June 1978 with subsequent amendments are cancelled.

AUTHORITY: Coast Directorate (Harbour, Lighthouse and Pilotage Services), P.O.Box 8158, 0033 Oslo 1, Norway. *Tel:* (02) 11 40 90. *Telex:* 21555 KDIR N. *FAX:* (02) 42 48 35. *Cables:* Kystdirektoratet, Oslo, Norway.

AGOTNES: 60.25 N. 05.01 E. (See Plan)

DOCUMENTS:
- 1 General Declaration.
- 2 Cargo Declarations.
- 1 Stores List.
- 1 Health Declaration.
- 1 Personnel Effects.
- 2 Manifests.

PILOTAGE: Usual entrances to port at Korsfjord and Fedje.

Provisions for Advance Reports in connection with the ordering of Pilots. Issued by the Director of Pilotage.

1. Vessels approaching from the sea and desiring a Pilot should order the Pilot at 24 hours notice insofar as possible and confirm arrival at pilot station at 2 hours notice.

The advance order can be sent in the following manner:

a. From ships at sea over radio direct to the sea pilot watch (calling frequency 2182 kHz from 2 minutes past until 10 minutes past each full hour, or over VHF-radio telephone, calling frequency 156.80 MHz, Channel 16).

b. From ships at sea over coastal radio station to pilot station or pilot office.

c. From broker or shipowner over telephone to sea pilot station or to any pilot office which will immediately convey the report to the sea pilot station.

2. Vessels lying in port and desiring Pilot will order the Pilot from the nearest pilot office during its office hours and if possible at 4 hours notice.

3. Vessels approaching from the sea as well as vessels lying in port shall, when making an advance order state the name and destination of the vessel and whether 1 or 2 Pilots are desired.

4. The Pilots will on the whole be despatched to the ships in accordance with the advance orders, and vessels are therefore requested to comply with the foregoing rules as far as possible in order to avoid having to wait for Pilot.

5. The international provisions for summoning Pilots by signal flags or blue lights, etc., are still in force, but should in future be used as a supplement to the radio communications or as the sole communication in emergencies.

ANCHORAGE: About 1,600 ft. North of CCB Quay, depths 29 m. – 74 m.

RESTRICTIONS: No special restrictions upon entry to the port.

MAX. SIZE: Water depths up to 60 ft. at quayside.

HEALTH: No Certificates required. In event of any disease or fever, contact Agents.

RADIO: All messages to Agents via Bergen Radio or Rogaland Radio.

VHF: Bergen Radio on Channel 16 or direct on Channel 10 (24 hour service).

TUGS: Available upon request. Vessel's lines usually used. No extra charge for tug's line.

BERTHING:

West side, quay of 180 m. long. Depth of water 60 ft.
East side, quay of 105 m. long. Depth of water 14 m.
North West side, quay of 120 m. long. Depth of water 7.2 m.
South side, 2 berths, each 60 m. long. Depth of water 10 m.

CRANES: 1 Mobile crane 210 tons lifting capacity. 6 Mobile cranes 50 tons lifting capacity. 4 Mobile cranes 35 tons lifting capacity.

BULK CARGO FACILITIES: For drilling mud and cement only.

SPECIALISED CARGO HANDLING FACILITIES: Loading/unloading carried out by mobile cranes and trucks.

BRIDGES: Bridge between Knarrevik and Drotningsvik. Height at mean level 50 m.

STEVEDORES: Provided by Coast Centre Base.

MEDICAL: 4 hospitals available (Bergen). No advance notice except serious illness.

TANKERS: Bunker line 6 in. No slop facilities.

DENSITY: About 1024.

FRESH WATER: Can be supplied alongside the quay, rate 70 t.p.h.

FUEL: New tank of 5,000 cu.m. 3 ships may take bunkers at the same time at a rate of 120 cu.m./hr.

No advance notice required.

CONSULS: (in Bergen). Belgian, Brazilian, British, Danish, Finnish, French, Greek, Islandic, Netherlands, Panama, Peruvian, Portuguese, Spanish, Swiss, Swedish, Turkish, German (F.R.), Uruguay, Austrian.

REPAIRS: All repairs possible.

DRY DOCKS: Available in Bergen. 3 Dry docks 365 ft. long with 12.5 ft. – 21 ft. depth on blocks.

1 floating dock for vessels up to 10,000 g.r.t. and 2 smaller floating docks. Largest vessel 51,839 g.r.t. Draft 34 ft. 4 in.

Drafts up to 35 ft. can be accommodated.

SURVEYORS: Lloyd's, A.B.S. and Norske Veritas.

GANGWAY/DECK WATCHMAN: Not necessary.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CUSTOMS ALLOWANCES: 0.75 litres of spirit and 200 cigarettes for each member of the crew.

REPATRIATION: All facilities available for crew changes.

AIRPORT: 35 km. from Bergen Airport served by regular airlines.

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

HOLIDAYS: New Years Day (January 1st); Maundy Thursday; Good Friday; Easter Monday; May 1st; May 17th; Ascension Day; Whit Monday.

Cargo work can be arranged with special agreement.

POLICE/AMBULANCE/FIRE: Bergen 002; Bergen 003; Bergen 001 respectively.

EMERGENCY CO-ORDINATION CENTRE: Tel: Bergen 002.

TELEPHONES: No arrangements for connection on board ships. Telephone box on quayside.

SERVICES: Compass adjuster, Radio/Radar service. Also calibration of the Direction Finder, Ships laundries.

BANKS: Bergen Bank, 5363 Agotnes.

STORING: See "Prelims".

1. Vessel can be stored by barge or truck.
2. No special regulations regarding storing.
3. Trucks can proceed alongside at the berth.
4. Forklift trucks are available.
5. No special regulations regarding customs.
6. Local riggers can be employed on request.

SHORE LEAVE: After clearing inwards, crew members are allowed to go ashore without special permission.

IDENTIFICATION CARDS: Not required.

REGULATIONS: No particular or unusual regulations.

DELAYS: No particular reason for delays.

DEVELOPMENT: A new Ro/Ro berth is planned at Dock No. 31.

AUTHORITY: Coast Center Base A.S. & Co., P.O.Box 55-22B, 5364 Kystbasen, Agotnes. *Tel:* (05) 33 40 00. *Telex:* 42 835 ccb n. *FAX:* (05) 335191. *Contact:* Knut Aas, Managing Director. Hans Agotnes, Harbour Master.

ALESUND: 62.27 N. 06.09 E. (See Plan)

DOCUMENTS:
- 1 Crew List.
- 1 Passenger List.
- 1 Customs Documents.
- 1 Health Documents.
- 3 Manifests.
- 3 Bills of Lading.
- 1 Ship's Papers.
- 1 Stores Lists (provisions).

PILOTAGE: From open sea, Pilot is taken on board at Rundo Pilot Station. Watch 24 hours a day. To be called 3 – 4 hours before ETA by VHF 16, or radio.

ANCHORAGE: On the North side of the town in Valderhaugfjorden in depths of 20 m. – 60 m.; bottom, sand and mud.

On the South side of the town in Aspovagen in depths of 20 m. – 40 m., bottom mud.

RADIO: Alesund Radio 2182 kHz and VHF Channel 16. Harbour Office (VHF Channels 16 and 12) is manned 24 hours. Tel: 21425.

TUGS: Meet vessel normally before entering the harbour, or by order.

BERTHING: *Storneskaia:* East side, length 85 m., depth 6 m. – 14 m. On this side Ro/Ro berth available ramp width 22 ft. South side, length 153 m., depth 10 m. – 14 m. West side length 60 m. depth 5.0 m. Warehouse capacity 1,600 sq.m.

Prestekaia: South side, length 220 m., depth 13 m. – 16 m. West side, length 40 m., depth 5 m. – 13 m. North side length 41 m. Depth 5 m. – 13 m. Warehouse capacity 4,100 sq. m.

Skutvika: Special quay for fishing vessels, length 330 m., depth 4 m. – 6 m. Only mooring on N.E. side. Quay, length 80 m., depth 4 m. – 7 m.

Sjogata: Mooring quay, length 180 m., depth 8 m. At Northern Harbour there is one commercial quay.

Skansekaia: North side, length 195 m., depth 10 m. – 13 m. West Side, length 60 m. Depth 4 m. – 8 m. South side, length 130 m., depth 4 m. – 5 m. This quay forms protection for a small inner harbour with several smaller quays.

Flatholmen: Length 50 m. Depth 7 m. Dirty ballast facilities available.

Brunholmkaia: Length 100 m., depth 4.0 m.

Skansegata: Length 200 m., depth 6.0 m.

Spjelkavik Kai: Length 50 m., depth 7.0 m.

STEVEDORES: Obtained by Agent who requires ETA 12 hours before ships arrival.

CRANES: Mobile crane to lift 18 tons available. Floating crane to lift max. 100 tons available.

CONTAINERS: Depot for containers.

FRESH WATER: Available. Tel: 071-21424.

FUEL: Bunkering facilities from all major oil companies. Loading by barge or pipe-line at berth.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: This work is normally carried out by crew.

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes. Wine/Spirit: 1 bottle of spirits.

IDENTIFICATION CARDS: Not required.

REPAIRS: Available.

DRY DOCKS: 2 dry docks, lifting capacities 2,750 tons and 8,000 tons.

SURVEYORS: Det Norske Veritas. Tel: 071-25290.

AIRPORT: Alesund Airport, Vigra. Passenger flights (3 times a day) to and from Oslo. Trondheim, Bergen.

TIME: GMT plus 1 hour, GMT plus 2 hours in Summer.
HOLIDAYS: 1st May; 17th May.
POLICE/AMBULANCE/FIRE: Police 21321; Ambulance 25560; Fire 22000.
TELEPHONES: No arrangements for placing telephones on board.
AUTHORITY: Alesund Havnevesen, Skansekaia, 6002 Aalesund, Norway. *Tel:* 071-21832 or 21425. *Contact:* Lars Alvestad, Harbour Master. Tel: 071-45561 (Private).

ALVIK: 60.26 N. 06.24 E.

Alvik located in inner part of Hardangerfiord. Ferrosilisium works. Vessels from abroad may call Haugesund for Inward Customs' Clearance.
DOCUMENTS: See "Bergen".
PILOTAGE: Compulsory. Belonging to Bergen Customs' District.
BERTHING: Quay No.1, length 80 m. 2 cranes, 7.5 and 9.5 tons. Quay No. 2, length 90 m. 1 crane 7.5 tons.
AUTHORITY: Alvik Port Authority, Bjolvefossen a/s, N-5614 Aalvik, Norway. *Tel:* 05-557200. *Telex:* 42146. *FAX:* 05-557305. *Cables:* Ferro Aalvik. *Contact:* Helge Amdahl, General Manager.

ARDALSTANGEN: 61.14 N. 07.42 E. (See Plan)

LOCATION: Ardalstangen Aluminium works located in innermost part of Sognefiord. Lat. 61° 14′ 03″ N., Long. 7° 42′ 28″ E.
DOCUMENTS:
Receivers: Bills of Lading.
Manifests.
Customs: Crew List.
Bills of Lading.
Manifests.
Health Documents.
Ship's Certificates.
Ship's Papers.
Ship's Stores Declaration.
General Declaration.
3 Crew Lists.
Crews Personal Effects Declaration.
Inward and Outward Clearance.
PILOTAGE: Compulsory. Pilots belong to Bergen Customs District.
ANCHORAGE: Depth 500 ft.
RESTRICTIONS: No berthing after 2100 hrs. or before 0600 hrs.
RADIO: 12 hours notice of ETA required.
VHF: Channel 16.
TUGS: None available. Local lineboat available if required cost NoK. 1,000.
BERTHING: One quay, length 600 ft., depth alongside 40 ft. 1×14 ton crane, 1×5 ton crane and 1×25 ton crane.
One quay, length 300 ft., depth alongside 36 ft. 1×30 ton crane.
The berths are ice free.
STEVEDORES: No work Saturdays, Sundays and holidays.
MEDICAL: Advance notice required if medical attention needed. Tel: 47-56-61388.
DENSITY: 1026.
FRESH WATER: Available, cost NoK. 200 per filling.
OPENING/CLOSING HATCHES: By crew.
REPATRIATION: Crew changes and repatriation possible.
CARGO GEAR: Loading/discharging by shore gear.
TELEPHONES: Available if required.
AIRPORT: 1 hour 20 minutes by ferry to airport at Sogndal.
AUTHORITY: Hydro Aluminium Aardal Verk, P.O. Box 175, 5875 Ardalstangen, Norway. *Tel:* 056-59000 (47-56-59000). *FAX:* 056-59753 (47-56-59753). *Cables:* Ardalverk, Ardalstangen. *Contact:* K. Ulvestad, Harbour Master (056-61164).

ARENDAL: 58.28 N. 08.46 E. (See Plan)

DOCUMENTS: See "Bergen".
PILOTAGE: The pilot boat *Arendal* is stationed at Arendal. Contact may be made on VHF/RT or telephone 21071–23668 or out of office hours via Kristiandsand Radio or Tjome Radio.
MAX. SIZE:

	Depth (ft.)	*Length* (m.)
Nye Tollbodkaien	33	230
Batterrikaien	33	110
Hotellbryggen	30	77
Malmkaien	28	30
Stenkaien	26	110
Utstikkerkaien Barbu	24	58
Fryselagerkaien	22	76
Jaktekaien	20	50
Gamle Tollbodkaien	20	45
Kallevigs Brygge	20	43
Langbryggen	15	120
Ferjekaien	26	30

No tide even in exceptional weather conditions, increase in water level never exceeds 3 ft.

ANCHORAGE: Safe anchorage ground is readily available and there are numerous mooring places for vessels not docking alongside the quays.
TUGS: 2 small tugs. 500 h.p. and 300 h.p.
RADAR/VHF: Radar at Pilot station. VHF see "Pilotage".
CRANES: 1×3 ton crane and 1×20 ton mobile crane and 1×15 ton truck at Nye Tollbodkaien. At Vindholmen, 1 crane 100 tons capacity and 1 crane 60 tons capacity.
MEDICAL: Advance notice required for medical attention.
FRESH WATER: Available all quays.
FUEL: Advance notice required.
GANGWAY/DECK WATCHMEN: Recommended.
OPENING/CLOSING HATCHES: Crew or stevedores.
CERTIFICATES: Normal International Certificates required.
CUSTOMS ALLOWANCES: 200 cigarettes, 1 litre spirits.
IDENTIFICATION CARDS: Not required.
CONSULS: Sweden, Denmark, Finland.
REPAIRS: Port has well-equipped workshop to carry out engine repairs as well as hull work above water line.
AIRPORT: Kjevik 60 km.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
POLICE/AMBULANCE/FIRE: Police 22030; Fire Station 22255.
TELEPHONES: Can be placed aboard.
AUTHORITY: Arendal Havnekontor, P.O.Box 33, 4801 Arendal, Norway. *Tel:* (041) 21071, 23668. *Contact:* Harbour Master (Tel: 041-16154).

BATSFJORD: 70.38 N. 29.44 E. (See Plan)

PORT LIMITS: Straight line from the light at 'Makkaur' to the 'Kolneset' defines the port limits.
DOCUMENTS:
3 copies Maritime Declaration of Health.
4 copies Cargo Declaration.
3 copies Ship's Store Declaration.
3 copies Crew Effects Declaration.
3 copies Crew List.
2 copies General Declaration.
Clearance from last port.
3 copies Passenger List.
PILOTAGE: Not necessary. Harbour pilotage is optional, but if required, 24 hours' notice should be given.

ETAs to be reported 24 hours and 3 hours prior to arrival. Information given should include:
a) Name/call sign of vessel.
b) Nationality.
c) Length, draft and g.r.t.
Pilot boarding ground 2 miles off entrance.
ANCHORAGES: Unlimited anchoring available at the Outer Harbour. Very good anchor conditions for fishing vessels in bad weather.
RESTRICTIONS: No restrictions other than maximum draft.
HEALTH: Cable Agent with following information: Ports of call during voyage, nature of cargo, number of crew and passengers, port of destination and Agent, condition of health of all on board with details of any sickness.
RADIO: Vardoe Radio, VHF and MF.
VHF: Pilot and pilot boat use Channels 16 and 12. All communications with Harbour Authorities should be conducted on Channel 12.
TUGS: One tug available. Will be ordered by Pilot on request.
BERTHING: Pilotage optional. Berths are arranged by Harbour Master. Linesmen and boatmen are arranged through Harbour Office.

Berth Number	*Wharf Length* (m.)	*Depth at LW* (m.)	
1	92	7	
2	70	5	
3	77	3	
4	273	5-7	
5	73	3	
6	50	—	(under construction)
7	110	6	
8	60	5	
9	50	8	(under construction)
10	200	6-10	
11	92	5.5	
12	60	3	
13	100	4	
14	32	3	
15	90	6	

CRANES: Mobile cranes available on request. Stationary cranes on most private piers.
STEVEDORES: Arranged through Harbour Authorities.
MEDICAL: No advance notice required except in case of serious illness which is to be included in arrival cable. Doctor and dental facilities available.
TANKERS: Discharge lines: 6 in. Slop removal possible.
DENSITY: 1025.
FRESH WATER: Available at all berths.
FUEL: Fuel delivered by pipe-line at 4 berths, and by tank trucks at all other berths. Major grades of bunker fuel and diesel as well as marine lubricants can be obtained through suppliers.
REPAIRS: Most deck and engine repairs can be carried out.
DRY DOCKS: Size: 70 m. × 25 m.
SURVEYORS: Norwegian Ship Control Office.

GANGWAY/DECK WATCHMEN: Usually carried out by ship's crew, but watchmen available. Ship's gangway used, but shore gangway available.
HATCHES: Opening/closing by ship's crew.
CUSTOMS ALLOWANCES: Check with Agent.
REPATRIATION: Crew changes and repatriation can be carried out without difficulty.
AIRPORT: Distance 5 km. Served by 3 flights daily.
TIME: GMT plus 1 hour. Summertime kept.
HOLIDAYS: New Year's Day, "Skjaertorsdag" and Good Friday, Easter Monday, 1st May, 17th May, Whit Monday, Christmas (2 days).
POLICE/AMBULANCE/FIRE: Police: 83131. Ambulance: 83116. Fire: 51122. Area Code: 085.
EMERGENCY CO-ORDINATION CENTRE: Bodo Rescue Centre: Tel: 081-25000.

Rescue Vessel Station in Batsfjord: 83498 or VHF Channel 16.

TELEPHONES: No arrangements for telephone on board.
SERVICES: Compass adjusting, radar repairs, R/T repairs, gyro compass repairs, all types of electronic equipment repaired.

Divers available for surveys and underwater repairs. Several ship chandlers, ice delivery, freezing plant, Forwarding Agent, weekly arrival of UK-Continent liner.

BANKS: A/S Fiskernes Bank, P.O. Box 56, 9991 Batsfjord. Tel: 085-83451. Telex: 64378.

Ost-Finnmark Sparebank, P.O. Box 310, 9991 Batsfjord. Tel: 085-83369.

SHORE LEAVE: No restrictions.
SHIP SUPPLY SERVICE: The port renders full service for transport of passengers and goods.

For transport of sick and injured people from ships, the port is equipped with the rescue vessel m.v. "Sjofareren" all the year round.

Telephone numbers for these services are as follows:

Passenger/goods transportation: 085-83385 or 085-83607 also VHF Channels 16 and 12.

Sickness/injuries: 085-83498 also VHF Channel 16.

For helicopter services, this will be covered by the Rescue Station in Bodo, Tel: 081-21267.

Tug services will be carried out by the "Sjofareren" – see above.

AUTHORITY: Port of Batsfjord, P.O. Box 68, N-9991 Batsfjord. *Tel:* 047/85-83385 or 83607. *FAX:* 047/85-83789. *Cables:* Harbour Master, Batsfjord. *Contact:* Harald Aas, Harbour Master, Fjellvn. 2, 9990 Batsfjord. Tel: 085-83553.

BERGEN: 60.24 N. 05.19 E. (See Plan)

DOCUMENTS:
1 Provisions List.
1 List of Bonded Stores.
1 Health Declaration.
2 Manifests.
2 Crew Lists.
2 Passenger Lists.
Certificate of Tonnage.
Dangerous Cargo List.

PILOTAGE: Compulsory. Main entrance to port at Marsteinen Lighthouse (pilot station) Lat. 60° 24′ N., Long. 5° 18′ 50″ E. 24 nautical miles from town, but vessels from South may enter at Skudesnes (88 nautical miles) and from North at Fedje Pilot Station (32 nautical miles). VHF Channel 16. Practically no tide. Port free of ice throughout whole Winter and well sheltered from all winds. Sound signals for Pilot, 3 long and 1 short. Harbour pilotage not compulsory but advisable.
ANCHORAGE: Puddefiord. Good holding grounds. Depth 10 fathoms to 50 fathoms of water.
RESTRICTIONS: Vessels can enter day and night.
MAX. SIZE: Max. draft 35 ft. Vessels up to 50,000 tons have been berthed at Dokkeskyaersquay. Oil installation up to 30,000 d.w.t.
HEALTH: See "Documents". If vessel carries quarantine flag on contagious diseases, radio communication should be sent to Agents for instructions, otherwise no special regulation.
RADIO: Communication to Agent should be sent through Rogaland Radio or Bergen Radio.
VHF: VHF radio for port operations. Call sign "Bergen Port Radio".
TUGS: 2 tugs, each 1,000 h.p. available. Ship's lines to be used, contractors Bergen Steamship Co. Tugs normally join vessel at Puddefiord or subject to requirements.
BERTHING: Berthing instructions from Harbour Authorities through Agent's office.
CONTAINER FACILITIES: Container terminal at Dokkeskjaerskai area. The quay is 210 m. long with a depth of 9 m. at MW. 1×50 ton container crane. It is intended for bow/stern loaders and is equipped with a Ro/Ro bridge with an axle load of 60 tons and 25,000 sq.m. area for storage and container handling.
BRIDGES: A bridge between Knarrevik and Drotningvik is completed. Height of bridge from the water is 50 m. at mean water level. Bridge position is 5 miles from harbour in the entrance to port from South.
STEVEDORES: Stevedoring arranged by Agents subject to requirements. 24 hours notice, important obtain in good time accurate ETA. Ordinary working hours at port 0730 hrs. – 1530 hrs. Saturdays until 1300 hrs.
CRANES: 10 shore cranes, lifting capacity 6 tons. One heavy lift crane 50 tonnes capacity.
MEDICAL: Masters to advise by radio prior arrival if medical attendance required on board. Hospital facilities available.
TANKERS: Discharge lines usually 6 in. and 8 in. No slop (residues) discharge facilities. Number of tanker berths 5: Shell, Esso, Fina, Mobil Oil, and BP. Max. drafts 30 ft.
DENSITY: Salt water.
FRESH WATER: From all quays and wharves with exception of some oil berths where water barge necessary.
FUEL: All grades of diesel, fuel and gas oil including lubricating oil available at all wharves in main entrance. Supplies also from barge subject reasonable notice.
FIRE PRECAUTIONS: No special precautions. Special harbour fire-fighting boat. As usual no smoking permitted during discharge operation.
GANGWAY/DECK WATCHMEN: Obtainable on request for 12 hours watch from 1900 hrs. to 0700 hrs.
OPENING/CLOSING HATCHES: Crew allowed to open and close hatches.
SHIP'S CERTIFICATES: All certificates to be on board. Ship's Tonnage Certificate to be produced to Custom Authorities upon arrival.
CUSTOMS ALLOWANCES: Tobacco, 20 cigarettes per day or 20 grams tobacco per crew member. Wine and/or spirit, 1 bottle spirit or wine for consumption on board allowed per crew member.
IDENTIFICATION CARDS: Not required.
CONSULS:

Austrian	210 173	Italian	218 135
Belgian	233 873	Netherlands	256 000
British	210 990	Panama	200 011
Danish	215 000	Peruvian	218 028
Finnish	230 700	Portuguese	218 140
French	230 050	Spanish	214 192
German F.R.	219 984	Swedish	219 760
Greek	215 090	Swiss	215 115
Guatemala	214 493	Turkey	210 105
Icelandic	219 680	Uruguay	213 307

REPAIRS: All repairs possible.
DRY DOCKS: Major: Bergens Mekaniske Verksteder. Minor: Mjellem & Karlsen Verksted A/S, Bergen. 6 patent slips and 1 dry dock, 365 ft. long. Floating dock for vessels up to 20,000 d.w.t.
REPATRIATION: All facilities available.
AIRPORT: Flesland Airport, 12 miles outside Bergen. Bus service from town, daily connections with Europe and U.S.A.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: General holidays: New Year's Day (January 1st); Maundy Thursday; Good Friday; Easter Monday; Labour Day (May 1st); Ascension Day; National Holiday (Sunday in May); Christmas Eve (December 24th); Christmas Day (December 25th); Boxing Day (December 26th); New Year's Eve (December 31st).
POLICE/AMBULANCE/FIRE: Police 002; Ambulance 003 or 210 185; Fire 001.
TELEPHONES: Telephones may be installed on board during ship's stay at Dokkeskjaeskai or Skoltegrunnskai if required.
SERVICES: Compass adjusting, laundry, ship chandlers for delivery of provisions and bonded stores. Radar servicing for following types: Decca, Nera, RCA, AEI, Raytheon, Kelvin Hughes, Therma Sperry. Service arranged through port agent.
SHORE LEAVE: No restrictions.
DELAYS: Under normal conditions, no special delay should be expected.
AUTHORITY: Bergen Havnevesen, Slottsgt. 1., 5003 Bergen, Norway. *Tel:* 05.31.64.00. *FAX:* 05.32.90.67. *Contact:* Nils Standal, Port Director. Karl M. Baardsen, Harbour Master.

BODO: 67.17 N. 14.24 E.

DOCUMENTS:
2 Store Lists.
2 Crew Lists.
2 Lists Crew's Personal Effects.

PILOTAGE: Sea Pilot North of Fleinvaer Island position Lat. 67° 12′ N., Long. 13° 48′ E. White Pilot boat with VHF Channel 16. Harbour Pilot outside breakwater head – 24 hours' notice.
ANCHORAGE: Outside breakwater. According instructions from Sea or Harbour Pilot. No draft limitation.
RESTRICTIONS: None – weather permitting.
MAX. SIZE: Max. gross tonnage for oil carriers 18,000 tons with max. draft 32 ft. Otherwise max. draft 22 ft. along quays for coal, salt and warehouse goods. New terminal quay has a depth of 9.0 m.
RADIO: Bodo Radio/LGP. VHF Harbour Office and Bodo Radio.
TUGS: Rescue Vessel/Tug available on 24 hours' notice.
BERTHING: Usually on arrival – otherwise Harbour Pilot will bring instructions from Agent or Port Authorities.

A new harbour with quay of 250 m. and 9 m. depth, together with a new terminal for warehouse goods.

STEVEDORES: Ordered by Agents – working day and night.
MEDICAL: 24 hours' notice of medical attention required. Hospital facilities available.
TANKERS: Shore lines, 6 in., 8 in. and 12 in., 2 berths, slop facilities not available, max. draft 32 ft. Fresh water available.
DENSITY: 1025.
FRESH WATER: Available all quays.
FUEL: All kinds of bunkers and oil without notice from 2 installations.
GANGWAY/DECK WATCHMEN: Available, but not compulsory.
OPENING/CLOSING HATCHES: Normally by crew.
CERTIFICATES: Ship's Certificates.
CUSTOMS ALLOWANCES: 200 cigarettes or 150 gm. tobacco and half bottle of spirit.
CARGO GEAR: No additional requirements. Ship's gear to be used except for discharging coal, coke and salt where special cranes used.
IDENTIFICATION CARDS: Not required.

CONSULS:

Denmark	21070	France	21000	Sweden	20115
Finland	20010	Germany F.R.	20089		

REPAIRS: Minor deck and engine repairs possible.
DRY DOCKS: None.
REPATRIATION: Good facilities.
AIRPORT: 2 km. distant. Regular airlines.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: 1st May and 17th May (national holiday) Cargo work may be arranged.
POLICE/AMBULANCE/FIRE: Police 25000; Ambulance 081-003; Fire 081-001.
TELEPHONES: No arrangements for placing telephones on board.
GENERAL: Imports oil, coal, coke and salt. Exports fish, herring meal, herring oil.
SERVICES: Compass adjusting, all kinds of nautical instruments. Ships' chandler.
SHORE LEAVE: No restrictions.
AUTHORITY: Bodo Havnevesen, Postboks 138, 8001 Bodo. *Tel:* 081-81580; Harbour watch 081-25800; Mobile telephone 090-10882. *Cables:* Havnefogden, Bodo. *Contact:* Harbour Master.

BREVIK: 59.03 N. 09.43 E. (See Plan)

PORT LIMITS: Port limits begin in Langesundfjorden, 2 nautical miles S.E. of Brevik.
DOCUMENTS:
Crew List.
Tobacco and Spirit List.
Cargo and Stores List.
3 copies of Manifest.
Declaration of Health List.
PILOTAGE: Vessels approaching from the sea and desiring a Pilot shall, as far as possible, order a Pilot 24 hours in advance and thereafter confirm arrival at Pilot Station 2 hours in advance.

Vessels lying in port and desiring a Pilot shall, as far as possible, order a Pilot 4 hours in advance and thereafter confirm departure from the port 2 hours in advance.

Orders for Pilots should be addressed to "Brevik Control" (Channel 80). Also see "Regulations".

Pilot boat located 1 mile S.E. of Langoytangen Lighthouse (position: Lat. 58° 59' 30" N., Long. 9° 45' 30" E.).
ANCHORAGE: At Helgerofjorden, 2 miles East of Langoytangen Lighthouse. Depths 15 fathoms – 25 fathoms.
RESTRICTIONS: No entry restrictions, except in bad visibility.
MAX. SIZE: Tankers: LOA 600 ft. Beam 85 ft. Max. Draft 34 ft.
New Bulk Terminal (Coal): LOA 900 ft. Beam 150 ft. Max. draft 46 ft. Others: LOA 600 ft. Beam 85 ft. Max. draft 34 ft.
HEALTH: Pratique obtained when alongside wharf; arranged by Customs.
RADIO: Cable Agents, giving ETA, draft and cash required via Tjome Radio/LGT or Farsund Radio/LGZ.
TUGS: Tugs not normally used in Brevik. 1 tug, 1,200 h.p. and 1 tug 3,000 h.p. used for tankers.
STEVEDORES: 24 hours prior notice required for ordering gangs.
BULK HANDLING: 1 berth handling bulk cargo, situated at Norcem, half a mile North of Brevik. Cargo: Cement and cement-clinker. Length of berth: 200 m. Depth alongside 36 ft.

Coal Terminal: Operated by Norcem A/S. Berth length 200 m. 2 cranes, average discharge rate 11,000 tonnes per day.

Also see "Max. Size."
MEDICAL: No advance notice required for medical attention.
TANKERS: Discharging hoses 8 in. diameter. No slop discharge facilities. 2 tanker berths draft 32 ft.
DENSITY: Brackish water, density from 1012 to 1023.
FRESH WATER: Hoses from shore, capacity 10 t.p.h.
FUEL: All grades available.
GANGWAY/DECK WATCHMEN: Watchmen available but not compulsory.
OPENING/CLOSING HATCHES: Normally carried out by crew members.
CERTIFICATES: Ship's Register and Derat Certificate required.
CUSTOMS ALLOWANCES: 200 cigarettes per man. 1 bottle of spirits per man.
IDENTIFICATION CARDS: Not needed.
REPAIRS: All types of repairs possible (deck and engine).
SURVEYORS: S.G.S. available.
REPATRIATION: Can be arranged.
AIRPORT: Fornebu – Oslo airport – 100 miles, served by regular airlines.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: New Year's Day; Day before Good Friday; Good Friday; Easter Monday; May 1st; Ascension Day; May 17th; 25th and 26th December. No work done on these days.
POLICE/AMBULANCE/FIRE: Police 551040; Ambulance 550170; Fire 551522.
EMERGENCY CO-ORDINATION CENTRE: Brevik Control, VHF Channel 80 or telephone 571233.
TELEPHONES: Can be placed on board at no extra cost.
BANKS: Telemarksbanken, Brevik – Telex 21154 – Tel. 570777. Sparebanken, Brevik – Tel. 570822.
STORING: See "Prelims".
1. Yes.
2. No regulations.
3. Yes.
4. Yes.
5. Only bonded stores.
6. Yes.

REGULATIONS: *Regulations requiring the use of Pilot Services in the Grenland Area.*

In pursuance of Section 5 of Act No. 2 of 9th April 1948 relating to the Pilot Service, cf. Royal Decrees of 29th April 1977, the Ministry of Fisheries lays down the following regulations:

Section 1

State Pilots shall be used by vessels of 100 g.r.t. and above navigating the waters North of a line through the North point Molen – North point Sasteinen.

Section 2

The Coast Directorate or anyone it so empowers may grant exemption from the provisions in Section 1 in respect of vessels of under 500 g.r.t. which are not carrying dangerous cargo, provided that the Shipmaster is able to satisfy the authorities that he has obtained, through regular calls at ports in the area, a comprehensive knowledge of these waters and is conversant with the rules and regulations currently applicable with respect to passage and navigation in these waters. Requests for exemption shall be addressed to the Coast Directorate and forwarded via the Pilot Master in Porsgrunn.

Exemption thus granted may be revoked at any time.

Section 3

Anyone wilfully or negligently violating these regulations shall be punished in accordance with Section 418 in the Penal Code, unless stricter penal provisions are applicable.

Section 4

These regulations do not entail any changes to the rules concerning the use of State pilots for foreign non-military vessels of 50 g.r.t. and above laid down by Royal Decree of 9th February 1968 concerning provisions on prohibited zones in Norwegian territorial waters.

Section 5

These regulations shall enter into force on 1st September 1978.

Also see "General" before first port.
SHORE LEAVE: Crew members allowed ashore.
AUTHORITY: Porsgrunn Havnevesen, P.O.Box 20, 3951 Brevik, Norway. *Tel:* 03-571080/571088. *Cables:* Porsgrunn Havnevesen. *Contact:* Hans Roe Edvardsen, Port Director.

AGENT: Stiansen & Wiborg A/S, P.O.Box 85, 3951 Brevik. Tel. (03) 570040 and 570833. Telex: 21338 STIWI N. After hours Tel: 03-570835 and 03-570833. Cables: "STIWI".

BRONNOYSUND: 65.30 N. 12.13 E.

DOCUMENTS: See "Bergen".
PILOTAGE: Pilot ordered through Harbour Office, Tel: 20 078. Cable address: "Losforman".
ANCHORAGE: Prestoytaren. Lat. 65° 29.0' N., Long. 12° 11.5' E. Depth 28 ft. to 180 ft.
MAX. SIZE: Inner Harbour: Depth 18 ft. – 24 ft. Outer Harbour: Quay length 100 m., depth 60 ft.
RADIO: Orlandet Radio or Bodo Radio
TUGS: None.
BRIDGES: Bronnoysund Bridge, max. clearance – 33 m.
VHF: Bronnoysund Port Radio. Channel 16 – 156.800 MHz; Channel 12 – 156.600 MHz primary work; Channel 14 – 156.700 MHz secondary work; Channel 13 – 156.650 MHz pilotage work.
MEDICAL: Medical service ordered through Harbour Office. Small Hospital. Air Ambulance.
FRESH WATER: Delivered by hose to all Port Authority Berths.
FUEL: Delivered to all berths, 24 hour service.
GANGWAY/DECK WATCHMEN: Watchmen at gangways optional.
CUSTOMS ALLOWANCES: Master 400 cigarettes or 40 grams tobacco; all other crew 200 cigarettes or 20 grams tobacco. Wine/spirits; Master 2 litres; all other crew 0.75 litre.
IDENTIFICATION CARDS: Crew to possess identification card with passport photo.
CONSULS: None.
REPAIRS: Limited deck and engine repairs. Turner's shop and welder's shop available.
AIRPORT: 2 km. from port. Regular airlines. Helicopter base.
TIME: GMT plus 1 hour, GMT plus 2 hours in Summer.
POLICE/AMBULANCE/FIRE: Police 20 400; Ambulance 20 500 and 20 800; Fire 20 000.
AUTHORITY: Bronnoy Havnevesen, P.O.Box 65, 8901 Bronnoysund, Norway. *Tel:* (086) 20078. *Contact:* R. M. Jorgensen, Harbour Master.

DRAMMEN: 59.49 N. 10.13 E. (See Plan)

DOCUMENTS:
Bill of Health.
2 Crew Lists.
2 Passenger Lists.
2 Customs Lists for crew members and passengers.
Bills of Lading.
3 Manifests for every port of discharge.

PILOTAGE: Give 6 hours notice by R/T 2182 kHz or VHF Channel 16 to "Faerder Pilot". Coast stations "Tjome Radio" LGT or "Farsund Radio" LGZ can also be used. Harbour Pilots ordered through ship's Agents. Harbour pilotage is not compulsory.
ANCHORAGES: Pilot service supplies information regarding anchorages.
RESTRICTIONS: Svelvikstrommen Channel, depth 10 m. equipped with beacons and radar reflectors for safe navigation.

During ice-breaker season, which may last from end-December, to mid-March, ice breaker is in radio contact with port and with ships needing assistance.
MAX. SIZE: Max. draft for main harbour 30 ft., otherwise no restrictions.
HEALTH: International procedure followed to obtain Pratique. In case of suspected diseases or fever inform Port Authorities, Tel: 81 88 90. When arriving from a Norwegian port Pratique automatic.
RADIO: Tjome Radio, call sign "LGT" Farsund Radio, call sign "LGZ". Oslo Port Radio or VHF Channel 16.

Port Authority maintains VHF radio-telephone watch: Monday – Friday 0630 hrs. – 1630 hrs. and Saturday according to requirement. Call sign "Drammenhavne Radio". Not on holidays.
TUGS: Under normal conditions not necessary except for large vessels, but available on request. Normally ship's hawsers or lines used for towing. Tugs ordered through Agent.
RADAR/VHF: VHF Channel 16 and 12 when communicating with Drammen Port Authorities. No port radar service.
BERTHING: Main Harbour

Quays	*Depth* (m.)	*Length* (m.)	*Remarks*
Tollbukaia	7.0	100	Coastal/local traffic. Railway lines available.
Kranbrygga	7.0	200	General cargo. Railway lines available.
Myrakaia	7.0	155	General cargo and bulk. Railway lines available. Electric crane 23 tons for bulk cargoes.
Langbrygga	8.0	260	Paper, General cargo Railway lines available.
Tjomekaia	7.0	165	Paper. Railway lines available.
Holmen South	9.0	486	Gen. cargo. Air conditioned. Containers. Railway lines available.
Holmen South Ro/Ro Ramp S.E. end.	9.0	—	New Berth. Cars, Trailers. See "Container and Ro/Ro Facilities".
Holmen South Oil Berth	9.0	70	New Berth. Tankers. Size of vessel determined by water depth alongside.
Risgardkai Ro/Ro	10.0	151	Cars, Trailers
Holmen East Ro/Ro	7.0	60	Cars, Trailers
Kattegat Ro/Ro	10.0	167	Cars, Trailers,Containers. 1× 50 ton mobile crane.

Container and Ro/Ro Facilities: Three Ro/Ro quays for containers, vehicles and trailers.

1. Holmen South Ro/Ro:
   Max. Depth 9.0 m.
   Length (Approx.) 486 m.
   Beam 20 m.
   Height of working ramp 0.5 m.–2.0 m.
   Mooring boat advisable when berthing.
2. Holmen East Ro/Ro:
   Max. Depth 18 ft.
   Length (Approx.) 350 ft.
   (i) Inside ramp: Beam 30 ft., Height 5 ft.
   (ii) Outside ramp: Beam 30 ft., Height 1 ft. 6 in.
3. Risgarden Ro/Ro:
   Max. Depth 30 ft.
   Beam 105 ft.
   Length of vessels berthing depends on max. draft.
   Height of working ramp 6 ft.
4. Kattegatkaia Ro/Ro:
   Max. Depth 30 ft.
   Beam 70 ft.

Fruit Storage 21,600 sq. ft. Air conditioned fruit-storage.
Also see "Tankers".
CRANES: 2×50 ton cranes (1 mobile, 1 electric). (50 ton at 35 m. – 10 ton at 40 m.) when combined are able to lift 90 tons.

2×23 ton electric cranes. One each situated at Holmen South Quay and Myrakaia Quay.

9×3 ton electric cranes; 1×4 ton electric crane; 1×6 ton electric crane.
BULK HANDLING FACILITIES: The 23 ton crane "Hendrik" located at Myrakaia can be adapted for bulk handling with a capacity of approximately 1,000 tons per day.
STEVEDORES: Labour must be ordered latest 1500 hrs. day before arrival. Saturdays before 1000 hrs. Working hours: Monday to Friday from 0700 to 1500 hrs., with breaks from 1100 to 1130 hrs. and 1500 to 1530 hrs.

Saturday from 0700 to 1230 hrs. with break from 0900 to 0930 hrs. Overtime can be arranged through Agent.
MEDICAL: In case of emergency, notice regarding required medical treatment must be given as soon as possible. First class hospital facilities available. No special inoculation or fever certificates necessary, except those according to international health regulations.
DEPTHS: Chart depths vary only slightly owing tidal fluctuations. Exceptional conditions, such as snow melting in Spring, heavy rainfall and prevailing strong Southerly or Northerly winds will cause stronger currents and a variation in water levels.

TANKERS:
Holmen South Oil Berth

Concrete quay, max. draft 29.53 ft. (9 m.). Fresh water available.

Pipe-line connections: Gas oil 8 in.; light fuel oils 8 in.; paraffin 6 in. heavy fuel oil 4 in.

B.P. Berth, Solumstrand

9 m. wide quay at end of pier, max. draft 16.4 ft. (5 m.).

Pipe-line connections: Propane 2 in.

Folakroken Quay: New Berth: Gullaug explosives factory. Situated 6 nautical miles North of Svelvik Narrows on East side of Dramsfjorden

Length 114 ft. (35 m.)
Depth alongside 19 ft. (6 m.)

FRESH WATER: Delivery by hose, available anywhere.
FUEL: Available at Holmen South. Fuel 2,000 sec. and marine diesel 200 sec.
FIRE PRECAUTIONS: International danger signals and precautions practised. Wires for towing must be ready for immediate use. In case of fire on board or in vicinity, vessel must leave quay and harbour as soon as possible.
GANGWAY/DECK WATCHMEN: Watchmen recommended, through Agent.
OPENING/CLOSING HATCHES: If necessary hatches can be opened or closed by stevedores, but usually by crew.
CERTIFICATES: Usual ship's certificates according to international regulations.
CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes/100 grams of tobacco allowed weekly. Wine or Spirits, 1 bottle wine or spirits usual weekly allowance.
CARGO GEAR: International Safety Regulations followed.
IDENTIFICATION CARDS: Not required.
CONSULS:

Denmark
Finland
Iceland
Monaco
Netherlands
Germany D.R.
Germany F.R.

All other consulates situated in Oslo.
REPAIRS: Shipyard facilities for all kinds of deck and engine repairs available.
DRY DOCKS: 2 floating docks, 20,000 tons and 3,000 tons capacity. Nearest dry docks in Horten and Oslo. Distance by sea respectively 24 miles and 46 miles.
REPATRIATION: All facilities available.
AIRPORT: Nearest airport Oslo Airport, Fornebu, situated 16 miles by road from Drammen. Regular services to all parts of the world.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: On Saturdays work stops at 1230 hrs., but if ships can be finished, loading and discharging is continued to 1900 hrs.

All Sundays; 1st January; Maundy Thursday; Good Friday; Easter Monday; 1st May; Ascension Day (17th May); Whit Monday; Christmas Day; 26th December.

On Easter, Whit, Christmas, and New Year's Eve work stops at 1400 hrs.
POLICE/AMBULANCE/FIRE: Fire-alarm accidents 832020; First-aid station 831585; Hospital 834585; Police 838170; Taxi 835060.
TELEPHONES: Telephones can be connected if ordered through Televerket. Tel: 832380.
SERVICES: Ice-breaker assistance available during Winter months.
SHORE LEAVE: No restrictions on shore leave when all formalities in order.
DELAYS: Delays may occur, when very heavy traffic cause shortage of labour.
GENERAL: Notice will be given to local Agents regarding changes or new developments which can affect usual procedure in port.
AUTHORITY: Drammen Havnevesen, Hans Kiaersgaten 1A, N-3000 Drammen, Norway. *Tel:* (03) 818890-94. *Contact:* H. E. Hansen, General Manager.

EGERSUND: 58.27 N. 06.00 E.

DOCUMENTS: Health Certificate (forms obtainable from Customs when entering harbour). Crew List, Dangerous Cargo List, Ship's Register. Vessels bound for Egersund must be provided with document signed by Master, setting out specification of cargo to be discharged Egersund, also quantities all provisions and stores on board. Document must include name, tonnage, port of registration, last port, next port, and number of crew and passengers on board.
PILOTAGE: Pilot – if necessary – to be ordered latest 3 hours prior arrival pilot station. Order to be given to Pilot Office – telephone 04-477377 or to ship's Agent, giving ETA, name of vessel, gross tons, where Pilot required, draft in feet, and discharging/loading place. Vessels entering Egersund liable to inward and outward pilotage dues, mileage money according distance piloted; and pilot dues, whether services of Pilot used or not. Pilot station lying on Eigeroy – and Pilot available for Southern and Northern entrance, from pilot boat. Southern entrance mostly used, max. draft 37 ft. In case of using Northern entrance, ship has to pass bridge between Eigeroy and the continent. Max. height 23.5 m. Max. draft 16 ft.
ANCHORAGE: Any place in harbour available for anchorage. Especially used is Hovlandsviken – 36 ft. draft.
MAX. SIZE: Largest vessel which has entered Egersund – 45,000 d.w.t. Max. draft 31 ft. In harbour there are 2,000 ft. of quayage with 18 ft. – 27 ft. alongside.
RADIO: Rogaland Radio and Farsund Radio.
TUGS: Not available in Egersund.
BERTHING: 3,000 m. of quay frontage. Facilities for container and Ro-Ro vessels. 30 tonne fork lift.

STEVEDORES: Ordered by Agent – no ETA to stevedores necessary. Time for ordering gangs for next morning must be given by 1300 hrs. day before.
FRESH WATER: Can be delivered at most discharging/loading places.
FUEL: Gas oil and Light Marine Diesel oil available.
GANGWAY/DECK WATCHMEN: Available – but not compulsory.
OPENING/CLOSING HATCHES: Crew allowed to open and close.
CERTIFICATES: On first call Registered Tonnage Certificate necessary – thereafter not required unless gross/net tonnage changed.
CUSTOMS ALLOWANCES: (Dependent size – destination, etc.) each crew member is allowed 100 cigarettes, 20 cigars or 100 grams tobacco and one bottle spirits.
CARGO GEAR: No additional requirements. One 150 ton crane, one 30 ton crane and some mobile cranes 5 tons – 15 tons available.
IDENTIFICATION CARDS: Not required.
CONSULS: Denmark and Sweden.
REPAIRS: All minor repairs possible. Service station for electronic aids.
HOLIDAYS: Work can usually be arranged on all holidays.
POLICE/AMBULANCE/FIRE: Police 49.16.00; Fire 49.15.00; Hospital/Ambulance Tel: 49.00.22.
AUTHORITY: Egersund Havnevesen, Havnebygget, Strangt. 2, P.O. Box 117, 4370 Egersund, Norway. *Tel:* (04) 49.13.28. *Telex:* 33084. *Contact:* Odd Hansen, Harbour Master.

FIBORGTANGEN (Skogn): 63.43 N. 11.10 E. (See Plan)

PORT LIMITS: Holsandbukta.
DOCUMENTS:

1 Crew List
1 Passenger List
1 Crew Personal Effects List.
1 Stores List
1 List of Animals
Last Port Clearance
Safety Certificates:
Safety Equipment, Load Line, Radio, Construction.

PILOTAGE: Pilotage is compulsory for all foreign vessels.

Notice of ETA and request for Pilot can be made to the local Agents, not less than 24 hours before ETA at Grip Lighthouse.

Confirmation of ETA is required 2 hours before arrival at Grip Lighthouse.

Channel 16 VHF is continuously watched by Kristiansund Radio and Pilot boat.

The usual pilot boarding point is inside Grip Lighthouse Lat. 63° 16′ N., Long. 07° 36′ E.

Pilot boat has orange upper works, white hull with the word "LOS" on each side.

The usual international signals may be employed by vessel requiring a Pilot.

In case of bad weather the pilot boat will lead ahead to sheltered waters. There is no anchorage for vessel awaiting a Pilot.

ANCHORAGES: At the bay North and N.E. of the wharf in about 20 m. of water, bottom sand, good holding ground.

Electric power cables cross from Valoya – Hestoya, anchorage in this area is prohibited.

MAX. SIZE: Vessels up to 160 m. LOA (vessels with LOA 214 m. have berthed) and 11.50 m. draft can be accepted at the North side of the wharf. On the East side 150 m. LOA, 8 m. draft.
HEALTH: Vessels will be cleared alongside.
RADIO: Kristiansund Radio is the long range area station.
VHF: Kristiansund Radio and Orland Radio. Continuous watch. All calling should be on Channel 16. Pilot boat also monitors Channel 16.
TUGS: Can be ordered by the local Agents.
BERTHING: The wharf is made of concrete. The North berth is 141 m. long, depth 12 m. The East berth is 215 m. long, depth 8 m. Permissible wheel loading for standard type vehicles is 12 tonnes.
STEVEDORES: *Working hours:*

Monday – Tuesday	0700 – 2400
Wednesday	0700 – 1930
Thursday	0700 – 2400
Friday	0700 – 2030

MEDICAL: Full hospital facilities available without prior notice.
FRESH WATER: Good quality water is available in unlimited quantities at about 20 tonnes per hour per connection.
FUEL: Not available, but can be ordered from Trondheim.
GANGWAY/DECK WATCHMEN: Can be ordered by the local Agents.
OPENING/CLOSING HATCHES: Normally handled by ship's crew.
CARGO GEAR: Discharging and loading is by ship's gear, however, some mobile cranes up to 30 tonnes capacity are available for extended hire at short notice.
REPATRIATION: Scheduled aircraft connected with direct overseas flights leaves from Trondheim Airport several times a day.
TIME: Local time is GMT plus 1 hour. Summertime is used.
POLICE/AMBULANCE/FIRE: All emergency services are available through the gate watchman.

Automatic fire alarms are installed at the wharf.

SHORE LEAVE: When Immigration and Customs have been satisfied, there is no restriction on crew's shore leave as long as they rejoin the vessel before departure.
BANKS: Bondernes Bank. Tel: 076-85163. Telex: 55219. Levanger Sparebank. Tel: 076-85137.
STORING: Vessel can be stored by truck during loading or discharging. Fork lift trucks can be used on the jetty to handle stores. Local Riggers cannot be employed to assist with storing.
SURVEYORS: Cargo Inspectors: Can be ordered by local Agents.

Bureau Veritas	Tel: 07-525030
Norsk Veritas	Tel: 07-917500
Lloyd's Register	Tel: 07-520124

EMERGENCY CO-ORDINATION CENTRE: Call nearest radio station.
AUTHORITY: Norske Skogindustrier A.S., 7620 Skogn. *Tel:* 076-85406. *Telex:* 55216 Skogn N. *Contact:* Gjermund Lyngfelt, Terminal Manager.

FLORO: 61.31 N. 05.02 E. (See Plan)

DOCUMENTS:

2 Manifests.
Crew List.
Provisions List.
Health Document.
Passenger List.

PILOTAGE: Pilotage is not compulsory when coming into Floro. Ships usually enter by Kvanhovden light. (See Admiralty Chart No. 3037.) Vessels can also enter at Fedje.

Nearest station Fedje (Lat. 60° 51′ N., Long. 04° 37′ E.). Distance to Floro Harbour about 52 nautical miles. Pilot boat a white-painted cruiser-type marked "OS" on both sides of bow.

Fixed watch on Fedje Island covers both Holmengra and Hellesoy. VHF Channels 8, 12 and 16. Listening first 10 minutes of every hour. ETA 24 hours before arrival. Telegram "Feielos". If bad weather, Pilot to be picked up on Eastern side of Fedje Island.

ANCHORAGE: No anchorages close to pilot station. Floro Harbour: space of about 1 sq.km., depths from 15 fathoms to 30 fathoms.
RESTRICTIONS: Tide difference about 1.5 m. Max. draft entering Floro Harbour 40 ft.
MAX. SIZE: Entering Floro Harbour: No restrictions in main harbour concerning length and breadth. Max. draft berthing: "Gunhildvagen" (Bunkering – Offshore industry) 25 ft. and length of 120 m.

NB. – "Gunhildvagen" lies outside main harbour, and has narrow entrance. Weather permitting, ships of 100 m. length and breadth 20 m. can pass.

BERTHING: *Vestlandske Kjopelag:* A bulk grain/molasses terminal for vessels up to 6,000 d.w.t. Berth length, 100 m. Depth alongside 7.0 m. Storage capacity 20,000 tons of Grain/Molasses.
Fugleskjaerskaia: The deep-sea pier to the West of Fugleskjaerskaia (61° 36′ N., 05° 02′ E.). Fugleskjaerskaia now offers 500 m. of pier frontage, depth from 16 ft. to 43 ft. New section: 36 m., 18 ft. depth; 140 m., 33 ft. depth; and 1 berth 43 ft. depth. Cranes of 30 ton and 45 ton capacity available.

The extension of Fugleskjaerskaia provided 21,000 sq.m. new cargo handling space. A Ro/Ro facility is also provided, max. axle load 60 tons, width 18.0 m.

Fjord Base A/S: Located at Botnaneset. Address: P.O.Box 323, 6901 Floro. Tel: (057) 43-811, 43-866. Fax: (057) 43-825. Telex 40189 fb n.

Quay A	Length 100 m.	Depth 10.0 m.
Quay B	Length 50 m.	Depth 19.0 m.
Quay C	Length 60 m.	Depth 8.0 m.

Mobile cranes with capacity 35 tons – 115 tons.

STEVEDORES: ETA before 1600 hrs. for gangs required next morning.
MEDICAL: Hospital close to harbour, and available any time.
TANKERS: Harbour is only used by small tankers, about 500 to 1,000 reg. tons.
FRESH WATER: Only available alongside berth. Delivery about 30 t.p.h., possibility of 60 t.p.h. At Fugleskjaerskaia fresh water available at a rate of 200 t.p.h.
FUEL: Ordinary fuel. Diesel and gas oil delivered by truck. Ships up to about 1,000 g.r.t. receive oil bunkers directly by berthing bunker station.
GANGWAY/DECK WATCHMEN: Not required.
OPENING/CLOSING HATCHES: Mostly done by crew.
CREW IDENTIFICATION CARDS: Not required.
CONSULS: None.
REPAIRS: Most repairs possible.
DRY DOCKS: None. There is a berth at Floro Industripark. Length 85 m. Depth alongside 14 m.
AIRPORT: Regular service with De Haviland Twin Otters, 2 flights to Oslo, 5 flights to Bergen and 2 to Aalesund each day. (Runway 860 m.)
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: Cargo work can be arranged any time, holidays included.
POLICE/AMBULANCE/FIRE: Police 42011; Ambulance 41011; Fire 001.
TELEPHONES: Can be arranged on board alongside wharf.
SHORE LEAVE: Permitted.
SERVICES: Servicing for all kinds of ships navigation instruments can be arranged, except adjusting radio bearings.
SHIP SUPPLY SERVICE: The port has 6 small passenger vessels (50 ft. – 60 ft.), all capable of 20 – 27 knots, one or more are vacant at any time, and willing to take on assignments.

Services can be ordered through K. Jansen, 6900 Floro. Tel: (057) 41010.

Helicopters can obtained from Helicopterservice, Bergen.

AUTHORITY: Floro Havnevesen, P.O.Box 17, 6901 Floro, Norway. *Tel:* 41428. *Contact:* N. A. Hovland, Assistant Harbour Master.

FRAFJORD: 58.51 N. 06.17 E. (See Plan)

SHIPMASTER'S REPORT: May 1979. Also see "Agents Report" below.

Vessel loading stones.

The berth at Frafjord is situated at the Eastern end of the Fjord leading to Frafjordsoyr (Lat. 58° 50′ 40″ N., Long. 06° 17′ E.) and consists of an angled quay 15 m. in length.

The Pilot is embarked at Kvitsoy Pilot Station and vessel then proceeds to Stavanger for Customs Clearance and Agency work due to the remoteness of the loading berth. Pilots are changed at Stavanger and this Pilot remains on board until Kvitsoy outwards.

Approach to the berth is made at right angles with 3 shackles out on the starboard anchor until the headline and forward spring can be passed to the quay, the vessel is then turned on the anchor.

The quay is made of wood and is in poor condition with one end and bollard damaged. On the quay a single fixed conveyor is situated with a mobile extending arm and this is fed from a bin filled by tip-up lorries. The approximate lorry load is 13 tonnes. The extending arm can be remotely controlled in and out but is not quite long enough to adequately fill the outboard side. If loading mixed stones the lighter stones can be projected outboard. The loading foreman tended to be inexperienced and care has to be taken not to let the height of the stow build up too much and also along the inboard side as a slight starboard list is preferable due to the shallow areas of water on the inboard side and slack ropes aft will facilitate a general movement to the deeper water, (by sliding off the bottom).

No. 2 hold is loaded completely and then the stern is canted into deeper water in order to load in No. 1. The sequence that was adopted by this vessel was to load 750 tonnes in the after end of No. 1 followed by 750 tonnes in the forward end of No. 2 and then 700 tonnes in the after end of No. 2. This increased the after draft to approximately 6.3 m. The stern was then canted out into deep water and the final 800 tonnes was loaded forward. The vessel has to be constantly moved along the quay in order to get an even stow height approximately one-third the way up the hatch coaming.

The bollards on the beach are very badly positioned and the ones on the quay which were used for the springs were on the verge of being ripped out, one already having done so on the damaged end of the quay.

Loading commenced at 1600 hrs. on 11th May and ceased at 2215 hrs. that day, resumed at 0720 hrs. on 12th May and completed at 1000 hrs. on 12th May. 3,010 tonnes of stone chippings were loaded, final draft being, forward 5.32 m., aft 5.66 m. No gangway can be used, only pilot ladder.

Little wind was experienced during our stay but I would consider that any adverse weather conditions during berthing, loading or unberthing must make this a dangerous operation.

AGENT'S REPORT: August 1984.

The Pilot can be embarked at Kvitsoy, Tananger or Skudesnes Pilot Station.

Vessel proceeds direct from pilot station to loading berth (Pilot stays on board during loading), which normally takes 6 hours for a vessel of 3,000 tons. Agency/Customs clearance is now performed at Frafjord.

The loading berth is now of concrete and extended – mooring points are new, and there is no need to use anchor when approaching the berth. Official draft limitation is 18 ft.

The max. length allowed at the berth is 95 m.

The loading foreman is now well experienced and is conducting the loading/shifting with professional skill.

AGENT: Odd H. Torjusen A.S., P.O.Box 523, N-4371 Egersund, Norway. Tel: (04) 492400. Telex: 33357. FAX: (04) 491614. Cables: Torjusen.

FREDRIKSTAD: 59.12 N. 10.57 E. (See Plan)

DOCUMENTS:
- Bill of Health.
- 2 Crew Lists.
- 2 Passenger Lists.
- 2 Custom List for Crew Members and Passengers.
- Bill of Lading.
- 3 Manifests for each port of discharge.

PILOTAGE: Compulsory. Pilot boarding at Faerder Lighthouse, 59° 02′ N., 10° 32′ E. or between Tresteinene Lighthouse and Vidgr. Lightbuoy, 59° 01′ N., 10° 56′ E. Agents report vessel's ETA to pilot station and vessel to give 2 hours' notice by R/T 2182 kHz or VHF Channel 16 to Faerder Pilot and Fredrikstad Pilot (Herfol Pilot). Coast station Tjome Radio LGT or Farsund Radio LGZ can also be used. Harbour Pilot and tugs, when necessary, will be arranged by Agents to meet at Belgen.

ANCHORAGES: Safe anchorage for larger vessels Belgen, East entrance. For smaller vessels anchorage to be pointed out by Pilot or Harbour Master.

RESTRICTIONS: Max. draft, East entrance 36 ft.; West entrance, 17 ft. Otherwise no restrictions.

HEALTH: See "Documents".

If vessel carries Quarantine Flag for contagious diseases, radio communication should be sent to Agent for instructions, otherwise no special regulations.

RADIO: Communication to Agent through Tjome Radio or Rogaland Radio.

VHF: Fredrikstad Port Control, Ora Quay, Tel: 032-20451 or VHF Channels 16 and 12.

TUGS: Three tugs, 750 h.p., 1,200 h.p. and 2,700 h.p. More powerful tugs can be ordered from Oslo if necessary.

BERTHING: As instructed by Harbour Master through Agent, depending on vessel's draft and size.

East River Berths:

Oera Quay:

Southern part, max. draft 34 ft.

Northern part, max. draft 28 ft. – 33 ft.

Denofa Lilleborg Quay:

Max. draft 33 ft. (5 m. off the quay).

Additional Facilities:

5 warehouses, each at 2,000 sq.m. with 300 sq.m. of cool storage.

4 ordinary cranes up to 3 – 6 tons (radius 8 m. – 26 m.).

1 mobile harbour crane up to 36 tons at 18 m. radius, with container spreader for 20 ft. and 40 ft. containers.

1 mobile harbour crane up to 40 tons at 28 m. radius, with telescopic container spreader.

1 × 37 tons fork lift, with telescopic container spreader.

1 × 32 tons fork lift.

2 × 28 tons fork lifts.

2 × 30 ton fork lifts.

30 × 2 ton – 12 ton fork lifts, 8 equipped to handle bales and reels.

5 Tugmasters, capacity 120 tons.

2 Ro-Ro terminals with an open area of about 40,000 sq.m.

1 passenger and car ferry, between Fredrikstad and Fredrikshavn during daytime.

STEVEDORES: To be arranged by Agent subject to requirements. 24 hours' notice important to obtain in good time accurate ETA.

Ordinary working hours 0700 to 1600 hrs., Monday to Friday. Saturday from 0700 to 1200 hrs. 50% overtime and from 1200 to 1500 hrs. 100% overtime.

Bulk cargoes are usually discharged in shifts until Saturday 2200 hrs.

MEDICAL: Master to advise by radio prior arrival if medical attendance required on board. Hospital facilities available.

TANKERS: Discharge pipe-lines usually 6 in. and 8 in. No slop (residues) discharge facilities. Tanker berths are at NUROL and Denofa/Lilleborg.

Sulphuric Acid is loaded at Oera Quay.

DENSITY: Brackish water, 2.7% salt water.

FRESH WATER: From shore or by barge.

FUEL: All grades available. For larger quantities, delivery arranged by barge.

GANGWAY/DECK WATCHMEN: Obtainable.

OPENING/CLOSING HATCHES: Crew members allowed to open and close hatches.

SHIP'S CERTIFICATES: To be produced to Customs Authorities on arrival.

CUSTOMS ALLOWANCES: *Tobacco:* 20 cigarettes or 20 gm. tobacco per man, per day.

Wines/Spirits: 1 bottle of spirits or wine for consumption on board per crew member.

IDENTIFICATION CARDS: Not required, except at the quay of Defona/Lilleborg, when Master, upon arrival, will receive a sufficient number of cards for filling-in for each crew member, to be shown when passing the gate.

CONSULS: Danish, French, Finnish, Netherlands, Swedish.

REPAIRS: All repairs possible.

DRY/FLOATING DOCKS:

A/s Fredrikstad mek Verksted: Dry dock 945 ft. length, 126 ft. breadth, 25 ft. draft when docking.

Sarpsborg mek Verksted: Floating dock, 3,000 tons, 380 ft. length, 55 ft. breadth, 18 ft. draft when docking.

REPATRIATION: All facilities available.

AIRPORT: Fornebo, Oslo, 110 km. from Fredrikstad. Frequent connection by train.

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

HOLIDAYS: New Year's Day (1st January); Maundy Thursday; Good Friday; Easter Monday; Labour Day (1st May); Constitution Day (17th May); Christmas Eve; Christmas Day; 2nd Christmas Day; New Year's Eve.

POLICE/AMBULANCE/FIRE: Police, Tel: 17700; Doctor, Tel: 13333; Hospital, Tel: 10300; Fire, Tel: 10345 or 12345.

TELEPHONES: May be installed on board at the quay of Oera.

SERVICES: Compass adjusting, laundry, ship chandler for delivery of provisions and bond stores.

SHORE LEAVE: No restrictions.

AUTHORITY: Fredrikstad Havnevesen, Ferjestedsveien 2, 1600 Fredrikstad, *Tel:* (032) 12319, 16422. *Contact:* Port Manager, Gunnar Umbach Hansen, Harbour Master.

GLOMFJORD: 66.50 N. 13.57 E.

DOCUMENTS:
3 Crew Lists.
Customs List.
Shipping Manifest.
Health Statement.
Bill of Lading.
Ship's Certificate of tonnage.

PILOTAGE: Pilot station, approach from South, is Aasvaer, 66° 17′ N., 12° 18′ E. VHF Channel 16 and radio telephone, frequency 2182.

Pilot station, approach from North, is Fleinvaer, 67° 13′ N., 13° 42′ E. Order Pilot over Bodo Radio, Tel: Bodo 22115.

ANCHORAGE: No berth for anchoring in Glomfjord but possible anchor at Sandaabukten close to Glomfjord.

HEALTH: Health certificate – only for first port in Norway.

RADIO: Sandnessjoen or Bodo Radio station.

VHF: On quay. Call: Hydro Glomfjord Port Station on Channel 16.

TUGS: None.

BERTHING: No specific requirements relating to berthing. Quay length 317 m. and depth 8 m.

STEVEDORES: In accordance with Charter Party.

MEDICAL: Medical aid in Glomfjord, and hospital in Bodo.

TIDE: Difference between high and low water about 3 m.

FRESH WATER: Alongside quay.

FUEL: None.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CERTIFICATES: Usual certificates.

CUSTOMS ALLOWANCES: 200 gm. tobacco or 200 cigarettes per man. 0.75 litre spirits or 0.75 litre wine per man.

CARGO GEAR: Discharging and loading by conveyor.

IDENTIFICATION CARDS: Usual passport necessary.

CONSULS/REPAIRS/REPATRIATION: None.

AIRPORT: Airport in Bodo.

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

HOLIDAYS: See "Drammen".

POLICE/AMBULANCE/FIRE: Police station 52100 Meloy.

TELEPHONES: On quay.

REGULATIONS: No particular or unusual regulations. Control by passing gate between dock area and surrounding field.

SHIPMASTER'S REPORT: 1976.

Anchorage: The nearest anchorage to the berth, which is part of Norsk Hydro's chemical plant is Sandabukta, about 6 miles away. It is safe and sheltered and the Agent will board there. Communication with Glomfjord is by VHF Channel 16 or via the local boatman with whom private arrangements for shore leave are possible.

Clearance: Ship is boarded on arrival at the anchorage by the Glomfjord Customs Officer who also acts as Immigration and Port Health.

Pilotage: There are no Harbour Pilots at Glomfjord. If proceeding direct to berth, Sea Pilot will put ship alongside. If awaiting berth at Sandabukta Anchorage, Pilot leaves there and it is normal for ships to complete the passage unaided. A Pilot can be obtained from Bodo but is not always available. If another ship is arriving at the anchorage, Pilot will transfer.

AUTHORITY: Norsk Hydro a.s. Glomfjord, 8160 Glomfjord, Norway. *Tel:* (081) 52 321. *Telex:* 64061 Hydro N. *FAX:* (081) 52654. *Cables:* Norskhydro. *Contact:* Shipping and Clearance Office.

HALDEN: 59.08 N. 11.25 E. (See Plan)

DOCUMENTS: See "Bergen".

PILOTAGE: Pilot boat at Faerder light station. Pilot boat at Herfol Losstation-Hvaler. Ordering usually over Radio Land Station. Tjome Radio = LGT (also VHF). Signals according to ordinary international requirements. Exact area for Pilot boat: Faerder light station (Store Faerder); Herfol pilot station; Hvasser pilot station.

ANCHORAGE: At Faerder light station in Oslofiord-Singlefiorden West side.

RESTRICTIONS: No special restrictions but larger vessels have to take necessary care with passing Svinesund. The tide current altering according to high and low water time.

MAX. SIZE: For the harbour inside Svinesund (Main Harbour) length 560 ft., beam 70 ft., draft. 25 ft.

HEALTH: Pratique, ordinary.

TUGS: If required tugs join outside Sponviksskansen light at the entrance to Svinesund. Usually ship's lines.

RADIO: All radio services over Tjome Radio-Land Station (use the ordinary international frequency — (600-705-800 m.).

VHF: Port Authority on Channels 16 and 12.

BERTHING:

Quay	*Depth* (ft.)	(m.)
Ytre Molbrygge	23	7.2
Indre Molbrygge	23	7.2
Jernbanebryggen	22	6.9
Krankaien	27	9.0
Brokaien	23	7.2
Sundsbryge	16	5.3
Felleskjopet	16	5.0
Grain Elevator	12	3.8

FRESH WATER: Available; good quality.

FUEL: Available.

FIRE PRECAUTIONS: According to Harbour Regulations.

GANGWAY/DECK WATCHMEN: Not required.

OPENING/CLOSING HATCHES: Carried out by crew.

IDENTIFICATION CARDS: Required.

REPAIRS: Only small repairs carried out.

DRY DOCKS: None.

REPATRIATION: No facilities.

AIRPORT: Nearest Fornebu–Oslo.

POLICE/AMBULANCE/FIRE: Police 09-180111; Ambulance/Fire (09) 181212.

TELEPHONES: None available for shipboard use.

SHORE LEAVE: Allowed.

AUTHORITY: Halden Havnevesen, P.O.Box 184, Langbrygga 3, 1751 Halden, Norway. *Tel:* 09-183200. *Contact:* Rolf Gravningen, Port Director, *Tel:* 09-184323.

HAMMERFEST: 70.40 N. 23.40 E. (See Plan)

DOCUMENTS: See "Bergen".

PILOTAGE: Entering from sea, a state Pilot is compulsory as vessel has to pass through prohibited sea area. Pilot should be ordered 4 hours in advance, and boards ship at Tarhalsen (situated at Eastern-most tip of Soroy island). Harbour Pilot boards outside harbour breakwaters.

ANCHORAGE: Anchoring as appointed by the State Pilot or Harbour Pilot.

MAX. SIZE: Alongside ships up to 30,000 g.r.t., with max. draft 30 ft. For anchorage no limitation.

RADIO: Hammerfest Radio, equipped with VHF.

TUGS: One small tug, bollard pull 6 tons.

BERTHING:

Berth No.	*Length*	*Berth No.*	*Length*
1	138 m.	13	85 m.
2	75 m.	14 (not built)	265 m.
3	46 m.	15 (private)	37 m.
4	50 m.	16 (private)	25 m.
5	150 m.	17 (private)	170 m.
6 (private)	32 m.	18 (private)	30 m.
7	32 m.	19 (private)	60 m.
8	70 m.	20 (private)	30 m.
9	142 m.	21 (private)	60 m.
10	130 m.	22 (private)	18 m.
11	65 m.	23	60 m.
12	45 m.		

MEDICAL: Hospital facilities available at Hammerfest.

TANKERS: Discharge line 8 in.

DENSITY: Salt water.

FRESH WATER: Capacity 300 t.p.h. at Harbour Board Quay. No water barge available.

FUEL: All grades except heavy fuel oil available.

CUSTOMS ALLOWANCES: See "Stavanger".

IDENTIFICATION CARDS: Not required.

CONSULS: French, Danish, Finnish, Icelandic, Netherlands and Swedish Vice-Consuls.

REPAIRS: Slipway for smaller ships, up to 200 ft. Only minor repairs and radar repairs available.

DRY DOCKS: None.

REPATRIATION: Daily connection by ship and air.

AIRPORT: Hammerfest Airport. Regular service several times a day.

AUTHORITY: Hammerfest Havnevesen, P.O.Box 123, 9601 Hammerfest, Norway. *Tel:* 084-11201/11202. *Contact:* Harbour Master.

HARSTAD: 68.48 N. 16.39 E. (See Plan)

PORT LIMITS: Inside a straight line from Trondenes Church to Stangnes Light.

DOCUMENTS:
2 Crew Lists.
2 Passenger Lists.
Derat Certificate.

PILOTAGE: If entering via Andenes, 12 hours' advance notice of ETA in order to arrange Pilot. If entering via Lodingen, 2 hours' notice. VHF Channel 16 both at Lodingen and on pilot-cutter at Andenes. 24 hour watch maintained.

ANCHORAGE: Inside harbour limits, fairly good anchorages available, Pilot will assist.

RESTRICTIONS: No restrictions, except all foreign ships must have a Coast Pilot on board in inland waters.

MAX. SIZE: Any size vessel can anchor in harbour.

HEALTH: In case of suspected disease doctor has to be called by radio before entering. After calling at another Norwegian port and no disease, Pratique is not necessary.

RADIO: Routing of ETA cables to Agents at Harstad is best over Harstad Radio. VHF installed at Harbour Office.

TUGS: Two small tugs available.

BERTHING: Public quays of 680 m. Private quays of 1,200 m.

MEDICAL: No advance notice required. Hospital facilities available. No medical information required if no suspected disease on board.

SPECIALISED CARGO-HANDLING FACILITIES: One coal bunkering station; draft about 24 ft.; equipped with crane.

Two mobile cranes, capacity 30 tons each.

Trucks: 1×20 tons, 1×10 tons. Also fork lift trucks between 1 ton and 6 tons.

TANKERS: Two berths. Esso 33 ft. Norol 36 ft.
TIDE: Rise in tide about 6 ft.
FRESH WATER: Available at most quays day and night.
FUEL: All grades available. In the Winter 3 – 4 hours' notice required.
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: By crew.
CERTIFICATES: Usual international certificates.
CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes or equal amount of tobacco. Wine and/or Spirits: Spirit half a bottle per person.
IDENTIFICATION CARDS: Not needed.
CONSULS:

Danish Vice-Consulate:
Samasjovn 22, 9400 Harstad. Tel. 0 82 64560 or 64219.
Finnish Vice-Consulate:
Rikard Kaarb 05 gt. 2 – 9400 Harstad. Tel. 0 82 64990
German Vice-Consulate (Germany F.R.):
Torfinns gt. 7 – 9400 Harstad. Tel. 0 82 61472.

REPAIRS: All types of repairs possible.
DRY DOCKS: 1 dry dock 110 m. long, 17 m. wide. Capacity: 8,000 d.w.t.
SURVEYORS: Cargo Inspectors available.
Lloyd's Register and Det Norske Veritas in Harstad.
REPATRIATION: Facilities available.
AIRPORT: Airport of Evenes, about 45 minutes (45 km.) drive from Harstad by road.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: Cargo work can be arranged on holidays, except 1st and 17th May, Easter Day and Christmas Day.
POLICE/AMBULANCE/FIRE: Police: 62010; Ambulance: 64900; Fire: 64580.
EMERGENCY CO-ORDINATION CENTRE: The nearest emergency centre is Hovedredningssentralen in Bodo. Tel: 081-21 267.

Local contact in Harstad is the Harbour Office. Tel: 082-62 880/62 459 or Senja Police Office. Tel: 082-62 010.

TELEPHONES: Available, can be arranged by Agent or Dockyard.
SERVICES: Harbour Office: Tel. 082 62880 and 62459. The Norwegian Government has decided that Harstad is to be the main base for most of the oil activity North of 62° N., and the town and the harbour are under construction to meet future requirements in this connection.
BANKS: One bank in Harstad which is operating internationally. Bergen Bank, Sjogaten 5, 9400 Harstad. Telex: 64002.

In addition there is A/S Fiskernes Bank, Tromsbanken A/S, Harstad Sparebank and Trondenes Sparebank.

STORING: See "Prelims".

1. Vessel can be stored by barge and/or truck.
2. No special regulations.
3. Trucks can proceed alongside the berth.
4. Fork lift trucks can be used on the jetty to handle stores.
5. No special regulations.
6. Local riggers can be employed to assist with storing.

SHORE LEAVE: Allowed.
DEVELOPMENTS: *Sor-Stangnes:* New harbour development area of about 40 acres. It will be possible to build a quay of 550 m. length and a minimum depth of 10.0 m.
AUTHORITY: Harstad Havnevesen, Box 193, 9401 Harstad, Norway. *Tel:* 082-62 880, 62 459. *Contact:* Ragnar Tonder, Harbour Master.

HAUGESUND: 59.25 N. 05.16 E. (See Plan)

DOCUMENTS:

3 copies Maritime Declaration of Health.
4 copies Cargo Declaration.
3 copies Ship's Store Declaration.
3 copies Crew Effects Declaration.
3 copies Crew List.
2 copies General Declaration.
Clearance from last port.
3 copies Passenger List.

PILOTAGE: 24 hours notice addressed to Kopervik Pilot Station, who keep a 24 hours watch on VHF Channel 16, working Channel 13.

Pilot boards vessels off Skudenes (59° 07′ N., 05° 16′ E.) in Skude Fjord, or off Rorver (59° 27′ N., 05° 03′ E.).

Larger vessels and oil-rigs who are calling at the shipyard (HMV) generally take Pilot off Rorver and other vessels or vessels proceeding to the Lay-up Area at Bovaagen, take Pilot off Skudenes.

ANCHORAGE: Anchorage in Karmsundet off the city can generally only take place after agreement with the Harbour Office. Alternatively safe Anchorage is possible 1 mile North of Kopervik in 30 m. of water.
MAX. SIZE:
Entrance from the North: No restrictions as to height. Minimum depth in the Harbour is 23 m.
Entrance from the South: The bridge between Haugesund and Karmoy, crossing at Salhus, free height of 45 m. Minimum depth of water 11 m. (just North of the bridge).
RADIO: Rogaland Radio.
VHF: Rogaland Radio on Channel 16. Kopervik Pilot on Channels 16 and 13. Haugesund Harbour Office on Channels 16 and 12, throughout 24 hours.
TUGS: Two tugs available in the Port and further tugs can be called from Stavanger.
CRANES: Mobile cranes of all sizes available. Floating crane of 80 tons available.

BERTHING:

Berth:	Length (m.)	Depth at LW (m.)
Garpeskjar – West	418	10.0
Garpeskjar – North	213	7.0
Garpeskjar – East	268	7.0
Inner Harbour	220	6.4
Killingoy Offshore Base East	120	10.0
Killingoy Offshore Base South	111	10.0
Killingoy Offshore Base West	157	15.0

At Garpeskjar – West, there is a Ro/Ro Terminal with landing point for ships ramps with a width up to 15 m.

At Garpeskjar – East, there is a Reefer Store.

There are several private Companies in the port with berthing facilities with depths between 5 m. and 7 m.

Lay-Up Areas: A well recommended Lay-up Area is situated at Bovaagen Bay, just to the South of the Bridge between Haugesund and Karmoy (2 miles to the South of the city).

The Lay-up Area can accommodate vessels up to 250,000 d.w.t. The depth in Bovaagen Bay is from 23 m. to 40 m., with good holding ground.

The Bollards are certified from 200 – 400 tons holding capacity.

There is a 380 volt current supply and telephone connections are available. Fresh water is supplied by boat. Entrance to the Lay-up Area in general takes place from the South, limited by a link-span 47 m. high.

To the West side of Storasundskjaerene is an excellent lay-up area for oil rigs. Bollard of 250 tons. 380 volt current supply, fresh water and telephone.

STEVEDORES: To be ordered by local Agent in ordinary Office hours (07.30 – 15.30).
MEDICAL: Doctor and hospital facilities available at any time.
FRESH WATER: Available ex-wharf or by boat.
FUEL: Available ex-wharf and by boat or truck.
CONSULS: Denmark, Finland, France, Germany (F.R.), Iceland, Sweden and United Kingdom.

Countries not mentioned above are in general represented in Stavanger.

REPAIR/DRY DOCKS: HMV Shipyard offers dry dock facilities for vessels up to 155,000 d.w.t. and a floating dock for vessels up to 17,000 d.w.t.

Drilling Rigs can be berthed alongside the yard's 100 m. long "deep water quays".

There are also several smaller repair yards in the Port.

At Killingoy (offshore base) there are repair facilities in general and also service on offshore underwater works (diving operations, etc).

AIRPORT: At Karmoy, 15 minutes drive from Haugesund.
AUTHORITY: Haugesund Harbour Authority, P.O.Box 186, N 5501 Haugesund, Norway. *Tel:* (04) 714744. *FAX:* (04) 712819. *Contact:* A.J. Simonsen, Harbour Inspector.

HEROYA: 59.07 N. 09.38 E. (See Plan)

DOCUMENTS:

Clearance documents – forms obtainable from Custom Officers on arrival.

Derat Certificate.
Bill of Lading.
Manifest.
2 Crew Lists.
Ship's Register.

PILOTAGE: Vessels approaching from the sea and desiring a Pilot shall, as far as possible, order a Pilot 24 hours in advance and thereafter confirm arrival at Pilot Station 2 hours in advance.

Vessels lying in port and desiring a Pilot shall, as far as possible, order a Pilot 4 hours in advance and thereafter confirm departure from the port 2 hours in advance.

Orders for Pilots shall be addressed to "Brevik Control" (Channel 80).

Also see "Brevik – Regulations".

Pilot boat located 1 mile S.E. of Langoytangen Lighthouse (position: Lat. 58° 59′ 30″ N., Long. 9° 45′ 30″ E.).

ANCHORAGES: All anchoring at Frierfjorden. Also see "General" before first port (Agotnes).
RESTRICTIONS: No restriction on night entry except for large vessels when Pilots prefer daylight. Also see "General" before first port (Agotnes).
MAX.SIZE: Max. draft 32 ft. 6 in., max. length 600 ft. entering Kjorttingen between Langesund and Brevik. Also see "General" before first port (Agotnes).
HEALTH: See "Documents". Norwegian Health Certificate required on clearance inwards.
RADIO: Cable Agents giving ETA, draft and cash required via Tjome Radio/LGT or Farsund Radio/LGZ.
TUGS: Tugs join at berthing place. Ship's lines used.
BERTHING: No specific requirements relating to berth.
CARGO HANDLING FACILITIES: On the East side of the river, a berth of 800 ft. length, 20 ft. to 21 ft. alongside. A new quay for vessels up to 10,000 tons, 26 ft. to 27 ft. depth, specially for handling bulk cargoes.

No berth equipped for handling Ro/Ro traffic, but berth available for liquid chemical and LPG carriers.

Oil Pier Norsk Hydro A/S, vessels up to 20,000 d.w.t.

Main Quay Norsk Hydro A/S, length 1,838 ft., draft 26 ft. to 34 ft. 6 in.

Western Quay Norsk Hydro A/S, length 1,263 ft., draft 26 ft. to 32 ft. 6 in.

CRANES:
Main quay Norsk Hydro A/S:
- 4 cranes reaching 10 m.-11 m. outside quay border capacity 6 tons.
- 2 cranes reaching 18 m. outside quay border capacity 6 tons.
- 3 elevators for loading of bagged cargo reaching 16 m.

Western Quay Norsk Hydro A/S:
- 2 cranes reaching 18 m. outside quay border capacity 7 tons.
- 1 crane reaching 15 m. outside quay border capacity 8 tons.
- 1 crane reaching 9 m. outside quay border capacity 3 tons.
- 3 elevators for loading of bagged cargo reaching 8 m.

Deep Water Jetty:
- 2 cranes reaching 16 m. outside quay border capacity 10/12 tons for bulk cargo only.
- 1 crane capacity 5 tons for handling of stores, etc.

BRIDGES: Brevik Bridge max. height 45 m. Porsgrunn Bridge (VHF Channel 12) only when proceeding to Menstad, Borgestad, Waterloo and Skien, liftbridge with breadth of 30 m. Sound signals for passing bridge inward, 1 long and 2 short. Outward signals, 1 long and 1 short.
STEVEDORES: Ordered by Shippers/Receivers or Agents.
MEDICAL: All medical assistance to be arranged via Agents.
TANKERS: Discharge lines 4 in., 6 in., 8 in.
DENSITY: Brackish 4 in. – 6 in. allowance.
FRESH WATER: Obtainable various quays.
FUEL: All grades available.
FIRE PRECAUTIONS: Tankers discharging, smoking only by Officers in saloon, crew in messroom.
GANGWAY/DECK WATCHMEN: Available but not compulsory.
OPENING/CLOSING HATCHES: Crew normally open and close. Otherwise according Charter Party.
CERTIFICATES: Registered Tonnage Certificate; Derat Certificate. Otherwise normal international certificates.
CUSTOMS ALLOWANCES: 400 cigarettes for the Master and 200 for each crew member. *Wine and/or Spirits:* 4 bottles spirit for Master and half bottle for each crew member.
CARGO GEAR: No additional requirements, but using vessel's rain tents.
IDENTIFICATION CARDS: Only necessary at quays belonging to Norsk Hydro. Special identification cards will be delivered to Master on arrival.
CONSULS: Belgium (03) 520083 (Skien), Denmark (03) 550069, Germany F.R. (03) 525093 (Skien), Netherlands (03) 522742 (Skien), Finland (03) 552620.
REPAIRS: Repairs possible.
DRY DOCK: Draft 14 ft., length 155 m., breadth 20 m., also 4 smaller docks.
REPATRIATION: Facilities exist for effecting crew changes and repatriation.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: New Year's Day, Maundy Day, Good Friday, Easter Eve (half day), Easter Monday, Christmas Eve (half day), Christmas Day, 26th December, New Year's Eve (half day).
POLICE/AMBULANCE/FIRE: Police 551040; Ambulance 550170; Fire 551522. Other numbers: Pilot Station 571233; Tug Station 571144; Norsk Hydro Central 551120; Porsgrunn Bridge 552492; Custom House 554540; Taxi 556900; Harbour Office: 571080 – 571088.
AUTHORITY: Porsgrunn Havnevesen, P.O.Box 20, 3951 Brevik, Norway. *Tel:* (03) 571080/571088. *Contact:* Hans Roe Edvardsen, Port Director.

HORTEN (on West Side Oslo Fjord): 59.24 N. 10.28 E.

DOCUMENTS: Health Certificate, Provision List, etc., all forms obtainable from Customs Officer boarding on arrival. Ship's Register and 2 copies of Manifest (with or without freight).
PILOTAGE: Compulsory for foreign ships over 50 g.r.t. Pilot station at Hvasser (Sandosund) outer Oslofjord, Tel: Hvasser 178 via Tjome Radio, VHF Channel 16 and RT 2182 kHz. Cutter or motor cruiser at Faerder Lighthouse bearing 3 miles N.N.E. White hulls with word LOS in black letters. Pilot usually ordered through Agent. Inner Harbour, Horten, compulsory Harbour Pilot ordered through Agent.
ANCHORAGE: Langgrunn outside Horten, any size vessel.
RESTRICTIONS: No restrictions night entry, but Inner Harbour at Horten only entered with Harbour Pilot on board.
MAX. SIZE: Ships up to max. length 900 ft. (anchored moorings outside jetty). Deep-water Wharf, length of N.E. side 530 ft. Draft 28 ft.
HEALTH: See "Documents". Advise Agent if suspect any disease or fever.
RADIO: Cable Agent giving ETA via Tjoeme Radio. Local Harbour Master's Office can be contacted by VHF Channel 16. Hortens Brygge's "Pilotboat" when in service VHF Channel 16.
TUGS: Tugs if required use ship's line. Tugs ordered through Agent.
BERTHING: Max. draft alongside quay 28 ft.
STEVEDORES: Ordered by Agents.
MEDICAL: No special notice required, but preferred if urgent. Local hospital-Horten Sykehus Tel: 43191.
DENSITY: About 1022.
FRESH WATER: Available at most berths and from lighter.
FUEL: All grades. Direct from Installation and also by lighter. If large quantities, give earliest possible notice.
FIRE PRECAUTIONS: Usual restrictions and no smoking inside Cleaning Installation gate.
GANGWAY/DECK WATCHMEN: Available, not compulsory.
OPENING/CLOSING HATCHES: Usually opened/closed by vessel's crew.
CERTIFICATES: Ship's Register and usual certificates.
CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes or 250 grammes tobacco, 200 cigarette papers for persons over 15 years only. Wine and/or Spirit, Spirit of max. 60% 1 bottle (1 litre) and 1 litre wine (1.25 bottle) – 2 litres of wine if no spirits and 2 litres of beer (for persons over 21 years only).
CARGO GEAR: No additional requirements except when extra heavy lifts (20 tons).
IDENTIFICATION CARDS: Not needed.
CONSULS: Only Finnish Consul in Horten Tel: 42189, but most Consulates in Tonsberg – 18 km. distant. British Vice-Consul, Tonsberg Tel: 11605, Netherlands Vice-Consulate Tel: 13224.
REPAIRS: Any kind can be carried out.
DRY DOCKS: Dry docks for vessels up to about 60,000 d.w.t. at A/S Horten Verft.
REPATRIATION: Crew changes, etc., can be arranged.
AIRPORT: Nearest international Airport is Oslo Airport (Fornebu) and Torp Airport (Sandefjord). Charter flights may be arranged to and from Sandefjord Airport – any size of plane, and small aircraft at Jarlsberg Airfield. Distance to Sandefjord about 30 km., to Jarlsberg about 18 km.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: New Year's Day; Thursday before Good Friday; Good Friday; Easter Monday: 1st May; Ascension Day; 17th May; Whit Monday; Christmas Day; 26th December. 24th December is half holiday – work stops at noon or 1300 hrs.
POLICE/AMBULANCE/FIRE: Horten for immediate help telephone 000 covering Police, Ambulance and Fire.
TELEPHONES: Can be placed on board at Deepwater Wharf, the Cleaning Installation and the Dockyard (A/S Horten Verft) at comparatively cheap rates.
GENERAL: Important Electronic Industry.
SERVICES: Adjusting of all kinds of ship's instruments.
SHORE LEAVE: Crew members are allowed on shore.
REGULATIONS: Compulsory harbour Pilot when calling at Inner Harbour and yard (A/S Horten Verft).
DEVELOPMENTS: Committee at present working with plans for building more berths for ferries and traffic.
AUTHORITY: Borre Havnevesen, Post Box 167, 3191 Horten. *Tel:* 033-41021. *Contact:* Kjell Fjellin, Harbour Master.

HOYANGER: 61.10 N. 06.04 E.

LOCATION: Hoyanger Aluminium Works located North of Bergen in outer part of Sognefiord. Lat. 61° 10′ 18″ N., Long. 6° 04′ 07″ E.
DOCUMENTS: See "Bergen".
PILOTAGE: Compulsory. Belonging to Bergen Customs District and unless otherwise arranged beforehand vessels from abroad must call Bergen for inward clearance.
BERTHING: Length of Quay: 600 ft. (approx.) Depth alongside: 36 ft. Cranes. Ice free.
AUTHORITY: Hydro Aluminium, Hoyanger Verk, Postboks 114, N-5900 Hoyanger, Norway. *Tel:* Int+47+5715000. *Telex:* 42584 hoal n. *FAX:* Int+47+5713080. *Contact:* Torfinn Laegreid, Manager – Shipping Department.

HUSNES: 59.52 N. 05.46 E. (See Plan)

DOCUMENTS:
- 3 Crew Lists.
- 2 Passenger Lists.
- 2 Bills of Lading
- 2 Manifests.

PILOTAGE: No pilotage in port. Sea Pilots in stations at Skudesnes (59° 05′ N., 05° 19′ E.), Kvitsoy (or Kopervik) and Utsira.
ANCHORAGE: Lat. 59° 53′ N., Long. 05° 45′ E. in 20 m.
MAX. SIZE: 70,000 tons.
HEALTH: Customs Authorities in Bergen to be advised on entrance.
RADIO: Best radio stations: Rogaland Radio. ETA to Receiver's cable address: "Soeraluminium, Husnes".
VHF: Vessels may contact harbour on Channel 9.
TUGS: Normally not necessary. If wanted, can be ordered from Bergen or Haugesund.
BERTHING: 240 m. Depth alongside: South 10 m., North 17 m. 2 cranes on quay, each 8 tons at 20 m. and 1 pneumatic gear for discharging alumina. Capacity 5,000 tons per 24 hours.
STEVEDORES: Normal working time: Monday-Friday 0700 – 1500 hrs.
MEDICAL: Hospital at Stord (about 1 hour by ferry and car). Doctor at factory during daytime (0800 hrs. – 1500 hrs.).
TANKERS: Discharging line 9 in.
FRESH WATER: Available, direct from quay to ship.
NOT **FUEL:** ~~None~~ available.
GANGWAY/DECK WATCHMEN: Crew.
OPENING/CLOSING HATCHES: To be carried out by crew.
CARGO GEAR: Per Norwegian safety regulations for loading and discharging.
IDENTIFICATION CARDS: Crew need cards signed by Master.
CONSULS: None.
REPAIRS: Only small workshops.
DRY DOCKS: None.
REPATRIATION: No facilities for obtaining new crew (Haugesund or Bergen).

AIRPORT: Bergen-Flesland. 2 hours – 2.5 hours from Husnes to Bergen by hydrofoil, and 0.5 hours by plane. Haugesund Airport 3 hours by car from Husnes.
POLICE/AMBULANCE/FIRE: Alarm telephone number 110 or 111.
TELEPHONES: Agent has one telephone in office on quay.
SERVICES: No services at quay. Tank cleaning at Bergen, compass adjusting at Haugesund.
SHORE LEAVE: Permitted. Crew required proceed direct from quay to gate of plant.

SHIPMASTER'S REPORT: September 1979 (Type "Panamax").
Tugs: For large ore carriers 2 tugs ordered for arrival, and 1 tug on departure by Sor-Norge Aluminium A/S.
Stevedores: Normal working time for alumina carriers from Sunday 2200 hrs. till Saturday 1400 hrs.
Fresh Water: Flat charge of Nkr. 800 for all water taken. Smaller vessels Nkr. 400.
Discharge Rate: The discharge rate for alumina is still in the region of 5,000 tonnes per day despite the reduction in working hours.

AUTHORITY: *Shippers/Receivers:* Sor-Norge Alumium a/s. IN

AGENT: Sor-Norge Aluminium A/S P.O.Box 85, 5460 – Husnes. Tel: 054-71122. Telex: 42420. Contact: Mr. B. Torvund, after hours Tel: (054) 71423.

KARSTO (Kaarstoe): 59.16 N. 05.30 E. (See Plan)

DOCUMENTS:
Quarantine:
Completed Declaration of Health.
Valid Derating Certificate.
International Vaccination Certificates.
Customs:
Crew's Effects Declaration (RG-223).
Ship's Stores Declaration (RG-104).
General Declaration (RG-110).
Crew List.
Passenger List.
PILOTAGE: Compulsory. The sea pilot, also acting as harbour pilot, will board arriving vessels off Kvitsoey Lighthouse in position 59° 05′ N., 05° 19′ E. The pilot boat normally operates on VHF Channels 16 and 13 and medium wave radio telephone 2182 kHz. During passage, vessel must listen to VHF Channel 11 for communication with the terminal. Pilot for arrival arranged by agent (based on messages from Master). Pilot for departure arranged by terminal.
APPROACHES: From Boknfjorden to Falkeidflaeet. The main entrance to Karsto is situated between Flate Rova and Austreflu marked by light beacons. In addition the entrance is marked with green leading lights situated on Ognekalven.
ANCHORAGES: Vessels awaiting berth will be anchored at Falkeidflaeet or the Hervik Fjord. The place will be considered jointly between the pilot and the terminal.
RESTRICTIONS: Normally no restrictions on berthing at night time.
MAX. SIZE: *LPG/Naphtha Jetty:* Max. length 210 m., max. draft 11.3 m.
There is also a small coaster and Ro-Ro jetty at the terminal. Water depth is 7.7 m. and 7.5 m. respectively.
HEALTH: Completed Declaration of Health and International Vaccination Certificates required.
RADIO: Rogaland Radio.
VHF: Channel 11 for communication with the terminal.
TUGS: Compulsory. Two tugs available, each of 42 tons bollard pull. Tugs lines used.
BERTHING: The terminal berthing facilities consist of one "T" jetty for handling LPG and Naphtha products and a coaster/module jetty for handling other cargoes.
Water Depths:
LPG/Naphta Jetty: 13.5 m.
Coaster Jetty: 7.7 m.
Ro-Ro Jetty: 7.5 m.
Tide: Difference between high and low water is small in the area, maximum 1.0 m., normally below 0.6 m. at Spring tides.
Current: Currents in the vicinity of the jetties vary in direction according to wind and tides. Measurements indicate average current of 0.4 knots. Maximum recorded current is 1.7 knots setting S.E.
Wind:
Prevailing winds March-August: North-Northwesterly.
Prevailing winds September-February: Southeasterly.
MEDICAL: No advance notice except in case of serious illness to be included in arrival cable. Hospital facilities available.
TANKERS:

Product	*Flange*
Natural gasoline	10 in. ANSI 150.
Propane liquid	12 in. ANSI 150.
Propane vapour	10 in. ANSI 150.
N-butane liquid	10 in. ANSI 150.
N-butane vapour	8 in. ANSI 150.
I-butane liquid	8 in. ANSI 150.
I-butane vapour	8 in. ANSI 150.

DENSITY: 1025.
FRESH WATER: Available.
FUEL: Bunkers are not obtainable at the terminal. Marine lubricants can be obtained through supplier. Possible to supply bunkers in the area.
WATCHMEN: Ship's crew.
CUSTOMS ALLOWANCES: Tobacco and cigarette paper may be freely supplied for consumption on board for up to 10 days as follows:
Master of vessel: 400 cigarettes or 400 grammes of other tobacco goods and 200 cigarette papers.
Other crew members: 200 cigarettes or 250 grammes of other tobacco goods and 200 cigarette papers.
Spirits – of which the volume percentages of alcohol must not exceed 60% – and wine may be freely supplied for consumption on board as follows:
Master of vessel: 2 litre altogether.
Other crew members: 1 litre of spirits and 1 litre of wine.
CREW IDENTIFICATION CARDS: Not required.
CONSULS: Denmark, Finland, Germany F.R., Iceland, Sweden and United Kingdom.
REPAIRS: Hot work is forbidden. Any repair or maintenance work which may immobilise the vessel is prohibited unless approved by Terminal Manager.
SURVEYORS: Lloyd's Agents: Bergesen d.y. A/S, N-4001 Stavanger.
1) Cargo Inspectors: T.G.Soundings, Caleb Brett, SGS.
2) Norske Veritas, Lloyd's Register.
DRY DOCKS: Available at Haugesund. Max. docking capacity 150,000 d.w.t. Max. LOA 283 m. Beam 45.3 m.
REPATRIATION: Crew changes and repatriation possible.
AIRPORT: Helganes Airport, Haugesund is located 45 km. from Karsto with several domestic flights daily.
EMERGENCY CO-ORDINATION CENTRE: Terminal: Local emergency number 100.
SERVICES: Compass adjusting, radar repairs, R/T repairs, gyro compass repairs, all types electronic equipment repairs. Divers available for surveys and underwater repairs.
SHORE LEAVE: Ship's crew and visitors will only be allowed to pass through the terminal area from the jetty to the main gate when escorted by terminal personnel.
SHIP SUPPLY SERVICE: Several ship chandlers in the area.
AUTHORITY: Kystverket 2. Distriks, Strandgaten 171, Haugesund. *Tel:* 04-712555.
Statoil, P.O.Box 308, N-5501 Haugesund, Norway. *Tel:* 04-772200. *Telex:* 40807 Staka N. *FAX:* Karsto 04-772210. Bygnes 04-772946. *Contact:* Sigurd C. Bremsholm, Plant Manager.

KIRKENES (Bokfjord): 69.43 N. 30.03 E.

DOCUMENTS:
3 Crew Lists.
Bill of Health.
Bill of Lading.
Ship's Certificates.
PILOTAGE: Pilot to be notified 24 hours in advance, boards vessel at Oksebaasen, and to be contacted over Channel 16 VHF. Pilot vessel carries white flag "H". Pilot office Tel: 91115. Pilot Master Tel: 91223.
ANCHORAGE: As directed by Pilot.
MAX. SIZE: Oil carriers 20,000 d.w.t., draft 33 ft. Iron ore carriers 120,000 d.w.t., max. sailing draft 51 ft. under optimal conditions.
HEALTH: If any contagious sickness quarantine to be informed by radio.
RADIO: Vardo Radio.
TUGS: 2 tugs, 2,200 h.p. and 2,300 h.p. Join vessel within harbour basin. Ship's lines to be used during towage.
BERTHING: Vessel to employ harbour Pilot.
BULK HANDLING FACILITIES:
Operator: Aktieselskabet Sydvaranger.
Berth: Length 180 m., depth 16.5 m.
Loading: 1 Shiploader with travel of 215 m. and 20 m. outlay. Height above water level 14.63 m. Average loading rate 60,000 tonnes per day.
MEDICAL: Agents to receive advance notice of required medical attention. Hospital facilities available.
TANKERS: Diameter of load/discharge lines 8 in. Max. draft 33 ft.
DENSITY: Specific weight of water at 17.5 centrigrades = 1.026 – 1.011 (varies very much with time of year).
FRESH WATER: Available, delivered through pipes from quay.
FUEL: None. NOT AVAILABLE
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: Must be carried out by crew.
CUSTOMS ALLOWANCES: *Tobacco and cigarette paper:* May be freely disposed of for use on board for up to 10 days as follows:
Master of the vessel: 400 cigarettes or 400 grammes of other tobacco goods and 200 cigarette papers.
Other crew members: 200 cigarettes or 250 grammes of other tobacco goods and 200 cigarette papers.
Spirits: of which the volume percentages of alcohol must not exceed 60% – and *Wine* may be freely disposed of for use on board as follows:
Master of the vessel: 2 litres altogether.
Other crew members: 1 litre of spirits and 1 litre of wine.
Quantities above those specified must be deposited in the care of the Master and on his responsibility stored in a locked room. Other forms of storage are punishable under the Customs and Excise Act.
If according to regulations governing exemption from duty for travel equipment and luggage a member of the crew brings goods ashore without payment of duty or fees, a corresponding reduction shall be made in the quantity of goods which he may dispose of freely for use on board according to the provisions above.
CARGO GEAR: 2 cranes, 20 tons and 75 tons.
IDENTIFICATION CARDS: Not needed.
CONSULS: Sweden, Finland, Germany F.R.
REPAIRS: No repairs possible.
DRY DOCKS: Floating dock with capacity 8,500 tons.

REPATRIATION: Facilities exist for crew changing, but normally no crew available. Arranging repatriation possible.
AIRPORT: Distance to airport 16 km. Airport served by regular airlines, 2 flights per day.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: January 1st, Easter Day, Whitsun Day, May 1st, May 17th, December 25th and 26th. Work carried out if permission given by the authorities.
POLICE/AMBULANCE/FIRE: Fire alarm 91942; Ambulance 91701; Police 91151.
TELEPHONES: Ship's telephone connections not available.
SHORE LEAVE: Crew members allowed ashore.
AUTHORITY: Kirkenes Loskontor (Pilot Office), P.O.Box 158, 9901 Kirkenes, Norway. *Tel:* 91115. *Contact:* Per Jensen, Pilot Master.

KOPERVIK: 59.17 N. 05.19 E.
SKUDENESHAVN: 59.08 N. 05.16 E.

PORT LIMITS: Harbour entrance of each port constitutes their port limits.
DOCUMENTS:
Declaration of Health.
General Declaration for Customs.
Cargo Declaration.
Ship's Stores Declaration.
Passenger List.
Crew's Effects Declaration.
PILOTAGE: 24 hours notice for Pilot. Pilot boat and office maintain 24 hour watch on VHF Channel 16. Pilot boards vessels off Skudenes in the Skude Fjord. The Pilot office is in Kopervik.
ANCHORAGES: *Kopervik:* 1 mile North of the harbour in 30 m. of water. *Skudeneshavn:* Between Bakarholmen Island and Karmoy in depths of 6 m. – 7 m.
MAX. SIZE: *Kopervik:* Length 80 m., depth of water 10 m.
Skudeneshavn: Length 90 m., depth of water 5.5 m.
Fosen (for lay-up): 500,000 d.w.t.
RADIO: Rogaland Radio.
VHF: VHF sets operated by Rogaland Radio, Kopervik Pilot Office, Karmoy Harbour Office and Pilot boat.
RADAR: No port radar.
TUGS: Available from Stavanger and Haugesund with approx. 2 hours notice required.
BERTHS: Kopervik:
No. 1 Berth; length 55 m., depth 6 m.
No. 2 Berth; length 75 m., depth 6 m.
No. 3 Berth; length 55 m., depth 10 m.
No. 4 Berth; length 100 m., depth 6 m.
No. 5 Berth; length 200 m., depth 6 m.
Skudeneshavn:
2 Ro/Ro berths for regular ferry traffic.
One berth; length 60 m., depth 5 m.
CRANES: Mobile cranes available. At Skudeneshavn, there is one stationary heavy lift crane, lifting 50 tons maximum.
SPECIALISED CARGO FACILITIES: Refrigeration plants available at Kopervik, Skudeneshavn and Aakrehamn.
STEVEDORES: Arrangements to be made by Agents.
MEDICAL: Full hospital facilities at Haugesund.
REPAIRS: There are several shipyards in the area able to carry out repairs.
DRY DOCKS: There is a dry dock at Skudeneshavn, with the following dimensions: Length 74 m., width 14 m. and depth 4.4 m. Larger dry docks are available at Haugesund and Stavanger.
DENSITY: 1026.
FRESH WATER: Available ex-wharf.
FUEL: Contact local oil companies.
FIRE PRECAUTIONS: Normal fire precautions.
CONSULS: None, nearest at Haugesund.
SURVEYORS: None, nearest at Haugesund and Stavanger.
AIRPORT: At Karmoy and Haugesund.
BANKS: Local banks only.
EMERGENCY CO-ORDINATION CENTRE: Haugesund Police Tel: 11011.
STORING: See "Prelims".
1. Vessels are stored both by trucks and barges
2. No special regulations.
3. Trucks can proceed alongside at the berth.
4. Fork lifts can be used.
5. Bonded store to be sealed.
6. Local riggers can be employed.

AUTHORITY: Karmoy Havnevesen, Post Box 70, 4250 Kopervik. *Tel:* (047) 50243. *Contact:* G. M. Aarvold, Port Manager, 4280 Skudeneshavn. *Tel:* (047) 52613. Erling Mosbron, Harbour Master, *Tel:* (047) 55619.

KRAGERO: 58.52 N. 09.25 E.

DOCUMENTS:
Ship's Register.
Passenger List.
Crew List.
1 List of Articles – radios, cigarettes, tobacco, spirits, etc.

If on inspection, articles or quantities not in conformity or in excess, Master responsible, articles removed and heavy fine imposed.
PILOTAGE: Pilot to be ordered by Agent on given ETA. The pilot boat will be at the light buoy at time given. Listening on Radio 2182 kHz or VHF Channel 16. Calling "Pilotboat Kragero".
ANCHORAGE: Almost anywhere in the Fjord, watch out for sign of waterpipes and telephone cables.
RESTRICTIONS: Weather permitting, draft up to 30 ft.
RADIO: Tjome Radio Station or Farsund Radio Station.
TUGS: Only small tugs in harbour, tugs available from nearby town order to be given 24 hours in advance.
STEVEDORES: To be ordered by Agent. Notice to be given before 1530 hrs. for next morning, or 3 hours before work to start.
MEDICAL: Doctor and hospital facilities available.
FRESH WATER: Available at Centre Quay.
FUEL: May be available with trucks ordered from nearby town.
OPENING/CLOSING HATCHES: To be carried out by crew.
CUSTOMS ALLOWANCES: 100 cigarettes or 50 cigars. 1 bottle wine or spirits per man.
CONSULS: France Tel: 81555. Denmark Tel: 81055. Netherlands Tel: 81020.
REPAIRS: Small repairs may be available.
AIRPORT: Kristiansand 170 km. away. Oslo 200 km.
HOLIDAYS: Work can be arranged on most Holidays, except New Year's Day, Easter Day, 1st and 17th May and Christmas Day.
TELEPHONES: Police, 81401. Ambulance, 81436. Fire and First Aid 81200. On most berths telephones are available.
SHORE LEAVE: No restrictions.
AUTHORITY: Kragero Kommune – Havnestyret, P.O.Box 158, 3771 Kragero, Norway. *Tel:* 036-81750. *Contact:* H. Carlsten, Harbour Master.

KRISTIANSAND S.: 58.09 N. 08.00 E. (See Plan)

DOCUMENTS:
3 Cargo Manifests for Customs.
Tobacco/Spirits List.
Bill of Health (if arriving from outside Scandinavia).
Passenger List for Immigration.
No Crew List required.
PILOTAGE: Oksoy Pilot Station. Compulsory pilotage for non-Norwegian ships, 2 hours notice minimum, contact on ordinary shipping Channel, or VHF call Channel 16 and 13, pilot boat marked "LOS" on each bow, international light or sound signals, Pilot boarding between Oksoy and Gronningen Lighthouse, no special anchorage for vessel awaiting a Pilot, but Pilots available around clock.
ANCHORAGE: Several good and safe anchorages in inner and outer harbour for vessels of any size.
MAX. SIZE: Any size in harbour. Max. 24,000 gross tons at quay.
RADIO: Farsund Radio LGZ.
RADAR: At Oksoy Pilot Station.
VHF: Port Radio, Channels 16, 12 and 14.
TUGS: Bukser and Sjotransport. Tel: 22590. 1 tug 1,600 h.p.; 1 tug 1,250 h.p.; 1 tug 650 h.p. and 1 mooring boat.
BERTHING:

Berth	*Depth at MLW* (ft.)
Railway and Car Ferry Terminal	20
Car Ferry Terminal	26
Car Ferry Terminal	26
Coastal Berths (4)	16–26
Roll-on/Roll-off Terminal	30
Fishing Harbour	20
Tug Terminal	12
Grain, Concrete and Overseas Terminal	33 (North end) 40 (Mid-section) 60 (South end)
Oil Terminal	40
Overseas Ro/Ro Terminal	30
General Cargo Terminal	30

STEVEDORES: ETA to Agents who arrange stevedoring.
MEDICAL: Hospital in Kristiansand. Doctor available around clock.
TANKERS: B.P. Bunker Station: 1 Berth depth 33 ft.
Shell Bunker Station Odderoy: 1 Berth depth 31 ft.
FRESH WATER: Available from quays and water barges.
FUEL: All grades up to 2,000 sec. available at short notice.
GANGWAY/DECK WATCHMEN: Available if required.
OPENING/CLOSING HATCHES: Normally carried out by crew, but can be done by stevedores.
CUSTOMS ALLOWANCES: 200 cigarettes or equivalent tobacco for each crew member per 10 days and 1 bottle spirits.
CONSULS:

Denmark	Tel. 23097	Netherlands	Tel. 29596
Finland	26990	Portugal	29616
France	26210	Spain	21040
Germany F.R.	22455	Sweden	26160
Greece	24446	United Kingdom	24452
Iceland	21068		

REPAIRS: All types of deck and engine repairs possible.
DRY DOCKS: Largest dry dock; length 689 ft. width, 100 ft. width at entrance, 95.9 ft. Depth 25 ft. for vessels up to 13,000 d.w.t.
REPATRIATION: Can be arranged.
AIRPORT: Situated 17 km. from harbour, served by regular air lines.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
TELEPHONE: Police, 29500; Ambulance, 32000; Fire, 21010. Possible to place telephone on board at some quays.
SHIP SUPPLY SERVICE: 2 tugs able to assist, contact Agent.
AUTHORITY: Kristiansand Havnevesen, Havnebygget, Gravane 4, P.O.Box 3, 4601 Kristiansand S, Norway. *Tel:* (042) 29552. *Contact:* Helge Andresen, Harbour Superintendent.

KRISTIANSUND N.: 63.07 N. 07.43 E.

DOCUMENTS:
- 1 Crew List.
- 1 Passenger List.
- 1 Customs Document.
- 1 Health Document.
- 1 Ship's Papers.
- 1 Stores List.
- 3 copies Manifest.
- 3 copies Bill of Lading.

PILOTAGE: From open sea. Pilot is taken on board at Grip Lighthouse. Watch 24 hours a day. Vessels approaching from the sea and desiring a Pilot should order the Pilot at 24 hours' notice as far as possible.

RADIO: From ship at sea via Alesund Radio (LGA) direct to the Sea Pilot. Watch calling frequency 2182 or by VHF radio-telephone, calling Channel 16. Harbour Office is manned day and night, Tel: 71483.

ANCHORAGES: Several good and safe anchorages in inner and outer harbour for vessels of any size.

MAX. SIZE: Max. depth alongside quay 40 ft., length of all quays about 900 m.

RADIO: Alesund Radio – LGA.

TUGS: None, but small motor vessels assist when required.

BERTHING:

Storkaia	Length 330 m., depth 19 ft. – 40 ft.
Holmakaia	Length 100 m., depth 34 ft. (East Side)
Holmakia	Length 80 m., depth 24 ft. (South Side).

BRIDGES: Sorsund Bridge 140 m. wide, 38 m. high. Nordsund Bridge 50 m. wide, 28 m. high.

STEVEDORES: Obtained by Agents provided ETA given 12 hours before arrival.

FRESH WATER: Delivered from quay or from water boat.

FUEL: All grades available.

GANGWAY/DECK WATCHMEN: Available but not necessary.

OPENING/CLOSING HATCHES: This work will normally be carried out by crew, but can be done by stevedores.

CUSTOMS ALLOWANCES: For each man – 200 cigarettes, 1 bottle of spirits for 10 days.

IDENTIFICATION CARDS: Not required.

CONSULS: Following countries are represented at Kristiansund N.:

Denmark
Finland
France
Germany F.R.
Italy
Netherlands
Portugal
Spain
Sweden
United Kingdom
Uruguay

REPAIRS: All kinds of repairs may be effected, deck and engine. Patent-slips for vessels up to 250 ft. long, crane-lift up to 40 tons. Ice-free harbour.

REPATRIATION: All facilities available.

AIRPORT: Kristiansund Airport, Kvernberget. Passenger flights 3 times a day to Oslo. 2 flights a day to Trondheim and Bergen. Situated about 4 miles from centre of Kristiansund N. (about 15 minutes by car).

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

HOLIDAYS: 1st May and 17th May.

POLICE/FIRE/AMBULANCE: Police, Tel: 75000; Ambulance, Tel: 72011; Fire, Tel: 71000.

TELEPHONES: May be installed during the ship's stay at the quay.

SERVICES: Laundry, ship chandlers for delivery of provisions and bonded stores, and servicing for all kinds of ship's navigation instruments can be arranged.

SHORE LEAVE: Allowed.

AUTHORITY: Kristiansund N., Havnevesen, Havnefogden, Kaibakken 1, 6500 Kristiansund N., Norway. *Tel:* 74333. *Contact:* Jan Westad–Olsen, Harbour Master.

LARVIK: 59.03 N. 10.02 E. (See Plan)

PORT LIMITS: The official port limits for the Port of Larvik is a line from Sandefjord in the East to Porsgrunn in the West. Notices of Readiness for loading or discharging, however, will be accepted when the vessel is anchored in any of the anchorages in inner Larvik Fjord.

DOCUMENTS:

Maritime Declaration of Health.
Tolliste, i.e. tobacco and curio list for total number of crew.
1 "Varefortegnelse med proviantliste", i.e. Cargo and Provisions List. (2 copies required for bulk cargoes.)
"General-varefortegnelse", i.e. List of General Cargo – 3 copies required.
3 Ship's Manifest.
3 Bills of Lading.

Customs Officer will accept tobacco and curio lists, also provision lists filled in on foreign forms, if all goods correctly stated.

ANCHORAGES: Safe anchorages at end of fjord, West side. Masters should consult Pilots and/or charts before anchoring. Ample water and good holding ground for all sizes of vessels.

MAX.SIZE: Largest vessel berthed at Larvik Canal Quay, LOA 644 ft. 8 in., breadth 83 ft. 3 in., max. draft 32 ft. 6 in.

HEALTH: Advise Agents of any suspected disease or fever on board by radio or telephone before entering. Vessel will then anchor in anchorage and be boarded by state doctor. When vessel is healthy, Customs Officer will grant Pratique.

RADIO: Tjome Radio LGT, Rogaland Radio LGQ.

PILOTAGE:

1. Vessels approaching from the sea and desiring a Pilot shall order the Pilot at 24 hours' notice insofar as possible and confirm arrival at pilot station at 2 hours' notice:
   (a) by telephone or telegram from ship to the pilot office concerned or sea pilot station over an official coastal radio station.
   (b) by telephone or telegram from broker/shipowner to the pilot office concerned or sea pilot station.
2. For direct connection between ships desiring Pilot and the pilot service, VHF-radio telephone Channel 16 (156.8 MHz) shall be used for calling and reply, and a VHF-radio telephone ship-to-ship Channel or harbour Channel shall be used for conversations. Ships not equipped with VHF-radio telephone may use the distress and calling frequency 2182 kHz for calling pilot vessel, but both the ship desiring Pilot and the pilot vessel shall in such cases immediately turn to ship-to-ship frequency. At such connections minimum transmission effect shall be used.
3. Vessels lying in port and desiring Pilot will order the Pilot from the nearest pilot office during its office hours and if possible at 4 hours' notice.
4. Vessels approaching from the sea as well as vessels lying in port shall, when making an advance order, state the name and destination of the vessel and whether 1 or 2 Pilots are desired.
5. The Pilots will on the whole be despatched to the ships in accordance with the advance orders, and vessels are therefore requested to comply with the foregoing rules as far as possible in order to avoid having to wait for Pilot.
6. The international provisions for summoning Pilots by signal flags or blue lights, etc., are still in force but should in future be used as a supplement to the radio communications or as the sole communication in emergencies.
7. These provisions came into force on the 1st April, 1984.

Description of pilot boat: White painted, orange wheelhouse, 2 masts, "Los" on both sides of bow. The pilot vessel is situated in Langesund Harbour on watch 24 hours every day. Pilot boards ships S.E. of Langoytangen lighthouse (58° 59.4′ N., 9° 45.8′ E.).

The Agent must in general order Pilot before 1200 hrs. and before 1530 hrs. Friday when Pilot is required before Monday morning.

TUGS: No tugs at Larvik. Tugs to be ordered via ship's Agents from Fredrikstad or Porsgrunn. If tugs required Agents should be given 12 to 24 hours' notice. Tugs join vessel in fjord off harbour breakwater. Extra charges for use of tug's lines.

BERTHING:

Revquay West (Vester Revkai): Length 118 m. Depth alongside 9 m. Newest quay for general and miscellaneous cargo. New warehouse, measuring 1,600 sq.m. Asphalted area outside measuring 10,000 sq.m. Railway track.

Adjacent to this quay is the Roll-on/Roll-off berth. Max. length vessels 170 m. Depth alongside 8 m.

Kanalquay (Kanalkaia): Kanalquay North – Length 335 m. Depth. 10 m. Kanalquay West – Length 120 m. Depth 6 m. Kanalquay South – Length 90 m. Depth 5 m.

Facilities available at Kanalquay and Revquay West: Railway tracks, 4 portable electric cranes, capacity 6 tons – 50 tons. Portable pneumatic grain discharging plant, capacity 85,000 tons. Warehouses measuring 4,000 sq.m.

Outdoor storage area: 20,000 sq.m.

East Pier (Ostre Brygge): Length 130 m. Depth 8 m. New Ferry quay with Roll-on/Roll-off facilities. Car park for 560 cars or 52 lorries/trailers 18 m. Passenger terminal. Customs.

West Pier (Vestre Brygge): Depth – East side 6 m. West side 7 m.

Ferry quay with Roll-on/Roll-off facilities on West side. Good parking.

Private Wharves: Treschow-Fitzoe Pulp Quays – West side: Length 50 m. Depth alongside 5 m. East side: Length 90 m. Depth alongside 6.3 m. 1 portable electric crane capacity 5 tons.

B.T. Transport A/S: Length 50 m. Depth 3 m. – 11 m.

STEVEDORES: Gangs to be ordered before 1600 hrs. and cranes before 1500 hrs. for following day. During office hours 2 hours' notice required.

MEDICAL: No advance notice required, unless in urgent medical cases and when ambulance needed. No particular inoculations required.

TANKERS: For larger oil-tankers for asphalt works, 8 in. connections required; for coasting vessels, 6 in. connections used. No slop tanks. one berth for tankers. Max. draft in berth 32 ft. 6 in.

DENSITY: Salt water, brackish at times.

FRESH WATER: Delivered by hose from wharf.

FUEL: Fuel oil, gas oil, diesel oil, delivery rate by tank lorry 20 t.p.h.

FIRE PRECAUTIONS: Any vessel discharging benzine must have city fireguard on watch. 30 m. clearance required to next vessel.

Ships loading explosives require fireguards on watch on board.

GANGWAY/DECK WATCHMEN: Not compulsory, but recommended for larger overseas vessels.

OPENING/CLOSING HATCHES: Usually done by ship's crew.

CERTIFICATES: Vessels must have all usual International Certificates, no special certificates required.

CUSTOMS ALLOWANCES: Every crew member allowed one bottle wine or spirits, and 200 cigarettes out of bond for use in port. This allowance is for 10 days. After this period new tobacco allowance is granted, but no new spirit issue.

CARGO GEAR: No additional requirements.

IDENTIFICATION CARDS: Not required.

CONSULS: Danish, Tel: 84040, French Vice-Consulate Tel: 82 030, Swedish and Netherlands Vice-Consulates Tel: 82 090, Finnish Vice-Consulate Tel: 81 000.

REPAIRS: Minor deck and engine repairs only.

REPATRIATION: Facilities for effecting crew changes and necessary repatriation by railway, continental ferry and by air.

AIRPORT: Distances from airport: Skien, regular service to Oslo 40 km. Torp, charter planes, 35 km. Fornebu, 130 km., world-wide service. Private airport open for small aircraft at Larvik.

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: New Year's Day; Maundy Thursday, Good Friday; Easter Monday; May 1st & 17th; Ascension Day; Whit Monday; Christmas Day; Boxing Day.
POLICE/AMBULANCE/FIRE: Tel: Police 82204, Fire 81234, Ambulance 81288.
TELEPHONES: Arrangements exist for placing telephones on board; charges 132 kr. for one week's hire plus cost of phone calls.
AUTHORITY: Larvik Havnevesen, P.O.Box 246, 3251 Larvik, Norway. *Tel:* 034-86000, 034-81275. *Contact:* Oivind Blaasvaer, Port Manager.

LILLESAND: 58.15 N. 08.23 E.

DOCUMENTS:
Health Certificate.
Crew List.
Cargo List.
Manifest.
Passenger List.
Bill of Measurement.
Derat Certificate.

PILOTAGE: Ships arriving from South and West cable: Okso Pilot Station, VHF Channel 16. Pilot to be taken on board at Okso Pilot Station or if bad weather, inside Okso.

Ships arriving from East cable: Merdo Pilot Station, VHF Channel 16. Pilot to be taken on board at Torungen, or if bad weather, inside Merdo. Pilot boat is 45 ft. long and marked "Los".
ANCHORAGES: Tingsakerfjorden – depth 40 m.
MAX. SIZE: See "Berthing".
RADIO: Cable Agent giving ETA via Farsund or Tjome Radio.
TUGS: Normally join at Kristiansand. Tugs lines to be used.
BERTHING: The Kokkenesquay – Kokkeneskaia. Length 80 m. with free water at both ends. Depth 10 m. There is 1 crane with a maximum lifting capacity of 30 tons. Petroleum-coke and sand discharged by crane and grab about 130 t.p.h.

The Langquay – Langbrygga. Length 70 m. with free water at the deepest end, depth 10 m. reducing at inner to 7 m. One crane 7.5 ton capacity

The Fosbaekquay – Fosbaekkaia. Messrs. H. Bjorum – Norfloat A/S quay. Length 50 m. with free water at both ends, depth 10 m.
STEVEDORES: Gangs to be ordered before 1600 hrs. for the following day and day before holidays 1320 hrs. During office hours 3 hours' notice required.
FRESH WATER: Delivery by hose from quay.
FUEL: None available.
GANGWAY/DECK WATCHMEN: Available.
OPENING/CLOSING HATCHES: May be performed by ship's crew.
CUSTOMS ALLOWANCES: 200 cigarettes or 250 gm. of tobacco, 0.75 litre of spirits and 1 litre of wine.
IDENTIFICATION CARDS: Not required.
CONSULS: Denmark, telephone 262.
REPAIRS: Some small repairs possible and electrical repairs.
DRY DOCKS: None.
AIRPORT: About 30 km. to airport.
HOLIDAYS: New Year's Eve no work after 1230 hrs.; New Year's Day no work; Maundy Thursday, Good Friday no work; Easter Eve no work after 1230 hrs.; Easter Sunday no work; Easter Monday, May 1st and 17th no work; Ascension Day no work; Whitsun Eve no work after 1230 hrs.; Whit Sunday 1st no work; Whit Sunday 2nd, Christmas Eve no work after 1230 hrs.; Christmas Day no work, and December 26th no work.
POLICE/AMBULANCE/FIRE: Police 170; Ambulance 18; Fire Brigade call the switchboard.
AUTHORITY: Lillesand Havnevesen, 4790 Lillesand, Norway. *Tel:* 041-70033. *Contact:* Roald Hellenes, Harbour Master.

MAALOY: 61.55 N. 05.07 E. (See Plan)

DOCUMENTS:
2 Crew Lists.
2 Passenger Lists.
1 Health List.
3 Manifests.
1 Bill of Lading.
Goods Lists including Stores, 3 if general cargo and 1 if goods or oil in bulk.

PILOTAGE: Harbour Pilot available, ordered from Harbour Office, tel. 51278. No coastal Pilots in harbour. Coastal Pilots ordered from Bergen through Maaloy Skipsekspedisjon, tel. 51077, and must be requested at least 24 hours before arrival.
ANCHORAGE: Good holding ground in about 17 fathoms of water 300 m. off-shore from middle of harbour.
MAX. SIZE: Entrance from South through main channel 33 ft. and entrance from North about 60 ft.
RADIO: Nearest radio stations, Alesund Radio and Floro Radio.
VHF: Maaloy Harbour Radio on Channel 16 from 0800 – 1530 hrs. every day except holidays. After hours call for "Maaloy Port Control" over Floro Radio.
TUGS: No tugs operate in Harbour.
BERTHING: The main quay 160 m. long and from 24 ft. to 36 ft. deep alongside. No cranes available at the dock. Quay, length 110 m. Depth alongside 12 m. – 15 m.

New Quay: Length 152 m. (+54 m.) Depth 10.0 m. – 12.0 m.
Ro/Ro Quay: Length 132 m. Depth 7.0 m. – 10.0 m.

CARGO HANDLING: Special berth equipped with a Ro/Ro berth in connection with quay 225 ft. long, from 18 ft to 36 ft. depth alongside.
STEVEDORES: From Maaloy Skipsekspedisjon.
MEDICAL: Nearest hospital Nordfijordeid Sykehus, 1 hour by car.
FRESH WATER: Available at main quay and delivered from a fresh-water line at quay.
FUEL: Bunkers available from Esso, Shell and Mobil Oil. 3 bunker barges available.
GANGWAY/DECK WATCHMEN: Available in the harbour.
OPENING/CLOSING HATCHES: Done by crew.
CUSTOMS ALLOWANCES: Tobacco: Wine/Spirits: 200 cigarettes or 100 gm. tobacco. 1 bottle of spirit and 1 bottle of wine.
CONSULS: None.
REPAIRS: Minor repairs only possible.
SURVEYORS: Surveyors and Cargo Inspectors available from Bergen.
AIRPORT: Nearest airport Floro, 1 hour by boat, Sandane Airport 1 hour by car and Flesland Airport (Bergen) 8 hours night service by sea.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: 1st January; Easter Sunday; Easter Monday; Thursday and Friday before Easter; 1st May; 17th May; Whit Sunday and Whit Monday; Christmas Day and Boxing Day.
POLICE/AMBULANCE/FIRE: Police Tel: 50211; Fire contact telephone No. 011. Ambulance Tel: 51458.
EMERGENCY CO-ORDINATION CENTRE: Contact Police Station Tel: 057-50211.
STORING: See "Prelims".
(1) Both. (2) Yes. (3) Yes. (4) Yes. (5) No. (6) Yes.
TELEPHONES: Can be placed on board and cost same as on shore.
SERVICES: No tank cleaning services available. Compass adjusting.
BANKS: Bergen Bank, Maaloy, Telex: No. 42291. Vagsoy Sparebank, Maaloy, Tel: 057-51433. Fiskernes Bank, Tel: 50244.
SHORE LEAVE: No restrictions about shore leave.
SHIP SUPPLY SERVICE: For the transport of sick crew members and as such, by helicopter or launch/tug, arrangements have to be made with the nearest coast radio station. Tug/rescue vessel R/S "Hjalmar Bjorge" operates from Maaloy Harbour. The vessel can be contacted 24 hours directly by radio or over Floro Radio.
AUTHORITY: Maaloy Havnevesen, P.O.Box 104, 6701 Maaloy, Norway. *Tel:* (057) 51278, 51852. *Contact:* Kristoffer Stokke, Harbour Manager. Vidar Endal, Port Captain.

MANDAL: 58.02 N. 07.29 E.

DOCUMENTS:
Bill of Measurement.
General Cargo List (2 copies).
Cargo and Provisions List (ship's stores).
Derat Certificate.
Maritime Declaration of Health.
Tobacco list.

PILOTAGE: Pilot station on Oksoy Lighthouse outside Kristiansand. Telephone 32834 via Kristiansand Radio.
ANCHORAGES: Mannefjorden. Depth approx. 30 ft. Bankefjorden, shallow entrance with approx. depth 15 ft.
MAX. SIZE: New berth at Gismeroya outside Kleven can accept vessels up to 20,000 g.r.t. Oil carriers to installations outside main port area up to 20,000 tons.
HEALTH: Contact Agent for Pratique.
RADIO: Farsund Radio or Kristiansand Radio.
TUGS: Two tugs available.
VHF: Harbour Office equipped with VHF Channels 16 and 12.
BERTHING: Mandal main harbour is Kleven, situated 1 km. East of Mandal town. There is also a harbour in Mandal River, running through town. Entrance to Mandal River is dredged to 15 ft. In South-easterly strong winds it can be impossible to go up the river. Kleven Harbour is a good harbour in all weather conditions. There is 1 × 97 m. quay 30 ft. deep and 1 × 45 m. quay 17 ft. deep.
Gismeroya: New berth and warehouse at entrance to Kleven Harbour is now the main harbour. Length 100 m. Depth alongside 10.5 m.
CRANES: One floating crane with up to 50 tons capacity and a wide range of mobile cranes available at short notice.
STEVEDORES: 6 hours notice to Agents to arrange gangs.
MEDICAL: No advance notice required. Hospital facilities available.
DENSITY: 1026.
FRESH WATER: Delivered by local firemen. Rate of delivery 20 t.p.h.
FUEL: At Oil installation inside Harbour limit.
GANGWAY/DECK WATCHMEN: Not required.
OPENING/CLOSING HATCHES: Normally carried out by crew.
CERTIFICATES: Certificate of Nationality.
CUSTOMS ALLOWANCES: Tobacco: 200 gm. or 200 cigarettes. Wine and/or Spirits: 2 litre alcohol for ship's Master, 0.75 litre for crew.
IDENTIFICATION CARDS: Not needed.
CONSULS: Sweden 62521; Finland 61288; Denmark 61799.
REPAIRS: All types of deck and engine repairs can be carried out.
DRY DOCKS: None.
AIRPORT: Kristiansand Airport at Kjevik. Distance from Mandal 64 km. Airport served by regular airlines.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

HOLIDAYS: The only holidays on which cargo work cannot be arranged are Christmas Eve (after 1400 hrs.), Christmas Day, Easter Day, 1st May, 17th May (Independence Day). The rest of the year cargo work can be carried out day and night.
POLICE/AMBULANCE/FIRE: Police 61211; Ambulance 61113; Fire 61112.
TELEPHONES: Telephones available at quay.
SERVICES: No services for tank cleaning. Compass adjusting and all kinds of electronic repairs.
SHORE LEAVE: No restrictions.
AUTHORITY: Mandals Havnevesen, Ballastbrygga, 4500 Mandal, Norway. *Tel:* (043) 62011. *Cables:* Mandal Havnevesen. *Contact:* A. O. Johannessen, Harbour Master.

MO-I-RANA: 66.19 N. 14.08 E.

PORT LIMITS: The vessel is considered to be an "arrived vessel" when within the Hauknes Port Lighthouse – about 2 nautical miles from the port.
DOCUMENTS:
1 Cargo List.
1 Stores List.
1 Sealing Certificate.
1 Health Certificate.
2 Crew Lists.
2 Passenger Lists.
(All Forms obtainable from Agent by clearance on board).
PILOTAGE: Asvaer Pilot Station Lat. 66° 17′ N., Long. 12° 09′ E. (lighthouse). Order preferably through Agent or direct to station 24 hours before arrival. Tel. 086-40960. 1 boat "L/K 083" painted white with red top. "LOS 083" painted in black on both sides. VHF Channel 16.

Pilots embark at Asvaer Lighthouse. Pilots advise alternative place or anchorage if necessary. Pilot compulsory unless vessel ballasting for loading at another port in Norway.
ANCHORAGE: In the fjord at Nesna or at Utskarpen Bay to be advised by Sea Pilot. Anchorage in the inner harbour to be advised by the Harbour Pilot.
HEALTH: See "Documents". No animals allowed on shore.
RADIO: From South; Rogaland Radio/LGQ, LGW, LGB. Within 24 hours off; Rorvik Radio/LGD. From North; Vadso/LGV or Hammerfest/LGI or Tromso/LGE or Bodoe Radio/LGP.
VHF: At Harbour Office call sign. "Mo Port Radio" Channels 16 and 12. At A/S Norsk Jernverks quay call sign. "Jernverks quay" Channel 9.
TUGS: Available and recommended for vessels above 10,000 d.w.t. 24 hours' notice to be given. Ships' lines used.
BERTHING: Harbour Pilot recommended but not compulsory for small vessels. Details given through Pilot/Harbour Pilot.

Norsk Jernverk (Rana Gruber)	
Iron Ore	47 ft. depth alongside
Norsk Koksverk Pier	37 ft. depth alongside
Town Pier (Toraneskaia)	25 ft. depth alongside
Norsk Jernverk Pier (Steel)	26 ft. depth alongside
Andfiskaa Pier	23 ft. depth alongside

CARGO HANDLING FACILITIES: The harbour has the following facilities for handling cargoes:

A/S Norsk Jernverk (Rana Gruber) depth 47 ft. Shiploader for loading of Iron Ore only, vessels up to 80,000 d.w.t.

Norsk Koksverk A/S Pier depth 36 ft.; length 427 ft. and 295 ft., North and South side handling following cargoes: ore, coal, coke, tar, bensol, ammonia and oil.

A/S Norsk Jernverk Quay: handling ore, coke, steel products and general cargoes. Length of quay, 823 ft.; depth 25 ft.

A/S Bleivassli Gruber Pier, length 115 ft.; depth 23 ft. Has equipment and elevator for handling pyrites – fast loading.

The Town Quay (Harbour Board Quay), length 823 ft. and depth 18 ft. to 26 ft., handling general cargoes of all kind, with up to 15-ton lifts.
STEVEDORES: Ordered by Agents preferably in office hours 0900 – 1600 hrs. Exact time for commencement of work to be arranged with Agent. Vessels to pay for waiting hours for workers if delay not reported. If such report after office hours, vessel to pay for 2 hours.
MEDICAL: If in need of doctor/dentist preferably inform Agent from sea if vessel stays only 1 day.
FRESH WATER: Available at all piers from shore installations.
FUEL: All types available.
GANGWAY/DECK WATCHMAN: Available but not compulsory.
OPENING/CLOSING HATCHES: Crew allowed to open/close.
CUSTOMS ALLOWANCES: Per 10 days in Norway per crew member – 200 cigarettes or 200 gm. tobacco and 2 packages cigarette paper, and 1 bottle spirits.
CARGO GEAR: Winchmen from shore required.
REPAIRS: Small repairs only.
AIRPORT: 12 km. to local airport "Rana Airport" connection with Bodoe (North) twice per day and Trondheim (South) twice per day.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: New Year's Day; Thursday before Good Friday; Good Friday; Easter Monday; Labour Day; National Day (17th May); Ascension Day; Whit Monday; Christmas Day and Second Christmas Day. No work can be arranged on any of these days.
TELEPHONES: Accidents/hospital: 51233; Ambulance: 51510; Fire: 51222 and Police: 51122.
SHORE LEAVE: No restrictions.
AUTHORITY: Rana Havnevesen, P.O.Box 185, 8601 Mo-I-Rana, Norway. *Tel:* 087-50867, 50866. *FAX:* 087-51797. *Cables:* Havnevesen. *Contact:* Per A. Nygaard, Harbour Master.

MOLDE: 62.44 N. 07.10 E.

DOCUMENTS:
Health Certificate.
Crew Lists.
Passenger List.
Dangerous Cargo List.
Ship's Register.
PILOTAGE: Telegraphic address "Alesund Radio". Address of pilot station "Rundo".
ANCHORAGE: A well-protected harbour. Depth from 15 to 20 fathoms. Tide rises about 6 ft.
MAX. SIZE: Passenger vessels of 35,000 g.r.t. berth at Storkaia.
RADIO: Alesund Radio.
VHF: Molde Harbour Radio, Channels 16 and 12.
TUGS: None. Tugs called from Alesund.
BERTHING: Depths alongside quay 25 ft. to 32 ft. LW.

A new port, 2 km. from the town. Two quays with Ro/Ro ramps. Depth alongside No. 1 – 6 m. and No. 2 – 12 m.
CRANES: 150 ton crane and 20 ton mobile crane.
STEVEDORES: Available, ordered by Agents.
MEDICAL: Hospital available.
FRESH WATER: By shore installation.
DENSITY: 1025.
GANGWAY/DECK WATCHMEN: Not required.
OPENING/CLOSING HATCHES: By crew or stevedores.
IDENTIFICATION CARDS: Not required.
REPAIRS: Most repairs possible.
SURVEYORS: Norske Veritas.
POLICE/AMBULANCE/FIRE: Police 58111; Ambulance 52011; Fire 51100.
EMERGENCY CO-ORDINATION CENTRE: Telephone Police Station 58111.
AIRPORT: Aaro Airport, 4 km. from town.
STORING: See "Prelims".
(1) By truck.
(4) Yes.
(6) Yes.
SHORE LEAVE: Possible, no restrictions.
AUTHORITY: Molde Havnevesen, P.O.Box 281, 6401 Molde, Norway. *Tel:* 072-51860, 072-54386. *Contact:* Ottar Grotte, Harbour Master.

MONGSTAD: 60.49 N. 05.02 E. (See Plan)

OPERATORS: Oil refinery operated by Rafinor A/S & Co., Mongstad, which company is owned by Norsk Hydro A/S, Norsk Olje A/S and Den Norske Stats Oljeselskap A/S (Statoil).
DOCUMENTS:
3 copies Crew List.
1 copy Crew Effects Declaration.
2 copies Ship's Stores Declaration.
1 copy Health Declaration.
1 Passenger List (if any).
IMO standard forms in most cases required.

On ship's arrival the following documents must be available: Letter of Registry, Outward Clearance from last port of call, Derat or Derat Exemption Certificate, and Certificates of Insurance for Civil Liability for Oil Pollution Damage. Non-member registered ships of the International Convention on Civil Liability for Oil Pollution Damage, 1969, must after 30th June, 1976, carry a Certificate issued by Maritime Directorate, PO Box 8123, OSLO-Dep., Oslo, Norway. Before this date Certificates issued by Denmark, Sweden and U.K. covering non-Convention registered ships, will be recognised.
PILOTAGE: Compulsory. Vessels will be berthed/unberthed by Pilots from Fedje Pilot Station (Position Lat. 60° 51′ N., Long. 04° 39′ E.). Contact Pilots on VHF Channel 16, 2 – 3 hours notice required.
ANCHORAGE: N.W. of refinery area. However, not well sheltered and holding ground not good. No anchorage for VLCCs.
MAX. SIZE: Draft limitation at Crude Jetty 72 ft.
HEALTH: International procedure followed to obtain Pratique. In case of suspected disease or fever on board, the Port Authorities to be informed in advance.
RADIO: Cable Agent ETA, cash, bunkers, personnel, bonded stores, or other special requirement. For the refinery's guidance also cable flange dimensions on ships' headers, cargo quantities acceptable and order of loading, quantity of clean ballast and estimated time for discharge, size of cargo to be discharged and max. pumping rates, max. acceptable loading rates, quantity of tank washings and estimated time for discharge.
TUGS: Two tugs of 2,650 b.h.p. each (bollard pull 36.5 tons) situated at the refinery. Additional tugs available from Bergen.
BERTHING:
Berth No. 1 (for crude): Draft limitation 72 ft., min. length 124 m., depth 125 ft.
Berth No. 2 (products): Draft limitation 38 ft., min. length 69 m., depth 59 ft.
Berth No. 3 (products/coasters): Draft limitation 22 ft., min. length 36.5 m., depth 25 ft.
Berth No. 4 (petrol coke): Draft limitation 21 ft., min. length 50 m., depth 24 ft.
New Module Jetty: Depth alongside 10.5 m.
Also see "Developments".
CARGO HANDLING FACILITIES:
Berth No. 1: 4×16 in. plus 2×16 in./10 in. Woodfield Autoflowbooms.
Berth No. 2: 4×8 in. plus 2×8 in. Autoflowbooms.
Berth No. 3: 2×8 in. plus 2×6 in. Autoflowbooms.

BALLAST: Deballasting facilities available at Jetty Nos. 2 and 3. Tankage capacity 27,000 cu.m. All ballast to be discharged ashore.
MEDICAL: Medical attention available. Hospital facilities at Bergen.
DENSITY: Salt water.
FRESH WATER: Available from the jetties. Cost per ton Nkr. 2.50.
FUEL: All grades available.
FIRE PRECAUTIONS: Special safety regulation forms given when berthed.
CONSULS: Consuls available at Bergen from the following countries: Austria; Belgium, Brazil, Denmark, Finland, France, German F.R., Greece, Iceland, Italy, The Netherlands, Panama, Peru, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, Uruguay.
REPAIRS: Repair shop facilities available. Repair work must not be commenced without the agreement of the Port Captain.
SURVEYORS: The following Classification Societies represented by Surveyor at Bergen: American Bureau of Shipping, Bureau Veritas, Det Norske Veritas, Germanisher Lloyd and Lloyd's Register of Shipping.
GANGWAY/DECK WATCHMEN: Available.
CUSTOMS ALLOWANCES: 200 cigarettes or 200 gm. tobacco and 1 bottle spirit or 2 bottles of wine, each man.
REPATRIATION: All facilities. Bus or Taxi transport to international airport.
AIRPORT: Flesland Airport, approx. 86 km. (54 miles) distance from Mongstad. Distance Bergen to Mongstad approx. 45 km.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
POLICE/AMBULANCE/FIRE: Police, Tel: Knarvik 350504 and 350505. Ambulance and Fire fighting brigade available at the refinery.
TELEPHONES: No telephones on board. Long distance calls to be arranged via Agent. Local calls from Gatehouse.
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: Shore passes delivered on board on arrival.
PORT REGULATIONS: *Moorings:* Mixed moorings in the same direction are not allowed. Wire ropes shall have nylon "tails" not longer than 12 m. Nylon "tails" are available for purchase. Due to occasionally heavy swell in the fjord, particular attention is paid to the moorings.
DEVELOPMENTS: *New Products Jetty:* New jetty under construction, expected to be ready for use in 1988.
New Crude Oil Jetty: The jetty is under construction in connection with the building of a crude oil terminal. The jetty is planned to be taken into use in 1988, and will accommodate vessels up to 180,000 d.w.t.
AUTHORITY: Rafinor A/S & Co., N-5154 Mongstad, Norway. *Tel:* 05-360300. *Telex:* 42266 Olje N. *FAX:* 05-360756. *Cables:* Rafinor. *Contact:* Captain O. Dyblie, Port Captain.

MOSJOEN: 65.51 N. 13.11 E. **(See Plan)**

DOCUMENTS:
Health Certificate.
Crew List.
Passenger List.
Ship's Register.
Cargo List.
Bonded Store List.
PILOTAGE: Pilot station at Asvaer, location 66° 15′ 9″ N., 12° 18′ 03″ E. Telegraphic address: Pilot Station, Asvaer. VHF Channel 16. Telegraph ETA 24 hours prior to arrival. Piloting around clock.
ANCHORAGES: Hellesvik. Location 66° 01′ 30″ N., 12° 54′ 20″ E.
RESTRICTIONS: No restrictions on night entry. If draft above 33 ft. enter on high tide and commence discharging immediately.
HEALTH: Free Pratique given automatically when "Q" flag not to be flown.
RADIO: Bodo Radio.
TUGS: Stationed at Sandnessjoen. Have to be ordered through Agents 24 hours prior to arrival. Normally used by vessels above 20,000 d.w.t.
BERTHING: Drafts over 33 ft. berthed only on high tide and commence discharging immediately. No restrictions on length and breadth.

Crane for bulk cargo (alumina), capacity 300 t.p.h. Mosjoen Aluminiumverk, private berth. Maximum outreach from quay – 15 m.

No other special facilities (Ro/Ro facilities may be constructed).
STEVEDORES: Ordered through Agents. No ETA to stevedores necessary.
MEDICAL: Master to advise prior to arrival if medical attention required. Hospital facilities available.
DENSITY: Brackish in port.
FRESH WATER: Supplied from installations at berth.
FUEL: Gas oil, delivered by lorries.
GANGWAY/DECK WATCHMEN: Available, but not compulsory.
OPENING/CLOSING HATCHES: Performed by vessel's crew.
CUSTOMS ALLOWANCES: 1 bottle spirits, 200 cigarettes, 200 gm. tobacco.
IDENTIFICATION CARDS: Not required.
CONSULS: None.
REPAIRS: Minor repairs possible.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: New Year's Day; Good Friday; Maunday Thursday; Easter Monday; Workers' Day (1st May); 17th May; Ascension Day; Whit Monday; Christmas Day; Boxing Day.
POLICE/AMBULANCE/FIRE: Fire Tel: 70222; First Aid Tel: 70800; Police Tel: 72100.
AUTHORITY: Mosjoen Havnevesen, 8650 Mosjoen, Norway. *Tel:* (78) 70265. *Cables:* Harbour Master. *Contact:* Arne Lund, Harbour Master.

NAMSOS: 64.28 N. 11.30 E. **(See Plan)**

DOCUMENTS:
Crew List.
2 Passenger Lists.
2 Health Certificates.
Manifests.
Ship's papers.
PILOTAGE: Pilot can be ordered by ship's Agent from Trondheim.
ANCHORAGE: Good anchorage inside harbour.
MAX. SIZE: Vessels up to 15,000 d.w.t. have entered harbour. 3 small oil berths with depth 5 m. LW.
HEALTH: Normal Norwegian regulations.
RADIO: Oerland Radio.
VHF: Channels 12 and 14.
TUGS: No tugs in Namsos. Tugs stationed at Trondheim can be hired.
BERTHING:

Berth	*Length* (m.)	*Depth* (m.)
Tiendeholmen	55	8
S.T.K.	120	6
Jernbanekaia	95	8
Sandkaia	65	7
Ekspedisjonskaien	150	7/9
Lokalrutekaien	60	5
Private		
Norske Skogindustrier A/S Kai	120	8
Felleskjopet	50	5
Ole Morkved	100	5
Shell	20	5
Norsk Olje	20	5
Esso	20	5

CRANES: 50 ton mobile crane.
STEVEDORES: Notify day before arrival to arrange gangs.
TANKERS: 3 tanker berths with 5 m. alongside LW.
DENSITY: Average density 1020 in Spring, and in Summer 1015.
FRESH WATER: Available by hose. Capacity 10 t.p.h. – 15 t.p.h.
FUEL: Light grades available.
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: Stevedores operate hatches.
CERTIFICATES: Usual international certificates.
IDENTIFICATION CARDS: Not needed.
CONSULS: None.
REPAIRS: Small repairs available.
SURVEYORS: None.
REPATRIATION: Organised by Seamen's Office.
AIRPORT: 4 km. from town. Regular service 3 times a day South and North.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
POLICE/AMBULANCE/FIRE: Police 72151; Ambulance 72500; Fire 72000.
TELEPHONES: Can be placed on board.
SHORE LEAVE: Crew allowed ashore.
STORING: Vessels may be stored by truck. Trucks may proceed alongside the berth. Fork-lift trucks and riggers available.
DELAYS: None expected.
AUTHORITY: Namsos Havnevesen, Postboks 107, 7801 Namsos, Norway. *Tel:* Office: 077-72400, Private 077-72401. *Contact:* John Holm, Harbour Master.

NARVIK: 68.25 N. 17.24 E. **(See Plan)**

The following information applies mainly to vessels arriving to load ore cargoes.

LOCATION: The Port of Narvik is located in position: Lat. 68° 25′ 30″ N., Long. 17° 24′ 00″ E.
DOCUMENTS: All ships arriving from a foreign port will be boarded by Customs.

The following documents should be completed prior to arrival:
Maritime Declaration of Health Form 1 – 1012.
General Declaration IMO Form 1 in quadruplicate.
Ship's Stores Declaration IMO Form 3 in triplicate.
Crew's Effect Declaration IMO Form 4 in triplicate.
Crew List in triplicate.
The above forms will be supplied by mail on request.
PILOTAGE: *Sea Pilot:* Sea Pilot will embark off Tranoy Pilot Station. Location: Lat. 68° 11′ N., Long. 15° 34′ E.

Distance from Tranoy to Narvik 46 nautical miles.
Note: Vessels bound for Narvik will have to pass through Restricted Area. It is compulsory for all foreign non-military vessels of not more than 50 g.r.t. to have a Norwegian State Pilot on board when approaching Restricted Areas in Norwegian Waters.

The Sea Pilot will assist during undocking and leave the vessel off Tranoy Pilot Station.
Harbour Pilot: The use of Harbour Pilot is compulsory during docking. When docking on arrival, the Harbour Pilot will board the vessel inside the harbour limits.
Ordering of Pilots: Vessels approaching from the sea shall order the Pilot at 24 hours' notice in so far as possible and confirm arrival at pilot station at 2 hours' notice.

Provisions for Advance Reports in Connection with the Ordering of Pilots:

Issued by the Director of Pilotage, 10th May, 1963, amended 1st January, 1971.

1. Vessels approaching from the sea and desiring a Pilot shall order the Pilot at 24 hours' notice in so far as possible and confirm arrival at pilot station at 2 hours' notice:
   (a) By telephone or telegram from ship to the pilot office concerned or sea pilot station over a coastal radio station.
   (b) By telephone or telegram from Broker/Shipowner to the pilot office concerned or sea pilot station.
2. For direct connection between ships desiring Pilot and the Pilot Service, VHF radio-telephone Channel 16 (156.8 MHz) shall be used for calling and reply, and a VHF radio-telephone ship-to-ship channel or harbour channel shall be used for conversations. Ships not equipped with VHF radio-telephone may use the distress and calling frequency 2182 kHz for calling pilot vessel, but both the ship desiring Pilot and the pilot vessel shall in such cases immediately turn to ship-to-ship frequency. At such connections minimum transmission effect shall be used.
3. Vessels lying in port and desiring Pilot will order the Pilot from the nearest pilot office during its office hours and if possible at 4 hours' notice.
4. Vessels approaching from the sea as well as vessels lying in port shall, when making an advance order, state the name and destination of the vessel and whether 1 or 2 Pilots are desired.
5. The Pilots will on the whole be despatched to the ships in accordance with the advance orders, and vessels are therefore requested to comply with the foregoing rules as far as possible in order to avoid having to wait for Pilot.
6. The international provisions for summoning Pilots by signal flags or blue lights, etc. are still in force, but should in future be used as a supplement to the radio communications or as the sole communication in emergencies.
7. These provisions come into force on 1st January, 1971.

Vessels in Port: Luossavaara-Kiirunavaara AB will notify the Sea Pilot in due time before completion of loading. LKAB will also arrange for Harbour Pilot to assist during docking or when otherwise required by vessel's Master.

ANCHORAGES: Anchoring must take place in the recommended areas as advised by the Pilot, i.e. inside the harbour basin or to the S.W. and West of "Framnesodden".

Warning: The bottom usually gives good anchorage but vessels are requested to keep continuous watch while at anchor. Frequent anchor bearings must be taken during adverse weather conditions.

Vessels at anchor inside the harbour basin are especially exposed to gusting winds from S.E. (locally named "Beisfjord-winds").

HEALTH: The Master of a ship arriving from a foreign port, must hand to the Customs Officers a Maritime Declaration of Health form signed by the Master. If there is a ship's Surgeon on board, the declaration to be countersigned by this person.

A valid Derat Certificate to be presented to the Customs on request.

RADIO: *ETA Notices:*

1. Please cable ETA to Malmexport Stockholm 6 days prior to arrival at loading port and to MALMEXPORT NARVIK as follows:

Sailing from last port and 48 hours and 24 hours before arrival.

If any change in ETA of more than 1 hour occurs after transmission of the 24 hour ETA, the vessel must send a corrected ETA.

2. Following should be included in the 48 hours ETA notice:
   a. Tonnage of cargo required and quantity in each hold.
   b. Cash advance requirement.
   c. Order for repairs, bunkers, stores, charts, etc.
   d. In case of repatriation, please state name of crew member(s) to be repatriated, destination and date of departure preferred.

3. Docking instructions – prospects.

Request for docking instructions, loading time, etc. should preferably be included in the 48 hours ETA.

Docking instructions will also be advised by Pilot on arrival Tranoy Pilot Station.

4. Estimated time for ballast pumping after arrival should be advised with the 24 hours ETA.

Other Vessels: Cable Agents giving ETA, draft and cash required. Radio station: Rogaland Radio/LGB but other stations can be used.

VHF: Contact with LKAB can be obtained by VHF (Channel 14) on a 24 hour basis. Vessels at anchor are requested to keep continuous VHF watch. It is also advisable for vessels alongside to have the VHF switched on. Messages to the Agent should be given by VHF.

Local and long distance calls can be ordered via Bodo Radio on VHF Channel 28.

Other Vessels: Local and long-distance calls may be ordered through Harstad Radio on Channel 16.

Port frequency is Channel 14, on which vessels may communicate with the port ferry launch and Agent (ore-loading vessels).

TUGS: Tug service is compulsory at LKAB's Ore Berths.

Luossavaara-Kiirunavaara AB reserve the right to order the number of tugs (maximum 3) which they consider necessary to ensure safe mooring and unmooring of a vessel.

Vessels above approximately 70,000 d.w.t. will normally be assisted by 3 tugs.

Main particulars of tugs available: M/V "Svarta Bjorn", g.r.t. 277, b.h.p. 1,640, bollard pull 23 tons, 11 knots. Fluid couplings and single reduction gearing. Reverse gear to screwshaft.

M/V "Rallaren", g.r.t. 435, b.h.p. 3,800, bollard pull 43 tons, 12.4 knots. Two Voith-Schneider directional propellers.

M/V "Rombak" g.r.t. 440, b.h.p. 4,000, bollard pull 47 tons, 12.5 knots. Two Voith-Schneider directional propellers.

Tugowners: A/S Bukserbater, Narvik.

Towing lines will be provided from the tugs.

Normal communication between tugs and Pilot is by VHF. Operating Channel 6 (156.3 mHz.).

Bilge Pumps: The tugs M/V "Rallaren" and M/V "Rombak" are equipped with 2 transportable bilge pumps. Average pumping capacity of each pump: 2,000 litres per minute.

Fire Fighting: Tugs M/V "Rallaren" and M/V "Rombak" are equipped with foam/water guns for fire fighting.

Other Vessels: Must be employed for tankers, 3 tugs available, capable of assisting vessels up to 250,000 d.w.t.

LOADING:

Docking Data for Ore Berths: (Measurements in metres, unless otherwise stated).

	Berth No. 3	*Berth No. 4*	*Berth No. 5*
Building completed (year)	1950 (Caisson in 1967)		1977
Type	Concrete Pier		Concrete Caisson Berth
Length	214.00	214.00	208.00
Breadth	13.50	13.50	Min. 8.25, Max. 18.00
Depth alongside at LWOST	*13.50	13.00	27.50
Height under shiploader (Airdraft) on HWOST	13.00	11.00	26.00
Max. outreach of shiploader from fender line	15.00	11.00	43.00 When perpendicular to wharf
Number of shiploaders	2	2	1
Suitable ship's size in d.w.t. (approx.)	40-75,000	5-45,000	70-250,000
Max. ship's size in d.w.t. depending on type and construction	90-100,000	45-50,000	over 300,000
Limitation of ship's length from bow (bulb) to aftermost loadpoint	200.00	175.00	No limitation
Max. length between ship's foremost and aftermost loadpoint loadable without warping	152.00	152.00	220.00

*Note: Maximum guaranteed draft at Berth No. 3 is 13 m. on LWOST (minimum 0.5 m. under-keel clearance required).

Loading to draft exceeding 13 m. may take place during favourable tide and weather conditions.

Iron Ore Qualities/Average Stowage Factors:

Ore Qualities	*tons/ cu.m.*	*cu.m./ tons*	*tons/ cu.ft.*	*cu.ft./ tons*
KB (Kiruna B)	3.30	0.30	0.093	10.8
KBS (Kiruna BS)	3.00	0.33	0.085	11.8
KBF (Kiruna B Fines)	3.20	0.31	0.091	10.9
KD (Kiruna D)	3.05	0.33	0.086	11.6
KDF (Kiruna D Fines)	3.00	0.33	0.085	11.8
KPBO (Kiruna Pellets with Olivine)	2.05	0.49	0.058	17.2
MPBO (Malmberget Pellets with Olivine)	2.05	0.49	0.058	17.2
PF (Pellets Fines)	2.50	0.40	0.071	14.1
MAF (Malmberget A Fines)	2.95	0.34	0.083	12.0
MPRD (Malmberget Pellets Direct reduction)	2.15	0.465	0.061	16.4
Apatite	1.50	0.667	0.043	23.5

Weighing: The ore is weighed continuously during loading by electronic belt scales.

Margin of error maximum ±0.25%.

All weights as well as quantities issued in the Bills of Lading are expressed in metric tonnes (1,000 kg.).

Loadline Zones:

Winter: 1st November – 31st March.
Summer: 1st April – 31st October.

BERTHING:

General Description: The Ore Berths, hereinafter described as Berth Nos. 3, 4 and 5, allow 3 ships to be berthed simultaneously.

The ore is transported from the stockyards to the shiploaders on conveyor belts. Both stockpiling and loading is automatically directed from a central control station. On the way to the pier belts, the ore is transferred via sampling stations which also include computer controlled screen analysis for pellets.

After having passed the sampling station, the ore is weighed by electronic belt scales with a very high degree of accuracy.

Mooring: Ships usually berth:

Starboard side to Berth No. 3.
Port side to Berth No. 4.
Starboard side to Berth No. 5.

It is the responsibility of the Ship's Master to provide for and make sure that his ship has sufficient mooring ropes and wires ashore at all times, and that the moorings are properly and evenly tightened.

Ships berthing at No. 5 Berth should preferably use floating mooring ropes (nylon, polypropylene or similar) for head- and sternlines.

Berth Nos. 3 and 4: Consists of a slender reinforced concrete pier, supported by 13 heavy concrete pillars resting on steel piles which are rammed through clay and silt to solid rock some 30 m. – 35 m. below the pier deck, above which the superstructure, carrying the conveyor belts, rises about another 15 m.

The outer end of the concrete pier deck is based on a caisson, placed on a reinforced concrete foundation slab, resting on steel piles driven to rock base.

The caisson as well as the pier itself is equipped with heavy rubber fenders of Seibu type and with heavy rubber tyre fenders.

Shiploaders: There are 2 travelling boom loaders on each side of the pier with a working area of approximately 150 m.

If 2 ships are loaded simultaneously, only 1 shiploader can be used on each side.

Designed capacity of each shiploader is 4,500 tonnes/p.h., but the average capacity should be calculated between 3,000 tonnes/p.h. and 2,000 tonnes/p.h. depending on the kind of ore being loaded.

Berth No. 4 – Olivine discharge: A construction consisting of 2 discharging bins connected to a conveyor belt system allowing self-discharging vessels to discharge bulk cargoes at a max. rate of about 700 t.p.h. is mounted on Berth No. 4. The unloading facilities are intended for olivine which is being used in the pellet production (KPBO), but the discharging system can also be used for other bulk cargoes.

Berth No. 5: Is a concrete caisson berth, parallel to the shoreline.

The basement of the berth consists of 5 cylindric caissons resting on foundations connected to solid rock.

The face of the berth is fitted with heavy Seibu fenders, dimensioned to obtain pressure of a 40% ballasted ship of about 350,000 d.w.t., approaching at a speed of 0.15 m. per second.

The Shiploader: Is of a linear slewing type, turnable around a fixed point in the rear. The loader travels on rails along the berth in a length of 140 m. The shiploader boom can be elevated to any suitable height over a vessel's hatch coamings. Maximum horizontal loading range is 220 m.

Designed capacity is maximum 11,000 tonnes/p.h. for lumpy ore and fines, and approximately 7,500 tonnes of pellets per hour.

Apatite Berth: The berth is located between Berth No. 5 (East side) and shore. Minimum depth 12 m. Vessels up to approx. 10,000 d.w.t. can load Apatite in bulk at this berth. One shiploader with designed capacity 800 metric t.p.h. The cargo is stored in a silo of 7,035 cu.m., containing about 11,000 tonnes apatite.

Loading takes place via a closed and dust free system through special openings in vessel's hatchcovers.

Fagerneskaien: There is a deepwater quay, "Fagerneskaien", located to the South of the harbour.

Length of quay 280 m.

Depth alongside on LW 15 m.

The quay has easy access from the shore side and suitable for ships taking onboard heavy goods and provisions as well as for ships carrying out repairs.

There is a workshop with structural, plate and welding factory situated at the quay.

The quay is directly connected to the main railway.

Fresh water is available with connections conveniently located.

STEVEDORES: Ordered by Agent. Not necessary to contact stevedores.

Working Hours: Ordinary working hours 24 running hours, except Saturday 2200 hrs. to Sunday 0600 hrs.

CRANES: Fixed crane, SWL 5 tons, is available at Fagerneskaien (deep-sea wharf), and mobile cranes can be hired from local companies.

DENSITY: 1022.

TELEPHONES: Vessels at berth may hire a telephone. A telephone watch should then be kept on board.

TELEPHONE NUMBERS:

		Telephone No.	*After Hours No.*
Ambulance		43 600	
Hospital		44 044	
Fire Brigade	Brannbakken 1	41 122	
Police Station	Town Hall	41 060	
Custom House	Fagernesveien 2	41 580	41 582
Harbour Office	Havnegt 2	46 000	
Harbour Master	Havnegt 2	46 000	42 796
Pilot Office	Lodingen	31 104	
Lloyd's Agency	Havnegt 28	41 020	44 382
Lloyd's Surveyor	Ankenesstrand	56 325	56 325
Det Norske Veritas Surveyor	Havnegt 2	44 090	43 685
British Vice Consulate	Kongens gt 50	44 036	42 202
Danish Vice Consulate	Dronningens gt 51	41 546	42 232
Netherlands Vice Consulate	Verkstedbakken 12	42 011	55 576
Finnish Vice Consulate	Verkstedbakken 12	41 540	41 365
French Consulate	Dronningens gt 51	44 015	43 555
German Consulate	Fagernesveien 3	44 565	42 982
Swedish Consulate	Havnegt 28	41 020	
Apostleship of the Sea "Stella Maris"	Harekst gt 2	41 634	
International Seaman's Centre of the Swedish Church	Kongens gt 1	41 414	
Telegraph/Telephone Inquiry		0180	

FRESH WATER: Can be supplied from all berths. Connections are conveniently located with hoses available on the dock.

Fresh water can also be delivered by tugs. An extra fee will then be charged.

Capacity per delivery: M.V. "Rallaren" 93 cu.m.
M.V. "Rombak" 112 cu.m.

FUEL: Bunkers are available on an emergency basis only. Orders for fuel and diesel should preferably be given in due time directly to the supplier. Fuel oil can only be supplied from coastal-tankers.

Diesel oil can be delivered by the tug M.V. "Rombak" at the daily market rate and from the supplier used by the tugboat company.

Capacity per delivery about 100 cu.m.

An extra fee will be charged for the tug per delivery.

It is also possible to supply diesel oil by tank wagons. Capacity per delivery about 10 cu.m. – 12 cu.m.

Lubricants: Can be procured, but due notice must be given as all types are not kept in stock.

GANGWAY/DECK WATCHMAN: Not available.

OPENING/CLOSING HATCHES: May be handled by ship's crew.

CUSTOMS ALLOWANCES: 200 cigarettes or 250 gm. tobacco and 1 litre spirits and 1 litre wine (or 2 litres wine only). Any excess of this quantity to be declared on Custom's List.

IDENTIFICATION CARDS: Shore passes to be used when passing the LKAB gate will be supplied by ship's Agent.

CONSULS: See "Telephone Numbers".

REPAIRS: Minor repairs can be effected by local repair firms.

SURVEYORS: Lloyd's representative and surveyor are available at the port.

DRY DOCKS: None.

AIRPORT: Narvik Airport, 5 minutes by taxi from the port. Local commuter service with connection to the nearest major airports.

Evenes Airport, 1.5 hours by bus from Narvik. Regular service to Oslo (Fornebu Airport) and other major Norwegian airports.

REPATRIATION: Facilities exist for crew change and necessary repatriation.

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

HOLIDAYS: New Year's Day; May 1st; May 17th; Easter; Christmas Day; December 26th. Also see "Customs of the Port".

POLICE/AMBULANCE/FIRE: Police 41060; Hospital 44044; immediate help 4300 (only at night time); Ambulance 43600; Fire 41122.

LAUNCHES: The Agent will supply a time table and tickets on arrival. If a launch is required, the "B" flag or red light should be displayed from the signal mast.

SERVICES: Compass adjusting can be arranged when necessary.

SHORE LEAVE: Allowed.

CUSTOMS OF THE PORT:

1. The ships will generally be loaded in regular turn, providing they present with starting hatches opened and holds properly cleaned and do not have ballast pumping which will exceed expected loading time.

2. For establishing turn of vessels a ship will be considered "Arrived" at the time of passing a line between the S.W. point of "Framnesodden" and "Batberget", or if anchored outside the Harbour limit, at the time of anchoring.

3. The time of arrival stated in the Notice of Readiness shall be the time when a ship has moored alongside loading berth, (finished with engines) or when loading berth is not available, at the time of anchoring.

4. Notice of Readiness shall be given by the Master on arrival whether in berth or not any time SHINC with the exception of certain holidays.

5. Loading plans, duly dated and signed, stating quantity in each hatch and rotation of loading, must be presented to the Agent on arrival and to the loading foreman as soon as the ship has moored.

6. All weights shown on the Bill of Lading will be the same as recorded on the weighing facilities of Luossavaara – Kiirunavaara AB. The weights will be given in tonnes of 1,000 kilogrammes (metric tonnes).

7. Pilots and tugs will be ordered in due time before loading is finished. The ship must leave the pier upon completion of loading when the cargo documents have been received. If any delays occur in preparing the cargo documents, or on occasion of missing crew members, or in case of any dispute or otherwise, the ship must leave the pier immediately when so ordered by the shippers, and matters will be settled while the ship is waiting in the roads.

8. Ore – Oil and OBO vessels will not be accepted for loading unless gas-free certificate has been obtained.

9. *Working Hours:*

Ordinary working hours 24 running hours.

Loading does not take place on the following holidays:

December 24th	1300 hrs.	–	December 26th	2200 hrs.
December 31st	1300 hrs.	–	January 1st	2200 hrs.
Maundy Thursday	1400 hrs.	–	Easter Monday	2200 hrs.
Whitsun Eve	1400 hrs.	–	Whit Monday	2200 hrs.
April 30th	2200 hrs.	–	May 1st	2200 hrs.
May 16th	2200 hrs.	–	May 17th	2200 hrs.

Note: The above stipulated working hours are subject to alteration without notice.

GENERAL:

Tide: Range of tide: Maximum approximately 4.50 m.
Minimum approximately 0.50 m.
Average 1.75 m.

Currents: The existing currents are mainly caused by tide water. The average speed of the current varies from 1 knot – 3 knots.

During May – June there is a constant Northwesterly flood-current setting out from "Beisfjorden" (a narrow fjord to the South of the harbour).

This current reaches an estimated speed of 4 knots – 5 knots when it coincides with the fall of the tide.

The direction of the current in the harbour basin is exposed to seasonal and local variations owing to snow-melting and changes in water temperature.

It is important that the Ship's Masters are aware of the fact that the existence of variable currents in the harbour may affect the manoeuvrability and bring vessels at anchorage in the bay to turn in dissimilar directions.

Winds: The local fall winds from Southeast occur suddenly and unexpectedly but are most frequent and strongest during the Winter season, when winds force 30 sec./m. have been measured.

Harbour Charts: Norwegian Chart No. 461 and British Admiralty Chart No. 3753.

Garbage: Trucks will remove garbage from vessels at berth on request. Garbage can also be removed by lighter if necessary from ships at anchor.

Launch Service: A regular launch service is operated and administrated by the Harbour Authorities.

Port Passenger Ferry Service: Until further notice is given, the Narvik Port Authority's passenger ferry service to/from all vessels anchored on the inner/outer roads is scheduled as follows:

INNER ROADS

Weekdays: Departure Ferryquay: 0715 – 0800 – 0900 – 1000 – 1200 – 1300 – 1400 – 1600 – 1800 – 2000 – 2200 – 2400.

Saturdays, Sundays and Holidays: Departure Ferryquay: 0800 – 1000 – 1200 – 1400 – 1600 – 1800 – 2000 – 2200 – 2400.

OUTER ROADS (outside Framnesodden)

Every day: Departure Ferryquay: 0800 – 1000 – 1200 – 1400 – 1600 – 1800 – 2000 – 2200 – 2400.

The ferryboat will call at your vessel *only* if passengers are to be put on board, *or* if the ship by means of proper signals indicates that ferry service is required.

The proper "ferryboat requested" signals are:
In daylight: A red flag hoisted at the yardarm.
In darkness: A well visible red light.

Pilot Ladders/Gangways: For safe embarkation/disembarkation of passengers to/from any vessel anchored on the roads, the following regulations should be observed:

1. Either pilot ladder or gangway to be rigged on the leeward side of the vessel. In rough weather, both a pilot ladder and a gangway must be arranged on the leeward side in such a way that the ladder can be reached from the embarking/disembarking platform of the gangway when lowered to the sea surface.

2. The pilot ladder is – when rigged – to be safely secured on the main deck, and extend to the sea surface. In order to prevent capsizing, every 4th rung of the ladder should be extended.

3. Properly secured on deck, 2 strong holding ropes should be arranged close to the pilot ladder, 1 on each side, and extend to the sea surface.

During darkness, proper lights to be rigged above ladder/gangway, so that embarkation/disembarkation may be carried out in a safe way.

4. The vessel's watchman should stand by the ladder/gangway during embarkation/disembarkation, in order to assist the passengers when necessary.

General: During unfavourable weather conditions, when the sea is rough, the captain of the ferryboat may have to cancel one or more scheduled calls at your vessel, until conditions have improved.

You may communicate with the ferryboat on VHF Channel 14.

With reference to the above regarding Ferryboat service, we regret that the last ferry from shore leaves at 2400 hrs.

Transport to the ship in the Roads between 2400 hrs. and 0715 hrs., respectively 0800 hrs. on Saturdays, Sundays and Holidays, can only be arranged in case of absolute emergency.

Officers and crew members on ordinary shore leave who miss the last ferry at 2400 hrs., will have to wait until the first ferry the following morning.

Provisions and Stores Available: Advance notice preferred.

Ship's Laundry: Can be taken care of.

Agency: Luossavaara-Kiirunavaara AB (LKAB) will handle the Agency and perform all normal service functions at this port. Tel: 082-41020. Cable address: "Malmexport Narvik". Telex: 64022. Answerback code: lkabn N. VHF (24 hour basis) calling Channel 14, Working Channels 12 and 14. Call sign: LKAB.

Advance funds sufficient to cover estimated compulsory port expenses and additional outlays, such as cash to Master, must be remitted prior to vessel's arrival.

Bank remittances should be sent to LKAB's account No. 6370.05.01045 with Christiania Bank og Kreditkasse Narvik. Cable address: "Kreditkassen Narvik". Telex: 64081. Answerback code: Cbknk n.

AUTHORITY: Narvik Havnevesen, P.O.Box 627, 8501 Narvik, Norway. *Tel:* 46 000. *Contact:* G. Berntsen, Port Manager. K. Heggelund, Deputy Port Manager.

OSLO: 59.54 N. 10.43 E. (See Plan)

DOCUMENTS:
Maritime Declaration of Health.
Sealing Certificate.
2 Crew Lists.
2 Passenger Lists.
2 Lists Crew Personal Effects.
Provisions List.
3 Cargo Manifests.
Certificate of Tonnage.
Dangerous Cargo List.

PILOTAGE: Compulsory. Pilot boards at Faerder Lighthouse, 50 miles from docks. Give 24 hours notice "Faerder Pilot". Pilot station on VHF Channel 13.

ANCHORAGE: Good sheltered anchorage in Western and Eastern Harbour Basins, depths up to 20 m.

RESTRICTIONS: Vessels may enter at any time. No tide or current.

MAX. SIZE: Vessels up to 34 ft. draft may berth at Filipstad Quay and Sjursoya Quay.

Tankers: Up to 36 ft. draft at Oslo, or 38 ft. draft at Fagerstrand.

HEALTH: International procedure followed to obtain Pratique. In case of suspected disease or fever on board, inform the Harbour Master's Office in advance. When arriving from a Norwegian port, Pratique is automatic.

RADIO: Communicate through Tjome Radio, call sign LGO. Harbour Master's Office equipped with VHF Channels 16 and 12.

TUGS: Sufficient tugs available for all requirements.

BERTHING: Instructions given from Harbour Master. Masters of ships are requested to send their ETA to the Harbour Master's Office through Oslo Havne Radio, VHF Channel 12, one hour prior to arrival.

Filipstad Quay: Up to 11 m. depth alongside.
Sjursoya Quays: Up to 12 m. depth alongside.
Vippetangen: Up to 8 m. depth alongside.
Pipervika: Up to 11 m. depth at Akershus Pier.
Bjorvika: Up to 7 m. depth at Lang Quay.
Bispevika: Up to 10 m. depth at Sorenga Pier.
Gronlia: Up to 9 m. depth alongside.
Kongshavn Quays: Up to 8 m. depth alongside.
Bekkelaget: Up to 13 m. depth alongside.
Ormsund: Up to 9.0 m. depth alongside.

BULK CARGO FACILITIES: Container traffic handled at Filipstad, Ormsund and Sjursoya North.

Sorenga Pier equipped for palletised cargo handling, containers and Ro/Ro.

15 berths for Ro/Ro traffic. 2 Container cranes for 20 ft., 30 ft. and 40 ft. units, up to 35 tons (net) and container handling equipment, quay cranes and mobile cranes and floating Ro/Ro ramp.

Sjursoya North: Cement, phosphate, grains, molasses and containers.
Sjursoya South: Gasoline and oil and propane gas.
Bekkelaget North: Molasses, general cargo and oil.
Sorenga: General cargo and containers.
Kongshavn: Building material.
Ormsund: Containers.

STEVEDORES: Arranged by Agents. Working hours 0700-1600 hrs., Saturdays overtime is voluntary.

TANKERS: Also see "Slagen".

Oslo: Oil pier at Sjursoya, depth alongside 15 m. or more. A tug required to stand by during discharge.

Fagerstrand: Terminal operated by Norske Braendselolje A/S situated in Oslo fjord, 12 miles S. of Oslo. 1 berth for tankers up to 30 ft. draft.

1 berth for tankers up to 38 ft. draft.

MEDICAL: All facilities available. Masters to advise by radio prior to arrival if medical attendance required on board.

DENSITY: Salt water, 1025.

FRESH WATER Available by pipeline from all quays.

FUEL: All grades available, ex-wharf at many quays. Can be delivered by barge.

FIRE PRECAUTIONS: 2 boats fully equipped with fire-fighting equipment.

CUSTOMS ALLOWANCES: 200 cigarettes allowed weekly, litre of wine and 1 litre of spirit weekly, for each man.

CARGO GEAR: International Safety Regulations to be observed.

IDENTIFICATION CARDS: Not required.

CONSULS: Following countries are represented at Oslo:

Austria
Bangladesh
Belgium
Benin
Brazil
Bulgaria
Canada
Chile
China
Colombia
Costa Rica
Cyprus
Cuba
Czechoslovakia
Denmark
Ecuador
Egypt
Finland
France
Gambia
Germany D.R.
Germany F.R.
Greece
Guatemala
Guinea Bissau
Hungary
Haiti
Honduras
Hungary
Iceland
India
Indonesia
Iran
Ireland
Israel
Italy
Japan
Jordan
Korea
Lebanon
Lesotho
Liberia
Luxembourg
Madagascar
Malaysia
Mexico
Monaco
Morocco
Nepal
Netherlands
Pakistan
Panama
Peru
Philippines
Poland
Portugal
Romania
Senegal
Singapore
South Africa
Spain
Sudan
Sweden
Switzerland
Thailand
Tunisia
Turkey
Uruguay
U.K.
U.S.A.
U.S.S.R.
Venezuela
Yugoslavia

REPAIRS: All types of machinery repairs can be effected.

REPATRIATION: All facilities available without restrictions.

AIRPORT: Fornebu Airport situated 8 km. from city centre. Regular services to Europe, South America, Far East and U.S.A.

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

HOLIDAYS: January 1st; Good Thursday; Good Friday; Easter Monday; May 1st; May 17th; Whit Monday; Christmas Day; Boxing Day.

No cargo work normally on Saturday, Sunday and Holidays.

POLICE/FIRE/AMBULANCE: Police, Tel: 669050 or 002; Fire, Tel: 114455 or 001; Ambulance, Tel: 201090 or 003.

TELEPHONES: Can be placed on board vessels at most quays.

SHORE LEAVE: No restrictions.

DEVELOPMENTS: Extensions of the land areas in the port by approx. 200,000 sq.m. Quay extensions of 1,000 m. Storage halls in hills, 100,000 sq.m. or more, sheds and service buildings.

AUTHORITY: Oslo Port Authority, Vippetangen, 0150 Oslo 1. Postal address: P.O.Box 230, Sentrum 0103 Oslo 1. *Tel:* (02) 41 6860. *Telex:* 121270 Osloport. *FAX:* 416751. *Cables:* Osloport. *Contact:* Sverre Lende, Port Director. Tor Berg, Harbour Master.

RISOR: 58.43 N. 09.14 E.

DOCUMENTS:
3 Crew Lists.
3 Customs Lists.
Ship's Register.
Bill of Lading.

PILOTAGE: Contact Arendal Pilot.

ANCHORAGE: In 15 fathoms depth.

MAX. SIZE: 10,000 d.w.t., draft 28 ft.

RADIO: Farsund and Tjomoy Radio. VHF Channel 16. No radar.

TUGS: No tugs for berthing.

STEVEDORES: Available. 24 hours notice of ETA required.

FRESH WATER: Available by pipe-line at berth.

FUEL: Not available.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: May be performed by ship's crew.
CUSTOMS ALLOWANCES: Tobacco: Wine/Spirits: 200 cigarettes per crew member for 10 days. 3 bottles spirit for ship's Master only for 10 days.
IDENTIFICATION CARDS: Not needed.
CONSULS: French and Swedish.
REPAIRS: No shipyard.
AIRPORT: 10 miles; every day service.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: Work can be arranged by 100% overtime.
TELEPHONES: Can be arranged on board.
AUTHORITY: Risor Radmannskontor, 4950 Risor, Norway. *Tel:* 041-50500. *Cables:* Havnekontoret, Risor. *Contact:* Kjell Skarheim, Harbour Master.

SARPSBORG: 59.17 N. 11.07 E.

DOCUMENTS:
2 Crew Lists.
2 Passenger Lists.
1 Health Certificate.
3 Manifests.
1 Bill of Lading.
2 Tobacco/spirit Lists.

PILOTAGE: Pilot ordered by Faerder Losstasjon or Herfol Losstasjon via Tjome Radio. Harbour Office can be contacted by VHF.
Pilotage compulsory for all vessels of 100 g.r.t. and over.
ANCHORAGE: Between Struten Light and Stromtangen Light.
MAX. SIZE: 24 ft. draft.
HEALTH: No particular action necessary, but Agent to be informed.
RADIO: Tjome Radio.
VHF: Harbour Master's Office, Channels 16 and 12. Day and night service.
TUGS: Small harbour tug available.
BERTHING: A Roll-on/Roll-off berth has been built to handle vessels of up to 6,000 tons gross. Depth alongside 24 ft. Vessels will moor alongside the old Alvim Pier enabling them to work through the side doors and stern doors.
STEVEDORES: Ordered through Agent.
MEDICAL: If medical attention necessary Agent must be informed in advance.
FRESH WATER: Only at Alvim Kai, average 15 t.p.h.
FUEL: Fuel obtained only with tank cars.
GANGWAY/DECK WATCHMEN: No gangways from shore. Watchman can be obtained.
OPENING/CLOSING HATCHES: Carried out by crew.
CUSTOMS ALLOWANCES: 100 gm. tobacco or 200 cigarettes per crew member. Wine 1 litre per member or 1 bottle of spirit.
IDENTIFICATION CARDS: Have to be used for Melloes Quay only.
CONSULS: Denmark, Finland, Iceland, Sweden and Greece have vice-consulates.
REPAIRS: Deck and engine repairs possible.
DRY DOCKS: None.
REPATRIATION: No facilities.
AIRPORT: Fornebu Airport 110 km. from Sarpsborg. Served by regular airlines.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: 1st January; 1st May; 17th May; 25th/26th December. No work on these days.
POLICE/AMBULANCE/FIRE: Police 52000; Ambulance 52040; Fire 51234.
TELEPHONES: No arrangements exist for placing telephones on board.
SHORE LEAVE: No restriction.
AUTHORITY: Sarpsborg Havnevesen, Strandgaten 2, P.O.Box 2034, 1700 Sarpsborg, Norway. *Tel:* 09-152311. *Contact:* Odd Langsholt, Harbour Master.

SAUDA: 59.40 N. 06.22 E. (See Plan)

DOCUMENTS:
Health Certificate.
Crew List.
Derat Certificate.
Ship's Register.

PILOTAGE: Skudefjorden Pilot Station, Tel: 047-58337 (or pilot boat "Skudefjord" on VHF). Kvitsoy, position Lat. 59° 05′ N., Long. 05° 20′ E.
ANCHORAGES: Safe anchorages everywhere in Sauda Harbour area.
RESTRICTIONS: No restrictions on night entry – but Sea Pilots usually refuse to take in vessels over 10,000 d.w.t. between 1800 hrs. and 0600 hrs. during Winter time, October-March.
MAX. SIZE: *Sauda Smelteverk A/S* (Private Quays): Draft 30 ft. – but vessels over 30 ft. are allowed to get alongside at owner's own risk. Length no restriction. Breadth, 75 ft.
Official Quays: Length of quays – 230 ft. and 200 ft. Max. draft 13 ft.
RADIO: Cable Agents giving ETA, draft and cash requirement via Rogaland Radio.
VHF: VHF installed in Agents office, Channels 16 and 9.
TUGS: Not necessary.
BERTHING: May take place at any time provided quay available.
(1) Import Quay: 250 m. long. 2 unloading towers with a capacity of about 3,500 tons ore per day.
(2) Export Quay: 115 m. long. 2 loading cranes with a capacity of about 1,600 tons ferro alloys per day. One loading machine with capacity 400 t.p.h.
STEVEDORES: Ordered by Agents. Normal working hours 0700 – 2300. Saturdays and Sundays – No work.
MEDICAL: Masters to advise by radio prior arrival if medical attendance required aboard. Modern hospital.
DENSITY: Brackish in port area, average salinity 2.39%.
FRESH WATER: Good fresh water available, delivery irrespective of quantity.
FUEL: No fuel available at Sauda, must be ordered from Stavanger.
GANGWAY/DECK WATCHMEN: Available, but not compulsory.
OPENING/CLOSING HATCHES: Crew allowed to open and close.
CERTIFICATES: Registered Tonnage Certificate required.
CUSTOMS ALLOWANCES: Master: 400 cigarettes or 400 gm. tobacco, 2 litres spirits/wine.
Crew: 200 cigarettes or 250 gm. tobacco, 1 litre spirits and 1 litre wine.
CARGO GEAR: No additional requirement.
IDENTIFICATION CARDS: Not necessary. Crew List at gate.
CONSULS: No consulates at Sauda. Nearest in Stavanger.
REPAIRS: Minor repairs possible.
DRY DOCKS: No dry dock at Sauda. Nearest in Stavanger and Haugesund.
REPATRIATION: Repatriation may take place.
AIRPORT: Stavanger and Haugesund.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: New Year's Day; Maundy Thursday; Good Friday; Easter Monday; Labour Day (May 1st); National Day (May 17th); Ascension Day; Whit Monday; Christmas Day; Second Christmas Day (December 26th) (no work on these days).
POLICE/AMBULANCE/FIRE: Police 04-783266; Ambulance 04-782811 or 04-782511; Fire 04-783222
TELEPHONE: Not available to vessels.
REGULATIONS: Strictly prohibited to throw wastes or garbage into sea within port area, fjords and on Norwegian coast.
DELAYS: All vessels loaded/unloaded in turn, very seldom any congestion in port.
AUTHORITY: Sauda Havnevesen, Raadhusgaten, N-4201 Sauda, Norway. *Tel:* 04-782585. *Contact:* John Henning Hansen, Harbour Master.

AGENT: Sauda Skipsekspedisjon A/S, P.O.Box 111, N-4201 Sauda. Cables: Saudex. Telex: 40947 Agent N. Tel: 04-782415, 04-782260 or 04-782767. Office hours: 0830 – 1600 local time. Telephone after office hours: 04-782696. VHF Channels 16 and 9.

SKIEN (incl. Menstad and Vollsfjorden): 59.12 N. 09.38 E.

DOCUMENTS:
Clearance documents, forms obtainable from Customs Officers on arrival.
Derat Certificate.
Bill of Lading.
Manifests.
2 Crew lists.
Ship's Register.

PILOTAGE: Ship's Agent gives ETA pilot station 24 hours before arrival and direct to Pilots 2 hours before arrival. Telegraphic address: Pilot station, Langesund. VHF Channel 16 to be used when contacting Pilots. Pilot boards at Steingrunnen light buoy, Langesund Bay, (58° 55′ N., 09° 44′ E.). Flag, sound and morse signal "G". Pilotage compulsory for all foreign vessels but dispensation can be obtained for smaller Scandinavian vessels.
MAX. SIZE: Between Porsgrunn and Skien, Norsk Hydro have loading place, Menstad, for vessels up to 425 ft. length and max. draft 18.5 ft. Between Menstad and Skien Grain Silo for vessels with max. length 425 ft. and max. draft 18 ft. 06 in. At Skien vessel's length must not exceed 335 ft. and max. draft 18 ft. 06 in.
RESTRICTIONS: No restrictions on night entry for vessels of above mentioned sizes.
BRIDGES: On passage from sea, vessels pass Porsgrunn where there is a lifting bridge with breadth 30 m. Signals for passing bridge inward: 1 long and 2 short sound signals. Outward signals, 1 long and 1 short sound. There is also a bridge at Brevik: Max. height 45 m.
RADIO: Tjome Radio/LGT or Farsund Radio/LGZ.
TUGS: Modern tugs available.
BERTHING: Also see "Max. Size".
Vollsforden:
Bridges: From sea vessels pass Brevik Bridge, max. height 45 m.
Overhead Cable: At Kjeoya there is an overhead cable which permits an airdraft of max. 37 m.
Tugs: A number of modern tugs are available.
Berthing: 2 quays, No.1; length 135 m., depth from 8.5 m. to 11 m. No. ; length of quay 165 m. but open to sea with mooring pillar at 250 m. from Ro/Ro ramp. This quay has Ro/Ro facilities with ramp of 30 m. breadth, and depth of 11 m. for full length.
Cranes and Ro/Ro Materials: No stationary cranes, any size of mobile crane and floating cranes up to 250 tons available. Container truck of 30 tons and 22 tons lift/capacity, 2 Tugmasters of 21 tons towing power, Forklifts from 3 – 6 tons, Warehouse 9,200 sq.m. Unlimited open space.
Density: Practically fresh water.
DENSITY: At Menstad and Skien practically fresh water.
STEVEDORES: Ordered by Agents.
FRESH WATER: Obtainable.
GANGWAY/DECK WATCHMEN: Available but not compulsory.
OPENING/CLOSING HATCHES: By crew or stevedores.
CUSTOMS ALLOWANCES: 400 cigarettes and 4 bottles spirit for the Master. 200 cigarettes and half a bottle spirit for each crew member.

CONSULS: Belgium, Netherlands, Sweden, Germany, Finland.
REPAIRS: All repairs possible. Dry dock: Lifting capacity: 2,000 tons. Radar/radio services can be arranged through Agents.
MEDICAL: All medical assistance to be arranged via Agents.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: New Year's Day; Maundy Thursday; Good Friday; Easter Eve (half day); Easter Monday; Labour Day (1st May); Ascension Day; National Holiday (17th May); Whit Monday; Christmas Eve (half day); Christmas Day; (26th December), New Year's Eve (half day).
REPATRIATION: Facilities exist for effecting crew changes and repatriation.
AIRPORT: International at Oslo and Skien airport.
AUTHORITY: Skien Havnevesen, Postboks 1234, 3701 Skien, Norway. *Tel:* 03-593184, 03-593160. *Mobile telephone:* (094) 50439. *Telex:* 21160 Sterm-N. *Contact:* T. Holtan, Harbour Master.

SLAGEN: 59.20 N. 10.31 E. (See Plan)

LOCATION: Esso Norge a.s., Slagen Refinery is located on the West coast of the Oslo Fjord near Tonsberg, about 20 miles from the Ferder Lighthouse. The Marine Terminal, a finger pier, is located at Slagentangen, near the refinery.
DOCUMENTS:

Ship's Register (Certificate)	(For Customs examination)
Derat Certificate	(For Customs examination)
Health Declaration	(For Customs examination)
Cargo Manifest	(For Consignee)
Provision List, original and 3 copies	(For Customs information)
3 Copies Crew List	(For Customs and terminal information)
Personal Effects List, original and 1 copy	(For Customs information)

NOTE: Crew List to show date and place of birth for each crew member.
PILOTAGE: Pilotage is compulsory for all foreign flag ships. The pilot boats lay in a harbour on Hvasser Island from where a radar and VHF watch is kept. The pilot station listens out on Maritime Channel 16 and 13 and when your ship is about 2 hours from Ferder Island (Store Faerder) contact should be made. You will be given instructions as to where and how the Pilot will board. The Pilot boards East of Ferder Island from a 20 m. long white boat marked "LOS" and capable of doing 18 knots. In bad weather, ships of less than 10,000 d.w.t. may have to proceed in as far as Fulehuk before a Pilot can board.

The pilotage service is provided by the Norwegian Government.

Berthing Pilot: A Berthing Pilot will board off Lysboye from one of the berthing tugs. He will come equipped with a portable VHF set with which to talk to the tugs and will also advise mooring procedures.
APPROACHES: The approaches to the Oslo Fjord via the Skagerrak are free of any particular navigational dangers and there is deep water close to the Norwegian coast.

Tankers of 40,000 d.w.t. or larger are requested to keep a minimum distance of 15 nautical miles off the Norwegian coast until entrance to the Oslo Fjord, where traffic separation scheme is in force inside territorial waters.

There are no particular navigational difficulties in the Oslo Fjord, all depths of less than 35 m. (115 ft.) can be easily avoided.

Navigation Aids: Esso Norge a.s. has provided two leading light/marks, one on the jetty itself and one on shore at Stubrekk. These lights when in line bear 309°(T) and mark a deep approach (least depth 25 m., 82 ft.) between Lysboye and the Slagen Terminal Jetty.
ANCHORAGE: North of pier head. Particulars regarding anchorage will be given by Pilot.
MAX. SIZE: Tankers up to 350 m. length and 66 ft. draft can be berthed. Berth No.1 designed for vessels 250,000 d.w.t. Depth of water alongside 69 ft.
HEALTH: Clearance is effected on arrival. International procedure followed to obtain Pratique. In case suspected disease or fever on board inform port authorities in advance.
RADIO: 72 hours prior to arrival at pilot station, radio Agent ETA, cash, bunkers, dirty ballast, personnel, bonded stores, or other special requirements. ETA should be repeated 48, 24 and 12 hours prior arrival pilot station. All radio messages should be transmitted via Rogaland Radio, and when within closer range via Tjome Radio. When Pilot has embarked, contact should be established with Slagen Harbour Office via VHF Channel 16 or 14 for exchange of information prior to berthing, such as berth availability, current, wind, draft, ballast to be discharged, etc.
TUGS: A total of 8 tugs ranging from 1,100 to 5,200 b.h.p. can be made available to shipping at Slagen. However, none of the tugs are normally stationed at the terminal, except when a vessel of 20,000 d.w.t. or larger is discharging or loading. On such occasions one or two tugs will be kept on stand by at the terminal. If additional tugs are required they must be ordered from Horten or Oslo.

The number of tugs required for berthing are ordered by the Agent in accordance with the berthing Pilot's advice. All tugs are diesel powered, single screw, single rudder and suitable for towing on the hook or alongside. When on the hook, ship's towlines are used.

The tugs are normally made fast enroute between the Slagentangen light buoy and the terminal.

Communications: All communications between Pilot and tugs will be made over the Pilots' portable VHF. Should there be any breakdown, ship's whistle will be used. It is very important that communications within the ship between bridge, forecastle head and poop be good, particularly on the larger ships.

BERTHING: The main effect on ship handling in the berth approaches comes from the current, which for most of the time sets S.E. across the jetty which is aligned North-South. Ships berthing on the West side of the jetty (Berth Nos. 2 and 3) will tend to set down onto the berth. The marine terminal has a current speed and direction meter and advises the Pilot.

A submersible oil boom enclosing the pier is anchored on the sea bed, and the boom and its system of anchorage will be damaged if vessel's anchors are dropped in the shaded area on "Plan". *Except in emergency situations anchors should not be used within the shaded area.* Manoeuvres to and from the berths should be discussed with the Harbour Office which will give you information on currents.

Ice affects navigation at the terminal about every 6 years, and Pilots use special manoeuvres to deal with ice situations.

The Terminal: The terminal consists of a finger pier. On the East side (Berth No. 1) the water depth is 21 m. (69 ft.) and vessels with max. length 365 m. (1200 ft.) and max. draft 20.1 m. (66 ft.) can be accommodated. On the West side (Berth Nos. 2 and 3) there is a water depth of 11.5 m. (37 ft. 9 in.). The West side is mainly used for coasters and barges, but vessels up to a max. length of 192 m. (630 ft.) with max. draft 10.6 m. (34 ft. 9 in.) can also be accommodated on this side of the pier.

Fendering: On Berth No. 1, the breasting face is protected with timber-faced gravity fenders and timber-faced panels backed by laminated rubber units. Berth Nos. 2 and 3 are fendered with timber-faced panels backed by rubber tubing.

Limitation on Berthing Speeds/Angles: On Berth No. 1, the *maximum* speed of approach ranges from 8.15 m. (26.5 ft.) per minute for a fully loaded 100,000 d.w.t. tanker to 5.19 m. (17 ft.) per minute for a fully loaded 250,000 d.w.t. tanker. (See "Plan"). For the larger tankers, the target should be 1 m. (3 ft.) per minute. The speed of approach is monitored by Doppler Radar and the Pilot is kept frequently informed of the speed. The angle of approach should be as small as possible, a parallel landing being the target.

Berthing: Tankers for Berth No. 1 are usually berthed port side to, by paying off the bow to starboard and having tugs push the ship bodily, against the prevailing current, on to the berth. Headlines are usually run out first to the Northern-most dolphin.

The larger ships berthing on Berth Nos. 2 and 3 usually go port side to berth with tugs on the hook holding the ship off against the current. The approach to Berth Nos. 2 and 3 is normally facilitated by the fendered sliding front.

Moorings: Moorings are taken ashore by mooring boats and lifted onto dolphin/jetty by power capstans.

Shore Moorings Used: On Berth No. 1 a 48 mm. (1.875 in.) diameter shore-based mooring wire is placed on board large tankers as an extra aft back spring. The wire has an eye which is put over the bitts after being taken on board by rope messenger. No shore moorings are used on Berth Nos. 2 and 3.

Gangway: At Berth No. 1, near the Southern end of the breasting island, there is a telescopic hydraulic operated gangway reaching a deck height of about 22 m. above sea level. Also a portable gangway is available to accommodate handy size vessels. Whenever the latter one or when the vessel's own gangway is used, the vessel shall provide a safety net under the gangway, and a lifebuoy with not less than 15 fathoms of line attached should be positioned near the gangway for use in an emergency.

Cautionary Advice, Mooring Supervision: Breast moorings at the jetty have a scope of only 25 m. (82 ft.). The offsetting current at Berth No. 1 makes the tending of moorings during the discharge of a tanker with large light freeboard a very important operation and should only be done under the supervision of a ship's officer.

The area dredged to 21 m. is limited, and a VLCC needs to take care that it does not get too far to the South. When in position, there is 25 m. (82 ft.) clearance between the stern and the edge of the dredged area. It is for this reason a shore wire backspring is provided.

It is of the utmost importance that large vessels, in particular, are moored adequately and that moorings are carefully tended.

Before hard arms are connected, the ship's moorings and the mooring equipment are checked by the terminal personnel.

Special Regulations: If the wind speed reaches 20 knots or offsetting current reaches 0.6 knots, the discharge of a VLCC is stopped and the arms drained. All tank lids and ullage plugs must be closed and a tug will be ordered to stand by.

If the wind speed reaches 25 knots or offsetting current reaches 0.7 knots, the arms will be disconnected and the ship ordered to stand by for possible departure.

Weather forecasts in addition to actual current and wind velocity readings are available from the terminal office.

Preparation of Manifold Area: All crude ships should arrive with manifold stripped to the outboard 12 in. flange. All derricks, stays, radio aerials, etc. should be removed from the vicinity of the manifold to be used.

Ullaging, temperatures, water finding, etc.: On arrival ullages, temperatures and water dips should be taken by ship's personnel in co-operation with terminal representative. Vessel equipped with an inert gas system will be requested to depressurise tanks sufficiently to allow for sampling, ullaging, temperature and water dipping on arrival, and for checking of oil and residues left on board after completion of discharge.

Deballasting Facilities: All ballast must be pumped ashore unless from segregated tanks. Maximum quantity receivable, if advanced notice given, is 12,000 cu.m.; any quantity greater than this will cause delays.

Ballast/slops, etc. mixed with any chemicals to be tested by the Refinery before discharge.

Any ballast/slops, etc. not accepted have to be discharged for owner's account. Advance notice to be given.

Restriction on concurrent loading, discharging, ballasting, deballasting. Max. back pressure at ship's manifold:

No concurrent loading, discharging, ballasting, deballasting is allowed unless the two systems are entirely separate. Should a discharging ship require to reduce her freeboard due to weather or hard arm/hose limitation, she will be required to stop all cargo operations while ballast is taken on. The responsibility for ensuring remaining cargo is not contaminated by water rests with the ship. Maximum back pressure at ship's manifold is 10.55 kg./sq.cm. (150 p.s.i.).

HOSES:

Grades of Cargo, Bunkers Handled, Connections and Lines:

Crude oil and most grades of clean and dirty products and pressurised LPG are handled at the terminal.

Berth No. 1: Crude oil is received/shipped via 4×12 in. fully counterbalanced hard arms with 12 in. ASA flanges. Maximum pressure at ship's rail 12 kg./sq. cm. (170 p.s.i.).

Clean products are handled through 2×10 in., dirty products through 1×10 in. and bunkers through 1×8 in. all fully counterbalanced hard arms. The 8 in. bunker arm can also be used for loading dirty products. LPG is handled through 1×3 in. hose or through 1×4 in. metal arm.

Berth No. 2: Dirty products are handled through 1×10 in. and 1×6 in., clean products through 2×8 in. all half hose half metal arms. Also 1×12 in. fully counterbalanced hard arm for clean products.

Berth No. 3: (Coaster berth). Dirty products are handled through 1×6 in., clean products through 1×6 in. and LPG through 1×4 in. all half hose half metal arms. LPG through 1×4 in. hard arm.

All flanges are to ASA Standard.

There is no vapour return on LPG.

There are no check (non-return) valves in the import lines; and, therefore, the contents of shore tanks which are situated on high ground will flow back into ship if allowed to do so.

The crude oil discharge rate is up to 10,000 t.p.h., 1 booster pump of 400 cu.m./hr. capacity is used on steam cracked naphtha imports.

MEDICAL: Medical attention and hospital facilities available.

DENSITY: 1017 – 1020.

FRESH WATER: Fresh water is available ex-jetty at a rate of 30 cu.m. an hour. Water is supplied by 2 in. hose and is metered. Cost is $1 per ton. Quality is good. Quantity required must be included in arrival cable.

Distilled Water: Distilled water is not normally available and can only be supplied with great difficulty. Maximum notice must be given. It is expensive.

FUEL: All main grades of bunkers, lubricants and hydraulic oils are available. Quantities and specification required must be included in the cable of advice of ETA. Lubricants and hydraulic oil are available in bulk as well as barrels.

FIRE PRECAUTIONS: Special safety regulation forms given when berthed.

GANGWAY/DECK WATCHMEN: Oil Pollution/Safety Inspector placed on board all vessels over 20,000 d.w.t.

CUSTOMS ALLOWANCES: 200 cigarettes or 200 gm. tobacco and 1 litre spirits and 1 litre wine for each man.

CONSULS: Denmark, Finland, France, Netherlands, Spain, Sweden and U.K. have representatives in Tonsberg. German F.R. Consul in Sandefjord. All countries represented in Oslo.

REPAIRS: All kinds of ship repairs can be undertaken by nearby ship yards. Service for radio, gyro, radar, echo sounder, data bridge, etc. available.

No ship may immobilise its engines, steering gear, etc. while alongside the Slagen jetty.

DRY DOCKS: Available at Horten about 5 miles from Slagen, max. size is about 60,000 d.w.t.

SURVEYORS: S.G.S., Caleb Brett, N.V., Lloyd's Register and A.B.S.

REPATRIATION: Changes of crew are available. Transportation by train and plane from Oslo (about 100 km. from Slagen), passenger lines from Oslo. Hotel accommodation available at Tonsberg (10 km. from Slagen).

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

HOLIDAYS: New Year's Day; Maundy Thursday; Good Friday; Easter Monday; Labour Day (1st May) 17th May; Ascension Day; Whit Sunday and Whit Monday; Christmas 25th and 26th: Discharging/loading all days.

POLICE/AMBULANCE/FIRE: Ambulance/Fire local at the refinery. Police Tonsberg 13355.

TELEPHONES: Available at berth.

GENERAL: *Safety:* A safety inspector will attend the vessel upon arrival and complete a safety check-list.

Oil Pollution, Clean-Up Facilities: A very serious view is taken of oil pollution of Norwegian coastal waters and every effort must be made to prevent it.

Should oil pollution occur, it must be reported and tackled at once.

The terminal has supplies of oil dispersant, spill booms, sawdust and two mechanical removal devices. These will be used to combat any oil pollution and costs will be billed to the ship if the ship is responsible for the pollution.

Garbage and Waste Materials: Container for this purpose is placed on the jetty.

Firefighting Facilities: The terminal is equipped with comprehensive fire fighting facilities including an 800 cu. m./hour fire pump, a supply of foam compound, remote-controlled elevated foam cannons and other fire hydrants, hoses, etc. A tug which stands by the terminal has fire fighting facilities and other fire fighting tugs can be summoned in an emergency.

Shore Steam, Shore Electricity: Normally not available.

Stores: All regular ship's stores, laundry and other similar facilities can be supplied by local ship's chandlers.

Tank Cleaning: Tank cleaning and gas freeing are not allowed alongside.

SHORE LEAVE: Shore passes are issued on board on arrival and each crew member must be in possession of a shore pass before he goes ashore.

AUTHORITY: Esso Norge a.s., P.O.Box 388, N-3101 Toensberg, Norway. *Tel:* 033-77300, 033-77557. *Telex:* 70558 ERAFF N. *Cables:* Essoship. *Contact:* Sigard Erdal, Harbour Master.

AGENCY: Several shipbroker firms are established in Tonsberg and may be called upon as acting Agents for owners and/or charterers. Esso Norge a.s., S & T Dept. act as general Agent for all Exxon owned tonnage, cable address "Essoship" Tonsberg.

SOLA (Tananger): 58.55 N. 05.35 E. (See Plan)

LOCATION: A/S Norske Shell's Sola Refinery is situated at Risavika Bay, on the West coast of Norway just West of Stavanger.

The Refinery, which was started up in 1968, has a capacity of about 3,000,000 tons a year of crude oil.

The Refinery's berthing facilities consist of a "T" head jetty situated in the following position: Lat. 58° 55′ 28″ N., Long. 5° 34′ 45″ E. The area is covered by a special issue of Norwegian Coast Chart No. 475.

There is another jetty in Risavika Bay at Shell's Tananger Depot in position: Lat. 58° 55′ 42″ N., Long. 5° 36′ 10″ E. This jetty is used for loading G.P.'s when Refinery Berth is occupied.

DOCUMENTS: One Crew List. Agent supplies Customs Forms on arrival.

PILOTAGE: Pilotage to and from Risavika Bay is by law compulsory for Norwegian registered vessels of 100 g.r.t. and above, arriving from a foreign port, and for non-Norwegian registered vessels of 50 g.r.t. and above.

A combination of accommodation ladder and pilot ladder must be used. Pilot hoists are not acceptable, and the Pilot may refuse to board if one is offered.

The Sea Pilot, who also acts as a Harbour Pilot, will board arriving vessels off Feistein Lighthouse in position: Lat. 58° 50′ N., Long. 5′ 26′ 30″ E.

The pilot vessel is painted white with orange superstructure and marked "LOS". The Tananger Pilot Station maintains a 24 hours VHF watch on Channel 16. The pilot vessel can operate on VHF Channels 6, 8, 12, 13, 14, 16, 20, 21, 22, 24, 25 and 26. Channel 16 is used for calling, then Channel 13 which serves as the communication channel.

The pilot vessel is also equipped with marine radio telephone on 2182 kHz.

The Pilot, whilst serving on board incoming and departing ships, carries a walkie talkie, operating on VHF Channel 11. With this he maintains communications with mooring boats, refinery jetty supervisor and tugs.

APPROACHING: *Additional signals to be exhibited and sound signals to be used by certain tankers navigating in waters outside Risavika off Stavanger:* Tankers of 40,000 d.w.t. or above when navigating within the territorial waters to and from Risavika shall in accordance with Rule 28 of the International Regulations for Prevention of Collision at Sea show:

By Night:

In addition to the lights prescribed in Rule 23 of the International Regulations for Preventing Collisions at Sea, and when these lights are exhibited, three red lights in a vertical line one over the other so that the upper and the lower lights shall be at the same distance from and not less than 2 m. above or below the middle light.

The lights shall be carried where they can best be seen and visible all round the horizon at a distance of at least 2 nautical miles.

By Day:

A black cylinder of not less than 0.6 m. in diameter and a length of not less that twice the diameter where it can best be seen.

In addition to the above signals these vessels may, whether by day or night, use a sound signal consisting of one long blast followed by two short blasts.

The above lights, shape and sound signal indicate that the vessel using them is hampered in her ability to comply with the Steering and Safety Rules of the Regulations and that other vessels must not impede her safe navigation.

ANCHORAGE: Vessels awaiting berth will anchor between the islands of Rott and Kolnesholmen if weather permits. Larger vessels will anchor N.W. of Feistein Lighthouse. Pilot will give instructions on VHF.

RESTRICTIONS: Vessels over 40,000 d.w.t. normally berth and unberth during daylight hours only. The depth of water off the jetty is 16.8 m. (55 ft.). At Tananger Depot Jetty depth is 11.6 m. (38 ft.).

MAX. SIZE: Max. d.w.t. 240,000 tons. Max. draft 52 ft. Max. LOA 1,100 ft.

RADIO: Whilst engaged in Scandinavian coastal trade Masters are requested to keep the Agent well advised of changes in ETD/ETA.

All wireless/radio telephone messages are transmitted via Rogaland Radio (Tel: 04-67 30 11). Traffic lists being sent at following times (GMT). 0705, 1105, 1505, 1905 and 2305 hrs. This list is also sent out on VHF Channel 16. Working frequency of the radio telephone is 1729 kHz.

While the vessel is moored, the main transmitter may not be used.

VHF: Refinery VHF radio station: Risavika Port Radio. Calling: Channel 16, working: 11 – 12. The vessel can maintain communication with Rogaland Radio during stay in port over VHF radio.

TUGS: Tugs are normally available. Additional tugs up to 2,700 b.h.p. (35 tons bollard pull) are normally available for larger vessels. The tugs are stationed in Stavanger and must be ordered in advance by the ship's Agent.

One or two mooring boats will be provided for both arrival and departure operations together with portable VHF and radio sets to enable radio links to be maintained between the ship, mooring boats, tugs, Pilot and Jetty Supervisor.

BERTHING: Vessels normally berth port side to, if weather permits them to turn on arrival. The decision on this matter will be taken by the Master after consultation with the Pilot.

For product carriers the decision on which side to berth to, should also be based on consideration of matching of vessels and shore loading and bunkering arrangement. It is therefore important that all information regarding cargo and bunker connections are sent to the refinery prior to arrival.

At Tananger Depot jetty, vessels normally berth port side to, but they may swing and berth starboard side to.

MOORING: It is vitally important for the safety of vessels, terminal and personnel, that vessels are securely moored and maintained in the desired position at all times.

Mooring lines should be kept tight and fore and aft springs doubled to prevent any undue movement at berth caused by changes in wind strength or direction, current or tidal stream flow or surging action created by a ship passing the berth. Any undue movement in berth, or breaking away, may result in the rupture of cargo arms, manifold fitting or loading arm and cause spillage of oil and serious fire hazard.

Excess strain on moorings resulting from variations in level between ship's deck and shore mooring point due to vertical movement caused by tide and cargo handling shall be adjusted at regular intervals to avoid damage to the fender system of the jetty.

Note particularly the vertical movement of the Yokohama fenders which must be adjusted from time to time to avoid the above mentioned damage.

All vessels fitted with self-tensioning winches should apply brakes once vessel is moored and *not* leave in self-tensioning position.

Immobilisation of Engines: While alongside the vessel must be able if required to move under its own power. Permission to immobilise ship's boilers, main engine, steering machinery and other equipment essential for manoeuvring should be requested from the refinery beforehand, and if granted, would be given on the conditions that emergency towing wires are correctly positioned forward and aft and a suitable tug is on standby in Tananger Harbour or within Risavika Bay.

CARGO OPERATIONS: *Connecting:* The jetty is equipped with all metal loading arms. It should be noted that the arms cannot be crossed, simultaneous loading of different products and/or bunkering will often depend on the matching of ship's and shore's line-up. This matter should be studied before vessel is berthed as in some cases reversal of the side of berthing may facilitate efficient handling. Vessels are recommended to discuss this matter over the radio with the refinery before planning the berthing operation.

Suitable adaptor pieces should be fitted to the ship's manifold prior to arrival to match ship's with shore's flanges.

Line-up for the jetty's loading/discharging arms: (No. 9 arm to seaward)

Size	12″	12″	12″	12″	8″	8″	8″	8″	8″	6″	4″	3″
Arm No.	1	2	3	4	5	6	7	8	9	LPG[5]		
Unleaded Mogas							★					
Premium Mogas								★				
Regular Mogas								★				
JP4 – Kero							★					
Gasoil						★	★		★			
Diesel Oil						★	★		★			
Bunker Gas Oil					★						★[1]	★[4]
Bunker Fuel Oil	★	★	★	★	★							
Fuel Oil	★	★	★	★	★							
Crude Oil	★	★	★	★								
Ballast Water	★	★	★	★	★				★[2]			
LPG										★[3]		

Notes:

1. 4 in. hose connection.
2. White oil ships only.
3. 3 in. vapour return connection.
4. Lub oil 3 in. hose connection.
5. LPG arm in front of No. 6 arm.

All flanges are ASA flanges, 150 p.s.i. series.

Pitch circle diameter for the bolts of these flanges are:

8 in.:	11.75 in.	(298 mm.)
12 in.:	17 in.	(432 mm.)

White and black products are blended in the pump stations of the refinery directly into the ships.

Crude oil is received into underground storage or, in about 20% of the time, into a tank above ground.

Ship's crew will be responsible for hose/arm coupling duties. Jetty operator will present the hoses or arms to the ship so that connection may be made to manifold, but it is emphasised that labour beyond this point, will not be available from the shore.

Leakage of oil or vapour from unused cargo/bunker connections constitutes a hazard and all such connections on ship and on shore should be properly blanked.

Loading/Discharging Rates: Max. receiving rate for crude is 14,000 cu.m.p.h. Max. loading rate for fuel is 2,000 cu.m.p.h., White products 800 – 1,200 cu.m.p.h. and LPG 400 cu.m.p.h.

De-Ballasting: The ballast tank ashore is sometimes limited in the quantity it can receive. For this reason and in order to minimise the de-ballasting time Masters are requested to arrive with the minimum quantity of ballast on board consistant with weather conditions prevailing.

De-Ballasting into the harbour is prohibited.

Max. ballast receiving rate is 1,500 cu.m.p.h. Max. back pressure 150 p.s.i. Max. ballast receiving capacity 16,000 cu.m.

Cargo Handling: When discharging or loading the vessel should fly signal flag "B" from sunrise to sunset, and from sunset to sunrise show an all round red light.

The Master must take all necessary precautions to prevent the vessel's tanks from overflowing during loading/tank transfers. The Master will be held responsible for damages incurred when an oil spill may be traced back to his vessel.

A refinery operator will supervise jetty/ship operations and should maintain contact with the Officer nominated by the Master to supervise the ship operations. Safe and efficient operations will depend on good co-operation at this working level, if it fails both the ship and shore are entitled to suspend operations until the situation is corrected.

POLLUTION: The refinery is located in an area which is very sensitive to pollution matters. Waters are confined and used by fishermen for keeping live fish and lobster, and any emission of smoke is visible over a wide range.

The utmost care must be exercised in handling cargo, ballast and bunkers in order to avoid oil spilling into the sea. Deck is not to be washed down during stay in port.

Scuppers must be plugged.

Scrubbing of the ship's underwater hull is not allowed.

Discharge of ballast or contents of bilges into the harbour is prohibited. Contaminated water should be retained on board or discharged into the shore de-ballasting system.

Sea valves to be shut and sealed during loading/discharging.

Emission of smoke must be kept at a minimum by proper combustion control.

Soot blowing of boilers is prohibited.

Disposal of garbage into the sea is prohibited.

In case an oil spill occurs the refinery should be notified immediately.

Violation of Norwegian Regulations on Pollution is likely to result in prompt action from local Authorities.

Oil Spills: Oil spills caused by ships moored alongside refinery jetty will be *the ship's* responsibility, but the refinery will take action as if the spill had been caused by the refinery, and the refinery personel will immediately start trying to limit the spill, and start cleaning up. All such work will be for the ship's account.

If an oil spill occurs while alongside the Tananger Depot jetty, the refinery will give assistance if asked by the person in charge of the Depot.

Several contractors will be available with manpower, in case refinery duty personnel and maintenance crew are insufficient.

The following equipment is available at refinery and Depot:

1 × 25 ft. boat with tank for oil. This boat can be used for setting of oil booms, towing, etc.

2 × 14 ft. boats.

1 vacuum truck at refinery.

Boats, barges and vacuum trucks are available from contractors.

1 aluminum raft.

1 Komara skimmer.

1 Skimmy skimmer.

Pumps and ejectors.

1,600 m. oil booms.

EXPANDI, WSA and T.T.

Oil absorbent.

Oil dispersents are available but will *not* be used without special permission from the Norwegian Authorities.

FRESH WATER: Available.

FUEL: All grades of gas oil, diesel oil, heavy fuel oil, and lubricating oil available, at the jetty.

Notify agent of requirement with original ETA.

MEDICAL: Hospital at Stavanger, 16 km. away.

DENSITY: Average density off the jetty is 1028.

REPAIRS: Hot work such as welding, burning etc. is only allowed on board if covered by a written permit issued by the refinery.

SURVEYORS: *Cargo Inspectors:* Caleb Brett Tel: 04-69 79 23 (after hours 04-59 18 45); SGS Tel: 02-41 61 42 or 04-56 41 04.

Classification Societies: Det Norske Veritas Tel: 04-50 60 00 (after hours 04-59 85 53, 04-59 76 88, 04-42 19 62). Lloyd's (at Bergen) 05-12 20 02.

AIRPORT: International airport at Sola, 3 km. away.

GANGWAY: For vessels over 30,000 d.w.t. a shore gangway will be available at the refinery jetty.

Vessels of less than 30,000 d.w.t. must be prepared to provide their own gangway while moored at the jetty. A safety net should be suspended underneath this gangway.

EMERGENCY CO-ORDINATION CENTRE: At Sola Airport.

TELEPHONES: For personal calls, a coin operated telephone connected to Stavanger exchange is placed in a kiosk at the refinery gate.

If requested by the ship, a telephone (No. 04-69 67 69) is available to be placed onboard. The Agent reads the meter and charges the ship. Before departure the ship's crew must place the telephone in the jetty house.

The jetty operator will keep contact with the control room by means of walkie talkie.

Also see "General".

SHORE LEAVE: See "General" – "Shore Transportation/Regulations".

GENERAL: *Stores:* It should be noted that all deliveries to the ship while handling cargo is limited by restrictions against approach by both powered road vehicles and powered boats, suitable arrangements for alternative transport, manpower, etc. must be made in advance.

Shore Transport/Regulations: Ship's crew will only be allowed to pass through the refinery area when possessing a pass. The pass will be handed to the Master by the Agent on arrival for issue by the Master. Photography in the refinery is prohibited. Intoxicated persons are not allowed inside the refinery gate.

Unauthorised or intoxicated persons are not to be admitted onboard. Such persons may be ordered from the jetty if their condition should so warrant. Vessels are expected to undertake their own precautions in respect of intoxicated persons appearing on deck. Ship's personnel are not allowed to walk through refinery.

For taxi see "Useful Telephone Numbers".

Motorised road traffic on the jetty and powered boats are not allowed to approach the vessel nearer than 50 m. (distance measured from the loading manifold and/or open hatches of ship's tanks into which oil is loaded/discharged) while cargo operations are in progress.

Launch Service: Whilst at anchor in the roads no launch service is available. In an emergency the Master can contact the pilot station or the pilot vessel, for transport to the shore.

Services: Services such as stores, laundry, doctor, etc. should be ordered in advance through the agent.

Steam and compressed air are not available at the jetty.

Current: Risavika being confined waters, currents are usually small, however influenced by strong winds. Highest measured velocity 0.7 knots in entrance of bay, setting to the North.
Tide: The average tidal range is 0.7 m. (2 ft. 3 in.). Highest observed level +1.6 m. and lowest −0.11 m.
Wind Directions: Prevailing winds are: April – October: Northwesterly. October – April: Southwesterly.
Emergencies: From the "Bird's nest telephone" fire/emergency can be reported by dialling 188 (control room). On the "railing" is attached a press button for remote stopping of all refinery's loading pumps, particularly intended for quick stoppage of loading operations in case of emergency onboard.
Fire: The refinery is equipped with fixed and wheeled equipment for applying foam, water and dry powder to fight fires. Floating firefighting equipment is normally not readily available, but some tugs and supply vessels are equipped with water pumps, monitors and foam making equipment and may be called in on short notice.
Safety: No loading/discharging to take place between the refinery and a tanker berthed at the jetty, if another tanker comes alongside for transfer of cargo.

The refinery representative will when boarding the ship bring the safety check list for joint examination with the ship's Officer in Charge.

Useful Telephone Numbers:

Taxi: Tananger Drosjeholdeplass:	04-69 61 92
Sola Drosjeholdeplass:	04-65 04 44
Stavanger Drosjeholdeplass:	04-52 60 40
Weather Bureau, Sola Airport:	04-65 10 00 04-65 15 54
Scandinavian Airlines System Inf. Office:	04-52 15 66 04-65 04 41
Braathens SAFE Airlines ticket office:	04-65 10 66
Tananger Pilot Sation:	04-69 91 70
Police:	04-53 40 00
Norwegian Gov. Welfare:	04-54 25 83
A/S Norske Shell	04-69 30 00

Long distance and international calls must be arranged on the ship's VHF radio via Rogaland Radio, or on telephone supplied by Agent upon request.

AUTHORITY: A/S Norske Shell, Postboks 144, N-4051 Sola, Norway. *Tel:* Stavanger 04-693000. *Telex:* 33021 Sraff N. *Contact:* O. Torstrup, Port Captain.

STAVANGER: 58.58 N. 05.44 E. (See Plan)

DOCUMENTS:
Declaration of Health, 1 copy.
List of Goods, including stores, 1 copy.
Crew's Lists of Goods liable to duty, 1 copy.
List of Goods, 2 copies for each port of discharge. All Bills of Lading to be entered with marks, numbers, weight and quantity.
General List of Goods, 1 copy.
A form for entering ports of call where discharging will take place.

PILOTAGE: Vessels approaching from sea and desiring a Pilot should order at least 24 hours' notice in so far as possible and confirm arrival at pilot station at 2 hours' notice. Advance order can be sent in following manners:

(a) From ships at sea over radio direct to Sea Pilot watch or over VHF radio-telephone calling Channels 16 and 13.
(b) From ships at sea over coastal radio station to pilot station or pilot office.
(c) From broker or shipowner over telephone to sea pilot station or to any pilot office which will immediately convey report to sea pilot station.

Vessels lying in port and desiring Pilot will order Pilot from nearest pilot office during its office hours and if possible at 4 hours notice.

Vessels approaching from sea as well as vessels lying in port shall when making an advance order state name and destination of vessel and whether 1 or 2 Pilots are desired.

Pilot will be despatched to ships in accordance with advance orders, and vessels are therefore requested to comply with foregoing rules as far as possible in order to avoid having to wait for Pilot.

International provisions for summoning Pilots by signal flags or blue lights, etc., are still in force, but should in future be used as a supplement to radio communications or as sole communication in emergencies.

Pilots are taken on board at:

A. Feistein Lighthouse, 19 miles South of Stavanger, or in bad weather 6 miles North of lighthouse under the lee of Rott.

B. Skudefjorden, 18 miles N.W. of Stavanger. In bad weather under the lee of Karmoy or Kvitsoy, as weather permits.

Pilot boats are stationed at Tananger and Skudesneshavn. No boats are out cruising.

ANCHORAGE: Found in the Byfjord, 3 nautical miles North of Stavanger. Pilots recommended when anchoring.
MAX. SIZE: Greatest depth alongside goods and passenger quays is 30 ft. Also see "Berthing" and "Tankers".
RADAR/VHF: Radar service for inner harbour.
TUGS: Normally used.
BERTHING: The port has a total quay length of approximately 3,400 m. The coasting and the foreign trade is located in the East and West harbour, comprising the 3 main quays namely the Bekhus Quay, the Skagen Quay and the Strand Quay. These quays measure 2,000 m. with depth alongside 24 ft. – 30 ft.
Cranes: 1 × 50 tons, 1 × 28 tons and 1 × 3 tons travelling cranes, 3 × 20-70 tons mobile cranes and 1 × 100 tons floating crane.
Grain: Rogaland Felleskjop: Capacity for storing 72,000 tons quay length 190 m., depth alongside 48 ft. Discharging capacity 200 t.p.h. Stavanger Havnesilo: Storing capacity 140,000 tons, quay length 170 m., depth alongside 51 ft. Discharging capacity 500 t.p.h.
Roll-on/Roll-off: Traffic is offered by a ferry berth constructed for ships up to 10,000 g.r.t., depth alongside 30 ft.
Containers: Sandvika Container Quay. Length 170 m., depth alongside 40 ft., also fitted with Ro/Ro facilities for vessels up to 20,000 g.r.t.

Offshore oil-exploration bases: Aker-Norsco A/S at Risavik, Tananger, North Sea Exploration Services A/S, Dusavik, Stavanger.

STEVEDORES: No particular ETA advices required.
MEDICAL: Agents should get advance notice to secure speedy service. Hospital facilities available.
TANKERS: *Esso Norske:* 3 nautical miles South of central harbour, depth alongside 45 ft.
Norske Shell A/S: See "Sola".
Norske Braendselolje A/S: 7 nautical miles South of the central harbour.
Texaco Oil: 1 nautical mile from central harbour, depth alongside 25 ft.
A/S Kulimport: Coal and coke. Length of wharf 116 m., depth alongside 27 ft.
DENSITY: 1025, no change in relation to state of tide.
FRESH WATER: Delivered from quay or from water boat.
FUEL: Normal grades available without advance notice.
GANGWAY/DECK WATCHMEN: Not required.
OPENING/CLOSING HATCHES: Usually carried out by crew.
CUSTOMS ALLOWANCES: Tobacco: 20 cigarettes per day. Wine and/or Spirit: 2 bottles of wine or 1 bottle of brandy.
CONSULS:

	Tel. No.		*Tel. No.*
Belgium	555334	Greece	525030
Denmark	57001	Iceland	532025
Finland	532030	Netherlands	520080
France	527500	Sweden	527500
German F.R.	522594	United Kingdom	525801

REPAIRS: All kinds of repairs available.
DRY DOCKS: One, 545 by 75 by 24 ft. Marine slipway up to 1,500 d.w.t.
AIRPORT: 10 km. from port. Airlines to Continent, U.S.A. and U.K.
TIME: GMT plus 1 hour in Winter. Summertime GMT plus 2 hours from 6th April 1980 – 15th September 1980.
HOLIDAYS: 1st January; Maundy Thursday; Good Friday; Easter Monday; 1st May; 17th May; Whit Monday; Christmas Day and Boxing Day.
POLICE/AMBULANCE/FIRE: Police Tel. 534000; Ambulance 531000; Fire 522111.
TELEPHONES: There are arrangements for placing telephones on board.
SHORE LEAVE: No restrictions.
AUTHORITY: Stavanger Havnevesen, Nedre Strandtg. 51, 4000 Stavanger, Norway. *Tel:* (04) 507800. *Cables:* Stavanger Havnevesen. *Contact:* O. Smith-Jacobsen, General Manager. Bergsvik Edgard, Harbour Master.

SUNNDALSORA: 62.41 N. 08.36 E.

DOCUMENTS:
2 Crew Lists
2 Passenger Lists
Declaration of Health
General Declaration
Cargo List
Cargo Manifest
Personal Effects List

PILOTAGE: Telegraphic address of Pilot Station: "Grip Pilot". Description of Pilot Boat: White hull, orange wheelhouse, length 43 ft., speed 18 knots. The Pilot has to be taken on board 1 nautical mile East of Grip Lighthouse (Lat. 63° 14′ N., and Long. 07° 37′ E.), no alternative area. No anchorage for vessel awaiting Pilot.
ANCHORAGE: Poor conditions in the Sunndalsfjord. Possible to anchor at Freifjord and Bolgsvaet West of Kristiansund.
RESTRICTIONS: No restrictions.
MAX. SIZE: Max. draft 31 ft. 06 in.
HEALTH: "Declaration of Health" to be issued before arrival.
RADIO: Rogaland Radio and (20–30 hrs. before arrival) Alesund Radio.
VHF: For inner harbour on Channel 16 (normally in use when mooring).
RADAR: No Port Radar Service.
TUGS: Not available in Sunndalsora. Nearest Alesund, steaming time about 12 hours. Tugs only required when Pilot/Master find it necessary.
BERTHING: Length of quay: 1,007 ft. Max. draft 31 ft. 06 in. Load/discharge normally by shore equipment.
CRANES: 1×10 tons, 1×15 tons and 1×25 tons.
BULK CARGO FACILITIES: 1 grab crane 400 t.p.h.
SPECIALISED CARGO HANDLING FACILITIES: None.
BRIDGES: None.
STEVEDORES: No notice required.
MEDICAL: Doctors available in Sunndalsora. Nearest hospital: Kristiansund or Molde (60 miles from Sunndalsora).
TANKERS: The usual rules for tankers to be complied with.
DENSITY: Average density of the port 1019 – 1020.
FRESH WATER: Available.
FUEL: Available in smaller quantities (from Mobil and BP).
FIRE PRECAUTIONS: No specific precautions.
CONSULS: None. Nearest at Kristiansund: Denmark, Finland, France, German F.R., Netherlands, Portugal, Sweden and United Kingdom.
REPAIRS: Only small repairs can be carried out.
DRY DOCKS: None.

SURVEYORS: Nearest Kristiansund (Norske Veritas) and Bergen (Lloyd's).
GANGWAY/DECK WATCHMEN: Not required.
HATCHES: Opening/closing to be carried out by crew.
CUSTOMS ALLOWANCES: Quantity permitted for each Crew member to be held out of bond: 200 cigarettes or 200 gm. tobacco, 1 bottle spirit and 1 bottle of wine.
CARGO GEAR: Load/discharge effected by shore gear.
REPATRIATION: Crew changes and repatriation possible.
AIRPORT: Kvernberget (Kristiansund) and Aro (Molde), both at 60 miles distance and with regular air service.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: May 1st and May 17th. No cargo work can be arranged on those days.
POLICE/AMBULANCE/FIRE: Police Tel.: 91166, Ambulance (doctor) 91346, Fire 001, Lifeguard 91933.
TELEPHONE: In harbour office.
SERVICES: Not available. Nearest Kristiansund or Molde.
SHORE LEAVE: Crew members allowed ashore.
IDENTIFICATION CARDS: Sunndal Verk a.s. demands identification cards, obtained from Dock Master.
REGULATIONS: Forbidden to take photographs within boundaries of Sunndal Verk a.s.
DELAYS: Usually no delay if notice of arrival given to Agent in good time.
GENERAL: No cargo on Saturday and Sunday.
DEVELOPMENTS: No developments expected in foreseeable future.
AUTHORITY: Sunndal Verk A/S, 6600 Sunndalsora, Norway. *Tel:* (073) 93000. *Telex:* 15222 Sual N. *FAX:* (073) 90086. *Cables:* Sunndal Verk, Sunndalsora. *Contact:* Eilif Gran, Tel: (073) 93330.

SVOLVAER: 68.14 N. 14.35 E.

DOCUMENTS:
2 Crew Lists.
2 Passenger Lists.
Custom Documents.
Stores List.
Manifest.
Bill of Lading.
Ship's Papers.
Valid Derat Exemption Certificate.
Ships arriving from Finland, Denmark, and Sweden need Customs permit from last port.
PILOTAGE: Vessel approaching Svolvaer may call Bodo Radio, 2182 kHz. by radio asking for Svolvaer harbour pilot. Telegraph ETA Svolvaer 24 hours before arrival. All communication with harbour pilot boat on VHF Channels 16 and 12. Exact position for pilot boat is Lat. 68° 11′ 13″ N., Long. 14° 36′ 00″ E. Different types of pilot boats are used, but usually the pilot boat flies pilot flag. No special requirements for boarding, except usual pilot ladder.
ANCHORAGES: Boundaries for safe anchorage Lat. 68° 13′ 36″ N., Long. 14° 37′ 00″ E.; Lat. 68° 13′ 48″ N., Long. 14° 36′ 12″ E. Depth in area about 25 fathoms.
MAX. SIZE: Max. permissible length 520 ft., draft 30 ft. in the Oil Harbour.
HEALTH: Pratique is automatic, given by radio. Vessel only required fly yellow flag. In event of any suspected disease or fever on board call Svolvaer Harbour Master by telephone via Bodo Radio (2182 kHz).
RADIO: Call Bodo Radio by R/T 2182 kHz or VHF-Channel 16. Svolvaer Harbour office VHF-Channel 16/12.
TUGS: Small tugs available.
STEVEDORES: All information regarding gangs, loading and discharging rates can be obtained by calling ship's Agent in Svolvaer via Bodo Radio.
MEDICAL: Hospital facilities available.
TANKERS: There are discharging berths for oil carriers in Svolvaer. Diameter of lines at berth 6 in. and 8 in.
DENSITY: Density in port is 1025.
FRESH WATER: Delivered from piers by hose with a rate of about 20 t.p.h.
FUEL: All kinds of fuel oil are available.
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: Normally done by ship's crew but can also be done by stevedores.
CERTIFICATES: Ship's Register.
CUSTOMS ALLOWANCES: Tobacco: Quantity for each crew member is 20 cigarettes or 20 gm. tobacco and 20 leaves cigarette papers per day. Wine and/or Spirit: For crew members 1 bottle spirit or wine (0.75 litre) and for each passenger 0.25 litre.
IDENTIFICATION CARDS: Not required.
CONSULS: Swedish and Italian consulates.
REPAIRS: Nearly all types of engine and deck repairs. Both for internal combustion and turbine engines.
DRY DOCKS: No dry docks in port, only slipways for ships up to 240 ft.
REPATRIATION: Facilities for effecting crew changes are available.
AIRPORT: 4 km. from town. Nearest main airport is Bodo.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: Official holidays stated by Norwegian Government.
POLICE/AMBULANCE/FIRE: Tel. 70177.
TELEPHONES: Telephones on pier.
SERVICES: Compass adjusting.
GENERAL: Svolvaer is the main port in Lofoten Island, and a typical fishing harbour. Radar, Decca, Radio and VHF service, and all other electrical services can be executed.
AUTHORITY: Vagan Havnevesen, P.O.Box 121, 8301 Svolvaer, Norway. *Tel:* 088-71011. *Cables:* Harbourmaster. *Contact:* Eilif Mosand, Harbour Master.

THAMSHAVN (Thamshamn): 63.20 N. 09.52 E.

DOCUMENTS:
Health Certificate.
Crew List.
Passenger List.
Store list.
Bill of Lading.
3 Manifests.
PILOTAGE: 24 hours prior arrival Grip, Pilots can be ordered by cable to "Loskontoret, Kristiansund N." or by telephoning Kristiansund Pilot Office, tel. 74333 during office hours, and 74595 private. Pilots can also be ordered by radio through Kristiansund Radio or through Agents. Use Channel 16 for VHF., contact to Kristiansund Pilot Office, or pilot boat. Pilot boat equipped with radio telephone 2182, carries red and white flag during day and white and red light during night.
ANCHORAGES: Vessels should anchor 150 m. off piers where depth between 26 m. and 30 m. Anchoring between piers and buoys is not permitted.
MAX. SIZE: Depth at Import Quay 24 ft. MLW. Max. LOA 200 m. Max. Beam 23 m.
RADIO: Vessel should route ETA cables to Agent through Rogaland Radio or Aalesund Radio.
TUGS: No tugs needed or available.
BERTHING: Berthing only between 0700 hrs. and 2300 hrs.
CARGO HANDLING: 1 berth is specially equipped for handling of concentrates in bulk. Ships of 28 ft. draft can load at the pyrites quay. Loading by conveyor. There are no berths equipped for containers or Ro/Ro traffic, nor berths handling liquid chemicals or LPG carriers.
STEVEDORES: Arranged by Agent. No ETA to stevedores necessary.
MEDICAL: Hospital facilities available.
FRESH WATER: Available, delivered at berth.
FUEL: No fuel supplies available. Nearest port for such supplies is Trondheim.
GANGWAY/DECK WATCHMEN: Not compulsory, and this service is left to the discretion of the Master.
OPENING/CLOSING HATCHES: By crew.
CERTIFICATES: Ship's Register.
CUSTOMS ALLOWANCES: Each crew member allowed 20 cigarettes on shore. When leaving ship, 200 cigarettes and 1 bottle of wine and 1 bottle of spirit permitted.
IDENTIFICATION CARDS: Not required.
CONSULS: Nearest consul available in Trondheim.
REPAIRS: Only small repairs can be carried out.
DRY DOCKS: None.
AIRPORT: Nearest airport, Vaernes, 62 miles N.E. Served by regular airlines with several flights per day.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: January 1st; Easter Holidays; Ascension Day; Whit Monday; 1st and 17th of May; December 25th and 26th.
POLICE/AMBULANCE/FIRE: All mentioned services obtained through Agent or by contacting local telephone exchange.
TELEPHONES: No facilities for placing telephones onboard ships.
BANKS: Forretningsbanken A/S, 7300 Orkanger, Norway.
SERVICES: Provisions available.
SHORE LEAVE: Permitted.
AUTHORITY: (Private Wharves): Thamshavn Verk A/S and Co., P.O.Box 10, 7301 Orkanger, Norway. *Tel:* (074) 80400. *Telex:* 55628. *FAX:* (074) 81930. *Cables:* Thavn, Orkanger. *Contact:* Arne Lauritzsen, Shipping Manager.

TONSBERG: 59.16 N. 10.25 E.

DOCUMENTS:
Ship's Register.
Crew Lists.
Customs Manifest for each crew member (cigarettes, spirits, etc.).
Store List. Cargo Papers. Health Certificate.
PILOTAGE: Sea Pilots obtainable from Ferder Pilot Station. Pilots normally take vessels to berth.
ANCHORAGES: Good anchorages at Byfjorden and Traela; anchorages for large vessels are found in Narverodbukten and Husoyflaker.
MAX. SIZE: 18 ft. draft for East entrance and 24 ft. draft for West entrance. Up to 30,000 tons in ballast.
RADIO: Cable ETA via Tjome Radio prior arrival.
TUGS: Available.
BRIDGE: 1 bascule bridge over East entrance. Working days open 0730 to 2000 hrs., holidays 0900 to 1700 hrs. Signal 1 long and 2 short to open bridge. Opening can also be arranged by VHF Channel 12. Horizontal clearance 88 ft., depth 22 ft.
MEDICAL: Medical, dental and hospital facilities available.
DENSITY: Occasionally brackish.
FRESH WATER: Available from hydrants at quays.
FUEL: Delivered by lorry.
GANGWAY/DECK WATCHMEN: Available on request.
CUSTOMS ALLOWANCES: 200 cigarettes or tobacco and 1 bottle spirits, for each man.
CONSULS: (Vice-Consuls) France, Netherlands, Finland, Denmark, Sweden and Spain.
REPAIRS: All types of repairs available.
DRY DOCKS: At Kaldnesmek, a shipyard for total length of 515 ft. The shipyard is building ships up to about 50,000 d.w.t.

REPATRIATION: Available by train from Tonsberg, plane and passenger lines from Oslo (about 100 km. from Tonsberg). Fairly good hotel accommodation in Tonsberg.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: New Year's Day; Maundy Thursday; Good Friday; Easter Monday; Labour Day (1st May); 17th May; Ascension Day; Whit Monday, Christmas (25th and 26th December). Mostly no working.
POLICE/AMBULANCE/FIRE: Police 13355; Ambulance 15388; Fire 16000.
TELEPHONE: Lines available on board vessel.
SERVICE: Mostly all services or equipment available from Tonsberg or Oslo. Inform prior arrival.
SHORE LEAVE: Crew members allowed to go ashore.
DELAYS: Ice during January and February, but port kept open by ice breakers.
AUTHORITY: Tonsberg Havnekontor, Nedre Langgate 36, N-3100 Tonsberg, Norway. *Tel:* 033-18000. *Cables:* Tonsberg Havnekontor. *Contact:* Reidar Sturod, Harbour Master.

TROMSO: 69.39 N. 18.58 E.

DOCUMENTS:
Trade Certificate.
Tonnage Certificate.
Certificate of Nationality.
Number of Crew and Passenger Lists.
Customs and Health Documents.
Manifest and Bills of Lading.
PILOTAGE: Telegraphic address of pilot station is "Tromso Pilot Station". Order latest 12 hours before arrival.
ANCHORAGES: Depth at anchorage is 15 m. – 35 m.
RESTRICTIONS: No restrictions on night entry.
RADIO: Harstad Radio, all VHF Channels.
VHF: Harbour Office Channel 16 and 12. 20 miles from town.
TUGS: If necessary, join vessel North or South end of harbour.
BERTHING: Ships can berth at quay, depths up to 34 ft., lengths of quay 100 m. – 300 m. New harbour at Breivika, equipped for container handling, truck 20 tons.
BRIDGES: Tromso Bridge, 60 m. wide, 36.5 m. high.
Sandnessundet Bridge, 120 m. wide, 41 m. high, min. dredged depth 10.4 m.
STEVEDORES: Ordered by Agent. No ETA to stevedores necessary.
MEDICAL: Master to advise by radio prior to arrival if medical attention required aboard. Hospitals in town (University).
TANKERS: There are 4 oil berths:
Norol – 20 ft. depth.
Mobil Oil – 21 ft. depth.
Esso – 31 ft. depth.
Shell – 39 ft. depth.
FRESH WATER: Most berths supplied by pipe-line.
FUEL: All grades available.
FIRE PRECAUTIONS: Ordinary restrictions.
GANGWAY/DECK WATCHMEN: Available but not compulsory.
OPENING/CLOSING HATCHES: Crew allowed to open and close.
CUSTOMS ALLOWANCES: Crew members 200 cigarettes or 20 cigars or 100 gm. tobacco, and 1 bottle spirits.
IDENTIFICATION CARDS: Not required. Seaman's Book.
CONSULS:

Belgium	81074–82417	Italy	85040-82604
Denmark	81148-82310	Netherlands	85040-82604
France	81144-85663	Sweden	85090-81336
Germany F.R.	81088-85665	U.K.	84050-82395

REPAIRS: All engine and instrument repairs. Shipbuilders' yard.
DRY DOCKS: 4 slipways 80 ft. – 222 ft. 1 small dock.
AIRPORT: 5 km. from town.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: No work on New Year's Day and Christmas Day.
POLICE/AMBULANCE/FIRE: Police 85080; Ambulance 81113; Fire 004. Port Officer 82537-86824, Mobile Tel. (090) 15728.
SURVEYORS: Lloyd's, N.V.
SHORE LEAVE: Permitted.
REGULATIONS: Max. speed in port waters 6 knots. Ships size passing Tromso Bridge max. 7,000 tons displacement.
DELAYS: Minor delays only.
SERVICES: Compass adjusting, stores, etc.
AUTHORITY: Tromso Havnevesen, P.O.Box 392, Kirkegt. 1, 9001 Tromso, Norway. *Tel:* (083) 81191-83374. *FAX:* (083) 58529. *Contact:* Captain Knut A. Mortensen, Harbour Master.

TRONDHEIM: 63.25 N. 10.24 E. (See Plan)

DOCUMENTS: See "Bergen".
PILOTAGE: Pilotage is compulsory for all foreign flag ships. The pilot boats lie in Kristiansund Harbour, where a VHF watch is kept. The pilot station listens on Channel 16. When vessel is about 10 miles from Grip Lighthouse, contact should be made. Vessel will be given instructions as to where and how the Pilot will board. The Pilot boards from a 20 m. long, white boat marked 'LOS', capable of doing 10 knots. In bad weather vessel will be advised by VHF regarding Pilot procedures. The pilotage service is provided by the Norwegian Government. All the Pilots are recruited from the Norwegian Merchant Navy after they have obtained a 1st Mate's Licence.

Note: When approaching Trondheim from the North, ship will be in coastal trade with Pilot on board. Vessel will enter the Trondheim Fjord East of Halten Lighthouse.
RESTRICTIONS: The fjord is very deep and easy to enter. The channel is clear and ice-free throughout the year.

There are no speed limitations from Grip to Trondheim, but consideration should be given to small ships and the narrow water.
MAX. SIZE: Controlled by depth at berth.
HEALTH: Call "Havne Kontoret" by radio for Free Pratique.
RADIO: Orlandet Radio (also VHF).
VHF: Harbour Pilot: Havne Kontoret, Tel: 520233 and 528015 or VHF Channel 16.
TUGS: Arranged by Agent.
BERTHING:
Pier 1, Ro/Ro berth length 442 ft., depth 26 ft.

River Harbour	Quays	1–10	Depth alongside up to 26 ft.
Outer Harbour	Quays	12–18	Depth alongside up to 18 ft.
Inner Harbour	Quays	19–24	Depth alongside up to 20 ft.
Ilha Pier	Quays	26–32	Depth alongside up to 34 ft.
Pier II	Quays	A–D	Depth alongside up to 30 ft.

Rosenborg Quay	Length	630 ft.	Depth alongside up to 16.5 ft.
Ladehammer Quay	Length	760 ft.	Depth alongside up to 16.5 ft.
Strandvei Quay	Length	1190 ft.	Depth alongside up to 16.5 ft.
Transit Quay	Length	780 ft.	Depth alongside up to 29 ft.
Coal Crane Pier	Length	700 ft.	Depth alongside up to 23 ft.

BRIDGES: Skansen Bridge, Jernbanebrua, and Brattor Bridge divide Inner Harbour.
STEVEDORES: Available.
MEDICAL: All facilities available.
TANKERS: Berth Depth 9 m. – 12 m. Total length of quays 270 m. easy access. Mobil, Esso, Norsk Olje (Norol) and Shell installations.
Berth Approaches: The main effect on ship handling in the berth approaches comes from the current, which always sets along the jetty. Current direction depends on the tide.
Berthing: All tankers usually berth with port side alongside and with tugs on the hook. An anchor may be used under unfavourable conditions. With wind Force 8 and above from an Easterly direction, vessels will not be allowed to go alongside due to risk of damage to ship and jetty.
FRESH WATER: By hose from quay.
FUEL: Available.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle spirit, 1 bottle wine allowed each man.
IDENTIFICATION CARDS: Required.
CONSULS:

Belgium	Tel: 919 100	Ireland	
Costa Rica		Italy	Tel: 532 080
Denmark	Tel: 52 4080	Netherlands	Tel: 529 590
Finland	Tel: 520 025	Portugal	
France	Tel: 53 2600	Spain	Tel: 52 6240
Germany F.R.	Tel: 52 1100	Sweden	Tel: 96 7722
Greece	Tel: 29 771	U.K.	Tel: 96 8211

REPAIRS: All types of deck and engine repairs are possible.
DRY DOCKS: None.
REPATRIATION: Can be arranged.
AIRPORT: 35 km. away from port. Regular airlines.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
HOLIDAYS: Christmas (2 days); Easter, (4 days); 17th May; Ascension Day; Whitsun, (2 days).
POLICE/AMBULANCE/FIRE: Police 514411 or 000; Ambulance 940800 or 000; Fire 521505 or 000.
SHORE LEAVE: Allowed.
DEVELOPMENTS: Plans for reconstruction of Outer Basin with new bridges planned.
AUTHORITY: Trondheim Havnevesen, Havnekontoret, Havnegt 15, 7000 Trondheim, Norway. *Tel:* 528015. *Contact:* Einar Kjolsrod, Harbour Master.

VADSO: 70.04 N. 29.45 E. (See Plan)

DOCUMENTS:
Trade Certificate.
Tonnage Certificate.
Certificate of Nationality.
Number of Crew and Passenger Lists.
Customs and Health Documents.
Manifests and Bills of Lading.
PILOTAGE: Vessels approaching from sea and desiring Pilot should order at 24 hours' notice and confirm arrival to Pilot Office, Vadso, at 2 hours' notice. The advance order can be sent over Coastal Radio Station Vardo to Vadso Pilot/Harbour Master in Vadso, Tel: 085-51235 or 085-56904 (after 1500 hrs). Vadso Harbour Pilot on VHF Channel 16, working Channel 12.

The Harbour Pilot usually boards vessels within 0.5 miles of the harbour entrance, in fine weather conditions.
ANCHORAGE: West of harbour between Vadsoya and Lille-Vadsoy in depths of 16 m. – 20 m. The holding ground is good.
RADIO: Call via Vardo Coastal Radio Station.
VHF: Harbour Master's Office on Channel 16, working Channel 12, during working hours (0800 hrs. – 1500 hrs. local time).
TUGS: 1×6 ton bollard pull. Larger tugs can be ordered if necessary.

BERTHING: Traffic/Cargo Quay: Length 250 m., depth alongside 7.0 m. Fishing Port: 4 quays, length 65 m. – 105 m. Depth alongside 5.5 m. – 6.5 m.
STEVEDORES: Vadso Skipsekspedisjon A/S, 9800 Vadso. Tel: 085-51395 or 085-51137, Telex: 64222, Fax: 085-51314. Stevedores arranged by vessel's Agent.
TANKERS: There is a discharge berth for tankers. Max. size 2,500 g.r.t. Length of jetty 125 m. Depth of water 18 ft.
FRESH WATER: Fresh water is available at the Traffic Quay, rate 100 t.p.h. Water is also available at the fishing port (Quay No. 1) at a rate of 30 t.p.h. at the fuel berth. No water barge available.
FUEL: Fuel oil, gas oil and diesel oil available direct from oil-installation of Norske Shell A/S at Vadsoya. Tel: 085-51869.
CONSULS: Finnish Vice-Consul in Vadso. Tel: 085-51225.
REPAIRS: Minor deck and engine repairs possible. No dry docks or slipways available.
GANGWAY/DECK WATCHMEN: Watchmen not necessary. If required, the Master may use ship's crew as gangway and deck watchmen.
CUSTOMS ALLOWANCES: Allowance for 10 days: 200 cigarettes or 200 gm. tobacco and 0.25 litres of spirits per crew member.
AIRPORT: Vadso Airport is 4 km. from the Traffic Quay and Vadso town centre. There are 4 flights a day to Oslo.
TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.
POLICE/AMBULANCE/FIRE: Police, Tel: 085-51271 or 085-51593. Ambulance, Tel: 085-51691 or 085-51693 or 085-51692; Mobile Telephone, Tel: 090-16145 or 090-97200. Fire, Tel: 085-51122.
SERVICES: Ship chandlers are available for supply of provisions and arranging laundry. If service required for vessels instruments, this can be arranged by contacting Varanger Skipselektronikk A/S, Tel: 085-52299.
AUTHORITY: Vadso Havnevesen, P.O.Box 43, 9801 Vadso, Norway. *Tel:* 085-51235. *Telex:* 085-6422. *FAX:* 085-51314. *Contact:* Kare Roald Nilsen, Port Director (Private Tel. 085-56904).

NOTES

Please also advise Shipping Guides Ltd.

Sultanate of Oman

GENERAL:

ANCHORING:
Notice to Mariners No. 1/84:

All vessels anchoring South of Latitude 24° parallel and within the territorial waters of Sultanate of Oman (12 miles), for the purpose of waiting for orders or in order to carry out engine repairs, should anchor within Lat. 23° 40′ N., and Long. 58° 10′ E. and Long. 58° 27′ E.

No vessel shall anchor in any other part of Mina Al Fahal except when actually loading/discharging on SBM buoys. All cargo ships should call at Mina Qaboos when handling cargo or at anchorage West of Fahal.

Signed: Superintendent General Maritime and Ports Affairs.

Notice: Received from ship's Agent.

Vessels can anchor within Lat. 23° 53′ N. and the coastline of Oman and between the meridians of Long. 58° 10′ E. and Long. 58° 28.5′ E., which is West of Fahal Island. On arrival contact Mina Qaboos Port Control on VHF Channel 16 or 14 for reporting arrival and request anchoring position giving vessel's particulars. Vessel not permitted to lower life-boat or unauthorised boats to lie alongside. Agent requires 5 copies Crew List, 1 Stores List, 1 Crew Declaration List and 1 Vaccination List. Distance to anchorage being such we have to commute by tugboat hired at O.R. 55/– per hour or part thereof. Launch service possible only during daylight hours and weather permitting. Following particulars of vessel should be furnished in advance:

1. Flag/port of registry.
2. D.w.t./g.r.t./n.r.t./call sign.
3. Ports of call including last port and next port.
4. Nationality of Master and Crew.
5. Whether any dangerous/hazardous cargo on board.

Vessels on arrival should be cleared through Immigration, Customs and Health by an Agent.

MINA-AL-FAHAL: 23.39 N. 58.32 E. (See Plan)

DOCUMENTS: Required on arrival (provided by vessel):

6 copies Crew List (2 copies required by Pilot).
2 copies of Vaccination List.
2 copies Stores List.
1 copy Bonded Stores List.
1 copy Personal Effects List.

All other necessary papers will be supplied on arrival by the Berthing Master.

P.D.O. employ the "Early Departure Procedure" for completion of cargo documentation.

PILOTAGE: The Berthing Master will board incoming tankers off Fahal Fairway Buoy, as directed by VHF. Tanker should arrive at this position, make a good lee, and take way off.

Harbour steaming is deemed to start at this point. The port side derrick should be rigged and crew standing by at the derrick ready to lift the mooring equipment from the launch when the Berthing Master comes on board.

The pilot access should be in good condition, clean and ready on the lee side. Tankers of 70,000 tons Summer deadweight and above in ballast or partly loaded condition should have either a pilot hoist or a combination of accommodation ladder and pilot ladder rigged.

The Berthing Master's Assistant, acting as shore representative, stays on board vessels at the SBMs. Vessels are requested to provide him with proper accommodation and meals. As Oman is a Muslim country the appropriate type of food, i.e. no pork or pork products, should be supplied. Any failure to comply with this request may result in delays to the vessel and complications with the local authorities.

Also see "Ship Supply Service".

ANCHORAGES: *Tankers:* Before anchoring tankers should contact Fahal Control on VHF Channel 12 for a designated anchoring position.

In all cases tankers are required to anchor at least 2 miles West of Fahal Island and at least 2 miles clear of the Omani coastline.

Cargo ships:

i. Fahal Is. Lt. Brg. 340° × 2.0′
ii. Fahal Is. Lt. Brg. 345° × 1.6′
iii. Fahal Is. Lt. Brg. 000° × 1.7′
iv. Fahal Is. Lt. Brg. 015° × 1.6′

Ships proceeding to an anchorage within the Port Area should pass North of Fahal Island and under no circumstances enter the prohibited area unless instructed to or accompanied by a Mina al Fahal Berthing Master.

RESTRICTIONS: Open sea approaches.

All tankers calling at Mina-al-Fahal must be equipped with inert gas system in good working order and arrive with all cargo tanks fully inerted.

MAX. SIZE: No length limitation. Draft up to 96 ft. Tankers up to 600,000 tonnes loaded displacement can be accommodated.

HEALTH: When advising ETA, include in message whether any sickness on board.

Port Health Officer, Immigration and Customs board with Agent; Port Officer will carry out any necessary vaccinations. 'Q' flag to be flown until Pratique granted.

RADIO/VHF: Initial ETA should be sent 72 hours before arrival and confirmed 48 hours and 24 hours before arrival. ETA messages should be sent to "Petromar Muscat" via Muscat Radio (call sign A4M). If no contact can be established with Muscat Radio, the message should be sent through an alternative coast station such as Bahrain Radio.

The message should contain the following information.

(*a*) ETA in local time and date in plain language to avoid multilation
(*b*) Whether there is any sickness on board.
(*c*) Whether any crew require medical treatment and very briefly th nature of the complaint.
(*d*) Last port of call.
(*e*) Quantity of cargo required.
(*f*) Quantity of bunkers required.
(*g*) Time required for deballasting prior to loading.
(*h*) Maximum loading rate.
(*i*) Maximum draft on arrival.
(*j*) Maximum draft on departure.
(*k*) Confirm cargo tanks fully inerted.
(*l*) Confirm vessel fitted with "Tongue Type bow stopper".

VHF communications should be established as soon as possibl calling Fahal Control on Channel 12. The range is about 80 miles to th Northward but only 20 miles to Eastwards because of screening b mountains. Working Channel is Channel 12 and is manned 24 hours day by either Fahal Control or Fahal Pilots. The station may call vesse on Channel 16, although a permanent watch on Channel 16 will *not* b maintained. The mooring launches are also equipped with Channels 1 and 12 but mooring operations are carried out using UHF radio sets.

TUGS: None available and not required.

BERTH DESCRIPTION: 3 single buoy moorings with floating hos strings. SBM lights are Iso.W.

SBM No. I: Crude export/residue export.

This buoy is served by 2×30 in. submarine crude lines each 10,300 long.

The floating crude hoses are 2 × 870 ft. long × 20 in. reduced 16 in. for manifold connection. Same hoses are used for fuel oil import these lines having a displacement connection ashore for emptying th crude content.

Max. sailing draft allowed at this SBM is 64 ft.

SBM No II: For crude and bunker export and is served by 1×40 i submarine crude line and 2×10 in. submarine fuel oil lines eac 13,980 ft. long. The floating crude hoses are approx. 2×990 long×20 in. reduced to 16 in. at manifold connection. Bunkering is b a single 12 in. floating hose. Maximum size ship 600,000 tonnes loade displacement and max. draft of 96 ft.

SBM No. III: Products imports only (Gas Oil, Mogas, Jet-A1) served b 2×10 in. submarine hoses, length 8,003 ft. Floating hoses are 660 in length with 8 in. manifold connections. Max. size of ship is 125,00 tonnes loaded displacement and max. sailing draft allowed at this SB is 46 ft.

Loading/Discharge Rates:

Crude oil export by gravity only; maximum rate 9,000 t.p.h.

Long residue export by gravity only; maximum rate 3,000 t.p. (SBM 1).

Bunker fuel export by pump; maximum rate 500 t.p.h.

Fuel oil import (SBM – 1); max. rate 3,000 t.p.h. (Max. B.P. 10 kg sq. cm.)

White product import (SBM 3); maximum rate 500 t.p.h.

Coastal Tanker Mooring:

There are also 2 inshore berths for coastal tankers.

The maximum draft permissible is 4.5 m. Vessels moor using bo anchors forward and ropes to a buoy on each quarter. The hose usually connected to the vessel's stern discharge line.

Approximate density of water: 1026.

Coastal tankers should appraoch the berths from Westward of Fah Island.

BERTHING: Vessels berth head to buoy. Tankers berthing at SBM mu be fitted with "Tongue Type" bow stoppers for mooring to 3 in. chai Connection at SBM-III is to two 12 in. plaited nylon lines 150 ft. long; SBM-I and SBM-II to two 15 in. plaited nylon lines 150 ft. long. A suitab messenger rope should be provided by ship. An Assistant Berthin Loading Master will advise in all mooring and hose connectio operations which are carried out by ship's staff.

HOSE CONNECTIONS: Hose connections will be made on the port si amidship. Crude loading ships should fit 2 × 16 in. reducers. The derric be rigged with equipment in good condition and have a minimum SW of:

5 tonnes for vessels up to 65,000 Tonnes Loaded Displacement.

7 tonnes for vessels 65,000 to 230,000 Tonnes Loade Displacement.

10 tonnes for vessels over 230,000 Tonnes Loaded Displacement.

Hose connection and disconnection is carried out by the ship's cre with advice from the Berthing Master's Assistant.

LOADING: Every 2 hours ship-shore check has to be made via th Loading Master.

BALLAST: No facilities for reception of dirty ballast.

Tankers should arrive with clean ballast, lines and pumps and no should be released into the sea.

MEDICAL: Medical and dental treatment can be arranged via loc agent. Radio advise with details 24 hours before arrival. Patients ar taken ashore through Mina Qaboos.

REPAIRS: It is not permitted to immobilise main engines whilst moore to the SBMs; under no circumstances should the propeller be turned the ahead direction.

DENSITY: Approximately 1026.

FRESH WATER/FUEL: Fresh water and gas oil available by barg "Nizwa". 24 hours notice required. Barge capacity, fresh water 28 tonnes, minimum quantity 100 tonnes at approximately £5 per tonne Gas oil 270 tonnes.

A wide range of marine lubricants is available and is supplied in drums At least 24 hours' notice is required for supplying lubricants.

Also see "Shipmaster's Report".

REPATRIATION: Crew changes are possible at Mina-al-Fahal provide the Agent receives at least 7 days' notice giving full particulars embarking/disembarking crew, such as full name, nationality, place an date of birth, passport/seaman's book number with date and place issue and expiry date, and also destination for repatriation of disembarking crew members, to enable Agents to obtain necessary permits (visas) and arrange air passages.

Notice for crew change to be given as soon as possible as the issue of N.O.C's. (Non Objection Certificates) can take up to 7 days.

N.B. If the information required as above is received on a Thursday or a day preceding a holiday, the time mentioned of 72 hours will not be sufficient as no permits can be obtained from the Authorities during holidays.

TIME: GMT plus 4 hours all year round.

SHORE LEAVE: Not possible.

SHIP SUPPLY SERVICE: The Port of Mina al Fahal is operated by Petroleum Development Oman, and they have 3 launches, 2 of which are on 24 hours' duty every day. These launches would assist in a marine emergency, but are normally used for ships loading at Mina al Fahal. Mina al Fahal Pilots keep watch on VHF Channel 12.

SERVICES: There are 24-hour laundry facilities. Stores (fresh, frozen and bonded) are available, but at least 24 hours notice is required.

NOTICES: *Circular No. 9/85:* Prohibited Area Off Mina Al Fahal.

All vessels leaving or entering Mina Qaboos should stay well clear of the prohibited area off Mina Al Fahal.

Masters are required to pass at least 1 nautical mile to the Eastward of the Mina Al Fahal Fairway Buoy on arrival and departure.

Charts affected: B.A. 3522, 2851, 2869.

Signed: Acting Superintendent General, Maritime and Ports Affairs.

GENERAL: *Liquor.* Trading in liquor strictly prohibited and no alcoholic drink should be offered to Arab nationals.

SHIPMASTER'S REPORT: October 1987.

Fresh Water: Available by waterboat at a cost of Rial 2/ton. Minimum quantity 50 tons, maximum 250 tons, to be ordered 24 hours beforehand if possible. No transportation cost charged. Delivery possible 7 days a week. The quality of the water is very good.

Fuel: Gas oil is available by barge. Minimum order, 50 tons.

AUTHORITY: Petroleum Development Oman L.L.C., P.O.Box 81, Muscat, Sultanate of Oman. *Tel:* 677230, 677231, 677232. *Telex:* 5212 On Muscat. *Cables:* Petro Muscat. *Contact:* Captain P. Branton, Port Captain, or Duty Berthing Master.

AGENT: See "Port Qaboos" (Mutrah).

PORT QABOOS (Mutrah): 23.37 N. 58.34 E. (See Plan)

Muscat has ceased to be a commercial port and instead vessels now call at Port Qaboos.

PORT LIMITS: From the level of HWS at a point near Ras Kab at Long. 58° 33′ 12″ East on a line due North to Lat. 23° 41′ North;

Thence due East to Long. 58° 35′ 36″ East;

Thence due South to Jazirat Muscat;

Thence in a generally Southerly direction by the line of HW on the Western side of Jazirat Muscat to Pinnacle Rock;

Thence S.W. to the Easternmost point of Siraz al Gharbiyah;

Thence by the line of HWS to the point of commencement.

DOCUMENTS:

Required on Arrival:

Clearance from Last Port.
4 copies Crew List.
1 copy Maritime Health Declaration form with ports of call from commencement of voyage.
3 copies of Crew Personal Declaration List.
3 copies of Ship's Bonded Stores List.
2 copies Vaccination List.
6 copies Passenger List.
3 copies In-Transit Passenger List.

To be Airmailed in Advance:

3 copies Hatch List, and other details of vessel (Flag, Draft, LOA, Last Port, Next Port, G.R.T., etc.).
3 Hazardous Cargo Lists.
3 Heavy Lift Lists.
5 copies Cargo Stowage Plans.
9 copies Cargo Manifest.
1 copy Freight Manifest.
2 copies Bills of Lading.

Customs and Immigration Requirements for Vessels Entering and Leaving Ports: 24 hours' advance notice, cargo manifest and passenger list, crew personal declaration. Cargo vessel is allowed to enter and complete Immigration formalities alongside except if ordered otherwise.

PILOTAGE: Compulsory for vessels other than exempted vessels as defined in Port Rules and Regulations and Port Tariff.

Arrival notice requirements: ETA, LOA, draft 72 hours, 48 hours, 24 hours before arrival. Berthing and unberthing – 24 hours a day.

MAX. SIZE: Depth of entrance channel 34 ft. at LAT. Also see "Berthing".

Circular: Issued by the Harbour Master.

As you are aware in the past the Port has limited the length of vessels to 750 ft. in order to maintain its high standard of safety.

Recently we have been approached by some Shipping Agents requesting us to admit ships considerably over 750 ft. with a draft of 30 ft.

The port is keen to attract more ships, if possible, with greater lengths and drafts than currently permitted. Upgrading of facilities is underway although will take some time to complete.

Meanwhile, on an experimental basis, ships up to 785 ft., after suitability clearance from Harbour Master's Department, will be permitted to use the Port. Agents must apply for initial suitability clearance for every vessel over 750 ft. and up to 785 ft. (240 m.) in length, under their Agency.

For your guidance only, vessels with good engines and extra manoeuvrability powers of bow thrust and stern thrust will be given clearance.

APPROACH: Port Qaboos has a very open approach with a deep water anchorage. The hilly coast is radar conspicuous. Lights on Fahal Is., Jazirat Muscat and the Breakwater make night navigation fairly simple. There is no appreciable current once inside the bay.

Shipmasters calling at Mina Qaboos are advised that vessels navigating under their charge and approaching Mina Qaboos whether from East or West must first pass 5 cables Eastwards of Mina Al-Fahal Fairway Buoy before making final approach to Mina Qaboos Anchorage or Breakwater Head for picking up Pilot.

In no case should they keep close-in to Khawr Muscat Entrance or remain waiting in the Prohibited Anchorage Area.

ANCHORAGES: Vessels should anchor Northwest of the breakwater within the area enclosed by the following perimeters:

1. A line extending 060° (T) from Port Qaboos Breakwater.
2. The Westernmost extremity of Port Qaboos.
3. A line extending 325° (T) from Muscat Forward Leading Light after crossing perimeter (1).

All areas described above are clearly defined in the current edition Admiralty Chart No. 2869.

Prohibited Anchorage Area: The area enclosed by the following perimeters is a Prohibited Anchorage Area:

North Boundary:	The parallel of Lat. 23° 41′ 00″ N.
East Boundary:	The meridian of Long. 58° 36′ 00″ E.
South Boundary:	Sultanate of Oman coastline.
West Boundary:	Muscat Forward Leading Light bearing 145° (T) from seaward and Port Qaboos Breakwater Light bearing 240° (T) from seaward.

Severe penalties are imposed for vessels infringing the above prohibited area.

HEALTH: International Health Regulations apply. Pratique may be granted by the Port Health on receipt of following information:

1. All Cholera vaccinations valid.
2. Valid Derat Certificate.
3. No sickness on board.
4. No sickness at last Port.
5. Country of origin and date of departure.

Port Health normally board alongside and issue Health Form. They require:

1 Crew List.
1 Vaccination List.
Valid Derat Certificate.
Last Port Clearance.

RADIO: Port Control can be contacted on VHF Channel 16 or 14. 24 hour operation, including Fridays and holidays.

Notice of Arrival: Vessels should advise their Agents of their ETA, LOA and draft. The Agents will in turn inform Port Services Corporation Ltd. ETA from Masters of vessels should also be cabled direct to Harbour Master, Port Services Corporation Ltd. (Telex No. 5233 ON) 72, 48 and 24 hours in advance of arrival.

Three hours prior to arrival off the port, vessels should contact Mina Qaboos Signal Station on VHF Channel 16 and working Channel 14 and request berthing instructions, etc.

VHF: Muscat Radio on Channels 1, 3, 4, 16, 26 and 27.

Also see "Radio"

TUGS: Six tugs available. Two new Voith Schneider propulsion tugs of 3,000 h.p. each and four twin screw tugs, 1,400 h.p., 1,600 h.p., 1,900 h.p. and 2,400 h.p. Tugs normally join vessel 1 mile N.N.W. off breakwater light.

BERTHING: There are 9 deep water berths, 3 coaster berths and 1 berth for launches. The berths vary in length from 76 m. to 228 m. and are sheltered by a breakwater on one side and cliffs on the other.

Supporting the berths are 9 modern transit sheds facing broad uncluttered aprons, providing both covered and open storage space. Two berths front directly on to large open areas ideally suited for rapid discharge of containers and oversized units requiring direct delivery.

Berth	*Length*		*Depth at LAT*		*Max. draft*
No.	(ft.)	(m.)	(ft.)	(m.)	(ft.)
1	600	183	41	12.5	34
2	600	183	41	12.5	34
3	750	228	32	9.8	31.5
4	600	183	30	9.1	30
5	600	183	30	9.1	30
6	650	198	30	9.1	30
7	600	183	30	9.1	29.5
8	600	183	30	9.1	28
9	450	137	13	4.0	13
10	500	152	13	4.0	13
11	600	183	30	9.1	30
12	250	76	10	3.1	10
13	500	152	7	2.2	7

Berths Nos. 1 and 2, 4, and 5, 7 and 8 are "in line", therefore larger vessels can occupy part of a second berth when necessary.

Transit Sheds and Cold Storage Facilities: 9 transit sheds and 1 cold store adjacent to the port, capacity of cold store 3,000 tonnes plus cool rooms, blasting facility and ice making plant. Facilities for electrical connection of refrigerated containers with Kheops and Wilco Plugs.

SPECIAL HANDLING FACILITIES: Vessels carrying bagged cement can only be accepted for discharge providing their LOA does not exceed 500 ft. (152.4 m.) and draft 29 ft. (8.84 m.).

Grain Silos: Capacity 60,000 tons supplied by quayside underground conveyor from the berth. In conjunction, 2 km. from the port, a highly automated mill produces various flour and animal feed products for local consumption and export.

The port has modern container and Ro/Ro handling equipment, including a Mafi-type roll trailer system, backed up by mobile cranage of up to 150 tons capacity and heavy fork-lifts.

The container terminal is equipped with 2 highly sophisticated 35 ton gantry cranes supported by 5 heavy duty forklifts. The terminal has a large storage yard to accommodate about 2,200 TEUs.

Containers are also accepted from self-sufficient vessels. Containers are transported by trailers and handled in stacking area by mobile crane or forklift truck. Reliance Mercury Tractors of 160 b.h.p. with Mafi-type trailers are available for Ro/Ro vessels. LASH and BACAT service.

CRANES: 2 gantry cranes (IHI) – 35 tons under spreader at Berths No. 4 and 5. 12 mobile cranes 3 tons – 25 tons (rated) and 1 mobile crane 70 tons and 1 mobile crane 150 tons, 57 fork lift trucks 3,000 lb. – 10,000 lb., 8 fork lifts 35 tons and 2 fork lift trucks 25 tons, 7 tractors and 36 trailers available.

There are no fixed quay cranes.

STEVEDORES: The labour position is fair, except in the date-picking season (June to August).

Landing rates: Bagged cargo 4/600 tons per day; general 200 tons per day; timber 100 – 150 tons per day during fair weather provided no congestion on jetty and if cargo stowed in more than 3 hatches.

Working Hours – Conventional:

1st Shift Saturday-Wednesday:	0700 – 1500 hrs. (with half-hour break, which will be adjusted amongst the gangs).
Thursday:	0700 – 1400 hrs. (without any break).
	1400 – 1900 hrs. (overtime if requested).
2nd Shift Saturday-Wednesday:	1500 – 2300 hrs. (with half-hour break, which will be adjusted amongst the gangs).
	2300 – 0300 hrs. (overtime if required).
Thursday:	No 2nd shift.
Fridays/Public Holidays:	Overtime (subject to availability of labour).

Container Terminal:

Day Shift Saturday-Wednesday:	0700 – 1500 hrs. (with half-hour break, which will be adjusted amongst the gangs).
	1500 – 1900 hrs. (overtime if required).
Thursday:	0700 – 1400 hrs. (without any break).
	1400 – 1900 hrs. (overtime if required).
Night Shift Saturday-Thursday:	2000 – 0600 hrs. (with half-hour break, which will be adjusted amongst the gangs).
Fridays/Public Holidays:	Overtime (subject to the confirmed arrival of container vessels).

Deliveries of Cargo – Conventional:

Saturday-Wednesday:	0700 – 1500 hrs. 1st Shift.
	1500 – 2300 hrs. 2nd Shift.
Thursday:	0700 – 1400 hrs. 1st Shift.

Container Terminal:

Saturday-Thursday:	0700 – 1900 hrs.

Note: Direct delivery of cargo will be as usual.

MEDICAL: Port Clinic and Government hospitals available.

CONSULS: Republic of China, Denmark, Egypt, France, Germany F.R., India, Iran, Iraq, Japan, Jordan, Korea, Kuwait, Norway, Pakistan, Qatar, Somali Democratic Republic, Sudan, U.A.E., U.K., U.S.A.

FRESH WATER: Available at all berths and at the anchorage, 72 hours' notice required for barge supply.

FUEL: Gas oil available at Berth Nos. 4, 5, 6 and 8 and at the anchorage by bunker barge owned by the port, 72 hours' notice required. Other fuels can be supplied by arrangement with Owner's Agent. Marine lubricating oils available.

SERVICES: Fresh and dry provisions from chandler. Limited availability of ship and engine room stores. Radio, radar and electrical repairs possible.

GANGWAY/DECK WATCHMEN: To be provided by vessel.

REPATRIATION: Is now possible if Masters give full particulars of the seamen to be repatriated by telegram at least 72 hours earlier. This also applies to embarking crew members. The 72 hours' notice is not enough in the case of a Friday, or any other holiday which falls in between.

Also see "Laying-Up".

CUSTOMS ALLOWANCES: Vessels will no longer be permitted to have free use of their stores (Tobacco goods, Alcohol, etc.) whilst in the confines of the port.

On arrival in port, an allowance will be given by the Customs Boarding Officer and the surplus stores will then be placed under Customs Seal.

The allowance will be:
200 cigarettes or 50 cigars or 250 gm. tobacco.
One bottle (1 litre) alcoholic spirit.
One bottle (1 litre) wine.
24 cans beer.
Various used personal effects such as radios, cameras, etc.

Should a vessel remain in port for more than 4 days, an issue of stores will be given upon request being made to the Customs Authorities.

These Regulations also apply to ships at the Anchorage.

SHORE LEAVE: Crews are only allowed ashore between the hours of 0700 – 1900.

GENERAL:

Ships Arriving at Port Qaboos:

Ships may approach Port Qaboos without a Pilot as far as the perimeter of the limits of the port. No ship shall proceed through the entrance to or from the port without the permission of the General Manager or the Harbour Master.

All ships, other than expected ships, shall be under the pilotage of a Pilot appointed by the Port Authority when underway within the limits of the port. The ship shall have rigged and ready for use a pilot ladder of modern pattern, in good repair and provided with reliable manropes. Such pilot ladder shall be well illuminated between dusk and daybreak.

No ship shall enter or leave Port Qaboos unless her draft marks are correctly shown and clearly visible.

Every ship shall at all times when entering, navigating in or leaving the port have both anchors ready for immediate use.

Ships proceeding to berth at the port premises shall have no list and shall be trimmed upright.

Before entering Port Qaboos every ship shall hoist the following flags: The ship's signal letters. The "Q" flag, International Code, unless the Port Health Officer has previously given Pratique. The "H" flag, International Code, denoting that a Pilot is on board. The "I" flag, International Code, if the ship is carrying passengers.

Until Pratique has been granted communication between ship and shore shall be made by: Flag hoist, using the International Code of Signals, Morse Code, by signal light, or radio-telephone on approved frequencies, which will be promulgated for use for such purpose.

Conduct: The Master or Owner of every ship shall be held directly responsible for the proper conduct and behaviour of the crew of such ship while in the port and for strict observance of the laws of the Sultanate of Oman, particularly those laws concerning the sale, transference or consumption of any narcotic or alcoholic or intoxicating drink of any kind.

Flags: Every merchant ship within Port Qaboos between the hours of sunrise and sunset shall fly her national flag and the national flag of the Sultanate of Oman.

Repairs: The Master of any ship wishing to carry out major engine repairs or adjustments, which will affect the mobility of the ship whilst in the port shall make written application to the Harbour Master to do so. The Harbour Master shall give his permission or otherwise in writing.

Safety of Ships and Persons: The Master of every ship anchored or moored in the port or berthed at the port premises shall, unless the Harbour Master concede some relaxation in this port rule, at all times retain on board sufficient crew to work or move the ship.

Ships Berthed or Anchored Within Port Limits: No person shall swim from any ship berthed at the port premises.

No person shall make fast or anchor any country craft or boat of any kind at any quay, wharf, pier or landing place or at any steps provided thereat in the port premises except with the prior permission of the Harbour Master.

Pollution: It shall be unlawful for any person, or corporation to deposit, place, or discharge into the waterways of Port Qaboos, either directly or through private or public sewers, any sanitary sewage, butcher's offal, garbage, dead animals, gaseous liquid or solid matter, oil, gasoline, residium of gas, calcium chloride, trade waste, tar or refuse or any other matter, which is capable of producing floating matter or scum on the surface of the water, sediment in the bottom of the waterways, or the odours and gases of putrefaction.

Vessels discharging ballast, oil from bilges or tanks or solid matter into the waters of Port Qaboos will be reported to the Pollution Control Officer and be subject to a fine of R.O. 500.00 for each offence, imposed by and payable to Port Qaboos. Such fine shall be in addition to any other fines, which may be levied for the same offence by the Sultanate of Oman.

Hygiene: The port provides garbage bins at various points for use by vessels. The use of these bins is compulsory and a charge for this facility will be made whilst the vessel is alongside.

Rat Guards: The use of rat guards on all mooring ropes and wires is compulsory whilst vessels are alongside. Vessels without their own rat guards will be required to hire from the Corporation.

Ships Leaving Port Qaboos: Port Rules applying to ships arriving at Port Qaboos apply equally, in so far as they are relevant, to ships leaving the port.

Merchant ships shall fly the "P" flag International Code, for 24 hours before sailing from the port.

The Port Authority may refuse to give the Master of any ship outward clearance, unless and until all charges due in respect of the ship and any penalties, to which the ship or her Master are due, have been paid or secured to the satisfaction of the Port Authority.

Transhipment: Due to the advantageous geographical location of Mina Qaboos outside the War Zone it provides very appropriate transhipment base for most shipping companies. Many international shipping lines are using Mina Qaboos as a base for their transhipment operation to the Arabian Gulf, Karachi and the Indian sub-continent.

Working of Cargo at Port Qaboos: Ships may be permitted to discharge or load cargo in the anchorage if a berth is not available at the port premises or if in the opinion of the Port Authority the ship's cargo is more suitable for handling to or from barges or lighters.

The Master or Owner of any ship shall be held responsible for any loss or damage arising from careless or improper slinging of cargo onboard such ship.

Any cargo, cargo-handling equipment or ship's gear, which may be dropped overboard shall at once be reported by the Master or appointed Officer to the Port Authority and shall be immediately recovered by the ship's personnel if it is reasonably possible so to do. Failing this, it may be recovered by the Port Authority at the ship's expense. The Port Authority shall not be responsible for any damage to or loss of cargo, equipment or gear so recovered.

The Master of every ship discharging or loading cargo in the port, whether at anchor or berthed alongside shall provide drinking water for all cargo handling labour and all other persons appointed and directed to be on board such ship in connection with the discharge or loading of cargo.

If the labour or transport allocated or engaged for the purpose of landing, loading or transhipping cargo from or to any ship is not fully continuously employed by reason of a fault or action attributable to such ship, the expenses incurred thereby shall be paid by such ship.

In the event of any accumulation of cargo or goods upon the quay or jetty or in a lighter for any cause that may appear reasonable to them, the Port Authority may require the ship discharging such cargo or goods to suspend or reduce the rate of discharge of such cargo or goods.

The Port Authority may refuse to permit cargo to be landed from any ship until suitable shed or open storage space or other accommodation is or becomes available for such cargo.

Delivery of cargo or goods shall not be deemed to have been made to the Port Authority until such cargo or goods have been brought into the port premises and until the Port Authority accepted delivery of such cargo or goods and have issued an official receipt therefor to the Master of the ship discharging such cargo or goods or to the ship's Agent or to any other person duly authorised so to do, conveying such cargo or goods to the port premises.

LAYING-UP: Vessels can anchor within the limit Lat. 23° 53′ N. and the coastline of Oman and between the parallels of Long. 58° 10′ E. and 58° 28.5′ E.

Port dues of 3 Baisa per g.r.t. per period of 7 days or part thereof is payable for lay-up anchorage at West of Fahal. Vessels on arrival should be cleared through Immigration, Customs and Health by an appointed Agent. Distance being such that Agents have to commute by hired tugboat (minimum 4 hours required for a trip and back). Launch service permitted only during daylight hours and weather permitting.

No vessel shall temporarily lay-up in the "Waiting Anchorage" for more than 3 months without the permission of the Harbour Master, Mina Qaboos.

No vessel shall temporarily lay-up without its full complement of crew and sufficient power to handle any emergency.

Crew Change: While anchored within Omani Territorial Waters crew changes can be effected through Mina Qaboos only and not from any other neighbouring country. Vessels are also not permitted to lower lifeboat or allow unauthorised boats to lie alongside.

For purpose of effecting crew changes Passport or Seaman Book particulars should be furnished in advance for obtaining Visas for crew to join/leave vessel. Issuance of Visas will take minimum 7-10 days. Particulars required are as follows:

Full Name.
Nationality.
Passport or Seaman Book Number.
Date of Issue.
Date of Expiry.

And only after obtaining confirmation that Visas are obtained can crew be sent to Muscat failing which they will not be permitted to land and will be deported at Owner's expense.

Mail/spare parts/provisions, etc. can be delivered to vessels at anchorage. Invoices should be attached along with spare parts arriving by air and consigned to: Master (vessel's name), c/o Agent, "Ship's Spares in Transit".

SHIPMASTER'S REPORT: January 1986.

Vessel awaiting orders: Authorities require vessel to drift or anchor at least 12 miles from coast. Good anchorage 12.5 miles to N.W. of the port using 7 shackles.

AUTHORITY: Port Services Corporation Ltd., P.O.Box 133, Muscat, Sultanate of Oman. *Tel:* 714001–6. *Telex:* 5203 Opsco On, 5233 Mqaboos On. *FAX:* 714007. *Contact:* Awadh Bin Salim Al Shanfari, The President. Captain Ahmed Said, Harbour Master.

AGENT: Gulf Agency Co. (Oman) L.L.C., P.O.Box 3740, Ruwi, Sultanate of Oman. Tel: Mutrah (968) 707000 (5 lines). After Hours 535802. Telex: 3664. ("Gacship ON"). Fax: 703609. Cables: "Confidence", Muscat. VHF Channel 16. Call sign "Confidence Muscat".

PORT RAYSUT (Salalah): 16.56 N. 54.01 E. (See Plan)

PORT LIMITS: Going on the level of HW, the water limits of the port are bounded by:

1. Crossing of coastline with Long. 54° 04′ E.
2. Then in the True South direction to Lat. 16° 55′ N.
3. And to the West the limits, follows the coastline interception with Lat. 16° 55′ N., and along the coast to the starting point.

DOCUMENTS:

5 copies of Crew Lists and Passenger List (if any).
2 copies of List of Personal Effects of crew and passengers.
2 copies of Ship's Stores List.
Valid Vaccination Certificate.
Valid Derat Certificate.
Last Port of Clearance.
Customs Documents.
5 copies of Manifest.
Ship's Papers and Ship's Certificates.
2 copies of Stowage Plans.
2 copies of Hatch List.
2 copies of List of Dangerous/Hazardous Cargo for Discharge.
2 copies of List of Dangerous/Hazardous Cargo in Transit.
2 copies of List of Heavy Cargo which requires special equipment.
2 copies of list of any Wine, Spirits and Narcotics or cargo of such nature on the vessel and its location or, in the absence of which, a nil return.
A Declaration of Type of Reefer Cargo.
An Application for Discharge Permit.

PILOTAGE: Compulsory for vessels of more than 150 n.r.t., except Port Authority craft and naval ships of Oman. Pilots wait near the East Breakwater, vessels are to proceed to the entrance of the harbour on request either from Pilot or Harbour Control. Pilot boat has a green hull with white superstructure and an Oman National Flag on the mast. Boats keep VHF radio watch on Channel 12. The entrance of the harbour is marked with a Buoy-Flashing Green light for a duration of 1 second in every 5 seconds.

ANCHORAGES: The Roads of Raysut offer an open sea anchorage with a sandy bottom. The depth at the Entrance Buoy is 13 m. and North-Eastward it increases, however anchorage position at present is given to all vessels upon reporting by VHF radio. Anchorage positions are set with 0.5 miles between each ship in a minimum of 10 m. of water for large vessels, less depth of water as required for coasters.

Anchorage Area:

1. Lat. 16° 57′ N., Long. 54° 04′ E.
2. Lat. 16° 55′ N., Long. 54° 04′ E.
3. Lat. 16° 55′ N., Long. 54° 02′ E.
4. Lat. 16° 57′ N., Long. 54° 02′ E.

RESTRICTIONS: Berthing and unberthing throughout 24 hours.

Prohibited Area: Within 2 square miles in front of the Royal Palace towards the sea is a prohibited area either for entry or for anchorage.

MAX. SIZE: Max. draft for cargo vessels is 9.5 m. and tankers about 12 m. Vessels will be brought to the berths regardless of the tide conditions since the port operates as a year round all weather port.

HEALTH: Quarantine procedures are followed and all ships upon arriving must fly flag "Q" until completion of quarantine procedures. Public Health requires certificates of vaccination for cholera and yellow fever. Derat Certificate also required.

RADIO: Muscat Radio or Bahrain Radio.

VHF: For advance ETA data the Harbour Control listens on 2182 kHz and works on 2023.5 kHz. VHF watch is kept on Channel 16 and other Channels available are 12, 10 and 6. The service is available around the clock. Area weather available on request.

Radio Muscat on Channels 16, 26 and 27.

RADAR: None available at present.

TUGS: Join vessels with the Pilots. 2 powerful tug boats (1,700 h.p. and 2,250 h.p.) of harbour/ocean going type, fitted with fire fighting facility, also 2 small mooring tugs equipped with 2 engines: 120 h.p and 220 h.p. respectively.

BERTHING: The harbour provides a quay of 522 m. with a depth of water 10 m. Also available: 200 m. length with 8 m. depth and 460 m. length with 4 m. depth. An oil terminal, dolphin type, 130 m. length with 12 m. depth. 1 ramp for small landing craft.

Berth No.	*Length* (m.)	*Depth* (m.)	*Permissible Draft* (m.)
1	173	10.0	9.5
2	173	10.0	9.5
3	173	10.0	9.5
4	200	8.0	7.5

Facilities: 1×2,000 ton bitumen tank on Berth No. 1.

CRANES:

2×15 ton capacity fixed quay-side cranes.

2×6 ton capacity fixed quay-side cranes. (Operated on Berths No. 1, 2 and 3).

1×35 ton capacity gantry crane for containers – operated on Berths No. 1 and 2.

1×150 ton rated mobile crane.

9 mobile cranes, rated capacities 12 tons – 58 tons.

1 forklift truck (container handling), capacity 35 tons.

23 forklift trucks, capacities 3 tons – 10 tons.

BARGES: 350 d.w.t. barge is available.

SPECIALISED FACILITIES: Ro/Ro services are carried out in the port. Such vessels must meet the standard requirements for entry to the berth. There are no bulk handling facilities.

BRIDGES: None.

STEVEDORES: Arrangements must be made through the Agent for maximum notification of arrival to arrange gangs. Minimum notification 24 hours. Normal working hours from Saturday to Thursday 0700 – 1500 hrs., 1500 – 2300 hrs., 2300 – 0700 hrs. Friday 0700 – 1200 hrs., 1400 – 1900 hrs. (work could be extended up to 2300 hrs. subject to prior notice).

Notes:

1. The above hours are subject to change during the month of Ramadan.
2. Overtime is applicable after 1500 hrs.
3. Friday and Public Holiday working shall be at special overtime rate.
4. Port Authority reserve the right both to allocate the gangs to vessels at their discretion and decide the extent of overtime to be worked.

MEDICAL: Agents handle all medical matters. A hospital is available in the town of Salalah (17 miles away). Also see "Health".

TANKERS: Tankers up to 35,000 d.w.t. are accommodated at the Oil Pier which is 130 m. in length and about 12 m. in depth. 2×6 in. chicksan arms available.

FRESH WATER: For vessels at berths, fresh water is available ex-pipeline.

FUEL: Available to ships at the berth by tank truck, must be arranged by the Agent.

FIRE PRECAUTIONS: Fire hydrants available alongside berths.

CONSULS: None available.

REPAIRS: No facilities.

DRY DOCKS: None available.

SURVEYORS: Lloyd's representative is Oman United Agencies in Salalah.

GANGWAY/DECK WATCHMEN: Not required except as deemed necessary by the Master of the vessel and then he must supply his own.

HATCHES: Opening and closing hatches is normally done by the crew but arrangements may be made with the port for provision of this service. Agents can advise.

TIME: Time local is GMT plus 4 hours.

CERTIFICATES:
Construction Certificate.
Registration Certificate.
Classification Certificate.
Safety Equipment Certificate.
Radio Safety Certificate.
Load Line Certificate.
Cargo Gear Book.
Israel Boycott Declaration.

CUSTOMS ALLOWANCES: 200 cigarettes or 50 cigars or 250 gm. of tobacco. 1 bottle (1 litre) alcoholic spirit. 1 bottle (1 litre) wine. 24 cans of beer and various used personal effects such as radios, cameras, etc.

CARGO GEAR: Normally handled by shore equipment and shore gear. Any special lifting equipment required must be provided by the vessel. Ships in the anchorage are normally expected to supply all gear required. The port has rental gear for those vessels requiring same.

REPATRIATION: Permitted, arrangements may be made by the Agent for this service. Crew changes may be effected at this port.

AIRPORT: Salalah International Airport. Distance 25 km.

HOLIDAYS: All Muslim holidays are observed. Working hours are reduced during the period of Ramadan. Special National days celebration is held on 18th November each year. Working of overtime may be arranged during most of the holiday periods, Agents can advise.

POLICE/AMBULANCE/FIRE: The port has Police available at the port at all times. Ambulance service is also available at the port. The port has the only telephone service and the Police located within the port also maintain telephone service. Required numbers are familiar to all persons in these two areas.

A complete fire fighting system is installed in the Port with 20 fire hydrants (4 in.) distributed through the jetty capable of handling all kinds of fire. The new tug boats are fitted with fire fighting facilities.

TELEPHONES: For any long distance calls G.T.O. maintains office in Salalah where calls may be placed and paid for. For local calls the port will permit the use of Port phone on a limited basis.

SERVICES: None available.

SHORE LEAVE: Master, First Officer and Chief Engineer are permitted restricted shore leave but all other members of the crew are restricted to the ship or port area.

IDENTIFICATION CARDS: Seaman's Book or passport are sufficient for those persons going ashore.

REGULATIONS: No vessel shall enter the port area unless authorised by the Harbour Master. The Harbour Master may at his discretion refuse to allow vessels, with the exception of vessels in distress, to enter the port, and may order from the port any vessel with the exception of vessels unfit for sea, which does not have business within the port, or is in breach of these Regulations.

No vessel shall anchor, or weigh anchor or move within the port area except when and where required by the Harbour Master.

No unclean water ballast which is not free from oil or other harmful contaminants, shall be discharged into the waters of the port area. In case of the pumping of bilges or pollution by oil or harmful contaminants into the waters of the port area, the vessel will be responsible for any fines imposed by the Port Authority and any compensation or other damages according to Port Rules and Regulations.

Should fire break out aboard any vessel the Master should make an immediate signal either by a continuous sounding of long or short blasts on the ship's whistle or siren or by ringing of a fire bell.

In cases of adverse weather it is the sole responsibility of the Harbour Master to decide whether the sea conditions are suitable for handling cargo with barges in the Anchorage or whether the day will be declared a "Weather non-working day".

Masters shall be responsible for the adequate provisions of safety equipment and lights on board whilst cargo is being handled.

Conveyance of alcoholic liquor, other than manifested cargo under Customs supervision, from any vessel to the shore or from one vessel to another is prohibited.

No unauthorised person may enter the port area. Visitors to vessels are prohibited except by permission of the Harbour Master.

Ship's personnel and passengers are not permitted ashore except by permission of the Immigration Authorities and the Harbour Master.

Every merchant vessel in port shall fly her national flag, and the national flag of Sultanate of Oman, between sunrise and sunset.

GENERAL: The port operates on a year round basis with the exception of vessels requiring barging. All barging is closed from mid-June to late September depending on the sea state.

DEVELOPMENTS: Feasibility study is taking place for more facilities for transhipment cargo.

SHIPMASTER'S REPORT: 1978 (updated 1986).
Radio: Send ETA, draft, LOA, g.r.t., n.r.t., cargo to discharge, last port, to: General Manager, Port Raysut, Salalah, Sultanate of Oman, giving 48 hours', 36 hours', 24 hours' notice.
Labour: A gang consists of 10 men.
Fresh Water: Available on all berths. NOT available at anchorage.
Provisions: Supplied by Agent.
Airport: Daily flight to Muscat.
Telex-Telephone-Cable-Posts: Available by "Cable & Wireless" offices.
Hospital: Very good.
Workshop: Nil.
Fuel Oil: Not available.

REPORT: September 1985.
Approach Procedure: Vessels approaching Port Raysut should advise Agent of their ETA at least 96 hours in advance confirming same 24 hours prior to arrival. The first ETA message should also include LOA, draft, g.r.t., n.r.t. and details of cargo distribution.

No quarantine message need be sent if the vessel has a clean bill of health but if there is illness on board the Master should advise Agent Salalah in his ETA message.

Pilotage: Pilotage is compulsory. Vessels arriving at the anchorage should request an anchorage position from the Harbour Master prior to anchoring.

Quarantine: It is recommended that crew members should have valid certificates of innoculation against Cholera, which is sometimes necessary, if there has been an outbreak in the area.

Extension of Derat/Exemption Certificates are not possible and vessels arriving with expired certificates are liable to a fine of RO 50,000.

Gangways: Vessels at the anchorage should rig a safe and efficient accommodation ladder on the lee side. During rough weather a good pilot ladder should be ready for use on the lee side. When berthed a safe and efficient accommodation ladder must be rigged at all times.

Readiness: Notice of Readiness to be handed to Agents Representative, to be presented to Receivers in accordance with Charter Party terms and conditions.

Priority: Vessels on liner voyages normally obtain discharge priority over charter vessels.

Turn: Subject to 'priority' above vessels are worked on a "first come first served" basis.

Customs: Bonded and other goods will be placed under Customs seal, on arrival in port. Allowances for consumption during stay in port will be provided. See "Customs Circular".

Dangerous and Inflammable Cargo: Details of all dangerous cargo on board should be included in the vessels ETA message, as this information has to be furnished to the Port Authority.

General Regulations: No liquor may be brought ashore or sold to shore staff. Ship's crews, except the Master, Chief Officer and Chief Engineer are not permitted ashore. Other normal port regulations apply.

Air Services: There are daily flights from Salalah to Seeb airport, Muscat where international flight connections can be arranged.

Ballast: Oily ballast must not be discharged within 50 miles of "Oman" coastline.

Banks: International banking facilities are available in Salalah. The local currency is the Rial Omani which is subdivided into one thousand baizas.

Bunkers and Lubricants: Limited supplies of Gas Oil and Lubricants can be obtained for vessels berthed alongside only. No IFO available and no facilities for supply at anchorage.

Buoys: There are no mooring buoys for vessels.

Cranes: Compulsory for cargo vessels to use 4 shore cranes.

Heavy Lifts: Heavy Lifts must be discharged with the vessel's own gear and should be taken delivery of direct from vessel. Lifts in excess of 30 tons should not be accepted without prior reference to Agent.

Hotels: There is one hotel of international standard and accommodation is normally not difficult to obtain.

Labour: All labour is supplied to vessels by the Port Authority, and the vessel must provide drinking water and toilet facilities for the labour, while discharging operations are in progress.

Launch Hire: Port Launch can be hired for visiting vessels at anchor.

Laundry Facilities: Laundry facilities can be arranged by Agent, but minimum delivery time 48 hours.

Lighterage: Not available.

Passport and Visas: All persons entering Oman require a valid Passport and Visa/Non Objection Certificate. Omani visas can be obtained from a Sultanate of Oman Embassy subject to receipt by that office of a Non Objection Certificate from Sultanate of Oman. Non Objection Certificate can be obtained from Agent in Muscat, these usually take between 3 and 4 weeks to obtain.

Post and Telegraphs: Airmail letters usually take 5 to 7 days from Europe and 7/8 days from the USA. There are telephone, telegraph and telex links with all parts of the world via satellite.

Reefer Cargo: There are no special facilities for the landing of reefer cargo, but arrangements are usually made to discharge as late as possible in the evening, enabling delivery to consignees transport with least possible lapse of time from cargo leaving ship's cool room to reaching consignees freezers.

Refuse/Rat Guard: Vessels should not dump refuse at the anchorage. There are compulsory shore facilities for the landing of refuse for vessels which have berthed, at a charge of RO 2.250 per day. Rat guards are compulsory.

Roads: Road connections with outside territories are available but are usable by non-Arab nationals only with permission from the Royal Oman Police.

Ship Chandler: Available.

Spare Parts: Can be forwarded by air to Salalah. Agent should be advised in advanced of Airway Bill No. and flight details etc.

Stores and Provisions: Most provisions and fresh vegetables are available. Engine stores can be arranged if prior notice is given.

Surveyors: there are no classification surveyors at Salalah. Lloyd's Surveyors are available at Muscat, but costs for their services at Salalah, to be borne by the vessel

Transhipment: Transhipment of cargo is allowed.

Water: Fresh water is available to vessels which can berth. No facilities available for the supply of water at anchorage.

Notice: Royal Oman Police – Customs Department, Dhofar Customs Salalah to all Shipping Agents

Customs Control – Port Raysut: With effect from 1st May, 1980, under instructions from Director General of Customs, a new system of Customs Control will be instituted in Port Raysut.

On arrival in the Port, Ship's Master will be required to produce to the Customs boarding Officer the following documents:–

1. A copy of the cargo manifest.
2. A declaration made by members of the crew stating the dutiable goods in their possession.
3. A list, signed by the Captain, of the dutiable Ship's stores on Board.

Vessels will no longer be permitted to have free use of their stores (Tobacco goods, Alchohol etc) whilst in the confines of the Port.

On arrival in Port, an allowance will be given by the Customs Boarding Officer and the surplus stores will then be placed under Customs seal.

NOTES

Please also advise Shipping Guides Ltd.

The allowance will be:

1. 200 cigarettes or 50 cigars or 250 gms tobacco.
2. One bottle (1 litre) alcoholic spirit.
3. One bottle (1 litre) wine.
4. 24 cans beer, and
5. Various used personal effects such as radios, cameras etc.

Should a vessel remain in Port for more than four days, an issue of stores will be given upon request being made to the Customs Authorities.

It is hoped that in the initial stages of these changes any inconvenience will be kept to a minimum and your co-operation is requested.

May I suggest that you acquaint any vessels you visit in the near future with details of the forthcoming changes.

Shipping Agents are reminded that their representatives should not board a vessel in advance of the Customs Boarding Officer.

Signed: Officer in Charge, Dhofar Customs.

AUTHORITY: Directorate General of Communications, P.O.Box 18369, Salalah Sultanate of Oman. *Tel:* 211295. *Telex:* 7640 (M Raysut On). *FAX:* 221679 (Salalah), 210155 (Port Raysut). *Contact:* Mohd. Bin Ahmed T. Rawas, Manager, Port Raysut.

AGENT: Gulf Agency Co. (Oman) L.L.C., P.O.Box 19346, Salalah, Sultanate of Oman. Tel: 294662, 290405, after hours 292003. Telex: 7647 ("GAC SAL ON"). Cables: "Confidence", Muscat or Salalah.

Pakistan

KARACHI: 24.49 N. 66.59 E.

DOCUMENTS:
Required Before Vessel's Arrival:
2 copies Freight Manifest.
2 sets Bills of Lading.
3 copies Stowage Plan.
2 copies Passenger Manifest.
3 copies Cargo Manifest.
3 copies Hatch Lists.
1 copy Exception Lists.
6 copies Passenger Lists.
With Vessel:
2 copies Cargo Manifest.
Last Port Clearance Certificate.
6 copies each Passenger List, disembarking and transit.
2 copies List of favour parcels.

The following special Pakistan forms are brought on board by Agent for completion on arrival:
2 Customs Arrival Reports.
2 Opium and Dangerous Cargo Certificates.
2 Ship's Currency Lists.
6 Deck Cargo Certificates.
1 Company's Arrival Report.
1 Ship's Crew Advance (if required).
1 Expiry date of Ship's Certificate.
1 Same Bottom or In Transit Cargo.
1 Water Indent.
10 Crew Lists.
3 Stores Lists.
3 Crew Effects Lists (including cameras, radios, etc.)
7 Cargo Gear Information Forms.

Metric weights and measures to be used on Particulars of Cargo, Tonnage Certificates, Stevedoring Bills, Manifests and Bills of Lading.

Immigration:
(i) Masters should ensure that all crew are in possession of valid health documents.
(ii) All nationals, other than those holding British Passports, require visas for entry into Pakistan. Ship's crew can enter and leave Pakistan on Seaman's documents for purposes of joining vessel and/or on repatriation.
(iii) Seaman books/Passports are required to be collected from Immigration authorities prior to sailing of vessel on surrender of the shore passes.
(iv) Taiwan and Israel nationals are not allowed shore leave facilities.

PILOTAGE: Pilotage is compulsory for vessels of 200 n.r.t. and upwards. Pilot boards at the Outer Anchorage.

Vessels are piloted day and night, subject to tides, length and draft, to berths lying on the East and West of the fairway, which is 4.27 miles long. Pilotage distance is about 5 to 6 miles.

ANCHORAGES: Outer Anchorage where ships await berth safe except during the S.W. monsoon from mid-May to September. During monsoon no anchorage is recommended. Vessels should anchor a safe distance outside the breakwater within Lighthouse bearings 045° and 025°. Depth of water at the anchorage is about 9 fathoms.

RESTRICTIONS: Datum depth is 30 ft. Dry cargo vessels with a draft in excess of 32 ft. are not permitted to enter Karachi due to dredged depths at berths.

Berthing can be done at any time during day/night, except vessels over 560 ft. in length having bridge aft, which are permitted in daylight only.

Berthing of tankers at Oil Berths is done during daylight only.

MAX. SIZE:	*Length*	*Draft*
Bulk carriers and general cargo (dry cargo)	945 ft.	32 ft.
Bulk oil tankers, white oil products	750 ft.	35 ft.
Bulk oil tankers, black oils	750 ft.	35 ft.
New Oil Pier No. 4, crude oil	850 ft.	39 ft.

HEALTH: The Port Health Authorities give automatic clearance on receipt of a "clean" standard quarantine message and this will be conveyed by the Pilot. However, ships from Yellow Fever areas must be cleared during daylight hours by the Port Health Officer on arrival alongside. On sailing to ports outside India and Pakistan, a medical inspection takes place on the day before sailing. It is, in theory, necessary for a member of the crew to be present at this inspection, although usually the inspection is only a formality. All vessels required obtain Immigration Clearance on arrival.

All vessels which have touched any port or ports between Port Sudan and Durban, on the East Coast of Africa, including these ports, are considered "suspected" vessels on account of Yellow Fever and Jigger and may not have communication with the shore till cleared at berth by the Port Health Officer, who attends only between sunrise and sunset, except in special circumstances. The incubation period for Yellow Fever under the rules is given as 9 days, but vessels arriving later than 9 days are still not free from quarantine because there is no incubation period for Jigger.

RADIO/VHF: Port Authorities equipped with VHF radio-telephone, calling Channel 16, working Channel 12. Control Station call sign "Manora Pilot Control".

Vessels should establish radio contact with control station as soon as they are within VHF range.

Use of Channel 12 is restricted to the following: Ships while entering harbour are to maintain watch on Channel 12 as soon as Pilot boards. Ships in harbour scheduled to sail are to keep a listening watch half an hour before sailing till their clearance from the port.

"Intercommunication with the ships, other than Pilot Control, at Outer Anchorage or ships in harbour on Channels 12 and 16 is strictly prohibited. The Manora Pilot Control Station is equipped with multi-channel VHF Radio Telephone sets which are operating on International Maritime Channels 8, 9, 11, 12 and 16 subject to above restrictions."

Vessel's Registration: All vessels calling at Karachi Port, upon arrival at anchorage are required to make immediate contact with Port Control (Manora Station) by Aldis Lamp and notify arrival time, vessel's name, flag, cargo, and position. Also vessel is to make contact on VHF repeating all of the above information, declaring readiness of vessel to berth, and the time noted by Port Control by light is taken as the time of arrival off the Port, both for berthing turn and also serving NOR (in case of Charter Vessel) to receivers/charterers.

TUGS: There are 8 diesel tugs owned by Port Trust. Four tugs have bollard pull varying from 10 tons to 18 tons, 2 tugs have 27 tons bollard pull and 2 (Voith Schneider) tugs have 35 tons bollard pull.

Towage inside the harbour is rendered by Port Trust on signal from Pilot. Towage is not provided outside the breakwater except in very special circumstances at the discretion of the Deputy Conservator, subject to weather permitting and availability of tugs on special terms and conditions.

BERTHING: There are 17 berths at East Wharves, total quayage 8,622 ft. Berth Nos. 1 to 17 are on a concrete quay wall of the latest type. All berths are rail-served. Berth lengths vary from 470 ft. to 550 ft. Available depths vary from 28 ft. to 32 ft. There are 13 berths at West Wharf and their length varies from 550 ft. to 700 ft. Depths available vary from 30 ft. to 32 ft.

There are 4 Bulk Oil Piers having length of 425 ft., 644 ft., 750 ft. and 850 ft., which can accommodate tankers of overall length between 525 ft. and 850 ft. Also see "Tankers".

Moorings: Three moorings of 700 ft. each and one LASH mooring of 1,000 ft. have been laid and are commissioned for accommodating the vessels of sizes between 600 ft. and 850 ft. respectively.

Bulk Wheat: Discharged by bulk evacuators at Berth No. 17.

Passenger Vessels: Berth No. 24.

Fertiliser: Discharge at Berth No. 22. Bagging machines installed.

Vessels with LOA 900 ft. and over berth at Nos. 16 and 17.

CRANES: All berths except Nos. 5, 6, 7, 17, 25, 26, 27 and 28 are equipped with electric cranes. Floating crane available up to 100 tons S.W.L.

STEVEDORES: Working Hours: Monday through Thursday and Saturday, day shift: 0730 – 1130 and 1230 – 1630 hrs. On Fridays day shift: 0730 – 1230 and 1400 – 1630 hrs. Mondays through Saturday, night shift: 1900 – 2300 and 2330 – 0330 hrs. next day.

Overtime periods: 0330 – 0630, 1130 – 1230, 1630 – 1830 hrs.

TANKERS: Mineral oils discharged at the Bulk Oil Pier, 4 berths, and at West Wharf Berth No. 20. Heavy grades may be discharged at the steamer wharves but dangerous petroleum only at the Oil Piers.

Vegetable oils are handled at both the terminals mentioned above.

New Oil Pier No. 4: Max. LOA 850 ft., max. beam 130 ft., max. loaded draft 39 ft., max. size 75,000 d.w.t. and 95,000 tons, max. gross displacement.

Slop Reception Facilities: Available at Oil Pier No. 4 only.

Also see "Berthing" and "Developments".

FRESH WATER: Available alongside by pipe-line at all shipping berths. Also available alongside and at outer anchorage by private barges.

At times due to water shortage vessels are required to arrive with sufficient water for duration of stay.

FUEL: In addition to coal, 3 grades of petroleum are available – furnace oil, light diesel oil and high speed diesel oil. Furnace oil can be supplied by pipe-line at all berths. Light diesel only at Berth Nos. 1 to 4. Large quantities can be supplied by pipe-line at the Bulk Oil Pier only.

DRY DOCKS: The Karachi Shipyard and Engineering Works Ltd. have 2 dry docks. One of 609 ft.×90 ft.×18 ft. above keel blocks which can accommodate vessels up to 25,000 d.w.t. and the second dry dock measuring 560 ft.×80 ft.×16 ft. above keel blocks and can dock vessels up to 18,000 d.w.t. Prior booking of the dry dock is essential.

REPAIRS: Repairs can be carried out at the anchorage except in the monsoon season. 2 ship repair jetties are available in the port. In addition, Karachi Shipyard and Engineering Works Ltd. provide all kinds of repair and ship-building facilities.

Immobilisation of Main Engine: Requests for immobilisation must be included by the Master of the vessel in their arrival messages so that the permission of the Deputy Conservator, Karachi Port Trust may be obtained for the period required to carry out maintenance and necessary repairs. Oil tankers are not permitted to immobilise engines, particularly at oil pier berths.

CARGO GEAR: *Cargo Gear Certificate:* The Dock Labour Safety Officer (Government Department) is very strict and requires all gear/ derricks/ winches and accessories to have valid certificates. In the event their certificates are out of date, delays will be incurred before cargo discharge operations are allowed to commence.

HOLIDAYS: Eid-ul-Azha; Muharram; Republic Day (23rd March); Eid e Miland un Nabi; Independence Day (14th August) Defence of Pakistan Day (6th September); Jamat-ul-Wida; Eid-ul-Fitr; Anniversary of Death of Quaid-e-Azam; Allama/Iqbal Day (9th November); Christmas Day and Birthday of Qaid-e-Azam (25th December).

TIME: GMT plus 5 hours all year round.

AIRPORT: Karachi Airport, 7 miles from city. International connections to all parts of the world.

SHORE LEAVE: Shore passes are granted by Immigration Authorities when they first go on board and must be returned on departure of the vessel. These passes permit entry/exit to the docks until 2200 hrs.

Indian crew are not allowed ashore except in emergency. An Immigration Policeman will remain on board in port where Indian crew are carried. This policeman will ask for some sort of accommodation. This need only be given if it does not cause inconvenience to the ship.

SHIP SUPPLY SERVICE: There are privately operated services for transportation of personnel and some essential stores, etc., for ships lying at Outer Anchorage to inside the port. These services are of a small scale and carried out by small launches, only during good weather. In bad weather such as monsoon season these services are suspended.

GENERAL: The Karachi Port Authorities advise that in order to avoid delays to ships requiring abreast berths for working cargo, it has been decided not to berth more than 1 vessel for receiving supplies of fresh water and bunkers. Ships due to call at Karachi are therefore *recommended to arrive with sufficient fresh water and bunkers to last for 2 or 3 weeks from the date of arrival at the Outer Anchorage.*

DEVELOPMENTS: Modern integrated container terminal for third generation vessels to be built and be completed by 1993. Initially 2×900 ft. berths with depth of 42 ft. are planned.

One container crane already commissioned at Berth No. 23.

4 general cargo berths completed and commissioned at Juna Bunder (Berth Nos. 25 – 28), depth alongside 30 ft.

New oil products terminal (old berth OP II and OP III) to be built and ready by 1991 for 75,000 d.w.t. tankers.

2 modern seagoing pilot boats under construction.

SHIPMASTER'S REPORT: January 1980: Survey Vessel.

Approaches/Pilotage: There were a large number of ships anchored in the approaches – even in the "Prohibited Anchorage Zone".

Port Control System: Contact must first be made by Aldis lamp, and a vessel's arrival is not acknowledged until this has been done. On our first visit we had some trouble as the actual Signal Station is not at the position marked "Signal Station" but at Lat. 24° 48.8′ N., Long. 66° 57.0′ E. marked F.S. on the Chart. I was politely informed on the VHF that unless I contacted them by Morse lamp, they would not be able to speak to me on the VHF.

The Pilot boards 2 miles S.W. of the breakwater – if vessel comes closer it will be sent out again. Manropes are required for the ladder.

Quarantine: The normal message should be sent 24 hours before arrival. A doctor boarded on arrival alongside, and required Vaccination Lists, together with the Maritime Declaration.

Port Officials: Immigration/Docks/Customs: A vessel bound for Karachi would do well to get a set of local forms from the Agent in advance.

The main Customs Declaration is very detailed.

Ship's own Personal Effect Declaration Lists showing, in addition, beer, watches, cameras, and foreign currency, were accepted.

At least 12 copies of the Crew List on arrival are required, plus 2 Sailing Crew Lists.

When all other Officials have finished, the Customs seal up the Bond.

Special Warning: Pakistan is a Muslim country. Notices should be displayed warning that it is prohibited:

1. To use cameras.
2. Give alcohol to locals.
3. Change money without obtaining a proper receipt.

Berths: We called at Karachi twice, and each time, in spite of a very full port, Agent managed to obtain a berth alongside.

Explosives: Loaded ex-barge, whilst alongside. No problems. Shore stevedore gang used.

Bunkers: Ex-road wagon, well organised and quick.

Water: Ex-quay. Good rate. Good quality.

Lub Oils: Received 2 drums of Stern Tube Oil, which we had not been able to obtain elsewhere.

Divers: The services of a diver were used to clear fouling from engine cooling water intakes.

Ship Chandler: Only fresh vegetables and some chickens were purchased, but these were good quality.

Laundry: Good and fast.

Watchmen: Supplied by Shipwrights. With the rise and fall of tide in Karachi, the gangway needed constant attention. Nothing was reported stolen.

Repatriation: Possible.

AUTHORITY: Karachi Port Trust, (P.O.Box 4725), Eduljee Dinshaw Road, Karachi 2. *Tel:* 201787. *Telex:* 2739 Kpt Pk. *Cables:* Portrust, Karachi. *Contact:* Commodore S.N.A. Shah, General Manager – Operations.

AGENT: G.A.C. Shipping (Pvt.) Pakistan Ltd., 4th Floor, K.D.L.B. Building, 58 West Wharf Road, Karachi, Pakistan. Tel: (922-1) 200341, 200764, 201656, after office hours: 615769. Telex: 23009 GAC Pk. Cables: Gacshping, Karachi.

PORT MUHAMMAD BIN QASIM: 24.46 N. 67.21 E. (See Plan)

PORT LIMITS: Seaward Boundaries: Area enclosed within the following geographical co-ordinates:

(a)	Lat. 24° 35′ N.	Long. 67° 00′ E.
(b)	Lat. 24° 35′ N.	Long. 67° 02′ E.
(c)	Lat. 24° 32′ N.	Long. 67° 00′ E.
(d)	Lat. 24° 32′ N.	Long. 67° 02′ E.

DOCUMENTS:

1. Freight Manifest (4 copies).
2. Bills of Lading (4 copies).
3. Stowage Plan (4 copies).
4. Passenger Manifest (4 copies).
5. Cargo Manifest (4 copies).
6. Hatch Lists (4 copies).
7. Exception Lists (4 copies).
8. Passenger Lists (4 copies).

With vessel:

9. Cargo Manifest (4 copies).
10. Last Port Clearance Certificate (4 copies).
11. Passenger List, Disembarking and Transit (4 copies).
12. List of Favour Parcels (4 copies).

The following special Pakistan forms are brought on board by Agent for completion on arrival:

13. Customs Arrival Reports (4 copies).
14. Opium and Dangerous Cargo Certificate (4 copies).
15. Ship's Currency Lists (4 copies).
16. Deck Cargo Certificates (4 copies).
17. Company's Arrival Report (4 copies).
18. Ship's Crew Advance, (if required), (4 copies).
19. Expiry date of Ship's Certificates (4 copies).
20. Bottom or In-Transit Cargo (4 copies).
21. Crew Lists (4 copies).
22. Store Lists (4 copies).
23. Property Lists (4 copies).
24. Cargo Gear Information Forms (4 copies).
25. Advance Arrival Note (4 copies).
26. Application to enter port (4 copies).
27. Permission to enter and berth (4 copies).
28. Ship's Documents Check List (4 copies).

PILOTAGE: Compulsory. Pilot boards about 1.5 miles S.W. of Fairway Buoy. Give 48 hours' notice to Port Qasim Control by cable and later contact them by VHF Channel 16, about 6 hours before arrival.

ANCHORAGES: Outer anchorage is bounded by limits mentioned in "Port Limits".

Holding ground is good but during S.W. monsoon heavy swell persists and it is advisable to anchor in Western part of the outer anchorage and pay out extra cable.

RESTRICTIONS: Channel is well marked but night pilotage is not provided at present. Vessels must dock before dark and sail out in sufficient time to clear the channel before dark.

MAX. SIZE:

Periods	*Berths*	*Max. Draft* (m.)	*Max. LOA* (m.)	*Max. Beam* (m.)
(i) Monsoon				
15th May to 15th September	IOC Berth	10.5	201.0	25.3
	MW Berths			
	1 to 4	10.0	183.0	25.0
	5 to 7	10.5	183.0	25.0
(ii) Non-Monsoon				
16th September to 14th May	IOC Berth	12.0	225.0	32.0
	MW Berths			
	1 to 4	10.0	183.0	25.0
	5 to 7	11.0	183.0	25.0

Note: 1. Draft is subject to change monthly and without any notice.
2. Minor deviation permissible at the discretion of Port Qasim Authority on submission of Indemnity.
3. Maximum permissible draft/dimensions are promulgated through Notices to Mariner. Normally ships up to 50,000 d.w.t. can be handled during non-monsoon period and 25,000 d.w.t. during monsoon period.

Also see "Shipmaster's Report" dated October 1985.

HEALTH: Pratique granted only after berthing.

RADIO: Send all messages via Karachi Radio, call sign ASK, MF 500 kHz, 466 kHz, 484 kHz, HF 8644 kHz, 1302 kHz, 3024 kHz, 8361.2 kHz, 12541.8 kHz and 8658 kHz.

Karachi Radio can also be contacted on Radio telephony on following frequencies:

Channel	*MHz*
16	158.80 VHF
10	156.50 VHF
07	160.95 VHF
02	160.70 VHF
05	160.85 VHF

VHF: Contact should be made with Port Qasim Control as soon as within VHF range and ETA transmitted. Berthing and boarding of Pilot instructions are given on VHF by Port Qasim Control on following Channel/Frequencies:

Channel	*MHz*
16	156.800 VHF
10	156.500 VHF

Round the clock watch on above Channels is maintained.

RADAR: No port radar service available.

TUGS: 3 tugs namely "Chara", "Gharo" and "Kadiro" assist vessels and they join the vessel about 1.5 miles off the jetty. Each tug 3,500 b.h.p., bollard pull approximately 40 tons. In addition two light tugs each 1,000 b.h.p. are available. Ship's lines are usually used.

BERTHING: There are 7 multi-purpose berths for handling general and bulk cargo along a 1,400 m. long wharf for ships drawing 10.0 m. – 11.0 m. draft. Iron Ore and Coal Berth 279 m. long is used for importing bulk raw material for PAK Steel for ships drawing 10.0 m. – 12.0 m. draft. Also see maximum permissible draft information under "Max. Size".

CRANES: 2 grab gantry cranes with a capacity to discharge about 500 t.p.h. each at Iron Ore and Coal Berth. Mobile cranes with lifting capacity up to 35 tons are available and can be provided upon request.

BULK CARGO FACILITIES: *Grain:* 2 automatic unloading and bagging plants with a total capacity of 4,000 tons per day are available.

Also see "Berthing" and "Cranes".

SPECIALISED CARGO HANDLING FACILITIES: None at present.

BRIDGES: None.

STEVEDORES: 2 cargo handling companies appointed by the Port work as terminal operators for handling the cargo at multipurpose berths. Average handling rate per hook hour for following commodities is:

Rice	:	43.0 tonnes
Pig Iron	:	38.0 tonnes
Cotton	:	12.0 tonnes
General Cargo	:	10.0 tonnes

12 hours' advance notice to be served in order to arrange gangs.

Working Hours: 0800 – 1600, 1600 – 2400, 2400 – 0800.

MEDICAL: Medical centre with first aid facilities is available round the clock in the port area. Adequate medical facilities and hospitals are available in Karachi, (the nearest one within 20 km.). Medical facilities can be arranged by the Ship's Agent on Master's request.
TANKERS: No facilities available at present.
DENSITY: Average density of water is 1025.
FRESH WATER: Available through shore connection and by barge.
FUEL: Arranged by Agent and available through local oil companies, delivered by oil barge or road tankers.
FIRE PRECAUTIONS: Normal fire precautions, fire hydrants are located at Marginal Wharf and IOC Berth. Port has two fire tenders (water and foam) plus 5 fire trailers (heavy duty) with water and foam to fight fires.
CONSULS: Available at Karachi.
REPAIRS: All types of repairs can be carried out through private contractors of which prior notice, with details, must be given to Agent in good time. Repairs are subject to Port Authority's permission, keeping in view availability of berth, other safety precautions, prevailing rules, etc.
DRY DOCKS: None at Port Qasim, however, available at Karachi Port.
SURVEYORS: Cargo Surveyors available, services if required can be arranged through local Agents; also Classification Surveyors of various societies such as Lloyd's Register, American Bureau, Bureau Veritas, etc., have local offices in Karachi.
GANGWAY/DECK WATCHMEN: Advisable, but at Master's discretion.
HATCHES: Opening and closing by ship's crew.
CUSTOMS ALLOWANCES: 200 cigarettes and 6 ozs. of spirits (for non-Muslims only) per week.
CARGO GEAR: Heavy lift cargo and normal loading/discharging carried out by ship's gear. Mobile cranes available for hire on request.
REPATRIATION: Possible. Advisable to give prior notice to Agents to complete formalities.
AIRPORT: Karachi International Airport is approximately 30 km. from Port Qasim and is served by regular national and international airlines.
TIME: GMT plus 5 hours throughout the year.
HOLIDAYS: As declared by Government of Pakistan. Cargo work can be arranged on holidays except on Eid Ul Fitr, Eid Ul Azha, Muharram, Defence Day of Pakistan (6th September), Eid Milad Un Nabi, Independence Day (14th August), Pakistan Day (23rd March), Jumatul Vida, Quaid-E-Azam Birthday (25th December), Quaid-E-Azam Death Anniversary (11th September) and any other days so declared by Government of Pakistan or Port Qasim Authority.
POLICE/FIRE/AMBULANCE: Can be contacted through Port's PABX telephone exchange 719700 (10 lines).
EMERGENCY CO-ORDINATION CENTRE: Pakistan Navy frequencies – 500 and 8364 kHz. on HF and 282 and 243 MHz. on VHF.
TELEPHONES: Facilities for installing telephones on board not available, however, telephone calls can be made by telephones in the C.H.C. offices, located on jetties.
SERVICES: All facilities such as compass adjusting, radio and radar repairs, tank cleaning, etc., can be arranged through respective shipping Agents.
BANKS: 4 local banks are available.
STORING: See "Prelims".
1. Yes.
2. Yes, except when disallowed for safety reasons.
3. Yes.
4. Yes.
5. Prevailing Customs rules are to be observed.
6. Can be arranged through ship's Agent.

SHORE LEAVE: Allowed. Shore passes issued by Immigration Authority to ship's crew.
IDENTIFICATION CARDS: Only valid shore passes used as identification.
REGULATIONS: As per Gazette of Pakistan notification No. S.R.O. 42 (KE)/81 dated: 17th October, 1981 – Part iv (Safety Regulations).
DELAYS: None.
DEVELOPMENTS: Establishment of integrated Container Terminal and Oil Tanker Terminal are in hand.

SHIPMASTER'S REPORT: September 1982 (Updated 1988).
Port Limits: A vessel is considered to be an arrived ship when she is in the anchorage marked on the chart West of Fairway Buoy. Vessel must register with Port Bin Qasim Control as an arrived ship and only when same confirmed by the port can the Master tender notice of readiness. Pilot boards about 1 nautical mile off Fairway Buoy.
Documents: Same as for Karachi. Keep extra Crew Lists at hand. Private property declaration must contain serial numbers, make, etc., wherever possible. All currency must be declared.
Pilotage: Give 48 hours' and 24 hours' notice to Bin Qasim Pilot Control by cable and later contact them by VHF Channel 16, about 12 hours before arrival.
Anchorage: Outer anchorage is in area bounded by positions A, B, C and D. See "Port Limits".

Holding ground is good but during S.W. monsoons heavy swell persists and it is advisable to anchor near Western proximity and pay out extra cable.
Restrictions: No night pilotage. Vessel must dock before dark and similarly must sail out in sufficient time to clear the channel before dark. Draft restrictions as per tide. Heavy swell/tide runs across the channel at S.W. monsoons.
Max. Size: Presently max. size is 50,000 d.w.t. but main limiting factor is the depth of water in the channel which varies with the tide.
Health: Pratique granted only after berthing. Radio Pratique not possible.
Radio: Send all messages via Karachi Radio. Contact should be made with Bin Qasim Port Control as soon as within VHF range on Channel 16 and ETA given. Berthing instructions are given on VHF.
Tugs: Port has 3 tugs and they join the vessel about 1.5 miles from the jetty. Usually ship's lines are used for tugs.
Berthing: Iron ore and coal jetty owned by Pakistan Steel Mills for importing coal and iron ore for the steel plant. Jetty is 900 ft. long, 12.80 m. depth alongside.
Cranes: Two cranes with grabs each weighing about 11 tons. Together they can discharge bulk coal at approximately 15,000 tonnes per day of 24 hours. Cargo is carried directly to the steel mill by conveyor belt – about 2 miles long.
Bridges: None.
Stevedores: Pakistan Steel Mills personnel.
Medical: No facilities exist in Bin Qasim. All medical facilities in Karachi.
Density: Salt water.
Fresh Water: Available by shore connection. Costs about Pak. Rs.45/– per ton.
Fuel: Not available.
Consuls: At Karachi.
Repairs: Only very minor repairs possible by workshops from Karachi. Prior notice with details must be given to Agents in good time.
Dry Docks: None.
Surveyors: Available from Karachi.
Gangway/Deck Watchmen: Not necessary.
Hatches: Opening/closing carried out by crew.
Customs Allowances: One bottle spirits and 200 cigarettes per week. Before arrival Master must collect all cameras to be placed under seal by Customs.
Cargo Gear: Shore gear is used.
Repatriation: Possible. Advisable to give prior notice to Agents to complete all formalities prior arrival.
Airport: Karachi International airport is about 35 miles from Port Bin Qasim.
Time: GMT plus 5 hours throughout the year.
Telephone: Available on jetty only.
Shore Leave: Shore passes issued by Immigration and crew allowed ashore.
Delays: Usually none.
General: All the information above is for Iron Ore and Coal Jetty at Port Bin Qasim only.

I called at this port on 25th with 27,100 tonnes of coal in bulk from Newcastle (N.S.W.) and sailed out on 27th.

I was asked to arrive at a maximum draft of 10.00 m. For deep drafted vessels Pilot normally boards about 2.5 hours before HW so that vessel docks alongside at HW. The channel (about 25 miles) is dredged to 11.30 m., while alongside berth and in the turning basin off the berth the depth is 12.80 m. However, in my case the Pilot boarded about 2 hours after HW and by the time vessel tied up alongside it was almost LW. All along the channel I noticed that there was at least 2 m. clearance under the keel at all times.

SHIPMASTER'S REPORT: October 1985.
Max. Size: In October the following maximum drafts and sizes were permitted for vessels calling at Port Bin Qasim:

Pakistan Steel Mills Wharf (IOC berth): Draft 11 m., LOA 223 m., beam 31.1 m.
Main Wharf, Berths No. 1 to 4: Draft 10 m., LOA 183 m., beam 25 m.
Main Wharf, Berths No. 5 to 7: Draft 11 m., LOA 183 m., beam 25 m.

Health: All crew to have valid cholera vaccination.
Shore Leave: All crew should be back on board by 2200 hrs.
Provisions: Delivery by trucks alongside main wharf but extra charges for transportation as everything has to come from Karachi, 75 km. away.
Fresh Water: Available by shore connection at all berths. Delivery rate 15 to 20 t.p.h. Good quality.
Bulk Cargo Handling (Main Wharf): Bulk grain discharged by vacuators into bagging machines. No elevators.
General Cargo Handling: All cargo normally handled by ship's gear. Some mobile cranes available in emergency, SWL not known. Containers not normally handled at Bin Qasim. This port is mainly used for large consignments of bulk grains and bagged rice for export.
Stevedores: Normally round-the-clock basis with only 3 meal breaks. Loading rate of bagged rice: Up to 1,000 tonnes per hatch per 24 hours.

SHIPMASTER'S REPORT: March 1986.
Chart: No. 1284.
Pilotage: Compulsory. Pilot boards in vicinity of Fairway Buoy 24° 33′ N., 67° 03′ E. and likes to disembark from outgoing vessels between Buoys No. 7 and 8. Vessels handled during daylight hours only. Pilot boat "Lahoot" steel motor boat, equipped with Radar and VHF. Distance from Fairway Buoy to berths 24 miles.
Anchorage: In vicinity of Fairway Buoy or Quarantine Anchorage close by, good holding ground.
Drafts: For iron ore and coal berths (4 berths), 10 m. For multi-purpose berths (7 berths), 11 m.
Radio: Karachi Radio ASK (a very busy station). Port Qasim Control maintains continuous VHF watch on Channel 16, working 10, can be contacted from a great distance and advises vessels for berthing. It is a very helpful station.
Tugs: There are 3 well equipped sea going tugs of 3,500 b.h.p. with a bollard pull of 40 tons to assist vessels for berthing/unberthing. Ship's lines always used.
Cranes: Loading/discharging carried out by ship's gear. Mobile cranes of 24 tons lifting capacity available at extra cost.
Specialised Cargo Handling Facilities: Bulk unloading facilities for iron ore and coal. Mechanised bulk wheat handling facilities.
Bunkering: Available through local oil companies, delivered ex-barge or truck, ample time required for stemming bunkers.
Classification: Surveyors for Classification and cargo available (from Karachi).
Airport: Karachi International Airport situated approx. 30 km. from Port Qasim.
Consuls: None at Port Qasim, all reside in Karachi approx. 65 km.
Fresh Water: Available at all berths. Good quality. Supplied through Port Authorities on very short notice. Stevedores usually take care of it.

Tides: Approximately 1 m.
Future Development: Future dredging of the Channel in order to take vessels fully laden up to 75,000 d.w.t. Also plans for navigating the channel day and night.
Rice Cargoes: Vessels loading rice (which is the main export cargo in this port) are inspected at Fairway Buoy prior to berthing by a total of five Government Inspectors who issue relevant Certificate.

AUTHORITY: Port Qasim Authority, Bin Qasim, Karachi-48, Pakistan. *Tel:* 79700-09. *Telex:* 2633 Qasim Pk. *Cables:* Port Qaty. *Contact:* Rear Admiral A. Waliulla, Chairman; Commodore Fasahat H. Syed, Member (Operations); Captain Khalid Ali Khan, General Manager (Operations); Captain M. Mohsin Khan, Deputy General Manager (Marine Operations). Captain N. A. Shamsi, Harbour Master.

NOTES

Please also advise Shipping Guides Ltd.

Republic of Panama

AGUADULCE: 08.14 N. 80.30 W. (See Plan)

LOCATION: The Port of Aguadulce is located 7 km. from the coast on the Palo Blanco inlet in the Bay of Parita, Pacific coast of Panama.

The port consists of a single quay 70 m. long used mainly for shipment of bulk sugar and molasses to ports in the U.S..

DOCUMENTS: The same documents are required and the same procedures are followed as for Almirante, Puerto Armuelles and Bahia Las Minas. See "Almirante".

PILOTAGE: There is an official pilotage service with Pilots available 24 hours a day. Pilotage is compulsory for all vessels greater than 150 g.r.t., wishing to enter and leave the port. To request the Pilot, the vessel's Agent must make arrangements with the National Port Authority. The pilot station is in Aguadulce. Vessels can also ask for Pilot by calling the National Port Authority on Channel 12 VHF.

ANCHORAGE: Vessels must await the Pilot at the anchorage located near the sea buoy which is painted white with a white light flashing every 2 seconds. Position of the buoy is Lat. 08° 13′ N., Long. 80° 25′ W. Depth of water at the buoy's location is 7.4 m. (22 ft.), average low tide, and in places 1 mile to the N.E. it increases to 10.14 m. (30 ft.).

RESTRICTIONS: The port is on an inlet. It has an access channel 13 km. long from the sea buoy. The width of the channel varies from 200 m. in its widest part down to 75 m. at its narrowest.

The channel is marked by buoys which are lit and coming from the sea the buoys on the starboard side are red with even numbers and red lights and those on the port side are green with odd numbers and green lights.

The port is tidal and vessels may only enter and leave on the high tide. At low water the access channel has depths of less than 1 m. (3 ft.) for which reason the maximum draft permitted in the port is 6.4 m. (19 ft.) with 6.1 m. (18 ft.) high tides. Furthermore, inside the inlet there are fairly sharp curves which do not permit entry of vessels greater than 100 m. overall length and 2,500 g.r.t. In the future it is planned to dredge the access channel to provide minimum depths of 3.3 m. (10 ft.) at low tide.

HEALTH: As with other Panamanian ports, the doctor boards the vessel with the other officials of the reception commission. If there is any infectious illness on board, the Master must communicate this to the Port Authority by VHF Channel 12.

VHF: The Port Authority has VHF equipment. Call on Channel 12. It operates throughout the day.

TUGS: None available.

BERTHING: There is a main quay 70 m. long with an average low water depth of 3.3 m. (10 ft.) There is also a small quay 30 m. long which is not used. The quay has a fender system. There is also a dolphin type quay for shipment of molasses with depth 2.7 m., and a 50 m. berth for sugar carriers, which has automatic sugar loaders, depth 2.7 m.

No loading equipment available. Unloading must be by ship's gear. There are belt type sugar loaders. Mobile cranes can be contracted in Aguadulce.

There are two storage tanks for molasses of 1,000,000 and 500,000 gallons capacity respectively.

There are also open air facilities for storage of general cargo.

STEVEDORES: Loading and unloading work is carried out by a gang of local workmen contracted by the ship's Agent, via their representative.

FRESH WATER: Available via tanker lorries. No supply via pipes.

NOT **FUEL:** ~~None~~ available.

POLICE/AMBULANCE/FIRE: Available in Aguadulce 5 km. from the port.

REPAIRS: No facilities.

PROVISIONS: Supplies available in Aguadulce.

TIME: GMT minus 5 hours.

CONSULS: None; the nearest are in Panama City 193 km. from the port by road.

MEDICAL: Hospital in Aguadulce.

CUSTOMS ALLOWANCES: See "Almirante".

TELEPHONES: Telephone communication from the port by public telephone by micro-wave to any part of the world. No facilities for phones on board vessels.

DENSITY: Approximately 0.9971 gm./c.c. at 85°F.

SHORE LEAVE: No restrictions.

REPATRIATION: There are Immigration Officials on the quay. Repatriation presents no difficulty.

COMMUNICATIONS: The port is connected to the town of Aguadulce by an asphalt highway 5 km. long.

Aguadulce is connected to Panama City by road, the capital being 193 km. distant.

AIRPORT: At Aguadulce there is a small airstrip. There is an airport at Chitre 60 km. from Aguadulce and where a local airline effects two trips between this town and the airport of Paitilla in Panama.

AUTHORITY: National Port Authority, Apartado 8062, Panama 7, Panama. *Tel:* 69-5444. *Telex:* 2765. *Contact:* Captain Jose de los Santos Motta, Director General.

National Ports Authority – Aguadulce, Carretera del Puerto, Aguadulce, Provincia de Cocle, Panama. *Tel:* 97-4264. *Contact:* The Port Administrator.

ALMIRANTE (Bocas del Toro): 09.18 N. 82.23 W. (See Plan)

LOCATION: Located in Almirante (Bocas del Toro) Bay, on the N.E. end of the Atlantic coast of Panama.

The Port of Almirante consists of a pier 204.5 m. long used for loading bananas. The port is used principally by reefer vessels coming from Europe and bound for European ports.

The port was built by the United Brands Company and later transferred to the Government. Currently, it is rented by United Brands but is administered by the National Port Authority.

DOCUMENTS:

2 General Declarations.
1 Clearance from Last Port.
5 Cargo anifests or Declaration that no cargo is carried.
2 Crew Lists.
4 Passenger Lists or Declaration that no passengers are carried.
2 Supplies Declarations for crew or Declaration that there are no supplies.
2 Crew Personal Effects Declarations.
1 Maritime Health Declaration.
2 Mail Lists.
1 Bill of Lading (1 copy of each).

The above documents must be presented by the Master of the vessel when the Reception Commission boards the ship, this Commission comprising the following: National Port Authority, Customs, Immigration, Health (Doctor), Vegetable Health and National Guard.

Once the Reception Commission finds the documents to be correct, Free Pratique is given enabling the vessel to commence operations.

PILOTAGE: Pilotage is compulsory for vessels entering Almirante.

The service is provided by a private Pilot who has his station in the town of Bocas del Toro. To request his services, the Agent must make arrangements with the Port Administration. Vessels using Almirante frequently take the Pilot on board in the Bay of Almirante, in front of the town of Bocas del Toro. The pilot cutter is blue with white superstructure, and has VHF radio. To communicate with the cutter, call up on VHF Channel 12 and Channel 16, with SSB fitment.

The Port Authority has established an official pilotage service, and all arrangements for the services of the Pilot must be made with the Port Authority. For vessels arriving for the first time in Almirante, they must anchor outside the entrance of Bocas del Toro aligned at 150° to 180° to Toro Point and 8 cables off. At this point, they must await the Pilot.

ANCHORAGES: Within the Bay of Almirante there are good locations with depths up to 27.4 m.

In front of the quay there is space to anchor with depths of 15.2 m. – 18.3 m.

RESTRICTIONS: The entrance channel has a minimum depth of 9.2 m. and is marked by buoys and light floats as indicated on the Port Nautical Charts. Also see "Developments".

Shipmaster's Report: The water depths on passing Bocas del Toro are greater than 9.2 m. as you follow the charted course lines.

Proceeding at a reduced speed consisting of "dead slow" and "stop", with enough manoeuvrability, to minimise the vessel's pitching, you can enter or leave the Bocas del Toro with a draft of 7.9 m. without any difficulties.

On entering and leaving I was forced by cargo circumstances to berth with a 7.9 m. deepest draft, and never had less than 3.05 m. below my vessel's keel (deepest section), at low water.

MAX. SIZE: There are no restrictions as to beam and size of vessel; but as far as draft is concerned this must not exceed 9.2 m.

Bocas del Toro can be entered and left with drafts of 8.84 m. without difficulty.

HEALTH: The doctor on boarding the vessel with the Reception Commission receives his documents and declares Free Pratique.

In the event of illness on board, Agent must be advised by VHF radio and this will be passed on to the doctor.

RADIO: Cables for and from the Agent are sent by radio operated by Tropical Radio Telegraph Co. The Port Authority has VHF and SSB equipment. The SSB equipment operates on the call-up frequency of 7447.5 kHz.

VHF: VHF communications can be made on Channel 12 at a distance of 30 miles from the port. Furthermore, United Brands Co. has VHF equipment which receives calls on Channel 16.

TUGS: None available.

BERTHING: A banana quay 204.5 m. long with a single mooring frontage and with 4 automatic banana loaders. It is recommended that vessels moor on the starboard side. Also there is a general cargo quay 103.05 m. long which has pipes for discharge of refined oil. The depth at the quay is 7.3 m. – 9.7 m.

Equipment: 4×4 tonne forklift trucks, 1×5 tonne mobile crane.

STEVEDORES: Loading work is carried out by the local Workers Union. The Agent must make contact with United Brands Co. for these workers.

TANKERS: Quay No. 2 fitted with pipes for discharge of refined products.

FRESH WATER: Available throughout the year. The pumping capacity is 2–3 t.p.h.

FUEL: Not available.

REPAIRS: No facilities for repairs to vessels.

PROVISIONS: Obtainable in the local market; but it is preferable for provisions to be obtained in Colon.

TIME: GMT minus 5 hours.

CONSULS: Costa Rica, El Salvador, Honduras, Nicaragua.

MEDICAL: A modern hospital is available in Changuinola 20 km. from Almirante. Almirante also has a small hospital.

CUSTOMS ALLOWANCES: The Customs offices are in the port vicinity. Permitted quantities are 2 packs of cigarettes of 20 packets each per crew member and 2 bottles of whisky or other alcoholic drink per crew member for consumption on board.

TELEPHONE: There is a micro-wave telephone service to Panama and other places in America. The Port Authority has telephones in their offices, but there are none available for installation on vessels.
OPENING/CLOSING HATCHES: Carried out by stevedores.
DENSITY: 1.022 gm./cu.cm.
SHORE LEAVE: No restrictions.
POLICE/AMBULANCE/FIRE: Available in Almirante.
REPATRIATION: Can be effected without difficulty.
AIRPORT: There is a small airport at Changuinola 21 km. from Almirante, which connects the province of Bocas del Toro with the rest of the Republic. There are 2 flights a day between the airport of Changuinola and General Omar Torrijos Herrera in Panama City. Changuinola is connected with Almirante by railway.
DEVELOPMENTS: It is planned to reposition the buoys marking the port entrance channel for the purpose of obtaining a minimum depth of 9.7 m. along the whole of the port access channel.
AUTHORITY: National Port Authority, Apartado 8062, Panama 7, Panama. *Tel:* 69-5444. *Telex:* 2765. *Contact:* Captain Jose de los Santos Motta, Director General.

Port Administrator-Almirante, *Tel:* 78-9301.

BAHIA LAS MINAS (Colon): 09.24 N. 79.49 W. (See Plan)

LOCATION: Situated 11 km. to the East of the entrance of the Panama Canal on the North Coast.
DOCUMENTS:

2 General Declarations.
1 Clearance Certificate from last port of call.
5 Cargo Manifests, or Declaration to the effect that no cargo is carried.
4 Passenger Lists, or Declaration that no passengers are onboard.
2 Supply Lists, or Declaration that no supplies are carried.
2 Lists of Crew's Personal Effects, or Declaration that none carried.
1 Maritime Health Declaration.
2 Mail Lists or Declaration that no mail is carried.
2 Crew Lists.

PILOTAGE: Compulsory for all vessels entering the port and is offered by the Pilots of the Marine Department of the Refineria Panama S.A.

Vessels must await the Pilot beyond Buoy No. 1 painted white, with a flashing white light every 3 seconds. The best position for anchoring is near Buoy No. 1 in position Lat. 09° 25′ 30″ N. Long. 79° 40′ 35″ W. where there is a depth of 63 ft. to 66 ft.

Vessels wishing to enter the port may call up the Port Authority on VHF Channel 12 or Refineria Panama on VHF Channel 16.

The Pilot craft has a black hull and white superstructure. When weather conditions are bad, a tug is used for boarding vessels.

The boarding ladder is placed in accordance with conditions of the sea.

Vessels may also ask for a Pilot via their Agents who will communicate the request to Refineria Panama. In this case, they must give an ETA 12 hours in advance.

RESTRICTIONS: The Port of Bahia Las Minas is mainly an oil port, specialised in importing crude oil and exporting refined products, being operated from an oil aspect by Refineria Panama S.A., and administered by the National Port Authority.

Apart from the tanker quays, there is a small quay for handling general cargo, length 90 m. This quay is administered and operated by the National Port Authority. The access channel to the port has a width varying from 300 m. in its widest part to 100 m. in its narrowest part, and a minimum depth of 40 ft. at the tanker quays. However, the general cargo quay can only take vessels of up to 23 draft. Tidal variation in this port is less than 1 ft., and so there are no restrictions for entry and leaving relating to tides.

MAX. SIZE: The port can be used by vessels up to 240 m. LOA at its tanker installations and their draft may not exceed 40 ft.

The general cargo quay can be used by vessels up to 152 m. LOA and 23 ft. draft. However, restrictions in vessels' lengths vary when the quay is used by Ro/Ro vessels which tie up by the bow or the stern, and in this case vessels up to 600 ft. length are permitted.

HEALTH: When a vessel arrives it must hoist the yellow flag of the International Signalling Code. Free Pratique will be granted by the Reception Commission after handing over of documents (See "Documents"). In the case of illness on board, this must be communicated to the vessel's Agent so that he may pass on the information to the Authorities. The vessel may not moor or carry out any operations until the doctor has come on board and verified that the illness does not constitute any danger.

RADIO: Vessels may communicate via the coastal station of the Panama Canal. Generally speaking, the same ships' agencies operating in the Canal are those who represent vessels arriving at Bahia Las Minas.

VHF: The Port Authority has VHF equipment at Colon which operates 24 hours a day on Channels 12 and 16.

For calls to the Port Authority, Channel 12 must be used. Refineria Panama also has VHF radio equipment and calls must be made via Channel 16.

RADAR: There is no radar service.

TUGS: Refineria Panama S.A. supplies this service to vessels which may require it. There are 4 tugs available. Generally, tugs work at the bow and stern of the ship, and lines must be fixed by the vessel's crew.

BERTHING:

Quay	*Length*	*Depth (Average low tide)*
Tanker quay	140 m.	40 ft.
2 lighter quays (refined products)	75 m. each	20 ft.
General cargo quay	90 m.	23 ft.

CRANES: There is no cargo handling equipment on the general cargo quay. All unloading must be by ship's gear.

SPECIAL CARGO FACILITIES: The dry cargo quay is used by Ro/Ro vessels making regular trips between Miami and Panama. The port offers unloading and loading services to these vessels.

The oil quays have special equipment for unloading and loading oil and its derivates.

STEVEDORES: These are provided by the Colon Port Workers' Union, and must be contracted by the ship's Agent. Working hours: 0700 – 1500 hrs. and 1700 – 0100 hrs.

MEDICAL: Hospital available in the town of Colon 15 minutes from the port.
FRESH WATER: Available.
FUEL: Pipe-lines are available at all oil quays, but no such facility is available at the general cargo quay.
PROVISIONS: These can be obtained in the town of Colon via local suppliers, the Agent making the necessary arrangements.
DENSITY: 1.0212 grams per cu.cm. at 85°F.
TIME: Local time is GMT minus 5 hours.
CONSULS: Denmark, Finland, Norway, South Africa, Sweden, U.K.,
REPAIRS: Refineria Panama S.A. has a machine shop for minor repairs.
TELEPHONE: None available for connection to vessels. Available in the Port Authority offices. Tel: 42-1658.
AIRPORT: There is a small runway at Colon. At Panama, 90 km. from Colon, is the airport General Omar Torrijos Herrera, which is an international airport, served by the main world airlines.
HOLIDAYS: 1st January, 9th January, Mardi Gras, 1st May, 11th October, 2nd and 3rd November, 4th November, 8th and 25th December.
POLICE/AMBULANCE/FIRE: Available in Colon. Refineria Panama has a small fire brigade, and also in the town of Colon, 15 km. away, there is a fire brigade.
REPATRIATION: This can be done without difficulty via the Immigration offices.
SHORE LEAVE: No restrictions; but due to the distance between the port and Colon, a taxi service must be used.
SERVICES: No special services offered. In the ports of the Canal it is possible to have compass adjustments, laundry, chemicals, etc.
AUTHORITY: National Port Authority, P.O.Box 8062, Panama 7, Republic of Panama. *Tel:* 69-5444. *Telex:* 2765. *Contact:* Captain Jose de los Santos Motta, Director General.

National Port Authority, Bahia Las Minas, Colon, Republic of Panama. *Tel:* 42-1658, 47-9181. *Contact:* Port Administrator.

BALBOA: 08.58 N. 79.34 W. (See Plan)

(N.B. For items not listed below, see "Panama Canal".)
DOCUMENTS: See "Panama Canal".
PILOTAGE: Pilotage in the Port of Balboa is compulsory, and is effected by Pilots of the Canal Commission.

Vessels arriving for the purpose of using the port area in order to make use of a port facility must also pay for the pilotage service, which will be requested by the Agent.

Vessels of 150 g.r.t. or less do not require a Pilot.

When due to "force majeure" a vessel may have to enter the waters of the port area, this may be done without using a Pilot.

With regard to pilotage, furthermore, the vessel must comply with the 4 points in the Notice to Shipping which appear under the heading "Pilotage" in the port of Cristobal.

Also see "Cristobal".

ANCHORAGES: Vessels must anchor in the various allocated areas for the port.

a) *Anchorage for Merchant Vessels:*
This area is limited by the following co-ordinates:
Lat. 8° 51′ 50″ North, Long. 79° 30′ 00″ West
Lat. 8° 54′ 30″ North, Long. 79° 30′ 46″ West
Lat. 8° 54′ 46″ North, Long. 79° 30′ 00″ West
Lat. 8° 53′ 26″ North, Long. 79° 31′ 22″ West
and continuing out to sea.

b) *Prohibited Anchorage Area:*
This is limited by the following co-ordinates:
Lat. 8° 51′ 50″ North, Long. 79° 30′ 00″ West
Lat. 8° 52′ 47″ North, Long. 79° 31′ 38″ West
Lat. 8° 52′ 58″ North, Long. 79° 32′ 31″ West
Lat. 8° 54′ 15″ North, Long. 79° 33′ 36″ West
Lat. 8° 55′ 12″ North, Long. 79° 32′ 25″ West
Lat. 8° 54′ 17″ North, Long. 79° 30′ 52″ West
Lat. 8° 53′ 26″ North, Long. 79° 31′ 22″ West
and from here to the initial point.

c) *Anchorage Area for Vessels Carrying Explosives:*
This area is defined by the following co-ordinates:
Lat. 8° 52′ 47″ North, Long. 79° 31′ 38″ West
Lat. 8° 51′ 52″ North, Long. 79° 31′ 38″ West
Lat. 8° 51′ 52″ North, Long. 79° 33′ 00″ West
Lat. 8° 52′ 36″ North, Long. 79° 32′ 31″ West
and from here to the initial point.

RESTRICTIONS: Port open throughout 24 hours.
MAX. SIZE: Harbour limitations generally unrestricted as to length and beam. Depth about 40 ft. low water. Vessels in excess of 38 ft. 6 in. draft not handled during period 2.5 hours before and 2 hours after low water. Average tide 3.97 m. (13 ft.).

Tankers working cargo restricted to 700 ft. length and 36 ft. salt water draft.

TUGS: Available and assigned for berthing by Pilot. Tug's lines used at no extra charge.

VHF: Vessels must make contact with the port via VHF Channel 12. Commercial telephone calls and messages to Agents must be made via Panama Radio, VHF Channel 16.

BERTHING: No specific requirements as to arrival times. Nine berths available.

(Pleasure yachts, under 65 ft. length, may be permitted to dock at Panama Canal Yacht Club or Balboa Yacht Club after clearance by Boarding Officer and after Master has received permission from Port Captain, Customs Authorities and Yacht Club Officials concerned. Chief Customs Inspector shall have authority to grant or deny such permission at his discretion.)

Rodman Naval Station: Piers can accommodate vessels of 700 ft. length and up to 39 ft. draft for oil discharge, bunkers or stores.

NPA Dock	*Usable length*	*Depth (M.L.W.S.)*	*Remarks*
6	742 ft.	11.1 m.	Bunkering/Tankers
7	1,058 ft.	11.0 m.	Containers
8	470 ft.	9.6 m.	Repairs/Containers
14	775 ft.	12.0 m.	Containers, Bunkering and Bulk Cargoes
15	1,146 ft.	13.2 m.	
16	742 ft.	12.6 m.	
18–A	500 ft.	12.4 m.	General Cargo and Bunkering
18–B	500 ft.	11.6 m.	
18–C,D	1,000 ft.	13.2 m.	

STEVEDORES: In Balboa there are 7 ship gangs and 4 shore gangs, who are available every day of the year, 24 hours a day.

Endeavour to arrange arrival to avoid cost of "stand by" as Agent arranges gangs for 0700 hrs. or 1700 hrs. commencement. Working Hours: 0700 –1500 hrs., 1700 – 0100 hrs. Overtime possible between 1500 – 1700 hrs. and 0100 – 0700 hrs.

CARGO HANDLING EQUIPMENT: The Port of Balboa has different equipment for handling cargo. To handle general cargo and containers, there are cranes with capacities of 2, 4, 10, 15, 30 and 40 tons, chassis, internal lorries, tractors of the agricultural towing type, roller platforms. Bulk cargo handling is by conveyors and suction pumps.

CRANES: Dock 15 has a container crane with 32.5 tons' capacity. The crane is owned by U.S. Lines. Mobile cranes of 10 tonnes and 18 tonnes available.

The Dry Dock Department has 4 cranes: A "D-4", steam crane, with max. capacity of 50 tons, and a "D-19" diesel electric crane with max. capacity of 30 tons. These 2 cranes run on rails alongside Dry Dock No. 1, and along Docks 8 and 13, also providing service to Docks 2 and 3.

Apart from cranes "D-4" and "D-19", the Dry Dock Department has two petrol-electric portable cranes with max. 5 ton capacity.

MEDICAL: Medical attention on arrival at the port of Balboa can be immediate, since there is a First Aid Clinic with a doctor and nurse on duty by day. At night there is a nurse on duty.

DENSITY: The density of the water in the anchorages in the Port of Balboa is 1.01219 gm./cu.m., at a temperature of 85°F (63.87 lbs./cu.ft. at 85°F).

TANKERS: Max. draft 36 ft. (Under certain conditions 40 ft. draft can be accommodated). Tankers receive preferential treatment at Docks 4 and 6, and at Quays 1, 2 and 3 of the Rodman Naval Station.

FRESH WATER: Available at Docks 14, 15, 16 and 18.

FUEL: Bunker "C", marine diesel, petrol, light diesel, paraffin, HDO, LDO and FO are available at Quays 4, 6, 7, 14, 15, 16 and 18. At some of these quays, only certain of the mentioned products are available.

Rate of discharge of fuel is 2,000 – 4,000 bbls./p.h. Crew members are required to connect and disconnect fuel lines on board vessels. The vessel provides the accessories for necessary coupling adjustment to U.S. standard of 4 in. and 6 in. 150 lb. flanges.

A bunkering area has been established in the Pacific Anchorage.

REPAIRS: Emergency repairs possible. The most current repairs are: Machinery in general, welding, different kinds of painting, hull cleaning and sand blasting.

DRY DOCK: There are 3 docks, of which the main one is Dry Dock No. 1 (60,000 d.w.t.). Characteristics of Dock Nos. 1, 2 and 3 are:

Dry Dock	*Total Length* (m.)	*Width* (m.)	*Depth Max.* (m.)	*Depth Av.* (m.)	*Depth Min.* (m.)
No. 1	318.21	43.59	12.77	8.88	8.35
No. 2	111.56	28.04	8.05	4.09	3.62
No. 3	71.73	14.94	5.76	1.87	1.31

POLICE/AMBULANCE/FIRE: All quays have special connections for water to be used in fire-fighting.

The telephone numbers of the departments of police, ambulance and fire brigade which are nearest to the port are:

	Tel.
Police	104
Ambulance	64-3871 (Social Security)
Hospital Santo Tomas	25-1436
Red Cross	28-2786 and 28-2787
Fire Brigade	52-2592 (Balboa)

AIRPORT: The international airport of General Omar Torrijos Herrera is located 32 km. (approx.) by road. This airport has flights to different parts of the world.

TELEPHONES: Telephone services can be installed on board by arrangement between the Master and the Port Administrator.

SHORE LEAVE: Generally permitted, landing card required.

CUSTOMS: Customs and Immigration Inspection Service available Monday to Saturday from 0700 to 1700 hrs. Charges for such service after hours and on Sundays and holidays. Number of Inspectors required will be determined by Chief Customs and Immigration Inspector of port.

DELAYS: Delays in berthing, load or discharge or bunkering are minimal and infrequent. Eight hours is considered excessive.

AUTHORITY: National Port Authority, Apartado 8062, Panama 7, Panama. *Tel:* 69-5444. *Telex:* 2765. *Contact:* Captain Jose de los Santos Motta, Director General; Jose A. Reyes, Director of Operations.

Balboa Port Administrator. *Tel:* 32-5844 (Ext. 103).

AGENT: C. Fernie & Co., S.A. Apartado (P.O.Box) 212, Balboa, Ancon, Republic of Panama. Cable Address: "Fernie Balboa". Telephone Nos.: 62-1372, 62-2018, 62-2019 or 62-2021. After office hours telephone numbers: 50-0030 or 34-1401. VHF: Standby Channels 10 and 16.

All communications should be directed to Cristobal, Republic of Panama.

CHIRIQUI GRANDE: 08.56 N. 82.07 W. (See Plan)

LOCATION: The Petroterminal Transhipment Terminal is located in the Laguna de Chiriqui on the Western side of the village of Chiriqui Grande in approximate position Lat. 8° 56′ N., Long. 82° 07′ W.

The Terminal is linked by pipe-line to Puerto Armuelles Oil Terminal in the Pacific. Oil flow is one way only from the Pacific to the Atlantic Terminus.

DOCUMENTS: The following documents are required:

2 General Declarations.
1 Clearance from Previous Port.
5 Cargo Manifests or Declaration that no cargo is carried.
3 Crew Lists.
4 Passenger Lists or Declaration that no passengers are carried.
2 Supplies Declarations (Stores Lists) for Crew or Declaration that there are no supplies.
2 Crew Personal Effects Declarations.
1 Maritime Health Declaration.
2 Mail Lists.
1 Bill of Lading.

Also see "Health".

PILOTAGE: *Pilotage for Canal del Tigre:* Pilotage for the channel leading into the Laguna de Chiriqui is optional.

Masters requesting a Pilot for the passage into the lagoon should follow the procedure outlined under "Anchorage".

The Master will act as Pilot for those vessels wishing to proceed directly to the inner (lagoon) anchorage, without taking a Pilot, and will observe all applicable Navigation Rules.

Vessels arriving and intending to proceed through the Canal del Tigre to anchor are requested to give outbound vessels priority in the use of the buoyed channel.

In sending arrival times, it should be remembered that the pilot boat requires about 1 hour to travel from the base at Chiriqui Grande to the pilot station (see "Pilot Station" below).

Pilotage/mooring/unmooring to the SBMs is available on a 24 hour basis and supplied by the Terminal on terms set out in the Terminal's Pilotage/Towage contract, which must be signed by all Masters.

Pilot Station: For arriving vessels which require a Pilot, the pilot station is in position Lat. 9° 12′ N., Long. 81° 59′ W. For ships arriving, the ladder will normally be rigged on port side (heading S.W.) approximately 4 ft. from the water and for ships departing, on starboard side approximately 4 ft. from water. Pilot ladders to be in good condition and conform to international standards.

Vessels with a freeboard of 30 ft. or more shall provide a suitable accommodation ladder in addition to pilot ladder. This ladder must be rigged on the starboard side to avoid interference with the cargo hose connection. Vessels rigged in this manner may have to turn N.E. to make a proper lee for boarding the Pilot.

The Master remains responsible for the proper navigation of his vessel, Pilot aboard or not, throughout the time his vessel is attending this facility.

Pilot Boats: Pilot boats are 36 ft. in length, with blue hull, white deckhouse with "Pilots" on either side. The boats are equipped with VHF Channels 16, 14, 13, 12, 11 and radar.

Also see "Mooring".

ANCHORAGES: All vessels at anchor awaiting turn at the SBMs should maintain a radio watch with the terminal ("Rambala Control") on Channel 16 VHF calling (working Channel 14).

Vessels Not Berthing on Arrival: Pilot will be available to bring vessel into lagoon anchorage, if requested by the Master (call on Channel 16 or 14).

If Pilot is not available, vessel should anchor outside the lagoon and maintain a listening watch on VHF Channel 16. The terminal will advise vessel of docking time sufficiently in advance to make necessary preparations.

Outside: Vessels may anchor on the coastal shelf outside the lagoon. Suggested anchorage location in area Lat. 9° 12′ N., Long. 82° 00′ W. where the mud bottom provides good holding ground.

At the Master's option, the vessel may proceed to the lagoon anchorage. Vessels inbound are requested to make a VHF traffic call before entering the channel, and give priority to vessels outbound.

In Lagoon: The area to the East of the SBMs is probably the most convenient area for anchoring. The bottom of the lagoon is reported to be soft mud. Vessels should keep at least 2 miles clear of SBM if at anchorage. Suggested anchorage location between Latitudes 8° 59′ N. and 9° 00′ N. and Longitudes 82° 00′ W. and 82° 04′ W.

RESTRICTIONS: Depth at SBM 72 ft. Depth in approach channel 120 ft.

MAX. SIZE: 150,000 d.w.t.

HEALTH: *Quarantine/Pratique/Documentation:* The Port Officials will board the vessel after mooring or at the anchorage within the lagoon as the case may be.

The ship's Agent will advise the Master of the anticipated boarding time sufficiently in advance.

APPROACHES:

Laguna de Chiriqui: Laguna de Chiriqui deep-water bay, about 30 miles long, in an East/West direction, and about 10 miles wide, is bound on the East by Peninsula Valiente, on the South and West by the mainland, and on the North by Isla Popa, Cayo Agua, and the adjacent islands and reefs. Canal del Tigre, which lies between Peninsula Valiente and Cayo Agua, is the main access channel into the lagoon.

The North side of the lagoon, including the entrance is fringed by detached shoals. These lie up to about 5 miles South of the entrance and along the East shore of the lagoon. The West end of the lagoon South of the fringing reefs is almost entirely clear of dangers.

The low shores of the lagoon are indented by numerous small bays and rivers and marked by several villages.

Canal del Tigre (Tiger Channel): The North approach to Canal del Tigre lies between Roca Tigre and the S.E. side of Cayos Zapatilla to the West.

Punta Valiente (Lat. 9° 11′ N., Long. 81° 55′ W.) a bold densely wooded point, rises to an elevation of 152.4 m. to 182.9 m. (500 ft. to 600 ft.) on the East side of the East entrance to Laguna de Chiriqui. Foul ground extends about 1.25 miles West from the point and continues South about 1.75 miles to the entrance to Bluefield Creek. Cayos Valiente, a group of islets extending about 0.25 miles in an East and West direction lie on the North part of this reef. Virginia Rocks lie on the West edge of the reef about 1.25 miles W.S.W. of Punta Valiente, and Bluefield Rock, 9.8 m. (32 ft.) high, stands on the South edge about 1.5 miles South of the point.

Valiente Peak (Lat. 9° 10′ N., Long. 81° 55′ W.), a conspicuous 231 m. (758 ft.) hill, stands about 1 mile south of Punta Valiente.

Cayos Tigres (Tiger Cays), several islets lying in an East and West direction for about 1 mile, stand about 1.75 miles North of Punta Valiente. Roca Tigre, a detached 8.5 m. (28 ft.) rock marked by a white beacon, stands about 2.5 miles N.N.W. of the same point. Tiger Breakers, over which the sea breaks heavily, together with several shoal patches, lie on a bank within about 0.75 miles N.W. of Roca Tigre.

Canal del Tigre leads into Laguna de Chiriqui, this channel is buoyed (see "Navigation").

NAVIGATION: Approach to the Terminal is from approximately N.E.

The controlling depth for the port is 72 ft. (at the SBMs). There is deeper water in the approach.

There are 4 principal navigation aids available to mariners:

1. Roca Tigre Light.
2. Roca Tigre Racon.
3. Canal del Tigre buoys.
4. Terminal leading lights and daymarks.

SBMs: The SBMs are fitted with flashing white lights, and the hoses with white winker lights (Fl.W. ev. 1 sec.).

SBM No. 1 (North) Lat. 8° 58′ 04″ N., Long. 82° 06′ 27″ W.
SBM No. 2 (South) Lat. 8° 57′ 28″ N., Long. 82° 06′ 06″ W.

Terminal Leading Lights and Daymarks: Lights in line 212° – 032° (T).

Front Fl.W. ev. 1 sec.(0.3 sec. on, 0.7 sec. off)
Lat. 8° 56′ 29.8″ N., Long. 82° 06′ 47.9″ W.
Rear Oc.W. ev. 4 sec.(3.7 sec. on, 0.3 sec. off)
Lat. 8° 56′ 28.9″ N., Long. 82° 06′ 48.5″ W.

These lights are cylinder lights visible approximately 10° each side of transit line.

Daymarks: White panels 24 ft. in height, 12 ft. wide with 4 ft. vertical black stripe in centre.

Canal del Tigre – Channel Marking Buoys

Buoy		*Position*	*Characteristic*
No. 1	Lat.	9° 08′ 34″ N.	Fl.G. 4 sec.
	Long.	81° 58′ 56″ W.	
No. 2	Lat.	9° 08′ 40″ N.	Fl.R. 4 sec.
	Long.	81° 59′ 56″ W.	
No. 3	Lat.	9° 08′ 00″ N.	Fl.G. 4 sec.
	Long.	81° 59′ 13″ W.	
No. 4	Lat.	9° 07′ 59″ N.	Fl.R. 4 sec.
	Long.	82° 00′ 9″ W.	
No. 5	Lat.	9° 06′ 16″ N.	Fl.G. 4 sec.
	Long.	82° 00′ 11″ W.	
No. 6	Lat.	9° 06′ 11″ N.	Fl.R. 4 sec.
	Long.	82° 01′ 01″ W.	
No. 8	Lat.	9° 05′ 35″ N.	Fl.R. 4 sec.
	Long.	82° 01′ 20″ W.	
No. 9	Lat.	9° 04′ 33″ N.	Fl.G. 4 sec.
	Long.	82° 00′ 16″ W.	

All buoys are equipped with a solar panel and radar reflector built into the tower structure of the buoy.

Roca Tigre: Light exhibited from steel tower 50 m. above sea level. (Beacon on chart). Lat. 9° 13′ 02″ N., Long. 82° 56′ 28″ W. Flash ev. 5 sec. (1.5 sec. on, 3.5 sec. off). Visible 35 miles on a clear night.

Racon: Frequency range – 9500 MHz (3 cm.) swept frequency type.
Azimuth coverage 360° Sweep period – 70 sec.
Nominal range 18 miles. Transmission – 24 hours.

This Racon operates in the marine radar band, being actuated by the ship's radar in the course of normal operation. It gives the observer his range and bearing from the position of the beacon.

The Racon signal appears as narrow flash/letter "P" (· – – ·) or lengthened echo superimposed on the radar screen on the bearing of the Racon, commencing at a point just beyond the Racon position and continuing radially outwards, away from the vessel.

The Racon sweeps the frequency band 9300/9500 MHz once every 70 seconds approximately, and the flash will appear on the screen for a few radar trace revolutions.

The number of successive flashes seen will depend on the distance of the ship from the Racon site and will be fewest at maximum distance.

Range measured to the point where the flash begins will be about 60 m. greater than the range of the Racon.

If interference with the normal radar display is experienced from the Racon signal, it may be reduced by suitable adjustment of the differentiator or anti-clutter controls on the ship's radar set.

Terminal Lights: It is reported that the yellow lights on the crude oil tanks, located at Lat. 8° 56.6′ N., Long. 82° 08.3′ W., elevation 200 m., can be seen at a great distance on a clear night.

The red communications tower light, located 200 m. East of the crude oil tanks, and elevation of 250 m. can be similarly observed.

The white working lights within the terminal are also reported to be conspicuous.

RADIO: Notices/Time of Arrival:

A. *ETAs:*

ETAs may be sent via ship's Agents who will notify the Terminal. All communications with Chiriqui Grande should be in local time (ZD+5).

ETAs at the pilot station should be received by the Terminal at least 72 hours prior to the vessel's arrival and any variation of more than 4 hours advised.

B. *ETAs should include:*

1. Vessel's name.
2. ETA pilot station (local time).
3. Quantity of oil required.
4. Any condition that will affect loading operations, including estimated quantity of ballast to be discharged ashore.
5. Deviations from the recommended fittings.

In practice the Terminal is notified by the customer what cargo is required and the Terminal has the data on all vessels that have already visited Petroterminal.

In giving arrival times, it should be noted that the Terminal is interested in the time the vessel will arrive at the pilot station (not when the ship made "end of passage").

Notice of Readiness: Notice of Readiness is considered to be received by the Terminal when the vessel arrives at the pilot station or, if going to anchorage, when the vessel anchors.

VHF: *Radio Communications:*

Frequency Allocation

Channel	*Use*
13	Cargo handling only.
11	Alternative cargo frequency. (Use only on instruction from "Rambala Control").
14	Pilots' and boats' working Channel.
16	Calling. All vessels at anchor maintain a listening watch on this Channel.

General: Vessels at anchor within the lagoon are requested to refrain from using VHF Channel 13; since a persistent FM "Duct" causes interference with cargo operations at the other PTP Terminal at Puerto Armuelles. Channel 14 use should be minimised for the same reason.

Always identify calling vessel and vessel being called.

Vessels approaching the Terminal should establish VHF communications as soon as they are within range (about 50 miles).

The Terminal maintains a continuous listening watch on Channel 16.

Call sign for the Terminal is "Rambala Control".

Call sign for the Pilots is "Chiriqui Grande Pilots".

Vessels at anchor should maintain a listening watch on Channel 16.

Most Terminal radios are equipped with Channels 11, 13, 14 and 16.

Communications While at SBM: All communications while at the SBM will be conducted in the English language.

Deballasting and loading operations will be controlled by VHF radio communication between the vessels at the SBM and "Rambala Control" on VHF Channel 13.

The Berthing Master will bring 2 portable VHF radio units on board at the time the ship begins its approach to the SBM. One of these radios will be assigned to the person in charge of ballast and cargo operations. The person in charge must maintain this radio in his possession *at all times*. This radio must not be changed to any other channel unless instructed to do so by "Rambala Control".

All cargo communications will be identified by ship's name.

Communications Failure: In the event of a complete communications failure, vessels at the SBM will indicate their inability to make VHF contact by sounding 5 long blasts on the ship's whistle or siren. At night, the vessel's signal searchlight or Aldis lamp may be used to alert control room personnel (at the base of the pier).

(It may not be possible for a vessel at the North SBM to see the Control Room while lying West of the buoy).

Agency Communications: Agents wishing to contact ships will call "Rambala Control" on VHF Channel 16 and request the operator on duty to so advise the ship.

Ships may call their Agent on Channel 16. Ship/agency business cannot be communicated on Channel 13.

Ships must use their bridge VHF, on LOW POWER, when communicating with Agents, to avoid interference with cargo communications.

The cargo operations radio must not be used for agency traffic, or changed from Channel 13 unless so directed by "Rambala Control".

TUGS: *Floating Equipment:* 2×36 ft. Mon Ark Pilot Boats, equipped with radar and echo sounder. 2×6V-71 GM engines.

2×42 ft. Mooring Launches (DAMEN). 1×8V-71 GM engine.

1×1,000 h.p. 85 ft. tug "Carey".

1 Work Barge equipped with 40 ton crane, accommodation and workshops, 140 ft.×40 ft.

1×30 ft. Marco Oil Skimmer Boat.

Various small boats powered by outboard engines.

SBMs: The catenary anchor leg mooring buoys are designated "South SBM" and "North SBM". A double channel rotating head on the turntable allows two completely segregated flow streams to be routed through the buoy. The rotating head can be connected with the tanker through 2×20 in. hose strings. For initial operation only one string will be used. 2×20 in. manually operated ball valves act as block valves between the rotating head and each 20 in. hose with a third 20 in. manually operated ball valve mounted in a by-pass between the two. This allows interchangeability of the hose strings when both strings are in use or allows diversion of the ballast water into its respective channel in the rotating head when only one hose string is installed.

Battery driven navigation lights and fog horn are installed in accordance with marine regulations. The fog horn is remotely operated by radio from Chiriqui Grande Control Room.

EQUIPMENT: Strops and shackles will be held by the Terminal for use in the event a vessel does not have this equipment:

The vessel to have the following equipment:

On Forecastle Head:

1. 2 Ship's mooring ropes with 12 ft. tails of 3.5 in. – 4 in. circumference lashings to make fast to pick-up rope. These two mooring ropes must be married together using one of the 12 in. tails before approaching the buoy.
2. 3 stoppers of 3.5 in. – 4 in. circumference and 12 ft. long.
3. Fire axe.
4. 100 ft.×3.5 in. – 4 in. messenger rope.

Anchors to be ready for use but in *stowed* position in hawsepipe.

Bow Chocks of Vessel: Should be of suitable size (approx. 24 in.×18 in.) to take the 3 in. chafe chain approximately 16 in. × 8 in. for the rope rig (13 in. circumference rope eye).

If Smit or other type brackets are fitted, they should be in accordance with OCIMF publication "Standards for Equipment Employed in the Mooring of Vessels at SBM".

Manifold Area:

1. 2×12 in. reducers in place on the manifolds to be used for discharging ballast and loading cargo.
2. Cargo boom – SWL 5 tons. Plumbed 2 ft. – 3 ft. inboard and midway between two manifolds.
3. 1 handy-billy (small 2 and 1 block and tackle).
4. 2 nylon hose slings (wide).
5. 1 small come-along (approx. 1.5 tons).
6. 1 heaving line.
7. 3 bolts long enough to bolt hose/manifold flange.
8. 2×3.5 in. – 4 in. circumference rope slings approximately 8 ft. length.
9. 2×3.5 in. – 4 in. circumference rope approximately 60 ft. length (eye in one end).
10. 1 boat hook or chain hook.
11. 4×12 in. gaskets.

At Stern of Vessel: One mooring rope – eye lowered to water level and made fast on bitts.This will enable launch to pull vessel away from buoy.

Note: It may be requested that the vessel leave steam cracked open on astern turbine to avoid vessel riding up on buoy.

Petroterminal Launch Will Carry:

1. Sufficient bolts to bolt hoses.
2. Suitable ring spanners.
3. 2×6 ft. chain stoppers with 3 in. circumference nylon tails 8 ft. long.
4. Spare keys to camlocks.
5. Spare rope slings.

MOORING: *Mooring Gang/Hose Gang:* As the vessel approaches the SBM the Terminal Mooring Gang of approximately 5 persons will board the vessel by pilot ladder and/or accommodation ladder. The same ladder used by the Pilot will suffice.

If there is additional gear to be put aboard the vessel, the boom at the port side manifold should be manned and the hook lowered to lift the bucket of gear.

Winch/Capstan/Windlass Operators: The ship will provide personnel to operate all deck machinery and assist the Petroterminal Mooring Gang. On completion of hose connection the gang will leave the vessel.

The Pilot/Berthing Master: Remains aboard the vessel whilst the ship is at the SBM. A cabin should be provided for his use.

A Berthing Master will assist and advise in the connection and disconnection of hoses/moorings, etc. During deballasting and loading operations he will be available to assist and advise on procedures. In cases of oil spill or other emergencies, he will advise the Master.

The Berthing Master will be the Terminal's Representative on board the vessel and will have the authority to stop all operations if regulations or required procedures are not observed.

Where any disagreement arises between the vessel personnel and the Berthing Master regarding some aspect of the SBM procedure, the procedure to be followed will be that which provides closest compliance with guidelines established by the latest edition of International Safety Guide for Oil Tankers and Terminals, published by the International Chamber of Shipping, Oil Companies International Marine Forum.

Mooring to SBM: The ship will approach the buoy from downwind maintaining the wind exactly ahead. (Adequate ballast should be retained to maintain manoeuvrability).

From the stem chock, or a port bow chock close to the stem, lead a mooring rope (eye-end) and lower the eye to the waiting launch.

(For the Smit Bracket, a chock approximately 24 in. × 18 in. will be required.)

The launch will take the ship's mooring rope and secure it to the buoy approach rope. This approach rope (480 ft.×10 in. plaited polypropylene) is hove aboard with the ship's windlass, heaving the vessel toward the buoy. Made fast to the end of the buoy approach rope is a 45 ft. × 13 in. circumference stable braid strop with a 5 ft. eye. The eye of this strop should either be placed on the bitts or made fast by means of a short strop and shackle.

Vessels equipped with a Smit bracket will secure the buoy rig to the bracket using a pear link and shackle.

ALTERNATIVE RIG: See "Plan".

From the port bow or centre chock, a mooring rope (with eye in end) is lowered through a fairlead sufficiently large to permit the entry of chain chafing cable and steel triangular plate 9 in. × 7 in.

The launch will take this rope and secure it to the buoy approach rope. This approach rope (480 ft. of 10 in. plaited polypropylene) is hove aboard first, heaving the vessel toward the buoy.

Prior to heaving the buoy rope aboard, a heavy wire strop will have been placed on the port side of the forecastle, onto suitably placed bitts, with 50 ton shackles in readiness.

This shackle is secured both to the wire strop and the triangular plate. Once the shackle is fast, the weight is released from the approach rope and allowed to come onto the wire strop. The chafing chain tail and buoy rope are then cast off the windlass.

Strops and shackles will be available from the terminal for use in the event a ship does not have this equipment.

The approach rope is made fast to the bitts.

If required additional back-up is needed, ropes can be made fast to the other links in the chafing chain. This should not be necessary with the good weather conditions of Chiriqui lagoon.

HOSES: *Connection of Hoses:* Once the vessel is safely secured at the buoy, the launch which had been holding the hoses clear during this operation will tow them to the port side of the vessel and they will be connected.

The hoses will be 2×12 in. and will be fitted with short spool camlock couplings. Forward 12 in. hose will be lifted first.

1. The vessel's boom will be plumbed so that it is approximately 2 ft. – 3 ft. inboard of port side and midway between the manifolds to be used.
2. The forward hose will be lifted first by the eye attached to the hose blank.
3. Hose will be lifted clear of water and level with ship's deck. Snubbing chain will then be brought on deck before hoisting hose any higher.
4. Once hose is at correct height above deck, snubbing chain will be made fast to bitts, hose lowered so weight is taken by snubbing chain. Hose will bend over to face ship's manifold. After the hose end blank has been removed, the hose will be connected to the ship's manifold with camlock couplings. "Come alongs" or handy billies may be used for positioning hoses. After securing the connection, check each camlock fitting to ensure that the ratchets are engaged.
5. The same procedure is followed for second hose.
6. When both hoses have been connected, the boom will be plumbed over the hoses and bar and webbing straps used to support hose, throughout transfer operations.
7. If camlocks alone will not provide a leak-free connection it may be necessary to use bolts to tighten the connection.

Camlock couplings at hose end: Pipe size, 12 in.; flange OD, 19 in.; flange thickness, 1.25 in.; seal ID, 13.375 in.; number of cams, 4; minimum locking range, 1 in.; maximum, 1.5 in.

Disconnection of Hoses: Once cargo operations have been completed, a reverse of the connection procedure is followed and the hoses lowered over the side, but made fast to the ship's side until the ship slips from the buoy or are towed clear by the launch – the reason for not immediately releasing the hoses is to keep them clear of the vessel's propeller.

Weight of Hose Strings for Single Buoy Moorings: The following table gives the approximate weights of hose strings in tonnes (including fittings, floats and pick-up buoy) with all hoses full of crude oil of S.G. 0.850. The assumed total lift is 7.5 m. (25 ft.) above deck level, with the tanker on light draft.

Size of Tanker	*12 in. I.D. Hose*
270,000	6.5
200,000	6.2
100,000	5.4
70,000	5.1
50,000	4.9
35,000	4.7
18,000	4.3

Information taken from International Safety Guide for Oil Tankers and Terminals manual.

Hose Information – Petroterminal:

	Tanker Rail Hose 12 in. (Barbel type)	Floating Hose 12 in.
Length	9.25 m.	12.19 m.
Weight	890 kilograms	1,940 kilograms
Electrically	Discontinuous	Continuous
Built-in fitting type	ASA 150	ASA 150
Ancillary equipment weight (flanges)	317 kilograms	—
Bend radius	1.85 m.	—

Hose make: Kleber (France).

BALLAST: Within the lagoon, ballast should be handled by type, as per international convention, as follows:

Segregated: All ballast in segregated ballast tanks should be visually inspected prior to discharge. After inspection, segregated ballast may be discharged overboard according to standard shipboard procedure.

Dedicated Clean: All ballast in dedicated clean ballast tanks should be visually inspected prior to discharge. After inspection, dedicated clean ballast tanks may be discharged overboard in accordance with IMO Regulations.

Treated: Ballast water which has been chemically treated (with detergents, emulsifiers, etc.) must be retained on board.

Others: All other ballast water will be pumped ashore prior to loading. The Terminal has 3×120,000 barrel tanks for the reception of dirty ballast. The ship will advise the Terminal of the quantity of ballast to be discharged ashore prior to commencing discharge.

Crude Oil Washing (C.O.W.): As vessels will be loading only, we do not anticipate any crude oil washing requests. Should the necessity arise, the Terminal should be advised.

LOADING: *Safety Check List:* Prior to start of operations, the Berthing Master and responsible Officer will complete the Safety Check List and also agree:

(A) Designated Smoking Areas.
(B) Galley and Appliance Limitations.
(C) Emergency Assistance.
(D) Vessel will be ready to move under her own power at all times whilst moored to SBM.

Pre-Transfer Conference: A Pre-Transfer Conference will be held between Berthing Master and responsible Officer prior to commencement of operations. (IOTTSG Chapter 5) to agree on procedures for deballasting and loading, including:

1. Communications between ship/shore/Berthing Master.
2. Deballasting procedures.
3. Cargo start-up procedure.
4. Any deviations from normal procedures.
5. Loading rates, initial, maximum and topping off.
6. Notice times required to change rates and shutdown procedure.
7. Emergency shutdown, moorings failure, oil spill, etc.
8. Any ship's deficiencies to be made known.
9. Any Terminal deficiencies to be made known.
10. Completion of loading.
11. Designated smoking areas.
12. Galley and appliance limitations.
13. Emergency assistance.
14. Vessel will be ready to move under her own power at all times while moored at the SBM.
   Prior to the start of operations, the Berthing Master and responsible officer will complete the Safety Checklist.

Flow Rates: The tanker loading system is designed to be able to load a tanker at each SBM simultaneously. Each system has a maximum loading capacity of 50,000 bbls.p.h. using 2 × 12 in. hoses or 60,000 bbls.p.h. using 3×12 in. hoses. The third 12 in. hose is not currently fitted.

Deballasting of tankers is also handled through the same hose as used for loading, at a designed rate of 30,000 bbls.p.h.

Pressures:

Maximum crude oil static pressure on shoreside manifold 339 p.s.i.g.

Maximum allowed static pressure on buoy system 275 p.s.i.g.

Maximum allowable static pressure at ship's manifold to be determined by the ship's Master and communicated to the Berthing Master.

All vessel operations in connection with deballasting/loading, switching of tanks, topping off, must be directly supervised by a responsible officer.

Deballasting/Loading: Upon being informed by the responsible officer that the vessel is ready in all respects to commence operations, the Berthing Master will request that deballasting or loading operations proceed according to previously agreed plans as discussed at the pre-transfer conference.

Deballasting procedures are conducted in the following sequence:

1. After the 2×12 in. hoses are connected, Terminal personnel will line-up the buoy valves, prior to vessel opening manifold valves.
2. Vessel will be notified when Terminal is ready to receive ballast.
3. Vessel will be instructed to commence deballasting at approximately 11,000 bbls.p.h.
   Rambala Control will advise when the discharge rate can be increased to the required tanker rail pressure to attain a 30,000 bbls.p.h. deballasting rate (111 – 120 p.s.i.g.).
4. The vessel will advise when deballasting is completed and shut down at manifolds.
5. The terminal will secure ballast system ashore.

Loading Operations:

Loading procedure will follow the sequence below:

1. The Terminal will change from ballast to cargo piping alignment at buoy (because of piping arrangement, ship can expect to receive about 400 barrels of dirty ballast at start of cargo loading).
2. The vessel aligns its piping to load cargo.
3. The vessel opens manifold and advises "Rambala Control".
4. The shore valves will be slowly opened to pressurise the system.
5. The vessel confirms that cargo is being received into tanks.
6. The Terminal will advise vessel hourly of loading rate. This routine also provides a radio check. If the ship does not receive its hourly rate check at the expected time, it should attempt to contact "Rambala Control".

Topping off/Completing: When topping off, the following procedures will be observed:

1. The vessel advises shore prior to start, topping off, and requests desired flow rate.
2. Using shoreside flow/pressure control valves, give vessel loading rate required.
3. When vessel indicates "Stop" the flow/pressure shoreside valve will be closed.
4. When flow has stopped ashore, "Rambala Control" will notify the ship to secure its manifold valves.
5. The vessel closes ship's manifold valves.

Stripping:

1. Shoreside stripping pumps will be started to clear the hose ends of crude oil. (Vent valves at ship's manifold should be opened.)
2. SBM and shore tank valves will be shut. Close vent valves.

Disconnection of Hoses: Once cargo operations have been completed, the procedure for disconnecting hoses is a reverse of the connection procedure. Hoses are then lowered over the side, but made fast to the ship's side until the ship slips from the buoy or the hoses are towed clear by the launch.

The reason for not immediately releasing the hoses is to keep them clear of the vessel's propeller.

Emergency Shutdown: In the event of an oil spill, line rupture or other cause which requires immediate shutdown, the vessel will advise the control to "Stop Stop Stop" and the flow/pressure control valves will be immediately shut. Simultaneously the vessel will close its manifold valves.

The ship will be advised immediately these valves have closed.

Oil Type:

Alaskan North – Slope Crude.
API Gravity 26.7° – 26.9°.
Sulphur 1.05.
Flash Point 0°F.
Reid Vapour Pressure 3.8 at 100°F.
Viscosity 60°F, 68 centistoke seconds.
Viscosity 100°F, 22 centistoke seconds.
Approximate loading temperature 80°F to 90°F.

EMERGENCY PROCEDURES:

Oil Spillages: Should an oil spillage occur from a vessel, from SBM, or from sea lines, "Rambala Control" is to be advised immediately and all shore and ship valves closed in the shutdown sequence.

The Berthing Master will be informed and will initiate action to counter oil spill following procedures as outlined in terminal oil spill manual.

Ship's crew will recover spilled oil from ship's deck.

Fire: In case of fire aboard a vessel, in addition to the internal ship board alarms, Masters are requested to sound a prolonged blast on the main siren or whistle.

If deballasting or loading, the vessel should:

1. Immediately cease all operations. If loading, call Control Room for emergency shutdown.
2. Initiate fire fighting procedures.
3. Be prepared to disconnect hoses and unberth.

Any other vessel at SBM should also shut down operation and be prepared to unberth.

Loss of Communication: Vessel to sound 5 long blasts on whistle or siren. All operations will be shut down immediately and remain so until communications have been restored.

UNMOORING:

Unmooring from the SBM: To unmoor from the buoy, the approach rope is taken to the windlass and the weight taken whilst the shackle is released from the Triangular Plate or Open Link.

The rope is slacked into the water as the ship goes slowly astern.

At this time, the hoses are also slipped from the ship's rails if they have not previously been slipped and towed clear by the launch.

EARLY DEPARTURE PROCEDURE: All loading vessels are requested to use an early departure procedure (E.D.P.).

(A) If the Master of vessel consents to use the E.D.P. it will be implemented in the following manner:

1. The Master will sign a letter agreeing the use of E.D.P.
2. The cargo documents and other relevant forms will be put aboard the vessel.
3. On completion of loading, the vessel's tanks will be gauged by the Cargo Inspector.
4. The vessel will sail.
5. The terminal will transmit Bill of Lading figures to the vessel by VHF radio. The cargo documents are to be completed by the Master.
6. Written confirmation of these figures will be provided by the vessel's Agent.

(B) If the Master of a vessel does not agree to use E.D.P. the vessel will be unberthed immediately after loading. Terminal's representative will bring completed cargo papers by launch.

MEDICAL: There are no medical or dental services available. Emergency medical requests will be handled by the vessel's Agent.

DENSITY: 1018 (approx.).

FRESH WATER: Not available.

FUEL: Not available.

SURVEYORS: *Petroleum Inspection:* Vessels will be inspected by inspectors from Caleb Brett or Saybolt Inspection Companies.

These inspectors will follow the procedures laid down by Sohio, Exxon, Arco, etc. as the case may be.

REPATRIATION: Possible using daylight airstrip (length 1,120 m.).

TIME: GMT minus 5 hours.

SHORE LEAVE: See "General".

WEATHER:

Wind: The normal seasonal wind regime occurring at the lagoon is as follows:

November – March: Wind speeds greater than 19 m.p.h. occur 20.4% of the time in February. The predominant directions are from N. and N.E. (72.2%, occurrence in February). This is the primary windy season. February is the windiest month.

April – June: Wind speeds exceed 19 m.p.h. 3.3% of the time in June. The predominant directions are N., N.E., and E. (58.3% occurrence in June). This season is the secondary calm season.

July – August: Wind speeds exceed 19 m.p.h. 8.8% of the time in July. The predominant directions are N., N.E., and E. (71.2% occurrence in July). This season is the secondary windy season.

September – October: Wind speeds exceed 19 m.p.h. 2.3% of the time in October. Predominant wind directions are N. and N.E. (28.4% occurrence in October), and S. and S.W. (27.6% occurrence in October). This season is the primary calm season.

Waves: The seasonal wave height is:

November – March: Significant wave height exceeds 1.9 ft. 36.2% of the time in February N. and N.E. wave directions predominate, occurring 72.2% of the time in February. This is the roughest season. February is the roughest month.

April – June: Significant wave height exceeds 1.9 ft. 7.8% of the time in June. N., N.E. and E. wave directions predominate, occurring 58.3% of the time in June. This is the secondary calm season.

July – August: Significant wave height exceeds 1.9 ft. 19.7% of the time in July. N., N.E. and E. wave directions predominate, occurring 71.2% of the time in July. This is the secondary rough season.

September – October: Significant wave height exceeds 1.9 ft. 3.9% of the time in October. N. and N.E. wave directions, occur 28.4% of the time, and S. wave directions occur 14.6% of the time in October. This is the primary calm season.

Rain: Rain squalls with strong winds of short duration may be expected from time to time, being more prevalent from November through March.

GENERAL:

Charts: U.S.H.O. (Defence Mapping Agency) 28042 and 28041. British Admiralty 1793.

Sailing Directions: U.S.H.O. Publication – Pub. 144 – Sailing directions for Caribbean Sea and British Admiralty Pilot No. 7A.

Tides: The maximum tidal range is 2.1 ft. The Mean Range is 0.8 ft. The tidal flow in the Lagoon is weak.

Currents: Cross currents of varying velocity have been observed entering Canal del Tigre.

At the offshore anchorage prevailing currents are predicted to be from the E.N.E.

Launch Service: The terminal launches are for terminal use only. Crew members are not permitted aboard these launches.

The launch attending the vessel will be available to the cargo officer of a vessel loading/discharging for the purpose of reading the vessel's draft.

Shore Leave: The terminal will not provide a launch service for shore leave and crew members may not use the launches.

Smoking Regulations: Smoking is Prohibited in the following locations:

1. Entire terminal crude tank area.
2. Aboard launches within 0.5 miles of the vessel.
3. In motor vehicles in crude tank area, also in area of ballast tanks except inside designated buildings.
4. On ships except in places designated by the Master and agreed by the terminal's representative.

In accordance with IOTTSG; 2 locations only will be established in the after end of the vessel.

N.B. If an oil spill occurs on jetty or ship, all smoking will be prohibited until the spill has been removed.

SERVICES:

Chandlers: None.

SHIP SUPPLY SERVICE: The terminal has 1 small tug which is able to assist with stores, etc. Launches also available and helicopters are easily hired.

OPERATOR: Petroterminal de Panama, S.A., P.O.Box 8-179, Panama 8, Republic of Panama. *Tel:* 63-7777. *Telex:* 3792527. *Contact:* Captain G. Moss, Marine Manager.

AGENT: Fernie (Puerto Armuelles) S.A. VHF: Standby Channel 16. See "Puerto Armuelles".

COLON: 09.21 N. 79.55 W. (See Plan)

LOCATION: Located in the Bay of Limon, the port of Colon constitutes Quay No. 3 in the area of Fort Lesseps.

DOCUMENTS: The same documents are required and the same procedures are followed as at Bahia Las Minas.

PILOTAGE: No pilotage service at Colon. Vessels berth and unmoor under the orders of their Masters.

RESTRICTIONS: The port is restricted to vessels of length not greater than 100 m. due to the size of the quays. Draft at the berths varies from 2.6 m. to 6.1 m., which also restricts the size of vessels.

Aids to Navigation: The port entrance channel has no aids of its own for navigation. Maritime accesses are however marked clearly by the Panama Canal Commission.

HEALTH: Same as Bahia Las Minas.

RADIO: Vessels can communicate with the Port Administration on Channel 12 VHF.

TUGS: None at Quay No. 3, but they may be contracted in the Canal.

BERTHING:

Berth	*Length*	*Depth (average low tide)*
Quay 2	75 m.	4.9 m.
Quay 3	58 m.	2.05 m.

STEVEDORES: All loading and unloading operations are carried out by the Union of Port Workers of Colon. The ship's Agent must make the necessary arrangements.

CRANES: None.

FRESH WATER: Available.

FUEL: Available at the quay by pipe-line. Also Refineria Panama supplies fuel in the Bay of Colon by means of lighters.

PROVISIONS: Available in Colon.

DENSITY: 1.0212 grams cu.cm. at 85°F.

TIME: GMT minus 5 hours.

CONSULS: Denmark, Finland, Norway, Sweden, UK.

MEDICAL: In the town of Colon.

TELEPHONE: Available in the offices of the National Port Authority. Tel: 47-9181.

POLICE/AMBULANCE/FIRE: Available in Colon.

GENERAL:

Shelter: All the quays are protected from the sea by the breakwater which protects the canal entrance in the Atlantic sector.

General Description: The Port of Colon (Quay No. 3) is used by small vessels of length not greater than 100 m. engaged in coasting trade between Colon and Bocas del Toro, and international trade between Colombia and Panama.

Port Maritime Access: The Colon port access is the same as that which leads to the port of Cristobal in the Canal.

Nature of Bottom: Soft mud and clay.

AUTHORITY: National Port Authority, Apartado 8062, Panama 7, Panama. *Tel:* 69-5444. *Telex:* 2765. *Contact:* Captain Jose de los Santos Motta, Director General.

CRISTOBAL: 09.21 N. 79.55 W. (See Plan)

(N.B. For items not listed, see "Panama Canal".)

PORT LIMITS: Ship's arrival time is normally determined by their passage between the breakwater lights. Those that anchor outside the breakwater by arrangement with the Port Captain are timed as arrived when they drop anchor.

DOCUMENTS:

(a) Documents are to be presented by vessels in transit; who do not embark or disembark passengers; or handle cargo, to the Canal Commission.

General Declaration Form: 2 copies
Crew List: 2 copies
List of Passengers: 2 copies
Local Cargo Manifest: 1 copy
Stores or Supply List: 1 copy
Mail List: 1 copy
Clearance Outwards Certificate from last port visited: 2 copies

(b) Documents which vessels must present when they embark or disembark passengers, or handle cargo, to the National Port Authority.

General Declaration Form: 2 copies
Local Cargo Manifest: 4 copies
Crew List: 3 Copies
List of Passengers: 4 copies
Stores or Supply List: 2 copies
Crew Effects List: 2 copies
Maritime Health Declaration: 1 copy
Mail List: 1 copy

PILOTAGE (Also see "Panama Canal"): Pilotage into Cristobal not compulsory, although services of Pilot outside breakwater are available on request.

Vessels arriving outside Cristobal Breakwater who have requested an outside Pilot are required to *heave to and make a good lee.*

A pilot ladder rigged with appropriate spreaders and well illuminated at night to be provided by vessel. Accommodation ladders not acceptable for embarking Pilots outside breakwater.

Notice to Shipping:

1. A vessel shall, weather permitting, have both an accommodation ladder and a pilot ladder rigged and ready for use upon arrival in Canal Waters.
2. The pilot ladder shall conform to Regulations of the International Convention for the Safety of Life at Sea (SOLAS) and to all additional recommendations of the International Maritime Organisation (IMO).
3. The accommodation ladder may be turned in and secured after the Pilot has boarded the vessel in the anchorage, provided the freeboard does not exceed 9 m. (30 ft.). If the freeboard exceeds 9 m., the accommodation ladder may not be turned in until the last Panama Canal employee boards prior to arrival at the locks.
4. A pilot hoist may be used provided the design and construction of the hoist and ancillary equipment are of such a standard as to ensure an effective and safe means of embarkation and disembarkation. The pilot hoist should only be used when:
   (a) A conventional pilot ladder is rigged and ready for immediate use but triced up well clear of the hoist;
   (b) A lifeline attached to a safety stop and a lifebuoy fitted with a self-igniting light are ready for immediate use.

ANCHORAGES: Vessels will ordinarily proceed to anchorage area according to length and draft unless otherwise directed. Arriving vessels expected to anchor as far to South and inward from main channel in their anchorage area as is consistent with safety. Vessels anchoring in non-designated areas may be required to move.

Anchorage Area "A". For all ships with a deep salt-water draft of not less than 10.4 m.(34 ft.) and not in excess of 11.9 m. (39 ft.). Minimum charted depth is 12.2 m. (40 ft.).

This area starting at	Lat. 9° 23′ 21″ N.,	Long. 79° 55′ 21″ W.,
thence to	Lat. 9° 22′ 48″ N.,	Long. 79° 56′ 15″ W.,
thence to	Lat. 9° 22′ 14″ N.,	Long. 79° 56′ 15″ W.,
thence to	Lat. 9° 21′ 56″ N.,	Long. 79° 55′ 48″ W.,
thence to	Lat. 9° 21′ 25″ N.,	Long. 79° 55′ 48″ W.,
thence to	Lat. 9° 21′ 25″ N.,	Long. 79° 55′ 21″ W.,

thence due North to starting-point. However, restricted area North and West of Buoy 2, as charted, must be observed. Explosive sector charted in this area to be avoided whenever possible.

Anchorage Area "B". For all ships with salt-water draft under 9.7 m. (32 ft.) Minimum depth is 8.8 m. (29 ft.). Explosive sector restricted to vessels carrying explosives or specially designated vessels. All ships of such length are under no circumstances swing into Anchorage Area "A".

This area starting at	Lat. 9° 22′ 48″ N.,	Long. 79° 56′ 15″ W.,
thence to	Lat. 9° 22′ 32″ N.,	Long. 79° 56′ 41″ W.,
thence to	Lat. 9° 21′ 42″ N.,	Long. 79° 56′ 41″ W.,
thence to	Lat. 9° 21′ 52″ N.,	Long. 79° 56′ 00″ W.,
thence to	Lat. 9° 21′ 25″ N.,	Long. 79° 56′ 00″ W.,
thence to	Lat. 9° 21′ 25″ N.,	Long. 79° 55′ 48″ W.,
thence to	Lat. 9° 21′ 56″ N.,	Long. 79° 55′ 48″ W.,
thence to	Lat. 9° 22′ 14″ N.,	Long. 79° 56′ 15″ W.,

thence due North to starting-point.

Anchorage Area "C". Required pilotage waters for inbound vessels.

This area starting at	Lat. 9° 21′ 25″ N.,	Long. 79° 55′ 21″ W.,
thence to	Lat. 9° 21′ 25″ N.,	Long. 79° 56′ 00″ W.,
thence to	Lat. 9° 20′ 48″ N.,	Long. 79° 55′ 57″ W.,
thence to	Lat. 9° 20′ 27″ N.,	Long. 79° 55′ 27″ W.,

thence due North to starting-point. Restricted area East and South of Buoy 2, as charted, must be observed.

Anchorage Area "D". For all ships of over 106.7 m. (350 ft.) in length and a deep salt-water draft of less than 10.7 m. (35 ft.) except where minimum charted depth is 9.7 m. (32 ft.).

This area starting at	Lat. 9° 23′ 19″ N.,	Long. 79° 55′ 15″ W.,
thence to	Lat. 9° 22′ 55″ N.,	Long. 79° 54′ 21″ W.,
thence to	Lat. 9° 22′ 22″ N.,	Long. 79° 54′ 21″ W.,
thence to	Lat. 9° 22′ 02″ N.,	Long. 79° 54′ 55″ W.,
thence to	Lat. 9° 22′ 02″ N.,	Long. 79° 55′ 15″ W.,

thence due North to starting-point.

Anchorage Area "E". For all ships less than 106.7 m. (350 ft.) and small craft. Minimum charted depth of water is 7.3 m. (24 ft.)

This area starting at Lat. 9° 22′ 55″ N., Long. 79° 54′ 21″ W.,
thence to Lat. 9° 22′ 27″ N., Long. 79° 53′ 54″ W.,
thence to Lat. 9° 22′ 22″ N., Long. 79° 53′ 54″ W.,
thence to Lat. 9° 22′ 22″ N., Long. 79° 54′ 21″ W.,
thence due North to starting-point.

Anchorage Area "F". For small craft and yachts. Pilotage for this area will be decided by Cristobal Port Captain, based on merit of each individual case. Under no circumstances may a vessel proceed to this area prior to being cleared by Boarding Officials. (Bounded by Channel Buoy "3" by a direct line through Buoys "A," "B," "C," "L4," "L2" and return to Buoy "3".)

Outer Anchorage Area. Established N.W. of Cristobal breakwater has the following co-ordinates: Commencing at Lat. 09° 23′ 14″ N., Long. 79° 55′ 21″ W. (West breakwater light); thence to Lat. 09° 24′ 40″ N., Long. 79° 56′ 00″ W. (Buoy "A", whistle sea buoy); thence to Lat. 09° 24′ 40″ N., Long. 79° 57′ 00″ W.; thence to Lat. 09° 23′ 14″ N., Long. 79° 57′ 00″ W.; thence due East to starting point.

During periods of harbour congestion, large, deep-draft vessels and/or any vessel so directed may anchor outside the breakwater in the approved area. Such vessels must advise Cristobal Signal Station, by VHF Channel 12, the time of passing sea buoy, in order to establish order of transit. Masters will be given a definite time to enter the breakwater, where the vessel will be met by transit Pilot(s) and Boarding Officials.

Vessels must strictly adhere to the breakwater entry times as given, in order that transit schedule can be maintained.

Prohibited Anchorage. Eastern side of channel, Canal waters South of Lat. 9° 22′ 02″ N. to Mole Buoy in order to give clear access to Colon Harbour. Also, no vessel or craft may proceed South of Lat. 9° 21′ 25″ N. prior to being cleared by Boarding Officials. No vessel may anchor with any part of the vessel in the main channel or closer than 274 m. (900 ft.) to either East or West breakwater lights.

In cases due to harbour congestion, any vessel may be directed to anchor to Westward outside breakwater entrance and given an order as to the time it is to pass through the breakwater entrance.

RESTRICTIONS: Port open throughout 24 hours.

MAX. SIZE: Harbour limitations generally unrestricted as to length and beam. Draft 12.2 m. (40 ft.).

HEALTH: The Official who comes on board has to verify that the vessel complies with the requirements of the Republic of Panama as far as International Health, Animal and Agricultural Health, Migration and Customs are concerned. If there is any violation, non-fulfilment or omission in respect of any of the International or National requirements concerning human, agricultural health and Customs, the granting of Free Pratique will be suspended until the Competent Authority has been informed and has finally decided as to whether or not Free Pratique can be granted. Also, the respective Authority has to inform the authorities of the circumstances, evidence or a reasonable indication that on board the vessel there is danger to human, animal and vegetable life.

RADIO: The Port Captain may be contacted via VHF Channel 12. Commercial telephone calls and messages to Agents may be made via Panama Radio, VHF Channel 16.

TUGS: Available and assigned for berthing by Pilot. Tug's lines used at no extra charge.

BERTHING: No specific requirements as to arrival times. Fifteen cargo and bunkering berths. No limitation on beam.

Dock	*Berth*	*Usable Length* (m.)	*Depth M.L.W.* (m.)	*Max. Lgth. of Ship at Max. Draft* (m.)	*Total Lgth. Avail. of Dock Face* (m.)	*Remarks*
6	AB	314.0	12.2		314.0	FO, HDO, Water, General Cargo, 20 ft. Containers
6	B		10.4			
6	CD	314.0	13.0		314.0	FO, HDO, Water, General Cargo, 20 ft. Containers
7	AB	298.0	13.4		298.0	FO, HDO, Water, General Cargo, 20 ft./40 ft. Containers
7	B		13.0			
7	CD	304.8	12.2		304.8	FO, HDO, Water
7	E	76	11.2		73.2	Water
8	AB	302.0	12.8		301.7	FO, HDO, Water, General Cargo
8	B		10.7			
8	CD	308.0	12.8		307.8	FO, HDO, Water, General Cargo
9	AB	325.0	11.8		325.5	Gasoline, DO, FO, Water, General Cargo/OCL
9	B		10.5			
10		129.0	9.8	183.0	129.0	FO, HDO, Gasoline, Water.
16	AB	326.0	13.7		326.1	FO, Water, Gasoil, Gasoline
16	CD	326.0	12.9		326.1	FO, HDO, LDO, Water, Gasoil, Gasoline (no Gasoil at 16D)
16	E	140.0	9.8	91.4	139.6	Water, Gasoil, Gasoline, Diesel

Also see "Developments".

STEVEDORES: Endeavour arrange arrival to avoid cost of "stand-by" as Agent arranges gangs for 0700 hrs. or 1700 hrs. commencement.

CARGO HANDLING EQUIPMENT: The Port has all kinds of equipment for handling cargo arriving at the quays.

To handle container and other types of cargo, there are dock lorries, chassis, fork lift trucks of varying capacities (2,4,10,15,30,40 tons), agricultural type towing tractors, rolling platforms, and other smaller aids.

CRANES: The only crane in the port is at the pier end of Quay No.8 at Berth A. It has a steel arm capable of lifting 40 tons to a height of 90 ft.

MEDICAL: Medical attention on arriving in the Port of Cristobal can be immediate, since the port contains a first aid clinic in which a doctor and a nurse are present during the day, and a nurse at night. In the town of Colon there are hospitals and private clinics.

TANKERS: Four berths available.

FRESH WATER: Available from piers.

FUEL: Bunker "C", diesel, light fuel and light diesel available at Government wharves from commercial companies. Rate of delivery 2,000 bbls. per hour.

The Southern part of Anchorage C, Cristobal Harbour, has been designated a limited bunkering area for vessels whose draft is too great to use the East breakwater bunkering area.

Pilotage is compulsory out and into this area for vessels and bunkering barges.

Also see "Balboa".

REPAIRS: Emergency repairs possible.

DRY DOCK: (Not available for commercial activities). Length 117.6 m. (386 ft.), breadth 18.3 m. (60 ft.), depth over blocks 6.2 m. (20 ft. 6 in.) MLW.

POLICE/AMBULANCE/FIRE: Police 104, Fire 103.

TELEPHONES: May be placed aboard through arrangement with Agent.

SHORE LEAVE: Generally permitted.

CUSTOMS: Customs and Immigration Inspection Service available Monday to Saturday from 0700 hrs. to 1700 hrs. Charges for such service after hours and on Sundays and holidays. Number of inspectors required will be determined by Chief Customs and Immigration Inspector of port.

DELAYS: Delays in berthing, load or discharge or bunkering are minimal and infrequent. 8 hours is considered excessive.

DEVELOPMENTS: Amongst the plans for future developments in the port of Cristobal are:

a) Improvements to existing installations.

b) *Containers:* Amongst the facilities available at this terminal for containers, is the open area for handling and storage of containers covering 7.5 hectares, and a capacity up to 3,000 TEUs. It includes 8 points for reefer containers, a loading and consolidation building for containers, with an area in all of 6279.20 sq.m., a control building with a weighbridge of 60 tonne capacity, an entry point, handling equipment, a workshop for repair and maintenance.

Furthermore, the Port of Cristobal has other facilities to complement the services of the Container Terminal, such as: a mooring length of 428 m., with depth of water of 40 ft. It also has drinking water supply, bunkers, collection of pollutants, victualling, electricity supply and all communication services, i.e. radio, telex and telephone.

The Container Terminal has been operational since 1983, and has 2×40 tonne gantry cranes.

SHIPMASTER'S REPORT: July 1979.

Bottom Cleaning: Following a recent bottom clean of this vessel in Cristobal by 'Subservices, Inc.' I now forward two items of information which may prove useful to other Shipmasters.

a) Because of the nature of the sea bottom in Cristobal, 'Subservice' required approximately 3.0 m. (10 ft.) beneath the keel. In anything less, the water displaced by the machine disturbed the mud sea bottom reducing underwater visibility.

b) Contrary to advice received from the local signal station the deepest water was found in a position where the West Breakwater light bore 000° True at 3 cables. Due to the proximity of vessel to fairway a running moor was used. Average depth was 15.2 m. (50 ft.).

AUTHORITY: National Port Authority, Apartado 8062, Panama 7, Panama. *Tel:* 69-5444. *Telex:* 2765. *Contact:* Captain Jose de los Santos Motta, Director General.

Cristobal Port Administrator: *Tel:* 41-4848 (Ext. 112).

AGENT: C. Fernie & Co., S.A. Apartado (P.O.Box) 5042, Cristobal, Republic of Panama. Tel: 45-1133 (5 lines). After Hours Tel: 42-1424, 41-4246, 45-2495 or 45-2278. Telex: 8520, 8542, 8814 or 9211. Fax: 41-4168. Cable Address: "Fernie Cristobal". VHF: Standby Channels 10 and 16.

PANAMA CANAL (entering Cristobal or Balboa) (See Plan)

§ Indicates Panama Canal – Code of Federal Regulations Number.

REGULATIONS: The following are some of the important Canal Regulations.

§101.1 Signal stations at the Canal entrances:

The Panama Canal Commission maintains established signal stations at both the Atlantic and Pacific entrances of the Canal. A vessel arriving at the Canal must communicate with the signal station which is located at the entrance of the Canal at which that vessel arrives. Vessels required to be equipped with a radiotelephone pursuant to Part 123 of this subchapter must, upon arrival, communicate with the appropriate signal station on Channel 12, 156.000 MHz. All other vessels may use International Code and flashing light. Such stations are also utilised to assist in control of traffic within Panama Canal waters.

5. The cross reference which follows *§101.1* is revised as follows:

Cross Reference: See Part 123 for provisions respecting radio communication by vessels prior to arrival and while they are in Panama Canal waters.

§101.2 Boarding of arriving vessels:

(a) Unless otherwise directed, all arriving vessels will anchor in designated anchorages to await Boarding Officers. No person other than Boarding Officers of the Panama Canal Commission and the Republic of Panama may go on board or leave any vessel until such vessel has been entered by the Commission and, where applicable, by the Republic of Panama.

(b) Arriving vessels that are subject to inspection for compliance with Panama Canal shipping and navigation regulations will be boarded upon arrival. The boarding will occur inside the breakwater at the Atlantic entrance of the Canal or off the seaward end of the dredged, marked channel at the Pacific entrance. It will be performed by a Commission Boarding Officer in accordance with the procedures established under this Part. When such vessels are not boarded immediately upon arrival, they shall anchor in a designated anchorage area and await the Boarding Officer.

(c) Admeasurement functions shall be performed on arriving vessels either while at anchor or during transit.

§101.3 Definitions and functions of the Boarding Officer:

(a) Boarding Officer means any official or employee of the Panama Canal Commission who is duly assigned the functions of a Boarding Officer, including admeasurement and sanitation.

(b) The Commission Boarding Officer shall perform the functions of admeasurer for the purpose of determining Panama Canal tolls and shall make inspection for the purpose of insuring compliance with Panama Canal shipping, navigation and sanitation regulations.

§101.4 Measurement of vessel making maiden transit:

A vessel that arrives after 2000 hrs. and is to make her maiden transit will normally be admeasured on the following day.

§103.4 Load and trim:

(a) A vessel shall not be permitted to transit the Canal if she:

(1) Has a list of more than 10 degrees; (2) Is so tender or otherwise so loaded as to dangerously affect her stability or manoeuvrability; or (3) Is so trimmed as to dangerously affect her manoeuvrability.

(b) A vessel having a list of between 3 degrees and 10 degrees, or which is so loaded or so trimmed as to adversely affect her manoeuvrability, may be permitted to transit at the discretion of the Canal Operations Captain or his designee. If such vessel is allowed to transit, however, it may do so only at its own risk and, to the extent and in the proportion that such failure to meet the requirements of this section proximately causes or contributes to a casualty and resulting damages, the Master of such vessel on behalf of said vessel, her Owners, Operators, or any other persons having any interest in her, and for himself, will be considered to have released the Panama Canal Commission and the United States from, and to have indemnified them against, any loss, damage, or liability incurred by the Commission, or the United States under or in respect to:

(1) Sections 1411 – 1416, inclusive, of Pub. L. 96 – 70, 93 Stat. 485 – 87.

(2) Property of the Panama Canal Commission or the United States;

(3) Panama Canal Commission employees under the Federal Employees' Compensation Act, 5 U.S.C. 8101, *et seq.*, or any other employee compensation system.

The Master of the vessel that fails to meet the requirements of this section may be required to execute, in the presence of a Commission official, a form undertaking to release the Panama Canal Commission and the United States from liability in case of an accident and to indemnify the Commission and the United States for any damages sustained. The failure of the Master of a vessel to sign such a form, however, will not relieve the vessel, her Owners, or any other person having an interest in her from liability incurred as a result of the vessel's failure to meet the requirements of this section.

(c) Nothing shall be done, or permitted to be done, by the Master or any member of the crew, which would alter the trim or draft of a vessel while transiting the Canal, without the prior, express approval of the Pilot.

§103.7 Temporary holding of vessels:

The Canal authorities may hold a vessel for the purpose of investigating a marine accident under Parts 115 or 117. A vessel may also be held until, in the opinion of the Canal Authorities, its tenderness, trim, list, cargo, hull, machinery, and equipment have been put into such condition as will make the vessel reasonably safe for her passage through the Canal. No claim for damages shall be allowed or considered because of any such temporary holding of vessels.

§103.8 Order of transiting of vessels:

The Canal authorities may dispatch vessels through the Canal in any order and at any time they may see fit. Priority of arrival at a terminal does not give any vessel the right to pass through the Canal ahead of another that may arrive later, although order of arrival will be consideration in determining the order of passage.

§103.10 Vessels required to be equipped with certain indicators:

(a) All vessels in excess of 150 ft. in length shall be equipped with properly operating rudder-angle and engine-revolution indicators in the wheelhouse so located and illuminated as to be readily visible to a Pilot.

(b) All vessels with beams in excess of 80 ft. shall be equipped with properly operating rudder-angle and engine-revolution indicators in the wheelhouse and on each bridge wing so located and illuminated as to be readily visible to a Pilot.

(c) All vessels in excess of 150 ft. in length which are equipped with variable pitch propellers shall have properly operating pitch indicators in the wheelhouse so located and illuminated as to be readily visible to a Pilot.

(d) All vessels with beams in excess of 80 ft. which are equipped with variable pitch propellers shall have properly operating pitch indicators in the wheelhouse and on each bridge wing so located and illuminated as to be readily visible to a Pilot.

(e) Any vessel which fails to meet the requirements of this section may be denied transit. If the Canal authorities decide that a vessel can be handled without undue danger to equipment or to personnel, notwithstanding her failure to comply with other requirements of this section, and permit her to transit, such vessel may do so only at its own risk and, to the extent and in the proportion that such failure to meet the requirements of this section proximately causes or contributes to a casualty and resulting damages, the Master of such vessel, on behalf of said vessel, her Owners, Operators or any other persons having any interest in her, and for himself, will be considered to have released the Panama Canal Commission and the United States from, and to have indemnified them against any loss, damage or liability incurred by Panama Canal Commission or the United States under, or in respect to:

(1) Sections 1411 – 1416, inclusive, of Pub. L. 96 – 70, 93 Stat. 485 – 87;

(2) Property of the Panama Canal Commission or the United States;

(3) Panama Canal Commission employees under the Federal Employees' Compensation Act, 5 U.S.C. 8101, *et seq.*, or any other employee compensation system.

The Master of the vessel that fails to meet the requirements of this section may be required to execute, in the presence of a Commission official, a form undertaking to release the Panama Canal Commission and the United States from liability in case of an accident and to indemnify the Commission and the United States for damages sustained. The failure of the Master of a vessel to sign such a form, however, wil not relieve the vessel, her Owners, or any other person having an interes in her from liability incurred as a result of vessel's failure to meet the requirements of this section.

§103.27 Clear view forward from the bridge and steering ligh requirement for certain vessels:

(a) A vessel may not be navigated in Canal waters unless there is a clear, unobstructed view from the bridge.

(b) All vessels over 100 m. (328 ft.) in length shall have installed a or near the stem, a steering range equipped with a fixed blue light which shall be clearly visible from the bridge along the centerline. If said range and light so placed would be partially or completely obstructed, then two such ranges and lights must be installed at an equal distance from the centerline and shall be clearly visible from the bridge along lines paralle to the keel.

(c) Naval or military vessels exempted from the requirements o Part 111 of this chapter shall also be exempt from the requirements o paragraphs (b), (d) and (e) of this section.

(d) The light required by this section shall be capable of being illuminated and extinguished by a suitable control switch located eithe on the navigation bridge or on the forecastle deck, or both.

(e) The use of this steering light shall be at the discretion of the Panama Canal pilot who has control of the navigation and movemen of the vessel.

§109.5 Ship's gear to be ready during transit; test:

Before beginning transit of the Canal, a vessel shall have hawsers lines and fenders ready for passing through the locks, for warping towing, or mooring as the case may be; and shall have both anchors ready for letting go. The Master shall assure himself, by actual test, o the readiness of the vessel's main engines, steering gear, engine room telegraphs, whistle, rudder-angle and engine-revolution indicators, and anchors. During the transit, at all times while a vessel is underway o moored against the lock walls, her deck winches, capstans, and othe power equipment for handling lines, as well as her mooring bitts, chocks cleats, hawse pipes, etc., shall be ready for handling the vessel, to the exclusion of all other work.

DOCUMENTS: *§101.10* (a) *Documents for Commission Boarding Officer.* All documents listed below shall be ready for immediate delivery to the boarding officer when he boards the vessel upon each arrival o the vessel at the Canal.

Documents Required

1. Ship's Information and Quarantine Declaration (Panama Cana Form 4398) – 1 copy.
2. Cargo Declaration (Panama Canal Form 4363) – 1 copy.*
3. Crew List (Panama Canal Form 1509) – 2 copies.
4. Passenger List (Panama Canal Form 20) 1 copy.
5. Dangerous Cargo Manifest – 1 copy.†
6. Loading Plan – 1 copy.‡
7. Panama Canal Tonnage Certificate – 1 copy.*
8. Ship's Plans (general arrangement, engine room, capacity, mid ship, etc.) – 1 copy.*

*Required only if vessel transits Canal.

†Required only if vessel is carrying packaged, dangerous goods.

‡Required only if vessel is carrying dangerous cargo in bulk.

(b) *Documents for Examination Only.* The following documents shal be available for inspection by the Commission boarding officer:

1. Ship's log,

2. All ship's documents pertaining to cargo, classification construction, load lines, equipment, safety, sanitation, and tonnage,

3. SOLAS certificate, for ships carrying dangerous cargo in bulk,

4. An International Oil Pollution certificate, for ships carrying dangerous cargo in bulk, and

5. Certificate showing compliance with the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers 1978 (STCW), if the nation of registry has implemented the conventions standards. If the nation of registry has not implemented the STCW convention, then certifications issued or accepted by the registry nation attesting to the qualifications of officers and crew will be accepted by the agency. Certification requirements will apply only to officers and crew responsible for the safe handling of the vessel.

(c) *Crew List.* For the purposes of additional identification of crew members, all copies of the Crew List required by this section shall include for each seaman the serial number of his certificate of identification continuous Discharge Book, Passport or other satisfactory identifying documentation. In addition, the given name and middle initial, as wel as the family name, shall be shown for all seamen.

(d) *Passenger List.* The Passenger List required by this section shal be in accurate and legible form and shall be delivered to the boarding officer. The list shall show passengers in alphabetical order.

(e) *Dangerous Cargo Manifest.* The dangerous cargo manifest fo vessels carrying packaged dangerous goods, as defined in *§113.2*(m see below, of this title, shall show the correct technical name, United Nations number, International Maritime Organisation class, storage location, and quantity for each packaged dangerous goods carried as cargo.

(f) *Loading Plan.* The loading plan for vessels carrying dangerous cargoes in bulk, as defined in *§113.2*(f) see below, of this title, shal show the location of cargo tanks or holds and the correct technical name United Nations number, International Maritime Organisation class, and quantity of dangerous cargo carried in each cargo tank or hold.

§113.2(f) "*Dangerous Cargo in Bulk*" means any dangerous substance, carried without any intermediate form of containment, in a tank or cargo space which is a structural part of a vessel or in a tank permanently fixed in or on a vessel.

(m) "*Packaged Dangerous Goods*" means any dangerous cargo contained in a receptacle, portable tank, freight container or vehicle. The term includes an empty receptacle, portable tank or tank vehicle which has previously been used for the carriage of a dangerous substance unless such receptacle or tank has been cleaned and dried, or when the nature of the former contents permits transport with safety.

Documents Required for Maiden Transit:

Please Provide the Following for Panama Canal Admeasurer:

1. National Register.
2. Panama Canal Tonnage Certificate.
3. Suez Canal Tonnage Certificate (if available).
4. International Load Line Certificate.
5. International Tonnage Certificate.
6. General Arrangement Plan.
7. Capacity Plan.
8. Engine Room Plans.
9. Midship Section Plan.
10. Tank Sounding Tables for L.O. & F.O. tanks.
11. Lines Plan.

PILOTAGE: *§105.4 Pilotage Charges:* Pilotage for vessels in transit through the Canal is free, but whenever any vessel requires a Pilot for other than transit, it is liable for the applicable pilotage charge.

§105.5 Pilotage Beyond Atlantic Breakwater

Should a vessel desire a Pilot to meet it outside the Atlantic breakwaters, such vessel shall remain there and make signal to that effect.

§105.6 Status and Function of Pilot

The Pilot assigned to a vessel shall have control of the navigation and movement of such vessel.

§105.1 Pilots Required

(a) Except as provided by *§105.2* and *§105.3*, or by paragraph (c) of this section, no vessel shall pass through, enter or leave the Canal or manoeuvre in the Canal or waters adjacent thereto, including the ports of Cristobal and Balboa, without having a Panama Canal Pilot on board.

(b) Normally, a vessel will, unless advised to the contrary by the Canal Operations Captain or his designee, be boarded by the Panama Canal Pilot inside the breakwater at a point North of the Mole Beacon at the Atlantic entrance and in the Merchant Vessel Anchorage to seaward of Buoys 1 and 2 at the Pacific entrance.

(c) In conformity with past practice, vessels anchored in Anchorage Area C and Anchorage Area F, as shown in the Pilot Handbook, Limon Bay Chart, may proceed to sea without a Panama Canal Pilot on board. All such vessels, prior to getting underway, must obtain permission to depart from the Cristobal Signal Station.

(d) Whenever the Administrator finds there is a critical shortage of Certified Panama Canal Pilots available for movement of vessels in Canal waters, he may suspend the rule on compulsory pilotage set out in paragraph (a) of this section. The Administrator shall impose such conditions upon the suspension of the rule, with respect to any given vessel, as are reasonable and appropriate to protect human life and property and to safeguard the facilities of the Panama Canal.

§103.19 Requirements for Pilot Platforms

(a) Any vessel that, in accordance with Panama Canal operation standards, is required to have 3 or 4 Pilots aboard, shall provide suitable pilot platforms for the assisting Pilots. The purpose of the pilot platforms is to provide shelters from sun and rain for Pilots working near the bow or the stern of a vessel and to provide adequate visibility around the Locks in order to reduce the danger of damage.

(b) See sketch of platform in "Plan".

(c) Each platform is to be erected over the furthest forward point of the extreme beam at the waterline and not more than 6 in. from the vertical plane of shell plating. For vessels of unorthodox design requiring aft platforms, they shall be erected at a position which is approximately over the aftermost point of extreme beam at the waterline and not more than 6 in. inboard from the vertical plane of shell plating.

(d) The awning indicated in the sketch in paragraph (b) of this section is to be made of suitable material to provide shelter from sun and rain. The deck of the pilot's platform is to be made of wood or other material with non-skid surface.

§103.18 Pilot Ladders, Hoists and Side Ports

(a) A vessel shall, weather permitting, have both an accommodation ladder and a pilot ladder rigged and ready for use upon arrival in Canal waters.

(b) The pilot ladder shall be constructed and rigged in accordance with Regulation 17, Chapter V, International Convention for Safety of Life at Sea, 1974, TIAS 9700, except that;

(c) When the distance from the water line to the point of access of the vessel exceeds 9 m. or 30 ft., a combination pilot ladder and short brow accommodation ladder must be provided for boarding purposes.

(d) A mechanical pilot hoist may be used for Boarding Officials and Pilots only at their discretion, and provided that the design and construction of the hoist and ancillary equipment are in accordance with Regulation 17, Chapter V, International Convention for Safety of Life at Sea, 1974.

(e) When a mechanical pilot hoist is used, a ring buoy fitted with a lifeline and self-igniting light shall be available and ready for immediate use. The pilot ladder required by *§103.18* (a) shall be in close proximity to the pilot hoist, ready for immediate use but lashed up so as not to interfere with the pilot hoist.

(f) When the side ports are used for boarding, the minimum vertical distance between the waterline and the bottom of the side port at any draft shall be 6 ft.

ANCHORAGES: No vessel shall anchor within the navigable waters of the Canal in other than a designated anchorage, except in an emergency, and no craft shall tie up to any aid-to-navigation in Canal waters.

§ 101.8 Vessel Anchorage Areas

The following areas are designated as authorised anchorages within Canal waters.

(a) *Atlantic Entrance.* – (1) *Merchant-Vessel Anchorage:* An area to the West of the Canal channel bounded as follows: Starting at a point "A", located in position 9° 21′ 25″ N., 79° 55′ 31″ W., and marked by lighted Buoy No. 2, thence 900 yards 270° True to a point "B" located in position 9° 21′ 25″ N., 79° 55′ 58″ W., thence to lighted Buoy "I", thence to lighted Buoy "H", thence due North to a point "C" located in position 9° 22′ 07″ N., 79° 56′ 41″ W., thence 2,800 yards 59° True to a point "D" located in position 9° 22′ 50″ N., 79° 55′ 29″ W., and thence to the starting point. The line extending due West from the Cristobal Mole through lighted Beacon No. 1 and lighted Buoy No. 2 (9° 21′ 25″ N.) marks the southern limit of the anchorage area. Except as provided by *§105.3*, no vessel shall pass this line without having been passed by the boarding officer and without having a Canal Pilot on board.

(2) *Outside Explosive Anchorage.* An area bounded by a line from Point A at position 9° 23′ 53″ N., 79° 56′ 29″ W. thence to Point B at position 9° 24′ 40″ N., 79° 56′ 29″ W. thence to Point C at position 9° 24′ 40″ N., 79° 57′ 00″ W. thence to Point D at position 9° 23′ 53″ N., 79° 57′ 00″ W. thence to Point A.

(3) *Inside Explosive Anchorage.* The area included in a rectangle 1,000 yards wide immediately South of the West breakwater, the rectangle extending 2,000 yards along the West breakwater from a point on the West breakwater 1,000 yards from the West breakwater light.

(4) *Small-Craft Anchorage.* An area to the East of the Canal channel bounded as follows: Starting at Buoy "A", a flashing amber Buoy located in position 9° 20′ 43″ N., 79° 55′ 10″ W., thence 1,075 yards 066° True, through fixed amber lighted Buoy "B" to fixed amber lighted Buoy "C", thence 375 yards 143° True, thence 1,760 yards 233° True to the East prism of the Canal channel, thence due North 410 yards to flashing special anchorage Buoy "3", thence 525 yards 023° True to the starting point at Buoy "A".

(b) *Gatun Lake Anchorage:* An area immediately East of the Canal channel line, bounded by a line extending from the South end of the East wing-wall of Gatun Locks, thence 450 yards 120° True, thence 676 yards 146° True to flashing special anchorage Buoy "A", thence 1,415 yards 078° True to flashing special anchorage Buoy "1", thence 1,199 yards 155° True to flashing special anchorage Buoy "3", thence 2,314 yards 225° True through special anchorage Buoy "5" to special anchorage Buoy "7", thence 901 yards 220° True to special anchorage Buoy "9", thence 952 yards 205° True to the Canal channel line at flashing Buoy "11", the channel prism line being the Westerly boundary line of the anchorage area.

(c) *Pacific Entrance* – (1) *Merchant-Vessel Anchorage:* An area bounded as follows: Beginning at a point in position 8° 51′ 50″ N., 79° 30′ 00″ W., marked by a lighted, whistle buoy which is painted with alternating black and white vertical stripes and which shows short-long flashing white light every 8 seconds, (i.e. light 0.4 seconds, eclipse 0.4 seconds, light 1.6 seconds, eclipse 5.6 seconds), thence due East to Long. 79° 28′ 00″ W.; thence due North to 8° 54′ 31″ N., thence due West toward Flamenco Island Light to a point 8° 54′ 31″ N., 79° 30′ 46″ W.; thence Southwestward touching the Northwest corner of San Jose Rock to position 8° 53′ 27″ N., 79° 31′ 23″ W., marked by canal-entrance lighted Buoy No. 2, thence Southwestward to the point of beginning.

(2) *Explosive Anchorage.* An area South of Naos island bounded on the East by a line drawn South (True) from canal-entrance lighted Buoy No. 1; on the South by a line drawn East (True) from Tortolita Island, and in the North and West by the curve of 30 ft. depth.

(d) If there are any discrepancies between the designated anchorage areas as described in this section and the anchorage areas described in paragraph 4 of Annex A of the Agreement in implementation of Article III of the Panama Canal Treaty of 1977 and the attachments thereto, the description in the treaty documents shall govern.

MAX. SIZE: *Note:* Max. draft in March 1986 was 39 ft. 06 in. (tropical fresh water). However this subject to change.

§103.6 Size and Draft Limitations of Vessels

(a) *Definitions as Used in This Section:*

1. "TFW" means Tropical Fresh Water of Gatun Lake, density 0.9954 gm./c.c. at 85°F. (Transition to fresh water frequently alters the trim of large vessels 3 in. to 4 in. by the head.)

2. "Published TFW Maximum Draft" means the deepest point of immersion in Gatun Lake waters as promulgated by the Marine Director, taking into account the water level of Gatun Lake and other limitations deemed necessary because of restrictions in the Canal.

3. "Maximum Authorised Transit Draft" means the deepest point of immersion in TFW of a particular vessel authorised at anytime, Gatun Lake level and Canal restrictions permitting.

4. "Commercial Vessel" means a self-propelled vessel other than a naval, military or other public vessel.

5. "Integrated Tug-Barge Combination" means a barge that is specifically configured to receive a tugboat and with the tug, becomes, in effect, a single self-propelled unit.

6. "Non-Self-Propelled Vessel" means a vessel which either does not have an installed means of propulsion, or has an installed means of propulsion which is not functioning during transit.

7. "Barge" means a flat-bottomed vessel of full body and heavy construction without installed means of propulsion.

(b) *Maximum authorised transit draft of vessels with draft in excess of 35 ft. 6 in.*

1. Prior to the initial transit of a vessel whose transit draft will exceed 35 ft. 6 in., Owners, Operators, or Agents must supply in full the information required in sub-paragraph (b)(2) of this section and request the maximum authorised transit draft for the vessel (deepest point of immersion TFW) from the Chief, Navigation Division or his designee, no later than 2 weeks prior to loading of the vessel. This request will be returned with the approved maximum authorised transit draft stamped thereon.

2. The information required by sub-paragraph (b)(1) of this section shall be submitted in the following format:

Information Needed Prior to Initial Transit Through the Panama Canal:
Bilge Information
Name of Vessel . . . . Date..................
Authorised Tropical Fresh Water Load Line . . . .
Admeasurer . . . . Certified as Correct.................
(Master/Owner/Agents)
1. "A" – Half breadth of vessel to the outside of shell . . . .
2. "R" – Radius of turn of bilge (feet and inches) . . . .
3. "DR" – Dead rise at side of vessel (inches) . . . .
SEE "PLAN SECTION".

Notes:

1. The Panama Canal Commission is not responsible for damage to bilge keels resulting from transit through the locks.

2. On an off centre lockage with the vessel touching the lock wall, the turn of the bilge will clear the lock-wall batters at the most critical point as shown in (d) No. 3 below.

(c) *Draft During Initial Transit*

The initial transit is permitted at the maximum authorised transit draft. After the initial transit, unless the vessel's Agent or Owner is notified of any restrictions imposed by Canal Authorities, this maximum authorised transit draft will remain in effect.

(d) *Minimum Transit Drafts, Measured in Salt Water*

1. All vessels transiting the Canal must have sufficient ballast to permit safe handling during transit. The following are minimum salt water drafts (TSW) for ships anticipating transit.

Length	*Minimum Drafts*
Up to 425 ft. –	Trimmed so Pilot can see the ranges over the forecastle from centre of navigation bridge
Over 425 ft. –	8 ft. forward, 14 ft. aft, TSW
Over 475 ft. –	18 ft. forward, 20 ft. aft, TSW
Over 525 ft. –	20 ft. forward, 22 ft. aft, TSW
Over 580 ft. –	22 ft. forward, 24 ft. aft, TSW
Over 625 ft. –	24 ft. forward, 26 ft. aft, TSW

2. The vessel's drag must not adversely affect manoeuvrability.

3. The following table provides the limiting drafts due to bilge radius:

Table of Limiting Drafts due to Bilge Radius
Contacting Chamber Batters
(Allows for 6 in. thick rubber fenders on lock walls at batter locations.)

	Radius of Turn of Bilge (ft.)				
in.	1 ft.	2 ft.	3 ft.	4 ft.	5 ft.
0	35 ft. 08 in.	36 ft. 06 in.	37 ft. 04 in.	38 ft. 02 in.	39 ft. 00 in.
1	35 ft. 09 in.	36 ft. 07 in.	37 ft. 05 in.	38 ft. 03 in.	39 ft. 01 in.
2	35 ft. 10 in.	36 ft. 08 in.	37 ft. 06 in.	38 ft. 04 in.	39 ft. 02 in.
3	35 ft. 10 in.	36 ft. 08 in.	37 ft. 06 in.	38 ft. 05 in.	39 ft. 03 in.
4	35 ft. 11 in.	36 ft. 09 in.	37 ft. 07 in.	38 ft. 05 in.	39 ft. 03 in.
5	36 ft. 00 in.	36 ft. 10 in.	37 ft. 08 in.	38 ft. 06 in.	39 ft. 04 in.
6	36 ft. 01 in.	36 ft. 11 in.	37 ft. 09 in.	38 ft. 07 in.	39 ft. 05 in.
7	36 ft. 02 in.	37 ft. 00 in.	37 ft. 10 in.	38 ft. 08 in.	39 ft. 06 in.
8	36 ft. 03 in.	37 ft. 01 in.	37 ft. 11 in.	38 ft. 10 in.	
9	36 ft. 03 in.	37 ft. 01 in.	38 ft. 00 in.	38 ft. 10 in.	
10	36 ft. 04 in.	37 ft. 02 in.	38 ft. 00 in.	38 ft. 10 in.	
11	36 ft. 05 in.	37 ft. 03 in.	38 ft. 01 in.	38 ft. 11 in.	

Example: To find draft of ship having a radius-of-turn-of-bilge of 4 ft. 4 in. read across top of table to column headed 4 ft. thence down column opposite 4 in. – read 38 ft. 5 in.

Note: Dead Rise not included in above tabulations and must be added to above readings.

4. A vessel whose ballast draft does not meet the minimum draft requirements established by this section may be accepted for transit on a regular basis, provided the vessel operator requests permission and submits the following information to the Marine Bureau of the Panama Canal Commission: (i) principal dimensions of the vessel; (ii) deepest attainable minimum draft (fore and aft); (iii) limitations on visibility fore and aft from the navigation bridge; (iv) necessary excerpts from the vessel's plans, drawings and manoeuvring data that relate to the vessel's suitability for transit.

5. The vessel will be inspected by the Canal Authorities upon its first visit after such a request is made. If the vessel is acceptable for transit at less than the prescribed minimum draft, the Operator will be notified that transit on a regular basis is authorised provided the vessel meets the special minimum draft that is specified in the notice.

6. If the vessel is found not to be acceptable for transit on a regular basis, a single transit may be authorised, at the discretion of the Canal Authorities, subject to the imposition of any special conditions that may be required for reasons of safety or continuance of regular Canal operations.

(e) *Maximum Length*

1. The maximum length overall including bulbous bow, for a commercial vessel acceptable for regular transit is 950 ft., except passenger and container ships may be 965 ft. in overall length.

2. The maximum length for integrated tug-barge combination acceptable for regular transit is 900 ft. overall, including the tug. A tug-barge combination must transit together as one unit, with the tug supplying the propelling power.

3. The maximum aggregate overall length for non-self-propelled vessels acceptable for transit is 850 ft., including accompanying tugs. Accompanying tugs must lock through with the non-self-propelled vessel.

(f) *Maximum Beam*

1. The maximum extreme beam for a commercial vessel and the integrated tug-barge combination acceptable for regular transit is 106 ft.

2. At the discretion of the Chief, Navigation Division or his designee, commercial vessels, including integrated tug-barge combinations, having an extreme beam of between 106 ft. and 107 ft. may be permitted to transit on a one-time basis only if the deepest point of immersion does not exceed 37 ft. TFW.

3. The maximum extreme beam for non-self-propelled vessels (other than integrated tug-barge combinations) acceptable for transit is 100 ft.

(g) *Previous Approvals and One-Time Transits.*

Vessels approved for regular transit prior to December 20, 1976 whose maximum length or beam slightly exceed the limits set forth i paragraphs (e) and (f) may continue to transit on a regular basis. Afte that date, approval will not be given for transit of other commercia vessels whose extreme beam exceeds 106 ft. by any amount, excep for vessels transiting on a one-time delivery basis.

(h) *Release from Liability*

If a vessel having a beam in excess of 106 ft. is permitted to trans on a one-time basis, such vessel may do so only at its own risk and, t the extent and in proportion that such failure to meet the requirement of this section proximately causes or contributes to a casualty an resulting damages, the Master of such vessel, on behalf of said vesse her Owners, Operators, or any other person having an interest in he and for himself, will be considered to have released the Panama Cana Commission and the United States from, and to have indemnified ther against, any loss, damage or liability incurred by the Panama Cana Commission or the United States under, or in respect to:

1. Sections 1411 – 1416, inclusive, of Pub. L. 96-70, 93 Stat. 485-7;

2. Property of the Panama Canal Commission or the United States and

3. Panama Canal Commission employees under the Federa Employees' Compensation Act 5 U.S.C. 8101, *et seq.*, or any othe employee compensation system.

The Master of the vessel that fails to meet the requirements of thi section may be required to execute, in the presence of a Commissio Official, a form undertaking to release the Panama Canal Commissio and the United States from liability in case of an accident and t indemnify the Commission and the United States for any damage sustained. The failure of the Master of a vessel to sign such a form however, will not relieve the vessel, her Owners, or any other perso having an interest in her from liability incurred as a result of the vessel failure to meet the requirements of this section.

(i) *Denial of Transit*

A Vessel shall not be permitted to transit the Canal under the followin circumstances:

1. When the vessel's maximum point of immersion exceeds i maximum authorised draft.

2. When the vessel's maximum point of immersion exceeds th published TFW maximum draft then in effect;

3. When the length overall, including bulbous bow, exceeds tha stated in paragraph (e) of this section, unless the vessel was approve for regular transit prior to March 16, 1981; or

4. When the extreme beam exceeds that stated in paragraph (f) this section by any amount, unless the vessel was approved for regula transit prior to March 10, 1981.

(j) *General*

1. Vessels of 100 ft. beam and over whose list, trim or handlin characteristics are such as to endanger themselves, Panama Cana appurtenances or a third party, may have such further limitations place on them as Canal Authorities deem necessary to ensure reasonable safet

2. The draft of non-self-propelled barges of 550 ft. or more in lengt may be limited when, in the opinion of Canal Authorities, such a limit necessary to ensure reasonable safety.

3. Non-self-propelled vessels, other than integrated tug-barg combinations, will be accepted only on an individual basis; advanc permission for initial transit as a non-self-propelled vessel is require Displacement of these vessels is limited to 35,000 tons and the dra requirements of paragraph (d) of this section are applicable. Ridin crews must be provided in sufficient numbers, as required by the Cana Operations Captain, to safely handle towboat lines and boarding ladder and to assist in mooring.

4. The numerous constraints affecting the transit schedules of vesse and tows make it important that information provided in advance of th initial transit of a vessel include a capacity plan, general arrangemer plans, engine room plans, and whenever possible, a photostatic cop of National Register, Load Line Certificate and Panama Canal Tonnag Certificate. This advance information will minimise the time spent aboar the vessel by Panama Canal Officials before commencement of th initial transit.

HEALTH: Application for Radio Pratique is available to all vesse arriving in Panama Canal waters. Radio Pratique is a quarantin clearance by radio, based upon information from the vessel prior to i arrival at Balboa or Cristobal and past experience with the vessel an its personnel. A limited number of vessels will be sampled for complianc with the required standards of health and sanitation on board. Th sampling will generally be done on a random basis and will provide measure of the success of the programme.

It should be emphasised that Radio Pratique applies only to th quarantine section of the required forms and documents for the Panam Canal. All vessels must still complete the required boarding forms, an in most cases, be prepared to receive the Panama Canal Boardin Inspector on arrival in Canal waters. Such forms as crew and passenge lists, ship's information forms, and the cargo declaration must alway be completed for presentation to the Panama Canal officials.

Attached is a listing of the items to be reported prior to arrival in th Canal waters. The information is similar to that now required of vesse requesting Radio Pratique in U.S. ports. In addition, there are som special circumstances that make additional information necessary.

The manner of reporting the information required should be clear an orderly as specified in 35 CFR, section 123.4, listing information require in advance. The request for Radio Pratique should originate from th Master and can be submitted directly by radio or through the vessel local Agent. The local Agent should submit his request with all th required information to the Admeasurement Office at the port of arriva of the vessel. The local Agent will be notified when Radio Pratique granted or refused and the Agent will communicate this information t the ship.

It is hoped that vessels will take advantage of Radio Pratique when arriving for transit and that in as many instances as possible it may be able to grant this time saving privilege.

Radio Pratique Programme

1. *General*

(a) The granting of Radio Pratique is an Office of Health and Safety responsibility designated to the Occupational Health Division. (35 CFR 61.264) see below.

§61.264 Radio Pratique; vessels only.

The Medical Officer in charge may grant Pratique by radio to a vessel upon the basis of information regarding the vessel, its cargo and persons aboard, received prior to arrival of the vessel, when in his judgement, and in accordance with instructions by the Chief, Occupational Health Division, the entry of the vessel will not result in the introduction, transmission or spread of communicable diseases.

(b) In order to process the details of this programme more expeditiously, communication may be held between the quarantine offices and the ship's Steamship Agent representing the vessel hereinafter called local Agent.

(c) All vessels coming to the Panama Canal may request Radio Pratique by means of the ETA radio message or through the ship's local Agent.

(d) Requests for Radio Pratique must be submitted to the Admeasurement Office at the port of arrival not less than 48 hours in advance.

2. *Specific Requirement for Each Voyage*

(a) The vessel will be maintained free from rats and vermin.

(b) The Derat Certificate or Derat Exemption Certificate must be valid (i.e. date of issue not more than 180 days prior to date of arrival at the Panama Canal).

(c) Vessels arriving within 15 days from the ports designated in the Aedes Aegypti Indices Bulletins must be disinfected with the aerosol described in the Aedes Aegypti Indices Bulletin No. 8, 1970.

(d) The restrictions imposed in 61.281 through 61.302, "Importation of Certain Things", Title 35 CFR, must be strictly adhered to and followed.

3. *Action taken by the Medical Officer in Charge**

(a) Radio Pratique *may* be granted by the Admeasurement Office upon request from the vessel or through the ship's local Agent representing the vessel provided it is documented by ship's radio.

(1) If the information requested in the Appendix hereto is complete; *and,*

(2) If the Medical Officer in charge* is of the opinion that the vessel is reasonably free from any condition either from a health or sanitation standpoint that might introduce illness into the Canal.

(b) Radio Pratique may be denied by the Medical Officer in charge:

(1) If the requested information is incomplete; or,

(2) If the Medical Officer in charge* feels that medical or sanitary reasons prevail requiring careful inspection upon arrival of the vessel.

*Or designated representative.

4. *For Sampling and Surveillance of Compliance Purposes*

After the information supplied by the Shipmaster has been reviewed the Medical Officer in charge* will advise the ship's local Agent concerned whether Radio Pratique has been granted or denied and if any restrictions or limitations have been imposed. He will also inform the Marine Traffic Controller.

*Or designated representative.

5. *Action taken by Ship's Local Agent*

(a) The ship's local Agent may submit requests for Radio Pratique to the Admeasurement Office if the vessel has not done so by radio. The information required is listed in the Appendix hereto. Such requests should be submitted, properly documented by ship's radio, not later than 24 hours before the vessel is scheduled to arrive nor earlier than 48 hours before the expected arrival of the vessel.

(b) The ship's local Agent will advise the vessel which he represents whether Radio Pratique has been granted or denied; and any restrictions or limitation imposed.

6. *Action taken by Panama Canal Commission Boarding Inspectors*

On vessels that have been granted Radio Pratique, the Panama Canal Commission Boarding Inspector will:

(a) Ascertain that the Ship's Master has completed the Ship's Information and Quarantine Declaration (Form 4398) *except* the "quarantine data" portion at the bottom of the form; and,

(b) Otherwise process the vessel (e.g. for Admeasurement, and any other non-quarantine requirements) and any further questioning on quarantine matters. This processing will be in the bay. Passengers that are disembarking from vessels may be processed by the Panamanian Authorities at the docks.

(c) Vessels that are denied Radio Pratique or have failed to request Radio Pratique, will be cleared through Quarantine by the Panama Canal Commission Boarding Inspector in the prescribed routine manner.

7. *Action taken by Shipmasters*

(a) Shipmasters should request Radio Pratique directly by radio or through the Agent representing them in the Panama Canal and supply the information requested in the Appendix hereto.

(b) Shipmasters should take cognizance of the requirements listed in paragraph 2, "Specific requirement for each voyage", above.

(1) If granted Radio Pratique, they may enter the anchorage area flying the quarantine flag; they must however comply with any restrictions or limitations imposed by the Medical Officer in charge.

(2) Vessels *must* await boarding by a representative of the Panama Canal authority.

(3) If denied Radio Pratique, vessels must be cleared for Quarantine in the prescribed routine manner; that is enter the Canal waters flying the quarantine flag and must await processing by the Panama Canal Commission Boarding Inspector.

(4) It is important that the Shipmasters remember that in all instances all forms regularly required are to be completed prior to arrival for presentation to the Boarding Inspector.

Appendix

Information required by Quarantine Officer in Charge from Shipmaster requesting Radio Pratique through ship Agency representing him at the Panama Canal.

Full name of vessel.

Country of registry.

International radio call letters.

Estimated date of arrival and port.

Whether docking at Balboa or Cristobal and reason therefor.

List of ports of call within past *15* days prior arrival.

Report any illness or communicable diseases on board.

Report any death occurring on board since departure from last port and cause, if known or suspected.

Report the number of passengers to be disembarked and port of disembarking (e.g. Cristobal or Balboa).

Report the date of the Derat Certificate or Derat Exemption Certificate.

Record the number, kind, and origin of all animals aboard and if any are scheduled for disembarking.

Report the origin or source of the meat in the ship's stores.

Only vessels in the following categories need still be subject to "on board" public health clearance upon arrival:

A. Vessels which, during the 15 days prior to arrival in the Canal ports, have or have had on board passenger or crews with any of the following conditions or symptoms of illness:

1. Temperature of 100° F (38° C) or greater *(a)* which persisted for 2 days or more: or *(b)* which was accompanied or followed by any one or all of the following: rash, jaundice, glandular swelling; *or*
2. Prolonged diarrhoea (lasting 1 full day or more).

B. Occurrence of death on board for any reason.

C. Vessels which have been in a country infected with plague in the 60 days prior to arrival in the Canal.

RADIO: Balboa Naval Radio NBA.

Signal Stations: (a) Visual-signal stations established for communication on arrival Canal approaches by International Code and/or flashing light, at seaward end of Pier 6 Cristobal, and on Flamenco Island at Pacific entrance.

(b) Flamenco Island and Cristobal Signal Station also contactable on VHF Channel 12 frequency 156.6 MHz, and R/T 2182, 2638 and 2846 kHz – call letters WHC.

(c) Vessels of 85 ft. beam and above awaiting transit at Balboa anchorage should keep VHF radio watch on Channel 12 for transit orders.

(d) Arriving ships may communicate with Port Captain's Office, Cristobal through Cristobal Signal Station. Radio communication is maintained on international maritime VHF Channel 12 (156.6 MHz) through "Cristobal Radio".

§123.4 Advance information required by radio from vessels approaching Canal: (a) Vessels approaching the Panama Canal shall communicate by radio to the Canal Operations Captain not less than 48 hours in advance of arrival at the Canal (or earlier if radio communication is practicable at an earlier time), the information required by this section unless this information has been previously communicated to the Canal Authorities by other means. Symbols of the phonetic alphabet shall be used to identify each item and the word "NEGAT" shall be used after the items that can be answered "no", "none", or "not applicable". The following items of information shall be provided:

ALFA – The Panama Canal Identification Number of the vessel.

BRAVO – Estimated date and time of arrival, port of arrival and request for Canal transit if desired.

CHARLIE – Estimated draft upon arrival, in feet and inches (fore and aft), in tropical fresh water.

DELTA – Any changes in the vessel's name, country of registry, structure, or use of tanks that have occurred since the vessel last called in Panama Canal waters.

ECHO – Will the vessel dock at Balboa or Cristobal? What is the reason for docking? If it is for cargo operations, fuel or water, give the tonnage involved in each case. Is there any other reason the vessel will not be ready to transit upon arrival? What is the reason?

FOXTROT – The nature and tonnage of any deck cargo.

GOLF – If the vessel is carrying any explosives or dangerous cargoes in bulk (as classified in 113.3), state the correct technical name, quantity (in long tons), United Nations number, and the International Maritime Organisation class and division for each dangerous cargo carried. If the vessel is a tanker in ballast condition and not gas free, state the correct technical name, United Nations number, and International Maritime Organisation class and division of the previously carried cargo.

HOTEL – If the vessel is carrying any packaged dangerous goods (as classified in 113.3) other than explosives state the International Maritime Organisation class and division and the total quantity (in long tons) within each class.

INDIA – Quarantine and Immigration information:

(1) Is Radio Pratique desired?

(2) State the ports at which the vessel has called within 15 days preceding its arrival at the Canal.

(3) State all cases of communicable disease aboard and the nature of the disease or diseases, if known.

(4) The number of deaths which have occurred since departure from the last port and the cause of each death, if known.

(5) The number of passengers disembarking and their port of disembarkation.

(6) The number of ports of origin of any stowaway and a brief description of the identity papers of each stowaway.

(7) The number, kind and country of origin of any animals aboard. Are any animals to be landed?

(8) The country of origin of all meat, whether carried as cargo or as ship's stores.

(9) Has the vessel called at a port in any country, infected with foot-and-mouth disease or rinderpest during its present voyage? Countries considered to be infected are:

(a) All countries East of the 30th Meridian West longitude and West of the International Date Line except Australia, Channel Islands, Fiji, Greenland, Iceland, Japan, New Zealand, Northern Ireland, Norway, Republic of Ireland.

(b) All countries of South America; *(e)* Martinique;
(c) Curacao; *(f)* Guadeloupe.
(d) Cuba;

(10) Specify whether the vessel has a valid Derat Certificate or a Derat Exemption Certificate issued 180 days prior to arrival.

The following additional information shall be transmitted via radio to the Port Captain from all vessels as applicable:

(1) Vessels approaching from the Pacific shall report actual time of passing Cape Mala, or the latitude of Cape Mala, and the vessel's speed.

(2) Vessels approaching from the Atlantic shall report 12 hours prior to arrival at Cristobal any change of 1 hour or more in the expected time of arrival.

(3) Any other matters of importance and interest.

Timely receipt of the above information will facilitate the transit or docking of arriving vessels. Failure to comply with these reporting requirements may subject a vessel to delay since vessels which do comply will receive priority of service and handling over those which do not.

VHF: *§123.3 Radiotelephones required.*

(a) Except for vessels operated by the Panama Canal Commission or another agency of the United States, the following vessels shall comply with the requirements of this section:

(b) A vessel of a type described in paragraph (a) of this section shall be equipped with a radiotelephone which can be operated from the navigation bridge and which can be used to communicate on the following Channels in the 156 – 162 MHz frequency band:

(1) Channel 12, 156.600 MHz;
(2) Channel 13, 156.650 MHz;
(3) Channel 16, 156.800 MHz.

(c) A vessel of a type described in paragraph (a) of this section, which has notified the Canal Operations Captain or his designee that it is ready to transit or otherwise navigate in Panama Canal waters and requires a Panama Canal Pilot, shall, until a Pilot boards the vessel, maintain a continuous watch on Channel 12. Channel 12 will be used for notification to vessels of their transit time and for advisory harbour control communication in Limon Bay.

(d) A vessel of a type described in paragraph (a) of this section shall maintain a continuous watch on Channel 13 when underway in Panama Canal waters without a Panama Canal Pilot aboard, and shall use Channel 13 only for ship-to-ship or ship-to-coast navigational communications. When such vessels have a Panama Canal Pilot aboard, Channel 13 may be used only by the Pilot or at his direction for navigational communications.

(e) The signal stations on Flamenco Island and in Cristobal may be called on Channels 12 and 16. Channel 16 may also be used by all vessels for ship-to-coast communications with steamship Agents or other commercial businesses.

VTS: Vessel Traffic Management System in operation.

TANKERS: *Transit Restrictions:* Vessels carrying petroleum products having a flashpoint greater than 80°F and classified lower than Grade C under the U.S. system, or having a flashpoint greater than 23°C and classified higher than 3.2 under the IMO system are not considered to be carrying dangerous cargo for purposes of these restrictions.

Special rules apply to vessels carrying dangerous cargo or not gas free. These rules concern the conduct of navigation in the Canal and in the approaches to the locks. Generally it may be assumed that vessels carrying a dangerous cargo shall:

(a) Not overtake.
(b) Not be overtaken.
(c) Meet oncoming vessels at a safe speed.
(d) Avoid meeting oncoming traffic at turns.
(e) If required to anchor, anchor well clear of the channel and other vessels.
(f) Take a tug at locks and Gaillard Cut if required by the Pilot.

DENSITY: On several occasions vessels arriving for transit have been found to be over authorised draft after entering Gatun Lake. Overdrafts in these instances have been caused, it is believed, by assuming fresh water densities different from what actually exists in Canal.

Using distilled water as 1.000 at 3.98° C, water densities have been determined to be as follows:

Location	*Density* *Gm./cc. 85° F*	*Lb./cu.ft 85° F*
(a) Gatun Lake	0.9954	62.21
(b) Miraflores Lake	0.9971	62.32
(c) Balboa Anchorage	1.0219	63.87
(d) Cristobal	1.0212	63.76

BOILER WATER: May be taken without charge from Gatun Lake subject Pilot's permission and draft.

CONSULS:

Norway: Royal Norwegian Consulate General: Consul General for Panama, R. P., Terence O. Ford, Office: 28–25–2347.
Residence: 28–24–1884.
Norwegian Consul, Cristobal, G. R. Morland, Fenton Bldg. 45–1155.
Norwegian Consul for Balboa, Arne Hauge, Office 52–5053.

Republic of South Africa: Consul for the Republic of South Africa, Henry I. Darlington, Office: 28–23–0834.
Residence: 28–23–6779.

Sweden: Royal Swedish Consulate General, Edificio Melinda, Via Argentina, Panama 28–23–9694.

Denmark: Royal Danish Consulate General, Consul General for Panama.
Residence: 45–1155.
Royal Danish Consulate for Colon and Cristobal.
Residence: 3–2361.

FRESH WATER: Available at Balboa or Cristobal.

CERTIFICATES: See "Documents".

CUSTOMS: Allowances: Tobacco, Wine and/or Spirits at Master's discretion sufficient for immediate consumption. Alcohol not permitted to be taken ashore.

REPATRIATION: Possible. Advise Agent in ample time in order to prepare necessary documentation.

AIRPORT: General Omar Torrijos Herrera International Airport located outside Panama City, 18 miles from Balboa; 48 miles from Cristobal, served by all major scheduled international airlines operating in Southern hemisphere.

HOLIDAYS: January 1st; January 9th; Good Friday; Carnival Tuesday (day before Ash Wednesday); May 1st; August 15th (Pacific side only); October 11th; November 3rd; November 5th (Atlantic side only); December 8th; December 25th.

TIME: EST. No alterations to clocks necessary throughout the year.

LOCKS: Gatun Locks (Atlantic side) raise and lower vessels 85 ft. Miraflores (nearest to Pacific) 54 ft. and Pedro Miguel (Pacific side) 31 ft.

AUTHORITY: Panama Canal Commission, Balboa, Republic o Panama.

AGENT: See "Cristobal".

PEDREGAL: 08.23 N. 82.26 W. (See Plan)

LOCATION: The Port of Pedregal is 7 km. to the South of the City o David, Chiriqui Province, in the West part of the Pacific coast of the Republic of Panama. The port is at the head of an estuary of the River Garibaldo.

DOCUMENTS:
General Declaration, 2 copies.
Cargo Manifest, 5 copies.
Crew List, 3 copies.
Passenger or Negative Passenger Declaration, 4 copies.
Stores or Supplies List, 4 copies.
Crew Personal Effects, 3 copies.
Health Documents, 1 copy.
Maritime Health Declaration.
Derat Certificate.
Crew Vaccination Cards.

PILOTAGE: There is no official Pilot in the port. The pilotage service is covered by persons who are duly licensed and who have much experience, since they work full time on ships in this area. When their services are requested, they ask permission of their employers if it is during normal working hours (private undertakings). They obtain a launch which has no means of communication at all with the port.

ANCHORAGE: Vessels intending to enter the port must anchor near the Fairway Buoy installed at the Port Entrance at San Pedro Mouth. Around this buoy are depths of 70 ft. and 80 ft.

RESTRICTIONS: All vessels entering port must do so on high tide. Vessels are not allowed to enter or leave the port area at night. Entry and departure is only allowed if a Pilot is on board. Vessels must advise their local Agents 48 hours in advance of their intended arrival.

MAX. SIZE: The length of the quay is 86 m. and the width is 6 m. a the part where there is a buoy, with 4.2 m. along the rest of it. The max depth of water for a vessel entering the port is 18 ft.; but the draft of the vessel must not exceed 15 ft.

HEALTH: The vessel is boarded by a Quarantine Inspector, who wil inspect the entire vessel, and if there is no suspicion of illness o contamination, and all health stipulations as covered by Panamanian Laws are met, Free Pratique is granted. If there is any suspicion of illness or contamination, the vessel is immediately fumigated far from the quay, with the crew being forbidden to come ashore.

VHF: There is a radio unit for VHF communication and calls are made on Channel 16, passing then to another available channel. This equipment receives calls on frequency 156.8 MHz.

TUGS: None available.

BERTHING: The port consists of a single marginal quay 86 m. long, made of reinforced concrete (both surface and uprights).

The quay has depths of 3.35 m. (11 ft.) and 4.27 m. (14 ft.) at its ends, and in the centre 5.18 m. (17 ft.).

To one side of the quay is a building of reinforced steel covered with sheets of corrugated zinc with an area of 360 cu.m. and a free internal height of 6 m.

CARGO HANDLING: For handling purposes, there are only a few hand trucks, and vessels are obliged to utilise their own resources.

Cranes: Loading and discharge is by the ship's own gear, excluding shipment of sugar which is done by land-based equipment.

STEVEDORES: There is a stevedores' syndicate which is independent of the National Port Authority.

MEDICAL: There is no doctor in the port, but there is a medical centre not far away.

FUEL: There are no pipe-lines. Oil is supplied by road tankers.

FRESH WATER: There are water installations available for supplies to ships.

FIRE PRECAUTIONS: None.

REPAIRS: No repairs are carried out on ships.

AIRPORT: The National Airport of David is some 5 km. away on the road between Pedregal and David. It has commercial flights only at national level.

POLICE/AMBULANCE/FIRE: In the port there are no services; 5 km. away in the City of David there are services, and their telephone numbers are: Police 75-1446 or 75-2210. Fire Brigade and Ambulance 75-4216.

SHORE LEAVE: Allowed.

DELAYS: Any delays are caused by the tides, another vessel occupying the quay or arrival at night.

GENERAL:
Observations: The quay of the Port of Pedregal is in a bad state in every respect, both the top surface and the water side supports, and some of the piles need to be repaired.
Shelter: The Port of Pedregal, being at the head of an estuary, is not affected by the sea or swell.
Tides: The average tidal difference (average tide) in the port is 2.5 m. (8.2 ft.) and the average Spring tide is 3.05 m. (10 ft.).
Common Operations in the Port: Pedregal is a port whose operations are on a small scale, handling cargo such as fertilisers, general cargo, bulk commodities, and local fishing. International vessels arrive at the port very sporadically, due to the reduced depth of water and the poor state of the quay.
AUTHORITY: National Port Authority, Apartado 8062, Panama 7, Panama. *Tel:* 69-5444. *Telex:* 2765. *Contact:* Captain Jose de los Santos Motta, Director General.

PUERTO ARMUELLES: 08.17 N. 82.52 W. (See Plan)
SECTION A: GENERAL CARGO PORT.
SECTION B: OIL TERMINAL.

SECTION A: GENERAL CARGO PORT.

LOCATION: Puerto Armuelles is located on the Pacific coast of the Republic of Panama.

Puerto Armuelles is a port solely used for the export of bananas, it is operated by United Brands Co., and administered by the National Port Authority of Panama.
DOCUMENTS: Same documents and the same procedure as Almirante.
PILOTAGE: United Brands Company has a Pilot who is available 24 hours of the day. Pilotage consists in mooring the vessel at the quay from the anchorage, for which the vessel must position a ladder on the port side. The pilot launch is white and has no VHF radio. The mooring operation is fairly complicated and United Brands provide a gang of men who board the vessel and manipulate the cables used in the mooring process. Mooring at the quay is always done on the starboard side of the vessel and the bow must be pointing out to sea.

The Pilot must be contacted by the ship's Agent and requested by the vessel by VHF radio on Channel 12 to the Port Authority or Channel 16 to United Brands Co.
ANCHORAGE: Vessels may anchor half a mile from the pier, where there are depths of 36.6 m. (120 ft.). However, due to the great depth of water in front of the quay, care must be taken in letting out the anchor, it being necessary to find places where the water is not so deep.

It is recommended that for Masters of vessels arriving for the first time in the port ask for the Pilot when anchoring.

There are no aids to navigation indicating the best place to anchor.
RESTRICTIONS: Puerto Armuelles is located in the Bay of Charco Azul, where there are great depths making it unnecessary to have aids to navigation. Access to the port is free of sandbanks or any other obstruction to navigation. There are therefore no restrictions for vessels wishing to enter the port, except on the quay itself.

On the quay proper, restrictions are as follows: Ships are not to be moored during bad weather and mooring is permitted in daytime only, unless there is an emergency. Bad weather usually prevents securing and mooring cannot be performed.
HEALTH: The vessel is boarded by the doctor in the operation of clearance. In the event of illness on board, the Port Authority must be advised on VHF Channel 12 and the vessel must wait at the anchorage for the doctor's visit.
RADIO: A radio service exists via telegraphic cables operated by Tropical Radio Telegraph Co. The Port Authority has VHF/FM equipment which receives calls on Channel 12. United Brands Co. also has VHF and receives calls on Channel 16. The range of these stations is 50 nautical miles. The Port Authority also has SSB equipment which takes calls on frequency 7447.5 kHz.
TUGS: None available.
BERTHING: The quay consists of a pier with a single berth 137 m. long and 12.2 m. (40 ft.) minimum depth. Vessels must moor on the starboard side.

The quay has 4 banana loaders with a loading capacity of 42 boxes of bananas per minute, each weighing 42 pounds. There is no other type of loading equipment.

Since the quay is located in a position open to the sea a set of 3 mooring buoys is used to keep vessels away from the N.E. side of the pier.
CRANES: 1×5 ton rail mounted crane.
STEVEDORES: Loading and discharging work is carried out by the Union of Port Workers. The vessel's Agent must contract the services of the workers via United Brands Co.
FRESH WATER: Supplied at the rate of 2 t.p.h.
FUEL: Not available.
REPAIRS: Facilities for painting, cleaning, ship and machinery repairs are available.
PROVISIONS: Shipchandler facilities available. Can be obtained locally or in the town of David 100 km. away.
TIME: GMT minus 5 hours.
CONSULS: Colombia, Costa Rica, Nicaragua.
MEDICAL: There is a modern hospital in Armuelles.
POLICE/AMBULANCE/FIRE: Available in Armuelles.
CUSTOMS ALLOWANCES: See "Almirante".
TELEPHONE: Micro-wave connects Armuelles with any country in America or Europe. No facilities for telephones on board vessels.
OPENING/CLOSING HATCHES: Carried out by port workers.
DENSITY: 1.0219 gm/c.c. at 85°F.
SHORE LEAVE: No restrictions.
REPATRIATION: Can be effected without difficulty.
AIRPORT: Armuelles has a small airstrip for light aircraft. However, the town of David 100 km. away by road from Armuelles has a larger airport. There are 2 daily flights by local commercial lines between David and the airport of General Omar Torrijos Herrera in Panama; thus repatriation can be effected without difficulties.

SHIPMASTER'S REPORT: 1979.
Documents: Same as for "Almirante", and if no cargo to land at this port, 6 copies of a "Nil" declaration.
Pilotage: Arranged through Agent. Pilot and mooring gang board 0.75 miles East of pierhead by port accommodation ladder, from an old ship's lifeboat painted white.
Anchorage: 1 mile East of pierhead in depths of 45 m. or more. Bottom is very steep-to, in less depth vessel can be too close to shallow water. Recommend U.S. Chart 21581, 'Ports and Anchorages South Coast of Panama' be obtained.
Restrictions: Almost none, depth alongside over 12.2 m. (40 ft.), breadth is no restriction, berthing face is about 167.6 m. (550 ft.) long, but vessels up to about 207.3 m. (680 ft.) long could be berthed, bows projecting from pier.
Health: Pratique given by doctor on arrival. If any suspected disease, vessel should advise Agent by radio beforehand. Meat products which are not usually acceptable to U.S.D.A., are generally sealed up as in U.S. Ports.
Radio: Balbao Radio.
VHF: Channel 16 for Pilot.
Tugs: None.
Berthing: Pier about 609.6 m. (2,000 ft.) long, lies in South-easterly direction from the shore line, vessel berths starboard side alongside on the N.E. face, seaward end.

Three buoys are moored 76.2 m./91.4 m. (250/300 ft.) off the berth and are used to hold off the pier, the vessel being moored about 3.05 m. (10 ft.) off at all times due to swell. Port anchor is let go approaching the berth and ship's lines used to position vessel, then very heavy mooring springs are secured, 4 at each end. Ship's lines remain on buoys for holding off. On sailing Pilot does not board, only berthing gang who leave by accommodation ladder to boat after vessel is off the berth.
Fuel: Not available.
Fresh Water: Piped to pier, ample hydrants, charge U.S. $150.00 irrespective of amount taken.
Repairs: Workshop and electrical repairs can be undertaken by arrangement.
Fresh Provisions: Available.
Time: GMT minus 5 hours.
Medical: All facilities available.
Customs Allowances: No restrictions as long as nothing landed, bond is sealed on arrival.
Opening/Closing Hatches: Ship's crew. For banana loading starboard side elevator hatches only.
Shore Leave: No restrictions.
Operators: Chiriqui Land Company.

AUTHORITY: National Port Authority, Apartado 8062, Panama 7, Panama. *Tel:* 69-5444. *Telex:* 2765. *Contact:* Captain Jose de los Santos Motta, Director General.

Puerto Armuelles Port Administrator: *Tel:* 75-1230.

AGENT: See "Section B".

SECTION B: OIL TERMINAL.

LOCATION: The PTP transhipment Terminal is located on the Western side of Bahia de Charco Azul in position Lat. 8° 12.5′ N., Long. 82° 53′ W., on the Eastern side of the Burica Peninsula, approximately 8.5 miles North of Punta Balsa and 3.5 miles South of Puerto Armuelles.
DOCUMENTS: The following documents are required for entry and clearance:

2 copies General Declaration.
1 copy Clearance from Previous Port.
5 copies Cargo Manifests or Declaration that no cargo is carried.
3 copies Crew List.
4 copies Passenger List or Declaration that no passengers are carried.
2 copies Stores List or Declaration that there are no supplies.
2 copies Crew Personal Effects Declaration.
1 copy Maritime Health Declaration.
2 copies Mail List.
1 copy Bill of Lading.

PILOTAGE: Pilotage to and from the Terminal Jetties is compulsory and is available on a 24 hour basis.

Vessels should not approach the immediate vicinity of the Terminal without being authorised.

The outgoing or unberthing vessel will have priority over the incoming vessel providing the normal rules of navigation are not infringed.

For discharging vessels, pilot station is 3.5 miles S.E. of Jetty No. 2. For loading vessels, pilot station is 3 miles East of Jetty No. 1.

Ships should make a lee for the Pilot and the ladder should conform to normal international standards. Discharging vessels should place the ladder on the starboard side when on Northerly heading. Loading vessels should place ladder on the starboard side when on a Westerly heading.

Vessels with a freeboard of 30 ft. or more shall provide suitable accommodation ladder, in addition to pilot ladder.

Vessels shall have both anchors ready for use.

Masters will advise Terminal, before berthing, of any damage or disability to his vessel.

APPROACHES: Approaches to the Terminal are from the South to the S.E. (See Plans).

Lights:

1. Isla Burica Lat. 08° 01.5′ N., Long. 82° 52.5′ W., flashing every 10 secs., 12 miles, white light exhibited from a metal framework tower which is 34 m. high and solar powered.

2. Puerto Armuelles (Banana Pier) Lat. 08° 16′ N., Long. 82° 52′ W. An occulting light is exhibited from the head of the pier in combination with a fixed red light.

3. At the Terminal, flashing lights are exhibited from the extremities of the berths.

No. 1 Berth: Flashing red every second.
No. 2 Berth: Flashing red every second.
No. 3 Berth: Flashing white every second.

There are no leading lights.

ANCHORAGE: The area immediately to the East of the Terminal is very deep.

The North East area of the Bahia Charco Azul is believed to be the appropriate area to anchor. The holding ground is reported to be good. Radio contact should be maintained with the Terminal via VHF Channel 16.

MAX. SIZE: 265,000 d.w.t.

HEALTH: In accordance with standard international practice, ships are required to display International Code Signals for vessels requiring Free Pratique and these should be displayed until Pratique has been granted.

N.B. The Autoridad Portuario Nacional (A.P.N.) permits employees of P.T.P. to board vessels (before the ship receives Free Pratique) for the purposes of setting loading arms. Discharge of ballast may commence in case of a vessel with ballast. Discharge of cargo *is not* permitted. Employees of P.T.P. are not permitted in ship's accommodation areas before clearance.

RADIO: *Notices/Time of Arrival:*

ETAs:

All communications should be in local time. ETAs should be received by the Terminal at least 72 hours prior to arrival and any variation of more than 4 hours should be advised.

ETAs should be sent via ship's Agents who will notify the Terminal. The ETA cables should include the following:

1. Name of vessel.
2. ETA Puerto Armuelles.
3. Draft on arrival, fore and aft.
4. For discharging vessels: B/L, gross and net barrels of oil to nearest barrel.
   For loading vessels: ballast for discharge ashore to nearest 1,000 barrels.
5. Any conditions which will affect loading or unloading operations.
6. Deviations from the recommended deck fittings. (See "Berthing/Loading").
7. Water request, if any.

Notice of Readiness: Notice of Readiness is considered to be received by the Terminal if either:

1. Vessel tenders the Notice of Readiness to load or discharge upon arrival at the Pilot Station.

2. When a berth is not available and a vessel elects not to close the port, it may tender its Notice of Readiness at a distance of 15 miles from the Terminal. In this case notice is considered received at this time *plus 2 hours*.

Nothing in these rules will interfere with any business arrangements made by P.T.P. and the user in respect of lay-time, demurrage, and other contractual obligations.

VHF: Vessels approaching the Terminal should establish VHF communication as soon as they are within range (about 50 miles).

The Terminal keeps a listening watch on Channel 16; call sign "Petroterminal Control". Vessels which have to lay-off the Terminal should maintain a listening watch on Channel 16.

The Terminal also uses Channels 11, 12, 13, 14.

The Terminal tug boats and line handling boats are also equipped with Channels 11, 12, 13 and 14.

The Terminal radio monitors Channels 11, 13, 14, 16 at all times.

Also see "Chiriqui Grande" – re-skip.

Frequency Allocation:

Channel	*Use*
13	Cargo handling ONLY.
14	Tugs and berthing.
(11)	(Alternate channel for cargo).
16	Call-up channel. Vessels at anchor maintain listening watch.

Always identify calling vessel and station being called.

Communication with Agents: Vessels may contact their Agents by using Channel No. 16 (using the bridge set) and shifting to a working channel other than Nos. 11, 13 or 14.

Do not use the cargo radio for any ship's business except cargo operations.

Communications While at Dock: The Terminal will provide a portable radio for the use of the vessel's Person-in-Charge of petroleum and ballast transfer operations.

The Person-in-Charge must maintain the radio in his possession at all times, and it must not be changed to any other channel unless instructed to do so by "Petroterminal Control".

The dock-hand is equipped with a portable radio on the cargo working channel.

A third radio is permanently installed in the dock shed.

All communications are conducted in English.

TUGS: 3 tugs of more than 4,200 h.p. are available and usually will make fast alongside. Tug's lines are used for making fast to vessel.

When working tugs alongside, ullage plugs shall be closed.

Tugs available throughout 24 hours.

BERTHING/LOADING:

The Terminal Representative will direct where and when a vessel is to berth.

A. Mooring & Connecting

1. *Mooring Pattern:* At both Berth No. 1 and No. 2 the normal mooring pattern will be:

FORWARD	AFT
3 Headlines	3 Stern Lines
3 Breast Lines	3 Breast Lines
2 Spring Lines	2 Spring Lines

Discharging vessels will normally berth with port side to Berth No. 1. Loading vessels will normally berth port side to No. 1 or No. 3, and starboard side to No. 2 Berth. Any variation will be advised by the Berthing Master and Masters should advise any preference prior to arrival.

Mixed moorings are undesirable, e.g. a wire and fibre rope in paralle service is undesirable due to unequal elasticity. All moorings must be arranged so that loss of effect cannot occur when slacking off or heaving in on one line, as required, due to the rise or fall of the vessel during loading or discharge operations.

It is imperative that spring lines be adequate to maintain a minimum fore and aft movement of the vessel to remain within the limitation o movement of the loading arms.

Wire ropes may be used and are preferred for spring lines.

Marine Manager's Notice to Mariners: Our experience has shown tha vessels using synthetic tails on the end of their wire mooring lines have considerably reduced their mooring time at this Terminal.

If your vessel's wires are not already fitted with tails we request they be fitted for your next visit to our Terminal.

Some vessels fitted with 'End Less' tails at the end of their wires do not have the two parts lashed together at the shackle, the tail is then free to pull through the shackle, this also causes difficulties with mooring

The diagram (see "Plan") shows type of shackle we have found mos suitable, also length of synthetic tail required.

Your attention to this matter would be appreciated.

Pre-Transfer Conference: The Pre-Transfer Conference will be held between the Control Room/Supervisor and responsible Officer prior to commencement of operations. (IOTTSG Chapter No. 5) to agree on procedures for deballasting and loading, including:

1. Communications between ship/shore/Control Room/Supervisor.
2. Deballasting procedures.
3. Cargo start-up procedures.
4. Any deviations from normal procedures.
5. Loading rates, initial, maximum, and topping off.
6. Notice times required to change rates and shutdown procedure.
7. Emergency shutdown, moorings failure, oil spill, etc.
8. Any ship's deficiencies to be made known.
9. Any Terminal deficiencies to be made known.
10. Completion of loading.
11. Designated smoking area.
12. Galley and appliance limitations.
13. Emergency assistance.
14. Vessel will be ready to move under her own power at all times while moored at the SBM.

Prior to the start of operations, the Supervisor and responsible Office will complete the Safety Check List.

Where any disagreement arises between the vessel personnel and the Berthing Master regarding some aspect of Terminal procedure, the procedure to be followed will be that which provides closest compliance with guidelines established by the latest edition of International Safety Guide for Oil Tankers and Terminal, published by the Internationa Chamber of Shipping, Oil Companies International Marine Forum.

Flow Rates: Terminal can receive crude oil at 100,000 b.p.h. or more Berth No. 1, individually, can receive approximately 60,000 b.p.h. Terminal can receive ballast water at 30,000 b.p.h. or more. Discharge pressure of 125 p.s.i.g. at ship's rail is permitted. The crude oil loading rate is 48,000 b.p.h. by pumping. Higher rates can be given on request

Cargo operations shall not commence until the Master or Mate has informed the Port Representative that all necessary valves are opened and the vessel is ready to discharge or receive cargo and regulations being complied with.

In the event of a vessel requesting a shore-stop, Masters should understand that Petroterminal accepts no responsibility for any errors in quantity.

Loading Arm Connections: (See also Section B and C below).

Bonding cable shall be secured to a clean surface before loading arm connection.

Ship's crew must be available to assist in connection and disconnecting loading arms to the manifold of the ship.

a. Preferred connections at Berth No. 1 for discharging vessels are 4×16 in. ANSI 150# Weldneck flanges on the port side (3×16 in. at Berth No. 2). *Standard flanges are required.*

(1) Non-standard flange thicknesses and/or non-standard outside diameters may prevent loading arm couplings from functioning.

(2) At least 8 in. of straight pipe (free of supports, lugs, or reducer) is required behind the flange for coupling clearance.

(3) The preferred flange spacing fore and aft is 3.0 m. – 3.0 m. – 3.0 m. (10 ft. – 10 ft. – 10 ft.), or less between centres. In no case can the distance be less than 1.6 m. (5 ft 3 in.), 1.1 m. (3 ft. 7 in.), 1.6 m (5 ft. 3 in.).

b. Preferred connections for loading vessels are 4 each 12 in. ANS 150# Weldneck flanges on the starboard side. *Standard flanges are required.*

(1) Non-standard flanges thicknesses and/or non-standard outside diameters may prevent loading arm couplings from functioning.

(2) At least 8 in. of straight pipe (free of supports, lugs, or reducers) is required behind the flange for coupling clearance.

(3) The preferred flange spacing fore and aft is 3.0 m. – 3.0 m. – 3.0 m. (10 ft. – 10 ft. – 10 ft.), or less between centres. In no case can the distance be less than 1.6 m. (5 ft 3 in.), 1.1 m. (3 ft. 7 in.), 1.6 m. (5 ft. 3 in.).

(4) Disconnection of loading arms: Once cargo transfer is complete the loading arms will be drained and then disconnected by shore personnel.

B. Berth No. 1 (See Plan).
Berth No. 1 is designed for discharging or loading vessels of 28,000 to 265,000 d.w.t., without draft restrictions. Least depth alongside is 80 ft. Jetty head is connected to shore by trestle.
Gangway: Hydraulically operated telescoping gangway from loading platform to ship's deck is provided.
Loading Arms: 4 Mannesmann 16 in. size fully powered loading arms are installed. They are fitted with positive locking hydraulic couplers for 16 in., 14 in. and 12 in. standard flanges. All arms are capable of transfer of crude oil and ballast water.
Crane: A 1 ton capacity crane for handling of supplies, etc., is installed.
Breasting Dolphins: Four single steel tube breasting dolphins equipped with pivoting timber-faced fenders are installed. The two outer dolphins are spaced approximately 380 ft. apart and are equipped with double quick release hooks and power capstans. The two inner dolphins are spaced approximately 260 ft. apart and are similarly equipped.
Mooring Dolphins: There are four mooring dolphins. All are equipped with 3 quick release hooks and power capstans.

C. Berth No. 2 (See Plan).
Berth No. 2 is designed for discharging or loading vessels of 28,000-270,000 d.w.t. without draft restriction. Least depth alongside is 77 ft. Jetty head is connected to shore by a trestle.
Gangway: A hydraulically operated telescoping gangway from loading platform to ship's deck is installed.
Loading Arms: 3 Mannesmann 16 in. size fully powered loading arms are installed. They are fitted with positive locking hydraulic couplers for 16 in., 12 in. and 10 in. standard flanges.
Crane: A 1 ton hydraulic crane for supplies, etc., is installed.
Breasting Dolphins: 4 each single steel tube breasting dolphins equipped with pivoting timber faced fenders are installed. The distance between dolphins is 375 ft. Each dolphin is equipped with two quick release hooks and a powered capstan.
Mooring Dolphins: There are four mooring dolphins, all are equipped with 3 quick release hooks and power capstans.

D. Berth No. 3 Platform (See Plan). See "General" – Berth No. 3.
Designed for loading vessels up to 60,000 d.w.t. without draft restriction. Least depth alongside 50 ft. Jetty is connected to shore by submarine line only.
Loading Arms: 3 Mannesmann 12 in. size fully powered loading arms are installed. They are fitted with positive locking hydraulic couplers for 12 in., 10 in. and 8 in. standard flanges.
Gangway: A hydraulic gangway is provided.
Crane: A 1 ton capacity crane for handling supplies is fitted.
Breasting Dolphins: Two breasting dolphins are spaced 200 ft. apart fitted with pivoting timber faced fenders.
Mooring Dolphins: Four mooring dolphins equipped with two quick release hooks remotely controlled from the loading platform

Inert Gas: Per User's (Sohio) request: Inert gas vessels will not be requested to depressure for ullaging or sampling unless there is reason to suspect an error.

THERE ARE NO CHECK VALVES IN THE TERMINAL PIPE-LINES AT THIS TIME – PLEASE CHECK PROCEDURES PRIOR TO COMMENCEMENT OF OPERATIONS.

BALLAST: When alongside, ballast should be handled by type, as per international convention, as follows:

1. *Segregated:* All ballast in segregated ballast tanks should be visually inspected prior to discharge. After inspection, segregated ballast may be discharged overboard according to standard shipboard procedure.
2. *Dedicated Clean:* All ballast in dedicated clean ballast tanks should be visually inspected prior to discharge. After inspection, dedicated clean ballast tanks may be discharged overboard in accordance with IMO Regulations.
3. *Treated:* Ballast water which has been chemically treated (with detergents, emulsifiers, etc.) must be retained on board.
4. *Others:* All other ballast water will be pumped ashore prior to loading. The Terminal has 3×120,000 barrel tanks for the reception of dirty ballast. The ship will advise the Terminal of the quantity of ballast to be discharged ashore prior to commencing discharge.

Ballasting: Before ballasting, the cargo lines shall be drained back into cargo tank. Ballast pumps shall be started before sea valves are opened.

CRUDE OIL WASHING: Crude oil washing may be done during discharge if this does not cause delay to other vessels awaiting berth.

The Terminal should be kept fully advised of any extra time required in order to comply with IMO Regulations.

MEDICAL: Doctor will only board vessel in cases of emergency. There are limited medical and dental services available. Treatment should, when possible, be arranged via Ship's Agent in advance.

DENSITY: Offshore salinity is 1.025. Salinity (Specific Gravity), due to river run-off, is about 1.010 close to the shore during the rainy season (July-November/December). During this period, substantial changes may occur.

Sea temperature varies between 80° and 83°F.

FRESH WATER: Fresh water can be supplied, as available, via the jetty connections. Prior notice is requested. Maximum delivery is 200 tons.

FUEL: There are no bunkers available.

EARLY DEPARTURE PROCEDURE: All loading vessels are requested to use an Early Departure Procedure. (E.D.P.).

(A) If the Master of a vessel consents to use the E.D.P. it will be implemented in the following manner:

1. The Master will sign a letter agreeing to the use of E.D.P.
2. The cargo documents and other relevant forms will be placed aboard the vessel.
3. On completion of loading, the vessel's tanks will be gauged by the vessel's appointed cargo inspector, whose inspection is expected to be completed prior to sailing.
4. The vessel will sail.
5. The Terminal will transmit Bill of Lading figures to the vessel by VHF radio. The cargo documents are to be completed by the Master.
6. Written confirmation of these figures will be provided by the vessel's Agent in the Canal Zone.

(B) If the Master of a vessel does not agree to use E.D.P. the vessel will be unberthed immediately after loading and should proceed to the pilot station. Terminal's Representative will bring papers by launch or tug.

(C) Vessels will be requested to unberth once loading arms have been disconnected regardless of the time set on the sailing board. A terminal launch will be available for returning crew to vessel.

(D) If a vessel fails to vacate its berth upon completion of operations or causes delay to cargo operations because of mechanical breakdown, inadequate loading/discharging rates, lack of adequate crew, non-compliance with these rules, the vessel will be responsible for:

1. Jetty demurrage at the applicable rates.

Petroterminal – Berth Description:

	Berth No. 1	*Berth No. 2*	*Berth No. 3*
Vessel size (design)	28,000 – 270,000 d.w.t.	28,000 – 275,000 d.w.t.	28,000 – 60,000 d.w.t.
Type of berth	Fixed loading platform	Fixed loading platform	Fixed loading platform
Deck level of berth	40 ft. MLLW	40 ft. MLLW	38 ft. MLLW
Depth alongside at MLLW	80 ft.	77 ft.	50 ft.
Loading arms (number and size)	4×16 in. also 14 in. and 12 in. adapters	3×16 in. also 14 in. and 12 in. adapters	3×12 in. also 10 in. and 8 in. adapters
Max. rate loading	48,000 bbls.p.h. plus	48,000 bbls.p.h. plus	48,000 bbls.p.h.
Max. design flow rate (per berth)	100,000 bbls.p.h.	90,000 bbls.p.h.	40,000 bbls.p.h.
Loading arm spacing on operating dock/minimum ship manifold spacing	9 ft. 4 in. (4)	9 ft. 4 in. (3)	9 ft. 6 in. (3)
Quick disconnect coupling size (QDC)	16 in.	16 in.	12 in.
Manifold size range acceptable to QDC (#1)	16 in., 14 in. and 12 in.	16 in., 14 in. and 12 in.	12 in., 10 in. and 8 in.
Max. ship manifold pressure	PSIG – not to exceed 125	PSIG – not to exceed 125	PSIG – not to exceed 125
Emergency shutdown	Can be initiated by berth operator or by Control Room. Shutdown complete within 6 seconds after initiation	Can be initiated by berth operator or by Control Room. Shutdown complete within 6 seconds after initiation	Can be initiated by berth operator or by Control Room. Shutdown complete within 6 seconds after initiation
Access to ship	69 ft. aluminium gangway	69 ft. aluminium gangway	43 ft. aluminium gangway
No. of mooring dolphins	4	4	4
No. of breasting dolphins	4	4	2
Mooring/breasting hooks	1 triple hook per mooring dolphin/4 double hooks per breasting dolphin	1 triple hook per mooring dolphin/1 double hook per breasting dolphin	1 double hook per mooring dolphin/1 hook per breasting dolphin
Potable water	Limited	Limited	Limited
Bunker facilities	None	None	None
Public telephone	None available	None available	None available

Notes:

1. Although all berths are designed to handle vessels in the 25,000 d.w.t. size, loading arm size requires ship's manifolds to be a minimum of 12 in. in diameter for Dock Nos. 1 and 2, and 8 in. diameter for Berth No. 3.
2. Vessels in the 250,000 d.w.t. range will be acceptable only if dock/deck machinery and mooring leads allow an efficient bow and stern mooring line pattern plus bow to manifold distance.
3. Preferred flange spacing fore and aft is 10 ft. – 10 ft. – 10 ft. (or less) between centres, however, in no case can the distance be less than 5 ft. 3 in. – 3 ft. 7 in. – 5 ft. 3 in.

ANSI No. 150 Weldneck Flanges.

2. Hold P.T.P. harmless against demurrage detention or loss of any nature incurred as a result of other vessels awaiting berth.

3. Cost of tugs requested to stand-by the vessel by the Terminal Representative if, in his opinion, he considers it necessary.

TIME: GMT minus 5 hours.

INSPECTION: *Petroleum/Tank Inspection (Caleb-Brett):* This will be carried out by Inspectors appointed by the User.

Valdez – Crude Oil Characteristics:

Specific Gravity	0.888 @ 60°F
API Gravity @ 60°F	26.6°
Pour Point	+15°F
Viscosity	7.3 SSU @ 100°F (22 centistoke) 160 SSU @ 60°F (68 centistoke)
Reid Vapour Pressure	3.8 at 100°F
Sulphur Content	0.99% by weight
Waxing	85 – 117°F (begins to precipitate) 50 – 55°F (bulk of wax begins to come out of solution)
Mercaptan Sulphur	Approximately 20 p.p.m.

SAFETY: No dangerous cargo shall be permitted to be shipped or landed at the jetties. Whilst petroleum loading/discharging operations are being carried out, no other cargo will be handled without permission of the Terminal Representative.

No welding, cutting, etc., is permitted on any vessel in the Terminal.

Blowing or cleaning of boiler tubes in vicinity of the Terminal is prohibited.

Smoking Regulations: Smoking is PROHIBITED in the following locations:

1. Entire Terminal area.
2. Aboard Launches.
3. On Jetties and in motor vehicles inside the Terminal, except inside designated buildings.
4. On ships except in places designated by the Master and agreed by the Terminal's Representative. In accordance with IOTTSG, two locations only will be established in the after end of the vessel.

N.B. If an oil spill occurs on Jetty or ship, all smoking will be PROHIBITED until the spill has been removed.

Emergency Procedure: For cases of fire on vessel, in addition to the normal ship's alarms, Masters are requested to sound a prolonged blast on the main whistle of not less than 10 seconds duration. If the vessel is discharging or deballasting it should:

1. Immediately cease operations.
2. Initiate fire fighting procedures.
3. Be prepared to unberth at short notice.

If loading cargo, the Terminal will, on hearing the signal, immediately stop all operations and:

(i.) Initiate fire fighting procedures from Jetty.
(ii.) Put Terminal emergency plan into effect.
(iii.) Disconnect loading arms.
(iv.) Order tugs to vessel and make preparations for unberthing.

Vessels at other berths should also cease operations and be prepared to put to sea.

Fire Protection System: Each jetty is equipped with:

1. Water spray system underneath.
2. Hydrant system on platform.
3. Two 500 g.p.m. remote operated monitors. These are connected to discharge with either water or foam.

The plant water supply is by diesel driven pumps at two locations and the total water flow is 7,000 g.p.m.

SHORE LEAVE: *Launch Service:* The launches at the Terminal are intended for Terminal use only. They may be hired by prior notice, depending on operational requirements. Crew members and visitors use the launches at their own risk.

Berth No. 3: A launch service may be provided depending on Terminal requirements. Masters should inquire about this service upon arrival (also see "General").

Shore Leave: Shore leave is permitted by the local authorities. Crew members should check in at the Customs Gatehouse leaving and returning to the Terminal area. Masters should take reasonable steps to ensure no alcoholic drinks, drugs, etc. are supplied or conveyed to any unauthorised person.

SHIP SUPPLY SERVICE: 3 large tugs and launches available to assist with transportation of stores and crew, on an emergency basis only.

Helicopter can easily be hired.

GENERAL: *Charts and Publications:* Charts Ref. USHO 21580, 21581, 21584 and 1018 and BA 1928.

Sailing Directions: USHO PUB 153. B.A.N.P. No. 8 Pacific Coasts of Central America and United States Pilot.

Tides: The maximum tidal range is 12 ft. The mean range is 7.6 ft. The tidal flow in this area is, at present, ill defined.

Strong tides in North-South direction have been experienced close to the docks. At times these are unpredictable.

Currents: Currents in the area are not well defined.

Weather Conditions in Bahia de Charco Azul:

(A) Wind: The seasonal normal wind regime occurring in the Bahia de Charco Azul is:

1. December-March: Wind speeds greater than 14 m.p.h. occur approximately 8% of the time in January. The predominant directions are from W., N.W., N. and N.E. Winds are W., N.W., N. and N.E. approximately 70% of the time in January.

2. December-April: Is considered to be dry season.

3. April-May: Winds exceed 14 m.p.h. 6% of the time in April. The predominant wind directions are S. and S.W., and N. and N.W. Winds are S. and S.W., and N. and N.W. approximately 60% of the time in April.

4. June-August: Wind speeds exceed 14 m.p.h. approximately 13% of the time in July. The predominant directions are S., S.W., and W. (approximately 60% occurrence) in July.

5. June-November: Is considered to be the rainy season.

6. September-November: Winds exceed 14 m.p.h. approximately 22% of the time in October. Predominant wind directions are S., S.W., W. and N.W. Winds are S., S.W., and W. and N.W. approximately 86% of the time in October.

(B) Waves: The seasonal wave height is:

1. December-March: Significant wave height exceeds 3.9 ft. 1% of the time in January N.E., E. and S.E. wave directions predominate, occurring 84.9% of the time in December.

2. April-May: Significant wave height exceeds 3.9 ft. 1.6% of the time in April. N.E., E. and S.E. wave directions predominate, occurring 85.5% of the time in April.

3. June-August: Significant wave height exceeds 3.9 ft. 6.4% of the time in July. N.E., E. and S.E. wave directions predominate, occurring 82.9% of the time in July.

4. September-November: Significant wave height exceeds 3.9 ft. 11.3% of the time in October. N.E., E. and S.E. wave directions predominate, occurring 81.0% of the time in October.

Flag: Every vessel shall fly her national flag and the flag of the Republic of Panama between sunrise and sunset.

Rubbish: The dumping of trash and other garbage is prohibited. Any trash or garbage so dumped will be removed and the expenses involved for the vessel's account.

Berth No. 3: Petroterminal will, under normal circumstances, be able to provide a boat service for vessels berthed at No. 3.

This boat service will be available on demand but subject to the operational requirements of the Terminal (e.g. when other vessels are mooring/unmooring, the launch service will be withdrawn for an unspecified period).

Masters requiring this launch service may indicate their requirement to the Pilot/Berthing Master and the appropriate charges will be added to the pilotage/towage. Bill will be sent to the Agent for payment.

Masters should advise their Officers and crew that construction work is still progressing in the Terminal Area and care must be exercised in passing over these areas. Smoking regulations should be observed.

Petroterminal's launch operators are under strict instructions that they are not to carry any persons whom in their opinion, are under the influence of alcohol or drugs. The carrying of liquor is forbidden.

Whilst every effort will be made to ensure the safety of personnel, Petroterminal will not be held liable for any accident sustained whilst on Petroterminal's craft or property.

Persons use these facilities entirely at their own risk.

AUTHORITY: Petroterminal de Panama, S.A., Apartado 8-179, Panama 8, Republic of Panama. *Tel:* 64-2655, 64-2246, 63-7777. *Telex:* 3792527. *Contact:* Captain Rafael Elorriaga, Marine Manager.

Puerto Armuelles: P.O.Box 26. *Tel:* 70-7246, 70-7261. *Telex:* 3797500, 3797548. *Fax:* (Area code 507) 75-4958.

AGENT: Fernie (Puerto Armuelles), S.A., Apartado (P.O.Box) 22, Puerto Armuelles, Chiriqui, Republic of Panama. VHF: Standby Channel 16. Telephone: 70-7301 or 70-7403. After hours telephone No. 70-7200. Cables: "Fernie Puerto Armuelles". Telex: 7508.

With the exception of times vessels are actually in or approaching Puerto Armuelles (i.e. within V.H.F. range) all other communications should be directed to "Fernie Cristobal".

VACAMONTE: 08.51 N. 79.40 W. (See Plan)

LOCATION: The fishing port of Vacamonte is located 27 km. S.W. of Panama City, in Arraijan District, Province of Panama.

DOCUMENTS:

Voyage Documents:

General Declaration (1 original and 5 copies)
Cargo Manifest (4 copies)
Crew List (4 copies)
Passenger List (4 copies)
Stores/Supplies List (4 copies)
Crew Effects List (2 copies)
Maritime Health Declaration (Derat) (1 copy)
Mail List (1 copy)

Ship's Documents:

Certificate of Registration
Certificate of Civil Security
Certificate of Radio Safety
Oil Record Book
Safety Construction Certificate
Civil Responsibility Insurance Certificate
Radio Licence Certificate (date of expiry)

Documents Requested from Tuna Vessels:

General Declaration (obligatory)
Crew List (obligatory)
Cargo List (if available)
Clearance from Last Port (obligatory)
List of Stores/Supplies (if available)
Derat Certificate (obligatory)

Documents Required from National Shrimp Vessels:

Clearance from Last Port of Call
Consular and Vessel Clearance Certificate
Monthly Invoice or Last Invoice for Marine Resources
Clearance Documents from the main Treasury Office

PILOTAGE: Pilot is compulsory for any vessel greater than 150 g.r.t. that enters or leaves the Port. Pilot can be contacted on VHF Channel 15.

ANCHORAGE: Located in Lat. 08° 50′ 14″ N., Long. 79° 38′ 45″ W. in the area of the Fairway Buoy near Melones Island.

APPROACHES: *Disposal Area:* There is a dumping site approximately 1.5 km. from the port access channel (to the S.W.). The average depth in the dump is 6.1 m. at MLWS (varies from 5.5 m. to 7.0 m.). It is located in position:

1.	Lat. 08° 50′ 04″ N.	Long. 79° 39′ 17″ W.
2.	Lat. 08° 49′ 50″ N.	Long. 79° 38′ 48″ W.
3.	Lat. 08° 49′ 43″ N.	Long. 79° 38′ 51″ W.
4.	Lat. 08° 49′ 57″ N.	Long. 79° 39′ 21″ W.

MAX. SIZE: The Port can receive vessels up to 3,000 tons with maximum length of the vessel of 120 m. and with draft of 7 m. Average tide variation 3.96 m. Also see "General".

HEALTH: When vessels arrive in port, they are received by a Health Official who comes on board to examine documents. The Quarantine Officials inspect stores and store rooms and these are sealed in the event of any anomaly (foodstuffs in poor condition, meats which originate in countries with outbreaks of aphthous fever, etc.).

In the event of illness on board, this must be communicated to the Ship's Agent, who will transmit the information to the Authorities. The vessel must not be moved until the doctor determines whether or not the illness represents a danger for persons on land.

RADIO: S.S.B. with the following frequencies:

2182.00 – Channel 1	4139.50 – Channel 4
2638.00 – Channel 2	4358.80 – Channel 5
2738.00 – Channel 3	7447.50 – Channel 6

For calling use Channel 1.

VHF: Station has 55 channels. Calling use Channel 15 (156.750 MHz). Station in operation throughout 24 hours.

TUGS: 2 tugs of 700 h.p. each.

BERTHING:

Tuna Fleet Facilities: Pier: Head-length 132 m. Width of pier 12.5 m. 2 inside berths each 60 m. The "T" head pier can accommodate 4 tuna vessels at the same time. The area surrounding the pier has a depth of 9 m. at MLWS.

Potable water and fuel obtainable at the pier.

Shrimp Fleet Facilities: 2 piers which are able to receive 8 vessels at any one time, depth 4 m. Fuel and potable water available.

There are 2 additional piers where vessels are able to undertake repair operations.

Fresh Fish Market: 1 marginal pier which is able to accommodate 8 vessels at one time, depth 4 m. Adjacent to the pier is a fish cleaning station and 2 cold rooms.

Freight Elevators: 1 freight elevator of 10 tons capacity. 10 freight elevators of 2 tons capacity.

EQUIPMENT: 4 fixed cranes (shrimp quays) × 1.5 tons. 12 × 2 ton fork lift trucks. Cold storage for 3,000 tons of tuna.

STEVEDORES: The National Port Authority does not offer a stevedoring service in the port. In case of need, the Ship's Agent is able to contract one or more private gangs to carry out the work.

MEDICAL: There is a doctor in the port for first aid treatment. There is also an ambulance to transport urgent cases to the nearest medical centre.

FUEL: For supplies to vessels, the port has a modern fuel pumping system and two tanks of good capacity.

FRESH WATER: The NPA offers a service of water supply to vessels requiring it. The port has a water tank with a capacity of 600,000 gallons which meets all the needs of the port.

FIRE PRECAUTIONS: The port has its own corps of fire fighters and a modern fire engine. The aqueduct system for drinking water has numerous hydrants spread throughout the port area.

REPAIRS: Vacamonte has a modern yard for repairs to vessels, including a synchro-lift with 200 tons capacity, and berths for repairing 20 vessels engaged in the national fishing industry, covering an area of 18,000 sq.m. which includes future space for four additional construction berths. There is also a vessel repair workshop with an area of 700 sq.m., and vessel repair offices and shops with an area of 1,000 sq.m.

AIRPORT: Vacamonte is only 25 minutes from Panama City and 25 minutes from there is the international airport of General Omar Torrijos Herrera.

WATCHMEN: The NPA has a complete security corps working throughout 24 hours and permanently guarding the port entrance.

POLICE/AMBULANCE/FIRE: Police 510360; Fire Brigade 532222 Ext. 117; Ambulance Tel: Port Authority.

SERVICES: In the port is a ship chandler, an electricity system capable of generating 4,687 kVA, Ships' Agents' Offices, Post Office, Defence Force Member, Customs, Ministry of Health, Warehouse (marine hardware, materials, and accessories) and Banks.

SHORE LEAVE: Officials of the Migration Authority grant a provisional card for coming ashore, including leaving the port area.

GENERAL: There are no restrictions with regard to depth of water, since the various areas of the port have been dredged as follows: the port access channel up to 5.5 m., the main maritime area to 5 m., and 4 m., the area of 'T' quay for tuna vessels to 9 m. The area of quay 'T' for tuna vessels is designed to take 8 tuna vessels of 55 m. LOA, 14 m. beam and 7 m. draft. At the fish quay, 8 vessels of 10 m. LOA can berth simultaneously. The 2 pier quays for shrimp vessels take 6 shrimp vessels of 20 m. LOA, 5.8 m. draft each, simultaneously. The 2 pier service quays take 48 shrimp vessels and give service and victualling to them.

DEVELOPMENTS: The NPA has 100 hectares of land adjacent to the port for industrial development. Here the industrial area will have plots of land from 2,000 sq.m. upwards for installations. The plots of land will be obtained by concession and those in Industrial Area No. 1 have already been acquired.

AUTHORITY: National Ports Authority, Apartado 8062, Panama 7, Panama. *Tel:* 69-5444. *Telex:* 2765. *Contact:* Captain Jose de los Santos Motta, Director General.

NOTES

Please also advise Shipping Guides Ltd.

Papua New Guinea

GENERAL:

APPLICABLE TO ALL PORTS IN PAPUA NEW GUINEA

(See also details under individual ports) **(See Plan)**

DOCUMENTS: International conditions i.e. at the first port of call in Papua New Guinea the following inward Customs documents are required to be handed to Customs Department within 24 hours of ship's arrival.

3 Copies Inward Passenger List.
7 Copies Inwards Customs Manifest.
3 Copies List of Crew.
3 Copies Articles in private possession of officers and crew Form 5.
3 Copies Stores List.
2 Copies Immigration Restriction Ordinance List (Form 6) being complete list of passengers disembarking and in transit.

If other than first port of call:

3 Copies Inward Passenger List.
7 Copies Inwards Customs Manifest.
Outward Customs Clearance from last port of call.

PILOTAGE: *Coastal Pilotage:* Pilotage services through China Strait, Raven Channel, Goschen and Ward Hunt Straits are conducted by pilots of the Queensland Coast and Torres Strait Pilot Service. See "Australia" – "Torres Strait" for details.

RESTRICTIONS: Night berthing is not recommended, but is subject to weather conditions in Lae, Rabaul and Port Moresby.

HEALTH:

(a) Vessels arriving directly from Australia. Pratique is given by radio to vessels which voyage directly from Australia to a Papua New Guinea port, Master of vessel notifies Quarantine Officer at the port of entry to which he is proceeding of ETA, the number of passengers and crew and whether there is any sickness aboard. This notification from Master is sent not longer than 24 hours and not less than 12 hours of ETA. If there is no sickness aboard a reply is sent stating that Pratique is granted, and when a vessel arrives the actual pratique form is delivered to Master of vessel or to Collector of Customs to hand to Master. Full Pratique is given.

(b) Vessels arriving from a Foreign Port. All vessels which arrive from a foreign port must anchor in the designated position and await arrival of a Quarantine Officer who boards the vessel by himself – no other person (except a Pilot) is to be allowed on board vessel until Pratique has been granted. If a Pilot is on board he must remain on board until Pratique is granted.

Cholera: All passengers and crew are required to be inoculated against cholera if the vessel is expected to arrive at a port in the country within 7 days of leaving an area where cholera is either endemic or is present. *Note:* The presence on board of a qualified doctor will normally assist in the granting of Pratique.

RADIO: 2 radio stations are available.

(a) Port Moresby Radio – Call sign P2M operating between the hours of 2100 – 1000 hrs. GMT.

(b) Rabaul Radio – Call sign P2R operating 24 hours per day.

These stations are generally used for all contact with agents or Government Departments, etc.

VHF: VHF services are available at:

a. Port Moresby	– Channel 16 and 12 Call Sign "Moresby Harbour Control"
b. Lae	– Channel 16 and 12 Call Sign "Lae Harbour Control"
c. Rabaul	– Channel 16 and 12 Call Sign "Rabaul Harbour Control"
d. Kieta	– Channel 16 and 12 Call Sign "Kieta Harbour Control"
e. Madang	– Channel 16 and 12 Call Sign "Madang Harbour Control"
f. Anewa Bay	– Channel 6, 12 and 15 Call Sign "Anewa Bay Pilots"
g. Kimbe	– Channel 16 and 12 Call Sign "Kimbe Harbour Control"
h. Alotau	– Channel 16 and 12 Call Sign "Alotau Harbour Control"
i. Vanimo	– Channel 16 and 12 Call Sign "Vanimo Harbour Control"
j. Wewak	– Channel 16 and 12 Call Sign "Wewak Harbour Control"
k. Oro Bay	– Channel 16 and 12 Call Sign "Oro Bay Harbour Control"
l. Kavieng	– Channel 16 and 12 Call Sign "Kavieng Harbour Control"
m. Daru	– Channel 16 and 12 Call Sign "Daru Harbour Control"
n. Buka	– Channel 16 and 12 Call Sign "Buka Harbour Control"

Normal working hours are 0745 till 1606 hrs. local time, except for Anewa Bay where hours are 0700 till 2300 hrs. local time.

RADAR: No port radar services exist in Papua New Guinea.

TUGS: Berthing. Tugs are available in Port Moresby, Lae and Anewa Bay.

CRANES: There are no wharf mounted cranes in Papua New Guinea, however, mobile cranes are available in most main ports capable of lifting up to 20 tonne containers. Shippers are advised though to check this before shipping and with heavier loads prior advice and approval must be sought from the relevant Port Authority.

BULK CARGO FACILITIES: Except for Anewa Bay (copper concentrate) and the Jant Wharf at Madang (Woodchip), no bulk cargo facilities exist in Papua New Guinea. (Details of the above are given in the appropriate port summaries).

CONSULS: The following Consulate and Commission services are available.

	Tel.
American Consulate General, P.O.Box 3492, Port Moresby.	21-1447
Australian Consulate General, P.O.Box 1180, Lae.	42-3000
Australian High Commission, P.O.Box 9129, Hohola.	25-9333
Austrian Honorary Consul, P.O.Box 850 Port Moresby.	21-2588
British High Commission, P.O.Box 739, Port Moresby.	21-2500
Peoples Republic of China Embassy, P.O.Box 1351, Boroko	25-9856
French Embassy, P.O.Box 1155, Port Moresby.	25-3740/25-1323
German (F.R.) Honorary Consulate, P.O.Box 1549, Boroko.	25-6311
Indonesian Embassy, P.O.Box 7165, Boroko.	25-3116
Italian Consulate, P.O.Box 276, Lae.	42-3987
Embassy of Japan, P.O.Box 3040, Port Moresby.	21-1800
Korean Embassy, P.O.Box 381, Port Moresby.	25-4755
Malaysian High Commission, P.O.Box 1661, Port Moresby.	25-1506/25-2663/25-2076/25-2201
New Zealand High Commission, P.O.Box 1144, Boroko.	25-9444
Philippines Embassy, P.O.Box 5916, Boroko.	25-6577
Sweden Consulate, P.O.Box 1228, Boroko.	25-5411
Swiss Consular Agency, P.O.Box 136, Port Moresby.	21-1307

MEDICAL: Medical attention is available in most Papua New Guinea Ports, however as much advance notice as possible should be given by contacting the nearest radio station.

DRY DOCK: No dry dock or major repair facilities exist in Papua New Guinea.

GANGWAY/DECK WATCHMEN: Not usually necessary.

HATCHES: Opening/closing usually carried out by crew.

CUSTOMS ALLOWANCES: Entry regulations permit 200 cigarettes or 1lb. of tobacco, and 40 oz. of wines or spirits.

Crew members may hold 200 cigarettes and 1 carton of beer (or 1 bottle of spirits) out of bond per week.

CARGO GEAR: Wharf equipment supplied by stevedores, load/discharge by ship's gear.

REPATRIATION: Possible, frequent scheduled air services to Australia, Hong Kong, Manila, New Zealand, Singapore and USA via Fiji.

TIME: Local time in all ports is 10 hours ahead of GMT.

HOLIDAYS: The only days on which cargo cannot officially be worked are Good Friday and Christmas Day.

TELEPHONES: Not available at present for ship to shore connection.

SHORE LEAVE: Crew members are allowed ashore.

IDENTIFICATION CARDS: Generally a Seaman's Book is held at the main entrance to the port. Individual passes are not normally required for crew.

BERTH RESERVATIONS: A berth reservation system applies for all overseas vessels at all Papua New Guinea Harbours Board ports.

At Anewa Bay cargo vessels must vacate berth for concentrate carriers.

Samarai does not handle overseas traffic.

AUTHORITY: Papua New Guinea Harbours Board, P.O.Box 671, Stanley Esplanade, Port Moresby, Papua New Guinea. *Tel:* 21 1400 (8 lines) *Telex:* NE 22243 (A/B Harbours). *FAX:* 211546. *Cables:* Harbours, Port Moresby.

AITAPE: 03.08 S. 142.21 E. (See Plan)

(See General section on Papua New Guinea ports).

PILOTAGE: Not compulsory.

Pilot Boarding Place: Lat. 3° 08.25′ S., Long. 142° 23.9′ E.

TUGS: Not available.

RADIO: Communications not available.

BERTHING: Position of wharf, Lat. 03° 08.51′ S., Long. 142° 21.24′ E. Length of berthing head 18.3 m. (60 ft.). Width 6.2 m. (20.3 ft.). Height of deck above LAT 2.5 m. (8.3 ft.). Minimum depth of water at LAT at wharf head 4.3 m. (14 ft.) – subject to seasonal change. Maximum tidal range 1.4 m. (4.6 ft.)

MEDICAL: Hospital facilities 3 miles from port can attend to minor cases.

STEVEDORES: *Working Hours:* 0700 – 1200 hrs., 1300 – 1800 hrs.

FRESH WATER: Not available to ships.

FUEL: Available in 200 litre drums.

AIRPORT: Distance 1 mile, daily flights to Wewak and Vanimo.

CUSTOMS ALLOWANCES: 200 cigarettes or 250 grams tobacco. 1 litre of spirits or 1 litre of wine or 6 beers (total 4.5 litres) for each 7 days. Aitape is not a port of entry.

GENERAL: *Chart:* AUS 652

AUTHORITY: Papua New Guinea Harbours Board, P.O.Box 3, Aitape, Sandaun Province, Papua New Guinea. *Tel:* 872044, 872052 (after hours). *Cables:* Portman, Aitape. *Contact:* Robert Parer, General Manager, W. & R. Parer Pty. Ltd., Agent for P.N.G. Harbours Board.

ALOTAU: 10.19 S. 150.27 E. (See Plan)

(See General Section on Papua New Guinea Ports)

PORT LIMITS: Seaward Boundary: From a position in Lat. 10° 20′ S., Long. 150° 26′ E. bounded on the West by a straight line due North to the coastline. From the same point bounded on the South by a straight line due East to a position in Lat. 10° 20′ S., Long. 150° 28′ E. thence bounded on the East by a straight line due North to the coastline.

DOCUMENTS:

Customs:

Crew Declaration.
Last Port Clearance.
Inward Ship's Stores List.
Inward Cargo Manifest.
Crew Personal Effects List.
Crew List.
Passenger List.
First Aid List.

Health:

Pratique Request.
Ports of Call List.
Declaration of Health of all on board, with details of any sickness and whether all vaccinated.

PILOTAGE: Pilotage is not compulsory. There are no pilots stationed at Alotau but a pilot will attend from Port Moresby given 48 hours notice of the ship's estimated time of arrival.

Pilot boarding ground: Lat. 10°19.2′ S., Long. 150° 26.75′ E.

ETA to be sent not less than 12 hours prior to arrival via Port Moresby Radio (P2M) and to be confirmed not more than 5 hours and not less than 4 hours prior to arrival.

ANCHORAGE: There are no recommended anchorage areas for large vessels in the vicinity of Alotau. There is a safe anchorage in the harbour.

RESTRICTIONS: There are no restrictions.

MAX. SIZE: LOA about 130 m., with max. draft 20 ft.

HEALTH: Quarantine Officer Tel: 61 1049. Health Officer Tel: 61 1164.

RADIO: None.

VHF: "Alotau Harbour Control" on Channels 16, 12 and 8 during working hours and when vessels are expected during non-working hours.

RADAR: Not available.

TUGS: Not available.

BERTHING: Overseas Wharf is 93 m. long and 18.0 m wide, height of deck above L.A.T. 2.4 m., minimum depth of water at face at L.A.T. 10.0 m.

Vessels may berth either port or starboard side to at the discretion of the Port Authority.

Coastal Wharf: Length 55.8 m. (183 ft.) Width 9.8 m. Minimum depth of water 4.9 m. (16 ft.). Height of deck above L.A.T. 2.1 m.

Barge Ramp available.

Load/discharge is by ship's own gear (except under special arrangement).

CRANES: Vessels are required to use their own gear, as no cranes available on the Overseas and Coastal Wharves.

BULK CARGO FACILITIES: Only at Overseas Berth, where copra in bags is handled, these are cut open onboard vessels using ship's gear.

SPECIALISED CARGO HANDLING FACILITIES: Overseas Berth handles containers and could handle Ro/Ro Traffic.

BRIDGES: None.

STEVEDORES: 72 hours notice preferred, but a minimum of 24 hours required.

MEDICAL: At least 48 hours notice required by Agent to arrange for medical attention at the General Hospital. Dental facilities also available at the General Hospital.

TANKERS: Facilities for tankers at Coastal Wharf with draft of 14 ft. maximum.

DENSITY: 1010.

FUEL: Available by road tanker. Supplier: B.P. Also through pipe-line. Arrangements through Reno Pty. Ltd. Tel. 61-1159.

FRESH WATER: Available in limited quantities and restricted during periods of the year. Prior application to be made to the Port Manager.

FIRE PRECAUTIONS: None, other than the usual non-smoking precautions, etc.

CONSULS: None.

REPAIRS: No facilities available.

DRY DOCKS: No dry docks available at Alotau.

SURVEYORS: Not available in Alotau.

GANGWAY/DECK WATCHMEN: Usually ship's crew/ ship's gangway.

HATCHES: Opening/closing of hatches by ship's crew preferred.

CUSTOMS ALLOWANCES: 200 cigarettes, 1 litre spirit or wine for 7 days. Tobacco should be equivalent to 200 cigarettes for 7 days.

CARGO GEAR: Load/discharge effected by ship's gear.

REPATRIATION: No facilities exist at Alotau for effecting crew changes or necessary repatriation.

AIRPORT: Gurney Airport approximately 20 km. away from Alotau town is served regularly but not daily.

TIME: GMT plus 10 hours.

HOLIDAYS: Christmas/Boxing Day, New Year's Day, Good Friday, Queen's Birthday, Independence Day. Cargo work can be arranged on these days except on Christmas Day.

POLICE/AMBULANCE/FIRE: Police: 61 1222. Hospital (No separate ambulance): 61 1308 and Fire: 61 1055.

EMERGENCY CO-ORDINATION CENTRE: Not available.

SERVICES: None available.

BANKS: Westpac Bank, P.O.Box 135, Alotau. Tel: 61 1003.

PNG Banking Corporation, P.O.Box 260, Alotau. Tel: 61 1197.

STORING: No facilities available.

SHIP SUPPLY SERVICE: Not available.

SHORE LEAVE: No restrictions.

IDENTIFICATION CARDS: Not required.

REGULATIONS: Berthing Applications and Indemnity to be submitted to the Port Authority 48 hours prior to berthing of vessel.

DELAYS: Delays at Alotau are most unlikely.

GENERAL: *Storage:* Covered Storage Area for Overseas Cargo – 1,874 sq.m. Open Storage Area – 7,640 sq.m.

Chart: AUS 629.

DEVELOPMENTS; Proposed Palm Oil mill to the North of Overseas Berth, no fixed dates set for commencement or completion.

AUTHORITY: Papua New Guinea Harbours Board, P.O.Box 42, Alotau, Papua New Guinea. *Tel:* 61 1276. *Telex:* NE 22243. *Cables:* Portman Harbours, Alotau. *Contact:* Port Manager.

ANEWA BAY: 06.11 S. 155.33 E. (See Plan)

PORT LIMITS: Seaward Boundary – a line joining the Southern end of Takanupe Island and Karikiberia Shoal.

DOCUMENTS: Crew List – 4 copies; Ship's Store's List – 2 copies (P.N.G. forms); Crew Declaration Form – 2 copies of P.N.G. Form 5; Vaccination Certificates of all crew members for sighting; International Declaration of Health.

PILOTAGE: Compulsory. Boarding station 06° 07′ S., 155° 35.3′ E., from a tug 'Masthead' or a launch 'Kuruki', normally between the hours of 0600 and 2200, or in certain circumstances, as per arrangement. ETA advices 72, 48 and 24 hours in advance via Rabaul Radio or Port Moresby Radio to Boucop Loloho NE95812; when in close vicinity, VHF Channel 12.

ANCHORAGE: Available at Port Authorities advice, but safe anchorage exists 1 mile N.E. of Dakome Pt. in 30 fathoms of water.

APPROACHES: 3 km. wide channel runs in a Southerly direction between Kuruki Reef and Banaru Reef, to between Takanupei Island and Karikiberia Shoal. The depth of this channel is in excess of 180 m. After crossing the 180 m. line, depths exceed 35 m. until adjacent to the wharf. The only hazard near the approach is Bara Shoal, 1.6 km. Southward of Takanupei Island.

MAX. SIZE: Maximum draft permitted alongside is 12 m. (40 ft). The longest vessel yet to have berthed measured 270 m. (partly loaded tanker). It is envisaged that vessel to load copper concentrate should ensure that, on berthing, hatch coamings are not more than 11.5 m. (38 ft.) above water line, to enable ship loader to be positioned on board.

HEALTH: Vaccination Certificates required. Quarantine Officer boards either with Pilot or at the berth. When anchoring, Free Pratique will be granted then. Code of signals 'Q' flag should be exhibited on arrival off Port. Pratique is automatic for vessels arriving from other P.N.G. ports, New Zealand and Australia. In certain circumstances Radio Pratique may be granted (check with local Agent).

RADIO: ETAs are best routed through either Rabaul Radio, Port Moresby Radio or Sydney Radio, who in turn will relay to Pilots and Agents.

VHF: The Port Control operates Channels 6, 12 and 16, but normally, messages between Vessels, Pilots, Port Control, Tug and Lines Boat are relayed on Channel 12. Therefore a vessel should use this channel when approaching. VHF services are available between 0700 hrs. and 2300 hrs. daily.

TUGS: 'Masthead' – 28 tons bollard pull – 1600 b.h.p., equipped with hydraulic warping winch and fire fighting equipment. Pilot may join incoming vessels from tug. It is common to use the tug's lines. Charges etc. on application.

BERTHING: Wharf (Position Lat. 06° 11.1′ S., Long. 155° 32.7′ E.) is 77 m. long with mooring dolphins located 59 m. and 107 m. Eastward and 59 m. Westward of main wharf. Maximum draft is 12 m. This berth is used for all vessels and normally starboard side alongside. Loading/discharge of general cargo, containers, etc., by ship's own gear.

CRANES: 127 tonnes mobile crane can be made available if required.

BULK CARGO FACILITIES: Bulk loading gantry for copper concentrate situated just Eastward of the main berth. Net loading rate approximately 800 – 1,200 tonnes/p.h. Please note that gantry is a fixture and vessels are required to shift to facilitate loading.

SPECIALISED CARGO HANDLING FACILITIES: 2 × 25 ton forklifts available for handling of containers. Berth has proved suitable for certain Roll-on/Roll-off traffic. Westward of berth are provisions for discharge of white oils, black oil, and M.I.B.C. Small L.P.G. carriers anchor in position Lat. 06° 11.4′ S., Long. 155° 32.7′ E., and by way of hoses connected up to shore facilities.

STEVEDORES: The Port Authority (Bougainville Copper Limited) operates its own stevedoring function. Working Hours: from 0700 – 1500 and 1500 – 2300 hrs., 7 days a week. ETA advices as per "Pilots".

MEDICAL: Hospital facilities and medical clinic exist.

FRESH WATER: Available, but limited at times.

TANKERS: Heavy oils: 2×30 cm. marine connections to a 56 cm. main discharge line, giving a maximum discharge rate of 4,000 tonnes/p.h.

Light oils: 1×25 cm. marine connection to a 20 cm. discharge line giving a maximum discharge rate of 700 tonnes/p.h.

FUEL: Only small quantities of gas oil by road tanker.

CONSULS: None.

REPAIRS: Not available.

CUSTOMS: As per P.N.G. Regulations.

AIRPORT: Aropa Airport, 34 km. distant. Regular services to other P.N.G. centres, connecting to overseas centres.

TIME: GMT plus 10 hours.

HOLIDAYS: *Local Holidays:* As for Papua New Guinea. Port is normally closed Christmas Day and Good Friday.

POLICE/AMBULANCE/FIRE: Initially B.C.L. controlled within Port area, otherwise 95 1222 (Police), 951333 (Fire), 951666 (Ambulance).

DELAYS: Estimated and advised as per weekly shipping schedule.

GENERAL: *Chart:* Aus. 683.

Provisions: Small quantities generally available through local Agents.

SHIPMASTER'S REPORT: 1975 (updated 1988).

Documents:

Crew List. (2 Copies of Papua & New Guinea forms to be filled in on arrival at pilot station).

Ship's Stores List. (2 copies of P.N.G. forms to be filled in on arrival at pilot station).

Crew Declaration Form: – (2 copies of P.N.G. Form 5 – Articles in Private Possession of Officers & Crew to be filled in on arrival at pilot station).

Vaccination Certificates of all crew members for sighting.

International Declaration of Health.

Pilotage: Two Pilots, employees of the Bougainville Copper Company Ltd., are available 24 hours a day. Pilot boards in position Lat. 06° 07′ S., Long. 155° 35′ 18″ E. Pilot vessel is a tug called the "Masthead", which has a dark blue hull and white superstructure or launch "Kuruki". Pilots listen on VHF Channels 12 and 16. ETA's will have been passed to the Pilots by the ship's Agents, as per charter party, but pilot boat should be advised by VHF when vessel is 2 hours and 1 hour respectively from pilot station. Channel 12 is monitored by Pilots daily 0700–2300 hrs. and when vessels are expected. Pilotage is compulsory.

Max. Size: Restriction mainly on draft. Least water on berth is 40 ft. Although the problem has not as yet arisen, max. length is also restricted to about 885 ft.

Pratique: Immigration Officer boards as vessel berths. International Code of Signals "Q" flag should be exhibited on arrival off port. Same officer deals with customs clearance.

Radio: ETA's to Pilots are best routed through Rabaul Radio, call sign P2R, who will pass the message direct to the Pilot Office. Port Moresby Radio may also be used for messages to the ship's Agents.

Tugs: Only one tug, the "Masthead", 28 tonnes bollard pull, is available, Tug's line always used.

Berthing: Only one berth in the port, with a least depth of 40 ft. alongside. The berth is used for the loading of copper concentrates and the discharge of general cargo and containers. Vessels intending to load copper concentrates should ensure that their hatch coamings are not more than 38 ft. above the water line on arrival, to enable the loader to be positioned over her holds. In some cases ballast hatches may have to be left filled until after loading has commenced. The berth is approached at an angle of 45° and a mooring boat will take one head rope ashore first. The back spring should be sent ashore by heaving line as soon as possible. All vessels berth starboard side to the quay. The berth itself is 250 ft. long. Dolphins stand 175 ft. Westward and 135 ft. and 310 ft. Eastward of the ends of the wharf. The ore loader is not a movable fixture, and vessels are required to shift up and down the wharf to facilitate loading concentrates at the requisite hatches. When leaving the wharf the vessel is sprung off, using one head rope and the backspring.

Stevedores: Normal cargo hours for vessels loading are 0600 – 2300 hrs. but in cases where required cargo will be worked 24 hours a day. Stevedores are employees of the Bougainville Copper Company. Approx. loading rate for concentrates 750/1,000 t.p.h. Stevedores will render all possible assistance in shifting ship. For vessels discharging, mobile cranes capable of lifting up to 127 tonnes are available. Shore gangway is normally used.

Medical: There are good hospital facilities in nearby Arawa. Advanced notice of required medical attention not normally necessary.

Tankers: Tankers are also discharged at Anewa Bay's only wharf. As with other vessels, draft is restricted to 40 ft., and length to about 885 ft.

Density: Varies between 1022 and 1025 according to season and amount of rainfall recently experienced.

Fresh Water: Available on the wharf except during periods of drought. Supplied by 3 in. hose at approximately 60 t.p.h. Can only be supplied at main wharf (not at Dolphins) and it is therefore sometimes necessary when loading concentrates to wait until after hatches are being loaded before hose can be put aboard.

Fuel: Only small quantities of MDO (Gas Oil) by road tanker.

Consuls: None.

Repairs: No facilities.

Dry Docks: None close by.

Surveyors: None.

Hatches: Steel hatch covers to be opened and closed by crew.

Customs Allowances: 200 cigarettes and 1 bottle spirits or 12 bottles of beer (4.5 litres) per person.

Repatriation: Regular flights from Kieta Airport (34 km. distant) to Port Moresby, where possible to link up with international flights. Repatriation can therefore easily be arranged from this port. Also possible via Honiara.

Time: GMT plus 10 hours.

Shore Leave: All crew members are allowed ashore. No shore passes required.

Delays: No delays normally experienced, but possible up to 24 hours max.

General: Berth very exposed to S.E'ly winds. Moderate ground swell experienced on berth at times. Considerable rain experienced throughout the year, mainly during the night and early morning.

AUTHORITY: Bougainville Copper Limited, P.O.Box 155, Arawa, N.S.P., Papua New Guinea. *Tel:* 972100. *Telex:* NE95812. *FAX:* 972 180. *Cables:* Boucop, Loloho. *Contact:* Captain H. Bailey, Port Manager – Shipping, Air and Port Services (Ext. 152) after hours 95-1627. Captain B. P. Ross, Superintendent – Marine Operations. Captain M. G. Hairsine, Superintendent Stevedore Operations. W. R. Ledwidge, Superintendent Port Services.

BUKA: 05.26 S. 154.40 E. (See Plan)

(See General Section on Papua New Guinea Ports)

PILOTAGE: Not available. Not compulsory.

TUGS: Not available.

RADIO: Not available.

VHF: Call "Buka Port Control". Channels 16 and 12.

BERTHING: Wharf position: Lat. 05° 26′ S., Long. 154° 40.4′ E. Length 31.4 m. (103 ft.) Width 5.2 m. (17 ft.). Berthing dolphins 9.2 m. (30 ft.) off each end. Height of deck above LAT. 2.22 m. (7.3 ft.). Minimum depth of water at LAT. 3.65 m. (12 ft.). Tidal range 1.5 m.

FRESH WATER: Not available.

FUEL: Not available.

CUSTOMS: Not Port of Entry.

POLICE/AMBULANCE/FIRE: Police Tel: 96 6022. Ambulance Tel: 96 6012.

GENERAL: *Chart:* Aus 643.

Storage: Shed No.1 – 165 sq.m. Open – 1,000 sq.m. (approx.)

Currents: Strong currents in Passage.

AUTHORITY: Papua New Guinea Harbours Board, P.O. Box 19, Buka, Papua New Guinea. *Tel:* 96 6017. *Cables:* Portman, Buka. *Contact:* Port Manager.

DARU: 09.04 S. 143.12 E. (See Plan)

(See General Section on Papua New Guinea Ports).

PILOTAGE: Not compulsory. Available from Port Moresby on 48 hours notice.

Pilot boarding position: Lat. 9° 06.9′ S., Long. 143° 19.4′ E.

HEALTH: Quarantine Officer Tel: 659033. Health Officer Tel: 659108.

RADIO: Not available.

VHF: Call "Daru Port Control". Channels 16 and 12.

TUGS: Not available.

BERTHING: Position of wharf: Lat. 09° 04′ S., Long. 143° 12.6′ E.

Length of wharf head 29.6 m. (97 ft.). Average width 12.2 m. (40 ft.). Height of deck above LAT – 4.8 m. (15.7 ft.) min. depth of water LAT 2.4 m. (8.0 ft.) Tidal range 4.0 m.

The wharf head is connected to the shore by a wharf bridge length 120 m. (394 ft.) and causeway 220 m. (720 ft.).

FRESH WATER: Available in limited quantities.

FUEL: Available in drums. Suppliers – Caltex and Mobil.

POLICE/AMBULANCE/FIRE: Police Tel: 659022. Ambulance Tel: 659064.

CUSTOMS: Port of Entry. Customs Tel: 659114

GENERAL: *Chart:* Aus 840.

Currents: Strong currents off wharf.

Storage: Open storage 1,000 sq.m. (approx.)

AUTHORITY: Papua New Guinea Harbours Board, P.O.Box 137, Daru, Western Province, Papua New Guinea. *Tel:* 659025 (Office) 659144 (after hours). *Cables:* Portman, Daru. *Contact:* B. Favave, Port Manager.

KAVIENG: 02.35 S. 150.48 E. (See Plan)

(See General Section on Papua New Guinea Ports).

PORT LIMITS: Seaward Boundary.

Large vessels should approach from the Nusa Channel where the port limits are as follows:

From the beacon on Cape Siwusat by a straight line 220° (T) to the extreme North point of Usien Island thence by a straight line due West to position in Lat. 2° 37.87′ S., Long. 150° 44.57′ E., thence by a straight line due North to the Western extremity of Edmago Island. From the Eastern extremity of Edmago Island the line of the port limit crosses the Eickstedt Passage in the direction 253° (T) to the Southern extremity of Nago Island.

PILOTAGE: Pilotage is not compulsory but a Pilot will attend from Rabaul given 48 hours notice of the ship's estimated time of arrival.

Pilot Boarding Ground: Within 300 m. radius of a position with Eastern extremity of Edmago Island bearing due North 900 m.

ETA to be sent not less than 12 hours prior to arrival via Rabaul Radio (P2R) and to be confirmed not more than 5 hours and not less than 4 hours prior to arrival again via Rabaul Radio (P2R).

ANCHORAGE: Anchorage may be obtained in sand with depth 20 m. in a position East Reef Light structure bearing 042° (T) distant 890 m.

HEALTH: Quarantine Officer Tel: 942243. Health Officer Tel: 942179.

VHF: Call Kavieng Port Control on Channels 16, 12 and 6. Listening watch maintained during working hours and when ships are expected during non-working hours.

TUGS: Not available.

BERTHING: Overseas Wharf is 93.8 m. long, height of deck above LAT 2.7 m., minimum depth of water at face at LAT 7.0 m. Tidal range 1.2 m.

Vessels may berth port or starboard side to at the discretion of the Port Authority.

Load/discharge is by ship's own gear.

STEVEDORES: 72 hours notice preferred, but a minimum of 24 hours required. Working hours: Day shift 0800 – 1200 hrs., 1300 – 1600 hrs. Evening shift 1600 – 1900 hrs., 2000 – 2400 hrs.

Licensed Stevedores: Burns Philp (PNG) Ltd., P.O.Box 48, Kavieng. Tel: 942087 and New Ireland Shipping Agencies, P.O.Box 123, Kavieng, New Ireland Province, Papua New Guinea. Tel: 942031.

MEDICAL: Kavieng Hospital – Tel: 942040.

Advise agents at least 24 hours in advance if medical attention is required.

Dental facilities available.

FUEL: Diesel available through pipe-lines at the wharf. Suppliers: Shell, Mobil and B.P.

FRESH WATER: Available in limited quantities, provided prior application made with the Port Manager.

REPAIRS: No facilities available.

CUSTOMS: Port of Entry. Office, Tel: 942163. Residence, Tel: 942130.

AIRPORT: Kavieng airport is some 5 km. from the wharf and is served by daily Air Nuigini flights.

POLICE/AMBULANCE/FIRE: Police: 942222. Ambulance: 942040. Fire: 942000.

BANKS: Papua New Guinea Banking Corporation, Kavieng. Tel: 942084.

Westpac Bank, Kavieng. Tel: 942180.

Banks are 2.5 km. from the wharf.

DELAYS: Delays at Kavieng are most unlikely.

GENERAL: *Storage:* Covered Storage Area: 750 sq.m. Open Storage Area: 3,000 sq.m.

Chart: Aus. 667.

DEVELOPMENTS: A new wharf has been proposed on which the feasibility studies are being carried out.

AUTHORITY: Papua New Guinea Harbours Board, P.O.Box 127, Kavieng, New Ireland Province, Papua New Guinea. *Tel:* 942182. *Telex:* NE 940. *Cables:* Portman, Kavieng. *Contact:* Sakeus Gem, Port Manager.

KIETA: 06.13 S. 155.38 E. (See Plan)

(See General Section on Papua New Guinea Ports).

PORT LIMITS: Seaward Boundary

By a straight line bearing 328° (T) from a point in Lat. 6° 10′ S., Long. 155° 42.3′ E., on the seaward edge of Gero Reef to a point in Lat. 6° 07.1′ S., Long. 155° 40.4′ E., thence due West to a point at the Northern most extremity of Banaru Reef.

PILOTAGE: Compulsory – Pilot service available 24 hours. (Pilot, Tel: 956049 (office), 956308 (residence).

Pilot boarding ground: Within 400 m. radius of Lat. 6° 07.6′ S., Long. 155° 40.3′ E.

ETA pilot boarding ground not less than 12 hours prior to arrival via Port Moresby Radio (P2M) or Rabaul Radio (P2R). Confirm or amend ETA not more than 5 hours but not less than 4 hours prior to arrival again via Port Moresby or Rabaul.

ANCHORAGE: There are 2 recommended anchorages for large vessels in Kieta Harbour.

HEALTH: Quarantine Officer, Tel: 956073. Health Officer, Tel: 921266.

VHF: Call: Kieta Port Control on VHF Channels 16, 12, 8 and 6. Listening watch maintained during working hours and when ships are expected during non-working hours.

TUGS: Tug "Boroko" 1,200 b.h.p. and 450 b.h.p. Tugs available for hire from Bougainville Copper Pty. Ltd., at Anewa Bay.

BERTHING: Overseas Wharf 122 m. long, height of deck above LAT 3.0 m., minimum depth of water at face at LAT 8.5 m. Tidal range 1.7 m.

Vessels may berth either port or starboard side to at the discretion of the Port Authority.

Berth No. 2 (coastal): Length 58 m., depth at LAT 4.8 m.

Berth No. 3 (coastal): Length 58 m., depth at LAT 4.8 m.

STEVEDORES: 72 hours notice preferred, but a minimum of 24 hours required. Working hours: Day shift 0800 – 1200 hrs., 1300 – 1600 hrs. Evening shift 1600 – 1900 hrs., 2000 – 2400 hrs.

Licensed Stevedores: North Solomans Stevedoring Co., P.O.Box 37, Kieta. Tel: 956350.

TANKERS: Discharge carried out at Anewa Bay.

FRESH WATER: Not available to overseas vessels. Coastal vessels may be supplied depending on availability and following prior arrangement with Port Manager.

FUEL: Diesel available from road tankers. Suppliers: Shell and Mobil.

CUSTOMS: Port of Entry. Collector of Customs, Tel: 956067.

AIRPORT: Aropa airport is some 19 km. from the port and is served daily by Air Nuigini.

POLICE/AMBULANCE/FIRE: Police Tel: 956222. Ambulance Tel: 951266. Fire Tel: 951333.

DELAYS: Delays rarely occur at Kieta but if so are of fairly short duration, rarely exceeding 48 hours.

GENERAL: *Storage:* Covered Storage: 2,780 sq.m. Open Storage: 14,720 sq.m.

Chart: Aus. 683.

AUTHORITY: Papua New Guinea Harbours Board, P.O.Box 149, Kieta, North Solomons Province, Papua New Guinea. *Tel:* 956066, 956063, 956447. *Telex:* Harbours NE 95905. *Cables:* Portman, Kieta. *Contact:* Karo Karo Ilo, Regional Port Manager.

KIMBE: 05.33 S. 150.09 E. (See Plan)

(See General Section on Papua New Guinea Ports)

PORT LIMITS: Seaward Boundary.

Commencing at a point Latitude 5° 30′ S., Longitude 150° 6′ 24″ E., thence in direction 079° to Grabo Reef light beacon, thence in a direction 100.5° to a point in Latitude 5° 30′ S., Longitude 150° 20′ E., then following the meridian to the point 10 miles East then following the meridian to the point 10 miles perpendicular distant landward.

PILOTAGE: Pilotage is compulsory with 4 hours' notice of ETA and 6 hours' notice of ETD and amend at least 2 hours before both for Kimbe and Buluma – SBLC log port some 11 nautical miles East of Kimbe port.

Pilot boarding ground: Lat. 5° 30.5′ S., Long. 150° 13.5′ E.

ANCHORAGE: There are no recommended anchorage areas for large overseas vessels outside the compulsory pilotage area.

HEALTH: Health Officer, Tel: 935142. Quarantine Officer, Tel: 935002.

VHF: Call Kimbe Port Control on VHF Channels 16, 12 and 6. Listening watch maintained during working hours and when ships are expected during non-working hours depending on advance notice given by the respective shipping agents.

TUGS: Not available.

BERTHING: Overseas Wharf is 60.9 m. long, height of deck above LAT 3.1 m., min. depth of water at outer face at LAT 10.7 m. Tidal range 1.2 m.

Vessels may berth either port or starboard side to at the discretion of the resident Pilot depending on the wind or current.

Load/Discharge is by ship's own gear.

STEVEDORES: 72 hours notice preferred, but a minimum of 24 hours required. Working Hours: 0800 – 1200 hrs., 1300 – 1800 hrs., 1900 – 2400 hrs. (If handling large quantity of bulk cargo stevedores may by request in writing to the Port Manager grant permission to work around the clock to complete).

Licensed Stevedores: I. S. O'Hanlon, P.O.Box 27, Kimbe. Tel: 935107.

WNCBS – Robert Laurie Subsidiary P.O.Box 449, Kimbe. Tel: 935311.

FRESH WATER: Available on request from the Agent. (By the end of 1986, available on request from Port Manager).

FUEL: Diesel is available by road tanker. Suppliers: Shell and B.P.

CUSTOMS: Port of Entry. Collector of Customs, Tel: 935056.

AIRPORT: Hoskins Airport is approx. 50 km. distant and is served by Air Nuigini and Talair several times a week.

POLICE/AMBULANCE/FIRE: Police: 935022. Ambulance: 935142. Fire: 935411.

GENERAL: *Storage:* Covered Storage: 745 sq.m.

Open Storage: 6,040 sq.m.

Chart: Aus. 674.

DEVELOPMENTS: There is a plan for redevelopment of Kimbe port by extending the existing wharf to twice the length. Double the storage shed space. Provide separate berth for coastal vessels. Another port will be developed at Bialla to cater for large oil tankers to load palm oil. Bialla is some 100 km. by road East of Kimbe.

By the end of 1988 it is expected that the project will be completed.

AUTHORITY: Port Manager, P.O.Box 65, Kimbe, Papua New Guinea. *Tel:* 935134. *Cables:* Portman, Kimbe. *Contact:* A. Pakundu, Port Manager.

LAE: 06.44 S. 146.59 E. (See Plan)

(See General Section on Papua New Guinea Ports)

PORT LIMITS: A straight line bearing 167° (T) from Voco Point to a point at the Northern most extremity of Parsu Point on the Salamaua Peninsula.

PILOTAGE: Pilotage is compulsory – 24 hours a day. Tel: 42 2477 (Office), 42 1795 (Residence).

Pilot Boarding Ground: Lat. 6° 44.8′ S., Long. 147° 00.5′ E.

ETA at Pilot boarding ground not less than 12 hours prior to arrival via Port Moresby Radio (P2M) or Rabaul Radio (P2R). Confirm or amend ETA not more than 5 hours and not less than 4 hours prior to arrival (VHF Channel 16 – call "Lae Port Control" then to Channel 12 or 6 for working Channels.)

Coastal Pilotage: Pilotage services through the Great North East Channel to Torres Strait, through China Strait to Rabaul, and through China Strait and Raven Channel to Lae are conducted by pilots of the Queensland Coast and Torres Strait Pilot Service. See Australia – "Torres Strait" for details.

Pilotage recomendation: The Great North East Channel is covered by a recommendation on pilotage by IMO. See Australia – "Torres Strait" for details.

ANCHORAGE: There are no recommended safe anchorage areas for large vessels in the Port of Lae.

HEALTH: Quarantine Tel: 42 4199. Health Tel: 42 2033.

VHF: Call Lae Port Control on VHF Channels 16, 12, 8, 6. Listening watch maintained during normal working hours and when ships are expected outside normal working hours.

TUGS: One tug available for hire from private operator.

BERTHING: Overseas Wharf is 430 m. long, height of deck above LAT 2.7 m., min. depth of water at face at LAT 11.0 m. Tidal range 1.2 m.

One container berth with length 180 m. and depth 11.0 m. at LAT.

Vessels may berth either port or starboard side to at the discretion of the Port Authority.

Load/discharge is by ship's own gear (except under special arrangement).

STEVEDORES: 72 hours notice preferred, but a minimum of 24 hours required. Working hours: Day shift: 0800 – 1200 hrs., 1300 – 1700 hrs., 1800 – 2200 hrs. Evening shift: 2200 – 0200 hrs., 0300 – 0800 hrs. (limited gangs).

Licensed Stevedores: Bunting Stevedores Pty. Ltd., P.O.Box 170, Lae. Tel: 42 3114. Robert Laurie (N.G.) Pty. Ltd., P.O.Box 1032, Lae. Tel: 42 3811 Rabaul Stevedores Ltd., P.O.Box 434, Lae, Tel: 42 4796. United Stevedores Ltd., P.O.Box 2191, Lae. Tel: 42 1099.

MEDICAL: Maximum possible notice should be given so that full arrangements can be made with regard to hospitalisation, etc. Full hospital facilities are available approximately 2.5 miles from the wharf.

TANKERS: Discharge and bunkering facilities are available for all ship requirements.

FRESH WATER: Sometimes restricted but generally available at the rate of 30 t.p.h.
FUEL: Diesel and fuel oil available at the wharf. Suppliers: Mobil, Shell and B.P.
CUSTOMS: Port of Entry. Collector of Customs, Tel: 424899.
REPAIRS: No repair facilities available.
SURVEYORS: Lloyd's Agent.
AIRPORT: Lae Airport at Nadzab is approximately 40 km. distant. Serviced daily by Air Niugini flights.
POLICE/AMBULANCE/FIRE: Police: 422222. Ambulance: 421211. Fire: 424333.

Fire alarms are connected to the Gatehouse which has a direct telephone link to the Police station for emergency purposes.
DELAYS: Lae is the largest and busiest of the country's ports (except for Anewa Bay) and at times delays for up to 48 hours can be expected.
GENERAL: *Storage:* Covered Storage: 14,285 sq.m. Open Storage: 39,000 sq.m.
Chart: AUS 574. BA 2054.
DEVELOPMENTS: New tanker berth with depth 13.0 m. will be completed September 1988. The berth will accommodate vessels of 40,000 d.w.t.

Extension of Berth No. 3 (East) by 35 m. with depth of 13.0 m. Currently being dredged.

New C.F.S. completed.

New dolphins constructed East of tanker berth.

Demolition of Berth No. 2 and reconstruction should be completed by September 1989.

Block paved open storage area and covered area to be constructed.

SHIPMASTER'S REPORT: 1978 (updated 1988).
Approaches: No difficulties were encountered either approaching or leaving. There is deep water close to the shore. Muddy water from the outflow of the Markham River is encountered off the port, but is of no navigational significance.
Wharf: Modern, well-fendered and convenient. Currents and tides alongside are irregular and unpredictable, being almost entirely influenced by the discharge from the Markham River. A tanker berth, consisting of concrete dolphins, is under construction close Eastwards of the main wharf and a pile-driving barge is operating. When berthing, some vessels use the off-shore anchor but under normal conditions this appears to be unnecessary and can in fact be something of an embarrassment when leaving. We did not use either anchor or tugs, weather conditions being good. Powered line boats are available and were used. There is a depth of water alongside of about 11 m.
Anchorage: The usual anchorage is as described in Pacific Islands Pilot Vol. 1, 9th Edition and Supplement No. 5 of 1976. We lay quietly to the port anchor in 30 m. of water, with 4.5 shackles in the water, in position with the Northern of the 2 beacons shown on Chart Aus. 385 bearing 268°(T) distant 2.1 miles approximately.

It is not customary to take a Pilot for the anchorage.
Pilotage: Compulsory when berthing and unberthing.
Tugs: There are 3 in the port, privately owned. As most of their income is derived from sources other than berthing and unberthing ships, their availability is uncertain. No doubt a vessel requiring a tug or tugs would be able to make advance arrangements.
Communications: Vessel came from Gladstone, Queensland, and our advices were sent through P2M, Port Moresby Radio, no difficulties being encountered.

Pilots and Harbour Control are available on Channel 16, VHF, when shipping movements are expected.
Documents Required:

5 Passenger Lists.
5 Crew Lists.
7 Inward Customs Manifests.
3 Lists of Crew Effects.
3 Stores Lists.
2 Arms and Ammunition Lists.

We were able to obtain local forms prior to arrival, and experienced no problems. Also see 'Pratique'.
Officials: The Bond and Beer Rooms are sealed on arrival. The Customs stuck rigidly to the rules and confiscated any undeclared goods, particularly alcohol, cigarettes and what they judged to be pornographic literature. No fines were levied nor charges brought.

The Port Authority allocates berths and decides priorities for vessels.

During our stay, and for a considerable period prior to then, the port had been very busy.

Depending upon the nature of her cargo and the rate of discharge, it is possible for a vessel to reserve a berth in advance.

Because such a vessel arrived when we were alongside and neither our cargo nor our rate of discharge brought us into the berth reservation category, we were obliged to go out to anchor until a berth again became available.
Cargo Working: Our cargo for Lae consisted of 1,524 tonnes of bulk wheat in No. 1 hatch and 9 containers, the heaviest of which was 19.76 tonnes, on No. 2 hatch. The containers were discharged in 3 hours 20 minutes by ship's gear, no problems being encountered.

Our grain cargo was discharged in 36 hours, including time taken rigging and unrigging the sucker and adjusting the length of the suction pipe. Thus, an average rate of 42.3 m/t.p.h. was achieved.

Grain is discharged by means of a portable sucker, weighing approximately 3.5 tonnes, placed on the hatch lids, where it stays throughout discharge. From the sucker, the grain is transferred to a hopper ashore and from there to lorries that transport it to the Mill, about 1 km. away. No significant delays on account of a lack of transport were encountered.
Working Hours: The standard working day is from 0800 hrs. to 2400 hrs. On 2 occasions, once successfully, attempts were made by receivers to start work at 0700 hrs.

The vessel being on Voyage Charter, receivers made strenuous efforts to arrange for discharge after midnight, but without success. They are also investigating making grain discharge an all-weather operation. This could easily be achieved by rigging a tent over the sucker and open portion of the hatch, but whether Union and/or Government Rules would permit this is another matter.
Pratique: If coming from Australia or New Zealand, Pratique is not required, nor is a Health Declaration. Nevertheless, Radio Pratique was requested but no reply was received.
Provisions: Available but very expensive. We stocked up prior to departure Gladstone and this proved to be a wise decision.
Fresh Water: Available from the wharf, at a rate of 25 t.p.h. – 30 t.p.h. This is well water and not used by the local residents, who collect the rainwater off their roofs. To be on the safe side it was treated with Chloride of Lime.
Repairs: Only minor repairs can be undertaken. We called in a local firm for some non-urgent burning and welding work, but they were unable to do anything due to a products tanker discharging astern of us. The Chief Engineer reports that appearances suggest that competent work would be done, but that prices would be rather high.
Weather: Was hot and humid, with temperatures ranging from 23.2°C to 28.2°C. During the afternoons a South-Easterly breeze, about Force 2-3 usually came up, dying away in the evenings. Rain showers were prevalent, night and morning.
Health: Local residents confirmed that malaria is present at Lae and the usual precautions were taken on board.

AUTHORITY: Port Manager, P.O.Box 563, Lae, Papua New Guinea. *Tel:* 422477, 421831. *Telex:* NE 42414. *Cables:* Portman, Lae.

LORENGAU: 02.01 S. 147.16 E. (See Plan)

(See General Section on Papua New Guinea Ports)

PORT LIMITS: Seaward Boundary.

From the Eastern extremity of Hauwei Island by a straight line due North for 2,050 m., thence by a straight line due East for 2,920 m., thence by a straight line due South for 2,000 m. to the Old Light House on Ndrilo Island.
PILOTAGE: Pilotage is not compulsory but a Pilot will attend from Madang given 48 hours notice of the ship's intention to call at Lorengau.

Advice from an officer of the PNG Defence Force may be obtained for ships proceeding to Lombrum Naval Base.

Pilot Boarding Ground: Lat. 01° 56.6′ S., Long. 147° 18.3′ E.

ETA to be sent not less than 12 hours prior to arrival via Port Moresby Radio (P2M) or Rabaul Radio (P2R) and to be confirmed at not more than 5 hours and not less than 4 hours prior to arrival. No VHF facility.
ANCHORAGE: Anchorage may be obtained in soft mud in depths of about 30 m. anywhere in Seeadler Harbour but an anchorage in position Bear Point 210° (T) 2,600 m. is recommended.
HEALTH: Contact Port Manager if Quarantine Office or Health Officer required.
TUGS: Not available.
BERTHING: Nabu Wharf is now regarded as a run down wharf as it has been ruled as unsafe for working cargo – break bulk, containers, etc, with the exception of Bulk Fuel products.

Coastal vessels still use the facility for handling of seafarers only.

Salasia wharf is 40 m. long and 20 m. wide. Height above deck is 1.5 m., minimum depth of water below LAT is 1.4 m. The facility caters for all coastal ships. Overseas vessels rarely utilise the facility.
STEVEDORES: 72 hours notice preferred, but a minimum of 24 hours required.

R. L. & V. J. Knight, P.O.Box 108, Lorengau. Tel: 409159
FRESH WATER: Not available.
FUEL: Diesel available by road tanker at Salasia Wharf. Suppliers: Shell Agencies.
CUSTOMS: Port of Entry. Collector of Customs Tel: 409034.
AIRPORT: Momote airport is some 45 km. from Lorengau and is served by Air Nuigini but not daily.
POLICE/AMBULANCE/FIRE: Police and Fire: Lorengau 409122. Ambulance: 409055.
DELAYS: Delays at Lorengau are most unlikely.
GENERAL: *Storage:* Covered Storage: None. Open Storage: 1,000 sq.m.
Chart: AUS 662.
DEVELOPMENTS: Salasia Wharf has an open storage area of 1,000 sq.m., and a transit shed with 100 sq.m. storage space.

Future redevelopment of the Salasia Wharf will consist of resheeting of sheet piling and possible sealing of wharf apron.
AUTHORITY: Port Manager, P.O.Box 21, Lorengau, Papua New Guinea. *Tel:* 409078. *Cables:* Portman, Lorengau. *Contact:* R.C.Ruhuwamo, Port Manager.

MADANG: 05.13 S. 145.49 E. (See Plan)

(See General Section on Papua New Guinea Ports)

PORT LIMITS: Seaward Boundary.

By a straight line due East from the Easternmost extremity of Kranket Island to position Lat. 5° 11.9′ S., Long. 145° 51.5′ E., thence due South to position Lat. 5° 13.5′ S., Long. 145° 51.5′ E., thence by straight line due West to a point on the Easternmost extremity of the Kalibobo (Schering) Peninsula known as Cape Kusseron.

DOCUMENTS: *Customs Require:*
2 copies of Ship's Stores/Consumption List.
5 copies Crew List.
5 copies Passenger List.
3 copies Articles in Possession of Crew.

PILOTAGE: Compulsory. Pilots based at Madang, Tel: 82 2351 (office), 82 2916 (residence).

Pilot Boarding Ground: Lat. 5° 12.7′ S., Long. 145° 50.1′ E.

ETA pilot boarding ground not less than 12 hours prior to arrival via Port Moresby Radio (P2M) or Rabaul Radio (P2R). Confirm or amend ETA not more than 5 hours but not less than 4 hours prior to arrival again via Port Moresby or Rabaul.

ANCHORAGE: Anchorage area is inside the Dallman Passage in the area to the North of the main channel bounded by Beliau Island to the West and Kramket Island to the East. Depth of water, 40 m. Good holding ground in soft mud. Ships should not proceed to anchorage area without Pilot's advice.

HEALTH: Quarantine clearance compulsory on arrival from foreign ports. Routine inspection carried out on arrival from local ports (Plants/Animals).

Quarantine Officer Tel: 82 2193. Health Officer Tel: 82 2224.

VHF: Call Madang Port Control on VHF Channels 16, 12, 8, 6. Listening watch maintained during normal working hours and when ships are expected during non-working hours.

TUGS: None available.

BERTHING: Overseas wharf 137.1 m. long, height of deck above LAT 3.1 m., minimum depth of water at face at LAT 10.1 m. Tidal range 1.2 m.

Vessels may berth either port or starboard side to at the discretion of the Port Authority.

Load/discharge is by ship's own gear (except under special arrangement).

A separate facility to serve woodchip vessels and Caltex tankers only is situated within Binnen Harbour West of the main wharf facilities.

STEVEDORES: 72 hours' notice preferred, but a minimum of 24 hours required. Working hours: 0800 – 1200, 1300 – 1800 and 1900 – 2200. *Licenced Stevedores:* Rabaul Stevedores Pty. Ltd., P.O.Box 226, Madang. Tel: 82 2225. Robert Laurie Co., P.O.Box 642, Madang. Tel: 82 2157.

TANKERS: Discharge at main wharf for both Shell and Mobil. Caltex discharge by floating pipe-line while moored at the Jant woodchip facility.

FRESH WATER: Limited supply available seasonally at wharves and following prior arrangements with Port Manager.

FUEL: Diesel and diesel fuel is available from road tankers. Suppliers: Shell, Mobil and Caltex.

REPAIRS: A coastal slipway at Madang but only minor deck repairs P.O.Box 605, Madang.

AIRPORT: Madang airport is 6 km. from the port and is served daily by Air Nuigini.

CUSTOMS: Port of Entry. Collector of Customs Tel: 82 2253.

POLICE/AMBULANCE/FIRE: Police: 82 2222. Ambulance: 82 2022. Fire: 82 2777.

DELAYS: Although there is only one overseas berth at the main wharf, Madang delays are not common and are of short duration when they do occur.

GENERAL: *Storage:* Covered Storage: 4,600 sq.m. Open storage: 8,830 sq.m. *Chart:* AUS 648.

DEVELOPMENTS: When traffic justifies expenditure an extension of the overseas wharf Eastward will be undertaken.

AUTHORITY: Papua New Guinea Harbours Board, P.O.Box 273, Madang, Papua New Guinea. *Tel:* 82 2351/2. *Telex:* P. O. Madang 82756. *FAX:* 82-3097. *Cables:* Portman, Madang. *Contact:* P. Kulol, Regional Port Manager.

ORO BAY: 08.54 S. 148.29 E. (See Plan)

(See General Section on Papua New Guinea Ports)

PORT LIMITS: Seaward Boundary.

From the extreme North point of the mainland on the South side of the entrance to Port Harvey by a straight line due North for 2,935 m. thence by a straight line due West for 2,760 m. to the coastline.

PILOTAGE: Pilotage is not compulsory but a Pilot will attend from Port Moresby given 48 hours notice of the ship's intention to call at Oro Bay.

Pilot Boarding Ground: Within 300 m. radius of a position with the North corner of Oro Bay wharf bearing 225° (T) distant 1,850 m.

ETA to be sent not less than 12 hours prior to arrival via Port Moresby Radio (P2M) and to be confirmed not more than 5 hours and not less than 4 hours prior to arrival.

ANCHORAGE: In sand and mud at 15 m. depth may be obtained on the leading marks 239° (T) distant 400 m. from the North corner of the wharf.

VHF: Call Oro Bay Port Control on VHF 16, 12 and 6. Listening watch maintained during working hours and when ships are expected during non-working hours.

TUGS: None available at present. Arrangements may be possible via Kamusi Timber if tugs required.

BERTHING: Wharf is 60.3 m. long, height of deck above LAT 2.5 m., minimum depth of water at outer face at LAT 11.4 m. Tidal range 1.3 m.

Vessels may berth either port or starboard side to at the discretion of the Port Authority.

Load/discharge is by ship's own gear (except under special arrangement).

Berthing may be delayed during the N.W. season, December – March.

STEVEDORES: 72 hours notice preferred, but a minimum of 24 hours required.

Licensed Stevedores: New Guinea Forwarding Agencies: P.O.Box 77, Popondetta Tel: 297050/297268. Carnell Carriers: P.O.Box 151, Popondetta Tel: 29 7095, 297257.

FRESH WATER: Not available.

FUEL: Diesel is available by road tankers. Suppliers: Shell and Mobil.

AIRPORT: Popondetta airport is 40 km. from the port and is served by Air Nuigini daily.

POLICE/AMBULANCE/FIRE: Police: 29 7122. Ambulance: No service available. Fire: 29 7144.

DELAYS: Delays at Oro Bay are most unlikely.

GENERAL: *Storage:* Covered Storage: 739 sq.m. Open Storage: 4,645 sq.m.
Chart: AUS 520.

DEVELOPMENTS: The area around Popondetta is being developed as major palm oil plantations. Overseas Wharf to be lengthened.

On completion, palm oil tankers and general cargo vessels of 40,000 d.w.t. will be handled.

AUTHORITY: Papua New Guinea Harbours Board, P.O.Box 160, Popondetta, Papua New Guinea. *Tel:* 29 7295. *Cables:* Portman, Popondetta. *Contact:* Port Manager.

PORT MORESBY: 09.29 S. 147.09 E. (See Plan)

(See General Section on Papua New Guinea Ports)

PORT LIMITS: Seaward Boundary.

A straight line bearing 300° (T) from a point at the South Western extremity of Nateara Reef to a point at the Southernmost extremity of Sinari Reef.

PILOTAGE: Pilotage is compulsory – 24 hours a day. Tel: 212805 (Office), 214910 (Residence).

Pilot boarding ground: 9° 32.8′ S., 147° 06.85′ E. *OR* in bad weather the pilot boarding ground will be withdrawn inside the Basilisk Passage to a position Basilisk Beacon 220° (T) 950 m.

ETA at Pilot boarding ground not less than 12 hours prior to arrival via Port Moresby Radio (call sign P2M).

Confirm or amend ETA not more than 5 hours and not less than 4 hours prior to arrival (VHF Channel 16 – call "Moresby Pilot" thence switch to Channel 12 for working Channel).

Coastal Pilotage: Pilotage services through the Great North East Channel to Torres Strait, through China Strait to Rabaul, and through China Strait and Raven Channel to Lae are conducted by pilots of the Queensland Coast and Torres Strait Pilot Service. See Australia – "Torres Strait" for details.

Pilotage Recommendation: The Great North East Channel is covered by a recommendation on pilotage by IMO. See Australia – "Torres Strait" for details.

ANCHORAGE: Vessels may, subject to permission being granted by the Pilotage Authority, proceed inwards without a Pilot to an anchorage area in the outer harbour centred in position North Point Manubada Island 090° (T) 1,275 m.

Depth of water 27 m. Good holding ground in soft mud and sand.

HEALTH: Health Officer Tel: 255566. Quarantine Officer Tel: 211475.

VHF: Call sign "Moresby Port Control" Channels 16, 12 and 6. Listening watch during normal working hours and outside hours when vessel expected.

TUGS: Two tugs of between 550 b.h.p. and 750 b.h.p. are available for hire from private operator.

BERTHING: Old Port:

	Length (m.)	*Width* (m.)	*Water Depth Below LAT* (m.)	*Deck Height Above LAT* (m.)
Berth 1 (Main Wharf):	106	18.2	7.6	4.4
Berth 2 (Main Wharf):	107	18.2	7.6	4.4
Berth 3A (Coastal):	67	18.2	3.8	4.4
Berth 3B (Coastal):	113	18.2	4.5	4.4

Barge Ramp 1: Width 6 m. Grade 1 in 8
Barge Ramp 2: Width 9 m. Grade 1 in 8

Storage: Shed 1: 1,790 sq.m. (73.2 m. × 24.4 m.)
Shed 2: 1,790 sq.m. (73.2 m. × 24.4 m.)
Shed 3: 1,110 sq.m. (30.4 m. × 36.5 m.)
Coastal Shed: 650 sq.m. (36 m. × 18 m.)
Open (Old Port): 3,100 sq.m.
Open (APC): 3,250 sq.m.

New Port:

	Length (m.)	*Width* (m.)	*Water Depth Below LAT* (m.)	*Deck Height Above LAT* (m.)
Berth 4 (Container):	125	25.3	10.6	3.6
Small Ships Jetty:	25	5.0	3.0	2.0

Storage: Shed 4: 5,110 sq.m. (140 m. × 36.5 m.)
Open: 28,400 sq.m.

Load/discharge is by ship's own gear.

STEVEDORES: 72 hours notice preferred, but a minimum of 24 hours required. Working hours: Day shift: 0800 – 1200, 1300 – 1700, 1800 – 2200 hrs. Night shift: 2200 – 0200, 0300 – 0700 hrs. (limited gangs).
Licensed Stevedores: Port Services PNG. PTY. Ltd., P.O.Box 699, Port Moresby. Tel: 211688.

TANKERS: Tankers may discharge at Oil Company buoys N.W of the wharf area, max. draft 13 m. The discharge is through submarine pipelines.

Berthing and unberthing of tankers from the buoys is in daylight hours only. Bunkering facilities for overseas vessels will be accommodated at the new facility.

FRESH WATER: Available at Berth No. 1 – 4, rate of 20 t.p.h.

FUEL: Diesel available by road tanker at Berth Nos. 1 – 3 and by pipeline at Berth No. 4. Suppliers: Shell, Mobil and B.P.

CUSTOMS: Port of Entry. Collector of Customs Tel: 214428.

REPAIRS: A small slipway for coastal vessels only is situated adjacent to the old main wharf.

AIRPORT: Jacksons Airport, Papua New Guinea's only international airport is 13 km. from the wharf and is served by flights to and from Australia daily, to Manila, Hong Kong, Japan, Singapore and Honolulu weekly as well as almost daily flights to all main internal centres.

POLICE/AMBULANCE/FIRE: Police Tel: 258122. Ambulance Tel: 256822. Fire Tel: 212332.

DELAYS: The port now has 3 overseas berths although only 1 of these is capable of handling direct container traffic. Some delays can be expected at peak times.

GENERAL: *Storage:* See "Berthing".

Chart: AUS 621.

AUTHORITY: Papua New Guinea Harbours Board, P.O.Box 384, Port Moresby, Papua New Guinea. *Tel:* 214625, 211637. *Telex:* NE 22243 (via Harbour Board Head Office). *Cables:* Harbours, Port Moresby. *Contact:* Port Manager, Tel: 211637, 259030 (after hours).

RABAUL: 04.12 S. 152.10 E. (See Plan)

(See General Section on Papua New Guinea Ports)

PORT LIMITS: Seaward Boundary.

By a straight line due South from a point on the Easternmost extremity of Matupi Island for 4,375 m. to a position in 4° 16.8′ S., 152° 12.7′ E., thence by a straight line due West to a point on the S.E. extremity of the land known as Vulcan.

PILOTAGE: Compulsory – 24 hours a day. Tel: 92 1533 (Office), 92 3135 (Residence).

Pilot Boarding Ground: Within 400 m. radius of a position with Matupi Island Lighthouse bearing 360° (T) distant 1,800 m.

ETA at pilot boarding ground not less than 12 hours prior to arrival via Rabaul Radio (P2R). Confirm or amend ETA not more than 5 hours and not less than 4 hours prior to arrival (Rabaul Radio – (P2R)) or telex 92918 (Portman).

Coastal Pilotage: Pilotage services through the Great North East Channel to Torres Strait, through China Strait to Rabaul, and through China Strait and Raven Channel to Lae are conducted by pilots of the Queensland Coast and Torres Strait Pilot Service. See Australia – "Torres Strait" for details.

Pilotage recomendation: The Great North East Channel is covered by a recommendation on pilotage by IMO. See Australia – "Torres Strait" for details.

ANCHORAGE: There are no recommended anchorage areas for large ships, but anchorage in approx. 30 m. of water may be obtained in good holding ground in a position lower leading light bearing 015° (T) distant 1,110 m.

HEALTH: Quarantine Officer and Health Officer Tel: 92 1416.

VHF: Call Rabaul Port Control on VHF Channels 16, 12 and 6. Listening watch maintained during working hours and during non-working hours when ships expected, subject to prior notice.

TUGS: Two 165 b.p.h. × 12 m. workboats available for hire from a private operator.

BERTHING: There are two overseas berths. Bay Road Wharf is 152.4 m. long, height above LAT 2.8 m., min. depth of water at LAT 10.2 m.

Blanche Street Wharf is 121.9 m. long. Height of deck above LAT 2.8 m. Minimum depth at LAT 7.9 m.

Vessels may berth either port or starboard side to at either wharf at the discretion of the Port Authority.

Load/discharge is by ship's own gear (Except under special arrangement).

STEVEDORES: 72 hours notice preferred, but a minimum of 24 hours required.

Working Hours: Day shift: 0800 – 1200, 1300 – 1600 hrs.
Evening Shift: 1600 – 1700, 1800 – 2200 hrs.
Limited work after midnight.

Licensed Stevedores: Burns Philp (PNG) Ltd., P.O.Box 87, Rabaul. Tel: 92 2489.

Rabaul Stevedores Ltd. P.O.Box 271, Rabaul. Tel: 92 1933.

Niugini Islands Cargo Services Pty. Ltd., P.O.Box 1231, Rabaul. Tel: 92 2467.

TANKERS: Discharge facilities are available for overseas vessels at the Blanche Street Wharf only.

FUEL: Diesel fuel and distillate available by road tanker. Suppliers: Shell, Mobil and B.P.

FRESH WATER: Available at a rate of 25 t.p.h., supply sometimes restricted. Fresh water also available by barge at anchorage.

CUSTOMS: Port of Entry. Collector of Customs Tel: 92 1173.

REPAIRS: Only light deck repair facilities available.

SURVEYORS: Lloyd's Agent, Burns Philp (N.G.) Ltd., P.O.Box 87, Rabaul.

AIRPORT: Rabaul Airport is 4 km. from the port and is served daily by Air Nuigini.

POLICE/AMBULANCE/FIRE: Police: 922222. Ambulance: 922162. Fire: 921411.

DELAYS: Delays at Rabaul are unlikely, except for union activities from time to time.

GENERAL: *Storage:* Covered Storage: 10,180 sq.m. Open Storage: 20,300 sq.m.

Chart: AUS 680.

DEVELOPMENT: The only development planned at Rabaul for the next year is the refendering of Berth No. 2 (Bay Road Wharf).

AUTHORITY: Papua New Guinea Harbours Board, P.O.Box 592, Rabaul, Papua New Guinea. *Tel:* 92 1227, 92 1317, 92 1533. *Telex:* NE 92918. *Cables:* Portman, Rabaul. *Contact:* Regional Port Manager.

SAMARAI: 10.36 S. 150.39 E. (See Plan)

(See General Section on Papua New Guinea Ports)

PORT LIMITS: Seaward boundary.

From a point on the Northernmost point of Samarai Island due North for 800 m. thence due West for 1,300 m. thence due South for 1,000 m. thence due East for 1,000 m. to a point on the N.W. coast of Samarai Island.

PILOTAGE: Not available.

ANCHORAGE: There are no recommended anchorage areas for large vessels in the vicinity of Samarai.

HEALTH: Quarantine Officer Tel: 62 1257. Health Officer Tel: 62 1225.

TUGS: Not available.

BERTHING: Berth No. 1. (Main Wharf). Length 28 m. Depth at LAT 7.8 m. Tidal range 1.0 m.

Vessels may berth either port or starboard side to at the discretion of the Port Authority.

Load/discharge is by ship's own gear.

STEVEDORES: 72 hours notice preferred, but a minimum of 24 hours required.

Licensed Stevedores: Murina Stevedoring Company, P.O.Box 33, Samarai.

Osiri Trading Co., P.O.Box 1, Samarai. Tel: 62 1238.

TANKERS: Discharge only at main wharf.

FUEL: Diesel available by pipe-line. Supplied by Shell.

FRESH WATER: Not available.

AIRPORT: There is no airport at Samarai. The nearest airport is at Gurney, outside Alotau.

CUSTOMS: Port of Entry. Collector of Customs Tel: 62 1226.

POLICE/AMBULANCE/FIRE: Police Tel: Samarai 62 1222. Ambulance Tel: 62 1225. Fire: No service available.

DELAYS: Delays at Samarai are most unlikely.

GENERAL: *Storage:* Covered Storage: 950 sq.m.

Open Storage: 140 sq.m.

Chart: AUS 625.

AUTHORITY: Papua New Guinea Harbours Board, (Through Agents – Milne Bay Fishing Authority), P.O.Box 86, Samarai, Papua New Guinea. *Tel:* 621348. *Cables:* Fisheries. *Contact:* N. Stanton, Port Manager.

VANIMO: 02.41 S. 141.18 E. (See Plan)

(See General Section on Papua New Guinea Ports).

PILOTAGE: Pilot Boarding Place: Lat. 2° 39′ S., Long. 141° 18′ E.

HEALTH: Quarantine Officer Tel: 87 1166. Health Officer Tel: 87 1108.

VHF: Call Vanimo Port Control on VHF 16 and 12. Listening watch maintained during working hours and when ships are expected during non-working hours.

TUGS: None available.

BERTHING: Position of wharf: Lat. 02° 41.09′ S., Long. 141° 17.84′ E. Length, 18.7 m. (61.5 ft.); width 6.1 m. (20 ft.). Minimum depth alongside at LAT 4.9 m. (16 ft.). Tidal range 1.6 m.

FRESH WATER: Not available to ships.

FUEL: Distillate available by road tanker. Supplier: Steamships Trading Co.

CUSTOMS: Port of Entry. Collector of Customs Tel: 87 1192.

POLICE/AMBULANCE/FIRE: Police Tel: 87 1022. Ambulance: 87 1080.

GENERAL: *Storage:* 1 Shed – 135 sq.m.

Chart: AUS 389.

AUTHORITY: Port Manager, P.O.Box 71, Vanimo, Papua New Guinea. *Tel:* 87 1024. *Cables:* Portman, Vanimo.

WEWAK: 03.34 S. 143.39 E. (See Plan)

(See General Section on Papua New Guinea Ports)

PORT LIMITS: Seaward Boundary.

From Wewak Point by a straight line due North for 2,900 m. thence by a straight line due East for 3,725 m. thence by a straight line due South for 4,780 m. to a point 800 m. due East of Cape Boram, thence to Cape Boram.

PILOTAGE: Pilotage is not compulsory but a Pilot will attend from Madang if given 48 hours notice of the ship's intention to call at Wewak. A Pilot will shortly be stationed at Wewak.

Pilot Boarding Ground: Lat. 3° 32′ S., Long. 143° 39.4′ E.

ETA to be sent not less than 12 hours prior to arrival via Port Moresby Radio (P2M) or Rabaul Radio (P2R) and to be confirmed not more than 5 hours and not less than 4 hours prior to arrival. No VHF facility.

ANCHORAGE: There are no recommended anchorage areas for large vessels in the vicinity of Wewak.

HEALTH: Quarantine Officer Tel: 86 2586. Health Officer Tel: 86 2166.

VHF: Call Wewak Port Control on VHF Channels 16, 12, 6. Listening watch maintained during working hours and when ships expected during non-working hours.

TUGS: None available.

BERTHING: Overseas Wharf is 73.1 m. long, height of face above LAT is 3.5 m., min. depth of face at LAT is 6.7 m. Tidal range 1.3 m.

Vessels may berth port side to only.

Load/discharge is by ship's own gear.

Berthing may be delayed during the N.W. season December – March.

STEVEDORES: 72 hours notice preferred, but a minimum of 24 hours required.

Working Hours: Day shift: 0800 – 1200, 1300 – 1600. Evening shift: 1600 – 1900, 2000 – 2400. 2 hours extension to finish possible.

Licenced Stevedores: Sepik Coastal Agencies, P.O. Box 118, Wewak. Tel: 86 2464. Wewak Stevedores, P.O. Box 27, Wewak. Tel: 86 2181.

TANKERS: No overseas discharge or bunkering facility exists.

FRESH WATER: Not available.

FUEL: Diesel available from road tankers. Suppliers: Mobil and Shell.

CUSTOMS: Port of Entry. Collector of Customs Tel: 86 2591.

AIRPORT: Wewak Airport is 5 km. from the port and is served regularly by Air Nuigini.

POLICE/AMBULANCE/FIRE: Police: 86 2222. Ambulance: 86 2166. Fire: 86 2122.

DELAYS: Delays at Wewak are unlikely but if they do occur are of short duration.

GENERAL: *Storage:* Covered Storage: 2,200 sq.m.

Open Storage: 11,500 sq.m.

Chart: AUS 651.

DEVELOPMENTS: The port development plan which is unlikely to take effect for a few years, calls for a land backed facility off the causeway joining the land to the existing wharf.

AUTHORITY: Port Manager, P.O.Box 270, Wewak, Papua New Guinea. *Tel:* 86 2298. *Cables:* Portman, Wewak.

NOTES

Please also advise Shipping Guides Ltd.

Paraguay

GENERAL:

DOCUMENTS: *Consular Documents:*

If ports of embarkation are non-Paraguayan, the Agency must submit an original cargo manifest and two copies, as well as three copies of the Crew List to the Paraguayan Consulate. The Consul returns the original and one copy of each of these documents, and the Agency must ensure that these papers are mailed, time permitting, or delivered to the vessel.

Prior to Arrival:

Arrival Notice:

The time and date of the vessel's arrival shall be reported at least 24 hours in advance to the following Authorities: Port Authority (National Navigation and Port Administration), the General Prefecture of Ports (National Navy), Customs, Migration, and Maritime Health.

Information on Cargo for the Port:

The shipping Agency must receive duly in advance the following documents for presentation to the Authorities and for the preparation of the tally books: Cargo Manifest and Stowage Plan. It is of the utmost importance that manifests be received duly in advance, even if by telex, to avoid any delay in servicing the vessel.

The manifests and a written request that may be submitted 72 hours prior to the arrival of the vessel, must be delivered to Customs. Customs opens a Customs file and allocates a number to the vessel to expedite the processing of the import documents.

Requests for Port Services:

A request must be submitted to ANNP, indicating the expected time of arrival (ETA) of the vessel, to obtain clearance for berthing and port services. 5 copies of the manifests giving the number assigned by Customs to the vessel and 1 copy of the Stowage Plan must be presented, as well as copies of the tally books, and a list of container contents.

In the absence of manifests, clearance for berthing will not be given and, therefore, the cargo cannot be handled.

On Arrival:

Type of Document	*Number and Distribution of Documents*						
Basic Forms	*Gen. Pref. Ports*	*Customs*	*Immigration*	*Marit. Health*	*Veterinarian†*	*Agency*	*Total*
1. General Declaration(a)	1	–	–	–	–	1	2
2. Cargo Manifest	1(b)	1(b)	–	–	1	1	4
3. Crew List	1(b)	1(b)	1	–	–	1	4
4. Passenger List	1	1	1	–	–	1	4
5. Ship's Stores List	–	1	–	–	1	2	4
6. Crew Effects Declaration	–	1	–	–	–	1	2
7. Maritime Declaration of Health	–	–	–	1	–	–	1
8. Mail List	–	–	–	–	–	1(c)	1
Additional Documents:							
9. In-ballast Declaration	1	1(b)	–	–	–	1	3
10. Bills of Lading	1	1(b)	–	–	–	1	3

†Transitory provision of the Ministry of Agriculture, of November 1978.

(a) If the vessel has the forms, LAFTA/OAS Form 1 should be employed; if not, Agencies use their own form, containing data on 1 through 10 and 11A of the General Declaration.

(b) Visaed by the Consulate of Paraguay.

(c) For the Postal service.

Prior to Departure:

A departure request must be filed with Customs, to which the export cargo manifest and the provisional export permit must be attached. This procedure cannot be started until the entire cargo has been loaded.

After this request has been recorded by the Registration Division and the Cashier's Office, the Customs Administration issues the safe-conduct for departure.

Once the safe-conduct is obtained from Customs, this is attached to the crew list and submitted to the General Prefecture of Ports, which authorises clearance, and designates the Pilots who are to guide the ship on the stretch Asuncion-Confluencia.

NOTES

Please also advise Shipping Guides Ltd.

Peru

GENERAL:

DOCUMENTS:

Prior to Arrival:

Arrival Notice:

Notice of a vessel's arrival must be sent 24 hours in advance to the Captain of the Port, Customs, International Police, Migration and Public Health.

Information on Cargo and Passengers for the Port:

The Agency must have received the following documents by air, sufficiently in advance to submit them by the deadlines indicated in the following paragraph, and to prepare the tally sheets:

5 sets Cargo Manifest.
2 sets Freighted Cargo Manifest.
1 copy Passenger List.
6 copies List of Container Contents.
5 copies Dangerous Cargo List.
2 copies List of In-Transit Dangerous Cargo.
2 copies Stowage Plan.

Deadlines for Submission of Documents:

(a) Vessels from South American and Pacific coast ports are exempt from submitting documents by air mail in advance. However, the Agency must receive by telex, in sufficient time to prepare and submit before initiating tally sheet operations, the following information on regional cargo: marks, numbers, amount, class and weight of cargo, its location on board, shipper and consignee.
(b) Vessels from Panama and Colombian ports on the Atlantic. 24 hours before the vessel's arrival. Fine for failure to comply with the deadline.
(c) Vessels from Central American ports. 48 hours before the vessel's arrival. Fine for failure to meet the deadline.
(d) Vessels from any other port. 72 hours before the vessel's arrival. Fine for failure to meet the deadline.

Request for Port Services:

24 hours before the vessel's arrival, the request for pilotage and berthing, and port services shall be submitted to the marine terminal of the Peruvian National Ports Agency (ENAPU) on special forms.

On Arrival:

On entrance of the vessel, the following documents must be submitted:

Type of Document	*Number and Distribution of Documents*						
Basic Forms	*Captain of Port*	*Customs*	*ENAPU*	*Police*	*Migration*	*Public Health*	*Total*
1. General Declaration	1	2	2	–	–	–	5
2. Cargo Manifest	1	2	4	–	–	–	7
3. Crew List	1	2	–	1	1	1	6
4. Passenger List	1	2	2	1	1	1	8
5. Ship's Stores List	–	2	1	–	–	–	3
6. Crew Effects Declaration	–	2	–	–	–	–	2
7. Maritime Health Declaration	–	–	–	–	–	1	1
8. Mail List	–	2	2	–	–	–	4
Additional Documents:							
9. Clearance from last Port	1	–	–	–	–	–	1
10. In-transit manifest	1	1	–	–	–	–	2
11. "No Passengers" Declaration	1	2	2	1	1	1	8
12. List of Passengers In-transit or "No In-transit Passengers" Declaration	1	2	2	1	1	1	8
13. List of Passengers Baggage or "No Baggage" Declaration	–	4	4	–	–	–	8
14. List of unaccompanied Baggage or "No unaccompanied Baggage" Declaration	–	4	4	–	–	8	16
15. Bill of Lading	–	1	2	–	–	–	3

Prior to Departure:

Clearance Documents:

The Clearance Permit must be duly paid for at the Bank of the Nation. Receipts therefore must accompany the request for clearance.

The Clearance Permit is requested from the Captain of the Port on a special form in triplicate, accompanied by 3 sets of the General Declaration, the Crew List and the List of Passengers on board, In-Transit or "No Passengers" Declaration.

At the time of clearance, a representative of the Captain of the Port returns on board a stamped set of these documents.

In addition, the following must be submitted before clearance:

Documents:

	ENAPU	*Migration*
Crew List		1
List of Passengers Embarked or "No Passengers" Declaration	1	
List of Passengers Baggage or "No Baggage" Declaration	1	
Bill of Lading for all cargo loaded	2 sets	

Within 24 hours after clearance, Customs must be given a copy of the Export Cargo Manifest or a set of the Bills of Lading for all export cargo.

Request for Pilotage:

Requests for unberthing, including the request for pilotage shall be submitted daily at 1500 hrs. to the ENAPU on a special form.

SHIP REPORTING:

Position and Safety Information System in Peruvian Waters: National and foreign merchant and fishing vessels, of more than 1,000 g.r.t., are obliged to report their position by radio to Coastguard General Director, by Peruvian Coast Stations of Paita, Mollendo or Callao, if they enter (200 miles off coast), stay or depart from Peruvian waters.

Instructions on Preparing the Message Report:

MESSAGE INFORMATION STRUCTURE:

Message Identification		SHIPREP (Indicative of the system)
Instructive Type	A	A 2 letter group "PW" (Entrance Notification to Peruvian waters) "SP" (Sailing Plan) "PR" (Situation Notification) "FR" (Last Notification)
Vessel	B	Name, call letters and nationality
Date and local time	C	A 6 letter group to indicate the day of the month (first 2 digits) hours and minutes (last 4 digits)
Situation	D	Departing or sailing port. Port of arrival.
Position	E	A 4 digit group to indicate the Latitude in degrees and minutes with suffix "N" or "S" and a 5 digit group to indicate the Longitude in degrees and minutes suffix "E" or "W"
Real Course	F	3 digit group
Speed in knots	G	2 digit group
Port of destination	H	
Estimated Time of Arrival	I	A 6 digit group to indicate the day of the month (first 2 digits) hours and minutes (last 4 digits)

SPECIFIC INFORMATION PROCEDURES FOR MERCHANT VESSELS WHICH ENTER INTO JURISDICTIONAL WATERS IN FREE WAY OF IN DEMAND OF PERUVIAN PORTS.

1st Case:

ENTRANCE INFORMATION TO PERUVIAN WATERS (PW): Information that the vessel must broadcast when entering jurisdictional waters.

SHIPREP (System identification)
A PW
B Vessel's name, call letters and nationality
C Date and time (of entrance to jurisdictional Peruvian waters)
D Port of origin
E Co-ordinates (at entrance to jurisdictional Peruvian waters)
F Real course
G Velocity
H Port of Destination
I ETA

2nd Case:

POSITION REPORT (PR): Information that the vessel must broadcast at time it crosses the 12° 00′ (S) parallel.

SHIPREP
A PR
B Vessel's name, call letters and nationality
C Date and time of position
E Co-ordinates
F Course
G Velocity
H Port of Destination
I ETA

Note: In case the vessel has just one radio operator, the Captain of the vessel will send this information in the established labour schedule, but in all of the cases this communication must be on time or anticipated.

3rd Case:

SAILING PLAN (SP): Information that must be broadcast by the ship at time it sails from Peruvian ports.

SHIPREP
A SP
B Vessel's name, call letters and flag
C Date and time
D Sailing port
F Course
G Velocity
H Port of Destination
I ETA

4th Case:

FINAL REPORT (FR): Information that must be broadcast just before the arrival or at time it arrives to the port of destination, or at time of leaving jurisdictional waters.

SHIPREP
A FR
B Vessel's name, call letters and flag
C Date and time
H Port of destination arrival

MESSAGE MODELS FOR MERCHANT SHIPS

1st Case:

SHIPREP/PW/ATLAS/LQVJ/AR/291300/BUENOS AIRES/1813S/07620W/330/20/CALLAO/301100

2nd Case:

SHIPREP/PR/ATLAS/LQVJ/AR/291900/1725S/07715W/350/20/CALLAO/301100

3rd Case:

SHIPREP/SP/HAWAII/JRAH/JA/291300/CALLAO/325/19/TALARA/301200

4th Case:

SHIPREP/FR/HAWAII/JRAH/JA/301100/TALARA

FREQUENCIES ON WHICH THE INFORMATION MUST BE BROADCAST THROUGH THE COASTAL STATIONS OF MOLLENDO, PAITA AND CALLAO

Station	*Identification*	*Frequencies* *Transmission*	*Reception*	*Emission Class*	*Time of Service*
Paita Radio	OBY2	8527	8363.2-8366.4	0.1A1A	
		2182-2738	2182	H3E/J3E	24
		156.70	C.14	F3E	
		156.80	C.16	F3E	
Callao Radio	OBC3	460-500	500	0.1A1A	
		8546	8363.2-8366.4	0.1A1A	
		13015.5	12544.8-12549.6	A1A	
		2182-2738	2182	H3E/J3E	24
		156.60	C.12	F3E	
		156.70	C.14	F3E	
		156.80	C.16	F3E	
Mollendo Radio	CBF4	8490	8363.2-8366.4	0.1A1A	
		2182-2738	2182	H3E/J3E	24
		156.70	C.14	F3E	
		156.80	C.16	F3E	

If vessel has communication problems with the coastal stations of Paita or Mollendo it must communicate through the coastal station of Callao and if vessels cannot establish communication with the mentioned coastal stations it must present the maritime authorities at the arriving port wit a detailed report stating the reason, the same will be evaluated to determine the existence or non-existence of responsibility.

If radio communication difficult telex is recommended.

Callao/OBC3 Telex No. 0036-26069 PE COSTCAL.
Mollendo/OBF4 Telex No. 0036 - 59644 PE KECEKOMO.

Vessels failing to comply, fined US$1,000.00 first time, US$5,000 for repetitions.

If unable to raise Peruvian Coastal Stations, notation to this effect must be entered in Radio Log, verified on arrival by Authorities to whom copies of messages must be given.

ATICO: 16.14 S. 73.43 W.

Atico is an open roadstead and unprotected. The main activity is the loading of fishmeal.
PILOTAGE: Not available.
ANCHORAGE: Vessels anchor in the open roads.
TUGS: 1 available.
LIGHTERS: 3 available, 100 tons each.
CRANES: None.
STEVEDORES: See "Pimentel" for working hours and overtime rates. There are 2 gangs available.
MEDICAL: Available at Mollendo.
FRESH WATER: Not available.
FUEL: Not available.
GENERAL: *Swell Period:* Heavy swell in the Winter months, June-September.

CALLAO: 12.03 S. 77.10 W. (See Plan)

DOCUMENTS:
Airmail copies must be presented to Port Authorities 72 hours before arrival of vessel as otherwise vessel will be fined. No docking is allowed until Cargo Manifests and Cargo Plan are presented.
Vessel copies to be delivered on clearing vessel inbound on arrival when Health, Customs and other Authorities board.

	By Air	*By Sea (With the Vessel)*
Cargo Manifests, including additionals. Must be faithful copies of Bills of Lading descriptions	5	7
Same Manifests, but freighted	5	2
Cargo Manifests covering cargo shortshipped but manifested on previous vessels calling at Callao	5	7
(If Master Stencils are airmailed, the required number of Manifests will be printed)		
Transit Cargo Manifests	–	3
Freighted copy of each Bill of Lading	–	4
Lists of Containers with their numbers	2	2
Content List, each Container, properly identified with marks, numbers and Bills of Lading numbers	2	2
Dangerous Cargo Lists showing complete description of goods, Flash Point, IMO Classification, Type of Label, marks, numbers and Bills of Lading numbers	3	3
Transit Dangerous Cargo Lists	3	3
Mail Manifests	5	5
Passenger Lists	1	10
Transit Passenger Lists	–	10
Tally Books	–	16
Stowage Plan	3	–
Consolidated Stowage Plan, prepared or checked on board	–	3
Visaed Tonnage Certificate or General Declaration from First Port receiving cargo for Peru and every port of call thereafter	–	1
Health Clearance, last port of call	–	1
Vaccination List	–	1
General Declaration	–	7
Crew List	–	10
Crew Personal Effects Declaration	–	3
Stores List	–	4
Sealed Consular Documents addressed to Customers, in envelope	–	1

Also see "General" before first port.

PILOTAGE: Compulsory. 24 hours advance notice of ETA required. Pilot boards at anchorage after vessel has been granted Free Pratique. Various pilot launches painted white, black and red.
ANCHORAGE: Very large area to the West of entrance buoys.
RESTRICTIONS: Vessels of up to 32 ft. draft may enter at any time. Vessels of more than 32 ft. draft must enter at high water. Pilots available 24 hours.
MAX. SIZE: Length and breadth practically unlimited, draft 32 ft. plus height of tide making allowance for keel clearance.
HEALTH: Cable Agent requesting Free Pratique. Agent must be notified in advance if any illness or disease suspected on board. Free Pratique is hardly ever given unless Health Officer and Captain of the Port and other Officers board.
RADIO: Radio Costera, OBC3, 460, 500, 8546, VHF 16 and 14 (Peruvian Navy 24 hours).
Arrival Advice: 24 hours' Notice of Arrival should be sent to the Captain of the Port and the Agent.
Shipowner's Report: October 1982.
Please note there is a new regulation for vessels calling Callao. All ships must send 1 hour prior to arrival at Callao Roads a telegram addressed to "Costera Callao" indicating their revised ETA. If this is not done and Authority gets notice of this, vessel will be fined.

As per experience this telegram arrives at "Costera Callao" after vessel has departed. Sometimes Authority asks for presentation of telegram copy.
Radio Officer's Report: September 1982.

During a recent call at Callao and Pisco at the beginning of September 1982, only slight difficulties were experienced in establishing radio contact with Callao Radio – OBC3.

However, Callao Radio seems mostly to be listening only on 8364 kHz HF, answering calls on its working frequency 8546 kHz. Also the station seems to be using "QRY-operation". Ships' radio operator will get his turn number, whereafter Callao Radio calls back in due time for QSO.

Even at a very close range, no answer was obtained on 500 kHz. However, a call on VHF Channel 16 was answered at once, and vessel was advised to shift to the above mentioned HF frequency for QSO.
VHF: Port Captain on Channel 16. Working on Channel 12. All communications carried out in Spanish.
TUGS: Port Authority Tugs join vessel once inside mole, 1 or 2 as required, using vessel's lines, later passed to pier. 4 tugs available; 2 at 175 h.p., 1 at 500 h.p. and 1 at 800 h.p.
BERTHING: There are 9 piers with a total of 24 berths, 22 for large vessels, and 2 for coasters.

The various berths of the port can be subdivided into areas for their appropriate usage as follows:

	Quays	*Berths*
General cargo	1, 2, 3, 4, 5	1A, 1B, 2A, 2B, 3A, 3B, 4A, 5A, 4B.
Dry bulk cargo	11, 9	11A, 11B, 11C, 9A, 9B, 9C.
Liquid bulk cargo (Oil derivates)	7	7A, 7B.
Minerals	5	5B, 5C, 5D, 5F.
Logistic supplies and coastal vessels	9, 10	9D, 10A, 10B.

All piers except the petrol pier are connected to railway system for unloading and loading to railway wagons.

Within port limits anchorages can be used for discharge of livestock, scrap and occasionally for general cargo after permission obtained from the Port Authorities.

Berths 5B, 5C, 5D and 5E are equipped with conveyor belts for shipping granulated bulk ore.

Berths 9A, 9B and 9C have a conveyor belt for shipping fishmeal in pellets.

For discharge of grain, there are three pneumatic mobile suction towers and silos with a capacity up to 23,000 tons. The average rate of discharge of the pneumatic towers is 2×100/150 t.p.h. and 1×300 t.p.h.
STEVEDORES: No particular advice necessary but Agent must receive Stowage Plan beforehand to advise Port Authority of planned operation.
Working Hours: 1st shift 0700 – 1200 hrs. and 1300 – 1600 hrs. 2nd shift 1700 – 2400 hrs. Both are compulsory, except 2nd shift on Sundays and Holidays. 3rd shift 0100 – 0700 hrs., optional, except after Sundays and Holidays when not worked. There is an additional charge of 25% for the 3rd shift.
Lighters: In the port, a lighter service is provided by private concerns to enable vessels to discharge at moorings, and thus reduce the time they are at the quays.
CRANES: There are a number of cranes with lifting capacity from 4 tons to 50 tons. The Callao Naval Base has a floating crane with a lifting capacity of 80 tons, which can be called upon if necessary.
MEDICAL: Advance information as to sick crew members not required but helpful. Ample first class facilities in the Lima area.

TANKERS: Petroleum Pier: Pier No. 7: Max. depth 35 ft., however, depth in approaches to berth is 33 ft. at HW and 31 ft. at LW, max. length about 200 m.

There are numerous loading and discharge pipe-lines of different diameter to handle oil derived products.

These lines can be used simultaneously at the berths A and B, but also depending on store facilities on shore or delivery into trucks.

Discharging pressure of the lines: 100 lb./sq.in. for 12 in. to 22 in. lines. On the pipe-line of 6 inches it is possible to reach a pressure of 250 lb./sq.in., for discharge of LPG.

Connections: There are connections from 4 in. to 10 in. for all kind of flanges.

Water: Supply of water is possible, 40 t.p.h.

Discharge of ballast or slops inside mole prohibited. Tankers loading fish oil must arrive free of ballast.

DENSITY: Sea water.

FRESH WATER: All berths equipped with fresh water supply at an average rate of 30 t.p.h.

FUEL: The following are available from Petroleos del Peru, Bunker "C" 3,500 seconds, Petroperu No. 5 (intermediate 4) 400 seconds, Diesel 2 (marine diesel) 100 seconds.

FIRE PRECAUTIONS: Use of Port Authority Fire Equipment mandatory during discharge of petroleum products with charge for service. Safety equipment charge applied to all vessels on tonnage moved.

GANGWAY/DECK WATCHMEN: Recommended.

CERTIFICATES: All may be required but normally only the Derat Certificate is asked for. If Ratguards are not used on all lines, vessel liable to fines.

CUSTOMS ALLOWANCES: Any amount over normal consumption usually cause difficulties including searching.

CARGO GEAR: No additional requirements.

IDENTIFICATION CARDS: Supplied by Agent and stamped by Immigration. Authorisation required for all crew members.

CONSULS:

Argentina
Austria
Belgium
Bolivia
Brazil
Canada
China
Colombia
Costa Rica
Denmark
Dominican Republic
Ecuador
Egypt
El Salvador
Finland
France
Germany F.R.
Greece
Guatemala
Haiti
Honduras
India
Israel
Italy
Japan
Jordan
Lebanon
Mexico
Netherlands
Nicaragua
Norway
Panama
Paraguay
Poland
Portugal
Spain
Sweden
Switzerland
Uruguay
U.K.
U.S.A.
U.S.S.R.
Venezuela
Yugoslavia

REPAIRS: Normal Deck and Engine repair facilities available through private companies in Lima and Callao.

DRY DOCKS: Major repairs can be undertaken by the Naval Industrial Department, including careening and repairs in dock.

(a) Dry dock – length 632 ft., width 82 ft., depth 21 ft.
(b) Floating dock 107 – length 408 ft., width 48 ft., depth 20 ft.
(c) Floating dock 106 – length 288 ft., width 46 ft., depth 14 ft.

SURVEYORS: Lloyd's Register of Shipping, ABS, R.I., and N.V.

REPATRIATION: All foreign crew members who do not have Peruvian Visas, which only obtainable abroad, must be repatriated by quickest means (Air) by Agent, paying all detention expenses. Peruvian and foreign crew members available.

AIRPORT: Lima/Callao within city limits has regular direct international service North and South America, Europe and Far East.

HOLIDAYS: Only 1st May when work is not possible.

DEVELOPMENTS: Quay No. 5 is being converted to a container terminal.

SHIPMASTER'S REPORT: September 1980.

Navigational Notice: All vessel navigating in Peruvian waters to a distance of 200 nautical miles from the coast are required to radio their position, course, speed and destination every 12 hours to: "Capitania General de Costera y Capitania de Puerto Callao" via Callao Radio, which is very difficult to contact as naval traffic appears to be their main concern. Other coastal radio stations are even less available.

Documents: Cancel all reference to LAFTA documents which are now obsolete and also there is no longer any visaed or consular items to obtain. The requirements for air mailed copies still remains for Bills of Lading, Cargo Manifest and Contents List where applicable. The remaining requirements are the same as listed.

Pilotage: The Pilots boarding station is 1.25 miles 095° from that marked on BA Chart 1853.

Anchorage: Very large area to the North and West of entrance leading line. The area to the South is reserved for Peruvian naval and merchant vessels which navigate therein without lights on occasions.

Restrictions: The maximum draft dictated by the entrance channel is 33 ft. 10 in. (10.30 m.). On occasions with a maximum tide, vessels in excess will be docked but the chances are based upon the Pilot's willingness. With a 3 ft. (1 m.) rise this vessel charted a minimum under keel clearance of 1.3 ft. on a draft of 34 ft. 3 in. within the channel outside the breakwaters.

Density: This was checked daily and found to be 1027.5 to 1028 in Berth No. 11.

Berthing: For discharge of grain there are 3 pneumatic suction towers on rails with 3 suction pipes to each. The two Southern units are reserved for loading road trucks while the third and most Northern discharges onto the silo belt only. Thus delays may be experienced due to lack of trucks and subsequent order of discharge regulated to accommodate this factor. There is a minimum depth of 36 ft. by hand lead at this berth.

Fresh Water: Very early request via Agent and follow up. Max. 10 t.p.h.

Gangway/Deck Watchmen: The strictest watch must be maintained at ALL hours for persons who board to steal. The worst are those whose identity card is for "Tribulante" indicating a seafarer, for they know where most ship's officers stow gear and where the keys to the chartroom are, etc. A patrol is required as well as a static gangway watch. Cargo thieves are very well organised.

Ashore, no person should travel alone in Callao or Lima.

Port Authority Permits: These are required for repairs, overside painting, etc., and a 3 man inspectorate will board to check progress and conditions.

SHIP'S OFFICER'S REPORT: January 1985.

Hull maintenance only possible after permission obtained from Port Captain.

A very extensive cabin search made on sailing day and articles not declared on arrival were taken away (if possible).

The following were not declared on arrival (but should have been declared): Cabin refrigerators, portable cabin heaters, Loadmaster computer.

In our case all charges and fines were waivered after consultations. Therefore if in doubt all items should be declared.

Make sure all ratguards are marked with ship's name otherwise they may be stolen and resold to the ship.

Ensure correct courtesy ensign is flown otherwise a fine will be imposed.

AUTHORITY: Port Captain, Terminal Maritimo de Callao.

CHANCAY: 11.35 S. 77.16 W. (See Plan)

Chancay is an unprotected open roadstead about 31 miles North of Callao. The main activities are the loading of fishmeal and discharging of fertilisers.

PILOTAGE: Compulsory. The Port Captain currently acts in this capacity.

ANCHORAGES: There is a good anchorage, in 5 and 8 fathoms of water, on a sand and mud bottom, located in the outer area of the bay, which is 1 mile long by 0.5 miles wide.

RADIO: *Arrival Advice:* 24 hours' Notice of Arrival should be sent to the Captain of the Port and the Agent.

TUGS: 2 Tugs of 56 h.p.

BERTHING: There is a pier for loading barges.

LIGHTERS: 12 lighters with a capacity of 40 tons each.

CRANES: 2×14 tons capacity.

STEVEDORES: The same system applies here as throughout the Republic, the tariff only altering according to the number of workers employed.

3 shifts and 2 more if necessary.

MEDICAL: Medical consultations possible.

FRESH WATER: Not available.

FUEL: Not available.

AUTHORITY: Port Captain.

CHIMBOTE: 09.05 S. 78.37 W. (See Plan)

Chimbote is a port with possibilities to load and discharge from and into lighters if berths are not available. Main activity: Loading of fishmeal and minerals; discharging of iron, steel, and general cargo.

DOCUMENTS:

For Entry

2 Entry Declarations (Form No.1).
1 Departure Licence of the last foreign port en route.
1 Maritime Health Declaration (Form No. 2).
2 Passenger Lists with entry baggage (Form No. 3).
1 Consular Roll of the last foreign port en route.
1 Consular Passenger List of the last foreign port.

Customs Administration

1 Original Cargo Manifest(s) with the Consular stamp. (Form No.4).

The envelope(s) from the Consul, enclosing copies of the Consular invoices, bill of lading and cargo manifest for the port with the Consular stamp.

1 Cargo Manifest (Form No.4).

1 Cargo Manifest of cargo, but with further destination for another national or foreign port (Form No. 4).

1 Cargo Manifest in transit.
1 Gross or Net Tonnage Certificate, with Consular visa.
1 Unaccompanied Baggage List (Form No. 5).

Customs

1 Entry Declaration (Form No. 1).
1 Cargo Manifest(s) for port without Consular visa (Form No. 4).

1 Manifest of Cargo for port, but with further destination for another national or foreign port, without Consular visa (Form No. 4).

2 Passenger Lists with entry baggage (Form No.3).
2 Unaccompanied Baggage Lists (Form No. 5).
1 Crew Personal Effect List.
1 Stores List, food and spirits.
1 Mail List.

Port Administration
1 Entry Declaration (Form No.1).
1 Passenger List with entry baggage (Form No. 3).
1 Unaccompanied Baggage List (Form No. 5).
3 Cargo Manifests for the port, without the Consular visa (Form No.4).
3 Manifests of Cargo for port, but with further destination for another national or foreign port, without Consular visa (Form No. 4).
3 Sets of Bills of Lading.
Also see "General" before first port.

PILOTAGE: Compulsory. Official Pilot boards vessels at entrance to bay and leads ship to appropriate anchorage according to draft. Private Pilot to moor to the quays of the "Corporacion Peruana del Santa" and to "Sogesa". Vessels enter the inner roadstead through Southern side of each channel. Depart through Northern side of channel.

ANCHORAGES: Good anchorages in bay according to draft. Anchorages are of mud and sand. Best place to anchor ship of medium draft is inner side of Paso del Norte, 6 fathoms deep, near port and safe. Another good anchorage for ship of medium draft is with Island bearing 170° and Rosas Blancas bearing 275°, 6 fathoms deep.

HEALTH: Health Authorities board on arrival.

RADIO: Hablanaves Radio at Talara and Trujillo (Buenos Aires), Radio Costera at Callao.
Arrival Advice: 24 hours' Notice of Arrival should be sent to the Captain of the Port and the Agent.

TUGS: 6 private, 3 of 80 h.p., 1 of 60 h.p. and 1 of 165 h.p. and 1 of 180 h.p. The Port Authority has two tugs, 1 of 400 h.p. and 1 of 200 h.p.

BERTHING: 3 Piers available.
No. 1 Pier: Length 158 m., width 16 m., depth alongside 27 ft. – 28 ft.
No. 2 Pier: Used only for the loading and discharge of lighters (fishmeal). Length 54 m., width 18.40 m. Average depth 4.5 m.
No. 3 Pier: Operated by Siderperu. Length 265 m., width 25 m., depth alongside 28 ft. – 31 ft. There are two bridges for discharging coke and minerals by clamp. (Total capacity 300 t.p.h.)

LIGHTERS: 12 for dry cargo: 2 at 150 tons and 10 at 50 tons. 10 tank lighters with a total capacity of 1,300 tons.

CRANES: 5 cranes: 3×17 tons, 1×13.8 tons and 1×6.25 tons capacity.

STEVEDORES: See "Callao".

MEDICAL: Agent arranges emergency attention. Hospital and private clinic available.

TANKERS: Three zones for load/discharge of fish-oil and lubricants. Ship loads fish-oil by barges at anchor. Discharge of fuel when ship anchored to buoys by means of submarine lines.

FRESH WATER: Two barges to supply fresh water to ships, one of 40 tonnes and one of 25 tonnes. Fresh water available at Pier No. 1.

FUEL: Available by tanker lorries if special arrangements are made.

GANGWAY/DECK WATCHMEN: Watchmen are necessary.

OPENING/CLOSING HATCHES: This job is carried out by stevedores.

CUSTOMS ALLOWANCES: Tobacco: 10 packets per person per week. Wine and/or Spirits: With approval of Customs, within normal consumption.

CARGO GEAR: Vessel's derricks used, the quay has fixed crane for 50 tonnes and 3 mobile cranes for 15 tons.

IDENTIFICATION CARDS: Needed for both crew and passengers.

CONSULS: Only the Vice-Consul of Spain and Panama.

REPAIRS: Only minor repairs are possible.

DRY DOCKS: "Sima" have a 15,000 ton floating dock.

REPATRIATION: Facilities for crew changes and arranging any necessary repatriation.

AIRPORT: Port has airstrip, but it is only for national use, not for international flights.

TIME: GMT minus 5 hours, all year round.

HOLIDAYS: Cargo work can be arranged on holidays with an extra 100% charge over basic pay. The only exception is 1st May, on which cargo work cannot be arranged.

TELEPHONES: No arrangements for placing telephones on board. They are about 50 m. from ship.

SHORE LEAVE: Crew members allowed ashore.

REGULATIONS: Not allowed to use wireless when ship is in port. Nor allowed to put any boat on the water without permission of Capitania del Puerto. Not allowed to throw any waste or litter into bay. Not allowed to make unnecessary sound signals.

GENERAL: *Swell Period:* February/March and June/October.

DEVELOPMENTS: New quays to be built.

AUTHORITY: Capitan de Puerto – Direccion Capitania de Puerto Chimbote.

DEPTH 60ft.

✓ CONCHAN: 12.10 S. 77.00 W.

Tanker Buoy berth about 30 miles South of Callao.

DOCUMENTS: Tankers calling at Conchan must first call at Callao anchorage to be received and cleared by Authorities. Not necessary to call at Callao after discharge as clearance is simultaneous with reception.

PILOTAGE: Private Pilot boards vessel at Callao anchorage and either remains on board or returns to take vessel out, as required by Master.

BERTHING: Vessels moor to buoys. One submarine line of 16 in. reducing to 12 in. at vessel's connection, running 1,000 m. from shore opposite Conchan refinery.

LAUNCH: Launch service between Conchan and Callao or Conchan and Fish Pier at Barranco, southern suburb of Lima, during vessel's stay in port.

GENERAL: Two Customs police and two refinery employees board at Callao and remain on vessel during discharge.

✓ ETEN: 06.56 S. 79.52 W. (Port closed)

Eten is about 348 miles North of Callao. The port is an unprotected open roadstead. All cargo operations are undertaken by lighters. The main activities are the export of sugar and import of fertiliser and general cargo.

PILOTAGE: Not available.

ANCHORAGE: Vessel anchors about 0.5 miles off the Mole Head in 7 – 8 fathoms.

RADIO: *Arrival Notice:* 24 hours' Notice of Arrival should be sent to the Captain of the Port and the Agent.

TUGS: 4 tugs of 80 h.p. each.

LIGHTERS: 13 lighters with a total capacity of 635 tons.

BERTHING: There is a pier for handling barges.

CRANES: 3 steam cranes, 2×2 tons and 1×15 tons. 1 diesel crane of 3 tons capacity.

STEVEDORES: See "Pimentel"

FRESH WATER: Not available.

MEDICAL: There is a hospital at Chiclayo 15 km. from the port.

CONSULS: Vice-Consul of the Netherlands.

GENERAL: *Swell Periods:* Eten being an unprotected open road port it frequently occurs that the port has to be closed due to heavy swell. The swell comes up suddenly and is not subject to any specific period, but it occurs more frequently during June/September and the Easter week.

✓ GENERAL SAN MARTIN: 13.48 S. 76.17 W. (See Plan)

PISCO: 13.43 S. 76.14 W.

PILOTAGE: Compulsory.

RADIO: *Arrival Advice:* 24 hours' Notice of Arrival should be sent to the Captain of the Port and the Agent.
Also see "Callao" – Radio Officer's Report.

TUGS: 16 tugs available. 10 h.p. – 800 h.p.

BERTHING: 1 quay with 4 berths each 175 m. in length. Max. draft 32 ft. (25,000 tons). Cargo is loaded by portable conveyor belts.

LIGHTERS: 28 wooden lighters for general cargo, total capacity 1,800 tons. 5 steel lighters (not immediately available), total capacity 600 tons. 3 lighters for liquid cargoes, total capacity 500 tons.

CRANES: 1×13.61 tons, 1×22.68 tons and 1×6.25 tons capacity.

STEVEDORES: *Working Hours:* 0800 hrs. – 1200 hrs., 1300 hrs. – 1700 hrs., 1800 hrs. – 2400 hrs., 0100 hrs. – 0700 hrs.
109 stevedores available.

MEDICAL: There is a hospital available.

TANKERS: *Submarine Pipe-line:* The pipe-line belongs to Petroperu. Position Lat. 13° 36′ 20″ S., Long. 76° 15′ 54″ W. Length of pipe-line 700 m., diameter 8 in. Pilotage is compulsory. Depth of water 7.5 fathoms. Pumping rate 70-75 t.p.h.

FRESH WATER: Available.

FUEL: Not available.

✓ HUACHO: 11.07 S. 77.37 W.

Huacho is an unprotected open roadstead about 69 miles North of Callao. The main activity is the loading of fishmeal and minerals and discharging of fertilisers.

PILOTAGE: Not available.

ANCHORAGE: Vessels anchor in open roads.

RADIO: *Arrival Advice:* 24 hours' Notice of Arrival should be sent to the Captain of the Port and the Agent.

TUGS: 4 tugs available, 1 each at 50, 60, 72 and 180 h.p.

LIGHTERS: 29 lighters, total capacity 1,450 tons.

BERTHING: There is a pier for mooring barges, length 223 m.

CRANES: 3×13.60 tons each.

STEVEDORES: See "Pimentel" for working hours and overtime rates.
4 gangs of 9 men each available.

MEDICAL: Assistance available.

FRESH WATER: Not available.

FUEL: Not available.

GENERAL: *Swell Period:* Frequently during the Winter months (May-September).

HUARMEY: 10.06 S. 78.10 W.

Huarmey is an unprotected open roadstead for the loading of fishmeal.
PILOTAGE: Not available.
ANCHORAGE: Vessels anchor in the open roads.
RADIO: *Arrival Notice:* 24 hours' Notice of Arrival should be sent to the Captain of the Port and Agent.
TUGS: 4 tugs available, 2×145 h.p. and 1 each at 120 h.p. and 165 h.p.
LIGHTERS: 18 at 50 tons each.
CRANES: 1 of 2 tons capacity and 1 mobile crane.
STEVEDORES: See "Pimentel" for working hours and overtime rates. 3 gangs of 9 men each available.
MEDICAL: Assistance available.
FRESH WATER: Not available.
FUEL: Not available.
GENERAL: *Swell Period:* June to August.

ILO: 17.39 S. 71.21 W. (See Plan)

DOCUMENTS: Original Cargo Manifest to be sent by Agency from loading port.
6 Crew Lists.
4 Personnel Effects Lists.
4 Stores Lists.
4 Narcotic Lists.
3 Passengers to Disembark Lists.
3 Passenger Lists.
3 Passengers in Transit Lists.
3 Mail Lists.
3 Vaccination Lists.
1 Maritime Declaration of Health.
Also see "General" before first port.
PILOTAGE: No pilot station; there is a Pilot in the Capitania del Puerto, who should be notified in advance by Agents. 2 hours' notice of ETA required. Pilot boards at anchorage 800 m. from extension of the SPCC Quay.
Shipmaster's Report: July 1986. Tanker.

Pilot compulsory. All Pilots for tankers calling Peruvian ports are situated in Callao. An accurate ETA to Callao Agent is very important in order to provide Pilots with sufficient time to fly to the appropriate port of call.

Pilot boards approximately 1 mile off the berth. The Pilot stays onboard the vessel if 2 or more ports are called at in Peru.
ANCHORAGES: 400 m. to the North of the end of the SPCC Quay, in 15 fathoms depth.
RESTRICTIONS: Port closed during heavy swell. Berthing during daylight only. Unberthing day and night.
MAX. SIZE: See "Berthing".
HEALTH: Pratique given by Captain of the Port. In cases of suspected illness a doctor should be requested in advance. When the ship arrives from another Peruvian port Free Pratique is automatic.
RADIO: Cables connect with National Communications network. ETA sent to Port Authority and to Agencies.
TUGS: 1×690 h.p. tug available.
BERTHING: Berthing anytime. There are two piers, one belonging to Southern Peru Copper Corp. and one to ENAPU.
SPCC: Two vessels are able to berth alongside. Length of pier 520 ft., width 60 ft. Depth alongside varies from 35 ft. to 50 ft.
ENAPU: Length of pier 300 m., width 27 m. Depth alongside varies from 18 ft. to 60 ft. Vessels able to berth both sides. South side depth 18 ft. at inner end, 54 ft. at outer end. North side depth 24 ft. inner end, 60 ft. outer end.
STEVEDORES: Stevedores come under the Capitania del Puerto and are ordered by Agents.
Loading Rates: Copper sheets loaded 65 tonnes/p.h. Fish-flour loaded at 100 tonnes/p.h. in an 8-hour shift.
Working Hours: 0700 – 1200, 1300 – 1600, 1700 – 2400, 0100 – 0700 hrs. 10 gangs available of 9 men each.
MEDICAL: Medical assistance ordered by Agents. Hospital "El Centro de la Salud", and the Saint Geronimo Hospital.
TANKERS: *Ilo:* Discharge line diameter 10 in., 2 lines, connection to the ship's manifold 8 in. Connection and flexible line working pressure 100 lb. A buoy mooring berth.

Depth of water 40 ft. Vessels of Petroperu have preference.

Also see "Shipmaster's Report" – July 1986.
Punta Tablones: Discharge line diameter 12 in., connection to the ship manifold 8 in. Flexible connection line, working pressure 100 lb. or 400 b.p.h. A buoy mooring berth.

Max. length 750 ft. Depth of water 40 ft.
DENSITY: Salt water.
FRESH WATER: Available.
FUEL: None available.
GANGWAY/DECK WATCHMEN: Watchmen provided by Agents when necessary.
OPENING/CLOSING HATCHES: Strictly forbidden for the crew; must be done by stevedores.
CERTIFICATES: When the ship comes from foreign port it is compulsory to produce Certificate of Gross Tonnage.
CUSTOMS ALLOWANCES: Tobacco: 10 packets per person. Wine and/or Spirits: Sufficient for meal times. Normal crew consumption only.
IDENTIFICATION CARDS: Agents arrange for cards to be signed by Port Authority for each crew member.
CONSULS: None.
REPAIRS: Some minor repairs.
REPATRIATION: There are facilities for effecting crew changes and arranging any necessary repatriation. Those who are going to be repatriated must have a permit from the Port Authority to be allowed ashore.
AIRPORT: Ilo Airport, 8 km. Scheduled flights twice a week on Tuesdays and Saturdays. Regular airport in Tacna, 1.5 hours by taxi; scheduled flights twice daily to Lima.
TIME: GMT minus 5 hours. No alterations during the year.
HOLIDAYS: 1st January (New Year); Maundy Thursday and Good Friday; 1st May (Labour Day); 29th June (Saint Peter and Saint Paul); 28th and 29th July (Motherland Days); 30th August (Saint Rosa of Lima); 1st November (All Saints Day); 8th December (Our Lady); 25th December (Christmas).
Holidays which are not in the Calendar but are considered Holidays with reference to payments to the workers: 6th January (King's Day); 19th March (Saint Joseph); Corpus Christi (varies every year); The evening of the 24th June (India man day); 30th July (Motherland Day); 15th August (Feast of the Assumption); 24th September (Las Mercedes); 12th October (Race Day); 27th November (Tarapaca Battle); 9th December (Ayacucho Battle).
POLICE/AMBULANCE/FIRE: Southern Peru Copper Corporation operate fire service. Police, tel. No. 3; Ambulance, tel. No. 3.
TELEPHONES: No arrangements for placing telephones on board.
SHORE LEAVE: Crew members allowed ashore and identify themselves with cards signed by Capitania del Puerto given through ship's Agents.
GENERAL: Tank cleaning and well cleaning must be done 5 miles leeward of port. Not allowed to unload explosive cargo.
DELAYS: Only delays when quay is occupied by 2 ships. In the load/unload operations the port can attend to 4 ships simultaneously and 4 more when new quay (now being built) is completed.
DEVELOPMENTS: Terminal quay of 900 ft. long is now being built.

SHIPMASTER'S REPORT: July 1986.
Anchorage: Approximately 1.2 miles, 280° from the Cape in front of the hotel.
Approaches to the Berth: No difficulties encountered.
Immobilisation of Engines: Permitted.
Brief Description of Berth: Conventional buoy mooring.

4 buoy berth.

3 buoys astern and 1 port side ahead.

Both anchors to be used.

Starboard anchor 8 to 9 shackles and port anchor approximately 6 shackles in the water.

2 lines to each buoy. The 2 headlines and the first line aft (centre buoy) to be long and of good quality.

Maximum draft 12.0 m. to 12.5 m. and this making allowance for swell as the minimum depth of water in the area of the stern buoys is 15.2 m.
Charts: Approaches to Matarani and Ilo, US chart stock No. 22182.

Peru Hidronav chart no. 2359.
Tugs: None.
Berthing: Vessel to be moored in an S.E. direction.
Density: 1025.
Description of Shore Line System: Position of connections amidships on port side. 2×8 in. hoses available. Connecting and disconnecting of hoses is carried out by shore gang.

Maximum back pressure at the manifold allowed by Petroperu is 7.0 kg./sq.cm.

Discharge rate approximately 1,150 cu.m.p.h. Lines to be flushed with water after completion of discharge.
Availability of Bunkers, lubricants and water: None.
Availability of Provisions: Fresh vegetables and fruits in limited supplies.
Points of Interest: All documents, oil record books and cargo papers are checked very carefully by the Authorities.

Shore leave is possible by launch to Ilo port.

SHIPMASTER'S REPORT: April 1988.

We berthed at night without problems, but the buoys are unlit and the mooring boat had no searchlight. Bridge wing projectors or the Suez light would assist in securing lines to the mooring buoys. These are fitted with hooks and lashings are not used.

Following moorings were used:
Starboard Anchor – 6 shackles.
Port Anchor – 3 shackles.
2 lines to port head buoy (60 m.).
2 lines to port quarter buoy (60 m.)
2 lines to stern buoy (25 m.).
1 line to starboard quarter buoy (60 m.).

Ship's head in berth 237°. Depth in berth 20 m. aft, 23 m. forward. 2×8 in. hoses were connected on the port side.

The berth was well sheltered from South Easterlies by the headland, but quite open to the North and West.

AUTHORITY: Capitan del Puerto, who is a Navy Officer.

LA PAMPILLA: 11.55 S. 77.09 W.

Tanker Buoy Berth about 30 miles North of Callao.
DOCUMENTS, ETC.: As for Callao.

Tankers calling at La Pampilla must first call at Callao Anchorage to be received and cleared by Authorities. Not necessary to call Callao after discharge as clearance simultaneous with reception.
PILOTAGE: Pilot boards vessel at Callao anchorage and either remains on board or returns by launch to take vessel out, as required by Master.
BERTHING: Vessels moor to buoys. 1 submarine line of 18 in. reduced to 10 in. at vessel's connection running 1,500 m. from shore opposite La Pampilla refinery. Max. size 200,000 d.w.t. or 250,000 d.w.t. with part load.
LAUNCH: Launch service between La Pampilla and Callao during vessel's stay in berth.
GENERAL: 2 Customs police and 2 refinery employees board at Callao and remain in vessel during discharge.

MATARANI, including Mollendo: 17.00 S. 72.07 W.

(See Plan)

Matarani is a berth port. Main activity: loading of minerals, wool, coffee, skins, tin-ingots, discharging general cargo. Matarani is an important transhipment port for cargo to and from Bolivia.

PILOTAGE: Compulsory.

RADIO: *Arrival Advice:* 24 hours' Notice of Arrival should be sent to the Captain of the Port and the Agent through Radio Station in Naval Station, frequencies as per Callao.

TUGS: 1×780 h.p., 1×690 h.p. and 1×800 h.p.

BERTHING: 1 quay with 4 berths. Length 540 m., width 20.15 m. Vessels of 570 ft. length can berth. Depth alongside 30 ft.

Berth 1A, 1B and 1C each 150 m. length. Berth 1D length presently 90.50 m., but being lengthened to 132.9 m. length.

CRANES: 5×10 tons, 4×6.25 tons and 1×20 tons lifting capacity.

MEDICAL: A hospital is available.

STEVEDORES: *Working Hours:* 0800–1200, 1300–1700, 1700–2400, 0000–0600 hrs.

9 gangs available of 15 men each.

TANKERS: Buoy Berth at Mollendo. See "Shipmaster's Reports".

FRESH WATER: Available.

FUEL: Not available.

GENERAL: *Swell Period:* From June to August.

DEVELOPMENTS: A Ro/Ro berth is under construction at the Southern end of Muelle de Atraque.

SHIPMASTER'S REPORT: July 1986.

Berth: Mollendo – Conventional buoy mooring in Position Lat. 17° 02′ 18″ S., Long. 72° 00′ 19″ W.

Radio Advise prior to Arrival: In order to avoid heavy fines Master must send a cable or telex to Paita, Mollendo or Callao Radio Stations according to Peruvian Regulations (for details see "General" – before first Port).

Copies of these cables to be handed over to Harbour Master on arrival. It is difficult to contact the above mentioned station by telegraphy.

Telex is recommended. Callao/OBC3. Telex: 0036-26069PE Costcal. Mollendo/OBF4. Telex: 0036-59644PE Kececomo.

Documents: Original Cargo Manifests to be sent by Agency from loading port.

6 Crew Lists.
6 Personal Effects Lists.
6 Stores Lists.
6 Narcotic Lists.
6 Passengers to Disembark Lists.
6 Passenger Lists.
6 Passengers in Transit Lists.
6 Animal Lists.
6 Mail Lists.
1 Vaccination List.
1 Maritime Declaration of Health.

Pilot: Compulsory. All Pilots for tankers calling Peruvian ports are situated in Callao. An accurate ETA to Callao Agent is very important in order to provide Pilots with sufficient time to fly to the appropriate Port of Call. Pilot boards approximately 1 mile off the berth.

Restrictions: Berth is closed during heavy swell. Berthing recommended during daylight only. Unberthing day and night.

Anchorage: Approximately 1 mile off the berth.

Approaches: No difficulties.

Immobilisation of Engines: Permitted.

Description of Berth:

Conventional buoy mooring.

4 buoy berth.

3 buoys astern and 1 port side ahead.

Both anchors to be used.

Starboard anchor approximately 8 shackles and port anchor approximately 6 shackles in the water.

2 lines for each buoy. The 2 headlines and the first line aft (centre buoy) to be long and of good quality.

Maximum draft approximately 16 m. This draft makes allowance for heavy swell as the depth of water is approximately 21 m.

Charts: Approaches to Matarani and Ilo U.S. chart stock No. 22182.

Peru Hidronav No. 2337.

Tugs: None.

Berthing: Vessel to be moored in a S.E. direction.

Density: 1025.

Shore Line: Position of connections midships, port side. 2×8 in. hoses available.

Connecting and disconnecting of hoses is carried out by shore gang.

Maximum back pressure at the manifold allowed by Petroperu is 7.5 kg./sq.cm. Discharge rate approximately 930 cu.m.p.h.

Lines to be flushed with water after completion of discharge.

Bunkers, Lubricants, Water and Stores: None.

Tank Cleaning/Dirty Ballast Facilities: None.

Points of Interest: All documents, oil record books, and cargo papers are checked very carefully by the Authorities.

Shore leave possible by launch to Matarani.

SHIPMASTER'S REPORT: April 1988.

Berth: Mollendo.

We berthed at night and the same remarks apply (See "Ilo", Shipmaster's Report, dated April 1988) and are even more relevant. The mooring boat was a small, open, double ended fishing boat, not fitted with means for going astern. It is doubtful if this launch could handle mooring wires, since it can only handle one rope at a time. Mooring buoys are unlit and fitted with hooks. Lashings are not used.

The following mooring was used:
Starboard Anchor – 8 shackles.
Port Anchor – 7 shackles.
2 lines to port head buoy (80 m.).
2 lines to port quarter buoy (140 m.).
2 lines to stern buoy (100 m.).
1 line to starboard quarter buoy (140 m.).

Ship's head in berth 187°. Depth in berth 24 m. aft.

This is an open sea berth, subject to swell. Moorings are liable to chafe. 2×8 in. hoses were connected on the port side. We discharged Diesel No. 2, other grades handled are fuel oil, Jet, Mogas and gas oil.

Peruvian ports in general do not accept Crew Lists, etc., in English, the agent will provide the appropriate forms in Spanish.

The port officials board with the pilot.

PACASMAYO: 07.24 S. 79.35 W.

DOCUMENTS:

3 copies Voyage Log Extract.

2 originals and 5 copies of Entry/Exit Declaration, endorsed by Consul.

8 copies of Passenger Lists for the Port.
8 copies of Transit Passenger List.
4 copies of Stores List.
4 copies of Personal Belongings Manifest.
13 copies of Cargo Manifest.
1 Maritime Health Declaration.
2 Crew Lists.
1 Vaccination List.

When this is the first Peruvian port, Gross Tonnage Certificates.

When having cargo for the port, Statement of Cargo, endorsed by Consul.

When Pacasmayo is the first or last port called, Lists or Manifests of Cargo in Transit (2 copies each).

Also see "General" before first port.

PILOTAGE: The port has no Pilots as it is an open bay.

ANCHORAGE: To the South of an East-West line from the quay, as there are obstacles to the North.

APPROACHES: Reference points are the lighthouse of Cruz Punta Pacasmayo with a range of 12 miles, and during the day the cylindrical tower of cement factory with a height of 50 m. situated in the S.E. of the bay. On the head of the quay there is also a small iron tower of 9 m. height with a permanent red light of 2 miles visibility. The quay is very old and only flat boats can moor.

MAX. SIZE: Wide anchorage without problems concerning length or breadth. Recommended draft 24 ft., but it is possible to find 6, 8 or 10 fathoms towards the West. Current from South to North at an average of 6 knots.

HEALTH: Sanitary control is carried out by the health doctor who comes on board with port officials. Normally, Masters notify any suspected illness or any other information by telegraph.

TUGS: They only bring in or take out flat bottomed barges to the vessel once the vessel is anchored.

BERTHING: Vessels anchor in open bay. There is an Iron Quay for the use of barges, length 533 m., width 10 m., depth at West end 3 m.

LIGHTERS: 9 lighters with a total capacity of 400 tons.

CRANES: 1×1 tons, 2×3 tons.

STEVEDORES: Agents order the number of gangs required. These gangs work at a tariff hour/ton and the amount is controlled by the Port Captain. The number of gangs (9 men each) depends on loading/discharging speed required and on the number of holds and winches available. For overtime rates see "Pimentel".

MEDICAL: Can be provided by Centro Preventivo del Area de Salud or by Hospital Regional de Chepen, 35 km. from port (150 beds).

DENSITY: Salt water.

FRESH WATER: Not available.

FUEL: Not available.

OPENING/CLOSING HATCHES: Carried out by the stevedores.

SHIP CERTIFICATES: Derat or Fumigation Certificate; Vaccination Certificates for Crew and Passengers; Tonnage Certificate when coming from abroad.

CUSTOMS ALLOWANCES: Only tobacco, wines, spirits required for normal consumption, which must be included in vessel's stores list.

CARGO GEAR: Ship's gear used.

IDENTIFICATION CARDS: Not required unless leaving the vessel.

CONSULS: There are no Consuls in the port.

REPAIRS: There is a small workshop in the port for minor repairs such as soldering, etc. There is no foundry.

DRY DOCKS: Nearest at Callao.

REPATRIATION: Members of crew and passengers can be repatriated subject to Port Authorities' permission and passport control.

AIRPORT: There is a small emergency airport 2 km. from the port where planes can land.

TIME: GMT minus 5 hours.

HOLIDAYS: Holidays have been restricted. The national official holidays are: 27th and 28th July (National Independence Days); 1st January (New Year); 25th December (Religious Fete); Maundy Thursday and Good Friday; variable days and 1st May (Workers' Day).

POLICE/AMBULANCE/FIRE: Police 2126; Ambulance 2225; Fire 2081.

TELEPHONES: It is not possible to install telephones on board. Communication by walkie-talkie radio.

GENERAL: Fresh and dry provisions can be supplied, such as meat, poultry, vegetables and fruits.

SERVICES: There is no tank-cleaning equipment and the discharge of tank washing and any other kind of garbage is forbidden, as the bay is a bathing area.

SHORE LEAVE: Allowed.

DELAYS: The vessel is anchored on arrival. Delays can occur due to heavy sea or rain in case of cement loading.
DEVELOPMENTS: When the mines of Micchiquillay (copper) start working, the loading capacity of the port has to be 100,000 tons per month. Consequently it is planned to build a quay for minerals or a floating island 6 miles from the port for loading raw materials by pipelines.
AUTHORITY: Captain of the Port.

PAITA: 05.05 S. 81.07 W. (See Plan)

DOCUMENTS:

5 Copies Peruvian "Declaracion de Entrada".
13 Crew Lists.
5 Cargo Manifests, from each port where cargo loaded, or negative.
5 Copies of each Bill of Lading.
3 Personal Effects Lists.
13 Stores Lists.
1 Tonnage Certificate from first and last port.
1 International Maritime Health Certificate.
13 Passenger Lists, disembarking, or negative.
13 Passenger Lists, in transit, or negative.
1 Clearance from last port.
1 Sealed envelope from Peruvian Consulate addressed to Customs.
(Documents should be visaed by Peruvian Consulate.)
Also see "General" before first port.

PILOTAGE: Compulsory. There are two Pilots, on 24 hour service. Arranged by Agent. The boat is an old disembarking launch, hoisting blue flag with a white "P" Pilot will board at anchorage after Free Pratique has been granted by Port Captain and Health Authorities.
ANCHORAGE: Recommended in Lat. 5° 04′ S., Long. 81° 07′ W.
RESTRICTIONS: Draft restricted to 31 ft. at low water.
MAX. SIZE: Length and breadth practically unlimited.
HEALTH: Agent will notify Health Authorities about the vessel's arrival.
RADIO: Recommended Balboa Radio.
Arrival Notice: 24 hours' Notice of Arrival should be sent to the Captain of the Port and Agent.
VHF: Pilots on Channel 16, working on Channel 14.
TUGS: 1 tug of 850 h.p., 1 tug 360 h.p. and one launch 60 h.p. used by the Pilot.
BERTHING: One finger pier, length 475 m. width 36 ft. Four berths available, depths are as follows:

No. 1A (North-West Berth)	32.0 ft.
1B (North-East Berth)	32.0 ft.
1C (South-West Berth)	23.8 ft.
1D (South-East Berth)	22.9 ft.

A safety margin of 3 ft. should be observed. It is advisable to request (from Pilot) Berths "B" or "D", if empty, due to the prevailing winds. The berths have good fenders.

Cranes with capacity of 25,000, 15,000 and 10,000 lbs. available.
STEVEDORES: Arranged by Agent at 24 hours' notice.
Working Hours: 0800 – 1200, 1300 – 1700, 1700 – 2400 and 0000 – 0700 hrs.
Night Work: Possible, as long as it is ordered in plenty of time.
10 gangs of 9 men each available per shift.
MEDICAL: There is a local hospital with all facilities.
TANKERS: There are 4 mooring buoys 0.25 m. East of the finger pier. Facility is the property of Petroperu. Oil loaded and discharged by submarine pipe-line.
DENSITY: 1030.
FRESH WATER: There are 3 drinking water hydrants on each side of the pier. Vessels require pumps to take on water from the storage tank (capacity 14 tons).
FUEL: Not available.
FIRE PRECAUTIONS: Port Authority fire equipment stationed at the end of the pier.
STORES: Fresh provisions available.
GANGWAY/DECK WATCHMEN: Available on request.
CERTIFICATES: Not requested.
CUSTOMS ALLOWANCES: Two cartons and one bottle per person.
CARGO GEAR: No additional requirements.
IDENTIFICATION CARDS: Not required.
CONSULS: Ecuador.
REPAIRS: No facilities.
REPATRIATION: Allowed on request to the Port Captain.
AIRPORT: Piura, airport 55 km. with domestic flights to Lima International Airport.
HOLIDAYS: 1st May only.
GENERAL: Painting and chipping ship's side restricted. Very strict concerning rat-guards, disposal of garbage, etc.
AUTHORITY: Captain del Puerto.

PIMENTEL: 06.50 S. 79.56 W. (See Plan)

Pimentel is an unprotected open road port, loading/discharging only from/into lighters. Clearance is possible day and night, including Sunday and holidays, but of course with overtime additional. Main activity: Sugar export, import of fertilisers and general cargo.
PILOTAGE: Not available.
ANCHORAGES: Vessels usually anchor about 1.5 miles off the Pier Head in 7 – 8 fathoms.
RADIO: *Arrival Notice:* 24 hours' Notice of Arrival should be sent to the Captain of the Port and the Agent.
TUGS: 2×82 h.p., 2×120 h.p. and 2×134 h.p.
LIGHTERS: 15 lighters with a total capacity of 1,170 tons.
CRANES: On the mole there are 3 diesel cranes each 3 ton capacity, 3 steam cranes with 4, 6 and 15 ton capacity. Maximum dimensions of cargo handled 27 ft. (length)×15 ft. (wide)×21 ft. (height).
STEVEDORES: *Working Hours:* 0700 – 1100 and 1300 – 1700 hrs. Overtime (plus 100%) 1100 – 1300 and 1700 – 2400 hrs. Overtime (plus 200%) 0000 – 0700 hrs.

On Sundays and holidays an additional 100% to the above-mentioned tariffs.
MEDICAL: There is a hospital at Chiclayo 15 km. from the port.
TANKERS: *Submarine Pipe-line:* Diameter 8 in. max. draft 18 ft. 1 pipeline for clean products and 1 for dirty products. Length of pipe-line 1,770 m.
FRESH WATER: Not available.
FUEL: Not available.
CONSULS: Vice-Consul of the Netherlands.
SURVEYOR: Mr. Manuel S. Reyes H., sub-agent of Lloyd's of London.
GENERAL: *Swell Periods:* Pimentel being an unprotected open road port it frequently occurs that the port has to be closed due to heavy swell. The swell comes up suddenly and is not subject to any specific period, but it occurs more frequently during June-September and the Easter week.

PUERTO BAYOVAR: 05.47 S. 81.03 W. (See Plan)

SHIPMASTER'S REPORT: December 1985.

Puerto Bayovar is operated by both, Petroleos Del Peru (PETRO-PERU) and Empresa Nacional De Puertos S. A. (ENAPU). No breakwater as is a natural sheltered harbour. However, there is a constant mild swell which causes the vessel to gently surge continuously at the berth. The current is mild and at the berth flows in a direction of about 300°. The port consists of a jetty, shore tanks and the main office building. There are no facilities of any kind nearby. The nearest town is Piura, which is 125 km. away (2 hours by car).

The port has 15 steel tanks to store approximately 1,700,000 barrels of crude. In addition there is a basin with 50,000 tonnes capacity for dirty ballast.

All the surrounding land is barren and dusty, and according to the Pilot there is negligible rainfall throughout the year.

Except for the Saybolt Inspector, nobody else speaks passable English. However, they understand all the technical terms and loading was not a problem. They keep a strict log of all timings and every small detail is put in the Time Sheet.

DOCUMENTS:

4 copies General Statement (these will be made out by the Agent after he boards along with the Authorities).
5 copies Cargo Manifest. If none then "Nil" lists.
5 copies Cargo Transit Manifest. If none then "Nil" lists.
10 copies Crew List.
10 copies Passenger List.
10 copies Crew Declaration.
10 copies Ship's Stores List.
10 copies Accompanied/unaccompanied Baggage Lists. If none then "Nil" lists.

In addition the vessel must have ready:
Insurance Policy on Hull and Machinery.
Covering Contract of P & I.
Oil Record Book.

IMPORTANT: 1 copy of the statutory cables sent to the Direccion General de Capitanias y Guardacostas regards entering and plying within Peruvian waters. If these messages not sent, a fine of US $1000 – 5000 is levied by the Peruvian Authorities.
See "General – Ship Reporting" before first port.

PILOTAGE: Pilotage is compulsory for berthing the vessel. However, pilotage is *not* compulsory for proceeding to the anchorage within the boarding area, or elsewhere. Frequently, when sending the ETA messages by cable to the Harbour Authorities they assume that a pilot is required to anchor the vessel. This implies an extra charge of US$1000. Since the anchoring is straightforward, a Pilot is not necessary, and the Master should specifically state that a Pilot is not required if the vessel is to proceed to anchor. Also, the Master must refrain from asking any information about pilotage in his ETA messages. When berthing the Pilot will board within the boarding area.
ANCHORAGE:
Boarding Area: There is a boarding area bounded by the following co-ordinates:

Latitude (South)	Longitude (West)
5° 46′ 08″	81° 00′ 54″
5° 45′ 43″	81° 00′ 54″
5° 45′ 43″	81° 01′ 24″
5° 46′ 08″	81° 01′ 24″

The vessel must be within these co-ordinates for the Harbour Authorities to board and clear the vessel. If vessel is asked to anchor, it is better to anchor directly in the boarding area.

The depth in the boarding area is approximately 26 m., rocky bottom. We used 7 shackles on deck to be safe. The wind sometimes worked up to Force 4 – 5, but, coming from land, caused no heavy swell.
MAX. SIZE: 250,000 d.w.t. Max. LOA 400 m. Max. draft 21.95 m. No limit on beam. No restriction as to minimum size of vessel.
HEALTH: Authorities board at the anchorage.

RADIO: We sent our ETAs to our Agent and asked them to inform all parties, which they did.
TUGS: 3 Tugs available. 'Oro Negro' and 'Bappo' 1,852 h.p. and 'Corvina' 150 h.p.
BERTHING: *Mooring:* Vessels are always moored port side to, except in extreme cases. Reason is that after being loaded it is very difficult to turn the vessel because of the tugs power, wind and current.

Tugs made fast were 'Corvina' on starboard bow, and 'Oro Negro' on starboard quarter, one ship's line to each tug. The forward tug was ineffective.
Note: The tugs cause considerable pollution around the vessel and it is good to bring this to the notice of the Terminal if the vessel is to avoid difficulties later on.

When 100 m. off the berth, starboard anchor was let go to 2 shackles on deck and then paid out as necessary while coming alongside until 5 shackles on deck. After letting go anchor, the tugs will then push the vessel gently onto the berth. As it was a calm day, mooring was easy, but according to the Pilot, when the wind blows (mostly from a direction of 170° – 140°), it builds up the current in the same direction which sets the ship's stern onto the berth. Pilot wanted the mooring arrangement as 2 head/stern lines, 2 breast and 2 springs, but we changed it to 3/3/2, due to the constant movement of the vessel at the berth. Moorings have to be regularly tended. First ropes sent out are 2 breast ropes each forward and aft.
Berth: There is only one berth. It is a "T" shape with the manifold at the head and 8 platforms (4 on each side) along the arms. When the ship is moored she will head in a direction of 322°. There are quick-release hooks on each platform, and also an electric capstan on each. The fenders are good and keep the vessel 2 m. off the pier. There are 4 loading arms, they are modern Chicksan hydraulic type. No ships derricks are required. Due to a constant mild swell, the ship continually surges gently at the berth. The pier is provided with an elevator-type gangway and also an MOT ladder. We used the MOT ladder for fear of damaging the other which was previously damaged by another vessel and took a long time to repair.
LOADING: *Cargo:* There is only one type of cargo exported which is Loreto Crude.
Source: Received through a pipe-line 825 km. long, into the shore tanks on top of the hill next to the jetty.
Loading Rate: Loading rate through each of the 4 loading arms is 25,000 bbls.p.h., making a total capacity of 100,000 bbls.p.h. However usually only 2 – 3 arms are connected.
Method: Loading is by gravity only, from the shore tanks. The rate is readily adjusted to suit the vessel's requirements.
Flanges: Flange sizes are 16 in. diameter.
API: Varies between 22 – 24. Very occasionally API 21. We loaded API 23.4.
Load Temperature: Varies around 84°F.
B S & W: 0.2%
Flash Point: +15°C
Pour Point: −5°C

After cargo is loaded, there is a usual delay for inspection, calculations and waiting for shore papers to arrive, amounting to 5 hours. Thereafter 1 long blast is given on the ship's whistle to call the Pilot and the tugs.
MEDICAL: There is a First Aid post only. All Hospitalisation and other cases must be sent to Piura.
DENSITY: Sea Water, 1025.
FRESH WATER: Not available.
GANGWAY/DECK WATCHMEN: See "General-Security".
REPATRIATION: *Transportation/Repatriation:* Agent must be given advance notice so as to arrange car/bus to come from Piura to pick-up personnel. Takes about 2 hours. There is a daily flight from Piura/Lima which takes about 1.5 hours.

Charges for transportation to Piura are as follows:

1 car for 5 passengers approx. US$80.00
1 bus for 12 passengers approx. US$150.00
Waiting period per hour approx. US$6.00

Agent said these charges were for a round trip, but cannot be sure.

Agents report that they have carried out quite a few crew changes successfully, but advance notice must be given.
AIRPORT: At Piura, distance 125 km.
GENERAL: *Security:* No one except the terminal representatives must be allowed on board. Keep all unused accommodation and stores doors locked. Absolutely no one must be allowed to stroll around in the accommodation, especially at night, no matter what their excuse. Only 1 shore guard may be allowed on board and he must be kept at the gangway. During our stay, at night, while the Master was on deck attending to problems, 3 guards entered his cabin. 2 guards kept a lookout while the 3rd guard was rummaging through the drawers. They were caught by surprise and taken to a room and searched. After that they were made to leave the ship. No case was made.
Note: Nobody boards the vessel while at anchor.
Cash: As much advance notice as possible required. 2% will be deducted from the amount to be delivered to cover special insurance for theft, assault, etc.
Fresh Provisions: Restricted quantities available from Piura, but Agent must have as much advance notice as possible.
Sea Water Temperature: Just prior to arrival the sea water temperature was 26°C. After anchoring, and throughout our stay the temperature was around 18°C – 19°C.
Agent: Our Agents were extremely helpful, and very prompt in their telex replies.
Fines:

1. If vessel comes alongside pier without previously informing the Port Authority of having Dangerous cargo aboard US$2,000.
2. If vessel does not immediately inform the Port Authority of any emergency on board the vessel US$500.
3. If vessel discharges any bilge water US$1,000.
4. If vessel throws any garbage overside, in each case US$500.
5. If vessel discharges water onto the pier US$500.
6. If vessel discharges water onto any warehouse US$500.
7. If any repairs carried out which immobilise the vessel US$1,000.
8. If vessel berths, unberths, shifts or comes alongside another vessel without Pilot's assistance, in each case US$500.
9. If vessel uses welding machines on deck, paints or scrapes hull without Port Authorities' permission US$500.
10. If vessel does not have rat-guards on each line, for each unguarded line per day US$20.
11. If vessel does not have 1 man constantly at duty to attend to any emergency on board US$100.
12. If vessel's auxillary pumping equipment not functioning US$150.
13. If vessel does not have cargo protection nets during loading or unloading, for each net not rigged per day US$20.
14. If vessel's Master sets aside the Pilot's assistance in spite of the Pilot being on board US$500.
15. If vessel's anchoring system is not working US$200.
16. If vessel's fire-fighting equipment is not working US$250.
17. If unused anchors are not housed during loading or unloading of inflammable cargoes in bulk US$70.
18. For pollution of pier or water with funnel soot US$200.

PUERTO CHICAMA: 07.42 S. 79.26 W.

Puerto Chicama is about 295 miles North of Callao. Fishmeal is loaded from lighters in an open roadstead.
PILOTAGE: Not available.
ANCHORAGE: Vessels anchor about one mile from the Mole.
RADIO: *Arrival Advice:* Advise general Agents in Lima who will telephone Port Agents.
TUGS: 3 tugs available, 1 of 65 tons and 2 of 80 tons each.
BERTHING: 1 Pier, length 324 m.
LIGHTERS: 20 lighters with a total capacity of 1,000 tons.
CRANES: 4 cranes, 2 of 2 tons, 1 of 4 tons and 1 of 6 tons.
STEVEDORES: Working hours are from 0700 – 2400 hrs. These hours may be exceeded to complete loading. Five gangs of 9 men are available.
FRESH WATER: Not available.
FUEL: Not available.
GENERAL: *Swell Period:* During the months of June, July and August.

SALAVERRY: 08.13 S. 78.59 W. (See Plan)

DOCUMENTS: See "Callao".
PILOTAGE: Compulsory.
RESTRICTIONS: Harbour entrance is sand and liable to silting. Advisable to check draft requirements in advance, as depths are subject to latest dredging. Designed depths: Entrance channel 11.0 m. Basin 10.0 m. Berths 11.0 m.
MAX. SIZE: Approx. 25,000 d.w.t. with up to 29 ft. draft. Draft varies greatly and quickly due to heavy constant sanding, although dredging is practically continuous.
HEALTH: Cable Agent requesting Free Pratique. Agent must be notified in advance if disease suspected on board.
RADIO: *Arrival Advice:* 24 hours' Notice of Arrival should be sent to the Captain of the Port and the Agent.
TUGS: 4 tugs available, 1 each at 690 h.p., 190 h.p., 85 h.p. and 40 h.p.
BERTHING: *No. 1 Pier:* Length 225 m. Vessels able to berth both sides. Max. draft 28 ft. There are pipes installed for the discharge of liquids and loading of molasses and alcohol.
No. 2 Pier: Length 230 m. Vessels able to berth both sides. Max. draft 28 ft. This pier is specially for the loading of sugar in bulk, 2 loading bridges available, loading rate 300 tonnes/p.h. each.
STEVEDORES: *Working Hours:* 0700 – 2300 hrs. Sugar and molasses in bulk loaded 24 hours a day. 10 gangs available of 9 men each.
CRANES: 1×22.68 tons, 1×13 tons, 2×6.25 tons and 1×4.5 tons.
MEDICAL: At Trujillo, 15 km. from the port.
TANKERS: *Submarine Pipe-line:* Length 700 m., diameter of 10 in., depth 26 ft.
FRESH WATER: Available. Capacity of shore tank 800 tons.
FUEL: Not available.
REPAIRS: Workshops available.
GANGWAY/DECK WATCHMEN: Recommended.
CUSTOMS ALLOWANCES: Any amount held over normal consumption may result in Customs search being imposed.
IDENTIFICATION CARDS: Supplied by Agent and stamped by Immigration. Required for all crew members.
HOLIDAYS: Only 1st May when work is not available.
CONSULS: Nearest at Callao/Lima.
GENERAL: Due to constant swell and undertow which, during Winter months, May/September, may even close port, it is recommended vessel moor with greatest possible number of synthetic lines which must be constantly adjusted, otherwise usual line breakage will increase.

SAN NICOLAS: 15.14 S. 75.14 W. (See Plan)

LOCATION: The port of San Nicolas Bay is located between the parallels of 15° 09′ 30″ S. and 15° 14′ 30″ S.

The harbour and its approach were surveyed in 1962 by the Peruvian Navy Hydrographic Service and the following charts were published in 1965: Chart 2218 shows the San Juan and the San Nicolas Bay, Chart 2220 shows the Southern part and the pier area of San Juan Bay. Chart 2231 shows the Southern part and the pier area of San Nicolas Bay.

A vessel is considered to be an "arrived vessel" when, after entering San Nicolas Bay, she has arrived at pilot station (1 mile North of Pier Head).

DOCUMENTS: The following documents are required for presentation to Port Authorities on arrival and departure:

On Arrival:

Type of Documents	Total	Port Capt.	Customs	Immigration	Agent
Clearance from previous port.	1	1	—	—	—
Health Declaration (Declaracion Maritima de Sanidad). World Health Organisation Form. Reglamento No. 2 Anexo 5. (Master may prepare this upon arrival on form furnished by Agent if none available on board).	2	1	—	—	1
General Declaration Form No. 1 (Declaracion General). Instructions on reverse side of form to be provided by Agent.	5	1	2	—	2
Cargo Manifest (Sobordos) Form No. 2, for San Nicolas.	4	1	2	—	1
Cargo Manifest in Transit. (If there is any cargo on board).	3	1	1	—	1
Crew List Form No. 3. Instructions on reverse side of form.	5	1	2	1	1
Passenger List Form No. 4. To San Nicolas from all ports of call or statement that there are no passengers for San Nicolas.	5	1	2	1	1
Passengers Baggage Declaration. If there is any (itemised list).	4	1	2	—	1
Ship's Store Declaration (Store List/Bazaar List) Form No. 5, including itemised list of slopchest. It is most important that exact quantities of all stores be shown. Vessels at time of reception by Customs Officer will have physical check made, all quantities found in excess of those listed will be confiscated and vessel fined.	5	1	2	—	2
Crew's Personal Effects Declaration. It is most important that all cigarettes, tobacco, wine, spirits, radio sets, binoculars, cameras and all new articles in possession of Officers and crew be shown in this declaration.	4	1	2	—	1
Postage Manifest.	2	1	—	—	1
*P&I Certificate (copy).	1	1	—	—	—
*Hull Insurance Certificate (copy).	1	1	—	—	—

**Note:* If vessel does not have on board, Owners have to telex, giving name and number of companies covering them to prevent fines.

On Departure:

Type of Documents	Total	Port Capt.	Customs	Immigration	Agent
Health Declaration (Declaracion Maritima de Sanidad). World Health Organisation Form, Reglamento No. 2, Anexo 5. (Master may prepare this upon arrival on form furnished by Agent if none available on board).	1	1	—	—	—
General Declaration Form No. 1 (Declaracion General). Instructions on reverse side of form to be provided by Agent.	5	1	1	—	3
Cargo Manifest (Sobordos) Form No. 2, for San Nicolas.	5	1	3	—	1
Cargo Manifest in Transit. (If there is any cargo on board).	2	1	—	—	1
Crew List Form No. 3. Instructions on reverse side of form.	5	1	2	1	1
Passenger List Form No. 4. To San Nicolas from all ports of call or statement that there are no passengers for San Nicolas.	5	1	2	1	1
Passengers Baggage Declaration. If there is any (itemised list).	1	1	—	—	—
Ship's Store Declaration (Store List/Bazaar List) Form No. 5, including itemised list of slopchest. It is most important that exact quantities of all stores be shown. Vessels at time of reception by Customs Officer will have physical check made, all quantities found in excess of those listed will be confiscated and vessel fined.	1	1	—	—	—
Crew's Personal Effects Declaration. It is most important that all cigarrettes, tobacco, wine, spirits, radio sets, binoculars, cameras and all new articles in possession of Officers and crew be shown in this declaration.	1	1	—	—	—
Postage Manifest.	1	1	—	—	—

The above has been up-dated according to new Peruvian Government Regulations issued by Supreme Decree No. 011-83-MA dated July 18th, 1983.

The Master must be sure to get the corresponding clearance from the previous port, and to fill in the official forms provided by the Agency.

If the vessel has no forms on board, they will be filled in after arrival, and an extra set provided for the subsequent voyage.

Controls are very strict and any attempt to smuggle goods is heavily fined; the same applies to any contravention of port regulations, which are internationally known, such as anti-pollution measures, use of the radio whilst at anchor, disorderly conduct of crew members, etc.

Normally Masters can change foreign currency in the local banks. Any crew member or passenger going ashore with foreign currency should change his money in the bank. This is not now a strict regulation, as it was before. For security sake, however, it is better to change money in the bank or in the Agency Office. The Agency will help the Master with Peruvian cash advances, that he might require, or will direct crew members through proper channels to the local banks.

The following documents should be available for inspection:

Ship's Papers; Valid Fumigation or Exemption Certificate; Crew's Identity Documents and International Vaccination Certificates of all persons aboard.

List with following data: Date and port of issue of Ship's Register, date and port of issue of Health Certificate, date of vessel's building and yard, list of ports of call with dates during previous four months.

PILOTAGE: Pilotage is compulsory for berthing. When approaching the pier, the docking speed should not be more than 50 cm. per second, or about 1 knot. No vessel may proceed to the pier until permission to berth has been granted. While loading, during periods of heavy swells and surge, a Pilot will be on board permanently. Masters are requested to make arrangements and facilities available.

Upon arrival in port, vessels must wait for Pilot. The starboard accommodation ladder must be rigged for Port Officials and Agency representatives. Ships approaching San Nicolas must fly their national, Peruvian, call letters and quarantine flags. If vessel is carrying any type of explosive material, she must fly "B" flag.

ARRIVAL ADVICE: All vessels proceeding to San Nicolas Port will telex to Empresa Minera del Hierro del Peru, Telex: 20005PE Hierrope; and Agentes Navieros San Nicolas, S.A., Telex: 21410PE Agnav; her ETA, 5 days, 48 hours and 24 hours prior to arrival.

When vessels are within or outside the 200 miles of jurisdictional Peruvian waters, they have to contact Paita (OBY2), Callao (OBC3), or Mollendo (OBF4) coastal stations, in order to transmit their messages; a Pre-Stowage Hatch List has to be transmitted to Agnav giving tonnage per hatch and loading sequence.

Berthing instructions and other messages from port Agent at San Nicolas will be transmitted by the above coastal stations.

The port Agency is Agentes Navieros San Nicolas, S.A., Telex: 21410PE. Any inquiry regarding berthing, loading, etc. will be answered promptly by the coastal stations above.

Changes in ETA should be transmitted as soon as possible.

Vessels can get in contact by VHF communication system (Channel 16) 4 hours before arrival at San Nicolas by calling Agnav.

Anything not related to vessels calling at San Nicolas or San Juan should be addressed to Head Office in Lima, Paseo de la Republica 3587, 8th Floor or P.O.Box 1229, Lima, Peru. Tel: 418314.

Also see "Radio".

BREAKWATER: A 2,653 ft. long breakwater has been built in order to reduce the effects of the swell alongside the pier. The breakwater is at the West side of the pier 875 yards off and does not run parallel to the pier, but at N. 36° 35′ 28″ E. angle. The North end of the breakwater is 1,430 ft. from the North end of the dolphin, but the perpendicular distance from the pier to the closest point of the breakwater is only 1,090 ft.

At the North end of the breakwater there is a light with the following characteristics: Fixed red light, visible 3 miles.

AIDS TO NAVIGATION:

(a) San Juan Lighthouse, located on Pt. San Juan, Lat. 15° 21′ 27.2″ S., Long. 75° 10′ 49.1″ W. Characteristics: 2 W.Fl. ev. 22.5 secs. light 0.4 secs. eclipse 3.6 secs. light 0.4 secs. eclipse 18.1 secs. Height of light above sea level 85.03 m. vis. 22 miles. Sector illuminated 360°. Type of building: Circular concrete tower, white.

(b) San Nicolas Lighthouse, located on Pt. San Nicolas in Lat. 15° 15′ 11.0″ S., Long. 75° 15′ 20.6″ W. Characteristics: 1 W.Fl. ev. 4 secs. Height of light above sea level 58.60 m. vis. 20 nautical miles. Sector illuminated 360°. Type of building: Square steel and plastic tower, painted 2 sides black and 2 sides white.

(c) Fixed red light, vis. 3 nautical miles, located on the head of the San Nicolas Pier.

(d) Around the dolphin which is North of the pier head, there are 9 red lights, 10 ft. above the water level and lower than the dolphin deck, visible only from 1 mile distance.

(e) There is a radio beacon located Lat. 15° 21′ 27″ S., Long. 75° 10′ 09″ W., transmitting on 395 kHz – 24 hours and signal letters SJN.

(f) In position Lat. 15° 14′ 36.5″ S., Long. 75° 14′ 08.5″ W. exists a luminous buoy with following characteristics: 1 white flash ev. 4 secs. light 0.4 secs. eclipse 3.6 secs. Sector illuminated 360° vis. 3 miles. Height 5 ft.

ANCHORAGES: The anchorage recommended for vessels waiting for berth is in inner portion of the bay, North of the parallel and East of meridian through San Nicolas Point in depths of 15 to 20 fathoms. When anchoring, it is essential to leave sufficient sea room, about 0.75 miles for ships to manoeuvre in and near the berth.

Wreck of M/S *Templar* lies in position: Lat. 15° 13′ 27″ S., Long. 75° 15′ 01″ W., or 341° from the pier head, distance 1.6 nautical miles. The obstruction lies in approximately 150 ft. of water. Clearance above the obstruction is 60 ft. Do not anchor in the vicinity of the wreck.

MAX. SIZE: The following are the maximum permissible vessel's characteristics at the Hierro-Peru – San Nicolas Loading Pier:

LOA – 1050 ft.

Max. beam – For OBO's, or bulk carriers 53 m.

For ore carriers or O/O 161 ft. (49 m.)

Max. draft – 59 ft. (17.98 m.)

Max. airdraft – 40 ft. 3 in. (12.26 m.)

RADIO: Coast Radio Station "OAS" is located in port of San Juan and serves both San Juan and San Nicolas. This station listens on 500 kHz, 1200 – 2200 hrs. GMT each day. It handles traffic on 410, 425, 444, 448, 454, 468, and 480 kHz.

There is a new transmitter with the following frequencies schedule:

8,680 kHz – 1600 – 1630; 2000 – 2030 hrs. GMT

16,978 kHz – 1330 – 1400; 1630 – 1655; 2100 – 2200 hrs. GMT

TUGS: 2 small tugs available at 300 h.p. each

BERTHING: *Pier and Mooring Facilities:* The pier is located at the South side of the bay and is built in a North-South direction. It is constructed of pre-stressed concrete and steel pipe-lines with deck 1,000 ft. long and 50 ft. wide. The deck is 11 ft. 3 in. above MLW.

At the pier head, a 50 ft. diameter mooring dolphin has been constructed to make fast the stern lines of any vessel bigger than 900 ft. overall length. Distance from Northern end of pier to Northern end of dolphin 198 ft.

There are 3 big bollards, 2 pelican hooks and an electric winch to make fast the stern lines. There is also a connecting bridge from the pier to the dolphin, which is 148 ft. long.

There is a fendering system on both sides of the pier consisting of wood pilings and a continuous rail of laminated lumber and rubber cylinders which keep vessels 5 ft. from the concrete pier. On the West side of the pier (ore-loading side) there are 28 mooring cleats, 12 bollards and 3 double mooring bitts. At the centre of the pier-head there is one bollard. On the East side of the pier there are 23 cleats, 2 bollards and one double mooring bitt.

The depth of the loading berth at the West side of the pier is 18.9 m. alongside the pier and up 91.44 m. Westward from the pier fender, except in the place known as "anchor pocket" which is located between the pier-head and the dolphin. The anchor pocket is 70 ft. deep, 250 ft. long and 300 ft. wide. When docking the 2 anchors are let go in that pocket where enough water exists to prevent any collision of the ship with her own anchors when she is fully loaded.

The East side of the pier still has the original depth, which is 12.5 m.

The bottom alongside is mud and sand. The ore ship loader has a pier straddle clearance height of 14 ft. and width of 12 ft. when the gantry is positioned inshore.

Berthing and Mooring: Vessels calling at San Nicolas for the discharging of general cargo must berth on the East side of the pier with the starboard side of the ship to the pier. Such vessels use their own regular mooring lines.

Ore vessels berth at the West side of the pier with the port side of the ship to the pier. Wires are not permitted as moorings to the pier except when attached to tension winches.

VERY IMPORTANT: While vessels are alongside the pier, engines must be ready for immediate use. Sufficient crew must be on deck at all times to tend mooring lines and heave in the slack as loading progresses. Failure to do so may result in a stoppage of loading and the vessel being moved out from the berth.

LOADING: Prior to commencement of loading the Master or Chief Officer will deliver to the port Agent a pre-stowage plan with the following information:

Total cargo required, calculated tonnage per hatch, sequence of loading, fuel on board, water and stores on board in long tons, and calculated draft and trim upon completion of loading.

Loading is generally carried out at a rate of about 4,000 long tons per hour.

Tonnage on board at any stage of the loading is available from the Loading Master, the Pilot on board, or at the scale house at the upper end of the pier. In order to avoid last minute delays, it is very important that a constant check be made of vessel's draft, ballast left to discharge and cargo on board during the entire loading. *Any change in tonnage of cargo required must be reported to the Port Agent or Loading Master not later than when there is approximately 2,000 long tons remaining for completion of loading, and always in writing.*

It is convenient to check drafts, ballast and tonnage of cargo on board each time the loading gantry shifts from one hatch to the next. While loading is actually in progress in a hatch, no loading interruptions are permitted except in case of emergency. At the termination of each pouring, a slip stating cargo loaded and draft readings, will be delivered to the Chief Officer.

In calculating the tonnage required to fully stow a hold, it should be remembered that cargo is spout trimmed only.

No trimmers/bulldozers are available at San Nicolas. Vessels will depart from the pier immediately upon completion of loading.

The Pilot will take the vessel out from the berth. If the Master wants to anchor in San Nicolas Bay prior to proceeding to sea, he must advise the Pilot who will in turn advise suitable anchorage. The Master will advise the Pilot of the estimated time of departure in order that this may be reported to the Port Authority.

Delays of port operations, as well as delays of other vessels waiting to berth, caused by a vessel which for any reason is not prepared and able to move from the pier when so ordered, *are chargeable to the vessel which causes the delay.*

Clearance papers, bills of lading, statement of facts and all necessary papers for clearance of the vessel will be delivered shortly after completion of loading. This can be accomplished while the vessel is being moved from the berth, or at anchor, but never alongside the pier when other vessels are waiting for loading turn.

CRANES: None.

MEDICAL: Medical attention may be arranged through the port Agent's office. No person will be attended unless he is provided with a letter from the Master authorising such treatment. All costs incurred will be for the vessel's account.

Send radio message advising how many people require medical attention in order to make proper appointments with doctors at San Juan Hospital. Otherwise the medical inspection will be very difficult.

STEVEDORES: *Working Hours:* 0800 – 1200, 1300 – 1700, 1800 – 2400, 0100 – 0700 hrs.

TANKERS: On the West and East side piers there are 3 raisers to which 3×8 in. diameter hoses can be connected to a main pipe-line of 16 in. diameter for the discharging of bunker C. Flanges are U.S. Standard (ASA). Location on the pier is for midship connection on vessels. Maximum pressure permissible is 125 p.s.i. and maximum temperature 135°F. The length of the 16 in. pipe-line from the manifold on the pier to the storage tanks is 4,840 ft. There are 3 storage tanks of 7,000 bbls., 67,000 bbls. and 252,000 bbls. Total capacity 326,000 bbls. The height of the tanks above MLW is 142 ft. to the bottom and 190 ft. to the top of the tanks. The intakes to the tanks are at the top.

Diesel oil is discharged in San Nicolas, only one diesel oil storage tank of 67,000 bbls.

There is a crew on the pier to sling the hoses; the vessel's crew is required to operate the winch, boom, hoist the hoses on board, and connect same to vessel's manifold.

BALLAST: Special attention is called to ballast requirements of vessels which do not need ballast in order to enter under the loading boom. Such vessels are required to carry sufficient ballast for safe handling during berthing. It is permissible to discharge clean ballast in the bay.

A ballast discharge rate of 4,000 long tons per hour is recommended. Any delay in loading operations due to slow deballasting, is not only on account of the vessel, but if any other vessel is waiting for loading turn, the vessel slowing down the loading process is liable to be undocked in order that the vessel waiting for turn to load may be docked. All time lost and expenses for undocking and redocking the vessel is for Owner's account.

FRESH WATER: Not available.

FUEL: Not available.

GANGWAY/DECK WATCHMEN: Recommended by crewmen to prevent stowaways.

OPENING/CLOSING HATCHES: Stevedores/crew.

CARGO GEAR: The loading boom extends 60 ft. from face of pier fender, and can be retracted from this position to a minimum length of 29 ft. Gantry with loading boom is mobile. Range of its mobility is 900 ft. starting at a point 110 ft. from the head of the pier. Shifting of vessels during loading is therefore not required. When not loading, the gantry is parked at the inner end of the pier, and its boom with the loading conveyor belt is raised in a vertical position. In the most vertical position the boom has a clearance of about 4 ft. inside the face of the dock fender.

After the gantry has been moved into loading position, the boom is lowered to horizontal position. Height from water level to underside of boom is 41 ft. Vessels must be ballasted so that height of any coaming or any other objects in the vicinity of the hatch where loading is to start will not exceed 40 ft. above waterline.

IDENTIFICATION CARDS: Required (Seaman's Book or Passport).

Also see "Shore Leave".

CONSULS: At Lima.

REPAIRS: Except in extreme emergency, ship repairs cannot be effected at this port.

TELEPHONES: Available, Masters are able to communicate with any port in the world.

REPATRIATION: In cases where crew changes are to take place in San Nicolas, at least 7 days' advance cable notice is required to obtain the necessary Immigration Authorities' permission. The advance cable must set forth name, nationality and passport number. If the above is not complied with, crew changes cannot be carried out. The above applies also to passengers.

GENERAL: It is forbidden to throw out garbage, debris or any kind of dirty ballast in the Bay.

It is forbidden to hunt seabirds; to throw out explosive material or to use any pyrotechnic object on board.

Vessels can do underwater work only with Port Captain's permission.

Reception: Official hours for Port Officials are from 0700 to 1100 and 1300 to 1800 hrs. Monday to Friday. Upon request, Port Officials will board vessels at any time day or night, Sundays and holidays included. Office hours for loading operations are from 0800 to 1600 hrs. Monday to Saturday.

Emergency Signals: A number of short blasts on the whistle indicates an emergency. The whistle will not be used except for emergency in accordance with Peruvian regulations.

Provisions: Provisions are available from a local ship chandler. Cable address: Pronamar Sannicolas. Cold, chilled and dry stores available upon arrival. Mailing address: Pronamar y Cia., S.A. c/o. Empresa Minera del Hierro del Peru. Apartado 1229, Lima, Peru. Neither Agnav or Hierro Peru has any interest in this independent company.

Stowaways: Unauthorised persons should not be allowed on board the vessel. Cases of attempted stowaways have occurred. Masters must take all necessary care and precautions to insure against unauthorised personnel being on board while in port.

Stowaways aboard on arrival should be reported to the Port Captain in order that the necessary steps be taken to prevent their unauthorised landing. It should be noted that all costs for the repatriation of stowaways is for account of the vessel concerned.

Crew Members Left Ashore at Time of Departure: Masters are requested to have all vouchers and lists of personal effects (in triplicate) prepared for delivery to port Agent as soon as possible covering deserters and hospitalised crew members.

A letter of authorisation is required when the port Agent is expected to provide hotel accommodation, meals, medical attention, transportation, travel expense, and/or cash advanced for account of vessel.

No man may be paid off from a foreign vessel without prior permission from the Port Captain. Under Peruvian Law, Agents are responsible for repatriation of all foreign seamen left in Peru. Masters will be requested to sign letter of indemnity covering seamen landed for hospitalisation, paid off, or desertion. Disembarking of crew or passengers for reasons other than emergency is not permitted at this port, unless the prior authorisation of Peruvian Immigration and Maritime Authorities is granted to that effect. Authorisation for disembarkation requires at least 7 days' prior notification by radio. The notification must provide names, passport number, age and nationality of persons to be embarked or disembarked.

WEATHER: There is generally a prevailing S.E. wind which may vary from a light breeze to a strong wind. The months of May, June, July, August and September are Winter months. Swell and surge are occasionally experienced in the port.

SHORE LEAVE: Shore leave may be granted at the Master's discretion. All crew members must be issued ship's passes before proceeding ashore. These must be shown to the Immigration Authorities when required. Peruvian laws and Immigration Regulations must be strictly adhered to in order to avoid unnecessary difficulties. Crew members are not permitted to travel 100 km. outside of San Nicolas – San Juan port areas without written authorisation or pass from the Master approved by Immigration Authorities.

CONDITION OF CARGO HOLDS: Cargo holds must be properly cleaned. In this respect, special care must be taken when vessel, prior to her arrival at San Nicolas, has carried the following cargoes: Gypsum, phosphate, pyrite, coal, sulphur, silica, aluminium, sand gravel or quartz, or any other ore containing arsenic, phosphorous, silica, aluminium or copper.

Prior to commencement of loading, cargo holds will be inspected by a Representative of the Shippers. Chief Officer has to accompany the Surveyor during the inspection.

MAIL: All mail received for holding by the port Agent, will be delivered to the vessel upon arrival. For quickest delivery, mail should be addressed as follows: c/o Agentes Navieros San Nicolas, S.A., Apartado 1229, Lima, Peru.

Officers or crew members should be advised that duties will be charged by the Peruvian Customs Authorities on contents of parcels mailed to them at Peruvian ports. Outgoing ship and crew mail will be accepted ONLY directly from the Master or his designated Officer. The vessel will be billed the corresponding amounts for postage.

AGENT: Agentes Navieros San Nicolas, S.A., P.O. Box 1229, Lima. Tel: 410636. Telex: 20005PE Hierrope. Cables: Agnav Sannicolas.

SUPE: 10.48 S. 77.45 W.

Supe is about 84 miles North of Callao. Cargo operations are undertaken in an open unprotected roadstead. The main activities at the port are the loading of fishmeal and discharging of fertilisers, cellulose and chemical products.

PILOTAGE: Not available.

ANCHORAGE: Vessels anchor in the open roads.

RADIO: *Arrival Advice:* 24 hours' Notice of Arrival should be sent to the Captain of the Port and the Agent.

TUGS: 8 tugs available, 1 of 65 h.p., 2 of 85 h.p., 4 of 134 h.p., and 1 of 165 h.p.

BERTHING: There is a pier for mooring barges, length 331.5 m.

LIGHTERS: 32 (14 of wood and 18 of steel) for dry cargo only. The capacity of the lighters varies from 50 to 100 tons. Total capacity being 2,100 tons.

CRANES: 3×9 tons and 1×11 tons.

STEVEDORES: See "Pimentel" for working hours and overtime rates. 5 gangs of 9 men available.

MEDICAL: There is a hospital at Barranca.

TANKERS: *Submarine Pipe-line:* One line 10 in. diameter for dirty products and one line 8 in. diameter for clean products. Depth of water 48 ft. At Paramonga there is a 10 in. line, depth 36 ft.

FRESH WATER: Not available.

FUEL: Not available.

GENERAL: *Swell Period:* June/August.

TALARA: 04.35 S. 81.17 W.

DOCUMENTS, and all general information, refer to "Callao".

PILOTAGE: Compulsory. In the vicinity of Talara there are several off-shore oil drilling platforms and near the entrance to the port there is a shallow of 24 ft.

ANCHORAGES:

Summer	Lat. 04° 34′ 09″ S.,	Long. 81° 17′ 36″ W.	9.25 Fathoms
Winter	Lat. 04° 34′ 12″ S.,	Long. 81° 17′ 29″ W.	10 Fathoms
3rd Position	Lat. 04° 34′ 03″ S.,	Long. 81° 17′ 42″ W.	6 – 10 Fathoms

RADIO: Arrival Notice should be sent at least 24 hours before arrival to Captain of the Port and Agent via the government radio station OAH. Station on 500 kHz from 0800 to 2400 hrs.

TUGS: 1×13.5 h.p.

BERTHING: At Talara there are 2 berths for loading fuel and water; 1 is a regular quay, the other a petroleum berth in which vessels lie, moored to dolphins alongside hose platform.

ONE

Quay length 385 ft., depth alongside 18 ft. to 34 ft.

Petroleum berth, length 585 ft., depth alongside 34 ft.

Talara is mainly a bunkering port as it is the main port for the Northern Peru Oilfields. The little general cargo discharged is done at the quay; bunkering being done at the quay and at the dolphin berths.

Larger vessels load/discharge into lighters at anchorage. Seven lighters are available, total capacity 1,400 tons.

CRANES: 3×5 tons, 1×31 tons and 1×22.5 tons.

TANKERS: See "Berthing".

Submarine Pipe-lines: 12 in. diameter. Vessels with a max. draft of 36 ft. can moor to the pipe-line.

STEVEDORES: It is possible to work 24 hours a day with interruptions at meal hours. 3 gangs of 16 men each available. Overtime only charged for Sundays and holidays at 50%.

FRESH WATER: Available alongside berths.

FUEL: Available alongside berths. Bunker "C" 3,500 seconds, Petroperu No. 5 (Intermediate 4) 400 seconds, Diesel 2 (marine diesel).

MEDICAL: A private clinic is available.

CONSULS: Panama and Nicaragua.

REPAIRS: Minor repair facilities.

GENERAL: Smoking is prohibited on deck, at the piers and near the refinery installation.

NOTES

Please also advise Shipping Guides Ltd.

Philippines

GENERAL

DOCUMENTS: *To be Submitted in all Government and Private Ports:*
1 copy of Quarantine Pratique.
6 copies of the Inward Cargo Manifest for all cargoes to be discharged in the Port.
2 copies of Cargo Storage Plan or Hatch List.
3 copies of Stores List.
3 copies of Passenger List.
4 copies of the Crew List.
4 copies of the Crew Declaration List.
3 copies of Bonded Store List.
3 copies of Firearms and Ammunition Inventories.
3 copies of List of Drugs and Narcotics.

Original copies of all Through Cargo Manifests destined to other ports to be deposited with the Customs Inspector on board and to be returned to the Master prior to the departure of the vessel.

Clearance from the last port.

SHORE LEAVE: Nationals of countries with whom the Philippines maintains diplomatic relations are allowed ashore after securing a pass from the Immigration Officer in the Port.

REGULATIONS: We quote below pertinent sections of PPA Administrative Order No. 13 – 77 regarding PPA General Port Regulations on Arrivals/Departures of Vessels and Berthing Regulations:

Article II – Arrivals and Departures

Section 4. *Notice of Arrival* – The Owner or Agent of every vessel other than a vessel of 100 g.r.t. or less, intending to call at a port shall, within the time specified in Section 29 of these Regulations, prior to the ETA, give notice in writing to the Authority of its arrival, and make application for a berth if it is intended to berth at the wharf, pier, or anchorage within the Port, Port District or harbour limits.

Section 5. *Particulars to be Furnished* – The notice of arrival and the Application for a Berth shall be a form prescribed by the Authority and shall contain full particulars regarding:

(a) Name of vessel and its flag.
(b) The Gross Registered Tonnage (g.r.t.) and Nett Registered Tonnage (n.r.t.).
(c) Draft, LOA, and beam.
(d) Names of the Owner, Master, ship's Agent in the port of call.
(e) ETA and ETD of vessel.
(f) Tonnage of cargo to be discharged and loaded.
(g) Dangerous Cargo (Whether to be discharged or not).
(h) Number of passengers, disembarking and embarking.
(i) Any other pertinent information relating to the working (e.g. heavy lifts) or safety of the vessel in the port.

Section 6. *Hoisting of National Colours* – The Master of every vessel entering or leaving a port between sunrise and sunset shall cause to be hoisted its national colours and signal letters, if any. The national colours shall continue to be exhibited while the vessel remains in port.

Section 7. *Immigration and Quarantine Signals* –

(a) The Master of every vessel arriving from a foreign port shall exhibit the Customs, Immigration and Quarantine signals as prescribed by those government agencies. Such signals shall remain hoisted until the proper officer has given the permission to lower those signals.
(b) No vessel other than an authorised vessel shall approach within 200 m. to a vessel which is exhibiting the Immigration, Health, or Customs signals. An authorised vessel shall mean an Immigration, Health, Customs, Pilot Launch, or Philippine Coast Guard (PCG) vessel.
(c) No person other than a Pilot or authorised government officer(s) may board or disembark from any vessel coming from a foreign port until the vessel is cleared by the Immigration, Quarantine, Customs and PCG officers and the respective signals have been lowered.

Section 8. *Securing of Vessel before Discharge/Loading* – Every vessel entering a port shall be anchored or properly secured to a wharf, pier, or buoy before commencing the loading or discharging of cargo, and/or the embarkation or disembarkation of passengers.

Section 9. *Port Clearance* – No vessel shall leave a port unless in possession of a valid PPA Port Clearance issued by, or on behalf of, the Authority, in addition to the requirements of other government agencies and the final clearance issued by the PCG.

Article IV – Berthing

Section 29. *Berthing Regulations* –

(a) The allocation of a berth belonging to, or operated by, the Authority shall be at the Authority's discretion.
(b) A vessel shall be considered for berthing allocation only after the Agent of said vessel has filed an application for berth.
(c) All applications for berthing at pier/wharf/anchorage shall be submitted 24 hours before arrival for vessels on scheduled runs and 36 hours for tramping vessels (without regular schedules). In either case application should be filed within sufficient allowable time.
(d) All applications received after berthing meeting shall be deliberated upon the following day before the actual arrival of the vessel.
(e) No vessel shall be berthed or unberthed alongside a wharf or pier belonging to, or operated by, the Authority without its permission or contrary to its directions, nor shall any vessel occupy a berth other than the berth allocated to said vessel.
(f) First-come-first-served basis shall be the general rule in determining berthing priorities of vessels, subject to the exceptions hereunder provided. Vessel's arrival will mean the time a vessel drops anchor at the Anchorage Area when there is no available area or the time a vessel reaches the Port's Boarding Area when a berth is available.
(g) When the available berthing space is inadequate for berthing a larger vessel having the priority to berth, the smaller vessel next in priority which can be accommodated shall be allowed to berth on condition that should additional space be made available such that the larger vessel can be accommodated, the smaller vessel shall be moved to the anchorage to allow the larger vessel to berth.
(h) The Pilot manoeuvring a vessel to berth shall be advised by the Authority as to the position or berth which the vessel will occupy and the vessel shall comply with the directions or instructions therefor of the Authority and/or the Pilot.
(i) When a vessel scheduled to berth encounters some mechanical troubles thereby restraining said vessel from docking, an allowance of one (1) hour shall be given for repairs. If after the lapse of this grace period, said vessel is still inoperative, the priority to berth shall be passed on to the vessel having the next priority to berth.
(j) Vessels with berthing priority but scheduled to depart the following day shall be allowed to berth to allow passengers to disembark. Provided, however, that said vessel shall pull-out from berth to give way to passenger vessel scheduled to depart on the same day.
(k) Any vessel intending to berth solely for the purpose of loading fresh water, bunkering or victualling, before such vessel will be able to depart for another port, shall be given priority over other vessels, provided that such stay shall not exceed the time fixed by the Authority.
(l) Government-owned vessels on official business, vessels of foreign government not engaged in foreign trade, vessels under stress, and vessels carrying perishable articles or goods shall be given berthing priority over other vessels.
(m) Whenever practicable, passenger liner or tourist vessel shall, subject to the discretion of the Port Manager/OIC, also be given priority of a limited number of hours stay at berth over purely cargo vessel.
(n) Berthing priority of any vessel shall not be waived in favour of another vessel.
(o) Vessels waiting for cargoes shall be moved to anchorage to allow the next vessel to berth. However, said vessel shall be allowed to berth again, provided that cargoes for loading are ready, unless another vessel is allowed to take the berth temporarily by the Authority.
(p) Domestic vessels may be allowed by the Authority to dock at berths designated for foreign vessels if there are no other vessels waiting to dock at such berths.
(q) Shut-down time caused by heavy rains and other major calamities or accidents which will stop work on a vessel shall be excluded from the time limitation prescribed herein. However, breakdown of lifting gear and also loading of fresh water, bunkering and victualling which should be done simultaneously with cargo handling operations shall not be considered as reason for time extension.

AUTHORITY: Philippines Ports Authority, P.O.Box PA62, Manila. *Telex:* 40404 (ITT) and TABX 0203. *Cables:* Phports Manila.

ANTIMONAN, Luzon: 14.00 N. 121.55 E. (See Plan)

SHIPMASTER'S REPORT: 1976.

Berth in position Lat. 14° 00′ 30″ N., Long. 121° 55′ 30″ E. Vessel required to be ballasted to one third deadweight. Tidal range 6 ft. Nature of bottom at berth, mud and sand. Density 1025. Anchorage 0.5 miles S.E. of jetty.

Terminal Information: Ship's hoses used to rail only. Length of shoreline, 3,000 ft. diameter 8 in. Products handled at the berth, coconut oil and pellets of copra.

Port Information: Pilotage compulsory. Notice of 24 hours and 12 hours required. Pilot boards from a small catamaran flying the pilot flag. Boarding position 2 miles S.W. of the port. Vessel is able to enter or leave at any stage of the tide. Vessel cannot enter after dark and it is not advisable to leave after dark as some of the piles on the sea bed near the jetty are broken. Also there are no navigation lights in the bay and many vessels are fishing. Max. LOA 650 ft. Max. beam 100 ft. Max. draft 44 ft. No tugs available. Radio station used, Manila, though messages delayed in receipt at Antimonan.

Facilities Available: Fresh water in small quantities for cash. Fresh provisions, groceries and meats in small amounts, doctor and hospital.

No repair facilities, laundry, fuel or slop facilities.

Improvements: The face of the jetty is being piled and breasting dolphins created.

At the present time a barge is inserted between the ship and jetty as the piling is broken.

APARRI (Including Port Irene, San Vicente, Claveria, Mission, Abulog, Maconacon and Divilacan), Luzon: 18.22 N. 121.38 E. (See Plan)

See "General" before first port.

PORT LIMITS: Quarantine anchorage or loading point.

DOCUMENTS: *Before the Vessel's Arrival:*

Submit/transmit to Philippine Ports Authority (PPA-PMU) Aparri, the vessel's Notice of Arrival, at least 48 hours before ETA for foreign vessels and 24 hours before ETA of domestic vessels.

Upon Vessel's Arrival:

PPA-PMU Aparri Safety Officer will inspect cargo handling gear of all incoming vessels.

Submit to PPA-PMU-Aparri a copy of the following documents:

Inward Foreign Manifest (for foreign vessels); Coasting Manifest (for domestic vessels).
Passenger Manifest.
Crew List.
Stowage Plan/Hatch List.
Transit Cargo Manifest (if any).
Oath of Master.
Vessel's Roll Book – to be temporarily filed.
Vessel's Information Sheet – to be completed.

Before Vessel's Departure:

Submit to PPA-PMU-Aparri a copy of the following documents:

Outward Foreign Manifest (for foreign vessels); Coasting Manifest (for domestic vessels).
Passenger Manifest.
Transit Cargo Manifest (if any).
Oath of Master.

Entrance and clearance formalities in the traditional sense of the terms of foreign and domestic vessels shall remain with the Bureau of Customs until Port Management Unit's own clearance is duly stamped in the Manifest and after all port charges, fees, dues and other charges had already been paid.

Payment of charges leviable against the vessel and cargo shall be made either in cash, Manager's or Cashier's Cheque to the Port Management Unit.

Notice must be transmitted to Port Management Unit Office of Aparri when Export Entry is processed and Wharfage fee is paid to the Philippine Ports Authority – PMU Aparri of PPA HO.

PILOTAGE: ETA to be sent to Aparri Pilotage Station, Aparri, Cagayan, one day before vessel's arrival.

Pilot Boat is a motorised launch.

ANCHORAGES:

Port of Aparri: Boundaries – Lat. 18° 22′ 39″ N., Long. 121° 35′ 33″ E. Depth – 11 fathoms.

Port Irene: Boundaries – The portion between Nulton Pt. and Batulinao Pt. This bay known as Casambalangan. Depth – 12 m.

San Vicente Port: Boundaries – Lat. 18° 30′ 43″ N. Long. 122° 08′ 26″ E. Depth – 15 fathoms.

Sub-port of Claveria: Boundaries – Between Centenela and Lacaylacay Pt. Depth – 15 fathoms.

Port of Divilacan: Depth – 11 fathoms.

Mission Port (Cagayan): Boundaries – Lat. 18° 17.5′ N., Long. 121° 54.2′ E. Depth – 8 fathoms.

Abulog Port (Cagayan): Boundaries – Lat. 18° 28.8′ N., Long. 121° 26.5′ E. Depth – 9 fathoms.

Maconacon Port (Isabela): Boundaries – Lat. 17° 24.25′ N., Long. 122° 14.75′ E. Depth – 7 fathoms.

RESTRICTIONS: Aparri: Enter channel with Pilot's assistance and at daytime only. Abulog, Mission, Maconacon: Enter channel with Pilot's assistance.

RADIO: RCPI. TELEFAST. PT & T. TELECOM. All in Aparri, Cagayan.

VHF: RCPI. TELEFAST. PT & T. TELECOM. All in Aparri, Cagayan.

RADAR: Pagasa Weather Bureau Radar, located in Bukig, Aparri, Cagayan.

TUGS: Available at Claveria, Aparri, Port Irene, Abulog, Mission, Maconacon and Divilacan.

BERTHING:

Port of Aparri: Anchorage area. Ship's side loading and ship's own gear. Cargoes handled at Shipper's log pond.

Port Irene: Two available berths. Ship to pier with ship's derricks. Cargoes to be handled at a specified reclaimed area.

San Vicente: Anchorage area.

Sub-port of Claveria: Anchorage area. Ship's side loading and ship's own derricks. Cargoes handled at Shipper's warehouse/log pond.

Port of Divilacan: Anchorage area. Ship's side loading and ship's own gear. Cargoes handled at Shipper's log pond.

Mission Port: Anchorage area. Ship's side loading and ship's own gear. Cargoes handled at Shipper's log pond.

Abulog Port: Anchorage area. Ship's side loading and ship's own gear. Cargoes handled at Shipper's log pond.

Maconacon Port: Anchorage area. Ship's side loading and ship's own gear. Cargoes handled at Shipper's log pond.

CRANES: Truck mounted cranes.

BULK CARGO FACILITIES: None.

SPECIALISED CARGO HANDLING FACILITIES: None.

BRIDGES: No bridges.

STEVEDORES: North Luzon Port Services Inc. – Aparri, Cagayan; Krisandra Services Corp. – Port Irene; Taggat Industries Inc. – Sub-port of Claveria; ACME Group of Companies – Maconacon, Isabela; Basco Arrastre and Stevedoring Services, Basco, Batanes.

MEDICAL: Aparri Emergency Hospital.

TANKERS: River stream-draft 16 ft. Discharge lines are through depot discharging pipe-lines Aparri, Cagayan.

FRESH WATER: None.

FUEL: Diesel, gasoline and kerosene.

DENSITY:

Port of Aparri: 30%.
Port Irene: Salt.
San Vicente Port: 30%.
Sub-port of Claveria: 30%.
Port of Divilacan: 30%.
Abulog Port: 30%.
Mission Port: 30%.
Maconacon Port: 30%.

FIRE PRECAUTIONS: None.

CONSULS: None.

REPAIRS: None.

DRY DOCKS: None.

SURVEYORS: None.

GANGWAY/DECK WATCHMAN: Available from Stevedore in Aparri.

HATCHES: Normally carried out by crew and stevedores.

CARGO GEAR: Cranes.

REPATRIATION: With permission of Bureau of Immigration, Aparri, Cagayan.

AIRPORT: Tuguegarao Airport – Flights Monday, Wednesday and Friday. Aparri Airport – Flight temporarily suspended.

TIME: GMT plus 8 hours.

POLICE/AMBULANCE/FIRE: Aparri Integrated National Police, Tel: 2-2222; Aparri Emergency Hospital, Tel: 2-2233; Aparri Fire Department, Tel: 2-2014. All in Aparri, Cagayan.

TELEPHONES: PLDT.

SHORE LEAVE: Request permission from the Bureau of Customs.

SERVICES: None.

IDENTIFICATION CARDS: Issued by the Bureau of Customs and Philippine Ports Authority.

REGULATIONS: See "General" before first port.

DELAYS: Weather conditions.

SHIP SUPPLY SERVICE: *Water Taxi Services:*

There are 3 private operators engaged in the ship-to-shore transport of personnel duly registered by the The Port Authority, namely:

1. O. Ragonjan Water Taxi Services – Orlando Ragonjan (Operator/Owner).
2. G. Alveza Water Taxi Services – Gregorio Alveza (Operator/Owner).
3. J. Ragonjan Water Taxi Services – Julio Ragonjan (Operator/Owner).

The business addresses of the above operators are all located at Punta, Aparri, Cagayan.

All the above listed operators are based in Aparri, Cagayan. However, special arrangements could be made with any of them for precise details and other conditions relative to the services required including rendezvous positions. They could be contacted through local telecommunications systems available in the locality such as RCPI, PT & T, and the Philippine Long Distance & Telephone Co., Inc.

Ship Supply/Shipchandling Services: None.

AUTHORITY: Philippines Ports Authority, Port Management Unit, Aparri, Cagayan. *Tel:* 2-2134. *Contact:* Ruben M. Santos, Officer-in-Charge. Captain Bonaparte Casenas, Chief Pilot. Captain Victorino de Guzman, Co-Pilot.

Head Office: Philippines Port Authority, Marsman Building, South Harbour, Port Area, P.O.Box No. PA62, Manila, *Telex:* 40404 (ITT), 0203 (Tx Bx). *Cables:* Phports, Manila.

BATAAN (Limay), Luzon: 14.30 N. 120.38 E. (See Plan)

(A) BATAAN. (B) BATAAN – CBM. (C) BATAAN – SBM. (D) PRODUCT PIER. (E) LPG PIER.

SECTION (A)

See "General" before first port.

PILOTAGE: Pilotage is compulsory, Pilots assigned by the Manila Pilots Association. Pilot boards vessel just off the berth.

ANCHORAGE: There is a good anchorage with depth of 9.1 m. – 11.3 m.

RESTRICTIONS: Approaches are open deep water. Vessels may berth and unberth at any hour and any stage of the tide. Keel clearance of 10 ft. required.

MAX. SIZE: LOA 1,000 ft. Max. draft 52 ft. at conventional buoy mooring. See "Section B".

RADIO: Manila Radio. At the berth, shore communication with vocaline JRC 475 transceivers on 465 MHz.

VHF: Vessels can advise their ETA via "Lamao Pilots" on Channel 16 or via the Refinery by calling "Limay 1" or "Limay 2" on Channel 67.

HEALTH: Port Health Officials board with the Pilot. Radio request for Free Pratique can be made prior arrival.

TUGS: Available.

BERTHING:

Private Piers	*Length* (m.)	*Width* (m.)	*Depth* (m.)
Bataan Refining Corp.	343.20	15.90	9.90 to 30.00
Planters Products (not in operation)	317.99	—	14.60
LPG Pier	24.60	3.00	5.40

DENSITY: 1025.

MEDICAL: Doctor and hospital facilities available. Advance notice required of any medical attention needed.

TANKERS: *Products Pier:* Inner berth depth 13 ft. Outer berth depth 32 ft. Can accommodate vessel up to 530 ft. length. No slop discharge facilities available. Also see "Shipmaster's Report – September 1980" and "Section B".
FRESH WATER: Available at Lamao Pier and can be supplied by barge.
FUEL: Bunkers, fuel and diesel, obtainable from berth, advance notice required.
REPAIRS: Repair facilities available at Philippine Shipyard and Engineering Co., located at Subic Bay, Zambales. Dry dock capacity up to 300,000 d.w.t.
SURVEYORS: (1) Cargo Inspectors available.
(2) Surveyors such as Lloyd's Register, American Bureau, etc., have offices in Manila.
CERTIFICATES:
Certificate of Registration.
Certificate to Operate.
Certificates of Officers and Engineers (Licences).
Officers and Seaman's Books.
CUSTOMS ALLOWANCES: 200 cigarettes for each crew member, and 1 bottle of liquor for each crew member.
IDENTIFICATION CARDS: Essential.
REPATRIATION: Effecting crew changes and arranging necessary repatriation are carried out by the Immigration Office in the port with the assistance of the ship's Agent and the Foreign Embassy concerned.
TIME: Local Civil Time is 8 hours ahead of GMT throughout the year.
HOLIDAYS: New Year's Day (1st January); Bataan Day (9th April); Holy Thursday (variable); Good Friday (variable); Labour Day (1st May); Independence Day (12th June); Republic Day (4th July); All Saints' Day (1st November); National Heroes Day (30th November); Christmas Day (25th December); Rizal Day (30th December). When any holiday falls on a Sunday, the following day (Monday) is by law considered a public legal holiday. Employees of the Philippines Port Authority – Port of Manila, Limay Sub-Port, report for work on Saturdays, Sundays and Holidays.
GENERAL: Customs Inspector and 2 guards accommodated on board during vessel's stay.
BANKS: No American or European banks are operating in the area. Excellent banking facilities and services available at Manila.
EMERGENCY CO-ORDINATION CENTRE: For emergencies, please contact Philippine Ports Authority, Port of Manila, PNR Building, South Harbour, Port Area, Manila. Tel: 47-34-41 to 49.

Limay Sub-port is equipped with a radio for direct voice contact with PPA – Manila.
STORING: See "Prelims".
(1) Vessels can be stored by barge or "water taxi".
(2) Vessels can be stored by barge only after discharging at the anchorage.
(3) Not applicable.
(4) Not applicable.
(5) Companies which sell stores to ships calling at Limay must secure clearance from the Philippine Ports Authority – Port of Manila, Limay Sub-port and from the Bureau of Customs.
(6) Local riggers may be allowed to assist in storing.

SHIPMASTER'S REPORT: November 1979 (updated 1988).
LIMAY: Lat. 14° 34′ N., Long. 120° 36′ E.
Documents: 3 copies of Visaed Crew List. The form for the Crew List should be in the approved form and these are available from the Philippines Embassy at the loading port.
4 Copies of Ship Stores List.
7 Copies of Ordinary Crew List.
1 Copy of Maritime Declaration of Health.
Approaches: This is a very minor port with 1 berth for discharging dry cargo and 1 berth for tankers. The only conspicuous land mark is a single gantry crane. Limay Port Authority has a VHF station and can be contacted on Channel 13. The vessel has to clear Health and Immigration prior to berthing. The quarantine anchorage and pilot boarding ground is between 14° 30′ N. – 14° 31′ N. and 120° 37′ E. – 120° 38′ E. Immigration and Health Authorities board the vessel (generally only during daylight, especially since the weather deteriorates at night) on arrival and clear the vessel.
Pilotage: Pilotage is compulsory. 2 Pilots are available. The Pilots are from Manila and they are stationed at Limay for 2 weeks duration on rotation.
Port: The dry cargo berth is about 500 m. long consisting of 3 concrete dolphins on either side of the crane. The crane is gantry type with 6 tons SWL grabs. The berth juts out from the land and the discharged cargo is directly taken into the factory by conveyor. If there are no breakdowns cargo can be discharged at up to 3,500 tons per day.

Bulldozers are used to collect the cargo in the hold. The crane is fixed and the vessel has to be warped fore and aft if cargo has to be discharged from more than one hold. Stevedores work 24 hours. Berth is mainly used by the Farm Products Co., which imports muriate of potash and urea. They export NPK fertiliser. The maximum depth found alongside by hand lead and line was 48 ft. and minimum 41 ft. (Planter's Products Inc. is not operating, facilities can now be leased from the owners).

There is one wreck near the dry cargo berth where a tanker blew up and sank. The position of the wreck is approximately Lat. 14° 30.3′ N., Long. 120° 37.3′ E. which is marked by an unlit buoy.
Tugs: 2 tugs are available. They are normally stationed at Manila and brought to Limay when vessel berthing/unberthing at Limay. 6 hours notice has to be given. The large tug is 750 b.h.p.

As per "Pilot" during the months of October-November the surface current runs North-South and the undercurrent which is very strong runs East-West. Due to this, it is very "tricky" while berthing and unberthing. Tankers are not berthed or moored during night. Dry cargo vessels may be berthed at night if weather is good. The pier is not very well lit. Moreover very often empty barges, etc., may be in the fairway to the berth and thus makes berthing or unberthing more difficult.
Density: Between 1017 and 1020 reducing during rains.
Fresh Water: Available at Government Pier at Lamao.
Fuel: Can be arranged from Manila.
Repairs: Not available.
Stores: Available but expensive compared with Manila.
Watchman: It is advised to take watchman due to piracy which was reported recently. Generally watchmen are arranged by the Agents.
Hatches: To be opened by the ship's crew.
Customs Allowances: 1 bottle of spirits and 200 cigarettes per crew member.
Cargo Gear: Not required.
Repatriation: Can be arranged. The nearest airport is at Manila which is 2 hours by car.
Shore Leave: Shore leave is allowed. But no crew are allowed to pass through the factory. Boat has to be arranged to take crew to the nearest village next to the factory. The nearest town is Balanga which is the capital of the District. Small mini buses run frequently between Limay and Balanga which is about 20 miles away by these buses.
Medical Facilities: Good medical facilities are available at Manila.

SHIPMASTER'S REPORT: September 1980.
Locally the port is known as Limay, Bataan. VHF Channel 11 appears to be used for all communications. 7 copies each of all forms.

If any crew members being repatriated then Agents require their full names, nationality, ages, and Passport or Seaman's Books number in advance.

Hand soundings alongside South side of jetty indicated 38 ft. and 34 ft. at Eastern end and about 450 ft. Westward (inshore) respectively at LW.

Liberty boat from vessel to shore as crew personnel are not allowed through refinery. Vessel loaded Mogas at rates of between 250 and 450 t.p.h. Good holding ground in the anchorage off berth in Manila Bay.

SBM for VLCCs being constructed in approximate position Lat. 14° 31.7′ N., Long. 120° 38.8′ E. (See "Section B").

Experienced a strong Southerly current, about 4 knots, the day after a typhoon passed about 100 miles to the North. This current due to flood waters leaving the bay.

3×500 h.p. tugs used for berthing, only pushing, do not make fast. 2.5 hours to Manila by bus. No shore passes required. Fresh water by barge from Manila but very expensive. I was advised that the first 137 tons would cost £285.00 including tug. For the next 163 tons tug and barge would cost £841.00.

SHIPMASTER'S REPORT: April 1981.
Ship to ship transfer into m/t "Petron Gasul".
Approaches: Chart BA 976. The approach is straightforward with good fixes being available by radar and visual means. The light on La Monica is extinguished. Ample water and there is nothing to be gained by using the South Channel.

Advised that the transfer position would be 14° 31′ N., 120° 37.5′ E., although this may be altered slightly to suit "Petron Gasul" and may be affected by the amount of shipping at anchor off the refinery.

PNOC carry out a number of lightening operations in the area and awaiting tankers may be encountered between Lat. 14° 28′ N. to Lat. 14° 34′ N., and bounded by Long. 120° 40′ E. (This anchorage area is not official). Besides the buoys marked on the chart there is a mooring buoy in approximate position Lat. 14° 31.8′ N., Long. 120° 38′ E. This red buoy has a pipe-line attached and you are advised to anchor well clear to allow PNOC vessels access to the buoy. There is a large white cross on Mt. Samat which is not marked on the chart and affords a good reference point for anchor bearings.

Large numbers of unlit fishing vessels may be met in the bay and the approach channels and especially so at sunset and sunrise. These fishing boats also haunt the anchorage area.

Advised by Agents that movements were limited between sunrise and sunset but this appears to depend upon the local Pilots. The anchoring on arrival was done without a Pilot.
Documents:
Clearance from Last Port of Call.
8 copies Crew List – visaed, if possible, at departure port.
List of Passengers.
Lists of Animals, Narcotics, Firearms, mails.
List of Bonded Provisions, including Deck and Engine Stores.
List of Animals, etc., were simply 'nil' statements and were perfectly satisfactory.

Formalities are unlikely before 0800 hrs., and were straightforward. Bonded stores sealed and application may only be made after 10 days for an issue of cigarettes, etc.
Health: The doctor who clears for Pratique is a local doctor and will carry out any necessary vaccinations. Very helpful. Crew requiring specialist or hospital treatment must go to Manila.
Shore Access: By means of small outrigger launch. The daily charge for 3 journeys to and from the ship was 800 pesos.
Agents: The main agency (C. F. Sharp) is in Manila although they station a representatitve locally ashore in Limay. Attendance was very good and only hampered by local communications by telephone, telex and VHF. Our visit coincided with the Easter holidays and this seriously disrupted communications to and from U.K. As an urgency measure radio messages were sent via Manila Radio. VHF contact to Manila was easy via Channel 16 and thence to working channel.
Transfer: Contact may be made with "Gasul" on Channel 13. The "Gasul" in effect is used as a storage vessel by PNOC and delays may be expected due to the status of her tanks on arrival and the availability of fenders. This last is serious since there only appears to be one set of fenders for all lightening operations and this includes oil tanker transfers.

Small local gas tankers take the product from "Gasul" and as these are few in number this can also lead to considerable delay. A certain amount of blending of propane and butane is sometimes necessary into these craft and on the whole tends to lead to a very confused situation as regards the probable time of commencement of transfer. Estimates varied wildly from day to day and perhaps the most reliable estimates may be gleaned direct from "Gasul".

The Master and Chief Officer will board to discuss the transfer and decide on the final transfer position.

A Pilot will board to shift to the new position. "Gasul" is manoeuvred alongside by a Pilot and 2 tugs. If necessary another tug may take a line from your stern to hold the vessel steady during berthing. Three of her lines each end further supplemented by our own moorings.

"Gasul" was well fendered with three (3.3 m.×6.5 m.) and two (2.5 m.×5.5 m.) fenders.

Reputed to have a full range of hoses and reducers on board but some have 300 ASA flanges.

The transfer was completed without any difficulties although "Gasul" can only accept one grade at a time necessitating shifting lines from one manifold to another. VRL used.

Surveyors: SGS attended with PNOC surveyor. Figures based on our vessel's outturn since the gauging devices and temperature recorders on "Gasul" are suspect.

Pilots are reluctant to unberth during the hours of darkness and this decision will also be affected by the prevailing weather conditions. Two Pilots for the operation.

AUTHORITY: Philippines Port Authority, Port Management Office – North Harbour, Port Area, Manila, Philippines. *Tel:* 27-34-19, 26-22-15. *Contact:* Jalilul H. Salialam, Port Manager.

SECTION (B) — CBM.

LOCATION: The Seaberth of Bataan Refining Corporation is located at Limay Town in Bataan Province.

The berth is a conventional buoy mooring (CBM) system and is located in position 14° 32.1′ North., 120° 35.9′ East.

The enterprise is owned by Philippine National Oil Company and operated by the Bataan Refining Corporation.

Products handled: Crude oil, IFO and Naphtha.

Also see "Single Buoy Mooring".

Immigration: Vessels coming from countries where Filipino Consular Authority is available are required to have, on arrival, visaed Crew Lists. However, in the event that the vessel, for some reason, is not able to obtain a visaed Crew List, this requirement is waived, provided the Agent furnishes a guarantee for payment of the visa fee.

When the vessel has on board personnel from countries without political relations with the Republic of the Philippines, at least 2 Immigration Officers remain on board during the vessel's stay in port. These personnel are forbidden to leave the vessel and are not granted shore leave.

The following documents are required by Immigration on arrival:
Visaed Crew List (1 original and 1 copy).
Ordinary Crew List (12 copies).

Customs: Bonded lockers containing spirits, cigarettes, etc., are required to be sealed. Each crew member is allowed to retain 1 carton of cigarettes. Cigarettes in excess should be placed in bonded lockers.

A Customs Inspector and 2 guards will remain on board throughout the vessel's stay in port. Food and a spare cabin should be provided for them.

The following documents are required by Customs:
Crew Personnel Effects List (6 copies).
Stores List (6 copies).
Firearms and Ammunitions List (6 copies).
Bonded Stores List (6 copies).
Narcotics List (6 copies).
Currency belonging to Crew and Ship List (6 copies).
Last Port Clearance.
Ship's Register.

Outward Clearance: This clearance is granted by the Coast Guard which boards the vessel prior to departure and effects the clearance on board.

Also, an Immigration Inspector goes on board, just prior to departure, and musters the crew and verifies that all crew members are on board.

The following documents are required for the outward clearance:
Port Clearance.
Immigration Clearance.
Customs Clearance.
Coast Guard Clearance.

The above documents are prepared and arranged by Agent.

APPROACHES: *From End of Sea Passage to Pilot Station:*

Manila Bay is entered between Limit Point and Cochinos Point. The entrance is divided into 2 channels, named South Channel and North Channel, by Corregidor and Caballo Islands; both these channels are deep and clear of dangers in the fairway.

As a general rule, vessels use the channel which provides the shortest route into the bay. Entry is not recommended during darkness or periods of poor visibility if vessel is not equipped with radar.

Vessels entering Manila Bay through the North Channel shall pass midway between La Monja Island and Guardia Shoal and shall proceed directly through the middle of the channel between Corregidor Island and the mainland, steering 070° until 1 mile distance from the shore is cleared. The same route shall be followed by vessels when leaving Manila Bay through the North Channel.

Vessels entering Manila Bay through the South Channel should not approach any shore closer than 1 mile and shall keep South of the restricted area, South of La Monja, Corregidor and Caballo Islands, which is embraced within The North section of the following bearings: 296° from El Fraile Island and 236° from Caballo Island lighthouse. Furthermore, on the Southern side of the channel, they should not approach the line joining El Fraile and the N.W. point of Limbones Island closer than 1 mile. The same restriction applies to vessels leaving Manila Bay through the South Channel.

Deep draft laden crude tankers should always enter through the Southern Channel, which is wider and deeper.

After having entered the channel, vessels should make for the Pilots embarking point. Pilot boat usually waits 2 miles off Lokanin Point. During the approach to the above position, vessels should steer clear of land for at least 1 mile.

Many fishing boats are operating in the area and very often they are without lights and unable to move from their fishing position as they have nets laid down. Therefore, utmost caution should be exercised; radar watch and visual lookout should be maintained and a wide berth, to the maximum possible extent, should be given to any fishing boat.

When entering or leaving the port, especially during hours of darkness, we suggest to consider having the tanker preceded, at a close distance, by a service boat or a tug boat. This boat steaming right ahead of the vessel could clear the vessel's way of fishing boats or other craft or could at least warn the tanker in advance of any danger laying ahead.

ANCHORAGE: Vessels awaiting berth should anchor about 0.5 miles S.E. of the Conventional Mooring Buoy (CMB).

RESTRICTIONS: *Controlling Depth:* Entry Channel more than 66 ft. below MLLW. Approach Channel 64 ft. below MLLW. Alongside Berth 64 ft. below MLLW.

LOA Limitation: 1,000 ft.

Breadth Limitation: Unlimited.

Berthing and Unberthing: No particular restriction applies and vessels are berthed and unberthed at any stage of the tide; also during hours of darkness except during particularly severe metereological conditions. Following unberthing, ship is expected to move out, preferably with assistance of tugs instead of using her own power. The strong turbulence created by the ship's propellers tends to get the hoses entangled with each other.

MAX. SIZE: Below are the maximum vessel sizes that are acceptable at the Bataan Refining Corp. – CBM facilities:

DWT	120,000 tons
LOA	890 ft.
Beam	135 ft.
Draft	52 ft.

However, crude tankers greater than 120,000 d.w.t. with LOA and beam up to 1,000 ft. and 160 ft., respectively, could be accepted at the sea berth if the tanker is partially loaded, such that draft does not exceed 50 ft. and if the prevailing climatic condition warrants safe berthing.

RADIO: Whilst at sea, vessel is to communicate with Philippine National Oil Co. – Manila via Manila Radio. VHF Channel 13 is the working frequency of PSTC, owners of tugs and service boats assisting the mooring.

In the arrival message, Master to include: ETA, forward and aft drafts, confirmation that instructions contained in port information are understood and will be adhered to, any requirement.

It is most essential that vessel confirms ETA 72, 48 and 24 hours before arrival.

Communications between vessel, tugs, mooring gang and refinery are well established by various portable VHF sets supplied by the refinery and contractors and working is on several channels.

HEALTH: The Quarantine Doctor boards the vessel in the outer roads during her approach to the port. After Pratique is granted, the Pilot, Customs and Immigration Officers, the Loading Master, the BRC representative, and the hose gang are allowed to board.

No Radio Pratique is contemplated.

The following documents to be ready prior to arrival of health officials:
Maritime Declaration of Health.
Vaccination Lists (4 copies).
Health papers of all ratings.

VHF: See "Section A".

BERTHING: The sea terminal consists of 8 mooring buoys of 16 ft. dia.

Buoys 2, 3, 4, 6 and 8 are fitted with 1 self-releasing Pelican hook and buoys 1, 5 and 7 are provided with 2 Pelican hooks each.

Mooring/Unmooring: Currents usually set in a North-South direction at the berth, and vessel always approaches and enters the berth from South. However, berth is so designed that tankers, depending on prevailing wind and/or current direction, could enter from the North, if necessary. Mooring and unmooring may take place also during hours of darkness, provided meterological conditions are fair and visibility is good. Currents are weak and berthing or unberthing takes place at any state of the tide.

Berthing of vessels should be assisted by a Pilot, a Mooring Master, and a Radio Operator, the latter two of PNOC Shipping and Transport Corp., which also provides the mooring gang. The Radio Officer brings along his own portable VHF radio set for communicating with the mooring crew and service boats.

Vessels usually approach the berth from a S.S.E. direction and are stopped some 3,000 ft. off the South end. From this point vessels proceed to and enter berth at dead slow speed between Buoys 5 and 6. Just before entering, the starboard anchor is usually dropped. This anchor is dragged or paid out accordingly in order to check the vessel's bow. The bow is brought abeam of Buoys 1 and 2 where the port anchor is dropped. Lines are then given ashore and the vessel is backed into final position approximately 40 ft. abeam of the floating beacon marking the pipe-end manifold. When using anchor, caution should be exercised so as not to foul the buoy legs or cargo pipes and hoses.

Usually, 3 powerful service launches are in attendance. These launches are suitable for handling the heavier wire ropes. Usually, 2 lines are run on Buoys 1, 2, 7 and 8 and one to Buoys 3, 4, 5 and 6. There is no particular requirement on whether ropes have to be of wire or nylon. Pilots indicated that they may require, at times when wind from S.E. is particularly strong, additional lines to be run to Buoys 3 and 5.

Night berthing is carried out with the assistance of the service boats, which tie up alongside Buoys 1, 7 and 8 and indicate quite effectively the approach and entry to the berth.

Vessels calling at the CBM should make use exclusively of wire ropes of suitable dimensions, quality and condition.

When leaving, vessel must be towed and engine of tanker shall be at standstill to prevent kinking of hoses caused by strong current generated by the tanker/vessel propeller.

HOSES: 4 strings of hoses are used. 2 strings consist of 3 lengths of 20 in. dia.×30 ft. long and 4 lengths of 16 in. dia.×30 ft. long each.

2 strings consist of 7 lengths of 10 in. dia.×30 ft. Both over the rail hoses of the 2 strings are provided with 12 in. ASA 150 p.s.i. hand-operated butterfly valves.

The end of each hose is marked by a buoy consisting of 2 cans welded together. When resting on the sea bed, the ends of the hoses are attached to these buoys by means of a chain. For lifting the hoses onboard, divers disconnect the chain from the cans and pass them to the vessel's derrick hook. The marker buoys remain on the water.

The hoses are connected and disconnected by a shore gang supplied by a contractor. It takes, on the average, about 1 hour 30 minutes to have 2 hoses connected and cargo started. Ullages and cargo calculations are carried out concurrently with connecting of cargo hoses. It takes about 30 minutes to 1 hour for disconnecting, but this is done concurrently with ballasting operations after discharge.

In order to expedite turnaround time, vessels should arrive with both derricks rigged for a minimum safe working load of 7 tons.

Blanks at 2 connections of the port manifold should be removed prior to arrival and 2 reducers, if available, should be installed to have the manifolds ready for the 12 in. ASA hose connections.

Safe working load and connections available should be notified to BRC prior to arrival.

Minimum acceptable manifold height above deck is about 20 in. Minimum spacing of ship's cargo manifold for connecting hoses to adjacent manifolds is about 18 in.

The hoses when in operation are not suspended from ship's gear but are fastened to the vessel's superstructure by means of chains.

There are no specific guidelines for disconnecting in emergency. The hose gang remains on stand-by throughout the operation and can be readily available.

Hoses are to be connected to the vessel's reducers with bolts and nuts fastened to every second hole of the flange.

The maximum pressure requested at the vessel's manifold is 150 p.s.i.

LOADING: *Description of Cargo System:*
Crude is presently received at the 8 buoy seaberth, located about 2,100 ft. off the end of the Product Pier. The current crude receiving facilities consist of a 28 in. dia. line. The line from the tank to the berth is about 4,700 ft. long. This includes the submerged section from the pier head to the berth of 2,040 ft. The end pipe-line manifold is fitted with 2 outlets. Each outlet is provided with a 20 in. butterfly valve, a 20 in. check valve and a 20 in. chicksan swivel joint where currently 2 strings of 3×20 in. dia.×30 ft. and 4×16 in. dia.×30 ft. hoses are connected. The butterfly valves are manually operated by divers. The other facilities for IFO and Naphtha loading and unloading consist of 2 lines of 14 in. dia. each from the manifold product line at the pier end to the berth of about 2,040 ft. The submerged pipe end manifold consists of 7 lengths 10 in. dia.×30 ft. hoses which can be connected to each other by a 'Y'-spool for shipboard connection and flushing of line.

The pipe manifold is marked by a floating beacon, and in order not to put hoses under strain, the vessel's manifold should be abeam of this marker at a distance of about 40 ft.

FRESH WATER: Supply by barge. Requirements should be included in arrival message. Ample notice is required if water supplied by barges.

FUEL: Bunkering is by barge. Bunkering may take place concurrently with discharging operations. Ample advance notice required.

MEDICAL: The Agent will arrange for transportation to and from Manila for crew members requiring elaborate medical or dental attention; otherwise, they will be attended to in Bataan.

REPAIRS: There are several repair firms in Manila that can undertake minor repairs. Requirements for repairs should be passed on to the Agent, and briefly outlined in ETA message. Major classification societies available.

GANGWAY: For vessels at the CBM, gangway to be prepared and rigged prior to arrival, on port side.

STORES: Stores and provisions can be supplied by ship chandlers in Manila. Master should radio requirements at least 36 hours before arrival to the Agent so that stores can be transported from Manila to the ship on time. Bonded stores are unavailable, except for local beer. Laundry requires a minimum of 36 hours.

WEATHER/WIND/TIDE: *General:* Although the Bataan Refinery is only 26 miles across the bay from Manila, rainfall data is not exactly the same for both of these locations. This is partially due to the mountain directly behind the refinery, which tends to precipitate the S.W. monsoon immediately as they come over the mountain, dissipating them to some extent by the time they reach Manila.

The average rainfall for the Bataan Refinery is about 98 in. per year varying from 56 in. to 136 in. per year. Maximum and minimum air temperature are about 102°F and 58°F respectively.

Wind and Typhoon: During the typhoon season, from June through September, the winds are predominantly from the S.W. and are known as the S.W. monsoons. In October through January, the winds are from the N.E. For the month of February, the winds are predominantly from the East and in March through May, from the S.E.

The typhoons are frequent during their season and bring with them high winds and heavy rains. The typhoons generally go up the East coast of Luzon, however, late in the year, they cross the land mass.

Range of Tide: For Lamao, data obtained from the coast and geodetic survey of the Philippines are:

Extreme High Water	5.60 ft. (58 year record)
Mean Higher High Water	2.99 ft.
Mean High	2.54 ft.
Mean Tide Level	1.41 ft.
Mean Sea Level	1.36 ft.
Mean Low Water	0.29 ft.
Mean Lower Low Water	0.00 ft.
Extreme Low Tide	2.00 ft.
Mean Tide Range	2.25 ft.

There are no unusual weather conditions associated with these tides.

Intensity and Direction of Currents: A hydrographic survey in February and March, 1958 indicated that current, at its greatest strength, to be not exceeding 1 knot. However, there was sufficient indication that the current is of the reversing type; that is, tidal in nature. Current varies from day-to-day, principally in accordance with the range of tide, its diurnal inequality, and its daily routine, whether diurnal or semi-diurnal. The rising tide is counteracted, to some extent, by the water which enters Manila Bay from rivers, and thereby lessening its velocity. The ebb tide is assisted by this water and accounts for the maximum recorded velocity, which, however, seems always to be less than 3 knots.

Water Density: Salinity varies from a high of 36.1 parts per thousand to a low of 4.6 parts per thousand during a monsoon. The mean salinities are 14 in June, the lowest month, and 34 in May, the highest.

The surface temperature of the sea water adjacent to the site ranges from about 76°F to 90°F.

Tankers arriving at BRC in laden condition should not consider this density variation, which is very difficult to predict and to determine.

Waves: About 2 ft. to 3 ft., based on information given by Pilots.

Sea Bottom: Upper layer of sea bottom is soft mud.

SECURITY: Serious security problems may arise during nighttime and strict surveillance and alertness must be exercised at all times. Guards supplied by a local contractor and arranged by the Agent should be employed at all times. Stores and cabins should be kept under lock.

Vessel's Master, at all times, should take positive steps to prevent smuggling and keep native boats away from the ship and watch for pilferage while the vessel is approaching or is in port. We believe that security guards may be of help and we recommend Masters to use them at all times.

Shore leave may be arranged by Agent. Crews are ferried to and from the CBM to the near local village. Launch service is arranged by the Agent.

Crews of vessels moored at the product pier or LPG pier have also to go ashore by boat since nobody is authorised to pass through the refinery.

EMERGENCY PROCEDURES: BRC is not provided with an anemometer nor specific procedures to vacate the berth under severe metereological conditions. Should weather conditions deteriorate, the vessel's Master, in consultation with the Pilot, Mooring Master, and BRC representative, take the decision to vacate the berth.

A close watch should be maintained for typhoon and weather forecast. At all times, vessels should maintain a state of readiness and engines should be kept on standby and at short notice. No repairs or tank cleaning should be allowed alongside.

BRC REPRESENTATIVE: An employee of a third party surveyor, (representing BRC) boards the vessel after quarantine clearance to co-ordinate unloading operations. A ship-to-shore portable radio is placed on board for communication and controlling ship's discharge only. The BRC representative remains onboard throughout discharge and liaises between shore and ship. During the pre-discharge, sounding and final inspection after discharge, a BRC operator boards and accompanies the third party surveyor.

SHIPMASTER'S REPORT: June 1982.

Pilotage: Arranged by Manila Agent.

Health: Doctor will board and give Free Pratique and perform vaccinations.

Radio: Arrival message to include Master's name and number and nationalities of all crew.

VHF: Contact was made Channel 11 at 25 miles from S.W.

Tugs: One tug stands by during vessel's stay and 1 service boat is available for transportation to and from the shore.

Berthing: The sea berth has 4 buoys each side, with hoses on port side, derrick required and shore hose gang for connecting. Buoys to starboard are numbered 1 to 7 buoys and to port are numbered 2 to 8 from forward to aft in both cases and these numbers are referred to by Pilot when berthing. There is also a Loading Master on the bridge who liaises for ship's positioning regarding hoses. 2 tugs for pushing and 1 tug puts line aboard. 2 service boats for running lines. It is best to have wires without rope tails and service boats are quite powerful enough to run the wires. 1st lines are headline to No. 1 Buoy and stern line to No. 7 Buoy. Then usually No. 2 and No. 8 Buoys, followed by No. 4 and No. 5 Buoys. Usual final moorings are 3 lines each to Nos. 1, 2, 7 and 8 Buoys and 1 each to 3, 4 and 5 Buoys. No. 6 Buoy not normally used unless there is a strong offshore wind. It is advisable to keep a note of the order of putting out ropes in case of letting go during the hours of darkness. On approaching berth it is usual to let go starboard anchor to 2 shackles. The anchor is hove up before commencing to single up on departure.

Medical: If Doctor boards for vaccinations then he will attend to any patients.

Tankers: For Sea berth 2×12 in. reducers, for SBM 2×16 in. reducers.

SECTION (C) BRC — SBM.

LOCATION: Position: Lat. 14° 31′ 32.47″ N., Long. 120° 37′ 48.90″ W.

RESTRICTIONS: *Water Berth:* 94 ft.

Max. Operating Conditions: Wave height 8 ft. Wind speed 55 m.p.h. and current 3 knots.

VHF: See "Section A".

MAX. SIZE: 300,000 d.w.t. 1,120 ft. LOA. 175 ft. beam and 70 ft. draft.

Shipmaster's Report: March 1987.

Vessel discharged at the SBM.

The characteristics of the vessel are as follows:

LOA 343 m.
Breadth 53 m.
DWT 283,400 tonnes.
Arrival Draft 22 m.

We were allowed to enter with the above draft and did not experience any difficulties on entering through the Southern entrance or at the SBM itself.

At all times we had more than 3.0 m. keel clearance. There is therefore a minimum draft of at least 22 m. at this port.

BERTHING: The SBM is installed in Manila Bay, approximately 1 mile offshore. From the surface, all that is visible is the top of the 23 ft. diameter mooring buoy and 2×800 ft. long strings of floating loading hose. The mooring buoy is painted orange, yellow and white and the hose strings are orange and black spiral stripes. At night the buoy is marked by a white flashing light and the hose strings are marked by 8 white flashing lights. The hose strings will generally float in the direction of current but they may be influenced by the wind direction.

Preparation of the Tanker: Generally, 2 launches should be available for mooring tankers. 1 launch will be used to pass the mooring lines to the tanker forecastle. The other launch will pull the floating hoses to the side as the tanker approaches the mooring and then attach the tanker derrick lines to the hoses in preparation for hose hook-up.

All tools and materials required for the mooring and hose hook-up operations should be placed aboard the hose handling and mooring launches in readiness for passing to the tanker.

Prior to the approach of the tanker, the Pilot or other terminal personnel should ascertain the size of the tanker's cargo manifolds, the capacity of its hose lift derricks, and the arrangement and capacity of its forward fairleads, bollards and winches. If spool pieces, lines and special fittings are required, these should be made ready.

The hoses may be brought to either side of the tanker, although it is customary that they be brought to the port side. The appropriate derrick should be rigged for lifting the end of each hose string. The lift to the manifold of a loaded tanker will be approximately 4 tons. However, a lift capacity of approximately 11 tons will be required to lower each hose string from the tanker in a light condition (based on 70 ft. draft amidships).

A clear area is required adjacent to the manifold for storage of the pick-up buoys. Cables and come-alongs should be rigged to strong points in the vicinity of the manifold to tie-off the hoses.

A boarding ladder should be rigged on the tanker side opposite the operating manifold. Boat ropes should be rigged along each side of the tanker. Messenger lines should be made ready on the forecastle for picking up the hawsers.

The arrangement of fairleads, fittings and obstructions should be studied carefully to determine the best means of securing the tanker to the mooring.

The mooring fittings should be capable of withstanding the appropriate loads. If the environment should worsen to the capacity of the mooring or the tanker fittings then the tanker should apply ahead power, suspend discharging, lower the hoses and leave the mooring.

Each mooring line is provided with three individual tanker chafing chain assemblies as follows: Type "B", Type "C" and Type "D". Type "B" assembly remains connected to the hawser thimble at all times and is for use with vessels of 100,000 d.w.t. – 300,000 d.w.t. having chain stoppers or no conventional mooring fittings. The type "D" assembly is for use with vessels of the same size (100,000 d.w.t. 200,000 d.w.t) but equipped with mooring fittings of the "Smit Lock" design. When required, this assembly is connected to the primary triangular plate in the type "B" assembly, and the remainder of said assembly should be removed from the first Kenter Link until such time as unmooring operations take place.

The type "C" chafiing chain assembly is for use with vessels up to 100,000 d.w.t. and when required should be connected to the type "B" assembly at the first Kenter Link following the primary triangular plate and the remainder of the type "B" assembly removed until such time as again required.

At the end of chain assemblies type "B" and "C" is a secondary triangular plate for connection of the 500 ft. polypropylene pick-up ropes. These ropes are incorporated in the assemblies, strictly for the purpose of winching the mooring assemblies on board the vessel and should on no account be used for mooring. The chains must be brought partway through fairleads on the forecastle and secured to towing brackets, bitts or other fittings on the deck of the tanker.

Experience has indicated that no standard means of securing the chain can be advised since a wide variety of arrangements are apt to be encountered on a tanker forecastle. It is recommended that the chains are secured to Smits towing brackets or chain stoppers if these are available. Otherwise wires or ropes will have to be improvised to secure the chains to ship's fittings. It is important that, whatever means and fittings are used, the arrangement must be adequate to withstand severe loads.

Fairleads as close to the stem as possible should be used to pass the chafing chains. If available, a lead in the centre of the bow should be used to pass both lines. Arranging the mooring lines through fairleads as close together as possible will assure that loads are equally distributed between the lines and will minimise the possibility of parting a line.

Mooring: Prior to making the approach to the mooring, the Pilot and tanker Master should carefully study the wind, waves and current to determine the best approach direction. The approach should be made in the direction in which the tanker can best be handled at very low speed and can best be held stopped in the water. There is adequate depth to manoeuvre a loaded 300,000 d.w.t. tanker (70 ft. draft) within a 3,360 ft. (1025 m.) radius of the mooring buoy.

The side to which the hoses should be brought should also be determined. This is preferably the port side for tankers with conventional right hand screws as the tanker will then move away from the hoses as the tanker moves forward out of the mooring. At the single anchor leg mooring the hoses may be brought to either side of the tanker. In cases where it is evident that the hoses will tend to string to starboard of the tanker during the entire unloading operation, it may be preferable to bring the hoses to the starboard manifold.

The instructions given here assume that the hoses are to be brought to the port manifold. These instructions should be reversed if the hoses are to be brought to the starboard manifold.

The tanker may, if necessary in an emergency, drop an anchor or anchors while approaching the mooring. Anchors should not be dropped, however, within 200 ft. of the mooring buoy, or along the route of the submarine pipe-lines. If an anchor is dropped during an approach to the mooring, it may not be left down after the mooring is completed. A tanker may not remain moored to both the mooring buoy and its own anchor during unloading. Care must be taken not to foul the hose strings or mooring lines in dropping or lifting an anchor.

Just prior to the approach of the tanker to the mooring, the hose launch should pull the hoses to a position to port of the direction of approach. In making the approach the tanker must stay well clear of the hose. During the final approach the tanker should take a course which would pass to starboard of the buoy so that, if the tanker moves too far forward it would safely pass the buoy and not endanger the hoses.

As the tanker approaches the mooring, a messenger line should be passed from the forecastle to the mooring launch. The mooring launch should then proceed ahead and to port of the tanker and make the messenger fast to the port mooring pick-up line. If the large messenger line marker buoys are in position they should be removed from the line and stowed on the launch. The small buoys can pass through the ships fairlead and may therefore be left in position.

At this point the tanker should have only enough headway to carry it within about 150 ft. of the mooring buoy. As soon as the launch is clear, the messenger should be winched aboard the tanker as rapidly as possible. As the mooring pick-up line is winched on deck, it should be coiled on deck. When the chafing chain passes through the fairlead, it should be snubbed in the best manner possible to secure ship fittings.

Stern movement should be used if necessary to avoid overrunning the mooring. The tanker should be allowed to settle back slowly on the port mooring line. Meanwhile, the mooring launch should take another messenger line from the forecastle and secure it to the starboard mooring line messenger. As soon as the launch is clear, the starboard messenger should be winched aboard and the chafing chain made fast to ship's fittings.

Once the tanker is secured to the mooring, the engines should be placed on stand-by. Grease may be applied to the chafing chains at the fairlead to prevent wear. The mooring lines, chafing chains and other mooring gear should be inspected frequently while the tanker is at the mooring.

Connecting the Cargo Hoses: As soon as the tanker is securely moored, the hose launch may tow the ends of the floating hoses to a position beside the tanker manifold. The necessary tools and fittings should be made ready on the tanker deck. The manifold derrick runner should then be lowered to the launch and secured to the pick-up buoy of the hose nearest the tanker.

The hose should be lifted approximately 20 ft. above deck level and the end swung inboard. Make sure the hose is not lying over sharp edges at the rail. Anti-chafing material may be necessary to protect the hose. The hose should be securely tied-off with cables and come-alongs to strong points on the tanker.

Remove the blind flange from the hose end. There should be no danger of oil spillage because the hose remains sealed by the butterfly valve. Check the "O" ring seal on the quick coupling. The hose can now be connected to the tanker manifold by the quick coupling. The hose lifting chain may now be lowered and the hose marker buoy stowed near the rail. the second hose may now be lifted and connected to the manifold in the same manner.

Fit the hand wheels to the butterfly valve gear operators. The tanker manifold valve and butterfly valves may now be opened. *The butterfly valves should be locked in the open position. Under no circumstances should the hose end butterfly valves be operated while oil is flowing through the hose.*

The shore station should be notified that the tanker is prepared to begin discharging. When instructed by the shore station, pumping should begin. Pumping should begin slowly at first until crude oil is recorded reaching the shore station and it is determined that the whole system is operating satisfactorily. The hose launch should inspect the hose strings and the area around the mooring buoy for evidence of leakage.

When it is certain that the entire system is operating correctly, the pumping rate may be increased to the maximum rate prescribed by the shore station. The pumping pressure must not exceed 200 p.s.i. During discharge, periodical inspections should be made of the manifold connection, the entire hose system and the area around the mooring buoy. This inspection may be made from the deck and forecastle of the tanker during daylight hours, night or when visibility is poor, the inspection should be made from a launch.

At regular intervals the pressure at the manifold and the quantity of cargo discharged from the tanker should be recorded. These figures should be compared with those recorded by the shore station. Any marked discrepancy between quantities should be investigated immediately.

It is inadvisable to allow the tanker to get to a completely light condition. Ballast should be taken aboard as necessary to keep the tanker near ballasted trim with the screw completely submerged at all times.

Disconnecting the Hoses and Departing the Mooring: When discharge is completed, the butterfly valves and tanker manifold valves should be closed and the hand wheels removed and returned to the hose launch. Beginning with the hose string further from the tanker, connect the derrick to the hose pick-up chain with the marker buoy in place, and take up the weight of the hose. Depending on the freeboard of the tanker, the lift load may be great. Disconnect the manifold connection and replace the blind flange on the quick coupling. A small amount of cargo may spill into drip pans during this operation.

The hose securing lines should now be released. After both hoses are released the hose launch should pull the hoses away from the side of the tanker.

After the hoses have been disconnected and released and the tanker has taken on sufficient ballast, the tanker may leave the mooring by disconnecting and lowering the mooring lines. The mooring pick-up line should be attached to the chafing chain and the assembly should be lowered until the end of the chain is at the water surface. The mooring pick-up lines may then be dropped. The tanker should get up steam and may use power to move forward before dropping the lines.

Once the lines are dropped, the tanker may either drop slowly astern until clear of the floating hose or may proceed forward and to starboard to pass beside the mooring buoy on the side opposite the hoses. The tanker may then proceed on its voyage.

SHIPMASTER'S REPORT: September 1983.

Prior to Arrival: Prior to arrival Agent requests (if using SBM) height from deck to centreline of manifold, distance of manifold flange faces from side railings and the flange diameter PCD and bolt size manifold or reducers. Also requires dimension of fairlead opening, distance of Smith lock pin to fairlead, bracket clearance of Smith lock assembly and pin diameter.

Berthing: Our vessel (140,000 dwt.) berthed at SBM during SW Monsoon. We picked up one line from the buoy while larger vessels take two lines. PNOC officials will inspect vessel's Smith lock or other mooring arrangement. Used one tug for berthing with tug's line starboard.

Require Customs clearance before commencement of discharge.

Fuel: Bunker suppliers wanted payment or Agent's guarantee thereof before supplying.

Circular: Following letter received on arrival:

M/T. . . . . .Port of Limay, Bataan
Attn: M/T. . . . . .The Master/Chief Engineer
Gentlemen:

As in ports all over the world, the quality of the environment has become a matter of vital concern to the government. Thus, the Port of Manila Authorities have promulgated regulations covering water pollution, oil spillages and indiscriminate dumping of waste.

Our Company, VRV Resources Corporation, in line with the government's ever continuing campaign to keep Manila Bay and the waters surrounding the Philippine archipelago clean from oil pollution, service inter-island and ocean-going vessels on the *safe handling of slops, used oil* and *contaminated fuel.*

To service our ever-increasing clients, we have a fleet of self-propelled barges and trained personnel ready to receive and safely dispose of potential water pollutants efficiently and without any delay to the ships' schedule. This service is our contribution to the government's effort to keep Manila Bay clean without any expense to the vessel, that is *free of charge.*

SECTION (D) BRC – PRODUCT PIER:

The pier is an open concrete structure, finger shaped, extending 840 ft. in an East/West direction from a 280 ft. long causeway. The piling is of steel pipes covered by concrete from the pier deck to just below the lower tide level. There are 3 loading stations on each side (North-South) of the pier equipped with marine loading arms terminating in an 8 in. or 6 in. ASA flange. Ship should be properly installed with required manifold ready for connections.

The structural strength of this pier is sufficient to safely handle up to 30,000 d.w.t. vessels. Stations 5 and 6 are provided with a fendering system consisting of panels made up of vertical members and horizontal walers faced with wooden rubbing strips and backed up by Resilie & T Rubber (Bridgestone) fender buffer units. At the other stations, fender panels, faced with rubbing strips and backed by resilient fender buffers, are used. Stations 5 and 6 are provided with 2 bollards of cast steel material of 50 tons capacity and 3 others of 25 tons which should be sufficient to handle fully loaded "Kure Class" vessels.

The fendering system is designed to absorb the impact of 18,000 d.w.t. approaching at a speed of 1 knot and it is suitable to contain the impact energy of the smaller vessels and barges using this pier.

Barges and vessels' Masters should carry out proper manoeuvring, limiting their approach speed of 2 knots and coming alongside almost parallel or at a small angle of incidence (10° max.).

Should Masters be unable to manoeuvre properly, assistance of a service boat or tug boat should be sought and charged to the vessel's Owners.

Berthing operations are normally witnessed by a BRC representative and claim for any damage is properly filed holding owners of vessels responsible. A fully loaded "Kure Class" vessel, down at her tropical mark and drawing 31 ft. 6 in. may be accommodated at this berth. Vessel would come alongside with her starboard side to, but special care should be exercised for the aft mooring arrangements since the stem of the vessel would be over the pier by about 50 ft. Approach to the pier is somewhat obstructed by the CBM. When going alongside either the North or South side of the pier, use the offside anchor for keeping the bow under control.

Considering the limited width of the dredged basin and presence of cross currents, 2 tugs of 400 h.p. each are recommended to manoeuvre in an out of this berth.

The Northern slope of the – 35 ft. below MLLW basin extends seaward parallel to the South face of the pier. In front of the jetty head, close to and parallel the to North slope of the basin the submarine pipes running to the CBM are laid down. The depth of water above these pipes is not well defined but is certainly less than that of the dredged basin. Deep draft laden tankers leaving or entering Station 5 should at all times avoid passing North of the Northern slope of the basin since a danger of running aground and hitting the submarine system exists.

Masters and Pilots should be aware and read poster placed at the pier end warning mariners of this danger.

Smaller tonnage should also make use of the Pilots and assistance of a service boat (100 h.p.) in view of cross currents when manoeuvring alongside or off Berths 5 and 6.

SECTION (E) BRC — LPG FACILITIES:

Alongside the breakwater, there is a "T"-shaped jetty designed to accommodate LPG vessels. The pier consists of 2 breasting and 2 mooring dolphins. The breasting dolphins are provided with a fendering system consisting of a panel made up of vertical steel members and horizontal waler faced with wooden rubbing strips and backed up by rubber arch fenders.

Maximum dimensions of vessels received at this berth are as follows: LOA 210 ft., beam unlimited, d.w.t. 700 long tonnes. Energy of absorbtion, maximum displacement and speed of approach are not available.

The approach basin to and alongside this berth has been dredged (in 1971) and sounding revealed a minimum depth below MLLW of 18 ft. Therefore, a max. draft of 16 ft. appears safely acceptable at all tidal conditions.

Because of the limited size of the basin and lack of any beacon or buoy indicating its extent, assistance of Pilot should be sought. Also, it would be advisable to request the assistance of a 100 h.p. service boat to enter and leave the basin since the approach and the clearing of the berth has to be made in a parallel direction to the axis of the berth.

LPG is loaded through a Niigata Chicksan loading arm which carries both the liquid and vapour lines. Liquid line is connected directly on the loading arm with a bolted 4 in. flange. The vapour line is connected by a section of 2 in. diameter × 5 ft. long hand rubber hose terminating in a 2 in. ASA flange. An additional 2 in. rubber hose is available should vessel's vapour and liquid connection be more than 5 ft. apart.

AUTHORITY: *Operator:* Bataan Refining Corporation, 7901 Makati Avenue, MCC P.O.Box 1053, Makati, Metro Manila, Philippines. *Tel:* 85-90-61/95. *Telex:* 22259 PNO PH, 63667 PNOC PN, 45270 PNOC PM, 14817 PNOC PS. *Cables:* Bataanref-Manila.

Plant Site: Limay, Bataan. *Tel:* 48-16-20/29, 48-17-77.

✓

BATANGAS, Luzon (including Tabangao): 13.45 N. 121.03 E. (See Plan)

See "General" before first port.

PORT LIMITS: Batangas Harbour embraces all waters of Batangas Bay extending seaward up to an imaginary line connecting Cazador Point and Matuco Point.

DOCUMENTS: Upon arrival, the following papers should be forwarded to the Authorities:

2 Crew Lists (visaed).
3 List of Stores, Deck, Engine, Stewards Dept.
3 List of Stores, Firearms, Medicine and Narcotics.
6 Personal Effects Declaration.
6 Inward Manifest.
8 Ordinary Crew List.
Clearance from last port of call

PILOTAGE: Pilotage for shifting from Quarantine Anchorage, docking and undocking compulsory for all vessels engaged in foreign trade. The vessel is met by the harbour pilot approximately 2 miles South of the wharf. Pilotage for entering the Batangas Harbour and anchoring in the Quarantine Anchorage is optional but pilotage for shifting therefrom or changing in the stream is compulsory for vessel engaged in foreign trade. At least 48 hours before ships arrival, advise ship's Agents of estimated time of arrival (ETA).

Visual Signals, "I need a Pilot" – The single hoist of the International Code flag "G".

Sound Signals – "I need a Pilot" – the International Morse Code "G" or 2 prolonged blast, followed by 1 short blast of the ship's siren.

Pilot Launch: 25 g.r.t. white with a black "P" at both sides of bow and with International Code Flag "H" hoisted. At night time, all around white light on top of a red light in a vertical line, with green and red sidelights.

APPROACHES: "Suggested Approach": From the South between Matuco Point and Malajibomanok Islands, with an opening of 3.5 miles. White flashing beacon on Malajibomanok Island duration 0.3 seconds every 10 seconds visible for 8 miles in clear weather. Islands and point can be approached within 0.5 mile.

Landmarks and Coastal Lights: Government Pier at Bo. Sta. Clara may be approached safely from either direction paralleling its face. Batangas church dome, Bauan church bell tower, refinery stacks and columns and wharves are good landmarks. Batangas Lighthouse is Gp. Fl. (3) green every 5 seconds.

ANCHORAGE: All vessels entering Batangas Harbour shall show their colours and signal letters shall be kept flying until the vessel is boarded by the proper Officials within 2 miles before arriving at the designated Quarantine Anchorage.

1.	13° 45′ 06″ N.	121° 02′ E.	Quarantine
2.	13° 45′ 13″ N.	121° 02′ 14″ E.	for vessels less than 1,000 g.r.t.
3.	13° 45′ 06″ N.	121° 02′ E.	for vessels over 1,000 g.r.t.
4.	13° 45′ 30″ N.	121° 01′ 55″ E.	for vessels over 3,000 g.r.t.
5.	13° 45′ 30″ N.	121° 01′ 42″ E.	
6.	13° 46′ N.	121° 01′ 15″ E.	for Caltex wharf
7.	13° 43′ 35″ N.	121° 02′ 50″ E.	for Shell wharf
8.	14° 42′ 54″ N.	121° 03′ 06″ E.	for Pacific flour mills pier
9.	14° 46′ 18″ N.	120° 58′ 15″ E.	for Batangas Bay Terminals, inc. pier.

MAX. SIZE: See "Berthing" and "Tankers".

TUGS: Tug service is not furnished by the two oil refineries. The use of a tug for berthing and unberthing is required. Although a tug is normally available at Batangas it may be necessary to dispatch a tug from Manila. Accordingly, it is important for Masters of vessels to provide at least 48 hours advance notice of ETA to ensure availability of the tug boat.

BERTHING: Berthing may be done any time during the day or at night and Masters should exercise their own judgement in this respect. Vessels moor either port or starboard side to, depending on prevailing conditions.

Batangas Govt. Pier:

	Length (m.)	Width (m.)	Depth (m.)
Pier I	127.5	15	10.5
Pier II	105.0	15	10.0
	48.0	12	
Pier III	84.0	15	5.0

Bauan and Mainaga Pier:

Bauan: Lat. 13° 46′ 48″ N., Long. 121° 04′ 06″ E.

Mainaga: Lat. 13° 35′ 48″ N., Long. 120° 57′ 12″ E.

Alternative loading or discharging ports, but only in cases when there is congestion at the government piers at the Port of Batangas.

Pacific Flour Mill: Location: The area contained from the Southernmost pile of the Shell Refinery to the area West of Little Tabangao River extending 1 mile Westward.

Max. Size: LOA 492 ft., draft 45 ft.

Pier: Length 93 m. with 142.5 m. causeway, width 7.5 m., depth 14 m.

Special Regulations:

(A) That a navigational and mooring area of 0.5 mile from the Northernmost and Southernmost mooring dolphins of the PFM Pier be free from fish traps and other fishing devices.

(B) That a freeway from incoming and outgoing vessels from the PFM Pier be kept free from all fish traps of any forms, and/or any other fishing devices that may obstruct navigation for a distance of 0.5 mile North and South of the PFM pierhead outside of the 50 ft. depth contour approach to the pier.

Batangas Bay Terminal, Inc: Pier facilities: 3 breasting dolphins 80 m. apart; 2 fender piles (wooden) and 2 mooring dolphins. Causeway 290 m. long.

Max. Size: LOA – 700 ft. Draft – 39 ft.

Location: The Batangas Bay Terminal, Inc. located at 13° 47′ 00″ N. and 120° 59′ 02″ E. It is in Bo. Bolo, Bauan, Batangas, the total area (shoreland) is 5.5 hectares and 18 hectares (foreshore) land.

Special Regulations:

(A) That the area contained between the S.W. site of the BBTI for a distance of 1 mile from shoreline North and South be entirely free permanently from all forms of fishing devices.

(B) That a distance of 100 yards around the pier be entirely free from all forms of fish traps, fish corrals, fish weirs, etc. and it be "Off Limits" to all unauthorised persons, including fishermen and those travelling by bancas underneath the said pier.

PNOC Shipping and Transport Corp.:

Max. Size: LOA 340 ft., draft 14 ft. Pier: Length 97 m., width 4.87 m.

PNOC Energy Supply Base:

Max. Size: LOA 426 ft., draft 25 ft.

All vessels proceeding to Batangas should radio either Caltex or Shell, whichever is their destination, their estimated time arrival at Batangas as early as possible, but not less than 96 hours before arrival, amending this ETA subsequently if it varies more than 2 hours from the original estimate in order to arrange towing gangs with the Luzon Stevedoring Corporation.

Vessels Loading Sugar: See "Iloilo – Shipmaster's Report".

STEVEDORES: Stevedoring is usually handled by Luzon Stevedoring Corporation.

MEDICAL: Both refineries have small hospitals for handling emergency cases. Should any ship's personnel need prolonged hospitalisation, arrangement will have to be made to transfer the patient to Manila or to the Provincial Hospital of Batangas where suitable medical attention is available. Dental treatment can be obtained from local dentists in the town of Batangas.

TANKERS: *Shell Refinery, Tabangao:* Jetty 1; two hoses of 10 in. diameter. Jetty 2; 4 arms of 12 in. diameter. Slops acceptable at 500 t.p.h. up to limit of 3,000 tons.

Two wharves with the following dimensions:

(a)		(b)	
Length	336 m. Concrete	Length	700 m. Concrete
Width	9 m.	Width	9 m.
Depth	15 m.	Depth	15 m.

Crude oil is delivered by tankers of up to about 75,000 d.w.t.

LPG: Report: Dated June 1984.

1. Send ETA to "Shell Gas Manila".
2. Vessel to dock port side alongside.
3. Shore manifolds from stern to bow – Butane – Butane Vapour – Propane Vapour – Propane.
4. Shore flange characteristics:
    Butane liquid 12 in. diameter ANSI 150 lb. flat flange.
    Butane vapour 8 in. diameter ANSI 150 lb. flat flange.
    Propane vapour 8 in. diameter ANSI 150 lb. flat flange.
    Propane liquid 12 in. diameter ANSI 150 lb. flat flange.
5. Appropriate cross-overs and reducers for simultaneous discharge of propane and butane (both with vapour return) should be installed by ship prior to arrival.
6. Vapour will be returned to ship while discharging.
7. Cargo must arrive as cold as possible, propane at −43°C and butane at −10°C, during discharge. Ship's tanks back-pressure against vapour return must not exceed 80 millibars gauge. To achieve the above conditions, the ship may have to operate its refrigeration equipment at full capacity during the inward voyage and while discharging cargo at the port.
8. The ship should provide an accommodation ladder or gangway.

Caltex Refinery Wharf: The Caltex Refinery including the island wharf is located North of the government pier and at night can be distinguished by illumination lighting on its structures and red aviation warning lights at the top of the columns. A gas flame at the top of the 150 ft. flare stack is also visible several miles from shore. The Caltex wharves are adequately lighted to facilitate night berthing or unberthing operations if desired. LOA 755 ft., draft 41 ft. Jetty designed for 45,000 d.w.t.

Location: Lat. 13° 48′ 24″ N., Long. 121° 01′ 00″ E.
Lat. 13° 46′ 12″ N., Long. 121° 01′ 36″ E. (Service Wharf)

Construction: 2 wharves with the following dimensions:

T-Head: Length 84 m., width 13 m., depth 14 m., with 2 mooring buoys 244 m. apart parallel to the berths facing the shoreline.

Island Wharf: 2 breasting dolphins 91 m. apart. Length 16 m., width 12 m., depth 27 m., with unloading platforms installed in between the dolphins and provided with 2×125 ton quick release hooks and 2×125 ton bollards.

Crude oil is delivered by 200,000 d.w.t. to 300,000 d.w.t. supertankers.

Special Regulations:

(A) That a distance of 100 yd. around each of the 2 wharves (including island wharf) be entirely free from all forms of fishing devices such as "bonbons" fish corrals, fish weirs, etc., and that it be "Off Limits" to all unauthorised persons, including fishermen and those travelling by bancas within the areas.

(B) That a navigational and mooring area of 0.5 miles North and South respectively of the limits stipulated be likewise free from fish traps and other fishing devices, but with option to fishermen to fish with hooks or with bancas within the said area provided that they do not come within 100 yd. around the jetty.

(C) That a freeway for incoming and outgoing vessels from the Shell Refinery piers be kept free from "bonbons" and/or any other fishing devices that may obstruct navigation for a distance of 0.5 miles North and South of the jetty head outside of the 50 m. depth contour approach to the jetty. See "Shipmaster's Report".

DENSITY: 1026.

FRESH WATER: Fresh water is available to vessels loading, unloading or bunkering at Batangas Port. It is delivered to the vessel through hose connections. The water satisfies the physical and chemical requirements for drinking water.

FUEL: Bunkers are available from the 2 refineries. Prior advice should be given through the ship's Agent.

FIRE PRECAUTIONS: At both refineries smoking or open fires are prohibited on the wharves or on vessels alongside or within 100 yards of either wharf. Furthermore, each vessel's personnel is responsible for the safety of its own ship at all times.

CUSTOMS ALLOWANCES: Sufficient for crew's use in port.

IDENTIFICATION CARDS: Not required in the Port of Batangas. Pedestrian and vehicle passes required.

CONSULS: Consulates are stationed in Manila.

REPAIRS: *Keppel, Philippines:* (Finger Pier) Total berth of 300 m. with deep water, provides facilities for repair of vessels of up to 5,000 d.w.t.

Cranage: 1×5 ton travelling crane on floating deck; 2×37 ton crawler cranes; 1×12 ton mobile crane.

Hull shop: 80 m.×22 m. covered workshops equipped with 2 units 10 ton overhead travelling crane; 1×750 ton×6 m. long flanging press; 1×500-ton hydraulic portal press.

Machine shop: 80 m.×14 m. covered workshop equipped with 1×5 ton overhead travelling crane, 1×10 m. long×800 m. swing lathe, other lathes, milling machines, drilling machines, etc.

Electrical shop: Facilities for electrical repairs, rewinding, insulation repairs, etc., other shops are pipe and carpenter shop to give full range of services for new constructions and repairs.

PNOC Marine Corporation: Principal Facilities:

Shiplift Drydock:

Lifting Capacity: 7,500 long tons.
Length of Platform: 172.5 m.
Width of Platform: 28 m.
Maximum Draft Liftdock at MLLW without Keel Blocks: 7.97 m.
Elevation at Top of Pier at MLLW: 4.6 m.

Transfer System Parameters:

Total Rated Lift Capacity: 7,500 long tons.
Maximum Lift Capacity: 11,300 long tons.
Keel Block Bogie Jacks: 164 units (maximum).
Outrigger Bogie Jacks: 46 units (maximum).
Rail Lift Cylinders: 120 units (maximum).

Work Berths:

New Construction Berth No. 9: Capacity 7,500 long tons (light displacement weight). Length 168.3 m. Width 27 m.

Repair Berth No. 8: Capacity 7,500 long tons (light displacement weight). Length 168.3 m. Width 27 m.

Repair Berth No. 7: Capacity 5,000 long tons (light displacement weight). Length 108 m. Width 27 m.

Repair Berth Nos. 1 – 6: Capacity 2,700 long tons (light displacement weight). Length 108 m. Width 21 m.

Other Facilities, Buildings and Shops:

Lift Control Building. New Construction/Erection Area. Gantry Crane (50 ton capacity). Whirley Crane (42 ton capacity). Receiving and Control Building. Covered Fabrication Area. Steel Fabrication Shop. Open Storage. Carpentry Shop and Mold Loft. Vehicle Repair Shop. Power Plant. Propane Storage Pad. Flammable Storage. Oxygen Plant. Water Storage Tank. Pump House. Crane Control House. Warehouse. Gate and Control Building. Parking Area. Administration/Clinic Building. Employee Service. Canteen. Outfitting Shop. Piping Storage. Foundry Shop. Transfer Area.

DRY DOCKS: Keppel, Philippines has its floating dock with the following data of information: Max. length of vessels, 110 m.; Max. beam of vessels, 19 m.; Max. draft of docking, 5 m.

REPATRIATION: Pre-arrangement by ship's Agent and/or Master of the vessel and the Immigration Officer assigned on board the vessel.

AIRPORT: At Manila.

HOLIDAYS: New Year's Day (January 1st); Holy Thursday; Good Friday; Labour Day (May 1st); Independence Day (June 12th); R.P.-U.S. Friendship Day (July 4th); Bonifacio Day (November 30th); Christmas Day (December 25th); Rizal Day (December 30th); Special holidays declared by the President of the Philippines are also included. If any other legal holiday falls on Sunday the following day is observed as a holiday. Cargo handling work can be arranged on any or all holidays with the vessel's Agent.

TIME: GMT plus 8 hours.
POLICE/AMBULANCE/FIRE: PPA Port Police: 725-2882. National Customs Police: 725-2971. Batangas City Police: 725-2125. Ambulance: 725-2890. Fire Department: 725-2470.
TELEPHONES: At present placing telephones on board foreign vessels is not available; however, telephone service is available on the jetty of both refineries.
GENERAL: *Discharge of Ballast:* No dirty ballast may be dumped into the territorial waters of the Republic of the Philippines. The refineries have provisions for off-loading a limited amount of oil water ballast.
Rat Guards: Rat Guards shall be placed on all mooring lines to the wharves and piers.
Parking Facilities: 7,226 sq.m.
DEVELOPMENTS: New coal discharge terminal to be completed for vessels of 100,000 d.w.t., discharge rate 1,600 t.p.h.

Passenger terminal and concrete wharf (550 m.) to be constructed.

SHIPMASTER'S REPORT: June 1982.
Caltex Island Wharf:

Prior to arrival call "Luzsteveco" (Luzon Stevedoring Co.) on Channel 16 or 11 for berthing information. Berthing is slow as pilot boat runs lines and is not powerful enough to handle big wires. Moorings are 3, 2, 2. We were advised 16 in. reducers but they prefer 14 in. which are more suitable for their hydraulic clamps. 4 surveyors on board for cargo. Boat required to get ashore.

SHIPMASTER'S REPORT: January 1987.

Daylight berthing only at BBTI Pier as berthing dolphins (2) are only 60 m. apart. Also lighting is insufficient. Pilot advises that depth at pier is 45 ft.

SHIPMASTER'S REPORT: May 1987.

On arrival, the Port Officials, Pilot and Agent board the vessel from a tug in the vicinity of Batangas Town and the ship then drifts while they clear the ship before proceeding to the berth. The number of officials are numerous and include the Plant Quarantine Officer who requires a list of all pot plants onboard.

They depart on the tug after completion of formalities.

The following documents are required by Port Authorities on arrival at Tabangao:

9 copies Crew List.
6 copies Crew Declaration List.
6 copies Crew Vaccination List.
6 copies Vessel Information List.
8 copies Stores List.
7 copies Provisions List.
6 copies Narcotics List.
7 copies Plant and Animal List.
6 copies Ammunition List.

Distribution of documents is as follows:

Medical Quarantine Doctor - 1 copy of Crew Vaccination List.
Customs - 5 copies of each document.
Immigration - 2 copies of Crew List.
Plant Quarantine Officer - 1 copy each of Stores List, Provisions List and Plant and Animals List.
Animal Quarantine Officer - 1 copy each of Stores List, Provisions List and Plant and Animals List.
Narcotics Police - 1 copy of Narcotics List.
Coast Guard - 1 copy each of Crew List, Crew Declaration List, Stores List and Ammunition List.
Agent - 1 copy each of Crew List and Vessel Information List.

AUTHORITY: Philippine Ports Authority, Port of Batangas, Batangas City, Philippines. *Tel:* 725-2862, 725-3793. *Contact:* Salvador L. Reyna, Port Manager.
AGENT: See "Manila".

BISLIG, Mindanao: 08.14 N. 126.22 E.

See "General" before first port.
PILOTAGE: Vessel should send direct advice to the Pilot or through its Agents 48 hours prior or at the very least 24 hours before ETA by commercial telegraphy.

There is no VHF operated by the Pilot.

Pilot boat is painted black (hull) and white (bridge and mast). International Code Signals used to call Pilot.

Pilot station is located at Lat. 8° 11.4′ N., Long. 126° 21.2′ E.

Pilot boat will be located (if by prior advice/arrangement by Master requiring specific service of meeting vessel outside of entrance and conducting vessel through channel to inner harbour) at Lat. 8° 16.85′ N., Long. 126° 26.50′ E. or 340°, 2.35 miles off Sanco Pt. Lighthouse.

Pilot will always board a vessel (outside of entrance) via the Pilot's or Jacob's ladder on the leeward side of the vessel.
ANCHORAGE: While waiting for a Pilot, the recommended anchorage (at entrance) is at Lat. 8° 16.1′ N., Long. 126° 26.1′ E. on or about this position and/or within an area of 0.5 miles radius from this point.

Quarantine anchorage or inner harbour is based on the point Lat. 8° 12.9′ N., Long. 126° 22.0′ E. to within 0.25 miles radius from this point as centre, otherwise 1 mile North of BBLCI Pier's end.

Working anchorage at stream. When vessel is through with all the port formalities, she has to go to a working area for loading/unloading operations, thus:

BBLCI: Vessels will anchor at least within a 0.5 mile radius from the tip of BBLCI Pier.

PICOP: Is especially preferred during N.W. monsoon at least within a 0.5 mile radius from the foot/base of PICOP breakwater.

Bislig Bay: In general is bounded by a line from *(a)* Sanco Pt. to *(b)* Mawes I. to N.W., thence to *(c)* the town of Bislig to the S.W., thence to *(d)* the village of Mangagoy to the S.W., and back to *(a)* Sanco Pt.
MAX. SIZE: 30 ft. at PICOP Pier.
HEALTH: Any vessel can be given Free Pratique if upon inspection everybody is healthy, vessel is clean and all certificates of vaccination are complete. However, if there is a suspicious quarantinable disease, a probationary Pratique should be issued and after 6 days, if it was found out that there was no quarantinable disease at all, Free Pratique will be issued.
RADIO: RCPI, Clavecella and CRC.
TUGS: Tugs normally meet vessel with Pilot at the 5 miles limit and assist Pilot in docking, using ship's lines. 5 available. 4 at 225 h.p. and 1 at 112 h.p.
BERTHING: Berthing is on a first-come first served basis. During the N.E. monsoon berthing is in daylight only for precautionary measures.

BBLCI and PICOP maintain 2 piers and 1 marginal pier.

BBLCI: Pier Position Lat. 8° 11′ 51″ N., Long. 126° 21′ 55″ W. This is an all concrete pier 800 ft. long and 30 ft. wide with berthing space of 550 ft. on each side. Max. draft 28 ft. at seaward end, 22 ft. at shore end. Both sides are protected by dolphins constructed of pile fenders and large tyres as absorbers. Largest vessel to berth at pier at present is 18,500 tons gross. Lumber, veneer, plywood and logs are loaded at this pier.

BBLCI Marginal Pier. For vessels of less than 1,000 tons gross and 10 ft. draft.

PICOP Piers:

	Length (m.)	*Width* (m.)	*Depth* (m.)
Pier I (concrete)	244	8.0	8.8
Pier II	130	17.7	9.1

There are several patches of reefs projecting N.W. of the channel from Sanco Point to the fairway leading to the PICOP Piers. The port therefore should be entered only during daylight.

January, February and March, the season of the N.E. monsoon, makes it difficult for approaching and securing ship because of strong winds and heavy seas.
CARGO HANDLING FACILITIES: Both companies have ample equipment. Fork lifts, lighters, mobile cranes max. lift 50 ton (BBLCI), and 75 ton (PICOP), sideloaders, trucks and trailers.
STEVEDORES: ETA should be advised 2 days before ship's arrival stating workable hatches and gang requirement for berthing and gang arrangement.

20 gangs available, shifts change at 0600 and 1800 hrs. when port is full. If only few ships in port change at 0600, 1500 and 2300 hrs.
MEDICAL: It is necessary for the Agent to receive advance notice if there is serious medical attendance and hospitalisation. However, less serious medical attendance does not need notification. Port of Bislig has hospital facilities with complete cholera, El Tor and typhoid vaccine available.
DENSITY: About 1025 with tendency to become heavier during dry season and on flood tide.
FRESH WATER: Available at East end of BBLCI Pier. The connection is 2 in., situated 100 ft. from the approach, discharge rate 20 g.p.m.
FUEL: Small quantities available. BBLCI maintain 3 tanks for Caltex.

1. Bunker oil tank	30,000 bbls.
2. Diesel oil tank	11,300 bbls.
3. Gasoline tank	5,100 bbls.

Tank trucks available to deliver oil and gasoline.
GANGWAY/DECK WATCHMEN: P1.00 per hour for at least 3 men.
OPENING/CLOSING HATCHES: Rigging of booms is done by ship's crew, while opening and closing of hatches is carried out by stevedores.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle liquor for each man.
IDENTIFICATION CARDS: Needed.
REPAIRS: May be made to ship's gear and equipment by arrangement with BBLCI. The company have an engine repair shop, machine shop and foundry.
AIRPORT: 5 km. distant; daily flights.
TIME: Local Standard Time is 8 hours ahead of GMT.
HOLIDAYS: On Christmas Day; New Year's Day and Good Friday. Cargo work may be arranged.
GENERAL: Engineering supplies available from BBLCI and PICOP. Dunnage available through BBLCI. Provisions available through chandler or market 1 km. from BBLCI Pier.
DEVELOPMENTS: More berthing facilities are on the programme for the next 3 to 5 years when the pulp and paper mill is in operation. Installation of more log-processing plants to increase shipments.

SHIPMASTER'S REPORT: June 1978

Bislig Bay – East coast of the Philippines – 8° 15′ N., 126° 25′ E.

Apart from the B.A. Charts, Philippine Charts 4627 and 4664 were used. (Available at Manila).

Directions: Experienced an insetting current along the coast before entering the bay. For High and Low water Bislig Bay see A.T.T. Hinatuan, No. 5057.

(a) The tower at Sanco Point has been destroyed though the foundation (5 m. high) is still visible when not obscured by trees when entering the bay.
(b) All buoys have disappeared.
(c) Beacon B was blown away but beacons A & C are conspicuous.
(d) Prominent Hill of 920 ft. in the direction of 230° was invisible because of morning mist.

Kept beacon "A" on bearing 205° till beacon "C" was 130° and the small island of Agonoy 270°. One way of keeping clear of the shallow depths near the entrance.

Altered course to 230° and steered for the Quarantine Anchorage when Agonoy was 320°.

There is one Pilot available. Pilotage is compulsory. He embarked halfway between Sanco Point and the anchorage from a prao, displaying a large "H" flag.

Berthed starboard side to at the East side of the pier with starboard anchor one shackle in the water slacking away when necessary. Observed a noticeable swell on the other side of the pier.

Moored with 3 headlines and 1 spring forward. Two springs from Hatch 6 leading forward and 2 lines from the fore-end of Hatch No. 5, Hatch No. 6 could not be accommodated alongside the wharf. Inferring not to stow any Bislig cargo in that hatch. It is possible but this hampers the despatch as cargo has to be driven by fork lift truck from the deck of Hatch 6 to Hatch 5.

Two small mooring boats assist in the berthing. On departure these 2 boats assisted in pushing the vessel around.

The normal Quarantine telegram, as for other countries, is not necessary for the Philippines.

Two cabins are required for Immigration and Customs.

Connection with shore: Via the offside gangway and prao. There is a curfew from midnight till 0600 hrs.

Cargo handling: The width of the wharf and the lack of fork lift trucks slowed down operations. Another factor is the presence of another discharging or loading vessel alongside the other side of the pier.

Agency: Agent from Manila Office flew from Manila to assist the local offices.

Fruits and vegetables available.

AUTHORITY: Collector of Customs.

CAGAYAN DE ORO, Mindanao: 08.30 N. 124.40 E. (See Plan)

See "General" before first port.

DOCUMENTS:

Application for Berth.
Vessel's Information.
Inward and Outward Manifests.
Passenger Lists.
Oath on entering Vessel from Foreign Port.
Oath of Clearance of Vessel.
Crew Lists.
Store Lists.
Personal Effects Lists.

PILOTAGE: Pilotage is compulsory for vessels engaged in foreign trade of 100 tons or over, docking or leaving at or leaving the Government Wharf or any privately owned wharf in the Port of Cagayan de Oro.

Notice of ETA should reach the Pilot Association of Cagayan de Oro 24 hours before vessel's arrival. For purposes of berthing allocation, foreign vessel's ETA should be received by PPA 72 hours before arrival. Approaching vessels are required to blow whistle (2 long and 1 short blast) stop the engine and wait for the Pilot to come. A foreign vessel is met by the Harbour Pilot approximately 2 miles from the wharf except for vessels docking at Philippine Sinter which requires the Pilot to meet the vessels 5 miles from the PSC wharf.

ANCHORAGE: The depth of safe anchorage is 60 fathoms, about 400 m. from the shore.

MAX. SIZE: Max. draft of 13 m. alongside, 80 m. from the Northern portion of the quay; the rest 10.5 m. along the quay side.

HEALTH: Foreign ships will clear quarantine on arrival at Cagayan de Oro Harbour. Quarantine officers will board the vessel before the pilot's boat meets the vessel.

RADIO: It is not wise to send ETA of vessel through the radio station. ETA could be best transmitted through the different telegram offices in the city such as RCPI, PT&T, Telefast, Clavecilla and Globe Mackay which is worldwide.

VHF: Port Radio on Channel 16, Pilots on Channels 16 and 12.

TUGS: Tugs for hire are available through the Harbour Pilots Inc.

BERTHING: Berthing may be done any time during the day or during the night. Max. permissible ship's draft along the 80 m. portion from the North of the quay is 13 m. and 8.5 m. along the rest of the quay. The present quay is 477.7 m. in length giving a total of 8 berthing spaces.

CARGO HANDLING FACILITIES: The port has two cargo handling operators. Phase I is operated by The Gold City Integrated Port Services, Inc. (INPORT). The company has 9×3 ton forklifts; 1×5 ton forklift, 1×20 ton forklift, 1×25 ton forklift; 1×35 ton forklift; 1×10 ton crane; 2×12 ton cranes; 4× 6-wheel trucks.

Phase II is operated by the Continental Arrastre and Stevedoring Company (CASCO). The company has 1×2 ton forklift; 2×3 ton forklifts; 3×3.5 ton forklifts and 1×6 ton forklift.

MEDICAL: Hospital facilities are available in the City of Cagayan de Oro.

FRESH WATER: The Philippine Ports Authority supplies water at the Cagayan de Oro Port. Water is delivered through hose connections direct from PPA's underground water tank. There are 8 outlets at Phase I and 6 outlets at Phase II.

FUEL: Vessels are required to apply for bunkering at PPA with a bunkering fee of P25.00 per vessel. Fuel oil is supplied by the local distributors of Petron, Caltex, Mobil and Shell.

REPAIRS: Minor repairs, not to exceed 2 hours, may be allowed for vessels at berth upon approval by the Philippine Ports Authority. Major repairs have to be done at the anchorage.

SURVEYORS: None.

HATCHES: Opening and closing of hatches is carried out by the stevedoring companies.

CUSTOMS ALLOWANCES: Sufficient amount for crew's consumption whilst in port.

AIRPORT: Lumbia Airport is 9 km. from the Macabalan Wharf and is served by regular airlines.

TIME: GMT plus 8 hours.

EMERGENCY CO-ORDINATION CENTRE: Philippine Coast Guard Station, Port Area, Cagayan de Oro City. No telephone.

HOLIDAYS: New Year's Day (January 1st), Holy Thursday, Good Friday, Labour Day (May 1st), Araw ng Kagitingan (May 6th), Independence Day (June 12th), Phil. American Friendship Day (July 4th), Bonifacio Day (November 30th), Rizal Day (December 30th).

Special Holidays declared by the President of the Philippines are included. If a legal holiday falls on a Sunday, the following day is a holiday. Normally, the integrated port service works on the vessel regardless of the day except for a 4 hour break in the afternoon of Good Friday, Christmas and New Year's Eve.

POLICE/AMBULANCE/FIRE: Police Tel. 110; Ambulance: Tel. 35-01 (Northern Mindanao Regional Training Hospital); 30-69 (Medical Centre); 42-21 (Madonna and Child Hospital); 32-66 (Cagayan Capitol College Hospital).

IDENTIFICATION CARDS: Seaman's Book and/or Passport, Shore Leave or Liberty Pass.

STORING: See "Prelims".

1. Truck.
3. Yes.
4. Yes.
6. Yes.

SHIP SUPPLY SERVICE: The following Chandlers operate in the Port:

Alpha Premier Enterprises, 30 Matilde Neri St., Cagayan de Oro City.
Amity Shipping Agency, 70 Gomez, Cor. Capistrano Sts., Cagayan de Oro City.
Andres A. Maandig, Jr., Corrales Ext., Cagayan de Oro City.
Citizen Protective Agency, 1346 Buara, Puntod, Cagayan de Oro City.
D A Ship Chandler, 248 San Juan II, Lapasan, Cagayan de Oro City.
Doris C. Talaroc Shipchandling, 9-4th Sts., Nazarethe Subd., Cagayan de Oro City.
DVJ Trading, Mr. Obulan St., Capistrano Complex, Gusa, Cagayan de Oro City.
Pair Marine Supplies, 190 CM Recto Ave., Lapasan, Cagayan de Oro City.
Q.C. Magada Shipping Agency, YMCA Bldg., J. Pacana St., Cagayan de Oro City.

DEVELOPMENTS: *Phase II Port Expansion Facilities:*

The following port facilities are provided in the Phase II port expansion project:

1. Quay Length – 415 m. Depth – 10.5 m.
2. Container Freight Station – 5,000 sq.m.
3. Open Transit Shed – 5,000 sq.m.
4. Marshalling Yard – 12,757 sq.m.
5. Paved Open Storage Area – 8,420 sq.m.
6. Unpaved Open Storage Area – 22,800 sq.m.
7. Two Weighbridges and Control Gate – 50 tons.
8. Water Supply Hydrants – 7.
9. Access Road – 1 km.
10. Standby Power Generator – 400 kVA.
11. Reefer Outlets – 6.

This project was completed on November 30th, 1986.

SHIPMASTER'S REPORT: June 1978 (Updated 1988).

Anchored 4.75 cables, 337° from the lighthouse. (F.R. 58 ft.) lowered 4 shackles into the water and after dropping slacked away to 7 shackles in the water in 50 fathoms of water.

Moored port side to owing to the distribution of the cargo in hatches Nos. 5 and 6. The Pilot prefers to berth starboard too.

Fore and aft springs, use nylon ropes (no wires, to facilitate the handling by the boat crews). Small tugs push vessel alongside. Anchor lowered with 1 shackle in the water, slacking away when necessary.

Cargo handling was good. Pallets were nicely stacked on the wharf. Provisions, vegetables and fruit, available.

Recommendation: Arrivals at daylight only. Consult Agents before signing papers.

AUTHORITY: Philippine Ports Authority, Port of Cagayan de Oro, Port Management Unit, Macabalan, Cagayan de Oro City, Philippines. *Tel:* 44-48, 45-48. *Contact:* Hector E. Miole, Port Manager.

CEBU, Cebu Island: 10.18 N. 123.53 E. (See Plan)

See "General" before first port.

GENERAL:

Port of Cebu City: General Description:

Situated at the city frontage between Cebu and Mactan Island. 4,474 m. of quayside (including international and domestic zones).

3 finger piers at 155 m.×32.8 m. The international zone has a length of 451 m., excluding the 2 finger piers.

3 government transit sheds on each pier with a total area of 6,264 sq.m.

Total port area is 423,245 sq.m.

Port District of Cebu:

(a) The National main Port of Cebu.

(b) Aside from the main Port of Cebu, there are 11 other ports within Cebu Harbour namely:

1. The Ludo Private Port.
2. The Mandaue Municipal Wharf.
3. Ouano Private Wharf.
4. San Miguel Corp. Private Wharf.
5. Fil Oil Depot Private Pier.
6. General Milling Corp. Private Wharf.
7. Matimco Private Wharf.
8. Opon Municipal Wharf.
9. Mobil Oil Depot Private Wharf.
10. Caltex Oil Depot Private Wharf.
11. Shell Island Depot Private Wharf.

PORT LIMITS: The Port Limits of Cebu: Cebu Harbour as that part of the Strait between Mactan Island and the Island of Cebu within the following boundaries: an imaginary line extending from Bantolinao Point, Mactan Island, due North (true) to the Island of Cebu; and an imaginary line extending from Lauis Ledge, Mactan Island, to Lipata Point, Island of Cebu.

DOCUMENTS: *For Entry:*

7 Copies of the Inward Foreign Manifest listing therein all cargoes to be discharged in the port.
4 copies of the Cargo Stowage Plan.
3 copies of the Stores List.
3 copies of Bonded Store List.
3 copies of Firearms and Ammunition List.
3 copies of List of Drugs and Narcotics.
3 copies of Passenger List.
3 copies of Crew List.

The original copy of the Manifest for all through cargo destined for other ports to be deposited with the Customs Inspector on board.

For clearance:

3 copies of Post Office Clearance (for mail discharged or loaded).
3 copies of Request for Clearance.
5 copies of B.C. Form 101 (Customs Inspector report on departing vessel).
5 copies of B.C. Form 98 (Clearance of Vessel to Foreign Port).
5 copies of B.C. Form 198 (Oath of Master).
3 copies of Quarantine Clearance.
1 copy of Plant and Animal Quarantine Clearance.
7 copies of B.C. Form 88 (Outward Foreign Manifest).
6 copies of B.C. Form 88–A (Statistical Supplement).
5 copies of Master's Oath covering list of officers on board.
5 copies of Crew List.

PILOTAGE: At least 48 hours before arrival, the Shipmaster shall transmit to the ship's Agent in Manila through the Coastal Station, Manila Radio (DSZ, operated by the Association of International Shipping Lines), a message indicating the ship's position and the estimated time of arrival (ETA).

In turn, the ship's Agent shall pre-arrange the meeting time at the designated boat station through a telegram to the Cebu Harbour Pilots' Association.

Boat Station No. 1:

1 mile off Black Buoy No. 1 in the vicinity of Bantolinao Lighthouse, Mactan Island for foreign vessels coming from the North of Cebu Harbour.

Boat Station No. 2:

1 mile off Lauis Ledge, Mactan Island for foreign vessels coming from the South of Cebu Harbour.

Visual Signals: Request for Pilot. The single hoist of the international code flag "G".

Sound Signals: Request for Pilot. The international morse code "G" or 2 prolonged blasts, followed by 1 short blast of the ship's whistle.

Pilot Boats:

During night-time:

1. All around white light on top of a red light in a vertical line.
2. Side lights.

During daytime:

A motor launch of approximately 20 gross tons, with the single hoist of the international code flag "H".

ANCHORAGE:

(a) 1st Anchorage: In front of Pier 3 in position, Lat. 10° 17.8′ N., Long. 123° 54.90′ E. Depth MLLW=4 fathoms.

(b) 2nd Anchorage: In front of William Lines Warehouse in position, Lat. 10° 18.0′ N., Long. 123° 55.25′ E. Depth MLLW=5 fathoms.

(c) 3rd Anchorage: In front of Aboitiz Terminal in position, Lat. 10° 18.2′ N., Long. 123° 55.5′ E. Depth MLLW=6 fathoms.

South Stream:

(a) 1st Anchorage: Opposite Ludo Wharf in position, Lat. 10° 16.88′ N., Long. 123° 53.43′ E. Depth MLLW=6 fathoms.

(b) 2nd Anchorage: N.E. of Cawit Island in position, Lat. 10° 16.54′ N., Long. 123° 53.33′ E. Depth MLLW=8 fathoms.

(c) 3rd Anchorage: Lat. 10° 16.17′ N., Long. 123° 53.28′ E. Depth MLLW=6 fathoms.

(d) Explosive Anchorage: South of Lipata Point, West of Lauis Ledge.

Anchorage Instructions:

(a) Only 3 vessels of 600 ft. overall length can anchor at the anchorage with a safety margin for dragging and swinging during bad weather with 4 shackles in the water recommended for safe anchorage.

(b) For each vessel of 600 ft. overall length with 4 shackles of anchor chain in the water, approximate turning circle radius is 960 ft.

RESTRICTIONS:

1. Foreign ships are not allowed to pass the North Channel, due to the bridge between Madaue and Opon. However, ships of 80 ft. vertical height from MLW and length of 300 ft. may pass with utmost care.

2. Draft limitation of 40 ft. for Cebu Channel while port established berthing spaces vary from 10 ft. up to 30 ft.

3. Ballast, oil are prohibited to be discharged within the Cebu Harbour and Philippine waters.

MAX. SIZE: See "Berthing".

HEALTH: Pratique obtained after Quarantine personnel have boarded, mustered crew and passengers, and examined ship's health documents. Pratique automatic if vessel coming from another Philippine port.

RADIO: Globe Mackay & Radio Corp. Call letters DZM. (Other call letters and frequencies available).

Working Frequencies: 4328 kHz, 6492 kHz, 8656 kHz, 12984 kHz.

Listening Frequencies: 425 kHz and 500 kHz; 6258.5 – 6265.5 kHz; 8354 – 8374 kHz; 12531 – 12561 kHz.

Master may contact Cebu Stevedoring Company through Channel 1 (156.7 MHz) and Channel 2 (157.8 MHz) VHF.

VHF: Harbour Pilots may be contacted on VHF Channel 16.

Vessels are to call "Cebu Pilots" 2 hours prior to arrival advising them if coming from the North or South.

TUGS: The Cebu Harbour Pilots Association has available tugs of varying h.p. When additional h.p. is required, Cebu Stevedoring Co. can provide tugboat with h.p. ranging from 350 to 690 h.p.

BERTHING: Berthing may be done at any time during the day or at night and Masters should exercise their own judgment in this respect. Vessels moor either port or starboard side to, depending on prevailing conditions.

Port of Cebu: Berthing of vessels engaged in foreign trade are limited to moor only at the following berthing areas.

(a) Cebu International Port:

Berth Number	*Length of Berthing space* (m.)	*Draft Limitation* (ft.)
1	172.5	30
2	172.5	30
3	172.5	30
4	172.5	30

1×35 ton and 1×25 ton level luffing cranes for containers. 3×25 ton fork lifts.

(b) Ludo Private Port: Berthing of vessels engaged in foreign trade at Ludo Private Port are moored to concrete dolphins running N.E. or S.W. of the Ludo Pier. Draft limitation: 40 ft.

Port Establishment of Mandaue: Berthing of vessels engaged in foreign trade are not allowed at Mandaue. Draft limitation: 12 ft.

Port Establishment of Mactan: Berthing of vessels engaged in foreign trade are allowed at General Milling Corporation Private Wharf, and Shell Island Depot Private Wharf.

Port District	*Draft Limitation* (ft.)
General Milling Corp. Pvt. Wharf	25
Opon Municipal Port	15
Mobil Oil Depot	25
Caltex Oil Depot	25
Shell Island Depot	30

Cebu is a principal port of entry open to both foreign and domestic trade.

Other Ports of Entry under PMU-Cebu.

I. Mactan. Another port of entry, N.E. of the Port of Cebu City. Considered as an industrial port, it has jurisdiction over all of Mactan, Shell and Olango islands. Average ship call is 145 vessels (foreign and domestic) per month.

Other ports of entry under the jurisdiction of PPA-Mactan but owned by private entities are:

General Milling Corporation – A 275 m. private marginal wharf with an average depth of 12.20 m. Foreign vessels usually carry raw wheat materials for processing at GMC mills.

Mobil Oil Philippines – 97 m. long with an average depth of 9.90 m. Has total storage capacity of 424,162 bbls. Used exclusively by tankers.

Caltex – Shell – 156.34 m. long with total storage capacity of 273,750 bbls.

II. Tagbilaran. Situated at the S.W. portion of the Island-Province of Bohol, the Tagbilaran Port has a total area of about 10,393.48 sq.m. Average depth is 3.28 m. (This is an ongoing project. Reclaimation to 90 m. × 28 m. × 6.30 m. depth).

Pilotage is compulsory which is handled by the Tagbilaran Harbour Pilots Association.

Philippine Sinter Corporation (PSC) Private Port: Situated in Garcia Hernandez, S.E. of Bohol and is 53 km. from Tagbilaran City.

III. Other Private Ports which also serve as Ports of Entry.

Atlas Consolidated Mining & Development Corporation (ACMDC) at Sangi, Toledo. Under the jurisdiction of the PPA Sub-port of Toledo, this private port caters to ocean-going vessels which unload imported machinery and equipment, anhydrous ammonia, sulphuric acid among others. While those exported are copper concentrates and pyrite cinders.

Durano Private Port in Danao, Cebu.

APO Cement Corporation Private Port in Tina-an Naga, Cebu.

Philippine Mining Service Corporation Private Port, located at the Municipality of Dalaguete, Cebu caters to foreign vessels to load dolomite with the use of conveyor belts.

National Power Private Port, located at Tina-an Naga, Cebu caters to foreign and domestic vessels to load or unload coal.

Total Bulk Corp. in Mandaue City.

Prime White Cement in Asturias, Cebu.

Petrophil Corp. in Mandaue City.

BRIDGES: The Opon-Mandaue Bridge crossing the North channel is completed and open to traffic. According to Cebu Pilots Association, clearance is 76 ft. at HW and 80 ft. at LW.

STEVEDORES: Ordered by Agents, no ETA to stevedores necessary from Master.

Cranes (50 ton floating crane), forklifts, trucks, tugs, barges and lighters are used for cargo handling and are mostly owned by private contractors.

MEDICAL: No advance notice to Agents needed. Hospital facilities available anytime.
TANKERS: See "Berthing".
DENSITY: 1030.
FRESH WATER: Most berths supplied by shore installation, otherwise by barge or trucks.
FUEL: Fuel oil can be obtained by arrangement with the different oil installations on Mactan Island.
FIRE PRECAUTIONS: Tankers discharging: Smoking only allowed in saloon (officers), crew in the messroom.
GANGWAY/DECK WATCHMEN: Services of watchmen necessary subject Master's recommendation.
OPENING/CLOSING HATCHES: Stevedores, with aid of ship's crew.
CUSTOMS ALLOWANCES: (Tobacco) 1 carton a week for each crew member. (Wine and/or Spirits) 1 bottle a week for each crew member.
IDENTIFICATION CARDS: Required by Immigration Authorities.
CONSULS: Norwegian 9-77-20; Chinese 7-45-85; American 7-31-51.
REPAIRS: Minor repairs possible.
DRY DOCK: Cebu Shipyard – Dry dock: 160 m.×30 m.×6.0 m. on sill. 6 slipways, max. size 6,000 d.w.t.
REPATRIATION: Facilities available.
AIRPORT: Distance 7 miles from port and regularly served by all domestic airlines.
TIME: Local time based on the 120° East meridian. GMT plus 8 hours.
HOLIDAYS: Cargo can be arranged during holidays, which are the following: New Year (January 1st); Holy Thursday; Good Friday; Bataan Day (April 9th); Labour Day (May 1st); Independence Day (June 12th); Republic Day (July 4th); Bonifacio Day (November 30th); Christmas Day (December 25th); Rizal Day (December 30th).
SHORE LEAVE: Possible after clearance from Immigration.
SERVICES: Compass adjusting services available. Contact Captain Chong at G.P. Shipping Lines or Captain Basa at Aboitiz Shipping Lines.
DELAYS: Berthing on North side of piers depends upon tide and current. South side of piers, vessel can dock any time.
PROPOSED PORT DEVELOPMENT:
I. *Proposed Port Development:* All 1986 proposed developments for the container port were completed except for the equipment for handling bulk grain to be installed by NGA at the Southernmost section of the new Cebu International Port.
II. *Domestic Conventional Berths:* All proposed developments at domestic conventional berths were completed.
III. *Cargo Handling Equipment:* Cargo handling equipment for the new CIP including 2 level luffing cranes (25 and 35 tons) and 3 forklifts (25 tonnes each) were purchased for the new CIP.
IV. *Future Port Development:*

Reclamation of an additional area in the shallow basin Northward of the existing port will serve as the room for expansion of the proposed facilities. The area is divided into three development stages with varying implementation schedules, depending on its viability.

The proposed reclamation will have wider potential back-up areas, less constraints in layout design and the availability of the areas for Stages II and III for future expansion of cargo handling facilities. The disadvantages include the shortage of suitable fill materials, the probable settlement in the newly reclaimed areas and longer construction. (Detailed surveys and soil investigations have already been completed for these sites).
AUTHORITY: Philippine Ports Authority, Port of Cebu, MacArthur Boulevard Extension, North Reclamation Area, Cebu City, Philippines 6401. *Tel:* 9-18-59, 7-08-15. *Cables:* PPA-Cebu. *Contact:* Leopoldo F. Bungubung, Port Manager.
AGENT: See "Manila".

ADD ADDRESS – NEW OFFICE

DADIANGAS (General Santos City), Mindanao: 06.06 N. 125.09 E. (See Plan)

See "General" before first port.
PORT LIMITS: Port of General Santos embraces all that portion of Saranggani Bay bounded by an imaginary line extending across the bay from Tampuan Point to Sumpang Point, thence along the shoreline until the point of commencement (Lat: 06° 06′ N., Long: 125° 09′ E.). This shall include all foreshore areas and delineated port area of Makar Wharf.
DOCUMENTS: Vessels calling at General Santos are required upon entry to submit to the Philippine Ports Authority the following: 2 copies of Inward Manifest, Passenger and Crew Declaration List, 1 copy of Cargo Storage Plan, and Hatch List and Vessel Particulars.
PILOTAGE: Pilotage is compulsory for all vessels of foreign registry of 100 g.r.t. and over, and domestic vessels of 50 g.r.t. or over. The Pilotage District covers the waters and harbours of the Port of General Santos, Milbuk, Saranggani Bay, Glan, Kiamba and other ports of South Cotabato.
Pilot Boarding Ground: One mile East of Dole Pier by a red and white pilot launch flying the "H" flag. Privately owned pilot launches are used by the Harbour Pilots in serving vessels calling at General Santos. The pilot launches are painted white and red with the marking "Pilot" at their bows and fly a small Philippine flag and the red and white flags. These launches are stationed at the Western end of the quay.

One Pilot is on duty for 5 successive days on a 24-hour basis, with one Harbour Pilot as reserve.
Docking Priority: As a general rule, the port has adopted the "first-come-first-served" basis in determining berthing priorities of vessels, subject to the exceptions hereinafter provided. Vessel's arrival means the time a vessel drops anchor at the Anchorage Area when there is no available area at the time a vessel reaches the port's Boarding Area when a berth is available.
Navigation Signals:
The following signals are recognised by all Pilots:
The pilot jack hoisted at the fore.
The international code signals or P.T.
The international code signal P.T. by flashing lights.
APPROACHES: At sea, navigating towards Dadiangas, there is only 1 navigational marker (Tinoca Point in Saranggani Strait) and that is an approach from the open Pacific, about 40 miles from Dadiangas. There are no buoys, beacons or other radar targets. The sea and harbour approaches are open and free of obstruction, and there is deep water almost to the beach, all the way into Saranggani Bay. The only apparent hazard on approach are the numerous fishing craft that are fishing at night and working along the traffic lane. Nevertheless, the fishing craft are well lighted.
ANCHORAGE: Vessels drop anchors at the designated area along the Saranggani Bay Cove near Barangay Bula Zone and just off the city. Vessels proceed immediately upon arrival to the anchorage area either to wait for berth at the public or private wharves or to wait for Customs boarding formalities and quarantine.

Anchorage of vessels is prohibited at the Fairway area, between the Dolefil Pier and Makar Wharf.
RESTRICTIONS: No restrictions on entering the harbour limits even at night time, but shipping Agents must notify and secure permits from the Authorities before incoming vessels are allowed to enter.
MAX. SIZE: See "Berthing".
HEALTH: Foreign vessels calling at the port are inspected by Immigration Officers to determine whether the vessels observe quarantine rules and regulations or whether the vessels are free from any quarantinable or communicable diseases.
RADIO: There is a privately owned radio installation in Dadiangas which should be listened to for special instructions and late priority needs.

Dadiangas	– Dole/Stanfilco Marine
Call Sign	– DXA2
Frequency	– 8722
Power	– 250 to 300 watts
Open	– 0630 to about 0700 hrs. daily. – Special arrangement can be made provided the station has been advised earlier.

When at anchorage, 1 hour's notice of berthing is to be given on VHF Channel 16 by the ship sailing into the wharf.
Estimated Time of Arrival (ETA) Notices:
The Master of the vessel sends a radio message to the ship's Agent in Manila containing advance shipping information as follows: name of vessel, port of destination, discharging/loading point (public or private wharf, at anchorage or at berth), ETA, LOA (length overall), estimated draft while alongside (in metres), nature and tonnage of cargo for discharging, and special berthing or cargo handling gear/equipment requirement.

The ship's Agent relays this shipping information at the earliest possible time to the shipping line branch/agency or Agent either by telegram, long distance or radio message which in turn, the branch Agent applies for berthing and/or anchorage allocation at the PPA, Port of General Santos. In the case of foreign or domestic vessel where it has no local Agent, messages are sent to the Harbour Pilot and to the government concerned agencies and its supervisor usually comes to arrange with agencies involved in the berthing/anchorage allocation of the vessel.
BERTHING: Berthing of vessel is done by Harbour Pilot and assisted by tugboat anytime during the day or night.

Generally, the length and breadth of a vessel entering the approaches of the Port of General Santos do not pose any problem. Vessels always berth head in, starboard side to.

On approach to the dock, walk the port anchor out until 1 shackle is at the water's edge. When about half a ship's length from the wharf, Pilot will order the anchor paid out.

	Length	*Width*	*Depth Alongside*	
Public Berth:	(m.)	(m.)	(m.)	
Makar Wharf	561	20	8.9	MLLW
Private Berths:				
Dole Pier	145	18	11.5	
GMC Wharf	47	9	12.6	
Congson Pier	(under construction)			

BULK CARGO FACILITIES: Bulk cargoes can be discharged/loaded at Makar Wharf, Dole Pier and GMC Wharf.
Port Services:
a. Port facilities servicing the banana, fish and pine industries with the use of refrigerated cargo container equipment are at the Dolefil Pier.
b. Port facilities servicing copra/by-products and other agricultural products are at Makar Wharf and GMC Pier.
c. Port facilities handling containers using the vessels' cranes or booms are at Makar Wharf, Dole Pier and GMC Pier.

SPECIALISED CARGO HANDLING FACILITIES: The port has no cargo handling facilities for Roll-on/Roll-off vessels or gantry cranes.
BRIDGES: None.
MEDICAL: There are three hospitals in General Santos City: Doctors' Hospital, St. Elizabeth Hospital and the General Santos Emergency Hospital. Shipping Agent makes arrangements with hospitals concerned in advance.
TANKERS: There are no available discharge facilities for tankers at the port except at the designated anchorage area where devices are installed by oil companies to allow vessels to discharge their cargo.
DENSITY: Variable.
FRESH WATER: Supply of fresh water is available alongside the quay. The Authority (PPA) has its own water system capable of supplying fresh water simultaneously to all vessels lying alongside the wharf. Present rate is P12.00 per ton.

FUEL: Supply of fuel or bunkering is done privately by local oil companies. A vessel shall be allowed to refuel at berth provided prior permit from the Authority is secured.

STEVEDORES: Agent of incoming vessel should advise and arrange gangs with cargo handling contractor at last 24 hours before arrival.

FIRE PRECAUTIONS: As a precautionary measure, vessels intending to refuel at the port are required to provide fire extinguishers for use in case of emergency.

CONSULS: None.

REPAIRS: Minor repairs at berth may be allowed provided that a permit is secured from the Authority.

DRY DOCKS: None.

SURVEYORS: None.

GANGWAY/DECK WATCHMEN: Shipping Agents arrange with private security agencies the hiring of gangway/deck watchmen when the service is needed.

HATCHES: Stevedores usually open and close hatches. But when a vessel is of different model and the hatches are constructed differently, Crew members are requested to assist stevedores.

CUSTOMS ALLOWANCES: Quantity of goods permitted for each Crew member to be held out of bond are goods the crew can use personally, usually one or two bottles of wine and a pack of cigarettes.

CARGO GEAR: Special cargo equipment used in the discharge or loading of heavy lifts can be arranged with private contractor.

REPATRIATION: Shipping Agent can arrange this with the Bureau of Immigration Office.

AIRPORT: There are 2 airports intended for domestic flights: Buayan Airport located 10.5 km. N.E. from the port; and the Allah Valley Airport in Surallah, South Cotabato is located 75 km. from Makar Wharf. Flights from Buayan Airport: Monday, Wednesday and Friday – 1 morning flight and 1 afternoon flight; Tuesday, Thursday, Saturday and Sunday – 1 daily flight.

TIME: GMT plus 8 hours.

HOLIDAYS: There are about 11 public holidays in the Philippines. Cargo work can be arranged with the contractor during any of these holidays.

POLICE/AMBULANCE/FIRE: Use telephone system. Contact is made through the operator.

SERVICES: Aside from the usual services rendered by the port, other ancillary services which are performed by private contractors are bunkering, re-watering, victualling, tug assistance, mooring, etc.

SHORE LEAVE: Crew members are allowed ashore provided that at all times there are sufficient personnel on board to attend in case of movement/shifting of vessel lying alongside the wharf.

IDENTIFICATION CARDS: Seaman's Book or shore pass is sufficient.

REGULATIONS: PPA gate pass system is enforced to regulate and control the movement of vehicles and pedestrians in the port zone.

DELAYS: Work stoppages due to rain/inclement weather.

GENERAL: The Port of General Santos is considered the country's first modern port and is equipped with the newly introduced cylindrical rubber fenders fixed to the wharf's cope line which serve as protectors to both berthing vessels and the wharf.

AUTHORITY: Philippine Ports Authority, Port of General Santos, P.O.Box 53, General Santos City, Philippines. *Tel:* 9259. *Contact:* Carmelo C. Bona, Officer-in-Charge.

DAVAO, Mindanao: 07.04 N. 125.38 E. (See Plan)

See "General" before first port.

PORT LIMITS: Vessels enter the port through the Southern entrance of Pakiputan Strait. A vessel is considered to be an "arrived ship" and laytime will commence (subject to Charter-Party Terms) at the Pilot's boarding position located approximately 3 miles off the lighthouse at Sta. Ana Pier.

DOCUMENTS: Required on entry

The Philippine Ports Authority (PPA):

3 Inward Foreign Manifest.
1 Cargo Stowage Plan and Hatch List.
1 Passenger List.
1 Crew Declaration List.

The Bureau of Customs (BOC):

7 Inward Foreign Manifest.
5 Cargo Stowage Plan and Hatch List.
5 Stores List.
5 Bonded Stores List.
5 Firearms and Ammunitions List.
5 Drugs and Narcotics List.
5 Passenger List.
5 Crew Declaration List.
Clearance from last port of call.

PILOTAGE: The pilot station is furnished with a copy of the approved Application for Berthing/Anchorage Permit filed with the Port Authority 36 hours prior to ship's arrival, serving as a notice for meeting an incoming vessel.

ETA Notices: The Master of the vessel sends a radio message to the ship's Agent in Manila through the coastal radio station (DSZ) Manila, operated by the Association of International Shipping Lines containing the advance shipping information as follows:

Name of vessel.
Port of destination and discharging/loading point.
ETA.
LOA.
Estimated draft whilst alongside.
Nature and tonnage of cargo for discharging.
Special berthing or cargo handling gear/equipment requirement.

The ship's Agent in Manila consequently relays this shipping information to the local Agent at the Port of Davao either by long distance telephone, telegram or telex. Where the vessel does not have a local Agent, necessary messages are sent to the Harbour Pilot and GovernmentAgencies directly involved; the supercargo normally comes a day ahead of the vessel's ETA.

Signals: The following signals are recognised by all Pilots:

To ask for Pilot by day:
The pilot jack hoisted at the fore.
The International Code Signals or P.T.

To ask for a Pilot by night:
The pyrotechnic light, commonly known as blue light, flashed every 15 minutes.
A bright white light, flashed or shown at short or frequent intervals just above the bulwark for about a minute at a time.
The International Code Signal P.T. by flashing lights.

Pilot Launches: A total of 6 launches are regularly used by the Harbour Pilots distinctively painted red and white with a number preceded by "P" at their bows and fly a small Philippine flag and a red and white flag. 3 Pilots are posted to attend to all pilotage needs of vessels on an 8 hour shift scheduled for 24 hours. The pilot launches are stationed at Sta. Ana Pier, Sasa Wharf and Hijo Wharf.

The Pilot's boarding position is at 7° 02.0′ N., 125° 39.0′ E.

Shipmaster's Report: June 1987.

Call "Davao Pilots" on VHF Channel 16, 2 hours before arrival, and advise them that you are arriving from the North or South.

ANCHORAGE: General Anchorage.

Sta. Ana Anchorage: Vessels awaiting berth availability, anchor about 450 yards N.E. or S.E. of Santa Ana Pier in 12 fathoms, mud. The anchorage is well protected except during the S.W. monsoon.

Loading Anchorage.

Maco Anchorage: Anchor in 50 fathoms with the sawmill bearing 057°, the white plantation house near the mouth of Madaum River bearing 288°, and, the Western tangent of Bassa Point bearing 223°. The bottom is mud and evidently is good holding ground.

Tambongon Anchorage: Anchorage can be taken in 10 to 20 fathoms with good holding ground.

Bunawan Anchorage: Vessels anchor Eastward of the ruined pier in 8 to 15 fathoms.

Tibungco Anchorage: Vessels anchor Eastward of the ruined pier about 0.5 mile offshore in 12 to 15 fathoms.

Talomo Anchorage: Vessels anchor at the Southwestern part of the bay in 20 fathoms, mud bottom. It is open to the S.W. monsoon.

Daliao Anchorage: Vessels anchor about 300 yards Southeastward of the ruined pier in 8 to 15 fathoms. This anchorage is exposed to Easterly winds and sea.

Tagabuli Anchorage: A deep inlet, 0.9 mile long and about 500 yards wide, is 2.3 miles Northward of Digos Point. The anchorage is protected from winds, except those from E.S.E., is in the middle of the bay in 16 to 20 fathoms, mud bottom, where the width of the bay is about 400 yards between the edges of the reefs.

Malalag Anchorage: Anchorage for vessels of any size and with more protection is Northeastward of the pier in 16 to 19 fathoms, mud bottom. Vessels entering the bay for shelter will find good protected anchorage between the islet near the head of the bay and the North shore in 20 fathoms mud.

RESTRICTIONS: There are no particular restrictions in entering the harbour limits, even at night time, after prior advices have been served and prescribed berth/anchorage permit has been secured from the Port Authority.

HEALTH: Vessels arriving from foreign ports are subject to quarantine inspection at their first port of call in the Philippines. A vessel inspected and granted a Pratique in a Philippine port is not subject to quarantine inspection at its next Philippine port of call except when during the trip there has been a case of illness or death on board or its last Philippine port of departure is infected with a quarantinable disease.

Vessels from the U.S.A., Canada, Australia, or New Zealand are permitted to enter a port, disembark and commence operations provided they have complied with the provisions of the Controlled Free Pratique.

The following are required from the Master:

1. Maritime Declaration of Health duly signed by the Master.
2. Crew List.
3. A valid Derat and/or Exemption Certificate.
4. Cargo Manifest.

For any suspected disease or fever on board, the following will apply:

1. For quarantinable disease, special measures by the Quarantine Medical Officer will be undertaken to prevent its entry.
2. For a non-quarantinable disease, patients should be disembarked and hospitalised and the local Health Officer notified. For non-landing patients, they should be isolated on board and treated.

RADIO: Other than those mentioned under "Pilotage", all messages from vessels to Agents can be sent via Apo Communication Service in Davao City, HF frequency DXF and VHF, DXF-6.

VHF: Radio communication linking Pilot to Philippine Ports Authority uses VHF Channel 16. Everett Steamship Corp. have VHF Radio set capable of connecting a ship in port to local office communications.

RADAR: No radar facilities available.

TUGS: One tug is available for vessels entering the Port. Tugs may be available if pre-arranged with National Stevedoring and Lighterage Corporation.

BERTHING: For details of available berths and types of cargoes handled respectively thereat, see table of port facilities under "Max. Size". Normally, discharging and loading of cargoes are by ship's gear.

CRANES: 65 ton, 35 ton and 25 ton cranes are available at Sasa Wharf and 30 ton cranes at Legoil and Tefasco wharves.

BULK CARGO FACILITIES: Bulk cargoes, if any, are handled at general cargo berths. Loading rate is from 10-20 tonnes per net gang hour at Sasa Government Wharf and various banana berths.

SPECIALISED CARGO HANDLING FACILITIES: There are none available, except for those mentioned as oil berths, all other ports are utilised as multi-purpose berths.

MAX. SIZE: (Continued).

Name of Port Facility	Location	Controlling Draft (m.)	Length Overall (m.)	Approx. Heading/ Position	MLLW Elevation (Sea Level) (m.)	Remarks
A. Principal Ports. (Port of Entry).						
1. Sasa Wharf	Sasa, Davao City	10.6	920.0	007°/187°	3.05	General cargo, Foreign, Domestic
2. Sta. Ana Pier	Sta. Ana Davao City	4.0	N–104.4 S–88.5	270°	2.65	General cargo, domestic only.
B. Sub-port of Entry						
1. Mati Wharf	Mati, Davao. Oriental	7.3	81.0	—	—	General cargo.
C. Private Ports. (Port of Entry).						
1. Caltex Jetty I	Sasa, Davao City	7.0	66.0	030°/210°	—	Oil berth.
Caltex Jetty II	Sasa, Davao City	9.7	55.18	041°/221°	—	Oil berth.
2. NIDC Wharf	Sasa, Davao City	9.3	205.0	042°/222°	4.3	Coco oil, general cargo. Foreign only.
3. Shell Jetty.	Sasa, Davao City	10.4	42.98	032°/212°	—	Oil berth.
4. Tefasco Wharf	Ilang, Davao City	10.0	400.0	017°/197°	3.0	General cargo.
5. MTBS Wharf	Ilang, Davao City	8.8	101.0	347°/167°	—	General cargo, banana berth.
6. Pacinter Wharf	Bayawa, Panabo, Davao	12.0	110.0	050°/230°	3.6	General cargo, banana berth.
7. Tadeco Wharf	Bayawa, Panabo, Davao	12.0	258.5	050°/230°	4.3	General cargo, banana berth.
8. HPI Wharf	Madaum, Tagum Davao,	13.0	270.0	318°	4.3	General cargo, banana berth.
D. Municipal Ports						
1. Dawis Pier	Digos, Davao del Sur	5.0	27.0	6° 45′ N. 125° 30′ E.	2.5	General cargo, domestic only.
2. Malalag Wharf	Malalag, Davao del Sur	10.0	30.0	6° 36′ N. 125° 35.5′ E.	5.0	Cane molasses and general cargo.

MAX. SIZE: Generally, length and breadth of any vessel does not pose a problem in entering the approaches of the Port of Davao, however, berthing in individual ports varies on the ports' facilities and characteristics as listed: See table above.
BRIDGES: The fairway is clear of bridges.
STEVEDORES: Upon arrival, the Arrastre Stevedoring Company is furnished a copy of the Application for Berthing Permit which is filed 36 hours prior to ship's arrival. Based thereon, gangs are mobilised as would be necessary to service the size of cargoes to be handled.

Conventional cargoes are worked at the rate of 14 tons per net gang hour at Sasa Government Wharf.
MEDICAL: There is 1 government hospital and 4 private hospitals in the area equipped with adequate medical services and facilities.
TANKERS: Diameter of discharge lines at oil berths range from 1.5 in. – 8.0 in.
DENSITY: Average salinity – 1025.
FRESH WATER: Fresh water is available and delivered either through tank lorries or barges; tank barges also service vessels worked at loading anchorages.

Point of Delivery	Distance (Nautical Miles)	Minimum Delivery (Tons)	Method of Delivery
1. Source	—	—	
2. Sta. Ana	10	50	Barge
3. Sasa	12	50	Barge Lorry
4. Panacan	16	50	Barge Lorry
5. Panabo	24	100	Barge
6. Madaum	29	100	Barge
7. Maco & Malalag	31	200	Barge

FUEL: All grades available – bunkering and other special fuel.

Mindanao Trucking Corp., Lanang, Davao City Tel: 7-55-15, 7-41-33.

Caltex (Phils) Inc., Sasa, Davao City Tel: 7-82-52.

Shell Chemicals Co., (Phils) Inc., Sasa, Davao City Tel: 7-84-91, 7-91-17.
FIRE PRECAUTIONS: At the oil berths, there are no specific fire precautions other than the usual non-smoking precaution.
CONSULS:

Japanese Consulate	Tel. No. 7-37-81
Indonesian Consulate General	Tel. No. 7-84-86

REPAIRS: Engine overhaul; all types of deck repairs; underwater bottom cleaning.
DRY DOCKS: Temporarily non-operational; capacity – 1,600 g.r.t.
SURVEYORS: R. J. del Pan Mindanao Surveyors, Inc. representing Lloyd's, A.B.S., N.K.K., Cargo and Marine Engineers, P&I Club, G.L. and Cargo Gear Bureau.
GANGWAY/DECK WATCHMEN: Watchmen necessary and recommended. Minimum cost per watchman – Philippine P.4.75 per hour; overtime P.6.41.
HATCHES: Normally, opening/closing of hatches is carried out by the stevedores.
CUSTOMS ALLOWANCES: Crew members are allowed to bring out supplies to be held out of bond but not to cost more than P.10.00 per article. Generally, sufficient amount for crew's consumption while in port is permitted.
CARGO GEAR: Ship's gear usually used in loading and discharging. When shore cranes are needed, vessel's notice to Agent should contain the requirement.

REPATRIATION: The Immigration Station can effect crew changes and likewise, allow the disembarkation of alien seamen for repatriation to their countries of origin, provided, they possess valid travel documents. Final repatriation shall be effected in Manila after securing the necessary immigration clearances.
AIRPORT: Davao International Airport, 3 km. from Sasa Wharf. Regular daily jet flights to Manila and other major cities. Turbo-prop services available for other points.
TIME: GMT plus 8 hours.
HOLIDAYS: New Year's Day (Jan. 1st); Holy Thursday; Good Friday; Labour Day (May 1st); Araw Ng Kagitingan (May 6th); Independence Day (June 12th); Fil-Am Friendship Day (July 4th); National Heroes Day (Aug. 31st); Bonifacio Day (Nov. 30th); Christmas Day (Dec. 25th); Rizal Day (Dec. 30th). Special holidays declared by the President of the Philippines. Work can be arranged on any holiday with the shipping Agent.
POLICE/AMBULANCE/FIRE: Police Tel: No. 7-26-48; Ambulance Tel: No. 7-27-31; Fire Tel: No. 07.
EMERGENCY CO-ORDINATION CENTRE: Philippine Port Authority, Sasa Wharf, Davao City 9501, P.O.Box 501, Philippines. Main office: Tel: 7-40-12, 7-17-33, 7-47-98; Sasa Terminal Office: Tel: 7-95-86; Sta. ANA Sub Office: Tel: 7-49-54. Mati Sub-port: Tel: 596.
TELEPHONES: No facilities for placing telephones onboard.
SERVICES: Cleaning on board is done either by stevedores or hired deckhands with the use of ship's equipment.

Catering, laundry, Ship chandling also available.
SHORE LEAVE: Crew members are issued shore pass by the Bureau of Immigration Officers.
IDENTIFICATION CARD: Seaman's Book is sufficient.
REGULATIONS: All vessel's movements and works thereof are regulated by the Port Authority.
DELAYS: Usual causes of delays are due to non-availability of berth and rain.
GENERAL: Sasa Wharf, St. Ana Pier, and Mati Wharf are government port facilities; the others are privately-owned.
SHIP SUPPLY SERVICE:
Launches Services:

Arcal Development Inc., Corner Guzman & 3rd Ave., Davao City. Tel: 7-69-32, Gen. Manager: Mr. Rafael N. Garcia.

Coco Traders Inc., Corner 2nd Ave., Sta. Ana, Davao City. Manager Mr. Ricardo Ng Suy.

Garcia's Water Transportation, Dona Rosario Bldg., Guzman St., Davao City. Tel: 7-66-60. Manager: Antonio D. Garcia.
DEVELOPMENTS: Proposed construction of 60 m. × 108 m. transit shed and pavement of container stacking area with drainage and lighting system facilities.

SHIPMASTER'S REPORT: September 1977 (Updated 1986).
Berthing (for bananas):
1. HPI Wharf – Del Monte, Banambo, Fruiti Rita bananas
2. Tadeco Wharf – Chiquita bananas
3. Pacinter Wharf – Dole bananas
4. MCP Wharf – Del Monte bananas.

Berthing (for general cargo):
Sasa Wharf: Max. draft North 14.8 m., Centre 11.0 m. and South 13.5 m.; max. length 920 m. with 1 Ro-Ro berth, 2 container berths and 4 general berths.

Documents:

14 Copies Inward Foreign Manifest
12 Copies Crew List
8 Copies Passenger List
8 Copies Narcotic List
8 Copies Personal Effects List
10 Copies Store List
5 Copies Vessel's General Information
8 Copies Money List
8 Copies List of Arms and Ammunition
8 Copies Parcel List
1 Copy Clearance from last port
2 Copies Quarantine Declaration
8 Copies Plant List
8 Copies List of Animals

Note: Narcotic List, Money List, List of Ammunition and Arms, List of Plants and Animals may be on the same sheet.

Radio/VHF Communications:

APO Communications DXF and Marphil Radio. The Agents Maritime Company of Phil and Everett Steamship Company are equipped with VHF in their offices.

Hospital: Davao Medical Centre (government-owned); Brokenshire Memorial Hospital, San Pedro Hospital, Davao Doctors' Hospital, Ricardo Limsu Medical Centre. All hospitals located in Davao City.

Identification Card: Not required.

Shore Leave: Curfew hours from 2400 (0000) up to 0400 hrs.

Repatriation: Expensive. Crew to be escorted by one Immigration Officer from Davao City to Manila and all expenses including overtime of Immigration Officer to be charged to Owner's account.

Holidays: New Year – Jan. 1st; Bataan Day – April 19th; Labour Day – May 1st; Independence Day – June 12th; Fil-Am Day – July 4th; All Saints Day – Nov. 1st; Bonifacio Day – Nov. 30th; Christmas Day – Dec. 25th; Rizal Day – Dec. 30th.

Bunkers: Fuel, diesel and lube oils available, clearance takes only a short time.

Shipchandler/Laundry: Available, prices reasonable.

Working Gangs for Painting Cleaning, etc (1986): Foreman: regular time – Peso 5.50/hour; overtime – Peso 7.50/hour. Ordinary workers: regular time – 4.88/hour; overtime – 6.58/hour.

Other charges: Meals. Foreman require 3 meals per day; ordinary require 2 meals per day. Transportation included in working hours.

Repairs of Ship's Instruments: Radar – any type; Radio – any type; Gyro – any type.

Ship Repairs: Minor.

Time: Standard time minus 8 hours on GMT (but 1977 was the first year with Summer time which commenced in March until September.)

AUTHORITY: Philippine Ports Authority, Port Management Unit, Port of Davao, P.O.Box 502, Sasa Wharf, Davao City 9501, Philippines. *Tel:* 7-17-33, 7-40-12, 7-47-98. Sasa Terminal Office 7-95-86. Sta. Ana Sub-Office 7-49-54. Mati Sub-Port: 596. *Telex:* ITT 48200 or 40104 PPA-Davao. *Cables:* PPA-DAVAO *Contact:* Cristelo E. Dinopol, Port Manager. Captain Edgardo V. Estarija, Harbour Master. Captain Maximo S. Dumlar Jr., General Manager.

AGENT: See "Manila."

DUMAGUETE, Negros: 09.15 N. 123.18 E.

Bacong Ammonia Terminal.

PILOTAGE: Pilots/Port Officials come from Dumaguete City, which is approx. 10 km. North of Bacong Terminal.

MAX. SIZE: Max. draft 12 m., max. d.w.t. 20,000 tons.

TUGS: No tug assistance.

BERTHING: Length of pierhead – 40 m. Wooden fenders fore and aft, 40 m. from pierhead.

HOSE CONNECTION: 6 in. single manifold. Pipe-line 6 in. diameter, 300 m. long, leading to shore tank with 6,000 tonnes capacity.

AUTHORITY: Philippine Ports Authority, Port Management Unit, Port Area, Dumaguete City 6501, Philippines. *Tel:* 32-52, 25-58, 40-41. *Contact:* Eugenio M. Magallanes, Jr., Officer-in-Charge.

GINGOOG, Mindanao: 08.50 N. 125.06 E.

SHIPMASTER'S REPORT: October 1982.

The loading berth for Copra expeller pellets is situated in position Lat. 8° 52.5′ N., Long. 125° 02.6′ E. This is not marked on the Admiralty Charts. There is deep water all around and the approach is fairly safe. The Pilot boards about 1.5 miles N.E. of the berth and approaches in a mechanised canoe with outriggers. Vessel is berthed either side alongside depending on the flood or ebb. No night pilotage. The loader height is sufficient and deep water at the berth. No VHF facilities. Repatriation not possible. Neither fresh water or bunkers can be supplied at this berth. No piracy or thefts but vigilance of security should not be neglected.

HONDAGUA, Luzon Island: 13.56 N. 122.14 E.

SHIPMASTER'S REPORT: 1974.

APPROACHES: B.A. Charts 3806 and 3475, neither of which are of very much assistance. There are no navigational marks by night, but the water is deep and we made a comfortable approach by Radar.

PILOTAGE: Minimum 12 hours' notice required. Pilot boards at Siain, a village 10 miles West of Hondagua on the North coast of the mainland. Pilot boat is a small dug-out canoe fitted with outriggers and an outboard motor, and by day exhibits the pilot flag, and at night a single white light similar to a normal fishing canoe. Pilot shouts to attract attention when close to the vessel at night.

DOCUMENTS: Officials embark at Siain but not before 0630 hrs. due to curfew. Accommodation ladder required. All documents required as for first port of entry, excepting quarantine which is not performed twice.

10 Ship's Stores Lists.
8 Crew Personal Effects lists.
12 Crew Lists.
3 Health Declarations.
2 Visaed Crew Lists.
2 Plant Quarantine Lists.
2 Animal Lists.

Officials disembark again at Siain with the exception of the 3 Customs Officers, who remain on board and who require meals and accommodation.

TUGS: Not available.

BERTHING: One berth only, for grain discharge and for coastal tankers supplying fuel to the Mill. Berth lies East/West with approx. depth at LW East Dolphin 28 ft., Elevator about 34 ft. 6 in., and West Dolphin about 39 ft. The berth is thought not to be suitable for vessels exceeding 500 ft. LOA. The dolphins are of timber-pole construction, and the elevator is concrete. Arrival and departure from the berth is during daylight only. Mooring arrangement is 2 head ropes to buoy, 2 breast ropes to shore, spring-wire to bollard on elevator, 4 stern lines to concrete dolphin, and 1 spring-wire to bollard on elevator. An old landing-barge is used as a mooring boat, but this has only one engine on the port side and is not very manoeuvrable. A motorised dug-out canoe also assists, but is not powerful enough to pull a line very far. The elevator has two discharging suckers, but these are fixed and the vessel has to be shifted hatch to hatch. Combined capacity about 80 t.p.h. which could be improved, but foundations of conveyor-belt system damaged by earthquakes.

FRESH WATER: Available at berth but not of very good quality. Ship's hoses required.

AIRPORT: None. There is a train service to Manila, about a 6 hour journey.

CURFEW: Area is under Martial Law. Curfew from 2300 hrs. to 0600 hrs.

ILIGAN, Mindanao: 08.14 N. 124.14 E. (See Plan)

PILOTAGE: Pilotage for docking and undocking at government and privately owned piers/wharves for foreign vessels is compulsory. For domestic vessels pilotage is necessary only when docking. The Harbour Pilot meets the vessel 1 to 2 miles N.W. of the pier. Vessels coming from foreign ports intending to dock at any of the private piers will first anchor at designated anchorage area for boarding formalities.

ANCHORAGES: Anchorage areas are found at least 0.5 to 1 mile from beaches and wharves and the average depth varies from 37 m. to 56 m. The characteristics of the bottom near the beach is muddy. Beyond 0.5 mile is good holding ground of sand and gravel. In case of strong S.W. winds, vessels may resort to the natural protection of the mountains of Initao and Kiwalan.

RESTRICTIONS: See "Berthing".

MAX. SIZE: Max. LOA 240 m. Max. Draft 25 ft. and 15,000 d.w.t. at Pier No. 3 (For foreign-going vessels).

HEALTH: Vessels clear quarantine upon arrival from foreign port. Health Officer boards the vessel 2 miles off the pier at designated quarantine area.

TUGS: The Iligan Harbour Pilot's Association owns 2 tugs both serving the domestic and foreign vessels. The use of tug is necessary especially when docking and undocking foreign vessels on government and private piers. Additional tugs are also available if the Harbour Pilot thinks necessary. It is important that the Masters of vessels/shipping Agents notify the Harbour Pilot at least 48 hours in advance of vessels arrival to ensure the availability of tugs.

BERTHING: Berthing for domestic vessels may be done anytime of the day or night. Foreign-going vessels berth during daylight hours and undock at anytime.

	Length	*Width*	*Depth*
Pier No. 1 (Concrete)	96 m.	12 m.	5.4 m.
Pier No. 2 (Concrete)	96 m.	12 m.	5.4 m.
Pier No. 3 (R.C. Wharf)	240 m.	15 m.	7.62 m.

There are also 8 private ports along the coast of the City of Iligan. (See "Plan").

STEVEDORES: Domestic and foreign-going vessels proceeding to Iligan should cable their Agents or representatives as to their ETAs, at least 24 hours prior to arrival in order that the stevedoring company may assign sufficient number of gangs to the vessel. Later, if the ETA is revised, shipping Agent should immediately notify the Arrastre and stevedoring firm of change. The Arrastre and stevedoring firm that controls the government pier in Iligan is handled by the Iligan Merged Arrastre and Stevedoring Corporation (IMASCO).

FRESH WATER: Fresh water is available to vessels loading or unloading at Pier No. 1 and 3 which is equipped with connection direct from the City Waterworks.

FUEL: Bunkers are available provided prior notice is given through the ship's Agent.
IDENTIFICATION CARDS: Not required.
CONSULS: In Manila.
REPATRIATION: Local Immigration takes care of any repatriation or disembarkation provided advance notice and they are given names and destination of each crew member.
AIRPORT: Baloi Airport 15 km. Cagayan de Oro Airport 110 km.
TIME: GMT plus 8 hours.
HOLIDAYS: New Year's Day (January 1st); Holy Thursday and Good Friday (movable); Labour Day (May 1st); Independence Day (June 12th); RP-US Friendship Day (July 4th); Thanksgiving Day (September 21st); Christmas Day (December 25th); Rizal Day (December 30th); Special holidays declared by the Prime Minister of the Philippines are also included. Legal holidays which fall on Sundays are observed the following day. Cargo work can be arranged on any or all holidays with the vessel's Agent.
POLICE/AMBULANCE/FIRE: Police Tel. 101. City Hospital Tel. 20593. Fire Dept. Tel. 103
GENERAL: It is necessary during berthing and unberthing that the ship's engines, tackle and all other gear be in an operating condition and in a state of readiness for use at the moment's notice as required.
TELEPHONES: Placing of telephones on board foreign vessels is not available at present.
DEVELOPMENTS: Coal Terminal completed at the private port of Iligan Cement Corporation.

The coal terminal is owned by the Philippines Coal Authority. The ship unloader has a capacity of 500 t.p.h.

SHIPMASTER'S REPORT: 1974
Approaches: B.A. Chart 3426. This is of not very much use as an approach chart as the scale is too small. However, the water is deep and therefore it does not matter too much. On this voyage we made an approach in darkness and solely on Radar, the only navigational light, a fixed red, being very hard to distinguish.
Pilotage: The Pilot boards about 1 mile N.W. of the piers. Pilot boat is a river-type launch about 50 ft. in length with a grey hull and a white funnel.
Anchorage: 2 cables from old harbour piers. 7 shackles in 50 fathoms.
Radio: No VHF facilities.
Officials: Iligan is a Port of Entry. Officials board at the anchorage. Accommodation ladder required. Usual procedures take about 1 hour to 1 hour 30 minutes.
Documents:
20 Ship's Stores Lists.
14 Crew Personal Declarations.
3 Vaccination, and inoculation dates.
3 Ports of Call and dates for previous 3 months.

Immigration: Before leaving last foreign port for the Philippines, obtain 4 official Crew List Forms from the Philippine Consul. Complete these forms and have them visaed by the Consul who will retain 2, and return 2 to the ship. Passes are required for crew members going ashore.
Customs Allowance: 1 bottle and 200 cigarettes per person. 3 Customs officers live on board all the time, and require accommodation and meals.
Tugs: Up to 4 tugs available if required, but it is advisable to give notice of requirements well in advance, since these tugs may be engaged in towing barges elsewhere around the island.
Berthing: Quinalang Cove: 1 grain discharge berth. Depth at berth 40 ft. and ample room for a vessel of 600 ft. L.O.A. Discharge is by sucker direct to the Silo. There are 2 suckers with a combined average discharge rate of 100 t.p.h., but suckers are located in fixed positions requiring the vessel to be shifted hatch to hatch. Berth is well-fendered, with a shore gangway. Stevedores supply a good hatch-tent for working in the rain. 1 bulk-copra loading berth, 600 ft. in length and draft said to be 32 ft. 1 bulk-cement loading berth, reported to be capable of accommodating vessels of 25,000 g.r.t.

Camp Overton: Located South of Iligan, there is reported to be a steel-loading berth to accommodate vessels of 750 ft. length, and 36 ft. draft.
Fresh Water: Available at most berths.
Shore Leave: Crew members should take special care when proceeding ashore, and should not carry cameras or wear wrist watches, etc. It is advisable to return aboard before darkness.
Airport: About 20 miles distant. Daily flights to Cebu and Manila.
Stores: Fresh fruit available, also good supply of seafood.
Repairs: Only very minor repairs can be undertaken.
Time: GMT plus 8 hours.

SHIPMASTER'S REPORT: September 1976 (updated 1988).
Coconut Oil Berth: Located at "Quinalong Cove" 08.17 N., 124.15 E. Least depth of water in channel from sea to berth – 40 fathoms. Mean tidal range 5 ft. Density 1025. Nature of bottom at berth – mud. Vessels can berth in daylight only, unberthing anytime. This private facility is owned by San Miguel Corporation Iligan Coconut Oil Company.
Anchorage: 3 cables S.W. of City Pier. Depth at LW 70 fathoms, cable should be "walked out".

Vessel's hoses used, length of shore line 300 m., size 12 in. No shore booster pumps used. Products handled, coconut oil and coconut products.
Pilotage: Compulsory. Pilot requires 24 hours' notice and boards 1 mile N.W. of City Pier.

Max. size of vessel that can enter the port of Iligan is 100,000 d.w.t. and draft 45 ft. Keel clearance required, about 2 ft.

5 small and medium size tugs available.

Nearest consuls are in Manila.
Facilities available: Fresh water, 5 t.p.h. Fresh provisions. Laundry.

No slop tanks, surveyor, repair facilities, fuel.

Documents:
2 Visaed Crew Lists (Philippine) from previous port. If diverted at sea, a copy of the diversionary cable required.
6 Ordinary Crew Lists.
6 Personnel Effects Lists.
6 Stores Manifests.
6 Parcel Lists.
6 Arms Lists.
6 Mail Lists.
6 Narcotics Lists.
6 Animal Lists.
6 Plant Lists.
6 Cargo Manifests.
6 Transit Manifests.
6 List of Ports.
6 Currency Lists.

There is a cabin search by 4 Customs Officers, accompanied by 2 Ship's Officers. They collected an undeclared radio and 2 cameras. They did not impose any fine, as they said they had been courteously treated, and this was the vessel's first visit.

3 Customs Officers remain aboard, and have to be fed.

AUTHORITY: Philippine Ports Authority, Port of Iligan, Port Area, Iligan City, Philippines. *Tel:* 21013, 21022 and 21780. *Contact:* Engr. Edwin L. de la Cruz, Port Manager.

ILOILO, Panay: 10.41 N. 122.35 E. **(See Plan)**

See "General" before first port.
PORT LIMITS: Also see "Anchorage" – last paragraph. Iloilo Harbour is defined as that portion of Iloilo Strait within the following boundaries: an imaginary line extending from the Northern bank of Dumangas River, Island of Panay, across Iloilo Strait to Navalas Point on the Northern coast of Guimaras Island; thence along the N.W. and West shore of Guimaras Island to Luzaran Point thence along an imaginary line extending from Luzaran Point to the South bank at the mouth of Siuaragan River in the municipality of San Joaquin, Province of Iloilo, Island of Panay. Thence along the Southern shore line of the Island of Panay to the North bank of Dumangas River, the point of commencement.
DOCUMENTS:
Bureau of Customs:
1. On Arrival:
   7 Inward Foreign Manifests.
   3 Crew Lists.
   3 Personal Effect Lists.
   3 Stores Lists.
   3 Arms and Ammunition Lists.
   3 Narcotics Lists.
   3 Mail Lists.
   3 Bonded Stores Lists.
   3 Passenger Lists.
   3 Storage Plan (if vessel has cargoes to be discharged).
   2 Bills of Lading.
   1 Clearance from last port of call.
2. On Departure:
   4 Statistical Supplement (for vessels leaving directly for a foreign port).
   7 Outward Foreign Manifests.

Philippine Ports Authority:
1. On Arrival.
   2 Inward Foreign Manifests.
   2 Passenger Lists.
2. On Departure:
   2 Outward Foreign Manifests.
   2 Statistical Supplements.

PILOTAGE:
1. Application (notice) for pilotage services is usually made by a shipping Agent at least 24 hours before the vessel's arrival. Notice may also be tendered via a commercial telegraph office addressed to Iloilo Harbour Pilot Association, Muelle Loney St., Iloilo City. The Pilot Association does not own any VHF radio.
2. The Pilot Association owns 5 standard-designed pilot boats, with one being utilised as water taxi for vessel's crew intending to go on shore leave.
3. Request for pilotage services may be done in either of the following ways:
   (a) 2 long and 1 short blast of the vessel's whistle.
   (b) Continuous flashing of blue light during night-time.
   (c) Display of the international "G" flag during daytime.
4. There are 2 pilot stations where the Pilot may be taken aboard, namely:
   (a) Sinapsapan Point at the South entrance, 8 miles from the port.
   (b) Nabalas Point at the North entrance, 12 miles from the port.
5. With respect to the boarding and safety measures, the Pilot requires a sturdy and reliable pilot ladder.

VHF: Call "Iloilo Pilots" on Channel 16 advising that vessel wishes to take Pilot at Sinapsapan or Nabalasa.
ANCHORAGE: (proposed)
The anchorage of the Port of Iloilo is that portion of Iloilo Strait within the following boundaries: an imaginary line extending from Balabago Point, Island of Panay across Iloilo Strait up to Cabugao Point on the Northern Coast of the Island of Guimaras, thence along N.W. and West shore of Guimaras Island to Bondulan Point; thence along Southern shore line of the island of Panay to Balabago Point, the Point of commencement.
Note: A vessel is considered "arrived" after it drops anchor at any point within the boundaries described above.

RESTRICTIONS: Generally, a vessel may enter the port from the pilot station at any time of the day or night. However, said entrance of the vessel is restricted by the draft of the vessel and the tide at the time of entrance. At MLLW, only vessels with a maximum draft of 28 ft. may enter or depart from the port. At HW (5 ft.) vessels with a maximum draft of 33 ft. may enter or depart from the port.

MAX. SIZE: Foreign pier has a total length of 345 m., Berth 2 (100 m.) has a controlling draft of 33 ft. alongside at MLLW.

HEALTH: The port has 1 Quarantine Doctor. Quarantine formalities are done while vessel is at the Quarantine Station. Notice for quarantine formalities is usually given by the shipping Agent 24 hours before the vessel's arrival.

The following documents are necessary for presentation to the Quarantine Officer on arrival.

A. On Arrival:

1. Derat Exemption Certificate. (If expired or about to expire, the same could be renewed at the port for a period of 6 months).
2. International Certificate of Vaccination. (If expired or about to expire, vessel crew could be vaccinated locally).
3. Maritime Declaration of Health. (Form to accomplish available locally).

Above documents are necessary for the issuance of Free Pratique.

B. On Departure:

1. Quarantine Clearance for Outgoing Vessels. (A fee of P4.00 or approximately $0.53).

Free Pratique is issued at the first port of call. It becomes automatic if the vessel intends to call at another port within the Philippines.

RADIO: Coastal Marine Radio Station:

Location:	Lat. 10° 41.4′ N., Long. 122° 32.8′ E.	
Call Sign:	DYV	
Frequencies:	8632 kHz.	0000 GMT – 0400 GMT
		0600 GMT – 0900 GMT
	12948 kHz.	0900 GMT – 1130 GMT
VHF	Channel 16	

Also private telegraph companies with international relaying stations; Central Radio Communications, Radio Communications of the Philippines., Inc.

VHF: Retransco has a VHF radio. Frequency: Channel 1 – 156.8 MHz, Channel 2 – 156.65 MHz.

TUGS: Tugboats usually join vessels for docking and undocking operation. The services may be provided by the pilot's boat or tugboats of the Visayan Stevedoring & Transportation Corp. The charge is P150.00/tug during daytime and P180.00/tug during nightime.

BERTHING: Also see "Shipmaster's Report".

The port has a foreign pier near the mouth of Iloilo River. It has a length of 345 m. divided into 3 berths of 115 m. each. The maximum draft alongside the pier at MLL is 28 ft. However, a vessel may be loaded up to the draft of 31 ft. (at MLL) with the use of a mule barge.

Usually, loading and discharging are done with the use of the vessel's own gear, except catch-all nets and crane for heavy lift cargoes which may be provided by the Stevedore operator.

The Arrestre operator is capable of handling general and heavy lift cargoes, cargoes in bags (like sugar, fertilisers, cements, copra cake, etc.). Bulk loading may be done also by "bleeding" cargoes in bags directly into the vessel's hold.

CRANES: 1 crawler crane with 15 ton capacity owned by private Arrestre. The Ministry of Public Highways has 4 heavy-lift cranes of 25 tons capacity.

BULK CARGO FACILITIES: Within the harbour limit of the port is sugar bulk-loading installation situated at Jordan, Guimaras Island. The berth is capable of accommodating a vessel with a LOA of 182 m. and a draft of 35 ft. at MLL.

Loading is done with the use of a mechanical conveyor which has a rated capacity of 400 – 500 tonnes per hour. The discharging gear has a maximum height of 30 ft. above HWL.

Cargo handled in this berth is exclusively sugar in bulk.

SPECIALISED CARGO HANDLING FACILITIES: The port is *not* specially equipped for handling containers or Ro/Ro traffic.

LPG facilities at Petron.

STEVEDORES: An advice of 24 hours before the vessel's ETA is required to prepare the gangs necessary to perform stevedoring services. Stevedoring services can average at the rate of 900 – 1,000 tonnes of loading/unloading per 24 hours.

MEDICAL: The port itself does not own any medical facilities. However, within the City itself are 6 modern hospitals which could be used by the vessel's sick crew. Vaccinations and inoculations may be done by the Quarantine Doctor who also issues corresponding certificates for the same.

TANKERS: Bunker is handled through 6 in. pipe-lines; however, Petron load bunker through a 4 in. pipe. "White oil products" are handled through 8 in. pipes. There are 2 privately owned oil-water separators.

Types of oil available: premium, regular, automotive diesel fuel oil, kerosene, and bunker C; rate of delivery: 10–12 t.p.h.

FRESH WATER: Fresh water can be supplied by a private supplier, Springwater Marine Services, Iloilo City. Water is supplied to the vessel while at anchorage or at berth from a water barge at the rate of 15 – 20 tonnes/hr. cost is P16.00 ($2.13) per tonne. Water is safe and potable.

FUEL: Bunker fuel and fuel oil (of any desired viscosity) are available and can be supplied by Philippine Shell Petroleum Corp., Lapuz, Iloilo City. It can be delivered either by barge or by road tanker at the rate of 10 – 12 t.p.h. An advance notice of 24 hours prior to delivery is necessary.

CONSULS: British, at Hongkong and Shanghai Bank, Ledesma Street, Iloilo City, Tel: 7-50-86.

CUSTOMS ALLOWANCES: Vessel's crew are permitted an individual allowance of 1 bottle of whisky and 1 carton of cigarettes per week. However, if necessary, the Master may request the Collector of Customs through the Customs Inspector on board for a further issue within the week.

REPAIRS/SERVICES: The Iloilo Dock and Engineering Company offers the following major services: Marine construction and repairs, conversion, machine shop, electronics navigational equipment installation and repairs, steel fabrication, sand blasting, engineering and project consultation. Other services offered: Marine salvage, stevedoring and longshoring, lighterage, towing-harbour, inter-island and ocean warehousing and in-transit handling.

Radar: Repair of ship's radar may be done by Louman & Sons Technical Service Inc. The company is capable of repairing radar, radio transmitter and receiver, fathometer and steering system. Usually contacted by the ship's Agent.

DRY DOCKS: Largest dry dock at Ideco is Shipway 1: Length 587 ft., width 56 ft. depth (draft at MLLW, 10 ft. without keel blocks), capacity 2,500 L.T. There are 4 other smaller docks, and several side berths.

SURVEYORS: Local Marine Surveyor, Delpan.

WATCHMEN: Watchmen are optional, however if the Master so desires, watchmen can be hired.

HATCHES: Opening/closing of vessel's hatches and securing the vessel's derricks, are usually done by the stevedores.

CARGO GEAR: Load/discharge is effected by ship's gear. There is no special cargo equipment except for heavy lift cranes.

REPATRIATION: Crew changes and repatriation may be effected by the local Regional Office of the Immigration Commission with the approval of its head office in Manila.

AIRPORT: An all-weather airport situated about 7 km. from the pier. Regular Iloilo – Manila flight is 3 times a day. Other flights Iloilo – Cebu, Iloilo – Davao.

TIME: GMT plus 8 hours.

HOLIDAYS: *Legal Holidays:* Sundays, January 1st (New Year's Day); April 9th (Bataan Day); May 1st (Labour Day); June 12th (Independence Day); July 4th (Phil.-American Friendship Day); November 30th (National Heroes Day); December 25th (Christmas Day); December 30th (Rizal Day).

Note:

1. Special Public Holiday may be issued by the President.
2. Under Philippine Law, if a legal holiday falls on Sunday, the following day (Monday) is also a holiday.

Regular working days in the Philippines are Monday through to Friday. Holidays notwithstanding, the Master/Agent may request continuance of stevedoring work after proper notice has been made with the stevedoring company.

POLICE/AMBULANCE/FIRE: Police Tel: 7-55-21; Fire Tel: 7-30-11; 7-49-89; Ambulance Tel: 7-25-61; 7-24-41.

TELEPHONES: PLDT (Tel Co.) can install a telephone on board a vessel at berth with the following charges:

P200.00	Deposit for the instrument, refundable upon return of the instrument.
74.41	rate/month
45.00	for services
3.00	electrician's fee
322.41	Total charges

Port Authority Telephone Numbers: Manager's Office: 7-69-45; Operations: 7-60-73; Administration: 7-76-43; Security: 7-29-79.

DELAYS: Occasional congestion of the port may delay vessels berthing. Bunkering may be done whether the vessel is at anchorage or at berth.

GENERAL: Vessel's ETA has to be relayed to Philippines Ports Authority, Iloilo at least 24 hours before arrival.

DEVELOPMENTS: The proposed Iloilo Commercial Port Project has been approved in principle by the World Bank. It will be a container/foreign port equipped with modern container facilities and with ample back-up area, one mobile crane and 3×28 ton forklifts to be provided.

The completed Iloilo Commercial Port Complex will comprise:

I. Area: Operational Area	= 11.1 ha.
Back-up Area	= 9.7 ha.
II. Berthing Facilities:	
Superstructure	R.C. Quay 26.26 m.×400 m.
Fender System	SM600H/SA250H (rubber).
Mooring Mixture	25 units 60 ton.
	3 units 30 ton.
Crane Rails	384 m.
Ro/Ro Facility	13.8 m.×15.0 m.R.C. platform on steel tubular piles, steel ramp and mechanical lifting devices.
Berthing Depth	10.5 m. (MLLW).
III. Vertical Structures:	
Administrative Building	1,728 sq.m.
Container Freight Station	6,000 sq.m.
Passenger Terminal Shed	720 sq.m.
Workshop & Fire Station	975 sq.m.
Equipment Shed	525 sq.m.
Generator Shed	
Amenity Block	
Main Gate with 2×50 ton truck scales.	
IV. Marshalling Yard:	27,500 sq. m.
Pavement:	concrete blocks
V. Water Supply:	
R.C. Underground Water Reservoir	964 cu.m. capacity.
Elevated Steel Water Tank	100 cu.m. capacity.
VI. Electrical System:	
Lighting Load	180.6 KVA
Power Load	1,122.4 KVA.
Spare Load	197.0 KVA.
TOTAL	1,500.0 KVA.
Stand-by Generator Set	500.0 KVA.
VII. Reefer Panels:	3 units, 480V, 3 phase/60 Hz, 12 terminals.

SERVICES: See "Repairs".

SHORE LEAVE: Shore leave is granted after the issue of shore passes by the local official of the Commission on Immigration.
IDENTIFICATION CARDS: Identification card is not necessary for the issue of shore passes. Visaed Crew List will suffice.

SHIPMASTER'S REPORT: 1977
There are 3 ports where bulk sugar loading facilities exist, Pulupandan (which see), Iloilo and Batangas Bay. Ships first call at Pulupandan on Negros Island, approximate position Lat. 10° 31′ 30″ N., Long. 122° 47′ 36″ E. and load up to a draft (SW) of 29 ft. The rate of loading by using 1 trimmer is about 300 – 400 tonnes per hour. Pilotage is compulsory and the Pilot boards in a position (approx.) Lat. 10° 27′ 24″ N., Long. 122° 46′ 12″ E. After completion of port formalities, the vessel is berthed alongside the Bulk Sugar Installation with a stationary conveyor.

The vessel then proceeds to Iloilo for loading up to 32 ft. This vessel, which is 675 ft. in length, loaded bulk sugar in hatches 2, 4, 6, 7 and 8. It was possible to load in hatch No. 1 also. The loading is done from a fixed conveyor with 2 trimmers and the loading rate is between 400 – 500 tonnes per hour. Finally the vessel proceeds to Batangas Bay and after the usual formalities, goes alongside the Batangas Bay Terminals Inc. (BBTI) at Bolo – Bauan – Batangas, where there is no draft restriction. The loading rate is about 300 – 400 tonnes per hour. Loading is done from a fixed conveyor with one manually operated trimmer. Pilotage is compulsory and ships awaiting Pilots can anchor either at Santa Rita or Santa Clara (Batangas City) or Tabangas.

The main sugar crop is brought to Iloilo, known locally as Sugar City, because it is the main sugar exporting port, from Negros Island, where most of the sugar farms and factories are situated. The sugar for export at BBTI is brought from factories around Laguna Bay by trucks. The Stowage Factor for bulk sugar worked out to between 40 – 41.

AUTHORITY: Philippine Ports Authority, Iloilo City. *Tel:* 7-76-43, 7-60-73, 7-69-45, 7-77-91, 7-77-92. *Contact:* Pedro B. Velasco, Officer-in-Charge.

ISABEL, Leyte: 10.54 N. 124.25 E.

SHIPMASTER'S REPORT: July 1987.
See "General" before first port.
DOCUMENTS: See "General" before first port. Vessels anchor in bay prior to berthing and Officials board for Formalities. As there is no local Immigration or Customs post, there are occasionally delays waiting for the necessary officials to come from either Manila or Tacloban. Permits from Customs and Immigration are required for most things, but usually arranged by vessel's agent. 3 Customs Officers and 4 Immigration Officers stayed on board throughout vessel's entire stay. On vessels which cannot accommodate them, it is apparently possible for them to stay somewhere on shore in shifts.

The fact that this vessel has crew mainly from Eastern Bloc countries may have had something to do with large Immigration presence.
APPROACHES: Clear in deep water from seaward, BA. Chart No. 3825 rather small scale, but all features show up well on radar, and port is a blaze of light at night owing to extensive industrial installations on eastern shore of bay, which is frequently well occupied with anchored vessels.
PILOTAGE: Generally available on a 24 hour basis, pilots have Channel 16 and 12, but can be difficult to contact until quite close to. Pilot boat is a launch of fairly robust metal construction, but it is very slow, so ships should reduce speed in sufficient time.

Pilot generally meets large vessels about 0.75 miles off Catiyana Point, whether berthing or proceeding to anchor.
ANCHORAGE: Although chart does not indicate the fact, there is a fair amount of space for vessels in the bay. Vessels anchor in vicinity of 0.5 miles S.E. to E. of Sacay Point, in depths of 25 fathoms and decreasing to 15 fathoms. Smaller vessels can proceed closer inshore to shallower water.

Holding ground is fair in good weather, but reportedly poor in adverse conditions. The Admiralty Pilot recommends that 2 anchors should be used. This vessel, a 14,000 gross ton LPG Carrier, anchored for 2 days in good weather with 6 shackles on one anchor, on local Pilot's advice without any problems.
RESTRICTIONS: Berthing/Unberthing is apparently at Pilot's discretion, depending on weather conditions, but during vessel's stay in good weather, continuous movements were taking place on a 24 hour basis.
HEALTH: Quarantine Officer boards with Pilot and checks documents at anchorage and issues Free Pratique Certificate. He requires Maritime Declaration of Health, Vaccination Certificates (Cholera) and Crew List. It is possible to have Cholera vaccinations done at this port, but not Yellow Fever.
TUGS: There are 2 tugs, of standard Japanese design, adequate to assist all vessels capable of entering the port. Tugs ropes used.
BERTHING: The Terminal is operated by Philippine Phosphate Fertiliser Corporation, and main quay has 2 large gantry-type grab cranes for discharging phosphate on to a continuous conveyor belt. Other parts of the quay appear to be used for loading bagged fertiliser by ship's gear.

At Southern end of main quay are several Chicksan connecting arms for the discharge of Liquid Ammonia, Sulphuric Acid and Phosphoric Acid.

There is an additional small quay just south of main quay fitted with a large grab-crane, hopper and conveyor belt, which is mainly used by small local bulk carriers.
MEDICAL: There is a small hospital where non-serious cases can be treated, serious cases require transportation either to Ormoc City or Tacloban.
FUEL: Vessel was supplied with both Fuel Oil and Diesel Oil by barge which came from Cebu. It is possible to bunker ex-barge either at anchorage or alongside. Customs Permits required for bunkering.
REPAIRS: No commercial repair facilities available.
REPATRIATION: Possible via Tacloban Airport, about 3 hours by car from Isabel, thence to Manila on local flight to connect with International flights. If crew from Eastern Bloc countries (as has this vessel) it is necessary for Immigration Permits to be issued, and leaving/joining seamen require Immigration escort to and from Isabel to Manila.
AIRPORT: Tacloban Airport.
SHORE LEAVE: Permitted. Obtain pass from Immigration in return for passport.
GENERAL: Apart from pilot boat, all other communications between ship and shore whilst at anchorage was carried out by local fishing skiffs, which are fitted with large outriggers, thus making it impossible for them to come properly alongside pilot ladder or gangway. This makes any transfer of personnel or spare parts, etc., somewhat hazardous, even in calm conditions.
Provisions: Local Ship chandler available, prices for fair quality local fruit and vegetables is reasonable. The chandler has a fair selection of other items but anything imported or transported from elsewhere can be expensive.
Communications: All communications via main agent in Manila, who sends sub-agent to attend locally.

SHIPMASTER'S REPORT: October 1988.
VESSEL: 19,846 d.w.t.
LOCATION: Lat. 10° 56′ N., Long. 124° 26′ E.
For identification purposes the port is referred to as Isabel, Leyte.
DOCUMENTS:
Port Health:
3 copies Crew List.
1 copy Vaccination List (all crew members must have valid vaccination cards).
Immigration:
4 copies Crew List.
2 copies Visaed Crew List (General Visa/Visaed Crew List to be obtained from Philippines Embassy before entering Philippines waters).
Customs:
4 copies Crew List.
3 copies Crew Personal Effects Declaration.
3 copies Narcotics and Medicine List.
20 copies Cargo Manifest.
1 copy Declaration of Cargo/Favour Parcels on boards on prescribed forms supplied by Boarding Officer.

Accommodation: Accommodation is required for 1 Customs Inspector, 2 Customs Guards, 1 Immigration Officer or Assistant Immigration Officer and 2 Guards.

If accommodation and food cannot be provided on board it is to be arranged ashore on Owner's account.
PILOTAGE: Pilotage is available throughout 24 hours. Pilot boarding position is at Lat. 10° 53.5′ N., Long. 124° 25′ E., this is about 1.5 miles South of Sacay Point.
ANCHORAGE: Anchoring is carried out under Pilot's instructions. Vessels anchor in depth of 15 fathoms – 40 fathoms, depending on size of vessel and space available.

Our vessel anchored in a depth of 25 fathoms at a distance of 7 cables from Sacay Point.
TUGS: There are 2 tugs of approximately 6,000 b.h.p. Both tugs are used for berthing and unberthing. There is a mooring boat available to run lines.
BERTHING: *PHILPHOS:* 5 berths with a total length of 760 m.
Depth alongside: No. 1 – 12.0 m.; No. 2 – 9.0 m.; No. 3 and 4 – 7.0 m.; No. 5 – 5.0 m.
PASSAR: 1 berth with length 90 m. and depth 12.0 m.
CARGO HANDLING FACILITIES: Bulk, bagged and liquid cargoes handled.
PHILPHOS: 2 grab cranes used for discharge of cargo to chute and conveyor belt.
2 cranes available for loading bagged/bulk cargoes from chutes.
3 mobile cranes also available.
PASSAR: One crane available.
STEVEDORES: Cargo work carried out day and night on 3 shifts, 0800 hrs. – 1600 hrs., 1600 hrs. – 2400 hrs. and 2400 hrs. – 0800 hrs.

Our vessel loaded bagged fertiliser (DAP) by ship's gear at an average rate of 18 t.p.h. per gang. The Chief Supervisor of the stevedores claimed that the average loading rate was 30 t.p.h. per gang in perfect conditions.
MEDICAL: PHILPHOS and PASSAR have clinics available for their employees. Ship's crew can receive treatment at these clinics.

In cases of serious accident or illness, patients are sent to Ormoc or Tacloban.
FRESH WATER: Available.
FUEL: Fuel is not available locally but can be arranged by Philippines Petroleum, who can supply bunkers by barge, which is towed from Cebu. Fuel is also available by road tanker from Ormoc.
REPAIRS: No facilities locally.
SURVEYORS: Classification Society Surveyors can be arranged from Manila. Representatives of Admiral Adjuster and Surveyor, Manila and SGS Far East Ltd., Manila attend to cargo surveys at Isabel. They inspect holds and cargo during loading and unloading.
AIRPORT: Tacloban Airport with 2 daily flights to Manila is the nearest.
Ormoc is about 50 km. away. There are 2 weekly flights from Ormoc to Cebu and daily ferry services from Ormoc to Cebu.
Cebu is about 50 nautical miles by sea. The journey by ferry takes about 6 hours.
SHORE LEAVE: Permitted. Immigration Officers issue Shore Passes.

GENERAL: *Provisions:* There are 3 Ship Chandlers who attend vessels in turn, to provide provisions.
Telephone: Long distance (Domestic and International) calls can be made through the Passar Guest House between the hours of 0900 – 1400 and 1700 – 2200 local time.
Service Boat: There is a service boat available for taking crew from anchorage to the town, max. capacity 15 – 20 people.
Publications/Charts: Philippines Pilot, page 226. B.A. Charts No. 3810 and 3825. Philippines Chart No. 4426.
Agent: No agents maintain offices in Isabel. Agents representatives come from Manila to attend the vessel. Ship's telexes or telegrams are passed by telephone or telegram from the local post office to Manila, thereafter passed by telex to their destination.
Berth Operators: PHILPHOS (Philippines Phosphate and Fertiliser Corporation), Leyte.
PASSAR (Philippines Association of Smelting and Refinery Corp.), Leyte.

JOLO (Jolo Island): 06.03 N. 121.00 E. (See Plan)

See "General" before first port.
DOCUMENTS: 4 copies each of Crew Lists; Passenger List; Import Cargo Manifest; Oath of Master and a copy of Vessel's Information Sheet.
PILOTAGE: Pilots are stationed at nearby Zamboanga City. Advice of ETA at least 3 days before is requested to facilitate arrangement of pilotage service.
ANCHORAGE: Anchorage areas are N.W. of Jolo Wharf and West of Caltex Depot.
MAX. SIZE: Main wharf; Draft 4 m. LOA: 60 m. At Caltex, Mobil and Petron Oil depot: LOA: No limit; Draft: 6 m.
HEALTH: Ships will be cleared by quarantine officers upon arrival at anchorage.
RADIO: Local Port Authority is equipped with SSB radio linking all Port Authorities nationwide. Ships may send message through Radio Communications of the Philippines, Inc. which has international connections.
BERTHING: Berthing space at main wharf is reserved for large foreign vessels; Max. permissible draft at MLLW is 4 m. (SW); Cargo handling by ship's own gear; Cargo may be worked at open storage and direct delivery only.
STEVEDORES: 24 hours advice before ETA is required. Stevedores provided by Sulu Dockhandlers and Forwarders, Inc.
MEDICAL: 2 hospitals are available.
TANKERS: The private wharf of Sulu Agro Industrial Corporation within the port limit is designed to handle crude coconut oil.
FRESH WATER: Supplied by Sulu Water Works Authority with 4 in. piping all along the main wharf.
FUEL: Supplied by Petron Philippines, Inc.
FIRE PRECAUTIONS: Dangerous cargoes are worked at assigned berthing area.
CONSULS: In Manila.
REPAIRS: Minor repairs maybe undertaken by and within the vessel itself after permission is sought and granted by the Port Authority.
GANGWAY/DECK WATCHMEN: Customs Guard and Customs Inspector are on routine and continuous guard.
HATCHES: May be opened by stevedores.
CUSTOMS ALLOWANCES: Minimum quantity for personal use permissible only on board.
TIME: GMT plus 8 hours.
AIRPORT: Jolo Airport, flights to Zamboanga only, 2 flights a day.
HOLIDAYS: Cargoes are worked on holidays.
POLICE/AMBULANCE/FIRE: Central telephone system connects Port Authority with Police, Ambulance and Fire Departments.
SHORE LEAVE: Curfew hour is from 2200 hrs. to 0400 hrs. Crew members are allowed ashore. Identification cards not necessary.
REGULATIONS: No discharge of ballast oil in any territorial waters of the Philippines.
DELAYS: Delays in cargo handling: Rain.
DEVELOPMENTS: Reclaimation in progress.
AUTHORITY: Philippine Ports Authority, Port of Jolo, Jolo, Sulu, Philippines. *Contact:* Tantung L. Abam, Port Manager.

JOSE PANGANIBAN, Luzon: 14.18 N. 122.40 E. (See Plan)

See "General" before first port.
DOCUMENTS:
Inward Coasting Manifest.
Hatch Plan or Stowage Plan.
Vessel's Information Card.
PILOTAGE: Pilotage is compulsory. ETA advise should be sent to the Harbour Pilot Association, Legazpi City at least 36 hours before vessel's arrival. The vessel is met by the Harbour Pilot about 2 km. from the wharf aboard a boat displaying a pilot flag.
ANCHORAGE: Within Tanay Strait but not less than 500 m. from existing wharf.
RESTRICTIONS: Present port facilities could only allow vessels at anchorage considering the draft limitation and length of the pier.
MAX. SIZE: LOA 230 m. Draft 30 ft.
HEALTH: Vessels clear quarantine on arrival at Jose Panganiban Harbour. Quarantine Officers will normally board the vessel 2 km. from the wharf.
BERTHING: Present port facilities have been damaged by typhoon. Only 75 m. of the wharf is usable for berthing purposes. Length of quay 75 m., width 12 m. Max. depth of water 30 ft. Quay height above sea level 2 m. at high tide and 5 m. at low tide. Average rate of loading/discharging 18 tons per gang hour. Storage area 1.15 hectares.
CRANES: The port is not provided with shore cranes. Each vessel calling at the port is required to use her own gear.
STEVEDORES: Bicol Port Services.
MEDICAL: 1 government hospital located in the town about 3 km. from the wharf.
FRESH WATER: Can be provided by means of lorries and pipe-lines.
FUEL: All grades except premium gasoline obtainable from major oil depots and supplied by lorries alongside.
GANGWAY/DECK WATCHMEN: Available but not compulsory or necessary.
HATCHES: Opening and closing of hatches are part of stevedores' work or at the Master's option.
REPATRIATION: All facilities available for crew changes; good land and air connections.
AIRPORT: At the capital town of Daet, Camarines Norte.
TIME: GMT plus 8 hours.
HOLIDAYS: New Years Day (Jan. 1st); Holy Thursday; Good Friday; Labour Day (May 1st); Independence Day (June 12th); P.I. – U.S. Friendship Day (July 4th); Bonifacio Day (Nov. 30th); Special holidays declared by the Prime Minister of the Republic of the Philippines are also included. If any other legal holiday falls on a Sunday the following day is observed as a holiday. Cargo work can be arranged on any or all holidays with the vessel's Agent.
SHORE LEAVE: Crews are allowed ashore in company of an Immigration Agent.
GENERAL: Vessels intending to call at Jose Panganiban shall apply for a berth space at least 24 hours before arrival. No dirty ballast may be dumped into the territorial waters of the Philippines. Rat guards shall be placed on all mooring lines. Berth allocation is on a first-come-first-served basis.
DEVELOPMENTS: Repairing of damaged wharf and water pipe-lines.
AUTHORITY: The Supervising Officer, Philippine Ports Authority, Legazpi.

LEGAZPI, Luzon: 13.10 N. 123.45 E. (See Plan)

See "General" before first port.
DOCUMENTS:
Inward Coasting Manifest.
Hatch Plan or Stowage Plan.
Vessel's Information Card.
PILOTAGE: Pilotage is compulsory. ETA advise should be sent to the Harbour Pilot Association, Legazpi City at least 24 hours before vessel's arrival. The vessel is met by the harbour Pilot about 2 km. N.E. of the wharf aboard a boat displaying a pilot flag.
ANCHORAGE: Within the Albay Gulf outside the imaginary line within the vicinity of Legazpi Port from San Roque Lighthouse to the East breakwater with depths varying from 80 ft. to 100 ft. with good holding grounds. The bottom is generally of sand and coral.
RESTRICTIONS: Present port facilities allow for 1 vessel at a time considering the draft limitation and length of the pier.
MAX. SIZE: Legazpi Port: LOA – 120 m.; Draft – 25 ft.
Leg Oil Company: LOA – 230 m.; Draft – 35 ft.
HEALTH: Vessels clear quarantine on arrival at Legazpi Harbour. Quarantine Officers will normally board the vessel 2 km. N.E. of the wharf.
RADIO: Following Stations are normally used:

RCPI	FILTEL
TELEFAST	CLAVECILLA
CRC	

TUGS: No tugs available. Motor launch is used to attend to mooring and unmooring.
BERTHING: Only the end of the wharf is usable by foreign vessels considering the draft limitation and constricted manoeuvring area. Legazpi Oil Company, Private Pier is, however, capable of accommodating vessels of any type and tonnage.
Legazpi Port: Length of quay 328 m. Width 30 m. Max. depth of water 30 ft. Quay height above sea level 2 m. at high tide and 5 m. at low tide. Average rate of loading/discharging 15.95 tons per gang hour.
Legazpi Oil Company, Private Pier: Length of quay 100 m. Width 10 m. Max. depth of water 60 ft. Quay height above sea level 3 m. at high tide and 6 m. at low tide. Average rate of loading/discharging 83.33 tons per gang hour. Facilities are suitable for handling of bulk copra, pellets, copra cakes and copra crude oil by conveyor and pipe-lines.
CRANES: The port has no shore cranes. Mobile cranes are provided by the Arrastre Operator to load/unload cargoes on non-sustaining vessels.
STEVEDORES: *Legazpi Port:* Provided by Regal Arrastre and Stevedoring, Incorporated. Tel: 3168 and 3107.
Legazpi Oil Company, Private Pier: Provided by Norleinco Arrastre Services.
MEDICAL: 1 government hospital and 6 private hospitals available.
TANKERS: See "Berthing".
FRESH WATER: Can be provided by means of lorries.
FUEL: All grades obtainable from oil depots and supplied by lorries alongside.

GANGWAY/DECK WATCHMEN: Available but not compulsory or necessary.
HATCHES: Opening and closing of hatches are part of stevedores' work or at the Master's option.
REPATRIATION: All facilities available for crew changes; good land and air connections.
AIRPORT: 5 km. from port area. Flights to Manila twice a day.
TIME: GMT plus 8 hours.
HOLIDAYS: New Year's Day (January 1st); Holy Thursday; Good Friday; Labour Day (May 1st); Independence Day (June 12th); P.I. – U.S. Friendship Day (July 4th); Bonifacio Day (November 30th); Special holidays declared by the President of the Republic of the Philippines is also included. If any other legal holiday falls on a Sunday the following day is observed as a holiday. Cargo work can be arranged on any or all holidays with the vessel's agent.
POLICE/AMBULANCE/FIRE: Police, Tel: 4222; Ambulance, Tel: 4432; Fire, Tel: 2333.
TELEPHONES: Placing of telephones on board can be arranged with the local telephone company (MATELCO).
SHORE LEAVE: Crews can be allowed ashore in company of an Immigration Agent.
GENERAL: Vessels intending to call at Legazpi shall apply for a berth space at least 24 hours before arrival. No dirty ballast may be dumped into the territorial waters of the Philippines. Rat guards shall be placed on all mooring lines. Berth allocated is on a first-come first-served basis.
DEVELOPMENTS: Dredging of port basin to an average depth of 25 ft.

SHIPMASTER'S REPORT: April, 1981.
Berth: Legazpi Oil Co. Jetty. Vessel loaded Copra Expeller Pellets in bulk.

For all details regarding control, pilotage, harbour installations, documents, etc., see "B.A. Pilot No. 33" and "Guide to Port Entry".

The docking manoeuvres were effected from an Easterly direction. The anchor was let go with 1 shackle prior to berthing. This served later, together with the rear cross buoy, to hold the vessel away from the pier (bad condition), and to heave off during the undocking manoeuvres.

The mooring buoys are secured to the bottom by 3 anchors each and 1 concrete block. However, their positions are not finite.

The vessel is to be maintained about 1.5 m. from the Dukes of Alba at the end of the pier, and therefore damage to the deteriorating pier is avoided.

A landing stage was positioned from the land, and was positioned likewise by the vessel on runners, since the vessel was rolling considerably in the persistent swell.

According to the Pilot, the swell in January is at its worst, and then the berth is not safe. During July and August, it is at its quietest in Albay Gulf. From October to December it is "Typhoon Time" and during November/December it is the heaviest rainy period, however, during the time we were in port there was considerable rainfall.

The pilot station has no VHF. The Pilot is ordered via the Agent, who was most co-operative. The pilot vessel brings the lines from the shore and to the buoys.

The copra expeller pellets were stored in a warehouse of approx. 80 m. × 50 m. According to the statement of the loader they were consistently loaded. The fresh goods, which came from the press at a temperature of approx. 44°C, were always loaded straight on top of the cargo already loaded. On board, temperatures of 32°C to 45°C between surface and core were measured.

According to the opinion of the loader the high cargo temperature is not dangerous, but he was emphatic that a danger existed through wetness.

The expeller was brought to the weighbridge by lorry and then moved to the pile.

The conveyor belt is not covered, and the nozzle reached right up to the landside hatch coaming on the vessel.

The wet conveyor belt was "operated dry" with expeller and the wet material piled on deck, where it was bagged and shipped back to land. Also where due to sudden rainfall the cargo in the hold became wet, this was carefully segregated by the trimmer, and sent back to the land.

A trim extractor is available, and was partly used. The main trimming work is carried out by a gang of approximately 25 men.

Every instruction given from the ship was promptly executed by the conveyor belt personnel.

Delivery rate: 55 t.p.h. (approx.).
Stowage factor: 1.7 cu.m. to the ton (approx.).
Working time: Around the clock.

The loaders made sure that no chemical additive such as benzene, benzol or hexane had been used to extract the oil, and handed over a certificate with the following values:
Moisture content: 9.6%; Oil content: 6.2%.

The certificate of an independent surveyor showed 8.51% humidity and 7.15% oil content.

SHIPMASTER'S REPORT: October, 1982.
Our ship was an 63,770 tons d.w.t. gearless bulk carrier of overall length of 225.03 m. which loaded 3,500 metric tons of Copra expeller pellets in bulk and stowing at an S.F. of 1.6 cu.m/ton. The loading terminal of the Legazpi Oil Company is situated in Lat. 13° 11.5′ N., Long. 123° 45.4′ E., which is unmarked on the Admiralty chart. There is over 54 ft. of water at the berth but the height of the loader is only 40 ft. hence it is important that ships do not arrive with a greater air draft than 39 ft. The port does not have VHF facilities or tugs. The Pilots are well experienced and normally meet vessels about 2 miles N.E. of the berth. The loader is protected by, recently constructed, 4 concrete dolphins and the vessel normally berths starboard side alongside. Two lines are passed to the shore side dolphins fore and aft, one line each to the seaward buoys and one line each to axis buoys and one spring fore and aft. The buoys are situated over 1,000 ft. from the axis of the berth and may necessitate joining of the mooring lines. The loading rate is about 80 t.p.h.

While we were at this berth we had the misfortune of encountering tropical revolving storm "Typhoon Irwing" which passed directly overhead. Berth was vacated when the storm was 150 miles from us to the East. Shelter was sought at an anchorage off the Legazpi harbour breakwater (bearing 230° – 1.0 mile from us). The eye of the typhoon passed directly over us within 24 hours and winds reached a velocity of 75 m.p.h. maximum. The holding ground was good and we rode out the typhoon with 9 shackles of chain out with engines going dead slow ahead when the winds increased to over 40 knots. With the aid of the doppler log on ground tracking and satellite navigator we were able to remain rock steady in the strongest gusts.

Wave heights at this anchorage was never more than one metre. The loading berth is directly exposed to sea and had we remained at the berth the vessel would have been pounded against the dolphins.

The Port Authorities are co-operative. There were no incidents of piracy or thefts.

AUTHORITY: Philippine Ports Authority, Port of Legazpi, P.O.Box 164, Legazpi City, Philippines. *Tel:* 20-12. *Contact:* C. E. Dinopol, Jr., Port Manager.

MANILA, Luzon: 14.35 N. 120.58 E. **(See Plan)**

See "General" before first port.
PORT LIMITS: Manila Harbour is defined as that portion of Manila Bay within the following boundaries:

A line extending from the Vitas Estero due West (270°) to its intersection with a line running South (180°) to Sangley Point Light, thence along this latter line towards Sangley Point Light until its intersection with a line running N.E. (075°) to the N.W. corner of the airport site to the shore to the mouth of the Vitas Estero, the place of commencement. (Philippine Coast Pilot, Part 1, Coast and Geodetic Survey, 1968 edition, p.5-92).

However, Port of Manila jurisdictional district includes that of the Pasig River and the Limay and Mariveles Sub-ports.
DOCUMENTS:
Quarantine:
Innoculation List of Crew.
Innoculation List of Passengers, if any.
Health Certificate from Last Port of Call.
Customs:
General Declaration (6 copies) – APAA Form.
Cargo Manifest.
Crew List.
Ship's Stores List.
Passenger List.
Crew Effects Declaration.
Maritime Declaration of Health.
Transit Passenger List.
Plant and Animal List.
Arms and Ammunition List.
Mail List.
Parcel List.
Drugs and Narcotics List.
Stowaway List.
Foreign Currency List.
Dangerous Goods List.
Immigration:
Crew List.
Passenger List, if any.
Seaman's Books.
Passports.
Customs Boarding Officer:
Oath of Master.
Inward Foreign Manifest.
Parcel List.
Stores List.
Medicine List.
Crew List.
Passenger List.
Plant List.
Animal List.
Crew Declaration List.
Narcotics and Dangerous Cargo List.
Arms and Ammunition List.
Ship's Clearance from Last Port of Call.
Through Cargo Manifest.
Through Parcel List.
Foreign Currency List.
Note: Above documents are requirements depending if there is such cargo on board vessel.

In order to avoid delay, the Owner, Master or Agent of a ship bound for the Port of Manila must notify the following government and private entities at least 24 hours prior to ship's arrival.

1. Philippine Ports Authority – Harbour Division
   Attention: Harbour Master
2. Bureau of Customs – Boarding and Inspection Section
   Attention: Boarding Officer
3. Bureau of Quarantine
4. Commission on Immigration and Deportation
5. Bureau of Plant Quarantine
6. Bureau of Animal Quarantine
7. Philippine Coast Guard Boarding Team
8. Manila Pilots' Association (Private)
9. Arrastre Contractor (Private)

PILOTAGE: Pilotage in and out of Manila Harbour and to the piers and into the Pasig River is compulsory.

Agents or owners of vessels calling at the Port of Manila shall inform the Pilot of their vessel's arrival. Agents can contact the Pilots Association through Channel 13, 24 hours a day including Sundays and Holidays. Pilots are available day and night.

The pilot boat is a white vessel with a big letter "P" and the number of the boat painted red at the forward end of the vessel. It is usually located in the vicinity of Quarantine Anchorage where port formalities are conducted.

During bad weather, the pilot boat is located inside the breakwater upon the expressed permission of Port Authorities.

Foreign vessels are boarded outside the breakwater while inter-island vessels at Buoy No. 1 near the entrance to the Pasig River and off the lighted buoy North of North Breakwater.

Notice of vessel's arrival shall be made at least 24 hours before their arrival.

Lights exhibited when a vessel has a Pilot on board are white over red together with other regular navigational lights. Otherwise, only navigational lights are displayed.

During typhoons and bad weather, Pilots require vessels to rig the pilot or accommodation ladder on the lee side.

ANCHORAGES: Vessels which for any reason do not intend to enter either harbour or the river immediately on arrival may anchor anywhere outside of the Entrance Channel. There is also deep water anchorage inside the breakwater. Anchorage is regulated by the Harbour Operations, Port of Manila, Philippine Ports Authority.

Quarantine Anchorage: The Manila Quarantine Anchorage is bounded as follows: Beginning at the Manila Outer Harbour Lighted Buoy 1, approximate position Lat. 14° 33′ 09″ N., Long. 120° 54′ 04″ E. thence 000°, 2,360 yards to position Lat. 14° 34′ 23″ N., Long. 120° 54′ 00″ E., thence on a range of 076° 24′ (Customhouse in line with City Hall Tower), 4,000 yards to approximate position Lat. 14° 34′ 50″ N., Long. 120° 56′ 14″ N., Long. 120° 56′ 00″ E., thence 242° 30′, 4,440 yards to the Manila Outer Harbour Lighted Buoy 1, the point of commencement.

Forbidden Anchorage: Anchorage is prohibited in that portion of Manila Bay known as the Cable Area which is defined as follows: From a point approximately at Lat. 14° 33′ 42″ N., Long. 120° 59′ 05″ E., the junction of the breakwater forming the South side of the Yacht Basin with the shore of Manila Bay, thence along the breakwater to its end, from its end 255° to 3.65 miles North of Sangley Point Light, thence 066° to the shore of Manila Bay.

Explosives Anchorage: Vessels having gasoline, dynamite or other highly inflammable or explosive compounds on board are not permitted to berth at piers or wharves until such cargo has been discharged. Such cargo must be discharged into lighters from vessels at the anchorage within the circle with a radius of 175 yards centred in Lat. 14° 35′ 15″ N., Long. 120° 54′ 05″ E.

Other Special Anchorages: Lighters, scows, cascos and similar craft are prohibited from anchoring East of the breakwater, Manila Harbour, except in the following designated places:

(a) South of the new Luneta, inside of vessels' anchorages, but only in cases of urgent necessity and with special permission from the Surveyor of the Port.

(b) Along the East side of the West Breakwater and within 85 yards of it, and well clear of the fairway leading to the Engineer Island slipways and well clear of the manoeuvring space ordinarily needed by vessels docking or leaving the oil wharf. No craft shall moor along the breakwater beyond the sharp bend of the breakwater towards the gap.

(c) In the Inner Basin (Engineer Island) East and well clear of the fairway and then only in case of urgent necessity. It is provided that such craft during severe typhoon weather with special permission of the Surveyor of the Port, may anchor temporarily in the Inner Basin West of the fairway, but well clear of the vessels.

Others:

1. No vessel shall anchor or moor in any prohibited anchorage nor use an anchor in that area except for the purpose of assisting in berthing alongside or unberthing.
2. No vessel shall anchor in, or use an anchorage, other than for the purpose for which the anchorage is designated or intended.
3. No vessel shall anchor, berth, moor or lie:
   (a) In the approaches to a port.
   (b) In any principal fairway.
   (c) In such a manner as to obstruct the approach to anchorage or pier/wharf used by other vessels.
   (d) In a cable reserve area, or in any special anchorage indicated on the chart of the Port or Port district except for the purpose specified.
   (e) In a position which is likely to foul a vessel which is anchored, moored, or made fast to a buoy.

RESTRICTIONS:

1. No explosives or dangerous goods shall be loaded or discharged between 1800 hrs. and 0600 hrs. without the permission of the Authority.
2. No vessel or harbour craft with explosives or dangerous goods on board shall remain alongside any other vessel or craft, pier or wharf or other physical landing place between 1800 hrs. and 0600 hrs. without permission of the Authority.
3. No person shall smoke and no fire or naked light, other than navigation or signal lights prescribed by the Collision Regulations, shall be allowed on board any vessel or harbour craft which has or is about to receive on board any explosives or dangerous goods.

MAX. SIZE: The maximum permissible draft inside the port is 9.4 m.

HEALTH: There are 3 types of Pratique that can be obtained at the port: Free Pratique, Provisional Pratique and Radio Pratique.

Foreign vessels calling at the port are inspected by Immigration Officers. When all the quarantine rules and regulations are complied with and the vessels found free of any quarantinable or communicable diseases, Free Pratique is obtained by the vessel.

On the other hand, if some of the conditions above are not satisfied, a Provisional Pratique is given by the Quarantine.

Radio Pratique is provided to army and navy ships on the following grounds:

1. A doctor is among the crew of the ship.
2. There is no member of the crew sick of any disease.
3. Vaccination Certificates of the crew are in order and valid.
4. The vessel is not from a sick area.

For vessels calling at the Port of Manila, but already coming from another port of entry in the Philippines, Pratique is automatic. However, if somebody aboard the vessel is sick during the voyage, Pratique shall still be obtained.

RADIO: The particular radio station to be used by a vessel to route ETA cables to agent is at the discretion and selection of the vessel.

Radio Officer's Report: August 1980.

Radio: Intercom Manila Radio, call sign (DZF) operated by the International Radio Communication Philippines. Serving ship to shore and vice versa, domestic and international communications, on HF, MF, and HF radio telephone on 24 hours operation.

VHF: The only coastal station equipped with VHF radio telephone listening on Channel 16 international calling frequency. Simplex and duplex operations on working Channels, for a direct contact with Agents.

Also accepting radio calls on land locally and international link via their local telephone network (PLDT).

VHF: Manila Pilots Association on Channel 16 and 13.

RADAR: No existing Port Radar Service.

TUGS: Tugs normally join vessel inside the breakwater.

BERTHING: There are 5 finger piers at South Harbour.

Pier No.	*Pier Length* (m.)	*No. of Berths*	*Depth* (m.)
3	375.96	4	10.70 – 11.35
5	361.59	5	11.35
9	385.96	4	11.08 – 11.68
13	433.79	7	8.53 – 10.06
15	396.96	4	10.70 – 11.35

Container Berths: There are 2 container berths at Berth Nos. 3 and 4 of Pier 3. Length 375 m.

One fixed Ro/Ro berth at Pier 13.50 ton capacity.

CONTAINER HANDLING FACILITIES:

Manila International Container Terminal:

Address:	Isla Puting Bato, North Harbour, Tondo, Manila.
Telephone No.:	21-72-49 or 26-71-19.
Location:	Philippine Ports Authority Office (Operations). Located North of the Pasig River mouth primarily constructed to handle the foreign container traffic on a 94-hectare reclaimed area.
Navigational Approach:	The Fairway Channel has a length of 4,000 m. and a width of 250 m. Controlling depth is 12.2 m.
Tidal Range:	Mean Range – 0.763 m. Diurnal Range – 1.021 m.
Total Berth:	Length: 986.16 m. Width: 420.28 m. Depth: 10.70 m. alongside

Facilities

Container Yard 1 paved area	—	21.6 hectares
Rated capacity	—	4,650 TEUs daily
Average Container Volume stored Daily	—	1,600 TEUs (34% average space utilisation)
Reefer Facilities	—	40 Outlets/460 Volts
Container Freight Station Area 1	—	8,400 sq.m.
Rated Capacity	—	5,340 tons daily
Average Tonnage Stored Daily	—	4,280 tons daily (80% average space utilisation)
Berths	—	4
Total Length	—	900 m.
Average Depth at Berth	—	34 ft. (10.4 m.)
Average Length per Berth	—	215 m. except Berth No. 1 which has a length of 255m.
Operational Berthing Space	—	850 m. (can accommodate 4 vessels at any given time with 150 m. LOA per vessel)
Berthing Hours	—	Anytime, with 24-hour notice
Working Hours	—	16 hours with 2 shifts (day/night)

Equipment

Shore Gantry Cranes	—	2 (1 diesel-powered and 1 electrically powered)
Capacity	—	35 tons SWL
Travelling Distance	—	645 m.
Waterside Outreach	—	35.05 m.
Back Reach (Landside)	—	10.66 m.
Upper Lift	—	1 container over 4 containers above deck
Lower Lift	—	8 tiers below deck
Straddle Carriers	—	6 Units
Prime Movers	—	18 Units
Forklifts	—	43 Units (42×3 tons and 1×10 tons)
Chassis	—	45 Units
Service Vehicles	—	7 Units
Ferry Boat	—	1 (MIPTI-owned)

Other Facilities

Weighbridge		—	Privately-owned
Back-Up Area DASSAD	For dangerous cargo	—	5,000 sq.m. with 2 CFS at 1,500 sq.m. each
NAWACO	For overstaying containers	—	28,000 sq.m. with 8 CFS at 1,254 sq.m. each
APEX		—	28,840 sq.m. with 1 CFS

CRANES:

	No. of Units	Description	Capacity
Container Crane (Liebherr)	2	Electric-powered	35 tons
Mobile Crane	8	Jib-type	10 – 35 tons
	1	Elevated cab	100 tons
Yard Gantry Crane (rubber tyred)	7	Diesel-powered	30 tons with spreader

CONTAINER/GENERAL CARGO STORAGE FACILITIES:

Transit Shed	*Number*	*Use*	*Capacity*
Pier 15	2	Transit sheds – temporary storage for import and export	6,000 tons/ 5,750 sq.m.
Pier 13	1	Transit sheds – temporary storage for import and export	3,000 tons/ 3,100 sq.m.
Pier 9	4	Transit sheds – temporary storage for import and export	13,000 tons/ 14,694 sq.m.
Pier 5	4	Transit sheds – temporary storage for import and export	12,000 tons/ 12,664 sq.m.
Container Yard	3	Asphalt paved	6,000 TEUs/ approx. 18 hectares
Container Freight Station	2	For stripping/stuffing storage purposes	10,000 tons/ 10,336 sq.m.
Dangerous Cargo Area	1	Partly covered storage area	7,000 tons
Open Storage Area	5	Asphalt paved	34,900 tons
Car Compound (STALAG)	1	For cars and other small vehicles	4,000 tons
Warehouses	8	Storage of import/export cargo	37,000 tons
Chassis Parking	1	Asphalt paved	2,000 TEUs approx. 2 hectares

Liquid cargoes are handled at South Harbour, at the anchorage only through ship to ship or in to lighters.

BRIDGES: None.

STEVEDORES: Arranged by vessel's Agent prior to arrival.

MEDICAL: Notice from shipping Agents is required at least 24 hours in advance. There is one hospital clinic available at the port – the Roberto S. Oca Hospital Clinic located at Gate 4, South Harbour.

For quarantinable diseases, there is a 12-bed hospital, the Quarantine Isolation Centre is located at the airport.

TANKERS: Tankers are very seldom accommodated at the Port. The Limay and Mariveles Sub-ports receive tankers.

Rosario: Filoil Refinery Sea Berth: Located at the entrance to Manila Bay in position: Lat. 14° 26′ 30″ N., Long. 120° 46′ 40″ E. This position is 2.5 miles off the shore of Rosario, Province of Cavite.

The mooring area is marked by 6 mooring buoys. A ship's guide buoy marks the point where the ship's starboard anchor will be dropped upon entry into the berth. 4 other buoys inside the berth at midport mark the end of the submarine pipe-line, centre of ship's manifold and the hose ends respectively. The bearing of the centre of the berth is N. 65° E. The depth is 50 ft. at high tide and 45 ft. at low tide approximately.

The weather is quite good during the dry season, but is unfavourable during monsoon season (May to November). Wind and swells are mostly from a S.W. direction and usually prevalent during monsoon season.

It is emphasised that vessels moored at the berth must be in good condition to clear the berth immediately in case of an emergency. Ship's engines and gear must be ready with full power for immediate use. Ship's personnel should be at their stations at all times during mooring, unmooring and cargo unloading operations.

Radio: Filoil Makati Office may be contacted by dialling telephone Nos. 87-40-61 and 87-40-71. The Rosario Refinery may be contacted by dialling telephone Nos. 47-95-51 and 47-95-53.

Communication from the Sea Berth with the Refinery, Filoil's launch and Filoil Representative on board is through VHF radio. If VHF radio fails, the Filoil launch will be despatched to bring message either way.

Filoil Representative on board maintains a radio watch and constant communication with the shore for general purposes and emergencies.

Luzon Stevedoring Company tugboats also maintain a constant radio communication with their representative at the shore. In case of emergency, messages can be relayed via these tugs.

Ship's Agent: All vessels carrying crude or other cargoes for discharge at Filoil Refinery Sea Berth must appoint their local ship's Agent who will provide them with the necessary ship husbandry services.

Notice of Arrival: They must report their ETA to Filoil Refinery Corporation, cable address "Filoil", Manila, Philippines, 3 days after leaving port of loading and 72 hours before arrival at Manila.

Pilot and Boarding Parties: Pilots are arranged for by the ship's Agent. Generally, Pilots board the tanker at the Manila Anchorage to assist the Master to moor in the berth and leaves at the Sea Berth after berthing.

Filoil Representative boards the tanker 1 mile before the Sea Berth, but if it is the first voyage, he boards the tanker together with the Port and Government Authorities at Manila Anchorage.

Tugs: Tugboat service is arranged for by ship's Agent. Tugs generally come from Manila. Give at least 48 hours' notice when ordering tugs.

Quarantine, Customs and Immigration: Manila is the port of entry for the Rosario Sea Berth. Therefore, entry and clearance must be arranged by the Ship's Agent at Manila. Boarding Officers board the vessel in the Quarantine Anchorage prior to arrival within the mooring area. Pertinent Government Officials should be given sufficient time, usually not less than 24 hours Monday to Friday, and 48 hours Saturday and Sunday. Generally, entry and clearance can be arranged by the Agent who should advise Customs well in advance of the vessel arrival.

Ballast, Bilge and Garbage Disposal: There are no ballast facilities at the refinery. Masters are advised that in Manila Bay, the Harbour-Pollution Regulations are rigidly enforced. Therefore no bilge water, oil contaminated water, garbage or similar refuse which may pollute the sea water in any way, is to be discharged overboard while the vessel is within Manila Bay and approaches thereto. The staff at Rosario are required to report any violation of this Philippine Merchant Marine Regulation.

Launch Service: Regular launch service for crew transportation is not available and has to be arranged through ship's Agent. The Luzon Stevedoring launch is used to run lines, assist in picking up cargo hoses, etc. Filoil's owned or hired launch is for the exclusive use of Filoil Representative and personnel boarding the vessel; however, transportation may be arranged through Filoil Representative in cases of emergency.

Medical: Medical attention can be arranged by the ship's Agent. There is a clinic at the refinery. The nearest hospital is 0.5 miles.

Heading for the Sea Berth: As soon as government clearance (Pratique) is granted, vessel weighs anchor and heads for Rosario Sea Berth, a distance of about 16 land miles from Manila Anchorage.

Vessel Mooring Gears and Facilities: The vessel's bow is secured in the moorings by the use of both bower anchors. Therefore, ship must have both bower anchors ready for immediate use, each with a minimum of 150 fathoms of chain. Anchors, chains and anchor windlass must be in good condition and capable of heaving ship ahead with the chain or letting one chain go out on the run while heaving in on the other. Mooring Buoy No. 6 can be used instead of port anchor if 3 mooring lines are hooked up.

Vessels must be equipped with 10 in. manila or better mooring lines of not less than 8 in. circumference and not less than 90 fathoms in length of each line. 2 lines are required for each of 6 mooring buoys, 5 of which are aft to secure the ship's stern. Therefore, 5 lines are to be available on the fantail for mooring to Buoy Nos. 1, 2, 3, 4 and 5.

Vessels having wire moorings secured on warping winches with surge valve and brake are acceptable. Warping winches must be adequate to handle mooring line under heavy strain. Efficient stopper lines must be readily available to "stop" mooring lines for transfer from winch to bitts without loss of tension.

All chocks other than roller (if free) shall be fitted with chafing gear to protect lines before berthing operation commences, endeavouring to install chafing gear after the ship has been moored has proven impracticable. Old fire hoses or substitute is suggested.

If in the opinion of the Pilot, the vessel's mooring facilities lines and/or gear are inadequate, he will inform the Master and Filoil Representative, and in such event the vessel will not be allowed to enter the moorings until such conditions are deemed satisfactory.

Docking Procedure: To moor, the vessel approaches the mooring heading due South. When in proper position, the starboard anchor is dropped and the chain allowed to run until vessel crosses the mooring area to a point where the port anchor is let go or when the mooring lines are dropped to Buoy No. 6. Then the engines are backed and the vessel with the assistance of the tug, manoeuvred into the mooring area where after lines are run to the 5 mooring buoys and then the anchor chains are brought tight simultaneously with the securing of the stern to the mooring buoys. The vessel is then heading due West parallel with the tide current flow.

When secured in the berth, vessel should not be closer than 10 m. from the end of the submarine pipe-line. Bower anchor chains should have spread of not less than 30° on either side of the ship's imaginary fore and aft line extended forward. Stern buoy moorings should be set as taut as possible and anchors form an approximate angle of 300° with water line.

Submarine Hose Lifting Gear and Manifold Connection: The derrick on the port side in way of the hose connection must be rigged to lift not less than 5 tons. The topping lift shall be available to raise or lower the boom as required and the winch and whip shall be of a quality and nature to lift the hose exactly and evenly. The hose and fittings are considered to weigh 3 tons. The hose connecting gang and its supervisor are from Luzon Stevedoring Company and are under contract to Filoil. They will use the ship's machinery to raise the 2×10 in. hoses from the bottom and secure same to the ship's side. They will also disconnect the hoses and lower same to the bottom of the sea after completion of discharging of cargo. The ship's manifold must have 10 in. flanges for connection to 10 in. submarine hoses.

Safety Rules and Regulations:

Mooring lines must be in good condition and kept tight at all times.

Sparking smoke stacks must not be permitted. If for any reason a stack catches fire or emits live sparks, cargo operations must be stopped immediately on this and adjoining vessels.

Throw nothing overboard from deck or portholes while at Sea Berth.

During cargo and/or ballast operations, vessels shall show red flag by day and red light by night. No smoking amidships during cargo and/or ballast operations.

No chipping, repairs, welding or hot work is allowed on any vessel while at sea berth unless special permission is given and a safety permit obtained. The ship must always be ready to sail out at a moment's notice. The Authority decides when vessels at pier side and Inner Anchorage be shifted to Outer Anchorage during Typhoons.

Pumping crude oils must be stopped during electrical storms or if lightning appears in close vicinity.

In case of fire, shut down all pumping and sound alarm. Disconnect hoses so as to be ready to shift from berth. All vessels at berth must have main engines ready for use. Water, foamite and steam are never to be used on electrical fires. Use dry chemical or Pyrene. Use foamite, water fog, steam CO_2 or dry chemical on oil fires.

Avoid spilling oil on deck. If any oil is spilled, it must be cleaned immediately. Gasoline or naphtha is not to be used for cleaning.

Only Underwriter's laboratory approved flashlights permissible use in methane and air mixtures by the U.S. Coast Guard are to be used for loading, discharging, ballasting and/or repair work on vessels.

Ullage screens are to be kept in place during cargo and/or ballast operations.

No extension cord or portable cables which are connected to an electric power source shall be used on deck in way of cargo or fuel tanks unless vessel is certified gas-free.

Fire hose shall be laid out and suitable fire extinguishers available. Failure to comply with any of the above rules will result in the vessel being shut down. Sufficient copies are to be presented to the Master so that they may be posted in various places about the vessel. It is the Master's responsibility to see that these rules and regulations are enforced.

Discharge of Cargo: After hoses are connected the Filoil Representative will, after communication with the refinery, advise commencement of pumping. In the beginning the rate is to be slow and the Filoil Representative will advise when pumping rate is to be increased to maximum. Discharge of cargo may be stopped due to adverse weather conditions. In which event, the hoses are disconnected and the submarine hose lowered to the sea bottom. Cargo discharge will be resumed when the adverse weather moderates.

Crude oil discharge through 2×10 in. hoses 255 ft. long through a 10 in. check valve and 10 in. gate valve then into the 24 in. pipe-line which is 2.5 miles in length. The height of the shore tanks (foundation) above sea level if 15.5 ft. Pressure at the ship's side must not be less than 60 lb. Maximum pressure allowed is 120 lb. at the ship's side.

Stripping – Tank Draining: To keep a discharge time to a minimum, tanks should be stripped into one of the ship's tanks and the final stripping shall be from only one tank.

Board and Lodging Accommodation: Sufficient accommodation and meals are requested to be available and prepared for the Filoil's Representative in the Officers' quarters. He will remain with the vessel until casting off or until relieved to be of assistance to the crew.

DENSITY: Variable.

FRESH WATER: Fresh water is available from floating barges.

FUEL: This depends upon the requirement of the vessel. However, as to the quantity, the Philippine Government can only sell vessels sufficient for it to reach the next port of call.

FIRE PRECAUTIONS: The "Absolutely Non-Smoking Area" signs to be exhibited. Permission must be obtained from the Authority before following undertaken – welding work, onboard repairs, vessel imobilisation.

REPAIRS: Only minor repairs possible.

DRY DOCKS: *Bataan Shipyard and Engineering Co. Inc.:*

1 Graving Dock with max. length 164 m., breadth 23.16 m. and depth 12.19 m. Max. size 16,000 d.w.t.

1 Synchrolift for vessels up to 2,000 d.w.t.

Philippine Shipyard and Engineering Corp. (Philseco): Located at Subic Bay.

1 Graving Dock, 350 m.×65 m.×12.5 m.

1 Berth, length 300 m., depth 9 m.

1 Jetty, lengths 185 m. and 135 m., depth 9.0 m.

1×80 ton crane and 1×30 ton crane.

Keppel Philippines: 2 dry docks:

1. 110 m.×19 m.×5.0 m. on sill.
2. 110 m.×15 m.×5.5 m. on sill.

SURVEYORS: None.

GANGWAY/DECK WATCHMEN: This service is available whenever needed.

HATCHES: Stevedores usually open and close hatches. In special cases, when the vessel is of a different model and the hatches are constructed differently, crew members are requested to assist stevedores.

CUSTOMS ALLOWANCES: The only allowable quantity of goods to be held out of bond is that which the members of the crew can use personally. Usually, one or two bottles of wine and a pack of cigarettes. Those brought out from the vessel beyond this will be considered for commercial consumption and will therefore be charged.

REPATRIATION: Shipping Agent can arrange this with the Bureau of Immigration.

AIRPORT: The nearest airport is the Manila International Airport, about 8 km. from the Port of Manila. This is served by regular airlines.

TIME: GMT plus 8 hours.

HOLIDAYS: There are about 11 national holidays in the Philippines. Working days are from Monday to Friday, for government employees, and Monday to Saturday, for private employees. However, the Port of Manila does not observe any of these holidays. Operations at the port are on a day-to-day basis.

Work stoppages may be declared on the following holidays:

Good Friday (1800 hrs. Thursday – 1800 hrs. Friday)

Christmas Eve (1800 hrs. 24th December – 1800 hrs. 25th December)

New Year's Eve (1800 hrs. 31st December – 1800 hrs. 1st January)

POLICE/AMBULANCE/FIRE: Police Tel: 59-90-11, 59-43-44, 59-63-36, 59-64-49. Ambulance Tel: 59-60-61, 50-30-11. Fire Tel: 47-77-17, 88-00-58, 25-56-80, 87-21-20.

EMERGENCY CO-ORDINATION CENTRE: Philippine Coast Guard Tel: 483-257 (operations).

TELEPHONES: Arranged by vessel's Agent from the Philippine Ports Authority.

SERVICES: Apart from the usual services of the port, others are ship salvage, laundry and container leasing.

IDENTIFICATION CARDS: Shore passes are issued by the Bureau of Immigration.

SHORE LEAVE: Crew members are allowed ashore as long as sufficient members of the crew are left on board to manage the vessel in case of unforeseeable incidents. This is necessary in order that the vessel can be removed from berth or anchorage.

BANKS:

1. American Express Bank, 121 Paseo de Rojas, Makati, Metro Manila. (No telex available).
2. Bank of America, 8947 Paseo de Rojas, Makati, Metro Manila. Telex: 5049.
3. City Trust Banking Corporation, 399 Buendia Ave., Ext., Makati, Metro Manila. (No telex available).
4. Lloyd's Bank International Ltd., 6813 Ayala Ave., Makati, Metro Manila.

REGULATIONS: No particular or unusual regulations are observed at the port.

DELAYS: The expected delays are: During inclement weather, some difficulty may be encountered in berthing and when some of the specialised cargo handling facilities have failures.

DEVELOPMENTS: *Future Plans for the Manila International Container Terminal:*

1. Additional Ro/Ro facility to be constructed.
2. A third container berth to be constructed.
3. Four gantry cranes, 4 transtainers and 4 straddle carriers to be added.
4. Additional Container Freight Station (CFS) to be constructed under Phase II.

AUTHORITY: Philippine Ports Authority (PPA), P.O.Box No. PA 62, 5th Floor, B.F. Condominium, Aduana, Intramuros, Manila. *Tel:* 47-92-04, 40-81-66, 48-24-93. *Telex:* 40404 (ITT), Tx Bx 0203. *Cables:* Phports, Manila. *Contact:* Captain E. Santos, Port Manager.

AGENT: Jardine MacLeod Shipping Agencies, 429 United Nations Avenue, 15th Floor, Victoria Building, P.O.Box 298, Manila. Tel: 2-574061. Telex: 27383, 40112. Cables: Shipmac. FAX: 2-5214246.

Associated with Jardine Shipping Agencies.

MASBATE, Masbate Island: 12.35 N. 123.31 E.

(See Plan)

DOCUMENTS:

Inward Coasting Manifest.

Hatch Plan or Stowage Plan.

Vessel's Information Card.

PILOTAGE: Pilotage is compulsory. ETA advise should be sent to the Harbour Pilot Association, Legazpi City at least 36 hours before vessel's arrival. The vessel is met by the Harbour Pilot about 2 km. from the mouth of the channel of Masbate Bay aboard a boat displaying a Pilot's flag.

ANCHORAGE: Within Masbate Pass, but not greater than 500 m. from the mouth of the channel leading to Masbate Bay. The area within the Masbate Bay could only be used during emergencies and typhoons.

RESTRICTIONS: Present port facilities can only accommodate 1 vessel at a time due to draft limitation and physical length of the wharf.

MAX. SIZE: LOA – 300 m.; Draft – 28 ft.

HEALTH: Vessels will clear quarantine on arrival at Masbate Harbour. Quarantine Officers will normally board the vessel once it is inside Masbate Bay.

BERTHING: The entire berth length of the wharf could be utilised for the loading or unloading of cargoes. Length of quay 180.0 m. Width 10 m. Max. depth of water 30 ft. Quay height above sea level 2 m. at high tide and 4 m. at low tide. Average rate of loading/discharging 20 tons per gang hour.

CRANES: None available.

STEVEDORES: Provided by Masbate Consolidated Arrastre, Inc.

MEDICAL: One government hospital and three private hospitals.

FRESH WATER: Available by special arrangements.

FUEL: All grades obtainable from Caltex depot in the area and supplied by lorries alongside.

GANGWAY/DECK WATCHMEN: Available, but not compulsory.

HATCHES: Opening and closing of hatches are part of the stevedores' work or at the Master's option.

REPATRIATION: All facilities available for crew changes; good sea and air connections.

AIRPORT: 3 km. from port area. One flight to Manila daily.

TIME: GMT plus 8 hours.

HOLIDAYS: New Year's Day (January 1st); Holy Thursday; Good Friday; Labour Day (May 1st); Independence Day (June 12th); P.I.U.S. Friendship Day (July 4th); Bonifacio Day (November 30th); Special Public Holidays declared by the President of the Republic of the Philippines is also included.

If any other legal holiday falls on a Sunday the following day is observed as a Holiday. Cargo work can be arranged on any or all holidays with the vessel's Agent.

POLICE/AMBULANCE/FIRE: Police and ambulance can be contacted through the local PPA office.

TELEPHONES: Placing of telephones on board can be arranged with the local telephone company (PILTEL).

SHORE LEAVE: Crews can be allowed ashore in company of an Immigration Officer.

GENERAL: Vessels intending to call port at Masbate shall apply for a berth space at least 24 hours before arrival. No dirty ballast may be dumped into the territorial waters of the Philippines. Rat guards shall be placed on all mooring lines. Berth allocation is on a first-come first-served basis.

DEVELOPMENTS: Extension of the wharf by 80 linear metres.

AUTHORITY: The Supervising Officer, Philippines Ports Authority.

MASINLOC, Luzon: 15.32 N. 119.57 E. (See Plan)

SHIPMASTER'S REPORT: June 1988.

DOCUMENTS:

6 copies Crew List, these being in addition to visaed Crew Lists supplied in advance.
3 copies Stores List.
3 copies Bond Stores List.
3 copies Crew Declaration.
1 Summary of Ship's Particulars.
1 copy Maritime Declaration of Health.
1 copy Manifest of Transit Cargo.
1 copy each of Passenger List, Livestock, Arms and Ammunition Declaration or "Nil".
Last Port Clearance.

PILOTAGE: Pilot boards in position 15° 33′ N., 119° 53′ E. In view of the absence of navigational aids (buoys) it is recommended that the vessel waits for the Pilot to fetch the vessel inside to the anchorage. The depth outside is too great for anchoring. We drifted, 8 miles offshore, for a period of 14 hours whilst awaiting the Pilot and experienced very little drift.

The Pilot boards from an outrigger fishing canoe exhibiting a large 'H' flag. For berthing, normal pilotage hours are from 0500 – 1000 hrs., but this may be extended in calm weather conditions. No docking or undocking during the hours of darkness.

The Pilot was competent in berthing the vessel, using a starboard anchor (7.5 shackles out when alongside) and a mooring boat to run lines to the jetty, buoys and dolphins.

ANCHORAGE: The anchorage is about half a mile from the berth in position 15° 32.5′ N., 119° 56′ E., depth of water 11 fathoms.

Clearance is sometimes carried out at the anchorage.

RADIO: All communications are via Manila Radio as there is no direct link with Masinloc.

VHF: No VHF communications possible with the port or pilot.

BERTHING: The bulk loading jetty is located in position 15° 32.9′ N., 119° 56.3′ E., depth alongside 31 ft.

Starboard anchor was used for berthing. Lines were run to buoys ahead, astern and starboard quarter. Breast lines were run to dolphins and springs were run to the jetty (See "Plan").

Loading: Loading is by conveyor and shoot which can be deflected slightly forward and aft. Rate 100 tonnes per hour – 120 tonnes per hour.

Access gangway provided from the jetty.

Loading is suspended in heavy rain and hatches are covered.

STEVEDORES: Loading is carried out throughout 24 hours.

MEDICAL: Consultations can be arranged.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: Nearest Consuls are at Manila.

REPAIRS: No facilities available.

SURVEYORS: Based in Manila.

AIRPORT: At Manila.

REPATRIATION: Repatriation can be effected through Manila which is about 3 hours by car.

GENERAL: *Chart:* B.A. Charts No. 3806 (approach), 3559 (plan).

Notice of Arrival: To be sent to Agent in Manila.

Telephones: The nearest telephone is 1.5 hours away by car.

Accommodation: There is a local lodging house, but no air conditioning available so probably more comfortable aboard the vessel.

Stores: Available at local market.

NASIPIT (Including Masao and Butuan) Mindanao: 09.06 N. 125.22 E. (See Plan)

See "General" before first port.

Under the present PPA reorganisation, PMO-Nasipit covers the sub-ports of Butuan and Masao and the Port of Surigao which includes Dapa, Lipata, Bislig and Surigao.

PORT LIMITS: From Diwata Point up to the coastal limits of Surigao del Sur and Surigao del Norte (including the offshore islands of Siargao and Dinagat).

DOCUMENTS:

4 Crew Lists
4 Passenger Lists
2 Stores Lists
4 Stowage Plans
2 Personal Effect Lists
2 Inward/Outward Cargo Manifests
1 Ship's Information sheet and statistical supplement.

PILOTAGE: Compulsory. Telegraphic address: Masao Pilots, Butuan City. Tel: 30-68.

ETA: Ocean going vessels – 24 hours' notice.
Coastal vessels – 12 hours' notice.

Pilot Boat Description: Upper structure white; lower structure black with a letter "P" at the bow. During night time, when a vessel requires a Pilot, particular light used is permanent red at the uppermost portion of the boat and a flashing white light.

Location of Pilot Station: In Masao, Lumbocan, Butuan City, with offices at San Francisco St., Butuan City near the Butuan R. C. Wharf.

For the Port of Masao, Lumbocan, Butuan City, there is no alternative area in the event of bad weather as it is an open sea. However, at the sub-port of Nasipit, vessels can seek shelter during bad weather because of its natural cove which protects the vessels against strong winds and heavy seas.

Location of anchorage for vessel awaiting a Pilot is at Quarantine Anchorage Area Lat. 9° 00′ 30″ N., Long. 125° 28′ 15″ E.

ANCHORAGES: Depth of safe anchorage: 75 m. deep along the shore line.

Masao Anchorage Berth:
Anchorage No. 1: Lat. 9° 01′ 05″ N., Long. 125° 29′ 50″ E.
Anchorage No. 2: Lat. 9° 01′ 00″ N., Long. 125° 29′ 40″ E.
Anchorage No. 3: Lat. 9° 00′ 55″ N., Long. 125° 29′ 30″ E.
Anchorage No. 4: Lat. 9° 00′ 45″ N., Long. 125° 29′ 20″ E.
Anchorage No. 5: Lat. 9° 00′ 35″ N., Long. 125° 29′ 00″ E.
Anchorage No. 6: Lat. 9° 01′ 15″ N., Long. 125° 29′ 45″ E.
Anchorage No. 7: Lat. 9° 01′ 10″ N., Long. 125° 29′ 35″ E.
Anchorage No. 8: Lat. 9° 01′ 04″ N., Long. 125° 29′ 25″ E.
Anchorage No. 9: Lat. 9° 00′ 55″ N., Long. 125° 29′ 05″ E.
Anchorage No. 10: Lat. 9° 00′ 50″ N., Long. 125° 28′ 55″ E.

RESTRICTIONS: None.

MAX. SIZE: Masao: No limit.

Nasipit: Maximum possible length of vessel is 550 ft., breadth 65 ft., maximum mean draft is 25 ft.

HEALTH: Cable Quarantine Officer with name and nationality of ship, ports of call during voyage, number of crew and passengers, condition of health of all on board and, if any, type of sickness.

VHF: 156.25 MHz.

TUGS: Tug assistance is only available at the port of Nasipit, if needed.

BERTHING:

Port of Butuan:

Berth length:	138 m.
Present draft alongside berth at MLLW:	5.0 m.
Distance from the mouth of the Agusan River:	7 nautical miles.
Depth at the mouth of Agusan River at low tide:	8 ft.
1987 cargo:	200,000 long tons.
Load capacity of berth:	200 lb./sq.ft.

Port of Masao:

Causeway:	280 m.
Berth length:	32 m.
Depth alongside berth:	7.0 m.
Distance by road from Butuan:	14 km.
1987 cargo:	160,000 long tons.
Load capacity of berth:	100 lb./sq.ft.

Port of Nasipit:

Berth length (new port):	303 m.
Length of navigable water:	800 m.
Width of navigable water:	200 m.
Width of the entrance to the Nasipit Port:	150 m.
Load capacity of Nasipit Port:	600 lb./sq.ft.
Storage area:	2,500 sq.m.
No. of vessel to be accommodated at a given time:	4 domestic vessels.
No. of vessel to be accommodated at a given time:	2 foreign vessels.
Cargo expected by 1990:	600,000 long tons.
Present draft alongside berth:	6.0 m.
Expected draft alongside berth upon completion:	7.0 m.
1987 cargo throughout:	330,000 long tons.

CRANES: None owned by the Authority nor by any cargo handling operators, but can be hired from the Ministry of Public Works and Highway or from private contractors companies.

BULK CARGO FACILITIES: None.

SPECIALISED CARGO HANDLING FACILITIES: Ro-Ro ramp will be available after completion of development programme in 1990. A berth is allocated to handle oil products.

BRIDGES: None.

STEVEDORES: Masao and Butuan: Masao Integrated Port Services Inc. (MIPSI).

Nasipit: Nasipit Integrated Arrastre & Stevedoring Services, Inc. (NIASSI).

Surigao: Nickel City Arrastre & Stevedoring Services, Inc. (NICASSI).

ETA advice required to arrange gangs, at least 4 hours before arrival.

MEDICAL: No advance notice needed except in case of serious illness. Hospital facilities available:

1. Government hospitals:
   a. Butuan General Hospital
   b. Butuan Maternity and Children's Hospital
   c. City General Hospital and Medical Centre.
2. Private hospitals:
   a. Butuan Doctors Hospital
   b. Santos Hospital
   c. Our Lady of Fatima Hospital.

DENSITY: Average density of water in the port and surrounding anchorage area is 1010 – 1012.

FRESH WATER: Masao: The supply of fresh water can only be made possible through the use of barges.

Butuan: Licensed water supply operators.

Nasipit: Nasipit Water District.

FUEL: Oil delivered by tank trucks at all berths or supplied by barge.

REPAIRS: Only minor repairs can be undertaken.

GANGWAY/DECK WATCHMEN: Service of watchmen is optional.

HATCHES: Opening or closing of hatches is normally carried out by stevedores.

CUSTOMS ALLOWANCES: Tobacco: Each man 1 pack per day. Wine and Spirit: Each man 1 bottle per week.

REPATRIATION: Crew changes and repatriation possible.

AIRPORT: A few kilometers from the city is the Bancasi Airport which caters to domestic flights to and from Cebu and Manila.

CARGO GEAR: Cargo operations by ship's gear.

HOLIDAYS: New Year's Day (January 1st); Holy Thursday, Good Friday and Easter Sunday; Labour Day (May 1st); Independence Day (June 12th); Edsa Day (February 28th); National Heroes Day (November 30th); Christmas Day (December 25th); Rizal Day (December 30th).

Cargo-handling operations, however, can still be arranged on these days.

BANKS: Philippine National Bank, Montilla Blvd., Butuan City. Tel: 23-12; 23-11.

Bank of the Philippine Islands, Montilla Blvd., Butuan City. Tel: 31-12; 31-13.

Family Bank, Juan Luna Street, Butuan City. Tel: 33-97; 33-98.

Rural Bank of Butuan City, Juan Luna Street, Butuan City. Tel: 30-42.

PCI Bank, Corner of Juan Luna and Zamora Streets, Butuan City. Tel: 20-13; 21-42.

Development Bank of the Philippines, Zamora Street, Butuan City. Tel: 35-21; 35-20; 35-22; 39-22.

Metro Bank, Corner of Conception and Lopez Jaena Streets, Butuan City. Tel: 33-44.

City Trust, Zamora Street, Butuan City. Tel: 33-82.

Allied Bank, Corner of T. Burgos and Montilla Blvd., Butuan City. Tel: 31-95.

STORING: 1. Trucks can proceed alongside the berth.
2. Forklifts can be used on the jetty to handle stores.
3. Local riggers can be employed to assist storing.

SHIP SUPPLY SERVICE: None.

POLICE/AMBULANCE/FIRE: Police: 115; Fire: 114; Ambulance: 24-14.

TELEPHONES: Not possible to place telephones on board.

SERVICES: Shipchandling Services, Mooring/Unmooring Services, Laundry, Water-Taxi, Cargo-Checking, Cargo Surveying, Carpentery, Forwarding, Bunkering. All ancillary services operators are duly licensed by PPA.

SHORE LEAVE: After clearing inwards, crew members are allowed to go ashore without special permission.

IDENTIFICATION CARDS: Seaman's Book is sufficient.

REGULATIONS: None.

DELAYS: Berth not available; Weather constraints, Tidal constraints, Lack of Equipment, Breakdown of Equipment, Pilot not available, Tug not available.

DEVELOPMENTS: Completion of the International Port at Nasipit by 1990.

AUTHORITY: The Philippine Ports Authority; Port Management Unit; Nasipit, Agusan del Norte. *Contact:* Ferdinand C. Piencenaves, Port Manager.

POLLOC, Mindanao: 07.21 N. 124.13 E. (See Plan)

LOCATION: The Port of Polloc lies on the Southern coast of Polloc Harbour which, itself, is located N.E. of Illana Bay at about 14 km. in straight line North of Cotabato City. It is situated at Lat. 07° 21′ 12″ N., Long. 124° 13′ 27″ E.

PILOTAGE: Pilotage available 24 hours.

ANCHORAGE: Polloc Anchorage is contained between Lalayang Point and Polloc Island and provides a clear manoeuvring area some 3 km. in diameter with deep water along the marginal shallows which front the low cliffs of its Southern shore.

The anchorage along the Southern margin of Polloc Harbour also provides the port shelter and water depth as well as the best land and water frontage for the development of port facilities and of port-orientated industries.

Bongo Island, 6 miles long, is situated in the North Eastern part of the bay and affords some protection from the Westward to the Mindanao River Delta Area and Polloc Harbour.

RESTRICTIONS: None.

HEALTH: Quarantine anchorage is set at Lat. 7° 22′ N., Long. 124° 14′ E.

BERTHING: Main marginal wharf – 400 m. long.
Depth alongside – 10.5 m.
Lighter dock – 67 m. long on both sides.
2 government transit sheds – 11,960 sq.m.
Total port area – 102,350 sq.m.
Total area for open storage – 42,940 sq.m.
Total area reserved for private warehouses – 75,645 sq.m.

CRANES: 1×54 ton, 1×36 ton.

FRESH WATER: Available by road tanker.

FUEL: Diesel oil available by road tanker.

GENERAL:

Tides: The tidal cycle is semi-diurnal and synodic form. The characteristics are as follows:
Highest Astronomical Tide = EL +2.3 m.
Mean High Water Springs = EL +1.9 m.
Mean High Water Neaps = EL +1.5 m.
Mean Low Water Neaps = EL +0.6 m.
Mean Low Water Springs = EL +0.2 m.
Lowest Astronomical Tide = EL −0.3 m.

Storm Occurrences: Mindanao is below the main typhoon belt and only minimal effects have ever been observed at Cotabato as a result of occasional typhoons over the island. This is thought to be due to the consistent nature of typhoons in this region which travel S.E. to N.W.

In the sheltered area of Polloc Harbour at the Easterly side of the Port of Polloc, the max. fetch of 8 km. is to the N.W. and only with winds of 40 knot during a storm will waves of 1.2 m. (4 ft.) be experienced. With an "onshore" typical wind of 15 knots from N.W., wave heights will be about 0.3 m. (1 ft.).

Port Site Description: West of the Haines Point which marks the Western Sarmiento boundary is the site of the port. A frontage of some 2 km. can ultimately be reclaimed from the shallows along this shoreline to provide land backing to the wharves of the port.

The Eastern half of the Southern shoreline is occupied by the extensive plywood factory of Sarmiento Industries (leased to Eversun Development Ltd., part of Vicwood Group of Companies) which has developed its industrial complex on land reclaimed over the sand foreshore with filling from the high land behind.

Main Sub-ports: The Philippine Ports Authority took over in October, 1977, the Cotabato City Wharf and Parang Pier. The former is a port with a depth restriction on the bar resulting in ships anchoring in the open sea of the North Mindanao River mouth and there being served by lighters, ferry boats and barges; while the latter caters to large ships which load logs and plywoods at anchor. It contains a deep water pier at the East shore of the bay and also a submerged marine pipe-line for pumping ashore petroleum products into a Tank Farm at Parang.

The Cotabato City Wharf also services inter-island watercraft such as passenger/cargo motor launches and other small sea transports.

Access Roads: The Port of Polloc is accessible by land to Cotabato City through a 13 km. modern concrete pavement which winds up at Simuay Junction at the Cotabato-Davao National Highway extending some 9 km. more to reach the commercial centre. From this point, the port is accessible by all forms of land transport facilities to any place in the Cotabato area.

The port is also expected to serve the Southern-most principalities of the Province of Lanao Sur with the improvement of the Ganassi Road connecting the province with main artery of the Cotabato area.

SHIPMASTER'S REPORT: July 1984 (Updated 1988).
Port Limits: Entrance to bay.
Documents: Usual for Philippine Ports.
Pilotage: Pilot available. Port used by coastal cargo and passenger vessels, and foreign vessels.
Anchorage: 5 cables off the berth.
Health: Pratique granted on completion of formalities, normal inspection.
Radio: Manila.
VHF: Not available.
Radar: None.
Tugs: None. One man with small private tug produced certificate that he had piloted vessel alongside even though he had only guided through bay in front of vessel and neither towed vessel or handled lines. He did not speak English.
Berthing: 400 m. of well fendered wharf. No shore cranes, ship's gear only – plywood in crates, sawn lumber and bulk copra are the main export cargoes.
Cranes: None.
Bulk Cargo Facilities: None.
Specialised Cargo Handling Facilities: Copra buckets.
Bridges: None.
Stevedores: Good – but have a bad habit of smoking down holds, which is prohibited. Used small forklift trucks down hold to stack cargo pallets of plywood – very competently handled.
Medical: Doctor and dentist available at Cotabato City.
Tankers: No facilities.
Density: 1025.
Consuls: None.
Repairs: No facilities available.
Dry Docks: None.
Surveyors: None.
Gangway/Deck Watchmen: Customs and Immigration officials on board throughout vessel's stay.
Hatches: Opening and closing by crew.
Customs Allowances: Normal allowance. Bond sealed.
Cargo Gear: Ship's gear only.
Repatriation: Possible – but not advisable.
Airport: South of Cotabato City. Daily connection to Manila.
Time: GMT plus 8 hours.
Holidays: Usual Philippine holidays.
Police/Ambulance/Fire: No telephones.
Telephones: None.
Services: None.
Shore Leave: Allowed. Shore passes arranged with Immigration Authorities. Going ashore advisable in daylight only – at night it is dangerous.
Identification Cards: Shore passes issued but identity card advisable.
Delays: Subject to berth availability.

AUTHORITY: Philippine Ports Authority, Port Management Unit of Polloc, P.O.Box 163, Cotabato City, Parang, Maguindanao, Philippines. *Tel:* 20-35. *Telex:* 40404 (ITT). *Contact:* Ali L. Arumpac, Port Manager.

PUERTO PRINCESA, Palawan: 09.44 N. 118.43 E. (See Plan)

See "General" before first port.

Puerto Princesa, a large irregular inlet between Bancaobancaon Point and Panagtaran Point, is 2 miles wide at the entrance, extending about 6 miles in a N.W. direction. Coral reefs about 0.5 miles wide making out on the entrance points narrow down the navigable width of the channel to about 1 mile, depths of 34 fathoms (62.2 m.), shoaling to 9 fathoms (16.5 m.) in the vicinity of the pier. The major portion of the Northwestern and Western part of the bay is mostly shoal. The shoreline is generally fringed with mangroves and fronted by mud flats. The surrounding land consists of extensive wooded plain, backed by a high mountain chain. Several small rivers navigable by launches and small boats empty into the bay. The inner part of the harbour is a good typhoon anchorage.

PORT LIMITS: About 1 mile South of the pier. This is the entrance to the inner harbour of Puerto Princesa.

PILOTAGE: Pilots can be contacted by radio message through the shipping Agent not less than 24 hours before ETA indicating among others the following information:

1. Name of vessel.
2. Name of shipping lines.
3. Country vessel is registered.
4. Type of vessel.
5. Overall length.
6. Draft.
7. G.r.t.
8. Volume of cargo to be discharged and storage required.
9. Nature of cargo.
10. Passengers disembarking, transit and embarking if any.

When Pilot is aboard the pilot boat, an international flag "P" will be seen flying at her foremast.

ANCHORAGE: Vessels not going alongside the T-shaped pier may anchor Southwestward of Princesa Point in 12 fathoms to 16 fathoms (21.9 to 29.2 m.), mud bottom. A better protected anchorage may be had in 9 fathoms to 10 fathoms (16.5 to 18.3 m.) about 400 yards Northward of the end of the pier.

RESTRICTIONS: At night, in approaching Puerto Princesa from offshore, the lights in the vicinity of Canigaran, Northward of the entrance, may cause some confusion to strangers as they are visible long before the Puerto Princesa Light can be seen. The port light which is fixed red, visible 7 miles over an area of 041°, only becomes visible close in and just off the mouth of the harbour. At daytime a course Southward of the range Thumb Peak-Tidepole Point clears the reef on the North side of the entrance. Mount Beaufort on range with Tidepole Point clears the reef on the South side.

MAX. SIZE: Vessels not going to dock alongside the pier may anchor in 9 fathoms to 10 fathoms or 12 fathoms to 16 fathoms. For vessels going to dock alongside the T-shaped pier, permissible draft is 27 ft. (8.2 m.)

HEALTH: Quarantine doctors are assigned in the Port to board the vessel and check any suspected disease or fever.

RADIO: Vessels at sea usually send their radio messages through the Association of International Shipping Lines in Manila to their Agents.

VHF: Not available.

RADAR: No radar station in the port.

TUGS: Tug service can be availed of by communicating with the local shipping Agent.

BERTHING: The City has a T-shaped concrete pier with a berthing face of 192.43 m. Depths 27 ft. (8.2 m.) alongside and 31 ft. (9.4 m.) about 6 yards off the face. The Northern and Southern ends of the "T" have depths of 11 ft. (3.3 m.) and 15 ft. (4.5 m.) respectively. The inshore arms of the "T" have depths of 11 ft. (3.3 m.) at each berth. Sailboats and other shallow vessels berth on each side of the concrete approach. Typhoon signals are exhibited from a pole at the foot of the pier.

Open storage and 2 warehouses (12 m. × 56 m. each) available.

CRANES: 30 ton crane available.

STEVEDORES: Advise Agent on volume of cargo to be discharged, storage required and nature of cargo.

TANKERS: May drop anchor at anchorage area.

FRESH WATER: Available, rate 10 t.p.h. – 15 t.p.h.

FUEL: Diesel oil, gasoline and kerosene may be purchased.

FIRE PRECAUTIONS: No smoking is allowed when vessels are refuelling within a radius of 100 m.

An improvised 3 in. hydrant is installed at the pier. The lines used to supply fresh water could be used in case of a fire.

CONSULS: Consuls from foreign countries in Manila.

REPAIRS: No repair facilities.

DRY DOCKS: For small boats only.

SURVEYORS: Lloyd's and other classification societies in Manila, none locally.

GANGWAY/DECK WATCHMAN: Watchman can be hired from local Security Agencies of the Port.

HATCHES: Opening/closing of hatches is usually done by stevedores.

CUSTOMS ALLOWANCES: Quantity permitted for each crew member to be held out of bond are the following: Cigarettes – 5 packs. Liquor – 1 bottle.

CARGO GEAR: Loading/unloading is effected by ship's gear.

REPATRIATION: No facilities.

AIRPORT: The airport is about 2 miles from the pier with a schedule of 2 flights from Manila and back daily.

HOLIDAYS: The following are the Philippine National Holidays: January 1st – (New Year's day), Maundy Thursday, Good Friday, April 9th – (Bataan Day), May 1st – (Labour Day), June 12th – (Independence Day), July 4th – (Fil-Am Friendship Day), November 30th – (National Heroes Day), December 25th – (Christmas Day). Cargo handling operations may be arranged on these days at overtime rates.

POLICE/AMBULANCE/FIRE: Puerto Princesa City has all these facilities. There is a provincial hospital in Puerto Princesa. Private practising physicians and drugstores are available.

TELEPHONES: Pilipino Telephone (Piltel) services the City throughout 24 hours with a long distance call between the Port and Manila anytime of the day. Telephone connections for vessels alongside the quay can be arranged with the Telephone Company.

SERVICES: No special services available.

STORING: See "Prelims".

(1) Truck Only.
(2) N.A.
(3) Trucks may proceed alongside.
(4) Yes.
(5) Regulations not applicable.
(6) Riggers available.

SHORE LEAVE: Crew members are allowed ashore provided they always carry with them their Seaman's Book or Passport.

IDENTIFICATION CARDS: Seaman's Book is sufficient for crews to identify them when ashore.

DELAYS: Due to lack of some Port facilities, delay in berthing, loading, discharging and bunkering is sometimes experienced.

DEVELOPMENTS: A proposed 150 m. R.C. wharf extension on the Northern end and reclamation at the Northern foot of the approach, construction of transit sheds, fence, office, road networks, etc.

AUTHORITY: Philippine Ports Authority, Port Area, Puerto Princesa City 2901, Philippines. *Tel:* 2351. *Contact:* Samson A. Negosa, Port Manager.

PULUPANDAN, Negros: 10.30 N. 122.46 E. **(See Plan)**

See "General" before first port.

PORT LIMITS: The Pulupandan Pilotage District embraces the waters from the approach of the North and South Channel to Pulupandan Government Wharf including Philippine Bulk Corporation Wharf and also Banago Wharf and approaches. (Please take note that this definition of port limits is for the coverage of Pulupandan Pilotage District).

The seaward boundaries of the port within which a vessel is considered to be an *arrived ship* is bounded from the South Buoy at Lat. 10° 27′ N., Long. 122° 46′ E. and the North Buoy Lat. 10° 33′ N., Long. 122° 46′ E.

The "Notice of Readiness" is presented after quarantine and port formalities are completed after which acceptance laytime commences. Any deviation from this is subject to charter-party terms.

DOCUMENTS: The Master of the vessel should prepare the following documents in order to ensure a speedy clearance:

Clearance of a Vessel to a Foreign Port.
Oath on Entering Vessel to a Foreign Port.
Master's Oath.
Crew Lists.
Passengers Manifests (Disembarking and Embarking).
Cargo Manifests (Inward and Outward).
Advance Notice for ETA (Telegram).
Application for Berth.
Vessel's Information Sheet.
Identification Permit to PHILSUCOM (in case of exporting molasses and sugar).
Authority to Load (Telegram).
Guarantee Payment for Wharfage.
Charter Contract (Agreement of shipper and shipping company as to the activity of operations).

PILOTAGE: With the vessel's ETA, the Pilot can only presume that the incoming vessel is entering the port because most vessels usually wait beyond the harbour limits approximately 7 miles to 11 miles from the port. This is due to the restriction in the P.C. & G.S. Chart 4416 which is marked by red lines indicating "Anchorage Prohibited".

The area of "Anchorage Prohibited" is enclosed by the square red line bounded by Lat. 10° 30′ N. to the North side and Lat. 10° 23′ N. on the South side and Long. 122° 40′ E. to the West side and Long. 122° 50′ E. to the East side.

If a vessel anchors 10 miles from the pilot boat station, only the silhouette of the vessel can be seen so there is no guarantee that it is really the expected vessel. In this connection, the Agent makes assurances to the Pilot that it is the vessel expected in order for the Pilot to meet the vessel.

The telegraphic address is "Pulupandan Pilots", Pulupandan, Negros Occidental, Philippines. The required advance notice of ETA must be 48 hours before arrival. A follow-up notice of ETA must be sent 24 hours before arrival and if necessary an amendment of ETA if the vessel is further delayed. VHF is not available in the port of Pulupandan.

The pilot boat is 45 ft. in length with a wooden hull and superstructure painted white. The name "Pilot No. 3" painted in black on a white background is located at the upper portion port and starboard side.

At night time, a white light over the red light can be seen aside from the regular side lights. Sound signals requiring a Pilot are 2 long and 1 short blast on whistle and/or a display of pilot flag "H" during daytime.

ANCHORAGES: Though the Pilot boarding point is within the enclosed area of "Prohibited Anchorage", the vessel can drop anchor at this point and wait for the Pilot, depth 9 fathoms. Another anchorage area recommended for awaiting a Pilot is at Lat. 10° 33′ N., Long. 122° 46′ E. This point has a depth of 39 ft. Two miles North or West of this point is a good anchorage area, the depth ranging from 6 to 7 fathoms with a good holding ground.

The pilot boat is always stationed at the South end of the government pier South of Pandan Pt., for the look-out of incoming vessels. As soon as the expected vessel is sighted, the Pilot proceeds to the pilot boarding point Lat. 10° 27′ N., Long. 122° 46′ E. about 5 miles from the station. If the vessel cannot proceed to the boarding point, the Pilot will meet her beyond this point.

The specific requirement in boarding is a strong and well balanced Jacob's ladder to be placed on the leeward side of the vessel. A manrope is a necessity.

RESTRICTIONS: Entry to this port has no restrictions except in the case of bad weather when the pilot boat cannot proceed to meet the vessel. Since the loading point of a foreign vessel is mostly at Philippine Bulk Corporation Wharf, the docking and/or undocking is scheduled according to tide and current.

MAX. SIZE: The max. permissible length of a vessel handled at this port area particularly docking at PBC Wharf is 186 m. to 200 m. The controlling draft forward is 26 ft. and 30 ft. aft and after dredging a controlling draft of probably 30 ft. Vessels of this length are usually docked from slack to flooding and undocked from slack to ebbing.

HEALTH: Pratique procedure is a requirement for vessels calling at the port. The shipping Agent arranges Pratique procedure with the Department of Health, Department of Animal Industry and Department of Plant Industry. If there is a disease on board, the doctor of the Department of Health and the Plant and Animal Quarantine Officers will take the necessary action in curing the disease and preventing the spread of an epidemic.
RADIO: There is no radio facility available in this port.
VHF: VHF radio facility is not available at this port, hence, there is no communication with vessels approaching the port and also when manoeuvring within the port area.
RADAR: Radar facility is not available.
TUGS: There is no tugboat available at this port that can be readily used in case necessity demands. The Pilot usually requests the Agent and/or Master to hire a tugboat for docking and/or undocking. In most cases, tugs cannot be taken from Iloilo or Cebu. If ever, tugs can be hired from Cebu, the vessel having to wait for 3 days to 5 days.

In this regard, the Pilot will dock the vessel without tug assistance as requested by the Agent and/or Master in order not to delay the vessel. The Pilot encounters difficulties and risks in this situation but the Agent gives to the Pilot an additional bonus for his efforts.
BERTHING: The berth length of the Government Pier is 424 m., providing 241 m. as berthing space for secondary vessels and 183 m. for primary vessels. Secondary vessels usually handle molasses, sugar, lumber and fertilisers. Primary vessels handle as much as twenty-five commodities. Of these commodities, consumer goods, general cargo, metal and metal products, chemicals, live animals and empty bottles are the most common cargo handled.
CRANES: Cranes for cargo handling are not available.
BULK CARGO FACILITIES: The port area of Pulupandan includes the facilities and equipments of private piers of Philippine Bulk Corporation and Total Bulk Corporation.

The berth at PBC Wharf measures 189 ft. and the quay measures 442.09 ft. Conveyor gantry is the berth equipment used in handling molasses and sugar in bulk for exports. The max. height of the discharging-gear above HW level is 128.4 ft. at the discharging rate of 600 t.p.h. Max. loading depends on the draft of the vessel and max. draft is 22 ft. (salt water).

The quay of TBC measures 19.201 m. It has 1 tanker berth 40 ft. depth at MLLW. It has 5 mooring fender piles spaced at 13 m. with 2 mooring bollards 58 m. from both ends of fender piles. 25 ft. is the max. permitted draft.

Cargoes handled for exports through pipe-lines are molasses and alcohol. Load/discharge lines for molasses are 10 in. diameter, 8 in. diameter and 6 in. diameter while that of alcohol is 4 in. diameter. Max. loading/discharging rate for molasses is 350 m.t./h. and for alcohol is 70 m.t./h.
SPECIALISED CARGO FACILITIES: LPG and containerised cargo are also handled at the Government Pier but the port does not have facilities specially equipped for handling containers or liquid chemicals.
BRIDGES: There are no bridges in the harbour passage of Pulupandan port.
STEVEDORES: The shipping Agent should arrange with the arrastre/stevedoring office regarding the arrastre/stevedoring service to be rendered to the vessel. This can be facilitated by giving to the arrastre/stevedoring operator the schedule of the vessel's ETA. After the Customs Formalities which vary from 3 hours to 2 days are completed, the Agent should give to the arrastre/stevedoring office Notice of Readiness to discharge/load. When the Notice of Readiness is accepted, the arrastre/stevedoring workers can discharge/load cargoes from/to the vessel. The monthly average cargo tonnage discharged per vessel is 300 tonnes and 95 tonnes for loaded cargo. Cargo loaded and discharged at the government pier is mostly cargo from domestic vessels.
MEDICAL: Hospitals are not available in the port area but government and private hospitals can be easily reached by public vehicle as they are located in Bacolod City, 30 km. from Pulupandan.

A vessel is not allowed to berth and its crew and passengers not allowed to go ashore should there be fever, epidemic or any suspected disease on board. Inspection undertaken by the doctor of the Department of Health and the quarantine officers of the Department of Animal Industry and the Department of Plant Industry, by whom medical attention is given when needed.
TANKERS: See "Bulk Facilities".
DENSITY: Average salinity of water in the port is 1022 – 1023.
FRESH WATER: Water can be supplied by Nepoteco. Water from deep wells is delivered through a trucking service. The rate of delivery is 1 truckload per hour which costs P15.00 per ton.
FUEL: Fuel can be made available to the Master of a foreign vessel by notifying the shipping Agent of its need for fuel. The shipping Agent applies to the Department of Energy in Manila for the supply of fuel to a foreign vessel. If the application is approved, arrangement is made by the shipping Agent with the supplier.
FIRE PRECAUTIONS: Fire extinguishers are required for every office and establishment in the vicinity of the port.
CONSULS: Consuls are not available in the port of Pulupandan.
REPAIRS: There is no dry dock facility in the port.
SURVEYORS: The nearest surveyor is the Del Pan Sugar Surveyors in Bacolod City.
GANGWAY/DECK WATCHMEN: The need for the service of watchmen depends upon the discretion of the Master of the vessel. The cost of their service is P4.50 per hour for the Port District of Iloilo of which the Sub-port of Pulupandan is included.
HATCHES: Opening and closing of hatches carried out by both the crew and the stevedores.
CUSTOMS ALLOWANCES: The quantity of tobacco, wine and spirits allowed for each crew member to be held out of Bond must not be more than for personal consumption.
CARGO GEAR: The loading/discharge of cargo to/from the vessel is effected by the ship's gear.
REPATRIATION: There is no repatriation office in the port.
AIRPORT: The Airport is located in Bacolod City which is 30 km. from Pulupandan. Average number of flights is from 6 to 7 per day to different cities in the Philippines (Manila, Cebu, Iloilo and Davao).

All international flights commence at Manila International Airport.
TIME: GMT plus 8 hours. Daylight saving time is sometimes observed during Summer. This is implemented through a letter of instruction from the President.
HOLIDAYS: The following are National Holidays which are also observed in Pulupandan.

January 1st (New Year's Day), Holy Thursday and Good Friday (these religious holidays have no specific dates but often fall in March or April), May 1st (Labour Day), June 12th (Independence Day), July 4th (Fil-American Friendship Day), September 21st (Declaration of Martial Law), November 30th (Bonifacio Day), December 25th (Christmas Day, religious holiday), December 30th (Risal Day).

Official holidays of legal nature are usually working days for the port users due to the nature of work, while holidays of religious nature are often non-working days even for the port users.
POLICE/AMBULANCE/FIRE: The following are the telephone numbers of fire and police departments and government hospital where an ambulance can be made available.
Fire Department: San Juan 066, 2-31-91; Rodriquez Ave. 065; Lopez Jaena 064.
Police Department: 067; 062; 069.
Ambulance: 068; 2-30-96.

These departments are located in Bacolod City. There is a police department in this town but it does not have telephone facilities.
TELEPHONES: There is no telephone facility at this port.
SERVICES: Special services for tank-cleaning equipment, facilities for discharge of tank-washings, compass adjusting, etc., are not available in this port.
SHORE LEAVE: Crew members are allowed to go ashore.
IDENTIFICATION CARDS: Identification cards are not required as shore passes.
REGULATIONS: Refer to PPA Port Rules and Regulations.
DELAYS: Delay in berthing is due to the draft limitation of the port and the position of the port in case of bad weather.
DEVELOPMENTS: Reclamation underway.
AUTHORITY: Philippine Ports Authority, Sub-port of Pulupandan, Port District of Iloilo. *Tel:* 7-69-45.

SAN FERNANDO, Luzon: 16.37 N. 120.18 E.

(See Plan)

See "General" before first port.
DOCUMENTS:

Vessel's Particulars.
Inward/Outward Foreign Manifest, 3 copies each for P.P.A.
Bill of lading (1 copy).
Crew List.
Passenger List.
Customs Documents.
Health Documents
Ship's Repairs List.
Ship's Certificates.

PILOTAGE: Pilotage is compulsory. Vessel is met at mouth of harbour by pilot boat that flies a red flag with letter "P" in white. Pilot then brings the vessel to Quarantine Anchorage. Conventional signals are used to call Pilots.
APPROACHES: Vessels enter the harbour through a channel marked by 2 buoys and 2 range lights 144.5° (fixed green and red light flashing every 3 seconds.).
ANCHORAGE: Located at centre of the bay with 8 fathoms to 9 fathoms and good holding ground. In the event of rough weather or strong monsoon wind, vessels in the harbour are brought here for safety.
MAX. SIZE: Size of vessels that could be serviced is controlled by depth along quay:

Pier	*Depth Pier Head*	*Depth Shore End*	*Length*	*Width*
Pier 1	54 ft.	12 ft.	600 ft.	60 ft.
Pier 2 Timber	60 ft.	30 ft.	600 ft.	80 ft.
Philex Conveyor	32 ft.			
Coal Conveyor	49 ft.	13 ft.	460 ft.	19 ft.

HEALTH: Immediately after vessel anchors at Quarantine Anchorage, Quarantine Officers board and clear vessel. Imported grain will be fumigated on board vessel at anchorage.
Boarding Formalities: Members of party are Bureau of Customs Inspector and guards, Immigration and Philippine Coast Guards. Pratique is then issued to indicate vessel as "arrived" and subject to Charter Party terms, laytime will commence.
RADIO: No direct radio communication system with vessels at sea is available in the locality. Ship Masters report ETA to Agent in Manila who relay message to San Fernando by telex or commercial radiogram. The PMU – San Fernando may be reached by Long Distance telephone 41-25-57 or SSB radio transceiver 8776.5 kHz.
Arrival Advice: 48 hours before ETA, ship Agent files request for berth at PMU office indicating: ETA, draft, LOA and breadth, consignee or shipper, type of cargo and stowage, dangerous cargo (if any). Heavy lifts (if any), number of hatches to be worked, vessel is self sustaining or not.

24 hours before arrival or earlier, upon receipt of Master's advice by telegram, a berthing schedule is issued by the PMU. Copies are furnished to: Pilot, Consignee/Shippers, Arrastre/Stevedoring Contractor and Ship's Agent.

TUGS: 1 tug owned by Philex Mining Corporation, of 1,100 h.p., engine equipped with Kort Nozzle, is available for assisting, docking and undocking and launch service. Tug assistance during docking and undocking at the Government Pier No. 2 is compulsory while its use at the Government Pier No. 1 and Philex Pier are at the option of the Harbour Pilot. A shipping company may bring in tugboat to assist its own vessel.

Tug lines are available at no extra cost. Conventional signals are used by Pilot and Master of tugboat.

Tug assistance rates: 0800 hrs. to 1700 hrs, regular time – others, overtime.

BERTHING: See "Max. Size".

STEVEDORES: Stevedores, longshoremen, checkers and watch-men for Government Piers No. 1 and 2 are provided by Northern Carriers Corporation.

Stevedores, checkers, etc. are non-union members. Any number of gangs can be ordered on 3 hours' notice. Stevedores work on 3 shifts:

1st Shift – 0000 hrs. to 0800 hrs.
2nd Shift – 0800 hrs. to 1600 hrs.
3rd Shift – 1600 hrs. to 2400 hrs.

Sundays, holidays and nights, stevedores are paid overtime rates. Christmas, New Year's Day, Easter Sunday, Good Friday and Maundy Thursday, stevedores will work on double pay.

TANKERS: The 3 oil terminals maintaining tank farms in the port zone are Petrophil, Caltex and Shell. They operate a common set of pipelines for white and black oil product passing under the Government Piers No. 1 and 2. PMU policy is 1 tanker discharging at 1 pier at a time. A "boom" is available at the quay side.

MEDICAL: 3 modern hospitals staffed by trained physicians and specialists and 6 clinics. They are open 24 hours.

FRESH WATER: Fresh water available at both piers alongside the quay via pipe-lines. Pumping rate: 8 t.p.h – Summertime. 12 t.p.h. – Rainy season.

Water samples are tested weekly at the Wallace U.S. Air Force Station at Poro, San Fernando, La Union.

FUEL: Bunker and others, POL product obtainable and supplied by lorries.

FIRE PRECAUTIONS: Water pipe-line alongside the quay can be converted to a fire hydrant by manipulating the valves to suck sea water. The oil terminals in the area maintain chemical fire fighting equipment, a "boom" to contain oil spillage and "light water". Voice of America, Wallace U.S. Air Force Station, and the Airport all within a 3 km. radius to the piers, maintain modern fire trucks.

No naked flames and no hot works on board while motor tankers alongside pier.

REPAIRS: Atlantic, Gulf and Pacific Co. of Manila at Batangas operates ship repair facilities.

GANGWAY/DECK WATCHMEN: Available from Arrastre contractor upon request of Ship's Agent.

SURVEYORS: Mariaser Surveyors of San Fernando are available on request. Surveyors also available from Manilla, 270 km.

OPENING/CLOSING HATCHES: First open and last close normally carried out by crew. Stevedores operate the hatches when it rains.

CARGO GEAR: Arrastre operators maintain complete loading/discharging gear for bulk, general cargo and heavy lifts. Also available are:

11 units — Forklifts, 1 to 8 tons capacity.
2 units — Mobile cranes, 25 tons capacity.

IDENTIFICATION CARDS: For control of persons inside the port zone and for security, I.D. should be available when requested by guards.

AIRPORT: San Fernando Airport is 3 km. South of Pier. Philippine Air Lines serve the port with 3 flights weekly.

TIME: GMT plus 8 hours.

HOLIDAYS: New Year's Day (January 1st); Holy Thursday, Good Friday; Labour Day (May 1st); Independence Day (June 12th); P.I.-US Friendship Day (July 4th); All Saints Day (November 1st); Bonifacio Day (November 30th); Christmas (December 25th); Rizal Day (December 30th).

POLICE/AMBULANCE/FIRE: Police, Tel: 41-25-77. Hospital, Tel: 41-28-44, 41-23-55, 41-26-16; Fire Department. Tel: 41-24-88; Philippine Constabulary Tel: 41-25-28.

TELEPHONES: Vessels docked at Government Pier No. 2 may request telephone connection.

SHIP SUPPLY SERVICE: The following authorised ship supply service operators with addresses in this port are:

1. A. Neral Chandling and Laundry Services, 32 Mabini Street, San Fernando, La Union, c/o Mrs. Caridad Tabiscola (privately owned).
2. La Union Chandling and Laundry Service, Catbangen, San Fernando, La Union, c/o Mrs. Caridad Tabisola (privately owned).
3. Bureau of Quarantine, PPA Compound, San Fernando, La Union, (launch services – government owned).
4. Philex Mining Corporation, Poro, San Fernando, La Union, (launch services – privately owned).

SHORE LEAVE: Crew members are allowed to go ashore without special permission.

GENERAL: *Discharge of Ballast:* No dirty ballast may be dumped into the territorial waters of the Republic of the Philippines.

Rat Guards: Rat guards shall be placed on all mooring lines to the pier.

Refuse: May be collected by a truck at P25.00 per trip.

Accessibility: Port is accessible by road and air transportation.

Provisions: Fresh vegetables can be supplied directly from the vegetable capital of the Philippines (Baguio City).

Rest, Recreation: Beach resorts with miles of clean beach just minutes away by car. First class hotels with swimming pools, air conditioned rooms. Baguio City, Summer Capital of the Philippines is 70 km. East and 5,500 ft. above sea level. A golf course at Camp John Hay, the R & R centre of U.S. Servicemen, can be used by civilians.

Other Ports: PMU San Fernando has administrative jurisdiction over Currimao Port, Ilocos Norte; Salomague, Cabugao, Ilocos Sur; Sulvec Port, Narvacan, Ilocos Sur; Masinloc Port, Zambales; Acoje Wharf, Sta. Cruz, Zambales.

AUTHORITY: Philippine Ports Authority, Port Management Office, San Fernando, La Union, Philippines. *Tel:* 41-25-57. *Contact:* Adolfo Li. Amor, Jr., Port Manager.

SANGI, Cebu Island: 10.23 N. 123.39 E.

MAX. SIZE: 50,000 d.w.t.

TUGS: 1 small tug (15.53 g.r.t.) owned and operated by ACMDC.

BERTHING:

Pier No.	*Length* (m.)	*Depth At LW* (m.)	*Remarks*
ACMDC No.1	106.0	5.0	Load/Unload General and Bulk. Max. load on wharf 90 tons.
ACMDC No.2	10.0	7.75	Loading conveyor for concentrates. Max. load on wharf 20 tons.
ACMDC No.3	70.0	16.0	Ship unloader and conveyor system. Max. Load on wharf 250 tons.

CRANES: ACMDC own a truck mounted crane with lifting capacity 20-25 tons. Crane available for renting.

SPECIALISED CARGO HANDLING FACILITIES: Liquid cargoes may be loaded/unloaded by pipe-line at No.1 Pier and unloaded by pipe-line at No. 3 Pier.

STEVEDORES: Advise before 0700 hrs. in order to commence operations at 0800 hrs. or 1500 hrs. same day.

MEDICAL: ACMDC operate a private hospital and priority given to employees. Hospitals and facilities available in Cebu City, distance 60 km.

DENSITY: 1023.

FRESH WATER: Available. Requests should be made to Agent or Supercargo.

FUEL: Available. Delivery by tank truck, which is to be ordered through Agent.

FIRE PRECAUTIONS: No smoking on piers or on vessels.

CONSULS: None.

REPAIRS: Most deck and engine repairs can be carried out.

DRY DOCKS: None.

SURVEYORS: Available from Cebu City.

GANGWAY/DECK WATCHMEN: Usually ship's gangway used. Deck watchmen are available through Agent.

HATCHES: Normally by crew, occasionally stevedores will open and close hatches.

CUSTOMS ALLOWANCES: See "Cebu".

CARGO GEAR: In the case of coal and concentrates discharge is effected by shore gear (ship unloader) and conveyor for loading. General cargo loaded and unloaded by ship's gear.

AIRPORT: No local airport.

HOLIDAYS: New Years Day, Holy Thursday, Good Friday, Labour Day, Valour Day, Independence Day, Fil-American Friendship Day, National Heroes Day, Bonifacio Day, Christmas Day.

POLICE/AMBULANCE/FIRE: Using AFC telephone.

Toledo Fire Department Tel: 70.

Police department do not have a telephone. They are located along the shore.

Government ambulance can be contacted personally as they are located along the shore.

EMERGENCY CO-ORDINATION CENTRE: Coast Guard station along the shore but no telephone.

SERVICES: Available through Agent.

BANKS: Philippine National Bank and Rural Bank in Toledo City.

SHORE LEAVE: No restrictions.

IDENTIFICATION: Required.

DELAYS: None

DEVELOPMENTS: None.

AUTHORITY: Philippines Ports Authority.

Operator: Atlas Consolidated Mining & Development Corporation, Sangi, Toledo City, Cebu, Philippines and A. Soriano Building, 8776 Paseo de Roxas, Corner Ayala Avenue, Makati, Metro Manila (P.O.Box 942), Manila, Philippines. *Tel:* 819-02-61/81. *Telex:* 45642 Copper PM. *Contact:* Mr. Dominador C. Uy, Vice-President.

TABACO, Luzon: 13.41 N. 123.58 E. (See Plan)

DOCUMENTS:

Inward Coasting Manifest.
Hatch Plan or Stowage Plan.
Vessel's Information Card.

PILOTAGE: Pilotage is compulsory. ETA advice should be sent to the Harbour Pilot Association, Legazpi City at least 24 hours before vessel's arrival. The vessel is met by the Harbour Pilot about 2 km. from the wharf aboard a boat displaying a Pilot's flag.

ANCHORAGE: Within the Tabaco Bay but not less than 500 m. from the existing facility.

RESTRICTIONS: Berthing space is limited due to its physical length and the existence of a shipwreck at the Northern end of the wharf.
MAX. SIZE: LOA 300 m., draft 28 ft.
HEALTH: Vessels clear quarantine on arrival at the Tabaco Harbour. Quarantine Officers will normally board the vessel 2 km. from the existing wharf.
BERTHING: The existing facility can accommodate two foreign-going vessels of regular size at one time. Length of quay 300 m. Width 12 m. Storage area 2 hectares. Max. depth of water 30 ft. Quay height above sea level 2 m. at high tide and 5 m. at low tide. Average rate of loading/discharging 22 tons per gang hour.
CRANES: 2 shore cranes available with capacities of 20 and 25 tons. For heavy lifts, vessels are required to use their own gear.
STEVEDORES: Provided by Tafworks Arrastre Corporation.
MEDICAL: 1 government hospital and 2 private hospitals.
FRESH WATER: Can be provided by pipe-line or hoses from the port facilities.
FUEL: All grades obtainable from major oil depots at Legazpi City which is approximately 27 km. from the port area and supplied by lorries alongside.
GANGWAY/DECK WATCHMEN: Available, but not compulsory.
HATCHES: Opening and closing of hatches is part of the stevedores' work or at the Master's option.
REPATRIATION: All facilities available for crew changes.
AIRPORT: At Legazpi City.
TIME: GMT plus 8 hours.
HOLIDAYS: New Year's Day (January 1st); Holy Thursday; Good Friday; Labour Day; (May 1st); Independence Day (June 12th); P.I-U.S. Friendship Day (July 4th); Bonifacio Day (November 30th); Special Holidays declared by the President of the Republic of the Philippines are also included. If any other legal holiday falls on a Sunday the following day is observed as a holiday. Cargo work can be arranged on any or all holidays with the vessel's Agent.
POLICE/AMBULANCE/FIRE: Police and Fire, Tel. 222; Ambulance, Tel. 215.
TELEPHONES: Placing of telephones on board can be arranged with the branch office of the local telephone company (MATELCO).
SHORE LEAVE: Crew allowed ashore in company of an Immigration Agent.
GENERAL: Vessels intending to call at the port of Tabaco shall apply for a berth space at least 24 hours before arrival. No dirty ballast may be dumped into the territorial waters of the Philippines. Rat guards shall be placed on all mooring lines. Berth allocation is on a first-come first-served basis.
DEVELOPMENTS: Salvaging of the shipwreck at the Northern end of the wharf, extension of the existing facility by 120 m.
AUTHORITY: The Officer-in-Charge, Philippines Port Authority, Port of Tabaco, Tabaco, Albay. *Tel:* 378.

The Port Manager, Philippine Port Authority, P.O.Box 164, Legazpi City. *Tel:* 2012. *Contact:* C. E. Dinopol, Port Manager.

TACLOBAN, Leyte: 11.15 N. 125.00 E. (See Plan)

See "General" before first port.
DOCUMENTS: *Entrance Formalities:* For submission to PPA Harbour Section:

3 copies Inbound Coasting Manifest with enclosed or attached on each copy the following:
Crew List.
Oath of Master.
Passenger List (passenger vessels only).
Import Declaration (foreign vessels only).
Pratique (foreign vessels only).

Roll Book for presentation and clearance from last port of call also required.

Exit Clearance:

3 copies Outbound Coasting Manifest with attached or enclosed on each copy the following:
Crew List.
Oath of Master.
Passenger List (passenger vessels only).
Export Declaration (foreign cargo vessels).

PILOTAGE: The following signals from vessels requiring a Pilot are:

By day:
a) The pilot jack hoisted at the fore.
b) The International code signals or P.T.
c) 2 long blasts followed by 1 short blast on ship's whistle.

By night:
a) The pyrotechnic light, commonly known as blue light every 15 minutes.
b) A bright white light, flashed or shown at short or frequent intervals just above the bulwarks for about a minute at a time.
c) The International code signals P.T. by flashing lights.

Telegraphic address is Tacloban Harbour Pilot's Association, Tacloban City. 24 hours notice of ETA is required before arrival of vessels. No VHF in pilot boat or pilot station.

All pilot boats in general are painted white above the waterline and black below, with the letter "P" not less that 12.5 cm. in length on both bows above the waterline.

During the day, boat in use shall carry at the mast a red and white flag not less than 6 decimeters wide and 9 decimeters long.

The exact location where the Pilot has to be taken on board when entering Tacloban through San Juanico Strait is at Canauay Island about 2 miles N.W. of said Island. For vessels entering Tacloban Port through San Pedro Bay, the Pilot may be taken on board a mile North of Mariquitdaquit Lighthouse.

In case of bad weather, vessels are advised to drop anchor about 3 miles South of Dio Island when waiting for the Pilot.

With respect to safety measures while Pilot boarding vessels, it is suggested that the Master put his vessel to windward in a postion where the pilot boat is protected from big waves and strong winds. They must lower their accommodation ladder or rope ladder.

The location of anchorage for vessels awaiting a Pilot is either 1 mile North of Mariquitdaquit or 2.5 miles S.E. of Dio Island.
ANCHORAGES:
Dio Island Anchorage:
Position – 2 miles S.E. of Dio Island
Depth – 6 – 7 fathoms
Area – 4 square miles
Basey Anchorage:
Position – 1.6 miles West of Jinamoc Lighthouse
(Lat. 11° 15′ 36″ N., Long. 125° 04′ 32″ E.)
Depth – 4.5 fathoms
Area – 0.8 square miles
Tacloban Quarantine Anchorage:
Position – 0.5 miles South of Binatac Point
0.7 miles North of Panirungan Point
Depth – 4 – 5 fathoms
Area – 1 square mile.
RESTRICTIONS: Controlling draft for vessels entering Port of Tacloban via San Pedro Bay is 19 ft.

Due to numerous shoals, reefs and fish traps which abound in the area along the channel, vessels arriving at night must drop anchor either at the point 1.5 miles North of Mariquitdaquit or at the point 2 miles S.E. of Dio Island. The Pilot will conduct the vessels in at daybreak.

Tides in Tacloban show great inequality, mostly at HW. Mean range of tide is about 1.6 ft., whereas the Diurnal range is 2.3 ft. Flood current sets in a Northeasterly direction, while ebb current sets Southeasterly with a maximum velocity of 3 knots.
MAX. SIZE: See "Berthing".
HEALTH: Pratique is only necessary and required in the first port of entry; it is automatic when entering ports in the same country or state.
RADIO: Radio communication of the Philippines, Inc., Manila.
TUGS: Tugs normally join the vessel when inside Tacloban Harbour. For docking, tugs usually use the vessel's lines.
BERTHING: Inform local office of Philippine Ports Authority at least 24 hours before ETA if vessel on scheduled voyage and 36 hours before ETA if a tramping vessel.

Length of quay – 1,048.8 m., with 217.3 m. allotted for foreign vessels, 585.5 m. allotted for domestic vessels and 246 m. allotted for pump boats.

Maximum permissible ship draft at low water (sea water), Foreign vessels – 6 m.; Domestic vessels – 4 m. – 6 m.
Note: Actual depth along berth for foreign vessel at LW, 7 m.; Domestic, 4 m. – 7 m.

Load/ Discharge – Usually by ship's own gear but shore equipment available for rent.
BULK CARGO FACILITIES: See "Berthing" for berth details.

Cargoes handled: Copra, grain, abaca, sugar, rattan, lumber, drinks, goods in cartons, crated products, heavy lifts, steel bars, etc.

Facilties: Rope nets, rope slings, cable slings, spreader sets, sliding boards and pallets.
STEVEDORES: ETA advices should be furnished to stevedores through ship's Agent.
MEDICAL: Advance notice of required medical attention to ship's Agent essential.
TANKERS: No facilities.
FRESH WATER: Fresh water available through local supply.
FUEL: Only available to domestic (small) vessels.
FIRE PRECAUTIONS: Fire station in port area.
CONSULS: None.
DRY DOCKS: None.
GANGWAY/DECK WATCHMEN: Necessary for safety of vessel. Ship's Agent makes all necessary arrangements.
OPENING/CLOSING HATCHES: Normally carried out by stevedores.
CERTIFICATES: All documents required by International Shipping Rules and Regulations.
CUSTOMS ALLOWANCES: One carton cigarettes per week for each man. Wines/spirits at the discretion of the Collector of Customs.
CARGO GEAR: Load/discharge affected usually by ship's gear but shore equipment available for hire.
IDENTIFICATION CARDS: Needed for inspection by Immigration Officer.
REPAIRS: Not possible.
REPATRIATION: Immigration Officer effects crew changes and arranging necessary repatriations.
AIRPORT: Distance from airport, 9 km., and is regularly served by airlines.
TIME: GMT plus 8 hours.
HOLIDAYS: Depending upon agreement with stevedores, work may be performed during holidays.
POLICE/AMBULANCE/FIRE: All departments are within one minute's call from the harbour.
TELEPHONES: Can be connected on board if required.
SERVICES: No special services available.
SHORE LEAVE: Crew members allowed ashore.
REGULATIONS: No unusual regulations.
DELAYS: Berthing: When all berths are occupied upon arrival. Loading/discharging: Limited number of available haulers due to simultaneous operations of vessels at berth. Bunkering: Simultaneous bunkering of vessels.

AUTHORITY: Philippine Ports Authority, Port Area, Tacloban City, Philippines. *Tel:* 321-2469. *Contact:* Manuel C. Albarracin, Port Manager.

TANAUAN, Leyte: 11.06 N. 125.01 E. **(See Plan)**

SHIPMASTER'S REPORT: 1976

N.I.D.C. Coconut Oil Pier: Location of berth Lat. 11° 06′ 15″ N., Long. 125° 01′ 30″ E. The berth is 7 miles from the Pilot boarding point. Least depth of water in channel from sea to berth, 32 ft. At berth bottom is mud and sand. Density 1025. Docking and undocking in daylight only at any stage of tide.

Anchorage 1.5 miles North of Mariquitdaquit Light. Terminal Information: Use shore hoses. Length of pipe-line – 3,000 ft. connection at manifold – 8 in. Shore-booster pump not used. No steam. Product handled, coconut oil.

Port Information: Pilotage compulsory. Pilot requires 12 hours' and 24 hours' notice. Pilot boards 1 mile North of Mariquidaquit Island and comes from Tacloban. It is unsafe to enter and leave after dark. Vessels can enter and leave any state of tide. Max. LOA 1,000 ft. Max. beam 90 ft. Max. draft 31 ft. No tugs available. Vessel able to berth and unberth without aid of tugs.

Facilities available: Fresh provisions available from Tacloban, a small town, 20 km. away. Chandler requires payment in cash for goods.

Airport at Tacloban. Doctor and hospital available. Groceries, meats and laundry available.

No fresh water, repairs, Lloyd's Surveyor or fuel available.

VILLANUEVA, Mindanao: 08.35 N. 124.44 E. **(See Plan)**

DOCUMENTS, etc.,: See "Cagayan de Oro".
MAX. SIZE: Max. LOA 340 m., max. draft 21.5 m., max. beam 55 m.
BERTHING: Max. workable length allowed without shifting 248.5 m., max. height of hatch coamings above waterline 17.0 m., max. width of hatch coamings 16.8 m., outreach of grab from fender line 33.0 m., mean (F.W.) depth alongside 23.55 m., length of berth 351.0 m., depth at MLW 23.28 m., depth at MHW 24.38 m., distance from pier face to MHW level 4.45 m., distance from grab to MHW 22.25 m.

SHIPMASTER'S REPORT: May 1980.

Location: The Port of Villanueva is situated in Macajarlar Bay on the North coast of Mindanao Island in position Lat. 8° 34′ 45″ N., Long. 124° 44′ 22″ E. and has a clear deep water approach.

Pilotage: The Pilot and possibly Quarantine Officials board in position Lat. 8° 35′ N., Long. 124° 40′ E. by launch from Cagayan de Oro City.

Approaches: When approaching from the East, passage through the Surigao Strait creates no difficulties as there is deep water. There are good radar targets and no excessive tides or currents. Passage between Camiguen Island and the coast is also clear and deep. Numerous fishing vessels encountered throughout the area as well as frequent passings of coastal traffic.

Anchorage: Although there is very deep water to close inshore there is an anchorage position, recommended by the Pilots, in position Lat. 8° 37′ N., Long. 124° 44′ 30″ E. which is 1 mile offshore.

Tugs: There are at least 4 tugs to assist with berthing, all modern efficient vessels of over 3,000 h.p. Tug's ropes used for towing.

Berthing: Berth is in position Lat. 8° 34′ 45″ N., Long. 124° 44′ 22″ E. and is aligned 050°/230°. The berth is 350 m. in length and fendered with 7 'Yokohama' balloon type fenders. Vessels of up to 300 m. in length berth port side alongside, vessels over 300 m. LOA berth starboard side alongside. Depth alongside 23 m. – 29 m. Daylight berthing only but reported able to leave at any time.

Moorings: Standard mooring equipment used, line boat used to run head and stern lines.

Moorings usually 4 head/stern lines, 2 breast lines and 2 springs at each end of vessel.

Loading: Loading is carried out by 1 loading unit with a capacity of over 4,500 t.p.h. The product, sinter ore, is a finished product with a stowage factor of 23 cu.ft.–24 cu.ft. per ton relatively clean and not much dust. The product can be loaded into holds previously containing coal without cleaning.

Discharge facilities exist on the same berth where there are 2 units using 60 ton grabs.

A thorough draft survey is carried out on arrival and again after loading completed.

General: After berthing the vessel is boarded by 14 port officials of various departments from plant quarantine to immigration, paperwork takes about 2 hours on arrival and again before departure after loading completed.

Fresh stores, including fish, are available of good quality and a reasonable price.

There is no VHF communication but telex service to Manila is reliable.

While alongside 3 Customs Officers/Inspectors remain on board and require food and accommodation on a 24 hour basis.

SHIPMASTER'S REPORT: January 1981.

Vessel: LOA 259.0 m., beam 39.6 m., draft 52 ft. 6 in.

Discharged 109,000 tonnes of iron ore at Philippine Sinter Corp. Pier.

General: The pier of Philippine Sinter Corporation at Villanueva is located at the S.E. end of the "J"-shaped bay of Macajalar, in position Lat. 08° 34.45′ N., Long. 124° 45.24′ E., on the North coast of the Philippine island of Mindanao, in the province of Misamis Oriental. Villanueva is only a very small village. The nearest city is Cagayan de Oro, 24 km. (45 minutes) by car from the plant. Our Agent and almost all other offices of importance, are located there.

Documents: The Authorities and the Agents' representatives boarded the vessel at the anchorage (14 persons). The following were required:

10 Crew Lists.
8 Cargo Plans.
2 Vaccination Lists.
1 Maritime Declaration of Health.
6 Ship's Stores Lists.
6 Personal Effects Lists.

In addition, there were other lists, but the Agent had all of them made out in advance.

Telegraphic Free Pratique is obtainable. A telegram sent to the Agent 24 hours before arrival stating the number of Filipinos and Europeans is also compulsory.

Upon departure, no Filipino crew member is allowed to depart if his Seaman's Book has expired, so all Seaman's Books must be renewed before departure. Filipino citizens who are not seamen (wives, etc.) are not allowed to join the vessel in a Philippine port and stay with the vessel to its next port of call. Visiting was no problem, except that a special Customs Permit must be obtained.

Pilotage: Pilotage is compulsory both when anchoring and at docking/undocking. The Pilots have a portable CB radio, but no VHF. The pilot cutter is about 50 ft. long, with a large (for its size) white superstructure. Pilot boarding ground Lat. 08° 37′ N., Long. 124° 42′ E. for inbound vessels. For outbound vessels, Pilot leaves as soon as the vessel is turned, and is about 5 cables off the pier.

Anchorage: The Bay of Macajalar is a deep water bay, with the exception of a shallow area centered at Lat. 08° 40.75′ N., Long. 124° 41.5′ E., and a strip of shallow water extending generally less than 0.5 miles off the coast.

The Villanueva Anchorage is the one exception on the East side of the bay. It is a ledge of less than 100 m. depth extending 1.4 miles Westward from Lat. 08° 37′ N., Long. 124° 45.5′ E. on the shoreline, and it is 3.5 cables wide. The recommended anchorage is 8 cables due West of Lat. 08° 37′ N., Long. 124° 45.5′ E. The depth here is 70 m. or less than 40 fathoms. We anchored here and found it to be good holding ground. Not being more than 0.8 miles from the reefs in a "J" shaped bay, consequently open to wind and sea from West to North, I would not like to anchor there in any strong Northwesterly wind.

In our case the wind was from N.E. to S.E. which, according to the Pilot, were the prevailing wind directions. We did, however, experience quite a bit of swell.

Berthing/Unberthing: Docking and undocking is only done during daylight. There are 4 tugs available in Villanueva, each of 3,500 h.p. The Pilot brought the vessel parallel to the pier about 0.2 miles off, and the 3 tugs we used (1 forward, 1 amidships and 1 aft) pushed us alongside without difficulty. We docked starboard side to. There was, according to the Pilot, no preference for docking starboard or port to, that is, for vessel's discharging.

Vessels loading must always dock port side to due to the construction of the shiploader.

The docking sonar had, in my opinion, the big fault that the Pilot had to rely upon verbal information via the CB radio. A display board visible from the bridge would have enabled us to form instant opinions.

Undocking was a reverse operation; we were pulled by 2 tugs until 0.2 miles off the pier, then the third pushed us around.

Cargo Handling Facilities: The pier is a concrete structure that rests on several large pipes that are sunk down to bedrock. It lays in direction 049° – 229°. There is a "gangway" connecting the pier to the shore. The pier itself is 380 m. long and about 50 m. wide. Large airfilled bags are used as fenders, 6 m. – 7 m. long with a radius of 1.5 m. – 2.0 m. So, even with a relative heavy swell, the ship lays very nicely alongside this cushion.

We tied up with 4 head/stern ropes, 2 spring and 2 breast ropes. The discharging cranes are of the same type as "Kawasaki" have in the port of Chiba, max. 6 tonnes with clamshells of 30 tonnes, portable cranes. Hourly average capacity on lump ore 1,100 tonnes per crane, and on fine ore 1,400 tonnes. We averaged 2,794 tonnes with 2 cranes.

The discharging operation was impressive, with regard to speed and precision.

The ship loader was a normal type conveyor belt with an airdraft of about 40 ft. Loading capacity 4,000 tonnes p.h. Free rail area at pier about 280 m., no shifting while loading for a ship of our size.

Services: There is good drinking water available at the pier. Bunkers are obtainable but at what quantity and price I was not able to find out.

As of repair facilities, I had the impression that only simple repair work could be carried out.

The city of Cagayan de Oro has an airport with a twice daily direct flight to Manila, and once a day connections with Cebu and Davao. There are no international flights.

International telephone service is extremely poor. One must make the call directly from the telephone company's office, and a 2 hour – 3 hour waiting time for Europe and the U.S.A. must be expected. A call to Manila may come through in less than an hour. The Agent had telex and this is the only sensible communication with Cagayan de Oro.

With mail from Europe and the U.S.A., one must reckon on 2 weeks to 3 weeks. It seems that all communications go through Manila, with the delays that this automatically causes.

The Agent had a minibus service from the plant to Cagayan de Oro. This proved a necessity, as taxis are scarce.

The ship chandler could only obtain foodstuff.

OPERATOR: Philippine Sinter Corporation, Port Operations, Villanueva, Misamis Oriental, Philippines. Postal Address: P.O.Box 90, Cagayan Do Oro City, Philippines. *Tel:* 33-28. *Telex:* ITT-48406. *Contact:* Captain Emiliano Ea Duran.

ZAMBOANGA, Mindanao: 06.54 N. 122.04 E. (See Plan)

See "General" before first port.

PILOTAGE: Vessels approaching the port use International Code Signals for calling Pilot.

Pilot Station: Telegraphic address is Zamboanga Pilots, Zamboanga City. Estimated time of arrival (ETA) must be radioed 24 hours in advance. Pilots always on duty. Pilot boat is wooden launch painted white with red trimmings and displaying the pilot flag. The exact area where a Pilot will board vessel is in the vicinity of Little Sta. Cruz Island, for vessels coming from West, and near the vicinity of Rio Hondo for vessels coming from East. Alternative area in the event of bad weather is in the vicinity of Zamboanga Pier at a distance of at least 1 mile either way. Vessels awaiting Pilot should not necessarily drop anchor, provided 24 hours' notice of their ETA is given by local Agents or the Master, to the Zamboanga Pilots, for a Pilot is *always* on duty.

ANCHORAGES: Owing to the steep bank, strong currents and hard, uneven bottom, there are no good anchorages off Zamboanga. However, anchorage may be made anywhere Southward of the wharf at a distance of about 3 cables from shore Eastward of an imaginary line from the Tide Indicator, at a depth of between 25 fathoms and 30 fathoms and giving 7 shackles of chain in the water. This will hold vessel even at strongest current of 6 knots. In the event of very bad weather the vessel should transfer her anchorage to Caldera Bay, which is approximately 7 miles West of the anchorage area.

MAX. SIZE: No limits for anchoring. For berthing, up to 10.0 m. draft.

HEALTH: Quarantine Officer will board the vessel for the necessary inspection of all crew on board. Thereafter he issues Pratique, if and when he finds that there is no disease or fever on board. The Pratique is valid until after the vessel departs to a foreign port.

RADIO: Philippine Telegraph & Telephone Corp. (PT & T), Universal Telecommunication Services (UTS), Radio Communications of the Philippines (RCPI), Central Radio Communications (CRC), Capitol Wireless Inc., (CWI), Telefast Communication and the Bureau of Telecommunication operated by the National Government for receiving and transmitting radio messages. Night and day services.

TUGS: The position where tugs normally join the vessel is in the stream and the usual ship's lines or tug's lines are used. There is no charge collected for the use of the tug's lines.

BERTHING: The Zamboanga Government Wharf is 1,363 linear metres long with a depth at the latest survey of the following: East end 5.0 m.; mid-section 7.0 m. and West end 10.0 m. at MLLW. There is a private wharf at Baliwasan and vessels of 15,000 g.r.t. can dock there with the following limitations: Draft forward must not exceed 32 ft.; draft aft must not exceed 36 ft., upon completion of loading. Vessels docking at this wharf can only be docked at *flood* tide (current running East to West) and can only be undocked in the same manner.

2 anchors must be used in berthing and vessels lay alongside the concrete pier port-side-to. This wharf in Baliwasan is for loading coconut oil and copra pellets only.

TANKERS: There are 4 oil depots at Gavilan Pt. and at Baliwasan. (Shell, Mobil, Esso and Caltex.) Max. tonnage of 4,000 gross with a draft of not more than 18 ft. can be moored for discharge.

STEVEDORES: The Master of the vessel shall cable to the local Agents so that contract could be made with the shipper to arrange gangs.

MEDICAL: It is necessary for Agents to receive advance notice of required medical attention. Hospital facilities are available at all times. Inoculations are also required by the Quarantine Officer upon boarding a vessel.

FRESH WATER: Fresh water can be obtained any time of the day. There are 5 water outlets strategically distributed at the new quay.

FUEL: Fuel, diesel, and crude oil available.

FIRE PRECAUTIONS: Smoking is entirely prohibited on board a tanker entering this port. The Master must advise all persons boarding his vessel.

GANGWAY/DECK WATCHMEN: The services of watchmen are necessary to stop looters from boarding the vessel.

OPENING/CLOSING HATCHES: Normally opening and closing by the crew, and if done by stevedores the vessel has to pay.

CUSTOMS ALLOWANCES: 200 cigarettes per man. Upon arrival in port the cigarettes are sealed in a bonded store by the Customs Authorities, and can be opened only upon permission granted by the Collector of Customs.

IDENTIFICATION CARDS: All crew members to have identification cards for immediate identification in case of trouble while the crews are on shore.

CONSULS: None available.

REPATRIATION: Effecting crew changes and arranging necessary repatriation are carried out by the Immigration Office in the port with the assistance of the ship Agent and the foreign Embassy concerned.

AIRPORT: Distance from Zamboanga Pier to the airport is 3 km. Served by regular airlines. There are 2 flights daily (0920 hrs. and 1930 hrs.) from Zamboanga to Manila by Philippine Air Lines (PAL). Airport is also open to International flights.

TIME: Local Civil Time is 8 hours ahead of GMT.

HOLIDAYS: Cargo work can be arranged with the Stevedoring Company through the shipper to work during holidays, including Sundays.

POLICE/AMBULANCE/FIRE: Police Department, Tel. 119; Ambulance, Zamboanga General Hospital, Tel. 25-11; and Fire Department, Tel. 110.

TELEPHONES: Telephones cannot be installed on board when docked at the pier as is not allowed by the City Government.

SERVICES: Special services may be available, e.g. tank-cleaning equipment, facilities for discharge of tank-washings, compass adjusting, through representations to be made with the shipper or local Agent of the vessel.

DEVELOPMENTS: A new quay 220 m. length and 10 m. depth to be constructed.

New Facilities:

a. New Quay:	220.44 m.
b. Ferry Pier:	20 m. wide × 49.9 m. length of reinforced concrete.
c. Closed Transit Shed:	40 m. × 126 m. with two 6 m. × 15 m. office spaces and a 24 m. × 40 m. Passenger Terminal.
d. Gate House:	18 m. × 30 m. with 2 × 50 ton capacity weighbridges, through booths and 2 guardhouses.
e. Equipment Shed:	15 m. × 60 m.
f. Maintenance and Fire Station Building:	15 m. × 66 m.
g. Passenger Terminal Building at Eastern Section:	30 m. × 54 m.
h. Amenity Block:	6.5 m. × 10 m.
i. Generator Shed/Power House:	15.4 m. × 25 m.
j. Administration Building:	Three storeys (1,296 sq.m.)

AUTHORITY: Philippines Ports Authority, PMO-Zamboanga, Port Area, P.O.Box 360, Zamboanga City–7801, Philippines. *Tel.* 2991-2995.
Contact: Tantung L. Abam, Port Manager.

NOTES

Please also advise Shipping Guides Ltd.

Poland

GDANSK: 54.21 N. 18.39 E. (See Plan)

ICE: Efforts made to keep port open all year round. Only in very severe Winter are difficulties experienced.

DOCUMENTS:

12 copies Cargo Manifest.
2 copies Bills of Lading.
Discharge Books to be collected for presentation.
Ship's Register.
Maritime Declaration of Health.
5 copies Ship's Articles/Crew List.
Derat Certificate or exemption from Sanitary Certificates, covering food cargoes and/or of animal origin, destined for discharge here.
Specification of Dangerous Cargo, even if in transit.
2 Stowage Plans.

PILOTAGE: Compulsory. Boarding in Gdansk Roads. Gdansk Pilot Station available on VHF, Channel 14.

ANCHORAGES: Gdansk Roads. Anchorages Nos. 1, 2 and 3 for ships up to 720 ft. LOA.

Anchorages: No. 1 draft 29 ft. 06 in.; No. 2 draft 34 ft. 05 in.; No. 3 draft 39 ft. 04 in.; Anchorages Nos. 4 and 5 for bulk carriers and tankers of Baltimax size, max. draft 59 ft. 00 in. No tides.

RESTRICTIONS: On arrival or if moving or in every case of emergency conditions contact Harbour Master's Office on Channel 14. Tel: 43-07-10.

MAX. SIZE: Baltimax size for ships entering North Port. Max. size of ships permitted to enter inner port: Draft 10.20 m. brackish water, max. LOA 220 m. Also see "Berthing".

HEALTH: Maritime Declaration of Health to be presented on arrival. In the event of suspected disease, the vessel should cable to "Quarantine Gdansk", or via Agents.

RADIO: Messages should be sent via Gdynia Radio.

RADAR/VHF: Port Radar Service acting with pilot station, can be contacted on VHF Channel 14.

Polish Notice No. 202/86: Ship Reporting System: The following are required to report by VHF to the Harbour Master of destination on crossing the latitude of 54° 45′ N. (Repline Hel) in the entrance to the Gulf of Gdansk:

All vessels – if on account of special circumstances they may cause a risk of collision or pollution.

Vessels bound for Gdansk – of 150 g.r.t. and above.
Vessels bound for Gdynia – of 500 g.r.t. and above.
The report should include:
REPHEL (abbreviation of Repline Hel)
Name and call sign
Date and time
Position
Destination and ETA
Type and quantity of cargo
Draft
Any deficiencies, e.g.
  (a) Overloading, or excessive heel or trim.
  (b) Faults affecting manoeuvring capability.
  (c) Uncleaned tanks, etc.
  (d) Anything which might cause pollution.

The consent of the Harbour Master must be obtained before entering the roadstead of the port of destination.

TUGS: 14 tugs available. Join in Gdansk Roads. Vessel's lines must be used. Tugs compulsory for all vessels over 2,000 g.r.t. Tugs available up to 2,500 h.p.

BERTHING: Max. draft mentioned below is to be taken as normal water level. No tide. Max. difference from mean level is plus/minus 3 ft. subject to wind direction.

Inner Port:

Name of Quay	*Length* (m.)	*Max. Draft* (m.)	*Max. LOA* (m.)
Marchlewskiego	563	8.70	170
Warynskiego	490	9.70	170
Ziolkowskiego	132	6.30	127
Oliwskie	635	9.70	220
Westerplatte	1,200	10.00	220
Obroncow Poczty Polskiej	285	10.20	220
Weglowe	850	9.70	220
Rudowe	725	9.50	220
Administracyjne	124	5.20	80
XX-lecia PRL	1,239	10.20	220
Chemikow	210	10.20	220
Przemyslowe	235	7.80	220
CPN-4	–	6.90	120
Port Polnocny/North Port:			
Liquid Fuel Terminal	335	15.00	280
Coal Terminal	354	15.00	300
Ore Terminal	300	12.00	200

CRANES: Floating cranes of 60 tons–100 tons capacity. Shore cranes up to 16 tons capacity.

Also see "General Cargo Handling Facilities".

BULK HANDLING FACILITIES: Coal Handling Facilities at North Port Coal Terminal capable of receiving vessel up to max. draft 15.0 m. Daily loading rate 50,000 tons. Also Inner Port-Weglowe Quay equipped with 7 – 10 tons cranes for vessels up to 9.7 m. draft. Bulk and liquid sulphur handled at Obroncow Poczty Polskiej Quay. 20 tons grab cranes and conveyor system for fertilisers in bulk at Chemikow Quay.

Grain elevator: Grain is also discharged by grabs. Conveyor system for loading salt and sodium in bulk.

Timber handling facilities at Rudowe and Westerplatte Quays.

STORAGE FACILITIES:

Coal yard: 600,000 tons.
Phosphate shed: 60,000 tons.
Grain elevator: 8,000 tons.
Solid sulphur store: 20,000 tons.
Warehouses: 100,000 sq.m.
Open storage: 550,000 sq.m.
Refrigerated warehouse (Oliwski Quay): 5,000 tons.

GENERAL CARGO HANDLING FACILITIES: Passenger cargo/Ro-Ro terminal at Ziolkowskiego Quay.

Port is equipped with new Ro-Ro floating berth which can operate at every general cargo quay.

Westerplatte Quay: Warehouse and open storage yards. Handling of general cargo and packaged pulpwood. This quay is also used for waiting.

Oliwskie Quay: Warehouses on quay can handle general cargo, fruit and vegetables. Open storage yards for general cargo and packaged pulpwood.

Aleksander Zawadzki Basin: Ore bridges have been dismantled. Max. draft up to 10.2 m.

20th Anniversary of Polish Peoples Republic Quay: Equipped with 3-16 ton portal cranes for general cargo and 7-8 ton cranes for bulk cargo, a grain elevator and special suction installations. Warehouses and open storage for general cargo and bulk cargo.

STEVEDORES: As gangs for the following day must be ordered before 1100 hrs., vessel's ETA should reach the Agents relevantly in advance.

Stevedores work 24 hours per day, which is considered to be between 2300 hrs. – 2300 hrs. following day. First shift from 2300 hrs. – 0700 hrs., second shift from 0700 hrs. – 1500 hrs., third shift from 1500 hrs. – 2300 hrs.

Timber, general cargo and heavy lift operations are usually performed in two shifts only between 0700 hrs. and 2300 hrs. Sulphur, superphosphates, phosphorites, apatites, grain and other awkward dusty cargoes worked in 4 shifts of 6 hours each.

Port works Sundays, holidays and free Saturdays at premium rates. 1 in 4 Saturdays are worked.

MEDICAL: No special notice required. Full hospital facilities available.

TANKERS: Liquid Fuel Terminal at North Port.

Location: Southern part of the Gulf of Gdansk, 54° 25′ N., 18° 43′ E. approximately. Advisable route via "ZN" Beacon, to "ZS" Beacon, then anchorage on No. 5 Beacon 54° 27′ N., 18° 53′ E.

Facilities: 1 L-shaped jetty for berthing consists of 1 main platform and 4 main dolphins, fitted with quick release hooks. The main platform is fitted with gangway tower and 7 movable handling arms for loading and discharging purposes. Only 1 mooring place available. The jetty accessible for vessels having minimum 150 ft. (about 10,000 d.w.t.) and maximum 1,000 ft. (150,000 d.w.t.) length and 49 ft. 03 in. draft.

No facilities for liquefied gases.

For towing purposes there are 3×2,500 h.p. and 2×1,650 h.p. diesel tugs available, if necessary further 1,200 h.p. tugs are at hand. All tugs equipped with fire fighting equipment.

Cargo Handling Equipment: The 7 mobile handling arms, Luceat Production, are used as follows: No. 2, 3 and 4 for discharging of crude oil, rate about 10,000 cu.m./hr. No. 1 and 5 for loading bunker oil and water, rate about 2,000 cu.m./hr. No. 6 and 7 loading liquid fuels and refined products, rate 2,000 – 2,500 cu.m./hr. Loading pressure of vessel's pumps should not exceed 14.5 kg./sq.cm. at any time.

Facilities for handling of vessel's ballast water available.

Services: Marine diesel and fuel oil available at the jetty. Storage tanks located in the neighbourhood of the terminal and connected with central pipe-line system of Poland. Laboratory for testing purposes and repairing facilities available.

DENSITY: Salt content: Below 0.3%

FRESH WATER: Available at hydrants, and delivery to vessels in roads.

FUEL: Heavy, intermediate and thin fuels, marine diesel oils and gas oils available ex-shore installation or lighter. 48 hours' notice required.

GANGWAY/DECK WATCHMEN: Recommended and available.

OPENING/CLOSING HATCHES: Normally carried out by stevedores, crew allowed to handle.

CERTIFICATES:

Load Line Certificate.
Cargo Gear Certificates.

CUSTOMS ALLOWANCES: For 3 days – 160 cigarettes or 30 cigars or 150 gm. tobacco per crew member. Master is allowed double ration. 1 bottle wine and 1 bottle of spirits per crew member for each 3 days. Master is allowed double ration.

IDENTIFICATION CARDS: Each crew member must be in possession of a valid Discharge Book/Seaman's Book, and will receive a separate shore permit issued by the Immigration Authorities, entitling him to go ashore within the area of Gdynia/Sopot/Gdansk.

CONSULS:

Chinese People's Republic Consulate General, Tel: 41–64–76.
German Democratic Republic Consulate General, Tel: 41–43–66.
Soviet Consulate General, Tel: 41–06–13.

At Gdynia:

Belgian Consulate, Tel: 20–39–83.
Brazilian Consulate, Tel: 21–61–31.
Swedish Consulate, Tel: 21–62–16.
Italian Vice-Consulate, Tel: 21–51–15.

At Sopot:

Finnish Consulate, Tel: 51–50–52.
Also representing other Scandinavian countries.

REPAIRS: All types of deck and engine repairs performed by specialised ship repair yard.

Floating docks: No. 1, 6,400 tons lifting capacity, dimensions 135×25.20 m. No. 2, 8,000 tons lifting capacity, dimensions 156×27.20 m. No. 3, 11,000 tons lifting capacity, dimensions 176×28.00 m. 1 floating jack of 1,700 tons capacity and 3 minor docking pontoons.

REPATRIATION: Crew changes and repatriation can be arranged by MAG – Morska Agencja Gdynia. Crewing Department Telex: 054301. Supplies all ranks of crews to any Owners on request on the spot.

AIRPORT: Gdansk Airport.
TIME: Middle European Time, which is 1 hour ahead of GMT.
HOLIDAYS: New Year's Day (January 1st); Easter Sunday (movable); Easter Monday (movable); Labour Day (May 1st); Corpus Christi (movable); National Holiday (July 22nd); All Saints' Day (November 1st); St. Barbara, only for workers loading coal, (December 4th); Christmas Day (December 25th); Boxing Day (December 26th). On Christmas Eve and New Year's Eve, work stops at 1500 hrs. In justified and approved cases, overtime on Sundays and holidays can be arranged.
TELEPHONES: Available on most general cargo quays.
POLICE/FIRE/AMBULANCE: Police: Gdansk-Nowy Port, Wladyslawa IV-3, Tel: 31–48–61; Ambulance: Gdansk-Wrzeszcs, Al. Zwyciestwa 49, Tel: 41–10–00; Fire: Gdansk-Nowy Port, Na Zaspy 57, alarm phone Tel: 41–22–22.
STORING: Baltona ship chandlers supply ships with provisions, cabin, deck, bonded stores as well as spare parts for main and auxiliary engines. "Duty Free" shops for crew convenience.
SERVICES: Collecting of oily ballast water to Ballast-water Treatment Plant. Cleaning of holds, bilges and ship's tanks.
DEVELOPMENTS: A 40 ton shore crane will be installed at XX-lecia PRL Quay in late 1988.

A Ro/Ro berth will be completed in 1990.
AUTHORITY: Commercial Sea Port of Gdansk, ul. Zamknieta 18, 80-955 Gdansk-Nowy Port. *Tel:* 439-200. *Telex:* 0512324. *Cables:* Geoport Gdansk. *Contact:* Tadeusz Orlowski, Operating Manager. Tel: 436-300. Telex: 0512721 Wojciech Przewieda, Port Director.
AGENT: Morska Agencja, Harbour Office Gdansk, Oliwska 33a Gdansk-Nowy Port. Tel: 430–921 (day and night service). Telex: 051–2641.

GDYNIA: 54.32 N. 18.34 E. (See Plan)

ICE: On average, during most of the Winter periods both port and the roads are ice-free. Only prolonged and severe frosts may result in ice cover formation in basins and in the roads outside. Winds of gale force may shift some drifting ice floes from other parts of the bay and render navigation in the roadstead difficult. In such cases the approach channel and the port basins are kept free of ice and unobstructed to navigation by icebreakers of the Polish Ship Salvage Company and powerful tugs of the Port Authority. The cost of icebreaking is borne by the Port Authority. These phenomena, however, are rather rare, since Winters are usually mild in those areas.
PORT LIMITS: A vessel is an "arrived ship" and laytime commences from time of ship's entry into the roads.
DOCUMENTS:
11 copies Cargo Manifest.
2 copies Bills of Lading.
Discharge Books to be collected for presentation.
Ship's Register.
Ship's Articles/Crew List.
Maritime Declaration of Health.
Derat Certificate.
Sanitary Certificates covering food cargoes and/or of animal origin, destined for discharge here.
Specification of Dangerous Cargo (even if in transit).
2 Stowage Plans.
Load Line Certificate.
Cargo Gear Certificates.
PILOTAGE: Compulsory. Boarding in Gdynia Roads. Gdynia Pilot station available on VHF Channel 12. Traffic around the clock.
ANCHORAGES: Gdynia Roads at Buoy GD, up to 200 m. – 500 m. off port entrance. No tides.
RESTRICTIONS: Depth in main entrance 11.36 m.
MAX. SIZE: No limit on length, max. draft 12.00 m. at Hel I and Hell II Quay, also see "Berthing".
HEALTH: Maritime Declaration of Health to be presented on arrival. In the event of suspected disease the vessel should cable "Quarantine Gdynia", "Radio Medical Gdynia" or via Agents.
RADIO: Message should be sent via Gdynia Radio. Port Radar Service acting with the pilot station, can be contacted on VHF Channel 12, Gdynia. Contact Agent VHF Channel 7.
TUGS: 11 tugs available. Join vessel in Gdynia Roads. Vessel's lines must be used.
STEVEDORES: Gangs for the next day must be ordered by 1100 hrs. vessel's ETA should reach the Agents relevantly in advance.
1 in 4 Saturdays are worked.
MEDICAL: No special notice required. Full hospital facilities available.
B **TANKERS:** Berth in No. 3 basin. Up to 35,000 d.w.t., brackish water. Bunkering Station (Reloading Station) length 200 m., depth 11.3 m.
DENSITY: Salt content: 0.73%.
FRESH WATER: Available ex-hydrants or by water barge, arranged by Agent.
FUEL: All kinds of fuel available ex-shore installation or lighter. 48 hours' notice via Agent required. Lubricants available by truck.
GANGWAY/DECK WATCHMEN: Recommended.
OPENING/CLOSING HATCHES: Opening/closing hatches normally carried out by stevedores, but crew allowed to handle.
CERTIFICATES:
Load Line Certificate.
Cargo Gear Certificates.
CUSTOMS ALLOWANCES For each 3 days – 150 cigarettes or 30 cigars or 150 gm. of tobacco per Crew member. Master is allowed double ration. 1 bottle wine and 1 bottle spirits per Crew member for each 3 days. Master is allowed double ration.

BERTHING:

Basin	*Quay*	*Length* (m.)	*Max. Draft* (m.)	*Remarks*
I	Pomeranian	626	7.9	Waiting Quay
II	Silesian	434	8.5	—
III	Swedish	713	9.1	—
	Danish	314	7.4	Containers & Ro-Ro
	Liquid Chemicals	118	6.8	—
	Dutch	399	10.2	—
	Belgian	—	—	—
Outer	French	514	11.3	—
IV	Finnish	209	8.7	—
	Polish	1,112	9.8	—
	Rotterdam	311	7.5	Ro-Ro
	Indian	1,009	11.0	Dangerous cargo Oil pier and grain silo – capacity 10,000 tons
V	Peace Fighters	819	8.3	—
	Czecho-slovakian	214	7.9	—
	Romanian	867	9.9	—
VI	Hungarian	240	9.4	Waiting Quay
South Channel	Wenda	168	7.1	Waiting Quay
Port Channel	Yugoslavian	182	8.9	Waiting Quay
Port Channel	Hel II	460	12.0	Containers & Ro-Ro
	Hel III	176	12.0	Terminal

CRANES:

Quay	*General Cargo Cranes Max. Capacity* tons			*Grab Cranes Max. Capacity* tons			
	3	6	16	7	8	10	16
Pomeranian							
Silesian				5	4		
Swedish				5	9		
Danish							
Dutch					4	5	2
French	1	12					
Finnish	4	1					
Polish	2	15	4				
Rotterdam	1	7					
Indian	Grain silo and warehouses						
Peace Fighters	17						
Czecho-slovakian		4	2				
Romanian	14	11	4				
Hungarian							
Wenda							
Yugoslavian							

CONTAINER HANDLING FACILITIES:

Quay	*No. of Ro-Ro berths*	*Length* (m.)	*Max. draft* (m.)	Cranes No. and capacity	Stackers-carriers	Capacity TEU
Hel II	—	624	12.0	3×40 tons	14	7,300
Hel III	1	176	12.0	—	—	

CARGO HANDLING EQUIPMENT: Also see "Cranes" and "Container Handling Facilities".

Shore based grain elevators	2×30 t.p.h. 7×50 t.p.h. 4×60 t.p.h.. 1×100 t.p.h.
Floating elevators	2×250 t.p.h. 2×100 t.p.h.
Floating stores	2 (25,800 tons)
Barges	29 (18,500 tons)
Floating cranes	1×65 tons 1×100 tons
Mobile cranes	6×16.5 tons 9×12.5 tons 10×15 tons 1×35 tons 6×20 tons
Fork lift trucks	249

IDENTIFICATION CARDS: Each crew member must be in possession of a valid Discharge Book and will receive a separate shore permit issued by the Immigration Authorities entitling him to go ashore within the area of Gydnia-Sopot-Gdansk.
CONSULS:

Belgian V. Consulate	Tel: 20-39-83
Brazilian V. Consulate	Tel: 21-61-31 or 20-47-01
Chinese P.R. Consulate (Gdansk)	Tel: 41-56-00
Dutch Consulate	Tel: 20-06-85
German D.R. Consulate (Gdansk)	Tel: 41-43-66
Italian V. Consulate	Tel: 20-15-61
Swedish Consulate (also represents Denmark and Norway)	Tel: 21-62-16
U.S.S.R. Consulate (Gdansk)	Tel. 41-10-88, 41-06-13
Consulate of India and resident representative of Indian Shipping Lines in Poland	Tel: 20-29-58

DRY DOCKS: 3 floating docks of a lifting capacity of 4,500, 3,500 and 1,200 tons. 12 slipways of 150 tons lifting capacity each.

REPAIRS: All types of deck and engine repairs performed by specialised ship repair yard. Container repairs performed by Radunia Repair Yard, branch office in Polska Street (Extension tel. 49-32).

SURVEYORS: Polcargo: Head Office, 81-963 Gdynia, Zeromskiego 32. Tel: 20-77-78.

Supervise: Head Office, 81-369 Gdynia, Derdowskiego 7, Tel: 20-08-46.

Shipcontrol: Head Office, 81-334 Gdynia, Polska 21, Tel: 20-70-96.

Polski Rejestr Statkow, 80-855 Gdansk, Waly Piastowskie 24, Tel: 31-72-23, Telex: 0512373 Prsg Pl.

Lloyd's Register of Shipping: 80-855 Gdansk, Waly Piastowskie 1, Tel: 31-59-58, 31-58-41.

REPATRIATION: Crew change and repatriation can be arranged.

AIRPORT: Gdansk-Rebiechowo Airport, situated 35 km. from Gdynia. Daily flights to Warsaw to connect with international flights.

TIME: Middle European Time, which is 1 hour ahead of GMT is kept in Autumn and Winter; East European Time, 2 hours ahead of GMT, is kept in Spring and Summer.

HOLIDAYS: New Year's Day (January 1st); Easter Sunday (movable); Easter Monday (movable); Labour Day (May 1st); Corpus Christi (movable); National Holiday (July 22nd); All Saints' Day (November 1st); St. Barbara Day (December 4th, for coal workers only); Christmas Day (December 25th); Boxing Day (December 26th). On Christmas Eve and New Year's Eve work is generally suspended at 1500 hrs. In justified and approved cases overtime on Sundays and holidays can be arranged against extra payment.

POLICE/FIRE/AMBULANCE: Police: Gdynia, Chrzanowskiego 6. Tel: 21-61-12 (extension telephone 5555); Ambulance: Gdynia, Zwirki i Wigury 14, Office for calls open 24 hours, Tel: 20-00-01, accidents and sudden illnesses Tel: 999; Fire: Gdynia, Chrzanowskiego 15/17, Alarm: 20-68-86; Port's Fire Brigade: Gdynia, Dokerow, Tel. 504, Alarm: Extension Tel: 9.

EMERGENCY CO-ORDINATION CENTRE: Urzad Morski, Gdynia 81–338, Chrzanowskiego 10, Telex: 054285; Tel: 20-69-11; Alarm: Gum Radio. Tel: open 24 hours: 21–61–62, VHF Channel 16.

TELEPHONES: Available on most general cargo quays.

Placing of telephones on board is according to current costs per 24 hours.

GENERAL: Cargo is handled around the clock in 3 shifts of 8 hours each. Work on 3 Saturdays per month is paid by addition of 100 per cent. Sunday and holiday interruptions last from 2300 hrs. on Saturdays or days before holidays and terminate at 2300 hrs. on Sundays or holidays.

Transhipment of cargo at port rates. Extra fast despatch can be arranged at additional charges.

SERVICES: Hold cleaning, container and watchmen provided by "Port Service", Celna Street 5, extension telephone 50-34, 50-36; bunkering provided by "Port Service", extension telephone 50-42. Hold cleaning and container washing provided by Port of Gdynia Authority, Rotterdamska 9, Gdynia.

BANKS: Handlowy S.A., Branch Office, 81–370 Gdynia, Skwer Kosciuszki 14, Tel: 20-63-83.

DEVELOPMENTS:

1. Further development of the Baltic Container Terminal:

Extending of the Ro-Ro and Lo-Lo quays to the total length of 1,080 m. including next fixed ramp Ro-Ro berth at Hel II Quay.

Expanding of the container storage areas.

Building of the container cleaning station, vast parking areas and M+R workshop for containers and road trucks.

After the completion of the first stage of construction of the Baltic Container Terminal the handling capacity of the Terminal will go up to 1.5 million tons/170,000 TEU per year and will be able to accommodate various types of container vessels up to 30,000 d.w.t. capacity.

The second and final stage of construction works will increase the handling capacity of the Baltic Container Terminal to 2 – 2.5 million tons/ 250 – 300,000 TEU per year.

2. Modernisation of the Peace Fighters Quay – extension of the quay and equipping it with new cranes.
3. Total reconstruction and modernisation of general cargo warehouses.
4. Converting bulk cargo quays in Basin No. 3 into highly specialised general cargo berths.
5. Building of fruit warehouse in the area of Baltic Container Terminal.
6. Total reconstruction and modernisation of Grain Terminal at Indian Quay.

AUTHORITY: Port of Gdynia Authority, ul. Rotterdamska 9, 81-337 Gdynia, Poland. *Tel:* 20-10-01. *Telex:* 054221. *Cables:* Gdyport. *Contact:* Mieczyslaw Wilczewski, Director General.

Harbour Master's Office, *Tel:* 216636 and 202853.

AGENT: Morska Agencja, *Head Office,* Pulaskiego 8, 81-364 Gdynia. Tel. 20-76-71 (9 lines) and 21-75-17 – working from 0730 to 1530 hrs. Telex: 054-301. Cables: "MAG Gdynia".

Harbour Office Gdynia, Rotterdamska 3 – Gdynia. Tel. 21-50-53 (Duty Official), Manager 27-49-16. Telex: 054-376.

SZCZECIN: 53.25 N. 14.32 E. (See Plan)
Including Swinoujscie, 53.55 N. 14.15 E.

DOCUMENTS:

12 copies of Cargo Manifests.
2 copies Bills of Lading.
Tonnage Certificate.
4 copies of Crew List.
Passenger List.
Maritime Declaration of Health.
Derat Certificate.
Specification of Dangerous Cargo (even if in transit).
2 copies Stowage Plans.

PILOTAGE: Contact pilot station, VHF Channel 12 and 14, also 26 or 27. Harbour Master's office, Channel 12. Light and sound signals used according to international rules. The Pilot is taken on board at the anchorage. Pilot compulsory for all vessels over 150 g.r.t.

RESTRICTIONS: Vessels exceeding LOA 175 m. enter/leave port during daylight only.

Power Cable: An overhead power cable (clearance 64 m.) has been established in position Lat. 53° 31.55′ N., Long. 14° 37.88′ E. to Lat. 53° 31.72′ N., Long. 14° 38.35′ E.

MAX. SIZE: *Szczecin:* Max. draft – 30 ft., Max. length – 206 m.

Swinoujscie: Max. draft – 42 ft., Max. length – 235 m.

HEALTH: All ships arriving Szczecin from South of Cape Finistere are subject to sanitary inspection.

RADIO: Szczecin Radio, SPE, 2182 kHz. Medium frequencies.

TUGS: Normally tugs join the vessel at the limits of the port of Szczecin to Kra Quay.

For ships calling at General Cargo Port which exceed 1,000 g.r.t. – 1 tug compulsory.

For ships calling at Bulk Cargo Port which exceed 2,000 g.r.t. – 1 tug compulsory.

For ships over 4,000 g.r.t. – 2 tugs compulsory.

For ships over 12,000 g.r.t. – 3 tugs compulsory.

BERTHING:

Szczecin:

Name of Quay	*Length (m.)*	*Depth (m.)*	*Designation*	*Equipment*
Katowickie	434	9.15	Coal and bulk cargoes	4×7-ton cranes, 3×10-ton cranes, open storage 7,022 sq.m., cargo bins.
Chorzowskie	290	8.6	Coal and ore	2×15-ton bridge cranes, open storage 6,413 sq.m. automatic scales.
Gliwickie	260	9.15	Coal	4×7-ton mobile cranes for coal handling, open storage space 3,000 sq.m. cargo bins.
Bytomskie	330	9.15	Bulk cargo	2×7-ton cranes, 4×8-ton cranes, open storage space 3,770 sq.m., cargo bins
Pirs-Tasmowiec	320	9.10	Coal	Special belt conveyor with a wagon tipper – 750 t.p.h. capacity
Walbrzyskie	263	8.8	Coal	2×8-ton cranes, 2×10-ton cranes, open storage space 39,700 sq.m., cargo bins.
Gornoslaskie	282	8.5	Ore and bulk cargo	1×7-ton crane, 3×10-ton cranes, open storage space 9,314 sq.m., cargo bins.
Parnica	300	6.8	Bulk and liquid cargo	2×7 ton cranes 2×8-ton cranes, open storage space 1,646 sq.m., cargo bins.
Huk	267	7.6	Bulk cargo and timber	4×7-ton bridge cranes, open storage space 14,200 sq.m., cargo bins 3,580 sq.m.
Noteckie	315	6.4	Timber	2×3/6-ton cranes, 2×3/5-ton cranes, timber storage space 40,416 sq.m.
Regalica	210	6.3	Timber	4×3-ton cranes, open timber storage 24,327 sq.m., sheds 8,100 sq.m.
Zbozowe	200	8.7	Grain	Grain elevator – 65,700 cu.m.
Czechoslowackie	950	8.9	General cargo	12×3/6-ton cranes, Ro-Ro ramp, 6×16-ton cranes, open storage 24,933 sq.m., sheds 11,860 sq.m.
Polskie	260	9.15	General cargo	2×16 ton cranes, 5×3/6-ton cranes, open storage space 7,263 sq.m.
Wegierskie	612	9.20	General cargo	3×3-ton cranes, 9×3/6-ton cranes, 1×8/16-ton crane, open storage space 11,784 sq.m., sheds 10,150 sq.m.
Rumunskie	600	7.10	General cargo	4×3/6-ton cranes, open storage space 1,470 sq.m. sheds 3,740 sq.m.
Albanskie	89	5.49	General cargo	1×3-ton crane, sheds 2,380 sq.m.
Radzieckie	323	8.3	General cargo	3×2-ton cranes, 6×3-ton cranes, open storage 6,700 sq.m., sheds 23,835 sq.m.
Starowka	537	6.0	General cargo	2×1/5-ton cranes, 4×2-ton cranes, 1×7-ton crane, 3×3-ton cranes, open storage space 8,086 sq.m., sheds 5,592 sq.m.

Name of Quay	*Length (m.)*	*Depth (m.)*	*Designation*	*Equipment*
Greckie	627	6.0	Anchorage for ships and barges	
Jugoslawianskie	100	6.2	General cargo	1×2-ton crane, open storage 3,280 sq.m.
Swinoujscie:				
Portowcow	215	11.43	Bulk cargo	2×7-ton cranes, 2×10-ton cranes, open storage space 684 sq.m., cargo bins, 3,580 sq.m.
Gornikow	260	12.80	Coal	4×10-ton cranes

Suitable for ships of 35,000 to 65,000 d.w.t. Special coal handling installation with loading capacity up to 30,000 tons per 24 hours. Open fully mechanised coal storage of over 440,000 tons capacity with wide range rubber-belt system for fast transport of coal to and from stores. Continuous electronic weighing system. Open storage space – 81,120 sq.m.

Name of Quay	*Length (m.)*	*Depth (m.)*	*Designation*	*Equipment*
Wladyslawa IV	190	9.75	Lay-by berth	
Chemikow	255	12.8	Bulk fertiliser	2×20 ton gantry cranes.
	+100	5.5	For barges	1×40 ton ore bridge crane, open storage space 5,000 sq.m. with arrangement for loading and unloading.
Hutnikow	329	12.8		
	+100	5.5	For barges	

In Swinoujscie there is also a defreezing plant for railway cars and railcar dumpers.

BULK HANDLING FACILITIES: See "Berthing".

CRANES: Mobile cranes up to 70 tons capacity available. Also see "Berthing".

STEVEDORES: 24 hours ETA required to arrange gangs.

1 in 4 Saturdays are worked.

MEDICAL: Doctors and hospital facilities available.

TANKERS: All empty tankers have to give 24 hours ETA advice whether they are gasfree and name of last cargo carried. No residue discharge facilities.

DENSITY: 1000.

FRESH WATER: Fresh water supplied from hydrants on quays or by water tanker. The minimum charge is for 5 tons of water. For supply of water on Sundays and holidays a surcharge of 100% is levied. Cost per ton – via hydrant $2.40, via barge $5.10.

FUEL: All grades of Shell fuel oil and Castrol marine lubricants.

GANGWAY/DECK WATCHMEN: Available but not compulsory.

OPENING/CLOSING HATCHES: Normally opened by crew.

CUSTOMS ALLOWANCES: Each man – 160 cigarettes and 1 bottle of spirit. Master allowed double.

CARGO GEAR: No additional requirements; all gear supplied by stevedores except rain tents.

IDENTIFICATION CARDS: Each crew member must be in possession of a valid Discharge Book and will receive a separate shore permit issued by the Immigration Authorities entitling him to go ashore within the city area.

CONSULS: Swedish Consulate (represents Denmark and Norway), Soviet Union Consulate, Czechoslovak Consulate, German D.R. Consulate and Cuban Consulate.

REPAIRS: All types of deck and engine repairs. 2 ship repair yards.

Szczecin Ship Repair Yard, 13 Ludowa Street, 71-700 Szczecin. Tel: 22-44-51. Telex: 0422229 Storem Pl., Sz. Cables: Storem, Szczecin.

Marine Ship Repair Yard at Swinoujscie, 72-600 Swinoujscie, 4 Wiejska Street. Tel: 42-41 to 49. Cables: Morem, Swinoujscie. Telex: 0422341 Pl.

Ship repair yard "Parnica", Gdanska Street, Szczecin. Tel: 368-44, 326-51. Telex: 042-5108 Strp Pl. Cables: Storempar, Szczecin.

DRY DOCKS: Floating docks with lifting capacity of 8,200 tons; 5,500 tons; 3×1700 tons and 650 tons.

SURVEYORS: Polska Izba Handlu Zagranicznego, Oddzial Morski w Szczecinie, Polish Chamber of Foreign Trade, Maritime Branch in Szczecin, 70-952 Szczecin, Pl. Batorego 4. Tel: 447-37. Telex: 042-2225 Pihz Pl. Cables: Polchamber, Szczecin.

Komisariat Awaryjny (Average Agent's Office), Lloyd's Agents. Tel: 393-93. Telex: See above.

Biuro Dyszpaszerskie (Average Adjuster's Office), address, telephone etc., see above.

Lloyd's Register, 71-637 Szczecin, 43 Firlika Str. Tel: 21-13-43.

Germanischer Lloyd and American Bureau of Shipping, Dr. Olaf Zylkowski, 71-382 Szczecin, 67 Jaworowa Str. Tel: 71-382, 760-17. Telex: 042-2379 Namor Pl.

Det Norske Veritas: Represented by Polish Register of Shipping, Plac Batorego 4, 70-952 Szczecin. Tel: 461-28. Telex: 0425371 Prss Pl.

REPATRIATION: Crew changes and arranging repatriation can be done.

AIRPORT: 45 km. from Szczecin. Regular flights to Warsaw. From Warsaw communication to every main airport in Europe.

TIME: GMT plus 1 hour; GMT plus 2 hours in Summer.

HOLIDAYS: New Year's Day (January 1st); Easter Monday; Labour Day (May 1st); Victory Day (May 9th.); Corpus Christi; National Holiday (July 22nd); All Saint's Day (November 1st); Christmas Day (December 25th); Boxing Day (December 26th).

EMERGENCY CO-ORDINATION CENTRE: Polskie Ratownictwo Okretowe/Polish Ship Salvage Company/Gydnia Branch Office: 70-952 Szczecin, Pl. Batorego 4, Tel: 885-43. Cables: Polratok Szczecin.

Rescue Co-ordination Centre at Swinoujscie: 72-601 Swinoujscie, nab. Wladyslawa IV, Tel: 59-29/day and night/, Telex: 422632 Pro Pl.

TELEPHONES: Telephone exchange of the Port Authority Szczecin 430-31/Trunk service connections with ships in the port. Port telephone numbers:

Port Fire Bridge	370-12.
Port Office of the Civil Militia	880-68.
Port Officer on duty	889-44.
Port District Medical Dispensary	428-21.

POLICE/FIRE/AMBULANCE: Police, 997; Ambulance and First Aid Station, 999; Fire Brigade, 998.

SERVICES: "Shipservice" – Enterprise for Maritime Services, 70-607 Szczecin, Przejazd 1 Street, Cables: Shipservices Szczecin Tel: 360-11, 385-47. Telex: 422282 Ship Pl.

Marine Radio Service: "MORS" Morska Obsluga Radiowa Statkow. All services to any radar, radio or navigation equipment – orders via Morska Agencja Szczecin.

Compass adjusting available. Chart corrections possible. British Admiralty and Polish charts available.

SHORE LEAVE: Allowed.

STORING: See "Prelims".

1. Vessel can be stored by barge/motorboat/or truck.
3. Trucks can proceed alongside at the berth. Vessel can store from barge/trucks during loading/discharging operation using her derricks or port crane.
5. Customs Office must be informed about storing.
6. Local riggers (strictly port's workers) can be employed to assist with storing.

SHIP SUPPLY SERVICE: Supplied by Agent.

DEVELOPMENTS: The Szczecin port has been in the main developed as a general cargo port. A main investment effort has been directed toward an establishment of a modern general cargo potential. New berths and terminals working on the "Roll-on/Roll-off" and "Lift-on/Lift-off" system will be built. The investment will comprise: berths, storage space, cranes, trucks and the other equipment for transhipment of conventional and containerised general cargo.

The Port of Swinoujscie is still being built in as a bulk cargo harbour, capable of serving large vessels. Simultaneously the port will be developing ferry services. A modern ferry terminal built in 1972-1973 is under further development and a target project stipulates 4 berths and 10 arrivals and departures per day.

Fertiliser plant under construction at Police. For vessels up to 38,000 d.w.t.

AUTHORITY: Port of Szczecin – Swinoujscie Authority, 7 Bytomska Street, 70-603 Szczecin, Poland. *Tel:* 430-31 (for further connections). *Telex:* 422108 Zp Pl. *Cables:* Zetpees Szczecin. *Contact:* Mr. Jurand Kobylarz, Operational Director.

Harbour Master's Office of the Port of Swinoujscie supervises the traffic of ships and the observance of harbour rules in the Port of Swinoujscie.

AGENT: Morska Agencja w Szczecin, 4 Batorego Square P.O.Box 70-952, Szczecin. Tel: 465-63, 45235, Telex: 422147, 422148, 422149.

Harbour Office at Szczecin – day and night service Tel: 39113, 89742. Telex: 422235.

Harbour Office at Swinoujscie – Tel: 50-21. Telex: 422330.

NOTES

Please also advise Shipping Guides Ltd.

Portugal

AVEIRO: 40.39 N. 08.45 W. (See Plan)

PORT LIMITS: A vessel is considered "arrived" when she is 3 miles from the piers.

DOCUMENTS:
5 Crew Lists.
4 Lists of Passengers Disembarked.
2 Lists of Passengers in Transit.
5 Cargo Manifests.
1 Manifest of Cargo in Transit.
1 Provision List and Spares.
2 Health Certificates.
2 Dangerous Cargo Lists (when applicable).
2 Lists of Articles held by the Crew.

PILOTAGE: Compulsory. Send ETA to Agent by cable, 24 hours before arrival. Entrance depending on sea conditions and ship's draft.

Pilots can be contacted by VHF Channel 16 between 0800 – 1200 hrs. and 1400 – 1800 hrs. Tel: 369429. Telex: 37338 Inppda.

Pilot boat displays white flag, surrounded by narrow blue stripe, with black "P" in the centre. Pilot to be taken on board about 1 mile West of harbour entrance; vessel awaiting Pilot can anchor there, if weather permits.

Pilot station, located close to Aveiro lighthouse, hoists black cylinder on signal mast when entry not possible due to bad weather or any abnormal cause. Pilot boat has radar that can assist vessels during approach to harbour entrance.

ANCHORAGES: Anchor West of North Pier, at a distance of 1 mile. Max. LOA 105 m. Max. draft 18 ft.

RESTRICTIONS: Depth at bar 15 ft. to 26 ft. Tidal variation 10 ft. Entering and sailing only during daylight.

MAX. SIZE: Max. draft 16 ft. to 18 ft. dependent on bar conditions. Max. length 90 m. to 100 m. depending on bar conditions.

HEALTH: Free Pratique automatic for vessels coming from other Portuguese ports. Vessels coming from other countries; Health Certificate must be delivered to Agent.

RADIO: Call Aveiro Pilots Radio on VHF. Radio station is Lisboa Radio.

TUGS: Two tugs, one of 205 h.p. and one of 400 h.p.

An additional tug of about 500 h.p. will be available in the near future.

BERTHING:

Berth/Wharf	*Length* (m.)	*Depth at LW* (m.)
Commercial Quay	400	5.5
B	31.90	3.5
1	15.30	(Inoperative)
2	15.30	(Inoperative)
C	32.00	
3	41.00	4.0
4	45.00	4.0
A	31.90	4.0
D	31.90	3.0
6	25.90	4.5
7	28.00	5.0
Petrogal	35.00	6.0
F/PI	49.00	6.0
E/PI	41.50	6.0

CRANES: 6 electrical cranes of 3.6 and 12 tons and 15 mobile cranes for cargo-handling – 2×3 tons, 6×7 tons, 5×16 tons, 1×60 tons at 6 m., 1×100 tons at 7.32 m., 70 tons at 10 m. and 25 tons at 22 m.

SPECIALISED CARGO HANDLING FACILITIES: A terminal for handling wine, chemicals and turpentine; another for handling liquid combustibles and chemicals.

STEVEDORES: Advise Agent 24 hours before vessel's arrival.

Working Hours: 0800-1700. Overtime 1700-2000, 2100-2400, 0000-0300 and 0400-0700.

MEDICAL: Hospital and clinics in town. Advance notice not required. Required vaccination certificate, and when ship comes from affected regions, also yellow fever certificate.

TANKERS: Private quay of Petrogal/GALP used by small-sized tankers. Two Port Authority quays for tankers, wine, liquid combustibles and chemicals. No facilities for dirty ballast.

DENSITY: About 1028.

FRESH WATER: Supplied by barges, tank-car or water system. 20 t.p.h.

FUEL: Only diesel available. Smaller quantities supplied from trucks. Otherwise, from SACOR's private quay (pipe-line).

GANGWAY/DECK WATCHMEN: Available but not compulsory.

OPENING/CLOSING HATCHES: Work usually done by crew.

IDENTIFICATION CARDS: Crew members going ashore will need a special card issued by Customs Officer and Maritime Authority. Ship's Agent takes these cards aboard, where they are completed in accordance with crew list. See "Lisbon".

CONSULS: Nearest Oporto, 60 km.

REPAIRS: All repairs can be carried out.

DRY DOCKS: 1 Drydock (100 m.×18 m.) for vessels up to 3,000 d.w.t. and 1 floating dock for vessels up to 1,200 d.w.t.

REPATRIATION: Possible. If crew member has letter from Master of vessel 40%, discount allowed on fare.

AIRPORT: Pedras Rubras (Oporto Airport) at about 80 km., with 2 flights per day to Lisbon and 1 flight per week to London.

Lisbon Airport (250 km.) is served by regular airlines covering all the world.

TIME: From October to April – GMT; April to October – GMT plus 1 hour.

HOLIDAYS: New Year's Day; 1st April; Liberty's Day (25th April); Portugal's Day (10th June); Workers' Day (1st May); 12th May (Local Holiday); 2nd June; 10th June; August 15th, (Religious Holiday); Corpus Christi (movable); Proclamation of the Republic (5th Oct.); All Saint's Day (1st Nov.); Independence of Portugal (1st Dec.); Immaculate Conception (8th Dec.); Christmas Day. No work allowed on Christmas Day and New Year's Day.

CUSTOMS ALLOWANCES: 125 grams tobacco, and 1 bottle wine/spirits for each man.

POLICE/FIRE/AMBULANCE: Police 22022; Ambulance 115; Fire 22333.

TELEPHONES: None available on board.

SHORE LEAVE: Crew allowed ashore.

DELAYS: As a tidal port, arrivals and sailings are subject to tides. Delays may occur owing to bad weather, especially during the Winter months.

DEVELOPMENTS: Dredging harbour entrance.

New 500 m. quay may be in operation 1988 with a depth of 8.0 m. Cranes will be available.

AUTHORITY: Junta Autonoma do Porto de Aveiro, Avenida Dr. Lourenco Peixinho 110-2, 3800 Aveiro, Portugal. *Tel:* (034) 24091/92. *Telex:* 37379 Japa P. *Contact:* Eng. Lauro Amando Ferreira Marques, Director.

Captain Luis Antonio Pessoa Brandao, Harbour Master. *Tel:* (034) 23657, 29648. *Telex:* 37348 Capiav-P.

AGENT: A. J. Goncalves de Moraes, Lda, 49 Av. Dr. Lourenco Peixinho, 3800 Aveiro. Tel: 24550. Telex: 37590. Cables: Amoras. After hours Tel: 24666. Shipping and Forwarding Agents, Chartering and Brokers, Insurance Agents, Stevedoring.

FIGUEIRA DA FOZ: 40.09 N. 08.52 W. (See Plan)

DOCUMENTS:
Health Certificate (Pilot supplies form).
5 Crew Lists.
4 Lists of Passengers Disembarking.
2 Lists of Passengers in Transit.
5 Cargo Manifests.
1 Manifest of Cargo in Transit.
Provision and Spares List.
2 copies each Bill of Lading.

PILOTAGE: Compulsory. Send ETA to Agent by cable 24 hours before arrival. Vessels should arrive 2 hours before high tide. Call Figueira Pilots on VHF Channel 16, from 0900 hrs. – 1700 hrs. Alternatively call Figueira-Pesca frequency 2182 kHz and listen on frequency 1834 kHz. Await Pilot 0.5 miles from the piers.

ANCHORAGES: South of N.W. Azimuth of North Pier, at a distance of more than 0.5 miles.

RESTRICTIONS: No services during night.

MAX. SIZE: Max. draft 14 ft. Max. length 90 m.

HEALTH: Free Pratique authorised for vessels coming from other Ports in Mainland Portugal. For vessels coming from other countries, Health Declaration supplied by the Pilot must be filled in.

RADIO: Figueira – Pesca listens on 2182 kHz permanently, except between 1900 hrs. (on Saturday) till 0100 hrs. (on Monday).

TUGS: None available.

BERTHING: The port is in the mouth of the Mondego River. The anchorage is in sand and outside the harbour.

Concrete Quay: Length 360 m. Depth 13 ft. – 14 ft.

Tidal Harbour: Water area 6 ha. Length of quayage 600 m.

Depths on Bar: MHWST 3.8 m. MHWNT 3.00 m.

There is about 320 m. of quayage for small ships and fishing craft.

CRANES:
1×6 tons at 24 m. (electric)
12 tons at 20 m.
3×3 tons at 24 m. (electric)
6 tons at 20 m.
1×1.5 tons at 24 m. (electric)
3 tons at 16 m.
1×1.8 tons at 12 m. (mobile)
2×2.3 tons at 16 m. (mobile)
16 tons at 3 m.
10 × fork lift trucks.

STEVEDORES: Advise Agent 24 hours before arrival.

MEDICAL: No prior advice is necessary. All medical facilities available.

DENSITY: About 1028.

FRESH WATER: Each quay has its own installations.

FUEL: Only diesel available.

GANGWAY/DECK WATCHMEN: Available but not compulsory.

OPENING/CLOSING HATCHES: Work usually done by crew.

CUSTOMS ALLOWANCES: No limit, but must be declared.

IDENTIFICATION CARDS: See "Lisbon".

CONSULS: France, Spain and United Kingdom.

REPAIRS: There are two shipyards and repair facilities, also a slipway for ships up to 4,000 tons.

REPATRIATION: No difficulty in crew repatriation.

TIME: From last Sunday in September till last Sunday in March GMT and the rest of the year GMT plus 1 hour.

HOLIDAYS: New Year's Day; Good Friday; 25th April; 1st May; Corpus Christi (movable); 10th June; 14th June; 24th June; 15th August; 5th October; All Saint's Day (1st November); 1st December; 8th December; 24th December; 25th December.

POLICE/FIRE/AMBULANCE: Police 22022; Ambulance 22122; Fire 22122.

SHORE LEAVE: Crew allowed ashore.

DELAYS: As a tidal port, arrivals and sailings subject to tides. Delays may occur owing to bad weather, especially during Winter months.

DEVELOPMENTS: Dredging in progress.

AUTHORITY: Junta Autonoma do Porto da Figueira da Foz, Rua Engenheiro Silva 98, 3080 Figueira da Foz, Portugal. *Tel:* 22365, 22366. *Telex:* 52339 Porfig P. *Contact:* Joao de Oliveira Barrosa, Managing Director.

AGENT: A. J. Goncalves de Moraes, Lda., 262-Rua da Republica, 3080 Figueira da Foz – Portugal. Tel: 22584. Telex: 53017. Cables: Amoras. After office hours: 25016 and 24666 ("Aveiro" network). Shipping and Forwarding Agents, Chartering and Brokers, Insurance Agents, Stevedoring.

LEIXOES and OPORTO (Douro River): (See Plan)

Leixoes: 41.11 N. 08.43 W. Oporto: 41.09 N. 08.37 W.

DOCUMENTS:
Health Certificate.
5 Crew Lists.
Provision List — ship and individual.
Tobacco Declaration and Entrance Forms supplied by Agent on arrival.
5 Manifests and 2 copies of each B/L concerning cargo to be discharged.
1 Transit Manifest if cargo in transit exists.

PILOTAGE: Pilotage is compulsory for entry and leaving, with the exception of coastal vessels and national flag craft up to 500 g.r.t., coastal and local fishing vessels and pleasure craft. Available day and night in Leixoes, but in Oporto only between sunrise and sunset, and then dependent upon sea conditions. Vessels must communicate their ETA a minimum of 12 hours ahead and confirm again 4 hours in advance. Departures must be communicated 2 hours ahead between 0800 and 1800 hrs. This must be done via the Radar Station.

Pilot boat recognition:

By day – black hull, with the letter "P" painted in white. Also a flag may be hoisted which is white, lined in blue, and with a black letter "P" in the centre.

By night – a white light at the top of the mast forward and lower down a red light.

Call-up signals by ship's siren:

To call Pilot – Letter "G" in morse, or Letter "O".

To call pilot launch – Letter "O" in morse.

VHF: Pilots on VHF Channels 9, 12, 13 and 16.

APPROACHES: *Leixoes:*

By day: Vessels coming from the North should take due heed of the Orca Rock situated 1,300 m. beyond the Northern Quay on the parallel 41° 10′ 37″ N. and should pass to the South of the breakwater light.

By night: Vessels approaching the port should be guided by the lights of the breakwater and then by the lights of the lighthouse, positioned at the heads of the North and South Moles of the Port, placing the Leca lighthouse in the middle of them.

Entrance Channel: The width of the port entrance between the heads of the breakwaters is 220 m.; in the foreport the channel widens to 500 m., from the entrance for 240 m. and is reduced again towards the entrance of Dock No. 1 to 113 m. By dredging, the depths are maintained at 10 m. The width of the entrance to Dock No. 2 is 58 m.

ANCHORAGES: *Douro River:*

Outside the port: Vessels may await entry, anchoring to the North of the alignment of the bar entrance lights of the Douro River in an area defined by the alignments of the Leca lighthouse, and the N.W. side of the Leixoes mole. In this area the depths vary between 16 m. and 21 m.

The anchorage is not safe in certain weather conditions.

Inside the port: Vessels can anchor with 2 anchors at the bow and 1 small anchor at the stern, and even by passing lines ashore at the following points: Alfandega, Cabrea, Pedras, Bicalho, Gas, Lugan, Carbonifera, Gaia and Monchique.

Leixoes:

Outside the port: Vessels can await entry, anchoring outside a radius of half a mile from the head of the breakwater to the West, and with an Eastern limit as the alignment of the Leca lighthouse with the breakwater light itself.

Anchorage is not safe during bad weather.

Inside the port: Vessels can anchor in the foreport.

RESTRICTIONS: *Douro:* Subject tide and bar conditions.

The main alignments of the bar, are as follows:

1. Tres Orelhas (a pillar with 3 battlements on the upper part, located at Sobreiras) or Marca Nova do Mato, on the Anjo (an archway on the Tower of S. Miguel da Cantareira);
2. Tres Orelhas by Marca Nova da Cantareira (light on iron column).

Marking of navigation channel – The channel is defined by 7 buoys.

MAX. SIZE: *Douro River:* Permitted draft on entering the port, variable with the state at the bar is from 18 to 19 ft. (HWST) and 16 to 17 ft. (HWNT).

The height of the tide of the port is: Average during Spring tides 2.30 m; average during Neap tides 1.80 m.

At times and particularly during the months of January, February and December, normal movement of vessels is affected by the rough sea which in conjunction with the river current causes frequent variation, both in the width and in the depth of the access channel, and necessitates annual dredging in order to guarantee conditions of navigability.

Leixoes: Cargo vessels 31 ft. Also see "Tankers".

HEALTH: Free Pratique authorised for vessels coming from other ports in mainland Portugal. For vessels coming from other countries Health Declaration supplied by the Pilot must be filled in, and delivered to the Agent. Radio Pratique also available.

RADIO: *Leixoes Naval Radio Station:* Operated by the Leixoes Port Captaincy, working with permanent listening-watch on 2182 kHz for aid to navigation; receives and listens on frequencies 2182, 2097, 2566, 2657, 4474.5 and 7510 kHz. Transmits weather report and Notices to Mariners by radiotelephony for the coastal strip for a distance of 50 miles to seaward of the coast of Portugal at the times 0735 Z, 1005 Z, 1935 Z, 2205 Z, on frequency 2657 kHz.

It listens out permanently on VHF Channel 16 (156.80 MHz) for aid to navigation and has working Channels 11, 13, 19, 39 and 60.

RADAR/VHF: *Leixoes Radar Station:* Operated by the Administration of the Ports of the Douro and Leixoes, it is equipped with radar for control and support to navigation, and has a range of 18 miles. It also has VHF equipment, permanently listening out, working on the 156 – 175 MHz band, it being possible for any vessel, up to a distance of 50 miles to contact this station for identification, port matters and meteorological information. The listening Channels are 11, 12, 13, 16, 67 and 68.

TUGS: Normally join the vessel.

At Leixoes: 6 tugs, 875–2,800 h.p. In the outer harbour up to 700 g.r.t., no tug required; from 700 up to 1,800 g.r.t. 1 tug compulsory. Over 1,800 g.r.t. 2 or more tugs required.

At Douro River: As a rule service necessary on arrival/sailings. Thus they join the vessel after passing the bar.

Report: 1986. Vessel: 77,000 d.w.t. 6 tugs required for berthing and 4 tugs for unberthing. The Port of Leixoes tugs were too small so 2 tugs ordered from Lisbon and 2 tugs ordered from Setubal. This can be costly as time starts from departure Lisbon/Setubal.

BERTHING: *Douro River:* Gaia Quay: Length 280 m. Depth 18 ft. Estiva Quay: Length 80 m. Depth 11 ft. – 17 ft. Porto A Quay and Alfandega Quay are for small craft only.

In addition there are private facilities of Secil (4 cement silos, total capacity 12,000 tons), Leiria Cement Company and Mobil.

Outer Harbour: The depth of water at the entrance and in the centre of the outer harbour is 10.00 m. at MLWST; Maximum rise of tides 3.99 m.; Minimum rise of tides 0.07 m.; Total water area 117.36 ha.; Breadth of entrance (harbour) 220.05 m.; Breadth of entrance (Dock No. 1) 113.00 m.

Dock No. 1: Length of North Quay 487 m.; South Quay 551 m.; Maximum draft 29 ft.

Dock No. 2: Length of North Quay 670 m. and South Quay 588 m.; Maximum draft 30 ft.

South Mole: Length of Quay 370 m.; Depth 20 ft.

Ro/Ro Terminal: Quay with a usable length of 145 m. and max. depth of water of 18 ft.

CONTAINER HANDLING FACILITIES: *South Side:* 115 m. of usable quays with a depth ranging from 12 ft. to 31 ft. The total open storage area for containers is 5.5 hectares. It is equipped with a jib crane with a 31.8 ton capacity and a reach of 23.02 m., 4 Karricons for container movement with a capacity of 30.48 tons and 8.44 m. lift, 2 valmets with a capacity of 30.48 tons and 9.0 m. lift, 2 side loaders with a capacity of 30 tons and 5.27 m. lift and front loading stackers, 3 with a max. capacity of 12 tons and a max. lift of 6.2 m. and 3 with a capacity of 15 tons and 3.05 m. lift.

North Side: 360 m. of usable quay with a depth of 30 ft. Its usable open area for containers is 1.55 hectares. It is equipped with two quay jib cranes with 35 ton capacity and 30.1 m. reach and 5 transtainers with a capacity of 35 tons and various reaches. Also available are 15 semi-trailers for container transport with a capacity of 50 tons.

Dock No. 4: In 1988 a new container terminal at the South Quay of Dock No. 4 commenced operations. Length of quay 540 m. Depth 40 ft. Quay is equipped with 2×35 ton shore cranes and 1×35 ton yard crane.

CRANES: Leixoes: Dock No. 1: 1×94 tons on the North side and 8×3 tons and 2×5 tons on the South side.

Dock No. 2: 2×15 tons and 13×5 tons on the North side, and 18×5 tons on the South side.

South Mole: 6×5 tons.

Douro: Gaia Quay: 2×1.5 tons, 1×3 tons and 1×5 tons.

Porto A: 3×2 tons and 2×3 tons.

Customs Quay: 1×1.5 tons, 1×2 tons, 1×7 tons.

BRIDGES: Bridge at Leixoes between Dock 1 and Dock 2 opening regularly.

STEVEDORES: Ordered by Agents according to berth and cargo.

FRESH WATER: Available alongside or by barge.

FUEL: Available from Shell, Petrogal, Mobil and B.P.

MEDICAL: Masters to advise by radio prior to arrival if medical attendance is required on board. Hospital facilities available.

TANKERS: *Terminal Operator:* Petroleos de Portugal E.P. (Petrogal).

Pier A: Max. d.w.t. 120,000 tons. Depth of water: 12.0 m. Max. draft: 43 ft. (with dredging). Max. draft in April 1988 – 36 ft. At times max. draft is 37 ft. – 42 ft. Max. length: 223 m. Daylight berthing only.

Products Handled	Capacity t.p.h.	Hoses (in.)
Crude Oil	10,000 disch/2,000 load	4×12
Gas Oil	1,500 load	1×12
Fuel Oil	2,000 load	1×12, 1×10
Naptha	1,200 load	1×10

Pier B: Max. d.w.t. 27,000 tons. Max. draft: 30 ft. Max. length: 200 m. Berthing at night possible. Depth alongside 9.0 m. Depth in approaches 7.7 m.

Products Handled	Capacity t.p.h.	Hoses (in.)
Crude Oil	4,000 load	2×12
Gas Oil	1,500 load	1×10
Fuel Oil	2,000 load	1×12, 1×8
Gasoline	700 load	2×10
Petrol (Jet)	400 load	1×8
Lub Oil	300 load	1×6
Benzine	350 load	1×8
Toluene	350 load	1×8
Octoxylene	350 load	1×8
Paraxylene	350 load	1×8

Pier C: Max. d.w.t. 5,000 tons. Max. draft 19 ft. Max. length 100 m. Berthing at night possible. Depth alongside 5.7 m.

Products Handled	Capacity t.p.h.	Hoses (in.)
Fuel Oil	2,000 load	2×8
Gas Oil	1,500 load	1×8
Gasoline	700 load	2×8
Petrol (Jet)	400 load	1×8
Lub Oil	300 load	1×6
LPG	200 load	1×6
LPG/B	200 load	1×6

Moorings: Vessels are to be moored with following lines, as a minimum:

Pier	Head Lines		Breast Lines		Springs	
	Fore	Aft	Fore	Aft	Fore	Aft
A	4	4	2	2	2	2
B	3	3	2	2	1	1
C	3	3	–	–	1	1

DENSITY: 1026.

OPENING/CLOSING HATCHES: Work always done by crew.

CERTIFICATES:
Ship Register.
Safety Radio.
Safety Equipment.
Load Line and Derat Certificates.

IDENTIFICATION CARDS: See "Lisbon."

CONSULS:

	Tel.		Tel.
Austria	384757	Guatemala	685479
Bangladesh	688912	Guinea Bissau	496350
Belgium	25956	Iceland	322512
Bolivia	27888	Italy	26243
Brazil	24463/29140	Japan	690961/694698
Cape Verde	22777/380717	Korea	699527/313902
Chile	28421	Mexico	574151
Colombia	22037	Morocco	28877
Costa Rica	9716364	Netherlands	24867
Denmark	694584/695071	Nicaragua	29731
Dominican Rep.	21938	Norway	322512
Ecuador	316753	Paraguay	563950
Egypt	570379	Peru	323435
Finland	320922	Spain	563915
France	23349/313448	Sweden	307966/320736
Germany F.R.	65132	Thailand	316200
Great Britain	684789	Turkey	312182
Greece	698968	U.S.A.	63094/690008

REPAIRS: All types of deck engine and electrical repairs can be carried out.

DRY DOCKS: None.

REPATRIATION: No difficulties for crew changes or repatriation.

AIRPORT: Distances: Oporto 17 km., Leixoes 7 km. Airport served twice a day through Lisbon Airport.

TIME: GMT plus 1 hour.

HOLIDAYS: 1989.
Official and Local Holidays: 1st January, 7th February, 24th March, 26th March, 25th April, 1st May, 16th May, 25th May, 10th June, 24th June, 15th October, 1st November, 1st December, 8th December and 25th December.

POLICE/AMBULANCE/FIRE: Leixoes Police 9951706; Oporto Police 28266; Ambulance 115; Fire Brigade Oporto 484121, Leixoes 930018 or 932701.

TELEPHONES: Only available on certain quays.

SERVICES: Limited tank cleaning may be performed. Discharge of tank washings subject port authorisation. Compass adjusting possible. Diver service available.

SHORE LEAVE: Crew allowed ashore.

SHIP SUPPLY SERVICE: Provided by the Port Administration. Tel: 9953000. Telex: 22674 P.

DEVELOPMENTS: *Leixoes:* North side of Dock No. 4: New facilities nearing completion. Length 500 m. Depth 40 ft. Facility will be used for discharge of cereals.

Surfacing and draining of open sea area North of No. 4 Dock.

Routine dredging of the docks, Douro Bar and manoeuvring area and approaches to Tanker Berth "A".

AUTHORITY: Administracao dos Portos do Douro e Leixoes, Av. da Liberdade, 4450 Leca da Palmeira, Portugal. *Tel:* 9953000. *Telex:* 22674 P. *Contact:* Eng. Jose Casimiro dos Santos Espinha, President.

AGENT: A. J. Goncalves de Moraes, Lda., 18 Rua Nova da Alfandega – P.O.Box 636 – 4011 Porto Codex. Tel: 323741. Telex: 22381A & B. FAX: 323217 (direct line). Cables: Amoras. After office hours: 9620694. Shipping and Forwarding Agents, Chartering and Brokers, Insurance Agents, Stevedoring.

LISBON: 38.42 N. 09.11 W. (See Plan)

LOCATION: Lat. 38° 42′ 30″ N., Long. 9° 11′ 10″ W. Capital and principal port of Portugal.

PORT LIMITS: A vessel is considered to be an "arrived vessel" when, after entering the Tagus Estuary, she has left behind the alignment between the Torre of S. Juliao and the Torre of Bugio.

DOCUMENTS:
Health Certificate.
6 Crew Lists.
10 Passenger Lists.
2 Lists of Articles held by the crew: cameras, binoculars, radios, cigarettes, spirits, etc.
2 Stores Lists.
All to be signed by ship's Master.

Certificates for vessels up to 500 tons: – Tonnage Register, Loading and Navigation Certificates.

For vessels over 500 tons: – Tonnage Register; Load Line; Radio; Safety Equipment and Navigation Certificates.

Cargo Documents:
10 Manifests.
3 sets of Bills of Lading.
For cargo in transit: 2 Manifests.

MAX. SIZE: See "Berthing".

HEALTH: Ordinary visit made at central area with vessel anchored, from 0800 hrs. to 1900 hrs. Master may ask for Free Pratique to get ship moored immediately on arrival. For this, necessary to cable the Health Authorities, addressing cable as follows: Sanidade Maritima de Lisboa, Rocha do Conde de Obidos, maximum 15 hours and minimum 4 hours prior to the ship's arrival. Text of cable: "ship's name, nationality, code (MIBDU), day and time of arrival" signed by the Master.

PILOTAGE: Compulsory. Cascais is the main station for Pilots at Lisbon. There is another station on the Tagus, near Belem Tower. The charge varies according to the tonnage of vessel, from $878.00 in or out for vessels up to 100 tons to $62,888.00 for vessels of 185,000 tons. At night, plus 50%. These charges are obligatory whether Pilots are employed or not (tourist vessels half rate). Exemptions from payment are as follows: Vessels calling solely to land sick crew or passengers, or vessels made to shift by order of the Port Authority, half rates for pilotage in creeks of River Tagus. Reduction of 50% as follows: (1) Tourist vessels; (2) vessels calling solely for supplies of provisions, fuel or water; (3) vessels calling for shelter only. The attendance of Pilots at all movements inside the River Tagus is compulsory.

For this assistance (mooring or unmooring and shifting in the harbour) the charge varies.

APPROACHES: The Port of Lisbon is situated on the Tagus estuary which is 25 km. long and between 2 km. and 14 km. wide with a highest tidal rise of 4.4 m. At the bar which gives access to the port is a channel with a depth of 14 m. (17 m. at HT).

RADIO: ETA to be advised by Master, to Agent, 24 and 12 hours before ship's arrival.

VHF: Channels 1–84 used in the port. Pilots on Channel 14, Port Authority on Channels 16-68, Maritime Police on Channel 19. Ship-to-Ship on Channels 06 and 08. Tugs on Channels 09, 10 and 69.

TUGS: 5×420 h.p. – 2,500 h.p.

BERTHING:
Accommodation: The port wharves have an overall length of 13,000 m. on the North Bank with water depths varying between 4 m. and 12 m. On the South Bank the wharves have a total length of 3,000 m. with depths of from 3 m. to 13 m. Total covered warehouse area, 220,000 sq.m.

Berth or Dock	*Length* (m.)	*Depth†* (m.)	*Remarks*
RIGHT BANK:			
Pedroucos (Exterior)	430	4.5	
Pedroucos (Internal)	900	3.5 – 6.0	
Alcantara Dock	1,228	8.0	Ro-Ro
Rocha	450	8.0 – 13.0	
Rocha-Alcantara Quay	1,100	10.0 – 13.0	General cargo Ro-Ro
Rocha (Internal)	350	6.0	
Santos	666	8.0	General cargo
Navy Dock (Exterior)	120	8.0	
Navy Dock (Internal)	480	4.0	
Jardim do Tabaco	451	8.0	
Santa Apolonia	1,260	8.0	General cargo
Santa Apolonia Container Terminal	870	8.0 – 13.0	Containers
Terreiro do Trigo Dock	460	4.0	
Xabregas-Beato-Poco do Bispo	1,635	8.0	Grain discharge Rate 1,000 t.p.h.
Poco do Bispo Dock	645	4.0	
LEFT BANK:			
Portinho da Costa Quay (NATO)	160	10.0 – 11.0	
Margueira Shipyard (LISNAVE)	1,300	6.0 – 9.5	
Coina Quay (National Metal Co.)	340	5.0 – 9.0	
Barreiro Quay (QUIMIGAL)	730	3.0 – 8.5	Chemical products (18,000 d.w.t.)
Palenca Quay (TAGOL)	Dolphins 70 m. apart	12.0 – 16.0	Soya oil extract, discharge rate 600 t.p.h. Storage 50,000 tons

†Depths indicated are possible depths. Actual depths should be checked with the Port Authority.

Principal Piers

Name	*Length* (m.)	*Depth** (m.)	*Remarks*
RIGHT BANK:			
Matinha	**	7.0 – 10.0	Chemical products
Cabo Ruivo (Soponata)	460	8.0 – 11.0	Oil and derivatives 65,000 g.r.t.
Santa Iria (BP)	10	4.0	Gases (liquid) and oils
Alhandra (C.C. Tejo)	180	3.0	Cement
LEFT BANK:			
Trafaria (NATO)	100	11.0	Fuel
Porto dos Buchos (Esso)	45	10.0 – 12.0	Fuel and chemicals
Porto Brandao (Petrogal)	20	10.5	Fuel
Banatica (Shell)	105	10.0	Fuel and chemicals (2 pier bridges)
Olho de Boi (C.P. Pesca)	125	10.0	Fish
Ginjal (CANPB)	90	10.0	Fish
Alhos Vedros (Baptista e Irmaos)	49	3.0	
Rosairinho (Cidla)	30	7.0	Liquid gas
Seixalinho	50	3.0	Local traffic

*Possible depths are shown. For clarification of usable depths at specific times the Port Authority should be consulted.

**Berth has dolphins which permit vessels of up to 25,000 d.w.t. to berth.

PORT EQUIPMENT/FACILITIES:
45 electric cranes on rails, capacity 1.5 tons – 12 tons, outreach 13.5 m. – 32 m.
3 Coles mobile cranes with capacity 15 tons and 75 tons.
3 container cranes with 30 tons, 30 tons and 35 tons capacity.
3 fork stackers with 2 tons, 2.2 tons and 4.5 tons capacity.
4 tractors, 5 tons – 30 tons capacity.
28 trucks, 1 ton – 12 tons capacity.
5 transtainers for 20 ft., 30 ft., 35 ft. and 40 ft. containers.
10 stackers, 12 tons – 40 tons capacity.
1 heavy lift crane, capacity 488 tons.
2 floating cranes, capacity up to 600 tons.

Tank Cleaning Station: Located at Porto Brandao; belonging to LISNAVE. It has 2 Dukes of Alba 120 m. apart, a service platform with 5 mooring points for vessels up to 60,000 d.w.t. and depth of 12 m.

The station occupies an approximate area of 60,000 sq.m. and has a storage capacity of 20,000 tons of oil and residue.

Cold Stores: Apart from the warehouses of the fish dock, there are those of FRISSUL – Entrepostos Frigorificos Lda. (Olivais) with a capacity of 15,000 tons, and Sociedad Continental de Alimentacao (Jardim do Tabaco) with 2,300 sq.m. and Comissao Reguladora do Comercio do Bacalhau (Alcantara) with 9,500 tons.

CONTAINER HANDLING FACILITIES: *Container and Ro/Ro Facilities:* The Santa Apolonia Container Terminal, which is operated directly by the Port of Lisbon Authority has 870 m. of quay length, 8 m. to 10 m. depth alongside, 8 ha. of storage and is equipped with three Mague 35 ton capacity container gantries. There are 5 Paceco 35 ton capacity rubber-tyred transtainers, 2 mobile cranes, 8 frontal stackers and 30 tractors and trailer units. Their maximum handling capacity reaches 120,000 containers/year.

The Alcantara-Sul Ro/Ro terminal, operated by Liscont, concessionnaire with German participation (of Eurokai, container operator in the Port of Hamburg) counts with 650 m. of quay length, 10 m. to 13 m. depth alongside and 8.5 ha. of storage. This terminal still under development, is equipped with 2×45/60 ton gantry cranes. The round the clock service after having been established, as foreseen, in this terminal, whose main scope is the development of a complete transhipment service, will enable it to handle from 130,000 to 150,000 containers a year.

Roll-on/Roll-off terminal at Alcantara for ferry boats and cargo. Ramp capacity 40 tons.

BULK HANDLING FACILITIES: *Ore and Bulk Cargo Facilities:* A grain silo of 110,000 tons capacity is sited at Poco do Bispo with unloading by elevator at 1,000 t.p.h., operated by SILOPOR.

Trafaria Grain Silo, also operated by SILOPOR has a main jetty with close water depths of 14 m. – 17 m. and silos with capacity for 200,000 tons, being considered one of the largest in Europe. Intake Jetty: 2×120,000 d.w.t. vessels (17.2 m. depth) on outside and 1×60,000 d.w.t. (13.2 m. depth) on inside. 3 unloaders, combined rate 3,000 t.p.h. (3×1,000 t.p.h.). Export Quay: Length 240 m. Depth 13.5 m. Can receive vessels up to 30,000 d.w.t. Loading 2,000 t.p.h. (4×500 t.p.h.).

The Palenca Terminal for oleaginous cargo (soya oil), etc., operated by Tagol, has a storage capacity for 90,000 tons of seed and includes a factory for edible oil with silos of 20,000 cu.m. capacity.

A cement storage terminal operated by Secil is available at Poco do Bispo, and, at Alhandra, another cement terminal is operated by Cimpor. At Barreiro, iron ore is discharged for the steelworks at Seixal.

STEVEDORES: Ordered by Agents according to berth and cargo.

MEDICAL: Masters to advise by radio prior arrival if medical attendance required on board. Hospital facilities available.

TANKERS: Shell and Petrogal berths exposed to 9 knots HWST current. Essential to use good new mooring lines.

Cabo Ruivo Terminal: This is operated, on a concession basis, by Soponata and has depths of 11 m., capable of mooring tankers up to 65,000 d.w.t. alongside its jetty.

Fuel Oil Facilities: The Port of Lisbon fuel oil installations belong to private companies and are concentrated along both banks of the Tagus at the following points:

Sacavem and Cabo Ruivo (with oil refinery facilities), Montijo, Barreiro, Santa Iria, Porto Brandao, Porto dos Buchos.

Also see "Berthing".

Report: *Cautionary Advice:* The entrance to the River Tagus (Rio Tejo) is fully exposed to the Atlantic Ocean, especially from the S.W., and heavy, breaking seas are experienced at the Bar during and after Western semi-circle gales. The worst conditions arise during Southwesterly gales on an ebb tide. During a maximum of 30 days per year Pilots cannot board in the normal boarding area. The channel through the Barra Grande, the normal entrance for larger ships, is poorly defined. The 047° leading lights Esteiro and Gibalta have little sensitivity at the Outer Reaches of the channel and can be obscured by poor visibility and Pilots usually use radar to identify ship's position. Day marks using a beacon on Mama Sul in line with beacons at Caxias and at Boa Viagem delineate the Northern and Southern extremities of the channel only after crossing the Bar where the dredged width is only 200 m. wide and unmarked. The flood tide sets on to Forte Bugio and Cachopo do Sul, the ebb tide sets on the Cachopo do Norte. When approaching the pilot station at Cascais from the South and when proceeding from the pilot station to the entrance channel care must be taken not to be set on to Cabeca do Pato.

The channel is dredged to 15.0 m. chart datum but is continually changing and the echo sounder should be used continuously.

Fishing boats operate in the Outer Reaches and to seawards of the channel in fine weather, sometimes without lights at night.

Pilotage: Pilots board from small boats launched from the cruising pilot cutter. A good lee is required. Pilot hoists are acceptable but if no hoist is available on ships with over 9 m. freeboard, accommodation ladder combined with pilot ladder is required. If weather is too bad for boarding in the Cascais Bay area the cruising pilot cutter will sometimes lead a ship through the Barra Grande to pick up its Pilot off Ponta de Lage. The pilotage service at Lisbon is operated as an association of self employed Pilots, 85% of whom are recruited from the Portuguese Merchant Navy and 15% from the Portuguese Navy. There are at present 70 Pilots. For the first two years after recruitment Pilots are restricted in the size of ship they may handle to 10,000 g.r.t. after which they become unrestricted. Special Pilots are used to handle ships into and out of Lisnave Shipyard.

Traffic Control: Port Regulations lay down certain traffic priorities and other controls that are exercised by the Pilots.

Anchorages: When weather stops the pilotage service it is usually unwise to anchor at the mouth of the River Tagus.

The main anchorage within the port is at the confluence of the Cala de Samora and the various channels S.E. of the City of Lisbon. Anchor berths are numbered and these are shown on BA Chart No. 3264. This is a good sheltered anchorage but the current is very strong and swinging room limited by other ships at anchor.

When the main anchorage is full, ships are anchored on the South side of the river, immediately seaward of the bridge across the Tagus.

Another anchorage used is on the North side of the river, about one mile North of Bico da Calha at the entrance.

Trafaria Terminal (Esso): Cautionary Advice: The berth is subject to silting, therefore, ensure that the ship's draft is no more than advised.

Swell is sometimes felt at the Trafaria Berth.

As at all riverside berths in Lisbon, the current is very strong particularly on the ebb tide.

DENSITY: 1025.

FRESH WATER: Usually supplied by barge unless vessel lying alongside a pier where water provided.

FUEL: Shell, Esso, Petrogal. These companies can supply through their own barges or alongside their private bunkering stations on pier.

IDENTIFICATION CARDS: Crew members going ashore will need a special yellow card issued by Agent and stamped with police visa. The cards are supplied by Agent to be completed on board in accordance with crew list particulars. With these shore passes crew members may circulate between Lisbon and Cascais, and Lisbon and Sintra.

Master and/or Owners will be fined Esc. $1,000 for any crew member found ashore without that card. A double fine will be imposed in case of recurrence.

Similar cards, but white, are required for passengers in transit.

CONSULS: Most countries are represented in Lisbon.

REPAIRS: There are several repair workshops. The biggest is Lisnave Shipyard with several docks, one for vessels up to 300,000 tons and a new dock where vessels up to 1,000,000 tons can be repaired.

AIRPORT: Within the Lisbon area. Regular International services.

REPATRIATION: No difficulties for crew changes or repatriation.

POLICE/AMBULANCE/FIRE: Maritime Police 607732; Ambulance 115; Fire 322222.

TIME: End September-end March – GMT. End March-end September – GMT plus 1 hour.

HOLIDAYS: 1st January; 1st April; 25th April; 1st May; 2nd June; 10th June; 15th August; 5th October; 1st November; 1st December; 8th December; 25th December.

AUTHORITY: Port of Lisbon Authority, Cais do Sodre, 1293 Lisbon Codex, Portugal. *Tel:* 362321, 370727. *Telex:* 18529 P. *Contact:* Comm. F. Rodrigues Catanas, Deputy Manager.

Administracao do Porto de Lisboa, Rua da Junqueira, 94 1300 Lisboa. *Tel:* 362321. *Telex:* 18529 Porli P.

AGENT: A. J. Goncalves de Moraes, Lda., 22 Rua do Alecrim – P.O.Box 2772 – 1119 Lisboa Codex. Tel. 364943 – 366671. Telex: 12296A, B & C. FAX: 371669 (direct line). Cables: Amoras. After office hours Tel: 2750594. Shipping and Forwarding Agents, Chartering and Brokers, Insurance Agents, Stevedoring.

SETUBAL: 38.30 N. 08.55 W. (See Plan)

DOCUMENTS:
5 Crew Lists.
5 Passenger Lists.
Personal belongings of the Crew (portable radio, binoculars, cameras, etc).
Store List.
Health Declaration.

For cargo: Dangerous Cargo List, Cargo Manifest, Transit Cargo Manifest (if any) and copy of Bills of Lading.

PILOTAGE: The pilotage service is supplied exclusively by the Departamento de Setubal do Instituto Nacional de Pilotagem dos Portos which runs a permanent service.

To assure prompt attention requests for Pilots must be made in the following manner:

Entries: To send at least 6 hours beforehand a radiotelegram or a radiotelephone message preferably on S.S.B./AM to Pilotos de Setubal giving the name of the ship, ETA and draft.

This information must be confirmed on VHF or MF two hours before the ship arrives at the bar.

Departures and movement in the River: Between 0800 hrs. and 1800 hrs. on weekdays and 0800 hrs. and 1300 hrs. on Saturdays, Sundays and holidays to communicate by telephone or on VHF with the "Estacao de Pilotos de Setubal" at least one hour beforehand, giving the name of the ship, the time and place where the Pilot is required and the service needed.

Only in cases of emergency will requests be accepted outside these hours.

To effect requests for Pilots, the Pilots use the following means of communication:

VHF — Listening permanently on Channel 14 being able to reply on any of the following Channels as requested: 11, 12, 13, 16 and 73.

MF — Listening in permanently on 2182 kHz, replying on 2132 kHz, their working frequency. Once contact has been established ships must change to this frequency. Communications can be made in SSB or AM according to the equipment of the ship.

Telephone No. 22914/26404.

Telex: 43271 Inppds P.

The Pilots embark by motor launch based in Setubal and wait near the fort at Portinho da Arrabida when necessary and the weather permits.

To increase speed and safety on embarking and disembarking, ships of more than 4,000 tons gross, when light, and those of greater capacity in any condition, unless they have a door in the side or other modern means for Pilots to board and leave, and if the weather permits, should lower the gangway to about 3 m. above sea level and fix a rope-ladder so that it stays alongside the lower platform of the gangway.

Bad weather from the South, causing breaking waves at the edge of the shoals, sometimes prevents the pilotage service from operating.

In such conditions, ship must contact the Pilots to discover the state of the bar and limitations imposed on the pilotage service.

ANCHORAGES: Only inside harbour with a Pilot aboard.

RESTRICTIONS: No restrictions on night entry. At low tide vessels only up to 22 ft. draft. Max. draft 27 ft., length/breadth no restrictions.

HEALTH: Free Pratique automatically given when ships come from other Portuguese port. Otherwise, Health Certificate is to be handed over to Health Authorities during clearance procedures.

Maritime Health: This station is located next to the Commercial Dock, Avenida de Luisa Todi 80. Apart from normal sanitary visits, observation of sick crew members, etc., the station issues Derat Certificates to vessels of all nationalities. Tel: 2 39 22.

RADIO: Call through Lisbon Radio.

Coastal radio station known as "Setubal-Pesca", with call sign CUX 9. Listens out permanently on 2182 kHz and replies on 1848 kHz. On receipt of the reply, vessels must change to 2284 kHz.

The station transmits weather bulletins and Notices to Mariners at 1105 hrs. and 1405 hrs., and makes general calls at 0205, 0505, 0805, 1105, 1405, 1705, 2005, and 2305 hrs.

TUGS: 5 available.

BERTHING: All installations are along the right (North) bank of the Rio Sado Estuary.

Outer Berths:

No. 1: Length 60 m. Depth 6.0 m. Located to the West of the Fishing Dock, used for salt traffic but can be used for other goods.

No. 2: Length 120 m. Depth 5.0 m. Located to the East of the Fishing Dock, used for berthing fishing craft.

No. 3: Length 130 m. Depth 7.5 m. Located to the West of the Commercial Dock, used for general cargo.

Inner Berths: Within the Commercial Dock.

No. 5: Length 30 m. Depth 8.0 ft. at LWST. One electric crane with capacity of 1 ton.

No. 6: Length 30 m. Depth 8.0 ft. at LWST. One electric crane with capacity of 1 ton.

Nos. 7 and 8: Both with reinforced concrete frontage. Used for passenger handling.

Fontainhas Quay: Length 610 m. Depth 9.5 m. – 10.5 m. Used for general cargo and served by railway line. Water and electric power points available. 11 electric cranes, 1.5 tons – 25 tons capacity.

Passenger/Ro-Ro Facilities: There is a passenger handling terminal serving ferries. In the Commercial Dock there is a Ro-Ro berth serving vessels running from Setubal to Troia.

Equipment: 6 mobile cranes, capacity 2 tons – 45 tons, 5 stacker trucks (1×22 tons for 20 ft. containers, 1×6 ton and 3×3 tons).

Private equipment also available including 1×50 ton Coles mobile crane, 23 stacker trucks and 9 loading shovels.

Private Facilities:

Secil – Companhia Geral de Cal e Cimento: Length 104 m. Depth 11 m. Products handled: cement, clinker, coal and sand.

Propam – Consorcio Portugues de Panificacao, S.A.R.L.: Depth 6 m. Pontoon quay.

Pirites Alentejanas, S.A.R.L.: Length 125 m. Depth 9 m. Products handled: Pyrites.

Sapec – Societe Anonyme de Produits et Engrais Chimiques du Portugal: Pontoon – Length 80 m. Depth 5.5 m. Quay – Length 100 m. depth 9.0 m. Products handled: Pyrites, clay, phosphates.

Mague – Construcoes Metalomecanicas: Length 91 m. Depth 9 m. Products handled: Cranes, rolling bridges, alternators. Quay can take loads of 10-20 tons/sq.m.

Portucel – Empresa de Celulose e Papel de Portugal: Length 60 m. Depth 5.0 m. Pontoon berth handling paper pulp and raw materials.

Setenave – Estaleiros Navais de Setubal, S.A.R.L.: Construction and repair of vessels. Depth 8.0 m. – 10.0 m.

Eurominas – Electro-Metalurgia, S.A.R.L.: Length 130 m. Depth 11.5 m. Products handled: Ferro-manganese and silicon manganese.

STEVEDORES: Ordered by the Agent some time in advance.

MEDICAL: Prior to arrival and in order not to delay ship's clearance, Master should inform by radio if medical assistance required, this only in case of contagious or epidemic diseases.

TANKERS: Shell Maritime installation with private pier. Discharge lines 4 in., 6 in. and 8 in.

DENSITY: About 1026.

FRESH WATER: Supplied from shore to all piers.

FUEL: Supply points available at Berth Nos. 1, 2 and 3 and Fontainhas Quay.

FIRE PRECAUTIONS: No smoking on deck or piers.

GANGWAY/DECK WATCHMEN: Available but not compulsory.

OPENING/CLOSING HATCHES: By crew unless otherwise specified in C/P. Stevedores usually help.

CUSTOMS ALLOWANCES: About 200 cigarettes and 2 bottles of spirits per man.

CARGO GEAR: Supplied by stevedores.

IDENTIFICATION CARDS: Supplied and filled in by the Agent. Crew members cannot leave Three Castles area (Setubal-Palmela-Sesimbra) without a special permit from Customs Guards obtained through Agency.

CONSULS:

Finland	tel. 26018
France	" 24612
Spain	" 22018

REPAIRS: All types available. Lisnave Shipyard and Dry Docks at Lisbon within about 50 miles.

Developments: Setenave has built a Shipyard for new building and repairs for very large ships in the estuary of Setubal.

The facilities consists of: 1 dock for ships up to 700,000 d.w.t. 1 dock for ships up to 350,000 d.w.t. New building berth for ships up to 700,000 d.w.t.

REPATRIATION: All facilities.

AIRPORT: Nearest at Lisbon, about 50 miles away.

TIME: GMT from late September to late March. From late March to late September – GMT plus 1 hour.

HOLIDAYS: 1988: January 1st, April 2nd and 25th, May 1st, June 2nd and 10th, August 15th, October 5th, November 1st, December 1st, 8th and 25th.

Movable holidays: February 16th (Carnival), February 7th, 14th and 17th, May 27th, April 3rd and May 22nd.

DEVELOPMENTS: An LNG terminal is to be built.

AUTHORITY: Junta Autonoma do Porto de Setubal, Rua Antonio do Nascimento 7, 2900 Setubal, Portugal. *Tel:* 20095. *Telex:* 43200.

AGENT: A. J. Goncalves de Moraes, Lda., 281, Av. Luisa Todi 2900, Setubal. Tel: 22399. Telex: 16212. Cables: Amoras. After office hours: 2750594. Shipping and Forwarding Agents, Chartering and Brokers, Insurance Agents, Stevedoring.

SINES: 37.57 N. 08.52 W. (See Plan)

PORT LIMITS:

North: Parallel 38° 03′ N.
South: Parallel 37° 52′ N.
West: Meridian 8° 55′ W.
East: Shore Line.

Vessels considered to be arrived when 3 miles off West breakwater head.

DOCUMENTS:

6 Crew Lists.
6 Stores Lists.
6 Crew Personnal Effects Lists.
1 Health Declaration.
1 Copy Bill of Lading
1 Copy of Manifest.

Ship's papers for clearance: Registry, Safety Construction, Safety Equipment, Safety Radio, Load Line and Derat Certificate.

PILOTAGE: Compulsory. Pilot service available 24 hours a day. To be ordered by Agent. Pilot station keeps permanent watch on VHF Channel 12.

ANCHORAGES:

Vessels up to 20,000 d.w.t.: Between meridian 8° 52.4′ W. and 8° 52′ W. and parallels 37° 56.7′ N. and 37° 56′ N.

Vessels from 20,000 d.w.t. to 150,000 d.w.t.: between lines defined by the following points:

(C)	37° 56.0′ N.	8° 52.0′ W.
(D)	37° 56.0′ N.	8° 52.4′ W.
(E)	37° 55.7′ N.	8° 51.5′ W.
(F)	37° 55.5′ N.	8° 51.5′ W.
(G)	37° 55.5′ N.	8° 52.4′ W.

Vessels of more than 150,000 d.w.t.: Between lines defined by following points:

(F)	37° 55.5′ N.	8° 51.5′ W.
(G)	37° 55.5′ N.	8° 52.4′ W.
(H)	37° 54.0′ N.	8° 51.0′ W.
(I)	37° 54.0′ N.	8° 52.4′ W.

Vessels are advised to contact Sines Pilot Station to confirm positions.

RESTRICTIONS: Vessels of more than 50,000 d.w.t. may berth in daytime only. Vessels for Berth No. 2 of more than 150,000 d.w.t. berth and unberth in daytime only. In an emergency they may unberth any time.

MAX. SIZE: Max. LOA 350 m. Max. draft 22.5 m.

VHF: The Maritime Services are on Channels 16 and 12. Many additional Channels available.

TUGS: 3×35 ton bollard pull and 3×25 ton bollard pull.

BERTHING: See "Table".

STEVEDORES: Stevedores available for handling of stores, spares and small amounts of cargo. Application for stevedores should be made to the vessel's Agent.

DENSITY: 1025.

DIRTY BALLAST: Facilities available for receiving ballast and residue on Berths No. 2, 3, 4, 5, 6 and 7.

FRESH WATER: Available in unlimited quantities. Rate of delivery 60 t.p.h.

FUEL: Supplied by the refinery. Application to be made to the vessel's Agent.

REPAIRS: Repair shops available in Sines. Authorisation for repairs should be obtained from the Port Authority. Application for repair service should be made by the vessel's Agent.

SURVEYORS: Classification Societies represented in Sines and Lisbon.

CUSTOMS REGULATIONS: Same as other Portuguese ports.

REPATRIATION: Possible.

Berth	Diameter Loading Arms	Diameter Loading Arm (Bunkers)	Rate (cu.m.p.h.) Maximum For Loading Arm	Rate (cu.m.p.h.) Maximum Start/End	Rate (cu.m.p.h.) Maximum During Load	Rate (cu.m.p.h.) Maximum During Unloading	LOA Maximum (m.)	LOA Minimum (m.)	Maximum (d.w.t.)	Minimum (d.w.t.)	Maximum Draft (m.)	Height of Manifold Above Water Line Maximum (m.)	Height of Manifold Above Water Line Minimum (m.)	Notes
Post 2	20 in. – CR	12 in. – GO BK 12 in. – MD BK 12 in. – IFO 180 12 in. – BKC	6,400	CR – 4,000	——	18,000	350	240	350,000	100,000	22.5	23.0	5.6	
Post 3	20 in. – CR 20 in. – FO 12 in. – GO	10 in. – GO BK 10 in. – MD BK 10 in. – IFO 180 10 in. – BKC	2,250	CR – 4,000 FO – 1,000/2,300 GO – 350/1,000	5,000 5,000 1,750/2,500	9,000	282	135	135,000 See Note A	10,000	16.0 17.0*	16.0	3.8	*Restricted to tide.
Post 4	12 in. – CR GO 12 in. – GA JP4 12 in. – NA KE 12 in. – FO	10 in. – GO BK 10 in. – MD BK 10 in. – IFO 180 10 in. – BKC	2,250	CR – 4,000 FO – 1,000/2,300 GO – 350/700 GAs – 600 GAn – 260 JET – 600 NA – 260/450	5,000 5,000 1,300/2,500 1,670 1,250 1,200 750	9,000	295	135	150,000 See Note A	10,000	16.0 18.0*	16.0	2.5	*Note A:* Vessels of more than 100,000 d.w.t. have to ballast middle of discharge to keep manifold height. CR Crude FO Fuel Oil GO Gas Oil
Post 5	12 in. – CR FO 12 in. – GO NA 12 in. – GA KE 12 in. – JP4 8 in. – BU PR 3 in. – LPG return	10 in. – GO BK 10 in. – MD BK 10 in. – IFO 180 10 in. – BKC	2,250 LPG 300	CR – 4,000 FO – 1,000/2,300 GO – 350/700 GAs – 600 GAn – 260 JET – 600 NA – 260/450 BU – 150 PR – 150	4,500 5,000 1,300/2,500 1,670 1,250 1,800 750 300 300	4,500 2,350	282	120 LPG 110	135,000 See Note A LPG 45,000 cu.m.	10,000 LPG 15,000 cu.m.	16.0 17.0*	16.0 LPG 14.0	2.5 LPG 5.2	GA Gasoline JP4 Jet Fuel NA Chemical Naptha KE Kerosene BU Butane PR Propane GO BK Gasoil Bunkers MD BK Marine Diesel Bunkers
Post 6/7	6 in. – JP4 NA 6 in. – KE GO 6 in. – GA FO 8 in. – BU PR 3 in. – LPG return **8 in. – CR C4 ** Refinado 1	6 in. – GO BK 6 in. – MD BK 6 in. – IFO 180 6 in. – BKC	550 LPG 300	FO – 65/110 GO – 65/110 GAs – 110 GAn – 65 JET – 110 NA – 65 BU – 150 PR – 150	350/550 330/550 550 330 550 330 300 300		106	70	—	—	9.0 10.0*	9.0 LPG 9.0	2.5 LPG 3.3	IFO 180 } BKC } Fuel Bunkers CR C4 Crude C4 **Only at Post 6.
Post 9	8 in. – Butadiene Propylene Fraction C4 8 in. – Pygas	4 in. – GO BK 4 in. – MD BK 6 in. – IFO 180 6 in. – BKC (Flexible)	800 Prop. @−48° Buta. @−04° Fraction C4 Pygas NAQ at Ambient Temperature	150	Propylene 800 Butadiene 800 Pygas 450 Fraction 4 450 NAQ		160	78	12,000 cu.m.	3,000 cu.m.	9.0 10.0*	10.1	1.0	Minimum height of manifold above deck 0.5 m. Minimum distance of manifold to bow/stern 45 m.
Post 10	8 in. – Ethylene Pygas	4 in. – GO BK 4 in. – MD BK 6 in. – IFO 180 6 in. – BKC (Flexible)	800 Ethylene @−104°	150	Ethylene 800		172	78	20,000 cu.m.	3,000 cu.m.	10.0 11.0*	14.6	3.0	Minimum distance of manifold to ship's side 1 m.
Coal (Provisional) ***					2,000 tonnes p.h.		245	170	75,000	30,000	12.5 13.0*			*Restricted to tide. ***Only self-unloaders.

AIRPORT: At Lisbon 165 km. distance. Airfield at S. Torpes (15 km. distance) with 1 weekly flight to Lisbon.
TIME: GMT. except in Summertime (from last Sunday of March to last Sunday of September plus 1 hour).
HOLIDAYS: The Terminal works all days except Christmas Day and New Year's Day.
SHORE LEAVE: Possible. Shore passes issued by Customs.
DELAYS: In Winter, vessels may suffer delays due to bad weather.
SAFETY: The following are some of the safety rules.

Loading and Discharging Operations:

Loading and discharging operations can be commenced only after the Master or his Deputy fills out and signs the Safety Check List.

1. The loading or discharging of static accumulator products such as: Gas oil, Kerosene, Jet fuel, Naphtha, Gasoline, etc., should commence in accordance with the following scheme (a cargo plan of the ship should be produced to the Safety Inspector who, together with the Operations Team Supervisor, will analyse it).

Any loading or discharging shall begin at a slow flow rate (not higher than 1 m./sec.):

(a) In case of loading, and until the ship's lines are full, free from air and water, and the product height in the tank bottom is sufficient (between 0.6 m. and 1 m.) to prevent both air dispersed product particles and liquid surface turbulence.

(b) In case of discharging, until the ship lines and loading arms are full and Refinery confirms that the product is rising in the tank.

Only after beginning in accordance with (a) or (b) above, may the loading or discharging speeds be increased up to 5 m./sec. or to the maximum the ship and Terminal can support, in the event that ship/terminal cannot reach that limit.

2. *Non static accumulator products* (crudes, fuel oil) loading or discharging should commence at a slow rate until:

(a) In case of discharging, the Refinery confirms that the product is filling the tank.

(b) In case of loading, the Chief Officer confirms that product is entering the tank or tanks in accordance with the cargo plan.

As soon as the above conditions are sustained the flow rate can be raised to the required rate.

3. *Loading or Discharging Operations Completion – Pressure Surges:*

The line length between Terminal and Refinery is about 8 km.

The following precautions should be taken while pumping in or off cargoes at high flow rates:

(a) The cargo pump rate should be slowly reduced when finishing or whenever there is a stoppage.

(b) Flow rates should change slowly by controlling the cargo pumps r.p.m.

(c) If the flow rate reductions of loading/discharging operations interruptions are controlled by valves they should be slowly reduced or closed.

Usually motor-valves have an acceptable closing speed which does not cause pressure surges when flow rate reductions of loading/discharging interruptions take place.

Simultaneous loading and deballasting operations are permitted if a previous agreement has been settled between Master and the cargo loader or receiver.

Ballast: Ballast in the cargo tanks cannot be pumped out into Sines Harbour waters.

On arrival Masters must declare the ballast loaded in the cargo tanks.

Ballast will be pumped out into inland ballast tanks or will remain on board. Terminal Safety Inspector may request the ballast tank measurements together with the ballast valves sealing.

The permanent ballast can be pumped out to the sea. Before pumping the permanent ballast into the sea, the Master must be sure it is not contaminated with petroleum products. Terminal Safety Inspector may require a sample of the ballast which will be sealed in the presence of the Master or his Deputy.

Crude Oil Washing – Inert Gas: Sines Terminal gives permission for crude oil washing (C.O.W.) during discharging. Permission to be requested through Agent 48 hours in advance.

However, this operation can only be permitted if the ship has an inert gas system in good working condition.

The tank atmosphere will be considered inert when the percentage of oxygen in it is not higher than 8%. Nevertheless, during operations, the oxygen percentage in the tanks cannot be higher than 6%.

If by any means the oxygen percentage increases to over 8% or its evaluation is doubtful, the washing procedures should cease at once.

The washing operations also cease if there are leakages or traces of leakages in the deck lines.

If the condition of the pipes is not satisfactory under a visual inspection the washing is not permitted.

Transhipment: This type of operation in the Sines Harbour is subject to the permission of the Port Authority and A.P.S. (Port Administration) who will set up the conditions by which the transhipment should be performed.

When this operation is a ship-to-ship transfer the correct functioning of the inert gas system is compulsory.

During approaching and mooring manoeuvres, ballast, deballasting, internal cargo transfers, bunkering, etc., are not permitted.

If there will be a gas concentration over the ships or the wind velocity is lower than 4 knots, the transhipment will cease.

Also there will be a stopping of the transhipment and separation of the ships if the weather conditions become unfavourable for that type of operation.

All the applicable safety rules should be strictly followed during the transhipment.

Gas Freeing and Cleaning of Ship's Cargo Tanks: Under previous permission of A.P.S. gas freeing and cleaning can be performed by a ship at anchor.

With bad weather threatening or wind velocity lower than 4 knots these operations should cease.

Cleaning of tanks alongside will soon be possible for ships equipped with inert gas system and fixed washing systems.

LPG tankers can inert tanks on Piers No. 9 or 10. The owner should contact Companhia Nacional de Petroquimica (C.N.P.) to agree to the operation.

Bad Weather: When there is bad weather threatening, all operations must cease, the tank lids must be closed and secured and the loading arms disconnected. In the case of bad weather, when it is likely the ship will exceed the safety limits of the loading arms, all operations should be brought to a stop.

Masters are requested to strictly follow the Operations Team Supervisor and/or the Terminal Safety Representative instructions.

Even with surplus mooring lines, there will still be a threat to the ship and/or the Port, and vessel must prepare to unberth.

In the case of a thunderstorm threatening from windward about 5 km. away the operations should cease and tank lids be closed.

Undertow: The Port of Sines, as with any other open port, is subject to the undertow effects. The phenomenon is due to waves which may have their source either in the North or South hemispheres.

At Sines the undertow effects show up between November and March. During that period the Masters must be more concerned about their ship's mooring. If necessary and taking into account the weather forecast for the laytime, Masters will be supplied with special safety instructions.

Foodstuff, Lubricants or Spares: Foodstuff, lubricants or spares can be shipped aft if permission is granted by A.P.S. after ascertaining that there are no operations on board that involve tank lids opening or zones with gas concentrations (next to the pump house, blowers, etc.).

With ship alongside, shipping of foodstuff and spares can be done over the quay when the packages can easily be carried by hand.

Metallic objects or steel banded packages should be handled with care to avoid direct contact with the steel deck plate.

A ship with an inert gas system can receive heavy packages for shipping at the stern while loading, discharging or ballasting. If there is no inert system in the ship, packages to be loaded must be held until after loading.

Shipping of foodstuff, spares, etc., whether the ship is alongside or anchored can only be made with permission of A.P.S.

Watchmen and Crew: Master must maintain permanently on duty, sufficient number of qualified members of the crew to ensure the execution of manoeuvres, operations, to face an emergency and stand guard at the gangway.

Visitors: Persons who are not crew such as family, visitors, technicians, etc., must carry a special permit issued by the ship's Agents.

Permits issued by the Terminal Authority are to be used for circulation in the Terminal premises only.

Visitors on board are the Master's responsibility.

During loading, discharging or ballasting operations visitors are not allowed to stay on the forecastle or amidship, especially women and children.

Crew Identification and Circulation in the Terminal: Crew are requested to keep with them their IDs (especially the yellow pass given by Customs) which must be shown on request to any Terminal Officials.

Crew and visitors are not permitted to walk around the Terminal Zone and when in it Safety Rules in force should be strictly followed.

Mooring Lay Time: The ship is not permitted alongside more than 2 hours after operations are completed.

GENERAL: The anchorages are provisional. No difficulties arise in Summer. In Winter, the decision to anchor is at the option of the Master. It is recommended that in the event of bad weather, anchorage be suspended and that vessels should heave to off the coast.

DEVELOPMENTS: A terminal to receive coal has been constructed and is expected to start operations in 1990.

SHIPMASTER'S REPORT: October 1987.
Chart: BA. Chart No. 3276
Documents:
6 copies Crew List.
2 copies Crew Declaration.
2 copies Manifest.
1 copy Health Declaration.
6 copies Cargo Manifest.

Bond not sealed. Shore passes are issued by Customs/Immigration and have to be returned before departure.

Approaches: The approaches are visually identified and on the radar.

Anchorage: Small vessels anchor under the direction of Port Control in approximate position Lat. 37° 56.5′ N., Long. 08° 52.2′ W. between the Petro Chemical Terminal and the new Coal Harbour breakwater. The anchorage is relatively sheltered.

In fine weather the Pilot boards off the Molhe Oeste Buoy and in bad weather inside the main breakwater. The Pilot boards from a tug and is available throughout 24 hours for berthing and unberthing. Pilot may be contacted on VHF Channels 16 and 12.

The Pilot reports that berthing is undertaken in most weather conditions.

Tugs: 5 × 2,000 h.p. – 2,800 h.p. stationed at the port. A minimum of 2 tugs are required for all vessels and they are too large and too powerful for handling small vessels. One of the tugs went through our ship side rails causing a lot of superficial damage.

Berthing: Vessel berthed at the Petro Chemical Terminal (BA. Chart No. 3276).

The depth at both berths was approximately 12.0 m. but the pilot reports maximum draft normally allowed is 10.0 m.

For ethylene loading and discharging, Berth No. 10 on the East side is used. Vessel berths head out, starboard side to.

For propylene and "C4" discharge, Berth No. 9 on the West side is used. Vessel berths head out, port side to.

It is possible to berth head in if this is required for manifold connections.

The concrete quay is very high and has large fenders.

There is a swell running in the harbour even when conditions are calm.

Tidal range is approximately 2.5 m.

Berthing and unberthing undertaken throughout 24 hours. Moorings consisted of 2 head/stern lines, 2 breast lines and 2 springs at each end. These were secured on to hooks.

2 mooring boats are provided. Shore gangway provided.

Cargo: Berth No. 10: Vessel loaded ethylene. The liquid and vapour arms are 8 in. 150 ASA.

We only connected the liquid arm as the vapour return was impossible to connect. We loaded at a rate of approximately 100 tonnes per hour with two plants. Manifold temperature −99°C.

The charterers were concerned at the temperature due to discharge port temperature requirements and only 20 hours steaming. Just before completion of loading the shore agreed to connect the vapour arm and we loaded an extra 20 tonnes to take account for a vapour return. Two plants are required and shore compressor drew from manifold.

It took 8 hours to return 20 tonnes and reduce temperature from −99°C to −101.9°C.

Bill of Lading figures are calculated using the weight of Air not Vacuum.

Shore personnel connect and disconnect arms.

Berth No. 9: Vessels discharge propylene (Refrigerated storage).

Shore requested maximum of 3 pumps which gave discharge rate of 150 tonnes per hour.

The Terminal like the product very cold. Ours being at −48°C created no difficulties. However some ships arrive with the product at around −40°C and this can cause difficulties.

The liquid arm is 8 in. No vapour return line. It was not used due to product contamination.

It was requested that we berthed starboard side to in order to connect to our extended starboard manifold but this was not satisfactory as the Chicksan arm was too close to the catwalk, so we had to shift around and berth port side to.

Shore tank pressure maximum 90 mbs.

Shore nitrogen is used to purge the Chicksan arm upon completion. They do not allow a vessel to "hot gas" purge ashore.

Bureau Veritas Cargo Surveyor attended.

Fresh Water: Fresh water is available from the quay at a good rate and is metered. The waterman supplies shore hoses.

Stores: It was difficult to store at both berths as the lorry can only proceed to the car park which is about 100 m. from the ship. From there a hand truck is to be used and there is no shore crane.

General: Personnel are not allowed to walk through the Terminal. The use of transport is compulsory and this is arranged through the agent.

The new Coal Harbour to the East of the oil port is very conspicuous.

The breakwater is completed but as yet there are no permanent navigation lights. When vessels pass close to the breakwaters the Pilots/Port Control switch on a temporary red light on the breakwater head.

Berth construction is finished but no discharging equipment has yet been installed. Pilots advise that it will be another 2 years before the Coal Harbour is operational.

AUTHORITY: Administracao do Porto de Sines – A.P.S., Apartado 16, 7521 Sines Codex. *Tel:* 625001. *Telex:* 12027 Sinmar – P. *Contact:* Captain A. D. Rocha Carapeto, Director of Operations and Safety.

VIANA DO CASTELO: 41.41 N. 08.50 W. (See Plan)

DOCUMENTS:
- Health Declaration.
- 3 Crew Lists.
- Provision List (ship's and individual).
- Tobacco Declaration and Entrance Forms supplied by Agents on arrival.
- 2 Manifests and 1 copy of each Bill of Lading concerning cargo to be discharged.
- 1 Transit Manifest if cargo in transit exists.

PILOTAGE: Pilotage compulsory. ETA should be given to Agent with ample notice. Signals; during the day Flag "G" of International Code, and at night 3 long blasts. Boats black with white cabins. Pilots to be taken on board in outer or inner harbour respectively with good or bad weather.

ANCHORAGES: Outer or inner harbour according to weather conditions.

RESTRICTIONS: Entering and sailing only during daylight unless exceptionally good weather. Depth in entrance 6.5 m.

MAX. SIZE: Max. draft 26 ft. on HWST.

HEALTH: Free Pratique authorised for vessels coming from other Portuguese ports. For vessels coming from other countries Health Declaration must be filled in and delivered to the Agents.

RADIO: Call Viana do Castelo Pilots frequency 2182 kHz and listen on 2132 kHz.

TUGS: 2 tugs of 1,160 h.p. and 400 h.p.

BERTHING: Over 1,500 m. of Commercial Quays with 500 m. of Commercial Quays with depth of 9.0 m.

Ro/Ro Terminal: Max. LOA 160 m. Max. draft 7.6 m. Length of quay 233 m. Terminal equipped with 3×40 ton capacity Tugmasters, 1×56 ton at 12 m. mobile crane, 1×42 ton forklift and small forklifts of 2 tons – 7 tons capacity.

BRIDGES: 1 bridge which allows entrance/sailing at any time.

CRANES: 1×5.5 tons, 2×12.5 tons, 2×18 tons, 6×12 tons and 1×56 tons.

STEVEDORES: Ordered by Agents 8 hours in advance.

MEDICAL: No prior advice is necessary.

FRESH WATER: Supplied by shore installations.

FUEL: Only small quantities of gas oil can be supplied.

GANGWAY/DECK WATCHMEN: Available but not compulsory.

OPENING/CLOSING HATCHES: Work usually done by crew.

CUSTOMS ALLOWANCES: No limit, but must be declared.

IDENTIFICATION CARDS: Required.

CONSULS: France 22412. Spain 23018.

REPAIRS: All types of deck, engine and electrical repairs can be carried out.

DRY DOCKS: Three dry docks available.

	Length	Breadth	Draft
Dock 1	203 m.	34.0 m.	18 ft.
Dock 2	127 m.	18.5 m.	18 ft.
Dock Eng. D. Pacheco	104 m.	11.0 m.	16 ft.
Fitting Dock	190 m.	65.0 m.	21 ft.

No special equipment for tank washing is available.

REPATRIATION: No difficulties for crew repatriation.

AIRPORT: Nearest is Oporto Airport, 55 km.

TIME: From end September to end March – GMT. From end March to end September – GMT plus 1 hour.

HOLIDAYS: 1st January; Holy Friday; 25th April; 1st May; Corpus Christi; 10th June; 15th August; 5th October; 1st November; 1st, 8th, 24th and 25th December.

POLICE/AMBULANCE/FIRE: Tel. 115.

SHORE LEAVE: Crew allowed ashore.

DEVELOPMENTS:
1. Roadworks.
2. Marina.

AUTHORITY: Junta Autonoma dos Portos do Norte, Praca do Marques No. 65, 4900 Viana do Castelo, Portugal. *Tel:* 058-26166/7/8. *Telex:* 32609 Porvia P. *Contact:* Jose Monteiro de Morais, Managing Director. Captain Z. Cavaco, Harbour Master.

VILA REAL DE SANTO ANTONIO: 37.10 N. 07.26 W.

DOCUMENTS:
- 2 Health Certificates.
- 3 Crew Lists.
- 1 List of Passengers in Transit.
- 2 Lists of Passengers Disembarking.
- 2 Dangerous Cargo Lists.
- 1 Ship's Register.
- 1 Tonnage Certificate.

PILOTAGE: Black boat, wooden hull, white "P" at bow. Stationed near buoy No. 1 (harbour entrance). All sea-going vessels entering or leaving harbour are obliged to avail themselves of the services of a Pilot. Latest 24 hours before arrival cable "Corporacao dos Pilotos de Vila Real de Santo Antonio" or to Agent. Departing vessels should apply for their Pilots at least 6 hours before the time of departure.

MAX. SIZE: Entrance channel 4,000 m. long, has a depth of 4 m. (12 ft.) at LW. Vessels drawing up to 5.5 m. (16 ft.) can enter under normal circumstances 1 hour before HW, a keel clearance about 1 ft. will be maintained.

TUGS: Tugs up to 105 h.p. available.

BERTHING: 1 pier 300 m. long. Depth at pier 20 ft.

STEVEDORES: Ordered by Agents. ETA to stevedores is necessary. No work allowed on Sundays.

MEDICAL: Inoculations in hospital Marques Pombal - Vila Real de Santo Antonio.

FRESH WATER: Obtainable alongside quay.

FUEL: Gas oil can be supplied in small quantities.

GANGWAY/DECK WATCHMEN: Compulsory.

OPENING/CLOSING HATCHES: Crew allowed to open and close.

CUSTOMS ALLOWANCES: About 200 cigarettes and 1 bottle of spirits per man.

CONSULS:

Finland	Avenida da Republica, 133
France	Avenida da Republica, 114
Greece	Avenida da Republica, 109
Italy	Avenida da Republica, 11
Netherlands	Avenida da Republica, 73
United Kingdom	Rua Dr. Oliveira Salazar, 4

REPAIRS: There is 1 small ship repair yard at Vila Real de Santo Antonio.

HOLIDAYS: 1st January; Holy Friday; 25th April; 1st May; 10th June; 15th August; 5th October; 1st November; 1st December; 8th December; 25th December.

POLICE/AMBULANCE/FIRE: Police 66; Ambulance 202; Fire 202.

AUTHORITY: Junta Autonoma dos Portos de Sotavento do Algarve, Rua Conselheiro Bivar 68, 8000 Faro. *Tel:* (089) 22025, 22049. *Telex:* 56117 Japsa P. *Contact:* Eng. Jose Domingos Mendonca de Sousa, Director.

Puerto Rico

AGUADILLA: 18.26 N. 67.10 W.

DOCUMENTS: See "San Juan".
PILOTAGE: Mayaguez's Pilots provide service in Aguadilla. At least 24 hours advance notice required.
RESTRICTIONS: Open port, very deep, safe in good weather. Cold fronts from North cause very heavy swells. Vessels cannot berth during this kind of weather.
MAX. SIZE: 600 ft. long, 36 ft. draft.
HEALTH: Free Pratique granted on arrival.
BERTHING: *Harbour:* 1 mile North of the town is a conveyor pier with 1 dolphin berth at its head. Least depth alongside 12.2 m. (40 ft.). Length of mooring lines not less than 180 m. (600 ft.). Vessels tie up to 4 mooring buoys, with spring lines to 2 bollards at the loading tower. 10 in. connection to molasses line. 1 off-shore tanker berth with 9 m. (30 ft.) depth consists of mooring buoys and pile clusters, connecting platform and pipelines for discharging aviation gas for Borinquen Airport.
MEDICAL: 24 hours' notice preferred; local hospital available.
TANKERS: See "Berthing".
FRESH WATER: Available. 2 in. pipe-line with meter.
GANGWAY/DECK WATCHMEN: Usually crew members are used.
OPENING/CLOSING HATCHES: Performed by stevedores.
CUSTOMS ALLOWANCES: U.S. Customs regulations. For Customs service Aguadilla is under the jurisdiction of the Mayaguez Custom House.
IDENTIFICATION CARDS: Required to go ashore.
CONSULS: No local representation.
REPATRIATION: Can be arranged.
AIRPORT: 20 minutes' drive. Regular airlines.
TIME: Atlantic Standard Time, 4 hours less than GMT. No alterations during year.
HOLIDAYS: Refer to "San Juan".
SHORE LEAVE: Allowed.
DELAYS: No delays unless another ship is already berthed.
AUTHORITY: Puerto Rico Ports Authority. See "San Juan".
Captain of the Port, Aguadilla. Tel: 832-3590.

GUANICA: 17.57 N. 66.54 W.

DOCUMENTS: See "San Juan".
GENERAL INFORMATION: Refer to "Ponce".
PILOTAGE: Port operations are under the control of the Captain of the Port. Pilot services are available day and night, by previous arrangement with Mayaguez Pilots.
ANCHORAGES: Harbour is located 8 miles Westward of Guayanilla Bay. Though small, it is one of the best hurricane harbours in Puerto Rico.
TUGS: Available from Guayanilla.
BERTHING: Bulk sugar, bulk fertiliser and bulk grain handling facilities. Length 700 ft.; depth alongside 28 ft. During recent years, operations at the port have been practically nil.
FRESH WATER: Available in limited quantities for emergencies only.
FUEL: Available by trucks from Ponce.
MEDICAL: Medical assistance is available; if hospitalisation is required for any crew member, it will probably be necessary to arrange for admittance to a Ponce hospital.
CONSULS: None available locally, nearest at Ponce.
AUTHORITY: Puerto Rico Ports Authority. See "San Juan".
Captain of the Port, Guanica. Tel: 821-2860.

GUAYANILLA (incl. Tallaboa Bay): 18.00 N. 66.46 W. (See Plan)

DOCUMENTS: See "San Juan".
PILOTAGE: Port operations are under the control of the Captain of the Port and Pilot services are available day and night. Pilots stand-by on VHF Channel 16 and operate on Channel 14. Arrangements should be made with at least 4 hours advance notice.
ANCHORAGES: Guayanilla is the largest hurricane harbour and one of the best in Puerto Rico. It has protected anchorage for 5 vessels. Maximum draft permissible is 42 ft. It is protected at its entrance by extensive reefs which extend a mile or more offshore. The entrance channel between these reefs is about 1.5 miles long and about 0.5 miles wide.
HEALTH: Pratique is not necessary. In case of continuous high fever or contagious disease, Agents must be notified prior to vessel's arrival. Agents will immediately contact Public Health for proper action.
RADIO: Chatham Radio (WCC) – Chatham, Massachussetts. Equipped with RCA automatic land line circuit direct to New York, N.Y., San Francisco, California and Washington, D.C.
TUGS: Available 24 hours daily from South Puerto Rico Towing Co., Tel: 809-835-2795, as requested by vessel.
BERTHING: The Union Carbide Company has berthing facilities for barge operations and LPG.

New port facilities for Pittsburgh Plate Glass are owned by the Puerto Rico Ports Authority. 2 berths at jetty, each 240 m. length. Depth alongside 35 ft.

Berths were recently dredged and actual restrictions are as follows:

**Refinery Dock – Guayanilla:*

DWT	80,000 tons	
LOA	830 ft.	
BCM	400 ft.	(Critical)
Draft	42 ft.	(South Face, Berth No. 5)
	42 ft.	(North Face, Berth No. 4).

**Petrochemical Dock – Guayanilla:*

DWT	50,000 tons	
BCM	449 ft.	
Draft	36 ft. 06 in.	(South Face, Berth No. 3)
	30 ft.	(North Face, Berths 1 & 2) Ships only
	28 ft.	(North Face, Berths 1 & 2) Barges only

*Commonwealth Oil Refining Co. Ltd. facilities.
Texaco: There is a private pier owned and operated by Texaco for the receipt of clean petroleum products. Berth 650 ft. long and 24 ft. deep being dredged to 36 ft. Diesel bunker available.
Punta Gotay Pier: 1 berth at dolphins with depth 38 ft.
Punta Pepillo Pier: 1 berth at dolphins with depths 12 ft. – 28 ft.
Tallaboa Bay: 1 dolphin berth with depth 20 ft. and 1 jetty with depth 38 ft.

Also see "LPG".

LPG: Dolphin berth at Cayo Rio in Tallaboa Bay in position Lat. 17° 59′ N., Long. 66° 44.5′ W.
Report: February 1984.
Max. Size: Vessel's dimensions not to exceed: length overall 965 ft. Max. draft 41 ft. Max. beam no restriction.
Manifold Position: The manifold must be positioned within 50 ft. fore or aft of the midpoint of the vessel's overall length.
Dock: The dock has been designed to accept the breasting load from a ship (or ships if vessel to vessel discharging is arranged) of up to 109,000 long tons total loaded displacement.
Depths: Depth of the docking area and approaches has been increased by dredging to over 44 ft. Due to swell and tidal actions, the maximum allowable vessel draft has been set at 41 ft. This draft has been approved by the U.S. Coast Guard and nautical charts affected are being updated accordingly.
Mooring Basin: The docking area is 450 ft. wide and is designed to handle a 125,000 cu.m. (145 ft. beam) vessel and a 75,000 cu.m. (120 ft. beam) vessel moored side by side.
Hose handling: Although connecting hoses and supplying the equipment necessary for doing so is the vessel's responsibility, receivers can, at their discretion, make such connections provided that the carrier's manifold elevation above water plus its manifold distance inboard plus its manifold distance from the midpoint of the carrier's overall length is 60 ft. or less. If it is more than 60 ft. the carrier would have to provide hose handling assistance including a crane to lift the end of the loading hose to the deck.
Carrier/loading platform access: An accommodation ladder will be provided for those carriers that have a deck height of 25 ft. or less above the water and are accessible from loading platform. Carriers that cannot meet the above must provide their own accommodation ladder. Transportation from their accommodation ladder will be provided.
Sanitary waste removal: Dumping of sanitary wastes into Tallaboa Bay is not permitted. Therefore, for those carriers that stay in port for 20 days or more, removal of sanitary wastes by barge will be provided. The carrier must provide the means (to be approved by Union Carbide Company) of transferring the wastes from the carrier to the barge.
Potable water: Potable water is not available at berth, but fresh water is. A fresh water connection is available on the loading platform. The carrier must provide his own hose for hook up. Should the carrier wish to purchase such water a release must be executed.
Bunkers: Bunkers are not available.
Night navigation: No U.S. Coast Guard regulation prohibits the berthing or unberthing of LPG carriers at night unless the incoming/departing vessel is being moored alongside another (storage) vessel.
FRESH WATER: Available whenever requested by the vessel. Water delivery very slow (3 to 5 tons per hour).
FUEL: Available only whenever arranged by Owners of the vessel and/or charterers prior to arrival.
Fuel Dock: Length 680 ft. with deep water alongside. Mooring dolphins and moorings buoys installed to assist with clearing the dock.
MEDICAL: Medical service is available; hospitalisation at Ponce, which is only 15 minutes distant.
REPAIRS: Various marine contractors available in Ponce upon request. Minor repairs available in Guayanilla and Ponce. No drydock facilities in the area. For drydock facilities and other major repairs refer to "San Juan".
Radar: For radar technician contact local Agent prior to vessel's arrival. Various technicians available in San Juan.
REPATRIATION: Arranged by ship's Agents.
AIRPORT: International Airport in outskirts of San Juan served by regular airlines. Small airport in Ponce connects with San Juan.
CONSULS: None available locally; nearest at Ponce. Consuls available in Ponce are: Dominican Republic, Honduras, Norway, Venezuela.
CUSTOMS: For Customs service, Guayanilla is under the jurisdiction of the Ponce Custom House.
SHORE LEAVE: Foreign crew members are allowed to go ashore through U.S. Immigration.
IDENTIFICATION CARDS: Shore passes are sufficient for shore leave.
AUTHORITY: Puerto Rico Ports Authority. See "San Juan".
Captain of the Port, Guayanilla. Tel: 835-2647.

JOBOS (Aguirre): 17.56 N. 66.13 W.

DOCUMENTS: See "San Juan".
GENERAL INFORMATION: Refer to "Ponce".
PILOTAGE: The Port of Jobos is served by the Pilots of Ponce. Services must be arranged in advance.
ANCHORAGES: A fine land-locked harbour, located on the South coast, approx. 42 nautical miles Eastward of Ponce and 20 miles West of Point Tuna. Anchorage inside the bay is Southward of the pier in depths of 19 ft. – 24 ft., soft mud bottom.
RESTRICTIONS: The principal entrance is from Westward between Morrillo Cay and Ratones Cay.
TUGS: No tugs available.
BERTHING: To the West of the sugar pier (not in use and not buoyed) is an open concrete barge dock 632 ft. in length with a buoyed access channel for the receipt of fuel oils for the Water Resources Authority.
TANKERS: See "Las Mareas".
FUEL: No bunkers are available.
MEDICAL: Medical assistance is available; if hospitalisation is required for any crew member, it will probably be necessary to arrange for admittance to a Ponce hospital.
CONSULS: None available locally; nearest available at Ponce.
AUTHORITY: Puerto Rico Ports Authority. See "San Juan".

Captain of the Port, Jobos. Tel: 821-2860.

LAS MAREAS: (Guayama) 17.55 N. 66.10 W. (See Plan)

The Puerto de Las Mareas Terminal is located on the South side of the island of Puerto Rico. It is located approximately 26 nautical miles East of the port of Ponce. The nearest city is Guayama.

All vessels calling at Phillips Puerto Rico Core Inc., Puerto de Las Mareas Terminal should be consigned to Phillips Puerto Rico Core Inc., and all official documents for such ships should show them so consigned. In conformance with port regulations, no vessel will be allowed to tie up alongside a pier without having first obtained a berthing permit from the Ports Authority Captain of the Port.

DOCUMENTS: See "San Juan".

The Passenger List must show full names, sex, age, nationality, and occupation of passengers landing at Puerto de Las Mareas. The ultimate destination of in-transit passengers must also be shown in the passenger list.

In most cases, outward clearance and cargo documents will be delivered on board by the ship's Agent, making it unnecessary for Masters to obtain such clearance in person from the U.S. Customs Office (Ponce).

PILOTAGE: The use of Pilots is compulsory for all vessels. Vessel's Agent will arrange for Pilot, upon receipt of the arrival notice. Pilot will board inbound vessels off the entrance to the harbour about 1 mile offshore.

When approaching the dock and channel, vessels must have one anchor, to be designated by the Pilot, free of the hawse pipe and ready for quick release if necessary to stop the vessel.

Note: Every vessel arriving or departing must provide, properly secured, a pilot ladder which conforms to the standards of construction normally accepted by international safety standards.

APPROACHES: The harbour is entered through a channel 250 ft. in width at its narrowest portion, bearing 025.6° (T). It is protected on the Eastern side by a rubble mound breakwater extending approximately 700 ft. from the shore line. The dredged channel extends out to the 40 ft. depth contour and has a width at this contour of approximately 900 ft., narrowing to 250 ft. approximately 2,100 ft. inshore from the 40 ft. contour. The 250 ft. wide portion of the channel is approximately 1,000 ft. long. At the inshore end of the 250 ft. wide channel, the harbour itself extends for a length of 2,300 ft. and a maximum width of 1,100 ft. The harbour has a depth of 38 ft. below MLW but the maximum draft allowable for inbound and outbound vessels is 37 ft. The above dimensions are given to the bottom of the channel; the sides of the channel and the harbour are sloped at 1 in 3.

NAVIGATIONAL AIDS:

A. Lighted Buoy LM: This sea buoy is located 300 ft. West of the centre line of the channel, 2 miles offshore from the end of the rubble mound breakwater. It displays a white light through 360° flashing Morse code letter "A". (0.5 seconds on, 0.5 seconds off, 2.0 seconds on, 0.5 seconds off). The buoy is painted with black and white vertical stripes and is fitted with a radar reflector. Water depth is 70 ft.

B. Channel Marker Buoys:

(1) Buoy 1: This buoy has 360° green light flashing 0.6 seconds on and 3.4 seconds off. It is painted black and has a green retro-reflective tape in buoy superstructure panels. Water depth is 40 ft.

(2) Buoy 2: This buoy has 360° red light flashing 0.5 seconds on and 2.0 seconds off. It is painted red and has red/orange retro-reflective tape in buoy superstructure panels. Water depth is 40 ft.

C. Channel Marker Navigation Lights: There are 4 channel marker navigation lights, 3 are located on piling, and 1 on the end of the rubble mound breakwater.

(1) Channel Marker Number 3: This marker is located on a single pile 400 ft. West from the centre line of the channel, 2,024 ft. inshore from the channel marker buoy No. 1. The light is located 25 ft. above MLW, and is displayed through 360°. It is a green light, flashing 0.6 seconds on and 3.4 seconds off. The marker is fitted with 3 ft. square dayboards with green retro-reflective centre and dark green reflective border, numeral 3.

(2) Channel Marker Number 4: This marker is located on a tower at the end of the rubble mound breakwater, 50 ft. above MLW. The light is displayed through 360°, red, flashing 0.5 seconds on and 2.0 seconds off. The marker has 4 ft.×4 ft. triangular dayboards with red retro-reflective centre and dark green reflective border, numeral 4.

(3) Channel Marker Number 5: This marker is located 175 ft. West from the centre line of the channel, 1,000 ft. inshore from the end of the rubble mound breakwater. It is on a single pile 25 ft. above MLW and displays a green light through 360° flashing 0.4 seconds on and 0.6 seconds off. The marker is equipped with 3 ft. square dayboards with green retro-reflective centre and dark green reflective border, numeral 5.

(4) Channel Marker Number 6: This marker is located 175 ft. East from the centre line of the channel, 1,295 ft. inshore from the end of the rubble mound breakwater on a single pile 25 ft. above MLW. It displays a 360° red light, flashing 0.4 seconds on and 0.6 seconds off. The marker is equipped with 4 ft.×4 ft. triangular dayboards with red retro-reflective centre and dark reflective border, numeral 6.

D. Obstruction Light: This light is mounted on the protective dolphin at 10 ft. above MLW and displays 3 fixed red lights through 360°.

E. Range Lights: LLNR 1380.55 front range light is mounted on a tower located on the centre line of the channel 3,500 ft. inshore from the end of the rubble mound breakwater. It consists of a quick flash white light 86 ft. above MLW and visible on range line only. The tower is fitted with a 6 ft.×12 ft. KRW dayboard, covered with red/orange reflective coating with an 18 in. white stripe down the centre.

LLNR 1380.56 rear range light is mounted 104 ft. above ground on a tower located on the centre line of the channel 5,500 ft. inshore from the end of the rubble mound breakwater. It consists of an equal interval, white, 3.0 seconds on and 3.0 seconds off. The tower is fitted with a 6 ft.×12 ft. KRW dayboard covered with red/orange reflective coating with an 18 in. white stripe down the centre.

RESTRICTIONS: The entrance channel has a depth below MLW of 40 ft. and the harbour itself has a depth of 38 ft. Hence vessels using the port are limited to a maximum draft of 37 ft. Vessels are required to have a minimum draft of 14 ft. forward and 24 ft. aft when entering or leaving the port.

HEALTH: Free Pratique is not required for vessels arriving at Puerto de Las Mareas, except when cases of communicable disease are on board. In such cases, U.S. Public Health Service doctors are available, and should be requested through the Agent 48 hours prior to arrival.

MAX. SIZE: Max. draft 37 ft.

RADIO: Agents of vessels or Owners or its representatives should advise Phillips Puerto Rico Core Inc. by telex, cable or telephone, 72 hours, 48 hours, and again 24 hours before their expected arrival at the sea buoy.

ITT Telex No. 3451056 "Philcorgya".
Telephone (809) 864-1515.

Incoming vessels should advise the Agent by radio 48 hours and again 24 hours before their expected arrival at the sea buoy. Coast stations available for such advice are:

Lantana Radio (WOE) - Lake Worth, Florida. (Equipped with RCA automatic land-line circuit direct to New York City, San Francisco and Washington, D.C.)

Transmits Traffic Lists at (GMT) 0005, 0205, 0405, 0605, 0805, 1005, 1205, 1505, 1605, 1805, 2005 and 2205. Transmits weather bulletins at (GMT) 0105 and 1600.

New York Radio (WNY) - New York City. (Equipped with RCA automatic land-line circuit direct to New York City, San Francisco, California, Washington, D.C.)

Transmits Traffic Lists at (GMT) 0010, 0210, 0410, 0610, 0810, 1010, 1210, 1410, 1610, 1810, 2010 and 2210. Transmits weather bulletins at (GMT) 1000, 1400, 1600 and 2200.

Also equipped with teletypewriter (TWX) for direct communication with steamship companies in the United States having this equipment.

Chatham Radio (WCC) - Chatham, Massachusetts. (Equipped with RCA automatic land-line circuit direct to New York City, San Francisco and Washington, D.C.)

Transmits Traffic Lists at (GMT) 0050, 0450, 0850, 1250, 1650 and 2050. Transmits weather bulletins at (GMT) 0100, 1300 and 1700.

San Juan Radio (WCT) - Radio Corporation of Puerto Rico Marine Station, Transmits on 2530 kHz, receives on 2134 kHz, watch on 2182 kHz.

In addition to the above commercial radio facilities, incoming vessels may contact the port through radio facilities on tug stationed at the port. These facilities are as follows:

VHF radio: range 30 miles. Channel 16, (156.8 MHz), working frequency Channel 14 (156.7 MHz).

SSB radio: 12 MHz, 8 MHz, 4 MHz.

Call letters: WA 6617 and WS 6560.

Vessels diverted to Puerto de Las Mareas must furnish the required 48-hour and 24-hour notices of arrival, unless notice of diversion is received less than 48 hours before anticipated arrival, in which case the notice of arrival will be given as soon as notice of diversion is received. In such cases, however, Phillips Puerto Rico Core Inc. reserves the right to refuse to load or unload such vessels if tankage is not available for the cargo, or if cargo is not available to loading.

TUGS: The use of tugs is compulsory for arriving and departing vessels. Two tugs are stationed in the harbour to assist in docking, undocking and turning. Arrangements for the use of tugs should be made through the Agent well in advance of the vessel's arrival. A minimum of 2 tugs required for berthing and a minimum of one tug required for unberthing.

Tug Operator: McAllister Brothers Inc. Tel. (809) 721-8888 and 722-8111.

BERTHING: The dock at the terminal consists of a finger pier approximately 800 ft. in length inside the harbour with a tanker loading berth on each side. The finger pier consists of a cargo platform 45 ft. by 90 ft., fitted with fender piling and dolphins (3 breasting dolphins, 2 mooring dolphins and 1 protective dolphin). The cargo platform is connected to shore by a driveway 12 ft. 6 in. wide. The mooring and breasting dolphins outboard of the cargo platform are connected to each other and to the platform by a walkway. No launches are required to handle mooring lines. The top of the cargo platform is 12 ft. above MLW level. Water depth alongside the finger pier is 38 ft. at MLW. There is no current at the dock or in the harbour.

Bollards for mooring lines are provided on the breasting dolphins, the mooring dolphins and the turning dolphins.

Turning basin 1,100 ft. wide and 1,060 ft. long, outboard of the turning dolphin, is provided. The turning basin has a depth over its entire area of 38 ft. at MLW. Normal procedure will be for vessels to enter the harbour and turn prior to docking.

Vessels will be required to vacate berths promptly on completion of loading or discharging cargo. Permission to use a berth when not loading or discharging cargo may be granted under special circumstances, and must be requested through the Agent.

If the vessel fails to vacate the berth on the expiration of the allowed time, it will be held liable for payment of any demurrage and/or damages incurred by Phillips Puerto Rico Core Inc., as a result of delays to other vessels waiting berths, or for any other consequence of its failure promptly to vacate the berth.

HURRICANES: The South coast of Puerto Rico is subject to winds of hurricane force, accompanied by abnormally high tides, during the late Summer and Autumn. In the event of such abnormal conditions, vessels may be required to put out additional moorings, or if necessary, to suspend all operations and put to sea until normal conditions prevail.

MEDICAL: Medical assistance or hospitalisation arrangements should be made through the Agent. If hospitalisation is required for any crew member, arrangements should be made through the ship Agent with hospitals located in the Municipality of Guayama. Ambulance service can be furnished upon request to the Agent.

TANKERS: The various cargoes available at the Puerto de Las Mareas terminal include motor fuel, cyclohexane, benzene, paraxylene, orthoxylene, mixed xylenes, paraffinic naphtha, and other special products. Feedstock for Phillips Puerto Rico Core Inc. facilities is naphtha, and there is a fuel oil unloading line. Cargo handling is accomplished through various sizes of lines, as follows:

Product	*Hose size (in.) (each side of dock)*	*Line size (in.)*	*Loading/ discharging rate with one pump*
Naphtha Feedstock	3 × 8	20	15,000 b.p.h.
Motor Fuel Regular	3 × 8	20	10,000 b.p.h.
Motor Fuel Premium	2 × 8	12	5,700 b.p.h.
Motor Fuel Unleaded	1 × 8	14	7,000 b.p.h.
Benzene	1 × 8	12	3,800 b.p.h.
Cyclohexane	1 × 8	10	4,000 b.p.h.
Paraxylene	1 × 8		5,000 b.p.h.
Orthoxylene	1 × 6	8	2,200 b.p.h.
LP-7 Raffinate	2 × 8	16	7,500 b.p.h.
Mixed Xylenes	1 × 6	8	2,000 b.p.h.
Toluene	1 × 8	8	800 b.p.h.
Fuel oil	1 × 8	12	3,500 b.p.h.
Ballast	1 × 8	12	6,000 b.p.h.
Domestic water	1 × 2	2	3 t.p.h.
Butane	1 × 6	16	2,000 b.p.h.

CONNECTING/DISCONNECTING HOSES: Service will be provided by the terminal to connect and disconnect hoses on the ship. Vessels are requested to have blanks removed from the cargo lines and hose handling booms rigged on arrival at the dock.

READINESS: Notice of Readiness to load or discharge is warranty that the vessel is in all respects ready to receive or discharge cargo, and that the vessel's equipment is ready and capable of loading or discharging petroleum or petrochemical products. Phillips Puerto Rico Core Inc. reserves the right to refuse to accept such notice of readiness if, upon inspection, the vessel is found not to be ready to receive or discharge cargo. Vessels may tender Notice of Readiness upon arrival, berth or no berth, according to the terms of the charter party or contract of affreightment under which they have been engaged.

BALLAST: Ship's Masters are reminded that they are prohibited by Puerto Rico law from pumping dirty ballast overboard when within the Puerto Rican limits. Facilities are provided for disposing of dirty ballast ashore at Puerto de Las Mareas. U.S. Coast Guard regulations are enforced for any discharge of dirty ballast, and any violations will be quickly detected and reported.

Ballast is pumped ashore through a 12 in. line, capable of receiving at a pressure at the ship's rail of 100 p.s.i. The ballast facilities are sufficient to accommodate 100,000 barrels of dirty ballast. Vessels are requested to arrive with minimum of dirty ballast.

FRESH WATER: Available at the dock in limited quantities.

FUEL: No bunkers are available at Puerto de Las Mareas. However, arrangements for bunkering at any other ports in the island can be made through the Agents.

STORES: May be ordered through the ship's Agent for delivery at the terminal.

CONSULS: No consular representatives are located in the vicinity of Puerto de Las Mareas. Some nations maintain consular representatives in San Juan. Further information can be obtained from the Agent.

REPAIRS: Complete repair and dry dock facilities are available in San Juan. Limited facilities for emergency repairs are available at Ponce. Requests for such services should be made through the Agent.

SURVEYORS: There are no classification society surveyors stationed at Puerto de Las Mareas, but they are available on call from Ponce or San Juan. Requests for survey services should be made through the vessel's Agent at least 24 hours prior to arrival.

FIREARMS: All firearms and ammunition should be shown on the stores list and will be removed from the vessel during its stay in Puerto Rican waters. Any violations of this regulation will result in fines and confiscation of firearms and ammunition.

CUSTOMS: U.S. Customs and Immigration Authorities will board vessels at the dock, except in unusual circumstances, in which case they will board the vessel at anchor outside the harbour. The vessels will be required to furnish an accommodation ladder.

American Flag vessels will not require Customs entry or clearance unless arriving from or departing to a foreign port.

SAFETY: The provisions of Part 35 "Operations" of the Rule and Regulations to Tankvessels, Subchapter D (CG-123) published by the U.S. Coast Guard are in force at Puerto de Las Mareas, and must be observed under penalty of fine and imprisonment as provided therein.

Particular attention is called to the following safety precautions:

(1) Vessels must be, and remain, in readiness to sail from the dock at any time. In the event of engine repairs, which might interfere with such readiness to sail, being required, written permission must be obtained from the Harbour Master before such repairs may be undertaken.

(2) Scuppers must be plugged during cargo-handling operations.

(3) Absolutely no smoking or open lights will be permitted on the dock or open decks.

(4) Screens in good conditions must be used over gauging hatches when not actually gauging.

(5) Operations may be suspended at the discretion of the Master, or may be required to be suspended by the Harbour Master, during severe electrical storms.

(6) In the event of a breakdown of communications between dock and the shore terminal during loading operations, and the need to shut off the flow of cargo to the vessel, an emergency signal consisting of a continuous sounding of the ship's whistle shall be given. The signal shall not be discontinued until the flow of the cargo has been shut off.

(7) An electrical bonding cable will be provided from the dock to the ship. This bonding cable must be firmly secured to a clean metal surface of the vessel's hull or cargo piping before hoses are connected, and must remain in place until the hoses are disconnected.

(8) The vessel must moor bow to seaward when feasible and be prepared to get underway on short notice. A towing cable shall be made ready forward and aft with the bight at water's edge.

(9) Each foreign flag vessel must be in possession of a valid Letter of Compliance issued by the Commandant, USCG for the carriage of the specific products to be loaded or discharged. All vessels must possess a Certificate of Financial Responsibility and be able to produce the same upon demand.

(10) Ship to ship transfer of cargo within the harbour is not permitted.

(11) All persons considered to be intoxicated or under the influence of drugs shall not be allowed to board the ships or enter the facilities during cargo operations.

Violations of these and other safety regulations, as described in Parts 35 of Subchapter D will result in the suspension of cargo-handling operations by the Harbour Master, or the PPRC dock personnel or safety inspectors, without recourse. Such suspension of cargo operations will continue until the violations are corrected or the safety hazards removed.

POLLUTION: *Oil Spill Avoidance:* All vessels must comply with the latest Commonwealth and Federal laws and regulations regarding prevention of oil spills. Such laws absolutely prohibit any discharge overboard of oily water, oily ballast or oil in any form. Since the harbour is an enclosed area with no flow of water through it, any violations, no matter how small, will be quickly detected and reported to the U.S. Coast Guard. VIOLATORS WILL BE VIGOROUSLY PROSECUTED AND ARE LIABLE FOR HEAVY FINES.

Sanitary Regulations: Pollution laws and regulations concerning sanitation apply to the harbour of Puerto de Las Mareas. Trash and galley waste will not be dumped into the waters of the harbour and must be kept on board until the vessel has sailed. Discharge of toilets and bathrooms into the waters of the harbour is prohibited. Sanitary facilities are provided on the dock for use by crew members while their vessels are at the berth.

MAIL: Official and personal mail may be addressed to the vessel care of Agent, and will be delivered to the vessel by the Agent on arrival. The Agent will accept official and personal mail from the vessel, and will ensure its delivery to the local U.S. Post Office, upon receipt of a mail transmittal slip to support disbursements.

SHORE LEAVE: When the vessel is berthed at Puerto de Las Mareas there normally are no restrictions on shore leave. In order to avoid delay in sailing, Masters are requested to ensure that all crew members are on board their vessel at sailing time. There are no facilities to provide shore leave from vessels at anchor awaiting berth.

Crew members from foreign vessels must carry their crewman's landing permit, Form I-95A, when on shore leave.

GENERAL: *Charts:* The general area and the harbour of Puerto de Las Mareas is shown in U.S. Hydrographic charts number 25677 and 25640. *Tides:* Tides in the general area of Puerto de Las Mareas have an average yearly range of 0.8 ft. from MLW to MHW.

SHIPMASTER'S REPORT: February 1988.
The Oil Port is called Jobos, Phillips Oil Terminal. Guayama is the nearest town, and La Salinas is just nearby.

British Admiralty Charts for the area are inadequate, U.S. Chart No. 25687 is of greater assistance.

The Pilot, using a tug, boards at Lat. 17° 54′ N., Long. 66° 11′ W. This position is very close to the Fairway Buoy.

This vessel, a 218.5 m. LOA tanker, proved to be one of the largest ever handled at the terminal.

Berthing for large vessels takes place in daylight only, close to the daybreak or before sunset, when the wind subsides.

Max. draft requested was 36 ft. 06 in. Vessels berth heading seaward.

Entering the port and making the turn with such a large vessel is not easy. We had to put our bulbous bow on the Eastern bank in order to stop the vessel for the tugs to change side.

The jetty is built for smaller vessels so our ropes were either short, or had to be crossed.

Vessel discharged 335,000 bbls. of naphtha, through 2 × 8 in. hoses tested for 118 p.s.i., and flow requested not to exceed 18,000 bbls./hr.

Discharging was smooth, with slight difficulty during stripping because of the high back pressure.

We had good co-operation with the Authorities, Terminal and Agent. Chas. Martin Inspector attended. According to new Company's policy, the inspector refused to sign any documents other than Chas. Martin's Forms.

U.S.C.G. did not board, even though the vessel had not been to a U.S.A. port for about 2 years.

Provisions were of U.S. quality and were expensive. No bonded stores available.

AUTHORITY: Puerto Rico Ports Authority, see "San Juan". *Operator:* Phillips Puerto Rico Core Inc. P.O.Box 1166, Guayama, Puerto Rico 00655. *Tel:* (809) 864-1515 *Telex:* 3451056.

MAYAGUEZ: 18.13 N. 67.12 W.

DOCUMENTS: See "San Juan".

PILOTAGE: Ship's Agents must make arrangements with Captain of the Port Office at Mayaguez Pier well in advance, not less than 24 hours before arrival of vessel at harbour entrance. Pilot boats are painted black (hull) and white (topside) as required, showing the letter "P" on each bow. Pilots board 1 to 2 miles offshore of Sea Buoy depending on weather conditions. Pilot service available day and night.

ANCHORAGES: Close to the entrance channel and boundaries. Sufficient depths for larger vessels.

RESTRICTIONS: The bay is easily entered day or night and is a good harbour in any weather, except in a hurricane. The harbour is 3.8 miles wide, and offshore is protected by reefs which extend across the harbour entrance in a general North by West direction.

The principal channel is about 0.4 miles wide, with depths at the entrance of about 47 ft. to 120 ft. and it is marked by lighted buoys and the range. Depth in the inner channel is approximately 30 ft. and close alongside the pier from 28 ft. to 29 ft.

MAX. SIZE: Cargo vessels 600 ft. or more in length call at the port. Safe draft for operations at the wharf is 27 ft.

RADIO: Communication to all points, including ships at sea, is available through commercial systems. Cables-Telex via RCA Communications, Inc., a global service of Radio Corporation of America. ITT World Communications, Inc., tel. 830-3316. Puerto Rico Telephone Company, local and overseas communications services, 129 and 128.

TUGS: Not used at Mayaguez Port.

BERTHING: Berthing permit required from the Ports Authority. The Puerto Rico Ports Authority operates the terminal facilities which consist of a bulkhead wharf approximately 1,200 ft. long, apron width 30 ft., and transit sheds and open storage. There are other berthing facilities in the port which are owned by the tuna packing plants.

STEVEDORES: Arrangements are made by the ship's Agents or representatives.

MEDICAL: The Agent should know in advance of any medical needs so that he can make the necessary arrangements with the U.S. Public Health Service. Good medical and hospital services available.

TANKERS: See "Guayanilla".

Regular calls from Esso and Texaco to unload fuel by means of barges in order to supply tanks on land by means of pipes located at berthing facilities.

FRESH WATER: Available alongside the berth at 4 outlets to supply any amount required at any time. Hose connections of 2.5 in. or less, maximum pressure.

FUEL: All grades available.

FIRE PRECAUTIONS: Standard fire and safety precautions throughout. U.S. Coast Guard regulations.

GANGWAY/DECK WATCHMEN: Ship provides gangway watchmen.

OPENING/CLOSING HATCHES: By stevedores.

IDENTIFICATION CARDS: Required to go ashore.

CONSULS: Dominican Republic, France, Tel: 832-4322. Others at San Juan.

REPAIRS: Call San Juan facilities where complete salvage equipment is available. Service to other ports of the island.

REPATRIATION: Arranged by ship's Agents.

AIRPORT: Mani Airport, 15 minutes from pier, served by regular airlines daily from Mayaguez to San Juan.

TIME: GMT minus 4 hours all year round.

HOLIDAYS: Refer to "San Juan".

POLICE/AMBULANCE/FIRE: Telephone numbers: Police, 343-2020, 832-2300; Ambulance, 832-0496, 832-3212; Fire, 343-2330, 832-2330.

TELEPHONES: Can be arranged by Puerto Rico Telephone Company.

SHORE LEAVE: Allowed.

AUTHORITY: Puerto Rico Ports Authority. See "San Juan".
Captain of the Port, Mayaguez. Tel: 832-3590.

PONCE: 17.58 N. 66.37 W. (See Plan)

DOCUMENTS: See "San Juan".

PILOTAGE: Pilot services are available day and night.

ANCHORAGES: Harbour is protected from the prevailing Easterly trade winds by enclosing reefs.

RESTRICTIONS: Depths: Entrance channel 50-150 ft.; turning basin, 34 ft..

MAX. SIZE: Max. draft 35 ft.

BERTHING: 9 berths available. Vessels of 1,000 ft. LOA can be berthed. 1×40 ton Paceco Portainer at Berth No. 8. Ro/Ro ramp available. Three container yards; 12 acres, 9 acres and 6.7 acres.

FRESH WATER: Water is available whenever ordered in advance, 24 hours a day.

FUEL: Available either by barge or truck.

MEDICAL: Ambulance and nurse permanently available at dock area. Other medical services available upon request to the Agent.

CONSULS:

Colombia
Denmark
Dominican Republic
Honduras
Netherlands
Panama
Spain
Sweden
Switzerland

REPATRIATION: Arranged by ship's Agents.

TIME: GMT minus 4 hours.

HOLIDAYS: 19 holidays in the year. Work performed 24 hours a day, 7 days a week. Non-working holidays are New Year, Good Friday and Election Day (every 4 years).

DEVELOPMENTS: See "Plan".

AUTHORITY: Port of Ponce, Board of Management, P.O.Box 125, Playa Station, Ponce, P.R. 00734-4125. *Tel:* (809) 848-4992. *FAX:* (809) 840–4681. *Contact:* Jose S. Gonzalez, Port Director.

PORT ARECIBO: 18.29 N. 66.42 W.

Port Arecibo is located on the North coast of the island, 32 nautical miles Westward of San Juan. There is a breakwater to afford some protection from heavy seas, but even so the port is not considered safe for vessel's operations, which are practically non-existent, except for a tug-barge operation (liquid chemicals are pumped out from a tank-barge alongside the pier through a pipe-line to P.R. Chemical storage tanks ashore).

A sizeable fleet of pleasure craft use a section of the berthing facilities. There has been a significant growth in tug-barge traffic calling at the port.

There is a pier 600 ft. long. Depth alongside is close to 20 ft., but there is a shallow spot towards the inshore end of the pier. There is also a 30,000 sq. ft. cargo shed and open storage area.

The port is mainly used as an industrial port.

Port installations are under the control of the Puerto Rico Ports Authority.

Port Arecibo is not a Customs Port of entry.

AUTHORITY: Puerto Rico Ports Authority. See "San Juan".
Captain of the Port, Port Arecibo. Tel: 878-6460.

PORT FAJARDO: 18.20 N. 65.38 W.

The Port of Fajardo lies on the East coast of Puerto Rico. There is a 250 ft. long concrete pier owned by the Puerto Rico Ports Authority for the passenger and cargo ferryboats and other craft which engage in inter island traffic to the islands of Vieques and Culebra.

Port operations are under the control of the Captain of the Port.

For Customs service, the Port of Fajardo is under the jurisdiction of the Fajardo Custom House.

AUTHORITY: Puerto Rico Ports Authority. See "San Juan".
Captain of the Port, Port Fajardo. Tel: 863-0805.

SAN JUAN: 18.28 N. 66.07 W. (See Plan)

DOCUMENTS: Customs:

1. American flag vessels engaged exclusively in the coastwise trade (to or from American ports only, U.S. Virgin Islands ports excepted) are not required to make entry or to obtain clearance. A Permit to Depart is required, however, if loading coastwise cargo.

2. No formal entry or clearance is required for American yachts arriving or departing regardless of destination, but a report of arrival must be made within 24 hours after arrival from foreign ports or from the Virgin Islands.

3. All vessels arriving from foreign ports for discharging and/or loading cargo must report arrival within 24 hours and make entry within 48 hours. Vessels arriving in distress or for the purpose of taking on bunkers, water and/or stores and departing within 24 hours need not make entry or clearance, but must report arrival and comply with certain Customs formalities, such as reporting bunkers and stores taken, before departing.

(a) The following valid documents shall be available for examination and return to Master regardless of length of stay in port:
1. Register or Nationality Certificate.
2. Load Line Certificate (if over 150 tons).
3. Water Pollution Certificate (if over 300 tons).

(b) Additional documents, to be filed in duplicate for Customs purposes, are as follows:
1. Master's Oath of Vessel in Foreign Trade (C.F. 1300).
2. General Declaration (C.F. 1301).
3. Cargo Declaration (C.F. 1302) in the English language.*
4. Ship's Stores Declaration (C.F. 1303).
5. Crew Effects Declaration (C.F. 1304).
6. Crew List/Passenger List (Immigration Form I-418).
7. Clearance from Last Port (original only – if available).

(*) Only one copy of the Cargo Declaration is required for in-transit cargo for foreign ports.

4. NOTE: Specific procedures for the entry and clearance of vessels are extensively described under Part 4 of the Customs Regulations (19 Code of Federal Regulations, Part 4) and Title 46, United States Code. Questions on such procedures may be directed to:

District Director of Customs,
P.O.Box 2112,
Old San Juan, Puerto Rico 00902.
Attention: Carrier Control Branch.
Tel: (809) 725-3310
(809) 721-7777

Or to the Port Director of Customs at the following sub-ports: Fajardo (809) 863-0950, Mayaguez (809) 832-0308, Ponce (809) 842-3195 or 842-1030.

Immigration: From 0800 – 1700 hrs., Monday through Saturday, no charges. Exceptions are Federal holidays, Sundays and periods from 1700 hrs. – 0800 hrs. daily, when overtime charges paid by the Federal Government will be charged to the steamship company according to specified tariff.

Documents required:

1. U.S. Crew List, Form I-418 (only one is necessary) duly visaed by the American Consul at port of departure: if there is no Consul available, list must be signed by the Master and sworn before an Immigration Officer on arrival.

2. If crew is to be given shore leave, Form I-95 is to be prepared for each member of the crew. If this form fully filled out for each member of the crew is not presented to the Immigration Inspectors, crew will be detained on board.

3. Both copies of Form I-95 must be printed (or typed) legibly, not written in script.

4. Whenever passengers are carried, a separate Form I-418 listing each passenger, must be presented in accordance with instructions thereon, together with a Form I-94 if required.

For additional information on Consular Clearances for the Dominican Republic and Venezuela, and Immigration Documentary requirements, said offices should be contacted directly.

Agent:
3 sets of Bills of Lading.
2 copies of Manifest (for San Juan only).
1 copy of Crew List.
1 copy of Stores List.
1 copy of Crew Purchase List.
1 copy of Narcotics List.
1 copy of Passengers List.

PILOTAGE: Pilot services are available day and night. Pilotage is compulsory for: all vessels of foreign registry; American flag vessels bound to or arriving from foreign ports and American flag vessels not having on board a deck officer duly licensed as harbour pilot for Puerto Rico waters.

Ships' Agents must make arrangements with pilot station well in advance (not less than 24 hours) of arrival of vessel at harbour entrance. Pilot boats are painted black (hull) and white (topside) with the letter "P" on each bow. Pilots board 3 miles offshore of Sea Buoy. Call Pilot station on Channel 16 VHF. There is no inner anchorage for incoming vessels to wait for the Pilot.

Port Administration: Most of the port terminal installations are under the control of the Puerto Rico Ports Authority. Utilisation of all port terminal facilities is subject to prior application to the Puerto Rico Ports Authority and the issuance of a written berthing permit by the Operations Division of the Maritime Department of the Ports Authority, tel: 725-4667 and 725-8341.

Vessels approaching to enter San Juan Harbour shall remain outside, not less than 3 miles to the North of the harbour entrance, to pick up the Pilot; and vessels ready to depart shall inform the Maritime Traffic Control or look-out station via radio-telephone of their intention.

ANCHORAGES: Deep draft anchorage "E", on the S.W. shore of Isla Grande, is for vessels awaiting Customs or Quarantine, and no vessel shall remain more than 24 hours without a permit from the Puerto Rico Ports Authority and U.S. Coast Guard Captain of the Port.

The effective size of this anchorage area has been reduced on its S.E. sector on account of the construction of barge mooring facilities that encroach on the area.

Restricted Anchorage "F" (Fox), shoreward of the West margin of Anegado Channel, is for vessels discharging explosives. Anchorage permit required from U.S. Coast Guard Captain of the Port and the Puerto Rico Ports Authority.

Anchorage "D", East end of San Antonio Channel, is for yachts, schooners and small craft.

RESTRICTIONS: Besides the harbour entrance channel (Bar Channel) and the main ship channel (Anegado Channel) with depths of 48 ft. and 36 ft. 6 in., respectively, there are 4 other navigable channels in the inner harbour:

The Army Terminal Channel, which runs in a straight North to South direction is approximately 1 mile long and 300 ft. wide with a depth of 37 ft. The channel leads into the turning basin off the Army Terminal on the South shore of the bay. On the Westerly margin of the channel there are located the pile clusters berthing facilities, silos and other shoreside installations for the receipt of bulk grain shipments and petroleum products.

The Puerto Nuevo Channel, approximately 1 mile long and 300 ft. wide, with an average depth of 30 ft. 6 in., runs East-Northeasterly from the Army Terminal Turning Basin to the Graving Dock Turning Basin. This provides access to modern marine terminal facilities in the Puerto Nuevo port zone.

The Graving Dock Channel, approximately 1 mile long and 300 ft. wide, with average mid-channel depth of 29 ft., runs in a general Southeasterly direction from Anegado Channel to the Graving Dock turning basin.

San Antonio Channel, approximately 1.5 miles long and 300 yards wide, with average mid-channel depth of 32 ft. 6 in.–36 ft. branches out from Anegado Channel for about 0.25 miles up to Isla Grande Light Beacon, thence along the North shore of Isla Grande in a straight West-East direction for about 1 mile to the small craft anchorage "D" and the Yacht Club. This channel is bounded on the North margin by commercial piers and the Frontier Base berthing facilities and in the South by Isla Grande marginal wharf and the container terminal facilities.

MAX. SIZE: Cargo vessels 750 ft. in length call regularly at the Port of San Juan. Channel to tanker berth, 36 ft.

HEALTH: Foodstuffs and plants not to be taken ashore.

RADIO: Radio communication to all points, including ships at sea, is available through commercial systems. Cables, telex via RCA Communications, Inc., a global service of Radio Corporation of America, tel. 723-6170, San Juan, Puerto Rico. Also, Western Union International, tel: 725-2121, ITT All American Cables & Radio, tel: 723-3732, and ITT World Communications, Inc., tel: 725-1515.

The Maritime Traffic Control Station "KRS – 893" at Fort San Cristobal in San Juan Harbour is manned around the clock for radio-telephone communication with incoming and outgoing ships' traffic. Transmitting vessels can communicate with the station through 156.8 MHz (Channel 16) for call and reply and working Channel 14, 156.7 MHz.

TUGS: Crowley Towing & Transportation, tel: (809) 722-1111, telex: ITT 3450056, RCA 3252660, and McAllister Brothers, Inc., Puerto Rico Branch, tel: (809) 721-8888, telex: Towco 3450469, operate a fleet of tugs. Service is available day and night, subject to previous arrangements.

Use of tugs compulsory for docking and undocking vessels 8,000 tons displacement and over unless equipped with bow or side thrusters.

BERTHING: Finger Piers No. 1 – 7 and the open bulkheads between them are located in the Old San Juan waterfront and Piers No. 8 to 14 are situated in the section known as Puerto de Tierra on the outskirts of downtown San Juan at the North margin of San Antonio Channel.

With the exception of Pier 15 and Frontier Base which are Navy property, all the piers including those in the Old San Juan waterfront and the new facilities (Terminals A, B, C, D, E, F, G, H, J, K, L, M and 1/2 N) located in the port zone known as Puerto Nuevo, on the South shore of San Juan, are Ports Authority owned installations. The utilisation of the berthing and other facilities by maritime operators is subject to prior approval by the Ports Authority.

The Port installations in San Juan Harbour aggregate in the neighbourhood of 22,700 lineal ft. of berthing space; 1,100,000 sq.ft. transit shed area: 1,500,000 sq.ft. open storage area and 105 acres of marshalling yards. The latter facilities are located mostly at the Puerto Nuevo port zone and Isla Grande.

All vessels must request and obtain well in advance before arrival a Berthing Permit from the Ports Authority.

Pier 1: North shore of the harbour, in the Old San Juan waterfront, East of Customs Building and next Westerly to the ferryboat landing. Modern twin berth, 770 ft. long, double deck, cruise and passenger vessels' terminal, pierside passenger and baggage gangways, elevators, parking and shopping. Water and light facilities available.

Ferry Terminal: Next Easterly to Pier 1. Ferry terminal for the San Juan-Catano ferry fleet.

Pier 3: North shore of the harbour, Old San Juan waterfront next Easterly to the ferry terminal. Tourist ships' terminal similar to Pier 1. Depths in the approaches and alongside tourist piers 35 ft.

Wharf No. 6: Marginal wharf, 1,300 ft. long, accommodates cruise and passenger vessels. Water and light facilities available.

Pier 7: Northerly continuation of Pier No. 6; 472 ft. long, 1 berth.

Pier 8: East of Pier 7, finger pier, 3 berths, general cargo pier. Transit shed area and other covered storage 171,000 sq.ft., open area 40,000 sq.ft. Water and light facilities available.

Pier 9: East of Pier 8. Finger pier, 3 berths, general cargo pier. Net storage space pier shed 133,738 sq.ft. open area 40,000 sq.ft. Water and light facilities available. South berth is a tug–barge terminal.

Pier 10: North shore of San Antonio Channel. East of Pier 9. Open Finger pier, 1 ship berth, tug and barge terminal. No transit shed space. Water, fuelling facilities and light available.

Wharf No. 11: East of Pier 10, marginal wharf, 1 berth, 580 ft. of bulkhead, general cargo pier. Transit shed area 100,000 sq.ft. ample back area. Water and light facilities available.
Wharf No. 12: An extension of Wharf No. 11 Bulkhead 550 ft. long, wide apron, 15,000 sq.ft. transit shed area, 37,000 sq.ft. open storage. General cargo wharves. Water and light facilities available.
Wharf No. 13: Prolongation of Wharf No. 12: 28,000 sq.ft. transit shed area, 55,000 ft. open storage area, general cargo wharf. Water and light facilities.
Pier 14: Extension of Piers 12–13 bulkhead; marginal wharf, general cargo pier, wide apron. 446 ft. long, 40,000 sq.ft. transit shed area, ample marshalling area. Water and light facilities available.
Frontier Base Pier: Navy facility operated by the Puerto Rico Ports Authority under contract. 2 berths for sea-going vessels. Depth alongside 30 ft. Principally used for berthing of cruise vessels and conventional ocean carriers handling open storage cargo.
Isla Grande Terminal: South shore of San Antonio Channel. General cargo wharf. 1,500 ft. long bulkhead. Wide aprons. Transit shed 32,000 sq.ft. with 240,000 sq.ft. of paved open area. Easterly section of bulkhead for shallow draft vessels.

Container Terminals:

(a) In Westerly section, Bulkhead wharf 1,320 ft. long. Wide apron, ample marshalling yards for trailers. 2×45 tons capacity container handling cranes. Paved marshalling area approximately 1,800,000 sq.ft.

(b) On the South shore, berthing facilities, 300 ft. bulkhead wharf with adjacent areas for TMT's Roll-on/Roll-off operations. Shoreside concrete ramp extending out to seaward. Tug-barge operation, loading and unloading through bow and side ramps, about 30 acres for trailers on exclusive lease basis. Max. draft approximately 18 ft.

(c) Trailer Marine Transport Roll-on/Roll-off three level ramp, barge-tug operation; loading and unloading at bow. Max. draft 18 ft.

The lands in Isla Grande and the conventional cargo handling terminal facilities are U.S. Navy property under lease and operated by the Puerto Rico Ports Authority. These facilities are in the process of being transferred to the ownership of the Puerto Rico Ports Authority.
Pier 15: Bulkhead Wharf and Finger Pier used by commercial vessels. Containerised and general cargo facilities. U.S. Navy installation under lease to Perez & Cia. from Puerto Rico.
Pier 16: Navy installation under lease. Graving and floating docks. See "Repairs".
Puerto Nuevo Docks: Terminals "A" and "B" marginal wharves. 2×500 ft. berths. 102,000 sq.ft. transit shed area. 2 cargo sheds. 30 ft. depth alongside. General cargo piers. Limited open storage area.
Trailership Terminals: 3 at Isla Grande port zone, above, 10 at Puerto Nuevo port zone. Berths C, E, F, G, H, J, K, L and M and West Side Army Terminal.
Berths "J" and "K": P.R. Maritime Shipping Authority Roll-on/Roll-off terminal. Shoreside movable ramps for side loading and unloading. Extra wide pier platform, ample trailer marshalling yards. 600 ft. long marginal wharf.
Berth "D": 100,000 sq. ft. of transit shed space for break-bulk operations and cargo stripping and distribution. Marginal wharf 40 ft. wide, 600 ft. long. Ample trailer marshalling yard. 30 ft. depth alongside, approximately.
Berths "E", "F", "G", "H", "J", "K", "L" (900 ft.), and "M": 600 ft. each, continuous bulkhead wharves, Lift-on/Lift-off operation. Max. draft alongside 30 ft. Extra wide pier platforms. Ample trailer marshalling yards. Five 25 ton capacity pierside cranes are installed at Berth "E" to "H".
Army Terminal Pier: Finger pier; 3 berths. Approximately 50,000 sq. ft. transit shed area. East and West berths 600 ft. each. North berth 200 ft. Under the control of the Ports Authority. West side, ramp for Roll-on/Roll-off operation.
Isla de Cabras Pier: Explosives handling pier at Isla de Cabras. Ports Authority property.

BULK HANDLING FACILITIES:
Bulk Grain Handling Facilities: Berthing clusters, silos and other shoreside installations for the receipt of shipments of bulk grains (Nebraska Mills, California Rice Mills, Red Seal, etc.).

STEVEDORES: Arranged by the ship's Agents.

MEDICAL: Medical attendance and services are available for seamen at the United States Public Health Service in San Juan (out-patients). The Ashford Memorial Community Hospital handles internal cases.

TANKERS: *Caribbean Oil Refinery:* Pile clusters berth for handling gasoline and fuel oils, max. permitted draft 33 ft.
Navy Oil Pier: South shore of the bay, next Westerly to Terminal "A", Puerto Nuevo. G.S.A. property leased to Texaco, Esso, Shell. Berthing facilities 350 ft. long and 24 ft. MLW. Bunkers available.

FRESH WATER: Most of the piers have adequate installations to supply water.

FUEL: Served in barges either alongside the vessel at the pier or at anchor. Other combustible liquids are delivered in tank trucks by Shell, Esso and Texaco.

SURVEYORS: American Bureau of Shipping – Mr. J. A. Schilling – Exclusive Surveyor.

Lloyd's Register of Shipping – Capt. Francis B. Crocco.
Det Norske Veritas
Germanischer Lloyd
Chinese Register of Shipping
Registro Italiano Navale
Nippon Kaiji Kyokai
Hellenic Register of Shipping
Panama Bureau of Shipping

Captain Francis Crocco acts as non-exclusive surveyor.

REPAIRS: (a) Puerto Rico Drydock and Marine Terminals, Inc., a commercial ship repair and drydock facility at Pier 16. Graving Dock: 632 ft.×83 ft.×24 ft. – reinforced concrete. floating dock: 200 ft.×40 ft.×15 ft. – reinforced steel. Two 1,000 ft. piers, 1,000 ft. bulkhead. Three cranes: Mobile diesel electric crane – 25 ton lift; Diesel mobile crane 50 ton lift and locomotive crane – 8 ton lift.

(b) San Juan Shipyard & Marine, at Isla Grande, operates dry docking and ship repair facilities including a marine railway and a floating dock 203 ft. long, 44 ft. beam capable of taking vessels up to 1,400 tons.

(c) Vaello Shipyard, at La Puntilla, Catano operates a marine railway for dry-docking and repair of small vessels.

DRY DOCKS: Puerto Rico Drydock and Marine Terminals, Inc., Miraflores St., Stop 11, Tel: 721-6010.

Vaello Shipyard, Inc., 1 Barbosa St., Catano, Puerto Rico. Tel: 788-1150.

San Juan Shipyard, Isla Grande, San Juan, Puerto Rico. Tel: 721-2258, 721-2278.

GANGWAY/DECK WATCHMEN: Ship provides gangway watchmen.

OPENING/CLOSING HATCHES: By stevedores.

IDENTIFICATION CARDS: Required to go ashore.

CONSULS:

Belgium	Tel:	725-3179	Germany F.R.	Tel:	755-8228
	"	725-1701	Honduras	"	790-3263
Bolivia	"	759-7678	Italy	"	727-4631
Colombia	"	754-1675	Panama	"	728-2330
Denmark	"	725-2514	Netherlands	"	724-2157
Dominican Rep.	"	725-9550			724-5800
	"	722-7377	Mexico	"	764-0258
El Salvador	"	781-0005	Spain	"	758-6090
Finland	"	721-8030			758-6142
		Ext. 243	Sweden	"	726-5200
France	"	753-1700	Uruguay	"	723-1787
	"	753-1701	Venezuela	"	725-4055
					725-4057

REPATRIATION: Arranged by ship's Agents.

AIRPORT: On outskirts of port area, served by regular airlines.

TIME: GMT minus 4 hours.

HOLIDAYS: *New Year's Day (January 1st); Three Kings' Day (January 6th); De Hostos Birthday (January 11th); Martin Luther King Day (Third Monday in January); Washington's Birthday (February, Third Monday); Emancipation Day (March 22nd); *Good Friday; De Diego's Birthday (April 16th); Memorial Day (May, Last Monday); *Independence Day (July 4th); Munoz Rivera's Birthday (July 17th); *Constitution Day (July 25th); Barbosa's Birthday (July 27th); *Labour Day (September, First Monday); Columbus Day (October 12th); Veteran's Day (November 11th); Discovery of Puerto Rico (November 19th); *Thanksgiving Day (November, Last Thursday); Elections Day (November every 4 years); *Christmas Day (December 25th). Any holiday falling on Sunday is observed on the following Monday.

*No cargo operations on these dates.

POLICE/AMBULANCE/FIRE: Police, 343-2020; Ambulance, 343-2550; Fire, 343-2330.

A Ports Authority ambulance stationed at Isla Grande, emergency room and nurse are available for emergency service.

EMERGENCY CO-ORDINATION CENTRE: U.S. Coast Guard S.A.R., U.S. Coast Guard Marine Safety Office, San Juan Base, La Puntilla, San Juan, Puerto Rico. Tel: 725-0857.

SHORE LEAVE: Possible, however, Form I–95 is to be prepared.

BANKS: Banco Central Economias, Banco Central Economias Building, Ponce de Leon Avenue, Hato Rey, Puerto Rico.

Banco Comercial de Mayaguez, 400 Munoz Rivera Avenue, Hato Rey, Puerto Rico.

Banco Cooperativo de P.R., Condominium The Executive, Ponce de Leon Avenue, Hato Rey, Puerto Rico.

Banco de Ponce, 268 Munoz Rivera Avenue, Hato Rey, Puerto Rico.

Banco de San Juan, 654 Munoz Rivera Avenue, Hato Rey, Puerto Rico.

Banco de Santander Puerto Rico, 251 Recinto Sur, San Juan, Puerto Rico.

Banco Popular de P.R., Popular Center Building, Hato Rey, Puerto Rico.

Bank of America N.T.S.A., Pan Am Building, Hato Rey, Puerto Rico.

The Bank of Nova Scotia, Mercantile Plaza Building, Hato Rey, Puerto Rico.

Bayamon Federal Savings, Bayamon Shopping Center, Bayamon, Puerto Rico.

Citibank N.A., 252 Ponce de Leon Avenue, Hato Rey, Puerto Rico.

Chase Manhattan Bank, 254 Munoz Rivera Avenue, Hato Rey, Puerto Rico.

The Royal Bank of Canada, Pan Am Building, Hato Rey, Puerto Rico.

The Bank of America, Pan Am Building, Hato Rey, Puerto Rico.

STORING: See "Prelims".
1. Yes.
2. Yes.
3. Yes.
4. Yes.
5. Same as U.S. mainland.
6. Yes.

DEVELOPMENTS: The new port sector, under development at Puerto Nuevo, now at an advanced stage, will ultimately comprise 15 berths, of which 12 are already in operation.

Port facilities used predominantly by trailerships are located towards the Southern sector of the bay. These are marginal wharf type facilities immediately adjacent to the Puerto Nuevo Channel.

Presently, the Ports Authority has initiated the final stage for the development of some 108 acres of land that will be used as back-up lands in connection with the ocean-front operations of Wharves "J" to "N".

This land has been in a process of stabilisation over the last years and presently a project is already under way to remove the sand surcharge deposited on it. The material being removed is being used as surcharge material for the stabilisation of other areas.

The degree to which this stabilised terrain will be further developed will depend on their demand for use by maritime interests.

AUTHORITY: Puerto Rico Ports Authority, G.P.O.Box 2829, San Juan, Puerto Rico, 00936. *Tel:* Maritime Traffic Control Station, 722-1457, 724-1412; P.R. Ports Authority Maritime Operations Division, 725-4667. P.R. Ports Authority Maritime Department, 724-3262; San Juan Harbour Pilots, 722-1169; Puerto Rico Ports Authority, 723-2260. *Telex:* 9464 Auto DPR. *Contact:* Jose. R. Garcia, Chief Maritime Bureau. Pedro Quinones, Chief Operations Division.

AGENT: Continental Shipping, Inc. P.O. Box No. S-2467 San Juan, P.R. 00903. Cable: Conship. Telex: R.C.A. (325) 2770, I.T.T. (345) 0417. Tel. (809) 725-2532.

YABUCOA: 18.02 N. 65.48 W. (See Plan)

DOCUMENTS: The following documents for vessels in foreign trade are required by the U.S. Customs and Immigration Authorities for entry and clearance:

Master's Oath (original and one copy) entry and clearance.
General Declaration (original and one copy) entry and clearance.
Stores List (original and two copies) entry.
Crew Purchases List (Curio List) (original and two copies).
Cargo Declaration (original and one copy).
Crew List (one copy certified and two copies not certified).
Clearance from Last Port (if arriving on an international voyage).
Crewmen Landing Permits (for each crew member without the Plastic Form 1-14).
Passenger List (if any passengers).
All permanent documents of the vessel.

Passenger List: The Passenger List must show full names, sex, age, nationality and occupation of passengers landing at Puerto Yabucoa. The ultimate destination of in-transit passengers must also be shown on the Passenger List.

Deratisation Certificates: Deratisation Certificates cannot be renewed at Puerto Yabucoa.

Outward Clearance: In most cases, the outward clearance and cargo documents will be delivered onboard the vessel, during her free time period or ballast period, prior to leaving the Dock.

Customs and Immigration: U.S. Customs and Immigration authorities will board vessels at the dock, except for unusual circumstances, in which cases they will board the vessel at anchor outside the harbour. The vessels will be required to furnish an accommodation ladder.

American Flag vessels will not require Customs entry or clearance unless arriving from or departing to a foreign port.

PILOTAGE: Harbour pilots must be used by all vessels except for American flag vessels in domestic trade bound to or arriving from a U.S. Port with a deck officer onboard who is qualified and licensed as a Pilot for Puerto Yabucoa.

Pilot services are available at any hour of the day or night. The Ship's Agency will arrange for the Pilot upon notification of arrival. The Pilot will board in-bound vessels approximately 1.5 miles seaward of the channel entrance. The vessel should not approach any closer than this distance until the Pilot is on board.

Every vessel requiring a Pilot must provide, properly rigged and secured, a pilot ladder which conforms to international safety standards. When picking up or disembarking the Pilot, the vessel must heave to and provide a lee with the pilot ladder rigged on the lee side 6 ft. (2 m.) above the water.

ANCHORAGE: If a significant delay in berthing is anticipated the ship may anchor and await berthing instructions. A suitable anchorage is located 1.25 miles South of Punta Negra, Vieques Island approximately 18° 04′ N., 65° 27′ W. (Nautical Chart No. 25650).

This anchorage is to be used only at the discretion of the Master.

APPROACHES: Vessels arriving at Puerto Yabucoa should proceed to approximately 2 miles S.E. of the seaward end of the channel and stand-by on VHF Channel 19A for berthing instructions from Puerto Rico Sun Oil Company, Marine Department and/or the Pilot.

Approach to Harbour: The harbour is entered through a channel 500 ft. wide at its narrowest portion, on a course of 297° True. A rubble mound jetty is located at the N.E. side extending 500 ft. seaward. The channel is dredged to the 48 ft. contour which is approximately 5,765 ft. from shore. Seaward of the 48 ft. contour, a depth of 55 ft. is provided along with a 500 ft. channel width for a total distance of approximately 9,000 ft. from shore. Vessels approaching the channel from the E.S.E. will have a clear approach.

Navigational Dangers: The area seaward of the dredged channel is relatively open and free from danger, but care should be exercised in approaching the channel as soundings decrease extremely rapidly at the channel entrance. Outcrops of hard seafloor material exist in the regions adjacent to the channel.

MAX. SIZE: The maximum draft that can be handled in Puerto Yabucoa is 43 ft.

RADIO:

Notice of Arrival: Vessels calling at Puerto Yabucoa must notify Puerto Rico Sun Oil Company through the ship's Agent 48 hours prior to arrival at Yabucoa Sea Buoy. If ETA is expected to change more than one hour it must be corrected at least 24 hours prior to arrival.

ETA times may be transmitted through commercial stations with a request to transmit the message by way of Telex No. 345-3014 PRSNOIL or Telex No. 345-0789.

Radio Communications: The following radio stations are available for communicating with Puerto Rico Sun Oil Company or the ship's Agency in Yabucoa.

a. Commercial Coast Stations:
  (1) Lantana Radio (WOE) – Lake Worth, Florida.
    Equipped with RCA automatic land line circuit direct to New York City, San Francisco and Washington, D.C.
  (2) New York Radio (WNY) – New York City.
    Equipped with RCA automatic land line circuit direct to New York City, San Francisco and Washington, D.C. Also equipped with teletypewriter (TWX) for direct communication with steamship companies in the United States having this equipment.
  (3) Chatham Radio (WCC) – Chatham, Massachusetts.
    Equipped with RCA automatic land line circuit direct to New York City, San Francisco and Washington, D.C.
  (4) Virgin Islands Radio (WAH) – St. Thomas, Virgin Islands.
    Very High Frequency (VHF)
    (a) Channel 16 – calling channel
    (b) Channel 28 – working channel

b. Puerto Rico Sun Oil Company Stations:
  The following stations are authorised to handle Puerto Rico Sun Oil Company business traffic only and cannot accept public correspondence calls.
  (1) Puerto Rico Sun Oil Marine Department and Ship Agency (WLZ) Yabucoa, Puerto Rico. On the air from 0800 hrs. to 1700 hrs. (1200 hrs. to 2100 hrs. GMT) Monday through Friday, except holidays.
    (a) Very High Frequency (VHF) Channels
      Channel 19A – standby and working channel.
      Channel 16 – standby channel (monitored during office hours).
    (b) Single Side Band (SSB) Frequencies
      4143.6 kHz – working frequency.
      8291.1 kHz – working frequency.
      12429.2 kHz – working frequency.
      16587.1 kHz – working frequency.
      2182 kHz – distress frequency.
  (2) Normally on the air and monitoring VHF Channel 19A during the period when Station WLZ is off the air.
    (a) Marine representative on call (WLZ).
    (b) Marine Portable No. 8 (KO 3274).
      Main Gate at Yabucoa Sun Oil Refinery (guarded 24 hours).
    (c) Tug "Marcus Hook Sun" (WX 7830).
    (d) Tug "Puerto Rico Sun" (WYZ 2756).
    (e) Tug "Seminole Sun" (WYZ 3110).
    The tugs are on the air 24 hours a day, although they are not always in Yabucoa Harbour.

TUGS: The use of tugs is compulsory for arriving and departing vessels. Sun Transport, Inc. has 3 tugs available to assist in docking and undocking. Arrangement for the use of tugs should be made through the Agent well in advance of the vessel's arrival.

BERTHING:

Docking Procedures: Upon arrival at the Sea Buoy the vessel must have:

(a) The engine on manoeuvring speed for picking up the Pilot and for entering the channel.
(b) Deck machinery and lines ready for docking and tying up port side to the Dock.
(c) Port anchor backed out of the hawse pipe and free to run.
(d) Vessels arriving in ballast must have the propeller submerged and have a trim of not more than 10 ft. by the stern.

Notice of Readiness: Notice of Readiness to load or discharge is warranty that the vessel is in all respects ready to receive or discharge cargo and that the vessel's equipment is ready and capable of loading or discharging petroleum products. Puerto Rico Sun Oil Company reserves the right to refuse to accept such Notice of Readiness if, upon inspection, the vessel is found not to be ready to receive or discharge the cargo. Vessels may tender Notice of Readiness upon arrival, berth or no berth, according to the terms of the Charter Party or Contract of Affreightment under which they have been engaged.

CARGO FACILITIES:

Connecting and Disconnecting Hoses: A crew will be provided by Puerto Rico Sun Oil Company to handle mooring lines and to connect and disconnect hoses and loading arms on the ship. Vessels are required to have blanks removed from cargo and ballast lines which will be used during cargo or ballast transfer when the vessel docks. In order to properly connect 2 loading arms to the vessel, the risers onboard should be at least 6 ft. between centres.

Communications for Cargo Transfer: Portable radios are provided by the shore crew for communications during loading and unloading operations. The Mate must sign a receipt upon receiving said radios, and is responsible for returning them prior to sailing. Failure to return the radios shall result in billing for the cost of same. The original signed receipt shall constitute proof of liability. The ship must obtain this original when radios are returned.

Ballast: All dirty ballast must be pumped ashore to the ballast facilities. The ballast facilities can receive 70,000 barrels of ballast through a 24 in. line capable of receiving a pressure at the ship's rail of 125 psi. Vessels are requested to arrive with a minimum of dirty ballast.

All clean and segregated ballast may be discharged overboard, provided the vessel is in compliance with all regulations as stated in 33 CFR 157.43.

Crude Oil Washing: Crude Oil Washing is permitted in Puerto Yabucoa provided the vessel complies with all safety and regulatory procedures as stated in 33 CFR 157, Sub-chapter D.

Vessels may Crude Oil Wash more than one third of their tanks provided it has been so stated in the terms of the charter agreement.

Butterworth Facilities: Puerto Rico Sun Oil Company has Butterworth facilities at the Main Dock, however, these facilities may not be used without prior approval and agreement from PRSOC.

The use of these facilities is normally restricted to cleaning Sun Company equipment due to the high utilisation of the Main Dock by vessels transferring cargo.

Pumping Data: The crude oil, products and ballast water are pumped through loading arms on the dock.

The sizes and approximate pumping rates are as follows:

Arm No.	*Product*	*Flange Size* (in.)	*Line Size* (in.)	*Max. Pumping Rate* Bbls.Hr.
1	Bunker C	10	14	6,000
	Ballast	10	24	10,000
2	Gas Oil	10	14	10,000
	Ballast	10	24	10,000
3	Jet Fuel	16	14	12,000
	Naphtha	16	12	7,500
	Kerosene	16	20	12,000
	No. 2 Fuel Oil	16	20	18,000
	Lt. Distillate	16	20	18,000
4	Lube Oils	10	14	5,000
5	Slack Wax	10	10	2,500
6	Aromatic Extract	10	8	1,500
7	Crude Oil	16	24	20,000
	Ballast	16	24	10,000
8	Crude Oil	16	24	20,000
	Ballast	16	24	10,000
Hose	Marine Diesel Fuel	4	4	150

MEDICAL: Medical and dental services are available in Yabucoa. Requests for ambulance service or hospitalisation for crew members can be made through the ship's Agent.

FRESH WATER: Fresh water facilities at this port are limited to approximately 100 tons while vessel is discharging or loading.

FUEL: Bunker C and Marine Diesel fuel oils are available at Puerto Yabucoa. Arrangements for bunkering should be made with a Puerto Rico Sun Oil Company Marketing Representative prior to the vessel's arrival in Yabucoa.

CONSULS: No consular representatives are located in Yabucoa. Many nations maintain consular representatives in San Juan. Specific information can be obtained from the ship's Agent.

REPAIRS: Limited repair facilities are available in San Juan. Requests for such services should be made through the Agent at least 48 hours before the vessel's arrival.

SURVEYORS: Classification Society Surveyors are available from Ponce or San Juan. Requests for these services should be made through the vessel's Agent at least 48 hours prior to arrival.

Cargo Inspection Services are available for quantity and for quality inspections of incoming and outgoing cargoes. The ship's Agent can arrange for such services, if requested. This service must be requested at least 48 hours prior to the vessel's arrival.

SHORE LEAVE: When the vessel is berthed at Puerto Yabucoa there normally are no restrictions on shore liberty. In order to avoid delays in sailing, Masters are requested to ensure that all crew members are onboard their vessel at sailing time. There are no facilities to provide shore liberty from vessels at anchorage awaiting berth.

Crew members from foreign vessels must carry their crewman's landing permit, Form I-95A, when on shore liberty.

GENERAL:

Consignment: All vessels calling at Puerto Yabucoa Harbour Tanker Terminal should be consigned to Puerto Rico Sun Oil Company, or to Hemisphere Oil Company, and all official documents for such vessels should show them so consigned. In conformance with Port Regulations no vessel will be allowed to tie up alongside a pier without having first obtained a berthing permit from the Ports Authority Captain of the Port.

Charts: The general Puerto Yabucoa Bay area is shown on USC & GS Chart No. 25661.

Ensigns: By international customs and usage, the American Flag is required to be flown at the masthead of all vessels from the time of entering the channel in-bound until clearing of the channel out-bound.

Sea Conditions: The wave action in the vicinity of the channel entrance is generally from the East or Southeast. Wave heights are less than 6 ft. 90% of the time, however, during tropical storms or hurricanes, wave heights can get substantially higher.

Weather: Easterly and Northeasterly winds are predominant over this region of Puerto Rico. January through March is the windiest season. September through November is the calmest season. The principal season for hurricane activity is during late Summer and early Fall.

Sanitary Facilities: Pollution laws and regulations prohibit vessels from discharging overboard sanitary and galley wastes into the harbour. Pollution laws and regulations also prohibit vessels from discharging galley wastes and garbage ashore.

Puerto Rican Laws: All vessels calling at Puerto Yabucoa shall comply with all applicable Laws and Regulations of the United States and of the Commonwealth of Puerto Rico.

Firearms and Ammunition: All firearms and ammunition must be shown on the Stores List and may not be removed from the vessel during its stay in Puerto Rico waters. Any violations of this regulation will result in fines and confiscation of firearms and ammunition.

Store and Supplies: Limited ship chandler service is available in Puerto Yabucoa. Stores and supplies can be ordered through the ship's Agent for delivery to the vessel, but such orders must be made at least 48 hours prior to the vessel's arrival.

Crew Transportation: Public transportation (Publico) for crew members from the Dock into town is available. The "publico" fare is to be paid by the crew member. Transportation to and from the airport can be arranged through the ship's Agent.

There are no water transportation facilities available at Puerto Yabucoa for vessels at anchor.

Mail: Official and personal mail may be addressed to the vessel in care of the Agent, and will be delivered to the vessel by the Agent on arrival. The Agent will accept official and personal mail from the vessel and will ensure its delivery to the local U.S. Post Office. Express mail and air freight services are also available.

Vacating of Berth: Vessels will be required to vacate berths promptly upon completion of loading or discharging cargo. Permission to use a berth when not loading or discharging cargo may be granted under special circumstances, and must be requested through the Agent.

Vessels discharging cargo will be allowed time for ballasting if required.

If a vessel fails to vacate the berth on the expiration of allowed time, it will be held liable for payment of any demurrage and/or damages incurred by Puerto Rico Sun Oil Company as a result of delays to other vessels awaiting berths, or for any other consequence of its failure to promptly vacate the berth.

AGENCY: *Selection of Agent:* Agency services are provided at Puerto Yabucoa by Puerto Rico Sun Oil Company. No other agencies are located at the port. Agencies from other ports may handle vessels calling at Yabucoa but, because of extremely poor communications in Puerto Rico, this can cause problems in possible ship delays.

Vessels may contact the Puerto Rico Sun Oil Company Ships Agency located within 500 ft. from Dock in Yabucoa, as follows:

Mailing Address: Ships Agency,
Puerto Rico Sun Oil Company,
P.O.Box 476,
Yabucoa, Puerto Rico 00767.
Telex No. Yabucoa: 345-3014 PRSNOIL or
345-0789 YABSOIL.
Panafax No.: (809) 893-0250.
Telephone Numbers
Yabucoa: (809) 893-2554 – Direct Line Marine Department and Ship's Agency.
(809) 893-2424/893-2073 Yabsunoil Switchboard
Extensions: 2276, 2282, 2286.

Deposit: The Agency requires a deposit of $15,000 for port expenses only. Other expenses such as cash to Master, excessive air travel, provisions, etc., to be wired additionally to Bankers Trust New York, Account No. 04-201-336, to be credited to Banco Popular, Hato Rey, Account No. 137-003080 in name of Puerto Rico Sun Oil Ships Agency.

SHIPMASTER'S REPORT: August 1986.

Position: Lat. 18° 03′ 18″ N., Long. 65° 50′ 08″ W.

Pilotage: Compulsory for non Sun Oil vessels. Pilot boards 1.0 to 1.5 miles off the Sea Buoy.

Restrictions: Berthing and unberthing possible day and night.

Anchorage: 2.5 miles East of Sea Buoy in depths of 10-25 fathoms.

Approach to Berth: No difficulties.

Immobilisation of Engines: Allowed with permission of Sun Oil.

Berth: North side of Yabucoa Bay. Wharf well fendered with berthing dolphins. Maximum length of vessel is 870 ft. and the max. draft alongside the berth and in the channel is 44 ft.

Tugs: 2×3,800 h.p.

Density: 1025.

Brief Description of Shore Line System: Position of connections- midships. Maximum loading rate 12,500 bbls.p.h. per pump. 2 pumps available for each line.

There are 8 loading arms, sizes from 10 in. to 16 in.
2 for crude oil.
1 for aromatic.
1 for slack wax.
1 for lube oil.
1 for naphtha.
1 for gas oil and ballast.
1 for bunker and ballast.

Bunkers and Lubricants: Available.

Fresh Water: Available.

Stores and Laundry Facilities: Available. Handled by San Juan companies.

Tank Cleaning and Dirty Ballast Facilities: Possible. Maximum capacity for dirty ballast 100,000 bbls. Sun Oil does not accept any leaded washings or dirty ballast from tanks which previously contained leaded cargo.

Points of Interest: Minimum ballast arrival draft:

Forward	14 ft.
Aft	24 ft.

No gangway from shore available.

SHIPMASTER'S REPORT: January 1988.

Documents: see "San Juan". Requirements similar to U.S. Ports.

Immigration: As for San Juan. Immigration Officer and Agriculture Inspector from Fajardo board on arrival for formalities.

Pilotage: Available on a 24 hour basis when required. Pilot boards from tug about 2 miles E.S.E. of buoyed channel entrance. After initial contact on Channel 16, pilot and tugs use Channel 73 for all berthing operations.

Anchorages: There are no safe anchorages for large vessels in the vicinity of Yabucoa. The designated waiting anchorage is off the island of Vieques, some 20 miles to the East of Yabucoa, where there is safe anchorage on the coastal bank. We anchored 1.5 miles South of Punta de Tierra, in approximate position Lat. 18° 04′ N., Long. 65° 28′ W. in a depth of about 24 fathoms. The vessel remained there in winds of up to Force 7, for 3 days without any problems. Some fishing buoys may be encountered within this area. BA. Charts are of insufficient scale, and it is recommended that Masters obtain the relevant U.S. charts for the area.

Max. Size: Our vessel is 97,000 d.w.t. and 253 m. long, and was berthed without undue difficulty, although space is very tight. The vessel immediately preceding us had been of 117,000 d.w.t., but with a part cargo. Oil Company states up to 45 ft. acceptable, but pilots not prepared to go above 43 ft. Our vessel was 41 ft. draft and had no difficulties, although only a little under-keel clearance.

Communications: Puerto Rico Sun Oil Co. has VHF in office, and usually listens on Channel 16 during office hours (Monday to Friday, 0800-1700). They are not easy to contact at lunchtime, and there is no watch kept during weekends or 'fiestas'. The radio is in the Marine Department

Office near the jetty. They also have telex, (206) 345-3014. The Marine Department also provides Agency services if nominated. They were used by us on this occasion. Also see "Pilotage".

Tugs: According to the Pilot, two tugs are usually stationed here, and used for most vessels up to about 100,000 tons displacement. Over that size, at the pilot's discretion, a third tug is brought from a nearby port for berthing (we used 3 tugs). One tug is usually sufficient for sailing.

Berthing: Only one large vessel can berth at a time as there is only one jetty.

Vessels usually berth port side alongside. There are no mooring boats to handle lines, ropes are sent via messenger when vessel very near to the jetty. There is no shore gangway, means of access has to be provided by the vessel.

Medical: Doctors and small hospital available locally for ordinary illnesses. Anything serious is attended to in San Juan (which is 2 hours by road). It was not possible to get Cholera vaccinations updated, although if urgent these could be done in San Juan, but this would be very expensive due to distance.

Repatriation: No difficulties encountered. At time of our visit there was one direct flight weekly to and from U.K., and numerous daily flights from Europe and U.S.A. The airport is 2 hours by road from Yabucoa. Crew members being repatriated leave the vessel 4.5 hours before flight departure time in order to complete outward Immigration formalities before going to airport.

Shore Leave: Allowed – Form I–95 required.

Provisions: Obtainable from various Chandlers in San Juan, a delivery charge is made. As jetty very cluttered, it is necessary to carry all stores by hand up the gangway, therefore berth is not very suitable for major storing of large objects.

General: The port is privately maintained by Puerto Rico Sun Oil Co. Crude oil is the main import and various refined products are exported. There is also a barge jetty, and a facility for barges to load graphite from a Union Carbide plant.

AUTHORITY: Puerto Rico Ports Authority. See "San Juan".
Captain of the Port, Yabucoa. Tel: 893-2408.
Operator: Puerto Rico Sun Oil Co. (See "Agency").

NOTES

Please also advise Shipping Guides Ltd.

Qatar

DOHA: 25.17 N. 51.32 E.

DOCUMENTS:
8 copies of the Unfreighted Manifest.
2 copies of the Freighted Manifest.
2 copies of the Hatch List.
2 copies of the Stowage Plan.
2 copies of the Dangerous/Hazardous Cargo List.
1 set of Bill of Lading.
1 set of Crew List.
A list of Food Stuff.
A list of Insecticides and any Poisonous Cargo.

Agents:
1 copy of the Arrival Report (Supplied by the Agent on boarding).
1 copy of the Crew List.
1 copy of the International Declaration of Health.
1 copy of the Passenger List (if applicable).

Port Health:
1 copy of Crew List.
1 copy of Dates and Types of Inoculations.
1 copy of the International Declaration of Health.

Immigration:
4 copies of Crew List.
4 copies of Lists of Passengers Landing (if applicable).

Customs:
Bonded Store List (Bond will be sealed but issues are available).
Port Clearance Certificate should be procured before the vessel sails.

PILOTAGE: Compulsory pilotage for all vessels of 14 ft. draft or more. Naval vessels exempted. Application for a Pilot should be made to the "Doha Port Control" through VHF (Channel 16), 24 hours prior to the arrival of the vessel at the pilot station (via Bahrain Radio).

Pilot station keeps a VHF watch 24 hours a day on Channels 16 and 14. Call sign Doha Port. Similar watch kept on R/T 2182 kHz.

Pilot boat proceeds to the vicinity of the Doha Light Vessel, position Lat. 25° 16′ 08″ N., Long. 51° 41′ 05″ E. when the Pilot is required. Pilot launches are painted white. When the vessel is underway the Pilot requires a pilot ladder complete with manropes.

ANCHORAGES: Near the Doha Light Vessel and Southerly from it only. Minimum depth of water 5 fathoms.

RESTRICTIONS: Depth of water in entrance is 27 ft. plus tide and the minimum depth of water required under the keel for manoeuvring in the channel is 3 ft.

MAX. SIZE: Max. length 600 ft., up to 625 ft. by special permission from Harbour Master. Max. breadth 90 ft. Max. draft 28 ft. 6 in. on favourable high tide.

HEALTH: The International Flag signals for Pratique must be flown and remain up until the vessel is cleared by the Port Health Authorities. A Port Health Official will board the vessel in the anchorage or at the Deep Water Jetty when the vessel is alongside. There is no Automatic or Radio Pratique available.

RADIO: ETA and Agent's messages should be routed through Doha Radio. Doha Radio A7D, continuous watch on W/T 500 kHz., R/T 2182 and VHF Channel 16. Radio-telephone communications through Doha Port signal station. Calling and listening 2182 kHz. Working frequencies, 2638 kHz, 2738 kHz, 2570 kHz.

TUGS: 7 Government tugs are normally available to assist in berthing operations.

BERTHING:
5 Berths – Total length 956 m. (Deep Water Berths); depth alongside 9.1 m.

4 Berths – Total length 893 m. (Shallow Water Berths); depth alongside 7.5 m.

Outer and inner dredged approach channels, 8.2 m. and 9.1 m. depth (C.D.) Wharves for smaller craft: West Inner Wharf 207 m., Collins Jetty 135 m.; Country Craft Jetty 287 m.; Fish Factory Wharf 60 m. Depths 2.5 m. to 6.0 m. (C.D.)

Equipment: 2×70 ton, 4×40 ton, 3×30 ton, 3×20 ton, 2 straddle carriers, 2 container cranes and 122 trailers.

Transit storage areas at landward end of approach causeway with extensive paved open storage and transit sheds giving 16,722 sq.m. cover.

New transit storage area on extended main quay with extensive paved open storage, 5 transit sheds giving 30,000 sq.m. cover completed. Construction of 500 ton cold storage completed. Control tower for Doha Port is under construction.

Normally berthing and unberthing to and from the deep water jetty is with certain reservations:
(*a*) Draft and trim of vessel.
(*b*) Height of tide.
(*c*) Visibility from Navigation Bridge.
(*d*) Prevailing weather conditions.

The duty Pilot has the option to berth or unberth a vessel at his discretion after consultation with the Senior Pilot, when the above mentioned conditions are unfavourable.

STEVEDORES: ETA advice is required on the number of gangs workable. Advance notice is required for any heavy lifts (say in excess of 10 tons) and the consignee's name if possible as special arrangements have to be made for handling. Average discharge rate is 75 tons per hook per day.

MEDICAL: Unless an emergency no advance notice is required. Hospital facilities do exist and a doctor will visit on request. Current Vaccination and Cholera Certificates are required.

DENSITY: The density of the water is salt (1025) at all states of the tide.

FRESH WATER: Fresh water is available at the anchorage and when alongside the jetty and is supplied by tankers.

FUEL: Bunkers available from Qatar National Tanker and Bunker, Doha.
Actual Bunkering Locations:
Doha Port Harbour
Pilot Station Doha
Umm Said Harbour
Pilot Station Umm Said
Inner Anchorage
Outer Anchorage
Pilot Station – Halul Island

Grades Available: IFO 180, M.D.O., IFO other than 180 with 14 days' pre-notice, upon request.
Supply Method:
Barge QNB.1 – 2 products – 650 tonnes.
Tanker ZOR – 2 products – 5,300 tonnes. Equipped with 3 Yokohama fenders – 1.7 m. diameter × 4 m. on port side.
Pumping Rates: Barge: 2 pumps. 100 tonnes per hour. ZOR: 3 pumps. 750 tonnes per hour.
Operation: 24 hours per day – 7 days per week.

GANGWAY/DECK WATCHMEN: The Public Security Department (Police) post a guard at each gangway, but it is advisable that the ship also supplies a watchman. Before landing *every* crew member must lodge his passport or seamen's identity card with the guard when alongside the jetty and at the dock Police Station when at the anchorage.

OPENING/CLOSING HATCHES: This work may be carried out by crew or stevedores, but usually by the latter.

CUSTOMS ALLOWANCES: Qatar is "dry" and no official allowance is made. The bond is sealed on the ship's arrival.

CARGO GEAR: No additional requirements apart from those required by International Law.

IDENTIFICATION CARDS: Discharge Books or Passports are required to be handed to the Police before any crew member may proceed ashore. See "Shipmaster's Report".

CONSULS: The following countries maintain embassies in Qatar:
Bangladesh
Egypt
France
Gabon
Germany F.R.
Great Britain
India
Iran
Iraq
Japan
Jordan
Korea
Kuwait
Lebanon
Libya
Mauritania
Morocco
Oman
Pakistan
Saudi Arabia
Somalia
Sudan
Syria
Tunisia
U.S.A.
Yemen

REPAIRS/DRY DOCKS: All kinds of repairs can be carried out. Metal-locking, bottom brushing and underwater welding. Floating dock 105 m.×19 m.×6 m. Capacity 10,000 d.w.t.

REPATRIATION: Crew changes can be carried out. The Agents will need to know the names, discharge book or passport numbers and necessary information of dates, etc. well in advance for the Authorities. Repatriation is normally by air. Crew joining must have Seaman's Book.

AIRPORT: It is about 3 miles from the port to the airport. There are regular flights to Europe, U.K. and India by British Airways, M.E.A., Air India, P.I.A., Gulf Air, etc.

TIME: The standard time in Qatar is GMT plus 3 hours.

HOLIDAYS: The holidays in Qatar are usually religious and therefore fall on movable dates. As far as shipping is concerned there are only 2 days when work is not possible under any circumstances, Idd Al Fitr and Idd Al Adna.

POLICE/AMBULANCE/FIRE: Dial 999 and ask for service required.

TELEPHONES: Telephone available at the new jetty. No. 414865.

GENERAL: Particular attention must be paid to:
(1)The Qatari flag must be flown at all times at the fore mast.
(2) Liquor is not allowed ashore and it is a serious offence to offer alcohol to a Qatari.
(3) Smoking is not permitted in any of the port areas.

SHORE LEAVE: Shore leave is permitted after the Immigration Authorities have cleared the ship and given permission, in writing, on the Crew List. Seamens' documents or passports must be deposited with the police at the gangway and retrieved on returning aboard.

SHIPMASTER'S REPORT: November 1984.

The Public Security Department warned me that the crew are not allowed to take a walk around the jetty when it is a holiday or the stevedores are not working.

Therefore, the crew must go directly outside the harbour limits or they stay on board.

The Security Department did not post a guard at the gangway but every crew member before landing must present his passport or Seamen's Identity Book to the Immigration and they issue a shore permit that will be shown to the guard together with the Seamen's Identity Book.

The guard will keep the Seamen's Identity Book and the crew can cross to the Harbour Gate with the Shore Permit.

When the crew come back to the ship they collect their Seaman's Identity Books at the Gate but can keep the Shore Permit for the next time they go ashore.

Before the ship sails all the issued shore permits must be returned to Immigration.

AUTHORITY: Department of Ports, Ministry of Communications & Transport, P.O.Box 313, Doha, Qatar. *Tel:* PABX 457457. *Telex:* 4378 Mawani DH. *Cables:* "Mawani". *Contact:* The Harbour Master, Tel: 414287. A. Jaber Muftah, Director of Ports.

AGENT: Qatar National Navigation & Transport Co. Ltd., P.O.Box – 153, Doha. Telex: 4206 Melaha Dh. Cable: "Navigation" Doha. Telephone: 321175/9, 23684, 21213.

HALUL ISLAND: 25.40 N. 52.25 E.

Halul Terminal S.B.M. **(See Plan)**

LOCATION: Halul Island (Position Lat. 25° 40.3′ N., Long. 52° 24.6′ E.) is part of the State of Qatar. Doha, the capital, is situated on the Eastern side of the country.

Halul Island is 52 miles in a N.E'ly direction from Doha. It serves as the export terminal for Qatar Marine Crude which is produced from the offshore oilfields of Idd El-Shargi, Maydan Mahzam, and Bul Hanine. The Halul Terminal is operated by Qatar General Petroleum Corporation (Offshore Operations).

Halul Island: The island is roughly circular in shape with a radius of approximately 0.5 miles. The island is hilly, rising to an elevation of 202 ft. (61.6 m.). (Charts: U.S. Government Charts: 62400, 62397, 62402, British Admiralty Charts: 2886, 3950, 3517, 3953).

The island is fringed by a reef which in places extends about 3 cables offshore.

The island is barren, with a number of oil storage tanks, a small industrial complex and personnel living quarters. There is a harbour on the Southern side of the island which is only for use of small craft.

DOCUMENTS: Following papers are required on arrival:

Notice of Readiness.
2 Crew Lists.
2 Health Declarations.
1 Latest Light Dues Certificate.

The Berthing Officer acts as ship's Agent and on behalf of National Customs and Immigration Authorities.

PILOTAGE: A Pilot is at all times to be considered as an advisor to the Master. The latter shall remain solely responsible for the safety of his vessel.

Boarding: When VHF contact is made with Halul Control the Pilot will advise the Master whether he should proceed to anchor or whether a Pilot will board the vessel immediately.

A Pilot will board the vessel about 2 miles East of Halul Island. The vessel is expected to make (if necessary) a good lee for the pilot launch.

Ship Deficiencies: The Master should inform the Pilot of any deficiencies on his vessel and any unusual characteristics pertaining to his vessel e.g. lack of astern power, time to change from ahead to astern, etc.

Pilot Signals: The vessel must display the proper signals prior to and subsequent to the boarding of a Pilot.

Pilot Ladder: The vessel shall rig on the starboard side, a pilot ladder which must conform in construction to all recognised international standards for pilot ladders. On vessels over 50,000 d.w.t. there shall be rigged either a mechanical pilot hoist or a combination of pilot ladder and accommodation ladder.

In the latter case the Pilot must not be expected to climb more than 9 m. on the pilot ladder.

There must be provision for the Pilot to pass safely from the head of the ladder to the deck of the ship.

Any such pilot ladder must be rigged well clear of all overboard discharges. 2 manropes are to be fitted, one on each side of the ladder, together with a safety line if conditions warrant such. At night both the ladder and the point of access must be properly illuminated.

A responsible officer must be in attendance when shore personnel are boarding/disembarking.

Note: To prevent unauthorised persons from boarding the tanker unobserved, particularly at night, the pilot/accommodation ladder must be retrieved after the Pilot and his assistant have boarded.

NAVIGATION: A light is exhibited at an elevation of 220 ft. (67.1 m.) from a white concrete tower with a black top, 16 ft. (4.9 m.) in height, situated on the summit of Jazirat Halul. Light characteristic is Fl.W.R. 12 secs. W 19M R 9M. Sectors W 030° – 300° (270°) and R 300° – 030° (90°) over pipe-line area. On the Western and Eastern arms of the small boat harbour there are floodlights illuminating the breakwaters. There are various radio masts with red lights, the highest being 365 ft. above sea level. On each of the SBM loading points there is a light morse "U" every 20 secs.

Deepwater Channel: To the East of Halul there are 2 buoys marking a deepwater channel which is the recommended departure channel for all vessels.

H-1 Green conical – Quick flash green.
H-2 Red – Quick flash red.

Prohibited Navigation: The offshore oilfields are prohibited for navigation because of the numerous production stations, drilling rigs, wellhead jackets and oil and gas pipe-lines.

The location of the 3 oilfields are:

1. Idd El-Shargi with centre Lat. 25° 28.9′ N., Long. 52° 22.6′ E. radius 2 miles.
2. Maydan Mahzam with centre Lat. 25° 36.0′ N., Long. 52° 33.1′ E. radius 2 miles.
3. Bul Hanine with centre Lat. 25° 25.5′ N., Long. 52° 44.0′ E. radius 5 miles.

Navigational Warning: Masters should be aware, when crossing any pipe-line, that many pipe-lines are not under the seabed and that the charted water depth may be reduced by at least 2 m.

It is strongly recommended that vessels do not pass South of Halul when making passage to/from Umm Said or Doha.

ANCHORAGES: Vessels are advised to anchor in an area centred on a position from Halul Island Light 087° × 2.5 miles with radius 6 cables. Water depth is 70 ft. – 80 ft. and the bottom is sand.

Prohibited Anchorage: The area covered by the red sector of the Halul Island Light is to be taken as a prohibited anchorage. This is due to the number of oil pipe-lines within this area.

MAX. SIZE: SBM No. 1 up to 22 m. draft. (In certain conditions of weather and tide a maximum draft of 25 m. can be accepted). SBM No. 2 up to 29 m. draft. Displacement limit of 640,000 tons for both SBMs.

HEALTH: See "Medical".

RADIO: *General:* QGPC (Offshore) has its own radio station in Doha call sign Alpha Seven Sierra (A7S). Cable address: Qatoff Doha (attn. PDA). Telex: Qatoff 4201 DH (Attn. PDA).

A sub-station is also maintained on Halul Island (call sign "Halul Control").

A7S maintains 24 hour watch on 500 kHz while Halul Control maintains a continuous radio watch on VHF Channels 6 and 16.

Vessels bound for Halul should contact "Halul Control" approximately 6 hours prior to arrival on VHF Channel 6.

Long distance communication (initial ETAs, etc.) will normally be routed via Bahrain Radio. However, the 72 hour arrival confirmation and any other queries to the Agent can be sent direct to A7S.

Advance Notice of Arrival: A vessel must advise:

(a) Its ETA at Halul at least 72 hours before arrival.
(b) Confirmation of any amendment to its ETA at Halul 24 hours before arrival at Halul.
(c) On arrival at Halul, the exact time of arrival at Halul.

Note: Any failure to observe the laid down sequence of ETA advice may delay the loading of the vessel at Halul.

Vessels should contact Halul Control on VHF Channel 6 approximately 6 hours prior to arrival at Halul or as soon as VHF contact can be made.

Ships Loading at Other Gulf Ports: Masters are advised that when they commence loading at the last port before Halul they should instruct their Agent to send a corrected ETA for Halul to QGPC (Offshore Operations).

Standard Cable: On receipt of the 72 hours ETA advice QGPC (Offshore Operations) will transmit via Bahrain Radio and/or A7S Doha a standard cable containing details of cargo, quantities, etc. (See below.)

If any vessel has any queries with regards to this cable or if the vessel can not comply with the requirements of the cable the Master should contact QGPC (Offshore Operations) immediately.

Halul Terminal Standard Cable via A7S or Bahrain Radio
Ship's ETA . . . .
To: Master . . . . Call Sign . . . .

We confirm your vessel to load approximately . . . . bbls Qatar Marine Crude for discharge............loading temperature . . . . Degrees F, API . . . .

Vessel to berth at SBM-1 or 2 approximately 3 miles, 130° off Halul Lighthouse.

Terminal will provide 2 mooring lines and you are requested to have 2 messengers ready forward.

Ship's **starboard** manifold and derricks/cranes should be ready to connect 2×16 in. hoses at SBM-1 and at SBM-2. You are requested to have 16 in./20 in. reducers ready. Derrick/crane should be ready to lift 10 tons.

Ship's crew guided by our foreman are required to moor vessel and connect hoses. When Berthing Master, for whom please make a good lee, has boarded, crew should be ready to immediately lift on board mooring gear from the pilot launch on their starboard side.

Please reconfirm final ETA when within range of Halul Control Channel 6. Information for berthing and hose conections will be given by Halul Control prior to arrival. Berthing Master will board 2 miles East of Halul. Please acknowledge. Confirm Derrick/crane equipment suitable. Advise deballasting time, maximum loading rate available, your draft on arrival and on sailing from the SBMs and if patented bow chain stoppers available, indicate type.

Qatoff Doha.

VHF: A Company VHF station on Halul Island, call sign "Halul Control" maintains a continuous watch on Channels 16 and 6 (Channel 6 being the working frequency). The station has a range of approximately 50 miles and incoming tankers should establish communications with this station when within range.

Ship to shore communication during loading is by portable VHF Radio telephone with emergency shutdown system, provided by the terminal.

TUGS: Not available.

BERTHING: Approach is from the open sea, passing to the Eastwards of Halul. There are 2 single buoy moorings. No. 1 SBM in position Lat. 25° 38.7′ N., Long. 52° 26.4′ E. This berth will primarily accommodate vessels up to 640,000 tons displacement. No. 2 SBM in position Lat. 25° 38′ 36″ N., Long. 52° 27′ 35″ E. This berth will accommodate vessels with up to a draft of 29 m. In both berths, mooring lines from the buoys are secured on the forecastle head using equipment provided by the terminal or using ship's bow chain stoppers if fitted. A suitable messenger rope should be ready for use. No moorings are used aft. The Berthing Master will advise in detail the mooring procedure.

	SBM 1	*SBM 2*
Position from Halul Lt.	138°×2.25 miles	126°×3.25 miles
Loading pipe-line	30 in.	48 in.
Submarine hoses	1×20 in. 1×16 in.	2×24 in.
Floating hoses	1×20 in. with 2×16 in. tails	2×20 in. with 16 in. tails
Length of hoses	1×840 ft. with 2×150 ft. tails	1×1,020 ft. and 1×1,000 ft.
Manifold Connection	2×16 in.	2×16 in.
Mooring Ropes	2×15 in. braided nylon grommets	2×15 in. braided nylon grommets
Water depth	105 ft. (32 m.)	120 ft. (36.5 m.)
Max. draft	72 ft. (22 m.*)	95 ft. (29.0 m.)
Loading rates	7,000 cu.m./hr.	12,000 cu.m./hr.

*Also see "Max Size".

HOSE CONNECTION:

Connection Position: Hoses will be connected/disconnected on starboard side by ship's crew. The Operations Assistant will give guidance to the crew as required.

Connection Sequence: The first hose will be the tanker rail hose string. It must be connected to the forward of the 2 manifold connections.

Hose Sizes: Tanker rail hoses on both SBMs are 2×16 in. diameter.

Ship Lifting Capacity: To lift these hoses a derrick or crane with a SWL of 10 tons minimum is required.

Connection: The hoses shall be bolted to the ship's manifold with a bolt in every hole. When the hoses are connected the weight of each hose shall be taken by hanging a strop (supplied by shore) from the ship's derrick or crane.

LOADING:

Load on Top: If load on top is to be practiced at Halul, the Berthing Officer will measure the quantity of residue in the slop tank.

Commencement of Loading: Upon request from the ship's duty officer the Berthing Officer will instruct the shore to commence loading. Loading commences by gravity and when the ship is satisfied that the cargo is flowing into the ship, the shore will be instructed to start pumping.

Loading Rates: SBM 1 maximum loading rate is 6,000 cu.m./hr. using diesel pumps.

SBM 2 maximum loading rate is 12,000 cu.m./hr. using either turbine pumps or a combination of turbine and diesel pumps.

Quantity Checks: During loading, ship and shore should check the quantity of cargo loaded every hour and compare figures. If there is a large discrepancy, the quantities should be re-checked and if the difference remains, with no explanation from the ship, then an inspection of the pipe-line and hose systems may be necessary.

Valve Operation and Surge Pressures: During full speed loading, the ship should inform the Berthing Officer if any valve manipulation, which is likely to restrict the flow of oil, is going to take place. Ships should be aware of the potential dangers of creating a pressure surge by closing valves too quickly and/or restricting the flow of oil by other means, i.e. change of loading lines.

The Master will be held responsible for any apparent or subsequently apparent damage to the shore pipe-line and hose system, resulting from surge pressure(s) caused by failure of the ship's pipe-line/valve system or the mismanipulation of the ship's valves.

A pressure recorder will be installed at the ship's manifold for continuous monitoring of pipe-line pressures.

Completion of Cargo Operations: Final topping up operations should only be conducted in the presence of the Berthing Officer in the cargo control centre. The ship should give the shore 1 hour's notice of completion of cargo followed by 15 minutes' notice.

Loading can be completed by gravity which gives a rate of about 1,500 t.p.h.

Communications: Communication between ship and shore is by VHF radio (supplied by shore) which will be positioned in the cargo control room. This radio will have an emergency stop frequency. In the event of an emergency this facility can be used to stop the loading operation at the shore terminal.

Precautions: A watch must be maintained on the radio link with the shore. Connections at the manifold must also be watched continuously for any signs of leaks, ruptures, etc.

MOORING:

Preparations: When the Pilot has boarded, the ship's crew is required to use ship's derrick or crane over the side to lift the mooring and hose connecting equipment on board from the pilot/mooring launch. An Operations Assistant will board with the Pilot. He will give guidance to the ship's crew on mooring and also on connecting the hoses.

Briefing: Prior to approaching the SBM the Master, Pilot and Officer delegated to duty on the forecastle should meet and the Pilot will brief all concerned on the mooring operation.

Mooring Operation: On approaching the SBM the ship should make ready a rope messenger suitable for passing over the stem of the tanker to the mooring launch. This rope will be joined to a 10 in. pick-up rope (500 ft.) which is in turn connected to a 50 ft. pick-up wire and then the chafe chain. Each chafe chain is connected to a 15 in. grommet of braided nylon.

The starboard mooring is always picked up first.

All vessels must comply with the OCIMF "Standards for Equipment Employed in the Mooring of Ships at Single Point Moorings".

Safe Practices: Masters and crew should be aware at all times of safe working practices while mooring the ship. Ideally the chafe chains should come through the central Panama Lead. If this is not possible, each mooring should be taken on board at points equidistant from and on either side of the centre line, as close together as possible.

SBM Security: From the time of completion of mooring, the ship shall station a lookout on the forecastle. This lookout must inform the Berthing Officer in the event that the ship is likely to come into contact with the SBM.

Immobilisation of Engines: Under no circumstances should the ship's engine be immobilised, but should be ready to manoeuvre at all times.

Maximum notice will, however, be given where conditions warrant the use of the main engine.

BALLAST:

Maximum Freeboard: The SBM loading points off Halul Island can be considered exposed location berths. To ensure that a vessel is always safely moored it may be necessary in times of marginal weather to maintain a certain maximum freeboard in order to reduce chances of shock loads on the moorings. The Pilot will advise the Master accordingly.

Note: The SBM's at Halul are considered exposed location berths. To ensure that a vessel is always safely moored the maximum freeboard forward (Panama lead to waterline) must not exceed 18.3 m. (60 ft.) at any time whilst the vessel is in the berth.

Deballasting: Vessels whose pipe-line/pump arrangements permit simultaneous loading and discharging of cargo tank ballast are expected to do so in order to maintain freeboard as low as possible.

The same applies to vessels with segregated ballast systems.

All other vessels will normally deballast prior to loading, however in marginal weather conditions such vessels may be asked to load part cargo prior to deballasting.

Dirty Ballast Facilities: No dirty ballast facilities available. All vessels must arrive with clean ballast.

CARGO QUANTITIES/DOCUMENTATION: *Ullaging:* On completion of loading the ship must ullage all tanks into which cargo has been received. The Master is required to complete an ullage report provided by the shore.

Early Departure Procedure: In order to avoid delays to ships, Halul Terminal follows the "Early Departure Procedure" for the completion of cargo documents. When cargo loading is completed the Berthing Officer will receive the departure papers from the shore. These will include documents completed as far as possible but without cargo quantities. The Master should sign these forms and retain on board copies of Bills of Lading for Master and Consignee and any other completed documents. Preliminary cargo figures will be transmitted by radio to the ship prior to the Berthing Master's disembarkation. The Master should insert these quantities in the various incompleted forms on board.

Departure from Halul Island will be dependant on ship/shore agreement on the preliminary cargo quantities.

Forms to be Signed: The following is a list of forms which have to be completed for each parcel of cargo and received by the Master. (Not all documents are signed by the Master.)

Bill of Lading.
Cargo Manifest.
Certificate of Quantity and Quality.
Discharge Certificate.
Master's Receipt of Documents.
Arrival Report.
Disbursement Memo.
Certificate of Origin.
Ullage Report.
Customs Export Bill.
Customs Clearance.
Port Timesheet.

Discharge Certificate: We stress the importance of the Discharge Certificate placed on board at the completion of loading. It is absolutely essential that the Discharge Certificate should be completed in duplicate in respect of every discharge whether for entire or part cargo.

The Discharge Certificates will be accompanied by a letter of explanation giving guidance on the processing of these certificates and the attendant correspondence required.

DEPARTURE: *Unmooring:* When all ship's papers have been completed and the hoses disconnected the vessel is ready to sail. The port mooring should be released first. The mooring should be lowered to sea level and the pick-up rope paid out slowly to allow the mooring launch to receive the pick-up rope on board. The starboard mooring will then be released.

Pilot Disembarkation: When the vessel has been unberthed the Pilot will disembark to the East of the two SBMs and well clear of the submarine pipe-line area. Laden vessels should under no circumstances navigate in the pipe-line area to the South of Halul Island.

Final Figures: Final shore cargo figures will be transmitted to ship before the Berthing Master disembarks and they will also be relayed via Bahrain Radio or A7S in Doha. The Master should insert these quantities on the various forms.

DENSITY: At berth, 1028/1030 (approximately).

CARGO: Flash point below 32° Fahrenheit.

H_2S Content in Halul Crude: H_2S. Hydrogen sulphide has a disagreeable odour characteristic of rotten eggs which quickly deadens the sense of smell so that a dangerous concentration may be present which cannot be detected by odour.

If exposure to hazardous concentrations of this gas is likely to occur, appropriate safety precautions should be taken. Suitable respiratory protection should be available during ullaging and sampling.

The TLV is given as 10 p.p.m. but concentrations in enclosed spaces should be reduced as far below this level as practicable and if men are to work without breathing apparatus, a nil concentration should be achieved before entry is permitted and effective ventilation should be maintained.

On tankers regularly committed to the carriage of sour crude, H_2S gas indicators should be provided.

It is important to realise that the concentration of H_2S can be measured and expressed in two different ways:

The p.p.m. in the liquid, by weight;
The p.p.m. in the air, by volume.

Producing and Processing Departments at terminal often use the liquid measure for H_2S content, and this could be confusing to tanker officers who usually think of H_2S as expressed in air volume measure. There can be a vast difference between the two measures. The measure in air is higher and can be very much higher. For example, chemists have measured a concentration of 7,000 p.p.m. (deadly) in the vapour stream coming out of ullage opening when a tank is being topped off with a crude oil containing only 70 p.p.m. H_2S in the liquid. Therefore, it is of vital importance to appreciate that a sour crude can release a lethal concentration of H_2S into the air.

The following guide to the effects on exposed persons of various atmospheric concentrations of H_2S gives some indication of its dangers:

Measured in air by volume	
50 to 100 p.p.m.	Eye and respiratory tract irritation after exposure of 1 hour.
200 to 300 p.p.m.	Marked eye and respiratory tract irritation after exposure of 1 hour.
500 to 700 p.p.m.	Dizziness, headache, nausea, etc., within 15 minutes; loss of consciousness and possible death after 30 to 60 minutes exposure.
700 to 900 p.p.m.	Rapidly produces unconsciousness and death occurs a few minutes later.
1000 to 2000 p.p.m.	Death is apparently instantaneous.

Apparent death from H_2S is not irreversible as prompt and efficient artificial respiration may restore life.

The terminal should advise the Master if the cargo to be loaded contains H_2S in concentrations which cause the gases vented during loading to be hazardous if inhaled. When handling cargo with noticeable

H_2S content or when ballasting after discharge of such cargo, it is recommended that the following precautions should be taken.

The officer supervising the operations should keep a sharp watch on personnel for signs of fatigue or distress.

Lifelines, breathing apparatus and resuscitator should be readily available.

Loading through the pump room should be avoided where possible to reduce the possibility of H_2S contamination of the pump room atmosphere.

Gas should be vented through the cargo tank venting system and, if open ullaging is necessary, the ullage plugs should be kept open only for a minimum period of time.

When ullaging tanks, personnel should work in pairs and stand at right angles to the wind direction in relation to the ullage opening.

Personnel should not enter a pump room without first starting the ventilation, checking that there is no gas present, and without someone else standing by. If any gas concentration is recorded, a self-contained breathing apparatus should be worn.

Other spaces into which H_2S may have been drawn should be ventilated and checked before entry.

Persons overcome by H_2S should be moved to a gas free area immediately and artificial respiration should be administered at once.

Gas tests should be made on deck and in accommodation at regular intervals and particularly during the topping-off periods. If concentrations exceed 10 p.p.m. inside the accommodation or 50 p.p.m. on deck more than 10 ft. from a gas outlet, the loading rate should be adjusted and if this does not result in a decrease of the gas concentration, loading should be stopped until conditions have improved or other suitable measures are taken.

During discharge, the pump room bilges should be kept dry.

During loading or ballasting operations, conspicuous notices warning of potential danger should be posted on deck and at pump room entrance, and at the entrance to any other space which could be affected.

MEDICAL: There is no doctor on Halul Island. If there is any sickness on board, details should be included in the vessel's ETA message.

In emergencies the services or advice of the QGPC Medical Officer in Doha may be obtained. If the doctor or patient has to be flown from Doha the vessel concerned will be charged for the helicopter hire and the services of the doctor.

TIME: Local time is GMT plus 3 hours.

FRESH WATER: Not available.

FUEL: Various grades of bunkers available, diesel and fuel, ex barge or lighters at Halul anchorage provided minimum 7 days' prior notice given.

Also see "Doha".

CONSULS: The following countries maintain Embassies in Qatar.

Bangladesh
Egypt
France
Gabon
Germany F.R.
India
Iran
Iraq
Japan
Jordan
Korea (South)
Kuwait
Lebanon
Libya
Mauritania
Morocco
Oman
Pakistan
Saudi Arabia
Somalia
Sudan
Syria
Tunisia
United Kingdom
U.S.A.
Yemen Arab Republic

REPAIRS: Not available.

SURVEYORS: (1) Watson Grey & Caleb Brett, Doha.
(2) Lloyd's Register in Bahrain.

TANK CLEANING: No facilities available and ships must arrive with clean ballast, lines and pumps.

CUSTOMS: Trading in liquor is *strictly* prohibited and no alcoholic drink should be offered to Arab nationals.

REPATRIATION: Changes of personnel can be carried out at Halul Island. This can only be carried out on a limited scale due to scarcity of accommodation and transport. For crew joining a ship, Owners should notify the Agency, at least 48 hours in advance of arrival in Doha, the details of the personnel and the arriving flight. Crew leaving a ship at Halul can be arranged but advance notice is required.

SHORE LEAVE: Not permitted.

SAFETY: Vessels must at all times comply with safety regulations as detailed in the ISGOTT (International Safety Guide for Oil Tanker and Terminals) published jointly by the International Chamber of Shipping and the Oil Companies International Marine Forum.

Safety Check List: This check list must be completed prior to loading. The Berthing Master and the Master of the vessel or a responsible officer will jointly carry out the safety inspection.

Cessation of Loading: If during loading operations, the Berthing Officer becomes aware of any unsafe working practice or safety hazard, loading will cease until such time when the safety hazard has been removed. All delays thus incurred will be for vessel's account.

Hydrogen Sulphide: It is brought to the ship's attention that Qatar marine crude contains Hydrogen Sulphide (H_2S). See "Cargo".

Emergency Towing Wire: Whilst moored to the SBMs all vessels must have Emergency Towing Wires ready, both fore and aft. The total length of the towlines must not be less than 100 m. when paid out. The eyes of the wires must be kept hanging just above sea level, ready for immediate pick-up by a tug/supply boat.

Tanker Emergency: In case of an emergency on board the Tanker the Berthing Officer must immediately be informed. He will act as liaison between ship and shore.

If for whatever reason the Berthing Officer is incapacitated the Master/Officer on duty must inform Halul Control, giving brief details of the type of the emergency via the portable VHF radio (walkie-talkie) provided by shore.

In case of fire, explosion, etc., cargo must be stopped immediately by requesting "Emergency Stop" via the walkie-talkie and/or via the emergency stop frequency (push-button) provided in the radio.

The Master may also call the QGPC radio station in Doha (call sign "Alfa Seven Sierra") on the ship's VHF Channel 16, giving details of the emergency and the kind of assistance required, if necessary.

BANKS:

Banque de Paris et des Pays-Bas.
The British Bank of the Middle East. Telex: 4204 BBME DH.
Grindlays Bank. Telex: 4209 GRNDLY BK.
The Chartered Bank. Telex: 4217 CHARBK.
Citibank.

STORING: See "Prelims".

1. No.
2. N/A.
3. No.
4. N/A.
5. N/A.
6. N/A.

GENERAL:

Meteorological Service: A daily 24 hour weather forecast is issued at 0930 L.T. This forecast covers the area of Halul Island and the offshore oilfields. Details of this forecast can be obtained from Halul Control or, if vessel is at one of the SBMs, from the Berthing Officer on board the vessel.

Tidal Information: Halul Island can be found in British Admiralty tide tables Volume 2. Halul is a secondary port based on the standard port of Shatt al-Arab.

Climatic Conditions: Masters and crews should be aware of the extreme climatic conditions which exist in the Halul area during the months of June through October. Everybody should be made aware of the dangers of heat and sun stroke.

Stores and Laundry: Not available at Halul Island.

Courtesy Flag: The Qatar National flag should be flown during daylight hours when a vessel is at Halul Island.

Mail Service: There is an excellent mail service from Qatar to all parts of the world. Qatar stamps must be used on all mail sent through the national post office.

Blue air letter forms are not accepted.

Mail will be handled after completion of the tanker mailing request.

AUTHORITY: Qatar General Petroleum Company (Offshore Operations) – Marine Department, P.O.B. 47, Doha, Qatar. *Tel:* 402666. *Telex:* 4201 Qatoff Doha. *Cables:* Qatoff, Doha. *Contact:* Captain J. Sexton, Marine Superintendent.

Agency: c/o Tanker Agency Department, QGPC (Offshore Operations) PDA, P.O.Box 47, Doha – Qatar, (Arabian Gulf). Tel: 402620. Telex: 4201.

UMM SAID: 24.54 N. 51.34 E. (See Plan)

DOCUMENTS:

1 Crew List.
1 Stores List.
Also see "Doha".

BUOYED CHANNEL: All vessels wishing to navigate the Umm Said Buoyed Channel must obtain prior clearance from Umm Said Control who can be contacted on VHF Channels 14 or 16 or by Telex via Doha Radio, addressed to Petroqat Umm Said. This precaution is essential to avoid unexpected encounters with deep-laden oil tankers.

APPROACHES:

Approach to Umm Said Terminal: With Halul Island peak astern steer 235° for a distance of 31.5 miles to (K) Kareinein Light Buoy in position Lat. 25° 24′ 18″ N., Long. 51° 56′ 16.4″ E., thence 226°, 12 miles to (M) Mishut Light Buoy in position Lat. 25° 15′ 51″ N., Long. 51° 46′ 43.4″ E.

From Mishut Light Buoy steer 214° for a distance of 8 miles to (W) Wakrah Light Buoy, leaving this light buoy on the port hand.

From Wakrah Light Buoy steer 180° for a distance of 6.4 miles, to (H) Hul Light Buoy leaving this buoy to port.

From a position of 2 cables West of (H) Hul Light Buoy, steer 164° for a distance of 1.9 miles to pass between Nos. 1 and 2 Outer Channel Buoys, thence 158° 30′, 0.3 miles to pass between Nos. 3 and 4 Outer Channel Buoys, thence 178°, 0.9 miles to leave No. 6 Outer Channel Buoy on port hand, thence 173°, 1.6 miles to pass between Nos. 7 and 8 Outer Channel Buoys, thence 191° 30′, 1.6 miles to pass between Nos. 9 and 10 Outer Channel Buoys, thence 176°, 0.8 miles to pass between Nos. 11 and 12 Outer Channel Buoys.

From a position midway between Nos. 11 and 12 Outer Channel Buoys, steer 157° for a distance of 2.2 miles, leaving S.E. Arrif Buoy on the starboard hand, thence 217° for a distance of 3.25 miles, leaving S. Arrif Buoy on the starboard hand.

After rounding S. Arrif Buoy, steer 335° for a distance of 1.7 miles, passing close West of No. 1 Inner Channel Buoy, thence 003°, 1.1 miles, passing close East of No. 2 Inner Channel Buoy.

From a position close East of No. 2 Inner Channel Buoy, steer 348°, 0.5 miles to pass between Nos. 3 and 4 Inner Channel Buoys thence 323° to round Turning Buoy, leaving this buoy on the port hand.

From Turning Buoy steer a course to enter the designated Anchorage Area. The Northern limit of the designated Anchorage Area is a straight line joining the Turning Buoy and Fairway Buoy positions.

Masters of vessels anchoring at Umm Said are required to use the appropriate anchorage. With the exception of emergencies only, anchoring outside this area or obstructing the fairway is *not* permitted.

Prohibited Area: A prohibited area enclosed by the pecked lines (See "Plans") has been established. Masters of all vessels are prohibited from entering, anchoring or fishing within this area unless permission has been granted by the Corporation.

Outward Passage: The reverse track is followed as for the inward passage described above.

Charts: Admiralty Chart No. 3787 – Approaches to Musay'Id and Ad Dwaha.

Admiralty Chart No. 3950 – Fasht al Arrif to Ras Laffan.

Admiralty Chart No. 3786 – Umm Said Harbour.

Depths: In the Outer Channel there are least depths of 36 ft. (10.97 m.) in the vicinity of Nos. 1 and 2 Buoys, 3 and 4 Buoys and Nos. 9 and 10 Buoys.

Between the Outer and Inner Channel the depth varies from 40 ft. (12.2 m.) at Nos. 11 and 12 Outer Channel Buoys through 72 ft. (22.0 m.) and 78 ft. (23.8 m.) between S.E. Arrif and S. Arrif Buoys to 47 ft. (14.3 m.) close to No. 1 Inner Channel Buoy.

In the Inner Channel the least depth is 37 ft. (11.28 m.) between Nos. 3 and 4 Inner Channel Buoys.

From the Inner Channel to the Anchorage the depths vary from 43 ft. (13.1 m.) between the channel and Turning Buoy to 48 ft. (14.6 m.) at the Anchorage.

Tidal Conditions: In general the flood stream sets to the S.S.W. and the ebb stream to the N.N.E. the rate being up to 2 knots at Springs.

Cross sets will consequently be experienced in the channel, more particularly in the Northern part of the Outer Channel, between the Outer Channel and S.E. Arrif Buoy and between S. Arrif Buoy and the Turning Buoy. It should be noted that at the Outer Channel Entrance the flood stream continues to set to the Southward for some time after the tide has started to fall.

Tides: The tides in this area have a large diurnal component and at times there is only one HW and one LW in the 24 hours. This irregularity is more pronounced at Umm Said than at the Outer Channel Entrance for which predictions are made.

In December the HHW, or the only HW during periods of single day tides, occurs between 0500 and 1400 hrs.; in March between 2200 and 0900 hrs.; in June between 1800 and 0100 hrs. and in September between 0900 and 2100 hrs.

At Umm Said there are a few days in the year when the tide does not rise above 5 ft. (1.52 m.) and there are considerable periods each day when the predicted height of the tide is greater than 3 ft. (0.91 m.).

In the vicinity of Nos. 3 and 4 Inner Channel Buoys, HW occurs about 1 hour after HW at the Outer Channel Entrance and the rise of tide is slightly more than at the Outer Channel Entrance.

The HHW is normally 5 ft. (1.52 m.) or better rising to 8 ft. (2.44 m.) at exceptional Springs.

Abnormal meteorological conditions may affect all the above tides by ±2 ft. (0.61 m.).

Umm Said Approaches

Light Buoys	*Latitude North*	*Longitude East*	*Shape*	*Colour*	*Light*
Karienein (K)	25° 24′ 18″	51° 56′ 16.4″	Pillar Spherical Topmark	R.W.V.S.Radar Reflector	Long Fl. W. 10 sec.
Mishut (M)	25° 15′ 51″	51° 46′ 43.4″	Pillar W Topmark	Y.B.Y. Radar Reflector	Qk. Fl. (9) W. 15 sec.
Pipe-line Buoy (N)	25° 13′ 51″	51° 45′ 23.4″	Can	Yellow Radar Reflector	Fl. Y. 10 sec.
Wakrah (W)	25° 09′ 13″	51° 41′ 50.4″	Pillar W Topmark	Yellow Black Yellow	Very Qk. Fl. (9) W. 10 sec.
Pipe-line Buoy (S)	25° 08′ 18″	51° 41′ 54″	Can	Yellow Radar Reflector	Fl. Y. 6 sec.
Hul (H)	25° 02′ 49″	51° 41′ 50.4″	Pillar W Topmark	Yellow Black Yellow	Very Qk. Fl. (9) W. 15 sec.
No. 1	25° 01′ 01″	51° 42′ 6.4″	Cone	Green	Fl. G. 6 sec.
No. 2	25° 00′ 55″	51° 42′ 15.9″	Can	Red	Fl. R. 5 sec.
No. 3	25° 00′ 40.6″	51° 42′ 13.1″	Cone	Green	Qk. Fl. G.
No. 4	25° 00′ 36.3″	51° 42′ 22.9″	Can	Red	Fl. R. 5 sec.
No. 6	24° 59′ 44″	51° 42′ 26.4″	Can	Red	Fl. (2) R 10 sec.
No. 7	24° 58′ 10″	51° 42′ 29.4″	Pillar E Topmark	Black Yellow Black	Qk. Fl. (3) W 10 sec.
No. 8	24° 58′ 18″	51° 42′ 37.4″	Can	Red	Fl. R. 6 sec.
No. 9	24° 56′ 39″	51° 42′ 4.4″	Cone	Green	Fl. (3) G. 15 sec.
No. 10	24° 56′ 35″	51° 42′ 20.4″	Can	Red	Fl. (2) R. 10 sec.
No. 11	24° 55′ 42.5″	51° 42′ 11.9″	Cone	Green	Fl. G. 2 sec.
No. 12	24° 55′ 43″	51° 42′ 20.9″	Can	Red	Fl. R. 2 sec.
S.E. Arrif	24° 53′ 38″	51° 43′ 4.4″	Pillar E Topmark	Black Yellow Black	Very Qk. Fl. (3) W. 5 sec.
S. Arrif	24° 51′ 02″	51° 40′ 57.4″	Pillar S Topmark	Yellow Black	Very Qk.Fl.(6)+ L.Fl.W.10 sec.
No. 1	24° 52′ 29″	51° 40′ 2.4″	Cone	Green	Fl. (3) G. 15 sec.
No. 2	24° 53′ 36″	51° 39′ 54.4″	Can	Red	Fl. R. 6 sec.
No. 3	24° 54′ 11″	51° 39′ 53.4″	Cone	Green	Fl. G. 2 sec.
No. 4	24° 54′ 07.3″	51° 39′ 47.4″	Can	Red	Qk. Fl. R.
Turning Buoy	24° 54′ 41″	51° 39′ 19.4″	Pillar N Topmark	Black Yellow	Very Qk. Fl. W.
Fairway Buoy	24° 54′ 27″	51° 36′ 25″	Pillar	R.W.V.S. Radar Reflector	Long Fl. W. 10 sec.
S. Anchorage	24° 52′ 53″	51° 33′ 51.4″	Can	Red	Fl. R. 6 sec.
M.B. 1	24° 53′ 57.6″	51° 33′ 36.0″	Cone	White Orange	Fl. W. 5 sec.
M.B. 2	24° 54′ 16.8″	51° 34′ 13.8″	Cone	White Orange	Fl. R. 5 sec.
M.B. 3	24° 54′ 19.8″	51° 34′ 37.8″	Cone	White Orange	Fl. W. 5 sec.

PILOTAGE: Inward and outward pilotage is compulsory for all vessels loading at Umm Said Oil or NGL Terminals.

Pilot will board and leave vessels in the vicinity of (M) Mishut Buoy.

Pilot Ladder: Tankers of 40,000 d.w.t. and over should have rigged, when in light condition, an accommodation ladder lowered to about 12 ft. above the water. This can be adjusted to suit conditions. A pilot ladder should be rigged immediately abaft the accommodation ladder, to within 2 ft. above the water. This will enable Pilot to ascend pilot ladder clear of launch, and then step on to lower platform of accommodation ladder. Vessels should comply with the current U.K. Merchant Shipping (Pilot Ladders) Rules.

Automatic pilot hoists should not be used unless such use is agreed to by the Pilot. On no account should weighted heaving lines be used in the vicinity of the pilot boat or mooring launches.

Pilotage is compulsory for dry cargo ships bound to for Umm Said Anchorage only if the draft is 33 ft. or over. Pilotage performed by Doha Pilots.

ANCHORAGES: Eastern Anchorage. Depth 48 ft.

Anchorage for dry cargo vessels is available in Umm Said Harbour more than one mile North of the Fairway Buoy. The anchorage to the S.E. of the Fairway Buoy is reserved for tankers and vessels drawing over 10.0 m. draft. Dry cargo vessels using this anchorage must obtain permission from Umm Said Terminal.

Prohibited Anchorage: A Prohibited Anchorage has been established in the vicinity of (W) Wakrah Light Buoy to protect submarine pipe-lines laid in the area. A yellow can buoy (Fl. Y. 10 secs.) (Radar Reflector) has been laid in position Lat. 25° 13′ 51″ N., Long. 51° 45′ 23.4″ E. and a line drawn 073°/253° from the coast through this position marks the Northern boundary of the Prohibited Anchorage. A similar buoy (Fl. Y. 6 secs.) (Radar Reflector) has been laid in position Lat. 25° 8′ 18″ N., Long. 51° 41′ 54″ E. and a parallel line drawn through this position marks the Southern boundary of the Prohibited Anchorage.

RESTRICTIONS: In the case of crude oil shipments, mooring, loading and unmooring is carried out at all times (weather permitting).

NGL Jetty: Mooring and unmooring operations are restricted to daylight hours.

MAX. SIZE: (Also see "Cargo Handling Facilities"). Draft of laden tankers leaving Umm Said is controlled by the depth at the outer end of the Outer Channel. This is 36 ft. (10.97 m.) below Chart Datum and Zero of Predictions. Tide rarely falls below 1 ft. above datum, so that there is normally 37 ft. (11.28 m.) or more in the channel.

Experience shows that even under the worst weather conditions there is no appreciable movement on larger ships in the Outer Channel. As deep-draft vessels always reduce speed between Nos. 3 and 4 Inner Buoys and in the Outer Channel, there is very little "draw down". Deep-draft vessels should endeavour to pass between Nos. 1 and 2 Outer Buoys at HHW for the Outer Channel Entrance.

Subject to the under-keel clearances mentioned hereafter, in general the draft limitations are as follows:

(a) Ships drawing 34 ft. (10.36 m.) or less can sail at any time on any day.
(b) Ships drawing 35 ft. (10.67 m.) will rarely have to use tides.
(c) Ships drawing 36 ft. (10.97 m.) will usually have to use tides.
(d) Ships drawing 37 ft. (11.28 m.) always have to use tides.
(e) Ships drawing 38 ft. (11.58 m.) will occasionally be neaped.
(f) Ships drawing 39 ft. (11.89 m.) will be neaped 120 days ±4 a year.
(g) Ships drawing 40 ft. (12.19 m.) can sail occasionally. The best months are June and July.
(h) Ships drawing 41 ft. (12.50 m.) are not worth programming as on the few days when predictions indicate they could sail, meteorological conditions may well cut the tides.

NGL Jetty: Max. acceptable length 950 ft., min. length 550 ft. Max. acceptable capacity 120,000 cu.m. Minimum acceptable capacity 30,000 cu.m.

Underkeel Clearance: The following table stipulates the *minimum* underkeel clearance for vessels using the Umm Said Channels.

Vessels up to 99,999 d.w.t.	– 3 ft. Clearance
Vessels from 100,000 to 149,999 d.w.t.	– 4 ft. Clearance
Vessels over 150,000 d.w.t. and 320,000 d.w.t.	– 5 ft. Clearance

(See "Terminal Information – Berth limitations").

LPG Carriers (all sizes)	– 5 ft. Clearance

Navigation in Shallow Waters: The navigation of deep drafted vessels at high speeds in shallow waters introduces certain hazards. Pilot/Mooring Masters and Masters of ships should be guided by the following:

(a) Due consideration should be given to the effect of draw down at speed on vessel's draft in shallow water, bearing in mind vessel's trim.
(b) If possible, confirm actual height of tide against predictions and if not, bear in mind that after strong winds the actual height of tide may be reduced and extra caution must be exercised for a few days during and after bad weather.
(c) Ensure accuracy of vessel's draft reading, including the midship drafts, having in mind the tendency of vessels to sag and the adverse effect of a small list.
(d) Reduce to a minimum safe speed to pass over and near shoal areas.
(e) Reduce to a minimum safe speed when negotiating turns in order to reduce heel under helm.
(f) Note that list can mean an appreciable increase in draft.
(g) When strong tidal streams are running across a channel, extra vigilance is required, and allowance made for set, particularly at reduced speed, to ensure vessel proceeds along mid-channel.

Particular attention should be paid to rounding the S.E. Arrif Buoy on a flood tide, especially when heading South. Extra allowance for set should always be made.

HEALTH: (Quarantine and Medical Clearance). Medical attention to Masters and crews of ships provided by Q.G.P.C. Medical Officer when asked for by Master.

RADIO: Doha Radio – A7D – continuous watch on W/T 500 kHz, R/T 2182 kHz and VHF Channel 16.

Doha Port continuous watch on R/T 2182 kHz and VHF Channels 16 and 14. Umm Said Terminal for channel clearance keeps continuous watch on Channel 16. When advising their ETA ships must state their last port of call within the previous 21 days and report any sickness on board. If the last port of call is Bahrain or Ras Tanura, the previous port must be stated.

Vessels are requested to inform Petroqat, Umm Said by cable of their ETA at (M) Mishut Light Buoy and whether or not Pilot required, 72 hours and confirm 24 hours prior to their arrival. It should be clearly indicated that times quoted are in GMT. They should also state the quantity of cargo, in long tons, and the maximum loading rate required, deballasting time and whether able to load and discharge ballast concurrently. Any crew changes and/or medical treatment required should also be notified in this cable.

Except for Tankers, all vessels must contact Doha on VHF for ETA advice. Umm Said Terminals should be contacted for channel clearance.

These cables should be addressed to Petroqat, Umm Said, and passed via Doha Radio.

The following cable is sent to all vessels by Agent (Petroqat):

Quote:

Advise your ETA at pilot station Mishut (M) Buoy in GMT 72 hours and confirm 48 hours, 24 hours and 12 hours before arrival. Pilotage is compulsory and in order to confirm pilot boat arrangements essential you advise firm ETA 48 hours before arrival to avoid any delays. Rig combination accommodation/pilot ladder on Lee side before arrival. Pilot hoist and weighted heaving lines must not be used. Tugs are available if required. Please advise your requirements 48 hours in advance.

It is preferred that mooring hawsers in general consist of rope where possible but all wire moorings or wires with rope tails are acceptable. Please note, however, that for safety reasons, all springs which are connected to the main jetty must be of rope or wires with rope tails.

Please advise your last cargo, and confirm that your tanks are cooled down and ready in all respects to receive your nominated cargo. Butane and propane can be loaded concurrently if required. Loading lines are 12 in. diameter and vapour return lines are 8 in. diameter all fitted with Class 150 ASA flanges. Your attention is drawn to the Prohibited Anchorage (Lat. 25° 10′ N.) safeguarding the submarine pipe-lines laid in the vicinity of Wakrah (W) Buoy.

If your vessel is fitted with telex which has high (75B) and low (50B) speed transmission, please ensure that your machine is operating on low (50B) speed mode to ensure that we receive clear, ungarbled text.

Petroqat Umm Said

Unquote.

Telex: Vessels fitted with telex machines may make contact through Telex No. 4050 Qpausd Dh. However, only the low (50B) transmission mode should be used to ensure the receipt of clear, ungarbled text.

High (75B) speed transmission mode must not be used.

VHF: Umm Said Terminal is equipped with VHF radio equipment operating on Channels 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 67, 68, 69, 70, 71, 72, 73, 74 and 77 of international maritime mobile telephone service.

A continuous 24 hour listening watch is maintained on Channel 16, the call sign being "Umm Said". The range of station is approximately 50 miles.

Berth Radio Frequency: Tanker berthing/loading operations are carried out using intrinsically safe portable VHF radio sets on a frequency of 155.975 MHz (transmit and receive). These radio sets also have the facility to use VHF Channel 9.

TUGS: Given sufficient prior notice a tug can usually be made available on request.

BERTHING: Pilots act in same capacity as Mooring Masters in the berthing of vessels, after which they supervise raising of flexible hoses and connection to ship's manifold. During loading operation they act as the Corporation's representatives.

Vessel's crew are expected to assist with hose connecting.

North Berth is a Single Point Mooring in position Lat. 24° 53′ 37.2″ N., Long. 51° 34′ 54″ E., connected to the shore installation by a 36 in. submarine pipe-line. The seaward end of the pipe-line and buoy terminates in 2×16 in. flexible floating hoses. Vessels are moored by a single hawser from bow to buoy. From 1987, all vessels must be equipped with a "Tongue Type" bow mooring chain stopper to OCIMF Standards.

The following equipment should be carried by each vessel:

(i) One 4 in. circumference × 40 fathom messenger rope ready for use at the bow together with mooring lines of suitable size ready for use.

(ii) One good boat rope at least 200 ft. long ready at accommodation ladder position.

(iii) Derrick or crane rigged over the port side manifolds should be capable of lifting 16 in. floating hose to a height of up to 30 ft. above deck (S.W.L. 10 tons).

(iv) Reducers or adaptors if necessary to be bolted to the ship's manifold flanges so as to take 2×16 in. loading hoses.

Warning: Ship's anchors must never be used within 0.5 miles of this berth or the 36 in. submarine pipe-line and must therefore be well secured at all times.

The South Berth consists of a Conventional Buoy Mooring, connected to the shore by a 24 in. submarine pipe-line. The seaward end of the pipe-line terminates in 2×16 in. flexible hoses.

Vessels are moored at this berth by ship's anchors and mooring buoys. The following equipment should be carried by each vessel.

(i) Port and starboard anchors to be fitted with marker buoys and sufficient line. This will facilitate recovery of anchor in the event of loss.

(ii) One good boat rope at least 200 ft. long ready at accommodation ladder position.

(iii) 4 good mooring lines aft, of a suitable size for the vessel on which they are used. Each line should consist of 120 fathom hawser, tailed by a similar hawser and ready to run out when required.

(iv) 2 good mooring lines forward similar to the after lines for use on the Shama'al Buoy (No. 6).

(v) Two 3 in. circumference messenger ropes, one forward and one aft.

(vi) 2 good rope stoppers to be available forward. 4 good rope stoppers to be available aft.

(vii) Derricks or cranes rigged over the port side manifolds should be capable of lifting 16 in. flexible hose from the seabed to a height of up to 30 ft. above deck (S.W.L. 10 tons).

(viii) Reducers or adaptors (if necessary) bolted to ship's manifold flanges so as to take 2×16 in. loading hoses.

(ix) Carpenter's stoppers are provided on loan by Q.G.P.C. for use with Corporation's 4.75 in. wires. Chain stoppers must not be used.

Note. Where a vessel has 2 or more loading connections, the ship's flanges should not be less than 4 ft. apart.

TERMINAL INFORMATION:

Berth	*Max. t.p.h.*	*Fixed sea-line*	*Overrall hoses*
North (SPM)	7,000	One – 36 in.	Two – 16 in.
South (CBM)	5,000	One – 24 in.	Two – 16 in.

Depth of Water: Available depth of water at seaward end of sea-line is as follows:

North Berth (SPM)	65 ft. (19.6 m.)
South Berth (CBM)	48 ft. (14.6 m.)

An allowance of 8 ft. for South Berth has been made for height of sea-line end cradle above the sea bed.

Berth Limitations:

North Berth (SPM) – 320,000 Summer d.w.t.
Bow to manifold 590 ft.

South Berth (CBM) – Maximum 320,000 tons Summer d.w.t.
Minimum 50,000 tons Summer d.w.t.

Note: Minimum size of vessels at CBM is governed by vessels length – 650 ft. minimum.

Large tankers loading at either berth will be required to maintain a minimum of 20% of SDWT ballasted/loaded condition at all times and maintain an even trim.

After the vessel has been securely moored in berth, the hoses are lifted and connected to the ship's manifold.

The Mooring Master will not transmit any loading instructions to the shore until the officer-in-charge of the deck is satisfied that the hoses are connected correctly and that all valves have been set for receiving cargo.

While in berth, ships should be ready to move under their own power in the event of their breaking adrift, catching fire, fire in adjacent berths or other emergency. No repairs should be carried out while in berth which would immobilise the ship or impair her fire-fighting efficiency.

The Mooring Master will instruct the Master of the vessel as to any signals needed for local requirements.

The Mooring Master brings an intrinsically safe portable radio to the ship. The radio may not be used for private conversation.

The use of the ship's radio (including the VHF radio, except in an emergency) during loading is strictly prohibited. Portable intrinsically safe radios used by ship's personnel to control loading procedures is permitted however, provided such use does not interfere with ship/shore communications.

When loading is completed, hoses will be disconnected and lowered, under the supervision of the Mooring Master.

Ships will then proceed to an anchorage allocated by the Mooring Master or direct to sea.

NGL Jetty: This is a 'T' type jetty with breasting dolphins flanked either side by 2 mooring dolphins. Water depth at the berth is 42 ft. (C.D.).

Suitable for berthing vessels of approximate dimensions LOA 550 ft. (168 m.) to LOA 950 ft. (290 m.)

Connections:

(a)	Propane Vapour Return	8 in.	150 ASA flanges
(b)	Propane Liquid	12 in.	150 ASA flanges
(c)	Butane Liquid	12 in.	150 ASA flanges
(d)	Butane Vapour Return	8 in.	150 ASA flanges

Bulk Ethylene Jetty: Ethylene tankers are moored at the Qatar Petrochemical Company's facilities at Berth No. 19. Liquid is loaded through one Chicksan type 12 in. loading arm and there is a similar 6 in. vapour return arm. Flanges are Class 150 ASA.

Water depth at the berth is 42 ft. (Chart Datum). Mooring and unmooring operations are normally restricted to daylight hours.

Tugs are available to assist in mooring and unmooring if required.

CARGO HANDLING FACILITIES: Government Pilots provide berthing assistance. See "Doha".

Max. draft permissible at any state of the tide – 33 ft.

Max. draft permissible at HW – 39 ft.

Max. LOA – 850 ft.

Berth Nos.	*Length* (m.)	(ft.)	*Depth* (m.)	(ft.)	
1	350	1,155	15.0	49.5	QASCO (Steel Cargo)
2	190	627	15.0	49.5	,,
3	190	627	15.0	49.5	,,
4	190	627	13.0	43.0	Ind. Cargo (QGPC)
5	190	627	13.0	43.0	,,
6	190	627	12.0	39.6	,,
9	200	660	10.0	33.0	Gen. Cargo (Ports)
10	200	660	10.0	33.0	,,
18	255	841.5	13.0	43.0	Petro Chemical
19	255	841.5	13.0	43.0	,,
QAFCO N	212	700	11.8	39.0	Ammonia
QAFCO S	212	700	12.0	40.0	Urea

1. *Urea Fertiliser Export:*

Qatar Fertiliser Company – QAFCO Qatar Government joint venture with Norske Hydro who manage the project.

Fertiliser is in polythene bags of 50 kg. nett each.

Loading is by two independent loading towers. Depending on ease of access to ships' holds a 24-hour loading rate of 700 tonnes is given by the loading equipment.

The pile construction jetty lays at right angles to the shore line and along direction 310° – 130°.

Urea loading equipment is on the S.W. face of the jetty. Jetty face length between extreme end bollards is 800 ft. (244 m.).

2. *Ammonia Export:*

The N.E. face of jetty laying 310° – 130° of length 800 ft. (244 m.) has three functions, one of them being for ammonia loading. The pipe-line is 8 in. (203.2 mm.) diameter.

3. *Bulk Grain Import:*

QAFCO Jetty N.E. face is also used as the bulk grain discharge berth, to the Qatar Flour Mill Company situated at the shore end of the jetty.

Discharge Gear: Consists of portable grain suction/blown discharge units placed aboard vessel.

Also see "Terminal Information – NGL Jetty" and "Developments".

CARGO:

All oil tankers loading at Umm Said must be fitted with a fully operational Inert Gas System and that all cargo tanks are fully inerted before loading commences.

The right is reserved by the Terminal NOT to load any oil tanker not inerted if weather conditions at the time of loading are such that the build up of large concentrations of gas around the vessel will not be prevented.

1. Flash Point. Flash point of Qatar Crude is below 32° Fahrenheit.
2. H_2S Content. Qatar (Land) Crude contains concentrations of H_2S (sulphuretted hydrogen). This is an evil-smelling poisonous gas which can be lethal depending on concentration of gas in the air inhaled. It can be detected normally by its smell, but a high concentration of the gas rapidly paralyses sense of smell and may lead to a false sense of security. It is, therefore, important that when the presence of the gas is detected the area or compartment concerned must be left with all possible despatch until adequate ventilation can be carried out. The explosimeter will not detect this type of gas.

It is not intended to exaggerate the dangers of H_2S and if a vessel is fitted with an operational inert gas system then these dangers can be regarded as minimal. Large quantities of Qatar (Land) Crude have been carried in the past on non-inerted tankers without accident. However, in the light of experience gained, the under-noted precautions have been proved necessary to provide against a possible accident:

(a) During loading, venting of tanks should be allowed only through the agreed venting arrangements (as noted in the ship/shore safety check list).

(b) Manual ullaging of tanks should be kept to a minimum and, if undertaken, personnel should keep to windward of the tank openings and avoid breathing fumes as much as possible. Breathing apparatus should be worn if manual ullaging of tanks is to be undertaken over a prolonged period or in a confined space.

(c) Entry into pump rooms or any compartments where gas can collect should be avoided. If entry is considered necessary, then an approved breathing apparatus and lifeline should be worn by the person entering and other persons should be standing by, and tending the life-line. One of those persons on stand-by should be wearing a second breathing apparatus set and life line, ready to rescue the person entering the compartment should the latter be ovecome by fumes.

(d) Breathing apparatus, life lines and oxygen resuscitators should be readily available during all cargo and tank cleaning/gas freeing operations.

(e) During cargo discharging and tank cleaning/gas freeing operations, the gas ejector for the pump room should be kept running.

LOADING:

Readiness: Notice of Readiness will be received by the Corporation Representative provided vessel ready to load. Lay time will commence as stipulated in the export agreement between purchasers and vendors. A full cargo is deemed to be the maximum cargo which can be loaded in the ship at Umm Said consistent with safe underkeel clearance on sailing, as advised by Mooring Master.

The Corporation will make every effort to load tanker on arrival provided berth available and weather permits.

Advice from vessel which states she is ready to receive cargo is considered as final, and as indicating that every operation necessary aboard vessel has been completed. As soon as possible after such a signal has been received, and without further advice, loading will commence.

Full cargo is deemed to be the maximum cargo which can safely be loaded in the vessel at Umm Said. Completion of loading is subject to the normally accepted tolerances above or below the required cargo.

Tank Dips: During loading, hourly checks of vessel's tanks shall be made by ship personnel to determine cargo loaded for comparison with shore figures if required. This is to prevent loss of oil through a leaking hose and particularly applies at night when seepage of oil can remain unobserved.

Inspection of vessel's tanks will be made by a ship's Officer before loading and, if required, by a Q.G.P.C. Representative. Opening dips and closing ullages will be taken by ship's personnel and the quantity of cargo calculated.

Particular care must be exercised by ship's personnel, towards completion of loading, in the "Topping off" of tanks to ensure that the Terminal is given timely advice of any decrease in pumping rate required. Adequate "Stand-by" notice should be given before the final "Stop".

Loading Pumps: Three 2,230 h.p. pumps are used to load crude oil and it is important to note that any rapid changes in the oil velocity may cause pressure surges in the loading system. A pressure surge may rupture the flexible hoses connected to the vessel spilling dangerous quantities of crude oil onto the decks or surrounding areas and may also cause excessive damage to the Terminal installations. To avoid these risks, valve operations and tank switching should be done with extreme care. Please ensure that 15 minutes' notice is given for "Slow Speed" and/or "Stop" instructions. A letter of protest will be issued by the Shore Representative/Mooring Master on any occasion a pressure surge is generated, whether Terminal installations have been damage or not.

BALLAST: When a vessel enters Port waters in ballast, the ballast water for overside discharge *must be clean* and a declaration signed by the Master and delivered to the representative of the Terminal to this effect. Oily wastes, oily water or other refuse must not be discharged overboard in Port waters. Vessel's scuppers must be effectively plugged and leakage or spillage of oil aboard ship must not be swept or washed overboard whilst in Port waters.

The attention of Masters is drawn to the volume entitled "International Conference on Prevention of Pollution of the Sea by Oil" 1962 and subsequent publications issued by the International Maritime Organisation.

Vessels may be subject to heavy fines and liabilities for claims arising from pollution of the sea and shore areas.

In Umm Said the "load on top" system is normal procedure and Masters of all tankers are required to certify quantity of slops on board and their intention of "loading on top". If "load on top" system is not used the Master will be required to certify adequate reasons for not doing so, e.g., vessel drydocked in last port, etc.

Note:

(a) Essential that vessel is adequately ballasted to ensure safe handling and manoeuvring. Please comply with Mooring Master's requests as to ballast quantity and disposition.

(b) Umm Said is an open roadstead and subject to sudden changes in weather. Large tankers will be required to maintain a minimum of 20% of SDWT ballast/load condition at all times and maintain an even trim. Masters of all vessels should note that should a situation arise that a vessel has to vacate the berth due to adverse weather or for any other reason, the vessel will be required to have on board sufficient ballast/cargo to enable it to manoeuvre with safety; thus it is of great advantage to commence loading whilst discharging ballast or prior to completely deballasting to avoid leaving the vessel in a flying light condition.

(c) All pump room seacocks must be closed and lashed before commencement of loading unless loading is commenced prior to deballasting, when they will be closed and lashed after deballasting is completed.

MEDICAL: Medical and hospital facilities available.

FUEL: See "Doha".

FRESH WATER: Available at cargo berths but not at S.B.M., C.B.M. or L.N.G. Berth.

CUSTOMS ALLOWANCES: The State Laws of Qatar are very strict about the import of liquor and its consumption both on the mainland and on vessels in the harbour. No employee, whether senior or junior, is permitted to import any liquor direct or to bring any liquor ashore from vessels, and under no circumstances should liquor be offered for consumption on your vessel to any Q.G.P.C. employee. At the present time vessels enjoy the privilege of not having to seal their liquor stocks whilst in port, but you will readily appreciate that this privilege would be withdrawn if the above rules are not strictly observed whilst vessel is at Umm Said.

REPATRIATION: Immigration/Transit facilities for arriving or departing ship personnel are good. Ample notice should be given on passport details to ensure minimum delay to travelling personnel.

DISCHARGE CERTIFICATE: The Master of every vessel loading at Umm Said is handed a Discharge Certificate for completion by the Customs or Port Authority at port of discharge and return by air mail to Qatar General Petroleum Corp., P.O.Box 3212, Doha, Qatar within 40 days of sailing from Umm Said.

Instructions regarding the cable to be sent after discharging a cargo loaded at Umm Said must be strictly followed.

It must be emphasised that failure to comply with this requirement may result in delay or even boycott of the vessel upon return to Qatar.

It is therefore in best interest to ensure that Agent at port of discharge attends to despatch of this certificate and the cable with least possible delay. Airmail should be used for Certificate posting.

N.B. If the cargo is destined for onward transit, the final destination of the cargo must be advised on the Certificate.

SECURITY: The Government of Qatar and the Corporation are anxious to ensure that unauthorised persons do not board vessels loading at Umm Said. Vessel's co-operation is requested in checking the identity of all persons boarding.

Vessels are particularly advised to keep all points of access to vessel under surveillance at all times, and to provide maximum night illumination of vessel insofar as the safety regulations permit.

A State Police Launch is present in the area and may be available for assistance if required.

GENERAL: *Stores and Provisions:* At Umm Said there are no facilities for the supply of stores.

Q.G.P.C. Light Dues: A charge is made to cover the provision and maintenance of light buoys in the Approach Channel to Umm Said. This covers one visit to this port, both inward and outward passage.

Qatar Port Dues: The State of Qatar impose Port Dues on all petroleum carrying vessels which load hydrocarbon substances in one or more of the oil loading ports located in the State of Qatar which includes islands and offshore areas belonging to the State of Qatar.

Note: The G.R.T. for purposes of these calculations will be that shown on the Arrival Report signed by the Master.

M.E.N.A.S. Light Dues: M.E.N.A.S. Light Dues at rates fixed by the Middle East Navigation Aids Service are payable at Umm Said to cover both inward and outward passage through the Gulf.

DEVELOPMENTS: The new Umm Said port, opened in 1977, has a total water frontage of 4.5 km. of which 2.5 km. has been developed to provide deep-water berths and a harbour for small craft. Three berths at the Northern end having 15.5 m. minimum depth of water at MLLW are reserved mainly for the requirements of Qatar Steel Company and 2 berths at its Southern end having 13.0 m. minimum depth of water are reserved mainly for the requirements of Qatar Petrochemical Company. Three additional berths having 13.0 m. and two berths having 10.0 m. minimum depth of water at MLLW are available for specialised and general cargoes.

Inner approach channels and manoeuvring areas have been dredged to serve all berths in the new Port.

In addition there are wharves under construction which will be used by general cargo vessels, Ro/Ro vessels, car carriers and container vessels.

A chemical plant is also being constructed.

SHIPMASTER'S REPORT: 1980 (updated 1988).
Vessel: 210,000 tonnes d.w.
Pilotage: This is now compulsory for the inward passage too for tankers. The Pilot/Mooring Master boards by boat from Doha at Mishut Buoy in position Lat. 25° 16′ N., Long. 41° 47′ E.
Agents/Operators: Qatar Petroleum Producing Authority has now been renamed Qatar General Petroleum Corporation and Notices of Readiness, etc., should be addressed accordingly. Cable address: PETROQAT, Umm Said.
Documents: 2 Crew Lists. 2 Stores Lists.
Radio: A7S was heard after contact had been established on VHF. The Mooring Master did not know of any ships ever using this station.

AGENCY:
(A) *Tankers:*
Qatar General Petroleum Corporation (Onshore Operations), P.O.Box 50070, Umm Said, Qatar. Telex: 4050 DH Qpaush. FAX: 770421. Cable: Petroqat, Umm Said. Terminal Tel. No.: 322569, 771219, 774221, 774223.
(B)*Other Vessels:*
Qatar National Navigation and Transport Co. Ltd., P.O.Box 153, Doha, Qatar. Telex: 4206 Melaha DH. Cable: Navigation. Tel: 321175/9, 23684, 21213.
AUTHORITY: Qatar General Petroleum Corporation (Onshore Operations), P.O.Box 50070, Umm Said, Qatar. *Tel:* 774210, 771852. *Telex:* 4050 Qpa Usd. *Cables:* Petroqat Umm Said. *Contact:* A. A. Al Najjar, Terminal Superintendent.
General Cargo: Director, Department of Ports, Ministry of Communication and Transport, P.O.Box 313, Doha, Qatar. *Tel:* PABX 457457, 414626. *Telex:* 4378 Mawani DH. *Cables:* Mawani. *Contact:* Harbour Master. *Tel:* 414287.

NOTES

Please also advise Shipping Guides Ltd.

Reunion Island

POINTE DES GALETS: 20.55 S. 55.17 E. (See Plan)

LOCATION:
West Port: 20° 55′ S., 55° 17′ E. The West Port is comprised of the North Dock and the South Dock.

East Port (Baie de la Possession): 20° 54′ 50″ S., 55° 19′ 40″ E. The East port comprises the West Dock (Berths P.10 and P.11).

Arrival time at both ports is the time when the vessel crosses the leading line no more than 2 miles from the breakwaters.

FLAG: French flag.

PILOTAGE: *East Port and West Port:* Compulsory for all vessels over 50 m. LOA. Pilot is normally ordered by ship's Agent, or in particular cases by the Harbour Master if contacted by VHF beforehand. Pilot launch carries regulation pilot signals. Pilot boards at the entrance to the port about 1 mile to 2 miles from the breakwaters. Pilot on VHF Channel 16, it is recommended that a watch be kept and ETA confirmed.

APPROACHES: *West Port:* Channel and Buoyage: The leading line 102° 30′. In the channel the depth is 10 m., 70 m. wide and is buoyed by 4 spars, 2 on each side.

The leading marks for access to the North Port, South and Fishing Port, respectively 009°, 189° and 260°, are marked as shown below:
North Dock: By day, 2 white rectangular signs, with a thick red line marking the centre line, at night, 2 fixed red lights.
South Dock and Fishing Basin: 2 rectangular white signs with a black vertical line marking the centre line by day. 2 fixed green lights by night.

ANCHORAGES: *East Port and West Port*: There are 2 anchorages in the roads near the port.

(a) In Baie de St. Paul in depths of about 40 m., well marked and safe except in very strong swell. Mooring buoy available in bay.

(b) In Roads of La Possession unmarked anchorage and little used.

If vessel requires a Pilot for anchoring, then anchorage dues are incurred. Vessels anchoring by their own means do not incur charges.

RESTRICTIONS: *West Port:* Manoeuvring is best done in the early morning or at daybreak because during the day wind can make movement difficult. The current in the channel varies in strength (between 1 and 2 knots) and direction. Its direction can only be determined by careful observation during the approach. As a consequence ships should be ready to anchor on instruction from the Pilot while transiting the channel. Vessels swing in the outer port using a long headline.

Berth No. 8 unsafe during swell periods.

MAX. SIZE: *West Port:* Under certain conditions, the topography of the port and jetties, access is limited to the sizes below:
North Dock: Length 160 m., beam 22.0 m., draft for entry 8.5 m. Greater with preliminary agreement of the Port Authorities. Departure draft fixed by the Port Authorities. (Length 160 m. if draft less than 8.50 m.).

South Dock: Length 175 m. Beam 24 m. Draft 8.0 m. (P8)
8.5 m. (P5)
Length 160 m. Beam 24 m. Draft 8.5 m. (P8)
9.0 m. (P5)

Fishing Basin: Length 55 m. draft 4.50 m.

Otherwise entry or departure will depend on the Pilot's advice. Normally entry only occurs at the following times depending on the season. Maximum daylight 0445 – 1845 hrs.
East Port: LOA 215 m., draft 12.0 m. and beam 34 m.

RADIO: Saint Lys or Saint Denis Radio.

VHF: Harbour Master's Office equipped with VHF. Call on Channel 16 daytime only (Sunrise – Sunset).

TUGS: 2×2,400 h.p. and 1×800 h.p. Only used to assist vessel manoeuvring in the port. Tug joins vessel in outer harbour. Ship's lines always used. Tug will also assist on roads (deliveries of mail).

BERTHING: *West Port:* Berth assigned by Harbour Master, basis vessel's length and draft. Tankers berth in the outer harbour at dolphin berth. No slop facilities.

Fore Port: Channel: 70 m. usable width. Turning circle 300 m. Dredged to 10 m. Berth H, 175 m. long, dredged to 8.5 m., max. draft in middle 7.5 m.

North Dock: Access lock: 30 m. width, 10 m. depth.
Berth 1: 160 m. length, 8.50 m. depth.
Berths 2, 3, 4: Total length 366 m., 9.00 m. depth. For 2 or 3 vessels.
Berth 5: 150 m. length, 7.5 m. depth. French Navy.
Berth 6: 140 m. length, 6 m. depth. French Navy.
Berth 7: 210 m. length, 9 m. depth. Bulk sugar loading berth, rate 400 t.p.h.

South Dock: Berths 8, 9: Each 190 m. length, 10 m. depth.
Berth S: 120 m. length, 8.5 m. depth.

Fishing Basin: 6 berths, 70 m. length, 5 m. depth. Max. draft 4.2 m.

The depths above are dredged depths.

Forklifts for handling 40 ton containers with spreaders at certain berths.

East Port: Located at Baie de la Possession, now handles 50% of the traffic for the Pointe des Galets.

Berthing is carried out between the hours of 0400 and 1900.

Approach to the port is easy. The leading line (162° True) is marked by two black diamonds on white square towers. At night, two white lights are exhibited.

In the daytime there is occasionally a strong Northerly wind and a current of 0.5 knots may be experienced. There is no swell, except at times of cyclone.

Length of quay (Berths P10 and P11):	510 m.
Depth alongside:	12.8 m.
Depth of access channel:	13.20 m.
Width of access channel:	130 m.
Turning Basin:	300 m. × 400 m. with depth 13.2 m.

Berth P10 receives 90% of petroleum product for the port. Clinker also discharged at the berth.

Berth P11 is a container terminal and handles 90% of the traffic for the port.

Berths P10 and P11 have special access conditions whereby the authorities give priority to regular users.

Containers are handled at a rate of 300 per shift of 8 hours, with 4 or 5 gangs, depending on number of cranes on board the ship.

Bunkers are not available.

BULK HANDLING FACILITIES: *West Port:* Berth No. 9: Portable vacuator for discharge of cereals, capacity 200 t.p.h.

CRANES: No shore cranes.

STEVEDORES: Normal working hours 0700 – 1700 hrs. Possible to work in meal hours 1100 – 1230 hrs. and 1700 – 1800 hrs.

TANKERS: Operator's Report: (West Port).

Approaches: Currents generally set across the harbour entrance and vessels should not approach within one mile of the port without the Pilot onboard. Also it has been reported that when entering the channel at sunrise the sun's glare distorts and obscures some important ranges and structures.

Entry: The outer harbour is entered via a dredged channel of 11 m. (36 ft.) depth, about 70 m. (213 ft.) wide through the breakwaters. When entering the harbour between the breakwaters, a moderate speed may be necessary to compensate for cross currents. Once inside the breakwaters vessels have less than 1,500 ft. (450 m.) to the end of the outer harbour, to stop and turn 180° for berthing. Four buoys indicate limits of 8.5 m. water depth at side of dredged channel.

Weather: The port is subject to "rollers", ocean waves which though infrequent are not predictable. They occur at certain intervals, in any weather and during a perfect calm, unaccompanied by any change in the atmosphere or other indication. The first appearance is a long swell, not assuming the shape of an ordinary wave until it reaches the shore, on which it will burst with great violence, sometimes assuming greater proportions than during a cyclone.

Masters are advised to discontinue cargo transfer operations and to vacate the berth before the swell reaches the stage where the motion imparted to the ship and the consequent bumping against the pier might result in severe damage to the vessel. (A swell warning is in existence).

General: Petroleum products are stored at the Shell Terminal for Esso, Caltex, Total and Elf. White products are discharged at Berth P10 (East Port), while fuel oil and gas oil are discharged at Berths P8 and P9 (West Port).

Port Approaches: The approach to the port is clear of navigational dangers, but soundings are of little value as depths of 200 fathoms can be found one mile offshore. However, the land provides good radar echoes and visibility is usually good, except during heavy rain.

Restrictions: Tankers not berthed at night.

Special Preparations: Both anchors must be ready before arrival. Port anchor is always used for berthing. Mooring lines, gangway and manifolds must be prepared for berthing starboard side to P9 Berth. Ships mooring at Berths P8 and P9 must have lifting gear ready, respectively on port and starboard side, to lift cargo hoses.

Special Conditions: A large tanker at Berth PH near the breakwater may have to leave the harbour and return later if another large vessel is to be turned in the outer harbour.

Tugs: Normally one tug assists making fast as required by Pilot after vessel enters within the breakwaters. Tug normally pushes, but if making fast use tug's lines.

Berthing Procedures:

Berth PH – Outer Harbour: Vessels bound for Berth PH on the North side of the outer harbour pass the berth on their port side soon after passing through the breakwaters. They are then turned to starboard with the aid of a tug and berth starboard side to the pontoons, heading seaward.

Berth PH consists of a central "T" shaped platform supporting 2 hard arms and it is protected by a breasting dolphin of steel piles. The face of this dolphin is slightly inside the line joining the 2 concrete breasting structures on which the ship lays when berthed. Resilience of breasting dolphins is rather limited.

The disposition of the bollards is not particularly favourable for a proper lead of the spring lines when the ship is positioned alongside.

Berths P8 and P9 – Bassin Pres. J. Caille: After having passed through both breakwaters the vessel turns to starboard with the aid of the tug and berths head into the dock port and starboard side to, respectively to Berths 8 and 9.

These are non-dedicated tanker jetties and ar normally used for general cargo. Ships carrying gas oil are shifted to these berths from berth PH The hose is connected purposely for the operation. Bollards are placed along the edge of the jetty. Breast lines cannot be secured. Both berths are well sheltered and not affected by swell.

Pipe-lines are laid under the quay and flexible hoses are connected each time the ship has to discharge.

Weather at Berth: Weather conditions are generally good except during the cyclone season which occurs November to March. The cyclone warning system is well developed and early warning can be expected. When cyclone warning is received, ships are advised to be ready to leave the port.

Fendering: The fendering system at PH Berth is made of rubber faced timber and is considered insufficient if unusually high swell imparts motion to the ship.

Gangway: Ship's gangway is used.

Facilities:
Water is available at the quays.
Fuel Oil available ex-quay at Berth P8 and P9.
Provisions are available but expensive.
Ship's stores are mostly imported and are therefore, expensive. Availability uncertain.

Ballast, Slops and Tank Cleaning: There are no slop or dirty ballast facilities, and tank clearning is only allowed with special permission from the Harbour Master when 2 tanks may be made available.

Engine room slops may be discharged by prior arrangement.

Cargo Connections: Berth PH has 1 × 10 in. and 1 × 8 in. counter-balanced hard arm for handling of gas, rum, molasses, cement and bitumen. Connection is a bolted flange, ASA standard.

Berths P8 and P9 have flexible hoses, 6 in. for gas oil and 8 in. for fuel oil. Connection is a bolted flange.

Ullageas and Temperatures: Taken by a terminal representative accompanied by a ship's officer.

Oil Pollution: Pointe des Galets and all Reunion is covered by the French National "Polmar" plan to cover oil pollution prevention.

Fire Fighting: The port has its own fire brigade and both tugs are equipped with foam and water. There are also fire hydrants on the quays.

DENSITY: 1025.

FRESH WATER: Available at all times by pipe-line at the quays. Rate 10 t.p.h. minimum.

FUEL: Fuel and marine diesel available at Berth Nos. 8 and 9.

MEDICAL: Doctor and hospital facilities available.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: Normally performed by ship's crew who also unlash and hook containers at the 3rd height.

REPAIRS: Repairs can be effected by P.I.B. Tel: 43.80.05. Telex: 916614.

REPATRIATION: All facilities available for crew change and repatriation.

AIRPORT: 30 km. away, daily connections world-wide (Air France, Air Mauritius, S.A.A., Reunion Air Service, Point Air and Air Madagascar).

TIME: GMT plus 4 hours. No alterations during the year.

HOLIDAYS: No cargo work on May 1st or November 1st. Possible to work on January 1st, Easter Monday, May 8th, July 14th, August 15th, November 11th, December 20th and December 25th.

TELEPHONES: *West Port:* Police 42.00.17 and 42.15.80. Ambulances 18 or 42.06.53 (Private), Fire 18, Harbour Master 42.09.12. Telephones can be placed onboard at all berths.

East Port: Police 42.00.47. Ambulance and Fire 18.

SERVICES: Harold J. Thomson – P&I Club representative (Oceanus, Strike, London Mutual and others). Speaks excellent English, will assist with any shipping services or supplies. Tel: 42.03.10. Telex 916252.

IDENTIFICATION CARDS: Seaman's Book compulsory, to avoid visa problems.

DELAYS: General cargo rate 500 – 1,000 tons per day, depending on category and conditions.

SHORE LEAVE: Crew are allowed to go ashore.

SHIPMASTER'S REPORT: 1978 (updated 1988). West Port.

Documents: 3 Crew Personal Effects Lists, 3 Crew Lists, 3 Bonded Stores Lists. Declaration of Health (Supplied on arrival).

Pilotage: Pilotage compulsory. Pilot boards 1 mile off breakwater, minimum of 12 hours' notice required.

Anchorage: At Saint Pauls Bay, 5 cables offshore in depth of 20 fathoms – the water is too deep further offshore.

Restrictions: Vessels can enter and leave at any stage of the tide during daytime. Max. beam for North Port 22 m.

Max. Size: Length 175 m. with draft 8.0 m. and length 160 m. with draft 8.5 m.

Tugs: Normally 1 tug required for berthing and unberthing in the North and South Port. (3 tugs available in 1986).

Radio: Radio station – Saint Dennis Radio "FFD". VHF Channel 26 (Hours: 0800 – 2000 hrs. weekdays, 0800 – 1200 and 1500 – 1800 hrs. on Sundays and 24 hours during cyclone periods).

VHF: Pilot and Port Authority Channel 16.

Special Bulk Facilities: Bulk sugar berth – rate 400 t,p.h. No quay cranes – no Ro/Ro facilities. Facilities for handling containers and storage space for containers in North and South Dock in the West Port and at the East Port.

Fresh Water: Available.

Repairs: Facilities available.

Services: Provisions, Bunker fuel, diesel available.

SHIPMASTER'S REPORT: January 1987.

East Port: Tankers berth at Berth P10.

Currents of opposite direction are observed. At a distance of 3 miles off the breakwaters an Eastward current of 1.5 knots experienced and when 1 mile off, a Westerly current of 1.0 knots experienced.

AUTHORITY: Direction Departementale de l'Equipement de la Reunion, Arrondissement Mixte, Subdivision Exploitation du Port et du Littoral, BP 8, 97420 Le Port, La Reunion, Republic Francaise. *Tel:* 42.09.55. *Telex:* 916428 RE. *Contact:* R. Goavec, L'Ingenieur des T.P.E., Chef de la Subdivision S.E.P.L.

AGENT: SCAC Transport International, 97420 Le Port De La Reunion. Tel: 42-00-22. Telex: 916137. Cables: "Freight Le Port".

NOTES

Please also advise Shipping Guides Ltd.

Romania

CONSTANTZA: 44.09 N. 28.39 E. (See Plan)

DOCUMENTS: As soon as vessel is boarded by the border control commission, the Master fills in a form of declaration in 4 copies, which together with Stowage Plan, Cargo Manifests, Sanitary Certificates, is handed to representative of the Agency. Also following documents are to be handed over at Harbour Master's Office:

Derat Certificate.
Certificate of Nationality.
Tonnage Certificate.
Safety Equipment Certificate.
Load Line Certificate.
Safety Radio-telegraphy Equipment Certificate.
Ship's Register.
Safety Construction Certificate.

From the time a vessel enters the territorial waters of Romania until she leaves that very zone (i.e. 12 miles), hoisting of the Romanian flag is compulsory. A vessel calling at Romanian ports for the first time and not having a Romanian flag on board must order one through her Agent immediately after berthing.

PILOTAGE: All vessels bound for Constantza must inform by cable their ETA at 10, 7, 5, 3 days and 48 and 24 hours before vessel's arrival in the roads.

After arrival in the roads the vessel must contact "Port Control" (Pilotage) on VHF Channel 14, or through Constantza Coast Radio Station call sign YQI – frequency 500 kHz or 461 kHz, 2 hours before arrival in the roads, in the anchorage place, as well as Navlomar Office on VHF Channel 10.

Pilotage of vessels in the roads and in the port is compulsory, even for shifting berth. Pilotage is available throughout 24 hours day and night, as per shift schedule issued by the Port Authorities or depending on ship's necessities (emergencies) but always with the previous approval of the Harbour Authorities.

The pilot boat has a black hull with "Pilot" in white on the sides, white upperworks and the letters "NR" on funnel.

Because the roads are open to stormy weather, vessels have to manoeuvre, to protect the Pilot when boarding.

ANCHORAGES: Vessels calling at Constantza can anchor in the roads of 4 nautical miles by 4 nautical miles, being between Lat. 44° 13′ N. and 44° 09′ N. and Long. 28° 48.1′ E. and 28° 42.5′ E.

The Meridians of 28° 45.3′ E. and 28° 47.6′ E. divide the roads into 3 zones parallel to the shore, numbered from West to East:

No. 1: 2 nautical miles, breadth for vessels smaller than 40,000 g.r.t. (excepting tankers).

No. 2: 1 nautical miles, breadth for vessels larger than 40,000 g.r.t. (excepting tankers).

No. 3: 3 nautical mile breadth for tankers and liquid gas carrying vessels.

The roads of Constantza Port (open) permits a proper and safe anchorage (for 40 – 50 large ships) in depths of 24 m. – 27 m. with the possibility of making a full swing in case of change of wind or direction of currents. The length and breadth of the vessels are of no importance.

RESTRICTIONS: See charts of the relevant areas and "Notices to Mariners".

In normal conditions entering and leaving port is done continuously throughout 24 hours. No tide.

MAX. SIZE: Depths up to 13.50 m. (44 ft.) allows the entrance of the vessels up to a maximum capacity of 65,000 d.w.t. into the basin for dry cargo, whilst the depth of up to 14.00 m. in the specialised oil liquid cargoes docks allows the loading/discharging of tankers with a maximum capacity of 80,000 d.w.t. – 90,000 d.w.t.

For larger tankers up to 150,000 d.w.t. – 200,000 d.w.t. the port has a special operational terminal (Berth No. 79), with a depth of 19.00 m. (62 ft.).

There is no restriction on length or breadth of vessels.

HEALTH: *Sanitary Inspection:* Immediately upon berthing the Sanitary Commission checks the ports of call during the voyage, the nature of the cargo, the number of crew and passengers, the port of destination, the state of health of all those on board, particularly regarding any disease, vaccinations, etc. The Sanitary Commission orders steps to be taken on the case of contagious diseases. The Sanitary Control inspect crew and provisions on board. If no contamination danger exists the Sanitary Commission issues the vessel's "Free Pratique".

RADIO: Constantza Radio – call sign YQI. Frequencies 500 kHz and 461 kHz and continuous watch on VHF Channels 16 and 12.

VHF: Direct contact with local authorities are possible.

Harbour Master's Office – Channel 67 – continuous listening.
Navlomar Agency – Channel 10.
Constantza Pilot Station – Channel 14 – continuous listening.
Towage Department – Channels 11 and 13 – continuous listening.
Port Authority – Channels 6 and 9 – continuous listening.
Salvage – Channel 13.

TUGS: Arranged by Navlomar Agency.

For all non-propelled vessels or vessels whose engines are under repair, or damaged vessels, towage is compulsory not withstanding their size. The towage services in/and out of the port are continuous day and night.

All port tugs are equipped with VHF Channels 11 and 13. The towage tariffs are in accordance with the horsepower of the tug, vessel's tonnage and the time used for towage.

BERTHING: The quays are 2.50 m. above the level of the sea, remaining constant as the Black Sea has no tide.

Constantza has 66 operational berths, with a total length of 13 km. and 14 berths for waiting, Derat, washing and de-gassing of tankers, repairs, etc.

Constantza is used for import – export and transhipment cargoes for a large variety of goods. The berths specialise in various kinds of cargo operations such as terminals for ore, coke, coal phosphates, apatite, fertilisers, cement, containers, perishable goods, Ro-Ro traffic, LASH operations, grain handling, oil, molasses, petroleum products and rolled steel.

CRANES: The berths are equipped with electrical shore cranes of 3 tons up to 16 tons and the specialised terminals are equipped with facilities for various cargoes. The port is equipped with 1 × 100 ton and 1 × 50 ton floating crane; 2 floating cranes of 25 tons – 30 tons and 6 of 16 tons also available.

The port is also equipped with mobile cranes of 250 tons, 118 tons and 90 tons, as well as many cranes from 70 tons to 12 tons.

STEVEDORES: Requests for stevedores to be lodged with minimum 4 hours before the commencement of working (the times for commencement of working turns are 0700, 1500 and 2300 hours).

BULK HANDLING FACILITIES: Max. LOA 220 m., max. draft 36 ft. 2 cranes with grabs, discharge rate 4,000 tonnes per day (jib crane) and 10,000 tonnes per day (bridge crane). 1 berth only for fertiliser loading, where long delays may be expected.

In total there are 6 ore discharging bridges, 2 phosphate discharging bridges, 3 silos, 39 mobile pneumatic installations and 2 floating pneumatic installations with capacity 300 t.p.h. each.

TANKERS: 5 oil wharfs capable of berthing tankers up to 80,000 d.w.t. – 90,000 d.w.t. and outer berths for vessels up to 200,000 d.w.t.

MEDICAL: The port polyclinic is available for medical attention to crew members at the following times: Monday, Wednesday and Friday between 1300 hrs. and 1600 hrs. and Tuesday, Thursday and Saturday between 0800 hrs. and 1300 hrs. In case of emergency call the Navlomar Office (16528).

DENSITY: The average density of the sea water in the port of Constantza is of 1016, resultant from the following variable values:

Spring 1014 – 1015.
Summer 1016 – 1017.
Winter 1016 – 1018.

FRESH WATER: Fresh water may be supplied at any berth, even during loading/discharging operations. Supply is done directly from the quay or by fresh water tankers.

FUEL: Navlomar Agency operates the bunkering service in the port.

Bunkers may be supplied at specialised berths in the petroleum basins or by self-propelled bunkering tankers for the supply of gas oil, fuel oil or a blend of both, as well as lubricants and other petroleum products. Supply of small quantities of bunkers, if absolutely necessary, may be made in the roads, weather permitting, the cost of the transport being charged separately.

REPAIRS/DRY DOCKS: Any kind of repairs (deck and engine) possible in the Constantza Shipyard, which has floating docks of 8,000, 10,000 and 15,000 tons and 2 dry docks for vessels up to 150,000 d.w.t.

Small repairs can be done during the loading/discharging operations at the repair plant of Port operation enterprise – M.T.Tc. (Port Administration).

SURVEYORS: Lloyd's Register; Bureau Veritas and Romanian Register of Shipping do class surveys for Germanische Lloyd, Norske Veritas, American Bureau, Nippon Register and USSR Register.

OPENING/CLOSING HATCHES: First opening and last closing of the hatches are done by the crew of the vessel (compulsory), with the facilities of the vessel. All other intermediary opening and closing is done by the stevedores, excepting vessels equipped with MacGregor hatch covers.

If there is bad weather during the loading/unloading operations, the vessel is obliged to cover the hatches with its own tarpaulins.

CUSTOMS ALLOWANCES: In the Navlomar Building there is a shop where seamen can buy on their own account, duty free, various Romanian and foreign articles. The objects are to be kept on board as carrying them out of the port is strictly prohibited.

REPATRIATION: Changing of crew and necessary repatriations may be organised through Navlomar Agency.

AIRPORT: For international flights as well as for international summer flights. Constantza has an international airport (Mihail Kogalniceanu) located 25 km. from the port.

TIME: GMT plus 2 hours. Summertime is GMT plus 3 hours, from first Sunday in April till last Sunday in September.

HOLIDAYS: Official holidays in Romania: New Year's Days (1st and 2nd January); Easter Orthodox Monday (April); Labourer's Days (1st and 2nd May); Liberation Days (23rd and 24th August); Anniversary of Socialist Revolution (7th and 8th November); Christmas (25th and 26th December); Proclamation of the Republic (30th December).

SHORE LEAVE: On completion of border inspection, crew may go ashore taking with them their Seaman's Books (or passports) and the permit (ticket) for coming back on board. Entering and leaving the port is permitted only via entrance/exit No. 1. Crew members are required to be back aboard their vessels by 0400 hours.

In the event that crew members desire to visit other places outside Constantza, they must inform the Agent for the necessary formalities. If there are passengers on board the Master will lodge the list of the same in 6 copies.

GENERAL: *Currency:* The unit of currency is LEU (plural LEI) which is equivalent to 100 bani. The official rate of exchange is the rate of the day – for sailors and for tourists ("tourist rate")

Services: Repairs of all types of electrical equipment, radar, gyro compass, R/T, the compensation of magnetic compass possible. Various services regarding classification survey and underwater repairs, repair of mechanical and electrical deck equipment, repair of the rudder and of the refrigerating plant also possible.

Navlomar: Shipbrokers, Chartering Agents, Ship Agents, Shipchandlers offers in all Romanian ports: Agency service; provisions; bunkers, deck and engine stores; ship repairs; shifting boards; cleaning of oil tanks; lashing of cargo; duty free goods; special services.

Following is an extract from "Notice to Sailors" issued by Authorities at Constantza:

1. Crew members are required to observe international rules covering work protection, port sanitation and Customs regulations, and in addition, Romanian law, both within the port and outside that area.

2. In order to avoid accidents concerned with port equipment, cranes, trucks, tractors and trains, etc., crew members walking inside the port area are permitted to walk only on the main streets and between the berths where their vessels are moored, and/or to entrance/exit No. 1, the Navlomar Agency, the Harbour Station, the Navlomar tax-free shop or the Seamen's clinic.

3. Crew members are required to enter or leave the port area at gate No. 1.

4. Crew members are required to be back aboard their vessels by 0400 hrs.

5. Crew members wishing to visit other zones in the country are required to obtain a visa from the ship's Agent.

6. Transportation within the port by motor-boat which leaves the Harbour Station every 15 minutes and calls at all berths in the port, is available subject to crew members being in possession of the proscribed ticket issued by ship's Agent and duly signed and stamped by the ship's Master.

7. The tax-free shop is located next to the Harbour Station. All purchases must be retained aboard under Customs control until the vessel has sailed.

8. It is forbidden, either to bring in or to take out Romanian currency. Such currency is obtainable from Navlomar Agency at Master's request and for Owner's account. All Romanian currency remaining in crew members' possession must be returned to the Master before sailing, and the Master is required to return the currency to Navlomar.

9. The port Polyclinic is available for medical attention to crew members at the following times: Monday, Wednesday and Friday, between 1300 and 1600 hrs. Tuesday, Thursday and Saturday, between 0800 and 1300 hrs. In cases of emergency, assistance is obtainable by telephoning 16528.

10. Crew mail and messages are delivered daily by ship's Agents, and outgoing crew mail is collected for despatch at the same time.

DEVELOPMENTS: The Port of Constantza is under enlargement with a new port "Constantza - South", built as an extension of the present one, which, when completed will be of about 3.5 times larger in surface area and about 5 times larger in traffic capacity in comparison with the present port.

The new Contantza port will include a "free-zone" in the Southern part, near to the entrance of the Danube – Black Sea Channel. In this area the same facilities and guarantees as in any other free port or zone will be ensured. The geographical co-ordinates of the new "Constantza - South" port are Lat. 44° 07′ N. and Long. 28° 40′ E.

2×2,200 tonnes per hour shiploaders to be installed by 1988. Outreach 40 m. Backreach 30 m. Shiploaders will be fitted with 50 tonne capacity grabs.

SHIPMASTER'S REPORT: Any stages, gantlines or painting scows must be taken inboard at night. Motorboats operate a "taxi" service in harbour at a cost of 8 Lei per person per trip.

Control will only issue clearance after all cargo work, bunkering, etc., is completed.

At Mineral Berth iron ore is discharged by 2 large gantry cranes operating grabs, each working at approximately 200 t.p.h. Rate of discharge is frequently disrupted by shunting of railway trucks – 2 tracks serve 5 berths.

SHIPMASTER'S REPORT: September 1987.

The Agent and the Customs advised me to take plenty of cartons of cigarettes out of the bond into my cabin before sealing. We distributed over 3,000 cigarettes during our stay, to pilots, pilot boat, tugs, linesmen, jetty operators and officials. Additional requests were made for beer, soft drinks, Elastoplast, ballpoint pens, coffee, pocket books, soap, flyspray and magazines. It is very important that these requests are granted, otherwise long delays may be experienced. On our first call no crew members required currency but several crew members went ashore, I was warned by the Customs that next time the ship had to draw some Romanian money, i.e. changing foreign currency at black market rates is dangerous. Any Romanian money can, in fact must, be returned to the Agent before sailing.

On both visits we loaded 50,000 tonnes of fuel oil at Berth No. 72 at an average rate of about 900 t.p.h. through 1 × 12 in. Chicksan. Surveyors were Oil Inspections Taygar S.A. and on both occasions the surveyors were British and very helpful both professionally and personally. Gauging, cargo documents and Outward Clearance takes hours. On our first visit cargo was completed at 1325 hrs. and pilot boarded at 0130 hrs. the next morning.

All rooms and lockers must be kept locked at all times as even small items may be stolen (knives, mugs, ashtrays, coffee.)

AGENT: Navlomar Shipping Agencies. Tel: 11970 (management), 11870 (shipchandler), 15274 (ship's Agency) and 16528 (24 hours). Telex: 14258, 14259, 14339. Cables: "Navlor Constantza".

SULINA: 45.11 N. 29.45 E. (See Plan)

PORT LIMITS: Line of Sulina Entrance and "Mile 2" on Danube River (Sulina Channel).

DOCUMENTS: Within maximum 1 hour from fulfilment of arrival formalities the Master or Chief Officer reports at the Harbour Master's Office where he tenders the following documents:

Certificate of Nationality.
Tonnage Certificate.
Safety Equipment Certificate.
Load Line Certificate.
Safety Radio-telegraphy Equipment Certificate.
Safety Construction Certificate.
Cargo Gear Certificate.

The above certificates are to be valid and not to expire before ship's sailing from the port, Load Line Certificate and Cargo Gear Certificate not to be older than 12 months, and same remain with the Harbour Master until ship's departure when returned through the representative of the Agency that accompanies the Control Commission on departure.

PILOTAGE: Notice of arrival to pilot station at Sulina is to be sent in due time through Sulina Free Port Administration – Agency Department (Navlomar). Telex: 52294 (A Apl) and 52295 (B Apl)R.

Channel 16 VHF is continuously watched and ETA may be confirmed or adjusted whenever necessary on this frequency. There is no specific area where pilot boat is located, place where Pilot is to be taken on-board is generally the anchorage location.

Sulina – S.E. approach nr. 5. Width 1.6 miles. Length 7 miles. Direction 146° – 326°. Centre line joins the following positions:

S1: Lat. 45° 03.01′ N., Long. 29° 53.4′ E. At 11.5 miles on bearing 124° 24′ from Sulina Lighthouse (nr. 120).

S2: Lat. 45° 08.9′ N., Long. 29° 47.9′ E. At 5.75 miles on bearing 095° 42′ from Sulina Lighthouse (nr. 120).

Thence on the No. 01 Sulina black light and whistle buoy, and afterwards on the line of Sulina Entrance Leading Lights (301° 12′) into Sulina Channel and so to harbour. On this approach non-degaussed vessels with max. draft 7 m. may navigate.

ANCHORAGES: Generally location of anchorage is communicated by pilot station, whether off-shore or inside the channel.

RESTRICTIONS: Vessels calling at Danube ports are obliged to wait in roadstead of Sulina, at least 1 mile away from the black buoy (a black floating cylinder marked "01" in white, which is lighted at night by green flashing light). All vessels both entering and going out of Sulina Channel as well as during navigation in the channel and Danube, are obliged to have on board a Danube Administration Pilot. As a rule, entering and leaving the Sulina Channel, as well as navigation in the channel, is prohibited after night-fall.

MAX. SIZE: The draft at Sulina Bar is 23 ft. (7.01 m.) Vessels up to 180 m. LOA and 7.01 m. draft can be accepted in Sulina Free Port. No tide restrictions.

Any other changes of official draft are broadcast daily, at 1150 hrs. on 1935 m. Long Wave.

MINEFIELD: See charts of area.

HEALTH: On arrival in Sulina Harbour vessel has to stop to complete border and sanitary formalities and after vessel has completed same, with Danube Administration Pilot on board, proceed to destination. After the vessel has completed manoeuvring to come alongside berth, she is boarded by the Sanitary Commission. If the vessel has passed the sanitary inspection she is boarded by Border Control Commission which includes a representative of the Agency, the latter assisting the Master in fulfilling arrival formalities and facilitating meeting of any requirements on ship's part. The Master fills in a form of declaration in 3 copies which together with the Stowage Plan, Cargo Manifest, etc., are handed to representative of the Agency upon his leaving ship. A supplementary declaration is to be completed by the Master, stating:

1. Who supports disbursement expenses (name, mail address, telegraphic address, number of telex).

2. Who supports the supplies of bunkers, provisions, other services, etc. (name, mail address, telegraphic address, number of telex).

RADIO: Constantza – coast radio station. Call signal YQ1, frequency 462 kHz. Operation daily, starting with 0650, 1250 and 1850 hrs. GMT. Contents of transmission: meteorological and navigation notices. Weather forecasts are broadcast in clear English or codified; radio notices to mariners and navigation warnings are broadcast in Romanian, Russian and English.

VHF: High-powered base-station operates in town of Sulina, 24 hours per day, using call-sign: "Pilot Sulina". All calling must be on Channel 16; all other authorities are to make contact on the same Channel (i.e. Navlomar Sulina, Harbour Captain's Office, Sulina Free Port Administration).

RADAR: Not available.

TUGS: Tugs can be ordered whenever necessary either via Sulina Free Port Administration or to Harbour Office; tugs of 2,400 h.p., 800 h.p.and 600 h.p. available for assistance and manoeuvring of vessels and barges.

BERTHING: 4 berths available, of which 2 are in the Maritime Transit Basin and 2 on the Danube River's wharves, both of them 180 m. in length.

Loading/discharge operations performed with floating equipment belonging to Sulina Free Port Administration which also provides shore equipment.

Transhipment with vessel's own gear (i.e. for heavy lift cargo, etc.) possible at all times of year inside the Maritime Transit Basin, or off-shore; for these kinds of operations, assistance (tugs, stevedoring, specialists) from Sulina Free Port Administration is optional.

CRANES: 6 floating cranes of capacity 10 tons to 32 tons available at all berths.

BULK CARGO FACILITIES: No special facilities available. Bulk fertilisers can be transhipped ex-barge, fertilisers in bags can also be stored in covered warehouse. Several types of ore can be handled and stored in open spaces.

SPECIALISED CARGO HANDLING FACILITIES: None available.

BRIDGES: No bridges.

STEVEDORES: Stevedores available 24 working hours per day, in 3 shifts, mechanised assistance available.

On Saturdays from 1400 hrs. till Monday 0700 hrs., or same interval before and after legal holidays, no shifts available except by previous special arrangements.

MEDICAL: Full hospital facilities without prior notice.

DENSITY: At the mouth of the Danube River, average density about 1018.

FRESH WATER: Fresh water available at all times from pumps in the Maritime Transit Basin and on several wharves of the town of Sulina.

FUEL: Fuel and complete stock of Shell Marine lubricants available. Prior notice at earliest convenience.

FIRE PRECAUTIONS: Usual fire precautions.

CONSULS: No consulates in Sulina.

REPAIRS: Routine maintenance and boilermaking assistance to light engineering standards. No foundry available. Mechanical workshop with qualified personnel available.

DRY DOCKS: A slipway of 6,500 tons displacement is available.

SURVEYORS: Lloyd's Agent as well as representatives of other classification societies and official surveyors can be brought in at short notice.

GANGWAY/DECK WATCHMEN: Not necessary.

HATCHES: Opening/closing is normally carried out by the ship's crew.

CUSTOMS ALLOWANCES: Custom's procedure is different in Sulina from that at Galati and Braila as Sulina is a Free Port.

All ships operating exclusively in Sulina Free Port are exempted from Customs dues on condition that no prohibited items are brought ashore. Please also note that ships operating exclusively in Sulina Free Port might be required to pay only half of the usual channel taxes.

All the other procedures (changing of money, Custom control, interdiction to bring in or to take out Romanian currency, etc.) are the usual ones in Romanian Ports, and are to be communicated by Agent. (Money changed at the day's rate.)

Duty free shop available.

Agent to advise shipchandler well in advance of vessel's requirements (foodstuff, cigarettes, drinks, etc.).

CARGO GEAR: Rigging of derricks, good working condition of the winches and derricks, is the permanent obligation of the vessel according to requirements of working gangs. The hatches must be opened or closed to their full size. The removable beams or covers shall always be stowed on deck on the side where work is not being carried on, so that they may not hinder working gangs or cause accidents. During operations, the vessel is recommended to close the hatches with rain tents, ship's property, if bad weather. If cargo handling gear breaks down during operations, the waiting time of workers is charged against vessel and such time lost for breakdown of winches not to count as laytime.

Also see "Tugs" and "Cranes".

REPATRIATION: All facilities exist for repatriation and change of crew.

AIRPORT: No airport in Sulina. The nearest airport is in Tulcea (about 70 km. up the Danube River), 6 flights weekly to Bucharest.

TIME: Local time is GMT plus 2 hours. Summer time is GMT plus 3 hours, Summer programme lasting from first Sunday in April till last Sunday in September.

HOLIDAYS: Official holidays: 1st and 2nd January, 1st and 2nd May, 23rd and 24th August. Cargo work can be arranged for these days.

POLICE/AMBULANCE/FIRE: Police (915) 43004. Ambulance (915) 43322. Fire (915) 43003.

TELEPHONES: This service is available aboard ship, at the Post Office or at Agency Department (Navlomar) Office. Telephone number of Sulina Free Port Administration is (915) 43664, 43242, 43243; local 325.

SERVICES: No special services available.

SHORE LEAVE: When Immigration formalities have been fulfilled, crew can go ashore with shore passes provided by the Agent.

IDENTIFICATION CARDS: Seaman's Book and shore passes issued by Coast Guard and provided by the Agent or soldier at the gangway. The passes must be returned to the soldier upon coming back on board.

REGULATIONS: No particular or unusual regulations.

DELAYS: Berthing delays very infrequent.

BANKS: No American or European banks in Sulina, bank facilities can be arranged through Agent by connection to Bucharest, or Tulcea (The Romanian Bank for Foreign Trade).

STORING: See "Prelims".

1. Vessel can be stored by barge supplied by foreign partners, surveyance and guard of the barges being provided by Sulina Free Port Administration.

2. Previous notification for barge storage compulsory, details to be obtained through Sulina Free Port Administration's representatives.

3. No transhipment into trucks directly possible for the moment.

4. Fork lifts can be used on the jetty to handle stores.

5. No Customs interference regarding storing on the territory of Sulina Free Port, first period (negotiable) of storage free of charges, tariffs to be established by the Administration. Storage possible both in covered and open spaces, on platforms.

6. Riggers belonging either to the Administration or to Romtrans (Specialised Romanian Foreign Trade Enterprise for forwarding activity, which has an office in Sulina Free Port) can be employed, for sorting and arranging cargo on platforms and in warehouses.

GENERAL: From the time a vessel enters the territorial waters of Romania until she leaves the respective zone, i.e. 12 miles, it is compulsory to fly the Romanian flag. Ships that call at Galatz for the first time and have not got the Romanian flag on board must have it ordered through the Agent immediately upon berthing at Sulina Harbour. Throwing garbage overboard or pumping out dirty ballast or bilge water is allowed only beyond the territorial waters of Romania. Non-observance of these rules may result in fines varying between 3,000 and 10,000 lei imposed by the Harbour Master.

DEVELOPMENTS: 4 berths and warehouses under construction.

SHIPMASTER'S REPORT: February 1984.

The entrance route to Danube River from Gura Sulina for Galatz and Braila is as follows: Arrival point Lat. 44° 47′ N., Long. 29° 55.8′ E. and from this point vessel is to steer 000° True till Lat. 45° 05.1′ N., Long. 29° 55.8′ E. and from this point 301° True to No. 1 Buoy. Because of shallow water the vessel must not go South of No. 1 Buoy. With radar, Sfantul Gheorge Lighthouse was observed at 15 miles, Sulina at 20 miles and lighthouse at South Mole at 15 miles. Anchorage area is 2 miles East or 1 mile North of No. 1 Buoy. Pilot on VHF Channel 16. Pilot embarks 1 mile East of the No. 1 Buoy.

After anchoring near to Sulina, Customs, Immigration and Doctor board the vessel for clearance. After clearing the vessel another two Pilots board and vessel proceeds to destination. No navigation is permitted during the night for large vessels.

AUTHORITY: By Decree of State Council of Socialist Republic of Romania, Sulina Free Port Administration is both specialised foreign trade state enterprise and Port Authority in Sulina Free Port.

Sulina Free Port Administration, 202 Deltei St., 8829 Sulina, Tulcea County, Romania. *Tel:* (915) 43664, 43242, 43243 or local 325. *Telex:* 52294 and 52295. *Contact:* Ionescu Cristian, General Director.

AGENT: Navlomar Shipping Agency. Tel: 43008.

Galatz: 20, 13 Junie. Telex: 51260, 61309. Cables: "Navlomar Galatz".

Braila: 2 Imparatul Traian. Telex: 55232. Cables: "Navlomar Braila".

NOTES

Please also advise Shipping Guides Ltd.

St. Helena

JAMESTOWN: 15.56 S. 05.40 W. (See Plan)

PORT LIMITS: Within 3 miles radius of the port. Laytime commences at the anchorage.

DOCUMENTS:
4 copies of Crew List.
4 copies of Passenger List.
1 copy of Health Form.

PILOTAGE: No Official Pilot.

ANCHORAGES: The harbour consists of an open roadstead with anchorages shown on charts.

MAX. SIZE: Any size vessel can enter the port. Maximum tide variation approximately 1 m.

HEALTH: Pratique will be granted by the boarding party or by telegram from Port Health Officer. If disease or fever suspected, Port Health should be informed by telegram 24 hours before anchoring so that the necessary precautions can be taken.

RADIO: Name: St. Helena Radio. Call sign for W/T working – ZHH. Frequencies: 500 and 461 kHz. A2, A1. 12963.5 kHz. A1. Working hours: 500 and 461 kHz – Weekdays from 0800 to 2000 GMT. Sundays from 0800 to 1300 GMT. 12963.5 kHz – Daily except Sundays from 1200 to 1300 GMT. Listening watch on Channel 5 and Channel 6.

Call sign for R/T working – St. Helena Radio. Frequencies: 2182 and 3162 kHz A3H, A3J and A3A. 4397.7, 8737.5 and 13150.4 kHz. A3J A3A. Working hours: 2182 and 3162 kHz – Weekdays from 0800 to 2000 GMT. Sundays from 0800 to 1300 GMT. 4397.7, 8735.5 and 13150.4 kHz are only operated on request and ships should answer on Channels 414, 807 and 1217 respectively.

VHF: Harbour Master has VHF facilities. Call sign "Port Control"; Channel 16, working Channel 6, Monday to Friday 0830 hrs. – 1600 hrs.

TUGS: None.

BERTHING: Vessels anchor in 18 – 20 fathoms of water.

CRANES: 2×10 ton and 1×30 ton heavy lift crane.

STEVEDORES: 48 hours' notice required by Agents Messrs. Solomon & Co. (St. Helena) plc, also particulars of tonnage of cargo.

MEDICAL: Harbour Master should be notified if medical attention is required.

TANKERS: No facilities available.

FRESH WATER: Delivered by floating pipe-line at approximately 10 t.p.h.

FUEL: Limited stocks of diesel oil held for local use only.

CERTIFICATES: Vaccination Certificates required for all crew. Derat Certificate should be valid.

CUSTOMS ALLOWANCES: No restrictions. Free use on board.

CARGO GEAR: All discharge carried out by vessel's derricks into lighters.

CONSULS: French Consul. Appointed representatives for Denmark and Norway.

REPAIRS: Small repairs can be carried out (welding or turning, etc.).

DRY DOCKS: None.

SURVEYORS: Messrs. Solomon & Co. (St. Helena) plc as Cargo Surveyor Agents for Lloyd's.

GANGWAY/DECK WATCHMEN: Supplied by Messrs. Solomon & Co. (St. Helena) plc.

HATCHES: Opening/closing of hatches normally carried out by crew.

REPATRIATION: No facilities for crew changes. Only for those left behind for hospitalisation.

AIRPORT: No airport on St. Helena.

TIME: GMT throughout the year.

HOLIDAYS: New Year's Day (1st January); Good Friday; Easter Monday; St. Helena Day (21st May); Whit Monday; Queen's Official Birthday; August Bank Holiday; Christmas Day (25th December); Boxing Day (26th December). Cargo work can be arranged except on Christmas holidays.

POLICE/FIRE/AMBULANCE: Police and Fire, Tel: 626. Ambulance, Tel: 241.

SHORE LEAVE: No restrictions unless imposed by Immigration Department.

DELAYS: No delays in berthing. Loading or discharge can be delayed due to bad weather.

AUTHORITY: Harbour Master, The Wharf, Jamestown, Island of St. Helena, South Atlantic Ocean. *Telex:* 202 Govt HI. *Contact:* Harbour Master.

NOTES

Please also advise Shipping Guides Ltd.

St. Kitts

BASSETERRE: 17.18 N. 62.43 W. (See Plan)

DOCUMENTS:
3 copies of Crew List.
3 copies of Passenger List.
1 copy High Duty Cargo List.
1 copy Crews' Personal Effects List.
1 copy Clearance from last port.
2 copies Ship's Stores List.
7 copies Manifest.
2 copies Bills of Lading.

PILOTAGE: Pilot compulsory for berthing. Not compulsory for unberthing.

ANCHORAGES: Harbour at Basseterre is an open roadstead and safe anchorage will be found at a distance of 0.25 miles to 0.5 miles from the shore opposite the piers in the centre of the town.

RESTRICTIONS: None.

HEALTH: The Harbour Master boards all vessels on arrival at port and inspects the clearance from the last port. If there are no health problems the vessel is immediately granted Pratique. If there is suspected disease or fever on board pre-notification is recommended. If this is done the Harbour Master will have a Medical Officer with him when he boards the ship on arrival.

RADIO: Contact is through Barbados Radio, call sign 8PO.

VHF: Port and Police on Channel 16 throughout 24 hours.

BERTHING: Main Berth: Length 400 ft., depth 30 ft.

Ro/Ro Berth: Length of berth 400 ft. It is able to handle vessels 400 ft. – 700 ft. LOA. Depth of water 16 ft.

Sugar Loading: Mobile unloaders rated at 150 t.p.h.

Berthing on ships without thrusters is achieved against off-shore wind by using port anchor to snub in and swing stern onto quay. Mooring boat runs lines ashore and stern line to buoy, aft breast lines sent to bollard in middle of end of quay.

CRANES: 5 ton lift, mobile (link-belt); 10 ton lift, mobile (Jones).

Cranes used on cargo pier for offloading barges, ferrying cargo from ship to shore and discharging 20 ft. containers.

STEVEDORES: ETA should be advised 24 hours before arrival of vessel, also tonnage to be discharged and number of gangs required. Discharging rate: 15 tons per gang per hour on bags. 6 tons per gang per hour on general cargo.

MEDICAL: Advance notice if possible – hospital facilities available. Valid Vaccination Certificate for passengers disembarking but not for in transit or cruise ship passengers.

DENSITY: 1025. No tides.

FRESH WATER: Available alongside main berth.

FUEL: Available.

GANGWAY/DECK WATCHMEN: Not required.

OPENING/CLOSING HATCHES: Done by stevedores.

CUSTOMS ALLOWANCES: Half pound tobacco or 200 cigarettes. Wine and/or Spirit, 1 bottle.

IDENTIFICATION CARDS: Not needed, however, crew members are liable to be checked by Port Authority on entry and exit by security guard.

CONSULS: France and Netherlands.

REPAIRS: The sugar factory has a well-equipped shop for machine, welding and maintenance work. They can assist with most engine repairs.

DRY DOCKS: None.

REPATRIATION: Crew changes and repatriation can be arranged.

AIRPORT: 2 miles from town with regular daily connections to Antigua and Puerto Rico where onward passages to Canada, U.S.A., Great Britain and Europe can be arranged.

TIME: GMT minus 4 hours; no alteration.

HOLIDAYS: New Year's Day (January 1st); Good Friday; Easter Monday; Whit Monday; Queen's Birthday (date fixed by announcement annually); August Monday; Independence Day (September 19th); Christmas Day (December 25th); Boxing Day (December 26th).

POLICE/AMBULANCE/FIRE: Police Tel: 999; Fire Tel: 999; Ambulance (Hospital) Tel: 2515.

TELEPHONES: Available on request.

AUTHORITY: The St. Christopher – Nevis Port Authority, P.O.Box 186, Basseterre, St. Kitts. *Tel:* 4122. *Contact:* The General Manager.

NOTES

Please also advise Shipping Guides Ltd.

St. Lawrence Seaway

ST. LAWRENCE SEAWAY (See Plan)

DOCUMENTS: Vessels intending to transit the St. Lawrence Seaway must be pre-cleared by a representative, who shall assume responsibility to the St. Lawrence Seaway Authority for payment of all tolls and charges to be incurred.

Application for pre-clearance Form S-VM 429-01-80 may be obtained from the St. Lawrence Seaway Authority, 202 Pitt Street, Cornwall, Ontario, K6J 3P7, or from the St. Lawrence Seaway Development Corporation, P.O.Box 520, Seaway Circle, Massena, N.Y. 13662.

In addition, the St. Lawrence Seaway Authority requires 1 Transit Declaration Form, and for cargo to or from overseas 1 unfreighted copy of the complete manifest.

In first U.S. port, a "Traveller" is made up by the Customs Inspector with the following documents:
2 complete sets of U.S. Cargo Manifests, plus 6 copies for Agents.
1 set Manifest of Cargo for first U.S. port.
4 Stores Lists.
4 Personal Effects Lists.
4 Firearms and Ammunition Lists.
4 Crew Lists, Form 1-418.
4 Narcotics Lists.
4 Vessel's Itinerary Lists.
Vessel's Registry and copies of Paid Tonnage Tax Certificates.
Health Pratique.
Clearance from previous port.
2 sets Bills of Lading.
3 copies Stowage Plan.

In subsequent U.S. ports the following are required:
5 sets Manifest of Cargo for that port.
The Traveller and Permit to Proceed issued in previous port.
2 Stores Lists.
2 Personal Effects Lists.
2 Firearms and Ammunition Lists.
2 Crew Lists.
2 Narcotics Lists.
2 Sets Bills of Lading.
3 copies Stowage Plan.

Vessels navigating St. Lawrence Seaway are required to complete applications for:
Certificate of Financial Responsibility,
Certificate of Insurance, Form FMC 225,
Oil Discharge Assurity Bond, Form FMC 226,
Guarantee in respect of liability for discharging oil, Form FMC 227.

These applications have to be filed with the Secretary of the Federal Maritime Commission before a certificate is issued. The oil pollution liability certificate should be retained aboard the vessel.

ICE ADVISORY SERVICE: Ships inbound from seaward between December 15th and April 15th should advise the Ice Information Officer, Sydney, 36 hours prior to entering Cabot Strait, stating their position, destination, whether loaded or in ballast. This procedure will facilitate the passing of ice information to the ship as necessary. Ice information is also available from radio stations at Halifax, Seven Islands, Wirringate and Grindstone. The Canadian Broadcasting Corporation Maritime Network also broadcasts ice information daily during the Winter navigation season. Supplementary ice information may also be obtained from the Canadian Marine Service Icebreakers.

During the ice season, radio broadcasts of ice information are made twice daily from Marine radio stations as follows: Cape Race, Newfoundland; Fox River, Quebec; Mont-Joli, Quebec; Halifax, Nova Scotia.

PILOTAGE: The first pilot station when entering the St. Lawrence River is at Les Escoumins, 80 miles West of Father Point. This Pilot will take the ship to the Quebec Pilot station 121 miles to the West. Off Quebec a new Pilot boards to take the ship to Trois Rivieres, where there is another change of Pilot for the remaining trip to Montreal.

RESTRICTIONS: The average navigation season in the Montreal-Lake Ontario section of the St. Lawrence River is from April 1st to December 15th.

Montreal to Lake Ontario – Lock Nos. 1 to 7: Length between the breast wall and ship arrester 233.48 m., width 24.38 m., depth 9.14 m., channel depth 8.23 m.

Welland Canal – Lock Nos. 1 to 7: Length between the breast wall and ship arrester 233.47 m. to 234.21 m. No. 8: Length 365.76 m., width 24.38 m., depth 9.14 m., channel depth 8.23 m.

Sault Ste. Marie – Canadian Lock: Due to a major structural failure in July 1987, the Canadian Lock at Sault Ste. Marie will be closed until further notice. Mariners are advised to use the U.S. Locks.

Information for U.S. Locks may be obtained from U.S. Corps of Engineers, Detroit District.

Speed Limits: 9.0 knots upbound, 10.5 knots downbound in the Beauharnois Canal; 8 knots in the Welland Bypass Channel and 6 knots in all other canals. The speed limits vary from 8.5 knots to a maximum 16 knots in remaining sections of the St. Lawrence River. Maximum speed limits for vessels in excess of 12 m. in length are contained in the Seaway Handbook. Changes are indicated through Seaway Notices.

For information relating to speed limits, on the Detroit, St. Clair and St. Mary's rivers contact the U.S. Coast Guard, Cleveland, Ohio or the Canadian Coast Guard, Toronto, Ontario.

MAX. SIZE: Length 222.5 m., beam 23.16 m., draft 79.2 dm. Masts must not exceed 35.5 m. above water level. Other limiting dimensions are contained in the Seaway Regulations.

HEALTH: All ocean-going vessels must obtain Free Pratique before entering the Seaway. Vessels entering the Seaway direct may receive quarantine inspection and clearance from the Canadian Authorities at Montreal while at anchor awaiting entrance to the Seaway.

RADIO: *Notice of Arrival:* Master must give at least 24 hours' notice to Commander, 9th Coast Guard District, Cleveland, Ohio, of the vessel's ETA at Snell Lock. Also at least 24 hours' notice of ETA at first U.S. discharge port is required.

St. Lawrence Seaway Authority: Every vessel shall provide at least 24 hours' notice of arrival to the nearest Seaway Station, prior to an initial transit or in case reinspection of the vessel is required.

Calling In requirements are detailed in the Seaway Regulations.

Great Lakes: It is recommended that vessels within a radius of 30 nautical miles of a shore station use their FM transmitting and receiving equipment to ensure better connections. This pertains especially to vessels at anchor or in the proximity of a port or berth.

Radio Stations: Buffalo, New York, marine operator. Port Burwell, Ontario, marine operator. Geneva, Ohio, marine operator. Lorain, Ohio, marine operator. Rogers City, Michigan, marine operator.

IDENTIFICATION CARDS: In the first U.S. port, the Immigration Officer requires an alphabetical crew list made up on Form 1-418 and visaed by the American Consul in the last overseas port. This crew list should contain the name of every crew member on board. Also needed are 3 copies of this crew list on the same form. The Immigration Officer will require all seamen's books and passports, to issue the completed crew landing permits made out on Form 1-95A. The Master will be given a crew list receipt which will indicate the names of crew members detained on board, if any. In case a crew member is detained on board, he cannot go ashore, and at irregular times an Officer of the Immigration Service will check if the crew member is on board. A fine of $1,000 will be imposed on the vessel for each detained crew member who is not on board.

TUGS: Whistle signals differ from those in international usage and are as follows:

1. Ship to Tug: 1 Long and 1 short (– ·) = ship ready to proceed, O.K. or all right. 1 Long and 2 Short (– · ·) = let go the bow tow-line. 1 Long and 3 Short (– · · ·) = let go the stern tow-line.
2. Both Ship to Tug and Tug to Ship: 1 Short(·) = work propeller ahead when stopped, *or,* stop propeller when working, either ahead or astern. 2 Short (· ·) = work propeller astern. 3 Short (· · ·) = slow down or check. 4 Short (· · · ·) = work propeller strong in the same direction it is working at the time the signal is blown. 5 or more Short blasts (· · · · ·) = the standard danger signal.

SEAWAY EQUIPMENT: *Radio-telephone Equipment:* All vessels, other than pleasure craft of less than 19.80 m. in overall length, must be equipped with VHF radio telephone equipment, in addition to the FM equipment otherwise required. The radio transmitters must have sufficient power output to enable the vessels to communicate with Authority Stations from a distance of 48 km. and must be fitted to operate from the wheelhouse and to communicate on 156.55, 156.6, 156.65, 156.7 and 156.8 MHz.

Stern Anchors: Every vessel of more than 110 m., the keel of which was laid after January 1, 1975 is required to be equipped with a stern anchor.

Propeller Direction Alarms: Every vessel of 1,600 g.r.t. or more shall be equipped with:
(a) propeller direction and shaft r.p.m. indicators located in the wheelhouse and the engine room; and
(b) visible and audible wrong-way propeller direction alarms located in the wheelhouse and the engine room, unless the vessel is fitted with a device which renders it impossible to operate engines against orders from the bridge telegraph.

Pitch Indicators and Alarms: Every vessel of 1,600 g.r.t. or more equipped with a variable pitch propeller shall be equipped with:
(a) A pitch indicator in the wheelhouse and the engine room; and
(b) effective April 1, 1984, visible and audible pitch alarms in the wheelhouse and engine room to indicate wrong pitch.

Disposal and Discharge Systems: Every vessel not equipped with containers for ordure shall be equipped with a sewage disposal system (enabling compliance with applicable laws relative to sewage disposal).

Garbage on a vessel shall be:
(a) destroyed by means of an incinerator or other garbage disposal device; or
(b) retained on board in covered, leakproof containers, until such time as it can lawfully be disposed of.

No substance shall be discharged or disposed of onto a lock or tie-up wall by any means, including overboard discharge pipes.

Vessels not fitted in accordance with Seaway Regulations will not be accepted for transit until the fittings have been modified as necessary and approved by a Seaway Officer.

POLLUTION:

1. No vessel shall
(a) emit sparks or excessive smoke; or
(b) blow boiler tubes.

2. No vessel shall discharge into Seaway waters any substances not in conformity with applicable United States Federal Regulations and Canadian Regulations with the exception of the waters of the Welland Canal where two specific zones are established in which no substances shall be discharged, namely:
(a) from lock 7 to mile 17; and
(b) from lock 8 to the outer Port Colborne piers.

3. A record shall be kept of each location within the Seaway or adjacent waters where bilge water has been discharged.

4. Except as authorised by the Authority or the Corporation, no vessel shall discharge garbage, ashes, ordure, litter or other materials.

REGULATIONS: Detailed requirements are contained in the Seaway Handbook (obtainable from the St. Lawrence Seaway Authority, Constitution Square, 360 Albert Street, Ottawa, Ontario K1R 7X7), or in the Seaway Notices. An updated edition of the Handbook must be retained on board the vessel.

Additional information regarding Seaway equipment, regulations or transit requirements can be obtained from the St. Lawrence Seaway Authority by contacting J. M. Kroon, Director of Operations and Maintenance, 202 Pitt Street, Cornwall, Ontario, K6J 3P7. Tel: (613)932 5170. Telex: 05-811517. FAX: (613)932-5037.

AUTHORITY: The St. Lawrence Seaway Authority (See Above).

St. Lucia

CASTRIES (including Vieux Fort): 14.01 N. 61.00 W.

(See Plan)

PORT LIMITS: From Lat. 14° 01′ 24″ N., Long. 61° 00′ 05″ W. thence in the direction of 301°T for 1 mile, thence in the direction of 211°T for 1.2 miles, thence in the direction of 121°T for 0.88 miles to La Toc Point at Lat. 14° 30′ 00″ N., Long. 61° 00′ 46″ W. thence along foreshore at the average HW mark from La Toc Point around La Toc Bay to Tapion Point, thence along to the Castries River mouth and thence to the opposite bank including all marine works, wharves and property vested in the Crown. All around the bay to Seraphin Point, thence all around the bay to Veille Ville Point, thence to St. Victor Point and thence all around the shore to Vigie Point and then to Lat. 14° 01′ 24″ N., Long. 61° 00′ 05″ W.

DOCUMENTS:

Report of Ship's Stores. Form 1.
Crew Members' Stores List. Form 2.
List of Unmanifested Cargo. Form 3.
Report of Ship's Manifest. Form 4. (4 copies).
Passenger Lists. (5 copies).
Steamship Company Release. (1 copy).
Crew List. (5 copies).
Clearance from Last Port of Call.
Outbound Cargo.
Loading List.
Customs Report Outwards (Form A7)
Vessel Manifest (Contents of Ship). Form 16. (3 copies).
Entry Outwards and Certificate of Rummage. Forms 9 and 10.
Loading Licence. Form 14.
Clearance. Form 17. Form 18 (Steamship).

Where possible, Cargo Manifests and Stowage Plans should be forwarded by Airmail, ahead of the vessel to the local Agents.

PILOTAGE: Pilotage is compulsory for all craft except for ships of less than 100 g.r.t., Her Majesty's ships, pleasure yachts and fishing vessels.

Notice of ETA and request for a Pilot must be made to the Harbour Master not less than 24 hours before ETA. Cable address: "Paslu". Telex: 6355 Paslu LC. Confirmation of ETA is required 2 hours before arriving at the Boarding Station. Channel 16 VHF is continuously watched and ETA may be confirmed or adjusted on this frequency. Pilot boats (2) are: (1) A "Cheverton" built, 8.2 m. LOA, fibreglass hard top, with a "V" hull, single inboard 4236 Perkins diesel engine, complete with navigation and pilot lights. Painted black all around with letter "P" painted in white on both sides of bow. Name of pilot launch "Charles" painted in white at the stern. (2) A "Cheverton" built 8.73 m. LOA aluminium hard top pilot house aft. Single inboard 6.3544 Perkins diesel engine. Complete with navigation and pilot lights. Painted black all round with the words "Pilots" painted white on both sides of the pilot house. Name of second pilot boat is "Esperance" painted in white on stern.

The usual International Signals may be employed by vessels requiring a Pilot. The usual pilot boarding point 0.5 miles off Vigie Point. Ships that are 3 hours away are requested to call Vigie Lighthouse on S.S.B. 2182, VHF Channel 16, informing of ETA, draft and length.

Pilot boat stands by on Channel 16 VHF. Pilot station stands by on Channels 14 and 16 VHF.

Pilot boards vessels on the starboard side and for ships outward leaves on the port side.

In the event of bad weather ships will be advised accordingly.

Vessels awaiting Pilot may anchor between 1 and 2 miles N.W. of Vigie Point in 22 m. of water. Rock and sand bottom, very good holding ground, no shelter.

ANCHORAGES/APPROACHES: Deep and sheltered anchorage exists off Castries Harbour entrance. The approach channel is 91.44 m. wide with minimum depth of 14.75 m. to the port proper, which lies within an all protected harbour. The turning basin is 457.20 m. in diameter at a depth of 14.0 m.

Masters familiar with the Port of Castries may be invited to proceed to the Northern Anchorage/Quarantine Area not less than 3 cables off the Vigie promontory.

Care must be taken to drop anchor clear of the entrance range which is for in-going ships, 121°T on the Castries leading lights.

Also see "Pilotage".

RESTRICTIONS: Petroleum tankers are not moved during the hours of darkness except in emergency conditions.

MAX. SIZE: Ships up to 213 m. LOA and 9.1 m. draft can be accepted. No restriction on beam.

Also see "Tankers".

HEALTH: Pratique is usually granted by the Pilot or Boarding Officer and Immigration Department alongside on behalf of the Ministry of Health. In the event of any suspected disease or fever on board, the vessel is not allowed within 91.4 m. of the wharves until Pratique has been granted by the Medical Officer.

RADIO/VHF: Port Control on VHF Channels 16, 6, 12 and 14. Also 2182, 2146, 2381, 2527, 2582 and 2638 kHz.

TUGS: Tug "Chale", 1,400 h.p., available to assist in berthing if required. Towage compulsory for vessels over 400 ft.

BERTHING: There are six berths numbered 1 to 6 inclusive.

Berth Nos. 1 to 3 are general cargo berths and have a total length of 356.6 m. The draft varies from 5.8 m. at Berth No. 1 to 8.2 m. at Berth No. 3. Berth Nos. 4 and 5 are of recent construction and consist of a reinforced concrete platform supported on concreted piles. Depth of water alongside at LW is 10 m.

Berth No. 4 is a container berth equipped with a heavy lift mobile crane for handling 20 ft. and 40 ft. ISO containers. It has a length of 152.4 m. and storage capacity for approximately 3,500 containers.

Berth No. 5 is a break bulk cargo berth as well as Ro/Ro facilities with a ramp 14.6 m. wide. It has a length of 182.9 m. and a depth of 10 m. below LW.

A transit shed with an area of 6,882 sq.m. with cold storage facilities of 2,265.60 cu.m. for reefer cargo.

Berth No. 6 is a reinforced concrete deck supported on steel cased piles. The berth is 167.6 m. long and can accommodate vessels of 9 m. draft. It is a general purpose berth and handles banana traffic.

Within the port area there is a total shedded storage capacity of 17,205 sq.m. with a total upland of 15 – 17 acres.

Dock water density 45.7 gm./cu.m. with prevailing winds from a N.W'ly direction.

Pointe Seraphine: Information relating to the recently opened cruise ship berths at Pointe Seraphine:

Berths No. 1 and 2 are located at Pointe Seraphine, Castries Harbour and are dolphin type berthing facilities.

1. Each pier consists of:
   a. Two reinforced concrete breasting dolphins.
   b. Reinforced concrete walkways 8 ft. wide supported on steel "H" and spun concrete piles linking the berth to the shore.
2. Height of pier above M.S.L. = 7 ft. 0 in.
3. Overall length of pier = 174 ft. 2 in.
4. Bollards – there is one "T" head bollard on each breasting dolphin, and 4 single pillar bollards on the shoreline. Average distance apart is 145 ft.
5. Fendering – primary fendering consists of one "W" shaped rubber fender fixed to each dolphin.
   Two "D" shaped 12 in.×12 in. cover fenders fitted to the outer corners of each dolphin provide secondary protection.
6. Construction – each dolphin is 15 ft. 7.5 in. square reinforced mooring concrete structure supported by 14 in. diameter spun concrete piles. A service plank links the dolphin to the main passenger landing stage which is 84 ft. long×8 ft. wide.
   The landing stage is a reinforced concrete structure supported by steel "H" piles.
   The approach to the landing stage is 63 ft. long× 8 ft. wide and is of similar construction.
7. Average depth alongside Berth No. 1 35 ft.
   Berth No. 2 32 ft.

Vieux Fort: Depth of 8 fathoms at the entrance and 5 fathoms within the Port. 2 berths, 500 ft. long, 27 ft. 6 in. deep. Also see "Shipmaster's Report".

BRIDGES: There are no bridges or other restrictions to prevent access to the port by vessels of not more than 9 m. draft.

STEVEDORES: The normal working hours are from 0700 – 1600 hrs. Mondays to Fridays. Special arrangements are required outside of the above hours and for Saturdays, Sundays and Statutory Holidays. The hiring or calling of labour are as follows:

Monday to Fridays for work commencing from 0700 – 1100 hrs. request to reach Union before 1500 hrs. previous day.
1100 – 1600 hrs. before 0900 hrs. on the same day.
After 1600 hrs. before 1400 hrs. on the same day.
For vessels working on weekends request to reach Union by 1530 hrs. on Fridays.
Average rate on break bulk general is 15 t.p.h. per gang.

MEDICAL: Full hospital facilities available without prior notice.

FRESH WATER: Good quality potable water available in unlimited quantities at 20 t.p.h. per connection ex-quay.

FUEL: Limited quantity for yachts and small vessels only. Refuelling jetty at La Toc Bay owned by Texaco.

TANKERS: Tanker and Liquefied Gas Terminals – available at Coconut Bay through floating pipe-lines.

Also see "Cul de Sac Bay".

CONSULS: *Embassies/High Commisions:* British High Commission, Venezuela, Organisation of American States, Taiwan (Republic of China) and France.

Consuls: Norway, Germany F.R. and Netherlands.

REPAIRS: No facilities for large vessels. Routine maintenance or minor repairs are carried out. There is no foundry in the port.

DRY DOCKS: None available.

SURVEYORS: Lloyd's Agents are available and represent other Classification Societies and Surveyors. Others can be obtained from outside at short notice.

GANGWAY/DECK WATCHMEN: Gangway and gate watchmen can be supplied at Union award rates. Hold watchmen are required during discharge/loading operations. Shed watchmen are not necessary.

OPENING/CLOSING HATCHES: Ship's crew shall be required to raise and lower and position beams to the required height, opening and closing of McGregor and pontoon hatches. Wooden hatches are normally handled by stevedores while alongside.

CUSTOMS ALLOWANCES:

1. Wine or spirits not exceeding one quart in all, and
2. Tobacco, not exceeding half a pound, or
3. Cigars not exceeding 50 in number, or
4. Cigarettes, not exceeding 200 in number, or
5. Goods to the aggregate of $50.00E.C. belonging to a passenger, which accompany that passenger and when acquired abroad by him for his personal or household use or as souvenirs or gifts and admitted as such by the Comptroller of Customs.

CARGO GEAR: Discharge of general cargo is usually by ship's gear. Containers, if vessels are not self contained, may be handled by P&H crane 9125TC – 140 ton lorry mounted crane owned and operated by the Ports Authority. Manitowoc 230W crawler crane rigged for 41 ton lift also available (Tropical Lines).

REPATRIATION: Scheduled aircraft connect with all the English speaking islands of the Lesser Antilles several times daily from Vigie Airport which is 2 km. distant from Port Castries. Direct overseas flights arrive and leave from Hewanorra International Airport, Vieux-Fort at least once a week for the United Kingdom, New York, Miami and Caracas, Venezuela.

TIME: Local time is GMT minus 4 hours. Summertime is not used. All ETAs and other messages should be made in local time.

HOLIDAYS: New Year's Day, New Year's Holiday, Independence Day (22nd February), Carnival Monday, Good Friday, Easter Day, Easter Holiday, May Day (Labour Day) (1st May), Whit Monday, Corpus Christi, Emancipation Day (1st Monday in August), Thanksgiving Day (1st Monday in October), National Day (13th December), Christmas Day, Boxing Day.

The port is closed for work on Christmas Day, Good Friday and May Day (Labour Day).

POLICE/AMBULANCE/FIRE: All emergency services are available through Port Police Station on Jeremie Street, within walking distance from the port.

Emergencies can be reported to Vigie Lighthouse on Channel 16 at any time. Emergency Police dial 999; emergency Ambulance dial 999; emergency Fire dial 999.

TELEPHONES: This service is available aboard ships at all berths by prior arrangement through the Agents. Standard rates apply.

SHORE LEAVE: When Immigration and Customs requirements have been satisfied there is no restriction on crew shore leave so long as they rejoin the vessel before departure. They should carry some sort of identification card or shore passes for security purposes especially for non-English speaking persons.

DELAYS: There are no delays for want of a berth. Berthing delays are very infrequent and no labour shortages.

REGULATIONS: Castries is within the Northern zone of tropical storms. The hurricane season usually extends from May to October each year and the port may be more or less affected at any time during that period. When a storm is expected to pass over the island, ships may be placed on short notice for sea in such circumstances and required to maintain themselves in seagoing condition at all times.

BANKS: Bank of Nova Scotia, P.O.Box 301, William Peter Boulevard, Castries, St. Lucia. Tel: 22292/95. Telex: 6385 Scobank L.C.

Barclays Bank plc., Bridge Street, Castries, St. Lucia. Tel: 23306/23300. Telex: 6348 Bacladom L.C.

Canadian Imperial Bank of Commerce, P.O.Box 350, William Peter Boulevard, Castries, St. Lucia. Tel: 23751/23753/23739. Telex: 6352 Canbank L.C.

Royal Bank of Canada, William Peter Boulevard, Castries, St. Lucia. Tel: 22245. Telex: 6309 Royalbk L.C.

St. Lucia Cooperative Bank, 21 Bridge Street, Castries, St. Lucia. Tel: 22881/22882. Telex: 6308 Coopnk.

National Commercial Bank of St. Lucia Ltd., P.O. Box 1031, Bridge Street, Castries, St. Lucia. Tel: 23562/22103. Telex: 6300 Natbank L.C. Cable: NATBANK.

EMERGENCY CO-ORDINATION CENTRE: The Headquarters of the Central Emergency Organisation is the Prime Minister's Office, Government Buildings, Castries, St. Lucia. Tel: 3203 and 3016. Telex: 6394 Foraff LC.

SHIPMASTER'S REPORT: 1979 (update 1986).
Pilotage: Compulsory. Pilot boards 0.75 miles West of Vigie Light, ladder usually on the port side.
Restrictions: Vessel is able to enter and leave at any stage of the tide, day or night.
Max. Size: Max. draft 10 m.
VHF: Pilot on Channel 16.
Berthing: No. 6 Berth, West Wharf: Distance from entrance to berth 1 mile. Max. LOA (Approx.) 550 ft. Max. draft 10 m. There is mechanical equipment available to handle palletised cargoes, adequate storage space for breakbulk cargoes and palletised cargoes. The loading rate for bananas is 15 t.p.h. per gang with ship's derrick and the labour was satisfactory. Accommodation ladder required.
Services: Fresh water, fresh provisions, repair facilities, machine shop, Airport, laundry services, bunker fuel oil, diesel oil, lubricating oils, doctor, hospital, groceries and meats.

SHIPMASTER'S REPORT: 1979 (updated 1986). Vieux Fort.
Pilotage: No ship exceeding 100 n.r.t. must enter without a Pilot. Pilot boards 0.5 miles S.W. of Mathurin Point (there is a strong N.W. current off Mathurin).
Restrictions: Vessel may enter and leave at any stage of the tide, day or night.
Max. Size: Max. LOA 520 ft.
Tugs: Tugs are not available and are not necessary for docking and undocking.
VHF: Available.
Berthing: One berth only available. Distance from entrance to berth 0.5 miles. Nature of bottom at the berth is mud. All banana loading is carried out by the side doors. Vessels berth port side to the quay. A very high rate of loading is attained (100 t.p.h.). A limited amount of mechanised equipment for handling palletised cargoes is available and also limited storage space for palletised and breakbulk cargoes. No equipment for handling containers is available. Accommodation ladder required.
Services Available: Only fresh water, airport and doctor available (i.e. no fuel or provisions available).

AUTHORITY: Saint Lucia Air & Sea Ports Authority, P.O.Box 651, Castries, St. Lucia, West Indies. *Tel:* 22641. *Telex:* 6355 Paslu LC. *Contact:* George C. Girard, General Manager.

CUL DE SAC BAY: 13.59 N. 61.02 W. (See Plan)

LOCATION: The facilities of Hess Oil St. Lucia Limited (HOSLL) are located in Cul de Sac Bay (Lat. 13° 59′ N., Long. 61° 02′ W.) on the West coast of the island of St. Lucia, West Indies. Ready access for all vessels coming in from the Atlantic is provided by the St. Lucia Channel which lies between St. Lucia and Martinique. This channel is 17 miles wide and has general depths of 914 m. (500 fathoms).

PORT LIMITS: For tendering purposes a vessel will be considered as having taken arrival when it reaches the Pilot Station 2.5 miles due West of Bananes Point. A vessel's "Notice of Readiness" will not be accepted until the vessel has initially reached this point and notified HOSLL by VHF.

DOCUMENTS: The following documents are required for entry and clearance and are to be presented to the respective officers on boarding:
General Declaration for Ships.
Cargo Declaration.
List of Unmanifested Cargo.
Crew List.
Crew Members' Stores List.
List of Packages or Parcels Intended for discharge by Crew Members.

Normally it is necessary to have Customs entry completed before cargo operations can commence.

Customs clearance is accomplished by the vessel's Agent, cargo documents are placed onboard by the Terminal Department.

PILOTAGE: Service is available 24 hours a day and is compulsory for all vessels entering or leaving Cul de Sac Harbour. A HOSLL Pilot will assist the Master of any vessels docking or undocking at the Hess facilities, however, the Master of each vessel retains full responsibility for his ship at all times.

Vessels must remain at the pilot station 2.5 miles due West of Bananes Point until boarded by the HOSLL Pilot who will be placed aboard by a company tug.

The HOSLL Marine and Terminal Office is equipped with a VHF radiotelephone having the following channels:
Initial Contact: Channel 16.
Working Contact: Channels 11, 9 and 6.

Ships must call the HOSLL marine office on VHF at least 3 hours before arrival at the pilot station and advise of any change in their ETA.

Pilot Ladders: If the following regulations are not complied with, HOSLL Pilots may refuse to embark or disembark thus delaying the vessel.

(i) The Officer responsible for the embarkation and disembarkation of the Pilot is to be a Deck Officer.
(ii) The pilot ladder is to be properly secured and adequately lit at night.
(iii) The Pilot should be able to pass safely and conveniently from the head of the ladder onto the ship's deck. Where portable stanchions and bulwark ladders are used for this purpose, the portable stanchions must be rigidly secured to the ship's structure to prevent being unshipped and supported at not less than two points to prevent lateral movement. The bulwark ladder should also be independently attached and firmly secured. The stanchions should be of reasonable height and adequately capped to allow a firm grip.
(iv) The ladder is to be in good condition and its treads are to remain horizontal. The treads are to have a rough upper surface.
(v) The length of the ladder should not exceed 30 ft. Whenever the distance from sea level to a point of access on the ship is more than 30 ft. access from the pilot ladder to the ship must be by means of an accommodation ladder or other equally safe and convenient means.
(vi) The ladder is to be rigged so that each step rests firmly against the ship's side. Spreaders are to be provided not more than 10 ft. apart to prevent the ladder twisting.
(vii) A manrope or a safety line is to be secured at the vessel's rail and lowered over the side adjacent to and for the full length of the pilot ladder. A lifebuoy with self-igniting light is to be readily available.
(viii) The ladder is to be rigged well clear of any overboard discharges and at a place where the best lee can be provided to the boat carrying the Pilot.
(ix) Whenever a mechanical pilot hoist is used, a standard pilot ladder shall be at hand, ready for immediate lowering in the event of a hoist malfunction.

APPROACHES: Cul de Sac Bay is entered from the open sea between Bananes Point about 1 mile North of Marigo Point, and Ciceron Point about 0.75 mile farther Northeast. The tanker port area of Cul de Sac Bay ranges in depth from 40 ft. to 90 ft. below mean low water.

Vessels shall have their anchor windlass manned and their anchors ready to let go upon entering the approach to Cul de Sac Bay.

Navigation Aids: The entrance to Cul de Sac Bay is marked on the North at Ciceron Point by a 7 ft. × 7 ft. square green day marker mounted on a 25 ft. tower. The 7 mile flashing green light for this aid at elevation +40 ft. is programmed to flash 0.6 secs. on −5.4 secs. off.

On the South side of the entrance Bananes Point is marked with a 7 ft. × 7 ft. triangular red day marker mounted on a 15 ft. tower. The 7 mile flashing red light at elevation +85 ft. is programmed to flash 0.4 secs. on −3.6 secs. off.

A 10 mile leading light with a 4 ft. × 16 ft. day marker is installed upland at elevation +115 ft. This white light is programmed to flash 0.4 secs. on −3.0 secs. off.

All elevations given are above mean sea level.

At the inshore end of the bay, small buoys with flashing lights mark a submerged wreck and the shoal areas at the East end of Cul de Sac Bay.

ANCHORAGES: No anchoring is permitted in Cul de Sac Bay without specific permission from the HOSLL Marine Manager.

RESTRICTIONS: Only vessels inbound or outbound from Cul de Sac Bay may use or be present in the Cul de Sac approach area. No vessel shall enter Cul de Sac Bay except for the purpose of using the facilities located therein and then only in compliance with the directions of the HOSLL Marine Manager.

Ballast Drafts:

Vessel dwt	*Forward*	*Aft*
Under 20,000	12 ft.	18 ft.
20,000 to 35,000	14 ft.	20 ft.
35,000 to 50,000	15 ft.	21 ft.
50,000 to 85,000	18 ft.	24 ft.
85,000 to 150,000	28 ft.	32 ft.
150,000 to 200,000	30 ft.	34 ft.
Over 200,000	40 ft.	40 ft.

These guidelines will be adjusted as weather and vessel handling characteristics dictate. Advice concerning any variance will be provided to the vessel by the Pilot in ample time to prevent any unnecessary delays to vessel's ballasting.

MAX. SIZE:

Dock No. 2 (VLCC Berth):

Length – 1,300 ft. LOA.
Beam – No restrictions.
Draft – 82 ft.
DWT – 400,000 long tons.

Larger vessels can be accommodated, however, each such move must be discussed on an individual basis prior to entry.

Dry Cargo Dock:

Length – 750 ft. LOA.
Beam – No restrictions.
Draft – 40 ft.
DWT – 50,000 long tons.

HEALTH: Pratique is required and will be granted by the Customs/Immigration or Health Official boarding the vessel.

All vessels arriving from a foreign port will be boarded by Customs and Immigration Officers. VESSEL PERSONNEL ARE NOT ALLOWED ASHORE UNTIL PERMISSION IS GRANTED FROM THESE OFFICERS.

Quarantine is required only if vessel is coming from a plague infected area or if illness of a suspicious nature or there is a death (from any cause) onboard. The Master is obligated to report to the HOSLL Marine Office any of the above circumstances well in advance of the vessel's arrival at the pilot station in order that the Health Officials may be notified – failing which the vessel may be delayed.

RADIO: Masters must advise both HOSLL – St. Lucia and their Agents by radio 72, 48 and 24 hours in advance of their ETA giving the vessel's name, date and hour of arrival (local time) and the name of their past port of call otherwise delays to the vessel may result.

VHF: VHF radio frequencies:

1. Calling only	– Channel 16
2. Harbour operations	– Channel 11
3. Pilotage	– Channel 9
4. Agency	– Channel 6

Harbour tugs and the HOSLL Marine Dispatchers monitor VHF frequencies 24 hours a day. VHF call sign: Hess St. Lucia.

TUGS: Tug assistance in the harbour, docking and undocking is mandatory and is provided by diesel tugs, stationed in the port to provide this service. Additional tugs are available when required.

When tugs are alongside or assisting a vessel, all cargo tank openings must be closed, unless the cargo tanks are gas-free.

BERTHING:

Dock No. 2 (VLCC Berth): Vessels using this berth will be turned in Cul de Sac Bay and docked port side to.

This dock is equipped with 4×16 in. Chiksan arms for handling crude oil and 1×16 in. Chiksan for dirty ballast.

Dry Cargo Dock: Vessels using this berth will dock port side to.

This dock is equipped with:

1. Three 10 in. hoses for ballast.
2. Three 10 in. hoses for crude.
3. One 10 in. hose for distillates.
4. One 10 in. hose for gasoline.
5. One 10 in. hose for asphalt.

Also see "Max. Size".

Moorings: A line handling vessel and personnel will be provided for mooring.

Vessels shall at all times remain adequately secured alongside the berth by the use of ropes or wires which are in good condition and properly sized for the load they are likely to incur. Mooring lines shall be regularly tended and kept taut.

The use of automatic tensioning winches to hold mooring lines is forbidden.

Immediately on docking, emergency towing wires of sufficient length to reach the water's edge, with eyes on the outboard ends, must be paid out from the offshore bow and the after quarter. The inboard ends must be made fast to the vessel's bitts.

Wires shall be in good condition, of adequate strength and adjusted as necessary throughout loading/discharging operations to keep the eyes at or above the waterline at all times.

Rat Guards: Rat guards are required only if a vessel is coming from a plague infected area.

Gangway: Where HOSLL provides the gangway, a safety net will be rigged. When the vessel's gangway is used, we strongly urge the use of a vessel supplied safety net under the gangway.

NOTICE OF READINESS: Notice of Readiness to load or discharge is a warranty that the vessel is in all respects ready to load or discharge, and that all of the vessel's equipment (including, but not limited to tanks, pumps, valves and pipe-lines) is ready and fit to load or discharge petroleum and/or petrochemical products. HOSLL reserves the right to refuse acceptance of such Notice of Readiness unless the vessel is in all respects ready to load or discharge.

A vessel will not be deemed ready to load or discharge and pumping will not commence until the Senior Deck Officer shall have executed and delivered to HOSLL the "Declaration of Inspection Prior to Bulk Cargo Transfer".

LOADING/DISCHARGING: Loading or discharging must not start until the Master or Chief Officer has:

(a) Signed a certificate acknowledging receipt of HOSLL's Terminal Regulations.
(b) Displayed in prominent positions on board "No Smoking", "No Naked Light", "No Visitors" notices.
(c) Jointly executed a HOSLL "Declaration of Inspection" with the Terminal Representative certifying that all necessary valves ashore and aboard are properly set; that the agreed loading/discharging signals are understood, and that all other matters relating to safe cargo transfer operations are being carried out.

Bonding Cable: A ground wire from the dock grounding system shall be connected to all vessels or barges loading/discharging petroleum before any hose connections are made. This cable is not to be disconnected until after all hoses or Chiksan arms have been disconnected and blanked off properly.

Connecting and Disconnecting Hoses: A crew will be provided by the terminal to connect and disconnect hoses and Chiksan arms on the vessel. Vessels should have blinds removed from the cargo lines, reducers installed and drip pans in place on arrival at the dock. The HOSLL Dispatcher will advise on arrival the size and number of hoses or arms to be connected. Also see "Berthing".

Communications: HOSLL will supply a VHF radio to the vessel for emergency communication between the vessel and the dock watch during loading/discharging operations.

Cargo Handling Signals: All vessels loading or discharging petroleum cargoes shall fly a red (bunker) flag between the hours of sunrise and sunset and during the night show a red light visible from all parts of the horizon at a distance of not less than 1 mile.

Weather Conditions: The loading and discharge of all crude petroleum and its products will be stopped during any severe electrical storm.

Loading of low-flash products will be stopped during periods of calm when the heavy vapours cannot be dispersed readily enough to prevent hazards from accumulating gas pockets. Vessel's Officers are cautioned to be on their guard during such conditions.

In the event of abnormal weather conditions in the area such as a hurricane, vessels will be notified that additional moorings are required. If the situation so demands, Masters may be instructed to suspend all operations and proceed to sea until normal weather conditions again prevail.

Demurrage: Vessels are required to vacate berths promptly upon completion of cargo handling operation (loading or discharging operations as the case may be). Permission to lay alongside at any time the vessel is not engaged in cargo handling operations must be granted in writing by the Marine Superintendent.

If any vessel fails to vacate its berth upon completion of cargo handling operations and expiration of free laytime for dock usage as outlined below, the vessel will be responsible as follows:

(a) To pay dock demurrage at the rate as specified by HOSLL per hour or a *pro rata* share thereof for a fraction of an hour.
(b) To hold HOSLL harmless for any demurrage and damages incurred as a result of other vessels awaiting berth or for any other consequences of its failure to properly vacate the berth.

The following rules shall govern the determination of demurrage:

(a) One hour free laytime will be allowed after completion of cargo loading operations. This free time will start at the time cargo hoses are disconnected from the vessel's manifold on completion of loading or discharge of cargo. Vessels awaiting cargo papers and/or Customs Clearance must vacate the berth within 1 hour of such completion and move outside to wait for their papers.
(b) Four hours' free laytime will be allowed for ballasting after discharge operations.
(c) Ballasting times for VLCCs will be handled on an individual basis for each vessel.

Overloading: Masters are advised that the international laws regarding overloading are strictly enforced and they should be guided accordingly.

Vessels shall not arrive or sail overloaded. All expenses incurred in discharging or lightering overloaded cargo will be for the vessel's account. Vessels departing to zones requiring lighter draft may sail with the draft permitted in that zone plus an allowance for fuel and water consumption to the zone limit.

Sea Suctions: Pumproom sea suctions and discharge valves are to be sealed on arrival. Seals are not to be broken while the vessel is in the harbour area. If it becomes necessary to break a seal, permission must be received first from the HOSLL dock representative who will check and record the seal numbers.

BALLAST: St. Lucia laws prohibit the pumping of dirty ballast overboard while a vessel is within their coastal waters. All dirty ballast must be pumped to the facilities available ashore. However, if a vessel is especially equipped with clean segregated systems which are reserved for ballast use only, it is permissible to pump overboard at the dock after the ballast tanks have been inspected and approved by a Marine Department Representative.

In pumping dirty ballast ashore, the ballast is received through a 36 in. shoreline at a maximum discharge pressure to the shore installation of 120 p.s.i.

Also see "Restrictions".

MEDICAL: Limited emergency medical attention is available from the public hospital at any hour of the day or night. The vessel's Agency Representative should be contacted by the Master with any requests for crew medical attention.

For routine medical treatment, a Doctor will board the vessel when requested through the vessel's Agency. Dental treatment is available weekdays.

All crew members requiring medical attention should be available upon vessel's arrival.

FRESH WATER: Not available.
FUEL: Not available.
REPAIRS: Limited supplies of marine hardware are available on the island.

There are no facilities for major repairs closer than Puerto Rico or Curacao.

SURVEYORS: Representatives of the American Bureau of Shipping, Lloyd's Register and other maritime classification societies are available from Puerto Rico and Curacao on 72 hours' notice. The vessel's Agent will assist Masters in soliciting their services.

Representatives of SGS (Societe General de Surveillance S.A.) will be available for cargo quantity and quality inspection as required. Other outside inspectors can be arranged upon adequate notice.

TIME: St. Lucia uses Atlantic Standard Time which is 4 hours slow of GMT all year round.

SHORE LEAVE: Under normal circumstances, no restrictions are imposed by the Immigration authorities on shore leave. Masters are requested to have all crew members on board at least 1 hour prior to departure time to avoid delay "waiting crew members".

HOSLL will provide the Master of each vessel with gate passes for the crew upon arrival.

Crew members are not permitted to walk through the terminal. HOSLL will supply transportation between the docks and the main gate at regular intervals. Crew members must make their own arrangements for transportation outside the main gate.

GENERAL:

Winds: The trade winds normally blow from an Easterly direction ranging from N.N.E. to S.S.E. Night winds are generally lighter than the daytime winds. About daybreak the wind speed begins to pick up, reaching maximum strength in the late morning or early afternoon. A return to the lighter night-time winds begins during the late afternoon, usually around 1600 hours.

In past years, hurricanes have occasionally passed close to and over the Island. Hurricane season runs normally from June through October of each year peaking in late August and September. For details see U.S. DMA Hydrographic Center – Sailing directions for the Caribbean Sea – Pub. 144.

Tides and Current: The tides are diurnal and small, the mean range being about 0.5 ft. and the diurnal range less than a foot.

Normally there is a current of 1 knot to 2.5 knots moving along the West coast of the Island in a Northerly direction.

Charts: Island of St. Lucia, U.S. DMA Hydrographic Center Chart No. 25521.

Anchorage in St. Lucia Island, U.S. DMA Hydrographic Center Chart No. 25528, B.A. No. 449.

Flags: Vessels entering Cul de Sac Bay during daylight shall fly their national flag and continue to do so during daylight hours when moored. All vessels of foreign registry shall fly the St. Lucian flag at the foremast when moored.

Visitors: No visitors are permitted in the dock area. Only persons on official vessel's business are permitted on the docks.

Mail: Official and personal mail will be delivered onboard by the vessel's Agent upon vessel's entry.

Mail received for vessels while in port will be delivered onboard prior to sailing. Outgoing mail is accepted from Master provided it is accompanied by a mail transmittal slip or support disbursements.

Laundry: Limited vessel's laundry facilities are available.

Liquor: The transportation of alcoholic beverages inside HOSLL's property is strictly prohibited; consequently, no liquor or beer may be brought or removed from vessels. The only exception to the foregoing is the delivery of bonded stores ordered by Masters for their vessels.

Swimming: Swimming in the dock area is strictly prohibited as sharks and barracuda frequent the harbour.

AUTHORITY: Hess Oil St. Lucia Ltd. (HOSLL). *Tel:* 809 452 3105 and 452 3904. *Telex:* 341-6346 A/B 6346 Hess Stl LC. *Cable:* Hessoil St. Lucia.

NOTES

Please also advise Shipping Guides Ltd.

St. Pierre and Miquelon

SAINT-PIERRE: 46.47 N. 56.10 W. (See Plan)

DOCUMENTS: Formalities completed on arrival. Advise Port Service beforehand of vessel's ETA, length, tonnage and draft 12 hours before arrival.

Declaration of Health.
Derat Certificate.
2 Crew Lists.
2 Passenger Lists.
2 Cargo Manifests of any cargo to be discharged.
2 Crew Declarations (tobacco, liquor, souvenirs).
Certificate of Registry.

PILOTAGE: Contact Pilot 1 hour before arrival calling TXU by radio telephone on 2182 kHz or VHF Channel 16. Permanent watch kept. Pilot boats equipped with VHF Channel 12, radar, and radio-telephone. Pilot launch available at entrance to N.E. channel in position Lat. 46° 48.3′ N., Long. 56° 07.7′ W., in the vicinity of the Land Fall Buoy.

Pilot launch named *Radar*, length 45 ft. The hull is black and superstructure white with "Pilote" painted on each side. Pilot launch carries the International Signals for pilot launch day and night.

When the weather is bad contact Pilot on Channel 12 for instructions.

Pilot is compulsory for vessel of 100 g.r.t. and over.

Pilot Tel. 41.20.68 (office), 41.24.87 (residence).

ANCHORAGES: In the roads, depth 13 m., not secure in strong East winds.

Shipmaster's Report: The anchorage in the roads where fish is loaded ex-trawlers is not secure, even with moderate winds from any direction, and engines should be on stand-by continuously. Several ships have gone on the rocks in a matter of minutes.

APPROACHES: *North East Passage:* Max. draft 8.5 m. Vessels approach on a heading of 209° T.

South East Passage: Used by vessels not exceeding 25 m. LOA and 5.0 m. draft.

24 hours' notice required if using this entrance.

MAX. SIZE: New Quay: Max. LOA 200 m. Max draft 10 m. Also see "Berthing".

HEALTH: If suspected disease on board contact Saint-Pierre Health Service. Tel: 41.21.11. (office), 41.21.17 (residence).

Masters of vessels arriving at Saint-Pierre may obtain Free Pratique via TXU. Message to be sent to Harbour Master Saint-Pierre at least 12 hours before arrival.

In the message the Master has to specify name of vessel, total number of crew members, where ship coming from, and if everybody on board healthy; in these conditions flag "Q" is not necessary on arrival, but if any suspected disease or fever on board, advise Health Authority as well as Agent, and stand by instructions for berthing. Flag "Q" has to be flown on arrival in the roads.

RADIO: Saint-Pierre Radio, call sign TXU, receiving on 2182 kHz. transmitting on 2410 kHz.

Masters of vessels arriving are requested to send their ETA to Harbour Master Saint-Pierre at least 12 hours before arrival and corrected by a further message if necessary. The ETA should be given in GMT. Also advise maximum draft and length.

VHF: Saint-Pierre Radio is equipped with VHF Channels 16 and 25 and maintains permanent watch on Channel 16. Port Captain on Channels 12, 10, 9 and 16. Keeps watch on Channel 12.

TUGS: No tugs available but the pilot launch (230 h.p.) will assist on Master's request.

BERTHING: Mole du Commerce: Length 170 m., depth alongside 8.50 m. 2 sheds (total area 2,700 sq.m.), water and bunkers.

Quai de Peche: Length 134 m., depth alongside 5.2 m. to 9 m. Roll-on/Roll-off terminal, one ramp, max. capacity 50 tons, 6,000 sq.m. open storage.

Mole Frigorifique: 3 berths; No. 1: 120 m. length, 7 m. depth over length of 92 m. No. 2: 85 m. length, 6 m. depth. No. 3: 123 m. length, 5.5 m. depth. Cold store of 15,000 cu.m. at −30°C. Open storage area of 15,000 sq.m. Water and bunkers available at all berths.

Quai de la Douane: South Side: Length 72 m. Depth 6.0 m. Water, electricity and telephone available. West Side: Length 49 m. Depth 6.0 m. Customs office located at this berth. East Side: Length 75 m. Depth 5.0 m.

Quai de l'Alysse: Length 50 m., depth 5.6 m. – 6.0 m. Water and electricity available. Berth used by fishery research vessels.

Quai du Frigorifique: New quay of length 56.4 m. with 2 mooring dolphins 100 m. to the East and West. Depth alongside 12.0 m. The berth can accept vessel of 200 m. LOA with draft of 10.0 m. Water and bunkers available.

Pilot will inform Master of berthing prospects and any special requirements.

STEVEDORES: ETA notices are to be sent to Agent 24 hours prior arrival. Stevedore in Saint-Pierre is Paturel Freres (Tel: 41.32.95 and 41.32.96). Cable Address "Reltupa Saint-Pierre". Telex: Reltupa 20 QN.

Approximately 60 men are available for working on board vessels when loading/discharging or transhipping in the port. Crew are allowed to work only when no gangs are available.

One normal shift 0730 to 1600 hrs. every week-day, Saturday 0730 to 1200 hrs. Day overtime, every day 1600 hrs. to 1900 hrs. Saturday 1200 to 1600 hrs.

Work done with ship's derricks.

It is requested that a net be put under gangway before starting work.

EQUIPMENT:

1 mobile crane, 10 tons at 18 m.
3 forklifts, 2 tons capacity.
2 forklifts, 7 tons at 3.5 m.
2 forklifts, 3 tons at 3.5 m.
1 tractor for 40 ton containers.
1×30 ton MAFI container trailer.

TANKERS: 1 berth (New Quay) alongside dolphins in depth of 12 m.

MEDICAL: All facilities available.

FRESH WATER: Available at berths. Supplied by hoses, rate 25 cu.m.p.h.

FUEL: Only diesel oil SG 825/840 at 15°C available at all berths.

OPENING/CLOSING HATCHES: Normally carried out by crew.

IDENTIFICATION CARDS: Each man to carry passport or Seamen's Book.

CONSULS: Local representatives for Canada, Netherlands, Norway, Portugal and Spain.

REPAIRS: Small repairs can be effected. Floating dock, capacity 550 tons, for vessels up to 13 ft. 6 in. draft.

SURVEYORS: Bureau Veritas, Tel. 41.28.72.

REPATRIATION: Can be arranged.

TIME: GMT minus 3 hours all the year round.

AMBULANCE: Tel: 41.21.11 and 41.21.13 (switchboard).

AIRPORT: Connections from Saint-Pierre to Halifax (Nova Scotia) International Airport.

TELEPHONES: Possible to place telephones on board at certain berths. It is possible to contact the shore on Channel 16 via Saint-Pierre Radio.

SERVICES: Compass adjusting, radar repairs, radio, Decca, Loran and gyro-compass repairs and maintenance possible.

AUTHORITY: Direction du Port, Direction de l'Equipement, 6 Place Lieutenant Colonel Pigeaud, B.P. 4217, Saint-Pierre, 97500 Saint-Pierre et Miquelon. *Tel:* 41.32.01, 41.32.02. *Telex:* DDE SPM 914439 Qn. *Contact:* Jean Urtizberea, Port Captain. Tel. 41.24.10 (Office). 41.28.31 (Residence).

NOTES

Please also advise Shipping Guides Ltd.

St. Vincent

KINGSTOWN: 13.09 N. 61.14 W. (See Plan)

PORT LIMITS: The imaginary line joining Old Woman's Point and Cane Garden Point.

DOCUMENTS:

Customs:

2 copies Ship's Stores List.
2 copies Crew's Stores List.
1 copy Crew List (in).
1 copy Crew List (out).
1 copy Passengers List (in).
1 copy Passengers List (out).
1 copy List of Unmanifested Cargo.
Clearance from Last Port.

Immigration:

1 copy Passenger List (in).
1 copy Passenger List (out).
1 copy Crew List (in).
1 copy Crew List (out).

Health Authorities:

1 copy Animal Declaration.
1 copy Derat Certificate.
1 copy Declaration of Health.

Harbour Master:

1 copy Passenger List (in).
1 copy Passenger List (out).
1 copy Crew List (in).
1 copy Crew List (out).

PILOTAGE: Agent to be notified of request for Pilot 24 hours prior to ETA. Boarding by Pilot at harbour entrance about 2 miles from anchorage. By day pilot boat flies pilot flag, by night shows signal-lights. Ship to fly "Request for Pilot" – flag by day and signal-lights by night. Also two long and one short blast (Morse Code "G").

ANCHORAGES: Well protected anchorages. Large vessels lie to in basin 90 ft. – 100 ft. depth. Average sized vessels berth at pier 27 ft. – 40 ft. depth.

RESTRICTIONS: None.

HEALTH: Port Health Officer boards vessel at anchorage. Requires Bill of Health or Master's Declaration, and a copy of Passenger List. Vaccination Certificates are no longer required. Passenger and Crew Muster no longer required. No one allowed to embark or disembark before Pratique granted and Immigration Officials have boarded vessel.

RADIO: Cables should be routed through Cable and Wireless (West Indies) Ltd. Tel: 71901. Telegrams and Telex: 93.

VHF: The Fort Charlotte Signal Station should be contacted on VHF Channel 16 by vessels approaching, entering, manoeuvring in and departing from the Port.

RADAR: None.

TUGS: None.

BERTHING: One berth 900 ft. long. Max. draft approx. 30 ft. (salt water). Loading/discharging by ship's gear. Break-bulk (palletised) cargo handled. 10 ft. and 20 ft. containers handled on a limited scale (max. gross weight 10 tons).

CRANES: 35 tonne mobile crane available.

BULK CARGO FACILITIES: None at Kingstown.

Campden Park Bay, 2 miles North along the West coast – flour mill complex for receiving grain (bulk) and shipping flour. Max. draft 36 ft. One berth 300 ft. Loading gear – conveyor belt, height adjustable. Discharging into receiving hopper 25 ft. high. Loading: Max. 1,200 bags flour/feed per hour. Average rate 750 bags/hour. Discharge rate: Max. 60 t.p.h. per vacuator, average 40 t.p.h. Two vacuators normally used.

SPECIALISED CARGO HANDLING FACILITIES: No specialised berths for containers or Ro/Ro traffic.

Arnos Vale, a bay situated about 2 to 2.5 miles S.E. of Kingstown, features a buoy with a 4 in. floating line for LPG. Draft 14 ft.

BRIDGES: None.

STEVEDORES: 24 hours' notice of ETA required. Advise type of cargo, number of hatches to be worked, this required for arranging gangs of stevedores and longshoremen. Average discharge rate 3 – 5 tons per gang/hour.

MEDICAL: Advance notice to Agent of medical requirement is helpful. Hospital facilities available.

TANKERS: No facilities at Kingstown.

Arnos Vale (see "Specialised Cargo Handling Facilities") has available 3 buoys. Draft 24 ft., 17 ft. 6 in. and 14 ft. Serviced by floating and submarine line 6 in. and 4 in. Fuels available: White Products – Gasoline 93 R Octane, Kerosene Oil, Light Diesel Oil, Aviation Fuel; Black Products – R.C. 2 and Colas. Rate of discharge: White Products: 500 bbls./hr. Black Products: 300 bbls./hr.

DENSITY: Average 1025 oz/cu.ft.

FRESH WATER: Available. $5.00 (E.C.) per 100 gallons (I.G.). Delivery ex-pier by 3 in. line reduced by 1.5 in. nozzle – 2,500 gall./hr.

FUEL: Grades available. See "Tankers". 2 or 3 hours' notice during normal working hours required. Delivery ex Land-Tanker. Convenient to smaller craft only.

FIRE PRECAUTIONS: Usual precautions.

CONSULS: Consulate of the Netherlands (Mr. G. B. Palmer, P.O.Box 354. Tel: 71846).

French Consular Agent (Mr. Clifford Frank, P.O.Box 364. Tel: 61615).

Deputy British High Commissioner (Mr. M. D'ath, P.O.Box 132. Tel: 71701).

Embassy of the Republic of Venezuela. (Sr. Escobar C. Hernani, P.O.Box 852. Tel: 61374).

REPAIRS: Minor facilities only, e.g. minor mechanical repairs and simple welding, etc.

DRY DOCKS: None. There is a small mechanised dry-docking cradle (privately owned) for small to medium sized yachts at Union Island, an island of the Grenadines chain 40 miles South of St. Vincent.

SURVEYORS: Lloyds Insurance (London). London representative: Messrs. Hazells Ltd., Kingstown. Tel: 61311. Telex: Hazells 7512.

GANGWAY/DECK WATCHMEN: Watchmen recommended. Rates fixed per day.

CARGO GEAR: Loading/discharging effected by ship's gear.

REPATRIATION: Facilities for crew changes and repatriation available.

AIRPORT: Arnos Vale Airport 2 miles from Port. Scheduled flights.

TIME: GMT minus 4 hours. No alterations to clock during the year.

HOLIDAYS: New Year's Day, (1st January); St. Vincent and Grenadines Day, (22nd January); Good Friday; Easter Monday; Whitsun Monday; Labour Day, (1st May); Caricom Day, (1st Monday in July); Carnival Day, (1st Tuesday in July); August Monday, (1st Monday in August); Independence Day, (27th October); Christmas Day, (25th December); Boxing Day, (26th December).

BANKS: 1. The Royal Bank of Canada, Middle Street, Kingstown, P.O.Box 118. Tel: 61501, 61502, 61503. Telex: 7513.

2. The Canadian Imperial Bank of Commerce, Halifax Street, Kingstown, P.O.Box 212. Tel: 71587. Telex: 7532 VQ.

3. Barclays Bank International Ltd., Halifax Street, Kingstown, P.O.Box 604. Tel: 61706. Telex: 7520.

4. The Bank of Nova Scotia, Corner White Chapel and Halifax Street, P.O.Box 237. Tel: 71601. Telex: 7546 VQ.

EMERGENCY CO-ORDINATION CENTRE: The Royal St. Vincent Police Station, Kingstown. Tel: 71211. Emergency: 99.

POLICE/FIRE/AMBULANCE: Police Headquarters/Fire Department, Tel: 71211. Emergency: 99. General Hospital, Tel: 61185.

TELEPHONE: Two telephones available, $25.00 per day per phone.

STORING: See "Prelims".

1. Vessels stored by truck.
2. No barges available.
3. Trucks allowed alongside.
4. Fork lift trucks can be used on jetty to handle stores.
5. Customs regulations regarding storing allows stores to be exported duty-free under Customs supervision, and sometimes Customs seals while in port.
6. Local Riggers available for assisting with storing.

SHORE LEAVE: No restrictions.

IDENTIFICATION CARDS: Seaman's Book adequate.

REGULATIONS: No unusual regulations.

DELAYS: Normal delays in berthing etc., as a result of limited docking area.

DEVELOPMENTS: Deep Water Berth to be extended by 300 ft. – 400 ft. to the North and by 150 ft. to the South. No schedule available at present.

GENERAL: *Charts:* BA. 501 and BA. 791.

SHIPMASTER'S REPORT: January 1979 (Updated 1988).

Pilotage: Compulsory for vessels over 180 n.r.t. Pilot boards 0.5 miles South of Fort Charlotte Light. A heavy swell may be experienced and vessel is always rolling.

Restrictions: Vessel may enter and leave at any stage of the tide, however, berthing is not recommended during hours of darkness. Unberthing may be carried out at any time.

Max. Size: LOA 550 ft. Max. draft approximately 30 ft.

VHF: Fort Charlotte on VHF Channel 16.

Berthing: One berth only available, vessels always dock port side to. Wharf is concrete with hard rubber fenders. There are storage facilities for breakbulk cargoes and palletised cargoes, there is also mechanised equipment for handling bananas. There is no equipment for handling containers nor is there storage space for containers. Loading rate for bananas 15 t.p.h. per gang using ship's derricks. Vessel's accommodation ladder required.

Facilities Available: Fresh water, fresh provisions, airport, laundry services, doctor, hospital, groceries and meats.

AUTHORITY: The St. Vincent Port Authority, P.O.Box 1237, Kingstown, St. Vincent, W.I. *Tel:* 61830. *Contact:* Harbour Master: M. Bennett, *Tel:* 71402. Port Manager: L. Kirby, *Tel:* 72719. Chairman: Mr. Keith Boyea, *Tel:* 72041.

Republic of Sao Tome and Principe

NOTES

Please also advise Shipping Guides Ltd.

SAO TOME: 00.21 N. 06.44 E.

SHIPMASTER'S REPORT: May 1984.

DOCUMENTS:

6 copies Crew Lists.
6 copies Animal Lists.
6 copies Passenger Lists.
6 copies Arms & Ammunition Lists.
6 copies Ports of Call.
2 copies Personal Declaration.
2 copies Stores Declaration.
3 copies Cargo Manifests.

PILOTAGE: No service available.

ANCHORAGE: On the leading line shown on the chart, about 8 – 9 cables from the breakwater. By day or night the leading light structures are not easily recognisable. Vessels lie at anchor heading in a S.S.E.'ly direction and do not swing around to the tide. The ground, which is clearly visible when the sea is calm, is sand and holds well.

RADIO: Although Sao Tome has a listed radio station, it is not regularly attended and does not function properly. Masters are advised to send ETA messages via one of the major coast stations such as Cape Town. There is supposed to be a VHF station in port but this is also mostly unattended. There is telex connection to Europe.

BERTHING: *Cargo Handling:* If no other vessel in port, up to 200 tons per day in lighters of 40/60 tons each.

MEDICAL: There is a hospital and medical attention is available.

FRESH WATER: Not available.

AIRPORT: Sao Tome has regular flight connection with Luanda only. A once a month service to the Cape Verde Islands started in April 1984, on an experimental basis.

SHORE LEAVE: Crew members may go ashore but must return on board before 2000 hrs. They must carry their passports with them.

GENERAL: *Provisions:* There is no ship chandling service. Some small amounts of fresh vegetables can be purchased.

Customs: The ship's bonded stores are not sealed by Customs.

Immigration: One policemen stays on board throughout the ship's stay in port.

Currency: The local currency is Dobras, about 33 Dobras = $1.00 (April 1984).

Mail: Because of the lack of direct flight connections, it is advisable not to send mail to or from Sao Tome.

Saudi Arabia

GENERAL

NOTICE:

Saudi Arabia – Bahrain Causeway

The following Navigation Warning issued by the Saudi Seaports Authority – Riyadh is circulated to all concerned:

Date: 23.7.1407/25.11.1986

Subject: Navigation Warning "A" 172/25.11.1986

Saudi Arabia – Arabian Gulf – Saudi Arabia – Bahrain Causeway.

1. A causeway linking Saudi Arabia and Bahrain has been constructed and the following positions represent the centreline and general direction of the causeway:

A. Lat. 26° 13.17′ N., Long. 50° 13.27′ E.
B. Lat. 26° 13.20′ N., Long. 50° 13.87′ E.
C. Lat. 26° 13.15′ N., Long. 50° 14.38′ E.
D. Lat. 26° 12.83′ N., Long. 50° 15.63′ E.
E. Lat. 26° 12.70′ N., Long. 50° 16.00′ E.
F. Lat. 26° 11.33′ N., Long. 50° 18.82′ E.
G. Lat. 26° 11.02′ N., Long. 50° 19.55′ E.
H. Lat. 26° 10.92′ N., Long. 50° 20.17′ E.
I. Lat. 26° 10.83′ N., Long. 50° 22.20′ E.
J. Lat. 26° 10.17′ N., Long. 50° 24.07′ E.
K. Lat. 26° 10.05′ N., Long. 50° 25.25′ E.
L. Lat. 26° 10.28′ N., Long. 50° 27.00′ E.

2. Four Navigation Spans have been provided in the causeway, 1 main (Bridge No. 3) and 3 secondary (Bridge Nos. 1, 4 and 5).

(a) Main Navigation Span Bridge No. 3.
Centre of Span in position: Lat. 26° 12.10′ N., Long. 50° 17.23′ E.
Clearance Under Span: 28.5 m. at Admiralty Chart Datum.
Navigation Width of Span: 122 m.
Depth of Water Under Span: 7 m. at Admiralty Chart Datum.

(b) Secondary Navigation Span Bridge No. 1.
Centre of Span in position: Lat. 26° 13.18′ N., Long. 50° 13.58′ E.
Clearance Under Span: 15.5 m. at Admiralty Chart Datum.
Navigation Width of Span: 45 m.
Depth of Water Under Span: 5.5 m. at Admiralty Chart Datum.

(c) Secondary Navigation Span Bridge No. 4.
Centre of Span in position: Lat. 26° 10.87′ N., Long. 50° 21.10′ E.
Clearance Under Span: 15.5 m. at Admiralty Chart Datum.
Navigation Width of Span: 45 m.
Depth of Water Under Span: 5.5 m. at Admiralty Chart Datum.

(d) Secondary Navigation Span Bridge No. 5.
Centre of Span in position: Lat. 26° 10.12′ N., Long. 50° 25.75′ E.
Clearance Under Span: 15.5 m. at Admiralty Chart Datum.
Navigation Width of Span: 45 m.
Depth of Water Under Span: 4.5 m. at Admiralty Chart Datum.

3. (a) The North and South piles on the Eastern side of each navigation span are marked with red lights, while green lights mark the Western sides. These lights show over an arc of 40°, that is 20° either side of a line at right angles to the bridge span.

(b) Main Navigation Span Lights:
Characteristic: Occult 5 secs.
Height: 5 m.
Nominal Range: 5 miles.

(c) Secondary Navigation Span Lights:
Characteristic: Fixed.
Height: 7 m.
Nominal Range: 5 miles.

(d) The piles at either side of the navigable spans are also illuminated from above with floodlights.

4. Light beacons, Lateral System "A" with a height of 5 m., nominal range 5 miles and fitted with radar reflectors are to be inserted as follows:

Lat. 26° 12.87′ N., Long. 50° 17.50′ E.	Fl. Green 4 secs.
Lat. 26° 12.85′ N., Long. 50° 17.58′ E.	Fl. Red 4 secs.
Lat. 26° 12.48′ N., Long. 50° 17.35′ E.	Fl. Green 8 secs.
Lat. 26° 12.47′ N., Long. 50° 17.43′ E.	Fl. Red 8 secs.
Lat. 26° 11.73′ N., Long. 50° 17.03′ E.	Fl. Green 8 secs.
Lat. 26° 11.70′ N., Long. 50° 17.12′ E.	Fl. Red 8 secs.
Lat. 26° 11.35′ N., Long. 50° 16.88′ E.	Fl. Green 4 secs.
Lat. 26° 11.32′ N., Long. 50° 16.97′ E.	Fl. Red 4 secs.

5. All positions are referenced to the International Spheriod Datum Ain Al Abd (1970).

TRAVEL TO SAUDI ARABIA: *Crew Members' Wives' Passports:* We have been informed that the Director General of Passports, Riyadh, has notified Director of Passports (Eastern Province) Dammam, that wives of crew members arriving in Saudi Arabia and wishing to join their husbands on board vessels, are required to obtain, prior to arrival, valid Saudi Entry Visas from Royal Saudi Consulate in their countries.

The visa endorsed in passport must state the intention of joining the particular ship to obtain exit via seaport.

AUTHORITY: The Ports Authority of the Kingdom of Saudi Arabia formulates policy for and supervises the management and operation of the following ports:

	Lat.	*Long.*
East Coast:		
King Abdul Aziz Port, Dammam	26° 30′ N.	50° 12′ E.
King Fahd Industrial Port, Jubail	27° 04′ N.	49° 40′ E.
Jubail Commercial Port	27° 01′ N.	49° 40′ E.
Qatif	26° 34′ N.	50° 00′ E.
Darin	26° 32′ N.	50° 04′ E.
Al Khobar	26° 17′ N.	50° 13′ E.
Al Ugayr	25° 39′ N.	50° 13′ E.
Ras Tanura	26° 39′ N.	50° 10′ E.
Ras Al Khafji	28° 25′ N.	48° 32′ E.
Ras Al Ju'aymah	26° 56′ N.	50° 03′ E.
West Coast:		
Jeddah Islamic Port	21° 28′ N.	39° 10′ E.
Yanbu, King Fahd Industrial Port	23° 56′ N.	38° 15′ E.
Yanbu, Commercial Port	24° 05′ N.	38° 03′ E.
Gizan	16° 54′ N.	42° 32′ E.
Haql	29° 18′ N.	34° 57′ E.
Al-Khuraibah	28° 04′ N.	35° 10′ E.
Dhuba	27° 21′ N.	35° 42′ E.
Al Wajh	26° 14′ N.	36° 28′ E.
Umm Lajj	25° 01′ N.	37° 16′ E.
Rabigh	22° 45′ N.	39° 00′ E.
Al Laith	20° 09′ N.	40° 14′ E.
Al Qunfudah	19° 07′ N.	41° 04′ E.
Al Qahmah	18° 00′ N.	41° 40′ E.
Farasan	16° 43′ N.	42° 11′ E.

INERT GAS SYSTEM: ARAMCO has been informed that the Government of Saudi Arabia has ratified the Solas Convention of 1974 and its 1978 Protocol on May 29th, 1984. Therefore, ARAMCO is now obliged to enact the provisions of the said convention as soon as possible.

All Ship Owners/Operators to comply with the following:

1. Effective January 1st, 1985, all vessels of 70,000 d.w.t. and larger calling at any of ARAMCO's terminals to load crude/product cargoes must be equipped with an operable inert gas system in use.
2. Effective May 1st, 1985 all vessels of 20,000 d.w.t. and larger calling at any of ARAMCO's terminals to load crude/product cargoes must be equipped with an operable inert gas system in use.

Vessels not so equipped will not be accepted for loading as of the effective dates mentioned above.

The Solas Convention of 1974 represents a significant contribution to safety of tankers and oil installations and ARAMCO recommends that Ship Owners take immediate steps to comply with provisions of this convention as soon as possible and no later than the effective dates mentioned above. No exceptions will be allowed except in the most unusual circumstances.

Note: ARAMCO will follow the terms of the Solas Convention of 1974 and its 1978 Protocol *including* sections pertaining to exemptions. Any vessels exempted under this Convention will still, however, be required to comply with all Saudi Government Port Regulations as well as ARAMCO Safety Rules.

RULES/REGULATIONS: The Co-operation Council for the Arab States of the Gulf has issued a set of Rules and Regulations Valid for Saudi Arabian Seaports. These Rules and Regulations became effective on March 22nd, 1985.

EVERY VESSEL ARRIVING IN A PORT OF THE KINGDOM MUST HAVE A COPY OF THESE ON BOARD OR MUST OBTAIN ONE IMMEDIATELY ON FIRST ARRIVAL.

The Port Inspectors make periodical inspections and in the event of non-possession of the said Rule Book by a vessel, she may be penalised. If you already have one or after you get one, it is recommended that you read pages, 66-75, 163-172, 220-233 and 260.

Hereunder follows an EXTRACT from these rules and regulations:

General Regulations for Cargo Stowage and Handling:

1. The stowage of cargo bound for ports in the Kingdom of Saudi Arabia must be arranged to ensure simultaneous and optimum rate of discharge from the maximum number of hatches compatible with the requirements of seaworthiness.

2. Where practicable all general and bagged cargo of uniform type and size is to be stacked and secured on pallets to facilitate quick discharge when shipped to the Kingdom of Saudi Arabia in conventional vessels.

3. Exceptions to palletisation:

a. Bagged cargoes may be pre-slung.

b. Bagged cargoes arriving in full ship-loads may be discharged loose provided that such cargo is taken by direct delivery and a minimum discharge rate of 1,200 tons per 24 hours is guaranteed.

Bagged cargoes arriving in part ship-loads may be discharged loose provided that such cargoes are taken by direct delivery and a minimum discharge rate of 250 tons per hook per 24 hours is guaranteed.

c. Foodstuffs, if palletisation would adversely affect the total distribution costs, but the stowage must be arranged to obtain optimum discharge rates.

d. Cargo carried on schooners and small craft of less than 70 m. in length which are engaged in coastal trade within the Arabian Gulf, the Red Sea and to/from Somali ports.

The weight per bag shall not exceed 50 kg.

4. Tyres should be in bundles of appropriate size or pre-slung.

5. Bundled steel, profile iron, rebars, etc., shall be fitted with slings or lifting points suitable for multiple handling before commencement of handling this type of cargo, the ship's Master or Agent must present to the Port Management a Certificate precisely stating the safe loading capacity of the relevant slings and lifting points. Failing to comply with this requirement will subject the vessel to financial penalties in addition to legal liabilities to third parties.

6. Steel sheets shall be strapped and stacked in bundles of approximately 2 tonnes each. Wooden bearers and/or spacers shall be used in loading the bundles to facilitate discharge.

7. Pallets must be stowed in a ship's hold in a manner to facilitate discharge and make the best use of cargo handling equipment within the holds.

8. All cargo listed on the dangerous cargo list according to IMO Rules must be stowed and handled as prescribed.

9. Masters and shipping Agents are to instruct their stevedoring contractors at loading ports to execute complete separation in

accordance with Bills of Lading and the Manifest, and will be held responsible for non-compliance with this regulation.

10. Comprehensive regulations govern the carriage of livestock by sea and their handling at ports in the Kingdom of Saudi Arabia, also the carriage and handling of bagged oil cake and scrap.

Unitisation of Timber:

11. Sawn timber, plywood and veneer is to be unitised. Timber cargoes shall be properly strapped to withstand multiple handling. Bundles shall be separated by skids or dunnage to facilitate lifting or handling by forklifts. Each bundle should weigh between 2 and 3 tonnes.

Bagged Cement, Lime, Gypsum and Similarly Packed Cargo:

12. Bagged cement in paper bags must be packed in 5-ply strengthened paper supported by an inner skin of polythene or similar waterproof material. If there is no synthetic layer, the bag must be made of extra-strengthened paper (minimum 6-ply), or of materials whose proven strength is at least equivalent to the above.

In the square of each workable hatch opening within the plumb of the ship's discharging gear, a block of bagged cement must be left in pre-slung form in flat straps capable of lifting the bagged cement in safe working loads without damaging the packaging. This block must have dimensions of at least 6 m. × 9 m. horizontally and these dimensions must be maintained down to the bottom layer.

(Additional regulations apply.)

13. The Master of any vessel carrying grain to a port, whether in bulk or in bags shall present an official certificate from the country of origin stating that the cargo was free from infestation and that it has been fumigated either before or after loading, in addition to a Certificate stating that the vessel was free from infestation prior to commencement of loading. Without these certificates the vessel will not be permitted to discharge and will be liable to the imposition of a fine.

14.The discharge of cargo for transhipment to another port, whether local or foreign is strictly forbidden without the prior permission of the competent authority.

The transfer of cargo from one vessel to another at anchorage or alongside berths within the port boundaries is strictly forbidden without the permission of the competent authority.

PORT REGULATIONS:

ARRIVAL:

1. Notification to the Port Management

1.1 The Owners of vessels bound for a port in the Kingdom of Saudi Arabia with cargo must give preliminary notice of the vessel's intended arrival to the Port Management of the discharge port or ports by telex or cable either directly or through the vessel's Agents on arrival at the first or sole loading port, before loading commences. Estimated time of arrival and estimated quantity of cargo by type must be given with the preliminary notice.

1.2 On completion of loading cargo for Saudi ports the following information must be sent to the Port Management of the discharge port or ports by telex or cable either directly or through the vessel's Agents:

a. Vessel's name and former names, if any.
b. Flag, port of registry and call sign.
c. Length overall, g.r.t., n.r.t. and d.w.t.
d. Expected draft on arrival.
e. Expected time of arrival.
f. Cargo particulars, including nature, weight, tonnage and stowage by hatches. Car carriers, Ro-Ro and container vessels to give both number and weight in tonnes of each type of unit.
g. Any other cargo being carried for other destinations.
h. If dangerous cargo is being carried, the quantity and class must be indicated in accordance with the IMDG Code and it must be stated whether this cargo is to be discharged or is in-transit.
i. Number, position and S.W.L. of derricks and/or cranes, and particulars and positions of ramps.
j. The number and nationalities of passengers to be disembarked or in transit.
k. Expected requirements for bunkers and water.
l. Name of vessel's Agent.
m. Not less than 48 hours before the vessel's arrival a detailed List of Arms and Ammunition carried on board purely for self-defence. Failure to comply with this requirement will result in heavy fines and seizure of the arms by the concerned authorities.

1.3 A vessel bound for a port in the Kingdom of Saudi Arabia for loading or bunkering must notify the Port Management immediately orders have been received to proceed to Saudi Arabia giving the information as in 1.2 above but relevant for loading or bunkering

1.4 A further notice of ETA is to be sent 5 days, 2 days and 1 day prior to arrival at the port.

Also see "Advance Notice Requirements".

2. Vessels Failing to Give Required Notifications

2.1 Any vessel failing to comply with the requirements under section 1 above or arriving later than expected under the revised ETA, may lose its berthing registration and will be held responsible for all expenses incurred by the Port Management.

2.2 Exemption from the requirements listed under paragraph 1 above may be granted by the Port Management to vessels engaged in coastal trading or which have departed from a neighbouring country, depending on the availability of proper communication between the relevant ports, and the duration of the vessel's voyage.

3. Permission to Enter Port

3.1 The Master of a seagoing vessel must have prior permission of the Port Management to enter the port. Such permission may be subject to special restrictions or conditions if:

a. The vessel arrives before or after the given ETA;
b. The vessel is in danger of sinking;
c. The vessel or the cargo is on fire or if there is the possibility of a fire, or if after a fire, it is uncertain whether it is completely extinguished;
d. The vessel is a tanker;
e. On account of the vessel's size or construction its movements or that of any other vessels or the port operations are endangered, hindered or impeded;
f. On account of the condition of the cargo, the vessel is dangerous;
g. The vessel arrives under tow;
h. The vessel is over-loaded;
i. The vessel has any person or animal on board suffering from an infectious or contagious disease, or the presence of such infection, contagious or epidemic disease is suspected on board;
j. The vessel is powered by nuclear energy, the arrival of such a vessel must be notified in accordance with the requirements as prescribed in section 1;
k. If the vessel carries deck cargo which extends beyond her side.

4. Registration for Berthing

4.1 Vessels will be registered for berthing in accordance with the time given for arrival in the revised ETA. The Port Management reserves the right to refuse registration or to cancel the registration of any vessel already registered if required by port operations or for any infringement of these regulations by the vessel.

"Sambuks, schooners, yachts or any craft not registered in the port without radio transmitting equipment, shall stay first in "Small Craft Anchorage" for the visit of Authorities before proceeding inside the port."

5. Priority for Berthing

5.1 Allocation of berths shall be under the control of the Port Management who, in case of excess demand on facilities, shall have the power to use their discretion to give priority to:

a. Vessels carrying passengers or pilgrims;
b. Vessels carrying livestock;
c. Vessels carrying essential or perishable foodstuffs;
d. Vessels carrying refrigerated cargo;
e. Any other vessel for special reasons.

6. Papers and Documents Required (see also special requirements for individual ports).

6.1 *Vessel's Papers and Documents*

6.1.1 On arrival at any port in the Kingdom of Saudi Arabia, the Master of each vessel shall present or make available for inspection the following papers and documents:

a. Log Books;
b. Registration Certificate;
c. Classification Certificate;
d. Load-line Certificate;
e. Building Safety Certificate;
f. Safety Equipment Certificate;
g. Radio and Wireless Certificate;
h. Cargo Gear Certificate;
i. Marine Health Declaration;
j. Vaccination List;
k. Rat–Free Certificate;
l. Clearance from the Last Port of Call;
m. Israel Boycott Declaration;
n. Ship's Stores List;
o. Grain Shipping Certificate if the vessel is carrying a grain shipment;
p. Mail Transport documents in accordance with the "International Postal Treaty" if any mail is carried aboard;
q. 5 Copies Crew List including name, nationality, date and place of birth, passport number and rank;
r. 5 Copies of the Passenger List including name, nationality, date and place of birth, passport number, port of embarkation, port of disembarkation;
s. 2 Copies of the List of Personal Effects of Crew and Passengers.

6.1.2 To obtain port clearance the Master of the vessel shall present or make available for inspection the following papers and documents to Port Management:

a. Log Book;
b. Registration Certificate;
c. Classification Certificate;
d. Load-line Certificate;
e. Building Safety Certificate;
f. Safety Equipment Certificate;
g. Radio and Wireless Certificate;
h. Port Stevedore Outturn Reports;
i. Receipt for Payment of Custom's Duties;
j. Shipping Note and Cargo Manifest for any cargo loaded.

6.2 *Cargo Papers and Documents*

6.2.1 The following papers and documents must be submitted to the Port Management not later than 48 hours prior to arrival (exemptions may be granted under certain circumstances at the discretion of the Port Management):

a. 5 copies of the Cargo Manifests for Discharge, including any additions or amendments in English; 10 Copies of the original manifests accurately translated into Arabic;
b. 2 copies of the Cargo Stowage Plan;
c. 2 copies of the Hatch List or Bay Plan;
d. 2 copies of the List of Dangerous/Hazardous Cargo for Discharge;
e. 2 copies of the List of Dangerous/Hazardous Cargo in Transit;
f. 2 copies of the List of Heavy and/or Awkward Cargo which requires special equipment;
g. 2 copies of the List of any Wine, Spirits and Narcotics or Cargo of such nature on the vessel and its location or, in the absence of which, a nil return;
h. A Declaration of type of reefer cargo;
i. An Application for discharge permit;

6.2.2 *Specifications*

a. All copies of the Manifests must be taken from the Master Manifest.

b. The consignee column in all cargo manifests shall include the full name and address of the consignee. If for legal/commercial reasons a bank or financial institution appears as consignee in the Cargo Manifest, the name of the final consignee, if known, has to be shown beside the name of the bank.

c. In case of transhipped cargo, the Cargo Manifest must show the name of the pre-carrying vessel, the port of transhipment and the bill of lading number for each consignment.

d. The List of Dangerous/Hazardous Cargo must show:
   (i) The technical name;
   (ii) The IMDG Code class and UN number;
   (iii) The Quantity of each consignment;
   (iv) The location on board and bay number, if stowed in containers, or lash barges or on trailers.

6.2.3 *Exceptions*

a. Vessels will be allowed to produce the aforementioned papers on arrival, provided the Port Management has received the following details by telex not less than 24 hours prior to arrival:
   (i) Name and flag of vessel;
   (ii) Port(s) of loading;
   (iii) Bill of lading numbers;
   (iv) Marks and numbers as per bills of lading;
   (v) List of dangerous/hazardous cargo;
   (vi) List of heavy packages above 3 tonnes and/or awkward cargo lifts;
   (vii) Total number of Bills of Lading. LASH operators shall relate bills of lading to specific barge numbers;
   (viii) Statement of wine and spirit shipments for other ports showing where stowed or in the absence of which a nil return.

b. A vessel carrying more than 200 Bills of Lading consignments for discharge in any one Saudi port is requested to submit cargo manifests not later than 72 hours prior to arrival.

7. Exempted Vessels

Exempted from the provision of Regulations 1, 2 and 4 are vessels entering in case of:
a. Distress;
b. Emergency refuge;
c. Force majeure;
d. Need of medical assistance.

8. Signals and Approach

8.1 Every vessel approaching the limits of a port must hoist the following flags:
a. Ship's signal letters (in case of VHF failure);
b. International code 'Q'-flag(s) in accordance with international health and safety regulations;
c. International code 'B'-flag if the vessel is carrying dangerous goods or hazardous materials;
d. The national flag of the country to which the vessel belongs.

9. The Flag of the Kingdom of Saudi Arabia

9.1 Every vessel entering a Saudi port must hoist the flag of the Kingdom of Saudi Arabia and keep it flying at all times throughout the stay in the port.

10. Pilotage

Pilotage is compulsory for all vessels entering or navigating within or leaving the pilot zones in the Kingdom of Saudi Arabia.

10.1 *Exempted Vessels*

The following vessels are exempted from the provisions of compulsory pilotage:
a. Saudi Warships;
b. Vessels of the government of the Kingdom of Saudi Arabia not designated for commercial use;
c. Vessels under 150 net registered tons;
d. Craft employed solely within port limits;
e. Yachts and pleasure craft;
f. Vessels operated by Port Management.

10.2 *Pilot Signals*

Every vessel subject to compulsory pilotage as above and which requires a Pilot shall:
a. From sunrise to sunset hoist the international code flag "G";
b. From sunset to sunrise give the letter "G"(— — ·) by a signal lamp;
c. In the event of poor visibility caused by rain, fog or dust, sound the signal "G" (— — ·).

Vessels equipped with VHF should call the Port Control Signal Station on frequencies published by the port as soon as the vessel enters within VHF range.

Vessels having a Pilot on board must hoist the international code flag "H".

11. Valid Cargo Gear Certificate

11.1 All vessels must have a valid Cargo Gear Certificate issued by one of the following societies approved by the Ports Authority:
1. American Bureau of Shipping.
2. Bureau Veritas.
3. Det Norske Veritas.
4. Germanischer Lloyd.
5. Lloyd's Register of Shipping.
6. Nippon Kaiji Kyokai.
7. Polski Rejestr Statkow.
8. International Cargo Gear Bureau Inc.
9. Jugoslavenski Registar Brodova
10. China Corporation Register of Shipping

or any other competent authority recognised by the Government of the country in which the certificates are issued.

11.2 No rope, tackle, block, chain, hook or any other gear which is worn, damaged or otherwise unsuitable shall be used for the purpose of hoisting, lowering, heaving or otherwise handling of slung cargo or other articles. All cargo handling gear is to be tested and inspected according to Schedule B to these Regulations.

11.3 Vessels of more than 15 years of age at the start of a voyage as determined by the date of the first or sole Bill of Lading must carry out a cargo gear inspection of all cargo gear including deck machinery and the supply of power thereto, prior to loading for a Saudi Arabian port, and an appropriate inspection certificate should be issued.

This Certificate is valid for a period of 6 months. No general statements will be accepted. The Surveyor has to state that the inspection has been carried out on each part of the gear, deck machinery and its power supply, that he has observed each derrick, crane, winch, etc., in operation and each part has been found in good working order, and that all required current inspections as per Schedule B in this part have been fulfilled.

The Inspection Certificate must be provided by an approved Survey Bureau, Classification Society or an approved Government Department. *Exemptions:* 11.3 above does not apply to vessels less than 70 m. LOA engaged in coastal trades.

ADVANCE NOTICE REQUIREMENTS: The information below has to be telexed twice to respective Port Authority (with copy to Agent). The first telex to be sent (with estimated details) at the time vessel arrives at first port of loading, to be called 'preloading advice'. The second telex to be sent (with correct details) at the time vessel sails from the final port of loading, to be called 'final advice'.
1. Call Sign.
2. Vessel's name.
3. Owners/Line.
4. Nationality.
5. Agent.
6. LOA (m.).
7. Max. Draft (m.).
8. Hatches/holds.
9. G.R.T.
10. N.R.T.
11. D.W.T.
12. Vessel's previous name.
13. Vessel type.
14. Cargo type.
15. Total cargo weight tonnes.
16. Total cargo freight tonnes.
17. No. of containers/units.
18. No. of livestock.
19. ETA.
20. Actual arrival draft.
21. Hatchwise tonnage.
22. Year built.
23. No. of LCL containers and quantity showing each bill of lading number in that container.
24. Fumigation and Cleanliness Certificates in case of foodstuff cargoes.
25. Each loading port name where cargo loaded for Saudi port.
26. Economic Speed.
27. Vessel position 48 hours before arrival.
28. Last 3 ports of call.
29. Next port after Saudi port.
30. Vessel's Lloyd's registered number.
31. Port of Registry.
32. Hazardous cargo for Saudi port.
33. Hazardous cargo in transit for other ports.
34. P and I Club name and local correspondents.
35. Confirm that 5, 2, 1 day ETA notices with Call Sign, draft, cargo for Saudi port, hatchwise distribution, Master's name, crew number, nationality, previous/next port, vessel's position 48 hours' prior arrival and radar data will be supplied to port by the Principals/Master.

If the undermentioned information has not previously been given it is to be included in the advices:
(a) Type of radar.
(b) Frequency.
(c) Scan rate.
(d) Pulse width.
(e) Pulse peak power.
(f) Pulse repetition frequency.
(g) Beam width.

If the vessel is equipped with several radars the characteristics of each radar must be given.

Upon receipt of such information, the relevant Port Authority will give clearance date for the vessel to enter the port.

The following documents should arrive with the Agent in Saudi Arabian port latest 7 days prior to vessel's arrival date and subject to Arabic translation be submitted to Authorities latest 72 hours prior to vessel's arrival:

18 copies Cargo Manifest.
18 copies Freight Manifest.
18 copies Dangerous Cargo Manifest.
4 copies Hatch List.
4 copies Stowage Plan.
4 copies each Bill of Lading (3 Non-Negotiable)
4 copies Heavy Lift Cargo separately.

Saudi Arabian Port Authorities can be contacted by telex as follows:

King Abdul Aziz Port, Dammam	801139 Dapm SJ
Jeddah Islamic Port	601175 Ports SJ
Jubail Commercial Port	831005 Jubpt SJ
King Fahd Industrial Port in Jubail	832031 Jubipt SJ
Yanbu Commercial Port	661096 Port SJ
King Fahd Industrial Port in Yanbu	662360 Portct SJ
Gizan Port	911030 Ports SJ
Ras Tanura	851111 Rprt SJ

POLLUTION: Fines and penalties for not complying with the International Convention for the Prevention of Pollution of the Sea by Oil, 1975 are:

(a) Discharging oil or oily-mixture within 100 miles from the Kingdom's Coasts – one year imprisonment or S.R.20,000 (Saudi Riyals) or both.

(b) Saudi Flag Ships discharging oil or oily-mixture in any prohibited zones or areas mentioned in the conventions, the same fine and penalty as in (a).

(c) Not keeping the oil record book in the ship – 6 months imprisonment or S.R.2,000 (Saudi Riyals), or both.

(d) Not keeping the oil record book up to date – fine up to S.R.5,000 (Saudi Riyals).

SHIP'S FUEL TANKS: *Circular No. SEAPA – 15335/85.*

To: All Shipping Agents.
cc: All Ports.
From: The President and Chairman of the Board, SEAPA.
Date: 14.7.1405/04.04.1985
Subject: Flammability Check of Ship's Fuel Tanks.

With immediate effect you are advised to inform all concerned parties that the Port Management of all SEAPA ports will require additional flammability checks on fuel tanks of O/B/O carriers and tankers excluding tankers engaged solely in the transport of chemicals.

The purpose of this extra precaution is to deter the use of cargo oil as fuel supplement, and will be required on a random basis as advised by the Port Operations Department. The results are to be incorporated (when applicable) on the Gas Free Certificate.

When such random test is required by the Port Management, it will be necessary for the ship's Agent to arrange for the services of a surveyor.

For your information, if the atmosphere in any fuel oil bunker tank is discovered at more than 15 per cent (LEL), then the ship's Master will be required to engage a surveyor to provide an exact flashpoint analysis of the tank contents.

Furthermore, should the flashpoint be less than the prescribed limits stipulated in Regulation 33 of SOLAS, the Port Management reserves the right to remove the ship from the berth.

Regards:
Fayez I. Badr,
President and Chairman of the Board,
Ports Authority,
Kingdom of Saudi Arabia.

NAVIGATION INFORMATION: The Agents have the responsibility to deliver to the Master the updated copies of the Radio Navigational Warnings and Notices to Mariners issued by the Ports Authority, covering Saudi Waters.

AUTHORITY: The Ports Authority, Kingdom of Saudi Arabia, P.O.Box 5162, Riyadh 11188, Kingdom of Saudi Arabia. *Tel:* 01-405 0005. *Telex:* 401158, 401783, 405055 Ports SJ. *Contact:* Dr. Fayez I. Badr, Minister of State, President of the Ports Authority.

AL KHOBAR: 26.17 N. 50.13 E.

ALSO SEE "GENERAL" BEFORE FIRST PORT.

PORT LIMITS:

Harbour Boundaries:

All shore-based port property enclosed by a fence following the shore line extending seawards to a line running between the following points:

Latitude: 26° 16′ 12″ N.,	Longitude: 50° 12′ 54″ E.
Latitude: 26° 16′ 12″ N.,	Longitude: 50° 13′ 18″ E.
Latitude: 26° 12′ 00″ N.,	Longitude: 50° 13′ 36″ E.
Latitude: 26° 12′ 00″ N.,	Longitude: 50° 19′ 20″ E.
Latitude: 26° 17′ 12″ N.,	Longitude: 50° 19′ 20″ E.
Latitude: 26° 17′ 12″ N.,	Longitude: 50° 13′ 06″ E.

DOCUMENTS: Crew List required by Port Authority 48 hours prior to vessel's arrival.

PILOTAGE/ANCHORAGE/RADIO: There are no official anchorages, Pilots or radio facilities at Al Khobar port, which is only used by small craft.

BERTHING:

Berth	*Length* (m.)	*Depth* (m.)	*Remarks*
Total	500	3.4	General cargo and passenger, including a 10 m. wide quay ramp.

Total shed area (3 sheds): 8,200 sq.m.
Total open storage area: 6,900 sq.m.
Vehicle parking area: 6,900 sq.m. (inside security).
11,400 sq.m. (outside security).
Passenger terminal: 750 sq.m.

EQUIPMENT:

Forklifts: Forklifts up to 10 tons available.

Mobile cranes: 3 up to 20 tons, 1 between 20 and 40 tons.

AUTHORITY: Al Khobar Port Management, *Contact:* Rabah Al Hazeemi, Port Director.

AGENT: See "Dammam".

AL QADIMAH: 22.21 N. 39.05 E.

ALSO SEE "GENERAL" BEFORE FIRST PORT.

PILOTAGE: The Pilot boarding place is West of the inner coastal reef in position Lat. 22° 20.5′ N., Long. 39° 01.6′ E. Pilotage undertaken during daylight only.

ANCHORAGE: To the North of the entrance channel in depth of 15 m. – 20 m.

VHF: Before entering the approach channel permission should be obtained from Qadimah Port Control, calling Channel 16 and working on Channels 72 and 74.

TUGS: 2 tugs available.

BERTHING: The port is used for unloading military cargoes. Vessels berth alongside 2 pontoons (150 m.×25 m. each) with depths of 13 m. – 14 m. alongside. Ro/Ro facilities available.

CRANES: Floating crane with lifting capacity 150 tonnes and mobile cranes available.

FRESH WATER/FUEL/PROVISIONS: Not available. Vessels should arrive with sufficient for their needs, making allowances for delays which may be experienced.

AUTHORITY: Ministry of Defence and Aviation.

DAMMAM: 26.30 N. 50.12 E. (See Plan)

ALSO SEE "GENERAL" BEFORE FIRST PORT.

LOCATION: Situated approximately mid way along the Eastern coast. It is the principal port of Saudi Arabia in the Arabian Gulf.

PORT LIMITS: The Seaward Limits of the Port of Dammam are bounded by a line joining the following positions:

Lat.	Long.	Lat.	Long.
26° 28′ 34″ N.,	50° 10′ 48″ E.	26° 37′ 45″ N.,	50° 14′ 42″ E.
26° 29′ 06″ N.,	50° 09′ 00″ E.	26° 37′ 45″ N.,	50° 16′ 00″ E.
26° 34′ 00″ N.,	50° 09′ 00″ E.	26° 26′ 30″ N.,	50° 16′ 00″ E.
26° 34′ 00″ N.,	50° 10′ 00″ E.	26° 26′ 30″ N.,	50° 11′ 48″ E.
26° 34′ 20″ N.,	50° 10′ 44″ E.		

and thence to the shoreline by a line 2,000 m. distant from the causeway.

Within the Port Limits the approach channel to the port is marked by buoys in accordance with IALA "System A". Depth of the approach is 15 m.

FLAG: In addition to the quarantine signals (see "Health") which are to be shown until Pratique is granted, the Saudi Arabian Flag must be flown from vessel's foremast while in port of Dammam. Saudi flags can be hired or purchased locally.

DOCUMENTS: In order to comply with Port, Customs and Agent's requirements, the following documents should be submitted to the Port Management via the Agent, at least 48 hours prior to arrival of vessel at Dammam port:

14 copies of Cargo Manifest for each port of loading (which must include 5 copies in Arabic), all typed, stamped and signed.
2 copies of Freight Manifest.
2 copies of Hatch List.
2 copies of Stowage Plan.
2 copies of List of Heavy Lifts.
2 copies of List of Long Length Cargo.
7 copies of List of Dangerous Cargo on board, if any.
Arms and Ammunition List, or "Nil" return.
Crew List showing Nationality.
Fumigation Certificate for Vessel and Cargo (if required).

The particulars of the Certificates required by the SOLAS regulations are entered on the Port's Form on the arrival of the vessel at the anchorage and the certificates are sighted after berthing.

Also see "Health", and "General" before first port.

PILOTAGE: The pilotage area commences at Buoy "D27" (i.e. the channel entrance). Pilotage is compulsory and the normal Pilot Boarding Area is between Buoys "D39" and "D40". The only vessels allowed to proceed South of this position without a Pilot are exempted vessels, and vessels which would, under normal circumstances, require the services of a Pilot but have been instructed by "Dammam Port Control" to anchor in the Holding Anchorage.

Vessels bound for Dammam must contact "Dammam Port Control" 1 hour before arrival at Buoy "D27", giving details of ship (see "Approaching"), and must not enter the channel until permission has been given by "Dammam Port Control".

"Dammam Port Control" operates on the following VHF Channels: 16, 12, 13, 19 and 22.

Vessels Exempted from Compulsory Pilotage: These include:

(i) Vessels of the Royal Saudi Navy.
(ii) Vessels of the Saudi Government which are not assigned for commercial use.
(iii) Vessels whose nett tonnage is less than 150 tonnes.
(iv) Port craft.
(v) Pleasure yachts.

Also see "Radio".

Vessels less than 150 tonnes, port craft and pleasure yachts shall wait at Small Craft Anchorage for authorisation to proceed to the port.

APPROACHING: *Directions and Regulations for Vessels Entering or Leaving Dammam Port:*

Dry cargo vessels drawing 10.4 m. (34 ft.) or less should approach and leave by the East Channel.

Vessels in excess of 10.4 m. draft and vessels from Northward should use the Main Channel.

Prior to vessels entering the Ras Tanura Channel they must contact "Ras Tanura Radar Control" on VHF Channel 10, identify themselves and state where bound. Normal listening watch should then be maintained on Channel 16.

Vessels bound for Dammam Port must call "Dammam Port Control" 1 hour before the vessel's arrival at Buoy "D27" and give the following information:

(i) Vessel's name.
(ii) Length overall.
(iii) Maximum draft.
(iv) Cargo tonnage and main commodity.
(v) Hazardous cargo, if any.
(vi) Whether the vessel has a list.
(vii) Whether the vessel has any mechanical defects.

Vessels must not enter or navigate within the Port Limits without the permission of "Dammam Port Control". Inward vessels shall report the time of passing Buoy "D27" and shall keep a listening watch on Channel 16.

The speed of vessels within the buoyed channel is limited to 8 knots and overtaking other vessels within the channel is prohibited.

Anchoring within the buoyed channel is prohibited.

Upon arrival, if a vessel is instructed not to anchor in the Holding Anchorage, the Pilot will board abeam of Buoy "D39".

ANCHORAGES: The following anchorages are allocated as necessary for vessels:

(i) *Holding Anchorage:* (Depth 15m.) bounded by a line joining the following positions:
Lat. 26° 31′ 42″ N., Long. 50° 11′ 29″ E.
Lat. 26° 31′ 52″ N., Long. 50° 10′ 00″ E.
Lat. 26° 33′ 24″ N., Long. 50° 10′ 00″ E.
Lat. 26° 33′ 46″ N., Long. 50° 10′ 47″ E.
Lat. 26° 32′ 29″ N., Long. 50° 10′ 43″ E.
This anchorage is marked by Buoys.

(ii) *Working Anchorage:* (Depth 10 m.) bounded by a line joining the following positions:
Lat. 26° 32′ 11″ N., Long. 50° 11′ 33″ E.
Lat. 26° 32′ 27″ N., Long. 50° 12′ 03″ E.
Lat. 26° 31′ 27″ N., Long. 50° 12′ 58″ E.
Lat. 26° 31′ 00″ N., Long. 50° 12′ 43″ E.

(iii) *Explosive Anchorage:* (Depth 8 m.) bounded by a line joining the following positions:
Lat. 26° 30′ 53″ N., Long. 50° 12′ 55″ E.
Lat. 26° 31′ 23″ N., Long. 50° 13′ 05″ E.
Lat. 26° 31′ 18″ N., Long. 50° 13′ 33″ E.
Lat. 26° 30′ 53″ N., Long. 50° 13′ 33″ E.

(iv) *Small Craft Anchorage:* (Depth 6.5 m.) bounded by a line joining the following positions:
Lat. 26° 30′ 00″ N., Long. 50° 13′ 33″ E.
Lat. 26° 30′ 45″ N., Long. 50° 12′ 50″ E.
Lat. 26° 30′ 45″ N., Long. 50° 14′ 00″ E.
Lat. 26° 30′ 00″ N., Long. 50° 14′ 00″ E.

Anchoring in the channel is strictly forbidden.

WEATHER: The peninsula of Saudi Arabia is almost of an equatorial climate. Summertime rising to over 45°C. Rain is generally scarce. During major part of year, but especially during Summer, the relative humidity is high. From July to September it frequently exceeds 85%.

Winds in this area are not predictable for more than a few hours. They vary in strength and direction, although prevailing winds are from N.W.

TIDE: The Diurnal tide range at Dammam Port is approximately 2.00 m. – 2.45 m. at Springs, and 0.80 m. at Neaps. The flood tide sets to the S.E. across the harbour entrance and the ebb tide sets to the N.W. The rate of flow is very much dependent on the wind force and direction but seldom exceeds 2 knots.

MAX. SIZE: See "Berthing".

HEALTH: In accordance with international practice, quarantine signals must be displayed by all vessels approaching Dammam port. These signals shall be displayed continuously until Pratique granted. Signals are as follows: Sunrise to sunset – Quarantine Flag; Sunset to sunrise – Signal Lights – red over white.

The Quarantine Officer will board the vessel either at anchorage or at pier.

Documents required for immediate inspection are the following:
International Maritime Health Certificate (from the last port).
Valid Derat or Derat Exemption Certificate.
Crew List (3 copies).
Passenger List, if any.
Valid Cholera Certificates (of a date not exceeding 6 months) for all crew members and passengers.
Valid Yellow Fever Certificates for all crew members and passengers.
Certificates of Inoculation against any communicable diseases prevailing at the ports of departure.
Ship's Log Books.

RADIO: (Also see "Pilotage" and "Vessel Appointments").

Dammam Port has a modern radio communications system as follows:

(i) *VHF* – (Call sign "Dammam Port Control"). A continuous listening watch on Channel 16.
Working Channels are: Channels 12, 13, 19 and 22.
(ii) *Radio Telephone* – Facilities are available.

Note: International VHF Channels 01, 68, 71 and 73 are used for port and pilotage operations. Vessels must NOT use these Channels when in the vicinity of Dammam Port.

Telex: Dammam Port is connected to the International Telex network. The telex address is 801138 or 801139 Dapm SJ.

Information is available from "Dammam Port Control" covering local weather conditions and any local hazards to navigation that may be appropriate from time to time. For the future, it is planned to give assistance to shipping, navigating locally, by the provision of a Marine Control Tower with radar coverage.

Coast radio station at Dammam officially known as "Dammam Radio" with call sign "HZG". Telex: 602600, 602603. Tel: 8276080, 8274449. It is already in service employing radiotelegraphy, radiotelephony and radiotelex to provide radio communication link between vessels at sea and land based concerns.

VESSEL APPOINTMENTS: (See also "Radio").

It is a pre-requisite for all vessels trading to any Saudi Arabian port to give the appropriate Port Management the undermentioned information by telex on arrival at the first port of loading for Saudi Arabia:

In the case of Dammam Port, telexes should be sent to: The Port Director General, Dammam Port Management. Telex Nos. 601138 or 601139 Dapm SJ.

(a) The information must be updated on leaving the final port of loading bound for Saudi Arabia:

1. Radio Code (Call sign).
2. Vessel's name.
3. Owner/Line.
4. Nationality.
5. Agent.
6. Length overall (metres).
7. Maximum draft (metres).
8. Number of hatches.
9. Gross registered tonnage.
10. Nett registered tonnage.
11. Deadweight tonnage.
12. Previous name (if any).
13. Type of vessel.
14. Type of cargo.
15. Total cargo weight tonnes.
16. Total cargo freight tonnes.
17. Number of containers/units (where applicable).
18. Number of livestock (where applicable).
19. Estimated time of arrival.
20. Actual arrival draft.
21. Tonnage to hatch.
22. Year built.
23. LCL containers and/or ships convenience containers.
24. Fumigation Certificates (vessel and cargo).
25. Ports of loading for Dammam discharge.
26. Economic speed of vessel
27. Vessel's position 48 hours before arrival.
28. Previous port prior to Dammam call.
29. Next port of call on departure from Dammam.
30. Vessel's Lloyd's Register Number.
31. Port of Registry.
32. Arms and ammunition for vessel's self-defence.
33. Declaration of all transit cargo calling at Dammam port.
34. Last 3 ports visited by vessel.
35. Ramp position (if any).
36. Has the vessel specialised container handling gear.
    a. Details of dangerous cargo for Dammam.
    b. Details of dangerous cargo in transit.
    c. P&I Club/local correspondents.

Radar Details

1. Name of the vessel.
2. Flag.
3. Vessel's agent (name and address, telephone, telex).
4. Economic speed of vessel.
5. E.T.A.
6. Type of radar.
7. Frequency.
8. Scan rate.
9. Pulse width.
10. Pulse peak power.
11. Pulse repetition frequency.
12. Beam width.

Radar details are required to be passed on to Dammam Port Management 48 hours prior vessel's arrival Dammam.

Vessels equipped with more than one radar should give the information in Items 6 to 12 for each radar.

The name of vessel *and radio code* should be given in every subsequent telex for reference.

The absence of any of the above information may delay the granting of an entry date to the subject vessel.

(b) The above information must be backed up by further confirmation of ETA at 5 days, 2 days and 1 day prior to arrival at each port of call in Saudi Arabia.

Note: Penalties may be imposed by the Saudi Ports Authority if the above rules are not strictly adhered to.

Berthing Arrangements: Providing the requirements above have been complied with, vessels will be allocated to berths, dependent upon type of cargo carried, prior to arrival. Berthing will then take place immediately upon arrival, weather permitting.

VHF: See "Radio".

TUGS: King Abdul Aziz Port has the necessary tugs, ranging from 460 h.p. to 2,800 h.p., mooring launches, pilot boats, fire fighting vessels, survey launch and specialised anti-pollution floating means, covering all the needs of marine operators and safety requirements.

Tugs operate within the Harbour Limits only for the purpose of assisting vessels in berthing and unberthing. Tugs join vessels inside the Inner Gate Beacons and normally require the use of ship's lines. Where the latter are considered inadequate, the tug's lines are used at the vessel's expense.

BERTHING: (Also see "Vessel Appointments").

The following categories of berth with a draft range from 9.0 m. to 14.0 m. are available, Ro-Ro, Container Terminals, Multi-Purpose, General Cargo, Grain, Explosives/Dangerous Cargo, Loading Fertiliser. The Bulk Cement Berth is leased to a private company.

In the main port there are 39 working berths for deep-sea vessels. They are located on 4 quays as follows:

East Port: *West Quay:* (King Abdul Aziz Pier, total length 2,500 m. approximately).

Berth No.	*Nominal Length (m.)*	*Depth (m.)*	*Berth Facilities*	*Type of Operation*
1	240	14	Grain Silos & Flour Mill	Grain/Dir. Dly GC
2	240	14	Zone-Barn	General Cargo
3	240	14	Zone-Barn	General Cargo
4	180	12	Shed-Zone	General Cargo
5	180	12	Shed-Zone	General Cargo
6	150	9	Shed-Zone	General Cargo
7	150	9	Shed-Zone	General Cargo
8	150	9	Shed-Zone	General Cargo
9	179	9	Shed-Zone	General Cargo
10	215	11	Zone	Load Fertiliser
11	180	11	Zone	General Cargo
12	180	12	Shed-Zone	General Cargo
13	180	12	Shed-Zone	General Cargo

Notes: 1. Where there is a shed on the berth the distance from the quay edge to the shed is 30 m.

2. All berths are rail connected.

3. There are 28 portal cranes on Berths 1 to 13, with capacities from 3 to 15 tonnes.

East Quay: (Total length 1,750 m. approximately).

Berth No.	*Nominal Length (m.)*	*Depth (m.)*	*Berth Facilities*	*Type of Operation*
14	180	12	Shed/Zone-Barn Ro-Ro Ramp	General Cargo/ Ro-Ro
15	180	12	Shed-Zone-Barn	General Cargo
16	180	12	Shed-Zone-Barn	General Cargo
17	180	12	Zone	General Cargo
18	180	12	Shed-Zone-Barn	General Cargo
19	180	12	Zone	General Cargo
20	180	12	Shed-Zone-Barn	General Cargo
21	240	14	Zone	Multi-purpose
22	240	14	Zone/Ro-Ro Ramp	Multi-purpose

Notes: 1. Where there is a shed on the berth, the distance from the quay edge to the shed is 40 m.

2. Currently 28 portal cranes are in use on Berth Nos. 14 – 20 inclusive. Their capacities vary from 6 to 15 tonnes.

3. Berth Nos. 21 and 22 make up Dammam Multi-purpose Terminal.

West Port: *East Quay:* (Total length 2,800 m. approximately).

Berth No.	*Nominal Length (m.)*	*Depth (m.)*	*Berth Facilities*	*Type of Operation*
23	240	14	Zone Ro-Ro Ramp	Containers Ro-Ro
24	240	14	Zone	Containers
25	240	14	Zone	Containers
26	240	14	Zone	Containers
27	240	14	Zone	General Cargo
28	240	14	Zone	General Cargo
29	240	14	Zone	General Cargo
30	180	12	Shed-Zone-Barn	General Cargo
31	180	12	Shed-Zone-Barn	General Cargo
32	180	12	Zone	General Cargo
33	180	12	Shed-Zone-Barn	General Cargo
34	180	12	Shed-Zone-Barn	General Cargo
35	205	12	Zone/Ro-Ro Ramp	General Cargo/Ro-Ro

Notes: 1. Where there is a shed on the berth, the distance from the quay edge to the shed is 40 m.

2. Berth Nos. 23 – 26 make up Dammam Container Terminal (DCT).

West Quay: (Total length 690 m. approximately).

Berth No.	*Nominal Length (m.)*	*Depth (m.)*	*Berth Facilities*	*Type of Operation*
36	180	12		
37	180	12		
38	180	12	Silos/Bagging Plants	Bulk Cement
39	150	14	Zone	Explosives/ Dangerous Cargo

Notes: 1. The bulk cement berth is leased to an independent company.

2. All berths are rail connected.

3. The quay, North of Berth No. 39, can be extended by 3,200 m. when additional berths are required in the future.

Updated information on available depths within the Port Limits can be obtained from the Harbour Master's Office.

In addition to the berths in the main port, a Small Craft Harbour is situated to the South of the East Port where small vessels, dhows, fishing vessels and a considerable amount of barge traffic (mainly LASH) are handled. The depth of water varies from 6 m. to 4.5 m. The purpose-built facilities provide in excess of 1,600 m. of quay, large back-up areas and covered storage.

SPECIALISED CARGO HANDLING FACILITIES: *Grain Terminal:* This terminal (Max. draft 13.5 m.) provides purpose built facilities for discharging all types of grain. These can be distributed to silo storage, or delivered direct to road, rail or to the adjacent flour mills. Discharge rate 480 t.p.h. with 2 pneumatic unloaders.

Ro-Ro Berths: All Ro-Ro Berths have ramps fitted with bow or stern access.

Dammam Multi-purpose Terminal: This terminal provides facilities for handling multi-purpose vessels (i.e. Ro-Ro, containers and general cargo). It is equipped with container gantries.

Damman Container Terminal (DCT): This comprises Berth Nos. 23, 24, 25, and 26.

The terminal has container gantries and its own rail terminal, with 2 rail-mounted, wide-span gantries and container storage area.

Extensive covered facilities are available for Customs inspection and clearance purposes. A purpose-built container freight station (CFS) for handling LCL shipments is also available.

Bulk Cement Terminal: Dammam Port has allocated a berth for the handling of cement in bulk.

The berth is leased to an independent company, providing facilities afloat and on the quay. The terminal is rail connected.

Fertiliser Loading Berth: A berth is allocated for loading urea which is manufactured locally by the Saudi Arabian Fertiliser Co. (SAFCO). The bagged urea is transported by rail from the factory to the quayside where it is loaded directly into the vessel alongside by its own cargo handling gear.

Dangerous Cargo Terminal: This 190 m. long berth has a depth alongside of 14 m. It consists of an open quay for direct delivery only and is road and rail connected.

CRANES: See "Cargo Handling Equipment".

STORAGE AREAS: Adequate covered and open storage space is available in the form of warehouses, transit sheds, dangerous goods warehouses plus cells, container terminals, container freight station, vehicle park and general cargo storage.

CARGO HANDLING DISCHARGE RATES: A strong and positive set of Port Rules is in operation. This guarantees high discharge rates and high standards of efficiency. Co-operation in observance of these rules by Shipowners and Agents makes a substantial contribution to the port's effectiveness. The most important of these rules are summarised below:

1. Every vessel calling at Dammam must make an appointment.
2. Every vessel, or Agent, must submit appropriate documentation prior to a vessel's arrival.
3. Any vessel over 15 years old shall obtain and submit a certificate issued by a competent and approved Authority that her cargo gear is in good working order before being allowed to discharge.
4. All cargo that is suitable shall be presented in unit loads on pallets or pre-slung.
5. No cargo shall be received into port premises in a damaged condition.
6. Every vessel shall be ready to discharge upon berthing. She shall continue discharging uninterrupted until all Dammam cargo is completed, whereupon she shall leave the berth without delay.
7. Overstowing Dammam cargo with cargo destined for another port is prohibited.
8. Transhipping cargo in Dammam for other ports is not allowed.
9. Cargo which is not removed from the Port by Consignees within 15 days is liable to be auctioned and sold.

The port's efficiency and handling rates are high, as indicated in the table below:

Indicative Handling Rates of Main Commodities during the Year 1985:

Cargo	*Weight Tonnes per Gang Hour* Gross	Nett
Bulk Grain	192.6	192.6
Bulk Cement	177.2	177.2
Bagged Cement	12.6	12.7
Other Bagged Cargoes	11.2	13.5
Steel & Pipes	25.9	27.9
General Cargo	27.0	30.7

STEVEDORES: Stevedoring operations on all berths except bulk grain, bulk cement and the container terminal (DCT) are performed by 2 contracted stevedoring companies.

CARGO HANDLING EQUIPMENT: Dammam Port has an extensive and modern fleet of equipment including:

Mobile Cranes up to 10 tons.

Gantry Cranes up to 25 tons with an outreach from the quay wall of 25 m.

Gantry Cranes up to 40 tons and a Floating Crane of 200 tons capacity.

Straddle Carriers, terminal tractors, towing tractors, trailers.

MEDICAL: Masters may obtain medical attention for ship's personnel from Port Doctor who may, in case of serious illness or injury recommend treatment to a local hospital. Normally the Port Doctor will treat minor illness on board ship.

Urgent hospitalisation can also be arranged via the ship's Agent. Masters of vessels at sea may use services of Dammam Port Radio to obtain medical advice at any time.

DENSITY: The average density (salinity) of the sea-water in the Port of Dammam is 1030.

WATER: Water is available. Vessels requiring a supply of water should make arrangements through their Agent.

FUEL: There are several private Bunkering companies who operate in Dammam Port. By arrangement through the ship's Agent, bunkers can be supplied by barge at anchorage or alongside vessel at her berth. Various grades of fuel are available. Strict rules apply and severe penalties will be imposed should any oil spillages occur during bunkering operations or from any other cause. Anti-oil pollution equipment and dispersants are available.

Also see "Ras Tanura".

CUSTOMS: All materials to be either exported from or imported into Saudi Arabia are subject to examination by Customs Authorities. The importation of the following articles is completely banned:

(a) Alcoholic beverages, including beer and wines.
(b) Narcotics.
(c) Pornographic material.

Trafficking of the above items between ship and shore is strictly prohibited, regardless of whether vessels are alongside at berths or at anchor. Consumption of alcoholic beverages is prohibited during a ship's stay in port. All alcoholic beverages must be placed in bond (Master's, officers, crews and bar).

The following articles can be imported after obtaining permission from the authorities concerned:

(1) Explosives.
(2) Firearms.
(3) Antiques.
(4) Religious material not pertaining to the Muslim faith.

CONSULS: The U.S. Consulate General resides at Dhahran (approximately 20 km. inland from Dammam). A British Consular Official visits the Dammam area on 1 day each week.

REPAIRS: King Fahd Ship Repair Yard (KFSRY), located within the port contains 2 floating dry docks, with capacities of 22,000 tonnes and 10,000 tonnes, together with all necessary facilities to provide a complete range of ship repairs and maintenance services.

Deep sea divers, operating from modern and well equipped diving boats, are available at Dammam.

Repair and maintenance services for electronic equipment are available at Dammam Port.

DRY DOCK: Main particulars:
Lifting capacity 22,000 tonnes.
Length overall 215 m.
Outside width 43 m.
Clear inside width 35 m.
Moulded depth to upper deck 16.30 m.
Immersion depth over keel blocks 7.55 m.

SURVEYORS: Available.

AIRPORT: Very good airline facilities are available from Dhahran Airport. Daily departures take place for many parts of the world.

REPATRIATION: Possible, but not encouraged.

TIME: GMT plus 3 hours all year round.

HOLIDAYS: Dammam Port offers continuous cargo handling operations through the year and sufficient manpower is always available.

All ships must be dressed if they are in port, or entering port, on the following official holidays or events:

1. Eid Al Fitr.
2. Eid Al Adha.
3. Saudi Arabian National Day.
4. Royal visits to the port.

Port staff will advise vessels in port prior to any forthcoming event, and vessels approaching port will be advised by the Port Radio Control.

EMERGENCY CO-ORDINATION: In the event of marine emergencies in the area, the Dammam Port Harbour Master should be contacted.

TELEPHONE: The port's telephone number is 83-32500 and is open for 24 hours. Expansion is planned which will include ship to shore communications at all berths.

SHORE LEAVE: Ship's personnel and passengers are not normally permitted ashore unless special permission is granted by Immigration and Police Authorities. The necessary arrangements can be made by ship's Agent upon receiving the Master's request and Seaman's Books. While in port, the vessel's personnel are under jurisdiction of the Law of Saudi Arabia.

STORING: Vessels may take stores on board and arrangements should be made through the ship's Agent.

AUTHORITY: Dammam Port Management, P.O.Box 28062, Dammam-31437, Saudi Arabia. *Tel:* (03) 833-2500 (24 hours). *Telex:* 800138, 801139 Dapm SJ. *Contact:* Mr. Mohammed Ali Al Ghaithy, Port Director-General, Dammam Port Management.

AGENT: Gulf Agency Company Saudi Arabia, P.O.Box 86, Airport Post Office, Dhahran 31932, Saudi Arabia. Cables: "Confidence Dammam". Ship-shore traffic via Dammam Radio/HZG. Telex: 801069 ("GAC SJ") Tel: 8323427, 8328762-4, 8323425; After office hours 8324220.

GIZAN (Jizan): 16.54 N. 42.32 E. (See Plan)

ALSO SEE "GENERAL" BEFORE FIRST PORT.

LOCATION: 390 nautical miles South of Jeddah and 360 nautical miles North of Aden.

PORT LIMITS:
Harbour Boundaries:

All shore-based port property enclosed by a fence following the shore line extending seawards to line running between the following points:

	Latitude	Longitude
Qarn Ash Shurra	16° 50′ 36″ N.	42° 33′ 00″ E.
Um al Kuthib	16° 48′ 30″ N.	42° 27′ 12″ E.
Jazirat Hibar	16° 54′ 12″ N.	42° 22′ 42″ E.
Ferafer Island	17° 00′ 00″ N.	42° 23′ 36″ E.
Qarn al Wada	17° 02′ 24″ N.	42° 28′ 18″ E.

DOCUMENTS: See "Health" and "General before first Port."

PILOTAGE: Compulsory, no offshore pilot station. Ships for Gizan should contact Gizan Port Control on VHF Channel 16, 2 hours before arrival.

Pilot Boarding Position:
Lat. 16° 53′ 48″ N., Long. 42° 27′ 00″ E.

APPROACHES: The Northern Approach Channel, is 82 nautical miles long, marked by 18 light buoys and 3 beacons and provides a minimum depth of 24 m. between Gizan North and N.13/S.18 Buoys.

Positioned navigational marks are in accordance with "IALA System A" and fitted with radar reflectors.

The Approach Buoy "Gizan North" Lat. 16° 56′ 45″ N., Long. 41° 17′ 28″ E. is fitted with Racon code "B". Beacon "No. 2" "Middle Beacon" Lat. 17° 16′ 47″ N., Long. 41° 33′ 25″ E. is fitted with Racon code "N". "North Ghurab Island" Beacon Lat. 17° 06′ 20″ N., Long. 42° 03′ 58″ E. is fitted with Racon Code "B".

"Sail Makawa Island" Beacon is equipped with white light Fl. 4 secs. and white daymark.

A range light, true bearing 096.5°, leads into the port basin through an inner fairway dredged to 13.5 m. depth. For further details refer to B.A. Chart No. 15 and Notices to Mariners.

Southern approach closed.

ANCHORAGES: *Anchorages within the harbour boundaries:*

Anchorage A. (Cargo vessels).

Lat. 16° 56′ 00″ N.,	Long. 42° 27′ 00″ E.
Lat. 16° 54′ 30″ N.,	Long. 42° 27′ 00″ E.
Lat. 16° 54′ 30″ N.,	Long. 42° 25′ 48″ E.
Lat. 16° 56′ 00″ N.,	Long. 42° 25′ 48″ E.

Anchorage B. (Petromin tankers).

Lat. 16° 53′ 00″ N.,	Long. 42° 27′ 42″ E.
Lat. 16° 51′ 30″ N.,	Long. 42° 27′ 42″ E.
Lat. 16° 51′ 00″ N.,	Long. 42° 26′ 12″ E.
Lat. 16° 53′ 00″ N.,	Long. 42° 26′ 12″ E.

There are no anchorages outside the harbour boundaries.

ARRIVAL ADVICE: Send ETAs to Gizan Port Management, Telex: 911018 Ports Sj and 911030 Ports Sj.

MAX. SIZE: Max. Length 250 m., Max. Draft 11.75 m. at high tide, 11.50 m. at any time. Max. Beam no limit.

HEALTH: All vessels should abide by Health Regulations and present necessary documents to the Authorities in accordance with International Laws. Quarantine signals must be displayed by all vessels approaching Gizan Port. These signals must be displayed continuously until Pratique is granted. These signals are:
Sunrise to sunset: Quarantine flag – Yellow.
Sunset to sunrise: Signal lights – Red over white.

RADIO: Masters should give their Agents an ETA not later than 48 hours before arrival. There is no radio station in Gizan Port.

VHF: A base station operates in Gizan Port using the call sign "Gizan Port Control". All calling should be on Channel 16. A 24 hours watch is maintained on Channel 16. Arriving vessels should contact "Gizan Port Control" entering the Northern Approach Channel. Working channels are 14, 12 and 9. Tugs are working on Channel 12 during operations.

RADAR: Harbour Radar System and Port Control Tower are under construction.

TUGS: Tugs are available, ranging from 800 h.p. to 2,500 h.p. Tugs usually join the vessel 3 miles West of breakwaters.

BERTHING:

Berth	*Length* (m.)	*Depth* (m.)	*Remarks*
1	205	12	Bulk Cement Terminal
2	176.5	12	
3	176.5	12	
4	171	10	
5	171	10	
6	184	10	
7	122	10	General
8	175	10	General and Ro-Ro
9	175	10	Cement
10	143	10	Container Terminal
11	217	12	Container Terminal
12	217	12	Ro-Ro Terminal

Total Shed Area: 12,000 sq.m.
Total Open Storage Area: 140,000 sq.m.
Weighbridges: 1×60 tonnes.

CONTAINER FACILITIES: Multi-purpose quay side cranes, capacity 45 tons. Equipment to handle containers available including straddle carrier, front loader and trailers. 48 power sockets for reefer containers.

BULK HANDLING FACILITIES: Mobile grain dischargers plus conveyors and hoppers for direct bulk delivery, bagging units for bagged delivery.

EQUIPMENT: *Floating Equipment:* Pilot Boats, Mooring Launches, Fire Fighting Launch, Buoy Maintenance Vessel, Anti-Pollution equipment. *Handling Equipment:* Floating Crane 200 tons capacity, Mobile Tower Cranes capacity 45 tons, Yard Cranes from 16 tons to 45 tons, Forklifts from 2 tons to 36 tons, Head Trucks, Trailers and Chassis.

STEVEDORES: Sufficient number of gangs available working 2 shifts of 12 hours, from 0700 hrs. to 1900 hrs., 7 days per week.

MEDICAL: Doctors and hospital are available. Agents should be advised in advance of any medical attention required.

DENSITY: Average 1026.

FRESH WATER: Available from quay only.

FUEL: Marine diesel available by road tanker. Advance notice to be given to Agent.

FIRE PRECAUTIONS: According to Rules and Regulations of Seaports.

CONSULS: None in Gizan. See "Jeddah".

REPAIRS: Minor repairs possible by local contractors.

SURVEYORS: The main Classification Societies are available in Jeddah.

GANGWAY/DECK WATCHMEN: 1 Coast Guard is stationed permanently on board. Coast Guards keep constant check on liquor seals and may search personnel going ashore.

CUSTOMS ALLOWANCES: The consumption of alcohol, including beer, is prohibited. Ship's bonded stores are sealed by the Customs after the vessel has been granted Free Pratique. Any alcohol found after this will be confiscated and a fine imposed of Riyals 1,000 per bottle and possible imprisonment for the offender(s).

AIRPORT: Situated approximately 3 km. North East of Gizan Port. Several domestic flights daily.

TIME: GMT plus 3 hours all year round.

HOLIDAYS: Gizan Port offers continuous cargo handling operations throughout the year and sufficient manpower is always available.

POLICE/AMBULANCE/FIRE: Emergency Telephone Numbers:

Fire Brigade	322 0555
Ambulance	322 1692/1930
Hospital	322 1205
Police	322 1872

SHORE LEAVE: Possible during daylight hours.

IDENTIFICATION CARDS: Shore passes issued on request.

DELAYS: There are no delays in berthing and discharging.

BANKS: Almost all national banks available.

STORING: No ship chandlers available. Small quantities available through Agent.

AUTHORITY: Gizan Port Management, P.O.Box 16, Gizan, Saudi Arabia. *Tel:* (07) 317-1000, 312-1145. *Telex:* 911018 and 911030 Ports Sj. *Cables:* Porta Gizan. *Contact:* Dr. Hammoud A. Saadi, Director General.

AGENT: Gulf Agency Co. Saudi Arabia. Telex: 601047 ("Gacship SJ"). Also see "Jeddah".

JEDDAH: 21.28 N. 39.10 E. (See Plan)

ALSO SEE "GENERAL" BEFORE FIRST PORT.

PORT LIMITS: *The boundaries of the harbour and anchorages of Jeddah Islamic Port:* The harbour boundaries are given below and include the tanker terminals and the adjacent waters between Ras Al Jahhas and Ras Al Aswad.

From an onshore position on Ras al Jahhas:

to	Lat. 21° 31′ 36″ N.	Long. 39° 07′ 54″ E.
	Lat. 21° 31′ 36″ N.	Long. 39° 06′ 00″ E.
	Lat. 21° 22′ 00″ N.	Long. 39° 06′ 00″ E.

To an onshore position on Ras al Aswad:

	Lat. 21° 22′ 00″ N.	Long. 39° 07′ 50″ E.

DOCUMENTS: See "General" before first port.

Circular: Dated December 1983.

Vessels carrying dangerous cargo, arms, ammunition for discharge at Jeddah or any other ports in transit are requested to provide the following information:

(a) A prior notification including the following information:
1. The name of the vessel, her flag and the Shipping Agent's name.
2. ETA.
3. Voyage number.
4. The particulars and the types of dangerous cargo, ammunition, weapons.
5. The quantity.
6. Number of parcels or packages.
7. The weight.
8. Cell location and stowed.
9. The Shipper's name.
10. Port of loading.
11. Consignee's name and address.
12. Port of discharge.
13. Next port for the vessel after departure Jeddah.

(b) The documents such as Manifest, Stowage Plan and Cell Number, Bay Plan, etc., are required to be submitted to the Port Authority 48 hours prior to arrival of vessel.

(c) In case vessel not carrying any dangerous cargo/arms/ammunition/weapons/Military hardware, the Agent should submit the written declaration as 'nil'.

(d) The Master of the vessel is also required to submit declaration for arms/ammunition/weapons to the Port Authority along with cell position, stowage position and how stowed. In case the vessel is not carrying above mentioned Cargo the Master is also required to submit same declaration as 'nil'.

(e) The in-transit dangerous cargo/arms/ammunition should be stored separately so that Jeddah cargo can be discharged without disturbing in-transit cargo.

(f) The Port Management will hold you fully responsible for incorrect information.

Signed:
Acting Director General
Jeddah Islamic Port.

VESSEL APPOINTMENT SCHEME:

Vessels bound fo Jeddah Islamic Port with cargo must provide the following information:

AA. By telex or cable either directly or through the vessel's Agents on arrival at the first or sole loading port, before loading commences:
1. Radio Code (Call Sign).
2. Vessel's Name.
3. Owner and Line.
4. Nationality.
5. Agent.
6. Length Overall (m.).
7. Maximum Draft (m.).
8. Number of Hatches.
9. Gross Registered Tonnage.
10. Nett Registered Tonnage.
11. Deadweight Tonnage.
12. Previous Names (if any).
13. Type of Vessel.
14. Type of Cargo.
15. Total Cargo Weight Tons.
16. Total Cargo Freight Tons.
17. Number of Containers/Units (where applicable).
18. Number of Livestock (where applicable).
19. Estimated Date of Arrival.
20. Actual Arrival Draft.
21. Hazardous Cargo for Jeddah.
22. Hazardous Cargo in Transit for Other Ports.
23. Tonnage to Hatch for Jeddah Discharge.
24. Year of Construction.
25. Lloyd's Register Number.
26. All Ports at which Cargo has been loaded for discharge at Jeddah.
27. Number, Position and S.W.L. of Derricks and/or Cranes, and particulars and positions of ramps.
28. Economic Speed of Vessel.
29. Next Port of Call after Jeddah (irrespective of whether vessel has cargo for that port).
30. All other Ports at which the Vessel will have called between arrival at the first port of loading and arrival at Jeddah Islamic Port.
31. Last 3 Ports of Call before Jeddah.
32. i) Type of Radar.
    ii) Frequency.
    iii) Scan Rate.
    iv) Pulse Width.
    v) Pulse Peak Power.
    vi) Pulse Repetition Frequency.
    vii) Beam Width.
33. Alcoholic cargo on board for optional ports enroute Jeddah.
34. Arms/Ammunitions/Weapons/Exlosives cargo on board in transit.
35. Arms and bullets with Master for self-defence.
36. Name of the Protection and Indemnity Club.
37. Terms of Discharge.

Both the Registered Owner and the Operating Line or Charterer must be shown in item 3. If these are the same company this fact must be confirmed.

All previous names of the vessel must be declared in item 12, or a 'nil' declaration must be shown. Items 21 and 22 must include the tonnage of each. IMDG Class for discharge and in transit which will be on board the vessel at Jeddah.

On completion of loading cargo, items 15, 16, 17, 18, 19, 20, 21, 22, 23, 26, 29, 30 and 31 must be updated as necessary.

BB. A further notice of ETA is to be sent 5 days, 3 days, 2 days and 1 day prior to arrival at the port. The 3 day notice is to include the vessel's position (Latitude and Longitude or port) 48 hours before arrival.

CC. Vessels will not be cleared to call at Jeddah solely for the purposes of bunkering, taking stores or repairs unless the following information is supplied to the Port Management, *not less than 72 hours in advance of their arrival.* (Also see "Reports"):
1. Radio Code.
2. Vessel's Name.
3. Owner and Line.
4. Nationality.
5. Agent.
6. Length overall.
7. Maximum Draft (m.).
8. Gross Registered Tonnage.
9. Nett Registered Tonnage.
10. Deadweight Tonnage.
11. Previous Names.
12. Estimated Time of Arrival.
13. Actual Arrival Draft.
14. Hazardous Cargo in Transit for other Ports.
15. Lloyd's Register Number.
16. Expected Requirements for Bunkers and Water.
17. Economic Speed of Vessel.
18. Next Port of Call after Jeddah.
19. Last 3 Ports of Call before Jeddah.

Prior to the provision of any services being authorised an approval must be obtained from the Office of the Director (Traffic and Operations).

The final ship's Clearance Certificate will not be signed by the responsible Jeddah Port Management Officer prior to sailing unless it is accompanied by the original Advice Notice bearing Jeddah Port Management's stamp and the signature of the Clearing Officer.

DD.If the undermentioned information has not been previously given to the Port it is to be included in the Advices mentioned in AA and CC above:

(i) Type of Radar.
(ii) Frequency.
(iii) Scan Rate.
(iv) Pulse Width.
(v) Pulse Peak Power.
(vii) Beam Width.

If the vessel is equipped with several radars the characteristics of each radar must be given.

NOTE: With effect from 5th September 1986 all telex communications with Jeddah Islamic Port must be in Arabic.

PILOTAGE: Pilotage is compulsory for all vessels above 150 n.r.t. entering, navigating within, or leaving the port, and is available 24 hours a day. Every vessel subject to compulsory pilotage and which requires a Pilot must:

(a) from sunrise to sunset hoist the International Code Flag 'G';
(b) from sunset to sunrise give the letter 'G' (– – ·) by a signal lamp;
(c) in the event of poor visibility caused by rain, fog or dust, sound the signal 'G' (– – ·).

Vessels equipped with VHF should call the Port Control Signal Station on Channel 16 as soon as the vessel enters VHF range. Vessels having a Pilot on board must hoist the International Code Flag 'H'. The pilot boarding area is one mile West of the Middle Gate beacons in position Lat. 21° 28′ 00″ N., Long. 39° 06′ 00″ E. The pilot boat is orange hulled with white upperworks with the word "Pilot" painted in black letters along each side of the cabin.

The Master of every vessel, when approaching the pilot boat for the purpose of picking up a Pilot, must reduce speed to the minimum steerage way, maintain VHF contact with the pilot boat and provide a good lee if necessary. Vessels must have rigged and ready for use a pilot ladder in good repair and provided with reliable manropes and in accordance with the specifications and terms described in the International Convention for the Safety of Life at Sea 1974. The ladder is to be well illuminated between dusk and dawn, and a lifebuoy with a lifeline is to be available at the ladder for immediate use. A boat rope, ready rigged from the break of the forecastle to abaft the pilot ladder, must also be provided.

Once the Pilot is on board, the Master must advise him of:

a) The draft, length, beam and manoeuvring speeds of the vessel. Such information is also to be displayed in a conspicuous place in the wheelhouse;
b) Any peculiarity, defect or factor which may affect the manoeuvrability of the vessel;
c) Any dangerous and/or hazardous cargo on board.

Vessels awaiting Pilot or documentation, anchor in "D" Anchorage. Vessels with dangerous and/or hazardous cargo on board anchor in "C" Anchorage. All tankers and vessels calling only for bunkers in "E" Anchorage.

PROHIBITED AREA: The area bounded by following positions:

A — 21° 29.0′ N., 39° 07.50′ E.
B — 21° 29.0′ N., 39° 06.40′ E.
C — 21° 31.6′ N., 39° 06.45′ E.
D — 21° 31.6′ N., 39° 07.90′ E.

ANCHORAGE: Anchorages A, B, W1 and W2 are within the pilotage area and vessels may not enter, or leave these anchorages without a pilot.

The boundaries of the anchorages are as follows:

Anchorage A:

From	Lat. 21° 29′ 13″ N.	Long. 39° 08′ 40″ E.
To	Lat. 21° 28′ 18″ N.	Long. 39° 08′ 40″ E.
	Lat. 21° 28′ 18″ N.	Long. 39° 08′ 02″ E.
	Lat. 21° 29′ 13″ N.	Long. 39° 08′ 40″ E.

Anchorage B:

From	Lat. 21° 27′ 39″ N.	Long. 39° 06′ 54″ E.
To	Lat. 21° 27′ 39″ N.	Long. 39° 07′ 26″ E.
	Lat. 21° 26′ 04″ N.	Long. 39° 07′ 26″ E.
	Lat. 21° 26′ 04″ N.	Long. 39° 06′ 54″ E.
	Lat. 21° 27′ 39″ N.	Long. 39° 06′ 54″ E.

Anchorage W1:

From	Lat. 21° 27′ 46″ N.	Long. 39° 08′ 10″ E.
To	Lat. 21° 27′ 46″ N.	Long. 39° 08′ 42″ E.
	Lat. 21° 26′ 45″ N.	Long. 39° 08′ 42″ E.
	Lat. 21° 26′ 45″ N.	Long. 39° 08′ 22″ E.
	Lat. 21° 27′ 46″ N.	Long. 39° 08′ 10″ E.

Anchorage W2: (Working anchorage for explosive cargoes, one vessel only.

From	Lat. 21° 29′ 04″ N.	Long. 39° 07′ 16″ E.
To	Lat. 21° 29′ 04″ N.	Long. 39° 07′ 34″ E.
	Lat. 21° 28′ 27″ N.	Long. 39° 07′ 46″ E.
	Lat. 21° 28′ 27″ N.	Long. 39° 07′ 22″ E.
	Lat. 21° 29′ 04″ N.	Long. 39° 07′ 16″ E.

Anchorages outside the harbour boundaries:

Anchorage C:

From	Lat. 21° 28′ 00″ N.	Long. 39° 03′ 46″ E.
To	Lat. 21° 27′ 46″ N.	Long. 39° 04′ 40″ E.
	Lat. 21° 26′ 47″ N.	Long. 39° 04′ 22″ E.
	Lat. 21° 27′ 02″ N.	Long. 39° 03′ 28″ E.
	Lat. 21° 28′ 00″ N.	Long. 39° 03′ 46″ E.

Anchorage D:

From	Lat. 21° 28′ 16″ N.	Long. 39° 04′ 50″ E.
To	Lat. 21° 27′ 28″ N.	Long. 39° 05′ 58″ E.
	Lat. 21° 26′ 10″ N.	Long. 39° 04′ 29″ E.
	Lat. 21° 26′ 24″ N.	Long. 39° 04′ 15″ E.
	Lat. 21° 28′ 16″ N.	Long. 39° 04′ 50″ E.

Anchorage E (Tanker and bunkering anchorage):

From	Lat. 21° 23.5′ N.	Long. 39° 04.25′ E.
To	Lat. 21° 24.75′ N.	Long. 39° 05.00′ E.
	Lat. 21° 23.8′ N.	Long. 39° 06.00′ E.
	Lat. 21° 23.5′ N.	Long. 39° 06.00′ E.

Prohibited Anchorage Area:

From	Lat. 21° 23.5′ N.	Long. 39° 04.0′ E.
To	Lat. 21° 23.5′ N.	Long. 39° 06.0′ E.
	Lat. 21° 22.0′ N.	Long. 39° 03.35′ E.
	Lat. 21° 22.0′ N.	Long. 39° 06.00′ E.

APPROACHES: The lights of the new airport North of Jeddah shine brightly. These should not be confused with the correct approach to Jeddah port which is South of the airport.

RESTRICTIONS: There are no restrictions imposed upon entry for vessels of not more than 13.5 m. draft.

MAX. SIZE: The maximum permissible draft is 13.5 m. No restriction on beam. Vessels up to 300 m. in length are handled regularly at some facilities in the port.

HEALTH: Masters of vessels are required to notify Jeddah Port Health and Quarantine Department via Jeddah Radio prior to the vessel's arrival as follows:

a) Vessel's name, ETA, purpose of visit;
b) Complement and General Declaration of Health of crew;
c) Declaraton of Vaccination Certificates held, if any;
d) Declaration of Last Port and date of sailing;
e) Declaration of infected ports of call (Cholera and Yellow fever).

Additionally, the Agent is required to submit an arrival notice to the Port Health and Quarantine Department 48 hours prior to the vessel's expected arrival.

On arrival, before the vessel berths, the doctor boards and grants Free Pratique.

(a) *Cholera:* All arrivals from infected or endemic areas are required to possess a certificate showing 2 injections made not less than 7 days and not more than 30 days before arrival. For re-vaccination carried out within 6 months of a recorded vaccination or re-vaccination, a single injection renders the certificate valid for a further 6 months.

In addition, arrivals must submit a certificate dated not more than 7 days before their departure recording the negative results of stool culture. This certificate must be delivered by a licensed laboratory and attested by the Health Authority.

(b) *Yellow Fever:* All arrivals from infected or endemic areas are required to submit a valid Vaccination Certificate in accordance with International Sanitary Regulations.

(c) *Mecca:* All Muslim crew members who wish to visit Mecca (Makkah) and Medina (Madinah) should have in their possession 2 recent passport-size photos. These should bear the crew member's name and C.D.C. Number to enable Agent to obtain permission for the pilgrimage. Crew members must also have in their possession the above-mentioned medical certificates, otherwise permission may not be granted to them to visit Mecca (Makkah) and Medina (Madinah).

RADIO: The Coast Radio Station, Jeddah Radio, call sign HZH (Telex No. 403799 RDJD DJ), can be called up at any time on 500 kHz. All vessels send telegrams to Agents, receivers and Port Authorities, etc. through Jeddah Radio.

Jeddah Radio is also on VHF Channel 16 for telephone calls to Agents and Jeddah ship repair yard.

VHF: Jeddah Port Control Signal Station has 4 VHF Channels:

a) Channel 16 (international distress, safety and calling Channel);
b) Channel 14 (Working Channel);
c) Channel 12 (Working Channel);
d) Channel 9 (Working Channel).

Vessels bound for Jeddah Islamic Port contact the Port Control Signal Station on Channel 16, then shift to a working Channel as advised to pass on ETA and other relevant information. When necessary, weather reports, notices regarding navigational aids etc., are broadcast to vessels on Channel 12 after having first been advised on Channel 16. In the event of distress or emergency, vessel traffic is controlled by the Port Control Signal Station as far as circumstances permit. Duplex is available for communication with the Agent for operational purposes.

RADAR: A port surveillance radar system is in operation.

TUGS: There are tugs available operated by the Port.

Tugs operate within the harbour limits only for the purpose of assisting vessels in berthing and unberthing. Tugs join vessels inside the Inner Gate Beacons and normally require the use of the ship's lines. Where the latter are considered inadequate, the tug's lines are used at the vessel's expense.

BERTHING: The following categories of berth, with a draft range from 7.5 m. to 13.5 m., are available: Bulk Cement, Bulk Grain, Bulk Edible Oil, Ro-Ro, Container Terminal, Cold and Frozen Terminal, Livestock Terminal, Autocarriers, General Cargo and Passengers.

Storage: Adequate covered and open storage space is available in the form of Warehouses, Transit Sheds, Livestock Sheds, Dangerous Goods Warehouses plus Cells, Cool and Cold Stores, Container Terminals, Ro-Ro Terminal, Container Freight Station, Vehicle Parks, General Cargo Storage and Lub-oil Storage Facilities.

CRANES: Rail-mounted electrical level luffing cranes of up to 15 tons capacity are available with an outreach from the quay wall of 25 m.

The port also has available mobile cranes of up to 250 tons capacity, including a floating crane of 200 tons capacity. Other equipment includes forklift trucks of up to 33 tons capacity and trailers and chassis of up to 40 ft./200 tons capacity.

General cargo vessels must be adequately geared at each hatch. Port cranes may be hired on request or may otherwise be utilised at the Port Management's discretion.

BULK CARGO FACILITIES:

Bulk Grain (Private User Facility):

Max. permissible ship-draft:	13.5 m.
Unloading:	Gantry booms/vacuum pipes and conveyor.
Height of gantry boom:	16 m.
Outreach:	28 m.
Discharge capacity:	200 tons per hour per unit.

Bulk Cement (Private User Facilities):

Max. permissible ship-draft:	11.5 m.
Bag and bulk outlets	Rate 6,000 tons per day (bulk) and 5,000 tons per day (bags).

Bulk Edible Oil (Private User Facility):

Max. permissible ship-draft:	11 m.
Unloading point:	A pump station pit and manifold is located on the quay for hose connection.

SPECIALISED CARGO HANDLING FACILITIES:

Ro-Ro Terminal (Common User Facility):

Max. permissible ship-draft:	7.5 m.
Mobile cranes:	Up to 40 tons capacity.
Forklift trucks:	Up to 33 tons capacity.
Trailers/Chassis:	Up to 40 ft./200 tons capacity.

Jeddah Container Terminal East (Common User Facility):

Max. permissible ship-draft:	11.5 m.
Container cranes:	30.5 tons capacity with an outreach from the quay wall of 25.5 m./28.5 m.
Forklift trucks:	Up to 33 tons capacity.
Trailers/Chassis:	Up to 40 ft./200 tons capacity.
Electricity supplies:	'Plug in' points for 192 reefer containers.

Jeddah Container Terminal West (Common User Facility):
(Ro-Ro facility also available).

Max. permissible ship-draft:	13.5 m.
Container cranes:	Up to 40 tons capacity with an outreach from the quay wall of 34.5 m.
Straddle carriers:	Sufficient number.
Forklift trucks:	Up to 25 tons capacity.
Head trucks:	Sufficient number.
Electricity supplies:	Plug in' points for 360 reefer containers.

BRIDGES: There are no bridges or other restrictions to prevent access to the port by vessels of not more than 13.5 m. draft.

STEVEDORES: The port provides stevedoring services 24 hours a day, 7 days a week. For vessels wishing to discharge cargo at Jeddah Islamic Port, Shipowners or their Agents should provide ETA advice in accordance with the Rules and Regulations for Seaports, issued by the Co-operation Council for the Arab States of the Gulf, as follows:
(a) Before loading for Jeddah;
(b) On sailing last load port;
(c) At 5, 2 and 1 day intervals before the vessel's ETA;
(d) On revising the vessel's ETA.

TANKERS: The Petromin facility has 2 berths in the oil basin and 2 in the inner harbour. Petromin provide their own tugs and launches.

The port does not have facilities for the handling of liquid chemicals or LPG carriers.

Jeddah Port Authority Circular: Vessel calling for bunkering supply or for repair will not be cleared/berthed unless following information is furnished to Jeddah Port Management before ship's arrival:

1. Radio Code.
2. Vessel Name.
3. Owner/Line.
4. Nationality.
5. Agent.
6. LOA.
7. Max. draft in metres.
8. G.R.T.
9. N.R.T.
10. D.W.T.
11. Previous Name.
12. ETA.
13. Arrival Draft.
14. Hazardous cargo transit.
15. Lloyd's Register Number.
16. Requirements bunker and fresh water (approx.).
17. Last 3 ports of call before Jeddah.

Before providing any facilities, a Permit Certificate has to be obtained from office of the Assistant General Manager for Traffic.

Ship will not be cleared by Port Authority unless above Permit Certificate attached with Original Arrival Notice signed and stamped by party concerned is submitted to Jeddah Port Management.

MEDICAL: Full hospital facilities are available. The Agent should be informed of any medical attention required. Vaccination Certificates should be provided as previously specified (see "Health").

DENSITY: 1025.

FRESH WATER: Fresh water can be supplied by the port at all berths and at Livestock Terminal.

The port can supply fresh water to vessels on written application to the Marine Department at a cost as per current tariff. The rate of delivery varies up to 50 tonnes per hour, depending on the number of vessels being watered at any one time and the hydrant arrangements at the respective berths. Supplies are normally available between the hours of 0700 and 1900 for cargo vessels and at any time for passenger and livestock vessels.

Also available from private suppliers who currently charge between US$15 and US$18 per metric tonne and normally require approximately one week's notice. The method of delivery is by barge at a rate of 50 to 70 tonnes per hour.

FUEL: There are several suppliers in Jeddah who normally require between 1 and 2 weeks' notice of nomination, either through a broker or directly. All types of bunker oils are available and are supplied by tanker at varying rates of delivery.

If bunkering at anchorage, proceed to "Anchorage E".

Also see "Reports".

FIRE PRECAUTIONS: Special rules apply concerning fire precautions and fire-fighting. Reference is made to the Rules and Regulations for G.C.C. Seaports, Part 1, Section 7, and Part 3, Section 4.

CONSULS: Most countries are represented in Jeddah.

REPAIRS: Several local agencies provide all types of shipboard repair work in the mechanical, electrical, electronic and refrigeration/air-conditioning fields.

The Jeddah Shiprepair Yard has complete facilities for drydocking vessels, conversion work and all types of repairs to hull and machinery.

DRY DOCKS: Jeddah Ship Repair Yard:

	Dock 1	*Dock 2*
Max. d.w.t. (Approx.)	45,000	16,000
Lifting capacity (tonnes)	19,000	11,000
Length overall (m.)	215.00	165.00
Length over keel blocks (m.)	200.00	150.00
Clear width (m.)	33.50	25.00
Water depth over top of keel blocks (m.)	7.55	6.95
Pumping times (minutes)	90	90
Cranage (tons SWL × radius reach (m.)	2×7 tons ×20.5 m.	2×7 tons ×20.5 m.

SURVEYORS: The following Classification Societies are represented in Jeddah: Lloyd's, A.B.S., B.V., D.N.V., N.K.K., G.L. and RINA.

Cargo surveyors also available.

GANGWAY/DECK WATCHMEN: 1 Coast Guard is stationed at the foot of the gangway of vessels alongside. Coast Guards keep constant check on liquor seals and may search personnel going ashore.

HATCHES: The opening and closing of non-mechanical hatches is normally carried out by the Port's stevedores.

CUSTOMS ALLOWANCES: Alcohol must be kept in bond and is not allowed to be consumed or landed within the Kingdom. There are no restrictions on tobacco.

CARGO GEAR: Discharge of general cargo and containers at non-specialised facilities is by ship's gear. However, a wide range of mobile cranes are available for hire at short notice (see "Cranes").

REPATRIATION: There are approximately 30 international flights daily to and from Jeddah. A visa is required for entering or leaving the country.

AIRPORT: The King Abdul Aziz International Airport is located approximately 30 km. North of the port.

TIME: GMT plus 3 hours.

HOLIDAYS: Friday is the weekly day of rest and prayer. The Hegira calendar of 12 lunar months consisting of 354 days provides for two Government holidays. The first, lasting one week between the end of the ninth month (Ramadan) and the beginning of the tenth month (Shawwal), represents the celebration of the end of the month of Muslim fasting. The second is for 10 days, from the 5th to the 15th of the twelfth month (Dhu-al-Hijjah). This is the period when Saudi nationals and Muslims from all over the world come to perform the pilgrimage in the Holy cities of Makkah and Madinah.

The port, however, operates continuously throughout the year, 24 hours a day, 7 days a week.

POLICE/AMBULANCE/FIRE: Masters of vessels should contact the Port Control Signal Station on VHF Channel 16.

EMERGENCY CO-ORDINATION CENTRE: *Major Emergency Control:* In case of emergency, vessels should contact the Port Marine Control Tower on VHF Channel 16. Requirements will be relayed to the Port's Operations Co-ordination Centre.

TELEPHONES: Facilities are available for telephone connection at certain berths, although there are currently no arrangements for placing telephones on board.

Public pay phones are available in the port area.

SERVICES: *Tank Cleaning/Compass Adjusting/Life-Raft Servicing:* There are presently no facilities in Jeddah for tank cleaning, compass adjusting or life-raft servicing.

Fumigation: Fumigation services are available in Jeddah.

Garbage Disposal: The port has a waste incinerating vessel with one waste collection launch and one oil skimming launch. A charge is levied for this service at a rate of SR 200 per vessel per day or part thereof. (These dues will be collected whether the vessel uses the service or not).

STORING: Subject to approval from the Customs, Coast Guard and Health Authorities.

BANKS: All leading Saudi banks have branches in Jeddah.

SHORE LEAVE: Permitted on Agent's application to the Immigration Authorities and the Coast Guard.

IDENTIFICATION CARDS: Shore passes are issued. However, Discharge Books or Passports must be left at the gate and collected when re-entering the port area.

REGULATIONS: The Rules and Regulations for G.C.C. States Seaports are published in booklet form and are available on request from the Agent. Every vessel arriving at the port must have a copy on board or obtain one immediately on arrival.

Every vessel entering Jeddah Port must hoist the Flag of the Kingdom of Saudi Arabia and keep it flying at all times throughout its stay in the port.

Vessels wishing to unload cargo at Jeddah Islamic Port must apply to the Director-General by telex for a berthing appointment prior to loading for Jeddah.

DELAYS: Subject to the timely completion of clearance formalities, there are no delays in berthing, loading, discharging or bunkering.

GENERAL: *Other important information:*
(a) Mean height of quay surface from water alongside berth is 2.25 m.
(b) Width of fenders is 30 cm.
(c) Height between highest and lowest recorded tides is 1.02 m.
(d) For reference, please see BA. Chart Nos. 2599 and 2577 and Red Sea Pilot.

Other facilities include:

(a) Modern equipment to combat oil pollution, including an oil recovery vessel, oil separation barges and a full range of spraying equipment, absorbants, dispersants and oil containment barriers. Tugs with pollution control facilities are available.

(b) An integrated fire-protection and fire-fighting system incorporating a sophisticated control centre with electronic monitors for fire alarm and detection equipment, linked with a highly efficient network of sprinklers in all buildings, transit sheds and warehouses. In addition, the port has its own fire station equipped with a full range of appliances. Water-borne facilities are also available in the form of fire-fighting vessels up to 2,860 h.p.

(c) *Miscellaneous marine craft and equipment comprising:*
Self-propelled barges.
Flat-top barges of 400 tons carrying capacity.
Pilot boats.
Service launches.
Barge towing launches.
Mooring launches.

DEVELOPMENTS: Plans are well advanced for the construction of a 21 storey administration complex and a 134 m. high Navigation and Signal Control Tower.

REPORT: May 1984.

Operational instructions for Owners and Masters of vessels taking offshore bunkers from Bakri Bunker Trading Co. at Jeddah:

1. *Radio Contact/Operating Position:*

"al Bakry" (call sign HZGH) maintains continuous watch on VHF Channel 16. VHF range in this area is 3-400 nautical miles and Masters should therefore establish contact at least 24 hours ahead of arrival Jeddah. Working channel will be agreed between Masters when contact established, and rendezvous point will be advised by the Master of the bunker vessel, well in advance.

Please note that Customs/waterguard operate only during the hours of daylight. Customs launches leave quay at 0900 hrs. daily and clear vessels in order of arrival through approximately 1700 hrs. Vessels arriving too late are not cleared until following day.

2. *Notice:*

a. Wherever feasible vessels taking bunkers from Bakri Bunker Trading Co. must send a cable at least 120 hours prior to arrival off Jeddah to 'best service Jeddah' giving following information in accordance with port management instructions:

(1) Radio code, (2) vessel's name, (3) owner/line, (4) nationality, (5) Agent, (6) LOA, (7) max. draft in metres, (8) g.r.t., (9) n.r.t., (10) d.w.t., (11) all previous names, (12) Jeddah ETA, (13) actual arrival draft, (14) details of hazardous cargo in transit for other ports, (15) Lloyd's Register number, (16) Expected requirements of bunkers and water, (17) quarantine requirements of port doctor – name of last 3 ports of call/no. of crew and their state of health/validity of vaccination certificates for cholera and yellow fever, confirmation that none of the crew will go ashore.

Please note: Prior to the provision of any services being authorised, an approval must be obtained from the office of the Assistant Director General (Traffic and Operations.)

The final ship's Clearance Certificate will not be signed prior to sailing by the responsible Jeddah Port Management officers unless it is accompanied by the original advice notice bearing Jeddah Port Management's stamp and the signature of the Clearing Officer.

b. Owners must also send a telex minimum of 72 hours prior to their vessel's arrival off Jeddah to Bakri Bunker Trading Co. (Telex: Jeddah 401557 "Bakri SJ" or Jeddah 402125 Penta SJ) repeating the information contained in the cable sent from their vessel. This telex must also confirm that none of the crew of vessel will go ashore. Failure to provide the above information in time could delay clearance by Jeddah Port Management and result in vessel being delayed.

c. Both messages a. and b. must be updated 48 hours and 24 hours ahead of arrival.

3. *Operating/Manoeuvring:*

Will be advised by Master of "al Bakry" on VHF.

4. *Supplies:*

Supplies are made subject to the general terms and conditions for the sale of marine fuels of Bakri Bunker Trading Co. Ltd.

5. All vessels calling for bunkers with Bakri Bunker Trading Co., must comply with the laws of Saudi Arabia, including courtesy flag requirements.

Vessels have recently been delayed by boycott office and Port Authority in Jeddah due belated receipt particulars, especially Lloyd's number/all former names. If this data not received minimum 72 hours ahead vessel's arrival, delay will ensue.

NOTICES: 1986.

Agents Notices to Masters.

Dear Captain,

To avoid any inconvenience to yourself and to your crew and in order that your vessel is not penalised we are listing below those requirements which you must follow and those which you must avoid during your stay in the Port of Jeddah.

(A) WHAT YOU MUST DO:

1. The Master of every vessel arriving at any Saudi Port for discharging/loading of cargo is required to possess one copy of the book "Rules and Regulations for Saudi Arabian Seaports". If you do not have it, please order through our representative. The Port Inspectors make periodical inspections and in the event of non-possession of the said Rules Book by a vessel, she may be penalised. If you already have one or after you get one, it is recommended that you please do read pages 66-75, 163-172, 220-233 and 260.

2. The National Flag of the Kingdom of Saudi Arabia must be kept hoisted round the clock on all days of the week from the time of entering into and sailing from the port of Jeddah.

3. In order to arrange vessels inward/outward clearance, following documents should be delivered to our representative against signed receipt.

1. Certificate of Registry.
2. Safety Equipment Certificate.
3. Safety Construction Certificate.
4. Load Line Certificate.
5. Hull and Machinery Classification Certificate.
6. Safety Radio Telegraphy Certificate.

These documents will be returned to you with the Port Clearance prior to your departure. Vessels arriving at the ports of the Kingdom, with expired certificates, are liable to penal action.

4. All the time, from the time of arrival, your vessel must be in a condition to sail within one hour's notice from the Ports Authorities.

5. From the time of berthing and until its sailing from the berth the Coastguard Police will stay at the gangway entrance.

6. Rat guards must be fixed on all mooring ropes and wires on vessel's berthing.

7. Opening of the hatches (also tween decks, where applicable) and rigging of your vessel's gear should be conducted by your crew to enable the port's stevedores to commence discharging/loading operations immediately upon berthing.

8. The ship's gangway should be protected by guide ropes and proper nets. Safety rails should be erected in tween decks during discharging operations in lower holds. Whenever possible, lashing should be temporarily removed from the deck cargo to facilitate passage for the shore labour to work. Port's Safety Officers inspect vessel from time to time and any contravention of Port's Safety Regulations is subject to penal action.

9. The vessel should be self-sustaining and the gear in proper condition to carry out the discharging/loading operations round the clock. Any delay in discharging/loading as a result of winch stoppages, will be recorded against the vessel and charged at SR.200/– per gang hour or part thereof will be treated as one hour. In the event of frequent winch breakdown or a breakdown whose repair may take a long time, a shore crane could be employed by the port for account of the vessel in case the ship/Agent's themselves do not arrange one. To arrange a shore crane our representative will need your authority. For idle gangs, from the time of winch stoppage until the shore crane physically arrives and discharge is resumed, vessel will be charged at the rate mentioned above.

Please note that Port Authorities have the right to employ shore cranes for account of the vessel to expedite discharge even if ship's gear is fully operational. The cost is debited to the ship whether or not the requisition form is endorsed by the ship's Master.

10. Your Duty Officers are required to supervise discharging/loading operations and any irregularity in handling of the cargo by the stevedores must be notified in writing to stevedores' representative on board with copy to Port Authorities.

Stevedores are employed by the Port Authorities and work as follows:

General and Bagged Cargo: 0100 hrs. – 0600 hrs., 0700 hrs. – 1200 hrs., 1300 hrs. – 1800 hrs., 1900 hrs. – 0000 hrs.

Frozen Cargo: 0700 hrs. – 1200 hrs., 1600 hrs. – 0000 hrs.

Citrus: Same as general and bagged cargo except 0100 hrs. – 0600 hrs.

11. Except crew members from Communist Bloc and countries with whom the Kingdom of Saudi Arabia does not have diplomatic relations, all others are allowed to go ashore escorted by the Agents of the vessel and with a valid Shore Pass issued by the Immigration Department of the Seaport. Shore passes are arranged by the Agent against Master's written undertaking that all crew members will return to the ship and that the Master holds himself fully responsible for all the consequences if any crew fail to return to the ship. The Authorities permit crew members to go ashore for a maximum period of 3 hours during the day only and the permission is granted between 0900 hrs. – 1600 hrs. except on Fridays. The crew members should return to the ship escorted by the Agents before 1900 hrs.

In order to arrange shore passes, we will need your written confirmation at least 18 hours in advance on our prescribed form together with one black and white photograph for each crew member who will go ashore.

12. Application for repatriation of crew is accepted by Immigration Authorities only when it is accompanied with a ticket in the name of the crew member with a confirmed seat for leaving the Kingdom not later than 72 hours from the date of application. In order to arrange confirmed seats we must get an advance notice of at least 48 hours.

13. Completion of discharge must be supervised by ship's Officers who should ensure that no cargo bound for Jeddah is left in the ship except the cargo whose discharge was not allowed by Port Authorities. On completion of discharge of all sound cargo, Jeddah Signal Station should be contacted at Channel 16/12 through VHF to request for a Pilot who is available at short notice. You can notify the Authorities to provide a Pilot as soon as you have on board, the Port Clearance and you are ready to sail. Normally 1 to 2 hours following completion of discharging/loading are allowed to prepare a vessel for sailing.

Following is the allocation of VHF Channels by the Jeddah Islamic Sea Port.

Channel 9 – Marine Pilots.
Channel 11 – Petromin Marine Operations.
Channel 67 – Pilots/Tugs/Berthing Operations/Safety in event of fire.
Channel 69 – Pilots/Tugs/Berthing Operations.

14. In order to keep the parties concerned informed of the daily progress of discharging/loading operations including any other details/information, you will be required to fill-in the "daily position" form left with you by our representative upon your vessel's berthing. It should be kept ready every morning for collection by our representative at about 0800 hrs.

15. Personnel of our Operations Department will be in very close contact with you during vessel's stay in port and shall present to you the prescribed form for SERVICES REQUIRED THE FOLLOWING DAY. This form may be filled in and kept ready for delivery to the Officer on the evening shift who will collect it from you at about 1700 hrs. This procedure will apply from the day following the berthing of your vessel.

However, should the vessel berth before mid-day then our Boarding Officer can be asked to attend to services required the same day.

16. To ensure that ships under our Agency are attended to the satisfaction of our Principals, our Operations Department's Officers are advised to present to you the "Service Form" of the previous day, on the following day so that in case some service that you had asked for has not been rendered, then a remark to that effect could be endorsed on it by you to receive the attention of the Management. We shall greatly appreciate your co-operation in this regard and if for any reason this form is not presented to you for remarks then the Duty Officer may please be reminded of it.

(B) WHAT YOU MUST NOT DO:

1. Manoeuvring of vessels within the port limits without a local Pilot on board, is prohibited.

2. Immobilisation without valid permission from the relevant Authorities, is prohibited.

3. Engine repairs/burning/painting/chipping while at berth, is not allowed without prior permission.

4. Lowering of lifeboats while alongside berth or at anchorage, is not allowed except in an emergency.

5. Spillage of oil and disposal of garbage within the port limits, is prohibited.

6. Unauthorised photography is strictly prohibited.

7. Possession of spirits/alcoholic beverages, weapons, drugs, obscene literature or nude – semi-nude pictures is strictly prohibited which please note advise all your crew members accordingly. The Coastguard Authorities conduct searches and if any crew member is found in possession of any of the above articles, he would be liable to punishment as per local laws.

8. In case of shifting to anchorage, prior to your final sailing, you must inform the signal tower of your date and time of departure.

CIRCULAR: (1983). Please note the following Immigration Rules now prevail in the Port of Jeddah. Kindly see to it that these rules are strictly followed in order to avoid any problem to your crew and the vessel.

(AA) Shore Leave Pass Facilities:

1. Crew Shore Leave Pass will be issued by the Immigration Department for a maximum number of 10 crew members per day from any ship including crew requiring shore medical facilities and Master or other officers requiring consular service. Shore leave will be restricted to three hours only i.e. from 1100 hrs. to 1400 hrs.

2. Master should ensure that requisition for Crew Shore Leave Pass is handed-over to Agents' Crew Department in the afternoon of the preceding day so that necessary paper work is completed to avoid delay in obtaining permission next morning before 1100 hrs.

3. For vessels arriving during the day time, crew shore leave is not permissible the same day; passes will be issued the following day provided requisition is given to Agents as mentioned in No. 2 above.

4. For vessels arriving during the night, requisition must be given to the Agents in the morning and the passes will be arranged during the afternoon.

5. Emergency cases are exempted from the restrictions mentioned in 1, 2, 3 and 4 above.

6. In case of serious sickness of a crew member the Safety Department of the port of Jeddah must be informed immediately through Signal Tower instead of calling the Agents. Agents may also be informed for further assistance.

7. Crew shore leave is strictly prohibited after issuance of Sailing Permit.

(BB) Crew Sign-On:

1. Following particulars of crew arriving to join a vessel, must be communicated to the Agents at least 72 hours prior their date and time of arrival.

(a) Full name of seaman.
(b) Nationality.
(c) Seaman's Book Number, date and place of issue.

2. Clearance by Airport Immigration Department of crew arriving without visa on international passport is strictly forbidden.

3. Crew arriving without visa to join a vessel must possess Seaman's Book otherwise they cannot be cleared by Airport Immigration Department.

4. Clearance by Airport Immigration Department of crew as mentioned in No. 3 above is granted only if the vessel which they are coming to join, has already arrived in the Port of Jeddah. If the vessel has not yet arrived the crew will remain in transit in the airport.

5. Crew arriving at night to join a vessel already in port, cannot be signed-on until next day and as such will have to stay for one night in an hotel. Crew arriving during the day but before noon, may be signed-on the same day.

(CC) Crew Sign-Off:

1. Following particulars for crew to be signed-off, must be communicated to the Agents at least 72 hours prior anticipated time of departure.

(a) Full name of seaman.
(b) Nationality.
(c) Seaman's Book Number, date and place of issue.
(d) Destination.

2. Because 72 hours' prior notice is required, as mentioned in No. 1 above, crew sign-off will not be possible from a vessel staying for less than 72 hours in the port unless the required repatriation of any crew has been communicated to the Agents prior to arrival of the ship.

3. Signing-off of crew without Seaman's Book is not permissible.

4. Any crew not holding ticket with confirmed seat, cannot be signed off.

5. Crew already signed-off by the Immigration Department will be cleared by the Customs a maximum of 6 hours before the departure time. With this restriction crew departing between 0100 to 0800 hrs., cannot be repatriated.

6. Vessel completing discharge prior completion of repatriation formalities of any crew, will have to stay at anchorage in order to disembark the crew member after completion of formalities.

(DD) The above Rules and Regulations will also be applied to vessels calling Jeddah for bunkers and/or provisions only.

SHIPMASTER'S REPORT: November 1986.
Report on Visit to Jeddah for Bunkers Only:

ETA Advice: Send ETA 96, 72, 48, and 24 hours in advance of arrival also update if ETA varying by more than 1 hour after 24 hour Notice is sent. Contact by VHF as soon as in range of Port Control.

Approach: Approach to the Port can be difficult, especially at night. There are a great deal of works in progress in and around the Port, which renders identification of navigational marks and shore characteristics difficult. The best aid to position fixing approaching the Port is Mismari Reef, which has a Racon on it, and shows up well on the radar. Approach is also made difficult by the fact that there were many ships at anchor on the occasion of this visit. (Over 50 vessels).

Anchorage: There are designated areas marked on Admiralty Chart No. 2599 (Approaches to Jiddah). The designated anchorage for vessels bunkering is Anchorage 'E'. However, due to the large number of vessels at anchor, anchorage has to be effected wherever there is sufficient anchor berth for the size of the vessel. (Port Control did not give any directions with regard to anchoring position, and only asked to be given time of anchoring and bearing and distance from Qaham Beacon, of anchor position).

Formalities: Agent and Customs board from a small tug size vessel, apparently used specifically for this purpose. They boarded more or less on arrival. Forms, etc. required are as detailed in final 'Notes'. Pilot ladder was used to embark and disembark these Officials. A heavy swell was running on the occasion of this visit, and it would have been impractical to have used the accommodation ladder only, although a combination rig could have been used.

Bunkering: Bunker barges of about 3,000 d.w.t. are used. These vessels operate from a much larger 'mother' ship. The barge that delivered this vessel's bunkers was rigged to come alongside starboard side to; but it can be ascertained by calling the 'mother' ship before arrival. Barge used 6 in. bunker hose, and midship bunker connection. (it would not be practicable to have used the after connection on this ship, due to the length of the bunker barge). On completion of bunkering, Bunker Receipts are signed and stamped in the usual way. Port Clearance is issued by bunker barge after bunkering formalities completed. Port Control must be informed of Port Clearance Number, after which vessel may sail.

Notes: On the occasion of this vessel's visit, a rather heavy swell was running at the anchorage. This rendered taking of dips in the bunker tanks rather difficult, and also due to ranging of the bunker barge alongside, it was not possible to check barge by ship's staff. Quantity of bunkers delivered is effected by using a flow meter on the barge. It was discovered after vessel had sailed, that there was a shortage of some 45 tonnes (in a consignment of 1,400 tonnes). However, at the time of taking the bunkers, it had not been possible to accurately gauge the vessel's bunker tanks due to the swell. (It may well be that the barge's meter was inaccurate, but in the light of the above, it is therefore important to check as closely as possible calculated quantity taken by ship's measurements, and any shortage, or suspected shortage noted).

Arrival Message: To be supplied to Port Management, Jeddah. (Either direct or through Agents).

1. Radio call sign.
2. Vessel's name.
3. Owner and Line – Ex-Owners, Charterers or Operators (full address, telex, cable, postal).
4. Nationality – flag, port or registry.
5. Agent at Jeddah.
6. Length overall.
7. Maximum draft (metres).
8. Gross registered tonnage.
9. Nett registered tonnage.
10. Previous names.
11. Build – year and place.
12. Type of vessel.
13. Deadweight tonnage.
14. ETA – changes of ETA.
15. Actual arrival draft.
16. Hazardous cargo in transit for other ports.
17. Lloyd's Register Number or other Registration Number.
18. The expected requirements for bunkers and water.
19. Economic speed of vessel.
20. Next port of call after Jeddah.
21. Last port of call before Jeddah – cargo on board.
22. Names of ports vessel called before arriving Jeddah (within last 2 months).
23. Vaccination Certificates valid against cholera.
24. Number of crew and their state of health.
25. Statement of Owner/Master that the vessel was never blacklisted by Arab League.
26. Master's Declaration for any arms and ammunition carried on board for cargo in transit or purely for the purpose of self defence, at least 48 hours prior vessel's arrival (failure to comply with these procedures will result in heavy fines and seizure of arms).
27. The following is also required:
    (a) Type of radar.
    (b) Frequency.
    (c) Scan rate.
    (d) Pulse width.
    (e) Pulse peak power.
    (f) Pulse repetition frequency.
    (g) Beam width.
    If the vessel is equipped with several radars, the characteristics of each radar must be given.

Notes:

1. Send above as soon as possible after vessel receives orders for Jeddah.

2. No. 27, not required to be sent if this information has already been tendered on a previous occasion.

3. Above required even if making an off-limits bunkering call.

4. Vessels calling for bunkers only will also be required to submit the following Forms to Agent and Customs, who board on arrival.

4 Crew Lists.
2 Vaccination Lists.
2 Crew Effects Declarations.
2 Stores Lists.

All above documents can be presented on appropriate IMO Forms, except the Store Lists, which have to be on Saudi Arabian Forms for Customs. Forms will be provided if vessel not in possession.

5. Customs will seal bond and radio transmitter on clearing ship inwards.

SHIPMASTER'S REPORT: June 1988.

Vessel called in the Roads for bunkers.

The bonded stores are sealed. Crew are not allowed to have beer or personal refrigerators in their cabins. This includes the Master and all officers.

All beer and spirits must be placed in the bonded store prior to Customs boarding the vessel, otherwise severe fines may be imposed.

AUTHORITY: Jeddah Port Management, P.O. Box 9285, Jeddah 21188, Kingdom of Saudi Arabia. *Tel:* Jeddah (02) 647–1200 (17 lines). *Telex:* 601175 Ports SJ. *Cables:* Ports Jeddah. *Contact:* Mr. Mustafa M. Hariri, Acting Director General.

AGENT: Gulf Agency Company Saudi Arabia, Algosaibi Centre, Andlus Street, Al Hamra, P.O.B. 2038, Jeddah 21451, Saudi Arabia. Ship-Shore traffic via Jeddah Radio/HZH. Tel: 6531964, 6531968, 6535060, 6535056. After office hours: 6517385. Telex: 601047 ("Gaship Sj"). FAX: 6510860 stating "For GAC Jeddah". Cables: "Gulfagency", Jeddah.

JU'AYMAH: 26.56 N. 50.03 W. (See Plan)

ALSO SEE "RAS TANURA – SECTIONS (A) AND (B)".

(A) CRUDE OIL TERMINAL.
(B) LPG TERMINAL.

(A) CRUDE OIL TERMINAL.

This section gives specific information regarding Ju'aymah Crude Terminal which includes the Single Point Mooring Berths and is to be read in conjunction with "Ras Tanura – Part A".

LOCATION: The Ju'aymah Crude Terminal loading facilities are located approximately 18 miles N.N.W. of the Ras Tanura Terminal and 7 miles offshore.

These facilities consist of an oil metering and manifolding platform, a terminal control platform and 6 Single Point Mooring Berths. The oil metering and manifolding platform is in the following position: Lat. 26° 54.8′ N., Long. 50° 01.2′ E.

Ju'aymah Crude Terminal: The terminal is an ARAMCO crude oil and fuel bunker loading facility designed for loading and topping-off deep draft tankers. The terminal consists of the following facilities:

An Oil Platform (130 ft. by 390 ft.) located in 50 ft. (15.24 m.) of water. This platform receives crude oil and fuel bunkers from the storage tanks on the shore to the S.S.W.

The platform is well lighted with general purpose lighting. In addition 1 fixed white light has been established on each corner of the platform with a range of visibility of approximately 5 miles. A Control Platform (70 ft. by 70 ft.) is located 150 ft. North of the oil platform and connected to it by a walkway bridge. This platform is marked by a fixed red aircraft warning light.

Single Point Mooring Buoys have been established between 1 and 4 miles to the N.E. of these platforms. Crude oil and bunkers are received at each buoy.

Each buoy is fitted with 2×24 in. floating crude loading hoses with 16 in. or 20 in. tail hoses and 1×12 in. floating bunker loading hose. The length of the string is approximately 1,100 ft. (335 m.).

When an SPM is removed ashore for maintenance, a marker buoy may be installed to indicate the position of the underwater pipe-line and anchor chains.

PILOTAGE: *Pilot Boarding:* A Pilot/Mooring Master and an SPM Representative will board inbound vessels by helicopter if possible as advised.

They will advise the Master on all manoeuvres and operations relative to berthing, connecting and disconnecting hoses and unberthing. They will also provide all communications between vessels and shore during cargo loading and be the ARAMCO Representative with respect to safety observation and other requirements.

These two persons will remain on board the vessel throughout the loading and unmooring and suitable accommodation for them is to be provided.

Dependent on weather and other conditions, vessels will be advised by Ju'aymah Pilot/Radar to proceed to a position approximately 8 miles E.N.E. of Ju'aymah Platform and make a lee for the Pilot to board or for the launch carrying mooring and hose connecting equipment.

INBOUND TRAFFIC PROCEDURE: See "Ras Tanura – Part B" – Traffic Regulations.

Vessels Proceeding Direct to Ju'aymah Crude Terminal: As per "Ras Tanura – Part A" – Navigation – Inbound Traffic Procedures to the Entry Buoy and to a position approximately 2.5 miles N.E. of Buoy 3A.

According to advice from Ju'aymah Radar should turn into the Ju'aymah Pilot Boarding Area to anchor or be berthed on arrival.

Vessels Proceeding from Northern Holding Anchorage to Ju'aymah Crude Terminal: Should enter the Separation Scheme under advice of Ju'aymah Radar and proceed as above.

Max. Draft in Arrival Channel: The max. draft is 70 ft. (21.34 m.) for vessels proceeding along the Inward Channel of the Ras Tanura Separation Scheme bound to Ju'aymah Crude Terminal.

Vessels Proceeding from Ras Tanura Terminal to Ju'aymah Crude Terminal: The vessel should then proceed, exercising due diligence, through the Caution Area and with the advice of Ras Tanura Port Radar and Ju'aymah Radar into the Ju'aymah Pilot Boarding Area either to anchor or be berthed on arrival.

Prohibited Area: No vessel shall enter the Prohibited Area without a Pilot on board. Under no circumstances shall anchors be used in the vicinity of the berths due to the existence of numerous submerged pipe-lines.

ANCHORAGE: The area West of No. 3 Beacon is used as a final holding anchorage and for vessels awaiting arrival clearance, cargo clearance, sailing documents, etc.

Vessels must leave the inbound route to the berths clear when selecting an anchoring position in this area.

RESTRICTIONS: Ships securing to Smit Mooring Brackets at Ju'aymah SPM Terminal will only be berthed in wind speeds of less than 25 m.p.h. Additionally, this parameter may be further reduced, at the discretion of the Berthing Pilot, should he consider that other forces, i.e. sea state, be prejudicial to a safe mooring operation.

RADIO: *Underway:* At all times when underway in the Arrival Channel and Pilot Boarding Area, vessels must maintain contact with Ju'aymah Radar on VHF Channel 13 and with Ju'aymah Pilots on Channel 16 or one of the following VHF working Channels: 10, 11, 12, 13, 14.

At Anchor: A good listening watch should be maintained on VHF Channel 16.

Vessels will be called by Ju'aymah Pilots or Ju'aymah Radar with berthing and other information and instructions.

Under Pilotage and at Berth: The Pilot/Mooring Master will carry a portable intrinsically safe multi-channel radio by means of which all communications regarding approach, mooring and cargo loading will be made. These radios are fitted with an emergency tag which activates an alarm at the Control Platform when removed.

He will also carry battery chargers for these radios during the vessel's stay in the terminal.

In addition, the vessel's VHF radio should be available on the bridge and in the Cargo Control Room for back-up communications.

HEALTH: *Pratique and Quarantine:* At Ju'aymah Crude Terminal, no person is permitted to board a vessel, nor is she permitted to proceed to the berth until inward clearance formalities have been completed and the Authorities have visited the vessel. Vessels topping off from Ras Tanura Terminal will already have completed these formalities.

However, during adverse weather conditions permission may be given by Government Officials for the Pilot to board and moor the vessel before clearance is given. If this occurs and weather conditions continue to preclude clearance during the loading operation, the vessel must when unmoored anchor and wait for clearance formalities to be completed.

BERTHING: *Preparations:* Line handling during mooring and unmooring is to be performed by the ship's staff under instructions of the Pilot/Mooring Master.

Vessels assigned to the Ju'aymah Crude Terminal SPMs must be fitted as recommended in the OCIMF publication "Standards for Equipment Employed in Mooring of Ships at Single Point Moorings".

Mooring to strops secured to bitts is not permitted.

During the approach, while mooring and while secured in the berth, the vessel's anchors MUST be secured by stoppers to prevent accidental dropping with subsequent damage to the undersea pipe-lines and equipment.

Both port and starboard derricks should be rigged ready to lift the mooring and hose connecting equipment from the launch on either side. A trolley should be available to transport this equipment about the vessel's deck.

The following vessel's equipment should be ready on forecastle head:

(a) Two messenger lines 3 in. to 3.5 in. circumference (24 mm. to 28 mm. dia.) 500 ft. (150 m.) in length.
(b) Sledge hammer, large crowbar, large marlin spike, adjustable wrench/spanner.
(c) Bag of sawdust or sand.
(d) Large flashlight (for night mooring).

Procedure – Mooring:

(a) ARAMCO mooring and hose connecting equipment will be lifted aboard the tanker from the launch on either the port or starboard side by means of the ship's derrick.
(b) Ship's staff will prepare the forecastle head for the mooring operation at the instructions of the Pilot/Mooring Master.
(c) As the vessel approaches the berth, a mooring boat will bring the port hawser pick-up rope (10 in. circumference – 80 mm. diameter) and make it fast to the messenger.
(d) At the boat's signal, the pick-up rope is hove on deck and by means of this, the chafing chain is lifted in the bow chock and to the mooring bracket.
(e) Under the direction of the Mooring Master, the chafing chain is secured in the vessel's mooring arrangement.
(f) Ease back on the pick-up rope until the weight is taken up.
(g) Repeat for the second mooring hawser.

Procedure – Unmooring:

(a) Take the weight of the mooring assembly on the pick-up rope, using the windlass.
(b) Disconnect the chafing chain from the mooring arrangement.
(c) Slowly slack the pick-up rope until the support buoy is in the water and taking all of the weight of the chain.
(d) Pay out the pick-up line either to a mooring boat or as the ship clears the berth.

BERTHING FACILITIES: At the berths, cargo hose connections are 16 in. or 20 in. and bunker hose connections are 12 in. arranged to be connected abaft the crude loading connections. All flanges are 150 ASA.

In order to avoid delays, vessels should have reducers ready at the port side manifold to adapt to these sizes. Maximum crude loading rate is 130,000 bbls.p.h., and maximum bunker loading rate is 5,000 bbls.p.h.

Berth No.	*Lat.* N.	*Long.* E.	*Minimum Water Depth* (ft.)	(m.)
31	26° 55.6′	50° 02.4′	93	28.35
33	26° 57.0′	50° 02.7′	103	31.39
34	26° 56.6′	50° 04.3′	124	37.79
35	26° 55.6′	50° 03.6′	112	34.14
36	26° 55.6′	50° 04.9′	122	37.19

Note: The following crudes are available at Ju'aymah Crude Terminal: Arabian Light Crude, Arabian Medium Crude, Arabian Heavy Crude. Arabian Berri Crude is NOT available.

LOADING: *Loading Hose Connection and Disconnection:* In order to secure the floating hoses to the vessel's manifold, the manifold arrangements must be as recommended in the OCIMF publication – "Standard for Tanker Manifolds and Associated Equipment (May 1975)" and "Tanker Manifolds and Associated Equipment (3rd Edition 1981)".

Preparation – On the Port Side:

(a) Derrick rigged for maximum height and load lifting capacity (10 tons minimum for 16 in. hoses and 15 tons minimum for 20 in. hoses). If possible, the topping lift of the derrick shall be on its own winch.

(b) Two 16 in. or 20 in. 150 lb. ASA flange connections on selected cargo manifolds and one 12 in. 150 lb. ASA flange on the after bunker manifold.

(c) Drip trays, sawdust or sand, dispersant and fire fighting equipment in position.

(d) The following are normally supplied by ARAMCO but their presence will prevent delays in case of deficiency or malfunction: Chain block (not normally supplied), Handy Billy, heaving line, spare spanners, spare wire strop, spare bolts.

Procedure – Connecting Hoses: Connecting and disconnecting of cargo and bunker hoses is to be carried out by ship's staff under instruction of Mooring Master.

(a) Lower derrick hook to the mooring launch which will connect it first of all to the forward hose.

(b) Heave up until the blank flange is level with the hose rail.

(c) Unshackle hose snubbing wires and secure guy ropes to the flange.

(d) Continue heaving up the hose as directed by the Mooring Master.

(e) Secure snubbing wires in a manner to facilitate possible slackening as directed.

(f) Lower the hose to bring the hose flange to the manifold and check the alignment of the flanges.

(g) Lower the hose onto the drip tray and remove the blank flange.

(h) Using the nylon band sling supplied, lift the hose and connect it to the manifold. Never use a wire strop for lifting a cargo hose.

USE ALL OF THE BOLT HOLES AND A GASKET.

The second cargo hose and the bunker hose are connected in the same way.

After all hoses are connected, the cargo hoses must be supported in way of the vessel's side rail by means of the nylon bands supplied and the vessel's derrick.

Procedure – Hose Disconnecting: On completion of loading cargo or bunkers manifold valves must NOT be closed until the Mooring Master directs. This is important for line clearing.

(a) Strop the after hose to the derrick hook, take the weight and disconnect the flange.

(b) Replace the blank flange using *all* of the bolts and a new gasket. Tighten the bolts in sequence to avoid uneven tension on the flange.

(c) Lower hose to deck and secure.

(d) Repeat with forward hose and wait until backfilling of the hoses is complete.

(e) Bunker hose should be disconnected and securely blanked as soon as bunkering is completed and secured on deck until cargo loading is completed. It should be lowered into the water during backfilling of the cargo hoses.

(f) When backfilling is completed, secure the derrick hook to the lifting hook of the after hose and raise the hose until the weight is taken off the snubbing wires.

(g) Release the snubbing wires, lower the hose to rail level and shackle the snubbing wire to the flange.

(h) Lower the hose end into the water and trip the hook to release.

(i) Repeat for the forward hose.

Return all ARAMCO tools and equipment to the steel basket, stow in a seamanlike manner and prepare for lowering to the launch on either the port or starboard side dependent on weather conditions.

Loading Procedures: The loading operation will be controlled by radio voice communications between the Mooring Master on the loading vessel and the Control Platform.

All operations including switching of tanks and topping-off must be directly and personally supervised by a ship's officer. Upon being informed by the loading vessel's personnel that the vessel is ready to start loading, the Pilot/Mooring Master will request the loading to proceed according to the previously agreed plan with respect to start-up rates, maximum loading rates and topping-off rates.

Under no circumstances is the flow to the vessel to be stopped by the vessel whilst switching tanks, etc. Need for emergency shutdown of loading aboard the vessel must be communicated by radio from the loading vessel to the Control Platform.

In the event of failure of the radio communications system, the vessel will sound five long blasts on the vessel's whistle followed by 1, 2, 3, 4, 5 and 6 short blasts for a vessel at Berth 31, 32, 33, 34, 35 or 36 respectively.

Loading operations will be stopped and will not be resumed until communications have been re-established.

It is the responsibility of the vessel to advise the Mooring Master to shut down cargo and bunker loading when the vessel's cargo and bunker requirements are met.

Cargo Calculations and Release: The American system of cargo measurement in Barrels with temperatures in fahrenheit degrees according to the ASTM-IP is used by ARAMCO and the Saudi Arabian Government for cargo measurement purposes. Ship's cargo loaded figures should be available in these units. Generally, if the difference between average normal ship measurement and official cargo measurement is satisfactory the ship will be released to sail, and the Pilot/Mooring Master will leave after unmooring is complete. If the ship/shore difference is large, the Pilot/Mooring Master will survey the cargo according to laid down ARAMCO inspection procedures after unberthing and report his findings to ARAMCO Terminal Planners. The ship is required to stay until released by ARAMCO if ship/shore difference occurs.

Departure: Upon completion of unmooring, the vessel will make a lee for the mooring and hose connecting equipment to be discharged into the launch on either port or starboard side. Depending upon conditions, the Pilot/Mooring Master and SPM Representative may leave on the launch or later by helicopter. A separate departure channel has been provided for all vessels using the Ju'aymah facilities. The vessel will proceed via the Departure Channel between Beacon J1 and Buoy J2 and thence towards the Exit Buoy JE. The vessel should then set an Easterly course North of JD Buoy to the Ju'aymah Light Float.

EMERGENCY PROCEDURES: In addition to the general principles described in Part A of "RAS TANURA", the following apply to Ju'aymah Crude Terminal:

(a) Should a fire or explosion occur at a buoy mooring, the Oil platform or Control platform, all cargo operations will be stopped and all vessels should stand by to disconnect and unmoor when so instructed by the Pilot/Mooring Master or Port Captain, or when the need to take such action becomes self-evident.

(b) The local signal for emergency is a continuous ringing of the vessel's alarm bells supplemented by more than 6 short blasts followed by 1 long blast of the vessel's whistle. Assistance may be summoned on VHF Channel 16. Location, nature of emergency and type of assistance required should be given. (See "RAS TANURA" Part B – EMERGENCY SIGNAL).

BALLAST: *Arrival Ballast Condition:* Due to the exposed location at the Ju'aymah berths, tankers should arrive with sufficient clean water ballast for safe handling having due regard to the existing sea and weather conditions. Unless otherwise instructed, vessels must arrive with propellers just covered and trimmed not more than 8 ft. (2.44 m.) by the stern.

GENERAL: *Boarding Vessels at Berth:* Small craft are not allowed in the vicinity of the vessel and no one is permitted to board or leave a vessel while cargo loading operations are in progress. Should it become urgent to board or leave for any reason during cargo loading, the Pilot/Mooring Master must be contacted to request permission to shut down the cargo loading operation while the small craft is alongside.

S.P.M. Maintenance: In addition to the mooring boats a larger maintenance vessel works on hoses, buoys and sub-sea systems.

In bad weather, this work is extremely difficult and involves possible danger to personnel.

For this reason, vessels are requested to give as much assistance as possible by taking seamanlike care of the mooring and hose equipment and returning it to the water ready for the next tanker and in such condition as they would like to find it.

Hose/hawser maintenance is expensive and if ARAMCO judges that a vessel has misused any hose or hawser the vessel will be liable for the expenditure incurred in making repairs.

(B) LPG TERMINAL

This section gives specific information regarding Ju'aymah LPG terminal loading facilities and is to be read in conjunction with "Ras Tanura" – Part A.

PILOTAGE: *Pilot Boarding Position:*

In normal conditions of weather and traffic, an arriving vessel will be advised to proceed from the Ju'aymah Pilot Boading Area by a route South of Buoy J4 to a position 1.5 miles S.E. of SPM 36 to make a lee to pick up the Harbour Pilot. The Pilot will then advise on manoeuvring the vessel to the assigned berth.

Harbour Pilot and Assistant Harbour Pilot will remain on board to assist with efficient turnaround of vessel and will require accommodated and meals.

INBOUND TRAFFIC PROCEDURES: See "Ras Tanura – Part B" – Traffic Regulations.

Vessel Proceeding Direct to Ju'aymah LPG Terminal: As per "Ras Tanura – Part A – Navigation – Inbound Traffic Procedures" to the Entry Buoy and make for a point approximately 2.5 miles N.E. of Buoy 3A. Under advice of Ju'aymah Pilots and Ras Tanura Port Radar turn into the Ju'aymah Pilot Boarding Area to anchor or to be berthed on arrival.

Vessel Proceeding from Northern Holding Anchorage to Ju'aymah LPG Terminal: Enter the traffic separation scheme under advice of Ras Tanura Port Radar and Ju'aymah Pilots and proceed as above.

Vessel Proceeding from Ras Tanura Terminal to Ju'aymah LPG Terminal: Should depart Ras Tanura Terminal and follow the departure channel toward the mid-channel marker RT 1. The vessel should pass through the Caution Area with the advice of Ras Tanura Port Radar and Ju'aymah Pilots into the Pilot Boarding Area either to anchor or to be berthed on arrival.

ANCHORAGES: *Ju'aymah Pilot Boarding Area:* The area West of No. 3 Beacon is used as a final holding anchorage and for vessels awaiting arrival clearance, cargo clearance, sailing documents, etc. as for Ju'aymah Crude Terminal. Ships must only use this anchorage when directed to do so by Ju'aymah Pilots and must leave the inward route to the SPM berths clear when selecting an anchoring position in this area.

Ju'aymah LPG Anchorage: This anchorage has been laid out approximately 2.5 miles N.E. of the loading pier to provide a tank cooling area for gas tankers. The depth of water varies between 16 m. and 30 m. (52 ft. and 98 ft.) and holding ground is fair.

RADIO: *General:* The onshore production facilities of the LPG Terminal are known as the NGL (Natural Gas Liquids) Plant, etc. This name is often used in reference to the Terminal. No LNG (Liquefied Natural Gas) is exported from the Terminal.

Underway: In the arrival channel, vessels must maintain contact with Ju'aymah Radar on VHF Channel 13.

At Anchor: A good listening watch should be maintained on VHF Channel 16 for information and instructions from any of the following sources:–

(a) Ras Tanura Pilots,
(b) Aramco Terminal Planners,
(c) Ju'aymah Pilots,
(d) Ju'aymah Radar.

Under Pilotage: The Harbour Pilots carry portable, intrinsically safe radios for contact with tugs which operate on Aramco dedicated mooring frequencies. In addition, the ship's main VHF radio should stand by on Channel 13 for back-up communication.

At Berth: A portable intrinsically safe radio will be supplied to the vessel by the terminal. This radio operates on a UHF frequency dedicated to each berth by means of which constant communication can be maintained during loading. This radio is fitted with a pull-off tag which, when removed, activates an alarm on the radio console in the Control Room and the Pilot Office.

BERTHING: *Mooring Procedure:* Mooring boats are not used at Ju'aymah LPG Terminal. Vessels should have heaving lines ready to take the shore messenger after landing alongside. The messenger is then made fast to the vessel's mooring line which is then hove ashore by a capstan. Heavy wires should be sent one at a time and ropes two at a time. Jetty crews are continuously on duty to handle mooring lines but will not handle mooring lines aboard vessels.

BERTHING FACILITIES: The 2 loading berths are situated on opposite sides of a platform aligned 335° true compass bearing. Berth 51 being the East (outer) berth and Berth 52 being the West (inner) berth. Minimum water depth at the berths is approximately 78 ft. (23.8 m.) at ISLW (Indian Springs Low Water). There are 4 breasting dolphins at each berth and 6 mooring dolphins. The tower crane located in the centre of the platform is used for moving operational and maintenance equipment. RLPG is loaded via 16 in. LPG loading arms. Maximum loading rate is 15,000 bbls.p.h. per arm. Therefore combined maximum for 2 grades is 30,000 bbls.p.h. Each berth is equipped with 4 LPG loading arms each of which may be used for butane liquid, propane liquid or vapour return. The loading arm connections can be adjusted to fit 12 in., 14 in. or 16 in. 150 ASA flanges. All LPG loading arms are fitted with quick connect/disconnect hydraulic couplers (QCDC). Each LPG loading line has an associated circulation return line. The bunker loading connections can be adjusted to fit 6 in. or 8 in. 150 ASA flanges. One bunker/black diesel loading arm is located at each side of the LPG loading station.

Both fuel oil bunkers and marine diesel oil are available at the Ju'aymah LPG berths. The nominal loading rate for fuel oil bunkers is 5,000 b.p.h. and for marine diesel oil is 600 b.p.h. These can be loaded through both of the 8 in. loading arms located on either side of the LPG loading station.

LOADING: *Trim and Stability:* During loading and deballasting operations, the vessel should at all times be adequately stable and in good trim to leave the berth at short notice in the event of an emergency. Excessive lists and trims are not permitted.

Loading Arm Connections: Jetty crews are on duty continuously to handle loading arms and make all connections and disconnections. All loading connections are equipped with electrical insulated flanges therefore ship to shore bonding wires are not required.

Due to the size and bulk of the QCDC couplers, a clear area around each manifold flange of at least 60 cm. (24 in.) is required.The vessel should have suitable 150 ASA reducers and spool pieces fitted to the manifolds it is intended to use.

Loading Procedures: Vapour line must be connected prior to loading LPG cargo of coolant. All excess vapour which cannot be handled by the vessel's recovery equipment will be metered to flare. It is the responsibility of the vessel to advise the jetty operators to shut down cargo and bunker loading when the vessel's requirements of cargo and bunkers are met.

Special regulations govern the acceptance and loading of gas tankers in the Port of Ras Tanura which includes Ju'aymah LPG Terminal.

Cargo Calculations: The American system of cargo measurement in BARRELS with temperatures in fahrenheit degrees according to the ASTM-IP is used for cargo measurement at this Terminal. An independent Inspection Agency is appointed by the Offtaker/Buyer to determine cargo quantity loaded aboard.

Departure: Upon completion of loading, cargo calculation and disconnecting cargo arms, the vessel will be unmoored and the Harbour Pilot will disembark. The vessel will then be free to leave the Port via the Ju'aymah Departure Channel if Early Departure Procedure is used and all relevant documentation is on board. Otherwise, the vessel will proceed to the Ju'aymah Pilot Boarding Area or Cooling Anchorage to await document delivery by the Agent, at the direction of the Pilot.

Contact with Ju'aymah Radar must be maintained on VHF Channel 13 when in the Ju'aymah Crude Terminal Approach Area.

GENERAL: *Emergency Procedures:* In addition to the general principles described in Part A of "RAS TANURA" the following apply to Ju'aymah LPG Terminal.

In the event of a fire or explosion at the pier or on board a vessel which is berthed alongside at the Terminal, the local alarm signal will be a series of 10 short blasts on the ship's whistle at which an Emergency Shutdown system will be activated to immediately stop all cargo loading to vessels at the berths. (See "RAS TANURA – Part B" EMERGENCY SIGNAL). In case of a situation requiring urgent removal of a ship from the berth, a system of sequential automatic loading arm disconnection is fitted. This system will only be activated after very careful evaluation of the situation by all parties.

Duty Harbour Pilot and Tugs: Whenever a vessel is at one of the berths at the LPG Terminal, a Harbour Pilot will stand by on the loading platform in constant communication with the vessel(s) and jetty staff by means of the dedicated UHF radios. Pilots on duty for 8 hours (0600 – 1400, 1400 – 2200 and 2200 – 0600 hrs.).

Tugs stand-by moored in sight of both loading berths.

AUTHORITY: Arabian American Oil Company, Port Control Centre, North Pier, Ras Tanura, Saudi Arabia. *Tel:* 37250. *Contact:* S. M. Al Shibar, Port Captain – Terminal Marine Piloting Division.

AGENT: Gulf Agency Company Saudi Arabia, P.O.Box 72, Rahima, 31941, via Dhahran, Saudi Arabia. Cables: "Confidence" Ras Tanura, Ship-Shore Traffic via Dammam Radio/HZG. Telex: 851011, 851059 ("GAC RT SJ") Tel: 6673180, 6670632, 6670636 (24 hour service). After office hours 6670066. Fax: 8323035.

N.B. Please address crew mail to Rahima P.O.Box 72, Rahima, 31941 via Dhahran, Saudi Arabia.

JUBAIL: 27.01 N. 49.40 E. (See Plan)

ALSO SEE "GENERAL" BEFORE FIRST PORT.

(A) COMMERCIAL PORT.
(B) KING FAHD INDUSTRIAL PORT IN JUBAIL.

(A) COMMERCIAL PORT.

LOCATION: The Jubail Port Complex is located on the East Coast of the Kingdom of Saudi Arabia, approximately 80 km. North of Dammam. The Port Complex comprises 2 ultramodern facilities: The Commercial Harbour to the South and The King Fahd Industrial Harbour to the North. These harbours have separate entrances and are under separate port managements.

PORT LIMITS: The boundaries of the harbour and anchorages of King Fahd Industrial Port at Jubail and the Commercial Port of Jubail coincide and are given below:

Harbour Boundaries:

All Port property enclosed by a fence following the shore line and extending seawards to a line running between the following points:

Lat. 27° 00′ 00″ N.,	Long. 49° 40′ 00″ E.
Lat. 27° 00′ 00″ N.,	Long. 49° 43′ 12″ E.
Lat. 27° 03′ 00″ N.,	Long. 49° 44′ 00″ E.
Lat. 27° 04′ 10″ N.,	Long. 49° 46′ 00″ E.
Lat. 27° 11′ 10″ N.,	Long. 49° 53′ 45″ E.
Lat. 27° 14′ 10″ N.,	Long. 49° 59′ 00″ E.
Lat. 27° 16′ 00″ N.,	Long. 49° 58′ 00″ E.
Lat. 27° 17′ 45″ N.,	Long. 49° 55′ 30″ E.
Lat. 27° 15′ 20″ N.,	Long. 49° 51′ 30″ E.
Lat. 27° 12′ 50″ N.,	Long. 49° 52′ 30″ E.
Lat. 27° 09′ 00″ N.,	Long. 49° 46′ 00″ E.
Lat. 27° 04′ 40″ N.,	Long. 49° 44′ 00″ E.
Lat. 27° 07′ 00″ N.,	Long. 49° 44′ 00″ E.
Lat. 27° 07′ 00″ N.,	Long. 49° 41′ 00″ E.
Lat. 27° 05′ 43″ N.,	Long. 49° 41′ 00″ E.
Lat. 27° 04′ 00″ N.,	Long. 49° 36′ 30″ E.

DOCUMENTS: On arrival at the Port, the Master of the vessel shall present or make available for inspection the following papers and documents:

Log Book.
Registration Certificate.
Classification Certificate.
Load Line Certificate.
Building Safety Certificate.
Safety Equipment Certificate.
Radio and Wireless Certificate.
Cargo Gear Certificate.
Marine Health Declaration.
Vaccination List.
Derat Certificate.
Clearance from Last Port of Call.
Israel Boycott Declaration.
Ship's Stores List.
Grain Shipping Certificate (if the vessel is carrying a grain shipment).
Mail Transport Documents in accordance with the International Postal Treaty (if any mail is carried aboard).
5 copies of the Crew List.
5 copies of the Passenger List.
2 copies of the List of Personal Effects of Crew and Passengers.

To obtain Port Clearance the Master of the vessel shall present or make available for inspection the following papers and documents to Port Management:

Log Book.
Registration Certificate.
Classification Certificate.
Load Line Certificate.
Building Safety Certificate.
Safety Equipment Certificate.
Radio and Wireless Certificate.
Port Stevedore Outturn Report.
Receipt for payment of Custom's Duties.
Shipping Note and Cargo Manifest for any cargo loaded.

Cargo papers and documents: The following papers and documents must be submitted to the Port Management not later than 48 hours prior to arrival:

5 copies of the Cargo Manifests in English.
10 copies of the Original Manifests translated into Arabic.
2 copies of the Cargo Stowage Plan.
2 copies of the Hatch List or Bay Plan.
2 copies of the List of Dangerous/Hazardous Cargo for Discharge.
2 copies of the List of Dangerous/Hazardous Cargo in Transit.
2 copies of the List of Heavy and/or Awkward Cargo.
2 copies of the List of any Wine, Spirits and Narcotics, or in the absence of which a "nil" return.
A Declaration of Type of Reefer Cargo.
An Application for Discharge Permit.

PILOTAGE: Pilotage is compulsory for all vessels of more than 150 n.r.t. Pilots available 24 hours a day, 7 days a week. Pilots will board in the vicinity of No. 17 Channel Buoy. Port Control Station is continuously manned, to be contacted on Channel 16, vessels requiring a Pilot shall use the International Signals. Notice of ETA refer to Rules and Regulations for Saudi Arabian Seaports, Part 1, Para 2.

Pilot Boarding Position: Lat. 27° 07′ 00″ N. Long. 49° 47′ 00″ E.

ANCHORAGES: There are 3 anchoring places: Freighter Anchorage, Tanker Anchorage and Explosives Anchorage, areas between the following buoys and positions:

Freighter Anchorage:		
Light Buoy "17/ANCH"	Lat. 27° 06′ 00″ N.	Long. 49° 45′ 19″ E.
"ANCH 4"	Lat. 27° 08′ 20″ N.	Long. 49° 45′ 11″ E.
"ANCH 3"	Lat. 27° 10′ 39″ N.	Long. 49° 47′ 00″ E.
"15/ANCH"	Lat. 27° 10′ 35″ N.	Long. 49° 50′ 00″ E.
Tanker Anchorage:		
Light Buoy "13/ANCH"	Lat. 27° 12′ 47″ N.	Long. 49° 52′ 15″ E.
"ANCH 2"	Lat. 27° 15′ 28″ N.	Long. 49° 51′ 33″ E.
"ANCH 1"	Lat. 27° 17′ 25″ N.	Long. 49° 55′ 15″ E.
"11/ANCH"	Lat. 27° 16′ 15″ N.	Long. 49° 57′ 36″ E.
Explosives Anchorage:		
Light Buoy "EXPL 1"	Lat. 27° 02′ 00″ N.	Long. 49° 50′ 22″ E.
"EXPL 2"	Lat. 26° 58′ 19″ N.	Long. 49° 51′ 02″ E.
"EXPL 3"	Lat. 26° 56′ 49″ N.	Long. 49° 52′ 47″ E.
"EXPL 4"	Lat. 26° 55′ 41″ N.	Long. 49° 51′ 35″ E.
"EXPL 5"	Lat. 26° 57′ 32″ N.	Long. 49° 49′ 20″ E.
"EXPL 6"	Lat. 26° 59′ 50″ N.	Long. 49° 49′ 56″ E.

RESTRICTIONS: The Port can be approached 24 hours a day.

MAX. SIZE: Berth Nos. 1 to 8: Max. acceptable draft 11.4 m.

Berth Nos. 9 to 16: Max. acceptable draft 13.6 m.

HEALTH: Quarantine Free Pratique as per International Rules and Regulations. Health Officer will board when the ship is moored.

VHF: Jubail Port Control continuous watch is maintained on Channel 16. Working on Channel 17. Radar Surveillance Channels 64 and 66.

RADAR: Surveillance and Control System Operational.

Position: Lat. 27° 11′ 39″ N., Long. 49° 57′ 26″ E.

Structure: Grey circular concrete tower with white radar scanners atop.

Height: 43 m. from ground to radar antenna.

Light: Fixed red warning light atop antenna.

Continuous radar surveillance is maintained by the Saudi Ports Authority over the whole extent of the modified Jubail Ports Approach Channel. All ships should inform Jubail Ports Control on VHF Channel 66 prior to entering or crossing this approach channel.

TUGS: Tugs ranging from 1,500 h.p. to 5,500 h.p. are stationed at Jubail, mooring launches assist in berthing manoeuvres. All tugs are fitted with fire fighting equipment.

BERTHING: The following categories of berth with a draft range from 12.0 m. to 14.0 m. are available — General Cargo, Multi-Purpose, Container Terminal, Ro-Ro for stern and quarter ramp vessels.

Adequate coverage and open storage space is available in the form of warehouses, transit sheds, container terminal with plug-in facilities for reefer and containers/trailers (480v, 60 CYC) Ro-Ro terminal, container freight station, vehicle parks, general cargo storage, empty container storage area.

Cargo Handling Facilities:

Forklifts ranging up to 35 tons.
Head trucks and tow motors.
Trailers.
Chassis and cargo dollies of up to 100 tons.
Weighbridges of 60 tons capacity.

Cranes:

Mobile Cranes up to 100 tons.
One crane 200 tons capacity.

Specialised Cargo Handling Facilities:

Container Gantry Cranes 30.5 tons under spreader.
Transtainers of 30.5 tons under spreader.
Container chassis.

STEVEDORES: First shift: 0700 – 1900 hrs., second shift: 1900 – 0700 hrs., 7 days a week. Sufficient gangs available to work 4 hatches on every vessel.

Minimum discharge rates breakbulk cargo: 1,000 tons per berth per day. Container terminal: 20 TEUs per workable crane per hour.

DENSITY: 1030.

MEDICAL: Full hospital facilities available, arranged by the Agents.

FRESH WATER: Available, arranged through Agent.

FUEL: Fuel oil, marine diesel and marine gas oil are available, arranged through Agent.

CONSULS: American Consul General at Dhahran.

SURVEYORS: International Marine Surveyors and Classification Society Surveyors are on call from Dammam.

GANGWAY/DECK WATCHMEN: The Coast Guard will station a guard at the gangway to prevent unauthorised boarding and landing.

CUSTOMS ALLOWANCES: Possession and/or consumption of alcoholic beverages including beer, table wines and liquors is strictly prohibited in Saudi Arabia. All alcoholic beverages are to be under lock and key during vessel's stay in port.

No restrictions on tobacco and cigarettes.

HATCHES: Opening and closing is carried out by stevedores.

AIRPORT: Dhahran Airport 90 km.

TIME: Local time is GMT plus 3 hours. All ETAs and other messages should be made in local time.

HOLIDAYS: No holidays apply for stevedores.

SHORE LEAVE: To be arranged through Agents.

REGULATIONS: See "Rules and Regulations for Seaports" issued by the Co-operation Council of the Arab States in the Gulf.

TELEPHONES: Available.

PORT PROCEDURES: Also see "General" before first port.

Notification to Jubail Port Management:

1. The Owners/Charterers of vessels bound for Jubail with cargo must give preliminary notice of the vessel's intended arrival to the Port Management by telex or cable either directly or through their Agents on arrival at the first or sole loading port, before loading commences. ETA and estimated quantity of cargo by type must be given with the preliminary notice.

2. On completion of loading cargo the following information must be sent to the Port Management by telex or by cable either directly or through the Agent.

(a) Vessel's name.
(b) Flag.
(c) Length overall.
(d) Expected draft on arrival.
(e) ETA.
(f) Cargo particulars, including nature, weight, tonnage and stowage by hatches.
(g) Any dangerous cargo being carried for other destinations.
(h) If dangerous cargo is being carried, the quantity and class in accordance with the IMDG Code whether to be discharged or in transit.
(i) Expected requirements for bunkers and water.
(j) Name of vessel's Agent.

3. A further notice of ETA is to be sent 5 days, 2 days and 1 day prior to arrival at the port.

Vessels Failing to give Required Notification:

Any vessel failing to comply with the requirements under paragraph 1, above, or arriving later than expected under the revised ETA, may lose its berthing registration.

Cargo Papers and Documents:

1. The following papers and documents must be submitted to the Port Management no later than 72 hours (for vessels with more than 200 Bills of Lading) or 48 hours (other vessels).

Prior to arrival:

(a) 5 copies of the Cargo Manifests for discharge, including any additions or amendments in English:
10 copies of the original Manifests translated into Arabic.
(b) 2 copies of the Cargo Stowage Plan.
(c) 2 copies of the Hatch List or Bay Plan.
(d) 2 copies of the List of Dangerous/Hazardous Cargo for discharge.
(e) 2 copies of the List of Dangerous/Hazardous Cargo in transit.
(f) 2 copies of the List of Heavy and/or Awkward Cargo which requires special equipment.
(g) 2 copies of the List of any Domestic Wine or Spirits or Cargo of such nature on the vessel and its location or, in the absence of which, a nil return.
(h) A Declaration of Type of Reefer Cargo.

2. All copies of the Manifests must be taken from the Master Manifest.

3. The List of Dangerous/Hazardous Cargo has to show:

(a) The technical name.
(b) The IMDG Class and UN number.
(c) The quantity of each consignment.
(d) The location on board respectively in each container or on each trailer or in each barge.

4. Non-compliance will lead to penalties and/or fines.

General Regulations for Cargo Stowage and Handling:

1. The stowage of cargo bound for ports in the Kingdom of Saudi Arabia must be arranged to ensure simultaneous and optimum rate of discharge from the maximum numbers of hatches compatible with the requirements of sea-worthiness.

2. Where practicable all general and bagged cargo of uniform type and size is to be stacked and secured on pallets to facilitate quick discharge.

3. Bundled steel, profile iron, rebars, etc. shall be fitted with slings or lifting points suitable for multiple handling.

4. Steel sheets shall be strapped and stacked in bundles of approx. 2 tonnes each. Wooden bearers and/or spacers shall be used in loading the bundles to facilitate discharge.

5. Masters and shipping Agents are to instruct their stevedoring contractors at loading port to execute complete separation by Bills of Lading and the Manifest, and will be held responsible for non-compliance with this regulation.

6. No damaged package or item is to be discharged from any vessel, barge, pontoon or handling craft until it has been repaired or repacked in such a manner as to permit it to be handled without further loss or damage to contents of the package or the item itself.

(a) Where the original outer carton, box or bag is replaced, the replacement carton, box or bag shall be made in the same manner to allow it to be identified with the Bill of Lading and the manifest.
(b) The Port Management has the right, after notifying Customs, Authorities and ship's Agent concerned, to get rid of or destroy damaged good which may cause harm to installations or public health at the expense of the Owner of the goods or the ship's Agent.

Out-turn Report:

1. After completion of the discharging operation of a vessel the Port will furnish an out-turn report which shall indicate the cargo discharged. The out-turn report must be signed by the ship or ship's Agent. Refusal to sign does not invalidate the report.

2. The ship's Agent has the option of conducting his own counter-tally. Where this is not done, the Port tally must be accepted. If an independent counter-tally is undertaken by the shipowner/Agent, the Port tally supersedes.

3. The cargo handed over into the custody of the Port shall remain at the entire risk and responsibility of the shipowner or its Agents or owner of the goods while on the port premises. The Port Management shall not be responsible in any way for any damage or loss that may occur to goods while within the port premises, whether such damage or loss was the result of accident or negligence on the part of the Owner of the goods or not, except in the case of wilful or gross negligence of port employees.

Storage of Goods:

1. The goods will be stored by the port in accordance with marks and numbers and in Bill of Lading lots in those areas stated in the out-turn report.

2. The Port may store suitable cargo in the open areas.

3. The Port may refuse the storage of goods if:

(a) There is insufficient space in the Port.

(b) The inherent properties of the goods render it dangerous or impossible.

4. Except for Customs purposes, no goods or materials stored in the Port are to be unpacked on Port premises without the special permission of the Port Management and Customs.

5. Consignees or their Agents shall remove their goods from the Port within 15 days of completion of discharge of the carrying ship or such period as may be announced by the Port Authority.

6. All cargo, irrespective of whether it has been cleared through Customs or not, which has not been removed from the Port within 15 days of completion of discharge of the carrying vessel may be moved to a special area. All such cargo may be sold by public auction 21 days after completion of discharge of the carrying vessel. These periods may be changed by an announcement of the Port Authority.

GENERAL:

Rubbish: It is strictly prohibited to throw any garbage, rubbish or food leftovers into the port and territorial waters of the Kingdom.

Every violation of the provision of this article shall cause the ship's Master to be penalised with a fine of up to 10,000 Saudi Riyals.

Vessels calling at Jubail Port will be supplied with plastic bags for garbage disposal.

The stevedore's Ship Superintendent must be contacted before the vessel has finished loading/discharging operations to take care of disposal of the bags.

The charge for garbage disposal service will be SR. 200 – per vessel per day, whether the vessel uses the service or not..

Documentation: Jubail Port Management will not permit any vessel to berth if documents have not been submitted as follows:

1. Manifest for vessels with more than 200 Bills of Lading at least 72 hours before arrival.

2. Manifest for all other vessels, Stowage Plans, Hatch List, etc., at least 48 hours before arrival.

Jubail Port Management will grant berthing permission subsequently not earlier than 72 hours after receipt of documents as per case 1 and not earlier than 48 hours as per case 2.

Vessels Discharging Cargo to Aramco Overseas Company (AOC) at the Commercial Port:

General Instructions and Communications Procedures.

1. When carrying vessel leaves loading port, details of tonnage aboard for discharge to AOC and tentative ETA at Jubail should be cabled/telexed to Saudi Arabia telex 601220 (ARAMCO SJ) commencing message "DHAMDDSB/AOC TRAFFIC DHAHRAN".

2. 10, 5, 3 days and 1 day prior to arrival, Master of carrying vessel must transmit updated ETA to "DHAMDDSB/AOC TRAFFIC DHAHRAN" via ARAMCO radio station (call sign HZY) which operates the following receiving schedules:

Frequency (kHz)	Approx. Range (miles)	Daily Operating Time (GMT)
500	500	Continuous
8480	2,000	0400 – 1800
12811	2,000	0600 – 1800
16960	2,000	1000 – 1100

3. Vessel must proceed initially to Jubail Pilot Boarding Anchorage, contacting the Jubail Harbour Master on VHF Channel 16 upon arrival. The anchorage is approached from Al-Jurayed (Lat. 27° 12′ N., Long. 49° 57′ E.) and is bounded by the following co-ordinates:

(1) 27° 03′ N., 49° 44.0′ E.

(2) 27° 04′ N., 49° 45.5′ E.

(3) 27° 03′ N., 49° 47.5′ E.

(4) 27° 02′ N., 49° 45.5′ E.

4. Pilotage is compulsory. Coast Guard Officials will normally board with the Pilot to commence initial clearance procedures. Customs and Health Authority will complete clearance once the vessel is alongside berth. For guidance the Port currently offers 14 m. water depth in the approach channel and 12 m. alongside the berths (by prior arrangement, it may be possible to utilise the container berths which offer a depth of 14 m. alongside).

5. The AOC Port Master at Jubail, or his authorised representative, will attend on board alongside berth, once clearance has been completed, in order to accept Notice of Readiness for the vessel. AOC staff will be available on board or at shipside throughout the discharge period to protect the safe discharge of AOC cargo and the AOC Port Master, or his representative, will again attend on board prior to sailing in order to countersign the Statement of Facts for the discharge.

6. AOC discharges at Jubail will generally be on a "free-out" basis but will be accomplished by the Ports Authority stevedores. Charges for stevedoring on AOC free-out cargo will be settled directly between AOC and Saudi Ports Authority. Agents must nevertheless notify the Ports Authority of expected vessel arrivals, booking berth space and stevedoring in accordance with the normal customs of the Port. In submitting Manifests for AOC cargo to be the Ports Authority, however, Agents should attach to each Manifest written advice that stevedoring charges will be settled by AOC.

7. Certain material to be discharged by AOC at Jubail will have been ordered from Saudi vendors and will be consigned "C&F Jubail Commercial Port Free-Out Discharge" with "Ultimate Consignee ARAMCO" included in the body of the Bill of Lading. Such cargo will be accepted by AOC at Jubail in exactly the same way as cargo consigned directly to AOC and Bills of Lading duly endorsed by the original consignee will be presented.

8. In addition to the normal tallying of cargo by the Ports Authority stevedores, AOC will be carrying out a counter-tallying operation in their own interest. This will be aimed at eliminating the possibility of shortlanding, and recording the factual circumstances of cargo damage and at prompt and accurate reconciliation of discharged and manifested quantities. The co-operation of all Masters and Agents is sought in this activity, particularly in the countersigning of any relevant damage or out-turn reports.

9. All requirements stated in this Notice are those of AOC and are *in addition* to any other procedures required by the Saudi Ports Authority. Any Saudi Ports Authority requirements mentioned herein are for guidance only and should be verified with Saudi Ports Authority.

10. Direct enquiries on operational matters to the Terminal Operations Co-ordination Desk or, failing a reply, to the Assistant Superintendent. Address enquiries on policy matters to the Assistant Superintendent or, in his absence, to the Superintendent. Local liaison at Jubail Commercial Port will be handled by the AOC Port Master or his deputy who will also handle all *urgent* enquiries at night, weekends and holiday periods. Telephone connection to the AOC Port Office is expected in the near future.

11. Until further notice, AOC will be handling only duty exempt cargo through Jubail. Cargo which is dutiable, or subject to import permit restrictions, will normally be routed to Dammam. Exceptionally, if isolated dutiable consignments are inadvertently laden to Jubail instead of Dammam, they will generally be handled at Jubail. Similarly small shipments of duty exempt cargo consigned in error to Dammam will generally be handled at that port. It should no longer be necessary under normal circumstances, therefore, for any cargo to be diverted for discharge to a port other than the one to which it was originally laden.

AUTHORITY: Saudi Arabia Ports Authority, Port of Jubail, P.O.Box 276, Jubail, Kingdom of Saudi Arabia. *Tel:* (03) 361-0600. *Telex:* 831005 Jubpt Sj. *FAX:* (03) 361-3337. *Cables:* Ports Jubail. *Contact:* Mohammed S. Al-Muhanna, Port Director General, Jubail Port Management.

(B) KING FAHD INDUSTRIAL PORT IN JUBAIL.

LOCATION: Lat. 27° 04′ N., Long. 49° 40′ E.

Also see "Commercial Port".

PORT LIMITS: See "Commercial Port".

DOCUMENTS: See "General" before first port, and "Radio" — "Vessel notification telex code from King Fahd Industrial Port to all Agents to be used henceforth".

PILOTAGE: Pilotage is compulsory for all vessels of more than 150 n.r.t. Pilots will board in the vicinity of No. 13 Buoy in position Lat. 27° 07′ N., Long. 49° 47′ E.

The Port Control Station (located at the Commercial Port) is continuously manned and is to be contacted on Channel 16. Vessels requiring a Pilot shall use the International Signals. Pilots will board from a fast launch and pilot boarding gear must comply with the International Convention for the Safety of Life at Sea (SOLAS) 1974. Vessels with a high freeboard must provide an accommodation ladder combined with a pilot ladder.

ANCHORAGES: See "Commercial Port".

RESTRICTIONS: The port is approachable and operational 24 hours daily throughout the year. Loaded LPG vessels are restricted to daylight movement only, within the entrance channel and harbour areas.

MAX. SIZE: See "Berthing".

HEALTH: See "General Rules for Saudi Arabia" before details of individual ports.

RADIO: Vessel Notification Telex code from King Fahd Industrial Port, Jubail to all Agents, to be used henceforth.

1. Call Sign.
2. Vessel's Name.
3. Owner/Line.
4. Nationality.
5. Agent.
6. LOA.
7. Max. Draft.
8. No. of Hatches.
9. G.R.T.
10. N.R.T.
11. D.W.T.
12. Previous Names.
13. Type of Vessel.
14. Type of Cargo to load/discharge.
15. Total cargo weight tons.
16. Total cargo freight tons.
17. No. of containers/units.
18. No. of livestock.
19. ETA.
20. Draft on arrival.
21. Tonnage to hatch.
22. Construction date.
23. Quantity of LCL containers.
24. Last 3 ports of call.
25. Beam of vessel.
26. Lloyd's Register Number.
27. Classification Society.
28. Crew number/Nationality.
29. Next port of call.
30. Hazardous cargo.
31. Is vessel gas free?
32. Inert gas system working.
33. Arms/ Ammunition for self defence.
34. Economic speed of vessel.
35. Position 48 hours before arrival.
36. Radar details.

Items which do not apply should be answered N/A. All other items must be answered.

The telex, for vessels loading, should be received at least 3 days in advance of expected arrival, or sooner. However for loading vessels sailing from ports or geographical positions near to King Fahd Industrial Port in Jubail, the telex should be received as soon as possible.

No Inward Clearance will be issued until the notification telex is received and processed.

Iron Ore Shipments: The following additional information must be telexed or cabled to Port Management at least 3 days prior to an iron ore vessel's arrival:

A. Total number of hatch openings.
B. Hatch numbers which will be used in discharge and tonnage each hatch.
C. Length in metres from forward end of forward hatch opening to aft end of aftermost hatch opening to be discharged.
D. Length in metres of each hatch opening.
E. Distance in metres between each hatch.
F. Number of cargo holds.

Petromin Shell Refinery:

We quote below for Principal's information text of telex received from Petromin Shell Refinery Jubail in May 1988.

Quote

Please adjust PSRC arrival telex as quoted below. We like to stress the point that this information is required to ensure smooth export of products and expedite vessels. It will be appreciated if this information is passed on to PSRC as soon as possible.

1. Ballast on board.
2. Segregated ballast, if any.
3. Will vessel deballast ashore?
4. Quantity and type of slops, if any.
5. Will slops be discharged ashore?
6. Deballasting rate.
7. Can vessel deballast while loading.
8. Size and number of ship's manifold.
9. Indicate on which manifold what product will be loaded (number from stem to stern).
10. Maximum loading rate per connection.
11. Distance – manifold above deck.
12. Distance between manifold connections.
13. Height – manifold to rail.
14. Previous cargo.
15. Grade and approximate quantity to be loaded.
16. Can vessel load 2 grades concurrently, if required?
17. Preferred sequence of loading if grades cannot be loaded concurrently.
18. Is vessel fitted with I.G. installation?
19. Cargo tanks gas free or inerted on arrival.
20. Has vessel been instructed to arrive in gas free condition for visual tank inspection by either Charterers or independent surveyors?
21. Can vessel load and inert at same time?
22. Total time required for inerting.
23. Last port of call.
24. Sailing draft Jubail.
25. Any information relevant to this voyage/loading which vessel may want to convey.
26. The Port Authorities prohibit the discharge of any cargo tank ballast to sea. Clean cargo tank ballast to be pumped ashore on each occasion.

Unquote

VHF: The Jubail Port Control maintains a continuous watch on Channel 16. Within the Industrial Port area a continuous watch is maintained on Channel 20.

A new control tower in the Industrial Port became operational early in 1986.

RADAR: A Radar Surveillance and Control System is in operation.

TUGS: All tugs are provided with fire fighting capabilities.

Tugs normally join the vessel in the vicinity of Buoy No. 17 and ship's lines are used.

BERTHING: The port is laid out in 5 distinct sections, namely:

1. *Service Facility:* With 6.0 m. depth quay for port craft and others; a module-input facility, depth 8.0 m., capacity 2,000 tonnes; a 1,000 tonnes slipway and marine repair facility.
2. *Dry Bulk Terminal:* Depth alongside 14.0 m. Max. draft 12.6 m. (13.3 m. HW.) with berths totalling 2,300 m., quay wall and a Ro-Ro stern ramp.
3. *Petro-Chemical Quay:* Depth alongside 16.0 m. Max. drafts 14.4 m. (15.2 m. HW.). Each berth 330 m. length and can take vessels up to 80,000 d.w.t. Shore gangways on all berths.
4. *Breakwater Berths:* Depth alongside 16.0 m. Max. draft 14.4 m. (15.2 m. HW). Each berth 330 m. length and can take vessels from 10,000 d.w.t to 80,000 d.w.t. Shore gangways on all berths.
5. *Offshore Tanker Terminal (OSTT):* Depths alongside 26.0 m. – 30.0 m. Max. draft 25.0 m. Each berth 350 m. length and can take vessels from 30,000 d.w.t. to 300,000 d.w.t. Shore gangway provided.

Saudi Lube Terminal: Breakwater Berth No. 52 (BWB 52). The following has been received from Petromin Lube Oil Blending and Grease Manufacturing Plant (Saudi Lube).

The purpose of this information is to acquaint the Owners, Charterers and Masters of vessels with Saudi Lube's (Petromin Lube Oil Blending and Grease Manufacturing Plant) terminal facilities at King Fahd Industrial Port in Al-Jubail, Saudi Arabia.

The Industrial Port facilities are owned by the Royal Commission for Al-Jubail, a Government Authority of the Kingdom of Saudi Arabia.

The causeway is 9.39 km. long and has a width of 300 m. The open sea tanker terminal extends a further 3.5 km. beyond the end of the causeway, a total distance of almost 13 km. from the original coastline.

Saudi Lube is owned by Petromin (General Petroleum and Mineral Organisation for the Kingdom of Saudi Arabia).

1. *Breakwater Berth (BWB) No. 52 Particulars:*
Raw material unloading berth, handling different grades of base oil. One unloading arm enables handling of one base oil at a time.
Berth Limitations: Max. LOA – 284 m.
2. *Oil Spillage/Slops:*
Oil spillage incurred during the unloading operation cannot be discharged in the sea, instead the vessel must provide its own means of collecting all spilled oil. BWB 52 is equipped with a slops tank to collect berth spillage only.
3. *Time of Arrival Advice:*
Initial ETA – 5, 3, 2, 1 days.
Revised ETA – As any changes.
4. *Communications:*
Contact "Jubail Port Control" on VHF Channel 16 when passing Jubail Fairway Buoy which is located in position:
Lat. 27° 22′ N., Long. 50° 30′ E.
or as soon after as radio reception conditions permit. Once alongside, a portable VHF radio will be placed onboard by Saudi Lube to enable contact between the vessel and the Jetty Operator on the control room, (see "Appendix D").
Saudi Lube: Telex: 831168 Sublub SJ.
Phone: 03-3416072 or 341573.
5. *Pilotage:*
In the port area is compulsory, pilots boarding in position:
Lat. 27° 07′ N., Long. 49° 47′ E.
Vessels proceeding from the Fairway Buoy to the tanker anchorage may do so without a pilot, but should keep in contact with the Port Authorities on Channel 16 for traffic/anchoring information.
6. *Berthing Criteria:*
Vessels will normally be berthed on arrival at BWB 52. If the berth is not available, anchoring instructions will be given by the Port Authority.
7. *Tugs:*
Tugs are available to assist in the berthing and unberthing operation.
8. *Mooring Arrangement:*
Vessels normally berth portside to on BWB 52 Jetty. Mooring requirements will be advised by the Pilot and follow the recommendation made in the O.C.I.M.F. publication "Guidelines and Recommendations for the Safe Mooring of Large Ships at Piers and Sea Islands". Vessels equipped with both wire and synthetic mooring lines should avoid "mixing" to the same shore mooring point.
9. *Unloading Arm:*
On BWB 52, the unloading arm connection to the vessel manifold is a hydraulic coupler for 6 in. or 8 in. ANSI 150 FF, DIN 16 or BS 1560 flange. Suitable reducers conforming to this type of flange should be fitted prior to berthing.
Assistance from the vessel will be required to make the flange connections. The arm is equipped with proximity switches that will give alarm once the "maximum reach envelope" is reached. Vessels with manifold connections outside of this "maximum reach envelope" cannot be connected to the unloading arm.
10. *Unloading Rates:*
The following unloading rates are available at BWB 52 (a booster pump on the berth will be used in series with the ship's pumps).

Base Oil Grade	Unloading Rate (cu.m.p.h.)
100 SN	430
150 SN	440
300 SN	430
500 SN	451
700 SN	445
160 BS	150

11. *Ship/Shore Safety Check List:*
A Safety Check List,based on the list recommended by the International Maritime Organisation, will be completed prior to the commencement of cargo operations.
12. *Overboard Discharge Valves:*
Prior to the commencement of the unloading operations, all sea valves connected to the vessel's cargo handling line system should be closed and secured.
13. *Emergency Signal:*
In the case of fire or other emergency, in addition to advising terminal staff and the Jetty Operator on the control room, vessel should sound a series of long blasts on the ship's whistle, each blast being not less than 10 seconds in duration. For cargo unloading emergency procedures, see "Appendix D".
14. *Emergency Towing Wires:*
Fire wires must be positioned on the offshore bow and quarter of the ship. The eyes of these wires should be hung off above the water line and their height adjusted as necessary during cargo operations. The inboard end should be properly secured to a bollard with 5 or 6 fathoms of slack between bollard and fairlead. Means must be provided to prevent the slack accidentally running into the water.
15. *Ship/Shore Access:*
A shore gangway will be provided and tended by shore staff.
16. *Shore Leave:*
Not permitted, except for medical or repatriation reasons.

Appendix "D":
To: The Master SS/MV . . . .
In Port
Dear Sir,

Routine and Emergency "Stop Unloading" Procedure.

Throughout the unloading operation, you will be supplied with a portable VHF set which will enable continuous contact to be maintained between the Cargo Officer on board and the Jetty Operator on the Control Room.

Any change in the unloading rate, or anytime there is a need to stop unloading, it should be communicated via radio to BWB 52 Control Room. The Cargo Officer on board should notify the Jetty Operator 60, 30 and 5 minutes prior to the completion of the unloading of each grade of base oil.

In case of emergency, wherein the unloading arm needs to be disconnected from the vessel's manifold, inform immediately the Jetty Operator to stop unloading and make an emergency disconnection. The unloading control panel is equipped with an "Emergency Disconnection" push button that will disconnect the unloading arm from the vessel manifold in case of emergency while unloading.

Under no circumstances should the vessel's manifold or tank valves be closed while unloading, such action results in possible damage to our pump or line systems.

During the unloading operation, a Jetty Operator in radio or telephone contact with the tank farm control room is continuously on duty to assist you.

Please acknowledge receipt of this letter by countersigning the attached copy.

. . . .
Master

For Petromin Lube Oil Blending and
Grease Manufacturing Plant (Saudi Lube)

SS/MV
Date ____________
Time ____________

Date . . . .

CARGO HANDLING EQUIPMENT: The industrial Port is provided with a limited number of mobile cranes and cargo handling equipment which are adequate for the project cargo handled by the port.

BRIDGES: None, air draft unrestricted.

STEVEDORES: 24 hour continuous operations in two shifts from 0730 hrs. – 1930 hrs. and 1930 hrs – 0730 hrs.

MEDICAL: Full hospital facilities are available. Arranged through Agents. The Port also has a fully equipped dispensary with doctor and nurses in 24 hour attendance.

TANKERS: See "Berthing".

Cargo Handling Capacities:

User	*Berth No.*	*Product*	*No. of Arms*	*Maximum Rate (t.p.h.)*
Kemya	41	Butane/Hexene (IMP)	1	275/375
Ar Razi	"	Methanol	3	2,675
Ibn Sina	"	Methanol	3	3,000
Sadaf	42	Benzene (IMP)	1	390
"	"	Styrene	1	835
"	"	Ethanol	1	1,080
"	"	Ethylene Dichloride	1	1,090
"	"	Caustic Soda	1	1,370
"	"	Phosphoric Acid (IMP)	(1 hose)	370
"	43	Ethanol	1	1,080
"	"	Styrene	1	835
"	"	Ethylene Dichloride	1	1,090
"	"	Caustic Soda	1	1,370
Sharq	"	Mono-Ethylene Glycol	1	1,000
"	"	Di-Ethylene Glycol	1	500
"	"	Tri-Ethylene Glycol	1	150
Petrokemya	44	Ethylene	1	340
"	"	Vinyl Chloride Monomer	1	650
Petromin/ Shell	51	Heavy Fuel Oil	2	6,000
"	"	D.P. Kerosene	1	3,075
"	"	L.S. Gas Oil	2*	6,160
"	"	Auto Diesel Oil	2*	6,160
"	"	C.F. Naphtha	2*	5,350
Petromin/ Shell	61	Heavy Fuel Oil	2	7,400
"	"	D.P. Kerosene	1	3,390
"	"	L.S. Gas Oil	2*	6,830
"	"	Auto Diesel Oil	2*	6,830
"	"	C.F. Naphtha	2*	5,900
Samad	28	Urea (bag)	(2 loaders)	110
"	"	Urea (bulk)	(2 loaders)	700
Aramco	21	Sulphur	(1 loader)	2,200
Hadeed	24	Iron Ore	(2 unloaders)	1,600

Note: There are 5 arms on each Berth 51 and Berth 61. The arms marked * above can be used for either L.S. Gas Oil, Auto Diesel Oil, or Naphtha.

DENSITY: 1025 – 1034.

FRESH WATER: Pipeline to 6.0 m. and 14.0 m. Quays. Available either by barge or road tanker at other berths. Pipeline to remaining berths are under construction.

FUEL: Fuel oil, marine diesel and marine gas oil are available through Agents. Pipeline supply to berths is planned for the future.

FIRE PRECAUTIONS: In view of the large volumes of cargo of a hazardous nature passing through the Port, great importance has been attached to all matters pertaining to fire and safety. Precautions to accepted international standards are practised and the Fire and Safety Department is on a 24 hour call out.

CONSULS: The American Consul-General resides at Dhahran. Other Consulates and Embassies are located in Riyadh and Jeddah.

DRY DOCKS: A slipway with 1,000 ton capacity is situated at the Services Quay.

REPAIRS: Minor repairs can be arranged through Agents.

SURVEYORS: International Marine Surveyors and Classification Society Surveyors are available. Arrangements through agents.

GANGWAY/DECK WATCHMEN: The Coast Guard station a guard at the gangway to prevent unauthorised boarding and landing.

HATCHES: Opening and closing of hatches is normally undertaken by the port users at their respective berths, stevedores can be provided if specially requested.

CUSTOMS ALLOWANCES: Possession and/or consumption of alcoholic beverages, including beer, table wines and spirits is strictly prohibited in Saudi Arabia. All alcoholic beverages are to be kept under lock and key during vessel's stay in port.

CARGO GEAR: See "Cargo Handling Equipment".

AIRPORT: International airport at Dhahran, distance 120 Km. A new airport is under construction at Jubail.

TIME: Local time is GMT plus 3 hours. ETA's and messages are to be expressed in LMT.

HOLIDAYS: The Industrial Port is fully operational for 365 days of the year.

POLICE/AMBULANCE/FIRE: Masters are acquainted with emergency telephone numbers upon arrival.

SERVICES: Limited services are available through Ship's Agents.

BANKS: There are a number of Middle East and foreign banks situated in Jubail.

STORES: Ship's stores available. To be arranged by the Agent. Supply of food items is limited and requires the approval of Coast Guard and Customs.

SHORE LEAVE: To be arranged by Agent.

REGULATIONS: See "General" before first port.

GENERAL: All vessels must ensure that they have on board upon arrival a copy of "The Rules and Regulations for Seaports", issued in March 1985 by The Co-operation Council for the Arab States of the Gulf.

AUTHORITY: King Fahd Industrial Port in Jubail, P.O.Box 547, Al-Jubail, Saudi Arabia. *Tel:* (03) 341-6515. *Telex:* 832031 – Jupipt Sj. *Contact:* Muthanna Al Kurtass, Acting Director General.

AGENT: Gulf Agency Company Saudi Arabia, P.O. Box 12, Jubail – 31951, Saudi Arabia. Cables: "Confidence", Jubail. Ship-Shore traffic via Dammam Radio/HZG. Telex: 831030 ("GAC SJ"). Tel: 3611064, 3611052, 3613072. After office hours: 3613458. FAX: 3612816.

✓

RABIGH (Sherm Rabegh): 22.45 N. 39.00 E.

The Petromin refinery port of Rabigh, located 160 km. North of Jeddah, is presently under construction. Facilities planned include:

A liquid cargo basin dredged to 26 m. and fitted with pontoons for the berthing of VLCCs.

A bunkering basin dredged to 9 m.

A facility for handling commercial cargoes dredged to a depth of 11 m.

A complete range of support services and facilities will be provided.

✓

RAS AL-KHAFJI: 28.25 N. 48.32 E. **(See Plan)**

The onshore base lies in position approximately Lat. 28° 25′ N., Long. 48° 31′ E., and within a distance of 7 miles (13 km.) offshore. The Company has two four-buoy system berths and two single-buoy-mooring system berths for loading tankers, and also an anchorage area for dry-cargo ships. Outside of this distance there is an anchorage area for tankers. These berths and anchorage areas are situated in the territorial waters of the Kingdom of Saudi Arabia.

APPROACHES: The approaches to Ras Al-Khafji are marked on the appropriate U.S.N.O. and British Admiralty Charts, and deep enough for the majority of vessels visiting the Port to proceed with normal caution using the buoys (Buoys No. 1 and No. 2) as centre line and both side markers (Buoys No. 3 – No. 8). A single patch with a depth of 56 ft. (17.07 m.) marked by Buoy No. 4 exists close to the passage. A patch of minimum depth of water 70 ft. (21.34 m.) exists in the passage 0.6 miles S.S.E. of Buoy No. 7.

All the geographical positions shown are intended for reference purpose only. Users are reminded that certain differences are known to exist between the positions herein and those on the U.S.N.O. and British Admiralty Charts of the area.

The U.S.N.O. Chart Nos. 62422 and 62430 are recommended for navigational use in this area.

For oil tankers arriving at Ras Al-Khafji without the necessary charts, the full information will be given by telegram upon request to "ARABIAOIL SAUDI ARABIA" (via "9KK Kuwait Radio Station") a few days before arrival. The same information will be given by telex upon request to the Company's Field Office. Alternatively, if the vessel has VHF, the buoy positions will be given to them upon request to "Ras Al-Khafji" as the vessel approaches, but prior notice of requiring this service should be given in the vessel's arrival message. The navigation message used reads as follows:

"FROM JEZIREH YE FARSI LIGHT 5 MILES OFF ABEAM STEER COURSE 300 DEGREES TRUE FOR 64 MILES TO REACH NUMBER ONE LIGHT BUOY LATITUDE 28° 36.0′ NORTH LONGITUDE 49° 10.0′ EAST RWVS ISOPHASE WHITE TEN SECONDS 10 MILES RAREFL – THENCE STEER 270 DEGREES TRUE FOR 9 MILES TO NUMBER TWO LIGHT BUOY LATITUDE 28° 36.0′ NORTH LONGITUDE 49° 00.0′ EAST RWVS LONG FLASHING WHITE TEN

SECONDS 10 MILES RAREFL – THENCE STEER 254 DEGREES TRUE FOR 9.5 MILES TO POINT 0.8 MILE NORTHWARD OF NUMBER FOUR LIGHT BUOY LATITUDE 28° 32.6′ NORTH LONGITUDE 48° 49.0′ EAST RED GPFL FIVE RED TEN SECONDS 6 MILES RAREFL – THENCE STEER 270 DEGREES TRUE ABOUT 2 MILES TOWARD NUMBER SEVEN LIGHT BUOY LATITUDE 28° 33.4′ NORTH LONGITUDE 48° 45.7′ EAST GREEN FLASHING GREEN THREE SECONDS 4 MILES RAREFL – THENCE STEER 243 DEGREES TRUE TOWARD FOR 8 MILES NUMBER NINE LIGHT BUOY LATITUDE 28° 29.5′ NORTH LONGITUDE 48° 37.8′ EAST YELLOW GPFL FOUR YELLOW TEN SECONDS 7 MILES RAREFL MARKS TANKER ANCHORAGE WEST CORNER STOP NUMBER ONE AND TWO LIGHT BUOYS MARK CENTRE LINE OF APPROACH WHICH IS WIDE AND DEEP STOP TWO SHOAL PATCHES NORTHWARD OF APPROACH ARE MARKED BY NUMBER THREE LIGHT BUOY LATITUDE 28° 34.9′ NORTH LONGITUDE 48° 51.5′ EAST YELLOW ABOVE BLACK QUICK FLASHING SIX PLUS LONG FLASHING WHITE FIFTEEN SECONDS 10 MILES RAREFL AND NUMBER FIVE LIGHT BUOY LATITUDE 28° 33.8′ NORTH LONGITUDE 48° 48.0′ EAST YELLOW ABOVE BLACK VERY QUICK FLASHING SIX PLUS LONG FLASHING WHITE TEN SECONDS 10 MILES RAREFL STOP TANKER ANCHORAGE AND PILOT GROUND IS WITHIN 1 MILE RADIUS OF LATITUDE 28° 29.5′ NORTH LONGITUDE 48° 39.0 STOP"

NAVIGATIONAL AIDS: All geographical positions given although approximately correct, are intended for reference purposes only as certain differences are known to exist between these positions and those shown on the U.S.H.O. and British Admiralty Charts of the area.

Conspicuous Marks: The flare stacks in the offshore field and onshore are normally visible at a far distance, but may occasionally be extinguished, and a well structure located 4.5 miles Northward from Light Buoy No. 2 also conspicuous.

No. 1 Flare	Lat. 28° 28.3′ N., Long. 48° 57.0′ E.
No. 2 Flare	Lat. 28° 27.0′ N., Long. 48° 54.8′ E.
No. 3 Flare	Lat. 28° 29.8′ N., Long. 48° 56.0′ E.
No. 4 Flare	Lat. 28° 30.3′ N., Long. 48° 58.0′ E.
No. 5 Flare	Lat. 28° 28.5′ N., Long. 48° 55.9′ E.
Onshore Flare 1	Lat. 28° 24.5′ N., Long. 48° 32.4′ E.
Onshore Flare 2	Lat. 28° 23.7′ N., Long. 48° 32.1′ E.
Well Structure	Lat. 28° 40.4′ N., Long. 48° 57.8′ E.

DOCUMENTS: *(A) Clearance.* Master should submit following documents to Saudi Arabian Government through Agent (2 copies each):

Maritime Declaration of Health.
Health Condition of Crew.
Details of Air-conditioning.
Crew List.
Vaccination List.
Passenger List (if any).

Note: Forms 1–3 are supplied by the Agent.

(B) Cargo: All the documents listed below except the Ship's Statement of Cargo (Ullage Report) are prepared onshore, and this takes about 1.5 hours after loading completion. The tanker is requested to designate the type of documentation, either early departure or ordinary documentation. The Company usually recommends Early Departure Documentation, either Case I or II. But ordinary documentation can also be requested. In this case, however, it takes a further 30 – 60 minutes before the documents arrive at the tanker. Whenever necessary, the Mooring Master will sign the documents on behalf of the Company.

The following cargo documents are usually to be prepared onshore except (4):

(1) Notice of Readiness
(2) Bill of Lading
(3) Tanker Time Sheet
(4) Ship's Statement of Cargo (Ullage Report)*
(5) Certificate of Discharge**
(6) Master's Receipt of Documents

Note: *Ship's Statement of Cargo includes the items for "Clean Ballast Declaration" and "Dry Inspection" both together in one form, and is to be completed always on board the tanker regardless of Early Departure Documentation.

**Certificate of Discharge should be handed to the tanker's Agent at the port of discharge for certification by the Customs Authorities there. The Agent should then return the Certificates to the Company as soon as possible. Non compliance with this requirement could involve the tanker in serious difficulty as all the member states of the Arab League prohibit the export of any materials through their ports to Israel, and the purpose of the Certificates is to prove that the cargo was not discharged in Israel.

Masters are therefore advised to ensure that their Agents at each discharging port understand this and return the Certificates at the earliest possible moment.

The following is a copy of a letter to a ship's Agent from the Chief of Ras Al Khafji Port. Dated September 1980.

We would like to advise you that effective 1st of Dhul-qadah, 1400 (September 10, 1980) in case you need a Port Clearance for any vessel under your agency please ensure that ship's Crew List consists of name, nationality, date of birth, place of birth, Passport/Seaman Book Number and rank. In the absence of this information we are unable to provide you with departure port clearance and you will be held responsible for ship departure delays.

EARLY DEPARTURE DOCUMENTATION: This documentation system aims to assist ships to depart early from this port after they complete loading by saving time awaiting documents. For this reason, relevant tanker documents will be signed previously by ship's Master or signed by their Agents at this port, depending on Master's choice on the request sheet. Completed tanker documents, therefore, will not be despatched to ships after completion of loading.

It must be noted that this system is not compulsory at this port, but it is at Master's option on condition that ships can communicate on Harbour Service VHF Radio or Marine Communication Band 2150 kHz to receive shore figures and time after departure.

READINESS: The Master of each arriving tanker should present a Notice of Readiness to the Company's Mooring Master who will sign it on behalf of the Company. The Notice of Readiness should be tendered at the time of the tanker's arrival at the anchorage area, which is understood to be either the time of dropping the anchor in the anchorage, or if the tanker does not anchor, the time when the Mooring Master boards the vessel.

PILOTAGE: Pilotage is compulsory for arriving tanker's berthing and unberthing at Ras Al-Khafji and a Company's Mooring Master will board the tanker at the anchorage area to take her to her assigned berth. The Company's Mooring Master shall advise the tanker's Master on the manoeuvre and operations relating to berthing, bunkering, connecting and disconnecting the loading hoses. After berthing, the Mooring Master will remain onboard the tanker until she is unberthed and the cargo documents are completed.

Notwithstanding the presence of the Company's Mooring Master onboard, the Master of the tanker remains responsible for his tanker at all times and in all respects.

In the event of any emergency, however, the necessary steps should be taken with the assistance of the Mooring Master.

The Master of each tanker shall give the Mooring Master all information necessary for the safe handling and the safe operation of the tanker while in the berth.

BALLAST: *Prevention of Sea Pollution by Oil:* THE DISCHARGE OF DIRTY BALLAST and/or OIL RESIDUE, BILGE and WASTE OIL by any vessel in the GULF area is STRICTLY PROHIBITED. The Company strongly requests all vessels to observe this rule of sea pollution prevention by oil in conformity with the Saudi Arabian Government's policy objectives as well as their Ports, Harbours and Lighthouses Regulations along with the relevant rules, which are substantially as follows:

In the event of oil pollution of the sea by any vessel, Masters are liable to possible imprisonment and fine, in addition to the refundment of all clean-up costs and damages sustained by any party. Should Masters fail to comply, they may be detained by the Authorities. Shipping Agents will be required to warrant Master's compliance.

Since the terminal has no facilities to receive dirty ballast, oil tankers arriving with dirty ballast will be requested to collect dirty ballast into one tank of the tanker, otherwise load crude oil on top of oil residue.

Recommended Ballast Condition on Arrival: All tankers arriving at this port are required to have sufficient ballast to give a safe draft for manoeuvring in the port. Tankers arriving with insufficient ballast may be required to increase it if the Mooring Master considers it necessary to do so. In good weather conditions, the Mooring Master will permit arriving tankers to start deballasting as they approach the berth in order to save time.

BOARDING: For the benefit of people boarding at the anchorage area, vessels should provide a safe means of access on the lee side.

All vessels are required to provide a safe means of access for personnel boarding and leaving the vessel, and should have their accommodation ladder rigged on the port side. In the case of tankers assigned to Berth No. 3 or No. 4 an accommodation ladder which leads down forwards is liable to be blocked by the floating hoses, and in such a case the ladder should be rigged on the starboard side. A ladder aft is always suitable on the port side.

ANCHORAGE: *Ocean Tankers Anchorage Area:* The oil tankers anchorage area is designated within 1 mile radius from:

Lat. 28° 29.5′ N., Long. 48° 39.0′ E.

Two Light Buoys (No. 9 and No. 10) mark the Western limit and Southern limit of this area respectively. The depth of water varies from 70 ft. (21.34 m.) to 77 ft. (23.47 m.) with a good holding ground of clayey mud. Oil tankers awaiting berthing should anchor as close as possible to these buoys.

Dry-Cargo Ships Anchorage Area: The anchorage area for dry-cargo ships is located about 5.5 miles to the S.W. of the oil tanker anchorage area, and is centred in position: Lat. 28° 26.8′ N., Long. 48° 33.4′ E. at which position a yellow Light Buoy (No. 14) showing a flashing yellow light every 3 seconds has been laid. Dry cargo ships should anchor within 0.5 mile radius of this buoy, where the depths are between 36 ft. (10.97 m.) to 50 ft. (15.24 m.) in a good holding ground of clayey mud.

Prohibited Area from Navigation, Anchoring and Fishing: An area bounded by straight lines joining the following points is prohibited from anchoring and fishing.

A Restricted Area in which trawling and anchoring are prohibited with the exception of the Zuluf Holding Anchorage will be inserted between the following positions:

"A"	Lat. 27° 48.3′ N., Long. 48° 52.8′ E.
"B"	Lat. 28° 14.3′ N., Long. 49° 38.0′ E.
"C"	Lat. 28° 26.0′ N., Long. 49° 44.5′ E.
"D"	Lat. 28° 27.9′ N., Long. 49° 42.0′ E.
"E"	Lat. 28° 33.6′ N., Long. 49° 40.0′ E.
"F"	Lat. 28° 36.3′ N., Long. 49° 36.8′ E.
"G"	Lat. 28° 30.0′ N., Long. 49° 24.1′ E.
"H"	Lat. 28° 28.2′ N., Long. 49° 08.8′ E.
"I"	Lat. 28° 29.0′ N., Long. 49° 04.3′ E.

From thence, following the Northern boundary of Khafji Oilfield and Northwestern boundary of Safaniyah Oilfield to the coast at Lat. 28° 00.9′ N., Long. 48° 41.8′ E. and from thence along the coastline in Position "A".

Additionally, the area bounded by the following 6 points (f) – (j) and

(m) is prohibited from navigation of any oil tankers and vessels or craft except those operating on direct instructions from the Company.

(a) Lat. 28° 24′ 48″ N., Long. 48° 31′ 57″ E.
(b) Lat. 28° 25′ 33″ N., Long. 48° 32′ 55″ E.
(c) Lat. 28° 26′ 45″ N., Long. 48° 35′ 16″ E.
(d) Lat. 28° 25′ 50″ N., Long. 48° 35′ 40″ E.
(e) Lat. 28° 29′ 04″ N., Long. 48° 52′ 34″ E.
(f) Lat. 28° 32′ 00″ N., Long. 48° 54′ 00″ E.
(g) Lat. 28° 35′ 00″ N., Long. 49° 00′ 00″ E.
(h) Lat. 28° 32′ 00″ N., Long. 49° 04′ 00″ E.
(i) Lat. 28° 28′ 00″ N., Long. 49° 04′ 00″ E.
(j) Lat. 28° 24′ 00″ N., Long. 48° 52′ 00″ E.
(k) Lat. 28° 26′ 53″ N., Long. 48° 52′ 00″ E.
(l) Lat. 28° 23′ 13″ N., Long. 48° 31′ 48″ E.
(m) Lat. 28° 28′ 06″ N., Long. 48° 52′ 00″ E.

RESTRICTIONS: *Port Closure:* When the weather and sea conditions develop worse than the below mentioned permissible criteria at the port, mooring operations normally become extremely difficult and unsafe. Therefore, in such circumstances, the Company advises that the port is closed to approaching tankers by VHF and requests the tankers to wait at the Tanker Anchorage Area until the port is reopened.

The Company, however, reserves the right of selective berthing of some vessels with better manoeuvrability even during such period.

Permissible Criteria for all Berths:

Wind Velocity: Up to 20-25 knots depending on direction.

Sea Conditions: Up to 5 ft.

MAX. SIZE:

Berth	*Depth of water at ISLW* (ft.)	*Max. Permitted draft* (ft.)	*Designed tanker size* (d.w.t.)
No. 1	53	47	100,000
No. 2	56	50	100,000
No. 3	62–64	54*	300,000
No. 4	70–73	64‡	300,000

*56 ft. permissible using rise of tide.
‡66 ft. permissible using rise of tide.

HEALTH: *Quarantine and Pratique:* Quarantine Office of the Saudi Arabian Government is maintained at the port, and a Quarantine Doctor or a Quarantine Officer may board the vessel, if he considers it necessary.

The Master is requested to submit the following documents for the Government filing through his Agent:

(a) Crew List
(b) Vaccination List } 3 copies each
(c) Passenger List (if any)

All arriving vessels should despatch the following cable to Quarantine Office at the port 48 hours before their arrival at Ras Al-Khafji Port:

"QUARANTINE KHAFJI (ship's Agent cable address)
vessel's name ______ ETA RAS AL-KHAFJI time and date
FLAG ______ LAST PORT ______ DESTINATION ______
NO. OF CREW ______ NO. OF PASSENGERS ______
ALL HEALTHY NO SICKNESS NO DEATH VALID CERTIFICATE REQUEST FREE PRATIQUE.
MASTER ______"

Quarantine fee is collected from any vessel according to her Nett Registered Tonnage other than tankers lifting hydrocarbon cargoes.

RADIO: *Notice of Arrival:* Arriving vessels should advise their ETA Khafji at least 72 hours before their arrival through normal radio services. As an alternative to the route through Kuwait Radio Station (call sign: 9KK), these vessels may send their first message through Singapore, Bombay, Dammam or Bahrain Radio. Confirmation of ETA should be made well in advance before arrival by calling "Ras Al-Khafji" on Channel 16 VHF. Shorter notices may result in delays and failure to give at least 24 hours will result in an addition to allowable laytime in the event a demurrage claim is filed against the Company. After anchoring, these vessels should advise their time of anchoring through VHF, and thereafter maintain a continuous watch on Channel 16 until the Company's Mooring Master boards. "Ras Al-Khafji" VHF station normally works 24 hours every day.

Radio Communications: All radio communications between the Company at Ras Al-Khafji and the vessel are made through the Kuwait Government Radio Station (9KK) in Kuwait, or directly to the Company's Field Office by telex.

Vessels may find it helpful to route their first message through Singapore, Bombay, Dammam or Bahrain Radio Station as it is sometimes difficult to contact Kuwait Radio Station from a long distance.

All cables should be addressed to "ARABIAOIL SAUDI ARABIA". The first message should be sent according to the following form, but any items which are the same as a recent previous voyage to this port may be omitted.

(1) ETA Ras Al-Khafji
(2) Last 3 ports of call
(3) Deballasting time
(4) Quantity and type of cargo and bunker required
(5) Maximum loading rate
(6) Diameter of cargo and bunker connections
(7) Distance from manifold to ship's side
(8) Derrick capacity
(9) Estimated sailing drafts – fore and aft
(10) Whether Ras Al-Khafji is first or second port (when taking part cargo).

Note: Item (10) should only be answered in cases where tankers are taking part cargo at Ras Al-Khafji. If coming second port, the first loading port should be mentioned.

Short-range radio communication can be made with the Terminal Office by calling "Ras Al-Khafji" on VHF Channel 16.

VHF: Short-range communication can be made with Terminal Office by calling "Ras-al-Khafji" on VHF Channel 16. Working Channels are 9, 11, 12, 13 and 14. Vessels should call Ras-al-Khafji several hours before arrival to confirm ETA and receive berthing instructions. After anchoring they should advise their anchoring time and then maintain watch on Channel 16 until the Mooring Master boards. Terminal VHF normally operative between 0400–1400 hrs. GMT, and is used outside these hours by special arrangements with individual ships.

TUGS: Tugs up to 4,200 b.h.p. are available for mooring and unmooring purposes.

One tug is on standby near the berths as long as the tanker remains moored.

Mooring boats are used for handling ropes and hoses.

BERTHING:

Berths No. 1 and No. 2:

(a) Sea-Berth No. 1:

Manifold position:	Lat. 28° 26′ 10″ N., Long. 48° 34′ 57″ E.
Depth of water:	53 ft. (16.2 m.) at ISLW.
Permitted draft:	47 ft. (14.3 m.) max.
Type of berth:	The berth is a conventional 4-buoy system where the tanker moors with 2 anchors and 1 buoy forward and to 3 buoys aft.
Length of berth:	The berth is designed for tankers of 800 ft. (244 m.) length but can be used by tankers of any size, although tankers of less than 650 ft. (198 m.) overall length sometimes experience difficulty in mooring if their lines are less than a full 720 ft. (220 m.).
Hoses:	From the manifold 2×10 in. rubber hoses for crude oil and 1×12 in. rubber hose for fuel oil are connected, approximately 270 ft. (82 m.) long and the maximum lifting weight of the 2 crude oil hoses together is 4.5 tons – 5.0 tons. For bunkering purpose one section of 6 in. hose is attached to the end of the 12 in. fuel oil hose.

(b) Sea-Berth No. 2:

Manifold position:	Lat. 28° 25′ 55″ N., Long. 48° 35′ 28″ E.
Depth of water:	56 ft. (17.1 m.) at ISLW.
Permitted draft:	50 ft. (15.2 m.) max.
Type of berth:	Same as Berth No. 1.
Length of berth:	Same as Berth No. 1.
Hoses:	From the manifold 2×10 in. rubber hoses for crude oil and 1×6 in. rubber hose for bunker are connected to the ship's manifold. All these hoses are approximately 360 ft. (110 m.) in length, and the maximum lifting weight of 2 crude oil hoses together is 4.5 tons – 5.0 tons.

(c) Loading Rates:

Crude oil loading rate at Berths No. 1 and No. 2 is 30,000 bbls./hr. or 4,000 tons/hr.

Fuel oil loading rate at Berth No. 1 is 4,000 bbls./hr. or 600 tons/hr., and at Berth No. 2 is 2,700 bbls./hr. or 400 tons/hr.

(d) Preparation on Board before Berthing: Tankers assigned to Berth No. 1 or No. 2 should have the following ready:

(i) Both Anchors.

(ii) 3 ropes forward and 9 ropes aft.
Some wires are acceptable in place of the equivalent number of ropes.
Neither ropes nor wires are available from the buoys.
All ropes and wires should be in good condition and preferably without splices.

(iii) Port derrick rigged for a minimum lift of 5 tons, using a wire runner and hook.

(iv) Two 10 in. ANSI 150 hose connections for crude oil, and 1×12 in. ANSI 150 for fuel oil cargo (at Berth No. 1 only), at the ship's port side manifold.
If ANSI 150 is not available, the company should be advised before arrival.

(e) Mooring and Unmooring: On approaching the berth a ship's line is passed to one tugboat from the centre fairlead aft. This line should be of good strength and made well fast on board.

When in position off the berth, the starboard anchor is let go and slacked away easily to about 9 or 10 shackles on deck. The port anchor is then let go and paid out easily as the tanker swings round into the berth using the tugs and engines as required. At the same time, the starboard anchor is hove in to about 6 or 7 shackles on deck and then made ready for slacking away again.

As the tanker backs down the berth the anchors are slacked away as necessary, and the ropes are sent to the forward (No. 4) Buoy. When the stern passes close to the starboard quarter (No. 1) Buoy the ropes are sent away to this buoy, hove in tight and then put on the bitts ready for slacking if necessary.

Ropes are then run to the port quarter (No. 3) Buoy, hove tight, and the lateral position in the berth adjusted between the port and starboard quarter buoys.

Lastly, ropes are run to the stern (No. 2) Buoy and the tug line also passes to this buoy. The fore-and-aft position is then adjusted between the anchors and the sternlines. A second tug is used to assist in the lateral positioning of the tanker, and 2 mooring boats are used for running the lines to the buoys, these normally taking 3 ropes at a time.

In Wintertime 3 ropes are used to each buoy, but in Summer two of these may be dispensed with at the Mooring Master's discretion.

When properly positioned in the berth, the distance from the ship's side to the manifold marker buoy should be about 50 ft. – 66 ft. (15 m. – 20 m.).

When hose disconnection is completed, the tanker unmoors usually by letting go all the lines on Buoys No. 3 and No. 4, followed by those on Buoy No. 2 and lastly those on Buoy No. 1. The tanker then heaves both anchors as necessary until they are up and clear, and the tanker can leave the berth. The tugs are used as required to keep the tanker away from the manifold marker and the mooring buoys.

Mooring Masters may vary this procedure according to the prevailing weather.

(f) Hose Connection and Disconnection: After the completion of mooring, the mooring boat will pull the hose marker buoys to the tanker, and connect them to the tanker's cargo hook of port derrick. The 2 crude oil hoses are lifted together from the seabed by the tanker's derrick, and connected directly to the manifold.

The fuel oil hose at Berth No. 1 is lifted separately and connected in similar manner.

The time taken for hose connection is about 1.0 – 1.5 hours depending on the number of hoses to be connected. Hose disconnection takes about 1 hour.

Connection and disconnection of the cargo and bunker hoses are to be performed by the crew of the loading tanker under the direction of the Mooring Master. Bolts, nuts, gaskets, reducers, etc. will be provided by the Company.

(g) Loading Restriction at Berth Nos. 1 and 2: It is not possible to load tankers in Berth Nos. 1 and 2 simultaneously.

During the night time, berthing operation at Berth Nos. 1 and 2 shall not be carried out to prevent accidents.

Berth Nos. 3 and 4:

(a) Berth No. 3:

Position of buoy:	Lat. 28° 27′ 06″ N., Long. 48° 36′ 28″ E.
Depth of water:	62 ft. – 64 ft. (18.9 m. – 19.5 m.), but 59 ft. (18.0 m.) over the pipelines, at ISLW.
Permitted draft:	Normally 54 ft. (16.5 m.), but 56 ft. (17.1 m.) permissible using rise of tide.
Type of berth:	The berth is a single-buoy-mooring system consisting of a buoy 36 ft. (11.0 m.) in diameter, having a rotating deck carrying the pipe-line and mooring connections.
Mooring:	Attached to the mooring connections on the buoy are 2 double 15 in. nylon ropes (120 mm. diameter, breaking strain 250 tons/line), these main ropes supported by floats are 160 ft. (49 m.) long, and have at their free end a 35 ft. (10.7 m.) long stud link chain which includes a "Sister-plate" and a "Slender-link" for receiving the shackles used on the deck of the tanker. From the outer end of this chain there is connected a 10 in. (80 mm. dia.), polypropylene "Pick-up" rope about 165 ft. (50 m.) in length. The chain is hung by large iron buoys coloured red and green. A 12 in. nylon "Bollard rope" (97 mm. dia., breaking strain 150 tons/line) about 150 ft. (46 m.) in length is connected between each "Sister-plate" and ship's bollard while tankers moor in berth.
Hoses:	The fuel oil lines are joined at the underwater manifold and the fuel oil is led to the buoy through 1×10 in. submarine hose. From the deck of the buoy the 20 in. crude oil hose and the 10 in. fuel oil hose, which are floating, have a length of 720 ft. (220 m.) to a hose raft, at which position the crude oil hose is divided into 3 strings of 12 in. floating hoses. These, together with the fuel oil hose, extend for a further 150 ft. (46 m.) making a total length of 870 ft. (265 m.) including the raft. At their free end the hoses are paired and connected to 2 large marker buoys each 5 ft. in diameter.

(b) Berth No. 4:

Position of buoy:	Lat. 28° 27′ 54″ N., Long. 48° 38′ 36″ E.
Depth of water:	70 ft. – 73 ft. (21.3 m. – 22.3 m.), but 69.5 ft. (21.2 m.) above the pipe-lines, at ISLW.
Permitted draft:	Normally 64 ft. (19.5 m.), but 66 ft. (20.1 m.) is permissible using rising of tide.
Type of berth:	The berth is a single-buoy-mooring system consisting of a buoy 35 ft. (10.7 m.) in diameter, having a rotating deck carrying the pipe-line and mooring connections.
Mooring:	The particulars of mooring are exactly the same as those of Berth No. 3.
Hoses:	From the deck of the buoy the 24 in. crude oil hose and the 10 in. fuel oil hose, which are floating hoses, have a length of 810 ft. (247 m.) to a hose raft, at which position the 24 in. hose is divided into 3 strings of 14 in. floating hoses. These, together with the 10 in. fuel oil hose, extend for a further 120 ft. (36.6 m.) including the raft. At their free end, these hoses are connected to large marker buoys each 5 ft. in diameter.

(c) Loading Rates at Berth Nos. 3 and 4: The maximum loading rates of crude and fuel oil at Berth No. 3 are 45,000 bbls.p.h. (6,200 t.p.h.) and 2,700 bbls.p.h. (400 t.p.h.) respectively. At Berth No. 4 these are 62,000 bbls.p.h. (8,500 t.p.h.) and 3,400 bbls.p.h. (500 t.p.h.).

(d) Preparation Onboard before Berthing at Berths No. 3 and No. 4: Before arriving at the anchorage, tankers assigned to Berth No. 3 or No. 4 should have ready the following:

- (i) Two mooring messenger ropes forward, together with rope stoppers, and also 1 or 2 crowbars.
- (ii) Port derrick rigged for 10 tons.
- (iii) 3×12 in. ANSI 150 at Berth No. 3 or 3×14 in. ANSI 150 at Berth No. 4 hose connections for crude oil, and 1×10 in. ANSI 150 for fuel oil at the port side manifold. If ANSI 150 is not available, the Company should be advised before arrival.

(e) Mooring at Berths No. 3 and No. 4: The Mooring Master will board from a tugboat which carries the mooring and hose connection materials. Tankers should have their crew stand-by to receive these materials, and should maintain a lee until this is completed.

The Mooring Master will instruct the crew in the setting up of the forward moorings, where 12 in. bollard ropes are made fast round the port and starboard bollard posts with their attached shackles about 12 ft. (3.7 m.) inboard from the panama leads or fairleads as far forward as possible. The size of the fairlead opening should be at least 14 in. to prevent the chain jamming in the fairlead.

On approaching the berth, the tanker should lower a mooring messenger rope from each bow. The mooring boat will take the port rope first, and connect it to the port "Pick-up" rope which should be hove in while the boat returns to take the starboard rope for connection to its "Pick-up" rope. These 2 ropes are then hove in until the chains come into the fairleads, and the shackles can be made fast to the "Sister-plates". The "Pick-up" ropes are then slacked back until the bollard ropes have the weight.

Mooring is then completed, and the usual time from sending away the first line until all fast is about 30 minutes.

Immediately after the tanker moors to SBM, her stern line shall be given to the stand-by tugboat through her middle fairlead to help maintain the tanker in safe position while the tanker is in the berth.

(f) Unmooring from Berths No. 3 and No. 4: After hose disconnection is completed, the weight is taken on the "Pick-up" ropes, the bollard ropes are unshackled, and as the tanker backs off the berth the "Pick-up" ropes are slacked off and then dropped into the water. The tug will come alongside either before or after the tanker backs off the berth, whichever is convenient, and the bollard ropes and the two big shackles are passed to the tug. Unmooring time is usually 10 minutes.

(g) Hose Connection and Disconnection at Berths No. 3 and No. 4: After the completion of mooring, the mooring boat which has been holding the hoses clear during berthing, will bring the hoses to the tanker and connect the hook to the buoy having 1 or 2 hoses, which are usually lifted aboard and connected directly to the tanker's manifold.

The hoses are hung off on 2 in. diameter nylon ropes and lashed to the rail to prevent shock load due to wave action being transmitted to the manifold flanges.

After the first hose has been connected, the second buoy is lifted and the remaining hoses are connected in similar manner. If an arriving tanker requires a loading rate of 5,000 t.p.h. or less at Berth No. 3 and 6,000 t.p.h. or less at Berth No. 4, only 2 crude oil hoses are connected. Hose connection usually takes 2 – 3 hours. Hose disconnection is done in a reverse manner to connection, and takes about 1.5 – 2.0 hours.

Connection and disconnection of the cargo and bunker hoses are to be performed by the crew of the loading tanker under the direction of the Mooring Master. Bolts, nuts, gaskets, reducers, etc., will be provided by the Company.

(h) Loading Restriction at Berths No. 3 and No. 4: It is not possible to load tankers in Berths No. 3 and No. 4 simultaneously.

Berth Loading Control Platform: An oil-well jacket type Berth Loading Control Platform with a rotating light-beacon, typical of an offshore valve station, is located in a position Lat. 28° 27.0′ N., Long. 48° 35.8′ E., about 3,600 ft. (1,500 m.) Westward of Berth No. 3. The light, Fl. R. ev. 10 sec. 16 M. (Ra. Ref.), is visible at a great distance.

Crude floating hose: From S.B.M. to floating manifold length 810 ft., diameter 24 in., test pressure 200 p.s.i., 1 line weight 3,460 kg.

From floating manifold to hose line close to tanker: Number of hoses 3. Nominal size 14 in., length 150 ft. Test pressure 200 p.s.i., weight 2,080 kg.

Floating Bunker Hose: One line of 10 in. diameter. Length 260 ft., test pressure 200 p.s.i., weight 1,210 kg.

Loading rate: Crude 40,000 – 60,000 b.p.h. Bunker light fuel minimum 1,860 b.p.h., heavy fuel minimum 2,000 b.p.h.

Weight of Hose Lines:

Height of Loading Deck above sea surface	*Hose Length*	*Weight 1×14 in. Hose Line* (kg.)	*1×14 in. + 1×10 in. Hose Lines* (kg.)
30 ft. (9.14 m.)	40 ft. (12.2 m.)	3,600	5,500
40 ft. (12.20 m.)	50 ft. (15.2 m.)	4,600	6,100
50 ft. (15.24 m.)	60 ft. (18.3 m.)	5,600	6,700
60 ft. (18.29 m.)	70 ft. (21.3 m.)	6,600	7,300

Note: The above figures include the weight of crude oil, marker buoy, lifting chains and fittings.

LOADING: *Dry Inspection:* Upon completion of deballasting the Mooring Master will inspect the tanker's tanks. If the tanks are not satisfactory, he may require further pumping until they reach the required standard.

Loading Operations: When the tanker is ready in all respects for loading, the tanker's officer must inform the Mooring Master who will transmit the necessary orders to the Central Control Room onshore.

Loading is started by a booster pump, and after everything has been checked and found satisfactory on board, then the loading rate will be gradually increased by starting further booster pumps and then main pumps in sequence until the required loading rate is reached; provided always that the required loading rate is within the capacity of the pumps.

Loading rates can be varied at any time during loading upon 5 – 10 minutes advance notice to the Mooring Master on board. In case of EMERGENCY, the IMMEDIATE STOPPING of all loading can be accomplished.

During loading, any valve operation on the tanker should be reported to the Mooring Master in advance. Especially at the time of Topping Off, the tanker's officer on duty should request the Mooring Master to reduce loading rate prior to any valve closing, in order to avoid any pressure on rubber loading hoses.

When loading is completing, the rate is gradually reduced by stopping first the main pumps and then the booster pumps, one by one according to the request of the tanker's officer. At the final stage of loading only booster pumps should be on the line, and the tanker's officer should tell the Mooring Master to "Stand-by" at least 5 – 10 minutes before finishing it.

Shore pumps will stop about 15 seconds after their control buttons are pressed, but the oil will continue to flow for several minutes.

Any stop notice of loading completion must be given by the tanker's officer as "Shore-stop" is NOT practised at this port.

Overflows and Spillage: In the event of an overflow or spillage during loading, loading will be stopped immediately and will remain stopped unless the Mooring Master is satisfied that all the overflowed oil has been cleared off the deck and there is no longer any unusual danger for resuming loading.

Ullaging and Gauging: After loading is completed, the Mooring Master will witness the final ullaging on board so that the tanker's figures can be calculated.

Onshore the Government and the Company gaugers will take manual gauges of the shore tanks before and after loading to calculate the figures of the Bill of Lading.

STEVEDORES: Dry-cargo vessels calling Ras-al-Khafji to give at least 72 hours notice to Agents to arrange labourers. Stevedores will be arranged from Kuwait. Ship's gear used for discharging which takes place at anchorage into barges.

MEDICAL: The Company has its hospitals at Ras Al-Khafji. Medical and dental treatment can be given in cases of emergency or serious illness or injury. Epidemic diseases or cases of serious injury or disease requiring operations, etc. are normally transferred to the hospitals in Dammam or in Kuwait. The Company's doctor will not normally attend on board unless the patient is incapable of attending the hospital. Requests for medical attention should be given to the ship's Agent as early as possible before arrival.

FRESH WATER: Not available except in cases of extreme emergency.

FUEL: *General Information:* Intermediate fuel oil (IFO) and marine diesel oil (MDO) are supplied as bunker fuel oil to tankers calling at Ras Al-Khafji. Each loading berth has a pipe-line which can deliver intermediate fuel oil. Marine diesel oil is supplied from a barge with a capacity of 200 tonnes for which no extra charge is made.

Bunker Nomination: Owners, Operators or Charterers should nominate their tankers' bunker requirements to the Company's Head Office in Tokyo.

Tankers are requested to confirm the grade and quantity of bunkers required to "ARABIAOIL KUWAIT" via "9KK" through normal radio services at least 72 hours before arrival; or in cases where tankers receive their bunker instructions less than 72 hours away, they should advise their bunker requirements as soon as possible.

Bunkering Operation: Bunker supply to tankers in the berths is normally made while the tankers are discharging ballast and/or loading crude oil. MDO-supply from a barge will be done usually before loading cargo.

Tanker engineers are requested to give all necessary information and assistance to the shore staff attending the bunkering and to pay constant attention to the bunker supply.

Responsibility: Notwithstanding the presence of the shore staff attending the bunkering operation on board, the Master of the tanker remains solely responsible for his tanker at all times and in all respects.

Size of Bunker Connections and Bunkering Rates:

Berth	*IFO*	*MDO (supply from a barge)*
No. 1 (6 in.)	600/300 t.p.h.	80 t.p.h. (4 in.)
No. 2 (6 in.)	400/300 t.p.h.	80 t.p.h. (4 in.)
No. 3 (10 in.)	400/300 t.p.h.	80 t.p.h. (4 in.)
No. 4 (10 in.)	500/300 t.p.h.	80 t.p.h. (4 in.)

Note: In Winter time the rate for IFO decreases due to the low sea-water temperature which increases the viscosity of the oil.

Bunkering for Dry-Cargo Ships: Bunker supply to dry-cargo ships is not available at this port.

CUSTOMS: *Customs Formalities:* Upon arrival, the Master is required to submit to the Customs a Manifest of any cargo to be landed at Ras Al-Khafji and to sign a declaration that no intoxicating liquor or drugs will be landed.

A Coast Guard accompanied by the ship's Agent boards to seal bonded stores. Dry-cargo ships are boarded by a Customs Officer, a Coast Guard and a Quarantine Officer for sealing stores, checking valid certificates and health inspections.

Import of the following articles is strictly forbidden:

(a) Alcoholic beverages, including beer, wine and liquor.
(b) Pornographic literature, photographs, pictures and films.
(c) Explosives.
(d) Firearms or implements of war of any kind.
(e) Religious matters not pertaining to the Moslem faith.
(f) Gambling devices.

The Saudi Arabian Laws and Regulations: The Saudi Arabian Laws and Regulations are strictly enforced, and Masters having any doubts concerning the interpretation of these regulations are urged to consult their Agent. While in port, whether at anchorage or in the berth, the vessel's personnel are under the jurisdiction of Saudi Arabian laws. Taking of photographs while the ship is in the Port of Ras Al-Khafji is prohibited by the Saudi Arabian Government.

All alcoholic beverages, including beer, table wines and liquors are to be under lock and key during the vessel's stay in the Port. The possession and/or consumption of alcoholic beverages is prohibited in Saudi Arabia. Penalties are severe and major delays to vessels can be incurred by the Government investigations of violations.

WATCHMEN: The tanker always has to post at least 2 watchmen on duty: one on the forecastle head to watch and monitor the condition of the mooring ropes and the behaviour of the tanker by forces of wind and tidal current, and another on deck near or within sight of the manifold. They have to report to the Master and the Mooring Master whenever they observe the tanker drifting too close to the berth, or the loading hoses twisted or whenever they recognise anything unusual, so that the Master may properly manoeuvre the tanker and any mishap may be averted.

WEATHER: The local weather at Ras Al-Khafji is similar to that of Kuwait, being hot and dry with little cloud during the long Summer from May to September and considerably colder in December and January.

The prevailing wind in this area is Northwesterly, however winds of varying strength may come from any direction. In Summer, the diurnal sea breeze is light Easterly at about 5 m. – 7 m. per second (10 – 14 knots), and only rarely it increases to 12 m. per second (23 knots). In Winter South-Southeasterly winds of up to 20 m. per second (39 knots) may last one or two days and then veer suddenly to the N.W., often accompanied by gusts or squalls in excess of 20 m. per second. On occasion a type of line squall passes over and winds up to as much as 30 m. per second (58 knots) may be experienced for a short time before settling down to blow for longer periods at 20 m. per second. Little or no warning of these strong squalls is given; they just appear suddenly, often accompanied by thick sand and dust.

In the area of the Sea Berths the waves are prevented from developing by the short fetch of the Northwesterly wind, but waves up to 5 ft. – 6 ft. do occur from this direction. Southeasterly winds raise a short steep sea which quickly reaches 7 ft. – 8 ft. high. This lengthens and increases as the wind freshens and has been known to reach 14 ft. – 15 ft. in the area of the Sea Berths. When the Southeasterly wind veers the swell rapidly decreases but persists for about 24 hours thereafter.

Visibility in the area is generally good, but Northwesterly winds cause rising dust and sand which may reduce visibility to almost zero at times. Haze is common, and on calm hot days mirages are frequent. "Steam fog" may occur at times in the early morning hours resulting in very poor visibility.

TIDES/CURRENTS: The depths shown on the chart are based on ISLW. The diurnal rise of tide is approximately 6 ft. at the Springs and 5 ft. at Neaps, and the ISLW is 4 ft. below the Mean Sea Level.

The heights of both high and low water are considerably affected by the prevailing weather conditions. Northerly winds tend to reduce the heights of tides and retard them, and Southerly winds increase the heights slightly.

Near the Sea Berths the current flows roughly parallel with the shore, and reverses its direction about 1 hour earlier than the time of high or low water inshore at Ras Al-Khafji. The velocity of the current is approximately 1.5 knots at the maximum.

Both the direction and velocity of the tidal current are much affected by the prevailing weather conditions.

The tidal data for Ras Al-Khafji as compared with that of Mina Al-Ahmadi is given as follows:

Flood tide: Occurs approximately 30 minutes later than Mina Al-Ahmadi.
Height approximately 0.73 times that of Mina Al-Ahmadi.
Ebb Tide: Occurs approximately 20 minutes later than Mina Al-Ahmadi.
Height approximately 1.04 times that of Mina Al-Ahmadi.

"Tide and Current Table" published annually is available from the Company upon request.

REPAIRS: Some minor repairs on board vessels may be made using shore assistance in case of extreme emergency, but such Company's assistance will be provided only on the Master's and the shipping Agent's acceptance for undertaking to pay to the Company all expenses incurred. Preferably all repairs should be carried out at the anchorage area. In all cases when shore assistance is required, the Master should notify the vessel's Agent well in advance.

DRY DOCKS: None.

AIRPORT: Crew joining must be routed through Dhahran. Kuwait Airport 110 km. Dammam 325 km.

TIME: GMT plus 3 hours throughout year.

TELEPHONES: No facilities for placing on board.

SERVICES: *Provisions, Deck Stores:* Provisions and deck stores are available from ship chandlers at the Port in limited kinds and quantities. In all cases the ship's Agent should be advised of the requests at the Earliest possible time before arrival.

SHORE LEAVE: Not normally permitted by Authorities except by arrangement through the ship's Agent.

AUTHORITY: Port of Ras Al-Khafji, Port Officer, Ras Al-Khafji, Saudi Arabia. *Tel:* (03) 766 1016. *Telex:* 841057 PORT K SJ. *Contact:* Mr. Abdul Daiem, Field Office, Arabian Oil Company Ltd., P.O.Box 256, Ras Al-Khafji, Saudi Arabia. Tel: (03) 766 0555. Telex: 841011 ARBOIL SJ.

The Superintendent, Terminal and Shipping Department, Field Office. *Dammam Office:* Arabian Oil Company Ltd., Dhahran Street, Social Insurance Building, 6th Floor, Dammam, Saudi Arabia. P.O.Box 154 Dammam, 31411 Saudi Arabia. *Tel:* (03) 8269361, 8264115. *Telex:* 601006-ARBOIL SJ.

AGENT: See "Ras Tanura".

RAS AL MISHAB: 28.13 N. 48.43 E. (See Plan)

PILOTAGE: Pilotage is compulsory and only available in daylight hours (0600 to 1700 hrs.) 7 days a week with short notice prior to Vessel's arrival.

Vessels calling at Ras Al Mishab are requested to contact Ras Al Mishab Harbour Office on VHF – Channel 16 prior to arrival at Pilot Buoy, (Buoy No. 5 of Ras Al Mishab Approach Channel) which is located at Lat. 28° 13′ N., Long. 48° 43′ E.; do not proceed beyond this point before consulting with Ras Al Mishab Harbour Office, which is available from 0600 to 1700 hrs. every day except Friday.

APPROACHES: Do not use the old recommended track to Bandar Mishab shown on British Admiralty Chart No. 3774 and U.S. Hydrographic Chart 62422 unless corrected. Ships arriving should follow Ras al Khafji Approach Channel Buoy No. 1 (Lat. 28° 36′ N., Long. 49° 10′ E.) and Buoy No. 2 (Lat. 28° 36′ N., Long. 49° 00′ E.). From Light Buoy No. 2 proceed on a course of 253°(T) for approximately 5 miles and the following is the new approach channel to the anchorage and entrance channel of Ras al Mishab.

The dredged channel of 4 miles is well marked by the buoys and 2 pairs of ranges that lead vessels in and out of the port.

ANCHORAGE: Anchorage area is between Buoy Nos. 4 and 5.

RESTRICTIONS: Daylight berthing and unberthing only.

MAX. SIZE: Max. allowed draft at present time is 33 ft. However, after completion of works on expansion of the port, which is under way, port expected to accommodate vessels up to 35 ft. draft regardless of length and/or tonnage.

TUGS: The port has 2 tugboats available to assist vessels in docking and undocking as well as any other service to be rendered in case of need for assistance. Each tugboat is capable of generating 2,000 h.p.

VHF: See "Pilotage".

BERTHING: Ras Al Mishab is a new deep water sea port with 2,400 ft. of berthing space. The turning basin of 1,250 ft. radius provides safe manoeuvring.

The pier is 18 ft. high above the water and accordingly not suitable for Ro/Ro cargo operation, however, the harbour is well equipped for receiving any type and size of cargo including heavy lifts and bulk cement up to 24,000 tons. Silo capacity 25,000 tonnes.

The harbour is fully equipped with forklifts, discharging gear, spreaders for 20 ft. and 40 ft. containers. portable cranes up to 300 tons capacity, all handled by professional stevedores.

FRESH WATER: Not available.

FUEL: Not available.

GENERAL: Provisions not available at this port, and it is suggested that vessels calling to Ras Al Mishab, secure their needs at other ports. Only emergency medical attention shall be provided if requested by Master.

No shore leave is permitted in this port except for the Master for business purposes, the Port Regulations are to be strictly observed by all vessels.

Any other matters such as crew changes, emergency repairs provisions, etc., shall be handled through local Agent.

SHIPMASTER'S REPORT: September 1980.

Pilotage: Pilot boards 3 miles South of Buoy No. 5G.

Berthing: A new berth built 2 years ago at right angles to land with dimensions about 1,000 m. length and 250 m. wide, accommodating 8 ships, 4 on each side. 1 berth is for cement in bulk, having silo. (Sea Island berth is severely damaged and abandoned).

Stevedores: Working day and night in 3 shifts.

Clearance: Vessels are cleared any time during day whilst alongside. (We arrived alongside Thursday 1600 hrs. and we were cleared).

Tugs: 2 tugboats available.

Port facilities: 1 mobile crane 300 tons and 1 mobile crane 50 tons.

Agent: On VHF Channel 16.

AGENT: See "Dammam".

RAS TANURA: 26.39 N. 50.10 E. (See Plan)

ALSO SEE "JU'AYMAH" SECTIONS A and B.

(A) GENERAL INFORMATION
(B) REGULATIONS
(C) RAS TANURA TERMINAL

(A) GENERAL INFORMATION

This section contains important information for all ships proceeding to any Terminal in the Port of Ras Tanura.

NAVIGATION:

NAVIGATIONAL AIDS: In May 1981, the buoyage system in the Port of Ras Tanura was changed to the I.A.L.A. System (Region A).

Notices to Mariners have been promulgated concerning these changes.

INBOUND TRAFFIC PROCEDURES: All inbound vessels shall establish early radio contact with ARAMCO.

(a) A vessel with no special instructions or with instructions to proceed to the Northern Holding Anchorage should make for a position approximately 2 miles North of Ras Tanura Light Float (in position: Lat. 27° 05.6′ N., Long. 50° 57.5′ E.); enter the inward channel of the Separation Scheme and then pass the Approach Buoy and the Entry Buoy. The vessel should then proceed into the Northern Holding Anchorage and anchor. After anchoring, the vessel shall immediately advise ARAMCO by radio and Ras Tanura Pilots on VHF of anchoring time and keep a listening watch on VHF Channel 16 and traffic lists for further instructions.

(b) A vessel with instructions to proceed directly to Ras Tanura Terminal, Ju'aymah Crude Terminal or Ju'aymah L.P.G. Terminal should proceed as above to the Entry Buoy and as described under the individual terminal.

ANCHORAGES: The Port of Ras Tanura is an open roadstead but some protection is afforded by shoals and land to such an extent that vessels do not experience heavy movement.

Holding ground in all of the anchorages is fair and it is recommended that anchored vessels lie to a long scope of chain whenever the weather is unfavourable.

The Northern Holding Anchorage is located on the North side of the Ras Tanura Separation Scheme West of the Entry Buoy and North of No. 3 beacon (Racon). This anchorage covers an area of approximately 30 square miles with depths between 82 ft. and 150 ft. (25 m. and 46 m.).

This anchorage is intended as an initial holding area for incoming vessels which, because of berthing prospects, congestion or other reasons will not be berthed on arrival and for loaded tankers taking bunkers or adjusting departure sailing time into the Gulf. Anchorages for the individual terminals are described in Ras Tanura Section (B) and Ju'aymah.

MAXIMUM DRAFT IN ARRIVAL CHANNEL: See Section (B) for maximum arrival draft Ras Tanura Terminal (54 ft. + Height of Tide). See Ju'aymah Section (A) for maximum arrival draft Ju'aymah Crude Terminal (70 ft.). Masters of vessels arriving partly loaded or deeply ballasted should navigate with caution in the vicinity of position: Lat. 26° 50′ 30″ N., Long. 50° 10′ 30″ E.

RADAR SURVEILLANCE ADVISORY SYSTEM:

See "Regulations" – Traffic Regulations.

This system is available to provide information and to continuously monitor the movement of all ships in the Port of Ras Tanura.

In addition to identifying, tracking and monitoring ship movements to and from the Terminal areas by means of computer assisted radar and video tape recording, the following services may be provided to vessel Masters:

(a) Advice on channel and port conditions, congestion, weather, tides, navigational aids, etc.

(b) Advice upon the movement of other vessels, dangerous manoeuvring situations and vessels violating port regulations.

(c) Advice upon port regulations regarding the movement of deep draft vessels and the priorities of vessels movements. (It may be necessary for vessels arriving in ballast to reduce speed to permit safe passage for outgoing deep draft vessels).

(d) Advice on berthing prospects and anchoring conditions.

The service has been established in order to increase the safety of ships navigating in the Port of Ras Tanura. However, it is an information and advisory service only and in no way assumes control of or responsibility for ships navigating in the area.

CHARTS AND PUBLICATIONS: Surveys by American and British Authorities in recent years have resulted in the publication of a number of charts of the Port of Ras Tanura and its approaches:

U.S. 62414	or	B.A. 3788
U.S. 62415		B.A. 3777
U.S. 62416		B.A. 3776
		B.A. 3813

Vessels proceeding to the Port of Ras Tanura should be in possession of the latest issues of the above charts or their equivalent. "Sailing Directions" and "Lists of Lights" are published by American and British authorities; these publications should also be available on board.

Navigational Warnings and weather forecasts are broadcast by ARAMCO "HZY" Radio and by commercial radio stations in the Arabian Gulf.

These should be copied well in advance of arrival.

The Saudi Ports Authority is in charge of issuing navigational warnings and Notices to Mariners covering the Saudi Waters. These Navigational Warnings and Notices to Mariners are broadcast by Dammam Radio on a 24-hour basis. Updated copies of these Radio Navigational Warnings and Notices to Mariners are sent to the Agents for delivery to the Masters at their ports of arrival.

METEOROLOGICAL INFORMATION:

Winds in the area are not predictable for more than a very few hours and may come from any quarter at varying strength. The prevailing wind is from the N.N.W.

Winds of any strength tend to create short steep seas coming up quickly and calming down just as rapidly. Easterly winds however cause heavy seas and swells which can last for a considerable period. For a more complete description of the winds of the Arabian Gulf, refer to "Sailing Directions".

Visibility in this area of the Arabian Gulf is generally fair to excellent, but at times fine dust is held in suspension in the atmosphere and visibility is reduced to a very short distance. This phenomenon is more deceptive than fog in that mariners are apt to believe visibility to be greater than it actually is. Dense fog with or without sand or dust may occur in the morning hours.

Climate of Ras Tanura is comparatively favourable for the Arabian Gulf. The exposed position of the port permits the winds to mollify the heat of Summer. Temperatures have been recorded in previous years as follows: Absolute Maximum 45.6°C (114°F) in June, Mean Maximum 38.4°C (101.1°F) in August, Mean Minimum 12.5°C (54.5°F) in January, Absolute Minimum 0.0°C (32°F) in January.

During most of the year, the relative humidity is high and during late Summer and Fall it frequently exceeds 85%.

Proper precautions should be taken to avoid sunstroke and heat exhaustion particularly during the Summer and early Fall months. Air conditioning plants aboard ships should be in good working condition at these times in view of the necessity to close down accommodation whilst loading dangerous cargoes.

TIDES AND CURRENTS: The depths quoted in U.S. "Sailing Directions" and charts of the Arabian Gulf and the datum used by ARAMCO is based on lowest astronomical tides (LAT) from 1st January 1986.

Locally the diurnal tide rise is approximately 8 ft. (2.44 m.) at Springs and 5 ft. (1.52 m.) at Neaps. More detailed description of tides and currents in the locality can be found in the "Sailing Directions".

Due to the configuration of the coastline, a system of tidal currents prevail with flood tide setting towards South or S.S.E. and ebb setting towards North or N.N.W.

DOCUMENTS:

GENERAL: All contact between ships and the Saudi Arabian Government and Officials is to be made through the ship's Agent who will advise on specific requirements and documentation.

The following sections are for guidance only.

ARRIVAL DOCUMENTS: The following must be available to the Agent and boarding Government Officials:

(a) Maritime International Declaration of Health.
(b) Valid Deratting or Exemption Certificate.
(c) Crew List (including supernumeraries) up to 6 copies. Agent to submit 1 copy of Crew List 48 hours prior to arrival.
(d) Valid Vaccination Certificates.
(e) Valid Inoculation Certificates against communicable diseases prevailing at previous ports of call.
(f) A complete set of log books for the period since the vessel's last visit to Ras Tanura OR for the period since new OR since April 25th, 1952.

NOTICE OF READINESS: At all terminals in the Port, to be addressed to ARAMCO Ras Tanura.

EARLY DEPARTURE PROCEDURE: Use of this special service is encouraged and should be requested at the earliest opportunity.

Close co-ordination with the Agent is required in order to expedite the delivery of the required documentation to the ship.

It is essential that Radio contact with ARAMCO be maintained after departure until cargo quantities are received and the Agent has been authorised to sign documents.

DEPARTURE DOCUMENTS: The following 3 documents MUST be on board before the vessel departs even though the ship has been RELEASED to sail by ARAMCO.

(a) Bill of Lading: Completed by ARAMCO except for the cargo quantities. The Agent will deliver a copy to the Master who will enter the quantities as advised by radio after departure. The Master will then authorise his Agent to sign the original on his behalf.

(b) Permit of Departure: Completed by Agents with information supplied in the quarantine radio message and delivered by them to the vessel prior to departure.

(c) Port Clearance (Sailing Report): Completed in Arabic with information gathered by the Agent and delivered by them to the vessel prior to departure.

RADIO COMMUNICATIONS AND MESSAGES: *General:* The Arabian American Oil Company owns and operates a marine radio coast station, call letters HZY, Ras Tanura Radio. The station is maintained for transacting Company business with inbound and outbound vessels and operates 24 hours a day. Ship's Agents are not allowed to send messages to Masters via HZY Radio. There is no charge for incoming or outgoing message or radio telephone service. Personal messages or calls are not allowed.

HZY Transmitting Antenna: The coast station transmitting antenna is located at: Lat. 26° 18′ 36″ N., Long. 50° 07′ 12″ E.

Due to its inland location, Masters are strongly advised NOT to use this antenna for radio direction finding since inaccurate bearings will be obtained due to coastal refraction.

Required Arrival Information: Vessels must advise via Radio of estimated and/or actual arrival times at Ras Tanura Entry Buoy. It is required that vessels provide HZY with a minimum of three notices of ETA information: at about 72, 48 and 24 hours steaming time from Ras Tanura. Shorter notices may result in berthing delay. If loading part cargoes at other Gulf ports prevents a vessel from furnishing an accurate ETA, steps should be taken to advise by message (direct or through the ship's Agent) giving the best possible estimate. This message should then be followed by an accurate ETA immediately upon departure for Ras Tanura. Failure to give at least 24 hours' notice will result in an addition to allowable laytime. Vessels should advise last 3 ports of call and next port of call.

Standard Messages: Upon contact with all inbound tankers HZY Radio will transmit 2 standard messages:

MASTER RAS TANURA RADIO/HZY CONTACT HZY SOONEST ADVISING ONE ETA GMT RASTANURA ENTRY BUOY TWO ANY LATER CHANGES THREE AGENTS NAME AND REQUIREMENTS FOUR ARRIVAL DEPARTURE DRAFT FORE AND AFT FIVE ARRIVAL DISPLACEMENT TONNAGE SIX DEBALLASTING HOURS LOADING RATE IF CAN LOAD CARGO CONCURRENT WITH DEBALLASTING SEVEN MAXIMUM LOADING RATE AFTER DEBALLASTING EIGHT PREVIOUS CARGO AND IF CARGO OR RESIDUE ABOARD TO BE COMMINGLED WITH RASTANURA CARGO NINE IF LOADING MORE THAN ONE GRADE WHICH GRADE TO BE LOADED FIRST OR IF CAN LOAD SIMULTANEOUSLY AND LOADING RATE EACH GRADE TEN CARGO AND BUNKER REQUIREMENTS ELEVEN DOES THE VESSEL COMPLY WITH SOLAS CONVENTIONS REGARDING THE FITTING AND USE OF A FULLY OPERATIONAL INERT GAS SYSTEM FULLSTOP IF VHF ABOARD CALL RASTANURA PILOTS FOR ANCHORING BOARDING AND BERTHING INSTRUCTIONS WHEN 100 MILES OUT ON CHANNEL 16 OR CHANNEL 14 STOP IF NO VHF ABOARD CONTACT HZY 500 KHZ AND COPY TRAFFIC LISTS ON ODD HOURS FOR BERTHING INSTRUCTIONS STOP ON ARRIVAL ANCHORAGE POSITION ADVISE HZY OFFICIAL READINESS TIME AND ANCHORED POSITION STOP RADIO MESSAGES WITHOUT CHARGE FULLSTOP PILOTS REQUIRE SUFFICIENT CLEAN BALLAST FOR MANOEUVRING WITH PROPELLER COVERED AND TRIM LIMITED TO 15 FEET FOR RASTANURA TERMINAL AND 8 FEET FOR JUAYMAH TERMINAL STOP IMPERATIVE ALL SHIPS OPERATING UNDER EARLY DEPARTURE PROCEDURE COPY ARAMCO HZY TRAFFIC LIST AFTER DEPARTURE UNTIL CARGO QUANTITIES ARE RESOLVED AND AGENT IS AUTHORISED TO APPROVE DOCUMENTS STOP
ARAMCO

MASTER RAS TANURA RADIO/HZY PLEASE ADVISE ANY EPIDEMIC DISEASE OR ILLNESS ON BOARD AND STATUS OF CREWS INTERNATIONAL CERTIFICATES OF IMMUNISATION AND ALL PORTS CALLED PAST 30 DAYS ALSO DESTINATION STOP AGENT STOP FLAG STOP NET REGISTERED TONNAGE STOP VESSEL WILL NOT BE ALLOWED TO BERTH UNTIL THIS INFORMATION IS RECEIVED.
ARAMCO

It is important that the Master send a reply to the above 2 messages as soon as possible after receipt.

Advisory Notices sent by HZY Radio: Navigation Warnings, port closure information and hydrographic notices are broadcast on 430 kHz, 4308.5 kHz and 8480 kHz at 0430 GMT and 1630 GMT.

Port closure information is also broadcast on 430 kHz along with traffic list every odd hour when in force.

Weather for offshore areas is dual broadcast on 430 kHz, 8480 kHz and 12811.3 kHz at 0800 GMT and on 430 kHz, 4308.5 kHz and 8480 kHz at 0430 and 1630 GMT.

A tentative berthing schedule of ships is broadcast at 0700 GMT and 1900 GMT daily on 430 kHz. This schedule is not firm and subject to change at any time. MASTERS MUST NOT MAKE ANY VESSEL MOVEMENTS WITHIN THE PORT BASED ON THIS SCHEDULE. The ARAMCO Pilot will individually alert vessels for final berthing instructions.

Aircraft Radio Beacon: There is an aircraft radio beacon transmitting on 335 kHz located at: Lat. 26° 37′ 36″ N., Long. 50° 09′ 47″ E. The beacon call sign is – RT.

HZY Coast Station Procedures – MF and HF: HZY Ras Tanura Radio provides W/T service in accordance with the schedules shown on Chart – 1 and Chart – 2 (see overleaf). Traffic lists are transmitted on working frequencies after a preliminary announcement on 500 kHz on the MF band and on the working frequency in the HF band. Ships may begin calling HZY when the traffic list is completed.

During watch periods, HZY monitors 500 kHz in the MF band and Common Channels 5 and 6 in the scheduled HF band. When HZY is open for service on HF, the identifying signal CQ CQ CQ DE HZY HZY HZY is transmitted approximately every 30 seconds. Ships may call on Channel 5/6 at any time.

HZY also provides HF Radio Telephone service in accordance with the frequency assignment in Chart – 3 (see overleaf). The mode of operation is simplex using upper sideband. This service is restricted to telephone calls with ARAMCO representatives. Initial contact to establish service is via W/T. HZY will designate the frequency for radio telephone use at the time contact is made on W/T.

VHF Radio Communications with ARAMCO: Ras Tanura Pilots maintain a listening watch on VHF Channel 16 which is used as the calling channel. The following VHF working channels are available – 11, 13, 14, 18, 20, 78.

ARAMCO Terminal Planners monitor VHF Channels 13, 14 and 16 and can also be contacted via Ras Tanura Pilots.

VHF contact with Ras Tanura Pilots should be established within 100 miles of the port (or more in good propagation conditions) and maintained when anchored.

Use of VHF at the berths in the Port of Ras Tanura to contact ARAMCO Terminal Planners, Pilots or Agents is permitted.

VHF radio services are provided as a separate service and not from the HZY Radio Ras Tanura facility.

Communications with ARAMCO – Other than via HZY Radio: In the event that difficulties are encountered in communicating with ARAMCO via HZY Radio, a coast station is available at Bahrain Radio, call sign A9M. Messages are forwarded to ARAMCO via International Telex facilities. All such messages are at the ship's expense and subject to a delay of one day or more. There is a Saudi Arabian Government Maritime Coast Radio Station at Dammam call sign HZG.

Vessels calling at Ras Tanura or Yanbu Ports can contact HZY on Telex No. 601919 AMAR SJ, using Marisat. HZY does not initiate any call to contact vessels by telex.

Radio Silence at Berth: The use of Wireless Telegraphy and Radio Telephone transmitting equipment (with the exception of VHF equipment) is prohibited when secured to any ARAMCO Terminal facility.

Departure from Ras Tanura: It is important that for several days after departure from Ras Tanura vessel maintains communications with and copy HZY traffic lists.

ARAMCO NGL Terminal Yanbu: Vessels bound for the ARAMCO NGL Terminal at Yanbu should address radio messages to "ARAMCO RAS TANURA/YANBU" and communicate with HZY on HF channels only.

CHART – 1:
HZY W/T Watch and Answer Frequencies

Listening Frequency Ships Transmit	*Reply Frequency HZY Transmit*	*Scheduled Times GMT*
—	430 kHz	H24
500 kHz	500 kHz	H24
—	521 kHz	On Request
*4181.6 to 4182.4 kHz	4308.5 kHz	1600 – 0600
†4186.8 to 4187.2 kHz		
—	4230 kHz	On Request
—	4275.5 kHz	On Request
*8632.2 to 8364.8 kHz	8480 kHz	1400 – 1000
†8373.6 to 8374.4 kHz		
*12544.8 to 12547.2 kHz	12811.3 kHz	0600 – 1600
†12560.4 to 12561.6 kHz		
*16726.4 to 16729.6 kHz	16960 kHz	1000 – 1400
†16747.2 to 16748.8 kHz		

*Corresponds to common Channel 5/6

†Corresponds to common Channel 18, monitored immediately following lists until all ships cleared.

Notes: (1) HF transmit frequencies are HZY working frequencies.
(2) During watch periods, CQ CQ CQ DE HZY HZY HZY is transmitted, indicating band is open for service.

CHART – 2
HZY W/T Working Frequencies and Traffic List Times

Frequencies HZY Transmit	*Schedule*	*List Times GMT*
430 kHz	H24	Every Odd Hour
521 kHz	On Request	—
4308.5 kHz	1600 – 0400	Every Even Hour
4230 kHz	On Request	—
4275.5 kHz	On Request	
8480 kHz	1400 – 0800	Every Even Hour
12811.3 kHz	0600 – 1400	Every Even Hour
16960 kHz	1000 – 1200	1000 and 1200

Lists are broadcast on the odd or even hour.

CHART – 3
HZY Radio Telephone Frequencies

Carrier Frequency	*Assigned Frequency*
4143.6 kHz	4145 kHz
6218.6 kHz	6220 kHz
8291.1 kHz	8292.5 kHz
12429.2 kHz	12430.6 kHz
16587.1 kHz	16588.5 kHz
22124.0 kHz	22125.5 kHz

Notes: (1) HZY maintains a constant listening watch on international distress and calling frequency 2182 kHz.
(2) Initial contact via W/T, Channels are not monitored.
(3) HZY transmits on upper side band, A3A/A3J.
(4) Ships may specify their own authorised send frequency if desired.

BERTHING:

FACTORS: Vessels calling at the Port of Ras Tanura are assigned berths based on a variety of factors including but not limited to the following: nomination date, time of arrival, product to be loaded, vessel size, available berths and loaded draft. If there are no immediate berthing prospects vessels will be directed to anchor in the Northern Holding Anchorage.

DOUBLE BERTHING: ARAMCO reserves the right to advise vessels at which berth or berths and/or Terminals the loading will start and finish.

MOORINGS: All arriving vessels of 75,000 d.w.t. and over shall comply with the wire mooring line requirements detailed in Part "B" – Mooring Regulations.

During periods of unsettled weather, arriving vessels of under 75,000 d.w.t. fitted with wire moorings are preferentially berthed.

BALLAST: Vessels shall complete the deballasting operation promptly after berthing in order to minimise time at berth. Simultaneous loading and deballasting is permitted provided that the vessel has positive segregation between the two operations. Owners/Operators or Charterers of vessels requiring time to deballast in excess of what ARAMCO considers standard will be so notified by letter with a copy to the Master.

No facilities for the reception of dirty ballast are available in the Port of Ras Tanura.

PILOTAGE:

CHANNELS: The channels of the Ras Tanura Separation Scheme are marked by lighted radar-reflecting beacons and buoys. Channel Pilots are not provided.

BERTHING: The use of Harbour Pilots is compulsory for all vessels calling at the Port of Ras Tanura to use any of the terminal facilities.

Harbour Pilots moor, unmoor and supervise the movements of all vessels in the vicinity of the berths. ARAMCO Harbour Pilots are on duty continuously and at present their services are provided without charge for normal operations, although ARAMCO reserves the right to charge for these services.

PILOT BOATS: An 87 ft. steel hull dedicated launch with about 6 ft. freeboard is usually available to transfer Harbour Pilots to and from tankers using South Pier, North Pier and the Sea Islands. A harbour tug is normally used to transfer Pilots to and from gas tankers using Ju'aymah NGL Berths 51 and 52. Transfer of Harbour Pilots to and from tankers using the Ju'aymah SPM Terminal is usually by helicopter.

Pilot boats carry regulation signals, are equipped with radar, VHF radio and are painted white with green hull.

Also see "Regulations".

TUGS:

DESCRIPTION OF TUGS: ARAMCO operates the following harbour tugs:

1 single screw conventional tug of 4,000 h.p. with Bollard Pull of 55 tons.

3 twin screw flanking rudder tugs of 6,000 h.p. with Bollard Pull of 72 tons.

3 Voith Schneider propulsion tugs of 4,000 h.p. with Bollard Pull of 40 tons.

METHOD OF USE: These tugs may be encountered at any of the terminals in the Port of Ras Tanura.

Tug's lines are used but vessels should have good quality ropes available to supplement these in periods of bad weather.

At present no charge is made for the tugs when used in normal mooring and unmooring operations but a charge is made for additional or unusual services.

HELICOPTER OPERATIONS:

GENERAL: Helicopter operations in the Port of Ras Tanura are carried out according to the "International Chamber of Shipping – Guide to Helicopter/Ship Operations" All ships using the service should have a copy of this information and the Safety Check List on board.

DESCRIPTION OF HELICOPTERS: The helicopters used to transport ARAMCO personnel and equipment to and from tankers in the Port of Ras Tanura are Bell Model 212 and 214 which are twin-engined, kerosene fuelled, carry 11 to 18 passengers.

They are fully equipped for night operations and operate both day and night, with capability for either landing or winching operations as required and permitted.

In addition to being fitted with radar and radios which operate on aeronautical frequencies, the helicopters are fitted with International Marine VHF Ship/Shore Channels 11, 12, 13, 14 and 16.

SHIP INFORMATION: The following ship information should be available to the pilot of the helicopter:

1. Ship's name and call sign.
2. Owner.
3. Port and Country of Registry.
4. Type and Size.
5. Inert gas system installed.
6. Type of deck operating area provided for helicopters.
7. Type, size, markings and location of "Manoeuvring Zone" and "Clear Zone" provided for helicopters.
8. Obstacle types, sizes, markings and locations within and adjacent to helicopter operating area including antennae, handrails, davits, catwalks, valves, piping, etc,
9. Floodlight locations and wattage.
10. Communication frequencies available and those which are guarded continuously.
11. Special conditions, limitations and precautions applying to the particular vessel.

This information is kept on file in the Helicopter Dispatch Office and will be regularly updated.

If the conditions aboard the ship do not agree with the file, the differences must be resolved before a helicopter is dispatched to a ship.

COMMUNICATIONS:

(a) **The Initial Contact** will be made by the helicopter Pilot with the ship on VHF Channel 16 and the working Channel 12 as soon as practicable to confirm the rendezvous time and location, type of service intended, etc.

(b) In the event of **Radio Communication Failure** the helicopter will circle the ship and the ship should reply by signalling lamp with:

1. Steady white light: Ready to receive helicopter
2. Series of short flashes: Reception of helicopter delayed for a period not greater than 15 minutes.
3. Prolonged series of "N" signals: Reception of helicopter delayed for a period in excess of 15 minutes. In this case the helicopter will return to base.

(c) **Initial Navigation Contact.**

The helicopter Pilot will at the appropriate time use the agreed VHF working frequency to request the ship to transmit its call sign on 410 kHz and then to transmit a continuous signal (locked Key) for a sufficient time to determine the bearing to the ship and identify it on the radar.

SAFETY: The Port of Ras Tanura maintains a vigorous cargo handling safety programme.

ARAMCO is a member of the Oil Companies International Marine Forum (O.C.I.M.F.) and as such follows the procedures and safety practices recommended by this international organisation.

As is the practice in other Arabian Gulf Ports, each ship's Master is presented with a form entitled "Declaration by Master" which lists ARAMCO safety regulations. After a detailed review of each safety item with the ARAMCO Safety Representative, the Master must sign the form. Prior to start of loading and later at several times during the loading, ARAMCO Safety Representative will visit the ship and accompanied by one of the ship's officers will check to ensure that safe loading practices are being observed by both the ship and the shore crews.

In cases of blatant or repeated infringements of the Safety Regulations ships will be removed from the berth and will not be reberthed until a thorough inspection has been satisfactorily carried out by an ARAMCO Safety Representative.

Also see "Safety Regulations".

EMERGENCY PROCEDURES: The course of action to be followed by ARAMCO Personnel in the event of a fire or explosion on board a vessel while berthed in this Port will be dictated by the particular facts and circumstances of the incident. Although it is impossible to indicate exactly what practices will be applied during an emergency before an evaluation of the specific situation can be made by the responsible

ARAMCO representative, his decisions will be based on the following principles:

1. An evaluation of the particular emergency will be made by the responsible ARAMCO Representative to determine the course of action to be taken. His decision as to the course of action will take into account the location, type and extent of fire or explosion, the berth location and proximity of other vessels, and the tidal and wind conditions.
2. A burning vessel will not be permitted to remain at the berth. Where possible, the fire will be fought with available berth fire-fighting facilities until the arrival of tugs. After hook-up of the tugs to the vessel's fire wires, if the fire is not controllable or extinguished, the vessel will be released or cut free and removed from berth under controlled conditions.
3. Where communication facilities permit, the Master or responsible ship's officer will be advised prior to releasing or cutting free a vessel from berth. The Master should designate a responsible senior ship's officer with whom the senior ARAMCO Representative present can communicate in case of a fire or explosion aboard the vessel. Where possible, this officer will be advised of the actions to be taken in releasing or cutting the vessel free from the berth.
4. Although a vessel may have no power it may be released or cut free from the berth prior to arrival of the tugs and hook up to the vessel's fire wires, if in the opinion of the senior ARAMCO Representative present it is a greater hazard at the berth than drifting free. Normally, however, a burning vessel will be removed by tug boats under controlled conditions.

NOTE: The above mentioned Principles are intended to provide the guidelines of action to protect terminal personnel and facilities, and other vessels at the ARAMCO loading berths.

The handling of gas tankers loading LPG at ARAMCO berths is governed by separate sets of rules with the mnemonic "Gasrul 9:86", copies of which are provided to all gas tankers.

POLLUTION: ARAMCO adopts a vigorous policy of pollution prevention, detection, and clean-up which is required and supported by the Saudi Arabian Government.

Vessels using terminals operated by the Company are required to observe the IMO conventions relating to the pollution of the sea by oil and are advised that violations will involve the Master/Owner/ Agent/ Operator in severe penalties.

ARAMCO does not tolerate pollution and will clean oil spills with whatever men, equipment, and material that are required considering the size of the spill, time of day, sea state and weather conditions. The Master, Owners and Operators shall be liable for all expenditure incurred by ARAMCO.

The equipment and material used in the clean up effort is dictated by on site judgement of qualified professional personnel whose goal is to protect the environment and prevent hazardous conditions.

Masters of vessels involved in a pollution incident shall immediately contact their Agent who will arrange the necessary Government contact.

Also see "Pollution Regulations".

SHIP'S AGENTS: Vessels calling at any terminal in the Port of Ras Tanura should address all messages concerning ship's business to their Agents. Matters concerning provision supply, minor repairs, local medical or hopital services, mail, crew changes, etc., are to be handled by the ship's Agent.

SURVEYORS: Independent oil inspection service is available at the terminals in the Port of Ras Tanura by the following companies:

(a) Redwood Petroleum Division,
1 Place des Alpes,
1201 – Geneve 1, Switzerland.
Telephone: 312250
Telex: 22140 SGS CH
(for local information contact Gulf Agency Company)

(b) Caleb Brett & Son Limited,
International House, Mitre Square, 26-28 Greenchurch Lane,
London EC3A 5ED

(c) E. W. Saybolt and Co. S.A.
400, Swenson Drive,
Kenilworth, New Jersey 07033, U.S.A.

(d) Watson Gray (Saudi Arabia) Limited,
c/o Yusuf Bin Ahmed Kanoo,
Aramco Box 711 or P.O.Box 71,
Ras Tanura, via Dhahran, Saudi Arabia.
Telephone: (03)6670180/6670903
Telex: 651012 KANOO SJ

(e) Services et Transports,
Route du Hoc, Gonfreville L'orcher,
Harfleur 76700, France.
Telephone: (35) 26 40 18
Telex: 190634 F.

(f) SPACO (Saudi Petroleum Analytical Company)
c/o SNAS, P.O.Box 5641, Riyadh, Saudi Arabia.
Telephone: (01)4766589
Telex: 201406 SJ

Marine and Engine Surveyors of various companies are available locally. They may be contacted through the vessel's Agent.

INERT GAS REQUIREMENTS – CARGO TANKS: All vessels are required to be fitted with an inert gas system under the provisions of the SOLAS Convention 1974 and its 1978 Protocol shall have the cargo tanks in the inerted condition prior to berthing at any ARAMCO Terminal in the Port of Ras Tanura.

The Berthing Pilot will check the oxygen content of cargo tanks with a ship's officer using ship's equipment. If the oxygen content of any tank exceed 8% by volume, the vessel shall not be berthed until the oxygen content of all tanks meet the requirements of the convention.

The ARAMCO Form "Inert Gas System – Check List" must be satisfactorily completed prior to berthing.

FACILITIES:

BUNKERS: ARAMCO fuel bunkers are available at all berths in the port. Black diesel is not available at the Ju'aymah Crude Terminal. Vessels taking only bunkers are urged to call at Ras Tanura *prior* to loading elswhere to avoid delays caused by draft and berthing assignment problems.

Non-ARAMCO bunkering services are available. Vessels employing these services are generally required to carry out their bunkering operations at the Northern Holding Anchorage.

FRESH WATER: Drinking and boiler water are NOT available in the Port of Ras Tanura. In cases of emergency, ships' Agents may be able to arrange delivery by barge of small quantities.

LUBRICATING OILS: Lubricating oils are available in limited quantities of drums if ordered through ship's Agents well in advance.

STORES: The shipping of any stores at ARAMCO berths is prohibited.

REPAIRS: Repair services are available from local business concerns. ARAMCO will not assist in making emergency repairs on vessels.

It is suggested that Masters discuss repair charges with the ship's Agent prior to requesting or authorising repair work.

DIVERS: Deep sea divers, operating from modern and well-equipped boats are available. Ship's Agents must be contacted for this service.

MEDICAL/HOSPITAL FACILITIES: No medical facilities are available at any of the terminals in the Port of Ras Tanura. Requirements for medical assistance or hospital services must be made through the ship's Agent, who can arrange treatment at one of the government or private clinics or hospitals in Rahima, Al Khobar or Dammam.

The ship's Agent is able to arrange for the Port Doctor to visit vessels to treat minor injuries or illnesses. In serious cases requiring hospitalisation the Port Doctor must attend to certify the necessity. ARAMCO medical facilities are made available in emergencies only when other facilities are not available.

A charge will be made for all such services furnished by ARAMCO. The ARAMCO radio station "HZY" may be used at any time without charge by vessels at sea to obtain medical advice.

REPATRIATION/SHORE LEAVE: All matters relating to crew changes, repatriation of crew personnel or shore leave are to be arranged through the ship's Agent. There is no Seaman's Recreation Centre at any terminal in the Port of Ras Tanura.

DRY CARGO AND FREIGHT: No dry cargo facilities exist in the Port of Ras Tanura and all ARAMCO freight is handled through Saudi Arabian Government Ports in the area.

(B) REGULATIONS

The regulations shall be observed by all vessels proceeding to any terminal in the Port of Ras Tanura.

The Rules and Regulations for Ras Tanura Port (and Ju'aymah) are published by the Co-operation Council for the Arab States of the Gulf (March 1985).

Every vessel which arrives in Ras Tanura or Ras al Ju'aymah must have a copy of these Regulations on board, or must obtain a copy immediately on first arrrival.

Neither non-possession nor ignorance of these Regulations will be considered a reason for non-imposition of a penalty for violation of these Regulations.

EXTRACTS FROM SAUDI ARABIAN GOVERNMENT REGULATIONS:

Saudi Arabian Government Regulations are strictly enforced and Masters having any doubts concerning the interpretation of these regulations are urged to consult their agent. At all times while in the Port of Ras Tanura whether at anchor, at the berth in any terminal or in transit between terminals, the vessel and its personnel are under the jurisdiction of Saudi Arabian laws.

QUARANTINE SIGNALS: Quarantine signals shall be displayed by all vessels approaching the Port of Ras Tanura in accordance with International practice. These signals shall be displayed continuously until Pratique is granted.

Sunrise to Sunset – Quarantine flag (Q)
Sunset to Sunrise – Red over White signal lights.

SAUDI ARABIAN FLAG: The flag of The Kingdom of Saudi Arabia shall be flown from the foremast of the vessel by day and by night while in the Port of Ras Tanura. The flag shall be clean and in good condition. Masters should obtain this flag before arrival but if circumstances render this impossible a flag must be obtained from the ship's Agent. Vessels not correctly flying the flag of Saudi Arabia will not be berthed. The flag is properly displayed when the Arabic writing appears on the top and the sword on the bottom.

PROHIBITED ARTICLES: All materials to be either exported from or imported into Saudi Arabia are subject to examination by Customs Authorities. The import of certain articles is strictly prohibited and such articles include but are not limited to the following:

Explosives and firearms including air rifles.
Implements of war of any kind including antique weapons.
Religious matter not pertaining to the Moslem faith.
Playing cards and gambling devices.
Narcotics.
Printed, photographic matter or video tapes depicting what could be considered pornographic.
Alcoholic beverages of any description.

Any of the above items on board any vessel calling at the Port of Ras Tanura shall be secured in appropriate locked storerooms which will be sealed by the Authorities who may carry out inspections to ensure that the seals are intact and that none of the above articles are in use. The seals must remain intact during the entire period of the vessel's stay in the Port of Ras Tanura and must not be broken until after the vessel has finally departed for a port in another country.

Trafficking in any of the above articles between vessels or between vessel's crew and shore personnel is strictly prohibited.

The baggage of crews joining and leaving vessels will be inspected to ensure that it contains none of the prohibited articles.

PHOTOGRAPHY: The use of photographic equipment of any kind is strictly prohibited within the Port of Ras Tanura. Cameras are liable to seizure by the Authorities.

SHORE LEAVE: Vessel's personnel are not permitted ashore nor on the wharves for ANY PURPOSE WHATSOEVER (this includes reading the vessel's draft) until pratique is granted and then only if actually engaged in operational duties. No visiting between vessels at berths is permitted. Shore leave is not normally granted and ship's Agents must be consulted for advice.

PENALTIES: Penalties for violations of Saudi Arabian Government Regulations are severe and considerable fines and/or delays to vessels may be incurred.

Note: ARAMCO fully endorses and complies with these Rules and Regulations. Questions concerning these Rules and Regulations, from Ship Owners or Masters using ARAMCO Marine Terminal Facilities, should be addressed to the appropriate Authority through the ship's Agents.

SAFETY REGULATIONS: Prior to arrival at berth the Master must make a Safety Declaration of the conditions he will maintain when the vessel is at berth. (ARAMCO Form 8812 – 2/84) – See "Appendices" – Master's Safety Declaration.

RESPONSIBILITY FOR SAFETY: The vessel's Master and crew shall be responsible at all times for the safety of the vessel and shall make provision to exercise all necessary precautions.

Aramco Terminal personnel are authorised to suspend oil handling operations in the event that any of the Safety Regulations are violated or if any other hazardous situation is observed.

SAFETY REQUIREMENTS:

Notes:

(a) All of these requirements shall be complied with at all times that a vessel is berthed at any ARAMCO facility.

(b) Requirement No. 14 is to be complied with at other times as stated.

(c) The title of each requirement is numbered to correspond with the questions in the Safety Check List.

(d) Guidance on methods of complying with these requirements is contained in the ICS/OCIMF publication "International Safety Guide for Oil Tankers and Terminals"

1. *Moorings:* Moorings shall be frequently monitored and carefully tended to maintain the vessel in position and alongside at all times. (See "MOORINGS REGULATIONS").

Anchors shall be effectively secured in the hawse pipe to prevent letting go accidentally.

2. *Emergency Towing:* Towing off wires shall be made fast to bitts as far forward and aft as practicable on the side of the vessel opposite to the cargo connections. The wires shall be in good condition of not less than 3.5 in. in circumference (28 mm. diameter) and secured with a minimum of 5 turns on the bitts.

The wire shall lead directly to the chock with no slack on deck and a heaving line made fast to the eye shall be used to maintain the eye of the wire between 3 ft. and 6 ft. (1 m. and 2 m.) above the water at all times.

3. *Ship/Shore Access:* Personnel shall use only the designated access. Gangways shall be carefully tended at all times and safely illuminated at night.

4. *Readiness To Move:* The vessel's boilers, main engines, steering machinery and other equipment essential for manoeuvring shall be maintained so as to enable the vessel to be unberthed under full engine power at short notice.

A suitable trim shall be maintained for the same reason.

5. *Deck Watch:* A responsible Ship's Officer and sufficient crew shall be on watch to attend to the safe operation of the vessel.

A member of the crew shall be continuously on watch on the loading deck in view of the manifold and access to the vessel.

6. *Ship/Shore Communications:*

(a) A reliable communication system shall be established and tested for control of the cargo handling operation. This shall consist of suitable UHF/VHF radios, telephone or direct voice communication.

(b) The responsible Ship's Officer and the shore operator shall confirm with each other that the communications system and signals for controlling the operations are understood by them and by other personnel on duty at the start of operations and at each change of watch or shift.

(c) A responsible member of the vessel's crew with adequate command of the English language shall man the agreed communication medium.

7. *Operating Procedures:* The procedures for cargo, bunker and ballast operations shall be agreed in writing by the responsible Ship's Officer and the Terminal Representative.

8. *Emergency Shutdown:* Whenever an emergency situation develops aboard the vessel which may require that the cargo loading operation be suspended the vessel's tank/manifold valves shall not be closed against the flow rate under any circumstances until the berth operator has been advised. In order to prevent pressure surges in the loading system the period of valve closure shall be not less than 30 seconds and to prevent accidental closure of power operated butterfly valves they shall be locked or otherwise secured in the open position.

9. *Fire Fighting Equipment:* Fire fighting and emergency equipment shall be kept in readiness at all times.

Vessel's fire hoses fitted with combination jet/spray nozzles shall be connected to the fire main and laid out on deck forward and abaft the loading manifold.

If practicable, a pump shall maintain pressure on the fire main otherwise the fire pump shall be on standby ready for immediate use.

Monitors shall be ready for use and portable fire extinguishers preferably of the dry powder type shall be available in the proximity of the manifold area.

10. *Loading Connections:*

(a) The Master shall ensure that cargo and bunker hoses or arms are visually inspected and in good condition.

(b) The Master shall ensure that the loading connection is made to his satisfaction.

(c) Adequate safe fixed lighting arrangements shall be provided at the manifold at night to ensure a safe working area for personnel engaged in making the connection and to detect any leakage or spillage of cargo.

(d) Cargo hoses and arms at ARAMCO loading facilities are fitted with insulating flanges or joints. Ship/shore bonding cables shall *NOT* be used.

11. *Cargo Spillage and Leakage:*

(a) All deck scuppers shall be effectively plugged and cemented if necessary to prevent spilled oil from escaping overside.

(b) Accumulations of water shall be periodically drained and the scuppers secured immediately after the water has been drained. A crew member shall be in attendance during this operation.

(c) All cargo pipe-line and pumproom valves when not in use shall be closed.

(d) Adequate drip trays shall be provided at the loading connections.

(e) Loading rates shall be regulated to avoid oil being drawn into the gas venting system.

(f) If leakage occurs from a pipe-line, valve, hose or arm, or any connection, operations through that system shall be suspended until the cause has been ascertained and the defect remedied. If a pipe-line, hose or arm ruptures or if there is an overflow, all cargo and bunker operations shall be stopped immediately and shall not be restarted until the fault has been rectified and all hazards from the released oil or product eliminated.

(g) In the event of any spillage of cargo on deck or overside, the Representative of the Terminal Superintendent shall be notified immediately.

12. *Unused Cargo and Bunker Connections:*

(a) All unused cargo and bunker connections shall be properly blanked, fitted with a gasket and bolted with one full-size bolt in every hole.

(b) The stern discharge line if fitted shall be isolated forward of the after accommodation by blanking with a spectacle piece or by removal of a spool piece.

(c) Unused inert gas system connections to machinery spaces shall be properly sealed to prevent entry of cargo or vapour.

(d) Any part of a crude oil washing or slop transfer system which extends into machinery spaces shall be securely blanked and isolated on the tank deck.

13. *Sea Valves:*

At the start of and at regular intervals throughout deballasting and loading, a deck watch shall be maintained to ensure that oil is not escaping through sea and overboard discharge valves (Also see "Pollution Regulations").

When not in use, sea and overboard discharge valves connected to the cargo or ballast systems shall be closed and lashed. When lashing is not practicable as with hydraulic valves, a suitable means of locking shall be used to indicate that the valves are to remain closed. (For further guidance refer to the ICS/OCIMF publication "Prevention of Oil Spillage through Cargo Pumproom Sea Valves").

14. *Tank Lids:*

(a) All cargo tank lids ullage and sighting ports shall be securely closed **before berthing or unberthing operations commence.** To maintain watertight integrity **when manoeuvring in the loaded condition** all cargo, ballast and bunker tanks, cofferdams and pumproom entrances shall be securely closed.

(b) During cargo handling operations all cargo, ballast and bunker tank lids and tank washing openings shall be securely closed.

15. *Tank Venting:*

(a) All vessels shall ensure that vapour displaced by cargo shall be vented in accordance with the written agreement with the Terminal Representative.

(b) All vessels fitted with an Inert Gas System shall ensure that the oxygen content throughout the atmosphere of cargo tanks has been reduced to 8 per cent or less by volume.

(c) Flame arrestors will be employed in accordance with the design features of the venting system.

(d) The loading rate shall be controlled to prevent excess pressure in the cargo tanks.

(e) If ullage ports are required to be open for operational purposes the opening shall be protected by efficient flame arrestors. Ullage ports shall not be left partly covered but shall be fully open in such a way that vapour may leave the tank in the form of a vertical unimpeded jet.

(f) In vessels not fitted with automatic ullaging devices ullage ports may be opened intermittently for short periods for the purpose of ullaging or sighting only.

16. *Hand Torches and Battery Powered Equipment:*

(a) Battery operated flashlights shall be in good condition and of a type certified to be safe for use in hazardous locations.

(b) Portable domestic radios, photographic flash equipment (see "Prohibition of Photography"), portable electronic calculators, recorders and other battery-powered equipment of non-approved type shall not be used on deck or in any place where petroleum vapour may be encountered.

17. *Portable Radio Transceivers:* Portable VHF/UHF transceivers shall be of an intrinsically safe type which is approved by a competent authority. When used this equipment shall be in good condition.

18. *Radio and Radar Transmitters:*

(a) Main radio equipment shall not be used and main transmitting aerials shall be disconnected and grounded.

(b) Radar scanners shall be switched off.

(c) The servicing of radio and radar equipment shall not be permitted without written agreement of the Terminal Representative.

19. *Electrical Equipment:*
- (a) The use of portable electrical equipment on flexible leads is prohibited on the tank deck. The supply cables for such equipment shall be disconnected and removed from the tank deck.
- (b) All electrical installations on board vessels shall be in good condition. Modifications which have not been approved by an appropriate authority shall not be accepted.

20. *Amidships Accommodation:* All doors, ports and windows in amidships accommodation shall be closed and every effort shall be made to prevent entry of petroleum vapour into this accommodation.

21. *Aft Accommodation:*
- (a) All doors, ports and openings in the after accommodation (other than pumproom) which lead directly to the loading deck or which overlook the loading deck at any level shall be kept tightly closed.
- (b) Doors that are required to be closed shall be clearly marked but under no circumstances shall they be locked.
- (c) Machinery space openings by means of which petroleum vapour may enter shall be closed.
- (d) Consideration shall be given to the suspension of cargo operations when weather conditions support the entry of petroleum vapour into spaces which cannot be closed.

22. *Air Conditioning Intakes:*
- (a) Central air conditioning or mechanical ventilation systems shall be adjusted to prevent intake of petroleum vapour if possible by recirculation of air within enclosed spaces so that a vacuum is not created.
- (b) Any intake within the range of possible petroleum vapour release shall be closed.
- (c) If at any time it is suspected that petroleum vapour is being drawn into the accommodation, central air conditioning and mechanical ventilating systems shall be stopped and intakes closed or covered.

23. *Window Type Air Conditioning Units:*

Window type air conditioning units shall be disconnected from the power supply.

24. *Smoking:*

Smoking shall only be allowed in places in the after accommodation which have been jointly approved in writing by the Master and the Terminal Representative and suitable notices shall be posted at the entrance to designated smoking rooms.

No place will be considered suitable for smoking unless:
- (a) It is in enclosed accommodation abaft the cargo tanks.
- (b) It has no doors which open directly onto the outside deck.
- (c) It has no doors or ports which open directly onto or over the cargo deck or onto decks overlooking cargo spaces.
- (d) All ports are kept closed and doors into passageways are kept closed except when in use.

25. *Galley Stoves and Cooking Appliances:*
- (a) Galleys which use only steam or immersed electric heaters shall be considered suitable for use.
- (b) The use of galley stoves and cooking appliances with non-immersed elements such as electric hot plates and toasters may be permitted in galleys and properly designated pantries with the written agreement of the Terminal Representative.
- (c) Approved galleys and pantries shall be situated in the after accommodation and shall have no doors or ports which open directly onto the cargo deck.
- (d) All galley and pantry doors and ports shall be kept closed.
- (e) Ventilator trunkings and filters of extractor fans in galleys shall be kept clean and free from accumulated oil and fat.

26. *Naked Lights:*

Open flames or fires, exposed incandescent material and any other unconfined sources of ignition are prohibited on deck and in other places where there is a risk that petroleum vapour may be present.

27. *Emergency Escape:*

Means for emergency escapes shall be provided on the side of the vessel opposite to the loading connections. For security reasons such means is to be stowed at deck level in such a manner as to be ready for expeditious use in an emergency. Such means shall be of adequate length to reach the water at all times.

VOLATILE AND NON-VOLATILE PETROLEUM:

Due to the variety of petroleum products available for loading at ARAMCO facilities in the Port of Ras Tanura, all vessels arriving to load crude oil or any petroleum product whether volatile or non-volatile at any berth shall be required to observe the Safety Regulations.

See also "Gasrul 9:86" for ARAMCO Rules governing the handling of gas tankers at berth.

PRECAUTIONS AGAINST STATIC IGNITION: Tanks not properly inerted (see "Safety Requirement") prior to loading static accumulator oils (kerosene, kerosene type jet fuel, white diesel and under certain conditions heavy naphtha and gasoline type jet fuels) shall be gas free within 40% of the lower flammable limit. The following restrictions shall also apply to vessels loading static accumulator oils:
- (a) Tanks and pipe-lines shall be free of water.
- (b) Loading overall (splash filling) shall not be permitted.
- (c) No conducting equipment (ullage tapes, sample cans, thermometers) shall be introduced into a cargo tank until 30 minutes have elapsed after loading has been stopped to that tank.
- (d) No loose floating objects shall be present in tanks to be loaded.
- (e) Initial loading rates shall not exceed 1,000 bbls.p.h. per tank. Above soundings of 20 ft. loading rates of up to 1,500 bbls.p.h. shall be permitted.
- (f) Properly bonded and grounded automatic ullaging equipment may be used at any time.

Vessels with tanks which are properly inerted (see "Safety Requirement") shall not be required to comply with the specific requirements for loading static accumulator oils. However, normal safety precautions shall be observed.

HYDROGEN SULPHIDE HAZARDS: ARAMCO crudes may contain dissolved hydrogen sulphide (H_2S) in concentrations which may be hazardous. It is recommended that Owner's instructions and the ISGOTT recommendations in respect of H_2S hazards are reviewed.

EMERGENCY SIGNAL: In the event of a fire or other emergency, the vessel shall sound a series of 10 short blasts on the ship's whistle.

GAS FREEING: No gas freeing or tank washing shall be carried out at berth.

BOILER TUBE CLEANING: Funnel uptakes and boiler tubes shall not be cleaned while the vessel is at berth. Every precaution shall be taken to ensure that sparks do not escape from the funnel.

REPAIRS: Repairs or maintenance of any kind which may produce a source of ignition shall not be undertaken without the agreement in writing of the Terminal Representative.

PENALTIES: Disregard of or failure to fully comply with any of the Safety Regulations or any safety regulations generally accepted and practised in the marine transport industry will result in the suspension of all operations and the vessel may be required to leave the berth.

Vessels presented for loading with deficient equipment or machinery whether by design or by lack of maintenance will not be berthed. If such deficiency becomes apparent after berthing the vessel will be removed from the berth.

Safety violations due to negligence on the part of the vessel's personnel will result in the suspension of loading operations for investigation and correction. Repeated violations may result in a vessel being removed from the berth.

Removal from the berth as a result of safety violations or deficiencies will be at vessel's expense and ARAMCO will not accept responsibility for any resulting delay to the vessel.

Vessels with unacceptable safety performances will not be permitted to berth at ARAMCO facilities on future visits.

POLLUTION REGULATIONS: Vessels using the Port of Ras Tanura shall exercise every precaution to prevent the pollution of the sea by oil.

1. A crew member shall be stationed on deck to sight the overboard discharge during deballasting operations to ensure that no oil or oil-based products escape into the sea.
   Particular vigilance shall be exercised at any time that a change of operation takes place, e.g. starting of stripping pumps or eductors, change of tanks, commencement of loading, etc.
2. At sea island type berths, all ballast shall be discharged from the side of the ship nearest the berth.
   At pier berths, all ballast shall be discharged from the offshore side of the ship.
   At night, the discharge and the sea area in its vicinity shall be adequately illuminated.
3. No domestic or other rubbish shall be dumped into the sea.
4. In the event of an oil spill the Master shall notify the Terminal Representative on duty.
5. Excessive smoke from the funnels or exhaust gas lines of vessels is prohibited.

PILOTAGE REGULATIONS:

BOARDING ARRANGEMENTS: In order to permit the harbour Pilot to safely embark and disembark from a vessel a pilot ladder shall be provided in accordance with the following requirements:

1. The ladder shall be kept clean and in good order and shall be of adequate length and strength.
2. The vertical distance between the steps must not exceed 15 in. The outboard edge of the step shall project from 5 in. to 6 in. from the hull. Ladders shall be so constructed that the steps will remain flat at right angles to the hull while supporting the weight of a person.
3. Spreaders at suitable intervals shall be provided to prevent the ladder from twisting and the ladder shall be properly secured with the steps level.
4. The deck in the vicinity of the ladder shall be clean and free of oil and grease or other slippery substances.
5. When possible, on vessels so equipped, the pilot ladder shall be made fast next to an area where there is a break in the rail or an opening in the bulwark. Otherwise, suitable arrangements for safe access to the deck from the top of the pilot ladder shall be provided.
6. The boarding position should be as near amidships as possible so that the whole length of the ladder rests against the ship's flat side, clear of all possible discharges from the ship.
7. Adequate lighting shall be provided at night so that the pilot ladder and the deck area close by the head of the ladder shall be adequately and properly illuminated.
8. Manropes, a safety line and lifebuoy with self igniting light should be rigged ready for use if required.
9. The rigging of pilot ladders and the embarkation and disembarkation of Pilots thereby shall be supervised by a responsible deck officer of the vessel.
10. The vessel's propeller shall be stopped during the approach of the pilot boat and the embarking of the Pilot.
11. Whenever the distance from the water to the deck of the vessel exceeds 30 ft. (approximately 9 m.) the pilot ladder shall be rigged in combination with the accommodation ladder.
12. In any small vessel in which the bulwark rails are below the level of the deck of the pilot boat (approximately 6 ft. or 2 m.) a safe boarding position on each side of the forward end of the poop shall be provided and equipped with manropes.
13. Pilot hoists of the double drum, double-wire type are permitted after inspection and approval by Ras Tanura Pilots.

Failure to provide a safe method of boarding for the Pilot will result in the vessel being ordered to anchor until the fault is rectified.

REMOVAL OF WRECKS AND OBSTRUCTIONS: If any vessel founders or otherwise becomes in the opinion of the Company, an obstruction or danger to navigation in the Port of Ras Tanura and its Owner or his Agent fails to remove the obstruction or danger so caused within the period of written notice served by the Port Captain, or immediately in an emergency, the Company may, for the purpose of safeguarding the Port, take action to remove the obstruction or danger.

The Owner of any vessel at the time of its becoming an obstruction or danger to navigation in the Port of Ras Tanura shall be liable for the expense incurred in removing the obstruction or danger to navigation.

Also see Standard Terms and Conditions where Master requests ARAMCO to provide assistance to refloat vessel stranded in waters of the Arabian Gulf.

Also see "Appendices" – Refloating/Stranding.

TRAFFIC REGULATIONS: The following regulations apply to all vessels entering or leaving the Port of Ras Tanura or Dammam by way of the Ras Tanura Channel.

The separation zones and routes shown on the charts of the Ras Tanura Channel are approved by IMO. Violators of the routeing recommendations will be reported to their Owners/Operators/Agents/Charterers.

1. All vessels shall monitor VHF Channel 10 when under way in the Ras Tanura Channel and its vicinity and in the anchorage areas of Ras Tanura Terminal.
2. All vessels using the inbound or outbound channels shall have an underkeel clearance of at least 5 ft. (1.52 m.).
3. Under no circumstances shall inbound vessels navigate in the departure channel nor shall outbound vessels navigate in the arrival channel.
4. Inbound vessels shall:
   (a) report to Ras Tanura Port Radar on VHF Channel 10 when passing Beacon No. 3 and Buoy No. 7.
   (b) not exceed a speed of 5 knots after passing Buoy No. 9.
   (c) not overtake and shall mantain a distance of one mile from vessels proceeding in the same direction after passing Buoy No. 9.
   (d) navigate with extreme caution and give way to vessels departing from the berths and anchorages.
5. Outbound vessels:
   (a) departing from Ras Tanura Anchorage shall advise Ras Tanura Port Radar on VHF Channel 10 of their intentions 30 minutes before weighing anchor.
   (b) shall not overtake and shall maintain a distance of at least one mile from vessels proceeding in the same direction until both vessels have passed clear of Buoy No. 5.
6. Vessels manoeuvring in the area between the South extremity of the Tanker Anchorage and the entrance to the Departure Channel (Buoys 17 and 18) shall limit speed to a maximum of 5 knots.
7. Vessels bound to and from the Port of Dammam shall keep to the Eastern part of the Tanker Anchorage and avoid the manoeuvring area from the anchorage to the sea islands and piers. Outbound vessels from Dammam shall, when passing Dammam Channel Buoy No. D 37, alert Ras Tanura Port Radar of their ETA at the Southern extremity of the Tanker Anchorage.

MOORING REGULATIONS:

GENERAL: The use of nylon or other highly elastic mooring ropes is discouraged.

If a vessel with synthetic mooring ropes is alongside when squall conditions arise, loading to that vessel shall be stopped and loading arms disconnected until weather conditions improve and it is judged safe to resume the loading operation.

Vessels shall be moored to the entire satisfaction of the Harbour Pilot and shall be ready at all times to put out more lines as required by terminal personnel and as may be dictated by weather conditions.

All vessels at berth shall have all deck winches in readiness for immediate use.

All vessels with tension winches shall set the manual brakes on these winches.

MIXED MOORINGS: Vessels equipped with both wire and synthetic lines shall avoid mixing moorings to the same bollard or dolphin.

WIRE MOORINGS: In order to ensure the safety of personnel, vessels and loading facilities and to prevent accidental oil spillages, the following requirements (used as springs and breast lines) are mandatory for all vessels permitted to use the ARAMCO fixed berth loading facilities.

Vessel Size	*Required*	*Recommended*
75–160 m.d.w.t.	8 wires	12 wires
161–250 m.d.w.t.	10 wires	12 wires
251–300 m.d.w.t.	12 wires	14 wires
301–350 m.d.w.t.	12 wires	16 wires
351 m.d.w.t. and above	14 wires	16 wires

The wire size, winch power and winch braking power shall in all cases be adequate for the size of the vessel. All lines shall be properly reeled onto winch drums and the winch brakes shall be set to hold to a minimum load of 60% of the minimum breaking load of the line.

After obtaining the permission of the Port Captain, vessels may use mooring lines other than wire, constructed of a substitute material provided that the elongation of the substitute material does not exceed 3% at 55% breaking load. Tails, if used, should preferably be made of nylon line (3 strand construction should not be used) about 11 m. long overall, and have a breaking strength at least 25% greater than the MBL of the wire to which they are attached. They should be replaced at least every 18 months unless experience and/or inspection indicates more or less frequent replacement is necessary.

Additional information is contained in the O.C.I.M.F. publication "Guide Lines and Recommendations for the Safe Mooring of Large Ships at Piers and Sea Islands".

All vessels shall utilise all of the wire mooring lines with which they are equipped unless the number exceeds that recommended above.

APPENDICES:

SHIP/SHORE SAFETY CHECK LIST

VESSEL: ....

BERTH: ....

Instructions for completion:

The safety of operations requires that all questions should be answered affirmatively after checking by both ship and terminal representatives. If an affirmative answer is not possible, the reason should be given and agreement reached upon appropriate precautions between the ship and the terminal.

Questions	Yes/No	Remarks
1. Is the ship securely moored and anchors secured?		
2. Are emergency towing wires correctly positioned?		
3. Is there safe access between ship and shore?		
4. Is the ship ready to move under its own power?		
5. Is there an effective deck watch in attendance on board?		
6. Is the agreed ship/shore communication system operative?		
7. Have the procedures for cargo, bunker and ballast handling been agreed?		
8. Has the emergency shut down procedure been agreed?		
9. Are fire hoses and fire fighting equipment ready for immediate use?		
10. Are cargo and bunker hoses and/or arms in good condition and properly rigged?		
11. Are scuppers effectively plugged, and drip trays in position?		
12. Are unused cargo and bunker connections, including the stern discharge line, if fitted, blanked?		
13. Are sea and overboard discharge valves, when not in use, closed and lashed?		
14. Are all cargo and bunker tank lids closed?		
15. Is the agreed tank venting system being used?		
16. Are hand torches of an approved type?		
17. Are portable VHF/UHF transceivers of an approved type?		
18. Are the ship's main radio transmitter aerials earthed?		
19. Are electric cables to portable electrical equipment disconnected from power?		
20. Are all external doors and ports in the amidships accommodation closed?		
21. Are all doors and ports in the after accommodation leading on to or overlooking the tank deck closed?		
22. Are air conditioning intakes which may permit the entry of petroleum gas closed?		
23. Are window-type air conditioning units disconnected?		
24. Are smoking requirements being observed?		
25. Are the requirements for the use of galley and other cooking appliances being observed?		
26. Are naked light requirements being observed?		
27. Is there provision for emergency escape?		

Declaration

We have checked with each other the items listed on this Check List in the course of a joint inspection, and have satisfied ourselves that the entries we have made are correct to the best of our knowledge.

For Ship Name.......... Rank.......... Signature..........

For Terminal Name.......... Position.......... Signature..........

Time.......... Date..........

INSTRUCTIONS TO MASTERS AND CONDITIONS OF USE OF PORT

ARAMCO Form 3032 (6/84)
Ras Tanura Terminal
Port of Ras Tanura, Kingdom of Saudi Arabia

Pilot Boarded:.......... Local Time Date..........

To the Master S.S./M.V. ....

1. Your vessel; will be moored to Berth No. .... North/South Pier/Sea Island Port/Starboard side to the berth.
2. The Local Time is GMT plus 3 hours.
3. Low water will be at approximately .... Local Time and will be approximately .... ft./m. above LAT.

BERTHING/UNBERTHING AND MANOEUVRING

1. All movements of vessels to and from berths and in the proximity of ARAMCO facilities shall be under the direction of an ARAMCO Harbour Pilot.
2. All tank openings, ullage and sighting ports shall be closed before berthing or unberthing operations commence.
3. ARAMCO tugs shall assist in berthing and unberthing.
4. Steering gear, engine room telegraph, whistle and all navigational and communications equipment shall be tested before any manoeuvring to or from the berth is commenced.
5. Full main engine power shall be available for berthing and unberthing.
6. Any special conditions present in the vessel which may effect manoeuvring, berthing or cargo handling capability shall be notified to the Harbour Pilot before operations commence.

7. The Harbour Pilot shall refuse to berth vessels with unsatisfactory equipment.
8. The vessel shall be moored to the entire satisfaction of the Harbour Pilot.
9. The crew of the vessel shall be ready to employ additional mooring lines as required by weather changes or as requested by the Harbour Pilot or terminal personnel.
10. Winches shall be ready at all times for immediate use.
11. No mooring lines shall be cast off except in emergency without the permission of the Harbour Pilot.
12. When at berth the vessel shall be ready in every respect to leave the berth at short notice with full engine power.
13. The Master of every vessel shall in circumstances which threaten the safety of the vessel, its crew, or the port installations be prepared to unberth the vessel subject to the advice of the Port Captain with or without a Harbour Pilot on board.
14. The Harbour Pilot will board on completion of loading and/or bunkering and the vessel shall vacate the berth immediately after the disconnection of hoses or arms.
15. The expenditure incurred in any delay or towage resulting from failure to comply with any of the provisions of these instructions shall be the liability of the Master and Owners of the vessel concerned.

KINGDOM OF SAUDI ARABIA

1. The National Flag of the Kingdom shall be displayed by day and night in the appropriate position on every vessel when in local waters.
2. The International Quarantine signals shall be exhibited until the vessel is granted Free Pratique.
3. All prohibited items shall be secured before entering the territorial waters of the Kingdom. Contravention will entail severe penalties.
4. Ship's personnel are NOT permitted ashore nor on the wharves FOR ANY PURPOSE WHATSOEVER (this includes the reading of the ship's draft) until Pratique is granted and then are allowed on the wharves only if actually engaged in duties connected with ballast and cargo handling operations.
5. Shore leave is not permitted except by special arrangement with Government officials through the Agent of the vessel.

CONDITIONS OF USE OF PORT

1. The Master of the vessel shall remain solely responsible for the safety and the proper operation of the vessel at all times. Neither ARAMCO nor its personnel shall be responsible for any loss or damage arising in consequence of any assistance or advice given or tendered in respect of the vessel.
2. The use of ARAMCO premises, facilities and equipment is subject to the express understanding and condition that ARAMCO and its personnel shall be held harmless from all liability, loss or claim thereof arising out of such use. In amplifications of the foregoing, the vessel, its Owners and/or Charterers shall be liable to and shall reimburses ARAMCO promptly and in full for any ARAMCO liability to third parties and any cost, loss, delay, or expense incurred by ARAMCO as a consequence of any breach or non-compliance with these Instructions to Masters and Conditions of Use of Port on the part of the vessel, its Master, Owner(s) and/or Charterer(s).
3. All vessels transiting the "Deep Water Departure Channel" shall maintain a minimum of 5 ft. keel clearance.
4. The Harbour Pilot is provided upon the condition that when boarding or assisting the vessel he becomes the Agent and Servant of the Owner and/or Charterers of the vessel in every respect. ARAMCO shall not be responsible and shall be held harmless from all liability for any damages resulting from or caused by any action taken, order given, or decision made (for any omission thereof) by the Harbour Pilot or in respect of his handling of such vessel.
5. When the assistance of tugs is provided, the Master and crews of tugs shall, in the performance of such services as they render to the vessel, become and be deemed to be the Agents and Servants of the Owners and/or Charterers of the vessel assisted, and ARAMCO shall not be responsible and shall be held harmless from all liability for any damage that may be done by the tugs or their crews while assisting the vessel, whether occasioned by any act or omission of the tug Master or crew by defect or inadequacy of the tug, its machinery or gear. This condition shall not, however empower the Master to detain such tugs should ARAMCO require their services elsewhere.
6. Vessels and the Owners and/or Charterers of vessels from which oil, oily residue, oily ballast water or any other pollutant escapes or discharged for any reason at any location within the Port shall be liable to and shall reimburse ARAMCO promptly and in full for the cost of all clean-up, containment and removal measures taken in response to such escape or discharge by or on behalf of ARAMCO which, in ARAMCO's sole discretion, are prudent or necessary in order to protect human life, vessels, installations and the environment. Such cost shall constitute a joint and several debt due from the vessel and the Owners and/or Charterers to ARAMCO. Further, the vessel and her Owners and/or Charterers shall be jointly and severally liable for all and any loss, damage and expense sustained by ARAMCO by reason of such escape or discharge and shall hold ARAMCO harmless from and indemnify ARAMCO against any and all claims related to or arising out of such escape or discharge.
7. Repair to the main engines or deck machinery shall not be permitted when the vessel is secured to any berth.
8. Harbour Pilots shall not berth any vessel at ARAMCO facilities without the Master's signature of acknowledgement.

MASTER'S ACKNOWLEDGEMENT

I hereby acknowledge receipt of a copy of this document and agree to the instructions and conditions set out therein.

(DATE) (MASTER)

(HOUR LOCAL TIME) (VESSEL)

INSTRUCTIONS TO VESSELS AND CONDITIONS OF USE OF **JU'AYMAH** LOADING FACILITIES

THE MASTER S/S — M/V

1. Vessel will be moored at Ju'aymah Berth No. . . . .
2. Discharge into sea of oil base products in combination with ballast water is not allowed. Ships which release oil or oily ballast water in either the berth or anchorage area will be held responsible for all clean-up costs.
3. Prior to loading, the Pilot/Mooring Master will inspect the vessel for conformity with safety requirements and will review in detail each item on ARAMCO Form 5626 "Declaration by Master". This form will be acknowledged and signed by the Master.

MOORING AND MANOEUVRING

1. Full power must be available for manoeuvring in and out of the berth. Manoeuvers with other than full power available shall be performed only after the consent of both the Port Captain and Pilot/Mooring Master have been obtained.
2. The Pilot/Mooring Master will advise the Master during the mooring and unmooring of the tanker and will supervise the connecting and disconnecting of cargo and bunker hoses by the tanker's crew. The loading operation will be performed to the complete satisfaction of the Pilot/Mooring Master.
3. Mooring will be accomplished with the assistance of marine craft assigned to the vessel by ARAMCO.
4. All tank tops, ullage plugs and sighting ports shall be closed before berthing.
5. The vessel's Master shall notify the Mooring Master of any special conditions, difficulties, defective equipment or gear which could impose special hazards when mooring, unmooring or loading cargo.
6. All navigational equipment such as the engine, telegraph, whistle, steering gear, etc., shall be tested prior to getting underway to moor and unmoor. Testing of the tanker's engine when berthed shall be done only after the Pilot/Master has been duly informed and his consent has been obtained.
7. The Mooring Master may decline to moor a vessel with unsatisfactory mooring equipment.
8. No repairs are permitted while the vessel is berthed. The engine and deck machinery will be kept ready to permit the vessel to get underway on an emergency basis.
9. Any vessel delay resulting from failure to comply with any of the provisions of this document shall be for the vessel's account.
10. Upon completion of loading and the disconnection of hoses, the vessel will be unmoored and, if using Early Departure Procedures, the Master should make ready to depart as soon as possible. Otherwise, vessels are to await cargo and Port Clearance documents while lying in stream.

SAUDI ARABIAN GOVERNMENT PORT REGULATIONS

1. Quarantine signals must be displayed upon entering the coastal waters of Saudi Arabia and approaching Ju'aymah in accordance with international practice and shall be continuously displayed until Pratique is granted. These signals shall be as follows:
   Sunrise to Sunset – Quarantine Flag
   Sunset to Sunrise – Quarantine Signal Lights
   (Red over White)
2. The Saudi Arabian flag must be flown from the foremast while your vessel is in the coastal waters of Saudi Arabia. Such flags are available from the ship's agent. The Saudi Arabian flag is properly displayed when the writing appears on top and the sword on the bottom.
3. Importation and/or use of liquor or contraband items, or trafficking in such items, is absolutely prohibited. The Saudi Arabian Government rigidly enforces these regulations and penalties are severe. In the event of violation considerable delay to the vessel involved could occur.
4. Ship's personnel are not permitted to leave their vessel.

CONDITIONS OF USE OF PORT

1. The Master of the vessel shall remain solely responsible for the safety and proper operation of the vessel at all times. Neither ARAMCO nor its personnel shall be responsible for any loss or damage arising in consequence of any assistance, instructions or advice given or tendered in respect to the vessel.
2. The use of ARAMCO premises, facilities and equipment is subject to the express understanding and condition that ARAMCO and its personnel shall be held harmless from all liability, loss or claim thereof arising out of such use.
3. The Pilot/Mooring Master is supplied upon the condition that when boarding or assisting the vessel he becomes the agent and the servant of the owners and/or charterers of the vessel in every respect. ARAMCO shall not be responsible and shall be held harmless from all liability for any damage resulting from or caused by any action taken, order given, or decision made (or any omission thereof) by the Pilot/Mooring Master or in respect to his handling of the mooring or cargo loading operations.

4. When the assistance of small craft is supplied (mooring launches and/or a utility boat), the craft, Master and Crew thereof shall, in the performance of such services as they render to the vessel, become and be deemed to be the agents and servants of the owners and/or charterers of the vessel assisted. ARAMCO shall not be responsible and shall be held harmless from all liability for any damage that may be done by or to the craft or their crews while assisting the vessel, whether occasioned by any act or omission of the crafts or their crews or by any defect or inadequacy of the craft or the craft's machinery or gear. This shall not give the tanker's Master the right to detain such craft for duties other than mooring, unmooring or hose work nor shall this prevent the craft from being reassigned during mooring, unmooring or hose work.
5. No vessel may berth without an ARAMCO Pilot/Mooring Master on board.
6. Pilots/Mooring Masters will not assist in the mooring of any vessel unless they have the Master's signature on the acknowledgement below.

MASTER'S ACKNOWLEDGEMENT

I hereby acknowledge receipt of a copy of this document and agree to the instruction and conditions set forth therein.

____

DATE MASTER

______________ GMT

HOURS (VESSEL)

REFLOATING/STRANDING

ARABIAN AMERICAN OIL COMPANY
Ras Tanura, Saudi Arabia

MASTER
S.S./M.V. ....

The Arabian American Oil Company hereinafter referred to as ARAMCO has been requested to provide assistance to refloat your vessel which is stranded in the waters of the Gulf.

ARAMCO is prepared to provide personnel and such equipment and materials as may be available to assist in the refloating of your vessel subject to the following conditions:–

1. That you as Master shall have sole responsibility for your vessel at all times.
2. That ARAMCO and any personnel, equipment or crafts that may be provided shall be deemed to be the Agents and Servants of you as Master and the Owners and/or Charterers of your vessel.
3. That you will accept liability on behalf of the Owners and/or Charterers of your vessel for all the expenditure incurred by ARAMCO in providing assistance to your vessel.
4. That ARAMCO shall not be responsible for and shall be held harmless from and against any damage that may be done by any personnel and equipment, including tugs and their crews, whether occasioned by any action or omission of ARAMCO personnel or by any defect or deficiency of ARAMCO equipment and is hereby released from any such liability.
5. That ARAMCO shall not be responsible for any oil pollution damage that may result from the stranding and/or refloating of your vessel and any oil pollution clean-up expenditure that may be incurred shall be the liability of you as Master for the account of the Owners and/or Charterers of your vessel.
6. That in the event that the assistance provided by ARAMCO proves to be inadequate to refloat your vessel you will expeditiously arrange and obtain on your own such assistance as may be necessary to refloat your vessel as soon as possible.
7. That ARAMCO will move in immediately without further permission other than this letter and take whatever corrective action is deemed necessary to respond to pollution, fire or any other kind of incident that may endanger your ship, Gulf environment or other vessels and facilities in the area, or to effect rescue of endangered people. You as Master and the Owners and/or Charterers of you vessel will be charged for all expenditures incurred by ARAMCO for the above services.

DECLARATION BY MASTER

I agree to the terms and conditions set out hereto.

Master ....

SS/MV .... For ARABIAN AMERICAN OIL CO.

Date ....

MASTER'S SAFETY DECLARATION
ARAMCO Form 8812 (2/84).
I DECLARE THAT WHEN MY VESSEL IS AT BERTH:

1. MOORINGS AND ANCHORS – the vessel will be moored in accordance with the standards of the port and the anchors will be secured in the hawsepipes.
2. TOWING WIRES – towing wires for emergency use will be rigged at the forward and after ends of the vessel in accordance with the standards of the port. The eyes of the towing wires will be maintained at a height of 3 ft. – 6 ft. (one to two metres) above the water at all times.
3. GANGWAYS – the gangway will be tended and maintained in a safe condition throughout.
4. MAIN ENGINES – the main engines will be ready for use at short notice to leave the berth in the event of an emergency condition. A suitable trim will be maintained for the same purpose. At SBM berths the main engines will be on continuous stand-by.
5. DECK WATCH – an effective deck watch will be maintained.
6. COMMUNICATIONS – an effective ship/shore communications system will be agreed to efficiently control the cargo handling and bunkering operations throughout.
7. CARGO, BUNKER AND BALLAST OPERATIONS – the procedures for cargo, bunker and ballast handling operations will be agreed with the Terminal Representative.
8. EMERGENCY SHUTDOWN – the emergency shutdown procedures will be agreed with the Terminal Representative.
9. FIREFIGHTING EQUIPMENT – all firefighting equipment will be ready for immediate use and fire hoses equipped with jet/spray nozzles will be prepared for use one forward and one abaft the manifold.
10. CARGO AND BUNKER CONNECTIONS – cargo and bunker hoses or arms will be inspected to confirm that they are in good condition and correctly connected.
11. SCUPPERS AND DRIP TRAYS – scuppers will be effectively plugged or otherwise secured (except when the vessel is a gas tanker) and drip trays will be in position.
12. UNUSED CARGO AND BUNKER CONNECTIONS – all unused cargo and bunker connections will be effectively blanked.
13. SEA AND OVERBOARD DISCHARGE VALVES – all sea and overboard discharge valves when not in use will be effectively closed and lashed.
14. CARGO BUNKER AND BALLAST TANK LIDS – all cargo, bunker and ballast tank lids will be closed and secured except as may be permitted by the Terminal Representative.
15. VENTING AND INERT GAS
    (a) Venting Agreement – the method by which tanks will be vented during cargo and ballast operations will be in accordance with that contained in the written agreement with the Terminal Representative.
    (b) Flame Arresters – flame arresters will be employed in accordance with the design features of the venting system.
    (c) Ullage Ports – ullage ports will be fitted with efficient flame arresters on every occasion when they are not secured in the closed position.
    (d) Inert Gas – all cargo tanks will be maintained in an inert condition if the vessel is equipped with an inert gas system. In gas tankers the cargo tanks will be inerted and/or purged.
16. HAND TORCHES – hand torches will be in good condition and approved for use in hazardous zones.
17. PORTABLE TRANSCEIVERS – portable UHF/VHF transceivers will be in good condition and certified as being intrinsically safe.
18. RADIO AND RADAR AERIALS – radio transmitting aerials will be earthed and radar scanners will be switched off. The servicing of such equipment will not be undertaken without the permission of the Terminal Representative.
19. PORTABLE ELECTRICAL EQUIPMENT – all portable electrical equipment on deck will be disconnected from the power supply.
20. DOORS AND PORTS AMIDSHIP ACCOMMODATION – all external doors and ports in the amidship accommodation will be closed and every effort will be made to prevent the entry of dangerous gas.
21. DOORS AND PORTS AFTER ACCOMMODATION – all doors and ports in the after accommodation, which overlook or are adjacent to the tank deck or other potentially hazardous zones, will be maintained in the closed position.
22. CENTRAL AIR CONDITIONING – any central air conditioning or fresh air intakes which may permit the entry of petroleum gas will be closed.
23. WINDOW TYPE AIR CONDITIONING UNITS – all window type air conditioning units will be disconnected from the power supply.
24. SMOKING – smoking will be prohibited except in those spaces which have been jointly approved with the Terminal Representative.
25. GALLEY AND COOKING APPLIANCES – the use of cooking appliances wherever situated will require the approval of the Terminal Representative.
26. NAKED LIGHTS – naked lights will not be used on the tank deck or in other hazardous zones.
27. EMERGENCY ESCAPE – provision for emergency escape will be provided.
28. GAS FREEING – gas freeing will not be undertaken under any circumstances.
29. WATER BALLAST – water ballast discharged will be free of oil or any other contaminant which may pollute the waters of the port.
30. REPAIRS – repairs or maintenance of any kind which may produce a source of ignition will not be undertaken without the agreement in writing of the Terminal Representative.
31. BOILER TUBE CLEANING – boiler tubes will not be cleaned and every precaution will be taken to prevent the emission of sparks from the funnel.
32. EMERGENCY SIGNAL – in the event of a fire or other emergency arising, the emergency signal consisting of TEN (10) SHORT BLASTS will be sounded on the ship's whistle.
33. PENALTIES – any failure to observe the safety requirements contained in this declaration will entail the following penalties:
    (a) A suspension of all cargo handling, bunkering and ballast operations, and
    (b) the vessel may be required to vacate the berth until such time as corrective action has been undertaken to the satisfaction of the Terminal Representative.

All infringements will be brought to the attention of the vessel's Owners, Operators and/or Charterers.

MASTER'S SAFETY DECLARATION (TERMINAL RECEIPT)

Master M.V./S.S. ....

BERTH .... DATE .... TIME ....

(C) *RAS TANURA TERMINAL*

This section gives specific information regarding RAS TANURA TERMINAL which includes Sea Island, North and South Piers and is to be read together with **Part (A) and (B).**

LOCATION: The Ras Tanura Terminal, refinery and tank farms are located on a peninsula, the Southern end of which forms a sand spit, the tip of which is officially known as (RA'S) AT TANNURAH.

South Pier: The South Pier is connected to the East side of the peninsula by a causeway and trestle 2,300 ft. in length. The "T" Pier has 4 berths (1 to 4) and is 1,200 ft. long and 105 ft. wide.

North Pier: The North Pier is located about 0.75 miles to the North of the South Pier. This Pier is 2,645 ft. long and 110 ft. wide and comprises 6 berths (6 to 11). Crude oil, products and RLPG are available at North Pier.

Sea Islands: A complex of 4 Sea Islands interconnected by walkways is located approximately 5,600 ft. N.E. of the North Pier. Each of the 4 sea islands consists of 2 berths with a loading station on the platform, 4 to 6 mooring dolphins and 2 to 4 breasting dolphins per berth. The lengths of each pair of berths between outer mooring dolphins are (from South) Sea Island 1, 1,250 ft., Sea Islands 2 and 3, 1,400 ft., Sea Island 4, 1,750 ft.

The berths are numbered from South, on the East side 12, 15, 17, 20, on the West side 14, 16, 18, 19.

The loading stations at each of the Sea Island berths are equipped with steel, hydraulically operating loading arms and all berths are equipped with quick release hooks.

Refrigerated Liquefied Petroleum Gases (R.L.P.G.): Facilities for loading refrigerated liquefied Butane and Propane are located at the North Pier, Berths 6, 8 and 10.

PILOTAGE: *Vessel from Arrival Channel:* Pilot will normally board South of Buoy 17 and 18, as advised by Port Radar.

Vessel at Tanker Anchorage: After heaving anchor, the vessel will be advised by Port Radar towards a position approximately 1.5 miles S.E. of the South end of Sea Island dependent on weather and tidal conditions.

Vessels must not approach any closer than 1.5 miles to the piers or Sea Islands without a Pilot on board due to the tidal streams in the area.

Sea Island Pilots: ARAMCO maintains Pilots on continuous Duty on the Sea Islands. They are stationed on the Sea Islands by ARAMCO to provide marine advice to the Loading Masters, to assist in the safe and efficient mooring and loading of vessels berthed at this facility and carry out emergency unmooring. Masters of vessels may contact the Sea Island Pilot through the Pier Operator or by calling the Ras Tanura Pilot Office on VHF Channel 16. Masters of all vessels berthed at the Sea Islands are encouraged to discuss any vessel-related problems with the Duty Sea Island Pilot.

Informing Pilots of Finishing Time: As an aid to planning and expediting ships' movements and also to give adequate notice to vessels scheduled to berth, vessels loading at the berths in Ras Tanura shall call the Ras Tanura Pilot Office on VHF Channel 16 one hour before completion of loading.

INBOUND TRAFFIC PROCEDURE: (See Part B) – "Traffic Regulations".

Vessels proceeding direct to Ras Tanura Terminal: As per Inbound Traffic Procedures in Part (A) "Navigation" to the Entry Buoy and following the separation scheme to Buoys 17 and 18 according to advice from Port Radar and Pilots either to anchor in the Ras Tanura Tanker Anchorage or to berth on arrival.

From Northern Holding Anchorage to Ras Tanura Terminal enter the separation scheme under the advice of Port Radar and follow the channel as above.

Maximum Draft in Arrival Channel: The maximum draft for transit of channel immediately South of No. 5 Buoy is 16.46 m. plus predicted rise of tide up to a maximum draft of 18 m.

See "Berthing – Depths of Water at Berths".

Masters of vessels arriving partly loaded or in deep ballast should navigate with caution in the vicinity of Nos. 5 and 7 channel buoys.

From East Holding Anchorage and East Channel: Follow the buoyed route to RTE 7 and RTE 8. Turn North into the Tanker Anchorage at Port Radar and Pilot's advice.

East Channel Caution: It is recommended that vessels of over 800 ft. (244 m.) length or 35 ft. (10.67 m.) draft do not use the East Channel.

Sea Islands' Submerged Pipe-lines: All traffic must pass East of the Sea Islands due to the existence of numerous submerged oil pipe-lines between all of the Sea Islands and the shore.

Abu Safa Submerged Pipe-line: All vessels are urged to navigate with caution between Channel Buoys 9 and 11 in the arrival channel and are forbidden to drop anchor in their vicinity due to the existence of the submerged oil pipe-line which crosses the channel.

ANCHORAGES: *Tanker Anchorage:* The Tanker Anchorage lies approximately 2 miles East of the Sea Islands and is used as a final holding area for vessels which have immediate berthing prospects or for vessels awaiting cargo clearance, release, sailing documents, etc. and whose draft does not exceed 60 ft. (18.3 m.). Under normal circumstances, no more than 10 vessels are allowed to use this anchorage at one time.

Freighter Anchorage: This anchorage, South East of the "SPIT" buoy is used as holding ground for coastal tankers intended to load at South Pier and miscellaneous small vessels and craft inbound for ARAMCO Marine facilities at the West Pier.

Deep Draft Anchorage: Vessels whose draft is 60 ft. or more and which are required to anchor upon completion of loading must normally do so in the area approximately 0.7 miles North of the Sea Islands. This anchorage has a swept depth of 72 ft. (21.9 m.) and holding ground is only considered fair due to variations in character of the bottom. It is recommended that vessels lie to a long scope of chain in adverse weather. No more than 2 vessels are allowed to use this anchorage at one time.

RADIO: COMMUNICATIONS WITH THE TERMINAL.

Under Way: At all times when under way in the arrival channel and anchorage areas with no Pilot aboard, vessels must watch VHF Channel 10 to keep in contact with Port Radar.

At Anchor: A good listening watch should be maintained on VHF Channel 16. Vessels will be called by Ras Tanura Pilots with berthing and other information and instructions. Port Radar should be called on VHF Channel 10 prior to heaving anchor.

Under Pilotage: Pilots carry portable, intrinsically safe radios which operate on ARAMCO dedicated mooring Channels for contact with tugs and jetty staff. In addition, the vessel's VHF Radio should stand by on Channel 13 for back up communication.

At Berth: An exchange of intrinsically safe portable radios will be made between vessel and jetty personnel in order to assist constant communication whilst loading.

BERTHING:

Mooring Procedures: Mooring boats are not used at Ras Tanura Terminal.

Vessels should have heaving lines ready to take the shore messenger after landing alongside. The messenger is then made fast to the ship's mooring line which is hove ashore by means of a capstan. Heavy wires should be sent one by one and ropes two at a time. Jetty crews are on duty continuously to handle mooring lines. Mooring lines on board vessels will not be handled by ARAMCO Personnel.

BERTHING FACILITIES:

Safe Loading Depths: If at any time a vessel's draft approaches to within about 3 ft. (1 m.) of the depth of water at the berth at North and South Piers, loading will be suspended until a rising tide increases the depth to permit resumption of loading and provide for a safe draft of the fully loaded ship on departure.

At the Sea Island Berths, the maximum sailing draft is 19.48 m. plus the height of tide at the time of transitting the Deep Water Channel.

Depths of Water at Berths:

		Max. at LAT (ft.)	*Max. Arrival Draft* (ft.)
South Pier Berth No.	1	31	29
	2	31	29
	3	30	27
	4	29	27
North Pier Berth No.	6	44	41
	7	37	28
	8	46	43
	9	40	29
	10	46	43
	11	40	29
Sea Island	All Berths		85

Gangways: At North and South Pier, all vessels are required to provide their own gangways which should be ready prior to berthing.

At the Sea Islands, shore gangways are provided at each berth.

LOADING:

	Berth No.	*Product*	*Manifold Size* (in.)	*Maximum Loading Rate* (bbls.p.h.)
Sea Islands	12 to 18	Crude	16	40,000 to 280,000
	19 and 20	Crude	16 to 24	
	12 to 18	Bunker Fuel Oil	10	12,000
	12 to 18	Bunker Diesel	10	900
	19 and 20	Bunkers	12 to 16	12,000
North Pier	6 to 11	Crude	12	15,000 to 90,000
	6 to 11	Fuel Oil (Cargo)	12	12,000 to 22,000
	8, 9, 10	White Diesel	12	12,000
	8, 9, 10	Kerosene	12	6,500
	6 to 10	Naphtha	12	30,000
	6 to 11	Bunker Fuel Oil	8	5,000
	6 to 11	Bunker Diesel	8	1,200
	6, 8, 10	RLPG	12	30,000
South Pier	1 to 4	Fuel Oil (Cargo)	8	12,000 to 15,000
		Black Diesel (Cargo)	8	5,000
		White Diesel	8	8,500 to 15,000
		Gasoline	8	6,000
		Kerosene	8	6,500
		Jet Fuel	8	10,000
		Bunker Fuel Oil	6	5,000
		Bunker Diesel	6	1,200

Notes:

1. All vessels calling at Ras Tanura Terminal should be equipped with reducers to fit these loading connections which all have 150 lb. ASA flanges. These reducers should be fitted before berthing to help expedite ship turnaround time.

2. It is expected that most vessels will be able to accept any cargo as fast as it can be delivered. Officers in charge of loading must have due regard for all safety precautions as well as for individual vessel hazards.

If loading of crude or products is too slow, ARAMCO will so advise the vessel.

Should a demurrage claim be filed against ARAMCO, the slow loading rate may result in an addition to allowed lay time.

3. Special regulations govern the acceptance and loading of Liquefied Petroleum Gas tankers in the Port of Ras Tanura. (See GASRUL 9:83).

4. The following types of crude oil are available at Ras Tanura Terminal: ARABIAN BERRI (sometimes incorrectly referred to as Light Extra Light) CRUDE, ARABIAN LIGHT CRUDE, ARABIAN MEDIUM CRUDE, ARABIAN HEAVY CRUDE.

Loading arm connection: Jetty crews are on duty continuously to handle hoses/arms and will make connections and disconnections.

All loading connections are equipped with electrical insulating flanges therefore ship to shore bonding cables are not required.

Loading procedures: All operations in connection with the starting of loading, discharging, switching of tanks and topping off must be directly and personally supervised by the ship's officer.

It is the responsibility of the vessel to advise shore personnel to shut down cargo and bunker loading when the vessel's cargo and bunker requirements are met.

Upon completion of loading the vessel will normally be required to leave the berth immediately after disconnecting hoses/arms to await clearance in the Tanker Anchorage.

Cargo Calculations and Release: The American system of cargo measurement in BARRELS with temperatures in fahrenheit degrees according to the ASTM – I.P. is used by ARAMCO and the Saudi Arabian Government for Cargo measurement purposes. Ships cargo loaded figures should be available in these units. Generally, if the difference between average normal ship measurement and official cargo measurement is satisfactory the ship will be released to sail by ARAMCO under E.D.P. Unusual differences will be investigated by ARAMCO while the vessel waits in the Tanker Anchorage.

BALLAST: *Arrival Ballast Condition:* Vessels arriving at Ras Tanura Terminal shall retain suffficent clean water ballast on board to permit safe handling of the vessel in the prevailing weather conditions. A maximum stern trim of 15 ft. with the propeller just covered is recommended.

Ballast pumping equipment should be ready to commence discharging ballast as soon as the vessel is secured in the berth.

DEPARTURE: See "Inbound Traffic Procedure" – East Channel Caution.

Deep Water Departure Channel: Has a clear swept depth of 21 m. at LAT.

Maximum departure draft from Ras Tanura Piers and Sea Islands is 19.48 m. plus predicted rise of tide so that there is a minimum keel clearance of 1.52 m. maintained during transit of Departure Channel. (See ARAMCO form "Maximum Sailing Draft – VLCC, 1st March 1986").

Departure Pilotage: On departure from Ras Tanura, Masters of vessels 150,000 DWT and above with draft of 60 ft. (18.28 m.) or more, may request additional pilotage assistance to line up for the Deep Water Departure Channel. Such pilotage assistance is compulsory for vessels with a draft of 68 ft. (20.73 m.) or more. In such instances the Harbour Pilot will remain on board until the vessel is aligned on a safe course for the Departure Channel, provided the Pilot can disembark safely. In certain cases it may be possible to arrange for the Pilot to leave by helicopter (See Part "A" – Helicopter Operation). The additional pilotage is also available when it is necessary for a VLCC to proceed to anchor to await a favourable tide or other reasons. The Pilot will remain on board until the vessel arrives in the anchorage, however, the Master will be responsible for the actual anchoring of the vessel. During adverse sea and weather conditions, a proper lee must be made so as to allow the Pilot to safely disembark.

Vessel proceeding from Ras Tanura Terminal to Northern Holding Anchorage: The vessel should leave Ras Tanura Terminal and follow the Departure Channel observing the separation scheme to the Northern Holding Anchorage under advice of Port Radar.

SEE Part "B" TRAFFIC REGULATIONS

The vessel should advise Ras Tanura Pilots of its anchoring time.

REPORT: *More stringent safety checks:*

Quote:

Due to recent accidents involving tankers at terminals, ARAMCO have tightened up their safety checks and closely follow the issued safety regulations.

ARAMCO, as terminal operator of Ras Tanura/Ju'aymah, inspect all vessels before loading. Anything found not up to the standard of guidelines and recommendations compiled by Oil Companies International Marine Forum are noted, the Master is given a letter of protest, and the Owner is advised to correct deficiencies. At the same time all remarks and recommendations are computer-stored for easy access in the future.

ARAMCO have found that many recommendations are neglected and some vessels are repeatedly given the same remarks.

To prevent this, new actions are being taken by ARAMCO. Vessels which in the past have received recommendations and not followed the same have recently been refused permission to load at Ras Tanura/ Ju'aymah.

That a vessel was allowed to load at her last call is not a guarantee that she will be allowed again.

Unquote.

Further to the above, we have been advised that since these deficiency letters do not allow these vessels to berth at the Ju'aymah Terminal's SBMs, vessels will be diverted to either of the three suitable berths at Sea Island. Time lost from berth available at Ju'aymah to berth available at Sea Island will be on the vessel's account.

This will affect vessels between 200,000 d.w.t. – 275,000 d.w.t.

AUTHORITIES: The Arabian American Oil Company, Port Control Centre, North Pier, Ras Tanura, Saudi Arabia. *Tel:* 37250. *Cable Address:* ARAMCO, Dammam. *Contact:* S. M. Al Shibar, Port Captain – Terminal Marine Piloting Division. Mohammed Salah Deheen, General Supervisor of Ras Tanura Port. Telex No. 851111 RPRT SJ.

Port Officials: Saudi Arabian Government Port Authorities located in Customs House, Port Office, and Quarantine Office at Ras Tanura.

AGENT: Gulf Agency Company Saudi Arabia, P.O.Box 72, Rahima 31941, via Dhahran, Saudi Arabia. Cables: "Confidence", Ras Tanura, Ship-Shore traffic via Dammam Radio/HZG. Telex: 851011, 851059 ("GAC RT SJ") Telephone: 6670632, 66706360, (24 hour service) 6673180. After Office Hours: 6670066. Fax: 8323035.

Tanker Crew Mail: To be directed to: c/o Gulf Agency Co. Saudi Arabia Rahima P.O. Box 72, Rahima 31941, via Dhahran, Saudi Arabia.

YANBU (See Plan)

COMMERCIAL PORT: 24.05 N. 38.03 E.

INDUSTRIAL PORT: 23.57 N. 38.13 E.

NOTICES: British Admiralty Notice No. 3553(P)/86.
Red Sea – Saudi Arabia, West Coast – Madinat Yanbu As Sinaiyah – King Fahd Port – New Approach Channel.

1. A new Southern Approach Channel for vessels calling at King Fahd Port, Madinat Yanbu As Sinaiyah, opens to shipping on 1st December, 1986. Pilotage is compulsory for all vessels using this channel.

2. The following have been established:

	Feature	*Position*
(a)	Yanbu South Light, Fl. W.R. 10 sec. 34 m. 20/17 M. (Red/white circular tower with radar reflectors) and radar beacon Racon (B).	23° 28.13′ N., 38° 25.52′ E.
(b)	Starboard-hand light beacon with topmark, Fl. (3) G. 10 sec. 12 m. 8 M. S3.	23° 31.02′ N., 38° 29.90′ E.
(c)	Port-hand light beacon with topmark, Fl. (4) R. 12 sec. 12 m. 8 M. S6.	23° 38.38′ N., 38° 25.16′ E.
(d)	Starboard-hand light beacon with topmark, Fl. (4) G. 12 sec. 12 m. 8 M. S7.	23° 41.17′ N., 38° 28.64′ E.
(e)	Blue/White striped beacon with radar reflector, SR1.	23° 31.65′ N., 38° 25.92′ E.
(f)	Blue/White striped beacon with radar beacon, SR2 Racon (TG).	23° 34.66′ N., 38° 27.71′ E.
(g)	Blue/White striped beacon with radar beacon, SR3 Racon (X).	23° 42.86′ N., 38° 23.22′ E.
(h)	White cardinal pillar light-buoy, Q(9), 15 sec. S1.	23° 26.30′ N., 38° 29.22′ E.
(i)	Port-hand can light buoy with topmark, Fl. (2) R. 5 sec. S2.	23° 27.96′ N., 38° 25.86′ E.
(j)	Port-hand can light buoy with topmark, Fl. (2) R. 10 sec. S4.	23° 34.55′ N., 38° 28.22′ E.
(k)	White cardinal pillar light buoy Q(9) 15 sec. S5.	23° 35.31′ N., 38° 31.41′ E.
(l)	Port-hand can light buoy with topmark, Fl. R. 5 sec. S8.	23° 44.47′ N., 38° 23.15′ E.
(m)	Starboard-hand conical light buoy with topmark, Fl. G. 5 sec. S9.	23° 45.46′ N., 38° 25.25′ E.
(n)	N. cardinal pillar light buoy, Q. S10.	23° 49.08′ N., 38° 17.82′ E.
(o)	Starboard-hand conical light buoy with topmark, Fl. (2) G. 10 sec. S11.	23° 51.15′ N., 38° 19.44′ E.
(p)	Pilot boarding place.	23° 26.60′ N., 38° 27.20 E.

Charts Affected: 63, 4704, 4071.
Light List Vol. E/86, 6050.63 and (Remarks), 6050.64 and (Remarks).
Admiralty List of Radio Signals, Vol. 2, 1986: 8511.2, 8511.4, 8511.6.
Saudi Ports Authority Notice "A" 170/86. (H. 2579/79).

(A) COMMERCIAL PORT

ALSO SEE "GENERAL" BEFORE FIRST PORT.

LOCATION: Yanbu Commercial Port is on Red Sea coast, about 168 nautical miles N.N.W. of Jeddah.

PORT LIMITS:

Harbour Boundaries:

All shore-based port property enclosed by a fence following the shore line extending seawards to a line running between the following points:

Lat. 24° 06′ 00″ N.	Long. 38° 00′ 00″ E.
Lat. 24° 06′ 00″ N.	Long. 37° 57′ 30″ E.
Lat. 24° 03′ 30″ N.	Long. 37° 57′ 30″ E.
Lat. 24° 03′ 30″ N.	Long. 38° 05′ 30″ E.

CHANNEL: Ships entering port pass through a channel of the following measurement: Length 1,647 m., width 200 m.

BEACONS:

1. Schermo Beacon: A Racon is established on Schermo Reef in position: Lat. 24° 03′ 20″ N., Long. 37° 51′ 60″ E. Code letter: "Y". Cycle: 75 seconds. Range: Approximately 12 nautical miles.

2. Entrance Beacons: Two Beacons, 1 & 2 at entrance of port channel. Height: 4.0 m. Range: 5 nautical miles.

Beacon No. 1: Starboard – hand beacon (Green), green flash every second (Q.G.).

Beacon No. 2: Port – hand beacon (Red), red flash every second (Q.R.).

Beacon No. 6: 795 m. from channel entrance on port side there is another beacon height 4.0 m. (Red), red flash every second (Q.R.). Range: 5 nautical miles.

APPROACHING: A cement factory has been established in position: Lat. 24° 16.1′ N., Long. 37° 33.2′ E.

The factory provides a strong radar echo and emits a very bright glow at night.

It has been reported that this has confused seafarers who have taken it for the town of Yanbu.

Seafarers are strongly advised to amend their sea charts accordingly.

Masters proceeding to Yanbu Commercial Port should follow strictly the Channel and traffic separation scheme as clearly as delineated in formal charts in force (e.g., British Admiralty Charts 327 and 328.)

The Ports Authority, Kingdom of Saudi Arabia, advise that ships proceeding outside the Approach Channels, or contravening the Rules of the Traffic Separation Scheme in order to save time, will be fined and the Masters held individually responsible.

BUOYS: Channel is buoyed with red and green port and starboard-hand buoys.

Starboard-hand buoys: 7 buoys, odd number: 1A, 3, 5, 7, 9, 11, & 13. Buoy shape: Cone. Light characteristic: Green flash every 2 seconds (Fl. G. 2 secs.).

Port-hand Buoys: Number of buoys: 2, even numbers: 4, 8. Buoy shape: Can. Light characteristics: Red flash every 2 seconds (Fl. R. 2 secs.).

DOCUMENTS: All ships bound for Yanbu Commercial Port should have the following documents prepared for the relevant authorities and the original certificates as specified ready for inspection by the Port Authority's Boarding Officer.

Crew List, original plus 4 copies.
Passenger List, original plus 4 copies.
Personal Effects of Crew, original plus 1 copy.
Vaccination List, original plus 1 copy.
Marine Health Declaration, original plus 1 copy.
Israel Boycott Declaration, original plus 2 copies.
Ship's Stores List, original plus 1 copy.
Logbook.
Certificate of Registry.
Certificate of Classification.
Load Line Certificate.
Safety Construction Certificate.
Safety Equipment Certificate.
Radio & Wireless Certificate.
Cargo Gear Certificate.
Derat Certificate.
Port Clearance – Last Port of Call.

PILOTAGE: Pilotage is compulsory. Vessels bound for Yanbu Commercial Port should call Yanbu Port Control on VHF Channel 16 at least 2 hours prior to arrival.

North Channel: Pilots will normally board in position Lat. 24° 04′ N. Long. 38° 01′ E. approximately 5 miles West of Schermo Beacon. Pilot boats are painted orange with "Pilot" written in black on white superstructure.

Vessels should exhibit international code flag "G" by day or flash "G" by night. On approaching the Pilot Boarding Area, a pilot ladder should be rigged, reaching approximately 1 m. above sea level. Vessels should ensure a good lee for boarding of the Pilot.

South Channel: Ordering of Pilotage Service for Vessels Arriving at the South Channel: Due to the extra length of the South Channel compared to the North Channel, the Port Control Tower will require 5 hours notice prior to pilot boarding time at the South Pilot Station. Requirements for the North Pilot Station remain unchanged.

Way Points in South Channel: You are informed that the following way points are now established in the South Channel for use with the Control Tower and movement of vessels within the South Channel:

South Pilot Station	23° 26.6′ N., 38° 27.2′ E.
S-1	23° 34.3′ N., 38° 29.6′ E.
S-2	23° 46.2′ N., 38° 23.4′ E.
CSZ	23° 52.0′ N., 38° 16.8′ E.

Also see "Notice" before Section A.

ANCHORAGES: There are no areas suitable for the safe anchorage of vessels in the vicinity of Yanbu Commercial Port.

RESTRICTIONS: The port is open 24 hours per day and vessels may enter and leave port at any time.

MAX. SIZE: There is no restriction as to length or breadth of vessels but a draft restriction of 34 ft. is in force for all vessels to all berths other than those cement vessels nominated specifically for discharge at Berth No. 3 or No. 9 where a 36 ft. draft limit is allowed.

HEALTH: Quarantine formalities are effected after vessels are berthed except in the case of passenger/pilgrim vessels which will be anchored inside the harbour for quarantine and immigration clearance.

RADIO: Vessels bound for Yanbu from the North should route their ETA cables through Port Said Radio.

Vessels bound for Yanbu from the South should route their ETA cables through Bahrain Radio.

ETA cables are transmitted to the local Saudi PTT Yanbu Office and thence distributed to concerned parties by telex.

VHF: Yanbu Port Control keeps a radio watch on Channel 16 VHF, 24 hours per day. VHF Channels 14, 12 and 9 are available for standard communications. VHF Channel 14 is normally used by Pilots and tugs for manoeuvring purposes.

RADAR: There is no port radar facility at Yanbu Commercial Port.

TUGS: Tugs normally meet incoming vessels off No. 8 Channel Buoy abeam of the port Coast Guard station. Tugs' lines are used for berthing and unberthing operations.

Tugs range from 800 h.p. – 2,500 h.p.

BERTHING: The following categories of berth, with a draft range from 10.0 m. to 12.0 m. are available: Bulk Cement, Bulk Grain, Ro-Ro (stern to), General Cargo and Passengers.

Storage: Adequate covered and open storage space is available in the form of warehouses, transit sheds, container freight stations, vehicle parks.

CARGO HANDLING EQUIPMENT: Mobile cranes of up to 200 tons capacity are available.

40 tons tower cranes are equipped with container spreaders. One crane is equipped with container lifting capacity 70 tons.

Head trucks, Mafi trailers, container handlers up to 35 tons, forklifts up to 25 tons are available.

BULK HANDLING FACILITIES: *Bulk Cement Terminal:*. One Bulk Cement Berth with an annual capacity of about 1 million tons is available. *Bulk Grain Units:* Mobile discharging machines with handling capacity 200 t.p.h./machine, no bulk storage facility. Bulk grain is normally handled at Berth No. 5 and Berth No. 8.

STEVEDORES: Contracted for an integrated cargo handling operation, and work continuously 24 hours per day, 7 days per week.

MEDICAL: Assistance can be given by local general hospital and/or by a small private clinic via the Agents.

No vaccinations are required, but Malaria precautions are recommended.

DENSITY: 1025.

CONSULS: At Jeddah.

REPAIRS: No facilities, however minor repairs are possible in local workshops via the Agents.

FRESH WATER: Available via mains direct to berth at a delivery rate of approximately 25 t.p.h. Costs as per current tariff.

DRY DOCK: Not available.

SURVEYORS: Available via Jeddah.

GANGWAY/DECK WATCHMEN: Service not necessary and not available. Port area is fenced and guarded by Saudi Arabian Coast Guard, and guards are posted on each individual vessel in port.

HATCHES/CARGO GEAR: To vessel's advantage if all hatches and gear are prepared by ship's crew, however stevedores do assist.

CUSTOMS ALLOWANCES: In all Saudi Arabia, possession of any alcoholic beverages is strictly prohibited.

AIRPORT: Regular flight service on direct flights to Jeddah and Riyadh by Saudia. Other Saudi destinations and international destinations via Jeddah and Riyadh.

Yanbu domestic airport is located approximately 15 km. from the port.

TIME: GMT plus 3 hours.

HOLIDAYS: Public holidays do not affect port's activity. But all government offices, banks, etc., are closed to the public during Ramadan and Haijh holidays which change annually by the Higirian calendar.

TELEPHONE NUMBERS:

Police (Coast Guard):	Ext. 1000
Fire	Ext. 1313
Ambulance – via Port Safety	Ext.1026/7
or Traffic Department	Ext.1317

TELEPHONES: There are pay phones in the port.

SERVICES: Services like tank cleaning, etc., are not available.

SHORE LEAVE: By Agent's request permitted.

IDENTIFICATION CARDS: Seamen's Discharge Books are sufficient.

REGULATIONS: Refer to Rules and Regulations for Seaports issued by the Co-operation Council for the Arab States of the Gulf, 1985.

DEVELOPMENTS: Future port developments include an additional 7 berths and a control tower. No time has yet been fixed for implementation of these projects.

AUTHORITY: Yanbu Port Management, P.O.Box 1019, Yanbu Port, Yanbu, Al Bahr, Saudi Arabia. *Tel:* (04)322 1163, 322 2470. *Telex:* 661005 Port SJ and 661096 Port SJ. *Cables:* Ports Yanbu (via Port Said or Bahrain). *Contact:* Abdul Rahman Ahmad Al-Khateeb, Port Director-General.

(B) KING FAHD INDUSTRIAL PORT, YANBU

At present the King Fahd Industrial Port consists of 6 Terminals listed as follows:

Crude Oil Terminal
NGL Terminal
Yanbu Petromin Refinery Terminal
Export Refinery Terminal
General Cargo and Container Terminal
Bulk Terminal

PORT LIMITS: Seaward boundaries of King Fahd Industrial Port are enclosed by the following boundaries:

1. Lat. 24° 03.50′ N., Long. 38° 05.50′ E.
2. Lat. 24° 03.50′ N., Long. 38° 02.00′ E.
3. Lat. 24° 07.00′ N., Long. 37° 53.67′ E.
4. Lat. 24° 07.00′ N., Long. 37° 45.00′ E.
5. Lat. 24° 01.50′ N., Long. 37° 45.00′ E.
6. Lat. 23° 50.00′ N., Long. 38° 12.00′ E.
7. Lat. 23° 25.00′ N., Long. 38° 20.00′ E.
8. Lat. 23° 25.00′ N., Long. 38° 40.00′ E.

Thence along the coast to No. 1 (above).

FLAG: Every vessel entering King Fahd Industrial Port at Yanbu must hoist the Flag of the Kingdom of Saudi Arabia from the foremast and keep it flying at all times throughout the vessel's stay in Port. The Flag of the Kingdom of Saudi Arabia is to be in good condition and is properly displayed when the Arabic writing appears at the top and the sword at the bottom.

DOCUMENTS: Also see "Radio".

Arrival Documentation Requirements: The Rules and Regulations for Seaports specify that Masters must present or make available for inspection the following papers and documents:

Log Book.
Registration Certificate.
Classification Certificate.
Load-Line Certificate.
Building Safety Certificate.
Safety Equipment Certificate.
Radio and Wireless Certificate.
Cargo Gear Certificate.
Maritime Health Declaration.
Vaccination List.
Derat Certificate.
Clearance from last Port of call.
Israel Boycott Declaration.
Ship's Stores List.

Grain Shipping Certificate if the vessel is carrying a grain shipment.

Mail Transport Documents in accordance with the "International Postal Treaty" if any mail is carried aboard.

5 copies of the Crew List including name, nationality, date and place of birth, passport number, port of embarkation, port of disembarkation.

2 copies of the List of Personal Effects of crew and passengers.

5 copies of the Passenger List including name, nationality, date and place of birth, passport number, port of embarkation, port of disembarkation.

In addition, the Rules and Regulations for King Fahd Industrial Port require that the Oil Record Book and the Certificate of Fitness (in cases of gas and chemical carriers) are available for inspection.

CLEARANCE: *Basic Procedure for Clearing a Ship:* On arrival of the ship at anchor or berth, and given that all the pre-entry requirements have been fulfilled, the ship will be boarded by the following for completion of the required formalities:

Immigration Authorities.
Coast Guard.
Port Health Officer.
Customs Officer.

In the case of dry cargo vessels, on completion of these formalities, the Agent will collect the discharge permit from the Customs Authorities, having provided a copy of the manifest well in advance. The Customs Authorities then issue a Discharge Permit, one copy of which is given to the stevedores while the other is given to Port Management.

Basic Procedures for Clearing a Ship Outward: When a vessel completes cargo, the Agent is responsible for issuing a letter of notification to the Customs Authorities. The letter is endorsed by the Customs and copies given to the following:

(i) Immigration Department.
(ii) Criminal Investigation Department.
(iii) Yanbu Port Authorities.
(iv) Intelligence Department.
(v) Coast Guard.

The Coast Guard issues a letter to the Quarantine Department, in their capacity as Port Health Authority stating:

(i) They have received the clearance letter from Customs.
(ii) The vessel's name.
(iii) The vessel's flag.
(iv) The name of the Agent.

and requesting them to issue the Departure Permit.

The Departure Permit, duly signed and stamped, is taken to the Immigration Department who will dispatch one of their Officers to the vessel. This Officer checks the Crew List against the Passports and obtains assurances from the Master that the crew is the same as on arrival, apart from any agreed repatriation, and that no crew member has been involved in any mishap. Once the Immigration Officer is satisfied he gives one copy of the Departure Permit to the Master and one copy to Port Management, concluding the formalities.

EARLY DEPARTURE PROCEDURE: Early Departure Procedure is available at the crude oil terminal and should be requested through the ship's Agent.

PILOTAGE: *Instructions to Vessels and Conditions of Use of all Berths within King Fahd Industrial Port:* When the Pilot boards an inward bound vessel he will present the Master with a letter "Instructions to Vessels and Conditions of Use of all Berths within King Fahd Industrial Port". The Master is required to sign the letter, acknowledging receipt and agreeing to the Instructions and Conditions contained therein prior to entry into the Port. No vessel will be allowed to proceed into the Port until this letter has been signed.

Pilotage: Pilotage is compulsory for all vessels entering, navigating within, or leaving the port limits of King Fahd Industrial Port.

Orders for Pilots must be received at least 2 hours before their services are required.

Vessels under 150 n.r.t., pleasure craft, vessels operated by the Saudi Arabian Government and the SEAPA and any craft employed solely within the port limits are exempt from Pilotage. These vessels must keep clear of the fairway.

The Pilot boarding area for King Fahd Industrial Port is in a position Lat. 24° 02.6′ N., Long. 37° 45.2′ E. Pilots will embark and disembark from twin screw, steel pilot vessels. When approaching the pilot boat the Master of every vessel must reduce speed to a minimum for steerage way, maintain VHF contact with the pilot boat, and provide a good lee.

Every vessel picking up a Pilot must have rigged and ready for use a safe, clean, properly secured pilot ladder or combination of gangway and pilot ladder. The Pilot boarding arrangements must comply with the current IMO codes of practice concerning pilot boarding. A lifebuoy, with lifeline attached, and a boat rope must be provided ready for immediate use, and, in addition, between sunset and sunrise the pilot boarding area must be well illuminated. The rigging of pilot ladders and the embarkation and disembarkation of pilots must be supervised by a responsible deck officer.

Any vessel which overcarries a Pilot to another Saudi Arabian Port, must pay all repatriation expenses. Under no circumstances may a Pilot be overcarried to a Port outside the Kingdom of Saudi Arabia, due to visa restrictions. If weather, or other conditions preclude the disembarkation of a Pilot from a vessel, bound to a Port outside the Kingdom of Saudi Arabia, then that vessel will be delayed, at the vessel's expense, until such time as disembarkation is possible. Any such vessel so delayed may arrange, at their own expense, for the Pilot to be disembarked by helicopter.

The length of Pilotage from the Pilot boarding position is approximately 33 miles, with a minimum surveyed depth of 32 m.

Vessels approaching the Port are reminded that the British Admiralty "Red Sea and Gulf of Aden Pilot" states in its supplement that "Ras Baridi has been reported to be 3 miles Northward of its charted position".

Also see "Section A" and "Notice" before "Section A".

APPROACHES: Masters of deep draft vessels will be aware that there are extensive unsurveyed areas between the main shipping lanes and the approaches to Yanbu. Two approach corridors to the present pilot boarding area off Schermo Reef were surveyed early in 1981. The Northern approach corridor, some 48 miles long and 3 miles wide extends in a Westerly direction from just West of Schermo Reef, at approximately Lat. 24° 03′ N., Long. 37° 45.2′ E. to Lat. 24° 04′ N., Long. 36° 53′ E. Depths range in general from 650 m. inshore to 950 m. offshore, but two isolated domes were discovered with least depths of 132 m. and 184 m. at approximately Lat. 24° 04′ N., Long. 37° 36′ E. and Lat. 24° 07′ N., Long. 37° 36′ E. respectively.

The Southern approach corridor some 43 miles long and 3 miles wide extends in a South-Westerly direction from just West of Schermo Reef at approximately Lat. 24° 03′ N., Long. 37° 45.2′ E. to Lat. 23° 22.5′ N., Long. 37° 28.5′ E. No hazards were discovered with depths generally 650 m. inshore to 790 m. offshore.

ANCHORAGES: The bearing and distance shown below is calculated *from Beacon 2C* and indicates position of the anchoage.

Anchoring Points	*Beacon 2C Bearing*	*Max. Distance*	*Draft*
N1	101°	1.06 miles	15.0 m.
N2	110°	1.26 miles	16.0 m.
N3	098°	1.56 miles	22.0 m.
N4	117°	1.80 miles	22.0 m.
N5	123°	2.15 miles	22.0 m.

Anchorages "N4" and "N5" will be utilised for fully laden VLCCs.

Masters of vessels are advised of the following conditions for the use of the anchorage:

1. No repairs of any sort are permitted at the anchorage unless authorised by the Harbour Master.
2. Main engines to be in a state of readiness at all times to leave the anchorage at short notice.
3. A continuous listening watch on VHF Channel 16 should be maintained.
4. Anchor watches to determine vessel's anchor position at reasonable intervals is recommended.

There are no anchorages considered suitable for deep drafted vessels without local knowledge in the vicinity of either Pilot Boarding Station. In any case, vessels not cleared to enter King Fahd Industrial Port are required to remain outside the territorial waters of Saudi Arabia.

An inner anchorage has been established approximately one mile S.W. of the Port Control Tower (27° 57.4′ N., 38° 13′ E.) within the Controlled Navigation Zone of the port. Five vessels can be accommodated in this anchorage. The minimum depth in the anchorage is 35.0 m. and the holding ground is considered to be good. A SEAPA Pilot will conduct vessels to a designated anchorage position on request.

RESTRICTIONS: *Equipment Requirements:* No vessel shall navigate within the Port, unless the vessel complies with the following equipment requirements:

Efficient VHF Radio Telephone capable of working on the Port frequencies.

Efficient steering gear with fully operational rudder and helm indicators.

Efficient working radar.

Efficient propulsion both ahead and astern and fully operational tachometer.

Both anchors capable of being let go and capable of being raised by the vessel.

Efficient winches and adequate mooring gear to secure the vessels safely, and an efficient mooring stations communication system.

Sufficient crew on board at all times to operate the vessel safely and efficiently and all officers properly qualified and certificated as required by the flag nation.

All secondary power or mechanical systems on the vessel to be in operation and immediately available in the event of failure of any primary system.

If any vessel cannot comply with any of the requirements listed above, King Fahd Industrial Port Control must be advised prior to arrival or departure. The vessel will then be subject to inspection and possible delay. Failure to comply or to notify King Fahd Industrial Port Control may result in the vessel being fined or refused entry to the Port or both.

Permission to Enter the Port: All Masters of sea going vessels must have prior permission of the King Fahd Industrial Port Control to enter the Port. Such permission may be subject to special restrictions or conditions if:

The vessel arrives before or after the given ETA.

The vessel is in danger of sinking.

The vessel or its cargo is on fire or if there is any possibility of a fire or if after a fire it is uncertain whether that fire is completely extinguished.

The vessel is overloaded or, on account of the condition of the cargo, the vessel is dangerous or has deck cargo which extends beyond her sides.

The vessel has been involved in a collision or has grounded.

The vessel is leaking.

The vessel has a list.

The vessel is in an unstable condition.

Draft Requirements: Vessels will not be permitted entry to the Port unless they arrive at a draft consistent with safe manoeuvring and reasonably trimmed, to the satisfaction of the Pilot.

RADIO: *ETA Requirements:* In addition to the Pre-Arrival Information Requirements below, further notification of ETA is required 5 days, 72 hours, 48 hours and 24 hours prior to arrival at the Port and should be sent by telex: 662360 ("PORTCT SJ") for information of the Director General. Changes in ETA in excess of one hour must be notified thereafter. On coming within range of King Fahd Industrial Port Control, the ETA must be confirmed by VHF.

Vessels which fail to comply with these requirements may be delayed and or subject to a fine as laid down in the Rules and Regulations.

Government Entry Requirements: The Master will be responsible for complying fully with the requirements of Saudi Arabian Government Departments, Ministries, Agencies and Organisations. Particular attention should be paid to the requirements of the Customs, Coast Guard, Immigration and Port Health Authorities. Masters requiring any advice on these requirements should contact their local Agents.

Masters of tankers calling at Petromin's Crude Oil Terminal and NGL Terminal should be instructed to address all messages to "ARAMCO" via ARAMCO's HZY Marine Radio Station. The above does not apply to messages intended for outside shipping and inspection agencies for which commercial Channels should continue to be used.

PEMREF: PEMREF requires a *minimum* of 96/72/48/24 hours notice of a vessel's arrival. The full pre-arrival message should accompany the 96 hour ETA. Where a vessel is arriving from a port less than 96 hours away, an ETA must be sent as soon as the vessel leaves that port.

The above requirements are a *minimum* and Masters should be encouraged to keep PEMREF well advised at an early stage regarding all aspects of their call. Failure to provide the required information in a timely manner will result in delays in berthing and loading, which will be for Owner's account.

PRE-ARRIVAL INFORMATION REQUIREMENTS: The Rules and Regulations for Seaports of the G.C.C. Member States cover King Fahd Industrial Port and these specify that certain information must be received either directly or through the vessel's Agent before that vessel arrives at the port. Vessels which fail to comply with this requirement may be delayed and/or subject to a fine as laid down in the Rules and Regulations.

Dry Cargo Vessels: The following information must be sent to the Director General as soon as that vessel has completed loading cargo at her previous port:

1. Call Sign.
2. Name of vessel.
3. Owner's/Charterer's name and address.
4. Nationality.
5. Agents.
6. LOA.
7. Maximum draft.
8. No. of hatches.
9. G.R.T.
10. N.R.T.
11. D.W.T.
12. Previous Names.
13. Type of Vessel.
14. Type of Cargo.
15. Total cargo weight tons.
16. Total cargo freight tons.
17. No. of containers/units.
18. No. of Livestock.
19. E.T.A.
20. Actual Arrival Draft.
21. Hazardous Cargo for Yanbu, including quantities and classes.
22. Hazardous Cargo in Transit for other ports, including quantities and classes.
23. Tonnage to Hatch for Yanbu Discharge.
24. Year of Construction.
25. Lloyd's Registered Number.
26. All Ports of Loading.
27. Ship's Derricks.
28. Speed.
29. Next Port.
30. Route.
31. Last 3 Ports of Call.
32. Bunker Requirement.
33. Liquor Cargo in Transit with container number.
34. Arms and Ammunitions on board.

Tankers: The following information must be sent to the Director General as soon as the vessel receives orders to proceed to the port. It is requested that the information should also be sent to the relevant Terminal Operator.

AA Name of vessel.
BB Former names.
CC Port of registry, flag, call sign.
DD LOA, G.R.T., N.R.T.
EE Summer D.W.T., arrival D.W.T.
FF Draft on arrival forward and aft.
GG ETA. (To be advised 5 days, 72 hours, 48 hours, 24 hours and any later changes).
HH Last port.
II Cargo on board and flash point, destination of cargo.
JJ Cargo requirements.
KK Previous cargo and quantity residues on board for load on top.
LL IMO Class.
MM Whether gas free or in an inert condition (Oxygen content of atmosphere throughout tank to be less than 8% by volume).
NN Port of loading ballast and amount.
OO Quantity of ballast loaded on passage.
PP Quantity of segregated ballast on arrival.
QQ Quantity of cargo tank ballast on arrival.
RR Time for deballasting: Can ship load/deballast simultaneously?
SS Special conditions, difficulties, defective equipment or gear which could present special hazards or difficulties when mooring, unmooring or during cargo operations.
TT Agent's name.
UU Maximum loading rate.
VV Topping-off rate.
WW Bunker requirements.
XX Cargo manifold connections size.
YY Bunker connections size.
ZZ Derricks.
11. Ship shore comparisons for last 5 voyages.
22. Year built.
33. Master's full name.
44. Discharge port.
55. Next port of call.
66. Number of crew.
77. Vessel's economical speed.
88. Vessel's position when 48 hours from pilot station.

(See also "Appendix").

Gas Tankers: The following information must be sent to the Director General and Terminal Operator as soon as the vessel receives orders to proceed to the port.

AAG Name of vessel, indicating any former names.
BBG Port of registry, flag, call sign.
CCG LOA, G.R.T., N.R.T.
DDG Summer D.W.T., arrival D.W.T., arrival draft forward and aft.
EEG Last port, ETA Yanbu.
FFG Quantity of ballast on arrival: where loaded.
GGG Quantity of dirty ballast on arrival.
HHG Total cargo capacity in cubic metres. Cargo required.
IIG Grades and quantities of any part cargoes or cargo residues and where loaded. Grade and quantities of product in deck tanks.
JJG Are part cargoes to be comingled with Yanbu loadings?
KKG Gauge pressures; top, bottom and mean temperatures of each cargo tank.
LLG Quantity of coolant required in addition to cargo requirements.
MMG Maximum allowable relief valve settings for all cargo tanks.
NNG Have any cargoes other than LPG been carried during last 3 loaded voyages? Specify.
OOG Maximum oxygen content by volume per cent of each warm or inerted cargo tank.
PPG If tank purging required specify whether:
(a) Parallel or in series.
(b) Liquid from shore direct to cargo tanks.
(c) Liquid from shore to vessel's vaporisers. Specify vaporiser throughout in RLPG tonnes/hour.
QQG If cooling down tanks is required, specify maximum cooling rate in terms of temperature reduction per hours and maximum temperature differential permitted between any two points in cargo tanks.
RRG Available total capacity of ship's reliquefication plant for each nominated cargo product.
SSG Type of ship's reliquefication system i.e., direct, cascade or other.
TTG Capacity of ship's gas blowers to shore vapour return line in volume per hour at reference temperature.
UUG Maximum loading rate and approximate topping off rate.
VVG Bunker manifold size. Bunker requirements.
WWG Manifold presentation; function, ASA rating, size, from Forward.
XXG Agent's name.
YYG IMO ship type. Does vessel have valid certificates of fitness?
ZZG Special conditions, difficulties, defective equipment or gear which could present special hazards or difficulties when mooring, unmooring or during cargo operations.
111. Deballasting time, specify concurrent loading or not.
222. Year built.
333. Master's full name.
444. Discharge port.
555. Next port of call.
666. Number of crew.
777. Vessel's economical speed.
888. Vessel's position when 48 hours from pilot station.

(See also "Appendix").

HEALTH: *Quarantine:* In accordance with International practice, quarantine signals must be displayed by all vessels approaching the port. These signals must be displayed continuously until Pratique is granted.

Sunrise to Sunset – Quarantine Flag
Sunset to Sunrise – Signal lights
Red over white

VHF: *Port Control:* All the marine services and shipping movements within King Fahd Industrial Port Limits are monitored and controlled by "King Fahd Port Control", which is situated at Lat. 23° 57.4′ N., Long. 38° 13′ E. The station is manned 24 hours a day and maintains a continuous VHF watch. Information can be provided to Masters and Pilots on all navigational aspects, including wind and visibility, navigational aids and shipping movements within the port area. The station will also provide a liaison with the Terminal Operators and Emergency Services.

The following VHF channels are continuously available for use by King Fahd Port Control.

Channel Designator	*MHz Frequency*	*Service*
16	156.800	International Calling and Distress
10	156.500	Port Operations – 3
11	156.550	Port Operations – 1
13	156.650	Port Operations – 4
68	156.425	Port Operations – 2
67	156.375	Pilotage/Berthing Operations
69	156.475	Pilotage/Berthing Operations
73	156.675	Pilotage/Berthing Operations
74	156.725	King Fahd Port Operations – Private

In the event of a Port Emergency, King Fahd Industrial Port Control will designate a channel for use during the period of the emergency.

RADAR: Harbour Surveillance Radar is installed in the new Port Control Tower.

TUGS: There is no requirement for Masters to order tugs in King Fahd Industrial Port. The number of tugs to be used during berthing and on departure will be specified by the Harbour Master. If the Master wishes to appeal against the number of tugs allocated, he will do so to the Harbour Master, who will make the final decision.

Any tug whether owned, hired or chartered by the Ports Authority, when used for assisting a vessel, shall be deemed to be under the order and control of the Master, Owner or Charterers of the vessel being assisted. The Ports Authority shall not be liable for damage of any description or any consequential loss suffered by, or to, the tugs or their crews while assisting vessels, whether occasioned by any act or omission of Tug Master or crew or by any defect or inadequacy of the tug, machinery or gear.

Towing lines will be provided by the Ports Authority. Tugs will rendezvous with vessels bound for Port Terminals in the vicinity of No. 14 Buoy.

All tugs are fitted with foam and water monitors for fire fighting and spray booms for pollution dispersal work.

Tugs up to 5,600 b.h.p. Pilot launches and mooring launches are available.

TANKERS:

Crude Oil Terminal:

ARAMCO Berth Particulars:

Berth No. 61:

Tanker Size (approx.)	80,000-275,000 d.w.t. (See Note)
Deck Level of Loading Platform	40 ft.
Depth Alongside Berth No. 1	92 ft. ISLW
Max. Draft	83 ft.
Loading Arms (number and size)	4×20 in.
Quick Disconnect Coupling Size	16 in., 20 in., 24 in.
Bunker Fuel Arms (number and size)	2×12 in.
Quick Disconnect Coupling Size	8 in., 10 in., 12 in.
Max. Rate Per Loading Arm	32,500 b.p.h.
Max. Rate Per Bunker Arm (Off-loading)	8,900 b.p.h.
Number of Breasting Dolphins	4
Number of Mooring Dolphins	4
Available Mooring Hooks	24 (SWL @ 70 M/T)
Distance Between Centre of Inner Breasting Dolphins	239 ft. (73 m.)

Note: In addition to loading crude oil Berth No. 61 will be used for off-loading bunker fuel from 50 m.d.w.t./80 m.d.w.t. sized tankers. Max. discharge rate is 8,900 bbls./hr. per bunker fuel loading/unloading arm.

Berth No. 62:

Tanker Size (approx.)	275,000-500,000 d.w.t. (See Note)
Deck Level of Loading Platform	40 ft.
Depth Alongside Berth	105 ft. ISLW
Max. Draft	95 ft.
Loading Arms (Number and Size)	4 × 20 in.
Quick Disconnect Coupling Size	16 in., 20 in., 24 in.
Bunker Arms (Number and Size)	2 × 12 in.
Quick Disconnect Coupling Size	8 in., 10 in., 12 in.
Max. Rate per Loading Arm	32,500 b.p.h.
Max. Rate per Bunker Arm (Bunkering)	10,000 b.p.h.
Number of Breasting Dolphins	2
Number of Mooring Dolphins	6
Available Mooring Hooks	26 (SWL @ 70 M/T)
Distance Between Centre of Breasting Dolphins	449 ft. (137 m.)

Note: Tankers of less than 275,000 d.w.t. may be accepted if the light water line flat side forward and aft of the manifold is at least 75 m. (246 ft.)

Berth No. 63: (Also see "Shipmaster's Report" – dated October 1985).

Tanker Size (approx.)	120,000-275,000 d.w.t. (See Note)
Deck Level of Loading Platform	40 ft.
Depth Alongside Berth	90 ft. ISLW
Max. Draft	81 ft.
Loading Arms (Number and Size)	4 × 20 in.
Quick Disconnect Coupling Size	16 in., 20 in., 24 in.
Bunker Arms (Number and Size)	2 × 12 in.
Quick Disconnect Coupling Size	8 in., 10 in., 12 in.
Max. Rate per Loading Arm	32,500 b.p.h.
Max. Rate per Bunker Arm (Bunkering)	10,000
Number of Breasting Dolphins	2
Number of Mooring Dolphins	5
Available Mooring Hooks	23 (SWL @ 70 M/T)
Distance Between Centre of Breasting Dolphins	420 ft. (128 m.)

Note: Tankers of less than 120,000 d.w.t. may be accepted if the light water line flat side forward and aft of the manifold is at least 70 m. (230 ft.).

Only two berths of the Crude Oil Terminal can be loaded at the same time. Maximum loading rate to two crude berths simultaneously is 260,000 b.p.h. through 8 × 20 in. loading arms.

Environmental Monitoring System: An environmental monitoring system is installed at Berth No. 61 dock control room with repeater units located in dock control rooms at Berths 62 and 63. The system indicates wind velocity and direction, atmospheric pressure and temperature, current velocity and direction, and wave height and period.

Berthing Criteria:

Max. berthing velocity:	20 cm./sec.
Max. approach angle:	7°

For berthing and unberthing purposes, wind, sea, and current conditions have to be within acceptable limits, so that during the final docking the maximum berthing velocity and maximum approach angle is not being exceeded.

Mooring Arrangements: Each mooring dolphin, breasting dolphin, and loading platform is equipped with either double or triple quick-release mooring hooks and with a mooring capstan.

The terminal will furnish a required mooring arrangement for the loading berth to which the vessel is nominated. The mooring diagram shows the number of mooring hooks provided for each berth consecutively numbered from North to South. These mooring hooks are designed to service one mooring line per hook.

Port mooring launches will be used to assist during mooring operations.

The terminal will provide suitable messengers for heaving in mooring lines.

In order to ensure the integrity of the offshore terminal facilities, it is recommended that VLCCs provide an all wire mooring arrangement and that tankers in the 50 to 160 MDWT range provide mooring wires at least for their spring mooring lines and breast mooring lines. The recommended minimum number of wire moorings is as follows:

50,000 – 160,000 d.w.t. tankers:	8 mooring wires
160,000 – 250,000 d.w.t. tankers:	10 mooring wires
250,000 – 350,000 d.w.t. tankers:	12 mooring wires
350,000 plus d.w.t. tankers:	14 mooring wires

VLCCs with an all synthetic mooring system will be accepted if the synthetic mooring lines consist of low elasticity material.

All mooring lines should be of similar size and material and must be in good condition. Manual brakes have to be set and to be secured on all tension winches once the tanker is moored. Ship's crew must tend all moorings to keep the ship in position and mooring lines have to be taut at all times.

Each loading berth is equipped with a mooring load monitor/hook release system. The system is designed to monitor the loads on each mooring hook and to provide an alarm should the loads on a mooring hook exceed the system's set points. Berth operating personnel will monitor the mooring loads and, based on the read-outs they will advise the responsible officer who is expected to immediately correct any undesirable mooring situation.

The mooring load monitoring system does not relieve the vessel's Master from his responsibility to ensure adequate and safe mooring at all times when berthed alongside the Crude Oil Terminal.

Gangway: The Crude Oil Terminal will provide a gangway to the ship at each berth.

Each loading platform has a gangway tower equipped with a self-adjusting gangway. The gangway provides access to and from the tanker and is the only permissible means for any personnel to enter or leave the ship.

Loading: *Loading Arms:* There are 4×20 in. crude oil loading arms at each of the loading platforms at Berth Nos. 61, 62 and 63. Each crude oil loading arm is capable of handling 32,500 bbls.p.h. maximum. The maximum flow rate per berth is 130,000 bbls.p.h., using 4 arms.

The hydraulic controls for the loading arms are located at the control desk on the loading platform adjacent to the loading arms. All loading arms are fully hydraulic powered and counter-balanced when empty. Each loading arm is fitted with a "Quick Disconnect Cargo Coupler" and a minimum distance of 18 in. is required between the lowest point of the ship loading line flanges to the upper level of the working platform of the spill tank.

All loading/bunker connections are equipped with electrical insulating flanges. Therefore, ship to shore bonding cables are not required.

Loading Plan Agreement: Prior to loading, the Terminal Supervisor will contact the officer in charge for the loading operation on board the tanker and discuss and agree on the loading plan.

The loading agreement consists of:

(a) Maximum acceptable loading rates, starting rates, topping-off rates, and standby notice requirements. (During loading, all anticipated changes in cargo transfer rates are to be communicated in a timely manner to ship or shore).
(b) Cargo quantities required by tanker's Master and comparison with terminal loading instructions.
(c) Cargo characteristics, required samples and tests.
(d) Assignment of cargo to vessel tanks and preferred order of loading.
(e) Details of last cargo, condition of tanks and pipe-lines, and ballast conditions and deballast time. Inspection of all cargo tanks prior to loading and signing of the Dry Certificate.
(f) Load-on-top procedures.
(g) Quantity of slop oil on board and quantity of free water in slops.
(h) Quantity of bunkers ordered prior to arrival.
(i) Estimated loading time required and estimated departure time.

Crude Oil Characteristics:

Arabian Light

Temperature	120°–150°F
API Gravity	33.2–33.8
Reid Vapour Pressure	3.6–5.0 PSIA
Pour Point	Below 20°F
Viscosity	57 SUS @ 70°F
BS&W	Less than 0.05%
H_2S	Less than 10 PPM

Hydrogen Sulphide Hazards (H_2S): Arabian crude loaded at the Offshore Marine Terminal has been treated for H_2S removal prior to shipping.

However, the crude oil may still contain Hydrogen Sulphide in concentrations which may be harmful to personnel. Personnel on board tankers who may be exposed to concentrations of H_2S gas should observe safety precautions applicable to harmful gases.

Slop Residues: Slop residues cannot be discharged ashore at Petromin's crude oil terminal.

Cargo Tank Inspection: Cargo tanks onboard the tanker will normally not be inspected by the Terminal Offshore Supervisor. If the Owner/Charterer of the ship requests an independent oil inspection company to inspect cargo tanks, the Offshore Supervisor will witness the tank inspection.

Tankers which arrive with all tanks inerted must enable ullage inspections of all cargo tanks to be carried out prior to start of cargo transfer operations and after completion of cargo transfer operations.

If the tanker requests load-on-top procedures, measuring of the quantity of oil and water in the slop tank(s) will be witnessed by the Terminal Supervisor (Also see "Appendix").

Loading Signal: During loading the international code flag "B" shall be displayed during daylight hours. During darkness a red loading light shall be displayed.

Watches: During the entire stay of the vessel alongside the Crude Oil Terminal, a deck watch is required.

Bunkering: Bunkering fuel is available at all berths at the Crude Oil Terminal, and 2 bunker loading arms are located on each loading platform, size 12 in. Maximum flow rate per bunker loading arm is 14,500 bbls./p.h. To avoid any delays to tankers, bunkering has to be accomplished concurrently with cargo transfer operations.

NGL TERMINAL: The NGL Terminal is a Saudi Arabian Government owned, ARAMCO operated facility designed to load refrigerated liquid petroleum gas (propane and butane) and naphtha product for export. LPG carriers range in size from approximately 25,000 cu.m. to 200,000 cu.m. Naphtha carriers range from 20,000 to 280,000 d.w.t.

Terminal Facilities: The 2 loading berths are situated on the offshore side of the base of the "L". Berth 71 is the Southerly berth and Berth 72 is the Northerly berth. Berth alignment is 290° true bearing. A tower crane is located in the middle of each loading platform. Reading from North to South the 7 loading arms are designated for the following service; Naphtha, ship's fuel, LPG (4 arms), and ship's fuel. All LPG arms are universally manifolded to permit propane or butane liquid loading; or propane, butane or contaminated vapour return. Bunker fuel or black diesel can be loaded through either or both 12 in. ship's fuel arms which flank the LPG loading station. The naphtha arm is capable of delivering naphtha product and receiving small amounts of naphtha slop, which will be disposed of onshore. There are no shore-based ballast handling facilities.

Berth Particulars: No. 71 and No. 72.

Tanker size (approx.):	16,000 – 200,000 cu.m.
Deck Level of Loading Platform:	56 ft. ISLW
Depth Alongside Berths (min.):	60 ft. ISLW
Max. Draft:	53 ft. 02 in. (16.2 m.)

Loading Arms:

	Number/Size
(a) Ships' Fuel	2×12 in.
(b) Naphtha	1×16 in.
(c) LPG	4×16 in.

Quick Disconnect Coupling Sizes: 8 in., 10 in., 12 in., 14 in. and 16 in.

Maximum loading rate:

(a) Ships' Fuel	
1. Diesel	650 bbls.p.h.
2. Bunker Fuel	5,000 bbls.p.h.
(b) Naphtha	30,000 bbls.p.h.
(c) LPG	30,000 bbls.p.h.

Number of Breasting Dolphins:	2
Number of Mooring Dolphins:	6
Available Mooring Hooks:	42
Distance between centre of Breasting Dolphins:	300 ft.

Condition of Ship's Products Tanks: The ARAMCO facilities for loading LPG are not designed for loading pressurised cargoes and LPG will not be loaded into a tanker which does not have adequate ship-board refrigeration capacity and chilled tanks.

Mooring Lines and Arrangements: In order to ensure the safety of personnel, tankers and loading facilities, and to prevent accidental oil spillages, ARAMCO strongly recommend that tankers of 75,000 d.w.t. and larger which moor at NGL Terminal berths utilise a minimum of 8 to 12 wire mooring lines (breasts and springs) in accordance with the following:

75,000 to 160,000 d.w.t.	: 8 wire lines
161,000 to 250,000 d.w.t.	: 10 wire lines
Greater than 250,000 d.w.t.	: 12 wire lines

Vessels equipped with both wire and synthetic mooring lines must avoid mixing such lines to the same dolphin. During periods of unsettled weather, arriving vessels fitted with sufficient wires will be preferentially berthed whereas vessels equipped with synthetic lines or too few wire lines will not be berthed until the weather improves. If a ship with synthetic lines is already moored and squall conditions arise, loading to that vessel will be stopped and the loading arms disconnected until weather conditions improve and it is judged safe to resume the loading operation. The use of nylon or other highly elastic line is prohibited.

Each mooring dolphin and breasting dolphin is equipped with triple quick-release mooring hooks and with a mooring winch.

Vessels must be moored to the entire satisfaction of the Pilot. Vessels must be ready at all times to put out more lines as required by the Harbour Master or pier personnel, or as dictated by weather changes. All vessels moored to the piers must have deck winches in readiness for immediate use. All vessels moored with automatic tension winches will set the manual brakes on these winches.

Pier crew are on duty continuously to handle loading arms and mooring lines. Mooring lines on board vessels will not be handled by shore personnel.

All loading connections are equipped with electrical insulating flanges. Therefore, ship to shore bonding cables are not required.

Gangway: The NGL Terminal will provide a gangway to the ship at either berth. Each berth has a gangway tower equipped with a self-adjusting gangway for access to and from the ship, and this is the only permissible means for any personnel to enter or leave the ship.

Loading Plans: After a tanker is secured at the berth and prior to the beginning of any loading operation, the Master (or a ship's officer designated by him) will meet with the NGL Terminal senior shift operations representative in order to discuss and prepare the vessel's loading plan. Items to be discussed will include, but not be limited to, the following:

1. Temperature and pressure of each of the ship's tanks.
2. Product to be loaded in each tank and the sequence of tank loading.
3. Quantity and type of product, if any, in each ship's tank, and whether it is a part cargo or residue required for tank cooling.
4. Loading rates of each product.
5. Safety procedures and safe loading practices.

All clean excess vapours which cannot be handled by the tanker's vapour recovery equipment will be metered to the shore-based vapour recovery system and reprocessed. Contaminated vapours will be metered to the flare.

Refrigerated LPG: Refrigerated LPG is loaded via 16 in. loading arms. The maximum loading rate for each product is 30,000 bbls.p.h. Each berth is equipped with 4 LPG loading arms which may be used for butane liquid, propane liquid or vapour return to a ship's vapour recovery unit, or contaminated vapours to flare. All 8 LPG loading arms are fitted with quick connect/disconnect couplers. Each LPG loading line has an associate circulation return line. Loading lines must be on circulation at least 4 hours prior to commencement of loading. No 2 ships are loaded from one loading line simultaneously.

The NGL Terminal facilities ARE NOT designed for loading pressurised LPG and NO LPG will be loaded into ship's tanks that are not equipped with refrigeration facilities and are not adequately chilled.

Vapour line MUST be connected prior to loading LPG cargo. This also includes those vessels loading coolant.

Before being transferred from the loading line to the loading barrel and arms, the propane and butane products are metered. The metering system is designed for loading rates between 100 bbls.p.h. and 30,000 bbls.p.h. for each product.

A 3 in. turbine type meter with a capacity of 79 bbls.p.h. – 929 bbls.p.h is provided for low loading rates such as cooldown and topping off.

An 8 in. turbine type meter with a capacity of 679 bbls.h.p. – 7,420 bbls.p.h. is provided for full flow rates.

Every vessel loading LPG at the NGL Terminal will be required to have a copy of ARAMCO GASRUL 9:83 on board. When a copy is not on board prior to arrival ARAMCO and the Agent of the vessel shall be so advised. Extracts of the regulations are included for information as follows:

1. *Propane Loading:*
   (a) The cargo tank bottom is cooled down to a maximum mean temperature of −38°F or −39°C.
   (b) The maximum mean temperature above the mid-depth of the cargo tank, in the range between two-thirds and three-quarters of the Maximum Allowable Tank Filling Level (MATFL), and excluding any temperature indicated in the cargo tank dome vapour space, is −13°F or −25°C.
   or
   The maximum mean temperature at the top of the cargo tank and at or immediately below the MATFL and excluding any temperature indicated in the cargo tank dome vapour space is −8°F or −22°C.
2. *Butane Loading:*
   (a) The cargo tank bottom is cooled down to a maximum mean temperature of +32°F or 0°C.
   (b) The maximum mean temperature above the mid-depth of the cargo tank, in the range between two-thirds and three-quarters of the MATFL and excluding and temperature indicated in the cargo tank dome vapour space, is +57°F or +14°C.
   or
   The maximum mean temperature at the top of the cargo tank and at or immediately below the MATFL and excluding any temperature indicated in the cargo tank dome space is plus 62°F. or plus 17°C.
3. The cargo tank gauge pressure not more than 1.0 p.s.i. or 70 MBS or 0.07 kg./sq.cm. on arrival at berth. During cargo operation the pressure of any cargo tank shall be maintained within the range between zero gauge minimum (atmospheric pressure) and a maximum which shall not exceed 70% of the maximum allowable relief valve setting for that cargo tank or such other lesser maximum percentage as may be determined by ARAMCO for a particular vessel.
4. Butane may be loaded into ship tanks containing residue up to 10% of the cargo to be loaded.
5. Propane may be loaded into ship tanks containing propane residue up to 10% of the cargo to be loaded.
6. Butane or propane may be loaded into ship tanks containing part cargo of the same grade only by authorisation of the offtaker. Quantities of over 10% of the cargo to be loaded shall be considered part cargo.
7. Should the vessel be unable to comply with the provisions of paragraphs 3 and 4, ARAMCO operations management representatives shall confer with the vessel Master and/or Responsible Loading Officer to develop a loading procedure for the safest possible loading for the tank(s) containing dissimilar residue. The procedure shall be in writing, agreed to by both parties and take into consideration loading rates, temperatures, pressures and all possible safeguards to ensure minimising the dangers to ship and shore installations. It must be understood that this procedure will involve delays to the vessel and will impose additional workloads on the shore and ship personnel.
8. IN NO CASE WILL LOADING BE PERMITTED INTO SHIP TANKS CONTAINING LIQUID PRODUCT OF A DIFFERENT GRADE IN EXCESS OF TEN TONS.
9. When a vessel requires special handling, as described above, the vessel shall be given a letter of protest, with copies to Owners and Operators.

10. Refrigerated LPG vessels with warm cargo tanks can be handled at the ARAMCO NGL Terminal. When special circumstances warrant, new ships and other vessels with warm tanks may be accommodated but will be subject to specific conditions.
11. Vessels with part cargo on board of products other than A-140 propane or A-160 butane must be equipped to keep any liquid or vapour completely self-contained from those cargo parcels. There must be no return of non-compatible vapour to atmosphere while at berth. *No mixing of dissimilar refrigerated liquids is allowed at berth.*
12. Vessels loading either propane or butane are expected to use the appropriate vapour return line but only for *excess* vapour which the vessel's vapour recovery equipment cannot handle. Excessive vapour will be metered to a shoreside ship's vapour recovery system. If the excess vapour cannot be handled by using both systems, the vapour will be sent to flare. If the situation cannot be corrected promptly aboard ship, the loading shall be shut down. Loading shall be resumed only after the loading plan has been reviewed with the Master or Responsible Loading Officer by the senior shift operations representative and corrective action has been agreed upon.
13. In the event of a spill of liquid propane or butane on board the vessel, shore loading shall be shut down until corrective action to clean up the spill and to avoid future recurrence has been agreed upon by the Master or Responsible Loading Officer, the shift operations staff and the Harbour Master.
14. There are no facilities at the NGL Terminal for the return of either liquid propane or liquid butane cargo. Vessels must pay strict attention not to overload either of these grades.

Emergency Procedures: In the event of a fire or explosion at the pier, or on board a vessel which is berthed alongside at the Terminal, the alarm signal will be a one minute undulating signal on the siren and an Emergency Shutdown System will be activated to shutdown immediately all cargo loading to vessels at the berths. The course of action to be followed by ARAMCO Terminal personnel will be dictated by the particular facts and circumstances of the incident. It is impossible to indicate exactly and completely what practices will be applied during an emergency before an evaluation of the specfic situation can be made. Masters are advised to familiarise themselves with the Port and Terminal Emergency Procedures.

YANBU PETROMIN REFINERY TERMINAL: The Refinery is owned and operated by the General Petroleum and Mineral Organisation (Petromin). There are 4 berths; the 2 outer berths, Nos. 91 and 92 (West to East), will accommodate vessels with 20,000 to 60,000 d.w.t. capacity; and the 2 inner berths, Nos. 93 and 94 (West to East), will accommodate vessels up to 20,000 d.w.t. capacity.

The channel adjacent to the outer berths has been dredged to a depth of 16 m. below LAT. The turning circle and approach area for the inner berthing area has been dredged to 13.5 m. below LAT. Alongside the two inner berths the water has been dredged to 11.5 m. below LAT.

There are 8 loading arms at each berth to accommodate export of product. At Berth No. 94 there will be 4 additional loading arms to accommodate LPG, LPG (recovery), tetra-ethyl lead and caustic.

A temporary offshore floating hose loading facility is being used pending completion of the terminal. 6 mooring buoys have been anchored in the turning basin area and a tanker can be moored within these buoys. Tankers up to 35,000 d.w.t. can be accommodated.

There is no ballast water reception facility available at this Terminal.

EXPORT REFINERY TERMINAL: The Export Refinery Terminal has 2 separate loading facilities.

A tanker loading facility consisting of 3 berths for bulk petroleum liquids is operated under a lease agreement by PETROMIN-Mobil Yanbu Refinery Company Limited (PEMREF).

A chemical loading facility with 1 berth is likewise operated under a lease agreement.

PEMREF Facilities Particulars:

1. The Short Haul Berth No. 42 is located in the inner basin. It consists of a fixed loading platform with semi-flexible mooring and breasting dolphins. The berth will accommodate tankers from 5,000 d.w.t. to 35,000 d.w.t.
2. A ballast water treatment facility is located adjacent to Berth No. 42 and is capable of processing ballast water from tankers loading at the Export Refinery Terminal including the Chemical Berth.
3. The inner basin has been dredged to a depth of 13.5 m. below LAT. A turning basin with a diameter of 400 m. allows for ready access to the basin.
4. There is a jetty trestle with 2 outer loading berths connected to the shore by a free standing trestle and causeway. The 2 loading berths are fixed structures with fixed loading platforms and semi-flexible mooring and breasting dolphins. These berths named Suez Berth West and Suez Berth East are numbered Nos. 54 and 55. They are capable of handling tankers up to 150,000 d.w.t. in size. The water depth alongside these 2 berths has been dredged to 18.5 m. below LAT.

PEMREF Berth Particulars:

1. Short Haul Berth No. 42:

Min. Size Vessel:	5,000 d.w.t.
Max. Size Vessel:	35,000 d.w.t.
Deck Level of Loading Platform:	5.0 m./16.4 ft.
Depth Alongside Berth:	13.50 m./44.28 ft.
Max. Draft: ✓	12.15 m./39.85 ft.
Loading Arms (number and size):	2×10 in. – Black Products/Ballast 4×12 in. – White Products
Quick Disconnect Coupling Size:	6 in., 8 in., 10 in., 12 in., 16 in.
Bunker Fuel Arms (number and size):	2×6 in.
Quick Disconnect Coupling Size:	6 in., 8 in., 10 in.
Max. Rate per Loading Arm:	10 in. – 1,430 cu.m./hr. 12 in. – 1,590 cu.m./hr.
Max. Rate per Bunker Arm:	Heavy Fuel 480 cu.m./hr. Diesel Fuel 160 cu.m./hr.
Number of Breasting Dolphins:	4
Number of Mooring Dolphins:	4
Available Mooring Hooks:	20
Distance between Centre of Inner Breasting Dolphins:	33.0 m./108.25 ft.
Normal Shipside to Berth:	Port
Shore Gangway Provided:	Yes
Water to Manifold	
Max. Height:	80 m./42 ft.
Min. Height:	2.59 m./8 ft. 6 in.
Max. Approach Velocity:	0.25 m./sec.
Max. Approach Angle:	±5 degrees

Suez Berths West and East – Berth Nos. 54 and 55: (Also see "Shipmaster's Report" – March 1985).

Min. Size Vessel: (see Note No. 1)	30,000 d.w.t.
Max. Vessel Size:	150,000 d.w.t.
Deck Level of Loading Platform:	7.0 m./22.96 ft.
Depth Alongside Berth:	18.50 m./60.28 ft.
Max. Draft:	16.65 m./54.60 ft.
Loading Arms (number and size):	7×16 in.
Quick Disconnect Coupling Size:	6 in., 8 in., 10 in., 12 in., 16 in.
Bunker Fuel Arms (number and size):	2×10 in.
Quick Disconnect Coupling Size:	6 in., 8 in., 10 in., 12 in.
Max. Rate per Loading Arm:	Heavy Fuel – 4,378 cu.m./hr. White Products – 1,590 cu.m./hr.
Max. Rate per Bunker Arm:	Heavy Fuel 1,590 cu.m./hr. Diesel Fuel 160 cu.m./hr.
Number of Breasting Dolphins:	4
Number of Mooring Dolphins:	4
Available Mooring Hooks:	20
Distance between Centre of Inner Breasting Dolphins:	56.0 m./183.7 ft.
Normal Shipside to Berth:	Starboard
Shore Gangway Provided:	Yes
Waterline to Manifold	
Max. Height:	19.00 m./62 ft. 4 in.
Min. Height:	4.50 m./14 ft. 9 in.
Max. Approach Velocity:	0.18 m./sec.
Max. Approach Angle:	±5 degrees

Note 1: Tankers of less than 30,000 d.w.t. may be accepted at the Suez Berths if the light water line flat side forward and aft of the manifold is at least 34.0 m./111.5 ft., and subject to weather conditions.

WHITE →

YANPET Facilities Particulars: There is one chemical berth No. 41 located in the inner basin. It can accommodate tankers from 5,000 to 35,000 d.w.t. The turning circle into the inner basin is 400 m. in diameter and is dredged to 13.5 m. below LAT.

The facilities are designed for the export and import of petrochemical products; these include: mono-ethylene glycol (MEG), di-ethylene glycol (DEG), glycol blackflush, hexene, vapour return, propylene, process water, and caustic soda.

Berth Particulars:

Minimum vessel size:	5,000 d.w.t.
Maximum vessel size:	35,000 d.w.t.
Maximum LOA:	200 m.
Maximum beam:	No restriction.
Deck level of loading platform:	5 m.
Depth alongside berth:	13.5 m.
Maximum draft:	12.2 m.

Loading arms:

Size	*Product*	*Max. Loading Rate*
6 in.	Hexene	50 cu.m.p.h.
6 in.	Propylene	
10 in.	Ballast water	
	HFO & DO (bunkers)	
10 in.	M.E.G.	750 cu.m.p.h.
6 in.	Glycol backflush	
6 in.	D.E.G.	113 cu.m.p.h.
4 in.	Caustic Soda	50 cu.m.p.h.
6 in.	HFO & DO (bunkers)	

Quick disconnect coupling size – various adaptors available
Number of breasting dolphins – 4
Number of mooring dolphins – 4
Available mooring hooks – 20
Distance between centre of inner breasting dolphins – 33 m.
Daylight berthing only. No restrictions for unberthing.
Normal shipside to berth – Starboard.
Shore gangway provided.
Waterline to manifold Maximum height – 12.8 m.
Minimum height – 2.59 m.
Maximum approach velocity – 0.25 m./sec.
Maximum approach angle – ±5°
Fresh water available upon request.
Bunkers currently not available.

Ballast Water Facility: The Export Refinery Terminal incorporates a ballast water facility which is capable of processing ballast water from vessels loading at the 3 berths at the terminal.

The facility has 3 initial storage tanks of 50,000 cu.m. each, which will receive ballast water direct from the tankers.

Ballast water is passed through the facility's separator system; clean water is then passed to retention ponds prior to being pumped to sea, and recovered oil is passed to the recovered oil system.

All ballast water handled at the facility is monitored to ensure compliance with current environmental standards and requirements.

Vessels loading at Crude, NGL and Chemical Berths will not be able to discharge slops to the shore facility.

Bunkers: Bunker fuel may be available at each of the Export Refinery Terminal's 3 berths, the bunker fuel being supplied from the refinery facility only to vessels consigned to PEMREF. Heavy fuel oil and diesel fuel oil may be available, and should be requested in advance of a tanker's arrival at the port.

Berthing Criteria: Max. Berthing Velocity:

Chemical Berth No. 41	0.25 m./sec.
Short Haul Berth No. 42	0.25 m./sec.
Suez Berth West No. 54	0.18 m./sec.
Suez Berth East No. 55	0.18 m./sec.
Max. approach angle:	±5 degrees

Environmental conditions such as current, wind speed and sea state, should be considered in ensuring the above maximum criteria is not exceeded at final docking stage.

Mooring Arrangements: Each mooring dolphin, outer breasting dolphin and loading platform is equipped with either double or triple quick release mooring hooks, each combination of double or triple hooks having a mooring capstan with safe working load of 3 tons.

The terminal will provide a required mooring arrangement for the loading berths. The mooring arrangement shows the number and position of the mooring hooks provided on each berth. The mooring hooks are designed to handle 1 mooring line per hook.

Mooring boats will be utilised to run mooring lines to the mooring dolphins from the tanker. The terminal will provide suitable messenger lines for heaving the mooring lines to the hooks.

In order to ensure the integrity of the berth facilities it is recommended that tankers in the 50,000 d.w.t. to 150,000 d.w.t. range provides mooring wires at least for their spring and breast mooring lines. The recommended minimum for tankers from 50,000 d.w.t. – 150,000 d.w.t. is 8 mooring wires.

Tankers with the recommended mooring wire systems will be given berthing preference during adverse or unsettled weather conditions.

All mooring lines should be of similar size and material and should be in good condition. Manual brakes must be set on tension winches when mooring is completed. The ship's crew must tend moorings at all times to maintain the ship's position at the berth.

Under no circumstances may the longitudinal or lateral movements of a vessel exceed the limited working envelopes (working areas) of the connected loading arms.

Docking Monitoring System: A system of velocity and distance indicating and recording instruments are provided for the 4 berths. The transducers are positioned on the berth structure with electronic equipment housed in the control room. An illuminated display is located on the berth structures to provide an indication of fore and aft ship distance and approach speed to the ship's Pilot.

Gangway: The Export Refinery Terminal will provide a gangway to the ship at each berth. Each berth is equipped with a hydraulically operated self adjusting gangway. The gangway provides the only permissible means of access to and from the tanker.

Ballast Water: Tankers arriving at the Export Refinery Terminal with clean ballast, which meets the current environmental standards of King Fahd Industrial Port, will be allowed to discharge the ballast water direct to the sea.

The discharge of clean ballast water into the sea from cargo tanks will only be permitted with the approval of the Harbour Master or his designated representative.

A monitoring procedure will be employed during the discharge of clean ballast to ensure quality is maintained.

Tankers arriving with "dirty ballast" or ballast which does not meet the port requirements must discharge ballast to the Terminal's ballast facility.

Details of this operation will be agreed with the Terminal operator when 'operation agreement' is made.

Slop Residues: Slop oil may be discharged to the ballast reception facilities consistent with content restrictions. Slop residues containing chemicals or emulsifying agents may not be accepted.

Prior to arrival at the Terminal, vessel's Master must request use of this facility giving following details:

1. Total quantity to be discharged.
2. Quantity of oil.
3. Quantity of water.
4. Type of chemicals contained if any.

Loading Arms – Chemical Berth – Berth No. 41: The Chemical Berth is equipped with 8 loading arms, 2×10 in. diameter, 5×6 in. diameter and 1×4 in. diameter as detailed below:

Arm Size	*Product*
6 in.	Hexene.
6 in.	Propylene.
10 in.	Heavy Fuel Oil (Bunkers)/Diesel Fuel Oil (Bunkers)/Ballast Water.
10 in.	Mono-ethylene Glycol (MEG).
6 in.	Glycol Backflush.
6 in.	Die-ethylene Glycol (DEG).
4 in.	Caustic Soda.
6 in.	Heavy Fuel Oil (Bunkers)/Diesel Fuel Oil (Bunkers)

Each loading arm is fitted with a quick disconnect coupler. Adaptors are available to fit a range of ships' manifolds.

The loading arms and quick disconnect couplers are hydraulically controlled from a central operating location. A wandering control lead is available for local control on board the vessel for connecting by the berth operator.

Loading Arms – Short Haul Berth No. 42: The Short Haul Berth is equipped with 6 loading arms, 4×12 in. and 2×10 in. as detailed below. 2×6 in diameter bunker loading arms are also provided.

Arm Size	*Product*
10 in.	Marine Heavy Fuel Oil/Ballast Water.
10 in.	Marine Heavy Fuel Oil/Ballast Water.
6 in.	Heavy Fuel Oil Bunker/Diesel Fuel Oil Bunker/Bunker Cutter Stock.
12 in.	Jet Fuel.
12 in.	ADO/Leaded Gasoline.
12 in.	Jet Fuel.
12 in.	ADO/Leaded Gasoline.
6 in.	Diesel Fuel Bunkers/Heavy Fuel Bunker.

Each loading arm is fitted with a quick disconnect coupler. Adaptors are available to fit a range of ships manifolds from 6 in. to 16 in. ASTM.

The loading arms and quick disconnect couplers are hydraulically controlled from a central operating location. A wandering control lead is available for local control on board the vessel for connecting by the berth operator.

Loading Arms – Suez Berths West/East – Nos. 54 and 55: The Suez Berths are each provided with 7 loading arms of 16 in. diameter and 2 bunker fuel loading arms of 10 in. diameter, as shown below:

Arm Size	*Product*
16 in.	Marine Heavy Fuel Oil/Ballast Water.
16 in.	Marine Heavy Fuel Oil/Ballast Water.
10 in.	Heavy Fuel Oil Bunker/Diesel Fuel Oil Bunker/Bunker Cutter Stock.
16 in.	Naphtha/ADO.
16 in.	Leaded Gasoline/Unleaded Gasoline.
16 in.	Jet Fuel.
16 in.	ADO/Naphtha.
16 in.	Leaded Gasoline/Unleaded Gasoline.
10 in.	Diesel Fuel Oil Bunker/Heavy Fuel Oil Bunker.

Each loading arm is fitted with a quick disconnect coupler. Adaptors are available to fit a range of ships' manifolds from 6 in. to 16 in. ASTM.

The loading arms and quick disconnect couplers are hydraulically operated from a centrally located operating panel. A wandering control lead is also available for remote use when connecting arms to ship's manifold.

Grounding: All cargo/bunker loading connections are equipped with electrical insulating flanges, and therefore ships to shore bonding is not necessary.

Maximum Loading Rates:

Short Haul Berth No. 42		
Heavy Fuel Oil	2,860 cu.m./hr.	18,000 bbls./p.h.**
Leaded Gasoline	3,180 cu.m./hr.	20,000 bbls./p.h.**
Automotive Diesel Oil	3,180 cu.m./hr.	20,000 bbls./p.h.**
Jet Fuel	3,180 cu.m./hr.	20,000 bbls./p.h.**
Heavy Fuel Bunker	480 cu.m./hr.	3,000 bbls./p.h.
Diesel Fuel Bunker	160 cu.m./hr.	1,000 bbls./p.h.
Suez Berth Nos. 54 and 55		
Heavy Fuel Oil	8,756 cu.m./hr.	50,000 bbls./p.h.**
Leaded Gasoline	5,170 cu.m./hr.	32,500 bbls./p.h.
Unleaded Gasoline	5,170 cu.m./hr.	32,500 bbls./p.h.
Naphtha	5,170 cu.m./hr.	32,500 bbls./p.h.
Automotive Diesel Oil	5,170 cu.m./hr.	32,500 bbls./p.h.
Jet Fuel	5,170 cu.m./hr.	32,500 bbls./p.h.
Heavy Fuel Bunker	1,590 cu.m./hr.	10,000 bbls./p.h.
Diesel Fuel Bunker	160 cu.m./hr.	1,000 bbls./p.h.

Note: Loading rates for products marked ** are for 2 loading arms availability; rates should be halved to indicate rate per loading arm.

PEMREF Operational Agreement: Prior to any operational activity after a tanker is moored, an "Operational Agreement" will be made between the ship's responsible cargo officer and the terminal representative. The Operational Agreement requires an exchange of information between the ship and terminal covering the following items:

1. Grades and quantities of cargo/bunkers required.
2. Loading rates and quantities per grade for start, maximum and topping off.
3. Standby time required for stopping loading and slow down for each grade.
4. Ballast quantity to be discharged to sea or ballast facility.
5. Slop residues to be discharged to facility.
6. Manifold connections/loading arms to be used for each operation.
7. Sequence of loading different grades/products.
8. Estimated time required to carry out each operation, to give total expected load time.
9. Information regarding (a) Communications, (b) Emergency Shutdown Procedures, (c) Tank Venting System, (d) Maximum pressures allowed, etc.
10. Has Ship/Shore Safety Check List been completed. (Also see "Appendix").

Inert Gas Requirements:

All vessels scheduled to load at PEMREF which are fitted with an inert gas system, must comply fully with the rules, and arrive, where applicable, with tanks fully inerted to below 8% Oxygen content.

Vessels which do not comply with the Rules will face delays in berthing, removal from the berth and possible rejection for loading.

Ship/Shore Safety Check List: Prior to operations on board tankers at the Terminal berths a 'Ship/Shore Safety Check List' will be completed by both ship and Terminal representatives who will together inspect the necessary items listed. Further checks will be made at intervals throughout the vessels time at the berth.

Safety Requirement Letter: The Master of each tanker will be given a letter concerning safety requirements. Receipt of the letter has to be acknowledged by signing and returning a copy of the letter to the Terminal representative.

Sea Valves: All sea-valves and overboard valves connected to the tanker's cargo system have to be closed and lashed prior to commencement of cargo transfer operations.

Loading Signal: During loading the international code flag "B" shall be displayed during daylight hours. During darkness a red loading light shall be displayed.

Shore Emergency Signals: Continuous sounding of vessel's fog signal.

Emergency Towing Wires: While at the Terminal, tankers have to provide emergency towing wires of adequate strength to move the tanker off the dock. The towing wires are to be positioned on the offshore bow and stern quarter of the tanker and the outboard eye should be maintained approximately 1 m. above water level at all times.

Emergency Pilot Boarding: A pilot ladder of sufficient length should be at all times on standby at the offshore side of the tanker's main deck. In an emergency the pilot ladder should be lowered to 3 ft. above the water line to enable boarding of the Pilot if this should become necessary.

GENERAL CARGO AND CONTAINER TERMINAL: This facility is situated to the North of the Crude Oil Terminal. It has 7 berths along a 1,784 m. wharf. These include berths for Ro-Ro, heavy lift, conventional general cargo and cellular container vessels. The channel inside the barrier reef has been dredged to 14 m. below LAT and there are 2 turning basins at either end of the 2 km. berth frontage.

The Ro-Ro facility, adjacent to Berth No. 1, situated at the Northern end of the berth frontage, with a dredged depth of 14 m. below LAT is operational. A permanent ramp with a 1:25 gradient and an overall width of 34 m. is located at right angles to the berth frontage. Horizontal "Sumimoto" fendering is fixed to the ramp face at a height of 0.75 m. above LAT. The deck of the ramp is 2.0 m. above LAT rising to 2.36 m., 3.0 m. inshore from the ramp face. Three bollards, each rated at 90 tonnes are positioned either side of the ramp deck, providing a clear width of approximately 31 m. Additional bollards, also rated at 90 tonnes, are situated on the berth frontage, the first 30 m. South of the ramp face and thereafter at approximately 30 m. intervals. "Sumimoto" 'pie' type fendering, spaced at 10 m. intervals, is provided on the berth frontage.

The maximum uniform live loads on the Ro-Ro ramp is 6.25 tonnes/sq.m. The maximum concentrated load is 1,100 tonnes when used on a Scheurle platform trailer, which provides for a 28 tonnes maximum axle load with a maximum load on a contact area of 200 m.×455 mm. of 7 tonnes: or 60 tonnes on 0.3 m.×0.3 m. (as from 20 ft. containers stacked 3 high): or, 91 tonnes on 0.6 m.×0.5 m. (as from 40 ft. containers stacked 3 high): or, 80 tonnes front axle load of a container fork lift truck.

Cargo is being handled by stevedores who are currently working one shift of 12 hours, 7 days per week on general cargo vessels and 24 hours working on container and Ro-Ro vessels. There are container gantry cranes available at all times.

Particulars of the container cranes are:

Safe working load	40 tons
Outreach	34.5 m.
Hoisting height above rail	26.0 m.
Elevation of wharf above Maximum HW	3.17 m.

Cycle time is 90 secs. or 40 containers per hour.

The 3 container cranes are numbered 1, 2 and 3 from the Ro-Ro ramp end. The berthing arrangements are:

		Length of Wharf
Berth No. 1	Ro-Ro Terminal	200 m.
Berth No. 2	Container Terminal	300 m.
Berth No. 3	General Cargo	200 m.
Berth No. 4	Heavy Lift	180 m.
Berth No. 5	General Cargo	180 m.
Berth No. 6	General Cargo	180 m.
Berth No. 7	General Cargo	180 m.

A minimum clearance of 15 m. between vessels at adjacent berths is required during berthing/unberthing operations.

BULK TERMINAL: The Bulk Terminal consists of a wharf 500 m. in length with 2 dry bulk berths, Nos. 21 and 22. The wharf is 33 m. wide and can accommodate bulk carriers up to 60,000 d.w.t. The water off the wharf is dredged to 15.5 m. below LAT. The maximum draft allowed is 13.9 m. (46 ft. 07 in.).

PEMREF's sulphur loading equipment is located at the Bulk Terminal's "Sulphur Berth" (Berth No. 21) and is capable of loading prilled sulphur at a maximum rate of 420 t.p.h.

A slewing arm loader is designed to operate along the face of the sulphur dock to any hold of vessels up to 30,000 d.w.t., without requiring movement of the ship.

Ships mooring at the Bulk Terminal will be required to provide gangway access to ship.

BALLAST: The discharge of ballast water containing quantities of oil, or high levels of mineral or chemical pollutant, into the water of the Port is prohibited.

The discharge of ballast water from segregated or permanent ballast tanks into the waters of the Port will be permitted provided that the Master signs a declaration that the permanent ballast is clean and not affected by any pollutants.

The discharge of clean ballast water, from cargo tanks, into the waters of the Port will only be permitted if the oil content of the ballast water does NOT exceed 10 parts per million. Cargo tank ballast water will be sampled on the arrival of the vessel and measurements taken to determine the total oil concentration in the water. Subject to the results of the measurements being within the prescribed limits, the Harbour Master, or his deputy, will approve the start of deballasting. Throughout the cargo tank ballast discharge the oil concentrations in the discharged water will be closely monitored and the results reported to the Harbour Master, or his deputy, who will decide when such discharge shall stop.

MEDICAL: Medical facilities are available for the treatment of emergency cases only. Masters should, if possible, provide advance notice, to their Agent, of their requirements, together with name, rank, nationality, passport or seaman's identity book number including date of issue and place of issue.

FRESH WATER: Potable fresh water is available at the General Cargo and Container Terminal, Bulk Terminal and Export Refinery Terminal. Fresh water is not presently available at the Crude Oil Terminal, NGL Terminal and Yanbu Petromin Refinery Terminal. Masters should contact their Agent well in advance to establish availability.

FUEL: Refer to specifications of individual berths.

REPAIRS: While alongside berths, engines and propulsive machinery must be ready at all times to leave the berth at 10 minutes' notice, under full power.

No repairs of any kind are permitted alongside any berth unless mutually agreed by the Master, Harbour Master and Terminal Manager.

Any repairs involving "Hot Work" will be subject to special conditions contained in the "Hot Work Permit" which must be obtained from the Harbour Master.

SURVEYORS:

Classification Society Surveyors:

American Bureau of Shipping, P.O.Box 66, Jeddah. Tel: 642-3066. Telex: 401015 ("BASHIP SJ").

Bureau Veritas, c/o Orri Navigation Company, Orri Building, Mina Road, P.O.Box 737, Jeddah – 21421, Saudi Arabia. Tel: 643-2144/3566. Telex: 400129 ("MIDSHIP SJ").

Lloyd's Register, Shobokshi Maritime Building, P.O.Box 6560, Jeddah, Saudi Arabia. Tel: 667-5954 ext. 456. Telex: 402654 ("SHOBOK SJ").

Det Norske Veritas, c/o Haji Abdullah Alireza, Jeddah, Saudi Arabia. Tel: 665-6321 or 642-2233. Telex: 401037 ("REZA SJ").

Petroleum Inspection Companies:

Caleb Brett, Arabian Inspection & Survey Company Ltd., P.O.Box 174, Yanbu. Tel: 322-4356. Telex: 661030 Aet SJ.

G. Watson Gray (Analysts), P.O.Box 88, Yanbu. Tel: 322-4386. Telex: 621027 ("KANOO SJ").

S.A.P.E.C. Redwood, P.O.Box 738, Yanbu. Tel: 322-6825/8057. Telex: 661176 ("REDWUD SJ").

CONSULS: Embassies are in the process of moving to the new Diplomatic Quarter in Riyadh.

TIME: The Time Zone is GMT plus 3 hours.

CUSTOMS: *Import/Export Prohibitions:* All goods to be imported into, or exported from, the Kingdom of Saudi Arabia are subject to examination by the Customs Authorities. The importation of certain articles is strictly prohibited, for example:

Explosives and Firearms, including air rifles
Implements of war of any kind, including antiques
Alcoholic beverages of any kind
Religious matter not pertaining to the Moslem faith
Pig meat or pig products
Playing cards and gambling games or devices
Narcotics
Pornographic material.

Trafficking in these items between ships, and between ships' crews and shore personnel, is strictly prohibited. Also see "General".

SHORE LEAVE: Ship's personnel are NOT permitted ashore, nor on the wharves FOR ANY PURPOSE WHATSOEVER (this includes the reading of the ship's draft) until Pratique is granted, and then are allowed on the wharves only if actually engaged in duties in connection with operations of discharging, deballasting or loading.

All shore leave is contingent upon compliance with Saudi Arabian Quarantine and Passport Regulations. For current details concerning these regulations and shore leave restrictions the ship's Agents must be consulted.

SAFETY/POLLUTION: *Safety Requirements:* A letter concerning safety requirements will be given to the Master of each vessel by the Terminal Supervisor at the Crude Oil Terminal.

Receipt of the safety requirement letter has to be acknowledged by countersigning and returning a copy to the Terminal Supervisor.

Ship/Shore Safety Check List and Precautions: Terminals in King Fahd Industrial Port follow the recommended safe practice for loading, discharging and related operations as contained in the International Oil Tanker and Terminal Safety Guide and the International Chamber of Shipping's Tanker Safety Guides for Chemicals and Liquefied Gas, or other comparable Guides.

Prior to commencement of any cargo/bunker transfer operations, a ship/shore check list is to be completed and signed by responsible personnel from ship and shore. Each item should be positively verified before it is ticked and, if necessary, a physical check will be performed.

Regular inspections by the Terminal Staff will be made with the ship's Master, or his deputy, to ensure that the relevant safe practices are strictly adhered to. The Harbour Master or his deputies may also carry out inspections. If any infringement of the recommended safe practices is observed, the attention of the person in charge will be drawn to the fact and, if the situation is not resolved immediately, all operations must cease. In the event of continued and blatant disregard of the regulations, the vessel may be ordered off the berth for appropriate action to be taken by the Charterers and Owners concerned.

Tank cleaning and/or gas freeing is only permitted with the approval of the Terminal Manager and Harbour Master and only if tank washings can be discharged into reception facilities (Also see "Appendix").

Crude Oil Terminal Emergency Procedures: Emergency procedures, both on board and offshore, shall be introduced in the event that normal operational practice has to be interrupted or suspended as a result of an unforeseen incident that would create unsafe conditions while loading crude oil at one of the berths of the Crude Oil Terminal.

Crude Oil Terminal Emergencies which would require immediate action by terminal personnel or shipboard personnel are:

1. Electrical storm.
2. Electrical power failure.
3. Mechanical failure.
4. Leakage, spill.
5. High gas concentration.
6. High winds exceeding 35 knots.
7. Fire.

Actions to be taken shall be determined by the type and severity of the incident and are:

(a) Stop loading.
(b) Comply with emergency reporting procedures.
(c) Disconnect loading/bunker arms.
(d) Fire facilities standby.
(e) Standby for unmooring.
(f) Departure from berth.

Emergency actions should be initiated by offshore personnel when an emergency is detected onshore or on board that tanker. It is important that the first able-bodied person or persons at the scene of the emergency should take whatever action is appropriate and necessary to protect personnel, minimise the hazard and to limit the extent of damage.

All Crude Oil Terminal personnel have to be familiar with the King Fahd Industrial Port Emergency Plans and, on declaration of an emergency for the Port, follow the procedures as listed in these emergency plans. The King Fahd Industrial Port Emergency Plans apply to all areas within the port limits as defined by the Rules and Regulations for King Fahd Industrial Port.

Oil Pollution Prevention: Any oil pollution of the waters of the King Fahd Industrial Port will be treated as a very serious matter. In order to prevent oil pollution, the Port Authority carries out continuous surveillance of the Port area. If any vessel is seen, or there is evidence to suggest a vessel is polluting the water of the Port, instructions will be given for all loading/discharging/deballasting operations to cease. A detailed investigation will be carried out and any vessel held responsible for pollution, will be required to pay the costs of all clean up operations and any fines that may be levied.

Masters, Owners and Charterers are reminded:

A. That before any vessel enters the Port, the Master is required to notify the Pilot of any special conditions, difficulties or peculiarities such as defective equipment, lines or gear, which might impose special hazards in connection with handling, mooring or loading/discharge of vessels ("Instruction to vessels and conditions of use of all berths within King Fahd Industrial Port").
B. In addition to (A) above, tankers and gas carriers are obliged to give a similar undertaking in their pre-arrival information.
C. All tankers, gas carriers and any vessels bunkering are required under the Rules and Regulations for Seaports of the G.C.C. Member States, Part 3, Section 4, to ensure all alarms and safety trips are tested and working, and that all pipes, valves, hoses or other apparatus shall be in good condition and free from leakage. Drip pans and deck scuppers shall be in position and plugged.
D. Suitable sorbent material or other materials or equipment should be readily available on deck in order to clean up any spillage.

GENERAL: *Emergency Plans:* Information will be supplied to each vessel arriving at the various terminals in the port detailing action to be taken in the event of an emergency situation arising. Masters, officers and crew should familiarise themselves with this information.

A Port Emergency may be declared in the event of:

a fire on a terminal or ship;
a pollution incident occurring from a terminal or ship;
a collision, grounding, sinking or other major incident occurring within the Port area.

A Port Emergency can only be declared and terminated by the Harbour Master who will make a broadcast on VHF to this effect. Instructions will also be issued to inform all vessels that a Port Emergency has been declared. It is vital, therefore, that all vessels should have their VHF available for immediate operation and that provision is made for a continuous listening watch to be maintained in the event of a Port Emergency being declared.

The alarm may be raised by:

Contacting King Fahd Industrial Port Control by VHF Channel 16,
or by continuous sounding of fog signalling apparatus, or
by visual means, or
if ashore by whatever means is available.

Initial action should be taken by those persons at the scene until the arrival of assistance.

The control of all operational activities afloat, and the movement of vessels during a declared Emergency will be exercised by the Harbour Master who will undertake the direction of these activities through King Fahd Port Control and will liaise with the Port Authority.

All loading or discharging of dangerous and/or flammable goods in the Port must cease immediately a Port Emergency is declared.

Port Regulations: Every vessel which arrives at the port must have a copy of the Rules and Regulations for Seaports issued by the Co-operation Council for the Arab States of the Gulf on board. On first arrival at the port, these Rules and Regulations must be obtained.

Saudi Arabian Government Regulations: Saudi Arabian Government Regulations are strictly enforced, and Masters having any doubts concerning the interpretation of these regulations are urged to consult their agent. While in Port, whether at anchorage or at a berth, the vessel's personnel are under the jurisdiction of Saudi Arabian Laws.

The taking of photographs while the ship is in port is strictly forbidden by the Saudi Arabian Government.

All alcoholic beverages, including beer, table wines and liquors, are to be under lock and key during a vessel's stay in port. The possession and/or consumption of alcoholic beverages is prohibited in Saudi Arabia. Penalties are severe and major delays to vessels can be incurred due to Government investigations of violations.

Provisions: Frozen meat (except pig meat), fish and fresh vegetables are available locally, however Masters are advised to contact their Agent well in advance to establish availability and prices.

Stores: Local availability of chandlery items is limited and Masters should contact their Agents well in advance to establish availability. Storing not permitted alongside ARAMCO berths.

PUBLICATIONS: *Charts:*

British Admiralty Charts:

63 Red Sea – The Brothers to Gezirat el Dibia.
327 Outer approaches to Yanbu.
328 Approaches to King Fahd Industrial Port – Inner Channel Northern part.

United States Defence Mapping Agency Charts:

62016 The Brothers to Jezair Siyal.
62171 Outer Approaches to Madinat Yanbu Al-Sinaiyah Port.
62172 Inner Approaches to Madinat Yanbu Al-Sinaiyah Port.

Saudi Ports Authority Charts, available from King Fahd Industrial Port:

17 Shi'b Ash-Sharm to Marsa Tuwal.
171 Yanbu Al-Bahr King Fahd Industrial Port at Madinat.
175 Sh'b Al Qirn to Marsa Tuwal.

Tide Tables: British Admiralty Tide Tables Volume 2 – Atlantic and Indian Oceans.

Pilot Books: British Admiralty Red Sea and Gulf of Aden Pilot, (and supplements) N. 64.

Lights: British Admiralty List of Lights and Fog Signals – Volume "E".

WEATHER:

Climate: The climatic conditions affecting King Fahd Industrial Port are seasonal. In Winter onshore, air temperatures range from 25°C during the day to about 12°C at night. In Summer air temperatures range from 35°C during the day to 25°C at night. Extreme air temperatures recorded in recent years in the area have been 49°C in May and 6°C in February. Temperatures offshore are generally several degrees lower. Relative humidity varies throughout the year with average values between 65% and 70% in Winter and 50% to 55% in Summer, however values of 100% may occur for short periods around dawn. The average annual rainfall taken over a 4 year period is 3.2 mm.

Winds: A diurnal sea breeze/land breeze cycle occurs almost daily throughout the year and causes wind speeds of 10 knots and above to occur from the N.W. during the late afternoon. Storms occur as frequently as every 5-10 days and sometimes can last as long as 2 weeks. Although there is little drop in barometric pressure and very rarely any precipitation during these storms, wind speeds of up to 30 knots may occur from the North or N.W.

Tides and Currents: The mean tidal range is about 0.34 m., but fluctuations due to non-tidal effect, caused by storms, can be up to about 0.50 m. with a drop in mean sea level during the storm and a significant increase after the storm or as it subsides. Generally tides are semi diurnal with a period of 12 hours 25 minutes. Information to date suggests that the following datums be adopted:

Datum	*Elevation above PLAT* (m.)
Provisional Highest Astronomical tide (PHAT)	1.14
Mean High Water Springs (MHWS)	0.80
Mean High Water (MHW)	0.74
Mean High Water Neaps (MHWN)	0.67
Mean Sea Level (MSL)	0.57
Mean Low Water Neaps (MLWN)	0.47
Mean Low Water (MLW)	0.40
Mean Low Water Springs (MLWS)	0.34
Indian Springs Low Water (ISLW)	0.32
Provisional Lowest Astronomical Tide (PLAT)	0.00

Currents in the area are influenced by local wind conditions, tide, and the general circulatory pattern of the Red Sea. Generally currents within the port have been observed at less than 0.5 knots and run parallel to the coast. However, they are considerably influenced by surface wind activity.

Sea Conditions: Sea conditions can vary considerably within the Port limits. Wave heights in the port area are usually lower than 40 cm. during sea breezes, but during storms, waves in excess of 2 m. are common outside the offshore reefs while waves exceeding 1 m. are common in the inner port area. There is no distinct seasonality in this respect.

Sea Salinity and Sea Water Temperatures: Sea water temperatures are similar to air temperatures and range between 25°C (77°F) and 31°C (88°F). Salinity varies between 37 and 39 parts per thousand.

Visibility: The incidence of fog is rare, but, should it occur, it is more likely during the period November to April. During the summer months from May to September the incidence of poor visibility (less than 5 miles) can be quite high due to mist and haze, or dust particles held in suspension in the atmosphere. However, throughout the year, dust storms may occur obscuring the coastline.

APPENDICES:

APPENDIX "C"

SOLAS Convention – Ratification:

ARAMCO has been informed that the Government of Saudi Arabia has ratified the SOLAS Convention of 1974 and its 1978 Protocol on 29th May, 1984. Therefore, ARAMCO is now obliged to enact the provisions of the said Convention as soon as possible.

Please inform all Shipowner/Operator clients of the following:

1. Effective 1st January, 1985, all vessels of 70,000 d.w.t. and larger calling at any of ARAMCO's terminals to load crude/product cargoes must be equipped with an operable inert gas system in use.
2. Effective 1st March, 1985, all vessels of 20,000 d.w.t. and larger calling at any of ARAMCO's terminals to load crude/product cargoes must be equipped with an operable inert gas system in use.

Vessels not so equipped will not be accepted for loading as of the effective dates mentioned above.

The SOLAS Convention of 1974 represents a significant contribution to safety of tankers and oil installations and ARAMCO recommends that Shipowners take immediate steps to comply with the provisions of this convention as soon as possible and no later than the effective dates mentioned above. No exceptions will be allowed except in the most unusual circumstances.

Signed:

Manager, Oil Supply Planning and Scheduling Dept., Dhahran

APPENDIX "D"

Flammability Check of Ships' Fuel Tanks.

S.P.A. Circular No. 15335/85

Dated: 14.7.1405H/04.04.85G

With immediate effect you are advised to inform all concerned parties that the Port Management of all S.P.A. ports will require additional flammability checks on fuel tanks of OBO carriers and tankers excluding tankers engaged solely in the transport of chemicals.

The purpose of this extra precaution is to deter the use of cargo oil as fuel supplement and will be required on a random basis as advised by the Port Operations Department. The results are to be incorporated (when applicable) on the Gas Free Certificate.

When such a random test is required by the Port Management it will be necessary for the ship's Agent to arrange for the services of a Surveyor.

For your information if the atmosphere in any fuel oil bunker tank be discovered at more than 15% (LEL) then the ship's Master will be required to engage a Surveyor to provide an exact flashpoint analysis of the tank contents.

Furthermore, should the flashpoint be less than the prescribed limits stipulated in Regulation 33 of SOLAS, the Port Management reserves the right to remove the ship from the berth.

Signed:
President and Chairman of the Board Ports Authority,
Kingdom of Saudi Arabia.

SHIPMASTER'S REPORT: March 1985.

Note: Vessel was chartered at very short notice, hence problems experienced are not typical.

Arrival: As soon as vessel was ordered to Yanbu, a pre-arrival information list was telexed to Agents, as per format in "Guide to Port Entry". (Referred to locally as the AA to ZZ List). Unfortunately, these Agents turned out to be in Jeddah, and the list was not forwarded to Yanbu until at least 1200 hrs. on the following day, by which time the vessel had been instructed to repeat the message to a Telex No. given by the Port Control by VHF (who turned out to be the local sub-Agent).

On approach to the pilot station, the vessel was instructed, when 24 miles from the pilot station, to remain 3 hours steaming from the pilot station, to await orders. (When the Pilot eventually boarded, this instruction was discussed with him and it transpired that the Port Radio operators invariably say this although the intention is to remain WITHIN 3 hours steaming of the pilot station).

Vessel was brought from sea to the inner anchorage. Anchorage positions have been established as follows:

N1	Lat. 23° 56.64′ N.,	Long. 38° 11.65′ E.
N2	Lat. 23° 56.47′ N.,	Long. 38° 11.86′ E.
N3	Lat. 23° 56.44′ N.,	Long. 38° 12.14′ E.

Depths at these anchorages, as per chart 328, vary from 35 m. to 45 m.

Vessel was berthed between 0116 hrs. and 0333 hrs. next day, on Berth No. 55 (Suez East). Tug Masters are of doubtful ability regarding tug handling, although the tugs themselves are quite powerful. Language difficulties seem to be a part of the cause.

The berth is intended for use by vessels up to 150,000 d.w.t., and a depth of 20 m. alongside was measured by echo sounder.

On berthing at night, quarantine lights are required.

After berthing, no transmissions, except from low power walkie-talkies, are permitted, not even main VHF on low power.

Despite "OO" through "RR" of the pre-arrival message being correctly sent, the Terminal was unaware that the vessel had ballast in cargo tanks. Once they discovered this, the vessel had to be moved 70 m. to use deballasting lines. Contrary to advise in the port information book supplied by King Fahd Port Control, ONLY SEGREGATED BALLAST is permitted to be discharged into the sea.

Cargo: 2 Cargo Surveyors were appointed: S.G.S. on behalf of PEMREF and Watson Gray on behalf of MOBIL. Both were most helpful.

It is understood that, from March 1985, all petroleum cargoes, of any sort, will have to be loaded into INERTED tanks.

We had no difficulty in obtaining loading rates requested, or in reducing rate for topping-off.

Throughout loading, the gangway was attended by an armed guard, and ship's personnel were not permitted on the jetty at any time, not even for the purpose of reading draft.

Loading lines are 16 in. (400 mm.) rigid booms (total of 7) and 2×10 in. (250 mm.) rigid booms for bunkers.

Apparently, it is not uncommon for cargo contamination to occur within the shore tank farm and a number of cargoes, found to be 'off spec.' when loaded, have had to be discharged and sound cargo loaded.

Delays: Pilots require 2 hours' notice for sailing; Agent will not in any case order Pilot until shore figure for cargo has been obtained; this takes 1.5 hours, thus minimum of 3.5 hours between completion and sailing, officially. In fact, Pilot boarded on this occasion 3 hours before completion and a further delay was occasioned only due to cargo papers not being ready.

Port Facilities: Much as described by "Guide to Port Entry". All port installations, except the domestic refinery terminal (Chart 328), are now complete, however, utilisation of these installations appears to be low; only one berth on Container Wharf was in use and product and crude jetties had berths empty for protracted periods.

SHIPMASTER'S REPORT: October 1985.

The port is approached from the West, or the S.S.W., in specifically marked channels which have been surveyed. Water is very deep and though many ships were seen passing through the uncharted regions, none were VLCCs and the Pilots at the port recommend the use of the proper lanes.

Accurate positions can be obtained, when approaching from the West, by fixes on the land at Ras Baridi and more particularly by radar and visual fixes of the industrial complex to the South of this point which is marked on the charts as a silo. There are actually numerous chimneys and buildings there. When closer, the beacon at Scherbo Reef and the adjacent buoys all show up well on radar though the Racon on the beacon was not working in October 1985. The beacon is not easy to see visually even when quite close.

There was no apparent current in the approaches to the pilot station. Note that the Pilot does not board at the position marked on the charts but at a point due North of Scherbo Beacon and so ETAs should be calculated to this point. He also leaves there when outbound.

King Fahd Port Control listens on VHF Channel 16 and ETAs should be sent to them at least 4 hours and 2 hours before arrival so that the pilot boat knows when to leave the shore to rendezvous at the above point. The boat listens on VHF Channel 74. The Pilot wants a speed of about 8 knots at time of boarding and a combination ladder on the lee-side. A speed of about 13 knots was requested on 15 minutes' notice of reduction and this will usually be maintained for about one hour.

There are 3 berths for VLCCs and the allocation criteria is deadweight and the amount of flat side. Berth 61 takes 80 – 260,000 d.w.t. and requires a flat side of at least 400 ft. Berth 62, takes 275 – 500,000 d.w.t. and a flat side of 460 ft., and 63 takes 120 – 280,000 d.w.t and flat side of 420 ft. There are occasional queues for No. 61 as the majority of ships fit this berth. No. 62 is frequently unoccupied.

4 tugs meet the ship as she swings in from the approach channel towards the berths. They are all about 3,400 h.p. and most are Voith-Schneider. Tugs' wires are used and they have good messengers already attached so that only a heaving line is needed from the ship.

All ships berth starboard side alongside with moorings of 3, 3, 2 and springs are sent away first. The tugs hold the ship alongside until mooring is complete. The berths lie about 130°/310° and the prevailing wind is from the W.N.W. up to Force 6/7.

Vessel berthed at No. 63 as she would not fit any better on the other berths. Masters should push for their headlines to be put on the Southernmost hooks for No. 62 berth, if available, as this gives good leads and the Supervisor says it is possible.

The berths were originally designed for SBT tankers and so have no dirty ballast lines (though other berths in the port have this facility). However, since ARAMCO took over the berths there have been talks and lines may be fitted.

Arrival ballast must be able to pass very stringent laboratory tests otherwise the ship will be refused and ordered to sail. *At least one ship per month suffers this.*

There is a large desalination plant North of the port making water for most of the area. Pollution costs and fines are HEAVY.

The ballast requirements are a maximum of 8 p.p.m. and an average of 8 p.p.m.. Samples are taken of the top (skim), middle and bottom of the cargo ballast tanks and an oil absorbent cloth is then dragged over the surface in each tank. All deck openings must be available as well as the tank lid and they utilise most of them. Shore also reserves the right to test the permanent ballast tanks. Samples are taken ashore and the results known before any deballasting is permitted. A small boat is stationed at the ship's side adjacent to the ballast discharge throughout and hourly samples are taken at the pumps. On this vessel the part flow system was operating and shore were much impressed with this as it permitted them to constantly monitor the ballast. They took the hourly samples from there (in fact they trusted the ship to take them for most of the time as the gangway had to be removed due to airdraft). Shore at present only requests that at least 30 cm. is left in each tank but this will soon become a regulation for further protection. They are also upset by rust and IG discoloration of the ballast. It is recommended that ballast is changed as near to arrival time as possible to lessen this.

This vessel had a maximum content of 4 p.p.m. and an average of 1 p.p.m. and would appear to be ideally suited to the port as the ballast is normally very clean.

The Agent, Customs and Port Health board first on arrival at the berth and the "Q" signal must be lowered as soon as Pratique is granted as no-one else will board until this is done.

There are 6 Chicksans at each berth, 2 of which are for bunkers, and the cargo ones are designed for 24 in. connections but all reducers are available ashore and in fact the 16 in. size is more or less permanently attached. The shore line is 56 in. and the distance from the tank farm is about 8 km.

For Basrah Crude, the maximum loading rate is 150,000 bbls.p.h. Shore will try to insist that the ship maintains her full loading rate until one hour prior to completion and a close check must be kept on the rate as vessel's request for a reduction may not be heeded! It is suggested that this is clarified before start of loading and cargo stopped if reduction is not heeded, later.

There is a storage capacity of some 3 million barrels for Basrah (they call it Iraq Light) Crude and a maximum pipe-line throughput of 2 million barrels per day though the average is only about 500,000 barrels. The maximum is used when they have a ULCC and need to maintain stock which is seldom. The average API is 33.5.

Incidentals: All cameras must be placed in bond. No one is allowed on the jetty for ANY reason. If there is a crew change then 2 new Crew Lists will be required, incorporating all changes, for outward clearance. Incoming members' baggage was searched three times and one man had some family photos removed as a girl had an off-shoulder dress. There is of course no argument. Agent's office is 40 km. away and he is often difficult to contact.

Generally speaking the shore personnel are friendly and helpful. There is only this 'problem' of the loading rate which must be sorted out.

SHIPMASTER'S REPORT: October 1986.
Approaches: The cement silo in approximate position Lat. 24° 16.35′ N., Long. 37° 33.55′ E. (near Ra's Baridi) gave a good strong echo at 48 miles. This was in sufficient time to ascertain the vessel's position for the alteration of course into the Northern Approach Channel.
Documents: Papers required by the Agent:
10 Crew Lists (standard IMO Form 5 acceptable).
1 Vaccination List.
2 Personal Manifests.
2 Stewards Stores Lists.
*3 Health Declarations.
*4 Arrival Details.
*2 Passport Control Office Arrival Details.
*1 Customs Declaration.
*1 Arrival Report.
*1 Customs Alcohol and Tobacco Declaration.
*Forms supplied by local Agent.
Telex Numbers:
Aramco, Yanbu: 662333 Aramco Sj. 661052 Aramco Sj.
Port Management: (Tankers only) 662360 Portct Sj. (Others) 661096 Portct Sj.

AUTHORITY: Directorate General for King Fahd Industrial Port, P.O.Box 30031, Yanbu, Saudi Arabia. *Tel:* (04) 3967000 or 3967001, Port Control (04) 3967000. *Telex:* 662360 PORT CT SJ. *Contact:* Omar A.G. Halawany, Port Director General, King Fahd Industrial Port.

AGENT: Gulf Agency Company Saudi Arabia, P.O.Box 473, Office No. 8, 3rd Floor, Al Hijji Trade Centre, King Abdul Aziz Street, Yanbu, Saudi Arabia. Cables: "Confidence", Yanbu. Ship-Shore traffic via Jeddah Radio/HZH. Telex: 661084 ("Gacship Sj"). Tel: 3223992 and 3228765. After Hours: 3228982, 3226737. FAX: 3221231.

ZULUF TERMINAL: 28.23 N. 49.14 E.

TERMINAL CLOSED APRIL 1976. THE STORE BARGE HAS LEFT. NO FURTHER OPERATIONS WILL TAKE PLACE AT ZULUF.

NOTICES:

MENAS Notice No. 102/82
ZULUF AND MARJAN OILFIELDS

Mariners are advised that there are lighted structures and numerous unmarked well heads with standpipes of 6 ft. to 8 ft. above the sea bed between the pecked areas delineating the Marjan and Zuluf Oilfields.

Oil rigs and platforms also exist in the Southern approaches to the above oilfields.

Caution and a good lookout is requested in the area and anchoring between the two oilfields is not advised.

MENAS Notice No. 05/84
VESSELS TRANSITING WATERS IN VICINITY OF MARJAN AND ZULUF OILFIELDS

Mariners are advised that new platforms are being erected in the Zuluf Field and both rigs and platforms are positioned between the Marjan and Zuluf fields.

Both fields are clearly delineated on nautical charts and shipping should pass between them. A good lookout is requested and reduced speed when in the vicinity of platforms, oil rigs and their supporting craft.

British Notice to Mariners No. 249/1985
Zuluf Oilfield – Anchorage Amended

(1) *(a)* Pecked-line limits of an anchorage are to be inserted joining the following positions:
(i) Lat. 28° 19.0′ N., Long. 49° 13.0′ E.
(ii) Lat. 28° 19.0′ N., Long. 49° 17.0′ E.
(iii) Lat. 28° 17.0′ N., Long. 49° 17.0′ E.
(iv) Lat. 28° 17.0′ N., Long. 49° 13.0′ E.

(b) The symbol for an anchorage is to be inserted within the area in 1*(a)* above.

(2) The former anchorage limits, and legend, Tanker Anchorage, within the limits in 1*(a)* above, are to be deleted.

British Notice to Mariners No. 250/1985
Marjan Oilfield – Anchorage Established

(1) Pecked-line limits of an anchorage are to be inserted, joining the following positions:
(a) Lat. 28° 21.0′ N., Long. 49° 41.0′ E.
(b) Lat. 28° 21.0′ N., Long. 49° 44.0′ E.
(c) Lat. 28° 19.0′ N., Long. 49° 44.0′ E.
(d) Lat. 28° 19.0′ N., Long. 49° 41.0′ E.

(2) The symbol for an anchorage is to be inserted within the area in (1) above.

British Notice to Mariners No. 2685(P)/1985
Zuluf and Marjan Oilfield
Pipe-lines Reported

The following pipe-lines have been reported:
(1) Gas pipe-line joining the following positions:
(a) Lat. 28° 23.2′ N., Long. 49° 15.5′ E. (in Zuluf Oilfield).
(b) Lat. 28° 20.8′ N., Long. 49° 14.3′ E.
(c) Lat. 28° 00.6′ N., Long. 48° 42.9′ E. (on the coast).

This pipe-line is thought to lie within 0.8 miles of the N.W. corner of Zuluf Anchorage area (Lat. 28° 18.0′ N., Long. 49° 15.0′ E. approx.).

(2) Two pipe-lines joining the following positions:
(a) Lat. 28° 18.5′ N., Long. 49° 31.4′ E. (Marjan GOSP 3).
(b) Lat. 28° 00.3′ N., Long. 49° 02.5′ E.
(c) Lat. 27° 58.4′ N., Long. 49° 00.0′ E.
(d) Lat. 27° 55.0′ N., Long. 48° 56.2′ E. (S. border, chart 3774).

Note: Gas pipe-lines contain flammable natural gas at high pressure. A ship damaging a pipe could face an immediate hazard. Mariners are strongly advised not to anchor or trawl near the pipe-line.

Notice to Mariners "A" 137/26.01.86
New Zuluf Oilfield Limits

(A) The symbol for a restricted area is to be inserted between the following positions: (All positions are referenced to WGS 72 Datum).

Latitude	*Longitude*
28° 22.06′ North	49° 05.15′ East
28° 18.91′ North	49° 13.83′ East
28° 19.69′ North	49° 18.66′ East
28° 25.42′ North	49° 24.51′ East
28° 30.01′ North	49° 24.10′ East
28° 28.24′ North	49° 08.78′ East

(B) Delete the existing oilfield limits and all pipe-lines, platforms and associated legends within.

(C) Insert the following legends centrally within the area AAA.
(1) Zuluf Oilfield.
(2) Numerous surface structures and submarine pipe-lines exist within this oilfield. The surface structures exhibit a Morse (U) 15 sec. light characteristic.

(D) The light characteristic on the post in position:
Latitude: 28° 37.16′ North
Longitude: 49° 25.23′ East
is to be amended to Morse (U) 15 sec.

NOTES
Please also advise Shipping Guides Ltd.

Senegal

DAKAR: 14.40 N. 17.26 W. (See Plan)

PORT LIMITS: *North:* From the point of Bel-Air by a parallel from N.E. of the N.E. Jetty of the harbour, to 1 mile N.E. by a meridian passing 2,900 m. East of the Round-Point determined by the crossing of Felix Eboue and Avenue de la Jetee Nord and by the parallel passing 2,060 m. North of Goree Island.

East: By the meridian passing 1 mile East of Goree.

South: By a line joining the Cape Manuel from the South point of Goree prolonged until it encounters the meridian passing 1 mile East of Goree.

DOCUMENTS: Vessels carrying hazardous and/or strong smelling cargoes must declare to the Harbour Master, at least 48 hours before ship's arrival, the nature/quantity/packing of these goods, as well as their stowage on board. Same applies for Arms and Ammunitions.

Health:

2 Crew Lists.

1 Sanitary Declaration.

2 Lists of Date of Vaccinations.

(Valid vaccination for Yellow Fever for all persons)

Customs:

3 Crew Lists.

2 Stores Lists.

2 Personal Effects Declarations.

2 Slop Chest Lists.

1 Arms and Ammunition List.

Immigration:

4 Crew Lists.

2 Lists of Ports of Call with dates of arrival/departure.

Agents:

1 Crew List.

1 Personal Effects Declaration.

1 Slop Chest List.

2 Lists of Arms and Ammunition.

Papers required on arrival: Bills of Lading for cargo to be discharged and Master's copy. 2 copies of Cargo Manifests for cargo to be discharged.

Great care should be taken in completing all Store Lists, Slop Chest Lists and Personal Effects Lists as Customs check all stores, including fridge spaces.

Customs also board vessels at anchor and inside territorial waters, inflicting heavy fines in cases where stores, etc. are not prepared and ready for inspection. Also, heavy fines are imposed for any discrepancies. Even when calling at port for emergencies (e.g. Medivac) a full set of documents must be prepared before entering territorial waters.

No vessel is allowed to leave Dakar without having received on board an outward manifest duly visaed by the local Customs Authorities. Vessels leaving without such a manifest will be heavily fined.

PILOTAGE: Pilots meet vessels off the North point of the Island of Goree in a naturally sheltered area.

RESTRICTIONS: During the rainy season, all vessels with a draft of more than 32 ft. 6 in. could be delayed, due to the effects of swell, at anchorage in outer roads and await meteorological conditions permitting their entry into the harbour.

Use of whistle signals to call Pilot is forbidden between 2200 hrs. and 0600 hrs. The harbour area is dredged to a depth of 10 m. to 11 m.

Dangerous Cargo: Vessels are allowed to have the following dangerous cargo on board:

For Discharging	*North Area*	*South Area*
I.M.O. 1	20 tons	10 tons
I.M.O. 2	50 tons	25 tons
I.M.O. 3	80 tons	25 tons
In Transit	*North Area*	*South Area*
I.M.O. 1	25 tons	20 tons
I.M.O. 2	50 tons	25 tons
I.M.O. 3	80 tons	40 tons

MAX. SIZE: Ships of 30 ft. draft are able to enter at all stages of the tide by day and night. Vessels up to 36 ft. draft may enter at high tide except possibly during the stormy season, between mid August and mid October.

HEALTH: Health Officials board vessel immediately after berthing alongside. For passenger vessels, these formalities are effected before berthing to avoid delays. Vessels at sea may obtain medical advice by VHF or telex via Dakar Radio.

Inoculation/Vaccination can be arranged through Agent during weekdays.

Free Pratique can be granted via radio by Agent, by using international Code Words "MIBDU/MIJMA".

RADIO: ETA advice should be sent 96 hours, 48 hours and 12 hours prior to arrival including cargo to discharge, drums to discharge (if any), draft on arrival, expected draft on departure, last port and next port of call. Agents should be notified of tug requirements, VHF Channel 8.

VHF: The Port Captain's Office, pilot station and tugs are equipped with VHF, with the following Channels: Channel 16 used by vessels approaching to contact pilot station or Port Captain's Office; Channel 12 used during manoeuvres for communications between Pilots and tugs; Channel 6 used only by the tug station.

TUGS: Operated by a private company, 3 tugs available up to 2,000 h.p. (bollard pull 24 tons). Compulsory for loaded tankers.

BERTHING: 10,000 m. of quay length available of which more than half has depths of 8 m. to 11 m. alongside.

Mole D'Escale: 6 berths, depth alongside 10 m., can be used for vessels refuelling simultaneously with cargo operations.

Pier 718 Phosphate Quay (Pechiny): 215 m. long, max. draft of 25 ft. 7 in., loading average of 200 t.p.h.

Pier 52 Phosphate Quay (TA IBA): 170 m. long, max. draft of 36 ft., loading average of 1,000 t.p.h.

The South area has 3 wharves with a depth of 26 ft. – 33 ft.

Dock I is 460 m. long.

Berth No.	12	Draft	26 ft. 3 in.
" "	13	"	28 ft. 7 in.
" "	14	"	28 ft. 7 in.
" "	15	"	33 ft.
" "	17	"	33 ft.

Dock II

Berth No.	21	Draft	27 ft. 3 in.
" "	22	"	26 ft. 11 in.
" "	24	"	26 ft. 3 in.
" "	25	"	25 ft. 11 in.

Dock III is 350 m. long. Max. draft of 32 ft. 10 in. Reserved for trade with the Republic of Mali.

Mole de Peche: 1,461 m. of quays, supplied with water and bunkers. Areas for spreading out fishing lines and nets.

CRANES:

5 semi-jib cranes × 6 tons at 27 m.

1 electric crane × 40 tons at 20 m.

2 floating cranes, 60 tons and 120 tons.

1 mobile crane × 8 tons at 15 m.

1 mobile crane × 28 tons.

CONTAINER FACILITIES: Containers handled at Mole 1.

TANKERS: The Petroleum Basin is dredged to a depth of 10 m. to 11 m. 2 jetty berths can receive tankers up to 200 m. length, max. draft 32 ft. 6 in. Petroleum Wharf which has 4 berths, depth alongside 12 m. (depth in approaches 11 m.) can receive tankers up to 250 m. length with a draft of 36 ft.

Black products handled at all berths (6 in., 8 in. and 10 in. hoses). White products at Berth, 2 only (8 in. hoses). Distance to tank farm about 5 km. Water to be pumped between grades.

Ship to Ship transfer (STS) is carried out across Petroleum Wharf using 2 × 8 in. hoses. Standard practice – discharging tanker starboard side alongside No. 93 Berth and loading tanker port side alongside at No. 92 Berth. Transhipment supervised by Iransen and Shell.

M'bao Refinery sealine buoy berth is situated 3 miles N.E. of Goree Island. Vessel berths using both bow anchors, stern is secured to 4 buoys using 4×5 in. wires from buoys stern. Ship's ropes not used. Hose connection on port side using 12 in. (300 mm.) hoses. Vessel's derrick to have an SWL of at least 5 tonnes.

STEVEDORES: Normal working hours, weekdays from 0800 to 1200 hrs. and from 1400 to 1800 hrs. Saturdays from 0800 to 1200 hrs. Overtime, weekdays from 0500 to 0800 hrs.; from 1200 to 1400 hrs.; from 1800 to 2200 hrs.; from 2200 to 0500 hrs. Holidays and Sundays from 0000 to 0500 hrs.; from 2200 to 2400 hrs.

MEDICAL: *Vaccinations:* Possible from 0800 to 1200 hrs. and 1500 to 1700 hrs. Sundays and holidays excluded.

Doctors: All kinds of specialists available.

Hospitals: With qualified doctors and good equipment.

FRESH WATER: All quays are fitted with water hydrants. Water supplied by 3 hoses simultaneously, with a rate from 60 – 100 cu.m.p.h. Can also be supplied by barge up to 400 tons capacity but minimum order 150 tons.

FUEL: All grades can be supplied from the quays up to 1,000 t.p.h. Fuel can also be supplied by barge. Also see "Shipmasters' Report".

REPAIRS: All types of repair can be effected by the Naval Arsenal or by private companies.

DRY DOCKS: At the Naval Arsenal, one dry dock length 189 m., width 23 m., depth up to 9.50 m.

Syncrolift, max. weight acceptable, 1,200 tons.

New Floating Dock will take vessels up to 60,000 d.w.t. Lifting capacity 28,000 tons. Acceptable dimensions 235 m. × 38 m.

REPATRIATION: Seamen can be repatriated to Europe without delays by air.

AIRPORT: International airport with regular services to Europe.

TELEPHONES: All berths are equipped with telephone apparatus which is placed on board vessels without charge.

HOLIDAYS: New Year (1st January); Tabaski (Variable Date); National Day (4th April); Easter (Variable Date); Labour Day (1st May); Ascension Day (7th May); Whit Monday (Variable Date); Maouloud (Variable Date); National Day (14th July); Assumption (15th August); All Saints' Day (1st November); Korite (Variable Date); Christmas (25th December).

GENERAL: Several cases of assault have been reported against crew members returning to their ships during the hours of darkness. For this reason, the delivery of cash from Agents is suspended during the night hours. Although Port Authorities and Security are aware of the situation, it is advisable to acquaint all on board with this.

DEVELOPMENTS: A container and Ro-Ro terminal has been constructed between Mole 6 and Mole 8. Length of berth 430 m.

SHIPMASTER'S REPORT: With a draft in excess of 15 m. it is not possible to anchor in the inner roads due to the swell. The swell is worse from July to October (rainy season).

The Pilot directed us to an anchorage 0.5 miles N.E. of Island of Goree but in my opinion it is a little too close. However, the nearer a vessel can anchor N.E. of Goree the better. The holding ground is very good.

It is possible to talk to Mory Fuel Company direct on VHF Channel 2. They have a barge which is able to deliver fuel oil and diesel oil, capacity 500 tons.

Three tugs available, be sure to order one well in advance before completion of bunkering or the vessel may have to wait. Bunkering undertaken day and night.

SHIPMASTER'S REPORT: October 1983.
Documents: Separate Bonded Stores List (4 copies) required by Customs.
Pilotage: Pilots will board 0.2 miles from breakwater entrances.
Health: Advise Port Health Authorities of health state, also vaccinations required. They attend on arrival but do not acknowledge messages.
Fresh Water: Fresh water supply at piers averages 20 t.p.h.
Security: There have been many cases recently of anchored and stationary vessels being boarded by thieves and mooring ropes, etc. purloined. Vessels on regular run to Dakar do *not* stop in port approach areas until daylight. Gangway watchman essential. Shore traders to be confined to one area under supervision if allowed on board.

AUTHORITY: Port Autonome de Dakar, 21 Boulevard de la Liberation, B.P. 3195, Dakar, Senegal. *Tel:* 238-00. *Telex:* 406. *Cables:* Porcomer Dakar. *Contact:* E. Belin, Director General.

AGENT: Socopao Senegal, 47 Avenue Albert Sarrault, B.P. 233, Dakar, Senegal. Tel: 23.10.01/21.46.31. Telex: 21496 Freight SG. Fax: 22.45.80. Cables: "Freight Dakar".
Fish Department – Tel: 22.19.29. Telex: 21811 Freight SG.
Sub-Agency at Kaolak. Tel: 41.19.07. Telex: 7460.

KAOLACK: 14.09 N. 16.06 W.

DOCUMENTS:
2 Crew Lists.
2 Store Lists.
2 Manifests (tobacco, wine, etc.). Agents deposit at Customs office.
PILOTAGE: Pilot taken on board, and lands in Dakar. When vessels do not require tank-washing, the Pilot disembarks in roadstead.
ANCHORAGES: Sufficient for three vessels only. About 6 m. deep.
RESTRICTIONS: Night navigation forbidden in River Saloum. Depth available 3.0 m.
MAX. SIZE: Length 105 m. (because of River Valor).
HEALTH: Agent signals to Harbour Master. Provisionally vessels quarantine in Dakar.
TUGS: No tugs. (Only from Dakar.)
BERTHING: Signals by flag when berth available. Vessels enter at flood tide so that they can turn at anchorage to be ready for sailing.
Private Berth: Saltworks Wharf, length 52 m. Owned by S.S.S.I.M. Tel: 411904. Telex: 7472 SG.
MEDICAL: Yellow fever vaccinations only at Dakar. No hospital facilities.
DENSITY: 1025 – 1035.
FRESH WATER: Available at 10 t.p.h.
FUEL: None available.
GANGWAY/DECK WATCHMEN: Arranged by Agent.
OPENING/CLOSING HATCHES: By stevedores.
CUSTOMS ALLOWANCES: Tobacco, no restrictions; Customs control on board (Declaration on manifest). Crew going ashore only allowed cigarettes marked "Vente au Senegal". Wine and/or Spirit, not limited, Customs controlled.
IDENTIFICATION CARDS: Not necessary.
CONSULS: None (Dakar only). French Consulate Agent: Leon Masfrand, Tel: 412176.
REPATRIATION: Not possible (Dakar only).
AIRPORT: None.
TIME: GMT throughout year.
HOLIDAYS: Independence Day (4th April) no loading. Tabaski (dependent on moon phase).
FIRE: Tel: 324.
TELEPHONES: Not possible to place on board.
SHORE LEAVE: Crew members allowed ashore.
REGULATIONS: Vessels must hoist Senegalese flag and notify Agent before entering port.
AUTHORITY: Harbour Master, Kaolack, Senegal.
AGENT: See "Dakar".

NOTES

Please also advise Shipping Guides Ltd.

Republic of Seychelles

PORT VICTORIA, Mahe: 04.37 S. 55.28 E. (See Plan)

PORT LIMITS: *Outer Harbour:* The area in Victoria Harbour between limits of the inner harbour and a line from Cedre Point to Long. 55° 29.84′ E., thence South to St. Anne Island Shore, thence S.S.W. until Rochon Bridge bears West, then West until Victoria Lighthouse bears North.

DOCUMENTS:

Maritime Declaration of Health – forms obtainable from Medical Officer/Chief Environmental Health Officer.
Derat Certificate.
5 Crew Lists and Passengers' Lists.
Dangerous Cargo List.
Ship's Register.
Crew Declaration Form.
Declaration of Stores and high dutiable goods.
Parcels List.
Firearms List.
List of Animals remaining on board.
Un-manifested Cargo List.
Cargo Manifests.
Clearance from last Port.

PILOTAGE: Compulsory in Inner and Outer Harbour for any vessel of or exceeding 150 g.r.t.

24 hours' notice, giving draft and length. Telegraphic address "Demarine" through Cable & Wireless (on schedule 500 kHz and 8714 kHz. Schedule published in Radio list. Harbour control equipped with VHF Channels 16, 12 and 6).

Pilot Boat: White hull with white cabin, orange top, flying "H" flag.

Signals for Pilot: "G" by flag and/or whistle.

Pilot Boarding Ground: The Pilot boards vessels about 6 cables Northward of the outermost buoy (Fairway buoy) in position 4° 35.7′ S., 55° 29.6′ E. There is no night pilotage. Pilot can board in almost any weather. While awaiting Pilot; vessel can anchor in any suitable anchorage in the pilotage area. Vessels should call "Victoria Harbour Control" on VHF, Channel 16, 2 hours before arrival.

ANCHORAGES: Masters of all vessels are requested not to anchor on the leading marks or in any other position so as to block the entrance channel.

The following anchorages are available in the Outer Harbour.

(i) Victoria Lighthouse bearing 238° True. Distance 9.75 cables in depths of 20 m. to 22 m.
(ii) Victoria Lighthouse bearing 232° True. Distance 1 mile in depths of 22 m.
(iii) Victoria Lighthouse bearing 224° True. Distance 1.4 miles in depths of 18 m. to 20 m.
(iv) Victoria Lighthouse bearing 212° True. Distance 1.5 miles in depths of 20 m. to 22 m.

Super tankers and large vessels anchor outside the Fairway Buoy in any suitable anchorage. The Master should always contact Harbour Master for anchorage instructions.

APPROACHES: *Notice to Mariners No. 1013(P)/86:*

Indian Ocean – Seychelles – Mahe – Port Victoria – Routeing System.

The following announcement has been made by the Department of Transport, Port and Marine Services Division, Seychelles.

"A routeing system for approaches to Port Victoria, Mahe, Seychelles has been adopted.

All vessels calling to and from Port Victoria are required as far as practicable to stay within an area bounded by lines joining the following Geographical points. Points (1), (2), (3), (9) and (10) demark the Northern Approach and Points (3), (4), (5), (6), (7) and (8) demark the Southern Approach."

(1) 3° 43.0′ S., 55° 33.0′ E.
(2) 4° 26.0′ S., 55° 32.0′ E.
(3) 4° 30.0′ S., 55° 39.0′ E.
(4) 4° 51.0′ S., 55° 42.5′ E.
(5) 5° 16.5′ S., 55° 30.0′ E.
(6) 5° 13.0′ S., 55° 23.0′ E.
(7) 4° 48.5′ S., 55° 34.5′ E.
(8) 4° 37.0′ S., 55° 33.5′ E.
(9) 4° 33.0′ S., 55° 26.0′ E.
(10) 3° 43.0′ S., 55° 25.0′ E.

Charts affected: 742, 740, 721.

Harbour Master, Dept. of Transport, Seychelles. (H. 5775/82.)

RESTRICTIONS: All shipping movement in Inner Harbour to take place during daylight hours only. In Outer Harbour, night movement at discretion of Master after consultation with Harbour Master. No tide restrictions.

Vessels with draft of more than 9.5 m. remain at anchor due to certain draft restrictions in the approach channel.

HEALTH: "Q" Flag or international red over white. Medical Officer/Environmental Health Officer may board vessels at anchor and before entering Inner Harbour. Crew Lists with vaccination dates against yellow fever and cholera if vessel from infected places. Health clearance given at Port Victoria only, health clearance may be given at outer islands by prior arrangement. Hospital facilities available. Vessels proceeding to the Inner Harbour may be disinsectised. Radio Pratique may be granted on request to "Port Health" – Ministry of Health.

No animal/pet of any description is permitted to be landed ashore or on the wharf as per Seychelles Quarantine Regulations. Necessary action will be taken against any Master who disregards these instructions in addition to the possibility of destroying any such animal or pet found ashore.

RADIO/VHF: Cable and Wireless, Port Victoria, Mahe. Call sign ZCQ. The Harbour Master's Office, call sign, "Harbour Control" keeps a 24 hour watch on VHF Channel 16 and Channel 12. Any further information can be obtained by calling up Harbour Control on Channel 16. Other Channels available – 12 and 6.

TUGS: 2×1,200 b.h.p. twin screw tugs and 1×2,000 b.h.p. twin screw tug in operation. Vessels of up to 800 ft. are able to berth alongside.

BERTHING: Due to limited space no berth can be reserved either alongside or at anchorage. All assistance given to position every ship in best available place.

Mahe Quay is in full operation. Two vessels can berth alongside. Berth No. 1 is allocated to oil and cement tankers and Berth No. 2 to cargo and passenger ships. Total length 374 m. Maximum depth of water at all berths is 35 ft. There are connections for fuel, fresh water and telephones at all berths. Passenger terminal, Port Offices and Customs are situated at the New Port area.

Masters and Officers of vessels moored at the 2 above mentioned places are reminded of the importance of tending moorings at frequent intervals.

Slack lines present a hazard to the safety of vessels moored alongside.

In the case of tankers and bulk carriers discharging or loading, the hourly difference in draft can be considerable. It is therefore recommended that regular routine checks on moorings be carried out by the Duty Officer.

Movement of Vessels Moored at Mahe Quay, Commercial Port, Fishing Port or at Anchorage. No movement of any vessel moored at the above mentioned places is permitted without authorisation from the Harbour Master. Ship's boats or lifeboats are not to be used as plying boats or on excursions to nearby islands.

Loading and discharging by ship's gear. Equipment available to handle 20 ft. and 40 ft. containers.

STEVEDORES: ETA advice required two to three days before ship's arrival in port. Loading and Discharging: General Cargo: average 8 to 10 t.p.h. per gang (subject weather conditions). Bagged Cargo: average 10 to 15 t.p.h. per gang (subject weather conditions).

TANKERS: Max. length 570 ft. Discharge throughout 24 hours. Discharge lines 8 in. and 6 in.

DENSITY: Average 1025 at all states of tide.

FRESH WATER: In good supply. By mains when alongside and steel barges when at anchor. All water supplied is chlorinated. One special steel water barge with capacity of 50 tons with pumping capacity of 40 t.p.h. Vessels should request water at least 72 hours before arrival.

FUEL: Gas oil Kinematic CS at 40°C. = 3.63. Due to limited stock, it is advisable to give one week's notice, preferably through nomination addressed to Mahe Bunkering Company.

Intermediate Fuel oil now available on North end of berth only. (Fuel oil 180 centistoke). Pour point 70 max. – Kinematic 180 max. – restriction on flow of delivery pending improvement of facilities.

GANGWAY/DECK WATCHMEN: Customs Officer on duty at all times if vessel is discharging cargo.

OPENING/CLOSING HATCHES: Normally carried out by ship's own crew.

CUSTOMS ALLOWANCES: At Custom Officer's discretion.

CARGO GEAR: All cargo slings and gear supplied by ship.

IDENTIFICATION CARDS: See "Shore Leave".

CONSULS: *Embassies:* China, Cuba, France, Libya, U.S.A., U.S.S.R.

High Commissions: Great Britain, India.

Consuls: Belgium, Cyprus, Denmark, Fed. Rep. of Germany, Italy, Malagasy Rep., Mauritius, Netherlands, Sweden, Switzerland.

REPAIRS: Slipways for vessels under 300 g.r.t. Mechanical engineering and fabrication. Electronic and electrical engineering. Commercial diving services (hull cleaning, inspection and repairs). Shipchandling (marine equipment).

DRY DOCKS: None.

REPATRIATION: Crew changes possible. Undertaken by Agents in connection with Immigration Authorities.

AIRPORT: In operation. Several flights weekly.

TIME: GMT plus 4 hours, throughout year.

HOLIDAYS: New Year (1st and 2nd January); Good Friday; Corpus Christi (15th August); Labour Day (May 1st); Liberation Day (June 5th); Independence Day (June 29th); Assumption Day (August 15th); All Saints' Day (November 1st); Immaculate Conception (December 8th); Christmas Day (December 25th).

POLICE/AMBULANCE/FIRE: Emergency: Ring 999 otherwise Police 22011 and Hospital 24400.

A telephone is placed on board ships alongside. Rate Rs 50/- per day.

SERVICES: No tank-cleaning equipment, no facilities for discharge of tank washing, no compass adjusting, radar or radio engineer available for small repairs.

SHORE LEAVE: All members of the crew are allowed ashore. No limit to shore leave. Crew to be in possession of identity card or discharge book.

DELAYS: Berthing: limited berth. Loading or discharging: weather conditions. Bunkering: space alongside.

SAFETY: There shall be no smoking on board vessels carrying petroleum products, chemicals or LPG except in such safe places as may be approved jointly by the Master and Harbour Master. Responsibility for ensuring that the crew of the vessel are informed of the safe places so approved, and that the regulations are complied with, rests with the Master. Such vessels when berthed alongside a quay must have the eye of a wire hanging over the outside bow and quarter to enable tugs to connect up readily in an emergency. The said wire must be suitable for such purposes and shall have sufficient scope on deck for free running.

Engines are not to be immobilised whilst the vessel is berthed alongside the wharf without prior authorisation from the Harbour Master.

Any unsafe condition or action observed on board a vessel will result in immediate cessation of cargo or bunkering operations until such condition or action is corrected. Continued or blatant disregard of these requirements by any ship will result in the removal of the ship from berth or quay at the cost of the vessel and the Owners/Operators/Charterers informed of the circumstances.

Use of radar and radio transmitter forbidden whilst alongside the wharf.

Portable R/T sets or transceivers must be of an approved design and those used on tankers must be intrinsically safe.

POLLUTION: All ballast discharged over the side must be clean and entirely free from petroleum products of any description in accordance with the Marine Pollution Regulations of 1981. No dirty ballast is to be pumped overboard as per Laws of Seychelles Cap. 210 Section 18. This includes brine from fish tanks in which fish have been stored. All Masters are advised to familiarise themselves, through their respective Agent, with the Marine Pollution regulations 1981. The Master of a vessel found guilty under these Regulations is liable to imprisonment for five years and to a fine of two hundred thousand Seychelles Rupees in addition to costs for cleaning up operations, environmental damages and commercial loss.

Whilst transferring fuel and/or taking bunkers all scuppers must be effectively plugged to prevent accidental discharge of oil into the sea.

SHIP SUPPLY SERVICE: Ship Supply Services can be made by prior arrangements with any shipping Agencies by using fast hire crafts, which are allowed to operate within a range of 60 miles Mahe to any given rendezvous.

List of Shipping Agents:

M/S Union Lighterage Co. Ltd., P.O.Box 38, Victoria, Mahe, Seychelles.
Hunt Deltel & Co. Ltd., P.O.Box 14, Victoria, Mahe, Seychelles.
Mahe Shipping Co. Ltd., P.O.Box 336, Victoria, Mahe, Seychelles.
Union Trading Co. Ltd., Victoria, Mahe, Seychelles.
Harry Savy & Co. Seychelles (Pty) Ltd., P.O.Box 20, Victoria, Mahe, Seychelles.
M/S Allied Agencies Ltd., P.O.Box 345, Mahe, Seychelles.

REFUSE: No refuse to be dumped in the harbour and approaches. When alongside Mahe Quay garbage must be placed in plastic bags and be disposed through a licensed garbage collector at a fee.

AUTHORITY: Department of Transport, Port and Marine Services Division, P.O.Box 47, Mahe, Seychelles, Indian Ocean. *Tel:* 22311, 22800. *Telex:* 2329 Tratur Sz. *Cables:* Demarine. *Contact:* S. A. G. Andrade, Port Director.

NOTES

Please also advise Shipping Guides Ltd.

Sierra Leone

FREETOWN: 08.30 N. 13.14 W. (See Plan)

DOCUMENTS:
5 Crew Lists.
5 Ports of Call Lists.
5 Passengers in Transit Lists.
5 Passengers Landing Lists.
1 Crew Declaration (signed by crew members).
1 Store List.
1 Arms & Ammunition List.
1 Port Health Declaration.
1 Vaccination List (cholera and yellow fever).

Port Health Declaration, Crew Declaration Form and Arms and Ammunition List, all special forms, which obtained from boarding party or, if required, mailed in advance to ship's Owners.

1. *For Vessels Working Cargo (Discharging):*
   (*a*) From each port of loading, by air mail to vessel's Agent: 2 copies of Cargo Manifest, 1 copy of Freighted Manifest.
   (*b*) On arrival: 5 copies of Cargo Manifests, 1 copy each Bill of Lading (non-negotiable).

Note: Customs and Port Authority insists on documents in English, and that Manifests should show weights and measurements. Non-compliance with these instructions places vessel's Agent in difficult position, and vessel may not discharge without payment of fine.

2. *Required by Port and Stevedores for Vessels Working Cargo:*
   4 copies Stowage Plan, 4 copies Hatch Lists. List of all lifts over 3 tons.

PILOTAGE: Vessels may at present enter and leave port anchorage without Pilot. Pilotage only compulsory for vessels berthing alongside Queen Elizabeth II Quay, Kissy Oil Jetty, vessels over 20,000 tonnes Summer deadweight and vessels over 30 ft. draft. Upon Master's request, Pilot available at Fairway Buoy with 24 hours' notice. Normally only during daylight hours. Port entrance is between Cape Sierra Leone to South and Fairway Buoy to North. Is approx. 1 mile wide and minimum draft 36 ft. To West harbour is protected by sand shoals, nearest to entrance is O'Farrell Shoal about 1.5 miles North of Cape Sierra Leone.

Pilots board from a launch painted black, with "Pilot" in black on both sides of superstructure on a white background.

Aberdeen Signal Station will give an anchorage to every vessel arriving or, if a vessel is berthing on arrival, will advise where the Pilot is boarding. This is normally off the quay. The Signal station is equipped with VHF, standing-by on Channel 16, switching to Channel 12 for communication.

The Pilot Office, Queen Elizabeth II Quay, is also equipped with VHF, standing-by on Channel 16, switching to Channel 12 for communication. The Port Operations Manager is available on this link.

ANCHORAGE: With Falconbridge Point Beacon bearing as follows (all bearings true): Note: Falconbridge Point Beacon circular steel tower 8 ft. high, painted white with 2 horizontal black bands; Fl. white every 2 seconds.

Anchor Berth	*Bearing (T)*	*Distance (Cables)*	
E. 3	138	10.5	
E. 4	154	9	
E. 5	180	8	
E. 6	207	8	
F. 5	136	7	
F. 6	154	6	
F. 7	184	5	
F. 8	210	5	
F. 9	232	7	
F. 10	242	9	
F. 11	249	11	
G. 1	099	15	
G. 2	100	12	
G. 3	104	7	
G. 4	126	3	
H. 1	184	2	
H. 2	234	3	
H. 3	252	5	
H. 4	258	7	
B. 1	236	11	(Vessels bunkering ex-barge)

With Cline Point bearing as follows:

Anchor Berth	*Bearing (T)*	*Distance (Cables)*
D. 1	232	5.5
D. 2	253	7
D. 3	253	3
D. 4	273	5.5
C. 1	244	4
C. 2	270	5
B. 2	280	7.25

With Kissy Oil Jetty bearing as follows:

Anchor Berth	*Bearing (T)*	*Distance (Cables)*
B. 2	235	1 mile

No draft restriction at anchorage, also no length and beam restrictions and vessels can arrive and sail any hour day and night.

RESTRICTIONS: *Draft Limits for Deep Laden Vessels:*
Draft Limits: 38 ft. (11.6 m.) plus height of tide to a maximum of 48 ft. (14.6 m.).

Time Limits:
1. From 5 hours Flood Tide to HW.
2. From LW to 1 hour Flood Tide.
3. During hours of daylight only.

Vessels of 36 ft. draft and over must keep to the time limits.

Vessels of under 36 ft. draft may navigate the channel at any time but attention is drawn to the strong cross currents.

(H.M.S. Hydra has commented strongly on this danger).

HEALTH: Pratique by radio or on boarding. See "Agent's Cable Requirements".

RADIO: *Freetown Radio, Coast Station:* Watch is maintained on 500 kHz from 0700 – 2200 hrs. GMT on week-days, and 1200 – 1400 hrs. GMT on Sundays and Public Holidays.

The working frequency is 421 kHz and traffic lists are broadcast on this frequency after preliminary announcements on 500 kHz at 0730, 0830 hrs., etc.: up to 2130 hrs. GMT. On Sundays and holidays, traffic lists are broadcast at 0800, 1200 hrs. and 1700 hrs. GMT.

Time GMT	*9LL Freq.*	*Search-band for reply*
0800 – 0900 hrs. 1300 – 1430 hrs. 1700 – 1830 hrs.	6411	6 MHz
0900 – 1000 hrs. 1200 – 1300 hrs. 1830 – 2000 hrs.	8710	8 MHz
1000 – 1100 hrs.	13042.5	12 MHz
1530 – 1700 hrs.		

On Sundays and other holidays the H.F. Schedules are as follows:—

0830 – 0900 hrs.	8710	8354 to 8374 kHz
0930 – 1000 hrs.	13042.5	12531 to 12561 kHz
1330 – 1400 hrs.	6411	6 MHz
1600 – 1630 hrs.	13042.5	12531 to 12561 kHz
1700 – 1730 hrs.	8710	8354 to 8374 kHz

Traffic lists are broadcast at the commencement of every HF Schedule and repeated at intervals during the Schedule.

Ship's Radio Telephone and Harbour Service: Watch is kept on 2182 kHz for casual R/T traffic from 0800 – 2000 hrs. GMT on weekdays, and 0800 – 1730 hrs. GMT on Sundays and holidays.

Ships are advised to arrange their calls in advance by W/T where possible so it can be ensured that the called party is available. Calls can be connected to or from any number on the Freetown Telephone Exchange. Longer range contacts should be in the 8 MHz maritime band, the frequency of 9LL in this band being 8768.9 kHz.

Other Services: Navigational warnings issued from time to time by the Harbour Master are broadcast on W/T. Spoken telegrams are accepted at ordinary W/T rates on RT.

VHF: *Freetown Radio:* A 24-hour watch is kept on Channel 16 switching to Channel 26 for communication. Calls can be connected to the Freetown Exchange. Masters are advised the fullest use should be made of this service, particularly after office hours and during the early hours of the morning or late at night when no cable service is available. The Authority tugs are also equipped with VHF, watch being kept on Channel 16 switching to Channel 12 for communication. The same is applicable to the lighterage service, which keeps watch and communicates on Channel 12.

Signal Station	Channel 16
Pilot Office (Freetown Pilot)	Channel 16
Harbour Master	Channel 16

AGENT'S CABLE REQUIREMENTS: Masters requested cable ETA as early as possible. Following information required:

(*a*) For vessels working cargo: 1. Discharge or Loading Hatch distribution. 2. Gangs required. 3. If Explosives on board for Freetown or in transit.

(*b*) For vessels bunkering: Bunkers and water required.

(*c*) For Tankers discharging: 1. Total Displacement. 2. Draft. 3. Cargo particulars (quantity and grade).

(*d*) For vessels embarking/disembarking Krooboys: 1. If Krooboys provisions required and for how long. 2. Cash requirements. 3. If service on arrival if arriving between 2200 hrs. and 0700 hrs., bearing in mind the high costs for Customs overtime and port service.

(*e*) In general: 1. Cash requirements. 2. Water requirements. 3. Medical attendance, if required on arrival.

When ETA received and confirmed Agent will cable vessel informing despatch prospects and if not berthing on arrival, anchor berth.

Note: For vessels returning to Freetown from round trip to coast, information should be cabled if any over-carried cargo, etc., to be discharged.

TUGS: 1 seagoing tug available, *Sewa* (2,200 h.p.).Tug has twin-screw with diesel engine and is equipped for salvage having fire-fighting equipment and a 10 ton derrick. Normally tug used for berthing and unberthing operations. Charges for berthing and unberthing include use of a tug, whether required or not.

BERTHING: All alongside berths: between hours of 0630 and 2230. Vessels may request berthing after 2230 hrs. from Harbour Master's office. Kissy Oil Jetty; max. displacement – 46,000 tons, max. draft 39 ft., berthing flood-tide only.

Queen Elizabeth II Quay No. 1: Berthing length: no restriction; breadth: no restriction; max. draft 31 ft. 6 in. At this draft vessels must be 180 ft. from steps East end of quay. Vessels up to draft not exceeding 24 ft. may berth as far East as steps. Unberthing not permitted from 1 hour after HW until 1 hour after LW.

Berth No. 1A: As for Berth No. 1, max. draft 31 ft. 06 in.

Berth No. 2: Berthing and unberthing, length and breadth no restrictions. Max. draft 31 ft. 06 in. No tidal restrictions.

Berths No. 3 and 4: Max. draft 32 ft. 06 in.

Berth No. 5: Max. draft 31 ft. 06 in. – 32 ft. 06 in.

Berth No. 6: Max. draft 24 ft.–25 ft.

Facilities for loading palm kernel oil available only at Berth No. 1.

Bulk Grain: No. 1 Berth is equipped for discharging grain in bulk through a conveyor built on No. 1 Shed to the Flour Mill. The actual discharge is effected by mobile vacuvators. Four such units are available with total potential of 80 t.p.h., though a more realistic figure would be in the region of 60 – 70 t.p.h. Grain vessels are worked around the clock.

King Tom Jetty: Berthing *not* allowed.

Dispensation will only be granted in exceptional circumstances to berth or unberth vessels before 0600 hrs. and after 2330 hrs.

During discharging and/or loading, Customs Officers, normally 2, as well as 2 Port Authority Discrepancy Clerks (only when discharging) will be on board.

Sherbro River: Anchorage daylight only. Length of vessel up to 470 ft. Breadth, no restrictions. Max. draft, 24 ft. 06 in. The passage between No. 1 Buoy and No. 8 Buoy and between No. 1 Buoy and Yangsai Anchorage must be navigated in daylight hours only.

The Channel between Buoy Point and Yangsai must be navigated only during period 2 hours to H.W., and on a rising tide, buoy point being area which restricts draft. Bagru River Anchorage Buoy No. 8, length and breadth unlimited. Max. draft 24 ft. 06 in. Limitations as regards vessel's dimensions, drafts and times at which movements may be carried out should not be deviated from without prior permission of the Harbour Master.

MECHANICAL EQUIPMENT:

Type	*Capacity*	*Complement*
Portal Quay Crane	3 tons	2
Portal Quay Crane	5 tons	1
Mobile Crane	15/30 tons	1
Mobile Crane	4 tons	9
Mobile Crane	5 tons	2
Mobile Crane	7 tons	2
Fork Trucks	10 tons	1
Fork Trucks	4,000/5,000 lbs.	34
Tractors	—	15
Trailers	6 tons	17
Trailers	8 tons	1
Trailers	10 tons	12
Trailers	20 tons	18
Trailers (Pole)	10 tons	2
Fire Engine	—	1
Container Handlers	26 tons	3

Berth Nos. 3 to 6 are not equipped with Portal Cranes.

DANGEROUS CARGO: Dangerous cargo, explosives, small arms, ammunition, *must not* be unloaded either alongside or into lighters unless Port Authority has been notified on approved form, and has given permission for cargo to be discharged. Vessels should cable prior arrival if dangerous cargo for discharge on board.

STEVEDORES: (See "Agent's Cable Requirements") ETA as soon as possible. Discharge/loading hatch distribution. Gangs required. Bunkers and water requirements, information re explosives. For tankers discharging – total displacement and draft. Work ashore undertaken by Sierra Leone Ports Authority on cargo quay, Queen Elizabeth II Quay, whilst work on board as well as discharging and/or loading to or from vessels at stream undertaken by Sierra Leone Ports Authority stevedoring division.

Working hours alongside quay: Normal working hours from 0800 hrs. to 1200 hrs. and 1330 hrs. to 1700 hrs. Monday to Friday.

No meal-break but the hour 1200 hrs. to 1330 hrs. counts overtime.

Working at Stream: Discharging and/or loading to or from vessels effected 24 hours a day. Gangs can be arranged at anytime between 0730 hrs. and 1800 hrs. week-days. On Sundays and holidays work must be arranged on the previous day.

MEDICAL: Hospital facilities available.

TANKERS: *Kissy Oil Jetty:* In order that berthing/unberthing operations at Kissy Oil Jetty are carried out without delay Agencies are requested to furnish to the Harbour Master the following particulars, of vessel using Kissy Oil Terminal.

ETA: At least 24 hours' notice to be given.

Displacement and deadweight: The max. permitted displacement is 46,000 tons.

Draft forward and aft: Max. draft 11.90 m. (39 ft.).

Length overall: No restriction.

The time of berthing will be at the discretion of the Port Authority, dependent on tidal and weather conditions, and vessel's draft. This is normally on a flood tide and during daylight hours only.

Notice: Port Authority Circular No. HM/241/354 dated 14th January 1981.

Oil Tankers Berthing Kissy Oil Jetty: In view of the strain experienced on the forward back springs during ebb tide on above-named jetty, vessels are to moor using double or more forward back springs.

This is necessary to avoid any damage to the discharge/loading arms on jetty.

Agents are advised to inform shipping companies that vessels are required to carry the necessary extra mooring ropes or wires.

Port Authority Pilots are to ensure prior to berthing vessels that sufficient moorings are onboard for extra forward back springs and separate bollards on jetty head are used for each spring.

DENSITY: 1018 to 1025.

FRESH WATER: Good fresh water is available at all quay berths and at Kissy Oil Jetty.

(Supply Rates: Dependent on Ship's intake)	Old berths	Approx. 20/25 t.p.h.
	New berths	Approx. 40/50 t.p.h.
	Kissy Oil Jetty	Approx. 15/20 t.p.h.

FUEL: Available at Kissy Oil Jetty and Q.E.II Quays. Gas oil available by tanker truck.

GANGWAY/DECK WATCHMEN: Strongly recommended, available through Agent. It is suggested that gangway is raised after close of work. The Port Authority operates a patrol boat with security personnel to minimise piracy.

Piracy: Acts of piracy have taken place alongside and whilst vessel approaching Pilot. Crew members have sustained injuries.

OPENING/CLOSING HATCHES: By stevedores, except mechanical hatches.

CERTIFICATES:

Ship's Register.
Derat Certificate.
Deck Passengers Certificate.
Radio Certificate.

CUSTOMS ALLOWANCES: Tobacco, 40 cigarettes *or* 0.25 lb tobacco. Wine and/or Spirits, 0.25 bottles of spirit. Master — 200 cigarettes and 1 opened bottle of spirit.

IDENTIFICATION CARDS: Not required.

CONSULS:

Belgium	50143	Japan	22721
China (People's Republic)	31797	Korea (North)	
Cuba	26084	Korea (South)	
Denmark	25760	Lebanon	22353
Egypt	23244	Liberia	40322
France	22477	Malagasy	25850
Gambia	25191	Netherlands	25245
Germany F. R.	22511	Nigeria	22444
Ghana	23461	Norway	50824
Greece	23087	P.L.O.	
Guinea	23080	Sweden	22385
India	24340	Switzerland	23322
Iran		United Kingdom	23961/6
Iraq		United States	26481
Italy	30995	U.S.S.R.	23991
Ivory Coast	23983	United Nations (UNDP)	25311

REPAIRS: All repairs if spares supplied.

DRY DOCKS: No dry docks in Freetown. Slipway of 600 tons capacity.

SURVEYORS: Mining and General Services Limited, P.O.Box 68, Freetown. Telex: 3226. Cables: Mags. Are Lloyd's Agents and undertake cargo surveys.

A Lloyd's Register approved surveyor is available.

REPATRIATION: Can be arranged.

AIRPORT: By bus and ferry to Lungi Airport, 1 hour journey. Served by regular airlines.

TIME: GMT throughout year.

HOLIDAYS: Several religious and anniversary holidays. Port works every day except Good Friday and Christmas Day.

POLICE/AMBULANCE/FIRE: For all emergencies dial 009.

EMERGENCY CO-ORDINATION CENTRE/S.A.R. LINK: Sierra Leone Ports Authority. Telex: 3262. Cables: Portman Freetown.

TELEPHONES: Not available for placing on board.

GENERAL: Always confirm time of entering harbour with the Aberdeen Hill Signal Station to ensure turn for berthing. Draft should be indicated.

SERVICES: Tank cleaning. Tank and hull scaling.

BANKS: Barclays Bank of Sierra Leone, P.O.Box 12, Siaka Stevens Street, Freetown.

Bank of Credit and Commerce International, Sparta Building, 10 Wilberforce Street, Freetown. Telex: 332.

Standard Bank Sierra Leone Ltd., Lightfoot Boston Street, Freetown.

STORING: Moderate quantities of stores are available and can be taken ex-quay. However no bonded stores' facilities exist.

SHORE LEAVE: Allowed. Identity cards must be carried.

DELAYS: No delays experienced.

SHIP SUPPLY SERVICE: Contact: Offshore Services Ltd., P.O.Box 376, Freetown.

DEVELOPMENTS: It is the Port Authorities' intention to surface the front and rear stacking areas at Berth Nos. 5 and 6 for use as a container park.

AUTHORITY: Sierra Leone Ports Authority, P.M.Bag 386, Freetown, Sierra Leone. *Tel:* 50989 or 50111. *Telex:* 3262. *Cables:* Portman FTN. *Contact:* General Manager.

AGENT: Sierra Leone Shipping Agencies Limited, P.O.Box No. 74, Freetown, Sierra Leone. Tel: 50881/50528. Telex: 3260/3225. Fax: 50882. Cables: "Seaborne Freetown".

PEPEL: 08.34 N. 13.04 W.

LOCATION: On Sierra Leone River, 15 miles upstream from Freetown. Approach Channel between Freetown anchorage and Pepel is fully buoyed. No night navigation.

DOCUMENTS: See "Freetown".

PILOTAGE: Private pilotage undertaken by mining Company's Pilots who board at Freetown Anchorage. 48 hours ETA required, cable "Mags Freetown Sierra Leone", giving ETA Fairway Buoy, quantity water/fuel required, asking for Free Pratique, and if Pilot required to Freetown Anchorage.

ANCHORAGE: See "Freetown".

RESTRICTIONS: Draft only, decided at discretion of Berthing Master. Entry daylight hours only. Channel between Pepel and Freetown is now deepened so that depth in channel is 38 ft. plus height of tide. According to official tide tables, range of high tides is approximately 7 ft. to 11 ft. above Admiralty Chart Datum.

MAX. SIZE: Length 840 ft., beam 128 ft., depth water 38 ft.* plus height of tide which ranges from 7 ft. to 11 ft. above Chart Datum. September to December additional draft restrictions due channel silting.

*The channel has not been maintained since 1975. Dredging is to take place.

HEALTH: See "Freetown". 48 hours advance warning for Free Pratique.

TUGS: Not used.

BERTHING: Milton Margai Pier only. Loading up to 3,000 t.p.h. according to size of vessel.

New dolphin mooring system installed to permit handling larger ships. Depth alongside 45 ft. Shiploader max. boom height when in horizontal position is 71 ft. above Chart Datum, with max. outreach 87 ft. from berthing line. Loading rate 4,000 t.p.h. Under the new conditions, limiting dimensions for ships (which must be equipped with satisfactory mooring equipment): LOA 840 ft. Moulded breadth 128 ft.

Permissible sailing draft with allowance made for safe navigation, of all ships will, as at present, remain absolutely at discretion of Berthing

Master at Pepel or his deputy. It is possible that during the months of September to December every year an additional draft allowance will have to be imposed by reason of seasonal silting of the channel, but it is intended to carry out annual maintenance dredging.

Company will be prepared to consider acceptance of ships having dimensions in excess to those above but only after specific approval of fully detailed plans of each ship concerned and, in any event, not in excess of dimensions: LOA 870 ft., moulded breadth 136 ft., moulded depth 73 ft.

Berthing displacement 63,000 tons on an even keel ballast draft of 23 ft. forward and aft on berthing.

STEVEDORES: Available.

FRESH WATER: Available, 48 hours' notice required.

FUEL: Limited supplies available, 48 hours' notice required.

TIME: GMT throughout year.

TELEPHONES: None available.

SHORE LEAVE: Not allowed. Customs and Immigration regulations prohibit any member of crew from disembarking at jetty or other works.

DELAYS: First come first served.

GENERAL: See "Freetown" for all general information.

NOTES

Please also advise Shipping Guides Ltd.

Singapore

SINGAPORE (incl. Jurong, Pulau Bukom, Pulau Ayer Chawan, Sembawang and Tanjong Penjuru):

01.16 N. 103.50 E. **(See Plan)**

DOCUMENTS:
4 Ship's Passenger Lists (1 copy for Customs).
4 Crew Lists (1 copy for Customs).
5 Cargo Manifests.
3 copies of Customs Declaration for fresh issue of duty free liquor and tobacco Form (C and E 117) to be furnished by Master to Customs boarding officers.

Master, Mate, or authorised officer required to furnish information asked for by Officer in charge of Customs' Boarding Party for Boarding Officer's Report (this only required if ship is to be searched).

Immigration: 6 copies Crew List and 4 copies each of Disembarking and Through-Passenger Lists on arrival. At departure, 2 copies Crew List and 2 copies Passenger List.

Declaration regarding presence on board of any stowaway, unauthorised person and/or repatriate.

PSA: All vessels: General Declaration on arrival or departure.

Port Health: Entry Declaration, Derat or Exemption Certificate, Yellow Fever Certificates.

Crew Lists. Passenger Lists.

PSA (The Port of Singapore Authority): Arms and Explosives, and Dangerous Goods and Petroleum Declaration.

Shipmaster's Report: August 1987.

In order to obtain vessel's clearance the agent requires – Last Port Clearance, Load Line, Safety Radio, Safety Equipment and Safety Construction Certificates; Articles of Agreement; Safe Manning Certificate; Certificates of Competency (Panamanian and Liberian ships only – not photocopies), a British Certificate will suffice if Liberian/Panamanian Certificate has not arrived; C.L.C.

Vessels arriving to take stores and make crew changes: See "Notices" – Circular No. 121/87.

ANCHORAGES:

Port of Singapore Authority – Port Circular No. 117/87
Dated 9th December 1987.
REVISION OF ANCHORAGES

This is to inform you that the anchorages in the port will be revised with effect from 1st February 1988 as follows:

1. *EASTERN SECTOR*

1.1 *Awaiting Pilot Anchorage* is renamed *Changi General Purposes Anchorage* and is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 20.000′	104° 03.167′
01° 20.000′	104° 03.706′
01° 18.880′	104° 04.820′
01° 18.880′	104° 04.281′
01° 19.550′	104° 03.667′

Purpose: For general purposes on prior permission of the Port Master.

1.2 *Eastern Explosives Anchorage* is withdrawn.

1.3 *Eastern Petroleum 'B' Anchorage* is relocated and is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 17.500′	103° 59.083′
01° 17.650′	104° 01.200′
01° 16.629′	103° 59.313′
01° 16.629′	103° 59.082′

Purpose: For vessels of less than 10,000 g.r.t. loaded with Petroleum and Non-Gas-Free Vessels.

1.4 *Eastern Special Purposes Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 17.979′	103° 56.617′
01° 18.300′	103° 57.438′
01° 18.300′	104° 00.450′
01° 17.650′	104° 01.200′
01° 17.500′	103° 59.083′
01° 16.629′	103° 59.082′
01° 16.633′	103° 56.617′

Purpose: For vessels under Arrest, Damaged Vessels, Deep-Draft Vessels requiring repairs and other vessels on prior permission of the Port Master.

1.5 *Laid-up Vessels Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 17.784′	103° 56.117′
01° 17.979′	103° 56.617′
01° 16.633′	103° 56.617′
01° 16.633′	103° 67.117′

Purpose: For vessels laid-up in port.

1.6 *Small Craft Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 17.388′	103° 55.106′
01° 17.784′	103° 56.117′
01° 16.633′	103° 56.117′

Purpose: For harbour tugs, pontoons, barges and other small craft.

1.7 *Eastern Petroleum 'A' Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 15.426′	103° 53.921′
01° 16.123′	103° 54.988′
01° 15.058′	103° 56.165′
01° 14.418′	103° 54.982′

Purpose: For vessels of 10,000 g.r.t. and above loaded with Petroleum and Non-Gas-Free Vessels.

1.8 *Eastern Quarantine and Immigration Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 14.683′	103° 52.783′
01° 15.125′	103° 53.459′
01° 14.450′	103° 54.167′
01° 14.000′	103° 53.383′

Purpose: For vessels arriving from the East and seeking Quarantine and Immigration Clearance.

1.9 *Man-of War Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 16.517′	103° 54.553′
01° 16.517′	103° 53.417′
01° 17.004′	103° 53.417′
01° 17.004′	103° 54.015′

Purpose: For visiting warships.

1.10 *Eastern Explosives Lighters Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 17.004′	103° 53.650′
01° 17.133′	103° 53.650′
01° 17.133′	103° 54.015′
01° 17.004′	103° 54.015′

Purpose: For small craft loaded with explosives. The maximum amount of Hazard Division 1.1 type explosives allowed on board each craft is 8 tonnes Nett Explosives Quantity (NEQ).

1.11 *Eastern Working Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 17.004′	103° 53.417′
01° 16.517′	103° 53.417′
01° 16.517′	103° 54.553′
01° 16.123′	103° 54.988′
01° 14.683′	103° 52.783′
01° 14.683′	103° 52.283′
01° 15.040′	103° 51.871′
01° 16.017′	103° 51.767′
01° 16.567′	103° 52.533′
01° 16.443′	103° 52.598′
01° 16.623′	103° 52.820′
01° 16.683′	103° 52.733′
01° 17.004′	103° 53.200′

Purpose: For general purposes such as working cargo, receiving stores, water and bunkers or awaiting berth.

2. *WESTERN SECTOR*

2.1 *Western Quarantine and Immigration Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 13.583′	103° 49.696′
01° 13.150′	103° 50.033′
01° 12.800′	103° 49.850′
01° 12.750′	103° 49.133′
01° 13.133′	103° 48.683′

Purpose: For vessels seeking Quarantine and Immigration Clearance during the North-East Monsoon.

2.2 *Western Petroleum 'A' Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 14.874′	103° 46.824′
01° 15.223′	103° 47.637′
01° 14.490′	103° 48.470′
01° 14.141′	103° 47.657′

Purpose: For vessels loaded with Petroleum and for Non-Gas-Free Vessels except Port Limit Tankers.

2.3 *Western Petroleum 'B' Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 14.700′	103° 46.417′
01° 14.874′	103° 46.824′
01° 14.141′	103° 47.657′
01° 13.966′	103° 47.250′

Purpose: For licensed Port Limit Tankers of 2,000 g.r.t. or less.

2.4 *Western Working Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 14.972′	103° 48.998′
01° 13.583′	103° 49.696′
01° 12.983′	103° 48.350′
01° 13.966′	103° 47.250′
01° 14.490′	103° 48.470′
01° 15.223′	103° 47.637′
01° 15.450′	103° 48.167′

Purpose: For general purposes such as working cargo, receiving stores, water and bunkers or awaiting berth.

2.5 *Western Reserved Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 16.170′	103° 47.170′
01° 15.600′	103° 46.700′
01° 15.830′	103° 46.290′
01° 16.400′	103° 46.680′

Purpose: For LASH Ship operations.

2.6 *Western Dangerous Goods Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 16.250′	103° 45.640′
01° 16.710′	103° 45.050′
01° 17.020′	103° 45.020′
01° 16.550′	103° 45.640′

Purpose: For vessels loading or discharging Explosives or Group 1 Dangerous Goods or vessels in transit with such cargo onboard. The maximum amount of Hazard Division 1.1 type explosives allowed on board each vessel is 50 tonnes Nett Explosives Quantity (NEQ).

2.7 *Pasir Panjang Coastal Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 16.400′	103° 46.680′
01° 15.830′	103° 46.290′
01° 16.120′	103° 45.820′
01° 16.250′	103° 45.640′
01° 16.550′	103° 45.640′
01° 17.020′	103° 45.020′
01° 17.300′	103° 45.000′
01° 17.300′	103° 45.280′
01° 17.060′	103° 45.280′

Purpose: For vessels working cargo overside by means of lighters.

2.8 *Pasir Panjang Lighter Mooring* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 17.133′	103° 45.383′
01° 17.283′	103° 45.450′
01° 17.267′	103° 45.583′
01° 17.350′	103° 45.817′
01° 17.350′	103° 46.167′
01° 17.150′	103° 46.533′
01° 17.017′	103° 46.700′
01° 16.717′	103° 46.500′
01° 17.050′	103° 45.933′

Purpose: For the mooring of licensed wooden lighters.

2.9 *Selat Pauh Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 13.183′	103° 45.617′
01° 12.817′	103° 44.650′
01° 12.817′	103° 43.666′
01° 13.050′	103° 43.033′
01° 13.583′	103° 42.783′
01° 13.783′	103° 43.150′
01° 13.483′	103° 43.850′
01° 13.317′	103° 45.017′
01° 13.417′	103° 45.567′

Purpose: For vessels under Arrest, Laid-up or other vessels on prior permission of the Port Master.

3. *JURONG SECTOR*

3.1 *Sultan Shoal Quarantine* and *Immigration Anchorage* is withdrawn.

3.2 *West Jurong Petroleum Anchorage* is renamed *Sultan Shoal Petroleum Anchorage* and relocated to an area bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 13.919′	103° 37.257′
01° 14.511′	103° 38.811′
01° 13.733′	103° 39.850′
01° 13.350′	103° 39.058′

Purpose: For vessels loaded with Petroleum and for Non-Gas-Free vessels.

3.3 *LNG/LPG/Liquefied Chemical Gas Carriers Anchorage* is relocated and is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 14.900′	103° 36.500′
01° 14.900′	103° 36.800′
01° 14.205′	103° 36.775′
01° 14.367′	103° 36.500′

Purpose: For Non-Gas-Free Liquefied Petroleum Gas Carriers, Liquefied Natural Gas Carriers and Liquefied Chemical Gas Carriers.

3.4 *Tuas Explosives Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 16.295′	103° 36.500′
01° 16.295′	103° 37.525′
01° 15.643′	103° 37.525′
01° 15.643′	103° 36.500′

Purpose: For vessels loading or discharging Explosives and Group 1 Dangerous Goods or vessels in transit with such cargo on board. The maximum amount of the Hazard Division 1.1 type explosives allowed on board each vessel is 500 tonnes Nett Explosives Quantity (NEQ).

3.5 *Tuas Explosives Lighters Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 17.000′	103° 36.500′
01° 17.000′	103° 36.716′
01° 16.295′	103° 36.716′
01° 16.295′	103° 36.500′

Purpose: For small craft loaded with explosives. The maximum amount of the Hazard Division 1.1 type explosives allowed onboard each craft is 60 tonnes Nett Explosives Quantity (NEQ).

3.6 *West Jurong Anchorage* is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 17.000′	103° 36.716′
01° 17.000′	103° 38.800′
01° 14.900′	103° 38.800′
01° 14.900′	103° 36.500′
01° 15.643′	103° 36.500′
01° 15.643′	103° 36.525′
01° 16.295′	103° 37.525′
01° 16.295′	103° 36.716′

Purpose: For vessels awaiting berth, working cargo, vessels under repairs, or for the mooring of oil rigs.

4. Port Circulars No. 14 of 1986
No. 36 of 1987
No. 43 of 1987
No. 51 of 1987 will be superseded with effect from 1st February 1988.

PILOTAGE: Also see "Notices".

Port of Singapore Authority – Port Circular No. 108/87 Dated 20th November 1987.

1. This Port Circular supercedes Port Circular No. 43 of 1983.

2. *GENERAL*

2.1 In exercise of the powers conferred by subsection (1) of section 84 of the Port of Singapore Authority Act (Cap. 236), it is directed that all vessels specified in in paragraph 4 below, unless exempted by the Authority, are to be under pilotage by an Authority Pilot when moving within the Pilotage District. This directive will come into force with effect from 1st December, 1987.

2.2 Vessels belonging to or operated by the Port of Singapore Authority and the Republic of Singapore Navy are not subjected to this directive.

3. *DEFINITIONS*

3.1 *Pilotage District*

The Pilotage District is described in the Port of Singapore Authority (Pilotage District) Notification 1980. For the purpose of this circular, the Pilotage District is divided into four areas viz., "A", "B", "C" and "D". These areas are defined in Annex I and depicted in Annex II, (see "Plan").

Port Circulars Nos. 58 of 1983, 21 of 1985 and 22 of 1985 are hereby superseded.

3.2 *Height:* The height of vessel referred to in this circular shall be the height of the vessel measured vertically from the waterline of the vessel to the highest point of the vessel including its cargo, structures or equipment on board.

3.3 *Beam:* Beam of vessel referred to in this circular, shall be the maximum breadth of the vessel including protruding structure(s) on the side(s), if any.

4. *COMPULSORY PILOTAGE*

4.1 Compulsory pilotage will be applicable to all liquefied gas carriers and chemical carriers. For purpose of compulsory pilotage, a chemical carrier means any vessel which is carrying or has previously carried as a whole or part of the last cargo in bulk any of those hazardous liquid cargoes listed in Chapter 17 of International Maritime Organization International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk. In the case of a vessel having previously carried as a whole or part of the last cargo in bulk, she shall remain considered as a chemical carrier so long as any of her cargo tanks or cargo system is not completely cleared and removed of any residual cargo.

4.2 Besides liquefied gas carriers and chemical carriers, other vessels to which compulsory pilotage applies, when moving within a particular area of the Pilotage District, are as indicated in Table I.

Table I

Area of Movement	*Vessels to which compulsory pilotage applies*
"A"	Every vessel of 300 g.r.t. and above.
"B"	Every vessel of 5,000 g.r.t. and above.
"C"	Every vessel of 300 g.r.t. and above or overall length exceeding 45 m.
"D"	Every vessel of 300 g.r.t. and above or of a height exceeding 30 m.

5. *PILOTAGE EXEMPTION*

5.1 Vessels to which pilotage exemption may be granted for movement within a particular area of the Pilotage District are as indicated in the Table II below:

Table II

Area of Movement	*Vessels to which pilotage exemption may be granted*
"A"	A vessel of: (a) *Less than 300 g.r.t.:* A blanket exemption is granted unless otherwise specified by the Port Master. (b) *300 g.r.t. and above but less than 2,000 g.r.t.:* Exemption may be granted provided that the vessel is fitted with a VHF radio-telephone which is in good working condition and capable of communicating at all times on the required VHF Channel(s). To seek exemption, the vessel is required to call the appropriate control station by VHF radio-telephone on the designated Channel (See Annex III). (c) *2,000 g.r.t. and above but less than 5,000 g.r.t.:* Exemption may be granted subject to the following conditions: (i) The vessel is fitted with a VHF radio-telephone which is in good working condition and capable of communicating at all times on the required VHF Channel(s) (See Annex III).

(ii) In the case of a sea-going vessel, the registered Master shall have brought the vessel into and out of Area "A" on at least 6 occasions within the 12 months immediately preceding the date of application for exemption. For subsequent exemptions, the Master shall have entered and left Area "A" on at least 2 occasions. However, the last of the 2 occasions shall not be more than 6 months prior to the date of application of renewal of exemption.

(iii) In the case of a licensed harbour craft, the registered Master shall have served onboard as Master for a period of at least 3 months prior to the application for exemption

(iv) In all cases requiring exemption the registered Master shall have satisfied the Port Master of his knowledge of local waters, regulations, etc.

"B" Normally no exemption from compulsory pilotage. See paragraph 5.2.

"C" Normally no exemption from compulsory pilotage. See paragraph 5.2.

"D" A vessel of:

(a) *Less than 300 g.r.t. and of a height of more than 30 m.:* Blanket exemption is granted provided the vessel does not enter, leave or transit the Traffic Information Area promulgated in Port Circular No. 90 of 1987 as shown. (See "Plan" – Annex IV.)

(b) *300 g.r.t. and above but less than 2,000 g.r.t. and of a height of 30 m. or less:* Exemption may be granted provided that the vessel if fitted with a VHF radio-telephone which is in good working condition and capable of communicating at all times on the required VHF Channel(s). To seek exemption for the intended movement the vessel is required to call the appropriate control station by VHF radio-telephone on the designated Channel (See Annex III);

(c) *300 g.r.t. and above but less than 2,000 g.r.t. and of a height of more than 30 m.:* Exemption may be granted provided that the vessel does not enter, leave or transit the Traffic Information Area promulgated in Port Circular No. 90 of 1987 as shown, (see "Plan" – Annex IV) and is fitted with a VHF radio-telephone which is in good working condition and capable of communicating at all times on the required VHF Channel(s). To seek exemption, the vessel is required to call the appropriate control station by VHF radio-telephone on the designated Channel (See Annex III).

Remarks: All Masters of vessels not under pilotage are reminded of the height restrictions in the various areas of the Port indicated in the navigational charts.

5.2 Vessels engaged in Marine Projects (e.g. Dredging, Reclamation and Port Development projects) to which pilotage exemption may be granted for movement within a particular area of the Pilotage District are as indicated in the Table III below:-

Table III

Area of Movement | *Vessels Engaged in Marine Projects (e.g. Dredging, Reclamation and Port Developments) Which May be Granted Pilotage Exemption.*

"A" or "B" *A vessel of 5,000 g.r.t. or above but less than 10,000 g.r.t.:*

(a) The vessel must be engaged in marine projects which require her to move frequently within this area of the pilotage district. (Marine projects include dredging, reclamation, laying of cable, etc.).

(b) The vessel is fitted with a VHF radio-telephone which is in good working condition and capable of communicating at all times on the required VHF channel(s). (See Annex III).

(c) The registered Master shall have brought the vessel into and out from the area concerned under pilotage for at least a total of 6 occasions immediately prior to application for exemption.

(d) In the case of a sea-going vessel, the registered Master shall have brought the vessel into and out of the area concerned on at least a total of 12 occasions under pilotage within the 12 months immediately preceding the date of application for exemption. For subsequent exemptions, the Master shall have entered and left the area concerned on at least a total of 4 occasions. However, the last of the 4 occasions shall not be more than 3 months prior to date of application for renewal of exemption.

(e) The registered Master of the vessel shall follow the route laid down under the conditions for exemption.

(f) In all cases requiring exemptions, the registered Master shall have satisifed the Port Master of his knowledge of local waters, regulations, etc.

Area of Movement "C" *A vessel of 300 g.r.t. or above or of overall length exceeding 45 metres:*

(a) The vessel must be engaged in marine projects which require her to move frequently within this area of the pilotage district.

(b) For navigating the Main Channel under the Benjamin Sheares Bridge at the entrance to Kallang Basin, the displacement of the vessel must not exceed 2,500 tonnes and for navigating the Middle Channel under the Benjamin Sheares Bridge at the entrance to Marina Bay the displacement of the vessel must not exceed 2,000 tonnes.

(c) In the case of a tow proceeding through the entrance to Kallang Basin, the total displacement of the tug and tow must not exceed 2,500 tonnes and in the case of a tow proceeding through the entrance to Marina Bay, the total displacement of the tug and tow must not exceed 2,000 tonnes.

(d) The vessel or the tug, in the case of a tow, to be fitted with a VHF radio-telephone which is in good condition and capable of communicating at all times on the required VHF channel (s). (See Annex III).

(e) In the case of a vessels proceeding to or from Kallang Basin, the conditions stipulated under Port Circular No. 76 of 1987 are to be complied with and in the case of a vessel proceeding to or from Marina Bay the conditions stipulated under Port Circular No. 75 of 1987 are to be complied with.

(f) The registered Master shall have brought the vessel under pilotage into and out of this area on at least a total of 12 occasions immediately preceding the date of application.

(g) In the case of a sea-going vessel, the registered Master shall have brought the vessel under pilotage into and out of the area on at least a total of 24 occasions within the 12 months immediately preceding the date of application for exemption.
For subsequent exemptions, the Master shall have entered and left the area on at least a total of 4 occasions. However, the last of the 4 occasions shall not be more than 3 months prior to date of application for exemption.

(h) The registered Master of the vessel shall follow the route laid down under the conditions for exemption.

(i) In all cases requiring exemption, the registered Master shall have satisfied the Port Master of his knowledge of local waters, regulations, etc.

Area of Movement "D" *A vessel of 300 g.r.t. or above but not less than 10,000 g.r.t. requiring to enter, leave or transit the Traffic Information Area:*

(a) The vessel must be engaged in marine projects which require her to move frequently within this area of the pilotage district.

(b) The vessel is fitted with a VHF radio-telephone which is in good working condition and capable of communicating at all times on the required VHF channel(s). (See Annex III).

(c) The registered Master shall be conversant with the reporting procedure required under Port Circular No. 90 of 1987.

(d) The registered Master shall have brought the vessel into and out of the area under pilotage, for at least a total of 12 occasions immediately prior to application for exemption.

(e) In the case of a sea-going vessel, the registered Master shall have brought the vessel into and out of the area on at least a total of 24 occasions under pilotage, within the 12 months immediately preceding the date of application for exemption. For subsequent exemptions, the Master shall have entered and left the area on at least a total of 4 occasions. However, the last of the 4 occasions shall not be more than 3 months prior to date of application for exemption.

(f) The registered Master of the vessel shall follow the route laid down under the conditions for exemption.

(g) In all cases requiring exemption, the registered Master shall have satisfied the Port Master of his knowledge of local waters, regulations, etc.

5.3 All vessels except those vessels with a height exceeding 100 m., liquefied gas carriers and chemical carriers, when leaving, entering or shifting within the Changi General Purposes Anchorage are exempted from Pilotage.

5.4 Exemption, when granted, is for the movement other than berthing and unberthing. For berthing and unberthing, the express permission of the Owners/Operators of the berth is also required.

5.5 All exempted vessels, when underway within the Pilotage Areas are to display by day the International Code Flag "N".

5.6 All Masters of vessels are advised not to hamper large or deep draft vessels in the restricted channels of the Port.

5.7 Application forms for pilotage exemption for vessels can be obtained from Port Master's Department, 20th Storey, Tanjong Pagar Complex, Singapore 0208.

6. *TOWAGE WITH PILOTAGE EXEMPTION:*

6.1 Only tugs with harbour craft licence and which are not required to be under pilotage or which have been granted exemption are permitted to tow vessels subject to the following conditions:

(i) For movement within Area "A", the aggregate g.r.t. of the tug(s) and tow(s) is less than 2,000.

(ii) For movement within Area "B", the aggregate g.r.t. of the tug(s) and tow(s) is less than 5,000.

(iii) For movement within Area "D", the aggregate g.r.t. of the tug(s) and tow(s) is less than 2,000 and the height of either is 30 m. or less (Where the tug(s) and tow(s) are required to enter, leave or transit the Traffic Information Area in Port Circular No. 90 of 1987 (see "Plan" – Annex IV) and when either the height of the tug(s) or tow(s) is more than 30 m., compulsory pilotage shall apply).

(iv) Compliance with Regulation 49 (3) of the Singapore Port Regulations 1977.

7. *PILOT BOARDING AND DISEMBARKATION GROUNDS*

7.1 The 5 Pilot Boarding Grounds for vessels coming into port are:

(i) Eastern Boarding Ground "A" – in position Lat. 01° 13.52′ N., Long. 103° 53.55′ E.

(ii) Eastern Boarding Ground "B" – in position Lat. 01° 15.50′ N., Long. 103° 57.50′ E. This boarding ground is to be used by all tankers requiring pilots when arriving from the East and proceeding to the appropriate anchorages in the Eastern sector of the port. Other vessels may also use this boarding ground to pick up pilots provided special arrangement has been made with Port Operations Centre. Anchoring is strictly prohibited at this boarding ground as it is within the submarine cable area.

(iii) Southern Boarding Ground – South of Sebarok Beacon within port limits. (To be used only through prior arrangement with Port Operations Centre).

(iv) Western Boarding Ground – in position Lat. 01° 13.73′ N., Long. 103° 36.50′ E.

(v) East Johor Strait Boarding Ground – S.E. of Johor Shoal Buoy in position Lat. 01° 18.00′ N., Long. 104° 05.50′ E.

7.2 The 10 Pilot Disembarkation Grounds as in positions are follows:

No. 1: Lat. 01° 18.47′ N., Long. 104° 05.72′ E.
No. 2: Lat. 01° 16.95′ N., Long. 103° 59.77′ E.
No. 3: Lat. 01° 15.50′ N., Long. 103° 56.90′ E.
No. 4: Lat. 01° 14.25′ N., Long. 103° 54.78′ E.
No. 5: Lat. 01° 13.48′ N., Long. 103° 53.30′ E.
No. 6: Lat. 01° 15.50′ N., Long. 103° 51.87′ E.
No. 7: Lat. 01° 11.75′ N., Long. 103° 49.45′ E.
No. 8: Lat. 01° 10.68′ N., Long. 103° 46.98′ E.
No. 9: Lat. 01° 12.80′ N., Long. 103° 39.28′ E.
No. 10: Lat. 01° 13.97′ N., Long. 103° 37.37′ E.

Vessels may, at the discretion of Port Operations Centre, be directed to make use of the nearest disembarkation grounds.

8. *PILOTAGE ORDERS*

8.1 When placing orders for pilotage service, as much advance notice as possible should be given.

8.2 Pilotage service orders may be placed by the following means in order of priority:

Means of Placing Order	*For Sembawang/East Johor Strait*	*For All Other Areas*
Telex	Sembawang Control Telex RS 35962 Ans. back – SEMCO	Telex Port Operations Centre No. RS 34970 RS 22896 Ans. Back PORTPM
Telephone	Sembawang Control No. 5427112 5427113	Port Operations Centre No. 2233631 2233633
VHF Radio Telephone	Channel 21	Channel 12 or 20

8.3 When placing orders through telex, telephone or VHF radio-telephone, the following information should be provided:

(a) Agent's name and valid PSA account number.

(b) Name of vessel, her call sign and nationality.

(c) Vessel's g.r.t., length overall and height of the vessel. For vessel moving into and out of Area "C", berthing at Sembawang Port Basin, or Tanjong Pagar Terminal, state the maximum beam of the vessel.

(d) Date, time and description of pilotage service required and name and contact number of the person whom Pilot Office should contact.

(e) For arriving vessels, state whether Health/Immigration Clearance is required. State also the applicable Pilot Boarding Ground or if the vessel is at the anchorage, her location in grid reference (refer to Singapore Chart GSP1 on Anchorages and Aids to Navigation).

Full information on placing of pilotage orders is contained in Port Circular No. 56 of 1986 dated 1st September 1986.

8.4 Personal application for pilotage service is necessary for companies which do not have accounts with the Port of Singapore Authority. The application should be made at the Pilotage Section of Port Master's Department, 20th Storey, Tanjong Pagar Complex, Singapore 0208.

8.5 Vessels are to confirm to Port Operations Centre their ETA at the specified boarding grounds, 2 to 3 hours before arrival. For those bound for the East Johor Strait, confirmation should be made to Sembawang Control, 3 hours before arrival.

8.6 Vessels at anchor and requiring Pilots at night shall exhibit 3 all-round lights in a vertical line. The highest and middle lights shall be white and the lowest light shall be red. By day, the vessels should fly the flag 'G' of the International Code of Signals 1969.

8.7 The Authority reserves the right not to accept orders for Pilot service for vessels at the anchorages, with the exception of the Quarantine/Immigration Anchorages, if the vessels have not reported their anchoring position to Port Operations Centre. All vessels above 300 g.r.t. must report their final anchoring position in the port in terms of bearing and distance from the following reference points:

(i) Eastern Sector	Katong Beacon (in position: Lat. 01° 17.65′ N., Long. 103° 53.30′ E.)
(ii) Western Sector	Tg Rimau Beacon (in position: Lat. 01° 15.60′ N., Long. 103° 48.50′ E.)
(iii) West Jurong and Selat Pauh Anchorages	Sultan Shoal Lighthouse (in position: Lat. 01° 14.38′ N., Long. 103° 38.98′ E.)

9. *TRAFFIC INFORMATION SYSTEM*

Masters of vessels intending to enter, transit or leave the East Johor Strait are to refer to the Port Circular No. 90 of 1987 on Traffic Information System for Ships Transiting The Serangoon Harbour and where applicable, comply with the directives given therein.

10. *ACCESS TO VESSELS*

10.1 Mariners are reminded that Pilots and other Government Officers may, on grounds of personal safety, refuse service unless a safe and satisfactory means of access to the vessel is provided. The safety requirements in respect of pilot ladders, should be in accordance with Regulation 17 of Chapter 5 of the SOLAS Convention 1974.

10.2 In the case of accommodation ladders and shore gangways, the following should be complied with:

(i) *Accommodation Ladders*

(a) The embarkation and disembarkation of Pilots and Government Officers are to be supervised by a responsible Officer of the ship.

(b) The accommodation ladder is to be in good condition, secured and properly illuminated at night. The landing platform is to be properly adjusted to provide safe access.

(c) A manrope is to be attached to the lower bridle in order to provide a good handhold for boarding, and a lifebuoy with self-igniting light is to be available close to the upper platform.

(d) Discharges in the way of the accommodation ladder are to be properly covered or stopped while the ladder is in use.

(ii) *Vessel and Shore Gangways*

(a) Where a vessel's gangway or a shore gangway is used when the vessel is berthed alongside a wharf, the gangway is to be landed squarely onto the vessel and wharf. No person other than those engaged in the rigging of the gangway should be permitted to embark or disembark before it is properly secured.

(b) Where the gangway is landed onto the ship's bulwark, steps and adequate handholds are to be provided for safe and convenient access.

(c) The gangway shall be adequately illuminated at night and tended by a watchman.

(d) When a shore gangway is used, Masters are advised not to permit it being landed onboard before crew members of the vessel are available to receive it.

Annex I:
PILOTAGE DISTRICT AREAS

1. Area "A" – is defined as that part of the Pilotage District Westwards of the line joining the following positions including the area up to the causeway in the Johor Strait:

(a) Lat. 01° 16.27′ N., Long. 103° 51.43′ E.
(b) Lat. 01° 15.03′ N., Long. 103° 51.87′ E.
(c) Lat. 01° 14.68′ N., Long. 103° 52.28′ E.
(d) Lat. 01° 14.68′ N., Long. 103° 52.77′ E.
(e) Lat. 01° 13.35′ N., Long. 103° 51.87′ E.
(f) Lat. 01° 12.73′ N., Long. 103° 52.12′ E.

2. Area "B" – is defined as that part of the Pilotage District excluding Area "C" Marina Bay and Kallang Basin Eastward of the line joining the positions referred to in paragraph 1 above up to the line joining the following positions:

(a) Lat. 01° 20.55′ N., Long. 103° 59.80′ E.
(b) Lat. 01° 20.00′ N., Long. 104° 02.80′ E.

3. Area "C" – is defined as follows:

From a position	Lat. 01° 17.890′ N.	Long. 103° 51.980′ E.
by a straight line to a position in	Lat. 01° 17.770′ N.	Long. 103° 51.970′ E.
thence by a straight line to a position in	Lat. 01° 17.658′ N.	Long. 103° 51.974′ E.
thence by a straight line to a position in	Lat. 01° 17.303′ N.	Long. 103° 52.034′ E.
thence by a straight line to a position in	Lat. 01° 17.309′ N.	Long. 103° 51.733′ E.
thence by a straight line to a position in	Lat. 01° 17.186′ N.	Long. 103° 51.733′ E.
thence by a straight line to a position in	Lat. 01° 17.184′ N.	Long. 103° 51.805′ E.
thence by a straight line to a position in	Lat. 01° 17.063′ N.	Long. 103° 52.110′ E.
thence by a straight line to a position in	Lat. 01° 16.927′ N.	Long. 103° 52.305′ E.
thence by a straight line to a position in	Lat. 01° 16.720′ N.	Long. 103° 52.467′ E.
thence by a straight line to a position in	Lat. 01° 16.567′ N.	Long. 103° 52.533′ E.
thence by a straight line to a position in	Lat. 01° 16.683′ N.	Long. 103° 52.733′ E.
thence by a straight line to a position in	Lat. 01° 16.811′ N.	Long. 103° 52.680′ E.
thence by a straight line to a position in	Lat. 01° 16.941′ N.	Long. 103° 52.508′ E.
thence by a straight line to a position in	Lat. 01° 17.333′ N.	Long. 103° 52.150′ E.
thence by a straight line to a position in	Lat. 01° 17.630′ N.	Long. 103° 52.050′ E.
thence by a straight line to a position in	Lat. 01° 17.760′ N.	Long. 103° 52.030′ E.
thence by a straight line to a position in	Lat. 01° 17.850′ N.	Long. 103° 52.040′ E.
thence by a straight line to the point of origin.		

4. Area "D" – is defined as that part of the Pilotage District Northwards of the line joining the following positions up to the causeway in the Johor Strait.

(a) Lat. 01° 20.55′ N., Long. 103° 59.80′ E.
(b) Lat. 01° 20.00′ N., Long. 104° 02.80′ E.
(c) Lat. 01° 20.00′ N., Long. 104° 03.17′ E.
(d) Lat. 01° 19.55′ N., Long. 104° 03.67′ E.
(e) Lat. 01° 18.75′ N., Long. 104° 04.40′ E.
(f) Lat. 01° 18.30′ N., Long. 104° 05.63′ E.
(g) Lat. 01° 19.30′ N., Long. 104° 05.78′ E.

Annex II: See "Plan".

Annex III:
REPORTING STATIONS

Station	*Function*	*VHF Channel*	*Frequency (MHz)*
Port Operations Centre	General Reporting	12	156.60
	Pilotage Service and Information	20	157.00 161.60
Sembawang Control	Reporting Station for East Johor Strait	21	157.05 161.65
Jurong Control	Reporting Station for Jurong Area	21	157.05 161.70

RESTRICTIONS:
Navigational Channels:

Name	*Controlling Depth*
Johor Shoal to Johor Port Water Front	12.5 m.
Johor Port Water Front to Sembawang Shipyard	11.6 m.
Sembawang Shipyard to Ordnance Reach	11.0 m.
Approach Channel to Tg. Pagar Container Terminal	13.1 m.
East Keppel Fairway	10.1 m.
West Keppel Fairway	14.8 m.
Sisters Fairway (Selat Tg Hakim)	18.1 m.
Jong Fairway	14.3 m.
Sinki Fairway (In Channel)	14.2 m.
Selat Pandan (Out Channel)	12.5 m.
Western Approach to Esso SBM (Dredged Channel at Selat Sinki)	20.8 m.
Pesek Fairway	12.4 m.
East Jurong Fairway	12.6 m.
West Jurong Fairway	10.6 m.
Selat Sakra	10.2 m.

Keppel Harbour Aerial Cableway – Vertical Clearance: The vertical clearance of Aerial Cableway across Keppel Harbour is 56 m. above MHWS or 57 m. above MSL. Also see "Bridges" and "Notices" No. 105 of 1987, No. 116 of 1987 and No. 18 of 1988.

MAX. SIZE: See "Berthing" and "Tankers".

HEALTH: Also see "Notice".
Inward Health Clearance of Ships:
1. *Inward Health Clearance:*

1.1 With effect from 19th January 1984, Inward Health Clearance is required only for vessels mentioned in paragraph 1.2. All vessels from infected ports need not obtain Port Health Clearance by Radio Pratique or going to the Quarantine Anchorages. However should any passenger or crew member be suffering from cholera or has symptoms or signs of diarrhoea and vomiting, the Master should notify Port Health Office and proceed to the Quarantine Anchorage to await Health Clearance.

1.2 The following categories of ships will be required to anchor on arrival at the Quarantine Anchorage for inspection by the Port Health Officer:
- (a) Vessels which have been in a plague infected area within 60 days prior to arrival in Singapore;
- (b) Vessels with illness on board, specifically with the following signs and symptoms:
  - (i) temperature of 38°C or greater or persisted for more than 48 hours and accompanied or followed by one or more of these signs – rash, jaundice, glandular swelling;
  - (ii) diarrhoea, severe enough to interfere with work or normal activity.
- (c) Vessels with a death on board;
- (d) Vessels with dead rodents on board;
- (e) Vessels with refugees on board.

1.3 The Master/Owner/Agent of a ship under any of the categories in para 1.2 shall:
- (a) notify Port Health Office not more than 12 hours and where practicable, not less than 4 hours before arrival;
- (b) display the appropriate day or night signal when the ship enters the Singapore Port Limit;
- (c) anchor at the Quarantine Anchorage and until Free Pratique has been obtained, ensure that no person, other than a Pilot, Immigration Officer or Customs Officer, boards or leaves the ship without the permission of the Port Health Officer.

1.4 Notwithstanding the grant of Health Clearance under paragraph 2.1, all ships on arrival in the working anchorage or alongside the wharves, the Master/Owner/Agent is required to be in possession of a valid Derat Certificate/Derat Exemption Certificate.

1.5 The Port Health Officer reserves the right to examine any ship, the right to require the production or submission of any document and the right to require any ship to proceed to the Quarantine Anchorage for Inward Health Clearance and/or compliance with health requirements.

1.6 The Master/Owner/Agent is responsible for complying with any health requirement and/or correction of any health irregularity immediately after arrival.

1.7 The granting of Port Health Clearance or Free Pratique merely clears the ship in so far as Port Health Office is concerned. It does not exempt the ship from requirements of other Authorities.

2. *Outward Health Clearance:*

2.1 With effect from 1st March, 1984, the Outward Health Clearance is no longer required for any vessel.

3. Masters, Owners and Agents of vessels wishing to have further information should contact Port Health Office at 7B Keppel Road, No. 05-07/09, Tanjong Pagar Complex, Singapore 0208 or telephone 2226924/2222585. Masters may contact Port Health Office by radio over Channel 14.

IMMIGRATION CLEARANCE: Also see "Notices".
Port of Singapore Authority – Port Circular No. 70/87. Dated 15th September 1987.
IMMIGRATION CLEARANCE:

The Immigration Department has informed us that the contents in Port Circulars Nos. 87 of 1984 and 21 of 1987 regarding Immigration Clearance have been revised. We reproduce below the contents of the revised circulars. Port Circulars Nos. 87 of 1984 and 21 of 1987 are hereby superseded.

INWARD CLEARANCE **Appendix 'A'**

Physical Clearance Owners/Agents requesting clearance for vessels are required to contact the appropriate offices and to follow the procedures as outlined below:

Location for Clearance	*Office covering the Location*	*Telephone No./ VHF Channel*	
Eastern/Western Quarantine and Immigration Anchorages, PSA Wharves, Western Sector Anchorages	Immigration Finger Pier Checkpoint	2226012/VHF Channel 14	} 24 hours
Jurong Fishing Port	Immigration Office at the Jurong Fishing Port	2652818	
Sembawang Port	Immigration Woodlands Checkpoint	2692531	

The Owners/Agents contacting the Immigration Office regarding the ETAs of their vessels are required to give the following information. Such ETAs should be given at least 12 hours before the arrival of their vessels. The office for this purpose provides a 24-hour service.
- (i) Name of Vessel;
- (ii) Location for clearance of the Vessel;
- (iii) Expected time of arrival (ETA);
- (iv) Last/Next Port of Call;
- (v) Agent of Vessel;
- (vi) Owner of Vessel;
- (vii) Number of Passengers, if any, on board;
- (viii) Stowaway/Unauthorised persons/survivors, if any, on board.

Any vessel arriving in Singapore, excluding those vessels which have been granted Advance Immigration Clearance, must proceed to the prescribed Immigration and Quarantine Anchorage for Immigration Inward Clearance.

Such a vessel on arrival must exhibit the necessary signal for easy identification and speedy clearance. The Immigration signal is:
- (a) by day, the flags in the International Code of Signals corresponding to:
  - (i) the numerals "25" in respect of vessels not carrying passengers; or
  - (ii) the numerals "34" in respect of vessels carrying passengers.
- (b) by night, in every case, 2 green lights mounted vertically, 6 ft. apart, visible all-round the horizon for a distance of at least 2 miles.

Owners/Agents and Masters must ensure that their vessels have proper and secure gangways which are ready on arrival so that Immigration Officers can board their vessels immediately. The use of rope-ladders is discouraged. Co-operation in this regard will enable Immigration Officers to grant fast clearance.

Procedure on Board

The Master is required to submit 6 copies of the Crew List and if there are passengers, 4 sets of the Passenger List to the Clearing Officer who boards the vessel. The Master has to certify on the original Crew List that the details in the lists submitted are correct and that there are no stowaways or unauthorised persons on board.

If requested by the Clearing Officer, Seaman's Books/travel documents will have to be produced. Crew members may be required to present themselves before the Officer.

All passengers shall present themselves before the Clearing Officer. Disembarking passengers shall complete the Disembarkation Forms (IMM 23A). Agents may obtain the forms from the Immigration Field Division Headquarters.

The Master shall execute the Seaman's Security Bond, bonding crew members (except the Master) for $1,000/–each. If there are persons who are refused entry by the Clearing Officer, the Master shall execute the Security Bond, bonding such persons who are refused entry, for not less than $2,000/– each.

Summary action will be served on the Master giving him the names of all those who have been refused entry, and/or the breakdown figures of the transit passengers and disembarking passengers.

When clearance has been granted, the Master shall haul down the Immigration signal upon the Immigration Officer leaving the vessel.

OUTWARD CLEARANCE **Appendix 'B'**

Physical Checkout: Agents requiring physical checkout of vessels should contact the following offices:

Location of Vessel	*Office of Contact*	*Telephone No./ VHF Channel*	
Eastern/Western Quarantine and Immigration Anchorages PSA Wharves, Western Sector Anchorages	Immigration Finger Pier Checkpoint	2226013/VHF Channel 14	} 24 hours
Jurong Fishing Port	Immigration Office at the Jurong Fishing Port	2652818	
Sembawang Port	Immigration Woodlands Checkpoint	2692531	

Procedure

Vessels requesting Immigration Outward Clearance must either fly the "Blue Peter" in addition to the "25" or "34" signals during the day. By night to display 2 green lights in every case mounted vertically 6 ft. apart, visible all-round the horizon for a distance of at least 2 miles. This is to assist the Officers in locating the vessel.

The Master is required to submit 2 sets of Crew Lists and if applicable 3 sets of Passenger Lists to the Checking-Out Officer. The Master should certify on the Crew Lists that all crew are on board. Passengers if any and persons who have been refused entry will have to be presented to the Checking-Out Officer.

INWARD CLEARANCE **Appendix 'C'**

Advance Immigration Clearance

Procedure in Respect of Vessels which are Eligible for AIC.

(i) The Advance Immigration Clearance (AIC) facility is extended to merchant vessels over 75 n.r.t. and which are carrying not more than 12 passengers, but excluding fishing vessels.

(ii) Applications to be submitted at least 6 hours before arrival of vessel.

(iii) The Owner/Agent of the vessel shall obtain from the Master by radio or post the requisite information as outlined below.

(iv) The Owner/Agent shall submit 5 Crew Lists, Transit Passenger Lists (if any), Disembarking Passenger Lists (if any), in quadruplicate to the Immigration Checkpoint, Finger Pier Building, South Quay. All lists must be inserted with the necessary details and must be duly signed by the authorised representatives of the Owner/Agent of the vessel.

(v) If AIC is granted, one copy of each of the Crew List, Transit Passenger List, and Disembarking Passenger List bearing the appropriate Immigration endorsements can be collected by the Owner/Agent on execution of the relevant documents such as Seaman's or other Security Bonds. If any person is not permitted to land, the Owner/Agent will be required to inform the Master of the vessel accordingly and upon the ship's arrival must ensure that such person in fact does not disembark from the vessel.

(vi) After the arrival of the vessel, it shall be the responsibility of the Owner/Agent to submit immediately the Master's copy of the Crew List and/or Passenger List to the Immigration Finger Pier Checkpoint, bearing the signature of the Master of the vessel certifying that the details previously submitted through the Owner/Agent are correct. Whenever required, travel documents and Seaman's Books of the crew and/or passengers must be handed over to the Immigration Finger Pier Checkpoint, for checking within 4 hours of the vessel's arrival. Passengers will not land until their passports have been endorsed with the appropriate passes.

(vii) If the vessel is arriving from an infected port, provisional Radio Pratique should first be obtained from Port Health Authorities before AIC can be considered.

INWARD CLEARANCE **Appendix 'D'**

Advance Immigration Clearance for supply vessels plying between Singapore and oil rigs

1. *Description of Vessels:* Supply vessels based at Singapore which ply between Singapore and oil rigs situated in waters near the neighbouring countries.

2. (a) *A supply vessel arriving without change of crew:* The Owner/Local Agent of a supply vessel, after receiving from the oil rig Superintendent by radio, must submit 2 copies of the vessel's Crew List to the Immigration Officer at the Immigration Finger Pier Checkpoint at least 2 hours before the vessel arrives at the Port Limits. The Crew List should bear a written certification by the Owner/Local Agent that the vessel will be arriving at Singapore without any change of crew since its last departure from Singapore.

After submission of these certified Crew Lists, the Owner's/Local Agent's representatives will be required to execute the usual documents such as Seaman Security Bond.

(b) *A supply vessel arriving with a change of crew:* If the Owner/Local Agent is able to communicate with an arriving supply vessel, and if there has been a change of crew, the Owner/Local Agent must submit 5 copies of the Arrival Crew List to the Immigration Officer at Immigration Finger Pier Checkpoint, at least 12 hours before the vessel's arrival at the Port Limits. If Advance Immigration Clearance is given, the Owner's/Local Agent's representatives will execute the usual bonds and inform the vessel accordingly.

(c) *A supply vessel arriving with passengers:* No Advance Immigration Clearance is available.

(d) *A supply vessel arriving in Singapore from oil rigs located on the high seas or South China Sea:* No Advance Immigration Clearance will be granted.

(e) Any Advance Immigration Clearance for a vessel requiring Health Clearance will be subject to the condition that Health Pratique is provided by Port Health Authorities.

Shipmaster's Report: August 1987.

A Crew List is to be sent to the Agent in advance of the vessel's arrival and is to include – name, rank, nationality, Seaman's Book number and date and place engaged.

RADIO:

Radiotelegram Services to Ships (Radiotelephony):

Singapore Radio Working Schedules for MF/HF Radiotelephony:

1. The following schedules of watch-keeping will be operated by the Singapore Coast Station:

Singapore Radio	*Transmit Frequency (kHz)*	*Hours of Watch (UTC)*	*Ship Transmit Frequency (kHz)*	*Remarks*
9VG4	2182	Continuous	2182	Call, Reply and Safety
9VG87	4125	Continuous	4125	
9VG88	6215.5	Continuous	6215.5	
9VG89	8780.9	Continuous	8257	Common Calling Frequencies
9VG90	13162.8	Continuous	12392	
9VG91	17294.9	Continuous	16522	
9VG5	2760	Continuous	2527	Working Frequencies
9VG60	4369.8	Continuous	4075.4	
9VG63	8728.2	Continuous	8204.3	
9VG67	13156.6	Continuous	12385.8	

2. Singapore Radio maintains a continuous watch on Call, Reply, Safety and Common Calling Frequencies.

Navigational Warnings and Weather Bulletins:

1. Navigational Warnings and Weather Bulletins for shipping are broadcast from Singapore Radio at the following times:

Singapore Radio	*Frequency (kHz)*	*Times (UTC)*	*Remarks*
9VG 5	2760	0145	Navigational Warnings and Weather Bulletin.
9VG63	8728.2		
9VG 5	2760	0405	Navigational Warnings only.
9VG63	8728.2	0805	
9VG 5	2760	1345	Navigational Warnings and Weather Bulletin.
9VG60	4369.8		

2. The broadcast will normally be made on the two listed frequencies simultaneously except during transmitter maintenance periods when the broadcast will be made on the two frequencies consecutively.

Traffic Lists:

1. Singapore Radio will transmit Traffic Lists on the following two listed frequencies simultaneously except during transmitter maintenance periods when the list will be broadcast on the two frequencies consecutively:

Singapore Radio	*Frequency (kHz)*	*Times (UTC)*
9VG 5	2760	0005, 0405, 0805 and 1205
9VG63	8728.2	
9VG 5	2760	1605
9VG60	4369.8	

Medical Advice to Ships:

1. A radio Medical Advice service is available to ships of all nationalities and no charge is made for this service.

2. Radiotelegrams requesting medical advice should state briefly and clearly the symptoms of the illness of the person affected and contain a brief description of the contents of the medical chest carried by the ship. Such telegrams should be in English Language, be signed by the Master of the ship and addressed "Radiomedical Singapore".

3. In very urgent cases, the urgency signal (PAN) may be used in order to ensure priority over all other communications, with the exception of those relating to distress calls.

MF and HF Telephone Service:

1. General. The MF and HF radiotelephone service is available continuously to ships at sea, subject to radio propagation conditions, and provided that the ships are suitably equipped.

Ships wishing to contact Singapore Radio may do so on any of the calling carrier frequencies listed under "Radio Working Schedules" above.

After establishing contact, the call will be booked. Both the coast and ship station will then change over to any one of the following frequencies as agreed upon by both stations (depending on the position of the vessel and the time of day) prior to connecting the telephone subscriber.

Singapore Radio	*Transmit Frequency (kHz)* Coast	Ship	*Remarks*
9VG52	2780	2685	
9VG61	4376	4081.6	
9VG62	6509.5	6203.1	
9VG64	8762.3	8238.4	Connection to the telephone system on demand
9VG65	8790.2	8266.3	
9VG66	13147.3	12376.5	
9VG68	17270.1	16497.2	
9VG69	17356.9	16584	
9VG70	22630.1	22034.1	

Maritime Radiotelex service available.

Enquiries regarding the Maritime Mobile Services may be made to the Supervisor at either Singapore Radio or the International Telephone Exchange as appropriate, or in writing to Telecoms, Comcentre, Exeter Road, Singapore 0923.

VHF: VHF Radio Telephony transmitting and receiving Channels used within the Port of Singapore. All the stations offer a 24-hour service.

Station	*Frequency* (MHz)	*Channel*	*Functions*
Singapore Port Operations	156.60	12	VHF Channels for reporting ETAs, departures and location of ships within the Port.
Singapore Port Operations	157.00 161.60	20	Pilotage Service and information.
Jurong Control	157.10 161.70	22	Berthing/unberthing at Jurong Commercial Wharves and reporting of movements within the Jurong area.
Sembawang Control	157.05 161.65	21	Pilotage Services and Berthing/ Unberthing in East Johor Strait within Singapore Port Limit.
Bukom Operations	156.95 161.55	19	Berthing/unberthing at Pulau Bukom and Shell SBM.
Pu. Ayer Chawan Operations	156.25 160.85	5	Berthing/unberthing at Pulau Ayer Chawan, Mobil SRC Refinery and Esso SBM.
Waterboats	156.90 161.50	18	Supply of fresh water to vessels at anchor.
Port Health or Immigration	156.70	14	Relevant Services.
Singapore Radio	156.80	16	Distress, Safety & Calling Channel.
	157.20 161.80	24	
	157.30 161.90	26	
	157.40 162.00	28	Public Correspondence via TAS Exchange.
	157.25 161.85	25	
	157.15 161.75	23	Alternative Call and Reply Channel.
	157.35 161.95	27	
Singapore Refinery Centre	156.95 161.55	5	Berthing/unberthing at Pulau Merlimau and PSA SBM.
Marine Police	156.35 160.95	7	Request for assistance from Marine Police. (Also see "Police/Ambulance/ Fire").
	157.05 161.65	21	

Notice: Port Circular No. 88 of 1987.
Issued by P.S.A. 30th October 1987.

NOTIFICATION OF ARRIVAL AND VHF REPORTING PROCEDURES:

1. This Port Circular supersedes Port Circular No. 49 of 1981.
2. With immediate effect, the Owner, Agent, Master or person-in-charge of every vessel of 500 g.r.t. or more which intends to enter the Port of Singapore shall notify the Port Master at least 12 hours and not more than 24 hours before the arrival of such vessel by any of the following means:

(a) Radio telegram	Addressed to "PORTMASTER SINGAPORE".
(b) Telex	Addressed to "PORT MASTER" Telex No. RS34970 Answer Back PORTPM RS 34970
(c) Telefax	Addressed to "PORT MASTER" Telefax No. 3212016.

2.1 The Owner, Agent, Master or person-in-charge of such a vessel coming from a nearby port with less than 12 hours steaming time to Singapore, shall immediately on departure from such port notify the Port Master by one of the means of communication mentioned above.

3. *Notification*

In notifying the Port Master as provided above, the Owner, Agent, Master of person-in-charge of the vessel shall provide the following information:

(a) Name of vessel.
(b) Nationality and call sign.
(c) Gross registered tonnage (g.r.t.).
(d) Date and estimated time of arrival.
(e) Height of vessel which shall be the height of the vessel measured vertically from the waterline of the vessel to the highest point of the vessel including its cargo, structure or equipment on board.
(f) Name of local shipping agency.
(g) Last port and next port of call.
(h) Any condition affecting the navigation of the vessel such as defective propulsion machinery, defective steering equipment, excessive list, awkward tows and including fire or hazards on board.
(i) Whether or not vessel is in a damaged condition.
(j) Whether or not pilotage service is required on arrival.
(k) Draft of vessel if pilotage service is required.
(l) Dangerous chemicals in bulk (this item shall apply with effect from 1st December 1987 to a vessel carrying those dangerous chemicals listed in Chapter 17 of the International Maritime Organisation's (IMO) International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code). See Port Circular No. 87 of 1987 entitled "Tracking of Chemical Carriers" – See "Notices".

4. *VHF (Very High Frequency) Radiotelephone Report*

4.1 The Master of every vessel of over 300 g.r.t. or every tug engaged in towing or pushing, if the combined g.r.t. of the tug and tow or vessel(s) being pushed exceeds 300 g.r.t., intending to enter the Port of Singapore shall with immediate effect report to Singapore Port Operations on VHF Channel 12 when:

(a) Approaching from the East, on crossing meridian 104° 10′ E. (hereby called 'ME 1') or one hour's steaming time away from the Easternmost point along the Singapore Port Limit whichever is the earlier; or
(b) Approaching from the West, on crossing meridian 103° 30′ E. (hereby called 'MW 1') or one hour's steaming time away from the Westernmost point along the Singapore Port Limit whichever is the earlier; or
(c) Approaching from the South, one hour's steaming time away from the Southernmost point along the Singapore Port Limit.

4.2 The report required to be made under paragraph 4.1 above for the arriving vessel shall contain the following information:

(a) Name of vessel.
(b) Gross registered tonnage (g.r.t.).
(c) Whether the vessel will be arriving from the East, West or South.
(d) Date and estimated time of arrival at a particular Pilot boarding ground, a particular anchorage or berth.
(e) Height of vessel as defined in paragraph 3(e) above.
(f) Type of vessel.
(g) Draft of vessel if pilotage service is required.

5. The Master of such vessel shall, in addition to the requirements in paragraph 4, report to the designated Communications Centre/ Control Station specified in the 1st schedule of this circular.
6. When such a vessel anchors or moors within the port limits of Singapore and its approaches, the Master shall report immediately to the designated Communications Centre/Control Station (specified in the 1st Schedule) the date, time and location at which the vessel is so anchored or moored. Masters of vessels cleared by Immigration/ Health Authorities are required to notify the designated Communications Centre/Control Station of their intentions to shift to a berth or to an anchorage and whether they require pilotage services.

6.1 The anchored position shall be reported in the form of a bearing and distance from one of the following reference points:

(a) *Eastern Sector*	*Reference Point*
Eastern Explosive Anchorage	Katong Beacon Lat. 1° 17′ 39″ N. Long. 103° 53′ 18″ E.
Eastern Special Purposes Anchorage	
Small Craft Anchorage	
Laid-up Vessels Anchorage	
Eastern Petroleum Anchorage (B)	
Man-of-War Anchorage	
Eastern Working Anchorage	
Eastern Petroleum Anchorage (A)	
Eastern Quarantine and Immigration Anchorage	
Explosives Anchorages for Lighters and Barges	

(b) *Western Sector*	*Reference Point*
Western Working Anchorage	Rimau Beacon Lat. 1° 15′ 36″ N. Long. 103° 48′ 30″ E.
Western Petroleum Anchorage(A)	
Western Petroleum Anchorage (B)	
Western Quarantine and Immigration Anchorage	
Reserved Anchorage	
Pasir Panjang Coastal Anchorage	
Dangerous Goods Anchorage	

(c) *Jurong Sector*	
Western Jurong Anchorage	Sultan Shoal Lighthouse Lat. 1° 14′ 23″ N. Long. 103° 38′ 59″ E.
West Jurong Petroleum Anchorage	
Chemical/Gas Carriers Anchorage	
Sultan Shoal Quarantine and Immigration Anchorage	
Selat Pauh Anchorage	

(d) *East Johor Strait*	
Awaiting Pilotage Anchorage	Johor Shoal Buoy Lat. 1° 18′ 53″ N. Long. 104° 05′ 00″ E.

7. When a vessel that is anchored or moored within the Port Limits of Singapore and its approaches, ceases to be so anchored or moored or is to be moved within the Port Limits of Singapore, the Master shall immediately report such event or intention to the designated Communications Centre/Control Station (Specified in the 1st Schedule) giving the following:

(a) Name of vessel.
(b) Gross registered tonnage (g.r.t.)
(c) Type of vessel.
(d) Height of vessel as defined in paragraph 3 (e) above.
(e) Present location.
(f) Destination.
(g) Inform whether he requires pilotage service.

7.1 The Master of every vessel intending to leave Singapore shall inform the designated Communications Centre/Control Station of his intention just prior to the departure and shall give the information as specified in paragraph 7 above.

8. When it is not possible to operate the VHF radiotelephone equipment carried on board a vessel, compliance with paragraphs 4.1, 4.2, 5, 6 and 7 above shall be made by one of the means of communication mentioned in paragraph 2 above.

8.1 The Master shall at the earliest practicable time cause such VHF radiotelephone carried on board his vessel to be restored to effective operating condition.

9. In the interest of safety or navigation, ships transiting the Singapore Main Strait and not calling at Singapore are requested to voluntarily report to Singapore Port Operations on VHF Channel 12 the time of their passing "ME 1" and "MW 1" mentioned in paragraphs 4.1(a) and 4.1(b) above.
10. The directives and requirements stipulated above regarding the notification of a vessel's arrival and a vessel's VHF radiotelephone report are made pursuant to Regulation 3 of the Singapore Port Regulations 1977.

1ST SCHEDULE

Designated Communications Centre/Control Station	*Channel*	*Usage*
Singapore Port Operations	12	For request of pilotage service and reporting of arrival, anchored positions, movements, departures, as well as other navigational or shipping information.
	20	For request of pilotage service.
Jurong Control	22	For reporting of anchored positions, movements, departures, as well as other navigational or shipping information within the Jurong area.
Sembawang Control	21	For request of pilotage service and reporting of arrivals, movements, departures, as well as other navigational or shipping information within the East Johor Strait.

TUGS: PSA has a fleet of 17 tugs, they are:

Name	*Horsepower*	*Bollard Pull* (tonnes)
Tekun	1,200	14.5
Tenaga	1,200	15.7
Teman	674	9.2
Victory (V5)	2×1,500	26.0
Vigilant (V6)	2×1,500	29.0
Valiant (V7)	2×1,500	32.5
VST 1	2×1,276	21.0
VST 2	2×1,276	22.0
VST 3	2×1,276	21.8
VST 4	2×1,276	20.5
Vanguard (V8)	2×1,500	32.5
Vertex (V10)	2×1,500	28.0
Valour (V9)	2×1,500	28.5
Viking (V11)	2×1,500	27.5
Alpha 1	2×1,900	26.0
Alpha 2	2×900	18.0
Alpha 3	2×900	18.0

Shell operates 2 tugs approximately 1,500 b.h.p. A number of privately owned salvage tugs make the port their base.

Tugs join anywhere in port limits by pre-arrangement with Pilots. Normally ship's line used. All PSA and Shell tugs carry tow ropes for use if required. PSA charge for use of tow rope.

BERTHING: Vessel's Agents should submit to Authority a Schedule "A" (Application for Berth) giving overall length, maximum draft alongside, cargo particulars, ETA and ETD of, and Dangerous Cargo Declaration listing out dangerous cargo (including petroleum products and explosives) on board vessel at least 48 hours before berth required.

BERTHING FACILITIES:

NOTE: All depths are reduced to Chart Datum unless otherwise stated.
*Only controlling depths that are shallower than the depths alongside are listed.

Keppel Wharves (PSA): ✓

Berth No.		*Length of Berth* (m.)	*Depth Alongside (Year surveyed)* (m.)	**Controlling Depth in Approaches* (m.)
K11	converting	167	10.1 (1985)	—
K11A	to container	93	7.1 (1984)	—
K12	berths.	168	10.2 (1985)	—
K15		222	10.6 (1985)	—
K16		135	10.6 (1985)	—
K17		139	10.5 (1985)	—
K18		159	10.5 (1985)	—
K19		158	8.4 (1985)	—
K20		151	8.4 (1985)	—
K21		150	8.4 (1985)	—
K22		169	8.3 (1985)	—
K23		122	6.0 (1986)	—
K24		172	7.1 (1986)	—
K25		117	7.3 (1986)	—
K27		172	8.4 (1985)	—
K28		183	8.5 (1986)	—
K29		152	10.8 (1985)	—
K30		137	10.0 (1986)	9.8 (1985)
K31		213	9.8 (1985)	—
K32		145	10.1 (1987)	9.8 (1985)
K33		147	10.0 (1986)	—
K34		159	9.8 (1986)	—
K35		203	9.9 (1985)	—
K36		170	10.0 (1986)	9.9 (1986)

Mechanical Equipment:

Type	Capacity (tonnes)	Unit
Locomotives		2
Railway Wagons		60
Lorries	7 to 10	9
Cranes	5 to 10	8
Prime Movers	40.0	10
Chassis		18
Forklifts – Diesel	3.6	61
	3.5	103
	2.5	39
	1.8	3
LMV	142.0	1
	32.0	1
Van-Carrier (Baby)	30.0	1
Freightlifters	8 to 10	7
P&H 140-T Crane	127.0	1
PSA Vulcan	120.0	1

Tanjong Pagar Container Terminal: ✓

Berth No.	*Length of Berth* (m.)	*Depth Alongside (Year surveyed)* (m.)	**Controlling Depth In Approaches* (m.)
C1	305	12.6 (1986)	—
C2	340	12.6 (1986)	—
C3 (Ro/Ro Berth)	Chainage		
	10-300	12.6 (1986)	—
	0-15	12.2 (1987)	—
C4 (Feeder Berth)	238	9.5 (1986)	—
C5	304	13.2 (1986)	—
C6	305	13.0 (1986)	—
C7	305	13.0 (1986)	—
C8	213	10.0 (1986)	—
C9	172	10.0 (1986)	—
C10	205	10.1 (1986)	—
C13	247	12.4 (1985)	12.2 (1985)
C14	300	12.4 (1985)	12.2 (1985)

Features of the Ro/Ro Berth No. C3

Wharf Length : 30 m.
Type : Electrically operated Adjustable Ramp
Safe Working Load : 60 tonnes
Safe Working Length : 28.8 m.
Width : 8.4 m.

Height and Span of Container Quay Cranes:

Height of Boom	*At MHWS*	*At Wharf Level*	*Berth No.*
Hitachi Crane Nos. 1 to 6	29.8 m.	28 m.	C5, C6, C7
Mitsubishi Crane No. 7	32.8 m.	31 m.	C7
Hitachi Crane Nos. 8 to 11	29.8 m.	28 m.	C1, C2, C3
Mitsubishi Crane Nos. 12 to 18	32.8 m.	31 m.	C1, C2, C13, C14

Outreach of Crane from Seaside Rail:

Hitachi Crane Nos. 1 to 6 and Nos. 8 to 11 – 38.1 m.
Mitsubishi Crane No. 7 and Nos. 12 to 18 – 38.1 m.

Mechanical Equipment:

Type	Capacity (tonnes)	Unit
Container quay cranes (see above)	30 to 35	18
Van carriers	30	20
Yard gantry cranes	30 to 35	41
Forklifts	2.5 to 3.5	94
Prime movers		111
Trailer/Chassis		217
Weighbridges		7
Heavy forktrucks		6

Telok Ayer Wharves (PSA): ✓

Berths	*Length of Berth* (m.)	*Depth Alongside (Year surveyed)* (m.)	**Controlling Depth in Approaches* (m.)
Finger Pier 1	75	4.0 (1985)	—
Finger Pier 2	75	5.0 (1984)	—
Finger Pier 3	45	6.6 (1985)	—
Marina Wharf 1	120	5.0 (1985)	4.2 (1985)
Marina Wharf 2	120	5.1 (1985)	—
Marina Wharf 3	120	5.3 (1985)	5.1 (1985)
Marina Wharf 4	120	5.0 (1985)	—

Sembawang Wharves (PSA): ✓

Berths	*Length of Berth* (m.)	*Depth Alongside (Year surveyed)* (m.)	**Controlling Depth in Approaches* (m.)
S1	228.2	10.5-11.3 (1986)	10.0 (1986)
S2	152.2	10.9 (1986)	10.0 (1986)
S3	152.2	9.6 (1986)	—
S4	121.7	9.2 (1986)	—
S5	167.4	9.6 (1986)	—
S6	136.0	10.8 (1986)	10.0 (1986)
S7	230.0	11.6 (1986)	10.0 (1986)

Equipment:

Type	Capacity (tonnes)	Unit
PSA forklifts	2.5	7
	3.7	13
Contractors' forklifts	3.7	4
	5.20	
	2.5 to 10	20

Pasir Panjang Wharves (PSA):

Berths	Length of Berth (m.)	Depth Alongside (Year surveyed) (m.)	*Controlling Depth in Approaches (m.)
Lighter Jetty			
Western Face	216	1.8 (1986)	—
Eastern Face	190	1.8 (1986)	—
Lighter Wharf:			
W5 – W6	545	1.7 (1986)	—
Transitional Berth	132	2.5 (1986)	—
P1A	100	7.0 (1986)	—
P1B	100	7.0 (1986)	—
P1C	100	7.0 (1986)	—
P2A	100	7.0 (1986)	—
P2B	100	7.0 (1986)	—
P2C	100	7.0 (1986)	—
P2D	131	7.7 (1986)	—
P3	197	10.6 (1986)	10.1 (1984)
P4A	197	10.6 (1986)	10.1 (1984)
P4B	196	10.6 (1986)	10.1 (1984)
P5A	100	7.3 (1986)	—
P5B/5C	200	7.0 (1987)	—

LASH Mothership Moorings – 3 mooring buoys.

Mechanical Equipment:

Type	Capacity (tonnes)	Unit
Cranes	10	2
	60	1
Forklifts – Diesel	2.7	22
	3.5	84
Forklifts	2.5	6
Freightlifters	5.5	3
	8	3
	10	4
	22.86	1
Trailers	40	3
Chassis		8
Prime movers		4
Weighbridge		1

In addition to PSA's mechanical equipment, cranes with capacity ranging from 5 to 60 tonnes are supplied by crane contractors as and when required.

Pulau Sebarok (Van Ommeren Terminal):

Berths	Length of Berth (m.)	Depth Alongside (Year surveyed) (m.)	*Controlling Depth in Approaches (m.)
No. 3	350	16.4 (1984)	16.0 (1983)
No. 4	220	12.3 (1984)	12.2 (1984)
No. 6	110	10.4 (1986)	7.0 (1986)

Jurong Commercial Wharves: (Also see "Developments").

Berths	Length of Berths (m.)	Depth Alongside (Year surveyed) (m.)	*Controlling Depth in Approaches (m.)
J1	172	5.0 (1981)	3.8 (1986)
J2	210	8.4 (1986)	8.2 (1986)
J3	210	8.5 (1986)	8.2 (1986)
J4	183	12.3 (1981)	—
J5	183	12.3 (1981)	—
J6	183	12.2 (1981)	11.0 (1981)
J7	183	11.8 (1981)	11.0 (1981)
J8	196	11.2 (1981)	11.0 (1981)
J9	196	9.8 (1986)	—
J10	196	10.4 (1986)	—
J11	197	10.7 (1986)	—
J12	275	10.6 (1986)	—
Coastal Berth (Fishery)	213	4.0 (1985)	3.8 (1986)

Mechanical Equipment:

Type	Maximum Rated Capacity per Unit	No. of Unit
Unloader cranes	450 tonnes/p.h.	3
	300 tonnes/p.h.	1
Suction type unloaders	100 tonnes/p.h.	2
	200 tonnes/p.h.	2
Scrap Unloaders	150 tonnes/p.h.	2

Pulau Seraya:

Berths	Length of Berths (m.)	Depth Alongside (Year surveyed) (m.)	*Controlling Depth in Approaches (m.)
1	250	13.1 (1987)	12.2 (1987)
2	250	13.0 (1987)	12.2 (1987)

CARGO HANDLING FACILITIES: *Keppel Wharves:* Vessels working only general cargo will normally be berthed at the Keppel Wharves. This is the largest of the 5 gateways of Port of Singapore Authority, having marginal wharves of 4.8 km. that are capable of accommodating 30 vessels at one time. There are well-ventilated transit sheds and warehouses totalling 133,400 sq.m., and 61,984 sq.m. of concrete hardstanding for open storage.

Tanjong Pagar Container Terminal: Length of 6 main berths is 1,909 m. Able to handle 6 third-generation vessels at one time. 18 container quay cranes of 35 tonnes average lifting capacity are available, feeder berth 238 m. for coastal vessels and a cross berth of length 213 m. The container freight stations, for stuffing and unstuffing operations presently have an approximate covered area of 34,779 sq.m. The stacking yard of approximately 28.5 hectares can accommodate some 31,000 TEUs stacked 2 to 5 high.

Bunker facilities are available. Bunker fuel can be pumped at the rate of 1,000 tonnes/h. through 18 in. diameter mains. There are 48 outlets along the quay. Marine and fresh water are also available.

Sembawang Wharves: The Port of Singapore Authority operates 5 berths at the Sembawang Wharves, situated North of Singapore. The length of the berths totals 822.67 m., with covered storage space available total 51,100 sq.m. It is geared towards handling of low-value, high volume homogeneous cargoes like bulk sawn timber, logs, grains and fertilisers. There is also 1 container quay crane of 35 tonnes lifting capacity.

Jurong Port: The port is a bulk-handling facility to serve the Jurong Industrial Estate. The marginal wharves of 1,792 m. can accommodate 10 ocean-going vessels. In addition, there is a 172 m. wharf for coastal shipping. There are 85,652 sq.m. of covered storage and 234,068 sq.m. of open storage space.

The terminal has facilities for the discharge of grain (by elevator), sugar, fertilisers, cement, clinker, sulphur, etc. Shore bulk-handling cranes are used.

The equipment includes 2 kangaroo crane unloaders with capacity of 350 – 450 tonnes/h. Two gantry type unloader cranes each with capacity of 450 tonnes/h. Grain silos with capacities up to 84,000 tonnes. 4 pneumatic grain handling units with discharging capability of 150 – 200 tonnes/h./unit. Two units of scrap iron unloaders capable of discharging scrap iron and pig iron at 150 tonnes/h.

Pasir Panjang Wharves: 2,320 m. of wharves which can accommodate 23 lighters, 6 LASH barges, 9 coastal vessels and 3 ocean-going vessels at any one time. There are 7 transit sheds covering 55,750 sq.m., 1 back-up shed 22,296 sq.m., 10 warehouses 163,108 sq.m. (of these 151,068 sq.m. outside the Free Trade Zone) and some 128,297 sq.m. of open storage area. 2 additional yards of 4.3 hectares and 1.4 hectares available.

Telok Ayer Wharves: This gateway caters for coastal vessels and lighters/barges. There is a total of 744 m. of wharves for lighters and coastal vessels. With land reclamation carrying on at this place, 5 new berths can accommodate vessels with a draft of up to 6.4 m.

BRIDGES:

Name	Vertical Clearance Above MHWS (m.)
Sungai Jurong Bridge	9.2
Bridge connecting Pulau Merlimau and Pulau Ayer Merbau	9.7
Bridge connecting Pulau Ayer Chawan and Pulau Ayer Merbau	9.2
Bridge connecting Pulau Merlimau and Pulau Seraya	10.0
Sungai Pandan Bridge	3.6
Benjamin Sheares Bridge – across Marina Bay Entrance	
North Channel	14.0
Middle (Main) Channel	10.0
South Channel	8.4
Benjamin Sheares Bridge – across Kallang Basin Entrance	
Main Channel	28.0
Singapore River	
Anderson Bridge	2.6
Cavenagh Bridge (centre of span)	2.7
Elgin Bridge (centre of span)	2.9
Coleman Bridge (centre of span)	2.0
Read Bridge	2.2-2.5
Ord Bridge (centre of span)	1.5
Clemenceau Bridge (centre of N. span)	2.1
(centre of S. span)	3.7
Kim Seng Bridge	1.6
Rochor River	
Crawford Bridge	2.2
Cable transporter	1.0
Water pipeline transporter	1.7
Kallang River	
Merdeka Bridge	4.4
Sir Arthur's Bridge	2.1
Sim's Bridge	2.6

Port Circular No. 45/85: *Dated: 28th May, 1985*

HEIGHT RESTRICTED AREA AT KEPPEL HARBOUR

1. In pursuance of Regulation 37(2) of the Singapore Port Regulations 1977, I hereby declare that as from 15th June, 1985, the waterway within the Keppel Harbour bounded by the following geographical co-ordinates shall be a Height Restricted Area (HRA):

	Latitude (N.)	*Longitude (E.)*	*Position*
(a)	01° 15.598′	103° 48.496′	Rimau Light Beacon
(b)	01° 15.748′	103° 48.410′	Berlayar Light Beacon
(c)	01° 16.050′	103° 50.028′	A position at West Wharf
(d)	01° 15.806′	103° 50.064′	A position at Pulau Brani
(e)	01° 15.408′	103° 49.933′	A position at Pulau Brani
(f)	01° 15.282′	103° 49.933′	A position at Sentosa

2. The HRA shall be a prohibited area for any vessel in excess of 52 m. in height.

3. The HRA shall be a restricted area for any vessel in excess of 48 m. but not more than 52 m. in height. The Owner, Agent or Master of such vessel shall prior to the vessel entering, shifting or leaving the HRA obtain the written approval of the Port Master and comply with such conditions as he may impose.

4. No vessel while within the HRA shall be modified to attain a height in excess of 52 m.

5. Subject to paragraph 4 the Owner, Agent or Master of a vessel which is to be modified to attain a height in excess of 48 m. while within the HRA shall prior to such modification give the Port Master notice in writing of the intention to modify and comply with such conditions as he may impose.

6. For the purposes of the Circular, the "height of a vessel" shall be the height of the vessel measured vertically from the waterline of the vessel to the highest point of the vessel including its cargo, structure or equipment on board.

STEVEDORES: Labour should be ordered by 0900 hrs. for 2nd shift (1500 to 2300 hrs.) on same day and by 1300 hrs. for 1st shift (0700 to 1500 hrs.) for next day, by 1100 hrs. for 3rd shift (2300 to 0500 hrs.) on same day.

Under normal circumstances no work is performed during meal hours, 1100 – 1200 hrs. and 1830 – 1930 hrs. unless the ship is classified as a "key" vessel or the Agent orders work during the meal hours.

MEDICAL: When infectious disease not suspected, permission will be granted by Port Health Officer to Agent to take doctor on board and remove the patient, if necessary, to hospital. Preferably as much notice as possible. Several hospitals, General Hospital, Gleneagles, Mt. Alvernia to name a few. Cholera, plague, etc., are not endemic in Singapore.

Also see "Radio" – Medical Advice to Ships.

TANKERS: Bunkering and discharge facilities available at Eastern and Western Petroleum Anchorages or installations at Pulau Bukom, Pulau Ayer Chawan, Tanjong Penjuru, Tanjong Berlayer, Jurong and Pulau Merlimau.

PSA operates a Slop and Sludge Reception and Treatment Centre at Pulau Sebarok with facilities for the disposal of slops, sludge, tank cleaning, water and dirty ballast. Also see "Pollution".

Smoking not permitted during period tanker alongside PSA wharves. Grades permitted for discharge along PSA wharves:

(a) marine diesel oil,
(b) fuel oil.

Shell

Pulau Bukom, 4.6 km. off the S.W. coast of Singapore – 10 berths and a single buoy mooring. Depth of water in approach is 18.3 m. LWOST. Fresh water, fuel oil, gas oil and diesel oil available.

Tank cleaning is carried out alongside or in Roads, as arranged with Pulau Bukom.

Shore tankage for slops/dirty ballast is limited to 15,000 cu.m. for all purposes. Each vessel is normally limited to 400 cu.m., although larger quantities *may* be accepted by prior arrangement, giving preferably 7 days' notice. Waxy slops are only received on wharves 6, 7 and 8. When waxy slops are on board for discharge, vessels are requested to advise Pulau Bukom 48 hours in advance in which case quantity must be stated. Waxy slops should be segregated if other slops are carried.

The refinery has a refining capacity of 23 million tonnes per annum. It manufactures LPG, petrol, aviation turbine fuel, kerosene, gas oil, diesel fuel, solvents, fuel oil, lub oil and bitumen for local and overseas markets. There are 200 oil storage tanks with over 3 million tonnes capacity. All grades of bunkers are available 24 hours a day.

Berths	*Max. Displacement* (tons)	*Max. Length of Vessel* (m.)	*Depths Alongside (Year surveyed)* (m.)	**Controlling Depths In Approaches* (m.)
No. 1	33,000	174	10.2 (1985)	—
No. 2	33,000	91	10.3 (1985)	—
No. 3	33,000	82	10.4 (1986)	—
No. 4	43,000	189	12.1 (1985)	—
No. 5	45,000	194	13.0 (1985)	—
No. 6	75,000	244	15.4 (1985)	14.1 (1983)
No. 7	65,000	183	13.1 (1982)	—
No. 8	84,000	244	13.4 (1983)	—
No. 9	33,000	186	13.4 (1985)	—
No. 10	84,000	265	16.0 (1982)	14.1 (1983)
		(min. length 172.2)		
No. 10A		49	4.9 (1982)	—
No. 10B		49	5.4 (1982)	—
No. 10C		76	6.1 (1982)	—
No. 11A		72	6.0 (1986)	—
No. 11B		71	6.0 (1986)	—
Shell SBM	353,784		25.2 (1974)	23.0 (1980)

Esso

Berth Loading Arms Throughputs and Products served:

Berth No.	*L/A No.*	*L/A Size* (in.)	*Total No.*	*L/A Type*	*Product Loading*	*Capacity (KBBLS)*
1	N.A. hose loading	N.A.	Nil	N.A.	Clean	3.0
					Solvent	1.7
					Dark	3.0
					LPG	0.6
2	N.A. hose loading	N.A.	Nil	N.A.	Lubes	2.4
					Solvent	1.7
					Clean	3.0
					Dark	3.0
3	1	10				
	2	10	4	Woodfield	Clean	7 – 8
	3	10		Autoflow	Dark	3 – 7
	4	10				
4	1	16			Clean	10
	2	16	4	Woodfield	Dark	10
	3	16		Autoflow	Dark	20
	4	10			Dark	10
5	1	16			Dark	10 – 20
	2	12			Dark	12
	3	12	6	Chicksan	Clean	12
	4	10			Clean	8
	5	12			Clean	12
	6	6			LPG	1.4
SHP	N.A.		Nil		Clean	1.4
	Hose	N.A.		N.A.	Dark	2.4

Berth approval limits for the Singapore Esso/Mobil SBM: September 1986.

The revised operating limits for the Singapore Esso/Mobil SBM are:

1. Vessels from 80,000 d.w.t. to 252,000 d.w.t. (Long Tons):

(1.1) Vessels with an arrival draft of 49 ft. (14.9 m.) or less can be moored at any time during day or night.

(1.2) Vessels with an arrival draft exceeding 49 ft. (14.9 m.) but less than 67 ft. (20.4 m.) can be moored during the day or night provided the tide is flooding.

(1.3) Vessels with an arrival draft up to 67 ft. (20.4 m.) salt water are accepted all year round.

(1.4) Vessels of 150,000 d.w.t. or less shall be fitted with at least 1 set of OCIMF standard bow chain stopper, bow mooring bollards or Smit bracket (last preferred) for securing 3 in. (76 mm.) diameter SBM mooring chain. Vessels exceeding 150,000 d.w.t. shall be fitted with 2 sets of the above mooring equipment.

(1.5) Ballasting concurrent with cargo discharging operations is preferred provided 2 valves segration between clean ballast tank (CBT) and cargo is available.

(1.6) If a vessel is unable to take ballast into its CBTs and discharge cargo simultaneously, then timely use of its segregated ballast tanks (SBT) is to be maximised so as to minimise the vessel's freeboard and to keep the vessel's trim below 20 ft. (6.1 m.) and its forward draft not less than 13 ft. (4 m.) at any time.

2. Vessels from 253,000 d.w.t. to 285,000 d.w.t. (Long Tons):

(2.1) Vessels with an arrival draft of 49 ft. (14.9 m.) or less can be moored at any time during the day or night.

(2.2) Vessels with an arrival draft exceeding 49 ft. (14.9 m.) but less than 67 ft. (20.4 m.) can be moored during the day or night provided the tide is flooding. *(Continued on next page)*

Refinery on an island Pulau Ayer Chawan 2.4 km. South of Jurong Industrial Complex. Refining capacity of 231,000 bbls. per day. Lubricant plant 7,000 bbls. per day. The jetty has an overall length of 982.1 m. and consists of 6 loading and bunkering berths. Ballast disposal facilities available.

Berth No.	*Design Vessels* (k.d.w.t.)	*Max. Vessel Displacement* (long tons)	*Max. Length*[2] (ft.)	*Max. Approach Velocity* (ft./min.)	(cm./sec.)	*Max. Angle of Impact on Fenders*	*Max. Freeboard*[5] (ft.)	*Depth Alongside* (ft.)	(m.)	*Tugs Required*[3]
1	0 – 1.7,[1] 3.5	2,500	300	25	13	10°	17.5	30.8	9.4	None
2	0 – 25	36,000	650	25	13	10°	38.5	41.6	12.7	2
3	10 – 48	62,000	800	20	10	10°	44.0	40.7	12.4	2
4	10 – 80[6]	100,000	1,000	17	9	10°	54.5	51.8	15.8	2
5	1.7 – 90[7]	110,000	1,000	26	13	10°	55.4	51.8	15.8	2
	120[4]	110,000	—	—			—	—	—	—
Solids Handling										
Pier	2.6 – 12	17,500	500	10	5	0°	N.A.	26.5	8.1	—
SBM	80 – 303[8]	—	366						21.6	2

Notes:

[1] Subject to max. displacement of 2,500 long tons at time of berthing.

[2] Lengths are approximate only, based on spacing of mooring points. Actual lengths are governed by minimum separation of 150 ft.

[3] For guidance only. Actual number of tugs is dictated by prevailing conditions.

[4] "Esso Orient" loaded to 90,000 d.w.t.

[5] Maximum freeboard includes height of manifold connection above deck.

[6] Up to 120,000 d.w.t. light loaded.

[7] 120,000 d.w.t. – 140,000 d.w.t. on spot basis only.

[8] Above 285,000 d.w.t. on spot basis.

(2.3) Vessels with an arrival draft up to 67 ft. (20.4 m.) salt water and an arrival displacement up to 324,803 long tons (330,000 metric tons) are accepted all year round.

(2.4) Vessels shall be fitted with 2 sets of OCIMF standard bow chain stoppers, bow mooring bollards or Smit brackets (last preferred) for securing 3 in. (76 mm.) diameter SBM mooring chains.

(2.5) Vessel must be able to take ballast into its CBTs and discharge cargo simultaneously with a minimum 2 valves segregation between CBT and cargo.

(2.6) During the *N.E. Monsoon season (November 1st to April 30th)* and throughout the duration of the vessel's discharging operations, the vessel must maintain a draft midship of not less than the vessel's sailing draft in light ballast condition or 26 ft. (7.9 m.), whichever is deeper. Also, the vessel's trim must not exceed 20 ft. (6.1 m.) and its forward draft must not be less than 16 ft. (4.9 m.) at any time.

(2.7) During the *S.E. Monsoon season (May 1st to October 20th)* and throughout the duration of the vessel's discharging operations, the vessel must take in additional ballast to maintain a draft midship of not less than the vessel's sailing draft in heavy ballast condition or 30 ft. (9.1 m.), whichever is deepest. Also, the vessel's trim must not exceed 20 ft. (6.1 m.) and its forward draft must not be less than 20 ft. (6.1 m.) at any time.

3. *Vessels from 286,000 d.w.t. to 303,000 d.w.t. (Long Tons):*

Vessels in this d.w.t range are accepted provided:

(3.1) The maximum arrival draft does not exceed 67 ft. (20.4 m.) salt water and the arrival displacement does not exceed 324,803 long tons (330,000 metric tons).

(3.2) The vessel has 2 tongue type bow chain stoppers complying with OCIMF's "Standards For Equipment Employed In The Mooring Of Ships At Single Point Moorings".

(3.3) The vessel must be able to take ballast into its CBTs and discharge cargo simultaneously with a minimum 2 valves segregation between CBT and cargo.

(3.4) All the year round and throughout the duration of the vessel's discharging operations, the vessel must maintain a midship draft of not less than 30 ft. (9.1 m.). Also, the vessel's trim must not exceed 20 ft. (6.1 m.) and its forward draft must not be less than 20 ft. (6.1 m.) at any time.

4. *Engine Readiness:*

After the vessel has been moored to the SBM, the duty SBM Operations Superintendent will provide the vessel's Master and/or Chief Engineer with a chart giving the predicted hours for tide changes during the vessel's stay at the SBM and requesting the vessel to have its engines on standby during such hours. "Kicks" of the vessel's engines will be executed to prevent the vessel from contacting the SBM.

5. *Tug(s) Assistance:*

The duty SBM Operation Superintendent will arrange for additional tug(s) assistance over and above those tugs used for mooring and/or unmooring if he deems these services are required to safeguard the SBM facilities and/or the vessel. Costs for these additional tug(s) will be for the vessel's account.

6. *Ore-Bulk-Oil (OBO) Carriers:*

For OBO Carriers discharging at the SBM, the vessel's Master and/or its Chief Officer must ensure that the vessel maintains stability within its safe operating limits (taking into account the effects of free liquid surfaces on stability) at all times during the vessel's stay at the SBM.

Cautionary Advices

To prevent damage to the SBM anchor legs and submarine pipe-line, use of anchors is prohibited in the SBM manoeuvring area. The vessel's anchors should be properly secured with chain-stoppers prior to approaching the SBM.

The SBM is located in a confined position with very limited space to swing a vessel. There is a 16 m. (chart datum) shallow patch marked by Bujor Buoy at a distance of 900 m. Southward of the SBM. In the SBM area, except for the approaching sector, there are spots of only 15 m. depth. The condition of the sea bottom is mainly sand and shells with scattered hard rocks and an aborted berthing at an advanced stage of the approach poses the risk of a grounding. Speed should not exceed 3 knots when approaching the Esso SBM. Cautious approach speed is necessary to control the vessel's motion with a minimum use of astern engine.

Berthing Restrictions: In view of the depth of the approach channel, the maximum permissible draft is limited to 67 ft. irrespective of the height of the tide. The tidal currents set 260° during flood tides with maximum rates of 2.3 knots occurring during ebb tides with maximum rates of 1.7 knots occuring during August and September. The specific gravity of sea water at the SBM varies between 1.019 and 1.022.

Berthing Procedure: From the pilot boarding location, vessels normally proceed slowly on an Easterly heading toward a point about 1 mile S.W. of the Ajax Shoal Light Buoy where the heading is changed toward the SBM manoeuvring area. Tugs normally join off Ajax Shoal and assist the vessel in slowing down and aligning her port bow to the SBM, heading the current.

The SBM Operation Superintendent, stationed on the forecastle, advises the bridge by walkie-talkie of the vessel's distance from SBM.

Mooring: The mooring consists of 2×150 ft. long×18 in. circumference nylon hawsers with chafing chains and pick-up lines.

A mooring boat takes the messenger lines from the ship and connects to the pick-up lines. (See "Plan"). Vessels are acceptable only if their fairleads or Panama chocks can receive the chafing chains and are installed in accordance with OCIMF guidelines. In this case the chafing chains are secured by means of shackles and snotters fastened to mooring bollards. Vessels of this kind should give ample notice to enable Esso Refinery to make the necessary arrangements.

Hose Connection: 2×16 in. over-the-rail hoses are connected to the ship's port side manifold by the mooring gang assisted by a winchman from the ship's crew.

Each hose has a butterfly valve and a standard 16 in. ASA flange. A clear working space of at least 20 in. is needed between the manifold and the deck, drip pan or other structure.

A minimum 13 tons SWL derrick is needed for disconnecting the hoses from a 250,000 d.w.t. tanker is light condition. The 16 in. tail hoses are 35 ft. long.

Caltex

Berth No. 1 (4 breasting dolphins) capable of handling vessels up to 100,000 tons displacement. Berth No. 2 (4 breasting dolphins) can handle any vessels exceeding 91.4 m. flat sides, up to 32,000 tons displacement. Night time berthing at the discretion of the Pilot.

Berth	*Max. Length of Berth* (m.)	*Depth Alongside (Year Surveyed)* (m.)	**Controlling Depth In Approaches* (m.)
No. 1	335	13.0 (1986)	12.6 (1987)
No. 2	183	13.6 (1986)	12.6 (1987)

Bunkering facilities are available at both berths, and water supply available at Berth No. 2 only.

Mobil

5 berths and a shared single buoy mooring (Esso/Mobil). Night time berthing at the discretion of the Pilot. At Berth No. 3 day-time berthing and unberthing only possible, on flood tide.

Berth	*Depth Alongside (Year Surveyed)* (m.)	*Draft* (m.)	*Max. Length* (m.)	*Displacement*	*Remarks*
1	14.2 (1983)	13.6	274	85,000/ 120,000	
2	13.1 (1983)	13.0	274	50,000	
3	12.4 (1983)	10.9	198	30,000	Vessels over 115 m. LOA subject to tidal conditions. Night berthing in ballast only.
4	9.4 (1983)	6.1	116	5,000	
5	13.7 (1983)	10.3	239	50,000	
(Pu. Pesek) SBM	—	20.3	366	285,000	(457 m. swing radius)

B.P. Refinery

Refinery with 3 berths situated at Tanjong Berlayer. Small jetty inside harbour known as Jetty No. 2 can receive small vessels up to 1,000 tonnes (Max. LOA 100 m.) as water depth only 6.3 m. below ACD.

Jetty No. 1 at S.W. side of Tanjong Berlayer can accommodate vessels up to 33,000 tons (Max. LOA 210 m. – 259 m.) at off-shore mooring where dredged channel 11.0 m. below ACD. Berthing cannot be effected for 43 days of year due strong tidal currents.

At Jetty No. 1A which is Northwards extension from Jetty No. 1 trunkway, vessels up to 5,000 tonnes (Max. LOA 140 m.) can be berthed; water depth 7.6 m. below ACD. Simultaneous mooring of vessels at Jetties No. 1 and 1A not allowed as floating hose used to connect Jetty No. 1 to ship at mooring buoys.

Bunkers and fresh water available.

Singapore Refining Co. Pte. Ltd.

Provides 5 berths for bunkering and other services on Pulau Merlimau, an island off the S.W. coast of Singapore. The marine berth can accommodate vessels up to 85,000 d.w.t. and 14 m. loaded draft, refining capacity 170,000 barrels per day. Night time berthing at Pilot's discretion. Fresh water available ex-pipe-line. Bunkers available by barge or pipe-line.

S.B.M. located 2.4 km. S.E. of Sultan Shoal Lighthouse in Selat Sinki. Max. size 320,000 d.w.t.

Berths	*Max. Length of Vessel* (m.)	*Depth Alongside (Year surveyed)* (m.)	**Controlling Depths In Approaches* (m.)
No. 1	290	15.7 (1986)	12.6 (1987)
No. 2	290	15.8 (1986)	12.6 (1987)
No. 3	160	11.0 (1986)	10.7 (1986)
No. 4	Barges	9.4 (1986)	—
No. 5	115	11.2 (1986)	7.3 (1986)
PSA SBM (Selat Sinki) 500 m. swing radius		23.0 (1986)	22.8 (1980)

Discharge of crude oil to S.R.C. Refinery. 2 flexible hoses of 600 mm. diameter.

SRC's SPM Questionnaire:

The following questionaire required to be answered by the Master of the vessel for discharging at SRC's SPM.

Answers must be provided at least 72 hours prior arrival.

AAA) ETA and draft Western pilot boarding ground 2.5 miles W.S.W. of Sultan Shoal Lighthouse.

BBB) Grade, pour point, quantity, stowage and discharge plan of cargo.

CCC) Does charter party require COW. If COW to be performed crude wash line must be prepared and tested before arrival.

DDD) If vessel has AKD bow stoppers for mooring.

EEE) Distance of fairlead to nearest mooring bitts. 2 sets mooring bitts required.

FFF) If vessel can provide dead slow engine movements on immediate order whilst secured to buoy.

GGG) If inert gas system and analysers fully operational.

Please prepare:

HHH) Port derrick maximum SWL (minimum requirement 10 tons).

III) (1) 2×16 in. manifolds on port side with flanges minimum 35 mm., maximum 40 mm. thick.

(2) Supply of compressed air at 6 kg./sq.cm. minimum during whole discharge operation near gangway.

JJJ) Gangway on starboard side.
KKK) Cargo tanks depressurised on arrival for ullaging, sampling, etc., Conducted by SRC Officials. Therefore grateful for their refreshments or/meals.
LLL) Accommodation and meals for TMS Mooring Master during entire period of discharge.

Be advised that:
MMM) Immobilisation of engines not permitted during stay at SPM.
NNN) Radar and log required for berthing.
PPP) Bunkering not permitted if no inert gas system.

Please advise:
QQQ) By VHF to SRC on Hague Plan Channel 5 your confirmed ETA at least 6 hours before.
RRR) Free water in individual cargo compartments.
SSS) Slops amount and if loaded on top.
TTT) If slops required to be discharged.
VVV) Next Port of Call.

Gatx Terminals

Vessels berth at marine trestle 1,400 ft. (427 m.) offshore. One berth for vessels up to 85,000 d.w.t., max. LOA 320 m. with depth alongside 14.0 m. and 1 for vessels of 5,000 d.w.t., max. LOA 116 m. with depth alongside 13.2 m. 46 operating pipe-lines serve the main berth and 9 pipe-lines serve the subsidiary berth. The terminal handles chemicals and petrochemicals. Total capacity 646,570 barrels in 85 tanks.

Main Berth Docklines	2× 75 mm. dia.
	3×100 mm. dia.
	34×150 mm. dia.
	6×200 mm. dia.
	1×300 mm. dia.
Subsidiary Berth Docklines	6×150 mm. dia.
	2×200 mm. dia.
	1×250 mm. dia.

Bunkers and fresh water are not available.

Petro Chemical Corporation of Singapore

Location: 01° 15.9′ N., 103° 43.0′ E.

Berths	*Max. Length of Vessel* (m.)	*Depths Alongside (Year Surveyed)* (m.)	**Controlling Depth In Approaches* (m.)
No. 1 (Unloading)	Barge	2.5 (1981)	—
No. 2 (Solids)	165	9.5 (1981)	—
No. 3 (Liquid)	130	8.6 (1985)	—
No. 4 (Liquid)	140	12.2 (1985)	12.0 (1985)
No. 5 (Liquid)	140	11.8 (1986)	—

Paktank Singapore Terminal (Pte) Ltd.

One berth at Pulau Busing in position 01° 14.4′ N., 103° 44.9′ E. Max. LOA 352 m. Depth alongside 17.9 m.

*See "Berthing Facilities".

DENSITY: Usually between 1019 and 1022, unaffected by tide or temperature variations. Variation due to periodic heavy run-off of rain water.

FRESH WATER: Fresh water available at any point of PSA's wharves. PSA also has a fleet of 9 waterboats to supply fresh water to ships anchored within the port limits.

Port of Singapore Authority Port Circular No. 95/87.
Dated 9th November 1987.

SUPPLY OF FRESH WATER TO VESSELS WITHIN SINGAPORE PORT LIMITS

1. Shipowners and Shipping Agents of vessels in need of fresh water are requested to place their orders for water through the telephone, telefax or telex. The details are as follows:–

Telephone No.:	3212906 or 321907
Telefax No.:	3212017
Telex No.:	RS 42075
	Answer Back: WBSERV 42075

2. When placing the orders, the following information is necessary for the provision of Waterboat Services.
   a. Name of Vessel.
   b. Call Sign.
   c. Flag.
   d. Type.
   e. g.r.t.
   f. Freeboard.
   g. ROI (Vessel's Rate of Intake).
   h. Date/Time Service Required.
   i. Quantity.
   j. Location.
   k. ETA (Estimated Time of Arrival).
   l. ETD (Estimated Time of Departure).
   m. Agent.
   n. A/C No. (Agent's Credit Account No.).
   o. Contact Person and Tel. No:
      Office:
      Residence:
3. Shipowners and Shipping Agents are to note that, as vessels are serviced on a first-come first-served basis, they are advised to place the orders as early as possible.
4. Master, Owners or Agents of vessels waiting for water supply may contact the Waterboat Office on the VHF Channel 18 to confirm the arrival of the waterboat. Vessels are requested to keep a listening watch on the same VHF Channel so that the Waterboat Office can inform them of any changes on the arrival time of the waterboat.
5. To facilitate the waterboats in locating the vessels requiring water, Masters of vessels are requested to display the following port signals prior to the scheduled time of supply.
   (a) DAY – International Code Flags "CD ZERO".
   (b) NIGHT – At or near the masthead, 2 all round lights in a vertical line, not less than 2 m. apart, the upper being green and the lower white.
6. Port Circulars Nos. 58 of 1983, 21 of 1985 and 22 of 1985 are hereby superseded.

FUEL: All grades available alongside PSA wharves and ex-installation, otherwise by barge. Marine diesel oil. Heavy fuel oil at 180 cst to 380 cst. Blended fuel from 60 cst to 180 cst.

FIRE PRECAUTIONS: Normal precautions with respect to cargo vessels, vessels under repair, etc. Fire boats available. Oil companies apply own regulations at installations.

GANGWAY/DECK WATCHMEN: Recommended, particularly in Roads. Agents normally arrange. Cost varies.

Piracy: Vessels have been boarded by pirates whilst travelling at full speed.

On one occasion 5 hooded people armed with machetes boarded the vessel and made their way into the Master's cabin. The Master at that time was on the bridge but came down to his cabin for a moment, when he was seized by the gang and repeatedly hit with machete's handles. Fortunately the Master only suffered minor injuries.

After a short time, having tried unsuccessfully to force the ship's safe, the group of pirates abandoned the vessel, stealing only relatively small items like binoculars, the Master's passport, etc.

The Master reported the incident to the Singapore Authorities.

Report: February 1987.

At 0230 hrs. one of our vessels was boarded by 6 pirates when passing the Philip Channel in Singapore Strait. The pirates were armed with cutlasses and stole cash and other valuable items. The Master and the crew did not attempt any resistance and nobody was harmed. The pirates disembarked immediately after stealing whatever they could carry.

OPENING/CLOSING HATCHES: Conventional hatches by stevedores. Mechanical hatches usually by ship's crew.

CERTIFICATES: If dangerous drugs on board, an export authorisation from country of origin and an import authorisation from country to which drugs being conveyed should be available for sighting and endorsement.

All vessels	Certificate of Registry, Tonnage Certificate, Certificate of Insurance or other financial security as applicable under CLC '69 and International Loadline Certificate or equivalent.
Passenger Ships	Passenger Safety Certificate issued under SOLAS Conventions.
Cargo Ships	Safety Equipment Certificate (if over 500 g.r.t.) or equivalent. Safety Radiotelegraphy Certificate or Radiotelephony Certificate whichever is applicable.

CUSTOMS ALLOWANCES: Tobacco: For crew and adult transit passengers – first day of arrival 50 cigarettes or 15 cigars or other tobacco 60 gms.; and for each subsequent day to the maximum of 7 days. 25 cigarettes or 7 cigars or other tobacco 30 gms.

Wines: 1 bottle per day to maximum of 8 days. Spirits: 0.875 bottle (in opened bottles) on first day of arrival and 0.125 bottle per day for rest of 7 days.

CARGO GEAR: Possession of valid test certificates. At PSA wharves all cargo gear should be inspected by an Authorised Port Officer before use.

IDENTIFICATION CARDS: Sect. 22 (1) (c) of Ordinance provides for issue of Seamen's Identification Card as set out in First Schedule to the Immigration Regs. 1966, but rarely issued nowadays. Normally accept passports, discharge books or any identification cards issued by Masters of vessels for purpose of granting shore leave to Crew members, provided these documents sufficiently identify person concerned.

Gate Passes issued against crew list at wharves and installations. No passes required from roads, although some form of identification advisable.

CONSULS: Consuls, Embassies and High Commissions. Arab Republic of Egypt, Argentina, Australia, Austria, Bangladesh, Belgium, Brazil, Bulgaria, Burma, Canada, People's Republic of China, Denmark, Finland, France, Federal Republic of Germany, Great Britain, Greece, India, Indonesia, Ireland, Israel, Italy, Japan, Democratic People's Republic of Korea, Republic of Korea, Malaysia, Netherlands, New Zealand, Norway, Pakistan, Panama, Philippines, Poland, Romania, Saudi Arabia, Spain, Sri Lanka, Sweden, Switzerland, Thailand, Union of Soviet Socialist Republic, USA.

REPAIRS/DRY DOCKS: All types of repairs (hull, engine and electrical including navigational aids) carried out. Facilities also available for repairs out afloat while vessel in anchorages.

Keppel Harbour (Keppel Shipyard Ltd.)

Dry Docks	*Max. Size at Block Height* (m.)	*Depth Over Sill at LWOS* (m.)
Keppel Hr. King's	261.06 × 28.65	7.27
Keppel Hr. Queen's	187.76 × 25.91	5.03
Keppel Hr. No. 1	117.04 × 13.72	1.65
Keppel Hr. No. 2	132.69 × 15.24	2.86
Pu Hantu Floating Dock (Pu Keppel)	190.00 × 33.00	8.00 (Moulded Depth)
Tuas Temasek	301.00 × 52.00	7.40
Tuas Raffles	355.00 × 60.00	7.40

Repair Berth	*Length of Berth* (m.)	*Depth Alongside (Year Surveyed)* (m.)	**Controlling Depth In Approaches* (m.)
Chermin Wharf	130	4.2 (1983)	—
Cable Wharf	112	6.6 (1983)	—
Oil Wharf	152	7.2 (1983)	6.3 (1983)
Main Wharf	274	5.6 (1983)	—
South Wharf	210	9.1 (1983)	—
East Wharf	152	6.6 (1983)	—
Tuas (Keppel Shipyard Ltd.)			
Temasek Pier (East)	280	7.2 (1984)	6.0 (1983)
Finger Pier (West)	280	7.4 (1984)	6.0 (1983)
Finger Pier (East)	300	7.2 (1984)	6.0 (1983)
Raffles Pier (West)	430	6.0 (1984)	—
Raffles Pier (East)	230	6.3 (1982)	6.0 (1983)

Tugs:

Name	Horsepower
1. Keppel Sembilan	1,600 × 2
2. Keppel Sa-Puloh	1,600 × 2
3. Keppel Tujoh	1,460 × 2
4. Keppel Lapan	1,460 × 2

Launches and Barges: 3 Launches. 4 Barges.

Pulau Samulun (Jurong Shipyard Ltd. – Repair Division):

Dry Docks	*Depth* (m.)	*Length* (m.)	*Width* (m.)
No. 1	10	270	40
No. 2	12	350	56
Slipway	—	100	25

Mooring Quays	*Length* (m.)	*Depth Alongside (Year Surveyed)* (m.)
South Quay (Tg. Kling)	330	5.2 (1982)
South Quay (Tg. Kling)	270	7.2 (1982)
South Quay (Pulau Samulun)	471	6.0 (1987)
West Quay (Tg. Kling)	240	5.0 (1982)
West Quay (Pulau Samulun)	225	5.4 (1981)
East Quay (Pulau Samulun)	90	3.0 (1981)

Tanjong Kling (Jurong Shipyard Ltd. – New Ship Division):

Dry Dock	*Depth* (m.)	*Length* (m.)	*Width* (m.)
No. 1	11 (1975)	350	56

Fitting Wharves	*Depth* (m.)	*Length* (m.)
North Quay	6 (1972)	130
East Quay	5 (1975)	336

Tugs:

Name	Horsepower
1. Bunga Tanjong	2,000
2. Bunga Raya	1,600
3. Bunga Mawar	3,200

Tanjong Gul (Hitachi Zosen Robin Dockyard (Pte) Ltd.):

Dry Dock	*Depth* (m.)	*Length* (m.)	*Width* (m.)
No. 1	11.5	350	60
No. 2	11.5	300	60
Slipway	—	90	40

Mooring Quay	*Length* (m.)	*Depth Alongside (Year Surveyed)* (m.)	**Controlling Depth In Approaches* (m.)
No. 1	217	6.4 (1985)	—
No. 2	351	8.9 (1985)	5.6 (1974)
No. 3	270	7.2 (1985)	5.6 (1974)
No. 4	185	6.4 (1985)	5.6 (1974)
Landing Quay	100	3.6 (1985)	—

Tug: Maju, 3,300 h.p.

Tanjong Gul (Mitsubishi Singapore Heavy Industries (Pte) Ltd.):

Dry Dock	*Approach Depth* (m.)	*Length* (m.)	*Width* (m.)
Repair Dock	7.0	380	80
Slipway	—	85	48

Tanjong Gul (Mitsubishi Singapore Heavy Industries (Pte) Ltd.):

Mooring Quay	*Length* (m.)	*Depth Alongside (Year Surveyed)* (m.)	**Controlling Depth In Approaches* (m.)
South Quay (S.W.)	300	9.6 (1983)	9.3 (1983)
South Quay (N.E.) (continuous run)	375	7.6 (1983)	7.4 (1983)
West Quay	135	5.0 (1983)	—

Tug: Tiger Orchid, 3,200 h.p.

*See "Berthing Facilities" – Note.

Sembawang Shipyard (Sembawang Shipyard Ltd.):

Dry Dock	*Length* (m.)	*Entrance Width* (m.)	*Max. Depth Over Block* (m.)
Sembawang Premier Dock	384.0	64.0	9.0
King George VI Dock	318.5	39.6	13.6
Floating Dock:			
No. 1	177.3	26.2	7.6
No. 2	123.4	19.7	5.5
Resident Floating Dock	290.0	48.0	8.5

Berthing facilities total 2,026 m.

Sembawang Towing Co. (Pte) Ltd., a subsidiary of Sembawang Holdings (Pte) Ltd., has a fleet of 9 tugs (based in the shipyard) which operate throughout the East Johore Strait.

Tugs:

Name	*Horsepower*	*Bollard Pull* Tons
1. Sea Mastiff	2 × 1,600	40
2. Sea Basset	2 × 1,600	40
3. Sea Husky	2 × 1,600	40
4. Sea Cheetah	2 × 1,350	36
5. Sea Jaguar	2 × 1,300	35
6. Sea Setter	2 × 920	27
7. Sea Terrier	2 × 920	27
8. Sea Musang	2 × 550	15
9. Sea Leopard*	2 × 1,350	36

*Presently on charter to PSA in Southern waters.

SURVEYORS: A.B.S., B.V., Det Norske Veritas, Lloyd's Register, N.K.K., G.L., Polski Register Stratkow, China Corporation Register of Shipping and Salvage Association.

REPATRIATION: Ships' Agents responsible for repatriating seamen. Mercantile Marine Office undertakes repatriation of distressed British seamen on behalf of Board of Trade, United Kingdom, whenever necessary. Seamen who hold proper documents which ensure entry into their countries of origin, citizenship and destination are normally granted Special Passes after discharge for purpose of repatriation.

AIRPORT: 20 km. from city. Regular and frequent services to all parts of the world.

TIME: GMT plus 8 hours. No seasonal change.

HOLIDAYS: Work can be arranged on all 10 Public Holidays. New Year's Day; Chinese New Year; Hari Raya Haji; Good Friday; Labour Day (1st May); Vesak Day; National Day (9th August); Deepavali; Hari Raya Puasa; Christmas Day.

POLICE/AMBULANCE/FIRE: City Police 999; Fire/Ambulance only, 328111; Flag signal: CB3. VHF Channels 12 or 16. PSA Police 2712211 ext. 2222; Fire ext. 2209 or ext. 2333; Ambulance 2712211.

We quote the contents of Port Circular No. 123 of 1984 issued by the Port of Singapore Authority:

Ships Requiring Police Assistance:

1. The shipping community is hereby reminded that vessels within Singapore waters can directly contact Marine Police for assistance on those matters falling within police jurisdictions.

2. For such assistance, vessels should establish radio contact on:

	VHF Channel	*Hours*	*Ship Tran./Rec. Frequencies*	*Call sign (Voice)*
	21	24	157.05/161.65 MHz	Marine Police
or	7	24	156.350/160.950 MHz	Marine Police

Giving the following information:

(a) Name of vessel.
(b) Location of vessel.
(c) Nature of emergency.
(d) Nature of police assistance required.

3. Vessels within the port and requiring immediate police assistance shall display following signals in a conspicuous position to facilitate easy identification by the Marine Police:

By Day: International Code "CB3".
By Night: Red-Red-White (Red on top).

4. Vessels may in addition sound on their whistle or siren at intervals of about 1 minute three prolonged blasts to attract the attention of Marine Police personnel in the vicinity.

5. The shipping community is advised to illuminate and step up surveillance onboard its vessels, particularly those moored just outside the outer limits of the port, to discourage unauthorised boarding of its vessels.

TELEPHONES: Available on board vessel at PSA wharves only.

GENERAL: Master of any vessel in territorial waters of Singapore shall obey any signal from a preventive vessel and any instruction from Officers of Customs. Customs Officers shall have free access to any part of vessel and have powers to mark, lock or seal any dutiable goods on import including sea stores.

SERVICES: Following additional services available: Cleaning and preparing ship's tanks. Cleaning, scaling and painting. Insulation. Interior decorating and furnishing. Refrigeration and air-conditioning. Chemical cleaning of boilers, etc. SCAMP underwater cleaning service. Compass adjusting and DF Calibration. Radar and Radio servicing depots.

SHORE LEAVE: No restriction on crews landing after Immigration and Health formalities have been satisfactorily completed. With rare exception (Communist Country Crews), all *bona fide* crew of a vessel allowed shore leave on strength of their passports, discharge books or identification cards.

The following circular was issued in May 1973 by the Singapore Port Authority.

"In line with the Government's decision that action should be taken to deal with the 'long-hair' problem as part of a campaign against undesirable alien influences, the Port of Singapore Authority would be most grateful for your co-operation in implementing this decision by advising all your employees, including ships' officers and Crew members, wishing to come ashore to be more tidy in their general appearance.

"To assist you to decide whether an individual's hair is long, the following definition of long hair may be used as a guide:

(i) Hair reaching below an ordinary shirt collar;
(ii) Hair covering the ears;
(iii) Hair falling across the forehead and touching the eyelashes."

Shipmaster's Report: July 1987.

There is a good hovercraft service from Pulau Bukom to Pasir Panjang, also a less frequent ferry service.

POLLUTION: No oil or mixture containing oil shall be discharged into Singapore waters from any vessel. The Master or person in charge of the vessel committing such an offence shall be liable on conviction to a fine not less than 500 dollars and not exceeding 500,000 dollars or to imprisonment for a term not exceeding 2 years or to both such fine and imprisonment.

No refuse, garbage, waste matter, substance of a dangerous or obnoxious nature or trade effluents to be discharged from any vessel into Singapore waters. The Master or the person in charge of the vessel committing such an offence shall be liable on conviction to a fine not exceeding 10,000 dollars or to imprisonment for a term not exceeding 2 years or to both such fine and imprisonment.

If any oil or mixture containing oil is discharged into Singapore waters:

(a) for the purpose of securing the safety of the vessel or of preventing damage to the vessel or her cargo, or of saving life; or

(b) is found to be escaping, or to have escaped into Singapore waters from a vessel in consequence of damage to the vessel, or by reason of leakage, the Master or the person in charge of the vessel shall report the occurrences to the Director of Marine and the Port Master. Failure to do so shall be an offence and shall be liable on conviction to a fine not exceeding 5,000 dollars.

Slop Reception: The P.S.A. Slop and Sludge Reception and Treatment Centre at Pulau Sebarok has a total tank capacity of 82,000 cu.m.

Berthing facilities consist of 2 piers – Piers 1 and 2. Depths alongside: Pier 1 – 12.8 m., Pier 2 – 11.0 m.

The Centre can accommodate vessels up to an overall length of 264 m. and a displacement of 45,800 tonnes

7 barges with a total capacity of 8,500 cu.m. are used for the reception of slops/tank cleaning water at anchorages and transported to the Centre for disposal.

Communications: VHF Station Channel 61.

Safety and security at the island is well provided and maintained by both the Authority's Police Force and Fire Brigade.

Also see "Shipmaster's Report" and "Tankers – Shell".

DELAYS: Normally none. Occasional congestion due to prolonged rainy weather or other abnormal conditions.

NOTICES: *Port of Singapore Authority – Port Circular No. 21 of 1986. Dated 26th March, 1986.*

CHANGE OF ANCHORAGE FOR HEALTH/IMMIGRATION CLEARANCE AND USE OF ANCHORAGES FOR VESSELS ARRIVING FROM EAST AND WEST

1. *Health/Immigration Clearance*

Masters, Owners and Agents of vessels are hereby informed that with effect from 0600 hrs. on 7th April, 1986, the use of the Western Quarantine/Immigration Anchorage for Health/Immigration Clearance will cease until further notice.

Vessels arriving from the East and requiring Health and/or Immigration Clearance are to make use of the Eastern Quarantine/ Immigration Anchorage.

Vessels arriving from the West and requiring Immigration Clearance shall continue to make use of the Sultan Shoal Quarantine/Immigration Anchorage. Vessels requiring Health Clearance are to make use of the Eastern Quarantine/Immigration Anchorage.

2. *Use of Anchorages in the Eastern and Western Sectors*

Vessels arriving from the East can make use of the appropriate anchorages in the Western Sector, and likewise vessels arriving from the West can make use of the appropriate anchorages in the Eastern Sector. However, before doing so, they should ensure that they have obtained the necessary Health and/or Immigration Clearances.

3. *Use of Controlled Anchorages*

Masters/Owners/Agents requiring to anchor their vessels in any of the following anchorages are to obtain prior permission from the respective Units of the Port Master's Department:

(i) Eastern Explosives Anchorage (ii) Western Dangerous Goods Anchorage	Permits Section
(iii) Eastern Special Purposes Anchorage (iv) Western Reserved Anchorage	Enforcement Unit
(v) Laid-up Vessels' Anchorage (vi) Selat Pauh Anchorage	Shipping Unit

Each application should be made in advance by letter or telex stating the name, g.r.t. and maximum draft of the vessel, the required anchorage, the purpose and the period of stay at the anchorage. Vessels intending to use the Eastern Explosives or Eastern Special Purpose Anchorage are to state the height of the highest point of the vessel (inclusive of cargo and superstructure) above waterline.

4. *Pilotage*

Vessels requiring pilotage services are required to use the appropriate Pilot Boarding Grounds specified below:

(i) Vessels from the West proceeding directly to Berths/Anchorages in the Western Sector (with Advance Clearance)	Western Boarding Ground (Sultan Shoal)
(ii) Vessels from the West proceeding directly to Anchorages in the Eastern Sector (with Advance Clearance)	Eastern Boarding Ground A
(iii) Vessels from the West proceeding directly to Keppel Wharves (with Advance Clearance)	Eastern Boarding Ground A or Western Boarding Ground (depending on the tidal stream)
(iv) Vessels from the East proceeding directly to Berths/Anchorages (with Advance Clearance)	Eastern Boarding Ground A or B as arranged with the Pilotage Section.
(v) Vessels from the East requiring Health/ Immigration Clearance	Eastern Boarding Ground A

5. The foregoing directives are issued pursuant to Section 65 of the Port of Singapore Authority Act (Cap 173) of 1970.

6. Port Circular No. 117 of 1985 is hereby cancelled.

Port of Singapore Authority – Port Circular No. 56/86
Dated 1st September, 1986.

PLACING OF PILOTAGE ORDERS.

1. This circular supersedes Port Circular No. 125 of 1984 with effect from 1st October, 1986.

2. To reduce the congestion of telephone/VHF calls, shipping Agents are requested to place pilotage orders and any amendment by telex. However, the pilot office will accept orders/amendments by telephone if the orders/amendments are placed after normal office hours or during weekends and public holidays, for the convenience of shipping Agents. In cases where Agents are unable to send the orders by telex, they may also place the orders by telephone.

3. The telex and telephone numbers for placing of pilotage orders/ amendments are as follows:

Service Area	*Telex*	*Telephone*
East Johor Strait	RS 35962 Answer back SEMCO 35962	5427112/ 5427113
All other areas in the port	RS 22896 Answer back PORTPM 22896 RS 34970 Answer back PORTPM 34970	3211764/ 3211765/ 3211766

4. A "hands-on" operation to replace the present system of processing pilotage orders has been designed to enhance services to port users through more efficient means of capturing, processing and dissemination of shipping information. The system will enable direct entry of pilotage orders received through telephone/telex/VHF into the computer. When implemented, this will eliminate the present 'chit' system and pave the way for more use of PSA Databox facility, by which port users may be able to place their orders or amendments through their own personal computers linked to PSA mainframe computer. Users will also be able to benefit from real time information. (More details on the PSA Databox facility will be released at a later date). Operationally, the "hands-on" system will change the present flow in the processing of pilotage orders. Replies to pilotage orders placed through telephone/telex will be standardised.

5. With effect from 1st October, 1986, the current practice of confirming pilotage orders by telephone while the Agent holds on to the telephone line will be discontinued. Upon receipt of a pilotage order by telephone, the pilot office will process and return the call by telephone or telex. Agents are required, as in telex orders, to standby for up to 30 minutes for the confirmation of acceptance of the order from the pilot office. The pilot office will also provide a *reference number* for an accepted pilotage order which is replied through the telephone. In exceptional circumstances where no confirmation is received after 30 minutes, the Agents are required to call the pilot office to check on the orders.

6. With effect from 1st October 1986, Agents need only provide full information for pilotage orders for the *first pilotage move of the vessel in the port.* For *all subsequent moves of the vessel within the same call,* reduced information is required. Other particulars such as flag, type, g.r.t. and length need only be given if there are changes.

7. We are also pleased to inform that the following waivers of pilotage amendments charges for amendments to vessel's ETAs by Masters will be given:

(a) For the *first* amendment/confirmation to ETA (of less than 6 hours notice) which is within half an hour of the service required time.

(b) For subsequent amendments, which are within 15 minutes of the *first* confirmed ETA.

8. To take advantage of the waivers, it is recommended that Masters/ Agents update vessels' ETAs, if required about 6 to 7 hours before service is required. Masters/Owners/Agents are advised that amendments to ETAs other than that stated in paragraph 7 (a) and (b) giving less than 6 hours notice will be chargeable.

9. For pilotage service to berths/terminals other than the Port Authority's wharves, Agents are required to ensure the availability of such berths/ terminals by liaising closely with the respective private operator.

Port of Singapore Authority – Port Circular No. 121/87.
Dated 23rd December 1987.

ADVANCED PORT CLEARANCE SCHEME.

1. This circular replaces Port Circular No. 43 of 1985. The main amendments in this circular are made to follow the revised PSA Act (Chapter 236) and to change the anchorage.

2. The Advanced Port Clearance Scheme is available to vessels of more than 20,000 g.r.t. which intend to stay in port for not more than 8 hours for the purpose of changing crew or taking ship supplies, other than bunkers, water or cargo.

3. The Sultan Shoal Quarantine and Immigration Anchorage shall remain to be the anchorage for such purpose until 31st January 1988. Thereafter, from 1st February 1988, the anchorage for such purpose shall be the Changi General Purposes Anchorage which is bounded by the following co-ordinates:

Latitude (N)	*Longitude (E)*
01° 20.000′	104° 03.167′
01° 20.000′	104° 03.706′
01° 18.880′	104° 04.820′
01° 18.880′	104° 04.281′
01° 19.550′	104° 03.667′

4. The application for an advanced port clearance can only be made not more than 24 hours prior to the arrival of the vessel. The application must be accompanied by the following documents:–

(a) A confirmation by the Master that his vessel is in possession of all relevant and valid statutory and safety certificates. The format for the confirmation is in Appendix I attached. The Master's confirmation shall be made through his Owner, Agent or local representative via telex or telegram and addressed to the Port Master, Singapore.

Note:

The required statutory and safety certificates are as follows:–

(i) International Load Line Certificate;
(ii) Passenger Ship Safety Certificate (applicable only to passenger ships);
(iii) Cargo Ship Safety Equipment Certificate;
(iv) Cargo Ship Safety Radiotelegraphy Certificate;
(v) Cargo Ship Safety Construction Certificate;
(vi) Exemption Certificate (if applicable);
(vii) Permanent or Provisional Certificate of Registry;
(viii) "Certificate of Fitness" issued pursuant to the International Maritime Organisation (IMO) Gas Carrier Code or the IMO Bulk Chemical Code (applicable to a Liquefied Gas Carrier or a vessel carrying dangerous chemical in bulk whichever the case may be);
(ix) Certificate of Insurance or other security satisfying the requirements of Article VII of the International Convention on Civil Liability for Oil Pollution Damage, 1969. (This is mandatory for any vessel carrying in bulk cargo of more than two thousand tons of any persistent oil).

(b) The Owner, Agent or local representative making the application shall furnish the Port Master with a letter of undertaking. The format for the undertaking is in Appendix II below. The applicant is required to comply with a list of conditions stated on the obverse side of the letter of undertaking. (Copies of the letters of undertaking are available at the Port Clearance Office, 3rd storey, Tanjong Pagar Complex).

(c) The applicant is required to complete and submit the standard General Declaration Forms for vessel's arrival and departure.

(d) The prevailing port dues chargeable to the vessel should be settled at the time of application.

5. All declarations, confirmations and undertakings furnished to the Port Master should be in all respects true and accurate. Section 121 of the PSA Act, Chapter 236 states that:–

> "Any person who makes any negligent mis-statement or any statement which is false in any material particular in any return, claim or other document which is requested or required by the Authority shall be guilty of an offence and shall be liable on conviction to a fine not exceeding $5,000 or to imprisonment for a term not exceeding six months or to both."

6. The undersigned (Port Master) can be contacted at Tel. No. 3211552 for clarification with regard to the Advanced Port Clearance Scheme.

Appendix I

DECLARATION BY THE MASTER VIA TELEX OR CABLE MADE THROUGH HIS OWNER/AGENT OR LOCAL REPRESENTATIVE CONCERNING VALIDITY OF THE VESSEL'S CERTIFICATE.

To: Port Master, Singapore

I confirm that my vessel________________________

(Name, Flag, Callsign, g.r.t.)

is in possession of all relevant and valid statutory and safety certificates. I undertake to keep all these certificates on board at all times. My vessel was granted port clearance by the relevant Authorities at her last port of call,____________________________________

and is dated______________________________.

I shall ensure that my vessel is in all respects seaworthy to enter and to leave the Port of Singapore.

My vessel's ETA_______________ ETD__________________

(Date and Time) (Date and Time)

Master:__________________

Date:____________________

Appendix II

APPLICATION FOR AN ADVANCED PORT CLEARANCE CERTIFICATE FOR VESSELS TAKING SHIP SUPPLIES (OTHER THAN BUNKERS OR WATER OR CARGO) AND/OR CHANGING CREW MEMBERS AND WHICH STAY FOR NOT MORE THAN 8 HOURS IN PORT.

To: Port Master, Singapore

1. We____________________________________Agent of the

(Name of Agent)

"____________________________________"undertake to abide by the

(Name and Flag)

conditions stated on the obverse side of this form in consideration of your granting an advanced port clearance to the abovementioned vessel.

2. We hereby declare that the information given by us in the vessel's arrival and departure General Declaration forms are to the best of our knowledge and belief true and correct.

3. We are fully aware of the contents of Section 121 of the Port of Singapore Act, Cap 236, and the consequences of making any false statement.

____

Signature of the Authorised Representative of the Agent

____

Name and NRIC No.

____

Name and Address of the Agent

____

Telephone No.

________________ ______________________________

Date PSA CREDIT A/C No.

FOR OFFICIAL USE

GRT checked against L/R: ____________________

Reported anchoring time ____________date____________

Reported departure time ____________date____________

Remarks:____________________________________

CONDITIONS ATTACHED TO THE UNDERTAKING (Contained on the Obverse Side)

1. If vessel stays over 8 hours in port, the extra dues payable under Tariff item 1d shall be paid to the Port of Singapore Authority. The vessel will immediately be shifted to another anchorage if the Port Master so directs.
2. Dues paid to the Port of Singapore Authority shall not be refundable in the event of the vessel deciding not to call into Singapore.
3. If the gross tonnage of the vessel was subsequently found to be different from that declared, the difference in the dues chargeable to the vessel shall be settled by the Agent named overleaf.
4. If the vessel does not arrive/depart within 48 hours from the time of the issue of the Advance Port Clearance Certificate, it shall be returned for cancellation and a re-application made if so required.
5. The vessel's last Port Clearance Certificate and her crew and passengers lists shall be submitted within 2 days after the arrival of the vessel.
6. To comply with the requirements of the Director of Marine (Marine Department) and other relevant Authority e.g. Immigration Department. For Customs requirements, the vessel should have on board the documents to account for the cargoes on board.
7. If the Advance Port Clearance Certificate is not used, it shall be returned to the Port Clearance Office immediately. If the vessel is being officially detained in port or if the Port Master so requires, the same shall be returned to the Port Clearance Office immediately.
8. To advise the Master to report to the Port Operations Centre or the appropriate Control Station via VHF radio upon vessel's arrival and again prior to leaving the anchorage.
9. Not to load the vessel with any bunkers, or water or cargo.
10. Submit a copy of the Master's Letter of Confirmation when applying for the Advanced Port Clearance Certificate.
11. To inspect the validity of the relevant safety and statutory certificates and return the Advanced Port Clearance Certificate immediately to the Port Master if any of the safety and statutory certificates of the vessel are found invalid and to report so to the Port Master.

Port of Singapore Authority – Port Circular No. 87/87
Dated 30th October 1987.
TRACKING OF CHEMICAL CARRIERS.

1. For the purpose of this Port Circular, a chemical carrier means any vessel which is carrying or has previously carried as a whole or part of the last cargo in bulk any of those dangerous chemicals listed in Chapter 17 of the International Maritime Organisation's (IMO) International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code).
   Note: A vessel shall remain to be considered as a chemical carrier so long as any of her cargo tanks or cargo system is not completely cleared and removed of any such residual cargo.
2. Pursuant to Regulation 3 of the Singapore Port Regulations 1977, the Owner, Agent, Master or person-in-charge of a 'chemical carrier' as defined in paragraph 1 above, is hereby directed that with effect from 1st December 1987, he shall notify the Port Master as follows:
   a) For an arriving vessel, the notification shall be given under paragraph 3 (1) of Port Circular No. 88 of 1987 (see "VHF"), entitled "Notification of Arrival and VHF Reporting Procedure", and in the manner as described in paragraph b (iv) below; or
   b) For a vessel in port which intends to load any of those dangerous chemicals referred to in paragraph 1 above, the notification shall be given by Telex No. RS 34970 or by Facsimile No. 3212016. Such notification shall contain the following information in the format shown below:

      TRACK CHEM

      i) Name of vessel.
      ii) Gross registered tonnage (g.r.t.).
      iii) Place of loading e.g. GATX Terminal Berth.
      iv) Indicate "Chemical (s) under IBC Code" – if vessel intends to load or has on board any of those dangerous chemicals listed in Chapter 17 of the IMO IBC Code; or
      indicate "NA" if vessel does not have such cargoes or is not considered as a "chemical carrier". (See Note in paragraph 1.)
3. For your reference, we enclose the list of dangerous chemicals (13 pages in all)(Editor's note – not reproduced due to length of list), which appear in Chapter 17 of the IMO IBC Code (1986 Edition). You are advised to keep the list updated. If you have any queries on this subject, please call 3212295 or 3211185 or write to:

   Port Master's Department,
   No. 21-07 Tanjong Pagar Complex,
   7B, Keppel Road,
   Singapore 0208.
   Telex: RS 34970.
   Fax: 3212016.

Port of Singapore Authority – Port Circular No. 105/87.
Dated 19th November 1987.
HEIGHT RESTRICTED AREA OFF CHANGI/BEDOK

1. Pursuant to Section 67 (c) of the Port of Singapore Authority Act (Cap 236), 1985, the Port Master hereby directs that with immediate effect, no vessel whose height measured vertically from the waterline of the vessel to the highest point of the vessel including its cargo, structure or equipment on board, exceeds 15.0 m. shall enter, transit or anchor in the sea off Changi/Bedok Area.
2. The area referred to above is bounded by the following co-ordinates:

	Latitude	*Longitude*	*Buoy*
From a position at (1)	01° 18′ 26″ N.	103° 56′ 26″ E.	
to a position at (2)	01° 17′ 30″ N.	103° 59′ 05″ E.	'Padang'
to a position at (3)	01° 17′ 39″ N.	104° 01′ 12″ E.	'Airway'
to a position at (4)	01° 21′ 06″ N.	104° 03′ 07″ E.	'Angler'
to a position at (5)	01° 23′ 12″ N.	104° 00′ 24″ E.	
to a position at (6)	01° 23′ 21″ N.	104° 00′ 03″ E.	

thence along the coastline to the point of origin.

3. Port Circulars No. 26 of 1981 and No. 47 of 1982 are hereby superseded.

Port of Singapore Authority – Port Circular No. 116/87.
Dated 7th December 1987.
TALL VESSELS' MOVEMENTS SOUTH OF CHANGI AIRPORT

1. This is a repetition of Port Circular No. 25 of 1987 with amendments shown by a line in the margin (Not shown). Port Circular No. 25 of 1987 is hereby cancelled.
2. The Civil Aviation Authority of Singapore (CAAS) has requested that Shipyard Operators and Masters, Owners or Agents of vessels with heights exceeding 100 m. intending to conduct intra-port movements (within port limits) which require to transit, leave or move between Longitude (A) 103° 54′ E. and Longitude (B) 104° 05′ E., South and East of Changi Airport, to notify CAAS at least 3 working days in advance of such movements (see "Plan"). This is to allow CAAS to issue a NOTAM (Notice to Airmen) in order to keep aircraft pilots

informed of such tall vessels' movements. The following procedure will come into effect on 1st May 1987.

3. *Prior to Movement*
   a) When notifying CAAS as requested above, the following information is to be provided:
      i) Vessel's Registered Name/Call Sign.
      ii) Height of Vessel above waterline.
      iii) Intended Route/Timings (with drawings of routes if possible).
      iv) Point of Origin/Final Destination.
   b) The information should be sent by mail, telex or telefax to the following:

Operations Officer (Air Navigation Services)
Operations Division,
Civil Aviation Authority of Singapore,
P.O.Box 1, Singapore Changi Airport
Singapore 9181.
Telex: RS 21231 AVIATEL.
Fax: 5421231.

4. For clarification or urgent cases, please contact:

a) Office Hours
Operations Officer,
(Air Navigation Services),
Operations Division,
CAAS.
Tel: 5412403 or 5412434.

b) Outside Office Hours
Supervisor,
Changi Control Tower,
CAAS.
Tel: 5412410 or 5412416.

5. *On Passage*
   a) Masters of vessels with heights exceeding 100 m. above waterline intending to enter, transit or leave the area defined in Paragraph 1 of this circular are also required to report to Sembawang Control on VHF Channel 21 when passing the longitudes "A" or "B" mentioned above, or when entering or leaving the Traffic Information Area of Serangoon Harbour.
   b) When entering the area, the report required to be made shall contain the following information:
      i) Vessel's Registered Name/Call Sign.
      ii) Height of Vessel above water line.
      iii) Direction of Movement (Eastwards or Westwards).
      iv) Actual time of crossing Longitudes "A" and estimated time of crossing Longitude "B" or vice versa;
      or*
      Actual time of crossing Longitudes "A" or "B" and estimated time of entering Traffic Information Area of Serangoon Harbour;
      or*
      Actual time of leaving Traffic Information Area of Serangoon Harbour and estimated time of crossing Longitude "A" or "B".
      (*whichever is applicable).
   c) When leaving the area, a second report shall be made containing the following information:
      i) Vessel's Registered Name/Call Sign.
      ii) Actual time of crossing Longitude "A" or "B" or entry into Traffic Information Area of Serangoon Harbour.

6. For the purpose of this circular, the height referred to shall be the height of the vessel measured vertically from the waterline of the vessel to the highest point of the vessel including its cargo, structure or equipment on board.

7. In addition to the above reporting procedure, Shipyard Operators, Masters, Owners or Agents are reminded that every vessel of gross registered tonnage of 2,000 tons or above or of a height of more than 30 m. above her waterline are to comply with the Traffic Information System for vessels navigating in Serangoon harbour stated in Port Circular No. 90 of 1987.

Port of Singapore Authority – Port Circular No. 18/88.
Dated 3rd March 1988.
HEIGHT RESTRICTION FOR VESSELS ENTERING, TRANSITING OR ANCHORING IN THE EASTERN SPECIAL PURPOSES AND THE EASTERN PETROLEUM B ANCHORAGES.

1. Owing to the recent revision of anchorages which came into effect on 1st February 1988, Port Circular No. 106 of 1987 is amended as follows:–

1.1 Pursuant to Section 67 (c) of the Port of Singapore Authority Act (Cap 236), 1985, the Port Master hereby directs that with immediate effect, no vessel whose height, measured vertically from the waterline of the vessel to the highest point of the vessel including its cargo, structure or equipment on board, exceeds 49 m. shall enter, transit or anchor in the height restricted area in the Eastern Special Purposes and the Eastern Petroleum B Anchorages. (See "Plan").

1.2 The height restricted area referred to above is bounded by the following co-ordinates:

	Latitude	*Longitude*	*Buoy*
From a position at (1)	01° 18′ 18″ N.	103° 56′ 37″ E.	
to a position at (2)	01° 18′ 18″ N.	103° 56′ 45″ E.	
to a position at (3)	01° 17′ 30″ N.	103° 59′ 05″ E.	'Padang'
to a position at (4)	01° 17′ 39″ N.	104° 01′ 12″ E.	'Airway'
to a position at (5)	01° 16′ 38″ N.	103° 59′ 19″ E.	
to a position at (6)	01° 16′ 38″ N.	103° 56′ 37″ E.	

thence to the point of origin.

2. Port Circular No. 106 of 1987 is hereby superseded.

DEVELOPMENTS: Two conventional wharves at Keppel Wharves to be converted to container handling berths (Berth Nos. 42 and 43). Total length 535 m.

Studies are being made to strengthen the wharf decking at Berth Nos. 44 and 45 to moor feeder containerships.

The Port of Singapore Authority has ordered 10 × 40 ton container cranes with delivery between September 1988 and February 1989 for Tanjong Pagar.

GATX Terminals are to build a third berth to handle vessels of 10,000—15,000 d.w.t.

Berths No. K11 and K12 in Keppel Harbour to be converted to a single container berth. The new berth will be 335 m. in length and have a depth of 14.0 m. Completion expected August 1988.

SHIPMASTER'S REPORT: September 1983.
Ballast: Slop reception barges cannot receive slops at more than about 250 t.p.h. Message should be sent to Port Master 1 day before arrival with ETA and height above water and same information repeated to Port Operations Channel 12 three hours before arrival.

AUTHORITY: Port of Singapore Authority, PSA Building, 460 Alexandra Road, Singapore 0511. Postal Address: P.O.Box 300, PSA Building Post Office, Singapore 9111, Republic of Singapore. *Tel:* (65) 2747111. *Telex:* RS 21507. *FAX:* 2744677. *Cables:* "Tanjong" Singapore. *Contact:* Port Master. Senior Public Relations Officer (ext. 2524).

AGENT: Jardine Shipping Agencies, 200 Cantonment Road, Hex 12-05, Southpoint, Singapore 0208, Republic of Singapore. Tel: 2218011. Telex: RS 24179. Cables: "Jarship".

NOTES

Please also advise Shipping Guides Ltd.

Society Islands

BORA BORA (Vaitape): 16.31 S. 151.45 W.

DOCUMENTS: All vessels arriving in French Polynesia must first call for clearance at Papeete, or at Uturoa, or at Taiohae. See "Papeete" for documents required.

PILOTAGE: There is no pilotage station at Bora Bora; a Pilot will be provided at Papeete. Vessels are requested to advise their Agents at least 15 days before arrival of their ETA, length and draft of ship. In addition, Masters should confirm their ETA to the Port Captain of Papeete at least 3 days before arrival. Telegraphic address is Capitaine de Port, Papeete.

ANCHORAGES: Vessels may anchor in the port roads in depths of 34 m. – 21 m. Good holding ground in sand and coral.

RESTRICTIONS: Night pilotage is impracticable due to the absence of lighted navigation marks.

MAX. SIZE: Length 220 m., beam 30 m., draft 9 m.

HEALTH: Vessel should ask for Free Pratique by radio message to Sante Maritime Papeete, via coast station Mahina. This message to be sent 24 hours before arrival.

RADIO: Mahina Radio, call sign FJA, operating 24 hours a day on 500, 2182 and 8230 kHz.

TUGS: No tugs available at Bora Bora.

BERTHING: One quay, (Quai de Farepiti) 132 m. length, situated in Faanui Bay. Depth alongside 7.30 m. Only used by small warships, coasters and yachts. One other quay (Quai de Vaitape) 40 m. long and with depth alongside 4 m. Situated at Vaitape. Used by barges and coasters. These two quays were repaired in 1983.

MEDICAL: Doctor available and there is a local infirmary.

FRESH WATER: Not available.

FUEL: Not available.

CUSTOMS ALLOWANCES: No restrictions for crew members, but all tobacco and alcohol must be declared. Crew men going ashore may not take more than 2 packets of cigarettes.

AIRPORT: Situated 7 km. from Vaitape, only inter-island services.

TIME: GMT minus 10 hours. No change during the year.

HOLIDAYS: See "Papeete".

SHORE LEAVE: Allowed.

AUTHORITY: Port Autonome de Papeete, B.P.91, Papeete, Tahiti, French Polynesia. *Tel:* 425189. *Telex:* PPT Port 444 FP. *Contact:* Harbour Master.

PAPEETE: 17.33 S. 149.34 W. (See Plan)

DOCUMENTS:

Required by Port Health:
Maritime Declaration of Health (form provided by the Pilot).

Required by Immigration (1 copy of each):
Crew List.
Lists of Passengers Disembarking.
Lists of Passengers in Transit.

Required by Customs (2 copies of each):
Manifest of Cargo for Discharge.
Provisions List.
Mail List.
Crew Personal Effect List.
Bonded Stores List.
Ship's Spares List.
Crew List.
List of Passengers Disembarking.
List of Passengers in Transit.
List of Animals to be Unloaded.
List of Animals in Transit.
List of Plants.
Complete Cargo Manifest.

Required by Merchant Marine Authorities:
1 Declaration of Safe Rules on board ship (form supplied by Pilot).

Required by Port Captain (1 copy of each):
Entry Declaration (form supplied on arrival).
Crew List.
List of Passengers Disembarking.
List of Passengers Embarking.
List of Passengers In Transit.
List of Cargo to be Loaded, Unloaded or Transhipped.

Dangerous Cargo: If carrying dangerous cargo for Papeete (or in-transit) send cable to Port Captain prior to arrival.

On arrival give list of dangerous cargo to Pilot.

PILOTAGE: Compulsory. Vessels are requested to advise their Agents at least 3 days before arrival giving their ETA, length, width and max. draft of the ship; tonnage of cargo for discharge and breakdown by hold; dangerous articles and/or explosives on board and amount of fuel and water needed. In addition, Masters must give their ETA 24 hours before arrival to Capitainerie du Port, Papeete. Pilot station and pilot launches are equipped with VHF and must be contacted on Channel 12 when within 30 miles. Pilot launches have grey painted hull with a white band, with wheelhouse on the fore part. International code flag signals are used to call Pilot. Pilot boards about 1.5 miles from the entrance channel. There is no anchorage outside the port for ships awaiting a Pilot.

Pilotage available 24 hours.

ANCHORAGES: Vessels up to 170 m. length can anchor in the port roads in depths of 18 m. – 25 m. Good holding ground in mud.

APPROACHES: The entrance channel is marked by occulting green range lights mounted on red and white striped towers which are aligned 149° T. This range is normally visible at approximately 11 miles, although sometimes obscured by floodlights from the nearby public swimming pool.

The barrier reef on the East side of the pass can easily be seen.

Entrance to the harbour, through the barrier to the East, and shoal water to the West, is marked by lighted buoys, during bad weather there is often a heavy sea on the shoals (5 m. deep).

In the pass itself, the current generally sets outward. When Northeasterly winds are particularly strong, the water level in the lagoon can rise considerably. Northwest or Westnorthwest setting currents may attain strengths of up to 5 knots, creating dangerous, if not impossible navigating conditions for small craft. No warning signals concerning permission to enter or leave the pass exist.

In case of doubt regarding tidal conditions in the pass, contact can be established with the Harbour Master's Office on VHF Channel 12, or HF, frequency 2638 kHz.

Interior reefs are marked. Passage once into the harbour is marked by a pair of occulting green range lights mounted on red and white towers. This range is aligned 087° T.

RESTRICTIONS: Ships coming from a country infested by "oryctes rhinocerus strategus" (coconut beetle) cannot stay alongside in the harbour from 1700 hrs. to 0600 hrs. if they have been at sea less than 20 days since the last infested port.

Entrance Channel: Width 110 m. Max. depth 11.30 m.

MAX. SIZE: Length 250 m., beam 32 m., draft 35 ft. The Q.E. II, length 294 m. entered and docked in 1985 and 1988.

HEALTH: Vessels with a doctor on board should ask for Free Pratique by radio to Sante Maritime Papeete, via Coast Station Mahina Radio. This message should be sent earliest 24 hours and latest 18 hours before arrival. Vessels having no doctor on board will be inspected in Papeete by the Maritime Public Health Service. All formalities concerning maritime sanitation regulations can be carried out at this time. Pratique is automatic for vessels coming from another Polynesian port. Also see "Restrictions".

RADIO: Mahina Radio, call sign FJA, operating 24 hours per day on 500, 2182, 8281.8 kHz, and on VHF Channel 16.

GMT 0118 hrs.	8461 kHz	FJA 8	A1	W/T
GMT 0733 hrs. —	17040.8 kHz	FLA26	A1	W/T
GMT 0433 hrs. —	8461 kHz	FJA 8	A1	W/T
GMT 0503 hrs. —	17040.8 kHz	FJA26	A1	W/T
GMT 0903 hrs. —	4298 kHz	FJA41	A1	W/T
GMT 0933 hrs. —	8461 kHz	FJA 8	A1	W/T
GMT 1333 hrs. —	8461 kHz	FJA 8	A1	W/T
GMT 1733 hrs. —	4298 kHz	FJA41	A1	W/T
GMT 2018 hrs. —	8461 kHz	FJA 8	A1	W/T
GMT 2048 hrs. —	17040.8 kHz	FJA26	A1	W/T

VHF: The Port Captain's Office is equipped with VHF. Watches are kept on Channel 12 when a ship is expected. Vessels must contact Harbour Master's office one hour prior to arrival.

TUGS: Tugs join ships as soon as they are in the entrance channel. Generally, tow-lines are not required, as tugs push the vessels only. There are three tugs available up to 1,200 h.p. belonging to the Port Authority, and in addition, there are 4 naval tugs up to 750 h.p. which may assist if required.

Use of tugs is compulsory for vessels over 3,000 cu.m. The volume is calculated as follows: Length × Width × Maximum Draft.

BERTHING: Passenger Ship Quay: 233 m. length, 2 berths, depth alongside 10.5 m.

Cargo Quay: 450 m. length, depth alongside 10.50 m.

Fishing Boat Quay: 100 m. length, depth alongside 5.50 m.

STEVEDORES: Cargo information should be confirmed to the Agents with ETA 48 hours before arrival.

MEDICAL: Advance notice required if medical attendance needed on board. 2 hospitals available. Passengers disembarking must present a valid vaccination certificate.

TANKERS: 1 tanker berth, 105 m. long. Max. allowed draft 33 ft. Discharging hoses are: Mobil Oil 8 in., Total Oil 6 in.

1 gas tanker berth, at Pont de Taunoa, accessible via Taunoa Channel. For vessels max. LOA 85 m., max. breadth 13.80 m., max. draft 6.0 m.

Also see "Developments".

FRESH WATER: Available from pipe-lines on all quays. Loading rate is 50 t.p.h. at passenger and cargo quays and 30 t.p.h. at the tanker berth. It is recommended that water be sterilised for drinking.

FUEL: Three companies distribute bunker products: Tahiti Petroles (Total products), Mobil (Mobil products) and Petrocean.

Tahiti Petroles – Telex OLITAHI 304 FP. Service Mobil – Telex SERMOBIL 238 FP. Petrocean – Telex Petrocean 400 FP.

Refuelling with gasoline, diesel oil, marine diesel oil and light fuel is possible. Taxes may be waived on these products for foreign vessels.

A 700 ton barge operated by Mobil may be used by transit vessels for bunkering if notified 24 hours in advance.

GANGWAY/DECK WATCHMEN: Services of shore watchmen are necessary.

OPENING/CLOSING HATCHES: Hatches opened and closed by crew if they are of mechanical type, otherwise the stevedores will perform this operation.

CUSTOMS ALLOWANCES No restrictions for crew members but all tobacco and alcohol must be declared. Crew members going ashore must not take more than two packets of cigarettes. Passengers disembarking may take 200 cigarettes or 50 cigars or 400 grammes of tobacco and one bottle of alcohol.

CONSULS: The following countries maintain representatives at Papeete:

Austria
Belgium
Chile
Denmark
Finland
Italy
Netherlands
Norway
Sweden

REPAIRS: Woodwork, electrical and welding repairs can be effected.

DRY DOCKS: There are 2 floating docks for vessels up to 3,500 tons.

SURVEYORS:
Classification Societies:
Bureau Veritas. Tel. 42.80.86.
Lloyd's Register. Tel. 42.63.93.
Surveyors:
Maurice Bourrat. Tel. 42.67.06.
Bernard Baudry. Tel. 43.04.47. Telex. 210 FP.

REPATRIATION: Can be effected.

AIRPORT: Tahiti — Faaa Airport is situated 6 km. from the port. Regular international flights.

HOLIDAYS: Stevedoring services are available on all work days in 3 mandatory shifts. Longshoremen do not work on the following days unless otherwise stated: 1st January, 5th March, Good Friday, 1st May, 14th July, 1st November, 24th December (after 1100 hrs.), 25th December and 31st December.

Work carried out on other holidays or "local legal holidays" is considered as overtime work and will be paid as such: Easter Monday, 8th May (VE day), Ascension Day, Whit Monday, 29th June (Fete de l'Autonomie Interne), 15th August (Assumption Day) and 11th November (Armistice Day).

TIME: GMT minus 10 hours. No alterations during the year.

POLICE/FIRE/AMBULANCE: Police 17; Fire 18; Ambulance 2 96 74.

EMERGENCY CO-ORDINATION CENTRE: Contact Amiral Commandant la Zone Maritime. Telex: 269 FP. Tel: 2.6501.

TELEPHONES: Can be installed on board vessels at all quays.

BANKS: 1. Banque de Polynesie, Branch of Societe Generale France, Telex: 230 Polybank FP, - B.P. 530, Papeete. (Joined to Credit Cards Visa system).
2. Banque de Tahiti, Branch of Bank of Hawaii, Honolulu. Branch of Credit Lyonnais, Paris. Telex: 237 FP - B.P. 1602, Papeete.
3. Banque Indosuez, Branch of Indosuez Paris, Telex: 232 FP & 244 PF - B.P. 120 Papeete.

STORING: Vessels can be stored by truck, which can proceed alongside the berth. Forklift trucks can be used. Special Customs Regulations in use.

SHORE LEAVE: Allowed without restriction.

SHIP SUPPLY SERVICE: The off-shore ship supply services are operated by the Pilot launches belonging to the Port Authority within 24 hours notice for ship-to-shore transport of personnel, essential stores and sick crew members.

SERVICES: Provisions of all sorts (fresh, frozen, canned) may be bought in bulk from certain local merchants. It is possible to obtain duty-free cigarettes and alcohol. All heavy laundry can be done rapidly at several specialised cleaners.

DEVELOPMENTS: New oil berth near entrance for tankers of 45,000 d.w.t. nearing completion.

AUTHORITY: Port Autonome de Papeete, B.P. 91, Papeete, Tahiti, Polynesie Francaise. *Tel:* 425189. *Telex:* PPT Port 444 FP. *Cables:* Capitaine Port Papeete. *Contact:* William Ahnne, Port Captain.

NOTES

Please also advise Shipping Guides Ltd.

Solomon Islands

GIZO: 08.05 S. 156.52 E.

Gizo is the copra and cocoa receiving centre for Western Solomons. Situated on Gizo Island West of New Georgia. Entrance to harbour is beaconed and a jetty with depth alongside of 9 ft. Sheltered anchorage available in 16 fathoms. The British Solomons Trading Company Ltd. provides stevedores and conducts a lighterage handling and warehousing service to Importers and Exporters.

HONIARA: 09.25 S. 159.58 E. (See Plan)

DOCUMENTS:

Special Documents

Store List, Form C1.
Crew's Store List, Form C2.
List of Unmanifested Cargo, Form C3.
Ship's Report Inward, Form C4.
Entry Outwards/Content Ship, Form C13.

Legalised Documents

None.

Advance Documents

None.

Landing Cards

Finally landing passengers need special landing card.

Health Officer

1 Transit Passenger Manifest.
1 Landing Passenger Manifest.
1 Crew List.
1 Maritime Declaration of Health.
1 Rhinoceros Beetle Free Certificate from Suva.
Derat Certificate.
Health Certificate.

Immigration

1 Transit Passenger Manifest.
1 Landing Passenger Manifest.
1 Crew List.

Customs

1 Transit Passenger Manifest.
1 Landing Passenger Manifest.
1 Crew List.
2 Store Lists, Form C1.
2 Crew Store Lists, Form C2.
2 Ship's Reports Inwards, Form C4.
2 Lists of Unmanifested Cargo, Form C3.
2 Entry Outwards/Content Ship, Form C13.

Agents

1 Transit Passenger Manifest.
1 Landing Passenger Manifest.
1 Crew List.

PILOTAGE: 24 hours' notice ETA stating number of passengers, dangerous cargo, etc., to Harbour Master, Honiara, via Honiara Radio. Usual signals. Pilot boards from launch about 0.75 miles N.E. Pelope Shoal. Vessels normally berthed port side to. Pilot uses port gangway in calm weather.

ANCHORAGES: East of Port Main Leading Lights. Fl. white and fixed green, in about 20 fathoms; coral bottom.

Local boats are available for transporting crew from anchorage to the shore. The landing stage is at Joanna Jetty on the East side of the main pier at Point Cruz. Height above water level is 2 ft. at high tide and 4 ft. at low tide.

APPROACHES: Approaches free from dangers provided vessels keep at least 2 cables off Point Cruz Beacon, identified by quick flashing red light. On foreshore in front of Shell Oil Storage Tanks is beacon with fixed green light, and above on Vavaya Ridge is white light flashing every 5 seconds from Tower on radio station building. When in line these 2 lights give correct approach to anchorage in 20 fathoms on, or East of, the line. Prevailing winds during S.E. monsoon season blow from N.E. direction sometimes reaching Force 4 to 5 in early afternoon. During N.W. monsoon season direction and force variable generally between North and West up to Force 4 and occasionally Force 5.

RESTRICTIONS: Berthing in daylight hours only – departure any time.

MAX. SIZE: New Wharf, up to 650 ft. long and max. 29 ft. draft. Old Wharf, up to 200 ft. long and max. 13 ft. draft. Tankers, mooring at buoys, 600 ft. long and 27 ft. 6 in. draft.

HEALTH: Pratique can be obtained by radio. Cable Port Health. Suspect vessels should inform Health Authorities and Harbour Master by radio for doctor to board on arrival.

Cable to Quarantine Officer Honiara between 12 hours and 4 hours before arrival the following message: "Request Radio Pratique negative answers all health questions Maritime Declaration of Health. Master." Normally, the P & T Radio Officer may grant Pratique immediately whilst he is in radio contact with the ship. After arrival the Health Officer will check for rhinoceros beetle and will clear.

RADIO: Radio Honiara VQJ. Watch continuous. 6204 kHz, 2182 kHz, 500 kHz. GMT Schedule 0020 – 0030 transmits 11560 kHz, receives on 8 MHz or 16 MHz.

TUGS: There is a small 100 h.p. tugboat assisting with mooring when necessary.

BERTHING: At Point Cruz, berth length 235 ft., depth alongside 30 ft. Vessel berths port side alongside.

STEVEDORES: At least 24 hours' notice, usually 3 gangs, indicate any extra gangs required. To facilitate quick turn around advisable have cargo in middle holds evenly distributed not at extreme end or massed in one hold only.

MEDICAL: Notice should be given in advance if medical attendance required on board. Inoculations available at clinic on Fridays only. Limited hospital facilities available.

Cholera: Required if arriving from infected area. Vaccination Certificates are checked individually for those passengers permanently disembarking.

For all other passengers and the crew ship's doctor must provide a statement advising that all passengers and crew comply with the health regulations and vaccinations required.

In case some passengers have for health reasons not been vaccinated, a letter from their doctor giving reason why no vaccination given must be produced. Passengers will be allowed to go ashore.

Central Hospital, Tel: 09-61.
Emergency and Ambulance, Tel: 09-33
Doctors, Tel: 09-44
Dentist, Tel: 09-43

All medical facilities are provided from the Hospital. One private doctor available: Dr. M. Strickland, Tel: 770.

TANKERS: Tanker buoys, 8 in. pipe-line, max. draft 32 ft. New Wharf, 4 in. pipe-line, max. draft 27 ft. 6 in. Old Wharf, 4 in. pipe-line, (ADO), max. draft 13 ft.

DENSITY/TIDE: Approx. 1025. Tidal range about 3 ft.

FRESH WATER: At wharf by hoses. 40 t.p.h.

FUEL: Diesel and gas oil available. 48 hours' notice, butane gas.

FIRE PRECAUTIONS: Normal fire precautions, with gang standing by with fire pump.

GANGWAY/DECK WATCHMEN: Watchmen to be recommended. Customs provide a preventive officer for duty at a charge.

OPENING/CLOSING HATCHES: Stevedores assist crew. Crew to rig gear.

CERTIFICATES: Certificate of Registry.

CUSTOMS ALLOWANCES: 200 cigarettes or 0.5 lb. tobacco per crew member. 3 quart bottles of beer per crew member.

IDENTIFICATION CARDS: Required.

CONSULS: Australian.

REPAIRS: Limited facilities only.

DRY DOCKS: None.

REPATRIATION: Facilities available.

AIRPORT: Situated approximately 10 miles from the wharf. Air Niugini have 2 flights per week from Sydney via New Guinea, and Air Pacific have 2 flights a week from Suva via New Hebrides.

TIME: GMT plus 11 hours all year round.

HOLIDAYS: Cargo work can be arranged on all holidays except Christmas Day and Easter period.

POLICE/AMBULANCE/FIRE: Emergency phone numbers: Police 666; Ambulance 933; Fire 299.

SERVICES: Labour can be hired for assistance with painting and cleaning. Other services not normally available. 24 hours' notice required.

SHORE LEAVE: Permitted.

VISAS: Transit passengers: not required. Disembarking passengers: require visa for a stay over 48 hours. Visa can be obtained from nearest British Consul.

LANDING CARDS: Only permanently disembarking passengers need special Landing Cards which can be obtained from Immigration Officer on arrival.

WEATHER: Cyclone season December to April, winds N.W. to variable, Force 0 – 5. From April to November winds are from N.E., Force 4 – 5.

DELAYS: Nil, except when other ships being worked.

DEVELOPMENTS: Copra Wharf, length 100 m., to be constructed.

AUTHORITY: Harbour Master, Solomon Islands Ports Authority.

SHORTLAND HARBOUR: 07.04 S. 155.52 E.

DOCUMENTS: 3 copies of all documents including "Nil" sheets of Crew Lists, Passenger Lists, Customs, Health Manifests, Bills of Lading, Ship's Particulars, Ship's Certificates.

Quarantine Boarding Officer requires the following:
List of Provision Store, both wet and dry.
Crew List.
Last Ports of call and the next Port of call.
List of disembarking passengers.
Plants and Animals List.

PILOTAGE: Apply for Pilot by anchoring on Pilot Point and sounding whistle. The pilot vessel is a 50 ft. tugboat and is visible at anchorage from the Pilot Point (Lat. 7° 03′ 30″ S., Long. 155° 53′ E.). The pilot vessel will immediately come to the vessel. The Pilot Point is unaffected by bad weather.

ANCHORAGES: The anchorage is beside the wharf in the channel. It is protected to the East and West by islands and is unaffected by wind, tides or currents. Minimum depth alongside the wharf is 8 m. at the extreme Southern end. The depth at the Northern end is 16 m.

RESTRICTIONS: As no lights are available all entries are made during daylight hours.

MAX. SIZE: Max. length 125 m., breadth, no restriction, max. draft 8 m., draft is applicable at maximum low tide.

HEALTH: Pratique granted on board on arrival. If any suspected or confirmed disease or fever on board notify the Health Inspector immediately on arrival. He will advise procedure. Pratique is automatic when arriving from another Solomon Islands port.

RADIO: Lofung Station and tug on 5775 kHz.

Shipper's/Agent's Office may be contacted on SSB 6365 kHz between 0700 hrs. and 1700 hrs. (local time).

VHF: Not available.

RADAR: No radar facilities.

TUGS: Tug joins vessel at Pilot Point and escorts vessel in. Ship's lines are used, vessels stand-by to run ship's lines ashore. All charges are included in the Agency fees.

BERTHING: Alongside wharf (07° 03' 50" S., 155° 51' 50" E.), length 87 m., depth 8.0 m., loading and discharge by ship's gear. Basically only trucks and other machines are discharged and only Solomon Island round logs loaded.

CRANES: None.

BULK CARGO FACILITIES: None.

SPECIALISED CARGO FACILITIES: None.

BRIDGES: None.

STEVEDORES: The stevedores are company personnel and available immediately ship is berthed and cleared.

MEDICAL: A clinic with limited medical and dental facilities available 2 km. away. Usual inoculations and certificates available. Malaria is present in port area.

TANKERS: No facilities.

FRESH WATER: Not available.

FUEL: Not available.

FIRE PRECAUTIONS: None.

CONSULS: None.

REPAIRS: No facilities.

DRY DOCKS: Not available.

SURVEYORS: Not available.

WATCHMEN: Not necessary.

HATCHES: Opening and closing by ship's crew.

CUSTOMS ALLOWANCES: 2 litres spirits, 200 cigarettes.

CARGO GEAR: One forklift available.

REPATRIATION: Not possible.

AIRPORT: 5 miles away by sea on Ballalae Island. Flights Mondays, Tuesdays, Thursdays, Fridays to Honiara.

TIME: GMT plus 11 hours.

HOLIDAYS: Christmas Day, New Year's Day, Good Friday, Easter Monday, 7th July (Independence Day), Queen's Birthday and Whit Monday in June.

POLICE/AMBULANCE/FIRE: Not available.

EMERGENCY CENTRE: Honiara.

TELEPHONES: Not available.

SHORE LEAVE: No restrictions.

IDENTIFICATION CARDS: Not required.

REGULATIONS: Normal Customs, Immigration and Health requirements.

DELAYS: Normally straight onto berth after Pilot on board.

DEVELOPMENTS: None planned.

GENERAL: Shippers' Office may be contacted on SSB 5775 kHz at 0700 hrs., 1200 hrs. and 1630 hrs. local time.

AUTHORITY: None.

AGENT: Allardyce Lumber Company Limited, P.O.Box 164, Honiara, Solomon Islands. Tel: (677) 22789. Telex: HQ 66343 Alcol. Cables: Alcol.

YANDINA: 09.04 S. 159.14 E.

The Port of Yandina lies on the Southern shore of Renard Sound which is a deep inlet on the Eastern coast of Banika Island, part of the Russell Group of islands.

It is the headquarters of Levers Solomons Ltd. (LSL) who own the wharf, shore facilities, adjoining airstrip and plantations.

Note: The cable area marked on BA Chart No. 2975 and the remarks in the Pacific Island Pilot Vol 1, page 375, line 10, does not exist. This cable was removed some years ago.

LSL Managers report that in the past, vessels anchoring in the Sound itself have fouled their anchors on wartime scrap which lies on the sea bed.

The Sound is steep-to with depths of 90 m. in the centre. There is a fringing coral reef along both the Northern and Southern shore lines which extend further out the farther into the Sound a vessel penetrates. Two small coral spits project out into the Sound for about 100 m. from the northern shoreline, one each end of the wharf.

DOCUMENTS: If Yandina is first port of entry, the following documents are required:

2 copies Crew List (Solomon Island Forms only).
2 copies Personal Manifest.
2 copies Stores List (Solomon Island Forms only).
2 copies Passenger List ("Nil" returns required).
2 copies Unmanifested Cargo List ("nil" returns required).
1 copy Maritime Declaration of Health.
Last Port Clearance.

PILOTAGE: Not available.

APPROACHES: The Russell Island Group is sighted visually from the South at 30 miles on an approach course of 007° (T). Good reliable radar fixes are obtained at 18 miles from Alokun Island (150 ft.). This is during the late afternoon in fine, clear weather.

Vessels can enter the group between Keogh Island and Lamon Island during darkness with good radar representation for navigational purposes. The least depth in the channel is recorded at 270 fathoms.

Entering the Russell Group from the South, one passes between Louio and Louin Islands. The Channel here is narrow, but steep to and free from dangers. However, on this approach to Yandina, the wharf is not visible until the vessel is practically into Renard Sound and a long blast on the whistle when within sound distance, is recommended to alert line handlers, etc.

The Northern entrance is to be recommended, particularly to newcomers, as the wharf can be seen much earlier and a direct approach can be made. Entering from the North, vessel passes between Lanalau and Kurimarau Islands.

HEALTH: Radio Pratique is obtained from Honiara.

Not more than 24 hours and not less than 8 hours prior to arrival, a health message is to be sent, and provided there are no cases of infectious diseases on board, Radio Pratique will be granted. This message should be addressed to "Port Health, Honiara" and should be phrased "Request Radio Pratique Stop Negative answers to all health questions Maritime Declaration of Health" signed Master.

RADIO: There are 3 radio telephone channels in operation at Yandina, the Post Office, the Police Station and LSL private. H/F frequency to their Honiara Office which has Telex and Fax facilities.

There is a post office which offers a telegram service.

TUGS: A mooring boat assists when berthing.

BERTHING: Entry is made between Lanalau Island and Kurimarau Island and then a direct course towards Renard Sound. At slow speed all the way in, no offsetting current is experienced.

The vessel is given a direct parallel approach to the wharf and berths port side alongside.

One mooring boat is used concurrently under very efficient supervision from ashore.

On occasions a current is suspected to run from North into Renard Sound as the stern tends to set towards the shore whilst berthing, however it cannot be depended upon as Masters have reported the current running from the South and the stern tending to set off whilst berthing.

It is essential to approach at the slowest possible speed consistent with keeping on track heading for the wharf. With an offshore breeze, by the time the vessel arrives abeam of the wharf, it often happens that although the bow is in a good position, the stern has become angled out considerably. To take care of this, the officer in charge aft should have his first stern line fleeted out on the poop deck ready for quick slacking away without any kinks or holdups (which frequently result from trying to slack away quickly from a coiled rope). He should also have a second good rope already joined on with a strong lashing, because even with the launch running the stern line smartly, it is a long haul to the shore bollard and the stern may be slowly blown further out as the line is run. It is useless to wait and see if a second rope joined will be needed. The vital time lost lashing ropes together could spoil the whole manoeuvre.

The officer in charge forward should have the starboard anchor ready for letting go, whether it is intended to use it or not.

Years ago the use of an anchor off the wharf was not recommended due to possible fouling on old wartime wreckage, but sometimes the use of the anchor is essential and any subsequent fouling is a chance that has to be taken.

Berthing starboard side to is not recommended and can be hazardous. The large scale plan of Renard Sound on BA. Chart No. 2975 gives a false impression to a stranger as to its width. In fact, the average safe width of the Sound is little more than two cables (about 2 ships' lengths for "Corabank"/"Cloverbank" Class of ship). Several large vessels attempting to turn short round in the Sound to try and berth starboard side to have found themselves in difficulties due mainly to drifting steadily up the Sound (under the influence of the wind and possibly current) while backing and filling in the limited space. The deep water in the middle of the Sound (30–40 fathoms) is not very handy for using an anchor to assist in turning round, but if dropped (with plenty of chain) abeam of the wharf where the Sound is widest, it might prevent drifting up the Sound.

The line of approach to the wharf from the West (starboard side to) is not as straight as might appear from the coastline on the chart. There is shallow water and old piles extending quite a way out just Westwards of the wharf (not shown on the chart plan) and a vessel would have to come in to the wharf at a very awkward angle to avoid the reef. There appears to be no advantage at all berthing starboard side to.

BERTH: The main wharf which lies 2.5 cables Westward of Nikoria Point is of a concrete and steel construction and 53.5 m. long, with a minimum depth alongside of 6.1 m. There are 2 mooring bollards (connected to the shore) in line with the seaward face of the wharf. The Eastern bollard is 24.4 m. away and the Western one 41.2 m. away from their respective wharf ends.

A small wooden jetty is situated 21 m. to the West of the main jetty, (between the jetty and the mooring bollard). The jetty measures 10.1 m. across the face, and has a minimum depth alongside of 1.1 m. (at chart Datum).

To overlap the wharf too much at either end (but particularly the Eastern end) is dangerous; there is nothing to prevent the ship grounding with an on-shore wind or if anything went wrong with the moorings, and at such extreme positions, the bow and stern line leads to the mooring bollards would be impracticable.

On "Corabank"/"Cloverbank" Class vessels, only Nos. 3 and 4 hatches can be loaded with copra conveniently and possibly No. 2 (after end of hatch only) at a stretch.

A copra bulk loading system by bottom opening bins is in use at this port.

UNBERTHING: The stern can be sprung off and vessel backed out into the Sound. A light Northerly breeze blows and the vessel tends to set slightly towards the wharf, but no difficulty is experienced. However, with any strength in this breeze, sailing would be hazardous until it fell away or shifted, also it is safe to sail at night. Vessels turn to starboard when clear and leave the Group by the Northern route. All reefs show up well and the light structure on Lanalau Island is clearly seen over the trees.

If the anchor has been used for going alongside, it should be picked up first before leaving the berth, otherwise picking it up after letting go throws the ship out of the angled-off position.

MEDICAL: A trained local Medical Orderly gives medical attention when required. There is no doctor.
FRESH WATER: Not available.
FUEL: Not available.
REPAIRS: Levers possess a limited machine shop and fabrication shop capable of handling small ship repairs.
SURVEYORS: *Hold Inspection:* Compartments to be loaded are inspected by a Government Agricultural Department Inspector.
AIRPORT: Solomon Island Airways run a domestic service between Yandina and Honiara.

Distance to Honiara is 65 miles.

GENERAL:
Transport: There is no local public transport or car hire facility.
Stores: There are 2 general trading stores, one privately run and one run by a Co-operative Society. Both supply general household items including rice and tinned fish. Also there is a fisheries marketing centre where local fresh frozen fish can be purchased.
Market: Fresh vegetables and local fruits available twice a week, very cheap and very good.

Levers have their own butchery where fresh beef is obtainable at reasonable price. If requiring such meat, it is best to cable the Agent in advance, advising the quantity required.
Laundry: Not available.
Facilities: There is a small Social Club at Yandina, having tennis court, billiards and a small swimming pool. Ship's Officers are welcome.

The Club Manager is pleased to arrange a football match with local teams for those who are interested.
Charts: BA. 2975 and BA. 1469.
Weather & Currents: See Pacific Island Pilot, Volume 1.
AUTHORITY: Lever Solomons Ltd., P.O.Box 134, Yandina, Russell Islands, Solomon Islands. *Tel:* Honiara 22939. *Telex:* HQ66333. *FAX:* 9010-677-23496. *Contact:* The Resident Engineer.

NOTES

Please also advise Shipping Guides Ltd.

Somali Democratic Republic

GENERAL:

REPORT: *Immigration Regulations:* According to new Somali Immigration Instructions, no foreigner of any sort (including seamen, supercargo or Owners' Representative) shall be allowed to enter into Somalia without a visa.

No transit visa will be allowed for seamen joining their vessels in Somali ports.

Anybody arriving at Somalia should first obtain entry or transit visa from the Somali Consulates in their respective countries.

BERBERA: 10.26 N. 45.01 E. (See Plan)

DOCUMENTS:
6 Crew Lists.
2 Stores Lists.
2 Lists of Articles owned by Crew i.e. tobacco, wine/spirits, cameras, binoculars, wrist-watch, radio, firearms/swords etc.
1 Cargo Manifest (must be made out in accordance with original Bill of Lading issued. In the column "Consignees" the name of the party to be notified must be mentioned complete with full postal address. Should specify weight in kilos and measurements in cubic metres). 6 copies to be sent in advance unfreighted; 2 copies to be sent in advance freighted; 2 copies to be sent by the ship's box.
1 Copy Non-Negotiable Bill of Lading for each Bill of Lading issued.
2 Lists Transit Cargo (total number of packages and total weight for each destination).
6 Lists of Passengers to be Disembarked.
2 Lists of Passengers In-Transit.
1 Health Document will be prepared on arrival of the vessel in port, on special local form.

PILOTAGE: Compulsory for vessels over 200 n.r.t. Vessels await Pilot on the Outer Roads, 5 – 10 cables S.W. of Raastamar Lighthouse. In case of stormy weather and rough seas, it is permitted to wait for Pilot on the Inner Roads.

ANCHORAGES: Outer anchorage 5 – 10 cables S.W. from Raastamar Lighthouse. Inner anchorage limited by the line between 10° 26′ 16″ N., 45° 00′ 14″ E. and between perpendiculars from the ends of this line towards Cape of Raastamar.

RESTRICTIONS: All ships should anchor in such a position that with any wind they should lie on the leading line, or Southward from it, or opposite the deep water pier.

MAX. SIZE: Draft 28 ft., length/breadth no restrictions.

HEALTH: Pratique granted after Port Authorities, including doctor, board vessel. Any suspected contagious illness aboard to be reported immediately to the doctor on arrival. Vessels calling from other Somali Ports subject to same procedure.

RADIO: Cable Agents giving ETA, draft, length and cargo via port radio station – 6OY call and reply in the frequency 500 kHz, working 450 kHz. Working hours from 0700 to 1700 hrs. local time. Traffic list 3 times a day at 0800, 1200 and 1600 hrs.

TUGS: Use ship's lines. There is one tug of 1,200 h.p. and one of 700 h.p. to assist vessels in berthing and unberthing.

BERTHING: Depth at pier 28 ft., length of pier 700 m. Ro/Ro facilities available.

Transhipment of cargo is allowed with exemption of Harbour Tax and Warehouse Dues. Only handling charges are levied according to port tariff.

STEVEDORES: Vessel must give accurate ETA at least 24 hours in advance to enable Agent to order gangs. No shore facilities, all cargo to be loaded and unloaded with ship's gear.
Working Hours: Normally 0700-1400 hrs., but loading to and discharging from vessel is performed day and night.

MEDICAL: General hospital facilities available, but specialised treatment and surgery is not. Yellow fever and cholera vaccination certificates inspected on arrival.

TANKERS: Discharge at mooring buoys with connecting hoses of American and British standards.

DENSITY: Salt water at all times.

FRESH WATER: Available alongside quay through hoses. Rate 15/20 t.p.h.

FUEL: Not available.

GANGWAY/DECK WATCHMEN: Gangway watchmen services carried out by Customs Police, food on vessel's account. Ships are also supplied with local watchmen through Agent.

OPENING/CLOSING HATCHES: Normally carried out by stevedores with the help of the crew. Vessel's crew may, if required by the vessel do so. Crew may close hatches prior to sailing.

CUSTOMS ALLOWANCES: 200 cigarettes, 2 packets of cigars and 5 bottles of wine. Cigarettes and spirits trafficking alongside and between vessels and shore strictly prohibited.

SHORE LEAVE: Permitted.

IDENTIFICATION CARDS: Crew to carry passport or Seamen's Book whilst ashore.

CONSULS: None.

REPAIRS: Port Management own a well-equipped workshop where minor repairs for ships can be carried out.

TIME: GMT plus 3 hours all year round.

HOLIDAYS: See "Mogadiscio".

TELEPHONES: No possibility for placing telephones on board.

GENERAL: Vessels should not dispose of any waste into harbour or on to quays, lower lifeboats or use radio station without prior permission.

REGULATIONS: Livestock vessels are given priority.

DEVELOPMENTS: The present two berths have been extended by a further two berths.

SHIPMASTER'S REPORT: June 1981.
References: Guide to Port Entry, British Admiralty Chart BA 3530. Red Sea and Gulf of Aden Pilot. (NP64) 12th Edition 1980.
Documents:
2 Crew Lists.
2 Stores Lists.
2 Lists Personal Effects.
Cargo Manifest.
Copy Non-Negotiable Bill of Lading for each consignee.
2 Lists of Transit Cargo.
2 Passenger Lists. "Nil" declaration required.
1 Health Document filled in on berthing on special local form.
1 Copy Arrival Report on special local form.
1 Copy Ship's Record and Master's Report on special local form.
Pilotage: Two Somali Pilots available. Pilot boards at Outer Anchorage from tug "Saaxil" which has black hull, white upperworks, funnel markings: blue funnel with white star. Tug has VHF Channel 16. Pilot can also be contacted via Somali Shipping Agency on VHF Channel 16, call sign "Somship Berbera". Agents can usually only be contacted from 0900 – 1200 hrs. and 1600 – 1800 hrs.
Anchorage: Good anchorage obtained in Outer Anchorage shown on BA 3530. Somali Harbour Regulations forbid anchoring in such a way as to obscure leading and other lights.
Radio: Normal 72, 48 and 24 hour notice to Agents via Aden Radio. Berbera Radio (6OY) not heard.
Fresh Water: Only supplied alongside at Commercial Wharf. No water barge available and tug "Saaxil" unable to deliver water at Oil Berth or Anchorages.
Tugs: One tug "Saaxil", 1,100 b.h.p., fitted with VHF Channel 16. No tug lines, all ship's lines.
Gangway/Deck Watchmen: Two watchmen are compulsory under Somali Harbour Regulations. Ship has to provide food and accommodation. Charges for watchmen:
45 Somali shillings for 12 hours (daytime).
55 Somali shillings for 12 hours (night time).
Fridays 50% additional and 26th June 50% additional. 1st July and other public holidays 100% additional.
Customs Allowances: 200 cigarettes or 0.5 lb. tobacco or 0.5 lb. cigars. 1 bottle of spirits.
Airport: The landing ground shown adjacent to the Oil Tank Farm on BA Chart 3530 has now been taken over for extension of the tank farm and is no longer in use.

A new military airfield is situated 2 miles S.W. by W. from the old landing ground.

All commercial flights are from Hargeisa, 160 km. S.W. of Berbera with 3 flights weekly to Mogadiscio.
Time: GMT plus 3 hours all year round.
Agency: Somali Shipping Agency. Tel: Berbera 142. Cables: Somship Berbera. No telex facilities available and all cables have to be sent to Somali Shipping Agency, Mogadiscio, for transmission out of Somalia.

Somali Shipping are the only Agency allowed in Berbera, being a Government Agency.
Berthing: Superceded by later "Reports".
Fuel: None available.
Repairs: Minor repairs can be carried out but nothing that could not be carried out by ship's staff.
Weather: During the ship's stay at Berbera the "Kharif" blew as follows:
0000 hrs., S.W., Force 3.
0400 hrs., S.W. by S., Force 6.
0800 hrs., S.W., Force 6 to 8.
1200 hrs., S.W., Force 5.
1600 hrs., S.W. by S., Force 3.
2000 hrs., Calm.

SHIPMASTER'S REPORT: June 1983.
Restrictions: All navigational lights are extinguished.
Pilotage: Only during daytime. Departure at night can be discussed with the Pilot.
Radio/VHF: Coastal radio station is out of order and will not be repaired. No VHF port radio station but sometimes Pilot or Agent will call using VHF from vessel in port.
Medical: Cholera and yellow fever vaccinations are inspected on arrival.
Tankers: Max. draft for tankers is 35 ft. and berthing will be effected with 2 anchors forward and 6 ropes to the mooring buoys, i.e. 2 stern ropes and 1 breast rope on each side. Distance from stern to jetty about 20 m. – stern discharge. Tankers up to 24 ft. – 25 ft. draft can berth between the buoys and use their manifold. In both cases a 6 in. shore hose is hauled up to the ship's connection, max. back pressure allowed is 3 bar and discharge rate of white products about 250 cu.m./hour. After each grade, water has to be pumped to clear the shoreline. Position of oil jetty Lat. 10° 26.18′ N., Long. 45° 00.8′ E., and a steel construction framework pier runs from this position in direction 146° to the shore. Loading arms at pier are in state of deterioration. When berthing, sounding by hand is advisable and have tidal heights available.

SHIPMASTER'S REPORT: January 1986.

Details concerning lights, berths and buoys considerably different from Admiralty charts. No information forthcoming from Port Authority concerning changes, so positions and distances only approximate and obtained by radar. 4 light buoys laid on approaches to Berbera harbour limits, as these buoys not laid by the Port Authority there is no guarantee that they will be maintained, either lit or in position.

R.W. Fairway Buoy, unlit, 306°×0.88 miles from Raastamar Light.
R. buoy Fl.R., approx. 4 secs., 208°×0.25 miles from Raastamar Light.
R. buoy Fl.G., approx. (3) 10 secs., 262.5°×0.58 miles from Raastamar Light.
R. buoy Fl.G., characteristics and position not ascertained, but is South of leading lights and Eastwards of outer anchorage.

2 mooring buoys in inner anchorage, 102°×0.64 miles and 115°×0.5 miles from Raastamar Light. Wreck in inner harbour now has quick flashing red light on the top of its funnel. Leading lights into the harbour are now flashing white lights. Mooring buoys around the end of the tanker terminal appear as shown on the Admiralty chart.

In the tank farm new white tanks, for United States' forces, stand out very well, their position not ascertained, but they have been built at the Western end of the tank farm. Tank farm now very well illuminated, lights show very well out to sea. These lights far better than town lights on night approach, town lights very often shut off in evenings. Raastamar Light was sighted at a distance of 15 miles, but Pilots state that it is still only 6 mile light.

Main quay has been extended Westwards, on same line as old quay, by approximately 180 m. New section well fendered with heavy rubber sections on chains. Old section of quay, the facing is badly damaged throughout most of its length, ships will require fenders to keep well off it. No sheds built on new section, but small compound for U.S. Forces use in S.W. corner. A concrete Ro/Ro ramp built at extreme Western of new quay, for vessels to berth with 2 anchors out, ramp steel-faced and steeply angled. Only livestock seen using this ramp. An additional causeway has been built out to the new section, but not seen in use and kept locked up. Shaab Quay still in use, but only for dhows and small local coasters.

During period spent in Berbera (15 days), all ships were kept at outer anchorage until required, inner anchorage not used at all. Only vessels to come to port during this time were livestock carriers, loading sheep, goats and camels for Jeddah; and one passenger/cargo ship from Jeddah.

Winds consistently freshened every afternoon from Northeasterly direction, up to Beaufort Force 6 at times and then dying away to a flat calm by midnight. Harbour very sheltered from this direction and slight sea caused no problems.

Shore watchmen compulsory, and if pilferable cargo on board, it is possible vessel will have armed Customs/Port Police as well. Vessel to supply all with meals and sleeping place if possible.

Garbage collection compulsory, but vessel does not have to accept this every day, can specify whether periodic collection required.

Fresh water appeared of satisfactory quality, no apparent restriction on quantity.

No laundry facility available.

Chandler available, but expensive and did not appear interested in supplying small quantities.

Communications very poor externally, no telex available at Agents. All overseas telephone calls routed via Mogadiscio, this line unreliable.

American base at airfield has telex and satellite telephone, but use of these facilities expensive and not always available. However, it is possible to get permission to use the ship's radio equipment for communications, though when vessel first arrived the authorities were intending to seal radio equipment.

Local maritime station out of order.

Crew have to hand passports/Discharge Book/I.D. card in at gate when going ashore. No pass issued or receipt given. No known curfew, but police very nervous after dark and gate should be approached with caution, as police are armed, so that crew member can be identified.

On approaching port, vessel called continuously on Channel 16 from 0530 hrs. local time onwards, but got no reply, so vessel anchored in outer anchorage. Berbera Port came on the air at 0900 hrs. local time, no reply from Pilots at all, though they assured me that they operated from about 0700 hrs. to dusk. Vessels should be careful when approaching outer anchorage in darkness as ships may be encountered at anchor without lights. One Ro/Ro ship is alleged to have been there, abandoned, for at least a year; there only being a shore watchman onboard. Vessel cleared by Authorities whilst at anchor, quarantine doctor wanted to see that all crew members had current yellow fever and cholera certificates. Customs sealed bond by glueing piece of paper over door. Radio was supposed to have been sealed, but because no separate radio room they decided not to do so. Application in writing through Agents for water, engine trials, boat in water, painting from quay, etc.

No photography in port area and this included onboard vessel, but despite this did not find that anyone stopped crew members taking photos of livestock being loaded on other vesssels.

2 small tugs in harbour, but only one seen in use. This takes Pilot out to incoming vessels, Pilot informed that this tug, the oldest one, is only suitable for pushing and not towing. Pilot does not necessarily take vessel out at night, gave instructions for departure and then acted as boatman for letting go vessel.

Nearby airfield has civilian flights every 2 days linking Berbera with Mogadiscio and Jeddah, but it wasn't clear whether seats could be obtained for these flights or whether passengers had to travel to Hargeisa to fly, about 2 hours drive. From there flights go to Mogadiscio and Djibouti. However, I imagine repatriation from this area to be a lengthy and tedious business only to be attempted in an emergency.

AUTHORITY: Somali Ports Authority, Berbera.

CHISIMAIO (Kismayu): 00.22 S. 42.34 E.

DOCUMENTS:
6 Lists of Crew.
2 Stores Lists.
2 Lists of articles owned by Crew, i.e., tobacco, wine/spirits, camera, wrist-watch, radios, binoculars, firearms/swords, etc.
1 Cargo Manifest (must be made out in accordance with original Bill of Lading issued. In the column "Consignees" the name of the party to be notified must be mentioned complete with full postal address. Should specify weight in kilos and measurement in cu.m.). 6 copies to be sent in advance unfreighted; 2 copies to be sent in advance (freighted). 2 copies to be sent by ship's box.
1 copy non-negotiable B/L for each B/L issued.
2 Transit Cargo (total number of packages and total weight for each destination).
6 Lists of Passengers to be Disembarked.
2 Lists of Passengers in Transit.
1 Health Document will be prepared on the arrival of the vessel in port, on special local form.

PILOTAGE: Compulsory for vessels over 200 n.r.t. Vessel picks up Pilot at approximate position Lat. 0° 24′ S., Long. 42° 34′ E., 2 miles S.E. of Fairway Buoy.

ANCHORAGES: In the port basin, from 27 ft. to 30 ft. deep, excellent holding ground.

RESTRICTIONS: Entrance channel about 200 m. wide, marked by buoys. Entrance effected during daylight hours only. Port closed for vessels from 1800 hrs. to 0600 hrs.

MAX. SIZE: Max. draft 28 ft. at LLT.

HEALTH: Pratique granted after Port Authorities, including doctor, board vessel. Any suspected contagious illness aboard to be reported immediately to the doctor on arrival. Vessels calling from other Somali ports subject to same procedure.

RADIO: No local coastal radio operating at present. Cables to Agent could be sent through normal postal R/T and W/T services.

TUGS: Two tugs of 800 h.p. each are available to assist ships in berthing and unberthing. Ship's lines used.

BERTHING: Port consists of 2 L-shaped quays, one 340 m. length, the other 280 m. No specific requirement to berth in the port. Vessels entering port basin after 1745 hrs. will berth next day at 0630 hrs. Vessel must sail before 1730 hrs. otherwise sailing will be postponed to next day at 0630 hrs.

STEVEDORES: Vessel must give accurate ETA at least 24 hours in advance to enable Agent order necessary gangs.

No shore facilities, all cargo to be loaded and unloaded with ship's gear.

Working Hours: Normally 0700 hrs. – 1400 hrs. but loading to and discharging from vessels is performed day and night.

MEDICAL: Hospital facilities available, but specialised treatment and surgery is not. Yellow fever and cholera vaccination certificates inspected on arrival.

TANKERS: See "Shipmaster's Report".

FRESH WATER: Available at wharf through hoses, rate 15/16 t.p.h.

FUEL: Not available.

GANGWAY/DECK WATCHMEN: Gangway watchmen service carried out by the Customs Police. Food on vessel's account; ships are also supplied with local watchmen through Agent.

OPENING/CLOSING HATCHES: Normally carried out by stevedores with the help of the crew. Vessel's crew may, if required by the vessel, do so. Crew may close the hatches prior to sailing.

CUSTOMS ALLOWANCES: 200 cigarettes, 2 packets of cigars and 5 bottles of wine. Cigarettes and spirits trafficking alongside and between vessels and shore strictly prohibited.

IDENTIFICATION CARDS: Crew to carry passport or Seaman's Book whilst ashore.

CONSULS: Italian Consul only.

REPAIRS: No facilities available.

REPATRIATION: Air communication via Mogadiscio.

AIRPORT: About 6 km. N.W. of the port.

TIME: GMT plus 3 hours all year round.

HOLIDAYS: See "Mogadiscio".

TELEPHONES: No possibility for placing telephones on board.

GENERAL: Vessels should not dispose any waste into harbour or on to quays, lower lifeboats or use radio station without prior permission.

SHORE LEAVE: Permitted.

REGULATIONS: Banana and livestock vessels are given priority.

DEVELOPMENTS: Facilities to be improved to enable port to handle liquids, livestock and general cargo.

SHIPMASTER'S REPORT: September 1985.

Vessel: 19,000 d.w.t. Discharged gas oil.

General Remarks: ETA messages and Notice of Readiness to be sent via Djibouti Radio, using telex to Agents at Mogadiscio. (Mogadiscio Radio not working). Port of Kismayu not fitted with VHF. The port was constructed in 1967 with approach channels dredged to 8.0 m. chart datum. (Learned from Pilot that no dredging was performed in the channels after 1967).

Approaches: Safe approach is only possible by using Passo Nord, using the leading line N.E. Serpenti-Collina Rotonda Beacon (see chart 1052 Baia di Chisimaio), which are clearly visible by daylight. All navigational lights are extinguished by night. Sailing from Kismayu also through Passo Nord. Passo Levante is very dangerous and strongly afffected by cross currents.

Anchorage: Safe anchorage can be obtained 1 mile S.E. of Serpenti Lighthouse in 9 – 10 fathoms of water with good holding ground. The anchorage however is exposed to swell causing the vessel to roll during the anchoring period. During the S.W. monsoon this anchorage can be unsafe.

Pilotage: The Pilot boards in a position 0.7 miles S.E. from Serpenti Lighthouse.

Harbour and Approaches: The harbour of Kismayu is artificial, constructed by rocks seawards and concrete jetties inwards, enabling to receive vessels up to 210 m. long with a maximum draft of 28 feet. Berthing daylight only. From the pilot area to the port entrance the route is via Passo Interno steering to a buoyed channel using the leading line Scoglio Pilone-Collina del Segnole (chart No. 1052). The outer channel is effected by swell, however after passing I. Favatu the swell will cease when entering the inner channel.

As the approaches are effected by swell and the charts are not very accurate, it is not advised to enter or leave the port at LW even with drafts less than 24 ft.

We arrived with a max. draft of 24 ft. 01 in. and entered the channel approximately 2 hours after LW with a moderate swell from S.E. running into the bay. The echosounder was switched on during the whole operation. On entering the channel the reading fell to zero and a huge amount of mud was observed.

After entering the port the vessel is stopped and swung around by using 1 tug of 350 h.p., approaching the berth head on. Starboard anchor is used to swing the vessel again by using the tug to berth portside alongside with 4 head and stern lines and 2 springs fore and aft.

Documents: Papers required on arrival:

6 Crew Lists.
3 Stores Lists.
3 Personal Effects Lists.
International Declaration of Health.
Vaccination List.
Copy of Bills of Lading.

Discharge Facilities: One long flexible hose of 8 in. connected to 8 in. pipe-line. Distance to shore tanks approximately 3,200 m. Max. allowed back pressure 4 kg. – 6 kg. depending on Loading Master.

Port Facilities: Drinking water can be obtained from the jetty, but is not recommended, as this water is pure river water. Other facilities nil.

Remarks: The tug is fitted with VHF and the Pilot will use this VHF to contact ships only if the tug is manned. Vessels are warned immediately after berthing that permission to sail is not given until all bills and duties have been paid by the Agents, indicating that some vessels have been delayed for 4 days.

AUTHORITY: Somali Ports Authority, Chisimaio.

MOGADISCIO: 02.02 N. 45.20 E. (See Plan)

DOCUMENTS:

2 Lists of Crew.
2 Stores Lists.
2 Lists or Declarations of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, binoculars, firearms/swords, etc. Vessels calling from other Somali ports subject same procedure.

Cargo Manifest (must be made out in accordance with original B/L issued. In the column "Consignees" the name of the party to be notified must be mentioned complete with full postal address. Should specify weight in kilos and measurement in cubic metres). 6 copies to be sent in advance unfreighted; 2 copies to be sent in advance freighted and 2 copies to be sent by ship's box.

2 Lists Transit Cargo (total number of packages and total weight for each destination).
6 Lists of Passengers to be Disembarked.
2 Lists of Passengers in Transit.
1 Health Document will be prepared on the arrival of the vessel in port, on special local form.

PILOTAGE: Compulsory for vessels over 200 n.r.t. Pilot joins vessel at anchorage about 0.5 miles offshore. Pilot can be requested by International Code signals or through VHF using Channels 12, 14 or 16.

ANCHORAGES: About 0.5 miles offshore in depths up to 45 ft., in open roadstead. Because of occasional heavy swell maximum recommended draft 31 ft.

RESTRICTIONS: Berthing/unberthing of vessels is restricted to daylight hours. Max. draft permissible is 10 m. at general cargo berths and 12 m. at tanker berths.

HEALTH: Pratique granted after Port Authorities including doctor, board vessel. Any suspected contagious illness aboard to be reported immediately to the doctor on arrival. Vessels calling from other Somali ports, subject to same procedure.

RADIO: No local coastal radio operating at present. Cables to Agent could be sent through normal postal R/T and W/T services.

TUGS: Tugs join vessels at anchorage or as directed by the attending Pilot. Vessel's lines normally used. No extra charge for tug's lines.

Two tugs of 1,400 h.p. each available and 1 tug of 4,000 h.p. available for salvage and rescue operations.

BERTHING: Incoming vessels are assigned berths on a turn basis subject to operational requirements.

Harbour: Alongside deepwater port protected by 820 m. strong breakwater.

Berths: 5 berths. Berth lengths vary from 170 m. – 200 m. with depths alongside 8 m. – 12 m.

BULK CARGO FACILITIES: None.

STEVEDORES: Vessel to give accurate ETA at least 24 hours in advance to enable Agent order necessary gangs. No shore facilities, all cargo to be loaded and unloaded with ship's gear.

Working Hours: Normally 0700 hrs. – 1400 hrs., but loading to and discharging from vessels is performed day and night.

CRANES: Only ships' derricks are used. No portal cranes at quay but a number of mobile cranes are available for handling and stacking cargo with maximum lifting capacity of 50 tons. No floating cranes available.

MEDICAL: No advance notice for medical attention required. Hospital facilities available but specialised treatment and surgery is not. Yellow fever and cholera certificates inspected on arrival.

TANKERS: One berth available for tankers with a draft of 12 m.

DENSITY: Salt water at all times.

FRESH WATER: Available alongside through hoses at a rate of 15 – 20 t.p.h.

FUEL: Fuel oil only may be available, check with Agent.

FIRE PRECAUTIONS: Fire engines situated within easy reach of docks 24 hours per day. The tugboats are also equipped with fire fighting appliances.

CONSULS: Algeria, Belgium, Peoples' Republic of China, Egypt, France, Democratic Republic of Germany, Federal Republic of Germany, India, Iran, Iraq, Italy, Kenya, People's Democratic Republic of Korea, Kuwait, Libya, Netherlands, Nigeria, Pakistan, Qatar, Romania, Saudi Arabia, Sudan, Syria, U.A.E., U.K., U.S.A., U.S.S.R., People's Democratic Republic of Yemen, South Yemen, Yugoslavia.

REPAIRS: No facilities available.

DRY DOCK: None available.

GANGWAY/DECK WATCHMEN: Gangway watchmen services carried out by the Customs Police, food on vessel's account. Ships are also supplied with local watchmen through Agent.

OPENING/CLOSING HATCHES: Normally carried out by stevedores with the help of the crew. Vessel's crew may, if required by the vessel, do so. Crew may close the hatches prior to sailing.

CUSTOMS ALLOWANCES: 200 cigarettes, 2 packets of cigars and 5 bottles of wine. Cigarettes and spirits trafficking alongside and between vessels and shore strictly prohibited.

REPATRIATION: Facilities available.

AIRPORT: About 5 km. to the West.

TIME: GMT plus 3 hours all year round.

HOLIDAYS: Idul Fitr, (1st & 2nd Shawaal); Idul Adha, (9th & 10th Dilhija); Prophet Mohammed Birthday, (12th Rabiul Awal); International Labour Day, (1st May); Independence Day N. Region, (26th June); Independence & Union Day, (1st July); Revolution Festivals, (21st and 22nd October).

POLICE/AMBULANCE/FIRE: Police 28088; Ambulance 30000; Fire 85055.

TELEPHONES: Arrangement for placing telephones on board is not available.

IDENTIFICATION CARDS: Crew to carry passport or Seaman's Book whilst ashore.

SHORE LEAVE: Permitted.

GENERAL: Vessels should not dispose of any waste into harbour or on to quays, lower lifeboats, or use radio station without prior permission.

Tidal Range: 2.5 m.

Shipchandling: Available.

Major Exports: Fresh bananas, livestock, hides and skins and frankincense.

Imports: General cargo, crude oil, etc.

DELAYS: Nil, except when other ships are working alongside.

DEVELOPMENTS: New wharf with Ro/Ro terminal recently completed. Container yard and freight station to be constructed.

SHIPMASTER'S REPORT: June 1979.

Documents:

5 Crew Lists
1 Stores List
1 Crew Personal Effects Declaration
1 Cargo Manifest
1 List Passengers in Transit
1 Health Document (International Declaration of Health)
1 Vaccination List, Crew and Passengers
1 Form "A", Ship's Record and Master's Report
1 Arrival Report (Agency Form)
1 Application for Temporary Use of New Harbour
2 Cargo Plans for Discharging Cargo
6 Lists of Passengers to be Disembarked

Pilotage: Compulsory. Pilot boards about 0.75 miles from breakwater entrance. Ladder on lee side 6 ft. above water with manropes. Usually 1 Pilot, assistant or trainee, and one communications man. Pilots use VHF Channel 16.

Anchorage: Open roadstead about 0.5 – 0.75 miles off breakwater. Assigned anchorage is West of new breakwater light bearing 310°. Do not anchor West of a line drawn perpendicular to West end of breakwater. There is a submerged tanker pipe-line and buoys West of breakwater, unlit at night. There are occasionally small unlit coasters anchored in the anchorage. Depth, clearance and congestion make anchorage unsuitable in heavy weather. During S.W. monsoon, ship's head approximately 180° – 225° without circular swing.

Communications: Send ETAs through Radio Mombasa.

Clearance: Health, Customs, Immigration and Harbour Master board at anchorage. Hours are 0700 to 1600. Agent and Stevedore representative may be present. Seamen's Books or I.D. cards are required for shore leave. Crew allowed ashore at anchorage 0730 to 1730 hrs. to comply with harbour curfew at 1800 hrs. Passengers not permitted ashore at anchorage. Curfew of 2400 hrs. exists at dock, and passengers permitted ashore after being recleared by Immigration. They were given a 1900 hrs. curfew.

Customs Allowances: 200 cigarettes, 0.5 lb. tobacco or cigars. Currency exchange strictly controlled at banks and legal hotels. Trafficking in any items strictly prohibited. Coffee, sugar and tea are considered bond items, but were not sealed.

Watchmen: Two by regulations; 1 on duty and 1 off duty. At anchorage, ship must provide sleeping area.

Medical: Yellow fever and cholera vaccinations required.

Fresh Water: Fresh water can be made in port due to open status of harbour.

Time: GMT plus 3 hours.

Opening/Closing Hatches: Stevedores will open pontoon type hatches. Recommend modern mechanical or hydraulic hatches to be opened by crew.
Stevedores: Paid on a tonnage basis. Gangs usually given contract of approximately 100 tons bagged goods or equivalent. First shift 0700 to 1500 hrs.; second shift 1500 to 2200 hrs. No third shift, however, 2nd shift may be extended for a set amount of additional tonnage which usually finishes by 0100 hrs. Typical figures; bagged goods, 250 tons per hatch per day with single gangs. Doubling of gangs in hatch subject to warehouse congestion and shortage of transport. Overall quality with bagged goods was fair to good, and stevedores provided own sweepings and bag sewers. No cleaning gangs were hired by vessel, though said to be available.
Launch Service: Available at anchorage 0700 to 1730 hrs. One launch for all ships.
Harbour Development: A new deep water port has been constructed. There are wide aprons, new warehouses, and good rubber fenders. Strong bollards approximately every 75 ft. Plan of N.O. Chart 61240 or BA Chart 671 (both corrected by overlay) show harbour with good accuracy. The red light on end of new breakwater is extinguished and the lights listed as Occ. R. are F.R. The main light is NOT visible as given. It has sufficient brightness, but not sufficient height. It can be seen about 20 – 25 miles depending on draft.

There are three warehouses. Transport to clear warehouses is limited. The main quay formed by the new breakwater has three berths. There is a tanker berth at the East end, and it is not usable by cargo ships. When occupied, there is sufficient room left for one large and one coastal vessel to work general cargo. When empty, two large ships can work. There is an additional berth against the inner wall that can handle 1 cargo ship to about 500 ft. This berth is 'stern first' and is the banana dock. Fruit boats have priority and any ship there must be shifted out. On the main quay, unannounced shifts are likely depending on the tanker berth. There is 1 small livestock berth at the West end of the harbour for coaster size vessels only. The lighterage piers at the East end of the harbour appear to no longer be used, and no lighterage work was observed.

There is considerable surge caused by both the openness of the harbour and lack of protection from onshore winds. "4 & 2" tie-up is recommended and chafing gear advisable.
Tugs: One of 4,000 h.p. and 2 of 1,100 h.p. are available, tugs are new. For berthing, one short ship's line was used from vicinity quarter ship's length from bow and stern, necessitating the bringing of sufficient line from the mooring stations to these locations.
Approaches: Approaching from the South, there are strong cross currents, from last 24 hours out. Sets of over 1 m.p.h. have been experienced. Approach on a North-Easterly heading from seaward should provide the most clarity of landmarks and radar picture. At night, a white loom is visible, with a yellowish flame-off loom noted to the S.W. The harbour and first navigation lights to be sighted are in the North-Eastern half of the white loom. The town steps uphill sharply from the harbour, causing town lights to be visible well before the other navigation lights. Anchored ships may also obscure the lower lights. Harbour is well defined on 3 cm. radar at about 6 miles. Set drops off nearer to shore.

"Registration for port" is the time anchored. Pilots do not board ships to anchor. Pilots (port radio) are on VHF Channel 16. The transmitter is weak and range about 5 miles. When checking in, they will ask Name, Flag, Call Sign; F. & A. Draft; g.r.t. and n.r.t.; discharge tonnage and type. There is usually much repeating so earliest possible contact at slowest speed is advised so that this can be done with sufficient sea room. Only after completion will anchorage be "assigned".
Agency: SOMSHIP is government agency and services accordingly.

SHIPMASTER'S REPORT: March 1981.
Documents:
1 Declaration of Health (Local Form).
1 Set Vaccination Lists.
5 Crew Lists.
6 Landing Passenger Lists.
In-Transit Passenger Lists.
Ship's Record and Master's Report (Form A).
Arrival Report (NSL Form).
Application for Temporary Use of New Harbour (Local Form).
1 Set Cargo Manifests.
2 Sets Discharging Cargo Plans.
Stores List (Company Form).
Crew Declarations.

Notes: Application for use of Harbour Form contains highly objectional liability clause 4(c).

No mail or telex service, no Agency assistance.
Health: Radio Pratique not available.

SHIPMASTER'S REPORT: June 1981.
Documents:
2 Crew Lists.
2 Stores Lists.
2 Personal Effects Lists.
Cargo Manifest.
Copy Non-Negotiable Bill of Lading for each consignee.
2 Transit Cargo Lists.
2 Passenger Lists. "Nil" declaration required.
1 Health Document filled in on berthing on special local form.
2 Copies Declaration of Ship's Details and Cargo Carried for Port Harbour Master on special local form.
4 Copies Pilotage Declaration on special local form.

Pilotage: Pilots listen 0600 hrs. to 1200 hrs. on VHF Channels 16 and 12. At other times the pilot station is usually manned. Pilot boards from a large pilot cutter at the vessel's anchorage position. Pilot cutter has black hull, white upperworks with "Pilot" in black letters. Manropes are essential for use on the pilot ladder due to the normal heavy swell running.
Anchorage: Good anchorage in sandy bottom in 10 – 11 fathoms (approx.), 4 cables South of New Port Breakwater. Monsoon causes currents of up to 4 – 5 knots during S.W. monsoon. (Ref: Admiralty Publication, Africa Pilot Volume III, and latest supplement.

The whole bottom area is foul due to cargo lost during time port was operated as a surf port. An anchor and cable is reported to lie close to the intersection of the 311° and 278.42° leading lines.

Somali Harbour Regulations forbid anchoring in such a position as to obscure leading and other lights.
Health: Local doctors available.
Radio: Normal 72, 48 and 24 hour notice to Agents via Aden or Mombasa Radio. Mogadiscio Radio not heard during vessel's stay in Mogadiscio.
Fresh Water: Available from Berth Nos. 1, 2, 3, 4 and 5 at approximately 20 t.p.h.
Stevedores: Rigging of derricks and opening/closing hatches are the responsibility of ship's crew.
Gangway/Deck Watchmen: Two watchmen per vessel. Ship has to provide accommodation and food.
Customs Allowances: 200 cigarettes, or 0.5 lb. tobacco or 0.5 lb. cigars. Spirits 1 bottle. Bond sealed on arrival but Customs very good and will come down to give issue whenever required.
Airport: Regular international flights from airport situated 8 km. from port. No problems with repatriation. Crew members joining are issued with entry visas at Mogadiscio Airport providing Agents are informed in sufficient time. Mogadiscio is the only international airport of entry. There are local flights approximately 3 times a week to Kisimayu and Berbera.
Time: GMT plus 3 hours all year round.
Berths: Ras Sif Oil Terminal, Lat. 2° 01.05′ N., Long. 45° 20.05′ E.

This is a sea berth 1 cable S.W. of Ras Sif. (See "Plan"). During the S.W. monsoon, vessel secures with both anchors down on a heading approximately 210° (true) about 1 cable offshore. On this vessel's call 10 shackles were put out on each cable position "A" shown on plan. On vessel's approach to the berth no tugs were available for assisting in berthing as fuel for tugs had run out and our vessel had the new supplies on board. Three attempts were made to secure at the Discharge Berth. Final position was that shown in position "A". In this position vessel was heading 185° (true), 10 shackles out on each cable, 3 ship's lines to shore and 2 shore lines to ship. The vessel at this time rode to the wind at 180° – 185° and did not take up a heading into the S.W. monsoon at any time. The effects of the Somali current during vessel's stay was negligible at the berth. The normal berth off Ras Sif is that shown in position "B". I consider this position dangerous at this time of the year as the wind being mainly Southwesterly swings the vessel's stern up towards the shore, far closer than in position "A".

Lines: 2×4 in. floating hoses provided for connection to stern discharge manifold from red painted structure close South of the B & W truncated pyramid on Ras Sif. Maximum discharge pressure 3 kg./sq.cm. (approx. 150 t.p.h.). Height of tanks 24 m., distance to tanks 350 m. 1×6 in. line is available for midships manifold but this is only suitable for small ships. Shore requires water plug prior to commencement of discharge, on completion of each grade and on completion of final grade. Shore staff connect pipe-lines.

Maximum draft on berth 40 ft.

On the evening of 12th June the S.W. monsoon blew very strongly accompanied by a very heavy 15 ft. – 20 ft. swell. Vessel being light was moving a great deal and was eventually forced to carry out an emergency departure after jettisoning pipe-lines following a water plug through and cutting all ship's lines. This berth is wide open to the effect of the S.W. monsoon and when the monsoon is blowing strongly the weather conditions combined with the very poor unmooring facilities render the berth untenable. For these reasons this berth was declared by the Master to not be a "Safe Berth" within the meaning of the relevant Charter Party.
Mogadiscio New Port: Following Ras Sif being declared an unsafe berth arrangements were made for all floating hoses in possession of the Oil Terminal to be led via storm drains to Berth No. 5 following suggestions made by the ship. Vessels berthed stern up to Berth No. 4 or Berth No. 5 and cargo discharged via stern manifold to Ras Sif Oil Terminal.

Berth No. 5: Maximum draft 27 ft. Berth is well fendered with old tyres. Due to length of berth vessel berthed with starboard anchor down, 6 shackles on same, as maximum vessel length on berth 180 m. This berth is at present being extended by a further 200 m. Maximum discharge pressure 3 kg./sq.cm., maximum discharge rate 150 t.p.h. for products.

Berths No. 1, 2, 3: Maximum draft 32 ft. All cargo discharged by ship's gear. On Berth No. 3 there is one 8 in. pipe-line to the refinery 10 miles South of Mogadiscio for crude oil only. Booster pumps for this line are provided at the Ras Sif Oil Terminal.

Berth No. 4: Drafts alongside from 27 ft. – 32 ft. and is provided with a bridge for landing of livestock although to date this bridge has not been used. This berth is normally used by fishing vessels and smaller ships as a lay-by berth.
Tugs: Two tugs available. "Xamar 1" and "Xamar 2". Both fitted with VHF, 1,500 b.h.p. No tug lines. Ship's lines used for all operations.
Bunkers: Not available.
Repairs: Not available.
Somali Port Regulations: Notice to all ships, Mogadiscio Port. Abstracts from Somali Ports Authority Regulation No. 67 of 15-4-1978.

1. All ships must keep their VHF open and standby when approaching the Port and while remaining berthed alongside, on Channel 16.

2. All ships having on board persons suffering from contagious diseases must hoist the quarantine flag when anchoring and keep it hoisted until inspected and instructions given by the Port Health Officer.

3. While anchored in the roads, ships must keep clear from bearing directly obstructing leading lights and beacons on shore.

4. Ships having an n.r.t. exceeding 200 must engage harbour Pilots and tugs while berthing or unberthing at the deep water berths.

5. Ships are not allowed to throw any kind of refuse, dirt or oil spillage into the harbour waters.

6. Ships are not allowed to carry out engine repairs without permission from the Port Manager, while at berth.

7. Ships anchored in the roads or berthed alongside must keep the Somali national flag hoisted at a height clearly visible for a reasonable distance.

8. All ships lying alongside berths must engage the garbage service provided by the authorised garbage group of the harbour.

9. Oil tankers must have on board their own facilities for the retention of oil drainage and sludge, dirty ballast and tank washings.

10. It is prohibited to discharge oil, oily mixtures and any chemical residues at any distance less than 50 nautical miles from the shore line.

11. Officers of the Port Management are authorised to inspect the efficiency of facilities provided on board vessels for the retention of dirty substances, solid or liquid.

12. All ships at anchor or berthed alongside must take sufficient precautionary measures to fight fire outbreaks.

13. All ships berthed alongside must provide ratguards for their mooring lines.

14. Rigging of ship derricks and opening and closing of hatches are the responsibility of the ship's Master and crew.

15. Crew members of all vessels berthed alongside or anchored in the roads are not allowed to go ashore later than 2300 hrs.

16. Crew members going ashore and wishing to return to their ships are not allowed to enter the Port later than 2300 hrs.

Signed – Port Manager

AUTHORITY: Somali Ports Authority, P.O.Box 935, Mogadiscio, Somalia. *Tel:* 30081/3. *Telex:* 708. *Cables:* Somport, Mogadiscio.

NOTES

Please also advise Shipping Guides Ltd.

M/

South Africa

GENERAL:

NOTICES: Following is an extract of British Notices to Mariners No. 1647(1979).

Routeing of Laden tankers off the coasts of South Africa (West):

Laden tankers in the Summer months should pass not less than 10 miles South of Alphard Banks (Lat. 35° 02′ S., Long. 20° 50′ E.) (See *Africa Pilot Vol. III)* and then keep 25 miles off the following points:

Cape Agulhas	(Lat. 34° 50′ S., Long. 20° 01′ E.)
Quoin Point	(Lat. 34° 47′ S., Long. 19° 39′ E.)
Cape Point	(Lat. 34° 21′ S., Long. 18° 30′ E.)
Slangkop Point	(Lat. 34° 09′ S., Long. 18° 19′ E.)
Cape Columbine	(Lat. 34° 50′ S., Long. 17° 51′ E.).

During the Winter, laden tankers should maintain the recommended distance offshore until the Winter Load Line Zone is reached and then keep as close to that line as possible. This will entail passing North of Alphard Banks and then about 12 miles off Quoin Point and Cape Point.

Vessels proceeding to the Replenishment Area (Lat. 33° 55′ S., Long. 18° 15′ E.). off Cape Town should maintain the above distances off shore until in a position where course can be safely altered to approach the Replenishment Area crossing the main traffic flow as nearly at right angles as possible.

Routeing of Laden tankers off the coasts of South Africa (East):

Laden tankers in the Summer months should pass 25 miles off the following points:

South Sand Bluff	(Lat. 31° 20′ S., Long. 29° 58′ E.)
Bashee River	(Lat. 32° 14′ S., Long. 28° 55′ E.)
Hood Point	(Lat. 33° 02′ S., Long. 27° 54′ E.)
Cape Recife	(Lat. 34° 02′ S., Long. 25° 42′ E.)

and then steer to pass 10 miles South of Alphard Banks (Lat. 35° 02′ S., Long. 20° 50′ E.).

During the Winter laden tankers should maintain the recommended distances off shore until the Winter Load Line Zone is reached and then keep as close to that line as is possible. Between Cape Recife and Cape Agulhas this will entail passing North of Alphard Banks. It is recommended to pass about 6 miles North of these banks.

CAPE TOWN (Table Bay): 33.56 S. 18.26 E. **(See Plan)**

PORT LIMITS: Westwards by a straight line between Green Point and Robben Island Lighthouses, and Northwards by a straight line from Robben Island Lighthouse East (true) to the Eastern shore of Table Bay, thence Southwards along high water mark, so as to include the foreshore to the Castle, thence back to Green Point Lighthouse.

DOCUMENTS:

Customs:
- *Form DA.1, Report Inwards/Outwards for Ships.
- *Form DA.3, Certificate of Clearance for Ships.
- *Form DA.4, Transire – for a destination in the R.S.A.
- *Form DA.5, List of Sealable Goods on board ship.
- Ship's Crew List (Customs Department) 6 Copies.

Post Office:
- *P1/27, Certificate of Departure of Vessel.
- P1/8, Post Office Certificate (Declaration).

Port Health:
- Maritime Declaration of Health.
- Crew List with last vaccination dates.
- Derat Certificate.

Port Authority:
- T908, Light Dues Certificate.
- T942 Clearance Certificate
- *T958, Report of Arrival.
- *T962, Departure/Shifting Notification.
- Ship's Manifest.
- *Completed by Agent.

Shipmaster's Report: March 1981.
- Declaration of Health (Form GES-22)
- Set Vaccination Lists. 1st port only; even with Radio Pratique.
- Derat/Derat Exemption (if boarded).
- 2 Crew Lists.
- 2 Intransit Passenger Lists.
- 4 Landing Passenger Lists (Form DI-35).
- Crew Sealable Goods (Form DA-5).
- Crew Declarations (Company Form).
- Inventory of Slop Chest (Company Form).
- Register and Set of Ship's Certificates (used by Agent for clearing and returned).
- Arrival/Departure Record (Form BI-55) (Disembarking passengers only).
- Livestock Form (if nil, write on top of DA-5).
- Ship's Mail Declaration (Form P1/149) (if nil, write on top of DA-5; if mail aboard, cable Postmaster details free message, and forms will be presented by Agent at boarding).
- Certificate of Medical Officer, Master . . . (Form DI-67).
- Report of Arrival (Form T958) (to Pilot).
- Leaving Certificate (Form BI-86).

Notes: Fly "I" flag entering all ports; "B" if flammable cargo aboard. Include ship's entertainment TVs, radios, etc., cameras and walkie-talkies on DA-5. Although part of DA-5, addition of tobacco/spirits on Crew Declarations (Company Form) will allow same form to be used in Mozambique and Somalia.

PILOTAGE: Compulsory. One hour advance notice to be given to the Port Captain through VHF radio, call sign Port Operations, on Channel 16, working Channel 12. Pilot boat fitted with multi-channel VHF. Two motor pilot boats, one with black hull and white upperworks and one with an orange hull and white upperworks. Pilot taken aboard at position: Main Breakwater bearing 155° (T) × 2.5 miles.

RESTRICTIONS: Vessels not permitted to enter unless Agents have been appointed. Oil tankers and ships carrying explosives or dangerous goods restricted to daylight hours.

MAX. SIZE: Passenger and dry cargo vessels: max. length up to 305 m. overall; draft 10.97 m. Tankers: (for discharging) max. length 820 ft. overall; draft 13.1 m. (tidal).

Tankers/ore carriers in ballast up to 350 m. in length, 350,000 d.w.t. and draft 13.1 m. may berth for bunkers, repairs, etc.

HEALTH: Pratique granted at first port of entry in South Africa. Pratique message 24 hours prior to arrival to "Port Health" at port of entry. If Radio Pratique not granted "Q" flag to be flown until ship has been cleared. Valid certificates must be held for yellow fever. Ships from Eastern ports must also have valid certificates for cholera and typhoid.

RADIO: Cape Town Radio, call sign ZSC. VHF and R/T 2182 kHz.

BERTHING: Chart datum is that referred to in the South African Tide Tables published by The Hydrographer of South African Navy.

Wharfage	*Length* (m.)	*Depth Chart Datum* (m.)	*Cranes (electric)* *No.*	*Lifting capacity* (tons)
Victoria Basin				
No. 1 Jetty, East Side	177.7	5.28	—	
West Side	162.3	5.48	—	
No. 2 Jetty, West Side	195.1	9.98	1	4
East Side	195.1	9.08		
Collier Jetty, North Side	208.5	3.98	—	
South Side	212.4	6.28		
South Arm	600.5	8.18	—	
Elbow	161.5	9.28	—	—
No. 4 Quay	29.0 18.3	2.98	—	
No. 5 Quay	87.8	4.28	—	
No. 6 Quay*	178.4	6.68	—	
No. 7 Quay*	192.0	9.88	—	
East Pier*	239.6	9.48	—	
Cross Berth	137.2	4.38	—	
Fish Quay	91.1	2.38	—	
Alfred Basin				
West Quay	225.9	5.18		
North Quay	134.1	6.08	1	4
East Quay, No. 1 Berth	100.6	3.88	—	
East Quay, No. 2 Berth	70.7	4.08	—	
East Quay, No. 3 Berth	64.0	3.98	—	
East Quay, No. 4 Berth	54.9 39.6	3.98	—	
South Quay	45.7	4.28	—	
Duncan Dock				
Berth "A"	274.3	10.20	8	4
Berth "B"	243.8	11.00	15	4
Berth "C"	213.4	10.50		
Berth "D"	185.0	9.10		
Berth "E"	225.6	10.60	2 39	15 4
Berth "F"	249.9	11.20		
Berth "G"	249.9	11.80		
Berth "H"	318.5	12.60		
Berth "J"	249.9	10.60		
Berth "K"	249.9	10.30		
Berth "L"	246.3	10.00		
Berth "M", N.W. Side	217.9 43.9 31.5	4.58 4.58 6.08	2	15
Repair Pier, N.E. Side	326.0 100.0	— 9.78		
Repair Pier, S.W. Side	31.5 426.0	6.08 11.18		
Graving Dock Landing Wharf	274.3	10.78	—	
N.E. Side	274.3	13.58	—	
S.W. Side	274.3	11.98	—	
	274.3	13.88		
No. 1 Eastern Mole	259.1	12.68	—	
No. 2 Eastern Mole	259.1	13.68	—	

*Closed for commercial cargo working.

Ben Schoeman Dock:

Berth	*Length* (m.)	*Min. Depth at Chart Datum* (m.)	*No.*	*Cranes Capacity* (tons)
Coaster Berths				
Berth 500	201.4	9.60	—	—
Berth 501	183.0	9.60	1	30
Berth 502	183.0	9.90		
Deep Sea Berth				
Berth 600	220.0	9.90	—	—
Berth 601	236.0	12.30	—	—
Berth 602	305.0	13.70	4	40
Berth 603	305.0	13.70		
Berth 604	305.0	13.70		

Roll-on/Roll-off Facilities: Available at Berths 500 and 501, as well as at "L" and "M" Berths. Berths "A" and "J", 502 and 600 for ships with slew ramps only.
Cold Store: Blue Continent Cold Storage Co. (Pty) Ltd. Tel: 51-3154. Telex: 577355 and 577232. Operates cold store with capacity of 17,000 tonnes at −30°C.
Pre-Cooling Store: Deciduous Fruit Board. Tel: 930 3960. Telex: 527718/526771. Operates 8 pre-cooling chambers with capacity of 10,000 cu.m. (approx.) at D-Shed.
Container Terminal: Area – 97 hectares; Ground slots – 4,858 TEU's; Reefer points – 190 plug points; Refrigerated holding store – 500 slots. Equipment: container gantry cranes, straddle carriers, haulers and trailers.

TUGS: Join vessel approximately 0.25 miles from harbour entrance.

4 diesel Voith Schneider tugs with a bollard pull of 43 tons. All tugs are fitted for firefighting and salvage. Tug's wires used at no extra charge.

Stand-by tugs compulsory for tankers discharging crude.

CRANES: *Floating Cranes:* Lifts 60 tons at 24.4 m. radius and another floating crane lifts 200 tons at 21.5 m.

BULK HANDLING FACILITIES: *Grain Elevator:* 1 terminal grain elevator of 27,220 tons storage capacity, with loading conveyors to the Collier Jetty. Continuous intake capacity of elevator, 750 t.p.h.; shipping capacity, 1,000 t.p.h. (Leased for private use: Loading conveyors only now usable, subject to considerable mechanical overhaul).

Other bulk cargoes handled at general cargo berth with shore crane.
No LPG facilities.

MEDICAL: Unrestricted hospital facilities. Medical assistance must be arranged through Agents.

TANKERS: Tanker Basin to accommodate two tankers simultaneously, one of max. overall length of 256.0 m. and one of 204.2 m. overall length. Max. permissible draft 13.1 m., subject to a minimum of 0.9 m. on tide gauge.

Slop tank: Capacity 1,500 tons, available for oily ballast from tankers back loading white oil.

DENSITY: 1025.

FRESH WATER: Delivery by hose ex-wharf hydrants. 50 t.p.h.

FUEL: 48 hours' notice required. MFO, IFO and Gas Oil available.
Shipmaster's Report: November 1987.

All grades of fuel are not available at all times.

GANGWAY/DECK WATCHMEN: Ship's Agent makes necessary arrangements.

OPENING/CLOSING HATCHES: Mechanical hatches opened/closed by crew. Other types of hatches by stevedores.

CERTIFICATES:

Safety Certificates in respect of construction and gear.
Radio Certificate.
Load Line Certificate.
Derat Certificate.
Certificate of Competent Officers (passenger ships only).

CUSTOMS ALLOWANCES: The Master, officers and other members of the crew who remain on the ship during its stay in port may each be allowed to retain in his possession the following quantities (to cover 4 days) of the undermentioned sealable goods:

	Tobacco in any form grammes	*Potable spirits in any form litre*	*Wine litres*	*Beer or stout litres*
The Master/Pilot	230	1	3	3
Officers (including pursers, surgeons, chief stewards, wireless operators and serangs)	175	1	3	3
Other members of the crew	115	nil	3	nil

Where the Master, officers or other members of the crew remain on board the ship for more than 4 days, the Controller of Customs and Excise may on request authorise the issue from under seal, for consumption on board, of the following further quantities per day:

	Tobacco in any form grammes	*Potable spirits in any form millilitres*	*Wine litres*	*Beer or stout litres*
The Master/Pilot	30	100	1	1
Officers (including pursers, surgeons, chief stewards, wireless operators and serangs)	25	100	1	1
Other members of the crew	15	nil	1	nil

CARGO GEAR: All cargo handling equipment must be in good condition and certificates available for inspection.

IDENTIFICATION CARDS: Not required.

SURVEYORS: Lloyd's, BV, N.V., N.K.K. and ABS.

CONSULS:

Argentina
Australia
Austria
Belgium
Bolivia
Brazil
Canada
Chile
Denmark
Finland
France
Germany F.R.
Greece
Israel
Italy
Japan
Monaco
Netherlands
Norway
Panama
Peru
Portugal
Spain
Sweden
Switzerland
Taiwan
United Kingdom
U.S.A.
Uruguay

REPAIRS: All types of repairs can be undertaken.

HOLIDAYS: New Year's Day (1st January); Founder's Day (6th April); Good Friday; Family Day; Ascension Day (date varies); Republic Day (31st May); Kruger Day (10th October); Day of the Vow (16th December); Christmas Day (25th December); Day of Goodwill (26th December). Cargo is not worked on Christmas Day and New Year's Day.

DRY DOCKS:
Sturrock Graving Dock: Situated at S.E. end of Duncan Dock:

Dimensions:		
	Overall docking length	360.0 m.
	Length on keel blocks (first to last keel block)	338.3 m.
	Length on bottom (dock floor)	350.4 m.
	Width at coping	47.5 m.
	Width at entrance top	45.1 m.
	Maximum width at bottom	38.4 m.
	Depth on entrance sill, HWOST	13.7 m.
	Depth on inner sill, HWOST	15.1 m.

A docking length of 369.6 m. can be obtained by placing the caisson in the emergency stop at the entrance.

The dock can be divided into 2 compartments of either 132.5 m. and 216.1 m. or 205.7 m., and 142.9 m. respectively.

1×50 ton and 1×10 ton electric cranes on 7.6 m. gauge track, 2×5 ton electric cranes on 4.9 m. gauge track and 3×4 ton electriccranes on 4.9 m. gauge track are available.

The dock can be emptied in 4 hours.

A landing wharf 548.6 m. in length is provided on the port side of the graving dock to facilitate the dry-docking of ships.

A repair pier 457.5 m. in length is provided off "M" berth. 2×15 ton electric cranes on 9.1 m. gauge track is available.

Robinson Graving Dock: Situated in Alfred Basin:

Dimensions:		
	Overall docking length	161.2 m.
	Length on keel blocks (first to last keel block)	142.6 m.
	Length on bottom	152.4 m.
	Width at coping	27.4 m.
	Width at entrance top	20.7 m.
	Maximum width at bottom	17.2 m.
	Depth on entrance sill, HWOST	7.9 m.

3×4 ton electric cranes on 4.1 m. gauge track and 1×15 ton electric crane, on 4.1 m. gauge track are available.

The dock can be emptied in 3 hours.

Syncrolift: Situated in Alfred Basin:

Dimensions:		
	Lifting capacity	1,750 tons
	Maximum length of vessel	61 m.
	Maximum width of vessel	15 m.

Slipways:

There are 4 boat slips for yachts and small craft.

REPATRIATION: All facilities available.

1. *Vessels Docking*
   - *(a)* Any personnel arriving to join a vessel at Cape Town should possess a valid travel document and a brief letter of introduction. Entry Permits can be extended if the vessel is late in arriving.
   - *(b)* Application to spend time (longer than 48 hours) in South Africa prior to repatriation should be made to the local Immigration Authorities.
2. *Vessels Calling Off Port Limits*
   - *(a)* The same requirements apply as for 1(a) with the exception of personnel who have entered the country from a vessel calling off Port Limits.
   - *(b)* The following applies to all personnel disembarking from vessels calling off Port Limits.
     - (i) Repatriation must be made within 48 hours from time of signing off.
     - (ii) In order to comply with local Immigration Authorities the Agent requires the following details, for each individual, at least 72 hours before disembarkation:
       - *(a)* Full name and nationality.
       - *(b)* Rank and, if Technician, name of employers.
       - *(c)* Passport number, place and date of issue.
       - *(d)* Place and date of birth.
       - *(e)* Destination and class of travel.
       - *(f)* If air ticket held on board, full details of routing.
       - *(g)* Reasons for disembarkation.

In the case of personnel transferring from one company vessel to another, the same conditions apply except the maximum time permitted for such transfer is 78 hours. If they have not joined the vessel within this period, repatriation must be arranged forthwith.

There are no difficulties for any personnel disembarking for medical reasons.

AIRPORT: D.F. Malan Airport – 20 km. from harbour. Daily flights to Johannesburg connecting with overseas flights by regular airlines.

TIME: GMT plus 2 hours.

POLICE/AMBULANCE/FIRE: Police, 419-0260; Ambulance, 51-5151; Fire, 218-5431 or 46-5555.

TELEPHONES: Telephones can be supplied at all berths. Arrange through Agents.

SHORE LEAVE: Allowed.

SHIP SUPPLY SERVICES:
Helicopter Service: Available for mail and small items of stores for vessels not wishing to enter harbour.
Launch Service: For vessels not wishing to enter harbour, Agent may arrange launch service for mail, stores, etc. In this case service only permissible in area North and West of position at least 5 miles due West of Robben Island.
Supplied by:

Court Helicopters (Pty) Ltd., P.O.Box 2546, Cape Town 8000.
Ocean Ferries (Pty) Ltd., P.O.Box 6426, Roggebaai 8012.
Sealink Ltd., P.O.Box 4962, Cape Town 8000.
Southern Offshore Supplies, P.O.Box 1339, Cape Town 8000.
Also see "Shipmaster's Report".

SHIPMASTER'S REPORT: Off limits launch and helicopter service.

Port, Immigration, Customs and Health Authorities have made it clear that this service is a privilege and not a right. It is therefore of the utmost importance that the regulations are strictly adhered to.

The Agent must apply to the Port Captain for permission to service the vessel and the following details must be submitted. Name of vessel, time and date of arrival, draft, where from, where to, stores required and other reasons for call.

Launch is only allowed to be alongside vessel for 1 hour maximum otherwise vessel will have to enter port limits and incur port dues.

If personnel embarking, Immigration Authorities require name of vessel, tonnage, whether ballast or loaded and names of persons embarking. If persons disembarking then full names, dates and places of birth, nationality, passport or discharge book number and expiry date, whether South African visa held and comprehensive reason for leaving vessel, arrangements made for departure from South Africa (usually 24/48 hours allowed), and flight number. This does not apply to medical cases. Guarantee from Agent accepting full responsibility and liability regarding maintenance and repatriation expenses. Persons disembarking must report immediately to Passport Control. Failure to report or leave South Africa on the booked flight is an offence and in addition to any fine or imprisonment the Owners will be refused any further off limits service for *any of their vessels*.

Port Health require application for Radio Pratique 48/24 hours before arrival. Customs require all bonded stores loaded to be signed for and ship's stamp applied. Stores or spares being landed must have prior notification to Agent and an accompanying letter giving full description and disposal instructions.

Agents require 168, 96, 48, 24, and 12 hours' notices followed by any amendment to ETA. Stores requirements should be sent at least 96 hours before arrival. Three copies of Crew List to be sent ashore with launch (or helicopter).

Services operate 24 hours per day and usual rendezvous position is 5 miles West of Green Point Lighthouse for launch (and 12 miles West for helicopter). Launch can carry up to 30 tons stores (and helicopter up to 2,000 kg.). Vessels should not anchor but provide a good lee and have derrick rigged. Contact should be made with the launch (or helicopter) 1 to 2 hours before arrival rendezvous point using Channel 16.

AUTHORITY: South African Harbours, P.O.Box 32696, Braamfontein 2017, Johannesburg, South Africa. *Tel:* (011) 7734250. *Telex:* 424205. *FAX:* (011) 4032398. *Contact:* The Chief Executive.

Cape Town: P.O.Box 4245, Cape Town 8000. *Tel:* (021) 218-2004. *Telex:* 550178 Porcap. *Contact:* Port Director, Port Manager Tel: (021) 218-2405 or Port Captain Tel: (021) 218-3413.

AGENT: King & Sons (Pty.) Ltd., P.O.Box 220, Cape Town, 8000. Tel: (021)-211830. Telex: 52-2026. Cables: Baronet, Cape Town.

DURBAN (Port Natal): 29.53 S. 31.02 E. (See Plan)

PORT LIMITS: The area of sea bounded by:

(1) to the North, a line drawn from the coast in position: Lat. 29° 48′ 42″ S., Long. 31° 02′ 32″ E. in a 090° (True) direction to position Lat. 29° 48′ 42″ S., Long. 31° 07′ 30″ E.;

(2) to the South, a line drawn from the coast in position; Lat. 29° 54′ 06″ S., Long. 31° 02′ 30″ E. in a 090° (True) direction to position Lat. 29° 54′ 06″ S., Long. 31° 07′ 30″ E.;

(3) to the East, a line joining the seaward positions in (1) and (2).

DOCUMENTS: See "Cape Town".

PILOTAGE: Compulsory. As much advance notice as possible to be given to Port Captain through VHF radio – Port Operation – calling Channel 16, working Channel 12. Call Pilot by Aldis lamp if necessary. Pilot boats fitted with multi-channel VHF.

Motor pilot boats – hulls painted black, white housing. "Pilot-loods" painted in black on housing. Pilot taken aboard at Pilot Boarding Area situated approximately 2 miles N.N.E. of South breakwater light.

Vessels not to approach closer than 2 miles from entrance until contact has been made with pilot boat.

RESTRICTIONS: Vessels not permitted to enter unless Agents have been appointed. Oil tankers and ships carrying explosives or dangerous goods restricted to daytime hours. The depth of the inner and outer channels is 12.8 m. below chart datum.

Hazardous Cargoes: Details of all hazardous cargo for discharge or loading at Durban and hazardous cargo remaining on board during a vessel's stay, are to be made known to the authorities through the vessel's Agent, not less than 72 hours prior to vessel's arrival.

Information required: Commodity, packaging, weight and volume, IMO group and stowage on board.

Vessels having on board more than 10 tons of hazardous cargo, will require to maintain a fire watch manned by qualified shore firemen and in addition, have an emergency shore telephone on board.

MAX. SIZE: The draft permitted is 38 ft. (11.58 m.) The length of 800 ft. is exceeded with the Port Captain's approval.

Size of vessels permitted to enter during the hours of darkness and also to shift berth at night: Vessels not exceeding 200 m. in length and 26 m. in beam may be brought into port at night provided weather conditions are suitable. Maydon and Esplanade Channels may not be traversed in either direction at night by vessels whose length exceeds 182.89 m. Vessels whose beam exceeds 35 m. are brought into port only when weather conditions are suitable.

HEALTH: Pratique message to "Port Health" at port of entry. If Radio Pratique not granted "Q" flag to be flown until ship has been cleared. Valid certificates must be held for yellow fever. Ships from Eastern ports must also have valid certificates for cholera and typhoid. Port Health, Telex No. 621726.

Shipmaster's Report: Valid Yellow Fever Certificate not required.

BERTHING:		*Depth at Chart Datum*		*Cranes (electric)*	
Wharfage	*Length* (m.)	*Max.* (m.)	*Min.* (m.)	*No.*	*Capacity* (tons)
Point and "T" Jetty					
A to C Berths	775	11.64	9.04	15	4
				1	15
				1	80
D to G Berths	1,032	9.04	6.94	16	4
L and M Berths	600	12.14	10.94	15	4
				1	15
N Berth	262	12.14	12.14	6	4
O and P Berths	623	12.14	10.94	11	4
				4	7.5
				1	15
Q and R Berths	377	10.94	10.94	10	4
A Berth Extension (Tug Berth)	62	9.04	9.04	1	15
Repair Quay (Shop 17)	183	6.64	6.64	1	10
Tug Jetty at "R" Berth	344	6.00	6.00	—	—
Pier No. 1					
Berth 101	229	12.74	12.74	6	4
Berth 102	213	12.74	12.74	3	4
				1	7.5
				2	15
Berth 103	235	12.74	12.74	5	4
Berth 104	351	12.74	12.74	1	4
				4	7.5
				1	15
Berth 105	235	12.74	12.74	4	4
				2	7.5
Berth 106	213	12.74	12.74	3	4
				1	7.5
				1	15
Berth 107 (Large Ro/Ro vessels)	238	12.74	12.74	3	4
				2	7.5
Cross Berth					
Berths 108 and 109	545	12.74	12.74	1	40
			(Container Wharf Crane)		
Pier No. 2					
Berth 201 (Ro/Ro)	335	12.74	12.74	2×40 ton wharf container crane	
Berth 202 (Ro/Ro)	335	12.74	12.74		
Berth 203	305	12.74	12.74	5×40-ton wharf container cranes in use on this quay	
Berth 204	305	12.74	12.74		
Berth 205	305	12.74	12.74		
Bluff Berths					
Berth 1	148	9.04	9.04	—	
Berth 2	177	10.34	10.34	—	
Berth 3	180	9.04	9.04	—	
Berth 4	238	10.64	10.64	—	
Dolphins Berths—Island View					
Berth 1	236	12.74	12.74	—	
Berths 2 and 3 (167.5 m each)	335	10.64	10.64	—	
Berth 4	186	10.64	10.64	—	
Berths 5 and 6 (186 m. each)	372	10.94	10.94	—	
Berth 7	229	12.74	12.74	—	
Berth 8	229	12.74	12.74	—	
Berth 9	244	12.74	12.74	—	
Salisbury Island					
Berths 1 and 2 (213 m. each)	427	9.04	8.44	1	3
Harbour Craft Quay					
(Dredgers)	276	12.74	9.04		
(Launches)				(Launches also available for commercial use on application).	
Harbour Craft Quay					
(Launches)	103	6.04	6.04	—	
Maydon Wharf (Congella)					
Berth 1	152	9.84	9.84	—	
Berth 2	152	9.84	9.84	—	
Berth 3	152	9.84	9.84	—	
Berth 4	152	9.84	9.84	—	
Berth 5	201	9.84	9.84	—	
Berth 6	198	9.84	9.84	5	4
Berth 7	198	9.84	9.84	4	4
Berth 8	172	9.84	9.84	—	
Berth 9	180	9.84	9.84	10	4
Berth 10	226	9.84	9.84	3	7.5
Berth 11	191	10.64	9.84		
Berth 12	274	6.04	6.04	8	4
Berth 13	175	9.84	9.84	—	
Berth 14	175	9.84	9.84	—	
Berth 15	213	9.84	9.84	—	
Graving Dock Return Wall	79	11.24	6.04	1	15
Repair Quay	155	6.04	6.04	2	4
Fish Wharf and Jetty	441	6.04	6.04	—	
Ship-repair Jetty	413	8.44	8.44	1	10
		6.10	6.10	1	15

RADIO: Durban Radio – ZSD.
VHF: Durban Port Control office is fully equipped with VHF communications.
TUGS: 7 first-class tugs available. Join vessels in entrance channel. Tug's wires used at no extra charge.

Stand-by tugs compulsory for tankers discharging crude.

BULK HANDLING FACILITIES: *Bluff Coaling Appliance:* Operators: S.A. Harbours. 3 berths, BCA 1, 2 and 3 equipped with electrically driven appliances for the loading of coal. 1 belt loader with capability of loading at the rate of 550 t.p.h. and 2 bucket transporters with an aggregate capacity of 1,100 t.p.h. are available. The overhead storage bins have a capacity of 9,220 tons, while concrete bins are provided for ground storage with a capacity of 38,630 tons of anthracite. All exports are brought in by rail trucks. Overall productivity 4,000 tons per 24 hours. There is no work between 1100 hrs. Saturday and 0700 hrs. Sunday.

Coal Anthracite Storage Facilities: Concrete ground storage bins of 18,290 tons capacity at Causeway Road.

Island View 3: Operators: Durban Bulk Shipping Co. (Pty) Ltd. Max. draft 10.64 m., max. length 167.5 m., max. reach 9.4 m., dolphin max. height 13.1 m. Storage capacity: 60,000 tons (grain) and 25,000 tons (minerals).

Although a variety of products are handled at this berth, the operators mainly import and export their own product, which is de-fatted germ meal pellets.

Load/discharge Rates in tons per hour:

	Load	*Discharge*
De-fatted Germ Meal	380	160
Chrome Ore	550	200
Andalusite	550	—
Mono Calcium Phosphate	100	—
Agricultural Commodities	380	160

A tank farm is sited adjacent to the terminal silos with storage facilities for 6,500 tons of vegetable oils and liquid products.

New Pier 109 – Storage Silo – Soda Ash: Operators: St. Auffer. Imports of Soda Ash. Max. length 244 m., max. draft 12.74 m.

Vessels are discharged using 2 vacuum operated suckers to a storage facility of 32,000 tons at 300 t.p.h. or direct to rail trucks at 140 t.p.h.

Maydon Wharf 2 – Sugar Terminal: Operators: S.A. Sugar Association. Exports of bulk and bagged sugar. Max. draft. 9.84 m., max. reach 15 m., max. throw 15 m., max. height 14 m. Max. wharf length of continuous gantry: 131 m. Storage in 3 silos with 520,000 tons capacity.

Loading is facilitated over 2 appliances, but only one operated at a time with a rate of 750 t.p.h. 24 hour operation if required. Stowage Factor: 43.

Maydon Wharf 5 – Multi Product Installation: Operators: Rennies Bulk Terminals. Max. length 189 m., max. draft 9.84 m.

Discharge and loading of minerals, agricultural and processed products in bulk.

Storage capacity: Minerals.

3 covered sheds containing 14 segregated concrete bins – 80,000 tons. 2 concrete silos – 12,000 tons.

Storage capacity: Non-Minerals.

17 concrete silos – 4,540 cu.m. 3 star bins – 690 cu.m.

Loading Rates:

To ship: Agricultural – 400 t.p.h., minerals 700 t.p.h.
Ex-ship: Agricultural – 200 t.p.h., minerals – 200 t.p.h.

Hours of Operation: 24 hours per day, 7 days. Normal Monday – Friday 0600 – 1800 hrs. Balance at overtime rates.

Trimmer and Boom: Max. height of loading MSL +7.2 m., minimum depth of lowest bulkhead MSL + 1 m. Max. distance from quay 19 m. Minimum distance from quay 9.2 m. Max. throw 12 m. Rotation 360°.

Maydon Wharf 8 – Grain Terminal: Operators: S.A. Harbours. Loading of bulk grain. Max. draft 9.84 m. Vessels have loaded up to 10.6 m. on a rising tide but the Master must take full responsibility and prior permission must be obtained from the Port Captain. Loading through 4 spouts. Storage capacity 38,100 tons (maize) and 14,000 tons (sun flower seed). Loading rate (maize) 1,290 t.p.h. Bagging rate 3,000 bags per day.

Hours of Operation: Ordinary time Monday – Friday 0600 – 1200 hrs., 1230 – 1800 hrs. Overtime: Monday – Friday 1800 – 0600 hrs. Saturday 0600 – 0600 hrs. Sundays and public holidays 0600 – 0600 hrs.

Max. length: Wharf 171.7 m. Gantry 133.56 m. between outermost shipping spouts. Max. beam with elevator spouts extended 27.43 m. Max. height from water level to top of coaming 14 m.

Average Stowage Factors	*Lower Hold*	*Tween Decks*
Conventional Vessels:		
Sorghum	49	51
Yellow Maize – Grade 1	46	47
Yellow Maize – Grade 2	47	48
Bulk Carriers:		
Sorghum	45.5	
Yellow Maize – Grade 1	46.5	
Yellow Maize – Grade 2	46.5	

Maydon Wharf 9 – Bulk Molasses: Operator: Pure Cane Molasses. Max. length 180 m., max. draft 9.84 m., storage capacity 42,000 tons, shipping rate 200 t.p.h. Piping and flanges available from operator. Shipping of Molasses in bulk.

Maydon Wharf 14 – Bulk Soda Ash Appliance: Operator: I.C.I. Max. draft 9.84 m., max. length 190 m., max. reach 17 m.

Discharge of bulk soda ash through 2 vacuum operated suckers simultaneously to shore storage facility of 22,000 tons. Hours of operation 24 hours – 7 days. Rate of discharge 120 t.p.h.. Max. 2,000 tons per 24 hours.

Maydon Wharf 15 – Bulk Manganese Ore Appliance: Operator: Associated Manganese. Max. draft 9.84 m., max. length 230 m., outreach 12 m. Hours of operation: 24 hours – 7 days.

Loading of bulk manganese ore over single boom conveyor. Appliance fed from 30,000 ton capacity open air storage facility, shipping rate 400 t.p.h.

CRANES: *Floating Cranes:* 2, lifting capacities of 60 tons and 125/200 tons, respectively.

Mobile Cranes: Diesel-electric road cranes: 2×12.5 ton, 1×30 ton and 6×35 ton cranes.

CONTAINER HANDLING FACILITIES: A major container terminal comprising 5 deep sea berths (201-205) and 2 coaster berths (108-109) is equipped with 7×40 ton wharf container cranes at deep sea facility and 1×40 ton unit at Berth 108.

The entire complex covers some 102 hectares and provides very substantial stacking areas backed up by a large terminal building with computer control, workshop complex and a road/rail transfer terminal to handle unit trains conveying 100 TEUs. This rail terminal is served by 2 modern 35-ton container gantry cranes covering 3 rail tracks and 2 traffic lanes. The back up system operates on a combined trailer straddle carrier system comprising 34×30 ton, 8-wheeled straddle carriers augmented by a substantial fleet of terminal haulers and trailers as well as a large cartage fleet operated by the Port Authority for the local delivery of containers.

A very modern stuffing and re-stuffing depot located on a 13 hectare site immediately adjacent to the harbour terminal is operated by private enterprise (Messrs. S.A. Cargo Depots). The depot is fully equipped with re-stuffing sheds and container handling equipment to cater for LCL traffic.

The container terminal operates a 24 hour day, 7 days a week service.

PRE-COOLING FACILITIES: *Pre-cooling Stores:* South African Co-operative Citrus Exchange Limited: Tel. 012-282181. Telex: 321391. Operates 11 pre-cooling chambers with a capacity of 15,000 cu.m. (approx.) at Berths O and P.

STEVEDORES: Stevedoring undertaken by private enterprise stevedores appointed by ship's Agent.

Port Working Hours:

The port is a 7 day, 24 hour port as far as berthing and pilotage are concerned.

Cargo working hours at conventional berths are:

Monday – Friday (2 shifts)	0600 – 1400 hrs.
	1400 – 2200 hrs.
Sunday (1 shift)	0700 – 1500 hrs.

Saturday working (0600 – 1200 hrs.) only authorised when the port is congested. Saturday and Sunday working as overtime.

Container Terminal: Continuous work 7 days a week with shift changes at 0600 hrs., 1400 hrs. and 2200 hrs.

MEDICAL: Unrestricted hospital facilities. Medical assistance must be arranged through Agents.

TANKERS: *SBM:* An off-shore single buoy mooring, suitable for crude dischargers between 70,000 and 300,000 d.w.t., is situated in position 30° 00.5′ S., 30° 58.5′ E. A Mooring Master will board in position 2 miles Eastward of the SBM. A starboard derrick, capacity 10 tons should be ready and crew available to lift mooring equipment on board from launch. A good lee on the starboard side is desirable.

Mooring to the buoy is with 2 lines provided by the terminal but vessels are required to provide a rope messenger, available on the forecastle. The mooring operation is carried out by shore personnel, assisted when necessary by ship's crew.

Pipe-line manifold should be ready to connect two 16 in. discharge hoses ASA 150 flanges. Connection by terminal personnel. The hose connection team remain onboard throughout the discharger's stay at the SBM.

No bunkers, or water are available from the SBM. Vessels using the buoy and receiving water or stores ex-launch may only do so prior to berthing or after leaving the SBM and at a distance of more than 2 miles from the buoy.

Port Tanker Berths: There are 7 tanker berths for vessels of max. length 244 m., max. draft 12.3 m. at Island View.

Slop tank facilities with a capacity up to 4,000 tons are available. Requirements in excess of this volume should be made known to the vessel's Agents with as much prior notice as possible.

Crude oil discharge through 10 in. hoses, white oil 8 in. hoses and loading products through 8 in. hoses.

Bunkers and fresh water available ex-berth.

Chemical tankers up to 183 m. berthing at No. 1 Island View are permitted to berth during hours of darkness. Agent to advise Port Control in advance that SOLAS and Classification Certificates are valid.

2 tugs required for shifting and all tanks to be sealed.

DENSITY: 1025.

FRESH WATER: Delivery by hose ex-wharf hydrants. Rate of delivery 40 t.p.h.

FUEL: The following types of fuel are available as indicated:–

New Pier:	Fuel oil and diesel.
Island View:	Berths 1, 2, 3, 4, 9 – Fuel oil and diesel
Island View:	Berths 5, 6, 7, 8 – Fuel oil, diesel and gas oil.
Point:	Berths A to R – Fuel oil, diesel.

There is a self-propelled bunkering barge called the "Durban Servicer" with a capacity of 140 tonnes of gas oil, 650 tonnes fuel oil and 280 tonnes diesel.

CERTIFICATES:

Safety Certificates in respect of construction and gear.
Radio Certificate.
Load-line Certificate.
Derat Certificate.
Certificate of competent officers (passenger ships only).

OPENING/CLOSING HATCHES: Mechanical hatches opened/closed by crew. Other types of hatches by stevedores.

CUSTOMS ALLOWANCES: See "Cape Town".

CARGO GEAR: All cargo handling equipment must be in good condition and certificates available for inspection. Under normal conditions vessels are obliged to use shore cranes.

IDENTIFICATION CARDS: Required, otherwise National Identity Cards, if available.

CONSULS:

Austria	Tel. 69512	Norway	Tel. 316155
Belgium	,, 62139	Panama	,, 329741
Denmark	,, 311612	Paraguay	,, 391750
Finland	,, 316155	Portugal	,, 318293
France	,, 3012214	Sweden	,, 251655
Germany F.R.	,, 3055677	Thailand	,, 311612
Greece	,, 3047010	U.K.	,, 313131
Italy	,, 64107	U.S.A.	,, 324737
Netherlands	,, 321770		

REPAIRS: All types of repairs can be undertaken.

DRY DOCKS: *Prince Edward Graving Dock:*

Dimensions—	Overall docking length	352.044 m.
	Length on keel blocks	327.660 m.
	Length on bottom	352.044 m.
	Width at coping	42.215 m.
	Width at entrance top	33.528 m.
	Maximum width at bottom	33.528 m.
	Depth on entrance sill HWOST	12.497 m.
	Depth on inner sill HWOST	13.106 m.

A docking length of 364.44 m. can be obtained by placing the caisson in the emergency stop at the entrance.

The dock can be divided into 2 compartments:

Outer 206.906 m. and inner 138.684 m.

The dock can be emptied in 4 hours.

Dry Dock Cranes:

2×8 ton with 27.50 m. radius
1×10 ton with 27.40 m. radius
1×25 ton with 27.40 m. radius
1×5 ton with 15.20 m. radius
1×10 ton with 18.28 m. radius
1×50 ton with 27.40 m. radius

Floating Dock No. 2:

Dimensions—	Extreme length	62.8 m.
	Length on bottom	61.0 m.
	Length on keel blocks	58.2 m.
	Extreme width	19.2 m.
	Width at entrance	13.7 m.
	Height of keel blocks	1.2 m.
	Draft on keel blocks, HWOST	5.6 m.
	Lifting capacity	1,016 tons

A 4 ton electric crane is mounted on a side wall of the dock.

Floating Dock No. 3:

Dimensions—	Extreme length	106.680 m.
	Length on bottom	106.680 m.
	Length on keel blocks	104.546 m.
	Extreme width	26.822 m.
	Width at entrance	19.482 m.
	Height on keel blocks	1.219 m.
	Draft on keel blocks, HWOST	5.334 m.
	Lifting capacity	3,629 tons
	Crane	4 tons

SURVEYORS: All Classification Societies represented.

REPATRIATION: All facilities available. Also see "Cape Town".

AIRPORT: Louis Botha Airport – 15 miles from harbour. Daily flights to Johannesburg connecting with overseas flights by regular airlines.

TIME: GMT plus 2 hours.

HOLIDAYS: New Year's Day (1st January); Founder's Day (6th April), Good Friday; Family Day; Ascension Day (date varies); Republic Day (31st May); Kruger Day (10th October); Day of the Vow (16th December); Christmas Day (25th December); Day of Goodwill (26th December). Cargo is not worked on Christmas Day.

POLICE/AMBULANCE/FIRE: Police, 310-2714; Ambulance, 62333; Fire, 62333 or 4502222.

TELEPHONES: Telephones can be supplied at all berths. Arrange through Agents. Also see "Restrictions" – Hazardous cargoes.

GENERAL: A copy of the Regulations for the Republic of South Africa supplied gratis to Masters on arrival.

SERVICES: Tank-cleaning facilities compass adjustments and repairs to all electronic gear can be undertaken.

SHORE LEAVE: Allowed.

SHIP SUPPLY SERVICE: Crew changes are permitted by helicopter or launch at Durban and can be arranged with prior permission from Immigration and Customs Authorities provided vessel has been granted Radio Pratique.

Helicopter Services: A single engine Sikorsky S62 helicopter is available for crew changes and supply services to vessels passing off Durban. The above helicopter is available for daylight service only, except in emergencies.

Normal Service: Within 15 nautical miles of Cooper Light.

Note: Normal Rendezvous area is 10 nautical miles off the coast. Bearing (160°T) from Cooper Light. (For service where more than one flight is required the ship MUST route through the 10 nautical miles rendezvous position).

Launch Service: A Company operates launches suitable for servicing vessels off port limits. Up to 20 tons of stores and/or provisions and a maximum of 14 passengers can be carried. The condition of transport is that same is performed solely at Owner's risk.

The costs involved are R100 per half hour or part thereof and nominal charges are raised for the use of the launch's 1.5 ton hydraulic crane and steel cages to carry stores.

Communication can be established with the launch 1 hour prior to the ship's arrival at the Rendezvous position, on either VHF Channel 16 or 2182 kHz. The normal Rendezvous is five miles East of the Durban Harbour breakwater, but this can be easily varied.

The following two private companies have small craft licensed at this port to serve vessels off limits:

1. Messrs. Offshore and Ships Supplies (Pty) Ltd., P.O.Box 29139, Maydon Wharf 4057.
2. Messrs. Southern Offshore Supplies (Pty) Ltd., P.O.Box 38011, Point 4069.

Helicopter service provided by: Helicopter Services (Pty) Limited., P.O. Louis Botha Airport, Durban 4029. Tel: 426101/426192. Telex: 564246 SA.

SHIPMASTER'S REPORT: September 1980.
Pilotage: Pilot ladders should be provided with manropes, uncovered manila, not less than 32 mm. diameter and without knots at the end.
Container Handling Facilities: The terminal has been completed. General cargo vessels with 10 containers or more have to handle these through the container terminal and shift berth later for handling of general cargo.
Bunkers: On Maydon Wharf no bunker facilities, bunkers to be taken by barge, but only one barge available. Sometimes vessels have to shift to bunker pier for bunkering.

SHIPMASTER'S REPORT: June 1979 (updated July 1986).
Approaches: Decca Chain 10C, can be erratic, especially at night. 'Bluff' shows up at 48 miles on radar. Cooper Point D/F continuous.
Pratique: Send message to "Porthealth" Durban 36 hours before arrival. If no complications free Pratique given quickly from Durban Radio.
Anchorage: Satisfactory if good weather, within about 4 miles N.E. of breakwaters, however if Southerly winds and swell build up it can be dangerous and it is often best to lie off.
Pilots: Send message to 'Port Captain Durban' 24 hours before arrival; ship's particulars, type, cargo, length, draft and Agent's name. Contact Durban Harbour Radio at least 1 hour before arrival. Pilot boards from large black fast cutter, nearly always on vessel's starboard side (landward side).

Must have fixed ladder with manropes, if vessel has large freeboard gangway required at half height. Pilots dislike hoists.
Entry: Due to swell and cross currents around breakwater vessel has to be "driven" through breakwater entrance which requires full harbour speeds and sometimes more if heavy swell conditions, once well inside breakwaters speed is reduced.
VHF: Durban Harbour Radio and Pilots generally work Channel 12 but numerous other Channels available.

For public correspondence use Durban Radio which usually works Channel 26, but very busy in the morning.
Tugs: 7 large powerful tugs fitted with firefighting and salvage capabilities are on station. Tugs are all diesel powered and comprise Schottel, Z-Peller and Voith propulsion systems with bollard pull varying from 23 tons to 40 tons. Very manoeuvrable and excellent stopping power. For most ships two tugs used inward and one outward, tug's wires used. A 20,000 h.p. ocean going tug is usually on station at Durban.

Tugs join vessels just inside breakwaters. For large vessels will accompany vessel on either side from anchorage area and then connect up when swell slackens inside.
Berth: For bunkers, Island View, Starboard side to. Swing in turning basin. For oil transfer of any kind use gantry 'Sheepbridge' with flexible pipes. Shock absorbing fenders. For vessels of 207 m. in length at No. 7, 8 and 9 Berths the straight section of the ship's side lay along the quay. FW available from quay.
Lines: Three head and stern lines, one of which is a shore line from mooring posts ashore. Two backsprings either end to the jetty. Mooring boat used.
Bunkers: Meter pump. Stop on meter at quantity stemmed. Rate up to 200 t.p.h.
Stores: Have to be taken from roadway down to the jetty. Generally local labour has to assist.
General: D/F calibration can be easily undertaken off Cooper Light, good continuous beacon from red tower near water tower, generally little traffic.
Customs/Immigration: Papers as per 'Guide to Port Entry'. Immigration require 'I' flag flown until Immigration clearance granted.

AUTHORITY: South African Harbours, P.O.Box 32696, Braamfontein 2017, Johannesburg, South Africa. *Tel:* (011) 7734250. *Telex:* 424205. *FAX:* (011) 4032398. *Contact:* The Chief Executive.

South African Harbours, P.O.Box 1027, Durban 4000, South Africa. *Tel:* (031) 310-3555 (Port Director); (031) 310-2434 (Port Captain); (031) 310-2870/2935 (Port Manager). *Telex:* 6-21567 SA. *FAX:* (031) 310-3560. *Contact:* Port Director.

AGENT: King & Sons (Pty.) Ltd., P.O.Box 1, Durban 4000. Tel: (031)-319851. Telex: 6-22446. Cables: Baronet, Durban.

EAST LONDON: 33.02 S. 27.55 E. (See Plan)

PORT LIMITS: The area of the sea bounded by a line drawn from the Nahoon Point in position: Lat. 32° 59′ 50″ S. Long. 27° 57′ 07.5″ E. in a 114° direction for 1,852 m. to a position: Lat. 33° 00′ 13.9″ S. Long. 27° 58′ 12.8″ E. thence in a 216.5° direction to a position: Lat. 33° 03′ 14.46″ S. Long. 27° 55′ 37.18″ E. and thence in a 295° direction to the coast in position Lat. 33° 02′ 36″ S., Long. 27° 53′ 57″ E. (All bearings are true.)

For Charter Party purposes: An "arrived ship" is when she enters the Port Limits.

For Harbour Revenue purposes, a vessel "arrives" when it passes into the harbour proper or upon first contact at anchorage whilst waiting for berth.

DOCUMENTS: See "Cape Town".

Immigration: Produce their own forms which are:

(a) Arrival and Departure forms.
(b) Prohibition Notice – which states all crew must sail with vessel unless officially signed off through Immigration.
(c) Medical Certificate.
(d) Advice letter from last South African port – if applicable.

They require Crew Lists and the "I" flag to be flown until vessel cleared by Immigration Officer.

Also see "Cape Town" – *Shipmaster's Report,* March 1981. Same Documentation except 3 crew lists and 1 copy "nil" livestock form.

PILOTAGE: Compulsory. One hour advance notice to be given to Port Captain through VHF radio – Port Operation – calling Channel 16, working Channel 12. Pilot boats fitted with multi-channel VHF. Motor pilot boat – black hull, white housing "Pilot-Loods" painted in black on housing. Pilot taken aboard at outer anchorage. Pilots prefer pilot ladder and manrope system for boarding and disembarking.

RESTRICTIONS: Vessels not permitted to enter unless Agents have been appointed.

Port operates from: Mondays to Fridays 0600 to 2200 hrs., Saturdays 0600 to 1200 hrs. (Cargo working vessels and passenger ships handled up to 1800 hrs. on Saturdays), Sundays 0600 to 1900 hrs. Tankers are docked in daylight only and can sail during normal working hours of port.

M M

MAX. SIZE: Tankers: max. length 204 m. overall, draft 9.9 m.

Passenger and dry cargo vessels: max. length 239 m. overall, draft 9.9 m.

HEALTH: Pratique granted at first port of entry in South Africa. Pratique message 24 hours prior to arrival to "Port Health" at port of entry. If Radio Pratique not granted "Q" flag to be flown until ship has been cleared. Valid certificates must be held for yellow fever. Ships from Eastern ports must also have valid certificates for cholera and typhoid.

Vessels will not be brought into harbour until Radio Pratique has been requested/granted, if this is first port of call on the South African range.

RADIO: East London Radio, call sign ZSA.

TUGS: 2 diesel Schottel tugs fitted with fire fighting and salvage capabilities with bollard pull of 34 tons each are available. Join vessel in entrance channel. Tug's wires used at no extra charge.

Stand-by tugs compulsory for tankers with hazardous cargo on board.

BERTHING:

Wharfage	*Length* (m.)	*Depth at Chart Datum* (m.)	*Cranes (electric)* No.	*Lifting capacity* (tonnes)
East Bank				
Fish Wharf	109.7	6.1	—	
No. 2 Quay (C Berth)	205.7	10.7	1	8
No. 3 Quay (F/G Berth)	359.7	9.8	1	15/4
No. 4 Quay (I Berth) (Hely-Hutchinson)	132.0	8.5	9	4
No. 5 Quay	83.8	10.7	1	15/4
No. 6 Quay (K/L Berth)	506.0	10.7	6	4
Repair Quay	109.7	9.1	—	—
West Bank				
West Quay (N, O, P, R Berth)	559.0	8.5	8	4
New Commercial Berths (S and T Berths)	388.1	10.7	—	
Oil Tanker Berth	259.1	10.7	—	

Containers handled at West Quay where depth is 9.06 m. Area – 4.5 hectares; Ground slots – 272 TEU's; Reefer points – 17 plug points. Equipment: Straddle carriers, haulers and trailers.

Ro/Ro vessels handled at No. 5/6 Quays (K Berth) – stacking area 1.8 hectares (18,000 sq.m.).

Moorings: Wires with nylon strops available on request.

STEVEDORES: No Saturday work except at Port Manager's discretion.

CARGO HANDLING FACILITIES: One berth equipped for bulk loading of maize. One berth equipped for discharging bulk petroleum products and LPG. All other berths for general cargo. Grain elevator: Storage capacity 75,986 tons; loading rate 1,650 t.p.h. through 4 spouts.

MEDICAL: Unrestricted hospital facilities. Medical assistance must be arranged through Agents.

TANKERS: One tanker berth suitable for vessels of 204 m. length with maximum draft 9.9 m. Diameter of hoses, 300 mm. LPG Tankers accepted, hose diameter 150 mm.

DENSITY: 1025.

FRESH WATER: Delivery by hose ex-wharf hydrants. Rate of delivery 60 t.p.h. Drought conditions can cause restrictions of 150 tons per ship.

FUEL: 48 hours' notice required. Heavy Oil and Gas Oil available.

OPENING/CLOSING HATCHES: Mechanical hatches opened/closed by crew. Other types of hatches by stevedores.

CUSTOMS ALLOWANCES: See "Cape Town".

CARGO GEAR: All cargo handling equipment must be in good condition and certificates available for inspection.

CERTIFICATES:

Safety Certificates in respect of Life Saving Equipment and gear.
Radio Certificate.
Load-line Certificate.
Derat Certificate.
Certificate of Competent Officers (passenger ships only).

IDENTIFICATION CARDS: Required, otherwise National Identity Cards, if available.

CONSULS:

Belgium
Denmark
France
Germany F.R.
Italy
Netherlands
Portugal
Transkei
United Kingdom

SURVEYORS: General cargo surveyors available.

Rennie Murray & Co. Ltd. Tel: 29612. Telex: 75–0711 as local Agent for Lloyd's Register, B.V., U.S. Salvage and Salvage Association.

REPAIRS: All types of repairs can be undertaken.

DRY DOCKS: Princess Elizabeth Graving Dock:

Dimensions—	
Overall docking length	198.5 m.
Length on keel blocks	193.1 m.
Length on bottom	198.5 m.
Width at coping	31.2 m.
Width at entrance top	27.2 m.
Maximum width at sill level	22.9 m.
Depth on entrance sill, HWOST	10.2 m.
Depth on inner sill, HWOST	10.2 m.

A docking length of 209.2 m. can be obtained by placing the caisson in the emergency stop at the entrance.

Two 15 ton and one 5 ton electric cranes on 4.9 m. gauge track are available.

The dock can be emptied in 4 hours.

REPATRIATION: All facilities available.

AIRPORT: Ben Schoeman Airport – 8 km. from harbour. Daily flights to Johannesburg connecting with overseas flights by regular airlines.

TIME: GMT plus 2 hours.

HOLIDAYS: See "Cape Town".

POLICE/AMBULANCE/FIRE: Police 2–5555; Ambulance 2–1213; Fire 2–1212. National Sea Rescue 22555. Harbour Police 442032.

EMERGENCY CO-ORDINATION CENTRE: Contact Port Captain: Tel: 44–2042 or 44–2142. Telex: 75–0774.

TELEPHONES: Telephones can be supplied at all berths. Arrange through Agents.

SHORE LEAVE: Allowed. No shore pass required.

STORING: See "Prelims".

1. Truck only.
2. Not applicable.
3. Truck may proceed alongside unless explosives being handled. Vehicles not permitted at tanker berth. (Distance to gate – 200 m.)
4. Yes, except tanker berth.
5. Ship chandler places entries for bonded stores.
6. Ship chandler supplies labour.

AUTHORITY: South African Harbours, P.O.Box 32696, Braamfontein 2017, Johannesburg, South Africa. *Tel:* (011) 7734250. *Telex:* 424205. *FAX:* (011) 4032398. *Contact:* The Chief Executive.

East London: P.O.Box 101, East London 5200. *Tel:* 44-2855. *Contact:* Port Director Tel: (0431) 44-2858. Port Manager Tel: (0431) 44-2855. Port Captain Tel: (0431) 44-2042. *Telex:* 25-0774.

AGENT: King & Sons (Pty.) Ltd., P.O.Box 1, East London 5200. Tel: (0431) 24381. Telex: 250205. Cables: Baronet, East London.

MOSSEL BAY: 34.10 S. 22.09 E. (See Plan)

PORT LIMITS: Within a line drawn from Cape St. Blaize Lighthouse to the mouth of the Little Brak River, thence along the high water mark so as to include the foreshore between these points, together with Seal Island, the estuary of the Little Brak River as far as the tide flows.

DOCUMENTS: Refer to "Cape Town".

PILOTAGE: Compulsory. 1 hour advance notice to be given to Harbour Master and Pilot through VHF radio. Port operation calling Channel 16, working Channel 12. Motor pilot boat – black hull, white housing. International pilotage signals used. Pilot boards about 1 mile North of Cape St. Blaize Light.

ANCHORAGE: Open anchorage with unlimited depth.

RESTRICTIONS: Vessels not permitted to enter unless Agents have been appointed. No night berthing or sailing for tankers.

MAX. SIZE: Anchorage: No restrictions.

Tanker mooring: Up to 32,000 d.w.t.

Harbour: Max. draft 6.5 m. max. displacement 5,000 tons. Max. LOA 130 m.

HEALTH: Pratique granted at first port of entry in South Africa. Pratique message 24 hours prior to arrival to "Port Health" at port of entry. If Radio Pratique not granted "Q" flag to be flown until ship has been cleared.

Valid certificates must be held for yellow fever. Ships from Eastern ports must also have valid certificates for cholera and typhoid.

RADIO: Cape Town Radio, ZSC. Port Elizabeth Radio, ZSQ.

TUGS: 1 twin-screw workboat with a bollard pull of 10 tons available.

BERTHING:

Wharfage	Length (m.)	Cope Level MSL (m.)	Depth at Chart Datum Max. (m.)	Depth at Chart Datum Min. (m.)	Cranes (electric) No.	Cranes (electric) Lifting capacity (tons)
Vincent Jetty	143 (2 sides)	3.20	6.00	4.00		
*Low Level Wharf	61	2.54	1.64	1.64		
*No. 1 Quay	44	3.50	1.64	1.64		
*No. 2 Quay	50	3.50	2.64	2.64		
No. 3 Quay	213	3.44	6.00	5.44		
No. 4 Quay	274	3.64	7.50	7.50	2	4
No. 5 Quay	170	3.50	4.00	4.00		

*Suitable for small fishing craft only.

DENSITY: 1025.

FRESH WATER: Available along Nos. 3, 4 and 5 quays and Vincent jetty.

FUEL: Available at No. 2 quay and No. 3 quay. Available by road tanker at No. 5 quay and Vincent jetty.

MEDICAL: Cape St. Blaize lighthouse on 24-hour watch. Requests for medical assistance passed through lighthouse to Harbour Master and Pilot. Hospital facilities available. Vessels in port should arrange medical facilities through Agent.

CUSTOMS ALLOWANCES: See "Cape Town".

CARGO GEAR: All cargo handling equipment must be in good condition and certificates available for inspection.

IDENTIFICATION CARDS: Required. Otherwise National Identity Cards, if available.

REPAIRS: Marine engineering firm available for all classes and types of onboard afloat repairs. Slipway of 400 tons capacity is available.

TIME: GMT plus 2 hours.

HOLIDAYS: New Year's Day (1st January); Founder's Day (6th April); Good Friday; Family Day; Ascension Day (dates vary); Republic Day (31st May); Kruger Day (10th October); Day of the Vow (16th December); Christmas Day (25th December); Day of Goodwill (26th December). Cargo is not worked on Christmas Day and Good Friday.

AIRPORT: George Airport, 40 km.

SHORE LEAVE: Allowed.

AUTHORITY: South African Harbours, P.O.Box 32696, Braamfontein 2017, Johannesburg, South Africa. *Tel:* (011) 7734250. *Telex:* 424205. *FAX:* (011) 4032398. *Contact:* The Chief Executive.

Mossel Bay: South African Harbours, Bland Street, Mossel Bay, South Africa. *Tel:* (04441) 46271, 3404. *Contact:* Harbour Master/Pilot.

PORT ELIZABETH: (Algoa Bay): 33.57 S. 25.39 E.

(See Plan)

PORT LIMITS: Bounded on the Southward by a line drawn from Cape Recife, East (true) to a point in the Indian Ocean, distant 1,609 m. on the Northward by a line drawn from the extreme point of the East bank of the Swartkops River, East (true) distant 1,609 m. on the Eastward by a line drawn between these 2 points, and shall embrace the foreshore between high and low water marks from Cape Recife lighthouse to the aforesaid line at East bank of the Swartkops River, including that portion of the said river which lies on the seaward side of the bridge carrying the railway line to Alicedale, together with the jetties, harbour works and all land vested in the Government of the Republic of South Africa.

DOCUMENTS:

Customs

Form DA.1 Report Inwards/Outwards for ships.
Form DA.3 Certificate of clearance for ships.
Form DA.4 Transire – for a destination in the R.S.A.
Form DA.5 List of sealable goods on board ship.
Ship's Crew List (Customs Department).
Livestock Form (Customs Department).

Post Office

P1/27 Notice of arrival and departure of vessel.
P1/8 Declaration and Post Office Certificate.

Port Health

Maritime Declaration of Health.
Crew List with last vaccination dates.
Derat or Derat Exemption Certificate.

Port Authority

T958 Report of Arrival.
T962 A Departure/Shifting Notification.
Ship's Manifest.

Also see "Cape Town" – Shipmaster's Report, March 1981.

PILOTAGE: Pilotage is compulsory. Messages addressed to Port Captain, Port Elizabeth. Initial ETA together with draft, 72 hours prior to arrival, updated 12 hours prior to arrival and confirmed with Port Control when within VHF range and when 16 miles East of the breakwater head for ships coming from Eastward and 3.5 miles South of Cape Recife for ships coming from Westward. VHF radio calling on Channel 16. Working frequency Channel 12.

Pilot boats fitted with multi-channelled VHF. Pilot boats black hull with white superstructure, "Pilot-Loods" painted black on white. Pilot boat stationed inside harbour and meets ship on arrival approximately 2.5 nautical miles North East of South breakwater head. Boarding requirements consist of pilot ladder together with 2-manropes or pilot hoist. Pilot ladder usually rigged on starboard side.

Algoa Bay is considered a safe anchorage for all sizes of ships, the bottom consisting mainly of sand. Usual anchorage for ships awaiting Pilot is 3.5 km. Eastward of breakwater, in the Outer Anchorage. Predominant winds are Westerly all the year, with East/South Easterly during the Summer months. The Westerly winds are the stronger of the two but are off land and cause little difficulty. Easterlies being from the sea are inclined to cause an uncomfortable sea.

ANCHORAGE: See "Pilotage".

RESTRICTIONS: Vessels not permitted to enter unless Agents have been appointed.

Dry-cargo ships 0600 to 2200 hrs. Pilot must be aboard by 2030 hrs. Vessels which are considered *not gas free* are restricted to daylight entry only.

MAX. SIZE:

	Max. length	*Draft*
Passenger, dry-cargo and container vessels	Subject to Port Captain's prior approval	11.6 m.
Tankers	203.3 m. overall	9.7 m.
Ore carriers	251.5 m.	11.6 m.

HEALTH: Pratique granted at first port of entry in South Africa. Pratique message 24 hours prior to arrival to "Port Health" at port of entry. If Radio Pratique not granted "Q" flag to be flown until ship has been cleared.

Valid certificates must be held for yellow fever. Ships from Eastern ports must also have valid certificates for cholera and typhoid.

RADIO: Port Elizabeth Radio. Call sign ZSQ.

VHF: See "Pilotage".

TUGS: Three "Z-Peller" diesel tugs with a bollard pull of 30 tons and fitted with firefighting and salvage capabilities are available, fitted with radar and VHF. Tugs join between anchorage and harbour entrance. Tug's wires used at no extra charge.

BERTHING:

Wharf	Dimensions Length (m.)	Cope level (MSL) (m.)	Depth at Chart Datum Max. (m.)	Depth at Chart Datum Min. (m.)	Cranes No.	Cranes Lifting capacity (tons)
Charl Malan Quay	423	4.4	11.0	11.0	—	—
2 Container berths	633	4.4	12.2	12.2	3	40
East Quay	400	4.4	12.2	12.2	—	—
No. 2 Quay	519	4.4	11.0	11.0	6	4
					—	—
No. 3 Quay	519	4.4	10.0	7.0	10	4
					—	—
Bulk Handling Quay	360	4.4	12.2	12.2	—	—
					2 ship loaders	
Tanker berth	242	2.9-3.8	9.9	9.9	—	—
Trawler quay	136	2.6	5.5	5.5	—	—
Fish wharf	101	2.6	4.0	0.9	—	—
Harbour repair quay	165	2.7	6.5	4.0	—	—

Container back-up facilities: 70 ha. with 3,500 ground positions for deep sea container traffic and 72 ground positions for reefer container traffic. 4.3 ha. with 924 ground positions for coastwise container traffic.

10 straddle carriers, 21 haulers and 21 bath-tub trailers for internal use.

A rail terminal for forwarding and receiving containers to and from inland destinations.

Ro-Ro facilities: Side loading for deep sea traffic. End loading for coastwise traffic.

Pre-cooling Stores: South African Co-Operative Citrus Exchange Ltd. Tel: 012-282181. Telex: 321391. Operates 5 pre-cooling chambers with a capacity of 7,500 cu.m. (approx.) at No. 2 Quay.

BULK HANDLING FACILITIES: Ore Loading Plant: Storage capacity approx. 350,000 tons. Rated loading capacity 1,360 t.p.h.

Ore loaders:

Maximum outreach from quay face	19.35 m.
Extreme elevated height of loaders above HWOST	13.92 m.

MEDICAL: Unrestricted hospital facilities. Medical assistance must be arranged through Agent.

TANKERS: Stand-by tugs for the fire watch compulsory.

DENSITY: 1025.

FRESH WATER: Delivery by hose ex-wharf hydrants. Rate 50 t.p.h.

FUEL: 48 hours' notice required. Bunker fuel and gas oil available at ore berth. Bunker oil available at Berth No. 15.

CUSTOMS ALLOWANCES: See "Cape Town".

CARGO GEAR: Undertaken by shore cranes. No floating crane available.

STEVEDORES: To be arranged through ship's Agency.

IDENTIFICATION CARDS: Required. Otherwise National Identity Cards, if available.

CONSULS:

Belgium	Tel:	46561	Netherlands	Tel.	21986
Denmark	"	41 3489	Norway	"	52 2021
Germany F.R.	"	545572	Portugal	"	48451
Greece	"	25634	Transkei	"	542224
France	"	531505	U.K.	"	52 2160
Italy	"	52 1461			

REPAIRS: Minor deck and engine room repairs.

DRY DOCKS: None. Electrically operated 1,200 ton slipway; depth on keel blocks F. 3.7 m.; A. 7.5 m. HWOST; telescopic cradle 75.4 m. long, minimum length 44.3 m. Max. length of ship 82 m. and max. beam 12 m.

SURVEYORS: All Classification Societies represented.

GANGWAY/DECK WATCHMEN: Recommended.

OPENING/CLOSING HATCHES: Shipmaster to liaise with stevedores.

REPATRIATION: All facilities available.

AIRPORT: 4 km. from harbour. Regular daily S.A. Airways flights to and from all major centres.
TIME: GMT plus 2 hours.
HOLIDAYS: New Year's Day (1st January); Founder's Day (6th April); Good Friday; Family Day; Ascension Day (dates vary); Labour Day (1st Friday in May); Republic Day (31st May); Kruger Day (10th October); Day of the Vow (16th December); Christmas Day (25th December); Day of Goodwill (26th December). Cargo is not worked on Christmas Day and Good Friday.
POLICE/AMBULANCE/FIRE: Police (City) 10111, Police (Harbour) 520-2280; Ambulance 414111; Fire 2-1555.
TELEPHONES: Telephones can be supplied at all berths. Arrange through Agents.
IDENTIFICATION CARDS: Ship's passes required at container berths.
SHORE LEAVE: Allowed.
AUTHORITY: South African Harbours, P.O.Box 32696, Braamfontein 2017, Johannesburg, South Africa. *Tel:* (011) 7734250. *Telex:* 424205. *FAX:* (011) 4032398. *Contact:* The Chief Executive.

Port Elizabeth: Port Director, P.O.Box 162, Port Elizabeth. *Tel:* (041) 520-2604, Port Manager Tel: (041) 520-2240 or Port Captain Tel: (041) 520-2043.

AGENT: King & Sons (Pty.) Ltd. P.O.Box 1, Port Elizabeth, 6000. Tel: (041) 29153. Telex: 243445. Cables: Baronet, Port Elizabeth.

PORT NOLLOTH: 29.15 S. 16.50 E. (See Plan)

PORT LIMITS: Northward by a line drawn 245° from North Point to a point 4,827 m. from the shore; Westward by a line drawn 155° from the above point to the point where it meets a line drawn 245° from Guap Point, Southward by the latter line.
DOCUMENTS: Port Nolloth is not a port of entry for foreign going vessels. Any vessel arriving from outside South Africa must enter at either Cape Town, Walvis Bay or other South African ports. Only document required is 1 copy of the arrival form.
PILOTAGE: None. Harbour Master will give directions either from the shore, or will come on board a vessel if requested. 72 hours advance notice of ETA required. Harbour Master stands by on VHF Channel 16 and R/T 2182 kHz from 0800 to 1700 hrs. Monday to Friday, 0800 to 1200 hrs. Saturday. Outside these hours only if a vessel is expected.
ANCHORAGES: Anywhere about 0.5 miles seaward of the Fairway Buoy, usually just North or South of the transit line.
RESTRICTIONS: Daytime port only. Entry usually only possible about 2 to 3 hours either side of HW. Tide gauge on jetty and vessels only allowed to enter when 1 m. above chart datum shown on this gauge.
MAX. SIZE: Length 200 ft., draft 4 m.
HEALTH: Pratique automatic as vessel must have cleared at another South African port.
RADIO: Local radio station as under "Pilotage", or call Cape Town Radio.
VHF: VHF in Harbour Master's Office; (Multi-Channel). R/T 2182 kHz. Other VHF Channels available (i.e. 6, 10) on portable VHF sets.
RADAR: Not available.
TUGS: None. 40 ft. launch available if required.
BERTHING: 1 berth, 217 ft. long. Depth alongside 3.5 m. at Chart Datum.
CRANES: 1 electric travelling crane, 7.5 tons SWL (only 4 tons SWL under normal cargo working). 1×7.5 ton mobile crane available.
STEVEDORES: Stevedores supplied by Marine West (Pty) Ltd. who operate the port. 2 gangs available, no advance notice required.
MEDICAL: Local hospital, no resident doctor. Main hospital at Alexander Bay (80 km. distant). Doctor visits Port Nolloth 4 mornings a week.
TANKERS: Tankers discharge alongside main cargo jetty. Gas oil only. No slop discharge facilities and no loading of oil. Discharge by vessel's pumps, 2 discharge lines available (Shell and Caltex).
DENSITY: 1025.
FRESH WATER: Fresh water available, brackish in quality. Delivery by small bore hose (garden tap size); pressure dependent on municipal mains.
FUEL: Marine diesel available on all 3 jetties (2 fishing jetties and main cargo jetty). Delivery from standard type pump nozzle.
FIRE PRECAUTIONS: Normal when discharging gas oil.
CONSULS: None.
REPAIRS: Small deck and engine repairs can be undertaken.
DRY DOCKS: None. 1 slipway for vessels up to 20 m. length and 60 g.r.t.
SURVEYORS: No cargo surveyors. South African Department of Transport represented by the Harbour Master.
GANGWAY/DECK WATCHMEN: Not required.
HATCHES: Opening/closing carried out by vessel's crew.
CUSTOMS ALLOWANCES: No Customs Officers available.
REPATRIATION: In emergency only.
AIRPORT: Alexander Bay 80 km.; Springbok 140 km. Daily flights from Springbok to Cape Town. 3 weekly flights from Alexander Bay to Cape Town and to Luderitz, Johannesburg, Walvis Bay and Windhoek.
TIME: GMT plus 2 hours throughout the year.
HOLIDAYS: Good Friday, Day of the Vow (December 16th), Christmas Day, Boxing Day and New Year's Day are holidays – cargo work can be arranged on some of these days, but it is not usually asked for.
POLICE/AMBULANCE/FIRE: Police – Port Nolloth Tel: 8320. Ambulance – Port Nolloth Tel: 8345 (municipality) or Tel: 8411 (state). Fire – No fire brigade in the town – Marine West fire fighting facilities Tel: 8355 or 8597 or Tel: 8441 after office hours.
TELEPHONES: No facilities exist for placing telephones on board.
SHORE LEAVE: Permitted, no restrictions.
IDENTIFICATION CARDS: Not required.
DELAYS: Tidal, unless berth occupied.
BANKS: Barclays Bank Ltd., P.O.Box 72, Port Nolloth 8280. Tel: Port Nolloth 8216. Telex: 5–20471 SA.
EMERGENCY CO-ORDINATION CENTRE: Port Captain, Cape Town. Tel: Cape Town 2183413. Telex: 5–26544 SA.

Port Captain, Walvis Bay, Tel: Walvis Bay 3631.

Port Captain, Saldanha Bay, Tel: 41726.

Any coast radio station, i.e. Cape Town Radio or Walvis Bay Radio.

STORING: See "Prelims".
1. By truck.
2. No barges available.
3. Trucks can proceed alongside the vessel.
4. Yes.
5. None.
6. Yes.

AUTHORITY: South African Harbours, P.O.Box 30, Port Nolloth, 8280. *Tel:* Port Nolloth (0255) 8340. *Telex:* 5-49023 SA. *Contact:* Captain D. M. Bridge, Harbour Master.

Harbour leased to: Marine West (Pty) Ltd., P.O.Box 101, Port Nolloth 8280. *Tel:* Port Nolloth 8355 or 8597 and after hours 8441 or 8504. *Telex:* 5-22056 SA.

RICHARDS BAY: 28.48 S. 32.06 E. (See Plan)

LOCATION: The port is located some 200 km. North of Durban. Mid point of the bay is approximately Lat. 28° 48′ S., Long. 32° 02′ E.
DOCUMENTS: The following documents should be prepared and ready on berthing:
Port Health:
1 Maritime Declaration of Health.
1 Vaccination List.
1 Crew List.
1 Valid Derat Certificate.
Immigration:
3 Crew Lists ("I" flag International Code to be flown).
Customs:
2 Crew Lists.
1 Ship's Stores List.
1 Crew Customs Declaration (local form only).
1 Narcotics List.
1 Personal Effects List signed by each crew member.
1 Passenger List.
1 Customs Form (D.A. 5).

All vessels using the port, will be subject to Customs Inspection and must obtain a Customs Clearance.
Agents:
2 Crew Lists.
Loading Certificate.
Safety Radio Certificate
Safety Equipment Certificate.
Register.
1 Transire from previous South African port.

PILOTAGE: Pilotage is compulsory and Pilots are provided by the Marine Department of South African Harbours.

Boarding points are determined by the Pilot, but generally speaking will be within an area approximately 3 nautical miles S.E. of South breakwater.

At the present time vessels can only enter and leave during daylight. Later this position will be reviewed to consider a 24 hour service. Tugs and Pilots normally work 0600 hrs. – 2200 hrs. Monday to Friday; 0600 hrs – 1200 hrs. on Saturdays, Sundays and holidays.

Vessels with freeboard in excess of 9.0 m. must have accommodation ladder rigged in conjunction with the pilot ladder, manropes must be provided. Pilot hoists not normally accepted.

ANCHORAGES: 3 to 5 nautical miles South East of the South Breakwater but not opposite Entrance or North of Entrance.
Quality of Bottom: Sandy.
Note: Anchorage is similar to Durban and in high S.W. winds anchorage is safe, but in high N.E. winds caution should be exercised.
MAX. SIZE: LOA Max. 314 m. Beam max. 47.25 m. Draft max. 17.3 m. D.W. Limit max. 170,000 d.w.t. Larger vessels may be accommodated on request to the Port Captain.
Minimum Ballasted Condition on Entry:

Length	*Draft – Fore*	*Draft – Aft*
600 ft. (183 m.)	20 ft. (6.1 m.)	24 ft. (7.3 m.)
700 ft. (213 m.)	25 ft. (7.6 m.)	28 ft. (8.5 m.)
800 ft. (244 m.)	26 ft. (7.9 m.)	30 ft. (9.1 m.)
900 ft. (274 m.)	27 ft. (8.2 m.)	32 ft. (9.8 m.)
over 900 ft. (274 m.)	28 ft. (8.5 m.)	34 ft. (10.4 m.)

HEALTH: Radio Pratique can be obtained by cabling Port Health – Durban using the standard international procedure for working. See "Radio".

Derat Certificates valid for six months are issued by Port Health as are exemption certificates.

RADIO: *Arrival Advice:*

To "Port Health Richardsbay" – direct through Durban Radio – between 24 hours and 48 hours prior arrival – advising ETA, last port, date sailed, number of crew, full inoculation/vaccination status, and state of health of crew, and requesting Radio Pratique. Port Health will cable vessel directly, either granting Pratique or requesting further details. These messages are free of charge.

To "Portcaptain Richardsbay" during normal port working hours, otherwise to Port Control Signal Station outside hours – direct through Durban Radio – 48 hours prior arrival, advising ETA, draft, freeboard and reason for call at Richards Bay.

VHF: Vessels can communicate with Port Control on Channel 16 VHF, watch is maintained continuously, working channels – 12, 9, 11, 13 and 14. When at anchor, listening watch should be kept to receive berthing instructions.

TUGS: Tug attendance is compulsory. Tugs are owned and operated by South African Harbours and consist of the following:

1. Voith Schneider (3 tugs) 4,200 h.p.
   Bollard Pull 44 tons.
2. Diesel Kort Nozzle (2 tugs) 4,400 h.p.
   Bollard Pull 50 tons.

Stand-by tugs compulsory for tankers discharging crude.

BERTHING: Line boats are provided by the Harbour Authorities, as are berthing gangs.

Berth	*Length* (m.)	*Depth* (m.)	*Permissible Draft* (m.)	*Cope Level* (m.)
Die Duine (Coal Berths and Chemical Quay):				
209 (Chemicals)	300	14.0	13.0	+4.5
301	350	19.0	17.5	+5.2
302	350	19.0	17.5	+5.2
303	350	19.0	17.5	+5.2
304	350	19.0	17.5	+5.2
Umhlatuzi (General/Heavy/Ro-Ro Cargo Berth):				
609	300	12.8	12.0	+5.2
Bayview (Bulk Cargo Quays):				
701	300	12.8	12.0	+5.2
702	350	19.0	17.5	+5.2
703	350	19.0	17.5	+5.2
704*	300	19.0	17.5	+5.2
705*	300	13.6	13.0	+5.2
706*	300	13.6	13.0	+5.2
*Under construction				
Small Craft Harbour:				
Repair Berth	300	8.0	N/A	+4.3
Dredger Berth	150	7.0	N/A	+4.3
Tug Berth	180	7.0	N/A	+4.3
Pilot Boat Berth	165	4.0-7.0	N/A	+3.4
Harbour Craft Berth	150	4.0	N/A	+3.0 – +3.4
Launch Jetty	175	4.0	N/A	+3.0

Fendering: All commercial berths are fitted with rubber fendering. Berths No. 301 to 304 are fitted with cylindrical fenders with an outside diameter of 2.0 m. Similar fenders with an outside diameter of 1.6 m. are fitted to Berths No. 609 to 706.

Bridgestone type SM 800 H × 3.0 m. L are fitted to Berth No. 209.

General Cargo Berths: Berth No. 609 is served by rail tracks and has a surfaced back-up area. It is currently used for general and abnormal/heavy cargo working. The berth can also accommodate Ro/Ro vessels.

Dependent on availability, Berths No. 701 to 703 can also be used for general cargo working. There is, however, no stacking area directly behind these berths. Rail tracks serve these berths.

The Repair Berth at the Small Craft Harbour can be used by general cargo vessels with a limited draft. There is limited rail access to this berth.

BULK HANDLING FACILITIES: Richards Bay is world renowned for the large-scale coal export operation run by the Richards Bay Coal Terminal Company. In addition, the sophisticated, multi-purpose bulk handling facility operated by S.A. Harbours in the Bayview area of the harbour plays a vital role in the successful handling of the big tonnages moved through the port annually. The facility is currently being expanded.

Apart from the bulk ores, namely pig iron and ferro alloys, (both export commodities) all other bulk products which include, amongst others, zircon, rutile, titanium slag (chloride and sulphate), chrome ore, rock phosphate, clay, andalusite, vermiculite, woodchips, vanadium slag and fertilisers (all exports) as well as potash, sulphur, alumina, petroleum coke and rock phosphate (all imports) are handled over conveyor belts.

Export commodities received in rail trucks are discharged at either of the 2 random tipplers or through the bottom discharge dumper. Thereafter the product is conveyed via a conveyor belt network with a centralised computer control system directly to a vessel or to an appropriate storage facility pending shipment.

Storage Areas: Product can be stored in the following areas:

Open Storage: The two open storage areas can each accommodate up to 60,000 tons and are used for the storage of chrome ore only.

General Purpose Sheds: The two General Purpose Sheds can store up to 100,000 tons at a time. They are presently used for the storage of titanium slag, rock phosphate and potash.

Silos: The three 10,000 tons silos are presently being leased to a private concern.

Bulk Storage Bins: This newly commissioned storage facility has a total capacity of 272,000 tons. The reinforced concrete storage bins consist of two adjacent rows of 16 bins, each having a capacity of 3,300 cu.m.

Fourteen bins have been designed to store heavy products having a bulk density of 2.93 tons/cu.m. The remaining eighteen bins have been designed for products with bulk densities up to 2.16 tons/cu.m.

Each row of bins is served by a reclaim conveyor on to which feed 2 rotary plough reclaimers. A peak reclamation rate of 2,500 t.p.h. per belt can be achieved.

Pig Iron Slab: The pig iron slab has a storage capacity of 100,000 tons of non-beltable bulk commodities such as pig iron and ferro alloys.

Beltable Products: Shipping and discharging of beltable product is executed by means of the following equipment:

Wood chip loader: This loader, which has a direct conveyor belt link to Messrs. Central Timber Co-operatives' wood chip plant located on the harbour boundary, has a gross loading rate of 500 t.p.h.

Shiploader: The shiploader has a gross loading rate of 700 t.p.h.

A second shiploader of similar capacity is due to be commissioned in mid-1988.

Grab ship unloader: The unloader which has a grab payload of 17 tons has a gross unloading rate of 350 t.p.h. This unloader can be used to ship bulk ferro alloys and pig iron in skips.

Pneumatic ship unloader: This unloader, which at present is used exclusively for the handling of aluminia, has a gross discharge rate of 320 t.p.h.

Privately Operated Facilities: Export of coal is handled through the terminal owned and operated by the Richards Bay Coal Terminal Company (Pty) Ltd.

A terminal for the storage and shipping/receiving of liquid chemicals is operated by Messrs. Richards Bay Bulk Storage (Pty) Ltd.

These chemicals are shipped across Berth No. 209.

Coal Terminal: Berths No. 301, 302, 303 and 304 are used solely for the export of South African Steam Coal. The plant is owned and operated by the Richards Bay Coal Terminal Company (Pty.) Ltd.

Length (301-304)	1,400 m.
Depth	19 m.
Permissible draft	17.5 m.
Max. beam	47.25 m.
Max. LOA	314.00 m.
Max. size	170,000 d.w.t.
Quality of bottom	Sandy to hard

Shiploaders: Three. (Dimensions apply to one machine)

Loading rates:

Loaders No. 1 and 2	
Nominal	8,500 t.p.h.
Average	5,000 t.p.h.
Loader No. 3	
Nominal	10,500 t.p.h.
Average	6,500 t.p.h.
Working range of boom	15° up to 15° down
Height of Boom above HWOST with Loader at max. working elevation	21.6 m.

STEVEDORES: *General Cargo Working Hours:* Monday to Friday (other than public holidays) 0600 to 1500 and 2100 to 0600 hrs. Landing and shipping of cargo can be performed outside of these hours on request. Overtime rates are applicable when working between 1500 hrs. and 2100 hrs.

Richards Bay Coal Terminal: Coal Terminal working hours: 24 hours daily, 7 days per week. Christmas Day not usually worked.

Bulk Handling Facilities: The bulk handling facilities operate 24 hours a day for 6 days a week. The facility ceases operations at 0600 hrs. on Saturdays and resumes on Sundays at 0600 hrs.

MEDICAL:

Hospital: There are 2 modern and well equipped hospitals at Empangeni. (Approx. 25 km. from the berth).

Doctor/Dentist: Usual port services available on 24 hour basis.

DENSITY: 1026.

FRESH WATER: Available at the berth. Rate approx. 25 t.p.h.

FUEL: Heavy and Medium Fuel Oil. Diesel Oil and Gasoil are available by pipe-line at Berths 301, 302 and 209 only. Bunkering can take place concurrently with loading.

Stems for bunkers should be placed with normal bunker suppliers who will arrange delivery through the bunker supply company at Richards Bay. All vessels calling for bunkers must either be gas free or inerted before they will be permitted to enter the port.

CONSULS: In Durban.

REPAIRS: Written approval must be obtained from the Port Authorities, via the Agents for vessel to immobilise engines to carry out repairs. Repairs may be carried out at the berth. Radio/radar repairs are undertaken by technicians travelling from Durban.

SURVEYORS: Lloyd's, ABS, BV and NV in Durban. Societe Generale de Surveillance and Chettle and Company in Richards Bay.

GANGWAY/DECK WATCHMAN: Recommended.

OPENING/CLOSING HATCHES: By crew.

CUSTOMS ALLOWANCES: See "Cape Town".

REPATRIATION: Possible.

AIRPORT: There is an airport at Richards Bay 26 km. from the Coal Berth, and there are 8 flights per week to Durban and 3 flights per week to Johannesburg, where international connections can be made.

HOLIDAYS: *Local Holidays:*
New Year's Day, 1st January; Founder's Day, 6th April; Good Friday; Easter Monday; Ascension Day; Republic Day, 31st May; Kruger Day, 10th October; Day of the Vow, 16th December; Christmas Day, 25th December; Day of Goodwill, 26th December.

In general the port only closes on Christmas Day.

TIME: GMT plus 2 hours.

POLLUTION: The Port Authorities demand that no vessel using the port shall discharge any garbage, refuse, vegetable or food matter, deck cleanings, polluted bilge water, oil or rubbish of any description in the vicinity of or in the port of Richards Bay.

Heavy penalties will be imposed for breach of the regulations.

Vessels arriving in ballast must have clean ballast on board, as deballasting takes place alongside the berth. Dirty ballast pumped into the harbour will incur heavy penalties for pollution.

POLICE/AMBULANCE/FIRE: Police Tel. 0351-31608.

TELEPHONES: Telephones are available at the berth. Application for the service should be made through the Agents in advance.

All telephone calls made will be charged to the vessel's account.

Caution: With direct dialling available internationally it is strongly recommended that telephones are placed in the custody of a responsible officer to avoid abuse.

SHORE LEAVE: There are no restrictions on shore leave for crew. Crew members proceeding to Durban require written permission from Immigration Authorities.

IDENTIFICATION CARDS: Seaman's Book sufficient.

SHIP SUPPLY SERVICE: A helicopter service through Court Republic Helicopters, P.O. Louis Botha Airport, Durban L. 4029. Tel: (031) 426101. Telex: 624246.

Rendevous position Port Dunford Lighthouse 090°T 23 nautical miles.

Note: Aircraft can carry out approximately 100 mile round trip in 1 hour.

A launch service is carried out by the South African Harbours via the Pilot launch. The efficient operation is dependant on the work load of the Port at the time service is required.

Prior to helicopter/launch being permitted to leave, signed authority from Port Health, Customs and Immigration must be obtained.

GENERAL: The harbour and the quays are owned by South African Harbours.

Provisions: Stores and provisions can be obtained through local Ship's Chandlers.

Game Parks: National Parks Board Game Reserves (Hluhluwe and Umfolosi) are within easy reach of Richards Bay by car.

Car Hire: Cars can be hired, through the Agents at reasonable cost to officers and responsible crew members only. An International Driving Licence is required to make use of this service.

Arrival Time at Richards Bay Harbour: The official arrival time of a vessel is taken to mean the time the vessel crossed into the proclaimed area of Richards Bay Harbour, as defined.

Draft Regulations: Very strict control is maintained at South African Ports, concerning the overloading of vessels, either on arrival, on sailing, whether calling for bunkers or loading cargo.

Attention is drawn to the fact that the Plimsoll Mark is the only standard by which the Authorities at South African Ports will determine a ship to be overloaded or correctly loaded. *No allowance whatsoever will be made for vessels sagging.* A corresponding mean draft where this occurs is unacceptable to the Authorities. It should be noted that Richards Bay is in the *Summer Zone throughout the year.*

Masters are liable to severe penalties for contravention of these regulations.

Also see "Shipmaster's Report".

Gas free Pre-requisite: Incoming vessels must be gas free, or inerted prior to entry and where applicable, certificates to be issued by qualified chemist who will check that aspect, prior to vessel's entry into Port.

Swimming: Seamen are advised that it is dangerous to swim in the sea or the Harbour, due to the presence of sharks and dangerous tidal conditions.

Furthermore, the rivers and fresh water lakes in Zululand are infested with Bilharzia and crocodiles, and you are similarly advised not to swim in these places.

Walport Films: Films/Video tapes are available. One week's notice required if possible.

Foreign Currency: One week's notice required. Currency must have been received from abroad before being released by banks.

Laundry: Excellent service available.

Drugs: (Agent's Notice).

We feel it is important that we draw your attention to the very severe penalties which can be imposed in this country on any person selling, buying or even using any habit-forming drug such as heroin, marijuana, LSD, dagga, etc. We cannot impress on you strongly enough the need for you to advise all members of your crew, and passengers too, of these strict laws.

The following are some of the penalties laid down in the Act on the Abuse of Dependence Producing Substances and Rehabilitation Centres (No. 41 of 1971), which came into force on 1st December, 1971.

(a) Any person who deals in any *prohibited* dependence producing drug or any plant from which such dependence producing drug can be manufactured or who deals in any *dangerous* dependence producing drug or any plant from which such a drug can be manufactured can be on a first conviction sentenced to imprisonment of not less than 5 but not exceeding 15 years and in the case of a second or subsequent conviction to imprisonment of not less than 10 but not exceeding 25 years.

(b) Any person who has in his possession or uses any *prohibited* dependence producing drug or plant or who has in his possession or uses any dangerous dependence producing drug or plant from which such drug can be manufactured can on a first conviction be sentenced to imprisonment of not less than 5 but not exceeding 15 years.

(c) Any person who deals in any potentially dangerous dependence producing drug can be sentenced to imprisonment of up to 10 years.

(d) Any person who has in his possession or uses any *potentially dangerous* dependence producing drug can be sentenced to imprisonment of up to 5 years.

Any person who deals in:

(1) Prohibited or dangerous drugs or plants, can be sentenced to:
  (a) First conviction – 5 to 15 years' imprisonment.
  (b) Second or subsequent conviction – 10 to 25 years' imprisonment.

(2) Potentially dangerous drug can be sentenced to imprisonment of up to 10 years.

Any person who uses or possesses any:

(1) Prohibited or dangerous drug plant can be sentenced to:
  (a) First conviction – 2 to 10 years imprisonment.
  (b) Second or subsequent conviction – 5 to 15 years imprisonment.

Combined Seafarers Club (Missions to Seamen): This has been opened outside the Customs Gate near the Harbour Administration Building. Souvenirs, refreshments, etc. are available as well as a telephone for making overseas calls. The premises have a wine and malt licence (i.e. wine and beer are served).

Seaman's Club – Bus Service: 1800 hrs. Coal Terminal
1830 hrs. Club
1845 hrs. Clean Cargo Terminal

Shopping and Business Centres: The shopping and business centres are at Meerensee and Arboretum, Richards Bay, also at Empangeni where the majority of personal needs are obtainable.

One hour film processing service available from Camera Vision, Shop 1, Checkers Centre, Arboretum.

Vaccinations: Arrangements can be made for Health Authorities to attend on board for vaccinations.

Tides: Tidal change between HWOST and LWOST is approx. 2 m.

Prevailing Winds: South Westerly; North Easterly.

DEVELOPMENTS: Additional facilities under construction consist of: 3 new berths (Nos. 704, 705 and 706) each 300 m. long for handling non-beltable cargo such as wood pulp, paper, steel, etc. No wharf cranes will be provided.

Second shiploader with capacity of 2,500 t.p.h., and 32 storage bins with capacity of 3,395 cu.m. each will be available in 1988.

SHIPMASTER'S REPORT: May 1987.

Pilot and tugs most competent. Berths good and well founded. No draft or air draft restriction for a Panamax at this port.

There was a full and efficient hatch inspection made. Loading was rather spasmodic, due to some very heavy rain, shore plant breakdown and the plant being used for other purposes. A small amount of grab damage was done but this was repaired promptly.

There was no time claimed against the vessel.

Quantity of cargo requested was 63,000 tonnes ±5%. We loaded 62,834 tonnes. There is a strict draft survey and a very heavy penalty for overloading.

Cargo completed	1010 hrs.
Pilot on board	1051 hrs.
Clear of Berth	1109 hrs.
Commenced Passage	1200 hrs.

Agent's Notices:

Rain Whilst Loading:

Following serious complaints from receivers, we have been requested by Principals to instruct Masters of all vessels loading coal at Richards Bay to ensure that all hatches are closed during periods of rain or threatening rain except for those hatches which are being loaded. Furthermore, we would request your written advice of any knowledge you have of foreign objects that may have been loaded with the cargo, giving details of the particular hatch and approximate position of such objects.

Loading Regulations:

May we courteously draw the following to your attention – We have already had numerous vessels loading at Richards Bay which have sailed from Port in an overloaded condition.

The Port Captain has advised that in future any vessels attempting to sail overloaded will be detained until the vessel is deemed to be correctly loaded.

Your attention is drawn to the fact that the Plimsoll Mark is the only standard by which the South African Port Authorities will judge a ship to be correctly loaded. No allowance whatsoever will be made for a vessel's sag and the corresponding mean draft. Allowance for fresh water can be made provided the physical draft does not exceed 17.3 m. and that the Pilot will require proof from the Surveyor that the allowance is correct in terms of the density of water at the time of survey.

In view of the foregoing, we would ask that the Chief Officer and not the Surveyor completes the loading operation. The Surveyor will only calculate the cargo actually on board at the time of completion.

As the loading appliance is presently capable of a rate in excess of 6,000 tonnes per hour, extreme care should be taken by ship's personnel to ensure that the vessel is correctly loaded.

The Department of Transport have advised that in terms of International Convention on Loadlines 1966 Article 12 and fourth schedule of the Merchant Shipping Act No. 57 of 1951 (as amended) a vessel is permitted to submerge the Summer loadline when floating in water of density less than 1,025. The amount by which the loadline may be submerged is proportionate to the difference between the actual density of the water in which the vessel is floating and 1,025. This amount is commonly referred to as the Dock Water Allowance. The Master therefore has the legal right to make use of this provision when the density of the water in which his vessel is floating is other than 1,025. It is the duty of the Master or his appointed representative to calculate the Dock Water Allowance. Density used when determining Dock Water Allowance should be Density in Vacuo. When a draft survey hydrometer which is calibrated to read weight in air is used to determine the density, an added air buoyancy correction should be applied.

Kindly acknowledge receipt of the above by signature to copy attached hereto.

Maximum permissible draft in Richards Bay is 17.3 m.

AUTHORITY: South African Harbours, P.O.Box 32696, Braamfontein 2017, Johannesburg, South Africa. *Tel:* (011) 7734250. *Telex:* 424205. *FAX:* (011) 4032398. *Contact:* The Chief Executive.

Richards Bay: South African Harbours, P.O.Box 181, Richards Bay 3900. *Tel:* (0351) 592236, 22255. *Telex:* 6-23592. *FAX:* (0351) 22383 will be available in 1988. *Contact:* W. C. Kuys, Port Director. B. R. Schaeffler, Port Manager. Captain P. M. J. Carrington, Port Captain.

AGENT: King & Sons (Pty.) Ltd., P.O.Box 9, Richards Bay, 3900. Tel: (0351)-31291/2. Telex: 6-20488. Cables: Baronet, Richards Bay.

SALDANHA BAY: 33.02 S. 17.58 E. (See Plan)

DOCUMENTS:

Port Health:

1 Maritime Declaration of Health.
1 Vaccination List.
2 Crew Lists.
1 Valid Derat Exemption Certificate.

Immigration:

4 Crew Lists.
1 Coastal Form (if applicable).

Customs:

1 Crew List.
1 Ship's Stores List.
1 Crew Declaration (Form DA 5).
1 List of Live Animals

Agents:

2 Crew Lists.

Immigration and Customs: All vessels arriving from a foreign port will be boarded by Immigration and Customs Officers. Crew and passengers are not permitted ashore until permission is granted from above Officers. Vessels should fly International Code Flag "I" (during daytime) until permission is granted.

All vessels in the anchorage shall not be allowed to have any contact with shore personnel or local craft unless this is properly arranged by vessel's Agent with the respective authorities.

Arrival Report Form (T.958): This form should be completed by the Master and handed to the Pilot when he arrives on board. The entries are fairly straightforward:

Item 2: "Time and date of arrival".
This is the time the vessel crosses the arrival line (see "Approaches").
Item 12: "South African light dues paid at".
This will be the first port of call on the Republic coast.

PILOTAGE: For vessels in ballast only, the recommended position to embark the Pilot is with North Head light bearing 050° (True) distance 2 nautical miles but not in any circumstances closer to the Saldanha Bay arrival line.

For vessels in a loaded or partly loaded condition, the Pilot is to be embarked with North Head light bearing 030° (True) distance 3 nautical miles.

The use of a Pilot is compulsory for all vessels (except where specially exempted), entering Saldanha Bay Harbour, shifting and leaving.

All vessels shall provide a clean pilot ladder well secured to the bulwark, rail or deck and situated well clear of all obstructions and overside discharges.

The ladder must be provided with the following:

1. Two bulwark or rail stanchions.
2. Two separate manropes (manila) completely free of knots, with a circumference of 78 mm. or a diameter of 25 mm., and of sufficient length, well secured to the bulwark, rail or deck and independent of the ladder.
3. Sufficient spreaders to ensure that the ladder cannot turn.
4. A heaving line, together with a lifebuoy fitted with a safety light.
5. The ladder and immediate area is to be adequately illuminated during the hours of darkness.
6. During boarding and disembarkation a responsible ship's officer and at least one deckhand are to be in attendance.
7. Where access to the deck is not in excess of 9 m. a pilot ladder together with two manropes shall be provided as described above.

Where the access to the deck exceeds 9 m. the following equipment must be provided:

1. An accommodation ladder in combination with a pilot ladder, said combination to be rigged amidships. The lower end of the accommodation ladder to be suspended not less than 5 m. and not in excess of 9 m. above the water surface.
2. The accommodation ladder must lead aft, i.e. the lower platform must be at the after end. This is so that the pilot vessel's mast and superstructure can be kept clear; also so that the pilot vessel's operator can observe both the accommodation ladder and the Pilot.
3. The lower end of the accommodation ladder must rest firmly against the ship's side. This means that it must either be secured to the ship's side – this can be done by lashing to an eye bolt or bar in the side or by a suction pad – or it must be sufficiently strong and well constructed to remain alongside when the ship rolls.

Pilot Access Point: The attention of administrators, designers, builders, owners, operators and ship Masters is drawn to the requirements of the International Maritime Pilots' Association relative to the design and establishment of a pilot access point on all vessels engaged on voyages in the course of which Pilots are likely to be employed.

1. All vessels shall provide at least one Pilot access point on each side of the vessel.
2. The pilot access point shall be clearly and permanently marked on the deck by a heavy line and the legend "Pilot Access Point – Keep Clear".
3. A safe, non-hazardous passage from the point of access to the bridge shall be provided.
4. The proper rigging of a pilot ladder at the pilot access point must satisfy all the criteria required by Chapter V. Regulation 17 of the SOLAS Convention.
5. Adequate fittings for the proper securing of a pilot ladder and for all ancillary equipment shall be provided.
6. All equipment to be used in connection with embarking, and disembarking of Pilots shall be used for this purpose only. When not in use, the pilot ladder and ancillary equipment must be stowed away.

Pilots' Hull Mark: The International Maritime Pilots' Association recommends a special mark on the ship's side to indicate the most suitable place for boarding, and to show the Pilot whether the height is excessive.

The mark would be similar to a pilot flag, a square with the upper half painted white and the lower half painted red. The line separating the white from the red should be exactly 9 m. below the point of access.

Pilot Hoist: Pilot hoists even those approved by IMO are not acceptable in their present state of development.

Use of Helicopter to Embark/Disembark Pilot: Use of a helicopter may be made in instances where adverse weather conditions prevent the use of a pilot ladder or combination arrangement described above, or the ship being unable to furnish recommended safe access at freeboards in excess of 9 m.

Procedure Normally Followed:

1. Master, after consulting Pilot, instructs Agent to authorise Court Helicopters (Pty) Ltd., at Cape Town (tel: 252965/6/7) to provide a helicopter for boarding or disembarking a Pilot at Saldanha Bay.
2. When Agent has authorised provision of a helicopter he must inform Port Control and Senior Officer in Charge, as well as Master of ship concerned. Operational limit: 46 m. cloud height and 1,000 m. visibility.
3. Senior Officer in Charge, Port Control, will arrange with Court Helicopters "Operations" to either rendezvous with ship, after leaving Saldanha Bay, then land Pilot at suitable landing point in harbour, or pick up Pilot from pilot boat or landing point and land Pilot on ship prior to entering Saldanha Bay.
4. Communications with helicopters are usually on VHF Channels 16 and 10, with a locating keying signal made by ship on 410 kHz.

APPROACHES: Masters of vessels are warned not to proceed too close to the shore line in the vicinity of Saldanha Bay Harbour, nor to cross the arrival line without a Pilot. The arrival line is a straight line connecting the centres of the 2 lighthouses at North Head (Noordlig) and South Head (Suidlig). The Wasserfall bank, situated between Jutten and Malgas Islands across the entrance to the outer bay, constitutes an unmarked hazard.

ANCHORAGE: Vessels will be anchored by the Pilot and the anchoring position will be at his discretion. In any event vessel should anchor in such a way that it will not at any time be closer than 500 m. from the ore loading jetty in the waiting area, to ensure free movement of vessels in Saldanha Bay and vessels should not proceed closer at any time, unless requested to do so. Vessels may be requested to shift anchorage if their position interferes with the normal berthing, approaches and/or movements of other vessels.

RESTRICTIONS: *Port Hours for Shipping Movements:* Iron ore vessels are docked or sailed 24 hours a day. Vessels for the General Cargo Quay are handled from 0600 hrs. to 2200 hrs. only. Loaded tankers and vessels which must turn in the turning basin are handled during daylight only.

Minimum Draft Requirements: Vessels arriving at Saldanha Bay Harbour must pump adequate ballast while still in open water (the minimum depth of the water in the waiting area is 13.7 m. below Chart Datum). the Master of the vessel is responsible for presenting the ship for loading with the proper trim and draft, keeping in mind the loading rate and loader clearance. A clearance safety factor of 2.2 m. is required. Minimum draft requirements will be stipulated by the Port Captain and will be dependent upon existing weather conditions. The following table gives an indication of such minimum draft requirements:

Vessel's length overall	*Forward draft*	*Aft draft*
183 m. (600 ft.)	6.0 m. (20 ft.)	7.5 m. (24 ft.)
213 m. (700 ft.)	7.5 m. (25 ft.)	8.5 m. (28 ft.)
244 m. (800 ft.)	8.0 m. (26 ft.)	9.0 m. (30 ft.)
274 m. (900 ft.)	8.2 m. (27 ft.)	10.0 m. (32 ft.)
over 274 m. (over 900 ft.)	8.5 m. (28 ft.)	10.5 m. (34 ft.)

Air Draft: (Including clearance safety factor of 2.2 m.) The Eastern Side ore berth (Langebaan side) has an air draft of 24.5 m. and the Western Side (Saldanha side) 25.8 m. These are measured to the ship's rail from Chart Datum. An adjustment for height of tide is required. If the hatches open towards the side alongside then these air drafts should be further adjusted.

Tide: 1.50 m. between MLWS and MHWS. All navigation and other charts refer to Chart Datum which is MLWS minus 0.26 m.

Turning Basin: Between the navigation channel and the end of the jetty is situated the main turning basin of 580 m. in diameter and 23.2 m. depth (LWOST). The approach to this basin is marked by beacons on the breakwater and the Eastern and Western extremities are marked by a red buoy and a green buoy.

Vessels with a draft exceeding 14 m. will be handled in the turning basin during daylight hours only.

Weather conditions may prevent entry:

1. Fog, mist, and continuous rain which affects visibility, and heavy swell or sea conditions which affect range action at the berth, manoeuvrability in the turning basin, or tugs towing hawsers within the harbour, will prevent entry.
2. Where poor weather conditions, or a weather forecast, allows the Port Captain to consider it inadvisable for a vessel to enter, he may instruct that the vessel shall not make a closer approach than 12 miles, or such other distance, to the port limits or coastline.

Weather conditions or range action which may cause a vessel to proceed to sea:

1. The Port Captain, or his deputy, may instruct a vessel to stop loading at any time.
2. If, in the opinion of the Port Captain, or his deputy, the movement of the vessel alongside the jetty or berth is excessive he may direct loading operations to cease.
3. The Port Captain, or his deputy, may at any time require a vessel to be removed from her berth and go to an anchorage, or to a safe distance at sea.

MAX. SIZE: *Max. Draft:* For incoming vessels bound for the Ore Jetty or Tanker Berth, the maximum permitted draft is 20.5 m. Vessels sailing from these berths may load to 21.25 m. At the Port Captain's discretion, if conditions are suitable, a vessel may load to 21.5 m. Both incoming and departing vessels at the maximum drafts require at least 1 metre on the gauge on a rising tide for the docking or sailing operation.

For incoming vessels bound for the General Cargo Quay the maximum permitted draft is 10.5 m. Vessels may load to 11.5 m. at this berth. When sailing, there must be the equivalent of the excess of the draft over 10.5 m. on the tide gauge.

Max. Length: The Tanker and Ore Berths can accommodate vessels up to 350 m. and the General Cargo Quay up to 200 m.

HEALTH: Radio Cape Town Radio (ZSC) for Pratique 48 hours before arrival. Address message to "Porthealth Saldanha". Vessels trading coastwise along South African coast and having touched no foreign port since last granted South African Pratique are not required to comply with these requirements.

Quarantine message to include the following information:

1. Name and nationality of vessel.
2. Port of departure.
3. Destination.
4. Health condition on board vessel.
5. Number of cargo or crew and passengers.
6. Type of cargo or in ballast.
7. ETA.

Vessels arriving at Saldanha Bay Harbour in quarantine will be inspected by Health Officer at anchorage or on arrival at the berth. Should the Health Officer board the vessel at anchorage, a proper accommodation ladder must be provided. All expenses shall be for vessel's account.

Masters are requested to have Maritime Health Declaration (one copy) at hand and ready for inspection, also vessel's last Derat or Exemption Certificate. Any person who cannot produce a Yellow Fever Certificate, if called for, shall be vaccinated before being allowed ashore.

All persons requiring medical attention should be available upon vessel's arrival. Agents will provide form of application to be given to doctor for persons requiring medical attention.

No contact with shore is allowed until Free Pratique is granted.

RADIO: Saldanha Bay will be served by Cape Town Radio (ZSC).

ETA Advice: 96, 48 and 24 hours advices prior to arrival to be addressed to Port Captain, Saldanha. Telex: 5-22225. With the 24 hour ETA or much earlier if possible advise the following:

(a) Tonnage required and type(s) of ore.

(b) Draft fore and aft on arrival and estimated draft for departure.

(c) Deballasting time required.

(d) Whether ore-oil, OBO vessel or tanker and whether or not in possession of gas free certificate.

(e) Whether holding slops on board and how inerted.

(f) When vessel is a first time caller; Summer d.w.t., length overall, breadth, distance fore hatch coaming to bow, distance last hatch coaming to stern, distance upper platform of gangway to stern and whether sloping fore or aft.

(g) Last time oil cargo carried on board, and whether ballast water oil content exceeds IMO permissible levels.

Failure to give such notice to Port Captain at least 24 hours before Notice of Readiness is tendered, may result in a delay of 12 hours before docking and loading operations can commence. If any change in ETA, in draft or in ballast situation should occur after the 24 hours ETA advice, it should be advised as soon as possible.

VHF: Saldanha Bay Port Control is equipped for MF, HF and VHF services. Transmissions and reception on Channels 6, 8, 10, 11, 12, 13, 14, 16, 26, 27, 67, 68, 69, 73 and 74.

R/T transmissions on 2182, 1700, 2049, 2716 and 3164 kHz.

Pre-tuned reception: 2182, 1700, 1765, 2002, 2009, 2016, 2023, 2049, 2056, 2716 and 3164 kHz.

Vessels must contact Port Control directly on Channel 16 as soon as possible and be prepared to change to Channel 10 or 12 thereafter.

Channels 9, 11, 13 and 14 should be avoided unless instructed to use them by Port Control or the Pilot.

Berthing Instructions: Vessels are to request instructions from Saldanha Bay Port Control 6 hours before arrival.

The Port Captain is organised to receive VHF, telex and telephone messages on 24 hour basis. Radio traffic by vessels at anchor is permissible in Saldanha Bay Harbour area, provided this is not done on the selected Saldanha Bay Harbour VHF Channels (9, 10, 11, 13, 14, 67, 68, 69, 73 and 74) and be in accordance with International Regulations.

Tugs: The tugs operate with VHF Channels 1 – 28 and 60 – 88, and radio telephone.

RADAR: The Port Control is equipped with Radar which can have the approach channels and anchorages marked on the screen.

Port Control Building: The Port Control, operated by South African Harbours is located on the hill, Hoedjiespunt. This office houses the Port Communications equipment and surveillance radar and is located in position: Lat: 33° 01.70′ S., and Long: 17° 57.77′ E. It is manned on a 24 hour basis by signalmen under the control of the Port Captain.

A radio direction finding system is installed to facilitate the location of vessels calling Port Control. This system is designed to monitor calling frequencies as follows:

1.6 to 4.6 MHz in the marine bands.
0.52 to 1.6 MHz in the broadcast bands.
150 to 400 kHz in the beacon bands.
And all VHF marine calling Channels.

TUGS: Tug service is compulsory at Saldanha Bay Harbour.

Tugs available are:

1. Tug "Marcus" 3,960 b.h.p. diesel, Voith Schneider.
2. Tug "Jutten" 3,960 b.h.p. diesel, Voith Schneider.
3. Tug "Meeuw" 3,960 b.h.p. diesel, Voith Schneider.

The Master, on advice of the Pilot, must decide what tug assistance is required and requests for such tug assistance to be made to the Port Captain 2 hours before arrival.

4 tugs may be required when deep drafted vessels are to be handled. Whenever the Port Captain, or his deputy, requires a fourth tug, this may be available from Cape Town. All expenses and costs to be borne by the vessel involved.

Vessel's Tug Requirements: Conditions at Saldanha can vary at short notice and cannot be predicted accurately prior to a vessel's arrival. Ship Masters must be prepared for high winds of up to 100 km./hr., and heavy swells which can produce swell conditions in the approach channel of up to 5 m.

The following guidelines may be used for programming tug services:
2 tugs: Vessels of less than 14 m. draft.
3 tugs: Vessels more than 14 m. draft but less than 18 m. draft.
4 tugs: Vessels of more than 18 m. draft.

All vessels are turned and berthed "heading out" on arrival. This is to ensure that when a vessel has to leave there will be no difficulty in unberthing and proceeding to sea. Normally only 2 tugs are required to undock vessels and, sometimes, only 1 tug is needed.

Should weather conditions become unduly bad, or swell conditions on the berth cause heavy ranging action, it may be necessary for vessels to either proceed to sea or to an anchorage. Thereafter, when conditions moderate, the vessel will be re-berthed and complete loading.

BERTHING: Ore Loading and Oil Jetty:

The ore loading and oil jetty is of the finger type and consists of 25 caissons in line, 17 of which support a re-inforced concrete superstructure for the ore loading jetty, 4 are for the oil jetty and 4 serve as mooring caissons. The superstructure serves as a roadway and access way for the shiploaders and ancillary services.

All caissons except the mooring caissons are fitted with floating Yokohama type pneumatic rubber fenders of 3.3 m. diameter, 6.5 m. or 10.6 m. long. These fenders are positioned on both sides of the caissons of the ore loading jetty spaced 39.52 m. apart and on both sides of the oil jetty spaced from 45.43 m. to 46.32 m. apart.

Vessels are moored by means of single and double quick releasing mooring hooks fitted with capstans or fairleads. These hooks have capacities of 100 tons and 200 tons respectively.

The total length of the jetty is 991.65 m. and the total mooring length available is approximately 500 m. for iron ore loading vessels and 450 m. for oil tankers at depths of 23.00 m. below Chart Datum. The depth of the navigation channel is 23.20 m. below Chart Datum seaward of the jetty and the exit of the navigation channel is 23.70 m. below Chart Datum. A turning circle with a diameter of 580 m. and a depth of 23.20 m. below Chart Datum is provided in the navigation channel seaward of the jetty.

Loading: Bulk ore loading is effected by means of 2 luffing, slewing and travelling shiploaders fed by a common belt conveyor and intended to operate alternately on a continuous basis. The shiploaders have an achieved average loading capacity of 6,000 tons per operational hour and a peak rate of 10,000 tons per operational hour. The total travelling length of each shiploader is approximately 550 m. Also see "Restrictions – Air Draft".

Departure from Berth: Vessels which complete loading iron ore during the period 0600 hrs. to 2200 hrs. must sail immediately the draft survey and documentation is completed.

Vessels which complete loading and are ready to sail after 2200 hrs. may, without incurring any extra charges, remain at the jetty and sail at 0600 hrs. the next morning. This provision is optional. If a Master wishes to sail immediately cargo work is completed, he may do so.

General Cargo Quay: This quay is 250 m. in length with a least depth of 12 m. alongside (LWOST). A fixed green light marks each end of the quay and a buoyed channel leads to the quay, with a least depth of 12.5 m., from the vicinity of the Western side of the ore berths. Immediately adjacent to the quay is a turning basin (not to be confused with the main turning basin at the end of the ore jetty), with a radius of 142.5 m. (285 m. diameter), which is marked by 2 red can buoys on its Western side and with a least depth of 12 m. (LWOST). The quay was originally designed for the export of lead, zinc and copper concentrates which are stored in a long shed, conspicuous on the edge of the bay and due West of the ore tippler building at the root of the causeway. Storage for 30,000 tons of concentrates are leased to Black Mountain Mineral Corporation. The concentrates are loaded into vessels by 2×15 ton cranes using specially made skips, each capable of taking 12 tons of concentrate, and transported to the quay on trailers drawn by tractors.

North Western Side of Bay:

New Small Craft Harbour: Below the Port Control Building at Hoedjies Point, and due North of it, is situated the new small craft harbour. West of this harbour and lying in a W.N.W.'ly direction is a fishing vessel quay extending for some 500 m. and ending at the Government Jetty.

Government Jetty: The Government Jetty is located on the S.W. side of the Harbour in an area known as Smitswinkelbaai. The jetty is for use by the local fishing industry and coasters. The dredged depth is 6.7 m. below Chart Datum and the length of the jetty is 100 m. plus 160 m. mooring dolphins. Small vessels can moor on both sides of the jetty.

MOORING: *Mooring Arrangements:* All vessels shall be moored at the ore loading/oil jetty with a minimum of 16 ship's lines, that is to say 4 head lines, 2 breast lines, and 2 back springs forward, and 4 stern lines, 2 breast lines, and 2 springs aft.

All head and stern lines should be of suitable man-made fibre rope.

All springs must have suitable strops of at least 15 m. length.

All breast lines should be of suitable man-made fibre rope throughout, but if this cannot be provided, similar rope strops 15 m. in length must be fitted.

All lines to be as strong as possible, of a non-chafe type and preferably not less than 75 mm. in diameter.

Wires generally are not suitable, unless fitted with strops.

Shore ropes are available to supplement ship's lines, for vessel's account. Application to be made to Port Captain, Pilot, or Berthing Master. Ropes to be handled by vessel's crew.

BALLAST: No dumping of dirty ballast or any waste or oil from any vessel is allowed while vessel is within harbour limits or within the South African waters. (Refer to Regulation 39 of the South African Harbours Regulations for the Harbours of the Republic of South Africa and of South West Africa).

Ballast pumped from vessels whilst deballasting shall be continuously checked and controlled by the Port Captain and ISCOR during loading. Vessels failing to comply with the Port Captain's requirements shall be requested to stop deballasting operations and may be instructed to leave Saldanha Bay Harbour.

All vessels must secure bilge systems while in Saldanha Bay Harbour, and complete the Pollution Control Officer's check list soon after arrival.

All vessels must ensure that ballast tanks and piping systems are free of oil contamination prior to arrival. No slop handling facilities are available and no slop or dirty or contaminated ballast can be handled.

STEVEDORES: *Working Hours:*

Ore Berths: 24 hours a day, 7 days a week, all year round, weather permitting.

General Cargo Quay: Monday to Friday, other than public holidays. 0700 to 1630 hrs. (a second shift will be worked from 1900 to 0430 hrs., but only by special agreement).

Black Mountain Concentrates: 24 hours a day from 0700 hrs. Monday to 0700 hrs. Saturday. On request from ship overtime can be worked Saturday 0700 – 1900 hrs., and Sunday can be worked 0700 – 1500 hrs. All cleaning operations to be completed by stopping time.

MEDICAL: *Hospitals:* There is a fully equipped hospital in Vredenberg, 13 km. from Saldanha Bay. Serious medical cases, however, will normally be referred to one of the hospitals in Cape Town.

Doctors: There are several doctors available in Saldanha Bay and nearby Vredenberg. To expedite appointments, however, and to arrange for attendance on board, Agents should be consulted.

Dentist: There are several dentists available in the area, and in order to expedite appointments, Agents should be consulted.

TANKERS: See "Berthing".

AIRPORT: International Airport near Cape Town. Military airport locally but special landing rights have to be applied for.

FRESH WATER: Fresh water can be supplied at the approximate rate of 35 t.p.h. Hose is available on the jetty but vessel's crew are required for connecting and disconnecting. Expenses for vessel's account.

FUEL: Bunkering facilities for heavy fuel oil are not available on either the ore/oil jetty or the general cargo quay. Diesel and lubricants in drums are available at the Government jetty. Small supply vessels, based in Cape Town, are sometimes used to provide up to 100 tons of light diesel or gas oil under conditions approved of by the Port Captain.

REPAIRS: A slipway (under control of Cape Provincial Administration) for the use of the fishing industry, is situated N.W. of the Government jetty with a jetty for vessels using the slipway. The maximum dimensions of vessels using the slipway are 1,200 tons, 70 m. in length, 11 m. in beam and 5 m. in draft. A crane on the jetty can handle loads of up to 10 tons.

CONSULS: There are no Consulates established in Saldanha Bay, but the following countries are represented at Cape Town:

Argentina
Australia
Austria
Belgium
Bolivia
Brazil
Canada
Chile
Denmark
Finland
France
Germany F.R.
Greece
Israel
Italy
Japan
Monaco
Netherlands
Norway
Panama
Peru
Portugal
Spain
Sweden
Switzerland
Taiwan
United Kingdom
U.S.A.
Uruguay

CUSTOMS ALLOWANCES: Master: 400 cigarettes, 1 litre spirits and 6 litres or 1 case of beer. Chief Officer: 200 cigarettes, 1 litre spirits, 6 litres beer. Other Officers: 200 cigarettes, 1 litre spirits, 3 litres beer. Crew: 200 cigarettes only.

All books, films, cards, calendars and arms and ammunition to be sealed in the bond.

See "Cape Town".

HOLIDAYS: The following are recognised Public Holidays in the Republic of South Africa:

New Year's Day, January 1st; Founder Day (6th April); Good Friday; Family Day; Ascension Day; Republic Day, May 31st; Kruger Day, October 10th; Day of the Vow, December 16th; Christmas Day, December 25th; Day of Goodwill, December 26th.

EMERGENCY CO-ORDINATION CENTRE: The Port Captain, Saldanha, is designated as a Secondary Authority to the Port Captain, Cape Town, who is the Co-ordinating Port Captain for all Search and Rescue operations in the area.

Therefore ship Masters must be prepared to assist, in the event of a search and rescue operation, on the lines laid down by IMO, and may be required to report their intentions and actions through Port Control, Saldanha.

TELEPHONES: Telephone facilities are available from the jetty. In order to obtain a telephone, however, arrangements will have to be made by the Agents. In this respect we would point out that many foreign countries have direct dialling facilities with South Africa, and in all cases arrangements should be made for lockable telephones to be placed on board, and the use of that telephone placed under the control of the Master.

Overseas communications can be made through Cape Town Radio, on VHF Channels 16, 26 and 27, when at anchor.

SHIP SUPPLY SERVICE: As Saldanha Bay Harbour is situated only 60 nautical miles North of Cape Town the "Off Shore Services" based there are used in the normal course of events.

The harbour tugs or launches could be utilised from Saldanha in the case of medical emergency in the close proximity to Saldanha Bay.

NOTICES: Letter to Ship's Agents from Port Captain.

Notification of Expected Arrival, Departure and Shifting of Vessels: Saldanha Bay Harbour.

In order to facilitate more efficient Marine services in Saldanha Bay Harbour, in the future, Agents and Fishing Companies using these facilities are requested to please conform with the following requirements.

(a) Harbour Regulation No. 2. Notification of the Expected Arrival of Ships. See attached No. I.

(b) Harbour Regulation No. 18. Notice to leave a Harbour. See attached No. II.

The basic intention of these notices is to give sufficient warning of an intended shipping movement to my office so that work and staff may be schedule to conform with general requirements. It should be noted that a minimum of 3 hours notice should be given, with regard to (b) while moves required after 1700 hrs. should be advertised before that time.

In order to simplify the required notifications you are requested to please make use of our telex facilities as this is far more efficient than either telephone or letters. In this respect I attach No. III a telex format for a Docking Notice, and No. IV, a telex format for a Sailing/Shifting Notice.

It can be expected that an advertised Sailing/Shifting Time may be subject to alteration and in this respect telephone advice will be sufficient for two alterations but a further telex is required for a third alteration as well as for every third alteration thereafter.

Any alteration of Sailing/Shifting Time given within 30 minutes of advertised time will not be accepted and a charge will be raised against the vessel accordingly.

Please conform with these requirements.

Signed:
Port Captain.

No. I – Notification of Expected Arrival of Ships:

The Owner or Agent of a ship that intends to call at a harbour shall as early as possible, give notice in writing to the Port Captain and the Port Goods Superintendent at such harbour of the expected date and time of arrival of the ship, and shall give particulars in such notice as to the nature and quantity of cargo to be loaded or discharged, bunker or other requirements and other matters of importance.

No. II – Notice to Leave a Harbour:

The Master shall give at least 3 hours notice in the prescribed form to the Port Captain at his office of the time his ship will be ready to leave the harbour. If he intends that his ship should leave outside ordinary working hours, such notice must be handed in at the office of the Port Captain before 1700 hrs. on the day of departure, or before 1700 hrs. on the preceding day, as the case may be.

No. III – Notification of Arrival:

Telex No. (Port Control) 5 22225.
Telex No. (Agent, Fishing Co., etc.).
To: The Port Captain, Saldanha.
From: (Name of Agency, Fishing Co., etc.).
Time: Date: Pro. No.:
Name of Vessel: Type of Vessel:
ETA: (Date and Time).
Gross Tonnage: d.w.t.: Length:
Draft: Fwd.: Aft.:
Requirements: (Nature of service required. If FW required. Cargo to be landed/shipped. Is vessel gas free, inerted or clean and any other information which may be applicable).
Name of Person requesting service.
Telex No.: 5 22225
Telex No.:

No. IV – Notification of Sailing or Shifting:

Telex No. (Port Control) 5 22225.
Telex No. (Agent, Fishing Co., etc.).
To: The Port Captain, Saldanha.
From: (Name of Agency, Fishing Co., etc.).
Time: Date: Pro. No.
Name of Vessel:
ETD: Draft: Fwd. Aft.
Requirements:
Name of Person requiring service.
Telex No.: (Port Control) 5 22225.
Telex No.: (Agent, Fishing Co., etc.).

GENERAL: *Removal of Rubbish:* Arrangements are available for the removal of rubbish and can be made through the Agents.

Weather: The climate is temperate. Average high temperatures year round are 20°C (68°F) and average low temperatures are in the region of 11°C (52°F). Sea water temperatures average 16°C. Prevailing winds in Summer are S.S.E'ly and in Winter N.W'ly. Rainfall figures are approximately 300 mm. per annum. Saldanha Bay is a Winter rainfall area. Fog occurs generally in the March to August period. Currents – there are no sea or thermal currents in the harbour area. Tidal currents generally will not exceed 1 knot.

Currency: The standard unit is the Rand. One Rand divided into 100 cents.

Electricity: Can be made available at the ore jetty and the general cargo quay.

Compressed Air: Available ex-quay on application to S.A. Harbours via the Agents.

Cranes: A mobile crane can be hired via the Agents.

Ship Chandlers: Services of ship chandlers are available from Cape Town.

Sporting Facilities: Can be arranged for all sports through the Missions to Seamen, Saldanha.

Flags: Before entering the Saldanha Bay Harbour, every vessel shall hoist her national colours, the South African flag, the immigration and the quarantine flags.

Fishing Vessels: Saldanha is an important fishing harbour and all types of fishing vessels, from ocean going trawlers to small motorised dinghies, can be encountered in the approaches and entrance. At certain times of the year, with the onset of different fishing seasons, congestion in the area due to fishing vessels will become noticeable.

Engines: Vessels are requested to have main engine(s) ready and watch maintained when alongside. Permission to deviate from this must be obtained from Port Captain in writing.

Gas Free Certificate: Ore–oil and OBO vessels having discharged petroleum products at last port or having any slops aboard must advise this in first ETA. If gas-free certificate not already granted by independent chemist with the necessary qualifications as stipulated in the South African Harbours Regulations for the Harbours of the Republic of South Africa and of South West Africa, vessel's Agent shall arrange to have a chemist attend and to issue gas-free certificate. Normally a chemist is allowed, at discretion of Port Captain, to board with the Pilot. The Port Captain may in his discretion allow or disallow a vessel to enter the harbour limits before it is gas-free. No vessel will be allowed to berth unless a valid gas-free certificate can be produced. All expenses incurred to make vessels gas-free will be for vessel's account.

AUTHORITY: South African Harbours, P.O.Box 32696, Braamfontein 2017, Johannesburg, South Africa. *Tel:* (011) 7734250. *Telex:* 424205. *FAX:* (011) 4032398. *Contact:* The Chief Executive.

Saldanha Bay: Port Captain, South African Harbours, Private Bag XI, Saldanha Bay 7395. *Tel:* (02281) 41726. *Telex:* 5-22225. *Cables:* Port Captain, Saldanha. *Contact:* Port Captain.

AGENT: King & Sons (Pty.) Ltd., P.O.Box 102, Saldanha Bay, 7395. Tel: (02281) 41259. Telex: 5-27417. Cables: Baronet, Saldanha Bay.

NOTES

Please also advise Shipping Guides Ltd.

Spain

AGUILAS and HORNILLO: 37.24 N. 01.35 W.

(See Plan)

DOCUMENTS: See "Almeria".
PILOTAGE: Hornillo port has no Pilot. The Pilot of Port of Aguilas which is less than a mile from Hornillo, does pilotage services of both. To enter both ports of Hornillo and Aguilas, anchor mile or a mile and half distance from entrance of Aguilas. Wait for Pilot with engine stopped. To call Pilot give three long blasts several times. Pilot's launch is small motor boat painted white, with letter "P" painted on both sides of boat. During night it carries white light on top of mast, and 8 ft. lower a red light, besides the usual lights.
RESTRICTIONS: It is not possible to enter Hornillo port during dark. Wait till dawn outside Aguilas.
MAX. SIZE: Length up to 160 m., draft about 29 ft.
HEALTH: See "Almeria".
TUGS: None in port and not necessary for either port. If necessary, tugs are available from nearby Port of Garrucha.
BERTHING: Aguilas port has a commercial quay with a berth area about 300 m. and depths of between 8 m. – 12 m. Hornillo port has a pier to handle minerals with berth area of 90 m. to 100 m. and depths between 6 m. – 10 m.
BULK HANDLING: 2 conveyor belts. 1×400 t.p.h. capacity and 1×100 t.p.h capacity for grain and other bulk cargoes.
STEVEDORES: Team of stevedores who belong to "Port Workers' Trade Unions" (Sindicato de Obreros Portuarios).
MEDICAL: Master can send cables to consignee requiring this kind of service. There are a number of doctors and a hospital.
FRESH WATER: Available by pipe-line at berths.
FUEL: There are no supplies of fuel in either port.
GANGWAY/DECK WATCHMEN: Not necessary, usually this is done by crew.
OPENING/CLOSING HATCHES: Usually this is done by crew.
REPAIRS: No facilities.
REPATRIATION: Facilities for effecting crew changes exist. Repatriation can be done by train to Madrid and by plane from there.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: See "Almeria".
POLICE/AMBULANCE/FIRE: Ambulance and fire services can be requested from Port Authority. If the police services are required call to "Caseta de Vigilancia" of the Civil Guard in either port.
SHORE LEAVE: Crew members are allowed ashore.
GENERAL: Hornillo port is used only for loading and discharge of minerals, and for this purpose a pier is provided with a railway. The nearest port of Aguilas, less than a mile distant on the West, is the commercial port, with a quay for loading/discharging and a crane of 10 tons capacity.
AUTHORITY: Ayudante de Marina, Capitan del Puerto, Ayudantia de Marina, Aguilas, Murcia, Spain. *Tel:* 968 41 10 74.

ALGECIRAS: 36.08 N. 05.26 W.

(See Plan)

DOCUMENTS: *Clearance Inwards of Vessels:*
1 copy Maritime Health Declaration.
5 copies Crew List.
2 copies Cargo Manifests: 1 on entry, 1 on sailing.
2 copies Manifests in Transit: 1 on entry, 1 on sailing.
If Vessel is in transit:
5 copies Transit Passenger List.
2 copies of Arrival Documents.
2 copies Lists of Passengers who have disembarked or embarked.
Tankers:
2 copies Cargo Manifest: entry, sailing or ballast.
PILOTAGE: Vessels entering port must call the Pilot by International Signal Code, sound, light or VHF.

The pilot boat is painted with a black "P" on both sides at its widest part. By day it will fly a blue flag with the letter "P" in white. At night, it will show the International Pilot Lights. The area where the Pilot boards is a circle 0.5 miles radius with its centre 1 mile East of the Western end of the breakwater extremity (red light).
ANCHORAGE: Vessels awaiting the Pilot can anchor to the North of Barranco Lighthouse in water 30 m. depth under indications given by the Pilot by VHF.
RESTRICTIONS: Vessels may enter by day or by night.
MAX. SIZE: Port of Algeciras: No restrictions as to length, max. draft 14.0 m.
Tankers: Gibraltar Refinery: Max. length 315 m., max. draft 60 ft.
Monobuoy: Depth of water 60 m. Designed for vessels up to 500,000 d.w.t. Largest vessel accommodated to date: 423,000 d.w.t. with draft 22.9 m.
HEALTH: Free Pratique is obtained automatically when Authorities board on arrival and Maritime Declaration of Health is completed. In case of suspected disease or fever on board full details should be sent by radio to Sanidad Maritima, Algeciras, before arrival.
RADIO: Tarifa, Mijas, Aranjuez Radio and Cadiz Radio. Vessels bound for the Gibraltar Refinery must announce their arrival on VHF to the Port Captaincy using Channel 16 for calling and Channel 13 for communication.

Agent requires 72, 48 and 24 hours notice of arrival.

TUGS: 8 tugs up to 2,250 h.p., working in accordance with instructions from the Pilot. It is usual for vessels to provide tow-lines.

BERTHING:
Darsena Sur (South Dock):

Name	*Length* (m.)	*Depth* (m.)	*Usage*
Dique Norte	125	8 – 10	Bunkers
	590	10	Bunkers
	703	14	Bunkers
Muelle de la Isla Verde	33	8 – 12	General cargo
	750	12	General cargo, containers and solid bulk cargoes.
	150	9	Ro/Ro
Muelle de la Galera (South)	75	4	Passengers
	305	6	Ferries
	264	10	Ferries
Muelle de la Galera (North)	170	10.5	General cargo and Ro/Ro
(East)	110	10.5	Frozen fish and bulk liquids
Muelle del Navio (East)	500	14	General cargo and containers
(South)	300	12	General cargo, containers
	225	10.5	General cargo
(West)	180	10.5	Ro/Ro

BULK HANDLING FACILITIES: *Cement:* Discharged to 2 storage silos at Muelle de la Isla Verde. Rate 200 t.p.h.
Containers: 4×30 ton Paceco (Sealand) gantry cranes at Muelle de la Isla Verde and 2×30 ton transtainers.

2×32 ton Paceco cranes and 4×32 ton Paceco transtainers at Maersk Espana Terminal at Muelle del Navio (270 m. length).

2×40 tonne Fruehauf cranes at Terminals Algeciras at Muelle del Navio (270 m.).
Scrap iron and metal products: Acerinox Quay: Length: 250 m. Depth 9.5 m. 3 jib cranes, capacity 25 tons each.
CRANES: (Also see "Bulk Handling Facilities").

Location	*Owner*	*No.*	*Capacity* (Tons)
Muelle de la Galera (North)	Port Control	3	3
Muelle de la Isla Verde	Port Control	1	30
Muelle de la Isla Verde	Port Control	2	6
Muelle de la Isla Verde	Private	2	6

Junta del Puerto (Port Control) also own mobile cranes, 1×3 – 6 ton, and 2×6 – 25 ton capacity.
STEVEDORES: Ordered by vessel's Agent on basis of Master's ETA.
MEDICAL: Doctors and hospital facilities available. International vaccination certificates only required if vessel is proceeding from an infected area.
TANKERS: Refineria Gibraltar (C.E.P.S.A.) – 5 berths for tankers up to 283 m. length, 2 of which can accept draft up to 65 ft. Loading/discharge lines are 12 in., 10 in., 8 in., 6 in. and 4 in. Refineria Gibraltar has 2 slop tanks each of 600 cu.m. capacity which can accept oily residues.

Berth	*Length* (m.)	*Depth* (m.)
South	700	19 – 20
North	380	17 – 19
North	300	17 – 19
North	115	6
South	115	6

There are 18 hydraulic and 10 manually operated loading arms. Max. pressure permitted 150 p.s.i.
Monobuoy: Operated by Compania Espanola de Petroleos S.A (C.E.P.S.A.).
Location: Lat. 36° 10′ N., Long. 05° 24.8′ W.
Depth: Approx. 60 m.
Anchorage: Pilot will advise anchorage in accordance with weather conditions.
Prohibited Anchorage: Vessels are not to anchor within 0.3 miles of the monobuoy or within 150 m. of the underwater pipeline which runs in a N. 20° E. direction from the buoy to the Terminal onshore.
Pipelines: There are two underwater pipes, one 42 in. for crude oil and one 16 in. for bunkers.
Navigation Aid: Light: Fl. 3 every 8 seconds ("U") Range 5 miles. Height above sea level 6.0 m.

The buoy is also equipped with a radar reflector 7 m. above sea level, "Racon" letter "U" and fog signal manually operated with characteristic 3 blasts every 3 seconds ("U" in Morse code).

The floating hoses display white flashing lights 70 m. apart, 20 flashes every 60 seconds. Range 1 mile. Height above sea level 0.75 m.
Charts: Spanish: No. 3500 and 3503. British: B.A. No. 1448.
Communications:

Telegraphic Address: Spanoil, Algeciras.
Telex Address: 78007 Cepsa E.

Telegraphic Communications: Once the vessel has left the port of loading, Master must send a telegram via Aranjuez Radio, giving the following information:
(a) Name of vessel.
(b) ETA in GMT.
(c) Amount loaded per Bill of Lading.
(d) Specific gravity.
(e) Maximum draft.
(f) Capacity of tanks.
(g) Slops in the cargo.
(h) Whether it has a central bow installation, in which case give dimensions.
Where not, indicate type, characteristics and distance to the stem.

If vessel is to effect loading operations, once it has left its unloading port, Master must send the following telegram:
(a) Name of vessel.
(b) ETA in GMT.
(c) Quantity of cargo required.
(d) Amount of dirty ballast and deballasting time.
(e) Capacity of tanks.
(f) Amounts of slops and kind.
(g) Whether it has a central bow installation, in which case, give dimensions.
Where not, give type, characteristics and distance to the stem.

If the cargo receiving points are of a different type to 16 in. or 12 in. standard ASA 150 lb. this must be communicated both in the case of a vessel coming to load and one which will be discharging.

Within 72 hours of arrival, the Master must send a second telegram including the following information:
(a) Name of vessel and Master.
(b) ETA in GMT.
(c) Amount of fuel required.
(d) Additional requirements.

Within 48 and 24 hours prior to arrival, he must send further telegrams confirming his ETA.

Radiotelephonic Communications: A soon as the vessel is within VHF range, contact must be made with the Pilots or the Port Captaincy of the "Gibraltar" Refinery on Channel 13 to receive instructions with regard to berthing, this station listens out 24 hours a day.

Notice of Readiness: Will be accepted by the Monobuoy Berthing Master, when the vessel is in all respects ready to commence operations.

Notice of Readiness will be accepted under either of the following situations:
(a) When the Master receives the Monobuoy Berthing Master or,
(b) When the vessel has anchored in the anchorage area.

Port Closed: The Notice of Readiness will not be accepted when port closed.

Port closure periods are considered to be such when the weather conditions prevent vessels coming alongside and berthing. The decision to close the port is made by the Marine Authority.

Berthing sequence: Vessel will berth normally in strict order of arrival and any alteration will be duly communicated and sufficiently in advance.

Services and Facilities:

Pilotage: The Pilotage service is obligatory and the Corporation is available permanently. The waiting area for Pilots is between Lat. 36° 07.5′ and Lat. 36° 08.5′ N. and Long. 5° 24.0′ and Long. 5° 25.0′ W.

Mooring: The Monobuoy Berthing Master will board the vessel in the vicinity of the buoy together with a foreman, 2 deckmen and 2 divers and will assist the Pilot and crew respectively in the berthing operations. These services are provided free of charge and the personnel remain on board during the whole duration of operations during which food and accommodation of an adequate nature must be provided.

Tugs, launches, mooring equipment: Tugs and/or launches can assist the vessel in the operations of berthing and unberthing under the direct control and supervision of the Pilot and the Monobuoy Berthing Master. There are also launches for transporting crew members ashore.

Consignee: The Compania Espanola de Petroleos, S.A. at its "Gibraltar" Refinery, has a Consignee department. Vessels utilising this service must send their radiograms to the following address:

Compania Espanola de Petroleos, S.A.
"Refineria Gibraltar",
San Roque (Cadiz) – Spain
Telephones: 761700 – 764811 – 762600
Telex: 78007 Cepsa E
Telegrams: Spanoil (Algeciras)

Arrival Documents: The following documents are required:
6 copies of the Crew List
1 Negative Passenger List
3 Copies of Passenger List if any onboard
2 Copies of the Cargo Manifest for Algeciras
1 Copy of the Cargo Manifest for Cargo in Transit
2 Copies of the vessel's Manifest List, including bunker, oil, tobacco, alcohol, medicine, belonging to the vessel.
2 Copies of a List of the Crew's and Passengers' Personal Effects.

The maximum quantity of tobacco and alcohol permitted for each crew member and passenger outside the manifest is 200 cigarettes and 1 litre bottle.

Free Pratique: It is not necessary to advise the Health Authorities prior to arrival unless there is any sickness on board.

Free Pratique is granted when the vessel is visited by the Health Official at the anchorage or when it is berthed at the Monobuoy and the following documents will be required:
1 Health Declaration
1 Crew List
1 Passenger List or
1 Negative Passenger List

The Health Official will inspect the Derat Certificate or Exemption. This Certificate can be drawn up or renewed at Algeciras if required.

Doctor: Medical Service, if required, can be obtained via the Agent and will be sent as quickly as possible.

Fuel Bunkers: Fuel Oil is supplied via the Monobuoy.

Apart from the advice by radio to the local Consignee, owners must contact Campsa-Madrid, advising them of the type and quantity of bunkers required on arrival.

(The suggestion above is based on the fact that in Spain all supplies are effected directly by Campsa through the authorised refineries).

Direct contact with Campsa by the Owner, and the transfer of funds for the supply, required by the local Agent prior to bunkering taking place.

Oils: A majority of international companies have stocks of oil in the country, requirements to be advised via their Agent sufficiently in advance in order to prepare documentation and delivery. This delivery will not be made whilst the vessel is moored at the Monobuoy carrying out loading or unloading operations since it has to be effected by barge or a tanker type tug. Only vessels operating with inert gas are excepted.

Water: This is supplied by a 350 ton vessel and must be requested 48 hours in advance via the local Agent. There is no water line via the Monobuoy.

Victualling and Provisions: All kinds of stores obtainable in Algeciras and deck and machinery supplies can also be provided, requirements are to be communicated to the Agent or Consignee by radio.

All deck and machinery supplies will be supplied by launches or tugs prior to berthing or after unberthing at the Monobuoy.

Spares to be supplied from abroad for vessels at Algeciras must be sent to the airport of Malaga or the airport of Seville, addressed to the Master of the vessel in question and consigned to the local Agent at Algeciras.

Goods sent by TIR should be despatched to Malaga for Customs clearance.

Repairs: Only minor repairs can be carried out by local workshops. In the event of major repairs being required, there is at Cadiz, which is 120 kilometres away (approx.), all types of workshops and equipment. Any kind of repair which might leave the vessel without means of propulsion is absolutely prohibited whilst it is berthed at the Monobuoy.

Classification Societies: Lloyd's Register, Plaza Alta 7. Tel: (956) 662889.

Other Societies have a representative.

Telephone Numbers: Area Code (956)

"Gibraltar" Refinery:	
Monobuoy Berthing Master	761700 – 764811 – 762600 (Ext. 243)
Port Captain	761700 – 764811 – 762600 (Ext. 311)
Fire Fighting	761700 (Ext. 222)
Ambulance	764811 – 762600 (Ext. 111)
Medical	764811 – 762600 (Ext. 111)
Algeciras:	
Command Post	60471
Police	091
Fire Fighting	662222
Ambulance	604144

Mooring:

Preparation for Mooring: Vessels must have in position a Pilot ladder and/or hoisting ladder or a gangway which is safe and firmly protected for immediate use and sufficiently long to reach the Monobuoy Berthing Master's launch.

For vessels with a freeboard of 40 ft. or more, the gangway must be extended, lowered and the platform must not be more than 10 ft. from sea level, a Pilot ladder shall also be provided for boarding the platform.

Vessels must provide a lee on the port side for the embarkation or disembarkation of Monobuoy Berthing Masters.

Vessels must have prepared on the forecastle and in the bow section the following:
(a) 2 mooring cables of polypropylene if possible.
(b) 2 veering cables 5 in. circumference, min. length 300 ft.

Vessels must have ready amidships and on the port side the following:
(a) Derrick equipped and ready to lift equipment from the launch.
(b) Mooring shackles.
(c) Wire and equipment for connecting hoses.

Note: If vessels moor with the aid of tugs, the Port Pilot will indicate the number of tugs to be used and the cables required.

Mooring at the Monobuoy: The Monobuoy is equipped with a cable 19 in. in diameter and 180 ft. long (55 m.) and with a breaking strain of 795.6 tons, its ends having collars and special cable protections with corresponding shackles. The shackle which connects it to the Monobuoy has a test strain of 688.8 tons and this is connected to a meter, which indicates at any time the strain to which the whole assembly is subjected. The shackle placed at the other end has a test strain of 510 tons and is connected to a length of chain of two different dimensions, its total length being 40 ft. (12 m.). The first 25 ft. (8 m.) are of 4 in. ending in two lengths of 702 mm. length and 440 mm. wide, and which are connected to the remaining 15 ft. (5 m.) of chain with a dimension of 2.75 in. which ends in two open links 478 mm. long and 293 mm. wide. The end of this length of chain is connected by means of a shackle S.W.L. 40 tons to a plaited cable of polypropylene 11 in. diameter and 250 ft. (76 m.) long, known as the approaching cable. The end of this cable is identified by means of a small 12 in. diameter buoy connected to it by means of a 0.5 in. guy and 5 ft. long. The weight of the length of chain mentioned above is supported by a cylindrical buoy 3,600 kgs. in weight.

When the vessel is close to the Monobuoy the crew must pay out the end of the veering cable through the central fairlead or nearest alternative lead available on the port side, whilst at the same time, various flexible cables 16 in. or 10 in. are made fast on board, according to the tonnage, to each bitt and also to the bow, and if there is no central fairlead available, onto the bitts on the port side. Once on board, the chain will be made fast to the cables by means of two 4 in. or 2.5 in. shackles according to the type of cable to be used. Where the vessel has a "Smit Bracket" or similar type of berthing fitment, the chain will be made fast to this. Vessels of less than 150,000 d.w.t. will be connected to the 2.75 in. chain and those exceeding this tonnage will be connected to the 4 in. chain.

Whilst the vessel is berthed at the Monobuoy a tug will remain alongside in the event of it being necessary to remove the vessel from the Monobuoy, in which case she must have available at the stern a very good towing line.

Turbine vessels which may have their propellor turning, must go astern so as not to come close to the buoy and cause damage.

Connection and Disconnection of Hoses:

General: The Monobuoy has two floating hoses 20 in. in diameter for discharge and loading which end in 3×16 in. diameter sections, each for direct connection having an approximate weight of 7 tons. The hoses will be hoisted and connected by the crew of the vessel in collaboration with the foreman and two deckmen from the Terminal. The Monobuoy Berthing Master will assist the vessel's officers in the connection operations. For supply of bunkers there is a 12 in. diameter hose available with a weight limit which is less than those mentioned above.

Derricks: All tankers operating at the Monobuoy must have a derrick with minimum capacity of 10 tons on the port side.

Flanges: The connecting flanges are 16 in. ASA for loading/unloading and 12 in. 150 ASA for bunkers. In the event of vessels not having flanges of these dimensions or reducers, this should be notified by radio 72 hours in advance.

Ballasting and Deballasting:

Anti-pollution precautions: The vessel's Master must take the necessary measures so that there is no loss of dirty ballast and is responsible at all times for damages and costs which may originate from this.

Scuppers: Before commencing operations the scuppers must be closed.

Sea Valves: During the operation of ballasting, the tightness of the sea valves and inlets must be checked, taking all precautions to obviate contamination of the sea.

Ballasting/Deballasting during the night: If these operations are carried out during the night, the area must be adequately lit.

Inability to receive dirty ballast: All vessels operating at the Monobuoy must arrive with clean ballast since there is no facility for reception of dirty ballast. In the event that they have residue arising from tank cleaning, this must be pumped to the slop tanks, which will be measured and which will be loaded by the "load on top" system.

Loading and Discharging:

Communications during loading/discharging: All communications relative to loading and discharging of vessels will be made via the Monobuoy Berthing Master who will remain in contact constantly with the Refinery Blending department via portable VHF on Channel 9. In the event of damage to the portable VHF, contact will be continued via the vessel's equipment.

Damage during communication: In the event of damage to all communications with the Blending Department, the loading and discharging operations will cease immediately.

Average of loading and discharge: The installation can operate at an average (max.) of 12,000 cu.m. per hour and at a working pressure of 12 kg/sq.cm., at the vessel's manifold.

The supply of bunkers can be effected at a maximum average of 2,000 t.p.h. with a working pressure equal to 12 kg./sq.cm.

Anti-pollution precautions: Contamination of the sea by hydrocarbons is absolutely prohibited; this prohibition includes pumping. The non-fulfilment of this regulation can give rise to serious penalties and for which reason all vigilance must be applied to stop leaks which would give rise to the immediate cessation of all operations, the Master/Owner being entirely responsible for costs or damages which might arise therefrom. Trays must be provided to catch any possible leaks during connection or disconnection of hoses to the manifold.

Valve closure due to excessive loading: No valve will be closed which may stop or reduce the movement of the product, whilst the shore pumps are operating unless prior advice has been given to and the approval obtained from the Monobuoy Berthing Master. The practice of closing the valves at the vessel's manifold must be obviated.

If a decrease in pumping rate is required the shore terminal will lower the pumping rate to the required level if requested.

The Master will be responsible for any damage which may arise from the sudden stoppage in flow due to faults on board the vessel. It cannot be overemphasised for this to occur it is extremely dangerous and may give rise to extremely extensive damage to the installation.

Sample intakes and empties: All vessels which have available inert gas installations in service must arrive with all tanks depressurised for the purpose of taking samples, emptying water, etc. Once this operation has been effected, tanks can be pressurised once again. Once discharge has been terminated, the tanks will be depressurised in order that they may be inspected.

FRESH WATER: Available from all berths in Algeciras rate 30 t.p.h. – 200 t.p.h. depending on location, and at Refineria Gibraltar. Can also be supplied by barge.

FUEL: Fuel oil and Gas oil supplied by C.A.M.P.S.A. at Dique Norte (North Breakwater) and Muelle de la Isla Verde.

Product	*Location*	*No. of Points*	*t.p.h. per Point*	*t.p.h. of Quay*
Heavy fuel No. 1	Dique Norte	4	200	200
Gas Oil "A"	Dique Norte	4	250	250
"B"	Dique Norte	4	250	250
"B"	Dique Norte	1	75	75
"B"	Dique Norte	1	20	20
"B"	Dique Norte	1	30	30
Heavy Fuel No. 1	Muelle de la Isla Verde	3	150	150
Gas Oil "A"	Muelle de la Isla Verde	3	200	200
Gas Oil "B"	Muelle de la Isla Verde	3	200	200

Bunkers can also be delivered by road tanker or barge.

GANGWAY/DECK WATCHMEN: Not available from shore.

OPENING/CLOSING HATCHES: Opened and closed by ship's crew.

CUSTOMS ALLOWANCES: Max. quantity of tobacco permitted in ship's stores is 3 kilos per crew member and 2 kilos per passenger. The quantity that may be held out of bond is 40 grammes tobacco per person per day. Wine/Spirits. 1 decilitre per person per day may be held out of bond.

CONSULS:

Denmark
El Salvador
France
Great Britain
Italy
Morocco
Netherlands
Norway
Panama
Sweden

REPAIRS: Small repairs afloat can be effected. No dry docks.

AIRPORT: Nearest is at Malaga, 120 km. from Algeciras, and Gibraltar.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: New Year's Day, 6th January, 19th March, Maundy Thursday, Good Friday, Easter Saturday, 1st May, Corpus Christi, 29th June, 25th July, 15th August, 12th October, 1st November, 8th December, 25th December.

POLICE/FIRE/AMBULANCE: *Algeciras:* Police, tel: 091; Fire, tel: 662222, Ambulance, tel: 604144. *Refineria Gibraltar:* Fire, tel: 761700, 764811, 762600 (ext. 222); Ambulance, tel: 761700; 764811, 762600 (Ext. 111).

SHORE LEAVE: Crew members are permitted to go ashore subject to police control.

AUTHORITY: Junta del Puerto de Algeciras-La Linea, Apartado No. 7, Paseo de la Conferencia S/N, Algeciras (Cadiz), Spain. *Tel:* (956) 600200. *Telex:* 78036 JPAG E. *FAX:* (956) 605834. *Contact:* Joaquin Lefler Pino, Port Director.

ALICANTE: 38.23 N. 00.28 W. (See Plan)

PORT LIMITS: The line drawn from Cabo de las Huertas and Cabo de Santa Pola.

DOCUMENTS:

4 Crew Lists.
4 Passenger Lists.
10 Manifests for Cargo, including cargo in transit as well as cargo for Alicante. Tobacco and Cargo Manifests to be visaed by Spanish Consulate in port of origin.

All vessels' Certificates.

Shipmaster's Report: November 1988.

First Port: See "Cadiz".
Second Port:
Customs – "Ruta".
Agent – 1 Crew List.
Quarantine – 1 Crew List and 1 Maritime Declaration of Health.

PILOTAGE: The Pilotage service is permanent, and should be requested by means of the International Signals Code. It has a VHF radio station and can be called up on Channel 16. The Pilots have a motor launch painted white with the letter "P" on both sides, and flies a black flag with letter "P" in white, whilst at night it shows lights in accordance with the International Regulations. The launch meets vessels 1 mile from the green breakwater light, but in bad weather closer to that light. Pilots Tel. 5211137.

ANCHORAGE: Vessels waiting to enter port may anchor at a distance of 0.5 miles off the breakwater in depths of 16 m.

MAX. SIZE: Vessels of up to 225 m. length and 38 ft. draft (60,000 – 80,000 d.w.t.) can be berthed alongside. For tankers, max. draft 35.20 ft. (10.73 m.) 36,000 d.w.t. at Muelle 11. Also see "Berthing".

Discharge of butane is carried out at buoys located to the South of the port and with a limitation of maximum length of 140 m. between perpendiculars and 28 ft. draft.

HEALTH: Regulations as dictated by the International Regulations for Foreign Health are enforced.

RADIO: Radio-telephone communication through Radio La Costera, Alicante, medium frequency range approx. 220 miles and VHF approx. 40 miles.

TUGS: 2 tugs available to assist berthing of 1,500 h.p. Normally ship's lines used for connection with tug. Tug meets vessel at Port entrance.

BERTHING: The breakwater extends in a S.W. direction and vessels berth within the breakwater. Max. depth being available at the outer end of the breakwater, decreasing in the N.E. direction.

Muelle Principe de Asturias: Dry bulk terminal. Length 306 m. Depth 14.0 m. The Terminal will be operational January 1989.

Muelle 14: Extends along the length of the N.E./S.W. breakwater and depths vary alongside the berth from 12.5 m. at the S.W. end to 8 m. at the N.E. end. Length of quay – 970 m.

Muelle 12: Depth alongside 8.0 m. Length – 296 m.

Muelle 11: A combined tanker and container berth. Depth 10 m. Length – 360 m.

Muelle 10: Depths alongside the berth vary from 6 m. to 8.75 m. Length – 203 m.

Muelle 9: Depth alongside berth 8.75 m. Length – 103 m.

Muelle 7: Depth alongside berth 8.75 m. Length – 240 m.

Muelle 6: Depth Alongside 8.0 m. Length – 160 m.

CRANES: All quays have cranes of 6 tons, and on Quay No. 11 there is a 35 ton portainer and 30 ton container crane. On Muelle Principe de Asturias there are 4×16 ton cranes. Loading and discharging operations are always carried out by shore personnel, irrespective of the means used.

SPECIAL CARGO HANDLING FACILITIES: There are 3 berths in the outer harbour located at the head of berths 10/12 and 12/14 for Ro/Ro traffic. 2 Ro/Ro berths in the inner basin.

1×400 t.p.h. pneumatic unloader available.

STEVEDORES: It is necessary to advise Agents 48 hours in advance of the arrival of the vessel.

The main goods shipped at this port are: canned goods, aluminium ore, asphalt, ground pepper, bulk cement, etc. Average speeds of loading and discharge are: bulk cargo 60 t.p.h.; general cargo 50 t.p.h.; containers 30 units per hour.

MEDICAL: Many hospitals and medical services available. Advise Agent prior to arrival if medical assistance required.

TANKERS: Tankers discharge takes place at Muelle 11 (see "Berthing"). Product handled: Fuel oil (2×12 in.) and Gas oil (2×10 in.)

DENSITY: Average 1030.

FRESH WATER: Available from hydrants at the quays at the rate of 10 t.p.h., per hydrant.
FUEL: Supplied by Campsa on all berths.
CONSULS: The following countries have local representation: Belgium, Denmark, Dominican Republic, France, Germany (F.R.), Gt. Britain, Monaco, Norway, Netherlands, Paraguay, Peru, Sweden.
SURVEYORS: Comisario Maritimo Espanol (Spanish Maritime Commissary) and Lloyd's.
REPATRIATION: Possible, without difficulty.
GANGWAY/DECK WATCHMEN: Agents normally provide watchmen.
OPENING/CLOSING HATCHES: Normally opened by crew and closed by stevedores using cranes.
CUSTOMS ALLOWANCES: 200 cigarettes and one bottle of spirits per person.
CARGO GEAR: All berths have cranes, varying from about 6 tons capacity. There is 1 heavy lift crane capacity 30 tons, and one gantry crane with 35 tons capacity.
REPAIRS: Only minor repairs carried out. There is a dry dock for small craft.
AIRPORT: About 8 km. distance from Alicante, and serviced by international flights.
TIME: GMT plus 1 hour in Autumn and Winter. GMT plus 2 hours in Spring and Summer.
HOLIDAYS: Normally no work is carried out on the following holidays: New Year, 1st January; Epiphany, 6th January; La Pelegrina, 26th April; Maundy Thursday; Good Friday; Labour Day, 1st May; Festival of San Pedro, 29th June; Corpus Christi; Santiago Apostol, 25th July; Assumption; Festival of the Spanish Speaking World, 12th October; All Saints', 1st November; Immaculate Conception, 8th December and Christmas Day, 25th December.
POLICE/AMBULANCE/FIRE: Police, Tel: 091. Ambulance, Tel: 5207201. Fire Brigade, Tel: 5229080.
TELEPHONES: Can be installed on board; the cost of installation currently is about 12,000 pesetas.
DEVELOPMENTS: Entrance channel to be dredged to 14.0 m.
Container Terminal (Muelle 11) to be dredged to 12.5 m.

SHIPMASTER'S REPORT: October 1983.
Documents: Unnecessary to have any papers visaed in previous port. Normal IMO papers acceptable but preferable to have separate Bonded Stores List.
Pilotage: In bad weather, Master will enter harbour without Pilot. Max. speed of pilot boat 7 knots.
On sailing, call Pilot 30 minutes before required by VHF Channels 16 or 12.
Health: No radio health message required.
Discharging: Discharging rate for boxes of pineapples using shore cranes was 25 t.p.h. per gang.
Fresh Water: Available at approx 15 t.p.h.
Watchmen: No watchman required.
Identification Cards: Agent provides separate I.D. cards for non-E.E.C. country crew members going ashore.

AUTHORITY: Junta Del Puerto de Alicante, Muelle de Levante S/No., 03001–Alicante, Spain. *Tel:* (96) 5202255, 5203588. *Telex:* 66554 JPA E. *FAX:* (96) 5216359. *Contact:* Sergio Campos Ferrera, Port Director.
Comandancia de Marina, Tel. 211514, 216163.

ALMERIA: 36.52 N. 02.30 W. (See Plan)

DOCUMENTS:
4 Crew Lists.
4 Passenger Lists (embarking, disembarking and in transit).
2 Cargo Manifests of goods destined to Almeria, as well as other cargoes in transit.
Stores List in duplicate, including tobacco, spirits, radios, etc., belonging to vessel.
Note: Tobacco. In case vessel carries more than 6 kilos of tobacco per man, excess must be declared in a separate manifest, which must be visaed by a Spanish Consul. In absence of Consul, said document will have to be visaed by an Authority of former port of clearance. Otherwise, the vessel would be fined.
PILOTAGE: Compulsory, service is permanent. Pilots board vessels by motor-boat in roads, near entrance formed by two breakwaters. This entrance is 287 m. wide. Pilot boats are painted white and letter "P" is painted in black on each bow. Also boats have a blue flag hoisted on mast, with letter "P" in white on both sides of flag. At night, boats have white light, under this light is a red light. When weather is bad vessels approach as close as possible to entrance so that Pilot can easily board the vessel.
ANCHORAGE: When harbour is congested, vessel can anchor at West Mole while waiting for berth.
MAX. SIZE: Only limitation is draft. Max. draft 39 ft. in the inner port and 43 ft. in the outer port.
HEALTH: Pratique is obtained immediately after berthing, when Health Officer boards vessel, In case of suspected disease or fever on board Master must send a radio message to Agents, in order that they advise the Health Officer. Following documents are required by Health Officer upon berthing: Maritime Declaration of Health, Derat Certificate, 1 Crew List.
RADIO: Nearest important radio stations are Cadiz Radio and Palos Radio.
VHF: Call Almeria Radio on Channel 16 for connection with pilot station.
TUGS: 3 tugs available and compulsory in accordance with LOA, d.w.t. and weather conditions.
BERTHING: Prior to ship's arrival and in accordance with Master's ETA Agent attends Port Authorities to procure a proper available berth. Commercial quays have a length of 350 m. with single shed with max. depth 23 ft. and 712 m. with max. depth 31 ft.; in 2 directions there is 350 m. with Ro-Ro ramp with max. depth 24 ft. – 29 ft. (also used by tankers). There is 369 m. of berthing space with 34 ft. depth and 250 m. with 39 ft. depth with open storage area for solid bulk cargoes.
There is a Ro-Ro ramp, max. load 20 tons per axle.
Iron Ore Berth: Max. size 80,000 d.w.t. Max. draft 13.9 m. 1 ship loader, rate 2,000 t.p.h.
STEVEDORES: It is necessary that Master sends ETA so that Agent can inform Receiver's stevedores accordingly and arrange for proper reception of cargo and berth. Timetable of shifts available at the port; Daytime, normal working hours, from 0800 – 1200 hrs. and 1400 – 1800 hrs. (1 shift), 0800 – 1400 hrs. (1 intensive shift), 1400 – 2000 hrs. (1 intensive shift). Night time, from 1800 to 2400 hrs.; Sundays and holidays, from 0900 to 1200 and 1400 to 1800 hrs.
MEDICAL: Medical facilities are available; only it would be appreciated for Master to send a radio message if a crew member is in need of urgent medical attention.
FRESH WATER: Always available. Deliveries from quay available at all berths, supplying about 30 t.p.h.
FUEL: Ordinary fuel oil and gas oil is available at local refinery of "Campsa". It is advisable that Shipowners stem bunkers through their own Contractors, with an ETA of 48 hours, so that the order can be received in time.
FIRE PRECAUTIONS: Tankers perform their operations at the berth of "Campsa" at East Pier, which has the necessary fire precautions. No special precautions at other piers.
GANGWAY/DECK WATCHMEN: Available but not compulsory.
OPENING/CLOSING HATCHES: This work normally carried out by crew.
CERTIFICATES: Vessel should have the usual documents on board, but only the Safety Wireless, Safety Equipment and Derat Certificates are required by Authorities.
CUSTOMS ALLOWANCES: The quantity allowed per each crew member is 3 kilos tobacco. (See "Documents".) Wine and/or Spirits: Only 1 bottle for each crew member.
CARGO GEAR: Muelle de Ribera: 6 cranes capacity 3 tons.
Muelle de Poniente: 6 cranes capacity 3 tons – 6 tons, 2 cranes capacity 6 tons and 2 cranes capacity 12 tons.
IDENTIFICATION CARDS: Not required.
CONSULS: Belgium, Denmark, Finland, France, Italy, Netherlands and Sweden.
REPAIRS: All types deck and engine repairs available.
REPATRIATION: Good facilities available.
AIRPORT: Airport is located about 6 km. from town, well served by regular airlines.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: 1st January; 6th January; Good Thursday afternoon; Maundy Thursday; Good Friday; 1st May (Labour Day); Corpus Christi; 25th July (Santiago), 15th August; Assumption Day; Last Saturday in August (Our Lady of the Sea – Local Holiday); 12th October; 8th December; 25th December and 26th December (second Christmas Day).
POLICE/AMBULANCE/FIRE: Police 091; Ambulance 220900; Fire 240080.

SHIPMASTER'S REPORT: October 1983.
Pilotage: Pilot boat max. speed 6 knots. In bad weather, vessel should enter breakwater at slow speed and embark Pilot under lee of breakwater.
Health: No radio health message required.
Loading Rate: Vegetables per gang hour 20 – 25 tons using vessel's or shore cranes.
Watchmen: Not necessary.

AUTHORITY: Junta del Puerto de Almeria, Muelle de Levante, 04071 – Almeria, Spain. *Tel:* 23-69-92. *Telex:* Pajo-E 78892. *Contact:* Luis Lara Rubido, Port Director.

AVILES: 43.35 N. 05.56 W. (See Plan)

DOCUMENTS:
4 Crew Lists.
2 copies Crew Personal Effects Lists, signed by each crew member.
2 Passenger Lists or a negative.
3 sets of Cargo Manifest of goods destined for the port.
Another Manifest covering transit cargo.
2 Provisions and Stores Lists, including tobacco, cigars, cigarettes, coffee, spirits, radios, cameras, etc., in possession of crew. In all cases make and number of radios to be indicated.
Safety Wireless Certificate and Safety Equipment Certificate.
Transit Tobacco Manifest: The Spanish Customs Regulations provide for 6 kilos of tobacco per crew member to be on board as usual provisions. If the total quantity of tobacco (including cigarettes, cigars, pipe and any other kind of tobacco) does not exceed said average of 6 kilos per crew member, such quantity may be declared as "provisions" on the usual Provisions List, and no further documentation is necessary. If the total quantity on board exceeds said average, the excessive quantity must be shown on a special transit manifest. Usual manifest forms may be employed, describing the tobacco in Spanish as "Tabaco en transito".

The essential point is that this transit manifest is visaed by the Spanish Consulate, which must insert a full and complete visa. A simple consular stamp is not sufficient. If there is no Spanish Consulate at the last port of call or nearby, the tobacco manifest may be visaed by the local Customs Authority or by another consulate, but the visa is still essential.

PILOTAGE: Compulsory for vessels over 50 g.r.t. Telegrams to be sent to Corporacion de Practicos, San Juan de Nieva – Aviles Tel: 563013 or 566856. Vessel exceeding LOA 130 m. require 2 Pilots.

Send ETA 2 hours in advance, confirming by VHF when vessel some 10 miles off. Pilots listen continuously on Channels 16 and 12. Pilot craft are painted black with a white "P" on each bow. They are equipped with VHF and listen out on Channel 12, having also available Channels 16, 14, 9 and 6. When coming alongside a vessel they hoist the "H" flag. Normally they remain within the port, going out to vessels up to 1 mile from La Forcada.

ANCHORAGE: Outside the port vessels can use the sector between North and W.N.W. of La Forcada and at a distance of 1 mile from it, in 15 m. to 25 m. depth and sandy bottom. There are no sheltered anchorages. When awaiting a berth, vessels must remain at anchorage with 1 or 2 anchors.

RESTRICTIONS: Vessels LOA 180 m. – 210 m. enter and sail at any time.

Entrance Channel: Breadth: 153 m. Length: 920 m. up to San Juan de Nieva Basin. Depth at LW: 10 m. to 8.5 m. in the axis. Nature of bottom: Sand, hard clay and rock. Exposure: N.W. Breadth: 160 m. Depth at LW: 10 m. Maximum tidal flow: 2.25 knots.

MAX. SIZE: Max. LOA 210 m. In exceptional cases Port Authority may allow vessels up to 220 m. LOA to berth.

Keel Clearance:

LOA up to 130 m. – Keel clearance 2 ft.
LOA 130 m. – 150 m. – Keel clearance 3 ft.
LOA over 150 m. – Keel clearance 4 ft.

The admitted draft is calculated by deducting the number of feet required under the keel from the total depth of water which varies in accordance with tidal conditions. Tide tables are available upon request. In addition, the draft so calculated may still vary (by ±1 ft.) under special atmospherical conditions. However, for a rough guidance, the following average figures, from which the respective number of feet under the keel must be deducted, may be sufficient:

Neap Tides	*Normal Spring Tide*	*Equinoctial Spring Tide*
8.80 m.	9.70 m.	10.60 m.
(23 ft. 10 in.)	(31 ft. 10 in.)	(34 ft. 9 in.)

Alongside the quays (equinoctial LW) draft varies between 11 ft. and 30 ft.

HEALTH: Yellow flag to be hoisted, and once Health Authority has boarded, and the Marine Health Certificate completed, provided this is negative, clearance is automatic.

Health documents required: Marine Health Declaration if coming from another country, but if from another Spanish port, the Health Clearance Document from that port suffices.

Derat, or Exemption Certificate required.

If coming from country where epidemic is in force, certificates of vaccination for each crew member.

If sickness on board, patient will be examined immediately and decision taken as to clearance or isolation.

RADIO: *Coastal Station:* Cabo Penas Radio: Lat. 43° 39′ 22″ N., Long. 5° 50′ 53″ W.

Operational Procedures:

1. Safety, Assistance, and Urgency: All medium wave coastal stations listen out permanently on 2182 kHz. It is of maximum interest for the safety of human life at sea for all vessels in Spanish coastal waters at reasonable distances from the coast to maintain a listening watch for as much time as possible on this frequency.
2. Traffic from the Coastal Stations: Having firstly announced the fact on 2182 kHz, Cabo Penas Radio transmits at 1133 hrs. Call-up lists firstly of foreign vessels and then of national vessels. Weather forecasts are transmitted at 1103 hrs. and 1733 hrs.
3. Operating frequency: The station's main frequency is 1757.5 kHz and the subsidiary is 2649 kHz. In calling vessels on these frequencies, the respective vessel reply frequencies are 2013 kHz. and 3231 kHz.

Where vessels call-up Cabo Penas, they use respectively 2013 kHz and 3231 kHz, the coastal station replying on 1757.5 kHz and 2649 kHz respectively. The frequency of 2182 kHz may be used exceptionally by vessels to call up the coastal station when that frequency is not working emergency traffic.

Vessels which do not have the above frequencies, should call up on 2182 kHz, the coastal station inviting them to pass to one of the frequencies assigned to such ships.

Radio telephone calls and messages: Once radio contact has been established with the coastal station, a request is made as follows:–

Radio telephone calls:

(a) name and call sign of the vessel making the request.
(b) Identity number assigned by C.T.N.E. or in the absence of this, the name of the shipowner or responsible entity for paying the ship's accounts, and the CIAC code in the case of a foreign vessel.
(c) Person requesting the call.
(d) Telephone number of person or entity to be called.
(e) Locality, province or country, if the call is international.

At the end of the call, the coastal station will indicate the length and cost of the call, if requested.

Messages: Only vessels belonging to the Maritime Message Service can use this service. The vessel sends its message to the coastal station, firstly indicating the name of its owner and telephone number.

Radio Medical Service: Crew members at sea can obtain help and advice via the coastal station who will connect the ship to the Radio Medical Centre. There is no charge for this service.

VHF: There is no transmission of weather forecasts, although a vessel may obtain such information on VHF by requesting connection to the Regional Meteorological Centre. Such connections have to be paid for.

Assistance, Urgency and Safety: All VHF coastal stations listen out permanently on Channel 16.

Cabo Penas Radio transmits call-up lists at 1103, 1303, 1703, 1903 and 2030 hrs. It transmits general Notices to Mariners at 0903 hrs. and 1603 hrs.

Its main VHF frequency is Channel 26, but also operates on Channels 24, 25 and 27.

The following table shows the frequencies in MHz for traffic between coastal station and vessel.

Channel	*Coastal Stn.*	*Vessel*	
26	161.90	157.30	Duplex working for public correspondence
24	161.80	157.20	
25	161.85	157.25	
27	161.95	157.35	

Radio telephone calls: These can be made in the same way as the M/F transmission.

Operating Range: Cabo Penas Radio operates between Cabo (Cape) Lastres and Cabo (Cape) Vidio.

Boal Radio: Position Lat. 43° 22′ N., 06° 42′ W. Tel: 981-07 on VHF Channels 16 and 26.

TUGS: "Aranon" 600 h.p.; "Xaloc" 1,400 h.p.; "Nieva" 1,200 h.p.; "Raices", 1,800 h.p.

Requirements: LOA 100 m. – 130 m. – 1 tug.
LOA 130 m. – 150 m. – 2 tugs (1,000 h.p.)
LOA 150 m. – 210 m. – 2 tugs (3,000 h.p.)

BERTHING: 10 berths available.

Berth	*Length* (m.)	*Depth* (m.)	*Use*
Raices	822.84	8.0	Bulk and General
E. San Juan	140.00	6.0	Bulk and General
S. San Juan	300.00	6.0	Bulk and General
W. San Juan	277.70	3.5	Bulk and General
S.W. San Juan	90.25	2.0	Bulk and General
New Fish Quay	503.00	5.0	Fish
Aviles Fish Quay	515.94	2.0 – 1.0	Fish
E. Ensidesa	300.00	9.0	Fuel, General, Bulk
E. and S. Ensidesa	715.00	7.0	General, Bulk
S. Ensidesa	107.50	5.0	General
Endasa	132.84	7.0	Bulk cargo

CRANES:

Ensidesa:

1×30 tons lifting capacity
4×15 tons lifting capacity
9×12 tons lifting capacity
2× 6 tons lifting capacity
1×150 tons lifting capacity
2 gantry cranes×12 tons lifting capacity

Endasa:

2×10 tons lifting capacity

Commercial Berths:

5 cranes× 6 tons lifting capacity
2 cranes×45 tons lifting capacity
2 cranes×30 tons lifting capacity
2 cranes×12 tons lifting capacity
6 cranes× 5 tons lifting capacity

Asturiana de Zinc:

1 crane × 4 tons lifting capacity
1 crane × 5 tons lifting capacity

STEVEDORES: Working hours: At "Ensidesa" berth 24 hours a day, 7 days a week, Sundays and holidays included.

All other Quays: Monday/Friday. 0800 – 1200 hrs., 1300 – 1700 hrs. Overtime: 1700 – 2300 hrs.

Saturdays: 0800 – 1200 hrs. No overtime.

Sundays and Holidays: No work done.

MEDICAL: Crew members requiring medical attention, hospitalisation, etc., should be reported by the Master to the Ship's Agent in order to make the necessary arrangements. All services available.

TANKERS: Oil/Gas Berth: Equipped with facilities to load/unload oil products and gas through pipe-lines.

Liquified Gas Facilities:

Name	"Muelle de Ensidesa" – Zona "B" and "A".
Type of Berth	Concrete berth with rubber fenders.
Mooring	Normal mooring system giving lines to bollards alongside.
Length	300 m.
Depth	29 ft. LWOST alongside at berth, always afloat.
Type of handling installation	Shore hose connections of 6 in. for liquid and vapour available. No vessels' hoses required.
Largest LGC entered/ discharged (part cargo)	34,230/20,406 g.r.t./n.r.t., 53,400 cu.m. cargo capacity. Length overall: 216.10 m. Max. draft 36 ft. 2 in. (April 1982).
Shore Storage Particulars:	
Operator	Empresa Nacional de Fertilizantes, S.A. ("Enfersa").
Other Users	Some Spanish companies occasionally operating by previous agreement with "Enfersa".
Products handled	Ammonia.
Minimum temperature	Minus 33°C.
Cargo pressure	3 kg – 4 kg.
Receiving temperatures	Ambient and fully refrigerated down to minus 33°C.
Maximum discharging rate	500 t.p.h. at minus 33°C.
Actual discharging rate	350 t.p.h. – 400 t.p.h.

Cargo operations permitted by night	Yes.
Round the clock discharging	Yes (SHinc).
Vapour return line available	Yes.
Distance from berth to storage	2.8 km.
Hoses of 6 in. available	Yes
Diameter of shore lines	12 in. Liquid and 8 in. Vapour.
Maximum back pressure permitted	3 kg – 4 kg.

Tanks	*Temperature*	*Capacity*	*Cu.m.*
2 Spherical	Ambient	2,000 tons	2,500
1 Cylindrical	Fully refrigerated	10,000 tons	15,000

Cargo handling equipment at Marine Terminal	1 shore line.

CUSTOMS ALLOWANCES: Normally Customs permit 200 cigarettes per man out of bond. Additional quantities needed on the stay of ship in port. 1 bottle of spirit per man. Also see "Documents".

REPAIRS: There is one shipyard at Aviles for small coasters and fishing trawlers. All types of repairs will be readily attended by specialised workshops. Advanced notification is suggested. Electrical power is supplied ex-wharf. Diver available.

DRY DOCKS: 1 dock at Las Canteres, owned by "Empresa Nacional Siderurgica", length 50 m., width 9.50 m. Capacity 600 tons.

4 docks at El Monumento owned by Astilleros Ojeda y Aniceto, length, 2 of 100 m. and 2 of 85 m. width 3.10 m. Capacity 500 tons.

FRESH WATER: Available ex-wharf or barge. From the wharf connections, it is supplied at 25 t.p.h. and from barge at those berths where there is no supply facility.

FUEL: Fuel and gas oil are supplied to ships by barge. There is a small tanker doing the service. Stem for bunkers can be arranged through usual contractors.

CONSULS: The following countries have consular representation in the nearby port of Gijon: Brazil, Colombia, Costa Rica, Dominican Republic, Finland, France, Italy, Netherlands, Norway, Peru, Portugal and Sweden.

SURVEYORS: Lloyd's Register, A.B.S., B.V., Hispania Marine and G.L.

AIRPORT: The regional airport, named Asturias (in some instances it is still known as Oviedo) is 12 km. away from the port. There are daily flights linking Aviles with Madrid, Bilbao, Barcelona, Malaga, Tenerife and Santiago. Bus service available to and from the airport.

TIME: GMT plus 1 hour, except during Summer when GMT plus 2 hours.

HOLIDAYS: 1st January, 6th January, 19th March, 1st May, 21st June, 16th July (Mercantile Marine), 25th July, 28th August, 8th September, 12th October, 1st November, 8th and 25th December, Maundy Thursday, Good Friday, Easter Monday, Corpus Christi, Ascension Day.

POLICE/AMBULANCE/FIRE: Police 544311 and 544511. Ambulance 540080, 540511, 540733, 540844. Fire 546114, 544127.

DEVELOPMENTS: Raices Pier to be lengthened by 250 m. and deepened to 12.0 m.

AUTHORITY: Ayudantia Militar de Marina, Avenida Conde Guadalhorce, Aviles, Spain. *Contact:* Carlos Gago Lopez, Comandant. Junta del Puerto y Ria de Aviles, Calle de Muelle 8, Aviles.

AGENT: Alvargonzalez, S.A., Guadalhorce 1, Aviles. Tel: 562075/6. Telex: 87492.

BARCELONA: 41.20 N. 02.10 E. (See Plan)

DOCUMENTS:

(1) Manifest of Barcelona Cargo: 1 set covering all loading ports; make sure that this Manifest is in perfectly good order before ship's berthing, as Customs will board the vessel immediately and take it away as it is; thereafter any omission or excess of pages may lead to a fine. It is important that the Master has copies as Manifests mailed by Agents in loading ports sometimes arrive too late or not at all.

(2) Manifest of Transit Cargo: 2 sets (same recommendations as above).

(3) 3 Crew Lists.

(4) 1 Negative or Passengers List.

(5) 2 sets of Bills of Lading of the Barcelona cargo.

(6) 2 Provisions Lists.

Of items (3), (4) and (6) above several copies will be required for distribution among various authorities, therefore it would be well for the Master to have at least 3 copies of each ready at hand on arrival. Tobacco allowed per crew member is 6 kg.

All tobacco in excess of the 6 kg. allowed by the Spanish authorities should be manifested and signed by the Spanish Consul at the last port of call before Spain. If there is no Spanish Consul at the last port before calling at Spain, then the consulate of a country friendly to Spain or the Port Authorities could carry out the same formality. The same procedure must be followed when the vessel loads a cargo of tobacco for discharge in Spanish ports, or when the tobacco cargo is loaded in transit.

If any item of cargo manifested for Barcelona should be discharged in error at any other port in the ship's itinerary before arrival at Spain, there would be a fine imposed here for shortage of goods if no advice of such shortage is given before arrival.

Shipmaster's Report: November 1988.

4 Manifests of Barcelona Cargo.
5 Manifests of Transit Cargo.
2 sets of Bills of Lading.
5 Crew Lists.
1 (nil) Passenger List in Spanish.
1 (nil) Arms/Ammunition List in Spanish.
2 Maritime Declarations of Health.
2 Stores Lists.
4 Lists of Personal Effects.

PILOTAGE: Pilot boats painted black, with letter "P" in white on each bow. Telegraphic address: "Pilot Station-Barcelona". Required notice of ETA 24 hours before arrival. Signals to be made by vessels requiring Pilot: the letter "G" in sound and/or light. Can be contacted on VHF Channel 16.

Pilot boats have no radar. Pilots give priority to vessels nearest port entrance. Pilotage is compulsory and the service is permanent. In case of port congestion vessels remain at anchor at the roads.

ANCHORAGES: Vessels can anchor 0.8 miles away from breakwaters in depths over 40 m.

APPROACHES: *Entrance:* Width 370 m., depth 16 m. Nature of bottom is mud and sand.

MAX. SIZE: Only limitation is draft: max. 45 ft.

HEALTH: Pratique obtained immediately after berthing, when Health Officer boards vessel. In case of suspected disease or fever on board Master must send a message to Agent, to advise Health Office. Following documents are required by Health Officer upon berthing; Maritime Declaration of Health, Derat Certificate, 1 Crew List.

RADIO: Aranjuez Radio, call sign EAD.

VHF: Barcelona Radio can be contacted on VHF Channel 16, 3 hours before arrival and Channel 26 for long distance calls.

TUGS: Operated by two private companies. Vessels do not need a tug for entering or leaving but may require one for internal manoeuvring, depending on the manoeuvre and on the size of the vessel, pre-arrangement with Pilots. Ship lines normally used. 12 tugs available, from 800 h.p. to 1,800 h.p.

BERTHING: Commercial quay, length 15,054 m. with depths 6.0 m. – 14.0 m., depending on location. Pier Barcelona, berths for transoceanic maritime passenger traffic, depth 31 ft. Shore fenders keep vessel about 1 m. off quay.

CRANES:

9 Quay cranes	(Lifting capacity)	3 tons
39 ,, ,,	,, ,,	6 tons
27 ,, ,,	,, ,,	12 tons
4 ,, ,,	,, ,,	16 tons
9 ,, ,,	,, ,,	30 tons
5 container cranes	,, ,,	35/45 tons
144 Mobile cranes	,, ,,	1/50 tons
1 Floating crane	,, ,,	80 tons

BULK CARGO FACILITIES:

Grain: The Terminal for discharge, storage and delivery of cereals and seed is located on Contradique Wharf (East Side). These products are shipped in large bulk carriers of up to 280 m. length. The maximum draft at the present time is 13.10 m. This terminal has pneumatic facilities on the wharfside for discharging vessels and which may reach optimum rates of 1,200 tonnes/hr. Soya bean is taken by belt conveyor to a factory located in Anden de Costa for conversion to oil and meal. This terminal comprises 3 silos with capacities of 20,000 tonnes, 45,000 tonnes and 80,000 tonnes respectively. There are 2×60 tonnes weighbridges.

In addition there is another terminal located on the Alvarez de la Campa Wharf specialising in the discharge, conversion and processing of soya bean. It has length 250 m., depth 11.20 m. and is equipped with modern pneumatic facilities for discharging, and like the Anden de Costa factory described above, meal and oil are also loaded at this terminal. The terminal's storage capacity is 42,000 tonnes of soya bean and 2,000 tonnes of oil. The discharge rate is 500 tonnes/hr.

Bulk Clinker and Cement loading terminal: Located at Contradique Wharf (South Side). Capacity for 27,000 tons clinker and 38,000 tonnes cement. Vessels up to 40,000 d.w.t. and having a draft of up to 12 m. may be loaded here without delays. This terminal is equipped with a 22 m. hoistable and rotary arm gantry crane for loading bulk carriers. Loading rate, 1,000 tons/hr. for cement and 1,500 tons/hr. for clinker. Apart from this terminal, there is another located on Alvarez de la Campa Wharf. The latter terminal has a storage capacity of 8,800 tonnes. This terminal receives cement from a works in the Province of Tarragona for subsequent overland distribution.

Potash loading terminal: Length 419 m., depth alongside 11.2 m., equipped with 2 loading bridges which can load up to 700 t.p.h. of this product. Storage capacity 80,000 tonnes.

Coal: Discharged at Sur No. 1 Wharf (East Side), length 450 m., depth alongside 14 m. and (North and South Side) length 350 m., depth 12 m. and 14 m. respectively.

It is equipped with portal cranes, lifting capacity 12/16 tons. Average discharge rate 110 tons per crane/hour. The storage area is sufficient for a vessel discharging 60,000 tonnes.

Iron, Steel and Scrap: Handled at Contradique Sur and Sur No. 1 Wharves. 12/16 tonnes capacity cranes are used. Hourly rate is 80 tonnes for scrap and 250 tonnes for manufactured products.

SPECIALISED CARGO-HANDLING FACILITIES:

Containers: Two terminals at Prince of Spain, Wharf, total length 1,085 m., depth 14 m., total area 295,000 sq.m., 5 gantry cranes 35/45 tons. Section A (Maritima Layetana, S.A.): 4 transtainers, 13 straddle carriers, 17 forklifts with capacity 2.5/12 tons. 150 reefer points. Section B (Tersaco): 3 transtainers, 6 tractors, 12 trailers, 12 forklifts with capacity 2.5/35 tons. 120 reefer points.

Both terminals have computer systems and CFS.

There are other terminals for domestic traffic.

Roll-on/Roll-off traffic: 20 ramps available at different quays.

General cargo handling: It is fully mechanised and, apart from the pier cranes, there are fork-lift trucks, truck cranes and a palletisation process.

Liquid and non-petroleum bulk: Important special facilities are the liquefied natural gas discharge and gasification plant with special berth (depth 12 m.) and a storage capacity for 240,000 cu.m. of liquid gas.

There are 6 special berths (depth 12 m.) for inflammable liquids, chemicals, vegetable oil and tallow, and a storage capacity of about 150,000 cu.m.

STEVEDORES: *(a)* Daytime, normal working hours, from 0800–1200 and 1400–1800 hrs. (1 shift); *(b)* 0800 – 1400 and 1400 – 2000 hrs. (2 "intensive" shifts). Night-time, from 2000 – 0200 and 0200 – 0800 hrs. (2 intensive night shifts). Extra costs are involved for intensive shifts. Nightwork is paid on an overtime basis. Average rates for discharge of grains in bulk are about 7,500/8,000 tons per day of 24 consecutive hours; for general cargo a rate of 100 tons within normal working hours.

MEDICAL: All medical facilities are available; it would be appreciated if the Master advises in advance if crew member is in need of urgent medical attention. Contact Barcelona Radio in an emergency.

TANKERS: There are 6 berths for oil tankers (refined products), max. size 60,000 d.w.t., depth alongside 12 m. (2), 11 m. (2), 8.5 m. (2). Along the jetty there are 15 pipelines of up to 16 in. diameter, leading the products to the 350,000 cu.m. storage tanks, discharging being effected at a rate about 1,000 tonnes/hour for vessel.

Also see "Shipmaster's Report".

DENSITY: Average density between 1025 and 1028 in all seasons.

FRESH WATER: Available at all berths direct from shore lines. Rate of delivery about 16 t.p.h. – 20 t.p.h. Also possible by barge, rate 150 t.p.h.

FUEL: "Campsa" supplies a range of intermediate fuel oil up to heavy fuel oil bunker "C" 380 cST/50°C and marine gasoil. These products can be supplied by barge, at jetty or by tank truck.

GANGWAY/DECK WATCHMEN: According to police regulations, Master has to keep watchmen on board.

Organised robberies have taken place aboard vessels by gangs using gas to render Master and crew unconscious.

OPENING/CLOSING HATCHES: Normally carried out by crew, except in liner vessels which is contracted for by stevedores.

CERTIFICATES: Vessels should have all usual certificates aboard.

CUSTOMS ALLOWANCES: Quantity allowed for each crew member is 200 cigarettes and 1 bottle wine/spirits.

CARGO GEAR: All commercial piers served by electric shore cranes. In addition, 1 floating crane with a lifting capacity of 80 tons and 144 mobile cranes up to 50 tonnes.

IDENTIFICATION CARDS: Seaman's Book required. Crew List also to be presented at Autonomous Port of Barcelona.

CONSULS:

	Tel:		Tel:
Argentina	317-58-82	Kampuchea	247-42-67
Austria	257-36-14	Korea (Rep.)	215-71-63
Belgium	318-98-99	Lebanon	209-03-99
Bolivia	322-65-12	Liberia	213-81-50
Brazil	215-16-15	Luxembourg	237-37-01
Canada	254-02-48	Malaysia	315-00-11
Chile	318-85-86	Malta	317-69-63
China	255-60-60	Mexico	201-18-22
Colombia	254-02-48	Monaco	209-75-88
Costa Rica	217-93-00	Morocco	215-34-70
Cuba	318-19-36	Netherlands	217-37-00
Denmark	310-20-91	Nicaragua	201-90-59
Dominican Republic	237-92-13	Norway	215-00-94
Ecuador	209-57-31	Pakistan	257-42-30
El Salvador	209-36-58	Panama	302-00-73
Finland	318-18-38	Paraguay	215-05-26
France	317-81-50	Peru	230-12-42
Gabon	237-85-01	Philippines	318-84-36
Germany, F.R.	218-47-50	Portugal	318-81-50
Greece	246-22-90	Senegal	200-97-22
Guatemala	330-65-59	Seychelles	317-27-00
Haiti	213-81-50	Sierra Leone	215-90-54
Honduras	301-05-52	South Africa	301-55-83
Iceland	232-58-10	Sweden	218-15-66
India	201-87-55	Switzerland	330-92-11
Indonesia	317-75-31	Thailand	258-14-61
Ireland	330-96-52	Tunisia	231-53-79
Italy	215-16-54	United Kingdom	322-21-51
Ivory Coast	329-69-16	Uruguay	317-41-83
Japan	204-72-24	U.S.A	319-95-50
Jordan	254-48-50	Venezuela	215-01-12

REPAIRS: All types of deck and engine repairs can be carried out.

DRY DOCKS: Dry dock, max. available length 215 m., width at entrance 35 m. Can accommodate vessels of 50,000 d.w.t.

Floating dock, length 111 m., interior width 18.7 m., interior draft 6.4 m. Lifting capacity 6,000 tons.

SURVEYORS: Lloyd's 2410400. A.B.S. 2399275. B.V. 2371302. G. Lloyd 3154462.

REPATRIATION: Good facilities available.

AIRPORT: Located about 7 km. from town, well served by regular airlines.

TIME: GMT plus 1 hour; GMT plus 2 hours (29th March – 26th September).

HOLIDAYS: New Year's Day (1st January); Epiphany (6th January); Good Friday; Labour Day (1st May), Christmas Day (25th December). No cargo is worked on these days.

Other National holidays occur during the year, but overtime work can be arranged.

POLICE/AMBULANCE/FIRE: Police 091; Harbour Police 3026367; Ambulance 3171717 (Also 24 hour medical service); Fire 080 and 2535353 (080 is best).

TELEPHONES: Only at Terminal Station.

SERVICES: All services available including compass adjusting, radio and radar repairs, supply of charts, nautical publications, availability of Notice to Mariners, availability of safety equipment, etc.

DEVELOPMENTS: Lengthening under construction of breakwater Dique del Este, and Pier Contradique. A wharf with 6 berths for tankers only, plus 4 berths for vessels loading/unloading crude in bulk with a depth of 39 ft.

A 6th container crane is to be erected at Tersaco Container Terminal.

SHIPMASTER'S REPORT: March 1981.

Approaches: If vessel coming from the East, no problems, as the radar picks up the line of the breakwater about 20 miles out. There is also a D.F. station close to the entrance to check vessel's position. Also suitable for calibrating the D.F. if time allows.

The extension to the breakwater is now completed, and the light buoy marking the end of the extension has now been removed.

Anchorage position is about 0.5 miles from the breakwater where vessels usually remain at anchor awaiting instructions.

Port: The large Southern extension of the port is well under way, and it was in this dock that the vessel berthed. It would appear that this extension will be used for general cargo, containers, and oils/gases. The gas berths lie on the Eastern side of the dock. There being 3 berths available at present. The Northern Berth handles LNG/LPG. The second berth LPG and No. 3 Berth handles oils. Dredged depth alongside according to chart B.A. 1180 is 10 m.

Pilots: Pilots board the vessel just outside the breakwater, from a small launch painted black with a white letter "P" painted on its sides. Pilots are reluctant to proceed very far outside the breakwater entrance.

Pilots can be contacted on VHF about 30 miles out at sea. Working Channels 16 and 12.

After completion of cargo, Pilots are called and appear on the vessel within 30 minutes.

For arrival Pilots are required to be given 24 hours' notice.

Berthing/Unberthing: Vessel's usually berth port side to head up the dock, but if it is required by the ship they will berth starboard side to.

Vessels can berth or sail at any time of the day or night.

Vessel assisted by 2 tugs forward and aft. Tugs using ship's lines. The 2 land side tugs put the lines ashore, and then push the vessel onto the quay until mooring is completed. No particular problems with berthing or unberthing.

Berth: The vessel lies alongside dolphin, which carries the pipe-line. The dolphin is adequately fendered. Fenders are large flat wooden faces, with a backing of large rubber tyres.

Aft mooring arrangements not very satisfactory at this call as 2 of the mooring hooks were inoperative. Had they been working the usual arrangement of 3, 2 and 2 could have been possible.

Attention must be paid to the mooring boat, whose crew will take the ropes to any position they feel inclined. This happens forward. Aft they have fewer choices as to where to put the ropes. Vessel tied up at No. 2 Berth on this call.

Cargo Operations: Connection is to a cargo hose 12 in./8 in. line ASA 150. Shore provide the reducer and connect and disconnect. Pumping rate varied between 230/110 t.p.h. (butane). Butane tanks are 3 km. away so the usual high back pressure was experienced. Back pressure during discharge was 8 bars. Discharge was carried out using 2 pumps.

Vessel was informed by the surveyor that it was advisable to use as many pumps as the back pressure allowed, as the shore may protest at the slow discharge rate.

During this stay the shore tanks were full and were being topped off, this could have been the reason for the low rate. Possibly a better rate could be expected with propane as the tanks are only about 1 km. away.

The cargo hose was in a poor condition on the exterior. Burning was in operation on the berth ahead of the vessel, smoking regulations seemed lax.

Communications between the ship and shore were very poor as nobody spoke any English or French. Communications between the jetty and the tanks, were also very poor, messages are passed by sound powered telephone but it would appear that at the tanks nobody is in attendance at all times.

If it is possible and vessel is berthed at No. 2 Berth use the forward manifold otherwise the gangway will not be able to be landed on the dock, and will overhang by a few feet.

General: Papers required for the port are those laid down in "Guide to Port Entry". Chandler available, who can deliver by either road or barge. Storing from the quay would be awkward due to the space available on the dock, and in fact the derrick is supporting the cargo hose. After stores cranes cannot work to the quay. Stores were not taken at this port, for this reason.

Deck and engine repairs can be carried out at this port.

Lloyd's Surveyors are available for hull and engine surveys.

The airport is about 4 miles away and there is no problem with repatriation.

The berth is a considerable distance from the town and arranging taxis to come down to the vessel can cause problems. For this reason the vessel laid on a taxi service for a limited time during the vessel's stay in port. Taxi fare to town was about 400 pesetas.

No telephone available on the berth, but local calls may be made from the gate house of the "Enagas" Terminal across the road from the berth.

Water density 1025 (arrival), 1026 (departure).

AUTHORITY: Puerto Autonomo de Barcelona, Puerta de la Paz No. 6, 08003 Barcelona, Spain. *Tel:* 3188850, 3188750. *Telex:* 54000 JOPB. *FAX:* (93) 3184047. *Contact:* L. Montero, Port Director.

BILBAO: 43.17 N. 02.55 W. (See Plan)

DOCUMENTS:
6 copies Crew List.
4 copies Passenger List (if any on board) or 2 Negative Passenger Lists.
3 copies Crew's Personal Effects Lists, if any.
3 copies Ship's Stores List.
Safety Radiotelegraphy Certificate.
Safety Equipment Certificate (g.r.t. 500 or above)
Safety Construction Certificate (g.r.t. 500 or above)
International Health Declaration Form.
Narcotic List.
Vaccination List.
Declaration of no animals on board.
3 copies Cargo Manifest.
2 copies Manifest of Cargo in Transit.

Tobacco Allowance: Crew members are not allowed to keep more than 200 cigarettes (or the equivalent in tobacco) and a bottle (1 litre) of spirits out of bond. The rest must be included in the vessel's store lists, and is to be sealed. The total maximum quantity that any ship can carry in accordance with the Spanish Laws is 6 kg. of tobacco for each person aboard.

Any quantity over this amount should be manifested as "tobacco in transit" and this manifest to be visaed by the Spanish Consulate in the previous port. For ships diverted at sea to a Spanish port or if a Spanish Consulate is not available at the last port of call, Master is required to send prior to arrival the following cable to:

DIRECCION GENERAL DE ADUANAS-MADRID

"Vessel .... Coming from .... bound to Bilbao with tobacco Manifest not visaed in the last port of call due to not being available Spanish Consulate"

Master ....

The text of the cable should be entered in the Log Book and a copy delivered to the Custom's Agent when boarding.

Clearance: Health and Customs Authorities will board either when vessel is at anchor or berthed. Customary national and international regulations concerning Free Pratique are applied. Unless contagious sickness being on board, or vessel coming from an epidemic zone, radio advice to Health Authority is not required. Health Declaration, Derat Certificate and Crew List are required by Health Authorities.

PILOTAGE: Pilotage is compulsory for vessels entering and leaving the Port of Bilbao. Vessels must make contact with the pilot station 1 hour before arrival; Masters shall make contact again when 7 miles from the port entrance.

Arrival Information: There are no traffic separation schemes or traffic control systems in the approaches to the port of Bilbao.

The pilot station keeps permanent radio watch on VHF Channel 12. When Pilot on board and ship approaching the berth VHF communication is carried on Channel 14.

ANCHORAGE: Masters will be informed by Harbour Pilot about the estimated berthing time and any other particulars that concern berthing prospects. Should need for anchoring arise, vessels will be requested to anchor under the control of the Harbour Pilot in the usual anchorages, i.e. in waters between former entrance mouth of Santurce and new entrance mouth of Lucero.

Crude and oil product carriers follow the same procedure, the anchorage position is stated by the Refinery Terminal Superintendency, although vessel receives instructions through VHF from Pilot on arrival.

Reference "A": (Open sea outside harbour entrance): Recommended for vessels with a draft greater than 20 m. or over 150,000 d.w.t., in case of emergency it is deemed the better manoeuvring area.
Holding ground: Sand.
Depth: 50 m.
Bearings and distances: Northward from the entrance green lighthouse, 1.7 miles away and bearing 314° from Punta Galea Lighthouse, distance 2.7 miles.

Reference "B": (Inside the harbour entrance): 90,000 – 150,000 d.w.t. vessels whose draft is less than 20 m.
Holding ground: Sand.
Depth: 27 m.
Bearing and distance: 261° from Punta Galea Lighthouse, distance 1.9 miles.

Reference "C": (Inside the harbour entrance): Less than 90,000 d.w.t. vessels.
Holding ground: Sand.
Depth: 24 m.
Bearing and distance: 229° from Punta Galea Lighthouse, distance 1.2 miles.

Reference "D": (Inside the harbour entrance): Used when anchorage "C" is occupied.
Holding ground: Sand.
Depth: 20 m.
Bearing and distance: 204° from Punta Galea Lighthouse, distance 1.2 miles.

Ships in general (other than those bound for Refinery Terminal) that are required to wait due to berthing schedule, or tide level when bound up river, may receive instructions from Pilot to anchor either in between new outer Port Entrance of Lucero and the older Santurce breakwater; or inside waters enclosed by Arriluce and Santurce breakwaters. In this latter area an additional facility of 3 sets of mooring buoys for lightening, LASH type ship turnround operations, etc., are located in waters 14 m. deep.

MAX. SIZE: Drafts available for dry cargo vessels range from 4 m. up to 14.5 m. and tankers up to 32 m. The largest vessel received was 409,499 d.w.t, length 378.01 m. and draft 22.48 m.

HEALTH: Vessels requiring Free Pratique have to fly "Q" Flag when entering port. If proceeding direct to berth, Pratique obtained immediately after berthing. Otherwise, at anchorage on arrival. Cases suspected disease or fever on board, Master must radio Agent, to advise Health Office. On berthing Health Authorities require Health Declaration, Derat Certificate and Crew List. Also see "Documents".

RADIO: Short wave communication link through Aranjuez Radio and Pozuelo del Rey Radio. Medium wave communication link is through Machichaco Cape Radio.

VHF: Bilbao Coastal Radio Station on Channel 16.

Other stations in vicinity and operating on the same calling channel are Cabo Mayor, Cabo Machichaco and Choritoquieta.

Petronor Refinery Terminal keeps permanent watch on VHF Channels 12 and 14.

TUGS: No tugs required for entering port, only for berthing or shifting inside river. Ship's lines used, tugs employed according Pilot's advice. 28 tugs available, 125 h.p. – 4,000 h.p.

BERTHING: For commercial use.

General Cargo:
2,157 m. of berthing with depth of more than 12 m. and Ro/Ro facility.
634 m. of berthing with depth between 10 m. and 12 m.
1,520 m. of berthing with depth between 8 m. and 10 m.
150 m. of berthing with depth between 6 m. and 8 m.
681 m. of berthing with depth between 4 m. and 6 m.

Dry Bulk Cargo:
1,068 m. of berthing, water depth over 12.0 m.
175 m. of berthing, water depth 10.0 m. – 12.0 m.
1,088 m. of berthing, water depth 8 m. – 10 m.
527 m. of berthing, water depth 6 m. – 8 m.
2,570 m. of berthing, water depth 4 m. – 6 m.

Liquid Cargoes:
Crude and oil products: Lucero Terminal (leased to Petronor Refinery)
Berth No. 1, draft 32 m., length 400 m. (with a fendered jetty 140 m. wide)
Berth No. 2, draft 19 m., length 400 m. (with a fendered jetty 96 m. wide)
Berth No. 3, draft 13 m., length 200 m. (with a fendered jetty 85 m. wide)
Berth No. 4, draft 11 m., length 200 m.
Berth No. 5, draft 11 m., length 200 m.
Berth No. 6, draft 7.5 m., length 100 m.

Other oils and chemicals:
220 m. of berthing, water depth 5 m.
*620 m. of berthing, water depth 9 m.
*980 m. of berthing, water depth 14 m.
*Jointly shared with dry cargo handling operations.

Privately owned Chemical Plants and Mills: Specially fitted for dry and liquid cargo handling, totalling 5,457 m. of berthing space; water depth 4 m. – 14 m.

Containers:
645 m. of berthing with depth of 14 m.
500 m. of berthing with depth between 8 m. and 10.5 m.

Ro/Ro Facilities:
There are also 3 Ro/Ro ramps available.

CRANES:

	Use	Port Authority	Private
Gantry Cranes:			
50 tons	Containers (Ship to shore service)	2	–
40 tons	Containers (Ship to shore service)	–	3
40 tons	Transtainers (Back area service)	–	6
35 tons	Dry bulk (Ship to shore service)	–	2
17 tons	Dry bulk (Ship to shore service)	–	2
10 tons	Dry bulk (Ship to shore service)	–	4
Continuous loaders		–	2
Ship to shore luffing cranes:			
45 tons		–	1
30 tons		4	–
28 tons / 14 tons		–	9
20 tons		–	3
17 tons		–	–
16 tons		6	–
15 tons		–	3
12 tons		16	1
10 tons		–	1
8/20 tons		–	1
6 tons		43	3
5 tons		7	1
5/12 tons		–	2
5/15 tons		–	1
3 tons		7	–
3/6 tons		14	2

Floating Cranes: 4 units for bulk cargoes, 12 tons – 35 tons capacity.
1 for heavy lift cargoes up to 400 tons capacity.

STEVEDORES: Ordinary working time (Monday/Friday) 0800 – 1200 hrs., 1400 – 1800 hrs. (break at noon).

Ordinary working time (Monday/Friday) 0800 – 1400 hrs; 1400 – 2000 hrs. (2 intensive relief turns).

Extraordinary working time: Round the clock, 7 days a week, available. Inform Agent about requirements in advance.

MEDICAL: Medical service must be arranged by the Agent.

TANKERS:

Petronor Refinery: Attention is drawn to the minimum under keel clearance of 1 m. required alongside.

Vessels up to 500,000 d.w.t. (according to draft) range will be accepted at Petronor Terminal.

Loading/Discharging/Transfer Operations:

No. 1 Jetty:	
Crude Oil:	
LOA	170 m. to 450 m.
D.W.T.	30,000 tons to 500,000 tons
Depth Alongside	31 m. (minimum)
Fuel Oil:	
LOA	170 m. to 450 m.
D.W.T.	30,000 tons to 500,000 tons
Depth Alongside	31 m. (minimum)
No. 2 Jetty:	
Crude Oil:	
LOA	100 m. to 400 m.
D.W.T.	3,000 tons to 150,000 tons
Depth Alongside	19.5 m. (minimum)
Fuel Oil and Clean Products:	
LOA	100 m. to 400 m.
D.W.T.	3,000 tons to 150,000 tons
Depth Alongside	19.5 m. (minimum)
No. 3 Jetty:	
Fuel Oil and Clean Products:	
LOA	90 m. to 230 m.
D.W.T.	2,000 tons to 50,000 tons
Depth Alongside	15 m. (minimum)
No. 4 Jetty:	
Fuel Oil and Clean Products:	
LOA	70 m. to 170 m.
D.W.T.	2,000 tons to 30,000 tons
Depth Alongside	12 m. (minimum)
LPG:	
LOA	70 m. to 170 m.
Approximate Capacity	2,000 cu.m. to 25,000 cu.m.
Depth Alongside	12 m. (minimum)
No. 5 Jetty:	
Fuel Oil and Clean Products:	
LOA	110 m. to 170 m.
D.W.T.	6,000 tons to 30,000 tons
Depth Alongside	12 m. (minimum)
No. 6 Jetty:	
LPG:	
LOA	50 m. to 115 m.
Approximate Capacity	50 cu.m. to 3,500 cu.m.
Depth Alongside	10 m. (minimum)

Loading/Discharging/Transfer Systems:

	Loading Arms	*Various Manual Couplers Standard Capable of Being Adjusted to Fit*	
No. 1 Jetty:			
Crude Oil	4×16 in.	16 in.×14 in.×12 in.	150 press. ASA DIN
Fuel Oil	1×12 in.	12 in.×10 in.×8 in.	
Fuel Oil	1×16 in.	16 in.×14 in.×12 in.	
No. 2 Jetty:			
Crude Oil	2×12 in.	12 in.×10 in.×8 in.	150 press. ASA DIN
Fuel Oil	1×12 in.	12 in.×10 in.×8 in.	
Clean Prod.	2×10 in.	10 in.×8 in.×6 in.	
No. 3 Jetty:			
Fuel Oil	2×12 in.	12 in.×10 in.×8 in.	150 press. ASA DIN
Clean Prod.	1×8 in.	8 in.×6 in.	
Clean Prod.	2×6 in.	6 in.	
No. 4 Jetty:			
Fuel Oil	2×12 in.	12 in.×10 in.×8 in.	150 press. ASA DIN
Clean Prod.	2×8 in.	8 in.×6 in.	
LPG	1×8 in.	8 in.×6 in.×4 in.	150/300 ASA DIN
No. 5 Jetty:			
Fuel Oil	2×10 in.	10 in.×8 in.	150 press. ASA DIN
Clean Prod.	1×8 in.	8 in.	
Clean Prod.	1×6 in.	6 in.	
No. 6 Jetty:			
LPG	1×8 in.	8 in.×6 in.×4 in.	150/300 ASA DIN

N.B.: Any other flange size or rating will require special fabricated spool pieces to meet above flange specification. Spool pieces must be furnished and installed by the vessel. Terminal personnel will connect the coupler to proper ship's flanges. *Ship's* personnel will bolt on any required spool pieces. Ship's manifold must meet requirements of loading arm envelope and must provide suitable base and clearance for loading arms supports. Manifolds must comply with latest OCIMF standards. Failure to present correct reducers/spools will result in terminal making a charge for use of their equipment.

Discharging/Loading Rates:

Discharging:	Maximum discharging rate accepted by Terminal:	
	Crude Oil – Jetty No. 1: 16,000 t.p.h.	
	Crude Oil – Jetty No. 2: 7,000 t.p.h.	
Loading:	Maximum loading rate provided, actually, by the Terminal:	
	Fuel Oil	3,000 t.p.h.
	Gas Oil	1,500 t.p.h.
	Kerosene	1,400 t.p.h.
	Gasoline	1,400 t.p.h.
	Naphtha	1,400 t.p.h.
	LPG – Butane	190 t.p.h.
	LPG – Propylene	90 t.p.h.

Bunkering: Bunkering fuel facilities are available on Jetty Nos. 1, 2, 3, 4 and 5.

The minimum quantity to be supplied is of 1,000 tons.

Deballasting: All ballast will be unloaded to the shore facilities. At the moment, the cost of ballast reception ashore is 15 pesetas per ton (December 1988, but to be revised).

The Master will report to the Terminal the quantity of ballast on arrival and when due to bad weather, the ballast quantity is over the normal.

Only clean ballast contained in ship's tankers, completely segregated from main cargo tanks will be allowed to be discharged into the harbour after approval by the Port Authority.

Note: Overboard discharge valves and sea suction valves continue to be a source of oil pollution. *Make sure these are tested and proven to be in good working order, closed and sealed.*

Gangway: Owner warrants that the vessel is equipped with a gangway in a safe and good operating condition.

Jetty Nos. 1 and 2 are provided with a shore gangway. The cost to the vessel's account is minimal.

Crude Oil Washing Tanks: When it is required to carry out crude oil washing of tanks during cargo discharge, Master must seek approval of the Port Authority and the Terminal at least 24 hours in advance.

During crude oil washing, it is recommended that 1 tug remains on stand-by during the operation.

Jetty Emergency Shutdown Systems and Surge Pressures: All jetties (fuel oil/clean products/LPG) are equipped with Emergency Shutdown (ESD) System to stop loading operations.

The system is activated by pushing the electrical "stop" button at any one of several stations on the jetty and in the Terminal Control Room.

On activating the loading ESD system, all jetties stop loading; the cargo pumps are all shutdown; the loading arm valves close on all jetties.

The valves and other equipment, have been designed and set to close in a minimum time for safety and still avoid damage by surge pressures.

Recognising the tremendous damage surge pressures can cause, careful check of the ship's emergency shutdown system will be made. If suitable record is not available on valve closure times, the Master will be asked to operate the system to enable timing of the valves.

The Terminal will not load at a rate in excess of that shown as being safe. Excess loading times caused by restricted loading rates due to the ship's ESD system will cause additional laytime to be allowed.

All cargo loading lines for fuel oil/clean products have a pressure switch installed that activates the ESD system with the same effect as mentioned above when the pressure on line exceeds 10 kg./sq.m.

Fenders: On the jetties the fenders and fendering structures are designed to absorb normal working stress levels, and each has a generous energy-absorbing capacity.

The energy imparted by vessels approaching the jetties is:

Berth No.	*Recommended Max. cm./sec.*	*Recommended Max. Angle to Jetty Face*
1	6	0° up to 7.5°
2	8	
3	9	
4 – 5	10	
6	10	

Intermediate "Yokohama" type fenders have been placed on Berth Nos. 1, 2, 3, 4 and 6 to improve the absorption of the kinetic energy of vessel.

Mooring Arrangements: See "Plans".

Customs: The Customs Authority will board either when vessel is berthing or at anchor.

The usual documents required are:

- 6 copies Crew List.
- 4 copies Passenger List.
- 1 copy Negative Passenger List; if there are no passengers aboard.
- 3 copies Cargo Manifest for Petronor.
- 2 copies Cargo In-Transit, if any.
- 3 copies Stores List, including bunkers, vessel's property, tobacco, spirits, medicine chest, etc.
- 3 copies Crew's and/or Passengers' Personal Effects.

The crew members are not allowed to keep more than 200 cigarettes (or the equivalent in tobacco) and a bottle (1 litre) of spirits out of bond. The excess must be included in the vessel's Store Lists, and are to be sealed. The total maximum quantity that any ship can carry in accordance with the Spanish Law is 6 kg. of tobacco or 6,000 cigarettes for each person aboard (for example, for 30 crew members the maximum quantity allowed is 180 kg. of tobacco or 180,000 cigarettes). Any quantity over these amounts should be manifested as "tobacco in-transit" and this Manifest visaed by the Spanish Consulate in the last port.

If a Spanish Consul was not available in the last port of call, Master is required to send prior to arrival the following cable:

To: Direccion General de Aduanas – Madrid.
Vessel .... Coming from ....
Bound for Bilbao Petronor with Tobacco Manifest not visaed last port due to Spanish Consul not available in the last port.
Signed: Master.

The text of this cable is to be registered in the log book and 1 copy of the same is to be given to the Customs Agent when boarding.

Port Health: The national and international regulations concerning Free Pratique are applicable at Bilbao.

Free Pratique is granted when at berth; if anchored, the Agent will be requested to arrange the visit under Master's requirements.

Radio advice to the Health Authorities is not required unless there is contagious sickness on board or if coming from an epidemic zone.

Garbage or trash will not be dumped into the port waters. The area surrounding the vessel shall be kept clean.

DENSITY: 1025.

FRESH WATER: Available at some berths, rate 25 – 60 t.p.h., otherwise by barge.

FUEL: Pipe-lines available at some berths, rate at cargo berths 130 t.p.h. per loading point and up to 3,000 t.p.h. and VLCC berth, otherwise by barge. Advise Agent 48 hours in advance.

GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: Normally by crew, except in liner vessels, when contracted by stevedores.
CERTIFICATES: Have usual documents on board, but only Safety Radio, Safety Equipment and Derat Certificates required by authorities.
CUSTOMS ALLOWANCES: Normally, Customs permit 200 cigarettes, and 1 bottle wine/spirits per man. Also see "Documents".
CARGO GEAR: Usually shore cranes employed in loading or discharging.
IDENTIFICATION CARDS: Not required.
CONSULS:

Argentina
Austria
Belgium
Bolivia
Brazil
Colombia
Costa Rica
Chile
Denmark
Dominican Republic
Ecuador
El Salvador
Finland
France
Germany F.R.
Greece
Guatemala
Haiti
Iceland
Italy
Ivory Coast
Jordan
Liberia
Mexico
Netherlands
Nicaragua
Pakistan
Panama
Paraguay
Peru
Philippines
Portugal
Sweden
Switzerland
Uruguay
U.S.A.
United Kingdom
Venezuela

REPAIRS: See "Dry Docks".
DRY DOCKS: 3 dry docks 155 m.×20 m.; 146 m.×21.8 m.; 170 m.×19 m. For vessels up to 15,000 D.W.T. Dry docks served by 4×15 ton cranes.

Repair berth with length 450 m. and 5×15 ton cranes.

Contact: Astilleros Espanoles S.A. Tel: (4)4957150. Telex: 31519 Aers E. Fax: (4)4964976.
SURVEYORS: Most internationally recognised and well founded survey companies, concerned with cargo or ships' class certification, are established in the Port of Bilbao as well as those related to insurance in both areas. Ship's Agent can provide detailed information.
REPATRIATION: Good facilities.
AIRPORT: Sondica Airport 6 km. from the City, Tel: 4531350.

Foronda Airport, 50 km. from the City, Tel: 945-273300.

Overseas services and links to all over the world from both airports.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: 1st January; 6th January; 19th March; Good Friday; 1st May; Corpus Christi Day; 16th July, 25th July; 15th August; 12th October; 1st November; 8th December; 25th December; and another two fixed local holidays.
POLICE/AMBULANCE/FIRE: Police Tel: 4402011.

Ambulance/Hospitals: Basurto Hospital Tel: 4418700. Emergency medical service, Tel: 4614000 – 4614111.

Red Cross: Sea service, Tel: 4600200. Shore service, Tel: 4446256.

Fire Service: Santurce Area, Tel: 4373375. Bilbao Area, Tel: 4233000.
EMERGENCY CO-ORDINATION CENTRE: Marine Authority is in charge of services which are covered by the Coast Guard.
TELEPHONES: Every wharf has fixed public telephone kiosks and stevedoring terminal offices have up to date means of communication. No telephone plugs at berths.
SERVICES: Electronic and conventional marine equipment repairs, tanks and pipe cleaning and services in general up to the level corresponding with a first class port. Detailed information can be provided by ship's Agent.
BANKS: Due to the large activity of the port in international trade, every bank has specialised personnel in charge of overseas maritime commercial affairs.
STORING: Authorised ship chandler service is compulsory in order to arrange Customs Clearance. Ship is free to load up to 10 tons of stores. If over 10 tons dockers must be used.
SHORE LEAVE: In general there are no restrictions.
IDENTIFICATION CARDS: No shore passes are issued. Passport or Seaman's Book should be carried for dock entrance gate checking with Crew List.
DELAYS: Very exceptional and short time if any.
GENERAL: International Seafarers Center, Tel: 4616699 – 4616911.

Stevedores' and Ship Agents' Association, Tel: 4234185 – 4239327.
DEVELOPMENTS: Pier No. 2 has been lengthened, cranes under construction. Rebuilding and lengthening of the Zorroza Quay (See "Plan").
AUTHORITY: *Port Authority:* Puerto Autonomo de Bilbao, Campo Volantin 37, 48007 Bilbao. *Tel:* 4452000. *Telex:* 32708 Padb E, 31282 Jprb E. *FAX:* 4465409. Berthing Superintendency: *Tel:* 4612626 – 4613626. *Telex:* 31282 Jprb E. *FAX:* 94-4610672.

Marine Authority: Comandancia Militar de Marina, Ibanez de Bilbao 22-24, 48009 Bilbao. *Tel:* 4211132. *Telex:* 32795 Marbi E.

BURELA: 43.39 N. 07.20 W.

BERTHING: Sheltered berth for vessels with draft up to 20 ft. Facilities includes 2 silos for bulk cement.
AUTHORITY: Junta Obras Puerto, Puerto Burela, Spain. *Tel:* (982) 580182.

CADIZ (Including Santa Maria & Rota): 36.30 N. 06.20 W. (See Plan)

DOCUMENTS:
Cargo Vessels:
For Health Department:
1 Maritime Declaration
1 Crew List
1 Passenger List - Disembarking Cadiz
1 Passenger List - in Transit
For Immigration:
2 Crew Lists
2 Passenger Lists - Disembarking Cadiz
2 Passenger Lists in Transit
For Customs:
1 Store/Provision List
1 Crew Declaration List
1 Crew List
1 Passenger List - Disembarking Cadiz or Negative
1 Passenger List - in Transit
1 Manifest Cargo – Destination Cadiz
1 Copy of Manifest Cargo in Transit
For Harbour Master:
1 Crew List
1 Passenger List - Disembarking Cadiz
For Ports Agents:
1 Crew List
Total Required:
1 Maritime Declaration of Health
1 Store/Provision List
1 Crew Declaration List
1 Manifest Cargo Destination Cadiz
1 Copy of Manifest Cargo in Transit
6 Crew Lists
4 Passenger Lists - in Transit
5 Passenger Lists - Disembarking Cadiz
Passenger Vessels:
For Health Department:
1 Maritime Declaration
1 Crew List
1 Passenger List - in Transit
1 Passenger List - Disembarking Cadiz
For Immigration:
2 Crew Lists
2 Passenger Lists - in Transit
2 Passenger Lists - Disembarking Cadiz
For Customs:
1 Manifest - in Ballast
1 Store/Provision List
1 Crew Declaration List
2 Passenger List - in Transit
2 Passenger List - Disembarking Cadiz or Negative
2 Crew Lists
For Harbour Agents:
1 Crew List
1 Passenger List - in Transit
1 Passenger list - Disembarking Cadiz
For Port Agents:
1 Crew List
1 Passenger List - in Transit
1 Passenger List - Disembarking Cadiz
Total:
1 Maritime Declaration of Health
1 Store/Provision List
1 Crew Declaration List
1 Manifest - in Ballast
7 Passenger Lists - in Transit
7 Passenger Lists - Disembarking Cadiz
7 Crew Lists

Tobacco:
Tobacco for Crew and Passengers: Legalised manifest covering excess of tobacco to be delivered on arrival.

Excess of tobacco is to be considered when the quantity of 6 kilos or 600 cigarettes per member of crew and 2 kilos or 2,000 cigarettes per passenger is exceeded.

Tobacco Cargo Destination Cadiz or in Transit: Legalised manifest covering tobacco for Cadiz or in Transit to be delivered on arrival.

All vessels must be represented by a local Agent who will be responsible for completing the required Customs, Health and Port Authorities documentation.

Shipmaster's Report: November 1988.
Quarantine: 1 Maritime Declaration of Health.
1 Crew List.
1 (nil) Passenger List in Spanish.
Immigration: 2 Crew Lists.
2 (nil) Passenger Lists in Spanish.
Harbour Master: 1 Crew List.
1 (nil) Passenger List in Spanish.
Agent: 1 Crew List.
Customs: 2 Stores Lists.
2 Crew Declarations.
2 Crew Lists.
2 (nil) Passenger Lists in Spanish.
2 copies Cargo Manifests in Transit.

If Cadiz is the second port, the same papers are required except for Customs you only need the "Ruta".

PILOTAGE: Compulsory. Pilot will board the vessel between Los Cochinos and Diamante buoys, from small tug having buff funnel with a black top with a black letter 'P' on each side of the buff part of the funnel. Pilots communicate with tugs by means of portable radio sets.

Corporacion Practicos Puerto de Cadiz, Muelle Reina Victoria no. 14, 11006 Cadiz. Telephone: 256550 day and night.

Pilot station on VHF Channel 16 and working Channel 14.

ANCHORAGE: Vessels waiting for a Pilot may anchor in any safe position according to draft and weather conditions. Tankers or deep draft vessels may anchor West of the Junction Buoy in 16 m. – 18 m. depth where the Pilot boards at first opportunity.

RESTRICTIONS: *Cadiz - Commercial Harbour:*
Channel Entrance:
Width . . . . 250 m.
Length . . . . 3,600 m.
Controlling depth at LLW. . . . . 11 m.
Kind of bottom: mud, sand & rocks.
Port Entrance:
Width . . . . 300 m.
Controlling depth at LLW. . . . . 10 m.
Tides:
Maximum tide level. . . . . 3.90 m.

Berth/unberth restrictions: Vessel can berth/unberth at any time of day or night.

Vessels exceeding 32 ft. 10 in. (10 m.) draft are subject to tide.

Vessels over 39 ft. 04 in. (12 m.) draft anchor North of Diamante Buoy where there are no draft restrictions.

Berths are allocated on strict order of arrival with the following preferences:-

1. Passenger and Navy vessels.
2. Vessels unloading or loading.
3. Bunkers or provisions vessels.
4. Repair vessels.

Cadiz - Free Zone Harbour:
Channel Entrance:
Width . . . . 150 m.
Length . . . . 500 m.
Controlling depth at LLW. . . . . 9 m.
Port Entrance:
Width . . . . 250 m.
Controlling depth at LLW. . . . . 9.5 m.
Tides:
Maximum tide level. . . . . 3.90 m.

Berth/unberth restrictions: Vessels can berth/unberth at any time of day or night subject to tides.

Santa Maria - Commercial Harbour:
Channel River Entrance:
Width . . . . 80 m.
Length . . . . 1,245 m.
Controlling depth at LLW. . . . . 4.5 m.
Kind of bottom: mud & sand.

Berth/unberth Restrictions: Vessels can berth/unberth at any time of day or night, subject to tides.

Explosives and Inflammables: Vessel cannot call at Cadiz carrying explosives or inflammables in Transit.

Power Cable: In position Lat. 36° 30.9′ N., Long. 06° 15.2′ W. with clearance of 50 m.

HEALTH: Master should radio, not more than 50 hours and not less than 5 hours before arrival, the following information to the Port Authority: name and nationality of ship, date and time of arrival, last port of call, number of passengers and crew aboard, if doctor on board and details of any sickness noted on voyage. Message to be addressed to "Sanidad Maritima Cadiz". International code quarantine signals to be shown on arrival when Free Pratique will be given provided health situation is satisfactory.

TUGS: Normally join vessel off San Felipe Breakwater. 8 tugs available, up to 2,740 h.p.

BERTHING:
Cadiz:

Mole No. 1 or Reina Sofia: 600 m. length, depth alongside 11.0 m. – 12.0 m. LW.

Mole No. 2 or Alfonso XIII: 224 m. length, depth alongside 10 m. LW.

Mole No. 3 or Generalisimo Franco: 340 m. length, depth alongside 10 m. LW.

Mole No. 4 or Reina Victoria: 220 m. length, depth alongside 10 m. LW.

Mole No. 5 or Marques de Comillas: 460 m. length, depth alongside 10 m. LW.

Ro/Ro Terminals: There are 3 Ro/Ro ramps in the Port of Cadiz, 2×12 m. wide×100 tons capacity and 1×6.5 m. wide×60 tonnes capacity. Depth alongside all ramps is 10.0 m.

Industrial Terminal: Located at La Cabezuela on the East side of Cadiz port. 530. m. of wharf under construction with depth of 14.0 m. Terminal will be used for bulk solid and will be completed in 1988. In the second stage the length of wharf will be doubled.

Free Zone: The free zone is about 2 miles South East of Cadiz. The port has 550 m. of berthing space with 9.5 m. of water alongside. 3×3/6 ton cranes and 2×12/25 ton cranes.

Santa Maria: Muelle exterior: Length 774 m. Depth alongside 6.5 m.

CONTAINER HANDLING FACILITIES: Container at Muelle Reina Sofia. Length 600 m. depth 11.0 m. - 12.0 m. 3×40 tonne gantry cranes, 2 with outreach of 35 m. and one with outreach of 38 m. Area of container park 195,000 sq.m. 2 mobile cranes and road and rail access to the terminal. 38 reefer points (380V - 50 Hz and 440V - 6 Hz).

At Santa Maria there is 1×30 ton crane for containers and a container park of 11,000 sq.m.

CRANES: *Cadiz:*
Electric Cranes

	Lifting Capacity (tons)	*Range* (m.)	*Height* (m.)
Pier No. 1 (Reina Sofia)			
3 Container cranes	40	25	27
Pier No. 2 (Alfonso XIII)			
–	–	–	–
Pier No. 3 (Generalisimo)			
4 Electric cranes	3/6	20/12	20
2 Electric cranes	6	22	20
Pier No. 4 (Reina Victoria)			
1 Electric crane	3/6	20/12	20
2 Electric cranes	6	22	20
Pier No. 5 (Marques de Comillas)			
4 Electric cranes	6	22	20
2 Electric crane	12	25	27
1 Electric crane	3/6	20/12	20

Mobile cranes:

	Lifting Capacity (tons)	*Range* (m.)	*Height* (m.)
6 mobile cranes	127/4	3.5/42.5	40
Floating Crane:			
1 crane	60/30 tons	8/12.5	32

Arrangements for use of this crane cannot be made prior to vessel's arrival since the yard has priority.

Santa Maria:
Electric Cranes:

	Lifting Capacity (tons)	*Range* (m.)	*Height* (m.)
1 Electric crane	30	25	22
2 Electric cranes	6	20	20
2 Electric cranes	6	22	20
2 Electric cranes	6/15	18.7	20
			Eurocargo S.A.
1 Electric crane	8	18.7	20
			F. J. Portillo Ltd.

Free Zone:
3×3/6 ton and 2×12/25 ton cranes.

TANKERS: 3 Tanker berths for vessels up to 27 ft. draft at the piers in the Zona Franca, operated by Campsa. Hoses: Fuel oil 10 in., gas oil 8 in., gasoline 8 in.

International Terminals Corp. Berth, length 170 m., depth 9.5 m.
Products terminal located at Rota, length 350 m., depth 12.0 m.
Also see "Services".

STEVEDORES: *Hours of Working:*
Weekdays (except Saturdays): Normal day – Shift 0800–1800 hrs. – Lunchbreak 1200–1400 hrs. Appointment of gangs to be effected at 0730 hrs.

Shift System (from Monday to Sunday including holidays):
First Shift: 0800–1400 hrs.
Appointment of gangs to be effected at 0730 hrs.
Second Shift: 1400–2000 hrs.
Appointment of gangs to effected at 1330 hrs.
Third Shift: 2000–0200 hrs.
Fourth Shift: 0200–0800 hrs.
Appointment of gangs to be effected at 1830 hrs.
Saturday after 1400 hrs.:
Appointment of gangs to effected at 1100 hrs.
Sundays and Holidays:
Appointment of gangs to be effected at 1100 hrs. on the preceding day.

FRESH WATER: Fresh water available at all quays at 12 t.p.h. per hose.

Fresh water connections are spaced at intervals of about 30 m. along the quays. Cost 35.00 Pesetas per ton.

Contact: Servicos Municipalizados Agua y Electricidad, Maria Auxiliadora s/n, Cadiz. Telephone: 281666.

FUEL: Bunkers can be supplied to vessels by barge at Commercial quays or at anchor in bay, also at permanent installation in Free Zone Port at the rate of 180 t.p.h.

Bunkering order to be passed through vessels oil suppliers to Spanish Monopoly, Campsa Madrid.

Bunkers and Oil Suppliers:

Compania Arrendataria del Monopolio de Petroleos S.A. (C.A.M.P.S.A.), Avenida Ramon de Carranza No. 28 – 11006 Cadiz. Telephones: 283100, 253900-09; 251911 – Free Zone; 256058 Muelle Pesquero; 253900, 253909 – Puntales Factoria.

Esso: Consulmar. Avenida del Puerto No. 2, 8° d – 11006 Cadiz. Telephones: 274600 & 274604. Telex: 76018 – ZUBIC E

Enpetrol: Don Felipe Abad Aranda, Ahumada No. 7 Bajo – 11004 Cadiz. Telephone: 225502. Telex: 76062.

Castrol: Sr. Escalante Vera, General Garcia Escames, No. 3 – 11008 Cadiz. Telephone: 213067

Shell: Anglada. Plaza de Espana No. 15 – 11006 Cadiz. Telephone: 2130677.

Lubricantes Fina: Gibraltar s/n – 11011 Cadiz. Telephone: 287757. Telex: 23183 FINA E (Fina Iberica S.A., Madrid).

BP Marine International: Eduardo Grimaldi Pedrosa, Avenida Cayetano del Toro, No. 6, 7° – 11001 Cadiz. Telephone: 276294.

REPAIRS: There are 3 shipyards – Astilleros Espanoles SA, at Cadiz and Matagorda. Empresa Nacional Bazan-Carraca, and several workshops of Auxiliar de la Construccion Naval. All types of repairs can be effected.

CONSULS: Argentina, Belgium, Bolivia, Colombia, Denmark, Finland, France, Germany (F.R.), Greece, Italy, Liberia, Netherlands, Norway, Sweden, Portugal and Venezuela.

DRY DOCKS: Astilleros Espanoles S.A.: 2 dry docks for vessels up to 400,000 d.w.t. and 2 floating docks with capacity up to 120,000 d.w.t.

At Matagorda, there is a dry dock of 150.97 m. length, 19 m. width, and 6.23 m. max. draft.

At Puerto Real Factory there is a dry dock of 500 m. length, 100 m. width, and 9.0 m. draft, where they can accommodate vessels up to 400,000 tons.

OPENING/CLOSING HATCHES: This work is normally effected by the stevedores.

CUSTOMS ALLOWANCES: Max. of 6 kilos of tobacco for each person on board, all to be declared. Wine or spirits, 1 decilitre per man per day.

AIRPORT: Jerez 30 km., Seville 130 km. and Malaga 265 km. Daily flights to Madrid, Barcelona and overseas.

TIME: GMT plus 1 hour late September until late March. GMT plus 2 hours late March until late September.

TELEPHONES: Connection to vessels can be arranged by Agents.

SHORE LEAVE: Crew are permitted to go ashore subject to police control.

SERVICES:

Boat Services: Sertrain S.L., Servicios de Lanchas y Trafico Interior del Puerto de Cadiz, Muelle Comercial 'Edificio El Soivre', Caseta No. 4 – 11006 Cadiz. Telephone: 255728, 253583 (Private).

Divers:

Francisco Salazar Casero (Pantera). Tel: 251587 and 256014.

Chinita, Tel: 224626 and 213008.

Subnaval S.L. Tel: 272976.

Garbage Disposal Facilities: Collection by truck, capacity per trip 8 tons. Garbage can be collected from arrival to sailing of vessel. Garbage should be bagged before landing. Ship's labour to be used to move garbage from ship to truck. No limit to the amount of garbage to be landed during the ship's call.

Tourist Office: Calderon de la Barca No. 1. Information Tel: 211313.

Taxi: Tel: 221503, 221006, 276969, 276735.

Emergency Telephone Numbers: Police: 091. Fire Brigade: 270080. Hospital San Juan de Dios: 287611. Hospital Mora Provincial: 212351. Ambulances: 289533 and 273758. Harbour Master: 224011 and 254901. Health Office: 253437. Immigration Office: 212154. Customs Office: 253370.

Gas freeing Plant: General description of services rendered: This installation is equipped for cleaning and gasfreeing of tankers, removal of last residues and dirty ballast and/or slops.

Reception of dirty ballast may be effected through separators at a maximum rate of 2,400 t.p.h. and slops according to discharge rate of vessel's stripping pumps.

Victor Pirate washing machines, conventional and bottom types, are available for using with either cold or hot water. Air driven exhaust fans for gasfreeing available; special equipment for working cargo tanks, safety lamps, portable lamps for small drainages of tanks and means for unloading of mud are available.

From an elevated structure at the mooring berth, towards midships, connections are made for slopping out dirty ballast and slops as well as for supplies to vessel as detailed below. In this structure is also situated the ship's gangway ladder and a pneumatic crane for both removal of materials and refuse ashore.

Plant is able to supply:

ballast water up to 400 t.p.h.
saturated stem to 12.5 kg./sq.cm. or reduced steam up to 12 t.p.h.
washing water to required temperature up to 80°C. and pressure up to 13 kg./sq.cm. and a flow of 250 t.p.h.
drinking water.
treated water for boilers.
compressed air to 7.5 kg./sq.cm.

Feed water can be connected to ship's fire system.

In the above mentioned structure high capacity foam and water cannons are arranged so that they are able to cover a major part of ship's deck. There are also inlets for fire hoses.

The supply of shore power is not foreseen.

Depths in the mooring area are 8.20 m. forward and 10 m. aft at LLW and size limit of vessel is 150,000 d.w.t.

This installation works uninterruptedly all day and night and Sundays if required.

Operator: Delta, P.O.Box 73, Cadiz (Spain). Tel: 23 10 00 to 23 10 09. Telegrams: "Delta" Cadiz. Telex: 76021 ASTIL E.

DEVELOPMENTS: Dredging of the access channel to the new facilities and to the Reina Sofia Container Terminal will commence late 1988. Depth to be 13.0 m. LLW.

Also see "Berthing" – Industrial Terminal.

AUTHORITY: Junta del Puerto de la Bahia de Cadiz, Plaza de Espana 17, 11006 Cadiz, Spain. *Tel:* (56) 224005/6/7. *Telex:* 76161. *FAX:* (56) 221905. *Contact:* Jaime Gonzalez Paramo, Port Director. Enrique Marquez Garcia, Harbour Master (Tel: 224011). Indalecio Ingesias, Harbour Master of Free Zone (Tel: 260053).

CARBONERAS: 36.58 N. 01.54 W.

SHIPMASTER'S REPORT: November 1983.

DOCUMENTS:

5 Crew Lists.
2 Stores Lists.
2 Crew Declarations.
1 Maritime Declaration of Health.
2 Cargo Manifests (in-transit cargo only).

PILOTAGE: Compulsory. Agents inform Pilot of vessel's requirements. The Pilot boards by tug or small fishing boat, about 1.5 miles off the jetty.

The pilot station is situated at Garrucha, about 15 miles North of Carboneras.

ANCHORAGES: There is a small anchorage South of an island called "Isla Carboneras" locally. The approx. position of the island is Lat. 36° 59.6′ N., Long. 01° 53.9′ W. About 1 mile South of the island vessels can anchor; it is not advisable for larger vessels to stay there long, because this place is too close to the shore and strong Southerly winds can be hazardous.

The depth of this anchorage is between 40 m. and 50 m.

MAX. SIZE: Max. draft 40 ft. Max. LOA 210 m. Max. beam 32 m. Max. airdraft 13 m. 100,000 d.w.t.

HEALTH: No Radio Pratique available, no yellow flag necessary.

RADIO: The nearest stations are Cabo de Gata – VHF Channels 16, 20, 27 and Cabo de Palos (EAP) – VHF Channels 16, 26, 27, but very poor reception.

VHF: The Pilots have to be called on VHF Channel 16; working Channels 12 or 9. Also see "Radio".

TUGS: 2 tugs are available, each 1,300 h.p. If more tugs are necessary, they have to be ordered via Agents from Almeria.

BERTHING: In front of the entrance to the port the vessel will be turned around by two tugs and enter the port stern first. There is one berth (length 240 m.) only and the ships always have to berth with the port side alongside. Usually the starboard anchor will be used. 4 headlines made fast to the shore by a small fishing boat as well as 3 sternlines and 1 breastline aft. 2 fore and 2 aft springs are made fast to the jetty. The jetty is fitted with 4 elastic fenders and additional tyres.

BULK CARGO FACILITIES: There is one conveyor for loading cement and/or gypsum with a range of approx. 30 m. Every vessel with a length of approx. 200 m. has to shift for loading all holds. 2 cranes with a capacity of 8 tonnes each are installed. 1×1,500 t.p.h. coal unloader available.

STEVEDORES: Stevedores work 24 hours a day, including Saturdays and Sundays.

MEDICAL: Only one doctor available. Serious cases are treated at hospital in Almeria. Vaccinations are done in Almeria.

FRESH WATER: Available by lorry only, each lorry carries 8 tonnes. Price in November 1983 = 600 Pesetas per tonne.

FUEL: Available by lorry from Almeria, max. 50 tonnes per lorry.

CONSULS: The nearest Consulates are at Almeria.

REPAIRS: Can be undertaken by workshops in Almeria or Cartagena.

GANGWAY/DECK WATCHMEN: Not compulsory as there is a guard at the factory gate.

HATCHES: Opening/closing done by crew. Open parts of hatches will be covered with tarpaulins by stevedores to prevent dust.

CUSTOMS ALLOWANCES: The quantity allowed per each crew member is 1 bottle spirits and 1 bottle wine. 6,000 cigarettes is to be allowed on board for each person on board.

REPATRIATION: Possible via Almeria, approx. 70 km. from Carboneras.

AIRPORT: At Almeria.

TIME: GMT plus 1 hour; from June to September GMT plus 2 hours.

HOLIDAYS: See "Almeria".

POLICE/AMBULANCE/FIRE: No facilities. In case of emergency vessel has to inform the stevedores who will contact the agency.

IDENTIFICATION CARDS: Not required. Crew members have to take their Seaman's Books ashore and the guard at the gate checks their names with a Crew List, received from the Agents.

CERTIFICATES: No certificates required by Port Authority or Agents.

OPERATORS: Private port. Owners are "Hornos Ibericos S.A.", a cement and gypsum factory.

CARTAGENA: 37.35 N. 00.59 W. (See Plan)

DOCUMENTS:

6 copies of the Crew List.
6 copies of the Passenger List, or 2 negative copies as the case may be.
2 sets copies Manifests covering cargo destined to Cartagena and carried in transit.
Store Provision List, in duplicate, including items such as: tobacco, spirits, radios, coffee, tea, bunkers, and any other items belonging to the vessel.
2 copies of all Personal Effects Lists, from passengers and ship's crew.

The amount of cigarettes allowed for each member of crew/passenger is 6 kilos; any amount over has to be manifested as "tobacco in transit", and this manifest must be visaed by a Spanish Consul in the last loading/discharging port. If there is no Spanish Consul in the port of call before Cartagena, the Master is requested to send a cable to: Direccion General de Aduanas, Madrid, quoting as follows: "m.v. '...' coming from ... order to proceed to Cartagena tobacco manifest unlegalised = Master".

This cable is to be inserted in the radio log-book, and copy of same to be delivered to local Customs Authorities when boarding the vessel.

PILOTAGE: Compulsory. Position of pilot station 37° 34.6′ N., 0° 59′ W. Position with green light of Dique de Curra bearing 000°, and the white light of Las Losas bearing 090°. This is the position at which the Pilot normally boards.

Vessels bound for Escombreras wait for Pilot in position 37° 34.2′ N., 0° 59′ W., with green light of Dique de Curra bearing 000° and the green light of Dique Bastarreche bearing 090°.

Pilot launch is a motor-boat with cabin, about 9 m. long, white hull, red below water line, black letter "P" painted on both sides.

When bad weather prohibits Pilot boarding in the above position, vessel may be required to embark Pilot inside the harbour breakwaters.

Vessels call Pilot in daytime by code flag "G", or by sounding 3 prolonged blasts on the whistle.

At night, Pilot may be called by flashing code signal "PT", or by 3 prolonged blasts on whistle.

Radio messages, with ETA, may be sent direct to Practicos Cartagena with 24 hours' notice, and confirmed 12 hours before arrival, messages should include vessel's sea water draft and, if calling for the first time, vessel's length overall. Pilot station equipped with VHF.

APPROACHES: Escombreras Bank with datum depth of 9.5 m. situated West of Escombreras Island, extends from 200 m. to 400 m. West of the Eastern tip of the island. This bank is unmarked.

Area of underwater obstructions exists between the coast, the meridian of Santa Ana Buoy, and the parallel of Las Losas Beacon.

There is a zone used for submarine exercises which is marked on the charts. Occasionally, naval divers carry out exercises in the vicinity of the port entrance. These are accompanied by naval vessels showing appropriate signals.

Ships bound for Escombreras, to enter the port, should steer for a point situated at the intersection of the N.S. line of the red light at the extremity of Curra Pier, and the E.W. line through the green light at the extremity of the Bastarreche Pier, at which point, approximately, the Pilot boards the vessel.

The least recorded depth in the entrance to the port is 25 m. The approaches to the Port of Escombreras do not present any difficulties.

ANCHORAGE: Vessels anchored within the port limits should not carry out repairs affecting main engines as the possibility of sudden storms in Winter may make it necessary to move to a sheltered anchorage North of Cabo Tinoso, or to put to sea.

Vessels under 29 ft. 6 in. draft may anchor inside the breakwater provided they do not obstruct other vessels' movements.

Anchorage for larger vessels in Cartagena Roads, approx. position 37° 35′ N., 0° 59′ 30″ W. in depths of 40 m.

Anchorage for tankers off Escombreras in approx. position 37° 34′ N., 0° 58′ 23″ W., in depths of 42 m.

MAX. SIZE: No length limitations. For Cartagena max. draft 31 ft. 6 in. For Escombreras max. draft 68 ft.

HEALTH: Free Pratique is immediately obtained when vessels berth any time from sunrise to sunset. Port Health Officers, require Maritime Health Declaration, Derat Certificate, and copy of Crew and Passenger Lists.

RADIO: Cabo Palos Radio, Aranjuez Radio, and/or Gibraltar Radio.

TUGS: 3 tug-boats 500 h.p. – 1,000 h.p. with fire-fighting capabilities. All 3 tugs on duty 24 hours duly equipped, with 2 shifts of crew.

Tugs join vessels in vicinity of port entrance, vessel's lines normally used.

The tugs available to assist berthing tankers in Escombreras are all diesel tugs, equipped with fire-fighting equipment. 5 tugs available of up to 2,400 h.p.

BERTHING: Total length of general cargo quays 679 m. Depth alongside 8 m. – 10 m. Solid bulk materials: Total length of berthing 717 m. Depth alongside 8 m. – 10 m.

CRANES:

No.	Capacity	Type
7	3 – 20 tons	Electric Gantry
2	3 tons	Mobile-Diesel
1	6 tons	Mobile-Diesel
2	25 tons	Mobile-Diesel
1	90 tons	Mobile-Diesel

STEVEDORES: In the case of a vessel calling at Cartagena at night time, Sundays or holidays, it is important that Master cable 24 hours in advance to advise his ETA in order that Agents are able to arrange stevedores' operations. Gangs can be called on as follows: on weekly working days 0800 and 1330 hrs. On Sundays/holidays 0800 hrs. (with prior advice to Union by 1200 hrs. on Saturdays or day preceding holidays). The official working hours are: Monday/Saturday 0800 to 1200 and 1330 to 1730 hrs. – Sundays/holidays: from 0800 to 1400 hrs.

MEDICAL: Medical services rendered as soon as requested but, in case of emergency, Master required to send urgent cable in advance.

TANKERS: Tankers call at Port of Escombreras 2 miles away from Cartagena Port, this port owned by Refineria de Petroleos de Escombreras S.A. Slop discharge facilities available at Escombreras.

For ships of 250,000 d.w.t. Berth No. 7, of recent construction, consists of 4 dolphins, in a line parallel to Bastarreche Pier. Between the first and third dolphin is situated a loading platform with loading/discharging lines. The centre of this platform is situated at a distance of 230 m. from the head of Bastarreche Pier, bearing 140°.

The least depth in Berth No. 7 is 21.45 m. or 70 ft. 4 in. at the extreme South of the berth. The rest of the area has a depth of between 24 m. to 28 m.

The maximum length foreseen for tankers of 250,000 tons d.w.t. is 250 m. or, 1,145 ft., since the total length of the berth is 430 m.

The maximum allowable draft is 21 m. or 68 ft. 1 in.

Shore lines for crude oil are 1 of 40 in. diameter and 3,500 m. length, and another of 24 in. diameter and 3,500 m. length.

The Woodfield hose-handling gantry has 4×16 in. hoses of which the 2 outside hoses should be used for loading bunkers as well as for discharging. Connecting flanges of 16 in. diameter, type 150 ASA.

Fresh water can be supplied by pipe-line at all berths at a rate of 45 t.p.h.

Only vessels up to about 100,000 d.w.t. may be berthed at night.

8 berths suitable for tankers from 29 ft. 6 in. to 43 ft. draft.

2 berths for LPG carriers up to 29 ft. 6 in. draft.

Also see "Shipmaster's Report".

FUEL: At Cartagena, only gas oil available from tank trucks. At Escombreras all grades of fuel available subject to advance notice given.

FRESH WATER: Available from quay by hose connections, only on working days. On Sundays/holidays notification to be required before 1400 hrs. preceding day.

FIRE PRECAUTIONS: The port area has its own Fire Department under supervision of Port Director. Although there is no water-borne equipment available, tug "Brio" will assist as required as well as Cartagena City Fire Department.

CONSULS: The following countries are represented in Cartagena:

Belgium	Greece	Panama
Denmark	Italy	Peru
Finland	Netherlands	Sweden
France	Norway	

GANGWAY/DECK WATCHMEN: Not compulsory, only used when required by Master under Immigration Police Supervision.

OPENING/CLOSING HATCHES: Usually by ship's crew.

CUSTOMS ALLOWANCES: 200 cigarettes per each crew member, out of bond. The excess to be declared as cargo in transit. Wine and/or spirit: 1 bottle for each crew member or passenger.

CREW IDENTIFICATION CARDS: Not required.

REPAIRS: There are very good repair facilities. A private shipyard "Empresa Nacional Bazan" and 2 other private repair shops.

DRY DOCKS: 1 dry dock can accept vessels (35,000 d.w.t.) of 566 ft. length and 73 ft. beam. Syncrolift of 8,740 tons lifting capacity.

REPATRIATION: All facilities available.

AIRPORT: San Janvier Airport situated 27 miles from Cartagena with daily service to Madrid, Barcelona and Almeria.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: 1st January; 6th January; 19th March (St. Joseph); Maundy Thursday from 1400 hrs.; Good Friday; 1st May (Labour Day); Ascension Day; Corpus Christi; 29th June (St. Peter and St. Paul); 18th July (National holiday); 15th August; 12th October; 1st November (All Saints' Day); 25th December.

POLICE/AMBULANCE/FIRE: Police, Tel: 501456. Ambulance, Tel: 503470. Red Cross, Tel: 510727. Fire Department, Tel: 501111. Port Fire Department, Tel: 503100.

DEVELOPMENTS: There is a programme to increase berthing-places by building new piers close to breakwaters, available for 3 vessels.

SHIPMASTER'S REPORT: March 1981.

Approaches: Approach to the port provides no great problem coming from either the East or West. Plenty of positions are available from the land as you near the port. The bay in which the port is situated is deep water up to the breakwater. So for anchoring, vessel has to proceed well into the bay. Pilots will advise the number of vessels lying at anchor and a suitable anchorage position.

The bay is exposed to winds from the S.E. through to the S.W. As the weather was good on both occasions that the vessel has visited, no comment can be made as to whether the anchorage would be tenable in strong winds, from these quadrants.

Pilots: Readily available day or night. Pilots board from a small boat, which is rather slow. The same boat acts as line boat when the vessel is berthing. Pilots work Channel 16, and can be contacted about 1 hour out from the port.

Berthing/Berth: Vessel can berth either side of the LPG Pier. Although on the Eastern side of the berth the max. draft allowed aft is 31 ft. 6 in. and forward 28 ft. On the Western side of the pier there is 36 ft. of water. Vessels berth with the assistance of 3 tugs (1 forward and 2 aft). Ship's lines are used to the tugs. Usual tie up forward is 4-2-2 and aft 4 lines go to buoys, 2 springs from the stern, and 2 breast lines from the main deck winch.

Pilots advise that the berth is exposed to S.W. winds and vigilance is required in tending moorings. The berth is adequately fendered with large tyres.

Fresh water is available at short notice, and is piped to the quay. The water man can be found at the gate. Water can be supplied any day except on a Sunday. Bunkers are also available from the quay.

Cargo: Cargo is discharged through a 12 in. 150 ASA "T" connection from which 2×6 in. lines are lead off. Shore supply this connection, and connect the pipe.

Discharge back pressure is 8 bars which means running 2 pumps. Discharge rate is between 70 – 210 tonnes per hour. The discharge rate varies without any notice being given to the vessel by the terminal as they direct the cargo into shore tanks or coastal vessels.

Communications are very poor between the terminal, the vessel and the Agent. Little or no information is relayed to the vessel, as to the state of the tanks, number of coasters arriving, etc. On this occasion we discharged half the cargo into another vessel in order to complete the discharge in time for loading our next cargo.

Customs and the shipper's agreements had to be granted.

Daily cargo surveys are carried out, at either 0800 hrs. or 1600 hrs. Surveyor is happy to take ship's readings without sighting ullages and temperatures himself. For commencing and completion surveys he is of course present. From daily surveys the terminal require total discharged and the hourly pumping rate for the day.

The terminal upon arrival, also asks the ship to sign a letter saying they require the cargo to be pumped with a back pressure of 15 kg./sq.cm. and for the cargo to be heated. A booster pump is required for this port and also a cargo heater (this may soon be supplied). At present the vessel has the pipe work for the heater. Heater and booster pump will be sited on the quay, and ship's power and pumps will be used to run both appliances.

With the high back pressure it is difficult to strip the tanks, so if time allows strip tanks into one tank with the manifold valve closed, and then finally discharge from this tank. In the end this will save time.

Shore will request hot gas to clear the cargo lines.

Chandler: Can supply most items but needs a few days to organise matters. Stores can be supplied by boat. The boat is rather like a small pleasure craft but quite adequate.

Shotblast can be supplied at this port. The shot was also delivered by barge.

Repairs: Engine repairs can be carried out in this port by the local shipyard repair firm.

AUTHORITY: Capitan de Navio, Comandante Militar de Marina de Cartagena, Comandancia de Marina.

CASTELLON DE LA PLANA: 39.58 N. 00.01 W.

(See Plan)

(A) CASTELLON HARBOUR
(B) BREASTING ISLAND AND SEA BERTH

(A) CASTELLON HARBOUR

DOCUMENTS:

Manifest of Castellon cargo: 1 set covering all loading ports; make sure that this Manifest is in perfectly good order before ship's berthing, as the Customs will board the vessel immediately and take it away as it is; thereafter any omission or excess of pages may lead to a fine.

Manifest of the Transit Cargo: 2 sets (the same recommendations as above).

3 Crew Lists.
2 Negative of Passengers.
2 sets of Bills of Lading of Castellon cargo.
2 Provisions Lists.
2 Manifests of Personal Effects.

PILOTAGE: Compulsory, and service is permanent. Pilots board vessels by a cutter in Roads near entrance formed by the 2 breakwaters.

Pilot cutters are painted white and have the letter "P" in black on each bow. Cutters have a blue flag, with letter "P" in white. Signals to be made by vessels requiring Pilot: 3 long blasts. Telegraphic address: "Practicos, Comandancia Marina, Castellon".

ANCHORAGE: Vessels can remain at anchor in the Roads. Recommended anchorage: 0.5 miles East of lighthouse in depth of 12 m.

RESTRICTIONS: Max. draft 22 ft. for vessels of about 110 m. – 120 m. length. For vessels of more 120 m., to 140 m. length, max. draft is 20 ft. – 21 ft.

Also see Section "B".

HEALTH: Pratique obtained immediately after berthing, when Health Officer boards vessel. In case of suspected disease or fever on board Master must radio Agent to advise the Health Office. Following documents are required by the Health Officer upon berthing: Maritime Declaration of Health, Derat Certificate, 1 Crew List.

RADIO: Aranjuez Radio, call sign EAD, 36 – 48 hours prior arrival nearest radio station is El Grao Radio, call sign EAV.

TUGS: Tugs join vessels at entrance of port. Vessels of more than 100 m. length normally use 1 or 2 tugs. Ship's ropes used.

STEVEDORES: Very important that Master sends in advance short radio notice regarding vessel's ETA so Agent can inform Shippers or Receivers' stevedores accordingly. Official working hours of port are: Monday/Saturday 0830 – 1230 and 1400 – 1800 hrs.

MEDICAL: All kinds of medical services can be arranged. In case a crew member needs medical attendance urgently, it is advisable that Master sends a radio message in advance.

TANKERS: See Section "B".

LPG: See "Shipmaster's Report".

BALLAST: All ballast must be discharged to shore tanks, no exception will be made to this rule. A total of 17,000 cu.m. (110,000 bbls.) can be received by the Refinery ballast tanks.

FRESH WATER: All piers have water available by shore pipes. The rate of delivery is about 8 t.p.h. – 9 t.p.h.

FUEL: Available with 5 days' notice and subject to "Campsa" berthing availability.

GANGWAY/DECK WATCHMEN: Available but not compulsory.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CERTIFICATES: Vessels should have usual documents on board, but only the Safety Wireless, Safety Equipment and Derat Certificates are required by authorities.

CUSTOMS ALLOWANCES: Normally, Customs permit 200 cigarettes per man out of bond and 1 bottle of spirit per man.

CARGO GEAR: All commercial piers served by electric shore cranes able to lift 3 – 6 tons and 14 – 18 tons (restricted use).

IDENTIFICATION CARDS: Not required.

CONSULS Italian, Navarra 99, tel. 211004; France, Avda. Almazora S/N, tel. 211717; Norway, Enmedio, 9, tel. 222550; Sweden, Maestro Ripolles, 28, tel. 220053.

REPAIRS: Work shop for small repairs.

REPATRIATION: Good facilities exist.

AIRPORT: Valencia, 70 km. away.

TIME: GMT plus 1 hour. Summertime: GMT plus 2 hours (29th March – 26th September).

HOLIDAYS: 1st January; 6th January; 19th March, St. Joseph; Maundy Thursday after 1400 hrs.; Good Friday; 1st May, Labour Day; Ascension Day; Corpus Christi; 14th June, local holiday; 29th June, St. Peter and St. Paul; 18th July, National holiday; 25th July, St. James; 15th August; 12th October; 1st November; 8th December; 25th December; and 2 or 3 local holidays more, variable.

POLICE/AMBULANCE/FIRE: Police: tel. 220516; Ambulance 213944; Fire 221222.

SHIPMASTER'S REPORT: December 1980.

Approach: Straightforward (Chart BA. 1701). A plan of the port is included on BA. 1458. During final approach care must be taken not to pass between the buoys around the sea berth for oil tankers.

Anchorage: Can be obtained 1 mile Eastwards of Dique de Levante in 15 m.

Pilotage: Call on VHF Channel 16 and Pilot boards approximately half a mile Eastwards of Dique de Levante. Strong S.W.'ly set experienced whilst awaiting Pilot. Pilot boards from small launch which doubles as a mooring boat.

One tug is taken outside the breakwater using 2 ship's lines through the centre lead forward. A second tug makes fast at port main deck aft (tug's line) when vessel is in inner harbour. (Darsena Comercial). Draft limitation of 22 ft.

Berthing: Possible day or night. Starboard side to Muelle de Serrano Lloberes. The berth doubles as a bulk facility and care must be taken to avoid fouling the loading elevator with the bow flare. The elevator is on rails 1.0 m. inside the face. The berth is fendered with tyres on wooden axles – quite common in Spain and quite effective.

There are ample bollards. As soon as first lines are ashore, the forward tug takes up position at the break of forecastle using tug's line to assist in pushing vessel alongside. Lining up takes some little time using mooring winches.

Connection: Six shore anacondas link a hydrant-like pipe, emerging from a manhole on the quay, with the vessel's 10 in. manifold. Hoses are 6 in. (300 ASA) and shore personnel connect/disconnect. Vessel supplies and fits reducers. Starboard derrick used to support a metal cradle carrying hoses over ship's rail.

Discharge: Upon completion of cargo survey, discharge commences slowly whilst hoses are purged by a small hose from the 'hydrant' to the sea. No heater or booster pump are required at this port. Back pressure approximately 3 kg./sq.cm. and average rate of 125 t.p.h. overall with usual hourly rates of 150/160 tonnes/p.h.

Shore Tanks: Are atmospheric and situated some 200 m. N.E. of berth. There are 2 tanks (each 2,000 – 2,500 tonnes capacity). There would appear to be no reliquefaction plant and gas is flared during filling from a flare situated atop each tank. It is reported that this leads to discrepancies in cargo figures but this was not the case for this call. Throughput is estimated at 15,000 tonnes per month with ammonia arriving from U.S.S.R., Libya, and Mexico.

Customs: Attended in the morning. Their visit was brief as transit papers (RUTA) has been prepared prior to the vessel's departure from Cartagena. Remember that bond locker must remain sealed when coasting. Customs checked bond seal.

General: Fresh water is available but none taken this call. Lub oils available via normal Madrid 'permit'. The Pilot can be reached on Tel: 22 24 57 if required during the vessel's stay.

Only 2 tugs available and as preference is given to tankers berthing at sea berths, delays can occur in docking/undocking. We were delayed for four hours on leaving. Tugs are necessary for this port.

Local town (El Grao) is very quiet with numerous small restaurants all within a few minutes walk of the berth. A three star hotel opposite the yacht club is good for telephone calls to U.K. (cost around 265 pesetas for first three minutes).

Castellon proper lies 4 km. inland. Bus fare 30 pesetas.

AUTHORITY: Comandancia Militar de Marina, Grao de Castellon, Castellon de la Plana, Spain.

(B) BREASTING ISLAND AND SEA BERTH

LOCATION: The Petroleos del Mediterraneo, S.A. Refinery is located about 1 mile southward of Grao de Castellon Harbour on the Mediterranean coast of Spain.

The Refinery marine facilities are composed of a Breasting Island and a Sea Berth, both located in open sea.

The Breasting Island is located in approximate position Lat. 39° 56′ 42″ N., Long. 00° 01′ 36″ E., and the central point of the Sea Berth is in approximate position Lat. 39° 56′ 16″ N., Long. 00° 03′ 03″ E.

A Sea Buoy with radar reflector, showing a white flash every 10 seconds is located in approximate position Lat. 39° 56′ 07″ N., Long 00° 03′ 49″ E.

The Refinery flare is located in position Lat. 39° 57′ 00″ N., Long 00° 00′ 06″ W. The total height of the flare above the ground level is 75 m. (250 ft.).

The Grao de Castellon Harbour lighthouse is located in position Lat. 39° 58′ 06″ N., Long. 00° 01′ 42″ E. A white light showing groups of one and two occulting every 10 seconds is exhibited from it, with a range of about 17 nautical miles.

DOCUMENTS: The Port Authorities will board and clear the vessel at anchor or after berthing.

Vessels calling at Castellon should have ready the following documents:

6 copies Crew List.
2 copies Crew Manifest.
2 copies Stores List.
2 copies Passenger List.
Clearance from Last Port.
Vessel's Certificates.
Consignee's Documents (if calling to discharge), including:
  a) Vessel's Manifest of cargo.
  b) Bill of Lading.
  c) Intake Certificate.
  d) Ullage Report.
  e) Inspection Report.
  f) Certificate of Origin.
  g) Tanker's Time Report.

PILOTAGE: Pilotage is compulsory for all vessels. The pilot will board vessels in the vicinity of the waiting area or at anchor and will advise the Master on approaches to the berth, mooring and unmooring.

ANCHORAGE: Refer to Agent for certain restrictions on anchorage areas.

RADIO: *Arrival Message:* Masters are requested to advise Petroleos del Mediterraneo, S.A. Refinery, radio address "Petromed Castellon", of their expected time of arrival, 72 hours in advance or on sailing from the previous port. A cable confirming the ETA must be sent to "Petromed Castellon" 24 hours prior to arrival. Any further changes in the vessel's ETA must be promptly advised.

The Refinery will contact the vessel via Saint Lys Radio/FFL or Aranjuez Radio/EAV, with docking or mooring instructions, together with any other information to expedite the vessel's turnaround.

Radio Telephone contact should be established with Petroleos del Mediterraneo, S.A. Refinery on VHF Channels 13 and 16; call sign is "Petromed Castellon".

The arrival message must include:

1. Vessel's name, ETA and Master's full name.
2. a) If calling to discharge:
   Grade and cubic metres of cargo on board.
   Grade and cubic metres of bunkers required.
   Deepest draft in feet.
   Freeboard in feet.
   b) If calling to load:
   Grade and cubic metres for each product to be loaded.
   Loading sequence suggested.
   Grade and cubic metres of bunkers required.
   Ballast on board and pumping rate per hour.
3. If calling to discharge crude oil:
   Ship's and shore figures.
   Safe working load of the cargo hose booms (minimum 8 tonnes).
   Number of shackles of usable chain on each anchor.

All of these direct contacts with the Refinery do not relieve the Master from his responsibility to keep his Agent fully informed.

TUGS: The use of tugs is compulsory by all vessels calling at the Petroleos del Mediterraneo, S.A. marine facilities.

Two tugs are stationed at Grao de Castellon and are available to assist vessels using the facilities through the Agency of Petroleos del Mediterraneo, S.A. who will, as Agents for the Owners of the tugs, make arrangements for the services of the tugs.

Ship's ropes must be used to the tugs.

Tugs are equipped with safety devices against fire and oil spillage.

BERTHING: *Sea Berth:* The depth of water in the berth is about 25 m. (82 ft.).

Vessels berth heading 075°/080° using both anchors forward, with about 280 m. (900 ft.) of chain out on each anchor.

The stern is secured to 5 Lamgar buoys equipped with 2 release hooks on each one. These buoys have flashing lights.

One navigational aid consisting of 2 lighted buoys is used to proceed to the Sea Berth and drop the anchors.

The crude oil is discharged through a 42 in. pipeline. The length of the pipeline to the coast is about 4,000 m. (14,000 ft.) and about 300 m. (990 ft.) to the crude oil tanks.

At the Sea Berth, the crude oil submarine pipeline ends in 2 strings of flexible hose. The length of each string is about 85 m. (280 ft.) and consists of 11 sections of 16 in. hose.

The flange of the rail hose to be connected to ship's manifold is 16 in., ASA series 150.

Vessels may be requested to displace the contents of the crude oil line by pumping at a reduced rate.

The maximum pressure at the ship's manifold should not exceed 10.5 kg./sq.m. (150 p.s.i.).

There is also a 10 in. pipeline for bunkering. This pipeline is connected to the Breasting Island and the total length is about 2,250 m. (7,400 ft.). The Sea Berth end of this bunkering line is connected to a string of flexible hoses consisting of 11 sections of 10 in. hose, with a total length of about 85 m. (280 ft.).

All hoses are resting on the sea bed.

The hoses will always be connected to the port side of the vessel.

Vessel's boom and rigging should have a minimum SWL of 8 tonnes.

Mooring: Vessels calling at the Sea Berth should be equipped with a minimum of 10 synthetic stern mooring ropes in good condition and each not less than 150 fathoms in length.

These ropes should be 9 in. or 10 in. in circumference. Mooring wires or wires and nylon tails instead of the ropes are acceptable. All vessels should be equipped with at least 13 shackles of usable chain on each anchor.

Cargo handling operations will not commence until the vessel is adequately moored.

Breasting Island: The depth of water in the berth is about 12.5 m. (41 ft.)

Vessels berth heading either East or West.

The Breasting Island is built on piles. A central platform 70 m. (230 ft.) long and 15 m. (49 ft.) wide accommodates the loading arms and the island services. Two mooring dolphins are located at about 128 m. (420 ft.) from the centre of the platform. They are linked with the main platform by a walkway.

The platform elevation from the sea level is 6.8 m. (22 ft.).

Both sides of the Breasting Island central platform and the Eastern dolphin are provided with a resilient fendering system.

No fendering system is installed on the Western dolphin.

Two "swamped" breasting wires are anchored about 200 m. (640 ft.) off both sides of the Breasting Island.

Quick release hooks are provided on the platform corners and on both mooring dolphins.

Metal loading arms of the self–supported counterweighted type are used.

The number and size of the arms on either side of Breasting Island is as follows:

2×10 in. for dark products, bunker and ballast.
2× 8 in. for light products.
1× 8 in. for Ammonia.

The connecting flanges on each are ASA Series 150 and they are equipped with "Camlock" type quick connecting devices.

The following products can be loaded or unloaded at the Breasting Island:

Clean: Naphtha.
Premium Gasoline.
Regular Gasoline.
Automobile Diesel Oil/Heating Oil.
Turbo Fuel.
Ciclohexane.
Ammonia.

Dark: Marine Diesel Oil.
Domestic Fuel Oil.
Fuel Oil.
Crude Oil.

Cargo handling operations will not commence until the vessel is adequately moored.

All mooring ropes shall be in good condition and the crew shall keep them properly tended at all times.

One diesel driven fire pump delivers salt water to the fire system covering the Breasting Island.

This fire system is composed of 6 fire monitors mounted on raised platforms and fire hydrants at deck level.

The pump capacity is 340 cu.m.p.h. (1,500 g.p.m.) at 10.5 kg./sq.cm. (150 p.s.i.).

Fire hoses of 150 ft. and 300 ft. in length are positioned close to the hydrants and also stored on the fire hose racks located on both sides of the Breasting Island main platform.

The Breasting Island is equipped with devices against oil spillage.

LOADING: *Connecting/Disconnecting Loading Arms:* Connecting and/ or disconnecting of hoses and/or loading arms will be carried out by Refinery contracted personnel and the assistance of at least 3 crew members.

All the operations will be performed under the direction and responsibility of a vessel's qualified Deck Officer.

All the vessel's equipment, i.e. winches, topping–off booms, etc., must be handled by the vessel's crew.

The Refinery will advise the Chief Officer on procedure for connecting the hoses and/or loading arms.

In case of having to leave the Breasting Island or Sea Berth due to a change of the weather or any other emergency, the vessel's crew must carry out all the disconnecting of cargo hoses or loading arms.

After the hoses or loading arms have been connected to the vessel's manifold the vessel's crew must carry out any shifting of hoses or loading arms required, either for loading/discharging or bunkering operations.

Loading Rates: It is expected that all vessels will be able to receive cargo as fast as it can be delivered.

The dark products are pumped by either one or two centrifugal pumps of 900 cu.m.p.h. capacity each. The clean products are pumped by either one or two centrifugal pumps of 680 cu.m.p.h. capacity each.

BALLAST: All ballast must be discharged to shore tanks, no exception will be made to this rule. A total of 15,000 cu.m. (94,000 Bbls.) can be received by the Refinery ballast tanks.

Special care must be taken not to pump overboard the contents of engine room and pumproom bilges or any other oily product.

Vessels in ballast shall have sufficient draft and will be properly trimmed for safe manoeuvering on arrival, but should not arrive excessively ballasted.

Crude Oil Washing: Vessels which require to carry out crude oil tank washing at Castellon should request authorisation to do so through the Refinery or ship's Agent at least 48 hours before arrival.

The Refinery will send by telex the following questions which must be fully and promptly answered by the vessel; in the event of the answers to those questions being satisfactory, the vessel will be provisionally authorised for crude oil washing of tanks.

Example of Telex:

REF Forthcoming crude oil washing of tanks at Castellon. Following points require confirmation:
AAA Inert Gas System fully operational and tested.
BBB Each tank to be positively pressurised and method of establishing that this is so to be available.
CCC The oxygen content of each tank should be maintained below 8% by volume before and during the operation.
DDD Inert Gas System gas output to be continuously monitored and the oxygen level maintained below 8% by volume.
EEE A positive means of establishing the output of the inert gas system is to be available in the ship's control room at all times and under constant supervision of the ship's staff who must take immediate steps to abort the tank washing if necessary.
FFF Pressures in cargo tanks must be available to control room personnel.
GGG All systems to be permanent steel pipework and pressure tested.
HHH All tank openings to be sealed. Remote tank gauging systems therefore essential.
III Throttling of discharge for crude spraying to be done on ship's valves.
JJJ Responsible designated person to be in charge of operation.
KKK Efficient radio communication to be maintained between ship and shore.
LLL Please answer all points and add any additional ship requirements or comments.

When the ship is operating at the Castellon Terminal, before crude oil washing can be carried out, the following questionnaire regarding safety measures should be answered and signed by the Master:

1) The Check List sent by telex has been carried out, before the operation starts.
2) The Refinery representative has been informed of the operating plan.
3) Ship/shore communications have been checked and are in correct working order.
4) Inert Gas System is operating and the oxygen level within the tanks is below 8% by volume.
5) Positive pressure of Inert Gas System gas exists in all tanks.
6) Ship's personnel are available in their assigned posts.
7) Stationary oxygen analyser is working correctly.
8) Portable oxygen analysers are in correct working order.
9) Oxygen level in tanks is below 8% immediately before starting crude oil washing.

10) During crude oil washing the Master accepts the responsibility of checking the oxygen level of Inert Gas System effluent at least every hour; that, at all times, all ship's machinery shall be and remain closed down except for the machinery essential for the purpose of the operation and the safety of the ship and that designated personnel in charge of operations keep permanent watch at their assigned posts.

11) The crude oil washing operation will be carried out at the sole risk and responsibility of the ship and the Master will remain responsible for ensuring that all proper safety precautions are observed.

Minimum Tank Cleaning Requirements: Following is a chart which has been prepared for general guidance in the preparation of cargo tanks for loading the different grades of cargoes indicated.

None of the indications contained in this chart will relieve the Master of the responsibility for carrying out additional tank preparation which he may find necessary to protect product specifications or the safe handling of the vessel's cargo.

Previous Cargo	*Cargo to be Loaded*					
	Naphtha	ATF–1	Mogas	ADO/HO	MDO	FO
Avgas	SH	M	D	M	M	F
JP–4	F	M	F	F	F	F
Mogas	SH	M	F	M	M	F
Naphtha	D	M	F	F	F	F
ATF–1A	F	D	F	F	F	F
ADO/HO	S	M	S	D	D	F
MDO	U	U	U	U	D	D
FO	U	U	U	U	M	D
Lube Oil	U	U	SH	S	M	F

D – Drain tanks, pumps and lines of all previous cargo and ballast water.

F – Tanks, lines and pump drain free of all cargo; flush tank bottoms, pumps and pipelines with clean sea water, drain completely dry.

M – Machine wash with hot water approximately 1 hour each tank or until slop water is clean, flush lines, pumps and risers. Remove loose bottom scale accumulations. Hand hose bottoms as necessary.

S – Thorough hot water machine wash approximately 2 hours or until slop water is clean; flush lines, pumps and risers. Remove excessive loose bottom scale. Hand hose tank, bottoms as necessary.

SH – Extra thorough hot water machine wash; hot water flush pumps, lines and risers. Procedures may require spotting tank cleaning machines in tanks to remove all traces of previous cargo from bulkheads, beams and other internal tank structure. Inspect tanks, remove loose scale/sediment. Hand hose as necessary.

U – Unsatisfactory for this service.

Note: Naphtha is considered as a "Lead free" product.

The above chart indicates the minimum tank cleaning requirements to maintain the specifications of those products loaded in *uncoated* tanks.

When cargo tanks are *coated*, substitute "cold water" instead of "hot water" in the above chart, for the range of clean products to be loaded from Naphtha to ADO/HO.

MEDICAL: Arranged by ship's Agent.

FRESH WATER: Fresh water is available by barge, with a capacity of 280 cu.m. Contact ship's Agent.

FUEL: Bunkers are available. Advice regarding quantities and specifications of oil required should be given to the ship's Agent prior to arrival.

Bunkering at Breasting Island: Vessels which call for loading will take bunkers while alongside using the same loading arms.

Bunkering at Sea Berth: Crude oil ships will take bunkers while berthed, using the bunker pipeline.

The bunker pipeline from Breasting Island to Sea Berth is maintained full of either MDO or ADO/HO and it is displaced into the vessel having bunkers. The total amount of MDO, ADO/HO displaced on board is about 120 cu.m. (750 Bbls.). In order to permit the Refinery to properly displace the bunker line on completion of fuelling, vessel must alert the Refinery when it is approaching within 330 cu.m. (2,075 Bbls.) of the desired volume.

Gasoil is available by barge with a capacity of 200 cu.m. Vessels which require gasoil bunkers shall give notification 48 hours prior to arrival with the exact quantity of gasoil required.

REPAIRS: Only minor repair facilities are available. Services to radio, gyro and radar are available.

As much advance notice as possible must be given to ship's Agent.

REPATRIATION: Crew members can be paid off or leave the vessel at Castellon de la Plana provided all Spanish regulations are satisfied.

All arrangements should be made through the ship's Agent.

SHORE LEAVE: Master to arrange launch service through ship's Agent.

GENERAL: *National Flag:* The Spanish flag must be flown during daylight hours from the foremast when inside territorial waters.

Pollution of the Sea by Oil: Tank cleaning which requires the discharge of slops overboard, must not be carried out anywhere. Accordingly, tank cleaning operations must be done well in advance of vessel's arrival (see "Ballast").

Mail: Ship's Agent will handle all official and private vessel's mail.

Painting and Litter: If painting vessel, proper precautions are to be taken not to get paint on the deck, fenders or string pieces.

No rags, cans or refuse of any kind are to be discarded on the dock or into the water.

Scuppers must be plugged at all times.

A properly rigged shield must cover all toilet and air–conditioning outlets located amidship.

Garbage, food waste or similar rubbish must not be disposed of overboard while in the Marine Terminal waters.

Gangway: Vessels must provide, rig and tend a safe gangway for access to and from the vessel.

Constant Readiness: While alongside at the Breasting Island or moored at the Sea Berth, vessels must maintain engines and propulsion machinery in readiness to leave under full power on short notice. No repairs are permitted which would interfere with this requirement.

Masters are reminded that the safety of the vessel is their responsibility.

Communications Ship/Shore: A person appointed by the Refinery will remain on board all vessels berthing at either the Breasting Island or the Sea Berth and he will be in charge of any ship/shore communications.

Ship/shore communications will be carried out either by telephone and/or by portable radio–telephone sets.

If a total breakdown in communications occurs, discharging/loading will be stopped until normal communications are restored.

Charts: Charts, almanacs, nautical publications and the Spanish Notices to Mariners are available, but requirements should be included in the Arrival Message to the ship's Agent in order to facilitate delivery.

Stores and Provisions: Stores and provisions are available. As much advance notice as possible must be given to ship's Agent in order to facilitate a good supply.

Cash: Masters are to contact their Agent in advance to provide cash.

Laundry: Requirements should be given to ship's Agent immediately on arrival in order to ensure a quick service.

AGENCY: If not otherwise advised, the ship's Agent for Petromed owned, chartered or affiliated vessels is: Consulmar, S.A., C. Canalejas 95, 2°, Post Box 7, Grao de Castellon. Cable Address: Consulmar – Castellon. Telephone: 22 23 88 – 22 24 27 – Castellon. Telex No. 65513

OPERATOR: Petroleos del Mediterraneo, S.A., Apartado 238, Castellon de la Plana, Spain. *Tel:* 222650. *Telex:* 65513 Pmed E. *Cables:* Petromed. *Contact:* E. Gomez, Marine Manager.

CASTRO-URDIALES: 43.24 N. 03.14 W.

DOCUMENTS:

3 Cargo Manifests. 1 visaed by the consular authority.
3 Cargo Manifests for other ports if the vessel has called at and loaded in other ports.
3 Ballast Manifests (if the vessel has arrived in ballast).
5 Passenger Lists (if passengers are carried).
5 Master's Certificates to the effect of "No Passengers" if no passengers are carried.
5 Crew Lists.
5 Stores Lists.
5 Crew's Store Lists – cameras, radios, spirits, cigarettes, etc.
Health Certificate.
Certificate of Derat and fumigation against insects.
4 Bills of Lading.
International Freeboard Certificate.
International Safety Certificate.
International Radio Certificate.
Certificate of Stowage of cargo.

PILOTAGE: *To request pilotage:* 1. Advise the arrival of the vessel 24 hours in advance. 2. Hoist flag "G" of the International Flag Code. 3. Anchor within the pilotage limits of the port.

Port Pilotage Limits: Coastal zone comprised between the Onton meridian and that of the Punta del Rabanal at 1 mile from the coast. The Pilot goes out to a limit of 1 mile outside the port. There are no means of radio communication with the pilot boat or pilot station. ETA to be given 24 hours in advance. Sound signals to summon the Pilot – 3 long blasts. In the event of bad weather, the Pilot does not proceed to sea, and the vessel must enter the port and anchor in the bay.

Anchorage to await Pilot: In the mouth of the port at 1 mile distant. The pilot boat carries a blue flag with the white letter "P" upon it. The pilot boat is blue and is a small motor-launch.

ANCHORAGES: The best anchorage is 045° – 800 m. from the green coloured beacon of the breakwater at the port entrance, in a depth of 12 m.

RESTRICTIONS: There are no entry restrictions. Vessels with a draft greater than 6 m. cannot enter the port.

MAX. SIZE: Length 105 m., draft 5 m., depth at the entrance 9.14 m.

HEALTH: The Health Official boards the vessel as soon as it is berthed alongside. In the event of suspected illness or fever, advise Agent by radio and anchor near the port until the Health Doctor authorises entry.

RADIO: The best radio station to pass the ETA telegram to consignees or Agents is Santander Radio station call sign "EAS". Frequency 500 kHz.

TUGS: None available.

BERTHING: Irrespective of tide. The S.E. pier has a total length of 980 ft., of which 500 ft. forms the commercial wharf, mainly for coasters sundry cargoes. No cranes. Fresh water supply. Depth 17 ft. at low water.

Iron ore loading tips: Along open coast adjoining Castro-Urdiales are several cantilever piers connected with the iron ore mines, partly sheltered in creeks or small coves. All vessels bound to load iron ore there should clear and apply at Port of Castro-Urdiales. Vessels cannot remain at these berths during rough weather but may find good anchorage in roads, or immediate shelter at the Port of Castro-Urdiales, or better at Bilbao Harbour 9 miles East.

The Iron Ore Loading berths (no length limit) are as follows:

Name	*Situation*	*Approx. ebb tide draft*	*Loading rate per working hour*
Dicido	1 mile E.	21 ft.	800 tons
Saltacaballo	1.5 miles E.	22 ft.	800 tons
Onton	2 miles E.	21 ft.	1,000 tons

STEVEDORES: Ordered by Agent or Shipper. No ETA to stevedores necessary.

MEDICAL: It is not necessary for Agent to receive advance notice that medical attention is required. In the port there is a corps of doctors and one of them is always on duty for any emergency. Furthermore, there is a permanent Spanish Red Cross service with ambulances to transport any patient to a large hospital centre. There is also a hospital in this town.

In the case of serious illness, patients are taken by ambulance to the Cruces Medical Aid Centre (Province of Vizcaya-Bilbao) 18 km. from Castro Urdiales.

International Vaccination Certificates are required.

DENSITY: 1016.

FRESH WATER: Water may be taken on board at the San Luis Quay (also known as the Ocharan Mazas Quay). By means of hoses and at a rate of delivery of about 40 t.p.h.

FUEL: Not available.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: Carried out by crew.

CERTIFICATES: Safety Wireless, Safety Equipment, and Derat generally inspected.

CUSTOMS ALLOWANCES: Normally 200 cigarettes per man. For longer stay, new allotment out of bond obtainable. Wine/and/or Spirit: 1 bottle per man.

CARGO GEAR: At the small commercial wharf ship's derricks are used. At the iron ore loading berths along the coast with cantilever piers, conveyor belt employed with spout at the tip.

IDENTIFICATION CARDS: Not required.

CONSULS: None.

REPAIRS: Limited.

REPATRIATION: Crew changes and repatriation can be effected, bearing in mind that any consular negotiation must be made in Bilbao, since there are no Consulates in this port.

AIRPORT: Nearest Sondica (Bilbao) 40 km. by road.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: Sundays; 1st January; 19th March (Saint Joseph); April, Holy Thursday and Friday (variable each year); 1st, 23rd May; 13th and 29th June; 18th and 25th July; 15th August; 12th October; 1st November; 25th December. On holidays, work may proceed if requested.

POLICE/AMBULANCE/FIRE: Police (Civil Guard) Tel. 861146; Ambulance Red Cross 861147 and 861191; Hospital 860196; Fire 861294.

TELEPHONES: No arrangements for placing telephones on board.

SHORE LEAVE: Crew allowed ashore.

DELAYS: The only delays that can normally be expected are those due to bad weather.

AUTHORITY: Military Marine Adjutant – Port Captain.

CEUTA: 35.53 N. 05.17 W. (See Plan)

DOCUMENTS:

Health Declaration.
2 Cargo Manifests.
2 Stores Lists.
4 Crew Lists.
5 Passenger Lists.

PILOTAGE: Radio Agent advising ETA 24 hours in advance; in the event of any unforeseen delay advice should be direct to the pilot station. International code signals used to call Pilot, or give 3 long blasts. Sound signal used day and night. Pilot boards 1 mile from the breakwater. Pilotage compulsory. Pilot on VHF Channel 16 throughout 24 hours, working Channel 12.

ANCHORAGES: To the N.W. of the green light buoy marking the port entrance and to a distance of one mile, in depths of 10 – 15 fathoms, but vessels must leave this area during strong winds from the first and fourth quadrants, in which case the anchorage in the South Bay is advisable. The outer part of the N.W. side of the Western Quay is very rocky.

Prohibited Anchorage: To the East of the meridian passing through the Red Light on the Eastern Quay, anchorage is prohibited due to the presence of submarine cables.

RESTRICTIONS: Vessels carrying explosives must give ample warning of arrival in advance to the pilot station in order that precautions may be taken.

MAX. SIZE: At berths: Length 220 m. Max. draft 33 ft. 6 in.

In bay: No limits at anchorages.

HEALTH: Pratique obtained immediately after berthing when vessel boarded by health officials.

RADIO: Tarifa, Mijas, Malaga, Gibraltar and Tangiers Radio. Preferably the first 3 stations (VHF Channel 16).

RADAR: No service available.

TUGS: Normally 2 tugs in service, 1,100 h.p. and 2,300 h.p. Tugs use ship's lines.

BERTHING:

Berth	*Length*	*Depth*	*Remarks*
Dock-Quays	270 m.	33 ft. 06 in.	—
	1,250 m.	30 ft. 02 in.	—
Muelle Espana	400 m.	7.9 m.–10.06 m.	—
Muelle Canonera Dato	4×125 m.	7.0 m.	4 Ro-Ro berths
Muelle Pesquero	260 m.	3.0 m.	Fish Quay
Muelle de Ribera	4×150 m.	7.0 m.	Under construction

CRANES: One crane of 20/30 tonnes capacity and 7 cranes of 3/6 tonnes capacity.

STEVEDORES: To be requested when sending ETA. The times for engaging personnel are from 0730 hrs. to 0830 hrs. and from 1630 hrs. to 1730 hrs., and within these times personnel are appointed up to midnight of that day.

On holidays, engagements take place the previous day at 1730 hrs. For Sundays, personnel are engaged on Saturday at midday. Extraordinary working hours are prohibited. With effect from 2000 hrs., work is considered as nightwork, and is subject to 50% increase in rates. Sundays, holidays, and Saturday afternoons are subject to 40% increase in paid rates.

MEDICAL: Advance notice by radio preferred. Hospital facilities available.

DENSITY: About 3.64%.

FRESH WATER: Available.

FUEL: All grades available, to be ordered in advance. Also see "General".

GANGWAY/DECK WATCHMEN: Available but not essential.

OPENING/CLOSING HATCHES: Performed by stevedores.

CUSTOMS ALLOWANCES: Maximum 6 kilos tobacco for each crew member. Normal daily consumption of wine and spirits allowed.

CARGO GEAR: Loading and discharging permitted using ship's gear. Loading and discharging of containers and handling of Ro-Ro vessels permitted.

IDENTIFICATION CARDS: Not required.

CONSULS:

Belgium	Tel.	513794 and 515741
Denmark	"	514307
France	"	511268 and 512927
Italy	"	511053 and 515140
Netherlands	"	512782 and 511287
Norway	"	511700 and 511759
Portugal	"	514213 and 512509
Sweden	"	514307

REPAIRS: Only minor repairs can be effected. Slipways for vessels up to 300 g.r.t.

SURVEYORS: Surveyors available for all types of certificates.

Comisario Espanol, Delgado Serrano, 1. Tel: 512932.
Lloyds (Imco Lloyds), Queipo de Llano, 2. Tel: 516933.

REPATRIATION: All facilities available.

List of countries whose subjects can enter Spain with a passport, without need for a visa:

Algeria
Argentina
Austria
Bahamas
Barbados
Belgium
Bolivia
Brazil
Canada
Costa Rica
Chile
Cyprus
Denmark
Dominica
Dominican Rep.
Ecuador
El Salvador
Fiji
Finland
France
Gambia
Germany F.R.
Great Britain
Greece
Guatemala
Honduras
Iceland
Ireland
Italy
Jamaica
Japan
Kenya
Kiribati (Gilbert I.)
Korea, Rep. of
Leichenstein
Luxembourg
Malta
Mauritius
Mexico
Monaco
Morocco
Netherlands
Nicaragua
Norway
Panama
Paraguay
Peru
St. Lucia
Seychelles
Sierra Leone
Singapore
Solomon Islands
Sweden
Switzerland
Trinidad and Tobago
Tunisia
Turkey
Tuvalu
Uganda
U.S.A.
Uruguay
Yugoslavia

Exceptions: U.S.A. and Mexico: Diplomatic and official passports do require visas.

Pakistan and Venezuela: Diplomatic and official passports do not require visas, but ordinary passports do.

List of countries whose subjects can enter with National Identity Card:

Germany F.R., Netherlands Antilles, Austria, Belgium, France, Netherlands, Leichenstein, Luxembourg, Monaco, Switzerland, Portugal and Italy.

List of countries whose subjects can enter with Seaman's Books:

Germany F.R., Austria, Netherlands, Belgium, Luxembourg, France, Portugal, Ireland, Greece, Italy, S. Korea (the latter visaed or 15 days' stay without visa) and Morocco.

List of countries who are signatories to the O.I.T. Convention, and whose subjects can enter Spain furnished with National Identity Document for Seafarers:

Barbados, Brazil, Canada, France, Ghana, Greece, Guatemala, Guyana, Honduras, Iran, Ireland, Italy, Denmark, Finland, Iceland, Norway, Malta, Mauritius, Mexico, Portugal, U.K., Tunisia, U.S.S.R. Panama, Ukraine, Sweden and Tanzania (only the mainland territory of Tanganyika, not Zanzibar).

AIRPORT: Nearest international airport at Tangier, 100 km. away, (and at Malaga, 137 km. away by sea).

TIME: GMT plus 1 hour in Winter, GMT plus 2 hours in Summer.
HOLIDAYS:

6th January	Epiphany
19th March	St. Joseph
19th April	Maundy Thursday
20th April	Good Friday
1st May	Labour Day
21st June	Corpus Christi
25th July	St. James Apostle
15th August	Assumption
12th October	National Day of Spain and Spanish speaking peoples
1st November	All Saints' Day
8th December	Immaculate Conception
25th December	Christmas Day.

POLICE/FIRE/AMBULANCE:

National Police	Tel. 513418	Ambulance Services	Tel. 512112
Municipal Police	" 516122	Fire Brigade	" 513333
Civil Guard	" 513300	Red Cross Hospital	" 514548

TELEPHONES: No arrangements for placing telephones on board.
BANKS:

Banco de Andalucia	Tel. 515675	Banco Hispano Americano	Tel. 512600
Banco de Bilbao	518445	Banco Meridional SA	515786
Banco Central S.A.	511139		
Banco Comercial Espana	518040	Banco Popular Espanol	515340
Banco de Espana	511805	Banco de Santander	516685
Banco Espanol de Credito	513009	Banco Vitalicio de Espana	513626
Banco Exterior de Espana	512156	Banco Union	512552
		Banco de Vizcaya	517342

GENERAL: *Vessels greater than 220 m. in length or 33 ft. 6 in. draft:* There are 2 tankers which can effect supplies in the two bays, as well as foodstuffs 24 hours a day. It is necessary to request authorisation from the Local Marine Authority for embarkation and disembarkation in the Roads, together with any type of operation.
AUTHORITY: Comandancia Militar de Marina de Ceuta. *Tel:* 512621 and 512087. *Contact:* Captain Adolfo Garcia Alonso, Comandante.

CORUNNA: 43.23 N. 08.22 W. (See Plan)

DOCUMENTS:
3 Crew Lists.
2 Passenger Lists or a negative.
1 Cargo Manifest of goods destined for the port.
Another Manifest covering Transit Cargo.
2 Stores Lists, including tobacco, cigars, cigarettes, coffee, spirits, radios, cameras, etc., in possession of crew. In all cases make and number of radios to be indicated.
Safety Radio Certificate and Safety Equipment Certificate.

If vessel carries over 6 kilos tobacco per man, the excess to be declared in separate manifest, which must be visaed by Spanish Consul at the last port, otherwise vessel is exposed to heavy fine.
PILOTAGE: Compulsory. International code signals used to call Pilot.
RESTRICTIONS: No restrictions on night manoeuvres.
MAX. SIZE: Length and beam not restricted. Cargo vessels 57 ft. draft for berthing.

Tankers: Largest tanker to enter 111,423 d.w.t. Draft on arrival and departure; Forward 15.24 m. Aft. 15.54 m. Depth alongside 17.0 m.
HEALTH: If vessels proceed directly to berth, Pratique can be obtained immediately after berthing. Otherwise, at anchorage at vessel's arrival.

If vessel has sickness on board of a contagious nature Master should advise Health Authorities by radio, and they will examine patients immediately upon arrival, to enable vessel to be granted Free Pratique.
TUGS: 4 Available up to 2,300 h.p.
BERTHING:

Berth	*Length* (m)	*Depth* (m)
Mendez Nunez	250	8.0
Oil Harbour	1,080	17.0
Bateria	150	8.0
"	67	5.5
Calvo Sotelo Norte	20	7.0
" " "	200	10.0
Calvo Sotelo Sur	200	10.0
" " "	200	10.0
San Diego	650	11.0
Espigon Oeste	150	6.0
Espigon Este	50	5.0
" "	150	3.0
Muelle del Centenario	540	17.3

BULK HANDLING FACILITIES: *Private Storage Facilities:*

Cement:	3 silos each of 800 tons capacity.
	4 silos each of 1,000 tons capacity.
Aluminium:	3 silos each of 3,000 tons capacity
	1 silo capacity 4,000 tons.
Fertiliser:	2 tanks each of 7,500 tons capacity.
Unspecified Oils:	2 silos each of 1,000 tons capacity.
	2 silos each of 500 tons capacity
	1 silo capacity 600 tons.
	1 silo capacity 350 tons.
	6 silos each of 500 tons capacity.

CRANES: 40 electric cranes, capacity 3 – 45 tons, outreach 10 – 35 m. 2 diesel-electric mobile cranes, capacity 1.5 – 6.0 tons, outreach 8.0 – 2.5 m. 1 locomotive crane, capacity 5 tons.
TANKERS: 2 berths, depth 13.0 m. for tankers of 45,000 d.w.t. and 60,000 d.w.t.

1 pier, depth 17.0 m. Berthing for 1 tanker of 120,000 d.w.t. and the other 65,000 d.w.t.
Storage facilities:
Campsa: 6 tanks of 3,500 cu.m. each and 3 tanks of 2,500 cu.m. each.
Petroliber: 18 tanks with capacities from 2,500 cu.m. to 35,000 cu.m.
Total capacity 220,000 cu.m.

Facilities for reception of dirty ballast. Crude oil washing permitted.
FRESH WATER: Can be supplied by pipe-line at most berths, rate 30 t.p.h. – 150 t.p.h., or by barge at rate of 150 t.p.h.
FUEL: Can be supplied by pipe-line at most berths. No barges.
CUSTOMS ALLOWANCES: Normally Customs permit 200 cigarettes per man out of bond. Additional quantities needed depend on the stay of ship in port. 1 bottle of spirits per man.
REPAIRS: Minor repairs can be effected in shore work shops.
AIRPORT: Nearest international airport at Santiago de Compostella 60 km. away. Local airport at Alvedro 5 km. away.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: Work can be arranged on following holidays. New Year's Day (January 1st, full day); Epiphany (January 6th, full day); Easter Thursday (half day); Easter Friday (full day); St. Joseph Artizan (May 1st, full day); Patron Saint of Spain (July 25th, full day); Ascension Day (August 15th, full day); Holiday of Hispanicism (October 12th, full day); All Saints' (November 1st, full day); Immaculate Conception (December 8th, full day); Christmas Day (December 25th, full day).
AUTHORITY: Junta del Puerto de la Coruna, Avenida de la Marina No.3, 15001-La Coruna, Spain. *Tel:* 981.22.74.02 (03-04-05). *Telex:* 82364 Jpco-E. *Cables:* Junta Puerto Coruna – Spain. *Contact:* Jose Luis Lopez Paramo, Port Director.

FERROL: 43.28 N. 08.16 W. (See Plan)

PORT LIMITS: Whole of the area in the Estuary joined by an imaginary line between Punta Coitelada and Cabo Priorino.
DOCUMENTS:
3 Crew Lists.
2 Passenger Lists or a negative.
1 Cargo Manifest of goods destined for the port.
Another Manifest covering transit cargo.
2 Stores Lists, including tobacco, cigars, cigarettes, coffee, spirits, radios, cameras, etc., in possession of crew. In all cases make and number of radios to be indicated.
Safety Radio Certificate and Safety Equipment Certificate.

If vessel carries over 6 kilos tobacco per man, the excess to be declared in a separate manifest, which must be visaed by Spanish Consul at the last port, otherwise vessel is exposed to heavy fine.
PILOTAGE: Compulsory. International code signals used to call Pilots. Pilots board off Ensenada de Carino.
MAX. SIZE: For entering and leaving the River Mouth: Cargo vessels up to 32 ft. draft. Tankers up to 35 ft. draft.
HEALTH: If vessel proceeds directly to berth, Pratique can be obtained immediately after berthing. Otherwise, at anchorage at vessel's arrival. If vessel has sickness on board of a contagious nature Masters should advise Health Authorities by radio, and they will examine patients immediately upon arrival, to enable vessel to be granted Free Pratique.
RADIO: Corunna Radio (Riazor): Calls on 1748 kHz and listens on 2182 kHz and 2122 kHz.

Corunna (Eiris): Call sign "EAR" on 500 kHz and 472 kHz.
VHF: El Ferrol Pilot maintains permanent watch on Channel 14.

Corunna (Eiris): Call sign "EAR" on Channel 16 and 26.
TUGS: Available up to 1,750 h.p. Also salvage tug normally stationed at Ferrol.
BERTHING: Depth alongside quays 25 ft. – 32 ft.
CRANES:

No.	*Capacity* (tons)	*Reach* (m.)
1	16	35/9
1	16/30	35/9-10/23
1	3/6	20/15
1	7.5/15	15/9
1	6	20
4	12	26

Floating cranes available up to 130 tons capacity.
TANKERS: Campsa Oil Terminal, 3 berths, can accommodate tankers up to 656 ft. length and 35 ft. draft.
Tanker Cleaning and Gas-Freeing Plant: A deballasting, gas-freeing and tank cleaning plant is operating at Ferrol. It allows for vessels of any tonnage, and provides washing and degassing of tanks, dirty ballast intake and slops intake. Supply of drinking water and hot water up to 70°C is provided for washing tanks with a flow rate of up to 600 cu.m./hr. and an average pressure of 15 kg./sq.cm. Crane facility is also available.
FRESH WATER: Can be supplied from the quays.
FUEL: Can be supplied from the quays.
REPAIRS: Facilities for repairing all kinds of Naval and merchant ships are available. Any kind of hull or machinery repairs and installations can be carried out, as well as annual and 4 yearly surveys, reclassification, transformations and enlargements.
DRY DOCKS: 5 dry docks for building and repairing Naval and merchant ships. Largest dry dock length 330.20 m., width 50 m., capacity 230,000 g.r.t.
Shipyards: There are two main shipyards in the bay area, one of them with a turbine manufacturing section.

CUSTOMS ALLOWANCES: Normally Customs permit 200 cigarettes per man out of bond. Additional quantities needed depend on the stay of ship in port. One bottle of spirits per man.
AIRPORT: Alevedro Airport (La Coruna), two services a day to Madrid. Labacolla Airport (Santiago) 108 km. from the port. Regular services to Oviedo, Santander, Bilbao, San Sebastian, Barcelona, and Madrid.
TIME: GMT plus 1 hour in Winter. Summertime kept from March to September.
HOLIDAYS: Work can be arranged on following holidays. New Year's Day (January 1st, full day); Epiphany (January 6th, full day); Saint Joseph (March 19th, full day); Easter (two days); Easter Monday; St. Joseph Artisan (May 1st, full day); Labour Day (July 13th, full day); Patron Saint of Spain (July 25th, full day); Assumption Day (August 15th, full day); Holiday of Hispanicism (October 12th, full day); Immaculate Conception (December 8th); Christmas Day (December 25th, full day).
SERVICES: A modern deballasting, gas-freeing and tank cleaning plant accepts tankers up to 350,000 d.w.t.
AUTHORITY: Junta del Puerto de El Ferrol. *Contact:* Jaime Gonzales Paramo, Port Director.

GANDIA: 38.59 N. 00.09 W. (See Plan)

LOCATION: Gandia a small commercial port at the mouth of River San Nicolas, about 20 miles N.W. of Cape San Antonio and 65 km. South of Valencia.
APPROACHES: The harbour is entered along the South side of a 1.0 km. long breakwater, running E.S.E. from the shore North of the harbour. The Entrance Channel is about 600 m. in length, with depths of 7 m. to 6 m. (23 ft. – 20 ft.) LWS over a width of 100 m. The distance between the South Pierhead and the root of the breakwater is about 85 m.
PILOTAGE: Compulsory. Arrival notice should be given by telephone to Agent. Vessels are met about 0.5 – 1 mile off the Breakwater Head.
ANCHORAGES: Vessels can anchor off the harbour, in depths of 10 m. to 15 m., bearing of breakwater head (green light) 250° (True) distance 0.5 miles. Bottom sand and mud.
TUGS: 2×600 h.p.
BERTHING: The N.E. end of the commercial basin provides a turning place of about 160 m. diameter, where vessels normally turn for berthing bow seaward.
Muelle Sur: Length 300 m., depth 6.0 m. – 7.0 m. Rail track and 1 container crane for 20 ft. and 40 ft. units. Covered warehouses. 1 Ro/Ro berth.
Muelle Frutero: Length 310 m., depth 6.0 m. Covered warehouses. 1 Ro/Ro berth.
Muelle Motoveleros: Length 175 m., depth 4.5 m. (15 ft.), used by fishing vessels.
Muelle Pesquero: Length 100 m., depth 2.7 m. (9 ft.), used only for fishing boats.
Muelle Norte: Length 125 m., depth 6.0 m. Duques de Alba: 3 breasting pier structures. Length of head 6.0 m., depth 6.0 m.
CRANES: 5 gantry cranes 2.5 tons – 35 tons capacity and 4 mobile cranes, all privately owned.
CARGO HANDLING FACILITIES: Good warehouse accommodation. Forklifts, trucks, clamps, etc.

There is a warehouse for cold/frozen cargoes storage.
STEVEDORES: *Working Hours:* Winter: 0800 – 1200/1300 – 1700 Summer: 0800 – 1200/1400 – 1800.
FRESH WATER: Can be supplied alongside all piers.
REPAIRS: Small repairs can be carried out.
AIRPORT: Valencia Airport, 70 km. distant.
AUTHORITY: Puerto Autonomo de Valencia, Muelle de la Aduana, S/n, 46024 Valencia, Spain. *Tel:* 34-6-3230991 (International) and 96-3230991 (National). *Telex:* 64508. *FAX:* 34-6-3233272. *Contact:* The General Manager.
AGENT: Navarro y Boronad, S.L.C., Avda Puerto, 27, Apartado 23, Gandia-Puerto. Tel: 2840100 (5 lines). Telex: 62489 (Nava E). Cables: Nava.

GARRUCHA: 37.10 N. 01.49 W. (See Plan)

SHIPMASTER'S REPORT: (Updated 1984).
DOCUMENTS: Usual forms required:

4 Crew Lists
1 Crew Declaration
1 Ship's Stores Declaration
Ship's Register
Cigarettes and spirits sealed.

APPROACHES: Coming in from the East the port is easy to find, first sighting is of a small Spanish town at the edge of the sea. On the radar the harbour breakwater begins to show up at 12 miles, and is clearly distinguished at 6 miles.
PILOTAGE: The Pilot boards from a small open boat about 2 cables from the end of the breakwater, the boat is painted white and for a short spell shows a blue flag with a white "P" on it to convey that he is the Pilot and not a local fisherman.

There are 2 Pilots available. The service of a Pilot is obligatory both on entry and leaving for vessels of more than 50 g.r.t.
ANCHORAGES: On our arrival 1 vessel was anchored in a position off the centre of the town, 2 cables from the end of the breakwater on a line drawn continuing from the breakwater, this appears to be the anchorage mentioned in the Admiralty Pilot Book. We passed close inshore of her and obtained soundings of 14 m. – 16 m. when passing her position, whilst we were alongside another vessel arrived and anchored 1.5 cables to seaward from the breakwater.
RADIO: ETA to Pilots 24 hours prior to arrival.
VHF: Call Pilots on Channel 16, 1 hour prior to arrival.
TUGS: Two tugs of 1,200 h.p. to assist manoeuvring of vessels on entry and departure, the tug's assistance being obligatory for vessels of more than 110 m. LOA or 3,500 g.r.t.
HARBOUR: The maximum permitted draft at the commercial quay is 8.5 m. The commercial quay will be extended to 220 m. length.

The harbour is man-made, the outer wall is made of high stone blocks in an "L" shape, the foot of the "L" attached to the land and the outer part running in line with the shore. It is entered from the South with a mole on the port hand enclosing a small fishing harbour. Minimum depth according to the Pilot is 6.3 m. In the N.W. corner on the outer breakwater there is a large concrete apron extending for a length of approximately 100 m. where we loaded, then from the seaward end to the end of breakwater there is an open berth with a large cantilevered loading chute jutting out over the harbour which is fed from conveyors on the seaward side of the breakwater.
BERTHING: The vessel entered the harbour from the South, when the bow was almost level with the end of the inner berth the starboard anchor was dropped to 1 shackle and the vessel swung to starboard on the anchor, a headline was sent away and when the vessel was three quarters swung the anchor picked up. The face of the quay was protected with large roller rubber tyre fenders.
LOADING: The main export of the port is gypsum stone in bulk, we loaded from quay with 4 conveyor belts being fed by dumper trucks into bins on the end of the conveyor belts from the cargo stacked on the quay. The loading rate with the 4 conveyors was up to 1,000 tonnes/p.h. The labour was helpful in positioning the conveyors to our requirements, and they have one man who keeps a careful eye on the draft.
SUPPLIES: There is a ship chandler in Garrucha. Fresh water is supplied by road tanker and pumped aboard, the tankers holding approximately 6 tonnes and 10 tonnes.

GIJON: 43.34 N. 05.41 W. (See Plan)

LOCATION: The port is located on North coast of Spain in Gijon Bay. The harbour of Gijon has 3 main areas: Commercial area (formerly called Musel) on N.W. of Bay; Local Harbour on S.E. of Bay (used by fishing vessels and yachts); Central area, where ship and dockyards are located.
DOCUMENTS: A set of *Cargo Manifests* (minimum 3 copies) covering the cargo to be discharged in the port is required. Additional sets of Manifests covering the Cargo in Transit are also to be presented. If the vessel arrives in ballast, a "Nil" Cargo Manifest is still required. The following additional documents are also to be presented by the Master on arrival:
Provisions and Stores List: It has to be submitted in duplicate.
Crew List: 4 copies duly signed and stamped are required.
Personal Effects Declaration: It has to be submitted in duplicate and must be signed by all members of crew.
Passenger List: Including Passengers in Transit, must be presented. Where no passengers are on board a "Nil" passenger paragraph has to be included in the Cargo or Ballast Manifest, as follows: "No Pasajeros".
Transit Tobacco Manifest: The Spanish Customs Regulations provide for 6 kilos of tobacco per crew member to be on board as usual provisions. If the total quantity of tobacco (including cigarettes, cigars, pipe tobacco and any other kind) does not exceed said average of 6 kilos per crew member, such quantity may be declared as "provisions" in the usual Provisions List, and no further documentation is necessary. If the total quantity on board exceeds said average, the excessive quantity must be shown on a Special Transit Manifest, describing the tobacco in Spanish as "Tabaco en transito". The essential point is that this Transit Manifest is visaed by the Spanish Consulate. A simple consular stamp is not sufficient. If there is no Spanish Consulate at the last port of sailing or nearby, the Tobacco Manifest may be visaed by the local Customs Authorities or by another consulate, but the visa is still essential.
PILOTAGE: On approaching the Port of Gijon, Masters are urged to contact the pilot station via VHF Channel 14. The Pilot will board the vessel in the roads. Pilotage is compulsory.
ANCHORAGES: The Bay of Gijon, where the port is located, is a wide open area with deep water in the Bay of Biscay. Large vessels remain at anchor (when berth is not available) outside of the inner port limits. Smaller ships may anchor within breakwaters. Masters should contact Pilot for most suitable anchorage place.
RESTRICTIONS: The mouth of the harbour is 600 m. wide, and depth at LWOST is over 18.5 m. Tidal range: 4.6 m. Tugs are necessary for vessels over 80.0 m. length.
MAX. SIZE: See "Tugs", "Berthing" and "Developments".
HEALTH: It is strongly recommended that Masters send a radio message requesting Free Pratique 24 hours before the vessel's arrival in port, to "Sanidad Exterior" Gijon, also notify Agent.

VHF: *Communications with ships at anchor:* Communication may be established by VHF Channels 16 and 26 via Cabo Penas Radio. Pilot Station may be contacted through Channel 14.

TUGS: "Jove" (500 h.p.), "Torres" (1,000 h.p.), "Penas" (2,500 h.p.). "Arbeyal" (1,630 h.p.). When required, service is complemented with the tugs based at the nearby port of Aviles.

Entrance Regulations: These Regulations will be applicable to all vessels in good manoeuvring condition. Length is to be understood as overall for bulbous bow ships, and between perpendiculars for all others. Unless otherwise specified, tug's horsepower is to be understood as being not less than 500 h.p.

Group 1:
Length from 215 m. to 250 m. Max. draft: 45 ft.
Water beneath keel during entrance manoeuvre: 5 ft.
Tugs: 3 (1 of 2,000 h.p.) or 4 (2 of 1,000 h.p.)

Group 2:
Length from 250 m. to 260 m. Max. draft: 45 ft.
Water beneath keel during entrance manoeuvre: 6 ft.
Tugs: same as Group 1.

Group 3:
Length from 260 m. to 275 m. Max. draft: 45 ft.
Water beneath keel during entrance manoeuvre: 7 ft.
Tugs: 4 (1 of 2,000 h.p. and 2 of 1,000 h.p.).

Group 4:
Length from 275 m. to 290 m. Max. draft: 43 ft.
Water beneath keel during entrance manoeuvre: 8 ft.
Tugs: 4 (1 of 2,000 h.p. and 3 of 1,000 h.p.)

Group 5:
Length from 290 m. to 305 m. Max. draft: 41 ft.
Water beneath keel during entrance manoeuvre: 9 ft.
Tugs: 5 (1 of 2,000 h.p. and 4 of 1,000 h.p.).

Manoeuvring of Groups 2 and 3 will be done during good weather and of Groups 4 and 5 during good weather and preferably in day time.

For ships over 305 m. length, entering must be approved by competent authorities, conditions to be determined.

Ships bound to perform unloading operations at "Muelle Moliner" may enter with a max. draft of 46 ft. and a max. length of 275 m.

BERTHING: Pier's name, depth alongside during lowest Spring tide, usage and facilities:

Muelle de Minerales:
First Section:
247 m. length. 19 m. depth
Solid bulk discharge (installation under construction).
Second Section:
405 m. length. 21 m. depth.
Solid bulk discharge (installation under construction).

Muelle de Los Porticos (North Pier):
First Section:
554 m. length. 14 m. depth. Solid bulk discharge.
4 gantry-type cranes, each discharging 500 t.p.h. Connecting conveyor belt.
Second Section:
146 m. length. 14 m. depth. Liquefied Gas discharge.
Connection to gaseoduct.

Muelle Norte:
First Section:
204 m. length. 8.5 m. depth.
Second Section:
211 m. length. 11 m. depth
Repairs and fitting out. Bulk and general cargo.
3 cranes of 6 tons, handling 60 t.p.h.

Muelles de Ribera:
Alineacion 1:
230 m. length. 7 m. depth. General cargo.
5 cranes of 3 tons handling 30 t.p.h.
Alineacion 2:
109 m. length. 7 m. depth.
Bulk cement loading installation 400 t.p.h.
Alineacion 3:
156 m. length. 8 m. depth. General cargo and containers.
1 crane of 45 tons handling 140 t.p.h.
2 cranes of 3 tons handling 30 t.p.h.

Espigon I:
North Section:
220 m. length. 8/10 m. depth. General cargo.
5 cranes of 3 tons handling 30 t.p.h.
South Section:
190 m. length. 11.5 m. depth.
170 m. length. 9 m. depth.
Loading of steel goods.
2 cranes of 25 tons handling 140 t.p.h.
2 cranes of 12 tons handling 100 t.p.h.

Estacion Maritima:
Alineacion 4:
32 m. length. 6 m. depth.
Not in service.
Alineacion 5:
225 m. length. 7 m. depth.
Coal loading installation. 2 bridges handling 400 t.p.h. each.

Ro/Ro ramp.
1 crane of 45 tons, drop–type.

Espigon II:
North Section:
300 m. length. 7 m./9.5 m. depth.
Cement loading installation: 200 t.p.h.
General and bulk cargo.
5 cranes of 6 tons handling 60 t.p.h.

Head Section:
90 m. length. 12 m. depth. No equipment.
South Section 1:
180 m. length. 8.5 m. depth. General cargo, scrap, steel products.
3 cranes of 6 tons. Handling 60 t.p.h.
South Section 2:
180 m. length. 9.0 m. depth. General and bulk cargo.
1 crane of 6 tons handling 60 t.p.h.
Tanks for vegetable oil: 200 t.p.h.

Oil Berth:
North Section:
180 m. length. 8.5 m. depth.
Connection for oil products.
South Section:
180 m. length. 8.5 m. depth.
Connection for oil products.

Muelles del Rendiello:
Alineacion 6:
346 m. length. 5 m. depth. Fishing and small boats. Repairs.
Muelle Adosado:
443 m. length. 5 m./7 m. depth. Fishing and ice factory.

Muelles de la Osa:
Alineacion 7–1st.: 317 m. length. 8/10 m. depth.
Alineacion 7–2nd.: 250 m. length. 12 m. depth.
Bulk, general cargo and containers.
3 cranes of 6 tons handling 60 t.p.h.
5 cranes of 12 tons handling 100 t.p.h.
Alineacion 8:
206 m. length. 11.5 m. depth.
Heavy and general cargo.
2 cranes of 30 tons handling 150 t.p.h.
3 cranes of 6 tons handling 60 t.p.h.
Alineacion 9:
198 m. length. 10/11 m. depth.
No equipment. Repairs/waiting berth.

Muelle Moliner:
313 m. length. 14 m. depth. Bulk cargo and steel products.
5 cranes of 12 tons handling 100 t.p.h.

TANKERS: One tanker berth. See "Berthing".

STEVEDORES: *Working Hours:* At "Muelle de los Porticos" only, 24 hours a day, 7 days a week, Sundays and Holidays included. All other quays: Monday/Friday 0800 hrs. – 1200 hrs., 1300 hrs. – 1700 hrs. Normal working hours, 1700 hrs. – 2300 hrs. overtime. Saturday 0800 hrs. – 1200 hrs. Sundays and Holidays no work.

MEDICAL: Crew members requiring medical attention, hospitalisation, etc. should be reported by the Master to the Ship's Agent for prompt attention. All necessary facilities are available at Gijon.

FRESH WATER: Available ex-wharf or barge. From the wharf connections it is supplied at 20 t.p.h., and from barge at those berths where there is no shore supply facility.

FUEL: Fuel and diesel oil are available and can be supplied to ships either directly from shore connection (available only at oil berth) or by a small tanker in service for the purpose.

CONSULS: The following countries have consular representation in Gijon: Brazil, Colombia, Dominican Republic, Finland, France, Netherlands, Norway, Panama, Portugal, Sweden.

REPAIRS: There are shipyards at Gijon, and work shops specialised in naval works. All types of repairs can be attended to. It is recommended that advanced notification is given when assistance is required. Electrical power is supplied ex-wharf.

Spare Parts: In case of spare parts being forwarded by airfreight, each consignment must be accompanied by an original Airwaybill and a commercial invoice (in triplicate). About 3 days should be allowed for domestic transit and Customs formalities. For truck deliveries, one day.

CUSTOMS ALLOWANCES: See "Documents".

DRY DOCKS: 3 companies own a total of 6 dry docks at Gijon, the largest of which is 170 m. length, 27.40 m. wide for vessels up to 26,000 tons.

TIME: GMT plus 1 hour in Autumn and Winter. GMT plus 2 hours in Spring and Summer.

AIRPORT: The regional airport, named Asturias (in some instances it is still known as Oviedo) is 45 km. away from the port. There are daily flights linking Gijon with Madrid, Bilbao, Barcelona and Santiago. There is a bus service for passengers from Gijon to the airport and vice versa.

HOLIDAYS: January 1st and 6th, February 16th, March 31st, April 1st, June 2nd and 29th, July 25th, August 15th, September 8th, October 12th, November 1st, December 5th, 6th and 25th.

GENERAL: *Wind Conditions:* N.E. to East in Summer time, coinciding with high pressure. West to N.W. coincides with low pressure. Rotation of winds is direct. Starting S.W. and West, passing to N.W. with high sea, reaching with North the maximum intensity of gale. With N.E., fair weather.

DEVELOPMENTS: The "Muelle de Minerales" (see "Berthing") has already been built and is now subject to being equipped. The installation will consist of 2 gantry-type cranes, a deposit area, conveyors, etc., for the discharge of large bulk carriers. Estimated outturn: 6,000 t.p.h. Ideal size vessel contemplated: 200,000 d.w.t., beam 50.0 m.

Ro/Ro ramp to be constructed at La Osa Quay (length 120 m. Depth 11.5 m.).

AUTHORITY: Junta del Puerto de Gijon, Apartado 82, C/Claudio Alvargonzales 32, Gijon (Asturias), Spain. *Tel:* 354945 and 320000. *Telex:* 87369 Jupo E. *FAX:* 34/85/359917. *Contact:* Carlos Zapico Acebal, Chairman. Joaquin Juan Dalac, Port Director. Jose Pedro Vindel Muniz, General Manager.

AGENT: Romualdo Alvargonzalez, S.A. Apartado 141, Gijon. Tel.: 344400. Telex: 87366.

HUELVA: 37.16 N. 06.55 W. (See Plan)

PORT LIMITS: *Zone I:* The area between the meridians of 6°40.4′ W. and 7° 03′ W. and between the Parallel of 37° North and the coast including the bar as far as the Watchtower Quay (Pilotage Bar Quay on map).

Zone II: From the Watchtower Quay to a line running East/West through Colon Monument on Sebo Point.

Zone III: From Colon Monument up to Odiel Point.

DOCUMENTS:

3 Crew Lists.

2 Passenger Lists or a negative.

1 Cargo Manifest of goods destined to Huelva.

Another Manifest covering transit cargo.

2 Stores Lists, including tobacco, cigars, cigarettes, coffee, spirits, radios, cameras, etc., in possession of crew. In all cases make and number of radios to be indicated.

Safety Radio Certificate and Safety Equipment Certificate.

If vessel carries over 6 kilos tobacco per man, the excess to be declared in a separate manifest, which must be visaed by the Spanish Consul at the last port, otherwise vessel is exposed to heavy fine.

PILOTAGE: Compulsory. Services from middle to high tide, depending on draft of vessel on arrival or departure. Pilot's motorboat painted white. Letter "P" in black at both bows. Agent must be in close contact with Pilot Office. Pilots are informed by Agent of ETA at bar. In rough weather Pilots will not be available for entries or sailings. Depths of water depend on location, ranging from 15 ft. to 30 ft. in high tide. Pilot station equipped with VHF Channel 16.

Telegraphic address of Pilots – "Practicos–Huelva", 24 hours' notice of ETA required.

At night the regulation lights are exhibited. Contact must be made by VHF to take Pilot on board. Regulation ladder required.

In the event of bad weather the Pilot will board at Cascajera.

MAX. SIZE: Max. length for entry to Cascajera, 200 m. Max. length for entry from Punta del Sebo to Tharsis Quay, 180 m. (increase in LOA under consideration by the Marine Authority as vessels in excess of 200 m. LOA frequently enter). Max. draft permitted, 37 ft. up to 41 ft. 08 in., depending on the tide.

The entry to port is always subject to tides and maximum sizes of vessels able to proceed to inner quay berths will depend upon the berth and the tidal constant.

HEALTH: As long as Masters of vessels notify Medical Office by cable that there are no sick on board and that the ship proceeds from an area free from contagious diseases as specified by the International Sanitary Regulations, Free Pratique will be granted to the vessel, although this does not eliminate all the sanitary measures specified in the Exterior Sanitary Regulations in force.

Notice should be given en-route towards the Port of Huelva and sufficiently in advance to permit the Free Pratique to be granted.

When there is any sickness on board, no operation will be carried out until the vessel or its personnel have been inspected by the Medical Authorities.

The granting of Free Pratique does not signify that the Yellow Flag may be lowered. This will be done once the Medical Authorities have carried out their inspection or are in possession of the Maritime Health Declaration Form signed by the Master.

RADIO: Local coastal radio station Chipiona Radio located at Punta Umbria. Working frequency: 1700 kHz. Listens out permanently on 2182 kHz and Channel 16 on VHF.

Hours of service 24 hours (continuous).

National and International Radio traffic – radio conversation, radiotelegrams, advice to navigators.

TUGS: Only used inside harbour. Ship's lines employed, 4 tugs available. Number required to assist vessels at the discretion of the Pilot in charge.

BERTHING: Mineral loading quay – 435 m. mooring length and 12 m. depth of water at LWST. Has 2 loaders of 1,200 t.p.h. each.

Jetty belonging to "Energia e Industrias Aragonesas S.A." for movement of liquid and solid bulk cargo. Has 150 m. mooring, with 8 m. depth of water at LWST. For movement of solids, a gantry crane of 6 tonnes is available, together with 3 tubes for liquids.

Extension of the Fosforico Espanol S.A. jetty consisting of fitting out liquid quay for movement of solid bulk cargo. Has a 7.0 m. depth of water, 3×15 tonnes gantry cranes and pipes for conveyance of phosphoric and sulphuric acids.

"Reina Sofia Quay" of the Union Explosivos Rio Tinto S.A. for the movement of liquid bulk cargoes, is 700 m. long and 8.0 m. – 9.5 m. depth at LWST. Has 2 berths for vessels up to 6,000 d.w.t., 1 berth for vessels up to 3,000 d.w.t. and 2 berths for lighters and tugs.

Pantalan de Foret S.A.: Liquids pier for vessels of 60 m. – 120 m. LOA and draft up to 7.5 m.

Pantalan de Empresa Nacional Minas de Almagrera: Mooring for vessels with liquid cargoes (sulphuric acid) from 3,000 d.w.t. – 15,000 d.w.t. Depth of water 9.5 m.

Levante (Eastern) Quay: Length 1,200 m. of which 700 m. is for general cargo and bulk cargo. Depth 8 m. Equipment includes 6×8 tonne cranes for general cargo.

Tharsis Quay: 320 m. long, depth of water 6.0 m. 2 gantry cranes of 15 tons for loading ore.

Uert S.A. Quay: 120 m. long, depth of water 6.5 m. Used for fertilisers and liquid bulk cargoes.

Pertrechos Quay: Used for fishing boat repairs. Backing on to it is a small floating dock.

Saltes Quay: 200 m. long, depth of water 5.5 m. Used for fitting out and deballasting.

Ingeniero Juan Gonzalo Quay: 902 m. long, depth of water 12 m. LWST. Equipped with 8 gantry cranes of 12 tons and 2 cranes of 6 ton, 5×16 tonne cranes and 1×35 tonne crane. There is also a ramp for Ro/Ro vessels at the Southern end. At present the Enagas Pier is about to come into service with a berth of 12.0 m. depth for methane carriers, used for general cargo and solid bulk cargoes. Discharge rate 5,000 tonnes per day.

STEVEDORES: 48 hours' advice to Agent necessary to engage labour.

MEDICAL: Agent must give at least 24 hours advance notice where medical aid is required. There is a provincial hospital. Vaccination certificates against fevers and cholera are issued by the Provincial Health Authority.

TANKERS: Rio Tinto Minera S.A. (Oil Division) operate a SBM tanker-mooring 7 miles offshore, about 20 miles distant from Huelva. Mooring is suitable for vessels 900 ft. long with draft up to 70 ft. salt water. Mooring 66 ft. is used for discharging only. Discharge rate is about 1,300 t.p.h. through two 12 in. lines and a 30 in. submarine line.

Within Huelva port, there are 2 tanker berths of which one is used by Campsa. The 2 berths at the "Torre Arenillas" quay permit a draft of 12 m. at low water but the max. length permitted at the oil quay is approximately 200 m.

Berth No. 1 (North) loading/discharging:

LPG	8 in. line
Gasoline	10 in. ,,
Naphtha	10 in. ,,
Diesel	10 in. ,,
Fuel oil	10 in. and 12 in. lines

Berth No. 2 (South) loading/discharging:

Benzene	8 in. line
Cyclohexan	8 in. ,,
Gasoline	10 in. ,,
Diesel	10 in. ,,
Distillates	10 in. ,,
Fuel oil	10 in. and 12 in. lines

Residues: There is a receiving station near the oil quay for tank residues, together with a product separator. Connection lines are 10 in.

Product	*S.G.*	*A.P.I.*
Propane	0.507	—
Butane	0.573	—
Gasoline 85-Ron	0.693	72.68
Gasoline 96-Ron	0.735	61.02
Campsa G.O.	0.832	38.57
R.D. 2494	0.789	47.84
Industrial F.O.	0.945	18.24

DENSITY: Water at this port is salt water. Fresh water, in quantity of 1 in. to 7.5 in., only present in heavy rainy weather.

FRESH WATER: The supply of drinking water is made at the Eastern (Levante) Quay at the rate of 20 t.p.h. per vessel and at quays of Ingeniero Juan Gonzalo, Minerales and Petrolero de Torre Arenillas. This can also be provided by means of tugs at a rate of 50 t.p.h and 30 t.p.h.

FUEL: Fuel oil and diesel available in main port. Not available at offshore tanker terminal.

GANGWAY/DECK WATCHMEN: The employment is at the discretion of Masters, who are free to either employ or do without any watchmen.

OPENING/CLOSING HATCHES: Normally effected by crew, liner vessels excepted.

CERTIFICATES: Safety Radio, Safety Equipment and Derat Certificates should be at hand for production if requested.

CUSTOMS ALLOWANCES: 200 – 300 cigarettes per man out of bond. If necessary permit may be obtained from Customs Authorities to open bond and provide crew with fresh supplies, if stay in port justifies procedure. Wine and/or Spirit Allowances: Two bottles per man.

IDENTIFICATION CARDS: Not necessary.

CONSULS:

Belgium
Denmark
Finland
France
Germany F.R.
Greece
Italy
Netherlands
Norway
Panama
Portugal
Sweden

REPAIRS: Any kind in engine room, and hull above water.

DRY DOCKS: Only 1 small dry dock available for vessels up to 3,500 g.r.t.

REPATRIATION: No difficulty in this respect.

AIRPORT: The nearest is at Seville – San Pablo. A distance of 100 km. from Huelva.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: 1st January; 6th January; 19th March; Thursday preceding Good Friday as from 1400 hrs. Good Friday; 1st May; Corpus Christi; 29th June; 3rd August; 15th August; 12th October; 1st November; 8th December; 25th December.

Permit to work on any of the mentioned holidays (1st January, Good Friday and 25th December excepted) can be obtained, but sufficient reasons must be given to justify permission.

POLICE/AMBULANCE/FIRE: Police and Civil Guard 248992 – 245738; Fire-brigade 244421; Customs 248794.

SHORE LEAVE: Permitted.

TELEPHONES: No arrangements exist, for the time being, to place telephones on board vessels.

DEVELOPMENTS: The breakwater has been completed out to No.2 Buoy. The Channel is being dredged to a depth of 10.5 m.

AUTHORITY: Comandancia Militar de Marina, Zona Maritima de Estrecho, Huelva, Spain. *Contact:* Julio del Cuvillo Diaz-Alersi, Comandante.

Puerto Autonomo de Huelva, Avda. Real Sociedad Colombina Onubense S/No., Apartado 27, 21071 Huelva, Spain. *Tel:* 248611. *Telex:* 75594. *Contact:* Port Director.

IBIZA: 38.54 N. 01.28 E. (See Plan)

DOCUMENTS: *Passenger Liners:*
5 Crew Lists (Customs, Comandancia de Marina, Health, Police and Consignee).
6 Passenger Lists (Customs, Police, Guardia Civil, Obras del Puerto, Health and Consignee).
2 Lists of Crew and passengers personal effects (Customs).
2 Stores Lists (Customs).
Health Certificate (Health Department).
2 Cargo Manifest, if any. (Customs).
2 Negative Cargo Manifests, if no cargo.
Cargo Ships:
5 Crew Lists.
2 Lists of Crew Personal Effects.
2 Stores Lists.
Health Certificate.
2 Cargo Manifests.

PILOTAGE: Pilotage compulsory. No ships allowed to go further than imaginary line between Botafoch Lighthouse and Isla Negra del Este, without a Pilot. Advisable to give 24 hours' notice of ETA. Shortly VHF will be installed in pilot station and boats. Pilot's boat is of the canoe type with white sides and letter "P" in black on both sides. Vessels requiring a Pilot must give 3 long whistles. By night flash morse "G".

Pilot will board between Botafoch Lighthouse and Isla Negra del Este. In bad weather vessel should follow pilot boat until Pilot is able to board.

ANCHORAGES: Anchorage area situated inside imaginary line: Botafoch-Negra del Este with depths of 40 ft. to 50 ft. Pilot required to anchor.

MAX. SIZE: Max. length for berthing, 135 m. Max. draft 21 ft.

HEALTH: Report in advance to Pilot if there is any problem. If situation is normal, then, after ship berths the Health Inspector boards and quickly grants Pratique. In event of any suspected disease or fever on board, the Pilot (without boarding), will show the anchorage area, then Health Inspectors and Authorities will board, and give necessary instructions.

Vessels entering after calling at another Spanish port have no problems obtaining Pratique.

TUGS: Not available.

BERTHING: Depths alongside 4 m. – 8 m.

STEVEDORES: Available, ETA required 24 hours in advance.

MEDICAL: Civil hospital, military hospital, and 3 private clinics available.

TANKERS: Load/discharge lines 10 in. and 8 in. No facilities for discharging residues. 1 berth. Max. draft of the ship is 21 ft.

FRESH WATER: Available at the quays. 9 tonnes/p.h.

FUEL: Available. Notice required 24 hours.

FIRE PRECAUTIONS: Tankers should have a rope over bows, at water level while the ship is berthed.

GANGWAY/DECK WATCHMEN: Performed by crew.

OPENING/CLOSING HATCHES: There are no fixed rules on this matter: it varies according to the circumstances.

CUSTOMS ALLOWANCES: There are no free allowances.

IDENTIFICATION CARDS: Required.

REPAIRS: There are good work shops and engineers but with limited possibilities. There is a shipbuilder's yard where they build and repair yachts and canoes.

REPATRIATION: Facilities for effecting crew changes and arranging any necessary repatriations.

AIRPORT: 8 km. away, served by scheduled flights daily.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: Cargo work can be arranged on the official holidays with an extra charge of 40% to the workmen.

New Year; Epiphany (6th January); Saint Joseph (19th March); Maundy Thursday: half-day (the evening); Good Friday; Ascension of our Lord (40 days after Resurrection); Saint Joseph the Artisan (1st May); The Holy Heart (last Friday of June); Exaltation to work (18th July); Santiago, Lord of Spain (25th July); Our Lady of the Snows, Lord of Ibiza (5th August); Ascent of Blessed Virgin Mary to Heaven (15th August); Feast of the Hispanicism (12th October); All Saint's Day (1st November); Festival of the Immaculate Conception (8th December); Christmas Day (25th December).

Although not yet official there will be introduced as a holiday Easter Monday and 26th December.

POLICE/AMBULANCE/FIRE: Police 301131; Ambulance 301214; Fire telephone call to the Comandancia de Marina, Tel: 301190.

SERVICES: Compass adjusting.

SHORE LEAVE: Crew members are allowed ashore.

DEVELOPMENTS: Increasing depths in the port to 7 m. It has also been approved to enlarge berthing quays to 220 m. and 7 m. depth, and build a fishing dock.

AUTHORITY: Comandancia Militar Marina – Ibiza. *Contact:* Edmundo Fraga Ferreiro, Comandante.

MAHON: Minorca, 39.52 N. 04.18 E. (See Plan)

DOCUMENTS: *Health Department:*
Crew List.
Passenger List.
Disinfect and Derat Certificates.
Port Authorities:
Crew, Passenger List.
Ship characteristics and other details.
Cargo.
Indication of previous Port and destination.
Customs:
Cargo Manifest.
Bill of Lading (Cargo for this port).
Crew List and Passenger List.

Also the Master will produce, if required, Log book and passports of crew.

PILOTAGE: Compulsory to take Pilot on entry, departure and any movements within port. On approaching port, during day, ships will hoist flag corresponding to International Code "I need a Pilot". By night, by means of lights, according to International Code.

During day Pilot's boat is recognised by a square blue flag with letter "P" (painted white) in centre of flag. Pilotage area comprises all the estuary, from inside port to outside Capes of La Mola and San Carlos.

ANCHORAGES: Inside are good anchorages, for instance Cala Llorga and Plana de Cala Figueras.

MAX. SIZE: Unlimited length and width, but draft is limited to commercial port, 25 ft.; and to anchorage, 43 ft.

BERTHING: Commercial Quay: Length 518 m. average depth alongside 8 m.

Container and Ro/Ro Quay: Length 180 m. depth alongside 6.5 m.

STEVEDORES: Available. Loading and discharge is as follows:

Container Berth: 2 fixed cranes 800 tonnes per day loading and discharge.

Commercial Quay: 2 fixed cranes and 1 mobile crane with a capacity of 1,000 tonnes per day. Priority to regular lines.

MEDICAL: In case of accident or illness of any member of crew medical assistance and hospitalisation will be in civil hospital.

FRESH WATER: Available. 4 points on the Container Quay and 7 points on the Commercial Quay.

FUEL: Available from Campsa at Cala Figueras.

OPENING/CLOSING HATCHES: Carried out by crew before 0800 hrs.

IDENTIFICATION CARDS: Not required.

CONSULS: Italy: Tel: 363393; France: Tel: 363889; Netherlands: Tel: 362703.

REPAIRS: Small repairs possible.

AIRPORT: 5 km. from Mahon – international and national flights.

TIME: GMT plus 1 hour from September to March, and 2 hours from March to September.

HOLIDAYS: Main holidays are: 1st January (New Year), Holy Week (variable), 1st May (Labour Day) Corpus Christi (variable), 24th June – National Holiday, 8th September, local holiday, 25th December – Christmas. Work is possible on all these dates provided the labour force is paid extra.

POLICE/AMBULANCE/FIRE: Police: Tel: 36.37.12; Ambulance: Tel: 36.11.80; Fire Brigade: Tel: 36.39.61.

TELEPHONES: No telephones on the Quays.

AUTHORITY: Comandancia Militar de Marina de Menorca, Anden de Levante 12, Mahon, Menorca, Spain. *Tel:* 364107. *Contact:* Ricardo J. Ruiz de Gopegui y Sendagorta, Comandante.

MALAGA: 36.43 N. 04.25 W. (See Plan)

DOCUMENTS
5 Crew Lists.
5 Passenger Lists or Negative.
1 Cargo Manifest of goods destined to Malaga, as well as of other cargoes in transit.
Stores List in duplicate, including tobacco, spirits, radios, etc., belonging to vessel.

Details list in duplicate of all personal effects of the crew and Passengers (tobacco, spirits, cameras, radios, etc.). For vessels larger than 499 g.r.t., Safety Equipment Certificate.

Note: Tobacco: In case vessel carries more than 6 kilos of tobacco per man, the excess must be declared in a separate manifest, which must be visaed by Spanish Consul. In absence of Consul, said document will have to be visaed by an Authority or Consul of a friendly nation at the time of the former port clearance. Otherwise, vessel may be severely fined.

PILOTAGE: Pilotage is compulsory and service is permanent. Pilots board vessel by cutter in roads, near entrance formed by 2 breakwaters. Pilot cutters are painted black and have letter "P" in white on each bow. Cutters have a blue flag hoisted on mast, with the letter "P" in white, on both sides of flag. At night, cutters have white light, and under this light, a red one. Entrance between breakwaters is 260 m. wide and easily accessible. When weather in the roads is bad, which seldom happens, vessels approach as close as possible to entrance in order that Pilot can board easily.

ANCHORAGES: Vessels can anchor outside of breakwaters, in roads in depths of 80 ft. – 90 ft. Anchoring is prohibited in vicinity of tanker moorings, the Pilot will advise best position. Weather is bad occasionally when East wind blows, during Winter.

MAX. SIZE: No restrictions in respect of breadth. Max. allowed length is 220 m. – 240 m. Max. allowed draft to enter port is 40 ft. – 42 ft.

The tanker sealine berth (in roads) can accept vessels up to 250,000 d.w.t.

Largest vessels to enter port: Passenger ship "Queen Elizabeth II", length 294 m. Draft on entering and leaving 9 m. Bulk-carrier "Soledad Maria" length 254 m., draft on entering or leaving 8.53 m. Tanker "Calatrava", 50,376 d.w.t., length 225 m., draft 12.49 m. on entering.

Largest tanker at buoy mooring "Liotina", 317,521 d.w.t., length 352 m., draft on entering or leaving 22 m.

HEALTH: If vessels proceed directly to berth, Pratique can be obtained immediately after berthing. In case of any suspected disease or fever on board, Master must radio to Agents, in order that they can advise Health Office.

RADIO: Nearest important radio station is Radio Costera (VHF – Onda Media) Cadiz, or Gibraltar and Aranjuez. Master's messages should be received at least 24 hours before arrival.

TUGS: Ship's lines are used, tug-boats are employed according to Pilot's advice, and upon request. Tugs available, 1,300 h.p.

BERTHING: Pilots will advise Masters whether vessel has a free berth or not. Also if she has to anchor in Roads. Further particulars can also be obtained from Pilot.

Berth No.	*Length* (m.)	*Depth* (m.)	*Remarks*
1	479	9.4	General Cargo, Containers
	99	8.0	Container Storage
2	450	10.5	General Cargo, Grain in Bulk and Passengers
3	120	9.0	Passengers and Ferries
	150	10.5	Passengers and Ferries
	140	8.5	Passengers and Ferries
4	455	8.0	General Cargo
5	101	6.5	Armament
6	500	10.5	Bulk Solids and Bulk Liquids.
7	145	9.4	Fish
8	128	5.0	Fish
	135	5.0	Fish
Foreport:			
East side	300	11.0	Berth for passenger ships when weather fine.
7	335	13.5	Quay for bulks, solids and liquids when weather fine.
South side	240	13.5	Berth for tankers with crude or refined oil.

In Roads:	*Draft* (m.)	*Max. d.w.t.*
Buoy field for tankers with crude oil	22.0 – 25.0	250,000
Buoy field for tankers with liquefied petroleum gases	8.0 – 10.0	1,500
Buoy field for tankers with liquid ammonia	18.0 – 20.0	17,500

SPECIALISED CARGO HANDLING FACILITIES: There are regular car ferries for passengers and cargo, Ro/Ro plying with Melilla.

At No. 1 Quay, 20 ft. containers can be handled with a crane up to 30 tons and a Hyster forklift with appropriate spreader. Eventually 30 ft. containers will also be handled.

Quay No. 2 includes 15,000 ton silo for grain, loading and discharging capacity 200 t.p.h.

Quay No. 4 includes 9 vegetable oil tanks with a total capacity of 5,782 cu.m.

Quay No. 6 includes a 5,000 ton silo for cement.

Quay No. 7 (Foreport) includes 3,312 cu.m. silo for molasses.

Quay Nos. 6 and 7 can handle all cargo in bulk, rate for coal 4,000 tonnes per day, in an ordinary working day.

There are 33×3 ton forklifts available and a Hyster 620 capable of handling containers up to 26 tons.

CRANES: 33 quay cranes with capacity up to 30 tons.

STEVEDORES: It is important that Master sends advance message regarding the vessel's ETA. Agents can inform Shippers or Receivers' stevedores accordingly, to arrange operations properly. Official working hours of port are: Monday/Saturday 0800 – 1200, 1400 – 1800 hrs.

MEDICAL: Any kind of medical service can be arranged. In case a crew member needs medical attendance urgently, it is advisable that the Master radio in advance.

TANKERS: Petroleum handled at Quay No. 7. Depth 13.5 m. Also at the Tanker Berth, depth alongside 13.5 m. (see "Max. Size") and at buoy field situated in the bay.

Quay Nos. 6 and 7: Operator: Demagrisa. Crude oil discharge pipe-line – 250 t.p.h. Refined oil discharge pipe-line – 300 t.p.h.

Operator: Sociedad Anonima Cros. 4 lines for naphtha discharge. Rate 210 t.p.h.

Operator: Enpetrol. 4 discharge lines for oil. Rate 1,500 t.p.h.

Operator: Campsa. 4 pipe-lines available, 2×10 in., 1×12 in. and 1×14 in., maximum pumping rate 800 t.p.h.

Operator: Bacardi. Molasses pipe-line, discharging capacity 150 t.p.h.

Playa Misericordia: Operator: Enpetrol. Sea-line for discharging tankers up to 250,000 d.w.t. Max. discharge rate 6,000 t.p.h. through 1×30 in. pipe-line.

Operator: Butano. Sea-line for butane which also handles propane. Max. discharge rate 300 t.p.h.

Operator: Sociedad Anonima Cros. Ammonia pipe-line for discharging tankers up to 17,500 d.w.t. through 1×10 in. line.

Tanker Berth: Operator: Enpetrol. Crude oil pipe-line, diameter 24 in. with 2 discharge arms and 1 spare. Discharge capacity 2,000 – 2,500 t.p.h. Also Campsa, refined oil. 4 pipe-lines available 3×12 in., 1×14 in., with 2 discharge arms. Discharge capacity 1,000 cu.m.p.h.

DENSITY: 1025.

FRESH WATER: Always available. Deliveries are performed directly from the quay, rate 20 t.p.h., or by tank-barge.

FUEL: Ordinary fuel oil and gas oil are available at local refinery of "Campsa". It is advisable that Shipowners contract bunkers through their own contractors, with 48 hours notice, so that order can be received in time. Delivery can be performed at bunkering pier at a rate of 60 t.p.h. or by road tankers.

FIRE PRECAUTIONS: Tankers perform their operations at the petroleum berth by Enpetrol or "Campsa" which have necessary fire precautions.

GANGWAY/DECK WATCHMEN: Available but not compulsory.

OPENING/CLOSING HATCHES: This work normally effected by crew, except in liner vessels, which is contracted by stevedores.

CERTIFICATES: Vessels should have the usual documents on board.

CUSTOMS ALLOWANCES: Normally, customs permit 200 cigarettes per man out of bond. 1 bottle of spirit for each crew member.

CARGO GEAR: Usually shore cranes of 2-3-6-12-15-30 tons lifting capacity employed in loading or discharging operations, if vessels require any lightening then vessel derricks are employed.

IDENTIFICATION CARDS: Not required.

CONSULS:

	Tel:		*Tel:*
Austria	443952	Iceland	221739
Belgium	399907/392003	Ireland	475108
Bolivia	475108	Italy	306150
Canada	223346	Liberia	213284
Chile	224086	Monaco	212942
Colombia	219181	Morocco	329962/50
Costa Rica	476399	Netherlands	312800
Denmark	215662/8	Norway	210331/224340
Dominican Republic	228712	Panama	290594
Finland	212435	Peru	211649
France	226590/214888	Philippines	214697
Germany F.R.	227866	Sweden	215662/8
Greece	311847	Switzerland	217266/214729
Guatemala	222397	United Kingdom	217571
Honduras	214769	U.S.A.	478688

REPAIRS: Facilities of a limited nature.

DRY DOCKS: There is a floating dock for vessels up to 2,000 tons.

SURVEYORS: Lloyd's Register, Tel: 225473; S.G. Control of Spain, Tel: 227748.

REPATRIATION: Good facilities.

AIRPORT: The airport is about 8 km. from town. Daily services with Madrid, Barcelona, Seville, Valencia, Tangier and Melilla. Also direct flights to London, Paris, Amsterdam, Brussels, Frankfurt, Stockholm, Helsinki, Geneva, Zurich, Nice.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: 1st January; 6th January; Good Thursday; Good Friday; Labour Day (1st May); Corpus Christi; 18th and 29th June; 25th July; 15th August; 8th September; 12th October; 1st November; 8th and 25th December.

POLICE/AMBULANCE/FIRE: Police, Tel: 211302 and 091, 215005. Ambulance, Tel: 390400, 215121, 224400. Fire, Tel: 234567.

DEVELOPMENTS: An extensive plan to increase facilities of port, and for building new piers. Other important work being effected at breakwater, to erect new piers for large passenger ships.

AUTHORITY: Junta del Puerto de Malaga, Muelle de Canovas, Malaga, Spain. *Tel:* 952-214516, 952-210590. *Telex:* 77536 JPMA. *Contact:* Port Director.

MARIN: 42.24 N. 08.42 W. (See Plan)

DOCUMENTS:

4 Crew Lists.
1 Health Certificate.
2 Stores Lists.
2 Cargo Manifests.
2 Crew Manifests.

PILOTAGE: Compulsory. (Tel: 882040). Pilot on VHF Channels 16 and 6.

MAX. SIZE: Max. draft 23 ft., tidal variation 3.8 m.

RADIO: Send ETA through Cangas Radio or local Agent.

TUGS: Available.

BERTHING:

General Cargo Berths:	*Length* (m.)	*Draft* (ft.)	*Cranes*
Commercial Oeste	154	23	—
Commercial Oeste	208	18	—
Commercial Oeste	29	18	—
Commercial Este	154	23	4×6 tonnes
Commercial Este	303	18	2×3/6 tonnes
Commercial Ribera	140	16	1×30 tonnes

STEVEDORES: Working Hours: 0900 – 1300 and 1500 – 1900 hrs.

MEDICAL: Services available.

TANKERS: Max. LOA 100 m., draft 21 ft. No dirty ballast facilities.

DENSITY: 1025.

FRESH WATER: Available.

FUEL: Available (Campsa).

CONSULS: At Vigo (30 km.).

REPAIRS: Possible.

DRY DOCKS: Up to 3,000 tons.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle of spirits per crew member.

REPATRIATION: Possible.

AIRPORT: Vigo (30 km.) and Santiago de Compostela (60 km.).

HOLIDAYS: National holidays plus 16th July (Virgin del Carmen) and 8th September (Virgin del Puerto).

DEVELOPMENTS: New commercial mole under construction. Length 240 m. depth 39 ft.

AUTHORITY: Capitan de Puerto, Avenida de Orense, s/n. Marin. *Tel:* (96) 88 11 76.

Junta Del Puerto y Ria De Pontevedra, Las Corbaceiras, s/n., 36002 Pontevedra. Post address – Apartado 8, 36080 Pontevedra. *Tel:* (986) 855200. *Telex:* 88069 Jprp E. *Contact:* Manuel Leiros Freire, Port Director.

MELILLA: 35.18 N. 02.57 W. (See Plan)

SHIPMASTER'S REPORT: Though geographically situated in Morocco it is a territory of Spain and the Spanish flag should be hoisted. VHF Channel 16 for Pilots, berthing day or night. A new port adjoining Melilla is being constructed but this is in Morocco (See "Port Nador").

DOCUMENTS:

Health Declaration.
4 Cargo Manifests.
2 Stores List.
5 Crew Lists.
5 Passenger Lists.

PILOTAGE: Compulsory for vessels over 50 tons. ETA to Agent required at least 10 hours before arrival to arrange Pilot. Pilot boards at anchorage near port entrance. International code signals used.

ANCHORAGE: Half a mile East of port entrance, in depths of 14 m. to 20 m.

RESTRICTIONS: Entrance normally in daylight only. In case of emergency vessel may enter at night.

MAX. SIZE: Up to 30 ft. draft.

HEALTH: Pratique obtained immediately after berthing when vessel boarded by health officials.

TUGS: 2 tugs, 1,750 h.p.and 650 h.p., available.

BERTHING:

Quay	*Berth No.*	*Depth (m.)*	*Cranes*	*Remarks*
Muelle Nordeste No. 1	F.1	6.0	—	Ro/Ro
Muelle Nordeste No. 2	AD.1	10.0	—	Ro/Ro and Bulk Liquids
Muelle Nordeste No. 3	CD.1 D.5	10.0	2×6 tons	Bulk and General, 2 Cement Silos
Espigon No. 1	D.2	7.0	—	General Cargo
Espigon No. 2	D.3	7.8	—	General Cargo
Espigon No. 3	D.4	9.0	—	General Cargo
Muelle Ribera No. 1	1-4 D.1	5.7	1×30 tons	General Cargo and Fish
Muelle Ribera No. 2	DH.1	6.0	—	Passengers
Cargadero Mineral		8.3	—	Ore loading berth

MEDICAL: Doctors and hospital facilities available. Vaccinations can be arranged.

FRESH WATER: Available at all quays.

FUEL: Available subject to advance notice.

GANGWAY/DECK WATCHMEN: Available. Consignee Agents have their own watchmen for goods on the quay.

OPENING/CLOSING HATCHES: This work is carried out by stevedores.

CUSTOMS ALLOWANCES: Crew allowed normal daily consumption of tobacco, wine and spirits.

IDENTIFICATION CARDS: Required.

CONSULS: France and Italy are represented locally.

REPAIRS: All types of engine and hull repairs can be effected for smaller vessels.

REPATRIATION: All facilities available.

AIRPORT: Situated 1 km. from the city. 3 daily flights to Malaga and 1 daily flight to Almeria, except Tuesday and Thursday.

HOLIDAYS: 1st January, 6th January, 19th March, Maundy Thursday, Good Friday, 1st May, Ascension Day, Corpus Christi, 29th June, 18th July, 25th July, 15th August, 8th September, 12th October, 1st November, 8th December, Christmas Day. Work may be arranged on all holidays except Good Friday.

POLICE/FIRE/AMBULANCE: Police, tel: 681183 or 681238; Fire, tel: 681693; Ambulance, tel. 681376.

TELEPHONES: It is possible to arrange for a telephone to be placed on board.

SHORE LEAVE: Allowed.

AUTHORITY: Junta del Puerto de Melilla, Avenida del Tte. Garcia Valino No. 2, Melilla. *Tel:* 681340. *Telex:* 77492 JPME E. *Contact:* The Port Director.

MOTRIL: 36.43 N. 03.30 W. (See Plan)

DOCUMENTS:

Health Certificate.
5 Passenger Manifests (1 Health, 2 Customs, 1 Police, 1 Agent).
4 Crew Manifests (1 Health, 2 Customs, 1 Agent).
2 Stores Lists (for Customs).

PILOTAGE: Arranged by Agent basis ETA given 24 hours in advance. pilot boat distinguished by painted "P". Night pilotage possible approx. 100% extra, on holidays 50% extra. Vessels await Pilot just outside port. Pilot compulsory for all foreign vessels and Spanish vessels arriving from abroad. Pilot should be requested when 1 mile from the port by means of international signals.

ANCHORAGES: Area near port. The Roads to the East of the port have very little depth. The sea is rough in this area and vessels can run the serious risk of beaching. The best location for anchorage is outside the port 0.25 miles S.S.W. from the port entrance, in 14 m. to 25 m. of water, mud bottom.

RESTRICTIONS: None, vessels may enter day or night.

MAX. SIZE: Entrance 33 ft. at LWS. Max. draft alongside quays, 27 ft.

HEALTH: Free Pratique given on board.

RADIO: Harbour tugboats and pilot operate on VHF Channel 12.

TUGS: One tug, 1,100 h.p. available.

BERTHING: There is 470 m. of quayage with a depth of 8.2 m. (27 ft.) at LWS and 107 m. of quayage with a depth of 6.4 m. (21 ft.) at LWS.

CRANES: There are 5 electric cranes of 3.5 to 6 tons capacity; 3×6 tons and 1×3 tons to 6 tons mobile crane.

BULK CARGO FACILITIES: Muelle de Levante: 300 m. length. Max. draft 8.2 m. (27 ft.) at LWS. Three cranes 6 ton capacity for handling bulk cargoes (grain, ore, coal, fertilisers, etc.). Loading/discharge rates: 300 t.p.h. One crane 3.5 tons to 6 tons for handling general cargoes.

Muelle de Poniente: 110 m. length. Max. draft 6.4 m. (21 ft.) at LWS. Two cranes 3.5 tons to 6 tons capacities for handling bulk and general cargoes.

Muelle de Costa: 300 m. length. Max. draft 8.2 m. (27 ft.) at LWS. Two cranes 3.5 tons to 6 tons for handling general cargoes.

SPECIALISED CARGO HANDLING FACILITIES: Muelle de Poniente equipped for handling liquid chemicals and asphalt, by lines.

Ro/Ro Berths: 2 Ro/Ro berths at Muelle de Costa and 1 Ro/Ro berth at Muelle de Levante.

STEVEDORES: No ETA advice necessary. Agents arrange gangs.

MEDICAL: No advance notice required. All facilities available.

TANKERS: Vessel about 8,000 tons. No special requirements.

DENSITY: 1025.

FRESH WATER: Available alongside all quays.

FUEL: Available at Muelle de Levante. Rates of delivery: 200 t.p.h.

GANGWAY/DECK WATCHMEN: Agent arranges.

OPENING/CLOSING HATCHES: Crew open and close hatches.

CUSTOMS ALLOWANCES: Tobacco: About 100 cigarettes per man. Wine and or spirit. None.

IDENTIFICATION CARDS: Not necessary.

CONSULS: None in Motril. The nearest at Granada or Malaga.

REPAIRS: Minor repairs can be affected. There is a slipway for vessels up to 150 tons.

REPATRIATION: Facilities available.

AIRPORT: The nearest airports are Malaga 105 km., Granada 70 km. and Almeria 120 km.

TIME: Local time GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: New Year's Day (January 1st), Epiphany Day (January 6th), Vote Day (January 13th), Maundy Thursday, Good Friday, Wort's Day (May 1st), Santiago Day (July 25th), Assumption Day (August 15th), Pilar's Day (October 12th), Local Holiday (October 15th), Immaculate's Day (December 12th) and Christmas Day (December 25th).

Work can be arranged on above days, however dependent upon permission of the Work Authority.

POLICE/AMBULANCE/FIRE: Police Tel: 601221. Ambulance Tel: 600200. Fire Tel: 600200.

TELEPHONES: No facilities for placing telephones on board.

SHORE LEAVE: Crew members are allowed ashore.

DEVELOPMENTS: 1 Ro/Ro berth under construction on Muelle de Costa.

AUTHORITY: Grupo de Puertos de Granada-Almeria, Direccion del Puerto, Motril (Granada). *Tel:* (958) 601207, 601238. *Contact:* Port Director.

PALAMOS: 41.50 N. 03.08 E. (See Plan)

DOCUMENTS:

3 Crew Lists.
1 Passenger List or negative.
Manifest of goods destination Palamos and in transit.
Stores List in duplicate, including tobacco, spirits, radios, etc., belonging to vessel.
Detailed list in duplicate of all personal effects of crew and passengers (Tobacco, spirits, camera, radios, etc.).

Tobacco – any excess over 6 kilos per person must be stated on a separate manifest duly visaed by Spanish Consul.

If on inspection differences are found (more or less), articles removed and heavy fine imposed.

PILOTAGE: Pilotage is compulsory and service is permanent. Pilot is informed by Agent of vessel's ETA given 24 hours in advance. When vessels approach the breakwater, Pilot will board. Pilot boat is white with a black "P" painted on the side.

RESTRICTIONS: None but for draft. Vessels carrying dangerous cargo should get authorisation for berthing prior to arrival of the ship.

MAX. SIZE: No restrictions in respect of length.

HEALTH: Pratique is obtained immediately after berthing. In case of suspected disease or fever on board the Master must radio to Agent in order inform Health Office in time.

RADIO: Radio Costera of Barcelona, Bagur or Marmella.

VHF: Contact pilot station on Channel 9.

TUGS: None. Barcelona's tugs could be hired should the vessel's size make it necessary.

BERTHING: Depth of water in centre of harbour 42 ft. – 52 ft. Commercial Wharf length: North: 689 ft., depth 18 ft. – 26 ft. South 246 ft., depth 15 ft. – 24 ft.

Pier Wharf or breakwater are not available for commercial traffic. Length 2,100 ft.

Ro/Ro Quay Ramp is 88 m. wide.

A new berth alongside the breakwater, length 200 m., depth 14 m. is in operation.

CRANES: 1×12 ton quay crane and 1×125 ton mobile crane.

STEVEDORES: 24 hours' notice required in order to arrange gangs.

MEDICAL: Any kind of medical service can be arranged if information received in time.

FRESH WATER: Plentiful supply of water by means of hoses from the pier to vessel.

FUEL: Can be supplied. 24 hours' advance notice required.
GANGWAY/DECK WATCHMEN: It is not compulsory but advisable at night.
OPENING/CLOSING HATCHES: Normally opened/closed by the crew, otherwise according to Charter Party.
CERTIFICATES: Usual documents on board. Safety Wireless, Safety Equipment, Derat and Registered Tonnage Certificates are the only ones required by the Authorities.
CUSTOMS ALLOWANCES: Crew: 6 kilos tobacco per person. Passengers: 2 kilos per person. Any excess on this amount must be declared on a separate Manifest as in transit. Wine and/or Spirit: only 1 bottle per man. Any excess, must be declared on a separate Manifest as cargo in transit and stowed apart from the tobacco and spirits carried under the Provisions List. This Manifest must be visaed by the Spanish Consul at the last port of call. Any infringement of this regulation will subject the vessel to the immediate imposition of heavy fines and confiscation of the excess tobacco.
IDENTIFICATION CARDS: Not required.
CONSULS:

France	Tel: 314472	Portugal	Tel: 320148
Denmark	Tel: 314400	Sweden	Tel: 320850
Italy	Tel: 320200		

REPAIRS: Only small repairs.
SURVEYORS: Comisariado Espanol Maritimo – "Comismar". Tel: 210610, 215666.
REPATRIATION: Good facilities exist.
AIRPORT: Gerona Airport situated at 40 km. distance and half an hour by car from Palamos. Regular flight services with Madrid, Barcelona, Palma Mallorca, London, and all over the world with transfer at Madrid and/or Barcelona.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer (April-September).
HOLIDAYS: 11th September.
POLICE/AMBULANCE/FIRE: Police 31 41 87; Ambulance 31 43 50; Fire 31 43 50.
DEVELOPMENTS: The container yard is to be enlarged in the near future.
AUTHORITY: Ayudante Militar de Marina, Ayudantia Militar de Marina, Palamos (Gerona – Spain). *Tel:* 314070. *Cables:* Ayundante Marina Palamos.

Comissio de Ports de Catalunya, c/Dr. Roux No. 63, 08017 Barcelona. *Contact:* Zona Portuaria I. Passeig General Mendoza, No. 7 T, 08017 Girona. *Tel:* (972) 20.14.27.

PALMA, Majorca: 39.34 N. 02.38 E. (See Plan)

PILOTAGE: Compulsory. Order through Agent.
ANCHORAGES: In outer harbour in depths up to 13 m.
RESTRICTIONS: Depth in harbour entrance up to 15 m.
TUGS: Available if required.
VHF: The Spanish Telephone Company has established a station for ship-to-shore communications.
BERTHING: Quays at Porto Pi with 12 m. depth alongside. Quays at Puerto de Palma with up to 10 m. depth alongside.
Facilities: Container Terminal, Ro/Ro Terminal and Commercial Quays at New Quay (Dique de Levante).

At Porto Pi there are facilities for cement, oil, petrol and bulk cargoes.
FUEL: Supplied at the quays by CAMPSA. Depth alongside 36 ft. Gas oil available at 120 cu.m.p.h. Fuel oil No. 1 at 250 t.p.h. Intermediate fuel oil also available.
FRESH WATER: Available at the quays.
AIRPORT: Palma Airport well connected with the Peninsula (mainland) and with foreign airports.
DEVELOPMENTS: Land reclamation in progress.
AUTHORITY: Junta del Puerto de Palma de Mallorca, Muelle Viejo No.3, Palma de Mallorca, Baleares, Spain. *Tel:* (971) 215100. *Telex:* Jppm 69075. *Contact:* D. Rafael Soler Gaya, Port Director.

PASAJES: 43.20 N. 01.56 W. (See Plan)

PORT LIMITS: In this port a vessel is considered to be an "arrived ship" (subject to C/P Terms) when the Pilot leaves the vessel once she is inside the port. The laytime will commence when the Master has delivered in writing the Notice of Readiness.
Agent's Comment: The Pasajes Port Authority consider the port to be limited by an imaginary line linking the West of Arando Grande and the East of Arando Chico.
DOCUMENTS:
4 Crew Lists.
2 Passenger Lists or negative.
2 Cargo Manifests with an individual copy of each Bill of Lading for items to be discharged at port of Pasajes.

Copy of Manifest covering other cargo on board in transit for other ports.

Stores List in duplicate, including tobacco, cigarettes, spirits, radios, etc., belonging to the vessel.

Detailed Crew's Stores List, in duplicate, of all personal effects pertaining to crew and passengers (tobacco, cigarettes, spirits, cameras, radios, arms, etc.).

For vessels exceeding 499 g.r.t., Safety Certificate, Safety Equipment Certificate and Derat Certificate should be on board ready for production.

PILOTAGE: Pilot service is compulsory and permanent. Pilots board vessel in an area about 1.5 miles out from leading lights of port entrance. The telegraphic address is: Corporacion de Practicos, Pasajes. Notice should be given 24 hours before arrival; generally Agents keep Pilots informed of vessel's time of arrival when they are advised by Masters. VHF service in operation.

Pilots' cutter is painted in naval-grey with letter "P" painted in white on both sides of bridge; flag with letter "P" in white, is hoisted on cutter's mast.

International pilot signals are used by Pilots, by means of Aldis lamps, when approaching vessel at night. International light and sound signals to be made by vessel when requiring Pilot.

In event of bad weather Pilots cannot board vessel at usual 1.5 miles location. In this case vessel has to wait for instructions (VHF or radio) for entering port.

With respect to boarding and safety measures, the international safety regulations are to be followed.
ANCHORAGES: A limited number of vessels may anchor in Roads inside the port, in good shelter. Depth in area of anchorage is 25 ft. – 29 ft.
RESTRICTIONS: The entrance channel is 80 m. – 120 m. wide, 1,200 m. long and its depth 10 m. at LST, with sandy bottom. Vessels with a length not over 130 m., provided their draft allows, may enter or leave at any time during the day or night. Vessels with a length between 130 m. and 140 m. may enter or leave from 1 hour – 3 hours before high tide during day or night. Vessels with a length over 140 m. may only enter or leave from 3 hours – 1 hour before high tide during daylight. Vessels with a draft over 25 ft., though less than 130 m. in length, will only be allowed to sail or enter from 4 hours before high tide to 2 hours after, on account of their draft, both during the day or at night.
MAX. SIZE: The Port Authority has determined the maximum particulars of the vessels that may use the port: those with a length not over 185 m. and a draft not over 28 ft. forward and 29 ft. aft on entering/leaving. However, a special authorisation must be obtained from the Naval (Military) Commandancy for vessels with a length from 175 m. – 185 m. Vessels bound to Lezo Quays are limited to the same draft as above but to 160 m. length.
HEALTH: If vessels proceed directly to berth Pratique can be obtained immediately upon berthing. If vessels anchored in bay, Pratique can be obtained after anchoring. In case of any suspected disease or fever on board, the Master must advise the Agents, by radio, in order that they may inform the Sanitary Authorities in advance.
RADIO: Nearest Radio stations are the coastal radio stations of Igueldo and Cabo Mayor. Messages by radio-telephone can be transmitted via Radio Arcachon (France). Notice of ETA should be sent to Agent 24 hours before arrival.
TUGS: No tug-boats required for vessels with normal steering when entering port. Tug-boats are required for berthing or shifting to and/or from quays for vessels over 80 m. length. Ship's lines are used and tug-boats are employed according to Pilot's advice.

8 tugs available, the smallest and largest being 150 h.p. and 1,250 h.p. respectively.
BERTHING: Berths are allocated by Port Control after notice of arrival and information regarding cargo given by Agent. Pilots inform Masters of location of berth appointed, if any. No tidal difficulties for berthing or shifting inside the port.

Berths belonging to Port Control.

Name	*Length* (m.)	*Depth* (m.)	*Uses*
Ancho	273.2	10	General Cargo
Avanzado Molinao	145.0	10	Liquid gas/bulk cement
Molinao	313.0	10	Containers, scrap, general cargo
Capuchinos	298.3	10	Solid/liquid bulk
Petroleos	159.5	10	Liquids. Special installation
Iberduero	250.0	10	Private
Lezo – 1	298.4	10	Scrap/General cargo
Lezo – 2	150.1	10	Scrap/General cargo
Trasatlantico	234.1	8	General cargo
Lezo – 3	151.0	8	Roll-on/Roll-off
Hospitalillo	87.6	6	Shipbuilding/repairs
Avanzado Norte	63.6	6	Service boats
Avanzado Este	114.6	6	Solid bulk/general
Avanzado Oeste	120.3	6	Solid bulk/general
Darsena de Petroleos	50.0	6	Ship's stores
Herrera	399.4	5	General cargo
Reloj	240.0	5	Solid bulk/scrap

BULK HANDLING FACILITIES: At Capuchinos there are 19 electric conveyor belts with a capacity of 400 tonnes/p.h., 8 electric conveyor belts with a capacity of 30 tonnes/p.h., 2 electric loading jib cranes with a capacity of 400 tonnes/p.h., 1 electric conveyor belt 200 tonnes/p.h., 1 electric conveyor belt system 200 tonnes/p.h., 1 pumping installation 125 tonnes/p.h., 1 pneumatic installation 200 tonnes/p.h., 1 pumping installation of 150 tonnes/p.h., and at Lezo there is also a conveyor belt, 320 h.p., 500 tonnes/p.h.
CARGO HANDLING: *Containers:* 4×30 tonne cranes available for container handling.
Mechanical Handling Equipment: There are 45 fork lift trucks ranging from 1.5 tonnes to 28 tonnes capacity, 10 trucks of 2 tons and 3 tons, 28 loading scoops of between 1.5 tonnes and 16.2 tonnes capacity, 8 tractors, 19 platforms.

The Port Authority also owns 4 additional electrically driven conveyor belts of 2 h.p., giving a loading rate of 40 tonnes and 60 tonnes respectively.

Various ancillary equipment, scrapers, bagging units, bulldozers, barges, lighters, work boats. There are 4 floating cranes, whose power ranges between 6 h.p. and 60 h.p., maximum reach on the largest being 12 m. and its height above sea level being 21 m.

Ro/Ro Traffic: The port has 2 ramps for Ro/Ro traffic at Avanzado Molinao.

Whenever a vessel arrives with flammable products, such as gas, propane, etc., the quay where vessel is discharging is fenced off.

CRANES:

Location (Berth)	*No. of Cranes*	*SWL* (tons)	*Reach* (m.)	*Output* (tonnes/p.h.)
Trincherpe	1	3.5/6	22.5/12.5	80
Herrera	4	3.5/6	22.5/12.5	80
Reloj	7	3.5/6	22.5/12.5	80
Avanzado Oeste	2	6	22.5	100
Avanzado Este	2	6	22.5	100
Avanzado Este	1	3.5/6	22.5/12.5	80
Trasatlantico	4	3	25	80
Ancho	4	3	25	80
Ancho	2	6	22	100
Ancho	1	6/10	20/10.5	100
Molinao	1	6	22	100
Molinao	4	12	25	150
Molinao	2	30	22.5	200
Molinao	1	12	25	150
Capuchinos	4	6	22	100
Capuchinos	3	12	25	150
Lezo-1	6	12	25	150
Lezo-2	2	6	22	100
Lezo-2	2	30	22.5	200
Iberduero (Container)	1	15	22.7/6	500
Iberduero	1	12.5	16.5	250

Mobile Cranes: 2×2–10 tons, 2×1–6 tons, 1×2–5 tons, 1×7–9 tons and 1×1.5–45 tons.

Floating Cranes: 1×60 tons, 1×6 tons, 1×18 tons (private) and 1×20 tons (private).

STEVEDORES: ETA advice should be received by Agent 24 hours before arrival in order arrange loading/unloading operations with stevedores. The official working time in the port is: Monday/Friday 0800 to 1200 hrs. and 1330 to 1730 hrs. and Saturday 0800/1200 hrs.

MEDICAL: Any kind of medical assistance is available. In case urgent surgical or medical assistance required on vessel's arrival, Agent should be informed in plenty of time to make the necessary arrangements.

No particular inoculations required or vaccination/fever certificates to be produced unless epidemic at last or recently visited ports.

TANKERS: Berth at Muelle Petroleos: 2×8 in. (gas oil), 2×8 in. (fuel oil Nos. 1 and 2, gas oil).

FRESH WATER: Fresh water available at all wharves. Rate of delivery 25 cu.m.p.h. 70 cu.m.p.h.

FUEL: Fuel is supplied by C.A.M.P.S.A. at Ancho, Molinao and Capuchinos Quays. The rate of delivery is 100 t.p.h. Owners must pay C.A.M.P.S.A. for the fuel 24 hours prior to its delivery.

FIRE PRECAUTIONS: No specific precautions required unless the vessel carries flammable cargo. Special harbour fire-fighting corps.

GANGWAY/DECK WATCHMEN: Not compulsory. Shore watchmen available.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CERTIFICATES: Ship's Registry, Radio, Load Line, Equipment and Construction.

CUSTOMS ALLOWANCES: In case the vessel carries more than 6 kilos tobacco per crew member and more than 2 kilos per passenger, the excess must be declared in a separate Manifest which must be legalised by the Spanish Consular Authorities. In absence of Spanish Consular Authorities that Manifest will have to be legalised by an Authority of last port of clearance wherefrom the vessel proceeds. A reasonable amount of alcohol is allowed per man.

IDENTIFICATION CARDS: Not required.

CONSULS: Consulates/Vice-Consulates at San Sebastian and/or Pasajes:

Argentina
Belgium
Brazil
Colombia
Costa Rica
Chile
Denmark
El Salvador
Finland
France
Germany F.R.
Great Britain
Greece
Italy
Netherlands
Norway
Panama
Paraguay
Peru
Portugal
Sweden

REPAIRS: Repair shops and shipyards available, where repairs or overhauls may be carried out.

DRY DOCKS: One (1) floating dock 91.56 m. long. (internal 76.56 m.), 23.25 m. wide (18 m. internal), and 10.40 m. depth of water. Capacity 2,900 tonnes.

One (1) floating dock 66.27 m. long, 23.25 m. wide, and 9.125 m. depth of water.

Two (2) slipways with 8 ramps of length between 130 m. and 157 m. and widths between 3 m. and 9.4 m. Max. admissable vessel tonnage: 1,200.

REPATRIATION: Good facilities for repatriation.

AIRPORT: Airport of Fuenterrabia is situated at 15 km. from Pasajes. Regular daily services with Madrid and Barcelona.

TIME: GMT plus 1 hour in Autumn and Winter. GMT plus 2 hours in Spring and Summer.

HOLIDAYS: 1st January; 6th January; 19th March; Maundy Thursday (afternoon); Good Friday; 1st May; Corpus Christi; 29th June; 7th July; 16th July; 31st July; 15th August; 12th October; 1st November; 8th December; 25th December.

POLICE/AMBULANCE/FIRE: Police 351841; Ambulance 414142; Fire from 0800 to 1930 hrs. Tel: 351844, from 1930 to 0800 hrs. Tel: 397262; Red Cross (local) 351032; Hospital, San Sebastian, 423632.

TELEPHONES: No possibility of placing telephones on board.

SERVICES: Divers.

SHORE LEAVE: Crew allowed to land immediately upon arrival.

DEVELOPMENTS:

1. Improving the depth in the bay (2nd phase) giving a depth of 12.0 m. at LW and HW.

2. Donibane Area: In the 1st phase, a quay length of 360 m. will be provided with a depth of 12.0 m. To be extended in the 2nd phase to 600 m.

3. Lezo Area: Lezo 3 to be extended, permitting Ro/Ro vessels length 145 m. and beam 26 m. to berth.

AUTHORITY: Comandancia Militar De Marina De San Sebastian, Pasajes, Spain. *Contact:* Guillermo Aldir Albert, Military Marine Commandant.

Junta del Puerto de Pasajes. *Contact:* Francisco Miner Urdampilleta, Port Director.

AGENT: Sobrinos de M. Camara S.A., Telegrams "Camara". Tel: 357045, 357046 and 357047. Telex: 36241. Fax: 292754.
(Shipbrokers, Customs/Forwarding Agents, Chartering Agents, Lloyd's Sub-Agents).

✓

RIBADEO: 43.32 N. 07.02 W.

DOCUMENTS:
Manifest of Cargo, including Cargo in Transit.
3 Crew Lists.
2 Passenger Lists or negative.
2 Stores Lists.

If vessel carries over 6 kilos tobacco per man, the excess to be declared in a separate Manifest which must be visaed by Spanish Consul at last port, otherwise is exposed to heavy fine.

PILOTAGE: Prior advice of ETA required by Pilot, who boards at the mouth of the river at the time advised by Agent. Pilot boat is white-painted motor launch, carrying international pilot signals.

In case of bad weather, Pilot will instruct vessel by signals to proceed to anchorage to berth.

The Pilot always boards on the lee side, in the latitude of Isla Pancha.

ANCHORAGE: At Ensenada de Arneo, approx. position Lat. 43° 33′ N., Long. 7° 01.6′ W. in depth of 9 m. LW.

RESTRICTIONS: Vessels enter night and day, limited only by draft and state of tide.

MAX. SIZE: Length and beam not limited. Max. draft 15 ft.

HEALTH: Pratique given on arrival on production of clean Bill of Health. International quarantine signals to be used. Port Authorities to be advised if any case of suspected disease or fever on board.

RADIO: Messages may be routed through coastal stations at Vigo, La Coruna or Gijon.

TUGS: None available.

BERTHING: Vessels may berth at the mole at any time, or state of tide, according to draft.

STEVEDORES: Stevedores services operated only by Servicio de Trabajadores Portuarios.

MEDICAL: Nearest clinic at Mondonedo 35 km. from Ribadeo.

DENSITY: 1025.

FRESH WATER: Water connections exist along the length of the mole. Rate, 20 t.p.h.

FUEL: There is a gas oil supply for small vessels, rate 12 t.p.h.

GANGWAY/DECK WATCHMEN: None required.

OPENING/CLOSING HATCHES: Performed by crew.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle wine/spirits per man.

CONSULS: Nearest at La Coruna.

REPAIRS: Minor mechanical repairs can be effected. Slipway for vessels up to 200 tons.

AIRPORT: Nearest at La Coruna, 150 km. away, or Aviles, 165 km. away, with regular services to Madrid.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

POLICE/AMBULANCE/FIRE: Tel: Ribadeo 110650.

AUTHORITY: El Ayudante Militar de Marina de Ribadeo.

✓

ROSAS: 42.14 N. 03.10 E. (See Plan)

DOCUMENTS:
Crew List.
Passenger List.
(1 of each) Ship's Papers.

DRAFT.

PILOTAGE: No Pilots in this port.

ANCHORAGE: Bay of Rosas is anchorage area.

MAX. SIZE: Draft in Commercial Port is 4 m., with berths for cargo ships of about 1,000 n.r.t. (metric).

HEALTH: Once ship is anchored in the bay it obtains Pratique by means of signals, and by raising the yellow health flag. When vessel entering after calling at another port in the same country, this procedure is not required; Health Inspector boards at the quay side.

RADIO: No radio station in the port, but can contact Coastal Radio Station of Barcelona (1730 kHz), power 150 W.

VHF: Port Authority on Channels 16 and 12.

TUGS: None.

BERTHING: Advisable during daylight only.

MEDICAL: Port Health Doctor available. Hospitals 18 km. distance. Red Cross of the Sea is located at Rosas and operates on a permanent basis. Tel. (972) 25-55-55. VHF Channels 16, 12 and 73. Station also has an all weather lifeboat.

FRESH WATER: Available at Commercial Port at rate of 8 tonnes/p.h. to 10 tonnes/p.h.
FUEL: Available to small vessels only.
POLICE/AMBULANCE/FIRE: Police Service 25-62-72; Ambulance Service 25-68-28; Fire Service 25-66-32.
AUTHORITY: Ayudante Militar de Marina de Rosas, Calle San Telmo No. 18, 17480 – Rosas, Gerona, Spain. *Tel:* 972-256323. *Telex:* 98520 MENA E. *Contact:* Ramon E. Vazquez Calvo, Captain of the Port.

SAGUNTO: 39.39 N. 00.13 W. (See Plan)

LOCATION: 18 km. North of Valencia.
PORT LIMITS: The East/West line through the point of Cape Escollera de Levante.
DOCUMENTS:
2 copies Entrance Manifest.
4 copies Crew List.
Passenger List disembarking at this port.
Passenger List in transit.
Refer to "Barcelona" for other important information concerning Documentation.
PILOTAGE: Port is privately owned, and Pilots employed by Altos Hornos del Mediterraneo S.A. As Pilots are employed in Consignees Office no separate ETA is necessary. They are sent out to meet vessels as required. Pilot boat is not fitted with radar or VHF. Boat displays signals in accordance with international regulations.
ANCHORAGE: From 155° to 170° from the Cape Canet Lighthouse in 20 m. of water.
RESTRICTIONS: Entrance to port is 560 m. wide with a depth of 9.14 m. at LW.
HEALTH: Pratique can be arranged at any time by Consignees.
RADIO: Cadiz Radio-EAC, Cabo Palos Radio-EAP and Valencia Radio EAV.
TUGS: 4×2,600 h.p. tugs normally join vessel either in anchorage or 0.5 miles from entrance. Ship's lines are used. Tugs should be ordered in ETA message also mentioning vessel's length and cargo. Use of tugs is compulsory for vessels berthing at Pantalan.
BERTHING:

Berth (Private)	*Length* (m.)	*Depth* (m.)	*Use*
Norte	390	9.7	Various
Centro	630	9.7	Various
Sur	600	9.7	General Cargo
Pantalan	270	14.0	Solid Bulks with Special Installation

BULK HANDLING FACILITIES: *Compania Minera de Sierra Menera:* Cement is loaded and coal discharged at a pier 2,000 m. offshore to the N.E. of the port. Vessels of 75,000 g.r.t. are loaded by conveyor at rate 2,500 t.p.h. Max. draft 48 ft.
CRANES:

Berth	*No.*	*Capacity* tons.
Norte	2	6.0
Centro	8	6.0
Sur	4	20.0
	2	60.0
	1	250.0 (fixed)

STEVEDORES: Employed by consignees.
MEDICAL: Medical assistance should be ordered in advance. All kinds of medical assistance available. One hospital owned by Altos Hornos.
TANKERS: No facilities.
DENSITY: Salt water.
FRESH WATER: Available.
FUEL: None available.
FIRE PRECAUTIONS: Fire service organised by Altos Hornos.
GANGWAY/DECK WATCHMEN: Usually by crew. The Civil Guard keep watch on all ships for contraband.
OPENING/CLOSING HATCHES: Effected by ship's crew.
CUSTOMS ALLOWANCES: 200 cigarettes only. One bottle spirits per man but bottle should be opened. Spanish spirits allowed; one bottle per man. No control of Spanish wines.
IDENTIFICATION CARDS: Passport only.
CONSULS: Nearest at Valencia.
REPAIRS: Small repairs possible.
REPATRIATION: Facilities for effecting crew changes and arranging repatriation.
AIRPORT: Manises Valencia, 40 km. away.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: *Religious Festivals:* January 6th, March 19th, August 15th, December 8th and 25th. Variable: Good Friday and Corpus Christi. *National Festivals:* January 1st, May 1st, July 25th, October 12th.
TELEPHONES: None on board. Telephones placed in Boat house and Pilots' Office.
SHORE LEAVE: Crew members allowed ashore.
DEVELOPMENTS: The old steelworks are being demolished and site cleared in preparation for new multi-purpose activities.
AUTHORITY: Puerto Autonomo de Valencia, Muelle de la Aduana, S/n, 46024 Valencia, Spain. *Tel:* 34-6-3230991 (International) and 96-3230991 (National). *Telex:* 64508. *FAX:* 34-6-3233272. *Contact:* The General Manager.

SAN CIPRIAN: 43.43 N. 07.28 W. (See Plan)

LOCATION: Located on the N.W. coast of Spain mid way between Burela and Vivero, about 10 miles East of Estaca de Bares Point.

The port is owned by Aluminio Espanol and Alumina Espanola, whose factory is dedicated to produce aluminium and alumina. In its construction the most advanced technical systems have been used.
PILOTAGE: 2 Pilots available.
RESTRICTIONS: Vessels over 30,000 d.w.t. enter port and sail during daylight hours. Others can enter and sail at any time.
MAX. SIZE: Max. draft 12.95 m.
VHF: New Radio Station with service on Channel 16 and 14.
TUGS: The Factory has time-chartered 2 tugs: "Sertosa Diecinueve" and "Sertosa Catorce" to service the port. A third tug based at Aviles is also used to assist large vessels (i.e. 60,000 d.w.t.).
BERTHING: The port is sheltered by the Northern breakwater called "Dique Norte" which is 1,700 m. long.

The Southern breakwater called "Dique Sur" is the commercial wharf. It has a length of 900 m. The bar of the port is 240 m. wide and its depth 22 m.

Southern breakwater main berth ("A" on Plan) is 230 m. long and its depth 14 m. It has been equipped with a tower-type crane to discharge bulk cargoes, particularly bauxite, and it averages 1,100 to 1,200 t.p.h. Also used to discharge petroleum coke at a rate of 2,000 tons per work shift (0600-1400, 1400-2200 and 2200-0600). It is also being equipped in order to accommodate vessels discharging fuel-oil.

Southern breakwater auxiliary berth ("B" on Plan) is 88 m. long and its depth 7.5 m. It is equipped with 2 cranes of 5 tons lifting capacity each and used to load aluminium ingots and slabs with a load rate of 1,100 tons per 24 hours of work. This berth is also being equipped in order to accommodate vessels discharging liquid soda.
FRESH WATER: Available.
FUEL: Not available.
AUTHORITY: Alumina Espanola, S.A., San Ciprian (Lugo), Spain. *Tel:* 982-56.10.00, ext.174. *Telex:* 82298 alum. *Contact:* Captain C. M. Diaz, Port Manager and Port Captain.

SANTANDER: 43.28 N. 03.49 W. (See Plan)

PORT LIMITS: Between Cabo Menor and Punta Galizano.
DOCUMENTS:
5 Crew Lists.
7 Passenger Lists, or 3 negative.
3 Cargo Manifests of the goods destined to the Port of Santander.
2 sets of Manifests for Cargoes in Transit.
Stores List in triplicate, including tobacco, spirits, radios, etc., belonging to the vessel.
Detailed list in triplicate of all personal effects of crew and passengers (tobacco, spirits, cameras, souvenirs, radios, etc.).
For vessels exceeding 499 g.r.t: Safety Radio Certificate and Safety Equipment Certificate.

Legalisation required for manifests covering tobacco and tobacco products. This legalisation to be effected at the port prior to the first Spanish port of call.

Master and each member of crew of vessel can carry for his own consumption up to 6 kilos of tobacco in whatever form, and, if passengers are carried, up to 2 kilos per passenger, all of which must be declared in provisions list (1 kilo of tobacco = 1,000 cigarettes = 100 cigars). If Masters carry greater quantity than stated above, it cannot be manifested as tobacco for consumption on board, but must be included in Consular Manifest as being in transit, and as such must be separated in the holds from other cargo and hatches or lockers will be sealed by Customs until ship leaves Spanish waters. This Consular Manifest has to be legalised by a Spanish Consul. In the absence of Consul, said document will have to be visaed by an Authority of the former port of clearance. Otherwise, vessel would be severely fined.
PILOTAGE: Compulsory and service is permanent. Pilots board vessel by a cutter at the road, near the entrance off Mouro Island. Pilot cutters are painted white and have the letter "P" in black, on each bow. Cutters have blue flag with letter "P" in white, at both sides of flag. At night cutters have a white light, under this a red one. VHF available.
ANCHORAGES: The harbour consists of a large bay which provides good anchorage.
RESTRICTIONS: Entrance is well marked and there is no bar. Depth at entrance is at minimum 35 ft.
MAX. SIZE: No restriction in respect of length or breadth, the maximum advisable draft to enter port is 35 ft. at LWOST, and 13 ft. – 14 ft. should be added for depths at HWOST.
HEALTH: If the vessel proceeds directly to berth, Pratique can be obtained immediately after berthing. Otherwise, at anchorage at vessel's arrival.

If vessel has sickness on board of a contagious nature Masters should advise Health Authorities by radio, and they will examine patients immediately upon arrival, to enable vessel to be granted Free Pratique. If vessel has to be fumigated or deratted a charge is made.
RADIO: Nearest important radio station is Cabo Mayor Radio, and it is advisable that messages received at least 24 hours before arrival.
TUGS: No tug-boats required for entering the port, only for berthing or shifting when in port. Ship's lines are used, and tug-boats are employed according to Pilot's advice.

BERTHING:

Berth	*Length* (m.)	*Depth* (m.)
Calderon	270	4
Maura	55.6	6.5
Albareda	267	7.25 to 9.5
Almirante	107.2	9.5
Maliano (Sections 10 and 11)	229.1	10.5
Maliano (Section 9)	129	7
Maliano (Section 8)	106.4	5
Maliano (Sections 1 – 7)	710	8
North Edge	538	9.5
Raos (No. 1)	300	13.0
Raos (No. 2)	208	13.0
Container Quay (Raos)	150	13.0
Campsa Quays	280	8.5
Calatrava Quay	—	11.5

All depths of water quoted above correspond to LWOST and 13 ft. – 14 ft. should be added for depths at HWOST. Bottom is generally soft.

Calatrava Wharf: For discharge of chemicals. Depth alongside 34 ft. with overall length limitation of 980 ft. Up River, at Astillero, beyond the harbour area, there is one spout called Orconera Tip for loading iron ore. Vessels up to 260 ft. – 270 ft. length are allowed with a maximum draft, fully loaded, of 19 ft. Loaded vessels can only sail at high water. A modern installation for dismantling and scrapping vessels is operating up river, on the way to Astillero.

CARGO HANDLING FACILITIES: There are berths for handling bulk cargoes, grain, ore, coal, etc. There are also berths for handling bulk liquids, chemicals. Berth available for Ro/Ro traffic.

1×30.5 tonne Liebherr gantry crane for containers.

STEVEDORES: It is very important that Masters send advance notice regarding vessel's ETA. With this notice, Agents can inform Shippers or Receivers' stevedores accordingly. Official working hours of port, are: Monday/Saturday: 0800 – 1200 hrs.; 1400 – 1800 hrs.

MEDICAL: Any kind of medical services can be arranged.

TANKERS: "Campsa" (Spanish State Monopoly): Installation is served by two identical concrete wharves situated in Maliano Basin, berthing space of which is 500 ft. with a depth alongside of 29 ft.

DENSITY: Sea water.

FRESH WATER: Always available. Supply is performed by tug-boats and from shore connections at various quays.

FUEL: Ordinary fuel, diesel and gas oil are available at "Campsa". Depth alongside 19 ft. – 32 ft.

Advisable that shipowners stem bunkers through their own Contractors with (at least) 48 hours' notice. Delivery can be performed either by tank-trucks or at bunkering pier.

GANGWAY/DECK WATCHMEN: Not compulsory but available upon request.

OPENING/CLOSING HATCHES: Effected normally by crew, except in liner vessels, which is contracted by stevedores.

CERTIFICATES: Vessels should have the usual documents on board, but only the Safety Radio, Safety Equipment and Derat Certificates are required by Authorities.

CUSTOMS ALLOWANCES: Normally, Customs permit 200 cigarettes per man out of bond. Additional quantities needed depend on the stay of ship in port. One bottle of spirit per man.

CARGO GEAR: Shore cranes are usually employed in loading/discharging operations.

CRANES:

Maura Quay	1 fixed 30 ton crane (electric)	
Albareda Quay	3 electric cranes	3 tons
Maliano Quay (Sections 10 & 11)	6 electric cranes	6 tons
Maliano Quay (Sections 1 to 7)	14 electric cranes	3 – 6 tons
North Edge Quay	4 electric cranes	6 tons
Raos	5 electric cranes	12 tons
Raos	8 electric cranes	16 tons

Also movable motor cranes, mechanical shovels and similar, available.

IDENTIFICATION CARDS: Not required.

CONSULS:

Belgium
Bolivia
Colombia
Costa Rica
Chile
Denmark
Dominican Rep.
Ecuador
Finland
France
Germany F.R.
Great Britain
Greece
Guatemala
Haiti
Honduras
Italy
Monaco
Norway
Panama
Peru
Portugal
Sweden

Note. Acting as Consul of those countries with no Consular Representation: Valentin Lavin del Noval, Dominican Rep. Consul.

REPAIRS: Good repair facilities with various shipyards at port. All types of deck, engine, etc., repairs are possible.

DRY DOCKS: Three dry docks, one of which is within the harbour area and the other at Astillero (beyond the harbour area). Dimensions are:

Extreme length	405 ft.	434 ft.	722 ft.
Breadth at entrance	58 ft.	54 ft.	105 ft.
Depth on sill (high water)	23.7 ft.	20 ft.	38 ft.

REPATRIATION: No difficulties.

AIRPORT: About 4 miles from town. There are regular services with Madrid and Barcelona. Also charter flights to U.K. and other European countries.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

POLICE/AMBULANCE/FIRE: Police 222543; Civil Security Guards 232004; Hospital, Casa de Socorro 221214, Valdecilla 231400; Fire 231662; Ambulance Cruz Roja 270235.

TELEPHONES: In very special instances, can be arranged.

SERVICES: Available for tank cleaning, washings, compass adjusting, hull cleaning whilst floating, radio installation repairs, etc.

SHORE LEAVE: Crew allowed ashore at any time.

HOLIDAYS:

January 1st, New Year's Day	Full day	Work can be arranged
January 6th, Epiphany	,,	,,
March 19th, Saint Joseph	,,	,,
Maundy Thursday	,,	,,
Good Friday	,,	,,
May 1st, Saint Joseph Artisan	,,	,,
Ascension Day	,,	,,
Corpus Christi	,,	,,
June 29th, Saint Peter & Saint Paul	,,	,,
Labour Day	,,	,,
July 25th, Patron Saint of Spain	,,	,,
August 15th, Assumption Day	,,	,,
August 30th, Martyrs' Day	,,	,,
September 15th, Virgin La Bien Aparecida, Patron of Santander	,,	,,
October 12th, Holiday of Hispanicism	,,	,,
November 1st, All Saints Day	,,	,,
December 25th, Christmas Day	,,	,,

DEVELOPMENTS: A third berth to be constructed at Raos with length 570 m. and depth 13.0 m. Bulk grain storage of 80,000 sq.m. will be available.

A second dock (Berth No. 4) with length 270 m. and depth 13.0 m. for general cargo also to be constructed.

Completion of both berths expected in 1990.

Extensions: The entrance channel has been widened to 200 m. and has some depths between 9.5 m. and 10.5 m. at LWOST.

AUTHORITY: Junta del Puerto-Santander, Paseo de Pereda 33-1° Santander, Spain. *Tel:* 42-21 20 58. *Telex:* 35.936 Jpsr E. *Contact:* Rafael Martinez Diez-Canedo, Director del Puerto.

SANT CARLES DE LA RAPITA: 40.37 N. 00.36 E. (See Plan)

DOCUMENTS:

3 Crew Lists.

Passenger List or negative.

Manifest of Goods destined for Sant Carles de la Rapita and in-transit.

Stores List, in duplicate, including tobacco, spirits, radios, etc., belonging to vessel.

Detailed list, in duplicate, of all personal effects of crew and passengers (tobacco, spirits, cameras, radios, etc.).

Tobacco – any excess over 6 kg. per person must be stated on a separate manifest duly visaed by Spanish Consul.

If on inspection differences are found (more or less), articles are removed and a heavy fine imposed.

PILOTAGE: Pilotage is compulsory and service permanent. Pilot is informed by Agent of vessels ETA, given 24 hours in advance. When vessels approach the breakwater, Pilot will board. The pilot boat is white with a black "P" painted on the side. Contact pilot station on VHF Channel 14. Pilot Tel: (977) 74.05.01.

RESTRICTIONS: None but for draft. Vessels carrying dangerous cargo should get permission for berthing prior to arrival.

MAX. SIZE: According to draft.

HEALTH: Pratique is obtained immediately after berthing. In case of suspected disease or fever on board the Master must radio Agent in order to inform Health Officer in time.

RADIO: Radio Costera of Barcelona and Tarragona.

VHF: See "Pilotage"

TUGS: Available.

BERTHING: Depth of water in centre of harbour 26 ft.

Commercial Wharf: Length 1,607 ft., depth 17 ft. – 22 ft.

CRANES: 2 cranes of 12 tons capacity.

STEVEDORES: 24 hours notice required in order to arrange gangs. Unloading rates depend on type of cargo.

MEDICAL: Any kind of medical service can be arranged if information received in time.

FRESH WATER: Plentiful supply of water by means of hoses from the pier to vessel.

FUEL: Can be supplied if required, but 24 hours notice required.

GANGWAY/DECK WATCHMEN: Not compulsory but advisable at night.

OPENING/CLOSING HATCHES: Normally opened/closed by the crew, otherwise according to "Charter Party". Lashing must be carried out by crew.

CERTIFICATES: Usual documents on board. Safety Radio, Safety Equipment, Derat and Registered Tonnage Certificates are the only ones required by Authorities.

CUSTOMS ALLOWANCES: Crew: 6 kg. tobacco per person. Passengers: 2 kg. per person. Any excess on this amount must be declared on a separate manifest as in-transit. Wine and/or Spirits: Only 1 bottle per person. Any excess must be declared on a separate Manifest, as "cargo in-transit" and stowed apart from the tobacco and spirits carried under the Provisions List. This Manifest must be visaed by the Spanish Consul at the last port of call. Any infringement of this regulation will subject the vessel to the immediate imposition of a heavy fine and confiscation of excess tobacco.

CONSULS: See "Tarragona".

IDENTIFICATION CARDS: Not required.

SURVEYORS: Comisariado Espanol Maritimo "Comisar". Tel: (972) 210610, 215666.

REPAIRS: Slipway with capacity of 200 tons.

REPATRIATION: Good facilities available.

AIRPORT: Reus Airport situated 90 km. distance and 45 minutes by car from Sant Carles. Regular flight services with Madrid.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer (early April-late September).
HOLIDAYS: September 11th.
POLICE/AMBULANCE/FIRE: Police: 74.07.17; Ambulance: 74.07.17; Fire: 70.00.80.
AUTHORITY: Ayudante Militar de Marina. Ayudantia Militar de Marina. Sant Carles de la Rapita (Tarragona-Espana). *Tel:* 74.00.59. *Cables:* Ayudante de Marina, Sant Carles de la Rapita.

Comissio de Ports de Catalunya, c/Dr. Roux No. 63, 08017 Barcelona. *Contact:* Zona Portuaria II-III, Ronda General Mitre 117, sobreatico – 08022 Barcelona. Tel: 211.31.16. San Carlos de la Rapita. Tel: (977) 74.04.56.

SANT FELIU DE GUIXOLS (Gerona): 41.46 N. 03.01 E. (See Plan)

PILOTAGE: Pilotage is compulsory. Service between 0700 to 2400 hrs. Tel: 320910 or call Barcelona Radio or Bagur Radio (VHF).
ANCHORAGE: Vessels arriving after midnight or due to port congestion are anchored outside the breakwater.
MAX. SIZE: The maximum advisable draft for berthing is 22 ft. and up to 115 m. length.
TUGS: No tugs available.
BERTHING: Due to the fact that a few vessels can work at the same time, it is advisable to know as soon as possible the ETA for berthing arrangements.

Commercial Wharf	Length 108 m.	Depth 22 ft.
Breakwater	Length 116 m.	Depth 22 ft.

A pier for coasting vessels with a maximum draft of 18 ft.
MEDICAL: Any kind of medical services can be obtained at Sant Feliu or Gerona hospitals.
FRESH WATER: By means of hoses from the pier.
FUEL: Can be supplied in small quantities.
CARGO GEAR: Commercial Wharf is served by an electric crane able to lift up to 6 tons. Normally vessel's derricks are used.
AUTHORITY: Ayudantia Militar de Marina, Raig 6, Sant Feliu de Guixols (Gerona), Spain. *Tel:* 972-320967. *Contact:* Harbour Master.

SEVILLE: 37.25 N. 06.00 W. (See Plan)

DOCUMENTS:
3 Crew Lists.
3 Passenger Lists.
2 Cargo Manifest, including cargo for discharge and in transit.
Declaration of Health.
2 Lists of Provisions and Stores.
2 Copies of Bills of Lading.

If vessel carries over 6 kilos tobacco per man the excess to be declared in a separate manifest which must be visaed by Spanish Consul at last port, otherwise is exposed to heavy fine.
PILOTAGE: *At the Bar:* Vessels may commence to enter and leave the river 1.5 hours after low water. Bar Pilots are stationed at Chipiona and come out to board vessels when requested, 2 miles North of Chipiona Lighthouse.

Pilot motor launches about 9 m. long, painted white with black "P" on sides. They carry regulation lights and signals day and night.
River Pilots: Vessels should radio their ETA at least 24 hours in advance to "Practicos Sevilla". River Pilots are stationed at the pier at Bonanza, Lat. 36° 48′ N., Long. 06° 20′ W. Sound signal to call Pilot is 3 long blasts. Pilot boards from white-painted launch marked by black letter "P" and carrying regulation signals. Pilots require means of embarkation in accordance with International Conventions.
ANCHORAGE: At Bonanza, in depth of 20 ft. below chart datum.
RESTRICTIONS: Navigation in the River Guadalquivir is prohibited at night, both inward and outward for tankers or vessels with hazardous cargoes. Any vessel with a draft greater than 19 ft. 06 in. may not leave at night.

Draft is controlled by height of tide and this should be ascertained by Owners or Agents in advance for the probable date of entry.
MAX. SIZE: Max. draft 23 ft., max. beam 24.2 m. (The limitation in beam is for passing through the lock). Lock length 200 m., width 25 m. Tankers are required to have an additional 1 ft. keel clearance.
HEALTH: Pratique is obtained on arrival at Bonanza, on presentation of International Health Certificates.
RADIO: Tarifa Radio – EAC.
VHF: Channel 12 is used to call all stations between Chipiona and Seville, and between vessels.
TUGS: Normally join vessel in the anteport. Ship's tow line is used.
BRIDGES: Vessels berthing at Delicias Quay must pass through the Alfonso XIII drawbridge. May be opened between 0715 hrs. and 2200 hrs.
STEVEDORES: 24 hours' notice should be given by Agents and confirmed 12 hours before vessels arrival.
MEDICAL: All medical and hospital facilities available.
TANKERS: There are 2 berths, depth alongside 20 ft.
At Quay No. 2, hoses 8 in. diameter.
At Quay No. 3, hoses 8 in. and 10 in. diameter.
DENSITY: Fresh water. The tide has no influence at Seville.
FUEL: All grades available.
GANGWAY/DECK WATCHMEN: Not considered necessary. All quays are watched by the Guardia Civil.
OPENING/CLOSING HATCHES: Performed by ship's crew.
CUSTOMS ALLOWANCES: 6 kilos tobacco per crew man, and 2 kilos per passenger; this includes tobacco in bonded stores. No restriction on wines/spirits.
IDENTIFICATION CARDS: Not required.
CONSULS: The following countries are represented at Seville:

Belgium
Bolivia
Canada
Colombia
Cuba
Chile
Denmark
Dominican Republic
Germany, F.R.
Great Britain
Greece
Honduras
Italy
Liberia
Nicaragua
Netherlands
Panama
Peru
Portugal
Sweden
United States
Uruguay
Venezuela

REPAIRS: All types of repairs can be effected.
DRY DOCK: Astilleros Espanoles S.A. have 1 dock, length 149 m., breadth 25 m.
REPATRIATION: All facilities available.
AIRPORT: Situated 12 km. away, regular daily flights to Madrid, Barcelona, other parts of Spain. Some transatlantic flights.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: 1st January; 6th January; 27th and 28th March,; Maundy Thursday; Good Friday; 1st May; 29th May; 25th July; 15th August; 1st November; 6th and 8th December; 25th December. All holidays may be worked with overtime.
POLICE/AMBULANCE/FIRE: Police: 091; Fire Brigade: 232123; Ambulance: 231945.
TELEPHONES: Can be installed on board if requested 10 days in advance.
SHORE LEAVE: No restrictions.
SERVICES: Fresh provisions and stores available, refuse collection, correction of compasses.
AUTHORITY: Comandancia Militar de Marina de Sevilla, Avenida de Molini, Sevilla, Spain. *Contact:* Comandante, Militar de Marina.

SOLLER, Majorca: 39.47 N. 02.46 E.

DOCUMENTS: See "Bilbao".
PILOTAGE: None available. 2 intermittent lights situated on the Mola indicate the Entry Channel.
MAX. SIZE: Advisable length and draft 60 m. and 4.50 m. respectively.
TUGS: None available.
MEDICAL: It is advisable to give advance notice if medical attention is required. There are no hospitals. Medical service is available 5 km. from the port.
FRESH WATER: Not available at the quay.
FUEL: None available. If required the order should be placed to Campsa through the Agent.
GANGWAY/DECK WATCHMEN: Crew do this operation.
OPENING/CLOSING HATCHES: Crew.
IDENTIFICATION CARDS: It is advisable to have these available.
CONSULS: None.
REPAIRS: No facilities exist.
AIRPORT: The airport is situated 40 km. away; the island is well connected with the Peninsula (mainland) and with foreign airports.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
SHORE LEAVE: Allowed.
AUTHORITY: Jefe Encargo del Despacho de Buques, Oficianas del Destacamento de la Comandancia Militar de Marina en Soller.

TARRAGONA: 41.05 N. 01.14 E. (See Plan)

PORT LIMITS: New port limits are within a rectangular sea zone limited by:
1. Harbour breakwaters and adjacent shoreline.
2. Imaginary line starting from Punta Mora (1° 09′ 36″ E.)
3. Imaginary line starting from Salou Cape (1° 20′ 33″ E.)
4. Parallel Lat. 41° 00′ 00″ N.

All the vessels anchoring within this zone will incur harbour dues.
DOCUMENTS: Cargo Manifest of all goods in ship, stating any foreign port from where those goods come. This procedure should always be done in the first Spanish port.

In first Spanish port ship should produce an Itinerary Manifest; and those ships which carry goods to discharge should produce this Manifest in those ports in which they will discharge the goods.

Supplies Certificate for those ships not having any goods to discharge in any Spanish port, or who have previously been in other Spanish port.
Register of the Supplies and Equipment in ship.
Register of the Crew's Effects, if the ship comes directly from a foreign port.
Passenger List (if there are passengers). Negative Passenger List (if there are no passengers).
Crew List.
Health Certificate, if the ship comes from another Spanish port.
Gas Free Certificate for tankers.
ANCHORAGES: The West limit is marked by imaginary line running N./S. at the end of the breakwater. East limit is marked by imaginary line between the Paseo de Sta. Clara with the cathedral tower. Depths in Rada are 16 m. and 30 m.; quite good for anchoring (mud and sand).

PILOTAGE: Every ship upon arrival should note following signals: During day, hoist flag letter "G" of International Signals Code. Sound signal, three long whistles. During the night, flash signal letter "G" of code or the letters "PT". Cable Address: Practicos Puerto Tarragona. VHF station Channels 16, 14, 12 and 9.

Pilot boats: Black colour with letter "P" painted in white on both sides. Lights: according to International Regulations. Pilotage area begins at a max. distance of 2 miles from port entrance. Ships awaiting for Pilot anchor in the Rada (Roads) and East of the lighthouse. If weather does not allow, Pilot will meet ship at port entrance. Ladder for Pilot to be placed at leeward side.

APPROACHES: *Entrance Channel:* Width 250 m., length 1,050 m., depth 15.0 m., bottom – gravel and sand.

Entrance Mouth: Width 350 m., depth 15.0 m., max. current 2 knots.

RESTRICTIONS: There are restrictions regarding berthing of Tankers in the Pantalan and Monobuoy of EMP during night hours, whatever their tonnage.

MAX. SIZE: LOA 280 m., draft 44 ft.

Largest Vessels: Bulk Carriers: Length 280 m., draft 13.31 m.

Bulk Carrier: Length 227 m., draft 13.41 m.

Tankers: Length 371 m., draft 22.10 m.

LPG Vessels: LOA 220 m., draft 40 ft.

HEALTH: Hospitals and clinics available. There is a doctor service in health department of port, which is authorised to vaccinate, and give certificates against yellow fever authorised by the OMS.

RADIO: No radio station.

VHF: Pilot on Channel 16.

TUGS: 9 tugs, 800 h.p. – 2,610 h.p. Tugs join vessel outside port. Ship's lines are used.

BERTHING: *Port Authority Facilities:*

Name	*Length* (m.)	*Depth* (m.)	*Use*
Ro-Ro Catalunya	22	20.00	General Cargo
Muelle Catalunya	673	20.00	Bulk Cargo
Ro-Ro Ramp Bernal	21	15.00	General Cargo
Muelle Aragon, 1st Section	673	12.40	Bulk Cargo
Muelle Aragon, 2nd Section	476	12.40	Bulk Cargo
Muelle Lerida, West Side	200	10.00	General Cargo
Muelle Lerida, East Side	250	8.00	General Cargo
Muelle Lerida, Head	90	9.00	General Cargo
Muelle Levante	352	9.00	General Cargo
Muelle Costa	420	6.60	General Cargo
Ro-Ro Ramp Costa	20	6.80	General Cargo
Muelle Menor Calado	80	3.80	Service Vessels
Muelle Reus, North Side	260	10.00	Bulk Cargo
Muelle Reus, Head	100	10.00	Bulk Cargo
Muelle Reus, South Side	350	10.00	Bulk Cargo
Muelle Rioja	218	12.00	Mixed Cargoes
Muelle Castilla, South Side	236	14.40	Bulk Cargo
Muelle Castilla, West Side	497	14.40	Bulk Cargo
Ro-Ro Ramp Castilla	26	14.40	General Cargo
Inflammables Platform No. 1 & 2	430	12.40	Liquids
Private:			
Muelle Exposa	428	14.40	General Cargo
Inflammables No. 3 – Butano S.A.	230	14.00	Butane/Propane

STEVEDORES: Advisable to report ETA, in order to have all the necessary equipment and necessary number of workmen required for operations. If there are not enough cranes at a given time, own ship equipment is used.

CRANES:

Electric Cranes:

Muelle Aragon: 6×6 tons, 5×12 tons, 2×14 – 28 tons, 1×35 tons, 4×16 tons.

Muelle Levante: 8×5 tons, 2×6 tons.

Muelle Costa: 5×3 tons.

Muelle Reus (North): 4×6 tons.

Muelle Reus (South): 4×6 tons, 2×12 tons.

Muelle Rioja: 5×6 tons.

Muelle Castilla (South): 2×16 tons, 4×12 tons.

Muelle Castilla (West): 2×12 tons, 3×16 tonnes.

Muelle Exposa: 4 portico × 12 – 28 tons. 1 container crane × 40 tons.

Muelle Lerida (South Side): 3×6 tons, 2×12 tons.

Muelle Lerida (West and East Side): None.

Mobile Cranes:

1×1 – 6 tons, 2×3 – 30 tons (Astilleros Tarragona).

Floating Crane: 1×65 tons.

SPECIALISED CARGO HANDLING FACILITIES:

Location	*Owner*	*Characteristics*
Muelle Aragon	Silos de Tarragona, S.A.	Cereal silos of 44,000 tons capacity, with 2 automatic lifts for grain of 400 t.p.h. and pneumatic scales of 5 tons for weight control, 2 elevators for filling and recirculation of 400 t.p.h., 2 elevators at the entrance and 2 at the exit, all 4 producing 300 t.p.h. each. A grain conveyor belt from the berth to the silos of 400 t.p.h.
	Berge y Cia. S.A.	Polyvalent warehouse for cereals and other uses of 35,000-ton capacity with 4 mechanical lifts for grains with with a capacity of 250 t.p.h. each, 2 conveyor belts of 250 t.p.h. and another of 500 t.p.h. and 1×60 ton weighbridge with 15 m.×3 m. platform.
Muelle Lerida	Junta del Puerto	Quay and ramp for the loading/unloading of vehicles.
Muelle Costa	La Vinicola Mestre, S.A.	Pipe of 15 cm. diameter with 3 outlets for the loading of wine in bulk to tankers ex-factory.
Muelle Reus	EDEGRASA	3 outlets with 4 pipes for the loading and unloading of chemical products onto or from tankers with capacity of 20,758 cu.m. of storage at 150 t.p.h. and 1×60 ton weighbridge with 15 m.×3 m. platform.
Muelle Reus	Cia. Industrial de Abastecimientos, S.A.	Port silos for grain of 30,700 tons capacity, with 3 elevators for filling and recirculation and 2 conveyor belts for filling and unloading of 300 t.p.h. and 1×60 ton weighbridge with 15 m.×3 m. platform. 1 pneumatic unloader of 150 t.p.h. 2 conveyor belts for grain from berth to silos of 300 t.p.h. each.
Zona entre contradiques	Cia. Industrial de Abastecimientos, S.A.	Oil-seed extractor plant with 2 silos of 10,000 ton total capacity and 60 ton weighbridge with a 15 m.×3 m. platform.
Muelle Reus	Cementos del Mar, S.A.	Two silos of 4,000 ton total capacity for loading and unloading of cement, and 60 ton weighbridge with a 15 m.×3 m. platform.
Muelle Reus	CAMPSA	2×10 in. pipe-lines for the loading and unloading of liquid combustibles producing 250 t.p.h. Fuel supply to fishing boats with 2 outlets and 4 in. pipeline.
Muelle Rioja	CAMPSA	3×10 in. pipe-lines and 1×12 in. for the loading and unloading of liquid combustibles producing 250 – 350 t.p.h.
Muelle Rioja	Terminales Quimicos, S.A.	Firefighting system consisting of an electric pump, a diesel pump and two Sockey pumps.
Zona entre contradiques	,,	Chemical products terminal with 45 tanks and total capacity of 28,016 cu.m. and one loading and unloading outlet with 4×6 in. pipelines.
Zona Inflamables	TEPSA	Chemical products terminal with 27 heat-resistant tanks, in stainless steel, equipped for possible supply of heat and for the recirculation of the content together with a loading and unloading pump and individual loading arm for each tank.
Atraques No. 1 & 2 Inflamables	TEPSA	6 Terminals with 4×6 in. stainless steel pipes and 2×6 in. cast steel pipes (for each Berth No. 1 and No. 2).
Muelle Castilla	Cia. Industrial de Abastecimiento, S.A.	Silos for grain of 40,000 tons capacity and a 10 ton receiving hopper scale, 2 elevators for filling and recirculation and 2 conveyor belts for filling and unloading of 800 t.p.h. each. An automatic unloader of 800 t.p.h. A pneumatic unloader of 450 t.p.h. for grain from ship to silo. A conveyor belt from berth to silos of 800 t.p.h.
Atraque Inflamables	Butano, S.A.	2×8 in. pipe-lines and 1×10 in. for the loading and unloading of LPG with an average of 100 t.p.h. in normal unloading conditions (they do not allow an operational temperature of less than 4°).
Atraque No. 1 de Inflamables	Terminales Quimicos, S.A.	4 outlets with 4 pipes of 6 in.
Puerto Exterior	Asfaltos Espanoles, S.A.	Dolphin 1,300 m. long with 3 moorings for ships of 7,500, 20,000 and 80,000 d.w.t. On the jetty of Asfaltos Expanoles, S.A. (ASESA) there are a total of 24 pipes; 2×20 in. diameter for crude and naphtha with capacity of 14,000 t.p.h. and 1,000 t.p.h. respectively. 1×16 in. for ballast at 1,000 t.p.h.; 6×12 in. for fuel-oil (2), naphtha (2), asphalt (1) and water (1) for fire-fighting with a capacity of 600 t.p.h. 3×10 in. for diesel, petrol and ethylene with capacities of 500, 600 and 250 t.p.h. respectively. 1×8 in. for propylene at 120 t.p.h. 7×6 in. for different chemical products with a capacity of 100 t.p.h.; and 1×4 in., 1×3 in. and 2×2 in. for water supply and gas returns.

Puerto Exterior	ENPETROL	Dolphin 1,489 m. long with 3 moorings for ships of 11,000, 35,000 and 100,000 d.w.t. 2 pipes for crude oil of 30 in. diameter and 56 in. diameter. Capacity 3,500/12,500 t.p.h. 6 pipes for fuel-oil, petrol, diesel and unballasting of 20 in. diameter. Capacity 100/1,800 t.p.h. 3 pipes for naphtha, propylene and kerosene of 14 in. diameter. Capacity 400 t.p.h. Monobuoy for loading and unloading of ships up to 250,000 d.w.t. in normal conditions and exceptionally up to 325,000 d.w.t. and 40 m. draft. 2 floating hoses of 300 m. radius of 24 in. whose connection with the ships is 16 in. ASA or 150 lb. and a capacity of 12,500 t.p.h.

CARGO HANDLING EQUIPMENT: (Private).
Fork Lift Trucks: 50×2.5–40 tons.
Fork Lifts with Spreaders for Containers: 4×40 tonnes and 3×25/32 tonnes.
Shovel Loaders: 43×0.5 tonnes – 13.5 tonnes.
Grabs: 9×3 tons; 13×5 tons; 47×6 tons; 44×12 tons and 9×16 tons.
Hoppers for Trucks: 17×8 tonnes – 50 tonnes.
Conveyor Belts: 11×250-800 t.p.h. for bulk cargoes.

TANKERS:
A.S.E.S.A.:

Berth	*Length* (m.)	*Depth* (m.)	*Use*
Platform 50	280	14.0	Petroleum
Platform 20	180	11.0	Petroleum
Platform 6	130	9.0	Petroleum (also see "LPG")

ENPETROL:

There are 4 berths with the following identification and characteristics:

Berth	*Max. Draft*	*d.w.t.*	*LOA*
80 S	14.47 m. (47.59 ft.)	100,000	149 m. – 269 m.
35 S	11.40 m. (37.50 ft.)	40,000	85 m. – 210 m.
35 T	11.40 m. (37.50 ft.)	40,000	85 m. – 210 m.
11 S	8.05 m. (26.48 ft.)	11,000	25 m. – 140 m.

Mooring and unmooring manoeuvres are performed with the assistance of tugs.

No engine repair is allowed that could prevent the immediate departure of the tanker. The International Safety Regulations are to be observed.

Monobuoy:

SBM type, with a diameter of 11 m. Anchored with 6 chains, 42 m. depth. Connected to the Monobuoy are 2 floating hoses of 24 in. diameter, 287 m. length. Vessels sailing in the proximity should give a wide berth.

The Monobuoy geographic location:
Lat. 41° 04.1′ N., Long. 1° 13.3′ E.

Day marking of Monobuoy: Yellow "X" shaped figure. Night marking by yellow light visible all round, with 4 flashes every 20 secs., range 5 miles.

Dirty Ballast:

At the installations of EMP there is a plant for the disposal and treatment of ballast with a maximum capacity of 30,000 cu.m. at a maximum flow of 2,000 cum.p.h. The plant is available to all tankers due to take cargo in the Pantalan.

Also see "Specialised Cargo Handling Facilities".

NOTE: The EMP Jetty and Terminal Port Captain requires: (1) Vessels due to load/discharge liquid products must guarantee at all times their tanks are free of oxygen; and (2) vessels fitted with IGS must provide for and prove their system is in good working order before approaching any of the EMP jetty berths.

Gas Free Certificates: Gas Free Certificates will be required for all tankers, no matter what the previous cargo carried was.

Inward Cargo Manifest: The Customs House will no longer accept general cargo denominations like "chemicals", "productos quimicos", "acids", etc.

All commodities must be manifested with their denominations, viz. "Ethylglycol", "Styrene Monomer", "Sulphuric Acid", etc.

LPG:
Asesa Berth No. C-06:

Ship's Length	Minimum 75 m., maximum 125 m.
Draft	Maximum 25 ft.
Deadweight	Pier owners (Asesa) receive vessels up to 5,000 d.w.t. at this berth.
Allowed weather conditions for berthing	Max. wave height 70 cm. – 80 cm. Max. wind force 35 km./hr. – 40 km./hr.
Mooring Details:	See "Plan".

Products:
Ethylene:

Storage capacity	9,000 tonnes (2 tanks)
Operating pressure storage tanks	10 gm. – 65 gm.
Design pressure storage tanks	70 gm.
Compressor capacity	4.6 tonnes per hour
Pipe-lines to berth	Liquid nominal diameter 10 in. Liquid nominal diameter 2 in. (for pre-cooling purposes only)
Lengths of pipe-lines	1,100 m.
Unloading facilities on dock	Chicksan type DCMA, nominal diameter 8 in., length 46 ft.
Unloading rate max.	400 tonnes per hour at −103°C (at higher temperatures unloading rate decreases fast).

Propylene Oxide:

Storage capacity	1,600 tonnes (1 tank)
Operating pressure	0.3 – 0.45 kg./sq.m.
Design pressure	0.50 kg./sq.m.
Pipe-lines to berth	Liquid nominal diameter 8 in. Vapour nominal diameter 4 in.
Lengths of pipe-lines	1,100 m.
Unloading Facilities on dock	SS hoses nominal diameter 4 in. (for vapour)

FRESH WATER: Supply of fresh water by means of an underground pipe in all the commercial quays of the port. Rate 5 t.p.h. – 15 t.p.h. per connection. Max. rate per berth, 45 t.p.h. at Muelle Aragon.

Ship's Master advises that water is very saline and it is not advisable to take any on board.

FUEL: Fuel oil, diesel oil and gas oil available. Request of this supply should be done with 24 hours' notice through the Commercial Agent of Campsa.

CONSULS:
Brazil
Colombia
Costa Rica
Cuba
Finland
France
Guatemala
Italy
Sweden
United Kingdom

CUSTOMS ALLOWANCES: It is permitted to have a packet of cigarettes per person per day. Unlimited allowance of national drinks.
IDENTIFICATION CARDS: Not required.
REPAIRS: Small repairs available.
DRY DOCKS: None.
GANGWAY/DECK WATCHMEN: Not compulsory, if Master requires them he is provided with specialised staff for this purpose.
OPENING/CLOSING HATCHES: Although this work is normally carried out by crew it can be done as well by the stevedores if required at extra charge.
REPATRIATION: Facilities exist.
AIRPORT: The town of Reus 12 km. distance has a military airport that is also used for charter flights and regular flights to Madrid.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: January 1st and 6th; May 1st; June 24th; August 15th and 19th; September 11th and 23rd; October 12th; November 1st; December 6th, 8th, 25th and 26th. Also: Good Friday and Easter Monday.
POLICE/AMBULANCE/FIRE: Police 21 01 15; Ambulance at local hospital 21 15 54; Fire 54 70 80.
SHORE LEAVE: Allowed.
DEVELOPMENTS: Cataluna Quay, when completed, will accept vessels of 175,000 d.w.t.

SHIPMASTER'S REPORT: February 1987.
Vessel: 95,000 d.w.t.
Documents:
6 copies Crew List.
2 copies Crew Declaration.
3 copies Stores List.
1 copy Health Declaration.

Two Health Officers boarded. Ship's stamp required on all documents.

Anchorages: Vessel anchored one mile off East Breakwater. Bottom is mud and holding good.

Tugs: One tug secured forward and aft. 2 ship's lines used through the centre fairleads.

Berthing: Vessel berthed at the Southern outermost berth. Vessel steams in and lets go starboard anchor. Two headlines and one forward backspring are sent ashore after which vessel swings to port with assistance from the tugs. The backspring is to be kept tight. First line ashore aft is a spring. The lines to the tugs are sent ashore by a boat.

On completion of mooring the vessel has forward: 4 headlines, 2 breastlines and 2 springs. Aft: 4 sternlines, 2 breastlines and 2 springs and an additional line to the starboard quarter buoy.

Gangway: Normally a shore gangway is provided but on our visit it was being repaired.

Shore Leave: Passes are required for shore leave. Transport is required.

SHIPMASTER'S REPORT: June 1987.

Vessel arrived at 1700 hrs. and Pilot boarded at 1800 hrs. Vessel all fast at 1900 hrs.

On entering the Pilot boards about one mile from the breakwater and on departure he leaves just inside the breakwater.

Vessels of Panamax size use 3 tugs. Tugs' performance was reasonable.

Our arrival draft was 12.83 m. and the present maximum draft at the bulk terminal is 14.0 m.

There is a new berth nearing completion (Cataluna Quay) which will have a depth alongside of 20.0 m.

A new SBM is being positioned off the port to take maximum size vessels.

No Spanish arrival forms provided. I.M.O. forms used. Arms and Ammunition List, Passenger List and Drugs List required. These may be typed on ship's paper. Agent requires Load Line Certificate, Safety Certificate, Radio Certificate, Safety Construction Certificate and I.O.P.P.

Cargo operations commenced at 0900 hrs. the following day and cargo (11,000 tonnes) was completed at 0115 hrs. the next day. Documents completed at 0200 hrs. and Pilot boarded at 0300 hrs. The vessel was clear of the berth at 0340 hrs. and Pilot departed at 0410 hrs.

SHIPMASTER'S REPORT: September 1987.
Chart: BA. Chart No. 1193.
Documents:
6 copies Crew List.
2 copies Crew Declaration.
2 copies Manifest.
1 copy Health Declaration.
2 copies Cargo Manifest.

Terminal shore passes are issued to all crew members. Customs are likely to board the vessel at any time.

Anchorage: Anchorage is outside the breakwater in the area indicated on BA. Chart No. 1193. Depth is about 15 fathoms. This is not a good anchorage in Winter due to the heavy ground swell.

Pilotage: The Pilot boards at the anchorage or off the breakwater entrance near the green buoy marking the breakwater extension. Berthing is only carried out during daytime. However, unberthing is possible throughout 24 hours. Unberthing for small vessels may be allowed without the use of a Pilot if no Pilot available.

Movements inside the harbour only take place during daylight hours.

Pilot may be contacted on VHF Channels No. 12 and 9.

Berthing: Ethylene is handled at 2 piers operated by EMP (Berth No. 11) and ASESA. Vinyl Chloride Monomer (VCM) is handled at one pier by ASESA.

Vessel berthed port side to head out at Berth No. 11 (EMP). The berth is very open to southerly winds and swells. Moorings consisted of 3 head/stern lines and 2 springs at each end. The starboard anchor was also used and a line was run from aft to the off shore buoy.

Personnel are not allowed to walk down the pier. A mini bus is provided by the terminal. No stores are allowed on pier. The ASESA Pier is the nearest to the city and the depth on Berth "C" is 30 ft.

VCM is handled on Berths "B" and "C" and ethylene is handled at Berth "B". Vessel berthed starboard side to head out. Moorings consisted of 3 head/stern lines and 2 springs forward and aft. Port anchor used.

In Winter time a line is run to the offshore buoy aft and a heavy shore spring is provided forward. The berth is effected by wind and swells from the South but to a lesser extent that the EMP berth. Vehicles with stores are allowed to within 100 m. of the vessel. There is a mini bus every hour on the half hour from 0730 hrs. to 0230 hrs. from the pier to the city centre and on the hour from 0800 hrs. to 0300 hrs. from the city to the pier.

Cargo:
EMP: Ethylene is handled through an 8 in. Chicksan at the EMP Berth. The arm is the nearest arm to the shore. The ship's maximum pumping rate is allowed up to a back pressure of 2 Bar. Samples can take up to 3 hours.

ASESA: Ethylene is handled through an 8 in. Chicksan. Ship's maximum pumping rate allowed up to a back pressure of 3 Bar. Samples take about 3 hours.

DOW: Ethylene pipelines are interconnected between both berths so berthing can take place on either pier, depending upon availability.

VCM loading is also carried out at ASESA through stainless steel/rubber hoses of 4 in. (liquid and vapour). Ambient storage. (In August our intake temperature was +28° C). Vapour can only be pumped ashore. The terminal has 2 loading pumps which give loading rates of 90 t.p.h. or 150 t.p.h. Samples take 1.5 hours per ship's tank.

VCM storage capacity is 6,000 tonnes in 2 × 3,000 tonne tanks. One tank is for finished product and one for production. Maximum production 450 tonnes per day. However this is greatly reduced in the Summer months due to the high temperature.

Ethylene is purchased from local supplier to produce VCM.

General: There are many ship chandlers in the area.

Fresh water available by barge at both piers. Water is not of good quality and should be only taken in emergency.

Nearest main airport is at Barcelona which is 2 hours drive.

The construction of the breakwater extension has ceased for the present time. The Pilot reported that work is not expected to resume in the near future.

A new quay for bulk cargoes has been completed. Depth alongside 21 m. The channel and turning basin leading to the berth is also dredged to 21 m. Maximum draft permitted at the new berth is 20 m.

AUTHORITY: Junta del Puerto de Tarragona, Arranque Rompeolas s/n, 43004 Tarragona, Spain. *Tel:* 977-226611 and 226709. *Telex:* 56520 JOPT-E. *FAX:* (977) 225499. *Contact:* Antoni Pujol Niubo, President. Luis Grau Sbert, Port Director.

TORREVIEJA: 37.58 N. 00.40 W.

PORT LIMITS: The port limits are considered to be at 1 mile distance from the lighthouse at the end of the Eastern Dock or breakwater.

DOCUMENTS:
4 Crew Lists.
4 Lists of Passengers.
10 Cargo Manifests, including Cargo in Transit, together with cargo for Alicante. Tobacco and Cargo Manifests visaed by the Spanish Consul in the port of origin. All the vessel's certificates, and where necessary in respect of the cargo which international regulations require.

PILOTAGE: The corporation does not have a radio station, however, it does have a walkie-talkie with a range of about 12 miles on VHF equipped with the following Channels: 6, 9, 11, 14, 16. The pilot craft is 10 m. overall length and is painted white, with the letter "P" painted in black on the sides. The pilot craft normally operates within a 1 mile radius of the white light of the breakwater lighthouse.

ANCHORAGE: The anchorage which is most recommended for vessels is 1 mile from the breakwater, with a sandy bottom and good holding ground.
MAX. SIZE: The port's maximum sizes are: Overall length 150 m. Max. draft on entry of 21 ft., if the vessel has to remain anchored awaiting a berth, and max. departure draft of 29 ft. 6 in.
HEALTH: Regulations as laid down by the International Foreign Health Requirements are enforced.
RADIO: Coastal station at Alicante; on MF with average range of 220 miles, and on VHF with a range of 40 miles.
TUGS: None available.
BERTHING: There is a berth in the Western Dock, with a length of 360 m., and a max. depth of 10 m. The loading operations are effected by shore equipment, provided that bulk salt is being loaded, or with the vessel's gear when bagged salt is being loaded.
CRANES: The port has no cranes, however, a mobile crane can be used for any weight which has to be loaded, the max. capacity of this crane is 7 tons.
STEVEDORES: There are no stevedoring gangs as the work force is employed by the Salt Plant. The only commodity loaded is salt and work is between 0600 hrs. and 2200 hrs.
MEDICAL: If a doctor is required by the Master, medical services can be furnished locally, it being necessary to transfer the patient to clinic in Alicante, if the case is serious.
TANKERS: No facilities available.
DENSITY: Average port density is 1030.
FRESH WATER: Available. Rate 5 t.p.h.
CUSTOMS ALLOWANCES: Each crew member is permitted to have 200 cigarettes and 1 bottle of spirits out of ship's bond.
REPATRIATION: Possible.
HOLIDAYS: Normally no work is done in the port on the following holidays: New Year (January 1st), Epiphany (January 6th), San Vicente (April 23rd), Maundy Thursday, Good Friday; Labour Day (May 1st); Festival of San Pedro (June 29th), Corpus Christi; Santiago Apostol (July 25th); Assumption Day, Festival of the Spanish speaking world (October 12th); All Saints (November 1st); Immaculate Conception (December 8th) and Christmas Day (December 25th).
AUTHORITY: Ayudante Militar de Marina.

VALENCIA: 39.27 N. 00.18 W. (See Plan)

DOCUMENTS:
3 Crew Lists.
2 Passenger Lists or a negative.
1 Cargo Manifest of goods destined for the port.
Another manifest covering transit cargo.
2 Stores Lists, including tobacco, cigars, cigarettes, coffee, spirits, radios, cameras, etc., in possession of crew. In all cases make and number of radios to be indicated.
Safety Radio Certificate and Safety Equipment Certificate.

If vessel carries over 6 kilos tobacco per man, the excess to be declared in a separate manifest, which must be visaed by Spanish Consul at the last port, otherwise vessel is exposed to heavy fine.

Shipmaster's Report: November 1988.
Customs: 2 Stores Lists.
2 Crew Declarations.
2 Crew Lists.
2 (nil) Passenger Lists in Spanish.
2 copies Manifests of Cargo in Transit.
Quarantine: 1 Maritime Declaration of Health.
1 Crew List.
1 (nil) Passenger List in Spanish.
Agent: 1 Crew List.
1 Crew Declaration.
1 (nil) Passenger List in Spanish.
1 Stores List.

PILOTAGE: Pilotage is compulsory for this port. Day and night service. The pilot launch is painted black with a letter "P" painted in white on the sides.
ANCHORAGES: There is a good anchorage outside the port, vessels are required to keep the entrance channel clear.
RESTRICTIONS: Entrance to the port faces S.E. and is 260 m. wide, with a low water depth of 15.0 m.
MAX. SIZE: The following size vessels have entered the port.

GRT	*LOA*	*Draft**
85,982 tons	294 m.	10.67 m.
44,688 tons	257 m.	13.30 m.

*Real draft on entry/departure.

HEALTH: If the vessels proceed directly to berth, Pratique can be obtained immediately after berthing. Otherwise, at anchorage at vessel's arrival.

If vessel has sickness on board of a contagious nature Master should advise Health Authorities by radio, and they will examine patients immediately upon arrival, to enable vessel to be granted Free Pratique.
RADIO: Coastal radio station with international frequencies 1580 kHz.

ETA to be sent to Agent in advance.
TUGS: 10 tugs available up to 2,300 h.p. Two tugs normally used for berthing and unberthing.

BERTHING: Quays operated by Port Authority:

Name	*Length* (m.)	*Depth* (m.)	*Use*
North Basin New Quay	600.00	16.00	Solid Bulks
North Pier	176.00	9.00	Containers
Extension, Levante	600.00	14.00	Containers
Levante 1	150.00	9.00	Containers
Levante 2	338.00	9.00	General Cargo
Levante 3	440.00	12.00	Solid Bulk, General Cargo and Ro/Ro
Transversal of Outer Levante	123.00	7.00	Ro/Ro
Inner Levante Transversal	185.00	7.00	Ro/Ro
Customs Quay (1st Section)	75.00	7.00	General Cargo
Customs Quay (2nd Section)	115.00	7.00	Containers
Grao Quay	195.00	7.00	Ro/Ro, General Cargo
Estacion Quay (1st Section)	130.00	7.00	Ro/Ro, Passengers
Estacion Quay (2nd Section)	130.00	7.00	Ro/Ro, Passengers
Estacion Quay (3rd Section)	98.00	7.00	Ro/Ro, Passengers
Nazareth Quay	175.00	7.00	Ro/Ro
Inner Poniente Transversal	212.00	7.00	General Cargo, Ro/Ro
Transversal of Outer Poniente	206.00	7.00	General Cargo, Ro/Ro
Poniente Quay (1st Section)	186.00	9.00	General Cargo
Poniente Quay (2nd Section)	220.00	11.00	General Cargo, Logs
Turia Pier, Extension North, Section 1	62.00	9.00	Fluids with Special Installation
Turia Pier, Extension North, Section 2	219.00	11.00	General Cargo
Turia Pier Head	183.00	14.00	Solid Bulks with Special Installation
Turia Pier, Extension South, Section 1	166.00	9.00	Petroleum Products and General Cargo
Turia Pier, Extension South, Section 2	194.00	11.00	Petroleum Products and General Cargo
Turia Quay	404.00	9.00	Bulks and General Cargo
South Quay	600.00	14.00	Bulks, General Cargo, Timber
Ship Breaking Quay	200.00	7.50	Ship Breaking (Private)
Pantalan	210.00	12.00	Petroleum Products (Private).

CARGO HANDLING FACILITIES:
Special Loading/Unloading Facilities:

Location	*Owner*	*Remarks*
Turia Pier Extension South	C.A.M.P.S.A.	3 petroleum products points connected to pipe-lines, pumping installation.
Turia Pier and Turia Pier Head	C.A.M.P.S.A.	Petroleum products point connected to pipe-lines, pumping installation.
Sur Breakwater	C.A.M.P.S.A.	Unloading or petroleum products. Pier with pipe-lines up to the factory.
Turia Pier Head	Cia. Valenciana de Cementos Portland, S.A.	Loading of cement in bulk conducted by a rolling bridge, crane fed, with a conveyor belt from silos.
Turia Pier Extension North	Demagrisa	Vegetable oils point. Point for wine. Both connected to a pipe system with pumping installation.
Turia Pier	Esdecasa	Pneumatic unloading of grains and seeds by a suction machine, connected to a conveyor belt placed in the gallery.
Turia Pier	Industrias Quimicas del Carbono	Chemical products point, connected by a pipe, pumping installation.
Turia Pier Extension South	Proas	Asphalt products point, connected by a pipe, pumping installation.
Turia Pier Extension South	Demagrisa	Point for wines, connected to a pipe-line, pumping installation.
Turia Pier	Terminales Portuarias, S.A.	Chemical products point, connected by a pipe-line, pumping installation.

Facilities for Specific Traffic:
Discharge of Petroleum Products: Pier capable of accepting vessels up to 210 m. long with 12 m. draft, having a discharging capacity of 1,000 t.p.h.
Loading of Cement: Special facility using two simultaneous systems by means of conveyor belts from silos and by pneumatic hose from truck, reaching an output of 800 t.p.h. This is carried out at a pier with depths up to 14 m.
Container Terminal: The main berthing line is 600 m. long and has a depth of 14 m., with 3 Portainer cranes of 32.5 tons capacity being available. The other berthing line is 176 m. long and has a depth of 9 m., with one Portainer crane of 30 tons capacity. It has surface area of 160,000 sq.m., with a storage capacity of some 6,500 containers (equivalent to 20 ft.) The equipment is comprised of 8 transtainers of 32.5 tons on wheels and 2 fork-lifts of 40 tons.
Roll-on/Roll-off Traffic: There are 12 specialised berths for this traffic. Between Muelle Levante and Transversal de Levante Exterior, there are 2 corner berths with depths of 12 m. and 7 m. In the Darsena Interior there are 7 berths with depths between 7 m. and 7.5 m.

Between Transversal de Poniente Exterior and Poniente there are 2 corner berths with water depth of 7 m. and 9 m. respectively. Finally, at Espigon del Turia Sur there is a berth with a 11 m. water depth.
Passengers Traffic: Modern marine station with fingers to embark/disembark at the Station Quay.

CRANES: The Port Authority operate 68 gantry cranes with capacity of 3 tons to 30 tons and 4 mobile cranes. 16 privately owned shore cranes and 3 privately owned mobile cranes also available.

TANKERS: *C.A.M.P.S.A.:* One berth, length 210 m., depth 10 m.
Pipe-lines: The port areas equipped for oil traffic are connected to the C.A.M.P.S.A. plant by means of a network of 5 pipe-lines, starting at the Turia Pier and Quay, and ending at the plant itself. These pipe-lines are 1×10 in. diameter with a capacity of 300 cu.m./hr., and another of 8 in. and 250 cu.m./hr. for movement of fuel-oil.

2×8 in. diameter and 250 cu.m./hr.; one for gas-oil and one for gasoline. There are also means of delivery of aviation paraffin by means of 1 pipe-line 6 in. diameter at the rate of 120 cu.m./hr. Also see "Berthing".

MEDICAL: All medical services available in the port and in the city.
REPAIRS: All types of hull and machinery repairs can be effected.
FLOATING DOCK: 1 floating dock available, owned by Union Naval de Levante. Interior length 143 m., interior width 24.60 m. Lifting capacity 8,000 tonnes.
CUSTOMS ALLOWANCES: Normally Customs permit 200 cigarettes per man out of bond. Additional quantities needed depend on the stay of ship in port. One bottle of spirit per man.
FRESH WATER: Available at all main berths at the rate of 30 t.p.h.
FUEL: C.A.M.P.S.A. can supply by pipelines at the Turia berths, at the rate of 100 t.p.h. – 280 t.p.h.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
AIRPORT: Valencia Airport, 15 km. from the port.

CONSULS: The following countries are represented in Valencia:

Argentina
Austria
Belgium
Benin
Bolivia
Brazil
Colombia
Costa Rica
Chile
Denmark
Dominican Republic
Ecuador
El Salvador
Finland
France
Germany (F.R.)
Greece
Guatemala
Haiti
Honduras
Iceland
Italy
Ivory Coast
Liberia
Mexico
Monaco
Norway
Netherlands
Panama
Paraguay
Peru
Portugal
Sweden
Switzerland
U.S.A.
Uruguay
Venezuela

POLICE/AMBULANCE/FIRE: Police 091; Fire 3730080; Ambulance 3606211, 3526750.
HOLIDAYS: Work can be arranged on following holidays. New Year's Day (January 1st, full day); Epiphany (January 6th, full day); Saint Joseph (March 19th, full day); Easter (two days); Saint Joseph Artisan (May 1st, full day); Labour Day (July 16th, full day); Patron Saint of Spain (July 25th, full day); Assumption Day (August 15th, full day); Community Day (October 9th, full day); Holiday of Hispanicism (October 12th, full day); Holiday of the Virgin Mary (December 8th); Christmas Day (December 25th, full day).

The Public Container Terminal working time is 24 hours a day, every day, except Saint Joseph Artisan (May 1st, full day); New Year's Day (January 1st, full day) and Christmas Day (December 25th, full day).

DEVELOPMENTS:
Approaches to the Port: Improvements: In 1987 work on the approaches to the port continued, by finishing those already in progress and constructing a new stretch which will complete the whole communication with the port area.

The above mentioned work includes the construction of a two way bridge over the old river bed, and the widening of the latter in order to allow a better water flow.
East Breakwater: Work has begun on building a new area claimed from the sea, where chemical products terminal of TEPSA will be situated. It will allow its separation from the urban zone of Nazaret.
Levante and Cabanal Quay: Initial works have been finished on the expansion of the pier edge permitting the increase of the water depth from 9.0 m. to 12.0 m. in a section of 440 m. of the Levante Quay.

A jetty, 69 m. long and 3 m. wide, has been constructed at the Cabanal Quay to improve the fishing basin.
South Quay: Work has begun on building a new shed that increases the covered surface area available.

3,375 sq.m. of covered surface area will be gained, having a free space between pillars of 45 m. and a minimum free height of 8.50 m. anywhere.

AUTHORITY: Puerto Autonomo de Valencia, Muelle de la Aduana, S/n, 46024 Valencia, Spain. *Tel:* 34-6-3230991 (international) and 96-3230991 (national). *Telex:* 64508. *FAX:* 34-6-3233272. *Contact:* The General Manager.

VIGO: 42.14 N. 08.40 W. (See Plan)

DOCUMENTS:

Maritime Declaration of Health.
Crew List.
Passenger List.
Manifest of Cargo for the Port.
Manifest of Cargo in Transit.
Ship's Stores List.
Crew's Personal Effects List.
Ship's Particulars Declaration.

Note: Tobacco. In case the vessel carries more than 6 kilos of tobacco per man, the excess must be declared in a separate manifest, which must be visaed by a Spanish Consul. In the absence of the Consul, said document will have to be visaed by an authority of the former port of clearance. Otherwise the vessel would be severely fined.

PILOTAGE: Pilotage at Vigo is compulsory and the service permanent day and night. Pilots board in auxiliary motor-boats with a letter "P" in white at both sides of the hull and a blue flag with the letter "P" in white, near the entrance of the harbour, in the zone included inside Punta Lameda-Cabo Vicos on the channel of the South Entrance and inside Punta Caballo-Subrido, on the channel of the North, both situated to the West of the harbour. At night the pilot boats have a white light visible around the horizon and under this light another red one, also visible around the horizon. International Code signals used to call Pilot, or 4 long blasts on the whistle. Pilot station situated at Transatlanticos Pier 3. Pilot boats normally on station on a line connecting Borneira and Transatlanticos Pier.

ANCHORAGE: Several suitable anchorages in the Vigo Estuary, naturally sheltered, in depths of more than 35 m. The main anchorage opposite the port on the South side of the "Ria" has depths of 15 m. – 25 m.

MAX. SIZE: No limitation for length and beam, unlimited deep water approaches.

HEALTH: If vessels proceed directly to the berth, Pratique can be obtained immediately after berthing. Otherwise, at the anchorage on vessel's arrival. In case of suspected disease or fever on board, the Master must send a radio message to the Agent in order that they advise the Health Office.

RADIO: The nearest Radio Station is Vigo Radio, situated in the limits of Vigo Port.

TUGS: No tug-boats are required for entering the port. Only used for berthing ships from 120 m. length upwards according to Pilot's advice. At Vigo there are 5 modern tugs of 750 h.p., 950 h.p., 1,375 h.p., 1,600 h.p. and another of 5,000 h.p.. Tugs join vessel off the berth. Tug's line used at no extra charge.

BERTHING: The commercial piers to load or unload have a depth of up to 36 ft. and the Transatlantic Pier, depth of about 40 ft. at LW. The tide difference between HW and LW is about 3.5 m.

At Rande, in the Lower Harbour, there are very modern special loading installations for mineral ore, at an average rate of 2,000 t.p.h. The depth alongside this installation is 36 ft. LW.

Containers: Unloaded at the Arenal Quay with 15 tonne and 28 tonne cranes. Depth 10 m. at Spring low tides, and at the Transversal Quay with a 30 tonne crane.

Ro-Ro traffic: In addition to Bouzas Terminal mentioned below, there is one fixed ramp at the Commercial Quay, berthing length 250 m., depth 9.0 m. and 1 adjustable ramp at the Transatlantic Quay, berthing length, 200 m., depth 6.0 m.

Terminal de Transbordadores de Bouzas: 3 berths with Ro/Ro ramps, lengths 100 m., 150 m. and 200 m. Depths at LWS 8.0 m., 8.0 m. and 10.0 m. respectively. Storage area 60,000 sq.m.

Guixar Quay: 240 m. length with depth 12.0 m. and 550 m. with depth 17 m. Land area 22.0 Ha. The quay will be used for containers, bulk cargo and oil, when completed.

Repair Quay: Length 344 m. Depth alongside 5.0 m.–12.5 m. The quay is used for repairs to vessels whilst afloat.

CRANES: 43 cranes with capacity up to 40 tonnes. 2 floating cranes with capacity up to 150 tonnes.

TANKERS: Tankers berth at a pier depth alongside 11 m. at LW. Tankers up to 300 m. length acceptable. Inner berth suitable for vessels of less than 100 m. length with a draft of 6 m. Discharge lines 12 in., 10 in. and 2×8 in. diameter.

STEVEDORES: It is very important that Masters send advance notice regarding the vessel's ETA. With this notice, Agents can inform Shipper's or Receivers' stevedores accordingly, so that they arrange operations properly. The official working hours of the port for general cargo are Monday-Friday 0830 – 1230 hrs., 1400 – 1800 hrs. With intensive shifts 0830 – 1430, 1430 – 2030 and 2030 – 0230. Saturdays at holiday rates, 0830 – 1430 and 1430 – 2030 with possibility of 1 hour extension to complete only. Sunday and holidays: 0830 – 1430, with additional overtime payments till 0230.

MEDICAL: Doctors and hospital facilities available. Advance notice preferred in urgent cases.

DENSITY: Average 1026.

FRESH WATER: Available from the quays at the rate of 50 – 80 t.p.h. Can also be supplied by tugs at 500 t.p.h.

FUEL: Available from the Oil Pier or delivered by barge. 24 hours' notice of requirements recommended.

GANGWAY/DECK WATCHMEN: Available from shore if required.

OPENING/CLOSING HATCHES: Opening may be done by crew to avoid delays. Closing hatches usually performed by crew.

CUSTOMS ALLOWANCES: 200 – 250 cigarettes or 6 kilos of tobacco and 2 bottles spirits may be held out of bond for each person. Wine not restricted.

IDENTIFICATION CARDS: Shore passes are provided by the Agent.

CONSULS: Most countries have consulates at Vigo.

REPAIRS: All types of deck and engine repairs are possible.

SURVEYORS: Lloyd's Register.

FLOATING DOCKS: One floating dock available: Length 128 m., breadth 22.40 m.

REPATRIATION: Crew changes and repatriation can be arranged without difficulty.

AIRPORT: Local airport, situated 8 km. from the port, has at least 1 daily flight to Madrid. International Airport of Santiago de Compostela is 100 km. away.

TIME: GMT plus 1 hour in Winter. Summertime from March to September.

HOLIDAYS: 1st January; 6th January; 19th March (St. Joseph); Good Thursday; Good Friday; 28th March (local holiday, Reconquest Day); 1st May (Labour Day); Corpus Christi; 25th July (St. James' Day); 15th August; 16th August (Local); 12th October; 8th December (Immaculate Conception); 25th December.

POLICE/FIRE/AMBULANCE: Police Tel: 091 and 092. Fire Tel: 433333. Ambulance Tel: 410158.

TELEPHONES: No arrangement for connecting on board.

SHORE LEAVE: Allowed without restriction.

STORING: See "Prelims".

1. By lorry.
2. —
3. Yes.
4. Yes.
5. Consult Agent.
6. Yes.

BANKS: Banca Mas Sarda, Gran Via 7. Tel. 424433; Banco Atlantico, P. Sanz 3. Tel. 227900; Banco Bilbao, Gcia. Barbon 2. Tel. 434222; Banco Central, Urzaiz 2. Tel. 433322; Banco Comercial Espanol, Gcia. Barbon 14. Tel. 228722; Banco del Comercio, R. Argentina 24. Tel. 228265; Banco de Credito e Inversiones, Colon 27. Tel. 224909; Bank of Credit and Commerce, V. Moreno 3. Tel. 227400; Banco Espanol de Credito, Principe 39. Tel. 226200; Banco Exterior de Espana, Colon 8. Tel. 436566; Banco de Financiacion Industrial, Urzaiz 7. Tel. 228433; Banco de Fomento, Gcia. Barbon 7. Tel. 437477; Banco de Galicia, P. Sanz 23. Tel. 225900; Banco Garriga Nogues, Pza. Compostela 36. Tel. 226843; Banco Herrero, Colon 21. Tel. 228100; Banco Hispano Americano, Urzaiz 20. Tel. 226273; Banco Industrial del Sur, Gcia. Barbon 9. Tel. 228366; Banco Intercontinental Espanol (BANKINTER), Principe 63. Tel. 223189; Banco de Madrid, Gcia. Barbon 20. Tel. 226006; Banco del Norte, Uruguay 13. Tel. 227007; Banco Occidental, Pza. Compostela 19. Tel. 228903; Banco Pastor, P. Sanz 31. Tel. 224101; Banco Popular, Gran Via 31. Tel. 413088; Banco Santander, P. Sanz 44. Tel. 432000; Banco Simeon, P. Sanz 5. Tel. 228320; Banco Urquijo, P. Sanz 1. Tel. 227950; Banco Vizcaya, P. Sanz 19. Tel. 434400; Banco Zaragozano, P. Sanz 29. Tel. 226000; Barclays Bank S.A.E., Urzaiz s/n. Tel. 227960; Citibank Espana, Pta. Sol 12. Tel. 438844; Credit Lyonnais, P. Sanz 1. Tel. 228356; Societe Generale Banque Espagne, V. Moreno 35. Tel. 227505; Caja de Ahorros Municipal de Vigo, Gcia. Barbon 1. Tel. 431133; Caja de Ahorros Provincial de Pontevedra, P. Sanz 22. Tel. 225106; Caja de Ahorros Provincial de Orense, P. Sanz 17. Tel. 438222; Caja Postal Ahorros, P. Sanz 1. Tel. 224435.

DEVELOPMENTS: See "Berthing" – Guixar Quay.

AUTHORITY: Junta del Puerto y Ria de Vigo, Plaza del Puerto 1, 36721 Vigo, Spain. *Tel:* (86) 432055. *Telex:* 83144 Jpvi-E. *FAX:* (986) 434807. *Contact:* Juan Argenti Ulloa, Director.

VILANOVA I LA GELTRU: 41.13 N. 01.44 E. (See Plan)

DOCUMENTS:

3 Crew Lists.
1 Passenger List or negative.
Manifest of Goods destined for Vilanova I la Geltru and in-transit.

Stores List, in duplicate, including tobacco, spirits, radios, etc. belonging to vessel.

Detailed list, in duplicate, of all personal effects of crew and passengers (tobacco, spirits, cameras, radios, etc.).

Tobacco – any excess over 6 kg. per person must be stated on a separate manifest duly visaed by Spanish Consul.

If on inspection differences are found (more or less), articles are removed and a heavy fine imposed.

PILOTAGE: Pilotage is compulsory and service permanent. Pilot informed by Agent of vessels ETA, given 24 hours in advance. When vessels approach the breakwater, Pilot will board. The pilot boat is white with a black "P" painted on the side. Contact pilot station on VHF Channel 16.

RESTRICTIONS: None but for draft. Vessels carrying dangerous cargo should get permission for berthing prior to arrival.

HEALTH: Pratique is obtained immediately after berthing. In case of suspected disease or fever on board, the Master must radio Agent in order to inform Health Officer in time.

RADIO: Radio Costera of Barcelona on 2182 kHz.

VHF: See "Pilotage".

TUGS: None. Barcelona's tugs could be hired should the vessel's size make it necessary.

BERTHING: Depth of water in centre of harbour 16 ft. – 20 ft. South Commercial Wharf length: 836 ft., depth 18 ft.; East: 721 ft., depth 12 ft. – 15 ft.

CRANES: Two railway portico cranes of 16 tons capacity, 1 mobile crane of 3 tons capacity and 1 mobile crane of 20 tons capacity.

STEVEDORES: 24 hours notice required in order to arrange gangs. Unloading rates depend on type of cargo.

MEDICAL: Any kind of medical service can be arranged if information received in time.
FRESH WATER: Plentiful supply of water by means of hoses from the pier to vessel.
FUEL: Can be supplied if required, but 24 hours notice required.
GANGWAY/DECK WATCHMEN: Not compulsory but advisable at night.
OPENING/CLOSING HATCHES: Normally opened/closed by the crew, otherwise according to "Charter Party". Lashing must be carried out by crew.
CERTIFICATES: Usual documents on board. Safety Radio, Safety Equipment, Derat and Registered Tonnage Certificates are the only ones required by Authorities.
CUSTOMS ALLOWANCES: Crew: 6 kg. tobacco per person. Passengers: 2 kg. per person. Any excess on this amount must be declared on a separate manifest as in-transit. Wine and/or Spirits: Only 1 bottle per person. Any excess must be declared on a separate manifest, as "cargo in-transit" and stowed apart from the tobacco and spirits carried under the Provisions List. This Manifest must be visaed by the Spanish Consul at the last port of call. Any infringement of this regulation will subject the vessel to the immediate imposition of a heavy fine and confiscation of excess tobacco.
CONSULS: See "Barcelona".
IDENTIFICATION CARDS: Not required.
SURVEYORS: Comisariado Espanol Maritimo "Comisar".
REPAIRS: Only small repairs possible.
REPATRIATION: Good facilities available.
AIRPORT: Barcelona Airport situated 40 km. distant and 30 minutes by car from Vilanova I la Geltru.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer (early April-late September).
HOLIDAYS: September 11th.
POLICE/AMBULANCE/FIRE: Police: 893.00.00; Ambulance: 893.10.80; Fire: 815.11.11.
AUTHORITY: Ayudante Militar de Marina, Vilanova I la Geltru (Barcelona-Espana). *Tel:* 815.42.19. *Cables:* Ayudante Marina, Vilanova I la Geltru.

Comissio de Ports de Catalunya, c/Dr. Roux No. 63, 08017 Barcelona. *Contact:* Zona Portuaria II-III, Ronda General Mitre 117, sobreatico – 08022 Barcelona. Tel: 211.31.16. Vilanova I la Geltru. Tel: (93) 815.52.19.

VILLAGARCIA DE AROSA: 42.36 N. 08.46 W.

(See Plan)

DOCUMENTS:
- Declaration of Health.
- 3 Crew Lists.
- Passenger List.
- 3 Cargo Manifests.
- Manifest for Cargo in Transit.
- Crew Declaration.
- Ship's Stores List.

PILOTAGE: Compulsory for entering, leaving, berthing, unberthing or shifting. Ships bound for any port in Arosa Bay, must report ETA through ship's local Agent 24 hours in advance of their arrival, specifying if GMT or local time.

Pilot Boarding Station: Ships bound for Villagarcia are normally boarded 2 miles off harbour breakwater (Lat. 42° 35.4′ N., Long. 08° 50.0′ W.). Under previous request Pilot may be obtained at Lat. 42° 31′ N., Long. 08° 57′ W. (2 miles off Rua Island). Pilots may be contacted by VHF Channel 12.

Pilot for Shifting or Departure: Notify at least 1 hour in advance.

Berths are requested through Ship's Agent and arranged by Harbour Authorities in advance.

Linesmen and Boatmen are arranged through Ship's Agent.

APPROACHES: Access through Arosa Bay main channel entrance in position Lat. 42° 28′ N., Long. 08° 59′ W.
ANCHORAGES: There is sufficient anchorage for any size of vessel in Arosa Bay. Vessels awaiting Pilot at Rua Island may anchor 1 mile Southward of Rua Island, in depths of 35 m. to 40 m, bottom is mud. For anchorage in the harbour area (Eastward of El Seijo light), a Pilot must be arranged.
MAX. SIZE: No restrictions, except max. draft 7.0 m. (23 ft.) at LWS.
RADIO: Nearest stations are: Santa Eugenia Radio, VHF Channel 16; Finisterre Radio, MF 2,182 kHz.
TUGS: Compulsory for ships of 90 m. LOA or more.

One small tug available. Additional tugs may be called from Vigo when required. Ship's lines normally used.

BERTHING:

Berth Name	*Wharf Length* (m.)	*Depth Chart Datum* (m.)	*Remarks*
Comercial W.	243	7.0	Bulk cargoes through pipe-lines and general cargo.
Comercial N.	80	7.0	General cargo.
Comercial E.	300	3.0-7.0	General cargo.
Pasajeros	310	3.0-4.0	Passengers.
Ramal	270	3.0-7.0	Bulk and general cargo. Depth restrictions in access channel.

CRANES: 5×6 ton and 3×3 ton electric cranes at Comercial Mole. 2×3 ton electric cranes at Ramal Mole.

Mobile diesel cranes also available as required.

SPECIALISED CARGO-HANDLING FACILITIES: Discharge of cement in bulk through pipe-line at Comercial Mole-West. Discharge/loading of liquid chemical products and asphalt through pipe-lines at Comercial Mole-West.
STEVEDORES: Normal working hours for general cargo: 0830-1800 (break 1230-1400). Normal working hours for frozen cargoes (2 shifts): 0830-1430 and 1430-2030. Advise ETA before 1700 hrs. in order to commence 0830 hrs. next day.
TANKERS: Discharge lines: 4 in. for methanol, 6 in. for urea formaldehyde, 8 in. for asphalt, at Comercial Mole-West. No slop facilities. No facilities to combat oil spills. No shore steam.
DENSITY: Normal density 1025. In severe rainy seasons may drop to 1020/1018.
FRESH WATER: Available at all berths. Order through Agent. Approx. rate 10 t.p.h.
FUEL: Gas-oil available by pipe-line at Comercial Mole.
SURVEYORS: Comisariado Espanol Maritimo available. Order through Agent.
HATCHES: Opening/closing of hatches to be carried out by ship's crew only.
REPAIRS: Small deck and engine repairs can be done. No dry-dock available.
REPATRIATION: Crew changes and repatriation possible.
AIRPORT: Nearest airport at Santiago de Compostela, some 50 km. away.
TIME: Western European time kept. (GMT plus 1 hour in Winter; GMT plus 2 hours in Summer).
HOLIDAYS: Set yearly by the Government. For details contact Agent.
POLICE/AMBULANCE/FIRE: Police 501864/500257; Ambulance 500987; Fire 501008/851633.
EMERGENCY CO-ORDINATION CENTRE: Harbour Master's Office, tel. 500209.
BANKS: Branches of main Spanish banks.
SHORE LEAVE: No restrictions. No shore passes. Seaman's Book is sufficient.
AUTHORITY: Junta del Puerto de Villagarcia de Arosa, Muelle de Pasajeros 7, 36600 Villagarcia de Arosa, Galicia, Spain. *Tel:* (986) 500238/501340. *Contact:* Port Director.

NOTES

Please also advise Shipping Guides Ltd.

Sri Lanka

GENERAL:

MINES: *Danger from Mines:* Reports have been received (1986) indicating that waters near Sri Lanka ports may be mined.

NAVIGATION: *Control of Navigation in Sri Lanka Waters:* The Sri Lanka Government has issued regulations controlling navigation in the territorial waters of Sri Lanka.

(1) No vessel shall enter or remain within Sri Lanka's territorial waters other than:

Vessels entering or leaving the ports of Colombo, Galle, Trincomalee and Kankesanturai.

Vessels navigating through the Traffic Seperation Scheme off Dondra Head.

Vessels laid up inside Trincomalee Harbour.

Vessels engaged in Sri Lanka's coastal trade.

Vessels waiting in the roads off the Port of Colombo with the approval of the Harbour Master.

Vessels navigating through Sri Lanka's territorial sea and internal waters in Palk Strait with the permission of the Commander of the Sri Lanka Navy.

(2) Any vessel which enters Sri Lanka's territorial waters in contravention of these regulations shall do so at their own risk, and the Sri Lanka Government shall not be liable for any loss or damage such vessel may suffer.

(3) The Master of any vessel which enters Sri Lanka's territorial waters shall identify itself if challenged by:

Any vessel responsible for performing coastguard duties.

Any aircraft.

Any Sri Lanka authority from land by radio.

(4) Any vessel which has to enter Sri Lanka's territorial waters for purposes other than those given in (1) shall do so only with the approval of the Harbour Master.

COLOMBO: 06.56 N. 79.50 E. (See Plan)

DOCUMENTS:

5 each of Crew and Passenger Lists.

8 Manifests.

1 Arrival Report for Pilot, including Dangerous Cargo Declaration.

1 Master's Declaration for Immigration, and same for Police.

2 Private Property Lists of Officers and Crew for Customs.

2 copies of Preliminary Report by Master for Customs.

1 Maritime Declaration of Health for Port Health Officer.

1 Master's Declaration of Cargo for Quarantine Department.

PILOTAGE: Vessels approaching port apply for Pilot by flying the "G" flag by day or 2 red lights at night. They can, in addition, flash the pilot station or use VHF Channel 16. The telegraphic address of pilot station is "Pilot Station Sri Lanka Ports Authority Colombo" and a provisional ETA 24 hours ahead is advisable with corrections thereafter. However, these are best channelled through the vessel's Agent. Pilot boat is a wooden motor launch with the word "Pilot" on its side. It flies the "H" flag by day or red and white lights by night according to the international code. Pilot boarding position is with the Southwest breakwater North end light in transit with North West Breakwater South end light at a distance of 1.0 miles off. Advice of where to anchor can be obtained from the Pilot by VHF or signal light.

ANCHORAGES: The anchorage off port is within 3 miles of the harbour mouth where up to 14 fathoms of water is available. 18 fathoms of water is available within 6 miles. This anchorage is to be used on instructions from pilot station.

All vessels arriving have to anchor South of Panadura (Lat. 6° 43′ N.) or off Negombo until instructed to proceed to the anchorage off harbour.

RESTRICTIONS: Entry may take place at all hours of the day and night.

MAX. SIZE: For entering harbour, max. draft 38 ft. and a length of 800 ft. is permissible. Beam is not critical. There is no appreciable rise and fall of tide.

Tankers' maximum dimensions for berthing alongside: Length 750 ft., draft 34 ft.

HEALTH: Vessel entering port must fly the "Q" flag until boarded by the Port Health Officer to grant Pratique. Pratique may be granted by radio if there is a doctor on board provided the ship is not calling from a port in India. A radio message should be sent within 24 hours of the vessel's ETA in the following terms "Last port — no quarantinable disease on board – Doctor on board" and the Port Health Officer will reply to the Agent confirming Pratique being granted by radio. Pratique is automatic if the vessel enters after calling at another port in Sri Lanka. If any quarantinable disease on board double "Q" flags must be hoisted prior to entering harbour.

RADIO: "Colombo Radio" with a call sign 4PB is the usual channel for communicating with Colombo.

VHF: The pilot station is presently available on VHF Channel 16 and the Authorities' Cargo Operations Control Room on VHF Channel 11.

TUGS: Tugs normally join the vessel at the harbour mouth and use ship's lines. Tugs are 2,000 h.p. – 3,000 h.p. Two tugs are available at any one time, 3rd tug on advance request.

BERTHING: There are no specific requirements relating to berthing space but early advice of draft and length is most advisable. See "Developments".

CONTAINER HANDLING FACILITIES: Total length of quays for container operations 1045 m. Depth 11.0 m. – 13.0 m. 6×35 ton gantry cranes and 1×30 ton crane. Reefer points 186. 74 forklift trucks, 2 tons – 40 tons capacity.

STEVEDORES: The stevedores at Colombo are the Sri Lanka Ports Authority, having the monopoly of stevedoring and lighterage. ETA at least 24 hours in advance if possible.

Working hours: (2 shifts) 0730 to 1630 and 1630 to 0400, depending on requirements, extendable until 0600.

Booking gangs: For discharge on 1st day, 24 hours advance notice required by Agent and thereafter at Agent's request at the end of shift.

MEDICAL: Although advance notice of medical assistance required is helpful, particularly when port stay is limited, it is not essential. Comprehensive hospital facilities are available either in private nursing homes or the Government hospitals. The following inoculations are required: cholera; yellow fever if calling from ports in East Africa and Mozambique.

TANKERS: There are 3 tanker berths, 1 for importing crude oil suitable for tankers of 750 ft. length, max. draft 34 ft. One berth for white oil tankers with max. draft 33 ft. One berth for fuel oil imports for vessels with a max. draft of 31 ft., and this same berth is used for exports when permissible draft is 33 ft.

The diameter of discharge lines;

Crude oil, 24 in., capacity 1,000 t.p.h.

White oil, 10 in., capacity 250 t.p.h.

Gasoline, 10 in., capacity 170 t.p.h.

Furnace oil, 14 in., capacity 500 t.p.h.

Naphtha, 12.75 in., capacity 450 t.p.h.

Pumping will not be commenced after nightfall. No residue discharge facilities are available.

There is an SPM 6 miles outside the harbour for discharge of crude oil. Max. size 180,000 tonnes deadweight. Pipeline 36 in.×9.2 km.

DENSITY: 1025.

FRESH WATER: Fresh water is readily available by barge and from hydrants at the Jaye Container Terminal. The rate of delivery is approx. 40 t.p.h. The water is of good quality.

FUEL: Furnace, diesel and gas oil available. Advance notice of at least 24 hours is advisable as the bunker requirements of the port often exceed the ability of the oil companies to supply immediately.

4 barges available, 450 tons, 650 tons and 1,000 tons. Fuel also available by pipe-line if berth (max. draft 34 ft.) available.

GANGWAY/DECK WATCHMEN: Watchmen are available and are to be recommended unless members of the crew are available to provide this service.

Piracy: Acts of piracy have taken place in the approaches to the port.

OPENING/CLOSING HATCHES: This work is normally carried out by the stevedores except in the case of McGregor or similar hatch covers which they will not handle.

CERTIFICATES: Register showing vessel's name, port of registry, gross and net tonnages and owner. Safety Equipment Certificates, quadrennial and annual, Ship's Articles (British) and Clearance from previous port and Derat Certificate.

CUSTOMS ALLOWANCES: Cigarettes 25 per man per day. Tobacco 1 oz. per man per day. Snuff 1 oz. per man per day. Spirits 0.25 bottle per man per day. Wine 1 bottle per man per day. Beer 2 bottles per man per day.

IDENTIFICATION CARDS: These are not essential but the crew is expected to carry some form of identification with a photograph on it when they leave the vessel.

CONSULS:

Belgium
Burma
China
Cyprus
Czechoslovakia
Denmark
Egypt
France
Germany F.R.
Greece
Indonesia
Italy
Japan
Maldives
Netherlands
Philippines
Poland
Romania
Thailand
Switzerland
U.S.S.R.
U.S.A.
Yugoslavia

REPAIRS: Most main engine and boiler repairs and minor hull repairs can be effected.

DRY DOCKS: No. 1 – 700 ft.×85 ft.×32 ft. over blocks – Max. size 675 ft. LOA. 80 ft. breadth – Deepest draft 29 ft.

No. 2 – 350 ft.×54 ft.×22 ft. over blocks.

No. 3 – 400 ft.×54 ft.×18 ft. over blocks.

Owners and Operators – Colombo Dockyard Limited.

New dry dock: Length 263 m., width between fenders 44 m., depth over sill 8.2 m., capacity 100,000 d.w.t.

SURVEYORS:

American Bureau: c/o Malship (Ceylon) Ltd., 80 Reclamation Road, Colombo 11. Tel: 24658, 25856. Telex: 21150.

Salvage Association: c/o Aitken Spence & Co. Ltd., 13 Lloyds Building, P.O.Box 5, Sir Baron Jayathileke Mawatha, Colombo 1. Tel: 27861–7, 27103. Telex: 21142/21598.

Lloyd's Register: c/o Aitken Spence & Co. Ltd., 13 Lloyds Building, P.O.Box 5, Sir Baron Jayathileke Mawatha, Colombo 1. Tel: 27861-7, 27103. Telex: 21142/21598.

Bureau Veritas: c/o Delmege Forsyth & Co. Ltd., 101 Vinniyalankara Mawatha, Colombo 10. Tel: 93361. Telex: 21320.

REPATRIATION: There is no difficulty in arranging repatriation and crew changes.

AIRPORT: It is 18 miles to the international airport which is served by regular airlines.

TIME: Sri Lanka standard time is 5.5 hours in advance of GMT, and no alterations are made during the year.

HOLIDAYS: Cargo work can normally be arranged on all except the following holidays:

Sinhalese & Tamil New Year; 1st May; Wesak Full Moon Day; Christmas Day.

POLICE/AMBULANCE/FIRE: Harbour Police 21075; Ambulance 20428; Ambulance launch: Exhibit "AL" flags; Port Fire Brigade 32331 and VHF Channel 16.

EMERGENCY CO-ORDINATION CENTRE: "Colombo Radio".

TELEPHONES: Will be available to vessels alongside in the near future.

BANKS: American Express International Corporation, 45 Janadhipathy Mawatha, P.O.Box 650, Colombo 1. Tel: 23366, 37991, 31288-9. Telex: 21469 "Amex".

Algemene Bank Nederland N.V., 41 Janadhipathy Mawatha, P.O.Box 317, Colombo 1. Tel: 20205. Telex: 21590 "Abn A".

Bank of Credit & Commerce International (Overseas) Ltd., 52 Mudalige Mawatha, Colombo 1. Tel: 21597, 23303-6. Telex: 1411 "Bcci" Ce.

Citibank N.A., P.O.Box 888, Iceland Bldg., Colombo. Tel: 547316/8. Telex: 21445 "Ctbk" Ce.

Banque de l'Indochine et de Suez, Ceylinco House, 69 Janadhipathy Mawatha, P.O.Box 303. Colombo 1. Tel: 36181/2/3. Telex: 1402 "Indosuez" Ce.

Overseas Trust Bank Ltd., 39 Bristol Street, Colombo 1. Tel: 547655-8. Telex: 21489 "Otbsl" Ce.

The Chartered Bank, 17 Janadhipathy Mawatha, P.O.Box 27, Colombo 1. Tel: 26671-4. Telex: 21117 "Banchar" Ce.

Grindlays Bank, 37 York Street, P.O.Box 112, Colombo. Tel: 91161-8. Telex: 21130 "Grindlays" Ce.

Bank of America, P.O.Box 308, Colombo. Tel: 547372/5. Telex: 21481 "Bo Facol" Ce.

STORING: See "Prelims".

1. Yes, able store both by barge and truck.
2. Yes, vessel could store from barges during both loading and discharging.
3. Trucks could proceed alongside vessel.
4. Yes, fork lift trucks could be used.
5. Any operation could be carried out with prior approval of Customs, under Customs supervision.
6. No. Port Stevedoring labour has to be made use of. However, local riggers can be employed by obtaining special permission from the Chief Operations Manager of the Sri Lanka Ports Authority.

GENERAL: Ships should not discharge oil within territorial waters, dispose of any waste into harbour or on to quays, immobilise main engines without prior permission, use radio for transmission in harbour. Ships should hoist national flag during daylight hours.

SHORE LEAVE: There is no restriction on crew members being allowed ashore but advised to carry passport or other identification.

DELAYS: Delays for vessels working cargo are seldom over 24 hours. However, it is very unusual for vessels calling for bunkers, fresh water, stores, etc., to be delayed for more than a few hours.

DEVELOPMENTS: An additional tug of 3,000 h.p. (twin screw, Z-pellor) will be available in 1989.

A third container berth to be constructed at Jaye Container Terminal, Length 332 m. depth 13 m.

AUTHORITY: Sri Lanka Ports Authority, No. 19 Church Street, P.O.Box 595, Colombo 1. *Telex:* 21805 Ports Ce. *Contact:* Mr. W. Ameresekera – Chairman, Sri Lanka Ports Authority – *Tel:* 25559.

Mr. K. L. P. de Silva – Chief Operations Manager, *Tel:* 25049.
Capt. G. O. Henricus – Harbour Master. *Tel:* 21079.
Capt. S. Chinniah – Deputy Harbour Master. *Tel:* 22674.

GALLE: 06.01 N. 80.14 E. (See Plan)

PORT LIMITS: To the Eastward Unawatuna Point, to the Westward Gindurah Point, to the Southward the usual sea league from the line between these points.

DOCUMENTS: Pilot brings on board:

Arrival Report and Maritime Declaration of Health.

Port Health Officer boards vessel after berthing and collects Crew List, Passenger List, Maritime Declaration of Health. Examines crew, passengers and International Certificates of Vaccination.

Customs. Manifests, Bonded List, Passenger List, Cargo List, List of Currency, Port Declaration.

Immigration. 3 Crew Lists.

PILOTAGE: Apply for Pilots via local Agents. Send ETA not more than 24 hours prior arrival via Colombo Radio. Vessels telegraph direct to Harbour Master, Galle, via Colombo Radio. Vessels advised listen-in on Channel 16, VHF.

Pilot launch about 60 ft. long with white hull carrying word "Pilot". Pilot launch proceeds to vessels from Harbour Master's Office and Pilot will board about 0.25 mile to South of bell buoy. Vessels should anchor until pilot launch arrives and heave-up on approach of pilot launch; due to heavy swell prevalent *essential* vessels provide good lee for Pilot. Proper pilot ladder and two man ropes should be ready. Vessels anchoring should do so to the South or East of bell buoy. See "Anchorages".

ANCHORAGES: Best anchorage lies to Eastward of bell buoy where depth is 9 fathoms. To Southward of bell buoy depth increases to 15 fathoms. Vessels should anchor about 0.5 mile from bell buoy.

RESTRICTIONS: Vessels should not proceed North of bell buoy. Entry prohibited after 1800 hrs. and may be delayed by bad weather. Generally a wind force of over 25 knots and a swell of over 4 ft. delays entry.

MAX. SIZE: At present only 1 stream berth available for vessels of length 475 ft., max. draft 23 ft. in N.E. monsoon and length 450 ft., max. draft 21 ft. in S.W. monsoon.

Two alongside berths available for vessels up to 540 ft. length and 26 ft. draft. 750 ft. of quay space available.

HEALTH: The International Declaration of Health, handed to Master by Pilot, must be completed and returned to Port Health Officer, who boards after berthing. Port Health Officer also requires 2 Crew Lists, synopsis of Vaccination Certificates, Derat Certificate and examines Certificate of Vaccination.

RADIO: Colombo Radio.

VHF: Harbour Master's Office on VHF Channel 16, regular watch not maintained.

TUGS: At present only 1 tug of 250 h.p. available throughout year. If sufficient notice given (over 24 hours) an additional tug could be sent from Colombo (only available during N.E. monsoon). Tug meets vessel at berth, tug's lines used. Charges for tugs included in port (pilotage) charges irrespective of ownership of towing lines.

BERTHING: Vessel berthing in stream lies to both anchors and picks up 4 to 6 mooring lines from buoys aft. To pick up mooring lines, vessel should have ready at stern 2 messenger wires of 2.5 in. diameter and 60 fathoms length.

STEVEDORES: All stevedoring carried out by Sri Lanka Ports Authority. Gangs, lighters etc. are all arranged by Sri Lanka Ports Authority. 16 lighters of approx. 15 d.w.t. capacity available for working vessels in stream berth.

MEDICAL: All facilities available. Vessels arriving in Galle and requiring medical attention should cable Agent and "Port Health – Galle" at least 12 hours in advance.

DENSITY: 1025.

FRESH WATER: In cases of emergency up to 20 tons fresh water could be supplied daily in stream in 400 gallon tanks conveyed by lighters. Alongside main quay up to 50 tons per night could be supplied by Bowser.

FUEL: Bunkering Division of Ceylon Petroleum Corporation, Kolonnawa (off Colombo) can service vessels with small quantities of fuel. 5 days' prior notice required.

GANGWAY/DECK WATCHMEN: Ceylon Police Station. Two policemen aboard every vessel in harbour. For vessels berthed alongside policemen stationed aboard through day. For stream vessels policemen stationed only during hours when cargo worked.

OPENING/CLOSING HATCHES: Shore labour, but there is no objection to hatches being opened prior to labour boarding.

CUSTOMS ALLOWANCES: Present allowance 200 cigarettes per week, 2 bottles beer per day. Others proportionately.

CONSULS: All Consular Officers in Colombo, 72 miles away, 2 hours by train, 2.5 hours by road.

REPAIRS: No repairs possible as Galle open to S.W., essential that vessels have engines ready at all times. No shutdown permitted.

REPATRIATION: Sub-collector of Customs acts as Shipping Master and will sign on/off properly authorised crew changes.

AIRPORT: Colombo, approximately 130 km.

TIME: Standard Time is GMT plus 5.5 hours.

HOLIDAYS: Non-working days in the port (dates variable yearly): Sinhala and Tamil New Year in April; Wesak Full Moon in May.

POLICE/FIRE/AMBULANCE: Harbour Police 3222; Ambulance 2261. No fire brigade available.

TELEPHONES: No telephones available aboard.

SHORE LEAVE: Crew allowed ashore.

AUTHORITY: Sri Lanka Ports Authority, Closenberg Jetty, Magalla, Galle, Sri Lanka. *Tel:* 09-22963 (Resident Manager); 09-22824 (Assistant Harbour Master).

KANKESANTURAI: 09.49 N. 80.03 E.

SHIPMASTER'S REPORT: May 1979.

LOCATION: Kankesanturai (KKS) is situated on the North coast of Sri Lanka in position Lat. 9° 48′ 57.5″ N., Long. 80° 02′ 41.5″ E.

DOCUMENTS: See "Colombo".

APPROACHES: Kankesanturai cannot be approached directly from sea but is approached via the Pedro Channel. The area seaward of Pedro Channel is very shallow and abounding in reefs.

Approaches to Pedro Channel: The East coast is low lying and sandy with only palm trees. The landmarks for making Pedro Channel are (a) Mullaittivll Light and (b) an obelisk situated in position Lat. 9° 35′ N., Long. 80° 27.5′ E. Mullaittivll Light was not working and the obelisk which is 100 ft. high can hardly be distinguished because it is surrounded by vegetation. The best approach is to steam on a course of 280° (T) heading straight for the obelisk. (Note: Radar distances etc., could not be observed as the vessel's radar was out of order). This area is covered by BA Chart Nos. 2197, 2031 and 68A. These charts are not to be fully relied upon as the charts last large correction etc., was in 1947. This vessel did not have a working radar, hence it was decided to lower the boat and sound the intended track ahead. The track sounded was followed until the obelisk was ahead of the track and visible, which was in this case at about 5 miles. Once the vessel enters Pedro Channel it has to proceed on a course parallel to the coast. After altering course in a Northwesterly direction the obelisk which is the only mark in the area is soon covered by vegetation and not visible. The next landmark being the Point Pedro Lighthouse which is 25 miles away to the North. The objects marked on the chart like churches, buildings etc., cannot be relied upon at all as they are numerous.

Depths in Pedro Channel: As marked on the chart the depth in Pedro Channel varies from 6.5 to 9 fathoms. During this vessel's transit, it was suspected to be less and at certain points, the boat was again lowered and soundings of 28 ft. were obtained.

Approaches to KKS: After passing Point Pedro Light course was altered to West keeping about 3 miles off the land and dangers. "KKS" can be observed from quite a distance because of chimneys of a cement factory. The "KKS" lighthouse could also be visually observed at a distance of about 8 miles. When "KKS" lighthouse bore South, distance 2.5 miles, the vessel was stopped and again the boat was lowered to sound the anchorage area and approaches. Depths of 30 ft. to 36 ft. were found just 0.5 miles distance from the land. The anchorage was approached and this vessel anchored with "KKS" light distance 0.5 miles. Four shackles were used and throughout the stay the vessel held fast.

After anchoring soundings were taken all round the vessel and the least depth obtained was 31 ft. at low water. There is hardly any tide, the maximum difference being about 2 ft. The vessel usually lies in an East-West direction and when swinging around usually does so via North. Only on one occasion throughout the stay did she swing via the South.

RADIO: Communication with "KKS" even from Colombo (telephone) was very difficult, sometimes delays over 4 to 5 hours were experienced. "KKS" has no telex communication. The best method is to keep the vessel's radio station open and communicate via Madras Radio.

CARGO OPERATIONS: *Port of "KKS" and Discharging:* This is a anchorage only port which is open from March to October. Cargo is bagged on board and discharged into lighters. The lighters are then landed on the beaches and labour carries bags ashore to the warehouse which is about 30 yards away. On this vessel cargo was bagged during the night and discharged by day. There are at one time about 200 – 300 labourers on board. The labour for bagging and discharging are different. The average discharge rate worked out to about 800 tons. This is the first time the bagging had to be done as normally vessels calling are loaded with bagged cargo. The crane operators are very careful and follow the instructions given by the vessel with regard to the cranes. About 12 vessels call at this port per year during the season.

DENSITY: Density was found to be constant at 1025.

FRESH WATER: None available. Ample fresh water needed as water also has to be supplied to the labour.

PROVISIONS: Almost all types of provisions available at reasonable costs. Rice which is also available is of very poor quality. The Agents also handle the ship chandling.

LAUNDRY: Laundry facilities are available, but costs are slightly on the high side. This is also handled by the Agents.

REPAIRS: There is a small workshop available for mechanical/electrical repairs.

GENERAL: "KKS" is a very small town. The largest town being Jaffna which is 14 miles away. Buses and taxis are available.

CURRENCY: All currencies have to be declared and all currencies except Indian, Pakistani and Bangladesh can be changed in banks. The above three currencies are supposed to be banned in Sri Lanka.

AUTHORITY: Port soon to be controlled by Sri Lanka Ports Authority.

TRINCOMALEE (including Pulmoddai):

08.36 N. 81.15 E. **(See Plan)**

DOCUMENTS:

International Maritime Declaration of Health.
6 copies Crew List.
6 copies Passenger List.
Cholera or Yellow Fever Certificates required if vessel is arriving from an infected port.

PILOTAGE: Call Pilot on VHF Channel 16, also send ETA via Colombo Radio to pilot station. Vessels should indicate ETA through Colombo Radio, either to Agent or direct to Deputy Harbour Master, Trincomalee, at least 24 hours before arrival. No night pilotage. Pilot boards incoming vessels between hours of 0600 and 1800 hrs. about 2 cables Northward of Round Island (Lat. 8° 30′ 48″ N., Long. 81° 13′ 24″ E.). Vessels embarking Pilot should whenever possible lower an accommodation ladder. Vessels awaiting a Pilot should anchor 0.5 miles N.W. of Round Island light tower in depths from 11 to 13 fathoms.

Vessels arriving between 1800 hrs. – 2100 hrs. may be brought in at Deputy Harbour Master's discretion if they come to anchorage 5 cables N.W. of Round Island.

ANCHORAGES: Trincomalee Harbour is the only entirely sheltered natural harbour in Sri Lanka. Good anchorage may be found in almost any part of harbour in good weather.

RESTRICTIONS: Vessels may enter during hours of daylight only. Range of tide is very small and does not restrict entry.

MAX. SIZE: Almost unlimited length and draft can be accommodated in anchorage. Only 1 berth which can accommodate up to 650 ft. length, and 34 ft. draft. This jetty used for discharging tankers and bunkering.

HEALTH: The Port Health Officer boards vessels after arrival at anchorage to grant Pratique. Pratique automatic for vessels arriving from another port in Sri Lanka.

RADIO: All cables to Deputy Harbour Master, Agents, Receivers, etc., should be routed through Colombo Radio; call sign 4PB.

Pilot carries a portable VHF set, Channel 16, with about 2 miles range.

TUGS: One tug attends when required. Tow-lines generally not used; but if required tug or ship's lines used.

BERTHING: A bulk-grain berth to accommodate vessels of 800 ft. in length, and draft forward 41 ft. and aft 46 ft. is available at Malay Cove, in the vicinity of Round Point.

Also see "Developments".

Pulmoddai: Pulmoddai is a roadstead, on the Eastern coast of Sri Lanka and approximately 38 miles from Trincomalee. The loading season is usually from April to September.

The Mineral Sands Corporation has housing for their staff and a medical practitioner is employed by them who also acts as a Port Health Officer for granting Pratique to vessels.

The Corporation has two godowns with a capacity of 14,000 tons of rutile and 25,000 tons of ilmenite. Presently ore is transported by conveyor belts from the godowns for lighterage along a pier stretching up to 250 ft. into the sea. The Corporation has a fleet of 8 steel lighters, of which 6 are of 100 tons capacity and 2 of 200 tons capacity. The loading rate is around 2,000-2,600 tons per day working 5 hooks in good and fair weather.

The stevedore labour is private and is recruited from Trincomalee whenever a ship operates at Pulmoddai. As the stevedores stay on board until completion of loading, it will be necessary for the vessel to carry sufficient water to meet the stevedore requirements.

It is customary for the ship to provide food and accommodation for two Customs Officers and a representative of the Shippers during cargo operations.

Prior information is also essential by the Agents of vessel's ETA, etc., which should be passed to the Plant Manager of the Corporation at Pulmoddai by cable or telex to enable him to obtain labourers from Trincomalee.

There is no launch service, but the Corporation provides a launch on a schedule drawn by the Corporation, and the Agents could make use of this facility.

STEVEDORES: Stevedoring operations have been nationalised and are carried out by the Sri Lanka Ports Authority, Trincomalee.

TANKERS: One tanker berth at which vessels of 650 ft. length and 34 ft. draft are discharged.

DENSITY: Salt water.

FRESH WATER: Available, supplied by water barges.

FUEL: Marine heavy diesel and furnace oil can be supplied at 24 hours' notice.

GANGWAY/DECK WATCHMEN: Watchmen are provided by the Sri Lanka Ports Authority.

OPENING/CLOSING HATCHES: Carried out by stevedores.

CUSTOMS ALLOWANCES: Tobacco issued as required. Wine and/or Spirit issued as required.

IDENTIFICATION CARDS: Identity Cards or Passports are required to be carried by crew members ashore.

CONSULS: All Consular Officers are in Colombo.

REPAIRS: Only minor repairs can be carried out.

REPATRIATION: Crew changes and repatriation can be effected.

AIRPORT: No International flights through Trincomalee.

TIME: GMT plus 5.5 hours.

HOLIDAYS: Dates of holidays are not fixed. Cargo work can generally be arranged on any holiday.

TELEPHONES: Police 2308; Ambulance 448; Fire 335. There are no telephone connections for ships.

SHORE LEAVE: Allowed.

DEVELOPMENTS: Tokyo Cement Company Jetty is now in operation to discharge cement clinker by grabs. Length of berth 460 ft. Depth alongside 28.5 ft.

AUTHORITY: Sri Lanka Ports Authority, Inner Harbour Road, Trincomalee. *Tel:* 541395. *Contact:* Resident Manager/Deputy Harbour Master.

NOTES

Please also advise Shipping Guides Ltd.

Sudan

PORT SUDAN: 19.37 N. 37.14 E. (See Plan)

DOCUMENTS:

Port Sudan Harbour Master's Declaration.
Sudan Customs Declaration.
Quarantine Form.
(All above forms to be filled by Master on arrival).
3 Crew Lists.
3 Passengers Lists.
1 Crew Declaration.
1 Dutiable Stores.
4 copies Manifest.
1 copy B/Lading.
1 Provisions List.

PILOTAGE: 24 hours' notice ETA. VHF Channel 14. Pilot boards South of South Wingate Beacon. Pilotage compulsory.

ANCHORAGES: Towartit Anchorage, approx. 8 km. S.E. of harbour.

RESTRICTIONS: No restrictions providing berth available.

Age Restrictions: The Sea Ports Corporation, Port Sudan, issued the following circular:

"(1) Ships of over fifteen years of age will not be allowed to work in the harbour unless able to produce a Sea Worthy Certificate stating that all deck appliances and propellers are fit for work and capable of lifting and handling all kinds of goods carried on board the ship. The Owner or the Charterers of the ship will be held responsible for the correctness of the Certificate and for any delay incurred due to defect or non-efficiency of ship appliances.

(2) Ships working within the Red Sea Basin will be allowed to enter the harbour despite their age limit or nationality provided that they produce the Certificate referred to in Para (1) above.

(3) Ships carrying goods to Port Sudan Harbour must not carry any packages which cannot be lifted by the ship's own gear or are away from the reach of their gear.

(4) Breaches of any of the above will be subject to a fine of two thousand Sudanese pounds."

MAX. SIZE: Length 850 ft. Max. draft at Oil Terminal 39 ft., other berths between 28 ft. and 34 ft. 6 in.

HEALTH: Radio Pratique obtainable if message sent not more than 24 and not less than 8 hours before arrival to "Quarantine, Port Sudan", with following information: Name of ship and ETA; Name of Agent; Whether surgeon carried or not; Whether illness on board, if so, what illness; Port of departure and last port of call. On receipt the Quarantine Medical Officer will inform ship by wireless whether Pratique is granted or not.

RADIO: Port Sudan Radio (call sign STP). Operates daily on High Frequency as follows: 8676 kHz from 0400 hrs. to 2200 hrs. GMT; 500 kHz – continuous listening watch for first 10 minutes of every hour. Radiograms may be handed in at Port Sudan Post Office at all times and at Port Sudan Quays Post Office during office hours.

VHF: Port Sudan Radio on Channel 16 and 19 from 0400-2200 hrs. GMT.

TUGS: About 1 mile from harbour entrance. Either ship's or tug's lines at Pilot's discretion.

BERTHING:

Berth	Length	Depth Winter	Depth Summer
Nos. 1 to 5 main berths	458 ft.	30 ft.	28/33 ft.
No. 5A	426 ft.	35 ft.	33 ft.
Nos. 6 & 7	606 ft.	35 ft.	33 ft.
Nos. 8 & 9	600 ft.	37 ft.	35 ft.
No. 15	642 ft.	37 ft.	35 ft.
No. 16	230 ft.	37 ft.	35 ft.
Nos. 17 & 18	908 ft.	41 ft.	39.5 ft.

CARGO HANDLING: Grain silo of 50,000 tons capacity situated at Berth No. 15.

Container traffic handled at Berth Nos. 17 and 18. Ro-Ro vessels handled at Berth No. 16.

20 mobile cranes, capacity 7 tonnes – 54 tonnes.
60 forklift trucks.

TANKERS: At Berth No. 16, vessels up to 600 ft. length can berth with overhang. Max. draft 34 ft. 6 in.

Berths 17 and 18 accommodate tankers up to 39 ft. draft. Berths connected by pipe-line to refinery 8 km. South of Port Sudan.

Used for discharging crude oil and loading refined products.

STEVEDORES: Require 24/48 hours advance notice of ETA and stowage of cargo. Rate of Discharge and Loading: General cargo, 5 – 10 tons per hook per hour. Bagged cargo, 15 – 20 tons per hook per hour.

Exports: Main exports, cotton, cottonseed, gum Arabic, oilcakes, MOP shells, trocas shells, senna, beans, domnuts, oilseed, hides, skins, salt, beeswax, durra, wheat bran, chick peas, karkadeh, ground nuts, livestock, castor seed, edible oil and molasses in bulk.

Tea: Following exports should not be stowed with tea: castor-seed, hides, linseed, edible oil, oilcake. Cottonseed may be stowed with tea with separation of 3 ft. but it is preferable to stow in separate compartment from tea.

Cotton: Gum should never be stowed with cotton.

Transhipment cargo: Is normally not accepted at Port Sudan without prior permission, except in very small quantities.

Weight: Deadweight of cargo is expressed per ton of 1,000 kilos.

MEDICAL: Advance notice advisable. Hospital facilities available. Crew and passengers must have valid International Health books.

DENSITY: 1025.

FRESH WATER: Available ex-quay and ex-barge, capacity 200 tons.

FUEL: Marine Fuel oil (normally 1000 secs.); marine diesel oil (42/45 secs.); gas oil (35 secs.). 24/48 hours' advance notice advisable. Name of suppliers is required. Bunkers at times in short supply.

GANGWAY/DECK WATCHMEN: Recommended.

OPENING/CLOSING HATCHES: Normally by stevedores.

CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes per person. Alcohol not allowed. Only personal requirements may be taken ashore.

IDENTIFICATION CARDS: Identification required in lieu of passports.

CONSULS: A.R.E. (Egypt) and Nigeria.

REPAIRS: Minor deck and engine repairs.

DRY DOCKS: Slipways for 2 vessels up to 500 tons capacity.

REPATRIATION: Not recommended. Formalities take 2/3 days.

AIRPORT: 3 miles away. Flights every day Port Sudan to Khartoum. 2 flights per week Port Sudan to Cairo.

TIME: GMT plus 2 hours.

HOLIDAYS: The following government holidays will be considered as port holidays (1986).

Day	*Date*	*No. Days*
Independence Day	1.1.86	1
Christian Coptic Holiday	7.1.86	1
Rajab Revolution	26.3.86	1
Religious Holiday	7.4.86	1
Sham el Nassem	5.5.86	1
Ramadan Bairam	7.5.86	4
Kurban Bairam	14.8.86	5
Mohammedan New Year	13.11.86	1
Christmas Day	25.12.86	1

The port will not work on the following days: January 1st (Independence Day), November 10th–14th (First Day Kurban Bairam), December 1st (Mohammedan New Year), February 19th (Mulid El Nabi), May 25th (Revolution Day), September 3rd (First Day of Ramadan Bairam), December 25th (Christmas Day). Overtime will be worked on all other days.

POLICE/AMBULANCE/FIRE: Police 4888; Ambulance 2400; Fire 5922.

TELEPHONES: No arrangements exist for placing telephones on board.

GENERAL: Foreign currency allowed ashore, but must be changed in banks only. Crew are permitted to go ashore with any amount Sudanese Currency.

DEVELOPMENTS: The first development stage includes modification of 2 existing berths to accept ships of up to 50,000 d.w.t. and container vessels, relaying railway track in the port area and asphalting.

Second phase of development includes extension of 2 container berths, additional works at the Ro-Ro berth, a new oil berth and upgrading of the grain silo complex.

AUTHORITY: Sea Ports Corporation, P.O.Box 531 Port Sudan Quays, Port Sudan, Sudan. *Tel:* 2910, 2644. *Telex:* 70012 Rasmina SD. *Cables:* RASMINA. *Contact:* Mr. Ali Ahmed Abdel Rahim, General Manager. Captain Bakit Hassan Bashir, Harbour Master.

NOTES

Please also advise Shipping Guides Ltd.

Suriname

MOENGO: 05.38 N. 54.25 W.

A bauxite mining town about 70 miles up the Cottica River, a tributary of the Commewijne River, which latter joins the Suriname River at Fort New Amsterdam. Moengo is 94 miles from the Suriname River Light Buoy.

DOCUMENTS/PILOTAGE/GENERAL: Refer to "Paramaribo".

PILOTAGE: Vessel arriving after 2000 hrs. at the light buoy for Moengo can proceed on a suitable tide and anchor at Fort New Amsterdam without having to call at Paramaribo to be entered. In this case vessel will be entered on arrival at Moengo.

Also see "Paramaribo".

TUGS: Two tugs are available, the larger is 1,750 h.p.

Towage is compulsory in the Cottica River from 40 miles below Moengo for vessels over 200 ft. long.

MAX. SIZE: Ships of 525 ft. can be accommodated. Ore vessels call daily. The Commewijne Bar is 18 ft., so that the ruling draft is that of the Suriname River. Maximum admissable draft being 22 ft. 6 in., subject to the Suriname River.

BERTHING: Moengo has two piers at which ore is loaded by a transporter at the rate of 800/1,000 t.p.h. One pier is 430 ft. long and has a depth of 24 ft. alongside. Both will accommodate ships of 525 ft. length. Tracks are laid on the 430 ft. pier and a 25 ton crane is available.

PROVISIONS: Not available.

FUEL: Small quantities can be supplied.

FRESH WATER: Small quantities can be supplied.

AIRPORT: About 5 km. from docks.

AUTHORITY: District Commissioner acts as Harbour Master.

See "Paramaribo".

NEW NICKERIE: 05.57 N. 56.59 W.

DOCUMENTS:

6 copies Crew List.
6 copies Passenger List.
Customs Documents; Crew Declaration Lists; for instance, souvenirs, electric apparatus, etc.
2 copies Ship's Store Lists.
3 copies Manifests of Import.
4 copies Manifests of Export.
1 copy Transit Manifest.
2 copies Manifests of Coastal Cargo.
Ship's Papers to be shown on request.

PILOTAGE: Pilotage is compulsory for the Nickerie River for ships bigger than 50 gross tons. There is always a Pilot available; ETA to be sent 48 hours before arrival and, 12 hours before arrival give necessary correction message to the Agent.

Ships can only enter the river at or about the time of high water.

The Pilot boards near the Sea Buoy (Buoy No. 1). The pilot boat is a small wooden, grey and white painted vessel. The pilot boat does not use the international red-white pilot lights at night. It is possible to make radio telephone contact with the boat (Pilot carries a walkie-talkie VHF equipped with Channel 12). There is a signal lamp on board.

Send ETA message to Agent who will order the Pilot. Awaiting high water the vessel can anchor about 3 miles N.N.E. of the Sea Buoy.

ANCHORAGES: With a draft of 15 ft. the ship can safely anchor 3 miles N.N.E. of the Sea Buoy. It is not advisable to anchor in the Nickerie River for a long time, the river is too narrow.

MAX. SIZE: Minimum depth on the bar is 2.10 m. with maximum draft at HW varying from 14 ft. to 17 ft., maximum length is 130 m., governed by the width of the river (170 m. and upriver 70 m.). The vessel has to use the high-inlet for cooling water, etc., while passing the bar.

At low water ships are seated in the mud without consequence to hull, rudder or propeller alongside the wharf. There are berths for oil-carriers.

HEALTH: There is no Pratique procedure. Only in the event of any suspected disease on board must a doctor must be called.

RADIO: Send ETA cables to Paramaribo Radio. The pilot office at Nickerie has a radio telephone transmitter. Frequency 8,233.9 kHz; listening hours 0700, 1200, 1800 hrs. local time. SSB and VHF equipment also used.

TUGS: No tugs available.

BERTHING: The port of New Nickerie is 3 miles up river.

Wageningen: Lies 27 miles up river and can be reached with the same draft as New Nickerie, but the width of the river is only 70 m., which restricts length to 120 m.

STEVEDORES: The Agent orders the gangs (maximum 3 gangs available).

MEDICAL: No advance notice required for medical treatment. There is 1 hospital in Nickerie with a surgeon.

TANKERS: There are 3 piers in Nickerie: Esso, Shell and Texaco pier. Maximum permitted draft 14 ft. 9 in. at Spring tide.

DENSITY: In the dry season the density on the river near New Nickerie is 1015. In the rainy season the density is 1005 near HW, and 1000 near LW. These all depend upon Spring tide or Neap tide.

FRESH WATER: Fresh water is available alongside the wharf of New Nickerie. It is loaded from shore by hose.

FUEL: Small quantities of fuel available from Esso or Shell, also grease and petrol.

GANGWAY/DECK WATCHMEN: It is recommended to have a watchman during the night.

OPENING/CLOSING HATCHES: Patent hatches must be opened by the crew, other hatches by the stevedores.

CUSTOMS ALLOWANCES: Master included: for every 72 hours staying in port: 15 cigars or 60 cigarettes or 30 cigarillos or 150 gm. tobacco plus 0.25 bottle spirits or 5 bottles beer or 1 bottle wine.

IDENTIFICATION CARDS: Not needed.

CONSULS: No consuls in Nickerie.

REPAIRS: Small engine repairs and shaft repairs and some welding repairs can be done.

REPATRIATION: Possible via Paramaribo.

AIRPORT: The airport is 10 km. from the port of Nickerie. Once per day there is a flight to Paramaribo arranged by Suriname Airways.

Daily bus service between New Nickerie and Paramaribo.

TIME: Local time is GMT minus 3 hours. No alteration during year.

HOLIDAYS: See "Paramaribo".

POLICE/AMBULANCE/FIRE: Police 356; Ambulance 241; Fire 333.

TELEPHONES: No arrangements can be made for a telephone connection on board.

SHORE LEAVE: No restrictions.

DELAYS: Delays in berthing: There are only 2 wharves with a total length of 700 ft. Banana ships have priority. Delays in loading and discharging: there are only 3 gangs of stevedores. These can be enlarged to 5 "small gangs".

DEVELOPMENTS: In the future a bigger and deeper port will be built in the Corentyne River, about 20 miles up the river.

AUTHORITY: District Commissioner acts as Harbour Master.

See "Paramaribo".

PARAMARIBO: 05.59 N. 55.09 W.

PORT LIMITS: The seaward boundaries of the port, within which a vessel is considered to be "arrived" is the entrance of the Suriname, Matowijne, Coppename, Corantijn and Nickerie Rivers. Laytime commences to count after vessel has anchored or berthed.

LOCATION: On the left bank of the Suriname River about 8 miles above New Amsterdam and 21 miles from light-buoy at river entrance.

DOCUMENTS:

5 Incoming Cargo Manifests (if any cargo), otherwise 3 copies.
1 Cargo Transit Manifest.
4 Outward-going Manifests.

These above-mentioned must be sent ahead to the Agent so that they can be translated into Dutch.

6 Crew Lists.
2 Store Lists.
2 Crew Declaration Lists.
6 Passenger Lists.

PILOTAGE: Compulsory. All ships are requested to amend their estimated time of arrival in local time, at least 12 hours in advance by special message through the wireless station to their Agents or to the Harbour Master. Arrival message should include draft of vessel and other requirements. 6 hours prior to arrival the ETA has to be confirmed and if necessary corrected. The Pilot will be dispatched after receiving the confirmed ETA. As shipping only uses the Suriname River, the Commenwijned River, the Cottica River and the Nickerie River, all Pilots except one for Nickerie are stationed at Paramaribo. Paramaribo Pilots board the vessels 1 mile North of the light buoy and between the light and Braamspunt (Lat. 5° 58′ N., Long. 55° 10′ W.). Pilot station on VHF Channel 12. Pilot station and harbour office to be advised of deepest draft. All vessels have to stop off the light buoy.

ANCHORAGES: Anchorage off town in 18 ft. – 35 ft. of water at LWS. Government Officials board vessels immediately on arrival for inward clearance. Vessels which are required to anchor off the port to wait for berths may be boarded at the anchorage.

CHANNEL: The channel is marked by numbered buoys with radar reflectors, odd numbers on the West with white lights, and even numbers to the East with red lights and painted respectively black and white or red and white chequers.

RESTRICTIONS: The bar at the entrance of the Suriname River controls the ports of Paramaribo, Moengo, Paranam and Smalkalden, and has a depth of 15 ft., with a rise at Neaps of 6 ft. 7 in. or Springs 8 ft. 10 in., but it is soft mud. Due to the fact that the bar consists of mud, vessels regularly leave the port with drafts between 22 ft. and 23 ft.

HEALTH: Port doctor will visit an arriving ship only if there is a case of contagious disease aboard, or if one of the preceding ports of call has been declared to harbour contagious disease. No bill of health is required. A ship with an infection on board must advise the Harbour Master by special message through the wireless station before arrival. Yellow Fever Certificates required. Pratique granted by Customs Officer.

RADIO: There is a 24 hour radio telephone watch at the Harbour Master's Office on VHF Channel 12. The coast station, PZN, also maintains a 24 hour radio telegraph (500 kHz) and telephone service in the 2,182 kHz band.

VHF: Harbour Office on Channel 12, 24 hours a day. Radio Station "PZN" on Channel 16, 24 hours a day.

RADAR: None.

TUGS: Available from Paranam.

BERTHING:

B.E.M. Wharf: 110 ft. long, least depth 18 ft. Private cement and gravel discharge wharf, Moorings 450 ft. apart.

Banana Export Pier: 297 ft. long, least depth 18 ft. Fresh water can be supplied.

New Oil Terminal: Moorings 570 ft. apart. Least depth 18 ft. Platform length 70 ft. Used for oil and gas.

Flour Pier: 36 ft. long. Moorings 160 ft. apart. Least depth 16 ft. Only possible to discharge flour with a grain elevator, rate 30 t.p.h.

Vensur Cement Wharf: 180 ft. long, depth alongside 14 ft. Moorings 600 ft. apart.

New Haven Dock: 1,815 ft. long. Least depth 19 ft. at LWS. Max. depth 21 ft. Fresh water can be supplied.

Shell Oil Terminal: Moorings 540 ft. apart. Least depth at LWS 21 ft. Exclusively for oil, gas and bunkering.

CRANES: One crawler crane 25 tons capacity.

MEDICAL: Excellent medical and dental attention is available to crew members of all vessels. Four hospitals available.

FRESH WATER: The water is of excellent quality. Available at most berths as mentioned above.

FUEL: Ship's bunkers are available in most ports of Suriname in limited quantities. Advice regarding quantities and specifications of oil should be given to Agent's representative immediately after docking. Suppliers are Shell, Esso and Texaco.

CUSTOMS ALLOWANCES: 60 cigarettes or 15 cigars or 0.5 lb. of tobacco. One-fifth litre of spirits, one-third litre of wine, 2 litres of beer, for each crew member.

All remaining stores must be declared and placed under seal. If vessel remains in port over 72 hours Customs will allow an issue of stores.

REPAIRS: No facilities for major ship repairs. Local workshops can do repairs of minor nature. There are 2 floating dry docks and 1 floating derrick owned and operated by the Suriname Drydock Co. Lifting capacities dry docks: 400 – 650 tons.

SURVEYORS: Lloyd's Register, A.B.S. and N.V.

GANGWAY/DECK WATCHMEN: The Customs board the vessel while riding at anchor or alongside one of the docks. All vessels are required to make a proper gangway available to the Customs Boarding Officer.

The local authorities assign one or more Customs Guards to each vessel during its stay in port. The charges for guarding are for the account of the vessel. These Officials must be provided with meals on board at regular meal hours, and cabins if necessary.

CARGO GEAR: Load/discharge by ship's gear.

REPATRIATION: Under special circumstances vessels may sail without all crew members on board (sickness, etc.). The Master furnishes a letter to his Agent authorising him to accept responsibility for the missing seaman or seamen.

AIRPORT: Zaneerij Airport, 46 km. from Paramaribo. Served by SLM, KLM, ALM and Guyana Airways.

CONSULS:

Austria
Barbados
Belgium
Brazil
Canada
Chile
China
Colombia
Denmark
Dominican Republic
Ecuador
Finland
France
Germany F.R.
Guyana
Haiti
Indonesia
Italy
Japan
Korea
Lebanon
Mexico
Netherlands
Norway
Peru
Portugal
Spain
Sweden
U.K.
U.S.A.
U.S.S.R.
Venezuela

TIME: Local time is GMT minus 3.5 hours. Vessels are required to use local time in ETA messages and when dealing with Agents.

HOLIDAYS: New Year's Day, Revolution Day (February 25th), Holi Phagwa* (March 10th), Good Friday, Easter Monday, Labour Day (May 1st), Freedom Day (July 1st), Id-Ul-Fitr*, Republic Day (November 25th), Christmas Day, Boxing Day. These holidays depend on the moon.

SHORE LEAVE: Under normal circumstances no restrictions are imposed by the Government Immigration Authorities on shore leave.

GENERAL: While alongside vessels must maintain engines and propulsion machinery in readiness to leave the pier under full power on short notice. No repairs are permitted which should interfere with this requirement. While alongside, oil tankers should have their offshore anchor out about 50 ft.

All vessels except naval vessels, must furnish a statement, of the amount and character of explosives carried, also a certificate to show how they are stored and manner of packing.

Special anchorage areas are provided in the harbour for vessels with dangerous cargo.

All firearms and ammunition must be manifested on store lists and must remain in bond on board during vessel's entire stay in territorial waters of Suriname. Any violation of this regulation renders the vessel subject to fines and confiscation of firearms and ammunition.

BALLAST: Vessels must arrive with sufficient ballast to permit safe handling. All vessels should enter port with clean ballast water that may be pumped overboard while in the harbour, as it is prohibited to pump dirty ballast water or oil residue or sweepings into the harbour.

BANK: Algemene Bank Nederland N.V., Kerkplen 1, Paramaribo. Tel: 71555. Telex: 122 Bancol Sn.

EMERGENCY CO-ORDINATION: Harbour Office. Tel: 72845. Telex: 163 Havkan Sn.

STORING: Can be arranged by Barge or Trucks, whilst loading or discharging, depending on berth, with Customs in attendance. Local labour available.

AUTHORITY: The Ministry of Transport and Industry, P.O.Box 888, Paramaribo. *Tel:* 72845, 76769. *Telex:* 163 Havkan Sn. *Contact:* Mr. E. Fitz-Jim, Director of Maritime Affairs.

AGENT: Alcoa Steamship Company, Inc., P.O.Box 1842. Paramaribo, Suriname. Tel: 77600, 73613. Telex: 113. Cables: Alcoaship Parbo. Steamship Agents/Stevedoring Operators.

PARANAM: 05.38 N. 55.05 W.

LOCATION: On left bank of the Suriname River about 42 miles from the light buoy (Fairway Buoy), consisting of bauxite mining, alumina refining and an aluminium smelter with facilities for shipping these commodities.

DOCUMENTS/PILOTAGE: and all General Information refer to "Paramaribo".

RESTRICTIONS: See "Berthing".

MAX. SIZE: Vessels up to 45,000 d.w.t. load to outer bar draft (approximately half load) and usually top off at Trinidad. Max. LOA 700 ft.

HEALTH: Health Officer does not board unless there are quarantinable diseases aboard.

TUGS: Available.

BERTHING: *General Dock:* Concrete pier of about 350 ft., moorings 660 ft. apart. Least depth 30 ft., max. air draft 42 ft., max. beam 80 ft. This dock used for loading bauxite or aluminium ingot and for discharging general cargo, oils, caustic and other raw materials,

Alumina Pier: Depth 25 ft., moorings 680 ft. apart. Used for loading alumina or discharging oils and caustic. Max. air draft 50 ft., max. clearing height 72 ft. Also see "Shipmaster's Report".

Loading Capacity: Bauxite General Dock: 900 t.p.h.
Alumina at Alumina Dock: 850 t.p.h. Loading by conveyor, spout trimmed (Telescopic chute).

CRANES: One gantry crane 55 tons capacity.

FUEL: Small quantities of light diesel No. 2 only in emergency.

FRESH WATER: Can be supplied.

REPAIRS: None can be effected.

AIRPORT: At Zanderij, 30 km. from dock.

GENERAL: The Outer Bar is the limiting factor for the port. Harbour Office Paramaribo give Bar drafts for each tide.

The river silt is extremely soft and in consequence the river water is very dirty and although fresh (995 at the berths) the evaporators cannot be kept on line. There is also a great danger of blocking the cooling water system, especially when crossing the bars. Blackouts on both motor and steam ships are a common occurence. Care should be taken to ensure that cooling systems are as clear as possible before entering the river. High suctions must be used when passing over all bars in Suriname.

SHIPMASTER'S REPORT: October 1986 (Updated 1988).

Alumina Terminal: Lat. 05° 36.9′ N., Long. 55° 05.2′ W.

Local Time: GMT minus 3 hours.

Approaches: Low lying coastline. Vessels anchor about 5 miles North of light buoy (Fairway Buoy) in position Lat. 06° 05′ N., Long. 55° 12.7′ W. to await HW. Lighthouse at Lat. 05° 54′ N., Long. 55° 12′ W.

Pilotage: Compulsory. River Pilot boards 1 mile North, of light buoy (Fairway Buoy). Pilot boarding and HW to be confirmed by Paramaribo Port Control on VHF Channel 12 and Harbour Office on Channels 12 and 16.

Very shallow waters from No. 1 Buoy to No. 6 Buoy on either side, with variable currents. Buoyed channel up to No. D11 Buoy (30 miles from light buoy – Fairway Buoy). Draft restricted to 22 ft. with safe draft of 21 ft. in HW. Safe turning basin and anchorage 2 miles up river from Paranam. For down river transit, waiting anchorage for HW is off Paramaribo at Leonsburg in position Lat. 05° 52.5′ N., Long. 55° 05.5′ W.

Berthing: By River Pilot. No tug for berthing. Alumina Pier length 207 m., alongside depth is 30 ft. Other berths at Paranam for discharge of general cargo and loading bauxite.

Loading: By conveyor-fed telescopic chute. Capacity 850 – 1,000 t.p.h. Can reach all holds. Cargo work 24 hours.

Density: About 995 – 996 alongside berth.

Fresh Water: Available at berth.

Bunkers: Not available.

Provisions: Limited quantity of some fresh vegetables and meats available at local Chinese 'supermarket'.

Shore Leave: No restrictions. Paranam Town is 1 mile from berth. Paramaribo City about 1 hour by car. Nearest airport at Zanderij International, 30 km. from Paranam.

Radio: PZN (Paramaribo Radio) provides reliable services.

AUTHORITY: District Commissioner officially acts as Harbour Master but vessel movements, pilotage, etc. handled by Paramaribo Harbour Master's Office.

SMALKALDEN: 05.37 N. 55.05 W.

LOCATION: A bauxite mining town on the left bank of the Suriname River 1 mile below Paranam and 41 miles from the light buoy.

DOCUMENTS/PILOTAGE: and all General information; refer to "Paramaribo".

TUGS: None available.

BERTHING: Wharf with length of 218 ft. Moorings 535 ft. apart, least depth 30 ft. Ships can load to outer bar draft. Bauxite loaded by 1 conveyor with an average of 800 t.p.h. at each berth. Max. LOA 700 ft. Vessels berth port side alongside.

FUEL: None available.

FRESH WATER: Small quantities can be delivered by trucks.

REPAIRS: None.

AIRPORT: At Zanderij, 30 km. from dock.

GENERAL: The tide is 3 hours after Paramaribo and the water becomes fresh before reaching Smalkalden.

SHIPMASTER'S REPORT: 1978 (Updated 1988).
Documents: 2 Crew Lists, 2 Stores Lists and 2 Crew Declaration Lists.
Customs: Customs board at Smalkalden on arrival and clear vessel. They do not remain on board.
Pilotage: Available and compulsory. Pilot station at Paramaribo.
Anchorage: Safe anchorage available 4 miles North of the Sea Buoy, depth of water about 30 ft., nature of bottom, mud.
Approaches: Inwards: There is a direction finding station at Paramaribo. Racon beacon in position: 05° 53′ 31.6″ N., 55° 13′ 00″ W.

On entering the river, it was noticed that the propeller stirred up dense mud. The main engine cooling filters became choked even though the high suctions were being used. Top side ballast tanks were then used to discharge ballast and cool the main engine at the same time.

Vessel anchored at Suzannasdaal on passage up river to await tide, and clearance of another vessel which was on the berth. The anchorage was good, vessel used five shackles. Vessel then proceeded up river to Smalkalden but on passing Domburg, heard that the other vessel could not complete on time, so we had to pass the berth and anchor off Chatillon. The river is very narrow at this point and engines were kept on standby to be used when turning in case vessel became too close to the shore. Vessel docked at Smalkalden just before HW.

Outwards: On completion of loading, vessel sailed 2.5 hours before HW Paramaribo and proceeded down river. The vessel's draft was 23 ft. 2 in. and in places the river became very shallow and the vessel slid over mud at various points. The worst place noticed being between Beacon "D4" and Buoy No. 12 at Sunoza. The vessel again anchored off Suzannasdaal to await the rising tide, 6 shackles in the water as the current was very strong. The vessel later sailed for the sea 3.5 hours before HW at Paramaribo and again touched bottom at various places whilst proceeding towards the sea. The main engine was cooled using ballast discharge for suction which is higher than normal high suction.
Restrictions: Vessels can enter and leave port day and night.
Max. Size: Agent advised that max. draft was equal to: (4.60 m. + height of tide) – FWA of 4 in.

Pilot also advises that the FWA from Sea Buoy to Suzannasdaal is practically nil – so do not take FWA into account.
VHF: Pilots and Harbour Office maintain a continuous watch on Channel 12.
Tugs: Not available and not normally required. Should vessel experience difficulties tugs can be called from Curacao.
Berthing: Suriname Billiton Bauxite Berth: Maximum permissible draft varies with the tide. Tidal range 1.16 m. to 2.39 m.

Maximum permissible length and breadth of vessel not known.
Loading/Discharge Gear: There are 2 chutes approximately 150 ft. apart which are semi-movable. Loading rate varies between 200 and 600 long tons per hour. Cargo operations continue throughout 24 hours. A gang consists of one foreman and four men.

In addition to the facility at which we berthed, there are general cargo berths alongside the modern quay and a bulk aluminium loading berth with one chute which is semi-movable. See "Paranam".
Density: For the berth, the density is 998. Also see "Max. Size".
Fuel: Not available.
Fresh Water: Delivered by truck with capacity of 7 tons. Delivery is slow and extremely expensive. Arrangements are to be made with the foreman.
Medical: Hospital facilities available.
Shore Leave: Possible, however, crew required on board most of the time as vessel has to be shifted up and down the jetties for loaders.
Gangway: Accommodation ladder not used. Shore ladder is provided.
Provisions: Fresh fruit and vegetables available but of poor quality and very expensive.
Transportation: The town of Smalkalden is about 30 minutes by car from Paramaribo and about 1 hour by bus (taxi fare, 25 Guilders, bus fare 1 Guilder).
Publications: BA 517 and BA 99 also South American Pilot Volume 4 (No. 7A) used. BA Chart 99 does not extend far enough to sea as the sea buoy is not shown on it and the outer anchorage is about 3 to 4 miles outside this buoy. The Pilot informed me that the local Dutch Chart is available from the Harbour Master at Paramaribo and is much more satisfactory.

AUTHORITY: District Commissioner acts as Harbour Master.
See "Paramaribo".

NOTES

Please also advise Shipping Guides Ltd.

Sweden

GENERAL:

ICE-BREAKING SERVICE:
Location: Ice-breaking Directorate, Norrkoping.
Telephone: (011) 19 10 00 (0800 hrs. – 1640 hrs. local time).
(011) 12 29 60 (outside above hours).
Telex: 64416 Ice Serv S.
Cables: Civilmarin.
Procedure: Requests for ice-breaker assistance should be made well before vessel's arrival at the ice to the Directorate, locally (to most Swedish Harbour or Pilot Offices) or to an ice-breaker.

Vessels approaching ice-bound areas may be instructed, in daily Ice Reports issued by Coastal Radio Station (see ALRS Vol. 5), to report to the Directorate. Reports, which should be made well before arrival at the ice are to include the following details of the vessel:

1. Name.
2. Nationality.
3. Call sign.
4. Size.
5. Draft.
6. Engine power.
7. Year built.
8. Ice class.
9. Amount of cargo.
10. Destination.
11. ETA at ice-covered waters.

Vessels which have made a request or report and subsequently cancel or delay their voyage must inform the Directorate, a local office or an ice-breaker immediately.

Information Service: For details of Coastal Radio Stations which broadcast Ice Reports, including positions of ice-breakers, see ALRS Volume 5.

Ice-Breakers:
Call: Swedish ice-breakers with their call signs are:

Ymer	SPIA	Tor	SCYN
Frej	SBPT	Oden	SBXQ
Atle	SBPR	Thule	SCKD
Njord	SBPO	Ale	SBPQ

Frequency: 500 kHz	WT
2182, 2140 kHz	RT
Channels 16, 6	VHF

Procedure: Calls to ice-breakers may be booked through the nearest Coastal Radio Station. Vessels receiving assistance must maintain continuous listening watch on the channel specified by the ice-breaker.

AHUS: 55.56 N. 14.19 E. (See Plan)

DOCUMENTS: See "Stockholm".
PILOTAGE: Pilots meet vessels at Pallagrund. Telegraphic address: "Pilotstation, Ahus". Tel: 044 – 240027. VHF Channel 16 call sign: "Pilot Station, Ahus." Awaiting Pilot, anchor outside Pallagrund. Depth 15 m. – 20 m. (Also see "Stockholm").
ANCHORAGES: Anchorage forbidden in dredged entrance channel.
RESTRICTIONS: No special regulations.
MAX. SIZE: Max. length 160 m., max. draft 7.7 m.
HEALTH: No special regulations.
RADIO: Stockholm Radio (SDI) also VHF, Channel 16 and working Channel.

Ahus Port Radio keeps watch, Monday to Friday 0800 to 1600 hrs. on VHF Channel 16. Working Channel 11, 12 and 13. At other times Ahus Pilot Station.

RADAR/VHF: Radar on pilot station. VHF call sign: Pilot Station, Ahus. Channel 16. Also see "Radio".
TUGS: 1 tug available with advance notice.
BERTHING: Depth alongside (at MW) as follows:

Berth	*Length* (m.)	*Depth* (m.)
Wine Quay	100	4.2
No. 1 – 4	270	5.8
No. 5 – 17	740	7.2
No. 18 – 26A	470	8.2
26B	15	4.2

Depth allowance 0.5 m.
STEVEDORES: Ahus Stuveri AB. Tel: 044-242035. Working hours: Monday to Friday 0700 – 1600 hrs. Meal breaks 0845 – 0900 hrs. and 1200 – 1245 hrs.
FRESH WATER: Delivered from pipe-line.
FUEL: Available day and night.
FIRE PRECAUTIONS: No special regulations.
GANGWAY/DECK WATCHMEN: If wanted, watchmen available.
OPENING/CLOSING HATCHES: Normally by the crew.
CUSTOMS ALLOWANCES: See "Stockholm".
CARGO GEAR: 7 shore cranes, capacity 5 – 25 tons. No cranes at Berth Nos. 1 – 4 or Wine Quay.
IDENTIFICATION CARDS: Crew List needed. No cards.
CONSULS: Danish Vice-Consul: Vasagatan 17B, 29153 Kristianstad. Tel: 044-114841. Norwegian Vice-Consul: Mast. Bonggatan 2, 29154 Kristianstad. Tel: 044-115605.
REPAIRS: Minor repairs only.
DRY DOCKS: No dry dock.
AIRPORT: Nearest airport about 10 miles away. 6 flights per day.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: See "Stockholm".
POLICE/AMBULANCE/FIRE: Police Tel: 242030; Ambulance Tel: 90000; Fire Tel: 90000.
TELEPHONES: 1 public telephone on quay.
AUTHORITY: Ahus Hamn, Hamnkontoret, Krangatan 2, S–29600 Ahus, Sweden. *Tel:* 044-243315. *Contact:* Ingvar Ericsson, Harbour Master.

BROFJORDEN: 58.21 N. 11.25 E. (See Plan)

PORT LIMITS: Between "Stretudden" (crude oil berth) and the island "Rixo" in Brofjorden.
DOCUMENTS: Documents required for entry and clearance:

Certificate of Registry, Certificate of Tonnage, Derat Exemption Certificate, 3 Crew Lists, 1 Crew Manifest, 1 Declaration of Bonded Stores. Free Pratique will be received via Customs on arrival berth. Oil Pollution Certificate.

PILOTAGE: Pilot station VHF Channel 16 around the clock. Channel 16 for calling only, thereafter changing to an agreed Channel. Call: Lysekils Pilots.

According to harbour regulations VLCCs are requested to give 72 hours' ETA, and if any changes 48 and 24 hours' ETA.

Product tankers are requested to give 48 and if any changes 24 hours' ETA.

Position where Pilot will Board:

VLCCs	Lat. 58° 13′ 05″ N., Long. 11° 09′ 05″ E.
Product tankers	Lat. 58° 15′ 01″ N., Long. 11° 13′ 03″ E.

ANCHORAGES:

VLCCs	East Scaw, Lat. 57° 42′ N., Long. 10° 49′ E.
	Water depth: 26 m.
	Holding ground: sand, good.

Product Tanker Only (up to 60,000 d.w.t.):

Lat. 58° 20′ 03″ N.	Water depth: 28 m.
Long. 11° 21′ 00″ E.	Holding ground: clay, good
Lat. 58° 19′ 07″ N.	Water depth: 26 m.
Long. 11° 23′ 05″ E.	Holding ground: clay, good

RESTRICTIONS: *When Berthing VLCC:*

Visibility minimum 4 miles, wind force max. 12 m./sec. and current max. 1 knot at the outer buoys (Nos. 1 and 2).

MAX. SIZE:

Crude Oil Jetty:	
Deadweight:	50,000 – 500,000 tons.
Length overall:	No limit.
Beam restriction:	No limit.
Draft restriction:	25 m. (82 ft.)
Depth of water:	28.0 m. (92 ft.).
Product Jetty (Berths No. 2 and 3):	
Deadweight:	50,000 tons.
Length overall:	230 m. (754 ft.).
Beam restriction:	No limit.
Draft restriction:	14.4 m. (47 ft.).
Depth of water:	16.0 m. (53 ft.).
Product Jetty (Berth No. 1):	
Deadweight:	7,000 tons.
Length overall:	120 m. (394 ft.).
Beam restriction:	No limit.
Draft restriction:	8 m. (26 ft.).
Depth of water:	8.8 m. (28 ft.).

HEALTH: No special papers required. Master informs by radio or on arrival.
RADIO: For ETA cables to Agent and Receivers call Gothenburg Radio.
VHF: VHF stations are installed at the pilot station, the pilot boat, the tug boats and at the Scanraff Harbour Office. Scanraff and Lysekil Pilot listen on Channel 16 day and night.

When mooring: the Pilot, Harbour Master, mooring boats and the mooring gangs carry portable VHF sets. Channel 69 is usually used.

RADAR: At the pilot station two radar sets are installed for watching the entrance.
TUGS: *For VLCCs:* Tugs made fast after passage of Dynabrott and Brandskars Flak Lighthouses.
For Product Tankers: Tugs made fast when passing Bubacka Buoy (opposite crude oil berth).
BERTHING:

Instruments:	SAMI-doppler and current meter at crude jetty.
Salinity:	18 – 34%
Current Velocity:	0.2 – 0.9 knots at entrance.
Nature of Bottom:	Clay.

The crude and product jetties are equipped with quick release hooks. The coaster berth has usual type of bollards.

One Safety Tug-boat is always standing-by within the harbour area in case of emergency. When a Crude Carrier is alongside an additional Safety Tug-boat is standing by.

MEDICAL: Hospital available in Lysekil. No particular inoculations required.
TANKERS:
Crude Jetty:

Concrete jetty for tankers of 50,000 to 500,000 d.w.t.
Length of jetty-deck: 135 m.
Height of jetty-deck above MLW: 6 m.
Minimum distance between fenders: 96 m.
Height of gangway tower: 27 m.
3×16 in. marine arms for cargo handling.
1×12 in. marine arm for bunker supply (Only Bunker "C" available).
All 4 arms are equipped with hydraulic operated speed seal couplings, designed for 150 lb-ASA flanges, minimum size 10 in.

Reach capability of arms: Max. 30 m., min. 4 m. above sea level. Max. 11 m., minimum 3 m. from berthing line. Drift: 4.5 m. each side of manifold centre line.

Fresh water can be supplied at a rate of 60 t.p.h.

1×4 in. sewer-line connection is located between manifolds on jetty-deck.

Vessel arriving shall have 1 derrick rigged amidships to lift on board garbage-container.

Shore-connected telephone will be placed on board. Telephone number 605 88. Area number 0523.

Telephone number to Scanraff switchbord 604 60. Area number 0523.

Mooring: Vessel is normally moored port side to jetty.

Approach velocity is continously measured by doppler radar and provided to ship's Master/Pilot during berthing operation.

Max. allowed approach speed is shown in "Plan Section".

Communication between jetty-pilot-tugboats and mooring-boats by VHF.

Under normal weather conditions 6 tugboats representing approx. 23,000 h.p. will be used for berthing of VLCCs. Under abnormal weather conditions additional tugboats can be ordered.

2 mooring-boats are provided to assist in line handling.

18 mooring lines are required for safe mooring. All lines to be provided by the ship.

Mooring lines to be arranged in accordance with "Plan" (See "Plan Section"), or as close to as possible.

Combination of synthetic, ropes and wires in the same direction shall be avoided.

Self tensioning winches are not allowed.

All mooring lines will be put on quick release hooks of 150 tons SWL each.

4×10 in. mooring lines are available on jetty-deck for emergency use.

Safety Precautions: Vessel must be safely moored before gangway is placed on board and marine arms connected.

Correct setting of winch brakes to be checked regularly by ship's personnel.

Safety wires to be properly rigged fore and aft.

Cargo handling and/or bunkering will be stopped if wind velocity reaches 17 m./sec. (33 knots) for wind between N.W.-S.W. and during thunderstorms. If reaching the above limit: Stop discharging/bunkering, drain and disconnect all arms. Close all tank lids and ullage plugs. Tugs to be ordered to ship's side.

2 safety tugboats are always available in Brofjorden Harbour while a crude carrier is alongside the crude jetty.

The Harbour Office together with the ship's Master will decide on approach actions to be taken.

Product Jetty: (Berths No. 2 and 3)

Berth No. 2: 1×12 in. (F.O. No. 4 and F.O. No. 5).
1×12 in. (F.O. No. 4, F.O. No. 5 and ballast).
2×10 in. (F.O. No. 1 and diesel oil).
1×10 in. (Premium gas).
1×10 in. (Naphtha and regular gas).

Berth No. 3: 1×12 in. (F.O. No. 4 and F.O. No. 5).
1×12 in. (F.O. No. 4, F.O. No. 5 and ballast).
2×10 in. (Diesel and fuel oil No. 1).
1×10 in. (Premium gas).
1×10 in. (Regular gas).
1× 4 in. (TML).

Potable water and bunker oil are available at all berths.

A 4 in. sanitary sewer line is available at all berths and dry garbage can be left ashore (free of charge) in containers placed between Berth No. 2 and 3.

Product Jetty: (Berth No. 1)

Size	*Flange rating*	*Service*
6 in.	150 lb ASA	Prem. gas, reg. gas.
6 in.	"	Diesel, F.O. 1.
8 in.	"	F.O. 4, F.O. 5 Ballast.
8 in.	"	Sulphur.

Max. discharge rate at Crude Oil Jetty 18,000 cu.m. per hour. Max. pressure allowed 10 kilos. Max. loading rate at Product Jetty 1,500 cu.m. per hour. Max. pressure allowed 10 kilos.

Both Crude and Product Jetty have 4 in. 150 lbs sanitary sewer and 4 in. 150 lbs potable water connections available which may be used by running hose from ship.

All arms are hydraulically operated except those at the Coaster Jetty. No flexible hoses are allowed for oil handling.

Ballast water can be discharged at Product and Coaster Jetties.

FUEL: Bunker "C" only is available at Crude Oil Jetty. Bunker "C" and diesel oil are available at Product Jetties and the Coaster Jetty.

FIRE PRECAUTIONS: A special Fire Instruction will be given on board on arrival.

POLLUTION: Oil pollution prevention. A special instruction will be given on board on arrival.

CONSULS: Denmark, Finland, Netherlands, Norway and Germany (F.R.) have consuls in Uddevalla, 40 km. from Scanraff.

REPAIRS: Uddevallavarvet and Skandiaverken. For hull and engine repairs, harbour and voyage service.

Pemco: For construction work, mechanical erection and repairs.

Andersson & Callenberg: For electrical installations.

Engine repairs must be reported to Port Captain for permission.

DRY DOCK: Gothenburg, capacity 250,000 tons.

SURVEYORS: Saybolt, Caleb Brett and other cargo inspectors are available.

Lloyd's Register, Det Norske Veritas and others surveyors are available.

GANGWAY/DECK WATCHMEN: The crude oil jetty has gangway tower, but accommodation ladder is necessary at the product jetty.

Watchman is compulsory at the Crude Oil Jetty. At the Product Jetty watchman is available on request.

CUSTOMS ALLOWANCES: 1 bottle spirit and 200 cigarettes or 200 grams tobacco.

REPATRIATION: Changing of crew and any necessary repatriation is possible.

AIRPORT: Nearest airport is Gothenburg, 100 km. South of Lysekil.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

POLICE/AMBULANCE: Dial 90 000 and ask for necessary service.

EMERGENCY CO-ORDINATION CENTRE: Skandinaviska Raffinaderi AB Scanraff. Tel: 0523-60460, Fire and Safety Department.

TELEPHONES: A telephone can be connected on board if ordered through Agent or jetty operator. Telephone numbers: Alarm Centre 90 000 (Ask for ambulance, police etc. Can be in action within 10 minutes); Safety tug-boat 608 33; Lysekil Pilot 608 00; Scanraff switchboard 604 60; Product berth No. 1: 608 76; Product berth No. 2: 602 41; Product berth No. 3: 602 34. A slot telephone is also available in the gate house.

SERVICES: Compass adjusting is available. Local ship chandler available.

BANK: Skandinaviska Enskilda Banken, Postbox 22. 453 00 Lysekil. Tel: 0523-14020. Telex: 21020 (Gothenburg Office).

STORING: See "Prelims".

1. Vessel can be stored by barge.

2. Vessel can be stored by barge during loading/discharging operation if ship's crane abaft the funnel can be used. Storing amidships can be permitted but not during loading/discharging operation.

3. No trucks are allowed to handle stores. Minor storing can be done by means of wagon from the gate to the jetty and via the ship's gangway.

4. Fork lift trucks are not allowed to be used on the jetty to handle stores.

6. Local riggers are employed by the local ship's chandler to assist with storing.

SHORE LEAVE: Crew members are allowed ashore. No identification card or passes are needed.

REGULATIONS: The Harbour Regulations will be placed on board on arrival.

GENERAL: At the Crude Oil Jetty there is a refuse container to be lifted on board by means of the ship's gear. At the Product Jetty are 2 containers, which will remain ashore. These containers are free of charge to the ships.

AUTHORITY: Skandinaviska Raffinaderi AB, Scanraff, Box 10004, S-453 00 Lysekil. *Tel:* 0523-60460. *Telex:* 42135 Scanraff S. *Contact:* Harbour Master.

GAVLE: 60.41 N. 17.11 E. (See Plan)

PORT LIMITS: A line from Utvalnas (approx. 60° 45.2′ N. 17° 21.4′ E.) over Bakharen to Langharen (approx. 60° 41.0′ N. 17° 17.5′ E.).

DOCUMENTS:

4 Crew Lists (for European vessels).
2 Crew Lists (for other vessels).
2 Manifests.
2 Bills of Lading.
1 Tobacco List.
1 Stores List.

Following documents supplied by Agent and signed by Master:

On arrival from foreign port:
1 Maritime Declaration of Health.
4 Reports of Arrival (Customs).
1 Declaration of Master (of persons on board).
1 Declaration of living animals (if any).

On arrival from any port:
1 Report of Arrival (Harbour Office).
1 Report of Receivers (Harbour Office).
1 Cargo List (or Manifest).
1 Transfer.

On departure to foreign port:
4 Reports of Departure.
1 Declaration of Master (of persons on board).

On departure to any port:
1 Report of Shippers (Harbour Office).
1 Declaration by foreign Master.

PILOTAGE: *(a)* Sea Pilots: Pilot station: Bonan, Telephone Nos. 991 10 and 992 20. Telegraphic address: Pilotstation, Gavle. 5 hours advance notice of ETA pilot station. Notice of ETA can be given over any Swedish coastal radio station or free of charge on VHF over any Swedish pilot station or Grundkallen Lighthouse.

VHF: Channels 16: Calling and Safety   Pilot station and
13: Pilotage traffic   Pilot boats.

All pilot boats are orange. International signals for calling Pilot. Pilot boards: S.E. of Grasjalsbadan 60° 43′ N., 17° 27′ E., and on request South of Eggegrund Lighthouse, 60° 43′ N., 17° 34′ E. In case of bad weather closer to pilot station. Anchorages: Graberget roadstead N.E. of Bonan Lighthouse (approx. 60° 44.8′ N. 17° 20.5′ E.), about 350 m. from shore and 18 – 21 m. (10 – 13 fathoms) depth. Open to Easterly winds. *(b)* Harbour Pilots: Available for moving within harbour area on application to Port Administration, Telephone Nos. 17 88 61 or 17 88 62 or by VHF to Gavle Port Radio, Channels 16, 14 and 13.

ANCHORAGES: See "Pilotage". Outer roadstead situated inside of Northern entrance and in red sector of Fredriksskans Light. Outer roadstead well protected, depth of 15 – 11 metres (8 – 6 fathoms). Anchoring forbidden:

(a) In dredged channel between lights in Northern Channel and to a point 800 m. W.S.W. of Light No. 4.

(b) In white sector of Fredriksskans Light E.N.E. within a distance of 2,000 m. from same.

(c) In navigable channel from Fredriksskans Light to Gavle Dolphin Light.

(d) In Fredriksskans Harbour Basins and between the Oil Berth No. 21 and the Terminal Granudden.

(e) In Gavle River from Berth No. 18 to Berth No. 10.

RESTRICTIONS: One fairway leads to harbour. Northern Fairway is 10.9 m. deep and has bottom width of 60 m. Day-time: Max. LOA 220 m. Max. breadth 28.0 m. Max. draft 10.4 m. or max. breadth 30 m. Max. draft 9.0 m. Night-time: max. draft 7.35 m.; max. length 172 m. All depths are referred to mean water level. Ships on way from outer roadstead or passing from Fredriksskans Harbour to Inner Harbour shall give way to vessels proceeding in opposite direction. This shall not apply to vessels with tow unless vessel approaching also has tow.

MAX. SIZE: Max. permissible draft (at mean water) as follows:

	Max. Draft (m.)	*Max. Draft* (ft. in.)	*Real depth* (m.)	*Allowance* (m.)
Fredriksskans Harbour				
Oil Berth No. 21	10.4	34 01	10.8	0.4
Max. length 220 m. (722 ft.)				
Oil Berth No. 1	7.35	24 01	7.7	0.35
Max. length 200 m. (656 ft.)				
Oil Berth No. 2 – 3	5.2	17 01	5.4	0.2
Berth No. 4 – 8	7.35	24 01	7.7	0.35
Berth No. 9 – 14	8.9	29 02	9.3	0.4
Ferry Terminal (Ro/Ro)	6.3	20 08	6.5	0.2
Inner Harbour (River Gavle and Nyhamn)				
Berth No. 25 – 38	4.6	15 01	4.9	0.3
Berth No. 8 – 23			4.75	0.15
Karskar				
Berth No. 105 – 106	6.5	21 04	6.8	0.3
Length 195 m. (640 ft.)				
Berth No. 107 – 108	7.8	25 07	8.1	0.3
Length 196 m. (640 ft.)				
Berth No. 109	4.6	15 01	4.8	0.2
Length 90 m. (295 ft.)				
Berth No. 110, South end.	4.6	15 01	4.8	0.2
Length 35 m. (115 ft.)				
Berth No. 110, North end.	6.0	19 08	6.3	0.3
Length 75 m. (246 ft.)				

Terminal Granudden: See "Cargo Handling".

HEALTH: Pratique always automatic. If any suspected disease or fever on board, notify ship's Agent.

RADIO: Harnosand Radio (SAH).

RADAR/VHF: No port radar service, but Bonan Pilot Station, Eggegrund Lighthouse, and three pilot cutters equipped with both radar and VHF and assist any ship approaching pilot station on request. After calling pilot station on VHF Channel 16, ships will be given assistance on Channel 13, 12, or 6.

Also see "Pilotage."

TUGS: Join vessel outside Fredriksskans Lighthouse or outside Korsnas Works for berthing, and outside Northern entrance channel for passage through same. Ship's lines always used.

CARGO HANDLING: Container berth, max. draft 9 m. Three cranes with 30 ton capacity, two of which have automatic container spreaders for 20 ft. and 40 ft. containers.

Roll-on/Roll-off berth, max. draft see "Ferry Terminal" and "Terminal Granudden".

Terminal Granudden: A port terminal at Granudden which is situated opposite Fredriksskans Harbour. The terminal comprises 350 m. of quay with a Roll-on/Roll-off berth, having max. draft for vessels: 9.0 m. for length of 150 m. adjacent to Roll-on/Roll-off ramp and 10.5 m. for length of 200 m., 2 warehouses each having an area of 22,000 sq.m., as well as extensive storage space. The total terminal area is 150,000 sq.m. and it will have an annual maximum capacity of 1.2 million tons forest products. The terminal has very good connections with both main roads and the railway system.

TANKERS: *Tanker Berth No. 21:*

Max. length 220 m. (722 ft.). Max. draft (M.W.) 10.5 m. (34 ft. 5 in.).

Manifold connection size (all grades) 200 mm. (8 in.).

Berth to Depot pipe-line size:

	mm.	in.
Heavy Fuel Oils	450	18
Gas Oil	400	16
Gasoline	350	14
Kerosene	250	10

Tanker Berth No. 1:

Max. length 200 m. (656 ft.). Max. draft (M.W.) 7.45 m. (24 ft. 5 in.).

Manifold connection size:

	mm.	in.
Fuel Oils	250	10
Gasoline	200	8
Kerosene	200	8

Berth to Depot pipe-line sizes:

	mm.	in.
Fuel Oils	350	14
Gasoline	300	12
Kerosene	250	10

Tanker Berth No. 2 and 3:

Max. length 125 m. (407 ft.). Max. draft (M.W.) 5.3 m. (17 ft. 5 in.).

Manifold connection size (all grades) 150 mm. (6 in.).

Berth to Depot pipe-line sizes (all grades) 150 mm. (6 in.).

Tanker Berth No. K105-106:

Max. length 195 m. (640 ft.). Max. draft (M.W.) 6.6 m. (21 ft. 8 in.).

Manifold connection size (all grades) 200 mm. (8 in.).

Berth to Depot pipe-line (all grades) 250 mm. (10 in.).

Tanker Berth K107-108:

Max. length 195 m. (640 ft.). Max. draft (M.W.) 7.9 m. (25 ft. 11 in.).

Manifold connection size (all grades) 200 mm. (8 in.).

Berth to depot pipe-line (all grades) 250 mm. (10 in.).

Tanker Quay K201:

Max. length 220 m. (722 ft.). Max. draft 10.5 m. (34 ft. 5 in.).

Owned by Krangede A.B.

STEVEDORES: 24 hours' notice (if possible) order arrange gangs.

MEDICAL: Notice of medical attention to Agent as early as possible. All kinds of medical and hospital facilities available. Vaccinations necessary on arrival from diseased area. (Common for all Swedish ports.) Quarantine Station established at Gavle with Quarantine Anchorage on outer roadstead.

DENSITY: Fresh water.

FRESH WATER: Delivered from water posts at all quays in Fredriksskans Harbour. Inner Harbour, at Korsnas Works and on roads fresh water delivered by water boat.

FUEL: All kinds of fuel oils available either from pipe-lines at oil berths or by lorries at all other quays. Following viscosities (Redwood I) normally in stock: 35, 225, 650, 1500, and 3500 secs. Other viscosities can also be delivered. Notice of delivery is required day before.

GANGWAY/DECK WATCHMEN: Available, but not compulsory.

OPENING/CLOSING HATCHES: Can be done by either crew or stevedores. Only patent hatches have to be opened by crew.

CERTIFICATES:

Tonnage Certificate.

Derat Certificate (Not older than 6 months).

Certificate of Nationality (for Swedish ships only).

CUSTOMS ALLOWANCES: Tobacco: each crew member 200 cigarettes or 100 grammes of tobacco out of Bond.

Wine and spirit: Each crew member 1 bottle (75 centilitres) of spirit and moderate quantities of wine and beer out of bond. After a week in Sweden the same quantity may be taken out on request to Customs Office.

IDENTIFICATION CARDS: Not needed.

CONSULS:

Denmark	Tel: 115050	Netherlands	Tel: 105200
Finland	Tel: 121204	Norway	Tel: 188180

REPAIRS: Repairs can be carried out in all parts of harbour by Granges Metalock AB.

DRY DOCKS: None.

REPATRIATION: Crew changes and repatriation arranged by Agent.

AIRPORT: Stockholm Airport (Arlanda) 145 km. (90 miles) served by regular airlines. Rorberg airport 16 km. (10 miles). Regular traffic to Swedish airports.

TIME: GMT plus 1 hour in Winter. Summertime GMT plus 2 hours.

HOLIDAYS: New Year's Day (Jan. 1st); Twelfth Day (Jan. 6th); Good Friday; Easter Day; Easter Monday; First May (May 1st); Whit Sunday; Whit Monday; Midsummer Day (Saturday nearest to June 24th); All Saints' Day (first Saturday in Nov.); Christmas Day (Dec. 25th); Boxing Day (Dec. 26th).

POLICE/AMBULANCE/FIRE: Police Tel: 11 53 00; Ambulance Tel: 12 90 90; Fire Tel: 12 90 90. Emergency Tel: 90 000.

TELEPHONES: Fredriksskans: Telephones can be placed on board at all berths in Fredriksskans Harbour and at Terminal Granudden. At Korsnas Works: Telephones can be placed on board at two berths in Karskar and one at Kastet Pier.

SERVICES: Minor quantities of oil and other liquid residues can be discharged into tank lorries with special suction equipment.

DELAYS: Normally no delays in berthing, loading, discharging or bunkering.

DEVELOPMENTS: New shipping terminal for coal and coke where discharging capacity will be very high.

AUTHORITY: Gavle Hamn, Fredriksskans, S 803 87 Gavle, Sweden. *Tel:* (026) 178840/178861. *Telex:* 47349 Gavport S. *Contact:* B. Walfridson, Port Director. (A.O.H. Tel: 193369). M. Berglund, Port Captain (A.O.H. Tel: 128482).

GOTHENBURG: 57.42 N. 11.57 E. (See Plan)

DOCUMENTS:

2 Cargo Declarations (IMO Model).

3 Crew Lists.

2 Passenger Lists.

2 Crew Declarations (must be signed by each crew member).

2 Stores Lists.

1 Health Document.

Nationality Certificate.

Tonnage Certificate.

Derat Certificate.

Certificate of Insurance or other financial security in respect of civil liability for oil pollution damage (if more than 2,000 tons of oil on board).

Manifests, Bills of Lading.

TRAFFIC CONTROL SYSTEM: The Port of Gothenburg has in co-operation with the National Swedish Administration of Shipping and Navigation a traffic control system. It is a vessel movement-control and information system managed from the Gothenburg Traffic Control Centre (TCC), call sign "Gothenburg Traffic". The system is based on radar control and VHF communication. Vessels over 300 g.r.t. or exceeding 50 m. length should report to the TCC on VHF Channel 13, incoming when 6 miles off Vinga Island, out-going when leaving the berth. There are also certain way-points in the area (marked on the charts) where vessels should report to the TCC. Vessels should keep continuous watch on VHF Channel 13 within the whole traffic-control area. A special "Master's Guide to Gothenburg Port Entry" issued by the Port of Gothenburg can be obtained from the Port Authority or from ship's Agent.

ANCHORAGES: Anchorages "A", "B" and "C" marked on the charts in the area round Trubaduren light, at Rivo Fjord and Dana Fjord. VLCCs should anchor in Area "A", 2 miles S.W. of Trubaduren light.

PILOTAGE: Incoming vessels have to notify the Traffic Control Centre (TCC) call sign "Gothenburg Traffic" on VHF Channel 13 or by telephone 031-12 54 33 that they require a Pilot. Notification to be done 5 hours before ETA at the pilot grounds at Vinga Island, where the pilot boat will be at hand. The pilot grounds are marked on the charts. Approved pilot ladder (if rail is high, accommodation ladder), heaving line and a man standing by to receive Pilot (Also see "Stockholm").

RESTRICTIONS: No restrictions at any time of day and night. VLCCs berth and unberth in daylight only.

MAX. SIZE: Torshamnen, water depth 19.6 m. Fully loaded tankers of 225,000 d.w.t. on draft of 19.05 m. received. Partly loaded tankers of max. 380,000 d.w.t. have been received. Skarvik Harbour, water depth 13 m. Tankers up to 50,000 d.w.t. Skandia Harbour, general cargo, container vessels, water depth up to 12 m. General cargo harbours: for other cargo and passenger vessels 10 m. Water depth at MLW. Tide of no importance.

HEALTH: The Master of every ship, whose voyage has touched lands outside Europe (excepting U.S.A., Canada, Azores, Canaries, Madeira and Morocco), and who, within 28 days, arrives at Gothenburg from a port in any such land, shall submit to Customs on demand a Declaration of Health for the ship in the prescribed form. If ship arrives within 14 days of calling at any such port she must not touch land until inspected by the Quarantine Medical Officer and permission to land granted. Compulsory medical examination not required where a ship liable to inspection has undergone an approved Quarantine Inspection in either a Danish, a Norwegian or a Finnish port, and all questions in the Declaration of Health have been answered negatively. Exemption may also be granted to any other ship which would otherwise be liable for examination, if Master, pursuant to Article 21 of Quarantine Regulations for Sweden, has previously radioed a!! information regarding state of health on board to Health Authorities (Radio Pratique). Telegraphic address: "Portsan, Gothenburg". Messages must be made not less than 4 hours prior to ETA. (Preferably, messages should not be made during night). Free Pratique messages should include: Name of the ship; estimated time and day of arrival; number of crew; number of passengers; names of the last two ports called at outside Europe, and dates of departure therefrom; replies to the 6 questions contained in Declaration of Health.

RADIO: Goteborg Radio, call sign SAG.

VHF: Pilot vessel on Channels 13 and 69.

TUGS: Tugs normally join vessel between the islands of Nya Alvsborg and Rya Nabbe. Tugs join at Dana Fiord for tankers bound for Torshamnen. According to Master's desire ship's or tug's lines can be used.

BERTHING:

Berths No.	101-119	Free Port
	600-601	Tor Terminal
	602-615	Skandia Harbour
	640-713	Alvsborg Harbour

Berth	*Length*	*Depth*	*Quay cranes*		*Reach outside quay*
No.	(m.)	(m.)	No.	*Capacity* (tons)	(m.)
101-102	240	9.5	2	2/5	19.5/9.5
103	160	9.5			
104-105	230	8			
105+					
106	90	6			
107	130	8			
108-109	290	8-9.5	6	2/6	23.5/10.5
110	70	9			
111-112	232	9.5	2	2/6	19/9
113	151	9	4	2/6	23/10
114+	150*	7.5			
116+	200*	7.5	Rail ferry berth		
119-123	600	9	7	2/6	19/9
119+	110*				

Container Ship-to-Shore Cranes

Berth	*Length*	*Depth*			*Lifting capacity*	*Max. reach outside quay*
No.	(m.)	(m.)	No.		Tons	(m.)
600+	170	8				
600 (East)+	140*	8				
601+	180*	10				
602+	145*	8				
610-612	562	12	2	Hook	70	
				Spreader	40	35.5
613	182	11	1	Hook	60	
				Spreader	40	35.5
614	178	11	1	Hook	50/60	
				Spreader	32	34.5
615+	215	10.9	1	Hook	45	
				Spreader	32	34.5
640+	177	11	1	Hook	35.5	
				Spreader	30.5	32
641+	180	10	1	Hook	45	
642	90	10		Spreader	32	34.5
643+	130	10				
644	50	6.8				
700	125*	6				
702+	270	11				
710+	265	11				
711	232	11				
712+	149	11				
713+	160*	7.5				

+ Roll-on/Roll-off Berth
* Maximum Ship's Length

CRANES: *Mobile Cranes:* 3×12-36 tons (reach outside quay 28 m. – 11 m. respectively). 1×28-45 tons (reach outside quay 33 m. – 22 m. respectively).
Floating Crane: 1×150 tons (reach 10 m.) or 30 tons at 22 m. If crane supported by pontoon it can lift 215 tons at 10 m.
Container Cranes: 2×70 tons (hook) or 40 tons under spreader. 5×35.5 tons – 60 tons under hook. Also see "Berthing".

BRIDGES: Alvsborgsbron (suspension bridge) in the Western part of the city (clearance 45 m.), Gotaalvbron (weighbridge) in the centre of the city (clearance 19.5 m.) and Marieholmsbron (railway swing bridge) in the Eastern part of the city (clearance 5.3 m). The bridges Gotaalvbron and Marieholmsbron keep continuous watch on VHF Channel 9. If no connection, contact "Gothenburg Traffic" on VHF Channel 13.

STEVEDORES: The Port of Gothenburg provides dock workers.
General Conditions for Assignment of Personnel (excluding external terminals):

Working time and guaranteed hours. (Port of Gothenburg A.B. supplement to the general terminal conditions of the Swedish Stevedoring Association).

1. *Normal Working Hours:*

	Inner Harbour	Skandia Harbour/Alvsborg Harbour	
	Monday-Friday	Monday-Thursday	Friday
Day time	0700 – 1600	0700 – 1600	0700 – 1600
Shift I		0630 – 1600	0630 – 1600
Shift II		1600 – 2400	1600 – 2200

Overtime: Please note that all overtime work is voluntary.

1630 – 0500	1630 – 0500
Saturday	Saturday
0700 – 2200	0700 – 2200
	Crane work
	0700 – 1600
Sunday/Holiday	Sunday/Holiday
0700 – 2200	0700 – 2200

Completion:

Monday-Friday	Monday-Friday
1630 – 0500	1630 – 0500
Saturday	Saturday
0700 – 0500	0700 – 0500
Sunday/Holiday	Sunday/Holiday
0700 – 2200	0700 – 2200

2. *Normally no work will be performed on the following days:* New Year's Day, May 1st, Midsummer Eve (24th June 1988), Midsummer Day (25th June 1988), Christmas Day, New Year's Eve.

3. *Guaranteed Hours:* All "temporary" labour is guaranteed a minimum of 4 hours pay.

Overtime: (All personnel)

Monday-Friday	3 hours
Saturday	5 hours
Sunday/Public Holiday	6 hours

All hours ordered are to be paid for. Permanent employees are entitled to special compensation for work later than 2100 hrs. Monday – Friday.

4. *Deadlines for requesting labour and/or overtime:*

Inner Harbour, Skandia Harbour and Alvsborg Harbour:	Weekdays latest 1000 hrs. on the day before operation is to commence. Cancellation latest 12 noon on the day before operation is to commence.
Overtime:	Weekdays – latest 1000 hrs. on the same day. Cancellation latest 1200 hrs. on the same day. Saturday/Sunday – latest 1000 hrs. on preceding Thursday. Cancellation latest 0900 hrs. on preceding Friday. Public Holidays – latest 1000 hrs. on the last but one normal working day before the Public Holiday. Cancellation latest 0900 hrs. on the last working day before the Public Holiday.

5. The above regulations are not valid in case of "force majeure" such as strikes, lock-outs, natural catastrophies, or any other unforeseeable incidents of which the Port of Gothenburg A.B. has no control.

6. These regulations are valid until further notice. They can, however, be changed with immediate effect when/if some other agreement is made with labour unions.

CONTAINERS: The Skandia and Alvsborg Harbours for container handling with 20 berths and 12 ferry ramps. Also see "Berthing" and "Cranes".

TANKERS:

Torshamnen:

		Berth No. 801	*Berth No. 800*
Operator		Port of Gothenburg A.B.	
Users		BP, Shell and various	
Product		Crude Oil	
Minimum water depth	approaches	20.50 m.	20.50 m.
at mean water	alongside	19.60 m.	19.60 m.
Under keel clearance	approaches	1.45 m.	1.45 m.
	alongside	0.55 m.	0.55 m.
Dimensions safely	length	335 m.	280 m.
acceptable (also see	beam	no restr.	no restr.
below)	draft	19.05 m.	19.05 m.
	d.w.t. (summer)	abt. 250,000	abt. 115,000
Water density		1013	1013
Nature of bottom		clay	clay
Boom arrangement		4×16 in.	4×12 in.
Manifold heights	maximum	22.00 m.	17.00 m.
	minimum	3.00 m.	1.50 m.
Public telephone number		031632446	031632445

Draft: That the above figure, 19.05 m., is given on the basis of mean water level and brackish water (density 1.013). There is very little tide at Gothenburg, only about 20 cm. (8 in.). The draft is more affected by wind. Easterly winds blowing the water away from the coast, Westerly winds blowing the water towards the coast. In winter and early spring (January-May) there can be long periods of Easterly wind, when it would be prudent not to arrive on a deeper draft than 18.60 m./brackish water. *Lightering:* In case of need lightering can be arranged 3 nautical miles S.W. of the Trubadur Lighthouse. This is in open sea and restricted to wind force less than 6 – 7 m./s.

For crude oil distribution to other refineries lightering can take place across the finger jetty from Berth No. 801 to Berth No. 800.

Gas lightering is being done via 8 in. acid proof steel pipe-line across jetty. Flanges drilled to ASA 150 and 300. No hoses available, vessels have to provide same.

Moorings: Berth 801 – VLCCs: Owing to the somewhat exposed nature of berth Masters are advised, that when strong off-shore winds are forecast, to ballast the vessel, stop discharge if necessary and, maintain steam on the winches to supplement the brakes. It is strongly recommended that vessels over 210,000 s.d.w.t. make use of the extra mooring as described below.

Instructions for the use of extra mooring (E.M.):

1. Pass ashore a wire and a shackle and make fast to the eye of the E.M. on the caisson. Free the E.M. from its hook by means of the capstan on the caisson. Bring home the E.M. and belay it.
2. At departure. Before letting go the E.M. make fast a strong rope or a wire in the eye of the E.M. and take the other end to the caisson for hanging off the E.M. Let go the E.M. and, by means of the capstan, back to the caisson and place it on its hook, heave it.

Skarvik Harbour:

		Berth No. 521	*Berth No. 520*	*Berth No. 519*
Operator		Gothenburg Harbour		
Users		BP	BP	Shell & various
Products handled		Oil Products		
Minimum water depth at mean water	approaches	13.00 m.	13.00 m.	13.00 m.
	alongside	11.90 m.	11.90 m.	13.00 m.
Under keel clearance	approaches	1.72 m.	1.72 m.	0.66 m.
	alongside	0.52 m.	0.62 m.	0.66 m.
Dimensions safely acceptable	length	240 m.	240 m.	280 m.
	beam	no restrictions		
	draft	11.28 m.	11.28 m.	12.34 m.
Water density		1011	1011	1011
Nature of bottom		clay	clay	clay
Boom arrangement		4×10 in. 3× 8 in.	4×10 in. 3× 8 in.	5×12 in. 2×10 in.
Manifold height	maximum	14.00 m.	14.00 m.	19.00 m.
	minimum	1.50 m.	1.50 m.	2.00 m.
Public telephone number		031632444	031632443	031632442

		Berth No. 512-518	*Berth No. 511*	*Berth No. 510*
Operator		Gothenburg Harbour		
Users		Various	Various	Various
Minimum water depth at mean water	approaches	11.90 m.	12.00 m.	11.00 m.
	alongside	7.00 m.	12.00 m.	11.00 m.
Under keel clearance	approaches	5.20 m.	0.64 m.	0.72 m.
	alongside	0.30 m.	0.64 m.	0.72 m.
Dimensions safely acceptable	length	7 berths total 325 m.	200 m.	240 m.
	beam	no restrictions		
	draft	6.65 m.	11.35 m.	11.28 m.
Water density		1011	1011	1011
Nature of bottom		clay	clay	clay
Boom arrangement		hoses	9×10 in.	9×10 in.
Public telephone number			031632436	031632435

Remarks:

520-521: Only used for loading from or discharging to BP.

519: Mainly used by Shell and for discharge of asphalt crude. Being deepest product berth can in case of need also be used by other importers/exporters after approval by Shell. However, products will then have to be pumped over long distances, causing slow loading/discharge.

510-511: "Common users".

506-507, 508-509: Used by Shell. Depths 7.0 m. and 8.0 m. respectively.

Rya Harbour:

		Berth No. 555	*Berth No. 553/552/551*
Operator		Svenska Staoil AB.	Gothenburg Harbour
Users		Svenska Statoil AB.	Various
Products handled		Oil Products	For all
Minimum water depth at mean water	approaches	11.90 m.	9.00 m.
	alongside	10.00 m.	9.00 m.
Under keel clearance	approaches	2.45 m.	2.45 m.
	alongside	0.55 m.	0.55 m.
Dimensions safely acceptable	length	180 m. (See Note)	180 m.
	beam	no restrictions	
	draft	9.45 m.	9.45 m.
Water density		1011	1011
Nature of bottom		clay/mud	clay
Manifold height		hoses used	hoses used
Public telephone number		031538420	031632434/ 031632433/ 031632432

Note: Maximum draft:

On lesser draft sizes up to 210 m. – 215 m. may be accepted but special approval from the Harbour Authorities needed on each occasion.

Report: *Restriction:* Entry to Gothenburg by large ships is not undertaken if visibility is less than 3 miles, or if the wind speed exceeds 15 m./sec. (about 30 knots.) Ships over 17.4 m. (57 ft.) draft do not enter during hours of darkness.

Ballast: Cannot be received ashore.

Dimensions: The harbour is prepared to accept vessels exceeding 335 m. length provided distance from bow to manifold is max. 180 m. and vessels' draft does not exceed 18.29 m. (60 ft.), brackish water. Special approval needed in each case.

Bunkers: Supplied by barge only.

Pilotage: Pilotage is compulsory and necessary. Pilots are stationed at TCC and are taken out by fast pilot boats to meet incoming ships based on ETA and VHF contacts. On Vinga Island there is a lookout manned by personnel from Gothenburg Station. The lookout listens continuously on VHF Channels 13-16 and maintains VHF watch on Channel 69 and 11A. Pilots are government controlled. Two Pilots are assigned to ships over 60,000 d.w.t..

Sea pilots go with the ship all the way to berth as there are no harbour pilots.

South of Vinga Island there are 3 anchorage areas named A, B, and C, marked on the Swedish Chart No. 931.

In addition to those mentioned above there are anchorages in the Danafjorden and the Rivofjorden.

Torshamnen Berth: Approaches – Cautionary Advice: Care must be taken when turning from the channel to Torshamnen berth, particularly when the wind is from the West, not to turn too late as the ship can drift laterally and be carried on to Dynan Shoal (rock), or on to the end dolphin of the berth.

Berthing Procedure: All ships are berthed heading N.E., therefore, on the West berth (801) ships are starboard side to, and on the East berth (800), portside to.

Berthing should be as parallel as possible as the forward mooring dolphins are only 10 m. inside the breasting face line and the limits of the 19.6 m. (64.3 ft.) depth run close to the breasting faceline.

The first ropes ashore (by boat) are usually the forward spring and a head line. It is important the ship does not run too far ahead of position as the limit of the 19.6 m. depth is only 200 m. from the centre of the berth. There is no approach velocity measuring device at these berths, and no published maximum allowable impact velocity, but ships should endeavour to control their approach speed to less than 10 cm./sec.

See "Plan" for recommended mooring diagram for the Torshamnen berth.

Shore Moorings: Two swamped shore wires each with a capacity of 100 tons are available at the West berth, one forward, one aft. These are rarely used as the prevailing strong winds are on berth. The more difficult East berth with prevailing strong winds off berth has no shore moorings.

Svenska Statoil AB Terminal Ryahamnen: Berthing: Ocean going ships always berth heading upriver portside to. Moorings are taken ashore and to the buoys by power boat. Spring lines go to the jetty head, head/breast lines to a buoy forward, stern/breast lines to a buoy aft with 1 or 2 breast lines to a mooring post on shore. It is important to give good lines for the after breast lines as N.W. winds can cause a problem. As the jetty between the end concrete dolphins is constructed entirely of wood, it is important that the large ships contact only the end dolphins during berthing operations.

The fendering of the end dolphins has low energy absorption qualities and, therefore, landing should be as light as possible.

The upriver dolphin is fendered with a solid wood facing, the downriver dolphin with truck tyres.

No shore moorings or shore gangways are provided at this terminal

DENSITY: Average density 1012. Tide of no importance.

FRESH WATER: Available from quay or water boats.

FUEL: All grades available at short notice.

GANGWAY/DECK WATCHMEN: Watchmen accepted by Harbour and Fire Authorities on tankers and vessels loaded with explosives. On other vessels not necessary.

OPENING/CLOSING HATCHES: By crew or stevedores.

CUSTOMS ALLOWANCES: Tobacco, per 10 days 200 cigarettes or 250 gram other tobaccos. Wine and/or Spirits, per 10 days 1 bottle of spirits and 1 litre of wine, alternatively 2 litres of wine.

Require report latest 24 hours prior to arrival via Port of Gothenburg Co.

CARGO GEAR: Certificates that equipment is approved.

IDENTIFICATION CARDS: Not necessary. Crew List to be furnished in the oil harbours.

CONSULS:

The following countries are represented in Gothenburg:

Argentina
Austria
Bangladesh
Belgium
Bolivia
Brazil
Colombia
Costa Rica
Denmark
Finland
France
Gabon
Germany F.R.
Great Britain
Guatemala
Iceland
Ireland
Italy
Ivory Coast
Japan
Liberia
Morocco
Netherlands
Norway
Pakistan
Panama
Peru
Portugal
Senegal
South Africa
Spain
Switzerland
Togo
Turkey
U.S.A.
U.S.S.R.

REPAIRS: All kinds of repairs possible.

DRY DOCKS: 5 floating docks with lifting capacities of up to 230,000 d.w.t.

REPATRIATION: Excellent communications by air or by rail.

AIRPORT: Distance of Landvetter Airport 20 km. – 30 km. depending on where ship is berthed. Airport served by regular airlines.

HOLIDAYS: See "Stevedores".

POLICE/AMBULANCE/FIRE: Tel. 90 000, ask for "Polislarm", "Ambulans", or "Brandlarm".

TELEPHONES: At all quays ships can be connected to telephone.

GENERAL: Seaman's Institute, Amerikagatan 2, open weekdays 1000 to 2130 hrs., Saturdays and Sundays 1400 – 2130 hrs.
SERVICES: Tank-cleaning equipment and facilities for discharge of tank-washings in the Skarvik Harbour. Compass adjusting.
SHIP SUPPLY SERVICE:
Bunker Facilities:

	Telephone
Texaco Oil AB Box 5227 402 24 Goteborg	031-53 00 50
Mobil Oil AB Box 21069 400 71 Goteborg	031-54 02 40
Svenska BP Olje AB Box 31035	031-31 41 04
Svenska Esso AB Oljenaset 417 22 Goteborg	031-53 02 00
Nynas Petroleum AB Karl IX vag 417 22 Goteborg	031-53 13 64

Ship Supplies:

BTC Box 7163 402 33 Goteborg	031-61 70 00
CM Hammars AB Box 197 421 22 Vastra Frolunda	031-49 00 60
Lundby Skeppsservice AB Ceresgatan Sannegardshamnen 417 08 Goteborg	031-22 24 40
OLE Gruppen AB G Kronvagen 60 433 84 Partille	031-44 06 80
Scansupply Box 8935 402 73 Goteborg	031-50 04 70

Tug/Launch Service:

Roda Bolaget AB. Box 108 401 21 Goteborg	031-10 97 00
Bogser AB Sven Manufakturgatan 1 417 07 Goteborg	031-22 34 95

Communication Centre:

"Gothenburg Traffic"	031-63 23 50 031-63 21 55 Telex: 21547 Scanprt S
VHF Channel 13	

AUTHORITY: Port of Gothenburg AB, S 403 38 Gothenburg, Sweden. *Tel:* (031) 63 23 50. *Telex:* 20957 Scanprt S. *Contact:* G. Wennergren, Port Director. J. Lomberg, Sea Traffic Manager (Harbour Master). H. Lind, Deputy Sea Traffic Manager.

HALLSTAVIK: 60.03 N. 18.35 E. (See Plan)

DOCUMENTS: 4 Crew Lists; other documents see "Stockholm".
PILOTAGE: Svartklubben Pilot Station. VHF Channel 16 and others. Radar at station and in boats. 5 hours' notice prior to arrival. Tel: Hallstavik 0175/10006. Cable: "Pilotstation Hallstavik".
ANCHORAGES: Good and protected anchorage places available.
RESTRICTIONS: Tankers are navigated in daylight only.
MAX. SIZE: Draft not to exceed 23 ft.
HEALTH: No special action except for suspected disease. In case of disease contact Agent for information.
RADIO: Stockholm Radio.
TUGS: Normally available.
STEVEDORES: Loading effected by factory. Ordinary working hours: 0630 – 1530, maximum 1 hour overtime. Saturdays no work.
MEDICAL: Medical attendance available day and night.
TANKERS: Max. draft 23 ft. Connection 6 in., pipe to quay-cisterns is about 1,000 m., discharging rate about 200 t.p.h.
DENSITY: Practically fresh water.
FRESH WATER: Available from quay; rate 1 t.p.h.
FUEL: Delivered by lorries from Stockholm. TRUCKS
CONSULS: At Stockholm, 100 km. away.
REPAIRS: Minor repairs only.
OPENING/CLOSING HATCHES: Ship's crew.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle of spirits.
CARGO GEAR: Loading by ship's gear or mobile crane.
AIRPORT: Stockholm Airport, Arlanda, 75 km. away.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: Easter; Whitsuntide; Midsummer; Christmas and New Year's Day.
POLICE/AMBULANCE/FIRE: Alarm Tel: 90000.
GENERAL: *Shippers:* Holmens Bruk AB. Export about 300,000 tons of newsreel/year. Import about 50,000 tons of fuel oil. 2 ordinary loading quays and 1 Roll-on/Roll-off berth available.
Agency: Erik Clemedson AB. Cables: "Clemed". Telex: 17277.
AUTHORITY: Holmens Bruk AB, 76301 Hallstavik, Sweden. *Tel:* 0175-26000. *Telex:* 76209. *Cables:* Holmen. *Contact:* W. Magnusson, Harbour Master.

HALMSTAD: 56.40 N. 12.52 E. (See Plan)

DOCUMENTS:
3 Crew Lists.
3 Passenger Lists.
3 Stores Lists (Tobacco and Stores).
5 Manifests.
2 Bills of Lading and Ship's Papers.
PILOTAGE: Advance notice of ETA 5 hours before arrival. Pilot station and pilot boat equipped with VHF Channels 16, 13, 6. Pilot boards at lightbuoy in Halmstad Road (L.Fl. 10 sec. 56° 37′ N., 12° 47.5′ E.) (Also see "Stockholm".)
ANCHORAGES: Good holding ground in 30 ft. – 40 ft. on road 1 mile to 2 miles S.E. of breakwater.
MAX. SIZE: See "Berthing".
RADIO: Gothenburg Radio.
RADAR: Pilot station equipped with radar.
VHF: Port Authority on Channels 16, 13 and 9.
TUGS: Meet at Halmstad Road. Ship's lines used.
BERTHING:

Berth	*Length* (m.)	*Max. draft* (ft.)
Ostrakajen	300	30 ft.
Ostrakajen	230	27 ft.
Jarnverkskajen	220	27 ft. 6 in.
Importkajen	470	23 ft. 6 in.
Importkajen	270	22 ft.
Tullkammarkajen	400	18 ft.
Kattegattshamnen	285	27 ft. 6 in.
	Max. LOA (m.)	*Max. draft* (ft.)
Oceanhamnen – Inner Berth	200	32
Outer Berth	235	33 ?

SPECIAL CARGO HANDLING FACILITIES:
Roll-on/Roll-off: Kattegattshamnen: 2 fixed ramps. 43 m. and 23 m. wide. Max. draft 27 ft. 6 in.
Ostrakajen: 1 fixed ramp. 25 m. wide. Max. draft 27 ft.
Containers: Handled at Ostrakajen and Kattegattshamnen.
BULK HANDLING FACILITIES: A new harbour basin (Oceanhamnen) was opened in 1981. Alongside the berth ships with max. LOA 235 m. and max. draft 11.3 m. can be handled. A rail mounted bulk-unloader, screw type, can discharge bulk-cargoes at a capacity of 500 t.p.h. On the quay is a bulk-terminal operated by Nordic Bulk AB, Halmstad.
Bulk cargo can also be handled alongside the Importkajen and Jarnverkskajen with grab-equipped cranes. 1×200 t.p.h. unloader for limestone and dolomite. 1×100 t.p.h. pneumatic unloader for soda imports.
CRANES: 10 rail mounted cranes and 4 mobile cranes, capacity up to 30 tons.
MEDICAL: Hospital facilities available.
TANKERS: Max. draft at oil berth 30 ft. Max. LOA – 700 ft. Diameter of discharge lines 8 in. and 10 in.
DENSITY: Average 1005 (depending on wind).
STEVEDORES: *Working Hours:* Monday – Friday 0700 – 1630 plus 3 hours' overtime. Saturday – Overtime 6 hours. Sundays – By special agreement.
FRESH WATER: Fresh water available from berth 35 t.p.h.
FUEL: Viscosities available: 1.2 englergrades/20°C. By arrangement with ship's Agent.
GANGWAY/DECK WATCHMEN: Not necessary. Available if required.
OPENING/CLOSING HATCHES: Normally carried out by crew, but if carried out by stevedores cost charged to vessel.
SHIP CERTIFICATES: Bill of Measure, Nationality Certificate and Derat Certificate.
CUSTOMS ALLOWANCES: Tobacco/spirits, 1 bottle spirits, 1 bottle wine and 200 cigarettes free on board. Quantity over will be closed under Customs seal. No other restrictions.
IDENTIFICATION CARDS: Only needed in oil harbour.
CONSULS: Danish, Dutch, Finnish, Germany (F.R.) and Norwegian.
REPAIRS: Shipyard carries out ship repairs.
DRY DOCKS: 2 slips.
REPATRIATION: Facilities exist for changing crew and repatriation.
AIRPORT: Halmstad Airport, 1 mile from town centre. 2 flights per day for Stockholm.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: New Year's Day; Twelfth Day; Good Friday; Easter Day; Easter Monday; Ascension Day; Whit Sunday; Whit Monday; Mid-Summer Day; All Saints' Day; Christmas Day; Christmas Monday; Labour Day.
POLICE/AMBULANCE/FIRE: Tel. 90 000.
TELEPHONE: For placing a telephone on board cost is 130 SEK, and 59 SEK, a day for hire.
SHORE LEAVE: Crew members allowed ashore.
GENERAL: *Charts:* BA 3671. Swedish Charts Nos. 92 and 923.
AUTHORITY: Halmstad Hamnforvaltning, P.O.Box 235, 30104 Halmstad, Sweden. *Tel:* 46-35-11 80 30. *FAX:* 12442. *Contact:* J. Benninger, Port Captain.

HARGSHAMN: 60.10 N. 18.29 E.

LOCATION: The port is situated in the archipelago of Oregrund, about 130 km. North of Stockholm and about 110 km. South of Gefle. It is a natural and well sheltered harbour, suitable for vessels up to about 30,000 d.w.t.

DOCUMENTS: The Customs Officers require the following documents on arrival:

Tonnage Certificate (Certificate of Registry).
Certificate of Nationality.
Swedish Light Dues Receipt for current year.
Crew List, 2 copies.
Crew's Effects Declaration (spirits and tobacco only), 2 copies.
Ship's Stores Declaration (spirits and tobacco only), 2 copies.

If the international IMO Forms are not available, similar forms are accepted.

PILOTAGE: Pilot is compulsory for tankers over 1,200 g.r.t. and dry cargo vessels over 1,600 g.r.t.

Pilot is available from 0300 hrs. – 2400 hrs. and is embarked off Svartklubben Lighthouse (Lat. 60° 09′ N., Long. 18° 52′ E.). Order for Pilot has to be given 5 hours before needed and can be given via the Agent or direct to the Svartklubben Pilot Station, VHF Channel 16, Tel: Hallstavik 0175-10006, Cables: "Pilotstation Hallstavik".

Distance from sea off Svartklubben to Hargshamn is about 17 nautical miles. For vessels arriving from North, Pilot will board on request at Oregrund or North thereof.

RESTRICTIONS: Vessels with draft over 7.15 m. are navigated in daylight only.

MAX. SIZE:

Max. allowed draft 10.4 m. at MLW (density of water 1005).
Max. allowed length of vessel about 185 m.
Max. allowed breadth of vessel about 28 m.
Max. distance water level to hatch coamings 10 m. (loading ore).
Max. allowed draft at new quay for general cargo 7.3 m.

RADIO: ETA is to be given 48 hours and 24 hours in advance to the Agent. Tel: Osthammar 0173-20080 or cable: "Oreship Hargshamn".

TUGS: A tug of 1,200 h.p. is available from Hallstavik, and is normally used to assist vessels over 9,000 d.w.t. on departure only. A small tug of 230 h.p. is available at the port.

BERTHING: *Ore Quay:* Managed by shippers Dannemora Gruvor AB.

Length 90 m.
Minimum depth alongside 11 m.
Berth equipped with a loading conveyor, capacity 800 t.p.h.

New Quay: Managed by Hargshamn Terminal AB.

Length 40 m.
Minimum depth alongside 8 m.
Equipped with mobile cranes 50 tons and 160 tons.

STEVEDORES: Ordinary Working Hours: Monday-Friday 0600 – 2200 and Saturdays 0600 – 1200.

Work can be arranged on overtime except on following holidays: New Year's Day, Epiphany, Easter Holidays, Labour Day, Ascension Day, Whitsun Holidays, Midsummer Holidays, All Saint's Day, Christmas Holidays and New Year's Eve.

Overtime charges as per separate tariff.

No trimming charges.

New Quay: Ordinary Working Hours: Monday-Friday 0700 – 1600.

Stevedores: Hargshamn Terminal AB, S-740 73 Hargshamn. Tel: Osthammar 0173-20020. Telex: 76042.

FRESH WATER: Available.

CUSTOMS ALLOWANCES: 200 cigarettes per man and 1 bottle of spirits per Officer.

EMERGENCY CO-ORDINATION CENTRE: Stockholm Radio.

STORING: Can be effected with some minor difficulties.

SURVEYORS: From Stockholm (130 km. away).

GENERAL: *Ice:* The port can be kept open all Winter by an ice-breaking tug. Normally there is ice from last week of December until the last week of March/first week of April. In port and entrance there is fast ice up to 40 cm. – 50 cm. thick.

Navigation is maintained in broken ice-channel.

Off the pilot station or in Aland Sea there is very seldom packed ice or other difficulties during a normal Winter.

Charts: Swedish No. 536 (1:50000).
B.A. No. 2335 (1:100000).

AUTHORITY: (Iron Ore) Dannemora Gruvor AB, S-74073 Hargshamn, Sweden. *Tel:* Dannemora 0295-20720; Osthammar 0173-20192 (port); Osthammar 0173-20123 (Foreman – private).

Hargshamn Terminal AB, S-74073 Hargshamn. *Tel:* (0173) 20020. *Telex:* 76042. *FAX:* (0173) 20132. *Contact:* Lorang Bjorsbo.

AGENT: Bjorsbo Shipping AB, S-740 73 Hargshamn. Tel: Osthammar 0173-20080. Telex: 76042. Fax: Osthammar 0173-20132. Cables: "Oreship Hargshamn".

HARNOSAND (Hernosand): 62.38 N. 17.57 E.

DOCUMENTS:

2 Crew Lists and/or 2 Passenger Lists (stating what tobacco, cigarettes or spirits each man has in their possession).
Derat Certificate.
Manifest and/or Bills of Lading.
Register, and if vessels have previously been in Sweden same year, bills for light dues paid.

PILOTAGE: Applications for licensed Pilots should be made at least 5 hours before arrival. When making application, specify name of vessel, tonnage, draft and destination. Also give estimated time for taking Pilot on board and route. If this procedure not followed, the Maritime Service cannot guarantee to supply a Pilot without considerable delay to vessel.

Preferable to make application by telephone or by radio via a coastal station or by some other method direct to pilot station. Also possible to request Pilot by VHF.

Pilot station at Spikarna/Sundsvall for Northbound vessels and Skagsudde/Ornskoldsvik for Southbound vessels.

ANCHORAGES: In port approaches in depth of 15 m. to 40 m.

RESTRICTIONS: During Winter assistance given by State Ice-breakers.

MAX. SIZE: Up to 32 ft. 5 in. draft. Also see "Tankers".

RADIO: Cable Agents to give ETA, draft and cash required via either Hernosand Radio SAH or Stockholm Radio SDJ.

HEALTH: Vessels arriving from ports outside Europe must, for inward clearance, provide Customs Officer with written declaration of freedom from infection. Further instructions will be issued by Customs Office when such a declaration cannot be given.

TUGS: Tug assistance is available.

BERTHING: Depth alongside main quays from 7 m. to 8 m.

TANKERS: *Municipal Oil Pier:* Max. LOA 200 m. Max. draft 10.0 m. Depth alongside 10.5 m. Max. d.w.t. 30,000. Vessels berth starboard side alongside. Tugs available but not required. Offshore anchor used.

DENSITY: Nearly fresh water.

FRESH WATER: Available from the quays or by barge.

FUEL: Can be supplied.

GANGWAY/DECK WATCHMEN: Gangway watchmen available.

OPENING/CLOSING HATCHES: Normally done by crew.

CUSTOMS ALLOWANCES: 200 cigarettes and 75 centilitres spirits per man/week. Extra granted on request.

CERTIFICATES: See "Stockholm".

IDENTIFICATION CARDS: Not necessary.

REPAIRS: Most repairs possible.

DRY DOCK: At Gustavsvik.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: New Year's Day; Epiphany; Good Friday; Easter Monday; Labour Day; Ascension Day; Whit Monday; Midsummer Day; All Saints' Day; Christmas Day; Second Christmas Day.

Work ceases at 1130 hrs. on the following eves of holidays and is voluntary and paid with 100 per cent overtime: Easter Eve; Whitsun Eve; Midsummer's Eve; Christmas Eve and New Year's Eve.

POLICE/AMBULANCE/FIRE: Telephone numbers: Accidents, Police, 90000; Fire: ask for alarm 90000.

AUTHORITY: Harnosands Hamn, P.O.Box 1005, 87129 Harnosand, Sweden. *Tel:* (0611) 12119, 12010. *Telex:* 71020. *Cables:* Ramstrom. *Contact:* Lars Wikstroem, Harbour Master.

HELSINGBORG: 56.03 N. 12.41 E. (See Plan)

DOCUMENTS: See "Stockholm".

PILOTAGE: Call Pilot on VHF Channel 16 (Tel: 042-110035). Pilots board about 3 nautical miles North or South of Helsingborg North Harbour. On request Pilot will meet at Svinbadan Lighthouse or at Oresund North Lightbuoy, outside Hoganas. Helsingborg Pilots are also Seapilot for the Sound, Kattegatt, Baltic and North Sea.

Anchorages: It is not recommended to anchor outside Helsingborg due to the heavy ferry traffic.

Good anchorage is found at Raa Roads, about 0.5 nautical miles S.W. from Raa Lighthouse (3 nautical miles South from Helsingborg).

Pilots: 24-hour service. Channel 16, 14 and 13 (VHF relay station on Kullen Lighthouse).

APPROACHES: The harbour basins are very easy to approach. The deep water outside breakwaters – varying from 10 m. to 30 m. (33 ft. – 98.5 ft.) – adjacent to the sailing route in the Sound facilitates port calls. Normally comparatively large ships can proceed directly to the quays without tug assistance.

ANCHORAGES: See "Pilotage".

MAX. SIZE: Permissible length about 220 m.; breadth unlimited; draft 7.0 m.–11.7 m. on MW, depending on which berth the vessel is bound for. No tides but certain variations following prevailing current and winds. *Tankers:* Max. draft 10.5 m.

HEALTH: Pratique automatic for all vessels arriving from non-infected ports. In cases where Pratique should be obtained, notice to be given through ship's Agent. Further directions given by Pilot.

RADIO: For communication – Goteborg Radio.

VHF: 24 hour watch on Channel 16. Call sign "Helsingborg Harbour", working Channels 11 and 12. Ships to contact the harbour 1 hour before arrival and 1 to 0.5 hours before departure.

Pilots: Channel 16, working Channels 13, 14 and 69.

Tugboats: Working Channels 11, 12 and 69.

TUGS: 3 tugs available, up to 2,686 KW.

Join vessel outside entrances.

CRANES: 22 cranes, including 2 container cranes (42 tons and 45 tons) and 2 multi-purpose cranes (30 tons each). 2 × 30 ton transtainers available.

BULK CARGO FACILITIES: 2 berths of 215 m. length for grain and fertilisers, max. draft 9.9 m. Loading capacity 700 tonnes per hour. Storage 250,000 tonnes.

SPECIALISED CARGO HANDLING FACILITIES: Complete container terminal West Harbour with 670 m. berths and 3 Ro/Ro berths, max. draft 11.7 m. There are a total of 10 Ro/Ro berths in the port. All types of handling equipment. Liquid chemicals handled at the tanker terminal.

BERTHING:

	Berth No.	*Length* (m.)	*Depth* (m.)	*Quay Cranes/ Ro-Ro Ramps*	*No.*	*Lifting Capacity* (tons)	*Remarks*	*Floor Area or Volume* (sq.m. or cu.m.)
North Harbour								
Port Basin 1								
South Quay	101	76	5					
West Quay	102 – 111	662	6					
North Quay	112	92	6					
East Quay	113 – 118	528	6					
	(117 – 118)						Port Warehouse 118	4,325
Train and car ferry berths	119 – 121		6	Ro-Ro	3		Passenger Terminal	
Port Basin 2								
Central Harbour and Inner Harbour								
Central North Quay	201	85	3.6					
Transverse Quay	202	31	3.6					
Inner North Quay	203 – 204	115	3 – 4				Passenger Terminal	
East Quay (Kungstrappan)	205	92	2					
Car Ferry Berths	206 – 208	210	5 – 6	Ro-Ro	2		Passenger Terminal	
Port Basin 3								
North Quay	301	123	6				To be reconstructed	
East Quay	302 – 303	132	6				1989-1991	
Equipment Quay at Dry Dock	307	105	5	Level luffing jib crane	1	40		
				Level luffing jib crane	1	5		
West Quay	308 – 311	290	5.0 – 6.8				Port Warehouse 309	2,225
							Port Warehouse 311	1,775
Port Basin 4								
Ocean Terminal								
East Quay	401 – 404	250	10	Level luffing jib cranes 31 – 33	3	3	Port Warehouse 402	
	(401 – 402)						Refrigerated Stores	3,315
							Other Stores	2,515
	(403 – 405)	250	8	Level luffing jib cranes 22 – 23	2	2	Port Warehouse 404	2,376
	404 – 407						Port Warehouse 405	5,485
	(405 – 406)						Port Warehouse 406	450
							Port Warehouse 407	2,800
							Port Warehouse 408	2,244
Sundsterminalen								
West Quay	409	98	8					
Berth 1	410	130	7	Ro-Ro	1			
Berth 2	411	130	8.5	Ro-Ro	1		Passenger Terminal	
South Harbour								
Port Basin 5								
Tanker Terminal Breakwater Quay	501 – 502	300	9					
West Oil Berth	503	90	11	Hose lifter 1		1.5	Receiving Station for	
East Oil Berth	504	90	11	Hose lifter 1		1.5	waste oil	2,000
	(504)							
Port Basin 6								
Coast Tanker Berth	505	80	8					
Grain Quay	601 – 605			Level luffing jib crane 25	1	10.5	Silos (Skanska Lantmannen)	250,000
							Shed (Skanska Lantmannen)	15,000
	601 – 603	210	10.5	Discharging device	1		Capacity 350 tons/hour	
	603 – 605	220	13.5	Loading device	1		Capacity 1,000 tons/hour	
Port Basin 7								
Dry Cargo Quay	700 – 703	260	8	Level luffing jib cranes 29, 30	2	10.5		
Skaneterminalen	704 – 709	540	8 – 11.5				Port Warehouse 705	2,768
	(704 – 705)	(200)	(8)	Level luffing jib cranes 26, 27, 28	3	10.5	Port Warehouse 706	2,842
	(706 – 709)	(340)	(11.5)					
				Multi-purpose level luffing jib cranes 34, 35	2	15	Service Work Shop 707	1,400
							Port Warehouse 708	1,350
	704, 709			Ro/Ro	2		Port Warehouse 709	1,350
							Port Warehouse 710	1,350
Copper Works Harbour								
Port Basin 8								
Copper Works Harbour	801 – 803	180	11.5	Boggie luffing cranes	3	10		
				Screw unloader	1		Capacity 800 tons/hr.	
	805	50	9	Ship loader	1		Capacity 300 tons/hr.	
	811	60	7	Boggie luffing crane	1	7		
	812	60	7	Suction unloader	1			
West Harbour								
Port Basin 9								
Breakwater	901 – 902		13	Mobile crane	1	40	Port Warehouse 905	1,960
				bulk handling		30	Port Warehouse 906	6,005
				container on spreader		30.5	Port Warehouse 907	1,100
				on hook		40	Container Repair Shop	300
Large basin	903	300	13					
Large basin	904	575	13	Ro/Ro	1			
				Container crane 16				
				on spreader		30.5		
				on hook		42		
Small basin	905	200	9	Ro/Ro	1			
	906	220	9	Ro/Ro	1			
				Container crane 17				
				on spreader	1	30.5		
				on hook		45		
				Transtainers	2	39		

STEVEDORES: Cargo handling performed by Helsingborgs Hamn AB offering all kinds of harbour work including loading, discharging, warehousing, etc.

MEDICAL: For attention, application to be made through ship's Agent. Hospital facilities available.

TANKERS: Dimensions of pipe-lines – for oils, 14 in., 12 in., 8 in., petrol, 12 in., 10 in., 6 in., slops, 6 in. Discharge facilities for slops through pipe-lines from Berth Nos. 504 and 505. Tankers berth at Quay Nos. 503 and 504 with depth of water alongside 11.0 m. MW, and Quay No. 505 depth of water alongside 8.0 m. MW.

DENSITY: 1007. No tides, but slight variations in accordance with prevailing currents and winds.
FRESH WATER: Available from quay connections (Tel: 042-122049).
FUEL: Bunker fuel delivered from pipe-lines or by tank lorry. Advance notice required. Any grade available.
FIRE PRECAUTIONS: Standard procedures apply.
GANGWAY/DECK WATCHMEN: Watchmen generally at Master's option.
OPENING/CLOSING HATCHES: By crew or stevedores.
CERTIFICATES:

Certificate of Nationality.
Bill of Measurements.
Crew Declaration.
Bond Declaration (Spirits, cigarettes, tobacco, etc.)
Derat Certificate.
Crew List.

CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes or equivalent quantities for each person on board. Wine and/or Spirit, one bottle each member to be held out of bond.
CARGO GEAR: Usual Board of Trade Regulations valid.
IDENTIFICATION CARDS: Not needed.
CONSULS:

Denmark	Tel. 17 27 00	Iceland	Tel. 12 62 20
Finland	" 29 62 25	Netherlands	" 10 62 24
France	" 11 22 87	Norway	" 17 28 00
Germany F.R.	" 11 24 98	Portugal	" 11 35 16

REPAIRS: All kinds of deck and engine repairs can be carried out.
DRY DOCKS: Length of largest dry dock 112 m. Depth on sill about 16 ft.
SURVEYORS: Lloyd's local agent: Damco Survey AB. Tel: 29 22 90. Telex: 72985. Fax: 29 00 65.
REPATRIATION: Repatriation possible, by air and by train.
AIRPORT: Kastrup 60 km., Sturup 70 km., Angelholm 30 km. Heliport within the port.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: Official holidays 1st and 6th January, 1st May, 1st Saturday November, 25th and 26th December, plus 2 holidays for Easter, 1 holiday for Whitsun and 1 holiday for Midsummer on appropriate dates.
POLICE/AMBULANCE/FIRE: Police 14 40 40 or in an emergency situation all services via tel. 9 00 00.
TELEPHONES: Quay-connected telephones are placed on board on request.
SERVICES: Tank cleaning, discharge of tank washings, compass adjustments, etc., can be carried out after application through local Agents.
Environment Protection: For oil protection, cleaning, sludge-suction, refuse collection etc., call VTS Centre Tel. 106300. Night service Tel. 10 63 22.
Dustbins for Ships: Dustbins are available. Galley refuse is to be delivered in plastic bags.
Receiving Station for Waste Oil: By law, water pollution from ships is prohibited. Sludge is accepted (free of charge) through Helsingborgs Hamn AB or through vessel's local Agent.
Provisions: Provisions are supplied by ship-chandlers 24 hours daily.
Repair/Maintenance: Repair and maintenance of containers, flats, trailers, trucks and other cargo handling equipment is carried out. Consult local Agent.

Testing according to CSC provisions (Convention for Safe Containers).

For ship repair call Ciserv Helsingborg AB. Tel: 042-12 02 95. Fax: 042-18 09 16.
SHORE LEAVE: No restrictions.
REGULATIONS: Normal regulations apply.
DELAYS: No other delays than berths being occupied by working vessels can be expected.
AUTHORITY: Helsingborgs Hamn AB, P.O.Box 1434, 251 14 Helsingborg, Sweden. *Tel:* 042-10 63 00. *Telex:* 72215. *FAX:* 042-13 54 83. *Contact:* Marketing Manager or Traffic Manager.

HOGANAS: 56.12 N. 12.33 E. (See Plan)

Privately-owned port serving owning company only – Hoganas AB. Customs and pilotage arranged through Authorities in Helsingborg (12 nautical miles S.E. of Hoganas).
DOCUMENTS: See "Stockholm".
PILOTAGE: Compulsory. Pilot obtainable at Hoganas or at Helsingborg. Pilot service day and night, available after request to pilot office at Helsingborg.
RESTRICTIONS: Entrance Channel, Length 750 m.; width 65 m.; depth 8.20 m.

The harbour is seldom closed by ice.
MAX. SIZE: LOA 130 m., max. draft 7.40 m. The Pilots have berthed vessels with a draft in excess of 7.40 m.
TUGS: There are no tugs stationed at Hoganas, but tugs are available after request to the Harbour Office at Helsingborg.
BERTHING: *The Pier (Extending South-Westerly).*

Length of quayage:	380.00 m.
Depth alongside:	
For 120 m. (from outer end)	6.60 m.
For the next 160 m.	8.20 m.
For remaining 100 m. varies down to	4.00 m.
The Cross Quay:	
Depth alongside at 75 m. from Northern end	3.50 m.
the remainder is unnavigable	
Quay in the Middle of the Harbour:	
Length of quay:	180.00 m.
Depth alongside N.W. side:	
For 120 m. (from outer end)	6.60 m.
For the next 35 m. the depth varies from to being unnavigable.	4.2 m.
Depth alongside S.E. side:	
For 30 m. (from outer end)	2.50 m.
remainder	unnavigable

The depth of water at this port is somewhat affected by winds.
CRANES: 1×25 ton rail mounted electric crane (21 tons-grab duty), 1×25 ton mobile crane.
REPAIRS: Machine shop repairs only.
STEVEDORES: Working hours; a normal working day, Monday to Friday from 0700 to 1600 hrs. Normally no working on Saturdays.
FRESH WATER: Available.
FUEL: Can be supplied.
AUTHORITY: Hoganas Hamnbyggnads AB., Box 501, S-263 01 Hoganas, Sweden. *Tel:* (Harbour) (46) 042-38224. *Telex:* 72368 Hbmet S. *Cables:* Clayworks Hoganas. *Contact:* Bo Norberg, General Manager. Leif Andersson, Harbour Master.

HORNEFORS: 63.37 N. 19.54 E. (See Plan)

PULP AND PAPER MILL IS CLOSED AND PARTLY DISMANTLED. NO OPERATION TAKING PLACE AT PRESENT. IT IS ONLY POSSIBLE TO CALL AT THE PORT DURING DAYLIGHT.
DOCUMENTS:

1 List of Bonded Stores.
2 Tobacco Lists.
3 Crew Lists.
3 Passenger Lists.

Health documents, none – if all on board healthy. In case of illness on board, this must be reported to Customs on arrival.

Copy B/L and copy Manifest.
PILOTAGE: Pilot station, Bredskar Tel: 090-45021; Pilot must be ordered 5 hours before arrival. If change in position, this must be advised at least 2 hours before arrival. Pilot can also be taken at Skagsudde Pilot Station Tel: 0660/66003. (Also see "Stockholm").
ANCHORAGES: Will be advised by Pilots.
RESTRICTIONS: Daylight entry only possible.
MAX. SIZE: Max. length 105 m. Max. draft 20 ft. 8 in. (6.3 m.).
RADIO: Harnosand Radio, Tel: 0611-12733.
TUGS: Available.
BERTHING: No particular arrival times necessary.
CRANES: 1 stationary crane, capacity 3 tons.
STEVEDORES: Labour must be ordered latest 1430 hrs. day before commencement loading, and if such day is Monday labour to be ordered before 1100 hrs. Saturday.
MEDICAL: No special regulations. Hospital and doctors available day and night.
TANKERS: 8 in. connections.
FRESH WATER: By pipe, 2 t.p.h.
FUEL: No fuel available in port. Must be ordered from Holmsund.
GANGWAY/DECK WATCHMEN: Not compulsory, but can be arranged.
OPENING/CLOSING HATCHES: Normally done by ship's crew.
CERTIFICATES:

Lighthouse dues (receipts).
Oil Record Book.
Derat Exemption Certificate.
Nationality Certificate.
Ship's Register (International form).
For open/closed ships – Freeboard Certificate.

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes man/week or 250 grams of tobacco man/week. Wines/Spirits, 1 bottle of wine and 1 bottle of spirits man/week. Note: Must be 21 years of age before crew member is allowed to have spirits or wines.
IDENTIFICATION CARDS: Not necessary.
CONSULS: None.
REPAIRS: No facilities available.
REPATRIATION: No facilities for crew changes.
AIRPORT: 25 km. from port. Served by Linjeflyg, domestic services flights to Stockholm 6 times a day.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: Christmas Eve; Christmas Day; Second day after Christmas; New Year's Eve; New Year's Day; Easter Friday; Saturday and Sunday; Midsummer Eve and Midsummer Day; Whitsunday; Epiphany (1st May); Ascension Day; The Day of All Saints (1st weekend November).
POLICE/AMBULANCE/FIRE: Tel. 90 000.
TELEPHONES: None available for placing on board.
AUTHORITY: Hornefors Bruk AB, 91020 Hornefors, Sweden. *Tel:* 0930-20900. *Telex:* 54040.

HUDIKSVALL (including Iggesund): 61.44 N. 17.07 E. (See Plan)

PORT LIMITS: Vessel is considered to be an "arrived vessel" when berthed alongside quays in port or, if berths not available, at anchor in Inner Roads, outside berths; but not when vessels, owing to darkness etc., are anchored outside pilot stations or in Outer Fairways.

DOCUMENTS: If arriving direct from foreign port, following documents presented to Customs Officer who embarks during office hours (0800 – 1700 hrs.).

3 Crew Lists.
2 Tobacco Lists.
Derat Certificate (not over 6 months old).
Certificate of Nationality.
Certificate of Tonnage.
2 Manifests covering incoming cargo.
Receipts of Light Dues, paid to Swedish Authorities during year.

PILOTAGE: Gavleborg Pilots will undertake pilotage. Call "Gavleborg Pilots" on VHF Channels 16/13 to arrange rendezous.

ANCHORAGES: Anchorage places for vessels awaiting Pilot or anchoring owing to weather conditions: 61° 37.5′ N., 17° 25.0′ E.; 61° 37.0′ N., 17° 22.0′ E.; 61° 37.7′ N., 17° 21.3′ E. depending upon prevailing winds, etc. Bottom mud and/or sand. Depth 10 m. – 30 m.

RESTRICTIONS: No tidal water at Hudiksvall. Tankers of more than 100 m. in length between perpendiculars not allowed entry during darkness because of narrow channel with some bends. Dry cargo vessels up to 150 m. length allowed entry after dark.

MAX. SIZE: *Tankers:* Daylight 45,000 d.w.t., length 210 m., draft 10 m. After dark 6,000 d.w.t. length 100 m., draft 7.5 m.
Other Vessels: 16,000 d.w.t., length 160 m., draft 8.7 m.

LW between 0.2 m. – 0.5 m. sometimes as much as 0.7 m. below MWL, may occur often. LW periods may occur when N.W. winds blowing over Northern Sweden.

HEALTH: Pratique automatic. No doctor visits incoming vessels if not specially ordered for treatment on board, etc.

RADIO: Vessels coming from South and having not yet passed the Stockholm area are recommended to call Stockholm Radio – VHF Channels 25 or 28 for vessels between Gotland/Sweden, 24 outside Stockholm South, 28 Stockholm East and North, 23 North of Aalands Sea, and in Gavle Bay. Hernosand Radio SAH: Channels 25 Hudiksvall area, 24 Sundsvall area, 23 Hernosand area, 28 Ornskoldsvik area. Hudiksvall harbour office: Channel 16. Working Channel 9.

TUGS: Tug compulsory for tankers over 6,000 d.w.t. and for other vessels over 8,000 d.w.t. in fairway. Vessels met near isle of "Enbarsskar" at Lat. 61° 39.5′ N., Long. 17° 17.0′ E. For mooring purposes tug compulsory for tankers over 6,000 d.w.t. and for other vessels exceeding 5,000 d.w.t. Ship's lines used. Ice-breaking tug "Mercur", call sign SIJL, 3,000 h.p. available in Hudiksvall during the whole year.

BERTHING: Main berth Hudiksvall draft allowed at MW 8.6 m. alongside 165 m., thereafter 5.4 m. alongside 30 m. and thereafter 4.8 m. alongside 160 m. One Ro–Ro ramp draft allowed 8.6 m. at MW.

Pier at Iggesund 7.3 m. draft allowed MW 150 m. length of pier. Ro-Ro berth 17.4 m. draft if more than 12 m. from Ro-Ro berth, if less, draft allowed 6.2 m. Ro-Ro berth II 7.3 m. draft allowed if more than 12 m. from berth, if less, 6.6 m.

STEVEDORES: Ordered 1600 hrs. on day preceding vessel's arrival. For loading starting Monday morning, gangs to be ordered before 1100 hrs. local time Saturday. 3 – 5 gangs available at Hudiksvall and Iggesund; Stocka 3 gangs. Working hours: Monday-Friday, 0700 – 1600 hrs.; Meal hours: 0900 – 0930, 1230 – 1300. 2 hours' overtime at extra cost of 50% Monday, Tuesday, Thursday, Friday (1600 – 1800 hrs.). For completing vessel, further 3 hours Monday, Tuesday, Thursday, Friday (1800 – 2100 hrs.). Extra cost of 100%. For completing vessel 5 hours' overtime can be obtained on Wednesday (1600 – 2100 hrs.), 2 hours at 50% and 3 hours at 100% extra.

On Saturdays no normal work, but stevedores available for maximum 8 hours' work, 100 per cent overtime has to be paid, and minimum 5 hours has to be paid even if vessel working less than 5 hours on Saturdays.

TANKERS: One berth only. Depth alongside 11 m. Draft allowed 10 m. at MW. Pipe diameter for fuel: 10 in., light oils: 8 in. Connecting hoses between pipes and vessel: 8 in. diameter, both types. Shore tanks lie about 100 m. – 200 m. from berth, 5 m. – 8 m. above sea. Surface of jetty about 2 m. above sea level.

DENSITY: Average 1002 – 1001.

FRESH WATER: Fresh water available all berths. Delivery capacity about 15 t.p.h. – 20 t.p.h. During Winter it is difficult to arrange hoses, vessels assist with own hoses.

FUEL: Available all berths. Delivered by tank-lorries from Sundsvall 50 miles North of Hudiksvall. 24 hours' notice required.

FIRE PRECAUTIONS: No special precautions. Within bounded area oil jetty smoking prohibited. Also on new quay outside sawmill.

GANGWAY/DECK WATCHMEN: Available in all ports, not necessary if not required by vessel.

OPENING/CLOSING HATCHES: By crew.

IDENTIFICATION CARDS: Not needed. If crew going to doctor or to hospital preferable he carries passport.

CONSULS:

Country	*Address*	*Tel. Office*	*Tel. Home*
Denmark	Marknadsgatan 1 Hudiksvall	0650/11 712	0650/10 983
Finland	Varvsgatan 2–4 Hudiksvall	0650/15 250	0650/10 056
Great Britain	Drottningatan 48 Gavle	026/18 03 00	
Germany F.R.	Skeppsbroplatsen Sundsvall	060/15 55 00	060/15 24 40 060/62 22 2

DRY DOCKS: None.

REPATRIATION: Possible.

CUSTOMS ALLOWANCES: Crew over 18 allowed 200 cigarettes; 1 bottle of spirits out of bond. If vessel stays in Swedish ports but still in foreign trade, above quantities obtained from bond once a week (every 7 days). Instead of spirits 1 bottle wine or 6 bottles export beer allowed.

REPAIRS: Small engine and deck repairs. To be ordered through vessel's Agent or through stevedoring foreman onboard.

AIRPORT: Nearest regular airport is new airport at Hudiksvall. There are daily connections with Stockholm.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: No work on following days, although not all legal holidays. New Year's Day; Epiphany; Good Friday (Easter); Easter Eve; Easter Monday; Labour Day; Ascension Day; Whitsun Eve; Whit Monday; Midsummer Eve; Midsummer Day; All Saint's Day; Christmas Eve; Christmas Day; Second Christmas Day; New Year's Eve.

POLICE/AMBULANCE/FIRE:

Police Hudiksvall	Tel: 0650/15 600 or 90 000
Police Iggesund	Tel: 0650/20 820 or 90 000
Ambulance Hudiksvall	Tel: 0650/10 670 or 90 000
Ambulance Iggesund	Tel: 0650/10 670 or 90 000
Fire Hudiksvall	Tel: 0650/10 670 or 90 000
Fire Iggesund	Tel: 0650/20 329 or 0650/20 812
Doctor Hudiksvall	Tel: 0650/17 370 or 90 000
Doctor Iggesund	Tel: 0650/70 026 or 90 000
Hospital Hudiksvall	Tel: 0650/92 000
Hospital Iggesund	Tel: 0650/92 000

TELEPHONES: No telephones available for connecting onboard at Iggesund. At Hudiksvall telephones available. Skr 25 per day plus cost of calls.

GENERAL: Hudiksvall port is very near town. Railway station, bus station, etc., very near port. Oil port about 700 m. from town.

The port of Stocka is closed to commercial vessels.

SERVICES: No tank cleaning or discharge of tank washings. Compass adjusting: Tel: 0650/10 339 (Pilot Office). Ordered through Agent.

PORT REGULATIONS: Speed limit: maximum 5 knots within the harbour basin. Plastic pipe is laid out on the bottom around the oil berth, anchoring during berthing is prohibited. Pipe filled with compressed air after vessel's mooring, comes up to the surface forming ring around vessel and oil jetty as protection against oil leakage.

DELAYS: During Winter (December-April) delays on berthing/sailing owing to ice in fairways and alongside quays. Mooring delays will occur owing to ice between vessel and quay.

AUTHORITY: Hudiksvalls Hamnstyrelse, Tullhuset, 82400 Hudiksvall, Sweden. *Tel:* 0650/19166, 17140. *Contact:* Arne Strandell, Harbour Master.

HUSUM: 63.20 N. 19.09 E. (See Plan)

PILOTAGE: Contact local Agent: Grundberg Shipping AB, Tel: 0660-10235. Clearing Tel: 0660-82805, 82806.

MAX. SIZE: Max. draft 10.6 m.

TUGS: Available.

BERTHING: No special requirements other than authority from local Agent.

In the South part of the harbour basin there is a new concrete berth; namely the raw material berth.

(i) The South part of the wharf is 180 m. long with 11.4 m. depth.

Loading: Pulp and paper by mobile cranes. Turpentine and resin-oil via 6 in. – 8 in. pipe-connections. Capacity 200 t.p.h.

Discharging: Raw oil via 12 in. and sodium hydrate via 6 in. – 8 in. pipe-connections. Unloading of limestone, china clay, sodium sulphate, sulphur, aluminium sulphate, softwood and hardwood by mobile cranes.

(ii) The North part of raw material berth is 65 m. long, 10 m. depth. with a solid Ro-Ro berth 16 m. wide. There are connections available for loading/unloading fluid products.

To the North of the raw material berth there is the loading berth, 300 m. long and approximately 10 m. depth for loading pulp and paper using mobile cranes. Connected to the loading berth is a solid Ro-Ro berth with a ramp, length 30 m.

There are warehouses with a total storage capacity of 15,000 sq.m.

STEVEDORES: Stevedores can be ordered from representative of local Agent. Labour must be ordered prior to 1400 hours to start following day or for a second shift. Labour for the same day at 1000 hours must be ordered at 0800 hours, labour for 1200 hours ordered at 0930 hours and labour to start at 1400 hours ordered prior to 1100 hours.

FRESH WATER: Available through hose pipes.

FUEL: All grades and viscosities available through bunker suppliers.

AIRPORT: Approximately 15 minutes by car, served by regular airlines.

TIME: GMT plus 1 hour. Summertime kept April to October.

POLICE/AMBULANCE/FIRE: All services available.

TELEPHONES: Available on wharf.

SERVICES: Post, telefax and telex facilities. Various other services available or can be provided.

GENERAL:
Tides: Water level in metres above (+) and below (–) average water level.

High water level	+1.0 m.
Normal high water level	+0.7 m.
Normal low water level	–0.6 m.
Low water level	–1.1 m.

Local Travel: Buses from Husum to Ornskoldsvik (25 km.). Railway station at Ornskoldsvik.

AUTHORITY: Mo och Domsjo AB, S890 35, Husum, Sweden. *Tel:* 0663-18000, 18384. *Telex:* 6058 Massa/Pulp or 6070 Papper/Paper. *FAX* 0663-18310. *Cables:* Modo AB, Husum Mill. *Contact:* Frank Pettersson, Harbour Master.

KALMAR: 56.40 N. 16.20 E. (See Plan)

DOCUMENTS: See "Stockholm".
PILOTAGE: Compulsory for vessels carrying dangerous cargo and vessels exceeding 800 g.r.t. Pilot may be ordered on VHF, Channel 16 or by telephoning 0480/10719. Approaching from North, Pilot boards at Skaggenas or Krongrundet, from the South at Tradgardsgrundet. Round-the-clock service provided. (Also see "Stockholm").
ANCHORAGES: Good anchorage available outside port.
MAX. SIZE: Largest vessel 25,000 tons deadweight, draft 24 ft. Channel and harbour depth 26 ft. Ferry berth 22 ft.
TUGS: Available, order by tel. 15775.
RADIO: Stockholm Radio.
VHF: Harbour Master on VHF Channel 16.
BERTHING:

Quay	*Berth* No.	*Length* (m.)	*Depth* (m.)
Elevator Kajen	2 – 3	200	7.7
Finngrundet-Barlastholmen	22 – 31	990	5 – 7.7
Tjarhov	38 – 47	910	6 – 7.7

Permanent Ro-Ro berth available at Berth No. 28/29.
CARGO HANDLING FACILITIES: 3 portable electric cranes of 5 tons each, 4 mobile cranes of 23 – 36 tons and 1 mobile crane of 18 tons.
STEVEDORES: Available weekdays 0700 – 1630 hrs. Overtime is worked Saturdays and eves of public holidays.
TANKERS: Oil Dock (Berth No. 48) has depth of 8 m. alongside and has dealt with partly loaded ships of 25,000 tons. Discharge capacity about 28,000 cu.ft./hr.
MEDICAL: Hospital available.
FRESH WATER: Available from wharves.
FUEL: Bunkers available by barge or at Oil Dock. Tel: (480) 11730.
GANGWAY/DECK WATCHMEN: Available.
OPENING/CLOSING HATCHES: Crew or stevedores.
CUSTOMS ALLOWANCES: 200 cigarettes plus 1 bottle spirits.
CONSULS:

Danish Vice-Consulate	tel. 14719
Finnish Consulate	tel. 15580
German (F.R.) Consulate	tel. 26100
Netherlands Vice-Consulate	tel. 14444
Norwegian Vice-Consulate	tel. 22050

REPAIRS: Available. Divers for underwater repairs. Major repairs undertaken.
DRY DOCKS: 2 floating docks. 1 for vessels up to 3,000 d.w.t. and 1 for vessels up to 10,000 d.w.t., also slip for vessels up to 850 tons. (AB Kalmar Varv Tel. 0480/15390, Telex 43100).
AIRPORT: 10 km. from the port.
DEVELOPMENTS: Store houses for general cargo and sawn timber of about 7,000 sq.m. have been erected.
AUTHORITY: Kalmar Hamn, Box 810, S–39128 Kalmar, Sweden. *Tel:* 0480-56200. *Contact:* Sture Nachtweij, Port Captain/Director.

KARLSBORGSVERKEN (Kalix District): 65.48 N. 23.17 E.

PILOTAGE: Pilot station "Erikren", Karlsborgsverken. Pilots embark or disembark at Maloren 18 nautical miles South of Karlsborgsverken.
MAX. SIZE: Max. draft entrance to Karlsborgsverken 6 m., to Axelsvik 8.8 m. Size no limit.
TUGS: Available.
BERTHING:

	Max. draft. (m.)	*Length of quay* (m.)
Cellulose Quay	6.0	145
Timber Quay	6.0	250
Axelsvik Oil Harbour	8.8	60
Tore (17 nautical miles) N.W. Karlsborgsverken	6.0	170

CRANES: No land cranes. Mobile cranes to hire for loading/discharging.
STEVEDORES: Available, No particular ETA advice required except as normally sent by Master to the Agent.
MEDICAL: Hospital and dental services available.
TANKERS: Axelsvik (Oil Harbour) 4 miles East. See "Berthing".
FRESH WATER: Available at all berths except at Axelsvik Oil Harbour.
OPENING/CLOSING HATCHES: Usually carried out by the vessel's crew.
CONSULS: None.
REPAIRS: Workshop available for repairs.
AIRPORT: Lulea 85 km. from Karlsborgsverken.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
POLICE/AMBULANCE/FIRE: Telephone 90000 in emergency and ask for service required.
TELEPHONES: Available at quays.
SHORE LEAVE: Allowed.
AGENT: Grundberg Shipping AB, P.O.Box 716, S–941 28 Pitea, Sweden. Tel: 0911–46070. Telex: 68307 Shipexp S. FAX: 0911-46175. Cables: Grundbergs Pitea.

At Karlsborgsvrken: Grundberg Shipping AB, G: a Faktorskontoret, S–950 53 Karlsborgsverken. Tel: 0923-20156. All communications to be via Pitea.

KARLSHAMN: 56.10 N. 14.52 E. (See Plan)

DOCUMENTS:
3 Crew Lists (IMO Forms).
3 Passenger Lists.
2 Tobacco Lists.
2 Stores Lists.
1 Manifest.
1 Bill of Lading.
PILOTAGE: Vessels approaching port call Karlshamn Pilot Station 5 hours in advance on VHF Channel 16. Pilot boat orange coloured. Lights and sound signals as international regulations. Pilot boat always located 2 nautical miles South from Ortholmen Pilot Station, this point marked on charts. Location of anchorage in same area where Pilot taken. (Also see "Stockholm").
ANCHORAGES: Depths of water in anchorage area approximately 20 m. – 25 m.
RESTRICTIONS: Tankers not allowed to enter during darkness. Max. draft for tankers 32 ft. 6 in.
MAX. SIZE: Max. length 180 m., max. draft 32 ft. 6 in.

Oil Pier at Kolo Harbour, outside main harbour, length 270 m., max. draft 41 ft. 06 in. No tide.
HEALTH: If infectious disease on board Master must immediately send information to Agent.
RADIO: Karlskrona Radio.
RADAR/VHF: The pilot station is fitted with radar and VHF.
TUGS: 2 tugs available, 3,000 h.p. and 2,000 h.p. Join vessels about 1 nautical mile outside harbour boundary. Ship's lines always used.

BERTHING:
Inner Harbour: West Harbour Area.

Berth	*Length* (m.)	*Depth* (m.)
Ocean Quay	150	10.0
Soja Quay	250	8.5
West Quay	400	7.5 – 6.0

These quays are served by 4 rail-bound bulk goods cranes of 5 – 10 tons and have 2 grain elevators.

Via the West Harbour area oil seed plants, copra and vegetable oils for the Karlshamn Oil Factory (AKO) are shipped as well as other bulk goods.

East Harbour Area.

Berth	*Length* (m.)	*Depth* (m.)
East Pier	160	8.0
East Quay	500	6.0

The East Pier is equipped with 2×6.7 tons rail-bound unit goods cranes and served by 2 railway tracks. Adjacent to the East Pier are 2 cold stores with a total floor area of 7,000 sq.m.

Loading and discharging is carried out with mobile cranes at the East Quay. The Harbour has 5 mobile cranes with lifting capacities ranging from 4 tons to 23 tons.

Goods shipped via the East Harbour area include timber products, timber, bulk goods and general cargo.

Sterno Harbour:
A special harbour for stone products, wood and timber. Depth is 6 m.

Stone blocks are loaded at a special quay and crushed stone products, chiefly diabase which is used for producing mineral wool, are discharged from quay by a newly-erected stone-crushing plant. The crushing plant is owned by Armerad Betong-Vagforbattringar.

Stilleryd Harbour:
Karlshamn's new outer harbour; it was inaugurated in 1975 and consists of a 400 m. long quay with water depths of 8 m. and 11 m. on the West side, and one 150 m. long quay on the East side with 8 m. water depth. 2×35 ton and 1×20 ton luffing cranes are used for loading and discharging vessels and they are backed up by mobile cranes. Double railway tracks serve the quay.

The harbour also has Ro-Ro facilities with a water depth of 8 m. Stilleryd Harbour accommodates vessels of up to 35,000 d.w.t. The harbour area features 4 warehouses with a total storage area of 26,000 sq.m. Adjacent to the quay area is a stockyard of approximately 200,000 sq.m., of which 40,000 sq.m. is asphalted.

Sodra Skogsagarna ship products like paper pulp, paper, wood chips, pulpwood, etc. via the Stilleryd Harbour. Fernstroms Granitindustrier ship stone blocks while Vikingtra AB ship wood and timber via this harbour.

MEDICAL: Hospital facilities available.
TANKERS: Different lines used. From 12 in. to 6 in. depending on cargo to load/discharge. 3 different loading/discharging berths available. 1 at Inner Harbour, 1 at Kolo Harbour and 1 at Oxhaga.

Kolo Oil Harbour:
Position Lat. 56° 09′ N., Long. 14° 43′ E. Pilot boards by Laknallarna, position Lat. 56° 07′ 8″ N., Long. 14° 53′ E. Berthing during daylight only. Max. ~~size~~ 270 m., max. draft 41 ft. 06 in. 75,000 d.w.t. or 100,000 d.w.t. with part load. Depth at berth and approaches 46 ft. 2 tugs are generally used.

LOA

The pipe-line is 20 in., length 400 m. and hose connection 12 in. Max. rate, 1,500 cu.m./hour (HFO). There are no ballast facilities and no clean ballast can be discharged into harbour. Vessels are allowed to clean tanks and gas free in the roads only.

Fresh water available at 20 t.p.h. by pipe-line.

Old Oil Harbour:
Situated at Sutudden where a large number of major oil corporations and manufacturing companies have their depots. Heavy and light fuel oils, diesel oil, petrol and paraffin are imported and stored here. Storage capacity amounts to approximately 180,000 cu.m. of which half consists of underground storage facilities.

The oil quay has a depth of 36 ft. 01 in. and can accommodate fully-laden tankers of up to 30,000 d.w.t. with draft 32 ft. 06 in.

Oxhaga Oil Harbour: Karlshamn's new oil harbour, situated at Munkahusviken where the water depth at the quay is 13 m. Underground storage facilities with a total capacity of 400,000 cu.m. – 200,000 cu.m. for heavy oil and 200,000 cu.m. for light oil – have been constructed. Storage has been leased to manufacturing companies, municipalities and oil companies.

Oxhaga Nabb's oil harbour is used by fully laden tankers of 50 – 55,000 d.w.t. Depth of water 42 ft. 06 in., max. draft 39 ft.

An above ground storage area for petroleum, oil and chemicals is planned for the oil harbour areas. Surveys have shown that it is possible to build additional underground storage facilities for petroleum products in the Oxhaga area.

DENSITY: 1006.
FRESH WATER: Fresh water available and delivered by hoses.
FUEL: All grades available.
GANGWAY/DECK WATCHMEN: Watchmen only necessary when tankers discharge petroleum products.
OPENING/CLOSING HATCHES: By crew.
CERTIFICATES: Certificates of Tonnage, Derat Certificate.
CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes per man/week. Wine and/or Spirits, 1 bottle per man/week.
IDENTIFICATION CARDS: Not needed.
CONSULS:

Denmark, Tel: 16000.	Netherlands, Tel: 19760
Finland, Tel: (0454) 15420.	Norway, Tel: (0454) 15385

REPAIRS: Small deck and engine repairs can be effected.
DRY DOCKS: None.
REPATRIATION: Facilities for repatriation of crew possible.
AIRPORT: Distance from airport 30 km. 10 flights per day.
HOLIDAYS: January 1st and 6th; Easter; May 1st, 15th, 26th; June 21st; December 25th, 26th. Work can be arranged during holidays.
POLICE/AMBULANCE/FIRE: Tel. 90 000.
TELEPHONES: Telephones on board arranged at cost of 165 Sw. Kr.
AUTHORITY: Karlshamns Hamnar, P.O.Box 8, 37421 Karlshamn, Sweden. *Tel:* 0454-81500/81502. *Telex:* 4501 Hamnen S. *Contact:* Nils-Gunnar Sjoberg, Harbour Master.

KARLSKRONA: 56.10 N. 15.36 E.

DOCUMENTS: See "Stockholm".
PILOTAGE: Pilot is taken at Aspo. Tel. 0455/39016. (Also see "Stockholm"). Ordering Pilot between 2100 – 0500 hrs. contact Karlshamn Pilot Station tel. 0454/14102. Stations operating on VHF Channel 16. Pilot should be ordered 5 hours in advance. Pilot boats usually orange.
ANCHORAGES: On roadstead. Refer to Nautical Chart No. 821 (Swedish).
MAX. SIZE: Max. draft 9.0 m.
HEALTH: See "Stockholm".
RADIO: Stockholm Radio. Karlskrona Radio.
VHF: Karlskrona Port Office equipped with VHF Channels 16, 14.
RADAR: Radar service available when entering port. Tel. 0455/25075 or 0455/50780.
TUGS: Tug assistance available.
BERTHING: Total quay length 4,700 ft., oil terminal 400 ft., Depth alongside quay 13 ft. – 33 ft., oil terminal 29.5 ft. Ro-Ro quay 23 ft.
STEVEDORES: Available. Ordered through Agents or directly by tel. 0455/10518.
MEDICAL: Advance notice to Agents desirable.
TANKERS: No specific requirements applicable to oil carriers. Two tanker berths available. Draft 7.0 m. and 8.5 m.
FRESH WATER: Available, customary delivery from quay-berth.
FUEL: All grades available. No advance notice required.
OPENING/CLOSING HATCHES: Normally carried out by crew.
CONSULS:
Danish Vice-Consul, tel. 15006.
Netherlands Vice-Consul, tel. 10926 and 12495.
REPAIRS: All types of deck and engine repairs possible.
DRY DOCKS: Largest dry dock: length 185 m., breadth 20.76 m., depth 8.80 m. Six smaller docks.
REPATRIATION: Not allowed.
AIRPORT: 30 km. from port.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
POLICE/AMBULANCE/FIRE: Tel. 90000.
TELEPHONES: None available.
SERVICES: Compass adjusting.
AUTHORITY: Karlskrona Stadsbyggnadskontor, Amiralitesgatan 25, 37101 Karlskrona. *Tel:* 0455-83000.

Ao2

KARLSTAD: 59.23 N. 13.31 E. (See Plan)

PORT LIMITS: Vessel considered to be an "arrived ship" when berthed, or anchored South of the Gerholmsrevet Buoy in case of congestion.
DOCUMENTS: As usually required in Swedish ports.
PILOTAGE: Not compulsory. However Pilots available.
ANCHORAGES: There is a safe anchorage South of the Gerholmsrevet Buoy, sand and clay.
RESTRICTIONS: There are no restrictions imposed upon entry.
MAX. SIZE: Vessel's length, breadth and draft maximised by the locks of the Trollhatte Canal (87 m. × 13 m. × 5.3 m.).
HEALTH: Documents' etc. as usually required in Swedish ports.
RADIO: Gothenburg Radio.
VHF: ETA to be given to Karlstad Port Radio (0800 – 1600 hrs. local time).
RADAR: No port radar available.
TUGS: Two icebreaking tugs available. Ship's lines usually used.
BERTHING:

Vanerterminalen	Length	175 m.
(The Venerterminal)	Ship draft	5.3 m.
Mobile cranes		
Styckegodskajen	Length	270 m.
(The general cargo quay)	Ship draft	5.3 m.
Three general cargo cranes	6 tons	
Trakajen	Length	120 m.
(The wood quay)	Ship draft	5.3 m.
Mobile cranes		
Kolkajen	Length	350 m.
(The coal quay)	Ship draft	5.3 m.
One bulk cargo crane	5 tons	
One heavy-lift crane	28 tons	
Wermlands Kajen	Length	200 m.
(Wermlands Quay)	Ship draft	5.3 m.
One container crane		
Lambergshamnen	Length	230 m.
(The Lamberg Harbour)	Ship draft	5.0 m.
Mobile cranes		
One heavy-lift crane	160 tons	
Inrehamnen	Not used by merchant vessels.	
(Inner harbour)		
Oljehamnen	Each pier	70 m.
(Oil harbour)	Mooring space both sides	
Three jetties for handling oil, etc.	Ship draft	5.3 m.

STEVEDORES: Modern and extensive machinery equipment. Loading discharging can be arranged in two or three shifts.
MEDICAL: Hospital facilities available.
DENSITY: Fresh water in the port.
FRESH WATER: Delivered by hose from piping on the quay.
FUEL: All kinds of bunker oil available.
CONSULS: Denmark, Germany F.R. and Norway.
REPAIRS: All kinds of deck and engine repairs possible. Slipway 2,300 tons
SURVEYORS: All major Classification Societies represented in nearby port of Gothenburg. Government ship surveyor situated at Karlstad.
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: Usually carried out by crew
CUSTOMS ALLOWANCES: As usually allowed in Swedish ports.
CARGO GEAR: Shore gear usually used.
REPATRIATION: Crew changes and repatriation can be effected.
AIRPORT: Regular domestic airlines. Several flights per day to and from Stockholm and Gothenburg.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
POLICE/AMBULANCE/FIRE: Telephone number 90 000.
SERVICES: Tank-cleaning equipment and facilities for discharge of tank washings available.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not necessary for shore leave.
REGULATIONS: Ship's propulsion machinery may not be used when ship is berthed.
DELAYS: Normally not to be expected.
AUTHORITY: Karlstads Hamn, Box 5030, S-65005 Karlstad, Sweden. *Tel:* 054-195000. *Contact:* Captain P. Thomas Ahsberger, Port Director. Ake Sallnas, Harbour Master.

KLINTEHAMN: 57.23 N. 18.11 E. (See Plan)

The Harbour Quay is 340 m. long and depth 5 m. Depth on entrance 5.5 m. The most unfavourable winds are South — West. The harbour is however to be considered as good and safe.

Most products are loaded/discharged with mobile cranes.

Documents needed are Nationality Certificate, Bill of Measurement, Passenger List, Crew List, Derat Certificate, Ship's and Crew Declaration.

Pilot Station at Visby. Pilots have VHF on Channel 16.

Bunkers and water can be obtained.

AUTHORITY: Klintehamn Hamn, Skeppsbron 18, S-62157 Visby, Sweden. *Tel:* 0498-69475. *Contact:* Bengt Widegren, Harbour Master. Island of Gotland.

KOPING: 59.31 N. 16.00 E. (See Plan)

DOCUMENTS: See "Stockholm".

PILOTAGE: Via Sodertalje: Pilots obtainable for inward bound vessels from Landsort to Sodertalje and from Sodertalje to Koping; for outward bound vessels from Koping and Sodertalje. Via Stockholm: Pilots obtainable for inward bound vessels from Simpnas, Furusund, Sandhamn, Dalaro and Landsort to Stockholm and from Stockholm to Koping; for outward bound vessels from Koping and Stockholm. (Also see "Stockholm"). Harbour pilotage obtainable but not compulsory in harbour area. Assistance of a boatman is compulsory for arriving vessels.

Distances: Landsort – Sodertalje (nautical miles), 34; Sodertalje – Koping, (nautical miles), 69; Landsort – Dalaro, (nautical miles), 32; Dalaro – Stockholm, (nautical miles), 46; Sandhamn – Stockholm, (nautical miles), 36; Stockholm – Koping, (nautical miles), 78; Vasteras – Koping, (nautical miles), 27; Harbour Pilotage, (nautical miles), 2.

ANCHORAGES: At the "Broken" light buoy, clay bottom.

RESTRICTIONS: Ice is prevalent in Lake Malaren and the inlet from the Baltic from January to March, but the entrance channel is kept open during Winter season.

MAX. SIZE: The pilot station on Lake Malaren, Tel: 0755/30467, will give information on the max. admissible sizes of vessels. In general the following applies:

Max. Admissible	*Via Sodertalje*	*Via Stockholm*
Length	124 m.	110 m.
Breadth	17 m.–18 m.	15 m.
Draft	6.5 m–6.8 m.	5.65 m.
Height of masts above water level	35 m.	26 m.

The figures stated for the draft are subject to variation according to the water level. The entrance fairway to the port has been dredged to a depth 7.6 m., the width of the bottom being 60 m.

VHF: Work frequency Channel 14. Call Koping Port Radio, Channel 16.

TUGS: Available day/night.

BERTHING: *Deep-Water Harbour:* (built 1932, large extension 1936-64) has 152 m. of quayage with a depth of 6.2 m. and 377 m. with a depth of 7.3 m. alongside, and is equipped with 4×7 ton level-luffing jib cranes, 2 of them having a maximum lifting capacity of 10 tons each at 18 m. radius; 1×33 ton and 1×36 ton "multi-purpose" cranes.

There is also an 80 m. quay, depth 6.2 m. – without cranes – where loading/unloading by vessel's own winches can be undertaken.

Mobile cranes also available.

The quays are rail-connected and equipped with connections for supplying electricity, telephones and fresh water.

There are about 10,000 sq.m. of concrete stockyards within reach of the cranes, and outside this area and at a short distance from the cranes, a space of about 40,000 sq.m. is available for storage of goods. There are also about 22,000 sq.m. of sheds of different types in connection to the quays.

The cranes are well equipped with lifting devices such as grabs of different types etc. Conveyor belts of varying length, fork trucks, trimming and other cargo handling equipment are also available.

Oil Harbour: A modern oil harbour is situated at the mouth of River Kopingsan (North side), the jetty having one outside and one inside berth with depth of 7.6 m. and 5.7 m. respectively.

On the North side is an 80 m. concrete quay for grain loading vessels. Depth alongside 7.3 m.

Private Wharves: There is (on the North side) a private 120 m. concrete quay, depth 6.2 m., belonging to Messrs. Tibnor Ltd., (Iron and Steel Merchants). One 10 ton travelling portal crane available.

A private harbour, belonging to Cementa Co., is situated in the immediate vicinity of the "Deep-Water Harbour". There is a 110 m. concrete quay, with 7.3 m. alongside, and 1×6 ton travelling portal crane and 1 belt conveyor available. There is also a 50 m. pier, same depth, for self-unloading (cement) vessels.

STEVEDORES: Working hours: 0700 – 0900 hrs., 0930 – 1300 hrs. and 1330 – 1600 hrs. (Monday to Friday). Special conditions on Christmas Eve, New Year's Eve, Easter Eve, Whitsun Eve and Midsummer Eve.

Overtime work: can usually be executed on Mondays, Tuesdays, Wednesdays, Thursdays and Fridays and for 6 hours on Saturday.

FRESH WATER: Available.

FUEL: Available.

REPAIRS: Minor mechanical, electrical and other repairs can be carried out by different local firms. Diver available.

AUTHORITY: Malarterminalen Koping AB, Box 142, S-731 23 Koping, Sweden. *Tel:* 46-221-18110. *Telex:* 40738 Mterm S. *Contact:* Arne Risfors, Harbour Master.

KRISTINEHAMN: 59.19 N. 14.07 E. (See Plan)

PORT LIMITS: A line drawn Westward from Strandudden to Valon (see Swedish Chart No. 132) defines the seaward limits of the port.

PILOTAGE: Pilotage compulsory for vessels exceeding 1,200 d.w.t. regardless of cargo being carried and for all ships carrying dangerous cargo.

Certificate may be granted to sail without Pilot after service-examination.

Pilots available at Vanersborg, the entrance to the Lake of Vanern after leaving Trollhatte Canal, and at Kristinehamn.

No local pilotage.

DOCUMENTS:

Certificate of Nationality.
Identification and Measurement Papers.
Oil Log.
Certificate regarding insurance for oil damage.
Derat Certificate.
Last Port Clearance.
1 set of General Declaration (Form 611.10).
2 copies Ship's Stores Declaration (Form 611.13).
2 copies Crew's Effects Declaration (Form 616.8).
2 copies Cargo Declaration (Form 611.7).
1 set Crew List (Form 612.13).
1 copy Declaration on account of Import Prohibition as to Livestock (Form 730.5).
1 copy Maritime Declaration of Health (Form 612.7).

ANCHORAGES: In the Varnumsviken, N.W. of Kristinehamn. The roads have a depth of 5 m. – 9 m., bottom clay.

RESTRICTIONS: In Winter, the fairways to the harbour will be kept open by the local icebreaker from 0600 hrs. until 1600 hrs. Any icebreaking services beyond these hours have to be ordered and will be charged accordingly.

MAX. SIZE: All vessels capable of passing through the Trollhatte Canal can enter Kristinehamn. Max. dimensions: length 87 m., beam 13 m., draft 5.3 m.

HEALTH: First entry will be cleared alongside, otherwise automatic.

VHF: The port can be reached by VHF Channels 9, 11, 12, 14 and 16. In Winter, the icebreaking tug may communicate on all channels.

Instructions/Regulations regarding traffic communications will be available when passing the Trollhatte Canal.

RADAR: No port radar service.

TUGS: The tug "Dan", 600 b.h.p. and 5 tonnes bollard pull, will assist on request.

BERTHING: The outer harbour (Berth Nos. 20 – 25), has a quay of 360 m. length; in the river there is a quay (Berth Nos. 16 – 19) approx. 170 m. length. Depth 5.7 m at chart datum.

On the S.W. side of the river there is a berth, 88 m. length, for loading grain. Loading equipment on berth. Depth 5.7 m.

On the West side of Varnumsviken, Kroksvik, there is a 80 m. concrete pier for discharging refined oil products. Depth 5.7 m.

Also see "Tankers".

CRANES: 3 × 7 tonne slewing cranes with luffing jibs and 1 × 24 tonne with luffing jib, on rails, in the outer harbour (Berth Nos. 20 – 25). Three railway tracks underneath the portals along the quay. One fixed crane, 40 tonnes, at Berth No. 16.

BULK CARGO FACILITIES: On the S.W. side of the river there is a loading elevator for agricultural produce. Loading capacity 200 tonnes per hour.

On Berth Nos. 20 – 25, bulk commodities like coal, ore, grain and scrap iron can be handled by cranes Nos. 8 and 9 equipped with grabs.

SPECIALISED CARGO HANDLING FACILITIES: No special equipment for handling containers. No Roll-on/Roll-off berth.

BRIDGES: None.

STEVEDORES: Working hours 0700 – 1600 hrs., Monday to Friday.

General cargo: 40 – 60 tonnes per gang per hour.

Forest industries produce: Approx. 100 tonnes per gang per hour.

MEDICAL: Full hospital facilities available without prior notice.

TANKERS: There is a concrete pier, length 80 m., on the West side of Varnumsviken, with a berth on each side. Max. draft 5.3 m. The pier is equipped with a crane for lifting lines. Diameters of discharging lines are 6 in. and 8 in. Average discharging rate 500 – 700 cu.m.p.h.

DENSITY: 1000 (Fresh water).

FRESH WATER: Available at Berth Nos. 20 – 25, rate 5 – 10 tonnes per hour.

FUEL: Available at all berths, delivered by truck.

FIRE PRECAUTIONS: As per international standards.

CONSULS: France, Germany F. R. and Norway are represented at Karlstad, 45 km. distant.

REPAIRS: All types of deck and engine repairs can be carried out.

DRY DOCKS: None.

SURVEYORS: Lloyd's and Norske Veritas.

GANGWAY/DECK WATCHMEN: Not required.

CARGO GEAR: Shore cranes normally used.

REPATRIATION: Can be arranged.

AIRPORT: At Karlstad, 45 km. distant.

TIME: GMT plus 1 hour. Summertime GMT plus 2 hours.

CUSTOMS ALLOWANCES: 1 litre spirits, 1 litre wine, 5 litres beer and 200 cigarettes per person. Additional allowances for the Master.

HOLIDAYS: January 1st and 6th, May 1st and 20th, December 24th, 25th, 26th and 31st. Cargo work can be arranged on these days.

POLICE/AMBULANCE/FIRE: Dial 90000.

TELEPHONES: Can be arranged on request.

SERVICES: No facilities for disposal of tank cleanings.

SHORE LEAVE: Permitted, no restrictions.

DELAYS: Normally no delays.

IDENTIFICATION CARDS: Seaman's Book is sufficient.

BANKS: Handelsbanken and Wermlandsbanken represent a number of foreign banks.

EMERGENCY CO-ORDINATION CENTRE: Dial 90000 and the Centre will notify the necessary services.

STORING: See "Prelims".

1. Vessels can be stored by trucks only.
3. Trucks can proceed alongside the berth.
4. Fork lift trucks can be used when handling stores.
5. Ship's chandler will take care of Customs Regulations.
6. Local riggers can be employed to assist with storing.

DEVELOPMENTS: None.

AUTHORITY: Kristinehamns Hamn, Bajortgatan 9, S–68100 Kristinehamn, Sweden. *Tel:* 0550-15340. *Contact:* Jim N. Hjelmtvedt, Harbour Master/General Manager.

LANDSKRONA: 55.52 N. 12.48 E. (See Plan)

DOCUMENTS: See "Stockholm".
PILOTAGE: Pilot available on request from Helsingborg Pilot Station in daytime. 5 hours' notice required. Pilot stations and boats equipped with VHF. (Also see "Stockholm").
ANCHORAGES: Vessels of up to 10 m. draft can safely anchor North of Staffans Bank.
MAX. SIZE: Depth in channel and harbour 11 m. (36 ft.) Max. draft 10 m. Max. LOA 190.0 m.
HEALTH: See "Stockholm".
RADIO: Gothenburg Radio, call sign SAG. Harbour office, pilot station, pilot boats and tug boats equipped with VHF.
TUGS: Tugs usually meet off Pilhaken Lightbuoy. Ship's lines.
BERTHING: Terminal for handling bulk cargoes. Rock phosphate can be discharged with a capacity of 8,000 tons per 24 hours.
MEDICAL: Medical attention and hospital facilities available.
TANKERS: No oil berth in Landskrona.
DENSITY: Density of water changes with currents.
FRESH WATER: Available from quay.
FUEL: Small quantities of fuel oil can be obtained from quay.
GANGWAY/DECK WATCHMEN: Not available.
OPENING/CLOSING HATCHES: Usually carried out by ship's crew.
CERTIFICATES: See "Stockholm".
CUSTOMS ALLOWANCES: See "Stockholm".
IDENTIFICATION CARDS: Not needed.
CONSULS:

Danish Vice-Consulate	Tel: 0418/16150
Finnish Vice-Consulate	Tel: 0418/78000
Netherlands Vice-Consulate	Tel: 0418/35020

REPAIRS: All types of deck and engine repairs.
DRY DOCKS: Dry dock for ships up to about 25,000 d.w.t. (189 m. length). Floating dock for up to about 5,000 d.w.t.
AIRPORT: Sturup, 60 km.
TIME: GMT plus 1 hour in Winter. Summertime GMT plus 2 hours.
HOLIDAYS: See "Stockholm".
POLICE/AMBULANCE/FIRE: Tel: 90000.
TELEPHONES: Not available.
STORING: See "Prelims".

1. Yes.
3. Yes.
4. Yes.
6. Yes.

REGULATIONS: Anchoring prohibited between and up to 50 m. from harbour lights.
AUTHORITY: Landskrona Hamn, Box 275, 261 23 Landskrona, Sweden. *Tel:* 0418-17911, 0418-10311. *Contact:* Arne Wennberg, Port Director.

LIDKOPING: 58.30 N. 13.10 E.

DOCUMENTS:
3 Crew Lists (IMO Fal Form 5).
2 Crew Effects List (IMO Fal Form 4).
2 Ship's Store Declarations (IMO Fal Form 3).
PILOTAGE: Compulsory for vessels over 1,200 d.w.t.
MAX. SIZE: Length 87 m., beam 13 m., draft 5.3 m. and air draft 27 m. are maximum dimensions for passing through the Trollhatte Canal.
VHF: Lidkoping Harbour operates on Channel 16.
TUGS: One tug available, 920 h.p.
CRANES: 3 shore cranes of 5 tonnes each.
STEVEDORES: Working hours 0700 – 1630 hrs., Monday to Friday.
MEDICAL: Hospital facilities available.
FRESH WATER: Available.
FUEL: Gas oil available.
REPAIRS: Workshops can undertake repairs.
HATCHES: Opening/closing carried out by crew.
REPATRIATION: Facilities exist for carrying out crew changes.
AIRPORT: Nearest International Airport is Gothenburg, 130 km. distant. Local domestic airport has 6 flights daily to and from Stockholm.
TIME: GMT plus 1 hour, Summertime GMT plus 2 hours.
POLICE/AMBULANCE/FIRE: Dial 90000
AUTHORITY: Lidkopings Hamnterminal AB, P.O.Box 900, S-531 19, Lidkoping, Sweden. *Tel:* (0) 510-222 50. *Telex:* 67336. *FAX:* (0) 510-62189. *Contact:* Jan Kallsson, Harbour Master.

AGENT: Lindahl & Collin AB, P.O.Box 7091, S-402 32, Gothenburg Tel: 427180. Telex: 2329 Cargo S. Cables: "Lloydsagent".

LULEA: 65.35 N. 22.09 E. (See Plan)

DOCUMENTS: See "Stockholm".
PILOTAGE: Telegraphic address, "Pilotstation Lulea". Tel: 170 97 or 120 63. Advance notice 5 hours. VHF Channel 16. Pilot boat, orange with international signals. Pilot boards about 2 nautical miles West of Rodkallen for entering Germandoleden and 1 nautical mile N.E. of Farstugrundens Lighthouse for entering Sandoleden. Location of anchorage when awaiting Pilot: West of Rodkallen and South of Farstugrunden Lighthouse.
APPROACHES: *Fairways:* Two fairways lead into Lulea. The South Fairway, Germandoleden, is about 17 nautical miles long and the North Fairway, Sandoleden, is about 27 nautical miles long.

Special rules and traffic regulations apply to these fairways.

Ice Conditions: The port area is generally ice-infested during the period December-April. During this period, ships at sea are assisted by the State-owned icebreaker and within the harbour area by the Lulea Bogserbats AB port icebreaker. Year-round navigation has been possible since Spring 1970.
ANCHORAGES: Germandofjarden, 1.5 nautical miles S.E. of Larsgrundet Lighthouse and Inner Roads.
MAX. SIZE: Max. draft at MW 11.4 m. in Sandoleden and 7.5 m. in Germandoleden.
HEALTH: No special regulations.
RADIO: Harnosand Radio, call signal SAH.
VHF: Port Authority on Channels 16, 14, 12, 11 and 10.

Traffic Control on Channels 16, 14, 13, 12, 11 and 10 throughout 24 hours. Tel: 932 93 or 122 91.

Tugs on Channel 16.

TUGS: Meet ships at the Inner Road for the ore dock, and in Sandoleden 1 nautical mile South of the coal quay and the oil terminal. Ship's lines to be used.

Two tugs of 4,200 h.p. each are available for towing and ice breaking.

Towing: Lulea Bogserbats AB is responsible for towing and ice breaking in the Port of Lulea. Special tug regulations apply at Uddebo Oil Port, Victoria Harbour and the Ore Quay. Tugboat assistance can be ordered through Lulea Traffic, Tel: 932 92 or 122 91, or through VHF call Channel 16.

Boatmen: The port boatmen are on duty if needed at all quays. They can be ordered through Lulea Traffic – Tel: 122 91 – or VHF call Channel 16. At the Ore Quay and Victoria Harbour, however, the respective companies provide their own boatmen.

BERTHING: *Deep Quay:* Length 345 m., depth 6.5 m. – 9 m. General cargo and wood. One 7.5 ton crane. Railway.
Cement Quay: Length 60 m., depth 9 m. Cement.
LKAB Ore Quay: Length 415 m., depth 13.2 m. Iron ore. Two shiploaders of 4,000 t.p.h. each.
SSAB Quay: Length 498 m., depth 8.0 m.
Coal Quay: Length 700 m., depth 9.0 – 12.2 m. Coal, coke, iron, steel, limestone. Three 18 ton grab cranes, 35 tons with hook and 1×25 ton gantry crane (rate 800 t.p.h.).
STEVEDORES: Bottenvikens Stuveri AB.
TANKERS: Diameter of lines from 150 mm. up to 350 mm. 2 oil jetties depth 7.8 m. and 12.2 m. Length 20 m. and 60 m. respectively. Facilities for receiving dirty ballast. Capacity 300 cu.m./hr.
New Oil Berth: Max. LOA 250 m., max. beam 32.3 m., max. draft 11.3 m., max. d.w.t. 45,000. Distance bow to manifold 120 m. Vessels berth starboard side to.
DENSITY: Fresh water, 1000.
FRESH WATER: Fresh water available at all berths.
FUEL: All grades of oil available.
GANGWAY/DECK WATCHMEN: Safety watchmen are to be on board all tankers when loading or discharging.
OPENING/CLOSING HATCHES: Stevedores.
SHIP'S CERTIFICATES: See "Stockholm".
CUSTOMS ALLOWANCES: 200 cigarettes or 250 grams of tobacco for each Crew member every 10 days. (Wine/Spirits) 1 litre for each Crew member over 20 years old, every 10 days.
IDENTIFICATION CARDS: Not necessary.
CONSULS: Telephone Numbers:

Danish 15602	French 16329	Norwegian 20600
Finnish 10445	Germany (F.R.) 53852	Netherlands 12003

REPAIRS: Only small engine repairs.
SURVEYORS: Ship and Cargo Control, Authorised Inspectors, Sodra hamnplan. Tel: 110 50.
AIRPORT: 10 km. from port. Served by regular airlines.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: See "Stockholm".
POLICE/FIRE/AMBULANCE: Tel: 90 000.
TELEPHONES: Connections available at oil terminal, coal terminal, ore terminal and deep quay.
GENERAL: All ships mooring at oil terminal over 3,000 d.w.t., and ore dock have to use tugs.
Lulea Soldiers' and Sailors' Institute: Seamen and national servicemen who come to Lulea have their own premises at Stationsgatan 72, where various facilities are available, including a canteen with reasonably priced food, billiard table, TV, telephone and a music room. These premises are open Monday-Friday 1700 – 2200 hrs. and Sunday 1800 – 2230 hrs.

Seamen also have access to the services of a Seafarers' Assistant. He can, for example, take seamen to various leisure facilities, arrange sightseeing trips and exchange films and books on ships.

Lulea Soldiers' and Sailors' Institute – Tel: 676 20 or 288 75.
The Seafarers' Assistant – Tel: 259 96.

The Institute is run by the Merchant Navy Culture and Leisure Board which also employs the Seafarers' Assistant.

AUTHORITY: Lulea Hamn, Varvsgatan 41, S-951 34 Lulea, Sweden. *Tel:* 0920-930 00. *After Hours Tel:* 932 93 or 122 91. *Telex:* Lulots 80241. *FAX:* (0920) 24372. *Contact:* Bo Westman, Port Director.

LYSEKIL: 58.17 N. 11.26 E. (See Plan)

DOCUMENTS: See "Stockholm".
PILOTAGE: Pilot boards 2 miles West of Gaven Lighthouse. 5 hours advance notice required. Pilot ordered by VHF Channel 16 or telephone No. 60800.
ANCHORAGES: Safe anchorages both for small and large vessels just outside harbour in Gullmarsfiord.
RESTRICTIONS: No restrictions night entry, except max. draft possible 30 ft. No tide.
MAX. SIZE: Maximum permissible length for berthing about 600 ft. Draft 30 ft.
HEALTH: Declaration of Health only when required from Customs or for vessel coming from outside Scandinavia.
RADIO: Cable Agents giving ETA, draft, cargo and cash required via Gothenburg Radio.
RADAR/VHF: No port radar service, VHF for calling Pilot, Channel 16.
TUGS: Must be requested through Agent at least 12 hours before arrival.
BERTHING: 3 berths available. Gullmarskajen length 600 ft. max. draft 30 ft., Grotokajen 500 ft. max. draft 22 ft. Anderssons Kav 400 ft. max. draft 18 ft. Railway on all berths.
CRANES: Five mobile harbour cranes working all berths. Maximum capacity 40 tons. No restrictions against using ship's own gear.
STEVEDORES: Ordered by Agents.
MEDICAL: Hospital in town.
TANKERS: See the port of "Brofjorden".
DENSITY: About 1027.
FRESH WATER: Available from shore installation.
FUEL: Gas oil and diesel available.
GANGWAY/DECK WATCHMEN: Available but not compulsory.
OPENING/CLOSING HATCHES: Normally opened by crew.
CERTIFICATES: Registered Tonnage Certificate.
CUSTOMS ALLOWANCES: See "Stockholm".
IDENTIFICATION CARDS: Not required.
CONSULS: Denmark, Finland, Iceland, Norway.
REPAIRS: Small repairs possible.
HOLIDAYS: See "Stockholm".
REPATRIATION: Change of crew and repatriation possible.
AIRPORT: None.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
TELEPHONE: Police, Ambulance, Fire Brigade, Tel: 90000.
DEVELOPMENTS: New berths under construction.
AUTHORITY: Lysekils Hamn, Hamnkontoret, S-45300 Lysekil, Sweden. *Tel:* 0523-14090. *Contact:* Olle Samuelson, Harbour Master.

MALMO (including Limhamn): 55.37 N. 13.00 E. (See Plan)

DOCUMENTS:
- 2 Crew Lists.
- 1 Passenger List.
- 2 Lists of Personal Effects (Tobacco List).
- 1 Declaration of Health.
- 2 Stores Lists.
- 3 Cargo Manifests.
- 1 Bill of Measurement.
- 1 Certificate of Nationality.
- 1 Derat Certificate.

PILOTAGE: Vessel applies for Pilot by telegram, by telephone or VHF (Telegraphic Address, Pilotstation, Malmo; Tel. (040) 115269; Telex 32435; VHF Channel 16). Advance notice required 5 hours before pilotage to commence. Pilot boat orange-coloured cutter equipped VHF and radar. Pilot boards at Malmo roadstead. In case of bad weather vessel awaits Pilot at roadstead. (Also see "Stockholm").
ANCHORAGES: Vessels anchor about 5 cables North of fairway buoy "Roder Prick" and East of leading lights Centralhamnsrannan Nedre and Ovre, and S.W. of leading lights Malmo Oljehamn Nedre and Malmo Oljehamn Ovre. Depth 12 m. to 14 m. and bottom hard clay. Larger vessels will be anchored at the Pilots directions.
REGULATIONS: All ships over 50 tons gross and ships under towage with a total length over 50 m. are obliged to report to the Malmo Port Radio, VHF Channel 16, working Channel 14, at least 2 nautical miles before approaching respective channels to Malmo and Limhamn (excluding the South Port of Limhamn). The same announcement is valid for the above ship before departure including movements inside port.
RESTRICTIONS: Speed must be reduced inside breakwaters. When red flag hoisted (red lantern at night) at the N.E Dry dock pier head, indicating dock gates open, vessels may pass breakwater at minimum speed. Bridge opening signal for passing from South Wharf Basin; 2 long blasts, followed by 1 short.
MAX. SIZE: *Bulk/Oil Harbour (under construction):* Max. length 260 m. on draft not exceeding 12.5 m. for bulk harbour and 11.4 m. for oil wharf. *Free Port:* Max. length 225 m. on draft not exceeding 8.6 m. Max. length recommended in New Harbour is 150 m. on max. draft 6.6 m. and in Industrial Harbour 180 m. on max. draft 8.4 m. No tides.
HEALTH: Free Pratique automatically granted arriving from non-infested areas. If arriving from infested areas Health Declaration must be presented immediately on arrival. If diseases on board suspected, vessel allowed to enter after approval of City Medical Adviser, but nobody allowed on board until vessel's crew examined by doctor and after approval of Medical Adviser.
RADIO: Vessel can route ETA cables through Gothenburg Radio (call sign SAG or Channel 26 on VHF), open all hours. Radio stations can also be called by radio-telephone on 2182 kHz.
VHF: Port Control Office equipped with VHF (Channels 16, 9, 10, 11, 12, 13 and 14), open 24 hours a day. Masters can receive information about berthing, present traffic and existing hazards to navigation in harbour area. Telex: 33275.
TUGS: Tugs usually meet vessels at roadstead. Ship's lines used.

Tugs can be arranged through a shipbroker or the Port Control office and are available round the clock from the Red Tug Fleet Co. Ltd. in Malmo. 2×3,000 h.p. tugs available. Others are available if necessary.

BERTHING:
Passenger Harbour:

ITAL

Berth	Length (ft.)	Depth (ft.)
301 – 303	1,083	10
304 – 308	1,903	23.5
401 – 404	1,180	16.5 – 19.5
405 – 409	1,330	16.5 – 19.5
410 – 411	670	23.5
412	131	23.5

Also see "Bridges".

Ferry and General Cargo Harbour:

Berth	Length (ft.)	Depth (ft.)	Quayside Cranes Remarks
501 – 502	656	21.0	Car-ferry berth
504	560	23.5	New train-ferry berths completed 1987
505 – 506	560	23.5	Car-ferry berth
517 – 518		23.5	Ro/Ro Ramp
518 – 523	2,312	23.5	
524 – 526	607	17.5	

Free Port:

			Quayside Cranes			
Berth	Length (ft.)	Depth (ft.)	No.	Capacity (tons)	Range Outside Quay (m.)	Remarks
600 – 604	1,970	30	5*	6 – 40	22 – 24.5	2×40 tons cranes and 1 screen unloader, capacity 120-200 t.p.h.
605 – 609	1,645	30	5	5 – 6	11 – 21.5	
610	560	30				Oil jetty

*Also equipped with grabs

Container Berth Nos. 612 – 613 with a depth of 9.2 m. alongside. Quay length 240 m. 50 m. wide Ro-Ro ramp. Quay equipped with a 40 tons (46 tons heavy-lift) container crane with a range of 27 m. outside quay. Quay area 85,000 sq.m. 2,100 sq. m. insulated warehouse adjacent to Ro-Ro berth.

Industrial Harbour:

			Quayside Cranes			
Berth	Length (ft.)	Depth (ft.)	No.	Capacity (tons)	Range Outside Quay (m.)	Remarks
801 – 804	1,194	23.5				
805 – 806	—	29.5	4	6-20	11.7 – 13	
807 – 810	1,970	23.5			13.0	
811	387	23.5				
812 – 818	2,135	23.5 – 29.5	1	6	19.0	
901 – 907	2,887	29.5	2	6	19.0	
908 – 909	788	23.5	1	6.5	14.75	
910 – 918	2,148	29.5				
930 – 932	560	19.5				
933	341	19.5				

3 of these cranes can be equipped with grabs

Port of Limhamn: Incorporated with Malmo Port Authority 1978. This port consists of an oil and cement jetty, a centreport and a ferry port.

The Port of Limhamn lies to the South of Malmo and is accessible via two fairways; the Southern one has a depth of 5.0 m. and leads to the Ferry Harbour, and the Northern fairway has two branches, one to the Oil Harbour with a depth of 10.5 m. and one to the Central Harbour with a depth of 8.6 m.

Berth	Length (m.)	Depth (m.)	No.	Cranes (tons)
Centreport:				
107 – 111	500	8.4	1	5 (private berth)
104 – 106	200	8.0 – 8.4	–	
112 – 113	180	8.0	–	
117 – 118	200	8.0	Tanker Berth	
Ferry port:				
217, 220		5.0	Car ferry berth	
Oil berth (jetty):				
125	90	10.0	Loading plant for cement and tanker berth	

BRIDGES: Will be opened with certain exceptions 0700 – 1700 hrs. weekdays. May be opened other hours on request to Port Control Office.
STEVEDORES: Normal working hours are from 0700 – 1600 hrs., Monday to Friday. Standard overtime shifts of up to 3 hours can be arranged. Additional overtime work can be obtained by special arrangement with the Terminal Company. Overtime work can also be arranged on Saturdays, Sundays and holidays.
Stevedore Company: Malmo Sjoterminal AB, Hjalmaregatan 1, 211 20 Malmo. Tel: 040-34 40 00. Telex: 32713 Seaterm S. Director: Bertil Cederholm.
CONTAINER HANDLING FACILITIES: 6 Roll-on/Roll-off ramps, 2 container berths with 40 tons capacity container cranes, 3 forklift trucks with 25 – 40 tons capacity.
MEDICAL: No advance notice required for medical attention. Good hospital facilities available. See also "Health".
TANKERS/BULK CARRIERS: The Bulk/Oil Harbour in the Northernmost section of the port of Malmo can be reached by a special approach fairway, the Oil Harbour channel, which has a depth of nearly 43.5 ft. The harbour is equipped with 7 berths, 2 of these being for ocean-going tankers with modern equipment for the unloading of oils and chemicals. Water depth varies between 19.5 ft and 39 ft.

The harbour can accept fully-loaded tankers of up to 60,000 d.w.t. as well as partly-loaded ships of up to 100,000 tons.

The berths for ocean-going tankers are each equipped with 3 hydraulically manoeuvrable transfer plants for faster and more reliable unloading. A piping system leads from the berths, unloading capacity of up to 2,000 tons per transfer plant per berth per hour. Tanks and pipes can be heated from a central steam-production station used by all firms. The Oil Harbour area also contains storage tanks for liquid chemicals and solvents. There are also good possibilities for development within the area, e.g. petrochemical industries.

Berth	*Quay Length*	*Depth*	*Crane capacity*
1001 – 1002	656 ft.	44 ft.	3×20 tons (500 t.p.h.) and 1 mobile crane 13.2 tons.
1003	770 ft.	39 ft.	
1004	770 ft.	39 ft.	
1006 – 1007	295 ft.	19.5 ft.	
1008 – 1009	295 ft.	19.5 ft.	
1010	328 ft.	19.5 ft.	

Also see "Berthing" – Port of Limhamn.

Report: *Cautionary Advice – In Port:* The port is approached from the N.W. via a relatively narrow dredged channel, marked with buoys and keeping 2 red leading lights in line. A current with a velocity of up to 2 knots may set across the channel, usually in a Northeasterly direction. It is, therefore, important that tugs are made fast with good lines before the channel is entered. Strong Southerly and Southeasterly winds, particularly in the Spring, may lower the water level in the harbour considerably below mean water level. The average density of the harbour water is 1010 at MLW.

Berthing Procedure: The procedure is similar for both berths used by Esso. Vessels berth port side alongside, and are normally swung in the manoeuvring basin North of the berth, assisted by tugs. If underkeel clearance permits, the starboard anchor is used and vessels are then pushed alongside the breasting face which is protected by truck tyres on wood.

DENSITY: Average density 1010. No tide experienced.

FRESH WATER: Fresh water can be ordered from the Port Control office (Tel: 040-128864) and is available at all quays at a rate of about 20-30 t.p.h.

FUEL: All types of bunker oil are available from tank trucks at various quays in Malmo and Limhamn.

FIRE PRECAUTIONS: Apart from usual non-smoking precautions, vessel discharging or loading dangerous goods of Class 1 in IMO code required to have a fire guard on board at all times.

In Oil Harbour the shore-valve watchman also serves as fire guard.

GANGWAY/DECK WATCHMEN: Not considered necessary other than in Malmo Oil Harbour. Decision to be made by Master.

OPENING/CLOSING HATCHES: Normally carried out by stevedores on ocean-going vessels.

CERTIFICATES:

- International Bill of Measurement.
- Certificate of Nationality.
- Derat Certificate.
- Load-line Certificate.
- Radio Certificate.
- Safety Equipment Certificate.
- Gear Certificate.

CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes or 40 cigars or 150 grams of smoking tobacco per week out of bond. Spirits, 0.75 litre spirits per week out of bond.

CARGO GEAR: No additional requirements.

IDENTIFICATION CARDS: Not needed.

CONSULS:

	Telephone
Austrian Consulate	93 21 11
Belgian Consulate	93 41 00
Brazil Consulate	11 70 38
Danish Consulate-General	12 33 44
Finnish Consulate-General	11 77 80
French Consulate	12 36 48
German F.R. Consulate-General	94 54 75
Greece Consulate-General	11 02 26
Guatemala Consulate	722 30
Icelandic Consulate-General	12 81 10
Italian Consulate	13 66 00
Japanese Consulate	783 05
Mexico Consulate	23 95 95
Netherlands Consulate	78283
Norwegian Consulate-General	12 35 00
Polish Consulate-General	674 16
Portuguese Consulate	10 11 30
Spanish Vice-Consulate	23 38 00
Swiss Consular Agent	12 53 52
Turkish Consulate-General	11 48 11
Yugoslavian Consulate	12 42 01/31

REPAIRS/DRY DOCKS: Ship and engine repairs of all kinds carried out by Ciserv AB Malmo. Tel: 040–973207. Fax: 46–40–129382.

Dry dock for small vessels.

SURVEYORS:

1. Cargo Inspectors available.
2. Surveyors available.

REPATRIATION: Facilities exist for effecting crew changes and arranging repatriations.

AIRPORT: Sturup Airport, served by regular airlines, situated about 25 km. from Port of Malmo.

Helioport: Malmo Port, Freeport, service after special order. See "General".

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: See "Stockholm". Oil tankers can be dispatched all hours.

POLICE/AMBULANCE/FIRE: Tel: 90000.

EMERGENCY CO-ORDINATION CENTRE: Marine Centre Malmo (Tel: 040/11 55 55) include Royal Navy, Swedish Coast Guard, Swedish Administration of Shipping and Navigation and Pilots.

SOS – Alarm Centre Malmo (Tel: 90 000).

TELEPHONES: Can be connected in Bulk Harbour and Ferry Port Berth No. 517 and can be ordered from the Port Control office. Tel: 040-128864.

STORING: See "Prelims".

1. Vessels can be stored by truck in all docks except the Oil Harbour.
2. If barges available ships may be stored with same if not interfering with cargo handling. In Oil Harbour, regulations must be followed.
3. Yes, excluding Oil Harbour, distance 30 m.
4. Yes, if not interfering with cargo handling.
5. General regulations for Sweden.
6. Yes.

BANKS: Gotabanken, St Nygatan 27, 203 11 Malmo. Telex: 32464 Gotbank S.

Svenska Handelsbanken, Stortorget 21-23, 202 12 Malmo. Telex: 32314 Hanmlm S.

PK Banken, Sodergatan 14, 201 20 Malmo. Telex: 32524 Pkmalm S.

Skandinaviska Enskilda Banken, Ostergatan 39, 205 20 Malmo. Telex: 32850 Essebm S.

Skanska Banken, Sodergatan 10, 205 40 Malmo. Telex: 32720 Sydbnk S.

Sparbanken Malmohus, Gustaf Adolfs torg 4, 201 80 Malmo. Telex: 33108 Smbank S.

Sveriges Riksbank, Diskontogangen 2, 202 50 Malmo. Telex: 19150 Riksbk S (Stockholm).

GENERAL: *Container inspection* and minor repairs can be ordered from the Malmo Sea Terminal Company. Tel: 040-34 40 00.

Customs: The District Office is open Monday – Friday 0800 – 1600. Tel: 040-73130. The Co-Ordination Office is open round the clock. Tel: 040-73130, 79233.

Dangerous goods: Contact the Harbour Master's office (see Port Administration/Harbour Master). If a cargo contains dangerous goods this must be reported 24 hours in advance.

Helicopter service is available at the Malmo Helicopter Station, Freeport from Euro Air Helicopter Serv. AB. Tel: 042–183515. Telex: 72814.

National Administration of Shipping and Navigation: N. Neptunigatan 5, Malmo. Southern Pilot District. Tel: 040-75155, Malmo Ship Inspection. Tel: 040-74780. Malmo Pilot Office. Tel: 040-115269.

Port Administration: Hjalmaregatan 1, Malmo. Tel: 040-34 40 00. Telex: 33275 M Port. Open Monday – Friday 0800 – 1630. At other times contact the Port Control.

Port Control Office: Open round the clock. Tel: 040-34 41 89, 128864. VHF radio Channel 16.

Salvage work is available from The Red Tug Fleet Co. Ltd. in Malmo. Tel: 040- 12 44 92.

Seaman's Centre (Sjomansgarden): Fiskehamnsgatan 3, Malmo. Tel: 040-124135. Chapel, lounge, hobby rooms, restaurant, cafeteria, etc.

Seaman's Hotel (Neptun): Citadellsvagen 4, Malmo. Tel: 040-239605.

Ship Chandlers: A number of ship chandlers are located in the immediate vicinity of the port.

Waste Containers for ship's waste (but not for engine-room waste or oil) are available on all quays.

Waste Oil: Contact the Port Control Office in order to dispose of waste oil from the engine room.

Watchmen: A number of security companies are active in Malmo – see the telephone book. For safety personnel for discharging of tankers, contact AB Skeppshjalp. Tel: 040-978789.

Weighing Station: Located at the entrance to the Free Port. Tel: 040-344258. Open 0730 – 1200, 1230 – 1600.

Workshop Service: See "Repairs/Dry Docks". Smaller workshops are located in Malmo and Limhamn – see the telephone book.

DELAYS: No delays expected.

AUTHORITY: Malmo Port Authority, Hjalmaregatan 1, S-211 20 Malmo. *Tel:* 40-34 40 00. *Telex:* 33275 Mport S. *FAX:* 46–40–111174. *Contact:* Lars-Olof Skoglund, Harbour Master. Bertil Cederholm, Port Director. Jan Olsson, Marketing Manager.

NORRKOPING: 58.36 N. 16.12 E. (See Plan)

DOCUMENTS: 3 Customs Documents. 3 Health Documents. 3 Crew Lists. 3 Passenger Lists. 3 Manifests.

Master of ship arriving at first Swedish port from abroad has to give Maritime Declaration of Health on special form.

PILOTAGE: See "Stockholm". Ships will be received 2 nautical miles North of the lighthouse Gustav Dahlen. The Pilot must be ordered on radio, telephone or in some other way at least 5 hours before piloting to start.

ANCHORAGES: Lat. 58° 38.7′ N., Long. 16° 22.5′ E. Depth 70 ft.

RESTRICTIONS: Tankers loaded with more than 10,000 tons gasoline must not move in port at night-time. Tankers over 15,000 d.w.t. will not be shifted at night-time. Pampushamnen Oil Jetty: Tankers loaded with more than 10,000 tons must not enter at night-time. Inner Harbour: Tankers loaded with more than 15,000 tons must not enter at night-time.

TUGS: 2 tugs available, 1,680 b.h.p. and 3,400 b.h.p. The 2 tugs are icebreaking. Join vessel off St. Juten Lat. 58° 38.1′ N., Long. 16° 19.6′ E. Ship's lines to be used. All towing is carried out subject to "Scandinavian Tugowners Standard Conditions of the year 1959 revised 1974".

MAX. SIZE: Pampushamnen Oil Jetty can berth vessel of about 45,000 d.w.t. with max. draft of 11.4 m. MLW. Gastgivarehagen Oil Jetty can berth vessel with a max. draft 8.4 m. MLW and length 195 m. Ramshall and Tallbacken Oil Jetty can berth vessel with max. draft 7.9 m. MLW, length 177 m., breadth 24.4 m., daytime only. General cargo and bulk cargo quay at Pampushamnen with max. draft 11.4 m. MLW. General cargo quay (Ohmanskajen via the Lindo Kanal) can berth vessel max. draft 8.4 m. MLW and max. LOA 195 m. Dry cargo vessels of 15,000 d.w.t. or more for Ohmanskajen daylight entry only. Dry cargo vessels of max. LOA 195 m. and max. breadth of 23 m. and vessels of max. LOA 180 m. and max. breadth of 26 m. permitted. Vessels exceeding this size shall obtain prior permission from Pilots to enter the Ohmanskajen through the Lindo Kanal. Vessels must be able to make headway through the Kanal with a speed not exceeding 5 knots. Dry cargo vessels of 25,000 d.w.t. or more should have bridge controlled main engines. Inner Harbour can berth vessel max. draft 6.4 m.

Largest tanker at Pampushamnen, 66,875 d.w.t. LOA 236.46 m., Beam 33.3 m. Also see "Tankers".

Largest dry cargo vessel at Pampuskajen: 43,793 d.w.t., LOA 183 m., Beam 31.1 m. A vessel of LOA 199.7 m. and Beam 33.3 m. has also berthed.

Largest dry cargo vessel at Ohmanskajen: 34,976 d.w.t., LOA 181 m., Beam 26.4 m.

RADIO: Stockholm Radio, Tingstade Radio.

RADAR/VHF: VHF Channel 9, 14 and 16. No radar.

BERTHING: No specific requirements except at Oil Jetty Tallbacken and Ramshall, which require daylight docking and undocking.

Berths specially equipped for grain, berths equipped for containers, berth for Ro/Ro traffic, berths handling liquid chemicals. 5,300 m. of quayage with depths of 5 m. – 12 m. and 6 oil jetties.

Norra kajen: Norra kajen is used primarily for the handling of coal, steel, bulk commodities and raw wood material. The quay is equipped with bulk handling cranes, and the water depth is between 6.0 m. and 7.0 m.

Sodra kajen: Used primarily for timber, forest products and general cargo shipped in small tonnage. Water depth 6.0 m. – 7.0 m. Grain, fodder, fertilisers and clay are handled on a section of the quay between Ohmanskajen and Sodra kajen. Depths here are between 7.0 m. and 9.0 m.

Ohmanskajen: With a water depth of 9.0 m., Ohmanskajen is mainly used for general cargo, containers and forest products. Adjacent to Ohmanskajen there are 2 Ro/Ro berths with storing areas and warehouses for goods storage.

Pampusterminalen: Pampusterminalen, water depth 12.5 m. has the capacity for serving 2 vessels simultaneously and 30,000 to 40,000 tonners can utilise their carrying capacities at full draft. Via Pampusterminalen, general cargo, forest products and bulk commodities are handled. Cargoes are moved by the ship's own equipment, which is complemented if necessary by mobile shore cranes. The quay is also used by Ro/Ro vessels with stern quarter ramps.

Adjacent to Pampusterminalen, there are large areas for storing goods within fenced grounds. Warehouses are available for weather-sensitive goods. Pampusterminalen has a railway connection as well as high standard roads connecting with European highways and major district roads.

Pampushamnen Pier No. 3 Ro/Ro berth for coal discharge: A Ro/Ro berth has been added to Pier No. 3 for discharging of coal from barges.

SPECIALISED CARGO HANDLING FACILITIES: *Ro/Ro Berths:*

One Ro/Ro berth with a fixed concrete ramp and a water depth of 9 m. Loading and discharging by shore cranes (25 tons) may take place simultaneously with Ro/Ro operations. Stern loading vessels port side alongside.

One Ro/Ro berth with a fixed concrete ramp and a water depth of 8 m. for Ro/Ro operations only. Stern loading vessels starboard side alongside.

One Ro/Ro berth with a fixed concrete ramp adjacent to the heavy lift crane (320 tons) specially designed for heavy loads. Water depth 9 m.

Djuron

Grain Terminal, position Lat. 58° 38′ N., Long. 16° 20.1′ E. 160 m. long concrete pier with a water depth of 12.2 m. MLW. Travelling grain loader with maximum loading capacity 500 tonnes/hour. Max. elevation above MLW 18 m.

Braviken

Paper Mill, Holmens Bruk AB. Lat. 58° 38.3′ N., Long. 16° 16.1′ E. 126 m. long concrete pier with a water depth of 8.8 m. MLW. Mobile cranes for loading on request. Otherwise ship's gear. Ro/Ro fixed concrete ramp 20 m. wide with a water depth of 6.8 m. MLW. Stern loading vessels starboard side alongside.

CRANES: All cranes are owned and operated by the Port Authority. These include 15 electrical transportable quay cranes with a capacity of 4 – 10 tonnes, two 30 tonnes cranes adapted for 20 ft. and 40 ft. container handling which together can lift 50 tonnes, two 23 tonnes mobile cranes, one fixed heavy lift crane with a maximum lifting capacity of 320 tonnes (water depth alongside crane is 9.0 m.) and one 4 tonnes floating crane.

STEVEDORES: Gangs must be ordered before 1500 hrs. day before arriving.

MEDICAL: Arranged by Agent. All services available.

TANKERS: *Pampushamnen:* Pier I: Depth alongside 12 m. The berth is equipped with a crane for the handling of hoses and has pipe connections for all petroleum and bitumen products. Permanent gangway for the use of tankers.

Pier II: Depth alongside 12 m. The berth is equipped with a crane for the handling of hoses, and 3 mechanical couplings and has pipe connections for all petroleum products. Permanent gangway for the use of tankers.

Pier III (coastal tonnage): Depth alongside 7.5 m. The berth is equipped with a crane for the handling of hoses and has pipe connections for all petroleum products.

Fuel oil: one 18 in. and one 16 in. pipe-lines for discharging. 2 connections with 8 in. hoses. Gas oil: 14 in. pipes with 2 connections to 8 in. hoses. Asphalt: 10 in. pipes. Gasoline: 12 in. pipes with 1 connection to 8 in. hose. Connection to bigger or smaller hoses possible through existing flange-connections.

Pipe connections for discharging ballast water are installed at all piers at Pampushamnen. Receiving of ballast water is covered by ballastage. Ballast water containing any chemical agents not accepted. Receiving capacity during the first hour is 650 cu.m. Thereafter, 150 cu.m.p.h.

Tallbacken (Pol Transport): Depth alongside 8.5 m. Beam of vessels restricted to 24 m. (78 ft. 9 in.) due to passage through the Handelo drawbridge. Vessels require own gear for the handling of hoses.

3 connections for variable kinds of oil, 8 in. hose connections.

Gastgivarehagen (Gulf): Depth alongside 9 m. The berth is equipped with a crane for the handling of hoses.

4 connections for variable kinds of oil, 8 in. hose connections.

FRESH WATER: Delivered by 1 water boat of 90 cu.m.

FUEL: All grades available, delivered by boat.

DENSITY: 1000.

GANGWAY/DECK WATCHMEN: Watchmen are not necessary. Hose-watcher required during loading and discharging of tankers.

OPENING/CLOSING HATCHES: Decided from case to case.

CERTIFICATES: International Tonnage Certificate, Derat Certificate, Trade Certificate, and Radio Safety Certificate.

IDENTIFICATION CARDS: Not needed. Crew List to be used on Oil Jetties.

CONSULS:

British	Tel: 011/10 00 40	German F.R.	Tel: 011/12 47 15
Danish	" 011/12 90 80	Netherlands	" 011/10 08 00
Finnish	" 011/10 64 70	Norwegian	" 011/12 90 40
French	" 011/19 02 80	Uruguay	" 011/12 03 18

Belgian Vice-Consul tel. 011/18 62 60

REPAIRS: Small repairs to machinery can be made. No repairs in port without permission of Harbour Master.

DRY DOCKS: None.

SURVEYORS: Authorised Surveyors available representing most P&I clubs, appointed by the Swedish Board of Shipping and Navigation.

REPATRIATION: Can be arranged.

AIRPORT: Distance from Airport "Kungsangen" about 4 miles. Daily communications with Copenhagen.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours.

HOLIDAYS: New Year's Day; Twelfth Day; Good Friday; Easter Monday; May Day; Ascension Day; Whit Monday; Midsummer Day.

POLICE/AMBULANCE: These services can all be reached on telephone number 90 000.

TELEPHONES: Available at different quay berths on request.

SERVICES: Arrangements for discharging waste oil and ballast.

DELAYS: No delays normally expected.

AUTHORITY: Norrkopings Hamn, Styrmansgatan 10, S-60181 Norrkoping, Sweden. *Tel:* 46-11-150000. *FAX:* 46-11-159358. *Telex:* 64433 Nrkhamn S. *Contact:* Harbour Master, Tel. 46-11-151865.

NORRSUNDET: 60.56 N. 17.09 E. (See Plan)

LOCATION: On the Southern part of the Gulf of Bothnia and N.W. of Saltharsfjarden.

DOCUMENTS:

2 Crew Lists.
2 Crew Effects Lists.
2 Provisions Lists.
Passenger List.

PILOTAGE: Pilot available at Eggregrund Gefle for ships coming from South and at Soderhamn for ships coming from North. Pilot available day and night. Contact Pilots by VHF on Channel 16, 5 hours before arrival.

ANCHORAGES: South Gashallan in white sector of Hallstenoren Light.

RESTRICTIONS: During darkness max. length 100 m.

MAX. SIZE: Draft 6.4 m. and length 135 m.

RADIO: Stockholm Radio or Harnosand Radio.

VHF: Port Authorities on Channel 16.

TUGS: 1 tug-boat available, can be ordered from Pilot or Agent.

BERTHING: The depths in the harbour are from 3.5 m. to 6.4 m.

Metres of quayage with depths alongside as follows:

Quayage (m.)	*Depth Alongside* (m.)
54	4.2
37	3.3
186	6.4

CRANES: No shore cranes. Mobile cranes up to a max. 100 tons available.

FRESH WATER: Available from shore installations, can be ordered from Pilot or Agent.

GANGWAY/DECK WATCHMEN: Not available.

OPENING/CLOSING HATCHES: Crew allowed to open and close.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle spirits per man.

STEVEDORES: Ordered by Agents. Ordinary working time, Monday-Friday, 0700 – 1600 hrs. To finish a vessel maximum of 3 hours' overtime can be worked.

FUEL: Delivered by truck alongside vessel on pier.

IDENTIFICATION CARDS: Not required.

POLICE/AMBULANCE/FIRE: Tel: 90000.

GENERAL: *Exports:* Wood-pulp, sawn wood-goods and raw tall-oil. *Imports:* Fuel oil and pulp/wood.

AUTHORITY: Norrsundet Bruks AB, Box 4, S-81701 Norrsundet, Sweden. *Tel:* 0297-22180. *Telex:* 47331 Norsund S. *FAX:* 0297-22751. *Contact:* R. Thureson, Distribution Manager, Sales Department.

NYKOPING: 58.45 N. 17.02 E. (See Plan)

DOCUMENTS:

Tonnage Certificate.
5 Crew Lists.
2 Manifests.
1 Provisions List.

PILOTAGE: Pilot station at Havringe (58° 33′ N., 17° 19.0′ E.), about 15 miles from Nykoping. Pilot must be ordered 5 hours before arrival Havringe. (Also see "Stockholm").
ANCHORAGE: There is good anchorage at Orsbaken in a depth of 9 m.
RESTRICTIONS: The dredged entrance channel from Orsbaken to Nykoping nearly 5 miles long, 98 ft. wide, has a depth of 6.0 m. (19.7 ft.) at MW.
MAX. SIZE: Roll-on/Roll-off vessels up to 4,000 d.w.t. and length 105 m. can enter the harbour.

Grain Quay	Max. draft 5.5 m.
North-East Quay	Max. draft 5.5 m.
South-East Quay	Max. draft 5.5 m.
South-West Quay	Max. draft 5.5 m.

RADIO: Stockholm.
TUGS: There is a diesel tug of 220 h.p. Larger tug of 1,200 h.p. can be called from Oxelosund.
BERTHING: There is 560 m. of quayage with depth from 5.3 m. to 6.0 m. (17.5 ft. to 19.7 ft.) alongside at MW.
CRANES: There are 2×4.5 tons mobile cranes and 1×4 ton crane.
STEVEDORES: Ordered by Agents. Working hours: 0700 – 1600 hrs.
FRESH WATER: Available.
FUEL: All grades available.
GANGWAY/DECK WATCHMEN: Ordered by Agents, not compulsory.
OPENING/CLOSING HATCHES: Normally by crew.
CUSTOMS ALLOWANCES: Each crew member 200 cigarettes or 25 cigars or 200 grams tobacco and 1 bottle spirits.
CONSULS: Vice Consulate for Denmark and Finland, Tel: 0155/30600.
REPAIRS: Minor repairs can be effected.
DRY DOCKS: None.
AIRPORT: Norrkoping 80 km., and Stockholm 120 km.
HOLIDAYS: New Year's Day; Good Friday; Easter and Easter Monday; Labour Day (1st May); Whit Monday; Midsummer Day and Christmas Day.
POLICE/FIRE/AMBULANCE: Police 17100; Ambulance 90000; Fire 90000.
TELEPHONE: None available for placing on board.
SERVICES: None.
SHORE LEAVE: Permitted.
AUTHORITY: Hamnkontoret Nykoping, Skeppsbron 11, 61135 Nykoping, Sweden. *Tel:* 0155-12136/18802. *Contact:* Kenneth Attefors, Harbour Master.

NYNASHAMN: 58.55 N. 17.58 E. (See Plan)

DOCUMENTS:

2 Crew Lists, and 3 Crew Lists on IMO Form.
3 copies General Declaration (form supplied on arrival).
Bill of Health.
Derat Certificate.
3 copies Cargo Manifest/Bills of Lading.
Tonnage Certificate.
Certificate of Nationality.
Stores and Personal Effects Declaration.
Tovalop Certificate.

PILOTAGE: Compulsory. Pilot boards deep-draft tankers near Landsort Outer Approach Light Buoy (58° 36′ N., 17° 53′ E.).
Pilot boards other vessels 2 miles South of Landsort Light (58° 44′ N., 17° 32′ E.).
RESTRICTIONS: Draft limited to 13 m. through the archipelago to the harbour.
MAX. SIZE:

Berth	*Max. Length of Vessel*	*Max. Distance Bow-manifold*	*Water Depth*
1	300 m.	140 m.	17 m.
		165 m.	15 m.
2	110 m.	60 m.	7 m.
3	250 m.	90 m.	12.5 m.
		105 m.	12.0 m.
4	120 m.	60 m.	12.9 m.
5	70 m.	—	*5.2 m.

*As far as 18.0 m. N.E. of the berth.
HEALTH: Vessels arriving from ports outside Europe must, for Inward Clearance, provide Customs Office with written Declaration of Freedom from Infection. Further instructions will be issued by Customs Office when such Declaration cannot be given.
RADIO: Stockholm Radio; call sign SDJ.
VHF: Nynasoil on Channels 16, working 9 and 13.
Channels 6, 8, 12 and 16 are portable and used during mooring operations.
BERTHING:
Berth No. 1: Loading arms: 3×12 in. for crude oil, 1×8 in. for bunker. Minimum height of loading arms above sea level 2.5 m. Max. height of loading arms above sea level 23 m. Minimum distance between connections of 2 loading arms 1.5 m.
Fresh water supply max. 40 t.p.h.
Ballast water can be pumped ashore at a max. rate of 300 cu.m./hr. Connection with the loading arms. Vessels usually berth starboard side alongside.
Berth No. 3: Loading arms: 1×10 in. for dirty oil. 1×10 in. for light fuel oil. 1×10 in. for gasoline. Minimum height of loading arms above sea level 1 m. Max. height of loading arms above sea level 16.5 m. Minimum distance between connections of 2 loading arms 1.5 m.
Fresh water supply max. 15 t.p.h.
Ballast water can be pumped ashore at a max. rate of 300 cu.m./hr. Connection with the loading arms. Vessels usually berth portside alongside.
Berth Nos. 2, 4 and 5: For coasters only. Jetty No. 2 and 4 are equipped with loading arms and hose connections of 6 in., 8 in. and 10 in. Jetty No. 5 hose connections only.
DENSITY: 1010.
FRESH WATER: Can be supplied from the piers. No barges.
FUEL: All grades can be supplied from the piers. No barges.
CUSTOMS ALLOWANCES: 200 cigarettes per person per week. 1 bottle of wine and spirits per person per week.
CONSULS: All consuls available at Stockholm.
REPATRIATION: Can be arranged.
AIRPORT: Nearest at Stockholm.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summertime.
SHORE LEAVE: No restrictions.
AUTHORITY: AB Nynas Petroleum, Oil Harbour, Box 1002, S-14901 Nynashamn, Sweden. *Tel:* 46-752-65000. *Telex:* 19261 Nypetro S. *FAX:* 0752-17638 (National) (46)752-17638 (International). *Cables:* Raffinaderiet Nynashamn. *Contact:* Lars Lindgren, Harbour Master.

ORNSKOLDSVIK: 63.17 N. 18.43 E. (See Plan)

DOCUMENTS:

1 Crew List.
1 Passenger List.
4 Customs Documents.
1 Health Document.
1 Manifest.
1 Bill of Lading.
1 Ship's Paper.

PILOTAGE: Pilot station, Ornskoldsvik, tel. 0660/66003. 5 hours' notice. VHF Channel 16. Orange-coloured motor launch fitted with radar and VHF. International signals. Station 2 miles South Skagsudde Lighthouse. Pilots serve all ports between Umea and Harnosand, also Sea Pilots and ice advisers for Gulf of Bothnia. (Also see "Stockholm").
ANCHORAGES: Ornskoldsvikfjarden 30 ft. – 75 ft. Anchorage forbidden in area Raskarson-Malmon-Buron.
MAX. SIZE: Length 700 ft.; breadth 100 ft.; draft 34 ft.
HEALTH: Customs Authorities give Pratique on arrival from foreign ports. In case of suspected disease inform Customs and Port Authorities.
RADIO: SAH, Harnosands Radio.
RADAR/VHF: Radar service in Skagsudde Lighthouse. Port Authority and Stevedores on VHF Channel 16.
TUGS: In port, available. Ship's lines used.
STEVEDORES: Inform stevedores at latest 1400 hrs. day before gangs required, also if available space for truck-loading in holds. Loose timber, 35 stds./gang/day. Packaged timber, 160 stds/gang/day. Board and wood pulp, 400 tons/gang/day.
TANKERS: Municipal Berth: Max. LOA 200 m. Max. draft 10.0 m. Max. d.w.t. 40,000. 6 in., 8 in. and 10 in. lines.
Shell Oil: Max. LOA 200 m. Max. draft 9.0 m. Max. d.w.t. 30,000. Vessels berth port side to.
DENSITY: Fresh water.
FRESH WATER: From quay or boat. 60 t.p.h.
FUEL: Gas oil, light fuel, heavy fuel.
GANGWAY/DECK WATCHMEN: Watchmen available if desired.
OPENING/CLOSING HATCHES: Stevedores or crew.
CERTIFICATES: Cargo Gear Certificates.
CUSTOMS ALLOWANCES: (Tobacco), 200 cigarettes per week (Wine/Spirits), 1 bottle per week.
CARGO GEAR: Not needed.
CONSULS: Danish, Finnish, Norwegian, Portuguese.
REPAIRS: Medium sized repairs carried out.
SURVEYORS: Cargo Inspectors and Surveyors available locally.
DRY DOCKS: None.
REPATRIATION: Available.
AIRPORT: 10 miles. 3 flights daily Northbound and Southbound.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: Cargo work can be arranged on holidays.
POLICE/AMBULANCE/FIRE: Police 10800; Fire 10445.
EMERGENCY CO-ORDINATION CENTRE: SOS Centre – Dial 90000.
TELEPHONES: Cost 20 Sw. Krs. to be placed on board.
BANKS: Svenska Handelsbanken, Storgatan 16, Box 69, 891 01 Ornskoldsvik. Tel: 0660/106 30. Telex: 71243.
Sundsvallsbanken, Storgatan 12, Box 19, 891 01 Ornskoldsvik. Tel: 0660/124 50. Telex: 71047.
Skandinaviska Enskilda Banken, Storgatan 26, Box 103, 891 01 Ornskoldsvik. Tel: 0660/150 52. Telex: 19154.
STORING: See "Prelims".

1. By truck.
3. Yes.
4. Yes.
6. Yes.

DELAYS: None.
AUTHORITY: Ornskoldsviks Kommun, Hamnforvaltningen, Box 125, Strandgatan 15, 89101 Ornskoldsvik, Sweden. *Tel:* 0660-88100, 88101. *Contact:* Jan Harnstrom, Harbour Master.

OSKARSHAMN: 57.15 N. 16.27 E. (See Plan)

DOCUMENTS: See "Stockholm".
PILOTAGE: Pilot boards at Furon, 6 miles East of Oskarshamn. Give ETA at least 5 hours prior arrival. VHF Channel 16. Tel: 0491/10036 (Also see "Stockholm").
ANCHORAGES: South of Furon, depth 25 m.
RESTRICTIONS: *Channel:* Oil Harbour depth 11 m. Outer Harbour (for general cargo) depth 11 m. Inner Harbour depth 8 m.
MAX. SIZE: *Max. draft:* Oil and Outer Harbour 34 ft. 6 in. Inner Harbour 25 ft.
VHF: Channel 16.
TUGS: 1 tug of 1,720 h.p. and 1 tug of 800 h.p.
BERTHING: *Oil Harbour:* Quay length 41 m., depth alongside 12 m.
Inner Harbour: South Quay length 470 m., depth 5 m. – 7.2 m.
Bradholm Quay: Length 140 m., depth 4.8 m. Length 88 m., depth 4 m. (Used only by fishing vessels and visiting yachts).
North Quay: Nos. 22 – 28 depth 5.5 m. – 7.8 m., length 470 m.
Nos. 31 – 35 depth 8 m., length 360 m.
Nos. 36 – 37 depth 6 m., length 120 m.
Ocean Quay: Nos. 51 – 54 depth 11 m., length 350 m.
Shipyard Quays: Up to 8 m. depth.
BULK HANDLING FACILITIES: 1 Roll-on/Roll-off berth for goods traffic situated at the North Quay, depth alongside 8 m.
2 Ro-Ro berths on the South Quay. Depth 5 m. – 7.3 m.
CRANES: 3 Portal cranes, 10 tons capacity. 6 mobile cranes, 10 – 36 tons capacity. 1 crane for container handling.
TANKERS: One berth. Max. draft 34 ft. 6 in. Discharge lines 8 in.
FRESH WATER: At every berth.
FUEL: Available.
CERTIFICATES: See "Stockholm".
CUSTOMS ALLOWANCES: 200 cigarettes, one bottle spirits.
IDENTIFICATION CARDS: Not needed.
CONSULS: Denmark Tel: 0491-16135; Finland Tel: 0491/11013; Norwegian Tel: 0491/18810.
DRY DOCKS/REPAIRS: Dry dock length 427 ft. Capacity 30,000 d.w.t. Repair facilities available. Oskarshamn Shipyard. Tel. 0491-17080.
AIRPORT: Oskarshamn, 3 km. away, 2 flights daily to Stockholm.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: See "Stockholm".
POLICE/AMBULANCE/FIRE: Police, Tel: 15090; Alarm, Police/Ambulance/Fire Tel: 90000.
TELEPHONES: Available for connection on board.
SERVICES: Compass adjusting.
DEVELOPMENTS: New Harbour under construction at Klubbdjupshamnen (Lat. 57° 16′ N., Long. 16° 28.8′ E.).
AUTHORITY: Oskarshamns Port Co., Norra Strandgatan 50, S-572 00 Oskarshamn, Sweden. *Tel:* 0491-16080. *Telex:* 43935. *FAX:* 0491–16322. *Contact:* H. Westerberg, Port Director.

OTTERBACKEN: 58.57 N. 14.02 E. (See Plan)

DOCUMENTS:
3 Crew Lists.
1 Stores List.
Ship's Register.
1 Manifest and Bills of Lading.
PILOTAGE: Pilotage is not compulsory. Pilot obtainable at Vanersborg.
ANCHORAGES: In the roads in depths from 16 ft. to 19.5 ft., clay bottom, and in the bay East of Storon from 18 ft. to 16.5 ft., clay and sand bottom.
MAX. SIZE: All ships able to pass through the Trollhatte Canal with a max. draft of 16.9 ft. at MWL can enter the harbour.
HEALTH: No certificates required. In event of any disease or fever contact Agent.
RADIO: All messages to Agent via Gothenburg Radio.
VHF: Port of Otterbacken can be reached by VHF Channel 16.
TUGS: Tugs available when icebreaking is necessary.
BERTHING: Gamla Kajen (old quay): Length of quay 235 ft. Depth alongside 10 ft.
Nya Kajen (new quay): Length of quay 890 ft. Depth alongside 17 ft. – 18 ft.
Galejholmskajen (Galejholms Quay): Length 590 ft. Depth alongside 17 ft. – 18 ft.
CRANES: Two 7 ton travelling bridge cranes; two 10 ton movable diesel cranes; one 5 – 7 ton portal crane.
STEVEDORES: Provided by Otterbackens Hamn AB. Ordinary working hours: From 0700 – 0900 hrs., 0930 – 1300 hrs. and 1330 – 1600 hrs.
MEDICAL: Hospital available.
FRESH WATER: Available.
FUEL: Available.
REPAIRS: Minor repairs only can be effected.
GANGWAY/DECK WATCHMEN: Available but not compulsory or necessary.
HATCHES: Opening/closing is normally carried out by the crew.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 litre spirits for each crew member.
AIRPORT: Karlstad 90 km; Gothenburg 180 km.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: January 1st and 6th; Good Friday; Easter Monday; May 1st; Whitsuntide; December 25th and 26th.
POLICE/AMBULANCE/FIRE: Tel: 90000
TELEPHONES: Not possible to place telephones on board. Telephones available at harbour office.
SHORE LEAVE: After clearing inwards, crew members are allowed to go ashore without special permission.
AUTHORITY: Otterbackens Hamn AB., Fack 65, S-547 02 Otterbacken, Sweden. *Tel:* 46-551-22250. *Telex:* 66088 Otbsped S. *FAX:* 46–551–22757. *Cables:* Otterbackssped.

OXELOSUND: 58.40 N. 17.08 E. (See Plan)

PORT LIMITS: The seaward boundaries of the port is a line between the Eastern point of Ljungholmen and the oil quay. For ore-loading ships, a vessel is considered to be an "arrived vessel" when at anchor at the roads West of Vinterklasen.
DOCUMENTS:
4 Crew Lists (3 for Customs and 1 for Ship's Agent).
4 Passenger Lists, if passengers are not inserted in Crew List.
2 Customs Documents, showing all alcoholic liquors and tobacco, belonging to Officers, crew and passengers.
2 Customs Documents, showing ship's store of alcoholic liquors and tobacco.
Health Documents, not necessary.
Manifests, at least 4 copies, normally only for general cargoes.
Bills of Lading, at least 1 copy if not otherwise stipulated.
Ship's Paper, Ship's Register and Derat Certificate, not older than 6 months.
PILOTAGE: (See "Stockholm"). Pilot station located at Oxelosund, tel. 0155 30200. ETA required 5 hours in advance in order to avoid charge for waiting. When ships in open sea recommended inform pilot station by telephone via Stockholm Radio, call sign SDJ or Gothenburg Radio, call sign SAG. VHF Channel 16 can be used for contacting Pilot station or Pilot boat. Approaching vessel applies for Pilot when daylight with flag signal "G" and when dark with pilot-light or Morse Code "PT". Pilot boats orange. Ships advised to proceed through Northern inlet, where Pilot will board at Norra Krankan Lighthouse, Lat. 58° 37′ N., Long. 17° 27′ E. International requirements with respect to boarding and safety measures. Vessels awaiting for Pilot are prohibited to ride at anchor North of "Gustaf Dalen" Lighthouse.
ANCHORAGES: Suitable anchorages West of Vinterklasen; clay-holding ground, depth 30 m. – 40 m. Ships are not allowed to berth until they receive orders and in the meantime must anchor and await such orders.
RESTRICTIONS: No tides. Draft not over 42 ft. at MLW. No other restrictions with exception of berthing ships of 190 m. length and over.
MAX. SIZE: Ore loading berth: Vessels between 3,000 and 80,000 d.w.t. can be loaded. Depth at quay 45 ft. Berth for unloading coal, iron ore: Ships of up to 80,000 d.w.t. can be discharged. Depth at quay 39 ft. 4 in. Berth for general cargo: Depth at quay 32 ft. 10 in. Oil pier: Oil carrier up to 95,000 d.w.t. can be berthed. Depth at quay 45 ft.
HEALTH: No special regulations.
RADIO: Stockholm Radio, call sign SDJ, or Gothenburg Radio, call sign SAG.
VHF: Harbour Authorities and Clearance Department for ore loading ships has VHF Channel 16.
TUGS: 2 combined tugs and ice-breakers of 1,680 and 3,200 i.h.p. Ship's lines to be used. Tugs normally join vessel near Beten Lighthouse, near harbour.
BERTHING: Harbour Pilot compulsory and normally ordered by ship's Agent. No tides. Depths in harbour can vary occasionally from minus 1 ft. 6 in. to plus 1 ft. according to temporary alterations of MWL. Ships of 40,000 d.w.t. and over cannot be berthed when dark.
CARGO HANDLING FACILITIES: The port has, among other things, one ore quay equipped with a travelling ore-loader with an average capacity of 2,000 t.p.h. One quay for unloading coal, iron ore and similar equipped with two travelling cranes with a capacity of 600 t.p.h. At No. 7 Quay there is a 25 m. traverse ferry ramp equipped to accommodate Roll-on/Roll-off traffic.
Two Cavalletto cranes (rate 200 t.p.h. each) for the unloading of dry bulk materials at quay and for transhipment from large vessels to small vessels or barges.
STEVEDORES: Master of ship with general cargo has to inform Agent in advance number of gangs required.
MEDICAL: Necessary for Agents to receive advance notice of required medical attention, informing Agent if doctor should meet upon ship's arrival, if ambulance is required for transport to hospital and promptness required. No special vaccination/fever certificates necessary. Hospital at Nykoping, about 8 miles from Oxelosund.
TANKERS: One tanker berth, depth at quay 45 ft. Connection to load/discharge lines, diameter of 8 in. – 16 in. Almost all types of heavy fuel oils.
DENSITY: 1006 – 1016, 75% fresh water. No tides.
FRESH WATER: Available. Delivery through lines from quays at a rate of 10 t.p.h. Fresh water can also be delivered by tugs which have fresh-water tanks.
FUEL: Not available.
FIRE PRECAUTIONS: Watchman necessary when loading/discharging gasoline.
GANGWAY/DECK WATCHMEN: When ship berthed, reliable gangway must be arranged to quay. Tankers discharging/loading gasoline must have watchmen, arranged through ship's Agent.
OPENING/CLOSING HATCHES: Normally carried out by crew.
CERTIFICATES: Usual international certificates. In order not to delay despatch, important that following certificates are available and valid: Measurement, Life-boat, Radio and Derat (not older than 6 months).
CUSTOMS ALLOWANCES: (Tobacco), each crew member permitted out of bond about 200 grams tobacco and 5 packets of cigarette-paper. (Wine and/or Spirits), each crew member is permitted to have out of bond 1 bottle spirits or 2 bottles of wine, if he is over 20.

CARGO GEAR: International certificates necessary. No additional requirements.
IDENTIFICATION CARDS: Not needed.
CONSULS: None.
REPAIRS: Not possible.
DRY DOCKS: None.
SURVEYORS: Surveyors and cargo inspectors in Stockholm.
REPATRIATION: Crew changes can be effected and necessary repatriation arranged by Agent.
AIRPORT: Arlanda 40.4 miles outside Stockholm. Distance Oxelosund – Stockholm 92.8 miles. Total distance 133.2 miles. Served by regular airlines.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: General holidays on which no cargo work can be arranged: New Year's Day; Epiphany; Good Friday; Easter Monday; Labour Day; Ascension Day; Whit Monday; Midsummer Day; All Saints' Day; Christmas Day; Second Christmas Day; New Year's Eve; Whitsun Eve; Midsummer Eve; Christmas Eve.
POLICE/AMBULANCE/FIRE: Dial tel. 90 000 and ask for "Police-alarm", "Ambulance" or "Brandalarm" (Fire alarm).
EMERGENCY CO-ORDINATION CENTRE: Dial 90 000 (Alarm No.).
TELEPHONES: Arrangements for placing telephones on board exist at Berth Nos. 9.5, 10 and 11. Cost for connection is charged per day.
SERVICES: No tank-cleaning equipment. Facilities for discharge of tank-washings.
BANKS: Skandinaviska Enskilda Banken, Box 6, S-613 01 Oxelosund. Telex: Stockholm 19154 Essebs.
STORING: See "Prelims".

1. By truck alongside dock only.
3. Trucks must remain 3 m. away from vessel.
4. Yes.
5. Regulations for bonded stores only.
6. No.

SHORE LEAVE: No restrictions.
DELAYS: Normally no delays.
AUTHORITY: Port of Oxelosund, Box 1200, S-613 01 Oxelosund, Sweden. *Tel:* 0155-31940. *Telex:* 64025 Portox S. *Cables:* Portox. *Telefax:* 0155-34321. *Contact:* Harbour Master or Port Director.

PITEA (Haraholmen): 65.14 N. 21.38 E. (See Plan)

Pitea town closed to navigation.
DOCUMENTS:
2 Crew Lists.
2 Lists Spirits and cigarettes.
Manifests and Bills of Lading of incoming cargoes to be presented to Customs.
1 Derat Certificate.
PILOTAGE: Pilot to be taken at Gaasoeren-Skelleftea district. Must be ordered at least 5 hours prior arrival. All VHF Channels used – also onboard pilot-boats. (Also see "Stockholm").

Outward-bound vessels must order Pilot from Harbour Office during office hours.
ANCHORAGES: Accordance Pilot's advice.
MAX. SIZE: Entry through Pitsundet. Max. draft 22 ft. Traffic now directed to Haraholmen which is the port for Pitea. For information regarding passage and bridge opening apply to Harbour Office.

No tides. Also see "Berthing" and "Tankers".
HEALTH: No special restrictions. Diseases must be reported to Customs before entering port.
RADIO: Stockholm Radio, Harnosand Radio.
VHF/RADAR: Radar and VHF on all stations. Harbour Office, Channels 16, 9 and 13.
TUGS: Tugs available if ordered beforehand. Tugs compulsory for larger vessels.
BERTHING: Haraholmen: Length 600 m. plus Ro/Ro ramp, depth 12.5 m., max. draft 11.5 m. Quay is equipped with electricity, telephones, water and oil. Quay is very strong, capable of taking loads up to 250 tons.

Harbour is specially built for all year round traffic. 10 propeller engines are installed under the quay to keep water running and quay ice-free. Special lights are installed to assist in bad visibility.

Quay is equipped with 2 *"Asea"* cranes of 12.5 tons and 19.5 m. outreach.
BRIDGES: See "Max. Size".
STEVEDORES: Bottenvikens Stuveri AB – Pitea. Labour must be ordered latest at 1400 hrs. for morning start following day. Tariff available from Agents.
MEDICAL: All treatments available without notice.
TANKERS: Only one berth at Haraholmen. Max. size 70,000 d.w.t. Max. LOA 240 m. (approx.). Max. draft 37 ft. 10 in. FW. No further restrictions. 2 tugs compulsory for vessels over 15,000 d.w.t.
FRESH WATER: Available by pipe and lorries.
FUEL: All grades available.
GANGWAY/DECK WATCHMEN: Not necessary but available if ordered.
OPENING/CLOSING HATCHES: Normally done by ship's crew.
CUSTOMS ALLOWANCES: (Tobacco), 200 cigarettes/man per week. (Wine and Spirit), 1 bottle man/week. Only crew members over 18.
IDENTIFICATION CARDS: Not needed.
CONSULS: None.
REPAIRS: All types of repairs can be effected.
DRY DOCKS: None.
AIRPORT: Regular flights 9 times per day. Kallax Airport at Lulea. Distance 50 km. from port. 60 minute flight to Stockholm.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
POLICE/AMBULANCE/FIRE: Tel. 90000.
TELEPHONES: Facilities for placing on board available.
GENERAL: Masters to note the signals to be given before passing bridge at Pitsundet. Master must remember that Pilot must be taken at Gaasoeren-Skelleftea district. If Pilot on bridge all way from Skelleftea to Pitea, a distance fee is charged. Piloting from Nygraan Lighthouse (entrance Pitea) only normal fee.
DEVELOPMENTS: A chemical terminal has recently been completed, capacity 10,000 tons. Also see "Max. Size".
AUTHORITY: Hamnkontoret Pitea, Sjofartshuset, P.O.Box 716, S-94128 Pitea, Sweden. *Tel:* 0911-46013. *Telex:* 68307 Shipexp S. *Contact:* Anders Koster, Harbour Master.

RONNEBY: 56.10 N. 15.17 E. (See Plan)

DOCUMENTS:
2 Crew Lists.
2 Passenger Lists.
4 Customs Documents.
1 Health Document.
2 Manifests.
1 Bill of Lading.
PILOTAGE: Pilot is taken at Karlshamn or Aspo (Karlskrona) pilot stations. Tel: Karlshamn 0454/14102, Aspo 0455/29016. Ordered over Karlskrona Radio on 3289 kHz or by VHF on Channel 16. Pilot should be ordered 5 hours in advance. (Also see "Stockholm").
ANCHORAGE: Open roads.
MAX. SIZE: Limited by depth in fairway: 20 ft. 9 in.
RADIO: Karlskrona Radio, 2182 kHz.
VHF: VHF call sign Ronnebyhamn, Channel 16, 12, 13.
TUGS: None, when necessary such ordered from Karlshamn.
STEVEDORES: ETA given to ship's Agent sufficient.
MEDICAL: Medical attention required ordered by Agents.
TANKERS: Only small tankers with max. draft 20 ft. 6 in. 1×10 in. and 1×12 in. line. No facilities for residue discharge.
DENSITY: 1000. No tide.
FRESH WATER: From water post on quay.
FUEL: Diesel oil from tank-lorries.
OPENING/CLOSING HATCHES: Performed by crew.
CERTIFICATES:
Derat Certificate not over 6 months old.
Certificate of Nationality.
Certificate of Tonnage.
CUSTOMS ALLOWANCES: 200 cigarettes plus 1 bottle spirits.
IDENTIFICATION CARDS: Not needed.
CONSULS: Danish Consulate, Tel: 0457/14990.
REPAIRS: Minor repairs only.
DRY DOCK: None.
AIRPORT: About 6 miles from Ronneby Harbour; daily flights to Malmo, Stockholm, Visby and Copenhagen.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
POLICE/AMBULANCE/FIRE: Police 90000; Ambulance 90000; Fire 90000.
TELEPHONES: Telephone box on Quay.
AUTHORITY: Ronneby Harbour Board, Box 3160, S-37203 Ronneby, Sweden. *Tel:* 0457-18741. *Contact:* Sven O. Hall, Harbour Master.

SIKEA: 64.09 N. 20.59 E.

SHIPPING HAS CEASED AT THIS PORT.

SKELLEFTEHAMN: 64.41 N. 21.15 E. (See Plan)

DOCUMENTS:
2 copies of Crew Lists (3 copies at Ronnskarsverken).
1 List of Provisions.
Measure Bill.
Manifests and Bills of Lading.
PILOTAGE: Compulsory. Telegraphic address: "Pilot Station Skelleftehamn". Advance notice required, 5 hours. Contact pilot boat or pilot station on VHF Channel 16. Calling signal "Skelleftea Pilot" (pronounced – Shellefteo Pilot). Pilot motor boats usually orange. Pilot taken on board 2 miles East of Gasoren Lighthouse. (Also see "Stockholm".)
RESTRICTIONS: No tides or tidal current.
MAX. SIZE: Maximum permissible length of tanker 185 m. in accordance to dredged basin's length.
HEALTH: In case of disease or suspected disease, ship should call for medical assistance in accordance with Swedish rules.
RADIO: Stockholm Radio or Harnosand Radio. When in reach of VHF station of harbour office, at 0830 – 1200 hrs. and 1300 – 1700 hrs., or else through pilot station VHF. Call signals "Skelleftehamn Radio" or "Skelleftea Pilot Station".
RADAR/VHF: Radar service available when entering or leaving port. Contact Pilot station (Channel 16).

TUGS: Normally meet at passage of Gasoren Lighthouse. Ship's lines should be used. Tug of 3,000 h.p. also acts as local icebreaker.
BERTHING: No special requirements.
Kage: Depth in harbour at quay 23/20 ft.; length 609 ft.
Ronnskarsverken: Southern quay (jetty), depth 30.5 ft.; length 394 ft. Northern quay, depth 42/19.4 ft. and length 1,814 ft.
Skelleftehamn: North quay, depth 30/21 ft. and length of 1,300 ft. Oil Terminal, (jetty), depth 34 ft. and length 210 ft. with dredged basin of 656 ft. Siporex, quay depth 19.7 ft. and a length of 150 ft.
Bjuroklubb, length 230 ft., depth 17.5 ft.
STEVEDORES: No stipulated ETA regulations.
MEDICAL: Available at short notice. Government hospital in town.
TANKERS: *Municipal Berth:* One tanker berth. Max. d.w.t. 33,000. Max. draft 32 ft. Diameter of discharge lines 8 in. Flanges Din 2633.
Boliden AB: Max. LOA 200 m. Max. draft 11.0 m. Max. d.w.t. 50,000. Vessels berth port side to.
FRESH WATER: At oil terminal 25 t.p.h. Elsewhere 15 t.p.h.
FUEL: All usual grades available.
FIRE PRECAUTIONS: Standard.
GANGWAY/DECK WATCHMEN: Watchmen recommended.
OPENING/CLOSING HATCHES: Carried out by crew.
CERTIFICATES: See "Stockholm".
CUSTOMS ALLOWANCES: (Tobacco): 200 cigarettes. (Wine/Spirits), 1 bottle of wine and 1 bottle of spirits.
CARGO GEAR: No additional requirements.
IDENTIFICATION CARDS: Not needed.
CONSULS: Denmark, Finland, Netherlands and Norway.
REPAIRS: Minor repairs only. Patent slip, max. size 1,000 tons displacement.
REPATRIATION: Every kind of facility for effecting changes of crew.
AIRPORT: 18 km. Regular airlines, 5-7 flights a day to Stockholm.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: New Year's Day; Good Friday; 1st and 2nd Day of Easter; Ascension Day; 1st and 2nd Day of Whitsuntide; 1st May; Midsummer Day; and 1st and 2nd Day of Christmas. Cargo work cannot be arranged.
POLICE/AMBULANCE/FIRE: 38100, 31080; 90000; 58000.
TELEPHONES: Available for placing on board at the Northern quay in Skelleftehamn.
SERVICES: Small amounts of sludge can be taken ashore. Tug stationed in harbour.
DELAYS: In exceptionally bad weather.
GENERAL: All waste to be taken to special waste containers ashore.
AUTHORITY: Skelleftea Hamnforvaltning, S.a. Hamnplan, S-93200 Skelleftehamn. *Tel:* 0910-31006, 31069. *FAX:* 0910-34438. *Contact:* Stig Lundstrom, Port Director.

SKREDSVIK: 58.25 N. 11.30 E.

Oil harbour in the Lysekil area.
DOCUMENTS:
3 Crew Lists, on IMO Form.
1 Cargo Manifest.
1 Copy Bill(s) of Lading.
1 Stores List.
1 Personal Effects List.
Derat Certificate.
Tonnage Certificate.
Certificate of Registry.
PILOTAGE: Pilot station at Lysekil, Tel: 0523/60800. VHF Channel 16. Five hours' notice of ETA required. Pilot vessel is an orange-coloured motor launch fitted with radar and VHF. International signals. Pilot boards between Gaeven and Tovas Ungar, about 6 miles West of Lysekil.
ANCHORAGE: Gullmarsfiord, S.E. of Lysekil, depth about 60 m.
RESTRICTIONS: Draft not to be in excess of 40 ft. on passage from Pilot to Skredsvik.
MAX. SIZE: Length 180 m. – 190 m. draft 10.0 m. No limit on breadth.
TUGS: Have to be ordered either from Gothenburg or from Uddevalla.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle spirits or wine per person per week.
IDENTIFICATION CARDS: Not required.
POLICE/AMBULANCE/FIRE: Police Tel: 0522/14920, or 0524/10068 and 90000; Ambulance and Fire Tel: 0522/10013, or 0524/10550 and 90000.
EMERGENCY CO-ORDINATION CENTRE: (SOS Emergency) Dial 90000.
AIRPORT: Nearest at Gothenburg.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
SHORE LEAVE: No restrictions, but photography and smoking ashore is not permitted.
AUTHORITY: The Swedish National Board of Economic Defence – Skredsvik, 45195 Uddevalla, Sweden. *Tel:* 0524-20100. *Contact:* Hans Hansson, Port Engineer.

AGENT: Ferm & Olsson AB., Post Box 66, 45300 Lysekil. Tel: 0523/14060. Telex: 42080. Cables: "Fermson" Lysekil.

SLITE, Gotland Is.: 57.42 N. 18.50 E.

DOCUMENTS:
Crew Lists.
Customs Documents.
Health Documents.
Bills of Lading.
Measurement Bill.
National Certificate.
Valid Derat Certificate.
All compulsory (also see "Stockholm".)
PILOTAGE: Service centralised to main station at Visby. Service day and night. Tel: 0498/10138. 5 hours' notice required. VHF Channel 16 (also see "Stockholm").
ANCHORAGES: Sheltered anchorage on Inner Road with up to 8.4 m. depth of water.
RESTRICTIONS: No restrictions. Entrance possible day and night.
MAX. SIZE: Draft not to exceed 21 ft. 6 in. alongside for cargo vessels. The depth at the entrance has been increased to 8.4 m. Depth alongside remains at 7.2 m., except for vessels berthing at bulk cement berth where depth is 8.4 m.
HEALTH: Restrictions only if fever on board or vessel coming from a port where disease or fever in existence.
RADIO/VHF: Tingstade Radio Station, call sign SAE, VHF see "Pilotage".
TUGS: No tug available.
BERTHING: No restrictions if due notice to Port Authority given.
STEVEDORES: Notice to be given latest noon on day before arrival, order to make start next morning (unless special arrangements or agreements made).
MEDICAL: Attention by doctors-in-charge. Central hospital at Visby.
TANKERS: Pipe-line connection flange 8 in.
FRESH WATER: Available alongside quay.
FUEL: Practically all grades bunker oil available subject prior notice.
GANGWAY/DECK WATCHMEN: Not compulsory but available.
OPENING/CLOSING HATCHES: Ship's crew to open or close.
CUSTOMS ALLOWANCES: Presently 200 cigarettes per head/week. Practically no spirits allowed out of bond.
IDENTIFICATION CARDS: Seaman's Book or passport if travelling outside port area.
CONSULS: No consul representations at Slite. Consuls for Denmark, Finland, Norway, Germany F.R. at Visby.
REPAIRS: Only minor repairs possible.
DRY DOCKS: None.
REPATRIATION: Good possibilities for changing crew.
AIRPORT: About 40 km. to Visby Airport.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
POLICE/AMBULANCE/FIRE: Tel: 90 000 (Ambulance, Fire Brigade, Doctor, Police, Sea Rescue, Dentist, etc.).
SERVICES: No services for tank-cleaning, tank washing, or compass adjusting.
STORING: See "Prelims".
1. Yes.
2. Vessels can store during loading and discharging.
3. Yes.
4. Yes.
5. Duty free goods can be obtained in Visby.
6. Yes.
SHORE LEAVE: Permitted.
AUTHORITY: Cementa AB, Storgat 116, 62030 Slite, Sweden. *Tel:* (0498) 20500. *Telex:* 4136. *Cables:* Cementa Slite. *Contact:* Walter Laakso, Harbour Master.

AGENT: Atktiebolaget Rob. Myrsten, 620 30 Slite, Telex 4137 – A/S Myrsten. Cables: "Myrsten – Slite". Tel. (0498) 22070. After hours (0498) 20102/20021/25565.

SODERHAMN: (includes Stugsund, Langror oilberth, Sandarne factory berth and Orrskar woodchip berth.) 61.18 N. 17.05 E. (See Plan)

DOCUMENTS:
3 Crew Lists.
3 Bills of Lading.
3 Manifests.
2 Tobacco Lists.
2 Stores Lists.
Tonnage Certificate.
Certificate of Nationality.
Ship's Register.
PILOTAGE: Pilot must have 5 hours' notice. Telegraphic address "Soderhamn Pilot Station", Ljusne. VHF Channel 16 for calling pilot boat and pilot station and 13. Pilot boat is orange. International signals to be used. Vessels can normally receive Pilot between Hallgrund and Storjungfrun. In case of bad weather or ice, Master consults Pilot for advice (also see "Stockholm").
ANCHORAGES: Lilljungfru Anchorage S.W. Lilljungfrun, where depths are 15 m. – 20 m., is W. or S.W. of Norrutharet. Branthalls Anchorage W. Branthall Island, depths 10 m. – 15 m.
HEALTH: No special action except for suspected disease. In case of disease contact Agent for information.
RADIO: Stockholm Radio when vessels come from South and Harnosand Radio from North. Within reach Master may call Soderhamn Port Radio. Tug station is Stugsund. Tug fitted VHF, Channels 16, 13, 12.

There is a radar station at Soderhamn. Pilot station, Ljusne, and some of the pilot boats are fitted with radar.

MAX. SIZE: Langror Oil Berth. Breadth of entrance fairway 55 m. – 60 m. and depth 8.3 m. at mean level (M.L.). Depth according to M.L. of 1987. Max. ship length about 170 m. at the quay.
Orrskar: Woodchip Terminal, breadth of entrance fairway 110 m., depth 12.8 m. M.L. New quay for general cargo, depth 10.45 m. M.L.
Sandarne: Breadth 30 m., depth 7.0 m. M.L. BREADTH 55 m. – 60 m. in unlit fairway.
Stugsund: Breadth 30 m., depth 6.0 m. M.L.
Soderhamn: Breadth 10 m. – 15 m., depth 3.5 m. M.L.

Depth varies about 1 ft. below and 1 ft. above M.L. Breadth given at narrowest point in fairway.

TUGS: Normally meet large vessels at Otterhallans Lighthouse and others off quays on request. Ship's lines to be used.
BERTHING: Boatmen can be ordered by Pilots or Agents. Large ships berth oil berth only in daylight because channel not lit.
STEVEDORES: Gangs to be ordered by Agent usually at 1500 hrs. for starting next morning at 0700 hrs.
CRANES: One electric crane to lift 10 tons in Stugsund. In other berths mobile cranes can be hired.
MEDICAL: Medical attendant available day and night.
TANKERS: 6 in. or 8 in. connections. Only 1 berth and max. depth at quay 8.3 m.
DENSITY: Practically fresh water.
FRESH WATER: Available in all ports. Delivered through pipe-lines on wharf. Rate: 10 t.p.h.
FUEL: Any normally used grade on request to oil company with few hours' notice.
GANGWAY/DECK WATCHMEN: Watchmen available.
OPENING/CLOSING HATCHES: Normally carried out by crew.
SHIP'S CERTIFICATES: Traffic permission (not necessary for ports within the Custom District boundaries), Nationality and Reg. Certificate (or interim Nationality Certificate), Bill of Measurement, Swedish Sailor's Roll (only Swedish ships), Foreign Nationals Crew Passports, Derat Certificate (6 month), Certificate of Health.
CUSTOMS ALLOWANCES: (Tobacco), out of bond, 200 cigarettes or 250 gm. tobacco. (Wine/Spirits), out of bond, 1 bottle of spirits and wine, maximum 1 litre or 2 bottles of wine.
CARGO GEAR: Valid cargo gear certificates.
IDENTIFICATION CARDS: Not needed.
CONSULS: Danish, French and Dutch.
REPAIRS: Minor plate-work and welding can be carried out.
SURVEYORS: A Commonwealth Surveyor is appointed at the Port.
REPATRIATION: Facilities exist for effecting crew changes.
AIRPORT: Nearest international airport Stockholm.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: No work on official holidays, but may be possible on special request. New Year's Day (1st January); Twelfth Day (6th January); Good Friday; Easter Sunday and Easter Monday; 1st May; Whit Sunday and Whit Monday; Midsummer Day; All Saints' Day; 25th December and 26th December; New Year's Eve; Easter Eve; Whitsun Eve; Midsummer Eve; Christmas Eve.
POLICE/AMBULANCE/FIRE: Police 90000 or 0270/10020; Ambulance 90000; and Fire 90000 or 0270/75455.
TELEPHONES: In Sandarne, quay telephones can be placed on board. 2 telephones. Telephone can be placed on board at Orrskar Quay.
EMERGENCY CO-ORDINATION CENTRE: Harnosand Radio, Tel: 0611/20520.
SERVICES: Facilities for discharge of tank-washings max. 20 tons. Tank-cleaning and facilities for discharge of tank-washings of great extent are Stockholm and Sundsvall. Compass adjusting in Stugsund Berth.
BANKS: Skandinaviska Enskilda Banken, Box 4, Kopmangatan 1, 826 00 Soderhamn.
STORING: See "Prelims".

1. Yes.
2. Yes.
3. Yes.
4. Yes.
5. Only bonded stores.
6. Stevedores, on request.

REGULATIONS: Port regulations available from Agent or Port Office.
DELAYS: Fog, ice and bad weather may delay berthing. Rain and snow can delay loading and discharging of dry cargo.
GENERAL: There is a VHF port radio at the Port Office, Soderhamn. Working time 0730 – 1630 hrs. Channel 16 for call and Channel 12 for working. During the ice-breaking season the tug may be out even at night. Tug has same channels. Soderhamn Customs District includes all berths mentioned above.
AUTHORITY: Soderhamns Hamn, S:a. Hamngatan, S-82600 Soderhamn, Sweden. *Tel:* 0270-14828, 70080, 70180. *Contact:* Ragnolf Eriksson, General Manager.

SODERTALJE: 59.12 N. 17.38 E. (See Plan)

PORT LIMITS: Approximately 2 nautical miles from entrance.
DOCUMENTS:

Crew List.
Cargo Manifest.
List of Ports of Call.

PILOTAGE: Pilot to be ordered at least 5 hours before arrival at Landsort Pilot Station on VHF Channel 13. Distance from Landsort to Sodertalje is 34 nautical miles.

Pilotage compulsory for all vessels carrying petroleum, gas and chemicals.

ANCHORAGES: Pilots direct vessels to suitable anchorages.
RESTRICTIONS: Cables over fairway with vertical clearance of 42 m. at MLW.
MAX. SIZE:

	Length	*Beam*	*Draft*
Uthamnen (Outer Harbour)	200 m.	32 m.	8 m.
Sydhamnen (South Harbour)	200 m.	32 m.	9 m.
Igelstahamnen (Igelsta Harbour)	200 m.	32 m.	9 m.
Oljehamnen (Oil Harbour)	200 m.	32 m.	9 m.

HEALTH: Derat Certificate required.
RADIO: Stockholm Radio.
VHF: Channel 13 calling "Pilot Sodertalje" or "Malarbron" for ordering of boatmen 1 hour before arrival.
RADAR: No port radar service.
TUGS: Available through local Agents for vessels over 10,000 d.w.t.
BERTHING: *Sydhamnen:*

Ro/Ro Berth No. 9, length 70 m., depth 6.4 m. MW.
Ro/Ro Berth No. 10, length 130 m., depth 7.9 m. MW.
Ro/Ro Berth No. 11, length 130 m., depth 7.9 m. MW.
Ro/Ro Berth No. 12, length 160 m., depth 9.8 m. MW.

Oljehamnen: Jetty No. 6, depth 10.1 m. Jetty No. 7/8, depth 6.9 m.
Uthamnen: Lo/Lo berth (general cargo), length 300 m., depth 5.9 m.–8 m. Silo Quay, length 155 m., depth 8.4 m.
Igelstahamnen: Coal and oil discharge berth, length 150 m., depth 10.5 m. Coal discharged using shore equipment.
CRANES: *Uthamnen:* 4 cranes up to 10 tons each, 1 crane for heavy lifts up to 25 tons.
Sydhamnen: Mobile cranes up to 36 tons, forklifts up to 42 tons.
Igelstahamnen: Shore equipment for coal discharge.
BULK HANDLING FACILITIES:
Uthamnen: Salt in bulk, fertiliser and coal.
Siloquay: Grain loading.
Igelstahamnen: Coal discharge, oil discharge.
Oljehamnen: Oil petroleum products and liquid chemicals.
SPECIALISED CARGO HANDLING FACILITIES: 24,000 sq.m. for cold and warm storage available.
STEVEDORES: Working hours: 0700 – 1230 hrs., 1300 – 1600 hrs. on weekdays. Maximum 3 hours' overtime can be worked. Stevedores can be ordered by telephoning 0755-61040/62210 or by telex No. 10273 Sodstuv.
TANKERS: See "Berthing".
FRESH WATER: Available at all berths.
FUEL: Available at all berths.
REPAIRS: Can be undertaken at all berths.
DRY DOCKS: Nearest at Stockholm.
GANGWAY/DECK WATCHMEN: Available.
HATCHES: Opening/closing carried out by stevedores.
AIRPORT: Nearest at Stockholm, 60 km. distant.
TIME: GMT plus 1 hour. Summertime GMT plus 2 hours.
HOLIDAYS: Cargo work can be carried out by special agreement on holidays.
POLICE/AMBULANCE/FIRE: Dial 90000 and request necessary service.
TELEPHONES: Can be placed on board vessels.
SHORE LEAVE: Permitted.
BANKS: Only Swedish banks are represented.
STORING: See "Prelims".

1. By truck.
2. Vessels can store while loading/discharging.
4. Forklifts available.
6. Yes.

SURVEYORS: Cargo surveyors are available from Stockholm.
AUTHORITY: Port of Sodertalje, Box 2016, S – 15102 Sodertalje. *Tel:* 0755/21430, 61040. *Telex:* 10273 Sodstuv. *Contact:* Michael Samsioe, General Manager.

SOLVESBORG: 56.03 N. 14.35 E. (See Plan)

DOCUMENTS: See "Stockholm".
PILOTAGE: Pilot station at Ahus, Tel: 044/240027, needs 5 hours notice. Pilot Station (Karlshamn): Tel: 0454-14102. Pilot station and pilot boat can be ordered by VHF Channel 16, working on Channel 13. Harbour office in Solvesborg can be called on same frequency. (Also see "Stockholm".)
ANCHORAGES: Roadstead to South of harbour 25 ft. deep with good holding ground.
MAX. SIZE: Depth in outer harbour 8.2 m. (27 ft.) and in inner harbour 7.5 m. (25 ft.) Recommended for ships to have 1 ft. 6 in. of water under keel. Max. length 170 m. (558 ft.). Breadth 30 m. (98 ft.). Draft 7.7 m. (25 ft.) for vessel entering harbour. Largest ships to enter harbour were 26,000 tons oil tanker with load of 16,000 tons and 30,000 ton dry cargo ship loading 5,000 tons of pulp.
HEALTH: See "Stockholm".
Animals: Private dogs and cats etc., not allowed ashore without quarantine.
RADIO: Stockholm Radio and Gothenburg Radio.
VHF: Harbour Office can be reached by VHF, Channel 16. Working frequency Channel 14.

Tug "Hafnia" – Channels 6, 13, 14 and 16.
Workboat "Portia" – Channels 6, 13 and 16.

TUGS: 1 tug available, 1 × 665 h.p. (ice-breaking).

BERTHING:

Location	Length (m.)	Depth (m.)	No. of cranes (max. load) tons
Inner Harbour:			
Western Quay, Southern Section	225	7.5	1 (5)
Western Quay, Northern Section	129	6.5	1 (6)
Northern Quay	85	5.0	Mobile (20)
Blekinge Quay	53	4.0	—
Other Quays	190	3.0	Mobile (18)
Outer Harbour:			
Ro-Ro ramp	20	6.0	—
Side-deck at the Ro-Ro ramp	45	6.0	Mobile (35)
Outer Harbour Quay	200	8.2	1 (26)
Oil Jetty	25 + Dolphins	8.2	—
(The Ro-Ro berth, quay and oil landing-stage are situated on a 500 m. line).			
Private Harbours:			
Quay	165	6.0	1 (15)
New Quay	115	6.0	1 (15)

Within the port area a total of 25 straddle, fork and clamptrucks, as well as 2 front loaders, the biggest fork truck having a lifting capacity of 25 tons.

A storage space of 17,000 sq.m. inside warehouses, and an open air space of 140,000 sq.m.

STEVEDORES: Require notice before 1500 hrs. if loading/discharging shall start at 0730 hrs. following morning, or notice before 1000 hrs. if loading/discharging shall start 1300 hrs. the same day.

Stevedoring Company: Solvesborg Stuveri AB. Tel: 10119,12295.

TANKERS: 3 Shore-lines for oil products from oil jetty to depots.

1. 250 mm. for Bunker C (2nd fuel).
2. 200 mm. for paraffin oil.
3. 200 mm. for petrol. For discharge coasters use ship's equipment.

Larger ships discharging Bunker C oil use harbour's 8 in. rubber hose.

FRESH WATER: Available.

FUEL: Ordered from oil companies by ship's Agents.

GANGWAY/DECK WATCHMEN: Watchmen normally not needed. Can be ordered by ship's Agents.

OPENING/CLOSING HATCHES: Normally opened/closed by crew.

SHIP CERTIFICATES: See "Stockholm".

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes/week per head. Wine/spirit: normally 1 litre/week.

Customs House, Tel: 12000.

IDENTIFICATION CARDS: Not needed.

CONSULS: Royal Danish Vice-Consulate. Railway Station Building. Tel: 0456/10115.

Royal Norwegian Vice-Consulate, Stortorget 10, Box 115, S-29401 Solvesborg. Tel: 0456-150 20.

REPAIRS: Carried out by local workshops.

DRY DOCKS: None.

REPATRIATION: Possible.

AIRPORT: 50 km. to Kristianstad Airport and 60 km. to Ronneby Airport. Served by regular inland airlines.

TIME: Local time is GMT plus 1 hour. Summertime GMT plus 2 hours.

HOLIDAYS: See "Stockholm".

POLICE/AMBULANCE/FIRE: Dial 90 000 and ask for Police, Ambulance or Fire Department.

TELEPHONES: Telephones available in Agent's offices at quay and telephone boxes.

DELAYS: Normally no delays.

AUTHORITY: Solvesborgs Hamn, Box 49, S-294 01 Solvesborg, Sweden. *Tel:* 0456-13600 or 10072. *Contact:* Sven Holmer, Harbour Master.

STENUNGSUND: 58.04 N. 11.49 E. (See Plan)

LOCATION: Stenungsund is located on the East side of Askero Fjorden about 23 miles North of Gothenburg. There are 2 terminals.

1. The Powerboard Terminal.
2. The Statoil Havden Terminal.

Both are located about 20 miles from the Hatteberget Light Tower (Lat. 57° 52′ N., Long. 11° 28′ E.) and are reached via Marstrands Fjorden and Hake Fjorden.

DOCUMENTS:

3 Crew Lists.
2 Passenger Lists.
1 Tobacco and/or Stores List.
1 Manifest.
1 List of Animals on Board (if any).
Access to the usual ship's papers (measurement, register, certificate, etc.).
If away from Sweden more than 15 days: Bill of Health.

PILOTAGE: The pilot boat is steel hulled, painted orange, and it will meet ships based on ETA and VHF contact. The Pilot boards at Hatteberget Light Tower. Pilots will not handle large vessels during darkness. Those ships must anchor and await daylight. ETA advice to Pilot to be sent to "Lotsarna Marstrand" via Goteborg Radio at least 5 hours before arrival giving ship's name, flag, draft, ETA pilot station and destination.

APPROACHES: When approaching from the West, ships must keep North of the area dangerous due to mines extending to Lat. 57° 47′ N., Long. 11° 03′ E.

Currents in this area are unpredictable and are much influenced by the wind. Ships have reported experiencing a change in direction of current on approaching the Hatteberget Light Tower, for example, South-going outside Hatteberget, North-going inside Hatteberget. Currents of 1 to 3 knots have been experienced.

Seabuoy-Berth: For larger ships bound for Stenungsund the recommended track is Algo Fjorden shown on charts as passing between N. Meholm and S. Meholm is not always followed by Pilots, some preferring to pass South of the Hunden Shoal and S. Meholm. Great caution is needed in taking this Southerly route as there are unmarked dangers. During darkness or in poor visibility the Pilot's intentions should be fully discussed before entering Algo Fjorden.

The channel between Bratton, Kallon and Almon Islands at the North end of Hake Fjord and under the Tjornbron (bridge) between Kallon and Almon is in the form of an "S" bend and vision is obstructed. Traffic may be suddenly met with little warning, particularly as some ships do not carry Pilots, and there is no speed limit. Engines should be on standby, anchors ready and manned in this area.

ANCHORAGES: While awaiting berth vessels anchor outside harbour N.W. of Powerboard Jetty. Safe anchorages everywhere, but fairway South of Galteron Lighthouse has to be avoided.

RESTRICTIONS: Navigation of ships drawing more than 9.2 m. (30 ft.). is not practised inwards of Algo Fjorden during darkness.

MAX. SIZE: *Powerboard Jetty:* Max. draft North side 12.30 m., South side 10.50 m.

Statoil Havden: Max. d.w.t. 36,000. Max. LOA 210 m. Max. draft 10.4 m. (34 ft.). Distance bow to manifold 99.0 m.

HEALTH: No special Pratique necessary. If any disease or fever suspected on board, doctor must be called on arrival. Pratique automatically granted when entering from another port in Sweden.

RADIO: Gothenburg radio.

VHF: Pilot on Channel 16. Working on Channel 6.

TUGS: At present no tugs are stationed in Stenungsund but have to be ordered from Gothenburg at least 2 hours' steaming away.

Tugs are diesel driven, single screw, single rudder. Tugs are made fast after passing Vinterholmen at the North end of Hake Fjord and before passing through the narrows under the bridge. Tugs tow on the hook using ship's ropes. The larger tugs use two ship's ropes out of the same lead and care must be taken to equalise the load on the two lines before full load is taken.

The Pilot carries his own VHF set (having Channels 16, 13 and 12) and uses this to communicate with the tugs.

50,000 d.w.t. tankers use 3 tugs, 1 large tug forward, 1 large and 1 smaller tug aft.

MEDICAL: Doctors and dentists available at short notice. Hospitals situated at Uddevalla and Kungalv, ambulances at Stenungsund.

TANKERS: The Powerboard Terminal:

General: The Powerboard Jetty is a finger pier aligned East/West located on the East side of the Askero Fjord about 1 nautical mile North of the town of Stenungsund (Lat. 58° 05.3′ N., Long. 11° 49.2′ E.). It is shown on B.A. Chart 890. It is used for the import of fuel oil for the power station located 0.5 miles away and for the import of products, solvents and LPG for oil companies.

Cautionary Advice: Currents in Askero Fjorden are unpredictable both in speed and direction but generally run across the direction of the finger pier. The fendering of the outer corners of the pier is of low energy absorption characteristics and heavy landings must be avoided. Anchors should be manned and ready for letting go.

Berthing Procedures: On proceeding up Askero Fjorden past Havden the ship is swung to starboard with the assistance of tugs and lined up for the pier. Anchors are sometimes used to help steady the bow on the correct heading, and as assistance in bringing the ship up.

Ocean-going ships berth on the North side of the pier and are, therefore, starboard side to berth. When in position, most ships' sterns protrude beyond the end of the pier by as much as one-third of their length, therefore, maximum attention must be paid to the stern moorings. Because moorings placed on the buoy on the starboard quarter or on the bollards on the South shore prevent ships from using the South side of the pier the terminal will not, as a rule, put moorings to these points. However, in periods of unsettled weather, particularly if winds are from the S.W., Masters of the larger ships should insist on stern moorings being sent to the buoy and South shore. It should be borne in mind that tugs are not readily available at Stenungsund. Moorings are taken ashore initially by boat and then by heaving line. The forward spring line is usually first line ashore. No shore moorings are provided.

Gangway: Ship's gangway is used, there is ample room on the jetty to land the gangway abaft the manifold. Note that when ship is light the normal ship's gangway will become very steep (over 50°) and special safety precautions to prevent accidents to personnel will be necessary.

Fendering: The concrete strong points of the pier are protected by tubular rubber 600 mm. diameter erected horizontally. The concrete outer corners are well protected with low friction fenders.

Cargo Connections and Handling: HFO, Heating Oil, Naphtha and Mogas are handled. Ullages and temperatures are taken jointly with shore representative upon arrival alongside.

Starboard manifold should be prepared for 10 in. hoses, 2 or 3 flexible hoses with 10 in. ASA bolted flanges are usually connected. Starboard derrick and a 4 ton shore crane are used for hose connection.

Concurrent loading and discharging are not allowed. Maximum back pressure is 10 kg./sq.cm.

Naphtha receiving capacity is maximum 3,000 cu.m.p.h. Normal discharge rate is about 1,800 cu.m.p.h.

Deballasting Facilities: The terminal has limited high flash ballast reception facilities, about 2,400 cu.m. Discharge rate is about 500 cu.m.p.h.

Clean oil-free ballast may be discharged overboard but it is the ship's responsibility to ensure that the ballast water is oil-free and very heavy penalties are imposed for oil pollution.

Passing Traffic, Weather, Tide, etc.: There are no unusual problems except for strong S.W. winds when it is important that breast moorings are run to the starboard quarter buoy and to the South shore.

Special Regulations: No small craft are allowed alongside ship while at jetty.

Oil Pollution Safeguards: Floating oil booms – partly fixed and partly portable are available to surround the ship and jetty. Mechanical suction equipment is available.

Fire Fighting Equipment: Remote-controlled foam-guns and water monitors are available at the berth.

Fresh Water: Good quality fresh water is available ex-jetty by hose, rate 25 t.p.h.

Additional Information: The berth on the South side of the Powerboard finger pier also handles HFO, heating oil, naphtha and mogas but is mainly used for loading/discharging LPG.

Statoil Terminal, Havden: *General:* Statoil's Havden terminal berth is located on the North side of the Havden peninsula on the East side of Askero Fjorden (Lat. 58° 05′ N., Long. 11° 48.5′ E.). It is a marginal type berth with a breasting face about 60 m. long. It is used for the discharge of naphtha and LPG.

Cautionary Advice: See "Powerboard Terminal".

Telegraph cables (shown on the chart) run out from the shore close Northwards of the berth and anchors should not be used. In addition, the dredged area tapers quite sharply towards the East end of the berth and use of an anchor could result in the ship "sitting" on the anchor or its cable.

Berthing Procedures: On arriving off Havden the ship is swung to starboard with the assistance of tugs and steamed slowly to the berth. Ships always berth starboard side to berth. Moorings are taken ashore by motor boat, the forward spring is usually the first line ashore. The stern of the ship is not well sheltered from the prevailing S.W. winds and special attention must be paid to putting out good stern moorings. It must be remembered that tugs are not readily available in Stenungsund. No shore moorings are provided.

Gangway: Ship's gangway used, ample room on the jetty to land the gangway aft of the cargo manifold. Note that, when ship is light, the normal ship's gangway will become very steep (over 50°) and special precautions to prevent accidents to personnel will be necessary.

Fendering: Each of the 3 concrete strong points is fendered by truck tyres around a rubber core slung horizontally. Care should be taken not to land initially between the strong points.

Cargo Connection and Handling: Only naphtha and LPG are handled at this berth. No bunkers can be provided. 2×10 in. fully counterbalanced hard arms of Chiksan manufacture are provided. Each has 10 in. ASA bolted flanges.

Ullages and temperatures are taken together with shore representative upon arrival alongside.

Starboard manifold should be prepared to accept 2×10 in. hard arms. If ship's manifold has large overhang outside the support, this should be jacked up before connection of arms. Stays, derricks, etc., in vicinity of starboard manifold should be removed. There are no facilities for receipt of dirty ballast at the terminal.

Oil Pollution Safeguards: Floating oil booms, partly fixed, partly portable are available to surround ship and jetty. Mechanical suction equipment is available.

Fire Fighting Equipment: The jetty is equipped with a fire water and a foam line and portable monitors.

Fresh Water: Good quality fresh water is available ex-jetty by hose, rate 25 t.p.h.

FUEL: Only available by barge from other places (i.e. Gothenburg). Bunkering only during daylight. Can be ordered at short notice.

FIRE PRECAUTIONS: Normal precautions.

GANGWAY/DECK WATCHMEN: Watchmen from ashore necessary when telephone connected.

CUSTOMS ALLOWANCES: 200 cigarettes. 1 bottle of spirits.

IDENTIFICATION CARDS: The gate at the Powerboard Terminal is TV-guarded. Each crew member must carry a Passing Permission allowing passage through the gate. Required number of permissions will be handed over to the Master by the Agent on ship's arrival. Passing Permission at Statoil Terminal, Havden, is not required.

CONSULS: At Gothenburg.

REPAIRS: Minor repairs can be made locally, large repairs by labour from Gothenburg shipyards. Gas-freeing alongside with Port Captain's approval only. Repairs alongside with Port Captain's approval only.

SURVEYORS: D & D Marine Consult, Upplandsgatan 25, 11360 Stockholm. Tel: 08-34 1590.

REPATRIATION: All facilities exist.

AIRPORT: Gothenburg 50 km. away. Regular airlines.

TIME: GMT plus 1 hour.

HOLIDAYS: Tankers load and discharge all year round.

TELEPHONES: Connected on board if required. Watchmen attend calls. Fireman and alarm on jetty during whole operation.

SHORE LEAVE: Permitted. Distance to Stenungsund 1 km., Uddevalla 40 km. or Gothenburg 50 km. by bus, train or taxi. Shore passes issued at the gate.

AUTHORITY: Vattenfall, Box 79, S-44401, S–44421 Stenungsund, Sweden. *Tel:* 46-303-70670. *Telex:* 2408 Svvstd S. *FAX:* 46–303–70841. *Cables:* Kraftverket. *Contact:* Bengt Jonsson, Harbour Master.

STOCKHOLM: 59.19 N. 18.03 E. (See Plan)

DOCUMENTS:

(a) Crew List: Normally 2 copies; for oil harbour at Loudden and Free Port, 3 copies.

(b) Passenger List: Regular passenger services 2 copies; cruise ships (lists for cruise ships must be sent in advance to Agent for forwarding to Immigration Authorities), 2 copies.

(c) Customs Documents: Arrival report (form can be obtained on arrival), 4 copies. Crew Effects Declaration, 2 copies. Ship's Stores Declaration, 2 copies.

(d) Quarantine Certificate or Bill of Health: Derat Certificate not more than 6 months old to be shown. *Note:* Additional quarantine regulations may be imposed in special circumstances.

(e) Manifest: 3 copies.

(f) Bills of Lading: 1 copy of each. Liners may be subject to other regulations with regard to *(e)* and *(f)* above.

(g) Ship's Documents: Tonnage Certificate. Certificate of Nationality.

PILOTAGE: *(Sweden General).* Applications for licensed Pilots should be made at least 5 hours before pilotage is due to commence. When making application specify name of vessel, tonnage, draft and destination. Also give estimated time for taking Pilot on board and route. If this procedure not followed, the Maritime Service cannot guarantee to supply a Pilot without considerable delay to vessel.

Preferable make application by telephone, or by radio via a coastal station or by some other method direct to pilot station nearest point where pilotage is to begin. Also possible request Pilot by VHF telephone to any Maritime Service Pilot Station, Pilot waiting point or lighthouse which is equipped with VHF.

The Maritime Service's network of permanent VHF telephone stations has been extended to give almost complete coverage of all pilot stations and waiting points and is also operative for a number of lighthouses. The radio stations can operate on different Channels and are equipped for frequency modulation. During hours when pilot stations are open, a constant watch is kept on frequency 156.80 MHz (Channel 16). This frequency should be used for all signals and replies – and for distress traffic. Outside these hours, normal traffic transmissions, i.e. applications for Pilots, etc. should be made on frequency of 156.65 MHz (Channel 13) or on reserve operating frequency of 156.60 MHz (Channel 12).

When making VHF telephone call, the type of call signal that should be sent is "Lotsarna (or pilot station) plus the name of the pilot station or the pilotage attendance".

	Arholma	*Sandhamn*	*Landsort*
Cable address	Furusund Pilot Station	Stockholm Pilot Station	Nynashamn Pilot Station
Notice of arrival	5 hours	5 hours	5 hours
VHF Channels	6, 12, 13, 16	6, 12, 13, 16	6, 12, 13, 16
Description of pilot boat	Pilot boat on day duty flies international flag "H". Pilot boat on night duty carries lights conforming to International Regulations for Preventing Collisions at Sea, Rule No. 29.		
	33 ft. steel cutter painted red-orange	33 ft. steel cutter painted red-orange	40 ft. steel cutter painted red-orange
Calling Pilot:			
During daylight	Flag G	Flag G	Flag G
At night	International PT with morse lamp	International PT with morse lamp	International PT with morse lamp
Audible signal in reduced visibility	International PT with siren	International PT with siren	International PT with siren
	Pilot may be called by radio or VHF.		
Boarding point	At Bjorko outside outer Skerries, 2 – 3 n.m. N.W. or E. of Simpnasklubb	2 n.m. S.E. of Revengegrund Light	2.5 n.m. S. of Oja
Anchorage for vessels awaiting Pilot	Near position stated above	Near position stated above	Near position stated above

ANCHORAGES:

	Arholma	*Sandhamn*	*Landsort*
(a) Prohibited anchorage	59° 30′ N. 19° 05′ E. 59° 45′ N. 19° 14′ E.	59° 17′ N. 18° 54′ E.	
(b) Suitable anchorages	2 – 4 n.m. N.N.W. of Simpnasklubb	2 – 4 n.m. E. and S. of Revengegrund	6 – 8 n.m. S.S.E. of Landsort
(c) Depth	33 – 38 fathoms	11 – 22 fathoms	11 – 16 fathoms

RESTRICTIONS: Very large passenger vessels and fully-loaded tankers of approx. 15,000 d.w.t. or over not allowed pass through Skerries during darkness.

Ships with gross tonnage exceeding 400 tons must proceed only on an Easterly course in Lindalssundet. Ships with gross tonnage exceeding 400 tons must not proceed through Kodjupet and Sandhamnssundet (between Sandon and Korso).

Tankers with gross tonnage exceeding 22,000 tons must be accompanied by a tug through the Archipelago to Stockholm and nearby ports.

Ships with a gross tonnage exceeding 400 tons, not using a Pilot, must be equipped with VHF telephone which must be continuously watched on Channel 16 and 9.

A vessel reporting system has been established covering the entrances to the Port of Stockholm. Vessels over 300 g.r.t. report to Stockholm Pilot Station ("Lotsarna Stockholm") when passing way points. Reports to be given by VHF Channel 9.

Tankships with gross tonnage exceeding 800 tons carrying crude oil products, mineral oil and certain chemicals must have licensed Pilot in the passages Arholma-Stockholm; Soderarm-Stockholm; Sandhamn-Stockholm; Landsort-Stockholm; Landsort-Nynashamn; Landsort-Sodertalje and in the Lake of Malaren.

MAX. SIZE:

Max. Dimensions Passenger – or Dry Cargo Ships

DAYLIGHT

	LOA (m.)	*Beam (m.)*	*g.r.t.*	*Draft (m.)*
Sandhamn	245.0	35.0	43,000	11.0
Dalaro/Langgarn	185.0	26.0	18,000	10.0
Furusund/Soderarm	185.0	26.0	18,000	7.0
Gustavsberg	60.0	9.5	—	4.2

Ships larger than 30,000 g.r.t. or longer than 215 m. to be assisted by 2 Pilots and to have assistance of tugs through the Archipelago.

DARKNESS

	LOA (m.)	*Beam (m.)*	*g.r.t.*	*Draft (m.)*
Sandhamn	185.0	26.0	18,000	9.0
Dalaro/Langgarn	175.0	23.0	13,000	9.0
Simpnas				
Furusund/Soderarm	175.0	23.0	13,000	7.0

Max. Dimensions Tankers

DAYLIGHT AND VISIBILITY EXCEEDING 1 NAUTICAL MILE

	LOA (m.)	*Beam (m.)*	*d.w.t.*	*Draft (m.)*
Sandhamn	200.0	32.0	35,000	11.0
Dalaro/Langgarn	175.0	23.0	15,000	10.0
Simpnas				
Furusund/Soderarm	175.0	23.0	15,000	7.0

Ships exceeding 22,000 g.r.t. to have 2 Pilots onboard and to be assisted by powerful tugboat through the Archipelago. Ships of this size are normally not handled in winds stronger than 15 m./s.

DARKNESS OR POOR VISIBILITY (LESS THAN 1 NAUTICAL MILE)

	LOA (m.)	*Beam (m.)*	*d.w.t.*	*Draft (m.)*
Sandhamn	175.0	23.0	15,000	9.0
Dalaro/Langgarn	145.0	19.0	10,000 (13,000 double bottom)	9.0
Simpnas				
Furusund/Soderarm	145.0	19.0	10,000 (13,000 double bottom)	7.0

Tankers:

Tanker Discharge Quay	*Max. safe draft*	*Available Quay length*
Bergs Oil Harbour	12.4 m.	230 m.
Flaxenvik	10.3 m.	225 m.
Gashaga	9.8 m. – 10.3 m.	200 m.
Kvarnholmen	9.4 m. – 10.8 m.	183 m. – 230 m.
Loudden	8.1 m. – 11.3 m.	190 m. – 230 m.
Rasta	10.9 m.	213 m.
Vartan	7.4 m. – 10.3 m.	190 m. – 230 m.

BERTHING: Services of boatmen available any time day or night. Boatmen are ordered from Stockholm Port Authority. Tel: 08/6635500 or by VHF Channel 12.

See Table below.

Principal Quays and harbours	Berth Numbers	Length of quay (m.)	Depth of water at mean water 4 m. from quay* (m.)	Quay cranes** No.	Quay cranes** Lifting capacity (tons)	Warehouses, sheds, etc. No.	Warehouses, sheds, etc. Kind	Notes
On Baltic								
Stadsgardshamnen	151 – 167	1,930	9.5 – 5.5			2	Customs buildings	
						1	Shed	
						2	Pass. Term Bldg.	3 Ro-Ro ramps
Skeppsbrohamnen	101 – 108	570	6.2 – 5.4			3	Customs buildings	
Sodra Blasieholmshamnen		275	3.5					
Nybrohamnen	1 – 10	469	5.5 – 3.0			1	Pass. Term Bld.	
Strandvagen	11 – 27	1,003	5.0 – 2.5					
Vartahamnen	500 – 507 509 – 511 515 – 526	2,081	10.9 – 6.5	2	3.0 – 6.0	1	Pass. Term. Bldg.	2 Ro-Ro ramps
Free Port Harbour	610 – 611 620 – 625 630 – 638 640 – 641 650 – 656	1,766	10.4 – 7.5	10 1 2	5.0–12.0 42 24	17 7 1	Sheds Warehouses Grain-silo building	2 Ro-Ro ramps Suction installation for 120 t.p.h.
Oil harbour at Loudden	701 – 710	1,020	11.9 – 8.9					Shore with 8 loading jetties and 1 pier
Norra Hammarbyhamnen	301 – 322	1,690	5.9 – 3.5	2	5.0 – 6.0	1 1	Customs building Shed	
Sodra Hammarbyhamnen	351 – 358 363 – 369	1,391	5.9 – 3.9	2	5.0 – 7.5			
Small wharves		429	8.0 – 2.5					
Total for installations on the Baltic-side		12,624		19				
On Lake Malar								
Riddarholmshamnen		70	4.4					
Norr Malarstrand	453 – 466	769	6.4 – 2.0			1	Shed	
Soder Malarstrand	10 – 21, 25 – 26	918	4.5 – 4.0					
Ballstahamnen		209	5.0 – 4.1					
Hornsbergsstrand		368	6.9 – 4.1					
Hasselbyverkskajen		289	7.0 – 4.0	1	8.0			Administered by the Energy Supply Authority
Small wharves and quays		680	6.9 – 2.9					
Total for installations on the Lake Malar-side		3,303		20				
Principal private quays and wharves								
On Baltic								
Inside and close to the Port of Stockholm area		475	12.9 – 3.7					
On Lake Malar								
Inside the Port of Stockholm area		1,312	6.9 – 4.0					

Water level		*Baltic*	*Lake Malar*
		(m.)	(m.)
High water highest observed	HHW	+0.65	+1.00
normal	MHW	+0.25	+0.55
Mean water	MW	−0.30	+0.30
Low water normal	MLW	−0.75	+0.15
lowest observed	LLW	−0.90	−0.10

---

* Different heights of the water refer to the Swedish State Measure Datum.

** Besides the quay cranes there is a pontoon crane of 260 tons lifting capacity, with own propelling machinery. The number of cranes is thus 21. In addition to these there are some cranes in private ownership. The port also owns a floating link-span.

HEALTH: Vessels arriving from ports outside Europe must for Inward Clearance provide Customs Office with written Declaration of Freedom from Infection. Further instructions will be issued by Customs Office when such a Declaration cannot be given.
RADIO: Stockholm Radio, call sign SDJ.
RADAR/VHF: All 3 pilot stations have radar for internal use. No harbour radar service. VHF Channels 16 and 12. Also see "Restrictions".
TUGS: Very large vessels may be met by tugs by special arrangement at pilot boarding point. Tugs available to special order to assist with berthing; they rendezvous usually near berth.
Rates: According to fixed tariff.
BRIDGES:

HOURS FOR OPENING FOR MOVABLE ROAD BRIDGES OVER HAMMARBY SEALANE

Movable parts of road bridges over sealane of Hammarby opened on request for vessel unable freely to pass under the bridges, all through the year at regular hours.
STEVEDORES: Stevedores available from Stockholms Hamngods AB. Tel: 08/6635500. Working hours 0700 – 0900, 0930 – 1100, 1115 – 1330 and 1400 – 1600. Stevedores required for 0700 hrs. must be booked previous day.
MEDICAL: Duty Medical Officer available all hours day or night. Tel: Stockholm 21 55 49, 11 83 31 or 20 30 91. Seamen admitted to hospital with note from Medical Officer for Seamen, but not necessary for emergency admissions. Valid certificates of vaccination must be produced. Any necessary vaccinations carried out by Medical Officer for Seamen.
TANKERS:

Quay	*No. of Berths*	*Max. d.w.t.*	*Depth alongside* (ft. in.)	*Diameter of Discharge Pipe-lines* (in.)
Bergs (Esso)	1	65,000	43 00	12 – 20
Flaxenvik (Powerboard)	1	30,000	35 08	12
Gashaga	2	50,000	34 01 – 35 08	6 – 12
Kvarnholmen	2	30 – 65,000	33 00 – 39 04	8 – 14
Loudden (Municipal)	5	25 – 60,000	33 02 – 39 00	6 – 12
Rasta (Shell)	1	38,000	37 08	8 – 10
Vartan (Esso/Shell)	3	20 – 60,000	24 08 – 36 00	8 – 10

DENSITY: Salt content of 0.5%. No variations.
FRESH WATER: Fresh water may be obtained from quayside. 1,000 cu.ft./hr. can be delivered from quayside. At Loudden max. 3,500 cu.ft./hr. can be delivered.
FUEL: All grades bunker oil, lubricating oil, etc. can be supplied.
GANGWAY/DECK WATCHMEN: Not essential, but recommended for large tankers.
OPENING/CLOSING HATCHES: If opened and closed by stevedores, subject to extra fee.
CERTIFICATES:

Tonnage Certificate.
Certificate of Nationality.
Derat Certificate not more than 6 months old.
Ship's articles, Crew List or similar document listing all persons signed on aboard.

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes per person per week or 200 g. (7 oz.) of tobacco per person per week. Wine and/or spirit: One bottle of spirits per person per week, one bottle of wine per person per week.
CARGO GEAR: Cargo vessels carrying goods which constitute a fire or explosion hazard or other flammable or otherwise dangerous goods must notify Port Authorities in advance the nature and quantity of goods concerned. In certain cases a red flag or red light must be carried at mast head.
IDENTIFICATION CARDS: Passport or Seaman's Discharge Book with photograph.
CONSULS:

Algerian Embassy	211070, 214070, 214080
Argentinian Consulate	202685
Australian Embassy	244660
Austrian Embassy	233490
Belgian Embassy	118958
Brazilian Embassy	6631285
British Embassy	6670140
Canadian Embassy	237920
Chilean Embassy	6620444
Chinese People's Republic, Embassy of the	217539
Colombian Embassy	218489
Danish Embassy	231860
– Consulate and Visa Office	208748
Ecuadorian Embassy and Consulate	100701
Egyptian Embassy	6629603,6629687
Finnish Embassy, Consulate and Passport Office	240270
French Embassy	6630270
German Embassy (Federal Republic)	6631380
German Democratic Republic	235030, 218122
Greek Embassy	6608860,6617880
Hungarian People's Republic, Embassy of the	6616762,6636639
Icelandic Embassy	6624016,6672753
Indian Embassy	113237, 113213
Indonesian Embassy	6635470
Iranian Embassy and Consulate	7652029, 7670470
Iraqi Embassy	218905
Irish Embassy	6618005,6617409
Israeli Embassy	6630435
Italian Embassy	245805
Italian Consulate	6610310
Japanese Embassy	6630440
Jugoslav Embassy	218436
Korean (Republic) Embassy	160480
Korean (DPR)	215171, 111254
Lebanese Embassy	6651965
Mexican Embassy	6635170,6603970
Netherlands Embassy	247180
Nicaraguan Consulate-General	6671754
Norwegian Embassy	6670620
Norwegian Consulate-General	214018
Pakistani Embassy	6635905
Panamanian Consulate-General	511788
Paraguayan Consulate	204363
Peruvian Embassy	110019, 110041
Peruvian Consulate-General	113085
Polish Embassy	114132
Polish Consulate-General	116374
Portuguese Embassy	6626028
Portuguese Consulate	6634555
South African Legation	243950
Spanish Embassy	6625494,6616005
Swiss Embassy	231550, 217270
Tanzanian Embassy	244870
Thai Embassy	6678090,6672160
Thai Consulate-General	7885000
Tunisian Embassy	236470
Turkish Embassy	230840
Turkish Consular Department	6672960
Union of Socialist Soviet Republics, Embassy	130440
– Consular Department	208652
United States Embassy	7835300
– Consular Section	7835375
Uruguayan Embassy	6603196,6603197
Venezuelan Embassy	110996, 110997

REPAIRS: All types of deck and machinery repairs can be carried out.
DRY DOCKS: Finnboda Varf, Tel: 08-440820. 5 floating docks, capacity 250; 1,000; 1,500; 8,000 and 28,500 tonnes.
REPATRIATION: Crewmen may be signed-on and paid-off. Whether paid-off crewmen will be allowed to remain in the country and seek new employment, depends on existing bi-lateral agreements between countries. Generally, only a citizen of a Scandinavian country may seek work in Sweden without a special labour permit.
AIRPORT: Arlanda, approx. 22 miles from central Stockholm. Served by regular airlines.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: New Year's Day (January 1st); Epiphany (January 6th); Good Friday (variable Friday in March/April); Easter Monday (variable Monday in March/April); May 1st; Ascension Day (variable Thursday in May/June); Whit Monday (variable Monday in May/June); Midsummer Day (variable Saturday in June); All Saints' Day (first Saturday in November); Christmas Day (December 25th); Boxing Day (December 26th). No work is normally done on these days.
POLICE/AMBULANCE/FIRE: Tel: 90 000.
TELEPHONES: Ship-to-shore telephone connections can be provided at most quays.
SERVICES: Electric current can be laid on at some quays. Port is responsible for collection of oil residues. Licensed compass adjusters available.
SHORE LEAVE: No restrictions.
DELAYS: Occasionally shortage of stevedores. Some delay may be caused by ice, but port kept permanently open by ice-breakers.
AUTHORITY: Stockholms Hamn, P.O.Box 27314, S-10254 Stockholm. *Tel:* 08/635500. *Telex:* 10612. *Cables:* Capitalport. *Contact:* Thomas Krokstedt, Harbour Master.

STORUGNS, Gotland Is.: 57.50 N. 18.48 E. **(See Plan)**

Situated on Eastside of Bay of Kappelshamn on the North coast of Gotland.
DOCUMENTS: Vessels arriving from foreign ports shall have the following documents:

1 Crew Manifest.
1 Stores List.
3 Crew Lists.
Tonnage Certificate.
Certificate of Nationality.
Declaration of Health (Derat Certificate), not older than 6 months. Not applicable to vessels from Scandinavian ports.

NOTICE OF ARRIVAL: On which the loading turn number is based, should be given when the vessel has passed Lat. 57° 52′ N. The notice can be given by VHF (Storugns Harbour Radio).
Vessels may not berth without permission of the Company.
PILOTAGE: Pilot boards in the outer approaches and should be ordered at least 5 hours in advance by Tel: 0498/27010 (Storugns) or 10138 (Visby). Pilots keep watch on VHF Channel 16.
ANCHORAGES: With good holding ground. Vessels waiting in the roads should keep watch on VHF Channel 16 during ordinary harbour working hours.

Ships lying in the roads shall anchor so that in-going and out-going vessels can pass without hindrance or risk. Anchoring in Kappelshamnsviken in the area between Lat. 57° 51′ N. and an E.W. line 200 m. South of the quay's Southernmost point is prohibited unless permission is obtained from the Company.
Prohibited Anchorage: See "Plan".

RESTRICTIONS: The harbour can be entered at all times regardless of wind direction except during strong Northerly winds.

The bay is normally ice-free. During exceptionally cold spells with Northerly winds traffic may be temporarily stopped or hindered by ice-floes.

MAX. SIZE: Depth at entrance and at quay 10 m. Vessels up to 20,000 tons have loaded to full draft. Max. draft 9.2 m.

HEALTH: No restrictions provided no disease or fever on board and vessel not arriving from port where disease or fever in existence.

RADIO: 96 and 24 hours before vessel's ETA preliminary notice must be given to the Company. Changes of ETA exceeding 10% of the remaining time must be reported. It is, however, not necessary to report changes of less than 1 hour. The Company may under special circumstances waive the obligation to give 96 hour notice.

On the arrival of a vessel in the harbour area notice of arrival must be given either in writing, or by telephone 0498/27160 or by VHF radio. In respect of notice of arrival the harbour area is Kappelshamnsviken South of Lat. 57° 52′ N. If a vessel, owing to bad weather or for any other reason cannot safely lie within the harbour area, the Company may accept notice of arrival from vessel North of above mentioned latitude.

Between 0500 and 2230 hrs. vessels waiting in the roads shall keep watch on VHF radio or, if the vessel is not equipped with such, on the ordinary radio.

Coastal Radio Stations: Stockholm Radio and Tingstade Radio (Tingstade Radio, radio telegrams only).

VHF: Storugns Harbour Radio VHF Channels 16 and 9.

TUGS: Rederi AB Gute. Tel: 0498-23000. On the island of Gotland.

BERTHING: The harbour which is situated on the Eastern side of Kappelhamsviken is intended solely for the loading of limestone which is obtained from the nearby quarry. The Gotland limestone, which is of high purity and has a very low percentage of impurities, is used in cellulose, sugar, metallurgic and chemical industries, and in iron production.

The limestone is delivered in 11 different grades. The density is 2.5/2.6 tons/cu.m.

The stowage factor varies between 17 and 26 (17 – 18 for grades 0 – 3 mm., 23 – 26 for grades between 3 and 120 mm., and 20 – 24 for grades above 120 mm.).

Quay	*Length*		*Depth*
Quay 1 outside	140 m.	outside	9.5 m.
inside	120 m.	inside	7.0 m.
Quay 2	48 m. (no loading)		5.0 m.
Quay 3	110 m.	outer	7.0 m.
		inner	6.0 m.

Boatmen: Vessels with Pilots on board need not order boatmen. Other vessels can obtain boatmen service through their Agents or by calling the boatmen service firm "Trossvakt" on Tel: 0498/254 33 or over VHF Channel 16. Booking should be done at least 2 hours before ETA. Shipper/NordKalk AB cannot offer boatmen service.

BULK HANDLING FACILITIES: The loading elevators are movable along their respective quays. The capacity on Quay 1 is about 500 – 1,000 t.p.h and on Quay 3 about 300 – 600 t.p.h.

Shipmaster's Report: 1979. Loading rate 967.5 t.p.h.

Cleaning of holds, discharging of ballast and opening of hatches shall be carried out in sufficient time to avoid delays in loading. The loading should be so planned that shifting of the vessel and loading elevators can be avoided as far as possible.

STEVEDORES: Normal working hours are Monday-Thursday 0530 – 2230 hrs. and Friday 0530 – 1830 hrs. Overtime working to complete loading is available to a limited degree, as is loading on Saturdays and Sundays. Vessels requiring overtime loading Saturday/Sunday must give notice not later than Friday 1100 hrs.

During ordinary working hours vessels are loaded by turn. The turn is based upon the time of notice of arrival.

MEDICAL: Central hospital at Visby.

FRESH WATER: Not available.

FUEL: Most grades available from Visby subject prior notice.

GANGWAY/DECK WATCHMEN: Not compulsory but available.

OPENING/CLOSING HATCHES: Ship's crew open and close.

CUSTOMS ALLOWANCES: Presently 200 cigarettes per head/week. Practically no spirits allowed out of bond.

IDENTIFICATION CARDS: Seaman's Book or passport if travelling outside port area.

CONSULS: Nearest consuls at Visby for Denmark, Finland, Norway and Germany F.R.

REPAIRS: Only minor repairs possible.

DRY DOCKS: None.

REPATRIATION: Good possibilities for changing crew.

AIRPORT: Visby.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

SHORE LEAVE: Permitted.

POLICE/AMBULANCE/FIRE: Tel: 90 000.

AUTHORITY: NordKalk AB, Storugns, S-620 34 Laerbro, Sweden. *Tel:* 0498-27100. *Telex:* 4150 Nkalk S. *Contact:* Bjoern Mathiasson.

STROMSTAD: 58.56 N. 11.10 E.

DOCUMENTS/PILOTAGE: See "Stockholm".

ANCHORAGES: Available within port for vessels up to and including 3,000 d.w.t.

MAX. SIZE: Cargo ships (not tankers), max. 3,000 d.w.t.

BERTHING: No particular restrictions for berthing within the port.

FRESH WATER: Available.

FUEL: No~~ne~~ available. T

GANGWAY/DECK WATCHMEN: Necessary.

OPENING/CLOSING HATCHES: Carried out by crew.

IDENTIFICATION CARDS: Needed.

CONSULS: Norway: Bertil Alen, Hjartagatan 13.

REPAIRS: Repairs possible.

REPATRIATION: Facilities exist for effecting crew changes.

AIRPORT: Landvetter (Gothenburg). Distance: 200 km. There is also a local taxiplane.

HOLIDAYS: Cargo work cannot be arranged on holidays.

POLICE/AMBULANCE/FIRE: Police 12530; Ambulance 90000 (ask for ambulance); Fire 90000.

TELEPHONES: No arrangements exist for placing telephones on board.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

DELAYS: No delays in load or discharge.

AUTHORITY: Hamnforvaltningen Stromstad.

SUNDSVALL: 62.25 N. 17.20 E. (See Plan)

DOCUMENTS:

3 copies Crew Lists.
3 copies Passenger Lists (if passengers onboard only).
2 copies Crew Declaration on tobacco, liqueur, cigarettes and spirit, etc.
2 copies Ship's Stores List.
1 copy Cargo Declaration.
Derat Certificate.
Tonnage Certificate.
Register.
Swedish Light Dues.
Manifest and/or Bill of Lading.

PILOTAGE: Pilot station (Tel: 060-58 60 00/7) at Spikarna Southern Point of Alno Island VHF Channel 16. For communication and instructions Channel 13.

Pilot boarding from pilot cutter 2.5 miles East of Gubben Lighthouse in position Lat. 62° 21′ N., Long. 17° 40′ E.

Entrance passage Gubben Light – Spikarna – Draghallan Light all 14 m. deep.

ANCHORAGES: Between islands of Tjufholmen and Alno and also in Svartvik Bay.

MAX. SIZE: See "Berthing".

RADIO: Cable Agents giving ETA, draft and cash requirements either via Hernosand Radio SAH or Stockholm Radio SDJ. At least 24 hours' notice required. Change in ETA to be given at least 5 hours before ETA Pilot.

TUGS: Available, ordered by Agent. Compulsory at Sundsvall Oil Terminal for tankers of more than 10,000 d.w.t.

BERTHING: Around the clock berthing. No restrictions except draft. Following drafts (fresh water) accepted in Sundsvall and adjacent ports.

Kubikenborg: Lat. 62° 22.7′ N., Long. 17° 22′ E.

Length of quay 150 m. Max. length 192 m. Max. draft 10.5 m. 1 shorecrane, capacity 5 tons. 1 suction-installation, capacity 150 t.p.h. Pilot distance 12 nautical miles. Distance from Sundsvall Town 4 km.

Ortviken: Lat. 62° 23.8′ N., Long. 17° 21.8′ E.

Oil Berth: Quay length 140 m. Max. draft at max. 200 m. length is 10.8 m. Pilot distance 12 nautical miles. Distance from Sundsvall Town 4 km.

Ostrand: Lat. 62° 29′ N., Long. 17° 21′ E.

Oil Berth: Tankers berthed outside a steel barge, max. LOA 200 m., max. draft 7 m. Pilot distance 17 nautical miles. Distance from Sundsvall Town 15 km.

Soraker: Lat. 62° 30.5′ N., Long. 17° 30′ E.

Length of quay 150 m. Max. LOA 90 m. Max. draft 5.8 m. 1 shore crane, capacity 10 tons. Pilot distance 11 nautical miles (East of the Alno Island). Pilot distance 20 nautical miles (West of the Alno Island). Distance from Sundsvall Town 34 km.

Stockvik: Lat. 62° 20′ N., Long. 17° 22′ E.

Length of quay 190 m. Max. draft 7 m. 3 shore cranes, capacity 6 tons each. Pilot distance 10 nautical miles. Distance from Sundsvall Town 9 km.

Sundsvall Town Quay: Lat. 62° 23.5′ N., Long. 17° 19.5′ E.

1 Berth:	Length 90 m. Max. draft 7.8 m.
1 Berth:	Length 175 m. Max. draft 5 m. – 7 m.
1 Ferry/Ro-Ro Berth:	Max. beam 15 m. Max. draft 7.5 m.

No cargo is handled on Sundsvall Town Quay. Pilot distance 12 nautical miles.

Sundsvall Oil Berth: (Vindskarsudde) Lat. 62° 23.2′ N., Long. 17° 21.8′ E.

Length of quay 100 m. Max. LOA 250 m. Max. draft 11.3 m. Max. d.w.t. 70,000. 3 swinging arms, each of 10 in. dimension. Pilot distance 12 nautical miles. Distance from Sundsvall Town 3 km. Vessels berth port side to.

Svartvik: Lat. 62° 19′ N., Long. 17° 22′ E.

Length of quay 140 m. Max. draft at 100 m. length is 6.5 m. Distance from Sundsvall Town 11 km.

Port of Sundsvall (Tunadalshamnen): Lat. 62° 25′ N., Long. 17° 23′ E. Length of quay 450 m. Max. draft 9.2 m. 3 shore cranes, capacity 10 tons – 20 tons. Additional berth: Length of quay 200 m. Max. draft 12.6 m. Pilot distance 13 nautical miles. Distance from Sundsvall Town 7 km.

Ro/Ro Berth: Max. beam 30 m. Max draft 9.2 m.

Tunadal Sawmill: Lat. 62° 25′ N., Long. 17° 23′ E. Length of quay 195 m. Max. draft at 80 m. length is 7 m. Pilot distance 13 nautical miles. Distance from Sundsvall Town 7 km.

Vivstavarv: Lat. 62° 29′ N., Long. 17° 28′ E. Length of quay 160 m. Max. draft 7.3 m. Pilot distance 17 nautical miles. Distance from Sundsvall Town 18 km.

MEDICAL: First class medical attention and dental care available.

TANKERS: See "Berthing".

STEVEDORES:
Ordinary working hours Monday – Friday 0700 – 1600 hrs.
Overtime on Saturdays 0700 – 1330 hrs. at 100% additional cost.

CRANES: 3 cranes available 10 – 20 ton. At Tunadalshamnen cargo is also handled by mobile cranes. Also see "Berthing".

CUSTOMS ALLOWANCES: See "Stockholm".

DENSITY: Nearly fresh, 1005.

FRESH WATER: Supplied at Sundsvall, Kubikenborg, Stockvik and Tunadal.

FUEL: All grades delivered. Notice must be given in good time, since these installations normally close down at weekends.

SHIP WATCHMEN AND SHIP'S TELEPHONE: Available. Compulsory at oil terminals only.

CONSULS: Finland, Germany F.R., Iceland, Netherlands, Norway.

REPAIRS: Most repairs possible through local repair shops.

DRY DOCKS: Lunde Varv outside Kramfors.

SURVEYORS: Cargo inspectors available through Sundsvall Control Service or Lloyd's Agency for cargo or vessel.
Surveyors available from Stockholm in most cases. Call Agents for details at time.

AIRPORT: International airport 22 km. outside town. Good facilities to effect repatriation.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: See "Stockholm".

POLICE/AMBULANCE/FIRE: Tel: 90 000.

EMERGENCY CO-ORDINATION CENTRE: Tel: 90 000 giving full details of situation or call Harnosand Coast Radio Station VHF or MF.

STORING: Vessels stored by truck only, through assistance of stevedores and forklifts. Can be done close alongside ship.

GENERAL: *Dangerous Cargo:* Ships carrying dangerous cargo must notify Port Authorities in advance of nature, quantity and IMO code number of goods concerned.
Wintertime: Ice-breaker service available if needed (Wintertime December to April).

AUTHORITY: Sundsvalls Hamnforvaltning, Hamnplan 4, S-851 85 Sundsvall, Sweden. *Tel:* (060) 19 10 00. *Contact:* Sten Lundell, Harbour Master, Tel: (060) 19 15 91.

TRELLEBORG: 55.21 N. 13.09 E. (See Plan)

DOCUMENTS: See "Stockholm".

PILOTAGE: Available day and night. To obtain Harbour Pilot report 5 hours in advance. To obtain outward Pilot report 24 hours in advance of departure. Meet inward-bound ships on Roads with motor boat. Outward-bound Pilot obtained from pilot station of Malmo. Tel: 040-115269, 040-978315. Pilot boats provided with short-wave radio telephone. Also see "Stockholm".

ANCHORAGES: Recommended West of entrance fairway between Fairway Buoy and No. 1 Light Buoy. Depth varies from 7 m. – 14 m. Anchor ground good – clay and sand.

RESTRICTIONS: Entrance a straight, perch-buoyed fairway of about 1,300 m. length, having measured depth of 8.5 m., and a bottom width of 100 m. Distance between moles (outer – 125 m.) and (inner – 96 m.)

HEALTH: See "Stockholm".

VHF: Port and pilot station on Channels 16 and 9.

TUGS: Tug-boats can be obtained promptly from Malmo.

BERTHING: New Harbour has depth of 8 m. with quay on Northern side of basin. It is 1,640 ft. long and served by 1 bridge crane (6.2 tons) and 1 mobile crane of 36 tons. Western Harbour Basin has depth of 7 m. in Western and Northern part and 8 m. in Eastern part. Eastern Harbour Basin has depth of 8.0 m. Oil Quay 230 ft. long, depth at quay of 8 m. is situated on Southern side of New Harbour. Tankers of max. length 570 ft. can approach this quay. From oil harbour area direct importation of oils is made to the Trelleborgs Gummifabriks AB (Trelleborg Rubber Factory Ltd.). Five berths equipped for Ro/Ro traffic.

STEVEDORES: Available (Tel: 43135).

FRESH WATER: Available on all quays at request to Harbour Office.

FUEL: All grades bunker oils supplied at oil quay through direct pipe-line from sea depot. Order on phone Trelleborg 107 76.

REPAIRS: Available through private firms. Tel: Trelleborg 150 60, 109 66 or 124 50.

CONSULS: Denmark, Finland, Norway and West Germany.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

TELEPHONES: Ship's telephone available at Oil Quay, Tel: 148 28, and at the Harbour Bridge, Tel: 147 67. Order is made through Harbour Office.

SERVICES: Divers available through the Harbour Office. Refuse containers can be hired.

AUTHORITY: Trelleborgs Hamn, Box 26, 23101 Trelleborg, Sweden. *Tel:* 0410-53900. *Contact:* Karl-Axel Green, Harbour Master.

UDDEVALLA (including Froland): 58.21 N. 11.56 E. (See Plan)

DOCUMENTS:
3 Crew Lists.
3 Passenger Lists.
Health Document. Derat Certificate when ship arrives from abroad, except from Denmark, Norway and Finland.
3 Manifests.
1 copy of Bill of Lading.
Tonnage Certificate.
Nationality Certificate.
2 Crew Effects Declarations.
2 Ship's Stores Declaration.
1 Declaration of Living Animals (if any).

PILOTAGE: Pilotage at Marstrand. Address "Marstrand Pilotstation". Required ETA 5 hours. VHF 16 and 11. Pilot boat S.W. of Hatteberget Lighthouse (Lat. 57° 51.8′ N., Long. 11° 27.65′ E). (Also see "Stockholm".)

MAX. SIZE: Draft 11 m., airdraft 43 m.
Bado Quay: Max. LOA 180 m. Max. draft 9.0 m. (MLW).

HEALTH: Cable to Agent and he will arrange with Health Authorities.

RADIO: SAG. Gothenburg Radio (Goteborg Radio).

RADAR/VHF: No port radar service, VHF Channels 16, 11 and (working channel) 14.

TUGS: 3 Tugs up to 3,200 h.p. available. Can be ordered through Pilot or Agent.

BERTHING: Depths alongside (at MW) as follows:

	Length (m.)	*Depth* (m.)
Skeppsholm Quay	340	10.7 – 11.2
Bado Quay	430	6.0 – 9.5
Bave Quay	180	7.0
Skans Quay	180	6.0
Thule Quay	105	4.0
Juno Quay	200	6.0
Froland	225	12.0
Kasen – K1	200	5.0–6.0
K2	200	5.0
K3	260	5.0–9.0
Sorvik – K6	250	10.8

CARGO HANDLING FACILITIES:
Skeppsholmspiren: 6 electric cranes of 12 to 35 tons capacity. Warehouse of 3,500 sq.m. Very large storage areas. 1 berth equipped for Ro-Ro traffic. Container handling facilities improved during 1987.
Bado Quay: 7 electric cranes with capacities of 7 – 12 tons. 16,000 sq.m. of warehouses and 20,000 sq.m. of storage. 2 silos for grain owned by private companies.
Bave Quay: 1 electric crane with capacity of 12 tons. 3,400 sq.m. of warehouse and 14,000 sq.m. of storage.
Froland: (Lat. 58° 20′ N., Long 11° 52′ E.) Total length 225 m., depth alongside 12 m., 3 electric cranes with capacities of 35 tons, 35,000 sq.m. of storage. One berth equipped for Ro/Ro traffic, depth 8.0 m., 2 conveyor belts 500 t.p.h. – 800 t.p.h. This berth is specially constructed to handle the loading/unloading of bulk cargo.
Also see "Developments".

STEVEDORES: Arranged by Agent.

TANKERS: Draft in the Skeppsviken Oilport, 10.7 m.; at the Bado Oilport, 9.5 m.

FRESH WATER: Available at all quays.

FUEL: All grades available.

FIRE PRECAUTIONS: Watchmen necessary when loading or discharging oils by pipe-lines.

GANGWAY/DECK WATCHMAN: Watchman accepted by Harbour and Fire Authorities on vessels loaded with explosives.

OPENING/CLOSING HATCHES: Preferably by crew. Can be arranged by stevedores.

CERTIFICATES: Tonnage Certificate, Nationality Certificate, Derat Certificate.

CUSTOMS ALLOWANCES: 100 cigarettes/250 gm. tobacco, 1 bottle of spirits, 1 litre of wine and 10 beers for each man (every 10 days) as a normal quantity. Possible to be increased for Master.

IDENTIFICATION CARDS: Not required.

CONSULS:

Barbados	Tel: 738 54	Netherlands	Tel: 144 60
Germany F.R.	Tel: 360 00	Norway	Tel: 353 71

REPAIRS: Facilities available.

SURVEYORS: All kinds of cargo inspectors and surveyors available.

REPATRIATION: In accordance with instructions of Consul.

AIRPORT: Gothenburg, 100 km.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

POLICE/AMBULANCE/FIRE: Police Tel: 90 000; Ambulance Tel: 90 000; Fire Tel: 90 000.

EMERGENCY CO-ORDINATION CENTRE: Dial telephone number 90 000 for Fire/Ambulance/Police.

TELEPHONES: Available for placing on board.

SERVICES: Compass adjusters and ship's chandler available.

BANKS: Gotabanken, Kungsgatan 15, 451 30 Uddevalla. Tel: 0522-143 50. Telex: Stockholm 19420 Gotban S. Goteborg 21750 Gotban S.

PK-Banken, Kungsgatan 7, Box 373, 451 19 Uddevalla. Tel: 0522-361 00. Telex: Stockholm 19310 Pkbank S. Goteborg 2562 Pkgot S.

Skandinaviska Enskilda Banken, Kungsgatan 12. Box 136. 451 16 Uddevalla. Tel: 0522-363 10. Telex: Stockholm 11000 Essebh S., Goteborg 21020 Essebg S.

Svenska Handelsbanken, Kungsgatan 10, 451 30 Uddevalla. Tel: 0522-363 30. Telex: Stockholm 11090 Handst S., Goteborg 27500 Handgb S.

Foreningsbanken Uddevalla, N. Drottninggatan 12, Box 251, 451 17 Uddevalla. Tel. 0522–143 80.

STORING: See "Prelims".

1. Vessel can be stored by barge or truck.
2. Before storing the Port Authority must be contacted.
3. Trucks can proceed alongside at every berth.
4. Fork lift can be used.
5. Storing under Customs supervision.
6. Local riggers can be employed.

SHORE LEAVE: No restrictions.

DEVELOPMENTS: Storage area at Froland to be extended by 20,000 sq.m. during 1988-89.

Storage area at Sorvik and Kasen to be extended by 100,000 sq. m. and 15,000 sq. m. respectively during 1988.

AUTHORITY: Uddevalla Hamn, Box 504, 451 21 Uddevalla, Sweden. *Tel:* 0522-147 70. *Telex:* 42269 Uddport S. *Contact:* Mr. Morgan Lexberg, Traffic Manager.

UMEA: 63.49 N. 20.16 E. (See Plan)

DOCUMENTS:

Ship's Documents:

Tonnage Certificate.
Certificate of Nationality.
Derat Certificate (not older than 6 months).

Supplied by Master on arrival:

1 copy of each Manifest.
1 copy of each Bill of Lading.

Supplied by Agent and signed by the Master on arrival from foreign ports:

1 Maritime Declaration of Health.
3 Crew Lists (one set).
2 Passenger Lists (one set).
1 Crew Effects Declaration.
2 Ship's Stores Declarations.
2 Cargo Declarations.
4 Reports of Arrival.
1 Declaration of Living Animals (if any) (supplied by the Customs Officer).

Furthermore on arrival from any port:

1 Report of Arrival, with double net tons, if applicable (Harbour Office).
1 Passenger List (if any in transit).
1 Crew List.

On departure to a Foreign Port:

5 Reports of Departure.

PILOTAGE: Umea Pilot Station: Bredskar. Tel: 090-41622 and 090-40372. Telegraphic address "Pilotstation Umea".

At least 5 hours' advance notice of ETA at pilot station, stating time and pilot station and destination, can be given over any Swedish coastal radio station or free of charge on VHF over any Swedish pilot station and some lighthouses.

Pilot station and pilot boats fitted with VHF Channel 16 – calling and safety; Channel 13 – pilotage and traffic; Channel 12 – spare Channel.

All pilot boats orange with flag "H" and equipped with radar.

Boarding point, Lat. 63° 36.5′ N., Long. 20° 25.5′ E., 1.0 nautical miles 145° (T) from Vaktaren Lighthouse. In case of bad weather, in the fairway, closer to the pilot station.

Anchorage for vessels awaiting Pilot: Lat. 63° 36′ N., Long. 20° 28′ E., 1.5 nautical miles S.E. of Vaktaren Lighthouse. Depth 18 m. to 30 m.

ANCHORAGES: See "Pilotage".

Osterfjarden roadstead between Umea Hamn and Obbola. Length about 2,800 m. and about 400 m. wide, midstream in River Umea. To the North and South of Lat. 63° 42.3′ N., Long. 20° 21.0′ E. and with a depth of 12 m. to 22 m.

Anchorage is forbidden around position Lat. 63° 40.5′ N., Long. 20° 20.0′ E.

Cables and fresh water pipe-line on Osterfjarden roadstead passing East-West around Lat. 63° 42.5′ N.

RESTRICTIONS: Entry permitted during darkness, for tankers, not more than 13,000 d.w.t. and a max. draft of 7.62 m., and dry cargo vessels with a draft not exceeding 8.53 m.

During unsuitable weather conditions, according to the Pilot on duty. Tankers exceeding 1,600 g.r.t. and with a cargo of mineral oil products and other dangerous cargoes, must take a Pilot.

MAX. SIZE: Max. depth and max. permissible draft (at MW) in the fairway as follows:

The fairway to:	*Maximum draft* (m.)	*Depth* (m.)
Ferry Station No. 1-2	7.6	6.0
Ferry Station No. 3	9.7	7.0
Stormskar Oil Berth and Obbola	9.7	
Holmsund Oil Jetty	5.5	
Umea Inner Harbour and Gimonas Oil Jetty	3.0	

No tide.

HEALTH: Free Pratique automatically for ships arriving from non-infected areas. In event of any suspected disease or fever on board notify the Agent, who will give necessary directions. It is possible to send a telegraphic message to "Sanitary Authority, Umea" containing state of health on board, in ordinary items or code. (Also see "Documents").

RADIO: Harnosands Radio (SAH) on 2182 kHz or on VHF Channel 23-26 or 28 (depending on ship's position).

Port Radio: Umea Port Radio keeps watch, Monday to Friday, 0600 – 1500 hrs. on VHF Channel 16. Working Channels 11 and 13. At other times Umea Pilot Station. No port radar service, but Umea Pilot Station and the pilot boats are equipped with VHF and can assist on request.

TUGS: Normally necessary only for larger tankers when berthing. Tugs join vessels just off the jetty. Ship's lines always used.

BERTHING: Depth alongside (at MW) as follows:

Umea Outport	*Depth* (m.)
Ferry Stations	
No. 1 Hillskar	6.0
No. 2 Hillskar	7.0
No. 3 Truthallan	7.0
Oil Berth, Stormskar	11.0
Pilot Berth	5.3
South Quay, Berth Nos. 9 to 10	11.0
Pier Quay, Berth Nos. 7 to 8	9.0
North Quay, Berth Nos. 2 to 6	7.0
North Quay, Berth Nos. 1 to 2	6.0

CRANES:

North Quay: 1 crane, 2 – 5.0 tons and 1 mobile crane 36 tons.
Pier Quay: 3 cranes, 3 – 7.5 tons.
South Quay: 1 crane of 40 tons.
Ferry Station No. 3: 1 crane 3 – 5 tons.

TANKERS: Oil berths at Port of Umea.

Stormskar: Depth 11 m. Reducing pieces for all diameters between 6 in. and 12 in. and all types of flanges available. One crane for handling hoses. Max. LOA 215 m., max. beam 30.0 m., max. draft 9.7 m. (channel limitation at MLW is 9.2 m.) Max. d.w.t. 42,000. Vessels usually berth starboard side to.

Obbola: Oil Jetty, depth 11.0 m. Max. LOA 200 m., max. draft 9.7 m. (channel limitation at MLW is 9.2 m.). Max. d.w.t. 40,000. Vessels berth port side to.

DENSITY: Nearly fresh water.

STEVEDORES: Holmsunds Stuveri AB. Tel. 090-40970. To be ordered before 1300 hrs. local time, day before gangs required. For work on Saturdays, Sundays, and holidays, special regulations.

Working hours: Monday to Friday 0600 – 1500 hrs., meal hour 1000 – 1100 hrs. Coffee breaks 0800 – 0810 hrs.; 1300 – 1310 hrs.

MEDICAL: All kinds of medical attention and hospital facilities available. Notify Agent as soon as possible.

FRESH WATER: Delivered from water posts in Port of Umea at Ferry Station No. 1, Oil Berth, Berth Nos. 1 – 10 and in Umea Inner Harbour.

FUEL: All kinds and grades of fuel oil available in Port of Umea. Bunkering at Berths 1 – 10 possible during normal loading or unloading from pipe-line. At Ferry Station Nos. 1 and 2 and the Oil Berth also bunkering from pipe-line. Fuel can also be delivered from lorries. Notice as early as possible.

FIRE PRECAUTIONS: Security watchmen from Port of Umea while alongside the Oil Berth. Alarm regulations in writing will be delivered on arrival.

GANGWAY/DECK WATCHMAN: Available but not compulsory except for tankers.

OPENING/CLOSING HATCHES: Can be done by stevedores if necessary, except patent hatches.

CUSTOMS ALLOWANCES: *Tobacco:* 200 cigarettes or 250 grammes of tobacco (7 ozs.)

Spirits and Wine: 1 bottle of each (1 litre), minimum age 20 years.

Above mentioned quantities are per crew member and per week in Sweden. After a week quantities are taken out after request to the Customs Office.

IDENTIFICATION CARDS: Not required. Seaman's Book sufficient.

CONSULS: Following countries have representatives in Umea: Denmark, Finland, Netherlands, Norway.

REPAIRS: Most deck and engine repairs.

REPATRIATION: Facilities exist for effecting crew changes and arranging repatriation.

AIRPORT: Umea, approx. 20 km. away, served by regular airlines.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: New Year's Day (1st January); Twelfth Day (6th January); Good Friday; Easter Monday; May Day (1st May); Whit-Sunday; Whit-Monday; Midsummer's Day (nearest Saturday to 24th June); All Saints' Day (1st Saturday in November); Christmas Day; Boxing Day.

POLICE/AMBULANCE/FIRE: Alarm central 90-000 and ask for service required.

TELEPHONES: Available for placing on board at Berths 1 – 10 and Oil Berth at Stormskar.

AUTHORITY: Umea Hamnforvaltning, Umea Hamn, S – 91300 Holmsund, Sweden. *Tel:* 090-163280. *FAX:* 090-23649. *Contact:* Per Ove Englund, Port Director.

VALLVIK: 61.11 N. 17.11 E. (See Plan)

DOCUMENTS: See "Stockholm".

PILOTAGE: Pilot station at Soderhamn (Ljusne Station).

ANCHORAGES: *(a)* Ljusne bight sheltered from West, North to N.E. winds, depths 6 to 8 fathoms. *(b)* North side of Storjungfrun Island sheltered from South to S.W. winds, depths 10 to 12 fathoms.

RESTRICTIONS: No direct restrictions. Ships of about 5,000 d.w.t. or more are recommended not to enter or leave the harbour in darkness (due to Pilot and weather conditions).

HEALTH: No special action except if suspected disease. In that case contact Agent.

LENGTH OF

MAX. SIZE: Max. draft in fairway 7.5 m. Loading pier is 200 m. Berthing possible on both sides.

East Side (from outer end):

Distance	Depth MWL (m.)
0 – 80 m.	8.3
80 – 85 m.	7.7
85 – 110 m.	7.2
110 – 140 m.	6.7
140 – 175 m.	5.8
175 – 195 m.	5.7
195 – 200 m.	5.2

West Side (from outer end):

Distance	Depth MWL (m.)
0 – 40 m.	7.6
40 – 70 m.	5.8
70 – 90 m.	5.5
90 – 140 m.	4.6

RADIO: Northward bound ships contact Stockholm Radio, Southward bound Harnosand Radio.
RADAR/VHF: No port radar service. There is a radar station at Ljusne. Pilot station and some of the pilot boats are fitted with radar. Master may contact Pilot by means of VHF Channels 16 and 13.
BERTHING: Ship's Agent keeps contact with Port Authorities.
STEVEDORES: Agent arranges required or available gangs according to the Shipmaster's wishes.
TANKERS: 10 in. diameter discharging hoses and pipe-line. Tanker berth at loading pier, 3 different connecting points.
FRESH WATER: Delivered by hose from quay. Rate about 8 t.p.h.
FUEL: Tanker lorries ordered through Agent, available with a few hours' notice.
GANGWAY/DECK WATCHMEN: Not necessary. If wanted, can be arranged.
OPENING/CLOSING HATCHES: Normally carried out by crew. Can be done by stevedores.
CARGO GEAR: Cargo gear certificates valid.
IDENTIFICATION CARDS: Not needed.
CONSULS: Danish, Dutch and French Consuls in Soderhamn.
REPAIRS: Machinery repairs, plate-work and welding can be carried out to a certain extent.
DRY DOCKS: None.
REPATRIATION: Facilities for crew changes available.
AIRPORT: Nearest airport Arlanda, about 15 miles North of Stockholm.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: See "Soderhamn".
POLICE/AMBULANCE/FIRE: See "Soderhamn".
TELEPHONES: No arrangements for placing telephones on board. Telephone for ship's use available in Harbour Master's Office.
AUTHORITY: Vallviks Hamn, NCB-Vallvik, 82021 Vallvik, Sweden. *Tel:* 0270-69510. *Telex:* 47011. *Contact:* Benny Westin.

VARBERG: 57.07 N. 12.15 E. (See Plan)

DOCUMENTS:
Crew List.
Passenger List.
Maritime Declaration of Health (including Derat Certificate).
Ship's Certificate of Registry.
Manifests and B/L copies.
PILOTAGE: Application for Sea Pilot through ship's Agent. Telephone to Pilot station 0340/10300. Pilot to board vessel on the road about 0.5 nautical miles off Varberg. (Also see "Stockholm".)
ANCHORAGE: On the roads 33 ft. depth.
RESTRICTIONS: No tide or other entry restrictions.
MAX. SIZE: Length 170 m., breadth 25 m., draft 23 ft. No tide.
HEALTH: Vessel to be kept in quarantine if disease on board suspected.
RADIO: Gothenburg Radio, SAG. VHF Channels 16 and 26.
TUGS: Tugs to be ordered in advance.
STEVEDORES: Gangs to be ordered in advance through ship's Agent.
MEDICAL: Hospital facilities available. Desirable to give advance notice.
TANKERS: 1 tanker berth, max. draft 23 ft.
FRESH WATER: Available all docks 35 t.p.h.
FUEL: Fuel Oil No. 1 – 5 available from tank trucks.
FIRE PRECAUTIONS: Oil and petrol to be discharged under supervision of watchman.
GANGWAY/DECK WATCHMEN: Recommended.
OPENING/CLOSING HATCHES: Generally done by stevedores.
CERTIFICATES: Certificate of Registry, Derat and also Crew List.
CUSTOMS ALLOWANCES: (Tobacco), 200 cigarettes per man. (Wine/Spirits), 1 bottle per man.
IDENTIFICATION CARDS: Not needed.
CONSULS:
Vice-Consul of Finland, Tel: 0340/16000
Vice-Consul of Netherland, Tel: 0340/16270
Vice-Consul of Denmark, Tel: 0340/16130
REPAIRS: Only minor repairs.
REPATRIATION: Can be effected.
AIRPORT: Nearest airport with regular airlines, Torslanda/Gothenburg, 50 miles North of Varberg.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: Principal Swedish Holidays – when no cargo work is obtainable: New Year's Day; Good Friday; Easter Day; 2nd Easter Day; Labour Day (May 1st); Whitsun Day; 2nd Whitsun Day; Midsummer Day; All Saint's Day (November); Christmas Day; 2nd Christmas Day.
POLICE/AMBULANCE/FIRE: Tel. 90 000.
TELEPHONES: Available on dock and one for placing on board.
DEVELOPMENTS: Planned increases of draft at the entrance to 9 m. = 29 ft. and in the harbour to 8 m. = 26 ft.
AUTHORITY: Port Authority of Varberg, Hamnkontoret, 43200 Varberg, Sweden. *Tel:* 0340-88526. *Contact:* Tore Gustavsson, Port Manager.

VASTERAS: 59.37 N. 16.33 E. (See Plan)

DOCUMENTS:
Ship's Register.
2 Crew Lists.
1 Tobacco List, signed by all hands on board.
1 Valid Derat Certificate.
1 copy of Manifest or Bill of Lading for each Swedish port of call.
Light dues receipts, if on board.
PILOTAGE: Incoming ships receive Pilot from Landsort. Pilot ordered by VHF Channel 16 or by RT. Pilot boats fitted with VHF. Give order 5 hours before Pilot required. Pilots meet ships about 2 nautical miles outside Landsort. Light and signals in accordance with the international rules. (Also see "Stockholm".)
ANCHORAGES: Within harbour area. Depth 9 m. – 10 m.
RESTRICTIONS: None. No tides.
MAX. SIZE: Vessels reach port through two deep navigable channels – through Sodertalje Ship Channel or via Stockholm through Hammarby Ship Canal. Least depth of channels at average water level is 7.3 m. (24 ft. 1 in.).
Sizes of Locks:

	Length	Width	Depth
Sodertalje	136 m.	20 m.	7.5 m.
Hammarby	115 m.	17.4 m.	7.0 m.

Limitation of Vessels: For Sodertalje: With beam of 18 m. max. draft 6.5 m. With beam of 17 m. max. draft 6.8 m. Max. LOA 124 m.
HEALTH: No special requirements or health documents, only valid Derat Certificate. Disease or fever on board must be declared before entering port.
RADIO: Stockholm Radio.
VHF: Harbour Office, VHF Channels 16 and 14, Monday-Friday 0800 – 1600 hrs. Traffic – Channel 11.
TUGS: 1 tug for unberthing. Ship's lines. Boatmen can be ordered via VHF Channel 16. Tug can be used as icebreaker.
BERTHING:

Berth	*Length* (m.)	*Depth* (m.)	*Remarks*
Djuphamnskajen	660	7.6	2 jib cranes 12 tons – 33 tons 1 crane × 12 tons 3 cranes × 8 tons 1 crane × 5 tons 1 crane × 22 tons
Oljekajen	125	7.6	
Kolkajen (Ro/Ro)	120 plus dolphins	7.6	2 jib cranes 12 tons – 33 tons
Ostra Kajen	527	5.0 – 7.6	1 jib crane 25 tons 1 jib crane 12 tons-33 tons 4 cranes × 5 tons 1 heavy lift crane 210 tons
Lillakajen	120	7.6	2 cranes × 6 tons
Silokajen	130	7.3	1 loader, rate 750 t.p.h.
Tullhuskajen	483		

BRIDGES: 4 bridges. All of them to be opened at passage except bridge at Sodertalje which closed from 1630 – 1830 hrs. weekdays and 1300 – 1500 hrs. Saturday or day before a holiday.
STEVEDORES: Stevedores for next working day ordered by at least 1500 hrs. day before and ETA to be given in due time. Tel: 021-12 71 20.
MEDICAL: Necessary service given by local hospital and private doctors. Vaccinations carried out.
FRESH WATER: Ordered through Port Administration.
FUEL: Bunkering of all grades of oil can be carried out at all quays from trucks.
FIRE PRECAUTIONS: Accordance harbour regulations.
GANGWAY/DECK WATCHMEN: Can be obtained from shorewatch companies at different rates for night/day work.
OPENING/CLOSING HATCHES: Crew. Can be carried out by stevedores.
CERTIFICATES: Measurement certificate and all gear test certificates required, if ship's gear to be used.
CUSTOMS ALLOWANCES: (Tobacco), 200 cigarettes or 200 gm. tobacco. Additional allowance depending on expected stay in port and size of vessel. (Spirits), 1 bottle of 0.75 c.l. for each crew member over 21. Additional allowance on request.
IDENTIFICATION CARDS: None required.
CONSULS: Denmark, Finland and Norway.
REPAIRS: Most deck and engine repairs, as well as electrical.
DRY DOCKS: None.
REPATRIATION: Possible. Accommodation to be ordered in good time.
AIRPORT: Arlanda, 120 km. International lines.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: See "Stockholm".
POLICE/AMBULANCE/FIRE: Tel. 90000.
TELEPHONES: In oil and deep-water harbour, most quays fitted with telephones.
SERVICES: Compass adjusting. Small radio repairs by local radio men.
SHORE LEAVE: Crew can leave vessel after Customs clearance and Immigration control.
DEVELOPMENTS: Constant new development and extensions. Additional room for extension in old harbour, deep harbour and oil harbour.
AUTHORITY: Vasteras Hamn, Sigurdsgatan 1, Box 256, S-721 06 Vasteras, Sweden. *Tel:* 021-180100. *Telex:* 40916. *FAX:* 021–180656. *Contact:* Ingmar Gynt, Port Director. Gunnar Kofod, Port Captain. Stig Jansson, Traffic Manager.

VASTERVIK: 57.46 N. 16.38 E.

PILOTAGE: Compulsory. Pilot boards in Lat. 57° 45.1' N., Long. 16° 57.3' E., available day and night. Tel: 0490-28041. Call sign "Lotsarna Ido".
BERTHING: *Outer Harbour:* Djuphamnskajen Lucernakajen, length 200 m., depth 8.3 m.

Oil Quay (North part of Lucernakajen): Depth 8.3 m., equipped with 3×8 in. pipe-lines.

Ferry Harbour: Quay length 100 m., depth 6.3 m.

Inner Harbour: Quay length 900 m., depth alongside from 4 to 6 m.

Oil berth: Length 15.0 m., depth alongside 6 m.

FRESH WATER: Can be obtained from all quays.
AUTHORITY: Vasterviks Hamn, Box 3093, 593 03 Vastervik, Sweden. *Tel:* 0490-10690, 16920. *Contact:* Olof Lindroos, Harbour Master.

VISBY: 57.38 N. 18.17 E. (See Plan)

DOCUMENTS: See "Stockholm".
PILOTAGE: Pilot stationed at Visby Pilot Station. Pilot boards in Visby Roads and is available between 0600 hrs. and 2200 hrs. 12 hours' notice of ETA is required. Pilot listens out on VHF between 0600 hrs. and 2200 hrs. Tel: (0498) 10138.
ANCHORAGES: Outside harbour, water depth 30 m. to 50 m. Clay bottom. No mooring buoys.
Restrictions: It is forbidden to anchor within the marked area outside Visby port entrance (for limits see chart).

At Hogklint, which is approximately 4 miles South of Visby, there are several sea cables, amongst which is the "Gotland Cable" which supplies Gotland with electricity. Anchoring is not permitted within 30 m. either side of the "Gotland Cable".

RESTRICTIONS: No tide in harbour. Currents outside harbour up to 4 knots running along coast. Prevailing winds, Summer time mostly S.W., Winter between N.W. and N.E. Harbour open to winds between S.W. – W., which when strong produces swell along the piers.
Fairway: This passes from the sea between the breakwaters to the oil harbour and is dredged to approximately 9.0 m., permitting vessels with drafts of 7.2 m. to enter.

There are leading lights (4 lights) for entrance into Visby Harbour, also red day markers.

Water Levels: High water level +0.8 m.
Normal high water level +0.5 m.
Normal low water level −0.4 m.
Low water level −0.7 m.

MAX. SIZE: Maximum draft permitted for vessel proceeding to the oil harbour is 7.2 m., to the outer harbour 6.3 m. and to the inner harbour 5.6 m.
TUGS: None available.
BERTHING:

Harbour	*Length* (m.)	*Depth* (m.)	*Remarks*
Outer Harbour			
Ferry Berth No. 6	160	7.0	Ferry berth with fixed 32 m. width ramp. Terminal Building serves both Berths No. 5 and 6.
Ferry Berth No. 5	200	7.0	Same as Berth No. 6.
Outer Oil Quay	60	8.0	3 ton crane for hose lifting. 8 in. hose connections. Capacity 250-300 cu.m.p.h.
Southern Small Boat Harbour	300	2.0	Small boat harbour with 2 bridges. Entry to the West of Fish Harbour.
Inner Harbour			
Outer Part North Breakwater	350	6.0	Ferry Berth No. 3 at quay's inner part (quay length 130 m.) Ro/Ro berth with fixed 20 m. width ramp. Remaining quay length used mainly for timber and pulp loading.
Holmen			
West Quay	220	6.0	Ferry Berth No. 4 with fixed 18 m. ramp. 1×5 ton rail mounted gantry crane, movable along 125 m. of quay length.
Eastern Quay	120	6.0	Fixed electric crane (max. 15 ton). Sawdust loading via nozzle (capacity 120 t.p.h.)
G:a Oil Quay	42	6.0	Quay with support dolphin.
Fishing Harbour	390	3.0	
Inner Part			
Ferry Berth No. 1	110	6.0	Fixed 16 m. wide Ro/Ro ramp.
Ferry Berth No. 2	115	6.0	Fixed 30 m. wide Ro/Ro ramp.
Fish and Small Boat Harbour	240	4.0-3.0	Visitors' Harbour 3 m. deep (approx.)

BRIDGES: No bridges or overhead cables.
STEVEDORES: Working hours, Monday – Friday 0700 – 1600. Overtime possible.
TANKERS: See "Berthing".
FRESH WATER: Available.
FUEL: Oil available.
REPAIRS: Only small repairs are possible.
AUTHORITY: Visby Harbour Office, Skeppsbron 18, S-62157 Visby, Sweden. *Tel:* 0498-69475. *Contact:* Bengt Widegren, Harbour Master.
AGENT: AB Carl E. Ekman, Hamngatan 3, Box 2067, S-62102 Visby, Sweden. Tel: 0498-49000. Telex: 4134. Cables: Ekman.

WALLHAMN: 58.01 N. 11.42 E. (See Plan)

DOCUMENTS:
2 Crew Lists.
2 Passenger Lists.
2 Tobacco and/or Stores List.
2 Crew Effects Declaration.

PILOTAGE: Pilot boards at Hatteberget. Telegraphic Address: "Pilotstation Marstrand", Tel: 0303–60004. VHF Channel 16.

5 hours' notice to be given through Agent.

2 hours' notice to be given by vessel.

ANCHORAGE: As advised by Pilot Station.
MAX. SIZE: Max. draft 10.0 m. Max. length – no restriction. Berth No. 6: Max. draft 5.5 m., max. length 110.0 m.
HEALTH: No special action except for suspected disease, in which case Agent should be contacted for further information.
RADIO: Gothenburg Radio.
VHF: Wallhamn Harbour Radio – Channel 16.
TUGS: Tugs from Gothenburg will join at entrance.
BERTHING: Four berths for Roll-on/Roll-off: (1) 180 m. × 10.8 m. depth. (2) 130 m. × 10.8 m. depth. (3) 160 m. × 8.5 m. depth (4) 240 m. × 8.5 m. depth.

One berth for loading stone products. Length 110 m. Depth 6.0 m.

CRANES: 1×70 ton mobile crane and 1 container gantry crane.
STEVEDORES: ETA given to Agents is sufficient.
MEDICAL: Doctors and dentists available at short notice. Nearest hospital in Kungaelv, 35 km.
FUEL: Most grades of bunker oil available with short notice.
GANGWAY/DECK WATCHMEN: Available.
OPENING/CLOSING HATCHES: By crew or by stevedores.
IDENTIFICATION CARDS: Not necessary. Seamen's Book or Passports should be carried.
CONSULS: In Gothenburg, 60 km. away.
REPAIRS: Can be arranged.
REPATRIATION: All facilities available.
AIRPORT: Landvetter International Airport, Gothenburg, 85 km. away.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: Stevedoring and clearance of vessels can be performed every day of the year, 24 hours' service.
POLICE/AMBULANCE/FIRE: Tel. 90 000.
SHORE LEAVE: Permitted within limits laid down by police.
AUTHORITY: Wallhamn Terminal AB, S-440 60 Skarhamn, Sweden. *Tel:* (46) 30460720. *FAX:* (46) 0304-60977. *Telex:* 2429. *Cables:* Wallhamn. *Contact:* C. Blidberg, Agency Manager. C. Frisk, Managing Director.

YSTAD: 55.26 N. 13.50 E. (See Plan)

DOCUMENTS:
Crew List.
Passenger List.
Custom Documents.
Manifests.
Bills of Lading.
Ship's Papers, etc.

TRAFFIC WARNING SYSTEM: Vessels approaching Ystad listen on Channel 16 for broadcast announcing ferry departures. All inward bound vessels have to make contact.
PILOTAGE: Vessels approaching Ystad's Harbour must apply for Pilot at Malmo at least 5 hours before pilotage due to commence. Tel: 040-115269 or 040-978315 or VHF (Channel 16), stating tonnage, draft and destination. VHF call sign "Lotsarna" plus name of pilot's station. (Also see "Stockholm".) Pilot boards at Ystad entrance buoy.
ANCHORAGES: Road: 1.0 nautical mile S.W. harbour entrance, 9 m. – 10 m. depth; sand and clay, good anchorage ground. The road is open to winds from S.S.W.
MAX. SIZE: Largest fully loaded vessel that can enter harbour about 5,500 d.w.t. Depth 7.2 m., max. draft 6.7 m. (22 ft.)
RADIO: Goteborg and Stockholm.
VHF: 24 hour watch at Malmo pilot station on VHF Channel 16 and "Ystad Port Radio" on Channel 16 during office hours (0700 – 2400 hrs.).
TUGS: Tug usually meets vessel at entrance buoy. Ship's lines used. Tugs not compulsory.
BERTHING: Vessels of 150 m. length and 20 m. breadth can enter harbour. Max. draft 22 ft. at MWL.

Ro/Ro Berth: Three movable ramps for lorries/goods. Breadth 8 m., 10 m. and 12 m. One railway ferry ramp with a fixed car ramp to upper deck.

CRANES: 2×6 tons (9 ton with double gear), 1×5 ton, 1×3 ton. All cranes are rail-mounted and electric. 1×36 ton mobile crane.
STEVEDORES: Stevedores must be ordered from Ystads Stuveri AB, Tel: 0411-18080. Working hours Monday – Friday 0700 – 1630 hrs. Meal intervals 0900 – 0930 hrs. and 1200 – 1230 hrs.
MEDICAL: Agents to be notified in advance if medical attention wanted.
TANKERS: Load/discharge lines 8 in. diameter, but reducing pieces for 6 in. and 10 in. diameter. (Tankfarm of 40,000 cu.m.)
FRESH WATER: Available from quays. About 10 t.p.h.
FUEL: Coal and oil can be obtained by lorries.
GANGWAY/DECK WATCHMEN: Can be arranged.
OPENING/CLOSING HATCHES: Crew or stevedores.
CERTIFICATES: See "Stockholm".
CUSTOMS ALLOWANCES: Tobacco, about 200 cigarettes or 200 gram of tobacco for each member of crew. Spirits, 1 bottle for each member of crew.
CARGO GEAR: Loading/discharging with shore cranes and Roll-on/Roll-off ramps.
IDENTIFICATION CARDS: Not needed.
CONSULS: Danish Consul, Tel: 72840. Finnish Consul, Tel: 18400. Norwegian Consul, Tel: 11635.
REPAIRS: Mechanical workshop.
SURVEYORS: Surveyor appointed by the Swedish National Administration of Shipping and Navigation at the Port Office.
AIRPORT: 30 km. distant and served by regular airlines.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: Christmas; New Year; Easter; Whitsun and Midsummer. No cargo work.
POLICE/AMBULANCE/FIRE: Police, Tel: 13620; Ambulance and Fire, Tel: 90000.
GENERAL: *Refuse Disposal:*
Contaminated Water: To the reception station at Revhuskajen (max. 500 cu.m.).
Waste Oil: Via a tank-truck (max. 10 cu.m.).
Solid Garbage: Via a motorised container to a refuse dump (max. 12 cu.m.).
SHORE LEAVE: Permitted.
AUTHORITY: Ystads Hamn, Hamnkontoret, Hamngatan 18, S-27100 Ystad, Sweden. *Tel:* 0411-77263, 77000. *Cables:* Southport. *Contact:* Harbour Master.

NOTES

Please also advise Shipping Guides Ltd.

Switzerland

NOTES

Please also advise Shipping Guides Ltd.

BASLE: 47.33 N. 7.34 E. (See Plan)

PORT LIMITS: A line drawn 50 m. off the shore.

DOCUMENTS:

1 Rhine-Manifest or "T"-Paper.
1 Provisions List.

The respective documents, mentioned in No. 1.10 of the Rhine Shipping Police Regulation have to be on board. Where possible, cargo manifests and stowage plans should be forwarded ahead of the vessel to the local Agent.

PILOTAGE: Holders of a High Rhine Shippers Licence have to Pilot the vessel between Basle and Birsfelden. Such licence-holders can be ordered at Signal-station (VHF Channel 18 or telephone 65 44 00).

ANCHORAGES: Vessels moored at riverside quays have to use anchors.

RESTRICTIONS: Shipping is blocked from high water mark II (gauge Rheinfelden 430 cm. up– resp. 450 cm. downstream of the Middle Bridge at Basle). Other restrictions will be announced by the Port Authority.

MAX. SIZE: Water Depth: 3.50 m.

Air Draft: 5.70 m. to basin II, port of Kleinhuningen; 7.00 m. to all the other port areas of Basle Town; 4.80 m. to 7.00 m. to the ports of Basle Country.

Beam: 11.40 m. to basin II, port of Kleinhuningen and through the locks of Birsfelden.

Length: 110 m. for the section between the Middle Bridge at Basle and the locks of Birsfelden.

VHF: Port Authority on Channel 18 (call: SIGNALSTATION). Working hours: Monday to Friday 0500 – 2100 hrs., Saturday 0500 – 1300 hrs.

TUGS: Only one private tug/pushboat is available (call: BRAGTANK, Tel: 65 44 22 or from ship to ship on VHF Channel 10: VOGEL GRYFF). Tug assistance is necessary for the section between Basle and Birsfelden from High Water Mark I (gauge Rheinfelden 350 cm.) for single engine vessels.

BERTHING: Two artificial basins at Kleinhuningen, riverside quays at Kleinhuningen (Klybeckquai), St. John, Birsfelden and Au. Load/discharge of dry cargo is done by shore equipment.

Also see "Max. Size".

CRANES: 62 shore cranes with lifting capacities up to 2×300 tons.

SPECIALISED CARGO HANDLING FACILITIES: 2 container terminals. No LPG berth.

BRIDGES: Railway bridges across the channel to basin II, port of Kleinhuningen, permit a max. air draft of 5.70 m.

STEVEDORES: Working hours: Monday to Friday 0500 – 2100 hrs., Saturday 0500 – 1300 hrs.

MEDICAL: Hospital facilities available.

FRESH WATER: Good quality potable water available.

FUEL: Diesel oil available.

TANKERS: Tanker piers at Kleinhuningen (Klybeck Quay and Basin I; the last one for oil only), St. John (vegetable oil and heavy stove oil), Birsfelden and Au.

Tankers with dangerous goods (K1 and K2 products) are not allowed to enter the basins. Load/discharge done by vessel's pumps.

CONSULS:

Austria
Belgium
Benin
Brazil
Denmark
Dominican Republic
Ecuador
Finland
France
Italy
Jamaica
Mali
Mexico
Monaco
Netherlands
Norway
Peru
Uruguay
Sweden
Spain

REPAIRS: Deck and engine repairs are possible as well as those to electric installations and electronic equipment.

DRY DOCKS: No dry dock, no slip.

SURVEYORS: Agents of Surveillance and Classification Societies are nearby.

GANGWAY/DECK WATCHMEN: At least one member of the crew has to stay aboard as watchman.

HATCHES: Opening/closing carried out by ship's crew before arrival or alongside the quay.

CUSTOMS ALLOWANCES: Swiss Regulations apply.

REPATRIATION: Scheduled aircraft connect Basle-Mulhouse airport daily with most important European airports. Also good railway connections.

AIRPORT: See "Repatriation".

HOLIDAYS: The ports are closed for work on New Year's Day, Carnival (two half days in February or March), Good Friday, Easter Monday, 1st May, Ascension Day, Whit Monday, Christmas Day and Boxing Day.

POLICE/AMBULANCE/FIRE: Emergency services are available through the Port Authority (VHF Channel 18) or direct by telephone:

Ambulance:	144
Police:	117
Fire:	118

TELEPHONES: This service is available aboard ships at the berths for passenger boats by prior arrangement through the Agents.

SERVICES: Oily waste disposal boat available from Monday to Friday 0700 – 1700 hrs.

SHORE LEAVE: Permitted when Immigration and Customs requirements have been satisfied, as long as the crew rejoin the vessel before departure.

IDENTIFICATION CARDS: It is recommended to carry an identification card or a passport. Shore passes are not issued.

REGULATIONS: All the Rhine Shipping Regulations, recommended by the Central Commission for the Navigation on the Rhine, are valid.

AUTHORITY: Rheinschiffahrtsdirektion Basel, P.O.Box CH-4019 Basel, Switzerland. *Tel:* 061-654545. *FAX:* 061-654594. *Telex:* 997130 SBB CH. *Contact:* A. Vogel, Director.

Syrian Arab Republic

GENERAL

PORT REGULATIONS:

In corroboration of Articles 2 and 8 of the Decree Law No. 154/1961 which created the General Directorate of Ports and invited them to control the safety and security of ports and territorial waters and empower them to enact communiques and instructions for same and for public interest, the following provisory instructions will be in force for vessels lying in the Syrian ports and territorial waters until permanent regulations are issued for the safety of the harbours.

1. Any vessel calling at Syrian ports should contact the pilotage station or the signal towers upon entering Syrian territorial waters 12 miles (marine) giving her name, nationality and her cargo in case the whole or part is dangerous, also her ETA at the waiting zone of the port of destination.
2. The Masters of foreign vessels lying in Syrian ports should hoist the Syrian flag (size 63 cm.×126 cm.) in accordance with international maritime courtesy. The Agent should supply any vessel without same upon her arrival at Syrian ports.
3. The vessel should hoist international signals for a Pilot or for dangerous cargo, also the quarantine flag, etc., in accordance with her situation while approaching Syrian ports.
4. The vessels once in territorial waters are not authorised to receive any person on board before Free Pratique is granted by Harbour Authorities.
5. It is forbidden to receive any person after Free Pratique and during the stay of the vessel either in road or inner basin unless by written authorisation from the Harbour Authorities. Customs and Security are exempt when in service.
6. It is forbidden for a vessel to use her wireless when lying in Syrian ports or at anchorage unless with authorisation from the Harbour Authorities and in emergency cases.
7. It is forbidden for vessels lying in Syrian ports to use their own steam or electrical blowers, amplifiers or make any other signals not allowed by international rules to avoid sea collisions or the light signals authorised by the Harbour Authorities in accordance with Article 14 of the present communique.
8. Masters should keep at any time on board of their vessels while lying in the ports a continuous watch and enough seamen in order to secure the exploitation department necessities or during emergency cases, and in order to take the necessary steps to avoid fire and damages to others (Article 17 of D/Law 193).
9. If a Syrian watchman is appointed to watch the vessel, he must have an authorisation order from the Harbour Authorities. The shipping Agent is responsible for the execution.
10. It is forbidden to use the vessel's life-boats in the ports or in territorial waters unless by previous written authorisation from the Harbour Authorities on the basis of a written request stating the causes, the time of the dropping down of the life-boat from the vessel, and the time of its lifting provided the cause is necessary.
11. All vessels should keep their gangways up from sunset to 0700 hrs.
12. The hatches, stores, etc., should be covered and locked, if possible, during the night.
13. In case any objects from the vessel or their cargo drop into the sea, the Master should inform both the Port Co. and the Harbour Master immediately of same.
14. The following signals should be used for the above mentioned cases as follows:

		Signals	
	Case	*Sound*	*Lights*
a)	Attack by thieves	Sequence of 6 short blasts.	Sequence of 6 light signals and flashes from the foremast.
b)	Case of fire onboard or alongside	Sequence of long blasts, each set 6 blasts.	Sequence of 6 long flashes.
c)	Case of serious injury	Sequence of 2 long blasts.	Sequence of 2 long flashes from the foremast.
d)	Case of stranding	Sequence of 4 long blasts.	Sequence of 4 long flashes.

N.B.

1. Distance time between each sequence is half a minute, but the length of the signals should be in accordance with international signals regulations.

2. The above signals should be accompanied by wireless call on Channel 16 to both Pilotage and Stations in Syrian ports.

3. The above instructions do not forbid the use of other sound and light signals stated in the international rules.

NOTICE: Vessels proceeding to Syrian ports are required to signal the following to the port radio station when 50 miles from the port of destination.

(a) ETA.
(b) Nationality.
(c) Name.

BANIAS: 35.14 N. 35.56 E. (See Plan)

DOCUMENTS:

5 Copies Crew List.
1 Copy Vaccination List.
1 Copy Stores List.
1 Copy Private Stores List.
1 Copy Slop Chest.

In case of cargo to be discharged, Original and 2 Copies Manifest and 3 Copies Bill of Lading.

PILOTAGE: Compulsory. Pilots board all tankers approaching the Terminals. These Pilots act in the same capacity as Mooring Masters in the berthing of vessels, after which they supervise the raising of the flexible hoses and their connection to the ship's manifold. During loading operation they act as the Company's Representatives. The Company's Mooring Masters will meet tankers in the vicinity of Marqab Light Buoy.

It is requested that tankers of 40,000 d.w.t. and over should have rigged, when in light condition, an accommodation ladder lowered to about 12 ft., above the water. This can be adjusted to suit conditions. A pilot ladder should be rigged abaft the accommodation ladder, to within 4 ft. above the water. This will enable the Pilot to ascend the pilot ladder clear of the launch and then step on to the lower platform of the accommodation ladder. United Kingdom Merchant Shipping (Pilot Ladders) Rules is relevant.

APPROACHES: Vessels approaching the port should keep to the authorised passage, defined by the following co-ordinates:

(a) Lat. 35° 13′ 00″ N., Long. 35° 42′ 00″ E.
(b) Lat. 35° 13′ 00″ N., Long. 35° 56′ 00″ E.
(c) Lat. 35° 16′ 00″ N., Long. 35° 55′ 24″ E.
(d) Lat. 35° 16′ 00″ N., Long. 35° 40′ 34″ E.

ANCHORAGE: In the event of a berth not being available, or suspension of mooring operations on arrival, a good anchorage can be used South of the berths in the vicinity of the Marqab Light Buoy positioned at: Lat. 35° 12′ 7″ N., Long. 35° 54′ 46″ E. It is important to maintain a listening watch on VHF, Channel 16 or visual watch on the shore Signal Station positioned approximately at Lat. 35° 13′ 25″ N., Long. 35° 57′ 00″ E. and recognised at night by lozenge shaped lights, in order to avoid delays.

Vessels awaiting at anchorage for confirmation or other reasons, will be boarded by Mooring Master within 4 hours after berthing is decided.

MAX. SIZE:

	Draft		Length	
Berth No.	*Winter* (ft.)	*Summer* (ft.)	*of Vessel* (ft.)	*Purposes*
1	Removed			
2	48	50	900	Discharging Crude Oil
	50	51	925	Loading Crude Oil
3	49	50	950	Discharging Crude Oil
	51	52	950	Loading Crude Oil
4	40	42	800	Loading/Discharging Crude Oil
5	40	42	800	Fuel Oil and White Products
6	32	34	700	Fuel Oil and White Products
7	22	24	400	Liquid Gas
	26	28	550	Jet

Danger Marker: Positioned South of Berth No. 7, Lat. 35° 13′ 03″ N., Long. 35° 56′ 03″ E.

NOTICE OF READINESS: Time of Notice of Readiness tendered will be considered when vessel arrives in the very near vicinity of the Marqab Light Buoy (position Lat. 35° 12′ 27″ N., Long. 35° 54′ 46″ E.), where the Mooring Master, who is the Company's Representative, will board and receive ship and remain on board throughout the entire operation.

HEALTH: Masters of tankers due may obtain Free Pratique by addressing the usual quarantine message to their Agents through commercial radio channels.

RADIO/VHF: Syrian Company for Oil Transport, Banias Terminal must be informed 72, 48 and 24 hours prior to arrival of a vessel's ETA, quantity of cargo required if in a state to load and maximum loading rate required. All times to be given in GMT.

Banias Terminal Radio Station – Call sign: "YKM 5". Frequency: 500 kHz and 442 kHz and VHF Channel 16. Also see "Radio Procedure" below.

Tanker VHF Radio Communications: Vessels approaching Banias can communicate with the Terminal by FM, VHF, Channel 16. Range 30 to 40 miles. Frequency 156.8 MHz. Simplex Operation. Call sign: "Banias". On arrival, ship's radio installations will be sealed according to normal practice and the boarding Mooring Master will put his own portable equipment on board. Communications will then be as follows:

Banias – Equipment: Fixed station sited in the Terminal. Call sign: "Banias". Frequency: Transmitting 163.6 MHz. Receiving 159.1 MHz. Range: 8 miles. Watches: Continuous whilst vessels are in port or immediate vicinity.

Mobile Station – Equipment: Placed aboard vessel on arrival at Banias. Call sign: Ship's name. Frequency: Transmitting 159.1 MHz. Receiving 163.6 MHz. Range: 5 miles. Watches: Mutually agreed between ship and the Terminal on first establishing contact.

Note: The radio telephone circuit is connected with the main Company Communications network in Banias Terminal.

Radio Procedure:

Station Banias Syria
Private station for communication
with tankers bound for Banias, Syria.

Call sign: YKM5
Address: S.C.O.T. Banias – Syria

MF Schedules (A1)

Banias Radio Station (YKM5) keeps a 24 hours continuous watch on 500 kHz and answers calls on 500 kHz QSY 440 kHz for traffic. Broadcasts traffic list on 500 kHz at 0430, 0830, 1230, 1630 and 2030 (GMT) receives on ship frequencies 425, 454, 468, 480 and 512 kHz – also broadcasts traffic lists, on 440 kHz at 0432, 0832, 1232, 1632 and 2032 (GMT).

HF Schedules (A1)

Time GMT	*Listens on*	*Answers on*	*Traffic list at (GMT)*
04 – 05	4 MHz Band	4351 kHz	0410
05 – 06	8 MHz Band	8667 kHz	0510
08 – 09	6 MHz Band	6493 kHz	0810
09 – 10	12 MHz Band	12987 kHz	0910
12 – 13	8 MHz Band	8667 kHz	1210
13 – 14	16 MHz Band	16967 kHz	1310
16 – 17	16 MHz Band	16967 kHz	1610
17 – 18	6 MHz Band	6493 kHz	1710

VHF Schedules (F.3)

Banias Terminal keeps watch on 156.8 MHz (Channel 16). This has a range of approximately 40 miles and its call sign is "Banias".

Confirmation of ETA's: It is essential that tankers, bound Banias, communicate with YKM5 at least 48 hours prior to arrival and thereafter maintain contact, stating cargo quantity and grade, maximum loading/discharging rate and pressure at ship's manifold, SWL of derrick capacity, n.r.t. and d.w.t. and actual draft.

Failure to give any notice at least 24 hours prior to arrival will increase the laytime allowed by an amount equal to the difference between 24 hours and the number of hours prior to arrival.

Note 1: YKM5 deals only with TFC. For:
S.C.O.T., Banias
QSJ Nil.

Note 2: YKM5 uses only two frequencies out of HF Schedule until further notice.
0500 – 0600 8667 kHz
0800 – 0900 6493 kHz
1700 – 1800 6493 kHz

TUGS: Available only on demand from General Directorate of Harbours at Lattakia.

MOORING REQUIREMENTS: For tankers loading/discharging at Banias are as follows:

Forward:

Anchors to be fitted with marker buoys with 20 fathoms of line.
2×120 fathom mooring lines.
2 rope stoppers.
1 suitable wire stopper (preferably Carpenter Patent) for use with 4.75 in. to 5.5 in. mooring lines.

Aft:

4×120 fathom mooring lines.
4 rope stoppers.
2 suitable wire stoppers (preferably Carpenter Patent) for use with 4.75 in. to 5.5 in. mooring lines.

Boat Ropes

To be rigged on either side of ship, and of not less than 4.5 in. circumference.

BERTHING: At all berths vessels moor using both anchors forward, with wires to a buoy on the port bow, one buoy astern and one on each quarter. Hoses are lifted on the port side to be connected to the ship's manifold which must have pressure gauge fitted.

Berthing Operations: Berthing Operations will take place:

a) Loading Crude Oil: Day and night SHinc weather permitting.
b) Discharging Crude Oil: Only between 0600 hrs. and 1600 hrs. local time SHinc weather permitting. Number of hours beyond the restricted hours will not count as lay-time for vessels on demurrage or not.
c) Loading/Discharging Products: According to "Mahroukat" and "Banias Refinery" instructions.

HOSES:

Berth No. 2: 2×20 in./16 in. hoses. } End in 12 in. reducers
Berth No. 3: 2×20 in./16 in. hoses.
Berth No. 4: 1×16 in. hose.

Berth Nos. 5 and 6: 2 submarine pipes of 24 in. each connected with 2 strings of 7 hoses by 16 in. each ended with 12 in. reducers.

Berth No. 7: One liquid gas line of 10 in. connected with 1 string of hoses by 8 in. ending with butterfly valve and camlock.

One balance line of 6 in. connected with 1 string of 7 hoses by 4 in. ending with butterfly valve and camlock.

One kerosene line of 20 in. conncted with 1 string of 7 hoses by 12 in. ending with 12 in. butterfly valve for 150 ASA flange.

SWL of Derricks:

Berth Nos. 2, 3, 4, 5 and 6: Minimum 7 tons.
Berth No. 7: Minimum 3.5 tons.

FRESH WATER: Available through Agents by means of barges, cost US$10.00 per ton.

BALLAST: All tankers should ensure ballast is clean. Authorities are most strict and impose heavy fines for the slightest contravention. Ballast quantity should be kept to the minimum required to ensure safe manoeuvring. No facilities for disposal of ballast ashore.

Banias is an open roadstead and sudden changes in weather can be experienced especially during the Winter months. It is good practice to commence loading as soon as hoses are connected and whilst ballast discharge is still in progress, always providing this can be achieved safely and with no danger of contamination.

FUEL: Bunkers are not available at Banias.

POLLUTION: The Port Authorities will, in cases where pollution is ascertained, collect a declaration from the Master of the offending ship, in which declaration he authorises his Agents to pay any fine to be levied by the Official Committee in the future.

In the light of the above and to avoid any delay to vessels, Owners are kindly requested to:

1. Supply vessels with necessary chemicals to destroy any quantity of oil overflowing into the sea.
2. Provide a bank guarantee of Stg. £5,000 to be deposited against eventual fines. Such a guarantee (or cash) must be given before offending vessel is released.

LOADING: Ships' Personnel are solely responsible for the loading operation, i.e. starting, loading rate, tank switching, topping off, stopping, etc. The Mooring Master will pass requirements to the shore control. It is in vessel's interest to advise loading rate required, also to give 30 minutes' notice of expected time of commencing loading. Order to start will be taken as final.

The Mooring Master must be advised when ship estimates 1,000 tons to go for completion of loading.

Ensure scuppers are effectively plugged. On no account are plugs to be removed.

A complete watch on deck must be maintained throughout the operation, especially towards the shore signal station, to ensure safe loading and avoid delays.

Discharging pressure which should be maintained during the operation at ship's manifold is to be according to Terminal Requirements which will be handed over to the Master at each call of vessel.

MEDICAL: Hospital facilities or other relevant medical information are available through Agent on and/or prior to arrival of vessel.

TANKERS: See "Hoses". Slops (residue) are not allowed to be discharged as no facilities for treating same are available.

CUSTOMS ALLOWANCES: According to regulations or at Customs' own discretion.

SURVEYORS: Through Agents – Shipco.

REPATRIATION: Facilities exist through Agents.

TIME: Local time is GMT plus 2 hours.

SHORE LEAVE: Permission may be obtained from Immigration Dept. ashore through Agents.

DELAYS: Confirmation, restricted berthing hours, unsuitable weather and free berths.

REGULATIONS: Terminal Requirements and Conditions of Use of Terminal Facilities will be handed over to Master of vessel at each time of call. The following are some of the regulations in the booklet.

Vessel in Berth: Ships are not allowed to remain in berth for any reason when loading operation stopped. Hoses should be disconnected and dropped to sea unless stay authorised by Terminal Superintendent.

Lighting: During hours of darkness the manifold and poop mooring area of the sea in vicinity of ship should be adequately lit.

Main Engines: Must be kept on shore notice. Repairs which will immobilise must not be carried out in berth.

Deck Machinery: Must be ready for immediate use at all times.

Whistle or Siren: To be available at all times.

Signalling: An "Aldis" type lamp to be readily available.

Stores, Provisions, Etc.: It is strictly forbidden for provisions, stores or other items to be received or discharged whilst loading is in progress. Launches or other craft must not lie alongside during the same period.

Tanker Safety Regulations: Tanker Safety Requirements must be strictly adhered to at all times. The Mooring Master is authorised to stop all operations should he consider the safety regulations are not being complied with.

Boarding: The boarding of a vessel whilst in mooring should be restricted to persons holding valid passes which are issued by the Syrian Company of Oil Transport (SCOT) on application to ship's Agents and authorised chandlers.

This restriction is carried out in conjunction with the Syrian Harbour and Security Authorities.

WEATHER: The Director of Port Authorities has issued statistics of the weather conditions along the Syrian coast after an experience of 20 years.

State of winds and whirlwinds on the Syrian Coast

Winter	*Kind and direction of winds*
December	Regular winds blowing from N.E. to S.E., sometimes S. to S.W., the alteration of winds is accompanied with rains.
January	Excess of storms starting to blow from S.E. to N.E. The alteration of winds from the E. is occasionally accompanied by heavy rains with probability of hail.
February	Excess of storms and heavy rains blowing from S.W. to N.E. and E.
Spring	
March	Variable winds from S.E. to S.W. and accompanied by heavy rains and altering to N.W. slight.
April	Variable winds from N.W. and S.W., and S. winds accompanied with light rains.
May	Regular winds blowing S.W. to N.W. and altering to S. sometimes accompanied by rain.
Summer	
June	Slight winds from S.W. and S.
July	Moderate winds from S. to S.W.
August	Slight N.W. winds.
Autumn	
September	Winds S.W. and N.W. accompanied by some rain from 15th September. Winds will lighten during the end of the day and will alter at night to slight E.
October	Variable winds from W. to S. and N.W. accompanied by rain will alter at night to E.
November	The winds are variable from N.E. and N.W. accompanied sometimes by rain which will alter to E.

SERVICES: In the event of tankers requiring assistance to lift loading hoses, recover lost anchors, and cables, etc., limited aid may be given during normal working hours. Current charges are available on application from Agent.

SHIPMASTER'S REPORT: Cigarette allowance is strictly enforced at 40 cigarettes per man, and has to be carefully declared. If the Chief Steward has a slop-chest, it has to be carefully declared. Whisky has to be declared separately from other spirits, but in practice it is better to declare each type of spirits separately.

The ship's Log Book is stamped by the police.

AUTHORITY: Syrian Company for Oil Transport (S.C.O.T.), P.O.Box 13, Banias (Tartous), Syrian Arab Republic. *Telex:* Scot 441012 Sy. *Cables:* Scot, Banias. *Contact:* Terminal Superintendent.

AGENT: The Shipping Agencies (Shipco) Syria, P.O.Box 28, Banias. Tel: 21583. Telex: 470020 Sy. Cables: Shipco, Banias. Radio: VHF Channel 16.

BORJ ISLAM: 35.40 N. 35.48 E. (See Plan)

SHIPMASTER'S REPORT: October 1980.

LOCATION: Borj Islam is located at Lat. 35° 40′ N. Long. 35° 47′ 35″ E. 1.4 miles to the North of Ras El Fasori.

This location was adapted about 2 years ago by the Syrian Government as a discharge zone for LPG carriers and tankers of small tonnage. In this respect, we know that the last vessel to visit this port was an LPG carrier of approximately 5,000 tons.

The coast is a conspicuous promontory with deep water in front of it. For mooring at night, there are no lights indicating this berth, and this presents difficulties.

By day, one can steer towards the cement works which is the most important point of reference in that vessels berth beneath these works.

ANCHORAGES: Vessels arriving by night should anchor in the nearby roads of Lattakia.

By day, the advisable anchorage is 200 m. on a bearing of 140° from the cement works.

PILOTAGE: Pilot must be contacted on arrival on VHF Channel 16 at Lattakia, and instructions will be given for berthing. The Pilot boards vessels at Borj Islam.

BERTHING: This is very difficult since there are no berths or buoys. The vessel berths "stern to the land" with 2 anchors 6/7 shackles on each and lines are fixed on to rocks.

Great attention must be paid to winds from the South or S.W. and West or N.W., since this location is open to such winds.

DISCHARGE: This is effected with hoses (supplied by the ship for connection purposes). The product is discharged slowly to tanker trucks.

The position where the vessel anchors has a depth of water from 11 m. to 40 m.

LATTAKIA: 35.31 N. 35.46 E. (See Plan)

PORT LIMITS: The seaward boundary of the port is about 2 miles West of the main breakwater, starting with the entrance line of 133° South.

DOCUMENTS: In addition to the copies of Bills of Lading, Cargo Manifests and the various Ship's Certificates, the Master of an arriving vessel must produce the following documents:

Crew List, showing full names of crew members, nationality, date of birth, and rank onboard.
Stores List.
Passengers List.
Health Certificates and International Inoculation Certificates.
All other documents relevant to the ship.

PILOTAGE: Upon a vessel's arrival at the anchorage area, she may call the Pilot in any of the following ways:

(a) Flying the internationally recognised flag.
(b) Blowing the ship's whistle – 2 long and 1 short.
(c) Calling the pilot station on VHF – Lattakia pilot station – using Channel 16.
(d) Signalling the pilot boat. – Grey colour hull and white colour bridge, always flying the Pilot's flag (letter "H").

The Pilot boards an arriving vessel when she has reached a distance of about a few hundred metres West of the Breakwater Head under good weather conditions. When the weather is bad, an arriving vessel is directed to the port basin entrance by VHF. The Master is advised of proper directions to follow and when he is to lower the pilot ladder to the lee side, by the Pilot.

Traffic List: Broadcast twice daily on VHF Channel 16:

Meeting takes place at 1100 hrs.

ANCHORAGES: Upon arrival at the anchorage area referred to under "Port Limits", the vessel has to wait for orders. This Anchorage Area has a depth of 20 m. – 25 m., and all Masters waiting there have to keep listening on VHF Channel 16, from 0600 until 2200 hrs. local time, for fresh orders. It is always recommended to keep a special watch on VHF Channel 16, for sudden orders.

RESTRICTIONS: The state of tide at Lattakia is negligible, and all vessels may enter and sail out of the harbour by night or day provided she has a Pilot onboard.

MAX. SIZE: The maximum permissible length, breadth and draft of an arriving vessel are determined by the place of berth or anchorage point outside the breakwater.

HEALTH: All arriving vessels are boarded by the quarantine service to whom all relevant documents are submitted, in particular the Derat Certificate, and incidents onboard reported.

The application is filed by the Agent, who accompanies the boarding authorities. Free Pratique is never automatic.

RADIO: The name of the Lattakia station is "Lattakia Radio" on 2182 kHz or Channel 16 on the VHF. Following first contact another Channel is agreed upon, leaving Channel 16 for the pilotage service.

VHF: See "Radio" and "Pilotage".

TUGS: 16 tugs up to 1,100 h.p. Tugs are always under the direct orders of the Pilot and join the vessel at the point the Pilot boards. Usually ship's lines are used but there is no charge for the use of the tug's lines.

BERTHING: Quay berths available as follows:

Name	*Length* (m.)	*Depth* (ft.)	*Remarks*
Khahaleh Quay	600	31	28 ft. 6 in. at the root.
Silo Quay	185	25	27 ft. 6 in. at the root.
Passenger Quay	240*	22 – 31	
*East Division	55	—	21 ft. at the root.
*West Division	185	—	25 ft. at the root.
Eastern Quay	270	22	
Northern Quay	276	13	
Others	530	—	For Port Services.

None of these quays is a specialised one. Cargo is loaded or discharged either by the ship's gear or Port Co. Cranes, at the entire discretion of the latter. A ship may operate in the basin or open road in and from barges.

CRANES: Electric quay cranes: 16×3-6 tons. Mobile cranes: 58×3-12 tons, 4×15 tons, 6×70 tons. Floating cranes: 1×100 tons, 1×32 tons. Forklifts: 2×30 tons (containers), 92×2-6 tons, 4×8 tons. Straddle carriers: 4×32 tons.
2 floating cranes, 100 ton and 32 ton.

BULK CARGO FACILITIES: *Grain Silos:* In the silo, there are 72 storage bins, the capacity of each is 45,000 tons of grain in which operations of sieving, fumigation, drying and filling can be carried out.

Grain is shipped automatically onboard vessels at a rate of 150 t.p.h. This rate can be doubled when the repairs are completed. Grain is discharged ex-vessels by sucking devices, the total capacity of which reaches 200 t.p.h. A study is being carried out to provide grain silos with automatic intake equipment and to develop the silos quay.

STEVEDORES: 24 hours' ETA advice is required to arrange working gangs if vessel is scheduled to operate on arrival. The average loading and discharging rates vary with the type of vessel, nature of cargo, where berthing and whether working in lighters or not.

MEDICAL: Except for urgent cases on board, the Agent need not be notified in advance. Hospitals in town available, and likewise doctors and private clinics. No particular inoculations are required.

DENSITY: Salinity is 1.033 (33 grams Salt per cu.m.).

FRESH WATER: Supplied either from hydrants alongside main quay or from tank barge (capacity 170 tons).

FUEL: All types of marine fuels are available, may be delivered in any quantity from tank trucks alongside quay. 48 hours' notice is required.

FIRE PRECAUTIONS: No specific precautions except that vessels carrying explosives must operate and discharge into lighters in the open Roads.

CONSULS: Sweden, Finland, Netherlands, Greece, Italy, Spain, Portugal.

REPAIRS: Only minor deck, radio, and radar repairs may be carried out. Extensive and specialised workshops are not available.

DRY DOCKS: Not available. Only a 900 ton slipway is in operation.

SURVEYORS: Only minor surveys by Lloyd's, German Lloyd's and Veritas.

GANGWAY/DECK WATCHMEN: Compulsory and are supplied at a hire rate of LS 48.00 per watchman per day.

HATCHES: Normally opened and covered by the ship's crew.

CUSTOMS ALLOWANCES: Cigarettes, 2 packs per man. Spirits, as would be reasonably agreed with the Customs on board prior to sealing the vessel's stores.

CARGO GEAR: Two floating cranes are available – one of 100 tons capacity and the other of 32 tons. Both may be used at the entire discretion of the Lattakia Port Company. Also one mobile crane of 25 tons capacity.

REPATRIATION: All facilities exist and are attended to by the vessel's Agent.

AIRPORT: Damascus International airport is 340 km. from Lattakia by road.

TIME: Winter Time GMT plus 2 hours. Summer Time GMT plus 3 hours.

HOLIDAYS: Following the Lunar Calendar, the first 2 days of Bayram and Al-Adha are the only non-operational days.

POLICE/AMBULANCE/FIRE: Police Tel. No. 93; Ambulance Tel. No. 93; Fire Tel. No. 91.

TELEPHONES: No proper arrangements exist. Vessels in port may use VHF Channel 16 with the pilot station of Lattakia Radio.

SHORE LEAVE: Crew members allowed ashore to visit the city with shore passes issued by the Police Authorities in the port.

IDENTIFICATION CARDS: Shore passes in addition to the Seaman's Book.

DELAYS: Vary with state of congestion prevailing in the port.

DEVELOPMENTS: The execution of the 2nd development stage underway and it will cover the following new facilities:

Specialised container and Ro/Ro quays.

Draft	*Length*	
13.3 m.	260 m.	Containers
11.8 m.	190 m.	Containers
11.8 m.	200 m.	Ro/Ro
11.8 m.	350 m.	General Cargo
10.5 m.	425 m.	General Cargo
7.0 m.	450 m.	General Cargo

In addition there will be new warehouses and stacking areas totalling 230,000 sq.m.

In its planning, the Company has provided for the import of equipment and machinery in a way that meets the needs of the enlarged area. Same will be supplied in accordance with fixed time schedules corresponding to the progress of execution.

There have been calls for tenders for the supply of the following equipment:

16 mobile quay cranes of 6 tons capacity (contract presently being negotiated).

2 mobile quay cranes of 16 tons capacity (contract presently being negotiated).

2 tug boats 1,500 tons (under contract).

3 passenger boats, each can accommodate 15 passengers (under contract).

Gantry cranes 45 tons capacity (under contract).

10 forklift trucks 10 tons capacity (under contract).

2 forklift trucks 30 tons – 35 tons capacity (under contract).

4 straddle carriers (under contract).

A call for tender for the supply of the following equipment is presently being prepared:

Diesel mobile crane 10 tons capacity.

A pilot boat.

VHF station and equipment.

SHIPMASTER'S REPORT: December 1979.

Documents: Health Declaration, De-Rat Certificate, Ship's Register, Cargo Manifest, all Safety, Loadline and Radio Certificates.

Pilotage: Compulsory. Pilot boards in the Roads. Normal ETAs required.

Anchorage: Vessel anchored approximately 1 mile West of the breakwater in 60 ft.

Restrictions: Vessel may enter and leave at any stage of the tide; day or night.

Max. Size: Max. draft at present 28 ft. 6 in., (this is to be increased). Keel clearance of 1.5 ft. required.

Health: Vessel anchors on arrival. Free Pratique filed by Agent who accompanies boarding authorities. The authorities sign the log book and inspect all certificates which must be up-to-date.

Radio: Lattakia Radio or Banias Radio.

VHF: Pilot and Port Authority on Channel 16.

Tugs: 5 tugs available. Tugs are required for berthing, however vessels may unberth without tugs.

Berthing: Vessel berthed at the main quay which is 1 mile from the entrance. A total of 4 berths are available plus a Ro/Ro berth. Max. size (approximately) LOA 190 m., beam 25 m. and deepest draft 28 ft. 6 in. The least depth of water in the channel from sea to the berth is 30 ft. Mean tidal range is negligible. Nature at the bottom is mud and the density is 1033.

Cargo Handling Facilities: There are bulk handling facilities for grain and molasses.

Cranes: There are approximately 20×5 ton cranes on the main quay. There are 2 floating cranes, 1 of 35 tons capacity and the other 100 tons capacity.

There is limited storage space for containers, however this is to be increased. There is equipment for handling 20 ft. and 40 ft. containers.

Facilities: The following are available: Fresh water (poor quality), fresh provisions (poor quality), minor repairs, airport (at Damascus 340 km.), Lloyd's Surveyor (Agency), Salvage Surveyor (Agency), ship's laundry (good but expensive), bunker fuel oil and diesel oil (by truck), doctor and hospital, groceries and meats.

Consuls: Sweden, Finland, Netherlands, Greece, Italy and Portugal.

SHIPMASTER'S REPORT: January 1982.

Approaches to Lattakia: The entrance to Lattakia Harbour is well defined but vessels must approach the Green Buoy near breakwater with extreme caution. A wreck is located in position: Lat. 35° 32′ N., Long. 35° 43′ E., approximately on a bearing of 275° – 1.8 miles from the Green Buoy. A wide berth must be given on entry to Lattakia to this wreck (m.v. "Bravo Neck") with full load of cargo.

The harbour is generally congested and a long delay at outer anchorage must be anticipated. It is advisable for ships to register in advance if this is feasible, to avoid delay. The outer anchorage does not afford good holding ground and during near gale force winds ships are liable to drag anchor.

A traffic list is generally broadcast on VHF Channel 16 at 0600 hrs. and 1800 hrs. daily.

Logistic supplies are poor and water is a difficult commodity to obtain. Ships are advised to top up with water and fuel before arrival at Lattakia.

A prominent land mark (whitish hotel) is visible approximately 1 mile West of Rasibin Hani Light.

AUTHORITY: Lattakia General Port Company, P.O.Box 220, Baghdad Street, Lattakia, Syrian Arab Republic. *Tel:* 23900/1/2/3/6. *Telex:* 451008 Lapoco Sy. *Cables:* Latakia Port. *Contact:* Madhat Abul Shamlat, General Manager.

AGENT: Shipco (Sole Agent), P.O.Box 28, Lattakia. Telex: 51057. Cables: Shipco.

TARTOUS: 34.53 N. 35.45 E. (See Plan)

DOCUMENTS: Bill of Health – The usual International form should be filled in on arrival and the Agent will deliver on board the Bill of Health and Port Clearance upon departure.

Manifests – Should be certified by the Syrian Consulate at port of loading in 4 copies.

Ship's Registry – To be presented to the Port Authorities upon request.

Crew List – 4 copies should be handed over to the Agent along with passenger or transit manifests.

Stores List – 2 copies required by Customs who will allow 40 cigarettes to be retained by each person on board, the balance of slop chest and stores shall be sealed during ship's stay in port. Customs officers are at liberty to search crew quarters.

Derat Certificate – Valid certificate required and no extension can be obtained.

APPROACHES: Vessels approaching the port should keep to the authorised passage defined by the following co-ordinates:

Lat. 34° 56′ 24″ N., Long. 35° 38′ 00″ E.
Lat. 34° 56′ 24″ N., Long. 35° 48′ 36″ E.
Lat. 34° 59′ 00″ N., Long. 35° 50′ 00″ E.
Lat. 34° 59′ 00″ N., Long. 35° 52′ 36″ E.
Lat. 34° 54′ 24″ N., Long. 35° 51′ 12″ E.
Lat. 34° 54′ 24″ N., Long. 35° 37′ 48″ E.

ANCHORAGE: Vessels proceeding to Tartous pick up Pilot at the Anchorage which is 0.5 miles S.W. of the main breakwater. The rocky bottom constitutes good holding ground with a depth of up to 20 m. of water.

MAX. SIZE: At present minimum depths are at the entrance of the harbour about 2 cables seaward of the green light on the S.W. Breakwater. Depth about 33 ft. Max. draft 32 ft. dependent on swell. Also see "Tankers".

RADIO: *Confirmation of ETA:* Before arriving at Tartous terminal, tankers must inform Tartous Control (T.T.C.) of their ETA, 72 hours and 24 hours in advance, stating: Discharging port and quantity of cargo required. Also must make contact with T.T.C. at least 2 hours before ETA at Tartous anchorage area to receive loading instructions.

Procedures for Coast Station Communication: All times in GMT.

1. After general call on 500 kHz, terminal broadcasts traffic lists on 479 kHz at 0730, 1130, 1430 and 2030 hrs., and keeps watch on 500 kHz from 0500 hrs. till 2130 hours. Answers on 479 kHz.

2. After general call, transmits its traffic lists simultaneously on 8472 and 12699 kHz at 0830, 1330 and 1930 hrs.

Keeps watch on the 8354 – 8374 kHz band from 1100 – 1130 hrs.
from 1500 – 1530 hrs.
from 1800 – 1830 hrs.

And answers simultaneously on 8472 and 12699 kHz.

3. Keeps watch on Channel 16 for 24 hours.

4. Keeps watch, calls and replies on 2182 kHz from 1100 – 1130 hrs.
from 1430 – 1500 hrs.

5. Land station charge free for motor tankers.

Tartous Terminal Station, Lat. 34° 57′ N., Long. 35° 52′ E.:
FC YKI 500 A1 600 watt. Hours 0700 – 2300 hrs.
479 A2
427 A2
8472 A1
12699 A1

BERTHING: Mooring Masters are temporarily supplied by Lattakia Port and vessels should therefore contact Agents at Lattakia giving them their ETA and requirements. Vessels berth heading to the predominant S.W. winds, i.e. starboard side alongside unless contrary winds prevail at the time of the berthing.

Southern breakwater – 2,650 m. long called Main breakwater
Northern breakwater – 1,650 m. long called Lee breakwater

The distance between the 2 heads of these breakwaters is 250 m. with a depth of 10.5 m., which is being dredged in order to bring it up to 13 m.

The harbour is divided into 3 basins which are protected by the 2 breakwaters: (1) The North basin; (2) The Middle basin; (3) The Southern basin. The Southern basin is the only one used presently, for the discharge of cargo.

12 vessels can be moored at anchor inside the breakwater of this basin, the depth being between 8 m. – 13 m. The turning circle at the entrance is 450 m. diameter with a depth of 11 m. – 13 m.

The main quay which is 150 m. wide offers on its Southern side from the shore side 300 m. of jetty with a depth alongside of 2 m. – 4 m., 300 m. with 8 m. and 200 m. with 9 m. to 10.5 m. depth. A standard gauge railway line is installed on the entire length of the quay.

POLLUTION: See "Banias".

TANKERS: *Operator:* Syrian Crude Oil Transportation Co.

Maximum safe length of tankers acceptable – 280 m.
Maximum safe draft of tankers acceptable – 52 ft.
Maximum deadweight of tankers acceptable – 100,000 tons.

There are 2 berths for loading:

No.	*Max. Rate*	*Sealine*	*Hoses*	*Depth of Water*
1 (North)	4,000 t.p.h.	1×28 in.	2×12 in.	76 ft.
2 (South)	5,000 t.p.h.	1×28 in.	2×12 in.	72 ft.

Loading is by gravity and loading rate depends upon height of tank and level of oil. All strings of hoses are fitted with 12 in. connections.

Notice of Readiness: Notice of Readiness will be accepted when vessel arrives in the very near vicinity of the anchorage area (Position Lat. 34° 56′ 42″ N., Long. 35° 49′ 30″ where the Mooring Master, who is Company's representative, will board and receive vessel and remain on board throughout the entire operation.

Pilot Ladder: Combination of accommodation and pilot ladder to be rigged, accommodation ladder to be lowered to within 12 ft. of water. Pilot ladder to be placed abaft and to within 3 ft. of water.

Anchorage: In the event of berth not being available or suspension of mooring operations on arrival a good anchorage is to be used South of the berths in the vicinity of the anchorage area.

Shore Control will keep vessel advised of expected time of berthing, etc.

It is important and in the vessel's interest to maintain a listening watch on Channel 16 or a visual watch on the shore, to avoid delays.

On being advised of expected time "Mooring Master will board", heave short anchor before his arrival.

Moorings:

Forward: Anchors to be fitted with marker buoys with 20 fathom of line. 2×120 fathom mooring lines; 2 rope stoppers; 1 suitable wire stopper (preferably carpenter patent) for use with 4.75 in. – 5.5 in. circ. mooring wires.

Aft: 4×120 fathom mooring lines; 4 rope stoppers; 2 suitable wire stoppers (preferably carpenter patent) for use with 4.75 in. – 5.5. in. circ. mooring wires.

Boat Ropes: To be rigged on either side and of not less than 4.5 in. circ.

Derricks and Cranes: SWL of 7 tons is recommended. it must be capable of plumbing overside abreast of loading manifold.

Loading Manifold: 2 suitable reducers to be fitted prior to arrival on port side and to be connected to the Oil Company's hose connections (12 in. series 150 flanges). The following tools to be available: 2 spanners 0.375 in., 2 spanners 0.875 in., 2 hammers 7 lbs., 1 axe 2.5 lbs.

Hose hang-off bitts are required at about 10 ft. from the ship's rail at the loading manifold to secure submarine hoses on the port side.

Safety of Mooring: On completion of mooring operation vessel must have not less than 7.5 shackles of anchor chain in the water.

Ballast: No dirty ballast.

(a) The Port Authority is most strict and will impose heavy fines for any oil pollution of the sea. In addition they may order vessel out of the berth to sea to clean any such contaminated ballast, and keep it on board vessel in a separate or slop tank. N.O.R. will not be accepted until ballast becomes clean.

(b) Ensure ballast quantity on board is kept to a minimum to safe manoeuvre in the prevailing weather conditions.

(c) Excess ballast causes delay, Tartous is an open roadstead consequently sudden changes in weather can be experienced especially during the Winter months. It is good practice to commence loading as soon as hoses are connected and whilst ballast discharge is still in progress, always providing, this can be achieved safely and with no danger of contamination.

(d) Leakage or spillage of oil on board ship must be collected and not be swept or washed overboard.

Ship's Assistance: Ship's crew with an Officer in Charge to assist in all operations as advised by the Mooring Master. This includes lifting, connecting, disconnecting, lowering of hoses and tending anchor cables and moorings.

Deck Watch: A complete watch on deck must be maintained throughout the operation, especially towards the shore Signal Station to ensure safe loading and to avoid delays.

Deck Scuppers Plugs: Ensure scuppers are effectively plugged. On no account should plugs be removed.

Loading Operations: (a) Ship's personnel are solely responsible for the loading operations, ie. starting, loading rate, tank switching, topping off, stopping, etc. The Mooring Master will pass requirements to Shore Control. It is in vessel's interest *to advise loading rate required, also to give 30 minutes' notice of expected time of commencing loading.*

(b) Should vessel require adjustments in the loading rate, please advise the Mooring Master, sufficient notice must be given to enable shore operators to comply. Failure to give proper warning may cause delay or a tank overflow on board.

(c) The Mooring Master will not transmit any loading instructions to the shore until the responsible Ship's Officer has admitted that:

Ship is safely moored.
Hoses are correctly connected.
All valves have been set for receiving cargo.

Order to start will be taken as final.

Vessels in berth: Ships are not allowed to remain in berth for any reason when loading operation is stopped, or disconnect hoses and drop them into the sea unless authorised by Terminal Superintendent.

Lighting: During hours of darkness the manifold, poop, mooring area of sea in vicinity of ship should be adequately lit.

Main Engines: Must be kept on short notice. Repairs which will immobilise them must not be carried out in berth.

Deck Machinery: Must be ready for immediate use at all times.

Whistle or Siren: To be available at all times.

Signalling: An "Aldis" type lamp to be readily available.

Stores, Provisions, etc.: It is strictly forbidden for provisions, stores or other items to be received or discharged whilst loading is in progress, launches or other craft other than Company launches must not lie alongside during the same period.

Tanker Safety Regulations: Must be strictly adhered to at all times. The Mooring Master is authorised to *stop all operations* should he consider that Safety Regulations are not being complied with.

Boarding: The boarding of vessel whilst in mooring should be restricted to persons holding valid passes which are issued by the Terminal Superintendent on application to ship's Agents and authorised Chandlers. This restriction is carried out in conjunction with the Syrian Harbour and Security Authorities.

Vessel not allowed to send any crew or materials outboard for any reason before asking Agents for granting the official authority.

Guests: Masters wishing to receive guests on board should make arrangements through their Agents.

Action in Case of Emergency: In the event of fire, oil spillage or other emergency on the vessel

The Emergency Signal is

3 or more blasts of not less than 10 seconds duration each
on whistle or siren supplemented by a continuous ringing
of the general alarm bells.

Corridor: The corridor must be followed by vessel to Tartous Terminal:

Corridor Leading to Tartous Terminal

(a) Lat. 34° 59′ 00″ N., Long. 35° 50′ 00″ E.
(b) Lat. 34° 59′ 00″ N., Long. 35° 52′ 36″ E.
(c) Lat. 34° 56′ 24″ N., Long. 35° 38′ 36″ E.
(d) Lat. 34° 56′ 24″ N., Long. 35° 38′ 00″ E.
(e) Lat. 34° 54′ 24″ N., Long. 35° 37′ 48″ E.
(f) Lat. 34° 54′ 24″ N., Long. 35° 51′ 12″ E.

FRESH WATER: Unlimited supplies available to vessels berthed alongside the main pier.

FUEL: Only available in very limited quantities by tanker truck.

MEDICAL: Medical facilities are available, but serious cases may involve transportation to Lattakia or Damascus.

FLOATING CRANE: A floating crane of 100 tons lifting capacity available.

SHORE LEAVE: No amenities for the crew exist in the town of Tartous but crew may, if required, proceed ashore with a landing permit issued by the local security services.

WEATHER: See "Banias".

DEVELOPMENTS: A new quay for phosphate is now under construction 300 m. long and 4 m. depth and will be prolonged by a quay of 250 m. length and 11 m. depth for vessels loading phosphate up to 35,000 tons capacity. 1 shiploader, rate 1,000 t.p.h.

A dry dock will be soon under construction for repairing vessels and tankers with a capacity varying between 40,000 tons and 60,000 tons. Also 2 slip-ways for general overhaul for small vessels of 1,000 tons and less.

SHIPMASTER'S REPORT: September 1979

Time Zone: GMT plus 2 hours.

Papers Required:

1 Health Declaration.
8 Crew Lists.
1 General Information Sheet (Ship's details)
1 Provisions List.
1 Bonded Stores List.
1 Crew Effects List.
1 Firearm & Ammunition Declaration (Letter even if none).

Radio: Certain regulations are in force when approaching Tartous. When 50 miles off the coast, the following should be sent through Lattakia Radio to Tartous Harbour Master.

1. Name of ship.
2. Nationality.
3. Type of Vessel.
4. Position and time.
5. Maritime Passage to port of call.
6. Speed.

From experience it was found that Lattakia Radio did not answer until 0630 hrs. Local Time.

Approaches: Approach to Tartous should be made along the Maritime Passage between the parallels of 34° 54′ 24″ N. and 34° 56′ 24″ N. on a course of 090° from 12 miles off.

Pilotage: Pilots commence work between 0530 hrs. and 0600 hrs. and can be called on VHF Channel 16. The pilot station will require draft, length, and type and tonnage of the cargo. The latter being important as vessels with less than 300 tons have priority, as do container vessels and Ro/Ro ferries.

It is most probable that it will be necessary to anchor off because of congestion. Vessel was anchored in a position with the end of the main breakwater bearing 110° True, distance 1.35 miles in a depth of 15 fathoms. Holding ground is reputed to be good.

Clearance: Vessels will normally be cleared on arrival at the anchorage if arriving in the morning or before 1400 hrs. If not, then Notice of Readiness can be sent via Tartous Radio.

Registration: It is possible to proceed to Tartous, register a turn for berthing and then proceed to another port.

When waiting for a berth, provision should be made for a delay of about two weeks.

Fresh Water: Requests for fresh water should be made in good time. At time of writing, there is only one meter in the port, though all the berths have water laid on, so vessels have to take it in turn. Applications should be made through the Agent for water. Vessels at anchor are brought in and tie up stern to the N.W. corner of the Southern pier, the water hose then being passed over the stern, ship's hoses will be required. Pressure is good, water being supplied at about 15 to 20 tonnes/p.h. As supply of water cannot be guaranteed when a request is made, water stocks should be conserved.

Berthing: Berths are available on both sides of the Southern pier and at the end, though this area is reserved for the Ro/Ro ferries and small craft. Further berths are at the breakwater with the vessels tying up in a "Mediterranean Moor", i.e., stern to.

General: The Government Agency, Shipping Agencies Co., can be reached on Channel 16 or through Tartous Radio, their telephone numbers being 21541 & 20940.

Information regarding berthing is given by the pilot station on Channel 16, possibly in the evening before berthing, or in the morning about half an hour before berthing. Standard procedure is to weigh anchor and proceed slowly towards the four buoys marking the entrance channel. The Pilot may request that you enter the port slowly and he will board inside the breakwater. There is no difficulty in this, but it should be noted that there is a noticeable current flowing Northwards even though there is no wind.

In the Summer months, there is a seasonal low over the mainland of Syria which gives rise to a prevailing Southwesterly air stream, more noticeable in the afternoons with the advent of the sea breezes. Periods of calm are also experienced and winds from other directions but not of any great force. In the Winter months gales are experienced.

A launch service is available for vessels at anchor and at the breakwater berths, this can be arranged through the Agents. Four tugs are available, two large and two small, one of the latter doubling as the pilot launch, identifiable by the pilot flag.

Cranes are available on both sides of the pier except where the silo is under construction. A phosphate berth is situated at the South side of the harbour, there being silos for this berth, at present it is fed by road transport from the mines inland. However, it is understood that a railway is being constructed for this. Another pier (mole) is being constructed between the existing Southern Pier and the Naval Pier in the North of the harbour. Fresh vegetables are available in season.

AUTHORITY: Harbour Master, Tartous, Tartous Port Administration, *Telex:* 20562.
Oil Terminal: Syrian Crude Oil Transportation Company, P.O.Box 52, Tartous, Syrian Arab Republic. *Telex:* 41052. *Cables:* Petsyria. *Contact:* S. Mualla, Terminal Superintendent.

AGENT: Shipco *(Sole Agent):* P.O.Box 3, Tartous, Syrian Arab Republic. Tel: 21541 and 20940. Telex: 41063. Cables: Shipco.

NOTES

Please also advise Shipping Guides Ltd.

Taiwan

GENERAL:

RESTRICTIONS: The Taiwan Authorities have the following countries on their blacklist: The People's Republic of China, Albania, Rumania, North Korea, Cuba, Vietnam, Kampuchea and the Soviet Union. They have decided that ships are not allowed to call at a port in Taiwan immediately before or after a call in these countries, and that ships belonging to, managed by, or operated by companies in breach of these rules are not allowed to call at ports in Taiwan.

ENTRY PERMIT: Vessels flying the flags of nations not having diplomatic relations with the Republic of China (Taiwan) must obtain an Entry Permit before arrival. To enable Agents to apply for an Entry Permit, the following documents must be supplied prior to vessel's arrival:

1 photograph, 6 in. × 8 in., shipside view, clearly showing the vessel's name, 1 copy of the vessel's Certificate of Registry. (In the case of a Danish, Norwegian or Swedish vessel, a copy of the International Tonnage Certificate will serve this purpose).

The following ships do not require an entry permit:

(a) those flying the flag of Japan, Liberia, the Philippines or the U.S.A.
(b) those flying the flag of any country having diplomatic relations with the Republic of China (Taiwan).

Vessels arriving at Taiwan ports to carry out cargo discharging and/or loading operations must be registered with the Harbour Authorities, and the following documents are required.

Discharging: A letter of appointment from the vessel's Registered Owners (not Managers, Operators, Agents, or Disponent Owners) to the vessel's Taiwan Agents. If the agency appointment is made by a Charterer, then a copy of the Charter Party (and Time Charter Party if relevant) will be required. If the Charter Party is signed on behalf of Owners, then a copy of the authority from the Owners to the signatory will be needed. In all events, documents clearly showing the line of authority from Registered Owner to Agency Appointed must be produced.

Loading: As for discharging, together with a copy of the Export Permit issued by the Board of Foreign Trade.

When a vessel is loading export cargo where freight is paid in Taiwan, a detailed Freight List and a deposit or a bank guarantee covering the total freight must be lodged with the Harbour Bureau. The deposit, or guarantee, is returnable after the cargo reaches its destination.

HUALIEN: 23.59 N. 121.38 E. (See Plan)

PORT LIMITS:
(A) Lat. 23° 56′ 28″ N., Long. 121° 36′ 13″ E.
(B) Lat. 23° 56′ 29″ N., Long. 121° 36′ 48″ E.
(C) Lat. 24° 00′ 20″ N., Long. 121° 38′ 45″ E.
(D) Lat. 24° 00′ 47″ N., Long. 121° 38′ 18.1″ E.

DOCUMENTS:
Ship's Register.
Derat Certificate.
Last Port Clearance.
Aids to Navigation Charges Memo.
Pratique.
8 Copies Crew List.
1 Copy Crew List visaed by office of China Mission (applicable to American vessels).
8 Copies Passenger List – landing and transit.
1 List showing dates of vaccination of all crew and any landing passengers from infected areas.
1 Chinese Maritime Customs Stores List.
1 copy Crews Personel Effects List.
1 List Foreign Currency in Safe.
1 List Narcotics in Safe.
2 Lists Arms and Ammunition.
1 Set of copy Bills of Lading.
3 Manifests of Inward Cargo.
3 Manifests of Through Cargo.
3 Lists of Unmanifested Inward Parcels.
3 Lists of Mail for Landing.
Vessel's Log Book.

PILOTAGE: Compulsory. Pilot boards at quarantine anchorage. At anchorage hoist 'G' flag.

ANCHORAGE: *Quarantine Anchorage:*

Positions:		
(A)	Lat. 23° 57′ 25.5″ N.,	Long. 121° 36′ 15.5″ E.
(B)	Lat. 23° 57′ 18″ N.	Long. 121° 36′ 33.5″ E.
(C)	Lat. 23° 57′ 53.3″ N.	Long. 121° 36′ 52.5″ E.
(D)	Lat. 23° 58′ 01″ N.	Long. 121° 36′ 34.1″ E.

APPROACHES: Vessels should approach on a course of not less than 280°(T). There is extensive construction work taking place on both the Eastern and Western breakwaters with caissons anchored in the channel.

The inner channel is very narrow (80 m.) and care should be taken when adjusting course, when approaching and passing Berth No. 1.

RESTRICTIONS: Hualien Harbour closed to all ships at 0000 hrs. until 0500 hrs. Large ships not allowed to enter after sunset.

MAX. SIZE: Draft not exceeding 10.5 m. may enter Hualien Harbour at present time.

HEALTH: At anchorage hoist 'Q' flag. If the vessel receiving a notice of Radio Pratique can take up a berth; it need not hoist "Q" flag.

RADIO: Hualien Radio XSY; ETA reported at least 24 hours before arrival.

TUGS: Normally used in harbour. Ship's lines should be used. 3 tugs, 1×2,400 h.p., 1×1,600 h.p. and 1×1,200 h.p.

BERTHING: *Deep Water Wharf:* 2,887 m. (18 berths) capable of berthing 2 – 3×6,000, 3 – 4×7,000, 4 – 5×1,000 and 3 – 4×15,000 and 30,000 ton vessels, at the same time.

Berth No.	*Length* (m.)	*Max. Draft* (m.)	*Remarks*
1	123	7.5	General Cargo
2	153	7.5	General Cargo
3	134	7.5	General Cargo
4	160	9.5	Sugar
5	160	9.5	Gravel
6	160	8.5	General Cargo
7	120	6.5	Gravel
8	220	10.0	Gravel
9	103	9.5	—
10	183	9.5	Cement Clinker
11	185	9.5	Minerals
12	150	7.5	Construction Ship use
13	185	9.5	Logs and Woodchips
14	185	9.5	Logs and Woodchips
15	100	9.5	Logs and Woodchips
16	144	7.5	Not in use at present
17	200	10.5	Open yard
18	200	10.5	Open yard

SPECIAL CARGO FACILITIES: There are 6 godowns on the Western wharves with a total capacity of over 40,000 tons.

There are 4 hoppers at Berth Nos. 13 and 14, owned by Chang Hwa Pulp and Paper Corp., for discharging woodchips into rail wagons or trucks.

CRANES: There are mobile cranes: 1×45 tons, 3×25 tons and 1×2 tons. There are 26 fork lift trucks (with 2 tons – 20 tons lifting capacity) and 10 mini-tractors.

BULK CARGO FACILITIES: At Berth Nos. 5, 7 and 8 there is a conveyor system for loading gravel. At Berth No. 10 two cement silos (12,000 tons) with a conveyor system owned by Asia Cement Co., for loading bulk cement and Kiln Fresh Cement Clinker. At Berth No. 11 there is a conveyor system owned by China Steel Corp. for loading dolomite.

There are 21 single rope hook-on type grabs; 4 grabs at Berth No. 15 owned by Chung Hwa Pulp and Paper Corp. for discharging woodchips into trucks, 7 grabs at Berth No. 18 owned by Asia Cement Co., for discharging coal and 10 grabs belonging to Hualien Harbour Bureau for discharging gypsum, coal, metal and ores, etc. into trucks.

STEVEDORES: Stevedores will be assessed against ships except when otherwise agreed between ships and consignees or shippers.

Advise ETA before 0800 hrs. in order to arrange gangs for 1800 hrs. same day.

Port Performance:

Daytime Work: 0800 – 1700 hrs. (0800 – 1730 hrs. in Summer).
Night Work: After completion of 8 hours daytime work till 24 hours.
Morning Work: 0600 – 0800 hrs.
General Cargo: 200-250 tons per day with only 1 gang.

Bulk: Cement loader at Berth No. 10 can load 600 t.p.h. Dolomite elevator at Berth No. 11 can load 1,200 – 1,500 t.p.h. Gravel elevators at Berth Nos. 5, 7 and 8 can load 500 t.p.h. each. Coal, ores, gypsum etc. grab buckets can unload 80 t.p.h. with only 1 gang.

MEDICAL: Hospitalisation can be arranged through Agent.

FRESH WATER: Fresh water available at all berths. Water supply will be assessed against ships and ordered through Agent. Rate 30 t.p.h.

FUEL: 6 grades obtainable from Chinese Petroleum Corporation:

1. Marine Gas Oil: SUS at 100°F, max. 38.
2. Marine Diesel Oil: SUS at 100°F, 35 – 45.
3. MF-80 (MD-600) C.S. at 122°F, max. 80 (RD No. 1, 100°F, max. 600).
4. MF-280 (MD-2700) C.S. at 122°F, max. 280 (RD No. 1, 100°F max. 2700).
5. MF-380 (MD-4000) C.S. at 122°F, max. 380 (RD No. 1, 100°F max. 4000).
6. Bunker C: SFS at 122°F, max. 200, C.S. at 122°F, max. 400.

Fuel line 6 in. connection, no barge available, notify in advance.

REPAIRS: Only minor repairs can be attended to in Hualien. For other repairs the nearest facilities are at Keelung or Kaohsiung.

OPENING/CLOSING HATCHES: Normally carried out by stevedores.

CARGO GEAR: Loading/unloading normally effected by ship's gear.

CERTIFICATES:
Ship's Nationality Certificate.
Passenger ship Safety Certificates.
Cargo ship Safety Construction Certificates.
Cargo ship Safety Equipment Certificates.
Cargo ship Safety Radiotelegraphy (Radiotelephony) Certificates.
International Load Line Certificate.
International Oil Pollution Prevention Certificate.
International Sewage Pollution Prevention Certificate (1973).

SHORE LEAVE: Crew members are allowed ashore only in the city of Hualien, from 0600 hrs. till 2400 hrs. Before going ashore each crew member must apply for shore pass at the Immigration Office.

IDENTIFICATION CARDS: Passport or Seaman's Book required.

AIRPORT: Domestic airport (10 km.) with connection to Taipei and Kaohsiung Airport.

TIME: GMT plus 8 hours.

POLICE/AMBULANCE/FIRE: Police, Tel: 223419. Ambulance, Tel: 223419. Fire, Tel: 223419. Emergency, Tel: 119 or 223419.

DEVELOPMENTS: The outer harbour extension began 1978 and will be completed in 1988/9. The project will increase the berthing capacity to 25 ship berths.

AUTHORITY: Hualien Harbour Bureau, Hualien, Taiwan, Republic of China. *Contact:* Lee Pei-Chou, Director. Lee Chao-Min, Harbour Master.

AGENT: Sub-Agent controlled by: Jardine, Matheson & Co. Ltd., 13 14th Floor, World Trade Building, P.O.Box 81, 50 Hsin Shen South Road, Section 1, Taipei. Tel: (02) 393-1177. Telex: 21851, 11391 Jardines. Cable: "Jarocean Taipei".

Associated with Jardine Shipping Agencies.

KAOHSIUNG: 22.37 N. 120.16 E. (See Plan)

PORT LIMITS: Ship considered to be an "arrived vessel" when anchored at either of following locations:

1. Northern Anchorage: Within 2 miles radius off Kaohsiung Lighthouse (Lat. 22° 37′ 01″ N., Long. 120° 15′ 25″ E.) forming a sector between Southern side of outer harbour channel toward shore line Southward.
2. Southern Anchorage: Within a radius of 2.5 miles from the signal station of the second harbour entrance (Lat. 22° 33′ 21″ N., Long. 120° 18′ 28″ E.) forming a sector between Northern side of outer harbour channel toward shore line Northward.
3. For VLCC to discharge at 2 Monobuoys: SBM No. 1 position Lat. 22° 30′ 29″ N., Long. 120° 17′ 49″ E. SBM No. 2 position Lat. 22° 29′ 45″ N., Long. 120° 16′ 41″ E. Tankers are to anchor 1.5 miles West of the No. 2 SBM as directed by Agents.

DOCUMENTS:

10 Crew Lists.
1 Customs Stores List (plain form acceptable).
1 Narcotic List.
1 Foreign Currency List.
1 Crew's Declaration List.
1 Arms and Ammunition List.
1 Parcel, Passenger and Mail List (all 'nil' items may be put in one statement).
1 Set of Bills of Lading and Manifests if any.

PILOTAGE: Compulsory. Agents will arrange for Pilot to board vessel at anchorage outside breakwater. Pilot boat flies code flag "H".

Container ships over 15,000 g.r.t. and other freighters or tankers over 15,000 g.r.t and 200 m. LOA must take 2 Pilots at double pilotage.

APPROACHES: The First Harbour Entrance is dredged to 11 m. MLWS. The Second Harbour Entrance, dredged to 16 m., can accommodate vessels up to 100,000 d.w.t.

ANCHORAGES: To avoid being charged double pilotage fees, arriving vessels should anchor within a 2 miles radius of Chihoushan Lighthouse (Lat. 22° 38′ N., Long. 120° 15.4′ E.) unless instructed to wait off the Second Harbour Entrance, in which case they should anchor within a 2.5 mile radius of the Second Harbour Entrance Signal Station (Lat. 22° 33.4′ N., Long. 120° 18.4′ E.). The holding ground at both anchorages is good, and they are sheltered from the worst of the N.E. monsoon winds in Winter. Vessels may have to vacate the anchorages and proceed to sea should a typhoon approach.

Tankers arriving at the SBM terminals should anchor 1.5 miles West of the No. 2 Buoy to await arrival clearance, quarantine, Immigration, Agent and Cargo Supervisor who will board by Agent's launch. CPC Pilot, Loading Master and Watchmen will board by CPC tug. After discharge, the vessel should proceed to the Northern Anchorage to await clearance for sailing.

Also see "Port Limits".

RESTRICTIONS: Container ships can enter and sail 24 hours a day. Other vessels up to midnight only. Vessels with max. draft 34 ft. if not through the Second Harbour Entrance, must await high water to enter via the First Harbour Entrance.

MAX. SIZE: Length and breadth no restriction (largest container ship entered: 950 ft. LOA and 106 ft. beam). Max. draft inner harbour 52 ft. during high tide. Tankers with draft over 50 ft. (2 ft. keel clearance) discharge at Monobuoy outside.

HEALTH: Free Pratique granted at anchorage after Master completes Quarantine Declaration Form furnished by quarantine doctors. Radio Pratique available (see "Keelung"). No quarantine necessary if second port in Taiwan.

Shipmaster's Report: Master visited the port in 1976 and Cholera Certificates were not requested for inspection.

RADIO/VHF: Kaohsiung Radio (XSW). Normally used by Agents when cabling vessels. Contact with the Agent and Port Authorities may be made via Kaohsiung Port Radio on VHF Channel 16. Call Port Radio on Channels 16/14, 1 hour before arrival to report ETA at Kaohsiung Roads.

TUGS: Harbour tugs usually join vessel after entry and while berthing. Ship's lines always used. 20 tugs, 300 h.p. – 3,300 h.p. available.

CONTAINER HANDLING FACILITIES: No. 1 – total length 848 m. consists of 4 berths, Nos. 40 – 43. Berth Nos. 42 – 43 served by 3 gantry cranes with capacity 30-35 tonnes. 5 straddle-carriers available for 20 ft. - 40 ft. containers.

No. 2 – Includes 4 berths total length 1,025 m., Nos. 63 – 66. Berth Nos. 64 – 66 are leased to lines for exclusive use. Berth No. 63 is the only common user berth. Container handling equipment includes 8 gantry cranes with capacity 30-35 tonnes and 16 straddle-carriers for handling 20 ft. – 40 ft. containers.

No. 3 – Includes 3 berths, Nos. 68 – 70, with total length of 960 m. and a depth of 14 m. The terminal has 8 container cranes with capacity 40 tonnes, 5 transtainers and a 60 hectares container yard.

No. 4 – Container Terminal No. 4 is located at Chung-Hsing Commercial Harbour Area. The project is to build 7 deepwater container wharves from No. 116 to No. 122 with a total quay length of 2,210 m. The 99 hectare container yard is capable of storing 32,000 containers (TEU). The first Berth No. 116, completed in February 1985, has 320 m. length, 14 m. depth and 4,900 container (TEU) capacity. Its container handling equipment includes 3×40 tonnes container cranes and 3 transtainers for handling 20 ft. – 40 ft. containers. Berth No. 117 is equipped with 2×40 tonne capacity gantry cranes, 4×35 ton transtainers and 1×15 tonne forklift. Berths No. 118 and 119 are scheduled to be fully operational by January 1989 and will be equipped with 3×40 tonnes capacity gantry cranes and 3×40 tonne transtainers. Berth Nos. 120 – 122 (each 320 m.) will be completed by late 1990.

BERTHING: No specific requirement except bulk-carriers and tankers with max. draft of 34 ft. via the First Harbour Entrance, must berth during high tide.

Berth No.	**Length (m.)*	*Depth (m.)*	*Remarks*
1	260	9	Berth for m.v. "Taipen" Kaohsiung-Makung and Custom House
2, 4 – 5	150	9	Coastal-Japan/Korea general cargo
6	150	9	Japan/Korea/S.E. Asia general cargo
7 – 10	150	9	Coastal-S.E. Asia general cargo
11	160	9	Coastal-Hong Kong general cargo
12	160	9	General cargo
14	150	9	Asian Cement Co.
15	150	9	Ship-repair berth for coastal vessel
16	180	9	General cargo
17	150	9	Logs
18 – 20	150	9	CPC bunkering berth
22	120	10.5	Inactive
25	—	—	Taiwan Fertiliser Corp.
28	235	6.5	Berth for chemicals
29	150	10.5	Formosa Plastic Corp.
30	290	6.5	Berth for barges
31 – 32	200	10.5	Bananas, rice
33	200	10.5	Grain silo
34 – 36	200	10.5	Middle East/Arabian Gulf trade
37	200	10.5	Middle East/America/Europe/Australia/New Zealand
38 – 39	200	10.5	U.S.A./Europe/Australia/New Zealand/Africa
40 – 43	848†	10	Container Terminal No. 1
44 – 45	200	10.5	Grain silo, general cargo
46 – 47	200	11	Taiwan Sugar loading berths
48 – 57	200	10.5	Bulk cargoes
61 – 62	230	10.5	Petrochemicals
63 – 66	1,025†	12	Container Terminal No. 2
68 – 70	320×3	14	Container Terminal No. 3
71	330	14	Far East Silo Corp. (80,000 tons), 3 unloaders, 6 suckers
72	300	14	Grain silo (80,000 tons) now under construction
94 – 96	170	10.5	China Steel Corp.
97	485	16.5	China Steel Corp.
111	260	16.5	Taiwan Power Co.
112 – 113	250	8.5	Taiwan Power Co.
116 – 119	320×4	14	Container Terminal No. 4

*Length of each berth. †Total length.

Wharves: There are at present 87 wharves with a total length of 18,900 m. and 27 mooring buoys capable of accommodating 129 ships.

BULK HANDLING FACILITIES: *Coal:* China Steel Berth: Max. Size 130,000 d.w.t. Max. LOA 320 m. Max. Draft 14 m. 2 cranes, 2 grabs and conveyors. Daily rate 10,000 tonnes.

Berth Nos. 52 – 57: Max. LOA 200m. Max. Draft 10.5 m. Discharge by grabs and ship's gear. Rate 3,500 tonnes per day.

Grain: There are 3 silos, 2×40,000 tons capacity and 1×80,000 tons capacity, unloading rate 300 – 500 t.p.h. 105 grabs also used to discharge grain by ship's gear at hourly rate of 40 – 50 tons per gang/hour.

CRANES: 39 mobile cranes × 15-80 tonnes capacity, 14 stationary derricks, 41 tractors, 117 towing tractors, 271 forklifts, 18 container gantries, 2 P&H container gantries, 21 straddle carriers, 19 container tractors, 2 railtainers, 8 transtainers, 84 grab buckets, 60 hoppers and 1,381 small trailers. The CSBC shipyard has 2×350 ton cranes.

4 floating cranes (30 ton, 60 ton, 100 ton and 200 ton), other floating equipment includes 5 dredgers, 5 mud barges, 17 barges and 70 small craft of various descriptions.

STEVEDORES: All Government stevedores ordered by Agents as required.

Cargo Working Hours:

General Cargo:
0800 – 1200
1230 – 1800
1830 – 2400 (1600 – 2400 plus 100%)
0030 – 0700 (plus 150%) { Night shifts only by special arrangement with Harbour Bureau and cargo receivers.

Containers:
0800 – 1200
1230 – 1800
1830 – 2400
0300 – 0700

N.B.: For quick despatch, relief gangs can be hired to work through meal breaks.

Port Performance:

Containers: 25 crane moves per hour.
General: 35 CBM/gang/hour or 420 tons/gang/day.
Bulk (except at special berths): 50 tons/gang/hour.

MEDICAL: No advance notice required unless emergency case. Vaccination Certificates against cholera inoculation (6 months) required.

See "Health" – Shipmaster's Report.

TANKERS: Discharge lines at oil terminal inside harbour 8 in. (2 berths), and 12 in. at Monobuoy outside with necessary reducers supplied from ashore. In latter case, Master must inform Agents size of ship's manifold.

There are two Monobuoys situated about 7 miles S.S.E. of the Northern Anchorage. Their positions are:

SBM No. 1 – Lat. 22° 30′ 29″ N., Long. 120° 17′ 49″ E. A white flashing signal light is mounted at the centre of the buoy with a range over 5 miles. The light appears for 1 second and goes off for 2, it then appears for 1 second and goes off for 11 seconds. This cycle is repeated. The area around the mooring buoy has a depth of 66 ft. and can accommodate tankers up to 100,000 d.w.t. The current runs at a maximum of 2.5 knots.

SBM No. 2 – Lat. 22° 29′ 45″ N. Long. 120° 16′ 41″ E. depth around the area about 98 ft. capable of discharging tankers up to 250,000 d.w.t. Characters of signal light mounted at the centre of the buoy: White flash 1 second on and 1 off for 3 times then 1 second on and 8 seconds off in that cycle.

The 2 buoy moorings have facilities for 2×12 in. hose connections. Bunkers and fresh water not obtainable. Stores can be arranged for delivery by boat. Other services available to tankers at the buoys are confined to those of urgent nature.

VLCCs programmed to use the SBM Terminal are required to anchor 1.5 miles West of the No. 2 SBM for arrival clearance. Pilot/Quarantine/Immigration, Cargo Supervisor and his hose-handling party board in this area from a tug. After the discharge of cargo, the vessel is required to proceed to the Northern Anchorage to receive sailing clearance.

Petrochemical Storage Centre – Berth No. 61: Max. LOA 232 m. (225 m. preferred) Max. Draft 10.0 m.

LPG: At Talinpu at Southern entrance to Kaohsiung Harbour.

LOA – Maximum 250 m., minimum 130 m. Chicksan flange 23.0 m. above LWL. Liquid line 16 in. Vapour line 8 in. Max. Depth 14.0 m. Discharge rate up to 2,000 kl.p.h. Tank capacity: (C3) 30,000 kl, (C4) 30,000 kl.

Berth	*Shore Lines (in.)*	*Hoses (in.)*	*Grades Handled*	*Max. p.s.i.*	*Rate t.p.h.*
18 – 20	4 – 16	4 – 8	Asphalt, FO, DO, Avgas, JP4, JP5	100	700
60 – 62	4 – 10	4 – 8	Petrochemicals, LPG, liquid NH_3	100	680
Talin E, W	10 – 24	8 – 12	Crude, FO, DO, Naphtha, JP4, JP5	100	3,000
SBM No. 1	1×34	2×12	Crude	100	5,000
SBM No. 2	1×42	2×12	Crude	100	7,000

N.B.: At SBM derricks/cranes of 10 tons SWL required. There are no tank cleaning or ballast disposal facilities.

DENSITY: Average 1015 in Summer, 1023 in Winter.

FRESH WATER: Most berths supplied from shore line, otherwise from barge (500 tonnes – 100 tonnes capacity) paying additional lighterage.

FUEL: All grades, mostly received from 3 barges (capacity 500 tonnes each). Owners must contact suppliers for nomination through Chinese Petroleum Corp. before ship's arrival.

FIRE PRECAUTIONS: No specific regulations, but routine precautions should be enforced.

GANGWAY/DECK WATCHMEN: Recommended, to meet local security requirement.

OPENING/CLOSING HATCHES: Mostly handled by stevedores except steel hinged covers, which are to be done by crew.

CERTIFICATES: Ship's Registry, Load-line, Safety Construction, Safety Equipment, Safety Radio-telegraphy and Derat Exemption Certificates must be inspected by Customs/Harbour Authorities.

CUSTOMS ALLOWANCES: 200 cigarettes or 1 box cigars and 1 bottle of wine or spirit allowed each. Application can be made to break seal for next issue once every 4 days.

CARGO GEAR: Cargo Gear Certificate must be valid.

IDENTIFICATION CARDS: Not required.

CONSULS: All in capital city Taipei, 230 miles North of Kaohsiung.

REPAIRS: China Shipbuilding Corp. provide 1,800 m. of quaywall and can handle any kind of repairs.

DRY DOCK: China Shipbuilding Corp. have a dry dock of 950 m. long with breadth 92 m. and average depth of 14 m. This dry dock is separated into 3 stages by 2 intermediate gates in between, of 380/390/180 m. respectively. Each stage can be independently operated to facilitate fabrication of ship sections, as well as to dock and repair ships.

A floating dock "Viva Island" LOA 174 m. with distance between side walls of 30 m. Draft over keel blocks 7.3 m. with lifting capacity of 11,500 tons.

SURVEYORS: S.G.S., Tel: (07) 561-1281. BV in Taipei, Tel: (02) 731-4218.

REPATRIATION: Crew changes can be arranged.

AIRPORT: Kaohsiung Airport has frequent scheduled flights to major cities in Taiwan as well as regular international flights to Hong Kong, Singapore and Japan. For other international destinations, travellers must use C.K.S. International Airport which can be reached by motorway (3.5 – 4 hours) or via Taipei by domestic flight (40 minutes) and motorway (40 minutes).

TIME: Local: GMT plus 8 hours. No alteration during the year.

HOLIDAYS: New Year's Day (Jan. 1st – 2nd); Youth Day (Mar. 29th); Ancestors' Memorial Day (Apr. 5th); Labour Day (May 1st); Dragon-boat Day (5th day of 5th Lunar Month); Mid-Autumn Festival (15th Day of 8th Lunar Month); Confucius' Birthday (Sept. 28th); National Day (Oct. 10th); Taiwan Restoration Day (Oct. 25th); Late Pres. Chiang's Birthday (Oct. 31st); Dr. Sun's Birthday (Nov. 12th); Constitution Day (Dec. 25th); and Chinese Lunar New Year's Day (2 days mostly in Feb.). No work on New Year's Day (Jan. 1st), Labour Day (May 1st) and Chinese Lunar New Year's Eve and New Year's Day. Double stevedoring rates for rest of holidays.

POLICE/AMBULANCE/FIRE: Police and Ambulance: call 5612311 Ext. 441 or 2613000 Ext. 2717; Fire: 5612311 Ext. 443 or 2613000 Ext. 2731.

TELEPHONE: Telephone available for ships alongside wharf.

SERVICES: Laundry, ship-chandler and competent technicians available for repair of radar, radio, compass adjusting and other navigational aids. Tank cleaning equipment and facilities not available.

SHORE LEAVE: Normally can be arranged.

SHIP SUPPLY SERVICE: Off-limits deliveries can be arranged, although they are the exception rather than the norm.

REGULATIONS: No curfew exists. Port opened for container ships 24 hours day and night; for other vessels between 0600 – 2300 hrs. only. For vessels, having dangerous cargo on board, and super ore carrier (beyond Panama Max.) desiring of docking at China Steel Corporation's Berth No. 97, between sunrise and sunset only. Vessels flying flag of nations without diplomatic relations with the Republic of China must send 1 copy each of ship's photo (4 in.×6 in. broadside) and photocopy of Registry or Tonnage Cert. and 10 crew lists for application of entry permit. The application must be made 1 week before their arrival.

DELAYS: With rapid extension of the harbour and more new wharves and container terminals built, delay has been considerably reduced and very rarely occurs.

DEVELOPMENTS: An 80,000 ton silo will be built at the rear of Berth No. 72, which, includes continuous mechanical unloaders, take-in and take-out conveying systems, truck-loading device and railway car-loading device, is expected to be finished and opened in late 1989.

Construction of Container Terminal No. 5 will commence in 1989, with completion in 1997. Terminal will have a length of 2,320 m., providing 3 berths with 16.0 m. depth and 4 berths with 14.0 m. depth.

SHIPMASTER'S REPORT: June 1983 (updated 1986).

Pilotage: Normal pilotage fees are charged from sunrise to sunset; a 50% surcharge is levied from sunset to 2400 hrs., and from 0500 hrs. to sunrise, and 100% surcharge from 2400 hrs. to 0500 hrs. If the Pilot(s) is/are embarked 2 miles or more from the breakwater at the First Harbour Entrance the above charges are doubled.

Immigration: Immigration Officials board with the Pilot/s off the First Harbour Entrance, and will join at any time between 0800 hrs. and 1800 hrs. Between 1800 hrs. and 2400 hrs. they only leave their office on the odd hour, and between 2400 hrs. and 0800 hrs. they only leave on the even hour. Time from leaving office to boarding is approximately 30 minutes.

AUTHORITY: Kaohsiung Harbour Bureau, 62 Lin Hai 2nd Road, Kaohsiung, Taiwan. *Tel:* (07) 561-2311, Ext. 200. *Telex:* 71219 KHB. *Contact:* Admiral C. Y. Yuan, Harbour Director. S. I. Ma, Deputy Harbour Director. M. W. Chen, Harbour Master.

AGENT: Jardine, Matheson & Co., Ltd., 5th Floor, No. 21, Fu Peng Building, Chung Hwa 3rd Road, Kaohsiung. Tel: (07) 231-7141. Telex: 81957 Jardines. FAX: (07) 201-5492.

Associated with Jardines Shipping Agencies.

KEELUNG: 25.09 N. 121.44 E. **(See Plan)**

PORT LIMITS: Any ship is considered to be an "arrived ship" once she has reported to Keelung Port Radio Station whether or not actually entering the outer harbour. However, Quarantine and Customs Inspectors do not attend ships outside the breakwaters due to lack of adequate transportation also they do not consider any ship an "arrived ship" unless she actually enters the outer harbour.

LOCATION: Exact position of Port – Lat. 25° 09′ 26.5″ N., Long. 121° 44′ 22.5″ E.

DOCUMENTS:

Ship's Registry.
International Load Line Certificate.
International Safety Certificates.
Cargo Ships: Safety Equipment, Safety Construction, Safety Radio Telegraphy.
Passenger Ships: Passenger Safety.
Last Port Clearance.
Crew List.
Fumigation Certificate.
Import Manifests.
Through Cargo List.
Stores List.
Arms and Ammunition List.
Narcotics List.
Foreign Currency List.
Parcel List.
Passenger List.
Yellowbook for every person on board (Vaccination Certificate).

Shipmaster's Report: November 1988.

Customs:	1 Arms and Ammunition List.
	1 Foreign Currency List.
	1 Narcotics List (will be sealed).
	1 Parcels List.
	1 Crew List.
	1 Mail List.
	1 Passenger List.
	2 Import Cargo Manifests.
	1 Through Cargo Manifest.
	1 Crew Personal Effects List.
	1 List of Signatures.
Agent:	All Certificates (originals).
	Last Port Clearance.
Quarantine:	1 Maritime Declaration of Health.
	1 Crew List.
Immigration:	2 Crew Lists.
	Shore Passes (obligatory).

PILOTAGE: Compulsory from anchorage to dock and any other movements in port. Pilot may also meet ships within 1 or 2 nautical miles North of breakwaters, commencing sunrise till sunset upon ship's Agent's request. While waiting outside breakwaters for a Pilot, vessels shall keep adequate space and take care of both ship's and Pilot's safety. Before arrival, vessels shall contact Keelung Port Radio Station (Lat. 25° 09′ 42.5″ N., Long. 121° 44′ 57.5″ E.) via VHF on Channel 16 to ascertain Pilot's exact boarding time.

ANCHORAGES: Area in outer harbour is 13.0 m. to 13.5 m. in depth and can only contain 4 ocean-going vessels at a time. Vessels may also anchor outside breakwaters for Pilots or entry instructions.

HARBOUR APPROACHES: At a location of 1.5 nautical miles N.N.W. from Keelung Isle ships should take Wan Jen Tsui Pi lighthouse and Chiu Tzu Shan lighthouse as coordinates and sail in on course of true bearing 201°. When 2 nautical miles North from harbour entrance, ship's course should be adjusted for entry. Ships should allow adjustment for their planned course and speed and should pay special attention to Hsin Lai Reef, East Breakwater, wind and current.

RESTRICTIONS: Keelung Port Radio Station consists of Naval Harbour Control Signal Station and Harbour Bureau Signal Station. The former controls the entry and exit of all the vessels with the latter's assistance. Any ship shall apply in advance of her actual entry/exit by light signal or via VHF to Keelung Port Radio Station and shall not leave dock nor weigh anchor nor sail and remain close to harbour entrance before obtaining from Naval Harbour Control Signal Station the signal permit to enter or leave.

Pilots berth vessels 0700 hrs. – 2300 hrs. Unberthing at any time.

MAX. SIZE: Max. possible overall length less than 900 ft. Vessels or Agents shall declare ETA to Harbour Bureau 24 hours prior to their arrival.

HEALTH: Radio Pratique possible. Pratique will be granted when vessel is in anchorage. Three measures will have to be conducted by ship, these are: disinfection of ship, sampling of food and water, tetracycline drug for person, if the vessel arrives from an affected area within 5 days.

1. To obtain Free Pratique by radio, the Master is required to cable the following information to Agent within 6 to 36 hours prior to the vessel's arrival at the port.
   (1) Ship's name.
   (2) First port of the voyage and date/time of sailing.
   (3) Name(s) of port(s) and respective departure time, where the vessel called within the last 10 days prior to arrival at Republic of China ports.
   (4) ETA.
   (5) Kind of Derat Certificate, place and date of issue.
   (6) Number of crew and passengers on board.
   (7) If any illness or death occurred within 10 days prior to the vessel's arrival, and if so, give a detailed report.
   (8) If any rat or abnormal death of rats is found on board within 10 days before the vessel's arrival.
   (9) If there is any shipment of foodstuff on board from an infected area.
   (10) Any other information (if any doctor on board, etc.)
   (Example:)
   mv " . . . . " (ship's name)/New York 1st Mar 1300/Honolulu 16th Mar/25th Mar 1000/Yokohama 1st Nov 1977 Exemption/Crew 35 Passenger Nil/7 to 10 None
2. Vessels under the following conditions are not allowed to apply for the Radio Pratique:
   (1) The interim time from the date when the vessel left the infected area and/or the place where infection is suspected to the date of the vessel's ETA at the Republic of China port, is not over the legal incubative period of infectious disease, i.e. 5 days for cholera, 6 days for plague and yellow fever.
   (2) Infectious disease and/or suspected infectious disease and death occurred within 10 days prior to the vessel's arrival in the Republic of China.
   (3) When any inactive rat is found or abnormal death of rats is found on board within 10 days prior to the vessel's arrival in the Republic of China.
   (4) When the vessel possesses no valid Derat/Exemption Certificate.
3. The Quarantine Officer may still go on board the vessel after her berthing for re-inspection even if the Radio Free Pratique is granted.

If any discrepancy is found twice or more, then the vessel will be deprived of the right to apply for the Radio Pratique for one to three voyages.

4. Fumigation by hydrocyanic acid gas (discoids) and methyl bromide is carried out by quarantine station. Derat Certificate or Derat Exemption Certificate issued also by quarantine station.

RADIO:

1. Call Name: Keelung Port Radio Station is called Keelung Port Radio (or K.P.R.).
2. Channel:
   (1) Channel 14 (156.7 MHz.) is used for longer communications after making contact on Channel 16.
   (2) Channel 12 (156.6 MHz.) is a spare Channel, used for emergency.
3. Communication Contents:
   (1) Messages for vessels to enter or leave.
   (2) Matters concerning navigation and anchorage.
   (3) Other Emergencies.
4. Communication Distance: Any waters within diameter of 10 nautical miles from this station.
5. Priority:
   (1) Emergency salvage at sea.
   (2) Messages for vessels departing.
   (3) Messages for vessels waiting outside breakwaters for entry instructions.
   (4) Messages for vessels at anchor in outer harbour.
6. Languages to be used:
   (1) Mandarin.
   (2) English.
7. Remarks: Communications always in plain language. Any codes or private conversations are not allowed unless approved by officers in charge.
8. Vessels shall contact Keelung Port Radio Station via VHF as soon as they are 10 nautical miles from the harbour and shall not be considered as "reported" unless answered by the station. The reporting time is to be counted for the basis for allocating berths. The report includes:
   (1) Nationality.
   (2) Vessel's Name.
   (3) Call Letters.
   (4) ETA Outside Harbour.
9. Communication Procedures: In accordance with international radio communication procedures.
10. Vessels without VHF or with VHF out of operation and thus unable to report earlier to Keelung Port Radio Station (25° 09′ 42.5″ N., 121° 44′ 57.5″ E.) shall contact the station by light signal until answered, as they report when vessel arrives within the visual scope of Ton Pan Yu Signal Station (domiciled with Keelung Port Radio Station) in the waters outside the harbour. The report includes:
    (1) Nationality.
    (2) Vessel's Name.
    (3) Call Letters.
    (4) Actual arrival time or anchoring time outside the harbour.
11. Vessels unable to report by light signal through lack of power shall use other means to report same information as indicated in item 10 above or hoist vessel's call letters enabling registration at the station.

Keelung Radio (XSW) 500 kHz and 460 kHz. Also on 8 MHz.

TUGS: The Harbour Bureau operates 9 tugs viz., 2×2,800 h.p. 1×2,400 h.p., 4×1,600 h.p. China Petroleum Corporation (CPC) operate 2×2,200 h.p. at their Shen Ao Terminal.

BERTHING: Docking during daytime, and also during night-time if weather permits.

Berths (all 200 m. length)	*Depth* (m.)	*Remarks*
Eastern Berths		
E2	9.00	Passenger Terminal, Quick Dispatch Berth (QDB) for cargo vessels.
E3	9.00	Quick Dispatch Berth.
E4	9.00	General Cargo/Bulk.
E5	9.00	Private use.
E6	9.00	Quick Dispatch Berth.
E7	9.00	General Cargo/Bulk.
E8	9.00	General Cargo/Bulk.
E9	9.00	General Cargo/Bulk.
E10	12.00	Container Terminal. 2×35 ton Gantry Cranes.
E11–E22	Various	Shallow water berths.
Western Berths		
W2	9.00	
W3	9.00	
W4	9.00	Quick Dispatch Berth.
W5–W6	9.00	Private.
W7–W8	9.00	Keelung-Hong Kong Line.
W12B	9.00	Bulk Wharves.
W13	9.00	
W14	9.00	2 cranes.
W15	9.00	2 cranes.
W16	9.00	1 crane.
W17	10.00	2 cranes.
W18	10.00	2 cranes.
W19	11.50	Berths, 19-20 Container Terminal.
W20	12.00	19 also used for general cargo, no cranes.
W21	12.00	Berth 20 is leased by Yang Ming, 2×35 ton container carriers.
W22–W23	11.50	Container Terminal No. 1.
W24	12.00	2×35 ton container cranes at No. W22–W23.
W25–W26	12.00	3×35 ton container cranes at No. W25–W26.
W27	7.50	Coastal Shipping.
W29	7.25	Coastal Shipping.
W30	11.50	Grain Silo 50,500 ton Capacity (Rate: 600 t.p.h. 3 Suckers)
W31	11.50	Wharves for bulk cargo but with strengthening to allow discharge of heavy lifts.
W32	11.50	
W33	10.85	Oil Tanker berth.
W33B	8.20	Oil Tanker berth.

In total there are 37 deep water berths and 21 shallow water berths. Four mooring buoys can accommodate 6 vessels of up to 10,000 tons and length overall 215 m.

SPECIALISED CARGO HANDLING FACILITIES: Wharves No. 2, 3, 14, 15, 16, 17 and 18 equipped with 3 ton cranes. Wharf No. 4 equipped with a stationary 30 ton shore crane. Other wharves can be served by 10 tons – 100 tons mobile cranes, and No. 19 to No. 26 wharves can be served by 250 tons mobile crane.

Wharves No. 19 to No. 26 and East No. 10, for container ships, Ro/Ro ships, and "LASH" vessels, equipment includes 10 gantry cranes, capacity 35 tons; 12 straddle carriers for 20 ft. – 40 ft. containers; 2 port stackers, capacity 35 tons; 2 transtainers, capacity 35 tons; 5 forklifts (2×35 ton, 2×15 tons and 1×10 tons capacity) and 9 yard trucks.

Wharves No. 30, 3 pneumatic unloaders for grain in bulk, max. capacity 600 t.p.h. average capacity 480 t.p.h. Silo capacity 50,500 tons.

Wharf No. 31-32: Max. LOA 120 m. Max. draft 10.5 m. Coal discharged into trucks by ship's gear and shore grabs. Average discharge rate 3,000 tonnes per day. Working Hours: 0800 – 1800 hrs., 1900 – 0300 hrs. and 0300 – 0500 hrs..

CRANES: 22 mobile cranes, capacity 10 tons – 250 tons, 17 wharf cranes, capacity 3 – 30 tons. 10 container cranes, capacity 35 tons, 4 floating cranes, capacity 110 tons, 60 tons, 30 tons and 30 tons.
Other equipment: 194 forklifts, capacity 1 ton – 25 tons; 5 portable pneumatic unloaders (for grain unloading), and 75 grab buckets and 15 excavators.

STEVEDORES: According to the stowage plan and cargo details, stevedores are assigned by Harbour Bureau. Work time is divided into dayshift and nightshift.

Cargo Working Hours:

General Cargo and Bulk Wharves.	Container Terminal.
0800 – 1200 hrs.	0800 – 1220 hrs.
1300 – 1800 hrs.	1300 – 1820 hrs.
1900 – 2300 hrs.	1900 – 2320 hrs. – 100% Extra Charge.
0001 – 0300 hrs.	0001 – 0620 hrs. – 150% Extra Charge.

Port Performance:

General cargo up to 30 tons/gang/hr.

Average rate per day 480 tons.

Coal up to 60 tons/gang/hr. Rate per day 1,500-2,500 tons depending on availability of trucks.

China Steel's berth – 10,000 – 15,000 tons/day.

Containers – 25 per crane/hr. excluding waiting time.

RADAR/VHF: No radar service to aid navigation in port. VHF and flashing lamp only used on ship's arrival. However, Pilots carry pocket walkie-talkie's to communicate with tugs and line-men on dock.

MEDICAL: All clinics and hospitals in Keelung area with English-speaking doctors. Modern hospitals available in Taipei, 30 km. away.

TANKERS: Bulk oil is discharged at Berth No. 33 and No. 33B which are fitted with 8 in. and 4 in. pipe-lines. Length: 210 m. and 100 m., maximum draft: 10.85 m. at No. 33 and 8.2 m. at No. 33B.

Tankers may also discharge oil at Shen Ao monobuoy in a bay 7 miles East of Keelung. Max. LOA 224 m., max. draft 10.8 m., max. displacement 50,000 tons. Depth of water 12 m. Monobuoys are also situated at Sha Lun, (W. Taiwan), connected to Taoyuan Refinery, at positions:

No. 1 Lat. 25° 09′ 00″ N., Long. 121° 11′ 27″ E.
No. 2 Lat. 25° 08′ 32.4″ N., Long. 121° 10′ 06.3″ E.

Discharge is possible at Shen Ao and Sha Lun only under good weather conditions.

DENSITY: 1002 to 1023.

FRESH WATER:

1. Water supply facilities: Every wharf equipped with 2 hydrants of 2.5 in. in diameter, each tap delivering at rate of above 20 t.p.h.
2. 4 water barges, each barge delivering at rate of over 60 t.p.h.
3. Price:
   (1) Water supplied alongside priced at NT$39.00 (current exchange rate NT$38.00 to US$1.00) per ton.
   (2) Water supplied by barges at NT$74.00 per ton.
4. Application: Ships/Agents shall notify Harbour Bureau as early as possible if they need fresh water.

FUEL: Bunkers available subject to ship's/Agent's advance notice to C.P.C. who operate the bunker facilities. 5 bunker barges available.

FIRE PRECAUTIONS: Special wharves for tankers, Wharves No. 33 and 33B having automatic fire equipment; fire brigade and fire boats available.

GANGWAY/DECK WATCHMEN: Harbour policeman always assigned by authorities at gangway free of charge. Other gangway/deck watchmen are recommended.

OPENING/CLOSING HATCHES: Normally carried out by stevedores, excepting new designs on modern vessels.

CUSTOMS ALLOWANCES: (1) Each crew member allowed 200 cigarettes in bulk or half a pound of tobacco. (2) Each crew member allowed 1 opened bottle of wine and 12 cans of beer.

IDENTIFICATION CARDS: Passport or other identification papers are needed.

CONSULS: None. Mostly stationed at Taipei.

REPAIRS: Any ship which needs repairs must itemise repairs and declare them to Harbour Bureau via shipping company or Agent and then the repairs will be carried out in accordance with the relating articles under Administration Regulations on Harbour Business for Taiwan Provincial Commercial Harbours. As to docking, ships may deal with China Shipbuilding Corp. Keelung Dockyard or Keelung Harbour Bureau repair plant via shipping companies or Agents.

There are over 400 m. of repair wharves, cranes up to 60 tons, plate and machine shops and foundry and a full staff of skilled tradesmen.

Repairs to radio, navigational and electronic equipment can be effected.

DRY DOCK: China Shipbuilding Corp. Keelung Dockyard has 3 dry docks, 2 for vessels under 100,000 tons and another for 25,000 tons. Keelung Harbour Bureau Repair Plant has 1 dock for vessels under 5,000 tons.

REPATRIATION: Crew repatriation usually carried out through International Airport in Taoyung, and Immigration prefer either individual or group visa for landing crew from ship.

AIRPORT: Taiwan's international airport C.K.S. is 65 km. from Keelung via the motorway. Travelling time approx. 1 hour. Flights are available direct to U.S.A., South Africa and most Asian destinations, and for Europe/Australia via Hong Kong. Taipei domestic airport (30-40 minutes travelling time) has frequent scheduled flights to most major cities in Taiwan.

TIME: GMT plus 8 hours. No alterations.

HOLIDAYS: New Year's Day (1st–2nd Jan.); Chinese Lunar New Year's Eve and Day (3 days in Jan. and Feb.); Youth Day (29th Mar.); Ancestor Memorial Day (1 day in April); Labour Day (not a national holiday but only for labourers) (1st May); Dragon Boat Day (1 day in June); Mid-Autumn Day (1 day in September); Confucius' Birthday or Teachers' Day (28th Sept.); National Day (10th Oct.); Taiwan Restoration Day (25th Oct.); late President Chiang's Birthday (31st Oct.); Dr. Sun's Birthday (12th Nov.); Constitution Day (25th Dec.).

SURVEYORS: Surveys of all types can be arranged. Major classification societies are represented.

POLICE/AMBULANCE/FIRE: The gangway guard assigned by Harbour Police or ship's Agent will act in emergencies.

TELEPHONE: Local telephones available to be placed on board.

SHORE LEAVE: Crew allowed ashore except for crew members from Communist countries.

REGULATIONS: Searching for stowaways is strictly carried out on arrival and departure.

Discharge of smoke, tank washings, garbage, etc., not allowed.

DELAYS: Keelung has rainfall on about 210 days in a year, port is sometimes congested after continuous rain.

GENERAL: Shore pass issued by Immigration for each crew member on ship's arrival and will be collected on ship's departure. Anyone who loses a shore pass is subject to fine.

DEVELOPMENTS: 100,000 tonne grain silo to be built.

3 container berths under construction in West Harbour to be completed in 1988.

Additional container berths will be available in the East Harbour by 1991.

AUTHORITY: Keelung Harbour Bureau, No. 1 Chung Cheng Road, Keelung, Taiwan, Republic of China. *Tel:* (032) 231111. *Cables:* Kehbroc Keelung. *Contact:* Y. C. Chu, Harbour Master, S. C. Teng, Director.

AGENT: Jardine, Matheson & Co. Ltd, 4 Second Floor, Chung Cheng Road, Keelung. Tel: (032) 230161. Telex: 32187 Jardines. Fax: (032) 266371.

Associated with Jardine Shipping Agencies.

SUAO: 24.36 N. 121.52 E. **(See Plan)**

PORT LIMITS: Radius of 1 mile from North Point Lighthouse.

DOCUMENTS: Ship's Register, Derat Certificate, Last Port Clearance, Taiwan Tonnage Dues Certificate (valid 1 year), Crew List (8 copies), Stores List, Vaccination List and Yellow Book, Foreign Currency in Safe, Narcotics List, Bills of Lading, Manifest of Inward Cargo, Manifest of Through Cargo, Mail and Parcels List. Also see "General".

Distribution:

Quarantine Station: One copy each of Health Declaration, Crew List, Ports of Call, Manifest of Inward Cargo, Manifest of Through Cargo.

Customs Office: One copy each of Arms and Ammunition List, Narcotics List, Foreign Currency List, Parcels List (including Landing Parcels and Through Parcels), Stores List, Crew List, Specimen Signatures of Master and Chief Officer, Taiwan Customs Tonnage Dues (can be purchased from the Customs Office), and 3 copies each of Manifest of Inward Cargo and Manifest of Through Cargo.

Immigration Office: One copy each of Crew List, Arms and Ammunition List, Manifest of Inward Cargo, Ports of Call List.

Port Authority: One copy each of Crew List, Manifest of Inward Cargo, Manifest of Through Cargo.

Local Shipping Agent: One copy each of Ship's Particulars, Crew List, Manifest of Inward Cargo, Manifest of Through Cargo, Ports of Call.

PILOTAGE: Compulsory. Pilot boards at outside anchorage position (Lat. 24° 35′ 20″ N., Long. 121° 52′ 30″ E.). Hoist "G" flag. Daytime service only available.

ANCHORAGES: Water area from North shore to South shore, depth 14 m. to 31 m. and outer depth over 30 m. Ship may anchor and remain outside breakwater when waiting for Pilot or entry instructions.

APPROACHES: If approaching from the North or East, Kui Shan (Turtle Shaped) Island, 15 miles N.N.E. of the harbour entrance, provides a good landmark, with its 408 m. elevation.

San-Shien-Tai Island (30 m.), 1 mile E.N.E. of the entrance, is a good leading mark, and vessels should make their approach from the S.E., clearing the island by half a mile, before turning to enter. A 4.7 m. shoal exists about 450 m. S.W. of the island and another lies to the N.W. A red light sector marks danger areas near the entrance. The channel depth at the entrance is 22 m. The inner channels have depths of 15 m. to the North and 10 m. to the South.

RESTRICTIONS: Permission to enter must be granted by naval signal station located on North shore, ship's Agent should give ship's ETA to Port Authority of Suao 24 hours before arrival. Port closes from 2301 hrs. to 0200 hrs. daily.

MAX. SIZE: Max. draft 14 m. and LOA less than 290 m.

HEALTH: Radio Pratique possible (see "Keelung"). Quarantine will clear vessel in anchorage area. Stool test will be conducted if vessel arrives from an affected area within 5 days.

RADIO: Radio Suao, send cables to Harbour Master Suao, or Agent. Report ETA, draft, etc.

VHF: Channel 14 – 156.7 MHz for calling. Call sign "Suao Harbour Radio".

TUGS: Port Authority tugs assist with mooring and unmooring. Ship's lines used. 6 tugs, 2×2,400 h.p., 1×1,600 h.p., 1×1,200 h.p., 1×1,000 h.p. and 1×600 h.p.

BERTHING: Docking during daytime, departure also during daytime, but sometimes at night time if permission granted from Authorities. Pilot compulsory. Vessel usually anchors in outer harbour for Pratique and inspection.

Deep water wharf 2,705 m. (13 berths) capable of accommodating vessels up to 298,000 d.w.t.

Wharf No.	*Length* (m.)	*Depth* (m.)	*Designed Depth* (m.)	*Uses*
1W	210	7.0	7.5	Service Craft
2W	170	10.5	11.0	Breakbulk
3W	215	10.5	11.0	Breakbulk
4W	300	10.5	11.0	Breakbulk
5W	200	10.5	11.0	Breakbulk
6W	290	14.0	15.0	Containers and Breakbulk
7W	240	12.5	13.0	Containers and Breakbulk
8W	125	7.0	7.5	Timber
9W	125	7.0	7.5	Timber
10W	175	8.5	9.0	General Cargo
11W	175	8.5	9.0	General Cargo
12W	200	8.5	9.0	Breakbulk
13W	180	8.5	9.0	Breakbulk

CARGO HANDLING FACILITIES: The port has no special facilities, 1 gantry crane for handling container cargoes. For the present time ship's derrick only for logs, timber, cement and general cargo.

Grabs:	12×3.5 cu.m. (3.5 tonnes each). 16×2.2 cu.m. (1.8 tonnes each).
Fork Lifts:	8×3 tonnes. 2×2 tonnes. 1×7.5 tonnes.
Mobile Cranes:	2×40 tons 1×20 tons 4×16 tons
Shovels:	1×3 ton (Bulldozer)

STEVEDORES: Arranged by local Agent. Working hours: 0800 – 1200, 1300 – 1700, 1800 – 2300 and 0000 – 0600.

MEDICAL: Clinics with English speaking doctors available, modern hospitals available in Lotung, (St. Mary's Hospital, sponsored by Catholic Society) Ilan and Taipei by train or by car, 20 minutes, 30 minutes and 2 hours away respectively.

DENSITY: 1025.

FRESH WATER: Available by barge or alongside, subject 24 hours' advance notice.

FUEL: Supplied by tanker trucks.

GANGWAY/DECK WATCHMEN: Harbour policeman always assigned by Authority for gangway, free of charge.

OPENING/CLOSING HATCHES: Normally carried out by stevedores.

CERTIFICATES: International certificates, Register, Safety Equipment, Safety Construction, Safety Radio, Load Line, Cargo Gear, etc.

CUSTOMS ALLOWANCES: Each Crew member allowed 200 cigarettes for own use and 1 bottle of wine for entertaining and for own use, Master enjoys some privileges and can keep additional cigarettes for entertaining.

IDENTIFICATION CARDS: Shore pass for foreigners issued by Immigration Office according to the passport or other identification papers.

CONSULS: None.

REPAIRS: Minor repairs can be carried out in port.

DRY DOCKS: Length 165 m., width 23.7 m., depth 7.7 m. Vessels under 10,000 g.r.t. can be accommodated.

REPATRIATION: Crew repatriation usually carried out through international airport in Taoyuan, near Taipei. Application to be made to Keelung Harbour Bureau.

AIRPORT: International airport in Taoyuan, 3.5 hours by car from port.

TIME: GMT plus 8 hours. For local time check in Chinese, dial telephone 117 (free of charge).

HOLIDAYS: New Year's Day (January 1st), Youth's Day (March 29th), Late President Chiang Kai-Shek's Death – Memorial Day (April 5th), Labour Day (May 1st), Dragon-Boat Day (May 5th of Lunar Calendar), Mid-Autumn Festival (August 15th of Lunar Calendar), Birthday of Confucius (September 28th), Double Tenth Day (October 10th), Recovery Day of Taiwan (October 25th), Late President Chiang Kai-Shek's Birthday (October 31st), Birthday of Dr. Sun Yet-Shen (November 12th), Constitution Day (December 25th), Eve of Chinese New Year's Day (December 29th or 30th of Lunar Calendar), Chinese New Year's Day (first day of Lunar Calendar).

POLICE/AMBULANCE/FIRE: The gangway guard assigned by Harbour Police or ship's Agent will act in emergencies; in case of fire dial 119. Police and ambulance dial 110.

TELEPHONE: Local telephones available to be placed on board.

SHORE LEAVE: Crew allowed ashore, except for crew members from Communist countries.

REGULATIONS: Crew cannot shelter any unlawful person on board. Searching for stowaways is strictly carried out on arrival and departure.

DELAYS: Port is sometimes congested after continued rain and delays of a few days may be caused.

GENERAL: 3 Crew Lists sent by airmail from last port to Agent. Shore pass issued by Immigration Office for each crew member on ship's arrival and will be collected on ship's departure.

AUTHORITY: Suao Harbour Bureau, Suao, Ilan, Taiwan, Republic of China. *Tel:* 039-972001. *Contact:* M. C. Chiang, Port Director.

AGENT: Sub-Agent controlled by: Jardine, Matheson & Co. Ltd., 13/14th Floor, World Trade Building, P.O.Box 81, 50 Hsin Shen South Road, Section 1, Taipei. Tel: (02) 393-1177. Telex: 21851, 11391 Jardines. Cables: "Jarocean Taipei".

Associated with Jardine Shipping Agencies.

TAICHUNG: 24.18 N. 120.29 E. (See Plan)

PORT LIMITS: In radius of 1.5 miles from centre of the entrance between North and South Breakwater.

LOCATION: Exact position of Port – Lat. 24° 17′ 40.3″ N., Long. 120° 29′ 27.3″ E.

DOCUMENTS: *Required by Quarantine Station:*

1 copy Health Declaration.
1 copy Crew List.
1 copy Passenger List.
1 copy Ports of Call List.
1 copy Manifest of Inward Cargo.
1 copy Manifest of Through Cargo.
1 copy Derat Certificate.

Required by Customs Office:

1 copy Arms and Ammunition List.
1 copy Narcotics List.
2 copies Foreign Currency List.
3 copies Parcels List (1 for landing parcel, 2 for through parcels).
1 copy Stores List.
2 copies Crew List.
2 copies Mail List.
2 copies Passenger List.
4 copies Manifest of Inward Cargo.
4 copies Manifest of Through Cargo.
1 copy Personal Effects List.
1 copy Specimen Signatures of Master and Chief Officer.
1 copy Log List (for log ships only).
1 copy Taiwan Tonnage Dues (can be purchased from the Customs Office).
1 copy Ship's Register.

Required by Immigration Office:

2 copies Crew List.
2 copies Passenger List.
2 copies Arms and Ammunition List.
2 copies Narcotics List.
2 copies Manifest of Inward Cargo.
4 Photographs of each Chinese Crew Member (only for first arrival).

Required by Port Authority:

1 copy Crew List.
1 copy Passenger List.
3 copies Manifest of Inward Cargo.
2 copies Manifest of Through Cargo.

Besides above documents, ship's Master should present Certificates of Ship's Registry, Safety Equipment, Safety Construction, Safety Radio and Load Line to the Port Authority for inspection.

Required by Local Shipping Agent: One each of Ship's Particulars, Crew List. Last Port's Name and Leaving (Last Port) time should be forwarded by airmail to the local Agent.

PILOTAGE: Compulsory. At anchorage hoist "G" flag, contact Taichung Port Radio on VHF Channel 16. Pilots board 0.5 – 1 mile off the end of the breakwaters. In the winter, however, the pilot launch is sometimes unable to leave the shelter of the breakwaters, and the Pilot must embark inside the breakwaters. Alternatively, if sufficient notice is given, vessels may pick up a Taichung Pilot off either Keelung or Kaohsiung. When it is known that bad weather exists off Taichung, this latter course of action is recommended to avoid possible berthing delays and danger to the ship.

APPROACHES: Daytime entry only.

The entrance channel has a minimum depth of 11 m. (MLWS), is 16 km. long and 300 m. wide in a direction of 115° (T). Sometimes strong cross currents exist outside the breakwaters. In strong winds, the pilot vessel may be unable to leave the shelter of the breakwaters and vessels must pick up the Pilot inside the harbour entrance (see "Pilotage"). There have been groundings outside the harbour but these all appear to have been the result of bad navigation or the neglect of basic precautions.

ANCHORAGE: Water area in port limits, except entrance channel can be used for anchoring, depth from 10 m. to 18 m. Ship may anchor and remain outside breakwater when waiting for Pilot.

RESTRICTIONS: Permission to enter must be granted by signal station. Ship's Agent to report ETA to Port Authority 24 hours before arrival.

MAX. SIZE: Max. draft 13 m., LOA no limit.

HEALTH: Radio Pratique acceptable, also quarantine will clear vessel at anchorage. Special quarantine will be conducted if vessel arrives from a cholera affected area within 5 days.

Also see "Keelung".

RADIO: Via Radio Taichung (XSW2) or Radio Keelung and Radio Kaohsiung. Send cables to Agent or Harbour Master Taichung for reporting ETA, draft, etc.

RADAR: No radar service to assist navigation in port.

VHF: Call sign "Taichung Port Radio", Channel 16 (156.8 MHz) for calling purpose, Channel 14 (156.7 MHz) for further communication. Pilots use walkie-talkies to communicate with tugs and mooring men.

TUGS: Authority tugs assist mooring and unmooring, ship's line used. 10 tugs, 250 h.p. – 4,600 h.p.

BERTHING: Wharf 1, depth 13 m., length 250 m., for grain cargo, discharged by shore grain unloaders.

Wharves 2 and 3, depth 13 m., 500 m., for bulk cargo.

Wharf 4, depth 11 m., length 200 m., for liquid cargo.

Wharf 4A, depth 9 m., length 180 m., for logs and cement.

Wharves 5A, 5, 6, 7 and 8, depth 11 m., length 1,000 m., for general cargo.

Wharf 8A, depth 11 m., length 260 m. for general cargo.

Wharf 9, depth 14 m., length 260 m., for containers.

Wharves 10 and 11, depth 13 m., length 640 m., for containers (See "Shipmaster's Report" – 1982).

Wharves 12, 13, 14 and 15, depth 10 m. to 11 m., length 760 m., for general cargo.

Wharves 23, 24 and 25, depth 10 m. to 11 m., length 560 m., for general cargo.

Wharves 26 and 27, depth 11 m., length 400 m., for general cargo.

Wharf 28, depth 11 m. to 14 m., length 180 m., for general cargo.

Wharf 29, depth 14 m., length 215 m., for coal (coal unloader is planned) (See "Shipmasters' Reports" – 1982 and 1987).

Wharves 31 and 32, depth 14 m., length 640 m., for containers.

Wharves W1 and W2, depth 13 m., length 250 m. each, for petroleum and chemical products.

(For their locations see "Plan").

SPECIALISED CARGO HANDLING FACILITIES:
Container Terminal: Wharves 10 and 11. Each has 1×35 ton quay-side container crane.
Grain: Grain Elevator installed at Wharf 1, silo capacity 60,000 tons. 2 unloaders, 400 t.p.h. each.

CRANES: 7 mobile cranes up to 40 tons capacity, 1 mobile crane of 140 tons capacity. Large supply of forklifts, hoppers, grabs, electro magnets, conveyors, etc.

STEVEDORES: Stevedores and equipment can be hired from the Taichung Harbour Warehousing & Stevedoring Co., Teh-Long Warehousing & Stevedoring Co. and Taichung Harbour Bureau Marine Terminal Operations.
Cargo Working Hours:
0800 – 1200
1300 – 1700
1800 – 2300 (plus 100%)
0000 – 0600 (plus 150%)
Port Performance: General cargo 200 tons/gang/day. Bulk (other than grain silo) 300 tons/gang/day.

MEDICAL: Clinics and hospital with English speaking doctors available at town of Wuchi near the port.

DENSITY/TIDE: 1023/High tide and low tide difference 4.5 m., when alongside pier keep watch on moorings.

FRESH WATER: Available alongside and by barge with capacity 25 tons. No limitation on quantity.

FUEL: Ordinary bunkers available but 24 hours' advance notice required. Fuel barge (550 tons) operated by C.P.C.

GANGWAY/DECK WATCHMEN: Harbour policeman always assigned by authority at gangway free of charge.

OPENING/CLOSING HATCHES: Normally carried out by stevedores, except new designs on modern vessels.

CUSTOMS ALLOWANCES: Each crew member allowed 200 cigarettes and 1 bottle of wine for own use. Bonded store will be sealed on arrival.

IDENTIFICATION CARDS: Not required, however passports or other identification papers must be submitted for request of a shore pass.

CONSULS: None.

REPAIRS: Minor repairs can be carried out in port.

REPATRIATION: Crew repatriation usually carried out through international airport in Taoyuan near Taipei, or Kaohsiung, about 200 km. from this port.

TIME: GMT plus 8 hours. For correct local time dial Tel: 117, time report in Chinese, free of charge.

HOLIDAYS: Commemoration Day of the Republic of China and New Year's Day (1st and 2nd January), Lunar New Year's Eve and Spring Festival (3 days late in January or early February), Youth Day and Chinese Martyrs' Day (29th March), National Tombs' Sweeping Day and Death of President Chiang Kai-shek (5th April), Labour Day (1st May, for labourers only), Dragon Boat Festival (one day in June), Mid-Autumn Festival (one day in September), Confucius' Birthday and Teacher Day (28th September), National Day (10th October), Taiwan Restoration Day (25th October), Chiang Kai-shek's Birthday (31st October), Dr. Sun Yat Sen's Birthday (12th November), Constitution Day (25th December).

Cargo work can be arranged on holidays except Lunar New Year's Day, Labour Day, Dragon Boat Festival (only afternoon) and Mid-Autumn Festival (only afternoon).

POLLUTION: Discharge of tank washings, etc., in port is prohibited (Also see "Regulations – Harbour Bureau Notice").

POLICE/AMBULANCE/FIRE: Call Taichung Harbour Police Tel: 562394 or Liaison Centre of Taichung Harbour Bureau Tel: 562164.

TELEPHONE: Local telephone available to be placed onboard.

GENERAL: Recommended chart: Chinese Navy Chart No. 0357, Tai-Chung Kang.

SHORE LEAVE: Crew allowed ashore except for crew members from communist countries.

REGULATIONS: Searching for stowaways is strictly carried out on arrival and departure.
Harbour Bureau Notice:

1. Please show your shore pass together with your hand-carried articles to the gangway guard when going ashore and to the gate police when coming aboard.

2. Photographing of the harbour, storing of explosive articles and displaying of fire crackers in the harbour area are prohibited.

3. Before obtaining a boarding pass which can be applied for you by your ship's agency, you are not allowed to board another ship with your shore pass.

4. Before going ashore, read over carefully the notice on your crew shore pass and comply with it.

5. Be sure not to lose your shore pass, nor should it be used by others, since it is an important official document. The expense of announcing the loss of shore pass for 3 days in the local newspapers is to be on loser's account.

6. To avoid getting lost, keep in your mind the number and location of the wharf at which your ship is alongside, and in case the location of the ship is shifted contact your ship's Agent.

7. Always maintain aboard your ship a sufficient number of crew in case of emergency.

8. For the prevention of stowaways, thefts and accidents, crew quarters and passenger cabins should be kept locked before their shore leave.

9. Pumping wasted oil and throwing rubbish into the water, or exhausting thick smoke in the port area shall be subjected to a heavy fine.

10. For the protection of foreign copyrights, pirated editions of foreign books and records are not exportable.

11. Unless an application is approved by the Customs, any taxable article should not be taken off the ship, while each crew member is allowed to carry ashore 2 opened packs of duty free cigarettes, 10 cigars or 2 ounces of tobacco.

12. Each crew member may carry ashore no more than 2,000 New Taiwan Dollars (NT $2,000).

13. Each crew member is allowed purchases not exceeding US $200 in value in local products or handicrafts which can be carried aboard by the buyer with purchasing invoice; a Customs permit should be shown to the guard if exceeded.

14. Whenever you need assistance, please feel free to call 562394 or 562611 ext. 275 upon which the Foreign Affairs Division of the Harbour Police is obliged to serve you.

15. For further information, please consult directly with your Agency or Authorities concerned, as the rules contained in this notice may be revised at any time.

Thank you very much for your co-operation.

DEVELOPMENTS: The 2nd phase project with an expansion of the commercial harbour and a new industrial harbour will be carried out soon.

SHIPMASTER'S REPORT: November 1982 (updated 1987).
Stevedores: Cargo work: Around the clock. 0800 – 1200 hrs., 1300 – 1700 hrs., 1800 – 2300 hrs. and 0000 – 0600 hrs.
Health: Cholera still declared in Radio Pratique message but no action taken if certificates are out of date.
Customs: Issues can be made after 5 days.
VHF: Pilots and Port Radio also officially work Channel 16 but we only make contact on Channel 14.
Berthing: No. 11 (Container Berth) is completed (Extension of No. 9 and 10)
Consuls: No British Consul.
Airport: Nearest airport at Tauyuan.
Report: This is a new port midway up the West coast of Taiwan. Plans for very extensive developments are at present in hand, stage one is almost completed.

The Western coast is low lying and exposed. During N.E. monsoon season, when cold front comes from mainland China, the wind can be very strong, ships are advised to go South or North so that the Pilot may be taken off at Kaohsiung and Keelung. The water shelves fairly slowly and I am given to understand that in bad weather Panamax vessels anchor 2 miles West of port entrance, holding conditions not known. We were fortunate with calm conditions and anchored 5 cables S.W. of Breakwater South Light for a short period with no difficulties.

Pilot boards from launch outside and 1 tug is normally taken outside. VHF Channel 14 is used. They also use walkie-talkies to contact Harbour Control and tugs. Panamax vessels normally berth during daylight hours but may sail at any time. Pilot seemed competent and had an Assistant Trainee Pilot with him. (September 1987: Pilot disembarks inside breakwater. Vessel must attain good speed and allow for set and N'ly wind when passing between Inner Breakwater and Outer Breakwater.)

Depth of Water: Vessel berthed at half tide with 12 m. draft. Grain silo 13 m. Berth No. 10 depth 13 m. Berth No. 9 depth 14 m. Dredging being carried out. Rise and fall of tide 3.5 m. depth 4.0 m. Dock water density Berth No. 10 found to be 1023.

Tugs: There are 5 modern tugs. 3×2,400 h.p. and 2×1,600 h.p. Ship's ropes used. Normal conditions for Panamax, 1 tug each end.

Berths: Berth No. 10 (Berth No. 9 is similar) is a brand new container berth with 2 gantries for containers. Berth used for bulk coal discharge into lorries until new coal berth constructed. (Berth still not constructed in September 1987). Large flat area. Mooring bollards set at jetty edge every 23 m. A further set of unequally spaced large bollards are set along line 34 m. in from jetty. When mooring 4 head/stern lines, 2 springs and 2 long breasts each end are recommended. We experienced winds of over 30 knots off berth for short period, nobody seemed at all surprised, so would suggest this is reasonable tie-up.

Discharge: As stated this is a container berth. Panamax vessel with side opening hatches, port side to. Hatch centre stops and minor hatch fittings burnt off. Centre piece of hatch rail track tack welded on. Both hatch lids moved to starboard side. Section of ship's side rail in line with hatch burnt off. (This method not used on Berth No. 29). Wood sleepers placed on deck and mobile cranes lifted on board, 1 per hatch. These use small 4 – 5 ton grabs and discharge into lorries. Small bulldozer type vehicle put in each hold to move cargo to port side. Preparation about 1 day, discharge 9 days, replacing of pieces, etc., 1 day.

Bunkers: Heavy oil and diesel available by barge.

Lub. Oils: Most available, plenty of advance notice required.

Fresh Water: Available, from jetty or barge.

Repairs: Ship repairs undertaken with a 10,000 ton dry dock.

Money: Only New Taiwan Dollars available. US Dollars can NOT be obtained. Obtain any other requirements at previous port.

Immigration: For non-Taiwanese crew this is a problem, including Hong Kong, British and Indian. If any crew changes expected give plenty of notice. Visiting Hong Kong shore staff such as Superintendents, etc. required to renew dock pass every 2 days. Crew issued with shore pass (with photo for Chinese ratings) this has to be shown at dock gate outward and inward. Passes collected in on sailing, loss of pass results in fine on holder.

Stores: Victualling, fresh fruit and vegetables, reasonable price and good quality. Milk, meat, European style tinned goods all up to Chinese National Standard (CNS). Chinese dried foods, etc. appear good.

Beer can be obtained but not spirits or foreign cigarettes.

Customs: One person at least, around all the time. Bond and beer locker sealed. Issue will be given after a week in port, but give plenty of notice.

Certificates Required: Register, Loadline, Safety Equipment, Safety Construction, Radio Safety, Derat, Liferaft.

Documents: Crew List, 10 copies. Crew Manifest, watches, etc. and including foreign money. List of Stores. Deck, Engine, Victualling, Bond, Arms & Ammunition List, Narcotics List, Arrival Report, Declaration of Health, Departure Report (these three their forms). Specimen signature Master and Mate, General paperwork, large amount for any purpose. If landing spares or items for overhaul (motors rewound, etc.) give plenty of notice.

Medical Facilities: All available.

Drugs: Do not appear to be a problem in this port.

Grain Silo: I was informed that usual discharge rate is 5,000 tonnes per day.

Radio Station: Taichung Local. 24 hour watch M/F, W/T no difficulties encountered.

Cameras: Not to be taken ashore.

Walport: Possible to change video tapes. NOT films.

Telephone: Placed on board.

SHIPMASTER'S REPORT: September 1987.

Vessel berthed at Berth No. 29.

There are still no bulk discharge facilities at the port.

The method used in the Shipmaster's Report (November 1982) for Berth No. 11 is still used, but the ship's rails were not cut away. Rigging and cutting took about 12 hours, and all 7 mobile cranes in operation from the deck after 24 hours.

On completion of discharge, hatches were completed at irregular intervals, due to machine downtime, etc. Rewelding and rigging carried out as discharge continued and the interval between completion of discharge and completion of hatch repairs was about 3 hours.

Arrangements were made for Class Surveyor to inspect and issue certificate at end of work but this was not done efficiently.

The rate of discharge varied between 5,800 t.p.h. – 6,500 t.p.h., variation being due to very heavy rain and typhoon. The average rate per hatch per day was approximately 800-900 tons. — SNR

AUTHORITY: Taichung Harbour Bureau, Wuchi, Taichung County, Taiwan, Republic of China. *Tel:* (04) 222-0414 and (046) 56-2611. *Cables:* Taiwan Wuchi 7686. *Contact:* Rear-Admiral H. C. Kung, Harbour Master.

AGENT: Sub-Agent controlled by Jardine, Matheson & Co. Ltd., Kent Building, 130 Wen Hwa Road, Sec. 2, Wu Chi, Taichung. Tel: (042) 56711-15. Telex: 51446.

Associated with Jardine Shipping Agencies.

NOTES

Please also advise Shipping Guides Ltd.

Tanzania

CHAKE CHAKE: 05.14 S. 39.46 E.

DOCUMENTS, HEALTH: Refer to "Zanzibar", where vessel required to call for clearance by Port Offícals.
PILOTAGE: Not compulsory, but restricted to daylight only.
RESTRICTIONS: Entrance approached through Owen Channel or through passage between Mesale Island South and Ras Kingojelin. Depths from 10 to 22 fathoms but there are patches of 2.5 fathoms. Narrowest part of channel is 1.5 cables wide.

Vessels may enter and leave at any state of the tide, but in daylight hours only.
ANCHORAGES: No mooring buoys. Vessel's work cargo to lighters. Depth decreases to 3 fathoms for coastal anchorage off Ras Banani.
MAX. SIZE: 170 ft. length, 15 ft. draft.
TUGS: Not available and not required.
FRESH WATER: Not available.
FUEL: Not available.
STORING: Very limited facilities and it is recommended that where necessary all storing be done in Zanzibar.
AUTHORITY: See "Zanzibar".

DAR-ES-SALAAM: 06.50 S. 39.17 E. (See Plan)

PORT LIMITS: The Port of Dar-es-Salaam includes all tidal waters enclosed by a boundary which, commencing at high water mark at a point S.E. of Ras Koronja (approximately 9.66 km. East of the City of Dar-es-Salaam), follows a straight line due North to the West tip of the Outer Sinda Island. Thence a straight line to Makatumbe Lighthouse, thence a straight line drawn to South tip of Mbudya Island, thence a straight line drawn 254° to the high water mark at a point on the mainland South of the entrance to Mto Peremji. Thence following the high water mark around Msansani Bay, Dar-es-Salaam Inner Harbours to the first point due South of Outer Sinda Island.
DOCUMENTS:

Health Certificates (forms supplied by Pilot).
6 Crew Lists.
10 Passenger Lists.
Ship's Manifest.
Heavy Lift List.
Dangerous Cargo List.
Ship's Register.
Declaration and Advice of Consumable Stores (Form C-7 supplied by Customs).
Crew Declaration (Form C-8 supplied by Customs).

Shipmaster's Report: March 1981.

Declaration of Health.
1 Set of Vaccination Lists.
7 Crew Lists.
6 Passenger Lists.
Clearance from Last Port.
Ship's Register (Copy).
Dangerous Cargo Manifest.
Stores List (Form C-7).
Crew Declarations (Form C-8).
Parcel List (Form C-3).
Ship's Record & Master's Report (Form EAH-6007) (To Pilot).
Entry Report (Nasaco Form).
Departure Report (Nasaco Form).
Shore Pass (Form TIF 10).

PILOTAGE: Compulsory South of Makatumbe Lighthouse for all vessels over 200 n.r.t. The pilot launch is painted white and shows the conventional day and night signals. Vessels wishing to enter must await the arrival of the pilot launch at the Outer Anchorage, and, if necessary, must anchor clear of the leading marks.
ANCHORAGES: Anchorage outside in 7 – 8 fathoms, sheltered by Makatumbe Island during S.W. monsoon but exposed to swell in N.E. monsoon.
Shipmaster's Report: In good weather tankers waiting can anchor in a depth of 18 m., 12 cables from Makatumbe Light on bearing 250° True.
RESTRICTIONS: Movements in and out of the basin are subject to restrictions depending on drafts and state of the tide at Spring tides. Tankers, vessels over 135 m. LOA and vessels carrying explosives are not allowed to leave or enter during hours of darkness.

There is a signal station (with tower, flagstaff and red roof) on East Ferry Point (Lat. 6° 50′ S., Long. 39° 18′ E.). Entry prohibited signals are: day signal – black flag on masthead; night signal – 3 red lights disposed vertically, and distant signals – black square on white background.

The entrance channel at North end of the basin is about 1.25 miles in length from its outer entrance between the edges of the banks fronting North and South Reefs to the Inner Harbour, South of West Ferry Point.

There is a sharp bend in the channel at West Ferry Point. Minimum depth of 6.7 m. LWOST, and minimum width of 128.02 m. between the 4 fathoms contour lines. A very strong ebb and flood runs through the channel at periods of Spring tides. Maximum current at Spring tides – 3.5 knots. During period of S.E. monsoon strong winds and heavy seas may make entry difficult, but in Inner Harbour port working is normally unaffected by weather.
MAX. SIZE: Twin-screw vessels not exceeding 182.9 m. Draft 10.1 m. at HWOST, 7.0 m. at LWOST, and 9.1 m. at HWNT, and single-screw vessels not exceeding 175 m. Tankers LOA 175.26 m., 36,000 d.w.t., and draft 9.75 m. Also refer to "Mjimwema".
HEALTH: Radio Port Health Officer giving ETA, name last port and health condition of passengers and crew. "Q" flag to be displayed until Free Pratique given. Radio Pratique not available.
TUGS: 3 tugs available.
BERTHING: In the Inner Harbour there are mooring and anchorage berths for up to 9 deep-sea ships ranging from 350 ft. to 600 ft. (106.48 m. – 182.88 m.) in length and from 23 ft. to 30 ft. (7.01 m. – 9.14 m.) in draft.

Deep water quays total length 2,016 m. comprising Berths No. 1-11 with 10.06 m. in depth at LWOST.

Also see "Developments".
Accommodation:

Harbour sheltered and roomy, water area 95.9 ha; consists of tidal basin and Southern Creek, the latter having 11 deep-water berths. Anchorage in basin and creek.

		Depth	*Max. length*
"A"	Stern mooring	9.1 m.	183 m.
"B"	Moored mooring	7.6 m.	153 m.
"C"	Moored mooring	7.6 m.	183 m.
"D"	Single anchor	7.3 m.	183 m. waiting berth only.
"F"	Moored, buoys and anchor	7.3 m.	152 m.
"G"	Buoys	7.3 m.	168 m.
"H"	Buoys	7.1 m.	168 m.

In addition there are 2 coaster anchorages. The Southern Creek, at the S.E. corner of the basin has a navigable distance of 1.5 miles for ships drawing up to 30 ft. of water.
CARGO HANDLING FACILITIES: The port has no special facilities for bulk handling cargoes but, subject to advance notice being given, grabs can be made available.
Equipment and Other Facilities:

Deep water vessels berthed in stream are loaded and discharged by lighters. At the lighter quay there are 8 electric portal cranes for working lighters (1 × 5 ton and 7 × 3 ton), on the main quay, the port has 6 × 7 ton and 21 × 5 ton. There are 8 other portal cranes on the stacking yards as per details below:

(a) Belbase (AMI) — 2 × 10 ton cranes.
(b) Tanzania — 3 × 5 ton cranes.
(c) Yard 5, 6 & 7 — 1 × 7 ton and 1 × 7-20 ton Gosna Cranes
(d) Yard 8 — 1 × 5 ton Conrad.

Main Quay Cranes: Berth Nos. 1 – 8 have between them 24 portal cranes of 7 tons capacity each.
Mobile Cranes: 2 × 30 ton, 13 × 11 – 7 ton, 14 × 6 ton, 2 × 4 ton and 1 × 120 ton floating crane – "Ndovu". These are moved between deep-water quays, lighterage quays and any other points of work on the stacking yards as and when required.

Also see "Developments".
DENSITY: 1025.
TANKERS: Kurasini Oil Jetty at which tankers up to 175.26 m. LOA and 9.75 m. draft can discharge refined products to tanks ashore. Depth alongside 10.06 m. There is a refinery on the opposite side of the creek to the Kurasini Oil Jetty; the tankers serving the refinery are not to exceed 20,000 s.d.w.t. capacity. Also refer to "Mjimwema" where crude oil imports for Tanzania and Zambia are received.
STEVEDORES: Week days (except Saturday) 0700 – 1500 hrs. (45 minutes' break), 1500 – 2200 hrs. (no break), 2200 – 0600 hrs. (no break). Saturdays 0700 – 1345 hrs. (no break), 1400 – 2100 hrs. (no break). Sundays and public holidays 0700 – 1500 hrs. (45 minutes' break), 1500 – 2200 hrs. (no break).
FRESH WATER: Available at deep-water berths, and a water barge supplies water to ships at anchorage. All water is chlorinated but should be boiled and filtered. Water for boiler requires feed treatment (formal solutions adequate).
FUEL: Fuel oil, diesel oil and gas oil available.
MEDICAL: Facilities available.
REPAIRS: Several light engineering workshops. There is a Tanzania Harbour Authority Dockyard for construction and maintenance of Tanzania Harbour Authorities' lighters and other small craft. This has a slipway for vessels up to 100 ft., lifting power 100 tons. The Port Administration employs scuba divers.
REPATRIATION: Can be arranged.
CUSTOMS ALLOWANCES: Each crew member is allowed 1 carton of cigarettes, 1 opened bottle of spirits and 8 small beers.

All cabins are inspected by Customs.
AIRPORT: International airport with daily connections to all parts of the world.
TIME: GMT plus 3 hours. No alterations.
HOLIDAYS: Christmas Day and International Workers' Day are the only holidays on which no work is performed. Other holidays on which restricted working may be carried out are: Zanzibar Revolutionary Day (January 12th); Id-el-Fitr (2 days); Id-el-Haj; Good Friday; Easter Monday; Union Day (April 26th); Maulidi Day; Saba Saba Day (July 7th); Tanganyika Independence and Republic Day (December 9th).
SHORE LEAVE: Allowed.
SHIP SUPPLY SERVICE: Contact: PAC Lloyd (International) Inc., P.O.Box 1301, Dar es Salaam or Eagle Tugs, P.O.Box 98574, Mombasa.
DEVELOPMENTS: The port is currently in the middle of major developments which should significantly affect its capacity and efficiency. No new berths are being constructed but all the existing berths (excluding the SPM Oil Terminal) are being modified, modernised or rehabitated.

Berths No. 9, 10 and 11 are being converted into a dedicated container terminal (2 berths × 280 m.) with a capacity of about 100,000 TEU per annum. The terminal will have 2 × 35 ton gantry quay cranes, 5 × 35 ton rubber tyred gantry yard cranes and a rail container terminal (for both Tazara and TRC Railways) with 1 × 35 ton rail mounted gantry crane.

Backing up the port terminal will be 2 inland container depots in the Dar-es-Saleem area (Kurasini IDC, adjacent to the port and Ubungo IDC, about 15 km. along the port access road).

These container facilities were completed in December 1988.

The rehabitation of Berths No. 1 – 8 will provide a better lay-out, refurbished buildings and new heavy duty paving throughout for handling all general cargo traffic in the port. This work is due to be completed in 1991.

The Lighter Wharf modernisation, which was interrupted, is now due for completion with the provision of new paving and services.

A new bulk grain silo of 30,000 tonnes capacity is being constructed in the port to facilitate grain imports. This is due for completion in 1989.

The oil jetty which handles all petroleum oil products and other bulk liquids is undergoing major rehabitation, which is due for completion in 1989.

Among future developments which are under consideration are:

1. Improvements to the dockyard.
2. Improvements to the entrance channel.
3. New crude oil import facility.

AUTHORITY: Tanzania Harbour Authority, P.O.Box 1130, Dar-es-Salaam, Tanzania. *Tel:* 25839, 32064. *Telex:* 41346 Portreeve. *Cables:* Bandari, Dar es Salaam. *Contact:* Port Manager.

MJIMWEMA TERMINAL: 06.49 S. 39.22 E.

DOCUMENTS and all General Information; refer to "Dar-es-Salaam".

LOCATION: The position of the Monobuoy is Lat. 6° 48.8′ South, Long., 39° 22.1′ East, lying approximately 1.5 miles offshore in Mjimwema Bay. The buoy lies in 24 m. depth of water. The currents are up to about 1 knot and the direction varies.

PILOTAGE: Mooring Master/Pilot boards at position Lat. 6° 46.5′ N., Long. 39° 22.1′ E., subject to advice from Signal Station. Should the Pilot not be available on arrival, vessels are advised to keep underway and await the Pilot rather than anchor.

After mooring operations a Mooring Master/Pilot will remain on board.

Vessels must provide adequate means of boarding for Pilot, Customs and other officials. A pilot ladder with spreaders 4 ft. from the water and manropes are required.

The Mooring Master shall be provided with meals and accommodation comparable to a senior officer on board. The crew of the mooring launch will be provided with food comparable with ratings on board. No special foods need be provided. Accommodation also required for 2 divers.

RESTRICTIONS: Berthing during daylight hours only. Unberthing at anytime.

MAX. SIZE: Monobuoy accommodates tankers up to 100,000 d.w.t. (part discharge) and 125,000 d.w.t. (complete discharge). Minimum length allowed 650 ft. Max. draft allowed 55 ft.

HEALTH: Customs, Port Health and Immigration will board vessels on arrival.

RADIO: Within 6 hours of clearing the loading port, each tanker shall provide the Agent with the following information:

(a) Name of Ship.
(b) Name of last port from which the vessel cleared and the loading port if different from above.
(c) Estimated date and time of arrival at Dar-es-Salaam (Mjimwema).
(d) Cargo loaded.
(e) API gravity.
(f) Arrival draft, fore and aft.
(g) Lifting capacity of derricks.
(h) Size of manifolds.
(i) Personnel requirements.

72 hours from the pilot station, a second cable should be sent to Agent with following information:

(a) Name of ship.
(b) Amended time of arrival.
(c) Names of crew leaving the vessel (if any).
(d) Requirements of doctor and dentist.
(e) Any other requirements.

A final cable should be sent about 36 hours from the pilot station giving finally amended ETA.

When within 20 miles of the terminal vessel should call Dar-es-Salaam Signal Station on Channel 12 VHF. Channel 16 is available but is not continuously monitored.

VHF Channels 16 calling, 12 berthing. VHF Channel whilst discharging to be decided.

The Mooring Master will be in direct control of all radio communications on the vessel while in the terminal area. Any unauthorised communications may result in the immediate cessation of all operations and removal from the berth.

READINESS: Notice of Readiness will be accepted by the Receivers Representative when the ship is berthed and connected.

Any vessel which is not, in the opinion of the Berth Controller, ready in all aspects to discharge, may be rejected until corrections are made. The Harbour Master's decisions are final.

MOORING: The following equipment is supplied by Tanzania Harbours Authority. 2×10 in. circumference nylon ropes, 100 ft. long with 2 joining shackles. These will be hoisted aboard from the launch using the Starboard boom.

The vessel approaches the buoy head to wind and tide or the resultant of these forces, and should have one ship's mooring rope lowered through the centre Panama Lead down to the water level with 15 ft. of 3 in. rope lashed to the eye. As the vessel approaches the buoy the launch will connect the ship's rope to the floating pick-up rope, which is hauled aboard until the mooring chain is through the Panama Lead. The 2 shore ropes are then shackled to the chain and made fast aboard.

BERTH: The Monobuoy is a single point mooring buoy. The body of the buoy being secured in a fixed position with 6 moorings and the top of the buoy is in the form of a turntable allowing the ship, moorings and hoses to take up the position the vessel lies naturally due to tide, wind and current conditions.

HOSES: Raising and lowering of, connecting and disconnecting of hoses as well as other shipboard duties will be performed by the ship's crew under the advice of the Mooring Master. The ship should be capable of lifting 10 tons on her derrick, with a minimum of 7.5 tons.

When the vessel is securely moored, the launch will bring the hoses alongside on the starboard side. The vessel will lower the cargo hook to the boatman who will hook it on to the lifting ring on the forward hose. The hose will then be lifted to full height on the boom and secured on the "Hang-off Chains" supplied. The hose is then lowered to the deck and the operation repeated with the after hose.

After completion of discharge the hoses will be filled with sea water by the ship. The hoses can then be disconnected from the manifold and lifted over the side of the ship and hung there on the slip ropes to be slipped off simultaneously with the moorings. This last operation will be carried out on the advice of the Mooring Master.

UNMOORING: On sailing, hoses will already have been disconnected and towed clear by the attendant launch. The weight of the moorings is taken off the pick-up rope, the shackles disconnected, and the chain and pick-up rope lowered into the water. The shore ropes and shackles are then lowered into the launch, usually from the port bow.

The Pilot will then disembark, using a combination gangway/pilot ladder on the port side.

BALLAST: Ballasting will be allowed during discharge but only with the express permission of the Discharging Master. In the case of ballasting into dirty tanks a Dry Tank Certificate must be first obtained. Vessels will be allowed to carry out Crude Oil Washing, but no other form of tank cleaning. There are no sludge tanks ashore.

FUEL: Agip Tanzania have a bunker barge but can only supply fuel oil.

FRESH WATER: Up to 250 tonnes of fresh water is available by water barge. A pumping rate of approximately 10 tonnes per hour may be expected. Approximate cost is U.S.$4.60 per ton.

STORES: Stores are available in Dar-es-Salaam, but the Tanzania Harbours Authority cannot undertake to transport stores to the Monobuoy. Transport of stores to the buoy will be the responsibility of the Agent.

REPAIRS: During periods of calm and the fact that there is little current, it is foreseen that the problem of riding up on the buoy may occur. The vessel's engines shall therefore be available at all times and the telegraph shall be on stand-by while the vessel is in the berth. Engine repairs are not permitted. Should a vessel not be able to use her engines the cargo will be stopped and the vessel towed to a safe anchorage at the vessel's cost, until she can safely return to the berth.

SHORE LEAVE: Shore leave can be arranged through Agents. Should any of the crew require to be landed for medical or relief reasons, the Agent will be reponsible for providing transport to the Inner Harbour. Tanzania Harbours Authority craft will on no account be available to ferry crew members to and from the passenger pontoon. The Monobuoy lies 4.5 miles from the passenger landing pontoon, which is situated in the Inner Harbour.

POLLUTION: It is the Master's responsibility to see that no oil of any kind is pumped or spilled overboard from his vessel. This includes oily water from bilges, crude residues from the previous voyages or any other matter that may result in the pollution of the area. Owners and Masters should comply with any international regulations and recommendations concerning the prevention of pollution of the sea.

Serious consequences will arise if the above rule is broken. All costs and expenses involved will be for the account of the vessel concerned and the Master may be prosecuted under the Tanzania Merchant Shipping Act.

REGULATIONS: While in the berth the vessel should provide a pilot ladder on the opposite side of the vessel to the gangway, secured at the rail and ready for use.

No boats of any kind shall be lowered without permission from the Customs, Immigration and Harbour Master, except in an emergency.

Tanzania Harbours Authority maintains vessels to assist in berthing. These vessels are under the direct supervision of the Mooring Master/Pilot. Any service or facility provided by the Tanzania Harbours Authority, including the services of the Mooring Master/Pilot and boats are the vessel's risk. The furnishing of Mooring Master/Pilot and launches or other services and facilities shall not be construed to be or give rise to a personal contract.

STOWAWAYS: Vessels are warned that stowaways remain a serious problem at the Terminal. All exterior doors should be kept locked, especially in the forecastle, and, if possible, the chain lockers should be sealed on deck. A thorough search prior to departure is essential. Stowaways found aboard will be escorted ashore by the Port Police or the Pilot when he disembarks (contact Signal Station on VHF Channel 12).

AGENCY: The sole ship's Agency in Tanzania is National Shipping Agencies Co. Ltd (NASACO). The Department dealing with tankers at the Terminal is Ruvuma Department. Tel: Dar-es-Salaam 29425. Telex: 41235. P.O.Box 9082, Dar-es-Salaam.

SHIPMASTER'S REPORT: August 1985.
Fresh Water: Not available.
Stores: Not available.
Medical: Doctor and dentist not always available.

AUTHORITY: Tanzania Harbours Authority, P.O.Box 1130, Dar-es-Salaam, Tanzania. *Tel:* 25839, 32064. *Telex:* 41346 Portreeve. *Cables:* Bandari Daressalaam. *Contact:* Harbour Master.

MKOANI (Kohani): 05.21 S. 39.38 E. (See Plan)

DOCUMENTS, HEALTH: Refer to "Zanzibar".

PILOTAGE: Pilot available on request from Zanzibar.

RESTRICTIONS: Vessels passing through channel between Zanzibar and Pemba should inform Port Authorities 24 hours in advance.

Entrance through Mkoani leading marks, buoyed and well-lit channel, depth of 11 fathoms. Vessels may enter and sail any time night and day.

ANCHORAGES: No mooring buoys. Minimum depth 6 fathoms. Vessels work cargo to lighters. Sandy bottom with mud close inshore.

MAX. SIZE: Length 250 ft.

TUGS: 2 tugs available.

FRESH WATER: Not available.

FUEL: Not available.

STORING: Very limited facilities and it is recommended that where necessary all storing be done in Zanzibar.

DEVELOPMENTS: A jetty, 130.4 m. long, is to be constructed offshore and joined to the shore by a causeway 466 m. long and 4.0 m. wide. Depth alongside 9.0 m. The jetty will be able to accept a vessel 4,000 d.w.t. on the outer side and small domestic steamers and dhows on the inner side.

AUTHORITY: Ministry of Ports and Shipping, Port and Marine Department, P.O.Box 263, Zanzibar. *Tel:* 32858, 32847 (home). *Telex:* 57267 Shipco TZ. *Contact:* Port Officer.

MTWARA: 10.16 S. 40.12 E. (See Plan)

DOCUMENTS, HEALTH: Refer to "Dar-es-Salaam".

PILOTAGE: Compulsory. Pilot based at Dar-es-Salaam and flies to Mtwara when required. Scheduled flights 3 times a week. Early information concerning ETA to Harbour Master, Dar-es-Salaam. (Southbound vessels requested to divert to Dar-es-Salaam to embark Pilot).

Pilot boards 0.5 mile North of Shangani Reef Buoy from tug or available craft.

Signal Station can be contacted on VHF, Channels 12 and 16, between 0600 hrs. and 2200 hrs.

APPROACHES: The entrance is approached by a channel marked by buoys and leading beacons. At its narrowest point abreast of Msemo spit the channel is 1.5 cables wide. In spite of the sharp turn in this vicinity, vessels of up to 175.26 m. in length can enter the harbour at all stages of the tide. Once around the Msemo Spit there is a very good natural harbour with room for two 500 ft. vessels and 1 coaster alongside. There are 6 marked anchorages to accommodate vessels of up to 9.5 m. draft.

ANCHORAGES: No safe anchorage outside port.

RESTRICTIONS: Port closed from 1800 hrs. to 0600 hrs. No tidal restrictions.

MAX. SIZE: Length 175 m., draft 9.76 m.

RADIO: Dar-es-Salaam or Mombasa Radio.

TUGS: Join vessel off Signal Station.

BERTHING: Deep-water Quay: 1,248 ft. length; 9.75 m. depth alongside at low water. 2 berths available at quay.

Sheds and Stacking Yards:

The port has 4 sheds for reception and storage of cargo with a total area of about 16,272 sq.m.

Transit shed No. 1 floor area is 3,121.4 sq.m.
Transit shed No. 2 floor area is 3,121 sq.m.
Transit shed No. 3 floor area is 728 sq.m.
B.P. shed floor area is 9,302 sq.m.
Stacking yard area is 9,000 sq.m.

Cargo Handling Appliances:

2 Jones mobile cranes (11 tons).
7 Fork lift trucks (2.5 tons and 5 tons).
5 Tractor trailers.
2 Tractors.

Marine Craft:

The port owns 3 floating craft. These include 1 berthing tug "Kongoni" (not on station) and 2 labour launches.

CARGO GEAR: Vessels load/discharge using ship's gear.

STEVEDORES: Stowage plan required, preferably 2 weeks prior to arrival. Gang arrangements to be made 24 hours before arrival.

Normal Working Hours:
Weekdays: 1st shift: 0700-1500
2nd shift: 1445-2215
Saturdays: 1st shift: 0700-1230
2nd shift: 1230-2030

A maximum of 3 hours overtime is permitted after 2nd shift in order to finish the ship.

MEDICAL: Doctor available. All crew require valid cholera and yellow fever inoculation certificates.

DENSITY: 1025.

FRESH WATER: Not normally available during daytime but available at night.

FUEL: Not available.

GANGWAY/DECK WATCHMEN: Arranged by Agents.

HATCHES: Opening/closing carried out by stevedores.

IDENTIFICATION CARDS: Required.

REPATRIATION: Possible.

AIRPORT: 7 miles from the port. 3 scheduled flights a week to Dar-es-Salaam International Airport.

TIME: GMT plus 3 hours.

HOLIDAYS: All holidays worked as Sunday except following days when no work done: Christmas Day and 1st May.

POLICE/AMBULANCE/FIRE: Port Police Tel. 059-2182. Port Fire Brigade Tel. 059-2062.

TELEPHONES: Direct connection on board not possible.

BANKS: The National Bank of Commerce (NBC), P.O.Box 142, Mtwara. Tel. 059-2306. Telex: 56296. This bank is within 2 km. of the port.

STORING: Trucks can proceed alongside the quay.

SHORE LEAVE: Crew allowed ashore.

SHIPMASTER'S REPORT: December 1981 (Updated 1986).

Vessel called at Mtwara on 1st December, 1981. The following facts were obtained from Port Manager and Pilot:

Documents/Health: Refer to Dar-es-Salaam.

Pilotage: Pilot is based at Dar-es-Salaam and flies to Mtwara when required. Early information concerning ETA to "Harbour Master – Dar-es-Salaam". Pilot arrives by Air Tanzania regular flight. He may stay at the Pilot's Rest House or aboard the vessel. Pilot boards 0.5 miles N.W. of Shangani Reef Buoy from tug. Pilot ladder to be 6 ft. above water. Pilotage during daylight hours only. Signal station can be contacted on Channel 12 between 0600 hrs. and 1800 hrs. Channel 16 also available if required.

Approaches: Cape Delgado lighthouse unlit. The entrance is approached by a channel marked by buoys and leading beacons, all unlit. Buoys only weighted and liable to drift. There are 6 unmarked anchorages to accommodate vessels of up to 9.5 m. All buoys and leads unlit.

Radio: "Mombasa Radio".

Tugs: Available from Dar es Salaam.

Cargo Gear: Ship's cranes or derricks used. Shore facilities (not used for discharging) consist of: 12 Hyster fork lift trucks (max. 3 tons); 2 tractors and 10 trailers SWL 15 tons; 2 Jones mobile cranes × 15 tons each and 5 Coles mobile cranes × 7 tons each.

Stevedores: Stowage Plan required, preferably before ship's arrival.

Medical: Doctor available. Medicine and/or injections in short supply and may not be available. All crew require valid Yellow Fever Certificates and anti-Malaria tablets should be taken on arrival.

Density: 1025.

Fresh Water: Sometimes available from quay in small quantities. No water barge.

Provisions: Fresh fruit and vegetables available in market.

Fuel: Not available.

Repairs: No facilities.

Gangway/Deck Watchmen: Arranged by Agent.

Agent: Only one Agent – National Shipping Agencies. Cable address: "Navigation Mtwara".

Identification Passes: Made out by Immigration Officials on board. Collected by Agent prior to departure.

Repatriation: Daily internal flights to Dar-es-Salaam.

Airport: 7 miles distant by road.

Time: GMT plus 3 hours (permanent).

Holidays: All holidays normally worked except Christmas Day and 1st May when no work possible.

Working Hours: Seven days weekly 0700–1500; 1500–2200 with requested extension from 2200–0100 if to finish vessel (except Heavy Lifts).

Telephones: Direct connection on board not possible.

Telex: One machine in Post Office for general use. Otherwise Agent telephones Dar-es-Salaam Agent who forwards telexes.

Shore Leave: Crew allowed ashore.

Mail: Very slow.

Main Exports: Cashew nuts, sisal, timber, pigcon peas, Casava in bags (not palletised) or bulk (bags slit).

Fenders: Tyre fenders alongside cemented quay. Additional fenders by ship recommended.

Cargo Security: Though adequate guards, security of cargo on quay is a problem as frequent blackouts due to power failures.

Aero (RC): Strong signal operational 0800–1530 LMT.

Restrictions: Cameras must not be used. Taking of any photographs whatever is strictly prohibited.

Customs Allowances: Officers: 8 cans beer, 1 part bottle spirits. Ratings: 8 cans beer.

Heavy Lifts: Not worked after 1800 hrs. due to darkness.

Notes: (a) All navigation lights in Tanzania (except Zanzibar Island and Pemba Island) are unreliable.

(b) If next port is Dar-es-Salaam, Pilot will remain on board and take vessel into Dar-es-Salaam.

SHIPMASTER'S REPORT: December 1983 (Updated 1986).

Documents/Customs Regulations:

Crew Declaration Form (Form C.8)
Declaration and Advice of Consumable Stores (Form C.7)
Passenger List or Nil List (Form C.6)
Parcels List or Nil List (Form C.3)

One copy of each of the above being required and 1 copy of the Manifest. (Company Manifest not acceptable, Form supplied locally.)

Dutiable goods allowance:

Each member of the crew including the Master is allowed 1 ounce of tobacco or 25 cigarettes per day. The Master and officers are also allowed a quarter pint of potable spirits and 1 quart of wine or beer. The other members of crew are allowed either a third of a pint of spirits or one sixth gallon of beer or one sixth gallon of wines. Dutiable stores are issued to a limit of 8 days (cigarettes) and 4 days (beer and spirits).

Quarantine Regulations:

1 copy of Maritime Declaration of Health.
1 Crew List with valid dates for Cholera and Yellow Fever.
Pratique not granted by radio.

Pilotage: Compulsory. Pilot is available between 0600 – 1800 hrs. and boards in an approximate position 1 to 2 miles North of Shangani Shoal. Pilot boat (VHF Channels 12 and 16) – Pilots have hand set.

Anchorages: No recommended sea anchorage. If arriving off Mikindani Bay at night, it is prudent to cruise WELL OFF until daylight, currents are strong and set onshore.

A sheltered anchorage exists in the inner bay with reported good holding ground in about 12 fathoms.

Approaches to Berth(s): From the pilot station passing S.W. of Shoal Buoy into channel marked by an unlit buoy. The sharp bend around Msemo Spit requires very careful navigation and steering.

Radio: Standard instructions/communications.

VHF: Channels 12 and 16 available between 0800 – 1200 hrs. and 1400 – 1600 hrs. local time Mtwara Signal Station.

Tugs: Possibly available (on prior notice) from Dar-es-Salaam.

"Kongoni", a diesel tug of 1,100 h.p., equipped with fire pumps (water only) and VHF Channels 12 and 16. Stationed at Dar es Salaam and temporary awaiting repairs.

Description of Berth(s): Berth No. 3 situated on the main wharf which is of stone construction with rubber tyre fendering. Owned by Tanzania Harbours Authority.

Berthing: Night berthing/unberthing is not permitted.

Vessels normally berth starboard side to, 1 tug meets vessel off the signal station.

Mooring wires are permitted: shore gangway is available.

Density: 1025.

Tankers: Shore Lines: 10 in. Connections: 8 in. flexible hose. 65 m. from Eastern end of quay approximately. Grades: M.S., G.O., and K. Maximum Pressure: 75 p.s.i.

Ships' lifting gear required for 1.5 ton lift.

Fuel: Bunkers not available.

Fresh Water: Water supply has been improved but shortages may be felt in the dry season. It is reported to be of poor quality and should not be used for domestic purposes, unless boiled and filtered (See "Laundry and Stores").

Ballast: No ballast disposal or tank cleaning facilities available.

Port Regulations: Immobilisation of engines not permitted alongside.

Laundry and Stores Facilities: Reports indicate that fresh water and/or provisions obtained at Mtwara are of very poor quality and may have been the source of a severe infection which affected several ships' crews. Masters are, therefore, warned accordingly.

Repair Facilities: None available.

Crew Identification Cards: Crew require identity cards when proceeding ashore.

Medical: Medical facilities with government hospital available.

Precautions: Be careful of stowaways.

AUTHORITY: Tanzania Harbours Authority, P.O.Box 530, Mtwara. *Tel:* 2155, 2121. *Telex:* 56076. *Contact:* Pilot and Port Manager.

TANGA: 05.04 S. 39.08 E.

PORT LIMITS: From high water mark at Ras Kwawa 090° to the meridian of 39° 15′ E., thence 180° to the parallel of Lat. 5° 05′ S., thence 270° to the mainland at high water mark. Time of anchorage within port limits to constitute an "arrived vessel".

DOCUMENTS, HEALTH: Refer to Dar-es-Salaam.

Shipmaster's Report: March 1981.

Same as Dar-es-Salaam "Shipmaster's Report" except: 7 Passenger Lists, 2 sets Vaccination Lists, Heavy Lift List.

PILOTAGE: ETA required via Mombasa Radio, if not given by Agents at previous port of call. Pilot embarks from white launch in vicinity of Ulenge Beacon on Ras Kazone leading line. Pilot ladder required on port side in N.E. monsoon, and on starboard side in S.W monsoon.

Vessels wishing to enter must await the arrival of the Pilot at the outer anchorage and, if anchored, must anchor well clear of the leading lines.

APPROACHES: Tanga is approached from the S.E. through channel in line with Ulenge leading marks bearing 319° (T). A 3 fathom bank to starboard is marked by ship channel buoy. Care should be taken in this vicinity as there is frequently a strong set to the N.E. On the port hand, Niule Reef is marked on Northern tip by a buoy. After passing Niule Reef Beacon it is necessary to turn to port on to Ras Kazone leading marks bearing 266° (T) until Ulenge Beacon is sighted.

A signal station is situated immediately below Ras Kazone High Light. Signals are exhibited to indicate if inner channel to harbour is clear and morse lamp messages may be exchanged with incoming vessels.

Late afternoon arrivals to Tanga may encounter poor visibility of land marks due to haze from setting sun, but a chimney on the fertiliser factory site on Ras Kazone with 3 vertical red lights at a height of 100 m. is conspicuous.

ANCHORAGES: Tanga has no deep water berths. It is a lighterage port where ships are worked at anchor in the stream. Eleven safe anchorages have been marked by means of beacons. The inner harbour provides 7 anchorages for use by deep sea vessels with length of up to 213 m., and drafts of between 6.4 m. and 9.5 m.

The outer harbour has 3 anchorages with drafts well over 9.45 m.

Incoming vessels without Pilot should not anchor within 1 mile of Ras Kazone.

RADIO: Mombasa Radio. Ras Kazone Signal Station keeps 24 hour VHF watch on Channel 16, working on Channel 12.

TUGS: 2 small tugs available.

BERTHING: All except bulk cargo work is carried out at anchor. Vessels are not berthed in Inner Harbour during hours of darkness except by special request in cases of urgency.

Fertiliser Jetty: A Fertiliser Jetty with a single berth of 16 m. maximum draft is available in the harbour. The jetty has 2 cranes connected to a sophisticated hopper system for handling materials for the fertiliser factory only.

Also see "Cargo Handling Facilities".

Quays: The new Lighter Wharf, 240 m. long, is situated at the Eastern end of the port. It has a depth of 2.44 m. at low tide. The old wharf now under modernisation has a length of 140 m., and has similar depth of 2.44 m. at low tide.

Facilities for harbour dhows and schooners engaged in coastal wise cargo transportation are provided at the end of the old wharf where only 1 schooner or dhow can work at a time. The water alongside has a depth of 2.44 m. at low tide.

CARGO HANDLING FACILITIES: One 20 ton fixed crane is available on lighterage wharf for heavy lifts. 12 cranes of 5 tons capacity also available. A jetty on the Eastern side of Ras Kazone provides 1 berth for vessels of 20,000 d.w.t. equipped for the discharge of bulk cargoes and liquid ammonia. Two portal cranes of 7 tons capacity fitted with grabs. Jetty currently handling bulk products for fertiliser factory.

The port is able to handle 20 ft. containers on 5×20 ton trailers.

The port has 33 fork lifts, 3 tractor, 1 shunter and 2 Coles cranes, 3×16 ton Scamel trailers, 6×8 ton Scamel trailers, 4 Hyster cranes and 4 Scamel hoses. The above equipment is maintained by the Authority's mechanical and electrical workshops at the port.

Sheds and Stacking Yard: There are 3 sheds for reception and storage of cargo.

The main stacking yard which is rail and road served covers a total area of 20,000 sq.m. There is also a new yard which covers an area of about 861 sq.m. Shed Nos. 6 and 8 are mainly for handling exports while Shed No. 7 is for imports. Total floor space of the shed is 10,000 sq.m.

Marine Craft: The transfer of cargo from vessels working at anchor to the wharves and vice-versa is done by means of lighters. There are 15 lighters in use. In addition there are 4 lighter towing tugs, 3 runboats, 4 labour launches and 2 landing pontoons.

PASSENGER FACILITIES: All passengers and visitors to ships pass through the Customs Passenger Terminal at the Eastern end of the new lighter wharf, and embark or disembark from the pontoon landing stage. Private hire launches available.

FRESH WATER: Not available.

FUEL: Only available to coasters at the lighter quay.

GENERAL: Refer to "Dar-es-Salaam" for all general information.

AUTHORITY: Tanzania Harbours Authority, P.O.Box 443, Tanga. *Tel:* Tanga 2721. *Telex:* 45000 Harbor TZ. *Contact:* Harbour Master.

WETE (Pemba): 05.14 S. 39.43 E.

DOCUMENTS, HEALTH: Refer to Zanzibar.

PILOTAGE: Not compulsory, but restricted to daylight only. Vessels passing through channel between Zanzibar and Pemba should inform Port Authorities 24 hours in advance.

RESTRICTIONS: Entrance through Uvinje Cap, channel depth decreasing to 11 fathoms, with shallow patches to be avoided. Narrowest part of channel is 1.5 cables wide. Vessels may enter and leave at any state of tide but in daylight only.

ANCHORAGES: No mooring buoys. Vessels work cargo to lighters. Depth decreases to 2.5 fathoms. Mud bottom.

MAX. SIZE: 240 ft. length; 25 ft. draft.

TUGS: 2 tugs and 1 labour boat.

LIGHTERS: 3 lighters of 200 tons each.
6 lighters of 100 tons each.

FRESH WATER: Not available.

FUEL: Not available.

STORING: Very limited facilities and it is recommended that where necessary all storing be done in Zanzibar.

AUTHORITY: See "Zanzibar".

ZANZIBAR: 06.09 S. 39.11 E. (See Plan)

DOCUMENTS:

Bill of Health.
3 Crew Lists.
6 Passenger Lists.
3 Cargo Manifests.
3 Customs Manifests.

Also Required: Bills of Lading, Ship's Papers, Ship's Certificates, Health Certificates (Yellow Fever and Cholera).

PILOTAGE: Compulsory. Pilot requires ETA 24 hours before arrival. Contact can be made through pilot station (VHF Channel 16 – 24 hours a day). Pilot boat may be contacted on VHF when in operation – pilot boat is painted orange.

Vessels approaching from English Pass embark Pilot at Seagull Buoy, and vessels approaching from South Pass meet Pilot at Penford Buoys. Pilot takes vessel in an out, day and night. Vessels awaiting Pilot anchor at the boarding position.

Recommended time for entry and departure is between 0600 hrs. and 1800 hrs.

ANCHORAGES: 6 anchorages to accommodate vessels drawing up to 32 ft. Additional anchorage provided for vessels carrying explosives.

RESTRICTIONS: 2 entrances, English Pass and South Pass. The former is approximately 1 mile wide and has minimum depth of 6 fathoms 4 ft. and a very narrow angular turning corner of 1.7 cables width. South Pass wider and deeper than English Pass. Passes are well buoyed and lit. In English Pass, tidal stream runs North and is stronger on ebb than on rising tide. South Pass, tidal stream runs N.N.W. and stronger on flood than on ebb-tide. Vessel may enter or leave at any state of tide.

MAX. SIZE: (Anchorage) Length 1,100 ft., beam 110 ft., draft 32 ft. Also see "Developments".

HEALTH: Pratique given by Quarantine Officer who boards on arrival. All crew required to be in possession of valid yellow fever and cholera inoculation certificates.

RADIO: No official call sign for the control station, but there is a new radio installation at the Agency on VHF Channel 16 with a call sign ZANSAC (Zanzibar National Shipping and Agency Corporation).

There is also a long-range radio on frequency 8297.3 kHz.

RADAR: No installation.

TUGS: No tugs are required as all vessels work in stream. Tugs are only used for towing barges to and from vessels, transporting labour and other stevedoring activities.

BERTHING: Concrete pile wharf 800 ft. long to North of Ras Shangani used mainly for lighterage purposes and for berthing Government coasters. Under special circumstances, upon prior request to Port Officer, vessels of less than 375 ft. length and drawing less than 20 ft. may be permitted to berth alongside, but due prevailing onshore winds this practice not encouraged.

Also see "Developments".

CRANES: Four old cranes and 1 mobile crane of 7 tons at the Wharf. No heavy lift cranes, however if heavy lift crane required arrangements are easily made to put the load in a landing craft to be discharged at a point near the port, using lowloader to tow it to its destination. No objection to vessel using its own gear.

BULK CARGO FACILITIES: No berth for foreign vessels, all work carried out in stream.

Discharging Rate: 350 – 400 tons per gang per day in case of bagged stuff or pallets. No facilities for bulk cargo handling or containers, but one or two containers can be handled.

STEVEDORES: Normal working hours Monday to Thursday, 0700 to 1500 hrs. Friday 0700 to 1200 hrs.

Work can be extended on overtime for a second shift up till 2300 hrs.

Average rates: bagged cargoes 15 tons per gang hour, general cargo 8 tons per gang hour.

LIGHTERS:

2 lighters, open at the top for heavy equipment 280 tons each.

2 lighters for bag and general cargo, each with a capacity of 300 tons.

5 lighters for bag and general cargo, each with a capacity of 200 tons.

5 lighters for bag and general cargo, each with a capacity of 150 tons.

6 lighters for bag and general cargo, each with a capacity of 100 tons.

FRESH WATER: There is one water barge of 250 tons capacity. Water can be supplied at the wharf by hydrant or at the anchorage in the stream by water barge.

FUEL: Not available.

SURVEYORS: Department of Marine Transport, P.O.Box 263. Tel: 32857.

STORING: See "Prelims".

1. Storage done by barges.
2. There is no restriction in doing so, provided the Master can allow both operations to be done simultaneously.
3. Yes.
4. Yes.
5. Stores have to be checked by the Customs Authority.

GENERAL: Members of the crew who wish to fish around the harbour limits have to notify the Signal Station and the harbour police of direction they are going. If the crew wish to visit the offshore island, they have to contact the Agent who will obtain permission for them and advice.

DEVELOPMENTS: *Malindi Wharf:* Rehabitation of the wharf expected to be completed by early 1990.

The West Wharf: Facing West with a total length of 260 m. This is a combined length of 170 m. on the Northern end with 9.0 m. water depth for longer vessels of up to 30,000 d.w.t. The Southern portion of 90 m. length with 5.5 m. water depth is for smaller vessels berthing.

The North Wharf: Facing North with 130 m. length and 5.5 m. water depth. This will also be used for smaller vessels' berthing.

The new jetty will extend some 10.0 m. further seaward of the existing one, and will have a container storage area located on the Southern end of the West Wharf.

AUTHORITY: Department of Marine Transport, P.O.Box 263, Zanzibar, Tanzania. *Tel:* 32858. *Telex:* 57267 Shipco TZ. *Cables:* Shipping. *Contact:* Captain Ramadham Saleh, Port Officer. Major H. Kh. U. Minde, Director, Department of Marine Transport.

NOTES

Please also advise Shipping Guides Ltd.

Thailand

GENERAL:

IMMIGRATION: The Thai Immigration Department has issued a Notification, dated March 15th, 1976 to the following effect:

"Chinese or Hong Kong crew members not in possession of Seamen's Discharge Books, but holding Certificates of Identity only are not recognised as bona fide crew members, and are liable to Immigration Guarantees at 50,000 Baht per person, to be filed upon arrival."

All concerned are kindly requested to check and ensure that all Chinese crew members are in possession of either Passports or valid Seamen's Discharge Books, and not Certificates of Identity, to avoid complicated Immigration procedures involving deposits, etc.

REGULATIONS: Thai Government Regulations: Thai laws relating to the production, possession, distribution and use of narcotic drugs are extremely severe. Penalties for infringement range from prison sentences and fines to life imprisonment and even execution.

The Thai Navigation Act requires Masters of all vessels calling at Thai ports to observe the following:

On preparing to depart Thai waters, vessels shall fly the International Code flag indicating that the vessel is about to proceed to sea (code flag P).

If the vessel is to depart in the morning this flag is to be flown in the afternoon of the previous day, if departure is in the afternoon code flag P is to be flown in the morning.

Departure shall be notified to the Harbour Master at least 6 hours before expected time of departure.

Documents required by Port Authorities (other than those required for specific ports) include:

Ship's Licence and Safety Equipment Certificate.
Certificate of Registration.
Certificates of Competency (including Radio Officers).
Radio Certificate.
Ship's Articles.
Last Port of Call Clearance.
Log Book.
Load Line Certificate.
Derat or Exemption Certificate.

BANGKOK: 13.26 N. 100.35 E. (See Plan)
KOHSICHANG: 13.10 N. 100.50 E.

PORT LIMITS: A vessel is normally considered to be an "arrived ship" on passing the Paknam Customs Station.

DOCUMENTS: Ship's forms: Crew List; Passenger List; Store List; List of Arms and Ammunition for ship's use; List of Arms and Ammunition in possession of passengers; List of opium and harmful habit-forming drugs; List of crew private belongings (cigarettes, radio, gramophone, camera, etc., including foreign currencies and liquors); Dangerous Cargo List; List of heavy lifts; Stowage Plan; Inward Cargo Manifest; Transit Cargo Manifest; Through Cargo Manifest; List of Containers.

Documents to obtain from officials and Agents: Immigration forms No. 3, 4 and 35, obtainable from Agents. International Maritime Declaration, obtainable from Quarantine Officer.

For safety reasons, all dangerous goods such as calcium hypochlorite, butanox (methyl ethyl ketone peroxide), sodium hydrosulphide, nitrocellulose and potassium chlorate, are not allowed to be kept in a godown or dangerous goods warehouse. Such dangerous goods have to be discharged overside into a barge or cargo boat or truck.

APPROACHES: The entrance of the river Chao Phraya is marked by the Bangkok Bar light beacon situated at the Lat. 13° 26′ 24.3″ N., Long. 100° 35′ 48.1″ E. Sea-going vessels have to cross the bar at the mouth of the river through an 18 km. long bar channel, which is dredged to a depth of 8.5 m. from MSL (mean sea level), and a bottom width of 100 m. in the straight section and 250 m. in the curve.

The depth of the river within the port area varies from 8.5 m. to 11 m. from MSL.

The MSL at the Bangkok Bar and at Klongtoi is 2.3 m. and 1.63 m. above lowest low water respectively.

At present the limiting length of vessels entering the port is 172.2 m. (565 ft.). The limiting draft of vessels will be determined by the bar constant plus the depth of water (predicted in the Tide Table published yearly by the Hydrographic Department RTN) from LLW at the Bangkok Bar, but the max. draft of vessels allowed to cross the bar is not over 27 ft.

PILOTAGE: Compulsory at Bangkok (Kohsichang not required); Advance notice required 48 hours prior to arrival.

Location pilot station Bangkok: Lat. 13° 22.6′ N., Long. 100° 35.9′ E. Area waiting pick-up Pilot will be close to pilot station.

Also see "Shipmaster's Report" dated March 1984.

ANCHORAGES: See "Shipmaster's Report" dated March 1984.

RESTRICTIONS: *Bangkok:* No restrictions, able enter day and night, dependent tide at Bar Channel.

Kohsichang: No restrictions, able to enter day and night.

MAX. SIZE: Bangkok: Not exceeding 565 ft. LOA. Max. draft 27 ft.

Kohsichang: See "Berthing".

HEALTH: *Radio Pratique:* According to the Thai Ministry of Health's Regulations and International Health's Regulations Article 36:

Under the responsibility of ship's Master and shipping Agents, vessels from infected areas may apply for exemption of Quarantine through Radio Pratique by telegram sent to Quarantine Bangkok, stating name of ship, last port, number of passengers and health of crew and passengers.

(a) Vessels with passengers from infected areas proceeding to the berthing places in Bangkok must slow down at Paknam enabling Port Health Officer to board the ship for inspection.

(b) Vessels without passengers from infected areas go directly to berthing places in Bangkok where they will receive Port Health Officer for inspection.

Remarks: In case of suspected infectious disease on board any ship or anything suspect about health or ship sanitation, the ship's Master is requested, as early as possible, to inform the Port Health Officer at International Quarantine Office (Medical) Section, Immigration Division, North Sathorn Road, Bangkok, Tel. 39588.

Documents Required: 1 copy of Maritime Declaration of Health; 1 copy of Crew List; 1 copy of Passenger List; Derat or Derat Exemption Certificate.

Vaccination: Vaccination Certificates required: Cholera (only when leaving from infected areas); Yellow fever (only when leaving from infected areas).

However, vaccination may be done as deemed necessary by Port Health Officer even if the crew or passengers are from non-infected areas.

Vaccination certificates will be shown collectively for transit passengers/crew members and individually for disembarking passengers/crew members only.

Exemption from Vaccination: If the Port Health Officer is of the opinion that vaccination is contra-indicated on medical grounds, he shall provide the persons with reasons, written in English, underlying that opinion, which Health Authorities should take into account.

Death on Board: In the case of death on board after the ship arrived at the anchorage or at the port, permission to land the corpse must be obtained after the inspection of the Port Health Officer, if the cause of death was not quarantinable diseases.

Ship's Master or shipping Agent must inform the Port Health Officer if there are cadavers and/or remains on board of persons who died in a foreign port, in order to pass through the quarantine. The dead should be accompanied by a death certificate (or a true copy), signed by the medical officer and placed in a coffin hermetically sealed in a casket, which is air-tight and waterproof.

According to Immigration Law B.E. 2493 (1950): The traveller to Thailand must be free from diseases forbidden under section 14 (4) of the Immigration law such as: trachoma, leprosy, tuberculosis, venereal diseases, including persons having physical or mental defects who cannot earn their living.

RADIO:

Name of Station	*Frequencies*	*Remarks*
Bangkok Radio:		
HSA Long Wave	500 kHz (for calling) 512 kHz (for traffic)	operate 24 hours
HSA Short Wave	8686 kHz (for calling) 8573, 8686, 12800 kHz (for traffic)	operate 7 times a day every day beginning hours of 0000, 0200, 0500, 0800, 1100, 1400 and 1600 (GMT).

In addition to above, communication can be made through the Port Radio and Pilot Radio; these 2 stations can only be reached when less than 24 hours from Bangkok, their particulars as follows:

HSC 61	L.W.	500 kHz (for calling) 443 kHz (for traffic) operate 2300 hrs. – 1700 hrs. GMT Traffic Lists broadcast at 0450 hrs. GMT, and the beginning of every hour every day.
HSC 62	S.W.	8466 kHz. Operate 5 times a day every day beginning hours of 0000, 0300, 0600, 0900 and 1300 hrs. GMT. 8292.5 (S.S.B./R.T.) also available.

Information to be supplied by incoming vessel:

(1) Vessel's name and nationality.
(2) Last port of departure.
(3) Estimated time of arrival pilot station.
(4) Draft (fresh water) in metres or feet.
(5) General cargo tonnage for discharge.
(6) Dangerous cargo.
(7) Heavy lift required.
(8) Fresh water required.
(9) Number of passengers (landing and transit).
(10) Time of dropping anchor at pilot vessels.

VHF: VHF communication with port radio and pilot radio through Channel 16 – 156.8 MHz (Calling – 24 hours service), Channel 14 – 156 MHz. (Working). Also VHF communication with shore for International Maritime Mobile Service under following:

Channel 24		
For ship transmitting frequencies	157.20	(for calling)
For shore ,, ,,	161.80	
Channel 26		
For ship transmitting frequencies	157.30	(for traffic)
For shore ,, ,,	161.90	service 24 hours
Channel 28		
For ship transmitting frequencies	157.40	(for traffic)
For shore ,, ,,	162.00	

TUGS: Will join when vessel approaches berth, using tug's line without extra charge. 8 tugs available, 1,000 h.p. – 1,200 h.p.

BERTHING: No difficulties in approaching berth. Agents will cable Master to inform when Pilot has been ordered to board vessel.

Midstream: 21 anchorage places and mooring buoys for sea-going vessels.

2 berths in front of Co-operative Salt wharf for 500 ft. vessels
4 berths in front of Customs boarding station for 300 ft. vessels.
2 berths at Bangplakod for 565 ft. vessels.
1 berth at Bangplakod for 500 ft. vessels.
6 berths South Sathupradit (6 mooring buoys) for 450 ft. vessels.
3 berths North Sathupradit for 400 ft. vessels.
4 berths North of Krungthep bridge for 280 ft. vessels.

Berths: 87 wharves on both sides of the river for sea-going vessels:

16 berths for imported general cargo (km. 27 to km. 29) on the left bank of the river at Klongtoi operated by the Port Authority of Thailand for 565 ft. vessels with 27 ft. draft.

1 berth for imported cargo (km. 39.5) on the right bank of the river operated by Thai Maritime Company for 400 ft. and 280 ft. vessels.

2 berths for imported general cargo (km. 46) on the right bank of the river operated by Thai Maritime Company for 250 ft. vessels.

14 berths for imported petroleum products operated by private and government organisations for 150 ft., 350 ft. and 565 ft. vessels.

54 berths for export cargo operated by private companies for 280 ft. to 565 ft. vessels.

36 dolphins in front of Klongtoi Wharf. A row of 36 dolphins along the river at a distance of 275 m. from the Klongtoi Wharf, to accommodate 7 ocean-going freighters for exported cargo.

25 dolphins at Bang Hua Sua, Samutprakarn to accommodate 8 ocean-going freighters for imported-exported cargoes.

Kohsichang: 7 berths available, no limit on length, max. draft 35 ft. – 47 ft. Kohsichang is not under the jurisdiction of Port Authority of Thailand.

Also see "Shipmaster's Report" dated September 1982.

CRANES: 2 floating cranes of 125 tons capacity may be used for handling cargo in the ship's holds. Both are owned and operated by private companies.

Port Authority Equipment:	*No.*	*Capacity*
Semi portal cranes	12	3-5 tons
Mobile cranes	25	5-50 tons
For containers and heavy lifts	2	165 tons
Side loaders	2	35 tons
Top loaders	10	10-35 tons
Forklift trucks	431	5,000-10,000 lbs.
Towing tractors	29	8,000-12,000 lbs. DBP.
Trailers	84	1-30 tons
Yard hustlers	25	30 tons
Tractors (for trailer)	7	30 tons
Fifth wheels	7	—
Full trailer vans	5	5-7 tons
Motor trucks	151	5-7 tons
Shifter containers	4	30 tons
Chassis	78	30 tons
Pallets	50,800	—

BRIDGES: Bangkok port has one bridge only. However, as bridge up river, vessel permitted to pass bridge with LOA not exceeding 280 ft.

STEVEDORES: Vessel to advise Agents 48 hours prior arrival, text required in this cable to be ETA, Drafts, Tonnage of cargo aboard for Bangkok, Number of crew/passengers, Dangerous cargo/Heavy lifts, Gangs required. Undertaken by private companies.

Working Hours: 0800-1200 hrs. – day shift, 1300-1630 hrs. – day shift, 1630-1800 – overtime (working through), 1900-2400 hrs. – first half-night shift, 0100-0500 hrs. – second half-night shift, 0500-0700 – overtime (working through, but should apply for P.A.T. approval).

On Saturdays, Sundays and public holidays, the day shift finishes at 1600 hrs.

MEDICAL: Hospital facilities available, advance notice of ETA required.

TANKERS: Diameter of shore line various from 6 in. to 20 in. All terminals are able to provide reducers. No slop facilities available.

DENSITY: Bangkok: Minimum 1000, maximum 1011; Kohsichang: 1021.

CUSTOMS ALLOWANCES: *Customs Regulations:* It is prohibited by law to bring the following articles into Thailand: narcotics: hemp, morphine, cocaine, opium, heroin, marijuana etc.; obscene literature or pictures, firearms or ammunition (except those obtained a permit from the Police Department or the local registration officer).

Following items are permitted to bring into Thailand free of duty: personal effects: accompanied with the owner for his own or professional use in reasonable quantity, except motor vehicle, fireams and ammunition, provisions. As for spirituous liquor, cigarettes, cigars or smoking tobacco, being personal effects and accompanied with the owner, the Director General of Customs may impose any restriction with respect to the exemption from payment of duty at any port as he considers suitable but the quantity must not exceed: a) cigarettes; two hundred grammes, b) cigars, smoking tobacco; two hundred and fifty grammes, each or altogether, c) spirituous liquor; one litre. Photographic/cinematographic apparatus and sound recording machines imported by persons who temporarily visit Thailand for the purpose of taking photographs or recording; but films, plates or articles for recording, imported for such purpose must be in accordance with the condition and quantity specified by the Ministry of Finance: a) photographic films (roll); not exceed 5 rolls, b) photographic films (plates); not exceed 40 plates, c) cinematographic films (8 or 16 mm. in width); not exceed 5 rolls, (to be re-exported within six months from the date of importation).

Permanent residents of Thailand must register their cameras on the outgoing trip to gain duty free status.

The export of Buddha images and antiquities are prohibited except for qualified educational, cultural and archaeological purposes.

CARGO GEAR: Supplied by stevedores except cargo tent and forklift truck.

IDENTIFICATION CARDS: Required for all crew and officers.

FRESH WATER: Available, supply can be made through barges and shoreline. Capacity of barges from 120 to 250 tons, rate of supply approx. 30 t.p.h. Advance notice 24 hours.

FUEL: Available. Supply can be made by barge and alongside terminals, no delay on bunkering, advance notice 48 hours.

GANGWAY/DECK WATCHMEN: Necessary. Theft of wire, paint and tools has occurred.

OPENING/CLOSING HATCHES: In general carried out by stevedores without extra charge. (Ordinary hatch covers, not new hatch cover system.)

CONSULS:

Argentina	36911-3
Australia	35970-9
Austria	58327, 59071, 517208
Belgium	30840
Brazil	59070, 5 – 6030
Burma	30237, 31698
Canada	3 – 2956-7, 3 – 0746, 3 – 8215
China	5 – 8051-4, 51 – 3912
Denmark	26 – 3930
Egypt	53358
Finland	33617
France	3 – 0957-9, 3 – 0950, 3 – 4644
Germany (F.R.)	86 – 1041
Great Britain	53291, 517952
Greece	52 – 1686
India	3 – 5065
Indonesia	5 – 8045 – 7, 51 – 8915
Iran	86 – 0950, 86 – 1350
Iraq	229353
Ireland	39454
Israel	5 – 3371-2, 51 – 8915
Italy	3 – 4508, 3 – 7230, 3 – 7819
Japan	5 – 3301-9
Korea	86 – 1074-5
Kampuchea	57650, 57709, 55223
Laos	86 – 1041
Malaysia	86 – 1390-1
Monaco	31437
Nepal	917240
Netherlands	5 – 3360, 5 – 3368-9
New Zealand	3 – 5936-7
Norway	3 – 0271
Pakistan	5 – 7006-8
Panama	911289
Philippines	910008, 910211
Portugal	30372
Saudi Arabia	37941-2
Sri Lanka	8291168
Singapore	30509, 33117, 38735, 38741
Spain	56502, 58368, 55167
Switzerland	58002-4
Sweden	863907-8
Turkey	73999
USSR	31824
United States of America	59800, 59801-9, 53101, 55981, 517986, 516939, 519914, 58478, 522723
Vatican	31804
Vietnam	517201-3

REPAIRS: Only minor repairs.

DRY DOCKS: 1 for vessels up to 360 ft. LOA.

REPATRIATION: Possible; however, no facilities for crew changes.

AIRPORT: About 25 km. from Bangkok, regular services by airlines.

TIME: GMT plus 7 hours. No change during the year.

HOLIDAYS: Able work all around the year except December 31st and January 1st.

POLICE/AMBULANCE/FIRE: Police (Highway) 816240, 816241, 816250. (C.I.D.) 219111, 225151; Ambulance 811544; Fire 816666, 811544.

TELEPHONE: Available when alongside PAT berths.

SERVICES: No tank cleaning equipment. No facilities for discharge of tank washings. Compass adjusting, but spare parts unavailable. Radar/VHF/radio repairs. Lloyd's/ABS/Veritas/Nippon Kaiji Kentei Kyokai Surveyors available.

SHORE LEAVE: Permitted.

DELAYS: Occasionally congestion, delay 1 to 2 days.

DEVELOPMENTS: 6×32.5 ton gantry cranes on order. 3 cranes will be delivered late 1988 and a further 3 cranes will be delivered in 1989.

SHIPMASTER'S REPORT: September 1980.

During S.W. monsoon Pilots appear to always require pilot ladder on starboard side and for vessel to leave pilot station platform to starboard when entering. Custom Officials board at Paknam on way up river to check documents. For repatriations, Immigration require 2 clear working days. After 30 days in Thailand must apply for extension from Immigration at a cost of U.S. $15.00 per man. Vessel must fly 'Blue Peter' 12 hours before sailing from Bangkok or liable to a fine of U.S. $5,000. Require 2 copies of Immigration Form 4 (Crew List) for departure.

Telephone calls can be made via Bangkok Radio on Channels 25, 26, 27, after calling on Channel 26.

SHIPMASTER'S REPORT: September 1982.

Loading of tapioca products in bulk quantities of 25,000 tons and more at Kohsichang:

There are three ways of loading:

1. Vessel anchors off the N.E. coast of the main island. A number of mobile cranes, 12 to 15, are placed on deck by means of a floating crane. The cargo is brought alongside in barges, shovelled by stevedore-labour in canvas slings and dumped into the cargo holds. An average of approximately 3,500 tons per day can be reached, however, delays are experienced by rain and by too much swell for some of the barges alongside.

Stevedore Labour: An average of 300 persons (men, women, children) are onboard during the whole of the cargo operation. The cooking is done on deck. The daily fresh water consumption will increase by 20 tons to 25 tons. Fresh water is available by barge from the mainland. This way of loading involves most ships; 7 to 9 ships can be handled simultaneously.

2. At the same anchorage as No. 1 above, the vessel will have alongside two floating elevators. A daily average of 13,000 tons can be reached, also depending on rain/swell. Many less people are involved. One ship at a time can be loaded.

3. Loading alongside a silo based on the mainland. The daily average here will be about 14,000 tons, however at a draft of about 40 ft. – 42 ft. the vessel will have to shift to the anchorage to complete loading as under 1 or 2 above, most probably No. 1. The silo belongs to 2 shippers of cargo only.

Trimming of cargo is done mainly by means of bulldozers but trimming by hand/shovel is often required additionally.

Holding ground at anchorage is good. Ships swing round on a rather strong tide. Wind/rain squalls are experienced.

SHIPMASTER'S REPORT: March 1984.
Pilotage: There is no longer a pilot vessel at the Bar. Instead, a peculiarly shaped red-painted lighthouse type beacon has been erected. This beacon has accommodation for the Pilots, who board vessels using a small grey pilot boat. Position of beacon Lat. 13° 22.8′ N., Long. 100° 35.9′ E. (BA Chart 1046).
Anchorages: Bangkok Bar Anchorage: Any ship with draft able to enter Bangkok Harbour, can anchor at this anchorage to wait its turn to enter. Limits of this anchorage are shown on BA Chart No. 1046. Ships proceed close to the beacon mentioned under "Pilotage", to pick up the Pilot.
Kohsichang Anchorage: There are no longer any N.E. or S.W. monsoon anchorages. Throughout the year Kohsichang Harbour limits are from the Island, East to Long. 101° 51.5′ E. and between Lat. 13° 08.9′ N. and Lat. 13° 11.3′ N. (Thai Chart No. 114).

AUTHORITY: Port Authority of Thailand, Klongtoi, Bangkok 10110, Thailand. *Tel:* 2490399, 2490362. *Telex:* 72331 Pat Th. *Cables:* Pat Bangkok. *Contact:* Director-General.

AGENT: Jardine, Matheson (Thailand) Ltd., Shipping Agency Division, 1032/1–5 Rama IV Road, GPO Box 40, Bangkok. Tel: 286–9951. Telex: 82672 Jarthai. Cables: Jarocean. Fax: 287-1556.

KANTANG: 07.25 N. 99.31 E.

SHIPMASTER'S REPORT: April 1982.

PORT LIMITS: Vessels anchored in the bay between Ko Talibing and Ko Liang Hnua are considered to be "arrived ships".
DOCUMENTS:
6 Crew Lists.
4 Passenger Lists.
2 Store Lists (including dangerous drugs, explosives, bonded items, ship's wireless sets, TV, radio, etc.).
2 Personal Property Declaration.
2 Cargo Manifests.
PILOTAGE: Not compulsory.

Due to shallow waters and absence of chart it is recommended to take the services of the local Pilot, though he speaks only local language. Pilotage distance is about 15 miles up the river.

Pilot boards at the anchorage and takes the vessel up to Kantang. Berthing is also done by him, but it is recommended that the Master does this himself.

ENTRANCE: No large scale chart is available. The only chart available is B.A. Chart No. 3942.

Keep well clear of Light Ko Liang and after passing Ko Liang Hnua on the starboard side keep equidistant from Ko Talibing and Ko Liang Hnua. Depth of water is about 10 m. up to Ko Liang Hnua Point (bearing 190°×4 miles approx.). This place is good for anchoring.

While going up and down river, there is a Customs check post at the mouth of the river and the vessel has to stop for Customs check and sign the register.

The maximum depth in the river at high water is about 5.5 m. at Springs and as low as 3.5 m. at Neaps.

The loading should be restricted as per the tidal conditions.

HEALTH: No Port Health Officer available. Hence Free Pratique not required.
RADIO: No way of communicating with the port from vessel. ETAs, etc. should be sent from the previous port by cable. On receipt of the ETA the local Agents will arrange berthing, etc.
VHF: Not available.
BERTHING: Berth is approximately 140 m. length. Hand leadline sounding at berth indicated depths minimum 10 ft. and maximum 16.5 ft. at low water and minimum 16 ft. and maximum 22.5 ft. at high water.

While the vessel is being loaded it sits on the bottom at low tide and again floats at high tide. The ground is soft sand. Since the vessel is not afloat at all times the cargo calculations and distribution should be accurate.

The main exports are cement in bags, fish meal and rubber in pellets which is mainly exported in LASH barges. The barges are loaded once a month. Generally half the wharf is occupied by LASH barges.

One oil berth also available. Small tankers with about 4 m. draft can go alongside.

CRANE: One mobile crane of 5 ton capacity is available. Priority given to loading LASH barges.
FRESH WATER: Available. Supplied by a small boat of 4 tons capacity.
FUEL: High speed diesel is available. Price is very high.
REPAIRS: Small repairs can be effected.
CONSULS: No consulates or embassies.
WATCHMAN: Recommended.
OPENING/CLOSING HATCHES: MacGregor Hatches opened and closed by Crew.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle of spirits.
CARGO GEAR: Supplied by the Stevedores.
REPATRIATION: No crew changes possible.
TELEPHONES: Trunk calls can be made from the main Telephone Exchange. Sometimes delays up to 1 hour is normal.
STORES: No ship chandler. Market is very close to the berth where fresh vegetables, pork, fish, beef and chicken available. No mutton available but live goats can be purchased.

KHANOM: 09.12 N. 99.54 E. (See Plan)

SHIPMASTER'S REPORT: October 1988.

LOCATION: Khanom, Nakorn Si Thammarat (Sumpun Mining Wharf).
DOCUMENTS: Same documents as Bangkok.
PILOTAGE: Not available. Wharf Foreman will board at anchorage and will give berthing advice.
ANCHORAGE: Lat. 09° 12′ N., Long. 99° 54′ E.
MAX. SIZE: *New jetty:* 25,000 d.w.t. Draft 9.0 m. – 9.5 m.
Old jetty: 15,000 d.w.t. Draft 8.5 m.
TUGS: None available. Small boat assists with running lines.
BERTHING: *New Jetty:* Vessel is moored to 6 buoys (3 forward and 3 aft) and is kept 3.0 m. off the jetty. Vessel is to be equipped with 6 lines of at least 240 m. length each.
LOADING: *Loading:* One belt conveyor for loading gypsum in bulk, rate 500 – 550 tonnes per hour.
Shifting: Good co-operation required with Foreman as vessel had to shift 3 or 4 times for each hatch.
Trimming: By small bulldozer, weight 2,000 kg.

KRABI: 08.04 N. 98.44 E. (See Late Plan)

SHIPMASTER'S REPORT: June 1987.

DOCUMENTS:
6 copies Crew List.
4 copies Crew Personal Effects Lists, including Currency Declaration.
4 copies Bonded Stores List.
4 copies Deck, Engine and Provisions Stores List.
2 copies All electrical items belonging to vessel (T.V., radios, tape recorders, video recorders, refrigerators, etc.).
Certificate of Registry.
Last Port Clearance.
All valid Safety Certificates.
Immigration: On arrival and departure all Crew Members have to sign a Thailand Immigration form in duplicate. All crew members must be in possession of Seaman's Discharge books.
PILOTAGE: No pilot available. A Loading Master boards with the Agent at anchorage and advises Master regarding manoeuvring and berthing. At berth vessel uses port anchor with 3 shackles and must have 14 good mooring ropes, minimum length 200 m. each and 70 mm. diameter.
APPROACHES: We used BA. Chart 3941. Berth can be approached from South West between islands of Ko Dok Mai and Ko Kai. Care must be taken of rock 6 ft. high (Him Hmusang), and the dangerous rock (P.D.) 1 mile N.N.W. of Him Hmusang. Coast and islands well defined on radar. It is best to approach in daytime due to the absence of any lights or navigational aids. The only light is East of Phuket (Ko Taphao Noi). The port can also be approached from South, keeping 2 miles to 3 miles East of Ko Kai and setting course 2.5 miles from Ko Ngang. The stockpile of gypsum is clearly visible from a distance of 6 miles. Approach is very picturesque.
ANCHORAGE: Anchorage when awaiting berthing is about 1.5 miles West of the trestle berth.
MAX. SIZE: Depth alongside at low water is 13.0 m. – 14.0 m.
HEALTH: Pratique granted by boarding party at anchorage. All ship's personnel to have valid Health Certificates.
RADIO/VHF: Bangkok Radio (HSA 4) used for contacting Agents and Charterers. VHF via Phuket Radio. Overseas calls can be made via Phuket Radio. Vessel allowed to use ship's radio station while loading.
TUGS: None available.
BERTHING: Vessel berthed at Leamphong Jetty at Krabi (South Thailand) to load Thailand natural gypsum in bulk.

Vessel manoeuvres to within 25 m. – 30 m. of the finger conveyor loading spout, and first drops port anchor. Then 2 lines each are given to bow and stern buoys, also 2 each to port bow and starboard bow and stern buoys. The vessel then breasts on the starboard lines to bring the starboard side to about 5 m. from the dolphin and spout. An extension conveyor is hung from the ship's crane to convey the gypsum into the hold. The vessel then shifts on mooring lines to bring the other holds under the spout. It is advisable to pre-plan loading so as to avoid unnecessary shiftings.

All mooring lines are to have equal strain and are to be kept tight. The bow and stern lines prevent the vessel from getting too close to the loading spout and dolphin.

Vessel must arrive with full ballast as the height from the waterline to the loading conveyor 12.0 m.

Loading rate is approximately 300-400 tonnes per hour.

The vessel's cranes/derricks must be capable of lifting the extension conveyor (approximately 3 tonnes) and bulldozer (approximately 2 tonnes).

MEDICAL: Medical attention only available in the most severe cases. The medical facilities are in Krabi town.

DENSITY: 1022.
FRESH WATER: Not available.
FUEL: Not available.
CONSULS: None available locally.
REPAIRS: No facilities available.
SURVEYORS: None locally, but may be arranged from Bangkok.
CUSTOMS ALLOWANCES: Normal allowances.
REPATRIATION: Possible through Bangkok.
SHORE LEAVE: Allowed. Nearest town is Krabi, distance 30 km., half the journey is on an uneven dirt road. Crew have to climb a vertical steel ladder fixed to one of the trestle supports of the conveyor.

An excellent beach, safe for swimming, lies very close to the moorings.
GENERAL: There is no need for special watchmen as only personnel required for loading board the vessel. There are about 10 persons on board at any time. Other normal precautions to be taken.
Agent: Thaising Shipping Services Co. Ltd., No. 2/17-19, TSS Building, Soi Sukhumvit 24, Phrakanong, Bangkok 10110, Thailand. Tel: 259-0247 (6 lines). Telex: 84436, 20012 (THAISIN TH). Cables: TSSSCO. Fax: (662)-258-5163.

PHUKET: 07.50 N. 98.25 E.

DOCUMENTS:
Entry documents and advance information.
Customs and Immigration Entry forms as well as list of other documents required on *vessel's own forms* to be completed in advance for presentation on arrival Phuket. Sent in advance to the Agent from one of the previous ports together with request for the following information required 4 days in advance of vessel's arrival.

Confirmation of ETA and any subsequent revised ETA.
Master's name.
Last port of call before Phuket.
Next port of call after Phuket.
Net registered tonnage (n.r.t.).
Hatch distribution and gangs workable.
Cash advance of Master.

Flags: Vessels are required to fly the Thai flag and display the code flag "Q" on arrival.
PILOTAGE: There is no official Pilot available.
ANCHORAGES: The following anchorages are regularly used by ocean carriers of deep draft calling Phuket for loading or discharging cargo.
During the N.E. Monsoon Season: Prevailing wind from November through March, and periods of strong Easterly winds, vessels are recommended to anchor in position Lat. 7° 53′ N., Long. 98° 27′ 15″ E. about 0.5 mile off Laom Mai Pai to pick up the boarding party and stevedores before proceeding to the actual anchorage for loading at position Lat. 7° 57′ N., Long. 98° 33′ E., about 1 mile off Koh Yac Hyai, depth approx. 16 m. (50 ft.) at LWOS. However, during calm weather periods cargo operation will be carried out at the first mentioned anchorage.
During the S.W. Monsoon season: Prevailing from April through October, and any periods of strong Westerly winds, vessels are recommended to anchor at position Lat. 7° 53′ N., Long. 98° 27′ 15″ E. about 0.5 nautical miles off Laom Mai Pai, depth approx. 14 m. or 45 ft. at LWOS.

To facilitate cargo operations during swell from South, vessels are requested to anchor as close as possible to the above anchorage positions according to the Master's judgement.

No Pilot is required on approaching the above anchorage; however, it should be noted *three ocean-going dredgers* are operating in the area between Koh Dok Mai and Kon Khai Nok which should be passed at a distance of about 1,500 ft. to keep clear of their anchor lines. The dredgers are lit up and clearly visible at night.

It should also be noted during the new moon period there are several small fishing craft in the area.
RESTRICTIONS: *Channel:* The channel around Koh Tapae Kyai is normally passed clockwise and is marked by a system of buoys, the position of which are shown on Thai charts. However, it is also possible to turn around by swinging on the anchor just after passing Buoy No. 3 on a rising tide (South to North) just before high tide.
Width of Channel: Minimum 230 ft. at Buoy No. 6 measured (chart datum at LLW) at 6 m. depth curve. Maximum 900 ft. at Buoy No. 4 measured at 6 m. depth curve.
Restriction in Navigation: (1) Entering or leaving through the North channel involves a rather sharp turn with a radius of about 1,000 ft. and angle of about 115° between the axis of channel in a restricted area between Buoy No. 6 and Koh Tapai Noi Island. Please also note the wreck buoy between Buoy No. 6 and Koh Tapao Noi.

(2) The draft at Buoy No. 6 is about 24 ft. 6 in. at Lowest HW.

(3) At Buoy No. 5 are placed two pairs of mooring buoys parallel in the channel, occasionally used by tankers discharging petroleum products to Esso and Shell installations ashore. The width between the narrowest pair is about 150 ft. and vessels are required to pass between these mooring buoys.
HEALTH: All crew and passengers must have valid health certificates for cholera.
RADIO: Messages to and from vessels at sea on the West coast of the Malayan Peninsula are best transmitted via Penang Radio in time to allow retransmission to Phuket at about the following local times:

Weekdays at 0930 hrs., 1400 hrs. and 1630 hrs. Sundays at 1630 hrs.

For vessels outside this area, messages can be sent via Bangkok or Singapore as applicable. Cables via Bangkok Radio are normally transmitted every second hour from 0800 to 2100 hrs. local time, whereas cables via Singapore are sometimes retransmitted via Bangkok Radio and sometimes via Penang Radio.

There are no facilities for ship-to-shore communication in Phuket, but vessels are *not* required to close down their radio station or VHF set while in port.

There is long-distance telephone connection with Bangkok, Penang, Singapore and Kuala Lumpur from Phuket at all hours.
Despatch Cables: Agent will in all probability need to send cables via the ship's radio re-loading results, etc., subject to the Master's approval. The cost of all such cables is to be borne by the vessel.
TUGS: No tugs available.
BERTHING: At Laen Klusi, Thailand Smelting and Refining Co. Ltd. have built a crossway connected by a short bridge to a pier which is parallel to the channel. The pier and channel are presently only suitable to accommodate vessels up to about 10,000 d.w.t. and approx. 430 ft. long, not exceeding 22 ft. draft. Vessels berthing at the pier are recommended to anchor at position Lat. 7° 48′ 24″ N., Long. 98° 25′ 12″ E. to await loading and favourable tide.
Dimensions of the Pier: Length 61 m. (200 ft.), width 12 m. (40 ft.). Depth about 24 ft. 6 in. at LLW.
Fenders: The pier is protected by a system of wooden fenders in addition to which there is 1 fender at each end of the pier with solid rubber buffers.
Mooring Buoys: There are 2 mooring buoys about 700 ft. apart each at equal distance from the end of the pier.
MEDICAL: It is only possible to get a doctor on board in the most severe cases, but otherwise there are two hospitals in Phuket, one of which is managed by American Seventh Day Adventists Mission Doctors and the other is a General Hospital.
FRESH WATER: Limited and difficult to obtain.
FUEL: Limited and difficult to obtain.
CONSULS: None.
SURVEYORS: No marine surveyors in Phuket; however, a surveyor can be called from Bangkok.
REPAIRS: No facilities.
DEVELOPMENTS: 2 berths under construction, completion expected 1988. Depth alongside 10.0 m.

SATTAHIP: (Commercial port).
Chuk Samet Port: 12.35 N. 100.55 E. (See Plan)

LOCATION: Sattahip Bay is located on the Eastern coast of the Gulf of Thailand about 184 km. from Bangkok in Plutaluang sub-district of Cholburi Province.
PORT LIMITS: Extend to approximately 1,500 yards from the quay wall at Chuk Samet Port, and 1,000 yards from piers at Tungprong Port.
DOCUMENTS: See "Bangkok".
PILOTAGE: Compulsory for vessels over 50 m. LOA. Working daily during the day time only. Advance notice required 4 hours prior to arrival on working day (on holiday notice required at 0830 – 1200 hrs.) Radio frequency used when handling the vessel is 27125 kHz
ANCHORAGES: Anchorage area for waiting berth and Pilot:
Chuk Samet Port: Capacity: Eight deep-draft ships minimum depth 8 fathoms.

Tanker Berth (Pol Pier)	Commercial Berths (DWP 1 – 4)
Lat. 12° 37′ 03″ N.	Lat. 12° 37′ 25″ N.
Long. 100° 55′ 00″ E.	Long. 100° 55′ 00″ E.

Tungprong Port: Capacity: Four deep-draft ships minimum depth 10 fathoms.

Lat. 12° 43′ N.	Lat. 12° 45′ N.
Long. 100° 49′ E.	Long. 100° 49′ 30″ E.

Map Pier:

Lat. 12° 41′ 47″ N.	Long. 100° 50′ 31″ E.

APPROACHES: The entrance channel is 100 m. wide, 2.7 km. long and the harbour basin 450 m. wide in front of the West quay-wall, having available a depth of about 10 m. below Lowest Low Water (LLW).

The entrance light buoy is at Lat. 12° 35′ 07″ N., Long. 100° 54′ 20″ E.
RESTRICTIONS: Berthing possible throughout 24 hours.
MAX. SIZE: See "Berthing".
TUGS: 2 tugs available, 3,000 h.p. Join when vessel approaches berth, charge for use of tug's lines. 2 mooring boats available.
BERTHING:
Limitation of Draft:
Chuk Samet Port: Depth 32 ft. below LWOST or 36 ft. below MLW.

(1) For cruising in the channel
32 ft.
– 3 ft. for squat, tidal phenomena, etc.
– 2 ft. for under keel clearance
Draft = 27 ft. at LWOST

(2) For staying in port
32 ft.
– 2 ft. for under keel clearance
Draft = 30 ft. at LWOST

(3) Draft of the vessel could be increased for the day alongside by adding the figure of the height of tide at low water of that day to the figure of draft in (2) above (30 ft.+Height of tide at LW).
Sattahip Commercial Port:

Berth	Length (m.)	No. Berths	Max. LOA (m.)	Max. Draft (m.)
West Quay	540	3	180.0	10.5
North Quay	360	2	150.0	8.5

Cruise passenger ships are permitted to berth at Sattahip.
Map Pier: 1 berth, length 443 ft. Depth at MLW 38.8 ft.

RADIO: Radio telephone.

Name of Station	*Frequencies*	*Remarks*
MSC	2738 kHz	Day time
Portsat	2738 kHz	Day time
	4145 kHz	R/T – SSB
	8292.5 kHz	R/T – SSB

VHF: Calling Channel 16 (156.8 MHz)
Calling Channel 14 (156.7 MHz)
Interport use 157.5 MHz (Special Channel)

CARGO HANDLING FACILITIES:

	No.	*Capacity*
Forklift trucks	7	7,000 lb.
Shortmast trucks	7	5,000 lb.
Yard hustlers	5	—
Chassis	15	—
Top loader	1	35 tons
Transtainer	1	—
Straddles – 8×40 ft.	3	—
– 8×20 ft.	3	—
Semi-portal cranes	2	23-45 tons
Pallets	1,000	—
Van carriers	10	—

Storage Area:
3 transit sheds of 14,000 sq.m.
Open storage area of 120,000 sq.m.
1 container freight station.
Container yard of 36,000 sq.m.

STEVEDORES: Vessel to advise Agent 7 days prior to arrival. Text required in this cable is: flag, ETA, draft, tonnage of cargo aboard for port, number of crew/passengers, dangerous cargo/heavy lifts, gangs required.

194 stevedoring contractors (both liner terms and chartered vessels under F.I.O. terms).

Working Hours: 0800-1200 hrs. – day shift, 1300-1630 hrs – day shift, 1630-1800 hrs – overtime (working through), 1900-2400 hrs. – first half-night shift, 0100-0500 – second half-night shift, 0500-0700 – overtime (working through, but should apply for P.A.T. approval).

On Saturdays, Sundays and public holidays, the day shift finishes at 1600 hrs.

MEDICAL: Hospital facilities available.

TANKERS: *POL Jetty:* Max. LOA 600 ft. depth alongside 36 ft. Diameter of shore lines are 6 in., 12 in. and 20 in.

DENSITY: 1021.

FRESH WATER: Limited, 200 tons per trip, addition 100 tons for boiler. Supply can be made by water trucks, advance notice of ETA required.

FUEL: Available, supply can be made by barges, advance notice of ETA required.

GANGWAY/DECK WATCHMEN: Necessary.

OPENING/CLOSING HATCHES: Carried out by stevedores without extra charge.

CUSTOMS ALLOWANCES: 200 cigarettes for each officer, 100 for each crew member for 3 days. One bottle each, wines and spirits, opened.

CARGO GEAR: Supplied by stevedores.

IDENTIFICATION CARDS: Required for all crew and officers.

REPAIRS: Only for minor repairs.

TIME: GMT plus 7 hours throughout the year.

POLICE/AMBULANCE/FIRE: Security centre 2187; Duty officer 2102 (after duty hours); Police 3180; Ambulance 116; Fire 117.

TELEPHONES: Available (U.S. military circuits).

SHORE LEAVE: Permitted.

DEVELOPMENTS: No major developments as the port will be privatised in the near future.

SHIPMASTER'S REPORT: July 1981.
CHUK SAMET PORT:
For details concerning navigation, currents, clearance and documents, etc., see "B.A. Pilot No. 30" and "Guide to Port Entry".

Vessels approach on the beacon line at 017.5° (T), along the fairway marked by buoys. The beacons are installed on the pier and are easily visible. When entering and leaving, the cross current should be watched. The fairway buoys appear to be displaced somewhat Westwards.

Entry and Leaving: Only permitted between 0600 hrs. and 1800 hrs.

The Pilot comes from Bangkok. Also Authorities come from Bangkok for clearance.

A local Agent's office is not yet available, but will shortly be installed.

Wireless traffic from the port with Bangkok is permitted.

There are two tugs of 3,600 h.p. available.

Max. Draft: At present 32 ft. is allowed.

The pier running approximately North – South is 500 m. long, and the cross pier 365 m. long. Both are well equipped with rubber type fenders. The free area on the pier in front of the sheds is about 45 m. wide.

Cargo Handling: Both cranes and the tapioca conveyor can run on the crane rails both on the main and cross piers. The large crane lifts up to 40 tonnes at 35 ft. The small crane lifts 23.5 tonnes but is currently out of use, but should be back in service shortly. The port has 20 forklift trucks, 10 at 3.4 tonnes, and 10 at 2.3 tonnes. Also there are 10 lorries type HINO KL 340 at 7 tonnes.

A Sea Container Shifter is already available, capacity 30 tons. For containers there are three 40 ft. and three 20 ft. spreaders in the equipment store.

Water: Any quantity available. Water must be boiled prior to use.

Bunkers: Only by road tanker.

Ship Repairs: None.

Ships' Chandler: Should be available.

Hospital: Available.

VHF: Port Authority on Channel 16.

Weather Conditions: During S.W. monsoon there is a slight swell. From May to July is the rainy season, with storms and typhoons occurring in June and July. Currents are unimportant. The tide rises about 2 m.

General: S.W. from Sattahip, in the Thailand Gulf, natural gas is obtained. A gas pipe-line from there to Sattahip is under construction. The line will then be taken overland from Sattahip to Bangkok.

A railway connection is being built. A road to Bangkok (approx. 180 km. = approx. 3 hours by car) is available.

Further Developments: Dredging and building of new piers will begin.

A large Gottwald crane (mobile at 40 tonnes) is stated to have been ordered, and will be delivered in about 6 months.

It is planned later on to install a IHI container bridge, and sheds 1 and 2 will be demolished to make room for container handling.

AUTHORITY: Port of Thailand Authority, Sattahip Commercial Port, Plutaluang Sub-District, Sriracha District, Chonburi 20180, Thailand. *Tel:* 038-436344/436360. *Contact:* Director.

AGENT: See "Sriracha."

SRIRACHA (Including Laem Chabang):
13.07 N. 100.52 E. **(See Plan)**

DOCUMENTS:

Boarding of Immigration, Customs and Quarantine Officials:
The Immigration and Customs Officials will board all incoming vessels, whereas the Quarantine Official will board on arrival at berth. If however a vessel comes from an infected port the Quarantine Doctor will board. The Officials demand that the main gangway is lowered.

Order of Clearance and Documentary Requirements:
Customs Authority: (Ship's forms)

12 copies Cargo Manifest (including port and Agent's requirements).
5 copies Transit Cargo Manifest.
10 copies Crew List.
6 copies Ship's Stores.
6 copies List of Ship's Provisions, Steward, Deck and Engine Departments.
6 copies Foreign Currency List.
6 copies List of Arms and Ammunition for Ship's Use.
6 copies List of Opium and Narcotics.
6 copies List of Ports called.
6 copies List of Passengers.
6 copies List of Mail.
6 copies List of Crew members' Personal Effects stating brands and serial numbers of watches, cameras, TV/radio sets, electronic calculators, refrigerators, typewriters, all sound and electrical equipment, etc.
6 copies List of Ship's Movable Properties, to declare brands and serial numbers as above.

When preparing the list of Crew members' Personal Effects and ship's stores' lists, particular care should be paid to the exact quantities. Crew are allowed 200 cigarettes each, during the vessel's stay in port.

Failure to provide correct quantities on various forms will entail heavy fine and confiscation.

NOTE: Pornographic magazines and materials are prohibited and will be confiscated if found onboard.

Immigration Authority: For vessel having Thai Immigration Forms onboard, please prepare them ready for arrival. Otherwise Agency clerks will bring forms onboard and assist in completing them.

5 copies each of Immigration Form No. 3 (separately for *Landing* passengers and *Transit* passengers).
5 copies of Immigration Form No. 4 (Crew List).
2 copies of Immigration Form No. 35. Make out in duplicate, and 1 line for each name. Leave signature columns blank, where each crew member shall sign in presence of Immigration Officers in port.
1 copy Disembarkation/Embarkation card for each passenger, to be supplied in port.

Repatriation Crew holding valid passports may be declared as passengers in order to facilitate Immigration Exit papers. Otherwise we need one full working day for preparation of Immigration papers (Sat/Sun/Holiday excepted).

Quarantine Authority:
1 copy of Maritime Declaration of Health (may be supplied in port).
2 copies of lists certifying the date of vaccination against Cholera for each crew member.
1 copy of Derat Certificate.

International Certificates of Vaccination against Cholera for all passengers and crew members.

Important to Master: On first arrival at Roads or berth do not allow any unauthorised people to board the vessel or allow any officers/crew members to disembark before 'Checking In' formalities by Immigration Officers and Customs Searching Party. Offence in this respect is liable to a fine not exceeding Baht. 5,000.00.

Departure: The 'Blue Peter' flag should be hoisted at the foremast of all sea-going vessels about to leave the harbour and shall be kept hoisted until the voyage has begun. In the case of vessels leaving in the afternoon, the flag shall be hoisted in the morning, in case of those leaving in the morning, the flag shall hoisted on the previous afternoon. Failure to comply with the regulations is subject to a fine not exceeding Baht. 5,000.00.

PILOTAGE: Compulsory in Sriracha area. Sriracha pilot station is established on "Ban Ao Udom", and can be contacted directly by VHF Channel 16 within 30 miles radius.

Boarding Area: The Government Pilot and Marine Supervisor will board at about 2 miles East of "Koh Thai Ta Mun" which lies South of Kohsichang, or at the position centred on Lat. 13° 07′ N., Long. 100° 51′ E. with a radius of 1 mile.

On receipt of an accurate ETA vessel will be advised by VHF regarding berthing time, whether to anchor and any likely delays. Flags indicating a request for a Pilot or Pilot on board should be flown. Accommodation ladder required (or in conjunction with pilot ladder).

APPROACHES: The recommended courses approaching seaberth through the Southern part of Kohsichang are as follows:

from Junction point named "A"	Lat. 12° 43′ 00″ N. Long. 100° 44′ 36″ E.	True Course =360°
to Junction point named "B"	Lat. 12° 62′ 14″ N. Long. 100° 44′ 36″ E.	
from Junction point named "B"	Lat. 12° 56′ 14″ N. Long. 100° 44′ 36″ E.	True Course =022°
to Junction point named "C"	Lat. 13° 00′ 00″ N. Long. 100° 46′ 12″ E.	
from Junction point named "C"	Lat. 13° 00′ 00″ N. Long. 100° 462 12″ E.	True Course =037°
to Junction point named "D"	Lat. 13° 06′ 20″ N. Long. 100° 51′ 00″ E.	

from Point "D" A/C to 000°(T) up to Anchorage Area or Point "E"

Point "E"	Lat. 13° 07′ 00″ N. Long. 100° 51′ 00″ E.	

Refer Admiralty Chart No. 986; the "Hulk" at position Lat. 13° 07.7′ N., Long. 100° 52.8′ E. has been removed.

Vessels should always keep clear of the fairway channel as large bulk carriers sail on deep draft.

ANCHORAGES: Recommended anchorage for vessels awaiting berth is within 1 mile of the position: Lat. 11° 04.8′ N., Long. 100° 51.0′ E. Refer Admiralty Chart No. 3965 and 986.

MAX. SIZE: MBK Bulk berth: 150,000 d.w.t. Draft 14.3 m.

Also see "Tankers".

HEALTH: See "Documents".

RADIO: *Commercial Radio Telegraphy:* (Tel: 5880842-4, 5882689, 5882683).

"BANGKOK RADIO".
Medium wave: Call sign HSA (Hotel Sierra Alpha).
Operating time: 24 hour service.
Traffic: 0700, 0900, 1200, 1500, 1800, 2100 and 2300 hrs. local time.
Calling frequencies: 500 kHz and 512 kHz.

Short wave: Call sign HSA 2 and HSA 3.
Operating time: 24 hour service.
Traffic: 0700, 0900, 1200, 1500, 1800, 2100 and 2300 hrs. local time.
Calling frequencies: 8686 kHz, 8573 kHz and 12800 kHz.

Masters of all vessels proceeding to Sriracha are to notify their Agent by radio of their expected time of arrival at least 3 days prior to arrival. This notice shall be amended in the event of any change in the time of arrival.

In addition to the above, the ETA message shall be confirmed 48 and 24 hours before arrival.

The first notice of arrival is to contain the following information:

Last Port of Call.
ETA Pilot Sation.
Best trimmable arrival S.W. draft.
Number of crew including the Master and his name.
Number of passengers, landing and transit.
Cargo grade and quantities to be discharged.
Discharging rates, barrels per hour.
Bunkers and water on arrival.
Urgent stores to be delivered on arrival, if any.
Bunkers and water to be delivered, if any.
Laundry service, if any.
Nature of any extraordinary repairs to be effected.
Any other matter to be attended to on arrival such as electronic equipment repairs, medical attention or hospitalisation, crew repatriation (in this case advise name, age, nationality, passport number).
Cash required, if any.
Crew liberty launch service, if any.

TUGS: Local company privately operates 3×2,500 h.p. tugs which are available on calling during working hours, and outside working hours when required if advance notice given.

BERTHING: See "Shipmaster's Report".

TANKERS: *Thai Oil Sea Berth:*

1. One conventional buoy mooring, consists of 6 buoys.
2. Position of berth: Lat. 13° 07.5′ N. Long. 100° 52.5′ E., 2.5 miles offshore.
3. Depth of water in berth: 48 ft. plus tidal height of the day above LLW. Minus 2 ft. under keel clearance. Vessel can berth heading either North or South depending on the current.
4. Capacity of berth: Capable of handling vessels of minimum size 30,000 d.w.t. up to max. size 120,000 d.w.t. with max. LOA 900 ft. (Max. distance from bow to manifold 435 ft.).
5. Discharge line: 1×24 in. dia. submarine line with 3 strings of 12 in. hose.
6. Mooring and unmooring of vessel are compulsorily carried out 24 hours by Government Pilot. Night-time berthing at the discretion of the Pilot.
7. Total of 18 ship's mooring lines (rope/wire) are required in good condition, not less than 220 m. in length each line, for 3 head and 3 stern buoy lines.
8. Communication: Thai Oil Company Limited, P.O.Box 2387, Bangkok, Thailand. Telex: THAIOIL TH 85802, 85808. Tel: Sriracha Thailand (038) 311069-74, (038) 322170-5. FAX No: 3220.

Esso: 6 buoy conventional mooring owned and operated by Esso Standard Thailand Ltd. Vessels berth heading in either direction depending on the tide at the time of arrival. Max. size: 90,000 d.w.t.

2 ship's moorings required to each of 2 head and 2 stern buoys and one ship's mooring to each of 2 breast buoys. These are supplemented by 1 shore "preventer" wire from the 2 head and 2 stern buoys.

1×32 in. submarine line for crude oil with 2 strings of 12 in. hoses.

Ballasting is required during discharge to maintain 30% deadweight at all times. Additional ballast may be required during the S.W. monsoon period 1st June to 31st October. Technical test data for winches/wires required on arrival.

PTT: The PTT Sea Berth consists of a concrete platform with two breasting dolphins and mooring buoys for head and stern lines.

Vessels berth heading in either direction depending on current direction, using seaward anchor.

Mooring: 3 head/stern ropes, 3 forward and aft backsprings plus one buoy rope to seaward buoy aft.

Night berthing not recommended in view of unlit buoys and platform.

Vessels programmed to this sea island berth are advised that it is to be regarded as an offshore buoy berth as far as shore facilities are concerned. Access to/from the shore should be by accommodation ladder rigged on the offshore side of the vessel.

In common with offshore buoy berths and in the absence of any shore standby craft, the vessel's lifeboats to be used for emergency evacuation of personnel.

PTT Sea Island berth currently only handles high flash point products, i.e. fuel and gasoils.

General: Qatar Crude Discharge: Considerable delay can be encountered in the discharge of Qatar Crude.

In this connection your attention is particularly drawn to any advice given to you on arrival by the Thai Oil Representative.

Back Loading from Coasters: Occasionally vessels are required to load cargo from 2,000/4,000 ton coasters at Sriracha. Loading a full cargo could take 3 to 4 days and Masters should bear this in mind for bunker and fresh water calculations.

Lightening to coasters to make Bangkok Bar draft: On arrival there is no VHF contact with shore, as vessel does not take a Pilot, and so should proceed straight to an anchorage within about half a mile of position 13° 07.6′ N., 100° 50.9′ E. There may be other vessels in this area engaged in ship/ship transfer. Do not rig an accommodation ladder, as four Yokohama rubber fenders are brought straight out to the vessel, and 2 lashed each side midships. Shore officials will board via the pilot ladder to clear the vessel inwards. Accommodation is required for 2 Police Officers (one room) and 2 Supervisors with one Customs Officer (a second room) throughout the vessel's stay. 8 in. hoses are brought out on the first coasters, connected by a seven man hose handling gang, and left connected to the ship's manifold throughout the operations; the gang handles all hose connecting, and mooring, with a crane driver provided by the ship. This gang stays onboard most of the time and need to be allocated a smoking area. The coasters are programmed by Bangkok – copies of the programme being put onboard on arrival – and can be handled simultaneously one each side. If 2 products are involved usually one side is allocated for a particular product. The coasters moor with lightweight polypropylene lines and are well handled and efficient, capable of loading at about 1,250 tonnes/p.h. There are 4×2,000 d.w.tonnes, and 1×3,500 d.w.tonnes coasters with a round trip taking about 24 hours from departure to return alongside.

MEDICAL: Hospital facilities available, advance notice of ETA preferred.

DENSITY: About 1021.

FRESH WATER: Can be supplied by barge at sea berths. 24 hours' notice required to Agent.

FUEL: Can be supplied by barge. 48 hours' notice required.

CUSTOMS ALLOWANCES: 200 cigarettes for each officer, 100 for each crew member for 3 days.

Each man allowed 1 opened bottle wine/spirits.

IDENTIFICATION CARDS: Required for all officers and crew.

CONSULS: See "Bangkok".

AIRPORT: Situated about 25 km. from Bangkok, regular international services.

TIME: GMT plus 7 hours. No changes during the year.

SHORE LEAVE: No restriction on crews landing after immigration and health formalities have been satisfactorily completed.

DEVELOPMENTS: Thai Oil Co. Ltd. may build 2 new berths for 6,000 d.w.t. product carriers.

Laem Chabang Deep-Sea Port Project: The construction of a deep-sea port in the Eastern seaboard region at Laem Chabang, Cholburi Province is aimed to accommodate vessels of about 15,000-100,000 d.w.t. which are not able to be berthed at the Bangkok Port due to some limitations in the access channel, and to promote other developing projects in the region according to the National Economic and Social development Plan.

The construction started in 1986 and the 1st Stage will be completed for operation around late 1991.

The 1st Stage of development will include:

1. 2×300 m. length container berths with depth 14.0 m. for 33,000 d.w.t. vessels.
2. 1×250 m. length break-bulk berth with depth 14.0 m. for 25,000 d.w.t. vessels.
3. 1×200 m. length domestic berth with depth 6.5 m.
4. 2 bulk berths with length 250 m. and 340 m. and depth 14.0 m. for handling tapioca, sugar and molasses.

One break-bulk berth will be ready late 1990.

SHIPMASTER'S REPORT: March 1984.

Loading of Tapioca Pellets in bulk at MBK berth:

Vessel: LOA 243.6 m., beam 32.3 m., deck over keel 18.6 m., draft 13.51 m. = t.d.w. 74,010 tonnes, 8 holds.

Silo with a berth called MBK Berth (Mah Boon Krong), operated by Cargill Ltd., has been in existence for about 6 years.

The berth consists of 3 loading towers with sufficient mooring posts at both ends. Location of berth: Lat. 13° 08.2′ N., Long. 100° 53.1′ E. Distance from shore: 1.6 miles. Distance between towers: 50 m. Radius of loading booms: 32 m. Total loading range: 166 m. Depth of water alongside: 12.8 m. at LW. Loading capacity: Loading with 1 tower 350 t.p.h. Loading capacity with 2-3 towers 600 t.p.h.

A vessel of our size has to be shifted for loading the end holds.

The loading spouts are equipped with trimming machines. The only connection to the shore is a conveyor belt of 2.8 km. length which cannot be used for traffic. All traffic is carried out by boats. Therefore gangways on both sides to be used.

A Pilot/Berthing Master brings the vessel alongside. Berthing with 2 tugs, bow to the North and starboard side alongside using the port anchor.

AUTHORITY: *Operators:* Thai Oil Company Limited. Refinery: Km. 124.5 Sukhumvit Highway, Au Udom, Sriracha, Cholburi 20110, Thailand. P.O.Box 2387, Bangkok 10501. *Tel:* (038) 311.070.4. *FAX:* 3220. *Telex:* 85802, 85808 THAIOIL TH. *Contact:* Captain Prasit Khumsribus, Marine Supervisor.

Mah Boon Krong Drying and Silo Co. Ltd., (MBK), Haad Padaeng Surasak, Sriracha Cholburi, Bangkok. *Telex:* 85804, 85805 Mbsilo Th.

AGENT: Wallem Shipping (Thailand) Ltd., 295/29 Surawong Road, P.O.Box 2319, Bangkok, Thailand. Tel: 234-6415, 235-9274. Telex: 82605 and 87256. FAX: (662) 236-1999. Cables: "Wallem".

NOTES

Please also advise Shipping Guides Ltd.

Togo Republic

KPEME: 06.12 N. 01.30 E. (See Plan)

PORT LIMITS: In accordance with the terms of Charter party a vessel is considered to be an "arrived ship" when she is anchored between 1 mile and 2 miles from the end of the jetty.

Shipmaster's Report: April 1986.

Notice of Readiness can be tendered when ship is 1.2 nautical miles from jetty.

DOCUMENTS:

2 Crew Lists.
2 Stores Lists.
2 Private Property Declaration Lists.
2 Lists of last 2 Ports of Call.
2 Passenger Lists (if no passengers, 2 lists stating same).
2 Cargo Manifests.

PILOTAGE: The limits of the port of Kpeme are fixed at 1 mile from all points of the jetty. Pilot boards out at the above limits. The Company Pilot remains on board while ship is berthed and disembarks when vessel cleared port limits. International code pilot signal used. At night, vessel should anchor between 110° and 180° at least 1 mile from the end of jetty.

VHF: Radio station, call "Kpeme pilot station" on Channel 16. Pilot boat grey motor boat without special signals.

APPROACHES: By day the extremity of the jetty (3 artificial islands and 2 loading machines) forms an obvious landmark.

At night a white light (situated at the extremity of the jetty, 23 m. above the sea) all around horizon – light 3 sec., occulting 1 sec., light 1 sec., occulting 1 sec.

ANCHORAGE: Good holding ground (sand and mud) between 14 m. and 16 m.

RESTRICTIONS: Vessels should twice signal the date and probable time of her arrival. The first time 72 hours and the second time 24 hours prior arrival. Vessels berth in daylight only from 0530 hrs. – 1530 hrs. GMT. Unmooring can be effected day and night. Water approaches are clear. Any ship should have both fore anchor cables in perfect order and capable of being used in their entirety. Any ship should be able to leave immediately if she receives order to do so from Harbour Master. With this in mind, engines must be on standby. Ships are not authorised to cross port entrance without a Pilot on board. Winches aft to be in perfect order.

MAX. SIZE: Tankers up to 27 ft. draft on arrival. Bulk carriers up to 38 ft. draft on sailing. Max. length 220 m. Max. breadth 32 m. Height from waterline to hatch coaming 14.0 m.

HEALTH: Send message for Free Pratique within 24 hours of arrival to Port Health Officer, Kpeme.

RADIO: Until vessel within 600 miles, communicate through Portishead Radio, Senlis Radio and Dakar Radio. Within 500 to 300 miles via Abidjan Radio TUA 487 kHz. and within 300 miles via Lome Radio 5VA 472 kHz.

VHF: VHF radio station, call "Kpeme Port" on Channel 16. Also see "Pilotage".

TUGS: No tugs available. 2 mooring launches of 150 h.p. each are at vessel's disposal.

BERTHING: Loading facility comprised of 3 artificial islands carrying conveyor belts (2) for loading phosphate only. They are breasted by a row of 4 dolphins. Vessel moors using port anchor first and then the starboard anchor, and wires to 7 buoys which hold the ship parallel to the dolphins and about 20 m. off. Springs are run to the dolphins. Each loader delivers at a rate of 1,250 t.p.h. and 2 holds can be loaded at same time.

TANKERS: Moor at a special berth situated to the East at 0.4 miles away from the extremity of the phosphate pier. 1 submarine line 12 in. diameter, hose connection 8 in. diameter. At any time sufficient draft for securing and sailing, also fire hoses to be ready rigged on deck.

FRESH WATER: Not available. Vessel has to go to Lome.

FUEL: Not available. Gas oil available at Lome.

MEDICAL: Doctor of the Office Togolais des Phosphates at the Factory.

OPENING/CLOSING HATCHES: By ship's crew.

CONSULS: Nearest at Lome.

REPAIRS: No facilities available. Emergency repairs could be arranged in Lome.

CUSTOMS ALLOWANCES: 200 cigarettes or 2 oz. tobacco; 1 bottle of spirits. No Customs Authorities board the vessels or seal bonded stores.

REPATRIATION: Possible. Mooring boats have to be used for going ashore.

AIRPORT: Nearest Lome – 4 flights a week to Europe.

TIME: GMT.

HOLIDAYS:

Official Holidays in Togo:

1st January, New Year's Day; 13th January, National Holiday; 24th January, Economic Liberation Day; 24th April, Victory Day; 1st May, Labour Day; * Ascension Day; 21st June, Patriots of Pya; 15th August, Assumption; 23rd September, Agression Day; 1st November, All Saints' Day; ** Ramadan Day; ** Tabaski (Islamic Holiday).

*Date given by Christian calendar.

**Date given by Islamic calendar.

TELEPHONES: Placed on board, charges included in stay-in-port tax.

SHORE LEAVE: Allowed, but not advisable. See "Restrictions" and "Repatriation".

GENERAL: In the rainy season, high winds and swell may delay berthing operation.

Vessels do not berth with an Easterly current.

SHIPMASTER'S REPORT: February 1985 (Updated 1988).

Location: Kpeme is situated about 15 miles East of Lome, and about 115 miles West of Lagos, Nigeria. The position of Kpeme Jetty is approximately Lat. 06° 12′ N., Long. 01° 31′ E.

BA Chart 1861, Cape St. Paul to Lagos Harbour, with Plan, "Rade de Kpeme".

Approaches: The Coast Eastward of Cape St. Paul is practically featureless, but good navigational marks are Port de Lome Breakwater, and Kpeme Jetty, which show well on the radar at distances of up to 20 miles. No dangers in the immediate approach from any direction. The occulting light on Kpeme Jetty Head is difficult to identify, and should not be relied upon, especially in hazy weather.

Documents: The Pilot deals with all port formalities, acting for Customs and Immigration. Documents required are as follows:

2 Crew Lists.
2 Stores Lists, including Bonded Stores.
2 Crew's Effects Declarations.
2 Lists of Ports of Call.
(For the last voyage or last 4 weeks, whichever is longer.)
2 Passenger Lists.
(If Nil, list should be made out with a "Nil" declaration.)

Under normal circumstances the Agent does not visit the vessel until after loading is completed, when he brings all documents and clearance for the ship. (The vessel usually unberths, and drifts off the berth to await arrival of the Agent by boat).

Pilotage: Pilot, sometimes with Assistant Pilot, boards at the Anchorage together with 2 mooring gangs, each under the supervision of a Foreman, who is in constant contact with the Pilot. 2 mooring boats are available to assist with mooring. The Pilots remain on board at all times whilst the vessel is at the Jetty and have to be accommodated and fed.

Anchorages: The anchorage area is from 1.5 to 2 miles S.E. of Kpeme Jetty Head. Good holding ground, sand and mud; in about 20 m. of water.

Restrictions: All berthing and unberthing operations performed on an East going current only. (Due to the configuration of the berth.) If a vessel happens to be at the berth when a West going current should start, she will remain at the berth until such time as the normal East going stream re-establishes itself. In extreme cases berthing and unberthing could be accomplished with the assistance of 2 tugs from Lome.

Max. Size: Our vessel, (Panamax) LOA 228 m., breadth 32.2 m., is about the largest vessel handled by Kpeme. Largest vessel normally handled is LOA 220 m., but this vessel was accepted on condition that no cargo was to be loaded into No. 1 hold.

Also see "Loading".

Radio: The usual ETAs and requests for berthing prospects were sent to the Agents, (Office Togolais des Phosphates. Telex: 5214. Cable Address: Phospat Lome) but no replies were received at any time from them.

VHF: We called Kpeme Port Control on VHF from 2 hours before arrival, but no response was gained from the shore until the vessel had actually arrived in the anchorage.

Port Control calls on Channel 16, and works Channel 13. Takes all details of the ship, and any requirements on arrival.

Notice of Readiness: Notice of Readiness Time is taken as the time the vessel actually anchors, and within the confines of the Charter Party.

Berthing: From the anchorage, the vessel approaches the berth in a wide sweep, to arrive about 1 cable off the berth, heading in a Westerly direction, when the port anchor is dropped. This is paid out to full scope, then the starboard anchor is let go. A headrope is then led to the buoy on the bow. Meanwhile, a shore after spring wire is hove up on the after mooring winch. Using this and also the main engine, the vessel is manoeuvred into position. This also involves heaving up the port anchor and slacking on the starboard anchor cable, to end up with about 7 shackles on the port anchor and about 4 shackles on the starboard anchor. Vessel then ends up in position for the shiploaders, which is on a heading of about 190° and about 4 m. off a set of small hydraulic fenders which front the islands on which the shiploaders are constructed. The mooring gangs then complete the mooring with shore wires.

Loading: Loading is by 2 shiploaders of 1,300 tonnes/p.h. each. Max. airdraft from Datum to loaders is 15 m. Berth is dredged to 14 m. at Chart Datum. Max. draft allowed at the berth is 38 ft. (11.58 m.) With these various restrictions, large vessels must berth with practically full ballast, and careful deballasting whilst loading is necessary to ensure that the vessel remains within the acceptable limits of draft and airdraft. It has to be remembered that the berth is an open roadstead, and a considerable swell can sometimes run (up to 2 m.). The berth is designed to berth vessel's head directly into the prevailing direction of the swell, to reduce rolling as much as possible, even so, there is still an appreciable movement of the vessel, even with little swell running. Also due to the swell, it is very difficult to read the draft with any accuracy. However, the shore weighing facilities for the phosphate are very accurate, and no real problems were encountered in this direction. (B/L is based on weight recorded by loaders during loading. No draft surveys.)

Liaison with the shore is carried out through the Pilot. No other contact with Agents, etc., available.

Terminal staff friendly and very co-operative.

Unberthing: As soon as, or just before the completion of loading, the shore mooring gangs start to single up the shore moorings. As soon as all shore wires are let go, the vessel's stern starts to move away from the berth with the current. The starboard anchor is weighed and then the Port anchor. Whilst swinging clear of the berth, and weighing anchor, an eye should be kept on the port breast line buoy aft, as it can pass quite close to the stern as the ship swings. After the port anchor is aweigh, the vessel is moved a little way from the berth, and drifts waiting for the Agent to bring out the documents; which usually takes about 1 hour.

Medical: Basic medical treatment is available at Kpeme. Hospitalisation can be effected but it is necessary to go to Lome, where there are adequate facilities.

Fresh Water: Not available.
Fuel: Not available.
Repairs: No repairs can be carried out. If these are required, vessel would have to go to Lome, 15 miles to the Westward.
Repatriation/Airport: There is an International Airport at Lome, and repatriation can be arranged if necessary.
Shore Leave: Although not actually prohibited, shore leave is not really feasible, due to the fact that there are no facilities at Kpeme. Also there are no proper arrangements for a liberty boat to be laid on.
Storing: Fresh provisions are available in limited quantities. Rather expensive and of poor to fair quality. Orders taken by Port Control on vessel's first arrival.

AUTHORITY: Office Togolais des Phosphates, B.P. 362, Lome, Togo. *Tel:* Lome 21.39.01 *Telex:* 5214 Fosfat TG. *Cables:* Phosphates-Lome. *Contact:* Commandant J. R. Capdeville, Harbour Master.

LOME: 06.08 N. 01.17 E. (See Plan)

DOCUMENTS:
- 13 Crew Lists.
- 5 Kroo-boy Lists.
- 5 Passenger Lists.
- 4 Lists Previous Ports of Call.
- 1 Maritime Declaration of Health.
- 1 List of vaccinations.
- 1 Set cargo manifest and bills of lading.
- 2 Lists of arms and ammunition.
- 1 List of Stowaways onboard.
- 1 List of Animals onboard.

Togo Port is a free-port where no individual crew member declaration is necessary.

APPROACHES: By night, the approach to the port is assisted by the following 4 lights:
Lome Light: Position 06° 08′ N., and 01° 15′ E. On top of the big water tower in the village between Lome City and the harbour. Group Fl. (2) white every 10 sec. Vis. 20 miles.
Baguida Light: Position 06° 09.5′ N., and 01° 19.5′ E. occ. white and red. Light 2.5 sec. occ. 0.5 sec. period 3 sec. Vis. 17 miles. The red light sector (42°) covers the breakwater as well as the old Lome Wharf in position 06° 07′ N., and 01° 13.5′ E.
Togo Port Entrance: On the head of the main breakwater a red tower is situated in position 06° 08′ N., and 01° 17.5′ E. Occ. red light 5 sec. every 6 sec. vis. 5 miles.

On the head of the counter-breakwater a green tower is situated in position 06° 08.2′ N. and 01° 17.4′ E. Occ. green light 5 sec. every 6 sec. vis. 5 miles.
Fairway Buoy: A red buoy with metallic structure, situated in position 06° 07′ N., and 01° 19.94′ E. Quick flash red. Vessels entering the harbour have to leave this buoy on the port side. The buoy marks the beginning of the fairway.

By day, large light coloured transit sheds and a high, grey water tower (30 m.) in position 06° 08′ N., and 01° 16.5′ E. are the first indications of the port from the sea side.

PILOTAGE: Pilots are available 7 days a week and throughout 24 hours. Berthing is possible at anytime on Owners/Master's request, but movements normally commence between 0530 hrs. and 0600 hrs. (sunrise).

The sailing time is not restricted, but ships sailing after midnight have to give a written notice to the pilot station at 2200 hrs. latest. The pilot station is equipped with VHF radio-telephone listening on Channel 16, 14 and 12, throughout 24 hours.

Call and safety Channel 16. Communications on 12 and 14.

Business languages: French – English.

Only simplex operation, no telephone patch.

The pilot cutter is a dark motorboat with yellow-orange superstructure on whose mast the international signal flag "H" flies. Showing pilot lights after sunset. The boat also has VHF telephone and is accessible on Channel 12.

Pilots board the vessel approximately 0.5 to 1.0 mile Southwards of the breakwater.

Pilots are compulsory for all ships of more than 300 g.r.t.

ANCHORAGES: Vessels which arrive during darkness should anchor about 0.5 to 1 mile South to S.E. of breakwater, in white sector of Baguida light in 15 m., where good holding ground (sand) obtained. Northern boundary of anchorage is red sector of Baguida light.

RESTRICTIONS: Tankers may only berth during daylight hours but may unberth at anytime. Also see "Pilotage".

MAX. SIZE: The max. length of vessels admitted must not exceed 270 m. The max. draft for the general cargo-quay is 9.5 m. (31 ft.), for the bulk berth 11.5 m. (38 ft.) and for the tanker berth 14 m. (45 ft.)

For the West side of the container quay 11 m. (36 ft.) and the East side 12 m. (39 ft.)

HEALTH: Health Inspector will board on arrival alongside and examine for cases of infectious diseases, after which he will declare vessel Free or not. Vessels entering must fly international quarantine signal "Q".

RADIO/VHF: Lome has a radio coast station. Working frequencies are: 500 and 472 kHz. Call sign "5VA". Also on VHF Radiotelephone Channel 16 and medium wave telephone on 2182 kHz. when requested.

Lome Port has a VHF station working on Channels 16, 14 and 12 day and night. A radio homing transmitter is working on 379 kHz. Signal "LME". Position 06° 10.7′ N. and 01° 16.3′ E.
Notification of Ship's: Ship's agencies should be informed as soon as possible about the vessel's arrival at Lome. The ETA telegram should contain the ship's length, draft, the quantity of cargo to be loaded and discharged and the number of stevedore gangs required. In addition to that the ship's agency should be advised to inform the pilot station as soon as possible.

ETA notification can also be sent by telex directly to the harbour. Telex No. 5243 TGPORT TO.

TUGS: The port has 3 harbour tugs. "Akodessewa", 960 h.p., 17 tonnes bollard pull; "Lome", 1,620 h.p., 24 tonnes bollard pull and "Aneho", 300 h.p., 42 tonnes bollard pull.

For all vessels over 500 g.r.t. the tug service is compulsory. Over 10,000 g.r.t. 2 tugboats are compulsory.

All tugs are equipped with following equipment: radar, fire fighting equipment and VHF radio-telephone. Working Channel 12. On Master's request, the tug can supply a towing wire.

BERTHING: Vessels berth according to their time of arrival in the roads. Priority is however given to passenger ships, Ro/Ro vessels, container ships as well as to vessels having less than 50 tons of cargo for loading/discharging.

The port is protected on the Western side by the main breakwater (1,720 m. long) and on it's East side by the counter breakwater (950 m.).

The general cargo quay is on each side (320 m. long) and has a width of 72 m. 4 berths are available. 3 berths are suitable for ships with max. draft of 9.5 m. (31 ft.) and one for ships up to 7.0 m. (23 ft.) draft and a max. length of 145 m.

The container pier has 2 berths, each 250 m. in length and 145 m. wide. There is 11 m. depth on the West side and 12 m. on the East side.

In times of heavy swell, special mooring-hawsers are available.

The bulk berth is situated on the inside of the counter-breakwater. There is space for a vessel of 200 m. with a max. draft of 11.5 m. (38 ft.). There is 6,400 sq.m. of free storage space. A clinker loading installation is able to load 1,000 t.p.h.

A tanker terminal is situated inside the counter-breakwater. Tankers with a max. length of 250 m. and max. draft of 13.50 m. (45 ft.) can berth here. Also see "Tankers".

The fishing port is situated in the Eastern part of the harbour. The length of the quay is 60 m. and the max. draft 4.50 m. This installation has an auction hall of 1,500 sq.m.

The height of the piers at low water is 4.50 m. The average tide difference is 1.20 m.

There is no special Ro/Ro berth available for bow/stern/ramp vessels.

The sheds "A" (5,000 sq.m.) and "B" (2,000 sq.m.), are situated on the general cargo pier. There are another 4 warehouses "C, D, E and F", each having 7,500 sq.m. of storage space in the vicinity of the piers. One shed of 1,000 sq.m. is available for dangerous cargo.

Burkina Faso have 2 warehouses of their own, each 5,000 sq.m. Mali and Niger each have one of 5,000 sq.m.

The free-storage space for containers and heavy-lift cargo is about 90,000 sq.m.
Equipment/Gear: The port is provided with:
- Mobile cranes from 10 tons – 60 tons.
- Fork-lifts from 2.5 tons – 30 tons.
- Toplifter of 30 tons.
- Platform Trailers of 40 tons.
- Tractors of 60 h.p.
- Grain-elevator and Mobile-gangways.
- Also container handling gear, trailers, chassis and spreaders.

There are 3 Pilot boats and 2 line-handling boats. On vessel's request, aluminium gangways are available.
Railway: The Togo-Railway (C.F.T.) which serves large parts of the country has an extension of its network into the port. Quay-sides and sheds are connected.

MEDICAL: Large hospital situated in Lome with doctors in attendance.

STEVEDORES: Agent should be informed as soon as possible of ship's ETA, length, max. draft, tonnage to load and/or discharge and number of gangs required.
Working Hours: In Lome the working time is as follow:
1. Day shift from 0700 hrs. – 1200 hrs. and 14.30 hrs.– 1730 hrs.
2. 1st shift from 0600 hrs. – 1400 hrs.
   2nd shift from 1400 hrs – 2100 hrs.
   3rd shift from 2100 hrs. – 0600 hrs.

Except Saturdays and holidays when work is possible in overtime.

Furthermore, extra labour is available if required for night work in order to complete loading and discharging operation. All work is done by port stevedores.

TANKERS:
Societe Togolaise des Hydrocarbures:
Max. Size: LOA – 250 m.
Dirty Ballast: Capacity 4,000 tons. Discharge rate 800 t.p.h.
Fresh Water: Available, 30 t.p.h.
Shore Gangway: Available.
Current: None.
Tidal Range: 0.90 m. – 1.50 m.
Nature of bottom: Sand.

Restrictions: Berthing and unberthing at any stage of the tide. Berthing during daylight hours only, unberthing anytime.

Cargo facilities:

Grades handled	*Pipe-line Reference*	*Length (m.)*	*Load/ D'charge Rate t.p.h.*	*Max. Pressure*	*Hoses No.*	*Hoses Size (in.)*
Ballast		1200			1	6
Crude Oil	Brown	4200	1100	7/9 kg/ cu.m.	1	8
Fuel Oil	Black-Brown	4200	1000		1	8
Kerosene	Yellow-Ash	4200	600		1	8
Benzene	Blue-Yellow	4200	800		1	8
Diesel Oil	Yellow-Orange	4200	900		1	8

DENSITY: Density 1025. Harbour open to sea.

FRESH WATER: Available at every berth except tanker Sealine. Delivery rate 30 t.p.h. Fresh water examined monthly for purity by Sanitary Authority.

FUEL: Diesel/gasoil is available in small quantities. There are 2 bunker spots on the pier. Tank-lorries can supply bunkers at any berth.

FIRE PRECAUTIONS: No extraordinary precautions are required. Vessels with hazardous cargo should declare this on ETA telegram to Agent. During time in port these vessels should take necessary precautions themselves, and all fire hoses should be ready rigged on deck. By day international code signal "B" should be displayed and by night a red light should be shown at masthead or at an all-round visible place. Ships with dangerous cargo have to engage a watchman.

Smoking on berths and within sheds *strictly* prohibited. Infringements of fire regulations punishable by fine.

GANGWAY/DECK WATCHMEN: Gangway watchmen and hatch security watchmen available; they wear a distinctive uniform. Also see "Fire Precautions".

OPENING/CLOSING HATCHES: Either ship's crew or dockworkers.

CERTIFICATES: All normal ship certificates should be available for inspection.

CUSTOMS ALLOWANCES: Because Togo-Port is a Free Port, no individual declaration by Crew members necessary.

CARGO GEAR: The port has no shore cranes. Ships have to use their own cargo gear. Only mobile cranes for cargo handling on the pier are available.

IDENTIFICATION CARDS: Shore landing passes issued by port police on exchange of crew I.D. cards at the port gate.

CONSULS: Ambassadors or Consuls from nearly all major maritime nations at Lome.

REPAIRS: Minor repairs only carried out by local workshops.

DRY DOCKS: Not available at present, but a slip for small vessels is included in future development.

AIRPORT: Lome International Airport with flights most days to Europe.

TIME: GMT throughout year.

HOLIDAYS:

1st January	New Year's Day
13th January	National Holiday
24th January	Economic Liberation Day
24th April	Victory Day
1st May	International Labour Day
*	Ascension Day
21st June	Patriots of Pya
15th August	Assumption
23rd September	Agression Day
1st November	All Saints' Day
**	Ramadan Day
**	Tabaski (Islamic Holiday)

*Date given by Christian calendar
**Date given by Islamic calendar

All other holidays will be worked in port with supplementary labour charges.

POLICE/AMBULANCE/FIRE: A telephone to contact Police, Fire service and Hospital is available day and night at the pilot station or on VHF Channel 16. The port is provided with an Ambulance Car as well as with a Fire Engine. Services have to be requested at the control tower of the pilot station.

TELEPHONES: 3 public telephones within the port limits. No telephones on board.

SERVICES: No tank cleaning or compass adjusting available.

DELAYS: Ships berth in rotation of arrival at anchorage. Priority given to passenger ships as well as to vessels having less than 50 tons of cargo for discharge. No lengthy delays in Spring of 1986.

GENERAL: *Port and Lome Town:* The Port Autonome de Lome is the only harbour of the Republic of Togo. There is a bulk phosphate jetty at Kpeme (position 06° 12′ N., and 01° 31′ E.).

Lome is the capital of the country and has 300,000 inhabitants. The port is situated about 5 km. East of the city. Taxis are available at the entrance of the pilot station.

All ship agencies and 2 banks maintain offices within the port premises.

On ship's request, a ship chandler comes onboard in order to provide fresh food and bonded stores.

Currency: The money in circulation is the Franc CFA. (100 Frcs. CFA=2 NF).

Seamen's Club: A modern seaman's club with swimming pool, video-room, library, hotel and bar is situated 0.6 km. away from the main gate of the port, and is at ship's crews disposal.

SHIPMASTER'S REPORT: July 1978 (updated 1986).

Documents: A mooring boat is available to Agents for the collection of documents on the Roads given prior notice.

Max. Size: Berth No. 1 depth 7.5 m. Berth No. 2, depth 10.5 m. Berth No. 3 depth 9.5 m. Berth No. 4, depth 9.5 m. Berth No. 5, depth 11.5 m. Berth No. 6 (New oil pier), depth 12.0 m.

Allowance is made for swell hence the max. draft at No. 6 is 39 ft.

Health: Free Pratique can be obtained from the roads if all documents are sent to Agents concerned with directions for distribution.

Radio: Lome Radio has been out of commision since May, 1978, and may continue thus until further notice unless spares are obtainable from France.

Tugs: There is an additional tug 3,000 h.p., 42 ton bollard pull, fully equipped for fire and salvage. The smaller tug of 17 tons bollard pull, is also equipped for fire-fighting.

Tankers: Berth No. 6 on Western side of East Mole with a depth of 13.5 m. and max. draft allowed of 39 ft.

Fuel: Gas Oil available ex-road tankers at all berths but full range of fuels to be provided at new tanker berth (No. 6) by August, 1978.

Cargo Gear: While no fixed cranes are available, there is a range of mobile cranes 5×10 tonnes, 1×25 tonnes, 1×45 tonnes and a container tower crane of 70 tonnes. All capacities are reduced by reach and angle while freeboard may limit use still further. A grain hopper and vacuvator gear are in use.

Airport: Flights are frequent, mainly indirect, to and from Europe, with 1 weekly direct to New York.

Consuls: At present there is no British representation in Togo but a Consulate may be re-established. Accra is 3/4 hours drive from Lome.

Seaman's Club: A large accommodation block offering various rooms and flatlets is part of the compound. Seamen have priority and at reduced rates. The Home is in the charge of a German pastor and under German control and has a VHF set for communication with vessels in the Roads. It is open to non-seafarers.

Hotels: A wide range of hotels are available including luxury type catering for the expanding tourist traffic which takes advantage of the unique climate for this part of the Gulf of Benin.

Fresh Provisions: Wide choice and good quality but not cheap. It is advisable to have samples brought onboard before ordering.

Delays: While there is no registration as such, certain vessels on regular trade, plus those with cargoes qualified as important, do get priority and all are subject to the daily (except Sunday) Port Captain's Meeting at which all elements are represented. The results are not available until 1300 hrs. after which most Agencies communicate by VHF to their vessels in the Roads. Container ships and Ro/Ro ships have a priority.

Working Hours: Gangs work 0600 – 1400 hrs.; 1400 – 2200 hrs. and 2200 – 0600 hrs. daily except, there is no 2200 – 0600 hrs. shift on Sunday nights. Each has a half hour break after 4 hours working.

Surveyors: The Port Captain and Senior Pilot, represents Germanischer Lloyd. There is no Lloyd's representative.

General: Lome is the entry port for Niger and Upper Volta as well as Western Ghana so the road and rail traffic is considerable. The border with Ghana is on the Western side of Lome City. A re-entry visa is necessary when proceeding to Accra and takes 1 or 2 days to process. The Ghana Border Police can issue 1 day Visitors' passes.

AUTHORITY: Port Autonome de Lome. B.P. 1225, Lome, Togo. *Tel:* 214742. *Telex:* 5243 TGPORT TO. *Cables:* TOGOPORT. *Contact:* S. Ottinger, Harbour Master.

AGENT: Socopao Togo, B.P. 821, Lome. Tel: 21.55.88; Telex: 5330 (Maritime) and 5205. Fax: 217317. Cables: "Freight Lome". VHF Channel 16.

NOTES

Please also advise Shipping Guides Ltd.

Tonga (Friendly Islands)

NUKU'ALOFA: 21.08 S. 175.12 W. (See Plan)

DOCUMENTS:
Immigration:
2 Crew Lists.
2 Passenger Lists.
Customs:
2 Crew Lists.
2 Passenger Lists.
1 Bond List.
3 Cargo Manifests.
Agents:
1 Crew List.
1 Passenger List.
3 Cargo Manifests.

PILOTAGE: Order through Agents at least 24 hours prior to arrival. Pilot boat may be contacted on R/T 1 hour before arrival at pilot station. This position is indicated on B.A. Chart (Approaches to Nuku'alofa). There are 2 approaches, namely the Ava Lahi Passage and the Piha Passage. Vessels using Piha Passage are limited to a length of 500 ft.

Vessels may anchor in the vicinity of No. 1 Buoy if required to await Pilot, but this is not normally necessary as the Pilot is available as requested. Pilot boat carries usual signals.

ANCHORAGES: Vessels may anchor wherever they wish within the port, subject to the approval of the Harbour Master.

MAX. SIZE: Length unlimited, beam unlimited, draft 40 ft.

HEALTH: Radio Pratique may be requested from "Tongamed", Nuku'alofa. Any suspected disease or fever must be reported by radio.

TUGS: No tugs available.

BERTHING: Queen Salote Wharf, Berths No. 1 and 2 are the only international berths in Nuku'alofa. Berth No. 1 length 93 m. and Berth No. 2 length 110 m.

STEVEDORES: There is a Master Porter employed by the Queen Salote Wharf Administration, who will supply whatever gangs are required. The number of hatches to be worked and the tonnage of cargo must be passed by the Agent to the Harbour Master at least 24 hours before vessel arrives.

MEDICAL: It is advisable to inform Agent in advance should medical attention be required. Hospital facilities are available. Vaccination Certificates are required for visitors who are staying. Ship's crew do not require them generally.

DENSITY: 1025 at all states of tide.

FRESH WATER: Available Queen Salote Wharf at 25 t.p.h.

FUEL: A small quantity of light diesel fuel could be supplied, sufficient to enable a vessel to make the port of Suva.

GANGWAY/DECK WATCHMEN: Not necessary as entry to wharf is restricted.

OPENING/CLOSING HATCHES: This work is completely optional.

CERTIFICATES: Normal requirements. Harbour Master may require to inspect cargo gear record.

CUSTOMS ALLOWANCES: A reasonable quantity is allowed by Customs according to expected stay in port. There are heavy penalties for smuggling.

CARGO GEAR: Valid certificates issued by competent authorities are recognised.

IDENTIFICATION CARDS: Not necessary.

CONSULS:
Australia
China
France
Germany F.R.
Korea
Naura
New Zealand
Spain
Sweden
United Kingdom

REPAIRS: Minor repairs can be carried out in the marine workshop.

REPATRIATION: Crew changes and repatriation possible.

AIRPORT: 25 km. from town. Flights to and from Suva (Fiji) Saturdays and Wednesdays. Flights to and from New Zealand Saturdays, Mondays and Wednesdays. Flights to Apia (Western Samoa) Saturdays, Mondays and Wednesdays. Flights to Hawaii Mondays and Thursdays.

TIME: The local time is 13 hours fast on GMT.

HOLIDAYS: *No work of any description is permitted on the Sabbath. This is strictly enforced.* Official Holidays are: Christmas Day; Boxing Day; Good Friday; New Year's Day; Easter Monday; Anzac Day; Emancipation Day (June 4th); Constitution Day (4th November); King's Birthday (July 4th).

POLICE/AMBULANCE/FIRE: In an emergency dial 911.

OTHER PORTS: Pangai, Ha'apai Group; Neiafu, Vava'u Group; both these ports are suitable for any size of vessel at anchor. Service is by lighter. Vessels of 400 ft. in length with a max. draft of 22 ft. may berth at Neiafu.

AUTHORITY: Harbours and Wharves Department, P.O.Box 144, Nuku'alofa, Tonga. *Tel:* 21-166. *Contact:* Wharf Administrator.

NOTES

Please also advise Shipping Guides Ltd.

Trinidad

BRIGHTON: 10.15 N. 61.38 W.

DOCUMENTS/HEALTH/CONSULS, etc.: Refer to "Port of Spain".
PILOTAGE: Compulsory.
ANCHORAGE: Good holding ground in roadstead. Loading pier situated Lat. 10° 15′ N., Long. 61° 38′ W., extending in a N.W. direction for 2,010 ft.
RESTRICTIONS/MAX. SIZE: Outer Berth East, 29 ft. 6 in. MLWST; Outer Berth West, 24 ft. 6 in. MLWST; Centre Berth East, 21 ft. 6 in. MLWST; Centre Berth West, 21 ft. 6 in. MLWST; Inner Berth West, 21 ft. 6 in. MLWST.
TUGS: Not used. Launch assists with lines.
STEVEDORES: Supplied by Agent for loading asphalt in drums only.
MEDICAL: All facilities available.
FRESH WATER: Available by barge.
FUEL: All grades of fuel alongside or by barge.
GANGWAY/DECK WATCHMEN: Customs guard on 24 hours duty at ship's side.
CUSTOMS ALLOWANCES: 200 cigarettes and moderate amount of spirits.
IDENTIFICATION CARDS: Not required.
REPAIRS AND DRY DOCKS: At Chaguaramas.
REPATRIATION: Can be arranged.
AIRPORT: See "Port of Spain".
TIME: GMT minus 4 hours.
TELEPHONES: No facilities for telephones on board.
SHORE LEAVE: No restrictions.
DELAYS: Not usual.
AUTHORITY: Lake Asphalt of Trinidad & Tobago (1978) Ltd., Brighton, La Brea, Trinidad, W.I. *Tel:* 648-7556, 648-7477. *Telex:* 37374 Asphalt. *Cables:* Trinfalt. *Contact:* Ainsley Nichols, General Manager.
AGENT: See "Port of Spain".

CHAGUARAMAS: 10.40 N. 61.39 W.

DOCUMENTS/HEALTH/CONSULS, etc.: Refer to "Port of Spain".
PILOTAGE: Compulsory. Pilots board in Chaguaramas Bay – Lat. 10° 46′ N., Long. 61° 43′ W.
ANCHORAGE: Safe anchorage in Chaguaramas Bay between mainland and Gaspar Grande Island about 0.5 miles off the dock.
RESTRICTIONS/MAX. SIZE: No restrictions on night operations. 2 docks – main wharf with overhead cranes for loading and discharging bauxite – 960 ft. long, max. draft 33 ft. Smaller wharf – 400 ft., draft 18 ft.
TUGS: Not used. Launch assists in mooring.
STEVEDORES: Not necessary. All loading/discharging done by Chaguaramas Terminals employees.
MEDICAL: All facilities available.
FRESH WATER: Available from dock, 40 t.p.h. Also supplied by barge.
FUEL: Can be delivered by barge.
GANGWAY/DECK WATCHMEN: Customs guards on duty at ship's side.
CUSTOMS ALLOWANCES: 200 cigarettes and a moderate amount of spirits.
IDENTIFICATION CARDS: Not required.
CARGO GEAR: Loading by travelling tower, rate 1,000 t.p.h. Conveyor system. Discharging – carried out with travelling rig of 2×4 ton grabs. Conveyor system.
REPAIRS/FLOATING DOCK: Operated by Swan Hunter Docks. Displacing up to 11,380 tons, 560 ft. long vessels. Also good berthing alongside, draft to 35 ft., and a safe close anchorage, draft 50 ft. General extensive repairs undertaken.
REPATRIATION: Can be arranged.
AIRPORT: See "Port of Spain".
TIME: GMT minus 4 hours.
TELEPHONES: No facilities for telephones on board.
SHORE LEAVE: No restrictions.
AUTHORITY: Chaguaramas Terminals Limited, Pointe Gourde, Trinidad. Mailing Address: P.O.Box 608, Port-of-Spain, Trinidad. *Tel:* 637-4494/5. *Telex:* (294) 3288 (Answerback 3288 Chag Wg). *Cables:* Chagterms-Port-of-Spain-Trinidad. *Contact:* General Manager.
AGENT: See "Port of Spain".

CRONSTADT ISLAND: 10.39 N. 61.38 W. (See Plan)

Terminal owned and operated by Baroid Trinidad Services Ltd., handling bulk barytes and general oilfield supplies.

Vessels from abroad calling at Cronstadt are required to proceed first to Chaguaramas for clearance formalities.
DOCUMENTS/HEALTH/CONSULS, etc.: Refer to "Port of Spain".
PILOTAGE: Compulsory.
TUGS: One tug used for berthing if required.
RESTRICTIONS: Berthing/unberthing in daylight only.
MAX. SIZE: 350 ft. length. This size vessel would overhang wharf approx. 80 ft. fore and aft. Depth alongside 13.7 m. Longer vessels can be accommodated with special clearance.
BERTHING: Vessel moored with 2 springs, 3 head and stern lines to dock. Discharging carried out with 15 ton shore crane and grab bucket with 3 yards with capacity for bulk ore.
FRESH WATER: Available by barge.
FUEL: Available by barge.
AUTHORITY: Baroid Trinidad Services Ltd., 59 Sackville Street, P.O.Box 765, Port-of-Spain, Trinidad. *Tel:* 62-51691/2/3, 62-52584. *Telex:* 22446 Baroid WG. *Cables:* Baroid Trinidad. *Contact:* W. Smith, General Manager.
AGENT: See "Port of Spain".

GALEOTA POINT: 10.05 N. 61.01 W. (See Plan)

LOCATION: Galeota Single Buoy Mooring Terminal is located 2.6 miles on a bearing of 208° from Galeota Point Lighthouse, and is an open unsheltered roadstead. Galeota Point is a narrow headland about 210 ft. high and located in Lat. 10° 08′ 00″ N., Long. 60° 59′ 30″ W. The lighthouse, mounted on a lattice steel tower located in Lat. 10° 08′ 32″ N., Long. 60° 59′ 40″ W., exhibits a light 87 m. above sea level which flashes white every 5 secs. and is visible for 22 miles. The buoy itself exhibits a quick flashing, (1 flash per sec.), red light, 10 ft. high, and visible for 4 miles through 360°.
DOCUMENTS:
Health Declaration (International Health Form to be filled out by Master on arrival).
Derat or Exemption Certificate.
Crew List (4).
Crew Customs Declaration (2).
Register.
Stores List (2) (Signed by Master).
Passenger Manifest (2) (If any passengers are aboard).
Bonded Stores List.
Clearance from last Port.
Manifest (if no cargo, a statement that vessel is in ballast).
ESSENTIAL REQUIREMENTS: MOST ESSENTIAL REQUIREMENTS TO BE MET BY TANKERS LIFTING OIL AT GALEOTA TERMINAL.
1. *Disposal of Ballast:* No dirty ballast will be pumped overboard. A separate ballast disposal line (16 in.) is available at the Terminal to pump ballast to a pit onshore where oil and water can be separated and disposal made.
2. *Notice of Arrival:* Incoming tankers must send ETA via commercial radio at least 72 hours before arrival at Galeota. Local time is GMT minus 4 hours and daylight saving (Summer Time) is not applicable.
3. *Arrival:* Company Loading Master and a Government Pilot if requested by the Tanker's Master will contact all incoming tankers about 3 to 4 miles from Galeota Point on a bearing of 220°/230° from the lighthouse, and will advise the ship's personnel on mooring and unmooring. If the buoy is occupied, or if arriving at night, vessels should anchor at least 1 mile S.W. of the buoy.
4. *Tankers to Have Ready:* (a) 2 nylon or manila messenger lines of not less than 6 in. circumference and at least 300 ft. long, placed at the bow. (b) at ship's manifold there must be equipment capable of lifting the floating hoses. Weight of hose is about 3 tons.
5. *Crew Duties:* The tanker's crew will raise, rig, and operate vessel's derrick and winch for the hoisting of the floating hose. The Terminal crew will connect and disconnect loading hoses.
6. *Tanker's Valves:* Tanker's valves must not be closed against incoming oil stream. At least 1 minute is required to shut down pumps and stop flow of oil from the Terminal storage.
7. *Communication-Emergency:* If ship-to-shore communications fail, a line launch is always alongside and has radio contact with the Terminal Control Centre.
8. *Responsibility:* The Tanker's Master is responsible at all times for the safety of all ship's operations. Galeota Terminal rules and regulations do not contravene International Safety rules such as SOLAS (Safety of Life at Sea) or other maritime regulations such as those of appropriate classification societies. In case of any conflict, the latter shall apply.
PILOTAGE: Vessels arriving should approach to within 3 to 4 miles of Galeota Lighthouse on a bearing of 220°/230° and will be met by the Amoco Loading Master and a Trinidad and Tobago Pilot (if requested through vessel's Agent). The Pilot will be stationed on the bridge and will advise the vessel on the approach to the buoy. The Amoco Representative will be positioned in a most advantageous position and will advise the ship's crew on picking up and making fast the floating nylon mooring lines.

Vessels are requested to make a proper lee and to have a pilot ladder safely and securely rigged, ready for immediate use, and long enough to reach the Loading Master's launch. At night, adequate lighting must be rigged overside for the Loading Master to approach the side of the ship and climb the ladder safely.

Raising, connecting, disconnecting and lowering of floating hoses will be performed by the Terminal's crew with the assistance of the ship's crew as advised by the Amoco Loading Master, who will remain on board while the ship is secured to the buoy. The Loading Master will be in direct charge of the portable VHF ship-to-shore radiotelephone communications.

If, in the opinion of the Loading Master, the vessel is not equipped with adequate mooring or hose lifting facilities, he will so inform the vessel's Master, and in such event the vessel shall not be brought into the moorings until facilities, lines, or gear are deemed satisfactory.
APPROACHES:
Port Limits: Approaching vessels should never anchor to the East or N.E. of Galeota Point. A submarine pipeline from a platform in Lat. 10° 10′ 24″ N., Long. 60° 39′ 56″ W., enters the Galeota Point area about 0.5 miles Northward of the lighthouse. Vessels should approach from the South-westward and never anchor less than 1 mile from the SBM or between the buoy and the coastline.

Navigational Aids: Galeota Point Lighthouse is located in Lat. 10° 08′ N., Long. 60° 59′ 30″ W., and exhibits a white flashing light every 5 secs. and is visible for 22 miles. The lighthouse is unattended and frequently does not operate. The SBM exhibits a quick flashing red light every second, and is located in Lat. 10° 05′ 47″ N., Long. 61° 00′ 45″ W.

Landmarks: Galeota Point appears as an island when approaching from seaward, since it is connected to the island of Trinidad by lower land. Situated on this lower land about 0.5 miles Northward of the lighthouse is the tank farm and processing area.

There are 5 oil storage tanks and they are painted a grey colour.

A small boat harbour is located 0.5 miles due West of the lighthouse in Guayaguayare Bay. The sheet piling type jetty extends seawards, on a bearing of 245°, 1,900 ft. from a point at Lat. 10° 08′ 14″ N., Long. 61° 00′ 00″ W. The seaward 300 ft. of this jetty has a controlling draft of 13 ft. at extreme LW.

Vessels approaching from a North through East direction will observe lighted drilling platforms with following locations:

1. Teak "A"	Lat. 10° 10′ 24″ N.,	Long. 60° 39′ 56″ W.
2. Teak "B"	Lat. 10° 11′ 41″ N.,	Long. 60° 39′ 55″ W.
3. Teak "C"	Lat. 10° 10′ 29″ N.,	Long. 60° 40′ 36″ W.
4. Teak "D"	Lat. 10° 02′ 12″ N.,	Long. 60° 38′ 54″ W.
5. Teak "E"	Lat. 10° 10′ 26″ N.,	Long. 60° 39′ 55″ W.
6. Samaan "A"	Lat. 10° 20′ 30″ N.,	Long. 60° 40′ 47″ W.
7. Samaan "B"	Lat. 10° 19′ 46″ N.,	Long. 60° 41′ 04″ W.
8. Samaan "C"	Lat. 10° 19′ 47″ N.,	Long. 60° 41′ 35″ W.
9. Poui "A"	Lat. 10° 06′ 35″ N.,	Long. 60° 49′ 47″ W.
10. Poui "B"	Lat. 10° 06′ 55″ N.,	Long. 60° 49′ 02″ W.
11. Tesoro "A"	Lat. 10° 11′ 05″ N.,	Long. 60° 54′ 59″ W.
12. Cassia	Lat. 09° 55′ 00″ N.,	Long. 60° 31′ 53″ W.
13. Mora	Lat. 10° 10′ 49″ N.,	Long. 60° 51′ 32.8″ W.

Vessels should exercise caution and keep well clear of these platforms because of unlighted buoys, small boat operations, submarine pipelines, and anchored test barges nearby.

The lighthouse 4 miles to the Southwestward of Manzanilla Point situated on Brigand Hill (Lat. 10° 29.4′ N., Long. 60° 51′ 32.8″ W.) is an excellent landmark for vessels approaching from the Northward. The lighthouse is elevated 712 ft. and exhibits a group flashing (3) white light every 30 secs. and visible for 20 miles.

RESTRICTIONS: The Terminal operates 24 hours per day, 7 days a week. Ships are loaded and unmoored at any hour, weather and other circumstances permitting. Vessels are moored during daylight hours only, however an exception to this rule may be made at the discretion of the Terminal. The Terminal will never be closed due to holidays.

MAX. SIZE: 250,000 d.w.t. Depth of water 95 ft.

RADIO: *Long Range and Radio Communications:* Ships may send their cable(s) to the Amoco office through the commercial station, "North Post Radio/9YL", which is about 10 miles N.W. of Port of Spain. Upon receipt of such cable(s) North Post will immediately relay it to Amoco's office through their Telex system. Messages pertaining to oil liftings should be addressed to AMOCOTRI, Trinidad. If it is necessary to send messages through vessels' Agents or Owners via International Telex Service, then they may be sent to Amoco by using the Telex address "WG 287" (Amoco – Port of Spain).

Cable or Telex messages addressed to Galeota Terminal would undergo the same procedures, but upon receipt in Amoco's radio office in Port of Spain, they will immediately be relayed to Galeota Point by HF/SSB radio teletype channel.

Cables from Galeota Terminal to the ships would be given to Amoco, Port of Spain radio office on the SSB, which will be telephoned to North Post Radio Station.

The coast radio station transmits traffic lists at regular intervals listing the call signs of all ships for which they have traffic on hand. At the end of their traffic lists, the coast radio station starts searching for answers on the frequency bands listed below. Thus, any vessel hearing its call sign in the traffic list, will immediately start calling the coast station on its own working frequency in the same band on which the traffic list has been heard. The searching coast station radio operator would eventually pick up the signals from the calling ship and would pass her his traffic.

Listed below is information on "North Post Radio Station" – 9YL:

Station	*Call Sign*	*Frequency*	*Hours*
North	9YL	(HF) 17184 kHz	1200 hrs. – 1530 hrs. (GMT)
Post		(HF) 12885 kHz	1330 hrs. – 2050 hrs. (GMT)
Radio		(HF) 8710 kHz	0100/0600/0900/1300 1500/1730 & 2130 hrs. (GMT)
		(HF) 6470 kHz	2300 hrs.
		(MF) 476 kHz	0300 hrs. and every 4 hours thereafter.

Medium Short Distances: Ships may contact Galeota Terminal within 3 days before arrival on the marine HF frequencies. Galeota Point listens on 2182 kHz and operates with Amoco's marine units on 2398 kHz.

Ships equipped with FM/VHF radios may call Galeota Point on 156.8 MHz = Channel 16 and/or Channel 8.

Advice of Arrival: It is important that ships establish radio contact with Amoco when 3 days distant from Terminal and maintain this contact until just prior to arrival at the Terminal. All ships should send a 72 hours ETA message to Amoco giving the best estimates of ship's arrival time at the Terminal. This ETA message should also include a definite statement of the details of any equipment required from shore for connecting submarine hoses to ship's manifold. Further ETA messages should be sent to Amoco when the vessel is 24 hours and 12 hours distant from Galeota Point and at any other time any appreciable change occurs in the original ETA or those subsequent thereto. The 12 hours ETA should include a positive statement regarding ship's Readiness to Load on arrival, and the number of hours that will be required to discharge ballast after the ship is berthed in mooring (see "Ballast").

Ship-to-Shore Communication: Ship-to-shore communication, while ships are in moorings, will be by portable VHF radiotelephone units. The Loading Master will advise Masters and Officers regarding the emergency whistle signals set up for use in event VHF radiotelephone units become inoperative. The use of the ship's radio station and/or battery charging equipment is prohibited during cargo transfer operations.

Ship's Radio Stations: The use of ship's radio equipment while ship is on anchorage in Terminal waters is prohibited by law, unless transmission is made through the local commercial station.

BERTHING:

Single Buoy Mooring: Tankers are loaded by means of a 42 in. pipeline from shore to the SBM which is 2.6 miles offshore. The facility for receiving dirty ballast has been permanently terminated. The loading hoses from the buoy to the tanker consist of 2×20 in. floating hoses, 755 ft. and 790 ft. long ending in 3×12 in. hoses of 90 ft. length. Valves are fitted in the buoy connectors so that the flow in one 20 in. diameter floating hose string can be diverted to the 16 in. diameter underbuoy hose string.

The SBM is designed for maximum tanker size of 250,000 d.w.t. and is located in 95 ft. water depth. The buoy is 11 m. in diameter, 4.8 m. high, and equipped with a navigation light and radar reflector. There is a skirt at the bottom of about 15 m. in diameter.

Ship's Gear: Vessels calling at the Galeota Point must be equipped with 2 nylon messenger lines of a minimum 6 in. circumference and at least 300 ft. long. These lines should be laid out free for running at the bow of the vessel. Warping winch or windlass should be in good working order and adequate to handle 12 in. nylon floating rope under heavy strain. Efficient stoppers must be available to transfer floating nylon from winch to bitts.

Vessels must be equipped to fit flanges on floating hoses which are ASA standards.

Ships must be adequately equipped with blocks, tackle and booms to hoist the floating hoses, each weighing about 3 tons, from the sea surface over the ship's port rail to the manifold, in a safe, efficient and expeditious manner. Ships must also have an adequate supply of nuts, bolts, gaskets, and wrenches to connect cargo/deballast hoses.

Ship's Alertness: The Terminal is an open roadstead, therefore, during the time a ship is moored at the Terminal, the ship's engines and gear must be ready with full power for immediate use.

Vessel at the SBM must be able to clear and shall clear immediately upon advice of the Loading Master or as directed by Amoco's Terminal Superintendent.

Ship's personnel should be at their stations and alert at all times during mooring, unmooring and cargo transfer operations.

Mooring Launches: Amoco maintains launches to assist in mooring and unmooring vessels.

BALLAST: It is the Shipmaster's responsibility to see that no oil (crude, diesel, bunker C, or bilge) is pumped or spilled overboard from the ship. All vessels are required to arrive at Galeota with clean ballast only, which will be discharged overside.

All precautions shall be taken to prevent any loss of oil overboard; drip pans must be in place and used when disconnecting oil hoses from manifolds. The waters in and adjacent to the Galeota Terminal, and Amoco's offshore platforms must *never be polluted.*

As soon as practical after arrival, all vessel's tanks will be inspected. If during first inspection or during loading, it is revealed that ship's tanks are not oil-tight, tanker will be rejected and refused further loading. Ship will not be accepted later for loading unless satisfactory evidence, duly certified by Lloyd's, ABS Surveyors, or other authorised survey agency, of effective repair is submitted.

A vessel must have sufficient ballast for safe manoeuvring and usually one-third of its tonnage is adequate. However, by a careful watch of the weather information and berthing instructions and by a knowledge of the behaviour of his own vessel, a Master may desire to come to the Terminal with minimum ballast.

Shipmaster should be aware that at any time deballasting at sea occurs and has been reported or viewed by Amoco Trinidad Oil Company personnel, the offence will be documented, where possible, by Amoco personnel, and a report submitted to the proper Ministry of Trinidad and Tobago.

In addition to the lights usually displayed, vessels discharging ballast or loading cargo during darkness, will illuminate the area around the ship, to the satisfaction of the Loading Master, in order that any oil on the surface of the sea may be readily detected, and appropriate action taken. Vessels unable to illuminate the sea satisfactorily may not discharge ballast during darkness. Vessels should provide explosion proof flood lights for working on deck during night operations.

Loading and Deballasting Simultaneously: Vessels equipped with a separate system of ballast tanks will be allowed to discharge ballast and load oil simultaneously, providing approval is received from the Terminal Superintendent.

LOADING:

Rate of Loading: Maximum crude oil loading rate through 2×12 in. deck hoses is approximately 40,000 bbls.p.h. The flow is by pump and the line pressure will not exceed 100 p.s.i.

In order to save ship's time, it is requested that ballast water be pumped *as fast as possible* and that the tanker receives oil as fast as it can be delivered, both operations having due regard for safety. It is requested that any impediment (such as "Y's", strainers, or mud boxes) to the flow of oil be removed before arrival at the Terminal. Connections should be provided so that 12 in. ASA deck hoses may be used.

Berthing: Tenders to load crude oil cargo will normally be accepted and the berth will be assigned to vessels in order of arrival, provided vessels have nominations for cargo valid at the time and are in all respects equipped and ready to moor. In the event that the berthing is delayed on account of weather, vessels will keep their position in line. Vessels required to leave the port area on account of weather (port closed) should keep in contact with the Terminal via radio in order that they will be available when the weather moderates. Amoco reserves the right to load vessels "out of turn" following the return of good weather, to the extent that such loading "out of turn" does not materially delay the loading of other vessels in line. For example, in the event that weather makes it necessary for vessels awaiting berth to vacate the terminal and put to sea, Amoco may load another vessel which arrives first after the return of good weather, but before the return of the vessels waiting in line ahead of it. And further, Amoco reserves the right to decline to moor a specific vessel if its condition or facilities are unsafe for mooring or loading, even though the port may be open to other vessels.

Connecting Hoses: After the tanker is securely moored, the floating loading/deballasting hoses must be lifted to the rail with ship's equipment. The two 12 in. hose lifts weigh about 3 tons each. The flange connection on each hose is for a 12 in. manifold. Hoses are lifted individually by the ship's gear and are connected on the port side. The 12 in. hoses are connected direct to the manifold and tankers should have their manifold fittings available.

The Loading Master and the hose crew will sling and connect the hoses to the vessel's manifold. The ship's personnel are expected to operate the winch and assist where necessary. A deck officer should be present at all times.

Loading Readiness and Arrival Time: The Company will make every effort to load vessels upon arrival or as promptly as berth is available, weather permitting.

Notice of Readiness will not be accepted as at time of arrival, unless the vessel is in all respects ready to load. Arrival time will be considered as the time the Loading Master boards the vessel or the time that vessel anchors, whichever occurs first.

Responsibility: The vessel is responsible for the deballasting and loading. The Company Loading Master will advise the vessel in respect to loading pressures and hazards, but will not direct the loading except as may be necessary to protect the terminal facilities. Manipulation of ship's valves is the direct responsibility of the ship's personnel.

All Masters will ensure that only clean ballast is discharged overside. Periodically, Masters may be requested to flush the floating hose string with sea water to facilitate loading hose replacement.

Oil Valve Control: Caution: The incoming oil stream is controlled onshore, and it is extremely dangerous to close a ship's valve against the incoming stream. Such a procedure creates excessive pressure, which may damage hose, ship's piping, or Terminal facilities. Vessels will be held responsible for damage resulting from failure to observe this precaution.

A reduction in loading rate before topping the final tank or tanks may be arranged through the Loading Master by the ship's officer in charge and a normal standby warning should be given about 15 minutes before the shut down of loading operations per normal tanker practice. On advice from the ship a minimum of 1 minute is required to stop the flow of crude oil.

Emergency Signal: A battery-operated emergency shut down signal is expected to be installed in the near future.

Code Flag: During loading or deballasting the International Code Flag "B" shall be displayed from a topmost signal halyard during daylight hours. During hours of darkness, a red light shall be displayed. This light should be of a character such as to be visible at a distance of at least 1 mile, and to show an unbroken light all round the horizon.

Shore Stops: Requests for the Terminal to stop the flow of cargo at a pre-determined tonnage will be made verbally to the Loading Master, and Amoco will not be responsible for any error, and in the case of overloading excess cargo will not be pumped back ashore.

Some delays are always incurred when such a shore stop request is made.

MEDICAL: Vessels requiring emergency medical assistance should immediately contact the Terminal, by marine VHF radio, and supply the necessary pertinent information which will be passed on to the vessel's Agent.

Neither medical or hospital facilities are available at Galeota or provided by Amoco. Limited facilities are available in Mayaro, which is about 30 minutes drive and unlimited service is available in Port of Spain which is 2 hour's drive.

FRESH WATER: Only available by barge from Port of Spain.

FUEL: Only available by barge from Port of Spain.

REPAIRS: Masters of vessels loading or discharging at Galeota Terminal are advised that this port is considered an "Open Roadstead", and under no circumstances may engines be shut down for repairs while their ships are moored to the SBM system. There are no facilities at Galeota Terminal for making vessel repairs, but arrangements may be made through vessel's Agent, to utilise the Port of Spain facilities. It is emphasised that all vessels at the SBM must be in readiness to clear immediately on instructions to do so.

SURVEYORS: Amoco maintains an inspection laboratory at Galeota Terminal and will inspect cargo on specific request of off-tanker companies.

Classification agencies are represented in Port of Spain as follows:

American Bureau of Shipping	Lloyds Register of Shipping
Grell and Company Ltd.,	Geo. F. Huggins and Co. Ltd.,
60 St. Vincent Street,	72 – 74 South Quay
Port of Spain	Port of Spain

TIME: GMT minus 4 hours, and daylight saving (Summer time) is not applicable.

CONSULS: There are no consulates at Galeota; however, consular or diplomatic representatives for most nations maintain offices in Port of Spain.

CUSTOMS ALLOWANCES: Each Crew member is allowed to retain in his possession 200 cigarettes and 1 bottle of spirits. The balance must be listed and will be sealed in a locker by the Customs.

SHORE LEAVE: Shore leave for personnel of vessels loading or unloading at the Terminal is arranged through the vessel's Agent. All personnel going ashore must land at the Amoco small boat harbour. Sufficient crew must be aboard at all times for letting go lines in order to clear the mooring immediately if necessary.

SAFETY: The vessel's personnel are responsible for the safety of the vessel and must take all necessary precautions, whether or not so advised by the Loading Master, having in mind, the hazards of the operation because of the product being handled, weather conditions and any other circumstances requiring special care or caution.

It should be noted that Amoco Trinidad Oil Co. does not maintain any specialised fire-fighting vessel. However, workboats with limited fire-fighting capability may be available in event of such emergencies.

While the vessel is moored or within the vicinity of the moorings, all vessel's personnel and vessel's operations must comply or be in accord with the following safety rules:

1. The ship's engines must remain ready with full power for immediate use.
2. The Loading Master may request the Master to extend the ship's "No Smoking" areas as conditions warrant. Masters are also requested to instruct their crew not to throw lighted cigar or cigarette butts over the side or out of the portholes. All alleyway doors to passage ways leading to deck areas are to be kept closed during cargo transfer operations.
3. Not less than 1 deck officer and 3 seamen shall be available on deck at all times while vessel is in the mooring system.
4. Power must be available at all times on all deck winches and on the anchor windlass while vessel is in the mooring system.
5. Explosion proof deck lighting must be available for night mooring and loading. A good floodlight will be required to illuminate the area around the cargo hose connections during cargo transfer operations. During the discharge of ballast at night, the sea area around the vessel is to be adequately lighted.
6. All deck scuppers must be plugged tight before connecting the floating and deck hose and remain plugged until all hoses are disconnected.
7. The presence of unauthorised craft alongside is extremely hazardous. Ship's Masters are requested to require all non-Amoco craft to clear ship's side as soon as personnel have been embarked or disembarked.
8. No stores may be handled on the weather deck while ship is loading cargo, discharging dirty ballast, or while any ullage hatches, loading hose, or tank tops are open.
9. No cargo will be loaded while tank tops or ullage hatches are open.
10. During the time a vessel is moored in the Galeota Terminal, a continuous and efficient fire watch must be kept on deck and in the engine room. Fire hose (at least 2 pairs) shall be left out for immediate use at all times while in the berth.
11. In the event of fire breaking out in any part of the vessel, however minor it may be, the fire alarm must be given immediately. This will consist of a succession of long blasts on the ship's whistle, together with a rapid and continuous ringing on the ship's bell.
12. A safety check-off list and Terminal rules for safety will be delivered by the Loading Master.

WEATHER:

Climate: The climate around Trinidad is generally very good, and is strongly influenced by the N.E. trade winds. Visibility is usually excellent except during passing thunderstorms and the percentage of days with less than 1 mile visibility is very small.

Weather Data and Summary:

Average rainfall	60.0 in.
Mean maximum temperature	87°F
Mean minimum temperature	69°F
Extreme maximum temperature	101°F
Extreme minimum temperature	52°F
Average relative humidity (0700 hrs.)	92%
Average relative humidity (1500 hrs.)	67%

Winds: Winds are predominantly from the N.E. and East (about 90% of the time). The mean velocity is about 8 – 12 knots and infrequently 30 knot winds may be experienced.

Tides: A tidal range on the East coast of Trinidad is 4 ft. – 5 ft., and the tides occur 17 minutes later than Port of Spain.

Sea Conditions: As Trinidad is constantly under the influence of the N.E. trade winds, the seas and swells are predominantly from the Eastern quadrant throughout the year. Wave heights average about 6 ft. – 8 ft. and during a 2-year observation period waves of 11 ft. and higher occurred for as many as 20 days per year.

Currents flow to the N.W. 53%, North 24%, and N.N.W. 14%. The currents are not seasonable as currents of 2 to 3 knots are experienced during all months of the year. Average current velocity is about 1.5 knots.

Sea Temperatures: The surface temperature over coastal areas average about 75°F to 80°F in the Winter months and 80°F to 85°F in Summer.

General: Trinidad is an area where buildings have been damaged by earthquakes and the S.W. tip has experienced mud volcanoes and disappearing islands. The rainy season occurs in late Summer and Autumn at which time as much as 15 in. per month may be experienced. Hurricanes are seldom felt in Trinidad and Tobago since these islands are to the South of the storm track.

GENERAL:

Government Officials: Trinidad and Tobago Customs Officials will be stationed at Galeota and in most instances the Customs Officer will also handle the duties of the Quarantine and Immigration Officers. Should Customs Guards be stationed on board vessels while in the moorings, it is expected that ships will provide food for these guards and other officials.

Quarantine Regulations: The rules governing quarantine of vessels are the same found in other ports of the world.

Visitors: Visitors must obtain a special pass from the Amoco Terminal Superintendent and it is strongly recommended they be restricted to a minimum due to the hazards involved.

Supplies: Commissary supplies, as well as steward's stores are not available at Galeota Point, but a limited amount of fresh fruits and vegetables may be purchased at the market in Mayaro, which is 30 minutes' drive from the shore terminal. Unlimited supplies may be purchased in Port of Spain and all arrangements must be made through the ship's Agent.

Bunkers, gas oil, marine lubricants or potable water are not available at Galeota.

Flag: All vessels are required to fly the Trinidad and Tobago ensign on the foremast during daylight hours. TT flags may be obtained from ship's Agent.

Contraband: Amoco prohibits unauthorised craft from coming alongside ships while in the moorings.

To avoid the possibility of undesirable items getting aboard vessels, it is recommended that Masters discourage "bumboats" or similar craft, coming alongside while vessel is in the Terminal vicinity.

Small Boat Harbour: A sheet piling type jetty is used for the harbouring of mooring launches and supply vessels. The entrance is defined, by a spar topped buoy exhibiting a quick flashing red light located 1,700 ft. Southwestward from the end of the jetty.

Company's Terminal: The Company's Terminal and marine administrative offices, storage tanks and laboratory for testing stock are located onshore at Galeota Terminal.

Agency: Amoco does not perform any vessel agency functions. Owners of vessels calling at Galeota Terminal must arrange for their own Agent.

OPERATOR: Amoco Trinidad Oil Company, P.O.Box 714, Port of Spain, Trinidad, Trinidad & Tobago. *Tel:* 62-27331.

AGENT: See "Port of Spain".

POINTE-A-PIERRE (Oil Terminal and Refinery):

10.19 N. 61.29 W. **(See Plan)**

DOCUMENTS:

5 Copies Crew List.
4 Copies Stores List.
1 Copy Unmanifested Cargo.
2 Copies Crew Declaration.
1 Copy Declaration of Health.
1 Copy Arrival Report.
1 Copy Firearms & Ammunition List.
Derat Certificate.

Officials require accommodation ladder to be rigged, usually on port side, for boarding and clearance.

PILOTAGE: Compulsory. Pilot boards from tug. Pilot ordered by Agent after receipt of ETA. Pilot ladder conforming to International Safety Regulations to be supplied by vessel.

If vessel proceeding to SPM, Pilot boards 2 miles West of SPM. If vessel proceeding to berths Pilot boards 1.2 miles S.E. of SPM.

ANCHORAGE: Safe anchorage and good holding ground in the roadstead. On account of Pierre Shoal, a 21 ft. patch about 1.75 cables S.W. of the head of the main viaduct, vessels of moderate draft should approach with the main viaduct bearing more than 075°. The main viaduct consists of pipe-lines supported by reinforced concrete piling, located at Lat. 10° 20′ N., Long. 61° 30′ W. and extends in a W.S.W. direction for 6,190 ft.

RESTRICTIONS: Controlling depth in main channel 42 ft. No entry restrictions day or night. However, Free Pratique must be obtained, Crew Lists, Stores Lists, etc., to be presented to local Agents on arrival. Arriving vessels must contact Trintoc, Pointe-a-Pierre on VHF Channel 16 two hours prior to arrival for berthing instructions, traffic information, cargo nominations etc.

MAX. SIZE: Max. draft at SPM 73 ft. 6 in.

Also see "Shipmaster's Reports".

HEALTH: See "Port-of-Spain".

TUGS: Trintoc maintains 3 tugs to assist in berthing.

RADIO: Vessels to send ETA messages 72, 48 and 24 hours prior to arrival to "Trintoc Marine Pointe-a-Pierre". Messages should be sent through one of the following: Chatham (USA), North Post (Trinidad), Barbados or Curacao.

VHF: The Trinidad and Tobago Oil Co. Ltd. maintains their own radio station (24 hours). Call "Trintoc-Marine Pointe-a-Pierre" on Channel 16, working Channel 13. If at SPM – Channels 6 and 10.

BERTHING:

	Max. Permissible			
Berth No.	*Draft* (ft.)	*LOA* (ft.)	*D.W.T.*	*Remarks*
1	37.5	720	50,000	
2 (North)	37.0	775	63,000	
2 (South)	22.0	—	—	Small vessels and barges only
3 (North)	35.0	640	35,000	
3 (South)	—	—	—	For barges only
4	23.0	360	—	
5 (Sea Island)	41.5	900	100,000	
6 (Sea Island)	54.0	950	120,000	
7	36.0	700	35,000	
8 (General Cargo)	28.5	700 (pier length) 70 (pier width)	25,000	
SPM	73.5	—	286,000	

DISCHARGING:

Maximising Cargo Discharge (Squeeze Dry Operations): Due to the current high costs of crude oil the following guidelines have been compiled which should be followed by all Owned, Managed and Time Chartered vessels at every cargo discharge operation in order to maximise cargo outturn. Special importance should be attached to the discharge immediately preceeding shipyarding. A Representative from the Company will attend vessels periodically in order to advise and assist as required.

General Guidelines for Maximising Cargo Discharge:

1. Inerted vessels capable of Crude Oil Washing must strictly follow the routines set out in their Tank-cleaning Manuals. Owned, Managed and Time Chartered vessels should COW all cargo and slop tanks prior to shipyarding. TC vessels should also COW all cargo and slop tanks prior to re-delivery.
2. Stripping operation to be performed twice, first during normal discharge and the second time after all cargo (except partial contents in the aftermost (slop) tank) has been discharged ashore. The Inspector must ensure that vessel is adequately trimmed by the stern during all stripping operations.
3. On completion of normal discharge (except for partial contents in aftermost (slop) tank) and second stripping of all tanks, contents of main deck and drop lines and loading arm connections must be stripped to slop tank. (NB: Air or tank atmosphere must be used to break the vacuum).
4. Line content in all main suction lines must also be dropped into aftermost tanks and all main suction valves in tanks opened to drain suction elbows. On completion of dumping line contents, stripping system to be used to drain cargo remaining in the suction system and pumps back to the slop tank, with tank suction shut.

   This is best achieved by commoning up all main cargo pipe-lines on the suction side of the main cargo pumps, opening the suction valves to these pumps and cross connecting the suction side of the stripping system to the main cargo line.
5. Where available, open by-pass valves connecting discharge side with suction side of main cargo pumps.

   Note: When vacuum starts building up in the suction system, allow tank atmosphere to enter the pipe-lines by opening a suction valve in a forward tank.

   It is recommended that one hose or loading arm remains connected to the manifold to which the small diameter deck stripping line (where available) discharges into. This line discharges outboard of the vessel's manifold valve, which of course is left shut during final discharge ashore of slop tank contents using stripping system.
6. The reasons for stripping back line and final tank contents to the aftermost (slop) tank rather than direct to shore are that:
   (a) Operator has better idea when suction is lost (by seeing no increase in slop tank ullage).
   (b) Accurate measurements can be made of total quantity of cargo recovered by operation "Squeeze Dry".
7. On completion of final line and tank draining, discharge contents of aftermost (slop) tank ashore via small diameter deck stripping line, where fitted, or via main discharge line where not.

Check List for Line Draining – Operation "Squeeze Dry":

1. Are following design features available to improve line draining:
   (a) By-pass to connect discharge side with suction side of main cargo pumps?
   (b) Connections from stripping system to both suction and discharge lines of main cargo pumps?
   (c) Vent valves in deck lines near manifold?
   (d) Suction and discharge pressure gauges and stroke counters in stripping pumps?
   (e) Small diameter deck line, for final draining?
   (f) Block valves in stripping line system?
2. Is cargo discharge *completely* finished and all cargo tanks checked by dipping to be well drained?
3. Have contents of tank washing line that was used for COW been properly dropped into slop tank?
4. Are all manifold valves with shore connection (except one if no small diameter line available) open?
5. Are all valves in deck, pumproom and drop lines open?
6. Are all valves (except tank valves during line draining) in suction lines open?
7. Are all lines dropped in aftermost (slop) tanks?
8. Has air/inert gas been allowed to enter to vessel's line system both at forward end of bottom lines and in the manifold area?
9. Are stroke counters (where fitted), suction and delivery pressure gauges of drain pumps working correctly?
10. Has dropping operation been checked by measuring oil level in aftermost holding or slop tank/tanks?
11. Have all manifold valves been shut after dropping operation?
12. Has valve in small diameter deck line been opened, or where not fitted, has "final" manifold valve been opened?
13. Have stripping pumps been set correctly to drain holding or slop tank ashore through small diameter line (or deck line)?
14. Have all lines in cargo tanks, on deck and in pumproom been set correctly for line draining to holding or slop tank?
15. Has holding or slop tank been properly drained ashore and checked to be well drained by dipping?
16. Has vacuum been allowed to build-up before air/inert gas was let in and has this been done repeatedly?
17. In addition to checking holding or slop tank ullage, are drain pumps checked to see if actual delivery from line draining/tank draining has stopped?
18. Has shore been asked to check delivery of final holding or slop tank into shore system?
19. Have all valves been shut after line draining?

Note: During draining of discharge lines to holding or slop tank, open the non-return valves in the discharge lines (if movable from the outside).

List of Crudes unsuitable for Crude Oil Washing:

Due to their very high viscosity, the following crudes should not be used for Crude Oil Washing.

(a) Boscan Crude
(b) San Ardo Crude
(c) Corcorna Crude
(d) Laguna Crude
(e) Monagas Crude
(f) Tia Juana Pesado Crude

Vessels should contact FHQ for instructions if any COW problems are envisaged with *High Pour Point* crudes in areas where low air and sea temperatures are likely to be encountered.

Minas Crude (Waxy crude loaded at Sungai Pakning, Sumatra)

Pertinent properties of Minas Crude are:

A.P.I. Gravity	35.5
Flash	Ambient Pour
Point	95°F
Viscosity SSU at 100°F	87
Heat Requirements	100°F to 120°F

Based on information now available regarding the characteristics of Minas Crude, the procedure to be observed in handling of this crude should be as follows:

1. *Cargo Tanks* – Due to high wax content of Minas Crude, considerable wax may accumulate in tank bottoms. A regular tank cleaning routine should be established by vessels in this trade to assure reasonable cleanliness of tanks. Vessels should arrive at loading ports with a minimum amount of clean ballast.

2. *Heating* – Minas Crude is to be maintained at a temperature of 110°/120°F throughout a voyage. In order to facilitate the discharge of the cargo, the temperature should be raised to 120°F just prior to arrival. *Caution:* Light ends on this cargo will be lost if temperatures are maintained in excess of 120°F over an extended period of time; therefore heating above 120°F should be done only on instruction from the Marine Superintendent or Agent as the case may be at the receiving terminal. Experience has shown that on most vessels this temperature can only be obtained by controlled heating through the entire voyage, although the steam pressure required will vary on individual ships, weather conditions and temperature of the sea water encountered in transit. In addition to these requirements, the 72 hour ETA should include the average temperature of the cargo.

3. *Discharging* – Due to Minas Crude having a very high wax content and a pour point of 90°F, many unusual difficulties can be encountered.

Major difficulties may be expected during stripping of tanks due to the oil congealing in the vessel's tank bottoms when the level of the oil is below the heating coils. It is therefore of the utmost importance that, in order to prevent large amounts of product remaining on board, tanks should be immediately stripped as the discharge progresses.

Recommended discharging procedure is to discharge one or two tanks simultaneously in each section of the vessel, maintaining a considerable drag to insure maximum flow of the oil into the cargo piping suctions. Heat should be maintained on the cargo tanks throughout the discharge. In the event tanks become foggy, as the level of the oil becomes progressively lower in individual tanks, a rod or sounding tape should be introduced to ascertain the amount of cargo remaining and it is highly recommended that the steam not be turned off the tank in order to prevent fogging. One of the characteristics of Minas Crude when it cools is not to remain on vertical surfaces, but rather lay in hills and valleys on horizontal surfaces. In many instances, a sounding rod will show only a few inches of oil remaining under the ullage plug and two or three feet could remain in the forward end of the tank if temperatures are allowed to drop.

4. Removal of solidified oil from tank bottoms upon completion of discharge. If necessary a sufficient quantity of hot water taken from a fire line over-all into individual tanks through the ullage holes to cover heating coils, will assist in heating the remaining portion of the cargo for discharge. In many cases, the introduction of a pyrate machine with hot water will assist in removing solidified oil from horizontal surfaces of internal members of the tanks. The vessel may also be listed slightly in one direction or another to facilitate the free flow of oil into the suctions in the wing tanks.

Duri Crude (Intermediate Gravity Crude)

Duri Crude, which is loaded at Dumai Terminal, is a high viscosity relatively heavy crude oil. No unusual handling problems are anticipated in the bulk carriage and discharge of this crude.

Pertinent properties of Duri Crude are:

API Gravity	About 22.0
Flash Point	94°F
Viscosity (Range of Tests)	1000–455 SSU at 100°F 400–220 SSU at 130°F
Heat Requirements	100°–120°

The high viscosity of this crude requires that it be heated in order to assure a satisfactory discharge rate. The actual viscosity of shipments may vary, but is believed to be nearer the low figures of the range quoted above. The recommended discharge temperature is 100°F at this time, subject to change if higher viscosities and/discharging difficulties are experienced.

The recommended cargo heating procedures are:

1. Test heating coils and repair as necessary.
2. Commence heating cargo 96 hours before arrival at discharge port.
3. Raise cargo temperature gradually until it reaches the required 100°F.
4. Maintain cargo temperature at 100°F throughout the discharge.

Discharge procedures which have proved effective in the handling of heavy fuel oils should also be used when handling Duri Crude. Tanks should be stripped quickly on an "as you go" basis to take advantage of the faster flow of hot cargo and thereby minimise stripping and the accumulation of cargo residue below the heating coils.

TRANSHIPPING: *Instructions to VLCC Masters from Trintoc Marine:*

1. Anchor your vessel in designated anchorage with starboard anchor and rig gangway starboard side. Enter and clear vessel in normal manner, co-ordinating all activities via VHF with Trintoc Marine Superintendent at Shipping Office.
2. Gauge all tanks, determine amount of cargo on board and advise Shipping Office along with A.P.I., temperature and other particulars. Re-secure all tanks. Advise Lightering Vessel A.P.I. and temperatures.
3. Barge will come alongside, port midships. Receive on board 6×30 ft. lengths of 12 in. cargo hose along with necessary reducers, blanks, bridles, straps, etc. Ship's crew must rig 2 strings of 90 ft. long hose connected to your manifolds, and supported by your vessel's boom. Hoses will be tended by your vessel's crew throughout transhipment.
4. A string of 4 ft.×11 ft.×21 ft. Yokohama fenders, each separated by 100 ft. length wire will be brought alongside (port). Your forward and after main deck wire springs will be lowered down and secured to the ends of the fender string to secure same alongside. Four of the fender positioning wires will then be lowered from your deck and one secured to each of the fenders. The fender string must then be positioned and secured alongside centred on your manifold.
5. Two additional fenders will then be brought alongside and secured approximately 150 ft. forward and aft of the main fender string to provide additional protection to your vessel in mooring and unmooring the lightering vessel. Two positioning wires will be passed up to your deck from each of these fenders to secure them in place.
6. When lightering vessel comes alongside your crew must be stationed fore and aft on deck to handle lines. Your bridge should be manned with engines on standby in the event of emergency. During entire transhipment all fire fighting equipment must be rigged and ready. Additional fire fighting equipment and anti-pollution devices will be on harbour tugs and available if needed.
7. A lightering vessel assisted by tugs will come abeam of your vessel and send out synthetic lines, one forward, one aft, by launch.

   Your crew must lower heaving lines or messenger lines to launch, then heave lines on board and secure fore and aft on your vessel. Lightering vessel will then be brought alongside and positioned with her manifold approximately 10 ft. – 40 ft. aft of yours. The lightering vessel will then pass her wires (all containing nylon straps) to your vessel and safely secure alongside.
8. After the lightering vessel is safely secured alongside, to your satisfaction, the two hose strings will be passed to her and secured to her manifolds. The lightering vessel will support the hose ends, however, the main support will remain your vessel's boom. Agreeable handling rates, procedures and signals must be agreed upon between the Masters of the vessels involved and the Trintoc Co-ordinator of the transhipment. Portable VHF radios operating on Channels 16 and 10 will be supplied from ashore. VHF Channel 10 will be used for all ship-to-shore communication.

   Your control room must be manned at all times by a competent individual who must be monitoring Channel 10. Additionally a competent individual (Officer) and a full watch must be maintained on deck to tend hoses, fenders, etc. One man must be stationed at the manifold and in full view of the hoses and other vessel at all times.

   The Trintoc Co-ordinator and Marine Staff will be available and will assist in all ways possible, however, the responsibility for a safe operation rests with you and your vessel.
9. Upon completion of loading the lightering vessel, your tanks must again be gauged and figures passed to Shipping Office. All tanks must then be secured prior to unmooring of lightering vessel. The Marine Office will co-ordinate handling of necessary cargo documents depending on the destination of the lightering vessel.
10. Hoses will be drained to the lightering vessel, then disconnected, blanked and taken back aboard the VLCC.

    Your crew must again be stationed fore and aft, your bridge manned and the lightering vessel unmoored.
11. The procedure will be repeated for the next lightering vessel.
12. It is anticipated ballast will be taken after the second lightering or as soon as one isolated section is stripped of cargo. Prior to ballasting Trintoc Co-ordinator should certify tanks to be ballasted as dry.

ALTHOUGH IT IS IMPORTANT TO MINIMISE DELAYS THIS CONSIDERATION MUST TAKE SECOND PLACE TO PROPER SAFETY PRACTICES AND TO ANY STEPS NECESSARY TO AVOID POLLUTION.

Also see "Discharging".

DENSITY: 1025, (August to November approximately 1023).

FRESH WATER: Available alongside or by barge (if available and adequate notice given prior arrival). Limited in dry season (January-June).

FUEL: Fuel oil, diesel, gas oil and lubes supplied ex-pipeline or by barge. Also see "Shipmaster's Report" dated August 1979.

BALLAST: No facilities. Vessels to arrive with clean ballast.

REPAIRS: Almost all types of deck and engine repairs can be carried out.

DRY DOCK: Trinidad Foundry and Fabricating Ltd. located at Chaguaramas.

SURVEYORS: Lloyd's, A.B.S. and N.V.

REPATRIATION: Facilities exist for effecting crew changes and arranging repatriation.

AIRPORT: Piarco International Airport 28 miles (approx.) away from Pointe-a-Pierre, served by International Airlines and flights are regular.

TIME: GMT minus 4 hours.

SPECIAL PRECAUTIONS: *Emergency Alarm:* This safety device is conveniently placed on all docks and is under the control of the jetty personnel. This is used only in cases of emergency and has the effect of stopping all shore pumps immediately it is used. Loud-sounding horns are situated on the hose structures and are sounded by the jetty attendant when urgent attention from the ship is required.

Hose Pressure: The max. discharge pressure allowed on the jetty hose is 130 lbs. Pressure of jetty hose for loading shall not exceed 130 lbs.

GANGWAY/DECK WATCHMEN: An efficient watch must be maintained on deck and in the engine room of all ships in port, and a sufficient number of men must be on board at all times to move the vessel either for harbour operations or in emergency situations.

CUSTOMS ALLOWANCES: 200 cigarettes or 50 cigars or 0.5 lb tobacco and 1 bottle of spirits.

IDENTIFICATION CARDS: Not required.

MEDICAL: Advance notice of medical attention preferred. Modern hospital facilities.

TELEPHONES: On dockside and at all sea berths.
SHORE LEAVE: Regular launch service from ship to Pointe-a-Pierre only, for all crew members.
GENERAL:
Tidal Variation: Rise and fall is approximately 3 ft. 6 in.
Prevailing Winds: N.E. trade winds.
Flags Required: Republic of Trinidad & Tobago and International Code Flags "B", "G", "H" and "Q".
Launches: Launch service to Pointe-a-Pierre for Officers and crew.
Laundry/Provisions: Available.

SHIPMASTER'S REPORT: August 1979 (updated 1986).
Bunkering:
Approach: (From Passage Book). Trinidad and Tobago Islands observed on radar at 48 miles, although echo masked by clouds, islands observed visually at over 40 miles. Marked by towering Cumulus clouds. Numerous tide rips and abrupt change of colour of water (green) at the 200 m. sounding line.

Good position obtained at a distance 35 miles from Galera Point and Scarborough using visual bearings of Galera Point and Little Tobago and distance off Granby Point.

North coast Trinidad current approximately 1.5 knots West going.

Chupara Point Light not conspicuous during daylight and not seen at night.

Chacachacare Light (Admiralty List of Lights No. 5846) good, seen at 35 miles.

Gulf of Paria can, with moderate sized vessel, be approached through any of the channels of Bocas Dragon. We used Boca de Huevos which was safe, no problems. Parallel Indexing very useful on Point au Diable, Point Braba and Cape Cola.

Serpents Mouth not recommended at night.

Gulf of Paria not very busy, many vessels anchored off Port of Spain.

An intense white light (Fl. ev. sec.) is located on Chimney just South of South Pier at Pointe-a-Pierre (position: Lat. 10° 18′ 38″ N., Long. 61° 27′ 36″ W.). B.A. Chart No. 482 seen at 12 miles.

No appreciable current in Gulf of Paria.

VHF: Called "Trintoc Shipping Office Pointe-a-Pierre" on Channel 16 about 5 miles North of Boca de Huevos Strait, contact reasonable. Working on Channel 13, very prompt.

Anchorage: General anchorage along parallel of 10° 19′ North from 3 miles West of No. 1 Buoy (Lat. 10° 19′ 06″ N., Long. 61° 29′ 18″ W.) to 0.5 miles off buoy.

We anchored with No. 1 Buoy 072°×1.0′, good position in 17 m.

For bunkers, oil company like vessel as close as possible to No. 1 Buoy, but not closer than 0.5 mile.

Immigration/Customs: Came out very promptly. No difficulties, forms as per "Guide to Port Entry". Must have gangway rigged. Pratique message sent, no answer received, given on arrival.

Bunkering: Trintoc: Dumb barge of 1,500 tonnes capacity. Delays caused by waiting for harbour tug to bring barge alongside vessel also delay waiting for tug on completion of bunkering. Contact 'Shipping Office' Channel 16 well before barge finishes in order that they may call tug. We waited for tug for one hour before bunkering and 2 hours on completion.

Diesel 6 in. line, 150 ASA, ship's derrick required.

Rate: Up to 200 tonnes p.h. for diesel.

Films: Walport Films and Vidpack can be changed on prior notice to Agents.

SHIPMASTER'S REPORT: September 1979 (updated 1986).
Approaches: Deep drafted vessels use Boca Grande to enter Gulf of Paria in which is situated the Pointe-a-Pierre Terminal. An area marked by dotted lines on the chart has been surveyed and declared safe for large vessels and this route should be followed up to the anchorage off Pointe-a-Pierre.

Anchorage: Trintoc Shipping advise vessel where to anchor when making the approach and on this occasion we used two anchorages whilst waiting, first with the "SBM" bearing 083°T×2.4 miles and the second with La Luc Lt. bearing 334° and Radio Mast bearing 110°. At both anchorages vessel used 6 shackles on starboard anchor in about 60 m. of water. Bottom, heavy glutinous mud which gives good holding ground. The deepest draft vessel which arrived in the port was drawing 73 ft. and appeared to have no difficulty anywhere.

Navigational Restriction: VLCCs are required to advise Harbour Master, Trinidad, of their time of arrival off Boca Grande, 24 hours before arrival so that other vessels can be advised to give a clear berth. On approach to Boca Grande vessel can contact North Post Radio on VHF to confirm transit time and receive information of other movements. Our ETA was broadcast 3 hours out.

Port Officials: Customs and Immigration board with Agent and clear vessel inwards. No special requirements. Bond is sealed but Customs will board to make crew issues after each 7 days if requested through Agent. Port Health work is carried out by Agent and we renewed Derat Certificate. Shore leave passes are issued by Immigration and are of two types, one for Officers which allows them to use the Pointe-a-Pierre jetty to land and also the Trintoc Club and one for the crew which only allows them to land at Pointe-a-Pierre jetty.

Shore Leave: (Launch cost TT$8.00 per hour of stay). A fast launch calls at the ship every two hours, day and night, to take personnel to Pointe-a-Pierre. The launch can be contacted on VHF Channel 15 or 16. We found that by advising them of whether we had crew to go ashore before they arrived at the ship we received better service. Officers wishing to go to the club could get a separate launch arranged by Trintoc Shipping (when available) direct to Pointe-a-Pierre.

Bunkers: Bunkers are supplied by barge of which there are two, one of 10,000 bbls. capacity and the other of 25,000 bbls. Pumping rate is very slow, we had 3 separate lifts and the average rate was about 120 t.p.h. The larger barge also has capacity to supply good fresh water if previously arranged through the Agent, which is more economical and better quality than in the official water barge.

Fresh Water: Normal source of supply is by barge from Port of Spain which requires about 4 days' advance notice. Cost of supply is TT$3,000 no matter what quantity you require and we found the water supplied was heavily polluted with sea water giving a reading of 500 p.p.m. salt and also tasted oily. It is better to take water when bunkering (See "Bunkers").

Ship Chandler: Stores were expensive and many items unobtainable. All stores have to come through Pointe-a-Pierre jetty and the chandler has to make arrangements with the launch supervisors for transport to the ship. If large quantities involved, a barge and tug are used. We tried to get everything at one time but this was impossible. No canned beer or minerals are available and all bottles are returnable which increases the price.

Cargo Handling: We lightened into two vessels and discharged the balance of cargo at the SBM. The discharge plan was changed frequently during the waiting time. Discharge into the ships was via a 12 in. hose and only one pump was required to achieve the required discharge pressure and gave rates of 2,075 t.p.h for the first and 2,933 t.p.h for the second. Discharge to the SBM was via one 16 in. hose with a second hose connected in case of difficulties with the first, although not actually used, and a rate of 2,224 t.p.h. was achieved. All discharging was carried out using the port side manifold and derrick.

Before lightening, three lengths of hose were placed on board to be connected together and attached to the ship's manifold, then a string of four "Yokohama" type fenders were made fast alongside using the spring wires from forward of No. 1 and from between Nos. 8 and 9 holds. We were instructed to keep the wires slack at all times to prevent the joining wires breaking. All the moorings from the lightening ships have to be fed through "Panama type" fairleads and no open leads used to prevent the rope/wire jumping out of the lead when the lightening ship is completely deballasted. Communications between vessels is via walkie-talkies supplied by Trintoc and a co-ordinator from Trintoc attends the vessel for liaising operations. Bunkering cannot be carried out while lightening but is acceptable at the SBM, we managed to complete it before any cargo operations started. No gangways are used between ships.

Mooring at the SBM was carried out with the assistance of one tug made fast on the starboard side of No. 1. A ship's line is sent away to connect with the SBM port line, as usual, this starting line should be two ropes joined together to ensure adequate length. Once the connecting line is brought on board (a 16 in. nylon) in sufficient quantity it is made fast on the bitts and the starboard connecting line picked up and secured. When connecting hoses, we found that our manifold flanges were too thin to accept their patent clamps and we had to fit 12 in. reducers to our manifolds and also to their pipe-lines to get a good fit. Ship's crew carry out all operations although there are personnel placed on board for mooring to the SBM to advise and assist.

Mooring and unmooring are usually carried out during daylight but for some reason we unmoored during the night, much to the surprise of the Pilot and co-ordinators, being the first vessel to do it for 6 years.

Personnel Changes: We carried out several changes of personnel over the period and in general, the joining people arrived on time without much difficulty but the personnel leaving, unless previously booked in advance, met with delays getting flights. A vessel which arrived the day after us, had eight men delayed ten days before flights were available. Non-crew personnel, such as technicians, who arrived and stated they were coming to do work on the ship were not allowed entry into the country without obtaining a work permit.

SHIPMASTER'S REPORT: February, 1980 (updated 1986).
Documents: 5 Crew Lists, 2 copies of Crew Personal Effects, 2 Arrival Reports, 1 unmanifested Cargo List, 2 Report of Ship's Stores. All these on local forms except Crew Lists.

Anchorages: Usually given an anchorage position by Trintoc, Trinidad, and normally use starboard anchor and require starboard accommodation ladder.

Tankers: Advise Agents time of transiting Bocas del Dragon and then North Post Radio will advise all ships. If using SBM, require forward 2 ship's lines to bring aboard 2×16 in. nylon lines which have to be heaved around drum ends. Sometimes have tug to assist.

SHIPMASTER'S REPORT: November 1983 (updated 1986).
Documents:
Agent: P&I 48 (Arrival Report)
Immigration: P&I 10 (Arrival Report), P&I 53 (Arrival Report form in triplicate)
Quarantine: P&I 31 (Maritime Declaration of Health)
Customs: C-1 (Ship's Stores in duplicate)
C-2 (Crew Declaration)
C-3 (List of Unmanifested Cargo)
5 copies of Crew List.

Anchorages: It is necessary to anchor in position given by Trintocmarine otherwise they request you to shift to correct position but also necessary to check there is not another vessel anchored there already.

Radio: We found it very difficult to communicate with North Post Radio from the bay. 'Shipping' or Trintocmarine are very helpful passing messages to agents, etc.

Shore Leave: Apparently the liberty boat rarely goes to San Fernando these days (apparently due to the unsafe state of the jetty).

Currency: Agents require at least 10 days' notice if vessel requires any foreign currency and, apart from this delay, Sterling and U.S. Dollars seemed readily available. 4 days' notice is required for local currency. This 4 days would probably be longer if not using Company Agents.

Mail: Mail took 4 days from arrival at airport to delivery on board.

AUTHORITY: The Trinidad and Tobago Oil Co. Ltd., Pointe-a-Pierre, Trinidad, W.I. *Tel:* 65-84200. *Telex:* 39366/39367 Trintoc Marine. *FAX:* (809) 658-1315. *Cables:* Trintoc, Pointe-a-Pierre. *Contact:* R. F. Jones, Marine and Harbour Division. Govert Hooft, Port Captain.
AGENT: See "Port of Spain".

POINT FORTIN: 10.12 N. 61.42 W. (See Plan)

DOCUMENTS/HEALTH/CONSULS, etc.: Refer to "Port of Spain".
PILOTAGE: Pilotage is compulsory. Pilots board 0.5 miles off main jetty (Lat. 10° 12′ N., Long. 61° 42′ W.).
ANCHORAGE: There is safe anchorage 0.5 miles off the head of the jetty.
MAX. SIZE: Jetty 2 miles long with "T" head providing two outer berths of 700 ft. length and a depth of 38 ft. 1 inner berth of 300 ft. length and a depth of 35 ft. and other inner berths of 300 ft. length with a depth of 15 ft. 6 in.

1 conventional buoy mooring (6-buoy mooring) of 850 ft. length and a depth of 53 ft. situated 4,819 ft. North off jetty head.
TUGS: Required for berthing at outer berths for vessels of 30,000 d.w.t. and over and for unberthing vessels with a draft of 36 ft. or deeper. Also required for berthing and unberthing at conventional buoy mooring. Launch assists in berthing and unberthing.
BERTHING: Bottom alongside, mud; back pressure (hose), 100 lb; Current, flood S.W., ebb N.E. 2 to 5 knots; rise and fall tide, 4 ft.
MEDICAL: All facilities available.
FRESH WATER: Not available at CBM.
FUEL: Not available at CBM.
DIRTY BALLAST: No facilities available. Only small amount (approx. 200 tons) of tank drainings acceptable on jetty and only if fluid at ambient temperature.
FIRE PRECAUTIONS: Normal oil terminal safety precautions applicable.
GANGWAY/DECK WATCHMEN: Customs guards on duty at ship's side.
CUSTOMS ALLOWANCES: 200 cigarettes, and a moderate amount of spirits.
IDENTIFICATION CARDS: Not required.
REPAIRS AND DRY DOCKS: At Chaguaramas.
REPATRIATION: Can be arranged.
AIRPORT: See "Port of Spain".
TIME: GMT minus 4 hours.
TELEPHONES: No facilities for telephones on board.
SHORE LEAVE: No restrictions.

SHIPMASTER'S REPORT: April 1977
The Port of Point Fortin is situated in S.W. Trinidad. The light beacon on the "T" pier head is in position Lat. 10° 12′ 05″ N., Long. 61° 42′ 06″ W. The port is owned and operated by the Trinidad and Tobago Oil Company Ltd. (TRINTOC), to serve the 100,000 bbls. per day refinery at Point Fortin. A 24 hour communications service is provided, telex via international lines (TRINTOC Point Fortin) or VHF 16 (Call sign: Point Fortin Shipping) working on Channel 11.

Pilotage is compulsory with the boarding area 1 mile seaward from the jetty head. There is 1×1,000 h.p. tug normally available for berthing vessels over 30,000 Summer d.w.t.

Tides in the area of Point Fortin vary in strength throughout the year with a max. rate of 3 knots. Masters are advised to check sea water density for corrected loadline readings. Water density varies throughout the year from salt to fresh.

Engine repairs which entail immobilisation of engines are not permitted when moored at the berths.

Vessel must arrive with clean ballast consistent with safe manoeuvring of the ship. A ballast condition of 25% of the vessel's Summer d.w.t. is recommended.

Only clean ballast may be pumped overboard.

Notice of Readiness is accepted when vessels' tanks are ready to receive cargo.

Bunkers and fresh water can be supplied at all berths except No. 5 (C.B.M.) Stores and laundry facilities are available on request. A diver is available. The only way of getting ashore is by means of a liberty launch. Walking the pipe-line bridge is strictly forbidden.

Inward Clearance is effected immediately on arrival by the Port Authorities; the following documents should be available for official use:
- Clearance from Last Port.
- Derat Certificate.
- International Health Certificate.
- Declaration and Crew Vaccination Certificate.
- Cargo Manifest, if any.
- Bill of Lading, if applicable.
- List of unmanifested packages, if applicable.
- 3 Copies Arrival Report.
- 7 Copies Crew List.
- 3 Copies Stores List.
- 3 Copies Personal Effects.
- Licence for Dangerous drugs, if any aboard.

In the interest of reducing tanker port time, vessels' Masters are advised to request Pratique by Radio prior to their arrival.

Berths:

No. 1 – Draft 37 ft. 6 in. (Loading over tide 39 ft.).
Max. length 700 ft. – Max. berthing displacement 45,000 tons.
Grades handled: Crude oil, Fuel oil, Gas oil, Diesel oil, Kero, LDF, JP4, Platformate. All via 10 in. hoses. Napthanic Oil Residue via 4 in. hose.

No. 2 – Draft 36 ft. (Loading over tide 38 ft.).
Max. length 700 ft. Max. berthing displacement 25,000 tons.
Grades handled: Crude oil, Fuel oil, Gas oil, Diesel oil, Platformate, Kero, LDF, JP4, Mogas. All via 10 in. hoses. (Napthanic Oil Residue via 1×4 in. hose).

No. 3 – Draft 34 ft. 6 in.
Max. length 300 ft. max. berthing displacement 5,500 tons.
Grades handled: Fuel oil, Diesel oil, Gas oil, Kero, Mogas, all of them through 6 in. hoses.

No. 4 – Draft 14 ft. 6 in.
Max. length 300 ft. Max. berthing displacement 3,000 tons.
Berth port side to. Berthing at slack water and flood tide, unberthing at slack water tide and flood tide.
Grades handled: Fuel oil, Diesel oil, Gas oil, LPG, Bitumen, Emulsion (COLAS).

No. 5 – C.B.M., 6 buoys, max. draft 51 ft. max. length 850 ft. Berth either side. Daylight berthing only.
Grades handled: Crude oil, Fuel Oil via 2×16 in. hoses.

AUTHORITY: Trinidad & Tobago Oil Co. Ltd.
AGENT: See "Port of Spain".

POINT LISAS (Fedchem): 10.22 N. 61.29 W. (Plipdeco Marine): 10.24 N. 61.29 W.

(A) FEDERATION CHEMICALS LTD.

DOCUMENTS:
- 7 copies Crew List.
- 2 copies Ship's Stores List.
- 2 copies Passenger List.

The following should be on Trinidad Forms:
- 2 copies Crew Stores List – Form C2.
- 2 copies Ships Stores (Bond) – Form C1.
- 3 copies Immigration Arrival Report – Form P&I 10.
- 2 copies Unmanifested Cargo – Form C3.
- 1 copy Declaration of Health – Form P&I 31.
- 2 copies Arrival Report – Form P&I 53.
- 1 copy Stowaway List – Form P&I 12.

Ship's Register.
Derat Certificate
Passports.

PILOTAGE: Pilots ordered through Agent; 48/24/12 hour ETA needed. Pilotage is compulsory. Pilots board at Head of Pt. Lisas Channel (Lat. 10° 22′ 37″ N., Long. 61° 39′ 38″ W.); Pilot ladder conforming to International Safety Regulations to be supplied by vessel.

Launch hire arranged by Dock Master to take out Pilot to vessels on arrival, and again take off Pilots from vessels on departure.
CLEARANCE: Point Lisas being a port of entry is equipped with resident Customs Officer and Guard. Ships arriving from abroad could proceed directly to Point Lisas as Customs Officer acts for Harbour Master/Port Health. Tel. 636-2020. Immigration Officer boards on arrival.
ANCHORAGE: Safe anchorage 0.25 miles off head of channel. On occasions, when port congested, vessels may be requested to anchor Port of Spain Roads (Lat. 10° 41′ N., Long. 61° 33′ W.) before proceeding Pt. Lisas.
RESTRICTIONS: No restrictions on night entry – departure.
MAX. SIZE: See "Berthing".
HEALTH: For quarantine if required, or authentication of vaccination certificate, Honorary Port Health Officer could be in attendance at short notice. Tel. 636-2311.
VHF: Pt. Lisas Dockmaster can be contacted on VHF Channels 16, 14 and 12.
TUGS: Molasses, bulk sugar and LPG carriers use a tug to assist in berthing and unberthing at Pt. Lisas "Liquid Pier". Tug will be ordered by the Agent.
BERTHING: Point Lisas "Liquid Pier" (vessels handling bulk sugar, molasses, caustic soda and Anhydrous Ammonia in Liquid form), Maximum LOA: 550 ft. Maximum draft: 28 ft. LW. Also see "Shipmaster's Report" August 1988.

Point Lisas "Solids Pier" (vessels discharging plant equipment, and loading sulphuric acid in drums and bagged and bulk fertiliser). Maximum LOA: 250 ft. Maximum draft: 20 ft. LWOST.
STEVEDORES: If necessary will be ordered by Agents. No ETA to stevedores necessary.
MEDICAL: Advance notice of attention required will assist. Modern hospital facilities available.
FRESH WATER: Only by barge.
FUEL: All grades supplied by barge. At "Solids Pier" gas oil only can be supplied ex shore installation (Monday – Friday from 0800 – 1600 hrs.).
FIRE PRECAUTIONS: When loading LPG. No smoking on pier or on ship's deck.
GANGWAY/DECK WATCHMEN: Customs guards on 24 hours duty at ship's side.
OPENING/CLOSING HATCHES: Normally by crew.
CUSTOMS ALLOWANCES: 200 cigarettes and a moderate amount of spirits.
IDENTIFICATION CARDS: Not required.
CONSULS: At Port of Spain.
REPAIRS AND DRY DOCKS: At Chaguaramas 20 miles North of Pt. Lisas.
POLICE/FIRE/AMBULANCE: Accidents – Police – Help, 62999; Fire – First Aid, 62998.
HOLIDAYS: New Year's Day (January 1st); Good Friday; Easter Monday; Whit Monday; Corpus Christi; Discovery Day (First Monday in August); Independence Day (August 31st); Diwali Day (late October early November); Eid-ul-Fitr (December 21st – 22nd, approximately); Christmas Day (December 25th); Boxing Day (December 26th); Labour Day (June 19th); Republic Day (September 19th). Work is possible, except for Labour Day, Union Anniversary Day and Christmas Day, on these holidays.
REPATRIATION: Crew changes and repatriation can be arranged.
AIRPORT: Piarco International Airport – 30 miles from Point Lisas. Daily flights to world-wide destinations.

TIME: GMT minus 4 hours.

TELEPHONES: No facilities for telephones on board.

SERVICES: Efficient maintenance gang available for normal work, tank cleaning, painting, etc.

SHORE LEAVE: No restrictions.

DELAYS: Due to congestion, sometimes delays are unavoidable, usually not more than 24 hours.

DEVELOPMENTS: Present depth of channel 28 ft. at MLW.

SHIPMASTER'S REPORT: August 1988.

Vessel loaded ammonia at the Liquids Pier.

Max. draft 28 ft. at LW and if at this draft, vessel can only sail at HW.

Mooring consisted of 2 head/stern lines and 2 breast lines and 2 springs at each end and with very long leads.

One tug used.

Connections made by ship's crew (6 in. 300 ASA). Max. loading rate 700 t.p.h. at a temperature of −31°C. Vessel allowed to purge alongside with shore providing hot ammonia vapours.

Ship's brow gangway used.

AUTHORITY: Federation Chemicals Ltd., P.O.Box 952, Port of Spain, Trinidad, W.I. *Tel:* 636-2020. *Telex:* 3353 Fcl Wg. *Cables:* Fedchem.

(B) POINT LISAS INDUSTRIAL PORT DEVELOPMENT CORP. LTD.

LOCATION: Point Lisas lies on the Western side of Trinidad in the Gulf of Paria, in position Lat. 10° 24.2′ N., Long. 61° 29.6′ W.

DOCUMENTS:
- 7 copies Crew List.
- 2 copies Ship's Stores List.
- 2 copies Crew Stores List.
- 4 copies Immigration Arrival Report (supplied on arrival).
- 1 Declaration of Health (supplied on arrival).
- Ship's Register.
- Derat Certificate.
- Ship's Safety Certificate.
- Passports.
- Seaman's Identification Cards.

PILOTAGE: Pilotage compulsory. Pilots ordered through Agents. Advice at 120, 96, 72, 48, 24, 12 hours' necessary prior to ETA. Pilots board at entrance of Savonetta Channel Lat. 10° 22′ 57″ N., Long. 61° 31′ 11.2″ W. Pilot ladder must conform to International Safety Regulations. Launch hire arranged through Plipdeco Marine to take Pilot on or off vessels.

CLEARANCE: Point Lisas (Plipdeco) is a Port of Entry. On arrival ships may proceed directly alongside or to anchorage for clearance by resident officers.

ANCHORAGE: In-bound vessels may anchor in the anchorage bounded by:

Lat. 10° 23.5′ N.	Long: 61° 31.2′ W.
Lat: 10° 24′ N.	Long: 61° 32.2′ W.

Out-bound vessels may anchor in the anchorage bounded by:

Lat: 10° 22.5′ N.	Long: 61° 31.2′ W.
Lat: 10° 22′ N.	Long: 61° 30.2′ W.

APPROACHES: *Plipdeco's Channel and Basin Markers:*

Name	*Position*
Channel Entry:	
No. 1 Port Buoy	10° 22′ 58.29″ N., 61° 31′ 14.00″ W.
No. 2 Starboard Hand Buoy	10° 22′ 54.35″ N., 61° 31′ 10.00″ W.
Intermediates:	
*No. 3 Port Hand Buoy	10° 23′ 18.03″ N., 61° 30′ 50.00″ W.
*No. 4 Starboard Hand Buoy	10° 23′ 14.09″ N., 61° 30′ 46.65″ W.
*No. 5 Port Hand Buoy	10° 23′ 39.07″ N., 61° 30′ 24.00″ W.
*No. 6 Starboard Hand Buoy	10° 23′ 33.84″ N., 61° 30′ 20.00″ W.
Basin Entry:	
No. 7 Port Hand Buoy	10° 23′ 57.51″ N., 61° 29′ 57.00″ W.
No. 8 Starboard Hand Buoy	10° 23′ 53.56″ N., 61° 29′ 54.00″ W.
Basin:	
No. 9 Port Hand Buoy	10° 24′ 03.88″ N., 61° 29′ 54.00″ W.
*No. 11 Northern Extremity Buoy	10° 24′ 17.22″ N., 61° 29′ 57.00″ W.
No. 10 Starboard Hand Buoy	10° 23′ 52.16″ N., 61° 29′ 44.00″ W.

*Newly established positions.

MAX. SIZE: See "Berthing".

HEALTH: Valid Yellow Fever certificates if last Port of call was in an infected area. Quarantine on authentication of certificate available at short notice.

VHF: Plipdeco Marine Channel 16, working frequency Channel 9.

RADAR: Not installed at Plipdeco Marine.

TUGS: 4 Resident tugs available. 2×2,250 h.p. and 2×500 h.p. Towage services ordered by Agent.

BERTHING: The Channel is 1.75 nautical miles long and 152 m. wide. Turning basin 700 m. long and 500 m. wide. Both are dredged to 12.8 m. True course 052.25°. The Channel serves the following terminals:

Berth 1A:	Max. LOA:	100 m.
	Draft:	5.5 m.
	Facilities:	None.
	Dock Length:	24 m.
Berth 2:	Max. LOA:	130 m.
	Draft:	2.5 m.
	Facilities:	None.
	Dock Length:	170 m.×40 m. Ro-Ro ramp.
Berth 3:	Max. LOA:	120 m.
	Draft:	5.8 m.
	Facilities:	None.
	Dock Length:	32.3 m.
Savonetta Pier No. 1 (South):	Max. LOA:	220 m.
	Dock Length:	310 m.
	Max. Draft:	11.6 m.
	Facilities:	Specialised installation for loading Anhydrous Ammonia. Maximum rate 1,000 m/t.p.h. Specialised facilities for loading Methanol (700 t.p.h.) and Urea (800 t.p.h.) in bulk.
Savonetta Pier No. 1 (North):	Max. LOA:	110 m.
	Dock Length:	164 m.
	Max. Draft:	6.1 m.
	Facilities:	None, however ideal for bulk liquids.
ISCOTT Terminal:	Max. LOA:	407 m.
	Draft:	11.6 m.
	Facilities:	Specialised installation for discharge of bulk Iron Ore – Loading Direct Reduced Iron (DRI). Maximum rate 1,200 t.p.h., connected to conveyor system. Two (2) Level Luffing Cranes – Capacity 25 tons.

STEVEDORES: All stevedoring and longshoring labour ordered through Point Lisas Terminals Limited (PLTL).

CRANES: Mobile and track cranes available up to 180 tonnes SWL. Ordered through Agents.

MEDICAL: Advance notice required. Agent will arrange.

FRESH WATER: Available on all berths and ex-barge.

FUEL: Bunkers available ex-barge.

FIRE PRECAUTIONS: No smoking Savonetta Pier No. 1 or on the open decks of vessels alongside.

GANGWAY/DECK WATCHMEN: 2 Customs guards on duty for 24 hours aboard all vessels.

OPENING/CLOSING HATCHES: Normally done by ship's crew.

CUSTOMS ALLOWANCES: 200 cigarettes and a moderate amount of spirits.

IDENTIFICATION CARDS: It is advisable to carry identification when proceeding on shore leave.

CONSULS: At Port of Spain.

REPAIRS/DRY DOCKS: A repair facility is available at Chaguaramas. However, competent technicians are available for shipboard repairs. Arrangements made through Agents.

SURVEYORS: (1) Cargo Surveyors: Caleb Brett, Saybolt and Redwood available.

(2) Surveyors such as Lloyd's, ABS, Bureau Veritas are available. Arrangements through Agents.

HOLIDAYS: Work is possible all year except on Labour Day (June 19th) and Union Anniversary Day (Last Saturday in November).

POLICE/FIRE/AMBULANCE: Accidents, Police help 62 999. Fire and First Aid 62 998. Fire assistance and ambulances also available on the estate by calling 2211, 2215, 2205/7 and 636-8155.

REPATRIATION: Crew changes and repatriation possible. Agent will arrange.

AIRPORT: Piarco International Airport, 60 km. from Point Lisas. Daily international flights available.

TIME: Local time is GMT minus 4 hours.

TELEPHONES: No facilities for telephone aboard. However international dialling to most countries possible.

SHORE LEAVE: No restrictions except, for persons not holding documents which grant entry to Trinidad and Tobago. Prior approval of Ministry of National Security must be arranged through Agents.

BANKS: National Commercial Bank of Trinidad and Tobago (NCB), Southern Main Road, Couva.

STORING: Vessels can be stored by barge or truck.

No storing of vessels while loading at the Fertrin Terminal.

All storing must be done with Customs approval.

Local riggers and forklifts are available for storing. These may be ordered through local chandlers.

DEVELOPMENTS: Extension of Berth No. 3 to 100 m. max. length.

Construction of Berth No. 5, a Ro/Ro dock. Max. draft 7 m.

AUTHORITY: Point Lisas Industrial Port Development Corporation, P.O.Box 191, Goodrich Bay Road, Point Lisas, Couva. *Tel:* 636–2132/2133/4913. *Telex:* 31341 Phildec WG. *Cables:* Phildeco, Couva. *Contact:* Captain Rawle Baddaloo, Port Manager.

PORT-OF-SPAIN: 10.39 N. 61.32 W. (See Plan)

DOCUMENTS:
Immigration:
2 Crew Lists.
2 Passenger Lists.
1 Maritime Declaraton of Health.
*1 Stowaways List.
*4 Arrival Report Forms.
*Supplied by the Immigration Department on boarding the vessel and must be completed by the Master of the vessel.
Customs:
2 Crew Lists.
1 Passenger List.
2 Customs Ship's Stores Lists.
1 Crew Stores List.
1 copy of Cargo Manifest (if cargo vessel).
2 Lists of unmanifested cargo.
Quarantine:
1 Cargo Manifest.

PILOTAGE: It is not compulsory to apply for a Pilot into Port-of-Spain anchorage. However, if required notification must be sent to the Pilot Station (Port-of-Spain) at least 1 hour before arrival at the Station on VHF Channel 16.

The Pilot vessel has a black hull and white housing and is 35 ft. long. The word 'Pilot' is written on the housing. It is equipped with VHF radio and carries an international pilot boat light.

Vessels requiring a Pilot can call Pilot by International Code Flag "G" by day and white light and red light at night or by International Code Signal "G" on whistle.

The Pilot Boarding Station is located within 0.5 miles seaward of the Grier Channel Entrance. The vessel awaiting a pilot may anchor anywhere seaward of the Pilot Boarding Station.

International Requirements are applicable for pilots with respect to Boarding and Safety measures. Gangway or standard type pilot ladder with spreaders about 10 ft. apart is required. Ladder must be clean. It is desirable that 1 stanchion be securely fitted in the bulwark at the top of the ladder.

Pilot station is situated at the Western end of the Port-of-Spain Wharf.

ANCHORAGE: Depends entirely on draft but should not be nearer than 0.5 miles from Grier Channel Entrance, except in cases of vessels loaded with explosives; this anchorage is clearly defined on Chart.

Open roadstead in Gulf of Paria but can be considered as sheltered with choppy seas at times. Bottom shelves gradually from shoreline to 7 fathoms at Western end of harbour limits, increasing to 20 fathoms outside harbour limits Westward. Type of bottom, mud. Swinging area unlimited. No mooring buoy. Distance from anchorage to shore 2.25 miles at 5 fathoms to 5 miles at 7 fathoms, vessel will swing to the tide if loaded, and to the wind if light.

Currents 0.5 to 1.5 knots flood and ebb. Rise and fall of tides, variable. Minimum 1 ft. 5 in., maximum 4 ft. Rainy season June-December. Dry season December-June. Rain squalls occur during months of July, August and September up to 30-40 knots unpredictable hurricane most unusual. Prevailing winds are mostly Easterly, normally stronger during daylight.

RESTRICTIONS/MAX. SIZE: The Grier Channel, 350 ft. wide, leads to a dredged basin in which are the docks. No restrictions on length, but maximum draft in channel, in basin and alongside is 32 ft. MLWOST.

RADIO: Advise through North Post wireless or telephone, call sign 9YL. ETA 48 hours and 24 hours with other requirements.

TUGS: All vessels of over 1,000 n.r.t. are required to use a tug. Specifications of the 2 tugs are as follows: g.r.t. 2,961.72 tons, n.r.t. 75 tons, speed 12 knots, engines 2×1,200 b.h.p. Ship's lines are normally used.

BERTHING:

Berth No.	*Length (m.)*	*Depth (m.)*	*Use*
1	90	8.0	Break Bulk, Multi-Purpose, Ro/Ro, Cruise Vessels.
2	152	7.4	Break Bulk, Multi-Purpose, Cruise Vessels.
3	152	8.0	
4	152	8.4	
5	152	8.9	
6	152	9.5	Container vessel using ship's gear or shore crane, cruise ships.
6AE	166	9.9	Container vessel using Portainer crane.
6AW	166	10.0	
*7	182	9.5	Rice, Break Bulk, Multi-Purpose.
8	182	9.5	Rice, Break Bulk, Multi-Purpose, Ro/Ro.
8AW	61	4.0	Rice

*At present this berth is under repair.

In addition to the deep water facilities mentioned above there are shallow draft facilities which are located at the Eastern end of the Port. They provide docking facilities for coastal and regional vessels. The Caricom Berth (for regional vessels) is 45 m. long and 4.0 m. deep.

Loading/discharging can be operated by shore equipment supplied by the Port Authority or ship's gear or both.

CRANES:

Type	*No.*	*Capacity tons*
Portainer–Rail Mounted	2	40
Ferranti rubber tyred gantry	5	40
FMC Linkbelt Mobile Crane	1	200
Demag Mobile Crane	1	100
FMC Linkbelt Mobile Crane	2	75
FMC Linkbelt Mobile Crane	3	50
IMC Linkbelt Mobile Crane	4	30

MEDICAL: Advance notice of attention required will assist. Modern hospital facilities available.

CARGO HANDLING: One berth on the Eastern side is an open wharf without a seafront warehouse. This berth is strictly used for containerised and passenger (cruise) vessels. The Eastern Wharf is 3,300 ft. with five seafront warehouses. On the Western side the wharf is 1,200 ft. long with two seafront warehouses for general cargo, but at these two berths there are also facilities for receiving bulk cargo, i.e. grain, liquid oil, fats and molasses. These cargoes are usually discharged by vessel's equipment, but grain can be discharged by shore equipment at a slower rate.

In addition to the cranes mentioned above, other cargo handling equipment available is as follows:
5 top lifters × 28 tons capacity.
7 front loaders × 10 tons capacity.
40 Mercury Reliance Haul Majors.
17 Motor trucks.
117 Trailers × 20 ft.
45 Trailers × 40 ft.
79 Forklifts × 5 tons capacity.

STEVEDORES: Integrated longshore and stevedore gangs available on request by Agents. Gang sizes vary from 12 men to 18 men, dependent on the type of operation.

Hours of Work: Normal Time: 0700 – 2300, Monday to Friday.
Overtime Hours: 2300 – 0100, Monday to Friday (if necessary to complete an operation).
0700 – 1900, Saturday, Sunday and Public Holidays.

FRESH WATER: Fresh water is available at Berths No. 1 – 6 from hydrants alongside the Pier. Alternative arrangements can be made to supply truck-borne water if necessary.

FUEL: All grades supplied by barge, contact Agent in advance.

CONSULS:

Belgium	6238711	Italy	6236255
Bolivia	6254123	Japan	6232866
Colombia	6236601	Lebanon	6231652
Costa Rica	6254123	Liberia	6222322
Denmark	6251901	Mexico	6254040
Dominican Republic	6241217	Norway	6236871
El Salvador	6226247	Panama	6223497
Greece	6232186	Portugal	6234930
Guatemala	6252441	Spain	6238851
Haiti	6232876	Sweden	6232166

EMBASSIES:

Argentina	6254069	India	6231276
Brazil	6225779	Jamaica	6224995
Great Britain	6252861	Netherlands	6251722
Canada	6234787	U.S.A.	6226471
France	6251437	Venezuela	6253872
Germany F.R.	6251898		

REPAIRS: Limited facilities available.

DRY DOCKS: See "Chaguaramas".

SURVEYORS: Lloyd's.

HATCHES: Opening/closing of hatches is normally done by the crew where the system is an automatic one. For manual systems, stevedores are used.

CUSTOMS ALLOWANCE: Crew is allowed either 25 grammes or 2 packs or 40 cigarettes or 5 cigars. No alcoholic drinks allowed.

CARGO GEAR: Vessels normally load and discharge break bulk cargo with their own gear but shore cranes and heavy lift cranes are available on dock.

Container vessels using the Container berths are required to use the Port's Portainer Cranes.

REPATRIATION: Crew changes and repatriation can be arranged through Agents.

AIRPORT: Piarco International Airport (17 miles from Port-of-Spain) has daily flights to worldwide destinations.

TIME: GMT minus 4 hours.

HOLIDAYS: New Year's Day (January 1st); Good Friday; Easter Monday; Labour Day (June 19th); Whit Monday; Corpus Christi; Emancipation Day (first Monday in August); Independence Day (August 31st); Diwali Day (late October/early November); Eid-ul-Fitr (December 21st/22nd, approximately); Christmas Day (December 25th); Boxing Day (December 26th). Any work performed on public holidays will be charged at overtime rates.

POLICE/FIRE/AMBULANCE: Port Security – 6251861, Port Health & Safety – 6253777, Police – 999, Fire – 990, Ambulance (Red Cross) - 6278214, Hospital – 6237715/6232951-6.

EMERGENCY CO-ORDINATION CENTRE: National Emergency Relief Organisation (NERO), Coast Guard Headquarters, Staubles Bay, Chaguaramas. Tel. No. 6254939.

BANKS:

Bank of Commerce of Trinidad and Tobago Limited, 72 Independence Square, Port-of-Spain. Tel: 6252711.

Bank of Credit and Commerce International (Trinidad & Tobago Merchant Bankers) Limited, 41-43 St. Vincent Street, Port-of-Spain. Telex No. 22650 BCC PTT WG. Tel: 6233210, 6230005.

The Bank of Nova Scotia, Trinidad and Tobago Limited, Park & Richmond Streets, Port-of-Spain. Tel: 6253566.

The National Commercial Bank of Trinidad and Tobago Ltd., 68 Independence Square, Port-of-Spain. Tel: 6252893.

Republic Bank Limited, 40-42 Frederick Street, Port-of-Spain. Tel: 6231021, (After hours) 6254418.

The Royal Bank of Trinidad and Tobago Limited, 55 Independence Square, Port-of-Spain. Tel: 6253511.

Trinidad Co-operative Bank Limited, 80-84 Charlotte Street, Port-of-Spain. Tel: 6235330.

United Bank of Trinidad and Tobago Limited, 74 Independence Square, Port-of-Spain. Tel: 6251040.

Workers Bank of Trinidad and Tobago, Cnr. Duncan Street and Independence Square, Port-of-Spain. Tel: 6253371.

SHIP SUPPLY SERVICE: For helicopter service, contact Nealco Air Services Limited, 63 Piarco International Airport. Tel: 6645416. Telex: 25314 Nealair.

4 seater helicopters; rendezvous points – oil rigs with helicopter landing facilities on the East Coast of Trinidad.

SHORE LEAVE: Possible with valid identification.

IDENTIFICATION CARDS: Seaman's Book is sufficient.

DELAYS: A berth scheduling system is in operation. Berthing Application must be submitted at least 24 hours in advance.

GENERAL: An inter island ferry service is available. Two Government-owned vessels, the M.F. "Tobago" and newly acquired M.F. "Panorama", operate a regular cargo and passenger service between Trinidad and Tobago. Seating accommodation is 700 passengers per vessel.

DEVELOPMENTS: Berth No. 7, length 198 m. to be upgraded to Container Berth with container handling cranes.

AUTHORITY: Port Authority of Trinidad and Tobago, Ajax Street, Port-of-Spain, Trinidad, W.I. *Tel:* 6254074. *Telex:* 22477 Patt Wg. *Cables:* Gateway. *Contact:* General Manager.

AGENT: Gulf Shipping Ltd., Furness House, First Floor, 90 Independence Square, P.O.Box 8, Port-of-Spain, Trinidad. Tel: 623-4121-5, 623-7712. Telex: 22522 Gulfship Wg. Fax: (809) 623-4124. Cables: Gulfship, Trinidad.

SOBO (Pitch Point): 10.15 N. 61.37 W. ✓

Crude Oil Terminal operated by Trinidad & Tobago Petroleum Company Limited is no longer in operation.

TEMBLADORA (Alcoa Bauxite Terminal): 10.41 N. 61.35 W. ✓

Also refer to "Port of Spain".

DOCUMENTS:

2 Crew Manifest/Stores List for Customs.
2 Ship's Stores List for Customs.
3 Immigration Arrival Report.
8 Crew Lists.
1 Declaration of Health.
1 Stowaway List (even if no stowaways on board).

PILOTAGE: Pilotage is compulsory. Pilots board 0.5 miles off installation.

ANCHORAGE: Safe anchorage 0.5 – 0.75 miles off head of jetty.

MAX. SIZE: No. 1 (Western berth) for discharging, length of berth 976 ft. Max. draft 23 ft.

No. 2 (Eastern berth) for loading. Length of berth 675 ft. Max. draft 36 ft.

RADIO: ETA should be given at least 36 hours before arrival via North Post Radio "9YL" or Barbados Radio "8PO" to Alcoa.

TUGS: Alcoa maintain their own tug to assist in docking operations.

BERTHING: There are two wharves: No. 1 with a length of 976 ft. and No. 2 with a length of 675 ft.

STEVEDORES: Not necessary.

FRESH WATER: Supplied at both piers, also by barge.

FUEL: All grades by barge and pipe-line.

GANGWAY/DECK WATCHMEN: Customs guards on duty at ship's side.

OPENING/CLOSING HATCHES: Handled by crew.

CUSTOMS ALLOWANCES: 200 cigarettes and a moderate amount of spirits per man.

CARGO GEAR: Loading: Carried out with travelling tower conveyor system, rate 1,000 t.p.h. Discharging: With travelling tower grab 5 tons capacity, rate 300 t.p.h.

IDENTIFICATION CARDS: Required. Vessel must issue I.D. cards to all onboard.

REPAIRS AND DRY DOCKS: At Chaguaramas.

MEDICAL: All facilities available. Advance notice of requirements should be given.

REPATRIATIONS: Can be arranged (Advance notice must be given for citizens from Eastern Bloc countries).

AIRPORT: See "Port of Spain".

TIME: GMT minus 4 hours.

TELEPHONES: No facilities for telephones on board.

SHORE LEAVE: No restrictions (except for citizens of Eastern Bloc countries who need visas or special permission).

AUTHORITY: Alcoa Steamship Company Inc., Tembladora Transfer Station, Carenage, Trinidad, W.I.

Alcoa Steamship Company Inc., P.O.Box 609, Port-of-Spain, Trinidad, W.I. *Tel:* 63-23308/13. *Telex:* 21221 (Alcoa Wg). *Cables:* Alcoaship, Port of Spain. *Contact:* General Manager.

NOTES

Please also advise Shipping Guides Ltd.

Tristan da Cunha

NOTES

Please also advise Shipping Guides Ltd.

EDINBURGH (Tristan Island): 37.03 S. 12.18 W.

DOCUMENTS: Cargo Manifest.

APPROACHES: Chart B.A. 1769 Pilot Book Africa Vol. 2 to be used, local knowledge should be sought regarding weather.

Island is good radar target and may be seen visually at 20 miles in good weather.

PILOTAGE: Local Radio Officer will indicate safe anchorage by handheld VHF (Channel 16).

ANCHORAGES: Edinburgh anchorage is on N.W. side of Island. Town is difficult to observe as houses are very low. Leading marks are white triangles in field to right of crayfish factory.

Area most likely for large vessels has depth of 18 fathoms. Vessel to be wary of large amounts of kelp blocking intakes, etc.

In rough weather vessel could shelter to South of Island. Although due to katabatic winds off the mountains it is possible that no shelter will be found around the island.

HEALTH: Any person suffering a cold will not be allowed ashore; if colds are prevalent aboard then no one will be permitted ashore.

RADIO: Radio contact made via Cape Town who will arrange schedule.

Tristan (ZOE)	Ship
3737 kHz	3737 kHz
8187 kHz	8281 kHz
12325 kHz	12423 kHz

BERTHING: Calshott boat landing (used for all landings) is small (40 ft. – 50 ft. long). Local knowledge required. 1 motor launch and several whalers available. On average whalers can be launched 60 days a year. February is the month with the best conditions.

SHIPMASTER'S REPORT: February 1986.

The navigational marks are as per the pilot book. These are made of wooden slats. The beacons on the 203° (T) bearing are in a large field behind the new canning factory, just above the boat harbour. The lower of the beacons on the 114° (T) bearing is on the top of a little hillock and the higher is on the cliff side.

When the sun is shining on these beacons they are easily discernable but when the sun is at right angles or behind them they are not easily seen.

There are no lights on the beacons.

There are lights illuminating the entrance to the boat harbour.

All lights are extinguished at 2230 hrs., including the lights at the entrance to the boat harbour.

The soundings that we obtained were as per the chart.

Whilst we were there, with a force 7 on the starboard beam, we lay with the bow to the shore. When the wind moderated we then lay with our bow into the wind so it would appear that strong Westerly winds cause an offshore current in the anchorage area.

Radio Communications at Tristan Island: The Station has a daily schedule with Cape Town Radio at 0830 hrs. GMT.

Cape Town Radio will arrange schedules for ships as required.

The frequencies used are as follows (all SSB R/T):

Tristan da Cunha (ZOE)	Ship
3737 kHz	3737 kHz
8187 kHz	8281 kHz
12325 kHz	12423 kHz

Whilst at anchor VHF communication on Channel 16 is provided by a hand held walkie talkie on the island.

The manifest of the cargo for Tristan da Cunha only. No documentation of any kind is at present required.

SHIPMASTER'S REPORT: March 1988.

The Report above is correct; but to the East of the settlement, there are a further two small triangular leading marks, which when in transit (114° T), indicate the beam bearing for the safest anchorage. The top mark is part way up the cliff to the left of the land-slip, the lower mark is on top of a small outcrop of rock. There are no lights on these beacons.

Tunisia

ASHTART: 34.17 N. 11.23 E. (See Plan)

PORT LIMITS: The Ashtart Field is limited by 4 cardinal buoys.

North	Lat. 34° 20′ 10″ N., Long. 11° 23′ 48″ E.
East	Lat. 34° 17′ 06″ N., Long. 11° 27′ 20″ E.
South	Lat. 34° 14′ 11″ N., Long. 11° 23′ 38″ E.
West	Lat. 34° 17′ 17″ N., Long. 11° 20′ 04″ E.

DOCUMENTS:
Customs: 1 Crew Declaration, 1 Ship's Stores List.
Immigration: 1 Crew List.

PILOTAGE: Compulsory within 3 miles of any installations. To avoid a delay, Owner must report to SEREPT SFAX 24 hours in advance of ETA.

ANCHORAGE: 3 miles South of the storage barge.

HEALTH: Masters must declare on arrival, condition of health of all on board with details of any sickness.

VHF: Call "Ashtart Terminal" on VHF Channels 9 and 16.

TUGS: One tug required to be in attendance while loading.

BERTHING:
(a) *Tanker Berths:*

One SBM for tankers up to a max. size of 150,000 d.w.t. Water depth 66 m. Loading Rate 3,000 cu.m.p.h. Max. quantity available 105,000 tons. 1×12 in. hose.

Vessels mooring use one line, and must be able to easily heave on board an anti-chafing chain whose links are 32 cm. wide.

(b) *Storage Barge Berths:*

Starboard side alongside storage barge, tankers up to a max. size of 70,000 d.w.t. Depth 66 m., loading rate 4,500 cu.m.p.h. Max. quantity available 105,000 tons. 2×12 in. hoses.

(c) *Tanker on Storage Barge Berth:*

Tankers up to a max. size of 100,000 d.w.t. Depth 66 m. Loading rate 3,000 cu.m.p.h. Max. quantity available 105,000 tons. 1×12 in. hose on starboard side.

MEDICAL: No facilities.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: France and Libya at Sfax.

REPAIRS: No facilities.

REPATRIATION: Not possible.

AIRPORT: At Sfax.

TIME: GMT plus 1 hour. GMT plus 2 hours (Summertime) from April 10th to September 15th (1988).

HOLIDAYS: None.

GENERAL: No dirty ballast facilities. No provisions available. Master supplied with booklet containing special port regulations on arrival.

AUTHORITY: Societe De Recherches Et D'exploitation Des Petroles en Tunisie – SEREPT, B.P. 246, 3018-SFAX, Tunisia. *Tel:* (04) 35 400. *Telex:* 40859, 40700. *SFAX Telex:* 13.800 Tn. Tunis Telex: 13.042 Tn. *Contact:* MM. H. Gharsallan or Mr. B. Nahdi.

BIZERTE: 37.17 N. 09.54 E. (See Plan)

PORT LIMITS: Commence 0.5 mile from the Port.

DOCUMENTS:
5 Crew Lists.
5 Passenger Lists.
4 Crew Personal Effects Lists.
4 Ship's Stores List.
3 Copies Bill of Lading.
3 Copies Manifest.
Health Declaration.

PILOTAGE: Vessels approaching the port applying for Pilot by day by flying the flag "G". Advise Pilot of ETA 48 hours before arrival. Pilot vessel and pilot station may be contacted by VHF Channel 16. The Pilot boat exhibits the letters "P" & "H". The Pilot boards half a mile from the Southern fairway, vessels have to slow down to enable the Pilot to board. The anchorage for vessels awaiting the Pilot is half a mile from the Southern fairway.

ANCHORAGE: See "Pilotage".

RESTRICTIONS: Entry at night is forbidden for tankers.

MAX. SIZE: See "Berthing".

HEALTH: Free Pratique normally given at the quays after mooring. Pratique is automatic for vessels coming from another Tunisian port. In case of suspected disease on board vessel will be ordered to quarantine anchorage.

RADIO: Bizerte Radio, call sign 3VWA. Frequencies: 2182, 1743, 1637, 2321 and 2506 kHz. Range 200 km.

VHF: Channels 16 and 14.

TUGS: The tugs join the vessel at half a mile from the fairway. The 2 tugs available are equipped with radar.

BERTHING: There are 10 alongside berths in the 3 docks at Bizerte and 3 alongside berths at Menzel Bourguiba. The water is salt. Length of the main quays: 500 m., depth 9.00 m. Length of the oil handling berth "A": 200 m., depth: 8.50 m. Length of the oil handling berth "B": 150 m., depth: 8.50 m. Molasses handling berth, depth: 7.5 m. Berth in front of the silo: depth 8.50 m. Iron ore handling berth "Douaria": depth 8.50 m. Berth in front of the cement factory: depth 7.6 m. Wooden wharf No. 2 at Menzel Bourguiba: depth 8 m.

Load and discharge is carried out by ship's own gear.

CRANES: 1 travelling gantry crane, capacity 6 tons. 1 travelling gantry crane, capacity 3 tons. 1 crane car, capacity 6 tons. 1 fork lift, capacity 7 tons. 2 fork lifts, capacity 3.5 tons. 1 fork lift, capacity 4 tons. 1 fork lift, capacity 8 tons. 2 tractors with tipping wagons. 1 floating pontoon crane of 30 tons.

BULK HANDLING FACILITIES: Grain is handled on the main quay, if cargo in bulk it is loaded into bags. Fertiliser also handled in bags. Ore and coal is unloaded into lorries.

SPECIAL CARGO HANDLING FACILITIES: None.

BRIDGES: New bridge (mobile) in operation.

STEVEDORES: Minimum of 24 hours' advance notice of ETA to Agent is required.

MEDICAL: Doctor available to board vessel. Hospital, private clinics and all facilities available. 48 hours' notice required for Cholera and Yellow Fever inoculations. Advise Agent of requirements.

TANKERS: Crude oil load/discharge line 20 in. diameter. Fuel oil load/discharge line 14 in. diameter. No slop discharge facilities. Tugs stand-by during cargo operations.

FRESH WATER: Available from the quay at most berths. Rate 20 cu.m./hr.

FUEL: Not available.

FIRE PRECAUTIONS: The Petroleum Harbour is equipped with fire hydrants. A tug of 1,600 h.p. is required to be permanently standing by when tankers are moored alongside the quay.

GANGWAY/DECK WATCHMEN: It is recommended to employ shore watchmen.

OPENING/CLOSING HATCHES: Carried out by stevedores.

CUSTOMS ALLOWANCES: Each crew member is allowed 1 carton of cigarettes and 1 opened bottle of wine or spirits. In case of a prolonged stay in port, Customs may renew these quantities.

IDENTIFICATION CARDS: Crew Members' Identification Cards will be collected by the Immigration service and exchanged for shore passes while vessel is in port.

CONSULS: Italy Tel: 02.31.747.

REPAIRS: Some types of deck and engine repairs can be effected.

DRY DOCKS: There are 4 dry docks which are located at Menzel Bourguiba.

		(m.)
Dry Dock No. 1 & 4	Length	190.90
	Higher width	30.25
	Lower width	26.50
	Draft	8.80
Dry Dock No. 2	Length	247.50
	Higher width	40.60
	Lower width	36.00
	Draft	12.00
Dry Dock No. 3	Length	84.10
	Higher width	14.78
	Lower width	13.00
	Draft	4.15

SURVEYORS: Bureau Veritas.

REPATRIATION: Can be arranged.

AIRPORT: Tunis/Carthage airport is situated 70 km. from Bizerte. Served by international airlines.

TIME: GMT plus 1 hour. GMT plus 2 hours (Summertime) from April 10th to September 15th (1988).

HOLIDAYS: There are 17 days official holiday during the year. Work can be carried out on all holidays except 1st May on payment of 100% overtime.

POLICE/FIRE/AMBULANCE: Police Tel: (02)31.200; Fire (02)31.022; Ambulance (02)31.422.

TELEPHONES: No arrangements exist.

SHORE LEAVE: Allowed.

SHIPMASTER'S REPORT: January 1982.

Documents: It is essential that the various declarations re stores, bond, etc., are accurate as heavy fines and confiscation can result when the officials discover any mistakes or inaccuracies.

Restrictions: Due to the lift bridge at the Eastern end of the Quai de Commerce there is no entry during a period in the morning and another in the evening when the main flow of traffic is expedited. These are about 0700 to 0800 hrs. and 1600 to 1700 hrs. Passage through this bridge is difficult for a deep draft vessel owing to the supporting piers being so close to the main channel.

Health: Free Pratique will be granted on application by radio.

Berthing: The Western end of the Quai de Commerce showed depths of 10.25 m. along the 600 ft. to the East, the discharging berth for grain vessels.

There is some 10 m. in the entrance channel and as far as the turning basin, but LESS in the basin hence the operation is difficult.

Bulk Handling Facilities: For grain there are portable vacuvators which discharge into hoppers from which some 8 bags can be filled at the same time.

Fresh Water: Using ship's hoses, some 23 tonnes per hour may be attained overall, but pressure can drop at any time and care must be taken to make sure of a large quantity or if proceeding to La Goulette elevator where there is no water to be shipped.

Gangway/Nightwatchmen: Most helpful and able to get results when Agents not available.

Identification Cards: These are sighted by the Immigration Officer and crew passes issued which are valid for all Tunisian ports but which must be collected before the vessel sails from the last port.

AUTHORITY: Direction du Port de Bizerte, 6 Rue de Russie, Bizerte, Tunisia. *Tel:* 31.139 and 33.688. *Telex:* 13707 Bimpor. *Cables:* Direction du Port de Bizerte. *Contact:* Harbour Master or M. Ben Menna, Port Director.

GABES (Ghannouche): 33.57 N. 10.04 E. (See Plan)

LOCATION: The port is located in the Gulf of Gabes, 22 miles (approx.) South of the oil port of La Skhirra, 58 miles S.W. of Sfax and 32 miles to the West of Djerba.

APPROACHES: Landfall by day is easy by virtue of the landmarks and oases around the port.

One can distinguish:

To the South of the port: The Oasis of Sidi Abdeslem and a 30 m. high tank.

To the North, the Oasis of Ghennouch and the red and white chimney, 44 m. high, of the power station.

To the West, the mass of buildings and industrial installations with, at the rear, the grey mushroom of the water tower, 36 m. high, and the Oasis of Bouchemma.

Landfall by night is equally easy, the port approaches being indicated, for vessels coming from the:

S.E.: The lighthouse of Ras Turguness (flash white 5 secs., range 24 miles) and then by the lighthouse of the Gabes fishing port (flash white 12 secs., range 11 miles).

N.E.: After coming round the belt of lights of the buoys of the Kerkennah Islands; by the mooring buoy N.W. of the channel of the Port of La Skhirra (flash white 10 secs., range 10 miles) and then by the lighthouse of the fishing port of Gabes.

The Roads:

The roads are indicated by the mooring buoy N.W. of the port channel (isophase white light: on 3 secs. off 3 secs., range 12 miles) and by the lighthouse of the fishing port.

Access Channel:

The port is entered via an access channel 3,220 m. long and 130 m. wide, dredged to 13.5 m.

This channel runs S.W. – N.E. and is joined to the entry passage by a curve 1,200 m. long.

On its 2 banks, there are 4 pairs of fixed light buoys, except Buoy No. 8 located in the curve of the channel.

At the breakwater entrance, there are lights placed on the heads of the North and South breakwaters.

ANCHORAGE: The Roads generally offer anchorage with good holding, and it is advisable to anchor to the South of the channel.

MAX. SIZE: "See Berthing".

TUGS: One tug of 1,200 h.p. and 2 fast pilot launches.

BERTHING:

The Basins:

The water area of the port, covering 80 hectares, is enclosed by 2 breakwaters (North breakwater 2,642 m., South breakwater 1,400 m.) leaving between them a passage 350 m. wide of which 200 m. is dredged to a depth of 13.5 m. This water area is divided into 2 basins:

An outer basin (50 ha.) dredged to 12.5 m., and having a manoeuvring circle 600 m. in diameter.

An inner basin (30 ha.) dredged to 10.5 m.

The Quays:

For berthing of vessels, the port has available:

A quay 375 m. long (Berth Nos. 3 and 4) running approximately E.N.E./W.S.W. and dredged to 10.5 m. This quay can take vessels up to 25,000 tons.

A quay 600 m. long (Berth Nos. 5, 6 and 7) running approximately N.N.W./S.S.E. and dredged to 10.5 m. This quay will take vessels up to 25,000 tons.

A quay 260 m. long (Berth No. 8) perpendicular to the first, and dredged to 12.5 m. This quay will take vessels up to 50,000 tons.

Port access is possible at all times to vessels with 33 ft. (10.06 m.) max. draft for Berths Nos. 5, 6 and 7, and 39 ft. (11.86 m.) max. draft for Berth No. 8.

Open storage areas:

The open areas for the storage of goods transiting through the port include in the public zone – a shed of 4,000 sq.m., open areas which are properly surfaced 70,000 sq.m., open areas of rolled earth: 100,000 sq.m.

CARGO HANDLING EQUIPMENT:

Public:

One gantry crane of 20 tons; Lift trucks from 4 tons – 10 tons; Crane on rails of 20 tons (on order); Crane on rubber tyres of 20 tons.

Private:

Cranes on rubber tyres of 10 tons – 25 tons; Lift trucks from 4 tons – 10 tons; Tractors and trailers.

FRESH WATER: Available.

FUEL: Not available.

REPAIRS: Possible.

TIME: GMT plus 1 hour. GMT plus 2 hours (Summertime) from April 10th to September 15th (1988).

WINDS/TIDES: The winds in the Gulf of Gabes present a seasonal variation with the character of a monsoon.

During the cold season (October – March) winds come from the land, from the West and North.

During the hot season (April – September) the winds come from the sea, from the East to S.E. The strength is then from Force 3 to Force 5, very infrequently reaching Force 7.

Tidal currents are negligible and have no influence on navigation.

The characteristics of the tides are as follows:

High Spring Tide	2.45 m.
High Neap Tide	1.60 m.
Low Spring Tide	1.10 m.
Low Neap Tide	0.15 m.

DEVELOPMENTS: The Port of Gabes has been essentially created to serve the chemical industries in the area which process the natural Tunisian phosphates coming from the S.W. of the country. There is some importation of sulphur for use in the various processes, likewise aluminium for production of aluminium fluoride. As the South of the country develops, traffic in various general cargoes, foodstuffs and capital equipment, is increasing.

The port is currently advanced in its 5th Development Plan. The new infrastructural works comprise:

1. Transformation of the current Quay No. 8 into a much lengthened version.
2. Construction of a service quay.
3. Surfacing and equipping of 50,000 sq.m. of open area for storage of goods.
4. A second tug of 1,200 h.p. will be acquired.
5. Fertiliser bulk loading unit of 500 t.p.h. capacity will be installed.
6. An electric crane, on rails, of 20 tons will be acquired.
7. Cranes on tyres of 15 – 20 tons will be purchased.
8. Fork lifts from 4 – 10 tons will be acquired.

SHIPMASTER'S REPORT: The following reports are from the same vessel. Vessel discharged ammonia at Gabes – Ghannouche.

May 1980:

Approaches: BA. 3327 and 372.

Approaching from the East good positions were obtained off Ile Djerba, keeping outside the 9 fathom soundings as the bottom shoals quite steeply.

The 'Fairway' Buoy "O" showed up well on the radar at 8 miles and the channel buoys themselves at 5 – 6 miles. Details of the breakwater were also visible on the radar at this range.

There is a Radio Beacon at Gabes but this is not marked on either chart. ALRS Vol. 2 refers to this.

Caution: The positions of the outer and channel buoys should not be relied upon. New positions as at 22nd/24th May, have been marked on chart 372 and a tracing made. The current sets quite strongly across the axis of the channel and care is required when rounding the bend in the channel immediately before the entrance. The Pilot reported that channel buoys frequently break adrift.

Pilotage: Reportedly there is a 24 hour watch kept on VHF Channel 16 but we did not succeed in making contact until after we had anchored; time of arrival 0330 hrs. Even then reception was poor.

Fluency of English fair.

Pilot boards from a black hulled launch of about 10.0 m. length with white upperworks. Pilot ladder about 1 m. from the water. Pilot boards outside the fairway buoy.

Vessels with draft in excess of 10.0 m. must berth head in, port side to, owing to existence of 10.5 m. shoal in the Southern corner of the harbour. No night time pilotage for vessels of this size.

Only 1 tug is available and only of moderate power; on berthing she pushes according to hand signals and whistles from Pilot (no VHF). When unberthing she takes a ship's line from the stern to swing ship to port clear of berth.

Berth: The berth is a concrete quay in the Southern corner of the harbour about 250 m. long with depths alongside of 11.3 m. (forward) 13.8 m. and 14.2 m. taken by ship's leadline. Communication with shore personnel was not very good with conflicting advice as to whether vessel was in position or not.

The quay is used for the export of fertiliser products which are loaded by means of a large travelling chute. Despite fears, the gangway when swung out did not foul the gantry.

Well fendered with round rubber fendering.

Mooring arrangements were reasonable but the bow lines have to be taken to the far wall to afford a good lead when in position.

The gangway is landed on the quay without any problems.

The berth is open to swells from the East through S.E and is not very well protected from winds, except from due South. Since the bow is close up to the quay, special care should be paid to backsprings and all moorings. Ensure that watchmen are warned.

Discharge: The shore plant has storage for about 10,000 tonnes and relies on these shipments to keep the fertiliser section in production. Should tanks be empty they will be warm and high back pressures may be expected – 9 bar. The facility uses about 7,500 tonnes per month.

They claim to be able to accept cargo at a maximum rate of 350 t.p.h. but is usually in the region of 200 – 250 t.p.h. Our overall rate this call was 220 t.p.h.

The discharge line consisted of an 8 in. pipe from which there was provision for up to 4×4 in. flexible hoses to be connected. Only 2 hoses were used at this call. The shore flange has 12 holes which do not match the pitch of our manifold and, despite cabling ahead, this was not apparent until berthing and some time was lost. Shore personnel connect and disconnect. Line taken on board using ship's derricks. Shore provided the converting spool piece. Ship blew through lines on completion.

No vapour return line.

No venting to atmosphere.

Surveyor: Redwood's Surveyor in attendance and all figures based on gauging of ship's tanks.

Surveyor used a strange vapour factor which was not familiar in any way and declined to give us copies or explain its origin.

General: Fresh water available. No fuel oil available, if required proceed to oil terminal at Sfax. Repatriation and relieving of personnel possible without difficulties. Good road and rail communication with Tunis, Sousse and Sfax. Good access to Gabes by taxi. Shore passes required – take Discharge Book to Immigration office and a pass will be issued. Collect Discharge Book inward.

Papers: 3 Crew Declarations. 3 Stores Lists, including Bonded Stores. Declarations on the contents of all Bars onboard. (This is most important. Tunisia is largely Moslem).

2 Lists of ports previously visited.

Port Health Form – normal Health Declaration.

The Officials were very fair but very thorough in checking bonded stores. Fresh provisions available.

July 1980:

Discharge: The discharge rate at this call was only in the region of 177 t.p.h. (perhaps due to Ramadan) with a very high back pressure throughout in excess of 9 bar.

Total delays this call amounted to some 28 hours 20 minutes.

General: IMPORTANT: Since our last call the authorities have instituted strict currency control regulations and a number of the crew were caught on arrival during cabin searches. Personnel must therefore be warned before leaving that *ALL* Tunisian currency has to be handed back. The penalty for non-compliance being confiscation of the currency and a fine of at least twice the value of the money discovered. Before arrival personnel should be warned accordingly.

All authorities subjected the ship to a much more thorough scrutiny than at last call.

Repatriating personnel were subjected to baggage searches either on board or ashore.

Fresh stores were taken at this call and were of good quality.

Freon "R22" available in small quantities.

Fresh water taken and treated with "Stabochlor" as a precaution.

November 1980:

Approaches: BA. 3327 and 372.

When rounding Kerkennah Banks the buoys should not be relied upon.

On the flood tide the current from Kerkennah to Fairway Buoy sets in a S.S.W. direction. Fairway Buoy shows up at about 8 miles on radar and Channel Buoys at 5 to 6 miles.

A number of oil rigs are found between Kerkennah Banks and Ile Djerbe, these should not be relied on for navigation fixes. Ile Djerbe gives good positions. Approaching the Fairway Buoy a 'Minaret' marked on BA. 3327 to North of port is conspicuous and Beida Mt. (902) to N.W. of port is conspicuous.

Breakwater is visible on radar at 15 miles but difficult to make out visually until very close too on account of haze. A radio beacon not marked on BA. 3327 is listed and operating as per ALRS Vol. 2.

Fairway Buoy is number "O" and named "Ghannouche" it is a tall red pillar buoy, its permanent position as per the alterations on BA. 372.

Channel buoys have been altered and are best seen from the changes to BA. 372. Pilot reports that all have new moorings and should be considered reasonably reliable. They are lifted about every 4 months, one at a time, so the official numbers as changes to BA. 372 do not always correspond to the actual number.

Anchorage: For large vessels about 1.0 – 1.5 miles East of Fairway Buoy and for small vessels to East of No. 2 Buoy. Good holding ground.

Wind: The prevailing wind is from the East and is strongest during Winter months. Due to the harbour being open to the East a swell carries into the harbour making berthing and working of small vessels impossible at times.

V.H.F.: Call 'Gabes Port' on Channel 16, range limited (12 miles). English reasonable.

Berthing: No berthing if wind over Force 4 to 5 and no unberthing over Force 3 to 4. Largest ship to use port 'Galconda' (LPG) gross 34,893 tonnes and deepest draft ship 'Hampshire' (LPG) gross 32,060 tonnes draft 11.2 m.

Channel: Minimum depth Chart Datum found to be 11.0 m. (36 ft.) plus 0.8 m. MHWN and 2.2 m. MHWS.

Liable to silting. Official depth is 41 ft. (12.5 m.) but last dredged 1974.

Pilot reports little current in channel, but reports suggest cross current can be encountered particularly near breakwaters. Channel dredged in box shape.

Pilot: Two Pilots employed by National Port Authority. Only senior Pilot handles large vessels. Good English spoken.

No berthing/unberthing of large vessels at night. Sunrise to Sunset only. Boards from black hulled 10 m. launch with white upperworks. Pilot ladder about 1 m. above water. Prefers gangway if weather suitable. Boards outside Fairway Buoy.

Tugs: Only one Port Authority tug of 1,200 h.p. with suspect towing hook. In November 1980 this tug was under repair and a Greek Construction Co. tug was being hired for port use as necessary. This tug (800 h.p.) would not work on a Sunday. When berthing, tug pushes; when unberthing, tug takes ship's line from starboard quarter. Pilot reports second tug in design stage.

Berthing/Moorings: All berths port side to.

Fertiliser/Ammonia/Phosphoric Acid Berth – Berth head in.

Sulphur and Grain berths – berth head North.

Vessels on all berths moored close together. Three large and 1 small vessel can moor on Sulphur/Grain berths.

Good back springs essential at all berths.

Moorings: 3, 2, 2. Forward head lines go to quay ahead of Ammonia Berth, mooring boat used. On Ammonia Berth our bow was about 3 m. off stern of vessel immediately ahead and at right angles to us.

Berths: Ammonia Berth of concrete trestle construction with bollards and fenders on concrete projections proud of quay face. All other berths solid concrete construction.

Ammonia Berth about 250 m. in length and 13.2 m. C.D. minimum. Other berths reported to be 10.5 m. alongside.

Density: 1029. (3 visits) May, July and November. Good fendering on all berths.

Cargo: Anhydrous Ammonia: Intake for fertiliser plant about 10,000 tonnes per month.

Loading/Discharge: Discharge rate varies but maximum claimed to be 350 t.p.h., in practice this has been 220, 177 and 233 t.p.h. over three visits with back pressure of 8.5 to 9.5 bars. No vapour return line. 2×4 in. flexible pipes join onto common manifold union with 8 in. coupling of odd size. The plant has a spool piece to fit standard 150 ASA connection on ships. Shore labour assists with connection.

For large LPG/NH_3 carriers it is necessary to berth as far up quay face as it is safe to do so in order to be able to connect pipes. On this vessel the after end of gangway must be past travelling shiploader stowage position on quay. Generally 2 ship pumps are required. Shore tank capacity 9,800 tonnes.

Same berth is used for loading Ammonia Phosphate for export at about 30,000 tonnes per year and Phosphoric acid in liquid form at 60,000 tonnes per year.

Travelling shiploader for Ammonia Phosphate loads at 800 t.p.h.

The Sulphur Berths nearest to Ammonia Berth have 2 discharge cranes/gantry. The Grain Berth at the Northern end is worked by ship's gear. Both these are import berths. Sulphur berth direct into fertiliser plant. It is planned to export Nitric acid in the near future.

Gangway: Can be turned out on all berths prior to berthing even though it seems vessel cannot due to shiploaders.

Communications: At Ammonia Berth after connection there is little English spoken by personnel ashore. Two watchmen always onboard.

N.O.R.: Tender on arrival to SAEP GABES, accepted alongside berth.

Surveyor: SGS/Redwood in attendance. Does not always appear on arrival.

General: Fresh water available from quay, but salty. If fuel required go to Sfax. Personnel reliefs quite easy through Djerba. Direct flights to Frankfurt 3 times per week. Baggage may go missing. Road and rail communication with Tunis, Sousse and Djerba. STD International telephones. Holiday resort at Djerba.

Authorities: Immigration board first to check International Health Declaration and Vaccination List. If all in order 'Q' flag is pulled down – Quarantine Pratique granted and Customs and Agent can board. Port Health/Immigration: require all Cholera Certificates up to date, if not Port Health will carry out inoculation on board the ship.

Customs currency control is rigid – all currencies must be declared and all Tunisian currency drawn and not used handed back on departure. Bars are particularly subject to inspection. Customs also very carefully check Bars stocks, if any discrepancies a fine is levied.

Customs conduct cabin searches for undeclared articles. Master's safe is checked together with dangerous drugs which must be properly declared, every single item and amount of each. Personnel going ashore take their Discharge Books to main gate where a shore pass is issued and Discharge Book collected on return.

Papers required: 3 Copies Personal Effects Declaration (Make sure Jewellery is declared).
3 Copies Personal Currency Lists.
2 Stores Lists.
2 Drugs Lists.
2 Bond Lists.
2 Vaccination Lists.
6 Cargo Declaration Lists.

Chandler: Fresh provisions available and seem good and prices reasonable. Cable ahead for chandler as normally does not work at weekends.

Agent: Societe Tunisiene De Transit D'Agencies Et De Transports. Cable: STTAT GABES.

Have office just outside main gate. Good English and generally helpful and obliging. Crew transfers conducted without difficulty. Can telephone STD from office.

Developments: On North side of Harbour general cargo berths are being constructed. The retaining breakwater has been completed and the berth concrete caissons are being placed in position.

SHIPMASTER'S REPORT: February 1985.
Vessel discharged anhydrous ammonia.

Bow-thruster: It is advisable to inform the Agent well in advance whether vessel is equipped with a bow-thruster or not. When negative, a second tug is required for large vessels, as only 1 tug, small and low powered, is available at Ghannouche. The second tug has to be ordered from Sfax (distance approx. 60 miles). This might cause delay in berthing if Port Control is not aware that the vessel does not have a bow-thruster.

Hoses: The shore connection now consists of a 10 in. 150 ASA hose. Due to the height of our manifold above the water (41 ft.) at 24 ft. draft, extra lengths of hose had to be provided by shore.

Maximum allowable pressure for hoses: 8 bars.

Discharge: Maximum shore receiving capacity approx. 600 tonnes/h. Receivers urgently requested us not to go beyond the 8 bars back pressure.

We discharged approx. 550 tonnes/h. at 7.5 bars back pressure, however, a few hours after commencement of the discharge, the plant requested us to reduce the rate to 400 tonnes/h. as they experienced problems with their compressors.

AUTHORITY: Direction du Port de Gabes, Office des Ports Nationaux, Batiment Administratif, Port de la Goulette, Tunisia. *Tel:* 275300 (6 lines). *Telex:* 12-386 Oporna-Tunis. *Cables:* Ofpornatu. *Contact:* B. Karra, Harbour Manager, P.O.Box 65, Gabes, Tunisia. Tel: (5) 22.9.22.

LA GOULETTE (Including Tunis): 36.49 N. 10.18 E. (See Plan)

DOCUMENTS:

Required by Police:
1 Crew Lists.
2 Passenger Lists.

Required by Customs:
1 Crew List.
2 Passenger Lists.
2 Crew Manifests.

Required by Port Health:
1 Crew List.
1 Passenger List.

PILOTAGE: To call Pilot contact Goulette Radio station, call sign 3VW, 24 hour watch on 2182 kHz or VHF Channel 16. Pilot boats are in permanent direct contact with Goulette Radio. International code visual and sound pilot signals may be used on arrival at the Sea Buoy.

Pilot launches are stationed inside the port, and proceed on call to meet vessels about 0.25 miles beyond the sea buoy, i.e. the Buoy No. 1 in the entrance channel to the port.
ANCHORAGE: Anchorages in the port roads are safe except during strong winds and heavy seas from the North or N.E.; good holding ground.

Larger vessels anchor about 0.5 miles N.E. of the sea buoy in depths of 12 m. – 14 m. Small vessels may anchor either North or South of the approach channel in depths of 7 m. – 9 m. in the vicinity of Buoy Nos. 4 and 5 provided that they do not obstruct navigation in the entrance channel.
RESTRICTIONS: Tankers and ore carriers are not allowed to enter and leave port during the hours of darkness. Depth of water at LW is 32 ft.
MAX. SIZE: *La Goulette:* Up to max. draft 32 ft. Max. length 185 m. *Tunis:* Up to max. draft 20 ft. 6 in.
HEALTH: Master is required to complete Declaration of Health on arrival. Vessels which have previously called at another Tunisian port are given automatic Free Pratique except in time of epidemic.
RADIO: Tunis Radio 24 hour watch on 2182 kHz; radio-telephone from 0600 to 2200 hrs. on 500 kHz. Goulette Radio call sign 3VW. 24 hour watch on 2182 kHz and VHF Channel 16.
TUGS: Available to assist berthing as directed by the Pilot. Tugs join vessels in the vicinity of Buoy Nos. 4 and 6, that is 400 or 500 m. from the berths. Vessel's lines always used. Vessels over 1,500 g.r.t. not equipped with bow-thrusters must use 2 tugs.
BERTHING: *La Goulette:* one ore berth, unloading rate 2,000 t.p.h.
Also see "Shipmaster's Report" and "Developments".
STEVEDORES: Gangs are ordered before 0600 hrs. for morning work; before 1300 hrs. for the afternoon and before 2000 hrs. for night work.
MEDICAL: Preferable to advise Agent in advance if doctor required on board. Crew members should possess international vaccination certificates.
TANKERS: One berth is reserved for tankers with a max. draft of 27 ft. 6 in.
FRESH WATER: Hydrants are situated on the quays supplying fresh water at a rate of 12 – 15 cu.m.p.h. A water barge "El Ain" of 50 tons capacity can supply vessels berthing in "Basin Sud".
FIRE PRECAUTIONS: A watchman has to be permanently employed on board tankers when alongside. A tug equipped with fire-fighting equipment is required to stand by tankers discharging.
GANGWAY/DECK WATCHMEN: The employment of gangway watchmen is necessary.
OPENING/CLOSING HATCHES: Performed by ship's crew or by stevedores on payment of special premium.
CUSTOMS ALLOWANCES: Each crewman is allowed 2 packets of cigarettes or 4 cigars or 50 gm. of tobacco and 1 opened bottle of alcohol.
CONSULS: Following countries are represented in Tunisia:

Algeria
Australia
Denmark
France
Great Britain
Greece
Italy
Morocco
Norway
Panama
U.S.A.
Venezuela

REPAIRS: Machinery and boiler repairs can be effected on board. For large repairs it is necessary to send part to the shipyards of Soconema at Menzel Bourguiba 70 miles away.
DRY DOCKS: At Menzel Bourguiba 4 dry docks, the largest of which is 253 m. long, 41 m. wide, 10.5 m. depth.
REPATRIATION: Can be arranged.
AIRPORT: Situated 10 km. from the port. Regular daily flights to Europe and North Africa.
TIME: GMT plus 1 hour. GMT plus 2 hours (Summertime) from April 10th to September 15th (1988).
HOLIDAYS: 20th March (Independence Day); 1st May (Labour Day); 25th July (Republic Day); 15th October (Evacuation Day). In addition there are 13 other holidays on which work is carried out on payment of overtime.
POLICE/FIRE/AMBULANCE: Police, Tel: 197. Fire, Tel: 198. Ambulance (express), Tel: 141313. Ambulance (S.O.S.) 341269.
TELEPHONES: Telephones can be connected on board vessels and are compulsory for tankers.
SHORE LEAVE: Crew members are permitted to go ashore after obtaining a pass from the Port Police.
DEVELOPMENTS: *Port de Rades:* A new commercial port with 7 berths and industrial complex, incorporating container and Ro/Ro facilities (4 Ro/Ro berths in operation), grain silo (discharge rate 1,200 t.p.d.) quays, jetties, transit sheds and back-up services, has been built on reclaimed land, covering approximately 100 ha., immediately inside the Lake of Tunis. Max. draft permissible 9.5 m.

SHIPMASTER'S REPORT: January 1982.
Documents: It is essential to ensure that all arms and ammunition are declared at first port of entry in Tunisia and that the proper authority has them sealed inside the bond during the entire stay in Tunisia.

When coming from another Tunisian port all cash (Dinars) remaining from sums drawn in the previous port must be declared.
Pilotage: The VHF is the only viable communication for the pilot service, the Sea Buoy being too far for either visual or sound signals.

When required to enter, the vessel will be told to proceed inwards down the approach channel which has been dredged to 12.25 m. from Sea Buoy to the moles. This was completed on 20th December, 1981 as the first part of the work for the new port being constructed on the Southern side of the canal to Tunis and some 3 kilometres inside the present port of La Goulette.
Berths: The elevator/silo berth in Basin Sud has a depth of water of over 10 m. throughout its whole length and extending some 80 m. to the seaward end as the actual wharf is short (about 135 m.) and vessels have to warp along the face to ensure all hatches are serviced. Discharge rate 1,200 tons per day.

There is *no water* at this berth either drinking or boiler nor can it be taken at the adjacent tanker berth or the iron ore pier.
Developments: The port appears to be concentrating on the Ro/Ro berths and the new passenger terminal to the exclusion of the more mundane cargoes. The traffic is such that there is reluctance to allow a vessel from the silo that is short of water to take up a berth on the Northern quay. The harbour area is to be dredged in stages so as to give access, eventually, to the new port under active construction.
Telephones: There are no telephones available at the silo berth unless access can be had to the one in the office, while the Oil Berth unit is only available if there is a tanker in the berth.

AUTHORITY: Office des Ports Nationaux, Batiment Adminstratif, Port de la Goulette, C.P. 2060, La Goulette, Tunisia. *Tel:* 730300. *Telex:* 15386 Oporna. *Cables:* Of. Pornatu.

LA SKHIRRA (Terminal Platform): 34.18 N. 10.09 E. (See Plan)

DOCUMENTS:
5 Crew Lists.
2 Lists of Crew Personal Effects.
2 Stores Lists.
5 Passenger Lists, if passengers carried.
Manifest of cargo on board.
Manifest of cargo in transit.
PILOTAGE: Compulsory for berthing alongside. Pilot employed by TRAPSA. ETA required 48 hours and 24 hours before arrival. Call Pilot by international code signals on arrival, or by VHF Channel 16. TRAPSA will advise if vessel required to anchor, or berth immediately. Pilot boards 2 miles off the terminal by black and white motor launch. If it is necessary (vessel without chart) Pilot will proceed outside the port limits.
ANCHORAGE: Vessels should anchor outside the prohibited zone which is limited to the South by the parallel of Buoy No. 5 and to the East by bearing 350° from the terminal platform light.
MAX. SIZE: Length 300 m. Draft 47 ft. 6 in. or up to 50 ft. at high water.
HEALTH: International Quarantine signals to be shown on arrival. Vessels normally receive Free Pratique at the quay after berthing. Suspect vessels must wait at anchor until Pratique is given.
RADIO: TRAPSA operate coastal station La Skhirra Radio (3VP), vessels to make contact 48 hours before arrival. Messages for TRAPSA passed by other stations should be addressed "Rapetrol Laskhirra".
VHF: The harbour office and loading terminal are equipped with VHF on the following channels: 156.8 MHz (calling), 156.6 MHz, 156.7 MHz, 156.55 MHz Contact with tugs can be made on all 4 channels.
TUGS: Two tugs 1,500 h.p. each, normally used for berthing. 3 tugs required if over 70,000 d.w.t. Lines provided by tugs.
BERTHING: Two loading berths situated one each side of terminal platform connected by a gangway from the shore. For safe manoeuvring tankers are recommended to arrive with ballast up to 30% of Summer deadweight. Mooring may need to be doubled during months of December to April, when sudden violent squalls sometimes occur. A vessel alongside requiring tug assistance may sound one long blast at frequent short intervals.

Depth alongside loading berths is 15 m. – 16 m. Loading platform is served by 3×30 in. oil pipe-lines and 1×24 in. and 1×18 in. ballast lines. Each berth equipped with 4×12 in. flexible hoses. Max. loading rate 12,000 cu.m./hr.
Paktank: A new tank installation of Paktank Mediterranee S.A. has been constructed for storing fuel oil, gas oil, naphtha and kerosene. 2×12 in. flexible hoses will give a loading/discharging rate of up to about 3,000 t.p.h. Bunker facilities can be expected in the near future.
MEDICAL: Advance notice required of any medical assistance needed. Hospital facilities available. Crew members require valid vaccination certificates.
BALLAST: All ballast, except permanent, to be pumped to shore installation. Heavy fines for water pollution. Max. rate 6,000 cu.m./hr.
FRESH WATER: Not available.
FUEL: Not available. See "Berthing – Paktank".
CUSTOMS ALLOWANCES: 2 packets cigarettes allowed each Crew member.
CONSULS: Following countries are represented at Sfax: France, Sweden, Great Britain, Netherlands and Italy.
REPAIRS: There are no facilities for repairs. Nearest at Sfax.
REPATRIATION: Can be arranged.
AIRPORT: Airport at Tunis 350 km. away, or Sfax 80 km. away.
TIME: GMT plus 1 hour. GMT plus 2 hours (Summertime) from April 10th to September 15th (1988).
SHORE LEAVE: Not allowed in Trapsa installation. Can be arranged through Agent.
AUTHORITY: Compagnie des Transports par Pipe-line au Sahara (T.R.A.P.S.A.), 3050 La Skhirra, Tunisia. *Tel:* 04-95453. *Telex:* 40811 TN. *Cables:* Rapetrol, La Skhirra. *Contact:* Mr. Maaloul, Port Director.

SFAX: 34.44 N. 10.46 E.

DOCUMENTS: On arrival Masters must submit a written declaration giving the name of ship and of the Master, Owner or Charterer, vessel's tonnage, draft, cargo, port of origin and destination, number of crew on board. Also required:
Customs Manifest.
Crew List for Police.
List of Dangerous Cargo.
Health Declaration.

PILOTAGE: Compulsory for all vessels over 100 gross tons. Pilotage commences at the outer buoys of the entrance channel. Day signals for Pilot, International Code Signal "P.T" or Code flag "S" hoisted alone or below code pennant. Night signals according to International rules. For entry at night, vessels must radio Harbour Master at the latest 1 hour before sunset to confirm their intention. Before boarding, Pilot will check that vessel does not exceed the max. authorised draft. If the "Entry Prohibited" signal is not hoisted at the port signal mast, vessel may await Pilot in the channel axis about 1 mile off the outer buoys. Pilot boards from a launch 11 m. long, displaying international pilot signals. Pilot may be contacted by radio through Radio Port de Sfax. Agent must give advance notice of vessels arrival to Harbour Master 24 hours 48 hours beforehand.
ANCHORAGE: In immediate vicinity of the port, depths up to 15 m., good holding ground.
MAX. SIZE: Length 185 m. and draft 32 ft. – 33 ft. at Petrol Pier and Sulphur Pier and 200 m. at all other berths.
HEALTH: To request Free Pratique, hoist "Q" flag on arrival, or radio to Port Health Service. Pratique normally given at the berth after mooring. Suspect vessels are required to wait at anchor until Pratique is given.
RADIO: Sfax. Port Call – call sign 3VW2, operating 24 hours on 2182 kHz and Channel 16 VHF.

Calling frequency 2182 kHz, working frequency 1743 kHz CR3. Used only for communications with port services. Meteorological information provided on request.
TUGS: Join vessel at outer buoys or according to circumstances in the outer port.
BERTHING: N.E. Quay 820 m. long, phosphate berth.

West Quay 150 m. long, phosphate berth.
Petrol Pier 105 m. long. Max. size: length 185 m., draft 33 ft.
Salicole Pier, salt loading berth.
Sulphur Quay 370 m. long, draft 32 ft.
Also see "Developments".

STEVEDORES: Available, arranged by Agent basis vessel's ETA.
MEDICAL: Advance notice preferred if medical attention required. Hospital facilities available. Vaccination certificates required for all crew.
DENSITY: 1028.
FRESH WATER: Hydrants fitted on all quays. Written request for replenishing water is required by Harbour Master.
FUEL: Available by barge.
GANGWAY/DECK WATCHMEN: Normally ship's crew. Available from shore if required.
OPENING/CLOSING HATCHES: Normally performed by crew.
IDENTIFICATION CARDS: Required by all crew.
CONSULS: Local representatives for Belgium, Denmark, France, Greece, Italy, Netherlands, Norway, Portugal, Spain, Sweden and U.K.
REPAIRS: Small engine repairs can be effected. Floating dock for vessels less than 350 tons.
REPATRIATION: Can be arranged.
AIRPORT: 7 km. from the city. Regular services to Tunis, Paris and La Valette.
TIME: GMT plus 1 hour. GMT plus 2 hours (Summertime) from April 10th to September 15th (1988).
HOLIDAYS: 1st January; Aid El Kebir; Hegirian New Year; 20th and 21st March; 9th April; 1st May; Mouled; 25th July; 13th August; 15th October; Aid Es Seghir; Aid El Kebir.
POLICE: Tel. 21-700.
SHORE LEAVE: Allowed.
DEVELOPMENTS: Entrance channel to be widened to 60 m. Dredging to 12.50 m. of channel and principal quays. These projects are under study.

Since April 1985 the port has been equipped with 3 new berths totalling 517 m. in length, depth 33 ft., max. LOA 200 m., max. draft 33 ft. Included is a Ro/Ro berth with length 135 m., depth 33 ft.

SHIPMASTER'S REPORT: 1976 (Updated 1988).
Documents:

1 General Declaration.
2 Stores Lists.
3 Crew Lists.
1 List of Dangerous Cargo.
1 Health Declaration.

Pilotage: To be contacted on VHF Channel 16 throughout 24 hours. Also Harbour Master may be contacted at the same hours on Channel 16. At other times the same Authorities may be contacted by radio 2182 kHz.

My vessel had a draft of 26 ft. By the VHF the Harbour Master ordered me to enter the channel and continue up to the Outer Basin where a Pilot would embark on the Port side.

It was later confirmed both by the Pilot and Agent to be usual for ships up to 10,000 tons to enter the Outer Basin without Pilot. Also upon our departure, the Pilot disembarked at the Outer Harbour Basin (Authority state that this is rare and only if vessel visits port regularly).

The Agent told me the channel was 34 ft. deep, although no measurements have been taken for 10 years. Lately a ship with draft of 33 ft. has passed through the channel without any difficulties.

An unmarked wreck is situated in position Lat. 34° 37.5′ N., Long. 10° 49.5′ E. The best way to approach the outer channel from S.W. or South, would therefore be to navigate to a position 6.5 miles S.E. of Tina's Lt. Tr., then change course for the outer buoys of channel.

The only beacons illuminated around Kerkenah Banks were Beacon No. "1" and No. "8". All other buoys were in correct position, but sometimes extinguished.

Stevedores: Work in shifts from 0700 hrs. till 1300 hrs. and from 1400 hrs. till 2000 hrs. In case of sailing it is possible to arrange overtime up to 2100 hrs. It is also possible to have night gangs from 2100 hrs. till 0300 hrs.

AUTHORITY: Office des Ports Nationaux Tunisiens, Directions du Port de Sfax, Rue Okbaa Ibn Nafaa, 3029 Sfax, Tunisia. *Tel:* (04) 25.644, 25.040 and 25.070. *Telex:* 40847 Porsfa. *Contact:* Mohamed El Mouldi, Port Director. Captain Mokhtar Hedider, Port Captain.

SOUSSE (Soussa): 35.50 N. 10.38 E.

DOCUMENTS:

3 Crew Lists.
3 Passenger Lists.
4 Crew Personal Effects Lists.
Health Declaration.
Manifest of Provisions on Board.
2 copies Vessel's Particulars Declaration.

PILOTAGE: Contact pilot station on VHF Channel 16 or Tel. 03.24.401 and 03.25.755.
RESTRICTIONS: Entrance to the port coming from the sea is East to West. Channel 820 m. long, dredged to 10.5 m. Depth in port area 8.70 m., height of tide 0.50 m.
MAX. SIZE: Max. LOA. 170 m.
HEALTH: Free Pratique normally given at the quays after mooring. Pratique is automatic for vessels coming from another Tunisian port. In case of suspected disease on board vessel will be ordered to quarantine anchorage.
RADIO: Sousse Control "3VW4" on 2182 kHz and VHF Channel 16.
TUGS: One tug of 900 h.p.
BERTHING: One basin for ocean-going ships, yacht basin and fishing vessel harbour.

Length of quays 830 m., 8 berths.
South Basin Quay, length 140 m., dredged to 8.7 m.

CRANES: 1×18 tons and 2×10 tons.
STEVEDORES: Minimum of 24 hours' advance notice of ETA to Agent is required.
MEDICAL: Doctor available to board vessel. Hospital, private clinics and all facilities available.
REPAIRS: No facilities.
GANGWAY/DECK WATCHMEN: It is recommended to employ shore watchmen.
OPENING/CLOSING HATCHES: Carried out by stevedores at the request of Masters.
CUSTOMS ALLOWANCES: Each crew member is allowed 1 carton of cigarettes and 1 opened bottle of wine or spirits. In case of a prolonged stay in port, Customs may renew these quantities.
IDENTIFICATION CARDS: Crew member's Identification Cards will be collected by the Immigration service and exchanged for shore passes while vessel is in port.
TIME: GMT plus 1 hour. GMT plus 2 hours (Summertime) from April 10th to September 15th 1988.
HOLIDAYS: There are 13 days official holiday during the year. Work can be carried out on all holidays except 1st May on payment of 100% overtime.
AIRPORT: Skanes Monastir – 13 km. from the port.
AUTHORITY: Office des Ports Nationaux Tunisiens, Rue Abdallah Ibn Zoubair, Sousse, Tunisia. *Tel:* 03.25.755 or 03.24.401. *Telex:* 30960. *Contact:* Zine El Abidine Khalki, Port Director. B. Kalia Mohamed, Harbour Master.

TAZERKA: 36.36 N. 11.41 E. (See Plan)

PORT LIMITS: 5 nautical miles radius from Tazerka FPSU.
DOCUMENTS:

4 Crew Lists.
1 Health Declaration.

PILOTAGE: A Berthing Master will board the visiting tanker at a location 2 nautical miles downwind of the Tazerka FPSU. He will remain on board the visiting tanker until after departure and will disembark when the visiting tanker is clear of Tazerka FPSU.

The Berthing Pilot/Loading Master will be familiar with pilot/berthing/unberthing vessels at Tazerka and will advise the Master of the visiting tanker accordingly. Throughout the operation, he will be the liaison between the Master of the visiting tanker and the Tazerka SIS (Senior Installation Supervisor). He will advise the Master of the visiting tanker on documentation procedures and carry out any assistance.
ANCHORAGES: None.
APPROACHES: There are clear navigation approaches to and from the Tazerka FPSU. From time to time, special work barges and rigs will operate in the vicinity of the Tazerka FPSU. Information on such rigs will be broadcast through Normal Navigation Warnings and also by Tazerka Operations when visiting tankers first make communications contact.
RESTRICTIONS: Daylight mooring only.

Weather operating limits will be decided at the time of operations, but are approximately as follows:

(a) Maximum mean hourly wind speed = 20 knots.
(b) Maximum significant wave height = 2.5 m.
(c) Minimum visibility for berthing = 0.5 nautical miles.

MAX. SIZE: Minimum LOA 170 m. Maximum LOA 275 m. Under special circumstances LOA may be extended to 297 m.

No limit on beam and draft.

Minimum deadweight 20,000 tonnes (approx.). Maximum deadweight 140,000 tonnes (approx.).

Maximum displacement during berthing 150,000 tonnes.
RADIO: Vessels to send an initial ETA message to Agent via Tunis Radio on departure from the previous port and updated 72 hours, 48 hours and 24 hours prior to arrival at Tazerka. Thereafter changes greater than 3 hours should be reported. Where a ship departs from a port which is less than 72/48/24 hours' steaming distance away she shall advise her ETA as soon as possible.

ETA messages should include the following information:

(a) Location of cargo manifold in relation to the length overall of ship.
(b) Type of moorings (synthetic rope, wire, wire with synthetic tails, etc.)

VHF: Tazerka Floating Production Storage Unit is equipped with VHF Channels 16/6. Notice of Readiness may be issued when vessels are within 5 nautical miles radius of the Tazerka FPSU.

TUGS: One supply boat available to assist with mooring/unmooring.

BERTHING:

Tanker's Draft: The tanker must be on a suitable draft and trim for the approach run. No hard and fast rules will be applied but Masters of visiting tankers must bear in mind the need for accurate steering with a minimum of speed coupled with good stern power ability.

As a guideline a suitable draft is provided by applying the following criteria:

(i) Moulded draft amidships (dm) in metres to be not less than:
$dm = 2.0 + 0.02L$

(ii) Trim by the stern not greater than $0.015L$;

(iii) In any case draft at the after perpendicular not less than that which is necessary to obtain full immersion of the propeller(s).

This is in accordance with the requirements of the "International Conference on Marine Pollution, 1973" Regulation 13. In practice it has been found that ballast required to achieve these criteria typically approximates to 25% of Summer Deadweight.

Vessels berth port side to the starboard side of a Floating Production Storage Unit (a converted VLCC) which is moored to a SPM consisting of a yoke and rigid single anchor leg system. The FPSU is free to rotate through 360°. Vessels will berth against up to 5 inflatable Low Pressure Floating Fenders.

Wire moorings must have synthetic rope tails with a breaking strain at least 5% greater than the minimum breaking load of the wires to which they are attached.

Two long rope messengers to be ready forward and aft. Both anchors home and secured. (If reducers and/or tails are not available on board, advise Tazerka FPSU with initial ETA. Prepare to lift this equipment on board from the pilot boat).

Immobilisation of engines not permitted under any circumstances.

HOSE CONNECTION: Port side midships – 2×12 in. 150 ASA hoses. Port side derricks should be rigged for minimum 5 tonnes SWL.

Cargo manifolds must comply with OCIMF Standards for Tanker Manifolds, 1981 Edition.

LOADING/DISCHARGING: Typical VLCC pipe-line system with special manifold located 225 m. from stem on the starboard side.

2×12 in. hoses for Crude Oil discharge. Maximum loading rate – 7,000 cu.m.p.h.

1×8 in. hose for Fuel Oil receiving. Maximum receiving rate – 1,000 tonnes/h.

1×3 in. hose for Diesel Oil receiving. Maximum receiving rate – 50 tonnes/h.

Concurrent receipt of fuel oil and diesel oil with crude oil discharge is required.

BALLAST: No dirty ballast facilities. It is a condition of loading that vessel's ballast is clean and suitable for discharge to sea as defined in MARPOL 1973, Regulation 13. All other ballast shall be retained on board.

MEDICAL: Emergency cases can be treated.

DENSITY: 1025.

FRESH WATER: Not available.

REPAIRS: Not available.

TIME: GMT plus 1 hour. GMT plus 2 hours (Summertime) from April 10th to September 15th (1988).

REPATRIATION: Not possible.

REGULATIONS: Access to FPSU not permitted.

The Authorities of all Arabic Ports subscribe to the Israeli boycott and administer checks on ships. Apart from the usual checks on Log Books, etc., store rooms, can be inspected for evidence of Israeli produce. If found, ships can be fined and/or blacklisted from all countries subscribing to the boycott.

It is recommended that stores be checked to ensure that there are no items which can be interpreted as being of Israeli origin. This includes items which bear trade marks incorporating Hebraic symbols such as the six point star, irrespective of the country of origin.

AUTHORITY: Shell Tunirex, B.P. 349, Tunis, Tunisia. *Tel:* 341.509, 341.510, 341.514, 247.411. *Telex:* TREX 13831 TN, TREX 14393 TN.

NOTES

Please also advise Shipping Guides Ltd.

Turkey

GENERAL: (See Plan)

On arrival off Canakkale coming from the Aegean, or off Buyukdere coming from the Black Sea, ships must stop for sanitary inspection. However, tankers with a d.w.t. over 100,000 tons proceeding to the Gulf of Izmit to discharge or load petroleum products may obtain Pratique there without stopping at Canakkale, provided Agents are notified 96 hours in advance.

In the event of bad weather at Canakkale, vessels may be allowed to continue their voyage to Istanbul and undergo the sanitary inspection there. Permission to do so is notified to vessels by the Canakkale Sanitary Office with the signal "H.M." in daytime and three vertical lights (green, white, green) at night.

Pilotage through the Dardanelles and the Bosphorus is compulsory. Pilot stations, equipped with VHF operating on Channel 16, are located at Canakkale, Istanbul and Telli Tabia (Upper Bosphorus).

Turkish Flag: All foreign ships are required to fly Turkish flag during their stay in Turkish ports or when passing through the Straits (Dardanelles and Bosphorus).

Sanitary and Port Inspections: On arrival at a Turkish port, every ship is boarded by a Sanitary Officer for examination. Nobody may join or leave the ship before this inspection is completed.

The ship must produce the following documents:

Sanitary Declaration Form.
Derat Certificate.
Ship's Register.
Load Line Certificate.
Safety Radio Certificate.
Safety Equipment Certificate.
Cargo Ship Safety Construction Certificate.

Police Customs Controls: After obtaining Free Sanitary Pratique, the ship must likewise produce:

(1) 3 Crew Lists together with every member's Passport, Discharge Book or Z-card.
(2) 1 List of Provisions, Stores and Bunkers.
(3) 1 Declaration of all Monies or cheques carried in the ship's safe.
(4) Manifests of all cargo on board, whether for discharge at Turkish or foreign ports.
(5) 1 List of Passengers Landing in Istanbul showing nationality, number, date and source of entrance visa (if such visa is required) together with the Passports.
(6) 1 List of Transit Passengers together with the Passports.

Documents covered by items 1, 2, 3, 4 and 6 as well as a List of Passengers Embarking at Istanbul are also required on departure.

Police and Customs Controls are effected at Istanbul when arriving from the Aegean and at Buyukdere when arriving from the Black Sea. However, vessels under 500 n.r.t. have to undergo control formalities at Canakkale, both inwards and outwards, apart from those to be effected at Istanbul. It is recommended to prepare the accommodation ladder to facilitate the boarding of officials.

Excepting the case of tourist vessels, the Customs Officers will seal stocks of provisions and tobacco, spirits, as well as any other items in bond. Sufficient quantities of the foregoing will be left unsealed for the needs of the ship during the stay in port.

If stores left unsealed are exhausted while a ship is in port, a request to the Customs Officers will ensure further withdrawal.

The seals must not be broken before the ship's exit from territorial waters or if sailing from one Turkish port to another Turkish port.

Special Rules for the Passage of the Bosphorus: During their passage through the Bosphorus, ships must regulate their speed, without exceeding the 10 knot limit over the bottom, so that piers, landing stages, etc., or other craft (sailing and rowing boats, etc.) may not be damaged by their wash. Further, they must take care not to hinder fishing and diving operations or to damage submarine telephone, telegraph or electric cables.

Sound Signals, Wireless Sets: It is forbidden to make use of sirens or steam whistles in the harbour, except for manoeuvring purposes as laid down in the regulations for the avoidance of collisions.

Radio transmitters are not sealed on arrival of a vessel but it is recommended that their use in Turkish territorial waters be restricted to cases of emergency.

Refuse: No refuse such as garbage, ashes, polluted oil and the like can be thrown or pumped overboard, nor any scraping, cleaning of tanks and/or bilges can be effected inside port limits.

RESTRICTIONS:

The Bosphorus – Height of Power Transmission Line: A transmission line with a vertical clearance of 70 m. (B.A. Chart 3930, 229 ft.) has been installed alongside the power transmission line in position 41° 10.4′ N., 29° 04.7′ E. (approx.)

Masters of vessels with a similar masthead height intending to pass beneath this cable must contact the Harbour Authority for permission to pass.

NOTICE:

New Traffic Regulations in Conformity with International Regulations for Preventing Collisions at Sea (IMO Colreg of 1972) are being established in the Strait of Istanbul.

A. It is decided that a new traffic regulation conforming to the international rules of navigation be established in the Strait of Istanbul. The new regulation which will be effective in the Strait of Istanbul as of 1st May 1982, 0900 hrs. GMT (1200 hrs. LMT) is as follows:

1. The existing left side navigation regulation in the Strait of Istanbul which is applicable between Kizkulesi-Ortakoy line in the South and Tarabyaburnu-Umuryeri feneri line in the North will be abolished on 1st May 1982, at 0900 hrs. GMT (1200 hrs. LMT) and then the new regulation in conformity with Rule 9 of International Regulations Preventing Collision at Sea of 1972 will come into force.

2. Ships in their transit from the Sea of Marmara to the Black Sea or from the Black Sea to the Sea of Marmara will, in accordance with Rule 9 of IMO Colreg 72, navigate throughout the Strait of Istanbul on the right side of the median line (traffic separation line) and under no circumstances will they pass to the left of the said line.

3. Ships during their transit in the Strait of Istanbul will not overtake other vessels unless they are forced to do so and will navigate inside the designated traffic lane.

B. Pilotage Services:

The pilotage stations are providing pilotage services on 24 hour basis for ships navigating in the Strait of Istanbul. The location of these stations are given in the international pilotage books and marked in the Strait of Istanbul chart (TR.2921).

C. Amendments to Charts:

"Caution I" on Chart TR.2921 will be cancelled with the coming into effect of the new traffic regulation.

D. Navigational Notices:

Explanatory information and navigational warnings regarding the new traffic regulation in the Strait of Istanbul are broadcast in English and Turkish by the following by Weekly Notices to Mariners and also will be mailed.

Istanbul	(TAH)	(Yesilkoy)	: 441 – 2670 kHz
Izmir	(TAN)		: 458 – 516 – 1850 kHz
Mersin	(TAM)		: 524 – 2820 kHz
Samsun	(TAF)		: 416 – 2760 kHz
Bandirma	(TAA4)	(Meteoroloji)	: 478 – 3636 – 6965 kHz

NOTICE: British Admiralty Notice No. 3590/1986.
Mediterranean Sea - Turkey - Istanbul Bogazi (The Bosphorus - Bridge under construction.
(1) Pecked lines are to be inserted joining the following positions:-
(a) 41° 05.533′ N., 29° 03.315′ E. and 41° 05.569′ N., 29° 04.102′ E.
(b) 41° 05.504′ N., 29° 03.318′ E. and 41° 05.540′ N., 29° 04.105′ E.
(2) The legend, Bridge under construction (1986), is to be inserted close N. of (1) above.
Chart (Last correction). – 1198 (1792/86).

2nd bridge under construction in 1988.

SHIPMASTER'S REPORT: November 1979.

Dardanelles and Bosphorus:

Vessel bound for Odessa with a full cargo of corn. According to Charterer's orders (Sovfracht Moscow), vessel was to encounter 4 to 5 weeks at anchor at Odessa Roads and for this reason had to take sufficient fresh water at Ahirkapi Roads on the West side of the Bosphorus.

The quantity (and quality) had to be ordered 3 days prior to arrival through Charterer's Agent (Bumeran) in Istanbul. 2 days' notice and 24 hour notice were required.

The vessel also wished to make crew changes at the same time as taking water and this was arranged by Husbandry Agent (Rammoc, Istanbul).

Vessel took a Pilot all through the Dardanelles and Bosphorus and he boarded at Mehmetoik (Mehmetcik) Point.

When passing Canakkale, vessel slowed down and an Officer had to go down into the Sanitary Inspector's motorboat.

In addition to the sanitary boat another motorboat arrived, bringing the sub-Agent of the vessel's Istanbul husbandry Agent. The sub-Agent passed a message for Master with the latest information for Ahirkapi Roads to the ship's Officer after vessel having received Free Pratique from the Sanitary Officer. This sub-Agent is acting for several Istanbul Agents, the address is as following:

Denizciler Shipping Agents, Isfendiyar Anafarta & Co., Carsi Cad. 10, Canakkale. P.O.B. 5, Canakkale. Cables: 'Denizciler'. Tel: 1032-1878 after hours – 1055. Telex: 58128 dzck tr.

The information from the sub-Agent also included the kind and number of forms and lists required at Istanbul.

Immediately upon letting go anchor in Ahirkapi Roads, the motor launch with the Turkish Authorities arrived, some minutes later the Agent's boat arrived with the new crew members and some spare parts.

The Authorities required the following forms and lists:

Certificate of Registry.
Tonnage Certificate.
Load Line Certificate.
Safety Equipment Certificate.
Safety Radio Certificate.
Transit Cargo Manifest.
3 Currency Lists of vessel's safe.
2 Personnel Effects Lists (Not officially required, but taken because at hand).
3 Stores Lists/Provisions.
3 Crew Lists.

There was no report of inspection, etc., given to the vessel by the Authorities and *no* written outgoing clearance was issued. When asking for an outgoing clearance, the Officials stated it was *not* necessary in this case.

No special lists of crew changes were required.

The Pilot left at Ahirkapi Roads because the time for taking fresh water was expected to be 5 to 6 hours (60 m.t.p.h.)

One hour after arrival the waterboat arrived and the vessel took fresh water (drinkable quality) as per order.

Half an hour before finishing pumping, Istanbul Pilots were called on VHF Channel 16. The Pilot arrived on schedule and the vessel continued the voyage to Odessa.

On approaching Ahirkapi Roads from the West, care has to be taken of numerous fishing boats and sand/gravel digging barges.

SHIPMASTER'S REPORT: October 1980 (Updated 1988).
Dardanelles and Bosphorus:
Dardanelles:
Pilotage: Compulsory. Cable: 'Canakkale Pilot Station' 48 hours if possible in advance to be sure of obtaining Pilot. At present Pilots are in short supply due to an increase in traffic.

One Pilot for Dardanelles and Bosphorus.

Boards from grey hulled launch of about 8 knots speed from Sebbulbahir on Northern entrance.

VHF: Call 'Mehmetcik Pilots' on Channels 16 and 71.

Generally starboard side ladder or gangway.

Pilot gives Master form to fill in for Canakkale.

Control: Sanitary Control at Canakkale on Asian side of Strait near narrows about 1 hour after Pilot boarding.

Two launches come out. One Agent, one Immigration.

Require: 2 Crew Lists, sight Ship's Register and Derat Certificate. Officer has to go down to Immigration launch, no one boards.

Immigration Officer gives ship yellow form which is required to be shown next port.

Control only Northbound whether coming from overseas or a Turkish port.

Navigation: Forecastle manned at Canakkale.

In fine weather, Straits present no problems, but in poor weather and visibility it can be more difficult, especially at Canakkale with other ships around where the vessel is nearly stopped. Also the narrows can be dangerous.

Pilots like maximum sea speed which is not possible.

Vessel passed through the narrows on manoeuvring speed.

Current S.W. flowing at 1 knot – 2 knots.

Transit takes about 3 hours, dependent on weather and delay at Canakkale.

Pilot hands over 'Control' at Inceburun, and takes over Southbound at the same place.

Sea of Marmara: Good positions obtainable. Ship carries out navigation, no Pilot. Very busy but most traffic, apart from ferries and small craft, on straight course from Bosphorus through to Dardanelles and vice versa.

Keeping well to starboard is advisable.

Transit about 6 hours.

Bosphorus:
Pilotage: Compulsory.

If coming from the Dardanelles, Pilot takes over at 'Yesilkoy' or joins by launch at position South of Athirkapi Point. From the North (Black Sea) Pilot boards (and disembarks) at Tellitalya Point just below Kavak (about 4 miles South of Rumeli Point, the Western entrance to the Strait).

Wait North of Rumeli Point until Pilot available.

Cable: 'Kavak' Pilot Station minimum of 6 hours' notice. Generally boards starboard side (and disembarks). Pilot gives Master form to fill in for control.

Control: At Buyukdere North and South about 20 minutes from pilot station.

Control requires: 2 Crew Lists, sights Ship's Register and Derat.

Yellow Immigration form given to Master. An Officer has to go down into launch. Two launches. Agent and Sanitary Inspector.

Navigation: No transit in fog. Forecastle manned for anchoring all transit. As per BA 1198.

Extreme vigilance is required on account of ferries, small boats, ships not under pilotage, strong currents, etc.

Transit time about 2 hours.

Signal Station: At Kavak on Asian bank just North of pilot station. Aldis lamp required.

Currents: Generally a 2 – 5 knot Southerly current, this can be pushed down by strong Southerly wind at Southern entrance at Istanbul.

Pilots advise that in these conditions transit for large bulk type ships is very hazardous on account of steering. Caution must be exercised in picking the Pilot up Southbound at Kavak due to Southerly current building up ship's speed.

SHIPMASTER'S REPORT: December 1983.

Earlier this year a pilot station was established at Gelibolu at the Eastern end of the Dardanelles. It is served by a 60 ft. fishing boat, painted white. The pilotage fee for Mehmetcik-Gelibolu and Harem-Kavak is 50% of the fee for Mehmetcik-Kavak.

If taking stores/spares when passing the Bosphorus, Agents should be instructed to arrange for the delivery at the Istanbul end as it is highly undesirable to have the Agent's launch alongside at Kavak before the Pilot boards.

REPORT: June 1985 (Updated 1988).

The following was received by a Master from his Agent in Istanbul.

For vessels proceeding and destined to Istanbul (not transitting vessels), the Gulf of Izmit or any other port inside Marmara Sea, pilotage is compulsory through the Dardanelles from the Southern entrance (Mehmetcik Point/Cape Hellas Lat. 40° 02′ N., Long. 26° 11′ E. to the Northern exit (Gelibolu Lat. 40° 24′ N., Long. 26° 41′ E.).

The same applies for vessels coming from a Marmara Sea port and proceeding Southwards.

From Gelibolu to the entrance of Izmit Gulf (Darica Lat. 40° 45′ N., Long. 29° 21′ E.) or vice versa, pilotage is not compulsory.

From Darica inside Izmit Gulf pilotage is again compulsory.

All pilot stations can be contacted by VHF Channel 16, working Channel 71.

For vessels passing, in-transit pilotage through Dardanelles-Marmara Sea-Bosphorus or vice versa is not compulsory. It is, however, strongly recommended to employ pilotage services through the Bosphorus.

Dardanelles Pilot can be picked-up at Mehmetcik Point (Lat. 40° 02′ N., Long. 26° 11′ E.) and dropped at new pilot station at Gelibolu (Lat. 40° 24′ N. Long. 26° 41′ E.) respectively picked up there and on outward voyage, thus saving the open Marmara Sea stretch. Another Pilot can then be requested at Istanbul (Harem) for Bosphorus.

Please make sure to enter into Pilot bills the exact times of services given. Please bear in mind that if part of a service falls into overtime, the whole service is charged as overtime. Service hours are as follows:

0800 – 1700 straight time.
1700 – 0800 overtime charged at 50% extra.
0800 – 1200 Saturday straight time.
After 1200 Saturday overtime till Monday morning 0800 hrs.

For vessels with inflammable, dangerous cargoes, etc. 30% extra is charged on all pilotage services, therefore whenever tankers are gas free this must be inscribed on Pilot bills. Also when tankers are loaded with harmless cargoes.

Whenever Pilots remain onboard after completing their service, as guest-passengers, Pilotage bill should be signed for the service part only.

SHIPMASTER'S REPORT: June 1987.
Pilotage through Dardanelles: Compulsory for all foreign vessels bound to and from a Turkish port. Northbound vessels take a pilot at Mehmetcik and Southbound vessels take a pilot at Gelibolu.
VHF: Pilots on Channels 16 and 71.
Notice: 48 hours notice of arrival required.

ALANYA: 36.32 N. 32.03 E. (See Plan)

RADIO: Alanya Radio. Call sign TAC4.
BERTHING: Jetty length 277 m., depths alongside 8 m. – 12 m. Can accommodate 4 vessels.
CRANES: No shore cranes available; vessels use their own gear for loading/discharging.
STEVEDORES: Loading/discharging carried out by hired stevedores. Average rate per shift/gang of 150 tons for cotton, bagged and general cargoes.
Working Hours: 0800 hrs – 1630 hrs. Lunch break 1230 hrs.
FRESH WATER: Available.
AIRPORT: At Antalya (150 km.).
CHARGES: Light and sanitary dues.
AUTHORITY: Kerim Saygi, Harbour Master. *Tel:* 1095. *Telex:* 25673. Turkiye Denizcilik Isletmeleri, Genel Mudurlugu, Rihtim Caddesi, 80120 Karakoy, Istanbul, Turkey. *Contact:* Head of Port Operations Department or Assistant General Manager.

ALIAGA: 38.50 N. 26.57 E. (See Plan)

LOCATION: *Northern Point:* Lat. 38° 50′ 10″ N., Long. 26° 56′ 33″ E.
Southern Point: Lat. 38° 50′ N., Long. 26° 57′ 36″ E.
DOCUMENTS: See "Izmir".
PILOTAGE: Pilot boards 2 to 3 miles West of Tasli Burnu Light.
ANCHORAGES: The port itself is situated about 40 miles N.N.W. of Izmir on the Southern arm of the Gulf of Candarli and the anchorage is considered safe for large ships.
RESTRICTIONS: Water depth at entrance about 14 fathoms. Water depth at crude oil wharf 17 m. – 18 m.
MAX. SIZE: Crude Oil Berth designed for up to 100,000 d.w.t. Products Berth designed for up to 22,000 d.w.t.
HEALTH: *Customs:* Customs post at refinery.
Immigration: None locally. Incoming and outgoing personnel have to be processed at Izmir and escorted under guard to and fro.
Health: No office locally. Officials have to be brought from Izmir.
RADIO: Cable address of Aliaga Refinery: "Petrol Izmir".

Four days prior arrival, Agents require notice of ETA (time and date) followed by any subsequent change.

TUGS: 2 × 2,400 h.p. tugs are on order. Meanwhile tug can be obtained, if available, from Port Monopoly Izmir at additional cost. Mooring boat also on order, meanwhile local boat available for hire.
BERTHING: *Aliaga Refinery Terminal:* Incoming tankers discharge at a "T" type oil jetty just South of Tasli Burnu Light. The jetty runs parallel to the coastline and is situated Lat. 38° 49′ 30″ N., Long. 26° 57′ 30″ E. approximately. The outer arm of the jetty, 317 m. long, is designed for crude oil tankers of 75/100,000 d.w.t. on the outer side and for tankers of 25,000 d.w.t. on the inner. The outer S.W. arm is designed for products tankers of up to 22,000 d.w.t. and the inner berth for small tankers of up to 5,000 d.w.t.

The crude oil berth is roughly in the centre of the N.E. arm and has 4 loading arms. The jetty is protected by 4 pivotal concrete buffers.

The products berth is similarly in the centre of the arm and is equipped with flexible hoses. Crude oil pumping rate up to about 3,000 t.p.h.

FRESH WATER: Available.
FUEL: Available.

With 48 hours notice Petrol Ofisi can supply marine fuels and lubricants (Mobil, Shell, Chevron and B.P.). Telex: 29048 Bunk Tr. Tel: (1) 338 25 09/337 36 86/337 88 31/336 06 36. Mailing address: Petrol Ofisi - Haydarpasa, Mehmet Ince, Kadikoy, Istanbul, Turkey.

AIRPORT: Izmir is not an international airport.
DELAYS: Cargo is nearly always transhipped leading to unforeseen delays.
SUPPLIES: From local towns; adequate fresh fruit and vegetables and meat.
AUTHORITY: See "Izmir".
AGENT: See "Izmir".

ANTALYA: 36.50 N. 30.37 E. (See Plan)

PILOTAGE: Compulsory. 1 pilot boat and 1 service boat available.
RADIO: Antalya Radio. Call sign TAL.
TUGS: 3 tugs and 1 mooring boat available.
BERTHING: Outer breakwater is 1,440 m. long, inner breakwater is 650 m. long. Port area is 331,600 sq.m.

Vessels can enter port and anchor at any time with a Pilot aboard. Manoeuvring area has 400 m. diameter, depths 8 m. – 11 m.

8 operating quays, 1 passenger quay and a military quay available.

Quay No.	Length (m.)	Depth (m.)
1	150	10.00
2, 3	165	5.5 – 6.5
4	60	8.00
5, 6	290	8.00
7	170	10.00
8 (Passenger Quay)	170	10.00
9 (Military Quay)	270	5.50
Ro/Ro (New Quay)	35	5.50

Storage:

Open warehouse area is 200,000 sq.m. Closed warehouse area is 3,000 sq.m. Closed warehouse (for combustible cargo) is 400 sq.m.

Cold storage plant (new) is 6,900 sq.m. with capacity of about 10,000 tons.

PORT EQUIPMENT:
1 floating crane (60 tons).
8 cranes (1×25 tons (fixed), 5×5 tons).
6 mobile cranes (3×10 tons, 1×25 tons, 1×5 tons, 1×3 tons).
12 forklifts (10×3 tons, 1×5 tons, 1×10 tons).
5 tractors.
24 trailers (20×1 ton, 4×6 tons).

BULK CARGO FACILITIES: 4 alumina silos each of 4,000 tons capacity which can load into vessel by conveyor belt at a rate of 250 t.p.h.
STEVEDORES: Gangs of 6 – 8 men each, load/discharge cotton at rate of 100 tons per shift, general cargoes 125 tons per shift.
Working Hours: From 0800 to 1630 hrs. Lunch break from 1200 to 1300 hrs. No overtime rate implemented.
AIRPORT: Antalya airport is 22 km. from the port, 12 km. from Antalya city centre.
HOLIDAYS: Work is possible on Turkish holidays, weekends upon request.
DEVELOPMENTS: TMO and SEKA quays (3) are still under construction for passenger vessels, grain and lumber.
AUTHORITY: TDI is in charge of loading/ discharging.

Turkiye Denizcilik Isletmeleri, Genel Mudurlugu, Rihtim Caddesi, 80120 Karakoy, Istanbul, Turkey. *Contact:* Head of Port Operations Department or Assistant General Manager.

Local officials: Gunduz Yalman, Port Manager. *Tel:* 9-31-140040. *Telex:* 56186.

Ali Ozcan, Harbour Master. *Tel:* 140005. *Telex:* 56009 Lmba TR.

Dr. Yusuf Kalkavan, Sanitary Authority. *Tel:* 140004. *Telex:* 56035 Asam TR.

AGENT: Gulf Agency Co. Ltd., P.O.Box 116, Antalya, Turkey. Tel: 13342, 16054, 25685. After Hours: 14649, 23263. Telex: 56218. Cables: "Gacship", Antalya.

BANDIRMA (including Bagfas): 40.22 N. 27.59 E. (See Plan)

LOCATION: Bandirma is situated on Southern side of Marmara Sea about 63 nautical miles from Istanbul. Admiralty Chart No. 294.
PORT LIMITS: The sea area of the Port of Bandirma is an area inside a line joining Latitude 40° 23′ 42″ N., Longitude 27° 54′ 12″ E. and Latitude 40° 22′ 00″ N., Longitude 27° 59′ 30″ E.
DOCUMENTS:
7 copies Crew List.
4 copies Passenger List.
2 copies Transit Cargo Manifest.
3 copies Inward Cargo Manifest (1 copy must be legalised by Turkish Consulate at loading port. If no Consulate existing same to be certified by Local Customs Officer of the Chamber of Commerce.)

PILOTAGE: Compulsory. Ordered by Agent on basis of Master's ETA. International Code signals used to call Pilot who boards at harbour entrance.
ANCHORAGE: Anchorage is in the open roadstead.

For safe entry and departure from the harbour it is forbidden to anchor between the line 008° from the lighthouse on the North Breakwater and 337° from the lighthouse on the West Breakwater.

MAX. SIZE: At anchorage no limitations. Alongside pier max. length 200 m. and max. draft 34 ft.
HEALTH: Arriving vessels are inspected at the Dardanelles and Istanbul (Bosphourus) No other inspections are required.
RADIO: Istanbul Radio – call sign TAH; Bandirma Radio – call sign TAA4; Tekirdag Radio – call sign TAA3.
TUGS: 3 tugs available, each 1,025 h.p.
CRANES: There are 15 shore cranes.
1 fixed crane with a capacity of 25 tons.
2 portal cranes with hooks with a capacity of 10 tons.
2 portal cranes with a capacity of 10 tons.
6 portal cranes with hooks with a capacity of 5 tons.
4 portal cranes with a capacity of 5 tons.
1 rubber wheeled mobile crane with a capacity of 25 tons.
3 rubber wheeled mobile cranes with a capacity of 10 tons.
2 mobile cranes with a capacity of 25 tons.

BERTHING:

Berth No.	Length (m.)	Depth (m.)	Remarks
1	130	8.25	Ro/Ro vessels can berth.
2 – 3	284	10.00	
4 – 5	324	10.00	
6	130	10.00	
7 – 8	379	11.00/10.00	Fixed crane with capacity 25 tons.
9	204	10.00	
10	100	10.00	
11	190	10.00	
12	182	10.00	Berths of Etibank
13	80	10.00	
14	180	8.25	
15 – 16	270	4.00	
17 – 18	315	4.00	For vessels under 300 n.r.t.

Bagfas: Bagfas Iskur Fertilisers:
Location: Bagfas Iskur Fertilisers Jetty is situated on Southern side of the Marmara Sea about 5 nautical miles from Bandirma. (Admiralty Chart No. 294).
Pilotage: The jetty is private but pilotage/tug boat/mooring boat services are operated by TCDD (Turkish State Railways).
Anchorage: Port of Bagfas is an open port, but good anchorage in roads a few cables off the entrance in depths up to 7 fathoms.
Accommodation: Port of Bandirma/Bagfas fertilisers jetty, length 77 m., depths between 11 m. and 9.30 m.

NOTE: From jetty to each mooring dolphin 61 m.

Port Facilities: One moving crane available on the jetty with 10 tons lifting capacity which loads bulk cargoes into bunker which is connected to conveyor belt with discharging capacity up to 3,000 tons daily.

Receiving capacity of products (liquid Ammonia) is 350/400 tonnes per hour.

Working hours from 0800 to 0200 hrs.

Imports: Mainly Phosphate, Acid, Phosphoric Acid, Sulphur, Ammonia and various fertilisers.
STEVEDORES: 2 consecutive shifts of 7.5 hours each day are worked. If required a 3rd shift is possible.

160 tons of general cargo can be handled in 1st shift and 600 tons of bulk cargo can be loaded in the 1st shift.

Gangs are arranged by vessel's Agent through the Port Monopoly 24 hours prior to arrival.

EQUIPMENT: 3 towing tractors, 2 trucks, 1 forklift × 5 ton capacity, 2 forklifts × 3 ton capacity.
Warehousing: 2 warehouses available at dockside where vessels can berth 20 m. to 30 m. away.

Measurements of warehouses: Length 100 m., width 35 m., height 8.6 m. minimum, 12.3 m. maximum.

Each gang for fertilisers discharging contains 9/10 men. Extra labour can be supplied from either Port Authority or outside which can be arranged by Agent in best possible way.

Exports: Colemanite, Ulexite, Tincal in bulk, Borax/Boric Acid and Byrites in bags, Tomato Paste in cartons.
Imports: Fertilisers and general.
MEDICAL: Every kind of health service is arranged by the Agent.
FRESH WATER: Available at berths.
FUEL: Vessels at anchorage can be supplied with fuel.

With 48 hours notice Petrol Ofisi can supply marine fuels and lubricants (Mobil, Shell, Chevron and B.P.). Telex: 29048 Bunk Tr. Tel: (1) 338 25 09, 337 36 86, 337 88 31, 336 06 36. Mailing address: Petrol Ofisi – Haydarpasa, Mehmet Ince, Kadikoy, Istanbul, Turkey.

OPENING/CLOSING HATCHES: May be opened or closed by ship's crew, or by stevedores at no extra charge.
CUSTOMS ALLOWANCES: 50 cigarettes for each man going ashore. On board the vessel each man may hold 200 cigarettes and a bottle of spirits.
IDENTIFICATION CARDS: Seamen's Book is sufficient.
CONSULS: None.
REPAIRS: Minor repairs are possible at the port workshop.
AIRPORT: Nearest airports are at Istanbul and Izmir.
POLICE/AMBULANCE/FIRE: Police 10870, Ambulance 17331, Public Hospital 12932.
TIME: GMT plus 2 hours.
HOLIDAYS: New Year's Day (January 1st), National Sovereignty Day (April 23rd), Youth and Sports Day (May 19th), Victory Day (August 30th), Proclamation of Republic (October 29th), Religious Holidays (3-4 days).
AUTHORITY: TCDD (Turkish State Railways), Liman Isletme Mudurlugu, Bandirma. *Tel:* 1211.

TCDD Isletmesi Genel, MD, Talatpasa Bulvari, Ankara, Turkey. *Telex:* 42571.

AGENT: See "Istanbul".

BORUSAN: 40.25 N. 29.05 E. (See Plan)

LOCATION: Borusan Jetty is situated near Gemlik in position Lat. 40° 25′ 03″ N., Long. 29° 05′ 21″ E., on East side of Marmara Sea about 52 nautical miles from Istanbul.
DOCUMENTS:
4 copies Crew List.
4 copies Cargo Manifest.
2 copies Stores List.
2 copies Crew Declaration.
2 copies Health Declaration (including the Clearance from Canakkale).
2 copies Ship's Particulars.

PILOTAGE: Not compulsory. If vessel requires a pilot, a private pilot is available.
VHF: Channel 16.
TUGS: 1×1,000 h.p.
BERTHING: The 170 m. jetty offers 2 berths alongside. Depth 4.5 m.-8.5 m. Vessel may be loaded and discharged while moored stern to the open sea.
Facilities: Borusan Gemlik has 11,000 sq.m. of storage area, 1,600 sq.m. is covered and 2,000 sq.m. covered storage will be built next year (1989).
CRANES: One with lifting capacity 55 tons and another with 30 tons capacity operating on the jetty.
STEVEDORES: Private Borusan group. Normally working in 2 shifts from 0830 hrs. to 1700 hrs. and second shift from 1700 hrs. to 2330 hrs.
MEDICAL: Emergency hospital and dental facilities are available at Bursa, approximately 30 km. from the Borusan plant.
FRESH WATER: Available.
GANGWAY/DECK WATCHMAN: Not necessary, ship's gangway used.
OPENING/CLOSING HATCHES: By ship's crew.
TIME: GMT plus 3 hours.
HOLIDAYS: No work on Turkish holidays.
FIRE PRECAUTIONS: Factory fire brigade available.
AIRPORT: Nearest airport at Bursa which has daily flights to Istanbul, flight time 30 minutes.
GENERAL: Borusan Jetty, built in 1984, is located at the entrance of Gemlik Bay and Eastern part of Marmara Sea which is known as Cape Tuzla. Type of pier is reinforced concrete jetty and clear alongside distance is 170 m., width 20 m. Maximum depth at jetty changes from 4.5 m. to 8.5 m. Bottom is sandy and shelving.

Borusan Jetty has been operating since 1984 and about 150/200 Turkish and foreign flag vessels call at pier every year. The deadweight of vessels changes from 1,000 tons up to 10,000 tons and sometimes more than 10,000 tons, depending on arrival draft and cargo quantity on vessel. For example, in 1988 following vessels called at pier and safely berthed and discharged. Vessel with deadweight 38,962 tons, cargo on board 10,000 tonnes and another vessel with deadweight 28,031 and cargo of 13,000 tonnes.

Port loads and discharges about 500,000 tons per year, especially steel products.

AUTHORITY:
1. Borusan Ihracat Ithalat Dagitim A.S.
Borusan binasi 523/533,
Salipazari 80040 Istanbul, Turkey.
Tel: 1-151 34 10 (20 lines).
Telex: 24190/24586.
FAX: 1-149 37 22.
2. Borusan Gemlik Boru Tesisleri A.S.
Hisar mah. Gemsas mevkii,
Gemlik-Bursa, Turkey.
Tel: (2511) 4601 (5 lines).
Telex: 32433/32472.
FAX: 3911.
3. Boru Nakliyat ve Ticaret A.S.
Rihtim Cad. Derya Is Merkezi A Blok K.4,
Kadikoy-Istanbul, Turkey.
Tel: 1-345 03 37 (5 lines).
Telex: 29391, 29302, 29503.
FAX: 1-345 31 34.

CANAKKALE: 40.08 N. 26.24 E.

DOCUMENTS: Vessels in transit through the Dardanelles must stop at Canakkale and produce following documents to boarding Officer.
Certificate of Registry.
Derat Certificate.
Crew List.
Name of Agent in Istanbul.
Vessels proceeding to a Turkish port will require in addition:
4 Crew Lists.
2 Personal Effects Lists.
2 Currency Lists.
2 Stores Lists.
PILOTAGE: Not compulsory for vessels proceeding to Istanbul. Compulsory for vessels over 1,500 g.r.t. proceeding to Canakkale. Vessels requiring a Pilot use International Code signals, or signal "G" by light or whistle. No advance notice required. Telegraphic address of pilot station, Kilavuzluk Canakkale, via radio station TAT. Pilot boards off Khepez lighthouse, where vessel should slow down but no need to anchor. In bad weather pilot boat will anchor in Gulf of Kilya.
Also see "Shipmaster's Report".
ANCHORAGES: Vessels may anchor in depths of 12 to 16 fathoms.
MAX. SIZE: Vessels of any size may navigate Canakkale Strait.
HEALTH: All vessels bound for a Turkish port must stop for Sanitary Clearance at Canakkale. Any suspected disease on board must be declared. Sick crew members may be landed for hospitalisation.
Also see "Shipmaster's Report".
RADIO: Radio station TAT situated at local Post Office.
TUGS: One tug available, belonging to pilot station. Ship's tow lines always used.
BERTHING: Agents require at least 24 hours' notice to arrange berthing at Canakkale Pier. Vessel may be required to shift anchorage to give place to Turkish passenger vessels which have priority.
STEVEDORES: Arranged by Agent on basis of Master's ETA.
MEDICAL: 12 hours' notice required to arrange medical assistance. Hospital facilities available.
DENSITY: Salt water. No tide.
FRESH WATER: Only available from the pier, rate approx. 10 t.p.h.
FUEL: Marine grades not available.
GANGWAY/DECK WATCHMEN: Customs guard compulsory for vessels at the pier.
OPENING/CLOSING HATCHES: May be operated by crew or stevedores according to Charter Party.
CUSTOMS ALLOWANCES: Crew allowed to retain only quantities for personal consumption.
IDENTIFICATION CARDS: Required for crew members going ashore.
CONSULS: Italy, tel. 1008.
REPAIRS: Minor repairs can be effected.
REPATRIATION: Can be arranged if visa requirements are satisfactory.
AIRPORT: Situated 2 km. from Canakkale, internal services only.
TIME: GMT plus 3 hours.
HOLIDAYS: Cargo work can be arranged on all holidays by agreement.
POLICE/FIRE/AMBULANCE: Police Tel. 1181; Fire 00; Ambulance 1098.
SHORE LEAVE: Allowed at all times.
DEVELOPMENTS: New installations and berths under construction.

SHIPMASTER'S REPORT: *Dardanelles and Bosphorus:* A pilot station has been established at Mehmetcik Point (Cape Hellas); if the weather is too bad to embark the Pilot here, vessels should proceed to Canakkale. If a Pilot is required for both Dardanelles and Bosphorus, give 24 hours' notice through Istanbul Agent. Same Pilot remains on board for full transit, Sea of Marmara included, and this applies for both North and Southbound traffic. Pilots at Dardanelles and Bosphorus work VHF Channel 16.
Sanitary Control: White launch. Officers do not board but require Chief or 2nd Officer to go down into boat. Canakkale required Ship's Register, Derat, Crew List and Quarantine Declaration of Health. It is also required to fill in a form giving details of ship, cargo, last port, number of crew and passengers, etc., also name of ship's Agent in Turkey.

AUTHORITY: Canakkale Liman Baskanligi.
AGENT: See "Istanbul".

DERINCE: 40.45 N. 29.50 E. (See Plan)

PORT LIMITS: A vessel that has arrived in Izmit Anchorage is considered an "arrived ship".
DOCUMENTS:
Quarantine:
Declaration of Health.
Valid Derat Certificate.
International Vaccination Certificates.
Free Pratique Received from Canakkale or Buyukdere.
Customs:
Crew Declaration.
Ship's Stores List.
Cargo Manifest.
Customs Clearance from last port.
Immigration:
Crew List.
Passenger List.
Shore leave passes arranged by Agent. Passenger embarkation disembarkation not possible.
PILOTAGE: Compulsory. 24 hours' service available. ETA must be confirmed 24 hours prior to arrival. Pilot boards 5 cables off the port entrance, Pilot on VHF Channel 16. Berth arranged by Agent through the Harbour Master. Berthing or anchoring permission must be received by Agent before arrival at Darica Pilot Station.
ANCHORAGES: Forbidden near the port. Waiting anchorage is at Izmit, 4 miles East of Derince. It is compulsory for vessels with explosives to anchor in Yarimca Anchorage.
VHF: See "Pilotage".
TUGS: Compulsory for vessels over 500 g.r.t.
500 g.r.t. – 5,000 g.r.t. One tug.
5,000 g.r.t. – 25,000 g.r.t. Two tugs.
25,000 g.r.t. – 50,000 g.r.t. Three tugs.
1×970 h.p. and 1×1,500 h.p. tug available. Mooring boat arranged by Pilot.
BERTHING:

Berth No.	*Length (m.)*	*Depth at LW (m.)*	*Remarks*
1	110	4.0	For small coasters
2	82	6.5	Ro-Ro
3	117	8.0	
4	90	7.0	
5	55	3.5 – 12.5	For small coasters
6	220	12.0	
7	180	10.0	
8	120	6.0	

CRANES:

Berth No.	*No. of Cranes*	*Capacity (Tonnes)*	*Remarks*
1	2	5	
2-3	2	5	
4	2	5	
5	None	25	(Fixed crane, may be hired
6	1	25	(Fixed)
	2	5	
	1	10	
7	3	5	
8	None	—	

22 mobile cranes with capacity 3 tonnes – 25 tonnes also available.
BULK HANDLING FACILITIES: Old silo not in service. TMO are planning to have new silos with jetty.

STEVEDORES: Normally working is in 2 shifts. First shift from 0800 hrs. – 1630 hrs. Second shift from 1630 hrs. – 2400 hrs. Labour provided by Port Authority on request from Agent.
FRESH WATER: Available at all berths.
FUEL: Fuel and diesel, also marine lubricants can be obtained by trucks through suppliers.
OPENING/CLOSING HATCHES: Stevedores or ship's crew, whichever is to the vessel's advantage.
CERTIFICATES:
Safety Construction.
Safety Equipment.
Safety Radio.
Load Line.
Tonnage.
CUSTOMS ALLOWANCES: 200 cigarettes and one bottle of spirits per week per crew member.
REPAIRS: Most deck and engine repairs can be carried out.
SURVEYORS: Available from Istanbul through Agent.
REPATRIATION: Crew changes and repatriation can be carried out.
AIRPORT: 130 km. to Istanbul Yesilkoy International Airport.
TIME: GMT plus 3 hours.
POLICE/AMBULANCE/FIRE: Emergency services available in the port.
SERVICES: Arranged by Agent, from Istanbul.
SHORE LEAVE: No restrictions. Also see "Documents".
HOLIDAYS: (1988) 1st January; 23rd April; 17th, 18th, 19th May; 25th, 26th, 27th July; 29th October (loading and discharging possible on this date).
DEVELOPMENTS: Container terminal with 4 gantry cranes and 8 transtainers to be in operation between 1987 and 1991. An additional general cargo berth and 2 gantry cranes will also be available to meet the increase in traffic.
AUTHORITY: TCDD Derince, Limani Isletmesi Mudurlugu (General Directorate of Turkish State Railways-Derince), Derince, Turkey. *Tel:* 131574/134278. *Cables:* TCDD Derince Limani. *Contact:* Fahri Sayali, Port Director.

TCDD – Isletmesi Genel, MD, Talatpasa Bulvari, Ankara, Turkey. *Telex:* 42571.

DILISKELESI: 40.46 N. 29.32 E.

(A) ALEMDAR HOLDINGS
(B) COLAKOGLU METALURGI
(C) SOLVENTAS

A) ALEMDAR HOLDINGS PIER

LOCATION: Lat. 40° 46′ 15″ N., Long. 29° 32′ 15″ E.
PILOTAGE: Pilotage is compulsory in the Gulf of Izmit from Darica to Diliskelesi and vice versa and also for berthing and unberthing.
BERTHING: *Jetty No. 1:* Length 210 m. Depth varies from 5.5 m – 14.0 m. *Jetty No. 2:* Length 200 m. Depth varies from 7.8 m. – 12.0 m. (Jetty No. 2 still under construction).

Jetties are used for loading sinter magnesite and for loading and unloading other dry cargoes and discharging chemicals.

No shore cranes available on the jetties. Magnesite is loaded by conveyor system at a rate of 2,000 tons per day.

The installation works around the clock.
TANKERS: Discharging rate for tankers is 200 t.p.h. – 250 t.p.h. There are storage tanks for tallow and vegetable oil.
FRESH WATER: Not available at the jetty. Fresh water can be supplied by barge from Izmit.
FUEL: Not available.
CUSTOMS: The port is under control of Gebze and Derince Customs Authorities.
AUTHORITY: Alemdar Holdings, Istanbul, Turkey.

(B) COLAKOGLU METALURGI PIER

LOCATION: Approximate location of the pier is Lat. 40° 46′ 05″ N., Long. 29° 32′ 10″ E.
PILOTAGE: Pilotage is compulsory in the Gulf of Izmit from Darica to Diliskelesi and vice versa and also for berthing and unberthing.
BERTHING: Length of Pier No. 1 is 119 m. and depth 11.0 m. Length of Pier No. 2 is 100 m. and depth varies between 7.40 m. and 9.0 m. No shore crane available at either pier. Imports are steel and iron scrap and sometimes ferro manganese and ferro silicone. Exports are iron and steel products. Discharging rate of scrap iron and steel products is 3,000 – 4,000 tons a day. Installation works around the clock.
FRESH WATER: Available.
FUEL: Not available.
CUSTOMS: The port is under the control of Izmit and Derince Customs Authorities.
AUTHORITY: Colakoglu Metalurgi AS. *Telex:* 34125 Cmg Tr.

(C) SOLVENTAS

LOCATION: Approximate location of the pier is Lat. 40° 41′ 30″ N., Long. 29° 32′ 12″ E.
PILOTAGE: Pilotage is compulsory in the Gulf of Izmit from Darica to Diliskelesi and vice versa and also for berthing and unberthing.
BERTHING: Length of pier is 39 m. and depth 8.5 m. Capacity of installation is approximately 200 t.p.h. – 250 t.p.h.
FRESH WATER: Not available.
FUEL: Not available.
CUSTOMS: The port is under control of Derince and Izmit Customs Authorities.
AUTHORITY: Solvent A.S., Gebze.

EDINCIK: 40.21 N. 27.51 E.

LOCATION: In the South of Erdek and on the West coast of Kapidag Peninsula. See BA Chart No. 884.
PILOTAGE: Pilotage compulsory. Pilot comes from Bandirma.
MAX. SIZE: 5,000 d.w.t.
BERTHING: This is a colemanite loading berth of Etibank, where loading is effected by conveyor.

Five dolphins exist in front of the conveyor house and in enough deep water for mooring and shifting of vessels. As there is little movement of the conveyor, vessels have to shift in order to load bulk cargo in all hatches.
DENSITY: 1025.
FRESH WATER: Available.
TIME: GMT plus 3 hours.
GENERAL: Formalities with the Harbour Master are carried out in Erdek but all others in Bandirma. All services to be supplied from Bandirma.
AUTHORITY: Erdek Liman Baskanligi, Erdek, Turkey. *Tel:* 90-1989-1044. *Telex:* 58-214. *Contact:* Nezih Önal.

EREGLI (Karadeniz Eregli), including Usunkum: 41.18 N. 31.27 E. **(See Plan)**

PORT LIMITS: Line joining Lat. 41° 17′ 23″ N., Long. 31° 23′ 43″ E. and Lat. 41° 14′ 46″ N., Long. 31° 23′ 43″ E.
DOCUMENTS:
5 copies Crew List.
5 copies Passenger List.
3 copies Provisions List.
3 copies Bonded Stores List.
5 copies Crew Effects List.
3 copies Cargo Manifest.
3 copies Bills of Lading.
1 copy Health Declaration.
PILOTAGE: Pilotage is compulsory and available day and night. Vessels bound for the old port of Eregli should send their ETA to their local Agent. Vessels bound for Usunkum should send their ETA to the factory in accordance with the Charter Party terms.

Pilot will board vessels at a reasonable distance off the North Breakwater (red light). The pilot boat has a steel hull and is painted grey. Pilot may be contacted on VHF Channel 16.
ANCHORAGE: Anchorage for the deep draft vessels is about 0.5 miles – 1 mile West of the North Breakwater (red light). However, smaller vessels may anchor 0.5 miles West of the South Breakwater (green light). The bottom is muddy and sandy.
RESTRICTIONS: Vessels over 500 g.r.t. have to take a pilot and vessels over 1,000 g.r.t. have to use tugs. Number of tugs required increases in accordance with the vessel's gross registered tonnage.

Vessels of large deadweight are not permitted to berth at night.
MAX. SIZE: *Eregli:* Port maximum draft is 28 ft.
Usunkum: Oil and Coal Discharge Berth: Maximum LOA 240 m., maximum beam 36 m., maximum draft 36 ft.

Cargo Berth: Maximum LOA 240 m., maximum beam 32 m., maximum draft 35 ft.
HEALTH: Pratique is granted after the Quarantine Officer has visited the vessel on arrival.
RADIO: Eregli Radio. The Marine Operator is on VHF Channel 16 throughout 24 hours.
VHF: The calling channel for all stations is Channel 16.
RADAR: Not available.
TUGS: 3 tugs. 1×2,650 h.p. and 2×800 h.p. Tugs normally join the vessel outside the harbour and ship's lines are always used.
BERTHING: *Eregli Old Harbour:* Length of quay 400 m. Depth alongside 28 ft. There is also a small wharf of 80 m. in length and 14 ft. depth.
Usunkum: Ore and Coaling Unloading Dock: Length of berth 408 m. Depth alongside 36 ft.

Cargo Dock: Length of wharf 280 m. Depth alongside 35 ft.
CRANES: *Eregli Old Harbour:* Heavy lift derrick with a capacity of 147 tonnes and a fixed coal loading conveyor with a rate of 220 tonnes per hour.
Usunkum Cargo Dock: 3×15 tonnes capacity shore cranes.
BULK CARGO FACILITIES: In Usunkum Harbour there are 2 grabs (1×10 tonnes, 1×15 tonnes) for unloading ore and coal. Maximum air draft 14 m.
STEVEDORES: *Eregli Old Harbour:* Working hours are from 0800 hrs. – 1600 hrs. for coal loading and from 0800 hrs. – 2200 hrs. for loading and discharging of general cargo.
Usunkum: Work is carried out continuously throughout 24 hours.
MEDICAL: All types of medical assistance are available.
TANKERS: No facilities available.
DENSITY: Average density 1012 – 1014.
FRESH WATER: Fresh water is available at Usunkum at a rate of approximately 15 t.p.h.
FUEL: Diesel oil can be supplied by tank trucks.
GANGWAY/DECK WATCHMEN: Usually ship's crew, ship's gangway used.
OPENING/CLOSING HATCHES: Normally carried out by ship's crew.
CERTIFICATES: Cargo Gear Certificates required.
CUSTOMS ALLOWANCES: Each crew member is permitted 200 cigarettes and 1 bottle of spirit.
CONSULS: None locally.
REPAIRS: Minor repairs can be carried out.
DRY DOCKS: None available.
SURVEYORS: Available locally.

AIRPORT: The nearest airports are at Istanbul and Ankara, about 300 km. by road.
TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.
SHORE LEAVE: No restrictions.
HOLIDAYS: Work is carried out on all holidays at Usunkum Harbour.
REPATRIATION: Crew changes and repatriation are possible.
TELEPHONES: There are no facilities for placing telephones on board vessels.
SERVICES: None available locally.
BANKS: There are no foreign banks in the city.
DEVELOPMENTS: 2 tugs of 2,700 h.p. each are under construction and will be available in the near future.
AUTHORITY: Karadeniz Eregli Liman Baskanligi. *Tel:* 11007. *Telex:* 48451 KRDL. *Contact:* Turgut Ege, Harbour Master.

FINIKE: 36.16 N. 30.13 E.

RADIO: Finike Radio. Call sign TAC3.
BERTHING: Jetty 80 m. long, depths alongside 4.5 m. – 5.5 m. Vessels of more than 3,000 g.r.t. cannot berth alongside, but anchor outside the port.
CARGO HANDLING: Vessels at anchor are worked by 4 lighters towed by a motor boat. Only 200 tonnes of cargo worked per day by lighters.
At the jetty, 300 – 500 tonnes of cargo are handled per day.
AIRPORT: At Antalya (280 km.).
GENERAL: Port is dangerous in Winter.
OFFICIALS: Halil Tarhan, Port Master.

GEMLIK: 40.25 N. 29.06 E. (See Plan)

SHIPMASTER'S REPORT: July 1980.

VESSEL: L.P.G. Carrier – 32,000 g.r.t. Vessel discharged ammonia.
FORMALITIES: Formalities were dealt with quickly. Bonded stores are sealed and remain sealed until clearing outward from last Turkish port. Application may be made to open under Customs control and these applications were granted.

Travelling manifests of cargo and ship's stores are made up and accompany the vessel from port to port.

Papers required:
2 Stores Lists.
6 Cargo Manifests.
6 Crew Lists.
2 Vaccination Lists.
1 List of Monies in ship's safe.
2 Health Declarations (including the clearance from Canakkale).
2 Lists of Ports of Call.
2 Crew Declarations.
3 Crew Currency Declarations.
2 Ship Particulars.

APPROACHES: Chart BA. 1005.

The inset on Chart BA. 844 does not quite cover the area in which the berth is situated. (Position of Ammonia section of quay Lat. 40° 25′ N., Long. 29° 06.5′ E.).

The approach itself presents no difficulty since good fixes are available both by radar and visually. Similarly, although care is needed, an approach may be made in poor visibility with complete confidence.

Fishing vessels, inter-island ferries and local trading craft must be expected through the island passages and fishing vessels will be met within Gemlik Liman. Some of these craft are very small although sea conditions are invariably smooth and they should show up well on the radar. Not all carry lights.

An anchorage position as near as 4 cables from the berth may be used although this should be chosen to Eastwards of the berth to keep the departure path clear for any vessels leaving.

The Pilot obtained for the Dardanelles passage, who will leave here however short a stay, will be able to give advice on choosing a suitable anchorage, should this be necessary.

PILOTAGE: The Pilot may be summoned by whistle and will board from a small, open fishing craft. Gangway or pilot ladder must be lowered to the water's edge.

No night time berthing. Unberthing may be carried out at night at the Master's discretion and presents no difficulty. The starboard anchor may be used for berthing (not on this call) and is used to heave the vessel off when leaving.

Unberthing is a long manoeuvre; 2 forward back-springs are lead as far astern as possible, the vessel hove astern about 30 m. (to ensure that the bow does not fall inside the line of the quay and foul the 'bridge' to the forward mooring dolphin), everything let go aft, hard to port and dead slow ahead on the engine until the vessel is at an angle of 45°. The vessel is then backed out, after which the Pilot leaves.

VHF: Not available.
TUGS: None available.
BERTHING: Vessel always berths port side alongside.
REPAIRS: No facilities.
SURVEYORS: With sufficient notice, Lloyd's Surveyor may be ordered from Istanbul.

SHIPMASTER'S REPORT: September 1980.

FORMALITIES: Customs Officer stays on board whilst vessel is in port.

Travelling manifests of cargo and ship's stores to be made up and accompany the vessel from port to port. For Cargo Manifests I use the U.S. Customs Declaration of Cargo Form with the U.S. Seal blanked out, Authorities had no objection.

PILOTAGE: If vessel requires an outward Pilot through the Dardanelles remember to order in good time, 12 hours minimum order time is required, especially when the vessel's stay in port is short.

There is 1 Pilot who is also the 'Lloyds' sub-Agent in Gemlik and is generally a useful person to know.

When unberthing make sure the Port anchor is home otherwise it will foul the quay.

BERTHING: Gangway may be turned out prior to berthing.

The quay consists of 2 berths, the Eastern Berth for loading bulk or bagged fertiliser has 2 loading booms. This berth, if it has another vessel on it, may well cause some problems on leaving the Western Berth which is the liquid ammonia facility. When the vessel is in position with the liquid Chicksan, the bow overshoots the jetty and provision is made for the forward mooring ropes to be taken to a large dolphin, connected to the main quay by a catwalk with a *wooden* walkway.

Berths are very good being of large, substantial concrete structure with good fendering.

Minimum depth alongside 12.6 m.

There is an 8 m. patch at the Eastern end of the Fertiliser Berth which causes the Pilot problems.

Density varies: 1020 – December 1979, 1016 – July 1980, 1019 – September 1980.

DISCHARGING: 2 Chiksans, liquid line 10 in., vapour line 10 in., both 150 ASA, both can be used for either liquid or vapour so be careful when connecting.

Discharge rates vary: December 1979 – 640 t.p.h.; July 1980 – 502 t.p.h.; September 1980 – 800 t.p.h., they can take it at over 1,000 t.p.h. depending on shore tank ullages.

Fertiliser plant usage of raw ammonia presently 400 tonnes per day increasing in January 1981 to 600 tonnes per day. The actual production of ammonia is expected to commence in about five years' time.

Shore surveyor attended and his figures taken as quantity discharged. Attends the vessel at subsequent Turkish ports by flying between ports, not allowed to stay with vessel. Very helpful. No gauging of shore tanks.

GENERAL: No fuel. Available at great expense if brought from Istanbul or Izmit by barge or tank lorry.

All communications are dealt with by head office in Istanbul and then passed to Izmit thence by car to Gemlik which has no Telex.

Telephone to U.K. about 2 hour wait for connection, line clear.

Cables: Watship Izmit or sub-Agent: 'Kinay' Gemlik. For urgent messages cable address should be prefixed by the Turkish word 'Yildirim' – all ports.

Personnel repatriation is a problem due to the distance from Istanbul and the fact that the Immigration post is not in Gemlik.

Chandler: Agent does the chandlering, good vegetables available September 1980, payment in cash only.
Doctor: Available at Bursa about 30 km. (30 minutes).
Dentist: In Gemlik, near Agent's office.
Shopping: Best in Bursa about 30 minutes South of Gemlik along new dual carriageway. Agent will arrange transport. An hourly bus service runs from the plant into Gemlik.

SHIPMASTER'S REPORT: November 1980.

BERTHING: If weather suitable berthing now undertaken at night. We eventually berthed at night in calm conditions with small coaster on fertiliser berth without any difficulties, proceed slowly. Unberthing at night.
DISCHARGE: Very keen on correct discharge temperature. Use forward liquid line, aft vapour line. Shore tanks hold 40,000 tonnes total (20,000 tonnes each).
FRESH WATER: Available but not potable. At L400 per tonne (1.90 pounds). A fire tender is used as a pump at Chiksan. I believe it is well water.
FUEL: With 48 hours notice Petrol Ofisi can supply marine fuels and lubricants (Mobil, Shell, Chevron & B.P.). Telex: 29048 Bunk Tr. Tel: (1) 338 25 09/337 36 86/337 88 31/336 06 36. Mailing address: Petrol Ofisi – Haydarpasa, Mehmet Ince, Kadikoy, Istanbul, Turkey.

AUTHORITY: Gemlik Directorate, Port of Gemlik, Liman Baskanligi, Gemlik, Turkey. *Tel:* 1133. Gemlik Customs House: *Tel:* 1411; Gemlik Police Station: *Tel:* 1628; Gemlik Hospital: *Tel:* 2329.

GIRESUN (Kerasunda): 40.56 N. 38.24 E. (See Plan)

PORT LIMITS: The Port of Giresun is the sea area contained in the inner part of the imaginary lines which joins Lat. 40° 56′ 40″ N., Long. 38° 19′ 40″ E. and Lat. 40° 54′ 51″ N., Long. 38° 26′ 10″ E., Aksu River mouth and the point 2,778 m. (1.5 miles) away from this mouth in an 019° true direction with Lat. 40° 56′ 15″ N., Long. 38° 27′ 00″ E. and Lat. 40° 55′ 10″ N., Long. 38° 19′ 40″ E. Gure River mouth and the point 2,778 m. (1.5 miles) away in true North direction.
PILOTAGE: Pilot ordered by Agent who requires 24 hours' notice in advance of vessel's arrival. Compulsory for all foreign flag vessels.

Pilot service operates 24 hours a day and vessels may enter and leave at any hour on request.

ANCHORAGES: Good anchorage in Outer Harbour. Vessels should keep the entrance channel clear.
RADIO: Giresun Radio. Call sign TAB4.
TUGS: Compulsory for all foreign flag vessels.
BERTHING: The Port of Giresun is composed of 2 parts. These are the inner harbour and the outer harbour.

(a) The inner harbour is the sea area contained in the inner side of the line which joins the light at the end of the main breakwater with the light at the end of the auxiliary breakwater.

(b) The outer harbour is that part of the sea which remains between the port boundary and the inner harbour boundary.

The Inner Harbour

The berthing, tying-up and stern to shore anchoring places for the ships are given below:

A – The passenger berth has been converted to a general cargo berth and is equipped with a shore crane of 3 tons capacity. This quay is 150 m. long and the water depth is 8 m.

B – The cargo wharf: This is reserved for cargo ships. It is 250 m. long and the water depth is 7 m. The cargo wharf is equipped with shore cranes of 3 tons capacity.

C – The small craft quay is 135 m. long and the water depth is 3 m. Small tonnage ships are berthed here.

D – Service wharf: This is 88 m. long and the depth of the water is 4 m. The service craft of the Harbour Authority berth here.

E – Providing that they obtain the Harbour Authority's permission, ships waiting their turn to berth may tie-up stern to shore, at the bollards on the main breakwater in such a way as not to impede the traffic.

F – The outer harbour is an unrestricted anchoring area but it is strictly forbidden to anchor or wait at the mouth of the breakwater. Anchoring is unrestricted 315° true North of and 2.5 cables away from the centre of the main breakwater, North of the normal anchoring area.

STEVEDORES: Working hours normally 0800 to 1200 and from 1300 to 1700. Four gangs available.

CRANES: 4 cranes available, 3 tonnes – 6 tonnes.

FRESH WATER: Available.

FUEL: Not available.

REPAIRS: No repair facilities.

AUTHORITY: Giresun Port Authority, Denizcilik Bankasi T.A.O., Giresun Liman Isletmesi Mudurlugu, Giresun. *Tel:* 2447, 1490 (Port Director). *Telex:* 22188 Giresun. *Contact:* Port Manager.

GOLLUK: 37.14 N. 27.38 E.

DOCUMENTS: The following documents have to be prepared by Masters before arrival:

4 copies of Crew Lists.
2 copies of Stores Lists.
1 copy Health Document.
4 copies of Passenger Lists.
3 copies of Customs Documents.
3 copies of Manifests for cargo destined to port.
1 copy of Manifest for all transit cargo aboard.

N.B. Ship's particulars form is to be filled by Masters upon arrival and remitted to the Port Authorities.

RESTRICTIONS: Golluk is a well-protected natural harbour, not affected by winds from any direction. Deep water approaches to pier.

PILOTAGE: Pilot not available.

HEALTH: Vessels to show their Sanitary Certificate if available aboard and also their Registry. Presentation also of Vaccination Certificate of all the crew, if required by Sanitary Officials. Pratique is necessary on arrival even if vessel has called at another port in the same country. Sanitary Certificate is required for live animals aboard.

RADIO: Izmir Radio Station, call letters TAN2. Istanbul Radio Station, call letters TAH.

TUGS: Not available.

BERTHING: One pier 170 m. long used for handling emery ore in bulk. Depths alongside 39 ft. shelving to 20 ft. at 90 m. from seaward end.

CUSTOMS ALLOWANCES: 50 cigarettes for each member of crew going ashore. Aboard the vessel each member of the crew is permitted to have one carton out of Bond. One litre wine/spirits for each member of the crew in opened bottle is permitted out of Bond. However, this allowance is to be kept aboard the vessel.

TIME: GMT plus 3 hours.

HOLIDAYS: New Year's Day (from December 31st 1200 hrs. to January 1st 2400 hrs.); National Sovereignty Day (from April 22nd 1200 hrs. to April 23rd 2400 hrs.); Spring Day (1st May), Constitution Day (27th May); Sports Day (19th May); Victory Day (30th August); National Holiday (28th October 1200 hrs. to 30th October 2400 hrs.); Sheker Bayram (3 days movable); Kurban Bayram (4 days, movable).

GOLOVASI, Botas (Ceyhan) Terminal, including Dortyol Terminal and Toros Gubre: 36.53 N. 35.56 E.

(See Plan)

(A) BOTAS (CEYHAN) TERMINAL.
(B) TOROS GUBRE.
(C) DORTYOL TERMINAL.

(A) BOTAS (CEYHAN) TERMINAL

PORT LIMITS: The Botas (Ceyhan) Harbour is operated under the Authority of Iskenderun Harbour Master's Office and the harbour area is the sea area North of a line between:

(1) 36° 36′ 00″ N., 35° 47′ 42″ E. (Yumurtalik Lighthouse).
(2) 36° 49′ 06″ N., 36° 10′ 06″ E. (mouth of brook "Deli Cay").

"Botas Terminal", "Toros Terminal", "Delta Terminal", "Dortyol Terminal" and "Aygaz Terminal" are in Botas Port Limits.

Pilotage is compulsory for mooring and unmooring by day or night according to regulations of Botas (Ceyhan) Port, which is in force within Botas Port Limit.

DOCUMENTS:

7 Crew Lists
7 Passenger Lists
2 Stores Lists
2 Crew Declaration Lists
1 Free Pratique
Last Port Clearance
Load Line, Ship Safety Construction, Safety Radio, Safety Equipment Certificate

Agent has to take the last four Certificates to the Port Authority at Iskenderun.

PILOTAGE: Pilotage is compulsory for mooring and unmooring. Pilot will meet the ships 2 miles South from the end of the jetty in the anchorage zone.

It is requested that pilot ladder be of an approved pattern and securely rigged.

After the ship has berthed, the Pilot / Loading Master stays on the ship and requires a separate cabin.

ANCHORAGES: There are 2 "Tanker Anchorage Zones" near the terminals.

Tanker Anchorage Zone (I):

Point	(a1)	36° 53′ 02″ N.,	36° 00′ 00″ E.
"	(b1)	36° 49′ 30″ N.,	35° 57′ 04″ E.
"	(c1)	36° 49′ 00″ N.,	35° 59′ 40″ E.
"	(d1)	36° 52′ 36″ N.,	36° 02′ 05″ E.

Tanker Anchorage Zone (II):

Point	(a2)	36° 51′ 50″ N.,	36° 04′ 50″ E.
"	(b2)	36° 50′ 00″ N.,	36° 05′ 05″ E.
"	(c2)	36° 50′ 00″ N.,	36° 06′ 52″ E.
"	(d2)	36° 51′ 50″ N.,	36° 06′ 20″ E.

There are 2 "Prohibited Anchorage Zones".

Prohibited Anchorage Zone(I)

Point	(A1)	36° 52′ 12″ N.,	35° 55′ 07″ E.
"	(B1)	36° 50′ 30″ N.,	35° 56′ 05″ E.
"	(C1)	36° 51′ 30″ N.,	35° 58′ 30″ E.
"	(D1)	36° 52′ 25″ N.,	35° 58′ 52″ E.
"	(E1)	36° 54′ 28″ N.,	36° 00′ 48″ E.
"	(F1)	36° 55′ 50″ N.,	36° 00′ 22″ E.

Prohibited Anchorage Zone (II):

Point	(A2)	36° 52′ 24″ N.,	36° 07′ 48″ E.
"	(B2)	36° 51′ 36″ N.,	36° 06′ 30″ E.
"	(C2)	36° 49′ 45″ N.,	36° 07′ 00″ E.
"	(D2)	36° 49′ 48″ N.,	36° 10′ 00″ E.

RESTRICTIONS: Berthing and unberthing possible at any time day or night, weather conditions permitting. However, vessels over 80,000 d.w.t. are not allowed to berth at Berth No. 4 after sunset.

MAX. SIZE: 300,000 d.w.t. at outer berths and 150,000 d.w.t. at inner berths.

RADIO: It is essential that tankers bound for the Botas Terminal communicate with their Agent with at least 72 hrs., 48 hrs. and 24 hrs. before arrival and state ETA, cargo required, maximum loading rate, S.W.L. of derrick, manifold measurements and quantity of ballast on board, time required for deballasting and whether vessel is gas-free. Vessel should request Agent to forward the information to Botas.

VHF: Botas Terminal Shore Control on VHF Channels 16 and 22.

Arriving vessels should make contact at least 4 hours before arrival at the anchorage in order to avoid delays.

Channels 16 and 22 always watched.

Channel 11 is for manoeuvring and Channel 12 is for deballasting and loading operations and not to be used for other purposes.

When the ship makes contact with Botas, the following information to be given to the Iraqi representative:

Ship's name, nationality, deadweight, cargo required, loading rate required, dirty, clean and permanent ballast quantity and deballasting time.

RADAR: There is no port Control Radar. The approach from the SW or South can be made without difficulty as the coast line provides very good fixes.

TUGS: There are 7 tugs available to assist in berthing and unberthing. 3×2,600 h.p., 2×3,200 h.p. and 2×1,200 h.p. The tugs are provided with fire fighting equipment.

For vessels of 1,000 g.r.t. up to 4,000 g.r.t., which are berthing/unberthing at the jetty, it is compulsory to take at least 1 tug, 2 tugs for vessels from 4,001 g.r.t. up to 50,000 g.r.t., 3 tugs for vessels from 50,001 g.r.t. and over.

Depending on weather and having regard for safety conditions, additional tugs may be assigned by Botas or Port Master's Office or requested by vessel.

BERTHING: Four loading berths available:

Berth No.	*Max. size* d.w.t.	*Depth Alongside* (m.)	*Max. Permissible Draft* (m.)
1 (Outer East)	300,000	22.00	21.60
2 (Outer West)	300,000	22.00	21.60
3 (Inner East)	150,000	17.00	16.70
4 (Inner West)	150,000	17.00	16.70

LOADING:

Berth No.	*Max. Loading* Rate cu.m.p.h	*Loading Arms*	*Ballast Arms*
1	20,000	4×20 in.	20 in.
2	20,000	4×20 in.	20 in.
3	10,000	4×16 in.	16 in.
4	10,000	4×16 in.	16 in.

Two grades of oil are loaded in BOTAS:

1) Kirkuk Blend Crude Oil (API: 36.95-35.98 and temperature: 80°F.-105°F.).

2) Basrah Light Crude Oil (API: 34.97-33.05 and temperature: 80°F.-105°F.).

Maximum loading rates are dependent upon availability of loading lines on the ship.

Pilot / Loading Master is the adviser for all mooring, unmooring, cargo operations and communications with shore, etc.

Derricks and Cranes: Derricks and cranes S.W.L. of 1 ton are recommended.

Loading Operations and Shore Communication: Ship's tanks are inspected by Loading Master and passed as suitable for loading.

Responsible ship's officer must certify to the Loading Master that all ship's valves are closed or blanked except those required for loading and water circulation purposes, and that these Rules and Regulations are being and will be observed.

The Loading Master will not transmit any loading instructions to the shore until the responsible ship's officer is satisfied that the hoses are connected correctly and that all valves have been set for receiving cargo.

Loading rates requested by the vessel or quoted by the Terminal will be the peak or maximum rate at any time during the loading period.

The Loading Master will advise the Master of the ship as to shore communication and any signal needed for local requirements.

Ship's crew with an officer in charge will assist in all operations as advised by the Loading Master. This includes lifting, connecting, disconnecting, lowering of hoses and tending moorings.

Lighting: Manifold and mooring areas should be adequately lit to enable night mooring and loading operations to be carried out with safety. Sea area around the ship to be illuminated.

Notice of Readiness: Notice of Readiness will be received by the Loading Master. It should be tendered at the time of anchoring or Pilot boarding. Lay time will commence 6 hours after receipt of Notice of Readiness. Notice of Readiness to be addressed "S.O.M.O. Representative, Botas Terminal – Ceyhan".

Deck Watch: A responsible ship's officer shall be on watch on board at a point near the ship's tanks which are receiving oil during the process of loading and NOTICE IS HEREBY GIVEN that the Loading Master has received instructions to stop loading immediately this rule is disregarded.

Capable members of the ship's crew shall be stationed by the ship's tank valves which are receiving oil during the process of loading.

All pipe-lines and hoses shall, while rigged for loading crude oil, be directly and continuously under supervision. No crude oil shall be allowed to escape or overflow.

BALLAST: Max. ballast discharge rate 5,000 cu.m.p.h.

Shore ballast tanks capacity – 65,000 cu.m.

Vessels should arrive with sufficient ballast for safe handling of vessel under prevailing weather conditions.

Vessels shall not discharge into the waters of the port any part of the content of their cargo, slop, or ballast tanks or bilges which is liable to pollute these waters. If the vessel is sure that ballast is extremely clean, it is permissible to deballast to sea, but in case of pollution, fine is heavy. Masters of tankers will be held responsible in cases of wrong declaration of clean or dirty ballast. Deballasting during loading (simultaneous) especially in Winter season is preferable for safety.

Ballast water must be declared and signed by the Master and delivered to the Terminal to this effect. Vessel's scuppers must be effectively plugged and leakage or spillage of oil aboard ship must not be swept or washed overboard.

It is an offence to discharge dirty ballast or pump out bilges.

MEDICAL: Master to inform Agent by cable if urgent medical assistance is required upon arrival, also indicating, if possible, seriousness of case in order that adequate steps may be taken. Hospital and doctor are available at Ceyhan 25 km., Adana 75 km., and Iskenderun 65 km., distance from Botas (Ceyhan) Terminal.

DENSITY: 1025.

FRESH WATER: Available at jetty. Rate 25 t.p.h. Arrangements to be made through Agent.

FUEL: Not available.

With 48 hours notice Petrol Ofisi can supply marine fuels and lubricants (Mobil, Shell, Chevron & B.P.). Telex: 29048 Bunk Tr. Tel: (1) 338 25 09/337 36 86/337 88 31/336 06 36. Mailing address: Petrol Ofisi – Haydarpasa, Mehmet Ince, Kadikoy, Istanbul, Turkey.

CONSULS: At Iskenderun.

REPAIRS: Not possible.

SURVEYORS: There are no Classification Societies at the port.

GANGWAY/DECK WATCHMEN: There is no watchmen service.

CUSTOMS ALLOWANCES: 40 cigarettes for each crew member going ashore. On board the vessel each crew member may hold 200 cigarettes and 1 open bottle wine/spirits out of bond.

AIRPORT: Adana Airport, served only by domestic lines with routes to Istanbul and Ankara. Airport is situated 75 km, from Botas (Ceyhan) Terminal. Twice daily service to international airport at Istanbul.

TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.

HOLIDAYS: New Year's Day (January 1st); Sports Day, (May 19th); Victory Day, (August 30th); National Holiday from October 28th (1200 hrs.) to October 29th (2400 hrs.); Shakear Bairam (3.5 days, movable); Kurban Bairam (4.5 days, movable).

The terminal works all year round.

POLICE/AMBULANCE/FIRE: All information given after berthing.

TELEPHONES: Cannot be connected on board.

SERVICES: There are no special services.

SHORE LEAVE: Crew permitted to go ashore with shore passes and Seaman's Book.

It is forbidden to walk on jetty and in terminal area. A vehicle is obtained by Botas for the needs (transportation) of ship's personnel on jetty. The vehicle goes only to the gates.

IDENTIFICATION CARDS: Seaman's Book is sufficient.

REGULATIONS: In addition to Harbour Regulations all ship Masters are at all times responsible for the application of all safety precautions as prescribed in the International Oil Tanker and Terminal Safety Guide.

GENERAL: The main engines of all vessels while at the berth shall be kept ready for immediate use. Deck power (steam) is to be maintained at all times and water pressure shall be maintained on the fire fighting system.

Repairs which may prevent the working of the vessel's main engines may only be undertaken in the Port with the written permission of Botas Representative.

The Master shall at all times retain on board sufficient crew to work the vessel.

No craft, other than one having on board the Pilot or Port Health Officer, may approach any vessel entering the Port and no other person may board until Free Pratique has been granted.

Whistle or siren to be available at all times.

Boarding of Vessel: The control of persons boarding vessel is the ship's responsibility. Boarding should be restricted to Botas employees on duty and to persons authorised by the Port Authorities as advised by vessel's Agent.

Stores/Provisions: Vessels may store at the anchorage or while vessel is at the berth with permission from Botas Authority.

Tanker Safety: Masters are at all times responsible for the application of all safety precautions as prescribed in the International Oil Tanker and Terminal Safety Guide.

I.O.T.T.S.G. Safety Check List: The tanker safety check list must be completed after inspection of each item prior to commencement of and during loading. The Loading Master is authorised to stop all loading operations should he consider that the safety of lives and property is endangered by the infringement of safety rules.

Signals: The following signals must be shown when vessel is in the Port.

By day: Flag "B" of the International Code of Signals. At night: 1 clear red light visible all around.

Fire Fighting Equipment: Vessels must be adequately manned for fire-fighting and vacating the berth in case of an emergency.

The following fire-fighting precautions must be taken.

(a) Fire hoses must be run out fore and aft or monitors ready for use.
(b) Fire-mains must be under pressure.
(c) 1 dry chemical extinguisher must be stationed on either side of the ship's manifold.

Fire Fighting Equipment on each Loading Berth: Equipment is provided for fire fighting on the platforms or exposure protection for the platforms, and the tankers being loaded as follows:

(a) 2 elevated foam/water monitors are mounted on each access tower on the platform capable of delivering 3,550 l.p.m. (800 g.p.m.) of water or foam solution, and has a throw of 60 m. Each monitor is remote controlled from the control room and has flexibility of full horizontal rotation and vertical reflection.
(b) 2 deck level manual water spray monitors of 450 l.p.m. and 2 foam branch pipes of a capacity of 450 l.p.m. of foam delivery used to extinguish fires on the manifolds.
(c) A number of portable dry chemical and CO_2 extinguishers are located in various locations.
(d) There are numerous foam pourers and water spray facilities located under the deck for water surface foam blanketing and fire smothering.
(e) Water curtain facilities are provided on the loading towers to prevent fire spread to and from the berths.

Action in Case of Emergency: In the event of a fire, oil spillage or other emergency on the vessel.

Emergency and Fire Signal: One or more blasts of the ship's whistle, each blast of not less than 10 seconds duration supplemented by a continuous sounding of general alarm system.

SHIPMASTER'S REPORT: 1978.

Documents: Turkish Health Form (supplied when vessel boarded), 2 Stores Lists, 2 Crew Declarations, 8 Crew Lists.

Pilotage: Compulsory. Pilot meets ship 1 mile South of the pier at the anchorage zone.

Anchorages: At least 1 mile South of Southern end of jetty.

Restrictions: Max. drafts 72 ft. to 98 ft. at Berths 1 and 2 and 66 ft. to 72 ft. at Berths 3 and 4.

Max. Size: 300,000 d.w.t.

Health: Free Pratique granted at anchorage or when berthed.

Radio: Via Mersin.

VHF: Communicate with Botas Terminal Channel 16 at least 4 hours before arrival. Uses Channel 22 for working.

Radar: None.

Tugs: 3 of 2,600 h.p. and 1 of 1,200 h.p. All provided with fire fighting equipment.

Berthing: Normally facing Southwards (bow to sea) for emergency purposes.

Cranes: 1 on each berth.

Medical: A doctor is available ashore but vaccinations not possible.

Density: 1025.

Fresh Water: Available at all berths, arranged through Agent.

Fuel: Not available.

Fire Precautions: I.O.T.T.S.G. Safety Check List is utilised.

Consuls: See "Iskenderun".

Repairs: Repairs to engines alongside may be permitted with written permission from Terminal Management.

Dry Docks: None.

Surveyors: None.

Gangway/Deck Watchmen: Not required.

Customs Allowances: 200 cigarettes and 1 bottle per man.

Repatriation: Possible via Iskenderun and Istanbul.

Time: GMT plus 3 hours in November 1978.

Services: Limited fresh stores available.

Shore Leave: Permitted.

Identification Cards: Shore passes issued.

Mail: To U.K. takes about 5 days. None received due late orders.

General: No large scale B.A. chart available but B.A. 2632 is adequate if radar working. A Turkish Chart No. 334 is available. The position we anchored (2.1 miles South of jetty in 35 m.) was thick mud on bottom and good holding ground with wind from North about Force 7. At present berthing only during daylight but sailing any time. Each berth is equipped with shore gangway. Dirty ballast can be accepted up to 40,000 tonnes

and clean up to 60,000 tonnes at a rate of 4,500 t.p.h. Loading rates up to 20,000 cu.m.p.h. on berths 1 and 2 and up to 10,000 cu.m.p.h. on berths 3 and 4. S.G. about 0.8459 (API 35.78) at 60/60F. with a loading temperature (November) of about 80°F. The oil is Kirkuk Blend Crude from Iraq. There are facilities for storing about 1,000,000 tonnes. Berths 1 and 2 manifold 6×20 in. with reducers to 16, 18 or 20 in. if required. Berths 3 and 4 manifold sizes 16 in. with reducers to 12, 14 or 16 in. if required. Automatic couplings may be used. At berths 3 and 4, 4 hoses can be connected if distance between ship's manifold centres is more than 150 cm. There is a Doppler approach system on jetties but it has not been calibrated. All moorings on quick release hooks and usually 3 head, 2 breast and 2 back spring moorings for 140,000 d.w.t. tankers, same aft. For berthing, 2 tugs make fast with their own lines, 1 tug at each end of main deck and 3rd tug stands by. For unberthing, 1 tug makes fast to bow and stern with ship's rope (not wires) and 3rd tug stands by. Pilot will not use pilot hoist but requires accommodation ladder when in ballast and disembarks with pilot ladder. 7 Notices of Readiness and Dry Certificate required by Pilot, 1 of each and 1 ullage report required by Agent. Agent takes ashore certificates of Safety Construction, Safety Equipment, Safety Radio, Loadline and Class. No early departure procedure available and ship stays on berth up to 2 hours after loading awaiting papers. N.O.R. is made out to I.N.O.C.–Bagdhad – Botas – Ceyhan. Pilot requires separate cabin as he acts as Loading Master, also cabin required for 1 Customs official and possibly Agent. Abnormal ship/shore differences appear to be usual as evidenced by the fact that when you handed them a letter of protest they hand you a reply at the same time.
Authority: Botas District Management.

SHIPMASTER'S REPORT: December 1980.
Botas and Toros Gubre Piers:
Approach: Situated in the Gulf of Iskenderun on the N.W. corner of the Gulf. The oil pier, which is the outlet from the "Kirkuk" oilfield in Iraq, is about 5 miles below the head of the Gulf on the Northern shore with the fertiliser pier 2 miles from the Gulf head.

The approach from the S.W. (Mersin direction) or South (Suez Canal) can be made without difficulty as the coast line provides very good fixes.

The lights marked on the piers do not exist. The oil pier light has been broken for six months and the Pilots say it will probably never be fixed, also the fertiliser pier light is not connected to the supply. The oil pier is visible at 24 miles (radar) and is well lighted at night by arc lamps. Generally there are a few anchored tankers lying off.

BA. 2632 is at present the only British chart available. There is a Turkish chart 334 which is considerably better.
VHF: The Fertiliser Pier has no VHF.

Botas Oil Pier uses Channels 16, 10, 24 (Duplex).

Channel 24 is used for intercommunication between various installations for transfer of figures. It can also be used to plug into the general telephone system to talk to the Toros Fertiliser Pier.

Call "Botas Terminal", 24 hour watch. In the early hours of morning no English spoken.
Anchorage: Toros Fertiliser: 1.0 – 1.5 miles S.E. of pier. Good holding.

Botas Oil Terminal: 1.5 – 2 miles S.E. of pier.

Both open to S.W. winds.
Pilot: Botas Pilot serves both terminals. Priority given to Botas.

A total of 6 Pilots are on 24 hour call.

Pilots board in anchorage area from black hulled and brown superstructure launch of about 10 knots.

They will also travel by car to Toros berth in about 15 minutes.
Berthing: Botas: 24 hours a day with wind speeds up to 25 knots.

Toros: Wind speeds up to 15 knots and then only if good forecast.

No berthing from 1 hour before sunset to sunrise. Unberthing throughout 24 hours.
Tugs: Botas fire fighting tugs on 24 hour stand-by, 4 available.

Kort nozzles: 3 of 2,600 h.p. and 1 of 1,600 h.p.

When berthing, push with bow line onboard. When unberthing, use ship's line which is doubled up.

Botas: 300,000 d.w.t. – 4 tugs
150,000 d.w.t. – 3 tugs
Toros: – 1 or 2 tugs

Pilot reports that they will operate with wind speeds up to 35 knots with large swell to take vessels off piers. Botas Terminal has priority.
Botas Berths: Nos. 1 and 2 at outer end of pier, No. 1 (East) and No. 2 (West), depths 27 m., loading rate up to 20,000 cu.m.p.h.

Nos. 3 and 4 at inner end of pier, No. 3 (East) and No. 4 (West), depths 18 – 19 m., loading rate up to 10,000 cu.m.p.h.
Weather: By observations and Pilots advice a low pressure to the North causes a large S.W. swell which coupled with a S.W. wind makes the Toros berth very dangerous.

N.W. winds up to Force 6 cause no real problems as the berth is in the shelter of the hills and the swell is not apparent. With N.W. winds on the Botas berth, the Pilot says it can cause problems due to the berth not having much shelter.

During the Summer months, often strong S.W. winds are common between 1100 hrs. to 1500 hrs. each day, which in the Pilot's opinion could make the Toros berth untenable.

Forecast: The local television gives a weather report. Rome Nato, if on time, is the only area forecast in English. Watch the barometer.
Toros Berths: Discharge only at present.

Berth head out. Bulk – Port side to on West side. Liquid – Starboard side to on East side.

Extends about 0.5 miles from shore, the berthing section lying in a 194° – 014° direction. Liquid side in position 36° 54.60′ N., 35° 59.04′ E.

Both berths designed for max. of 30,000 d.w.t.

Bulk berth has 5 tonne grab crane. Liquid side Chicksan.

Depths each berth minimum 12.5 m.
Mooring/Fenders: Toros: This can be a problem, and is dependent on length of vessel, particularly aft as the mooring dolphins do not go far enough astern.

As far as possible a 4, 2, 3 arrangement is required. With a swell, expect to part moorings, we parted six lines. Two good mooring boats from Botas Terminal used.

Fenders are 4 large flat plastic/steel faces on sprung rubber compresses. Unfortunately for a long vessel they are set too close together and need to be another 10 m. in each direction to give good coverage.
Jetty Dimensions/Gangways: Toros: Liquid side: Jetty face is 18 m. long and 9 m. above MLW.

Bulk side: 120 m. face and 7.5 m. above MLW.

For gangway purposes this means that on the bulk side the gangway can be used as long as the ship is not small.

On the liquid side a straight "B.O.T." type gangway will be necessary to land on the small pipe platform.
Discharge: Toros: Bulk side: 5 tonne capacity travelling grab crane which discharges into conveyor belt to the plant.

3 shifts of 8 hours worked, total 24 hours.

Liquid Ammonia: 6 in. Chicksan into 6 in. main line and 2 in. cooling line. Connection 6 in. 150 ASA – spool piece 12 in. – 6 in. provided. Shore labour connects/disconnects.

Sulphuric Acid: Connection on jetty of 10 in. 300 ASA.

Phosphoric Acid: Connection on jetty of 8 in. 150 ASA.

Lines South to North: Ammonia, Sulphuric Acid, Phosphoric Acid.

Ammonia is discharged into a refrigerated tank of 7,332 cu.m. equal to about 5,000 tonnes at a rate of 140 t.p.h.

The 6 in. loading line cascades into the top of the tank NOT bottom, therefore pressure problems can result.

Tank served by two Malcon compressors and usual condensers.

Sulphuric Acid tank is 3,420 cu.m.

Phosphoric Acid tanks (2) total 8,500 cu.m.

Air draft Ammonia – about 18 m. maximum.

Air draft Acids length of ship's hoses.

It is proposed to import about 10,000 tonnes Ammonia per month and 12,000 tonnes Phosphoric Acid per month, plus small quantities Sulphuric Acid.

Bulk commodities are Urea and Potassium Chloride.
Water: From metered pipe at about 10 t.p.h. Water hard but potable. Price $3.97 per tonne. Pipe on liquid platform. Ship's hoses.
Agent: Agent comes from Iskenderun about 30 miles away.
Communications: At the time of our visit to Toros Gubre there were no telephones. The nearest centre is the Botas Oil Terminal about 3 miles away.
Chandler: From Iskenderun, very good, low prices, obliging.

Local produce, vegetables, salads and fruit which is wide ranging in Spring. End of Summer, August and September not so good.

All in kg. Stores alongside, chandler provides labour.

December 1980: Vegetables $1 kg., fruit $2 kg., salad $1.50 kg., cheese (good) $3.00 kg. in tins of 25 kg.

To be paid for in cash drawn from Agent.
N.O.R.: Tendered in usual manner on anchoring, accepted at that time unless weather prevents berthing.
Customs: For Botas Terminal, reside in complex.

For Toros Terminal, Customs come from Iskenderun with Agent, which results in delay when clearing vessel outwards on completion.

Two Customs Officials reside on board – cabin required.
Money: If vessel coasting around Turkish ports money drawn at one Agency can not be deposited at another Agency in final port unless Customs clearance given from original port.
Personnel Changes: Nearest airport in Turkey is at Andana about 1 hour from Ceyhan Berths, but if waiting for ship have to stay in Iskenderun about 2 hours from airport.

Personnel travelling are advised to have Istanbul Agent's Office and home telephone numbers.

The Agent says it is easier to fly direct to Damascus about 3 hours taxi ride from Iskenderun but he cannot meet personnel and clearance at Syrian border has to be done on one's own.
Note: (December 1980): It is not expected that the plant will be in full production until mid-1981, the pier being used for material imports and production going to a wide area of S.E. Turkey and Iraq.

SHIPMASTER'S REPORT: April 1988.
Documents: Agent requires the following:

Load Line Certificate.
Safety Equipment Certificate.
Safety Construction Certificate.
Safety Radio Certificate.
Classification Certificate.
Tonnage Certificate.

Restrictions: Unberthing any time.

Berthing at Berths No. 1, 2 and 3 at any time.

Berthing at Berth No. 4 during daylight hours only.

AUTHORITY: Botas Petroleum Pipeline Corporation, P.O.Box 73, 01921 Ceyhan-Adana-Turkey. *Tel:* 1388, 1431, 2488, 2514. *Telex:* 63838 Btas Tr. *Cables:* Botas-Ceyhan-Adana. *Contact:* Esat Can, District Manager. Captain B. Uzbilen, Marine Operations Manager.

AGENT: See "Iskenderun".

(B) TOROS GUBRE

LOCATION: Lat. 36° 55′ 00″ N., Long. 35° 58′ 54″ E.
PORT LIMITS: Toros Gubre is in the Botas (Ceyhan) port limits.
DOCUMENTS: Similar to Botas (Ceyhan) Terminal.
PILOTAGE: Similar to Botas (Ceyhan) Terminal, but there are no Loading Master's services.
ANCHORAGE: See "Botas (Ceyhan)" port plan.
RESTRICTIONS: Berthing possible by day and unberthing possible at any time.
MAX. SIZE: There are 2 jettys in the Toros Gubre. First is the old jetty and max. size is 30,000 d.w.t. The new jetty has a max. size of 80,000 d.w.t. but is not yet completed. Also see "Berthing".
RADIO: See "Botas (Ceyhan)" Terminal.
VHF: Always standing by on Channel 16.
RADAR: There is no port control radar.
TUGS: Botas (Ceyhan) Terminal's tugs are used.
BERTHING: There are 2 loading berths available on the old jetty.

Berth	*Max. d.w.t.* tonnes	*Max. LOA* (m.)	*Depth Alongside* (m.)	*Max. Draft* (m.)
East Side (Cargo ships and tankers)	30,000	175	12-14	10-12
West Side (For tankers only)	30,000	214	12-14	10.50

Six loading berths will be available on the new jetty. It will be completed in June 1989. See "Plan".
BALLAST: There is one ballast tank with a capacity of 5,000 cu.m., but not always in use.
MEDICAL: See "Botas (Ceyhan)" Terminal.
DENSITY: Salinity 39 p.p.m.
FRESH WATER: Available at jetty.
FUEL: Not available.
SURVEYORS: There are no classification societies at the Terminal.
GANGWAY/DECK WATCHMAN: There are no watchman services.
CUSTOMS ALLOWANCES: Same as Botas (Ceyhan) Terminal.
AIRPORT: Adana Airport is 82 km. from Toros Gubre.
TIME: GMT plus 2 hours. (Summertime is GMT plus 3 hours.)
HOLIDAYS: Similar to Botas (Ceyhan) Terminal.
POLICE/AMBULANCE/FIRE: All information given after berthing.
TELEPHONES: It is possible to make calls via Iskenderun Radio Station.
SHORE LEAVE: See "Botas (Ceyhan)" Terminal.
IDENTIFICATION CARDS: Seaman's Book is sufficient.
REGULATIONS: All information given after berthing.
DEVELOPMENTS: See "Berthing".
GENERAL: See "Section A" – Shipmaster's Report – dated December 1980.
OPERATOR: Toros Gubre ve Kimya Endustrisi A.S., P.K. 83 01921, Ceyhan-Adana, Turkey. *Tel:* 7321-5001 (4 lines). *Telex:* 63840 Tors Tr.
AGENT: See "Iskenderun".

(C) DORTYOL TERMINAL.

OPERATOR'S REPORT: April 1988.

LOCATION: Lat. 36° 50.65′ N., Long. 36° 08.71′ E.
DOCUMENTS: Vessels are to call at Iskenderun for Customs Clearance, after which they will sail to the Terminal.
PILOTAGE: Compulsory. Pilot boards off Botas Oil Terminal.
RESTRICTIONS: Normally mooring is not undertaken after sunset. However, without any commitment from the owners of the Terminal, mooring after sunset is left entirely at the discretion of the pilot who might decide to moor the tanker after sunset, weather permitting.

Unmooring is carried out day and night.
MAX. SIZE: Maximum draft 12.6 m.
RADIO: Masters to advise agent of vessel's ETA 72 hours, 48 hours and 24 hours prior to arrival.

Cable to include the following information:
ETA Iskenderun.
Quantity of cargo required.
Max. loading rate.
Number and diameter of manifolds.
Quantity of ballast on board and time required for deballasting.
Whether vessel is gas-free or not.
BERTHING: Vessel will moor at sea buoys. One buoy is located on the port bow and two buoys are located aft.
LOADING: 2×10 in. hoses are available for dirty products and 2×8 in. hoses are available for clean products. Hose connection is amidships.

Loading is carried out at an average rate of 1,700 t.p.h. – 1,800 t.p.h. for dirty products and 1,200 t.p.h. – 1,500 t.p.h. for clean products.
BALLAST: There are no facilities for receiving ballast. Vessels must arrive with clean ballast.

Fines for pollution are approximately U.S.$50,000.
FRESH WATER: Not available locally.

Tankers requiring fresh water should call at Iskenderun before or after loading. Fresh water is supplied by the state owned port company at Iskenderun by a 200 ton capacity barge. Cost of fresh water is U.S.$4.0 per 1,000 kg. A charge of U.S.$50 – U.S.$100 is to be paid for supply between midnight and daybreak. Minimum supply 20 tons.
FUEL: Available.
GENERAL: *Stores:* A ship chandler is available for supply stores.

Agent: ETS. A. Boutros and Fils, Ataturk Bulvari, Unsal Han Kat 1, 31200 Iskenderun, Turkey; P.O.Box 11, 32101 Iskenderun. Telephone: (90) (881) 15170/74 (5 lines), (90) (881) 13684/85. Telex: 68123 Sail Tr/68131 Sail Tr. Fax: (90) (881) 12036. Cables: Boutros – Iskenderun. After Hours Contacts: Mr. Ferit Uyar, telephone (90) (881) 12893. Mr. Taner Carpar, telephone (90) (881) 13846.

Office hours during which Master can contact Agent on VHF Channel 16: 0830 – 1230 and 1430 – 1830 every day (including Saturday/Sunday/holidays during which one person on duty).

Telephone contact possible through Iskenderun Radio, VHF Channel 16.

HEREKE: 40.42 N. 29.37 E.

DOCUMENTS: 5 Crew Lists, 2 Stores Lists, 2 Crew Declarations, 4 Cargo Manifests, 2 copies Bills of Lading, 2 Stowage Plans, Clearance from Last Turkish Port, Bill of Health, 2 Lists of Money in Ship's Safe, Tonnage Certificate, Safety Equipment Certificate, Safety Radio Certificate, Safety Construction Certificate, Load Line Certificate, Derat Certificate.
PILOTAGE: Compulsory pilotage from Darica to Hereke and vice-versa; also for berthing and unberthing. (For all movements in Izmit Gulf Pilot is compulsory).

Vessels proceeding to Hereke port have to take Pilot when entering Izmit Gulf at Darica pilot station, located:

Approx. Lat. 40° 45′ 18″ N., Long. 29° 23′ 18″ E.
ANCHORAGES: Anchoring places at Izmit Gulf are as follows:
For Dry Cargo Vessels:

Darica/Eskihisar Anchorage: Approx. Lat. 40° 46′ 05″ N., Long. 29° 32′ 10″ E.

Izmit Anchorage: Approx. Lat. 40° 44′ 00″ N., Long. 29° 52′ 48″ E.
For Tankers:

Yarimca Anchorage: Approx. Lat. 40° 44′ 50″ N., Long. 29′ 44′ 30″ E.
RESTRICTIONS: Berthing at jetties at night time is at Pilot's discretion.
MAX. SIZE: No restrictions if vessel suitable to load/unload at Hereke berth where jetty length 140 m. and depth varying between 7.70 m. and 11.35 m.
HEALTH: For vessels proceeding to Hereke Free Pratique obtained at Canakkale-Dardanelles or at Buyukdere/Bosphorus. Crew List and Derat Certificate required.
RADIO: Istanbul Radio Station. Call sign TAH.
VHF: Available only at Darica and Yarimca pilot stations, Channel 16.
TUGS: Compulsory towage for berthing and unberthing. The following number of tugs must be used during operations in Izmit Gulf:

500 to 5,000 g.r.t. – 1 tug
5,000 to 25,000 g.r.t. – 2 tugs
25,000 to 50,000 g.r.t. – 3 tugs
over 50,000 g.r.t. – 4 tugs

BERTHING: Only one jetty available at Hereke which belongs to NUH Cement Factory where only one vessel can berth at a time.
CRANES: No shore cranes available on jetty.
BULK CARGO FACILITIES: As pier belongs to cement factory only cement cargo loaded. For bulk cement loading rate is 3,000/4,000 tonnes per day. 24 hours continuous work.
SPECIALISED CARGO HANDLING FACILITIES: None.
BRIDGES: None.
STEVEDORES: Private.
MEDICAL: Hospital and dental facilities are available at Izmit approx. 30 km. from Hereke.
TANKERS: No tanker facilities.
DENSITY: 1020-1022.
FRESH WATER: Available by barge and small quantities available from the jetty.
FUEL: Not available at Hereke, can be supplied by barge or coaster from Istanbul.
FIRE PRECAUTIONS: None.
CONSULS: None.
REPAIRS: No repair facilities.
DRY DOCKS: None.
SURVEYORS: (1) Cargo Inspectors available at Istanbul.
(2) Surveyors available at Istanbul.

Cargo Inspectors and Surveyors can be ordered from Istanbul to attend vessels at Hereke.
GANGWAY/DECK WATCHMEN: Not necessary. Ship's gangway used.
HATCHES: Opening/Closing hatches carried out by the crew.
CUSTOMS ALLOWANCES: Tobacco: 1 carton of cigarettes per week, each man. Spirits: 1 bottle of spirits per week, each man.
CARGO GEAR: Load/discharge effected by ship's gear as no cranes available on the jetty.
REPATRIATION: Main embarkation/disembarkation Customs and Immigration formalities done at Istanbul but permission/formalities also required from Izmit Immigration and Izmit/Derince Customs to assist repatriations.
AIRPORT: Nearest airport at Istanbul, approx. 100 km. from Hereke.
TIME: Local time GMT plus 3 hours.
HOLIDAYS: New Year's Day, Sugar Bayram for 3 days, Kurban Bayram for 4 days (both religious holidays and dates are changeable every year), 23rd April, 19th May, 30th August, 29th October are National Holidays. Saturdays and Sundays official holidays.
POLICE/AMBULANCE/FIRE: Police: 211-10945, Ambulance: 211-11030, Fire: 211-00.
EMERGENCY CO-ORDINATION CENTRE: Police Headquarters: 211-10945.
TELEPHONES: No arrangements exist.
SERVICES: None.
BANKS: Only local banks.
STORING: See "Prelims".

1. Vessel can be stored by barge and truck.
2. Vessels can be stored by barges during loading or discharging.
3. Trucks can proceed alongside at berth.
4. Fork lift trucks not available.
5. Customs formalities required for storing, Agent assists.

SHORE LEAVE: Crew members allowed ashore, no shore pass required.
IDENTIFICATION CARDS: Seaman's book is sufficient.
REGULATIONS: Nil. No visitors allowed aboard without permission.
DELAYS: No delays expected.
AUTHORITY: NUH Cement Factory of Hereke. *Tel:* 2161-1052, 2161-1053. *Telex:* 33227. *Cables:* Nuh-Hereke.

HOPA: 41.28 N. 41.27 E. (See Plan)

DOCUMENTS:

Quarantine:
- Declaration of Health.
- Valid Derat Certificate.
- International Vaccination Certificates.
- Free Pratique (received from Canakkale or Istanbul).

Customs:
- 2 Crew Lists.
- 2 Crew Declarations.
- 2 Stores Lists, including bonded store.
- 2 Cargo Manifests.
- 2 Customs Clearance from last port.

Immigration:
- 2 Crew Lists.
- 2 Passenger Lists.

PILOTAGE: Compulsory for vessels berthing and unberthing.
2 Pilots available, ordered by Agent on basis of Master's ETA.
International code signals used to call Pilot, who boards at harbour entrance. Vessel may enter and leave at any hour on request.

ANCHORAGES: In the outer harbour, off the entrance.

HEALTH: Pratique granted after Sanitary Officer's visit on vessel's arrival.

RADIO: Hopa Radio. Call sign TAB-2. (41° 23′ 50″ N., 41° 25′ 19″ E.)

TUGS: 2 tugs of 900 h.p. and 1 mooring boat available.

BERTHING: 1,146 m. of berthing space.

Name of Quay	*Length* (m.)	*Depth* (m.)
Yolcu Rihtimi	198	9.3
Yuk Rihtimi	100	10.0
Genel Yuk Rihtimi	190	10.0
Ro/Ro Rihtimi	38	6.0
Cevher Rihtimi	215	9.0
Askeri Rihtimi	100	5.5
Motor Rihtimi	185	4.0
Balikci Rihtimi	120	4.0

CRANES: 4 shore cranes on rail and 1 fixed shore crane available. Capacity from 5 tonnes to 25 tonnes.

STEVEDORES: Gangs of stevedores secured by the Agent through the port monopoly 24 hours prior to arrival. Working hours 0800 – 1200 and 1300 – 1700. Overtime can be arranged.

MEDICAL: A Doctor and hospital facilities are available.

DENSITY: 1024.

FRESH WATER: Fresh water available at all berths, order through Agent. Rate 60 t.p.h. (approx.).

CONSULS: None.

REPAIRS: Small repairs possible.

DRY DOCK: None.

GANGWAY/DECK WATCHMEN: Recommended.

SURVEYORS: Available from Istanbul. Order through Agent.

HATCHES: Opening/closing hatches to be carried out by ship's crew.

REPATRIATION: All facilities available for crew changes and repatriation.

AIRPORT: At Trabzon. Approximately 185 km. from the port.

HOLIDAY: New Year's Day; Seker Bayrami (3 days), Kurban Bayrami (4 days), (Both are religious holidays and dates are changeable every year). 23rd April, 19th May and 29th October are National Holidays. Saturday and Sunday are official holidays.

POLICE/AMBULANCE/FIRE: Police Tel: 1624. Ambulance Tel: 1068. Fire Tel: 3625.

BANKS: Ziraat Bankasi, Is Bankasi, Ak Bank, Halk Bank.

SHORE LEAVE: Crew members allowed ashore.

GARBAGE: Trucks will remove garbage from vessel at berth on request.

IDENTIFICATION CARDS: Required.

AUTHORITY: T.D.I. (Turkiye Denizcilik Isletmeleri), Liman Isletmesi Mudurlugu, Hopa, Turkey. *Tel:* 1347, 2259, 3638. *Telex:* 83338. *Contact:* Emin Ali Yilmaz, Director of Port. Dursun Seheri, Assistant to Director. Nedim Kurum, Harbour Master. Tel: 1067. Telex: 83359.

ISDEMIR: 36.43 N. 36.11 E. (See Plan)

LOCATION: The port is located inside the Western Breakwater within Lat. 36° 43′ 30″ N., Long. 36° 11′ 06″ E. and the South Breakwater within Lat. 36° 43′ 35″ N., Long. 36° 11′ 15″ E.

DOCUMENTS: Same as other Turkish ports.

PILOTAGE: Compulsory for all foreign vessels. Pilot available 24 hours. Pilot boards 0.5 miles to 2.0 miles from the main breakwater. Call on channel 16, working on channel 12.

ANCHORAGES: Safe anchorage south of a line due west of the south breakwater light (green light) and at least one mile from the breakwater.

RESTRICTION: Large vessels (over 15,000 g.r.t.) and tankers are not allowed to enter during hours of darkness.

MAX. SIZE: No limitation at the anchorage.

	Max. Length (m)	*Max. Draft* (m)	*Max. DWT.*
Pier AI	500	16.0	150,000*
Pier AB	240	11.0	40,000
Pier EF	185	9.0	
Pier FG	90	5.5	
Pier CD	220	7.8	
Pier DE	200	9.5	
Fuel Wharf		13.0	

*Max. air draft 15.0 m.

HEALTH: See "Iskenderun".

RADIO: See "Iskenderun".

VHF: Channel 16, working Channel 12.

TUGS: 5 tugs available, 2×2,480 h.p., 1×1,200 h.p. and 2×125 h.p. Tug compulsory for vessels over 500 g.r.t.
1 Tug for over 500 to 4,000 g.r.t. vessels.
2 Tugs for over 4,001 to 15,000 g.r.t. vessels.
At least 3 tugs for vessels over 15,000 g.r.t. The third. tug is provided from Botas or Iskenderun Port. A third tug is to be available in the near future.

BERTHING:

Berth	*Length* (m.)	*Depth* (m.)	*Cranes Capacity* tons	*Remarks*
1–A	500	14.0–18.5	2×25	2,000 t.p.h. (ore) 1,250 t.p.h. (coal)
A–B	270	12.0	5×15	400 t.p.h. (ore) 300 t.p.h. (coal)
C–D	260	8.0	2×10	General cargo
D–E	200	10.0	1×140	General cargo Heavy Lift crane
E–F	190	10.0	1×10	General cargo
F–G	120	6.0	1×10	General cargo

CARGO HANDLING EQUIPMENT:
4 electric cranes × 10 tons.
5 kangaroo cranes × 15 tons (300 t.p.h. each)
2 portal cranes × 25 tons.
1 fixed heavy lift crane × 140 tons (On pier "DE").
2 conveyor belts × 1,000 t.p.h. each.
Owned by steelworks:
Forklifts – 6 (2×7.5 tons, 4×4 tons).
Pallet Cranes – 6 (1×100 tons, 2×60 tons, 1×25 tons, 2×20 tons).
Load Cranes – 4 (1×90 tons, 2×16 tons, 1×6 tons).
Lo-Boy Trailers – 4 (1×120 tons, 1×60 tons, 2×40 tons).

STEVEDORES Available 24 hours. Written ETA advices to the Port Management required 8 hours before berthing.

Handling Rates:	*Tons per 24 hours*
Pig Iron	1,500
Iron Ore	20,000
Pipes	800 – 1,000
Timber	4,000
Coal	16,000
General Cargo	800 – 1,000
Wheat	1,500
Sugar	100
Rice	600
Cement	1,500
Fertiliser	1,500
Fuel-oil	3,500 – 5,000

TANKERS: Facilities owned by the Port. 8×5,000 ton capacity fuel and oil tanks. Depth alongside 14.0 m. Discharge rate for fuel and oil (1×10 in.) 350 t.p.h. – 400 t.p.h. Benzol (1×6 in.). Handling rate 70 t.p.h. – 80 t.p.h. Distance between dolphins 106 m.

FRESH WATER: Water tank available, but no potable water.

REPAIRS: No facilities.

DRY DOCKS: None.

SHIPMASTER'S REPORT: June 1981.

Location: 8 miles North of Iskenderun.

Pilotage: Pilotage is compulsory, but we arrived and sailed without Pilot. Permission must first be obtained via VHF Channel 16 through Iskenderun, usually the Agents. On no account must vessels enter and leave without permission.

Anchorages: Good holding ground inside breakwaters, protected from all directions except Southwesterly swell. Permission must first be obtained before anchoring inside.

Navigation: Good navigational entrance marks. No difficulties encountered on entering or leaving, plenty of water.

Tugs: Not available.

Berthing: Longest wharf appears to be "D", which at present is being extended (see "Plan"), the smallest being "C". All wharves appear to have plenty of water, (see "Plan"). All wharves have good access, wharves B, C and D being serviced with rail. Berth "A" has a heavy lift crane of 100 tonnes, no rail. Berth "D" has a conveyor for bulk cargoes. Most cargo being discharged into road transport.
Cargo Handling: Wharf "D" Bulk, "B" and "C" general cargo, Wharf "A" heavy lifts.

Cranes:

Wharf A – 1 × 100 tonnes for heavy lifts
B – 2 × 10 tonnes
C – 2 × 10 tonnes
D – 4 × 10 tonnes

Small mobile cranes also available.

Stevedores: Working hours – 24 hours continuous. Shifts change at 1600 hrs. Meal breaks at 1200 hrs. – 1300 hrs., 1700 – 1800 hrs. and 2000 – 2100 hrs.

Rate of discharge good, labour force good. Majority of port handling equipment is new, cranes, rail, etc. No warehousing available.

Fresh Water: Fresh water obtained by road tanker only, in quantities of 40 tonnes. Usually supplied at night as they supply the steel town during the day.

Fuel: No facilities observed.

Medical: Facilities at Iskenderun.

Consuls: At Iskenderun.

Repairs: No facilities observed.

General: Communications: Rail and road to Iskenderun, no local airfield. All instructions and information available through Iskenderun on VHF Channel 16, calling "Demicargo" which is local control, usually operating 0900 hrs. to 1700 hrs. and available only during working hours (Not meal hours).

Tonnage Handled: By observation only, it appears that relatively large vessels can be handled at the iron ore berth, up to 30,000 tonnes. A new berth is under construction (see "Plan") which will be able to handle vessels up to 100,000 tonnes. Other berths are for smaller vessels (A, B and C), the largest being "B".

Principal activities, steel, iron ores, general cargo.

Services: Tank cleaning services and ship chandlers available from Iskenderun.

SHIPMASTER'S REPORT: October 1986.

Clearance Inward: Vessel ordered to Iskenderun, anchored on arrival, cleared inward. All certificates and Seaman's I.D. Cards landed. Shore passes issued. 7 copies of Crew List required.

Radio: Istanbul for long distance messages. Iskenderun for messages when close by, port has VHF but uncertain if international connections possible.

Iskenderun Pilot has VHF Channel 16, opening watch at 0630 hrs.

Most Agents appear to be on VHF in office hours.

Fuel: Available with appropriate arrangements.

Isdemir: Vessels shifted up to wait for Pilot off Harbour Entrance on instructions of Agency. Pilotage available from 0830 hrs., VHF Channel 12. Tug channel monitored, 2 tugs on station, a third can be ordered.

The port imports coal and iron ore for the steel mill, using the newly completed portal grab cranes on Berth A-I. Berths A-B, C-D, E-F appear to be mainly used for exports of steel bars, coils, steel rods, pig iron, some coal and other minerals. Berth D-E mostly used for import of grain for direct delivery into lorries, and yard cargo for import or transhipment overland.

Working Hours: (3×8 hours) 0800, 1600, 2400 hrs. Though tally clerks may work (2×12 hours) 0800, 2000 hrs.

Vessel loaded 27,000 tonnes steel bars in 21 days after waiting 13 days for berth, with one shift to a deeper berth across harbour with tugs.

Facilities: Industrial grade or non-potable water piped to a few points in the harbour. Drinking water supplied in road tankers (ship's hose used). Agencies, communications, medical, ship chandlers, etc., all in Iskenderun. Agency charged by tariff for all services, rather than by the amount of work done.

International telephone system appears limited, and congestion occured soon after 0900 hrs. Agency telex machines only domestic models, head office relayed international messages.

Provisions, especially vegetables, limited choice in hot weather. No bonded stores, only duty paid beer, etc. available. Ship chandlers required Owners approve the cost of the order before arranging supply, also that only one delivery be made owing to the high costs involved. Bill made out in U.S. dollars.

The public highway is a walk of 1.5 hours in very hot weather, before taxis or mini buses can be obtained. The bus system at shift change time, with a transfer at the factory bus terminal was useful and economical. There are some small general stores in the 'Fabrik Town' about 1 hour's walk. Hourly bus service to Iskenderun until early evening.

Clearance Outward: Vessel returned to Iskenderun on a Sunday for outward clearance, where the certificates and Seaman's I.D. Cards were returned. It is possible to sometimes arrange clearance at Isdemir on weekdays.

AUTHORITY: Iskenderun Demir Ve Celik Fabrikalari, Directorate of Iskenderun Iron and Steel Plants, Isdemir, Turkey. *Tel:* 11164 General Manager, 13894 Asst. General Manager. *Telex:* 68696, 68697 Isde Tr. *FAX:* 9-881-13895. *Cables:* Isdemir-Iskenderun *Contact:* Mehmet Yardimci, – Port Manager Tel.: 13600/3580. Ziya Kural – Trade Manager, Tel. 13600.

ISKENDERUN: 36.35 N. 36.10 E. (See Plan)

DOCUMENTS:

7 Crew Lists.
2 Stores Lists.
7 Passenger Lists.
2 copies Crew Declaration.
2 copies Transit Cargo Manifest.
3 copies Inward Cargo Manifest, of which one must be legalised by Turkish Consulate at loading port. If no consulate existing same to be certified by local Customs Officer or Chamber of Commerce.
1 set Bills of Lading.
2 copies Cargo Stowage Plans.
Health Documents.
Ship's Certificates.

PILOTAGE: Compulsory. Ordered by Agent on basis of Master's ETA. International Code signals used to call Pilot who boards at harbour entrance. 2 pilot boats available.

ANCHORAGES: Safe anchorage in open roadstead at 0.5 to 0.75 miles from shore. Vessels over 30,000 d.w.t. work cargo at anchorage only. Loading/discharging to lighters only occurs in the case of explosive cargo.

MAX. SIZE: At anchorage, no limitations. Alongside pier, length 180 m., draft up to 30 ft. Also see "Tankers".

HEALTH: Pratique obtained on arrival. Master required to show vessel's Health Declaration and Certificate of Registry. Crew Vaccination Certificates to be produced if required. Sanitary Certificate required if live animals on board.

RADIO: Istanbul Radio, call sign TAH. Izmir Radio, call sign TAN. Iskenderun Radio, call sign TAI.

TUGS: 7 tugs available 300 h.p. – 2,800 h.p.

BERTHING:

Berth	Length (m.)	Depth (m.)	Remarks
No. 1	170	10.0	Container berth to be lengthened by 30 m. by 1989.
No. 2	170	10.0	General Cargo
Nos. 3 & 4	353	10.0	General Cargo
No. 5	185	10.0	Presently 137 m., Depth 5.0 m.
No. 6	200	10.0	
No. 7	—	—	Ro-Ro
No. 8	200	10.0	Completion 1988.
No. 9	166	11.5	Bulk and General
No. 10	166	11.5	Bulk and General
No. 11	200	10.0	Completion 1988.

Due to shelving depths, vessels of 20,000 to 30,000 d.w.t. berth partly alongside and lighten cargo then shift once or twice further in.

The T.M.O. have a silo of 60,000 tons capacity which can deliver up to 300 t.p.h. Loading capacity of ore, 500 t.p.h. Unloading capacity for coal, 100 t.p.h.

Inner Port, used only by pontoons, lighters and tugs.

Priority given to Army, food relief and passenger ships.

CRANES: 57 shore cranes with capacity 3 tonnes – 35 tonnes. 1 floating crane with capacity 90 tonnes.

STEVEDORES: 2 consecutive shifts of 8 hours. For bulk cargoes, 3 consecutive shifts of 8 hours can be worked. At anchor, approximately 100 tons can be handled each shift, for general cargo. Baled cargo, 125 tons per shift. Bagged cargo, 150 tons per shift.

Gangs secured by Agent through the Port Monopoly, 24 hours prior arrival.

MEDICAL: Master to inform Agent by cable if urgent medical assistance required on arrival, also indicating, if possible, seriousness of case in order to take adequate steps.

TANKERS: Two buoy mooring berths operated by Mobil Oil, Shell Oil and Petrol Ofisi, suitable for vessels up to 50,000 d.w.t. depth 12.10 m. Stern line connection required except at Mobil Oil Terminal. No slop reception facilities.

Also see "Golovasi".

FRESH WATER: Supplied only by barge, 2 available, each of 250 tons capacity.

FUEL: Available locally from Baytur Trading S.A., Telex: 68068 AUTT TR/68022 AUIS TR. Tel: (881) 14400/18958/11104. Fax: (881) 15737; Iskenderun, Turkey.

With 48 hours notice Petrol Ofisi can supply Marine fuels and lubricants (Mobil, Shell, Chevron & B.P.). Telex: 29048 BUNK TR. Tel: (1) 338 25 09 / 337 36 86 / 337 88 31 / 336 06 36. Mailing address: Petrol Ofisi – Haydarpasa, Mehmet Ince, Kadikoy, Istanbul, Turkey.

GANGWAY/DECK WATCHMEN: Services of watchmen recommended. 3 shifts of 8 hours each. Extra tariff for Sundays and holidays.

OPENING/CLOSING HATCHES: May be opened/closed by ship's crew. May be performed by stevedores at tariff rates.

CUSTOMS ALLOWANCES: 50 cigarettes for each man going ashore. On board the vessel each man may hold 200 cigarettes and 1 open bottle wine/spirits out of bond.

IDENTIFICATION CARDS: Seamen's Book is sufficient. For repatriation and joining vessels, passport compulsory.

CONSULS: Vice-consulates of France, Germany F.R., Greece, Italy, Netherlands, Norway, Sweden and U.K.

REPAIRS: Welding and other minor types of repairs are possible.

REPATRIATION: Can be arranged but passport compulsory.

AIRPORT: Adana Airport, served by airlines with routes to Beirut, Jeddah, Ankara and Istanbul. Airport situated 140 km. from Iskenderun. Twice daily service to international airport at Istanbul.

POLICE/AMBULANCE/FIRE: Police 11007; Ambulance 11057; Fire 11000.

TIME: GMT plus 2 hours in Winter. GMT plus 3 hours in Summer.

HOLIDAYS: New Year's Day (commencing 1200 hrs. Dec. 31st); National Sovereignty Day (April 23rd); Sports Day (May 19th); Victory Day (August 30th); October 29th; Sheker Bayram (3 days, movable); Kurban Bayram (4 days, movable).

Iskenderun Port is not working only 1 day during Sheker Bayram and 2 days during Kurban Bayram, during all other days work carried out.

SHIPMASTER'S REPORT: Customs and Health Clearance is performed both at anchor and at the berth. Vessels should anchor about 0.5 miles North of the landing stage in the main part of the town. All Officials and Agents arrive by boat and when clearance is given the Pilot comes out. For vessels with cargo for the chemical works at Sariseki (3.5 miles North of the main port), the procedure is the same except that a Pilot is not required.

Customs, Immigration, and Health Officials require 4 Crew Lists on arrival. The Agent will require 2 more Crew Lists prior to the vessel's departure for clearance with the Harbour Master.

AUTHORITY: Turkiye Cumhuriyeti Devlet Demiryollari – Isletmesi Genel, MD, Talatpasa Bulvari, Ankara, Turkey. Telex: 42571.

Turkiye Cumhuriyeti Devlet Demiryollari Isletmesi, Iskenderun, Turkey. *Tel:* (881) 22502, 22503. *Telex:* 68109 Liman Tr.

AGENT: Gulf Agency Co. Ltd., P.O.Box 277, Iskenderun. Tel: (881) 13676, 13677, 13152. After Hours 12385. Telex: 68124. Fax: 21623. Cables: "Gacship" Iskenderun.

ISTANBUL: 41.01 N. 28.59 E. (See Plan)

(A) ISTANBUL (EUROPE)
(B) HAYDARPASA (ASIA)

(A) *ISTANBUL (EUROPE)*

DOCUMENTS: *Vessels bound for Istanbul:*

5 Crew Lists.
6 Passenger Lists.
3 Stores Lists.
1 Transit Cargo Manifest.
2 Inward Manifests of all cargo onboard.
Copies of relevant Bills of Lading for Inward Manifests.
3 Lists of Money in the Ship's Safes (if there is no money on board, please issue 3 "nil" lists).
Harbour Master's Sailing Permit (which must be exchanged at each Turkish Port and kept on board).
Ship's Certificates (Derat, Ship Safety, Safety Radio, Class or Freeboard).

Transit Vessels: Master to present only Tonnage and Derat Certificates during Sanitary Control at both Straits (Canakkale and Buyukdere).

PILOTAGE: For both vessels bound for Istanbul and transit vessels, Pilot secured by the Agent through the Port Monopoly Administration. Master to wire ETA notices 48 and 24 hours prior to arrival. ETAs must be confirmed or corrected not less than 2 hours prior to ETA. Pilot boarding vessel, using service boat hoisting red and white flag, off Haydarpasa and Sarayburnu (entrance from Marmara Sea) or off Kavak (entrance from Black Sea). Pilotage for entering and berthing in harbour areas is compulsory. Pilotage through Bosphorus is optional. All Pilots can be contacted by VHF Channel 16.

Also see "Shipmaster's Report".

ANCHORAGES: Free and safe anchorage in roads off Marmara coast approach to Istanbul. It is however recommended to anchor as near as possible to the harbour. Anchoring at other anchorage areas is subject to special permission via Harbour Master. Good anchorage off Haydarpasa and off Yenikapi, Ahirkapi for large vessels. For smaller vessels there is a good anchorage between Dolmabahce and Kurucesme.

RESTRICTIONS: Ships carrying hazardous cargoes (flammable, explosives, corrosives, etc.) are not allowed to enter the harbours. Ships can anchor in roads outside the harbour at any time without Pilot. Ships to operate upon arrival at night can enter the harbours with Pilot and with special permission through the Port Monopoly Administration. 48 hours' notice has to be given to the Harbour Master of Istanbul for vessels calling at Istanbul and/or passing in transit through Bosphorus.

MAX. SIZE: No limitation of draft in open roadstead at anchor. Max. draft in port alongside quay: 10 m. for dry cargo ships. Tankers up to 48 ft. draft can berth at Haramidere oil port.

HEALTH: Sanitary control of both transiting and operating vessels performed at the Straits entrance (Canakkale and Buyukdere). Ships entering from South must slow down at Canakkale and ships arriving from North must slow down at Buyukdere for Sanitary Control. In case of non-performance of such control due to bad weather, Master has to inform Agent in time and have to stop and wait at South Entrance of the Bosphorus until Sanitary Control is performed otherwise heavy fine would be levied.

Also see "Shipmaster's Report".

RADIO: Wireless messages to be routed to Agent via Istanbul Radio. Call sign of Istanbul Radio Station is TAH. Frequency MW 500 kHz. Ships can also communicate with Agent by radio telephone on frequency 2182 KHz. It is recommended that ships keep watch for any radio telephone call by Agent detailing any berthing and operation arrangement.

TUGS: Arranged by Agent. Vessels of 1,500 g.r.t. and over berthing at the quays or mooring to the buoys are compelled to take the services of at least one tug and vessels of 5,000 g.r.t. and over require at least two tugs. Charged per hour or fraction of each operation.

21 tugs ranging from 110 hp to 2,500 hp are available.

BERTHING: Priority to food and passenger ships. If no berth available then ships to wait for turn in roads at anchor.

Turkish Maritime Corporation Facilities:

Wharves:	*Length* (m.)	*Depth of Water* (m.)
Karakoy (ex Galata) exclusively for passenger vessels	520	7 – 10
Salipazari for cargo handling	600	10
Sarayburnu for passenger handling	240	6
Camialti and Haskoy (Golden Horn)	68	3 – 4
Kurucesme for coal handling	370	10

Equipment:

Electric Cranes along the quays:
  2 of 5 tons
  7 of 3 tons
  3 of 4 tons (coal transporter)
Rubber wheeled mobile cranes:
  1 of 25 tons
  7 of 10 tons
  8 of 5 tons
  5 of 3.5 tons
Floating Cranes: 5 tons – 60 tons.

BULK HANDLING: See "Section B" – Haydarpasa.

TANKERS: The oil port called Haramidere is a small bay open to Southern winds and 60 km. distant from Istanbul in the Sea of Marmara. There are buoys and an oil pumping platform in this bay. Tankers can berth by dropping 2 anchors and mooring by stern at these buoys or at platform. Average sea depth is 48 ft.

Ambarli: Position Lat. 40° 58′ N., Long. 28° 42′ E. Max. size 250,000 d.w.t. Vessels moor by the stern to a dolphin platform (offshore).

BRIDGES: There are 2 bridges: Galata Bridge is between Eminonu and Karakoy: Ataturk Bridge is between Unkapani and Azapkapi. Both bridges are opened in the morning for vessels entering the Inner Harbour (Golden Horn). Vessels wanting to pass through the bridges have to give notice in due time to the Harbour Master of Istanbul.

STEVEDORES: Gangs of stevedores secured by the Agent through the Port Monopoly, 24 hours prior arrival. Average loading and discharging rates of about 150 – 200 tons per gang per shift depending also on the kind of goods. Discharging operations are generally performed alongside the wharves and loading operations at buoys; however, as stated above, can also be effected alongside simultaneously with discharging. Working hours: Monday to Friday 0800/1200 and 1300/1700 hrs; Saturday 0800/1200 hrs.

MEDICAL: Master to inform Agent by cable if urgent medical assistance is required upon arrival, also indicating, if possible, seriousness of case in order to take adequate steps.

DENSITY: Always variable due to strong currents, however, can be reckoned as 1015.

FRESH WATER: Supplied by barge and shore installation at the rate of 30 t.p.h. – 60 t.p.h.

FUEL: Diesel oil, gas oil and bunker fuel can be supplied by barge at transit cost, subject 48 hours' pre-advice. Fuel supplied only against advance payment in foreign exchange (dollars, sterling or Swiss francs).

With 48 hours notice Petrol Ofisi can supply marine fuels and lubricants (Mobil, Shell, Chevron & B.P.) Telex: 29048 Bunk Tr. Tel: (1) 338 25 09 / 337 36 86 / 337 88 31 / 336 06 36. Mailing address: Petrol Ofisi – Haydarpasa, Mehmet Ince, Kadikoy, Istanbul, Turkey.

GANGWAY/DECK WATCHMEN: Recommended.

OPENING/CLOSING HATCHES: Owners or Master to decide whether this work should be undertaken by the stevedores or by the crew.

CERTIFICATES: Safety, Safety Equipment, Safety Radio, Class and Freeboard documents.

CUSTOMS ALLOWANCES: 40 cigarettes and 1 bottle wine/spirits per crew member.

CARGO GEAR: Generally shore cranes operating. However, ship using own means when such cranes are not available. Full lights to be supplied by ship.

IDENTIFICATION CARDS: Seaman's Book is sufficient.

CONSULS:

Albania
Austria
Belgium
Brazil
Bulgaria
Chile
Czechoslavakia
Denmark
Dominican Rep.
Egypt
Finland
France
Germany F.R.
Great Britain
Greece
Hungary
Iceland
Iran
Iraq
Israel
Italy
Japan
Lebanon
Mexico
Netherlands
Pakistan
Poland
Portugal
Romania
Spain
Sweden
Switzerland
Syria
Thailand
U.S.S.R.
U.S.A.
Yugoslavia

REPAIRS/DRY DOCKS: At the Golden Horn are 3 graving-docks:

(1) 388 ft. length, 72 ft. width at entrance
(2) 279 ft. length, 62 ft. width at entrance
(3) 600 ft. length, 63 ft. width at entrance

At Istinye (in the Bosphorus):

1 floating dock 137.50 m. length, 21.25 m. width with 8,500 tons lifting capacity. 1 floating dock 67.82 m. length, 30.40 m. width with 5,000 tons lifting capacity. 1 floating dock 126.14 m. length, 34.0 m. width with 10,000 tons lifting capacity. In cases of necessity floating docks of 5,000 and 10,000 tons capacity can be united and be put in operation as single floating dock with 15,000 tons lifting capacity. Every kind of repair can be effected at Istinye docks.

At Fener (Golden Horn) is a dry dock for vessels up to 600 tons, and at Haskoy (Golden Horn) is a dry dock for vessels up to 176 tons. There are also some privately owned. All kinds of repairs can be effected.

SURVEYORS: American Bureau of Shipping, Bureau Veritas, Germanischer Lloyd, Lloyd's, Norske Veritas, Turkish Lloyd.

REPATRIATION: Crew exchange and repatriation is possible for citizens of Italy, Great Britain, Benelux Countries, Sweden, Norway, Germany F.R., Austria, Switzerland, France, Ireland, U.S.A., Iceland, Pakistan, Monaco, Australia, Canada, Japan, New Zealand, Spain, Cyprus, Portugal, Tunisia, Kenya, Iran, Yugoslavia, Romania, Morocco. Citizens of other states not specified above are subject to a Turkish visa.

AIRPORT: Yesilkoy Airport is an international airport with daily connection throughout world. Airport 15 km. from Istanbul.

TIME: GMT plus 3 hours.

HOLIDAYS: New Year's Day (Dec. 31st p.m. and January 1st); National Sovereignty (April 22nd p.m. and April 23rd); Sports and Youth Day (May 19th); Sheker Bayram (3 days) (movable); Courban Bayram (4 days) (movable); Victory Day (August 30th); Proclamation of the Republic (Oct. 28th p.m. to Oct. 30th). In the event of a holiday ending on a Friday, the Saturday that follows is considered also as a holiday in full, and normal working starts as of Monday morning 0800 hrs.

POLICE/AMBULANCE/FIRE: Fire Istanbul 521 42 22, Uskudar 333 20 30; Police 527 45 00; Ambulance Istanbul 521 15 95, Beyoglu 144 49 98, Uskudar 333 04 01.

TELEPHONES: No installation for connection facility on board.

SERVICES: Tank cleaning (gas-free service), derat, compass adjusting carried out by experts of shipyards or Turkish Maritime Lines.

SHORE LEAVE: Crew members are allowed ashore at all times.

SHIPMASTER'S REPORT: *Dardanelles and Bosphorus:* If a Pilot is required for both Dardanelles and Bosphorus, give 24 hours' notice through Istanbul Agent. Same Pilot remains on board for full transit, Sea of Marmara included, and this applies for both North and South-bound traffic. Pilots at Dardanelles and Bosphorus work VHF Channel 16.

Sanitary Control: Required at Buyukdere: Ship's Register, Derat, Crew List and certificate issued at Canakkale North-bound.

AUTHORITY: Turkiye Denizcilik Kurumu (Turkish Maritime Corporation), Genel Mudurluk, Karakoy, Istanbul, Turkey. *Tel:* 1433500. *Telex:* 22221 Dzb Tr, 22339 Dzy Tr. *Cables:* Denizbank Istanbul. *Contact:* Y. Izzettin Sen, Director of Ports. Ozden Dumanli, Assistant to General Manager.

(B) HAYDARPASA (ASIA)

DOCUMENTS:
7 copies Crew Lists.
4 copies Passenger Lists 2 Lists of Passengers Landing in Istanbul).
2 Lists of Passengers in Transit).
2 copies Transit Cargo Manifest.
3 copies Inward Cargo Manifest. The original Manifest of Goods for discharge at, or transhipment to, Turkish ports must be visaed by the Turkish Consul at port of loading. In the absence of Turkish Consulate, the manifest must contain an endorsement made by the local Authorities (Chamber of Commerce, etc.) to the effect that no Turkish Consul is available.
1 set Bills of Lading.
2 copies Cargo Stowage Plan.
Health Documents
2 copies Stores Lists.
Ship's Certificates:
  Sanitary Declaration Form.
  Derat Certificate.
  Ship's Register.
  Load Line Certificate.
  Safety Radio Certificate.
  Safety Equipment Certificate.
  Cargo Ship Safety Construction Certificate.

PILOTAGE: Compulsory. Ordered by Agent on basis of Master's ETA.
Pilots meet vessels West of a line (Longitude 28° 57′ 56″ E.) passing through the light on the breakwater of Kumpapi Fishing Boat Harbour.
Pilots are supplied by the Istanbul Harbour Directorate of the Turkish Maritime Organisations – TDI.
ANCHORAGES: The area to the South of Yenikapi lying between Longitude 28° 58′ 36″ E., passing through the Mosques of Sultanahmet, and Longitude 28° 55′ 00″ E. passing through Yedikule is reserved as a free anchoring area for passenger and dry cargo ships.
MAX. SIZE: No limitations at the anchorage.
HEALTH: Master's are required to show vessel's Health Declaration and Certificate of Registry at Dardanelles. Ships which cannot be inspected at Dardanelles due to unfavourable weather conditions or other compulsory reasons are reported by the Health Authority at Dardanelles to the Health Authority in Istanbul by cable.
RADIO: Istanbul Radio, call sign TAH.
Izmir Radio, TAN.
TUGS: 2×970 h.p., 1×1,500 h.p. and 1×2,500 h.p.
BERTHING:

Berth	*Length* (m.)	*Depth* (m.)	*Remarks*
No. 1	150	6.0	Used as a shelter for Port's own tugs, mooring boats and rail ferries
No. 2	190	5.5–6.0	General cargo
No. 3	220	8.0–9.0	Bulk and general cargo
No. 4/5	334	8.0–9.0	General cargo
No. 6	220	9.0–10.0	General cargo
No. 7/8	246	8.0–9.0	General cargo
No. 9	200	7.0–8.0	General cargo
No. 10/11	350	8.0–10.0	Ro-Ro
No. 12	300	11.0–12.0	Containers
No. 13/14	295	7.0–11.0	Containers
No. 15	220	8.0	General cargo
No. 16	92	6.5–7.5	General cargo
No. 17	190	5.5–6.0	General cargo

There is also a silo of 70,580 tons capacity at the harbour.
CRANES:
7 shore cranes × 5 tonnes.
19 shore cranes × 3 tonnes.
1 shore crane × 8 tonnes.
1 shore crane × 25 tonnes.
2 shore cranes × 10 tonnes
1 shore crane × 15 tonnes.
1 shore crane × 35 tonnes.
1 floating crane with capacity 250 tonnes.
STEVEDORES: 2 consecutive shifts of 8 hours each day. At anchor approximately 100 tons can be handled each shift for general cargo. Baled cargo, 125 tons per shift. Bagged cargo, 150 tons per shift.
Gangs ordered by Agent through the Port Monopoly 24 hours prior to arrival.
MEDICAL: Master to inform Agent by cable if urgent medical assistance required on arrival, also indicating, if possible, seriousness of case in order to take adequate steps.
FRESH WATER: Supplied from hydrants on the berths.
FUEL: Available.
With 48 hours notice Petrol Ofisi can supply marine fuels, see "Section A".
GANGWAY/DECK WATCHMEN: Watchmen services recommended. 3 shifts of 8 hours each.
OPENING/CLOSING HATCHES: May be opened/closed by ship's crew or by stevedores at tariff rates.
CUSTOMS ALLOWANCES: 50 cigarettes for each man going ashore. On board the vessel each man may hold 200 cigarettes and 1 open bottle wine/spirits out of bond.
IDENTIFICATION CARDS: Seamen's Book is sufficient.
CONSULS: 42 countries have Consulates in Istanbul.
REPAIRS: Welding and other minor types of repairs are possible under the Haydarpasa Port Directorate's control.
REPATRIATION: Can be arranged.
AIRPORT: Istanbul Ataturk Airport served by international and domestic lines. Airport situated 20 km. from Haydarpasa Port.
POLICE/AMBULANCE/FIRE: Police Control Office: 144 94 03; Ambulance: 354-383 (internal phone numbers of Haydarpasa Port), 338 10 10; Fire Brigades: Haydarpasa Port: 393-354-583 (internal phone numbers of Haydarpasa Port), 163 60 20.
HOLIDAYS:
Official Holidays: New Year's Day (from December 31st at 1200 hrs. and January 1st); National Sovereignty Day (April 23rd); Youth and Sports Day (May 19th); Seker Bayram (3.5 days), movable; Kurban Bayram (4.5 days), movable; Victory Day (August 30th); Proclamation of the Republic (from October 28th at 1200 hrs. to October 29th).

SHIPMASTER'S REPORT: Customs and Health Clearance is performed at anchoring areas Kumkapi (if coming from Marmara Sea) and Buyukdere (if coming from Black Sea). All officials and agents arrive by boat and when clearance is given, the Pilot comes out. For vessels with cargo for the chemical works at Meda (2 miles S.S.E. of the main port) the procedure is the same except that a pilot is not required.

AUTHORITY: Turkiye Cumhuriyeti Devlet Demiryollari Isletmesi Genel Mudurlugu – Talatpasa Bulvari, Ankara, Turkey. *Telex:* 42571.
TCDD Liman Isletmesi Mudurlugu Haydarpasa, Istanbul, Turkey. *Tel:* 337-06-83.

AGENT: Gulf Agency Co. Ltd., P.O.Box 1230, Karakoy, Istanbul 80008, Turkey. Tel: 1529878. After hours 1455744. Telex 24894 ("Tim Tr") and 25517 ("Mayu Tr"). Cables: "Gacshipping" – Istanbul.

IZMIR: 38.25 N. 27.09 E.

DOCUMENTS:
6 Crew Lists.
4 Passenger Lists.
2 Manifests of Transit Cargo.
3 Manifests of Inward Cargo, 1 of which must be legalised before arrival by Turkish Consulate at loading port.
1 set Bills of Lading.
1 set Cargo Stowage Plans.
2 Stores Lists.
Health Documents.
Ship's Certificates.

N.B. Ship's particulars form is to be filled in by Masters upon arrival at Izmir, and remitted to the Port Authorities.
PILOTAGE: Vessels are permitted to arrive and sail from Izmir by day and night. After entering the Gulf of Izmir, Masters who are not familiar with the waters, require a Pilot at Pelican Spit. The pilotage from Pelican Spit to Izmir is not compulsory and Masters must notify their Agents at least 12 hours in advance giving their ETA at Pelican Spit and ask for a Pilot.
Pilot can be contacted on VHF Channel 16.
ANCHORAGE: In the Outer Harbour, 300 m. outside Old Port breakwater, ample space for vessels to anchor. Cargo operations cannot be performed at anchor unless vessels have red label cargoes aboard for Izmir or in transit.
RESTRICTIONS: Docking of ships at the old port is not permitted during night, but ships can sail any time during night. At the new port, docking is permitted during night (weather permitting) also ships can sail any time during night. There are no tides at Izmir.
MAX. SIZE: Vessels of any size with a max. of 38 ft. draft can operate at Izmir. There is a pipe-line for oil-carriers in the Gulf of Izmir where tankers with a max. draft of 33 ft. can operate.
In Old Port, length restricted to 165 m., max. draft 8 m.
HEALTH: Vessels to show their Sanitary Certificate – if available aboard – also their Registry. Presentation also of Vaccination Certificate of all the crew, if required by sanitary officials. Pratique is necessary on arrival even if the vessel has called at another port in the same country. Sanitary Certificate is required for live animals aboard. If quarantine (fumigation) of the vessel is necessary, very considerable time is lost, and expense incurred because vessel must proceed to Fumigation Station at Klazomene, located at about 20 miles from Izmir (in the Gulf of Izmir) where fumigation can be effected and bad cases hospitalised.
RADIO: Izmir Radio Station, call sign TAN. Istanbul Radio Station: call letters TAH.
TUGS: Tugs are compulsory for vessels of more than 2,000 g.r.t. At Harbour Master's estimation, 2 tugs will be used for vessels over 4,000 g.r.t. in case of bad weather. Dues will be collected for each tug.
2×800 h.p. and 1×2,500 h.p. tugs available.
BERTHING: *Old Port:* Location Lat. 38° 25′ N. Long. 27° 10′ E. Harbour entrance to port 130 ft. wide, depth 40 ft., harbour length 1,200 m., harbour width 700 m. (Pilots boards 0.25 mile off entrance).
Precautions to be taken against N.E. and South winds. Mooring stern to quay. Operations effected by means of lighters. Altogether 8 vessels can berth in Inner Harbour with a draft of 24 ft. to 30 ft.
Alsancak: Located at a distance of about 2 miles from the old port. Depth alongside berths 22 ft to 38 ft. Pilot's board vessels outside breakwater old port. Presently 12 cargo vessels of various sizes (mainly medium and small sizes) otherwise 9 to 10 large vessels can operate at the new port. There is also a berth for 2 large passenger vessels or 3 small size vessels. 95,000 sq.m. of open storage and 24,000 sq.m. of sheltered storage available. Storage for 2,000 TEUs within port area.
CRANES: 48 mobile cranes (5 – 35 tons). 1×50 ton and 1 × 200 ton floating cranes available when required.
BULK HANDLING FACILITIES: Grain silo has capacity 40,000 tons. The conveyor can deliver between 2,500 and 3,000 tons in 24 hours.
Bulk ore loaded by grabs. Daily loading capacity per shift of 8 hours is between 750 to 1,000 tons.

STEVEDORES: Straight time 0800 – 1200, 1300 – 1700 hrs. Overtime Saturdays, Sundays and public holidays 0800 – 1700 hrs., otherwise 1800 – 0200 hrs. Overtime charges 50% increase on S.T. charges.

For overtime discharging operations at the new port, handling charges (overtime) from ship's tackle to the Custom's warehouse, are for account of the ship.

9 men per gang aboard (6 labourers, 2 winchmen, 1 hatch tender) 3 lightermen or men on the dock.

Extra men used to reinforce regular gangs and in hatches congested with cargo for discharge secures a quick despatch.

MEDICAL: Advance notice optional. There is a local English-speaking doctor for service on board vessels.

Hospitals: U.S. Military Hospital, French Hospital, Government Hospital (Memleket). Doctors available to board ships or patient to proceed to their clinics.

U.S. Military Hospital for emergency cases only.

TANKERS: Izmir is a discharge port for tankers. Socony Mobil Oil receives petroleum products in bulk through a pipe-line at a distance of about 1 mile from their shore installations. Depth at the end of the pipe-line is 33 ft. The pipe-line is of 12 in. and the pumping is effected through a flexible hose of 10 in. at an average of about 450/500 t.p.h.

British Petroleum receives petroleum products at jetty where the tankers berth stern to with a max. draft of 23 ft. Pumping is effected by the vessel from her stern with a 6 in. flexible hose.

Petrol Ofisi receives petroleum products at their jetty. Vessels berthed stern to with a draft of 17 ft. Same procedure for pumping as for British Petroleum. The above three installations are located in the Gulf of Izmir opposite the new port of Alsancak.

FRESH WATER: Fresh water is available for drinking. The water is given both from dock or by barge. Water is supplied by Port Monopoly. Delivery at the dock about 20 t.p.h. By barge about 40 t.p.h.

Two barges each of 200 tons capacity available.

FUEL: All kinds of fuel available subject to 24 hours' advance notice. Fuel supplied only against advance payment in free foreign exchange direct to Agent of the vessel.

With 48 hours notice Petrol Ofisi can supply marine fuels and lubricants (Mobil, Shell, Chevron & B.P.). Telex: 29048 Bunk Tr. Tel: (1) 338 25 09/337 36 86/337 88 31/336 06 36. Mailing address: Petrol Ofisi – Haydarpasa, Mehmet Ince, Kadikoy, Istanbul, Turkey.

GANGWAY/DECK WATCHMEN: Services of watchmen recommended. Three shifts of 8 hours per day.

OPENING/CLOSING HATCHES: This work can be carried out by crew. If carried out by stevedores the cost is charged to vessel.

CERTIFICATES:

Derat Certificate.
Registry.
Vaccination Certificates (if required).
Health Certificate.

CUSTOMS ALLOWANCES: 50 cigarettes for each member of the crew going ashore. Aboard the vessel each member of the crew is permitted to have one carton out of Bond. Wine and/or spirits: 1 litre for each member of the crew in an open bottle is permitted out of Bond. However, this allowance is to be kept aboard the vessel.

IDENTIFICATION CARDS: Seamen's Book is sufficient.

CONSULS:

Belgian Consulate (Honorary)	tel. 218847
Danish Consulate (Honorary)	" 124018
Finland Consulate (Honorary)	" 214782
French Consul General	" 214234
German F. R.	" 216995
Greek Consulate	" 216992
Italian Consulate	" 211696
Luxemburg Consulate (Honorary)	" 214882
Netherlands Consulate (Honorary)	" 132064
Norwegian Consulate (Honorary)	" 215102
Spanish Consulate (Honorary)	" 145470
Swedish Consulate (Honorary)	" 124878
U.K. Consul General	" 211795
U.S. Consul General	" 217204

REPAIRS: Ship's repair shops available: Denizcilik Bankasi (Turkish State-owned). Deck and engine repairs are possible.

DRY DOCKS: Floating dock, capacity 7,000 d.w.t.

REPATRIATION: All facilities available for crew changes and arranging necessary repatriation.

AIRPORT: Airport from dock – distance 30 kilometres. Airport is served by Turkish Airlines with 5 flights per day (local flights in connection with Istanbul International flights). Also 2 direct flights per week to Europe.

TIME: GMT plus 3 hours.

HOLIDAYS: New Year's Day (from December 31st 1200 hrs. to January 1st, 2400 hrs.); National Sovereignty Day (from 22nd April, 1200 hrs. to April 23rd, 2400 hrs.); Spring Day (May 1st); Constitution Day (May 27th); Sports Day (May 19th); Victory Day (August 30th); National Holiday (October 28th, 1200 hrs. to October 30th, 2400 hrs.); Sheker Bayram (3 days) movable; Kurban Bayram (4 days) movable.

On these days offices are closed. Work in port is allowed by paying 75% overtime to the S.T. wages. The overtime for the National Holiday (Oct. 29th) is paid 100% on the total regular overtime, which makes 300%. On the first days of Sheker and Kurban Bayram work aboard is not carried out.

POLICE/AMBULANCE/FIRE: Police, tel. 255460; Ambulance, tel. 252405; Fire, tel. 00.

TELEPHONES: It is possible to place telephones aboard vessels at the new port of Alsancak.

SHORE LEAVE: Crew members are allowed to go ashore with landing card.

REGULATIONS: Berths at the new port of Alsancak are obtained on basis of the time and date of arrival of each vessel. If the port is congested, vessels wait for their turn at anchor.

DELAYS: During the active export season, some delays occur varying 1 or 2 days.

DEVELOPMENTS: New port of Alsancak to be extended during the next 2 years by the construction of a breakwater, docks, warehouses totalling a berthing capacity of additional 2 to 3 vessels, especially container vessels. 2 container cranes ordered.

AUTHORITY: Denizcilik Bankasi TAO.

AGENT: Gulf Agency Co. Ltd., P.O.Box 857, Izmir. Tel. 217270, 217287. Telex 52371. Cables: "Gacship" Izmir.

IZMIT: 40.46 N. 30.00 E.

DOCUMENTS: 5 Crew Lists, 2 Stores Lists, 2 Crew Declarations, 4 Cargo Manifests, 2 copies Bills of Lading, 2 Stowage Plans, Clearance from Last Turkish Port, Bill of Health, 2 Lists of Money in Ship's Safe, Tonnage Certificate, Safety Equipment Certificate, Safety Radio Certificate, Safety Construction Certificate, Load Line Certificate, Derat Certificate.

PILOTAGE: Compulsory pilotage from Darica to Izmit and vice-versa, also for berthing and unberthing. (For all movements in Izmit Gulf Pilot is compulsory).

Vessels proceeding to Izmit Port have to take Pilot when entering Izmit Gulf at Darica pilot station, located:

Approx. Lat. 40° 45′ 18″ N., Long. 29° 23′ 18″ E.

ANCHORAGES: Approx. position: Lat. 40° 44′ 00″ N., Long. 29° 52′ 48″ E.

RESTRICTIONS: Berthing at jetties at night time is at Pilot's discretion.

MAX. SIZE: No restrictions for vessels loading on roads, and no special restriction if vessel suitable to load/unload at the jetty of Seka Paper Mills where jetty length 70 m., depth varying between 24 ft. and 27 ft.

HEALTH: For vessels proceeding to Izmit Free Pratique obtained at Canakkale-Dardanelles or at Buyukdere-Bosphorus. Crew List and Derat Certificate required.

RADIO: Istanbul Radio Station.

VHF: Available only at Darica and Yarimca pilot stations, Channel 16.

TUGS: Compulsory towage for berthing and unberthing. The following number of tugs must be used during operations at Izmit Gulf:

500 to 5,000 g.r.t.	– 1 tug
5,000 to 25,000 g.r.t.	– 2 tugs
25,000 to 50,000 g.r.t.	– 3 tugs
over 50,000 g.r.t.	– 4 tugs

BERTHING: Only 1 jetty available at Izmit which belongs to Seka Paper Mills where 2 ships can berth at a time to each side of the jetty.

CRANES: No shore cranes available at the jetty.

BULK CARGO FACILITIES: No bulk cargo facilities. Vessels load minerals on roads, by ship's gear, brought alongside by barges with rate of 800/1,000 tonnes per day, working hours generally from 0800 to 2000.

At the jetty of Seka Paper Mills working hours from 0800 to 1700 and 1700 to 2400. Generally paper and wood-pulp in bales discharged at a rate of 125/150 tonnes per shift per gang by ship's gear.

SPECIALISED CARGO HANDLING FACILITIES: None.

BRIDGES: None.

STEVEDORES: Private. See also "Bulk Cargo Facilities".

MEDICAL: Hospital and dental facilities are available.

TANKERS: No tanker facilities.

DENSITY: 1020-1022.

FRESH WATER: Available by barge, and small quantities available from the jetty.

FUEL: Not available at Izmit, can be supplied by barge or coaster from Istanbul.

FIRE PRECAUTIONS: None.

CONSULS: None.

REPAIRS: No repair facilities.

DRY DOCKS: None.

SURVEYORS: Cargo Inspectors and Surveyors available from Istanbul and can be ordered to attend vessel at Izmit.

GANGWAY/DECK WATCHMEN: Not necessary. Ship's gangway used.

HATCHES: Opening/closing hatches to be carried out by the crew.

CUSTOMS ALLOWANCES: Tobacco: 1 carton of cigarettes per week, each man. Spirits: 1 bottle of spirits per week, each man.

CARGO GEAR: Load/discharge effected by ship's gear.

REPATRIATION: Main embarkation/disembarkation Customs and Immigration formalities done at Istanbul but permission/formalities also required from Izmit Customs and Immigration.

AIRPORT: Nearest airport at Istanbul, approx. 130 km. from Izmit.

TIME: Local time GMT plus 3 hours.

HOLIDAYS: New Year's Day, Sugar Bayram for 3 days, Kurban Bayram for 4 days (both religious holidays and dates are changeable every year), 23rd April, 19th May, 30th August, 29th October are National Holidays. Saturdays and Sundays official holidays.

POLICE/AMBULANCE/FIRE: Police: 211-10945, Ambulance: 211-11030, Fire: 211-00.

EMERGENCY CO-ORDINATION CENTRE: Police Headquarters: 211-10945.

TELEPHONES: No arrangements exist.

SERVICES: None.

BANKS: Only local banks.

STORING: See "Prelims".

1. Vessels can be stored by barge and truck.
2. Vessels can be stored by barges during loading or discharging.
3. Trucks can proceed alongside at berth.
4. Fork lift trucks not available.
5. Customs facilities required for storing. Agents assist.

SHORE LEAVE: Crew members allowed ashore, no shore pass required.

IDENTIFICATION CARDS: Seaman's Book is sufficient.
REGULATIONS: Nil. No visitors allowed aboard without permission.
DELAYS: No delays expected.
AUTHORITY: Izmit Seka Paper Mills. *Tel:* 211-31630. *Telex:* 33124. *FAX:* 23235, 20074.

MERSIN: 36.47 N. 34.38 E. (See Plan)

DOCUMENTS:

- 5 Crew Lists.
- 4 Passenger Lists.
- 2 Transit Cargo Manifests.
- 3 Inward Cargo Manifests, one of which must be legalised prior arrival by Turkish Consulate at loading port; if no Turkish Consulate, same to be certified by local Chamber of Commerce.
- 1 each of the Bills of Lading accompanying Manifests.
- 2 Cargo Stowage Plans.
- Health Documents.
- Ship's Certificates (Safety Equipment, Safety Radio, Class and Freeboard Documents).
- 2 Stores Lists.

PILOTAGE: Agent orders Pilot through Port Monopoly Administration. Master to cable ETA notices 48 and 24 hours prior to arrival. Pilot boards vessel with service boat hoisting red and white flag. Sound signals: 2 long and 1 short blast. Pilot boards vessel outside main breakwater. Shipmaster can use VHF station according existing international frequencies.
ANCHORAGES: Safe anchorage in open roads outside main breakwater.
RESTRICTIONS: No particular restrictions. Ships can anchor in roads outside main breakwater at any time without Pilot.

Vessels with more than 50 tons of explosives are not permitted to berth alongside.
HEALTH: Clearance is effected on arrival. Vaccination Certificates to be presented if required. If suspected disease on board radio Agents full details before arrival.
RADIO: Istanbul Radio, call sign TAH, Izmir Radio, call sign TAN, Mersin Radio TAM. Radio messages to be routed to Agent, preferably via Istanbul Radio. Port VHF service in operation.
TUGS: Tug boat compulsory for vessels over 1,000 g.r.t. charged per each operation. 6 tugs available up to 2,630 h.p.
BERTHING: Priority to Army, food relief and passenger ships. If no berth available then ships to wait for turn in roads at anchor.

Quay	*Length* (m.)	*Depth* (m.)
No. 1 (Passenger Quay)	175	10.0
Nos. 2 and 3	274	10.0
No. 4	175	10.0
Nos. 5, 6 & 7	502.5	10.0
No. 8	175	10.0
No. 9 (containers)	225	12.0
No. 10 (containers)	175	10.0
No. 11	–	–
No. 12 (silo)	310	12.0
No. 13 (silo)	502.5	10.0
No. 14	–	–
No. 15, 16 and 17	493	6.0
No. 18 (ferry terminal)	–	12.0
No. 19 (free zone)	–	–
No. 20 (free zone)	270	10.0
No. 21 (free zone)	200	6.0
No. 22	–	–
No. 23 (oil terminals)	300 (with dolphins)	14.0

BULK HANDLING FACILITIES: There is conveyor system which can deliver 600 t.p.h. from each spout. Discharging rate 100 t.p.h. from each of the 2 suckers. Silo capacity 100,000 tonnes. Max. size 23,000 d.w.t.
CRANES: 35 shore cranes, capacity 3 – 35 tonnes. 1 floating crane, capacity 60 tonnes.

3×35 ton container gantry cranes at Berths No. 9 – 10.
STEVEDORES: Gangs of stevedores secured by the Agent through the Port Monopoly, to be ordered 24 hours prior to arrival.

Generally 2 consecutive shifts of 8 hours per day.

Discharging/loading rates average:

100 tons per shift	general cargo.
200 tons per shift	bagged cargo.
150 tons per shift	baled cargo
175 tons per shift	bulk ore

Max. rate for ore 400 tons per shift if grab loading.
MEDICAL: Master to inform Agent by cable if urgent medical aid is required upon arrival, also indicating, if possible, seriousness of case in order that adequate steps can be taken.
TANKERS: *ATAS Refinery Terminal:* Depth in harbour channel, 11.2 m. (Masters have reported depths of 10.8 m. in the channel leading to ATAS) and, in approaches to channel, 12.3 m. Turning basin 1,148 ft. diameter, depth 42 ft. 8 in. Depth alongside berths 48 ft. 6 in. Maximum length 229 m., draft 11.6 m. Tankers up to 12.19 m. draft have berthed.

Tankers in ballast up to 15,000 d.w.t. may berth/unberth at any time, day or night. Other vessels manoeuvre in daylight hours only.

One finger pier, berths for 2 tankers, 10 in. hose connections to 26 in. shore line. No facilities for slop disposal ashore.

Fresh water available from barge, 100 tons each load.
DENSITY: Salt water 1025.
FRESH WATER: Fresh water supplied to tankers by barge but otherwise by shore installation at the rate of 30/35 t.p.h.
FUEL: Almost all kinds of fuel available in transit and facilities for delivery to ships.

With 48 hours notice Petrol Ofisi can supply marine fuels and lubricants (Mobil, Shell, Chevron and B.P.). Telex: 29048 Bunk TR. Tel: (1) 338 25 09/337 36 86/337 88 31/336 06 36. Mailing address. Petrol Ofisi – Haydarpasa, Mehmet Ince, Kadikoy Istanbul, Turkey.
GANGWAY/DECK WATCHMEN: Available and recommended.
OPENING/CLOSING HATCHES: Owners or Masters to decide whether this work should be undertaken by the stevedores or by the crew.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle wine/spirits per crew member.
CARGO GEAR: Generally shore cranes operated. However, ship using her own means when such cranes are not available. Full lights to be supplied by ship.
IDENTIFICATION CARDS: Seamen's Book is sufficient.
CONSULS: Italy, Lebanon, Norway and Sweden.
REPAIRS: Welding and other minor types of repairs are possible.
REPATRIATION: Repatriation can be arranged by air.
AIRPORT: Adana Airport served only by domestic line THY (Turkish Airlines) with routes to Cyprus (ERCAN), Ankara and Istanbul. Distance is 75 km. from Mersin.
TIME: GMT plus 3 hours.
HOLIDAYS: New Year's Day, (January 1st); National Sovereignty Day (April 23rd); Sports Day (May 19th); Victory Day (August 30th); Republic Day (October 29th); Sheker Bayram (3 days, movable); Kurban Bayram (4 days, movable).

Mersin Port is not working only 1 day during Sheker Bayram and 2 days during Kurban Bayram, during all other holidays working affected.
POLICE/AMBULANCE/FIRE: Telephone numbers: Police 15910; Ambulance 13555; Fire 0000.
TELEPHONES: No installation for connection on board.
SHORE LEAVE: Crew allowed shore leave.
GENERAL: Two consecutive shifts every day, the first shift 0800 hrs. - 1700 hrs. and the second shift 1700 – 2400 – 0100 hrs. Agent may provide extra men if necessary to help ship's despatch. Ships have to hoist a Turkish flag.
DEVELOPMENTS: Additional 310 m. of berthing space for container vessels will be available in 1988, depth alongside 12.0 m. 2 container gantry cranes will be available.
AUTHORITY: Turkiye Cumhuriyeti Devlet Demiryollari – Isletmesi Genel, MD, Talatpasa Bulvari, Ankara, Turkey. Telex: 42571. *Cables:* Demiryol.

Turkiye Cumhuriyeti Devlet Demiryollari Isletmesi, Mudurlugu, Mersin-Limani, Mersin, Turkey. *Tel:* (741) 11350. *Telex:* 67279 MRSL TR.

AGENT: Gulf Agency Co. Ltd., P.O.Box 328, Mersin. Turkey. Cable Address: "Gacship" Mersin. Telex: 67141. Tel: 14961-6. After hours 15059.

NEMRUT BAY (including Foca): 38.46 N. 26.55 E. (See Plan)

PORT LIMITS: Nemrut Bay is situated on the South side of the port of Aliaga (see Aliaga). It is the area between the mainland and a straight line drawn True North from Kizilburun which is situated in position: Lat. 38° 45′ 00″ N., Long. 26° 53′ 50″ E.

The Bay is divided into two areas, the inner port and outer port.
Inner Port: Is the area remaining between the imaginary line connecting the South end of the Petkim Petrochemical Complex's breakwater with Karacadogan Penisula situated in position: Lat. 38° 46′ 10″ N., Long. 26° 54′ 22″ E.
Outer Port: Is the area between interior port and Nemrut Bay boundaries.
DOCUMENTS: See "Izmir".
PILOTAGE: Pilotage is compulsory for all vessels arriving at Nemrut Harbour.

Notice of ETA must be reported 24 hours before arrival to the Harbour Master's office at Aliaga (Telex No. 52626. VHF Channel 16). Time must be in GMT.

VHF Channel 16 is continuously watched at Nemrut pilot station and ETA may be confirmed on this frequency.

The address of pilot station is as follows:

Petkim Petrokimya A.S.
Aliaga Petrokimya Muessesesi,
Mudurlugu,
Satinalma Mudurlugu,
Aliaga – Izmir – Turkey
Tel: Aliaga (5431) 1240 (5 lines)
Izmir (51) 140910 (5 lines)
Telex: 53950 Pete Tr. (2 lines)
Cables: Petkim – Aliaga – Izmir.

In the ETA message, the following information must be indicated:

1. Name/call sign of vessel
2. Nationality
3. Agency
4. Length overall, max. draft and gross tonnage
5. Nature of Cargo (In IMO)

Rendezvous point with Pilot is: Lat. 38° 47′ N., Long. 26° 54′ E., in outer port. In the event of bad weather Pilot joins the vessel in inner port. A pilot boat of 210 h.p. is available. Call sign of the boat is "TCZJ".
ANCHORAGES: Anchorage in the inner and outer ports is possible. However, anchorage within the area of 5 cables diameter of middle of interior port boundary is prohibited for safety of sea traffic (See "Plan").
RESTRICTIONS: Mooring to or sailing from the Petkim's Tanker Quay and Ege Gubre's Pier from sunset to sunrise time needs the permission of Port Administration.

MAX. SIZE: See "Berthing".
HEALTH: See "Izmir".
RADIO: Complete MF/SSB type radio, 1.6 – 4.2 MHz International Navigation Code with 31 Channels capacity, radio transmitter 150-350, 300-535, 700-1650, 1650-4250 kHz, and a 4 band SSB/AM receiver.
VHF: Communication within 20-25 miles with VHF radio operating in 156 – 162 MHz band is possible. International navigational bands are used. Station listens on Channel 16. Call sign: "TAB".
RADAR: No radar facility.
TUGS: 2 tugs of 1,050 h.p. and 2,500 h.p. are available. Tugs normally join the vessel in the outer port.
BERTHING: Quays at port of Petkim Petrochemical Complex situated on the Northern side of Nemrut Bay (See "Plan").

Berth No.	*Name*	*Length (m.)*	*Depth (m.)*	*Remarks*
1	Tanker Quay	163	7	Load/discharge lines: 6 in., 8 in., 10 in., 12 in. Constructed for loading/discharging various chemicals such as ammonia, benzene, fuel oil, ethylene oxide, ethylene glycols, chloric hydrocarbons, wash oil.
2	Tanker Quay	175	10	
3	Caustic Quay	60	6	Loading lines: 8 in. for caustic, 4 in. for hypochloride.
4	Naphtha Quay	90	14	Discharge lines: 28 in. for fuel oil, 24 in. for naphtha.
5	Salt Quay	190	6	Constructed for discharge of salt to be used at Chlorine Alkali Plant.
6	General Cargo Quay	338 (175+163)	10 – 7	Constructed for loading/discharging various petrochemical raw materials, products and equipment.
	Petrol Ofisi Quay			Loading petroleum products.

Quays on the Eastern and Southern side of Nemrut Bay (See "Plan").

Ege Gubre Pier	122.90	12 – 14	Private jetty constructed for discharging/loading raw materials and products of fertiliser facility. Rate 1,000 tons/day.
Limas Pier	154	12	Private jetty constructed for discharging/loading iron scrap and iron products of Ironworks in Izmir.
Cukurova Pier	167	15	Private jetty constructed for discharging/loading iron scrap/iron products of Ironworks in the site.
Nemtas Pier	210	7-21	Private jetty constructed for loading/discharging iron and steel products of Ironworks at site.
Habas Pier	220	10-20	Private jetty for loading/discharging iron and steel products.

CRANES: Fixed/mobile cranes are available at Petkim Petrochemical Complex.

Lifting capacity of 2 cranes at Salt Quay is 3 tonnes each. Salt is transferred by conveyor belt to the plant. One mobile crane of 270 tonnes lifting capacity, 2 mobile cranes of 150 tonnes, 2 mobile cranes of 110 tonnes and 55 mobile cranes of 12 – 30 tonnes lifting capacity are available.

Nemtas and Cukurova have mobile crane facilities. Limas has 2 fixed cranes each with 10 tonnes lifting capacity. Ege Gubre has 1 × 10 ton crane.
BULK CARGO FACILITIES: See "Berthing" – Salt Quay and General Cargo Quay.
SPECIALISED CARGO HANDLING FACILITIES: Loading and discharging lines of liquid chemicals available at Port of Petrochemical Complex (See "Berthing").
MEDICAL: Hospital near Petrochemical Complex.
TANKERS: See "Berthing".
FRESH WATER: Available at Petkim's Quays, Ege Gubre and Limas.
FUEL: Available at Petrol Ofisi Quay.
CARGO GEAR: Load/discharge can be effected by mobile cranes at General Cargo Quay (See "Cranes").
AIRPORT: Izmir-Cigli Airport is approximately 30 miles from Petkim Petrochemical Complex.
TIME: GMT plus 2 hours in Winter. GMT plus 3 hours in Summer.
HOLIDAYS: *Official:* January 1st, April 23rd, May 19th, August 30th, October 29th.
Religious: "Bayram" days (Id-al-Fitr: 3 day, Id-al-Adha: 4 days) of Muslims (These dates are subject to visibility of new moon at Mecca).
POLICE/AMBULANCE/FIRE: Petkim has its own protection and medical units.
TELEPHONES: Available for national and international calls at Petkim.
BANKS: T. C. Ziraat Bankasi, Turkiye Is Bankasi, Akbank, Emlak Kredi Bankasi in Petkim site.
SHORE LEAVE: Petkim's permission is needed at Petkim Quays.
IDENTIFICATION CARDS: The list of personnel leaving/joining the vessel should be announced to Petkim.
GENERAL: Piers and facilities at Nemrut Bay are owned by industrial companies located in this area. For loading/discharging the cargoes of other private and public companies permission from Ministry of Transportation of Turkish Republic is needed.

SHIPMASTER'S REPORT: July 1980.
Port of Foca: Vessel discharged ammonia.
Approach: Charts: BA 1087, 1618.

The approach presents no real difficulties since good positions may be obtained from the coast either by radar or visual bearings. There was some haze on our approach but it did not pose a serious problem.
Berth: Consists of an "L" shape with the jetty being 125 m. in length. Distance to the foot of the jetty being about 300 m. The jetty is of concrete construction, standing on pilings and is fendered throughout with large tractor tyres. Ample mooring posts, although arrangements are not good for a vessel of this size.

There is a conveyor belt running the length of the jetty and to the shore plant. Two loading hoppers on the jetty. The Chicksan consists of a tall crane-like structure which is swung into position.

Connection: 6 in. 300 ASA. Shore provides 10 in./6 in. 150/300 reducer. The gangway may be swung out prior to arrival.
Density: 1028.
Discharge: Co-operation with the shore personnel very good, especially with the senior operators and managers. At a lower level language is the only problem. Shore personnel connect lines.
General: Fresh Water: Not available. (A vessel that visited at a later date reported that fresh water of good quality was available (metered) from a line amidships).

Fuel: Not available.

Officials: Officials come from Izmir, some 80 km. by road; the Agent therefore has to "keep hold" of them throughout discharge. The shore plant has facilities for sleeping in a hostel ashore.

The same cargo surveyor attends the vessel at Gemlik, Foca and Mersin.

Since this was the second port of call in Turkey the vessel is issued with a travelling manifest to cover cargo and a carrier for ship's stores. The procedure differs from port to port but ship's bonded stores are sealed from arrival Turkey to departure, although visiting Customs enter on arrival at a port. We did not have any trouble requesting the bond to be opened prior to departure.

Doctor: Not available.
Repairs: Not possible.
Surveyor (Lloyd's): Not available.
Chandler: Not available.

SHIPMASTER'S REPORT: September 1980.
Port of Foca:

To be read in conjunction with the previous report.
Approach: From the North (Dardanelles). 10 miles can be saved by going down 'Muslim Kanali' and 'Stenon Mitilimis' to the East of Nicos Lesvos (BA 1665) instead of going to the West of Lesvos.

There is one narrow spot but in two transits during September 1980 presented no problems at full speed. There is little traffic.

Southbound: Keep to North side of Muslim Kanali about 0.5 miles off Turkish coast to avoid Muslim Kaya shoals (beware of Southerly set).

Northbound: Once past Muslim Kaya shoals, turn W.S.W. to avoid any Eastbound traffic round Baba Burnu then 3 miles off Baba Burnu as required.

A further 8 miles can be saved from Dardanelles to Foca by using the channel to the East of Boscadda Island (BA 1608). The problem here is the shallow bank which may require a speed reduction. Not yet tried but the Pilots say quite safe. Approaching Nemrut Liman plenty of fixes can be obtained. With a Northerly or North Easterly wind the bay acts as a funnel and a considerable indraught occurs so care should be exercised so that the vessel does not get set in.

BA Chart No. 1618 should be held.

Approaching Nemrut Liman the construction work and breakwater at 'Petkim' refinery on the North side of the bay is soon apparent although at present the earthworks and tanks tend to blend in with the rather barren landscape.

The whole peninsula between Nemrut Liman and Aliaga Liman is in the course of development for a very large Petrochemical complex.

On the South side of the bay is a general cargo berth to seawards and the fertiliser/ammonia facility at the head of the bay. This facility is marked by a silver-pressure vessel. The Ammonia facility remains hidden by high ground until near the berth.

The vessel can be turned round inside the bay with ease in winds up to N.E. Force 4.
Pilots: Available on 24 hour basis from Aliaga Refinery. Boards either from tug or mooring boat. Gangway/pilot ladder should be 2 m. above water. Side depends on wind.

Pilot boards 1 mile N.W. of Karacadogan Burnu. He either drives across the peninsula to the new chemical berth and boards his boat there or comes by tug around the peninsula from Aliaga Refinery. On VHF Channel 16 when vessel expected. Reasonable English spoken. Pilotage one hour.
Tugs: Three tugs available. Two of 2,400 h.p. from Aliaga Refinery and one of 1,200 h.p. at the new chemical berth.

If there is any wind at all in the bay, two tugs are required both for berthing and unberthing. These should be ordered well beforehand through the Agent.

In my opinion two tugs are required at all times. Ship's lines used.
Berthing: Although on a 24 hour basis, I would not be keen to berth at night especially in Winter months due to the strong Northerly wind pushing vessel onto the berth.

Can berth port or starboard side alongside. For this size vessel (32,000 g.r.t.) port side to is the most suitable as leaving the berth is not hazardous as possibly starboard side to would be.

Vessel headed into berth at 90° with bow onto the N.W. corner. When about 2 cables off starboard anchor let go and the stern pulled round by tug.

Make sure stern tug (when vessel parallel with quay) pulls on starboard side otherwise stern will strike quay (September 1980).
Moorings: (See "Plan"). Back spring first forward, starboard buoy line first aft. Mooring boat available.
Berth: The fendering arrangements are poor. Consisting of large tractor tyres. The main problem is at the corners or knuckles where the tyres are strung too low to stop the bow or counter flare hitting the concrete (September 1980).

Protest noted in September 1980 about fenders. Operators say they will raise fenders and offer protection at corners.

Maximum Air draft 14 m. in September 1980 call, we used the low loader, which was very beneficial.

Discharge: A discharge rate of 150 t.p.h quoted. Around the 200 t.p.h. is normal. July and September 1980.

On completion the shore personnel drain their line direct into the sea. All personnel engaged in uncoupling must wear full breathing sets. Cargo Engineer and Officer of the Watch went through three bottles each. (September 1980).

The facility has a storage capacity of 2,800 tonnes and a monthly consumption of about 1,500 tonnes.

Phosphoric and Sulphuric acids are also handled.

General: If second or third port, vessel issued with travelling manifest from previous port to cover cargo and ship's stores.

Be careful to retain Turkish light dues certificate, if last port, for next Turkish call.

In addition to travelling manifests other papers required:

2 Crew Currency Lists.
2 Crew Declarations.
6 Crew Lists.
1 Vaccination List.
1 List of Cash in Ship's Safe.
1 Health Declaration.
2 Lists of Ship's Particulars (Turkish Form).
2 Lists of Previous Ports.
6 Copies of Cargo Manifests (to be stamped at previous port if Foca second or subsequent port).

SHIPMASTER'S REPORT: October 1987.

Chart: BA. Chart No. 1618.

Documents:

8 copies Crew List.
2 copies Crew Declaration.
2 copies Manifest.
1 copy Health Declaration.
8 copies Cargo Manifest.

Approaches: Good positions are obtained on approach. Crude carriers generally berth in Aliaga Bay and product and gas vessels in Nemrut Bay.

Pilotage: Pilot is based at the Dock Office of the Petkim Refinery in Nemrut Bay. Pilots also undertake berthing at other Nemrut Bay berths.

Pilotage is available 24 hours but in general pilotage not available between the hours of midnight and 0600 hrs. for berthing.

Pilot boards from a small black hulled cutter. Excessive use of the tug and anchor was made.

The Pilot boards 0.5 miles west of FL.R. light on Petkim Breakwater.

Prior to arrival Pilot may be contacted by Telex No. 607 53950 PETE TR and on approaching may be contacted on VHF Channel 16.

Anchorage: There is a prohibited anchor circle on BA. Chart No. 1618 but this does not seem to be observed. We found a good anchorage cables west of the FL.R. light of Petkim Breakwater. In October 1987 there were many ships at anchor.

Tugs: There are two tugs on standby (1 x 1500 h.p. and 1 x 2,500 h.p.) at Petkim Dock and they require 15 minutes notice. Ship's lines used.

Berthing: At Petkim Refinery in Nemrut Bay there are 6 berths. There are 3 berths for product and gas ships. 1 berth for Naphtha (vessels berth stern to), 1 berth for caustic soda and 1 general cargo berth. The two product berths are on the N.W. side of Petkim Dock and the general cargo berth is on the S.E. side.

The water depth in the dock is about 30 ft. although there is more water at the outer end.

The product berth which is on the outer side of the N.W. breakwater was damaged by Winter storms and was out of use.

We berthed head in port side to at the product/gas berth and used the offshore anchor. Moorings consisted of 2 head/stern lines, 1 breast line and 2 springs at each end. The berth was well fendered. Ship's gangway used.

Cargo: A full range of gases are handled for import and export, including ethylene. Also many chemicals and products are handled.

We discharged propylene with back pressure of 12 Bar (Maximum back pressure allowed 20 Bar) at 50 t.p.h., heater discharge to +5°C. We used a 6 in. Chicksan arm for liquid and a 4 in. hose for vapour return line.

We believe 4 x 4,000 cu.m. spheres used for storage of pressure gases. The Terminal and Surveyor were very helpful. Hot vapour pumped ashore on completion. The English spoken was fair.

Fresh Water: Fresh water is available from Petkim Dock and at a good rate. Shore hoses used.

General: Nearest airport is at Izmir with flights to Istanbul and Ankara.

Ship chandler available locally.

There are 4 berths on the West side of Nemrut Bay. One berth being for ammonia (Foca) and 3 for steel, scrap and finished exports.

AUTHORITY: Harbour Master's Office: Aliaga – Izmir, Mr. Atalay Karatas, Harbour Master.

SAMSUN: 41.21 N. 36.34 E. (See Plan)

DOCUMENTS:

6 copies Crew List.
6 copies Passenger List (if any onboard).

Customs:

2 copies Crew List.
2 copies Stores List.
2 copies Personal Effects List.

Health:

Valid Derat Certificate.
Maritime Declaration of Health.
1 copy Crew List.

Immigration:

2 copies Crew List.

PILOTAGE: Harbour Pilot compulsory for all foreign vessels. Ordered by Agent subject to vessel's advance notice of ETA.

ANCHORAGE: Good anchorage in the Outer Harbour.

VHF: Samsun Radio (TAF) on Channel 16.

TUGS: 4 tugs abvailable. 1×970 h.p., 1×450 h.p., 1×1,500 h.p. and 1×2,480 h.p.

Vessels over 4,000 g.r.t. are required to use 2 tugs.

BERTHING: Harbour protected by two breakwaters, entrance width 200 m., depth 11.9 m.

Berth No.	*Length* (m.)	*Depth* (m.)	*Remarks*
1-5	776	10.5	12 Cranes general, bulk, containers.
6-9	—	—	—
10	250	12.0	Berth to be available 1988-91 with 2 container cranes.
11-12	410	12.0	To be constructed.
13	–	–	Ferry terminal.
14-15	400	12.0	Industrial quay, 5 cranes will be available in 1988.
16	180	6.5	Coastal.
17	400	6.0	Fishing boats.

BULK HANDLING FACILITIES: Coal and ore handled at the Main Quay. Rate for coal 200 t.p.h. by conveyor and iron ore 250 t.p.h. by conveyor. Grain silo with 34,000 tonnes capacity.

Also see "Developments".

CRANES: 17 quay cranes, capacity 3-10 tons. Mobile cranes 3, 10, 25 and 40 tons capacity.

DENSITY: 1013, but changes according to season.

FRESH WATER: Available from the quay.

FUEL: Available.

With 48 hours notice Petrol Ofisi can supply marine fuels and lubricants (Mobil, Shell, Chevron and B.P.). Telex: 29048 Bunk TR. Tel: (1) 338 25 09/337 36 86/337 88 31/336 06 36. Mailing address: Petrol Ofisi – Haydarpasa, Mehmet Ince, Kadikoy, Istanbul, Turkey.

STEVEDORES: Working hours for general cargo: From 0800 hrs. to 2400 hrs. in 2 shifts.

For bulk cargo: 24 hours operations in 3 shifts.

REPAIRS: Minor repairs possible.

SURVEYORS: Available.

GANGWAY/DECK WATCHMEN: Usually ship's crew and ship's gangway.

OPENING/CLOSING HATCHES: Usually by ship. Can be carried out by shore personnel is required by Master.

CERTIFICATES: Safety Construction, Safety Equipment, Load Line, Safety Radio, Hull Class, I.O.P.P. and International Tonnage Certificates are required. Garbage Pollution Prevention Certificate, if vessel has one.

CUSTOMS ALLOWANCES: 10 packets of cigarettes per man, per week and 1 bottle per man per week.

IDENTIFICATION CARDS: All passports (except Master's) are collected by Immigration in exchange for shore pass during vessel's stay in the Port.

POLICE/AMBULANCE/FIRE: Available in the port.

AIRPORT: Distance 5 km.

DEVELOPMENTS: New bulk cargo quay under construction. Length 500 m., depth 12 m.

AUTHORITY: Turkiye Cumhuriyeti Devlet Demiryollari Isletmesi, Genel Mudurlugu, Samsun, Turkey. *Tel:* (361) 11318. *Telex:* 82172 TCSL TR.

SINOP: 42.01 N. 35.08 E.

DOCUMENTS: See "Izmir."

PILOTAGE: Not available.

ANCHORAGES: Good anchorage in front of pier in 9 m. – 18 m.

RADIO/VHF: Sinop Radio. Call sign TAD2.

BERTHING: One pier, length 180 m. Max. draft 7.5 m.

STEVEDORES: *Working Hours:* 0730 – 1700 hrs.

MEDICAL: Facilities available.

DENSITY: 1025.

FRESH WATER: Available.

REPAIRS: Possible.

CONSULS: None.

REPATRIATION: Not possible.

AIRPORT: At Samsun, distance 190 km.

TIME: GMT plus 2 hours.

AUTHORITY: Sinop Liman Baskanligi, Sinop, Turkey. *Tel:* 90-36-61-2990. *Telex:* 82414. *Contact:* Mr. Hamdi Ersavas.

TRABZON: 41.01 N. 39.46 E.

PILOTAGE: Refer to "Canakkale" and "Istanbul".

Harbour Pilot compulsory for all foreign flag vessels. Arranged by Agent subject to vessel's notice of ETA in advance.

ANCHORAGE: In the Outer Harbour off the breakwater.

MAX. SIZE: Vessels up to 29 ft. draft.

RADIO: Trabzon Radio. Call sign TAO.

TUGS: 2 tugs available. Towage compulsory for vessels over 550 tons.

BERTHING: Main wharf 410 m. long, depth alongside 10 m. Vessels may be loaded and discharged while moored stern to the breakwater.

BULK HANDLING FACILITIES: Grain handled at the Main Quay using 2 rail mounted loaders. One grain silo with capacity of 10,000 tonnes and 1 warehouse with capacity 10,000 tonnes.

Containers handled by 25 tonne fixed crane.

CRANES: 10 cranes, capacity 3 – 25 tonnes.

FRESH WATER: Obtainable from the quay.

FUEL: Fuel oil obtainable in limited quantities.

With 48 hours notice Petrol Ofisi can supply marine fuels and lubricants (Mobil, Shell, Chevron & B.P.). Telex: 29048 Bunk Tr. Tel: (1) 338 25 09/337 36 86/337 88 31/336 06 36. Mailing address: Petrol Ofisi – Haydarpasa, Mehmet Ince, Kadikoy, Istanbul, Turkey.

STEVEDORES: Working hours from 0800 to 1200 hrs. and from 1300 to 1700 hrs. Overtime can be arranged.

REPAIRS: There are no repair facilities.

DEVELOPMENTS: One quay of 400 m. length near completion. Depth alongside 10 m.

TUTUNCIFILIK: 40.45 N. 29.47 E. (See Plan)

SHIPMASTER'S REPORT: July 1981.

LOCATION: TUPRAS berths are situated just South of the 'Petkim' chemical complex at Yarimca (See "Yarimca"), as before the railway seems to be the dividing line between TUPRAS and PETKIM.

PILOTAGE/APPROACHES: See "Yarimca".

TUGS: Three tugs generally used. 1 Government and 2 TUPRAS. All large and powerful but rarely use their full power.

As a rule tug's lines used for berthing and ship's lines departing.

BERTHING: For LPG carriers, 2 berths are used. Also refined product carriers use same berths. Crude is imported to a sea island for VLCC's and on the original old jetty for smaller tankers.

The original jetty for all tankers is at the Southern corner of the refinery at Kilier Bar. This is not now used for LPG.

A new berth constructed in 1979/80 is now open 0.5 miles North of the old jetty. At present only the North side of the new jetty is used (No. 2) but soon the Southern side will be in use for all larger vessels for all grades.

The new berth is of modern concrete pile construction with a roadway out from the shore taking the pipes, with the berths leading off at 45° with 4 mooring/fender dolphins to seaward, connected by catwalks.

Draft alongside both berths is 18 m. with 3 m. clearance. Fenders and mooring arrangements are good.

Vessels generally berth head in, so can go either side alongside.

A small tug jetty is at the root of the main jetty.

See "Plans" for dimensions and general layout of all berths.

Mooring: Mooring boat used. 3, 2, 2, each end with line up very precise. Bow comes near the end of the jetty where it bends at 45° to a roadway.

CARGO HANDLING: *Discharge:* Valves shut against ship without warning, high back pressure – 7.5 to 8 bar., and line draining at completion non-existent. 8 in. rubber discharge hose 150 ASA.

No vapour return line as yet, and cannot see one on jetty, but one on old jetty suddenly appeared with TUPRAS wanting to return benzene to the ship.

5×10 in. Chiksans for refined products on North side.

5×12 in. Chiksans plus 2×16 in. Chiksans on South side.

Control hut at seaward end of roadway with telephone and a couple of operators.

Rate 250 – 300 t.p.h. when all shore valves open.

FRESH WATER: Available.

DENSITY: 1017.

SURVEYORS: Employed by Turkish Survey Bureau.

GENERAL:

Gangway: Can be a problem due to dolphins. We used accommodation ladder with half BOT gangway section between bottom platform and dolphin.

Customs/Immigration: Customs Officer on board requires room continuously.

Facilities: Agent very helpful. Personnel change through Istanbul Airport without too much difficulty.

Curfew in force from 2400 hrs. to 0500 hrs. for ship's crew, 0200 hrs. to 0500 hrs. for local population.

Overseas telephone calls delayed about 2 hours during weekdays and 30 minutes at weekends.

Lloyd's Surveyor from Istanbul – to be arranged 24 hours in advance.

Medical facilities from TUPRAS or local doctor through Agent. Izmit about 30 minutes by taxi/car.

General stores, apart from some fresh provisions, are difficult to obtain.

SHIPMASTER'S REPORT: January 1986.

DOCUMENTS:

6 Crew Lists together with passports for all persons onboard.

2 Lists of Provisions, Stores and Bunkers.

2 Manifests of all cargo onboard.

2 Crew Effects Declarations.

2 Declaration of all Money and Cheques carried in ship's safe.

2 Maritime Declarations of Health, one form supplied on arrival, one form supplied at Canakkale or Buyukdere when passing inwards.

PILOTAGE: Compulsory Pilot inwards at Darica Burnu. VHF contact possible. Call Darica Pilots on VHF Channel 16 normally working Channel 14.

Pilot boards from small tug, ladder should be about 1 m. above the water. Tug equipped with VHF but personnel only Turkish-speaking.

The Pilot berths all vessels at all Gulf of Izmit ports.

Pilots depart either off Darica or off berth depending on other employments and vessel's size.

Pilotage operates 24 hours.

APPROACHES: See B.A. Chart 497.

ANCHORAGE: The anchorage is situated to the Northwest of the berths, off Yarimca. Pilots consider it safe for any size of vessel.

MAX. SIZE: Max. draft 18 m. (59 ft. 00 in.) permitted at the new berth according to the Pilots.

TUGS: Up to 5 tugs used when berthing at Sea Island. 3 government and 2 TUPRAS. (TUPRAS tugs 2,500 h.p. each).

All tugs are large and powerful but rarely use their full power.

At the other berths three tugs generally used.

BERTHING: For LPG carriers 2 berths are used, also refined products carriers use the same berths.

Crude is imported to a Sea Island for VLCCs and to the original old jetty for the smaller tankers.

The original jetty is at the Southern corner of the refinery at Kilier Bar.

A new berth has been constructed some 0.5 mile North of the old jetty. The new berth is a modern concrete pile construction with a roadway out from the shore taking the pipes, with the berths leading of at 45° with 4 mooring/fender dolphins to seaward, connected with a catwalk.

Vessels berth on both sides of this jetty, generally head in. Fender and mooring arrangement is good. This jetty is used for LPG and refined products.

The Sea Island consists of a platform with three dolphins on each side. There are no connections between the platform and the dolphins. Fendering and mooring arrangements acceptable for tankers of 150,000 d.w.t.

Vessels normally berth port side to at the Sea Island.

2 mooring boats are used for rope handling.

CARGO HANDLING: *Discharge at New Berth:*

Valves shut against ship without warning, high back pressure – 7.5 to 8 Bars. Line draining at completion non-existent.

8 in. rubber discharge hose, (150 ASA).

No vapour return line.

5×10 in. Chiksans for refined products on North side.

5×12 in. Chiksans and 2×16 in. Chiksans on the South side.

Control hut at seaward end of roadway with telephones and operators.

Rate 250-300 t.p.h. when all shore valves opened.

Discharge at Sea Island:

4×16 in. Chiksans for crude. 3 normally connected. Generally low back pressure, but at times, when topping up of shore tanks, discharging rates reduced considerably.

Loading Masters have Control Room at platform. Communication with them by VHF. Communications sometimes difficult due to language problems. One representative of TUPRAS stays onboard throughout discharge.

FRESH WATER: Available at all berths.

FUEL: With 48 hours notice Petrol Ofisi can supply marine fuels and lubricants (Mobil, Shell, Chevron & B.P.). Telex: 29048 Bunk Tr. Tel: (1) 338 25 09/337 36 86/337 88 31/336 06 36. Mailing address: Petrol Ofisi – Haydarpasa, Mehmet Ince, Kadikoy, Istanbul, Turkey.

DENSITY: 1017.

SURVEYORS: Employed by Turkish Survey Bureau, Katoni Persa or other local Turkish companies.

GENERAL:

Gangways: Can be a problem at the new berth, due to dolphins. At Sea Island, gangway from the platform.

Telephone: Overseas calls delayed about 2 hours during weekdays and about 30 minutes at weekends.

Lloyd's Surveyor: Comes from Istanbul. Has to be arranged 24 hours in advance.

General Stores: Apart from fresh provisions, difficult to obtain locally. Can be arranged from Istanbul but transportation costs are high.

Fuel: Available by barge only. It is more economical to anchor off Istanbul for fuel. All fuel supplied from Istanbul.

Airfreighted Stores: No difficulty with getting items onboard. If spare parts are to be taken onboard, items that cannot be carried will be put on a barge. Transportation costs are high.

Pollution: Strict anti-pollution laws in operation.

Facilities: Curfew has been in force earlier for ship's crew. In January 1986 no restrictions in force.

AUTHORITY: TUPRAS-Izmit Rafinerisi Bolge Mudurlugu, P.O.Box 43, Izmit, Turkey. *Tel:* 31660-31665, 20330-20333. *Telex:* 22285, 33152, 33153, 33154. *Cables:* Umipras, Izmit.

Izmit Liman Baskanligi, Yarimca, Turkey. *Tel:* 90-211-73754. *Telex:* 33292. *Contact:* Atilla Gorgunler.

YARIMCA: 40.45 N. 29.45 E. (See Plan)

SHIPMASTER'S REPORT: November 1980.

PETKIM REFINERY:

Petkim is an Industrial complex at the entrance to the Gulf of Izmit, near Yarimca. It includes the refineries of Petkim to the North and TUPRAS to the South (see "Tutuncifilik"). As far as can be gathered the railway line is the dividing line.

A wide range of oils, chemicals, gases bulk fertilisers and chemicals are handled. The Products Pier which includes ammonia is in position at Lat. 40° 45.4′ N., Long. 29° 45.1′ E., close by is a bulk handling berth with a solid quay face.

The area in general is one of the main trading areas for overseas shipping in Turkey.

To the North West of the Refinery at Yarimca is Hereke, another important shipping complex.

PILOTAGE: Compulsory Pilot inwards at Darica Point. VHF contact may be possible. Izmit Pilot Office which is the control centre works on Channels 14 and 12.

Proceed to position off Darica Point and sound 'G'. Pilot boards from small tug and the ladder should be about 1 m. from the water.

The Pilot berths all vessels at all Gulf of Izmit ports.

Pilot departs either off berth or at Darica depending on other pilotage requirements and curfew. Pilotage operates 24 hours.

APPROACHES: See B.A. Chart 467.

TUGS: Two Government tugs available, 1×2,000 h.p. and 1×2,500 h.p. If additional tugs are required they come from Istanbul. For IPRAS refinery only, there are 2 tugs of 2,500 h.p. Tugs generally use ship's line. Tugs rarely use all their power.

BERTHING: Berthing and unberthing throughout 24 hours. The berth is the usual type of tanker berth consisting of a 'T' shaped jetty at the end of a pipe-line roadway. There are dolphins connected by catwalk to main pier (Southern catwalk damaged in November 1980), plus further isolated mooring dolphins about 50 m. off inner dolphins.

Mooring arrangements are not very good with head lines virtually breast lines. (See "Plan").

Dolphins have good fenders and ship's centre section stands off jetty face. After dolphin (if port side to) comes on counter. Generally port side to due to anchored vessels, making starboard approach difficult. But possible for starboard side alongside.

It is safe to swing gangway out before berthing. It should be on the end of a derrick as it has to be swung clear of lamp post on quay and landed at an angle of 45°.

DISCHARGE: There are lines for naphtha, benzene, butadiene vapour and liquid, and ammonia vapour and liquid. Butadiene 8 in., ammonia 10 in., both sets Chicksans, naphtha and benzene use hoses. The ammonia connections are the Southerly set, ammonia coupling 10 in. 300 ASA to spool piece 12 in. 150 ASA. Shore personnel effect the connection. Vapour return line not used. Samples taken before discharge.

We used forward ship's crossover which gives forward mooring lines a slightly better lead.

Communication with shore personnel difficult due language problems. Hut on quay with telephone.

Refinery seems to have limited tank capacity judging from our 2 visits and has to transfer product to other plant at re-liquefaction rate of around 50 tonnes per hour. Not able to ascertain actual tank capacity.

Due to above, discharge rate varies from about 300 t.p.h. to 500 t.p.h. with back pressure varying from 2.5 to 7 bar.

Surveyors as normal, travel around Turkey following ships so can be late in boarding if ship early, then refinery representative notes temperatures and ullages.

GENERAL: Fresh water available from quay at 40 t.p.h. metered at L.750 (November 1980 – £3.60) per tonne. By barge is cheaper at L.30,000 (November 1980 – £145) per 50 tonnes minimum but not always available.

Fuel by barge. Istanbul is fairly close so may be cheaper to go to anchorage there for fuel as available locally by barge but costly.

In November 1980 a curfew still operated 2400 hrs. to 0500 hrs. Travel outside Izmit District not allowed. Difficult to get into either Yarimca or Izmit.

Strict anti-pollution laws in operation.

Over many voyages to this port and Gemlik, air freight items from North Europe always get through.

Lloyd's/Agent: Lloyd's Surveyor from Istanbul also covers all Turkey but travel is expensive.

ZONGULDAK: 41.28 N. 31.49 E.

PILOTAGE: Refer to "Canakkale" and "Istanbul".

Harbour Pilots obtainable from Coaling Company, Pilot boards off port entrance by launch. Ordered by Agent subject to vessel's ETA given at least 24 hours before arrival.

ANCHORAGES: Good anchorage off the harbour in a depth of 13 fathoms, sand and mud bottom.

Anchorage prohibited South of a line drawn in direction 292.5° distance 7.5 cables from head of the Northern breakwater. The Southern limit of this area is a line drawn in direction 262° from the head of the Northern breakwater to the shore.

RESTRICTIONS: Harbour entrance between breakwaters. Entrance width 600 ft.

Traffic signals displayed from signal mast on Northern Breakwater, as follows:

2 black balls or 2 red lights, meaning "Harbour closed".

2 black cones or 2 green lights, meaning "Harbour open".

A black ball over black cone or red light over green light, meaning "Do not attempt to enter".

A black cone over a black ball or green light over a red light, meaning "No tug available".

A black ball between 2 black cones or red light between 2 green lights, meaning "Wait. You will be piloted into the harbour".

3 black balls, or 3 red lights, meaning "Because of unfavourable weather you cannot be piloted into the harbour".

RADIO: Zonguldak Radio. Call sign TAR.

TUGS: 5 tugs available.

BERTHING: Coal quays length 1,650 ft. depth alongside 10 m.

Cargo quay length 500 ft. depth alongside 10 m. Loading rate 350 - 450 t.p.h.

Northern Breakwater, 2 berths, at inner end with depth of 7 m. alongside.

CRANES: Shore cranes up to 15 tons capacity and floating crane 60 tons capacity.

FRESH WATER: Available from the quays.

FUEL: Only coal bunkers available.

NOTES

Please also advise Shipping Guides Ltd.

Turks and Caicos Islands

GRAND TURK: 21.28 N. 71.08 W. (See Plan)

DOCUMENTS: *Customs:* Clearance from last port, Inward Report, Crew List and Declaration, Ship's Stores List, Manifest of all goods to be discharged at each Port.
Immigration: Passengers Manifest, Immigration control cards.

PILOTAGE: Compulsory. The Owner, Master, or Agent of a ship bound for any Port in the Turks and Caicos Islands must report via Harbour Master or Cable and Wireless on VHF Channel 16 about 4 hours in advance of the ETA of the ship.

The following information is required.

1. Name/Call Sign of Vessel.
2. Nationality.
3. Length, Draft, and Gross and Net Registered Tonnage.

Pilot Office on VHF Channel 16. Berth arranged by Harbour Master through Local agent making request 24 hours in advance for use of dock and facilities.

ANCHORAGE: Available.

MAX. SIZE: No restrictions.

HEALTH: Pratique, given by Customs Boarding Officer.

RADIO: RTC 1460 kHz AM band (Cable and Wireless VHF 16).

TUGS: Only available at the Port of Providenciales.

BERTHING: See "Plan".

CRANES: Arranged by Agent, if ship's own is out of order.

STEVEDORES: Arranged by Agent.

MEDICAL: No advance notice except in case of emergency, hospital facilities available on Grand Turk and Providenciales.

TANKERS: Refined petroleum products are imported through the Bahamas by Shell and Esso at all ports. There is no special bunkering port, but bunkering services are available.

DENSITY: 1025.

FRESH WATER: Available, ordered through Agent at approximately 0.03 cents (U.S.) per imperial gallon.

FUEL: Delivered by tank trucks at all berths, diesel as well as marine lubricants can be obtained through suppliers (Shell and Esso Agents).

GANGWAY/DECK WATCHMEN: Usually ship's crew. Ship's gangway.

OPENING/CLOSING HATCHES: Stevedores or ship's crew, which ever to ship's advantage.

CERTIFICATES:

Safety Construction Certificate.
Safety Equipment Certificate.
Safety Radio Certificate.
Load Line Certificate.
Cargo Gear Certificate.

CUSTOMS ALLOWANCES: Tobacco. Each man 200 cigarettes, or 100 cigarillos (cigars with a maximum weight of 3 grammes) or 50 cigars or 125 grammes of smoking tobacco, and one reputed quart of normally potable spirits or not more than 2 litres of wine containing less than 42% of proof spirit.

CREW IDENTIFICATION CARDS: Not required.

CONSULS: None.

REPAIRS: Most deck and engine repairs can be carried out.

SURVEYORS: Registrar of Shipping, Natural Resources Branch, Iron Building, Front Street, Grand Turk. Tel: 2550.

DRY DOCKS: Caicos Marina & Shipyard, Providenciales. Tel: (809) 946–4600. Telex: TWX 3158440 TRUMPRO. Max. lifting capacity 85 tons.

REPATRIATION: Crew changes and repatriation possible.

AIRPORT: In Grand Turk the airport is about 1 mile from the port and is served by Pan Am 3 times a week and various charter operators. In South Caicos the airport is about 2 miles from the port and is served by Bahamas Air twice weekly and charter flight at anytime. In Providenciales the airport is about 7 miles from the port and is served by Pan Am daily, with connections from Grand Turk by T.C.N.A. and by various charter operators.

TIME: E.S.T. Daylight savings time starts the last Sunday in April when clocks are advanced 1 hour and ends last Sunday in October when clocks retarded 1 hour, returning to Eastern Standard Time.

POLICE/AMBULANCE/FIRE: Grand Turk Police 2299; Ambulance 2333; Fire 2233. Emergency No. 2570. Port Officer 2325. South Caicos Police 3299
Providenciales Police 4259, Ambulance 4201, Fire 4378.

EMERGENCY CO-ORDINATION CENTRE: Police Headquarters (Grand Turk) 2299, (South Caicos) 3299, Providenciales 4259.

TELEPHONES: No arrangements exist for placing telephones on board ships.

SERVICES: Divers available for underwater surveys and repairs.

BANKS: Barclays Bank Tel: 2831. The Bank of Nova Scotia Tel: 2506/7.

HOLIDAYS: New Year's Day; Good Friday; Easter Monday, Commonwealth Day, Queen's Birthday, Emancipation Day, Columbus Day, International Human Rights Day, Christmas Day, Boxing Day.

SHIP SUPPLY SERVICE: Arranged through Agents.

DELAYS: Normal delays if berth is in use or docks under repair.

DEVELOPMENTS: A proposed area adjacent to South Dock, Grand Turk, for a new dock is under study. A new dock has just been completed on South Caicos and ports facilities are being installed.

AUTHORITY: Department of Customs, Custom's Office, Grand Turk, Turks and Caicos Islands. *Tel:* 2801-2808. *Telex:* TQ 8227.

NOTES

Please also advise Shipping Guides Ltd.

Tuvalu

FUNAFUTI: 08.31 S. 179.13 W.

DOCUMENTS:
Customs: Boarding of ships after Radio Pratique granted.
Clearance from the Last Port.
Crew List.
List of Passengers.
Stores' Lists.
Ship's Inward Report.
List of Unmanifested Cargo.
Crews' Stores.
Manifest and Bill of Lading.
Health: Radio Pratique to be granted within 24 hours before arrival.
Vaccinations against Cholera.
Immigration:
Crew List.
Passenger List.
Next Port of Call.
Final Destination.
Passports.

PILOTAGE: Local Master available on 1 month's prior notice.
Chart: See Chart BA. 2983. Fongafale Anchorage – main anchorage.

RESTRICTIONS: None.

MAX. SIZE: See "Te Puapua Passage". Max. depth 15 m. 250 ft. wide at low water.

HEALTH: Radio Pratique available.

RADIO: Funafuti Radio (T2U) on 6215.5 kHz.

VHF: Funafuti Radio equipped with 80 channel VHF radio. Vessels to call on Channel 16.

VHF in operation when vessels approaching, arriving, manoeuvring and sailing.

TUGS: None.

BERTHS: Concrete on pile wharf. 2 berths, lengths are 50 m. and 40 m. respectively. LW depths of 8 m. and 5.5 m.

CRANE: None.

STEVEDORES: Available on 24 hours' notice, discharge rate high.

MEDICAL: Hospital radio advice available.

TANKERS: Must provide own discharge lines. No residue discharge facilities. Light diesel only available. No tanker berth.

DENSITY: Sea Water.

FRESH WATER: Max. 60,000 gallons in wet season, little or none in dry season, by pipe-line on wharf to vessel.

FUEL: Light diesel only. Max. 5,000 gallons from 500 gallon tanks (hand pump).

FIRE PRECAUTIONS: No special precautions other than normal for tankers.

CONSULS: None.

REPAIRS: None.

SURVEYORS: None.

WATCHMEN: Not required.

HATCHES: By stevedores or crew.

CUSTOMS ALLOWANCES: Passengers only, allowed 200 cigarettes and 1 bottle of spirit.

REPATRIATION: Air service to Fiji and Tarawa.

AIRPORT: 1.25 miles from jetty, fortnightly service. Special charters by arrangement.

TIME: GMT plus 12 hours.

HOLIDAYS: New Year (1st January); Public Holiday (3rd January); Good Friday; Easter Friday; Easter Monday; Queen's Birthday; Public Holiday (13th June); Bank Holiday (1st August); Tuvalu Day (1st October); Public Holiday (3rd October); Prince of Wales Birthday (31st October); Christmas Day (25th December); Boxing Day (26th December); Public Holiday (27th December).

POLICE/AMBULANCE/FIRE: Police 728 or 726. Ambulance 751 or 749. Fire – send messenger for fire engine.

TELEPHONE: Ship can use marine office telephone ashore.

SERVICES: None.

SHORE LEAVE: Allowed after clearance.

IDENTIFICATION CARDS: Not required.

REGULATIONS: No sullage, ballast, tank residue, etc., to be discharged in lagoon.

DELAYS: Unpredictable, depending on whether other ships in port.

AUTHORITY: Ministry of Works and Communications, Tuvalu Government, Vaiaku, Funafuti, Tuvalu. *Cables:* Wocom, Funafuti. *Contact:* Transport Systems Manager.

NOTES

Please also advise Shipping Guides Ltd.

Union of Soviet Socialist Republics

GENERAL: ALL PORTS:

(a) **List of Soviet ports and port roads open to foreign vessels:**

I. Arctic Ocean Ports

1. Murmansk
2. Onega*
3. Archangel
4. Mezen
5. Naryan-Mar
6. Igarka

*The port of Onega is closed for foreign vessels from 1st September to 31st December yearly.

II. Baltic Sea Ports

1. Leningrad
2. Vysotsk
3. Vyborg
4. Tallinn
5. Pyranu
6. Riga
7. Ventspils
8. Klaipeda

III. Black Sea Ports

1. Reni
2. Izmail
3. Kilia
4. Belgorod-Dnestrovsky
5. Illyichevsk
6. Odessa
7. Kherson
8. Novorossiysk
9. Tuapse
10. Poti
11. Batumi
12. Yalta
13. Sochi
14. Sukhumi
15. Yuzhnyy (Grigorevsky)
16. Ust-Dunaysk

IV. Azov Sea Ports

1. Zhdanov
2. Berdyansk

V. Pacific Ocean Ports

1. Nakhodka
2. Aleksandrovsk-Sakhalinsky
3. Makarevsky (or Due) Roadstead
4. Octyabrsky
5. Shakhtersk
6. Uglegorsk
7. Kholmsk
8. Nevelsk
9. Makarov Roadstead
10. Poronaisk
11. Vostochniy
12. Korf
13. Okhotsk
14. Provideniya
15. Severo-Kurilsk

(b) **Addresses and telephone numbers of V/O "Sovfracht", V/O "Soyuzvneshtrans", V/O "Morcontainer" and V/O "Sovbunker":**

Vsesoyuznoe Obyedinenie (V/O) "Sovfracht" is the sole organisation in the U.S.S.R. rendering brokerage services to Soviet and foreign Shipowners. V/O "Sofracht" carries out chartering of foreign and Soviet tonnage and is the General Agent for foreign flag vessels in Soviet ports.

Postal address: V/O "Sovfracht" 1/4, Zhdanova Street, Moscow, 103759, U.S.S.R.
Cable: Sovfracht Moscow
Telephone: 926-11-18
Telex: 411168 a, b, 411170 a, b.

Vsesoyuznoe Obyedinenie (V/O) "Morcontainer" is a container and liner broker acting on behalf of Soviet Shipowners and Shippers.

V/O "Morcontainer" is responsible for the programming and arranging of container services and liner shipments, cargo bookings of Soviet and foreign shippers on Soviet and foreign liner tonnage including tracing, leasing of containers and various container equipment.

Postal address: V/O "Morcontainer", 1/4, Zhdanova Street, Moscow, 103759, U.S.S.R.
Cable: Morcontainer Moscow
Telex: 411341, 411168, 411171, 411369
Telephone: 926-91-29.

Vsesoyuznoe Obyedinenie (V/O) "Sovbunker" carries out ships' bunkering and port consignment stock operations.

Postal address: V/O "Sovbunker", 10/12, Kaloshin Lane, Moscow, 121002, U.S.S.R.
Cable: Sovbunker Moscow
Telex: 411170
Telephone: 248-23-52.

Vsesoyuznoe Obyedinenie (V/O) "Soyuzvneshtrans" carries out all transportation and forwarding of export and import cargoes as well as transit of goods via the U.S.S.R. and foreign territories.

Postal address: V/O "Soyuzvneshtrans", 17/16, Gogolevsky Boulevard, Moscow, 121019, U.S.S.R.
Cable: Soyuzneshtrans Moscow
Telex: 411441, 411442
Telephone: 203-11-79.

(c) **Guiding principles to comply with when calling at U.S.S.R. ports:** When calling at U.S.S.R. ports Masters of all foreign flag vessels are requested to comply with the Instructions and Provisions of the Government of the U.S.S.R. published annually in issue No. 1 of the U.S.S.R. Notices to Mariners. Special Instructions for vessels calling at U.S.S.R. in each particular sea basin published by the General Department of Navigation and Oceanography of the Ministry of Defence of the U.S.S.R. (GDNOMD).

All vessels calling at U.S.S.R. ports must also abide by the Customs and Obligatory Harbour Regulations of each particular port of call which are obtainable through the local Inflot agencies, viz. shipping Agents for foreign flag vessels at U.S.S.R. ports.

(d) **Ship/shore radio link:** Ships' communication with ports of call is usually maintained through the local port radio stations, some information of which is given in the respective entries for the ports.

Ships' radio stations and/or radio-telephones (excluding VHF), must not be operated when the vessel navigates or lies at anchor within the limits of the port boundaries as well as when calling at or leaving the port, except in emergency, e.g.

when giving distress signals;
when rendering assistance to other vessels in distress;
while making way through the ice;
after having obtained special permission of the Harbour Master.

Note: Superiority in use of radio communication means is given to an icebreaker when leading a convoy of ships through the ice; in case there are two or more icebreakers in a convoy – to a leading icebreaker.

Vessels equipped with VHF radio-telephones must keep them operated in the calling Channel stipulated by the Obligatory Harbour Regulations when navigating within a port limit.

(e) **Notice of arrival:** The Master of a vessel should send preliminary information to the Inflot Shipping Agency about the vessel and the cargo not later than 12 days prior to vessel's arrival at the port of destination (for tankers, gas carriers and vessels loaded with liquid chemicals, as a rule, 14 days prior to arrival).

In the preliminary Notice the Master should state the following information:

Name and nationality (flag) of the ship;
Port of departure (last port of call);
Draft fore and aft, cargo carrying capacity, volume of holds, measures of hatches, number and location of 'tweendecks, etc.;
Nature and total quantity of cargo and stowage plan; heavy lifts (over 3 tons) to be shown separately;
Amount and spacing of water ballast (for tankers only), as well as the name of cargo which was unloaded from the vessel before taking ballast;
Particulars of inoperative cargo handling gear as well as whether the vessel requires supply of electric power from the shore for lighting purposes during cargo handling operations (all possible damages which may occur either for lack of all relevant information mentioned above or due to untimely and/or incorrrect data given by the Master to the Port Authorities when advising ETA, etc., are to be for the vessel's account);
Request for any kind of port services.

More precise information about a vessel's approach to the port (roadstead) of destination is to be given by the Master to the Inflot Shipping Agency. Masters of dry cargo vessels are to inform ports of destination about their ETA at first 96 hours and then 12 hours prior to arrival and as far as Masters of tankers, gas carriers and vessels loaded with liquid chemicals are concerned they are to inform Port Authorities 72 hours and 12 hours prior to their arrival at a port.

Masters of tankers bound for loading/unloading oil products are to inform ports of destination 72 hours prior to their arrival that they have in their possession International Certificate on Civil Liability for Oil Pollution Damage.

According to Charter Parties, Sale Contracts and other documents stipulating conditions of carriage of goods by sea, Masters should give necessary information to additional addresses at stipulated time.

The Port of destination Authorities should be immediately informed by the Master about all unforeseen delays during the voyage.

Vessels calling at ports for bunkers, fresh water, provisions, etc. only, should advise their ETA to the Port Administration in due time stipulated above.

The Port Administration should provide Masters of calling vessels with all necessary information regarding anchorage, berthing and handling of cargo not later than 2 hours prior to vessel's arrival.

Since for some ports time and terms of giving Notice of Arrival are different to that mentioned above, Masters are advised to look at the information for a particular port.

(f) **Pilotage:** Pilotage is compulsory for all vessels when calling or leaving U.S.S.R. sea ports, as well as when mooring and unmooring. In addition the Pilots perform shifting berths and other duties related to the harbour operations.

A Pilot having boarded a vessel shall be advised by the Master of the precise draft and other particulars necessary for safe pilotage of a vessel.

According to the Merchant Shipping Code of the U.S.S.R. the Master of a vessel shall be obliged to pay a fine in an amount of double the rate due as pilotage fee for incorrectly declaring the draft, length or breadth of a vessel or its net registered tonnage, irrespective of the liability established by law for the consequences which may occur as a result of the incorrect information.

A Pilot should be ordered through the local Inflot Agency 12 hours prior to vessel's arrival at the Pilot boarding place. More accurate information should be given 4 hours prior arrival unless otherwise stated in the Obligatory Harbour Regulations.

(g) **Anchorages:** A vessel approaching the Port of Call and not having been boarded by a Pilot immediately on arrival, or for any other reason, shall anchor in the anchorage area specially designed for this purpose and under no circumstances let its hull go across the boundaries of this area or prevent other vessels from using the leading lights, navigation marks or lights.

No anchorage is allowed in the prohibited zones shown on the charts, listed in special manuals for navigation and/or in the Obligatory Harbour Regulations as well as those announced in the appropriate Notices to Mariners.

No anchorage is allowed at a distance of less than 1.5 cables length off fairways and leading lines as well as in depths not providing a vessel with a safe anchorage while drifting on the anchor chain.

No vessel shall anchor within the water area of a shipbuilding yard after being refused permission to carry out repairs.

It is prohibited to change a vessel's anchorage by drifting.

Vessels carrying explosives or inflammable liquids must anchor in the areas recommended for them only.

All vessels when at anchor shall carry the lights or the marks in accordance with International Regulations for Prevention of Collisions at Sea. Apart from that every vessel by night, when at anchor, shall be illuminated from stem to stern with additional lights placed so that the hull be as far as possible visible from the surface of the water.

Vessels using a kedge anchor shall, in addition to the lights and the marks as to the International Regulations for Prevention of Collisions at Sea, conspicuously display by night a white light and by day a red flag lowered from the stern by the anchor chain to the extent of half of the side's height.

In restricted visibility whether by day or night, every vessel when at anchor shall use sound signals conforming strictly with the International Regulations for Prevention of Collisions at Sea.

Masters of all vessels when at anchor are not allowed without the Harbour Master's consent, except in emergency, and/or in case of Port and Boarding officials, to give anybody permission to come alongside in a private launch or a small rowing boat whether under oars or sail and board a vessel.

Swimmers must not be allowed to come on board a ship.

Should, in case of emergency, swimmers have been taken on board or strangers have been discovered aboard a vessel, the Master of such ship shall forthwith without dèlay report the fact to the Harbour Master and shall later hand those people over to the Representatives of the Port Administration.

(h) Regulations for entering and leaving U.S.S.R. ports: When approaching U.S.S.R. ports all vessels must follow the recommended courses announced in issue No. 1 of the U.S.S.R. Notices to Mariners (GDNOMD).

All vessels when approaching a port or a Pilot's boarding place as well as when leaving a port during the daytime must keep their National flags hoisted. A vessel's National flag must be kept hoisted on the stern flagstaff from 0800 hrs. in the morning up to sunset, and the U.S.S.R. National flag on the fore mast. In Arctic ports during prolonged period of light National flags must be kept hoisted from 0800 till 2000 hrs.

Every vessel coming from abroad shall hoist Quarantine Signals of the International Code of Signals depending on health and sanitary conditions on board.

For entry permit a vessel must contact the Port Control service either by VHF radio-telephone or by means of visual signals, viz, by day, hoisting her call-sign, and by night, making call-sign signals in Morse Code by searchlight or by Morse-lamp.

No ship shall enter the Harbour until the proper signal has been hoisted at the signal station or by a pilot boat authorising such entry.

No vessel is allowed to enter the Harbour until the prohibition signals hoisted at the signal station shall have been lowered down.

If entry is refused a vessel must immediately slow down, alter course and if possible leave the fairway, and drift or drop her anchor in the recommended area.

Turn of entry to the Harbour is controlled by the Port Administration with regard to tonnage of vessel, nature of cargo, weather conditions in the port area, readiness of the port to start cargo operations and other circumstances.

Simultaneous entry of two or more vessels to the Harbour or vice versa is not allowed in the majority of ports.

In all cases a vessel entering the Harbour must give way to the outgoing one not preventing her manoeuvrability.

(i) Sanitary and Quarantine requirements: It is prohibited by law to contaminate inner and territorial waters of the U.S.S.R. with any kind of substances which are considered to be unhealthy for people or harmful to live resources of the sea. It is also prohibited to discharge into the sea oil contaminated, faecal, washing waters and oil residues; no rubbish, waste foodstuff shall be thrown into the water. The list of harmful substances is published annually in issue No. 1 of the U.S.S.R. Notices to Mariners.

Not later than 6 hours before arrival Masters of all vessels coming from foreign countries to the U.S.S.R. ports should advise Quarantine Authorities by radio through Inflot Agency giving full details of health conditions on board as well as sanitary conditions at the last port of call.

If medical assistance is required on board Master has to contact Inflot Agency.

No shore connection is allowed to a vessel until Free Pratique is obtained.

Masters are advised to ask a Sanitary Officer for inoculation, vaccination, fumigation, de-contamination, etc., if required, whilst he is on board a ship together with the other Boarding Officials.

Veterinary Certificates of Good Health are required for the livestock, all kinds of meat, animal food and raw meat stuff brought to the U.S.S.R. ports from abroad. Certificates should be issued by the proper authorities of the country from which the cargoes have been exported.

Masters should have a Phytoquarantine Certificate for the goods of vegetable nature.

It is prohibited to take ashore fruit, vegetables, grain seeds, plants, plant products, etc., without a certificate issued by a local branch of the U.S.S.R. Agricultural Quarantine Inspection; animals and birds are also not allowed to be brought ashore without getting pemission from the veterinary authorities.

Shipmaster's Report: March 1983.

Removal of garbage, food wastes, ballast, bilge and sewage waters at Soviet ports of the Baltic Sea is free of charge (excluding the port of Tallinn).

(j) Regulations for the Clearance of Vessels on Arrivals and Departures:

Upon arrival at a U.S.S.R. port the Master of a foreign flag vessel has to hand over to a representative of the Inflot Shipping Agency the following documents (filled in with full accordance of the IMO requirements) duly signed by the vessel's administration for further examination by:

(a) *Boarding Port of Call Officials:*

(1) Ship's Patent;

(2) Measurement Certificate;

(3) Load Line Certificate (or International Load Line Exemption Certificate);

(4) Passenger Ship Safety Certificate;

(5) International Certificate on Civil Liability for Oil Pollution Damage (for vessels carrying more than 2,000 tons of oil).

(b) *Health Authorities:*

(1) Ship's Health Certificate;

(2) Derat Certificate;

(3) International Certificate of Vaccination;

(4) Maritime Sanitary Declaration.

(c) *Customs Officials:*

(1) General Declaration;

(2) Cargo Declaration;

(3) Ship's Crew Personal Effects Declaration;

(4) Crew List;

(5) Passenger List.

The Master has to declare to the Customs:

(1) Cargo Manifest, Bills of Lading and other documents for the cargoes carried by the vessel.

(2) Other Ship's documents on request.

The Master fills in a form of Master's Declaration (Shipowner's address, cargo, cases of illnesses on board, if any, etc.) with the Agent's assistance.

In accordance with Article 38 of the Merchant Shipping Code of the U.S.S.R. in case a foreign flag ship which, on calling at the U.S.S.R. port, raises doubts as to her meeting the requirements of safe navigation may, irrespective of whether she possesses the necessary ship's papers mentioned above, be subjected to an examination by way of technical survey on the same basis as ships sailing under the State Flag of the U.S.S.R.

The Obligatory Harbour Regulations to be fully complied with during a vessel's stay at the U.S.S.R. ports are handed over to the Master either by Pilot or by representative of the Harbour Master's Office, or by Agent when arriving for the first time.

Upon sailing from a U.S.S.R. port: No other documents apart from those mentioned above are required in order to obtain the authorisation to leave the port.

No vessel is to get under way without having obtained the permission of the Harbour Master.

The authorisation to leave the port shall be given after a vessel herself and her draft shown in the Master's Statement have been checked by a Port Authorities' representative.

The Harbour Master may not allow a vessel to leave the port, if:

(1) The Cargo Loading Regulations have not been fulfilled, *i.e.* a vessel is considered overloaded or wrongly loaded in case:

a) a vessel's load lines corresponding to the maximum depth to which she should have been loaded are under water without any list;

b) the cargoes loaded in the holds and/or on deck have not been made fast in a proper manner or have not been made fast at all;

c) a vessel has a bad list* caused by faulty loading or her stability does not correspond with the ship's documents;

d) a vessel loaded with bulk or liquid cargoes has not used the necessary materials or accommodations to prevent cargoes from shifting or overflowing in case of vessel's pitching and rolling;

e) the deck cargo is considered as danger to the safety of a vessel and the safety or life on board caused by faulty loading;

f) the corresponding regulations for loading of dangerous cargoes or cattle to be carried by vessel have been broken;

g) other loading regulations have not been abided by in the course loading.

(2) Under other circumstances which may cause a danger to the safety of a vessel and the safety of life on board, as well as in case when the ship's documentation regulations have been infringed.

(3) When the port dues, tolls and fines have not been paid.

All expenses which may occur due to a vessel's possible delay in the port in connection with the reasons stated above are to be for the Owner's account.

Note: *According to the Harbour Regulations a vessel is not allowed to leave a port if her list exceeds 5° or she has trim by bow which was not specified by her construction.

ANNEX 2

The Memoranda for Masters of Foreign Vessels calling at Soviet Ports.

1. On arrival of the ship the Master is to submit to the representatives of the Port Authorities the following documents (IMO Forms) duly signed by ship's administration:

General Declaration (Form I). Filling in of points 8 and 11 is not compulsory (5 copies).

Cargo Declaration (Form II). (4 copies). Filling in of point 6 is not compulsory; points 7, 8 and 9 are to be filled in only for:

a) cargoes for which Bills of Lading were not issued (names of Shippers and Consignees to be stated);

b) transit cargoes;

c) cargoes for other Soviet ports;

d) cargoes of agricultural origin;

Ship's Stores Declaration (Form III) – not required.

Crew's Effects Declaration (Form IV). Amount of Master's and Crew members' valuables (gold, silver, platinum, jewellery, bonds, travel checks, etc.), personal firearms and cartridges (ammunition), explosives and narcotics are to be stated in point 2 (2 copies).

Crew List (Form V) (4 copies).

Passenger List (Form VI) (4 copies).

2. The Master of a ship is to instruct all members of the ship's crew that in accordance with the Rules in force in Soviet ports:

Exportation and importation of Soviet currency is forbidden;

No articles are permitted to be taken ashore or brought on board the ship without permission of the Custom House Authorities;

Articles taken ashore or brought on board the ship and concealed from Customs control shall be regarded as smuggled goods liable to confiscation with a fine imposed;

Likewise, the sale of any articles of foreign origin on the territory of the U.S.S.R. will be regarded as smuggling;

No wastes shall be thrown into the water or on the quay; the discharge of oil contaminated water and/or oil residues is prohibited;

All mooring ropes must be fitted with rat-guard plates;

Only one gangway must be led ashore at night when loading or discharging is not carried out;

It is prohibited to take ashore grain, seeds, plants, plant products, soil, etc. as well as animals and birds;

Violation of the above-mentioned rules will entail penalty in accordance with the laws of the U.S.S.R.

(k) **Customs Examination:** Immediately after the clearance formalities have been accomplished, all the vessel's premises with cargoes and articles not destined for the port of call and not being allowed to be taken ashore are sealed by the Customs Officials. In case a part of cargo and/or articles, not for discharge at destination port, are stowed in the same area as articles for discharge at the destination port, the sealing is carried out after discharge of articles destined for the port.

Extracts from the U.S.S.R. Customs Regulations:

It is allowed to bring in on arrival to the U.S.S.R.:

1. Personal effects in quantities necessary for the trip.

2. Food-stuff, wine and/or alcohol, cigarettes/tobacco in quantities necessary for personal consumption during the trip, but duty free for 1 person not more than:

spirits-1 litre;
wine-2 litres;
250 cigarettes or 250 gm. of tobacco/tobacco articles.

Fresh, salted or smoked meat, fat, dressed poultry, smoked and home-made sausages, eggs, honey, milk and fish-products, but not canned fish – unless permit of the U.S.S.R. Ministry of Agriculture is available.

3. Foreign currency without restrictions on quantity.

Bringing in Soviet currency from abroad (if not stipulated by special agreements), as well as U.S.S.R. State-loan bonds and Soviet lottery tickets is strictly prohibited.

4. Jewellery and every day necessities made of precious metals or jewels without restrictions in quantity (duty free.)

It is allowed to bring in not more than 2 jewellery articles for every day necessities made of pearl only or mixed with pearl having total weight not exceeding 100 gm.

It is prohibited to bring in natural pearl and seed-pearls.

5. Foreign currency, jewellery and every day necessities made of precious metals or jewels and pearl must be declared to the Customs.

6. It is *strictly prohibited* to bring in to the U.S.S.R.:

Fire-arms and ammunition of any military kind;

Narcotics and psychotropic substances as well as appliances for Smoking opium and hashish;

Printed matter cliche, negatives, developed films, photos, video-cassettes and video-discs with films recorded on them, manuscripts, gramophone records and any other type of sound recording, drawings, pictures and articles of fine arts containing data which may do harm to political and economic interests of the U.S.S.R., State security, public order, human health and morals of the people.

It is allowed to take out when leaving the U.S.S.R.:

7. Personal effects, foreign currency, jewellery and every day necessities made of precious metals, jewels and pearl that had been brought to the U.S.S.R. earlier.

(Taking abroad U.S.S.R. currency if not stipulated by special agreements, U.S.S.R. State-loan bonds and lottery tickets is strictly prohibited.)

8. Food-stuff, wine, spirits and cigarettes/tobacco in quantities necessary for personal consumption during the journey but not more for a single trip than:

spirits – 1 litre;
wine – 2 litres;
250 cigarettes or 250 gm. of tobacco/tobacco articles;
black or red caviar – 150 gm.;
ground or instant-coffee – 200 gm.;
spices 200 gm.

9. Articles bought for officially received Soviet currency for personal use only, not more than 5 pieces of jewellery and/or every day necessities made of precious metals, jewellery or any kind of pearl in total; articles and decorations made of silver having total weight not more than 400 gm.

10. It is allowed to take out without quantity restrictions any articles (except forbidden ones) bought for foreign free currency in specialised shops on the U.S.S.R. territory on producing corresponding bills (receipts) given by shops.

11. It is *prohibited* to take out of the U.S.S.R.:

1. Fire-arms and ammunition of any military kind as well as military outfits.
2. Narcotics and psychotropic substances.
3. Nullified securities.
4. Works or art, antiquities (paintings, sculptures, china, articles made of crystal, ceramics, wood, leather, precious and non-precious stones and metals, bone, hand-work, carpets, gobelins, furniture, fancy clothes and footwear, numismatics, works of art, weapons, books, manuscripts, gramophone records, musical instruments, stamps, etc.) and other articles being a high artistic, history making, scientific or other cultural valuables.

Note.: Articles mentioned above may be taken out of the U.S.S.R with special permission of the U.S.S.R. Ministry of Culture provided an export duty equal to 100% of the value stated in the Export Permit has been paid.

5. Antlers and hides of stags.

(l) **Berthing:** Berthing can only be effected with tug assistance and a State Pilot on board. Likewise, no vessel shall leave or shift berth without employing the services of a Pilot authorised by the Port Administration to make the voyage in question.

Vessels must take up the berths assigned to them and conform strictly to the Obligatory Harbour Regulations in force.

A Pilot or the Agent shall provide the Master with all necessary information as regard to depths, tugs, conditions in the Harbour, etc., before mooring and shifting berth starts.

The responsibility for the safety of a vessel during her manoeuvring and berthing as well as for possible damages to a berth or other port facilities shall always rest with the Master.

No vessel is allowed to change berth due to handling of cargo or for any other reason unless the main engines, the mooring winches, the steering gear, etc., are in good working order and there is sufficient number of the members of the crew to ensure shifting berth when required.

It is strictly prohibited to work with vessel's propellers when lying alongside berth. To avoid damage to the underwater parts of a berth while mooring or unmooring every vessel must have the main engines going "dead slow" until her stern is 10 m. from the quay.

When berthing, Masters should use strong and reliable mooring lines and make them fast over the quay pile-moorings and bollards only. It is strictly prohibited to make fast mooring lines over any part of the quay equipment which has not been intended for that purpose.

When lying alongside berth, every vessel must have a gangway or a gangway board with a lifeline secured, led ashore and made fast. There should be a net under the gangway platform and a lifebuoy nearby. Gangways must be sufficiently illuminated at night.

(m) **Stay in port at berths:** When lying alongside berths, all vessels to be moored by long safe ropes which are to be kept fast at all times, and constant watch should be kept by day and at night.

All mooring ropes must be fitted with rat-guard plates.

From sunset to sunrise all vessels' decks, cargo decks and gangways must be illuminated.

Every vessel, whether in the outer roads or in the harbour, must always have on board a sufficient number of crew to be able to ensure both the ship's safety and her everyday routine. Vessel's fire-fighting and life-saving equipment must always be ready for use on board or to render assistance to other vessels or shore objects in case of emergency.

When in port, no vessel is allowed, without having obtained the Harbour Master's permission, to make repairs to the main engines or to the ship's auxiliary equipment thus depriving her of the opportunity to shift berth at short notice in case of emergency.

It is not allowed, without the permission of the Port Administration, to use vessel's boats, underwater oxygen and any underwater apparatus of other types.

No vessel is allowed to clean boilers or discharge any sort of chemicals or organic products into the water, giving off smoke and sparking from vessels' funnels.

(n) **Ship's movement in the harbour and shifting berths:** No vessel shall leave or shift berths without the permission of the Port Authorities. In case there are no provisions in the Contract of Carriage of Goods by Sea or in the Bill of Lading, a vessel shall accomplish one shifting from berth to berth during the course of her loading and shifting upon unloading to the loading berth at the Owners' risk and expense. Any subsequent shifting shall be at the expense of the goods.

All shiftings in the port connected with a vessel's needs, viz. bunkering, loading supplies and/or provisions, making repairs, etc., shall be at the expense of the vessel.

All haulings both during the course of loading and unloading shall also be at vessel's expense.

(o) **Tugs' assistance:** Tugs, it necessary, are usually ordered by the Master according to a Pilot's advice.

In some ports use of tugs during mooring and shifting berths is compulsory due to the heavy conditions of navigation.

Ordering of tugs and payment for the assistance rendered is made in accordance with the tariffs in force. Masters of vessels shall order tugs through a local Inflot Shipping Agency.

A tug's detention time at a vessel's side while waiting for her readiness for the towage is considered to be as the working time and therefore is to be paid accordingly.

For cancellation of a tug, a vessel shall be charged full rate, including detention time and time of passage of a tug from the berth to the vessel and vice versa.

When ordering a tug for unmooring, Master should fill in and sign a special application form given by the Agent. The actual time of completing the towage shall be approved by the Master of a towed vessel.

In ports where the towage is compulsory when mooring and shifting berths, the Master shall be charged for the tugs' assistance whether used or not, and having refused tugs shall be held responsible for the consequences thereupon.

(p) **Notice of Readiness:** In case there are no special provisions in the Contract of Carriage of Goods by Sea, the Master shall, during the established office hours upon the accomplishment of Customs formalities and having obtained Free Pratique, deliver through his Agent in the port, viz. Inflot Agency, a notice of the ship's readiness for loading or unloading to the consignee or the shipper.

The notice of the vessel's readiness shall be considered accepted if she is actually ready to load the cargo into or unload it out of all the vessel's holds or tanks.

(q) Handling of cargo: All cargo handling areas in the ports are under control of the Port Administration which shall provide vessels with labour, tally staff, sheds and warehouses, employees, etc.

To ensure successful handling of cargo the vessel shall, when required by shippers or consignees, receive or discharge cargo day and night, as well as on Sundays and holidays, furnishing free of charge all necessary cargo handling gear. Though in most ports the cargo handling is done by port cranes both from the quays and lighters, a vessel shall, in some ports, use her own cargo handling equipment, which has to be in good working condition.

In the latter case, the Master shall produce to the Agent the Cargo Equipment Certificate which must be valid.

Loading or unloading time is calculated as to the rates stipulated in a Charter Party or according to the Customs of the Port in the absence of same.

Should the port labour participate in the opening or closing of hatches, a vessel's administration shall be responsible for the rules of safety engineering to be complied with.

Opening and closing of mechanised ship's hatches shall always be done by the ship's crew.

Should shore cranes be used for loading or unloading instead of a vessel's cargo-handling equipment, the Master shall beforehand remove aerials, aerial halyards, stay rods, wires, etc., crossing the air space over a ship's hatches and preventing the shore cranes' derricks from free circulation.

The vessel's derricks shall not project over the sides.

(r) Agency: All foreign vessels upon arrival at the U.S.S.R. ports are attended by the Maritime Agencies Inflot.

Inflot Agencies provide foreign vessels with the following services:

Inform the Port Authorities and other organisations about vessels' expected time of arrival (ETA), nature and quantity of cargo to be handled, expected time of loading or discharging, etc.;

Render assistance to the Masters in obtaining Pilots, tugs, berths, launches, etc.;

Perform all the necessary formalities connected with the vessels' arrival and departure;

Ensure that Masters are acquainted with the Port Rules, Obligatory Harbour Regulations as well as other documents and instructions issued by the Port Authorities;

Give advice to the Shipowners and other interested parties regarding vessels' movement and the prospects for the handling of cargo;

Render help in speeding up cargo handling operations;

Provide vessels with supervisors and tallymen;

Prepare time sheets and submit them to the Masters, Port Authorities and Shippers (Consignees) for their further approval;

Sign on Masters' behalf cargo and other documents;

Arrange bunkering, delivery of fresh water, provisions, technical supplies and all kinds of ship-repairs;

Render help to the members of the crews in obtaining medical assistance;

Make payment of dues, charges, fines (if any), etc., on behalf of the Shipowners and for their account;

Take all necessary measures for improvement of the handling of cargoes and ships' services;

Look after the Ccurt (Arbitration) cases and cargo claims on behalf of the Shipowners;

Make Sea Protests as well as translation and duplicating of any documents on Masters' requests;

Repatriate members of the crews from the U.S.S.R. to their home ports;

Invite surveyors qualified by the U.S.S.R. Register of Shipping to conduct vessels' surveys;

Make extension of ships' documents;

Render help to the Shipowners in delivering and redelivering of their vessels on time charter;

Assist in arranging cargo fumigation on board;

Perform any commissions on the instructions of the Shipowners in regard to the ships' services and protection of their interests before any Authorities.

It is in the interest of the Master to advise Inflot Agency timely information as regard to a vessel's name and flag, ETA, gross register tonnage; draft fore and aft; position of cargo in hold (stowage plan); number, weights and location of heavy lifts, number and length of oversized (over 9 m.) pieces and Owners' cable address and telex number thus putting the Agent in a position to calculate the approximate sum of the disbursement expenses and ask the Shipowners to remit same (disbursement accounts are to be paid before vessel's departure).

Note: Bearing in mind the fact that most of the shore offices are closed on Sundays and holidays, the Master shall cable to Inflot Agency well in advance his order for bunkers, repairs, technical supplies and cash to enable the Agent to make necessary arrangements.

All branches of Inflot Agency work round the clock, including Sundays.

Cable address of any branch of Inflot Agency is "Inflot", e.g. "Inflot Leningrad".

(s) Fire safety measures: Fire safety measures at U.S.S.R ports must comply with the provisions of the International Code for the Carriage of Dangerous Goods by Sea. Every vessel upon arrival at a port must keep constant fire watch day and night and have fire-fighting and life-saving equipment always ready for action. Members of the crew must keep strictly to the Fire Safety Regulations especially during vessels' stay at oil and timber berths. Giving off smoke out of the funnels is strictly prohibited. In all the U.S.S.R. ports a fire brigade could be called over the phone by dialling 01 in case of fire.

(t) Medical assistance: Medical assistance, if required, is available, including vaccination and inoculation as well as dispensary and hospital treatment in all the U.S.S.R. ports. In case of emergency an ambulance or a doctor should be called for by telephone – 03 in all the ports.

(u) Customs of the ports: Customs of the ports should apply in case:

(1) there is no Contract of the Carriage of Goods by Sea at all;

(2) there are no provisions in a Charter Party or in the Bills of Lading in respect of items covered by these Customs;

(3) a Charter Party or a Sale contract and/or any other Contracts of the Carriage of Goods by Sea specially refer to these Customs of the Ports.

(v) National and general holidays of the U.S.S.R.: National and general holidays in the U.S.S.R. are fixed.

5 days working week with 2 holidays has been introduced for most of the industrial enterprises, government and commercial offices and other institutions. Saturdays and Sundays are weekly holidays in the U.S.S.R.

The other holidays are:

1st January (New Year's Day); 8th March (International Women's Day); 1st and 2nd May (Days of International Workers' Solidarity); 9th May (World War II Victory Day); 7th and 8th November (Anniversary of the Great October Socialist Revolution, 1917); 7th October (U.S.S.R. Constitution Day).

(w) Places of Recreation for foreign seamen: In the majority of the Soviet commercial sea ports foreign seamen can spend their spare time in the International Seamen's Clubs which can offer concerts by professional and amateur actors and singers, evenings of public hearing of recorded Russian and foreign music, Soviet and foreign films, etc. Sightseeing is usually organised by the local excursion bureaux.

(x) Summer Time: 1st April to 1st October – clocks advanced 1 hour at 0000 hrs.

ARCHANGEL: 64.34 N. 40.30 E.

LOCATION: A White Sea port. Archangel is situated at the mouth of the Severnaya Dvina River, in the S.E. corner of Dvina Bay. A part of the harbour is situated at the Northern end of the Povrakulsky Island, at the junction of the Maimax River and the Kuznechikha River, and is called the Economia Avant-port. The total length of the port area is about 30 miles.

DOCUMENTS: Refer to beginning of U.S.S.R. section.

PILOTAGE: Compulsory. Notices of ETA in accordance Soviet Wood Charter Party. Pilot boat located in area of the light buoy "Mudyugsky I". VHF Channel 16. Pilot boat is tug-boat with word "Pilot" on wheelhouse. Vessels awaiting Pilot may anchor at safe distance to North from pilot boat location. In event bad weather pilot boat goes to shelter, being available by VHF radio.

While waiting for a Pilot, vessels may lie at anchor at a safe distance to the North from the pilot boat location.

In the event of bad weather a Pilot shall board a vessel at a sheltered place shown by him.

When a Pilot is not able to board a vessel due to weather conditions, a pilot boat is usually situated on the Southern side of the Mudyug Island. In this event vessels should anchor at the entrance of the channel from seaward and wait for a Pilot's arrival.

ANCHORAGES: There are several places which can be used by foreign vessels for anchorage. They are:

(1) The outer roads with depths from 10.0 m. to the North and N.W. from the reception buoy "Mudyugsky I".

(2) The Chizhovsky roadstead with depths of 7.0 m. – 9.0 m. is used by all vessels while the Customs formalities are carried out both before entering and leaving the port.

(3) The Solombala roadstead with depths of 5.0 m. – 9.0 m. is used by vessels for anchorage while awaiting a berth for loading cargo.

(4) The roadstead of the Maimaksansky timber port with depths of 5.0 m. – 9.0 m. is used by vessels while awaiting a berth for loading cargo or when awaiting good weather for going to sea being fully loaded.

(5) The Lower-town roadstead with depths of up to 6.0 m. is used for anchorage by coastal traders.

(6) The Town roadstead with depths of 6.0 m. – 9.0 m. is used for anchorage by vessels while waiting for bunkering or time for passage under the railway bridge.

(7) The Krasnoflotsky roadstead with depths of 9.0 m. is used for anchorage by vessels awaiting a berth for loading or a passage time under the railway bridge. The ground at all roadsteads – mud and sand; anchoring is performed according to the Pilot's recommendations.

RESTRICTIONS: Ice breaks up in April. Port area open from end of April through to November.

During the time of high water vessels can enter the port through the approach channel Berezovy Bar if having length not more than 160 m. and draft not exceeding 8.0 m. Changes of passage drafts are published in the U.S.S.R. Notices to Mariners. Vessels going to Timber Mills No. 2 and No. 3 as well as to the cargo area Bacariza pass through the central draw span of the railway bridge once during 24 hours. During bad visibility (less than 5 cables) movement of vessels within the port is not allowed.

In the Approaches to the Port there is an overhead power cable between:

(a) 64° 37.91′ N., 40° 29.05′ E. and

(b) 64° 37.72′ N., 40° 29.03′ E. The vertical clearance is 45.0 m.

HEALTH: All vessels coming from foreign countries inspected by Sanitary Office. If no diseases vessel obtains Free Pratique. If vessels entering after calling at another U.S.S.R. port, Pratique automatic.

RADIO: All information from sea may be routed through Murmansk Radio (UMN) and Archangel Radio (UGE), A1 500 kHz, A3 2182 kHz

All vessels when approaching the port of Archangel should establish radio contact through the coastal "Archangel Radio" station which operates 24 hours per day on the following frequencies:

Call Sign	Frequencies (kHz)		Type of transmission	Time	Remarks
	Working	Calling			
UGE	500/476	500/480	A1A	H24	
"Archangel-Radio"	2182	2182	H3E	H24	
"Archangel-Radio-1" (CPR)**	156.8*(16)	156.8*(16)	F3E	H24	
"Archangel-Radio-8" (Inflot Shipping Agency)	156.375*(67)	156.8*(16)	F3E	H24	Operates during period of navigation only
"Archangel-Radio-5"	156.700*(14)	156.8*(16)	F3E	H24	
Vessels' movement control (VMC)	156.700*(14)	156.7*(14)	F3E	H24	

*Frequencies are given in MHz.

**CPR – Central Port Radio station.

The storm signals station is situated in the Solombala area on the embankment of the Severnaya Dvina River named after George Sedov (Lat. 64° 35′ N., Long. 40° 30′ E.).

Storm signals are shown by the International Code of Signals by day and by Morse system at night.

Masters of vessels proceeding to the port of Archangel should advise ETA and all necessary information to the Inflot Agency as per conditions of the "Soviet Wood" Charter Party.

24 hours prior to arrival advise ETA to Inflot Agency. Four hours prior to approaching the "Mudyugsky I" Masters should advise more precise time of arrival.

TUGS: If necessary ordered 2 hours before arrival and normally join vessel near berth. Usually use ship's lines.

BERTHING: To certain extent depends upon tides. 37 berths available with depths alongside up to 9.6 m.

There are a large number of berths in the port along the river front, as well as at the Economia Avant-port.

Berths are equipped to handle timber, wood-pulp, paper, machinery and general cargo. There are enclosed warehouses and concrete floor sheds in the port.

CARGO HANDLING FACILITIES: Berths of the commercial port are equipped with mobile electric cranes of up to 32 tons capacity. Loading of timber from berths of timber mills is effected by shore cranes and vessels' cargo gear. There are also floating cranes from 5 to 100 tons capacity as well as other cargo handling equipment and interport transport means. Container crane of 30 tons capacity and back-up facilities.

BRIDGES: Vessels proceeding to load cargo at sawmills 2 and 3 have to pass under bridge which is opened once a day.

STEVEDORES: No particular ETA advices to stevedores/shippers required except those mentioned in Soviet Wood C/P. Loading rates, etc., also stipulated by Charter Party.

Mobile electric cranes of up to 20 tons capacity are operated on the quays. There are also floating cranes of up to 50 tons capacity, other cargo handling equipment and intra-port transport facilities. Sometimes, cargo handling is by vessels' gear.

MEDICAL: If any medical attention or prompt assistance required, Master has to contact Agent. No advance notice required. Clinic and hospital available.

DENSITY: Fresh water practically throughout port.

FRESH WATER: Usually delivered by self-propelled barges (minimum charge for 15 tons). A few berths equipped with shore water lines.

FUEL: Bunkers (gas oil and marine diesel fuel) can be taken from barges stationed in the Town roadstead or can be delivered by lighters.

FIRE PRECAUTIONS: While lying alongside timber berth vessel to take maximum fire precautions.

GANGWAY/DECK WATCHMEN: Not available from shore. Usual watch kept by ship's crew.

OPENING/CLOSING HATCHES: Normally carried out by ship's crew.

CERTIFICATES:

Seaworthiness.
Measurement.
Loading Line.
Cargo Equipment.
Safety Equipment Certificates.
Radio Telegraphy.
Radio Telephony.
Oil Pollution Prevention.
Sewage Pollution Prevention.
Derat Certificate.

CUSTOMS ALLOWANCES: Tobacco/wine: No quantity limits, but not allowed to be brought ashore.

IDENTIFICATION CARDS: Only Seamen's Books required.

CONSULS: No Consuls in Archangel.

REPAIRS: All types of repairs possible, also underwater surveys.

DRY DOCKS: There are floating docks with capacity up to 7,000 tons.

SURVEYORS: Register of Shipping of the U.S.S.R.

REPATRIATION: Repatriation and crew changes require visa formalities.

AIRPORT: Airport near town. Served by regular airlines.

TIME: GMT plus 3 hours, October 1st to April 1st. GMT plus 4 hours April 1st to October 1st.

HOLIDAYS: General holidays: all Sundays and Saturdays: January 1st (New Year's Day); March 8th (World Women's Day); May 1st, 2nd (World Labour Day); May 9th (Victory Day); October 7th (U.S.S.R. Constitution Day); November 7th, 8th (Great October Socialist Revolution Day). Cargo work on these days at shippers' discretion.

POLICE/AMBULANCE/FIRE: Police 02; Ambulance 03; Fire 01.

TELEPHONES: Can be arranged on board.

SERVICES: Compass adjusting, radar and radio repairs, etc.

SHORE LEAVE: Each crew member properly signed in Ship's Articles and having valid Seaman's Book allowed ashore.

BANKS: None.

EMERGENCY CO-ORDINATION CENTRE: None.

STORING: See "Prelims".

1. Barge or truck.
2. Vessels can be stored during loading.
3. Trucks can proceed alongside.
4. No.
5. Customs permission required.
6. No.

DELAYS: On account of rain when loading timber.

NAVIGATION: Masters proceeding for loading timber should bear in mind that the swing bridge on their way to Timber Mills No. 2 and No. 3 is open once daily.

All vessels with drafts of less than 3.6 m. especially when engaged in towing timber rafts, should keep out of the way of deep-drafted vessels when passing through narrow places and approaching channels both at sea and in the river, and should not hamper their safe passage in such places. They should also safely pass vessels engaged in dredging of a channel.

When approaching a bend in a channel, every vessel should beforehand give a signal by 1 prolonged blast on her whistle or siren, reduce her speed and when it is safe and practicable, keep to that side of the channel which lies on the starboard side of such vessel.

Every Master when passing through a narrow channel, or approaching a bend in a channel should take positive early action prescribed by the International Regulations for Preventing Collisions at Sea to avoid a risk of collision with a vessel approaching from the other direction.

Deep draft vessels shall not overtake each other when navigating in the channel of the Beresovy Bar. A vessel proceeding to the port along the course of the channel must keep out of the way of another vessel leaving the port.

No vessel shall navigate in the port harbours in restricted visibility when navigational lights, marks, leading lights, buoys, etc. are not visible.

Ice: At the head of Dvina Bay drift-ice extends as far as 12 miles from the shore by the end of November. The Severnaya Dvina estuary usually gets frozen over at the beginning of November. At Dvina Bay the ice usually breaks up in April and at the Severnaya Dvina estuary – at the beginning of May. Thus, navigation in the port area lasts all year round for vessels with ice-class for White Sea.

Powerful ice-breakers, ice-strengthened vessels and tugs are maintained by the Port of Archangel Authorities to assist in navigation of the Dvina Bay waters and off the coast when ice conditions prevail.

Tide: The tidal range at the head of Dvina Bay reaches 0.8 m. – 1 m. and at Mudyug Island 0.1 m. – 0.5 m.

The in-going flood stream is usually stronger and about 1 hour longer in duration than the out-going ebb stream.

Sometimes the in-going stream at the bar of Severnaya Dvina may be hardly observed, being reduced to a few minutes of slack water. It may run steadily for some time then gradually attains its usual strength and goes on to set up to the time of high water.

The tidal streams in the Severnaya Dvina are considerably influenced by both strength and direction of the wind.

Moderate Northerly and Westerly winds increase the height of the tide and hold the fall of the water.

Only the in-going flood streams have been observed at the Severnaya Dvina estuary at springs. The extreme tidal range of the water level observed there is about 4 m.

DEVELOPMENTS: For the immediate future no draft increase expected. Some berths under reconstruction and cranes being installed to load timber.

AUTHORITY: Chief of the Port of Archangel, Naberezhnaya Lenina 36, 163061 Archangel, U.S.S.R. *Tel:* 37840. *Telex:* 242111. *Cables:* 163061 Morport Archangel. *Contact:* Via VHF.

AGENT: Shipping Agency "Inflot", Archangel. Tel. 35874, 38573, 34040. Telex: 242115, 242231.

BATUMI: 41.39 N. 41.38 E. (See Plan)

DOCUMENTS: Refer to beginning of U.S.S.R. section.

PILOTAGE: Compulsory. Batumi situated in South of Black Sea Caucasian coast, at head of Batumi Bay. Navigation is year round. Navigational range marks to note when approaching port are: Batumi Beacon, Burun-Tabia Light, Batumi Light Buoy with siren and Batumi Leading Light Marks. When proceeding Batumi, Master should give 96 hours' notice prior arrival, advising Port Controller and "Inflot" Agency: time of arrival, description and quantity of cargo brought in, location, ship's draft and length, as well as declare services required. 4 hours' prior to approaching port, Master shall advise more precise time of arrival. Inflot will arrange Pilot. Pilot on VHF Channels 16 and 12.

Pilot boards vessel either at the Receiving Buoy or in the Outer Port Roads. Watch is kept by a pilot boat day and night.

ANCHORAGES: The port harbour is protected by a mole from the seaward and provides a safe anchorage except at times when S.W., West and N.W. winds blow and the "Tyagun", strong variable current with surge is formed.

At the time of "Tyagun" vessels are recommended to stop cargo handling operations and go out to sea.

During S.W. winds which are considered particularly dangerous and usually accompanied by heavy surge, Masters should observe special precautions and take all necessary measures to avoid impact with the mole.

The Outer Roads of the port with depths of about 9 m. – 20 m. and 0.5 cables in width, extend for a distance of about 1.5 miles to the E.N.E. from the Batumi Light Buoy along the edge of the shoal. The bottom is mud and sand.

The Inner Roads are situated between the Western coast of the Batumi Bay and the shoal extending from the Southern and S.E. coasts of the Bay. Depths in the Inner Roads are between 25 m. – 11.5 m.

The anchorage in the Inner Roads is exposed to North winds. However it is not safe during strong winds blowing from other directions.

Every vessel when in the inner roads must take necessary measures so as not to drag her anchors.

The recommended anchorage is in the Outer Roads at a distance of 7.8 cables to N.N.E. from the Eastern side of Batumi Point, depths 9 m. – 14.4 m.

In the Outer Roads vessels may anchor only after having obtained the Harbour Master's permission and according to Pilot's recommendation.

In the Inner Roads vessels may obtain anchorage only Eastward of the entrance leading line. It is strictly prohibited to lie at anchor both on the leading line and to the West of it.

BALLAST: In case of stormy weather, in Autumn and Winter particularly, vessels without cargo must enter the port with ballast water on board, having ensured fore draft not less then 1.5 m. – 1.8 m.

Ballast water should not be contaminated with oil residues.

RESTRICTIONS: Vessels may enter and leave the port at any time of day and night. All vessels when entering or leaving the port must have keel clearance of not less than 0.3 m. (1 ft.).

In the event of stormy weather vessels approaching the port at time of S.W. and N.W. winds particularly, should obtain Harbour Master's entry permit. Vessels coming to the port without cargo are obliged to enter the port with ballast water taken in such a way that bow draft should not be less than 1.5 m. – 1.8 m. Ballast water must be clean. If due to the "Tyagun" vessels are not allowed to enter the harbour, they should anchor either in the Outer or Inner Roads.

All necessary information as regard to changes of wind, possibility or turn of entry to the port for vessels at anchor in the Outer Roads, is given by the Harbour Master over the VHF radio-telephone or by the signal station by flags of the International Code of Signals, in Morse Code or by semaphore signals.

MAX. SIZE: For oil carriers: Berth No. 1, 175 m. LOA, 36.0 ft. draft; Berth No. 2, 165 m. LOA, 30.5 ft. draft; Berth No. 3 165 m. LOA, 30.5 ft. draft; Berth No. 4, 150 m. LOA, 29.5 ft. draft: Berth No. 5, 212 m. LOA, 29.5 ft. draft. For Cargo ships: Two berths where vessels may discharge. Maximum draft 32.5 ft.

RADIO: Send ETA to "Inflot Batumi" 96 hours and 48 hours in advance and confirm 4 hours in advance.

All vessels when approaching the port of Batumi should establish radio contact via Batumi Radio port radio station operating 24 hours per day on the following frequencies:

Call Sign	*Frequencies (kHz)* *Working*	 *Calling*	*Type of Trans-mission*	*Time*
UFA	500	500	A1A	H24
"Batumi-Radio"	2182	2182	H3E	H24
"Batumi-2" (Port Controller)	156.8*(16)	156.8*(16)	F3E	H24
"Batumi-1" (CPR)**	156.8*(16)	156.8*(16)	F3E	H24

Radio-telephone communication via VHF Channels is carried out in A1A type of transmission after preliminary arrangement.

*Frequencies are given in MHz.

**CPR – Central Port Radio Station.

Shore signal station is situated 1.6 cables W.N.W. from Batumi Point. International Code signals, and sometimes storm signals, are hoisted at the mast of the signal station.

VHF: Port Control on Channels 16, 13 and 14. Pilot on Channels 16 and 12. Tugs on Channel 9.

BERTHING: The berths of the port with depths alongside 8.0 m. – 13.0 m. are equipped to handle crude oil and oil products, bulks (coal, grain, ores) and general (machinery and mechanical equipment) as well as passenger shipping.

A vessel should lie at a berth with her bow directed to the port entrance and with her anchor dropped from the proper side. Berthing in the harbour may only be effected with tugs' assistance.

A vessel may be berthed at the outer side of the Oil Jetty after having obtained the Harbour Master's permission.

Vessels entering or leaving the harbour are not allowed to pass vessels loading at the outer (Northern) side of the Oil Jetty at a distance of less than 80 m.

The berths of the port are equipped with electric cranes of up to 20 tons capacity. There is also a floating crane of 100 tons capacity. Other cargo handling equipment, covered warehouses and concrete floor sheds are available. Rate of grain loaders 5 t.p.h. – 120 t.p.h.

TANKERS: Mooring buoys are placed to the North of the Oil Jetty and a pipe-line for loading tankers of up to 40,000 d.w.t. (Max. LOA 250 m. Max. draft 40 ft.) is led up to them. Mooring of such tankers is effected with tug assistance under control of the Senior Port Pilot. Vessels moored to these buoys should drop 2 anchors from the bow with 7 – 8 shackles of anchor chain and strong mooring lines should be lead to mooring buoys from the stern and made fast.

When lying at mooring buoys a vessel should keep a 24 hour VHF watch on receiving Channel and observe corresponding rules of the Port.

Products Handled: Light fuel oil, heavy fuel oil and gas oil.

TIDE: The range of water level in the port area is small and is due to the effects of strong winds. The maximum range observed 0.6 m.

MEDICAL: Medical attendance in local seamen's hospital. Masters to advise by radio prior arrival of medical attendance required on board.

DENSITY: 1018.5.

FRESH WATER: Supplied ex-shore to ship directly. Maximum pressure 20 t.p.h. Also supplied ex-water barge. Maximum quantity delivered by barge is 650 tons. Rate about 60 – 80 t.p.h.

FUEL: Bunkers may be taken at the oil berths and can also be delivered by bunkering vessel to a ship handling non-dangerous cargo. In the latter case fire precautions must be strictly observed by the vessel taking bunkers.

FIRE PRECAUTIONS: No special precautions. There is 1 fire-fighting boat.

OPENING/CLOSING HATCHES: According to Charter Party and contract.

CUSTOMS ALLOWANCES: Tobacco: No restrictions. Wine and/or spirits: No restrictions.

IDENTIFICATION CARDS: Not required.

CONSULS: Turkey.

REPAIRS: Only minor repairs are possible.

AIRPORT: Batumi connected by airlines with different towns in Soviet Union. Airport situated about 5 km. from port.

TIME: GMT plus 4 hours. GMT plus 5 hours in Summer.

HOLIDAYS: New Year's Day; 8th March (Women's Day); 1st May; 7th October; 7th – 8th November; but port works on those days.

SHORE LEAVE: Crew members allowed ashore till midnight.

SHIPMASTER'S REPORT: (Updated 1986). There is now a sea-loading berth at this port immediately outside the harbour, the vessel lying to 2 anchors and stern on close to the breakwater and close Eastward of the harbour entrance.

The stern is secured to 2 buoys, using ship's ropes, 5 to a port quarter buoy and 3 to a starboard quarter buoy.

The bow is in about 60 ft. of water and the stern in about 42 ft., and vessels of up to about 40,000 tons d.w.t. are loaded there, this vessel loading safely to a draft of 37 ft. 6 in. (40 ft. in 1986).

Two 10 in. pipe-lines are connected on the starboard side, 1 for discharging ballast ashore and 1 for loading at a rate of about 1,600 t.p.h. The charge for discharging ballast ashore is 0.25 rbls. per ton and it is not permitted to discharge any ballast into the harbour.

1 copy of a Money List was required.

AUTHORITY: The Port of Batumi Authority, 20 Gogebashvili Street, 384500 Batumi, U.S.S.R. *Tel:* 3-29-59. *Cables:* Morport, Batumi.

AGENT: The Port of Batumi Main Maritime Agency "Inflot", Postal address: 20 Gogebashvili Street, Port of Batumi, U.S.S.R. Cables: Inflot Batumi. Tel: 9-24-15.

BELGOROD-DNESTROVSKY: 46.12 N. 30.21 E.

(See Plan)

GENERAL: The commercial sea port of Belgorod-Dnestrovsky is situated on the North-Western part of the Black Sea coast, on the right side of the Dnestrovsky Estuary (the Southern Basin), at a distance of 80-90 km. to the S.W. of the port of Odessa. Navigational season lasts all the year round, with powerful (600 h.p. – 1,200 h.p.) tug assistance during severe Winters. The Tsaregradsky Lighthouse and the Tsaregradsky Leading Line should be used as guiding points when approaching the port.

Vessels should approach the port along the channel of the Dnestrovsky Estuary which is provided with a good navigational marks system.

DOCUMENTS:

7 General Declarations, IMO FAL Form 1
7 Crew Lists, IMO FAL Form 5
2 Crew's Effects Declarations IMO Form 4
2 Money Lists.
2 Cargo Declarations IMO Form 2
Safety Certificates.

PILOTAGE: Pilotage compulsory for all vessels. A Pilot usually boards vessel at Reception Buoy No. 1 (Lat. 46° 04′ N. Long. 30° 30′ E.) situated 1.2 miles to the S.E. of the Tsaregradsky Lighthouse.

ANCHORAGE: The port outer roads with depths of up to 14 m. are situated 0.5 mile to the S.E. of the Reception Buoy. The holding ground is good. There is an inner roadstead situated within the port area where usually two vessels can be anchored pending berthing.

RESTRICTIONS: Vessels are allowed to navigate along the channel during daytime only. The port can be entered by vessels with draft of up to 4.5 m. and the maximum height (from the water level) of 28.0 m. Vessels should follow the channel at a speed not more than 5 knots.

According to dredging project, which is to be effected by end of 1988, the depths of the Approach Channel and at the berths are to be increased to 6.0 m.

During bad visibility vessels which are not equipped with radar are not allowed to navigate along the channel. Vessels are piloted under the bridge 2-3 times daily (during daytime only).

RADIO: Communication is effected through the port radio station "Belgorod-Dnestrovsky-Radio"

Call sign	*Frequencies (MHz)* *working*	 *calling*	*Kind of transmission*	*Time of work*
"Belgorod-Dnestrovsky-Radio"	156.8	156.8	F3	H24

Harbour Master on VHF Channel 10.

Notice of Arrival: When approaching the port of Belgorod-Dnestrovsky Masters of vessels should not later than 48 hours prior to arrival advise the Harbour Master of ETA, draft, maximum height of a vessel in ballast (from the water level up to the top of a mast), kind and quantity of cargo services required to the vessel. 24 and 4 hours prior to arrival the Master should advise more precise ETA.

TUGS: If necessary, are ordered by the Master after having consulted the Pilot.

BERTHING: The berths of the port have depths alongside of up to 5.3 m. and are equipped to handle timber, containers, generals (rubber, non-ferrous metals, pipes, tinned products, fresh vegetables, fruit and citrus fruit) and other cargoes. There are covered warehouses and open concrete floor sheds in the port.

A port area Bugas is situated 14 km. to the South of the port, at the mouth of the Estuary.

Vessels fully laden with ballast water are as a rule allowed to moor at berths if winds do not exceed force 6. A vessel of a smaller size may be turned broadside to a loaded vessel of a bigger size but not vice versa. It is strictly prohibited to turn a third vessel broadside on to another 2 vessels having been turned broadside earlier.

Opening and closing of mechanised hatches is usually performed by the vessel's crew. Opening and closing of ordinary hatches is carried out by the crew on arrival and departure of a vessel and by the dockers during cargo handling operations. On the berths and on the port territory there are cranes of 20 tons lifting capacity.

FRESH WATER: Available at berths.

FUEL: Diesel oil available.

REPAIRS: Only minor repairs possible.

CONSULS: None.

TIME: GMT plus 3 hours October to March. GMT plus 4 hours April–September.

DEVELOPMENTS: See "Restrictions".

AUTHORITY: The Port of Belgorod-Dnestrovsky Authority, 81 Shabskaya Street, 272300 Belgorod-Dnestrovsky, Odessa Region, U.S.S.R. *Tel:* 2-25-51. *Cables:* Morport Belgorod-Dnestrovsky

AGENT: Shipping Agency "Inflot" in the Port of Belgorod-Dnestrovsky. Postal address: 81, Shabskaya Street, 272300 – Belgorod-Dnestrovsky, Odessa Region, U.S.S.R. Cables: Inflot Belgorod-Dnestrovsky. Telephone: 2-22-01; 2-56-73. Telex: 232717.

BERDYANSK: 46.37 N. 36.36 E. (See Plan)

DOCUMENTS: Also refer to beginning of U.S.S.R. section.

- 5 Crew Lists.
- 5 General Declarations.
- 4 Cargo Declarations.
- 2 Crew's Effects Declarations.
- 1 Master's Declaration.
- 1 Master's Declaration about arrival at a Commercial Port of the U.S.S.R.
- 2 Stores Lists.
- 1 Maritime Declaration of Health.

For discharging vessels also: Manifests, Bills of Lading and Cargo Plan.

For all vessels, necessary to have all Ship's Papers and Ship's Certificates.

APPROACHES: The Port of Berdyansk is situated in the N.E. part of Berdyansk Bay, on the Northern coast of the Azov Sea.

Inner roads and port facilities are protected from Southern and S.E. winds by a mole and a breakwater.

Navigation in the port is all year round, but in Winter ice-breaker assistance is necessary for about two months.

Vessels should proceed to the harbour through the approach channel, with a least depth of 8.2 m.

PILOTAGE: Pilotage is compulsory in Azov Sea. Kerch Pilot meets vessel near the entrance to the Kerch Strait and takes vessel to Berdyansk. Berdyansk Pilot meets vessel at Reception Buoy No. 2 (Lat. 46° 36.75′ N., Long. 36° 36′ E.). Telegraphic address of pilot station is: "Harbour Master Berdyansk". Vessels bound for Berdyansk should cable "Inflot Berdyansk U.S.S.R."/Ship's Agents/advance notice of ETA: ETA Berdyansk (date shown in group of four figures and if possible GMT of arrival); draft, beam, depth to upper deck, flag, b.r.t., n.r.t., length, if for discharging, kind of cargo should also be advised. After which Inflot arranges pilotage through Kerch Channel. First notice of ETA to be sent after leaving last port and then 72, 48 and 24 hours' notice of ETA.

For contacting pilot station use VHF Channel 16. Pilot boat has a white hull with black writing on her side: "Pilot-29". Vessels wait for the Pilot at the outer road anchorage.

ANCHORAGES: Vessels may obtain good anchorage with depths up to 8.0 m. in the Port of Berdyansk outer roads situated on both sides of the approach channel leading into the harbour.

The outer roads are well protected from Northerly winds, but during Southern and S.W. winds the anchorage is troublesome.

At time of strong S.W. swell ships in the outer roads are usually effected by heavy pitching and rolling, and plenty of cable should be paid out on both anchors. Holding ground in outer roads is shell and mud.

RESTRICTIONS: Vessels can enter and leave at any time of day and night. Vessels over 225 m. LOA can only enter during daytime.

MAX. SIZE: The max. permitted draft for entry to the port is 7.9 m., if max. draft then even keel.

HEALTH: To obtain Pratique it is necessary to complete 1 Maritime Declaration of Health and hand it in for doctor. In the event of any disease or fever contact Agents.

RADIO: *Notice of arrival:* 96 hours and then 12 hours prior to arrival at the port, Masters should advise the Port Administration via the local Inflot Agency, time of arrival and the maximum draft of a vessel. Not later than 2 hours prior to approaching Reception Buoy No. 2, placed at the beginning of the approaching channel, Masters should advise more precise ETA to the Harbour Master.

Vessels should establish radio contact through "Berdyansk Radio" Port Radio Station operating 24 hours daily on the following frequencies:

Call Sign	*Frequencies (kHz)* *Working*	*Calling*	*Type of trans-mission*	*Time*
UBX	500/418	500	A1A	H24
"Berdyansk-Radio-2"	2182	2182	H3E	H24
"Berdyansk-Radio-1" (CPR)**	156.8*(16)	156.8*(16)	F3E	H24
"Berdyansk-Radio-5"	156.8*(16)	156.8*(16)	F3E	H24

*Frequencies are given in MHz.

**Central Port Radio Station.

RADAR/VHF: There is no port radar service in Berdyansk.

Use VHF Channel 16 initally and further communication on another Channel on agreement.

TUGS: Join vessels abreast of breakwater. Vessel's lines usually used. No extra charge for tug lines. Vessels under 1,500 g.r.t. require 1 tug and vessels over 1,500 g.r.t. require 2 tugs.

BERTHING: Berth Nos. 1 – 2: Length 380 m. These berths are for general cargo. Berth Nos. 3 – 4: Length 270 m. These berths are for bulk cargoes (ores, minerals). Berth No. 5: Length 232 m. This berth for scrap iron. Max. permissible draft 7.9 m. Berth No. 6: Length 132 m. Berths No. 7 – 8: Length 351 m. Berth No. 9: Length 140 m. Load/discharge is by shore equipment. Depths alongside Berths No. 1 – 8 up to 7.9 m.

CRANES: All quays are equipped with electric cranes. Berth Nos. 1 – 2 are equipped with SOKOL type crane, of up to 32 tons capacity. Berth Nos. 3 – 4 – 5 are equipped with Albatros type crane, of up to 20 tons capacity. Berth No. 8 crane type SOKOL.

SPECIALISED CARGO-HANDLING FACILITIES: None.

BRIDGES: None.

STEVEDORES: Provided by the Port of Berdyansk. Tel. Manager: 62 – 565.

MEDICAL: Medical attendance possible. All members of the crew must have sanitary (yellow) book indicating vaccinations, fever, etc. One hospital available.

TANKERS: No facilities available.

DENSITY: Approximately 1008. Salinity is 11.9.

FRESH WATER: Supplied at berths. Price 0.50 Rbls. per ton.

FUEL: Available in limited quantities. Supplied by special tanker.

CONSULS: No consuls in Berdyansk.

REPAIRS: Only minor hull and machine repairs.

DRY DOCKS: No dry dock in Berdyansk.

SURVEYORS: Inspection of the Registry of the U.S.S.R. Branch Office; Tel. 62 – 452. No cargo inspectors.

GANGWAY/DECK WATCHMEN: Not compulsory or necessary.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CUSTOMS ALLOWANCES: Tobacco, wine, spirits are free of Bond.

CARGO GEAR: There are cargo-handling equipment and intraport transport facilities. No heavy lift crane.

REPATRIATION: Possible.

AIRPORT: Distance 15 km. Internal Soviet airlines only.

TIME: GMT plus 3 hours October to April. GMT plus 4 hours April to October.

HOLIDAYS: New Year's Day (1st January); International Woman's Day (8th March); World Labour Days (1st – 2nd May); Victory Day (9th May); Constitution Day (7th October); Anniversary of the Great October Socialist Revolution (7th – 8th November). Cargo work can be arranged on above days.

POLICE/AMBULANCE/FIRE: Police 02; Ambulance 03; Fire 01.

TELEPHONES: Not possible to place telephones onboard.

SHORE LEAVE: After clearing inwards, crew members are allowed to go ashore without special permission.

IDENTIFICATION CARDS: Not required. Only Seaman's Passport.

BANKS: State Bank of the U.S.S.R. only.

EMERGENCY CO-ORDINATION CENTRE: Contact Harbour Master's Office.

STORING: See "Prelims".

1. Barge or truck.
2. Vessels can be stored by barges during cargo operations.
3. Trucks can proceed alongside at the berth.
4. Fork lift trucks can be used.
5. Storing under Customs permission and control.
6. Local riggers can be employed.

AUTHORITY: The Port of Berdyansk Authority, 13/7 Gorky Street, Berdyansk 332440, U.S.S.R. *Tel:* 3-22-10. *Telex:* 131330. *Cables:* Morport Ocean Berdyansk. *Contact:* Port Director (Tel: 3-22-10). Harbour Master (Tel: 62-731).

AGENT: Maritime Agency "Inflot" at the Port of Berdyansk. Postal address: 13/7 Gorky Street, Berdyansk 332440, U.S.S.R. Tel: 62-539, 62-639, 3-34-42. Cables: Inflot Berdyansk.

IGARKA: 67.27 N. 86.35 E. (See Plan)

GENERAL: A sea and river port, Igarka is situated about 344 miles Southward of the mouth of the Enisei river which flows into the Enisei Gulf of the Kara Sea.

The port is open for navigation about 130 – 135 days from July till mid-November. Ice first begins to form in the second half of October.

No tidal range is observed in the port waters.

The port of Igarka specialises in timber exports.

DOCUMENTS: Refer to beginning of U.S.S.R. section.

RESTRICTIONS: Vessels can enter or leave the port 24 hours per day.

To ensure safe passage across the Lipatnikovsky and Turushinsky Bars of the Enisei River, vessels proceeding to the port of Igarka must have draft not exceeding 7.3 m. (see "Max. Size").

PILOTAGE: Pilotage is carried out round the clock. Master of a vessel approaching the Port of Igarka from seaward has to order Pilots via the Chief of the Igarka Hydrobase and the Master of the pilot boat 48 hours prior to arrival to the Oshmarino Point where the River Pilots usually meet vessels. Confirm ETA 6 hours before arrival.

In case of bad weather, Pilot boards a vessel at a place as directed by the pilot boat. Since the distance of pilotage from the pilot station up to the port of Igarka is about 360 miles, 2 Pilots are usually required for the service.

The Master of a vessel should use VHF radio-telephone (calling frequency 156.8 MHz) or radio-telephone (calling frequency 500 kHz) for establishing the radio contact with a pilot boat in order to check the time and the place of boarding/unboarding of a Pilot.

ANCHORAGE: Information on best location of anchorage, if required, will be given by the pilot boat.

The anchorage in the outer roads is bounded on the East by the leading lines of Igarka and Northern Igarka leading marks, on the West by the left bank of the Enisei River, on the North by the beam line of the buoy of Igarka Oseryodok, on the South by the leading line of Port of Igarka entrance leading marks.

In the event of bad weather or main engine trouble a vessel should lie at anchor in a place as directed by a River Pilot, who shall advise a Master all necessary data about the anchorage.

MAX. SIZE: Max. LOA 150 m. Also see "Restrictions".

HEALTH: Not later than 4 hours before arrival, Master to radio "Inflot" advising health condition on board. International code quarantine signals to be shown on arrival at port limits. No one, except Pilot and Port Authorities, may board or leave the ship until Free Pratique is given after port health inspection.

RADIO: Radio communication is effected through the "Igarka Radio" port radio station operating on the frequencies given below.

Call sign	*Frequencies (kHz) Working*	*Calling*	*Type of trans-mission*	*Time of work*	*Remarks*
UFR	500	500	A1	H24	Operates during navigation only
"Sever" (Port)	156.7*	156.7*	F3	H24	

*Frequencies are given in MHz.

Notice of arrival: As per conditions of the "Soviet Wood" Charter Party.

TUGS: Normally join vessel with Harbour Pilot on approaching port. Vessels at anchor order tugs through "Inflot". Ship's tow lines used.

BERTHING: Tug assistance for berthing is compulsory. A berthing Pilot boards a vessel from a tug either in the outer roads or in the port. Depths alongside berths are up to 7.5 m.

After having approached a berth at a safe distance, a vessel, in most cases, should cast 2 anchors and then with tug assistance, turn stern to the Island and moor with 3 mooring ropes led from the stern. When mooring, a vessel should have ready on board 4 mooring ropes each not less than 100 m. in length (3 ropes to be led ashore and 1 rope prepared for a tug.).

Vessels moored in the inner roads must have strong ropes which should be made fast over the pile moorings only.

If 3 or 4 vessels are moored at the quay, the outside ones should have a red light exhibited in the middle of each mooring rope led ashore.

Notice of readiness and other conditions of loading – as per the "Soviet Wood" Charter Party. Opening and closing of hatches by ship's crew.

When a vessel is moored in the inner roads, stern to the Island, loading is by floating cranes; when at berth – ship's derricks are used.

Loading is done by ship's wire strops, with a test label attached to every strop.

MEDICAL: Medical assistance is free, hospital facilities available – all arrangements made by "Inflot".

DENSITY: Fresh water.

FRESH WATER: May be taken from the river in places indicated by the Pilot, but not in the port area.

FUEL: Not always available.

GANGWAY/DECK WATCHMEN: Ship's crew to provide watchmen services.

OPENING/CLOSING HATCHES: By ship's crew.

IDENTIFICATION CARDS: Required for crewmen going ashore.

CUSTOMS ALLOWANCES: Only reasonable quantities for personal consumption may be taken ashore.

REPAIRS: Only minor repairs.

REPATRIATION: No facilities.

AIRPORT: Situated 1.5 km. away, 1 daily flight to Krasnogarsk.

TIME: GMT plus 7 hours (all the year round).

HOLIDAYS: No official holidays are observed during the navigation season.

POLICE/AMBULANCE/FIRE: Police, Tel: 0-02; Ambulance, Tel: 0-04; Fire, Tel: 0-01.

TELEPHONES: Telephones cannot be connected on board vessel.

SHORE LEAVE: Permitted during 0600 – 2400 hrs. subject to police control.

GENERAL: It is forbidden for crew to swim in the harbour.

AUTHORITY: The Port of Igarka Authority, 47 Gorky Street, 663200 – Port of Igarka, U.S.S.R. *Tel:* 2-13-16. *Cables:* "Transflot" Igarka.

AGENT: "Transflot". Cables: "Transflot" Igarka.

ILICHEVSK: 46.19 N. 30.40 E. (See Plan)

GENERAL: The Port of Ilichevsk is situated on the N.W. coast of Black Sea, on the right bank of the Sukhoi Liman, about 15 miles S.W. from Odessa City.

The Sukhoi Liman is divided by dams into 3 parts called Basin No. 1, Basin No. 2 and Basin No. 3.

A part of Basin No. 1 bounded by the leading line of the Port of Ilichevsk leading lights, thence by the S.W. coast of the Liman, thence by the Southern Sand Headland, is called the Inner Roads of the port.

The berths for large sea-going vessels are along the Western side of the Southern Sand Headland, thence along Southern and S.W. sides of Basin No. 1.

The berths of the Western side of Basin No. 1 are used by fishing trawlers.

Navigation in the port is year round. Ice usually begins to form in the second half of December and finally disappears in February. Ice-breaker assistance is required in severe Winters for about a 30 day period.

DOCUMENTS: Refer to beginning of U.S.S.R. section.

PILOTAGE: A Pilot usually boards a vessel in the outer roads at the approach light mid-channel buoy. (Lat. 46° 18′ N., Long. 30° 44′ E.). In the event of bad weather the place of embarkation or disembarkation of a Pilot can be changed with a Master's approval.

Vessels proceeding to ports of Kherson and Yuzhnyy take Pilot in the Outer Roads of Ilyichevsk (Lat. 46° 15′ 06″ N., Long. 30° 56′ 01″ E.).

APPROACHES: The approach channel leads from seaward into Basin No. 1. Depths in mid-channel are 13.5 m. Strong Easterly and Southerly winds may cause heavy surge in the channel influencing a vessel's manoeuvrability.

ANCHORAGES: Good anchorages can be obtained in the outer roads situated at a distance of 1 to 5 miles off the coast between the parallels of 46° 12′ N. and 46° 18′ N. The outer roads are open to all winds blowing from N.E. via S. up to S.W.

The anchorage (on charts marked as No. 352 and 351) are situated about 1.2 to 7 miles to the S.E. of the port entrance.

The holding ground is grey mud and clay. Depths in the roads are 19.2 – 25.5 m.

RESTRICTIONS: Entry to the port can be effected day and night.

In the night time movement of the vessels with length more than 200 m. is subject to special permission of the Harbour Master.

Vessel's speed should not exceed 6 knots when navigating along the channel.

MAX. SIZE: The maximum permitted draft is 11.8 m. length 280 m.

Vessels drawing over 11.8 m. must obtain the Harbour Master's permit for entry to the port.

HEALTH: Foreign vessels granted Free Pratique when berthed alongside and all arrival formalities accomplished by the boarding officials, irrespective whether day or night. If berthing delayed, under certain circumstances vessel may be granted Free Pratique at roads where anchored. Event suspected disease Master shall inform Agent by radio. When arriving from another Soviet Black Sea port, Free Pratique automatic.

RADIO: Channel 16 (156.80 MHz) for radio-telephone used for calling only, with subsequent switch to any other Channel. All information addressed to ship's Agent, Cable address "Inflot Ilichevsk", Telex No. 232448. Port Radio UEH.2.

Radio contact can be established through the port radio station "Ilichevsk Radio" operating 24 hours daily on the following frequencies:

Call sign	*Frequencies (MHz) Working*	*Calling*	*Type of trans-mission*	*Time of Work*
"Ilichevsk Port control"	156.6(12)	156.6(12)	F3E	H24
"Ilichevsk Traffic control"	Main 156.950(19)	156.950(19)	F3E	H24
	Spare 156.50(10)	156.50(10)	F3E	H24

The port radar station gives all possible information to all vessels navigating in restricted visibility and in the absence of floating marks, from the point of a Pilot's embarkation up to the port.

Radar navigation is controlled by a Pilot.

A signal post for regulating the movement of vessels is situated at the Northern side of the entrance to the port.

TUGS: Normally join vessel when approaching mooring berth. Ship's lines used. Number of tugs required for berthing shall be ordered by the Pilot with the Master's consent. Tugs compulsory for vessels over 1,500 g.r.t.

In case Harbour Master grants permission for vessel to stay at anchorage in the Inner Roads to get bunkers, provisions, or for any other purpose a tug should be ordered by ship's Master for the whole period of stay in the Inner Roads to ensure safety of manoeuvring of the other vessels in the port. All expenses on ship's account.

BERTHING: Quays with depths alongside of up to 14.0 m. are equipped to handle oil, general, 20 ft. and 40 ft. containers bulk and other cargoes. There are mechanised warehouses and open concrete floor sheds.

Electric cranes of up to 45 tons capacity are operated on the quays and by the warehouses. There are floating cranes with lifting capacity of up to 300 tons, other cargo-handling equipment and inter-port transport means.

Opening and closing of mechanised hatches is always done by the ship's crew.

In case vessel is moored at the Inner Road buoys the following requirements should be complied with:

1. Two towing ropes to be kept ready at bow and stern lowered 2 m. over the water surface.
2. To avoid picking up of mooring anchors ropes should be slacked with free board increase whilst discharging.
3. Vessel must be equipped with good pudding fenders to protect her boards and floating facilities alongside.

TIDE: The range of the water level caused by strong winds may reach 1 m. The rise of the water level is due to Northerly winds and the fall of the water level to Southerly winds.

The changes of the water level caused by variation in atmospheric pressure ("Seish" phenomena) are observed periodically. This phenomena can last from a few minutes up to several days and the range of the water level may reach 0.6 m.

RADAR: Port Radar Station gives all possible technical information to any vessel navigating within Station's broadcast zone, if requested. Navigation in channel controlled by Port Radar Station. Communication between Station and vessels established by radio-telephone on international frequencies.

STEVEDORES: 12 days' notice is required.

MEDICAL: Medical assistance rendered immediately when requested. Hospital facilities available. Particular inoculations required prescribed by International Sanitary Regulations.

DENSITY: Average density 1010.

FRESH WATER: Available at quays and by barge.

FUEL: Bunkers available.

GANGWAY/DECK WATCHMEN: Watch carried out by crew.

OPENING/CLOSING HATCHES: Mechanical hatches by crew.

CUSTOMS ALLOWANCES: No restrictions. Free use on board.

CARGO GEAR: No additional requirements. Cargo work usually carried out by means of shore cranes.

IDENTIFICATION CARDS: Required.

CONSULS: None.

REPAIRS: Good facilities. All kinds of repairs for vessels of up to 60,000 d.w.t. can be carried out.

DRY DOCKS: Docking arrangements settled with Black Sea Steamship Co. of Odessa, Lastochkina 1 Street. A floating dock, 250 m. length, 18 m. depth. There are new floating docks with a lifting capacity of 15,000 tons.

AIRPORT: The distance from Odessa Airport about 30 km.

TIME: GMT plus 3 hours. GMT plus 4 hours in Summer.

HOLIDAYS: Official Holidays are Sundays and following Calendar dates: January 1st, March 8th, May 1st, 2nd, 9th, October 7th, November 7th, 8th.

POLICE/AMBULANCE/FIRE: All mentioned services easily obtained through Agent.

SERVICES: Ship chandler's supplies, technical equipment supplies, laundry, car hire.

SHORE LEAVE: Permitted.

DELAYS: Vessels berthed at specialised berths depending upon cargo. Delays if berths occupied. Normally no delays in bunkering.

GENERAL: Shipowners should deposit funds for disbursements prior to arrival. All banking operations carried out by Vnesheconombank of Moscow.

DEVELOPMENTS: At present port only partially constructed. Work of further development being carried out.

AUTHORITY: Port of Ilichevsk Authority, 2 Korabelnaya Street, 270901, Ilichevsk. Odessa Region, U.S.S.R. *Tel:* 691-605, 691-634, 691-758. *Telex:* 232815. *Cables:* Morport Ilichevsk.

AGENT: Ilichevsk Inflot Shipping Agency, 2A Korabelnaya UL., Ilichevsk 270901, Odessa Region, U.S.S.R. Cables: "Inflot Ilichevsk". Tel. 691658, 620214, 620218, 691661. Telex: 232825 A.

IZMAIL: 45.20 N. 28.51 E. (See Plan)

GENERAL: The sea and river port of Izmail is situated on the left bank of the Kiliiskoe Ghirlo (Kilia Mouth) of the Danube River, between the 82nd and 96th km.

DOCUMENTS: Refer to beginning of U.S.S.R. section.

PILOTAGE: All foreign flag vessels coming to or leaving the port of Izmail are allowed to navigate by the Kilia Mouth with the port of Izmail Pilot on board only. Masters of the vessels proceeding by the Sulina Channel from seaward shall order Pilots 24 hours in advance and confirm the order 4 hours prior to approaching the Chatal of Izmail, to the Harbour Master's office via Inflot Shipping Agency.

Vessels proceeding by the Prorva Canal from seaward should advise the Port of Izmail Harbour Master about the time of approaching the Reception Buoy 24 hours prior to arrival. Pilot shall board/disembark vessels at the Reception Buoy of the Prorva Channel (Lat. 45° 30′ 07″ N., Long. 29° 46′ 04″ E.) and the Izmail Chatal (116th km. of Kilia Mouth of the Danube River).

ANCHORAGE: Vessels can obtain anchorage in the roads situated in the area between 95.7 km. – 96.2 km. of the Kilia Mouth 50 m. from the left bank, 86.7 km. – 87.7 km. of the Kilia Mouth 100 m. from the left bank and between 85.0 km. – 85.6 km. of the Kilia Mouth 200 km. from the left bank.

Depth at the places of anchorage is 7.0 m., the holding ground is soft mud.

RESTRICTIONS: Draft and length of vessels entering the port of Izmail should be the same as for vessels navigating through the Sulina Channel (7.0 m.) or Prorva Canal (4.0 m. – 4.8 m.). There are no restrictions for day or night entry to the port.

All navigation within the port area is controlled. Zone of regulation begins at the 80th km. up to the 100th km.

Masters of the vessels entering the port area should make contact with the Vessels' Traffic Management Service and inform them of the name of the vessel, draft and place of destination. The Vessels' Movement Control Post will advise the place to anchor. Entry into the port area, shifting and any other movement of the vessel can be arranged with permission of the Vessels' Movement Control Post only. No passing allowed within the port area.

Permissible speed of movement should not exceed 8 km./hr. while navigating upstream and 12 km./hr. while navigating downstream.

HEALTH: International code quarantine signals are to be shown on arrival and Free Pratique is given by the quarantine doctor who will board the vessel to examine Master's Health Declaration.

RADIO/VHF: Radio communication can be established through the port radio station "Izmail Radio", some data of which is given below:

Safety Channel – Channel 16
Central Port Radio Station – Channels 16, 27, 22,
call sign "Izmail Radio"
Inspection of the Port Control – Channel 9,
call sign "Izmail Radio-2"
Vessels' Movement Control Post – Channel 14,
call sign "Radio-17"
Inflot Shipping Agency – Channel 16,
call sign "Inflot Izmail"
While navigating between 80th and 100th km. of the Kilia Mouth all vessels are to keep watch on Channel 16.

RADAR: There is no Port Radar Service.

TUGS: Tugs shall be ordered by the Master as directed by the Pilot.

BERTHING: Vessels drawing up to 7 m. can moor at berths with same depths alongside.

Quays are equipped to handle general cargoes (equipment, steel, cars, etc., containers including), bulk (coal, ore, minerals, building materials), timber and perishable goods (butter, vegetables, fruit).

There are enclosed warehouses, open concrete floor sheds and a grain elevator.

CRANES: On the quays there are portal cranes of 5 tons – 40 tons capacity. There are also floating cranes of 16 tons capacity and other cargo handling equipment and machinery. Mobile cranes of up to 25 tons capacity available.

SPECIALISED CARGO-HANDLING FACILITIES: There are specialised berths for handling ISO containers. There are no berths for handling liquid chemicals or LPG carriers.

BRIDGES: No bridges within the port area.

STEVEDORES: The port works round-the-clock, including holidays. Usual ETA advice required.

MEDICAL: No advance notice except in case of serious illness. Hospital and Dental facilities are available.

TANKERS: No tanker berths available.

FRESH WATER: Fresh water can be supplied from the quays or delivered by barges

FUEL: Bunkers available.

GANGWAY/DECK WATCHMEN: Gangway watchmen compulsory, carried out by ship's crew. Ship's gangway used.

OPENING/CLOSING HATCHES: According to the customs of the port opening and closing of hatches is usually by ship's crew but it can also be done by stevedores if requested by Master in advance.

CUSTOMS ALLOWANCES: No restrictions on crew consumption of tobacco and alcohol on board. It is prohibited to take these items ashore.

IDENTIFICATION CARDS: Required for crewmen going ashore.

REPAIRS: Hull and machine repairs can be effected.

REPATRIATION: Can be arranged.

AIRPORT: Regular connections with internal services.

TIME: GMT plus 3 hours. GMT plus 4 hours in Summer.

TIDE: Changes of water level in the river are due to effects of the wind and seasonal increase and decrease of the amount of water brought down from the shore. In Winter; rise of water level is due to the ice piling up. Max. range of the water level is about 4.0 m. – 6.0 m.

Max. rise of water level is in April, May and June, usually caused by Easterly winds. The least water level is observed in August, September and October, due to Westerly winds.

HOLIDAYS: New Year's Day (1st January), International Women's Day (8th March); Days of International Workers' Solidarity (1st and 2nd May); World War II Victory Day (9th May); USSR Constitution Day (7th October), Anniversay of the Great October Socialist Revolution (7th and 8th November).

POLICE/AMBULANCE/FIRE: Police, Tel: 9-03-16; Ambulance, Tel: 9-06-00; Fire, Tel: 9-05-24.

SHORE LEAVE: Allowed up to midnight.

AUTHORITY: The Port of Izmail Authority, 7 Port Street, 272630 – Izmail, U.S.S.R. *Tel:* 9-04-06. *Cables:* Morport Izmail.

AGENT: Izmail Inflot Shipping Agency. Postal address: 14 Port Street, 272630 – Izmail, U.S.S.R. Cables: "Inflot Izmail". Tel: 9-01-81, 9-05-59, 2-04-63. Telex: 412699.

KHERSON: 46.37 N. 32.37 E. (See Plan)

GENERAL: The sea and river commercial port of Kherson is situated on the right bank of the Dnieper River and on the left bank of the Koshevaya River.

The port is open for navigation all the year round but in severe Winters ice-breaker assistance is required.

Ice at the estuary of the Dnieper finally disappears in the first half of March.

PORT LIMITS: A vessel is considered to be an "arrived ship" and laytime will commence on arrival to the inner roadstead of the port.

DOCUMENTS: *Quarantine:*
Maritime Declaration of Health.
Valid Derat Certificate.
International Vaccination Certificates.
Customs:
Money List.
Complete copy of each Manifest for goods onboard.
Immigration:
Crew List – 5 copies.
Passenger List – 5 copies.
Seaman's Book or Passport for each person.
General Declaration – 5 copies.

CERTIFICATES:
Construction Certificate.
Safety Equipment Certificate.
Radio Safety Certificate.
Load Line Certificate.

APPROACHES: The port is accessible for sea-going vessels. The approaching channel is very well marked by navigation marks; therefore, there are no difficulties in navigating a vessel along it when entering or leaving the port.

PILOTAGE: Compulsory. Navigational range marks, leading marks of Stanislov, Adjigolsky beacons, Verbchansky and Maliy Kasperovsky leading light buoys, and spar buoys. Master advises Port Controller and Inflot Agency ETA minimum of 96 hours prior notice.

Masters of vessels proceeding to the port of Kherson must advise ETA to the Harbour Master through Inflot Agency 48 hours, 24 hours and 6 hours prior to arrival at the point of Lat. 46° 15′ 06″ N., Long. 30° 56′ 01″ E.

Master shall order a Pilot via the Inflot Shipping Agency 8 hours and confirm the order 2 hours prior to leaving the port of Kherson.

Masters of vessels proceeding to the Port of Kherson must advise ETA both to Inflot Ilychevsk and pilot station Ilychevsk 48, 24 and 6 hours prior to arrival at point Lat. 46° 15′ 16″ N., Long. 30° 56′ 01″ E. On arrival at the point Masters must call Inflot Ilychevsk or pilot station on VHF Channel 16.

ANCHORAGES: A part of the Dneiper River from the Northern border of the town of Kherson, nearly up to the Maly Potemkin Island, is considered as the Port of Kherson Roads.

The anchorage for foreign flag dry cargo vessels is situated in the area restricted by 2 imaginary lines of the leading marks located on the left bank of the Dnieper River, upwards from the mouth of the Konka River and lower of basin (creek) No. 2.

The recommended anchorage for foreign flag tankers is situated in the area stretching down the river from the oil piers towards leading line No. 7, S.W. of the upper leading marks clearing the place where a submarine cable is laid.

RESTRICTIONS: The permitted draft for passing through the channel is 7.6 m. but it may vary depending on weather conditions.

In the Summer the channel is open for navigation 24 hours a day.

Speed of vessels having draft over 5 m. should not exceed 10 knots whilst navigating through the channel.

The port receives vessels with length up to 200 m.

Navigation through the channel in restricted visibility is strictly prohibited.

It is prohibited by local quarantine authorities to discharge sea-water ballast into the harbour.

HEALTH: No automatic Pratique. Cable to Inflot name and nationality of the ship, ports of call during last month, nature of cargo, number of crew and passengers, condition of health of all onboard with details of any sickness.

RADIO: Ship-shore radio link can be established through the port radio station operating 24 hours on the following frequencies:

	Frequencies (kHz)		*Type of trans-mission*	*Time of work*
Call sign	*Working*	*Calling*		
UHZ	500/487	500/468	A1A	H24
"Kherson Radio"	2182	2182	P3E	H24
"Mesyats" (CPR)**	156.8*(16)	156.8*(16)	F3E	H24
"Mesyats-2" (Harbour Master)	156.45*(9)	156.45*(9)	F3E	HX

*Frequencies are given in MHz.
**CPR – Central Port Radio Station.

TUGS: Compulsory for mooring and unmooring or shifting. Number as required by Pilot but the charge depends on n.r.t. of the ship and not on the number of tugs used.

Tugs available: 2×1,412 b.h.p., 2×706 b.h.p., 1×352 b.h.p. and 1×65 b.h.p.

BERTHING: 9 berths, depths up to 8.25 m.

Mooring is effected with port Pilot assistance. Number of tugs required for mooring is determined by Pilot with Master's consent, ship's lines used.

Cranes of up to 10 tons capacity are operated on the quays and by the warehouses. There are floating cranes with lifting capacity of up to 100 tons and other cargo handling equipment, intra-port transport included.

Berths of the port, with depths of up to 8.25 m. alongside are equipped to handle general and bulk cargoes (ore, chemicals, building materials), metals, grain, timber, cotton, cement, food products, etc., as well as passenger traffic. There are enclosed warehouses, a grain elevator and open concrete floor storing spaces without roofs. There is a refrigerated warehouse at No. 4 berth. Cargo is generally loaded/unloaded by shore cranes but ship's derricks are always to be ready for use.

TIDE: Changes in the water level observed in the port are due to the effect of the wind and variation in atmospheric pressure. The maximum range of the water level caused by winds may reach 2 m.

The changes of the water level due to variation in atmospheric pressure ("Seish" effect) are observed at times. They may last from a few minutes up to several days and may reach 0.58 m.

MEDICAL: Hospital facilities available.

DENSITY: 1000.

FRESH WATER: Available by barge. Rate 50 t.p.h.

FUEL: Not available. Bunkering takes place at Odessa.

OPENING/CLOSING HATCHES: Opening and closing of hatches is usually done by the ship's crew. It may also be done by port workers for vessel's account.

REPAIRS: Only minor repairs can be carried out. There are no dry docks in the port.

TIME: GMT plus 3 hours. Daylight saving time, GMT plus 4 hours from last Sunday in March to last Sunday in September.

REPATRIATION: Crew changes and repatriation possible.

SHORE LEAVE: Possible from 0800 hrs. – 0000 hrs. No restrictions for Masters.

AUTHORITY: Port of Kherson Authority, 4 Ushakov Av., 325025 Kherson, U.S.S.R. *Tel:* 29-14-02, 2-38-48. *Cables:* Morport Kherson.

AGENT: Kherson Shipping Agency "Inflot". Postal address: 11 Petrenko Street, 325004, Kherson, U.S.S.R. Tel: 29-13-51, 2-35-96. Telex 232721. Cables: "Inflot Kherson".

KHOLMSK: 47.03 N. 142.03 E. (See Plan)

GENERAL: The seaport of Kholmsk is situated on the Western coast of Sakhalin Island, in the Tartarsky Strait of the Japan Sea and at the head of Nevelskoy Bay.

The port is open for navigation all the year round.

The outer roads of the port are bounded by an arc of 7 cables length radius, the centre of which is marked with a light located on the Southern mole of the Commercial Harbour.

The port is divided into 3 parts: The Kovsh (a basin), The Commercial and Fishing Harbours. The Commercial Harbour is situated in the centre of the port area. It is protected by the Southern and Northern moles. The entrance to the Harbour 150 m. wide, is situated between these 2 moles. Due to shoal water along the coast, there is not much space for vessels manoeuvrability in the Commercial Harbour. Cargo berths are situated in a basin (The Kovsh) of the Southern part of the Harbour.

The Port of Kholmsk, due to its position, size and weather conditions in the area, cannot be used as a sheltering port.

During Westerly and N.W'ly gales, particularly in the Autumn and Winter (October — March) the heavy sea swell penetrates into the Kovsh (mainly from the N.W.) causing the variable current with surge (the "Tvagun"). Due to this phenomena the stay in port is not safe therefore Masters of all vessels are recommended to leave the port for sea after having received a storm warning of a gale coming from Westerly or N.W. directions.

All vessels proceeding to the port of Kholmsk in the Autumn and/or Winter must have available on board a sufficiency of fuel, fresh water, provisions and strong manila ropes, be seaworthy in all respects, thus ensuring vessel's safety during a possible stay in the open sea roadstead.

In case there are no vacant berths in the port, vessels are not allowed to enter the harbour without prior permission.

It is also prohibited to enter the harbour after a storm warning has been received by vessel despite the fact that there are vacant berths in the port.

DOCUMENTS: Refer to beginning of U.S.S.R. section.

PILOTAGE: Compulsory. Pilot meets a vessel in the outer roads. In the event of bad weather, when Pilot is unable to come on board, vessel should follow in the wake of pilot boat.

ANCHORAGES: There are no anchorages protected from the wind in the Nevelskoy Bay.

During off-shore winds vessels may anchor in the outer roads situated opposite the port entrance. The outer roads are open to Westerly winds.

Masters should bear in mind that during the period of navigation fish nets are usually laid in the outer roads. The seaward side of the border of the fish nets, situated about 8 cables length off-shore, is usually marked by wooden buoys with flags.

Anchorage in the outer roads may also be obtained at 4 – 6 cables length off shore. Depths are from 18 m. to 20 m. Holding ground sand and stone.

A vessel should proceed to the anchorage along the leading line of the port of Kholmsk leading lights. At a distance of half a mile off the port entrance, a vessel should steer off the leading line at 2 – 3 cables length and then drop anchor.

The holding ground is better in the Southern part of the outer roads than in the Northern part.

When at anchor, a vessel may not approach the leading line closer than 1.5 cables length.

RESTRICTIONS: Vessels may enter the port at any time of day or night.

MAX. SIZE: The maximum permissible draft for entry to the port is 6 m. Length not over 105 m. and beam up to 20 m. Since depths in the channel may vary at times, the Port Authorities shall undertake to advise the Masters of incoming vessels accordingly.

HEALTH: Not later than 6 hours before arrival, Master to radio "Inflot" advising health condition on board. Health Authorities board together with Customs and Immigration and if all found in order Free Pratique is granted. If vessels enter after calling at another U.S.S.R. port, Pratique is automatic.

RADIO: Ship-shore radio link can be established through the port radio station Kholmsk Radio operating 24 hours a day on the following frequencies:

	Frequencies (kHz)		*Type of trans-mission*	*Time of Work*
Call sign	*Working*	*Calling*		
UFO	500	500	A1A	H24
"Kholmsk Radio"	2182	2182	H3E	H24
"Kholmsk Radio-2"	2720	2720	H3E	H24
(Port Controller)	156.45*(9)	156.45*(9)	F3E	H24
"Kholmsk Radio-5"	156.7*(14)	156.8*(16)	F3E	H24
"Kholmsk Radio-1" (Vessel movement control post)	2720	2720	H3E	H24

*Frequencies are given in MHz.

RADAR: No shore based radar.

TUGS: Two tugs of 300 h.p. and two tugs of 1,200 h.p. are available. Number of tugs required for assistance is usually agreed between Pilot and Master. Tugs normally join the vessel in the inner area of the port

BERTHING: Berths with depths up to 7.3 m. alongside, are equipped to handle general and bulk cargoes, metals, timber, food products, etc., as well as passenger traffic.
CRANES: Cranes of up to 40 tons capacity are operated on the quays. There are also other cargo-handling equipment and inter-port transport facilities. There are enclosed warehouses and open concrete floor sheds.
STEVEDORES: Arranged through "Inflot".
MEDICAL: All requirements should be ordered in advance through "Inflot" if medical assistance required aboard.
FRESH WATER: Available from berth, road delivery not possible.
FUEL: Not available.
CONSULS: None.
REPAIRS: Only minor repairs can be carried out.
DRY DOCKS: None.
GANGWAY/DECK WATCHMEN: Gangway watch compulsory and carried out by crew.
HATCHES: Opening and closing of mechanised hatches is always done by the ship's crews.
CUSTOMS ALLOWANCES: No restrictions on tobacco and alcohol on board ship. Only tobacco required for personal consumption may be taken ashore.
AIRPORT: No local airport.
SURVEYORS: Inspectors of the Shipping Register of the U.S.S.R. only.
HOLIDAYS: New Year's Day; March 8th (World's Women's Day); May 1st, 2nd (Labour Day); May 9th (Victory Day); October 7th (U.S.S.R. Constitution Day); November 7th, 8th (Great October Socialist Revolution Day). Cargo work can be arranged on these days.
POLICE/AMBULANCE/FIRE: Police Tel: 602. Ambulance Tel: 603. Fire Tel: 601.
TELEPHONES: Can be arranged on board.
TIDE: Changes in the water level are of small account. They are mainly due to the irregular diurnal tides. The maximum range of the water level observed is 0.4 m.
TIME: GMT plus 11 hours. Summertime (April 1st-October 1st) GMT plus 12 hours.
AUTHORITY: The Port of Kholmsk Authority, 39 Sovetskaya Street, 694620 Kholmsk, Sakhalin Is., U.S.S.R. *Tel:* 96-3-05. *Telex:* Via Morflot Kholmsk 412613 SSC SU. *Cables:* Morport Kholmsk. *Contact:* Harbour Master.

AGENT: The Sakhalin Main Maritime Agency Morflot. 6 Morskaya Street, Port of Kholmsk, Sakhalin Island 694620, U.S.S.R. Cables: "Morflot Kholmsk". Tel: 222-86; 220-80. Telex: 412613 SSC SU.

KILIA: 45.26 N. 29.17 E. (See Plan)

GENERAL: The Port of Kilia is situated on the left bank of the Kilia inlet of the Danube River, 47 km. from the estuary. The depths of the water within the port area vary from 3 m. up to 22 m. The holding ground is clay and mud. The season of navigation in the port area lasts from March till December depending on time when the Danube River is frozen over.
PILOTAGE: Carried out by the Pilot service of the port of Izmail.
ANCHORAGES: Allowed in the port area, in 5 m. depths according to the Pilot's instructions.
RESTRICTIONS: Vessels can enter or leave the port at any time of day or night. Movement of vessels during fog is not allowed.
RADIO: Communication can be effected via the port radio station viz. "Kilia-Radio".

	Frequencies (MHz)		*Type of*	
Call Sign	*Working*	*Calling*	*trans-mission*	*Time of work*
Kilia-1	156.8(16)	156.8(16)	F3E	H24
(CPR)*	157.25(25)	157.25(25)	F3E	H24
Kilia-2	156.8(16)	156.8(16)	F3E	H24
(Harbour Master)	156.45(9)	156.45(9)	F3E	H24

*Central Port Radio Station.

Notice of Arrival: Masters of vessels going to the port from seaward via Kilia Inlet should advise port of Izmail Harbour Master their ETA 24 hours prior to arrival at the Reception Buoy area. More precise time of arrival should be advised at a later time.
TUGS: Approaching and shifting berth is performed without tug assistance.
BERTHING: Cargo vessels drawing up to 7 m. are handled with the use of buffer barges. Berths of the port are equipped to handle general cargoes, metals, timber, coal. Embarking/disembarking of passengers is also performed. There are portal cranes of up to 6 tons capacity, a warehouse and open storage areas covered with concrete. There are also floating cranes of up to 5 tons capacity which are used for handling cargo in the Outer Roads. The loading of grain is carried out at the grain elevator berth by its own equipment.
FRESH WATER: Not available.
FUEL: Not available.
REPAIRS: Not possible.
TIME: GMT plus 3 hours. GMT plus 4 hours in summer.
CONSULS: None.
AUTHORITY: Port of Kilia Authority. 4, Zheleznyakov Street, 272610 Port of Kilia, Odessa Region, U.S.S.R. *Cables:* Port Kilia.

KLAIPEDA: 55.43 N. 21.07 E. (See Plan)

GENERAL: A Baltic seaport, Klaipeda is situated in a narrow strait called the Morskoi Canal, which connects the Kursky Gulf with the Baltic Sea.

The Port of Klaipeda comprises the Morskoi (Sea) Canal consisting of 2 harbours: the Zimnyaya and Zavodskaya, the Fishing Port, Ferry Terminal and the Dane River quays situated by the roadway-bridge.

The port is open for navigation all the year round.

During strong winds blowing from directions between the S.W. and N.W., lying in the port is dangerous due to strong waves and surge (called "Tyagun"). In this event vessels must proceed to sea.
DOCUMENTS: Refer to beginning of U.S.S.R. section.
APPROACHES: The width of the approaching channel to the port is 100 m. and depth 11.5 m. Depths of the channel at a distance of 400 m. – 600 m. from the entrance to the Sea Canal are subject to changes due to lots of sand and mud brought down from the Kursky Gulf by the Spring floods, in particular. The entrance to the Sea Canal is protected by the Northern and Southern moles.

The length of the fairway of the Morskoi (Sea) Canal from the entrance up to the Secluma-Kyaules-Nugara shoal at the entrance to the Kursky Gulf is 4 miles, width varies from 180 m. to 300 m. and the depths are from 6 m. to 9 m. at the mean water level.

The permissible drafts for vessels navigating along the Morskoi (Sea) Canal are as follows: 10.6 m. to 8.0 m. from the canal entrance up to the Zimnyaya (Winter) harbour, but further up to the Fishing Port situated 1.5 miles and Ferry Terminal situated 2.5 miles to the South of the Dane River estuary – not more than 7.5 m. From the Fishing Port up to the Timber Harbour – not more than 5.0 m.
PILOTAGE: A Pilot boat usually meets a vessel at Light Buoy No. 1 (Lat. 55° 44′ N., Long. 21° 00′ E.). It carries the Pilot flag by day and lights prescribed for a Pilot boat by night.

Pilot's watch is kept 24 hours a day except in periods of dense fog and strong S.W. – N.W. winds over Force 7 Beaufort Scale.

The Master of a vessel shall order a Pilot via the Inflot Shipping Agency in advance.

The port is equipped with a coastal radar vessels' movement control system.
ANCHORAGE: Anchorage can be obtained in the outer roads at Receiving Light Buoy No. 1 (Lat. 55° 44′ N., Long. 21° 00′ E.).

The outer roads anchorage for foreign vessels is situated at a distance 3.5 miles (N.W.) from Receiving Light Buoy No. 1. Depths from 31 m. – 35 m.

The holding ground is sand and clay. Anchorage in the outer roads is not safe during heavy seas caused by Westerly winds.
RESTRICTIONS: There are no restrictions for the entry to the port.

The width of the approaching channel to the port is 100.0 m. and depth 12.0 m.
MAX. SIZE: Length not greater than 185 m. and breadth unlimited. Max. permissible draft for all vessels entering the port, 10.6 m.; and for tankers loading at installations outside main port area, 10.5 m.
RADIO: Vessels can establish radio contact through the port radio station Klaipeda Radio operating 24 hours per day on the following frequencies:

	Frequencies (kHz) or Channel		*Type of*	*Time*
Call sign	*Working*	*Calling*	*trans-mission*	*of work*
UNM-2	500	500	A1	H24
	455	454	A1	H24
	4229	4183	A1	HX
	6427	6275.25	A1	HX
	8701	8370	A1	HX
	12703	12552	A1	HX
Klaipeda Radio	2182	2182	A3	H24
Klaipeda Radio – 1 (ODIN) (CPR)**	16, 3, 26, 27		F3	H24
Klaipeda Radio – 2 (DVA) (Dispatcher of Port)	14		F3	H24
Klaipeda Radio – 15 (Pyatnadtsat) (Oil Harbour)	7		F3	H24
Klaipeda Radio – 5 (Pyat) (Pilot Control)	16, 9		F3	H24
Klaipeda Radio – 17 (Semnadtsat) (Shore Radar Service)	9, 67		F3	H24

**CPR – Central Port Radio station.

Vessel traffic in the roads and harbours is governed by the Shore Signal station equipped with radar which gives all possible information for ensuring safe pilotage.
TUGS: Ordered by Pilot if necessary. Mooring and unmooring of large sea-going vessels can be effected with tugs' assistance only. Number of tugs to be ordered depends on the weather conditions and can be agreed upon between Master and Pilot. Master should order tugs by radio well in advance. Ship's lines to be used.
BERTHING: No specific requirements. Vessels allocated berth according to kind of cargo to be loaded/discharged and their turn.

The quays of the port with depths alongside of up to 10.6 m. are equipped to handle general, bulk and liquid cargoes. There are enclosed warehouses and concrete floor sheds.

Cranes of up to 40 tons capacity are operated along quayside and by warehouses. There are also other cargo handling facilities including floating cranes up to 50 ton capacity.
STEVEDORES: Report 12 days, 96 hours, 24 hours and then 12 hours prior arrival giving ETA, and 72 hours then 12 hours prior arrival advising perishable goods, characteristics of vessel, gross capacity, number and measurement of hatches, tween-decks, shelter-decks, description and quantity of cargo, stowage plan, heavy lifts, pieces of above 3 tons each especially indicated. Day and night loading/discharging operation, Sundays and holidays included.
MEDICAL: Master to advise by radio prior arrival if medical attendance required on board.

TANKERS: Three berths. Max. draft 10.5 m. Shore facilities for discharge of ballast.
FRESH WATER: Most berths supply by shore installations, otherwise barge.
FUEL: Deliveries only by bunker barge.
GANGWAY/DECK WATCHMEN: Compulsory for gangway checking. Guard net and life buoy required.
OPENING/CLOSING HATCHES: Normally done by crew.
CONSULS: No Consuls at Klaipeda.
REPATRIATION: No facilities for crew changes. Arranging any necessary repatriation at Master's request effected by Immigration Authorities.
AIRPORT: At Palanga (25 km. from Klaipeda), served by regular lines; Palanga-Moscow, Palanga-Leningrad, Palanga-Vilnius
POLICE/AMBULANCE/FIRE: Police, Tel: 02; Ambulance, Tel: 03; Fire, Tel: 9300, 001.
CERTIFICATES: All ship certificates required on every call.
CUSTOMS ALLOWANCES: Cigarettes and wine/spirits on board limited by personal requirements; take ashore max. 2 packets cigarettes, no wine/spirits.
REPAIRS: All kinds of repairs for vessels of 10,000 d.w.t. can be effected.
TIME: GMT plus 3 hours in Winter and GMT plus 4 hours in Summer (1st April – 1st October).
TIDE: There are periodical alterations in the water level, chiefly due to the effects of the wind. In general, strong Westerly, Northerly, N.W. and sometimes S.W. winds raise the water and Southerly and Easterly winds lower it.

The water level usually begins to rise suddenly. It rises very quickly but lasts for a very short period of time. The max. difference between high and low level is usually observed in Autumn and Winter.

Sometimes the changes in the water level can be caused by the considerable variation in atmospheric pressure ("Seish" effect).
TELEPHONES: May be arranged on board.
SHORE LEAVE: Crew members allowed ashore with shore-pass obtainable from Immigration Authorities.
GENERAL: In case of stormy weather or dense fog vessels are lying at Outer Roads until entering permitted by Harbour Master. In such cases vessels lying alongside berth to be shifted to Inner Road.

AUTHORITY: The Port of Klaipeda Authority, Ul. Plachioji 18, 235801 Klaipeda, U.S.S.R. *Tel:* 6-45-94. *Telex:* 278239. *Cables:* Morport, Klaipeda. *Contact:* The Harbour Master.

AGENT: "Inflot" Agency. Address: 235801 Klaipeda, Ul. Geguzhes, 8. Tel: 9-41-51, 6-42-70. Cables: Inflot, Klaipeda. Telex: 278113 A and 278114 B.

LENINGRAD: 59.53 N. 30.13 E. (See Plan)

GENERAL: A Baltic Sea port, Leningrad is situated on the islands of the Neva Delta, at the head of the Nevskaya Guba (Neva Bay), in the Eastern extremity of the Gulf of Finland. Year-round navigation is possible with ice-breaker assistance from the end of November until middle of April. Ice first begins to form in the middle of November, when usual Winter frosts come, and in January (time varies with the season) all the area becomes completely covered with fast ice.
DOCUMENTS: Refer to beginning of U.S.S.R. section.
APPROACHES: The Kronstadt Korabelny Farvater (Kronstadt Ship's Channel) which is about 12 miles in length, extends from the port of Leningrad Entrance light buoy to the Leningrad Morskoi Canal, which is about 15 miles in length, and leads to the entrance of the sea commercial port of Leningrad. The least bottom width of about 80 m. is in the part of the Canal which is protected by 2 dams (moles).
PILOTAGE: Pilots usually board and disembark vessels at the port of Leningrad approaching light buoy (Lat. 60° 02′ N., Long. 29° 26′ E.). In case of bad weather a vessel should follow the pilot boat up to the Kronstadt Roads where a Pilot will come aboard the ship.

Leningrad pilot boat on VHF Channel 16 and 9 throughout 24 hours. Call sign "Leningrad Pilot".

There is a Port Coastal Radar Vessels' Movement Control System ensuring vessels' radar pilotage along the Kronstadt Korabelny Fairway and the Leningrad Morskoi Canal in case of low visibility and during absence of floating navigational marks. Radar pilotage is carried out by a Pilot on board a vessel.
ANCHORAGES: Vessels approaching the port from seaward should take anchorage off the port of Leningrad Entrance Light Buoy. The depths in the Roads are between 20 m. – 25 m. and the holding ground is mud and sand.

Vessels anchored at Outer Roads and berthed in the port are requested not to operate VHF on Channels 6, 8, 9, 11, 12, 13, 14 or 26 for intership communications.
RESTRICTIONS: No restrictions on night entry, no tide in Leningrad. Vessels with drafts 8.5 m. and more, and length 170 m. and more, must be towed when proceeding in the Leningrad Morskoi Channel from the Lesnoi Mole Roads (Timber Mole Roads) up to the Neva Gates.

All vessels navigating within the port must keep strictly to the following regulations:

(a) Vessel's speed should not exceed 10 knots when navigating in the Kronstadt Korabelny Farvater and in the open part of the Leningrad Morskoi Canal (from the entrance up to the moles).

(b) When navigating in the channel between the moles of the Leningrad Morskoi Canal as well as in the Bolshaya Neva River from the Neva Gates up to Lieutenant Schmidt Bridge and also in the Ekateringofka River, vessels speed should not exceed 3 knots.

(c) In the Inner Roads and in the port harbours, Masters should navigate with a speed ensuring the safety of vessel but never exceeding 3 knots.

MAX. SIZE: Draft restriction 11.0 m. in fresh water under normal weather conditions. Length not over 260 m. Breadth up to 40 m.
HEALTH: Master coming from foreign port shall report every sick passenger or crewman; Health Authorities board together with Customs and Immigration and if find all in order grant Free Pratique. Each vessel shall produce Derat Certificate and Sanitary Patent.
RADIO: Cable Agent "Inflot" ETA, draft and other data, information required via Leningrad Radio Station (call sign URD). All vessels when approaching the port of Leningrad should establish radio contact via the Leningrad Coastal Radio Station operating 24 hours a day on the following frequencies:

Call sign	*Frequencies (kHz)* *Working*	*Calling*	*Type of trans- mission*	*Time of work*
"Leningrad-Radio"	2182	2182	J3E	H24
"Leningrad-Radio"	156.8*(16)	156.8*(16)	F3E	H24
(CPR)**	161.9*(26)	157.3*(26)	F3E	H24
"Leningrad-Radio"	156.8*(16)	156.8*(16)	F3E	H24
(Vessels' movement control post)	156.45*(9)	156.45*(9)	F3E	H24

*Frequencies are given in MHz.
**CPR – Central Port Radio Station.

Note: Emergency calls with regard to collisions, fire on board and dangers to human life may be given on VHF Channel 9. Call sign of traffic controller is "Leningrad Port Control".

Port radar station gives all possible information to any vessel navigating in the Kronstadt Korabelny Farvater and Leningradsky Morskoi Canal during restricted visibility, from the Leningrad Entrance Light Buoy (Lat. 60° 02′ N., Long. 29° 26′ E.) up to the dams (moles) of the Leningrad Morskoi Canal. Navigation is usually controlled by a Pilot on board the vessel.

Signals for vessels approaching the entrance to the Commercial Port of Leningrad from seaward are hoisted at the pilot vessel.

Traffic prohibition signals, when the pilot vessel is absent from her usual position may be exhibited at a vessel specially designated for this purpose.
RADAR: Pilot in contact with radar service. Also see "Radio".
TUGS: Tugs up to 1,200 h.p. are available. Normally join incoming vessels at Inner Road. Ship's lines usually used.

The number of tugs a Master should order for inward and outward towage as well as for shifting berths in the harbour depends on Pilot's advice.
BERTHING: Berths of the port, with depths alongside of up to 11.5 m. are equipped to handle general and bulk cargoes (coal, ores, grain, building material), sugar, metals, timber products, etc. There is also a passenger and container terminal, warehouses, cold stores and concrete floor sheds.

Opening and closing of hatches is usually done by the ship's crew, otherwise according to the charter party conditions.
CRANES: Shore cranes 5 tons – 40 tons. Floating cranes 10, 25, 40, 60, 100 and 350 tons. Fork lifts 1 – 25 tons.
TIDE: Considerable rises of water level may be caused by strong Westerly winds – and falls by Easterly winds. Usually the changes in water level are greater during the Autumn and Winter months. During Autumn and Winter the range of level may reach 1.2 m. from the MWL and sometimes even more.

During Spring and Summer it is never more than 0.5 m. The greatest rises in the water level are observed in the Neva Bay. The extreme difference in level between the maximum rise and the minimum fall of these seasonal changes observed is about 3.5 m. At the mouth of the Neva River the greatest changes in the water level are caused by the S.W. Autumn gales. The difference in level usually reaches 0.2 m. - 0.3 m. and only sometimes up to 1 m.
STEVEDORES: Ordered by Agent.
MEDICAL: Masters to advise Agent prior arrival if medical attendance required aboard.
DENSITY: Fresh water in port area.
FRESH WATER: Most berths supplied by shore installations, otherwise barges. Also available at Outer Roads Anchorage.
FUEL: Bunkers available, usually delivered by lighters.
FIRE PRECAUTIONS: No smoking allowed in port area, except in places specially allocated.
GANGWAY/DECK WATCHMEN: Not compulsory.
OPENING/CLOSING HATCHES: According to charter party.
CERTIFICATES:

- Passenger Ship Safety.
- Safety Equipment.
- Safety Radiotelephony.
- Safety Radiotelegraphy.
- Exemption Certificate.

CUSTOMS ALLOWANCES: No restrictions on board.
IDENTIFICATION CARDS: Needed, will be given on arrival.
CONSULS: The Consulates of Czechoslovak Socialist Republic, German Democratic Republic, France, German Federal Republic, Hungarian People's Republic, Italy, Finland, Iran, Japan, Polish People's Republic, People's Republic of Bulgaria, Republic of Cuba, Sweden and United States of America are situated in Leningrad.
DRY DOCKS: *Floating Docks:*

No.	*Length* m.	*Depth* m.	d.w.t.
1	130	6.2	6,000
2	90	6.2	4,000
3	140	6.2	8,000
4	168.5	6.2	15,000

SURVEYORS: 1. Cargo inspectors not available.
2. Inspectors of the Shipping Register of the U.S.S.R. only.
REPAIRS: All types of repairs for vessels of up to 20,000 d.w.t. can be carried out in the port.
TIME: GMT plus 3 hours. Summertime from 1st April – 30th September

HOLIDAYS: 1st January, 8th March, 1st, 2nd and 9th May; 7th October, 7th and 8th November.
POLICE/FIRE/AMBULANCE: Police 9692; First-Aid from Port 503; from Town 03; Port Fire 8509, 8536, 8973; Town Fire 01.
EMERGENCY CO-ORDINATION CENTRE: Contact "Inflot" or Leningrad Radio Station on the VHF Channel 16 and 26.
STORING: See "Prelims".

1. Vessels may be stored by barge or truck.
2. No restrictions.
3. Trucks may proceed alongside.
4. Fork-lift trucks may be used.
5. No exceptions from U.S.S.R. laws.
6. As a rule riggers are available.

AUTHORITY: Port of Leningrad Authority, Mezhevoi Kanal 5, Leningrad 198035, U.S.S.R. *Tel:* 251-08-46, 216-97-61. Timber Port: 216-97-75. *Telex:* 121501-121504. *Cables:* Seaport Leningrad. *Contact:* Oleg A. Terekhov, General Manager, who may be contacted through "Inflot".
AGENT: Main Maritime Agency "Inflot".
Postal address: 10 Gapsalskaya Str., Leningrad 198035, U.S.S.R. Tel: 251-12-38; 251-27-48; 251-73-26. Telex: 121 505 A, B and C.

MEZEN: 65.50 N. 44.04 E.

GENERAL: A commercial seaport, Mezen is situated at a distance of 22 miles to the South of the mouth of the Mezen River flowing into the head of the Gulf of Mezen, in the White Sea.

The port area is bounded on the North by a line connecting the Ryabinov and the Nerpinsky points and on the South by the parallel of 65° 50′ N., Northward of the town of Mezen. The anchorage at the Kuloi river mouth is also included at the port of Mezen area.

Vessels drawing 3.9 m. – 4.2 m. are usually grounded when loading timber alongside a floating berth of the timber-mill at low water.

The port is open for navigation from the end of May until October.

Tidal streams are observed in the Mezen river. The tide is semi-diurnal with two high waters and two low waters a day.
DOCUMENTS: Refer to beginning of U.S.S.R. section.
PILOTAGE: Compulsory. A Pilot meets a vessel at an anchorage buoy, at the Mezen River bar (Lat. 66° 12′ N., Long. 44° 04′ E.), at a distance of 22 miles off the port of Mezen. In the event of bad weather a Pilot at his discretion, may board a vessel in the outer roads.

Pilotage cannot be effected at night.

A Pilot cannot board a vessel earlier than 2 hours before the high water in the Semzha River, and a vessel may be piloted into the port not later than 1 hour before the water in the river reaches its high level.

Pilots do not board vessels in rough water (if the wind is over Force 6 Beaufort scale).

In case Pilot cannot embark a vessel in the outer roads, Master should follow in the wake of pilot boat up to Tolstic Point (Lat. 66° 04′ N., Long. 44° 05′ E.) where a Pilot will board ship. After leaving the port Master should disembark Pilot on to pilot boat at Tolstic Point and then follow it up to the outer roads of the port of Mezen.
ANCHORAGES: Anchorage can be obtained in the outer roads and in certain places of the Mezen River situated between the outer roads and the Kamenka settlement.

The outer roads are situated at the Mezen River mouth. They are bounded on the South by a line connecting the Ryabinov and the Maslyany Points.

Vessels in the outer roads are subject to effects of the N.W. and N.E. winds and heavy waves caused by them. The depths in the outer roads are about 7 m. The holding ground is sand, mud and rocks. Anchorage can be obtained in the inner roads with depths at low water of up to 4.5 m. – 5 m. (length of area is 1.5 mile and width up to 150 m.).

The inner roads are situated opposite the Kamenka settlement. A good anchorage can be obtained there by two vessels simultaneously. The anchorage at Burnovsky Point with depths from 4.5 m. – 5.5 m. can be used by two loaded vessels drawing up to 4.2 m.
RESTRICTIONS: Vessels may enter port only in daytime on high water. Masters have to pay full attention to Pilot's advice as river has varying bends.
MAX. SIZE: The permitted draft for the entry to the port is announced monthly by the Port Authorities. It should not exceed 3.9 m. – 4.2 m. The maximum permitted length is 70 m.
HEALTH: As for "Archangel".
RADIO: Vessels can establish radio contact through the port radio station Mezen Radio operating 24 hours a day on the following frequencies:

Call sign	*Frequencies (kHz)* *Working*	*Calling*	*Type of trans-mission*	*Time*
UZT	500	500	A1	HX
"Mezen-Radio"	2182	2182	P3E	H24
			J3E	H24
"Kamenka-2"	156.8*(16)	156.8*(16)	F3E	H24
(Port Controller)	156.45*(9)	156.45*(9)	F3E	H24
"Kamenka 5"	156.8*(16)	156.8*(16)	F3E	H24
(Harbour Master)	156.6*(12)	156.6*(12)	F3E	H24

*Frequencies given are in MHz.

Notice of Arrival: As per conditions of the "Soviet Wood" Charter Party.
BERTHING: The floating dams are used as mooring berths in the port. The depths alongside at low water are about 3.5 m. Vessels drawing 3.9 m. – 4.2 m. are usually grounded while loading at low water.

The port of Mezen specialises in timber exports but other cargoes are also handled at berths. Covered warehouses and open concrete floor sheds are available.

Tug assistance for mooring berths is not compulsory. Berthing is usually done in the daytime. Tugs, if necessary are ordered by Master according to the Pilot's instructions.

Rendering of Notice of Readiness and opening and closing of hatches are usually done in accordance with the "Soviet Wood" charter party.

Loading of timber is done by ship's winches and floating cranes with capacity 5 tons.
TIDE: The difference between two successive high waters and low waters is small but the range of the tide changes considerably. At the Kamenka settlement the mean range of the tide is 2.8 m. and the mean range of the spring tide is 3.1 m. At the Semzha River the mean range of the spring tide reaches 7.7 m. Everywhere in the Gulf of Mezen the differences in the duration of falling and of rising water are big and in some places of the Gulf of Mezen they may reach 5 hours.

Considerable changes in the water level are observed in the Spring. They are usually caused by the seasonal increase in the amount of water (due to melting snow) brought down by the rivers.
REPAIRS: Only minor repairs can be effected. There are no dry docks in the port.
FUEL: Supplies not guaranteed.
FRESH WATER: Fresh water can be supplied at the berths and by road tankers.
TIME: GMT plus 3 hours (all year round).
AUTHORITY: The Port of Mezen Authority, Morport, 164652 – Kamenka Settlement, Mezen, Archangel Region, U.S.S.R. *Tel:* 9-43-41 (Chief of the Port), 9-40-81 (Harbour Master). *Cables:* Morport Mezen.

AGENT: A branch of the Port of Archangel Main Maritime Agency "Inflot" at the Port of Mezen.

Port – "Inflot", Kamenka Settlement, 164650 – Mezen, Archangel Region, U.S.S.R. Cables: "Inflot Mezen-Kamenka". Tel: Exchange – 94391. Inflot – 94126.

MURMANSK: 69.00 N. 33.03 E. (See Plan)

GENERAL: A Barents Commercial Seaport and Fishing Port, Murmansk, is situated at the Eastern coast of the Southern elbow-shaped bend of the Gulf of Kolsky, between the Zeleny (Green) and Khaldeev Points. It is the last unfrozen port of the Northern seas route.

In very severe Winters the Southern and middle elbow-shaped bends of the Gulf get frozen over for a short period of time in February or March, during calm and frosty weather. In mild Winters drift ice is observed. The Northern part of the Gulf never gets frozen over. The port of Murmansk is open for navigation all the year round. In the event of ice conditions in the Gulf of Kolsky, ice-breaker assistance will be effected in compliance with the Harbour regulations in force.

The port area occupies nearly all Southern elbow-shaped bend of the Gulf of Kolsky. The port of Murmansk consists of 2 harbours: the Commercial and the Fishing Harbours.
DOCUMENTS: Also refer to beginning of U.S.S.R. section.

General Declaration, 5 copies (IMO Form).
Crew List, 6 copies (IMO Form).
Passenger List, 6 copies (IMO Form).
Crew Effects Declaration, 2 copies (IMO Form).
Cargo Declaration, 3 copies (IMO Form).

PILOTAGE: Compulsory. Pilot station is situated at Kislaya Gooba (position Lat. 69° 11.5′ N., Long. 33° 31.6′ E.) in Kolsky Bay, 9 miles South of the entrance. ETA to be given to Agents before arrival (see "Radio"). Since Pilots are not available at the pilot station any time, it is vital that ETA is duly given to the Agent to arrange a Pilot by indicated time. Pilot launch is distinguished by word "Pilot" in black letters on boat's superstructure. Pilots can be contacted on VHF Channel 16. Every vessel should drift whilst waiting for Pilot since depths in the Pilot station are too big to permit anchorage.

During rough sea Pilot is not able to board a ship at the Pilot station area. In this event vessel should follow the Pilot boat in the wake of it up to the Salny Island and embark a Pilot Southward of the Island at a place indicated by Pilot boat.
ANCHORAGES: At the pilot station depths are too great to permit anchorage, but there is sufficient sea room for vessel to await Pilot with engines stopped. Anchorage with depths from 20 m. – 35 m. is situated in the Southern elbow-shaped bend of the Gulf of Kolsky, Westward of the Kievarakskу leading line (the port inner roads). The holding ground is good.

Every vessel waiting for mooring berth should anchor Westward of the Kievaraskskу leading line but not obstructing other vessels' traffic.

It is strictly prohibited to lie at anchor Eastward of the Kievaraksky leading line. If, in case of emergency, a Master has to lie at anchor in the prohibited area, he should immediately report the fact to the Harbour Master of the Commercial port of Murmansk.
RESTRICTIONS: Vessels can enter the inner roads of the port at any time of day or night.

The speed of vessels navigating within the limits of the Gulf of Kolsky is restricted by the following limits:

(a) It shall not exceed 14 knots in the area bounded by the parallels of the Letinsky Point and the Northern side of the Salny Island.
(b) It shall not exceed 10 knots in the area bounded by the parallels of the Northern side of the Salny Island and Pinagory Point.
(c) It shall not exceed 6 knots in the area Southward of Pinagory Point.
(d) In case the wind is over Force 6 Beaufort Scale all movements of ships within the port basin and roads may be carried out with the Port Authorities' permission only.

MAX. SIZE: LOA 200 m., draft 12.0 m.

HEALTH: International quarantine signals to be used on arrival. No later than 6 hours before arrival at the inner area Master should radio Agents giving full details of state of health on board, and requesting Pratique which will be given on arrival.

RADIO/RADAR: Murmansk Radio operating 24 hours on 2182 kHz. Coastal radio station UMN operating 24 hours on 500 and 472 kHz. Coastal radio station UMV operating 24 hours on 13080 kHz.

Radio contact can be established through the port radio station Murmansk Radio, operating 24 hours a day on the following frequencies:

Call sign	*Frequencies (kHz) Working*	*Calling*	*Type of transmission*	*Time*
UMN	500	500	A1A	H24
"Murmansk Radio"	2182	2182	H3E	H24

Radar/VHF Link:

In the South circular bay, movement of all vessels is severely controlled by Coastal Radar Station (Murmansk Radio 9 – VHF Channels 12, 18 and 67). All vessels under way must make contact with it and carry out the recommendations received.

All vessels when at anchor or navigating in the Gulf of Kolsky must keep constant VHF watch on Channel 16.

The port radar station gives all possible information to any vessel navigating in the Gulf in the restricted visibility. Radar navigation is usually controlled by a Pilot on board a vessel.

Storm predictions are transmitted on Channel 16 VHF for vessels in the vicinity. Vessels at moorings are warned through the Agent "Inflot".

Notice of Arrival: Every foreign vessel on approaching the Gulf of Kolsky must ask for entry permission into the Gulf from the Toros Island signal station by exhibiting her International Code letters by day and at night her call sign should be made in Morse code by searchlight.

Advice to Agent: ETA first notice be given to "Inflot" by Shipowner 12 days prior to ship's arrival. Master has to inform Port via "Inflot" 48 hours and 12 hours before ship's arrival.

VHF: Port VHF maintains contact between ship and shore. Calling on Channel 16 working channel will be according to instructions from shore (Channels 7, 26 and 27).

TUGS: 4 tugs 1,200 h.p. – 2,300 h.p. Normally join vessel in the inner area of the port. Ship's lines as well as tug's lines can be used, the latter being supplied free of expense to vessel.

BERTHING: Main berths, depth alongside 32 ft. at low water. Average height of tide about 3.9 m. Vessels berth port or starboard side alongside at Master's and Pilot's discretion. The berths of the Commercial Harbour with depths alongside of up to 12.0 m. are equipped to handle general and bulk cargoes, metals, machinery, chemicals, foodstuff, etc.

There are enclosed mechanised warehouses for apatite including open concrete floor sheds.

Berths of the port are equipped with mobile electric cranes of up to 40 tons capacity. There are floating cranes with lifting capacity of up to 90 tons, and other cargo handling equipment and intra-port transport. Since loading/unloading is usually done by the port cranes, there are no specific requirements to vessel's cargo gear.

STEVEDORES: Arranged by Agent on basis of Master's ETA. Loading and unloading is carried on throughout 24 hours a day including holidays.

MEDICAL: Hospital and medical facilities available. Vaccination can be arranged. If doctor required on board Master should inform Agents by radio or VHF.

DENSITY: At the berth varies between 1006 and 1025.

FRESH WATER: Available from most berths, otherwise supplied by barge. To avoid delay recommended to order before arrival.

FUEL: All grades available. Delivered by barge. Advance notice required.

GANGWAY/DECK WATCHMEN: Not obligatory.

OPENING/CLOSING HATCHES: Usually performed by ship's crew.

CERTIFICATES: At first Russian port of call certificates of tonnage and those required by International Convention will be required for examination.

CUSTOMS ALLOWANCES: No restrictions on crew's consumption of tobacco and alcohol on board. It is forbidden to take these items ashore.

CONSULS: There is no local representation.

REPAIRS: All kinds of repairs can be carried out for vessels of up to 30,000 dwt.

DRY DOCKS: Large dock; length 225 m., width 45 m. Small dock; length 141 m. width 30 m.

TIDE: Changes of the water level in the Gulf are due to the tides. The tide is semi-diurnal with two high waters and two low waters a day. The difference in time of high and low water is about 6 hours. The range of the tide at mean neap is about 2.4 m. and at mean spring 4.5 m. The extreme range of water level is usually observed during the Autumn months and the lowest during Spring.

TIME: GMT plus 3 hours in Winter. GMT plus 4 hours in Summer. (April 1st – October 1st).

TELEPHONES: Ambulance, Tel: 003, 2395 and 2422; Fire service, Tel: 2252 and 2524.

DEVELOPMENTS: Reconstruction is being carried out in order to speed up loading of iron-ore and other cargoes.

AUTHORITY: The Port of Murmansk Authority, 19 the Port Passage, 183038 Murmansk, U.S.S.R. *Tel:* 2-22-60, 2-23-10, 2-55-65 (Harbour Master). *Cables:* Mortorgport Murmansk.

AGENT: The Port of Murmansk Main Shipping Agency "Inflot", 19 The Portovy Pr., 183038 Murmansk, U.S.S.R. Cables: "Inflot Murmansk". Tel: 2-56-66, 2-51-97. Telex: 126116.

NAKHODKA: 42.48 N. 132.53 E. (See Plan)

GENERAL: A commercial port, Nakhodka is situated in Nakhodka Bay, in the N.W. part of the Japan Sea.

Sometimes America Bay is covered with sludge which is frequently driven out by winds into the sea.

From the beginning of January to March the Nakhodka Bay is usually covered with thin ice which can easily be broken by vessels and driven out into the sea by favourable winds.

The port is open for navigation all the year round.

Changes of the water level in the Nakhodka Bay are of small account but the rise of the water level caused by strong Southerly winds blowing for considerable periods of time, may reach quite a high level.

The Northern part of the Nakhodka Bay from the entrance up to the line connecting the Lindgolm and Basnin Points is occupied by the Commercial port. The fishing port is situated Southward of this line.

The most dangerous wind for vessels lying in the Nakhodka Bay is the strong Southern wind of long duration caused by typhoons. The wind usually gives rise to the water level and produces waves of up to 3 m. height in the Bay.

DOCUMENTS: Refer to beginning of U.S.S.R. section.

PILOTAGE: Pilotage in the port of Nakhodka is compulsory for all vessels irrespective of nationality and ownership with the exception of the local coasters.

Since 1981 the following Traffic Scheme has been established in the Nakhodka Bay (Navarea XIII No. 28 04.04.81).

1. All vessels arriving at Nakhodka Bay ports from sea are requested to proceed to Nakhodka Bay lighted pivot mid channel Buoy No. 1 (Lat. 42° 43′ 31″ N., Long. 132° 56′ 26″ E.) which is the pilot boarding place.
2. Main ship channel No. 1 (740 m. wide) leads from lighted Buoy No. 1 along Nakhodka Bay entrance range axis 180° – 000°.
3. Channel No. 2 (740 m. wide) 050° – 230° leads from lighted Buoy No. 1 to Nakhodka Bay lighted pivot mid channel Buoy No. 2 (Lat. 42° 46′ 00″ N., Long. 133° 00′ 06″ E.) to Vostochny Port Channel No. 3 (250 m. wide) leads along axis of Vrangel Bay entrance range 297° – 117°.
4. Channel No. 7 (740 m. wide) leads from lighted buoy No. 2 along axis of Vrangel Bay entrance range 297° – 117° up to crossing the Main Ship Channel No. 1 to Nakhodka Bay.
5. Channel No. 4 (740 m. wide) leads from Main Ship Channel No. 1 along axis of Novitsky Bay range 089.3° – 269.3° up to crossing the Channel No. 7 to Vrangel Bay and Channel No. 5 (250 m. wide) leads to Novitsky Bay.
6. Entrance channel No. 6 (250 m. wide) leads from main ship Channel No. 1 along axis of Torgovy Port range 087.9° – 267.9° to Nakhodka Bay.
7. All vessels 50 m. and more in length are requested to proceed via above mentioned channels.

Channels No. 1, 2, 4, 7 have two-way traffic. Vessels are requested to proceed along the right side of channel axis.

Channels No. 3, 5, 6 have one-way traffic. Vessels to proceed along the channel axis, according to Traffic Centre instructions.

8. Vessels that proceed from sea are requested to contact Traffic Regulation Centre on Channel 12 call sign "Kamensky-17" not less than 2 miles before approaching Nakhodka Bay lighted pivot Buoy No. 1.

Vessels at berth or anchored within Nakhodka Bay water area are requested to seek permission of the Traffic Regulation Centre before unmooring or weighing the anchor.

Vessels anchored are requested to keep continuous watch on Channel 16.

To avoid damage to a vessel and/or any port installation, vessels should be moored/unmoored by the method of parallel mooring/ unmooring with tug assistance.

Being at 10 m. distance from a berth a vessel is allowed to use her main engine in case of emergency only.

ANCHORAGES: A safe anchorage can be obtained in Area Nos. 305, 306 and 307, with depths from 13.0 m. – 28.0 m. and in the anchorage "10" area with depths from 18.0 m. – 28.0 m. The holding ground in both anchorages is mud, sand, sand with mud, stone.

The "3" area is a quarantine anchorage which serves as the Pilots' boarding place and an anchorage for deep sea-going vessels over 3,000 d.w.t.

The "10" anchorage area is an anchorage for tankers proceeding to the oil port situated in the Novitsky Bay. Boundaries of the anchorages are shown on the chart.

To lie at anchor in the Nakhodka Bay, in the fairway and in the dredged harbours, except in emergency, is strictly prohibited.

RESTRICTIONS: Vessels can enter or leave the port at any time of day and night. There are no size restrictions for entry to the port, except for vessels having the maximum permitted draft.

Anchorage for tankers is allowed only in the "10" area.

MAX. SIZE: The permitted draft for vessels proceeding to the Commercial port is 9.10 m., the Fishing port 8.0 m. and the Passenger Terminal 8.6 m.

Vessels drawing over the permitted draft must obtain Harbour Master's permission prior to entry to the port.

HEALTH: Advise "Inflot" by radio in advance if there is any case of quarantine illness on board the ship. If vessel is arriving from a cholera area, then cholera inoculations are required.

TUGS: Tug and mooring launch assistance available. 2 tugs used. Tugs join the vessel in America Bay as directed by Master or Pilot. Ship's tow lines are used.

RADIO: Radio communication can be effected via the radio station of the Primorsk Shipping Company – "Nakhodka-Radio" some data of which is given in the table below.

Call sign	*Frequencies (kHz)* *Working*	*Calling*	*Type of trans-mission*	*Time of work*
UKI	500	500	A1A	H24
Nakhodka Radio–1	156.100*(2)	160.700*(2)	F3E	
"Novitsky-2"	157.65*(33)	157.65*(33)	F3E	H24
(Oil Harbour controller)	157.7*(34)	157.7*(34)	F3E	H24
"Kamensky-17"	156.8*(16)	156.8*(16)	F3E	H24
(Vessels' movement	156.7*(14)	156.7*(14)	F3E	H24
control post)	156.375*(67)	156.375*(67)	F3E	H24

*Frequencies are given in MHz.
0100–1300 (Moscow Time)

VTMS in operation.

BERTHING: May be effected at any time of day or night. In daytime vessel's mooring position will be marked by a flag and at night by a red lantern. These signals mark the point where the ship's bow should be at the mooring.

The berths of Cargo Handling Port Area No. 1 have depths alongside from 8.6 m. up to 10.2 m. and are equipped to handle grain, equipment, cables, wire ropes, metals, phosphorus, etc.

The berths of Cargo Handling Port Area No. 2 have depths alongside from 9.1 m. up to 10.2 m. and are equipped to handle grain, coal, cement, foodstuff and general cargoes.

The berths of Cargo Handling Port Area No. 3 have depths alongside from 8.8 m. up to 11.8 m. and are equipped to handle timber, sawn timber, 20 ft. and 40 ft. ISO containers, equipment, machinery and other cargoes.

Passenger vessels are handled at two berths with depths alongside 8.8 m. and 6.1 m.

Electric cranes of up to 41 tons capacity are operated on the quays. There are also floating cranes with lifting capacity of up to 300 tons and other cargo handling equipment, intra-port transport included.

2 grain handles available, rate 300 tonnes/hr. each.

Loading and/or unloading is usually done in accordance with conditions and rates stipulated by Charter Parties and Sales Contracts.

STEVEDORES: Arranged through "Inflot".

MEDICAL: Medical service is free. All requirements should be ordered in advance through "Inflot".

FRESH WATER: Can be supplied by barge only.

FUEL: Available.

TANKERS: Slop reception facilities are available.

OPENING/CLOSING HATCHES: Can be carried out by stevedores.

CUSTOMS ALLOWANCES: No restrictions on tobacco and alcohol on board ship. Only tobacco required for personal consumption may be taken ashore.

CONSULS: North Korea, Tel: 55310. Japan, Tel: 56360.

WIND: The most dangerous wind for vessels lying in Nakhodka Bay is the strong Southern wind of long duration caused by typhoons. The wind usually gives rise to water level and sends heavy waves of up to 4 m. height into the Bay.

REPAIRS: All kinds of repairs for vessels of up to 25,000 dwt. can be carried out.

REPATRIATION: Can be arranged during the Summer months provided passport and documentation in order. During Winter months there are no facilities for foreigners to reach nearest international airport so repatriation is only possible via infrequent passenger ships to Japan.

AIRPORT: Nearest international airport is at Khabarovsk, 1,000 kilometres away. Vladivostok is now closed to foreigners or international traffic, though sometimes used for air freight.

TIME: GMT plus 10 hours. GMT plus 11 hours in Summer.

SHORE LEAVE: Permitted subject to police control.

DEVELOPMENTS: Port under reconstruction. On completion vessels with draft of 11.6 m. will be able to berth.

SHIPMASTER'S REPORT: April, 1983.

The following is additional information received regarding this port.

Documents: 2 copies of Camera List on plain paper signed by the Master giving Make and Serial No. of cameras in possession of crew members.

Also see "Regulations".

Anchorage: All tankers must anchor, while awaiting berth, in the anchorage with the following co-ordinates:

	Lat.	Long.		Lat.	Long.
(a)	42° 45.80′ N.	132° 54.71′ E.	(b)	42° 45.80′ N.	132° 55.27′ E.
(c)	42° 55.57′ N.	132° 55.44′ E.	(d)	42° 44.37′ N.	132° 55.44′ E.
(e)	42° 44.39′ N.	132° 54.56′ E.	(f)	42° 44.73′ N.	132° 54.56′ E.
(g)	42° 45.16′ N.	132° 55.08′ E.	(h)	42° 45.39′ N.	132° 54.71′ E.

VHF: "Nakhodka Port Radio Control" maintains continuous watch on Channel 12. This station can be used for conveying messages to Agents. It is not possible to talk directly with Agents.

Medical: 10 Roubles per person for medical consultation.

Fuel: Owner must contact Morflot London (Telex No. 885371 Mrf Lnd) for supply of fuels.

Tankers: All ballast (including clean ballast) in cargo tanks must be pumped ashore. Installation can receive ballast at the rate of 300 t.p.h. to 400 t.p.h. Gas oil loading rate about 700 t.p.h. Interruptions in loading due to shortage of cargo ashore. Vessel took about seven days to load 20,700 tonnes of gas oil.

Surveyors: Soviet Register of Shipping Surveyor can carry out hull and machinery surveys on behalf of Lloyd's Register of Shipping.

Customs: All pornographic literature and films must be kept sealed during the vessel's stay in port.

Shore Leave: From 4 tanker berths, shore leave possible by boats only. Same arranged by Agents.

All seamen are welcomed in the local Seaman's Club.

Regulations: Photography strictly prohibited within port limits.

SHIPMASTER'S REPORT: May 1984.

See "Vostochny".

AUTHORITY: The Port Authority of Nakhodka, 22 Port Street, 692900 Nakhodka, Primorsky Krai, U.S.S.R. *Tel:* 5-77-02, 5-79-38, 5-78-15. *Cables:* Mortorgport Nakhodka Primorskogo.

AGENT: The Far Eastern Main Maritime Agency – "Inflot". Postal address: 692900 USSR, Primorski Kray, Nakhodka, ul Leninskaia 2. Telephone: 56155, 56233, 59773. Telex: 213826. Telegraphic address: Inflot Nakhodka.

NARYAN-MAR: 67.38 N. 53.00 E.

GENERAL: A commercial port, Naryan-Mar is situated in the S.E. part of the Barents Sea, at a distance of 70 miles from the Pechora River mouth on the right bank of the Gorodetsky Shar Creek.

The port is open for navigation for a period of 120 – 130 days in the year.

In the Pechora River Inlet first ice usually begins to form between 20th and 25th October, but sometimes appears at the beginning of the month.

The inlet becomes completely frozen over at the middle of December. Ice finally disappears at the end of June or sometimes beginning of July. Changes in the water level in the Pechora Inlet, due to melting of ice in Spring, have not been observed.

The formation of ice in the rivers flowing into the Pechora Inlet usually depends upon the time of the appearance of ice in the Inlet itself. Rivers, as a rule, become frozen over by the middle of October. The ice in the rivers usually breaks up earlier than it finally disappears in the Pechora Inlet.

The Pechora River at the Kuya settlement area becomes frozen over at the end of October, and the ice finally disappears by the end of May.

DOCUMENTS: Refer to beginning of U.S.S.R. section.

PILOTAGE: Compulsory. Besides information stipulated in Soviet Wood Charter Party, vessels approaching Pilot Buoy may contact Port Authorities or Pilot in first 15 minutes of any odd hour from 0700 till 2300 hrs. (Moscow time), frequency 2182 kHz. Signals for Pilot to be given in accordance with International Code. Pilot boat wooden, standard type, white painted, with word "Pilot" in black letters on wheelhouse. Pilot usually boards vessel at the Pilot Anchorage light buoy (Lat. 68° 30′ N., Long. 54° 32′ E.). In case of bad weather, and in extraordinary circumstances Pilot shall embark vessel in the Srednevskie Islands area. In this event a vessel approaching the port from seaward should follow pilot boat in the wake of it, up to the Srednevskie Islands leading line where Pilot will be able to board ship.

Master of a vessel proceeding to the Port of Naryan-Mar should order a Pilot through the Harbour Master 24 hours prior to arrival at the Pilot Anchorage light buoy and advise more precise ETA not later than 4 hours before approaching it.

Master should order Pilot not later than 2 hours prior to shifting berth and/or leaving the port.

ANCHORAGE: A recommended anchorage for foreign vessels is situated in the area with the central point Lat. 68° 30′ N., Long. 54° 33′ E. The depths in the anchorage are from 5.4 m. – 6.6 m. Also Inner Roads where anchorage will be indicated by Pilot.

An anchorage can be obtained at the right bank of the Pechora River off Urpinsky leading line No. 24. Depths are from 4 m. – 17 m. The bottom is sand and mud.

Good anchorages with depths from 5 m – 10 m. can also be obtained opposite Zakhrebetny Bay and N.E. of the town of Naryan-Mar.

All vessels arriving from abroad or leaving the port for abroad, must anchor opposite Zakhrebetny Bay for port formalities.

RESTRICTIONS: Vessels can enter or leave the port at any time of day or night.

The permitted draft for entry to the port is about 4.5 m. but it is usually advised by the Port Authorities at the beginning of navigation. The maximum permitted length of a vessel is 125 m.

The entrance to the port is by the fairway leading from the Pilot Anchorage light buoy across the Pechora River bar.

The bar itself is the extensive shoal water area extending Northward of the Bolvansky Nos. Point. Three channels are dredged across the bar: The Receiving Channel, the Bar Channel and the Povorotny Channel. The last one serves as turning-point from the Receiving Channel into the Bar Channel. Vessels drawing not more than 4.9 m. can pass across the bar only at high water level.

It is prohibited to enter or leave the port through the Bar Channel and/or Receiving Channel as well as to navigate in the port area during dense fog, heavy rain and snow falls, strong winds of over Force 6 and absence of floating marks.

With the appearance of ice in the Pechora Inlet and in the Pechora River, entry to the port is not allowed without Harbour Master's permission.

The speed of a vessel navigating from the Pilot Anchorage Light Buoy through the Receiving Bar Turning, Alekseevsky, Polovsky, Kuisky, Urpinsky and other Channels shall not exceed 6 knots, with the exception at the part of the Pechora river between the Zakhrebetny and Srednevsky Channels where it is allowed to navigate with speed not exceeding 12 knots.

When passing floating cranes nearby, lighters and vessels lying alongside the port quays, every ship should proceed at dead slow speed.

MAX. SIZE: Draft declared by Port Authorities after being checked in the beginning of the season, and is about 15 ft.

HEALTH: Vessels inspected by sanitary officer. If no diseases, vessel obtains Free Pratique. Pratique automatic when vessel arrives from another Russian port.

RADIO: Naryan-Mar Radio.

Call Sign	*Frequencies (kHz) Working*	*Calling*	*Type of trans- mission*	*Time of work*	*Remarks*
UOY	500	500	A1	HX	
Naryan-Mar Radio 1	156.8*	156.8*	F3E	H24	Operates during period of navigation only
Port Controller	156.7*	158.0*	F3E	H24	

*Frequencies are given in MHz.

Storm warnings for vessels' traffic in the Pechora Inlet area for the coming 24 hours are transmitted via both the Central Port Radio and VHF radio.

Notice of Arrival: Should be given in accordance with the "Soviet Wood" Charter Party conditions.

BERTHING: The Port of Naryan-Mar specialises in timber exports. Depths at the berths are up to 6.5 m. There are enclosed warehouses and open concrete floor sheds.

The necessary number of tugs for entering or leaving the port as well as for shifting berth shall be agreed upon between Pilot and Master.

A mooring berth is usually indicated by a Pilot. Shifting berths without having obtained Harbour Master's permission is not allowed. Ship's tow lines are usually used during towage.

Diesel portable cranes of up to 6 tons capacity are operated on the quays. There are also track-laying cranes of up to 12 tons and floating cranes with lifting capacity from 35 tons – 40 tons.

STEVEDORES: As per "Soviet Wood" Charter Party.

MEDICAL: No advance notice required. Clinic and hospital available.

DENSITY: Fresh water irrespective of tide.

FRESH WATER: Available from shore.

FUEL: Not guaranteed.

GANGWAY/DECK WATCHMEN: To be provided by vessel.

OPENING/CLOSING HATCHES: According to "Soviet Wood" Charter Party.

CERTIFICATES:
Seaworthiness.
Measurement.
Load Line.
Cargo Equipment.
Safety Equipment.
Radio Telegraphy.
Radio Telephony.
Oil Pollution Prevention.
Sewage Pollution Prevention.
Derat Certificates.

CUSTOMS ALLOWANCES: Tobacco/Wine – No quantity limits.

IDENTIFICATION CARDS: Only Seamen's Books.

CONSULS: No Consuls.

REPAIRS: Small repairs only.

DRY DOCKS: None.

SURVEYORS: State Register of Shipping.

REPATRIATION: Repatriation and crew changes require visa formalities.

AIRPORT: Airport served by regular lines and situated near town.

TIME: GMT plus 3 hours. No seasonal alterations.

TIDE: Changes in the water level in the port area depend upon tides and effects of the wind.

The tide is semi-diurnal with 2 HW and 2 LW a day. The range of the tide varies from 0.9 m. – 1.8 m. Changes in water level are caused by the effects of the wind and may reach 1 m. – 1.5 m.

HOLIDAYS: See "Archangel".

POLICE/AMBULANCE/FIRE: Police 02; Ambulance 03; Fire 01.

TELEPHONES: Can be arranged on board.

SHORE LEAVE: Each crew member properly signed in ship's Articles and having valid Seaman's Book is allowed ashore.

BANKS: None.

EMERGENCY CO-ORDINATION CENTRE: Not available.

STORING: See "Prelims".
1. By truck when alongside.
2. Vessels stored by truck only.
3. Yes.
4. No.
5. See "Archangel".
6. Normally carried out by ship's crew.

DELAYS: Caused by rains, when vessel loading cargo of sawn goods.

AUTHORITY: The Chief of The Port of Naryan-Mar, Ul. Naberezhnaya 11, 164700 Naryan-Mar, U.S.S.R. *Tel:* 26-95. *Telex:* 24211. *Cables:* Morport Naryan-Mar. *Contact:* Via VHF.

AGENT: A branch of the Port of Archangel Main Maritime Agency "Inflot" at the Port of Naryan-Mar. Pechora Timber Mill 164700, Khatanzeisky, the Port of Naryan-Mar, Archangel Region, U.S.S.R. Cable: "Inflot Naryan-Mar". Tel: "Inflot" via the timber mill switchboard 30-70, 31-05.

NEVELSK: 46.40 N. 141.51 E. (See Plan)

GENERAL: The sea fishery port of Nevelsk is situated in the Tatarsky Strait, in the Southern part of the Nevelsky Bay. The port is open for navigation all the year round.

Changes of the water level are mainly caused by in and off-going tidal floods.

The port consists of two parts. The Outer part includes a part of the Nevelsky Bay water area with the imaginary boundaries drawn by an arc of 1.5 mile radius from the light mark installed on the Southern point of the Western breakwater. The Inner port consists of the harbour of the fishing port, the Small and the Northern Scoops. The boundary of the Inner is the line connecting the points of the Southern and the Western breakwaters.

The Master of a vessel when entering the port should keep on the leading line of the green leading light marks located at a distance of 5.5 cables to the North of the Southern point of the Naga Reef. The true direction of the Leading line is 259° – 079°.

The Port of Nevelsk bearing in mind its position, size, weather and hydrological conditions is not and cannot serve as a sheltered port as it is only partially protected from the effects of the sea swell and winds blowing from South, West and N.W. directions and is not protected from S.W. winds at all. Therefore deep sea-going vessels cannot be allowed to enter the port during storm warnings. It is dangerous to stay in the port when heavy S.W. winds are expected.

PILOTAGE: Effected round the clock. The Master of a vessel should order a Pilot via the Harbour Master's office.

ANCHORAGE: Situated in the Outer port to the South of the leading line and to seaward of the 20 m. contour. The anchorage is not protected from West and North winds and waves. The bottom is sand. The anchorage in the inner area is dangerous as the ground there (stone plate) does not hold anchors well.

RESTRICTIONS: The permitted draft is determined by the Harbour Master. Vessels having draft over 5.8 m. are allowed to enter the port after having obtained the Harbour Master's permission.

TUGS: Tugs ordered by the Master for mooring and unmooring meet vessels within the boundaries of the Inner port.

RADIO: Communications can be effected through the port radio station "Nevelsk Radio-1".

Call Sign	*Frequencies (kHz) Working*	*Calling*	*Type of trans- mission*	*Time of work*
UFM-2	500	500	A1A	H24
"Nevelsk-31"	156.8*(16)	156.8*(16)	F3E	H24
(Port Controller)	156.45*(9)	156.45*(9)	F3E	H24

*Frequencies are given in MHz.

BERTHING: All vessels entering the port are moored to the berths according to instructions of a port controller.

The berths of the port with depths alongside of up to 6.5 m. are equipped to handle general, bulk liquid and other cargoes.

There are closed warehouses, open concrete floor sheds and a cold store in the port.

It is recommended to use manila mooring ropes due to insufficient protection of the port from effects of winds, waves and strong variable current with surge (the so called "tyagun").

Opening and closing of hatches is usually done by the crew. All deep draft vessels are loaded/unloaded in the roads.

The berths of the port are equipped with 5 ton portal cranes. There are other cargo handling facilities and intraport transport.

FRESH WATER: Available in limited quantities.

FUEL: Diesel oil available.

TIME: GMT plus 11 hours. Summertime (April 1st – October 1st), GMT plus 12 hours.

REPAIRS: Possible for vessels up to 4.0 m. draft.

CONSULS: None.

AUTHORITY: The Port of Nevelsk Authority, 32 Rybatskaya Street, 694740 Nevelsk, Sakhalin Island, U.S.S.R. *Tel:* 20-06 (Port Director). *Telex:* Via "Inflot", Kholmsk. *Cables:* Morport Nevelsk. *Contact:* Port Director.

AGENT: Sakhalin Main Maritime Agency, Inflot, at Kholmsk, Sakhalin Island, U.S.S.R.

NOVOROSSIYSK: (Including Sheskharis Oil Harbour) 44.43 N. 37.47 E. (See Plan)

GENERAL: In Winter, strong, gusty N.E. winds (called "Bora"), reaching hurricane force at times, blow from the coastal mountains. Due to these winds, vessels lying at anchor in Novorossiysk Bay may very quickly become covered with ice when the temperature of the air is cooled below freezing-point.

It is impossible to enter the port when "Bora" blows, therefore, all vessels are recommended to leave Novorossiysk Bay for the open sea beforehand or lay at anchor in the Yuzhnaya Ozereika Roads, at a distance of 8.5 miles Westward of the entrance to the port of Novorossiysk or in Anchorage Area No. 416, to the South of the Doob Point, until the weather improves.

The range of water level in Novorossiysk Bay caused by the effect of the winds, does not exceed 0.6 m. The changes of water level, due to variation in atmospheric pressure ("Seish" effects), are observed at times. The "Seish" may last up to several days. The maximum range of water level, due to the "Seish", observed in Novorossiysk Bay is 0.6 m.

The port consists of 2 harbours – the Dry Cargo Harbour and Sheskharis Oil Harbour.

The inner roads are situated at the head of Novorossiysk Bay are divided from the outer roads by the Western and Eastern Moles. The outer roads are situated between the moles and the Southern border of the port.

The Dry Cargo Harbour situated inside the inner roads is protected by 2 (Western and Eastern) moles.

Two passages, the Western and Eastern, divided by Penaisky Shoals lead to the inner roads through the port area. The Western passage is wider in comparison with the Eastern, and vessels may enter outer roads passing through it by one course.

DOCUMENTS: Refer to beginning of U.S.S.R. section.

Shipmaster's Report: (1975) Notwithstanding the instructions for documentation for all U.S.S.R. ports referred to at the beginning of the section, the Novorossiysk Port Authorities require the following:

General Declaration (IMO FAL Form 1)	3 copies
Cargo Declaration (IMO FAL Form 2)	2 copies
Ship's Stores Declaration (IMO FAL Form 3)	2 copies
Crew Effects Declaration (IMO FAL Form 4)	2 copies
Crew List (IMO FAL Form 5)	6 copies
Passenger List (IMO FAL Form 6)	4 copies

PILOTAGE: Compulsory: 96 hours prior arrival cable Inflot giving ETA, name of vessel, gross tonnage, exact draft, type of engine. Flag, sound and Morse signal G. Pilot meets vessel at Lat. 44° 37′ N., Long. 37° 52′ E. Movement of vessel within inner harbour – only under Pilot guidance. If Pilot is not available vessel should anchor in Area No. 415, opposite the Kabardinka settlement, recommended as an anchorage (No. 416), and wait until Pilot arrives.

ANCHORAGES: Anchorage in the outer roads of the port is allowed almost everywhere but most convenient places for the purpose are to be considered the following 3 areas. The first one is Area No. 415 situated to the North of the Doob Point.

Depths there vary from 12 m. to 27 m., the holding ground is mud. In the event of winds blowing from seaward Masters of all vessels are recommended to leave this area for the open sea. Area No. 63 is the second anchorage place, situated 8 cable lengths Westward of the Penai Point. Depths there are from 13 m. to 27 m., the holding ground is mud and mud with shell. The third place is Area No. 51 situated 6 cable lengths South-Eastward of the port entrance. Depths there are from 20 m. to 24 m.

Vessels approaching the port of Novorossiysk with N.E. gales ("Bora") blowing, or caught by the storm whilst lying in the outer or inner roads, or after having received storm warning, should use every opportunity to proceed to sea or lay at anchor in the Yuzhnaya Ozereika Roads (Anchorage Points No. 408 and 410), having the main engines ready and keeping constant anchor watch.

Under the circumstances, every vessel should keep regular radio contact with port radio station.

Masters of vessels lying at anchor in the outer roads and/or in the port, are usually warned beforehand about the forthcoming N.E. winds. Since these winds may reach hurricane force during a very short period of time, particularly in Winter, all Masters lying at anchor in Novorossiysk Bay are recommended to pay careful attention at every change of the weather, to watch position of vessel to be able to prevent her drifting about anchor and proceed to sea in due time.

RESTRICTIONS: No restrictions on night entry into the Inner Roads. Mooring and/or unmooring, both in the Dry Cargo Harbour and the Sheskharis Oil Harbour cannot be effected during Southerly or N.E. winds over Force 7.

MAX. SIZE: The permitted length for entry into port is 250 m., draft 11 m. for dry cargo vessels.

Tankers: 250,000 d.w.t., 19 m. max. draft.

HEALTH: Free Pratique automatic for vessels coming direct from U.S.S.R. port. From other countries, usual procedure of sanitary inspection applies.

RADIO: Vessels can establish radio contact through port radio station Novorossiysk Radio operating 24 hours a day on the following frequencies:

Call Sign	*Frequencies (kHz) Working*	*Calling*	*Type of trans-mission*	*Time of work*
UDN	500	500	A1A	H24
"Novorossiysk Radio"	2182	2182	H3E	H24
"Novorossiysk Radio-1"	156.8*(16)	156.8*(16)	F3E	H24
(CPR)**	160.95*(7)	156.35*(7)	F3E	H24
	161.7*(22)	157.1*(22)	F3E	H24
"Novorossiysk Radio-3"	156.7*(14)	156.7*(14)	F3E	H24
(Main Controllers' office of the Novorossiysk Shipping Co.)	156.8*(16)	156.8*(16)	F3E	H24
"Novorossiysk-17"	156.8*(16)	156.8*(16)	F3E	H24
(Vessels' movement control post)	156.45*(9)	156.45*(9)	F3E	H24

*Frequencies are given in MHz. **CPR – Central Port Radio Station.

All vessels passing through the traffic controlled zone and/or anchored there have to keep constant VHF radio watch on Channel 16.

The port signal station is equipped with radar which gives all possible information for ensuring safe pilotage, and also helps Pilots in shifting vessels within the port inner roads.

Inflot on VHF Channel 16, working Channel 67.

TUGS: A sufficient number of tugs of between 600 h.p. and 5,000 h.p. are available in the port.

While manoeuvring ships to the Sheskharis Berths two more tugs of 150 i.h.p. are engaged regardless of the ship's size in view of the constructive features of the berths.

BERTHING: When proceeding in inner harbour vessels must keep both anchors ready to let go; ships to be moored by safe ropes which to be kept tight at all times. Also be ready to use anchor chain over bollard according to Pilot's recommendation. Strictly prohibited to work with propellers lying alongside berth. All mooring ropes must be fitted with rat-guard plates.

The quays of the Dry Cargo Harbour with depths alongside of up to 11.5 m. are equipped to handle general, 20 ft. and 40 ft. containers and bulk cargoes (coal, ore), metals, timber, sugar, grain, cement, fruit and vegetables.

Berths of the port are equipped with modern cargo handling facilities. There are portal cranes of up to 40 tons capacity, floating cranes with lifting capacity of up to 100 tons, automatic and electric cargo lifters and other equipment.

Opening and closing of hatches is usually done by ship's crew with the help of portal cranes at dry cargo berths, if ordered by Master, grain berth excluded.

Ores are loaded in compliance with the Temporary Regulations for Carrying Ores handed over to the Shipmaster by Inflot Agents during inwards clearance.

Following are the basic requirements of above Regulations to the ores being loaded *(a)* moisture contents not higher than 12% (if other percentage is not stipulated by Charter Party); *(b)* angle of repose is not less than 35°.

Grain and other bulk cargoes are to be loaded in strict conformity with the International Convention.

STEVEDORES: All necessary services including stevedoring work available under Port Authority guidance. Port cargo-handling regions where ships berth managed by Port Authority and used for stevedoring, tallymen service, storage, etc. On the matters connected with services available, foreign vessels have to apply to Port Authority through Maritime Agency "Inflot".

MEDICAL: In case of accident (emergency), medical attendance rendered at any time. Hospital facilities available. Also inoculation, vaccination, etc.

TANKERS: Bearing in mind N.E. gales, oil carriers lying alongside oil pier must have boat-ropes lowered to water and illuminate them at night. All scupper holes on main deck must be closed tightly. Master responsible for overflow of oil in the vicinity of harbour and has to bear harbour cleaning costs. No repair work can be done on tankers lying alongside oil pier. No ballast water may be pumped out, no garbage or refuse thrown overboard. Ballast water to be pumped into shore slop tank.

The Sheskharis Oil Harbour is situated in the Eastern part of the outer roads, 2.2 miles N.W. of the Penai Point. It is protected by a mole from the South and oil jetty from the North. The base of the jetty is used as a berth for fire-fighting boats.

Since it is not safe to stay alongside berths in the Sheskharis Oil Harbour during strong winds blowing from any direction, all tankers, after having received a storm warning should take urgent measures to leave for sea.

Depths at the berths of the Sheskharis Oil Harbour are from 4.5 m. up to 19.0 m.

To ensure safe loading/unloading of oil products as well as to expedite the vessel's turn around time, every tanker should be equipped with cargo manifolds capable of fitting 8 in. – 16 in. shore-loading connections.

These manifolds should allow the upward connection with shore cargo flanges of not less than 1 m. in height and located on deck at 3 m. – 5 m. length from side of vessel.

Deepwater Berth No. 1: Accepts vessels of 80,000 to 250,000 d.w.t. Arrival and departure draft not to exceed 19.0 m.

A tanker is to have a site 3.0 m.×3.0 m. on cargo deck free of pipe-lines/deck openings and other constructional elements to secure end platform of shore gangway. The centre of site to be 5.5 m. from starboard side and 12.0 m. – 13.0 m. from cargo manifold in forward direction.

To ensure normal contact with shore fenders vessel's fully loaded freeboard should not be less than 6.3 m. Cargo manifold flanges should have thickness 30 mm. – 32 mm.

DENSITY: About 1010 – 1014.

FRESH WATER: Available from shore; minimum quantity invoiced at 15 tons.

FUEL: Most grades available. Fuel for tankers can be supplied ex-shore. Bunkers for dry cargo vessels are usually delivered by lighters.

FIRE PRECAUTIONS: All operations involving open fire and sparks are prohibited on oil pier. Two fire extinguishers, thick felt and sand must be ready beside hose connection.

GANGWAY/DECK WATCHMEN: Gangway watch compulsory and carried out by crew.

OPENING/CLOSING HATCHES: Normally by crew, otherwise according Charter Party.

CUSTOMS ALLOWANCES: No quantity limits but nothing allowed to be taken ashore.

IDENTIFICATION CARDS: Crew members get shore passes.

CONSULS: No Consulates in port or its vicinities.

REPAIRS: All kinds of repairs for vessels of up to 60,000 d.w.t. can be carried out.

Cargo Superintendent's Report: 1975.

The Novorossiysk Shiprepair Yard is capable of carrying out any ship repairs, and is equipped with 3 floating docks. I was unable to obtain information on the size of these docks, but estimate they are capable of handling vessels in the 100,000 ton range.

REPATRIATION: No facilities exist for effecting crew changes. A crew member may be repatriated due to family reasons or sickness but repatriation requires visa formalities.

AIRPORT: Nearest airport (Krasnodar) served by regular internal lines is situated at 150 km. from port.

TIME: GMT plus 3 hours. GMT plus 4 hours in Summer.

POLICE/AMBULANCE/FIRE: Police, Tel: 02; Ambulance, Tel: 03; Fire, Tel: 01.

TELEPHONES: Can be arranged to be fitted on board.

SHIP SUPPLY SERVICE: Local consignment centre may supply marine oils and lubricants, manufactured by Mobil Oil, Castrol, Elf-Aquitaine and Esso.

Marine paints and coatings of Hempel, Sigma, Interpaints, as well as chemicals and treatments manufactured by Perolin, Unitor, Rochem.

Spares are available for Sulzer, B&W, MAN main auxiliary diesel engines, for Magnavox, Mx-1102 satellite navigator.

Address: Consignment Centre, 8 Portovaja Street, Novorossiysk 353901, USSR. Tel: 6-28-97. Telex: 27243, 412629.

HOLIDAYS: New Year's Day, 8th March (World's Women's Day); May 1st, 2nd (Labour Day); May 9th (Victory Day); October 7th (U.S.S.R. Constitution Day); November 7th, 8th (Great October Socialist Revolution Day). Cargo work can be arranged on those days.

SHORE LEAVE: Crew members are allowed ashore. Crew members of foreign vessels get shore passes which grant them permission to stay ashore till 2400 hrs. Crew members who lose their shore passes as well as those late from ashore, are not granted shore leave any longer in conformity with local regulations.

AUTHORITY: The Port of Novorossiysk Authority, 14 Port Street, 353901 – Novorossiysk, Krasnodarsky Krai, U.S.S.R. *Tel:* 6-21-31 (Chief of the Port), 6-22-41, 6-25-16, 5-46-44 (Harbour Master). *Telex:* 829. *Cables:* Morport Novorossiysk.

AGENT: Main Maritime Agency "Inflot", 13 Portovaja Str., Tel: 54014, 52260, 53086, 62678. Telex: 279114. Cables: "Inflot", Novorossiysk

ODESSA: 46.30 N. 30.46 E. (See Plan)

GENERAL: The Port of Odessa is situated on the N.W. coast of the Black Sea in the S.W. part of Odessa Bay.

The port is open for navigation all the year round, but with ice-breaker assistance in severe Winters about 30 days of the year. Ice first begins to form in the second half of December and finally disappears in February. After ice has formed it is often broken up by strong winds and stormy weather. In mild Winters ice has not been observed in Odessa Bay.

Range of water level caused by winds depends on force and periods they blow, and may reach 0.6 m. – 1.0 m.

Atmospheric pressure has also a direct influence on the water level ("Seish" effect), but is weaker than effects of the wind. The "Seish" may last from a few minutes up to several days causing change of water level up to 0.58 m.

PORT LIMITS: The Odessa port waters are bound in the South by Lat. 46° 25′ 00″ N. from the shoreline as far as its intersection with Long. 30° 54′ 00″ E.; in the East by Long. 30° 54′ 00″ E.; in the North by Lat. 46° 32′ 00″ N. to its intersection with the shoreline and on the West by the shoreline itself.

DOCUMENTS: Refer to beginning of U.S.S.R. section.

PILOTAGE: Compulsory. Arranged through Inflot, but vessel to give 12 days', 96, 24 hours' and 6 hours' notice through Odessa Radio. Pilot boat recognised by international pilot flag. Vessel requiring Pilot shows international flag "G". Request for Pilot to shift a vessel within the port or to Pilot her into or out of port should be made by the Master through the Inflot Agency at least 4 hours prior to service requirement.

The Pilot is brought on board and returned on shore by pilot launch 1.7 miles E.S.E. of the Vorontsovsky Lighthouse (Lat. 46° 29′ 00″ N., Long. 30° 48′ 00″ E.).

The ship's Master is responsible for the safety of the pilot launch and the Pilot when he boards and disembarks from the vessel as well as during his stay thereon.

The boarding Pilot shall be informed by the ship's Master of the vessel's draft, length, breadth and other particulars required for her safe pilotage and mooring.

Specialised vessels (LASH vessels, barge carriers, container ships, Ro/Ro vessels and the like) shall be piloted through port waters only by a Pilot authorised by the local Port Pilotage Service. The Pilot may be taken on board in advance in the swinging area in the port of Ilichevsk (Lat. 46° 10.2′ N., Long. 30° 56.2′ E.).

Pilotage for all specialised vessels is compulsory.

Masters of vessels proceeding from the port of Odessa to Kherson shall make request for a Pilot through the Inflot Agency from the Maritime Pilot Service based in Ilichevsk. Vessels approaching zone from the sea must communicate with "Odessa Port Control" on VHF, Channel 14 (156.7 MHz) and act in accordance with its instructions.

ANCHORAGES: Two anchorages are available at the Odessa Roadstead. They are Anchorage No. 355 and Anchorage No. 354.

Anchorage No. 355 is used by vessels clearing in or out of port and by those that are to take on water, supplies or fuel or are to undergo minor repairs, etc.

Anchorage No. 354 is for large-tonnage vessels as well as tankers or others carrying dangerous cargoes.

The boundaries of these anchorages are duly charted.

Vessels shall proceed to, and anchor at, Anchorage No. 354 without assistance. Upon anchoring, the vessel shall communicate to the Traffic Control Station her bearings and distance from the Vorontsovsky Lighthouse.

In case of unforeseen circumstances which may endanger navigation (sudden deterioration of visibility, failure of the main engine or steering gear, non-readiness of berth to receive vessel, etc.), vessels entering or leaving port shall, if possible, anchor at points 8 or 12 of Anchorage No. 355.

Anchoring in the Oil Harbour Channel, in the prescribed routes and harbour approaches as well as in the harbour gateway should be avoided.

RESTRICTIONS: Vessels enter only with Pilot and should have lights according to Pilot's instructions. Vessels berthed depending on kind of cargo carrying or loading.

Vessels can enter and leave the port at any time of day or night.

Medium size vessels when entering or leaving port must have keel clearance not less than 1 ft.; large vessels not less than 2 ft.

Vessels are allowed to moor at berth only after having obtained Harbour Master's permission.

The speed of a vessel shall not exceed 4 knots when passing through the channel and/or in the port water areas marked by navigational marks.

Large vessels laden with ballast water only, are allowed to moor to berth if winds do not exceed Force 6. A vessel of smaller size may be turned broadside on to a loaded vessel of a larger size, but not vice versa.

MAX. SIZE: *Inner Harbour:* LOA 240 m., beam 40 m. and draft 12 m.

HEALTH: Free Pratique given on berthing or at the anchorage. In case of suspected disease Master must inform Inflot by cable. Free Pratique cannot be granted automatically.

RADIO: Vessels can establish radio contact through the port radio station Odessa Radio operating 24 hours a day on the following frequencies:

Call Sign	*Channels and Frequencies (kHz) Working*	*Calling*	*Type of trans-mission*	*Time of work*
UDE	500/447	500/454	A1A	H24
"Odessa-Radio"	2182	2182	H3E	H24
"Odessa-1" (CPR)*	16,7,27 and 62		F3E	H24
"Odessa-Radio-5" (Harbour Master)	16,9	16,9	F3E	H24
"Odessa Pilot"	14,16	14,16	F3E	H24
"Odessa-Radio-8" (Inflot Shipping Agency)	16,13	16,13	F3E	H24
"Odessa Port Control"	16,14,31	16,14,31	F3E	H24
(Vessels' movement control post)	67,14	67,14	F3E	H24

*CPR – Central Port Radio Station.

Traffic and storm signals are given by "Odessa Port Control" on VHF Channels 14 and 16.

VHF: Traffic in the harbour is controlled by the Traffic Control Station round the clock. The Traffic Control Station and the Signal Mast are situated on the roof of a building at Berth No. 1. The station telephone number is 37-30, its VHF call signal is "Odessa Port Control", and the operating Channels are 14, 20 and 67.

All vessels proceeding to the port of Odessa shall establish VHF communication on Channel 14 (156.7 MHz) with the Traffic Control Station 20 minutes prior to entering control zone (8 miles from Vorontsovsky Lighthouse), when entering port waters and after berthing or anchoring.

The vessel shall give the following particulars to the Pilot-Operator on duty:

(a) Ship's name, owner, length, breadth, draft.

(b) Last port of call and purpose of calling at the port of Odessa.

(c) Specialised vessels (LASH vessels, barge carriers, Ro/Ro and such like) and others concerned, also indicate the number of propellers, their pitch (variable or constant), engine power, availability of thruster and its power.

Thereafter, the ship will proceed according to the instructions of the Traffic Control Station.

Prior to moving any ship within the Traffic Control Zone, her Master shall request permission from the duty Pilot-Operator of the Traffic Control Station by VHF Channel 14, by telephone (37-30) or by visual communication means.

Such permission is valid only for 30 minutes after which it is automatically cancelled.

A special watch should be posted on all vessels and other craft navigating within Traffic Control Zone to listen in on VHF Channel 14 until they are berthed or anchored. Ships underway may change their VHF Channel only on instructions from the Traffic Control Station or the Pilot Service.

All vessels sailing in port waters shall have their VHF stations in good order and shall keep them operative on one of the channels used for communication in the port.

Vessels in port waters, at berth or anchorage, are strictly prohibited to use the VHF for private communication on Channels 16, 9, 14, 20, 22 and 67.

Failure to comply with this regulation will be regarded as a violation of safety rules prescribed for sailing in the Odessa port waters and all violators will be punished accordingly.

Also see "Radio."

RADAR: When visibility is less than 2 miles in the roadstead or 0.5 miles in the port, vessels may be navigated only by shore-based radar.

The necessity for radar-assisted pilotage is determined by the Pilot-Operator on duty at the Traffic Control Station.

The decision to put a vessel into or out of port shall be taken jointly by her Master, the Port Pilot and the duty Pilot-Operator of the shore-based radar station. Ship-to-radar station communication shall be effected by the boarding Pilot.

The shore-based radar station provides:

(a) Pilotage of vessels from the limits of the Traffic Control Zone to the Karantinaya, Novaya and Kabotazhnay Harbours of the dry-cargo port through the Vorontsov Gateway.

(b) Pilotage of vessels from the limits of the Traffic Control Zone to Anchorage No. 355.

(c) Pilotage of vessels from the port through the Vorontsov Gateway and from Anchorage No. 355 to points beyond the Traffic Control Zone Limits.

(d) Remote pilotage of vessels with no Pilot on board by furnishing them with information on their position, with other data to help them orientate and to pass clear of other ships. Such information is supplied by the shore-based radar station at the Master's request.

Vessels may be brought to Anchorage No. 355 only with the assistance of shore-based radar pilotage whatever the visibility conditions may be.

Radar assisted pilotage and remote pilotage are effected throughout the 24 hours of the day, only 1 vessel being piloted at a time.

A ship to be piloted with the assistance of or by shore-based radar shall have her main engine, steering gear, anchor handling gear, communication facilities and sound signalling in good working condition and her radar shall be operative. Failure of any of above equipment is to be immediately reported by the ship's Master to the shore-based radar station through the Pilot.

In the event of failure of the shore-based radar or other means of ship-to-shore communication, the Master, whose ship is being assisted by such radar or is on remote pilotage, must take all the necessary measures to ensure the ship's safety.

The use of the shore-based radar does not relieve the Shipmaster of responsibility for ship control.

Radar assisted or remote pilotage dues are recovered according to established procedure on the basis of the extract from the log of the Odessa Port Traffic Control Station.

TUGS: A ship's tugboat requirements are made known, subsequent to the Pilot's approval, to the Traffic Manager on VHF Channel 14, call signal "Odessa Port Control", at least 2 hours prior to the ship's approaching the port gateway. Tugs are compulsory for vessels over 100 m. LOA.

BERTHING: 38 berths available with depths alongside from 8 m. up to 12.0 m.

STEVEDORES: Portal electric cranes of up to 45 tons capacity are operated on the quays by the warehouses. There are grain-loaders and floating cranes with lifting capacity of up to 100 tons, other cargo handling equipment and intraport transport.

Opening and closing of mechanised hatches is always done by the ship's crew.

Opening of hatches on arrival and closing of non-mechanical hatches after loading of cargo has been completed, is done by ship's crew.

Opening and closing of non-mechanised hatches in the course of loading or unloading is done by port workers.

MEDICAL: Advance notice for medical attendance required. Notice should be given to Inflot. Hospital facilities available in case of emergency.

TANKERS: No reducing pieces necessary. Oil slop facilities available. The Oil Harbour is situated in the Northern part of the port (the inner roads), Northward of Rabochaya Harbour which is formed by a "T"-shaped mole extending E.S.E. off-shore.

DENSITY: Average density 1012 varying with season.

FRESH WATER: Fresh water may be supplied ex-shore or ex-water barge. Minimum quantity ex-barge 15 tons.

FUEL: Bunkers can be supplied by barge, and to be ordered 72 hours before arrival.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: See "Stevedores".

CUSTOMS ALLOWANCES: Tobacco. No limits on board vessel, but when going ashore not more than 1 or 2 packs. Wine and/or spirits not to be taken ashore.

CARGO GEAR: All cargo gear must have certificates for maximum weight capacity.

IDENTIFICATION CARDS: Necessary.

CONSULS:

Bulgarian Consulate General	Tel: 66-60-92.
Indian Consulate General	Tel: 22-43-33.
Cuban Consulate General	Tel: 25-14-69.

REPAIRS: All types of deck and engine repairs can be carried out.

DRY DOCKS: Available.

REPATRIATION: Can be arranged through "Intourist".

AIRPORT: Distance to airport 10 miles. Direct airlines with several socialist countries and with the rest of the world through Moscow. Aircraft fly to Moscow 4 times a day.

TIME: GMT plus 3 hours. GMT plus 4 hour in Summer.

HOLIDAYS: Work can be arranged on below mentioned holidays through Sovfracht, Moscow, at special rates. Holidays: 1st January, 8th March, 1st and 2nd May, 9th May, 7th October, 7th and 8th November.

POLICE/AMBULANCE/FIRE: Police (Militia), 02 from town; 902 from port. Ambulance: 03 from town, 903 from port. Fire: 01 from town, 901 from port.

TELEPHONES: Telephones may be installed on board.

SERVICES: Tank-cleaning equipment available.

SHORE LEAVE: Crew members allowed to stay ashore till midnight. Master without limitation.

DELAYS: Vessels berthed in turn.

AUTHORITY: The Port of Odessa Authority, 1 Vakulenchuk Square, Odessa, U.S.S.R. *Tel:* 29-36-61. *Telex:* 232188. *Cables:* Morport Odessa.

AGENT: Odessa Inflot Shipping Agency, Postal address: 1 Vakulenchica Pl., Morskoy Port, Odessa, 270004 U.S.S.R. Cables: "Inflot Odessa". Tel: 22-39-02, 29-37-81, 29-49-03. Telex: 232824.

ONEGA: 63.54 N. 38.06 E. (See Plan)

GENERAL: The port of Onega is situated on the right bank of the Onega River (3 – 4 miles up from the mouth), flowing into Onezhsky Bay off the White Sea.

Port open for navigation for about 6 – 7 months per year, starting from May. The port is closed for foreign flag vessels from 1st of September to 31st of December annually. In Autumn, when the river is covered with ice, assistance of ice-breaker is required but may not be rendered regularly.

Opening and closing of the port for navigation as well as turn and order of entering the port is usually regulated by the Port Authorities.

Changes of water level in the river depend on tide, spring floods and effects of the wind.

The tide is semi-diurnal with two high and two low waters a day. At the Onega river mouth the range of the tide at mean springs may reach 2.7 m.

The rises of the water level are due to North-Westerly, Northern and North-Easterly winds. The falls of the water level are usually caused by South-Easterly, Southerly and South-Westerly winds.

The Onega River becomes frozen over at the beginning of November. Ice begins to form in October and usually breaks up at the end of April or early May.

A vast area of shoal waters is situated at the mouth of the Onega River.

Access into the Onega River is by the Karelsky Fairway. Vessels drawing up to 6.1 m. may pass through it at high water.

Since depths in the river vary, Masters are recommended to get in touch with the Harbour Master to make enquiries about the existing least depth in the fairway before entering the river.

The port specialises in timber exports.

DOCUMENTS: Refer to beginning of U.S.S.R. section.

PILOTAGE: Compulsory. A Pilot should be ordered by the Master 24 hours prior to arrival at the Letny Orlov Pilot Station. A Pilot meets a vessel at a distance of 0.7 mile Westward of the Letny Orlov Point.

ANCHORAGES: Vessels drawing up to 2.4 m. can obtain anchorage in the Town Roadstead below the Severoles Wharf. The roadstead situated opposite Timber Mill No. 32 – 33 can be used as anchorage by vessels drawing up to 3.55 m.

During winds blowing from the N.W. vessels are recommended to anchor in the Petchak area of the Solovetskie Islands, with depths of 10 m. at 1 mile distance offshore.

During Southerly winds of Force 5-6, a safe anchorage with depths of 10 m. can be obtained in the Konyukhov Inlet, 1 mile offshore.

In case of North-Westerly storms, vessels lying on the Karelsky Roads should anchor in the Purnema area with depths from 6 m. to 10 m. where an anchorage light buoy is installed (Lat. 64° 20′ N., Long. 37° 27′ E.).

The recommended anchorages for vessels proceeding to the port of Onega along the fairway are situated in the following places:

1. On the line of the Town of Onega leading marks and on the beam line of the front mark of Pikhnemsky No. 2 leading line. Depths are from 3.7 m. – 4 m., the bottom – mud and small stone.
2. In the area of the Onega River, a short distance Northward of the town of Onega leading marks, opposite the Export quay. The least depth in the area is 4 m., its length – 700 m., the bottom is mud and small stone.
3. Southward of the Pristansky (Quays) leading line but not passing over the line of the Pristansky Sekushchy (Quays Crossing) leading marks to the Eastward of it. The depths are from 3 m. – 3.7 m., the holding ground – mud, small stone and stone.

RESTRICTIONS: Vessels having draft not more than 3 m. may enter port at any time, but with draft more than 3 m. only 1 hour before high water.

The speed of vessels having the maximum draft should not exceed 8 knots. The movement of vessels within the port area is not allowed during restricted visibility.

MAX. SIZE: The maximum permitted draft is usually announced at the beginning of the navigation season after sounding of the fairway has been accomplished. It varies from 5.1 m. – 6.4 m. Maximum permitted length is 124 m.

HEALTH: Alongside or on the Roads all vessels coming from abroad inspected by Sanitary Office representative. If no diseases, vessel obtains Free Pratique. If vessel enters directly after calling at another Russian port, Pratique automatic.

RADIO/VHF: Besides Murmansk and Archangel, Onega Radio (UZS), 500 kHz; VHF of pilot office at port of Onega (Channel 16).

Vessels can establish radio contact through the port radio station Onega Radio operating 24 hours a day on the following frequencies:

Call Sign	*Frequencies (kHz)* *Working*	 *Calling*	*Type of trans-mission*	*Time of work*	*Remarks*
UZS	500/441	500/425	A1A	H24	
"Onega-2" (Port controller)	156.8*(16)	156.8*(16)	F3E	H24	Operates during navigation
"Onega-5" (Harbour Master)	156.45*(9) 156.8*(16)	156.45*(9) 156.8*(16)	F3E F3E	H24 H24	Operates during navigation

*Frequencies are given in MHz.

The Onega Storm Signals Station is located on the roof of the Harbour Master's office. Day signals warning about forthcoming storms and strong winds in the Onega Bay area are exhibited at mast of the signal station.

TUGS: The number of tugs required for mooring/unmooring and shifting berths is determined by the Master after having consulted the Pilot. Tugs should be ordered 6 hours prior to leaving the port for sea.

BERTHING: Depths at the port berths are up to 6.5 m. There are enclosed warehouses and open concrete floor sheds. Loading of timber usually by ship's gear.

STEVEDORES: No particular ETA advices to stevedores/shippers. Loading of timber usually carried out by ship's winches at average rate of 24 stds. per hatch per working day.

MEDICAL: Doctor and hospital facilities available.

FRESH WATER: Available. Usually delivered by tug.

FUEL: Availability not guaranteed.

GANGWAY/DECK WATCHMEN: Usually by ship's crew.

OPENING/CLOSING HATCHES: In accordance with "Soviet Wood" charter-party conditions.

CUSTOMS ALLOWANCES: No restriction on quantity, but nothing to be taken ashore.

IDENTIFICATION CARDS: Only Seamen's Books required.

REPAIRS: Small repairs only.

REPATRIATION: Subject to visa formalities.

AIRPORT: Nearest at Archangel.

TIME: GMT plus 3 hours. GMT plus 4 hours in Summer.

HOLIDAYS: See "Archangel".

SHORE LEAVE: Allowed up to midnight.

AUTHORITY: The Port of Onega Authority, 198 Oktyabrsky Prospekt, 164880 – The Port of Onega, Archangel Region, U.S.S.R. *Tel:* 21-33 (Harbour Master); 24-91 (Port Controller); 21-51 (Chief of the Port). *Cables:* Morport Onega.

AGENT: A branch of the Port of Archangel, Main Maritime Agency "Inflot" at the port of Onega. Postal address: 164880 – The Port of Onega – Archangel Region, U.S.S.R. Cables: "Inflot Onega". Tel: Timber Mill Switchboard 33-33, "Inflot".

POTI: 42.09 N. 41.39 E. (See Plan)

GENERAL: The Port of Poti is situated 1.5 miles North of the Rioni River mouth and on the S.E. coast of the Black Sea.

Port open for navigation all the year round.

Changes of the water level in the port area are caused by the winds and usually reach 0.6 m.

The max. range of the water level observed in the river is 0.9 m.

DOCUMENTS: Refer to beginning of U.S.S.R. section.

PILOTAGE: Compulsory. Radio 96, 48 hours prior arrival to Port Controller and Inflot Agency advising ETA, description and quantity of cargo, location and weight of heavy lifts, if any, number of passengers, ship's length and draft, as well as any services required. Confirmation of ETA required 4 hours prior arrival. Inflot will arrange Pilot basis above information.

Pilot will board vessel in the outer roads at 5 cables length from the Poti Light Buoy. (Lat. 42° 09′ N., Long. 41° 38′ E.).

The Harbour Master will give the Master of a vessel appropriate instructions if the Pilot is not able to disembark in the outer roads due to stormy weather or heavy waves.

ANCHORAGES: In outer port which is protected by Novy Severny, Yuzhny, and Zapadny Moles, and by Zapadny Breakwater. Safe anchorage for deep drafted vessels, except in periods when "Tyagun", a strong variable current with surge, occurs, with winds from N.W., W., and S.W.

The roads are open to winds blowing from the sea. Therefore, in the event of stormy weather vessels are recommended to leave anchorage in the outer roads for sea.

Protected by the New Northern, Southern and Western moles the port ensures a good anchorage for deep-drafted vessels, except periods when N.W., West and S.W. winds form a strong, variable current with surge ("Tyagun"). Strong Westerly, S.W. and Easterly winds make the entry to the port more difficult.

A good anchorage with depths of 10 m. to 30 m. can be obtained at a distance of 1.3 miles N.W. and 1.1 mile West of the head of the Western mole, in Anchorages No. 421 and No. 422 respectively on BA. Chart No. 2263.

Vessels are prohibited from anchoring in the S.W. part of the Southern Harbour and in the centre of the Inner Basin.

RESTRICTIONS: Vessels are prohibited from entering the port when the entrance and the leading lights are covered with fog.

Vessel's speed shall not exceed 4 knots in the port areas marked by navigation marks.

There are no restrictions for night entry.

Least depth in approaches 7.0 m.

MAX. SIZE: The max. permitted draft for entry to the port is 9.4 m. and the length 190 m.

HEALTH: Free Pratique automatic for vessels from another U.S.S.R. port. Other vessels are boarded on arrival.

RADIO: Vessels can establish radio contact through the port radio station Poti Radio operating 24 hours on the following frequencies:

Call Sign	*Frequencies (kHz)* *Working*	*Calling*	*Type of trans-mission*	*Time of work*
UFA	500/484	500/484	A1A	H24
"Poti-1" (CPR)**	156.8*(16)	156.8*(16)	F3E	H24
	156.45*(9)	156.45*(9)	F3E	H24
"Poti-2"	156.8*(16)	156.8*(16)	F3E	H24
Port (Controller)	156.6*(12)	156.6*(12)	F3E	H24
(Vessels' movement control post)	156.675*(73)	156.675*(73)	F3E	H24

*Frequencies are given in MHz.

**CPR – Central Port Radio Station.

Traffic signals for vessels entering and leaving the port are exhibited at the signal mast located at the head of the Northern mole.

BERTHING: Berthing in the port can be effected with tug assistance only.

The berths of the port, with depth alongside up to 12.5 m., are equipped to handle general and bulk (ore, coal) cargoes, mineral oil products, metals, fruits, vegetables, etc., as well as passenger traffic.

Portal electric cranes of up to 16 tons capacity are operated on the quays. There are also floating cranes with lifting capacity of up to 100 tons.

MEDICAL: Qualified medical service is available free of charge, including dispensary and hospital treatment.

STEVEDORES: Arranged by Inflot.

DENSITY: About 1015, variable with season.

FRESH WATER: Fresh water supplied ex-shore to ship directly or ex-water barge in boundaries of port.

FUEL: Bunkers in small quantities are available. Fuel in quantities over 500 tons will be supplied if an order is placed not less than 5 days prior to a vessel's bunkering. Bunkers are delivered by barges.

CUSTOMS ALLOWANCES: No restriction on quantities but nothing to be taken ashore.

CONSULS: See "Odessa".

REPAIRS: Only minor repairs can be effected. There are no dry docks in the port.

AIRPORT: Nearest at Sukhumi/Batumi.

TIME: GMT plus 4 hours. GMT plus 5 hours in Summer.

HOLIDAYS: 1st January (New Year's Day); 8th March (International Women's Day); 1st, 2nd May (Workers' International Solidarity Day); 9th May (Victory Day); 7th, 8th November (Anniversary of October Revolution); 5th December (U.S.S.R. Constitution Day).

POLICE/FIRE/AMBULANCE: Police service, Tel: 02; Ambulance, Tel: 03; Fire Service, Tel: 01.

SHORE LEAVE: Crew members allowed ashore up to midnight.

AUTHORITY: The Commercial Port of Poti, 52 Lenin Street, 384691 – Port of Poti, U.S.S.R. *Cables:* Morflot Poti. *Tel:* 57201, 57204, 57205.

AGENT: Maritime Agency "Inflot". 50 Lenin Street. 384691 – Port of Poti, U.S.S.R. Cables: Inflot Poti. Tel: 57227, 51427. Telex: 212175 Inf Su.

PYARNU: 58.23 N. 24.29 E. (See Plan)

GENERAL: The Port of Pyarnu, a sea fishing port, is situated in the N.E. part of the Riga Bay, at the estuary of the Pyarnu River falling into the Pyarnu Lakht.

Vessels, with a draft of 4.0 m. can reach the port by the channel about 2.5 mile long and about 60 m. wide.

At the estuary of the Pyarnu River the channel is protected by two moles extending S.W. from the shore. Depths at the berths are up to 5 m. Changes of the water level within the port aquatorium are due to tides caused by winds.

Vessels proceeding to the port by the channel are recommended to have sufficient keel clearance bearing in mind requirements of good sea practice. The pilotage is carried out with due regard to the existing water level compared usually with the mean water level at the Kronstadt tide-gauge. Data of the exact depth of the channel can be obtained from the Harbour Master's Office. The harbour of the port is usually frozen over from November till April.

PILOTAGE: Compulsory. The Port of Pyarnu has no special Pilot service. In view of this, Pilots for entry or leaving should be ordered through maritime Agency "Inflot" at the Port of Tallinn. Pilots embark at the port of Pyarnu roadstead.

ANCHORAGES: The Port of Pyarnu roadstead occupies the whole of the middle part of the head of the Pyarnu Lakht limited by the 5 m. line.

When in the roadstead vessels may anchor on both sides of the Pyarnu-Morskoi leading line, beyond the boundaries of the fishing areas. The holding ground is good. The roadstead is sheltered from winds of all directions, except those blowing from the South and S.W.

Masters should bear in mind that there are a lot of fish nets laid in the Pyarnu Lakht. The boundaries of the fish net prohibited areas for navigation of merchant vessels are marked on the charts.

RESTRICTIONS: All traffic of vessels both in the harbour and in the approaches to the port is controlled by the Harbour Master's Office, by a Master on duty.

Navigation in the approaching channel is allowed day and night, in turn, but only in one direction at one time.

It is prohibited for vessels to pass by each other and pass by vessels keeping the leading marks of the approaching channel in line as well as to cross the channel.

The priority to navigate in the channel is given to vessels leaving the harbour. In this case vessels proceeding to the port must give way to outgoing vessel not preventing her manoeuvring. The turn of movement in the channel is stipulated by the Port Controller but the traffic of vessels itself is controlled by the Harbour Master's Office.

Vessels navigating both in the channel and in the harbour must proceed at a moderate speed to avoid the possibility of causing waves.

If winds over Force 6 Beaufort Scale entry to the port, leaving the port and shifting berths is allowed by the Harbour Master or a person in charge only.

RADIO: Radio communication can be effected through the radio stations:

Call Sign	*Frequencies (kHz)* *Working*	*Calling*	*Type of trans-mission*	*Time of work Remarks*
RKD/F	487	500	AZJ	H24
"Pyarnu-31"	156.8*(16)	156.8*(16)	F3E	H24
Harbour Master	156.55*(11)	156.55(11)	F3E	HX
"Pyarnu-33" Port Controller	156.50*(10)	156.50*(10)	F3E	HX (Operates during navigation)

*Frequencies in MHz

Notice of arrival: All vessels proceeding to the port from the seaward should advise their ETA to the Port Controller. Masters should also advise vessels' particulars and the purpose of visit.

VHF: Vessel in the Roads or within port area can contact Harbour Master's Office on Channel 16 by radio-telephone (call sign "Pyarnu-31") all round the clock; Port Dispatcher (call sign Pyarnu-33) on Channel 10 around the clock.

TUGS: Tugs should be ordered through the Port Controller's service. Towage of vessels within the port is prohibited if wind over Force 6.

RADAR: Radar station not available.

BERTHING: Vessels having draft over 4.0 m. cannot berth. During S.W'ly and Westerly winds Force 8 and over, when in the port, the Master or his Chief Officer must be on board and have sufficient number of the crew on board in order to secure the vessel safely.

Berths of the port are equipped to handle vessels loaded with fish and fish products, salt, timber, rod metal and some other cargoes. There is a portal crane with 5 tons capacity and a closed warehouse. The Port Authority plans to build a new warehouse and an administrative building.

FRESH WATER: Available alongside.

FUEL: Available alongside and by barge.

OPENING/CLOSING HATCHES: By crew.

REPAIRS: Small repairs possible.

TIME: GMT plus 3 hours from October 1st – March 31st. GMT plus 4 hours from April 1st – September 30th.
AUTHORITY: The Port of Pyarnu Authority, 2 Kalda Street, 203600 Port of Pyarna, U.S.S.R. *Tel:* 41-893, 40-164, 40-442. *Cables:* Pyarnu Morrybport. *Contact:* Harbour Master, Tel: 40-164.

AGENT: Tallinn "Inflot" Shipping Agency. Tel: 430508. Telex: 173273. Cables: Inflot Tallinn.

RENI: 45.26 N. 28.18 E. (See Plan)

GENERAL: The Port of Reni is situated at a distance 25 miles up from the Izmail Chatal Point on the left bank of the Danube River.

The port is, on average, open for navigation for about 317 days of the year. In severe winters ice-breaker assistance is required.

The Danube River and Kilia Mouth become completely frozen over only in severe winters, at the end of December or early January. Ice finally disappears in February or early March.

Changes of the water level are due to effects of the wind and Spring floods.

Maximum rises of the water level are usually observed in April, May and June, maximum falls August, September and October.

Maximum range of the water level observed in the river is 4 m. – 6 m.
DOCUMENTS: Refer to beginning of U.S.S.R. Section.
PILOTAGE: Compulsory. All vessels proceeding from the Izmail Chatal Point up to Reni and vice versa must navigate under control of a State Commissioned Pilot.
ANCHORAGES: Vessels should anchor in the port roads with depths from 10 m. to 20 m. The holding ground is clay and mud.
RESTRICTIONS: There are no time restrictions for the entry to the port. Both draft and length of vessels are limited by depths and width of the Sulina channel.
RADIO: Vessels can establish radio contact through the port radio station Reni Radio operating 24 hours per day on the following frequencies:

Port Division	*Frequency* MHz	*Call sign*
Port Controller	156.600 (Channel 12)	Reni-Radio-2
Port Control Inspection	156.600 (Channel 12)	Reni-Radio-5
"Inflot" Agency	156.450 (Channel 9)	Reni-Radio-8
Transport fleet shipchandlers	156.450 (Channel 9)	Reni-Radio-7
Relief crew	156.450 (Channel 9)	Reni-Radio-14
Harbour Fleet Controller	156.600 (Channel 12)	Reni-Radio-6
Harbour fleet oil berth	156.600 (Channel 12)	Reni-Radio-15

Operation Frequencies, Call Signs & Schedule:

Transmission frequency	*Reception frequency*	*Operation time (Moscow)*	*Call sign*
3225 kHz	4210 kHz	0800–0900	UJN-3
4260 kHz	4210 kHz	0900–1100	UJN-3
6421.5 kHz	6275.5 kHz	1100–2000	UJN-3
3225 kHz	4210 kHz	2000–2400	UJN-3
156.800 (Channel 16)	156.800 MHz (VHF Channel 16)	Round the clock	Reni-Radio-1
161.900 (Channel 26)	157.300 MHz (VHF Channel 26)	Round the clock	Reni-Radio-1
156,100 (Channel 2)	160.700 MHz (VHF Channel 2)	Round the clock	Reni-Radio-1

VHF radio conversations not relative to official business are prohibited.
TUGS: 34 tugs, up to 2,000 h.p. Tug assistance is not compulsory. Tugs are available if requested by Master. Tugs shall be ordered by VHF at least 1 hour before required.
BERTHING: The port is accessible to large vessels. The berths with depths alongside of up to 7.5 m. are equipped to handle general and bulk cargoes, crude oil and oil products, grain and food products.

The port comprises three cargo areas.

The first area has 9 berths including 2 facilities, which can accommodate large sea-going vessels under any Danube water stage. Export and import cargoes of various trades are handled there. One of the berths specialises in transhipment of imported grain and has the capability of operating in any weather.

The second area also comprises 9 berths to handle small and medium diameter pipes and tubes, steel exports and imports, equipment, 5-ton containers, export timber and transit cargoes.

The third area has 6 berths specialised in the handling of bulk cargoes, electrical equipment, agricultural machinery and vehicles.

In December 1984 the first phase of a new transhipment facility was completed. Four berths, storage facilities, railway sidings, communications, service space and other facilities were put to use. Quayage gained more than 500 m. The new capacity made it possible to handle 800,000 tons of cargo additionally.

Berths No. 1, 2 and 28 handle steel; Nos. 3 and 4 packages and pieces; Nos. 5 and 26 equipment; No. 6 heavy lifts; Nos. 7 and 8 canned goods and vegetables; Nos. 9 and 9a grain; Nos. 15, 16, 27 and 29 general cargo; Nos. 17 and 18 exports and imports; No. 31 vehicles; No. 34 coal and Nos. 35, 36 and 37 laminate and ores.

Cranes of up to 32 tons capacity are operated on the quays. Also there are floating cranes with lifting capacity of up to 100 tons, fork lift trucks up to 10 tons capacity and other cargo handling equipment.
FUEL: Available.
FRESH WATER: Can be supplied ex-shore and by barges.
REPAIRS: Only minor hull and engine repairs can be carried out. There are no dry docking facilities.
OPENING/CLOSING HATCHES: According to the custom of the port, opening and closing of hatches is carried out by the crew. But it can be carried out by the port workers for vessel's account, if required by the Master.
CONSULS: None.
TIME: GMT plus 3 hours. GMT plus 4 hours in Summer.
BANKS: Bank for Foreign Trade of the U.S.S.R., Moscow, Telex: 411174.
STORING: See "Prelims".

1. Vessel can be stored by barge and truck.
2. Vessel can store from barges after loading/discharging or during operations if nothing interferes with cargo handling.
3. Trucks can proceed alongside at the berth.
4. Fork lift trucks can be used on the jetty to handle stores.
5. Vessel can be stored with various stores except prohibited items.
6. Local riggers can be employed to assist with storing.

SURVEYORS:
1. Cargo Inspector of the U.S.S.R. Chamber of Commerce and Industry available.
2. U.S.S.R. Register of Shipping. Surveyor available.

POLICE/AMBULANCE/FIRE: A Fire Guard of the port provides for the safety of ships and can be summoned, via the "Inflot" Agency, to render services in order to extinguish fire or to pump water from holds.

If a fire occurs in the port territory or on board it shall be reported to the Fire Squad by telephoning 2-01, or to the fire boat "Smeliy" dialling 2-02. The fire boat can also be summoned over VHF Channel 16.
NOTICES: Masters of vessels proceeding to the Port of Reni shall, in advance but latest 24 hours prior to arrival at the port, advise Port Control and "Inflot" Agency: time of arrival, description and quantity of cargo for the port, heavy lifts, if any, their stowage and weight, number of passengers, ship's draft and length, as well as services required of the port.

Abstracts from Compulsory Rules of the Commercial Sea Port of Reni:
Article 1: Two hours prior to arrival at the Commercial Sea Port of Reni, Master shall advise accurate time of arrival to Port Control Inspection.
Article 2: Ships may call at or leave the port, round the clock, after obtaining permission of the Port Control.
Article 3: Upon anchoring in the inner or outer roads, a radio watch shall be kept on VHF Channel 12.
Article 4: Berthed ships are provided with electric power, telephone and fresh water.
Article 5: Prior to commencement of loading, ship's cargo spaces shall be completely cleaned and provided with all the necessary equipment.
Article 6: Ships may discharge oil-contaminated water, garbage and food waste at the port. Master shall take every step to prevent a spill of oil products.
Article 7: Orders for any port services are placed by Masters of foreign vessels through the "Inflot" Agency.
DEVELOPMENTS: 2 new berths recently completed.

AUTHORITY: The Port of Reni Authority, 188 Dunai Street, The Port of Reni, Odesskaya Obl., 272840, U.S.S.R. *Tel:* 2-14-84, 2-10-57. *Telex:* 23874. *Cables:* Reni Port.

AGENT: The Port of Reni Maritime Agency "Inflot". Postal address: 192 Dunai Street, The Port of Reni, U.S.S.R. Cables: "Inflot Reni". Tel: 21835, 26593. Telex: 232713.

RIGA: 56.58 N. 24.06 E. (See Plan)

GENERAL: A Baltic seaport, Riga is situated at the mouth of the Daugava (Western Dvina) River falling into the Gulf of Riga.

The water area of the port is formed by the lower part of the Daugava River from the mouth up to a bridge, thence by the Milgravis Channel and Sarcandaugava Creek.

The roadstead of the port is situated at the mouth of the Daugava River.

The port is open for navigation all the year round, but ice-breaker assistance is required about 4 months of the year.

The Gulf of Riga is frozen over for quite a long time. On the coast of the Gulf, ice first appears in December and finally disappears in April. The middle part of the Gulf gets frozen over only in severe Winters and for a short period. Usually ice in this area is mostly drift ice.

Considerable changes of the water level may be caused by strong winds and variation in atmospheric pressure ("Seish" effects).

The range of the water level caused by winds depends on the force of the wind, direction and period of time it blows.

Most sharp rises and falls of the water level are observed at the mouth of the Daugava River. They may reach at times 1.3 m. – 1.8 m. higher and 0.9 m. – 1.1 m. lower than the datum at Kronshtadt.

The level of the water in the port usually depends on the ordinary water level in the Daugava River.

The max. rise of the water level caused by winds may reach 2 m. higher and fall 1 m. lower than the mean water level observed over a period of many years.

The entrance channel is available for ships with maximum draft 12.5 m. from Light Buoy "B" to the inner road situated 3 miles from the Daugava River.
DOCUMENTS: Refer to beginning of U.S.S.R. section.
PILOTAGE: Compulsory. Inflot will arrange Pilot on receipt of ETA at Receiving Buoy "B", which is to be given 96, 48, 24 and 4 hours prior arrival. Also advise with ETA details of cargo, last port of call, passengers if any, ship's draft and length.

Pilot meets vessel at Receiving Light Buoy "B" (Lat. 57° 06′ N., Long. 23° 57′ E.). In case of bad weather, when Pilot is unable to come aboard, vessel should follow in the wake of a pilot boat, up to the mouth of the river, where Pilot will board vessel.

4 hours prior to arrival at this buoy the Master should advise his ETA by VHF, Channel 14, via CPR.

Vessels leaving the port should navigate under Pilot control to Receiving Buoy "B".

Ships going to the port of Riga may receive a Pilot for the passage of the Irben Strait at the roads of the port of Ventspils. ETA to Inflot-Riga 2 days prior to arrival at Ventspils Roads.

The order for the Pilot from Riga to Ventspils Roads must be given to Inflot-Riga 1 day prior to sailing.

Pilotage in the Irben Strait is not compulsory but it is recommended for ships with a large draft.

The Pilot assistance will be particularly useful during Winter, when navigation is effected as a rule, with an icebreaker in the convoy.

ANCHORAGE: The position in which to anchor will be advised by the Duty Officer at the Port Radar Service. The best anchorage can be obtained in the Port of Riga Roads, at a distance 7.3 miles off the Daugavgriva Lighthouse, bearing 312° (N.W.) of Light Buoy "B". Depths in the anchorage are from 32 m. to 35 m. The bottom is mud and sand. It is not recommended to come closer to the shore without a Pilot on board.

The Port of Riga Roads are situated N.W. of the entrance to the mouth of the Daugava River.

The Roads are open to winds blowing between S.W. and N.E.; therefore, in Autumn, when these winds prevail, anchorage there is unsafe.

In periods when heavy waves in the roads are caused by fresh Northerly winds, vessels are recommended to leave the roads for shelter in the port or go to the open part of the Gulf of Riga.

RESTRICTIONS: Permitted draft for the entry into port is 10.06 m. at the mean water level.

Entry to the Daugava River and the Port of Riga is accessible for vessels having drafts ensuring safe passage across the river bar.

As a rule, vessels passing along the channel are requested to have keel clearance not less than 0.45 m.

The speed of vessels navigating in the Daugava River should not exceed 6 knots.

There are no restrictions as to length of vessel and time of entry to the port.

Large vessels laid up with ballast water are not allowed to shift berth during winds Force 6 Beaufort Scale and over.

Passage of the Daugava River is prohibited for ships having anchors under water.

The speed of the Daugava water stream in a low-flow period is insignificant, but it may sharply rise at the time of discharge of water through the overflow weir of the Riga hydro-electric power station. The operational schedule of the station requires such discharges.

To avoid damages to the underwater parts of a berth while mooring or unmooring, every vessel must have the main engines going "dead slow" until her stern is not less than 15 m. from the quay.

MAX. SIZE: Max. permitted draft for vessels going to berths of the port for discharging is 10.06 m. in fresh water, if the water level is "O" datum at Kronstadt.

Vessels having draft more than 10.06 m. are discharged into barges in two inner roads which have 3 mooring buoys, each 3 miles from the mouth of the river. Max. permitted draft for vessels going to the inner road for lighterage is 12.5 m. in fresh water, if the water level is "O" datum at Kronstadt.

HEALTH: Pratique obtainable after vessel's mooring when Health Officials visit vessel with Immigration and Customs Officers. Health Inspector to be informed of any medical assistance required.

RADIO: *Notice of Arrival:* In Winter when the Irben Strait and the Gulf of Riga are completely frozen over and ice-breaker assistance is required, vessels proceeding to the port of Riga should advise Harbour Master their ETA to the edge of the ice, vessel's ice classification and estimation in days for the expenditure of fresh water and fuel available on board at the moment of approaching the edge of the ice.

Navigation of vessels to be arranged in accordance with "Regulations of Navigation in the operating area of Riga Port Vessels' Movement Control Service" published in Notices to Mariners.

Regulations of vessels' movements is carried out with assistance of Control Radar Service Post.

Port Dues in the area of vessels Movement Control Service are collected as per "Statute of Dues and Charges to the vessels served in the Sea Ports of USSR".

Vessels can establish ship-shore radio contact via the port radio station Riga Radio, operating 24 hours a day on the following frequencies:

	Frequencies (kHz)		*Type of*	
Call Sign	*Working*	*Calling*	*trans-mission*	*Time of work*
UKB	500	500	A1A	H24
"Riga-Radio"	2605	2182	H3E	H24
"Riga-Radio-1" (CPR)	156.45*(9)	156.8*(16)	F3E	H24
"Riga-Radio-5" (Harbour Master)	156.45*(9)	156.8*(16)	F3E	H24
"Riga-Radio-9" (Vessels' movement control post)	156.45*(9)	156.45*(9)	F3E	H24

*Frequencies are given in MHz.

Riga Control Radar Post (call signal: Riga Radio 9) regulates vessels' movement on VHF Channel 9 of Port Radio Station, and pilotage of vessels with assistance of Radar System is performed on VHF Channel 20. During navigation in the port area, vessel's VHF radio to be switched to VHF Channel 9.

TUGS: Use of tugs is obligatory. The number of tugs depends on length of the vessel and place of berthing.

BERTHING: Berths of the port with depths up to 10.0 m. alongside are equipped to handle general, containers and bulk (ore, coal) cargoes, metals, timber, grain, food products and passenger traffic.

Number of tugs to be ordered for entry assistance or for shifting berth is decided by Master in accordance with Pilot's recommendation.

Cranes of up to 40 tons capacity are operated on the quays and by the warehouses. Also, there are floating cranes with lifting capacity of up to 100 tons, other cargo handling equipment and intra-port transport.

SPECIALISED CARGO HANDLING FACILITIES: Berth Nos. 16 – 19 are suitable for handling of ships type Ro-12. Berth Nos. 32 – 33 are suitable for handling of ships type Ro-12, Ro-30 and Ro-60.

BRIDGES: Minimum height of electro-transmission line crossing the Daugava River is 61 m.

MEDICAL: All medical assistance available.

STEVEDORES: Master's and/or Shipowner's information of cargo details, stowage, etc. is required in advance. Information should be addressed to Inflot Agency.

DENSITY: About 1002.

FRESH WATER: Available. Delivered from shore or by barge to Inner Roads.

FUEL: Bunkers may be delivered to the Roads or supplied at berth by barges during loading/discharging of non-inflammable cargoes.

GANGWAY/DECK WATCHMEN: Recommended. These duties normally performed by crew.

OPENING/CLOSING HATCHES: Opening and closing of hatches is usually done in accordance with conditions of Charter Party.

CUSTOMS ALLOWANCES: No restriction on quantities, but nothing may be taken ashore.

IDENTIFICATION CARDS: Seaman's Book required.

CONSULS: None.

REPAIRS: Repairs possible for hull, machinery, radio and navigational equipment. Floating crane available, capacity 100 tons. All kinds of repairs for vessels up to 30,000 d.w.t. can be carried out.

REPATRIATION: Crew changes and repatriation possible.

AIRPORT: International airport not available. Internal communications between Riga and most cities of the USSR is possible.

TIME: GMT plus 3 hours. Summertime (GMT plus 4 hours.) from 1st April till 30th September.

HOLIDAYS: 1st January, 8th March, 1st and 2nd May, 9th May, 7th October, 7th and 8th November.

POLICE/FIRE/AMBULANCE: Advise Inflot.

TELEPHONES: Installation and use charged according to existing tariffs.

SHORE LEAVE: Crew allowed ashore.

AUTHORITY: The Port of Riga Authority, 6 Vilis Latsis Street, 226180-Riga, U.S.S.R. *Tel:* 32-93-54, 32-92-54, 32-92-35. *Telex:* 161117 Buhta. *Cables:* Morport Riga. *Contact:* Y. Silayev, Harbour Master.

AGENT: The Port of Riga Main Maritime Agency "Inflot". Postal address: 6 Vilis Latsis Street, 226180-Riga, U.S.S.R. Cables: "Inflot Riga". Tel: 32-00-28, 32-97-03. Telex: 161118, 161119.

SOCHI: 43.34 N. 39.43 E. (See Plan)

GENERAL: The Port of Sochi is an ice-free port, situated at the mouth of the Sochi River, S.E. of the Uch-Dere Point, in the Eastern part of the Black Sea.

The port is protected by the Caucasian chain of mountains from cold N.E. winds but it is open to winds blowing from Southerly and Westerly directions when heavy waves may roll over the port moles causing heavy swell in the harbour.

The port mostly handles passenger traffic.

There are passenger terminals, one of which serves hydrofoil ships only. About 3 million passengers visit the port yearly.

A cargo pier is equipped to handle fruit, building materials and cars. There are enclosed warehouses on the cargo pier and on one of the passenger terminals.

DOCUMENTS: Refer to beginning of U.S.S.R. section.

PILOTAGE: Pilot boat usually meets vessel at a distance of about 1 mile from the port. In the event of bad weather or restricted visibility, vessel should anchor or drift at a safe distance from the port until Pilot arrives.

ANCHORAGE: Deep drafted vessels may obtain anchorage in the Outer Roads Westward of the Northern mole. The depths in the roads are from 11 m. to 12 m.

Some distance Westward, in depths 20 m. – 23 m., there are mooring buoys which can be used during vessels' stay in the roads.

Anchorage can also be obtained at 1.3 – 1.5 miles distance S.S.W. of the Sochi Lighthouse. Depths there are about 29 m. The bottom is mud with sand, and small stone closer to the shore.

Anchorages are open to winds blowing from the sea.

RESTRICTIONS: There are no time restrictions for entry to the port.

In case of stormy weather entry to the port is difficult due to the swell caused by heavy waves in the approach and in the narrow entrance to the port.

In the event of heavy surf vessels must anchor in the outer roads since entry to the port is impossible.

Entry to the port is not allowed during heavy waves over Force 4 and winds over Force 6 as well as during bad visibility.

During the Autumn-Winter period the Port of Sochi cannot be used as shelter port, because lying in the port is dangerous due to the strong variable current ("Tyagun") usually caused by gales blowing between S.E. and N.W.

Under these circumstances the Port Authorities cannot guarantee safety to a vessel which, after having received a storm warning, did not make for sea, and bear no responsibility for the consequences.

MAX. SIZE: The max. permitted draft is 8 m., length 190 m. and beam 25 m.

RADIO: Vessels can establish ship-shore radio contact through the port radio station Sochi Radio, operating 24 hours a day on the following frequencies:

Call Sign	*Frequencies (kHz)* *Working*	 *Calling*	*Type of trans-mission*	*Time of work*
UZB	500	500	A1A	H24
"Sochi-Radio"	2310	2310	H3E	H24
"Smena" (Port Controller)	156.6*(12)	156.6*(12)	F3E	H24
"Sluzhba" (Harbour Master)	*156.8*(16)	156.8*(16)	F3E	H24
	156.675*(73)	156.675*(73)	F3E	H24

*Frequencies are given in MHz.

A signal station is located at the Sochi Lighthouse from which visual signals are shown.

BERTHING: A vessel intending to enter port with tug assistance should keep the Sochi mid-channel leading marks in line ahead and stop the main engines in due time to allow vessel to come to the state of "no motion" at a distance of 1 mile from the port entrance. Only under these conditions is a tug allowed to approach a vessel and receive or cast off the tow rope.

Due to a small port area and heavy water streams caused by vessels' propellers Masters of vessels of 2,000 g.r.t. and over must order 1 tug for entering and leaving the port; for vessels of 4,000 g.r.t. and over 2 tugs are required. Shifting berth is allowed during winds not exceeding force 5 Beaufort scale. Opening and closing of hatches on dry cargo vessels is carried out by the crew; on passenger vessels cargo hatches are opened and closed by the port workers.

There are 2 portal cranes of up to 20 tons lifting capacity, 10 ton caterpillar cranes, fork-lifts and other cargo handling equipment.

FUEL: Not available.

FRESH WATER: Can be supplied by pipe-lines at nearly all berths.

REPAIRS: Not available.

TIME: GMT plus 3 hours. GMT plus 4 hours in Summer.

AUTHORITY: The Port of Sochi Authority, 1 Voykov Street, 354000 Port of Sochi, U.S.S.R. *Tel:* 996-63-64, 996-63-63, 996-62-32. *Telex:* 128. *Cables:* Morport Sochi.

AGENT: A branch of the port of Novorossiysk Main Maritime Agency "Inflot" at the Port of Sochi. Postal address: 1 Voykov Street, Sochi 354000, U.S.S.R. Cables "Inflot Sochi". Tel: 99-05-86, 996-62-70.

All foreign vessels calling at Sochi are attended by Maritime Agency of Tuapse.

SUKHUMI: 42.57 N. 41.00 E. (See Plan)

GENERAL: A Black Sea passenger port, Sukhumi is situated at the head of the Sukhumi Bay, 2 miles E.N.E of the Sukhumi Point. The port is open for navigation all the year round. Both the port itself and the Gulf are open to winds blowing from the sea.

Several berths of the port are equipped to handle passenger traffic.

The port area is bounded by the shore line and the imaginary line connecting the Sakhumi Point and the mouth of the Kelasuri River.

The port is visited by regular and cruise passenger vessels.

DOCUMENTS: Refer to beginning of U.S.S.R. section.

PILOTAGE: A Pilot meets vessel in the outer roads. Compulsory for foreign flag vessels.

ANCHORAGES: Anchorages are situated in the outer roads on the Northern coast of the Sukhumi Bay, opposite the mouth of the Beslet River. Depths are from 12 m. to 50 m. The bottom is mud.

RESTRICTIONS: Vessels may enter or leave the port at any time of day or night.

MAX. SIZE: The max. permitted draft is 7.6 m., length 190 m.

RADIO: Ship-shore radio contact can be established via the port radio station Sukhumi Radio operating 24 hours a day on the following frequencies:

Call Sign	*Frequencies (kHz)* *Working*	 *Calling*	*Type of trans-mission*	*Time of work*
UFF	500/450	500/454	A1A	H24
"Sukhumi Radio"	2182	2182	H3E	H24
"Sukhumi-1"	156.8*(16)	156.8*(16)	F3E	H24
(Port Controller)	156.45*(9)	156.45*.(9)	F3E	H24

*Frequencies are given in MHz.

Storm signals are exhibited at a signal mast located on the roof of the Port Authority's office.

BERTHING: Vessels of up to 190.0 m. in length are allowed to moor at the new passenger pier. The permitted draft is restricted by the depth of water (7.8 m.). Vessels are not allowed to moor to berths during dense fog and in restricted visibility when navigational lights and the current indicator on the passenger berth are not visible. In this event vessel should anchor and disembark passengers in the outer roads.

When mooring, Master should bear in mind the direction of the current and the effect on the mooring angle of vessel.

By day, the direction of the current indicated by a sparbuoy located at the head of the passenger pier, and at night, by lights exhibited from the elevation of the front leading light.

A green light shown lower than the front leading light indicates Easterly current, and a red light, current of Westerly direction.

The rate of the current is usually determined by the Master himself.

Due to the constant influence of the current, mooring is usually effected without tug assistance.

Masters of vessels moored at the port berths should keep the main engines ready bearing in mind the fact that the outer roads of the port are not protected from the effect of winds.

There are no portal cranes on the passenger pier. Handling of cargo is done by 5 ton port cranes and caterpillar crane with lifting capacity of 12 tons.

FUEL: Can be supplied by lighters.

FRESH WATER: Supplied ex-shore.

REPAIRS: Not possible.

TIME: GMT plus 4 hours. GMT plus 5 hours in Summer.

AUTHORITY: The Port of Sukhumi Authority, 66 Rustaveli Street, 384900 Port of Sukhumi, U.S.S.R. *Tel:* 2-82-02, 2-34-03, 2-34-00. *Cables:* Morport Sukhumi.

AGENT: A branch of the Port of Batumi Main Maritime Agency "Inflot" at the Port of Sukhumi. Cables: "Inflot Sukhumi".

TALLINN: 59.27 N. 24.46 E. (See Plan)

GENERAL: A Baltic seaport situated in Tallinn Bay. Year-round navigation is possible. Tallinn Bay is usually frozen over in severe Winters only. In the Winter months (1st February – 31st March) the port of Tallinn is kept open for navigation by ice-breakers. The tidal range in Tallinn Bay is of very small account. The difference of the water level in the Bay is due solely to the effects of the wind. A rise of the water about ±0.8 m. from mean water level is observed during N.W. and Westerly winds. The fall of the water is caused by S.E. and Easterly winds. It usually reaches below the mean water level.

DOCUMENTS: Refer to beginning of U.S.S.R. section.

PILOTAGE: Compulsory. 24 hour Pilot service is available. Pilots board vessels at Lat. 59° 37′ 05″ N., Long. 24° 38′ E. In case of stormy weather vessels should follow pilot boat to a sheltered position where Pilot is able to embark/disembark or use the assistance of the shore radar station. Pilot should be ordered by VHF through the "Inflot" Agency not later than 2 hours prior to arrival at the Pilots' boarding place.

ANCHORAGES: The anchorage area is situated in the port of Tallinn outer roads Westward of the Tallinn lights leading line, at the Palyasaar Peninsula. Depths in the area are from 14 m. up to 22 m.

RESTRICTIONS: Vessels can enter or leave the harbour through the Northern or Southern entrances. Entry to the port through the Northern entrance can be used by vessels having draft of up to 8.5 m. The Southern entrance can be used by vessels having draft of up to 7.0 m. Depths of water in the Southern entrance area can vary due to the movement of deposits. Vessels can enter or leave the port at any time of day and night.

MAX. SIZE: LOA 155 m., width 22.0 m. and draft 8.5 m.

HEALTH: International quarantine signals to be used on arrival. No later than 6 hours before arrival at the inner area Master should radio Agents giving full details of state of health on board, and requesting Pratique which will be given on arrival.

RADIO: All vessels when approaching the Port of Tallinn should establish radio contact via Tallinn Radio port radio station which operates 24 hours a day on the following frequencies:

Call Sign	*Frequencies (kHz)* *Working*	 *Calling*	*Type of trans-mission*	*Time of work*
UNS	500	500	A1A	H24
"Tallinn-Radio"	2182	2182	H3E	H24
"Tallinn-Radio-1" (CPR)	156.8*(16)	156.8*(16)	F3E	H24
"Tallinn-Radio-5" (Harbour Master)	156.45*(9)	156.45*(9)	F3E	H24
"Tallinn-Radio-17" (Vessels' movement control post)	156.7*(14)	156.7*(14)	F3E	H24

*Frequencies are given in MHz.

The movement of vessels within the port and in the outer roads is controlled by the Traffic Control Post located at the Port of Tallinn Authority building.

TUGS: Tug's assistance available for berthing subject to Pilots advice. Tugs can be ordered through Agents. Ship's lines normally used. When tugs are ordered in advance the cost will be charged to the vessel whether tugs are used or not. For vessels with length over 120 m. or over 3,000 g.r.t. tug assistance is obligatory.

BERTHING: Vessel will not be allowed to berth unless main engines and steering mechanism are in good working order. All vessels in port are required to fly their national flags between 0800 hrs. and sunset. On holidays and special occasions vessels may be expected to dress their ships if requested by Port Authorities.

The berths of the port with depths alongside up to 9.0 m. are equipped to handle general, 40 ft. containers, bulk and liquid (chemical products) cargoes, sugar, cement, metals, foodstuff, etc., as well as passenger traffic. Covered warehouses with mechanical equipment and concrete floor sheds are available.

STEVEDORES: Arranged by Agent on basis of Master's ETA. Loading and unloading is carried on throughout 24 hours a day including holidays.

CRANES: Loading and unloading is usually done by shore portal cranes of up to 40 tons capacity, by floating cranes of up to 100 tons capacity and by other cargo handling equipment.

FRESH WATER: Supplied by pipe-lines at all berths.

FUEL: Bunkers are available and can be taken from the quays or delivered by lighters.

GANGWAY/DECK WATCHMEN: Compulsory to maintain a gangway watch by ship's crew.

OPENING/CLOSING HATCHES: Normally opened and closed by ship's crew.

CUSTOMS ALLOWANCES: No restrictions on crew's consumption of tobacco and alcohol on board. It is forbidden to take these items ashore.

CONSULS: No local representation.

REPAIRS: Only minor repairs may be effected at machine shop ashore.

TIME: GMT plus 3 hours. GMT plus 4 hours in Summer.

HOLIDAYS: All holidays are worked by stevedores.
TELEPHONES: Connection on board vessels can be made at berths number 5, 12 and 17.
DEVELOPMENTS: New Port of Novotallinsk under construction in the Bay of Muuga, 20 km. N.E. of Tallinn, for handling grain cargoes in vessels of 100,000 d.w.t. The Port will also handle perishable cargo and Ro-Ro vessels. Grain silo capacity 300,000 tons.
AUTHORITY: The Port of Tallinn Authority, 25 Sadama Street, 200102 – Tallinn, U.S.S.R. *Tel:* 42-58-30, 42-59-80. *Telex:* 173-106. *Cables:* Morport Tallinn.

AGENT: The Port of Tallinn Shipping Agency "Inflot". 54-a Tuukri Street, 200106 – Tallinn, U.S.S.R. Cables: "Inflot", Tallinn. Tel: 430508, 430518, 432720, 428339. Telex: 173273.

TUAPSE: 44.06 N. 39.04 E. (See Plan)

The port of Tuapse is situated between the mouths of rivers Tuapse and Pauk and the depths of 40 m. Year round navigation.
DOCUMENTS: Refer to beginning of U.S.S.R. section.
PILOTAGE: Compulsory in and out, possible at any time. Vessels await Pilot at anchorage. Pilots board and leave vessels in the Outer Roads behind the Pervomaisky Breakwater if the sea (swell) up to Force 4. When leaving harbour during bad weather Pilot leaves vessels in the Inner Roads. Communication with Pilots on VHF channel 12.
ANCHORAGES: Depths 13 m. – 22 m. Position of anchorage, bearing to the entrance red light and distance is radioed by Harbour Master through Agent to each vessel prior to arrival (unless berth available). When at anchor, vessel shall keep VHF watch on VHF Channel 16.
MAX. SIZE: See "Berthing".
HEALTH: Sanitary Officer boards on arrival or when berthed. No automatic Free Pratique. In the event of fever or any suspected epidemic disease onboard Masters shall inform the sanitary service immediately on arrival.
RADIO: Radio communication can be effected through the port radio station "Tuapse-Radio".

Call Sign	*Frequencies (kHz)*		*Type of transmission*	*Time of work*
	Working	*Calling*		
UVW	500/430	500/425	A1A	H24
"Tuapse-1" (VHF CPR)**	156.05*(1)	160.65*(1)	F3E	H24
Vessels' movement	156.8*(16)	156.8*(16)	F3E	H24
control post	156.45*(9)	160.45*(9)	F3E	H24

*Frequencies in MHz.
**Central Port Radio Station.

Arrival Advice: Masters shall send 96/72/48 and 24 hours' ETA notices to "Inflot" Agency, advising also quantity of ballast onboard and time required for deballasting ashore. Masters shall also advise quantity and grade of cargo, stowage plan, LOA and maximum draft, number of passengers, health condition of crew.
TUGS: Tugs are compulsory for berthing/unberthing or shifting, as well as when lying at inner anchorage. Tugs normally join vessels at the buoy marking the Pervomaisky breakwater. Ship's lines to be used.
BERTHING: At any time with winds up to Force 7. The port consists of 2 harbours, with 3 berths for dry-cargo ships (max. draft 12 m. (brackish water), LOA up to 220 m.) and 6 berths in the oil harbour for tankers (max. draft 12 m. (brackish water) LOA up to 235 m.). Oil harbour, shore cargo manifolds diameter 250/400 mm. All dry-cargo berths are equipped with portal cranes of 10-32 tons capacity. Loading/unloading usually by shore cranes. The port is not sheltered for vessels during strong S.E./S.W. winds. During strong gales from these directions lying in port is dangerous due to strong swell, especially the one called "tyagun". In this event vessels must leave harbour when recommended by the Port Authority. When lying in port the main engines shall not be immobilised without special permission by Harbour Master.
MEDICAL: First medical aid at any time; hospital facilities available.
DENSITY: 1011/1015.
FRESH WATER: Available from any berth, road delivery not possible.
FUEL: Fuel oil and gasoil available at oil berths or ex-lighters. Masters giving 72 hours' notice.
FIRE PRECAUTIONS: Conventional rules for oil ports.
POLLUTION: Marine pollution shall be avoided by all means, specially due to proximity of health resort area. Any pollution is subject to heavy fines.
OPENING/CLOSING HATCHES: Normally by crew.
GANGWAY/DECK WATCHMEN: Not required. Gangways shall be lighted up and protected by nets.
CUSTOMS ALLOWANCES: No restrictions. Export/import of Soviet currency is forbidden.
IDENTIFICATION CARDS: Seaman's Books are sufficient.
CONSULS: None.
REPAIRS: Emergency repairs. Floating docks subject to special arrangement.
REPATRIATION: Possible in emergency.
AIRPORT: Sochi – 120 km. Served by regular airlines.
TIME: GMT plus 3 hours. GMT plus 4 hours in Summer.
HOLIDAYS: 1st January, 8th March, 1st, 2nd May, 9th May, 7th October, 7th and 8th November. Work during holidays can be arranged.
TELEPHONES: Available for all vessels.
SURVEYORS: Leading world classification societies are represented by the Register of the U.S.S.R..
GENERAL: Deballasting or discharge of tank-washings facilities (slops) at a rate of up to 2,000 t.p.h., craft for discharge of bilge water. Food waste and garbage, etc. shall be collected into special containers placed on board upon berthing. Laundry facilities. No boats, rafts, etc. shall be launched from vessels without special permission. All mooring ropes to be provided with rat-guards immediately upon mooring or shifting berths. Local representative of the Insurance Company of the U.S.S.R. (Ingosstrakh) Ltd., and experts of the U.S.S.R. Chamber of Commerce and Industry.
SERVICES: Compass adjusting, radar and radio repairs, gyro compass repairs, lubricants, paints and chemicals of Mobil, Castrol, Esso, Elf-Aquitaine, Rochem and Perolin Unitor also spares for Sulzer, M.A.N. and Burmeister and Wain engines also for Magnavox Satellite Navigators available from consignment centre of Novorossiysk (Tel: 62897. Telex: 279113/412629). Deliveries made with 3 days prior notice to Agent (Inflot Tuapse).
SHORE LEAVE: Crew allowed ashore until midnight. Failure to comply will bring heavy fine.
FIRE/AMBULANCE/POLICE: Telephones: Fire – 301; Fire-boat – 231; Ambulance – 003; Militia (Police) – 002. *Office Hours:* 0800 – 1600 hrs. Saturday 0800 – 1400 hrs.
DEVELOPMENTS: Reconstruction works including dredging underway.
NOTICES:
Brief Information for Masters:
ETA: ETA messages shall also contain quantity of ballast and time for deballasting ashore.
Anchorage: Anchorage position is obtained from Agent prior to arrival, if no immediate berthing is expected. No boats, rafts or other objects shall be launched from vessels. No swimming is allowed.
Bad Weather: S.W. gales develop heavy swell in harbour and vessels may be recommended to leave berth. Main engine shall not be immobilised when alongside berth without Harbour Master's permission. If permitted a tug-boat shall be hired to stand-by.
Bunkers: Small quantities of gas oil and IFO available ex-barge.
Free Pratique: Free Pratique will be granted after Custom's and other formalities are completed, which are normally carried out at all times when alongside berth, otherwise in day time at anchorage, weather permitting.
Fresh Water: Available ex-cargo berths only.
Garbage and Wastes: Any garbage, food wastes, etc. should be collected by crew into special containers placed on board each vessel by a boat upon arrival. Landing of garbage is compulsory.
Launch: Launch for crew at Master's request between 0800 hrs. and 2400 hrs., subject to availability of boats, weather permitting.
Meat Rooms: Meat rooms on board shall be sealed by the Vet Inspector during Custom's visit upon arrival in roads or upon berthing and the seal should not be removed before sailing. Meat of U.S.S.R. origin is allowed for use.
Pollution: Oil spillage must be avoided. In case of a spill, all operations must be stopped immediately and the accident reported to the Port Authority and your Agent at once. Any oil spot or slick noticed on the sea surface near your vessel should also be immediately reported to your Agent and entered in the log.

All outboard sea valves should be locked up upon arrival in U.S.S.R. territorial waters and kept securely closed until sailing. Port seals may be placed on the said valves after docking.

Oil Record Book should be kept up to date and always ready for inspection by Port Authority or Pollution Control.
Radio: Transmission on any frequency to any station except Tuapse Port Radio is not allowed within 12 mile limit. VHF Channel 16 is to be monitored continuously while in roads. This Channel shall be used for calling only. Channels 1, 3, 6, 8, 9, 12, 14, 26 and 27 shall not be used by vessels for ship-to-ship communication.
Steel Ropes: Steel ropes are not allowed when mooring in the Oil Harbour. All mooring lines shall be kept tight at all times.
Salinity: The sea water in harbour is brackish (salinity 1.011–1.014).
Sick Crew: Seamen with fever and symptoms of infectious disease should be reported to Port Sanitary Doctor on ship's arrival and without delay.
Duty Free: Shop is run by Shipchandler and is open 0800 – 1200 hrs., 1300 – 1700 hrs., Monday through Friday (Tel: 398).
Smoke: Emission of smoke from funnel in harbour is prohibited.
Smoking: No smoking is allowed on all decks when alongside at oil berth or when bunkering from a barge.
Telephone: Shore telephone set will be placed on board for fire-safety and business only when alongside a berth.
Useful Phone Nos.: "Inflot" – 322/836/288/427; "Nafta" – 357/282; Pilot – 338; Harbour Master – 323/235/223/503; Seamen's Club – 269; Shipchandler – 398; Pilot – 338.
Shore Leave: Shore leave to 2400 hrs.
Attention of Chief Officers: All mooring ropes and lines are to be equipped with *rat-guards* immediately upon completion of mooring or shifting.

Failure to comply with this regulation will incur a heavy fine by the Port Sanitary Service without further warning.
Safe Draft: Safe permissible draft alongside berths:

Berth No. 1	12.00 m.	Berth No. 7	7.40 m.
No. 2	11.20 m.	No. 8	6.20 m.
No. 3	9.75 m.	No. 9	11.00 m.
No. 4	11.50 m.	No. 10	11.00 m.
No. 5	12.00 m.	No. 11	12.00 m.
No. 6	9.75 m.	No. 11A	9.75 m.

Safe Trim and List: Vessels alongside berths should always maintain seaworthy trim and list (not exceeding 2°), and always remain afloat.
Tugs: Tugs are compulsory, ship's lines used. Masters should avoid using ship's propellers when approaching berth and should inform tugs of each manoeuvre to avoid damage. During S.E. gales vessels with a small quantity of cargo or ballast on board at Berths Nos. 1, 2, 5 and 6 are recommended to call tugs for safety.
Rat Guards: Compulsory for each rope, even tankers. Failure to comply will bring heavy fine.
Shore Leave: Officers and crew allowed ashore until midnight. Failure to comply will bring heavy fine.
Sewage: Must be discharged, whenever feasible, into a special craft before sailing.

Notice to Masters of Vessels: Additional Compulsory Regulations at the Port of Tuapse.

With the aim of preventing sea pollution following additional rules should be strictly complied with:

1. A reliable communication with shore organisations should be maintained during the whole period of vessel's stay in the port, by VHF on Channel 16, or by shore telephone placed on board when alongside berth. The use of such telephone for non-official conversations is prohibited.

2. Upon berthing all overboard valves, except those of the engine cooling systems, should be sealed by the ship's personnel.

3. Before commencement of any operations with oil products, drip pans should be placed under the manifold flanges, all scuppers and other openings on deck should be properly plugged, and all sounding pipes and air pipes checked. No oil operation shall start before all ship systems are ready and the vessel is reported to the representative of the oil harbour or the bunkering craft.

4. In case of an oil spillage, all oil operations should immediately be stopped, and the accident reported at once to the Port Authority by VHF from the roads or by telephone when alongside a berth: Telephone Nos.: Inflot – 322/836. Nafta – 357. Harbour Master's Office – 223/503. Pilot – 338.

All measures to prevent further discharge of oil overside and deck cleaning should be taken without delay.

5. Discharge of any liquids (oil products, domestic and fecal/bilge or sewage waters, etc.), garbage and wastes overboard is prohibited.

6. No ballast can be discharged overside into the sea without permission of the Hydrochemical laboratory and without their representative being present.

7. No chemicals are allowed to be used for neutralising spilled oil or oil products.

8. The administration of any vessel which has polluted the sea and the territorial waters of the U.S.S.R., and failed to undertake necessary measures to prevent a discharge of substances harmful to human health or living resources and marine life, as well as failed to report such incidents, shall be responsible in accordance with the law and regulations in force.

9. All ships should collect any garbage (food wastes, etc.) into special containers placed on board upon arrival, and see that the garbage is removed from the vessel before sailing.

Fire Fighting and Emergency Procedures:

Instructions on Fire Fighting Safety and Emergency Procedures at Oil Berths and on Tankers lying at Loading Berths at the Port:

1. Smoking in the Oil Harbour is prohibited.

Use of open fires and hot work without special permission of the Oil Harbour Fire Guard is not allowed.

2. In case of fire or emergency, inform Fire Guard (Tel. 301) immediately; at the same time start fire-fighting.
3. In case of oil spillage on the quay or on a tanker, cease all cargo operations immediately until the spilled oil is removed.
4. Stop loading during electrical storms.
5. Stop loading when another tanker is underway to an adjacent berth until her mooring is completed.
6. Connecting hoses and loading operations are prohibited when ship to shore bonding cable is missing.
7. The following fire-fighting equipment should be located near the ship's main cargo manifolds on deck:

2 fire extinguishers; a felt sheet, a container with sand and shovel; foam and water hoses with jet nozzles laid out.

8. If a fault or a condition threatens to create a fire is discovered, stop loading immediately until the hazard is eliminated.

Use of tools that may produce sparks is not allowed.

Principal Rules of Anti-Fire Safety for Tankers lying Alongside in the Oil Harbour:

In order to ensure the fire safety of the Oil Harbour and of vessels lying alongside, it is strictly forbidden:

(a) To pump out ballast and water with remains of oil products out of tanks/bilges;
(b) To carry out work with a naked flame;
(c) To throw overboard lighted cigarettes, matches, garbage, also to use signal rockets, fireworks, fire, etc.;
(d) To maintain fire in the galley, to use portable electric fire appliances, cabin ventilators and smoke on board during loading/discharging of oil cargoes. Smoking is allowed only in ship's smoking rooms;
(e) To perform steam scavenging of the smoke or exhaust pipes which may cause sparking;
(f) To use unprotected electric lights, pocket electric torches for lighting decks, tanks or ladders;
(g) To use on deck wire ropes while mooring, if the vessel is carrying 1st. category cargo;
(h) To load/discharge during thunderstorms;
(i) To use tools made of ferrous metal when connecting hoses to avoid sparking.

The vessel's administration are obliged to take all necessary measures to avoid any possible leakage of cargo from pipes and fittings onboard or pump out or spill on deck and in to the sea.

3. All scuppers on the loading/discharging deck section are to be plugged.

4. It is absolutely necessary that the vessel's hull should be connected to the shore earthing appliances if the vessel is loading/discharging a 1st. Category cargo.

5. The manholes of the cargo tanks are to be closed and the sight holes to be covered with Davy's nets.

6. Before commencing loading/discharging all the anti-fire appliances are to be ready for immediate use.

7. In case of fire on board the fire brigades should be called without delay, the vessel's Administration organising the extinguishing of fire by crew also.

8. The vessel's Administration must acquaint the crew with the above rules.

9. Master is responsible for the observance of the above rules.

AUTHORITY: The Port of Tuapse Authority, 2 Maxim Gorky Street, 352800 Tuapse, U.S.S.R. *Tel:* 7-15-15. *Cables:* Morport Tuapse. *Contact:* O. Antonov, General Manager.

AGENT: "Inflot," Shipping Agency, 25, Gagarin Str., 352800 Tuapse. Cables: Inflot. Telex: 279116 Inf Su. Tel: 7-13-22, 7-18-36, 28-1-54.

UST DUNAYSK (Ust-Dunaisk): 45.28 N. 29.42 E.

(See Plan)

LOCATION: The commercial sea port of Ust-Dunaisk is situated on the left bank of the Kilia Inlet of the Danube in the Northern part of its delta at the artificial basin and is approached by a buoyed channel 100 m. wide and 3.5 miles long.

A vessel is considered to be an "Arrived Ship" after she is piloted by a Port Pilot to Anchorage 'C' (No. 397) being a circle within a radius of 3 cables from a point with co-ordinates Lat. 45° 31.8′ N., Long. 29° 44.4′ E.

GENERAL: See "General" before first port in U.S.S.R.

PILOTAGE: Compulsory. Pilotage inward is carried out during daytime only. Pilotage outward is around-the-clock (after mutual agreement between Master's and Port Control).

Pilot waiting area (Pilot's boarding pontoon) for large sea-going vessels is within a radius of 2.5 miles from a point with co-ordinates: Lat. 45° 28′ N, Long. 30° 01′ E. (Anchorage No. 367 or A).

Pilot boat has orange hull and white superstructure and the word "Pilot" in black on the hull. The boat is used to deliver Pilots on board. Tugs of the port can be also used for delivering Pilot.

24 hours prior to arrival Master orders a Pilot via Harbour Master (indicating g.r.t./n.r.t., LOA and arrival draft).

4 hours prior to arrival at Anchorage No. 367 (A) Master has to call "Port Control" on VHF Channel 11 and correct time of arrival. At same time Master receives information about pilotage, formalities, berthing prospects, etc.

ANCHORAGE: There are 3 anchorages with good holding ground in soft mud and sand. They are:

No. 367 (A) - Circle within a radius of 2.5 miles from the point with co-ordinates Lat. 45° 28′ N., Long. 30° 01′ E.

No. 368 (B) - A square with co-ordinates:

Lat. 45° 30′ N.	Long. 29° 53.2′ E.
Lat. 45° 33.1′ N.	Long. 29° 53.6′ E.
Lat. 45° 33.1′ N.	Long. 29° 56.8′ E.
Lat. 45° 30′ N.	Long. 29° 56.8′ E.

No. 397 (C) - Within a radius of 3 cables from the point with co-ordinates: Lat. 45° 31.8′ N., Long. 29° 44.4′ E.

In good weather the Anchorage No. 397 (C) is used for effecting formalities and also for lighting of the vessels.

RESTRICTIONS/MAX. SIZE: Entry to the port is allowed in daytime only. Max. LOA 220 m. Max. arrival draft - 11.5 m. in fresh water. If vessel's arrival draft is greater than that permissible, the lightening of vessel is effected at Anchorage 'C' up to the draft of 11.5 m. Lightening is effected prior to entering the port.

When LASH-carrier vessels arrive at the Port of Ust-Dunaisk the cargo handling operations of the vessel which occupies the floating berth are to be stopped, her laytime interrupted and vessel has to proceed to the roads to Anchorage 'C' for the time the LASH-carrier's lying in the port if the other 2 berths are occupied. If LASH-carrier is in port on the floating buoys other vessels are not allowed to enter the port.

RADIO: Notice of Arrival can be sent via "Odessa-Radio" call sign UDE, calling frequencies 500/454 kHz working - 447 kHz. Address "Inflot Izmail" for "Inflot Ust-Dunaisk".

VHF communication can be effected via port radio station some details of which are given in the table below:

Call Sign	Frequencies (MHz) Working	Frequencies (MHz) Calling	Type of transmission	Time of work
Ust-Dunaisk Dispatcher	156.55 (11)	156.55 (11)	F3E	H24
Ust-Dunaisk Port-Control	156.55 (11)	156.55 (11)	F3E	H24
"Inflot" Ust-Dunaisk	156.55 (11)	156.55 (11)	F3E	H24

TUGS: Mooring and unmooring of the vessels at the port of Ust-Dunaisk is effected with tugs of total capacity not less than 5,000 h.p. (Pilot's option). Ship lines to be used for all operations with tugs.

BERTHING: All cargo handling operations are effected on 3 berths:

(a) Floating buoys where vessel lies at 2 anchors (about 8 shackles) and 3 ropes from each quarter to mooring buoys about 80 m. away;

(b) West Berth where the vessel lies to 2 anchors (about 9 shackles) and 3 ropes from each quarter to shore bollards about 150 m. – 180 m. from the vessel.

At the port of Ust-Dunaisk the transhipment of bulk cargoes is effected direct from ship-to-ship from large sea-going vessels into Danube barges. Cargo handling operations of lash-carriers is also undertaken.

For discharging/loading of bulk cargoes there are 2 floating cranes with capacity of 16 tons and max. height of 15 m. above water level and 2 well fendered floating transhippers with integral hopper/belt system and max. height of 21.5 m. above water level (cargo capacity 50 tons).

MEDICAL: Treatment effected at Izmail. In an emergency Agent can arrange medical treatment at Vilkovo.

DENSITY: Changeable, depends on wind direction. Average – 1005.

REPAIRS: No facilities.

FRESH WATER/FUEL: In first ETA Master has to order quantity of bunkers and water required. Bunkering possible during formalities or late. Bunkers and water are delivered from Izmail.
CONSULS: None.
DRY DOCKS: None.
SURVEYORS: Register of USSR, Grain Inspection, Chamber of Commerce of the USSR, Ingosstrakh.
OPENING/CLOSING HATCHES: Effected by ship's crew.
REPATRIATION: Possible, but taking into account that nearest Diplomatic Agency is too far away it takes at least one week to finish with all formalities and to effect it.
SERVICES: Supply services from Izmail in small quantities.
Additional Services: Discharge of dirty ballast and sanitary water, bunkering, supplying of fresh water, draft survey, unsealing survey, Register of USSR, Declaration of Sea Protests, all possible.
SHORE LEAVE: As there are no places to visit at the port of Ust-Dunaisk the Agent can arrange organised trips for crew members to the town of Izmail.
IDENTIFICATION CARDS: Seaman's book.
TIME: GMT plus 3 hours in Winter, GMT plus 4 hours in Summer.
GENERAL: *Chart:* Soviet Chart No. 971

SHIPMASTER'S REPORT: April 1982 (Updated 1988).
General: Situated on the Northern side of the Danube Estuary, approached by a channel about 1 mile West of the Girlo Prorva (BA. Chart 2213), with a depth of about 12 m. to a basin dredged to 12 m. – 14 m.
Documents/Entry Pocedure: As per U.S.S.R. ports.
Pilotage: Pilot boards in position Lat. 45° 32′ N., Long. 29° 47′ E., or in outer anchorage if weather permits. A tug or orange and white pilot boat is used.
Approaches: From the W.N.W. to a good anchorage at the pilot boarding station, depth 17 m., soft mud. As the buoys marking isolated dangers are unlit daylight approach is recommended.
Anchorages: As above or Harbour Authorities may recommend anchoring in position Lat. 45° 28′ N., Long. 29° 58′ E. Inner anchorage is used by river traffic.
Health: See "General" before first U.S.S.R. port.
Radio: Kooperatsia Ustj Dunajsk on Channel 11. Izmail on W/T or Channel 13.

Communications: Can only be carried out via the "Uritsky", which is an old passenger vessel and is used as the Harbour Office. All messages have to be relayed via this vessel and are either transmitted via VHF to Inflot, Izmail, or taken by river ferry to Izmail. As the Inflot Agent is the only one with a moderate command of English and is not in the office all the time, difficulties and delays occur.
Tugs: Assist in berthing and unberthing.
Berthing: See "Plan".

East Berth, 2 anchors to 9 shackles, 3 ropes from each quarter to shore bollards about 180 m. – 200 m. from vessel.

West Berth, 2 anchors to about 8 shackles, 2 ropes from each quarter to mooring buoys about 80 m. away.

Cargo Operations: Cargo worked 24 hours per day, weather permitting. All cargo worked by one floating crane, with a grab of about 3 tons. Discharging into 1,000 ton lighters, which are taken elsewhere for off-loading. As the crane also has to remove and replace the 7 covers on each lighter, considerable delays occur between finishing one lighter and starting the next. Even in most favourable conditions (16 hours in 24) discharging time seems to be the best that can be achieved. Rain and strong winds delay cargo operations. Takes about 7 days to discharge 25,000 tons.
Stevedores: Provided by port.
Density: 1004.
Fresh Water: Very difficult to obtain. Requires about 5 days' notice as has to come from Izmail, cost 2 Roubles 50 copecs per ton plus 3 Roubles 58 copecs per ton for transportation charges.
Fuel: Supplied but notice required well in advance.
Police/Ambulance/Fire: None.
Telephones: None.
Medical: Hospital and doctors in Izmail. Non-urgent cases take several days to arrange, see "Shore Leave".
Provisions: Usually only potatoes and onions available. Transport cost: 10% of bill.
Shore Leave: Permitted, can only be arranged through the Agents, Inflot. Several days' notice required, all movements of crew closely monitored by Frontier Police.

Journey to Izmail takes 3 hours by hydrofoil and it is usually necessary to spend at least 1 night in hotel at a cost of 10 Roubles, this is arranged by Agent.
Hatches: Opened and closed by ship's crew.
Repairs: No facilities.
Notice:

Extracts from the "Compulsory Regulations at the Sea Merchant Port of Ustj Dunajsk".
(For the Master of the . . . . to be informed)

1. All the mooring ropes to be supplied with rat guards.
2. In daytime to hoist anchor ball.
3. The National Flag of the U.S.S.R. should be hoisted from 0800 hrs. until sunset.
4. At night and when snowfall, rain, haze/mist anchor lights should be switched on.
5. The main gangway set for the men's movement should be equipped with handrails and life-saving net.
6. In order to prevent motor-launches fouling or colliding with the anchor chain or stern at night:
   a) Hang out 1 light in the forebody portion of the vessel – down from the stem.
   b) Hang another light down over the stern.
7. Categorically prohibited:
   a) Pumping out of all kinds of petroleum products.
   b) Pumping out of sewage.
   c) Throwing out rubbish, sweepings, refuse and other things including cargo separation.
   d) No diving or bathing.
   e) Lowering of boats and dropping of other means of flotation.
   f) Work on vessel's radio station except VHF.
   g) Use of firearms for hunting birds.
   h) Giving sound signals.
8. In stormy weather stand by on Channel 16 VHF. Radiotelephone communication with the m.v. "Uritsky" by VHF Channel 13.

Signed:
V. Stoliarov, Harbour Master.
Accepted by the Master of the . . . .

SHIPMASTER'S REPORT: May 1983 (Updated 1988).
General: Situated on the Northern arm of the Danube Delta, the port consists of a basin in the marshes, and is approached by a buoyed channel 100 m. wide, approx. 3.5 miles long, dredged to a depth of 13 m. There are berths for 3 vessels lying to two anchors and with three lines to each quarter mooring buoy. There is a strong outflow from the river, and the port is open to all winds. LASH ships appear to have preference at one berth. All business, including protests, is transacted at Izmail, some 40 miles inland, and the Inflot Agent and Port Officials are based there.
Documents: Refer to beginning of U.S.S.R. section. 4 Crew Lists and separate Money List (attached to Crew Declaration) required.
Pilotage: Compulsory, but not for departure from Inner Roads. Pilot launch with orange hull and white superstructure with the word PILOT in black on the hull. This launch is used for all transport operations in the port.
Anchorage: There are 3 anchorages marked on B.A. Chart 2213. Vessel instructed to anchor in "A", and Pilot boarded there. Vessels lightening are anchored in the Inner Roads close by the outer fairway buoys. Good holding ground in mud and sand at all anchorages.
Restrictions: Least depth in channel 11.5 m.
Radio/VHF: Pre-arrival notices to Inflot Izmail. Agent boards with Officials and Grain Inspectors either at Inner Roads Anchorage or at berths.

Pilot Channel 16; Inflot Agent Channel 11 – call "Uritsky". Use of main transmitter prohibited at Inner Roads and in the port.
Tugs: One conventional and 2 pusher tugs with adequate power assist with berthing. There is a mooring boat for running buoy lines.
Bulk Cargo Facilities: There are 2 floating cranes, well fendered and with integral hopper/belt system for loading coasters. They also carry a wheeled digger/dumper, use of which is not allowed at the anchorage. Each crane capable of about 600 t.p.h.; average about 400 t.p.h. Coasters have a capacity of 3,000 tons; lighters 1,000 tons. Lightening at anchorage carried out by 1 crane towed out by tug; operation liable to interruption with wind force 4 – 5 when crane returns to port.
Medical: In emergency Agent can arrange medical treatment at Izmail.
Density: 1013.
Surveyors: Grain Inspection: Inspectors required *all* main hatches opened and two crew to assist with sampling, even for lightening two holds.
Hatches: Opened/closed by crew.
Customs Allowances: No restrictions. Bond not sealed.
Services: None.
Shore Leave: Permitted.
Agent: Inflot Agent travels from Izmail and usually spends Monday to Friday on "Uritsky", or if traffic expected. See "Izmail".

AUTHORITY: Management of the Port of Ust-Dunaisk., 2 Pridunayskaya str., Vilkovo, USSR. *Cables:* USSR Vilkovo, Port of Ust-Dunaisk.

AGENT: "Inflot" Ust-Dunaisk, 2, Pridunayskaya str., Vilkovo, USSR. Cables: USSR "Inflot" Izmail for "Inflot" Ust-Dunaisk.

VENTSPILS: 57.24 N. 21.33 E. (See Plan)

GENERAL: A Baltic Sea port, Ventspils is situated at the mouth of the Venta River. Ventspils is ice free throughout the year.

There are periodical alterations in the water level of the Venta River, chiefly due to the effects of the wind. The rise of the water level is usually due to moderate Westerly winds, and the fall is caused by Easterly winds.

The maximum rise of the water level is observed in the Venta River at the time of Spring floods.

The port of Ventspils aquatorium includes the Avant-port and the Commercial port. A fairway, direction 323.6° – 143.6°, 130 m. wide leads to the port from seaward of Reception Buoy "Venspils-B".

The West fairway direction 289.9° – 109.9°, 130 m. wide from the "Ventspils-A" Buoy. Both fairways are suitable for all vessels. The draft of vessels passing through the fairway should not exceed 12.48 m. (FW).

Vessels can enter the port by this fairway only after having obtained the Harbour Master's permission.
DOCUMENTS: Refer to beginning of U.S.S.R. section.
PILOTAGE: Pilotage is compulsory both for entering and leaving the port.

Pilots board and leave vessels in the areas of Reception Buoys "Ventspils-A" and "Ventspils-B". Pilot service is available round the clock when entering and leaving the port.

Pilot vessel on Channel 16.

ANCHORAGES: Anchorage in the outer port road for vessels loaded with chemical cargoes is allowed in Area No. 50, co-ordinates:

Lat. 57° 29.75′ N.	Long. 21° 28.62′ E.
Lat. 57° 29.12′ N.	Long. 21° 29.90′ E.
Lat. 57° 30.82′ N.	Long. 21° 31.75′ E.
Lat. 57° 31.48′ N.	Long. 21° 30.40′ E.

Anchorage in outer port road for tankers, vessels loaded with explosive or inflammable cargoes and also for vessels holding up in quarantine is allowed in Area No. 51, co-ordinates:

Lat. 57° 29.40′ N.	Long. 21° 28.82′ E.
Lat. 57° 28.08′ N.	Long. 21° 27.15′ E.
Lat. 57° 27.90′ N.	Long. 21° 30.80′ E.
Lat. 57° 27.02′ N.	Long. 21° 28.72′ E.

Anchorage in outer port road for all the other vessels is allowed in Area No. 52, co-ordinates:

Lat. 57° 27.98′ N.	Long. 21° 26.40′ E.
Lat. 57° 26.65′ N.	Long. 21° 24.87′ E.
Lat. 57° 26.05′ N.	Long. 21° 27.10′ E.
Lat. 57° 26.21′ N.	Long. 21° 28.88′ E.

These Areas are announced by the U.S.S.R. Notices to Mariners. Depths in the anchorage are from 10 m. to 12 m. The bottom is sand; the holding ground is good.

The Master of a vessel has to inform the Port Administration through "Inflot" Agency of the exact position of the anchorage stating the bearing and the distance from the North breakwater lighthouse.

The anchorage in the outer road is not safe during strong Westerly winds therefore vessels are recommended to drift while awaiting entry to the port or to go to sheltered places situated in the areas of the Kolkasrags Point and the Gotland Islands.

MAX. SIZE: *Tankers:* Max. LOA 235 m. Beam 32.0 m. Max. draft 12.48 m. in fresh water.

Cargo vessels: Max. LOA 215 m. Max. draft 11.94 m. in fresh water. Limitations depending on type of cargo to be handled.

When proceeding along the fairway and passing through the Venta River channel, vessels should have speed not exceeding 5 knots.

HEALTH: Pratique obtainable after mooring. Sanitary Inspector visits vessel after mooring together with Immigration and Custom House Officer. If medical care required the Sanitary Inspector has to be informed.

It is strictly forbidden to throw any type of garbage materials overboard from the ship into water areas of the port (bilge water, sanitary water and other infected pollutants). There are three barges for these services; one barge is self-propelled and two are non-self-propelled.

Note: Pratique may be granted on arrival in the roads if vessel reports "Healthy" by means of radio, radio-telephone, etc.

RADIO: Radio contact should be established via the Ventspils Radio–1 Port Radio Station which operates 24 hours a day on the following frequencies:

Call Sign	*Frequencies (kHz)* *Working*	*Calling*	*Type of trans-mission*	*Time of work*
UNI	500/429	500/454	A1A	H24
"Ventspils-Radio"	2182	2182	H3E	H24
"Ventspils-Radio-1" (CPR)**	156.8* (16) 161.9* (26)	156.8* (16) 157.3* (26)	H3E F3E	H24 H24
"Ventspils-Radio-5" (Harbour Master)	156.8* (16)	156.8* (16)	F3E	H24
"Ventspils-Radio-17" (Vessels movement control)	156.8* (16)	156.8* (16)	F3E	H24

*Frequencies in MHz.

**Central Port Radio Station.

Working frequencies of VHF Radio-telephone:

Channel No. 7 – 160.95 MHz
Channel No. 20 – 161.60 MHz
Channel No. 22 – 161.70 MHz
Channel No. 26 – 161.90 MHz
Channel No. 27 – 161.95 MHz

RADAR: The port has a Shore Radar Vessels' Control System.

TUGS: Use of tugs for tankers and gas tankers is compulsory. For dry-cargo vessels over 90 m. LOA use of tugs is also compulsory, otherwise subject to Pilot's/Master's decision.

Normally tugs join vessels within the port area.

BERTHING: Berthing of vessels and shifting berths is carried out round the clock. Vessels having length over 185 m. and draft over 9.5 m. (FW) when approaching the port through the Venta River Channel are allowed to enter or leave the port, moor and shift berth during the day only and when winds do not exceed Force 5.

Cargo berths with depths alongside up to 10 m. situated on the right bank of the Venta River are equipped for handling general, bulk cargoes and metals. Berths of the Avantport are equipped for handling crude oil, liquid gas chemicals and oil products. They can receive vessels with the maximum permitted draft of up to 12.48 m. (FW) (at the datum at Kronstadt). There are covered warehouses and open concrete floor sheds in the port.

There are enclosed warehouses and open concrete floor sheds. This is also a potash handling plant.

Quays are equipped with electric cranes of up to 45 tons capacity. There are floating cranes of up to 100 tons capacity, cargo handling equipment for bulk cargoes and machinery.

Opening and closing of hatches is normally done by the ship's crew. However, this will be done by stevedores at extra charge if requested by Master.

STEVEDORES: Master's and/or shipowner's information of cargo details, stowage – especially for ships with inward general cargoes – is required in proper time. Information has to be addressed to "Inflot" Agency Ventspils.

ETA notification 72, 48, 24 and 4 hours before arrival to "Inflot" Ventspils (Agents).

MEDICAL: Hospital facilities available. Advance notice desirable, however depends on kind of sickness. Master should place orders concerning inoculations, vaccination, fumigation, hospitalisation and etc., with representative of Sanitary Inspection. Veterinary Certificate is compulsory for all kinds of animals and cargoes of animal origin; phyto-certificate is compulsory for cargoes of vegetable origin.

TANKERS: All grades oil loaded by shore loading hoses in diameter of 200, 250, 280, 300 and 350 mm. Total 6 berths all fitted with deballasting installations for slops. Max. draft from 11.00 m. up to 12.48 m. (FW).

There are 2 new berths for gas/chemical carriers, max. draft Berth No. 34 – 8.2 m. and Berth No. 36 – 12.48 m. (FW). Grounding to be supplied by vessel.

DENSITY: In port about 1002.

FRESH WATER: Fresh water available, delivered from shore or by barge (capacity 450 tons).

FUEL: All grades available subject to prior inquiry. Bunkers can be taken from the oil jetty or supplied by lighters.

GANGWAY/DECK WATCHMEN: Service of watchmen recommended; however, Master's option.

CERTIFICATES: Required to be on board:

Crew List.
International Tonnage.
International Class.
Load Line.
Safety Equipment.
International Radio.
Derat Certificates.
Certificate of Financial Security in respect of civil liability for oil pollution damage, 1969.

CUSTOMS ALLOWANCES: There is no restriction for crew use and bond locker is not sealed.

IDENTIFICATION CARDS: Seaman's Book required.

CONSULS: No Consulates.

REPAIRS: Small deck and engine repairs, diving inspections can be carried out.

DRY DOCKS: None.

REPATRIATION: Repatriation of crew left behind by a vessel in hospital is arranged by other tramp-ships with Master's consent or by rail or air after the necessary documents have been arranged.

TIME: From 1st April till 1st October (Summertime) – GMT plus 4 hours. From 1st October till 1st April – GMT plus 3 hours.

HOLIDAYS: 1st January (New Year's Day); 8th March (International Women's Day); 1st and 2nd May (May Day Holidays); 9th May (Victory Day); 7th and 8th November (The Great October Socialist Revolution Day); 7th October (The U.S.S.R. Constitution Day). Cargo work never stopped on holidays.

POLICE/AMBULANCE/FIRE: If required have to be called through Maritime Agency "Inflot".

TELEPHONES: No arrangements exist for placing telephones on board.

SERVICES AVAILABLE: Tankers' deballasting installation for slops; service for radar and VHF repairs; compass adjusting; workshop for ordinary deck and engine repairs; ship chandler service; bunker, water, garbage removal, bilge cleaning, surveyors.

SHORE LEAVE: Crew members allowed ashore.

SHIPMASTER'S REPORT: 1976.

Anchorages:

Tanker: bounded by positions,

Lat. 57° 28.4′ N.	Long. 21° 27.3′ E.
Lat. 57° 29.7′ N.	Long. 21° 29.2′ E.
Lat. 57° 28.2′ N.	Long. 21° 31.2′ E.
Lat. 57° 27.2′ N.	Long. 21° 29.3′ E.

Cargo: bounded by positions,

Lat. 57° 25.3′ N.	Long. 21° 26.8′ E.
Lat. 57° 28.0′ N.	Long. 21° 26.4′ E.
Lat. 57° 26.1′ N.	Long. 21° 29.0′ E.
Lat. 57° 26.7′ N.	Long. 21° 25.8′ E.

Buoyage:

No. 2 B.W. Conical Fl. 5 sec. (Approx. position Lat. 57° 25.7′ N., Long. 21° 29.85′ E.) to be expunged.

New Buoys:

No. 2 Fl.W. 5 sec. in position Lat. 57° 25.6′ N., Long. 21° 28.3′ E.
No. 3 Fl.W. 3 sec. in position Lat. 57° 24.1′ N., Long. 21° 30.65′ N.
No. 4 Fl.R. 3 sec. in position Lat. 57° 25.16′ N., Long. 21° 30.82′ E.

In harbour, No. 4 Fl.R. Con. and Red Conical Buoy about 2 cables E × S to be expunged.

Oil Piers: 3 in number.

No. 1 pier, berths Nos. 28 and 29 – light outer end Qk. Fl.W.
No. 2 pier, berths Nos. 30 and 31 – light outer end Qk. Fl.Or.
No. 3 pier, berths Nos. 32 and 33 – light outer end Qk. Fl. Blue.

Depths alongside:	Berth 28:	10.10 m.
	Berth 29:	10.00 m.
	Berths 30/33:	12.00 m.

After dredging in channel is completed to 12.5 m., depth at Berths 32 and 33 will be 12.5 m.

Oil Pier No. 3 (Bearings, distances and positions here not confirmed). Existing dock face continued 24.5° approx. 1,100 ft. to join Northern Breakwater.

No. 3 runs 283° for 1,100 ft. from position 24.5°, 2,000 ft. from Fl. R.Lt. in Lat. 57° 01′ N., Long. 21° 33.5′ E.

Northern Breakwater: Inner extension from position Lat. 57° 24.69′ N., Long. 21° 32.2′ E. 012° for 890 ft. to join main breakwater.

Under Construction: 3 berths for Petro-chemical industry along inner face of Northern Breakwater.

Small harbour beside pilot station, Southern side, completed and in use by small craft and fishing vessels. Small repairs in operation. Depth said to be 3.5 m. – 4 m.

Port operation in foggy weather said to be controlled by radio and millimetre (aircraft) type radar installation, one scanner of which is situated on tower near root of Southern Breakwater.

Tugs: Alleged that 5 are available; 1 icebreaker type of 2,500 h.p. 2 medium size, and 2 small, 1 at least of which was propelled by Voith-Schneider gear of about 750 h.p.
Pilots: To call Pilots, use Channel 16 and call Ventspils Radio who make arrangements with Harbour Office and Agents (Inflot).

During time vessel de-ballasting and loading; any problems can be resolved by call to Agents through Ventspils Radio.
Regulations: Fire Officers demand that suitable bonding wire be fitted (supplied by ship). No shore facility available.
Facilities: No. 1 Pier has (building) tower crane for handling hoses. Nos. 2 and 3 berths are fitted with loading arms hoses and towers. Fresh water available. Bunker fuel available but not necessarily marine diesel.
Cargo Berths: There are believed to be 8 dry cargo berths, within the river port area, some with cranes, suitable for general cargo, together with storage buildings. Refrigerated/chilled cargoes have been handled regularly.
Max. Size: Pilot stated that tankers of up to 60,000 tonnes displacement were possible at present, and that after dredging it should be possible to take up to 100,000 tonnes displacement.

To contact Agents, call Ventspils Radio on Channel 27 and they make arrangements.

SHIPMASTER'S REPORT: May 1980 (Updated 1986).
Vessel: LPG carrier of 10,000 g.r.t.
Landfall/Approaches to Pilotage: Approaches clearly defined by radar, Decca coverage good. Vessels anchored in dry cargo anchorage provide a good guide. Two approach channels with tankers generally using the Southern channel. Pilot boarded close to Buoy A (Fairway Buoy for South channel).
Pilotage: ETA notification 96, 48, 24 and 4 hours before arrival to "Inflot Ventspils" (Agents), thence further communication by VHF calling Channel 16, then working Channel 9. Answered to "Ventspils Pilots" and not "Nadzor" as stated in Radio Signals Volume 6. Pilots will advise instructions, in this case, to proceed to Buoy A (Fairway Buoy for South approach channel). Pilot cutter/launch (speed 6 knots) proceeds from inner harbour. Pilot ladder on appropriate side for weather conditions rigged 1 m. above water. Pilotage time to berth approximately 40 minutes. On this visit, despite Pilot boarding at Buoy A, vessel entered using North channel.

Upon departure, Pilot arranged by Agent upon completion of documentation. Southerly channel used for departure with Pilot disembarking mid-channel.

NOTE: LPG vessels are not permitted to enter or leave port during adverse weather conditions.
Anchorage: Tanker anchorage lies to N.E. of Northerly channel.
Tugs:

a. Inbound: Tugs join vessel close to breakwater entrance. Three tugs used for berthing (standard port cost for tugs whatever the number used – five tugs available). Made fast on port bow and quarter using ship's lines with one tug pushing. Vessel berths port side alongside – strong Northerly winds (off-shore) on this visit.

b. Outbound: Tugs join vessel at berth – one tug made fast on starboard bow using ship's line. Second tug in attendance. Tugs gone and clear before clearing breakwater.
Berth: (Ammonia only – See "Plan"). Modern fendered concrete quayside with depth alongside 13 m. to 14 m. No tidal range but atmospheric conditions affect Baltic water level – density alongside 1001.

Vessel generally berths port side alongside. Berth equipped with 12 in. 150 ASA liquid and vapour Chicksans. Ship's reducer used on vapour manifold. Ship's gangway used.
Cargo: Anhydrous ammonia received at −33° Celcius. Loading rate agreed before commencing loading (in this case requested 650 t.p.h.) and increased to over 1,000 t.p.h. after officially requesting for increased rate through Inflot agency. The rate agreed prior to loading is expected to be maintained throughout loading with usual reductions for topping off as required. Average rate for 10,230 tonnes loaded was 714 t.p.h.

Vapour return line connected but not required or used – high back pressure on line. Documentation slow – cargo documentation cannot commence until ship cleared and Chicksans not connected until cargo documentation completed. Shippers "Sojuzchimexport" require quality certificate for cargo heel onboard – accepted ship's declaration of purity. Also require cargo plan showing 100% tank volume for each tank – to prevent overloading. Bill of Lading quantity = cargo as measured onboard by shore surveyor (accompanied by interpreter).
Bunkers/Water/Chandler: None required but all available.
Agents: Inflot, Ventspils. Tel. Nos. 61213, 51233, 51350. Cable address: "Inflot Ventspils". Telex No.: 122 INF VNT SU.

Efficient and friendly service. All representatives speak perfect English and very helpful in dealing with Authorities. Inflot require ship information, cable 24 hours prior to arrival with following information:

a. Ship's name, signal letters, nationality.
b. Last port.
c. Draft forward and aft, length, gross and nett tonnage.
d. Cargo requirements.
e. Owner's name and telex number.
f. Bunkers, water and provisions required.
g. Number of crew and health declaration.
h. ETA at pilot station.

If Agents are required in port, call "Ventspils Radio" on Channel 16 and ask for connection to Inflot Agency.
Authorities:

Customs: Usual Bond Declaration required but unconcerned with bonded items onboard and bond locker not sealed in port.

Currency Declaration most important. Customs are not interested in personal cash holdings but must have a "TOTAL Cash Onboard Declaration" and the currencies involved. This total to include personal cash, bar cash, safe cash, etc.

Persons going ashore MUST obtain receipts for all expenditure which are then compared with the total declaration prior to departure.

Immigration: Usual Crew Lists required plus Discharge Books or Passports of all onboard. These are taken ashore, stamped and returned onboard. Persons going ashore will then be required to exchange Discharge Book for shore pass with guard at bottom of gangway. Prior to departure, all personnel must report to Immigration onboard for an identification check.

There is a strict CURFEW after 2400 hrs. and personnel must be onboard before that time. No restrictions placed on the Master.

Port Health: Doctor boarded on arrival but formality only. Cursory inspection of storerooms only.
General: Time in port was 26 hours 48 minutes. Time loading was 14 hours 20 minutes (documentation 10 hours). Total disbursement for visit was U.S.$9,630.

SHIPMASTER'S REPORT: November 1980. (Updated 1986).
Pilotage: Pilotage is compulsory. 12 Pilots available. Pilot boards at fairway buoy at the beginning of the old entrance channel and disembarks at Buoy No. "A" in the new deep water channel. Docking and undocking without the aid of a Pilot is not allowed.
Restrictions: Vessels can enter and leave port during hours of darkness at any stage of the tide, however, vessels are not allowed to manoeuvre in fog or at times when the wind is strong. Shore radar is used at night and in fog for berthing.
Max. Draft: Vessels max. draft on sailing was 11.6 m. (FW).
Tugs: 4 tugs available.
Radio: Ventspils Radio, call sign "UNI", on 500, 2182 and VHF Channel 16.
VHF: Pilot uses Channels 9 and 13 after initial call on Channel 16. Port Authority and Agent on Channels 16 and 27.
Documents: As per "Guide to Port Entry".
Facilities: The following are available: Fresh water, fresh provisions, small repairs, small machine shop, Lloyd's Surveyor, Salvage Surveyor (Lloyd's), laundry service, bunker fuel oil, diesel oil, small stock of lubricating oils, Doctor and hospital, groceries and meats, slop tanks – there is no slop storage – slops are segregated during discharge.
Tankers: There are 6 berths at the oil terminal at 3 piers (Berth Nos. 28 – 33).

Vessel berthed at No. 31. Ballast is required when arriving or sailing in a light condition (clean ballast may be discharged into the sea with permission from shore).

The tanker terminal exports crude oil, nafta and gas oil but no petrol. Fuel oil is exported from Klaipeda, 100 miles to the South. Ship's hoses are used. 2×12 in. lines are connected direct to the ship's manifold. No shore booster pump available. Max. pressure 5 kgs.
General Cargo Facilities: There are facilities for handling bulk cargo. Large number of cranes available.

Ro-Ro facilities are not yet ready. There is a floating crane with a 100 ton capacity. There is equipment for handling 20 ft. containers only, however, there is very little storage space available for containers.
Fuel: There are 2 barges, capacity 400 tons each for fuel and diesel oil.
Fresh Water: There is 1 water barge, capacity 100 tons.

AUTHORITY: The Port of Ventspils Authority, Dzintaru 22, 229910 Ventspils, U.S.S.R. *Tel:* 68468, 68222, 68395. *Cables:* USSR Ventspils Port Authority. *Contact:* P. Nikiporov, Harbour Master. A. Rymar, Port Director.

AGENT: The Port of Ventspils Maritime Agency "Inflot". Postal address: 18 Dzintaru Street, Ventspils, U.S.S.R. Cables: "Inflot Ventspils". Tel. 61-213, 68-369, 68-233, 68-350. Telex: 161822 Infl Su.

VOSTOCHNY: 42.44 N. 133.03 E.

LOCATION: The commercial port of Vostochny is situated in the Vrangel Inlet, on the North-Western coast of the Nakhodka Bay, in the Sea of Japan. Navigation at the port continues all the year round.
DOCUMENTS: See "General" before first U.S.S.R. port.
PILOTAGE: Pilotage in the port of Vostochny is compulsory. The services rendered by Pilots are carried out round the clock. In case the Pilot is not able to board a vessel due to bad weather, Master should follow recommendation given by the Pilot from the Pilot boat.

The port is equipped with a shore automatic vessels' movement control system (radio call sign "Kamensky-17").
ANCHORAGES: Vessels are allowed to anchor in the port Inner Roads, the Vrangel Inlet, after having obtained the Harbour Master's permission only.
RESTRICTIONS: There are no entry restrictions in regard to vessel's length. Vessel's speed should not exceed 12 knots while proceeding through the main fairway and 6 knots when approaching the Vrangel Inlet. Under all circumstances Master shall choose the vessel's speed bearing in mind current navigational conditions.

The mooring of vessels having deadweight of 10,000 tonnes and over and length of more than 150 m. in ballast is not allowed during winds having velocity 10 m./sec. and over.
MAX. SIZE: The maximum draft of vessels mooring at the Coal Pier is 15 m. and 9.7 m. when mooring at other berths.
RADIO: Notice of Arrival – see "General" before first U.S.S.R. port.
VHF: Radio communication can be effected through the Port Radio Station "Vostochny-Radio", some details of which are given in the table below.

	Frequencies (MHz)		*Type of trans-*	*Time*
Call Sign	*Working*	*Calling*	*mission*	*of work*
"Vostochny-2"	156.8(16)	156.8(16)	F3E	H24
(Port controller)	157.775(95)	157.775(95)	F3E	H24

VTMS in operation.

HEALTH: A vessel having arrived in the port Outer Roads and having no contact with the shore may not need to go through the clearance formalities. Vessels, having arrived in the port Inner Roads (the Vrangel inlet) irrespective of the fact that they are to carry out cargo handling or not, shall go through all the necessary formalities for the clearance of the ship both on arrival and departure.

TUGS: 3 powerful tugs available. Masters of vessels are to use minimum of 2 tugs when mooring/unmooring and shifting berths at the port of Vostochny. The use of a third tug is compulsory during absence of a tug-pusher when mooring/unmooring bow-towed barges.

The number of tugs and their horse-power is determined by a Pilot with the Master's consent.

BERTHING/CRANES: Berths of the port with depths of up to 10 m. are equipped to handle bulk, liquid, general and timber cargoes as well as various kinds of vehicles. There are also specialised systems for the handling of coal and containers.

STEVEDORES: The official working breaks at coal terminal are:

0700 – 0800 hrs.,1200 – 1300 hrs., 1900 – 2000 hrs., 0000 – 0100 hrs.

At all the other terminals official working breaks are:

0800 – 0900 hrs., 1200 – 1300 hrs., 1700 – 1800 hrs., 0000 – 0100 hrs.

FRESH WATER: Can be taken at berths.

FUEL: Can be taken from lighters only.

REPAIRS: No facilities.

DRY DOCKS: None.

HATCHES: Opening and closing hatches is carried out by dockers.

TIME: GMT plus 10 hours in Winter; GMT plus 11 hours in Summer.

GENERAL: *Charts:* Soviet Chart No. 700.

Ship chandler's shop and restaurant available.

NOTICE:

To Masters of Foreign Vessels calling at Soviet ports:

1. On arrival of the ship the Master is to submit to the representatives of the Port Authorities the following documents (IMO Forms) duly signed by ship's administration:

General Declaration (Form I) – 5 copies

Filling in of points 8 and 11 is not compulsory.

Cargo Declaration (Form II) – 2 copies

Filling in of point 6 is not compulsory

Points 7, 8 and 9 are to be filled in only for:

(a) Cargoes for which Bills of Lading were not issued (names of Shippers and Consignees to be stated).

(b) Transit cargoes;

(c) Cargoes for other Soviet Ports;

(d) Agricultural cargoes.

Ship's Stores Declaration (Form III) – not required.

Crew's Effects Declaration (Form IV) – 2 copies.

Amount of Master's and crew members' valuables (gold, silver, platinum, jewellery, bonds, travellers' cheques, etc.), personal firearms and cartridges are to be stated in point 2.

Crew List (Form V) – 6 copies.

Passenger List (Form VI).

2. The Master of a ship is to instruct all members of the ship's crew that in accordance with the Rules in force in Soviet Ports:

Exportation and importation of Soviet currency is forbidden;

No articles are permitted to be taken ashore or brought on board the ship without permission of the Customs House Authorities;

Articles taken ashore or brought on board the ship and concealed from Customs control shall be regarded as smuggled goods, shall be confiscated and a fine shall be imposed;

Likewise, the sale of any articles of foreign origin on the territory of the USSR will be regarded as smuggling;

No rubbish shall be thrown into the water or on the quay. The discharge of oil contaminated water and/or oil residue is prohibited;

All mooring ropes must be fitted with rat-guards;

At night only one gangway must be ashore when loading or discharging is not carried out;

It is prohibited to take ashore grain, seeds, plants, plant products, soil, etc., as well as animals and birds;

Violation of the above-mentioned rules will entail penalty in accordance with the laws of the USSR.

NOTICE: *Extracts from the Obligatory Decrees of Vostochny Port:*

Port Limits: Inner roadstead-Vrangel Bay, a line drawn between Kamensky Point and Petrovsky Point.

Pilotage: Pilotage is compulsory for all craft exceeding 20 m. LOA, day and night. Request for a Pilot shall be made to "Vostochy-2" on VHF Channel 16, working on Channels 14, 9 and 6.

Navigation: Navigation in Nakhodka Bay and fairway leading to inner roads is one-way only. Max. speed is up to 8 knots if over 150 m. LOA, 10 knots up to 150 m., and 12 knots if less than 50 m. The overtaking of craft is prohibited at the inner roadstead. Navigation in the inner road by all craft exceeding 50 m. LOA must be at dead slow speed.

Mooring: Mooring must be made with not less than 2 tugs.

Draft: Permissible draft by Coal Berth is to 15.0 m. and at other berths 9.7 m.

Anchorage: Anchorage is temporily prohibited at Vrangel Bay.

Declarations: All declarations with regards to damage done to the ship while loading (unloading) or mooring shall be made by the Master through "Inflot" to Port Authorities in writing within 4 hours of the accident and in any case, before the ship leaves the port. Failing this the port shall consider no claims and shall bear no liability for any damage.

Prohibition: The following are prohibited at the port:

(a) pouring of sanitary water over board and any smoking.

(b) using of the any chemical means in order to neutralise the spilled waters alongside.

For infringement of the abovementioned Master or his Owner shall be punished (fine to 25,000 roubles or deprivation of freedom for 5 years in accordance with Soviet legislation).

Signed: Harbour Master.

SHIPMASTER'S REPORT: May 1983.

The Port of Vostochny is a relatively new port, and lies in Nakhodka Bay, at the extreme N.E. end in a smaller Bay, known as Vrangel Bay.

Documents:

On Arrival:	Prior Departure:
5 General Declarations (IMO Form)	1 Cargo Time Sheet
4 Cargo Declarations (IMO Form)	1 General Declaration
2 Stores Lists	1 Cargo Declaration
2 Crew's Personal Effects Lists	Cargo Manifests,
6 Crew Lists	(Prepared by Agent)
4 Passenger Lists	
2 Money Lists	
2 Marine Declarations of Health	
1 Vaccination List	
1 List of Ports Visited	

Port Authorities board the ship at any time to effect clearance. They use the accommodation ladder. Frequently a moderate swell runs into Nakhodka Bay from the South, making boarding from even quite large launches very difficult. Immigration Authorities inspect all Crew Seamens' Books. Process of clearance takes about 1.5 hours.

Approaches: When about 4 hours from the port call "Nakhodka Port Control", on Channel 16, Working Channel 12. Nakhodka Port Control has the whole of Nakhodka Bay (Amerika Bay on some charts) under radar surveillance. All shipping movement within the Port Limits are controlled by them. They give direct steering and sailing orders over VHF Channel 12 to vessels under way after passing No. 1 Buoy (Lat. 42° 43.3′ N., Long. 132° 56.3′ E.) inward bound, also anchor berth given with bearing and distance from Mys Shvedova Lt. Ho. usually in the Quarantine Anchorage indicated on Chart BA. 3198 and Anchorage No. 3 on Chart BA. 3041 (Nakhodka Bay). Anchorage good in clay and mud in about 19 m. of water. After anchoring, report to Nakhodka Port Control, and revert to listening watch on Channel 16.

Berthing: Vessel proceeded to the Coal Berth at Vostochny under guidance from Nakhodka Port Control. Fairways well defined on BA Chart No. 3041. Pilot meets vessel off the entrance to Vrangel Bay, just after passing No. 2 Buoy. (Lat. 42° 46.0′ N., Long. 133° 00.6′ E.). Pilot normally boards by pilot ladder or accommodation ladder, port side. 2 tugs used for berthing, which is nearly always port side to.

Berth is new and very modern (Japanese construction). Very well fendered with large rubber fenders at regular intervals. Usable length of quay is about 275 m., bollards at regular intervals all the way along the quay. Although two berths are shown on the Coal Jetty on BA Chart No. 3041 (Nos. 49 and 50) only No. 49, is in fact, used. This is because the loaders (two in number) only serve No. 49 Berth. Depth of water alongside reported as 15 m. and 14 m. guaranteed. No restriction on air draft for loaders, ample clearance for vessel of this size (Panamax).

Departure presents few problems, as plenty of room and water immediately off the berth. Two tugs used as for berthing. These tugs are small, and not really big enough for a vessel of this size, and take a long time to get the ship moving off the berth. However, when clear of berth, vessel can be turned short round with engines and also with the aid of the tugs. Immediately vessel is turned and heading outwards Pilot disembarks. Vessel proceeds outwards to fairway buoy, listening out for Nakhodka Port Control on Channel 12 until passing No. 1 Buoy.

Bulk Cargo Facilities: There are 2 large loaders on the Berth, rated at 2,000 tonnes per hour, self trimming. We loaded Soviet bituminous steam coal, SF given as 42, but no real check possible on this figure. Vessel loaded 55,000 tonnes in 32 hours., and would have been even faster, but for plant breakdowns. Shore cargo personnel helpful as possible, but somewhat limited due to language problems. Informed by them that cargo delays are common due to availability of cargo lacking. All coal brought by rail to port from some considerable distance. Draft and deadweight survey carried out by shore foreman and ship's staff. Cargo documentation and port clearance by Authorities takes about 4 hours, from time of finishing loading.

Density: Density range of water from 1025 to 1028.

Regulations: Many regulations are in force as is common with most Russian ports, below are listed some of the most important ones.

1. Soviet currrency must not be brought in or out of the country.
2. No goods may be imported or exported without permission of Customs.
3. No goods may be taken ashore and sold or brought aboard concealed from Customs Control, as this will be construed as smuggling and heavy fines will be imposed.
4. No dumping of rubbish or pollution of any kind may take place into the harbour waters.
5. All moorings to be fitted with rat guards.
6. Only one gangway to the shore. No ladders to be put out on off side, and off side to be lit by lights at night.
7. No boats to be swung out or lowered.
8. No swimming or fishing allowed whilst alongside.
9. Ship's radio station not to be used in port and VHF not to be used for other than official messages with Shore Authorities or Marine Authorities.
10. Radar must not be used alongside. If radars are to have maintenance carried out by ship's staff, Inflot should be contacted for permission to be granted by Shore Authorities.
11. No photography is allowed.
12. No persons other than the ship's crew and fare paying passengers to be on board at any time. All shore personnel coming on board must be vetted by the Authorities.

SHIPMASTER'S REPORT: March 1984 (Updated 1988).

Vessel loaded coal for Japan.

The Coal Jetty is modern with a conveyor system and 2 moving shiploaders fitted with excellent trimmers. Several delays occurred.

In addition to the coal jetty, which is numbered 49 and 50, there is a container terminal, Berths No. 6, 7 and 8 and a timber wharf, Berth Nos. 10, 11 and 12 where logs of coniferous trees are loaded. Berth No. 9 is for small passenger vessels.

Documents prepared were as follows:
Customs Lists
Money/Currency List showing each crew members balance
Money/Currency List in Master's possession
Camera List (very important)
Passenger List (if no passengers state "Nil")
List of Narcotics
Arms and Ammunition List (state "Nil" if nothing on board) and List of Vessel's Port of Calls within the last year.

The Quarantine Doctor asked for Vaccination List, but these were not available on board vessel as several vaccinations concerning the crew had already expired. No difficulties occured because of this and it seems not to be compulsory.

All Authorities and Inflot Agent came from Nakhodka, the Agent was the only English speaking person and acted as interpreter.

SHIPMASTER'S REPORT: May 1984 (Updated 1988).
Port of Nakhodka and Vostochny (English translation of Vostochny is Eastern).
Chart: B.A. Chart No. 3041.
Arrival: Prior arrival Agents will instruct vessel to proceed to position Lat. 42° 27.2′ N., Long. 132° 56.3′ E. and steer a course of 000° true, which is the Southern entrance to Separation Zone. Also Agents require state of crew health.

As vessel passes Buoy No. 1 Master must report same to Nakhodka Port Control on Channel 16 transferring to Channel 12, at which point vessel will be radar controlled to anchorage, Port Control gives vessel course to steer and anchorage position, vessel remains on Channel 12 and instructions passed to vessel regularly. Even to number of cables to anchorage position, at which time vessel is instructed to drop anchor. If berth is available vessel proceeds to Buoy No. 2 as instructed and onto Fairway No. 3 along which the Pilot will board quite close to Entrance Buoys of the Bukhta Vrangelya (Vostochny Port).

Vessel berths port side alongside assisted by 2 tugs, head inwards, pier well fendered with large hard double rubber fenders (size 1 m. long by 0.5 m. deep and high). Normal securing to berth namely 4 lines and 1 spring each end. Rat guards are required and must be fitted prior to Quarantine Clearance.

On berthing 2 guards are placed at bottom of gangway and Agent boards with 2 Quarantine Officers, 2 Customs Officers and 2 Immigration Officers.

The following papers are required and best to give Agent all documents to sort out:
5 copies General Declaration (IMO Form 1).
5 copies Crew List (IMO Form).
3 copies Passenger List ("Nil" returns required if no passengers).
2 copies Vaccination List (Cholera and/or Yellow Fever).
*2 copies Crew Effects Declaration.
*2 copies Crew and Ship's Currency Declaration.
*2 copies List of Cameras with type and serial Nos.
2 copies Drugs in Master's Safe.
1 copy Ship's Stores List (Bond, etc.).
1 copy Parcel List ("Nil" return required).
1 copy Delivery Bill of Mail ("Nil" return required).
1 copy Declaration of Arms/Ammunition List ("Nil" return required).
1 copy Maritime Declaration of Health (Japanese form accepted).
4 copies Cargo Declaration (if cargo onboard).
*One of each taken ashore, other copies stamped and retained onboard for clearance check before sailing.

Ensure crew declare all goods, watches, radios, firearms, gold, jewelry, etc.

All Discharge Books checked by Immigration, Customs have random check on cabins. Quarantine only check Derat Certificate and Vaccination List. Note *all* types of "magazines" are forbidden and must be collected and sealed up before clearance.

When all paperwork is completed and Officials leave vessel taking Discharge Books ashore and clearance is given, cargo work can commence after draft survey. Discharge Books are returned to vessel after a few hours and are required to be handed to the gangway guards when any crew go ashore, even to read the draft.

Draft Surveyor checks everything and quite thorough, even with hold cleaning. Once surveyor has completed he arranges cargo operations to commence as per ship's instructions.

Vessel loaded two grades of coal:
1. Partizensky (J-6) 40,000 tonnes.
2. Nerjungrin (SS) 15,000 tonnes.

At consignee's request cargo was loaded with 20,000 along bottom, then 15,000 of SS and complete with 20,000 J-6 on top. Reason being the 15,000 SS was very powdery and mixed would be easier to discharge. This entailed a draft survey at the end of each layer of coal. Loading rate up to 1,200 tonnes/p.h. per loader.
Details of Berth, Loader Etc.:

Berth: A pier built out from shore with length of 400 m. and width 56 m. of which only 340 m. is used for mooring. Depth of water at forward end of vessel 16 m. and at pier end about 18 m. Max. draft allowed 15 m. Cement constructed at pier of 10 cement pontoons driven into sea bed on each side, with horn bollards on top of each pontoon (2 bollards). Then double horizontal rubber fenders on face.

Loader: Two units, travelling type with elevation boom, has outreach from fender face of 28.2 m. and airdraft of 18 m. Telescopic head Spoon or Fast Belt.

Belt Conveyor: Two belts from yard to pier at 180 m. per second.

Stocks: Two yards approx. area each 730 m. by 45 m. and plenty of stockpiles.

Max. Size Allowed: 100,000 d.w.t. (LOA 300 m., beam 43 m. and draft 15 m.).

Steam Line: On quay for ice melting.

Yearly Production: 6.2 million tons per year.

Future: Increase production by 5 million tons when other side of pier is developed as presently no loaders, although pier is complete in all respects.

Stowage Factor of Coal: About 42 cu.ft. per ton.
Bunkers: Available ex-coaster.
Fresh Water: Available ex-barge from Nakhodka (very expensive).
Stores: Not available.
Shore Leave: Allowed between 0800 hrs. and 2400 hrs. (Master not restricted). There is nothing to see at Vostochny but 1 hour by car/mini bus to Nakhodka where a Seaman's Mission and export shop are located.
Time: GMT plus 10 hours. Between 1st April and 1st October GMT plus 11 hours.
Radio Station: Nakhodka Radio used. 8510 kHz call sign "UKK3" and 500/435 kHz call sign "UK1" and answered first call. Other frequencies as per Radio Station Signals Vol. 1.
Tugs: Two tugs used of about 1,000 h.p. and 2,000 h.p. (Local Regulations require any vessel berthing to use 2 tugs).
Pilot: 24 hour berthing allowed.
Agents: "Inflot" are available on demand, visit the vessel at least once a day and are very helpful.
Cargo Weights: This is done by electronic weights scale ashore and on draft surveys. Weights in each hatch are not correct, as seen from our Facts Sheet vessel same quantities each run, yet time in each hatch varied from 40 minutes to 90 minutes for same quantity. Final draft survey agreed with ship's figures which were used for Bill of Lading (ship only signs "Mate's Receipt").
Other Berths: Across bay are 3 general cargo berths and 3 container berths with a maximum draft allowed of 9.7 m. Gantries are only suitable for the smaller container vessel of about 1,000 boxes.
Departure: Once cargo completed all paper work done on vessel, Agent attends to cargo papers after which Customs and Immigration board. Immigration check each crew member with Discharge Book photograph, Customs check bond seal and break it. Apart from papers given to Master they require a Cargo Declaration (IMO Form) completed. Ship has to request a Port Clearance, otherwise none is given.
Stevedores: Continuous working of cargo with meal breaks between 0700 – 0800 hrs., 1200 – 1300 hrs., 1900 – 2100 hrs. and 2300 – 2400 hrs.
Sailing: Once vessel clear of berth vessel is swung 90° to port and lined up between Entrance Buoys at which time Pilot disembarks and vessel reports to Nakhodka Port Control who advise course to steer and watch you on radar until passing Buoy No. 1. Then vessel steers 180° until clear of separation scheme.

SHIPMASTER'S REPORT: August 1984.
Vostochny Approach.
B.A. Chart Nos. 2511, 3198, 3041.

The main port of Nakhodka handles all traffic routing inside the bay. Contact Nakhodka Traffic Control on Channel 12 not less than 2 miles prior to arrival Buoy No. 1, Control will give you anchoring position and course to steer. When approaching anchoring position Control gives you run down and distance to go for dropping anchor.

Officials board at anchorage (6 people). When vessel is cleared listen on Channels 16 and 12 for berthing instructions. When berth is free, Control informs you to heave up and proceed towards berth.

Vostochny Pilot (Channel 16) boards at Fairway Buoys off berths. 2 tugs assist berthing. Buoys have no numbers but mark the entance to Vrangelya Bay, where coal berth is situated. We berthed Berth No. 49, port side to. Depth at berth is 16.5 m., max. draft 15 m., airdraft 18.4 m. Max. ships size 260,000 d.w.t. (100,000 tonnes), beam 38 m. Loading rate 3,000 t.p.h. by 2 loading booms. This rate depends on availability of coal. Most of cargo comes from Siberia and requires 10 days passage from mines.
Vostochny Facilities: Fresh water available on jetty, use you own hose and coupling. Fuel and diesel available by barge. Ship chandler if required, also hospital and dental treatment available. Shore leave is by mini-bus or launch to Nakhodka. The mini-bus can only carry 10 people and the journey by launch takes approximately 75 minutes. An International Seaman's Club, souvenir shop and 4 restaurants are available at Nakhodka.
Documents: We made out our own forms which included:
6 copies Crew List.
2 copies Stores List.
2 copies Crew Declaration.
2 copies Currency List.
2 copies Dangerous Drugs List.
2 copies Passenger List.
2 copies Arms and Ammunition List
6 copies Notice of Readiness.
1 copy Port Health.

Any health forms will do, score out country of origin, they provide you with "Inflot" Agency Information Form.
4 copies General Declaration (IMO Form 1).
2 copies Cargo Declaration (IMO Form 2).

On completion of loading, Officials board for documentation of cargo loaded. When this is finished the Agent arranges for the Pilot via VHF. The Pilot takes vessel out of berth, using 2 tugs. Vessel proceeds, assisted by Port Control towards Buoy No. 1 off Mys. Krylova.

AUTHORITY: The Port of Vostochny Authority. Postal address: P.O. Box Vrangel-1, Port of Nakhodka Area, Primorsky Krai, 692907 USSR.
Tel: 3-71, 2-71. *Cables:* Port of Vostochny.

AGENT: See "Nakhodka".

VYBORG: 60.42 N. 28.44 E. (See Plan)

For Saimaa Canal see Index.

GENERAL: A Baltic Sea port Vyborg is situated at the head of the Gulf of Vyborg in the N.E. part of the Gulf of Finland.

The port area consists of a harbour protected from the North by the Castle bridge passing over the strait nearby the Castle of Vyborg and by the Smolyanoy point – from the West.

The port is open for navigation all year round (from December till April with icebreaker assistance). Ice in the Gulf of Vyborg begins to form normally about the middle of November. The Gulf usually becomes frozen over by the middle of December and the last ice finally disappears in April.

Whilst tidal range in the Gulf of Vyborg is of small account, considerable changes in the water level may be caused by strong winds (up to 1.6 m.), variation in atmospheric pressure (up to 1 m.), and the seasonal increase of the amount of water brought down from the land. The rise of the water level is usually caused by South, S.W. and sometimes by North winds. The maximum range of the water level in the Gulf is about 2.0 m.

The Vyborg Fairway (least depth 7.3 m.) leads from the entrance to the Gulf of Vyborg across the Transund roadstead up to the entrance of the Inner Vysotsky Roads. The Vyborg Sea Channel (least depth 6.5 m.) leads from the Inner Vysotsky Roads into the port, situated at the head of the Gulf. Both of these and the Fairway and the Channel, are open for navigation any time of day or night.

PORT LIMITS: The sea waters of the port are the fairways and anchorages to the East from 28° 23′ E. and to the North from 60° 34′ N.

DOCUMENTS: Refer to beginning of U.S.S.R. section.

PILOTAGE: Pilotage in the port area is carried out round the clock. It is compulsory for all types of vessels. Pilots board and disembark vessels in the following places:

1. At the port of Vyborg;
2. At the Reception Buoy, 5.1 cables Westward of the Northern point of the Mayachny Island (pilot station of the Vikhrevoy Island);
3. At the Brusnichnoe Lock berth or in the Lock itself.
4. At Kozliny Island (60° 26.7′ N., 27° 43.0′ E.) for the vessels proceeding to or from Finland only.

In the case of rough weather when safe boarding or disembarkation of a Pilot at the Reception Buoy of the Vikhrevoy Island pilot station is impossible, a vessel, with the Master's consent, may follow a pilot boat, in the wake of it from the Reception Buoy up to the Large Transund Roadstead or as the case may be, from the Large Transund Roadstead up to the Reception Buoy.

The radio communication between pilot boat and vessel is effected through VHF radio, Channel 12.

In case the Master of a vessel does not agree to follow a pilot boat, he can:

(a) When approaching the port from the seaward lie at anchor at the Reception Buoy area until the weather changes for the better;

(b) When leaving the port for sea, anchor at the Large Transund Roadstead at a place indicated by the Port Administration and wait until Pilot is able to disembark at the Reception Buoy area.

Vessels approaching the port from seaward should order a Pilot at the same time as they notify the Port Administration of the time of their arrival at the point of meeting a pilot boat.

ANCHORAGES: There are 5 anchorages at Vyborg Fairway and at Vyborg Sea Channel areas.

Two are situated at the Large Transund Roadstead area, one – at the Small Transund Roadstead, one – S.E. and one – N.W. of the channel. Anchorage positions are shown on the chart.

The holding ground in the anchorages is sand, mud, stone and clay. The depths are from 11 m. to 17 m.

RESTRICTIONS: Vessels are allowed to enter or leave the port when winds do not exceed Force 6. During daytime, when a vessel's length is not more than 125 m. and her draft does not exceed 6.5 m. (at the Kronstadt datum);

At night time, when a vessel's length is not more than 105 m. and her draft does not exceed 6.1 m. (at the Kronstadt datum).

Before entering or leaving the port Masters of vessels having length and draft exceeding those indicated above must obtain the Harbour Master's permission.

HEALTH: International code quarantine signals to be shown on arrival. Vessels placed in quarantine will be instructed where to anchor by the pilot station.

RADIO: Radio contact can be established through the Vyborg Radio port radio station operating 24 hours daily on the following frequencies:

Call Sign	*Frequencies (kHz)* *Working*	*Calling*	*Type of trans-mission*	*Time of work*
UNN	500	500	A1A	H24
"Vyborg Radio"	156.8*(16)	156.8*(16)	F3E	H24
(Harbour Master)	156.6*(12)	156.6*(12)	F3E	H24
"Ostrov Vikhrevoy"	156.8*(16)	156.8*(16)	F3E	H24
(Pilot Station)	156.6*(12)	156.6*(12)	F3E	H24
"Zaliv Novinskogo"	156.8*(16)	156.8*(16)	F3E	H24
(Pilot Station)	156.6*(12)	156.6*(12)	F3E	H24
"Vyborg Inflot"	156.8*(16)	156.8*(16)	F3E	H24
(Inflot Shipping Agency)	161.8*(24)	157.2*(24)	F3E	H24

*Frequencies are given in MHz.

Every vessel whilst proceeding along the Fairways and the Channel must have VHF radio-telephone in good working order, being able to ensure a reliable radio contact with the port of Vyborg and between vessels. If a vessel is not equipped with VHF radio, a Master can hire a VHF portable radio-set from a pilot station (via Pilot) for a fixed charge.

TUGS: Available, ordered through "Inflot". Compulsory for vessels over 80 m. LOA.

BERTHING: Can only be effected with Pilot on board. Berths of the port with depths alongside of up to 7.8 m. are equipped to handle general and bulk cargoes, timber, etc., as well as passenger traffic. There are enclosed warehouses and open concrete floor sheds.

Berths are equipped with electric cranes of up to 20 tons capacity. There are floating cranes of up to 15 tons capacity and other cargo-handling equipment and machinery.

Opening and closing of hatches is usually done by the ship's crew, but if required it can be done by port labour for vessel's account.

MEDICAL: "Inflot" to be advised in advance if any medical attention required.

DENSITY: Salinity 5%.

FRESH WATER: Available. Can be supplied by pipe-lines at all berths or delivered by barges.

FUEL: Available by barge only.

GANGWAY/DECK WATCHMEN: Not required.

OPENING/CLOSING HATCHES: Usually opened and closed by crew. Can be operated by stevedores on request.

CUSTOMS ALLOWANCES: No control on board the vessel. All items taken off vessel subject to Customs control.

REPAIRS: Minor repairs can be effected.

SURVEYORS: Surveyors and Cargo Inspectors may be ordered through "Inflot" Agency or through Cargo Receivers' Agents V/O "Soyuzvneshtrans" (telex 121 541).

TIME: GMT plus 3 hours from 1st October until 31st March, GMT plus 4 hours from 1st April until 30th September.

HOLIDAYS: Cargo operations can be carried out on all holidays.

TELEPHONE: Connection to vessels is not possible.

SHORE LEAVE: Permitted subject to police control.

BANKS: Vneshtorgbank in Leningrad.

EMERGENCY CO-ORDINATION CENTRE: Salvage Division of the Baltic Steamship Co., Leningrad. Tel: 259-03-55, 216-99-65. Telex: 121 501.

STORING: Under Customs control from trucks alongside at the berth. Bunkers from a tanker or from trucks.

DEVELOPMENTS: Three berths at Vysotsk of total length of 360 m. and draft 7.5 m. are under construction.

Dredging and deepening to take place to allow vessels of 12,000 d.w.t. to enter.

AUTHORITY: The Port of Vyborg Authority, Ulitsa Yuzhny Val 1, 188900 Vyborg, U.S.S.R. *Tel:* 24750, 99677. Harbour Master *Tel:* 20477, 99650. *Contact:* V. Abramov, Harbour Master of Vyborg Sea Port.

AGENT: The Port of Vyborg Maritime Agency "Inflot". Postal address: Inflot, P.O. Box 40, Vyborg, U.S.S.R. Cables: "Inflot Vyborg". Tel: 21400, 21735, 24818. Telex: 121521 Infl Su.

YALTA: 44.30 N. 34.12 E. (See Plan)

GENERAL: An ice-free Black Sea passenger and commercial port, Yalta is situated at the head of Yalta Bay and on the Southern coast of the Crimea Peninsula.

The port is open for navigation all the year round.

The port is formed by a harbour protected by a mole. Depths in the harbour are up to 10 m.

Yalta is a passenger port.

DOCUMENTS: Refer to beginning of U.S.S.R. section.

PILOTAGE: Pilot meets vessel in the Outer Roads, at a distance of 2.0 miles S.E. of Yalta Lighthouse.

ANCHORAGES: The port Outer Roads are situated in Yalta Bay:

E.S.E. 7 cables off the head of the mole with depth of about 30 m.

They are open to winds blowing between E.N.E. and S.W. At times vessels may be turned broadside to waves caused by Southerly winds.

The bottom is mud and sand.

RESTRICTIONS: Vessels may enter or leave the port at any time of day or night. Vessels entering or leaving the port must have keel clearance of not less than 0.6 m.

MAX. SIZE: Permissible draft is 8.5 m., length 215 m.

RADIO: Ship-shore radio contact can be established through the port radio station Yalta Radio operating 24 hours a day on the following frequencies:

Call Sign	*Frequencies (kHz)* *Working*	*Calling*	*Type of trans-mission*	*Time of work*
UZD-9	500	500	A1	H24
"Yalta-Radio"	2182	2182	H3E	H24
"Yalta-2"	156.8* (16)	156.8* (16)	F3E	H24
(CPR)**	161.9* (26)	161.9* (26)	F3E	H24

*Frequencies are given in MHz.

**CPR – Central Port Radio Station.

TUGS: Tug assistance for mooring and unmooring is compulsory.

BERTHING: Handling of cargo at the passenger terminal is usually done by ship's cargo gear.

FUEL: Not available.

FRESH WATER: Can be supplied by pipe-lines at all berths.

REPAIRS: Not available.

TIME: GMT plus 3 hours. GMT plus 4 hours in Summer.

AUTHORITY: The Port of Yalta Authority, 5 President F.D. Roosevelt Street, Port of Yalta, U.S.S.R. *Tel:* 32-42-42. *Contact:* General Manager.

AGENT: Yalta Inflot Shipping Agency, at the Port of Yalta. Postal address: 5 President F. D. Roosevelt Street, 334201 Port of Yalta, U.S.S.R. Cables: "Inflot Yalta". Tel: 32-82-89. Telex: See "Odessa".

YUZHNY (Grigorevsky): 46.39 N. 30.55 E **(See Plan)**

PORT LIMITS: The water area of the port is the waters of Adzhalykskiy Liman and the sea area bounded by the arc of a circle with a radius of 2 miles from the coast radar station. (46° 36.04′ N., 31° 01.4′ E.) and anchorages No. 356, 357 and 358 on the Charts.

PILOTAGE: In order to reach the Port of Yuzhny vessel first has to proceed to position Lat. 46° 08′ N., Long. 31° 06′ E. (near port Ilyichevsk), one hour before arrival at abovementioned position Master should communicate with "Port Control Ilyichevsk, on Channel 16 or on R/T 2535 kHz and then follow the instructions of "Port Control" as further navigation is controlled by shore radar.

Gas-carriers and chemical-carriers shall follow a pilot boat when proceeding to and from the port. Master shall order a Pilot through the Port of Ilichevsk 72 hours and 24 hours before and confirm the order 12 hours prior to approaching the Port of Yuzhny.

The port is equipped by an automated Vessels' Movement Control System (VMCS).

ANCHORAGES: It is prohibited for ships to anchor in the inner roadstead.

Anchorages: No. 356 for gas carrying ships and is 3.4 miles S.S.W. and No. 357 and 358 are for other vessels, 1.7 miles South of the West entrance point of Adzhalykskiy Liman. The depth in Anchorage No. 356 is 14 m. to 21 m., and in Anchorage No. 357, 19 m. to 21 m. The seabed is sand, mud and shells.

The limits of the anchorages are shown on the charts.

RESTRICTIONS: The following vessels are allowed to enter port when conditions are as stated:

Gas and chemical carriers over 10,000 d.w.t. are not allowed to enter and leave the port in conditions of visibility of less than 0.5 miles.

Cargo vessels up to 180 m. in length – enter when conditions of visibility are not less than 3 miles, leave – not less than 2 miles.

Gas and chemical vessels having length over 180 m. – when the port's leading marks are visible from the crossing of the RR-1 and the imaginary line of the entering leading marks (bearing 013° – 193°).

MAX. SIZE: Ships up to 280 m. LOA. Draft limitation: No. 1 – 11.5 m.; No. 2 – 12.0 m.; No. 3 – 12.5 m. and Nos. 5 & 6 – 12.8 m.

HEALTH: The legislation of the USSR on protection of the surroundings and "Compulsory Rules of the port of Yuzhny" to apply.

Prior to arrival Master should send cable to INFLOT Yuzhny advising last port of call, place drinking/ballast water taken, whether vessel is equipped with sewage tanks or sewage purifying system. Any infectious diseases among the crew during the voyage.

RADIO: All cables to be sent through Odessa Radio.

VHF: Channel 16 used for calling vessels, call sign "Yuzhny Radio 17". Inflot Agency keeps watch on the same channel.

RADAR: Vessels are piloted by Shore Radio In and Out.

TUGS: The use of tugs is compulsory when mooring/unmooring. The number of tugs and their horse-power is determined by the Pilot with Master's consent, depending on weather conditions, tonnage and type of vessel. 3 tug-boats must be used during gas-carrier's mooring/unmooring if over 35,000 d.w.t.

BERTHING: On the West coast of Adzhalykskiy Liman Quay Nos. 1, 2 and 3 have been built. The general length of the quays are about 600 m. Quay No. 3 is for loading liquid ammonia and pumping superphosphorous acid.

A quay for auxiliary ships has been built on the North side of the East entrance point of the inlet. The length of the quay is 155 m. and the depth alongside it is 6.4 m.

MEDICAL: Port surgery is open round the clock for emergency cases, otherwise all medical treatment and vaccinations are done at Odessa.

FRESH WATER: Potable water available from berth and by barge.

FUEL: Delivered by barge. Longest possible notice is desirable. Stem through Bominflot in London. Telex: 23830.

REPATRIATION: Possible.

AIRPORT: At Odessa.

TIME: Local time is GMT plus 3 hours. Summertime (GMT plus 4 hours) is used from the 1st April to 30th September.

HOLIDAYS: 1st January, 8th March, 1st, 2nd, 9th May, 7th October, 7th November and 8th November.

SHORE LEAVE: Restricted for all crew members (except Master) till midnight. Shore passes are valid for port Yuzhny area only. For trips to Odessa special permission is required.

POLICE/AMBULANCE/FIRE: Through Agent.

TELEPHONES: For gas-carriers only.

GENERAL: Port Yuzhny is found in Adzhalykskiy Liman, and is 4.2 miles E.N.E. of Mys. Dofinovskiy. Berths No. 1 and 2 for Urea; Berth No. 3 for liquid ammonia and superphosphorous acid and Berths No. 5 and 6 for minerals and coal.

From seaward an approach channel, 1.6 miles long has been cut through. Leading light beacons lead along it. The least depth in the channel is 15.0 m.

The entrance to the port is protected by 2 moles: The Western about 400 m. long and the Eastern about 540 m. long. The moles are 6 m. wide.

Areas with special navigation systems: Off the coast there are areas in which navigation is temporarily prohibited; an area dangerous for navigation; Area No. 185, prohibited for anchoring and fishing, and Area No. 14 for bombing.

The limits of the areas are shown on charts.

Mys. Dofinovskiy: (Lat. 46° 34′ N., Long. 30° 55′ E.) lies 4.3 miles E.N.E. of Mys. Severnyy Odesskiy. Mys. Dofinovskiy protrudes insignificantly into the sea. Four cables West of the headland stretches the village of Novodofinovka, in which there are conspicuous white buildings.

Spoil Grounds: 1.7 and 2.5 miles East of Mys. Dofinovskiy a former spoil ground and a spoil ground are situated respectively. In these areas depths may be less than shown on charts.

A wreck with a depth 9.8 m. over it is situated 2.7 miles E.S.E. of Mys. Dofinovskiy. A light buoy marks the wreck with a depth of 9.6 m. over it.

Banks with depths of 7.6, 7.2, 8.4 and 9.4 m. are situated respectively 3.5, 3.8, 3.6, and 3.7 miles E.S.E. of Mys. Dofinovskiy. They are marked by light buoys.

A bank with a depth of 9 m. is situated 3.3 miles E.S.E. of Mys. Dofinovskiy.

Conspicuous Points: On the West coast of the entrance to the inlet in the village of Grigor'yevka is a conspicuous smoke chimney, and on the West coast of the inlet opposite the quays can be seen large metal reservoirs and towers.

Navigational Aids: The entrance to the channel and its edges are marked by light buoys. On the moles stand lights and beacons; on the East coast of the inlet there are leading light beacons.

Station: On the East entrance point to Adzhalykskiy Liman stands a coastal radar station. Radar pilotage is carried out under the direction of a Pilot. The pilotage is of a consultative nature. Responsibility for manoeuvres, fulfilling requirements of MPPSS-72 (International Regulations for Prevention of Collisions at Sea) and the navigational regulations of the port, rests with the Master of the vessel.

There is a signal post on the building of the coastal radar station.

Caution: Bearing in mind the possibility of the destruction of the edges of the approach channel, depths in it may be less than shown on charts.

Underwater Pipe-line: Runs in a S.W. direction from the village of Grigor'yevska. The position of the pipe-line is shown on charts.

Roadsteads: There are 2 roadsteads in Port Yuzhny: outer and inner. The outer roadstead is situated in the approaches to Adzhalykskiy Liman. The seaward limits of the roadstead are coincidental with the outer limits of the port. The depths in the South part of the outer roadstead are up to 22 m. The inner roadstead occupies the water area of the South part of Adzhalykskiy Liman opposite the quays.

Grigor'yevska Light Beacon: Stands 3.8 miles E.N.E. of Mys. Dofinovskiy. Appearance of the beacon: white round concrete tower on the upper part of which stands a black cylinder, the lower part of the cylinder becomes a truncated cone. Height of the beacon is 14.8 m.; height of the light is 60.1 m.

Vkhodnoy Leading Light Beacons: Stands on the East coast of Adzhalykskiy Liman and lead along the approach channel to Port Yuzhny. Its direction is 193° – 013°.

The front beacon stands 2.7 miles N.N.E. of the entrance to the inlet. Appearance of the beacon: 4-sided metal framework tower on which has been erected a black rectangular target with a white vertical stripe in the centre. The height of the beacon is 17 m.; height of the light is 47 m.

The rear beacon stands 6 cables from the front one. Appearance of the beacon: 4-sided metal framework tower, on which has been erected a black rectangular target with a white vertical stripe in the middle. The height of the beacon is 29 m.; height of the light is 69 m.

NOTICES: *Instructions for Gas and Chemical Tankers:* Vessel to proceed to position: Lat. 46° 08′ N., Long. 31° 06′ E. and from there to follow the leading pilot boat. Master to give directly to Ilyichevsk pilot station 48, 24 and 6 hours notice. One hour before arrival at the above position to contact "Port Control Ilyichevsk" by VHF or radio/telephone on 2535 kHz.

Pilotage having been accomplished, Master to cable the actual distance the vessel was piloted by the leader to Harbour Master Ilyichevsk, copy to Inflot to exclude errors in charges.

Instructions for Dry Cargo Vessels: Vessel to proceed to position: Lat. 46° 08′ N., Long. 31° 06′ E. 1 hour before arrival, vessel to contact Port Control Ilyichevsk by VHF or radio/telephone 2535 kHz and follow their instructions as they pilot by radar.

Please inform Ilyichevsk sea pilot station ETA at above position 48, 24 and 6 hours before arrival.

General requirements for ships loading bagged urea:

Max. beam 26 m.

Min. d.w.t. 5,170 tonnes. Max. d.w.t. 32,500 tonnes.

Max. distance from hatch opening to ship's side – 6.0 m.

Max. height from hold bottom to hatch covers – 17.0 m.

Min. height of cargo compartments – 3.0 m.

Min. size hatch openings – 7.0 m. × 10.0 m.

Vessel to be equipped with gear for loading spare bags and dunnage.

No cargo is loaded into deep tanks, lockers or other compartments where the loading machine cannot operate normally.

Ship's holds must be free from any obstacles such as shaft tunnels, pillars, etc.

Draft limitation – 11.5 m.

Cargo tallied automatically at the loading plant.

In the holds delivery very fast. No tallymen available.

The figures can be checked by the USSR Chamber of Commerce Messrs. Torgprompalata Moscow Telex No.: 411126. We suggest you should contact them directly.

VERY IMPORTANT:

All holds must be dry, clean and free from remnants of previous cargo.

Failure to comply with the above may cause significant losses and/or non-acceptance of the ship.

It is customary for shippers to accept Notice of Readiness retrospectively on berthing from date and time the vessel was granted Free Pratique if she has to wait at anchorage, provided she complies with the above requirements.

General requirements for ships loading bulk urea:

Min. d.w.t. 5,170 tonnes. Max. d.w.t. 32,500 tonnes.

Max. beam 26 m.

Max. distance from ship's side to hatch coamings – 20.0 m.

As there are no trimming facilities, wing tanks with the slip angle of not less than 30° relative to deck line should be available to provide self-trimming in the holds as cargo delivered in a vertical flow.

Draft limitation – 12.0 m.

Vessel must be fit for grain transportation. The stability information booklet should provide an approved cargo plan for the quantity to actually be loaded.

All holds must be dry and clean and free from rust and/or remnants of previous cargo. Failure to comply with the above may cause significant losses and/or non-acceptance of the ship.

It is customary for shippers to accept Notice of Readiness on berthing retrospectively from date/time vessel was granted Free Pratique if she has to wait at anchorage, provided the ship complies with above requirements.

IMPORTANT: To obtain Harbour Master's clearance outwards, all maximum estimated expenses of a seaworthy ship should be prepaid and further reimbursed when the accounts are fixed after ship's departure, hence it is essential that sufficient funds be received by the Agent as soon as possible and imperative prior to completion.

REGULATIONS: The following are some of the port regulations. The numerals have no significant meaning.

1. Gas carrying ships proceed into port and leave it in company with a fire tug, which goes ahead of the gas carrying ship at 8 – 10 cables and will notify on VHF radio all ships of the necessary measures and precautions to be taken.

2. In the port there is a control office for regulating ship movements. Ships entering the port, request permission for entry 2 hours before, and ships leaving the port, 30 minutes before.

3. Pilotage for all ships is obligatory.

4. Pilotage for ships into Port Yuzhny begins at position: Lat. 46° 31′ N., Long. 30° 57′ E.

5. When a gas carrying ship is entering or leaving the port the entry or exit of other ships is prohibited.

The mooring of any kind of floating object to the side of a gas carrier while it is at Quay No. 3 is prohibited.

6. The max. draft for ships proceeding into Port Yuzhny is 14.2 m.

7. The max. speed for ships in the channel is 6 knots, but in the inner roadstead it is 4 knots.

8. The movement of ships in the channel is only in one direction.

9. The mooring of gas carrying vessels and vessels carrying chemicals is carried out with the aid of not less than 3 tugs, the power of 2 of which must be 882 kV (1,200 l.s.) and one 1,692 kV (2,300 l.s.). Leaving the mooring is carried out with the aid of not less than 2 tugs of which one has a power of 1,692 kV (2,300 l.s.) and the other 882 kV (1,200 l.s.) The wind speed when mooring and leaving moorings must not exceed 7.0 m./sec.

The mooring of gas carriers of more than 20,000 d.w.t. is carried out with the aid of 3 tugs; the power of each of them must not be less than 882 kV (1,200 l.s.). Unberthing will be carried out with not less than 3 tugs with the same power. The speed of the wind during mooring and leaving moorings must not exceed 10.0 m./sec.

10. Communication between tugs and ships will be carried out on VHF radio on Channel 6.

11. Communication with ships is carried out on VHF radio on Channel 11, call on Channel 16. The VHF call sign for Port Yuzhny is Port Control.

12. During the mooring and un-mooring of gas carriers from the quays, a representative of the Odessa Port Factory, military guard, office of the Harbour Master and also an inspector of the port will be present.

13. Mooring at the quay, moving on a quay or leaving the quay are to be carried out under the directions of a Pilot.

14. When the speed of the wind is above 12 m./sec., the moving of gas carriers along the quay is prohibited.

15. Navigation of ships along the channel, of not more than 20,000 tons displacement is permitted without tugs when the wind speed is less than 12 m./sec. and the cross current has a speed not more than 0.5 m./sec.

Entry to the channel when visibility is less than 0.5 miles is prohibited.

When there is a strong cross current or current along the channel, tugs will lead ships into the approach channel.

The mooring of ships at the quay will be carried out in the following manner, after the tugs have turned the bows towards the exit and parallel to the quay at a distance of 80 m. – 100 m. from the quay, the tugs, maintained the plane of the ship parallel to the quay, and will move the ship towards the quay. The speed of approach must not exceed 10 cm./sec.

The ship moorings will be carried ashore by launches. From the bows and stern 2 nylon mooring ropes of not less than 200 mm. (8 in. circumference) are to be used.

16. The main engines of gas carriers must be in constant readiness to move the ship during the whole period in the port.

When gas carriers are entering the port and also when leaving it, all other ships must observe precautions and not hinder its movement or its chosen route. These ships must not close a gas carrier within a distance of 10 cables.

The fire fighting tug on duty keeps a round the clock watch on VHF radio Channel 16.

The use of steel moorings on gas carriers is prohibited.

The Harbour Master of Port Yuzhny has the right to depart from the present position on questions connected with the safety of mariners.

Lack of knowledge of the requirements of the present temporary obligatory regulations established for the port will not absolve the Master of a vessel from responsibility for non-observance of these regulations.

SHIPMASTER'S REPORT: September 1979 (Updated 1988).

Vessel: 32,000 g.r.t. LPG Carrier.

General: This port is situated on the Western bank of what was once Lake Ajalik, about 0.5 miles from the entrance to the bay. The port has been created by dredging the barrier that separated the lake from Odessa Bay. On BA. chart 2212 this entrance is situated about Lat. 46° 35.6′ N., Long. 31° 00.4′ E. Breakwaters of prefabricated concrete sections extend about 500 m. into the bay, and the approach channel is marked by conical buoys and pillar buoys for a distance of about 2.5 miles beyond this. The approach channel lies on an axis of about 010°T – 190°T. Depth in this channel were not less than 16 m. by ship's echo sounder, both on entering and leaving.

The small town of Grigor'yevska is marked on BA. 2212. Lake Ajalik is not marked on this chart.

The port has been created to serve the massive and newly constructed chemical plant on the Western shore of the lake. At the time of this visit it consisted of dry bulk handling berths of about 700 m. in length, and a liquid handling facility for the discharge of superphosphoric acid and the export of anhydrous ammonia. The liquid handling berth lies to the North of the dry berths, about 0.8 miles from the breakwaters.

There are plans to create dry cargo berths on the Eastern shores of the lake, immediately inside the entrance. Some work is already in progress.

Vessels of up to 12 m. draft can be handled and there are 3 medium sized tugs available.

The chemical plant is not yet fully completed, a second stage has only been operating since the beginning of this year. In 1980 there are plans to export 2 million tons of ammonia.

Agents: "Inflot" may be reached on Channel 16, with a working Channel 8 available.

Berthing: Vessel berthed starboard side alongside, swinging immediately South of the berth with the aid of 2 tugs (the third was late in arriving) moored fore and aft, port side.

The berth itself consists of a concrete jetty projecting from the main jetty, some 110 m. in length and about 40 m. proud of the main jetty.

There are 5 Chicksans, 2 for the discharge of acid, and a group of 3, 2 liquid 1 vapour return, for the loading of ammonia. The Chicksans have hydraulic couplings and appear to be of an awkward size, about 325 to 330 mm.

On this visit there was only 1 liquid line available for use together with the vapour return line. Claimed loading rate is said to be some 2,000 tonnes p.h. With the 2 liquid lines in use, this would indeed be possible. Our overall load rate was 1,115 t.p.h., including initial and final slow rates. During loading hourly rates in excess of 1,500 t.p.h. were maintained.

Communications with the plant operators was quite good but obviously hampered by language. There were no problems with slowing down for topping off.

Samples: Were taken on arrival and at several times throughout the loading, sample cock on Chicksans.

Fresh Water: Available from the jetty.

Fuel: May be supplied and arrives by barge. Bunkering cannot be undertaken whilst loading cargo and on this call the bunkering had to be completed before being allowed to load, despite this leading to a big delay.

Moorings: Three lines, 2 breast and 2 springs, fore and aft. Ratguards must be fitted. Mooring boat in attendance.

No problems with landing gangway on the quay and it may be turned out quite safely before arrival alongside.

Guards: On the quay, 1 at the gangway (Discharge Books required before being allowed to read drafts, etc.) and 1 each end. At night there was a 'guard' boat lying off our port side.

Officials: Polite and quite firm.

Documents required:

5 Copies General Declaration. (ship's particulars, etc.).
4 Copies Cargo Declaration.
2 Copies Crew Effects.
4 Copies Crew Lists.
4 Copies Passenger List.
2 Copies Crew Currency Declaration.
1 Copy 'Clean' Ballast Declaration.
1 Copy Sanitary Declaration.
No certificates were sighted.

Shore Leave: Granted until 2400 hrs. Masters allowed unlimited shore leave.

Toilets/Pollution: Vessels not fitted with sewage treatment plants must seal their toilets and use the shore facilities at the end of the quay. A statement to this effect must be signed.

A very strict control of pollution of all types is maintained and this includes ALL drainings from the maindeck. Scuppers must remain plugged right up to the moment of departure. Hoses used to de-ice the liquid line must NOT be allowed to drain overside.

Papers: Allow at least 3 hours for paperwork before and after working cargo.

Cargo Lines: Were blown through by the shore plant on completion of loading. Vapour return lines was used throughout and there is no charge for its use, vapour apparently being returned to the shore tanks.

Cargo loaded was at about −32°C.

SHIPMASTER'S REPORT: October 1980 (Updated 1988).

The following is an update of the September 1979 report above.

General: The port has been developed East of Odessa to handle overspill from Odessa and to develop bulk handling facilities.

In about 10 years in terms of tonnage handled, it is expected to be the largest in the Southern U.S.S.R. open to overseas vessels.

It has been in operation for 2 years and is 0.6 miles East of Grigoryeko light.

The port has been constructed from a fresh water lake. West Breakwater Head is in position Lat. 46° 35.80′ N., Long. 31° 00.70′ E. East breakwater head is in position Lat. 46° 35.80′ N., Long. 31° 01.03′ E. The port extends at present to the bulk liquid ammonia berth in position Lat. 46° 37.08′ N., Long. 31° 00.80′ E.

Port regulations are at present in Russian only, and English text should be available shortly (October 1980).

Approaching the Russian coast soundings once the 100 fathom bank has been crossed tend to be flat and give little indication of position.

The outer separation scheme buoy was observed on radar at 9 miles and visually at 7 miles.

The coast is identifiable on radar at 30 miles.

D/F beacons are generally reliable and as ALRS, out of 12 checked in September 1980 3 were not operating on the West coast of the Black Sea.

Notice:

	72 hours	*48 hours*	*24 hours*	*6 hours*
Agents:	Inflot Yuzhny	*	*	
Shippers:	Vneshtrans Yuzhny	*	*	
Charter:	Sovchart Moscow	*	*	
"	Sovchart Paris	*	*	
Pilot:	*	Inflot Ilyichevsk	*	*
"		Ilyichevsk Seapilot Station	*	*
Port:			*	*

Note: All through Odessa Radio.
*Denotes repeat message where indicated.
"Vneshtrans" is cable address for 'Sojuznestrans' shippers.

Pilot: Order Sea Pilot Ilyichevsk as notices.

Contact by VHF Channels 16 and 14 about 15 miles away from turning buoy.

Pilotage compulsory from port. Pilot speaks reasonable English and requires about 13 knots.

If anchoring at Yuzhny anchorage, he positions vessel under control from Yuzhny Radar Station position Lat. 46° 36.05′ N., Long. 31° 01.3′ E.

On departure the Harbour Pilot leaves the vessel in the anchorage area and the sea pilot cutter 'Bravvy' guides vessel down channel to 'Ilyichevsk' turning buoy, his speed is 11 knots.

Anchorage: For large LPG ships Anchorage No. 356 is used, centred on Lat. 46° 32.5′ N., Long. 30° 58.25′ E. with a radius of approximately 0.6 mile.

Depth 20 m., bottom mud and sand. Density 1024.

All anchoring is under control of Yuzhny Radar Station which gives the Pilot directions.

Berthing: There is no night berthing or unberthing, for gas carriers although the buoyage and leading lights are lighted, this seems to be for dredgers working. It would seem the hours are 0800 to 1700 hrs. (with possible extension in Summer months) with no vessels in the harbour or channel underway before or after these times. (We made it outwards in 12 minutes (Oct. 80)).

Visibility must be over 4 miles before berthing or unberthing operations take place. It may seem clear out at the anchorage but the weather in the harbour can be very different. This has been borne out from observations. We noted a temperature rise of 8° Celsius in 1 hour whilst moving out of port to anchorage.

Channel: The channel width is 118 m. and least depth of 14 m. (Checked by echo sounder). Pilots advise that there is a patch of 13.5 m. but this was not found. Bottom sand and mud. The shape is in the form of a 'V' so it is necessary to keep to centre of channel.

Buoys commencing seawards at Nos. 13 (starboard) and 14 (port) terminate in the harbour itself at Nos. 3 and 2.

The leading line is 013° to 193°.

Buoys (entering), black to starboard and red to port with Fl. W. & R. lights respectively. Channel length 1.3 miles from breakwater heads.

South of the channel are two shoals one 1.6 miles S.S.W. marked by 2 white pillar buoys Fl. W. and isolated by 1 white pillar buoy about 1.5 miles S.W.

Confused cross currents from wind and the rivers emptying out nearby are apparent. Generally the surface current is Westward and sub-surface Eastward. Apart from causing navigation problems these currents cause much silting up.

Vessels enter the channel from the anchorage between the 2 shoal areas on an approximate course of 080° then turn hard to port when in line with the channel to bring leading lights in line before entering channel. On leaving much the same is done, except a more Easterly course is resulted.

In the harbour itself in calm conditions there is a noticeable Southerly current of 0.5 knots.

The dredged channel at present terminates just astern of the ammonia berth marked by 2 buoys.

Leading marks, white and orange in colour are situated on raised ground N.E. of the harbour, and at night exhibit fixed white lights under which are neon-like strip green lights.

Vessel is swung short round to port off ammonia berth, berthing starboard side to head out. On fertiliser berths there seems to be no accepted side to.

The breakwaters consist of concrete blocks piled haphazardly on top of one another. Immediately to the East are the ruins of 2 other small breakwaters. At the foot of the Eastern breakwater there is a large concrete radar and Port Radio Control Tower. This is conspicuous in good visibility but would benefit from being painted white or orange to assist identification in conditions of haze which seem to be prevalent.

Just below this tower on the harbour side is a small boat pier for use of Port Authority craft.

The harbour offices themselves are in a large concrete building at the Southern end of the fertiliser quay where Customs, Agents, police, doctor, chandler, etc., reside.

Tugs: Four tugs are available. All ship's lines. 2 of 5,000 h.p., 1 of 2,500 h.p. (Tigris) and 1 of 1,200 h.p.

All tugs have icebreaking capability.

It is essential that the larger tugs have double lines. They use the lines out of the centre lead bow and stern with the 1,200 h.p. tugs pushing.

Outwards (October 1980) we dispensed with 4,500 h.p. tug's services and used 1,200 h.p. tug to tow us.

Tugs accompany vessel down channel to anchorage area.

Berths: Gangway can be turned out beforehand.

The ammonia berth is 125 m. long and 43 m. (measured) proud of the main dock face, it leads in a 171° – 351° direction. The other berths are offset and leading in approximate 005° – 185° direction.

The fendering is excellent with long rubber tubes and corners well protected on all berths.

Bollards are plentiful.

Moorings: Ammonia berth 3, 2, 2, each end with bow/stern and breast lines leading to main dock face and springs to 'T' section.

Springs first out and last in.

As usual aft have to compromise. We put breast lines from main deck and springs from aft, both to 'T' section. Mooring boat in attendance, bow first docking and undocking.

Unberthing, vessel pulled laterally clear of berth, about 100 m., by tugs before moving ahead down harbour.

Loading: Ammonia: 2 loading and 1 Vapour Chicksan. Max. rate about 2,000 t.p.h. total (2×1,000 t.p.h.).

No charge for Vapour Return Line (VRL).

Shore personnel connect and disconnect.

Hydraulic couplings.

VRL ships 8 – 12 to shore 12 – 12 150ASA/300ASA.

Liquid shore spools 150ASA/300ASA.

No emergency stop except by watchmen in hut under Chicksans, who speaks little to no English. Essential whistle signal agreed.

On visit (Sept./Oct.) 1980 shore tanks were low on product with max. rate at 700 t.p.h. Sometimes down to 200 t.p.h.

Samples frequently taken from cock on Chicksan.

Temperature warm at −32° Celcius on all visits. Note protest.

Loading programme to be agreed before commencement.

Surveyor with interpreter, takes about 2 hours for figures. Plant has to be off whilst readings taken.

Acid: Forward (South) of ammonia Chicksans – 2 arms.

Shippers: 'Sojuznestrans'.

Statement of fact is compiled by the Master during loading on official form which is an advantage.

Tank atmosphere tested prior to commencement.

Purging or cooling alongside.

Plant: Total storage capacity 100,000 tonnes with about 18 tanks of 5,500 tonnes each. Four tanks can be seen from the ship, the remainder are behind.

The anhydrous ammonia plant was built by the Pullman Kellog company of U.S.A. and fertiliser section by PHB of Germany.

The tank pumps 'Carter' lose suction with 1,000 tonnes heel in tank. Approx. 2,000 tons per day of ammonia is produced at the plant with about 7,000 tons per day being pumped in by pipe-line from the Volga Region.

Pollution: VERY strict. Be VERY careful.

Scuppers to be plugged. Make sure decks washed down prior to arrival and that no lube oil is washed overside.

Make sure ballast and pumps clean.

Ships not fitted with sanitary tank system must have their toilets locked up and all crew use toilets astern of vessel. The sanitary system is checked.

No pumping of ballast in anchorage or in harbour without Port Authority permission. (A Greek ship was fined for pumping ballast at anchor).

Do not have fire hoses draining overside, we had them draining into ballast tanks.

Be very careful when disconnecting that no hose water drains overside.

Agent: State Agent 'Inflot'. Yuzhny office telephone 59-38-75. Yuzhny office has been in operation for about a year. Telex: 232 722.

Main office in Odessa.

Office is in port building at end (South) of fertiliser quay. Good English and very co-operative.

Night staff, 2000 hrs. – 0800 hrs., good.

Can be contacted by VHF at anchorage or alongside by Channel 16 and then talk direct on Channel 8.

Order money (which all unused must be handed back on departure) 24 hours beforehand. If shorter notice given Agent will give you what he has in office safe.

Accepts Notes of Protest on behalf of receiver.

Cable address: 'Inflot Yuzhny'.

Medical: Through Agent.

Every day except Sunday a doctor attends the clinic in the port building, 0900 hrs. to 1300 hrs. We had 1 crew member with a fractured hand who was checked by doctor and taken immediately to Odessa for X-Ray, then brought back to the ship plastered up, all in 3 hours, with full English report.

Outside these hours a nurse is on duty.

Water: Fresh water available from quay. Agent will send waterman. Metered. Ship hoses international connection flange.

Chandler: Two. Technical and produce.

Some local produce available, basically vegetables. No salads.

The produce chandler in port building deals in curios, champagne, vodka and caviar. Payment can be made by the Agent.

We obtained from Technical chandler a Russian chart of Odessa – 2 days' wait.

Suggest any requirements ordered well in advance.

Films: Walport films can be changed with suitable ships in port. Agent very co-operative in this respect, finding out for us if a Greek ship had Walport films which she did and like ourselves wanted a change. Agents and customs officer with one of our seamen changed the boxes – no difficulties encountered.

Fuel: In short supply and long waits. By barge to Odessa waiting anchorage. October 1980 – 3 day wait for diesel at $358 per tonne.

Repairs: Very difficult.

Radar/Wireless: Not sealed or checked. Bridge and radio room not inspected. Radar use seems to depend on Pilot and guards. From anchor to berth we had to turn off radar. On last visit guards made ship turn off before sailing.

This visit no problem, radars tested prior to sailing and left on.

There is a tug anchored off vessel at all times but this is for fire duties.

Formalities: Very good and quick, as long as procedure followed. Everyone has to muster in front of Immigration Officer on arrival and departure, and is checked against Discharge Book.

Required:

1 Copy Personal Effects Declaration Form (very strict on this, require all jewellery to be declared).
1 Copy Currency List – crew. (Again very strict and check up frequently in port on amount drawn by individuals).
2 Copies Health Form.
2 Copies Vaccination List.
6 Copies Crew List.
5 Copies General Declaration (IMO Standard Form).
2 Copies List of Drugs in Master's care.
1 Copy Clean Ballast Declaration and request to pump in port.
3 Copies Loading Instructions.
2 Copies Cargo Requirements.
1 Copy Statement to Port Captain, all Safety Equipment in good order.
1 Copy Statement of type of Sanitary System and in use.

No Stores List required.

Bond not sealed.

Port Captain boards vessel soon after arrival and fills in long safety questionnaire with Master. If certificates dates in doubt will want to sight.

Agent says Port Captain will allow ship to sail with Safety Certificate up to 2 days before expiry with clearance for Bosphorus.

Allow 2 hours for papers before cargo commences and after completion.

Seamen's Facilities: A seamen's club has been established just outside main gate. Roubles only taken.

AUTHORITY: The Port of Yuzhny Authority, 1 Grigoryevka, Port of Yuzhny, Kominternovskiy Rajon, Odessa Region, U.S.S.R. *Tel:* 55-10-27. *Local Exchange:* 5-50, 5-52. *Telex:* 232722. *Cables:* Morflot Yuzhny.

AGENT: Yuzhny "Inflot" Shipping Agency, Grigorievka-1, Kominternovsky Rayon, Odesskaya Obl., Port Yuzhny, U.S.S.R.: Tel: 593780, 593777, 593875. Telex: 232722. Cables: "Inflot Yuzhny".

ZHDANOV: 47.06 N. 37.35 E. (See Plan)

GENERAL: A sea port in the Azov Sea, Zhdanov is situated 14 miles Northward of the entry into the Taganrog Gulf, at the Western end of it and at the mouth of the Kalmius River.

All-year round navigation is possible but during 30 – 90 days period of ice conditions with ice-breaker assistance for ice-strengthened vessels only.

Ice usually begins to form at the end of November or the beginning of December, and 3 – 4 weeks later the Gulf becomes completely frozen over. The increase of fast ice usually lasts up to the first half of February. As a rule the ice usually breaks up in the middle of March. It finally disappears at the end of March or, as an exception, in the first half of April.

The port of Zhdanov consists of the Outer and Inner Roads, the Ugolnaya (or the Coal) Harbour, the Grain Harbour, the Ship-repairing Basin, the Schmidt Harbour at the mouth of the Kalmius River, and the port of Azovstal situated Eastward of the mouth of the river.

DOCUMENTS: Refer to beginning of U.S.S.R. section.

PILOTAGE: Compulsory. Inform Kerch Harbour Master ETA 24 hours and 6 hours, off Kerch Strait. On arrival Kerch Pilot Buoy No. 21 (Lat. 45° 13′ N., Long. 36° 27′ E.), drop anchor and await Pilot; also keep continuous radio watch.

Not later than 4 hours prior to arrival at the mouth of the Coal Harbour Approach Channel, Buoy No. 1, a Master should order a Harbour Pilot.

ANCHORAGES: A good anchorage can be obtained in the Outer Roads of the port of Zhdanov situated opposite the port entrance. The depths in the roads are from 5 m. – 8 m. the holding ground is mud mixed with sand and shell.

RESTRICTIONS: Vessels can enter or leave the port at any time of day and night. All vessels entering or leaving the port should have keel clearance not less than 0.5 ft. (15 cm.).

The max. allowed speed in the approach channels is 8 knots and in the part of the Coal Harbour Approach Channel, protected by a wooden dam, only 3 knots.

The speed of a vessel may be increased in case of necessity to keep her course along the leading line or prevent her drifting off the channel due to the effect of current or wind.

MAX. SIZE: Draft 8 m., length/breadth no restrictions.

HEALTH: After presenting Vaccination Certificates, Free Pratique obtained. After proceeding from one port of U.S.S.R. to another, Free Pratique obtained automatically.

RADIO: Vessels approaching the port of Zhdanov should establish radio contact through Zhdanov Radio port radio station operating 24 hours daily on the following frequencies:

	Frequencies (kHz)		Type of	
			trans-	Time of
Call Sign	Working	Calling	mission	work
UDC	500/473	500/416	A1A	H24
"Zhdanov-Radio"	2182	2182	N3E	H24
"Zhdanov Radio-1"	156.8*(16)	156.8*(16)	F3E	H24
(Port Controller)	156.7*(14)	156.7*(14)		
"Zhdanov Radio-5"	156.45*(9)	156.45*(9)	F3E	H24
(Harbour Master)				

*Frequencies are given in MHz.

RADAR: The port of Zhdanov radar station gives all possible information to any vessel navigating along the Coal Harbour approach channels in the restricted visibility and during the absence of the floating navigation marks.

Radar navigation is controlled by a Pilot in charge.

Storm signals are exhibited at a signal mast located at the Dividing Pier.

TUGS: Available. Use ship's lines. Tug assistance for shifting berths is compulsory. Number of tugs to be ordered shall be advised by Pilot.

BERTHING: The berths of the port with depths of up to 10 m. are equipped to handle general, containers, bulk and liquid cargoes, timber, metals, food stuff, fruit, vegetables, etc., and passenger shipping as well. There are enclosed warehouses, open concrete floor sheds and a grain elevator.

On the quays there are electric cranes of up to 32 tons capacity, coal and grain loaders. There are floating cranes with lifting capacity of up to 100 tons and other cargo handling equipment.

The Grain Harbour is bounded by two piers – by the Dividing Pier from S.W. and by the Eastern Pier from N.E.

It is protected from S.E. winds by the Inner Roads Breakwater. There are numerous piles and dolphins along the Eastern Pier. The depths in the central part of the Grain Harbour are from 8.7 m. to 9.1 m.

The Schmidt Harbour is situated at the right bank of the mouth of the Kalmius River, at the S.E. outskirts of the town of Zhdanov. It is used by small vessels. The access to the Schmidt Harbour is by an approach channel dredged in the coastal shoal water. Navigation along the channel is ensured by leading lights.

Storm signals are shown at the station situated Southward of the entry to the Schmidt Harbour.

When proceeding to the Inner Roads through the shoal water vessels should use approaching channels leading to the Coal Harbour and the Avant-port.

The Coal Harbour approach channel is the main fairway for entry to the port of Zhdanov. It passes through a coastal shoal then enters the Southern part of the Coal Harbour.

Navigation along the Avant-port and the Coal Harbour approach channels is also ensured by leading lights, light buoys and spar buoys.

The access to the port of Azovstal is by a channel branching off N.E. of the Coal Harbour approach channel.

MEDICAL: Masters to advise by radio prior arrival of medical attendance required on board. Hospital facilities available. Vaccination Certificates to be presented.

DENSITY: About 1005.

WEATHER: The changes in the water level is mainly caused by effects of the wind observed here all the year round. The fall of the water level is usually caused by Northerly and N.E'ly winds but rises of the water level are due to S.W'ly winds.

The range of the water level observed in the Gulf is about 1 m.

Changes of the water level can also be caused by variation in the atmospheric pressure, so called "Seish" effect. The "Seish" usually starts during calm weather and can last, on average, for about 24 hours.

The maximum range of the water level due to the "Seish" effect observed in August is about 0.6 m.

FRESH WATER: Delivered at berth. Also delivered by lighters.

FUEL: Delivered by lighters.

OPENING/CLOSING HATCHES: Crew allowed open and close, stevedores placing beams.

CERTIFICATES: Registered Tonnage Certificates required.

CUSTOMS ALLOWANCES: No quantity restrictions. Nothing to be taken ashore.

IDENTIFICATION CARDS: Not required.

CONSULS: None.

REPAIRS: The ship-repairing Basin is situated in the Northern part of the Inner Roads. It is bounded on the S.W. by the Eastern Pier and on the East by the Eastern Dam. The entrance to the Basin is situated between the heads of the Eastern Pier and the Eastern Dam. The depths in the Basin are from 6.1 m. to 6.5 m.

All kinds of repairs for vessels of up to 9,000 d.w.t. can be carried out.

DRY DOCKS: 15,000 and 5,000 tons.

REPATRIATION: All facilities for repatriation subject to visa formalities.

AIRPORT: 15 km. from port with regular airlines.

TIME: Local time GMT plus 3 hours, GMT plus 4 hours in Summer.

HOLIDAYS: 1st January; 8th March; 1st, 2nd, 9th May; 7th October; 7th, 8th November.

AMBULANCE/FIRE: Ambulance 003; Fire 01.

TELEPHONES: Can be placed on board.

AUTHORITY: The Port of Zhdanov Authority, 99 Admiral Lunin Prospect, 344000 Port of Zhdanov, Donetsk Region, U.S.S.R. *Tel:* 592-234. *Cables:* Morport Zhdanov.

AGENT: Zhdanov Main Maritime Agency "Inflot", 89 Admiral Lunin Prospect, 341010 Zhdanov, Donetsk Region, U.S.S.R. Tel: 592415, 58198, 58579. Cables: Inflot Zhdanov. Telex: 115124.

United Arab Emirates

GENERAL:

EMIRATES RADIO: The Emirates Telecommunications Corporation operate a Coastal Radio Telephone Service (Etisalat) to provide connections via a manual operator between ships at sea and the public telephone network. The service is available continuously 24 hours a day.

There are 8 shore stations set up around the coast of the U.A.E. These transmit and receive on the VHF channels shown in the table below. The control and operation of all shore stations is at a central point in Dubai.

	Frequencies		
Channel	*Ship Transmitter* (MHz)	*Ship Receiver* (MHz)	*Used For*
16	156.800	156.800	Simplex for distress and safety for all areas
1	156.050	160.650	Duplex working channel for Ras al Khaimah area
2	156.100	160.700	Duplex working, first channel for Jebel Ali area
3	156.150	160.750	Duplex working, first channel for Khor Fakkan area
4	156.200	160.800	Duplex working, first channel for Abu Dhabi area
5	156.250	160.850	Duplex working, first channel for Umm al Quwain area
7	156.350	160.950	Duplex working, second channel for Jebel Ali and Khor Fakkan areas
28	157.400	162.000	Duplex calling channel for all areas
60	156.025	160.625	Duplex working, first channel for Jebel Dhanna area
62	156.125	160.725	Duplex working, first channel for Fujairah and Zirku areas
63	156.175	160.775	Duplex working, third channel for Jebel Ali area
66	156.325	160.925	Duplex working, second channel for Abu Dhabi area
83	157.175	161.775	Duplex working, third channel for Abu Dhabi area and second channel for Fujairah area
84	157.225	161.825	Duplex working, second channel for Umm al Quwain area
85	157.275	161.875	Duplex working, fourth channel for Jebel Ali area
86	157.325	161.925	Duplex working, second channel for Jebel Dhanna area
87	157.375	161.975	Duplex working, second channel for Ras al Khaimah area

For all areas a common calling frequency on Channel 28 is used both for ship-to-shore calls and for shore-to-ship. After contact is established the Etisalat Coast Station Operator will assign a working channel taking into account the ship's position and existing calls in progress.

To establish a ship-to-shore call the ship should switch the equipment to Channel 28, ensure the channel is not already in use by listening and then call "Emirates Radio", identify itself and give the coastal area in which it is sailing e.g. "off Jebel Dhanna". The Coast Station Operator will then assign a working channel e.g. in the case of Jebel Dhanna area working will be established normally on Channel 86. After recontacting on the working channel the called number and calling ship details will be established and the call connected. If there is traffic congestion the Operator may assign a free working channel from another area.

For calls to the ship, the Operator will set up the called ship's code number which will be sent on Channel 28. This will operate an alarm on the equipment. In the case of there being no selective calling equipment installed or contact cannot be established by this means the Operator will also call the ship by voice using its call sign and name on Channel 28. Following establishment of contact the ship will give the area it is in and the operator will then assign a working channel. On re-establishment on the working channel the call will be connected.

It follows therefore that all ships must keep one of their receivers switched to Channel 28 when idle in order to be able to receive a shore-based call.

Traffic lists, that is calls on hand for ships in the area, will be broadcast at 0603, 0803, 1203, 1403, 1603 and 1803 hrs. GMT on Channel 28. This is in addition to calls made on first receipt of the call booking. Ships should avoid using Channel 28 to call during the broadcast of traffic lists.

Distress and Safety: Simplex Channel 16 (156.8 MHz) is received continuously by the Coast Station and is monitored by the Border Guard in Abu Dhabi who will handle all matters relating to distress, urgency and Safety of Life at Sea (SOLAS).

Ship-to-Ship Traffic: Ship-to-ship calling and working frequencies are different from those used by the Coast Station. Such calls are not normally the concern of the Coast Station and should be conducted in accordance with international and local regulations.

Exceptionally however if a ship desires to call another ship out of direct range the Coast Station facilities may be used in which case the procedure and use of calling channels is the same as for calling a shore number.

Shore-Based Subscribers: Subscribers wishing to contact a ship should dial number 158, from any location within the Emirates in order to contact the Coast Station Operator.

They should give the Operator their town location and telephone number, the name of the ship, if known its call sign and code number and the name of the person to whom they wish to speak. The Operator will call the shore-based party back after the call with the ship is established.

Categories of Calls Available: Paid calls only are accepted. Collect calls are not admitted from or to ships.

The following categories are accepted:

- Calls from ships within range to parties anywhere within the United Arab Emirates.
- Calls from any party within the U.A.E. to any ship within range.
- Calls from ships within range to parties in any country in the international telephone network.
- Calls from any party in the international telephone network to any ship within range. These will only be accepted via the operator in the network of origin.
- Calls from any ship within range of the Coast Station to any other ship within range.

All calls to ships are treated as personal calls. Calls from ships are station calls at the normal charge. Personal calls are available subject to an additional personal call charge.

U.A.E. ships or boats using this service must ensure that:

1. They have a valid licence which is issued by the Ministry of Communications who will also issue a call sign and, where applicable, a code number.
2. The vessel is equipped with a Maritime Mobile Radio Telephone which conforms with international requirements and any supplementary regulations issued by the Ministry of Communications.
3. That proper operating procedures are followed.

Technical Characteristics for Maritime Mobile Radio Telephone (VHF): The technical characteristics should be in accordance with CCIR Recommendation 489-1 except for transmitter power which must not exceed 10 watts (U.A.E. regulation).

The recommendations as modified in the U.A.E. are summarised below:

General Characteristics:

1. The frequency band is 156 – 174 MHz.
2. The Channel spacing is at 25 kHz intervals.
3. The class of emission is F3 (frequency modulation telephony).
4. The bandwidth is 16 kHz.
5. Frequency modulation has a pre-emphasis of 6 db/octave.
6. Apart from specially designated Simplex Channel, for SOLAS, only ships with full duplex facilities can work with the public telecommunications system. Ships with only semi-duplex cannot work with the public telecommunications system.
7. It must be possible to make changes between Channels within 5 seconds.
8. The emission is vertically polarised.
9. The selective calling system is as per CCIR Recommendation 257-2.

The tone frequencies for this system are as follows:

Figure:	1	2	3	4	5	6	7
Audio Frequency:	1124	1197	1275	1358	1446	1540	1640
Figure:	8	9	0	Figure Repetition			
Audio Frequency:	1747	1860	1981	2110			

Transmitter:

1. The transmitter carrier power shall not exceed 10W and shall incorporate facilities to readily reduce this to 1W or less for use at short ranges. (Note: The normal 25W power permissible internationally is reduced to 10W in the U.A.E.).
2. The frequency deviation should not exceed ±5 kHz.
3. Frequency tolerance should not exceed 10 parts per million.
4. Spurious emissions should not exceed 25 μW or 40 db below normal power whichever is the lower.
5. The upper limit of the audio band should not exceed 3 kHz.
6. Cabinet radiated power should not exceed 25 microwatts.

Receiver:

1. Sensitivity should be equal or less than 2 microvolts e.m.f. for a given reference signal to noise ratio at the output.
2. Adjacent Channel selectivity should be at least 70 db.
3. Spurious response rejection should be at least 70 db.
4. Radio frequency intermodulation rejection ratio should be at least 65 db.
5. The power of any conducted spurious emission measured at the antenna terminal should not exceed 2 nanowatts.
6. The effective radiated power of any cabinet radiated spurious emission on any frequency up to 70 MHz should not exceed 10 nanowatts. Above 70 MHz, the spurious emissions should not exceed 10 nanowatts by more than 6 db/octave in frequency up to 1000 MHz.

General Guide to Operating Procedure:

Ships wishing to make a call via the Emirates Coast Station should use the following procedure:

1. Switch their receiver to Channel 28.
2. Listen to establish there is no traffic on the channel.
3. Transmit the following call: Emirates Radio this is . . . (call sign, ships name or other identification). Location . . . (nearest Emirates main coastal town).

In the case of difficult conditions this procedure can be modified as follows: Emirates Radio (repeated not more than 3 times) this is . . . (call sign, ships name or other identification, repeated not more than 3 times). Location . . . (nearest Emirates main coastal town).

If the Coast Station does not reply to the first call the call may be repeated at 3 minute intervals. However, before renewing the call, the calling station must first ascertain that further calling is unlikely to cause interference to other communications in progress and that the station called is not in communication with another station.

For replying to a call from the Coast Station a similar procedure is followed; the following is transmitted on Channel 28: Emirates Radio (repeated not more than 3 times) this is . . . (call sign, ships name or other identification, repeated not more than 3 times). Location . . . (nearest Emirates main coastal town).

After contact has been established on Channel 28, the Coast Station will assign a working channel. Coast and ship stations then change to the working Channel and proceed with the call.

Example: A Ship the 'Al Said' located off Jebel Dhanna wishes to make a telephone call. This is the procedure:

1. The 'Al Said' listens on Channel 28 to ensure there is no communication it may interfere with.
2. Transmits the following call on Channel 28: Emirates Radio, this is . . . (call sign) . . . 'Al Said' off Jebel Dhanna.
3. The Coast Station will reply: (Call sign) . . . 'Al Said', This is Emirates Radio, Channel 86.
4. 'Al Said' now switches to Channel 86 and calls: Emirates Radio, this is 'Al Said', how are you receiving me?
5. The Coast Station replies: 'Al Said', this is Emirates Radio, receiving you well, go ahead with your traffic.
6. The ship then gives details of the telephone call required.

Inmarsat Service:

Scope of Service: This service provides for the exchange of telephone/telex calls between suitably equipped ships in the U.A.E. coastal waters or in international waters, and any subscriber connected to Etisalat's telephone network.

The declared purpose of the INMARSAT System is to establish and operate a worldwide satellite communications system to provide improved maritime communications that will lead to greater efficiencies in the management and operation of ships at sea as well as contribute to improvements in distress and safety of life at sea.

Inmarsat Network – Global Coverage: The Inmarsat network consists of satellite circuits and their associated control systems providing national telecommunication carriers of member countries access to ships at sea via the maritime coast stations owned and operated by those countries who choose to provide such facility. Global coverage of accessing ships in each ocean area.

The implications of this network are that such access to ships having suitably equipped terminals, and located anywhere in the world can be had via extremely reliable and high quality circuits at reasonable costs.

In the operation of the service, Etisalat has the freedom to route its maritime telecommunications traffic via any of several coast earth stations having coverage to that particular ocean area. Etisalat has established telephone routing arrangements to Atlantic Ocean via Umm-Al-Aish Coast Earth Station in Kuwait, to Pacific Ocean via Singapore Coast Earth Station, and to Indian Ocean via Eik Coast Earth Station in Norway.

Facilities Offered: Telephone: In the direction of shore-to-ship, service is available on demand via the Etisalat International Telephone Operator, in the semi-automatic mode of operation, with the operator dialling directly to the vessel. Calls to ships can be either station-to-station or person-to-person, subject to a personal surcharge in the latter case.

When booking a call, callers in the U.A.E. should give the operator the ship telephone number and the position of the ship in the ocean region at the time the call is booked.

In the direction of ship-to-shore, calls will be received on an automatic basis, but if necessary such calls will also be connected via the operator in the coast earth station country.

Telex: U.A.E. subscribers have the facility to dial telex calls in the shore-to-ship direction, and to receive calls from ships on a fully automatic basis. However, if necessary the Etisalat Operator or the operator in the coast earth station country will be able to establish telex calls.

Automatic telex calls can be made by keying the destination code and the ship telex number.

Area	*Destination Code*
Atlantic Ocean	0581
Indian Ocean	0583
Pacific Ocean	0582

Collection Charges: Telephone calls from shore-to-ship via Etisalat are charged on the basis of 3 minute minimum plus each additional minute. For person-to-person calls a surcharge equivalent to a 1 minutes charge will apply. The charges applicable are:

First 3 minutes via operator	Dh.150
Each additional minute	Dh. 50
Personal surcharge	Dh. 18
Per minute telex call from shore-to-ship via Etisalat is	Dh. 30

Telex calls are charged on the basis of 1+1 charging, i.e. the minimum charge is for 1 minute with the additional time charged per minute, with fractions of a minute charged as a full minute.

Accounting Services for Inmarsat/Radio Maritime Communications: Etisalat also provides accounting service to ocean going and mobile vessels registered by the Federal Ministry of Communications, U.A.E., in accordance with the international telecommunications rules (CCITT) and International Maritime Laws. Under the terms of this service, Etisalat will provide such accounting and settlement facilities for the ships thus registered in U.A.E. for all their radio communication traffic via Inmarsat and other communication channels anywhere in the world.

Charges payable to Etisalat by the mobile station operator are:

(i) Deposit: A refundable security deposit of Dh 5,000/– is payable at the time of application for service. The deposit will be returned at the time of termination of the service, subject to the satisfactory settlement of all outstanding matters, including the payment of all charges and dues payable to the Corporation.

(ii) Service Fee: An annual service fee of Dh 2,000/– is payable in advance for calculation and verification of charges, allocation of charges to interested parties, adjustment and payment of accounts received from Administrations and other accounting authorities and related incidental correspondence. This charge will accrue day to day from the date of commencement of service.

Etisalat branch offices in Abu Dhabi and Dubai will provide on request details of terms and conditions governing this service to interested mobile station operators. Applications for such service should also be made to the appropriate Etisalat branch office.

Other Marine Services: If ships are outside U.A.E. coastal waters, calls may be made via marine communication facilities available in other countries.

These are: Ship/shore telephone/telex/telegram services via radio (VHF, MF or HF).

Charges for ship/shore services by radio consist of the appropriate international rate to the country in which the coast station is situated plus the coast station and ship station charges.

OPERATOR: The Emirates Telecommunications Corporation Ltd., P.O.Box 3838, Abu Dhabi, U.A.E. *Tel:* 283333. *Telex:* 22135 Etcho Em. *Contact:* Manager Operations.

ABU AL BU KHOOSH: 25.26 N. 53.08 E. (See Plan)

LOCATION: The terminal is bounded by the following co-ordinates South of Sassan Oil Field.

(a) Lat. 25° 31′ N., Long. 53° 05′ E.
(b) Lat. 25° 29′ N., Long. 53° 12′ E.
(c) Lat. 25° 26′ N., Long. 53° 12′ E.
(d) Lat. 25° 26′ N., Long. 53° 05′ E.

Anchoring is prohibited within this area.

DOCUMENTS:

Early Departure Procedure: At the Master's option, he may, in order to expedite the turn-round of vessels and avoid undue delays caused by weather or other circumstances, use the Early Departure Procedure. In this case Masters are requested to sign blank cargo documents.

Normally completed cargo documents required by the Master will be placed on board prior to sailing. If this is not possible without incurring delays of undue nature, the relevant documents will be airmailed to the Master to await the vessel's arrival at discharge port.

The official cargo, quantity loaded, will be transmitted by radio whilst unmooring. In the event of a dispute, the receipt of a letter of protest will be acknowledged by the Mooring Master.

Any protests by the Master concerning the quality of cargo should be made before departure and any resulting investigation should be made before the vessel sails.

Outward Clearance: A tanker will be considered clear to depart Total ABK Terminal when the crude oil loading documents have been delivered to the Master, or in the case of E.D.P., clearance will be given through the Mooring Master.

Mail: Official ship's mail and the crew's personal mail will be handled by Total ABK and shipowners debited accordingly.

PILOTAGE: Compulsory within the Terminal limits. Vessels to be moored at Total ABK Terminal will be boarded by a Total ABK Mooring Master in the Anchorage Area. The Mooring Master will advise the ship's Master on approaches to the storage tanker, mooring and unmooring, connecting and disconnecting hoses and all other operations within the Terminal area including all manoeuvring of the vessel. A qualified Deck Officer must be on watch at all times while the vessel is alongside the storage tanker.

MAX. SIZE: Max. 270,000 d.w.t. Max. draft 22.5 m. Depth of water 27 m.

RADIO: Initial communication between vessels and Total ABK should be via Bahrain Radio (call sign "A9M") which operates on a 24 hour basis. ETA in GMT to be sent 72, 48 and 24 hours prior arrival, through Bahrain Radio.

Communications within 60 Miles of Terminal: Once ships are within 60 miles of ABK Terminal, communication may be established by radio telephone on International Marine VHF Channel 15. This frequency is monitored continuously.

Once contact has been made on Channel 15, further conversation should be conducted on either Channel 14 (156.7 MHz), Channel 12 (156.60 MHz) or Channel 15 or 17.

Communications after Total ABK Mooring Master has Boarded: A Total ABK Mooring Master will board incoming tankers in the Anchorage Area and will bring with him portable VHF radio telephone units. From that time onwards, all and any communications between ship and the storage vessel will be conducted by the Mooring Master.

Radio Transmissions for Advice of Tanker Arrivals: Telegram to be sent by the storage tanker to the export tanker about 80 hours before her arrival:

Quote

Please advise your ETA in GMT 72, 48 and 24 hours before arrival to Total ABK Abu Dhabi, Telex AH 22347, via Bahrain Radio stop Cargo requirements stop Deballasting time if any stop Maximum loading rate acceptable stop Distance in metres from bow to manifold stop Flange dimensions of vessel's manifold connection stop 50 miles before arrival please contact terminal by VHF Channel 15 to receive berthing instructions stop Total ABK.

Unquote

Mooring Instructions: If vessels are obliged or instructed to anchor, they should do so in the recommended area about 3 nautical miles from the storage vessel.

ANCHORAGES: An area immediately South of Terminal limits is designated as the Anchorage Area, centred on position: Lat. 25° 26′ N., Long. 53° 08′ E. This co-ordinate represents the centre of a circle with a radius of 0.5 miles which must be used by vessels requiring to wait at anchor. Anchoring within the Terminal limits is strictly prohibited.

NAVIGATION AIDS:

(a) FIXED STRUCTURES

Platforms and Jackets	*U.T.M. Co-ordinates*	*Obstruction*	*Light Fog Signal*
LQ 1	2 821 042,86 N. 715 614,83 E.	Platform Living Quarters 1	2 White – Code U 15 secs. – vis 6 n.m.
LQ 2	2 821 031,8 N. 715 652,6 E.	Platform Living Quarters 2	2 White – Code U 15 secs. – vis 6 n.m.
W.O.	2 821 124,26 N. 715 662,50 E.	Well head platform with WORKOVER NORTH PLATFORM (WON) and WORK-OVER SOUTH PLATFORM (WOS)	2 White – Code U 15 secs. – vis 6 n.m.
A K E	2 821 039,48 N. 715 757,45 E.	Well head platform AK EAST	3 White – Code U 15 secs. – vis 6 n.m.
P.P.	2 821 157 N. 715 711 E.	Production Platform	1 White – Code U 15 secs. – vis 6 n.m.
G.L.P.	2 821 227,85 N. 715 710,35 E.	Gas lift platform	2 White – Code U 15 secs. – vis 6 n.m.
Bridge L.Q.		Bridge between LQ1 and LQ2	1 Red – Code U 15 secs. – vis 6 n.m.
Bridge W.O.		Bridge between LQ1 and W.O.	1 Red – Code U 15 secs. – vis 6 n.m.
Bridge A.K.E		Bridge between A.K.E. and W.O.	1 Red – Code U 15 secs. – vis 6 n.m.
Bridge W.O.		Bridge between W.O. and P.P.	1 Red – Code U 15 secs. – vis 6 n.m.
Bridge G.L.P.		Bridge between G.L.P. and P.P.	1 Red – Code U 15 secs. – vis 6 n.m.
Bridge Flare		Bridge between P.P and L.P. Flare	1 Red – Code U 15 secs. – vis 6 n.m. Fog: Code U 2 n.m.
L.P. Flare	2 821 277,04 N. 715 900,14 E.	Tripode	1 White – Code U 15 secs. – vis 6 n.m.
H.P. Flare	2 821 544,23 N. 716 163,72 E.	Tripode	1 Red – Code U 15 secs. – vis 6 n.m. Fog: Code U 2 n.m.
AK 31	2 822 263,20 N. 712 674,67 E.	Well head tripode	1 White – Code U 15 secs. – vis 6 n.m. Fog: Code U 2 n.m.
AK 41	2 819 158,35 N. 712 290,5 E.	Well head tripode	1 White – Code U 15 secs. – vis 6 n.m. Fog: Code U 2 n.m.
AK 51	2 820 109,18 N. 715 781,79 E.	Well head tripode	1 White – Code U 15 secs. – vis 6 n.m. Fog: Code U 2 n.m.
AK 1	2 820 918 N. 716 193,5 E.	Well head platform	2 White – Code U 15 secs. vis 6 n.m. Fog: Code U 2 n.m.
AK W	2 821 740,14 N. 713 717,26 E.	Well head platform AK WEST	2 White – Code U 15 secs. – vis 6 n.m. Fog: Code U 2 n.m.
AK S	2 821 081 N. 713 710 E.	Well head platform AK SOUTH	4 White – Code U 15 secs. – vis 6 n.m. Fog: Code U 2 n.m.
AKFW	2 821 637,65 N. 711 683,31 E.	Well head platform AK FAR WEST	2 White – Code U 15 secs. – vis 6 n.m. Fog: Code U 2 n.m.
ABK-KHUFF PK-I	2 821 047 N. 712 806 E.	Well head platform AK KHUFF	2 White – Code U 15 secs. – vis 10 n.m. Fog: Code U 2 n.m.
ABK-KHUFF PK-II	2 818 497,3 N. 714 687,9 E.	Well head platform ADMA JACKET	1 White – Code U 15 secs.
ABK-KHUFF PK-III	2 822 018,2 N. 714 179,3 E.	Well head tree 9 m. height above sea bed Platform (FUTUR)	None.
ABK-KHUFF PK-IV	2 821 223,8 N. 716 652,7 E.	Well head platform ADMA JACKET	None.

(b) BUOYS

SPM Buoy	2 820 102,8 N. 714 650,6 E.	Mooring and loading tanker "World Trader" 230,000 d.w.t.	White Code U 15 secs. – vis 6 n.m.

(c) RADIO BEACON/FOG SIGNALS

Radio Beacon	Bridge PP LP-Flare	Aeronautical	Code R.P. 248 kHz – 25 W.

TUGS: Two tugs, each with 100 tons bollard pull are employed by the export tanker when berthing alongside the storage tanker.

READINESS: After arrival at the Anchorage Area and when the tanker is ready in every respect to load, the Master may tender his Notice of Readiness.

Notices of Readiness will be received provided one or other of the following events shall have transpired: (a) the Master shall have received the Mooring Master on board, or (b) the Master shall have dropped anchor in the Anchorage Area.

Port Closed: Notices of Readiness will not be accepted during periods when the port is closed. The port is closed when the weather is such that it is too rough for incoming tankers to berth. The decision regarding the opening and closing of the port will rest with the ABK Terminal Superintendent or his deputy.

MOORING: Weather permitting, Total Abu Al Bu Khoosh Terminal operates only from sunrise to sunset, 7 days a week. Vessels moor port side to the storage tanker "World Trader" equipped with 5 Yokohama fenders on her starboard side, which is moored to the S.P.M. Launch may assist in berthing vessels under the direct control and supervision of the Mooring Master.

Preparation for Mooring: Vessels are requested to have, on their starboard side, a pilot ladder and/or accommodation ladder safely and securely rigged for immediate use and long enough to reach the Mooring Master's launch. Vessel's platform is not more than 10 ft. from the water level and a short pilot ladder, rigged to cover the access to the platform. Tankers are requested to have ready on the forecastle, 2 head lines, polypropylene if possible.

Hoses: The hoses are hoisted by flow boom system, connection by storage tanker crew. The Mooring Master will advise the ship's Officer in charge concerning lifting techniques.

MEDICAL: Medical and dental services are not available at the Terminal. In emergencies requiring hospitalisation, the patient will be flown by helicopter to Dubai or Abu Dhabi.

LOADING: All communications relative to the loading of the vessel shal be routed through the Mooring Master who will remain in contact with the storage tanker constantly via portable VHF units. In case of temporary breakdown of the portable VHF circuit, contact may be continued on International Marine Channels 15 or 17.

Failure of Communications: Should all communications with the storage tanker fail, loading will cease immediately.

Emergency Shut Down: An emergency cessation of loading may be effected by use of the ship's VHF Channel 15.

Loading Rates: Maximum loading rate will be 9,000 m.t.p.h.

Gases: ABK crude oil contains H_2S (hydrogen sulphide). This gas quickly deadens the sense of smell so that a dangerous concentration cannot be detected by odour. During loading, gas should be vented off through the tanker's normal venting system. Personnel engaged in ullaging tanks should keep to windward and avoid breathing fumes as much as possible. Resuscitators, breathing apparatus and life-lines should be readily available.

Valve Closure Against High-Speed Loading: No valve which will stop or seriously impair or reduce the flow rate of oil from the storage tanker are to be operated without prior agreement with the Mooring Master. The practice of throttling back on the ship's cargo valves is to be avoided. If a lower rate is required, the storage tanker is to be advised and the pumping rate will be reduced to the required level. The Master will be held liable for any damage arising from the sudden cessation of flow caused by default of the ship. It cannot be over emphasised that to do so can be extremely dangerous and cause extensive damage to equipment.

BALLAST: Due to the exposed location of the crude oil loading berth, vessels are required to carry 40% of their deadweight in ballast for safe handling, having due regard to existing weather and sea conditions. A vessel found by the Mooring Master to be not adequately ballasted will be rejected.

Clean Ballast: As there are no ballast discharging facilities, vessels must arrive at the Terminal with clean ballast, ensuring that all pipe-lines, pumps and strainers have been flushed out prior to arriving. The Mooring Master will inspect ship's ballast on boarding and has the power to reject any vessel that he thinks would cause pollution of the sea area, in which case vessel must proceed to sea and return only when ballast is completely free of oil. Any vessel rejected because of dirty ballast will automatically nullify its Notice of Readiness and will lose any priority of position for loading. Ballast discharge should not be commenced without the prior agreement of the Mooring Master.

Inspection During Loading: At night the sea around the vessel shall be adequately lit, as frequent inspection by the Mooring Master will be made during the discharge of ballast. Any pollution whatsoever will be cause for rejection. Similarly, any hull leaks causing pollution during loading will be cause for rejection and the vessel will not be re-accepted unless satisfactory evidence of repairs has been certified by a qualified surveyor.

FRESH WATER, FUEL, ETC.: Bunkers, fresh water, stores, boats for hire, repair facilities, facilities for changing ship's crew are not available at the Terminal.

SHORE LEAVE: Not possible.

GENERAL:

Radio Equipment: Radio, radar or other electric equipment must not be energised while the vessel is alongside the storage tanker except VHF radios, telephone and communications equipment approved by the Terminal.

Repairs: While berthed at the Terminal, the ship's boilers, main engine steering machinery and other equipment essential for manoeuvring shal be maintained in a condition to permit the ship to move away from storage vessel at short notice. Repairs or other work which may immobilise the ship should not be undertaken without prior arrangement with the Terminal.

Port Charges: Every vessel loading in the Abu Dhabi areas has to pay Abu Dhabi Government Port Dues. These are calculated according to Abu Dhabi Law.

Agency: Total ABK do not act as Agents. Vessels must have an Agent in Abu Dhabi in case of injuries or illness.

SHIPMASTER'S REPORT: 1977: The following information may be o value to other Masters:

(a) The holding ground in the anchorage is very bad, this vessel dragged her anchor (10 shackles out) in a Force 5 from the N.W

(b) Only documents supplied on departure were Bills of Lading no port clearance documents supplied.

(c) No Customs or Immigration Officials at terminal therefore no documents required.

SHIPMASTER'S REPORT: 1978: The storage tanker is 320 m. long Centre of the manifold to bow is 140 m. We berthed with our bows level which meant our stern overhung the other vessel and we were not able to use our first ropes ashore leading from the after end of the poop.

Forward: (SV=Storage Vessel). 2 headlines to SV. 1 spring to SV. 1 rope from SV with end to be turned up on own vessel's bits forecastle head. 2 more headlines to SV and 1 spring from SV.

Aft: 2 sternlines to SV. 1 backspring to SV. 1 backspring from SV, eye o bitts. 2 more stern lines to SV.

AUTHORITY: Total – Abu Al Bu Khoosh, P.O.Box 4058, Abu Dhabi U.A.E. *Tel:* 33.55.66. *Telex:* 22347 Totabk Em. *Cables:* Totabk. *Contact* Captain G. Le Dez, Head of Terminal and Marine.

AGENT: National Shipping Gulf Agency Co. (Abu Dhabi) Ltd. P.O.Box 377, Abu Dhabi, U.A.E. Cables: "Confidence", Abu Dhabi. Telex: 2224 ("Gacauh Em"). Fax: 339350. Tel: 334300 (10 lines). After office hours Tel: 326083, 216613. Radio: Marine VHF radio, stand-by on Channel 16 (156.8 MHz). Call sign "Confidence, Abu Dhabi".

AJMAN, Ajman: 25.25 N. 55.28 E.

PILOTAGE: Not available.

RESTRICTIONS: Dredging is taking place between the breakwaters. Work will commence at the S.E. corner of the Eastern Breakwater and proceed to the outer end Roundheads. The dredger will then move to the Western side. The 100 m. cut will then be completed to a depth of 7.2 m. below Chart Datum.

The following restrictions are imposed during operations:

(a) The port will be closed to all navigation during the hours of darkness – sunset to 30 minutes before sunrise.
(b) Transit priority will be given to vessels sailing outward from the port up to 0630 hrs. local time.
(c) Between 0630 hrs. and 0730 hrs. local time, priority will be given to incoming vessels.
(d) At all other times during daylight hours, vessels may arrive or sail as required but all must exercise extreme caution while passing the dredger.

The dredger will carry lights and shapes as prescribed for vessels of this class.

MAX. SIZE: Max. draft available 5 m. Approach Channel width 100 m.

BERTHING: Minimum 48 hours' notice required.

Total quay space 5,000 m.

4 transit sheds of 60 m. × 120 m. available alongside.

Before sailing, all vessels must obtain a Port Clearance Certificate issued by the Department of Port and Customs.

REPAIRS: A "gas-free" and "hot-work" certificate is required from vessels undergoing repairs to oil-tanks within port limits.

A surcharge may be imposed on vessels undergoing repairs or modifications where welding equipment, compressors, etc., are operated from the wharf. Permission to commence this work must be obtained beforehand from the Port Authority.

GENERAL: *Charts:* BA 2887, 3711. USHO 62390.

AUTHORITY: Department of Port and Customs.

AGENT: See "Sharjah".

ARZANNAH ISLAND: 24.47 N. 52.33 E.

SBM: 24.46 N. 52.31 E. **(See Plan)**

PORT LIMITS: *Port Area:* Contained within the following co-ordinates:

"A"	Lat. 24° 50′ 12″ N.,	Long. 52° 29′ 24″ E.
"B"	Lat. 24° 50′ 12″ N.,	Long. 52° 37′ 12″ E.
"C"	Lat. 24° 43′ 48″ N.,	Long. 52° 37′ 12″ E.
"D"	Lat. 24° 36′ 48″ N.,	Long. 52° 34′ 36″ E.
"E"	Lat. 24° 37′ 00″ N.,	Long. 52° 29′ 24″ E.

LOCATION:

Port Area and Terminal: Arzannah Island is located at Lat. 24° 47′ N., Long. 52° 33′ E. and is the base for export of crude oil. The Port of Arzannah is the area defined above.

A tanker terminal and another berth on Arzannah Island for vessels destined to other than the tanker terminal, are located within the port area.

PILOTAGE: Conduct and movement of vessels within the port area are controlled by the Harbour Master. A Company designated Mooring Master is required for the berthing and unberthing of vessels at the Storage Tanker.

Mooring Master: Pilotage is compulsory within the "Port Area" and no vessel may enter or depart the port area, berth or unberth at the Storage Tanker or conduct any other manoeuvres of the vessel without prior notification to the Harbour Master and without the assistance of a Company designated Mooring Master unless otherwise ordered by the Harbour Master. The Company designated Mooring Master for vessels bound for the Storage Tanker will board the vessel at Khor Fakkan (Lat. 25° 22′ N., Long. 56° 22′ E.) or Jebel Dhanna Pilot Station as directed by Lamnalco Pilots Khor Fakkan. The Company designated Mooring Master for vessels bound for the Shore Berth will board the vessel at Khor Fakkan or such other location approved by the Harbour Master upon request of the vessel made in the first notification. (See "Radio").

The Mooring Master's function will be to advise the Master of the vessel for the above stated purposes. The Master of the vessel always remains responsible on behalf of the vessel's owner for the safety and proper navigation of the vessel. The vessel must remain at Khor Fakkan or such other location approved by the Harbour Master until the Mooring Master is aboard. Mooring Master stays onboard and leaves at Khor Fakkan outward bound.

ANCHORAGES: Anchoring of vessels is prohibited within the port area and terminal area. An area 3.5 miles West of the Storage Tanker in the vicinity of Lat. 24° 46′ N., Long. 52° 27′ E. is designated as the anchorage area.

RESTRICTIONS: See "Berthing".

MAX. SIZE: *S.B.M.:* Max. d.w.t. 280,000 (export tanker). Max. draft 43 ft. Depth of water at SBM 107 ft. Least depth in approaches 48 ft.

Sailing Draft: The draft of loaded vessels leaving the Storage Tanker is controlled by the water depth between Dalma Light Float and the No. 1 buoy in the outer channel. Minimum under keel clearances recommended by the Mooring Master are as follows:

D.W.T.	*Minimum Keel Clearance*
Up to 100,000	3 ft.
100,000 to 220,000	4 ft.
220,000 and over	5 ft.

Sailing drafts should always be agreed upon with the Mooring Master prior to starting to load.

RADIO: The Company cable address is "Amerhess – Abu Dhabi" and telex number is 949 – 22275. The Company also maintains radio watch on International Marine VHF Channels 16 and 67.

Notice of Arrival:

A. Vessels bound for the *STORAGE TANKER* must advise the Company as follows:

72 HOURS: Not less than 72 hours prior to arrival at Khor Fakkan vessels will send a cable or telex to the Company and cable to "Lamnalco Khor Fakkan" or telex to "Lamnalco" (telex number 89034 Pilotkf) providing the following information:

(a) Estimated time of arrival at Khor Fakkan.
(b) Estimated fore and aft draft upon arrival at the port area.
(c) Quantity of oil to be loaded.
(d) Distance from the bow to the cargo manifolds.
(e) Size, number and type of cargo connections.

48 HOURS: Not less than 48 hours prior to arrival at Khor Fakkan vessels will send a cable or telex to the Company and to Lamnalco reconfirming or giving any changes in the 72 hour notice.

24 HOURS: Not less than 24 hours prior to arrival at Khor Fakkan vessels will send a cable or telex to the Company and a cable or telex to Lamnalco reconfirming or giving any changes in the 48 hour notice. The 24 hour notice must be as accurate as possible and thereafter should there be any change in the ETA by more than 2 hours notice of such change must be given promptly to the Company and Lamnalco.

Not less than 24 hours prior to the vessel's ETA at Khor Fakkan the vessel must maintain a radio watch on R/T frequency 2182 kHz and at least 12 hours prior to arrival at Khor Fakkan must maintain a radio watch on VHF Channel 16.

Other frequencies available are:
HF: 2638, 2738, 3270, 3710, 4136.3 kHz.
VHF: Channels 1 to 28, 60 to 74 and 77 to 88.
Call sign for Lamnalco base is "Gulf Pilot Khor Fakkan".

B. Vessels bound for the *SHORE BERTH* must advise the Company as follows:

48 HOURS: Not less than 48 hours prior to arrival at Khor Fakkan or such other location at which permission is requested of the Harbour Master for the Mooring Master to be on board, vessels will send a cable or telex to the Company and a cable to "Lamnalco Khor Fakkan" or telex to Lamnalco (telex number 89034 Pilotkf), providing the following information:

(a) Estimated time of arrival at Khor Fakkan or such other location where it is requested the Mooring Master board.
(b) Estimated fore and aft draft upon arrival at the port area.
(c) Cargo to be loaded or unloaded.
(d) Request for permission for Mooring Master to board at other than Khor Fakkan (if applicable).

24 HOURS: Not less than 24 hours prior to arrival at Khor Fakkan or such other approved location, vessels will send a cable or telex to the Company and a cable or telex to Lamnalco reconfirming or giving any changes in the 48 hour notice. The 24 hour notice must be as accurate as possible and thereafter should there be any change in the ETA by more than 2 hours, notice of such change must be given promptly to the Company and Lamnalco.

Not less than 24 hours prior to the vessel's ETA at Khor Fakkan the vessel must maintain a radio watch on R/T frequency 2182 kHz and at least 12 hours prior to arrival at Khor Fakkan must maintain a radio watch on VHF Channel 16.

Other frequencies available are:
HF: 2638, 2738, 3270, 3710, 4136.3 kHz.
VHF: Channels 1 to 28, 60 to 74 and 77 to 88.
Call sign for Lamnalco base is "Gulf Pilot Khor Fakkan".

TUGS: *Tugs and Launches:* The Company will have available a tug (3,600 h.p.) for berthing or unberthing and for standing by a vessel at the Storage Tanker as may be required by the Master of the vessel or the Mooring Master for which a charge will be made by the Company, whether or not used. Should the Master of a vessel require more than 1 tug for the above purposes such must be separately arranged by the Master sufficiently in advance of the vessel's arrival at the port area to avoid delay in the berthing or unberthing of the vessel and any delay occasioned thereby will be charged to the vessel.

A line handling boat under the direct control and supervision of the Mooring Master will assist in berthing or unberthing of vessels.

BERTHS: The tanker terminal in the port area consists of the VLCC "Tropical Lion" ("Storage Tanker") connected to a single buoy mooring system located at Lat. 24° 46′ N., Long. 52° 31′ E., 1.25 miles West of Arzannah Island.

The berth at Arzannah Island ("Shore Berth") consists of a 700 ft. long earth filled pier with facilities required to load and unload diesel oil and desalinated water. Fire protection facilities on the pier include a firewater line and firewater monitors.

BERTHING:

Berthing-Unberthing: Berthing will normally take place only during daylight hours, weather permitting. Unberthing will take place at anytime (day or night), weather permitting. Manoeuvring power must be available on the main engine during berthing and unberthing operations. Mooring Masters will not berth vessels if not properly equipped with satisfactory mooring lines, or if deck equipment is inoperable or if steering gear, telegraphs or whistles are not in efficient condition or if insufficiently or improperly ballasted in the opinion of the Mooring Master. The vessel's Master is required to advise the Mooring Master if any such defects exist or of any peculiarities of the vessel. The vessel will be responsible for the handling of lines and the connection and disconnection of the loading arms with the vessel's crew.

Mooring: Mooring arrangements shall be to the satisfaction of the Mooring Master. Vessels must at all times remain properly secured alongside the Storage Tanker or the Shore Berth. Moorings must at all times be attended by the vessel's crew, avoiding slack lines or varying tensions on the lines. The use of constant tension winches for automatic self-tensioning to attend mooring lines is prohibited. The Harbour Master may suspend loading or unloading should there be any failure by the vessel's crew to attend mooring lines as above stated.

Ballast Drafts: Vessels destined for the Storage Tanker should arrive with propeller completely submerged and 8 ft. to 10 ft. trim by the stern. The Mooring Master may refuse to permit berthing of vessels not in compliance with this requirement until the vessel takes on sufficient ballast or changes ballast to meet the requirement.

BALLAST: There are no facilities available for the off-loading of dirty ballast. Only clean or segregated ballast will be permitted to be discharged overboard. The vessel must keep a constant watch on the side of the vessel from which clean or segregated ballast is being discharged. Discharge of ballast must be immediately suspended should there be any indication of discoloration or sheen and immediately reported to the Harbour Master. An investigation shall be carried out by the vessel and the findings immediately reported to the Harbour Master. Deballasting shall not recommence without the permission of the Harbour Master.

LOADING: *Crude Oil Cargo Loading:* Loading operations cannot commence until permission has been granted by the Harbour Master. All operations after such permission is granted in connection with the starting of loading, switching of tanks and topping off on the vessel will be the responsibility of the vessel. At all times while the vessel is alongside the Storage Tanker there shall be a responsible licenced deck officer of the vessel on deck in charge of all operations on deck.

Prior to loading a pre-transfer conference will be conducted by the Harbour Master and a responsible deck officer of the vessel who will be in charge of the loading of the vessel. The purpose of the pre-transfer conference is to formulate a transfer plan and ensure that the Storage Tanker and the vessel are ready for safe transfer and handling of the cargo.

The Harbour Master may suspend cargo operations if any of the applicable laws and safety regulations set forth herein are not complied with, the pre-transfer plan is not complied with or if the Harbour Master believes or becomes aware of the existence of any other danger which in his opinion requires suspension of loading.

The vessel's crew will be responsible for handling the loading arms on board the vessel, furnishing and making adaptor connections, removing blind flanges and guiding the loading arms (Chicksans) to the appropriate manifold connections. As a convenience to the vessel the Harbour Master will furnish advice and guidance in connecting the loading arms to the ship's manifolds.

Crude Oil Cargo: The crude oil to be loaded contains hydrogen sulphide. Breathing the vapours vented from this cargo could be hazardous. Vessel's crew should review the instructions issued by the vessel's Owner regarding this subject. The Company assumes no liability, with respect to loading crude oil bearing hydrogen sulphide.

Pumping Rate: Max. pumping rate using 2 arms. 60,000 b.p.h. Average pumping rate 55,000 b.p.h.

Storage tanker capacity: 1,400,000 bbls. Cargo Arzannah Stabilized Crude, API 43.0. Specific Gravity 0.8109. Reducers: In limited supply.

General Cargo Loading–Unloading: Loading or unloading operations cannot commence until permission has been granted by the Harbour Master. All operations after such permission is granted in connection with the loading and unloading of the vessel will be the responsibility of the vessel. At all times while the vessel is alongside the Shore Berth there shall be a responsible licenced deck officer of the vessel on deck in charge of all operations on deck.

POLLUTION: The Petroleum Ports Law prohibits the discharge into the water of oily water, garbage, waste or other objectionable materials. The Petroleum Ports Law also requires immediate reporting to the Harbour Master of any leakage or spillage by the vessel. The Law is strictly enforced and violators may be subject to fine and imprisonment.

The vessel's Master is responsible that no oil is pumped or spilled overboard from his vessel in the vicinity of the Port Area. In the event of any spillage or loss of oil from the vessel as the result of any act or omission of the vessel, such as, but not limited to, the pumping of oily water overside from ballast or bilges, or oil spilt during loading. The vessel shall be responsible for all costs and expenses of clean up, and for any damages to property or injury to persons resulting from such spillage or oil loss.

The Company reserves the right to take all reasonable measures to clean up any resulting pollution or contamination on land or sea, but only as a contractor acting on behalf of the vessel or its owner, and will charge the vessel for all costs and expenses incurred thereby.

SAFETY REGULATIONS:

Safety: The Petroleum Ports Law, recommendations contained in the I.C.S. International Safety Guide for Oil Tankers and Terminals covering the loading and discharging of tankers and the safety regulations set forth herein will be strictly enforced while the vessel is in the Port area.

Smoking: Smoking is strictly prohibited on the vessel or the Storage Tanker and Shore Berth except in places specified by the Master which shall not be outside of any of the accommodation areas. The Master is responsible for ensuring that all on board are informed of the selected areas for smoking and for posting suitable notices. Matches and lighters for personal use shall not be carried while outside designated smoking areas and personnel shall be so instructed.

Fire Fighting Equipment: The vessel's fire fighting equipment must be ready for instant use while the vessel is moored. Fire hoses of sufficient length to reach all parts of the vessel must be strung out and connected to hydrants. If the vessel's fire fighting equipment is rendered inoperative for any reason this must be reported to the Harbour Master immediately.

Fires: The only open flames allowed while the vessel is moored at the Storage Tanker or the Shore Berth are those in the vessel's boilers and galley equipment. All other open flames are prohibited. Sufficient fire extinguishers must always be provided near the galley.

Engine Room/Boiler Room Precautions:
a) Combustion equipment – burners, tubes, uptakes, exhaust manifolds, and spark arresters shall be maintained in good working order and kept clean.
b) Blowing tubes – funnel uptakes and boiler tubes will not be blown while a vessel is moored at the Storage Tanker.
c) Cleaning solvents – highly volatile cleaning solvents shall not be used in the engine room for any purpose whatsoever.

Doors, Ports: All doors and ports opening on to decks must be kept closed while the vessel is moored. Any doors open for access other than the pumproom doors must be closed immediately after use.

Cargo Tank Openings: All cargo tank hatch covers and ullage port covers are to be kept closed. If tanks must be hand sampled or ullaged the ullage openings must be kept closed except while sampling or ullaging cargo.

Sea Valves: All sea and overboard discharge valves are to be closed and sealed shut prior to the start of any cargo loading operation.

Inerting Tanker Cargo Tanks: All empty cargo tanks or tanks carrying cargo must be pressured and fully inerted with gas having an oxygen content of less than 8% prior to the commencement of loading. The oxygen content of the tank blanket will be checked throughout the loading and loading will be stopped anytime the oxygen level rises above 8%.

Insurance (Towing) Wires: Towing wires of at least 50 m. long are to be secured to mooring fittings and run out at the bow and stern on the vessel's outboard side and held in place on short stoppers with the eye about 1.5 m. above the water so they are readily available to a tug in an emergency.

Bonding Cable: The bonding cable from the Storage Tanker or the Shore Berth must be attached to the vessel before the loading arms are connected and removed only after the loading arms are disconnected from the vessel.

Electrical Storms: All cargo or ballasting operations shall be suspended during electrical storms in the vicinity of the vessel.

Engine Status: The vessel's main engine, steering machinery and other essential manoeuvring equipment must be kept in readiness at all times to permit the vessel to unberth on short notice. No engine or propulsion machinery repairs may be carried out while the vessel is moored alongside the Storage Tanker. At all times while the vessel is alongside the Storage Tanker there shall be a responsible licensed engineer of the vessel on duty in charge of all operations in the engine room.

Radio-Radar: The vessel's main radio and radar equipment must not be energised while the vessel is handling cargo or ballast alongside the Storage Tanker or the Shore Berth. The use of intrinsically safe VHF radios for cargo handling and safety operations is permitted.

Scuppers and Drains: All main deck scuppers must be sealed shut and adequate drip pans provided where necessary on deck prior to the start of any cargo operations.

Tug and Small Craft: No tug or small craft are permitted to be alongside the vessel during cargo or ballasting operations without the express permission of the Harbour Master.

Portable Lamps Electrical Equipment: The use of portable lamps, naked lights or electrical equipment on extension cords is prohibited. Only approved intrinsically safe self-contained flash lights are permitted on deck.

Communications and Deck Watch: A deck watch under the direction of a responsible deck officer equipped with a VHF radio is to be on duty at the cargo manifold of the vessel at all times during the cargo and deballasting operations.

Fire and Emergency Signal: In case of fire or emergency on the Storage Tanker or the Shore Berth or the vessel, the vessel shall immediately suspend all cargo operations and blow a series of short, rapid blasts on the ship's whistle until aid arrives.

Rat Guards: Rat guards are required only if a vessel is coming from a plague infected area.

Safety Check List: A safety check list shall be completed and signed by the Master or Senior Deck Officer on duty on both the vessel and the Storage Tanker or the Shore Berth before deballasting and starting the transfer of cargo.

Responsibility for Safe Operations: While a vessel is berthed at the Storage Tanker the Master will ensure and be responsible for adherence to all safety regulations generally followed in the Marine Industry as well as those contained herein. It is the responsibility of the Master to maintain safe and efficient conditions aboard his vessel and to ensure that there is at all times on duty an adequate and proper crew under the supervision of licenced officers for the safe and effective operation of the vessel and compliance with these instructions and regulations.

FACILITIES: There are no facilities at Arzannah Island or the Storage Tanker for receiving or storing supplies for vessels, bunker or fresh water supply, launch service, etc., excepting vessels servicing the Company's operations in the port area.

TIME: GMT plus 4 hours.

GENERAL: *Regulations:* Shipping operations at Arzannah are governed by the Abu Dhabi Petroleum Ports Law No. 12 of 1973 (Petroleum Ports Law).

Agency: The Company does not provide any ship agency services and there are no ship agencies within the port area. Such services must be separately arranged for by the vessel.

AUTHORITY: Amerada Hess Oil Corporation of Abu Dhabi, P.O.Box 2046, Abu Dhabi, U.A.E. *Tel:* 829500. *Telex:* 22275 Amhess Em. *Cables:* Amerhess. *Contact:* R. F. Pool, General Manager. Captain D. Walker, Harbour Master.

AGENT: See "Mina Zayed".

DAS ISLAND, Abu Dhabi: 25.09 N. 52.52 E. (See Plan)

Conduct and movement of vessels within the port are controlled by the Port Officer, Das Island.

DESCRIPTION: Das Island lies some 100 miles N.W. of Abu Dhabi City, in the State of Abu Dhabi, largest of the United Arab Emirates. The Island is the base for the export of crude oil by Abu Dhabi Marine Operating Company (ADMA-OPCO), and liquefied gas and by-products by Abu Dhabi Gas Liquefaction Company Ltd. (ADGAS).

PORT LIMITS: The area of authority is encompassed by a line joining the following positions:

From (a) Lat. 25° 14.0′ N., Long. 52° 48′ E., due East
to (b) Lat. 25° 14.0′ N., Long. 52° 57′ E., then due South
to (c) Lat. 25° 07.7′ N., Long. 52° 57′ E., then S.E.
to (d) Lat. 25° 07.2′ N., Long. 52° 58.8′ E., then due South
to (e) Lat. 25° 04.5′ N., Long. 52° 58.8′ E., then due West
to (f) Lat. 25° 04.5′ N., Long. 52° 48′ E., then finally due North to position (a).

All marine orientated activities within this area, all waters, installations, facilities and structures which are, or may be, erected therein are governed by ADNOC – Petroleum Ports Authority (ADNOC – P.P.A.).

DOCUMENTS:

Bills of Health for Ports visited on voyage.
3 Crew Lists.
3 Manifests (1 original and 2 copies).
1 International Maritime Declaration of Health.

Documents and Specimen Forms: Before the P.P.A. appointed Berthing Master commences any berthing operations certain initial documents must be tendered duly signed, timed and dated as applicable, by the Master. The Berthing Master will acknowledge receipt as necessary. These initial documents are in a booklet form and contain:

1. Clean Ballast Declaration.
2. Ship's Particulars.
3. Conditions of Use of Terminal facilities.
4. Safety requirements.

019-MAR-4 Pre-Berthing Declaration.
Additionally vessels loading Condensate Blend Cargoes:
019-MAR-19 H_2S Content in Condensate Cargo.

A supply of these initial documents will be provided at the vessel's first visit to Das Island. On second and subsequent visits the Berthing Master will receive the documents, duly completed, on boarding thereby avoiding any delays to the vessel.

Also see "General".

NAVIGATION AIDS:

DEEP WATER CHANNEL: IALA System.

Buoy No. & Name	*Colour Daymark*	*Position*	*Light*
Das Channel Approach	RWVS Pillar Sph. Topmark	25° 27.0′ N. 53° 20.0′ E.	L. Fl. W. 10 secs.
No. 1	Green Conical	25° 25.2′ N. 53° 12.4′ E.	Qk. Fl. G.
No. 2	Red Can	25° 24.7′ N. 53° 17.2′ E.	Gp. Fl. (2) R. 10 secs.
No. 3	Green Conical	25° 23.9′ N. 53° 10.6′ E.	Fl. G. 5 secs.
No. 4	Red Can	25° 24.2′ N. 53° 12.7′ E.	Fl. R. 2 secs.
No. 5	Green Conical	25° 20.6′ N. 53° 04.85′ E.	Qk. Fl. G.
No. 6	Red Can	25° 21.9′ N. 53° 10.0′ E.	Fl. R. 5 secs.
No. 7	Green Conical	25° 14.25′ N. 52° 56.8′ E.	Gp. Fl. (3) G. 8 secs.
No. 8	Red Can	25° 19.1′ N. 53° 06.0′ E.	Fl. R. 2 secs.
No. 9	Green Conical	25° 09.8′ N. 52° 54.1′ E.	Fl. G. 2 secs.
No. 10	Red Can	25° 14.8′ N. 52° 58.9′ E.	Fl. R. 3 secs.
No. 12	Red Can	25° 11.2′ N. 52° 55.1′ E.	Qk. Fl. R.

DAS SOUTH SHOAL BUOY:

Das South Shoal Buoy	Y. B. Pillar	25° 04.0′ N. 52° 53.0′ E.	Qk. Fl. (6) + L. Fl. W. 15 secs.

DAS OUTFALL BUOYS:

West Outfall Buoy No. 1	Y. Can	25° 08.9′ N. 52° 51.15′ E.	Fl. Y. 6 secs. Ra.
West Outfall Buoy No. 2	Y. Can	25° 08.7′ N. 52° 51.35′ E.	Fl. Y. 10 secs.
South Outfall Buoy	Y. Can	25° 07′ 49″ N. 52° 52′ 30″ E. (PA)	Fl. Y. (U) 12 secs.

TANKER BERTH LIGHTS:

Structure	*Location of Light*	*Light*
Tanker Berth No. 1	North Mooring Dolphin	F.R.
Lat. 25° 08′ 24″ N.	South Mooring Dolphin	F.R.
Long. 52° 53′ 19″ E.	Loading Platform North End	2 F.G. (vert.)
	Loading Platform South End	2 F.G. (vert.)

Note: Tanker Berth No. 1 is no longer in use. Structure and lights temporarily remain.

Structure	*Location of Light*	*Light*
Tanker Berth No. 2	North Mooring Dolphin	F.R.
Lat. 25° 08′ 39″ N.	South Mooring Dolphin	F.R.
Long. 52° 53′ 14″ E.	Loading Platform North End	2 F.G. (vert.)
	Loading Platform South End	2 F.G. (vert.)
Tanker Berth No. 3	S.P.M.	Fl. R. 5 secs.
Lat. 25° 08.9′ N.		
Long. 52° 54.1′ E.		Ra.
LNG Berth No. 4	North Mooring Dolphin	F.R.
Lat. 25° 09′ 22″ N.	South Mooring Dolphin	F.R.
Long. 52° 53′ 08″ E.	Loading Platform North End	2 F.G. (vert.)
	Loading Platform South End	2 F.G. (vert.)

FLARE COMPLEX: A series of 6 flares are located in an arc approximately 4,500 ft. (1,370 m.) North of Das Island. The unlit flares may be brought into service without warning. The Northern perimeter of the Flare Zone is marked by a green conical light buoy, Fl. G. 5 secs., in position: Lat. 25° 11.5′ N., Long. 52° 52.2′ E.

An additional flare is situated on a small jetty extending approximately 400 ft. (120 m.) from shore approximately 2,500 ft. (760 m.) from LNG/LPG Berth No. 4.

Numerous flares are situated onshore on the North and N.W. coasts of Das Island.

All of the flares previously referred to are situated within the Restricted Area No. 1.

PIPE-LINE MARKER BUOY: A yellow can buoy fitted with flash (U) 12 secs. amber light, is situated between Berth No. 2 and Berth No. 4. This buoy marks the Southern extremity of pipe-lines running between the two berths. Approximate position of buoy: Lat. 25° 09.1′ N., Long. 52° 53.2′ E.

DAS ISLAND RADIO MAST: See "VHF".

APPROACHES: *Entering and Navigation within the Port:* Navigation/movement within the port area is permitted subject to prior permission being granted by the Port Officer. Vessels visiting the port area must have on board a sufficient range of current hydrographic charts relevant to the area. These charts must be kept up-to-date with regard to Notices to Mariners and other notices promulgated for the area.

CAUTION:

The Umm Shaif Oil Field is approximately 20 miles East of Das Island.
The Zakum Oil Field is approximately 48 miles S.E. of Das Island.
The Bunduq Oil Field is approximately 15 miles West of Das Island.
The Fields, together with their associated submarine oil and gas pipe-lines to Das Island are marked upon hydrographic charts pertaining to the area.

It is essential that vessels/craft approaching Das Island do not enter the Oil Field areas or anchor in the vicinity of submarine pipe-lines.

NOTE: Masters of vessels/craft are advised that actual depths over submarine pipe-lines are generally less than those charted and vessels passing over these pipe-lines may have the under-keel clearance substantially reduced.

Use of anchors in the vicinity of these pipe-lines is strictly prohibited. (See Note: "Pipe-lines" on BA and USHO Charts.)

Approaches to Das Island: Vessels approaching Das Island must navigate with due caution on account of numerous oil platforms and associated submarine pipe-lines within the waters of Abu Dhabi and neighbouring states. (See Cautions on BA and USHO Charts.)

Vessels passing to the East of Das Island must not pass closer than 2 miles from the Island, and then only with prior permission of the Port Officer and giving due care and attention to vessel movements within the port.

SOUTHERN ROUTE:

Vessels approaching from the South must pass not closer than 3 miles South of oil installations etc., in the Umm Shaif Field, thence towards the pilot/anchorage areas S.E. of Das Island (See "Pilotage" and "Anchorage").

Special attention shall be paid to the traffic routing system which passes between the Umm Shaif and Zakum Oil Fields, and vessels/craft shall navigate in accordance with the requirements of the International Rules and Regulations for the Prevention of Collisions at Sea.

NORTHERN ROUTE:

Vessels approaching from the North should normally pass down the West side of Das Island and keep at least 4 miles to the West and at least 5 miles to the South of the Island. However, vessels may pass to the East of Das Island with permission of the Port Officer but see note above.

DEEP DRAFT VESSELS:

Deep drafted vessels may approach the port via the Deep Water Buoyed Channel (See "Navigation Aids"). The channel is intended primarily for the use of deep drafted vessels sailing from Das Island, but vessels intending to enter the port via this channel should advise 'Das Marine' by radio, of their intentions. Masters are advised that this channel is not for the exclusive use of Das Island traffic and are cautioned to proceed accordingly.

PILOTAGE: P.P.A.-appointed Berthing Masters are the designated representatives of the Port Authority and, as such, are responsible to the Port Authority for the observance and implementation of Standing Instructions for Marine Operations.

The Berthing Master will normally board the vessel approximately 2 miles E.S.E. from Tanker Berth No. 2. The pilot station is at Lat. 25° 08′ N., Long. 52° 55.4′ E.

For vessels entering from the North the Berthing Master may board in a different location. If so, he will advise the Master accordingly via VHF radio.

The Berthing Master will undertake the pilotage, berthing and unberthing of the vessel save that the Master of the vessel shall remain solely responsible on behalf of the Owners for the safety and safe navigation of the vessel at all times.

Tankers and Gas Carriers: Tankers and gas carriers are not permitted to berth at or unberth from any of the 6 berths in Das Island without a P.P.A.-appointed Berthing Master on board.

General Cargo Vessels: General cargo vessels are required to employ a Berthing Master. Vessels are required to use the anchorage area designated for cargo operations (See "Anchorage"), but may anchor in the main anchorage while awaiting weather conditions to improve, availability of lighters or if the designated anchorage is congested.

Small Craft: Craft entering the boat harbour are not required to hire pilotage services, but may do so by prior application to the Port Authority.

Movements of all craft into, within or out of the boat harbour is at the discretion of the Port Officer. Allocation of berths is the sole responsibility of the Port Officer. No craft are allowed to enter, manoeuvre within or sail from the boat harbour during the hours of darkness without the prior permission of the Port Officer.

ANCHORAGES: Designated anchorages are established for use by vessels/craft visiting the Port of Das Island. The use of anchors outside these areas must only be undertaken after obtaining permission from the Port Authority.

Main Anchorage Area: This anchorage area lies to the S.E. of Das Island and is for tankers, gas carriers and other large vessels. The area is encompassed by lines joining the following positions:
(a) Lat. 25° 08.0′ N., Long. 52° 55.4′ E. to
(b) Lat. 25° 07.2′ N., Long. 52° 58.8′ E. to
(c) Lat. 25° 04.5′ N., Long. 52° 58.8′ E. to
(d) Lat. 25° 04.5′ N., Long. 52° 55.4′ E. and finally to (a).

Optional Anchorage Area: An optional anchorage for deep draft vessels is located approximately 1 mile to 1.5 miles N.W. from No. 12 Deep Water Channel Buoy.

General Cargo Vessels: The offloading anchorage for general cargo vessels is situated approximately 6 cables South of Tanker Berth No. 2 in an area encompassed by a line joining the following positions:
(a) Lat. 25° 07.5′ N., Long. 52° 53.00′ E. to
(b) Lat. 25° 08.0′ N., Long. 52° 53.00′ E. to
(c) Lat. 25° 08.0′ N., Long. 52° 53.41′ E. to
(d) Lat. 25° 07.5′ N., Long. 52° 53.63′ E. and finally to (a).

Small Craft and Barges: This anchorage lies to the S.W. of Tanker Berth No. 2, in an area encompassed by a line joining the following positions:
(a) Lat. 25° 08.0′ N., Long. 52° 53.00′ E. to
(b) Lat. 25° 08.4′ N., Long. 52° 53.00′ E. to
(c) Lat. 25° 08.4′ N., Long. 52° 53.23′ E. to
(d) Lat. 25° 08.0′ N., Long. 52° 53.41′ E. and finally to (a).

CAUTION:

(a) Pipe-lines connecting the tanker berths to the shore lie close to the Northern boundary of this anchorage.

(b) Within the small craft anchorage area are mooring buoys, installed by the Company for their own usage. The number of buoys installed and their position are liable to be changed without promulgation of any notices.

The use of these buoys by any craft is subject to permission being granted by the Port Authority. Unauthorised occupancy of these buoys could result in strong action being taken against the craft, and any consequential damage/loss of earnings/incidental expenses etc. incurred by the Company will be for the account of the offending craft.

Holding Ground (Sea Bed): The sea bed around Das Island is rock, covered by a few inches of loose sand. Holding is poor and vessels are urged to exercise due care and pay out extra chain.

Wind and Tide: Prevailing winds are from the N.W. Rise of tide can be up to 2 m. but the usual variation is 1 m.

Also see "VHF".

PROHIBITED ANCHORAGES: Prohibited anchorage areas have been established at Das Island. The use of anchors within these areas is strictly prohibited.

Prohibited Anchorage – South of Das Island: A prohibited anchorage area is established to the South of Das Island in an area encompassed by a line joining the following position:
(a) Lat. 25° 08.38′ N., Long. 52° 52.50′ E. to
(b) Lat. 25° 08.00′ N., Long. 52° 52.50′ E. to
(c) Lat. 25° 08.00′ N., Long. 52° 53.00′ E. to
(d) Lat. 25° 08.50′ N., Long. 52° 53.00′ E. then to shore in
(e) Lat. 25° 08.50′ N., Long. 52° 52.78′ E.

Prohibited Anchorage – Tanker Berth No. 3: A prohibited anchorage area exists within a circular area of radius 1,500 ft. (460 m.) centred on Tanker Berth No. 3 in Lat. 25° 08′ 53″ N., Long. 52° 54′ 07″ E. This is also a RESTRICTED AREA.

RESTRICTED AREAS: Restricted areas have been established at Das Island. Vessels/craft are only allowed to enter these areas for duly authorised operational purposes.

Restricted Area No. 1: Enclosed by a line joining the following positions:
(a) Lat. 25° 09.35′ N., Long. 52° 52.77′ E. on shore to
(b) Lat. 25° 09.30′ N., Long. 52° 53.05′ E. to
(c) Lat. 25° 09.16′ N., Long. 52° 53.10′ E. to
(d) Lat. 25° 09.20′ N., Long. 52° 53.30′ E. to
(e) Lat. 25° 09.55′ N., Long. 52° 53.20′ E. to
(f) Lat. 25° 09.55′ N., Long. 52° 53.00′ E. to
(g) Lat. 25° 10.54′ N., Long. 52° 53.00′ E. to
(h) Lat. 25° 10.54′ N., Long. 52° 52.20′ E. to
(i) Lat. 25° 09.80′ N., Long. 52° 52.20′ E. to
(j) Lat. 25° 09.80′ N., Long. 52° 51.85′ E. to
(k) Lat. 25° 09.00′ N., Long. 52° 51.85′ E. then East to shore.

Restricted Area No. 2: Enclosing Tanker Berth by a line joining the following positions:
(a) Lat. 25° 08.80′ N., Long. 52° 53.10′ E. on shore to
(b) Lat. 25° 08.86′ N., Long. 52° 53.30′ E. to
(c) Lat. 25° 08.30′ N., Long. 52° 53.50′ E. to
(d) Lat. 25° 08.25′ N., Long. 52° 53.30′ E. then finally to (a).

Restricted Area No. 3: A circular area of radius 1,500 ft. (460 m.) centred on Tanker Berth No. 3 in position: Lat. 25° 08′ 53″ N., Long. 52° 54′ 07″ E. This is also a prohibited anchorage area.

MAX. SIZE: See "Berthing".

HEALTH: Vessels arriving at Das must carry the usual Bills of Health for ports visited on the voyage. Masters of vessels are required to inform the Company if there is any sick person on board or if there has been sickness on board within the week prior to arrival. Pratique is granted by the Port Medical Officer normally through the Berthing Master.

Health Certificate with valid cholera inoculation (if coming from cholera-infected areas) is compulsory.

RADIO: *Arrival Messages:*

(a) All vessels calling at Das Island Petroleum Port must adopt the following ETA procedures:

1. ETA and updates are to be sent 72 hrs., 48 hrs. and 24 hrs. before arrival at Das. Telexes to be directed to Port Officer, Das.

2. The initial ETA message should normally contain, in addition to the ETA Das Island:
a) Vessels name, port of registry, g.r.t., n.r.t., s.d.w.t. and arrival displacement.
b) Drafts on arrival and sailing Das Island.
c) Cargo requirements – loading/discharging plus fuel requirements.
d) Ballast on board arrival and deballasting time required prior to loading.
e) Whether IGS is operational and that vessel will be inerted on arrival.
f) Validity of all applicable certification.
g) Last port, next port and destination.
h) Masters name.

In order to expedite Pilot attendance Masters should endeavour to confirm their final ETA to Das Island Port Control on VHF Radio Channel 12 six hours prior to arrival at the anchorage.

(b) The Agent shall also provide the Port Health Officer, Customs and Immigration, the requisite ship information 48 hours prior to arrival.

Also see "Berthing" – Tanker Berth No. 3.

VHF: Das Marine maintains a 24 hour listening watch on VHF Channels 12 and 16 and works Channels 12 and 74.

All communications other than Terminal VHF should be sent through "Bahrain Radio" (A9M).

Das Island radio mast is installed in position: Lat. 25° 08′ 30.396″ N., Long. 52° 52′ 43.903″ E. Red lights visible all round the horizon are established at the top of the mast, 81.8 m. above chart datum.

Vessels Anchoring: Vessels anchoring to await berthing instructions must advise "Das Marine" via VHF Radio of:
(a) Anchoring time (Local Time is GMT plus 4 hours)
(b) Anchoring position (bearing and distance from Tanker Berth No. 2)

All vessels at anchor must keep a listening watch on VHF Channels 12 and 16.

When a vessel leaves the anchorage it must advise "Das Marine" via VHF Radio of:
(a) Time departed anchorage.
(b) Reason for departing.

RADAR: Not available.

TUGS: *Tugs and Mooring Launches:* Three Fire Fighting, Pollution Control and Salvage Tugs are generally available at Das Island to assist in berthing/unberthing vessels at the bulk petroleum and LNG/LPG facilities.

Minimum of 2 tugs used for berthing.

NOTE: Only tug's towing equipment shall be used for these operations and only in an emergency situation and in order to avert a potential disaster may ship's equipment be considered for use.

Mooring launches are available for berthing/unberthing operations and for the transportation of personnel.

BERTHING: Tanker Berth No. 1:

Platform position: Lat. 25° 08′ 24″ N., Long. 52° 53′ 19″ E.

Berth not in use. Structure and lights temporarily remain.

Tanker Berth No. 2:

Platform position: Lat. 25° 08′ 39″ N., Long. 52° 53′ 14″ E.

General: This is a fixed platform berth situated approx. 2,400 ft. (750 m.) East of Das Island. Vessels berth alongside 4 flexible dolphins, and 6 mooring dolphins are provided to receive moorings.

Berthing limitations: Capable of accepting vessels of between 16,000 and 265,000 L/T S.D.W. subject to the following limitations as to berthing:

(a) Ballasted or partially loaded tankers up to a maximum of 165,000 L/T displacement.

(b) Fully loaded tankers up to 130,000 L/T S.D.W. provided the displacement does not exceed 165,000 L/T.

(c) Vessels with a max. draft not exceeding 56 ft. (17 m.).

Minimum depth of water alongside is 67 ft. (20.4 m.) at datum.

Moorings: A minimum of 8 mooring lines must be available at each end of the vessel.

General mooring pattern for vessels up to 130,000 L/T S.D.W.:
Forward: 3 headlines, 2 breastlines, 1 spring.
Aft: 3 sternlines, 2 breastlines, 1 spring.

General mooring pattern for vessels in excess of 130,000 L/T S.D.W.:
Forward: 3 headlines, 3 breastlines, 1 spring.
Aft: 3 sternlines, 2 breastlines, 2 springs.

Loading/Discharge Rates: Maximum cargo loading rate is 32,000 bbls./hr. per 16 in. hose (4,200 t.p.h.), 4×16 in. hoses are available. Maximum fuel oil loading rate is 5,000 bbls./hr. per 10 in. hose (750 t.p.h.), 2×10 in. hoses are available. For fuel oil discharge the maximum pressure is 100 p.s.i. at ship's manifold (7.03 kg/sq.cm.).

Control of Loading /Discharge & Safety: Loading/discharge must proceed to a pre-declared plan. Co-ordination of loading/discharge will be undertaken by the Duty Berthing Master, who will also conduct the necessary safety checks at frequent intervals.

Tanker Berth No. 3 (SPM):

Buoy position: Lat. 25° 08′ 53″ N., Long. 52° 54′ 07″ E.

Additional pre-arrival message: The following message will be transmitted to vessels which are nominated to berth at Tanker Berth No. 3.

Quote:

Present indications that vessel will berth at No. 3 SPM. Ship's derrick crane should be rigged on port side.

Ship's manifold suitable for connection of up to 2×16 in. crude and 1×10 in. bunker hoses. Mooring and hose connection by ship's crew. Mooring and hose connection equipment shipped on board after Berthing Masters board. Request accommodation be provided for 2 Berthing Masters whilst on board. Please confirm soonest SWL of hose handling crane/derrick and that suitable forward panama/fairlead aperture is minimum 24 in. horizontally and 18 in. vertically.

Unquote.

General: Tanker Berth No. 3 is a Single Point Mooring (SPM) situated approx. 7,500 ft. (2,285 m.) East of Das Island. The buoy is moored in 94 ft. (28.65 m.) of water at datum, and is served by a 48 in. crude oil submarine pipe-line and a 22 in. fuel oil (bunker) submarine pipe-line.

Vessels will be required to be fitted with a hose handling crane/derrick capable of plumbing at least 2 ft. outboard of the ship's side over the entire length of the portside manifold (including the bunker connection). Minimum SWL of the crane/derrick to be in accordance with the following requirements.

Less than 100,000 L/T S.D.W. 8 tons.
100,000 – 300,000 L/T S.D.W. 10 tons.
Over 300,000 L/T S.D.W. 12 tons.

Berthing Limitations: Capable of accepting vessels up to 410,000 L/T S.D.W. subject to the following limitations: Maximum berthing draft of 72 ft. (22 m.). Maximum sailing draft of 79 ft. (24 m.).

(See "Approaches" "Cautions" – Note: Actual depths over submarine pipe-lines).

Mooring at SPM: The fixed mooring at Tanker Berth No. 3 is a 21 in. circumference nylon braidline rope, 160 ft. (50 m.) long, terminating in a 3 in. diameter stud link chafing chain.

The vessel must have a suitable bow fairlead (24 in. × 18 in.) to permit direct connection of the 3 in. diameter stud link chafing chain to a Smit or similar bracket. If no bracket is available the Company will supply a 15 in. circumference nylon snotter and a 300 ton shackle for connection to the chafing chain. The Company will also supply a special pear shaped link to aid connection to Schmit bracket or when using the nylon snotter.

Loading Rates: The crude oil loading installation comprises 2×10 in. floating hose strings each terminating in 16 in. tail hoses. The fuel oil (bunker) loading installation consists of 1×16 in. floating hose string terminating in a 10 in. tail hose. Flanges are to BS 1560.

Various reducers/spool pieces are available, with prior knowledge of vessel connections if different from shore fittings. Adequate ship crew and tools must be provided for the safe and efficient connection of hoses. There is no shore assistance for connecting/disconnecting of hoses.

Maximum cargo loading rate is 46,000 bbls./hr. per 16 in. hose (6,000 t.p.h.), 2×16 in. hoses are available. Maximum fuel oil loading rate is 7,000 bbls./hr. per 10 in. hose (1,000 t.p.h.), 1×10 in. hose available.

Control of Loading and Safety: Loading must proceed to a pre-declared plan. Co-ordination of loading will be undertaken by the Duty Berthing Master, who will also conduct the necessary safety checks at frequent intervals.

LNG/LPG Berth No. 4:

Platform position: Lat. 25° 09′ 22″ N., Long. 52° 53′ 08″ E.

General: This is an ADGAS installation for the transfer of LNG/LPG and related products. Movement of vessels to and from the berth are governed by the Port Authority.

The berth is a fixed platform type and is situated approx. 4,300 ft. (1,300 m.) N.N.W. from Tanker Berth No. 2 Platform. Vessels berth alongside flexible dolphins and 7 mooring dolphins are provided to receive moorings.

Berthing Limitations: Capable of accepting vessels up to 100,000 L/T displacement subject to a maximum draft alongside of 46 ft. (14 m.). Minimum depth of water alongside is 49 ft. (14.95 m.) at datum.

Moorings: A minimum of 8 mooring lines must be available at each end of the vessel.

General Mooring pattern is:
Forward: 3 headlines, 3 breastlines, 2 springs.
Aft: 3 sternlines, 3 breastlines, 2 springs.

Loading Rates: Loading LNG/LPG and associated products is the responsibility of ADGAS. Maximum LNG loading rate is 10,500 cu.m.p.h. Maximum LPG loading rate is 4,000 cu.m.p.h. Maximum Pentane Plus loading rate is 10,000 bbls./hr. (1,200 t.p.h.). Maximum fuel oil loading rate is 4,500 bbls./hr. per 8 in. flexible hose (650 t.p.h.).

Vessels must have crane/derrick rigged on port side to assist with connection of Fuel Oil (bunker) hose.

Control of Loading: Co-ordination of loading is the responsibility of ADGAS. Fuel Oil (Bunker) loading will be co-ordinated by ADGAS. After the initial safety check by the Berthing Master, ADGAS Representative will conduct the necessary safety checks at frequent intervals. Please note however that the Master can request the services of the Berthing Master in an emergency to take his vessel off the berth.

Small Boat Harbour : Das Island Small Boat Harbour is situated at the South of Das Island. There are a total of 14 berths available at this time, usage of which is governed by the Port Authority.

Eastern Extension: Consists of 2 berths (No. 1 and 2) which are reserved for use by ADMA – OPCO and direct hire deep sea tugs, also for the importation of petroleum products. Maximum draft permitted is 15.5 ft. (4.7 m.).

Inner Harbour: Consists of 12 berths (No. 3 through No. 14). The facilities are reserved for ADMA – OPCO small craft, Government craft and contracted craft for the loading/discharge of materials and supplies.

GENERAL CARGO OPERATIONS: No loading/unloading facilities exist in the port area for cargo vessels and such vessels must provide all equipment and machinery to facilitate transfer of cargo to/from barges, lighters etc., at the designated anchorage area.

Cargo Manifests: One original and two copies of General Cargo Manifests are required to be supplied by the vessel.

Discharging/Loading: Vessels should arrive with all derricks etc., rigged and ready for cargo handling. Barges and associated craft must satisfy the mandatory requirements of the Port Authority, the Consignee being responsible for the provision and control of barges and associated craft. Cargo transfer will normally be carried out continuously dependent on weather conditions.

Dangerous Cargo: The Port Authority must be informed of any dangerous cargo carried in any vessel arriving within the port area whether it is intended for discharge at Das Island or not. Masters of vessels are requested to confirm that any dangerous cargo being carried is stored in accordance with the "Recommendations for the Carriage of Dangerous Goods in Ships" by the United Kingdom Department of Transport or other recognised authority.

CRUDE OIL LOADING: 2 grades of crude are available on each berth. Zakum Crude average API 40° (approx.), and Umm Shaif Crude of 37° (approx.).

Associated product available at this time is Condensate Blend of API 60° (approx.).

All tankers of 70,000 long tons s.d.w.t. must comply with the IMO 1978 protocol and must employ inert gas system.

Masters of vessels arriving to load Condensate Blend cargoes must sign a Declaration (019-MAR-19) to signify that they realise they are loading a highly volatile cargo which contains dangerous quantities of Hydrogen Sulphide (H_2S) in the gas evolved from the cargo.

DENSITY: 1025.

BALLAST: There are no facilities for receiving vessel's ballast ashore for treatment. All vessels must have clean ballast for over-board discharge.

Masters of vessels arriving at Das Island will make a pre-berthing declaration regarding ballast (019-MAR-3).

MEDICAL: A Company Medical Officer and small hospital are available, subject to the Company's discretion, to vessel's crews. Charges for attention, treatment and associated facilities are for the vessel's account.

Masters of vessels must take precautions against heat exhaustion and heat stroke.

Requests for medical attention must be made to the Agency, or through the Duty Berthing Master.

Personnel allowed ashore for medical attention must carry with them Passports/Seaman's card and Health Documents and, if necessary, be accompanied by an interpreter (English or Arabic). An Agency representative will accompany them to the Hospital, but they will not be permitted to visit other Das Island facilities.

FRESH WATER: Not available.

FUEL: Fuel oil bunkers are available at all tanker and liquid gas berths. Type: Interfuel/1500 secs./180 CSD/Redwood. Enquiries should be directed to: ADNOC, P.O.Box 898, Abu Dhabi, U.A.E. Cables: ADNOC, Abu Dhabi. Telex: EM 22215.

Local enquiries for bunkers should be made to the above company through ADMA-OPCO.

NOTE: There are no facilities available for the supply of diesel oil through the tanker/liquid gas berths.

Small craft on charter to ADMA-OPCO are able to obtain limited supplies of diesel oil, the facility is only available through prior contractual agreement and must be loaded at the small boat harbour.

FIRE PRECAUTIONS: Three fire-fighting tugs available.

GANGWAYS: Shore gangways are provided at Berth Nos. 2 and 4, vessel to provide access steps from gangway at ship's rail. At Berth No. 3 vessel must provide accommodation ladder on both sides of the vessel for access.

CUSTOMS ALLOWANCES: No restrictions for tobacco or liquor onboard. Conveyance of alcoholic liquor from any vessel to the shore or from the shore to any vessel, or from one vessel to another, is prohibited.

REPAIRS: No repair facilities are available at Das Island. No repairs are permitted within port limits without prior permission of the Port Authority.

DRY DOCKS: None.

SURVEYORS: Not available.

TELEPHONES: No onboard facilities – fixed berths are linked to Island telephone system. On LNG/LPG Berth No. 4 a ship/shore telephone connection is available.

BANKS: National Bank of Abu Dhabi, Das Island, Abu Dhabi, U.A.E.

STORING: Not available.

REGULATIONS: No cameras allowed on the Island – high security area.

REPATRIATION: There are no facilities for crews of visiting vessels to join or leave vessels at Das Island. Repatriation for medical reasons may be arranged at Master's request with the consent of the Das Island Resident Medical Officer, and the Chief of Police.

AIRPORT: ADMA operate a private airport.

TIME: GMT plus 4 hours.

POLICE/AMBULANCE/FIRE: All emergencies: No. 2 Tanker Berth, Tel: 3333. No. 4 LNG/LPG Berth, Tel: 2222.

SHORE LEAVE: No shore leave is permitted at Das Island. Any crew member who comes ashore unauthorised will be considered as having entered the UAE illegally and as such will be liable to a heavy fine and/or imprisonment.

GENERAL: All vessels entering the port of Das Island must comply with the International Agreement on Safety of Life at Sea (SOLAS) and its amendments and all tankers with the IMO 1978 Protocol.

The Masters of tankers/gas carriers must comply with the following:

Pre-Berthing Declaration and Inspection: All vessels arriving at the Port of Das Island must be suitably ballasted and/or trimmed for berthing with regard to weather and existing circumstances.

All vessel's personnel must be familiar with the Das Island Safety Requirements and other applicable Standing Instructions.

Safe and adequate access to the vessel must be provided for the Berthing Master. If the Berthing Master considers the means of access unsafe or unsuitable, the vessel will be delayed until such time as proper access is provided. Any loss will be to the vessel's account.

The requisite initial documents must be completed in full, signed and handed to the Berthing Master prior to commencement of berthing operations.

Permission to berth will not be granted unless the Berthing Master is satisfied that the vessel can safely complete all parts of the operation, including but not limited to, berthing, ballasting, deballasting, cargo transfer and sailing. If for any reason it is deemed necessary to refuse permission to berth, the Port Authority will be informed and a detailed inspection of the vessel will be undertaken. Shortcomings, etc. will be noted and the Master informed of them. If the vessel is unable to rectify the identified faults, it will be removed from the Port Area. Owners/Charterers will be notified accordingly.

Fire Wires (Emergency Towing Wires): Emergency towing/fire wires of sufficient strength and construction are to be provided and secured forward and aft, on the offshore side of the vessel, with the towing eye maintained at 6 ft. (2 m.) above the water level.

Access to Vessel: While at the loading berths all vessels must provide an accommodation/pilot ladder suitably positioned and maintained at 6 ft. (2 m.) above the water level on the offshore side of the vessel.

M.E.N.A.S.: ADMA-OPCO Agency Section is a collection agency for Middle East Navigation Aids Service (M.E.N.A.S.) dues and, on the authority of the Master, dues payable to M.E.N.A.S. are collected and remitted on behalf of the vessel.

Courtesy Flag: The correct courtesy flag for vessels visiting Das Island is the flag of the United Arab Emirates. This flag may be obtained from the Agents.

Notice of Readiness: Prior to commencement of any transfer operation within the Port of Das Island, the Master shall tender, to the Company, a written Notice of Readiness to load/discharge, duly timed, dated and signed by the Master. Receipt of such notice does not necessarily imply acceptance.

Early Departure Procedure: E.D.P. is available to all tankers at Das Island. Tankers not accepting E.D.P. are generally unberthed after completion of transfer and must proceed to the Anchorage Area to complete documentation.

Note: Vessels loading fuel oil (bunkers) are required to accept E.D.P. to minimise delays to other vessels.

OIL POLLUTION: Any incident of pollution from a vessel within the Port of Das Island is a contravention of Part VI of the Abu Dhabi Petroleum Ports Law No. 12 of 1973.

In the event of the escape of oil or oily water from any source, operations must be suspended immediately, and every effort made to identify, stop, contain and clean up the pollution. The Port Authority must be informed via the Duty Berthing Master, in order that the Pollution Contingency Plan can be initiated.

Transfer operations will not be resumed until such time as the Berthing Master and the Port Authority are satisfied that the cause of pollution no longer exists and that the affected area is sufficiently cleaned and safe. Oil Pollution incidents that occur within the Port of Das Island will be fully documented and the necessary documents (019-MAR-41) signed by the Master before transfer is resumed.

Masters of vessels/craft are warned that any breach of the provisions of Part VI of the Abu Dhabi Petroleum Ports Law No. 12 of 1973 will render themselves liable to prosecution.

Pollution: The dumping of waste, dangerous, toxic or other hazardous material within the Port of Das Island is strictly prohibited.

AUTHORITY: Abu Dhabi National Oil Company – Petroleum Ports Authority (ADNOC – P.P.A.) Das Island, Abu Dhabi, U.A.E. *Tel:* Direct 057-31012 or 826600 (Das Ext. 3368). *Telex:* 22284 Adma EM. *Cables:* Admarine Das, Abu Dhabi. *Contact:* Captain I. I. Kazi, Port Officer, Das.

AGENT: National Shipping Gulf Agency Co. (Abu Dhabi) Ltd., see "Mina Zayed".

DUBAI (Including Khor Dubai and Hamriya Port): 25.16 N. 55.18 E.

ALSO SEE "PORT RASHID".

COURTESY FLAG: UAE and Dubai.

PROHIBITED AREA: All shipping is warned to keep clear of an area contained within a line drawn from Port Rashid Main Light (Lat. 25°16.0′ N., Long. 55° 16.2′ E.) to a position (Lat. 25° 16.2′ N., Long. 55° 15.1′ E.) i.e. 272° – 1,850 m. from this light thence to the shore line on a Bearing of 180°. This has been declared a prohibited area.

Small craft, dredgers and hopper barges will be operating within this area. The main breakwater will consist initially of an island with the breakwater extending both seawards and shorewards from it.

White flashing beacons will be positioned at 400 m. intervals along the breakwater and in addition various construction lights will be exhibited.

Legal steps will be taken against any negligence whatsoever from Masters.

DOCUMENTS: Following should be airmailed to Agent prior ship's arrival: 2 copies Dangerous Cargo List, Stowage Plan in duplicate, Hatch List in duplicate, 7 copies of Cargo Manifests, 1 copy of each Bill of Lading. On arrival, 4 Crew Lists required.

Immigration: Vessels of less than 3.0 m. draft are expected to berth and report at the Immigration Station on the Customs Wharf to report In and Out. Larger and deeper draft vessels are cleared In and Out by Agents.

APPROACHES: Dubai Beacon Fl. 3 Sec. Port Rashid Lee Breakwater 25° 16.77′ N., 55° E., thence by 5.5 metre channel parallel to the breakwater, entry dolphins lit. Channel depth maintained centre line though opening spans of Al Maktoum and Al Garhud Bridges beyond Al Jadaf Ship Lift in Khor Dubai Lagoon.

ANCHORAGE: Marked by lightbuoy in position 310°, 1.06 miles from Nayif Tower. Recommended anchor to N.E. of lightbuoy in approx. position Lat. 25° 17′ 4″ N., Long. 55° 16′ 16″ E. Depth 36 ft. to 40 ft., holding ground considered poor, bottom sand and coral. The closer ships are able to anchor to the buoy, the faster turn-around on barges will be attained. *Warning:* Occasional strong N.W. winds, known as "Shamal" will make discharging impossible and *it is very important* that ships have engines on "stand-by" during such times. Ships allowed enter and leave anchorage at any time of day or night. Launch service through Agent's ship to shore from anchorage, and ship's own boats can also be used without Authorities' permission.

PILOTAGE: No organised Pilot service, but Pilot can be arranged by Agents.

RESTRICTIONS: All cargo discharged into barges at anchorage. Coasters with drafts of 11 ft. 6 in. or less can enter creek and discharge alongside. Such vessels usually require a tug boat to pilot them into the creek. Tugs available through Agent. Importation of artificial pearls is prohibited. Purchase of liquor forbidden except by permit.

HEALTH: Prior arrival, Masters are required to send a cable to the Port Health Dept. addressed "Quarantine-Municipality-Dubai" on the following lines:

(Vessel's name). . . ETA . . . Hour . . . Date . . .
Crew all healthy request Free Pratique
Master

Normally all vessels declared healthy by the Master are automatically allowed to berth immediately on arrival, and Health Dept. personnel will board vessels after berthing.

Arrival: Ships boarded immediately upon arrival weather permitting, and Masters then have to complete a short Arrival Report. No formalities of any kind with Port Authorities and ships allowed to arrive/sail at any time.

Departure: No port clearance is issued in Dubai. A letter will be issued by Agent which may be produced at next port of call instead of usual departure clearance.

RADIO: "Khor Dubai" R/T (VHF MF/SSB) near entrance, 24 hour watch on 2182 kHz (MF/SSB), Channel 16/14 VHF. Controls movements and berthing, broadcasting navigation warnings and weather forecasts.

TUGS: Required, on basis of overall length, for Northern reaches and bridges, details available from Khor Dubai Radio and Agents.

DISCHARGE TURN: Priority of discharge given to ships carrying mail and/or passengers for Dubai. Ships carrying less than 100 weight or measurement tons have priority and are supplied with one barge for discharge of cargo immediately on arrival, whether turn is in force or not. Should there be congestion, Agents require Stowage Plan showing clearly that all Dubai cargo is freely available and Master's signature on a request for discharge turn. Based on this, vessels will be registered for turn. Registration can only be performed during office hours.

After confirmed registration, at which will be given a deadline for turn, ships may proceed to other ports for discharge, but must return Dubai prior time and date given, otherwise turn is lost. Particular cargoes for H.H. The Ruler have priority, This should be evidenced by Manifests which will be produced to Customs Authorities in Dubai for approval. The cargoes must be accessible for immediate discharge, which should be verified by stowage plan.

BERTHING:

Khor Dubai: 2,300 m. of unnumbered berthing exists on the West Bank of the Khor and 3,300 m. on the East Bank. Depth between 3.0 m. and 5.5 m. Details from "Khor Dubai" Radio. Whereabouts of vessel to be reported on berthing.

Hamriya Port: Main Breakwater Light 25° 18′ N., 55° 20′ E.

Flag: UAE and Dubai.

Documents: The following should be airmailed to Agent prior to ship's arrival.

2 Dangerous Cargo Lists.
2 Stowage Plans.
2 Hatch Lists.
2 Freight Manifests.
7 Cargo Manifests.
1 Copy of Bill of Lading.
4 Crew Lists required (on arrival).

Approaches: Approach channel and entrance dredged to 6.0 m. Breakwaters are lit.

Pilotage: No organised Pilot Service, but Pilots can be arranged by Agents.

Restrictions: Vessels will not be allowed to remain alongside the quay when not working cargo if other vessels are waiting.

Draft at Berths: There are no berth numbers. However, there are 3 quays. One measuring 450 m. in length with a draft of 4.5 m. 1 – 160 m. and 1 – 900 m., the last 2 with draft of 6 m.

Tugs: Required on basis overall length as instructed by "Khor Dubai" Radio and arranged by Agents.

Radio: "Khor Dubai" Radio (VHF MF/SSB) near Khor mouth, the station controls movements, etc. in Mina Hamriya. 24 hours watch on 2182 kHz and Channels 16 and 14. Navigation Warnings, weather forecasts, etc are also broadcast.

The Port Signal Station (call sign: "Khor Dubai") equipped with VHF and M/F SSB is situated near the entry to Dubai Creek. Vessels should contact the station by VHF Channel 16 or 12 or on RT 2182 kHz. Signal station is manned 24 hours.

Pratique: Not applicable.

Berthing: Berthing is reported to Khor Dubai Report Station.

Fresh Water: Presently available at one point only. The supply is made by Port & Customs Office and vessels may directly order their requirement or through Agents.

Fuel: E.G.P.C. supply fuel at bunker point opposite entrance.

Cargo Handling: Port is not involved in the cargo discharge operation.

There is no equipment available in the port such as cranes, forklifts etc. and if required, to be arranged by Agent.

Neither shed nor yard is available and therefore cargo is accepted on direct delivery basis only.

Stevedores: No stevedoring company in the port, labour is arranged by Agent.

Telephones: No connections at the quays. However, there are telephones in the adjacent Customs Office.

Lighterage: Available.

Shore Pass: After berthing, all passports and Seaman's Books should be surrendered to the Customs Office situated in the port area with 3 copies of Crew List against which shore passes issued. Before sailing of the vessel, a clearance should be obtained from the Port & Customs Office (Launch Section) and produced to the Customs Office for releasing the Seaman's Books/Passports.

Lay-By/Laying-Up Berth: 16 bollards available on Lee Breakwater for Mediterranean Moor of Lay-by/Lay-up vessels.

Port Authority: Department of Ports & Customs, Government of Dubai

STEVEDORES: Loading/Discharging Rates: Stevedores, tally clerks, supervisors, etc., will be supplied from shore at the same time as ships are supplied with barges. These people working under vessels' supervision and responsibility.

First Shift: from 0800 hrs. to 1800 hrs. Second shift: from 1800 hrs. to 2400 hrs. Third Shift: from 0000 hrs. to 0800 hrs. Very difficult to get stevedores to work third shift unless ship will complete within a reasonable time into the third shift. First 2 shifts always worked.

Drinking water must be supplied by ship free of charge to all men from shore but food only to supervisors, tally clerks, watchmen and foremen.

Expected outturn working three hooks:

Bagged cargo	400 – 500 tons
Cased cargo	150 – 200 tons
Timber on deck	300 – 350 tons
Timber in hatches	200 – 250 tons

Usually 5 ships can work at one time.

MEDICAL: Qualified doctors available ashore and also a hospital. Most medicines available at fairly low prices. Dentist also available. Walking cases should be brought ashore *in the morning* for treatment, but in emergency, a doctor will board the ship.

TANKERS: See "Port Rashid".

FRESH WATER: Supplied at the Bunker Berth, otherwise supply is by road tanker.

FUEL: 3 small vessel bunker berths by Al Shindaga Fish market, otherwise refuelling carried out by road tanker.

FIRE FIGHTING: No facilities available at anchorage.

CUSTOMS ALLOWANCES: *Tobacco:* 1,000 cigarettes or 200 cigars or 1 kilo of tobacco. *Perfumes:* 1 litre of toilet water (Eau de Cologne) and not more than 150 grams of perfume. *Currency:* Unlimited.

CONSULS:

Egypt
Great Britain
India
Iran
Iraq
Italy
Kuwait
Netherlands
Norway
Pakistan
Qatar
Saudi Arabia
Sweden
Switzerland
USA

Additional Embassies/Consulates in Abu Dhabi.

REPAIRS: Fully equipped engineering workshops, radar and radio technicians capable of carrying out extensive repairs available. Underwater cleaning, repairs and other works connected with this also available. See also Dubai Dry Dock under "Port Rashid".

DRY DOCK: Two ship-lifts of 450 tons and 2,850 tons (Nominal lift) respectively, plus adjacent berthing, side travellers, etc., are installed at Al Jadaf in Khor Dubai Lagoon on the North West Bank. Over five ship and engine repair companies have workshops in this compound. *Bridge transits* through opening span regulated by time and tide, are arranged with Police/Ship Docking Yard by Agents.

SURVEYORS: Lloyd's.

REPATRIATION: Visa is required for non-UAE citizens visiting Dubai for a period exceeding 7 days. Agent can assist provided complete passport details given well in advance. Excepted are British Subjects with right of abode in the UK who are permitted to remain in UAE without visas for a period of 1 month. For temporary visitors of other nationalities the Agent can arrange under its sponsorship transit visa valid for 7 days provided the person holds a ticket showing a confirmed flight out of UAE. However, person must leave UAE via airport through which he entered.

When advise arrival flight details also advise seaman's book number and nationality.

Seven days' transit visa:

From 1st February, 1985 a new form will be used by the Immigration Authorities in Dubai for persons entering Dubai on Transit Visa.

As the form has to be typed out in both English and Arabic it is essential that full details of arriving persons are in hand at least 48 hours prior to arrival.

The information required is as follows:

1. I, the undersigned wish to sponsor the undermentioned who wishes to enter the country for ....
2. Name of the sponsored .... Father's Name ....
3. Nationality .... Passport No. ....
Category: Normal/Diplomatic Service.
4. Place and Date of Issue .... Expiry Date ....
5. Place and Date of Birth .... Profession ....

AIRPORT: Regular international scheduled flights. Also domestic flights within Gulf area.

TIME: GMT plus 4 hours.

HOLIDAYS: 1st January; 10th February; 23rd June*; 6th August*; 25th August*; End of Ramadan 3 – 5 days holidays, End August. 1st November*; 21st November*; 2nd December; 25th December.
*Not fixed.

SHORE LEAVE: Officers and crew may come ashore during daylight hours for shopping and recreation. They shall then carry a valid passport, ID-card or Seaman Book, which will be placed at the Immigration Office when landing. The passport, ID-card or Seaman Book will be returned upon returning to ship. No alcoholic beverages allowed to be brought ashore.

LAUNDRY: Available but about 2 – 3 days required.

PROVISIONS: Fresh vegetables, frozen stuff, bonded stores, etc., available. Requirements should be given immediately on arrival. (The liquor and beer prices are high.).

GENERAL: Dunnage – not available. Heavy lifts – not available at anchorage. Shore cranes have lifting capacity up to 30 tons.

Weather: Summer months in the 40's Centigrade and humid. Winter months in the 20's Centigrade and dry.

Alcoholic Beverages: Allowed to be stored and consumed on board also in port, while sale of this and pornographic materials is strictly forbidden.

Accommodation: Construction of many hotels completed and rooms in all price ranges are now readily available in Dubai on both the Deira and Dubai side.

Business Office Hours: Normally 0800 to 1300 hrs. 1600 to 1800 hrs. Government offices: 0800 – 1200 hrs. Banks: 0800 – 1200 hrs.

Ship Spares in Transit: Agents in Dubai advise that spares arriving in Dubai even with valid invoice, certificates of origin and packing lists attached are now opened by the Dubai Airport Customs. All Owners and operators are thus warned not to include any items which are banned in boxes containing spare parts as if detected they will be confiscated.

Further to the above, Agents give below a list of prohibited articles:

(a) All pornographic literature, videos, films, pictures.
(b) Alcohol.
(c) Narcotic drugs.
(d) Wireless transmitters.
(e) Firearms and ammunition.
(f) Products of Israeli – blacklisted manufacturers.
(g) Exposed cinematographic (movie) films.
(h) Political and religious literature.

– need prior approval from the Ministry of Information. The Customs are particularly sensitive about video tapes and when found in luggage they are subject to check. The checking is taking time and passengers are kept waiting sometimes for hours. To avoid trouble and irritation strongly recommend that crew arriving Dubai should be advised by principals not to carry any video tapes.

AUTHORITY: Government of Dubai, Department of Ports and Customs, Marine Adviser's Office, P.O.Box 2001, Dubai, United Arab Emirates. *Tel:* 457772. *Telex:* 49787 Khord Em. *FAX:* 00971-4-450810. *Contact:* Captain W. Nelson, Marine Adviser.

AGENT: Gulf Agency Co. (Dubai) Pvt. Ltd., P.O.B. 2404, Dubai, U.A.E. Cables: "Confidence", Dubai. Tel: 457555 (12 lines, 24 hour service). After office hours: 480424, 440193, 582857. Telex: 45448, 45809 ("Gacdb EM"). Radio: Marine VHF radio, stand-by on Channel 16 (156.8 MHz) Callsign "Confidence, Dubai". Fax: 457202.

Operators of ship-servicing and supply organisation: Crew-changes, mail spares and/or delivery of provisions undertaken at sea without deviation to serviced vessel.

Owners and Masters should contact G.A.C. Dubai by cable or telex regarding servicing requirements. Rendezvous positions are selected by Shipmaster as follows: Off Dubai, at any Latitude along meridian 55° East, or off Fujairah at any Longitude along parallel 25° 10′ North.

FATEH TERMINAL (offshore Dubai): 25.35 N. 54.25 E.

(See Plan)

Oil Loading Terminal of the Dubai Petroleum Company (DPC).

Note: All tankers loading Fateh Terminal cleared by Dubai Petroleum Company, taking care of all necessary documentation concerning cargo. DPC does not charge owners/operators for this service (at the present time). However, for all other agency services DPC refers owners/operators to regular shipping Agents in Dubai.

According present oil company regulations vessels not allowed receive any deliveries or any launch alongside while loading at Terminal. Deliveries of mail, spare parts and performance of crew changes will, therefore, take place at Terminal anchorage, Dubai anchorage, or at a rendezvous point.

Weather permitting, Fateh Terminal operates 24 hours a day, 7 days a week and provided berth not occupied, tankers will be berthed upon arrival, day or night.

LOCATION: Fateh Terminal consists of the crude oil production and export facilities of the Fateh, S.W. Fateh, Falah and Rashid Fields. The terminal limits are bounded by the following co-ordinates:

(i)	Lat. 25° 38′ 00″ N.	Long. 54° 05′ 16″ E.
(ii)	Lat. 25° 40′ 00″ N.	Long. 54° 30′ 00″ E.
(iii)	Lat. 25° 15′ 00″ N.	Long. 54° 30′ 00″ E.

Within this area the anchoring of vessels is prohibited and the Terminal Safety Regulations have effect.

NAVIGATIONAL AIDS: All platforms, structures, SBMs and floating storage vessels are fitted with a white light Fl. "U" ev. 30 secs. vis. 5 miles and horn every 30 secs. sounding "U" in Morse.

Numerous working lights are also fitted on platforms, etc.

Six flares in position:

(1)	Lat. 25° 35′ 50″ N.	Long. 54° 25′ 50″ E.
(2)	Lat. 25° 35′ 56″ N.	Long. 54° 25′ 20″ E.
(3)	Lat. 25° 35′ 48″ N.	Long. 54° 25′ 18″ E.
(4)	Lat. 25° 29′ 44″ N.	Long. 54° 18′ 29″ E.
(5)	Lat. 25° 33′ 30″ N.	Long. 54° 11′ 30″ E.
(6)	Lat. 25° 21′ 00″ N.	Long. 54° 29′ 00″ E.

The flares give an orange light which may be visible from the Terminal, depending on atmospheric conditions, in addition the flare structures show a white light flashing "U" in Morse every 30 seconds visible for 5 miles.

Numerous small unlit buoys for the use of working craft may be encountered within the Terminal area.

APPROACHES: On approaching Terminal, Masters of incoming tankers should head for Anchorage Area (see "Anchorage") where, under normal conditions, their vessel will be boarded by a DPC Mooring Master.

ANCHORAGE: An area immediately East of Terminal Limits is designated as the Anchorage Area, centred on position as follows:

Lat. 25° 36′ N. Long. 54° 31′ E.

This co-ordinate represents the centre of a circle with a radius of approximately 1 mile which must be used by vessels requiring to wait at anchor. Anchoring within the Terminal limits is strictly prohibited. For reference purposes, the anchorage area bearing from Dubai Trade Centre Light is 298° true, distance 47.8 miles and from Jazirat Sirri Light 185.5° true, distance 18.2 miles.

If a tanker is not scheduled to berth on arrival (e.g. another vessel is in the berth, or the port is closed on account of adverse weather conditions, etc.) Masters will be advised by radio and requested to anchor.

FACILITIES: For the export of crude oil 2 single point mooring buoys have been installed in positions:

SBM No. 1 Lat. 25° 34′ 37″ N. Long. 54° 28′ 18″ E.
Bearing 242° true 2.83 miles from anchorage.
SBM No. 2 Lat. 25° 35′ 12.6″ N. Long. 54° 24′ 36.6″ E.
Bearing 262° true, 5.85 miles from anchorage.

READINESS: After arrival at the Anchorage Area and when the tanker is ready in every respect to load, the Master may tender his Notice of Readiness.

Notices of Readiness will be accepted provided one or other of the following events shall have transpired:

(a) The Master shall have received the Mooring Master on board or;
(b) The Master shall have dropped the anchor in the Anchorage Area.

Port Closed: Notices of Readiness will not be accepted during periods when the port is closed. The port is "closed" when the weather is such that it is too rough for incoming tankers to berth. The decision regarding the opening and closing of the port will rest with the Fateh Terminal Superintendent or his Deputy.

Order of Berthing: Vessels will normally berth in order of arrival.

DOCUMENTATION: *Documentation and Ship's Agency:* In the normal course of events, DPC acts as tanker Agent and prepares all crude oil loading documents. For these services no charge is made.

Early Departure Procedure: At the Master's discretion. In order to expedite turn-round of vessels in this port and avoid undue delays caused by weather or other circumstances, Masters of vessels on arrival are requested to sign blank cargo documents.

Normally, completed cargo documents required by the Master will be placed on board prior to sailing. If this is not possible without incurring undue delays, the relevant documents will be airmailed to the Master to await the vessel's arrival at her discharge port.

The official cargo, i.e. quantity loaded, will be transmitted by radio whilst unmooring. In the event of a dispute, the receipt of a Letter of Protest will be acknowledged by the Mooring Master. Any protests by the Master concerning the quality of cargo should be made before departure and any resulting investigation should be made before the vessel sails.

Outward Clearance: A tanker will be considered clear to depart Fateh Terminal when the crude oil loading documents have been delivered to the Master, or in the case of early departure, clearance will be given through the Mooring Master.

Mail: Official ship's mail and crew's personal mail will be handled and shipowners debited accordingly.

PILOTAGE: Pilotage is compulsory within the Terminal limits. Vessels to be moored at Fateh Terminal will be boarded by a DPC Mooring Master in the Anchorage Area. The Mooring Master will advise the ship's Master on approaches to the SBM, mooring and unmooring, connecting and disconnecting hoses and all other operations within the Terminal area including all manoeuvring of the vessel. The Master or one of his qualified deck officers must be on the bridge at all times while the tanker is being manoeuvred.

The services of a Mooring Master are provided without charge, upon the express understanding and condition that when any Mooring Master furnished by DPC goes aboard a vessel for the purpose of assisting such a vessel, he becomes for such purposes the servant of the owners of the vessel and DPC shall not be liable for any damage or injury resulting from the advice or assistance given or made by such Mooring Master while aboard or in the vicinity of the assisted vessel.

MAX. SIZE: SBM No. 1. and No. 2: Max. displacement 350,000 tons. Max. draft, no restriction. Depth of water 150 ft.

RADIO: *Communications with DPC:* Cable Address: Dupetco, Dubai. Telex: 45557 or 45423 DPC EM.

Initial Communication: Initial communication between ships and DPC should be via Bahrain Radio (call sign "A9M") which operates on a 24 hour basis.

Communications Within 60 miles of Terminal: Once ships are within about 60 miles of Fateh Terminal communication may be established by radio telephone on International Marine VHF Channel 16 (156.8 MHz). This frequency is monitored continuously. Once contact has been made on Channel 16, further conversation should be conducted on either Channel 14 (156.7 MHz) or Channel 9 (156.45 MHz).

Communications after DPC Mooring Master has Boarded: A DPC Mooring Master will board incoming tankers in the anchorage area and will bring with him portable UHF radio telephone units. From that time onwards all communications between ship and platform will be conducted by the Mooring Master via the portable UHF units, unless owing to failure of portables it is necessary to revert to mains VHF Channels.

Advice of Tanker Arrivals:

Initial Estimated Time of Arrival (ETA): When a tanker bound for Fateh Terminal is within 72 hours of arrival at Fateh Terminal, the Master should notify DPC by cable via Bahrain Radio giving the following information:

(a) Name of tanker.
(b) ETA in GMT (Dubai time is GMT plus 4 throughout the year).
(c) Quantity of cargo required.
(d) Maximum loading rate.
(e) If the ship's hose connections are different from 16 in. or 12 in. standard ASA 150 lb. type, the size should be stated.
(f) Deballasting time (if any).
(g) If vessel proceeding to any port(s) prior to Fateh, and if so, any anticipated delays.
(h) If AKD stopper or SMIT towing bracket is fitted, and if so, distance from centre bow fairlead.
(i) Confirm inert gas system is in use and operational.
(j) Indicate if vessel is in possession of an International Oil Pollution Prevention (I.O.P.P.) Certificate.
(k) Sailing draft and corresponding sea water displacement tonnage.

Subsequent ETAs: Sections *(a)* and *(b)* of the above message should be repeated via Bahrain Radio when the tanker is within 24 hours and again when within 12 hours of arrival at the Fateh Terminal.

Unreasonably insufficient or inaccurate ETA messages may alter the order of berthing of ships to the disadvantage of those ships giving sufficient and accurate ETA messages.

Radio Telephone Communication when Approaching Fateh Terminal: When about 60 miles off the Terminal contact may be made by radio telephone on International Marine VHF Channel 16, and communications should continue via this method until a DPC Mooring Master boards.

MOORING: *Preparation for Mooring:* Vessels are requested to have pilot ladder, hoist and/or accommodation ladder safely and securely rigged for immediate use and long enough to meet the Mooring Master's launch. Vessels will provide a lee for the Mooring Master on the port side both when boarding and leaving.

For vessels with a freeboard of 40 ft. or more, the accommodation ladder shall be rigged and lowered down so the platform is not more than 10 ft. from the water and a short pilot ladder rigged to facilitate access to the platform.

Tankers are requested to have ready on the forecastle head the following:

(a) 2 towing ropes, polypropylene or other man-made fibre.
(b) 2 messenger ropes, minimum lengths of 300 ft.
(c) Selection of shackles, wirestrops and tools.

When the approach to the terminal commences, the berthing tug will be available to assist in berthing. The method and position in which the tug will be utilised will be dependent upon the weather and tidal conditions prevailing. At this time, the mooring launch will prepare the mooring and standby at the SBM.

Approach to the SBMs necessarily involves passing, in close proximity, various platforms and other structures. It is therefore imperative that all measures are taken to ensure that there is no loss of power or steering during these manoeuvres.

The mooring launch will be situated about 600 ft. from the SBM with a 10 in. circumference polypropylene pick-up rope secured to the main mooring, which consists of 2×18 in. circumference nylon ropes, connected to a standard O.C.I.M.F. chafing chain and a 40 ft.×3.5 in. circumference pick-up wire rope.

During the approach of the tanker towards the SBM, ship's crew, with the advice of the Mooring Masters Assistant (MMA) will prepare the forecastle for the mooring operation. This will include passing a messenger rope through the centre bow fairlead (or other fairlead designated by the MMA) taking the end to the after port corner of the forecastle and, from this point, lowering the end to the waters edge. The mooring attachment will also be prepared, and will be, in order of preference:

(a) Bow stopper (AKD). (c) Bitts.
(b) Towing bracket or futtoch (Smit).

Vessels which, in the Mooring Master's opinion, do not have a suitable method of attaching the mooring, will be refused permission to berth. Should bitts have to be utilised, or should the towing bracket be located at a substantial distance from the fairlead, wire snotters of 2 in. diameter and various lengths are available from the berthing tug.

Upon the close approach of the tankers bow, the mooring launch will manoeuvre alongside the port shoulder and attach the mooring pick-up rope to the ship's messenger line. The tanker will then heave up the messenger and pick-up rope, carefully picking up the slack as the tanker approaches the SBM. The mooring launch will now be stationed at the end of the floating hose string in order to tow the hoses clear of the ship's side should this become necessary.

The pick-up rope should be continually hove in as the tanker nears the SBM. The distance between the bow and the SBM will be continuously relayed to the Mooring Master on the bridge by the MMA from the forecastle and by the berthing tug. When the pick-up wire has been brought inboard through the fairlead, it may be necessary to adjust the direction of pull and assist the chain through the fairlead. Action required by the tanker's crew in this respect will be advised by the Mooring Masters Assistant.

When the chain is inboard, depending upon the method of attachment available, the connection will be made. It should be noted that should a Smit bracket or bitts be utilised, the first triangular plate on the chain must only be connected on tankers of less than 100,000 d.w.t. and on vessels of greater size, the chain must be hove in and the connection made on the second, larger, triangular plate.

After the connection to the mooring is made, it may be necessary to run the engines astern to ensure the tanker does not contact the SBM. The Mooring Master will then advise "Finished with Engines", but at no time during the tankers stay in port shall the engines be immobilised.

Shortly after the mooring operation is completed, the berthing tug will be secured from the stern of the tanker on a long ships rope, polypropylene if possible.

LOADING: *Lifting Hoses:*

SBM 1: Two 16 in. diameter hoses will be lifted by ship's gear on the port side. Each lift is 9 tons.

SBM 2: Two 16 in. diameter hoses will be lifted by ship's gear on the port side. Each lift will be 9 tons.

The hoses shall be hoisted and connected by ship's crew. The Mooring Master will advise the ship's officer in charge concerning lifting techniques.

Sundry Hose Connecting Equipment: Tankers shall be equipped with the necessary blocks, tackle, wrenches, gaskets, bolts, nuts, etc., to efficiently effect the hose connection.

Flange Sizes: 16 in. – 12 in. reducers will come on board the tanker with the mooring gear thus enabling tankers with either 16 in. or 12 in. ASA 150 lb. flanges to connect directly to the Terminal hoses. Flange size 16 in. – 12 in., 16 in. – 10 in. reducers with ASA 150 lb. flanges are available if required to enable tankers with 12 in. – 10 in. manifold connections to connect to the Terminal hoses.

Communications During Loading: (See "Radio"). All communications relative to the loading of the vessel shall be routed through the Mooring Master who will remain in contact with the Production Platform constantly via portable UHF units. In case of temporary breakdown of the portable UHF circuit, contact may be continued on International Marine Channels 16, 14 or 9 if the vessel is so fitted.

Failure of Communications: Should communication with the Production Platform fail, loading will cease.

Emergency Shut-Down: An emergency cessation of loading may be effected by the ship's VHF Channel 16.

Cargo: Oil loaded at Fateh is Dubai Stabilised Crude with an average API of 31.0. Loading temperature varies between 90°F in the Winter to 100°F in the Summer months. The oil is relatively free of sediment and low in wax and asphaltenes.

Loading Rate: At SBM No. 1 the maximum loading rate is 60,000 bbls.p.h. At SBM No. 2 the maximum loading rate is 70,000 bbls.p.h.

BALLAST: *Precautions Regarding Pollution:* It is the responsibility of the ship's Master to see that no crude (or bunkers', diesel or bilge) oil or dirty ballast is pumped or spilled overboard from his ship whilst in the area. Drip pans should be used, especially when disconnecting hoses in order to prevent spillage overboard.

Scuppers to be Plugged: Before loading commences, all overside scuppers shall be made oil-tight.

No facilities for Receiving Dirty Ballast: At Fateh Terminal there are no slop tanks or facilities for receiving dirty ballast. Tankers must arrive with clean ballast. In the event a tanker does have dirty ballast it will not be allowed to be pumped overboard. The dirty ballast will be collected into one tank, measured and left aboard.

Discharging Ballast at Night: During the discharge of ballast in darkness, the sea shall be adequately lighted in the area of discharge.

MEDICAL: At Fateh Terminal medical and dental services are not available. In emergencies requiring hospitalisation, the patient will be taken by boat from the tanker to the Production Platform, hoisted to the upper deck of the platform and flown by helicopter to Dubai. The shipowner will be charged for all expenses incurred.

FUEL: Bunker supply not available at Fateh.

Fuel oil (IFO 180 cSt) can be arranged at Mina Jebel Ali. Gas oil can also be arranged.

DENSITY: 1030.

GENERAL: The following are not available at Fateh Terminal: fresh water, stores, boats for hire; repair facilities; facilities for changing ship's crew.

There is no shore leave.

Charts: Charts covering the approach to and the area of Fateh Marine Terminal are:

British Admiralty Nos. 2837, 2887, 2888, 2889.
U.S. Hydrographic Office No. 3647.

AUTHORITY: Dubai Petroleum Company, P.O.Box 2222, Dubai, U.A.E. *Tel:* Dubai 442990. *Telex:* 45423 or 45557 Dpc EM. *Cables:* Dupetco, Dubai. *Contact:* Captain A. V. Carrington, Marine Superintendent.

AGENT: Gulf Agency Co. (Dubai) Pvt. Ltd., P.O.B.2404, Dubai, U.A.E. Cables: "Confidence", Dubai. Tel: 457555 (12 lines, 24 hours service). Telex: 45448, 45809 ("Gacdb EM"). Fax: 457202.

VHF Radio: standing by on Channel 16 (156.8 MHz) communicating on Channels 14, 12 or 6, call sign "Confidence Dubai".

SSB Radio: standing by on 6910 kHz lower side band, communicating on frequencies 3539, 6910 and 7010 kHz. Call sign "Confidence Dubai".

FUJAIRAH: 25.10 N. 56.21 E. (See Plan)

LOCATION: Lat. 25° 10.5′ N., 56° 21′ E., 3 km. North of Fujairah town and 20 km. South of Khor Fakkan.

PORT LIMITS: Within area bounded by a line drawn:–

Lat. 25° 09′ 35″ N., Long. 56° 21′ 00″ E. due North to Lat. 25° 10′ 05″ N., 56° 21′ 00″ E., thence due West for 65 m. to the West side of the old road and following the West side of the old road to Lat. 25° 11′ 30″ N., thence due East to Lat. 25° 11′ 30″ N., Long. 56° 22′ 30″ E., thence South to Lat. 25° 09′ 00″ N., Long. 56° 22′ 30″ E., thence due West to Lat. 25° 09′ 00″ N., Long. 56° 21′ 30″ E, thence due West to Lat. 25° 09′ 00″ N., Long. 56° 21′ 00″ E. and include all waters, land and installations contained within that area.

DOCUMENTS: The provisional requirements are:–

Immigration:	Crew List	3 copies
	Passenger List	3 copies
Customs:	Crew List	2 copies
	Passenger List	2 copies
	Cargo Manifests	2 copies
	Alcoholic Beverages/ Bonded Stores List	2 copies
Port Operations:	Cargo Manifests	2 copies
	Stow Plan/Hatch List	2 copies
	Dangerous Cargo List	2 copies
	Transhipment Cargo	2 copies
	Heavy Lift List	2 copies
	Ro/Ro Discharge List	2 copies
For Inspection:	Last Port Clearance, Ship's Log.	
Certificates:	Safety Equipment, Construction, Load Line, Radio, Oil Record Book.	

All documents relating to cargo should be forwarded prior to vessels' arrival.

PILOTAGE: Compulsory, except for 'Country Craft' and M.E.N.A.S. tender.

Notice of ETA and request for a Pilot must be made not less than 24 hours before ETA at Fairway Buoy via vessels' Agents. Pilot launch will keep listening watch on VHF Channel 16, 2 hours prior to ETA.

The Pilot boarding point is 1 mile S.E. of the Fairway Buoy. Pilot boarding arrangements must be according to IMO rules. Vessels awaiting a Pilot must anchor East of Long. 56° 25′ E. approx. 3 miles offshore. There is good holding ground in 40 m. to 59 m. of water.

ANCHORAGE: Vessels wishing to anchor offshore must not anchor West of Long. 56° 25′ E. or South of Lat. 25° 10′ N. They should report their position to either the Harbour Master on VHF Channel 16 or through Agent on VHF Channel 16.

Also see "Pilotage".

RESTRICTIONS: *Draft Restrictions – Main Quay:*

1. Vessels with a draft of less than 11.5 m. can be moved at any state of the tide.
2. Vessels with a draft of between 11.5 m. and 12.0 m. can only be moved from 5 hours before to 4 hours after predicted HW.
3. Vessels with a draft in excess of 12.0 m. can be moved only at a time agreed by the Harbour Master.

Any variances to the above restrictions will be agreed by the Harbour Master, Port of Fujairah.

MAX. SIZE: Ships up to 275 m. LOA and 12.5 m. draft can be accepted.

HEALTH: Normal quarantine regulations apply. Radio Pratique can be obtained, via the vessel's Agent, providing the Master can state that no serious illness has occurred on board during the preceding 30 days.

RADIO: *Notice of Arrival:* Vessels should advise their ETA, Fujairah, at least 72 hours prior to arrival, giving draft, LOA and details of cargo operations. Agents should re-confirm 24 hours prior to vessels' arrival.

Also see "Health".

VHF: Fujairah Port Authorities, call sign "Fujairah Port Control" equipped with Marine Band VHF Radio Telephone Transceiver maintains continuous watch on Channel 16.

Vessels should establish radio contact with Fujairah Port Control Station if they intend anchoring in Fujairah Waters or are proceeding to Fujairah Port.

Following Channels are used by the Fujairah Port Authorities:

Station	*Hours of Watch*	*Channel*	*Function*
Fujairah Port Control	24	16	Distress, Safety and Calling Frequency
Fujairah Port Operations	24	09	Pilot Services
Tugs	24	08	Berthing/Unberthing
Working Channels	24	10&11	

Vessels in the Fujairah area are reminded not to use the above Channels except for the purposes specified.

RADAR: Port Control is equipped with radar. The pilot launch is equipped. However, fog is almost unknown though visibility is restricted by dust mainly – July and August.

TUGS: The use of tugs will be compulsory except at discretion of the Harbour Master. 2 tugs of 16 tonnes bollard pull are in operation fitted with foam monitors. A third tug of 36 tonnes bollard pull is also in service.

BERTHING: There are 4 berths on the Main Quay 780 m. long with a least depth of 12.5 m. for 600 m. and 11.0 m. for 180 m. This is a concrete capped and concrete blockwork constructed quay with rubber fendering.

There is a further 290 m. of quay with a least depth of 7 m. suitable for country craft and shallow draft vessels. This is a concrete capped sheet piled quay with continuous timber fendering.

There are 2 jetties for rock and aggregate cargoes.

There is a transit shed with 12,000 sq.m. of floor space with LCL facility.

PORT EQUIPMENT: 2×40 ton IHI gantry cranes (with a third on order) with an outreach of 34.5 m. per crane.

4 rubber tyred gantries (with a further 2 on order) each 6 containers across and 4 high.

2×40 ton top loaders.

2×24 ton Jones cranes. In addition to this, yard hustlers, trailers and forklift trucks have been added to complete a comprehensive range of support vehicles.

Reefer Storage: 120 points × 200 volts. 48 points × 38 volts.

Open Storage (container or general cargo): 54,000 sq.m. paved storage area.

STEVEDORES: The port will work on a 24 hour 7 day week basis. Requirements for port labour must be submitted to Operations Department by 1200 hrs. prior to to day required.

MEDICAL: Hospital facilities are available.

FRESH WATER: Good potable water is available and supplied by road tanker or water barge by prior arrangement through agents.

FUEL: Gas oil available ex-jetty. Fuel oil by prior arrangement through local Agent – supplied by bunker barge.

REPAIRS: Routine maintenance of medium engineering type is available. Offshore hull cleaning and repairs available.

SURVEYORS: Classification Societies and Surveyors can be brought from Dubai at short notice.

HATCHES: Rigging ship's gear, opening and closing of hatches, are the responsibility of the vessel.

REPATRIATION: This is permissible via Dubai and Sharjah International Airports, about 1.5 hours by road. Valid seaman's book and passport required.

AIRPORT: Fujairah International Airport is a few minutes drive from City Centre. Gulf Air operate a flight on Thursday to and from Bahrain.

DRY DOCKS: None.

TIME: GMT plus 4 hours permanent.

SHORE LEAVE: Shore leave is permitted.

HOLIDAYS: 1st day Id Al Fitr, 1st day Id Al Adha.

TELEPHONES: This service will be available aboard ships at the quay by prior arrangement through Agents.

SHIP SERVICING: Gulf Agency Co. operate ship servicing along Lat. 25° 10′ N.

Barwil Shipping Services, Fujairah. Tel: 24800/24801. Telex: 89040.

Fujairah Maritime & Mercantile International, Tel: 23238/23239. Telex: 89017 Gray Fu Em.

Fujairah National Shipping Agency. Tel: 24151. Telex: 89081 Fnsa Em.

BANKS: British Bank of the Middle East, P.O.Box 21, Fujairah, U.A.E. Tel: 22221.

Fujairah National Bank, P.O.Box 887, Fujairah, U.A.E. Tel: 24518.

National Bank of Abu Dhabi, P.O.Box 79, Fujairah, U.A.E. Tel: 22633.

GENERAL: Garbage disposal services will be provided and will be compulsory. Derat Exemption Inspectors are available.

Ship Chandlers: Complete chandlering facilities will be available.

SHIPMASTER'S REPORT: March 1985.

Called for bunkers (ex-barge) also crew changes.

Anchorage: Instructed by bunker barge to anchor 3 miles East of breakwater entrance in 25 fathoms of water, good holding ground, 6 shackles of cable used.

Stores: Fresh provisions are available by prior arrangement with Agent.

Repatriation: Any crew joining/leaving are landed by fast launch and then taken by minibus to/from Dubai (about 2 hours drive).

Time: GMT plus 4 hours – permanent.

VHF: Agency (Gulf Agency), Port Control and bunker barge all have VHF, contact initially Channel 16 then shift to working frequency.

AUTHORITY: Port of Fujairah, P.O.Box 787, Fujairah, U.A.E. *Tel:* Fujairah 24231. *Telex:* 89085 Fport Em. *Fax:* 24240. *Contact:* Captain R. M. Saunders, General Manager. Captain R. G Turnbull, Harbour Master.

AGENT: Gulf Agency Co. (Fujairah) Ltd., P.O.Box 590, Fujairah, U.A.E. Cables: "Confidence", Fujairah. Telex: 89046 ("Gacfuj EM"). Tel: 23300, 23301. After hours 22597. Fax: 26269.

Operators of ship-servicing and supply organisation: Crew changes, mail, spares and/or delivery of provisions undertaken at sea without deviation to serviced vessel.

Owners and Masters should contact G.A.C. Dubai by cable or telex regarding servicing requirements. Rendezvous positions are selected by Shipmaster as follows: Off Dubai, at any Latitude along meridian 55° East, or off Fujairah at any Longitude along parallel 25° 10′ North.

HAMRIYAH, Sharjah: 25.35 N. 55.24 E. (See Plan)

LOCATION: Hamriyah Oil Terminal is located in the Emirate of Sharjah, United Arab Emirates, and consists of a shore tank with related onshore facilities, an offshore loading berth composed primarily of one single point mooring buoy and a 30 in. submarine pipe-line which runs from the shore tank to the loading berth. The shore tank is located outside the village of Hamriyah on the coastline between Umm Al Qaiwain and Ajman in approximate position Lat. 25° 29.5′ N., Long. 55° 30.7′ E. The loading berth is located in 71 ft. of water and is situated in an open and unsheltered roadstead approximately 7.6 miles offshore on a bearing of approximately 308° (T) from the shore tank and in approximate position Lat. 25° 34′ 31.68″ N., Long. 55° 24′ 5.8″ E.

Hamriyah Oil Terminal is owned by Amoco Sharjah Oil Company and is operated 24 hours a day, 7 days a week, weather and other circumstances permitting. Vessels are loaded and unmoored at any hour, weather and other circumstances permitting. Vessels are moored during daylight hours only, weather and other circumstances permitting.

Company's Facilities: The Company's administrative offices are located in the town of Sharjah and the Company's terminal offices, storage tank and laboratory for testing stock are located onshore near the village of Hamriyah.

FLAG: Vessels are required to fly the flag of the United Arab Emirates on the foremast during daylight hours while in Sharjah waters. The Sharjah territorial waters extend 12 nautical miles seaward from the Sharjah coastline.

DOCUMENTS: The following documents are required when calling at Hamriyah Oil Terminal:

Health Declaration.

Crew List.

PILOTAGE: *Mooring Master:* Vessels to be moored at the loading berth will be boarded by a Mooring Master about 3 miles due North of the loading berth in approximate position Lat. 25° 37.5′ N., Long. 55° 24.1′ E. The Mooring Master will be provided by the Company and vessels will not be allowed to approach or depart from the loading berth without the Company designated Mooring Master being on board. The Mooring Master will advise vessel personnel on the approaches to the loading berth; the operations of mooring and unmooring; the raising, connecting, disconnecting and lowering of the floating cargo hose and in all other operations within the loading berth area. All manoeuvring of vessels within the loading berth area shall be performed by vessel personnel as directed by the vessel's Officer in charge and in accordance with the procedure advised by the Mooring Master.

Vessels are required to have a clean and efficient pilot ladder fitted with spreaders and manropes, safely and securely rigged, ready for the Mooring Master to immediately embark and disembark on the port side of the vessel and of sufficient length to reach the Mooring Master's launch. At night, adequate lighting must be rigged overside for the Mooring Master to approach or depart from the port side of the vessel and to use the pilot ladder safely. A lifebuoy with safety line and self-igniting light together with a rope messenger for the Mooring Master's bag shall also be available at the pilot ladder head. Vessels shall afford a "Good Weather Lee" and shall reduce speed as directed by the Mooring Master in order to effect the safe embarking or disembarking of the Mooring Master.

Whenever, as in the case of large vessels in light condition, the height of the deck above the water exceeds 30 ft., the accommodation ladder shall also be used in conjunction with the pilot ladder and shall be lowered to about 12 ft. above the water with the pilot ladder rigged immediately adjacent to the bottom platform of the accommodation ladder. A mechanical hoist of an approved pattern shall be considered an acceptable alternative to a conventional pilot ladder for use in conjunction with the accommodation ladder, but a mechanical hoist whose operation relies upon a single wire shall not be considered of an approved pattern. The rigging of the pilot ladder for the embarkation and disembarkation of the Mooring Master shall be supervised by a responsible vessel Officer and shall be effected so that the ladder is well clear of any overboard discharge and so that each step of the ladder rests securely against the vessel's side. If, in the opinion of the Mooring Master, the pilot ladder is not safe, the Mooring Master may refuse to board the vessel and any delay caused by such refusal shall be for the vessel's account.

Vessels shall provide food for the Mooring Master while on board the vessel and shall accommodate the Mooring Master in the Pilot's Cabin. Should vessels not be equipped with a Pilot Cabin, the Mooring Master shall be accommodated in a cabin equivalent to that required for an officer on the vessel. The Mooring Master shall have access to the bridge and/or central area of the vessel and such areas shall not be locked or otherwise arranged to prevent immediate entry at any time by the Mooring Master.

ANCHORAGES: The customary anchorage area for vessels awaiting the loading berth at Hamriyah Oil Terminal is a circle 0.5 miles in diameter and with its centre located 3 miles due North of the loading berth in approximate position Lat. 25° 37.5′ N., Long. 55° 24.1′ E. Anchorage within 3 miles of the loading berth or of the 30 in. submarine pipe-line which runs from the shore tank to the loading berth is prohibited unless otherwise designated by the Company or the Mooring Master.

HEALTH: The rules governing the quarantine of vessels are the same as those found in other parts of the world.

MAX. SIZE: Max. draft 55 ft. Max. size 80,000 d.w.t.

Also see "Berthing".

RADIO/VHF: *Initial Radio Communications:* The radio station at Bahrain will handle the initial radio communications between vessels and the Company. The station call sign is "A9M" and the station operates on a 24 hour basis.

Advice of Arrival: It is important that vessels establish radio contact with the Company and with Lamnalco (Sharjah) Ltd. when 3 days distant from Hamriyah Oil Terminal and maintain such contact until just prior to arrival at Hamriyah Oil Terminal. Vessels should send an ETA telex to the Company (Telex: 68685 Amcosh EM) and Lamnalco (Sharjah) Ltd. (Telex: 68433 Lamshj EM) not less than 72 hours prior to arrival at Hamriyah Oil Terminal, providing the following information:

1. The ETA;
2. The estimated draft, fore and aft, upon arrival;
3. The quantity of crude oil to be loaded and the grade of such;
4. The estimated sailing draft;
5. The last port of call;
6. Whether the vessel has a clean Bill of Health;
7. The distance from the bow to the centre of the vessel's manifold;
8. Confirm vessels ability to load/deballast concurrently or alternatively to deballast after loading.

This first ETA message should also include a definite statement of the details of any equipment required from shore for connecting the floating cargo hose to the vessel's manifold. Further ETA telexes should be sent to the Company and Lamnalco (Sharjah) Ltd. when the vessel is 48 hours and 24 hours distant from Hamriyah Oil Terminal confirming or giving notice of any change in the 72 hour ETA and at any other time after the 24 hour ETA telex when a change by more than 2 hours occurs in the ETA. The 24 hour ETA telex should include a positive statement regarding the vessel's readiness to load on arrival and the number of hours that will be required by the vessel to discharge clean ballast. Local time is GMT plus 4 hours and Daylight Saving Time (Summer time) is not applicable.

Ship-To-Shore Communications: The Company and Lamnalco (Sharjah) Ltd. are equipped with VHF radiotelephone using international frequencies and maintain a radio watch on the international VHF Marine Channel 16 and on Channel 74. Not less than 12 hours prior to the vessel's ETA at Hamriyah Oil Terminal, the vessel is required to maintain a radio watch on R/T frequency 2182 kHz and on VHF Channel 16. Masters are recommended to use this facility as soon as the vessel is within range since such communications are the best means of avoiding delay in the mooring of the vessel. While a vessel is at the loading berth the Mooring Master will be in direct charge of the portable VHF ship-to-shore radiotelephone and all ship-to-shore communications will be by portable VHF radiotelephone. The Mooring Master will advise the Master and Officers regarding the emergency whistle signals set up for use in the event the VHF radiotelephone units become inoperative. The use of the vessel's radio station and/or battery charging equipment is prohibited during cargo loading operations.

Radio Watches: While at the anchorage awaiting the loading berth vessels should maintain a listening watch on R/T frequency 2182 kHz and on VHF Channel 16 with the Company and Lamnalco (Sharjah) Ltd.

TUGS: *Mooring Launch:* The Company will provide a mooring launch which is owned by Lamnalco (Sharjah) Ltd. to assist in the mooring and unmooring of the vessel. The mooring launch will be harboured in the town of Sharjah at the boat pier used by Lamnalco (Sharjah) Ltd. and will operate under the direct control of the Mooring Master.

READINESS: *Loading Readiness and Arrival Time:* Upon arrival of the vessel at the customary anchorage for the loading berth, the Master or his Agent shall give the Company notice by letter, telegraph, wireless, or telephone that the vessel is ready to load. Laytime shall commence upon the expiration of 6 hours following the acceptance of such notice by the Company provided that the vessel has been nominated to load cargo and the terminal holds such cargo nomination and further provided that the Mooring Master has deemed the vessel to be in all respects ready to moor and load. The Notice of Readiness will be accepted only between the hours of 0600 and 1800 but will not be accepted at any time when Hamriyah Oil Terminal is closed or on a public holiday or a Friday (the Moslem Sabbath). If, however, the vessel is moved to the loading berth without delay after having arrived at any time and the vessel is in all respects ready to moor and load in the opinion of the Mooring Master, the Notice of Readiness will be accepted at the time the Mooring Master boards the vessel. Laytime shall continue until the floating cargo hose has been disconnected from the vessel's manifold.

BERTHING: Tenders to load crude oil will normally be accepted and the loading berth will be assigned to a vessel in the order of its arrival, provided the vessel has a nomination for crude oil valid at the time and is in all respects equipped and ready to moor. In the event that mooring is delayed on account of weather, the vessel will keep its position in line. Should the vessel be required to leave the area on account of weather, the vessel should keep in radio contact with Hamriyah Oil Terminal in order to make the vessel available as soon as the weather moderates. The Company reserves the right to load vessels "out of turn" following the return of good weather, to the extent that such loading "out of turn" does not materially delay the loading of other vessels in line. For example, should weather make it necessary for a specific vessel waiting at the loading berth or at the anchorage to vacate the area, the Company may load another vessel which arrived at the anchorage after the specific vessel but before the return of the specific vessel which was waiting in line ahead of the the other vessel.

When the vessel proceeds to within a reasonable distance from the loading berth and upon advice from the Mooring Master, the mooring lines of the vessel will be carried by the launch to the floating buoy lines, secured thereto, and brought on board the vessel. On the vessel's end of the mooring lines there is a steel chafing chain which can be observed when the floating buoy lines come out of the water. This chafing chain will be secured to the vessel's bitts by way of Company-supplied mooring strops in such a manner that the floating buoy lines shall remain outside the vessel thereby allowing the chafing effect at the fairleads to be taken by the chafing chain. All mooring details and the sequence of movements shall be directed by the vessel's Officer in charge following consultation with the Mooring Master. When the mooring operations have been completed, fire wires of at least 150 ft. in length will be secured to the vessel's bitts and run out at the bow and stern of the vessel's starboard side and held in place on short stoppers with the eyes approximately 6 ft. above the surface of the water so that they can be readily available to a tug in case of an emergency.

Loading Berth: Vessels are loaded by means of a 30 in. submarine pipeline which runs from the shore tank to the loading berth and by means of a floating cargo hose which runs from the loading berth to the moored vessel. The maximum draft allowed for vessels at the loading berth is 55 ft.

Mooring Facilities: The Single Point Mooring Buoy moors vessels from the bow and consists primarily of a cylindrical buoy which is secured to the seabed by 6 catenary anchor legs each of which are tethered to the seabed by a heavy duty anchor system. The cylindrical buoy is 5.3 m. in height, fitted with a skirt 16 m. in diameter, and equipped with a radar reflector and a racon beacon coded "Zulu", frequency 48 seconds. The cylindrical buoy will be able to accept vessels up to 80,000 d.w.t. and is also equipped with a navigational light, white flashing code "U", which has a range of 5.7 miles with transmission factor of 0.85 and is visible through 360°. The Mooring Master may allow vessels in excess of 80,000 d.w.t. to moor at the cylindrical buoy provided the vessel has first obtained the written permission of the Company to moor at the facility.

Vessel's Alertness: The loading berth is on an open and unsheltered roadstead; therefore, from the time the Mooring Master boards the vessel until the vessel has loaded her cargo and the Mooring Master has disembarked, full power must be available at all times on all deck winches and windlass and other gear of the vessel and the vessel's engines, steering machinery and other efficient manoeuvring equipment must likewise be maintained in constant readiness with full power for immediate use so as to allow the vessel to depart from the loading berth at any time following a request by the Mooring Master or the Company to do so.

The vessel's personnel should be at their stations and alert at all times during mooring, unmooring, hose handling and cargo loading operations. Where vessels are equipped with an electric clutch control to the propeller shaft, such vessels must disconnect the electrical clutch control and the manual clutch control so that there will be no possibility of the engine engaging the propeller shaft while the vessel is moored. Constant observation in the engine room, control room and deck control room shall be provided at all times while vessels are at or in the vicinity of the loading berth.

Whilst a vessel is moored to the SBM a crew member must be stationed on the forecastle at all times (24 hours) and will report immediately to the officer in charge if the vessel approaches within 10 m. of the buoy.

LOADING: *Vessel's Gear:* Prior to the arrival of any vessel at the Mooring Master Boarding Area, the port derrick of the vessel should be up and ready to lift the mooring and hose connection gear on board the vessel from the mooring launch, and the vessel must be equipped on the forecastle head with at least 4 good quality mooring lines, each not less than 120 fathoms in length and of buoyant material if possible, together with an adequate supply of lashing ropes and shackles. The mooring lines should be laid out free for running adjacent to bitts and warping winches. The warping winches or windlass should be in good working order and must be adequate to handle mooring lines under heavy strain and efficient stoppers must be readily available to "hang off" the mooring lines and transfer same from the winch to the bitts.

On the port side, adjacent to the vessel's manifold, there must be equipment capable of lifting the floating cargo hose, a 7.5 ton lift, safely and efficiently from the sea surface over the port rail to the vessel's manifold. Vessels must also have an adequate supply of nuts, bolts, gaskets and wrenches to connect the floating cargo hose, 3 chain blocks will also be required for positioning of the cargo hose. If, in the opinion of the Mooring Master, the vessel is not equipped with adequate mooring or loading facilities or lines or gear, the Mooring Master must so inform the vessel's Master and in such event the vessel will not be brought into the loading berth until the facilities or lines or gear are deemed satisfactory by the Mooring Master.

Connecting Hose: After the vessel has been securely moored, the floating cargo hose will be hoisted to the vessel's port side rail amidship by vessel's equipment. The floating cargo hose is a 20 in. (reducing to 16 in.) diameter floating hose, 920 ft. in length, fitted with a 150 ASA flat face flange for connection to the vessel's manifold. The vessel should have adapters and fittings on board so as to enable such floating cargo hose to be connected to the vessel's manifold. The raising, connecting, disconnecting and lowering of the floating cargo hose will be performed by the vessel's crew as directed by the vessel's Officer in charge who must be present at all times during such operation and in accordance with the procedure advised by the Mooring Master, who will remain on board the entire time the vessel is at the loading berth. Particular care should be taken during all such hose operations to avoid damage to the floating cargo hose and its fittings.

Rate of Loading: The crude oil flow is by pump and the maximum crude oil loading rate for vessels using one 16 in. deck hose and 150 p.s.i. at vessel's rail is approximately 23,000 barrels per hour. In order to save vessel time and make the loading berth available for other vessels, it is requested that ballast be pumped as fast as possible and that vessels receive oil as fast as it can be delivered, with both operations having due regard for safety. It is requested that any impediment (such as "Y's", strainers or mud boxes) to the flow of crude oil into the vessel, be removed before the arrival of the vessel at the loading berth.

Responsibility: Prior to the commencement of any cargo loading operation, the Mooring Master and the Officer in charge of the loading operations for the vessel shall engage in a pre-loading conference to formulate a loading plan and to ensure that the vessel is in all respects ready to load. No cargo loading shall take place without the permission of the Mooring Master whose permission shall not be given until the pre-loading conference has been completed. The vessel's Master shall remain responsible for the safety of the vessel and all operations on board the vessel at all times. The Mooring Master will advise the Officer in charge of the loading operations for the vessel with respect to the loading pressures and hazards but the Mooring Master will not direct any aspect of the loading except as may be necessary to protect the loading berth and related facilities and equipment. The manipulation of the vessel's valves is the direct responsibility of vessel's personnel. The Mooring Master shall have the right to suspend cargo loading operations or to require the vessel to unmoor and depart from the loading berth at any time when the mooring plan, pre-loading plan or the safety requirements and regulations set forth herein are not being followed by the vessel, or at anytime the Mooring Master believes or becomes aware of the existence of any other reason which in his opinion shall require the suspension of the mooring or the loading of the vessel.

Oil Valve Control: The incoming oil stream is controlled onshore and the vessel's valves must not be closed against the incoming oil stream. Such a procedure creates an excessive pressure which may damage the hose or other terminal facilities and could result in a pollution incident. Vessels will be held legally responsible for any damage resulting from the vessel's failure to observe this precaution. Frequent checks of the cargo loading must be made by vessel personnel during the loading operation so that a reduction in the loading rate, before topping of the final tank or tanks, may be arranged through the Mooring Master by the Officer in charge of the loading operations for the vessel. A normal standby warning should be given about 15 minutes before the shutdown of the loading operations. Upon the request from a vessel to shut down the loading operations, a minimum of 5 minutes will be normally required to stop the flow of crude oil. Vessel's personnel shall be responsible for the call to stop the loading of the vessel. When cargo has ceased to flow, the valves on the shore will be closed and the vessel's manifold valves may then be closed.

Emergency Signal: Should normal ship-to-shore communications fail, the emergency whistle signal will be a continuous blast on the vessel's whistle. Steam or air should never be shut off from the whistle during loading. Whenever the emergency whistle signal is used, all loading operations will be shut down until communications can be established with the vessel giving the signal. For this reason, it is requested that vessels in the area refrain from using their whistles for other than essential purposes and that the use of the "continuous blast" whistle signal be reserved for emergency purposes only. All crew members who stand a deck watch during the transfer of crude oil are expected to know the emergency shutdown signal.

Code Flag: During all cargo loading operations, the International Code Flag "B" shall be displayed from a topmast signal halyard during daylight hours and a red light shall be displayed during the hours of darkness. The red light should be of a character as to be visible at a distance of at least 1 mile and show an unbroken light around the horizon.

Shore Stops: Request for the terminal to stop the flow of crude oil at a predetermined tonnage must be made in writing to the Company and will be deemed to include the statement and understanding that the Company will not be responsible for (1) any errors, costs or claims arising from such request and (2) any crude oil loaded in excess of that requested will not be pumped back ashore. Some delays in stopping the flow of crude oil are always incurred when such a shore stop request is made.

BALLAST: There are no facilities for the offloading of dirty ballast but clean oil-free ballast may be discharged overboard from the vessel. It is the Master's responsibility to see that no oil (crude, bunker, diesel, bunker C, or oily bilge water) is pumped or spilled overboard from the vessel. All deck scuppers must be plugged tight and adequate drip pans and sand must be provided where necessary on deck for use at all times, especially when disconnecting hoses, in order to prevent any such loss of oil overboard. The waters in and adjacent to the loading berth must not be polluted and only clean oil-free ballast may be discharged inside of a line running 50 miles from and parallel to the coastline of the United Arab Emirates.

The discharge of oil mixtures from vessels while en-route to Hamriyah Oil Terminal is prohibited except when the following conditions are all satisfied:

1. The instantaneous rate of discharge of oil content of the oily mixture does not exceed 60 litres per mile.
2. The total quality of oil discharged on the ballast voyage does not exceed 1/15,000 of the total cargo carrying capacity of the vessel, and
3. The vessel is more than 50 miles from the nearest point on the coastline of the United Arab Emirates.

Masters are warned that when disposing of dirty ballast or bilge water, (50 miles or more from the coastline of the United Arab Emirates), all pipe-lines, sea suctions, strainers and pumps which are later to be used to discharge clean ballast, must be flushed clean, so that there will be no chance of even a small amount of pollution when the clean ballast is pumped overboard.

Vessels must have sufficient ballast for safe manoeuvring and, where practicable, should arrive at the loading berth with the propeller completely submerged and trimmed 8 ft. to 10 ft. by the stern. The Mooring Master may refuse to permit the mooring of any vessel not in compliance with these requirements until the vessel takes on sufficient ballast and/or alters her trim to meet these requirements.

As soon as practicable after arrival, vessel tanks will be inspected for evidence of oil in ballast and during the discharge of ballast a similar inspection will take place. If evidence of oil appears at either of these inspections, the vessel must return to a point not less than 50 miles from the coastline of the United Arab Emirates and discharge such dirty ballast.

Any vessel required to return to a position at least 50 miles offshore, for the purpose of discharging dirty ballast, cleaning tanks or for any similar reason, automatically nullifies any Notice of Readiness already tendered and at the same time loses any priority held for loading. Vessels must tender a new Notice of Readiness upon their return and the vessel will be entered for loading upon the Company's acceptance of the new Notice of Readiness.

Vessels must keep a constant watch on the side of the vessel from which clean ballast is being discharged for any indication of water discolouration or oil sheen. Discharge of ballast must be immediately suspended should there be any indication of discolouration or sheen and the Mooring Master shall be immediately informed of such. An investigation of any such discolouration or sheen shall be carried out by the vessel and the findings reported to the Mooring Master. Discharging shall not resume without permission of the Mooring Master.

If, during any inspection or during the process of loading, it is revealed that a vessel's tank is not oil-tight, the vessel will be rejected by the Mooring Master and refused further loading until satisfactory evidence of effective repairs is submitted and the vessel is duly certified by Lloyd's Register of Shipping, American Bureau of Shipping or another similarly recognised classification society.

In addition to the lights usually displayed, vessels are required to illuminate the vessel and the waters around the vessel with all available and suitable searchlights and floodlights during the discharge of clean ballast and the loading of crude oil during the hours of darkness. Such illumination must be to the satisfaction of the Mooring Master and must be undertaken so as to assist in the loading operations and in order that any oil on the surface of the sea may be readily detected and appropriate action taken. Vessels unable to illuminate the sea satisfactorily may not discharge ballast or engage in the loading of crude oil during the hours of darkness and any such delay shall be for the account of the vessel.

MEDICAL: Vessels requiring emergency medical assistance should contact Hamriyah Oil Terminal by VHF radio and supply the necessary pertinent information which will be passed on to the vessel's Agent. Neither medical or hospital facilities are available at Hamriyah Terminal, but private doctors and hospital facilities are available in the town of Sharjah.

CONSULS: There are no consulates in the village of Hamriyah; however, consular or diplomatic representatives for many nations maintain offices in the cities of Abu Dhabi and Dubai.

REPAIRS: The Masters of vessels loading at the loading berth are advised that the loading berth is considered an "open and unsheltered roadstead" and under no circumstances may engines be shut down for repairs while the vessel is at the loading berth. There are no facilities for making vessel repairs at Hamriyah Oil Terminal and no repairs will be allowed at the loading berth. However, arrangements can be made through the vessel's agent to utilise the repair facilities at other ports.

SURVEYORS: No cargo inspectors or marine surveyors are based at the village of Hamriyah but inspectors and surveyors who reside at other ports can be arranged through the vessel's Agent.

SHORE LEAVE/REPATRIATION: Vessel personnel (other than medical emergency cases) are not allowed to embark or disembark from the vessel at the loading berth. There are no facilities for crew change at the loading berth.

WEATHER: *Climate:* The climate along the coastline of Sharjah is characterised by cool Winters and very hot Summers. The annual mean rainfall is 4.2 in. and the relative humidity varies considerably according to the time of day with the highest relative humidity generally in the early morning and the lowest relative humidity generally in the early afternoon. The air temperature is generally moderate in the Winter, but is high in the Summer and can be extremely high in the interior on Summer afternoons.

Weather Data Summary:

Annual mean rainfall	4.2 in.
Lowest mean daily minimum air temperature	55°F.
Highest mean daily maximum air temperature	102°F.
Lowest average monthly sea surface temperature	72°F.
Highest average monthly sea surface temperature	90°F.

Winds: The winds in the Southern part of the Gulf are usually light and generally blow from the Western quadrant most of the year but are occasionally interrupted by winds from varying directions. The visibility along the Sharjah coastline is generally good but from June to September the Shamal blows over the Gulf area and frequently produces rough seas and stirs up dust clouds which can affect visibility at sea. The cold fronts which move down the Gulf from November to April frequently cause a North or N.W. wind of 20 knots or more along the Sharjah coastline with accompanying swells.

Tides: The tide for Sharjah can be predicted with reasonable accuracy through use of the tide tables for Shatt Al Arab with the appropriate correction factor for Sharjah applied.

Currents: The current along the Sharjah coastline has a predominantly counter-clockwise circulation throughout the year and is not generally strong. The strongest current is usually during the month of January (0.46 to 0.8 knots) and during the month of April (0.6 to 1.7 knots).

Seas: High waves generally do not occur along the Sharjah coastline since the winds are usually light in the vicinity of the coastline. On those occasions when the wind does become strong, the wave heights generally remain somewhat limited since the distance over which the wind can blow to generate waves is somewhat short from most directions due to the bend in the Gulf which tends to reduce the fetch of North winds at Sharjah (e.g., waves over 8 ft. occur 0.2 per cent of the time).

SAFETY: The vessel's personnel are responsible for the safety of the vessel and themselves and shall take all necessary precautions, whether or not so advised by the Company or the Mooring Master, having in mind the hazards of the loading operation, the cargo being handled, the weather condition and any other circumstances requiring special care or caution. The vessel's personnel shall also adhere to all safety precautions generally followed in the marine industry as well as all requirements and regulations imposed by the Company. Any safety precautions, requirements and regulations imposed by the Company and disregarded by the vessel's Master, Officers or crew will be considered a just cause for rejection of the vessel and all expenses related thereto shall be for the vessel's account. While the vessel is moored or within the vicinity of the loading berth, the vessel's personnel and the vessel's operations must comply or be in accordance with the following safety requirements:

(a) All ports opening onto the decks of the vessel are to be kept closed during cargo loading operations and all doors opened for access other than the pumproom doors must be closed immediately after use.

(b) Smoking is strictly prohibited on board the vessel and on the loading berth except in those areas designated by the Master as smoking areas. No areas outside of the accommodation areas shall be so designated. The Master is responsible for ensuring that all vessel personnel are informed of the designated smoking areas and shall post suitable notices regarding same. The Mooring Master may request the Master to further limit the vessel's "No Smoking" areas as conditions warrant. Matches and lighters for personal use shall not be carried while outside the designated smoking areas and personnel shall be so instructed. The Master shall instruct the Officers and crew of the vessel not to throw lighted cigars or cigarettes overside or out of port holes. There may be occasions when smoking will be entirely prohibited.

(c) The use of portable lamps, naked lights or electrical equipment on extension cords is prohibited and only approved intrinsically safe self-contained flashlights are permitted on deck.

(d) Ventilators must be so trimmed as to exclude flammable gases entering the area and if this cannot be done the ventilators must be completely closed.

(e) The vessel's engines, steering gear and other essential manoeuvring equipment and deck machinery must remain ready with full power for immediate use to permit the vessel to clear the area upon instruction from the Company or the Mooring Master to do so.

(f) Window type air conditioners must be disconnected from their power source and not used unless a certificate can be produced from a recognised authority to show that the unit is safe to operate in flammable gas areas.

(g) The vessel's main radio and radar equipment must not be energised while the vessel is handling cargo or ballast. The use of intrinsically safe VHF radios for cargo handling and safety operations are permitted.

(h) A continuous and efficient fire watch must be maintained on deck and in the engine room at all times. The vessel's fire fighting equipment shall be ready for instant use at all times throughout the vessel. Fire hoses of sufficient length to reach all parts of the vessel must be laid out and connected to hydrants and there must be full pressure on the deck line.

(i) Recommendations contained in the I.C.S. International Safety Guide for oil tankers and terminals covering the loading and discharge of tankers shall be strictly followed at all times.

(j) The only open flames allowed while the vessel is at the loading berth are those in the vessel's boilers and galley equipment. Sufficient fire extinguishers must always be provided near the galley and boilers.

(k) Burners, tubes, uptakes, exhaust manifolds and spark arrestors shall be maintained in good working order and kept clean. Funnel uptakes and boiler tubes shall not be blown while the vessel is at the loading berth. Highly volatile cleaning solvents shall not be used in the engine room for any purpose whatsoever while the vessel is at the loading berth.

(l) In the event of fire breaking out on any part of the vessel, however minor the fire may be, the fire alarm must be given immediately. The fire alarm will consist of a succession of long blasts on the vessel's whistle together with a rapid and continuous ringing of the vessel's bell.

(m) Not less than 1 deck Officer and 3 seamen shall be on duty, alert, available and in charge of the operations on deck at all times while the vessel is at the loading berth.

(n) Not less than 1 engineer shall be on duty, alert, available and in charge of the engine room at all times while the vessel is at the loading berth.

(o) A member of the vessel's crew, not one involved in any way with the loading operation, must be stationed on the bow of the vessel while the vessel is at the loading berth and a constant watch must be maintained on the moorings.

(p) During the discharge of clean ballast and the loading of crude oil, the vessel and the waters around the vessel must be illuminated during the hours of darkness with all available and suitable searchlights and floodlights.

(q) Before the floating cargo hose is brought on board the vessel, all deck scuppers must be plugged tight and adequate drip pans and sand must be provided where necessary on deck for use at all times. The deck scuppers must remain plugged until the floating cargo hose has been disconnected. All other materials necessary to clean up any oil spillage on deck must be on hand for immediate use.

(r) All unused bunker connections, cargo connections and vessel manifolds must be fitted with blank flanges including the stern discharge line if fitted.

(s) All cargo tank hatch covers and ullage port covers are to be kept closed except where tanks are to be hand sampled or hand ullaged in which case the ullage openings may be opened to sample or ullage the cargo.

(t) All cargo and ballasting operations shall be suspended during electrical storms in the vicinity of the vessel.

(u) Prior to the commencement of any loading operations, all empty vessel cargo tanks and tanks carrying cargo must be under positive pressure and fully inerted with gas having an oxygen content of less than 8 per cent.

(v) THE COMPANY DOES NOT HAVE A TUG OR VESSEL IN THE AREA EQUIPPED WITH FIRE FIGHTING APPARATUS.

GENERAL: *Government Officials:* Sharjah Officials such as the Customs Officer, Quarantine Officer, Immigration Officer, Captain of the Port and Police, are stationed in the town of Sharjah. Should Customs Guards be stationed on board the vessel while at the loading berth, it is expected that the vessel will provide food for these guards and other Sharjah Officials. Vessels calling at the loading berth must provide an accommodation ladder rigged on the port side for such Sharjah Officials.
Visitors: Visitors are not allowed to embark or disembark from the vessel at the loading berth.
Supplies: Commissary supplies, steward's stores, laundry services, fresh water, marine lubricants and bunkers are not available through the Company and may not be loaded at the loading berth. Any questions concerning the availability of such items from other sources and the loading of such items elsewhere should be handled through the vessel's Agent.
Contraband: The Company prohibits unauthorised craft from coming alongside vessels while at the loading berth without the permission of the Mooring Master. To avoid the possibility of undesirable items getting aboard vessels, it is recommended that Masters discourage any such craft from coming alongside while vessels are at or in the vicinity of the loading berth.
Garbage: The dumping of garbage and refuse overside is prohibited.
Agency: The Company does not perform any vessel Agency functions. Vessels calling at Hamriyah must arrange for their own Agents.

SHIPMASTER'S REPORT: July 1983 (updated 1986).
Location: Hamriyah Oil Terminal is owned by Amoco Sharjah Oil Company. The terminal is located in the Emirate of Sharjah, United Arab Emirates. A 30 in. pipe-line runs from the shore tank to a S.P.M. located in position Lat. 25° 34′ 31.68″ N., Long.55° 24′ 05.8″ E. and is operated by Lamnalco.
Documents: Health Declaration and Crew Lists. Customs, Immigration and Quarantine Officers have an office in Sharjah but usually do not come on board.
Pilotage: A pilot ladder to be prepared on vessel's Port side and lowered to about 12 ft. above the waterline. If the height of the deck exceeds 30 ft. a pilot ladder in conjunction with the accommodation ladder must be rigged.
Anchorages: The customary anchorage for vessels awaiting the loading berth of Hamriyah Oil Terminal is 3 miles North of the S.P.M. Anchorage within 3 miles is strictly prohibited unless instructed by the Mooring Master.
Max. Size: Vessels up to 250,000 tons have been accepted, subject to weather conditions.
Health: Rules are the same as found all over the world.
Radio/VHF: Amoco Sharjah and Lamnalco should be contacted by radio 3 days prior arrival via Bahrain Radio and maintain contact until prior arrival.

Telex addresses: 68685 Amcosh EM and 68433 Lamshj EM.

Following information is required by both parties:
1. ETA.
2. Arrival Draft.
3. Quantity to be loaded.
4. Estimated sailing draft.
5. Last port of call.
6. Whether vessel has clean bill of health.
7. Distance bow to manifold.
8. Confirm vessels ability to load/deballast concurrently or alternatively to deballast after loading.

Both companies keep watch on international VHF Marine Channel 16.
Berthing: This cylindrical buoy is equipped with a navigational white flashing light code "U", range 5.7 miles, a radar reflector and a racon beacon coded "Zulu".

On forecastle, vessel should have 4 good quality mooring lines, minimum length of 120 fathoms and preferably of the floating type. Vessel's lines to be used to pick up the mooring lines of the buoy. The end of the buoy's mooring line consists of a steel chafing chain and will be secured onto vessel's bitts by mooring strops supplied by Lamnalco.

Port derrick should be up and ready for lifting moorings and cargo hose connecting gear and capable of lifting 7.5 tons safely.

Mooring Master and Cargo Oil Surveyor stay on board while vessel is on the berth and both to be accommodated in an officer's cabin and meals served in officer's messroom.
Notice of Readiness: Will only be accepted between 0600 and 1800 hrs. but will not be accepted at times when the Hamriyah Oil Terminal is closed on a public holiday or Friday (Moslem Sabbath). However, if the vessel is moved to the berth without delay after having arrived at any time and vessel is ready for mooring and loading the Mooring Master will accept the N.O.R. at the boarding time. Laytime shall commence upon expiration of 6 hours after accepting the N.O.R. and shall continue until hose has been disconnected from vessel's manifold.
Loading: The floating hose is 20 in. diameter with a 16 in. hose for connecting to the vessel's manifold. Loading rate approximately 23,000 bbls.p.h. Only one type of oil available, being crude oil condensate approximate API 50/60° and loading temperature approximately 95°F.
Ballast: There are no dirty ballast reception facilities and all vessels must arrive with sufficient clean ballast for manoeuvring with the propeller submerged and a trim of 8 – 10 ft. by the stern. Non-permanent clean ballast to be discharged prior to commencing of loading.
Medical: Neither medical nor hospital facilities are available at Hamriyah Oil Terminal. Requests for emergency medical assistance should be passed to Hamriyah Oil Terminal by VHF and the information will be passed to vessel's Agent. Private doctors and hospital are available in the town of Sharjah.
Supplies: Stores, fresh water, laundry services, bunkers and lubricant not available via Amoco and may not be loaded at the berth. Availability of items should be handled through vessel's Agent and loading carried out elsewhere.
Consuls: No consulates in Sharjah; however, many nations have consular or diplomatic representatives in Abu Dhabi and Dubai.
Repatriation/Shore Leave: Not permitted while at loading berth.
Currents: Predominantly counter-clockwise circulation throughout the year along the Sharjah coastline and is generally not strong. Strongest in January (0.4 – 0.8 knots) and in April (0.6 – 1.7 knots).
Weather: Winds are usually light from Western quadrant, except during June to September when the Shamal blows and from November to April during passing of cold fronts with winds up to 20 knots producing rough seas.

AUTHORITY: *Operator:* Amoco Sharjah Oil Company, P.O.Box 1191, Sharjah, United Arab Emirates. *Tel:* (9716) 355100. *Telex:* 68685 Amcosh EM. *Contact:* R. W. Rausch, General Manager.
AGENT: See "Sharjah".

HAMRIYAH LPG TERMINAL: 25.28 N. 55.29 E.

(See Plan)

LOCATION: The Terminal is located in position Lat. 25° 27′ 37.3″ N., Long. 55° 29′ 12″ E. outside the village of Hamriyah on the coastline between Umm Al Qaiwain and Ajman.

The Hamriyah LPG Terminal is owned by Sharjah LPG Company Limited ("Shalco") and operated by Amoco Sharjah Oil Company and is operated 24 hours a day, 7 days a week, weather and other circumstances permitting.

The Terminal consists of 2 storage tanks for propane and butane, and a marine loading facility capable of loading vessels ranging in size from 30,000 cu.m. to 83,000 cu.m. 2 liquid loading lines and 2 vapour return lines are mounted on the trestle connecting the breakwater and the loading platform.

DOCUMENTS: The following documents are required when calling at the Hamriyah LPG Terminal:

Health Declaration.
Crew List.
Clearance from last port of call.

Officials: No immigration, Customs or Health Officials stationed at the Terminal.

PILOTAGE: Pilotage is compulsory from the seaward entrance of the dredged channel. The Pilot will board at or near the designated anchorage. The Pilot will be provided by the Operator and vessels will not be allowed to approach or depart from the port without the Operator's designated Pilot being on board. The Pilot will advise vessel's personnel on the approach through the channel to the jetty and all operations of mooring and unmooring. All manoeuvring of vessels within the loading berth area shall be performed by vessel's personnel as directed by the vessel's Master in accordance with the procedure advised by the Pilot. The vessel's Master must be on the bridge at all times while the vessel is manoeuvring.

Vessels shall provide food for the Pilot while on board the vessels and shall accommodate the Pilot in suitable accommodation equipped with private toilet facilities. The Pilot shall have access to the bridge and/or central area of the vessel and such areas shall not be locked or otherwise arranged to prevent immediate entry at any time by the Pilot.

Vessels are required to have a clean and efficient pilot ladder, fitted with spreaders and manropes, safely and securely rigged ready for the Pilot to immediately embark and disembark and of sufficient length to reach the Pilot's launch. A lifebuoy with safety line and self-igniting light together with a rope messenger for the Pilot's bag shall also be available at the pilot ladder head. Vessels shall afford a "Good Weather Lee" and shall reduce speed as directed by the Pilot in order to effect the safe embarking or disembarking of the Pilot.

Whenever, as in the case of large vessels in light condition, the height of the deck above the water exceeds 30 ft., the accommodation ladder shall also be used in conjunction with the pilot ladder and shall be lowered to about 12 ft. above the water with the pilot ladder rigged immediately adjacent to the bottom platform of the accommodation ladder. The rigging of the pilot ladder for the embarkation and disembarkation of the Pilot shall be supervised by a responsible officer and shall be positioned so that the ladder is well clear of any overboard discharge and such that each step of the ladder rests securely against the vessel's side.

If, in the sole opinion of the Pilot, the pilot ladder is not safe, the Pilot may refuse to board the vessel and any delay caused by such refusal shall be for the vessel's account.

Pilotage Radio Contact: Pilot/Vessel contact will be maintained on VHF Channel 16 or other frequency as mutually agreed by Operator's Marine Representative and vessel's Master.

Arrival at Anchorage/Pilot Boarding Area: Means of access to the vessel by the Pilot shall be provided by the vessel in accordance with the requirements of SOLAS. At night, the access area shall be adequately illuminated to provide a safe approach and boarding by the Pilot, Government Officials and Terminal Representatives.

The Conditions of Use of Shalco's Terminal Facilities will be presented to the Master for acceptance and signature on behalf of himself and the Owners prior to departures from the Anchorage/Pilot Boarding Area.

ANCHORAGE: The customary anchorage area for vessels awaiting loading at the Hamriyah LPG Terminal is a circle 1 mile in diameter with its centre in an approximate position of Lat. 25° 30′ N., Long. 55° 25′ E. There is an existing SBM located at approximately Lat. 25° 34′ N., Long. 55° 24′ E. for the Hamriyah Oil Terminal. the SBM is fitted with a flashing light and racon. This existing SBM may be used as a reference to the LPG Terminal anchorage which is 3 miles W.S.W. of the LPG entrance channel.

When within VHF communication range, Masters of vessels should ascertain berthing prospects from the terminal. In all cases where tankers are instructed to anchor, Masters should obtain clearance for their intended anchorage position from the Operator.

Radio Watches: While at the anchorage awaiting the loading berth, vessels should maintain a listening watch on VHF Channel 16 with the Terminal Operator.

Caution: Masters are cautioned that a 30 in. submarine pipe-line runs 7.6 miles from the Hamriyah Oil Terminal to an offshore SBM facility.

APPROACHES: *Approach Channel:* The approach channel's entrance is located in an approximate position of Lat. 25° 30′ 45″ N., Long. 55° 27′ 23″ E. The Fairway Buoy (Fl. "A" ev. 15 sec.) is located in position Lat. 25° 32′ 05″ N., Long. 55° 25′ 59″ E. The channel's length is 4,000 m. The width is 180 m. in the seaward channel, 250 m. in the intermediate channel and 180 m. in the near harbour channel. the channel depth has been dredged to 15 m.

Buoys:

Location	Nominal Range (nautical miles)	Light Colour
Fairway	5	White
Channel Marker	3	Red
Channel Marker	3	Green
Channel Marker	3	Red
Channel Marker	3	Green
Channel Marker	3	Red
Channel Marker	3	Green
Channel Marker	3	Red
Channel Marker	3	Green
Channel Marker	3	Red
Channel Marker	3	Green
Basin Limit Marker	2	Yellow
Basin Limit Marker	2	Yellow
Basin Limit Marker	2	Yellow

Beacons:

Location	Nominal Range (nautical miles)	Light Colour
Main Breakwater	13	Green
Lee Breakwater	5	Red
Leading Light	(White) 5	Green 2° Sectored White 1° Red 2°
Northern Training Wall	5	Red
Southern Training Wall	5	Green

RESTRICTIONS: Vessel will be moored in daylight only but unmooring and loading will be performed at any hour, weather and other circumstances permitting.

MAX. SIZE: The harbour has been dredged to a depth of 14 m. Maximum draft for vessels calling at the Hamriyah LPG Terminal is 12.6 m.

Max. Size: 83,000 cu.m. Max. LOA 230 m.
Minimum LOA 186 m. Minimum flat side 80 m.

HEALTH: No officials stationed at the terminal.

RADIO: *Initial Radio Communications:* The radio station at Bahrain will handle the initial radio communications between vessels and the Operator. The station call sign is "A9M" and the station operates on a 24 hour basis.

Advice of Arrival: It is important that vessels establish radio contact with the Operator and with the Operator's designated marine service when 3 days distant from Hamriyah LPG Terminal and maintain such contact until just prior to arrival at Hamriyah LPG Terminal. Vessels should send an ETA telex to the Operator (Telex No. 68685 a/b Amcosh EM) and to the Operator's designated marine service (Telex: 68433, a/b Lamshi EM) not less than 72 hours prior to arrival at Hamriyah LPG Terminal, providing the following information:

1. ETA.
2. Estimated arrival draft, fore and aft.
3. Estimated sailing draft, fore and aft.
4. Whether part-loaded or in ballast. If part-loaded, nature and quantity of cargo.
5. Last port of call.
6. Any repairs that would be required which could delay cargo loading.
7. Pressure and temperature of the tanks that are to be loaded.
8. Last 3 cargoes carried.
9. Size and class of the connecting flange.
10. Distance of mainfold from bow.
11. Height above uppermost continuous deck.
12. Distance of manifold from ship's side.
13. Height above water line when loaded.
14. Height above water line when light.
15. Distance from presentation flange to support.
16. Manifold layout (LVVL or LVLV).

Further ETA telexes should be sent to the Operator and the Operator's designated marine service when the vessel is 48 hours and 24 hours distant from Hamriyah LPG Terminal confirming or giving notice of any change in the 72 hour ETA and at any other time after the 24 hour ETA telex when a change by more than 2 hours occurs in the ETA. The 24 hour ETA telex should include a positive statement regarding the vessel's Readiness to Load on arrival and the manner and the number of hours that will be required by the vessel to discharge clean ballast. Local time is Greenwich Mean Time plus 4 hours and Daylight Saving Time (Summer time) is not applicable.

VHF: *Ship-to-Shore Communications:* The company and its designated agents are equipped with VHF radios using international frequencies and maintain a radio watch on the international VHF marine Channel 16.

On approach to Hamriyah LPG Terminal, the vessel is required to maintain a radio watch on VHF Channel 16. Masters are recommended to use this facility as soon as the vessel is within range since such communications are the best means of avoiding delay in the mooring of the vessel. While a vessel is at the loading berth, the Mooring Master will be in direct charge of the portable VHF ship-to-shore radio and all ship-to-shore communications will be by portable VHF radio. The Mooring Master will advise the Master and officers regarding the emergency whistle signals set up for use in the event the VHF radio units become inoperative. The use of the vessel's radio station and/or battery charging equipment is prohibited during cargo loading operations.

TUGS: Tugs will be provided by the Terminal Operator. Due to the infrequency of LPG liftings, tugs will vary as to individual specifications. However, 2 tugs will normally attend each lifting and each will have a minimum of 1,500 h.p. and a bollard pull of 15 tons.

BERTHING: The fenders and fendering structure are designed to absorb, at normal working stress levels, the energy imparted by vessels approaching the jetty at a maximum velocity of 15 cm./sec. and at an angle of approach of up to 10° from the berthing line. Design is based on a 57,000 d.w.t. LPG vessel. Vessels always berth port side alongside. *Mooring:* Dredged depth alongside the jetty face is 14.8 m. Mean Lowest Low Water level and the jetty extends a minimum of 16 m. in each direction from the centre of the loading platform. Vessels ranging from 30,000 cu.m. to 83,000 cu.m. may berth at the jetty. The vessel turning diameter in the harbour is 600 m.

The berth is equipped with 2 breasting dolphins (BD-1 and BD-2) which have 2 quick-release hooks along with powered capstans. The mooring dolphins (MD-1, MD-2, MD-3 and MD-4) are equipped with 3 quick-release hooks. All quick-relese hook units are provided with attached powered capstans. All quick-release hooks have a capacity of 60 tonnes and can be manually operated. The capstan capacity is 2 tonnes with a rope speed of 30 m. per minute. Electrical motor capacity is 11 kW. Bollards, bitts, and cleats are also provided.

Ships should remain adequately secured in their moorings. Ranging of the ship is to be prevented by the vessel's personnel keeping all mooring lines taut. Attention is to be given by vessel's personnel to the movement caused by passing ships, wind, currents, tides, and the cargo operation in progress. Adequate mooring of the vessel is the Master's responsibility and the vessel and its Owner shall be responsible for all damage to the loading berth and related facilities in any way attributable to the failure of the vessel's personnel to keep all mooring lines taut. Operator may suspend cargo operations and have the vessel put off the berth for any failure to comply with this provision with all resulting delay to be for the account of the vessel.

Vessel's personnel should be at their duty stations and alert at all times during mooring, unmooring, hose handling and cargo operations. Ships fitted with automatic tension winches should not use such winches in the automatic mode as they may not always hold the vessel in position at the berth.

LOADING: *Berth Details:* There is one dedicated LPG berth at the New Hamriyah LPG Terminal. This berth is capable of loading refrigerated LPG vessels up to a maximum of 83,000 cu.m. The maximum loading rates for propane and butane are 1,900 cu.m.p.h. Propane will be loaded at a temperature of approximately−46.3°F. Butane will be loaded through arm L-4802B at a temperature of approximately 20.0° F. The order of the loading arms is V, L, L, V. It is emphasised that venting of vapour to atmosphere is not allowed. Vapour should be returned to the Terminal via the vapour return lines provided or reliquified and returned to the cargo tanks.

Tanker Manifold Connections: The propane and butane loading arms are 12 in. in diameter. The return vapour arms are 8 in. in diameter. Each arm is fitted with a hydraulic coupler which can be adapted to fit different sizes. The loading arms can be adapted to fit 16 in., 12 in. and 10 in. standard 150 lbs ANSI flanges. The vapour return lines can be adapted to fit 10 in. and 8 in. standard 150 lbs ANSI flanges.

Any other flange size or ratings other than the above stated will require special fabricated spool pieces to meet the foregoing flange specification. Spool pieces must be furnished and installed by the vessel. Terminal personnel will connect the hydraulic couplers to the proper ship's flange.

All time lost due to the furnishing and installation of such spool pieces by the vessel shall be for the account of the vessel.

Ship's manifold connections must meet loading arm envelope configuration and must provide space and support on which to place loading arm support legs.

Distance of ship's manifold from ship's side:

	Min.	*Max.*
12 in. Loading Arm	2.0 m.	6.0 m.
Distance centre to centre for 12 in. ship's manifold	1.5 m.	3.5 m.
Height of centre point of manifold above deck	0.85 m.	2.1 m.

Jetty Emergency Shutdown Systems and Purge Systems: The jetty is equipped with an Emergency Shutdown (ESD) system to stop loading operations. The system is activated by pushing an electronic stop button in the jetty control room or on the pendant which will be placed on board the vessel. The pendant with the ESD button placed aboard the vessel is to be used only in an emergency, and is used in preference to the ship's systems. On activating the ESD system, all loading pumps and loading arms will be shut down.

The valves, etc., have been designed and set to close in a minimum time for safety and still avoid damaging surge pressures. For this reason, the ESD pendant is placed aboard the vessel and request made for the vessel to use the Terminal shutdown system in an emergency.

Recognising the tremendous damage surge pressures can cause, a careful check of the ship's emergency shutdown system will be made. If a suitable record is not available of valve closure times, the Master will be asked to operate the system to enable timing of the valves. The Terminal loading systems have been carefully calculated to provide charts for each product system, giving the allowable loading rates viz. effective valve closure times to remain below damaging surge pressure in the event of an ESD. (Note: effective valve closure time is a small percentage of total closing time and depends on valve style and valve actuator). It is desirable that the vessel furnish effective closure times from the manufacturer's data; if not, charts are available to estimate effective time once the total closing time is obtained. Using the individual system charts, the maximum loading rate is determined based on the minimum effective closing time of the ship's valves. If this rate is not acceptable to the vessel, arrangements will have to be made to change settings on valve actuators or temporarily lock-off the ship's loading ESD system and use the Terminal ESD pendant. The Terminal will not load at a rate in excess of that shown as being safe. Excess loading times caused by restricted loading rates due to the ship's ESD system will cause additional laytime to be allowed. The vessel may be requested to have valves adjusted before returning to Terminal for loading.

The following is a list showing minimum allowable effective valve closure times at *maximum* Safe Terminal pumping rates:

Product	*State*	*Pumping Rate cu.m/p.h.*	*Eff. Valve Closure Time – Secs.*
Propane	Refrigerated	1,900	7.5 Sec.
Butane	Refrigerated	1,900	7.5 Sec.

Before any cargo operation commences, the Master must ensure that all parts of the vessel's cargo system have been thoroughly tested and all safety checks are completed. The Terminal Representative and the Master, or officer in charge of the vessel's loading operations, should conduct and record a detailed loading plan. The Ship/Shore Safety Check List must be completed to the satisfaction of both the Terminal Representative and vessel's Master. Should any infringement of the Safety Check List be observed during loading operations it will be brought immediately to the attention of the vesssel's Master and if not rectified at once, the loading operation shall be terminated until remedial action has been implemented. All such time lost shall be for the account of the vessel. The vessel's Master shall remain responsible for the safety of the vessel and all operations on board the vessel at all times.

After completion of loading operations the vessel shall be ullaged. A Bill of Lading, Cargo Manifest, Ullage Report, Time Sheet, Certificate of Quality, Certificate of Quantity and Certificate of Origin will be completed. All such documents will be signed by the Master of the vessel prior to the vessel's departure. If required or requested by the Master of the vessel, the Agent of the vessel may sign the documents on behalf of the vessel's Master. The official quantity of the LPG delivered to the vessel shall be determined by the use of vessel gauges applied to vessel strappings and cargo tank volume calibrations. Tests for quality determinations shall be carried out by the Licensed Inspector.

Cargo Information: The vessel's Master will be informed of the approximate gravity and loading temperature of the LPG prior to commencement of loading. An official and final figure for specific gravity will be provided as soon as practical after completion of loading.

BALLAST: There are no facilities for off-loading ballast at Hamriyah LPG Terminal. Oil-free ballast suitable for pumping directly to the sea may be discharged overboard from the vessel. Export vessels arriving with ballast unsuitable for pumping to the sea may be rejected for loading, or made to keep such unsuitable ballast segregated on board. It is strictly against the law to pollute the waters of the United Arab Emirates, and any Master, his vessel and Owners, shall be subject to prosecution by the United Arab Emirates authorities if such pollution does occur.

FIRE PRECAUTIONS: The vessel's fire fighting appliances, including its main and emergency fire pumps shall be kept on standby and ready for immediate use. Before berthing operations comence, fire hoses shall be uncoiled and connected to the fire main which should be kept pressurised. Fire monitors should be elevated and maintained for immediate use. The water spray system of the vessel must be tested and maintained ready for use. The dry powder system or portable units shall be ready for use and in close proximity to the vessel's manifold.

The vessel is solely responsible for, and presumed capable of, fighting any fire on the vessel without assistance from terminal sources.

Should fire break out on either the vessel or the berth, the vessel's Master or deputy must immediately report the fire by the quickest means possible (VHF/UHF/telephone contact, sounding ship's siren, etc.) to the Terminal. The vessel's Master or deputy must also notify the Jetty Supervisor by means of VHF Channel 16. All cargo and ballast operations will be stopped immediately and then all valves closed. As the vessel's Master or deputy assisted by the crew is responsible for fighting the fire on board the vessel, he should stand-by to disconnect hoses or metal arms.

The jetty supervisor will be responsible for initiating the terminal fire alarm system and actuating the terminal emergency plan. He shall contact the senior deck officer on board the vessel to ascertain what assistance can be rendered by Terminal equipment and personnel.

In the event of an emergency, an alarm signal (continuous siren) will be sounded.

The loading platform fire fighting system has one main motor driven fire water pump and one stand-by diesel engine driven fire water pump. Both pumps are capable of handling 1,500 g.p.m. at 150 p.s.i.g. pressure, and are located on the jetty trestle.

The vessel's Master or his deputy will alert ship's personnel to stand-by for special instructions from the Terminal Supervisor. These instructions may require immediate departure of the vessel from the berth.

MEDICAL: Vessels requiring emergency medical assistance should contact Hamriyah LPG by VHF radio and supply the necessary, pertinent information which will be passed on to the vessel's Agent. Neither medical nor hospital facilities are available at Hamriyah LPG Terminal, but private doctors and hospital facilities are available in the town of Sharjah.

DENSITY: 1029.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: There are no Consulates in the village of Hamriyah; however, the Consular or Diplomatic Representatives for many nations maintain offices in the towns of Abu Dhabi and Dubai.

REPAIRS: There are no facilities for making vessel repairs at Hamriyah LPG Terminal and no repairs will be allowed at the jetty. However, arrangements can be made through the vessel's Agent to utilise the repair facilities at other ports.

SURVEYORS: No Cargo Inspectors or Marine Surveyors are based at the village of Hamriyah but inspectors and surveyors who reside at other ports can be arranged through the vessel's Agent.

CUSTOMS: Masters are advised that drinking or sale of alcoholic beverages is strictly forbidden to U.A.E. national citizens and is controlled for other nationals. Masters are warned of the serious consequences of offering such drinks to the Terminal staff or other officials who may board the vessel.

REPATRIATION: Not possible as no officials based at the terminal.

POLICE/AMBULANCE/FIRE: Contact terminal operator.

WEATHER/TIDES: *General:* The Company can advise of the following general environmental characteristics for the Sharjah coastline area but the navigator is referred to the published sailing instructions and directions for the area for more detailed information on the climate, weather, wind, tide, current and sea.

Climate: The climate along the coastline of Sharjah is characterised by cool Winters and very hot Summers. The annual mean rainfall is 4.2 in. and the relative humidity varies considerably according to the time of day with the highest relative humidity generally in the early morning and the lowest relative humidity generally in the early afternoon. The air temperature is generally moderate in the Winter, but is high in the Summer and can be extremely high in the interior on Summer afternoons.

Weather:

Annual mean rainfall	4.2 in.
Lowest mean daily minimum air temperature	55° F.
Highest mean daily maximum air temperature	102° F.
Lowest average monthly sea surface temperature	72° F.
Highest average monthly sea surface temperature	90° F.

Winds: The winds in the Southern part of the Gulf are usually light and generally blow from the Western quadrant most of the year but are occasionally interrupted by winds from varying directions. The visibility along the Sharjah coastline is generally good but from June to September the Shamal blows over the Gulf area and frequently produces rough seas and stirs up dust clouds which can affect visibility at sea. The cold fronts which move down the Gulf from November to April frequently cause a North or N.W. wind of 20 knots or more along the Sharjah coastline with accompanying swells.

Tides: The tide for Sharjah can be predicted with reasonable accuracy through use of the tide tables for Shatt Al Arab with the appropriate correction factor for Sharjah applied.

Currents: The current along the Sharjah coastline has a predominantly counter-clockwise circulation throughout the year and is not generally strong. The strongest current is usually during the month of January (0.46 to 0.8 knots) and during the month of April (0.6 to 1.7 knots).

Seas: High waves generally do not occur along the Sharjah coastline since the winds are usually light in the vicinity of the coastline. On those occasions when the wind does become strong, the wave heights generally remain somewhat limited since the distance over which the wind can blow to generate waves is somewhat short from most directions due to the bend in the Gulf which tends to reduce the fetch of North winds at Sharjah (e.g. waves over 8 ft. occur 0.2 per cent of the time).

GENERAL: *Flag:* Vessels are required to fly the flag of the United Arab Emirates on the foremast during daylight hours while in Sharjah waters. The Sharjah territorial waters extend 12 nautical miles seaward from the Sharjah coastline.

Government Officials: Sharjah officials such as the Customs Officer, Quarantine Officer, Immigration Officer, Port Authorities and Police are stationed in the town of Sharjah. Should Customs Guards be stationed on board the vessel while at the jetty it is expected that the vessel will provide food for these Guards and other Sharjah officials.

Quarantine Regulations: The rules governing the quarantine of vessels are the same as those found in other parts of the world.

Contraband: During loading it is prohibited for any unauthorised craft to come alongside vessels while at the LPG Terminal.

Garbage: The dumping of garbage and refuse overside is prohibited.

Shore Leave and Crew Changes: Vessel's personnel (other than medical emergency cases) are not allowed to embark or disembark from the vessel at the jetty. There are no facilities for crew changes at the jetty.

Visitors: Visitors are not allowed to embark or disembark from the vessel at the jetty.

Supplies: Commissary supplies, stewards stores, laundry services, fresh water, marine lubricants and bunkers are not available through the Operator and may not be loaded at the jetty. Any questions concerning the availability of such items from other sources and the loading of such items elsewhere should be handled through the vessel's Agent.

Readiness: As no berthing may be undertaken during hours of darkness, the Notice of Readiness will be accepted by the Terminal only between the hours of 0600 and 1800 provided that the vessel is apparently in all respects ready to moor and receive the cargo. Notice of Readiness will not be accepted during a period when the port is closed on account of adverse weather or when the vessel arrives prior to the date upon which it is nominated to load.

The foregoing paragraph notwithstanding, in no event shall a Notice of Readiness, whether previously accepted or not, be valid or binding on the Terminal unless and until such time as the vessel, her tanks and equipment, are, in fact, in every respect whatsoever in the proper condition and operation to receive the cargo.

Agency: The Operator does not perform any vessel agency functions. Vessels calling at Hamriyah LPG Terminal must arrange for their own Agents.

AUTHORITY: *Owner:* Shalco (Sharjah LPG Co.) P.O.Box 787, Sharjah, United Arab Emirates. *Tel:* 543666. *Telex:* 68799.

Operator: Amoco Sharjah Oil Company, P.O Box 1191, Sharjah, United Arab Emirates. *Tel:* 355100. *Telex:* 68685. *Contact:* R. W. Rausch, General Manager.

LPG Terminal, Hamriyah, Sharjah, United Arab Emirates. *Tel:* 542744. *Contact:* Captain H. Dietze.

AGENT: See "Sharjah".

HULAYLAH TERMINAL, Ras Al Khaimah:
25.58 N. 55.56 E.

LOCATION: The geographical location of the Hulaylah Terminal SPM is: Lat. 25° 58′ 26″ N., Long. 55° 56′ 11″ E.

Hulaylah Terminal is the export crude oil facility operated by Ras Al Khaimah Offshore Petroleum Limited (RAKOPET), located approximately 6 miles offshore from Mina Saqr, Ras Al Khaimah, United Arab Emirates.

Crude oil from the Saleh Offshore Field is transferred to shore tanks located in approximate position 25° 58′ 26″ N., 55° 56′ 17″ E. from where it is transferred to the SPM by pipe-line.

Saleh Field production facilities are located at the following positions:

	Latitude	*Longitude*
Saleh 1 and Production Platform	26° 11′ 31″ N.	55° 42′ 27″ E.
Saleh 1 Flare	26° 11′ 44″ N.	55° 42′ 35″ E.
Saleh 2 Platform	26° 10′ 43″ N.	55° 42′ 16″ E.
Saleh 3 Platform	26° 10′ 11″ N.	55° 41′ 47″ E.
Saleh 4 Platform	26° 10′ 27″ N.	55° 45′ 37″ E.
Saleh 5 Platform	26° 09′ 51″ N.	55° 45′ 11″ E.
Saleh 6 Platform	25° 11′ 00″ N.	55° 43′ 29″ E.

DOCUMENTS: None required.

PILOTAGE: The Mooring Master Boarding Area for the Hulaylah Terminal is 3 miles Westward of the SPM, or boarding will be at the anchorage as appropriate.

The RAKOPET Mooring Master will remain on board throughout the export vessel's stay on the berth to co-ordinate the petroleum transfer operation; therefore, suitable and adequate accommodation shall be provided for him on board the export vessel.

Arrival at Pilot Station/Anchorage: Means of access to the vessel by the RAKOPET Mooring Master shall be provided in accordance with the requirements of SOLAS, and early advice will be given by RAKOPET as to the side of the vessel that access should be provided.

At night the access area shall be adequately illuminated to provide for the approach and boarding of the RAKOPET Mooring Master, Government Officials and for RAKOPET Representatives.

The Conditions of Entry into and Use of Hulaylah Terminal and Agreement for the Hiring of Tugs will be presented to the Master of the export tanker and shall be signed by him on behalf of himself, the vessel and its Owners prior to departure from the pilot station/anchorage and commencement of berthing operations.

The Notice of Readiness will be accepted only between the hours of 0600 and 1800 provided the RAKOPET Mooring Master is satisfied that the export vessel is apparently in all respects ready to moor and load. Notice of Readiness will not be accepted during a period when the port is closed on account of adverse weather, or when an export vessel arrives prior to the date upon which it is nominated to load.

The foregoing paragraph notwithstanding, in no event shall a Notice of Readiness, whether previously accepted or not, be valid or binding on the Terminal unless and until such time as the export vessel, her tanks and equipment, are, in fact, in every respect whatsoever in the proper condition and operation to receive the cargo.

ANCHORAGES: Should it be necessary to anchor, then vessel should proceed to the recommended Tanker Anchorage Area which is within a circle 0.5 miles in diameter and with its centre located in position Lat. 25° 58′ N., Long. 55° 53′ E.

MAX. SIZE: Max. deadweight 300,000 tons. Larger vessels require prior clearance by the terminal.

HEALTH: No health clearance requirements currently in force.

RADIO: Following receipt of a nomination of an export vessel to load at the Hulaylah Terminal, RAKOPET will cable to that vessel via Bahrain Radio (A9M) details of nomination, loading API and temperature, and berthing prospects.

On receipt of this cable, and in any case not later than 72 hours prior to arrival time at Hulaylah Terminal, the export vessel is required to cable to RAKOPET via Bahrain Radio the following information:

(a) Name of vessel.
(b) ETA in GMT (U.A.E. time is GMT plus 4 hours throughout the year).
(c) Name of Master.
(d) Estimated arrival draft, fore and aft, and displacement.
(e) Time for discharging clean ballast, if any.
(f) If vessel proceeding to any port(s) prior to Hulaylah, and if so, any delays anticipated.

Sections (a) and (b) of above message should be repeated via Bahrain Radio 48 hours, 24 hours and again 12 hours prior to the export vessel's arrival at the Hulaylah Terminal and at any other time when ETA changes more than 1 hour.

When approaching the Terminal, an export vessel should contact the Terminal on VHF Channel 16 (156.8 MHz), establishing a working channel and confirm ETA.

VHF: *Export Tanker:* When the export tanker is berthed at the SPM, communication between the Terminal and the export tanker will be established on VHF Channel 16 or on a mutually agreed VHF channel.

In those cases where the VHF equipment on board the export tanker is not compatible with the Terminal equipment, the RAKOPET Mooring Master will arrange for the availability of compatible VHF sets for use during the transfer operation. These sets shall be returned to the RAKOPET Mooring Master prior to his departure from the export tanker.

Approach to the Anchorage/Mooring Master Boarding Area: When within VHF communication range, Masters of export tankers should ascertain berthing prospects from the Terminal.

TUGS: Suitable tugs and line boats are chartered for each lifting and are for export tanker's account.

BERTHING: *Mooring/Unmooring Arrangements:* The export tanker will be moored to the SPM according to a mooring plan to be agreed between the RAKOPET Mooring Master and the Master of the export tanker.

MEDICAL: Doctors and dentists available.
DENSITY: 1030.
FRESH WATER: Not available.
FUEL: It is not permitted to load bunkers while berthed at the SPM. Bunkers can be arranged at anchorage by vessels' local Agents.
CONSULS: At Dubai.
REPAIRS: Repair facilities are not readily available.

Repairs will not be permitted when the export vessel is berthed at the SPM.

LOADING: *Transfer Operations:* The RAKOPET Mooring Master will remain aboard the export tanker throughout the petroleum transfer operation and will co-ordinate all activities on board the export tanker with the Terminal.

The maximum loading rate available for the transfer operation will be about 9,000 bbls.p.h.

At all times during the transfer operation, a responsible deck officer shall be in charge of operations, either on deck or in the control room. On vessels with a central control room from which all operations are controlled, a deck watch in contact with the control room is required to continuously patrol the cargo deck, and monitor the manifold area of the export vessel. A crew member shall be kept on watch on the bow.

When the responsible export tanker officer has declared the export tanker ready to load with all necessary valves open, the Mooring Master will instruct the Terminal to commence the transfer.

At any time during the transfer operation, the rate can be reduced as requested by the Master or responsible officer of the export tanker.

The RAKOPET Mooring Master shall be given advance notice by the Master or responsible officer on the export tanker when a reduction of loading rate is required preparatory to completion of transfer.

After completion of loading, the vessel will be ullaged. A Bill of Lading, Cargo Manifest, Ullage Report, Certificate of Quantity, Certificate of Quality, Certificate of Origin, and Port Time Log will be completed. All such documents shall be signed by the Master of the export tanker prior to that vessel's departure. If required or requested by the Master of the export tanker, the Agent for the export tanker may sign the cargo documents on behalf of the export tanker's Master. The official quantity and quality of the crude oil delivered to the export tanker shall be determined by RAKOPET and shall be final and binding on the export tanker and her Owners and Charterers.

Hose Handling: The storage vessel will present a single 16 in., 150 ASA connection, hose will be connected on the port side. Hose connection/disconnection will be carried out by the export tanker's crew who are required to be at all times under the control of a responsible deck officer and undertake hose handling operations in co-operation with procedures advised by the RAKOPET Mooring Master.

The export tanker will be required to have ready a derrick at the port manifold area for the handling of the flexible hose.

Minimum Derrick Capacity:

Vessel size	*Derrick capacity*
up to 70,000 d.w.t.	7.5 tons
70,000 – 150,000 d.w.t	10.0 tons
over 150,000 d.w.t.	15.0 tons

Cargo Information: Oil loaded at the Hulaylah Terminal is Saleh Crude with an average API gravity of approximately 58°. The loading temperature will vary from 73°F in the winter to 85°F in the summer months. Some H_2S may be present in the crude oil.

Hydrogen Sulphide: Vessels nominated to load at the Hulaylah Terminal SPM should be advised that Saleh crude may contain H_2S. Continued exposure over long periods to even small concentrations of hydrogen sulphide can cause headache and nausea. Exposure to high concentration may be dangerous and even fatal. Masters should ensure that personnel involved in the loading operation take the appropriate precautions as recommended by their Owners for handling cargo containing H_2S.

Deballasting Operations: Export vessels are required to arrive with sufficient ballast or cargo and be adequately trimmed for safe manoeuvring.

Hulaylah Terminal has no ballast reception or slop disposal facilities, and therefore, export vessels are required to arrive with sufficient clean ballast suitable for pumping directly to the sea. Export vessels arriving with ballast unsuitable for pumping to the sea may be rejected for loading, or will be required to keep that portion of their ballast unsuitable for discharge to the sea segregated on board. RAKOPET will not accept any claims for vessels unable to meet such requirements.

It is strictly against the law to pollute the waters of the United Arab Emirates, and any Master, his vessel and Owners, may be subject to prosecution by the United Arab Emirates Authorities if such pollution does occur.

Simultaneous Deballasting and Loading of Cargo Tanks: Under certain weather/sea conditions this practice may be necessary. In such circumstances, simultaneous deballasting and loading may be requested by the RAKOPET Mooring Master.

If such operations are found necessary, it shall be done at the sole risk of the export vessel, its Master and Owners, and the most stringent care and attention shall be taken by the export tanker. The Owners, shall remain fully responsible for, and indemnify and hold RAKOPET, its parent companies, subsidiaries, and affiliates, harmless from, any and all claims, demands, damages, liabilities, costs, fines, and expenses, of every kind whatsoever, arising out of, on account of, or in any way connected with the simultaneous deballasting and loading of the export tanker.

Inert Gas Systems: All crude tankers of 20,000 d.w.t. or greater nominated to load shall arrive with cargo tanks inerted to 8% oxygen or less by volume and pressurised as required by the SOLAS Convention. Normally cargo tanks under pressure will not be inspected by the Terminal Representative provided a declaration is signed by the Master prior to commencement of loading confirming that all compartments of the vessel have been prepared in all respects as required for the cargo to be loaded.

(a) Tank Inspection, Gauging, Sampling, Water Dips and Temperatures: Should it be necessary for tanks to be inspected, then it should only be done on a tank-by-tank basis. The system shall be maintained at about 200 mm. water gauge pressure except for the individual tank to be opened which, if possible, is to be isolated from the system and the sighting port opened with care. On completion of inspection the tank shall be secured and re-pressurised. The next tank is not to be isolated and opened until the preceding tank is secured and open to the IG system. All gauging, sampling, water dips and temperatures will be taken either through special fittings provided; or if it is necessary to open up tanks for this purpose, then this will be done one tank at a time as described above.

(b) Failure of IGS: If at any time the IGS is not maintaining the prescribed conditions, the RAKOPET Mooring Master shall order a suspension of transfer operations. The cost of any delays will be for the export vessel's account.

SURVEYORS: At Dubai.
CUSTOMS ALLOWANCES: Most crew transit through Dubai where import allowances are:

1. 1,000 cigarettes or 200 cigars or 1 kilo of tobacco.
2. One litre toilet water and 150 gms. perfume.
3. No alcohol of more than 2% permitted without an import licence.
4. There are no restrictions outbound.

REPATRIATION: Launch service available.
AIRPORT: Ras Al Khaimah has an international airport but Dubai airport has greater frequency of flights.
SHORE LEAVE: Permitted.
GENERAL: *Operating Procedures:* Procedures for cargo and ballast operations shall be agreed in writing between the RAKOPET Mooring Master and the export tanker's Master and Chief Officer.

Flags: The national flags of the United Arab Emirates and Ras Al Khaimah shall be permanently displayed by vessels at the Hulaylah Terminal.

Alcohol: Masters are advised that drinking or sale of alcoholic beverages is strictly forbidden to U.A.E. National Citizens and are warned of the serious consequences of offering such drinks to the Terminal staff who may board the vessel.

Storing: It is not permitted to load stores while berthed at the SPM.

Agency: RAKOPET does not perform any vessel Agency functions. Vessels calling at the Hulaylah Terminal are required to arrange their own Agency representation from an Agency operating in Ras Al Khaimah.

WEATHER: The winds in the Southern part of the Gulf are usually light and generally blow from the Western quadrant most of the year but are occasionally interrupted by winds from varying directions. The visibility along the Ras Al Khaimah coastline is generally good, but from June to September the Shamal blows over the Gulf area and frequently produces rough seas and stirs up dust clouds which can affect visibility at sea. The cold fronts which move down the Gulf from November to April frequently cause a North or N.W. wind of 20 knots or more along the Ras Al Khaimah coastline with accompanying swells.

High waves generally do not occur along the Ras Al Khaimah coastline since the winds are usually light in this area. On those occasions when the wind does become strong, the wave heights generally remain limited since the distance over which the wind can blow to generate waves is relatively short from most directions. This is due to the bend in the Gulf which tends to reduce the fetch of North winds (e.g. waves over 8 ft. occur 0.2% of the time).

Currents are omnidirectional and variable in strength. During the month of January 1984, currents in excess of 1 knot were recorded.

SAFETY: *Safety Requirements:* Masters will be given the RAKOPET Safety Requirement Letter by the RAKOPET Mooring Master prior to commencement of berthing operations, and a signed acknowledgement will be required.

Safety Check List: On completion of berthing and prior to the commencement of deballasting or cargo loading, the Ship Safety Check List will be completed following a joint inspection by the RAKOPET Mooring Master and a responsible export tanker's officer. The RAKOPET Safety Check List is based on the recommendations of the "International Safety Guide for Oil Tankers and Terminals" (ISGOTT).

AUTHORITY: Ras Al Khaimah Offshore Petroleum Limited (RAKOPET), P.O.Box 540, Ras Al Khaimah, United Arab Emirates. *Telex:* 99255 Rakopet Em. *FAX:* 22702. *Contact:* Mr. A. A. Renner, General Manager. Tel: 22755.

AGENT: See "Mina Saqr".

JEBEL ALI, Dubai: 25.08 N., 54.55 E. **(See Plan)**

FLAG: U.A.E. and Dubai Emirate.
LOCATION: The Port of Jebel Ali is a major port situated some 35 km. S.W. of the city of Dubai.

The Port Control Tower is situated in position Lat. 24° 59.4′ N., Long. 55° 02.9′ E.

The Jebel Ali approach channel commences 17 km. off shore, the entrance to the channel being marked by a fairway buoy. The buoy is situated in Lat. 25° 06′ 54″ N., Long. 54° 56′ 33″ E.

The approach channel with a depth of 15.5 m. is buoyed and runs in a direction 315°T – 135°T towards the port. After 12.5 km. the channel takes a 25° bend and becomes the entrance channel which leads into the port on an alignment of 340°T – 160°T.

The approach channel has a width of 280 m. reducing to 235 m. In the bend the channel widens to 300 m. and in the entrance channel to 340 m.

The Outer Basin is 2.3 km. long and 600 m. wide with depth of 14 m. and the Inner Basin is 3.7 km. long and 425 m. wide with a depth of 11.5 m. The main axis of both basins is 340° – 160°.

All channel, basin and docks' bottoms are sandstone.

Tankers and LPG ships will use the dual purpose berth situated in the Outer Basin and will generally be berthed starboard side alongside.

A second tanker berth is situated at Berth No. 2 in the 14 m. basin for the import of products. Vessels normally berth starboard side to.

In all other berths ships can secure port or starboard side to.

DOCUMENTS: The following documentation should be forwarded to the ship's Agent, for delivery to the Cargo Handling Manager, at least 48 hours prior to vessel's arrival.

(a) Discharging Vessels
- 3 copies Cargo Stowage Plans
- 7 copies Cargo Manifests
- 3 copies Hazardous and Dangerous Cargo Declaration
- 3 copies Hatch List
- 3 copies Arrival/Cargo Advice
- 1 copy Each Bill of Lading/Packing List.

(b) Loading Vessels:
- 3 copies Cargo Stowage Plans
- 3 copies Cargo Loading List
- 3 copies Hazardous and Dangerous Cargo Declaration
- On completion of loading 3 copies of the Vessel Manifest endorsed by Customs must be provided

Immigration: Three Crew Lists are required on arrival.

Immigration Offices are established in the port. The service is available 24 hours a day. However, Masters should advise their Agent that the ship may leave outside normal office hours and that the Agent should check that Immigration Officials will be available to clear the vessel outward. This also applies to public holidays.

Masters are advised that "Immigration Clearance" must be on board and sighted by the Pilot before he can take the vessel to sea.

MINIMUM REQUIREMENTS:

In the interest of avoiding delays, all vessels programmed for Jebel Ali should comply with the following minima and be fitted with:

(i) Fully operational Radar.
(ii) Fully operational VHF Radio with Channels 11, 14, 16, 67, 69.
(iii) Sufficient crew to handle tugs' lines and moorings efficiently.
(iv) Efficient propulsion and deck machinery.
(v) Efficient and adequate moorings to secure vessel safely.
(vi) Efficient signalling equipment.
(vii) Fully operational Tachometer, Rudder and Helm indicators.
(viii) Efficient mooring stations communications systems.
(ix) An efficient anchor windlass and anchors.

If any of the above requirements cannot be complied with, the Harbour Master should be advised prior to arrival via "Jebel Ali Port Control".

APPROACHES: Ships should make for "Mina Jebel Ali" light float in position 25° 10′ 30″ N., 54° 52′ 15″ E. (Gp. Fl.3 every 15 secs. 15 miles). This float lies on the axis of the channel leading into Jebel Ali Port i.e. from this float vessel should steer 135° to approach Pilot Boarding Area.

Vessel should await Pilot in the area North of the seaward end of the buoyed channel, marked by a fairway buoy. This buoy is a safe water mark painted red and white vertical stripes. Light character is Fl. 10 sec. The centre of this waiting area, with a radius of 1 mile, is Lat. 25° 09′ N. and Long. 54° 54′ E.

PILOTAGE: Pilots are available on a 24-hour/day basis. Ships requiring a Pilot should call "Jebel Ali Port control" on VHF Channel 16 at least 2 hours before arrival at Pilot Boarding Area.

All ships other than excepted ships, navigating whether by entry, leaving or moving within Mina Jebel Ali shall be under the charge of a pilot.

The following ships will be excepted ships:

(i) Ships of War.
(ii) Pleasure Craft.
(iii) Ships of less than 150 n.r.t.
(iv) Tugs, dredgers, barges or similar vessels whose ordinary course of navigation does not exceed beyond the Arabian Gulf.
(v) Tenders of M.E.N.A.S.
(vi) Country Craft.

Pilots board from fast pilot launches, equipped with VHF, watch kept on Channel 16. Jebel Ali Port Control listens on Channel 16 and the working frequency is Channel 69. Additional Channels are also available. Vessels requiring a Pilot should give at least 2 hours notice of arrival in the Pilot Boarding Area.

Outbound ships should request Pilot at least one hour prior to departure. Masters should obtain "Master's Report" from the Inward Pilot and return it completed to the Outward Pilot.

Pilot Boarding Areas: The Pilot boarding area is located North of the channel entrance. The centre of this area is in position Lat. 25° 09′ N., Long. 54° 54′ E. with a radius of 1 mile.

Pilots will normally meet and embark incoming vessels at the above mentioned Pilot boarding area.

Masters are reminded to provide a safe lee.

Pilot Ladder Requirements: The following points are stressed:

(i) The rigging of pilot ladders and the embarkation and disembarkation of Pilots thereby shall be supervised by a responsible officer of the ship.
(ii) Every pilot ladder shall be secured in a position clear of any possible discharges from the ship, and so that each step rests firmly against the ship's side.
(iii) Every pilot ladder shall be secured in a positon where the Pilot can gain convenient access to the ship after climbing not less than 5 ft. and not more than 30 ft..
(iv) Whenever the distance from the water to the point of access to the ship exceeds 30 ft., access from the pilot ladder to the ship shall be by means of an accommodation ladder or equally safe and convenient means.
(v) A light shall be provided at night so that the pilot ladder overside and also the position where the Pilot boards the ship shall be adequately lit.
(vi) Lifebuoy and heaving line should be available at the ladder.
(vii) When a pilot hoist is provided as the method of access, it must be of an "approved" type, complying with the recommendations of the "European Maritime Pilots Association".

ANCHORAGE: The holding ground is poor, ships are recommended to use more chain than usual.

The anchorage is an area enclosed by the following four positions:

1.	Lat. 25° 11′ 20″ N.	Long. 54° 49′ 45″ E.
2.	Lat. 25° 08′ 12″ N.	Long. 54° 53′ 12″ E.
3.	Lat. 25° 05′ 18″ N.	Long. 54° 49′ 45″ E.
4.	Lat. 25° 08′ 20″ N.	Long. 54° 46′ 12″ E.

Ships will anchor here in a depth of approximately 16 m. – 20 m. (9 – 11 fathoms).

Pipe-line: All ships are warned that an untrenched pipe-line lies East of the channel. This line comes ashore in position 25° 01′ N., 55° 04′ 30″ E. From this position it lies in a direction of 345° for approximately 10 miles, thence assumes a direction of 313° towards the "Fatah Field" i.e. it is from 2 to 5 miles East of the buoyed entrance channel. Ships should **not** anchor near this pipe-line, nor should they approach the area with anchors walked back or trailing.

MAX. SIZE: No limit on LOA except Tanker Berth. Max. LOA Tanker Berth 270 m.

Max. draft – 14 m. to Tanker Berth, 13.5 m. Outer Basin, 11.0 m. at other berths.

RADIO: *ETA requirements:* (Also see "Tankers").

Vessels arriving at the Port of Jebel Ali are required to provide the Harbour Authority with the following estimated times of arrival:

(i) At least 48 hours prior to arrival or on leaving the last port, whichever is later, via Bahrain Radio or via Jebel Ali SSB radio, listening on 2182 kHz.
(ii) Confirm the vessel's estimated time of arrival at least 24 hours before arrival at the designated pilotage area and thereafter notify any significant change in excess of 1 hour.
(iii) On coming within VHF range of "Jebel Ali Port Control" establish VHF contact for the purpose of updating the estimated time of arrival and at least 2 hours' notice of arrival in the Pilot Boarding Area. VHF watch is kept on Channel 16.

Communications: The Port radio station maintains continuous listening watch on VHF Channel 16. The Port Emergency Channel is 18A. On coming within VHF range of "Jebel Ali Port Control", vessels should establish VHF contact for the purpose of updating the estimated time of arrival, and at least 2 hours' notice of arrival in the Boarding Area should be given.

Continuous watch is maintained on radio frequency 2182 kHz.

Vessels are warned that VHF Channels are monitored and taperecorded and any misuse of VHF Channels will be reported to the proper Authorities.

Notice of Arrival: Agents should arrange berthing and stevedoring with the Cargo Handling Manager at least 48 hours prior to the vessel's arrival (Cargo Handling Manager Tel. 56578).

Pre-Arrival Information: Prior to arrival, all vessels regardless of tonnage calling at the Port of Jebel Ali should provide "Jebel Ali Port Control" with the following information:

(i) Name of vessel
(ii) Port of Registry
(iii) Name of Master
(iv) Gross Tonnage
(v) LOA
(vi) Draft
(vii) Cargo to discharge or load
(viii) Pilot boarding arrangements
(ix) Number of crew, indicating the number of deck crew available for manoeuvring
(x) Health information
(xi) Last port of call.

VHF: See "Radio" and "Pilotage".

RADAR: VTS harbour radar in Port Control Tower in position 29° 59.4′ N., 55° 02.9′ E.

The Control Tower is equipped with a Sperry Radar Vessel Traffic System C.A.S. II. This equipment consists of a dual radar system combined with a data processor and computer. Traffic movements are monitored, and recorded within the Port limits and approaches. The Tower is continually manned by qualified Radar/Radio Operators.

TUGS: Two tugs with bollard pull of approximately 30 tons and one tug with bollard pull 40 tons are available in the port at all times, watch maintained on VHF Channel 16. Extra tugs can be made available if needed.

Mooring boats: Two mooring boats, the "Dina" and the "Wafa" are available at all times. These boats are also equipped with towing hooks and VHF.

BERTHING:

Berth Nos. 1 – 17: Depth 14.0 m.
Berth Nos. 18 – 66: Depth 11.5 m.
Tanker/LPG Berth No. 1: Depth 15 m.
Tanker Berth No.2: Depth 14 m.

Moorings: Bollards on the various quays and wharves are of capacity and spacing as listed below.

Quay/Wharf	*Capacity (Tonnes)*	*Spacing (m.)*
1, 2, 3	100	27
4A, 4B	70	30
5, 6, 7	70	30
8, 8 Basin	30	30
9 West	70	30
9 East, 10	70	20
West Wharf	15	14.4
East Wharf	15	14.4
Bitumen Wharf	30	20

It is essential that whilst alongside quays, moorings are tended carefully and regularly and conform with recommended mooring patterns for ship sizes. The average rise and fall is 1.14 m.

There are special 250 tonne bollards on Berth Nos. 7, 10, 11, 12, 13, 18, 19, 20, 21, 22, 23 and 52 for vessels over 300 m. in length. These berths can cater for laid-up VLCCs and are fitted with electric points and shore telephone points. All berths can be connected to shore fire mains and fresh water points. Enquiries for further information and conditions to the Harbour Master.

General Cargo Areas: These are located on Quay Nos. 6 and 10 with 21 m. wide concrete aprons, covered and open storage, truck delivery and receiving docks.

Prior arrangements must be made with the Cargo Handling Manager for the discharge of obnoxious and hazardous cargo.

Storage: Six transit warehouses provide more than 48,000 sq. m. of covered storage. Over 175,000 sq. m. paved open storage areas are provided.

Equipment: A full supply of supporting cargo handling equipment to complement general cargo operations is available. This includes a 35 ton fixed jib derrick for barge or shallow draft ship loading, two mobile cranes (40 ton and 20 ton) and a comprehensive selection of materials handling equipment.

Ro-Ro Terminal: The Ro-Ro Terminal is situated at Berths 32-34, with two ramps specially designed for stern discharging vessels, and a water depth of 11.5 m.

An 8,000 sq. m. warehouse provides covered storage while 105,000 sq. m. of paved open storage is available. Equipment includes 3 Douglas Tugmasters.

Cold Store: The Cold Store is situated at Berth 31 and has a capacity of approximately 7,000 tons. Temperature can be separately controlled in each of eight rooms in the range of −29°C. to 13°C.

CONTAINER FACILITIES: The Container Terminal is situated at Berths 15-17, totalling 900 m., with 60 m. wide concrete aprons and a water depth of 14 m.

Storage: The Container Yard can accommodate over 8,000 T.E.U's.

The Container Freight Station provides 10,000 sq. m. of covered storage.

The 4,000 sq. m. temperature-controlled warehouse provides cool storage at low humidity.

Equipment: Three third generation 41 ton Mitsubishi electric Gantry cranes, with telescopic spreaders to handle 20 ft., 35 ft. and 40 ft. containers, and appropriate fittings for over height and flat rack units.

Crane Specifications:

S.W.L. under the spreader 30.5 tons.
S.W.L. under cargo hook beam 34 tons.
Distance from face or rubber fender to centre line of container at maximum outreach 34 m. (112 ft.)
Top of container at miximum lift above quay level 26 m. (85 ft. 4 in.)
Top of container at lowest position below quay level 16.5 m. (54 ft. 6 in.)
Quay level above highest tide 2 m. (6 ft. 6 in.)
Quay level above lowest tide 4 m. (13 ft. 1 in.)
Container crane travel 900 m.
Container crane reach behind back rail 15 m. (49 ft.)
Maximum weight of 20 ft., 35 ft., 40 ft. container handled by spreader 30,504 kg. (67,250 lbs.)
Maximum heavy lift with spreader removed. 41,007 kg. (90,405 lbs.)

7 top-lift container handling vehicles with a 31 ton capacity, and one with a 20 ton capacity.

141 × 380 volt Kheops and 75 × 380 volt Crouse Hinds refrigerated container plugs with 24-hour monitoring service.

Flat bed trailers, low bed trailers, tractor units, mafis, goosenecks and an assortment of trucks.

Truck scale with a capacity of 50 tons.

A container cleaning service is available.

STEVEDORES: By Port Authority of Jebel Ali.

Normal Working Hours:

0700 – 1200 hrs, 1300 – 1600 hrs. 24 hour working can be arranged.

DENSITY: 1032.

MEDICAL: There are medical facilities provided in Dubai Hospitals – arrangements can be made through the Agent. In any emergency, medical services are available in Jebel Ali village, telephone No. 56489.

FRESH WATER: Supplied by Dubai Water Services (Tel: 39236/56749). Order through Agents. Water laid on at all berths.

FUEL: A Bunkering Barge is stationed in Mina Jebel Ali operated by "E.B.B. Co.". Arrangements for bunkers are to be made through vessels' Agents. Barge can deliver diesel oil and/or fuel oil. Delivery by road tanker also available. Tel: 56759.

Lubricating Oils: Available, transported by road.

TANKERS: *Tanker/LPG Berth No. 1:* This berth provides facilities for product tankers as well as LPG and condensate carriers. 4 loading arms are available to handle Product tankers through 10 in. connections with reducers available. On the LPG half of the jetty, there are 3 loading arms with 16 in. connections. Two vapour return lines are also fitted, 1 for propane and 1 for butane with 14 in. connections. Various reducers and straight pieces are also available. The depth of water in the berth is 15 m. but the controlling depth in the approach channel is 14.5 m.

This berth is equipped with mooring hooks of 100 tons strength, each fitted with electric capstan. The hooks are tripped manually.

Tankers will generally be berthed starboard side to the Berth.

Tanker Berth No. 2: This berth provides facilities for product tankers, using 10 in. Chicksan arms and/or flexible connections. Various reducers are available.

Chemical Tanker Berth: A designated Chemical Tanker berth is operational at Berth No. 51. Depth of water at the berth is 11.5 m.

Vessels are warned that no dirty ballast discharge will be allowed within the limits of Mina Jebel Ali. There are no shore ballast reception facilities.

Also see "General".

Vessel Requirements: Below, are details of information required by the terminal operators for accepting vessels for LPG, LNG and Condensate loading and Port Authority of Jebel Ali's requirements and regulations for a tanker in berth.

Port Authority of Jebel Ali-Tanker Berth: Uniform mooring system is advisable, ie, all synthetic or all wire for all moorings except backsprings. P.A.J.A. does not allow the use of nylon tails on wire moorings. Backsprings must be of wire.

Concerning deballasting requirements P.A.J.A. allows the discharge of permanent segregated clean ballast in the harbour. Clean tank ballast can only be discharged if a surveyor appointed by Agents at Owner's/Charterer's expense, certifies that the tank ballast is clean, that all cargo pumps and lines are clean and the surveyor remains on board to witness and if necessary stop the discharging of cargo tank ballast if it proves to be unclean.

It is also recommended that all efforts be made to cut down time taken by ships for documentation purposes after completion.

Bunkers may not be taken during cargo operations.

On all occasions, P.A.J.A. would berth all ships starboard-side-to on the tanker berth unless some particular "one off" technical reason prevents this.

LPG – Vessel Particulars: The following items shall be submitted with each vessel nomination. In the event that all the data is not available, the nominated vessel acceptance shall be tentative and subject to the approval of "Seller" Dubai Natural Gas Company Limited.

1. Vessel name and flag.
2. Vessel Master's name.
3. Vessel ETA at Jebel Ali.
4. Vessel communication channel.
5. Vessel description (weight, length, dimensions, etc.).
6. Loading connection: (a) Size. (b) Rating. (c) System – ASA/Metric/British, etc.
7. Height of the loading connection from the centre line of the flange to the first obstacle downward below each flange.
8. Distance from the loading flange face to ship's rail.
9. Distance between loading and vapour return connection centres.
10. Distance from the loading flange to the first obstacle toward the manifold.
11. Height of the ship's rail in front of the loading manifold.
12. Previous cargo and its origin.
13. Manifold sequence of the loading and vapour return connection.
14. Loading rate per product for this particular lifting.
15. Cargo tanks temperature per product upon vessel arrival at the loading port.
16. Can propane and butane be loaded simultaneously?
17. Cargo on board, its origin and specification per tank upon vessel arrival for loading.
18. Vessel meets Government, P.A.J.A. and seller regulation, or specify which regulation the vessel meets.
19. Vessel in possession of reducers, their type, size and rating.
20. Demurrage rate and conditions, if any.
21. Specify if vessel will install any mesh screens in their manifold during this lifting.
22. Amount to be loaded.
23. Vessel has nylon mooring lines.
24. Buyer or Agent to notify Dugas of the vessel location, quantity to be loaded and its ETA 72, 48 and 24 hours before the first day of the vessel's scheduled ETA.
25. Can propane and butane be purged and/or cooled simultaneously? (If applicable.)

LNG – Vessel Particulars: The following items shall be submitted with each vessel nomination. In the event that all the data is not available, the nominated vessel acceptance shall be tentative and subject to the approval of "Seller" Dubai Natural Gas Company Limited.

1. Vessel name and flag.
2. Vessel Master's name.
3. Vessel ETA at Jebel Ali.
4. Vessel communication channel.
5. Vessel description (weight, length, dimensions, etc.).
6. Loading connection:
   (a) Size.
   (b) Rating.
   (c) System – ASA/Metric/British, etc.
7. Height of the loading connection from the centre line of the flange to the first obstacle downward below each flange.
8. Distance from the loading flange face to ship's rail.
9. Distance between loading connection centres.
10. Distance from the loading flange to the first obstacle toward the manifold.
11. Height of the ship's rail in front of the loading manifold.
12. Previous cargo and its origin.
13. Vessel gas vapour venting system.
14. Loading rate for this particular lifting, per single loading arm connection.
15. Ballast on board condition (clean, dirty, etc.).
16. Deballasting estimated time required after berthing.
17. Cargo on board, its origin and specification per tank upon vessel arrival for loading.
18. Vessel meets Government, P.A.J.A. and seller regulation, or specify which regulation the vessel meets.
19. Vessel in possession of reducers, their type, size and rating.
20. Demurrage rate and conditions, if any.
21. Specify if vessel will install any mesh screen in their manifold during this lifting.
22. Amount to be loaded.
23. Vessel has nylon mooring lines.
24. Buyer or Agent to notify Dugas of the vessel location, quantity to be loaded and its ETA 72, 48 and 24 hours before the first day of the vessel's scheduled ETA.

Condensate – Vessel Particulars: The following items shall be submitted with each vessel nomination. In the event that all the data is not available, the nominated vessel acceptance shall be tentative and subject to the approval of "Seller" Arco Dubai.

1. Vessel name and flag.
2. Vessel Master's name.
3. Vessel ETA at Jebel Ali.
4. Vessel communication channel.
5. Vessel description (weight, length, dimensions, arrival draft fore and aft, estimated departure draft, etc.).
6. Loading connection:
   (a) Size.
   (b) Rating.
   (c) System – ASA/Metric/British, etc.
   (d) Is manifold located centre line of LOA.
7. Height of the loading connection from the centre line of the flange to the first obstacle downward below each flange.
8. Distance from the loading flange face to ship's rail.
9. Distance between loading connection centres.
10. Flange thickness. Maximum acceptable: 37 mm.
11. Clearance behind connecting flange for coupling claws. Minimum requirement: 240 mm.
12. Height of the ship's rail in front of the loading manifold.
13. Previous cargo and its origin.
14. Loading rate for this particular lifting. Minimum requirement 25,000 bbls p.h. per single loading arm connection.
15. Specify quantity of permanent and cargo tank ballast on board. Only permanent segregated ballast discharge allowed at Jebel Ali port. Repeat only permanent segregated ballast discharge allowed.
16. Estimated deballasting time required after berthing. Specify if simultaneous with loading.
17. Cargo on board, its origin and specification per tank upon vessel arrival for loading.
18. Vessel in possession of reducers, their type, size and rating.
19. Please confirm agreement release inert gas pressure in all tanks for inspection by Arco surveyor.
20. Buyer or Agent to notify Arco of the vessel location, quantity to be loaded and its ETA 72, 48 and 24 hours before the first day of the vessel's scheduled ETA.
21. Arco Dubai advise starboard side alongside.
22. Arco Dubai advise loading arm size nominal 16 in. with provision for 16, 14 and 12 in. connection by hydraulic coupler.
23. Quantity to be loaded, in barrels. Arco Dubai advise
    API:– Temp.:–

REPAIRS: Berths are available for afloat repairs to be done by local contractors.

Lay-up Berths for long and short periods can be arranged for vessels up to 550,000 d.w.t. with draft up to 13.5 m. Special bollards are installed to provide 8 berths for ULCC class vessels.

Marine engineering firms with specialised workshops in Dubai, undertake engineering repairs. Agents will make necessary arrangements.

Repairs to radar, radio, echo sounders and other electronic navigational and communication aids are available by major manufacturers' Agents, (i.e. Marconi, Decca, Kelvin-Hughes, Telefunken, etc.), being represented in Dubai and sets serviced by trained engineers. Agents will advise.

A Port Authority diver can be arranged through vessel's Agent.

SURVEYORS: Lloyd's, B.V., A.B.S., N.V., N.K. and the Salvage Association as well as other private qualified cargo, hull and engine surveyors and consultants are available.

Gas free certificates and hot work permits can be obtained through independent qualified surveyors.

Surveys: The following surveys and certification can be carried out in Jebel Ali: Loadline, Safety Equipment, Safety Construction, Radio.

CONSULS: Embassies and Consulates in Dubai.

Embassies:

Federal Republic of Germany	Tel: 231013/214352
United Kingdom	Tel: 531070

Consulates:

Bangladesh	Tel: 236676.	Malaysia	Tel: 285695
Belgium	Tel: 226206	Netherlands	Tel: 225156
China	Tel: 227411	Norway	Tel: 233152
Egypt	Tel: 434417	Oman	Tel: 223692
France	Tel: 232442/237252	Pakistan	Tel: 531412
India	Tel: 220201/2	Panama	Tel: 285340
Iran	Tel: 531150/531915	Qatar	Tel: 221216
Iraq	Tel: 660822	Saudi Arabia	Tel: 222163
Italy	Tel: 377167	Sweden	Tel: 375542
Jordan	Tel: 667097	Switzerland	Tel: 375542
Kuwait	Tel: 221900	Syria	Tel: 663354
Lebanon	Tel: 451351	U.S.A.	Tel: 371115

The foregoing are Embassies and Consulates situated in Dubai. Most countries maintain diplomatic missions/embassies, etc., in Abu Dhabi – some 120 km. from Mina Jebel Ali.

TELEPHONES: Ship board telephones available by arrangement.

Important Telephone Numbers at Jebel Ali:

Port Control	35326
Harbour Master & Port Control	35251
Police	56111
Port Health	56892
Customs	56374/5
Immigration	56844/56334
Ambulance and Fire Service	56222 (24 hours)
Security	56846/56578 ext. 218, 232, 233

SHORE LEAVE: The following is the standard procedure for shore leave as dictated by the Port Immigration Department.

Crew members wishing to go ashore are to report to the Port Immigration Office (Agent to arrange) and collect a "Marine Landing Permit" which should be carried at all times. On returning to the ship, the permit should be handed back to the Port Police. The process is to be repeated on every subsequent shore leave.

WEATHER: *Weather and Currents:* Cross currents of up to 1.75 knots may be experienced in the Approach Channel. These currents are wind and tide induced.

Fresh winds are frequently experienced at Mina Jebel Ali. However, during evening, night and morning hours, light Southeasterly winds prevail, veering to N.W. by noon and freshening to Force 4-5.

On occasions, especially during November-March, fog may be prevalent during early morning.

GENERAL: *Dirty Ballast and Refuse:* All vessels are warned that no dirty ballast, bilges, etc., should be pumped out in the vicinity of the Port of Jebel Ali. Offenders will be prosecuted and the U.A.E. and Dubai Police maintain maritime and helicopter patrols to ensure no dirty ballast is discharged and no refuse is thrown overboard.

These rules apply while vessels are alongside and the Harbour Master may instruct offending vessels to leave or bar them from returning to Mina Jebel Ali.

Rubbish skips supplied by the Port Authority at a charge and are compulsory.

Ballast Requirements: For the purpose of safe manoeuvring, the Harbour Master requires all vessels to maintain an acceptable ballasted condition.

Vessels should carry sufficient ballast so that the propellor can have maximum immersion whilst maintaining an acceptable stern trim.

Masters are reminded that no dirty ballast will be allowed to be discharged in Mina Jebel Ali.

Tanker Ballast Discharge Rules:

1. Clean water ballast from tankers segregated ballast tanks may be discharged overside.

2. Clean water ballast from dedicated clean ballast tanks as defined in Marpol 73/78 may also be discharged in the port. However, if no separate ballast pumping system exists then such discharge must be monitored by an independent surveyor and the ballast discharged must be certified clean. This discharge operation may take place during daylight hours only.

3. Ships in the "C.O.W." mode may not discharge ballast from cargo tanks, unless such tanks have been thoroughly cleaned and have reverted to the status of C.B.T. since last carrying oil.

4. "Clean" ballast means ballast containing less than 15 parts per million of Hydro Carbons.

5. Not withstanding all the above, if any visible signs of pollution are seen on or below the surface around the ship discharging ballast, the ballast discharge will be stopped and no further discharge will be permitted.

Fumigation: Fumigation can be carried out by specialist firms.

Ships' Chandlers, Ship Supplies: All types of provisions – fresh and dry, and all types of fresh and frozen meat are available ex-Dubai. Arrangements through Agent and/or through direct VHF contacts with ship chandlers and provision merchants. Paints, ropes, etc., available as well as charts. Laundry services are also available.

Visitors Port Passes: Any Person entering the Port is required to have either a permanent or visitors temporary/day pass. Passes can be obtained from the Pass Office situated at the Main Entrance. The Pass Office operates daily from 0700 hours to 1900 hours.

Permanent passes cost Dhs. 25 each and are valid for 12 calendar months from date of issue. Applicants are required to produce a Sponsor's letter and complete an application for Pass Form. Documents such as Passports and Photographs are not required.

Temporary or Day passes which are free of charge are only issued to irregular visitors who have a confirmed appointment to visit the Port.

No more than one of these passes a month will be issued to any individual. Day Passes can be obtained from the Pass Office or any Terminal Checkpoint.

Shops: A small supermarket is open in the port. Hours of work are: 0800 – 1300 hrs. Saturday to Thursday inclusive.

Bank: The National Bank of Dubai maintains a branch in the port. Hours of work are: 0800 – 1200 hrs. Saturday to Thursday inclusive for counter staff.

Seamen's Recreational Facilities in Dubai:

International Seamen's Club (Tel: 435551)
Norwegian Seamen's Mission (Tel: 470561/3)

Jebel Ali International Seamen's Centre: Situated on Quay No. 10. Tel: 35297/35296. Hours: 1600-2359 daily and 1100-2359 on Fridays and public holidays. Facilities: Bus service to and from berths; international telephones; post box and stamps; small shop for tobacco, toiletries, writing materials, etc.; money changing; pool and darts; T.V. and video; library; snacks and full bar service.

Transport: Arrangements for taxis can only be made through the Agent.

Charts and Publications:

Charts:
British Admiralty Chart 3237
British Admiralty Chart 2889
British Admiralty Chart 3738
German Hydrographic Institute Chart 729.
U.S. Defense Mapping Agency No. 62499.

Pilot Books: Admiralty Sailing Directions Volume No. 63, Defence Mapping Agency Publication No. 62.

Tidal Stream Atlas.

Lights: Admiralty List of Lights Volume F. United States List of Lights Publication No. 112 (Defence Mapping Agency).

Radio Aids:
British: Admiralty List of Radio Signals, Volume 8.
American: Radio Navigational Aids (Defence Mapping Agency). Publication No. 117B (Pacific/Indian Ocean Area).

DEVELOPMENTS: New grain terminal to be available 1988. Storage capacity 120,000 tons. 2×1,000 t.p.h. ship unloaders will be available.
AUTHORITY: Port Authority of Jebel Ali, P.O. Box 3258, Dubai, U.A.E. *Tel:* Jebel Ali (084) 35251/56578 and Dubai 472570. *Telex:* 47398 Paja EM. *Cables:* Pajadub UAE. *Contact:* Captain G. Biro, Harbour Master. Captain R. E. Abbott, Assistant Harbour Master. J. J. Scott, Jr., Executive Director.

AGENT: Gulf Agency Co. (Dubai) PVT. Ltd., P.O.B. 2404. Dubai, U.A.E. Cables: "Confidence", Dubai. Tel: 457555 (12 lines – 24 hour service). Telex: 45809 and 45448 ("Gacdb EM"). Fax: 457202. Marine Radio VHF, stand-by Channel 16. Call sign: "Confidence Dubai". RT: 2182 kHz frequency.

JEBEL DHANNA – RUWAIS: 24.11 N. 52.37 E.

(See Plan)

(A) GENERAL
(B) JEBEL DHANNA – SEA BERTHS TERMINAL
(C) RUWAIS – REFINERY TERMINAL
(D) RUWAIS – NGL TERMINAL
(E) RUWAIS FERTILISER INDUSTRIES (FERTIL)
(F) ADNOC RUWAIS SULPHUR HANDLING TERMINAL

(A) GENERAL

AUTHORITY: Abu Dhabi Petroleum Ports Operating Company (ADPPOC), the Governing Authority for the petroleum ports in the Emirate of Abu Dhabi.

ADPPOC, P.O.Box 61, Abu Dhabi, U.A.E. *Tel:* 336700. *Telex:* 22209. *Contact:* Captain Al Jaran, Operations Manager.

ADPPOC – Ruwais/Jebel Dhanna, P.O.Box 61, Abu Dhabi, U.A.E. *Telex:* 52207. *Contact:* Captain M. Cooper, Station Manager.

PORT LIMITS: All waters Southward of Lat. 24° 26′ 48″ N., to the coast up to Spring High Water Mark, between meridians of Long. 52° 33′ 36″ E. and Long. 52° 46′ 36″ E., (that is, with reference to Chart 3780 B.A. & USHO, the whole waters of that Chart) and shall include all jetties, wharves, structures, sea-berths, reefs, rocks, sand-bars and islands, excluding Sir Bani Yas Island, within the said area.

PILOTAGE: Pilotage is compulsory for all ships navigating within port limits other than exempted ships (See "General"). Ships may, however, drop anchor or sail from Gasha Anchorage without a Pilot. This rule is not applicable to U.A.E. Naval, Coast Guard vessels or country craft who may, having ascertained channel clearance from Port Control, proceed without the service of a Pilot.

Pilot Station: Pilots will board and disembark at the main Gasha Pilot Station as delineated on B.A. Chart No. 3780.

Use of North Channel: Masters of Exempted ships of suitable draft should use the North Channel and East Yabr Relief Channel when entering or leaving the port.

Pilotage Exemption Certificate: Port Pilotage Exemption Certificate may be granted to Masters of regular trading vessels of less than 3,000 n.r.t., upon the Port Officer's satisfaction of their competency. Such certificates shall be renewed annually.

Berthing and Unberthing at Oil and Gas Berths: Notwithstanding anything contained in these Rules berthing or unberthing at oil and gas berths at Jebel Dhanna or Ruwais shall be under the control of a Pilot.

N.B.: Berthing and unberthing of a small ship at the ADNOC Berth in position Lat. 24° 11′ 55″ N., Long. 52° 38′ 59″ E., may be undertaken without a Pilot provided that the Master has Pilotage Exemption Certificate.

Pilot Ladder: A clean and efficient pilot ladder fitted with spreaders and manropes shall be made available for the Pilot to embark or disembark and at night the ladder shall be illuminated with an efficient and safe light.

Accommodation Ladder and Pilot Ladder: Whenever as in the case of large vessels, the height of the deck above the water exceeds 30 ft., the accommodation ladder shall also be used in conjunction with the pilot ladder, and shall be lowered to about 22 ft. (7.0 m.) above the water with the pilot ladder immediately adjacent to the bottom platform of the accommodation ladder.

Mechanical Hoist: A mechanical hoist of an approved pattern shall be considered an acceptable alternative to a conventional pilot ladder to be used in conjunction with the accommodation ladder.

NOTE: Mechanical hoists whose operation relies upon a single wire are not of approved pattern under these rules.

Supervision of Pilot Ladders: The rigging of the pilot ladders for the embarkation and disembarkation of Pilots shall be supervised by a responsible ship's officer, and shall be so effected that the ladder is well clear of any overboard discharge and so that each step of the ladder rests securely against the side of the ship.

Safe embarkation and disembarkation: A Master of any ship navigating in the port, shall afford such suitable "weather lee" and speed reductions as may be directed by the assigned Authority Pilot in order to provide a safe embarkation or disembarkation operation.

Pilot to Advise Course and Speed: Vessels navigating within Port Limits shall proceed on such a course and at such speed as the Pilot advises.

Provided that when passing through the inner anchorage areas every vessel whether under Pilotage charge, or navigated by her Master with an Exemption Certificate, shall proceed with caution and at a moderate speed duly considering other vessels and cargo operations in the area.

Small High Speed Vessels: High speed vessels as of "Crew Boat" type shall proceed at a moderate speed to reduce the wave making wash in the vicinity of vessels, working cargo, dredging or construction works, diving operations, etc., until past and clear of these vessels or operations.

Anchors Ready for Use: Every ship prior to any movement within the port shall have both Bower Anchors (if two fitted) prepared for immediate emergency use. Masters shall, however, consult with the assigned Pilot (if any) before lowering an anchor to the sea surface.

Any Damage to Ship to be Notified: Before entry the Master shall inform the Port Authority of any damage to the vessel or any projection from the hull above or below water which may affect the vessel's draft, ship-handling qualities or berthing capability.

NOTE:
To ensure greater safety in the Jebel Dhanna Channel, in consultation with Messrs ADPPOC and executive manager of Petroleum Ports Authority, it has been decided to minimise the amount of paperwork the Pilot is expected to complete while in transit from Gasha beacon to inner anchorage area.

Therefore a vessel arriving at Gasha while tendering her "Notice of Readiness" will henceforth be required to pass to Jebel Dhanna:

1. Name of vessel.
2. Tonnage required.
3. Her maximum loading rate, always assuming 2×16 in. hoses.
4. Number of hours ballast.
5. Any health hazard infectious diseases/or none.
6. Draft outwardbound.
7. Any other pertinent information.

The Pilot is to obtain signature on "acceptance of port regulations" booklet prior to entering channel. All other documentation can be completed after vessel is made fast in the berth. This will ensure no distractions while in transit in the channel and further enhance the exemplary safety standards.

All parties are kindly requested to comply with the slight change in Jebel Dhanna/Ruwais documentation procedures to enhance safety requirements.

TIDAL STREAMS: In the outer approaches to Jebel Dhanna-Ruwais, tidal streams would appear to attain a maximum of 1 knot while 1.7 knots may be encountered in the channel N.E. of Jazirat Sir Bani Yas.

Tidal currents in the area of the berths seldom exceed 0.4 knots.

The tides are generally diurnal, winds from N.E. and N.W. may cause an increase up to 0.6 m. in the height of the tide.

The highest average, spring high tide is 2.0 m. above chart datum.

The highest average, neap high tide is 1.0 m. above chart datum.

AIDS TO NAVIGATION: Approaches to Jebel Dhanna-Ruwais (See Admiralty Chart Nos. 3778, 3779 and 3780).

The outer channel for deep drafted vessels between Jazirat Zarakhuh (Zirku) and Gasha Anchorage is marked by 6 buoys and 2 light floats as follows:

Name/No.	*Description*	*Characteristic*	*Position*
Outer Fairway	Safe Water Mark	Iso 10 secs.	24° 45′ 48″ N. 52° 53′ 12″ E.
O1	Conical Green	Fl.G. 5 secs.	24° 46′ 20″ N. 52° 49′ 30″ E.
Creagh Shoal	Light Float	Fl. 10 secs. 14 M Racon "C" 72 secs.	24° 43′ 00″ N. 52° 42′ 15″ E.
Patch	Conical Green	Fl.G. 3 secs.	24° 40′ 00″ N. 52° 41′ 32″ E.
O5		Qk.Fl.(2) G. 10 secs.	24° 37′ 43″ N. 52° 38′ 13″ E.
Dalma	Light Float	Qk.Fl.(9) 15 secs. Racon "D" 72 secs.	24° 32′ 24″ N. 52° 27′ 48″ E.
O7	Conical Green	Gp.Fl.(3) G. 10 secs.	24° 29′ 27″ N. 52° 29′ 24″ E.
Gasha	West Cardinal	Qk.Fl.(9) 15 secs.	24° 25′ 46″ N. 52° 34′ 25″ E.

A relief route known as North Channel passes from the outer fairway buoy S.E. of Creagh Shoal and enters the port East of Gasha Island. It is marked by:

Obstruction	Isolated Danger Mark	Gp.Fl.(2) 10 secs.	24° 37′ 50″ N. 52° 47′ 17″ E.
North Channel	Safe Water Mark	Iso. 10 secs.	24° 30′ 00″ N. 52° 41′ 36″ E.
West Kurkum	West Cardinal	Qk.Fl.(9) 15 secs.	24° 23′ 51″ N. 52° 41′ 31″ E.
East Gasha	Green Conical	Fl.G. 5 secs.	24° 23′ 54″ N. 52° 41′ 15″ E.

The least depth in this channel 7.5 m. (1980) occurs about 0.8 nautical miles North of the Gasha/Kurkum entrance.

A Beacon was established at Price Shoal (1980) consisting of a pile with a bottle chamber at the top and a gas lantern.

Price Shoal	Red Pile Structure	Fl. 5 secs. 12 m. 14 miles Racon "P" 48 secs.	24° 17′ 24″ N. 52° 42′ 09″ E.

ANCHORAGES: The main anchorage positions are defined on Chart No. 3780, and are identified by the letters of the alphabet.

Explosives Anchorage: Anchorage bounded by the following points:

(i) Lat. 24° 13′ 30″ N., Long. 52° 44′ 55″ E.
(ii) Lat. 24° 12′ 46″ N., Long. 52° 45′ 48″ E.
(iii) Lat. 24° 13′ 18″ N., Long. 52° 46′ 18″ E.
(iv) Lat. 24° 14′ 00″ N., Long. 52° 45′ 27″ E.

Explosives Buoy: Mooring buoy in position Lat. 24° 09′ 36″ N., Long. 52° 46′ 18″ E., for the purpose of temporary mooring of barges or pontoons carrying explosives.

CHANNELS:

Deep Water Channel: The channel marked at its outer end by:

Gasha Buoy in position Lat. 24° 25′ 46″ N., Long. 52° 34′ 25″ E.

marked on the West side by:

Buoy No. 1 in	Lat. 24° 24′ 28″ N.	Long. 52° 36′ 26″ E.
No. 3	Lat. 24° 23′ 50″ N.	Long. 52° 37′ 18″ E.
No. 5	Lat. 24° 23′ 02″ N.	Long. 52° 38′ 37″ E.
No. 7	Lat. 24° 21′ 33″ N.	Long. 52° 40′ 14″ E.
No. 9	Lat. 24° 20′ 33″ N.	Long. 52° 41′ 22″ E.
No. 11	Lat. 24° 19′ 49″ N.	Long. 52° 41′ 52″ E.
No. 13	Lat. 24° 17′ 42″ N.	Long. 52° 40′ 34″ E.
No. 15	Lat. 24° 14′ 55″ N.	Long. 52° 39′ 26″ E.
No. 17	Lat. 24° 11′ 41″ N.	Long. 52° 41′ 42″ E.

and marked on the East side by:

Buoy No. 2 in	Lat. 24° 25′ 18″ N.	Long. 52° 35′ 40″ E.
No. 4	Lat. 24° 24′ 18″ N.	Long. 52° 37′ 07″ E.
No. 6	Lat. 24° 23′ 57″ N.	Long. 52° 37′ 34″ E.
No. 8	Lat. 24° 22′ 46″ N.	Long. 52° 39′ 06″ E.
No. 10	Lat. 24° 21′ 37″ N.	Long. 52° 40′ 21″ E.
No. 12	Lat. 24° 20′ 58″ N.	Long. 52° 41′ 08″ E.
No. 14	Lat. 24° 20′ 29″ N.	Long. 52° 41′ 42″ E.
No. 16	Lat. 24° 19′ 49″ N.	Long. 52° 42′ 18″ E.
No. 18	Lat. 24° 18′ 42″ N.	Long. 52° 41′ 48″ E.
No. 20	Lat. 24° 17′ 45″ N.	Long. 52° 41′ 28″ E.

North Channel: The inward/outward route marked at its southern end by:

East Gasha Buoy	in	Lat. 24° 23′ 54″ N.	Long. 52° 41′ 15″ E.
West Kurkum Buoy	in	Lat. 24° 23′ 51″ N.	Long. 52° 41′ 31″ E.

Yabr Channel: The route East of Jazirat Yabr marked by:

North Yabr Buoy	in	Lat. 24° 20′ 54″ N.	Long. 52° 43′ 18″ E.
Yabr Channel	in	Lat. 24° 18′ 55″ N.	Long. 52° 45′ 11″ E.
S.E. Yabr	in	Lat. 24° 18′ 20″ N.	Long. 52° 44′ 24″ E.
South Yabr Channel	in	Lat. 24° 15′ 46″ N.	Long. 53° 43′ 24″ E.

Halat Al Alaq Island is now marked by:

North Alaq	in	Lat. 24° 15′ 20″ N.	Long. 52° 40′ 54″ E.
West Alaq	in	Lat. 24° 14′ 27″ N.	Long. 52° 40′ 27″ E.
N.W. Alaq	in	Lat. 24° 15′ 06″ N.	Long. 52° 40′ 21″ E.
South Alaq	in	Lat. 24° 13′ 48″ N.	Long. 52° 41′ 30″ E.
East Alaq	in	Lat. 24° 14′ 23″ N.	Long. 52° 41′ 38″ E.

Ruwais Approach: The channel to N.E. of Ruwais middle marked by:

(i) Buoy No. 22	in	Lat. 24° 13′ 38″ N.	Long. 52° 42′ 12″ E.
(ii) Buoy No. 24	in	Lat. 24° 12′ 24″ N.	Long. 52° 44′ 42″ E.
(iii) Buoy North Middle	in	Lat. 24° 12′ 42″ N.	Long. 52° 43′ 41″ E.
(iv) Buoy East Middle	in	Lat. 24° 12′ 08″ N.	Long. 52° 44′ 26″ E.
(v) Buoy South Middle	in	Lat. 24° 11′ 07″ N.	Long. 52° 43′ 46″ E.
(vi) Buoy West Middle	in	Lat. 24° 11′ 39″ N.	Long. 52° 42′ 29″ E.
(vii) Buoy No. 26	in	Lat. 24° 12′ 17″ N.	Long. 52° 45′ 48″ E.
(viii) Buoy No. 28	in	Lat. 24° 11′ 17″ N.	Long. 52° 45′ 19″ E.
(ix) Buoy No. 30	in	Lat. 24° 10′ 10″ N.	Long. 52° 45′ 24″ E.
(x) Buoy No. 32	in	Lat. 24° 10′ 15″ N.	Long. 52° 45′ 45″ E.

Bulk Cargo Terminal (BCT): Turning basin marked by buoys:

(i) BCT 1	in	Lat. 24° 09′ 29″ N.	Long. 52° 43′ 54″ E.
(ii) BCT 2	in	Lat. 24° 09′ 24″ N.	Long. 52° 44′ 12″ E.
(iii) BCT 4	in	Lat. 24° 09′ 07″ N.	Long. 52° 44′ 16″ E.
(iv) BCT 6	in	Lat. 24° 08′ 57″ N.	Long. 54° 44′ 14″ E.

A relief channel East of Sir Bani Yas Island is marked by:

(i) N.E. Yas	in	Lat. 24° 21′ 58″ N.	Long. 52° 39′ 21″ E.
(ii) Stewart	in	Lat. 24° 20′ 09″ N.	Long. 52° 40′ 05″ E.

The entrance to the Construction Wharf is marked by:

CW1	in	Lat. 24° 19′ 12″ N.	Long. 52° 40′ 20″ E.
CW2	in	Lat. 24° 09′ 10″ N.	Long. 52° 45′ 07″ E.
CW3	in	Lat. 24° 09′ 09″ N.	Long. 52° 45′ 04″ E.
CW4	in	Lat. 24° 08′ 34″ N.	Long. 52° 45′ 08″ E.

PROHIBITED AREAS: Prohibited Areas exist for a distance of 2 cables (1,200 ft. – 365 m.) around any berth at which any ship is engaged in loading or discharging any petroleum cargo of whatever description including crude oils and refined products whether in bulk or containers, LNG or LPG and no vessels or craft may enter such restricted areas without instructions from the Port Authority or Oil Company.

RESTRICTED AREAS:

Sea Berths: A restricted area exists around ADCO's sea-berths within an area bounded by a line from:

(a) Jebel Dhanna Jetty Light in Lat. 24° 11′ 20″ N., Long. 52° 37′ 51″ E., thence 359° to

(b) Light Beacon "T.13" in Lat. 24° 13′ 06″ N., Long. 52° 37′ 49″ E., thence 060° to

(c) in Lat. 24° 14′ 00″ N., Long. 52° 39′ 30″ E., thence to 139° to

(d) Buoy No. 17 in Lat. 24° 11′ 41″ N., Long. 52° 41′ 42″ E., thence 255.5° to the coast to

(e) in Lat. 24° 10′ 48″ N., Long. 52° 37′ 57″ E.

Navigation and anchorage within this area is strictly prohibited to all unauthorised vessels and those not under the control of a Pilot.

Refinery/GASCO/FERTIL: A restricted area exists around the Refinery, GASCO Jetties and FERTIL Jetties at Ruwais within an area bounded by a line from:

(a) in Lat. 24° 08′ 36″ N., Long. 52° 42′ 12″ E., thence 000° to
(b) in Lat. 24° 10′ 24″ N., Long. 52° 42′ 12″ E., thence 035.75° to
(c) in Lat. 24° 10′ 48″ N., Long. 52° 42′ 30″ E., thence 103.5° to
(d) in Lat. 24° 10′ 18″ N., Long. 52° 44′ 42″ E., thence 119.5° to
(e) in Lat. 24° 09′ 57″ N., Long. 52° 45′ 24″ E., thence 195° to
(f) Construction harbour jetty head in Lat. 24° 08′ 12″ N., Long. 52° 44′ 54″ E.

Navigation and anchorage is prohibited to all unauthorised vessels not under control of a Pilot. Within this area no vessel or craft may secure or make fast to the Petroleum Jetty without instruction from the Pilot, Port Officer or the Oil Company.

RESTRICTIONS:

Times of Entry or Leaving: Subject to limitations upon draft, under keel clearance and extreme adverse weather conditions, vessels may enter or leave at any time during the day or night.

Minimum Under Keel Clearance: To ensure safe channel passage, a minimum under keel clearance is required for all ships entering or leaving the port when deep loaded, as follows:

(a) 3 ft. (0.91 m.) for ships of less than 100,000 Summer d.w.t.

(b) 4 ft. (1.22 m.) for ships between 100,000 and 250,000 Summer d.w.t.

(c) 5 ft. (1.52 m.) for ships of over 250,000 Summer d.w.t.

And such under keel clearance may be increased at any time at the Port Authority's discretion having due regard to weather conditions.

NOTE: While observing the safety requirements of under keel clearance, tidal delays may be experienced as follows:

(a) Ships drawing 44 ft. (13.4 m.) may sail at any time.
(b) Ships drawing 45 ft. (13.7 m.) will rarely have to wait for the tide.
(c) Ships drawing 46 ft. (14.0 m.) will usually have to wait for the tide.
(d) Ships drawing 47 ft. (14.3 m.) will always have to wait for the tide.
(e) Ships drawing 48 ft. (14.6 m.) will occasionally be neaped.
(f) Ships drawing 49 ft. (14.9 m.) will be neaped ±294 days per year.

The best months are June, July and August.

Meteorological conditions may reduce the height of the tide by up to 1 ft. (0.305 m.)

Movements Within the Port Limits: No vessel may enter, leave or move within the confines of the port unless permission for moving is first obtained from the Port Control Office.

Outward Priority: When one ship is ready to leave and another to enter simultaneously, a deep loaded outward bound ship which requires to transit the "Deep Water Channel" on account of draft in excess of 30 ft. (9.14 m.) shall have priority subject to the provisions of Rules mentioned above.

HEALTH: *Quarantine and Medical Clearance:* The standard International Declaration of Health is required upon arrival. Free Pratique is obtained by radio.

There are no facilities for derat at Ruwais.

If Free Pratique has not been granted prior to the vessel's arrival, the Master may contact Port Control for advice/instruction as per Port Health instructions.

Every vessel within the port shall display the appropriate quarantine signals as prescribed in the International Code of Signals.

ARRIVAL/DEPARTURE NOTICES: *Notice of Arrival:* The Master or Agent shall inform the Port Officer 72 hours prior to the vessel's arrival, giving the following details:

1. Name of vessel.
2. Flag.
3. G.r.t., n.r.t. and Summer Deadweight.
4. Arrival draft.
5. Nature of cargo and amount to be discharged or loaded if known.
6. ETA and subsequent amendments.
7. Deballasting time, type and quantity of ballast to be discharged.
8. Inerting time.
9. Date of expiry of the following certificates:
   (a) Load Line.
   (b) Ship Safety Construction Certificate.
   (c) Ship Safety Equipment Certificate.
   (d) Ship Safety Radio-Telegraphy – as appropriate.
   (e) Ship Safety Radio-Telephony – as appropriate.
   (f) Oil Liability Certificate (TOVALOP).
   (g) International Oil Pollution Liability (CLC).
   (h) Derat/Exemption Certificate.
   (i) Any other service required.

And shall confirm or amend such information at 48 hours and 24 hours before arrival.

Vessels should also advise:

1. The date and final port and country of her last loading at an Arabian Gulf or Omani port.

2. A list of ports and countries at which the vessel has called between 1. above and her arrival at Jebel Dhanna.

3. Should the tanker not have loaded in the Gulf or an Omani port since building, then a list of ports and countries at which the vessel has called from the date of building to her arrival at Jebel Dhanna.

In order to expedite Pilot attendance, Masters should endeavour to confirm their final ETA to "Port Control" Jebel Dhanna/Ruwais on VHF radio, Channel 9, 6 hours and 2 hours prior to arrival at anchorage.

Notice by Agent: The Agent shall also supply the Port Health Officer, Customs and Immigration, the requisite ship information 48 hours prior to arrival.

Notice of Departure: The Master or Agent of any ship within the port shall inform Port Control giving at least 12 hours' notice of departure and shall further confirm the time of departure 2 hours before being ready to sail.

BERTHING FACILITIES: The Port of Jebel Dhanna-Ruwais consists of two main oil terminals, one petroleum gas terminal, one bulk cargo terminal, a sulphur handling jetty and a small cargo harbour (see Admiralty Chart No. 3780).

The Crude Oil Terminal at Jebel Dhanna is operated by the Abu Dhabi Company for Onshore Oil Operations (ADCO) and consists of 4 C.B.M. Berths capable of accepting tankers up to 330,000 d.w.t. and 1,215 ft., (370.3 m.) in length. Minimum depths at the berths are:

No. 1 Berth: 51 ft. (15.54 m.) max. length of ship 950 ft. (289.6 m.).
No. 2 Berth: 52 ft. (15.85 m.) max. length of ship 1,100 ft. (335.3 m.).
No. 3 Berth: 55 ft. (16.76 m.) max. length of ship 1,200 ft. (365.76 m.).
No. 4 Berth: 55 ft. (16.76 m.) max. length of ship 1,215 ft. (370.3 m.).

Also see "Section B".

The Refinery Terminal at Ruwais about 2.5 miles S.E. of the Jebel Dhanna Terminal Berths is owned and operated by the Abu Dhabi National Oil Company Ruwais Refinery and consists of a 3 km. jetty with 2 deep water berths and 4 coastal tanker berths for the exportation of refined petroleum products and importation of crude oil.

Also see "Section C".

The Abu Dhabi Gas Industries Ltd. (GASCO) Terminal consisting of a 2.6 km. trestle jetty and one berth lies about half a mile East of the Refinery Jetty and can accept LPG carriers in the range 28,000 cu.m. to 125,000 cu.m. There is a minimum depth alongside of 17.0 m.

Also see "Section D".

The Ruwais Fertiliser Industries (FERTIL) Jetty is designed for berthing combinations of vessels up to 2 fully laden 200 m. long, 25,000 d.w.t. bulk cargo vessels along its Eastern side. Provision is made at the Northern end of the jetty for the loading of liquid ammonia.

Also see "Section E".

A bulk sulphur export jetty with 6 berthing face piles capable of handling cargo vessels up to 25,000 tons d.w.t. with a depth of 36 ft. alongside completed in 1984. Loading via a single gantry.

Also see "Section F".

RUWAIS CARGO HANDLING SERVICE CONSTRUCTION JETTY: *General Information:* ADPPOC, as the Port Operator, provides cargo handling service for the prime purpose of serving the construction and commissioning of the ADNOC and GASCO Refineries and Petroleum Export Terminals.

This undertaking is provided on an independent basis as an additional port facility and may be utilised by any importer who wishes to route cargo through the port to destinations in the Western region of Abu Dhabi.

A harbour, known as the Construction Jetty, consisting of 4 small cargo ship berths and 1 Ro-Ro Berth, is situated to the East of the Ruwais Petroleum complex. Vessels and barges with a draft of less than 4.2 m. may enter and lie safely alongside to discharge cargo. Larger cargo ships with a draft in excess of 4.2 m. will anchor in the cargo ship anchorages located N.N.W. 2 miles (approximately) from the Construction Jetty and discharge onto barges.

There are full Customs and Clearance facilities available.

Extent of Service: Cargo will be worked in the cargo anchorages, weather permitting, during daylight hours only. The target minimum rate for discharge of general cargo will be 700 freight tons per day. In special circumstances these limitations may be modified to suit the dispatch and turn-round of the discharging freighter.

Weight Limitations: Normal discharge to barges will be to the maximum of ship's own lifting equipment. The heavy lift barge (reinforced deck) can receive a single weight to a maximum of 700 tons. The shore cranes can plumb to a distance of 3.2 m. from the quayside to lift 80 tons.

To discharge heavy lifts by a floating crane, the maximum possible notice is required. Similar notice is required for heavy lift cranage for parcels in excess of 80 tons over quayside and heavy lifts in excess of 55 tons which require special trailer transport.

Procedure:

1. Consignee or his Agent must sign a Cargo Handling Indemnity form before discharge and vessel's Manager must sign Port's Conditions of Use receipt before entering port and berthing.

2. All Customs cargo documentation and clearance of vessels is the responsibility of the Shipping Agent/Consignee. Tally receipts will be supplied by the ADPPOC Cargo Representative on site.

3. The ship will normally be charged for port dues only as per 1984 Regulations and Tariff, except that, for working overstowed cargo, a charge per gang hour will be levied to the ship.

4. The consignee will normally pay the full handling charge per freight ton. The charge covers ship stevedoring, barge and towage, and either barge discharge to landed on quay, direct to trailer, or delivered to Custom's Pound.

5. Agents and/or consignees should advise their requirements, vessel ETAs and supply cargo manifests and stowage plans to: The Port Officer, Jebel Dhanna-Ruwais Port, ADPPOC, Ruwais, P.O.Box 61, Abu Dhabi. Tel: Ruwais 72018 daytime or Port Control Ruwais 75700, ext. 5762 (24 hours). Telex: 52207 Apocru EM.

PORT EQUIPMENT/CRAFT: The following craft and equipment are available in the port and subject to utilisation may be chartered or hired on application to the Station Manager who will advise the current rates.

Vessels:

2×3,200 h.p. twin screw shiphandling tugs with a bollard pull of 40 tons.

Equipped for fire fighting and oil dispersant spraying, fitted with 2 centrifugal pumps producing 680 cu.m. water/foam per hour to a height of 120 m. through a horizontal distance of 85 m.

Each tug carries 45 metric tons of foam and 11 metric tons oil concentrate dispersant.

2×15 m. twin screw mooring launches, 480 h.p. with 2 live-on-board crew.

5×15 m. single screw mooring launches, 360 h.p. each, no accommodation.

1×16 m. twin screw pilot-cum-ambulance vessel 20 knots with live-on-board accommodation.

1×32 m. self-propelled maintenance barge with 30 ton hydraulic 'Pettibone' crane.

1 twin screw diving tender vessel.

1×12 m. single screw general purpose workboat.

1 barge with reinforced deck for heavy lifts and tank divided for oil pollution slops, 1,200 tons.

Shore Equipment:

1×150 ton Manitowoc mobile crane with 30 m. boom.

1×80 ton Grove Rough Terrain mobile crane with hydraulic extending booms, maximum normal extension 35 m.

1×10 ton fork lift.

2×5 ton fork lifts.

2×3 ton fork lifts for crane hold work.

Miscellaneous:

- Fully equipped marine workshops for repairs, overhauls to tugs, launches, vehicles, mooring buoys, etc.

One double lock 2 man decompression diving chamber in air conditioned module.

MEDICAL: If any person suffers a serious injury or sickness within the port limits and immediate medical attention becomes necessary the Master of the vessel concerned or the person in charge of the location shall notify the emergency to the Port Control on VHF Channel 9.

N.B. The Port "Casevac" system for such emergencies will be put into immediate effect by the Port Control.

Masters of all vessels are hereby advised that a brief but concise description of the injury or sickness must be stated at the time of reporting. In the event a crew member has to be landed for hospitalisation the following items should accompany the casualty:

(a) Passport and/or Seaman's Discharge Book
(b) Vaccination Certificates
(c) Address of next of kin
(d) Brief report (if necessary pinned to an unconscious person) comprising:
  1. Time and cause of accident/sickness
  2. Time and description of medication administered, if any
  3. Further details of First Aid given, and/or symptoms noticed.
(e) Masters of vessels which are not berthed alongside the Ruwais jetties should prepare invalid cases for landing in a fast launch or picking up by helicopter e.g. Niel Robertson stretcher; and afford a weather lee (if possible) in adverse weather conditions.

Medical/Police Assistance: The Master of any vessel within the Port for which Medical or Police assistance is required shall make request for such assistance through the Agent.

FRESH WATER: Fresh water is obtainable at the refinery berths and should be arranged through the ship's Agent.

FUEL: Bunkers are obtained at the refinery berths and should be arranged through the ship's Agent.

The following bunker fuels are available:

A. Marine Diesel Oil

Test and Spec. Limits	*Method*	*ASTM*
1. Viscosity Kin. at 33°C, CS, Max.	1.4	D445
2. Carbon Residue Conradson Wt. Pct. Max.	1.5	D189
3. Flash Point °C, Min.	66	D93
4. Water Cont. Pct. Vol. Max.	0.25	D95
5. Sediment Pct. Wt. Max.	0.02	D473
6. Ash Pct. Wt. Max.	0.02	D482
7. Sulphur Pct. Wt. Max.	1.80	D129
8. Pour Point °C Max.	12	D97

B. Marine Fuel Oil

1. Kin. Viscosity at 50°C. Max.	180	D445
2. Flash Point, °C. Min.	60	D93
3. Water Cont. Vol. Pct. Max.	1.0	D95
4. Sediment Pct. Wt. Max.	0.25	D478
5. Ash Pct. Wt. Max.	0.20	D482
6. Sulphur Point °C. Max.	4.0	D129
7. Pour Point °C. Max.	24	D97
8. Sp. Gravity at 60/60° F. Max.	0.990	D1298

CUSTOMS: Customs Officials will board upon arrival and seal the bond.

Alcoholic Liquor: No alcoholic liquor of any description may be carried to or from any vessel or oil terminal within the port. This rule shall not apply in the case of a vessel taking in or landing such liquors as cargo or ship's stores under the supervision of Customs Officials.

Masters are reminded and warned that public consumption of alcoholic drinks is strictly prohibited in the U.A.E. and its territorial waters. Crew members must not be allowed to offer alcohol to any Moslem for any reason whatsoever.

The penalties imposed by the civil authorities for non-compliance of the above are heavy and include possible imprisonment.

CLIMATE: The cool winter season extends over November to February with mean daily maximum temperatures of 25° C. to 30° C. and night temperatures of 10° C. to 15° C. The lowest recorded temperature being 4° C. Ground frost can occur inland.

The hot summer season extends over May to September with maximum day temperatures between 40° C. to 45° C.: the highest recorded being 48° night temperatures are about 20° C. to 25° C.

Relative humidity is high throughout the year averaging between 50 and 60 per cent by day and 75 to 80 per cent by night. Heavy dew may be experienced throughout the year.

Rainfall is usually associated with thunderstorms which are prevalent from November to May giving a total annual rainfall of 10 mm. to 50 mm. Rain is rare during the remaining months while in some years there is none at all.

Throughout the year the prevailing winds are from the West to North North-East sector. They are strongest during November to April when they occasionally reach gale force. Gusts of up to 50 knots have been recorded (April) and a 24-hours mean wind speed of 32 knots from the North-West is on record (January) the Shamal or strong North-West wind may blow for periods up to three days and raise a rough sea with waves up to 4.5 m. off Gasha buoy and up to 2 m. at the berths in Jebel Dhanna. 'Land and Sea' breezes are experienced throughout the year.

Visibility is 10 nautical miles for 70% of the time and less than 2 nautical miles up to 5% of occasions due to dust haze or radiation fog. Fog can occur during any month of the year but is most frequent in Winter: normally it develops during the night and early morning and clears by 1000 hrs. Usually the fog banks drift to seaward towards Sir Bani Yas Island.

Sea temperatures at 3 m. depth range from 20° C. (Winter) to 32° C. (Summer). During the Summer the 15 m. depth temperature is only a degree or so lower than that at the surface.

GENERAL:

Stores: Emergency stores may be obtained by giving 48 hours' notice to the Ship's Agent. These stores are not permitted to be loaded at an oil or gas berth and must be taken on board in the anchorage.

Agency: Agency work is carried out by registered Shipping Agents who are appointed by the vessel's owners, Charterers or Master.

In no instance will ADPPOC or any of the Oil Companies undertake the agency of a ship.

M.E.N.A.S. Light Dues: Masters are advised that the "M.E.N.A.S." Light Dues for the Arabian Gulf navigation aids, when applicable, are collected by the vessel's Agents for payment direct to "M.E.N.A.S.", Bahrain.

Flag: Every vessel within the port shall fly her own national flag and the flag of the United Arab Emirates from sunrise to sunset.

Inward Clearance: No person other than the Pilot, Police, Customs, Immigration and Port Health Officers shall be allowed on board any vessel before Inward Clearance has been granted by such officials.

Port Clearance: The Owner, Master or Agent of every vessel wishing to leave the Port shall obtain a Port Clearance.

Port Clearance may be withheld from any ship by the Port Authority for non-payment of dues or for any legal cause or restraint which has been duly ordered by the Court in Abu Dhabi.

Exempted Ship: To mean ships exempted from pilotage whose Master has been granted a Pilotage Exemption Certificate by the Harbour Master.

Excepted Ship: To mean vessels excepted from paying Port Dues. Excepted ships shall include the following vessels:–

(a) Vessels of the U.A.E. Defence Forces.

(b) Vessels belonging to U.A.E. Customs, Medical and Police Services.

(c) Dredgers, Survey Vessels and special ancillary non-cargo craft, on contract to the Port Authority, ADNOC.

(d) Light tenders belonging to or on contract to M.E.N.A.S.

(e) Vessels and Ships excepted from such charges by order of H.E. the Ruler.

Port Control: The officers currently situated at Ruwais Construction Wharf are responsible for all vessel traffic movements within the port limits and the implementation of the Port Officer's instructions pertaining to the management of the port.

N.B. – Vessels should communicate with the Port Control via VHF radio.

Heavy Lift: Any piece of cargo inclusive of transportation cradle whose deadweight is in excess of 35 long tons (35.56 tonnes).

Country Craft: Mechanically propelled vessels less than 100 n.r.t. engaged in the coastal trade which may also rely upon sails for motive power.

Rat Guards: Rat guards must be fitted to all mooring ropes and wires immediately a vessel is secured alongside a berth on a jetty or wharf.

Mooring Launches: All ships berthing or unberthing at a main sea berth, oil jetty or cargo wharf will be provided with a suitable Port Authority mooring launch (if required) to assist with the running of moorings and the lifting of submarine loading pipe-lines in the case of ADCO's sea berths.

Main Engine Readiness: Every vessel berthed at an Oil Terminal or cargo wharf shall maintain her engines in a state of constant readiness to move at all times. No repairs which may immobilise the vessel shall be permitted to be carried out while vessels are in the berths.

A Master of any Ship securely anchored in an assigned anchorage area, may request permission from the Port Control to carry out routine engine repairs or overhaul. The granting of such permission will be subject to the respective Terminal approval that the berthing time factor is sufficient.

Sufficient Crew Onboard: Every vessel within the Port shall retain on board at all times a sufficient number of crew as may be necessary to perform any duties concerned with the safety and movement of the vessel.

Fire Wires: All Ships berthed at the GASCO and Refinery Terminals shall provide 2 Tug Fire Wires, 1 forward and 1 aft, throughout the period of occupying such berth. The wires shall be robust, with one end fitted with a spliced eye, which shall be maintained at a height of 2 ft. above the sea surface on the outboard side of the ship, (i.e. opposite side from jetty). The inboard end of the wire shall be made fast securely on deck.

Craft Alongside: No Craft shall attempt to make fast to or go alongside a ship manoeuvring in the port before such ship has anchored unless specially permitted by the Master and if there is a Pilot on board, the Pilot.

Dirty Ballast: Whenever a ship enters port with ballast which it is necessary to discharge before or during loading, such ballast, in the case of water ballast, shall be clean and not liable to cause pollution of the sea and a certificate to that effect shall be handed to the Port Authority's representative before deballasting commences.

Pollution: Ashes, oils, chemicals, bilge water and other refuse shall not be discharged to the sea or thrown overboard within Port Limits.

The discharge to the sea of any substance whether liquid or solid, other than clean water ballast shall be deemed to cause pollution to the harbour.

The Master of any vessel, the Person in charge of a Terminal or construction operation contravening this rule so as to cause pollution shall be charged with an offence against these Rules and upon conviction be liable to a fine and shall also pay any expenses which may be incurred in the removal of such pollution.

Diving/Swimming: No person shall swim or dive from or near any vessel, jetty, quay or pier for the purposes of trading, recreation or sport.

Diving: No person shall engage in diving with the assistance of breathing apparatus within the Restricted Areas mentioned in Section 4 of these Rules without the written permission or instruction from the Port Authority.

Commercial Diving: Notwithstanding anything contained above, any person or company wishing to operate a Diver for commercial reasons within the Port, shall inform the Harbour Master giving full information of the Diving Operations, and shall conform with such precautions as he may direct in Permission to Dive.

Use of Ship's Radio: The use of the ship's radio within Port Limits is prohibited for the transmission of private messages.

When a ship is secured to an oil or gas loading berth the use of the ship's main radio equipment is totally prohibited. Intrinsically safe VHF radio equipment may be used for necessary port communications.

Ship's Dangerous Stores: Ship's stores of an inflammable or explosive nature, including pyrotechnic distress signals carried in accordance with the Convention for the Safety of Life at Sea shall be kept in a safe place securely closed and sealed while the vessel is moored in a berth. This Rule shall also apply to the vessel's paint locker.

Explosives: No person may bring explosives or dangerous goods into the Port without the written permission of the Port Authority. Vessels importing "explosives" or dangerous goods of an inflammable or corrosive nature will normally be assigned the "Explosives" anchorage on arrival. A Port Authority Representative will inspect the cargo and consult with the Master and Agent before discharge.

The unauthorised handling and detonating of any explosive or pyrotechnic device within the Port Limits is strictly prohibited. Where explosives are required for construction purposes the Contractor concerned must apply to the Harbour Master for written permission. Blasting for commercial purposes shall be under the strict control of the Port Authority.

Pollution Emergency: In the event that pollution of the Port waters occurs, regardless of cause the Person in charge or responsible for the operation, works or location where the pollution was initiated should immediately report the incident to the Port Control.

Where the pollution is serious, particularly oily pollution, the incident must be treated as a full emergency situation, and the call for assistance to the Port Control should be prefixed by the words "MAYDAY, MAYDAY" in order to gain immediate attention.

The Master of the vessel concerned or the Person in charge, shall also take such steps as may stop further pollution and contain or clean up any spillage of oil, etc., on the vessel's deck or jetty surfaces to remove the fire hazard potential.

N.B. – All port Users and Operators are advised that failure to report a pollution incident is an offence against these Rules and Persons found contravening this requirement will be prosecuted in the Abu Dhabi Courts and liable to heavy fines.

Ship's Lifeboats: The lowering of ship's lifeboats within the Port, except in the course of a regulation Lifeboat Drill duly authorised by the Port Authority, is strictly prohibited and during such drill the lifeboats shall not land on any part of the shore.

The use of any boat carried on any vessel solely for the purpose of recreation, pleasure or fishing shall be allowed only at the discretion of the Port Authority subject to the current Security Regulations in force at any time.

Inert Gas System: As the Government of Abu Dhabi have now ratified the Solas Convention, with effect from 1st January, 1984, no tanker will be accepted for loading in this port unless an Inert Gas System has been fitted.

Cargo Discharge Certificates: Abu Dhabi National Oil Company require documentation for cargoes of Refined Products loaded at Ruwais as follows:

1. Discharge Certificate showing:
   - (a) Port of discharge.
   - (b) Discharge quantity in tonnes.
   - (c) Date(s) of discharge.
   - (d) Name and nationality of vessel.
   - (e) Name of Master.
2. Copy of Bill of Lading.

Both documents must be signed by receiver and countersigned by Port Authorities and returned to:

A.D.N.O.C. Marketing Rpd SI,
Post Box 898,
Abu Dhabi,
U.A.E.

In the event that cargoes of Refined Products are loaded at Umm al Nar the same procedure should be followed.

(B) JEBEL DHANNA – SEA BERTHS TERMINAL

24.11 N. 52.38 E.

OPERATOR: Abu Dhabi Company for Onshore Oil Operations (ADCO).

APPROACHES: *(Inward Passage).*

Outer Route between Jazirat az Zarqa and Ghasha Tower Beacon marked by 2 light floats and 4 buoys. The 2 light floats are both port hand marks, and the buoys starboard hand, as indicated by shape, colour and light characteristics.

Inner Channel, from Ghasha Buoy to berths at Jebel Dhanna marked by 21 light buoys. Least depth in this channel is 46 ft. and min. width of 800 ft. between Buoys No. 7 and 10.

(Outward Passage)

After clearing berth an outward bound vessel should steer to pass midway between Buoys No. 13 and 20, leaving Alaq Island to starboard. From Buoys No. 13 and 20 the same track is followed as for inward passage.

Navigation in shallow waters: The navigation of deep drafted vessels at high speeds in shallow waters introduces certain hazards. Masters of ships should be guided by the following:

Due consideration should be given to the effect of squat at speed on vessel's draft in shallow water, bearing in mind vessel's trim.

If possible, confirm actual height of tide against predictions and if not, bear in mind that after strong winds the actual height of tide may be reduced and extra caution must be exercised for a few days during and after bad weather.

Ensure accuracy of vessel's draft reading, including the midship draft, having in mind the tendency of vessels to sag and the adverse effect of a small list.

Reduce to minimum safe speed to pass over and near shoal areas.

Reduce to a minimum safe speed when negotiating turns in order to reduce heel under helm.

Note that list can mean an appreciable increase in draft.

When strong tidal streams are running across a channel, extra vigilance is required, and allowance made for set, particularly at reduced speed, to ensure vessel proceeds along mid channel.

DOCUMENTS:

2 Crew Lists.

2 Passenger Lists.

2 Manifests.

1 International Maritime Declaration of Health.

READINESS TO LOAD: If an accepted Tankship arrives at the Port of Jebel Dhanna and tenders Notice of Readiness to Load:

(i) Within its Set Range then running hours shall commence, berth or no berth, either six hours after such Notice of Readiness or at the time of connection of cargo loading hoses, whichever is the earlier.

(ii) Prior to the commencement of its Set Range then running hours shall commence at 1400 hrs. on the first day of its Set Range, berth or no berth, notwithstanding the fact that loading may have commenced for any reason prior to 1400 hrs. on the first day of its Set Range; or

(iii) After expiry of the Set Range, then running hours shall commence at the time of connection of cargo hoses.

Running hours shall finish at the time of disconnection of cargo loading hoses.

The Company will make every effort to load the tanker on arrival provided a berth is available and weather permitting.

EARLY DEPARTURE PROCEDURE: Early Departure Procedure is not available.

ANCHORAGES: If berth not available, or if ships cannot sail immediately after loading, they can anchor in an area South of Buoys Nos. 13 and 20 and North of Berths. This area marked by Buoy No. 15 to West, Buoy No. 22 to East and by berths to South. Alaq Island lies in the middle of this area and is marked by 2 buoys No. 17 and N. Alaq and by S. Alaq Beacon.

MAX. SIZE: (Also see "Berthing"). Vessels up to 330,000 d.w.t. and max. LOA 1,215 ft. can berth at Jebel Dhanna.

Also see Section "A" – "Restrictions".

EQUIPMENT: Port and Starboard anchors to be fitted with anchor buoys and sufficient line to facilitate recovery of anchor in the event of loss.

4 good mooring lines of not less that 120 fathoms each and of a suitable size for the vessel. 2 additional 120 fathoms lines securely tailed to the first lines for occasions where 120 fathoms may not reach the stern buoys initially.

For vessels of 50,000 d.w.t. and larger, power mooring winches with 200 fathoms wire mooring rope are recommended.

Suitable new rope stoppers to be available forward and aft.

2 good stoppers for use on 40 mm. diameter wires. Preferably patent carpenter's stoppers.

2 good boat ropes 4.5 in. circumference of at least 200 ft. long.

A clean, safe pilot ladder of adequate length battened so as to prevent turning. A suitable line to be ready for hauling gear on board, such as hose clamps, reducers and elbows. A lifebuoy should be placed handy to this ladder.

Tankers of 40,000 d.w.t. and over should have rigged, when in ballast, an accommodation ladder lowered to about 12 ft. above water. This can be adjusted to suit the conditions. A pilot ladder should be rigged immediately adjacent to the accommodation ladder platform, to within 2 ft. of the water. This will enable the Pilot and others when the vessel is moored to ascend the pilot ladder clear of the launch and then step on to the lower platform of the accommodation ladder.

Deck machinery must be available at all times.

Whistle or siren must be available at all times.

Adequate deck lighting should be provided for night-time operations, with special emphasis on the following areas:

1. Overside at boarding position for Pilot.
2. Overside abreast of manifold, for hose lifting.
3. Working area around manifold.
4. Poop working area, for handling mooring ropes and wires.

Note: "Aldis" type signalling lamp to be available when mooring.

BERTHING: Berthing is by mooring to 2 anchors and stern buoys. Arrangements in advance by contacting Jebel Dhanna Pilots on Channels 9 and 16.

Berths are approached on W.S.W. course passing S.E. of Alaq Island. Leading lights have been established which will lead ships on the line of the 2 anchors when in berth. A small marker buoy has been established to assist the Mooring Master in placing starboard anchor in correct position. Vessels berth heading N.W. Holding ground good. Bottom consists of clayey silt.

Sea Line Loading Berths. 4 Sea-Line Berths No. 1, 2, 3 and 4. Nos. 1 and 2 supplied by single 36-in. lines, and Nos. 3 and 4 supplied by 42 in. lines, each terminating in a header which passes under vessel in berth.

Berth	*Draft Accept-able* (ft.)	*Approx d.w.t.* accept-able*	*Max loading rate* (t.p.h.)	*Strings of flexible hoses*	*Length of sea line* (ft.)
No. 1	45	83,000	6,000	2×16 in.	16,269
No. 2	46	85,000	6,000	2×16 in.	16,427
No. 3	49	90,000	8,500	2×16 in.	19,000
No. 4	49	90,000	9,500	2×16 in.	17,200

*Deadweights shown for vessels loading full cargoes. Part cargoes may be greater. Berths No. 2, 3 and 4 can accommodate VLCCs but Berth No. 2 is restricted to vessels having a max. LOA of 1,100 ft.

Least depth of water available in berth, and swinging circle, after deducting 6 ft. for height above sea bed of sea line cradle is as follows: Berth No. 1, 51 ft.; Berth No. 2, 52 ft.; Berths No. 3 & 4, 55 ft.

Swinging circle defined as one and a half ship's lengths from dropping position of ship's inshore anchor.

The approximate draft limits quoted above are based on an underkeel clearance in the berths of 6 ft., rising tides permit deeper loading in berths.

Seawards ends of pipe-lines, terminate in 16 in. flexible hoses. Hoses are lifted on the port side of the vessel.

Additional information obtainable from Jebel Dhanna Pilots on Channel 16 prior to vessel's arrival.

HOSES: Derricks or cranes must be capable of lifting a string of hoses from the sea-bed to a height of 30 ft. above the deck. For lifting 16 in. diameter hoses, the lifting gear should have a SWL of not less than 10 tons.

Gear should be rigged on port side of the vessel in order to lift hoses.

It may be convenient to handle blank flanges, reducers, etc., with the derrick or crane. Reducers or adaptors should be bolted to the ship's flanges, so as to take 16 in. hoses.

Note: Where a vessel has 2 or more loading connections, those used should not be less than 7 ft. apart.

Hose Hang off bitts are required at about 10 ft. from the ship's rail at the loading manifold to secure the submarine hoses on both sides.

LOADING: *Flash Point:* The flash point of Murban Crude is below 32° F.

Crude Oil Temperatures: While every effort will be made to keep the loading temperatures of export crude below 150° F., there may be times when this temperature is exceeded.

Whenever possible Masters will be advised when this temperature increase is likely to occur, but in Jebel Dhanna the temperature ashore varies according to loading rate, production rate, changes in production pattern from the field, tank levels, etc., and the temperature difference between shore and ship varies according to loading rate, quantity of cargo taken, berth occupied and when last used, etc., thus the ship's temperature obtained on a previous voyage may be substantially different to that obtained on the current voyage and the previous vessel's temperature can be taken as an approximate guide only.

ADCO will not accept any responsibility for the failure by the Master of any tanker loading at Jebel Dhanna to take appropriate action to receive hot oil, prevent any damage to his vessel and/or injury to his crew.

H_2S Content: Murban Crude contains concentrations of H_2S (Hydrogen Sulphide). Hydrogen sulphide has a disagreeable odour characteristic of rotten eggs which quickly deadens the sense of smell so that a dangerous concentration may be present which cannot be detected by odour. It is, therefore, important that when the presence of the gas is detected the area or compartment concerned should be left with all possible despatch until adequate ventilation can be carried out. The combustible gas indicator may not detect this type of gas. The foregoing must be dealt with in the light of experience where large quantities of crudes of this type have been carried without accident and we do not wish to exaggerate the dangers. However, the under-noted precautions have been evolved as necessary to provide against a possible accident and should be strictly observed.

During loading gas should only be allowed to escape via the agreed venting arrangements.

When ullaging or sampling, personnel should stand facing at right angles to the wind direction and so avoid inhaling gas. If H_2S is inadvertently inhaled the man should leave the area and not return until his sense of smell has been restored which means that at least two people should attend the operation.

No one should enter any pump room or any compartment where gas could collect unless another person is standing by.

Life lines, breathing apparatus and resuscitator should be readily available.

As a precautionary measure, the gas ejector for pump room should be put into operation at any time entry is made into this space whilst the possibility of H_2S gas entering pump room from cargo or empty tanks exist.

Loading Operations: The advice from the vessel which states she is ready to receive cargo is considered as final, and as indicating that every operation necessary aboard the vessel has been completed. As soon as possible after such a signal has been received, and without further advice, loading will commence. Damage to hoses can occur if ship's valves are not open at the start of loading. The Mooring Master will not transmit any loading instructions to the shore until the officer-in-charge of the deck has satisfied him that the hoses are connected correctly and that all valves have been set for receiving cargo.

While in berth, ships should be ready to move under their own power in the event of their breaking adrift, catching fire, fire in adjacent berths or other emergency. No repairs are to be carried out while in berth which would immobilise the ship or impair her fire-fighting efficiency.

The Mooring Master will instruct the Master of the Ship as to any signals needed for local requirements.

The Mooring Master will bring a portable radio to the ship.

The radio may not be used for private conversation. Use of the ship's radio while at the loading berth is strictly prohibited.

When loading, the cargo being received shall be frequently measured, thereby preventing loss of oil through a leaking hose. This particularly applies at night, as seepage of oil is practically invisible on the water during darkness.

Caution: The oil loading rates to ships are controlled on shore and an extremely dangerous situation can arise if a ship's valves are closed against the flow of oil.

Particular care must be exercised by ship's personnel to ensure that the Terminal is given timely advice should any reduction be required in the loading rate and adequate "Stand-by" notice must be given before the Final "Stop". At all times the Terminal must be advised when an increase in the loading pressure can be expected due to switching tanks, topping up, etc. To prevent excessive pressure from surge on ship/shore connections, ship's valves should be closed slowly.

The Terminal facilities at Jebel Dhanna have been designed so that tankers can be loaded by turbine driven loading pumps at max. rates up to 6,000 t.p.h. in Berths 1 and 2, 8,500 t.p.h. in Berth 3, and 9,500 t.p.h. in berth 4. Availability of max. loading rates is dependent on the number of berths occupied and operational circumstances.

If vessel is unable to accept the max. loading rate available, then ADCO will be grateful if you will give a brief explanation of the reason for the limitation and we suggest some of the reasons which may govern your restrictions:

(a) Inadequate venting system.
(b) Condition of ship's lines and valves.
(c) Inexperience of crew.

and there may be other reasons.

We are anxious to obtain this information in order to assist in formulating plans for future development.

The quantity of cargo received on board is the responsibility of the ship and no overage may be sent back ashore.

When loading is completed, hoses will be disconnected and lowered to the sea bed, under the supervision of the Mooring Master.

Ships will then proceed to an anchorage allocated by the Port Authority or direct to sea.

BALLAST: No facilities for disposal of slops or dirty ballast.

When a vessel enters port waters in ballast, the ballast water for overside discharge must be clean and a declaration signed by the Master and delivered to the representative of the Terminal to this effect. Ashes, oil, oily water or other refuse must not be discharged overboard in port waters. Vessel's scuppers must be effectively plugged and leakage or spillage of oil aboard ship must not be swept or washed overboard whilst in port waters.

It is essential that vessel is adequately ballasted to ensure safe handling and manoeuvring. Please comply with the Mooring Master's requests as to ballast quantity and disposition.

Jebel Dhanna is an open roadstead and subject to sudden changes in weather. On occasions it is of great advantage to commence loading whilst discharging ballast or prior to completely deballasting to avoid having the vessel in a flying light condition.

There must be no cleaning of boiler tubes whilst ship is in port.

DENSITY: 1031.

FRESH WATER: Not available.

FIRE PRECAUTIONS: As laid down in the Abu Dhabi (Petroleum Ports) Law No. 12 of 1973 and ISGOTT Safety Guide.

GANGWAY/DECK WATCHMEN: Not necessary.

CUSTOMS ALLOWANCES: Tobacco: No restrictions in quantity on board but must not be conveyed ashore or from one vessel to another without appropriate written permit from Customs Authorities and Port Officer. Wine and/or Spirit: Conveyance of alcoholic liquor from any vessel to the shore or from the shore to any vessel, or from one vessel to another, prohibited without appropriate written permits from Port Officer.

Shipmaster's Report: 1978

All alcoholic liquor must be under bond and sealed.

IDENTIFICATION CARDS: Not required.

CONSULS: None.

REPAIRS/DRY DOCKS: No facilities.

REPATRIATION: With sufficient notice Agents will assist in any repatriation. Landing permit is required for all sign on/sign off personnel for which Agent requires Full Name/nationality/Seaman's Book/Passport Number and also 4 to 5 working days to process same. However, facilities are limited and if possible crew changes should be made at other ports.

Shipmaster's Report: 1978.

Immigration Authorities require at least 4 days' notice and preferably 7 days' notice via Agent.

AIRPORT: One mile distant, air strip owned by ADCO for private use. Nearest International Airport is Abu Dhabi the capital of the State.

TIME: Local time GMT plus 4 hours. No alterations to clocks during year.

MEDICAL: A hospital run by the Abu Dhabi National Oil Company (ADNOC) is situated adjacent to the Ruwais Industrial Complex. Ambulance facilities are available.

POLICE/AMBULANCE/FIRE: The Abu Dhabi Defence Force, Oilfield Security Section maintains a police post at Jebel Dhanna and Ruwais and is responsible to act in case of accident or other emergency, whether ashore or in territorial waters.

TELEPHONES: Jebel Dhanna is connected to the international telephone system.

SERVICES: None.

SHORE LEAVE: Crews not allowed ashore.

SHIPMASTER'S REPORT: December 1979.

Anchorage: Ghasha Anchorage apparently has good holding ground, bottom is sand with a little clay.

VHF: Call on Channel 16 or 9 (continuous watch). All operations carried out on Channel 9.

Medical: Any injury requiring treatment ashore necessitates having the following documents ready before the injured seaman can be transported to Ruwais hospital.

1. Extract of Ship's log.
2. Master's report of the incident.
3. Two eye witness reports (if possible).
4. Pilot's report.
5. Letter from Master accepting responsibility for the injured man.

He must also take his Seaman's Book/Passport with him and all the above documents must be signed and ship's stamped by Master.

Gangway: Accommodation ladder usually port side but best to wait until vessel is nearly moored in order to determine best lee side.

Customs Allowances: Customs can be very strict. All alcohol must be locked up before arrival and they will then give an issue.

(C) RUWAIS – REFINERY TERMINAL

OPERATOR: Abu Dhabi National Oil Co., (ADNOC).

GENERAL: The ADNOC Ruwais Refinery Terminal is situated about 2.5 miles SE of the Jebel Dhanna Sea Berths and consists of a trestle jetty 3 km. in length with 2 deep water berths and 4 coastal tanker berths. Vessels will berth port or starboard side at the discretion of the Pilot having regard for the tide and weather conditions.

RADIO: *Format for information required from vessels prior to berthing at Ruwais Refinery Terminal:*

A. Firm ETA Ruwais 72, 48, 36, 24 and 12 hours prior to arrival.
B. Cargo(es) (with quantity in M.tons) to be loaded and acceptable loading rate per hour per line. Number of lines for each cargo.
C. Cargo(es) on board on arrival (if any), with tanks and last port loaded.
D. Will cargo(es) ex-Ruwais be commingled with cargo on board. If so, indicate details.
E. Stowage of clean ballast to be discharged overboard. Indicate under ballast details below if discharge will take place during or prior to loading, as applicable.
    1. Quantity of clean ballast in tanks No.....
       nominated for Cargo loading at Ruwais......M.tons
    2. In segregated ballast tanks.....M.tons
    3. In permanent ballast tanks.....M.tons
    4. Total time required for ballast discharging, prior to loading.....Hours

Note: Clean ballast oil content must be below 15 p.p.m. and samples will be drawn for tests to ensure compliance.

F. Quantity of dirty ballast (if any) to be discharged to the Refinery dirty ballast system and time required for discharging. This is subject to acceptance by the Refinery. Dirty ballast must be free of lead and/or chemical washings.
G. Last three cargoes handled by vessel in the following sequence:
    (i) The very last Cargo(es)/Stowage arrangements.
    (ii) The 2nd last Cargo(es)/Stowage arrangements.
    (iii) The 3rd last Cargo(es)/Stowage Rrangements.
H. Full details of tanks washing and cleaning carried out since the discharge of the last Cargo(es).
I. Draft on arrival and maximum expected draft on sailing.
J. Maximum freeboard on arrival after discharging ballast prior to loading and expected freeboard on sailing (including height from deck to connections at manifold) in metres.
K. Distance from vessel's rails to manifold connection and height of rails from deck.
L. Distance between manifold connections centre to centre in metres.
M. Displacement on arrival and expected displacement on sailing.
N. Bunkers/Water requirements.
O. Any other requirements.
P. SOLAS Protocols with latest revisions are strictly applied in this port and vessels should fully comply with all relevant regulations while in the port area.
   Accordingly, please advise if tanks are inerted per SOLAS requirements and condition of inert gas system fitted in vessel.

Please note vessels should arrive with all tanks properly inerted as applicable under SOLAS Protocol, unless otherwise advised by Ruwais Refinery to arrive in gas free condition to enable internal inspection at inner cabotage by Third Party Inspectors, prior to loading. In this case please advise time required to inert vessel's tanks after completion of inspection.

The above information should be made available 72 hours prior to arrival at Ruwais and is additional to the requirements of the Ruwais Port Officer.

VHF: The Refinery Terminal maintains VHF watch on Channel 16 and Channel 9 for ship/shore communications and once berthed, the vessel will be connected to the terminal by land line telephone.

The Pilot will bring on board UHF Hand Set for manoeuvring purposes only.

Arrival Telegram Ship/Shore: After the Pilot boards the Ship/Shore Arrival Telegram will be passed by VHF Radio Channel 16/9 as follows:

(1) Name of Vessel.
(2) Nationality and Port of Registry.
(3) a – Gross Registered Tonnage.
    b – Net Registered Tonnage.
    c – Summer Deadweight.
(4) Size of manifold.
(5) Are reducers to 12 in., 10 in. and 8 in. available on board?
(6) Are adequate nuts and bolts and gaskets available on board?
(7) Number of hours required to de-ballast and quantity.

(8) Vessel's maximum loading rate.
(9) Quantity and type of cargo.
a –
b –
c
(10) Last Port.
(11) Next Port.
(12) Master's Name.
(13) Date and time of arrival.
(14) Date and time of Pilot on Board.
(15) ETA at Berth.
(16) Arrival Draft.
(17) Estimated Departure Draft.
(18) Bunkers requirements (quantity and type).
(19) Drinking Water requirement quantity.
(20) Is the ballast lead free?

BERTHING:

Berth "B"

Berth "B" is designed to accommodate tankers in the range 9,100 to 104,000 tons displacement. Length of ship 118.5 m. to 280 m. The minimum depth alongside the berth is 12.7 m.

The berth consists of the Loading Platform, four mooring dolphins and four breasting dolphins connected by walkways.

On the Loading Platform a bank of six cargo Chicksan arms serve to load or discharge ships, namely:

2×12 in. dia. Each arm is provided for Fuel Oil loading and ballast unloading.
2×12 in. dia. Each arm is provided for Gasoline (Premium and Regular), Kerosene, Jet Fuel and Diesel Oil.
1×10 in. dia. For Bunker 'C' and Marine Diesel Oil loading.
1×12 in. dia. For Naphtha loading.
One 3 in. hose for drinking water is provided.

Products available for loading are Naphtha, Fuel Oil, Gasoline, Kerosene/Jet Fuel, Diesel Oil, Marine Diesel and Bunker 'C'.

Flow rates are as follows:

Naphtha	1,400 cu.m./h.
Reg. Gasoline	1,400 cu.m./h.
Prem. Gasoline	1,400 cu.m./h.
Kerosene	2,500 cu.m./h.
Diesel Oil	3,000 cu.m./h.
Fuel Oil	3,200 cu.m./h.
Crude Oil	6,000 cu.m./h.
Bunker 'C'	1,000 cu.m./h.
Marine Diesel Oil	300 cu.m./h.
Drinking Water	100/300 cu.m./h.
Ballast	1,500 cu.m./h.

The loading arms are provided with:
(i) Hydraulic quick coupling.
(ii) Automatic drain system (emergency condition).
(iii) Electro hydraulic operation.
(iv) Range control system.
(v) Remote Control.
(vi) Connecting flange mating device.
(vii) Vacuum Breaker.

Berth "C"

Berth "C" is designed to accommodate vessels with range 26,000 to 130,000 tons displacement. Length of ship 180 m. to 295 m. The minimum depth alongside the berth is 16.8 m.

The berth consists of the Loading Platform, six mooring dolphins and four breasting dolphins connected by walkways.

On the Loading Platform a bank of seven cargo Chicksan arms serve to load or discharge the ship, namely:

3×12 in. dia. Each arm is provided for Crude Oil, ballast unloading and Fuel Oil loading.
2×12 in. dia. Each is provided for Gasoline, Kerosene, Diesel Oil loading.
1×10 in. dia. For Bunker 'C' and Marine Diesel Oil loading.
1×12 in. dia. For Naphtha loading.
One 3 in. hose for drinking water is provided.

Products available for loading are Naphtha, Gasoline, Kerosene/Jet Fuel, Diesel Oil, Fuel Oil, Marine Diesel and Bunker 'C'.

Flow rates are as follows:

Naphtha	1,400 cu.m./h.
Reg. Gasoline	1,400 cu.m./h.
Prem. Gasoline	1,400 cu.m./h.
Kerosene	2,500 cu.m./h.
Diesel Oil	3,000 cu.m./h.
Fuel Oil	3,200 cu.m./h.
Crude Oil	6,000 cu.m./h.
Bunker 'C'	1,000 cu.m./h.
Marine Diesel Oil	300 cu.m./h.
Drinking Water	100/300 cu.m./h.
Ballast	1,500 cu.m./h.

The loading arms are provided with:
(i) Hydraulic quick coupling.
(ii) Automatic drain system (emergency condition).
(iii) Electro hydraulic operation.
(iv) Range control system.
(v) Remote control.
(vi) Connecting flange mating device.
(vii) Vacuum Breaker.

Coastal Berth 1

Coastal Berth 1 is the Inner Berth on the North side of the Cabotage Jetty. The Berth consists of the loading platform, four mooring dolphins and four breasting dolphins. Length of ship 70 m. to 118.5 m. The loading platform has a bank of five Chicksan loading arms with 8 in. diameter connections. The minimum depth alongside the berth is 9.1 m. Vessel size 2,600 to 9,100 tons displacement.

Products available are: Fuel Oil, Diesel, Kerosene/Jet Fuel, Gasoline, Bunker 'C' and Marine Diesel Oil. Ballast will be pumped ashore.

Flow rates are as follows:

Reg. Gasoline	1,000 cu.m./h.
Prem. Gasoline	1,000 cu.m./h.
Kerosene	900 cu.m./h.
Diesel Oil	900 cu.m./h.
Fuel Oil	800 cu.m./h.
Marine Diesel Oil	300 cu.m./h.
Bunker 'C'	900 cu.m./h.
Ballast	400 cu.m./h.
Drinking Water	100/300 cu.m./h.

One 3 in. flanged connection for fresh water.

The loading arms are provided with:
(i) Electro hydraulic operation.
(ii) Manual quick coupling and hydraulic emergency release.
(iii) Range control system.
(iv) Vacuum breaker.
(v) Remote control system.
(vi) Connecting flange mating device.

Coastal Berth 2

Coastal Berth 2 is the Inner Berth on the South side of the Cabotage Jetty and consists of the loading platform; four mooring dolphins and four breasting dolphins. Length of ship 70 m. to 118.5 m., size 2,600 to 9,100 tons displacement. The minimum depth alongside the berth is 8.7 m. The loading platform has a bank of two 8 in. diameter loading arms.

vis. 1×8 in. to discharge ballast.
1×8 in. to load Bunker 'C', Marine Diesel or Fuel Oil. TEL unloading facilities are available.

Flow rates are as follows:

Reg. Gasoline	1,000 cu.m./h.
Prem. Gasoline	1,000 cu.m./h.
Kerosene	900 cu.m./h.
Diesel Oil	900 cu.m./h.
Fuel Oil	800 cu.m./h.
Marine Diesel Oil	300 cu.m./h.
Bunker 'C'	900 cu.m./h.
Ballast	400 cu.m./h.
Drinking Water	100/300 cu.m./h.

One 3 in. flanged connection for fresh water.

The loading arms are provided with:
(i) Electro hydraulic operation.
(ii) Manual quick coupling and hydraulic emergency release.
(iii) Range control system.
(iv) Vacuum breaker.
(v) Remote control system.
(vi) Connecting flange mating device.

Coastal Berths 3 & 4

The Outer Berth North and South side of the Cabotage Jetty each consist of four breasting dolphins and three mooring dolphins with a fourth common mooring dolphin with berths 1 & 2. Length of ship 70 m. to 118.5 m., size 2,600 to 9,100 tons displacement.

The minimum depth alongside the berth is 9.4 m. (No. 3) and 9.2 m. (No. 4). The berths are equipped with four 8 in. loading arms and a 3 in. water connection.

Products available are: Diesel Oil, Kerosene/Jet Fuel, Gasoline, Marine Diesel Oil, Bunker 'C'.

Ballast water will be pumped ashore.

Flow rates are as follows:

Reg. Gasoline	1,000 cu.m./h.
Prem. Gasoline	1,000 cu.m./h.
Kerosene	900 cu.m./h.
Diesel Oil	900 cu.m./h.
Fuel Oil	800 cu.m./h.
Marine Diesel Oil	300 cu.m./h.
Bunker 'C'	900 cu.m./h.
Ballast	400 cu.m./h.
Drinking Water	100/300 cu.m./h.

The loading arms are provided with:
(i) Electro hydraulic operation.
(ii) Manual quick coupling and hydraulic emergency release.
(iii) Vacuum breaker.
(iv) Remote control system.
(v) Range control system.
(vi) Connecting flange mating device.

BERTHING AIDS:

Berths 'B' and 'C' are equipped with a radar operated safety berthing system indicating by means of coloured lights the forward and aft berthing velocity of the ship.

Two groups of coloured lights one forward and one aft indicate the safe/acceptable/dangerous lateral approach of the ship from a distance of 50 m. off the berth.

BALLASTING/DEBALLASTING: Ruwais Refinery has dirty ballast water treatment equipment and all dirty ballast shall be discharged ashore for treatment. (No dirty ballast may be discharged into the sea and pollution of the waters of the port is an offence against the Port Regulation and the laws of Abu Dhabi).

Accepting dirty ballast into the refinery storage is subject to approval by refinery, a sample of the dirty ballast may be required for analysis, a letter from Master requesting permission to discharge is to be made (letter is provided for Master's signature).

During loading/unloading all deck scuppers must be plugged. All precautions shall be taken to prevent oil or oily waters escaping into the sea during connection and disconnection of loading arms.

Normally the terminal Control Room will give a 10 minutes warning before deballasting may commence. Deballasting shall commence at slow speed to check systems and back pressure.

Simultaneous deballasting with loading of cargo is permitted only in the case of cargo of Bunker 'C'.

While encouraging quick turn around and the use of minimum ballast upon arrival, sufficient ballast must be retained on board for the safe manoeuvring of the vessel at the Pilot's discretion.

LOADING AND UNLOADING:

(i) The Master should give the terminal a 'STAND BY' warning 10 minutes before ready to commence loading or discharging.

(ii) Upon 'COMMENCE LOADING' from the Master only one pump will be used to ensure a slow flow rate until it is established that all systems are operating correctly and pressures are constant. Full loading rate may then be ordered.

(iii) The vessel's cargo tanks shall be inspected prior to and during loading and should it be found that the tanks are not tight all loading shall cease, the vessel be rejected and further loading refused. The vessel will not be accepted later until satisfactory evidence of repair is produced duly certified by ABS, Lloyd's or other officially accredited classification society or surveyor.

(iv) During the hours of darkness vessels loading products or discharging crude oil or ballast shall rig overside lights to illuminate the surface of the sea around the ship to the Terminal Operators satisfaction to ensure that any oily products on the surface may be detected quickly and early action taken as appropriate.

DERAT: There are no facilities for Derat at Ruwais.

FUEL: Bunkers are obtainable at Refinery berths and should be arranged through the ship's Agent.

FRESH WATER: Fresh water is obtainable at Refinery berths and should be arranged through the ship's Agent.

STORES/PROVISIONS: Stores and provisions are not permitted to be loaded at Refinery berths and must be taken on board in the anchorage.

(D) RUWAIS – NGL TERMINAL: 24° 09′ 49″ N. 52° 43′ 16″ E.

OPERATOR: Abu Dhabi Gas Industries (GASCO).

GENERAL INFORMATION: The Terminal Regulations are issued for the information and guidance of Masters of vessels loading at the GASCO Jetty at Ruwais. After receipt of the first ETA advice from a gas carrier GASCO will cable the Master of the vessel instructions to carry out following tests and checks 24 hours prior to arrival:

1. Check condition (oxygen content) of atmosphere in void spaces around cargo tanks.
2. Check all reliquefaction units fully operational.
3. Check settings of cargo tank safety relief valves.
4. Test ESD (Emergency Shut Down) of cargo valves/pumps/boosters from all activating stations.
5. Check gas detecting unit with suitable spangas and have unit working continuously.
6. Test waterspray system deck area, flush all lines and check nozzles for proper operation and coverage.
7. Check ventilation of control room and compressor room and have ducts set for LPG.
8. Check over-pressurising and motor-trip system of motor room.
9. Check navigation equipment and steering gear fully operational.

The results of above tests should be cabled to GASCO not less than 18 hours prior to arrival.

On arrival at the terminal, the Terminal Representative will discuss with the Master the safety requirements. Attention is drawn to the International Safety Guide for Oil Tankers and Terminals (ISGOTT) and the Safety Inspection Guildelines and Terminal Safety Check List for gas carriers as published by the International Chamber of Shipping and Oil Companies International Marine Forum (OCIMF). For efficient loading it is essential that the ship should be fitted with adequate equipment. Improvisations made after the ship has arrived alongside the jetty are not sound practice and result in delays and possible damage to the loading arms and other equipment.

Abu Dhabi Gas Industries Ltd. (GASCO) have equipped their terminal with loading machinery and mooring arrangements which will ensure tankers and gas carriers receiving their cargoes at a reasonable rate, thereby extending to the ship the benefit of a rapid turnaround.

Mooring, loading and unmooring are carried out by night as well as by day. Co-operation between the Ship's Officers and Terminal Representatives is essential to secure the full benefit of the facilities provided.

MAX. SIZE: *Gas Carriers:* 28,000 cu.m. – 125,000 cu.m.

Tankers: Minimum Size – 15,000 tonnes S.D.W.T. Max displacement on arrival 95,000 tonnes. Max. LOA 320 m.

TUGS: Twin screw tugs (35 tons bollard pull) are used for both berthing and unberthing of vessels. The number of tugs to be used is to the discretion of the Pilot but will normally be two for berthing and one for unberthing. The tugs will use their own ropes and/or wires. The tugs are fitted with foam/water monitors, including one at approximately 19 m. above sea level, to assist in fire-fighting. Also fitted are spray booms to apply dispersants in case of oil spills.

BERTHING: *The Jetty:* The centreline of the GASCO-NGL Jetty Loading Platform is situated in 15 m. of water in position Lat. 24° 09′ 49″ N., Long. 52° 43′ 16″ E. with the berthing line in direction 305°/125°. Vessels are normally berthed heading 305°. A piping trestle and road, approximately 2,650 m. long, leads to the shore where the processing plant and storage tanks are located.

The jetty head comprises a loading platform (10 m. above chart datum), a utilities building, 4 breasting dolphins and 6 mooring dolphins. The dolphins are inter-connected by walkways. The distance between the 2 outermost dolphins is 340 m., between the 2 innermost breasting dolphins 42 m. and between the two outermost breasting dolphins 97 m.

On the loading platform there are 2×12 in. loading arms for loading Pentane Plus and discharge of dirty ballast/slops, 4×12 in. loading arms for loading/vapour return of Propane and Butane and 1×8 in. loading arm for bunkering (Rate – MFO 400 cu.m.p.h. and MDO 300 cu.m.p.h.). (For distance and disposition of loading arms see schematic layout). The LPG loading arms are fitted with an Emergency Release System (ERS). All loading arms except the bunker arms are fitted with an Emergency Shutdown System (ESD). Both ERS and ESD can be actuated automatically or manually. For detailed information about these systems you are referred to the separate letter on ESD/ERS handed over to you by the Terminal Representative. The Master is to ensure that the personnel responsible for cargo operations are fully familiar with these systems.

On the Western end of the loading platform is a gangway tower with a 1.5 ton crane forming a integral part of this tower. On the Eastern end of the platform there is a tower mounted firewater and foam monitor. This monitor can be controlled manually or remotely from the jetty head or from the foot of the jetty aided by a television monitor.

An additional manually controlled firewater monitor is situated on each of the 2 inner breasting dolphins. In addition to this, water spray deluge systems are covering the loading arms area, the gangway, the surge drum area and the utilities building. Gas detection equipment is strategically placed near the loading arms and will give alarm in case of inadvertent gas escape. The loading arms area and tanker manifold area are monitored by closed circuit television from the control room situated in the utilities building on the jetty and from the main control room.

On the Eastern side of the loading platform is a boat landing stage where the mooring boats can tie-up.

Draft: The minimum water depth alongside the jetty is 15 m. (49.2 ft.) below chart datum (C.D.). However, the Deep Water Channel imposes draft limitations on vessels departing from and entering the Port of Jebel Dhanna – Ruwais:

Also see Section "A" – "Restrictions".

Moorings: When at berth, vessels must be moored to the entire satisfaction of the Pilot. Vessels will normally berth port side alongside on a heading of 305°. The breasting dolphins are each equipped with 1,250 KN double quick release hooks and a power operated capstan. The mooring dolphins are each equipped with 1,250 KN triple quick release hooks and power operated capstan.

Vessels must be ready at all times to put out extra moorings as requested by Terminal Personnel or dictated by weather changes. It is the Master's responsibility to ensure that vessel's mooring lines are checked frequently to prevent excessive movement of the vessel in berth, which could activate the ESD/ERS systems and/or cause severe damage to the loading arms and other terminal equipment.

Experience has shown that wholly synthetic moorings have too much elasticity and allow the vessel to range or drift away from the berth during periods of adverse weather.

Therefore the moorings should preferably be all steel wires without use of nylon tails.

As it is recognised that some vessels are not fitted out with complete steel wire moorings, such vessels may use synthetic moorings for head or stern ropes, but breasting and spring moorings are to be steel wires. However, mooring lines leading to the same mooring dolphin should either be all steel wire or all synthetic fibre.

NOTE: (October 1982). With immediate effect all vessels calling at the GASCO NGL Jetty are to be fitted with wires, for spring lines. Vessels unable to comply will be subjected to an inspection of mooring ropes by the Pilot on arrival and will be berthed only if Pilot is satisfied with the mooring lines available. Pilot inspection of mooring lines will be carried out only during daylight hours.

The breasting dolphin's fender design criteria are based on providing for berthing energies acting in the horizontal plane for maximum displacement of 95,000 tonnes with an approach angle to the berthing line of 7° at a contact velocity of 15 cm. per second.

Yokohama Fenders protrude approximately 2.9 m. from the face of the loading deck, they provide for 100% contact of fenders on the vessel's perpendicular mid-body at light and loaded drafts, for the full range of vessel sizes.

Tension Winches: Vessels equipped with automatic tension winches should not use the automatic device and set the manual brake on these winches.

BALLAST: The jetty is equipped with dirty ballast/slops reception facilities. Tankers discharging dirty ballast/slops ashore will use the Pentane plus loading arms from where a 24 in. pipe-line runs to tanks in the Refinery adjacent to the LPG plant. The maximum ballast reception rate is 1,500 cu.m./hr. Prior to arrival the Master is to advise GASCO how much dirty ballast/slops he expects to discharge to the shore facilities.

When the vessel arrives with clean ballast for overside discharge, the ballast water must be clean and a declaration to this effect needs to be signed by the Master and delivered to the Terminal Representative. There is a danger of violating pollution regulation if ballast taken on in polluted water is discharged in port. If it is necessary to take on ballast in polluted areas, this should be discharged during passage and replaced by cleaner ballast.

Ashes, oil, oily water, garbage or other refuse must not be discharged overboard in port waters. Scuppers must be effectively plugged and leakage or spillage of oil aboard ship must not be swept or washed overboard whilst in Port waters.

It is essential that the vessel is adequately ballasted to ensure safe handling and manoeuvring. Please comply with the Pilot's requests as to ballast quantity and disposition.

There must be no cleaning of boiler tubes whilst the ship is in port.

POLLUTION: Abu Dhabi Gas Industries Ltd. (GASCO) follows a clean seas policy and in this respect the Harbour Master is authorised by the Port Authority to inspect the vessel's "Oil Record Book" referred to in the International Convention for the Prevention of Pollution from Ships 1973. Any vessel, the Master of which does not allow inspection of the "Oil Record Book," will be refused the use of the Company facilities at Ruwais.

If it is found that the information entered in the "Oil Record Book" is not in accordance with the requirements of the Convention the matter will be reported to the appropriate authority.

It is an offence to discharge dirty ballast, pump bilges or discharge refuse within the Port limits.

The Harbour Master, or his nominee, is authorised to take samples, in accordance with an approved procedure, of ballast water to be discharged, or being discharged at Ruwais. Should test carried out on these samples indicate an average oil in water content of more than 15 p.p.m. then this may be used in evidence in any proceedings against you brought by the Port Authority in accordance with the Law.

In the event of your vessel discharging dirty ballast or spilling oil, cost for cleaning the pollution, third party claims and other expenses and fines shall be borne by the vessel.

COOLDOWN OF GAS CARRIERS: Vessels, when presenting themselves to load at GASCO terminal should in all cases be ready to load in all respects. For a gas carrier this means that the cargo tank atmosphere should be compatible with the product to be loaded and the cargo tank temperature close to the temperature of the product to be loaded (Propane −45°C, Butane −8°C).

Notwithstanding the above and providing notice is given well in advance, GASCO may, in exceptional cases, accept gas carriers not fully cooled-down. Each occasion will be considered separately giving due regard to the shipping programme and any other circumstances or restrictions.

GASCO will not accept any responsibility for the failure by the Master of any gas carrier loading at Ruwais to take appropriate action to receive cold liquefied gas, prevent any damage to his vessel and jetty installation and/or injury to his crew or Terminal personnel.

VENTING: During the loading of Pentane plus, vessels should only allow vapours to escape via the agreed venting arrangement. If there is little wind movement, vapour may persist on deck. When there is a wind, it may, in crossing a deck house or structure, create a low pressure on the lee side thereby causing vapour to be carried towards the house or structure.

Either of these wind conditions may result in high local vapour concentration and, if so, it may be necessary to stop loading while the conditions persist.

Gas carriers are not allowed to have any vapours escape to atmosphere. During loading the pressure in the cargo tanks should be controlled by the use of their reliquefaction plant or by the use of the vapour return line to the shore. The control room should be notified prior to returning vapour ashore via the vapour return line and before stopping the return of vapour ashore.

Your attention is drawn to the information, as provided to you by the Terminal, on the properties and dangers of the cargo to be loaded on board your vessel, together with the actions required in case of an accident.

LOADING: *Loading Arms:* The LPG and Pentane Plus loading arms presentation flanges are 12 in. ANSI – 150 – flat face spiral groove.

For centre to centre distances and disposition of the loading arms, see schematic layout. The LPG arms operating envelope parameters are as follows:

Vertical plane	: From 7.7 m. to 24.0 m. above chart datum.
Horizontal plane	: From 4.1 m. to 8.7 m. off the jetty face over the full vertical plane.
Safety Provision	: Horizontal plane drift of 4.6 m. on either side of the centre line. Lateral plane drift of 4.6 m. outside the normal operating box envelope.

All four LPG loading arms can be connected to ships' manifold with a centre to centre spacing range of 1.6 m. to 3.5 m. for the full envelope including the outer drift envelope box.

The Pentane Plus loading arms operating envelopes are as follows:

Vertical plane	: From 2.3 m. to 20.75 m. above chart datum.
Horizontal plane	: From 6.4 m. to 9.3 m. off the jetty face over the full vertical plane.
Safety Provision	: Horizontal plane drift of 4.6 m. on either side of the centre line. Lateral plane drift of 4.6 m. outside the normal operating box envelope.

The Pentane Plus loading arms can be connected to ships' manifolds with a centre to centre spacing range of 0.6 m. to 2.1 m. for the full envelope including the outer drift envelope box.

Notwithstanding the above, the loading arms are fitted with ESD systems and additionally the LPG arms with ERS which is actuated before the loading arms reach the outer limits of their envelopes.

The LPG loading arms are linked to the shore system which provides the following flexibility:

Loading arms are numbered from the gangway tower to East.
No. 1 – Propane or Vapour return
No. 2 – Propane – Butane or Vapour Return
No. 3 – Propane – Butane or Vapour Return
No. 4 – Butane or Vapour Return

After berthing you are required to remove the blind flanges from the manifold connections to be used for loading and to indicate which product is to be loaded through them and which connections are to be used for the Vapour Return lines, if required. The connection/disconnection of the 12 in. ANSI 150 loading arms and 8 inch ANSI 150 bunker arm will be carried out by Terminal personnel. If your manifold sizes do not correspond with the loading/bunker arms, you are requested to provide and fit the appropriate reduction pieces accordingly. Masters of gas carriers are to ensure that the reduction pieces and gaskets used are suitable for loading of cryogenic cargoes.

Communications: To maintain necessary communications permanently during cargo operations and also in emergencies, you will be provided with a handie-talkie and a telephone.

We require that the handie-talkie is at all times attended to by the officer responsible for cargo operations. The handie-talkie enables the officer to communicate directly with the main control room and the jetty control room.

Furthermore, a telephone will be placed on your vessel. It is advisable that this telephone is located in such a way that it is guarded most of the time. Additionally a console for activating the ESD and ERS will be put on board.

A ship's crew member, able to converse in English, must be present near the ship's manifold at all times. The loading arm and ship's manifold area are covered by closed circuit televisions from the jetty control room and main control room.

Emergency Procedures: In case of an **emergency on board** your vessel, we require you to take the following action:

Raise the appropriate alarm and take the required action
Inform the Terminal via handie-talkie, telephone and jetty attendant or by activating the ESD or ERS system (see cautions on ESD/ERS information letter).
Cease all cargo operations immediately and shut-down cargo system completely.
Prepare to vacate the berth.

In case of an **emergency ashore,** we require you to take the following action:

Cease cargo operations immediately and shut-down cargo systems completely.
Stand-by on handie-talkie and telephone and keep contact with jetty attendant.
Stand-by to give any assistance.
Prepare to vacate the berth.

NOTE: The shore installation has been equipped with a range of safety devices and emergency shutdown systems, these could be activated automatically or manually from the jetty or on board the vessel as the situation will call. All shutdowns are preceded or accompanied by an alarm.

Loading Operations: The maximum loading rates for each product are as follows:

Product	*Tons/hr.*	*cu.m./hr.*
Propane	1,760	3,000
Butane	1,800	3,000
Pentane Plus	2,910	4,270

Propane and Butane can be loaded simultaneously. Loading rates can be adjusted either by stopping/starting one or more pumps or by opening/closing of the recirculation valves on the loading platform.

After berthing the terminal representative will discuss with you the loading operations and emergency procedures. You are reminded that the responsibility as to the quantity of cargo to be loaded, rests with you as Master of the vessel and no overage may be sent back ashore.

Whilst alongside the jetty, ships should be ready to move under their own power in the event of their breaking adrift, catching fire or emergencies. No repairs are to be carried out whilst alongside which would immobilise the ship or impair her fire-fighting efficiency.

CAUTION: The loading rates are controlled on shore and due to the long pipe-lines from the shore product tanks to the jetty head, and the high loading rates, an extremely dangerous situation can arise if ship's valves are closed against the flow of liquids, which could lead to pressure surges liable to cause the blowing out of pipe-line gaskets and/or severe damage to the loading arms.

Loading rates, loading rate reductions and stopping of cargo procedures will be discussed with you prior to commencement of loading.

While alongside the jetty, no craft are allowed alongside the vessel. The lowering of lifeboats whilst alongside the jetty is strictly prohibited except in emergencies.

Immediately after completion of loading the loading arms will be disconnected and the vessel must be ready to proceed to sea or anchorage as directed.

STORES: The taking-on and/or landing of stores and ship's spares over the jetty is not allowed.

SHORE LEAVE: Crew members are not permitted shore leave.

SIGNALS: Vessels, whilst alongside the GASCO NGL-jetty, shall, in addition to those described in the port regulations, display the following signals: by day: a red flag, by night: a red light visible from all directions.

SHIP OPERATOR'S REPORT: February 1982

The following criteria for gas carriers programmed to load propane/butane at Ruwais Terminal.

1. Tanks' atmosphere compatible with product to be loaded.
2. Tanks' temperature close to temperature of product to be loaded (Propane – 42°C, Butane – 6°C).
3. Distance between ship's side and 12 in. manifold connections between 4.1 m. and 8.7 m.
4. Height of manifold above chart datum between 7.7 m. and 24.0 m.
5. Maximum height of railing i.w.c. manifold above chart datum 21.8 m.
6. Centre to centre distances between manifold connections between 1.1 m. and 3.5 m. if manifold connections centre to centre distances are between 1.1 m. and 1.6 m. only one grade can be loaded at the same time.
7. Vessel not to have carried ammonia on previous two voyages.
8. Vessel to inform GASCO Ruwais not less than 48 hours prior to arrival of disposition of manifold connections from bow to stern indicating which connections to be used for propane, butane, vapour and liquid and also the centre distances between them.

also

9. Master should confirm ETA at 72, 48 and 24 hours prior to arrival to Gasha Tower by telex/cable.
10. Master to call Jebel Dhanna Pilot and Agent Jebel Dhanna on VHF radio Channel 9 or 16 four hours prior to arrival. Gasha buoy is in position Lat. 24° 25′ 46″ N., Long. 52° 34′ 26″ E.
11. Please advise Agents vessel's call sign or telex no., d.w.t. in long tons, g.r.t., n.r.t., arrival draft, loading rate, etc.

SHIPMASTER'S REPORT: December 1981 (Vessel loading propane/butane, g.r.t. 45,000, d.w.t. 56,000, draft 13.1 m., capacity 79,970 cu.m.).

Ruwais lies in the same general port area that encompasses Jebel Dhanna and at the moment consists of a petroleum products jetty and another to the S.E. which handles Pentanes and LPG.

Further again to the S.E. there is more port development for an ammonia/fertiliser berth and dry-cargo berths.

Ruwais is administered by ADPPOC, Abu Dhabi Petroleum Ports Operating Company, while the LPG berth comes under the immediate control of GASCO, Abu Dhabi Gas Industries Ltd.

The LPG loading platform is situated in position: Lat. 24° 09.8′ N., Long. 52° 43.3′ E., the trend of the platform and mooring dolphins being about 305° True, more or less in line with the current flow.

Approach: The vessel should have BA Charts 3778, 3779, 3780 and the recommended track on these should be followed for arrival and departure since it provides adequate water for a vessel of this size and draft. The route is well marked with large buoys and light floats which show up well visually and on the radar. An approach in poor visibility should thus be possible and made with confidence.

See Pilot Books and "Guide to Port Entry".

A waiting anchorage is provided off Ghasha buoy.

Pilotage: Pilots board off 'Ghasha' Buoy from launch of about 12/16 m. length; at the moment two launches are in commission.

Pilot ladder required about 1 m. above the water.

The length of pilotage to the first line ashore is about 3.5 hours.

Communications: Through Bahrain Radio. There is considerable evidence pointing to huge delays in cables between this radio station and the eventual recipient.

Before arrival the Agents sent a comprehensive questionnaire requesting safety checks and ship information. This is a standard cable and originates from GASCO.

VHF contact originally made on Channel 16 with the Pilots and Port Control, but their usual working frequency is Channel 9.

On boarding the Pilot issues a copy of the Port Regulations which should be studied prior to berthing.

Berth: This consists of the loading platform and mooring dolphins at the end of a 3 km. trestle. Minimum reported depth alongside is 15 m. and this was borne out by echo sounder on arrival and departure.

The jetty head consists of the loading platform, 42 m. long with two breasting dolphins at each end. Beyond these are the mooring dolphins, three forward and aft, the total length of the mooring system being 340 m., thus providing adequate moorings for most vessels.

The loading platform carries seven Chicksans, two for Pentane, one for bunkers (yet to be commissioned) and four for LPG. There is a control building on the berth together with closed circuit TV, gas detecting equipment and fire fighting monitors.

The loading arms are all 12 in. 150 ASA although shore personnel boarded and fitted special pieces between our manifold/reducers and the Chicksan. All Chicksans are fitted with automatic quick release and this will operate if the vessel surges more than 4 m. (two for'd and two metres aft) from her moored position. An automatic shutdown system is also fitted and the vessel is provided with a control box for these together with comprehensive instructions. A time of 10 secs. is quoted from operation to complete shutdown and emergency release.

There is provision for two vapour return lines and two loading lines within the four Chicksan configuration and these are interchangeable to a degree.

Ship/shore communication is provided by the terminal who place on board a Stornophone for that purpose.

Mooring: Wires only are recommended but there were no objections to our all polypropylene supply. The normal 3.2.2 was recommended and there is a large mooring boat to assist. Dolphins are fitted with quick release hooks.

Springs must be on mooring winches and the use of self tensioning winches is not allowed.

There are powerful tugs (3,300 h.p.) available for berthing.

Cooldown: There exist rather loose requirements for cooling down but it was no problem to explain to the Superintendent that this vessel could load into 'warm' tanks. If a vessel were to arrive under inerted tanks the situation may be rather different and it appears that the vessel would then leave the berth to cooldown.

Gangway: Ship's gangway should be turned in for berthing, a shore gangway is provided.

N.O.R.: Agent advised me to tender Notice of Readiness at the time of passing the Ghasha buoy.

E.D.P.: There is no Early Departure Procedure, the Master must sign Bills of Lading before sailing. Allow three to four hours after completion of loading to complete all paperwork.

Load Rates: Invariably quoted in cu.m.p.h. Maximum for each product being quoted as Propane 3,000 cu.m.p.h., Butane 3,000 cu.m.p.h. The plant were able to supply at a very low initial rate at the commencement of loading.

Note: The Propane loaded at this call was very warm, −38°/−39.5°C. The Loading Superintendents did not find this amiss and the reported temperature in the shore tanks is about −40°C. There was a slight drop in temperature at the manifold after sunset.

Butane loading temperature was about 0°/−1°C.

Cargo Survey: Watson Gray attended on behalf of Charterers to gauge ship's tanks and their figures agreed closely with our own. However, there was a huge discrepancy (618 tonnes) between our figures and those from ullaging and flow meter readings ashore (Propane). Ship was in excess of the shore tonnage. Ship was under shore figures for Butane by about 35 tonnes.

Protest noted over cargo temperature and quantities. Vessel was given outward clearance only on issuing Agents with a letter of Authority to Sign Bills of Lading.

Density: Water density 1031.

General:

Stores: Not available.

Shore Leave: Definitely not allowed under any circumstances other than extreme medical urgency.

Relief/Repatriation: Not possible.

Lloyd's Surveyor: A minimum of seven days' notice required.

Repairs: There are no repair facilities available. Whilst alongside main engines must be kept in immediate readiness.

Lifeboats: Permission *must* be sought from Port Authorities to carry out lifeboat drills.

Bonded Stores: No restrictions on tobacco. All alcohol should be collected and sealed. The Customs may allow a token issue (six cases of beer for the ship) but this is not to be relied upon. All cameras have to be collected and placed under seal.

Medical: Unless in cases of extreme urgency, totally unavailable.

Rat Guards: Must be fitted to all moorings.

Fresh Water: Not available.

Walport Films: Exchanges readily available with usual notice.

Entering Inwards: After the vessel's cargo nomination has been accepted she is allowed an "acceptance period" of three days in which to arrive at the port. Apparently this runs from 24 hours, BEFORE the day of acceptance to 48 hours afterwards. Thus we arrived 7 hours 30 mins after the expiration of our acceptance period and a vessel arriving 20 hours later received priority. This should be brought to the notice of Owners or Charterers, before arrival.

Papers: 1 copy Crew Declaration.
1 copy Bonded Stores List.
2 copies Crew List and Maritime Declaration of Health.

Bonded stores' seal checked on sailing. Customs checked both bars.

Note: Abu Dhabi operates a boycott against Israel, South Africa and Egypt. Suez Canal Transit is excepted.

The Master has to sign an undertaking to the effect that the cargo will not be discharged at a port under boycott and is given a form to be posted to Abu Dhabi from the discharge port as proof.

(E) RUWAIS FERTILISER INDUSTRIES (FERTIL)

The bulk cargo terminal (FERTIL) at Ruwais comprises a 512 m. long jetty with in line berths to suit the export of bulk/bagged Urea and Liquid Ammonia. Three mooring dolphins at the seaward end of the jetty serve a Liquid Ammonia berth. Max. draft is 11 m., a 500 m. turning circle is provided off the jetty and vessels will normally be berthed port side alongside with ship providing its own access. Mooring lines should preferably be all steel wires. If this is not possible ropes and wires are not to be led to the same dolphin. A shore deballasting system is provided.

Provision has been made along the jetty for bag and bulk conveyors to load vessels with urea from a fertiliser plant 1 km. inshore.

The loading of ammonia is carried out from a loading arm at the North end of the jetty where vessels can berth using 3×100 ton capacity mooring dolphins.

LOCATION: The jetty alignment and conveyor main setting out line is 10° West of North. The seaward limit of the jetty works are defined by the Northernmost mooring dolphin.

The terminal is located in 12 m. of water, due East of the NGL Jetty, and West of the Construction Wharf and is approached from a deep water channel serving other Ruwais jetties.

A turning basin is located N.E. of the jetty and is of 500 m. diameter and has a minimum dredged depth of 12 m. below chart datum.

Vessels will normally be berthed against fender piles alongside the jetty on a heading of 350°.

NOTICE: *Ship's Arrival Advice:* It is strongly requested that full details of the vessel including the number of crew and their nationalities should be advised to us. This information is required by the oil installations protection unit. In the absence of this information the protection unit would refuse permission for berthing of the ship. Therefore, you must ensure timely availability of this information so that it can be forwarded to the authorities. Any delay caused in berthing due to non-availability of information shall be to your account.

Further, please note that the above information should be made available as soon as the ship is nominated but not later than 24 hours after the nomination is confirmed. *Signed*: Plant Manager, Fertil.

BERTHING: *Jetty:* The jetty is designed for berthing combinations of vessels up to 2 fully laden 200 m. long (25,000 d.w.t.) bulk cargo vessels along its Eastern side. Provision is made at the Northern end of the jetty for the loading of liquid ammonia.

The jetty deck is of concrete construction and is supported by vertical 1 m. diameter tubular steel pipes.

Two turnround areas for jetty traffic are provided, one mid-way along the jetty, the other at the Northern end.

The jetty is designed to support up to 3 ship loaders with a backing conveyor system and up to 3×300 mm. diameter liquid ammonia lines.

The 3 mooring dolphins at the Northern end of the jetty serve the Ammonia Berth and each has a bollard capacity of 100 tonnes and is connected to the jetty by a system of concrete walkways.

The jetty and dolphins have a deck level 7.4 m. above Jebel Dhanna Chart Datum.

The minimum dredged depth at the berth is 12 m. below Chart Datum.

Fenders: The fender system has a design capacity of 55 tonne metres per fender pile and the recommended berthing angle is 5°. The fender system absorbs energy by deflection of single 1,300 mm. diameter tubular steel cantilever piles and twin Bridgestone Cell units which have a frontal frame 4.2 m. high by 1.7 m. wide.

The fender face is set 4 m. seaward of the jetty deck edge.

The fender spacing is generally 15 m. along the main length of jetty and this extends to 31 m. for the Northern fenders located East of the mooring dolphins.

The fenders are suitable for vessels between 5,000 d.w.t. and 25,000 d.w.t.

Mooring: Ship lines will be taken to 100 ton "Bean Type" mooring bollards located along the cope edge of the jetty. The general bollard spacing is 15 m. whilst at the shore end this extends to 30 m.

100 ton "Bean Type" bollards are positioned on the 3 mooring dolphins located at the seaward end of the jetty. Ships' lines may be taken to the dolphins by boat or via the concrete walkways provided from the jetty deck.

Landing Stage: A landing stage for small harbour craft is located adjacent to the jetty near Pile Bent 55, some 600 m. South of the outermost dolphin.

Access Ladders: Access ladders to water level are provided on the fender piles at a spacing of 60 m. All mooring dolphins are provided with access ladders.

Services: Provision has been made for future electrical and mechanical services in the jetty by ducts cast into the concrete deck or provision for hanger supports beneath the deck.

Loader Rails: A flat bottom loader rail having a gauge of 11 m. is secured to the concrete deck by Molyneaux Clips. Buffer stops are provided at both the inshore and offshore limit of the rail. Provision has been made for the future extension shorewards of the loader rail.

Approach From Shore: The approach to the jetty is via a dual carriageway off the Corniche Road. The access road leading to the jetty is 600 m. long and 8 m. wide and bounded on one side by the export conveyor housing.

Breakwaters: Rubble mound breakwaters protect the cooling water intake channel located West of the jetty.

Rubble mound reclamation bunds built just landward of the reef define the land area.

A rock armoured cooling water outfall channel is located within the reclamation and located mid-way between the jetty and construction wharf.

LOADING: *Urea Loading Operation Procedure:* Firstly, the Jetty Supervisor, after the arrival of the vessel, and after getting Clearance Certificate, will discuss the necessary loading sequence for keeping the vessel trim with ship's Cargo Officer.

When the sequence of operation has been agreed, the Jetty Supervisor will inform operational group in Bagging Control Room and shiploaders of the sequence required.

On receipt of this information, Bagging Control Operators will pre-set the bag counters or scales and line up other conveyors and machines depending upon the method of shipping required (i.e. bagged or bulk product) to the quantity agreed with the ship Cargo Master. Meanwhile, the Shiploader Operator will have positioned his machine ready for loading into the appropriate cargo hold defined by the sequence of operation.

Jetty Supervisor/Shiploader Operator will then give signal as "Shiploader in Loading Position" and Bagging Control Room Operator will start sending bag or bulk urea to jetty.

The pre-set bag counters or belt weighers will trip the conveyor system (excluding the jetty conveyors) when the pre-set capacity has been realised. The signal to start again will be given by the "Shiploader Running" signal. On receipt of this signal in the Bagging Control Room, the shiploader will have traversed to its new loading position and will be ready for the next batch of product.

Photocells are provided at the end of telescopic conveyor to indicate actual quantity of the bags loaded in ship hold. A cumulative reading (in numbers) is recorded in ship-loader operator's cabin.

For bulk urea loading, urea going to jetty conveyor is measured by weighing scales inside the Bagging Building. The weighing scale has load cells and belt speed detector for measuring the flow rate. The feed rate is indicated and also totalised cumulatively at Bagging Control Room, and also at the local control panel of weighing scale.

Normal operational shut-down shall be sequential and initiated from Bagging Control Room.

(F) ADNOC RUWAIS SULPHUR HANDLING TERMINAL

The ADNOC Ruwais Sulphur Handling Terminal is situated at the East of the existing Fertil's Bulk Cargo Terminal at Ruwais and consists of an overall water length of 350 m., which lies in a S.E. direction at the existing jetty. This facility will accommodate at the present, the export of only granulated sulphur in bulk into bulk cargo vessels between the range of 5,000 d.w.t. to 25,000 d.w.t.

The overall berthing arrangement includes 3 mooring dolphins and six breasting piles. The 2 centre breasting piles are equipped with quick release hooks for receiving vessels spring lines.

The loading of bulk sulphur is carried out by the telescopic boom of the quadrant shiploader which has 123 m. long travelling arc, having a design loading capacity of 3,000 tonnes per day.

AGENT: National Shipping Gulf Agency Co. (Abu Dhabi) Ltd., Jebel Dhanna, United Arab Emirates. Tel: 72214. Cables: "Confidence", Abu Dhabi. Telex: Abu Dhabi 22248 ("Gacauh EM"). Fax: 339350.

KHOR FAKKAN, Sharjah: 25.22 N. 56.22 E. **(See Plan)**

PORT LIMITS: See Plan of Khor Fakkan on B.A. Chart No. 3518.

DOCUMENTS: The following documents must be in the possession of the ship's Master on arrival, or must be forwarded to ship's Agent prior to arrival:

Immigration: board on arrival

Crew Lists (2 copies)
Passenger Lists (2 copies)
Passports/Seaman's Identity Cards

Customs:

Crew Lists (2 copies)
Passenger Lists (2 copies)
Cargo Manifests (2 copies)
List of Alcoholic Beverages (2 copies)

Port Operator:

Certificate of Registry (1 copy) on request
Classification Certificates (1 copy) on request

The following documents should be handed to the Port Operator by the ship's Agent at least 24 hours prior to the vessel's arrival.

Cargo Plan (1 copy)
Discharge List (1 copy)
Transhipment List (1 copy)
Dangerous Cargo Manifest (1 copy)
Refrigerated Container Manifest (1copy)

PILOTAGE: Pilotage is compulsory for all ships proceeding beyond the Fairway Buoy. Port Khor Fakkan operates a 24 hour, 7 day a week pilotage service. Vessels approaching the Port should await Pilot to seaward of the Fairway Buoy. The extremity of the breakwater (Lat. 25° 21′ 28″ N., Long. 56° 22′ 43″ E.) is marked by a white occulting light visible 10 miles.

"Gulf Pilot Khor Fakkan" on VHF Channel 16. Also on 2182, 2638, 2738, 3270, 3710 and 4136.3 kHz.

ANCHORAGE: A limited number of vessels may anchor in Khor Fakkan Bay to the North of the fairway with the prior approval of the Port Operator. Otherwise, anchoring not permitted within 12 miles of Khor Fakkan as the area is a prime tourist area.

MAX. SIZE: Max. draft entering and leaving is 39 ft., range max. 3.0 m., height of wharf at HW 1.8 m.

No restrictions on LOA.

HEALTH: Normal quarantine regulations apply. Radio Pratique will be granted on receipt of radio message from Master via his Agent, stating that no serious illness has occurred during the preceding 30 days.

All crew members must be in possession of valid cholera certificate. The Health Officer will board when the vessel is alongside.

RADIO: Bahrain Radio A9M.

Notice of Arrival: Vessel should advise its Agent ETA Port Khor Fakkan, giving draft, LOA and intended cargo operations to be performed at least 72 hours prior to arrival and confirm 48 hours and 24 hours prior to arrival.

Agents should arrange berthing and labour with the Port Operator. Vessel should contact Port Khor Fakkan signal station on VHF Channel 16 when within range.

VHF: Khor Fakkan Harbour Office can be contacted on Channel 16. All movement in and out of the harbour shall be notified to the control and permission to proceed obtained for each movement.

TUGS: 2 tugs of 2,100 h.p. each

BERTHING: Length of berth 430 m. Depth alongside 12.0 m. at LW. Mooring gangs and berthing launches are provided.

Port Equipment: 2×40 ton Mitsubishi gantry cranes; 4×40 ton electric transtainers; yard tractors and trailers. Additional equipment such as forklifts, mobile cranes, pallets and barges available on request from the Port Operator.

Storage Facilities: The terminal comprises an area of 100,000 sq. m. and is capable of handling 150,000 t.e.u.s per year.

Container Freight Station: A container freight station is available at Port Khalid, Sharjah close to the main highway linking Sharjah with its West coast neighbours.

Priority: Given to Container and Ro-Ro vessels.

STEVEDORES: *Working Hours:* The port will work on a 24 hour, 7 day a week basis ashore and afloat. Additional charges will apply outside normal working hours which are defined as follows:

Saturday to Thursday except Public Holidays (0600 – 2200 hrs.).

Normal working hours are subject to change during Ramadan when working hours will be at the discretion of the Port Operator. Requirements for port labour must be submitted by ship's Agent to the Port Operator by 1600 hrs. previous day.

MEDICAL: Upon application to ship's Agent, medical examination of crew members can be arranged. Personnel will either be sent to private doctor or to Public Health Department as circumstances dictate. Serious cases will be referred to Government Hospital Doctor.

FRESH WATER: Fresh water is obtainable. Agents must notify the tonnage required 48 hours prior to ship's arrival.

FUEL: Limited gas oil facilities only at present.

REPAIRS: Marine engineering workshops capable of handling most repairs are available.

SURVEYORS: Services are available upon request.

REPATRIATION: Proximity of the new Sharjah International Airport will permit efficient crew changes and repatriation. Offshore crew change facilities can be arranged.

Transit visas are not required for crew changes. Ship's passengers require a valid visa for transit or temporary stay.

AIRPORT: Sharjah and Dubai.

TIME: GMT plus 4 hours. Permanent.

SHORE LEAVE: Shore leave is permitted.

STORING: At anchorage – by off-shore crew change boats. Alongside – by truck alongside ship. Fork lift trucks and local labour available if required.

BANKS: British Bank of the Middle East, P.O.Box 10030, Khor Fakkan, U.A.E. *Telex*: 89011 Bbmefj EM (stating for KFK.)

Grindlays Bank Ltd., P.O. Box 10149, Khor Fakkan, U.A.E. *Telex*: 89025 Grnly EM.

GENERAL: Pollution: The provisions of the Khor Fakkan Maritime Law shall apply with respect to the operation of vessels in Khor Fakkan coastal waters.

Garbage disposal services are provided by the Port Operator and are compulsory.

Ships' Chandlers: Complete chandlering facilities are available, handling provisions, laundry and bonded stores.

Water for Labour: A supply of potable water is to be made available to port labour working on board a vessel.

DEVELOPMENTS: Additional storage space to be provided 1988/89 by shifting Port Control point.

SHIPMASTER'S REPORT: January 1986

If vessel calling for bunkers only Port Control insist that vessel anchors at least 4 miles off the Fairway Buoy. No Agent or port entry papers required in this case. If however, stores are taken or any crew members changed, an Agent must be appointed and port entry papers completed.

AUTHORITY: Sharjah Ports Authority, Port Khor Fakkan, P.O.Box 10542, Khor Fakkan, U.A.E. *Tel:* Khor Fakkan 85324/85027. *Telex:* 89023 SEAGUL EM. *Cables:* Mina Khor Fakkan. *Contact:* Captain Abdul Razik El Sharif, Harbour Master.

Port Operator: Khor Fakkan Container Terminal Ltd., (A division of Gulftainer), P.O.Box 10326, Khor Fakkan, U.A.E. *Tel:* 85604/5. *Telex:* 89064 Servic EM. *Contact:* N. Anderson, Terminal Manager.

AGENT: See "Sharjah".

MINA SAQR, Ras Al Khaimah: 25.59 N. 56.03 E.

(See Plan)

PORT LIMITS: "Mina Saqr" and its limits include all waters, installations and the creek of Hanna bounded within 3 mile radius to seaward from the main breakwater light in position Lat. 25° 58′ 48.35″ N., Long. 56° 02′ 43.7″ E.

LOCATION: The Port of Mina Saqr is situated 15 miles by sea and 22 km. by road North of Ras Al Khaimah. On Chart BA. 2888 it is 1 km. North of Hanna Creek in Lat. 25° 58′ N., Long. 56° 03.5′ E. Jubail Al Harim (6,843 ft.) overlooks the port, and is 10 miles East. The port is bounded by main and lee breakwater.

DOCUMENTS: Following documents to be forwarded to the Agents at least 7 days prior to the vessel's arrival:

3 copies Dangerous Cargo List.
2 copies Stowage Plans.
2 copies Hatch List.
6 copies Cargo Manifests.
1 copy each of Bills of Lading.

On vessels arrival, 4 copies of Crew Lists, 4 copies of Vaccination Lists, Crew Health Certificates, Ship's Certificates, etc. to be kept ready for inspection by the Officers.

PILOTAGE: Pilotage is compulsory. Pilot may board from launch or by tug at Approach Buoy (B and W pillar buoy Int. Qk. Fl.) in position Lat. 26° 00′ N., Long. 56° 02′ E. and in all cases a pilot ladder should be provided and a lee given. Pilot boards during daylight hours only.

Master to contact "Ras Al Khaimah Port Control" on VHF Channel 16 at least 2 hours prior to arrival. ETA cables to be sent to the "Harbour Master MINASAQR Ras Al Khaimah" and also to Agents. Vessels to keep listening watch on VHF Channel 16 and await instructions from port.

ANCHORAGE: The area bounded by the port limits and to seaward of the main breakwater has been reputed as an area with good holding ground. The co-ordinates of the anchorage on Chart B.A. 3737 are:

1 Lat. 25° 58′ 36″ N., Long. 56° 01′ 48″ E.
2 Lat. 25° 59′ 24″ N., Long. 55° 59′ 02″ E.
3 Lat. 26° 01′ 12″ N., Long. 56° 02′ 11″ E.

Depths are from 20 m. to 28 m.

RESTRICTIONS: Vessels may enter or leave the port during daylight hours with the permission of the Harbour Master. No restrictions on entering during tides.

MAX. SIZE: No restrictions on breadth of a vessel but length not to exceed 244 m. for easy berthing. Permissible draft in all the berths is 11.5 m. Range of tide is maximum 1.6 m.

HEALTH: Normal quarantine regulations apply and Pratique is granted subject to Port Health Authorities' approval. The Health Officer boards the ship only when vessel alongside. Suspected disease or fever on board vessel to be reported to Harbour Master by cable prior arrival and await instructions.

RADIO: All cables to be routed through Bahrain Radio. Vessels should cable their Agent, at least 72 hours prior to arrival, the ETA, LOA, expected draft on arrival, cargo and hatchwise stowage.

VHF: Port equipped with VHF Radio standby Channel 16 with other working Channels, port working Channel 67. Port Signal Station is manned 24 hours a day and should be contacted at least 2 hours prior to vessel's arrival. Vessels should report the ETA, LOA, draft, details of cargo to be discharged, stowage, etc.

RADAR: Port not equipped with radar.

TUGS: Tugs join the vessel at anchorage, the practice being to secure alongside, using ship's lines. Derricks should be swung in and gangways hoisted. Tugs are fitted with VHF.

BERTHING: The harbour and entrance channel is 12.2 m. MLWST. A draft limit is imposed of 11.5 m. The harbour provides 165 acres of sheltered water and is enclosed by main and lee breakwaters. Deep water quays totalling 1,690 m. in length will provide berthing facilities for 8 ships. Included in this are 2 Ro/Ro ramps. Plans are now being developed for the installation of a container crane and supporting equipment.

The small boat harbour and fishing harbour provide a further 725 m. of quay, and offer a dredged depth of 4.5 m.

All the 8 berths, including 2 Ro/Ro berths are now in operation.

Distance between quay and water level maximum 3.8 m. at LW and 2.2 m. at HW.

Discharging to be carried out using ship's gear. All berths are general cargo berths. Berth Nos. 3 and 5 have ramps for Ro/Ro vessels.

CRANES: No shore cranes available at berths therefore vessels calling should be self-sustaining. Mobile cranes of various capacities available locally for hire if required. No floating cranes available at present.

BULK CARGO FACILITIES: No special berth allocated for discharge of bulk cargo. Bulk cargoes handled at present are iron ore, gypsum, bauxite, clinker and aggregates, and vessels with these cargoes are allotted any of the general cargo berths subject to availability. No conveyor system or special equipment exist at present and as such cargo is discharged using vessel's derricks.

SPECIALISED CARGO HANDLING FACILITIES: 2 berths, Nos. 3 and 5 with ramps to accommodate Ro/Ro vessels. There is also one berth for bulk cement loading (Berth No.7). Length 180 m. Max. draft 11.5 m., rate of loading cement with hoses is 600 t.p.h. maximum.

An automatic moving shiploader for aggregate and limestone has been installed on Berth No. 5, length 200 m. Max. draft 11.5 m. alongside. The shiploader maximum loading rate is 2,000 t.p.h.

STEVEDORES: Advance ETA cable to be sent by Master to the vessels' Agents to order required gangs to work on board vessels. Labour gangs are supplied by local contractors, (who can be contacted via the Signal Station) and the gangs work on board the vessel directly under the supervision of the vessel's Officers with the stevedoring companies accepting no responsibility whatsoever for any damage either to the vessel or its cargo.

Working Hours: 0700 – 1400 hrs. and 1500 – 2100 hrs.

MEDICAL: Advisable for Agents to receive at least 24 hours' advance notice of required medical attention but can also attend to this at short notice. Hospital facilities are available. Officers/Crew should have valid Cholera and Yellow Fever Certificates.

TANKERS: No tanker berth in port. Tankers will discharge at Berths No. 1, 2 and 3 through bunker line – this will be fuel and diesel oils only. Fuel line 12 in., diesel line 8 in. and 6 in. hose. SBM offshore for loading crude oil (see "Hulaylah Terminal").

DENSITY: 1024 – 1028.

FRESH WATER: Fresh water available in Berth Nos. 1 to 6 with 2 points to service tanks fore and aft as required on a 24 hour basis. Cost of water will be Dh. 7/– per ton.

FUEL: Fuel oil, marine diesel oil, and gas oil can be supplied through RAK Refuelling (Shell) or E.G.P.C. Telephone and telex numbers are available through the Port Signal Station. All sizes of reducers are available and pumping rates are fuel oil 200 t.p.h. and gas oil 250 t.p.h. – 300 t.p.h., subject to vessel's receiving capacity. Presently there are 6 bunker points in Berth Nos. 1, 2 and 3.

Marine lubricants of all brands can also be supplied provided nomination through the suppliers is received sufficiently in advance.

FIRE PRECAUTIONS: The port has its own auxiliary fire brigade and, when required, the services of the Ras Al Khaimah Fire Brigade are available.

CONSULS: None at this port but most of the consulates can be contacted at Abu Dhabi or Dubai.

REPAIRS: Small repairs can be carried out in the port, but major work can only be carried out by companies in Dubai.

DRY DOCK: No drydock in Mina Saqr. The nearest drydocks are at Ajman and Dubai.

SURVEYORS: Draft, on-off hire and Bunker surveys are arranged through the Port Authority. All Classification Societies, Salvage Associations and cargo inspection companies are available in Dubai and Sharjah.

GANGWAY/DECK WATCHMEN: Available but not compulsory.

HATCHES: Opening/closing of the hatches to be carried out by the crew with the assistance of the stevedores, if necessary.

CUSTOMS ALLOWANCES: Normally, bonded stores are not sealed by the Customs Authorities. However, only limited stock should be left with the Officers/crew for their consumption on board vessel and the rest should be kept locked under the custody of the Master. Sale of bonded stores is strictly prohibited and persons indulging in this will be punished according to local custom.

REPATRIATION: Efficient crew changes and repatriation can be carried out on receipt of advance information.

AIRPORT: Ras Al Khaimah International Airport, situated about 45 km. South of Mina Saqr, operate daily flights to various destinations.

TIME: Local time is GMT plus 4 hours.

HOLIDAYS: Normal Muslim holidays during which time port working hours will be restricted. Fridays are the weekly holidays.

POLICE/AMBULANCE/FIRE: All police, fire and ambulance emergencies should be notified on 999. General telephone numbers are: 29351 for Police, 26668 for Ambulance and 21212 for Fire.

TELEPHONES: No telephones available for placing on board vessels. However, a telephone is available in the Port Signal Station 24 hours a day.

For international calls, Agent's offices situated outside port area should be used. Ras Al Khaimah has excellent communication to most countries as it has its own earth satellite station.

SERVICES: Ship chandlers, laundry, exchange of films, etc. available in Ras Al Khaimah. Radio/radar repairs, tank cleaning equipment, scamping (underwater cleaning) facilities, etc. can be arranged. Garbage reception facilities available.

BANKS: National Bank of Ras Al Khaimah, Bank of Melli Iran, United Arab Bank, National Bank of Abu Dhabi, Bank of Baroda, Bank of Oman, Bank of Credit & Commerce, British Bank of Middle East, Bank du Caire, Commercial Bank of Dubai, Bank of Arab Coast, Middle East Bank and Bank Libanaise pour le Commerce.

STORING: See "Prelims".

1. By truck or barge.
2. No restrictions.
3. Yes.
4. Yes.
5. None.
6. Yes.

SHORE LEAVE: Can be granted and for this purpose the Agents should hand over a crew list to the Immigration Department who will issue shore passes in exchange for Seaman's Book or Passport. Prior to vessel's departure, Master to ensure that all shore passes are handed over to the Agents who will surrender them to the Immigration Department, Seaman's Books/Passports will then be returned. Agents should advise Immigration Department by letter if any crew changes to be effected.

REGULATIONS: None.

DELAYS: No berthing delays.

AUTHORITY: Ras Al Khaimah Port Services, P.O.Box 5130, Ras Al Khaimah, U.A.E. *Tel:* 66444 (4 lines), Cargo Section Tel. 66904. *Telex:* 99280 EM. *Cables:* Minasaqr. *Contact:* Captain Hazem Raouf Assaad, Port Manager.

AGENT: International Shipping Agencies Co. (Ras Al Khaimah) Pvt. Ltd., P.O.Box 5162, Ras Al Khaimah, U.A.E. Cables: "Isaship", Ras Al Khaimah. Telex: 99226 ("Isarak EM"). Tel: 21266, 21966. After office hours 52449.

Operators of ship-servicing and supply organisation: Crew changes, mail, spares and/or delivery of provisions undertaken at sea without deviation to serviced vessel.

Owners and Masters should contact G.A.C. Dubai by cable or telex regarding servicing requirements. Rendezvous positions are selected by Shipmaster as follows: Off Dubai, at any Latitude along meridian 55° East, or off Fujairah at any Longitude along parallel 25° 10′ North.

MINA ZAYED, Abu Dhabi: 24.32 N. 54.23 E. (See Plan)

COURTESY FLAG: Vessels calling at ports in the Emirate of Abu Dhabi should fly the flag of the United Arab Emirates as a courtesy flag.

DOCUMENTS: 10 copies of Cargo Manifest are required, with full cargo particulars, such as Bill of Lading number, marks/numbers, description, weight and measurement and IMO Class if any. It is essential that all this information against consignee/notify parties name, full contact address is given on the Manifest for each consignment. The Manifests should reach the Agent prior to arrival of vessel in order to be submitted to the Port Authorities 48 hours before the ship's arrival.

Also stowage particulars should be submitted with the Manifest in order that the Agent may advise the Port Authority of the equipment and labour required for efficient handling of the vessel.

Customs Require:
1 Copy Crew List.
1 Copy Stores List.

Immigration Require:
2 Copies Crew List.
2 Copies Passenger List, if any.

Quarantine Require:
Crew List
International Health Certificate.
Vaccination List.

PILOTAGE: Pilotage is compulsory for all vessels entering/leaving Mina Zayed. Pilotage 24 hours. Pilot will board incoming vessels within a radius of 1 nautical mile seaward of the Fairway Buoy (Lat. 24° 26′ N., Long. 54° 18.4′ E.). Ships should wait for Pilot in the area stated above and not enter the channel unless instructions to the contrary are given.

ANCHORAGE: Recommended anchorage for ships over draft of 9.45 m. is approximately 1 mile N.E. of Abu Dhabi Racon and for ships up to 9.45 m. draft approximately 0.9 miles S.W. of Alpha Buoy in position Lat. 24° 35.5′ N., Long. 54° 18.93′ E.

Also see "Shipmaster's Report".

MAX. SIZE: Largest vessel upto draft 13.0 m. at general cargo berths, 13.0 m. at Container Terminal, no restriction on beam or length.

Max. rise and fall of tide is 2.0 m.

RADIO: Vessels are to give their ETAs by cable through Muscat or Bahrain Radio, addressed to "Port Authorities – Port Zayed, Harbour Office" at least 72 hours prior arrival. Port Control Tower equipped with HF transceiver operating on 2 frequencies and continuous watch on 2182 kHz.

VHF: Port Control Tower on VHF Channels 16, 12, 11, 9 and 6.

TUGS: 4 harbour tugs available, 2×2,400 h.p. and 2×1,250 h.p. Tugs fitted with VHF.

BERTHING: 21 deep water berths with a total quay length of 4,300 m. Berths No. 1, 2, 3 and 4 Container Terminal with depth 10.5 m. to 13.0 m.; Berths No. 5, 6, 7, 8 and 9 with depth 9.5 m.; Berths No. 10, 11, 12 and 13 with depth 6.0 m.; Berths No. 14, 15, 16, 17, 18 and 19 with depth 11.5 m.; Berths No. 20 and 21 with depth 10.5 m.

Storage: The Port has 13 closed storage sheds over an area of 102,300 sq.m. There are also 9 open sheds with a total area of 45,000 sq.m. and an open area (paved) of 1,104,000 sq.m. for the stacking or storage of various types of cargo such as timber, steel, construction materials and cars.

CRANES: Cranes for discharging available. Mobile cranes from 5 – 150 tons available. Berths No. 4 – 6 have 6 electric cranes 5 – 10 tons. 3 container cranes 40 tons, fork-lift trucks and trailers, 2×40 tons straddle carriers.

CONTAINER HANDLING FACILITIES: *Container and Ro/Ro Facilities:* Container Terminal has 4 berths with a total length of 800 m. Two berths have a depth of 13.0 m. and 2 berths have a depth of 10.5 m. The berths are equipped with 3 Krupp modern container cranes of 40 tons capacity with an outreach of 39 m. 2×40 ton rail-mounted yard cranes, 2×40 tons, 2×15 tons, 2×8 tons Forklift trucks, 2×40 ton straddle carriers, 25 HK stacking containers, which accommodate 15,000 TEU's and there is a large LCL Terminal and a large area set aside for Ro/Ro equipment. 64 reefer plugs (480 volt, 32 amp), workshop for maintenance and repair of cranes and other equipment. Computer equipped control tower, radio network linking cranes, other equipment and offices and sheds.

BULK HANDLING FACILITIES: Bulk grain silo at Berth No. 19 has a storage capacity of 60,000 tons with discharge rate of 240 t.p.h.

STEVEDORES: Skilled manpower available for all kinds of cargo operations.

Working Hours: Working hours for stevedoring from 0700-2100 hrs. plus overtime on request.

Cargo is also handled on Fridays.

Container Terminal works 24 hours, 7 days a week.

MEDICAL: Fully equipped Government hospital, most medicines available. Private clinics available.

TANKERS: See "Das Island", "Umm Al Nar" and "Jebel Dhanna – Ruwais".

FRESH WATER: Available at all berths, or by barges.

FUEL: Diesel oil and gas oil is available by barges.

FIRE PRECAUTIONS: Port Zayed Fire Brigade is available 24 hours a day. The harbour tugs are fitted with fire-fighting equipment.

SURVEYORS: Lloyd's Agents: Abu Dhabi Maritime & Mercantile International, P.O.Box 247, Abu Dhabi, Tel: (2) 323131. Telex: 22245.

LAUNDRY: Reasonably good laundries available.

PROVISIONS: Can be arranged through ship's Agent.

AIRPORT: Abu Dhabi International Airport is 40 km. There are daily flights to all Gulf State Countries.

TIME: GMT plus 4 hours.

HOLIDAYS: Friday is weekly holiday. Cargo movement generally not affected by holidays.

SHORE LEAVE: Permitted. A permit can be obtained from Immigration Department. Absolutely necessary that every crew member be in possession of valid Seaman's Book.

GENERAL: *Vessels discharging cargo at anchorage:* Anchorage ETA required: The Port Authority should like to draw the attention of all shipping agencies in Abu Dhabi, to supply the Traffic Department with the date of arrival of ships which are going to discharge their cargo at anchor.

To enable the Traffic Department to take the necessary action and to render the required facilities, it is necessary that manifests, documents relating to cargo and the date of arrival should be forwarded 48 hours before the actual arrival of ships.

DEVELOPMENTS: Fishing harbour under construction South of the Dhow Harbour.

~~**SHIPMASTER'S REPORT:** February 1984~~

~~A navigational change has taken place in the Port of Abu Dhabi. There is danger while approaching Abu Dhabi port, due to the fact that they have recently changed the position of Abu Dhabi light vessel. The change took place in January 1984, so the last edition of British Amiralty charts are not corrected.~~

~~We loaded in Europe for Abu Dhabi, Karachi and Bombay. During our stay in Europe we were provided with last edition British Admiralty charts for discharging ports including BA. Chart No.3752 titled "Jazirat Sir Abu Nu'Ayr to Abu Zabi". We arrived in Abu Dhabi on February 9th, 1984. The above chart had the following small corrections for 1982 -897-1315-1896-2555-2681 and for 1983 -1214-(5-5)-1684-1686-3049. The position of the Abu Dhabi Racon equipped light vessel on the chart was, Lat. 24° 43.5′ N. and Long. 54° 16.2′ E. From that charted position they have shifted the light vessel 4 miles in S.W.'ly direction, thus the new valid position is as follws: Lat. 24° 40.0′ N. and Long. 54° 12.2 E.~~

~~Our Agent did not advise us of change, though Port Control does advise incoming vessels.~~

~~The land is very low and no position can be established by radar, the Racon equipped Abu Dhabi light vessel is the only reliable target. Therefore incoming vessels are exposed to the risk of grounding, because of shallow waters and vessels with draft of 30 ft. and over can be berthed only by HW.~~

AUTHORITY: Abu Dhabi Sea Port Authority, P.O.Box 422, Abu Dhabi, U.A.E., *Tel:* 725600. *Telex:* 22731 Prtex EM.

Officials: H.E. Hadef Mohd Houfan Al-Mansouri, Under Secretary.
Mr. Abdulla Majid Al-Mansouri, Director General.
Captain Said Darwish Al-Rumeithy, Harbour Master.
Mr. Brayek Awad Amer Al-Mehri, Deputy Container Terminal Manager.
Mr. Salem Sultan Al-Meheirbi, Deputy Traffic Manager.

AGENT: National Shipping Gulf Agency Co. (Abu Dhabi) Ltd., P.O.B. 377, Abu Dhabi, U.A.E. Cables: "Confidence", Abu Dhabi. Tel. 334300 (10 lines). After office hours Tel: 326083, 216613. Fax: 339350. Radio: Marine VHF radio, stand-by on Channel 16 (156.8 MHz), Call sign "Confidence, Abu Dhabi". Telex: 22248 ("Gacauh EM").

MUBAREK TERMINAL, Sharjah: 25.49 N. 55.11 E.

(See Plan)

LOCATION: The Mubarek Oil Terminal is situated off the island of Abu Musa, and is under the jurisdiction of the Emirate of Sharjah and operated by the Crescent Petroleum Company.

DOCUMENTS: One Crew List and valid Health Certificate.

EARLY DEPARTURE PROCEDURE: In force. Vessel's Agent signs all documents on behalf of the Master including Bills of Lading.

PILOTAGE: Vessels to be moored, anchored or manoeuvred at Mubarek Oil Terminal will be boarded by Company Mooring Master in the close vicinity of the suggested anchorage area. Vessels must not enter the restricted limits of the terminal unless a Company Mooring Master is on board.

Ships are requested to have a pilot ladder safely and securely rigged and ready for immediate use and long enough to reach the Company Mooring Master's launch. A combination of pilot ladder and ship's accommodation ladder so arranged that personnel can first use pilot ladder until part way up the vessel's side and then transfer to the accommodation ladder is recommended, especially on very large ships. There should be adequate lighting at night. Vessels will provide a lee for the Company Mooring Master's launch when boarding and leaving.

The Company Mooring Master may require the vessel to anchor at any time he deems it necessary for the safety of the vessel or moorings or both or for infringement of the terminal regulations.

The Company Mooring Master shall be the sole authority as to when the terminal is open or closed for normal working due to weather conditions.

NAVIGATION AIDS: A floating oil storage vessel *York Marine* (110,000 d.w.t.) is used for storage of crude oil and for accommodation and headquarters of terminal personnel lies permanently moored to the SPM in position 25° 49′ N., 55° 10′ E. The *York Marine* is equipped with normal navigational warning lights and aids as required by convention.

A fixed oil production platform, incorporating crude oil treating facilities, rises approximately 50 ft. above water at Lat. 25° 50′ 43″ N., Long. 55° 11′ 49″ E. Said structures are equipped with 1 clear light and a fog horn, each with characteristics Mo(U) 30 secs. A permanently fixed flare structure (tripod) rises 150 ft. (flare tip) above water at Lat. 25° 50′ 56″ N., Long. 55° 12′ 00″ E., approximately 037°, 1,716 ft. from the oil production platform. In addition, there are numerous oil well head structures within the restricted area described below. All structures have standard navigation aids with characteristics the same as mentioned above.

READINESS: Notice of Readiness will not be accepted at time of arrival unless the vessel is in all respects ready to load. Arrival time will be considered the time the Company Mooring Master boards the vessel, or the time the vessel is within the approved anchorage area, whichever occurs first. Notice of Readiness is to be in English.

ANCHORAGE: An anchorage area diameter 6,000 ft. has been established with the centre in position Lat. 25° 46′ 45″ N., Long. 55° 13′ 13″ E.

RESTRICTED AREA: A restricted area of approx. 38 sq. miles has been established with a boundary formed by an imaginary line from:

(a) 25° 54′ 26″ N., 55° 13′ 49″ E. in a W.S.W. direction to
(b) 25° 15′ 14″ N., 55° 07′ 19″ E. thence in a S.S.E. direction to
(c) 25° 46′ 33″ N., 55° 09′ 37″ E. thence in a E.N.E. direction to
(d) 25° 49′ 44″ N., 55° 16′ 08″ E. thence in a N.N.W. direction to the position above.

RESTRICTIONS: Max. distance bow to manifold 580 ft.

MAX. SIZE: 250,000 d.w.t.

HEALTH: When arriving fly "Q" flag by day, and red over white light at night for quarantine service.

RADIO: Initial communication by radio between ship and Crescent Petroleum Company should be via Bahrain Radio, call sign "A9M", operating on a 24 hour basis or directly by telex to 68015 CRESPT EM.

Company Mooring Master will have sole control of radio installations during the period a vessel is manoeuvring or moored, and no radio transmissions will be permitted on board ship except by the express permission of the Mooring Master in each case, only the Mooring Master may transmit on Channels 71 and 17 during the period he is on board. He will have a VHF radio telephone with him.

Mubarek Oil Terminal Radio Station call sign "Crescent – 2" particulars are as follows:

Operated by Crescent Petroleum Company, Sharjah, position: Lat. 25° 49′ N., Long. 55° 10′ E.

Frequencies: Channels 71 and 17 on VHF.

Hours of operation: 24 hours per day.

Mubarek Oil Terminal Control Centre keeps continuous watch on VHF radio telephone Channel 71. Vessel approaching the terminal not having Channel 71 will be contacted on Channel 16 when the terminal will request her to switch to an alternate channel.

Channel 17 is reserved for communications between ships in moorings and Mubarek Oil Terminal Movements Control Centre. This is a safety measure since oil flow to ships is controlled through Channel 17, which therefore must be clear at all times in case of need to stop oil flow for any cause.

Channel 16 is for calling and safety use only.

It is most important that ships establish communications with the terminal not less than 72 hours prior to arrival at the terminal giving ETA. Further ETA signals should be sent when the vessel is 24 hours, 12 hours and 4 hours distant, or any time a change of 1 hour in original ETA occurs. These messages should state specifically whether ETA is given in GMT or Local Time. The 72 hour signal should include the following:

ETA.
Last Port of Call.
If any Sickness on Board.
If vessel has Clean Bill of Health.
Cargo quantity and Grades expected to be lifted in long tons.

The 12 hour signal should include definite indication as to whether the vessel is ready to load or not and should also include information on the time she will require to discharge ballast after arrival. Precise time of arrival should be given when the ship is 4 hours distant from the terminal.

Unreasonable insufficiency or inaccuracy in ETA messages may alter the order of berthing of ships to the advantage of those ships giving sufficient and accurate ETA messages. Acceptance of Notice of Readiness will also be affected by such insufficiency or inaccuracy.

On receipt of first signal from a vessel, terminal will transmit a message to her giving preliminary requirements of terminal. Masters are urged to comply with this in all details in order to facilitate vessel turnaround and government formalities.

TUGS: The Company maintains launches to assist in mooring and unmooring vessels. These are under the direct supervision and control of the Company Mooring Master.

BERTHING: Vessels to load crude oil cargo will be normally accepted and berthed in chronological order of arrival provided such vessels have current nomination for cargo valid at the time of tender, carry clean ballast if any, and have cargo tanks in a fit condition to receive cargo. Also, they must be in all respects properly equipped and ready to moor. Should berthing be delayed on account of bad weather, vessels will keep their position in line.

Vessels required to leave the terminal area on account of bad weather should keep in contact with the terminal via the Company radio station at Mubarek Oil Terminal, call sign Crescent-2, in order that they may be available when the weather is fit for resumption of operations. The Company reserves the right to load vessels out of turn following the return of good weather, to the extent that such loading "out of turn" does not materially delay the loading of other vessels in line. Further the Company reserves the right to decline to moor a specific vessel if its condition or facilities are unsafe for mooring or loading even though the terminal may be open to other vessels.

The Company Terminal Superintendent's decision on this will be final.

Mooring: Mooring is by the "Tandem" method, with the bow of the export tanker moored to the stern of the storage tanker *York Marine*. Manoeuvring to the berth is effected with the aid of 2 tugs. The mooring rope is a standard 21 in. circumference × 200 ft. nylon SPM rope, fitted with a 3 in. OCIMF chafe chain.

After mooring, a tug will be made fast to the stern of the export tanker, and tension will be maintained in the "Tandem" mooring at all times.

Average loading rate is 16,000 b.p.h.

EQUIPMENT: Vessels must have suitable winches or capstans in good operating condition on the forecastle deck.

All vessels should have ready messenger lines on forecastle head for bringing the mooring line aboard from single point mooring.

Mooring winches on forecastle head for handling 1×12 in. circumference synthetic fibre floating pick-up line.

Adequate mooring bitts to secure mooring line. A bow stopper or Smit type connection is preferable.

Hose lifting winch, derrick and gear rigged for 7.5 tons.

HOSES: After the vessel is securely moored the cargo hose will be hoisted on the starboard side. The hose is lifted by ship's gear and crew, and all connecting of the hose will be done by them. The lifting derrick equipment tackle, etc., should be topped off and ready on arrival. Terminal loading hose is fitted with ASA 150 pound flat face 12 in. "Camlock" coupling and ships should have adapters and fittings to enable this hose to be connected to the ship's manifold. The Company Mooring Master advises the ship's personnel in hose lifting and connecting procedure; however, a deck officer must be present and must direct the ship's crew in all handling. The Company Mooring Master may reject a ship for unsatisfactory hose handling.

Do not close valves against crude flow.

Emergency flow stop signal if all communications fail will be a continuous sounding of the ship's whistle from either export tanker or *York Marine*.

CARGO SPECIFICATIONS: *Approx. Mubarek crude specifications:*

Gravity	44° A.P.I. (approx.)
Sulphur	0.6%.
B.S.&W.	Two tenths of one per cent or less by volume.
Metals	Not in excess of trace (100 PPM).
Viscosity	52 SSU at 120°F.
Flash Point	Below ambient temperature.
Pourpoint	30°F.
H_2S	Present.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: Various consulates are located in Abu Dhabi and Dubai.

REPAIRS: No repairs, painting, etc., are to be made while berthing, unberthing or in the berth.

CUSTOMS: Cigarettes, cigars, tobacco, matches, spirits, wines, beers, perfume, arms, ammunition and possibly other items have to be locked up under Customs seal from time of arrival of ship until time of leaving territorial waters.

TIME: Local time is GMT plus 4 hours throughout the year.

SERVICES: No supplies of any kind and no medical services (except in case of emergency and subject to a doctor being available), or other services are available at Mubarek Oil Terminal.

SHORE LEAVE: Not permitted.

GENERAL: *Light Dues:* The Middle East Navigation Aids Service (MENAS) charges light dues according to the size of the vessel and the number of visits to the Gulf during the year.

Positively no provision is made for dirty ballast: Any ship arriving with dirty ballast will be rejected and all costs accruing therefrom will be to the ship's account. Notice of Readiness shall not be accepted until vessel returns with clean ballast and tanks fit to receive cargo. She will on second arrival tender a new notice of readiness to load.

Fire towing wires required fore and aft.

No swimming permitted whilst vessel in berth.

No fishing permitted at the berth or within the restricted navigation area.

SHIPMASTER'S REPORT: December 1979 (Updated 1988).
Pilotage: Pilot flies out from Sharjah by helicopter and he carries out all entry procedures. He will also take mail ashore for delivery to vessel's Agents. Mail must be placed in one envelope, addressed to Agents and marked ship's mail.
Tankers: Loading rate commences at 1,000 t.p.h. and when everything satisfactory increased to max. 2,000 t.p.h. Normal parcel is 500,000 bbls. ±0.0%. If vessel requires a plus % then give a Note of Protest to the Pilot.

AUTHORITY: Crescent Petroleum Company, P.O.Box 211, Sharjah, U.A.E. *Tel:* Sharjah 543000. *Telex:* 68015 Crespt EM. *Cables:* "Crespt Sharjah". *Contact:* Captain M. B. Harvey, Port Captain.

AGENT: Gulf Agency Co. (Sharjah) W.L.L., P.O.B. 435, Sharjah, U.A.E. Cables "Confidence", Sharjah. Telex 68019 ("Gacshj EM"). Telephone: 544446. After office hours 354249.

MUBARRAS ISLAND, Abu Dhabi: 24.26. N. 53.32 E (HALAT AL MUBARRAS) (See Plan)

DOCUMENTS:
2 Crew Lists.
2 Passenger Lists.
2 Manifests.
1 International Maritime Declaration of Health.

FLAG: All vessels calling at Mubarras are required to fly the national flag of U.A.E. which are available from ship's Agent.

LOCATION: Mubarras Island is located approximately Lat. 24° 28′ N., Long. 53° 22′ E., some 55 miles West of Port of Abu Dhabi.

The island constitutes export terminal of crude oil produced by Abu Dhabi Oil Company Limited (Japan). Crude oil produced from the Company's Mubarras oilfield is transported to Central Facilities Platform (CFP) situated approximately 19 miles E.N.E. of Mubarras Island by 4 in. to 14 in. flowlines, thence relayed by a 18 in. transmission line to the Island. The Company has tank storage for 2,238,000 barrels of crude oil on the island.

Tanker loading is accomplished by means of a single-buoy-mooring (SBM) system installed about 8 miles offshore East of the Island.

Average API Gravity of crude oil to be located is 36.5° and flash point is below 35° Fahrenheit.

PORT LIMITS: The port area of Mubarras and its approaches cover the area bounded by straight lines connecting the following points:
(a) Lat. 24° 30.0′ N., Long. 53° 36.0′ E.
(b) Lat. 24° 24.0′ N., Long. 53° 36.0′ E.
(c) Lat. 24° 24.0′ N., Long. 53° 27.0′ E.
(d) Lat. 24° 26.7′ N., Long. 53° 21.7′ E.
(e) Lat. 24° 30.0′ N., Long. 53° 21.7′ E.

Masters of all vessels entering the Port must follow instruction from the Company's Port Master as to approaches, anchoring, berthing and unberthing.

APPROACHES: *Approaches to Mubarras:* Japanese Charts No. 3173 and No. 3174 cover the approaches to Mubarras. For tankers arriving at Mubarras without necessary charts full information shall be given by telegram if a request is sent to "Confidence" Abu Dhabi via "A9M" Bahrain Radio a few days before arrival.

Alternatively, if the vessel has VHF, the buoy positions shall be given to her upon request to "Mubarras Terminal" as she approaches but prior notice of requiring this service should be given in the vessel's arrival message.

Charts: The following charts are recommended for use in Abu Dhabi waters:

Japanese Chart Nos. 3173 and 3174
British Admiralty Chart Nos. 3733, 3734, 2889 and 3716.

Approaches to Mubarras – Navigational Aids:

Buoy Nos.	*Latitude North*	*Longitude East*	*Colour*	*Light Character*
Mubarras Approach	24° 57.00′	53° 18.39′	Red	Fl. R.ev. 5 sec.
Mubarras Entry	24° 52.34′	53° 18.42′	Red	Fl. R.ev. 10 sec.
1	24° 49.44′	53° 17.29′	Green	Fl. G.ev. 10 sec.
3	24° 43.89′	53° 21.60′	Green	Fl. G.ev. 5 sec.
4	24° 42.01′	53° 27.38′	Red	Fl. R.ev. 3 sec.
5	24° 38.56′	53° 31.68′	Green	Fl. G.ev. 3 sec.
6	24° 31.87′	53° 40.58′	Red	Fl. R.ev. 2 sec.
7	24° 33.93′	53° 40.12′	Green	Fl. G.ev. 5 sec.
8	24° 30.81′	53° 40.93′	Red	Fl. R.ev. 5 sec.
9	24° 31.93′	53° 40.20′	Green	Fl. G.ev. 2 sec.
10	24° 29.97′	53° 40.72′	Red	Fl. R.ev. 3 sec.
11	24° 30.33′	53° 40.43′	Green	Fl. G.ev. 3 sec.
12	24° 28.93′	53° 40.43′	Red	Fl. R.ev. 5 sec.
13	24° 27.33′	53° 38.17′	Green	Fl. G.ev. 5 sec.
14	24° 26.17′	53° 37.00′	Red	Fl. R.ev. 3 sec.
15	24° 26.38′	53° 36.63′	Green	Fl. G.ev. 3 sec,
17	24° 26.00′	53° 33.00′	Green	Fl. G.ev. 2 sec.

Note: Green coloured and green flashing buoys are showing the starboard side of the channel.
Red coloured and red flashing buoys are showing the port side of the channel.
"Mubarras Approach", Mubarras Entry, No. 1, No. 3, No. 4, No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, No. 12, No. 13 and No. 15.

How to Steer in the Mubarras Channel: (Inward)

Point Nos.	*Position Lat. North*	*Position Long. East*	*Course (°True)*	*Dist. (miles)*
1	24° 57.00′	53° 17.80′		
			180	7.45
2	24° 49.55′	53° 17.80′		
			144	6.55
3	24° 44.30′	53° 22.05′		
			120	10.55
4	24° 39.00′	53° 32.00′		
			123	8.90
5	24° 34.10′	53° 40.30′		
			176	4.00
6	24° 30.20′	53° 40.70′		
			214	3.50
7	24° 27.30′	53° 38.55′		
			240	2.20
8	24° 26.20′	53° 36.40′		
			261	3.10
9	24° 25.70′	53° 33.05′		
			Total Distance:	46.25

Anchorage Position	Lat. 24° 26.80′ N.	Long. 53° 34.00′ E.
S.B.M. Position	Lat. 24° 25.98′ N.	Long. 53° 31.54′ E.

Navigation in Shallow Waters: There are some shoals with depth of 14.9 m. (49 ft.) in the area between Buoys No. 14 and No. 15. Masters of outgoing vessels should pay due consideration to the effect of squat at speed on vessel's draft in the shallow water, bearing in mind vessel's trim.

Conspicuous Marks: Quick flash white navigation lights (visibility range 5 miles) are fixed on following platforms and the flare stacks adjacent to each platform are visible from distance:

MR-6 Platform	Lat. 24° 35′ 44″ N.	Long. 53° 43′ 53″ E.
CFP	Lat. 24° 30′ 09″ N.	Long. 53° 42′ 09″ E.
AA Platform	Lat. 24° 26′ 10″ N.	Long. 53° 39′ 55″ E.

PILOTAGE: Pilot is provided by the Oil Company at the request of the vessel's Master based on express understanding and condition that he is aboard the vessel for the purpose of assisting the Master and becomes, for such purpose, the servant of the owners of the vessel.

It is recommended that the Master of the vessel calling at Mubarras for the first time requests Pilot to go aboard the vessel for both inward and outward passage of the channel. The Pilot will normally board the vessel in the vicinity of Buoy No. 5 and will advise the Master on approaches to the berth and he will remain on board to act as Mooring Master and direct loading operations.

Mooring Master: The Mooring Master provided by the Company will undertake pilotage, mooring and unmooring of the tankers.

The Mooring Master shall board vessels to be moored at SBM in the anchorage area or in the vicinity of Buoy No. 17. The Mooring Master will advise the Master of vessel on approaches to the SBM, mooring, unmooring, connecting and disconnecting hoses and all other operations within the port area. All manoeuvring of vessels within the port area shall be done only in accordance with the advice of the Mooring Master, subject to the understanding that in all cases and circumstances the Master of the vessel shall remain solely responsible for the safety and proper manoeuvring of the tanker. Master or one of his qualified deck officers must be on the bridge at all times while the vessel is being manoeuvred.

ANCHORAGE: The tanker anchorage is within 0.5 miles radius of Lat. 24° 26.8′ N., Long. 53° 34′ E. Depth of water varies from 15.5 to 18 m. (50 ft.to 59 ft.) The sea bed all around the anchorage is coral with approximately 6 ft. of loose sand. Holding is poor and a vessel is advised to pay out at least six shackles of chain.

Vessels will be advised by radio of a suitable anchorage if both anchorage and the berth are not immediately available. Vessels should under no circumstances anchor or wait at the South area of Lat. 24° 57′ N. without obtaining prior approval of the Port Master.

Anchorage for Dry-cargo Ships: Anchorage for dry-cargo ships is directed by Port Master by VHF radio.

Prohibited Area for Navigation and Anchorage: The area within 1.15 miles radius from CFP is prohibited for navigation and anchorage. No vessels shall anchor within the range of 1.5 miles from submarine pipe-lines.

MAX. SIZE: See "Approaches" – depth over shoal areas; also see "Tides".

HEALTH: Vessels arriving at Mubarras Terminal must carry the usual Bills of Health for ports visited on the voyage. Masters of vessels are requested to inform the Company if there is any person ill on board or if there has been sickness within the week prior to arrival.

Pratique is usually granted by Port Medical Officer through the Mooring Master or Agency Clerk.

RADIO: *Notice of Arrival:* Vessels should advise their ETA Mubarras at least 72 hours and again 24 hours before arrival through normal radio service. As an alternative to the route through Bahrain Radio Station (A9M) vessels may send their first message through Singapore or Bombay.

Confirmation of ETA should be made a few hours before arrival at "Approach Buoy" by calling "Mubarras Terminal" on Channel 16 VHF. After anchoring, vessels should advise their time of anchoring through VHF and thereafter maintain a continuous listening watch on Channel 16 until the Company's Mooring Master boards.

Tankers bound for Mubarras should advise their ETA and other information 72, 48 and 24 hours before arrival.

Vessels may find it helpful to route their first message through Singapore, Bombay or Bahrain Radio Station. All cables should be addressed to the Company through ship's Agent.

The first message should be sent according to the following form, but any items which are the same with a recent previous voyage to this port may be omitted.

(1) ETA Mubarras.
(2) Last Port.
(3) Next Port.
(4) Deballasting time.
(5) Quantity of cargo required.
(6) Maximum loading rate.
(7) Diameter of cargo manifold.
(8) Distance from manifold to ship's side.
(9) Derrick capacity.
(10) Diameter of fairlead.
(11) Name of Master.
(12) Number of crew.
(13) Whether Pilot is required or not.

Radio Station in Mubarras Terminal Office.

Short-range communication to Mubarras Terminal Office can be made by calling "Mubarras Terminal" on VHF radio telephone. Vessels should inform the office with their ETA preferably when they pass the Strait of Hormuz. After anchoring, vessels should advise anchoring time and maintain a listening watch on Channel 16 until Mooring Master boards.

Call Sign: "Mubarras Terminal".

Frequency:	*Reception*	*Transmission*
F3	Channel 16	Channel 10, 12, 14

Operating Periods: Round the clock.

BALLAST: All vessels arriving at this port are required to have on board sufficient clean ballast to give a safe draft for manoeuvring purposes. Vessels arriving with insufficient ballast may be required to increase the quantity, should the Mooring Master consider that it would not be safe to berth the vessel for loading. As a general rule, vessels shall not start discharging ballast until mooring is completed.

Upon completion of deballasting the Mooring Master will inspect the tanks. If the tanks are not satisfactory, he may require further pumping until such time as they meet the required standard.

It is strictly prohibited to discharge oil, oily water or other refuse that may result in pollution of the sea. International oil pollution regulations must be strictly observed by all vessels. *The terminal does not have facilities to receive oily ballast.*

TUGS: One tug/workboat is always available for use for marine operations at this port and one mooring boat is available during loading.

BERTH: *Position of Buoy:* Lat. 24° 25.98′ N., Long. 53° 31.54′ E.
Depth of Water: 15.5 m. (50.85 ft.).

The berth is a single-buoy-mooring system consisting of a buoy 44.32 ft. (13.5 m.) in diameter, moored to 6 pendant legs of 3 in. high strength chain shackled to anchor piles at a radius of 855 ft. (260 m.), and having a rotating deck carrying the pipe-line and mooring connections.

One 32 in. crude oil line has been laid approximately 52,500 ft. (16 km.) from the shore to a position close under the buoy. From the underwater manifold the crude oil goes to the buoy through a 20 in. underwater hose. The connection between turntable piping of SBM and tanker manifold consists of 1 hose string composed of 24 in. and 20 in. (Length 770 ft.) floating hoses and 2 hose strings composed of 16 in. (Length 120 ft.) tail hoses.

LOADING: The maximum loading rate of crude oil is 32,700 bbls./hr. or 5,200 kl./hr.

Notice of Readiness: The Master of each vessel should present a Notice of Readiness to load to the Company's Mooring Master who will sign it on behalf of the Company.

The Notice of Readiness should be tendered at the time of the vessel's arrival at the tanker anchorage area, which is, in principle, understood to be either the time of dropping the anchor in the anchorage, or, if the vessel does not anchor, the time that the Mooring Master boards to commence berthing.

The vessel, however, is prohibited from berthing unless she reaches Buoy No. 5 at least 5 hours before the sunset, and Notice of Readiness will not be accepted until the next sunrise even if the vessel has already anchored in the tanker anchorage area.

Notice of Readiness will not be accepted during periods when the port is closed. The port is "closed" when the weather is such that it is too rough for incoming tankers to berth. The decision regarding the opening and closing of the port will rest with Port Master.

When the vessel is ready in all respects for loading the ship's officer must inform the Mooring Master who will transmit the necessary messages to the control room on shore. Mooring Master is authorised to control all the loading operations.

All cargo documents and shore figures are usually prepared on board and the Mooring Master will sign the documents on behalf of the company

MOORING: The Company reserves the right to refuse to accept for berthing or loading any vessels considered unsuitable by reason of inadequate or unsatisfactory mooring equipment, insufficient derrick capacity, unusual manifold connection, inability to comply with the Safety Regulations, or any circumstances which would create unusual risk to the Company's berth, facilities, personnel and equipment whatsoever.

Preparation: Before Mooring Master boards, vessels should have ready the following:

(a) Jacob's Ladder on lee side.
(b) Hawser 1 each at fore and aft deck, polypropylene if possible.
(c) 1 steel crowbar.
(d) Port derrick with double wire rigged for minimum lift 5 tons.

After vessel is anchored, the Company's mooring and hose connection crew will board and pick up mooring and hose connection materials from tug/workboat. Vessel is requested to provide windlass and winch operators.

Mooring at Berth: Unless pilotage is required the Mooring Master will board the arriving vessels in the anchorage area. Vessels are requested to have pilot ladder safely and securely rigged ready for immediate use and long enough to meet the Mooring Master's launch. Vessels should have their crew standing by ready to receive mooring and hose connection materials and should maintain a lee until this is completed. Mooring Master will instruct the crew in the setting up of the forward mooring.

2 bollard ropes are made fast round the port bitts with their attached shackles about 5 ft. inboard from the fairleads as far forward as possible. The size of the fairlead opening should be at least 300 mm. (12 in.) to prevent chain from jamming in the fairleads.

Attached to the mooring connections on the buoy are two 18 in. nylon ropes (144 mm. dia., breaking strain 250 tons). These ropes are 50 m. long, and have at their free end a length of stud link chain which includes enlarged end link for receiving the shackles used on the deck of the tanker. From the outer end of this chain there are connected 2 mooring lines consisting of pick-up wires, pick-up ropes and a towing rope (port side only). The nylon rope is supported by "doughnut" floats and the chain is hung by large plastic buoys 5 ft. in diameter and coloured red and yellow.

Hose Connection: After completion of mooring the boat which has been holding the hoses clear during berthing will bring the floating hose to the ship's side and connect the derrick runner to the balance buoy. These are lifted aboard one by one and connected by distance piece which was already connected to vessel's manifold by hose connection crew during mooring operation.

Unmooring: After the hose disconnection is completed, mooring ropes are slacked off and then dropped into the water. Tug/work-boat will come alongside either before or after the vessel backs off the berth, whichever is convenient, and will receive mooring and hose connection materials.

TIDES: The maximum tidal range in this area is 6 ft., the average tidal range at the Spring tide 3 ft. and the Chart Datum is 0.7 ft. below ISLW. Tidal stream is variable according to the place and the lay of the land. But the flowing tide usually runs South-Eastwards and ebbing tide North-Westwards. Speed of a current is around 2 knots at the highest.

"Tide and Current Table" is published annually by the Company, applicable to Mubarras and the surrounding area, and will be obtained on application to the Company.

WEATHER: Local weather at Mubarras is almost similar to that of Jebel Dhanna and Abu Dhabi City, being extremely hot and humid in Summer. Temperature sometimes soars as high as 50° Centigrade with almost 100 per cent humidity in July and August.

MEDICAL: The Company operates a small clinic at Mubarras. Master may obtain medical attention for ship's personnel from the ship's Agent who may in the case of serious illness or injury recommend treatment at the Abu Dhabi government hospital. The ship owner will be charged for all expenses incurred.

FRESH WATER: Not available at Mubarras except in case of extreme emergency.

FUEL: Not available.

CONSULS: No consular business is available at Mubarras. However, various countries have representations in Abu Dhabi.

REPAIRS: There are no repair facilities at Mubarras. However, radar and electronics repairs are available in Abu Dhabi and technicians can be sent to Mubarras for repairs through notifying the ship's Agent.

SURVEYORS: Lloyd's, ABS, Veritas Surveyors are available in Abu Dhabi and they can be brought in if ample notice is given to ship's Agent.

CUSTOMS: Under normal circumstances Customs Officers do not board tankers at this port but upon arrival the Master is required to submit to the Customs through the ship's Agent a manifest of any cargo to be landed at Mubarras.

After loading is completed the Mooring Master will sign on behalf of Customs an outward manifest and issue the port clearance. These will be handed to the Master by the Agent.

REPATRIATION: Not possible.

TIME: Local standard time at Abu Dhabi is GMT plus 4 hours throughout year.

FIRE-FIGHTING: Tug/workboat stationed at Mubarras Island is equipped for fire fighting and is usually on emergency stand-by during tanker loading operations.

GENERAL: *Engine:* The main engines and all gear must be in an operable condition and in a state of immediate readiness whilst the vessel is on the berth.

Stores: Provisions and deck stores not available.

Divers: The services of the Company diver may be available to vessels where it is essential that a diver's services are required to enable a vessel to sail. All requests for such services should be routed through the ship's Agent to the Port Master.

Currency: All currencies approved except Israeli.

Mail: Mail can be received and sent through ship's Agent.

Dry Cargo Discharge: A "T" shaped jetty at Mubarras Island can accommodate a vessel with maximum 12 ft. draft. Discharge of dry cargo must be arranged well in advance through ship's Agent in Abu Dhabi who will supply labour and barges from Abu Dhabi. No gear whatsoever is available at Mubarras.

SAFETY:

No Smoking: Smoking on board the ship is strictly prohibited except in the smoking room situated in the aft accommodation and which has been jointly agreed between the Mooring Master and the Master.

The responsibility for the strict observance of the safety of these rooms rests with the ship, and the Company reserves the right to prohibit smoking in these rooms also should situation require at any time.

Accommodation: All accommodation doors, port holes and ventilators must be closed during loading operations, and doors and openings to machinery spaces in vicinity of ship's tanks are also to be closed.

Galley and Boiler Fires: As a general rule, the use of galley and boiler is not permitted. However, those appropriately equipped are considered safe for use, and their use will be mutually agreed between the Master and the Mooring Master.

Radio Equipment: Radio. radar or other electronic equipment must not be energized while the ship is on the berth.

Air-conditioning Units: For safety, it is preferable that these units recirculate the air within the accommodation but their use when drawing air from outside the accommodation may be permitted provided that the Master and the Mooring Master agree that no danger exists. Should any gas be detected within the accommodation or should there be any danger of gas within the accommodation these units must be stopped and the intakes closed. Window-type air-conditioners are forbidden at all times.

Ship's Fire-fighting Equipment: This equipment must be in constant readiness at all times with sufficient people on board for its efficient operation.

Fire Watches: While the vessel is within the port area a continuous and efficient fire watch shall be maintained on deck and in the engine room by the ship's crew. Fire-fighting equipment shall be in instant readiness throughout the vessel and additional extinguishers must be available at the loading manifold while hoses are being connected and disconnected. Water should be available on deck service lines at all times and fire hoses connected at all fire stations for immediate use.

Swimming: No swimming in the sea berth area is permitted while vessels are on berth.

AUTHORITY: Abu Dhabi Oil Co. Ltd. (Japan), P.O.Box 630, Abu Dhabi, United Arab Emirates. *Tel:* Abu Dhabi 661100. *Telex:* 22260 Adoco EM. *Cables:* "Oiljapan Abu Dhabi". *Contact:* Mr. A. Yamashiro, Manager – Marine & Transport.

AGENT: National Shipping Gulf Agency Co. (Abu Dhabi) Ltd. are appointed by Abu Dhabi Oil Co. Ltd. (Japan) as exclusive shipping Agents for all vessels calling at Halat Al Mubarras Terminal. The address particulars are as follows:

National Shipping Gulf Agency Co. (Abu Dhabi) Ltd., P.O.B. 377, Abu Dhabi, United Arab Emirates, Cables: "Confidence", Abu Dhabi. Telex: 22248 ("Gacauh EM"). Tel.: 334300 (10 lines). Fax: 339350. After office hours 326083.

ETA messages shall be sent to National Shipping Gulf Agency Co. (Abu Dhabi) Ltd., cable address: "Confidence", Abu Dhabi, via Dammam Radio.

Under favourable weather and transmitting conditions communication can also be performed over the VHF radio on the following frequencies: standing by on Channel 16 (156.8 MHz) and transmitting on Channel 10, call sign "Confidence", Abu Dhabi.

PORT RASHID, Dubai: 25.16 N. 55.16 E. (See Plan)

FLAG: U.A.E.

DOCUMENTS: The following should be airmailed to Agent prior to ship's arrival.

8 Dangerous Cargo Lists.
3 Stowage Plans.
3 Hatch Lists.
8 Cargo Manifests.
1 each Bill of Lading.
3 Crew Lists.

APPROACHES: Black and white Pillar Buoy, flashing every 10 secs. in position Lat. 25° 21′ N., Long. 55° 14′ E. Marked "Dubai Approach".

Main light in position Lat. 25° 13.5′ N., Long. 55° 17.3′ E. (Situated on top of the Dubai Trade Centre) Gp. Fl. (2) white every 30 secs. 157 m. above MHWST. Visible 30 miles. Also Racon Beacon with signal "TC".

Main leading lights on main breakwater front Position Lat. 25° 16.3′ N., Long. 55° 16.0′ E. Qk. Fl. every 0.5 secs. Rear Lat. 25° 15.5′ N., Long. 55° 16.0′ E. Occ. every 2 secs. Breakwater Entrance. Lee light Fl. (R) every 2.5 secs. Main light Gp. Fl. (2) green every 30 secs.

PILOTAGE: Compulsory. Pilot will board 24 hours a day, from a launch and a regulation pilot ladder must be provided, with manropes, and a lee given. Large vessels calling should provide an accommodation ladder with its lower platform within about 12 ft. above the waterline and a pilot ladder rigged on ship's side adjacent to the accommodation ladder platform.

The Master must sign the indemnity form provided by the Pilot before entering the harbour.

ANCHORAGE: Vessels should contact Dubai Port Control VHF, Channel 16 shifting to a working Channel as instructed. Failing instructions they should anchor approximately 2 miles from the port entrance. Holding ground – Generally poor.

RESTRICTIONS: Minimum depth in channel 13 m. Max. rise and fall 2.0 m.

Vessels not working cargo immediately may enter port at the discretion of the Port Authority. Vessels may leave at any time.

MAX. SIZE: Depth alongside at Port Rashid Container Terminal is 13 m. and the tide is not expected to go as low as zero height on average more than 55 days in any one year. Therefore, Port Rashid Authority are prepared to berth vessels up to 42 ft. draft, at minimum speed at all times, provided vessels can discharge in such a manner as not to trim so as to cause an increase in maximum draft.

Maximum draft at general cargo berths is 37.7 ft. Depths of water at general cargo berths varies from 30.5 ft. – 37.7 ft.

Vessels in excess of 850 ft. length overall will be berthed at the Harbour Master's discretion.

Port Rashid Authority consider that keel clearance is at the Master's discretion, and are prepared to berth vessels with minimum keel clearance of six inches.

TUGS: Three tugs of 2,400 h.p. are available with fire-fighting, pollution and salvage facilities, the practice being to secure alongside with 2 tug ropes therefore, gangway and derricks should be secured in-board.

Tugs are fitted with VHF. Contact should be made via Dubai Port Control or the Harbour Master.

RADIO: The Port Signal Station (call sign "Dubai Port Control") is fully equipped with VHF radio and watch is maintained 24 hours per day on Channel 16, switching to Channel 12 for port operations.

The Signal Station is situated at the seaward end of Berth No. 1 at a height of 57 ft. above sea level.

Vessels should contact the signal station by VHF Channel 16 and request berthing instructions.

Vessels should advise their Agents the arrival time, LOA, draft and position of bunkering points should bunkers be required. Amended ETA should be advised by VHF. Vessels Agents will in turn pass on the above information to the Port Authority.

HEALTH: Normal quarantine regulations apply and Pratique can be given by the Pilot on cargo vessels, always subject to the Health Authorities approval. Health Authorities only board when the vessel is alongside, except in the case of a suspected ship.

BERTHING: Vessels should advise the port of their ETA, length overall and draft as early as possible. The port should also be advised of any explosives or hazardous cargo on board to determine if it should be offloaded before berthing or otherwise.

Berth Information: A restricted number of vessels may anchor within the harbour breakwaters under instructions from the Harbour Master if so required and may discharge/load ex-lighters.

Berth Nos.	*Length*	*Depth of Water (MLWS)*
1-4	4×573 ft. (2,294 ft.)	No. 1 33 ft. No. 2 32 ft.
3-4		30 ft. 6 in.
5	600 ft.	30 ft. 6 in.
6-10	5×601 ft. (3,008 ft.)	No. 6-8 30 ft. 6 in. No. 9-10 35 ft.
11-15	5×599 ft. (2,996 ft.)	30 ft. 6 in.
16	700 ft.	37.7 ft.
17-24	8×600 ft. (4,864 ft.)	37.7 ft.
25	490 ft.	37.7 ft.
26-27	2×515 ft. (1,031 ft.)	37.7 ft.
28-30	3×597 ft. (1,792 ft.)	37.7 ft.
31-32	2×717 ft. (1,434 ft.)	No. 31 37.7 ft. No. 32 42 ft.
33-35	3×993 ft. (2,981 ft.)	42 ft.
S.O.T.		37.7 ft.
Depth over pipeline		37.7 ft.

General Cargo: 30 deep water berths with 17 storage sheds (each 120 m. × 60 m.) adjacent are available plus a coastal berth for small craft and vessels with less than 6.10 m. (20 ft.) draft. All berths are backed by extensive hard surface yard storage area.

Container Terminal: Comprising of Berths 31-35 with quay length of 1,350 m. served by 2×Tango 80 gantry and 2×Mitsubishi gantry cranes of 35 ton capacity and 2×Mitsubishi gantry cranes of 50 tons capacity. Storage area of 45 hectares with 6×CFS sheds on terminal of 400×200 ft. each.

Depth alongside: 13 m.

Working hours: 0700 to 1830 and 1830 to 0700 daily.

16 straddle carriers radio linked to controller 24 terminal/Ro-Ro tractors.

3×25 ton forklifts (2 Ro-Ro masted)

120×roll trailers

Bunkers and water available alongside.

Computer controlled stacking areas and container tracking available to Agents/Owners.

FRESH WATER: Available at all berths. Rate 20 t.p.h. per hose.

FUEL: Shell Bunker Fuels are available at Berths Nos. 1 to 4, 6 to 9 and 17 to 38 in addition to Tanker Berth and include fuel oil, thin fuel oils, diesel and gasoil, pumping rate 300 t.p.h.: 48 hours' notice should be given to local Agents or Shell Markets (M.E.) Ltd., P.O.Box 307, Dubai. Tel: 450451; Telex: 5478 DB; Cables: Shell Dubai. Marine Lubricants and chemicals are available for delivery to the ship.

Delivery of fuel oil and gas oil at the Petroleum Jetty via 12 in. loading line at up to 500 long t.p.h.

TANKERS: Berth operated by Shell Markets (M.E.) Ltd. Capable of taking vessels up to 260 m. long. Max. draft 11.3 m., vessels of 11.3 m. but not over 11.6 m. draft may be berthed by arrangement with the Harbour Master at HW.

Slop barge with capacity 2,500 tons available.

CARGO HANDLING: *General Cargo Working hours:* Saturday – Thursday, 1st shift: 0700 – 1400 hrs. Special shift: 1400 – 1600 hrs.; 2nd shift: 1830 – 0030 hrs. Special shift: 0030 – 0530 hrs.

Container Terminal: Shift arrangement. 0700-1830, 1830-0700 seven days a week, 365 days a year.

Working hours are at the discretion of the Port Operations Manager.

Cargo is handled on Fridays and most Public Holidays. The Port Operations Manager may require full night work or special shifts in the interest of the Port.

Refrigerated cargoes should be stowed consignment by consignment, to facilitate discharge and Direct Delivery to consignees.

Each general cargo berth is provided with fork-lift trucks and tractor units and trailers.

Pallets are provided free of charge to assist cargo handling.

Cargo is discharged direct to sheds or to storage areas where mobile cranes varying from 5 to 25 tons lift and F.L.T.'s of 3-7 tons capacity operate.

STEVEDORES: Ship's gangs are available for distribution to vessels through Agents, vessels should advise their requirements before arrival. The gangs board and operate under the supervision of ship's officers. No quay cranes are provided, so ship's derricks/cranes must be used, together with cargo handling equipment. A close liaison should be maintained with the Cargo Superintendent or shed supervisor at all times.

Lighterage: When berths are fully occupied, vessels may discharge/load ex-lighters at anchorage.

MEDICAL: A comprehensive range of medical and dental services are available at Dubai.

CONSULS:

Belgium
China
Egypt
France
Germany F.R.
India
Iran
Iraq
Japan
Jordan
Kuwait
Lebanon
Netherlands
Norway
Pakistan
Qatar
Saudi Arabia
Sweden
Taiwan
U.K.
U.S.A.

AIRPORT: International airport, 3.2 km.

SURVEYORS: Lloyd's Agents, Lloyd's Register of Shipping, American Bureau of Shipping, Germanischer Lloyd, N.K.K., Caleb Brett and Salvage Association.

DRY DOCK: *Dubai Dry Dock:* A complete ship repair facility East of Port Rashid. Vessels up to 1,000,000 d.w.t. can be docked. Approach areas dredged to 11.5 m. enclosed by breakwater.

Dock No. 1	370 m. × 66 m.	(350,000 tonnes)
No. 2	525 m. × 100 m.	(1,000,000 tonnes)
No. 3	415 m. × 80 m.	(500,000 tonnes)

Dockside Cranes:

2 × 120 tonnes Safe working load at 65.5 m. radius.
1 × 25 tonnes Safe working load at 80.0 m. radius.
2 × 15 tonnes Safe working load at 70.0 m. radius.

Tank Cleaning: Facilities available.

REPAIRS: Galadari Engineering; P.O.Box 355, Dubai; Tel: 660803, Telex: Gabros DB 5443; Al Nasr Engineering Co. P.O.Box 1106, Dubai; Tel: 223624; Telex: 5638 DB; Cables: Alnasr – Dubai, and the services of the large Dry Dock Complex capable of accepting vessels up to 1,000,000 d.w.t. offer round the clock service which ranges from major boiler repairs to repair of main diesel engines and auxiliaries, underwater welding, shot blasting hull cleaning and diving services. Gulf Lux Marine Services Ltd., offer a wide range of in-water service including scraping, blasting and recoating. Technical Engineering and Marine Services (TEAMS) have 1 slipway which can accommodate vessels up to 1,000 tons. They are also able to handle all kinds of engine and hull repairs.

Container repair yard located near container terminal.

JOINING/REPATRIATION: Arriving crew holding valid Seaman's Book can be cleared from the airport and placed on board on the strength of a guarantee letter from the Agent to the Immigration Office.

According to the Immigration Regulation in force Agent is required to furnish the following passport particulars to the Authorities for arranging the Transit Visa:

Full Name.
Father's Name.
Passport Number.
Place and Date of Issue.
Date of Expiry.
Place and Date of Birth.
Profession shown in the Passport.

At times Agent receives incomplete details and there were instances when Agent had to collect the full details from the transit passenger himself to process the application prior to his clearance.

It is absolutely essential that wives wishing to join their husbands onboard vessels off Dubai or Fujairah must carry a photocopy of their husband's Seaman's Book.

This is essential as if a photocopy of the husband's Seaman's Book cannot be shown to the Immigration Authorities, the wife will be repatriated immediately.

Repatriating crew can be brought ashore with a similar guarantee tendering the air ticket to the Port Immigration Office. They must be picked up from the ship 24 hours prior to departure.

Persons with South African entry stamps on their travel documents will not be allowed to enter the United Arab Emirates.

TELEPHONES: Situated in sheds, no connection made to vessels.

SHORE LEAVE: Agents collect all passports on vessel's arrival, together with 3 copies of Crew List. Temporary shore leave passes are issued by the Immigration Office against passports and Crew Lists.

EMERGENCY CO-ORDINATION CENTRE: Coastguard located adjacent port. Tel: 450520.

SHIP SUPPLY SERVICE: Crew changes, delivery of ship's mail, stores, spares, etc., can be effected by service boats off Dubai or Fujairah. This service is carried out by Gulf Agency Co. (Dubai) Pvt. Ltd. See "Agent".

STORING: Complete shipchandling facilities available at short notice (via Agent).

DEVELOPMENTS: Expansion of the Container Terminal Yard to incorporate areas of land presently outside the Terminal.

AUTHORITY: Port Rashid Authority, P.O. Box 2149, Dubai, U.A.E. *Tel:* 451545 (PABX all depts.) *Telex:* 47530 ("Pra Em"). *FAX:* 450934. *Contact:* J. Arundell, General Manager.

AGENT: Gulf Agency Co. (Dubai) Pvt. Ltd. P.O.B. 2404, Dubai, U.A.E. Cables: "Confidence", Dubai. Tel: (971-4) 457555 (12 lines – 24 hour service). After office hours 480424, 440193, 582859. Telex: 45448, 45809 ("Gacdb Em"). Fax: 457202. Radio: Marine VHF radio, stand-by on Channel 16 (156.8 MHz) and SSB 2182 kHz, Call sign "Confidence, Dubai".

Operators of ship-servicing and supply organisation: Crew changes, mail, spares and/or delivery of provisions undertaken at sea without deviation to serviced vessel.

Owners and Masters should contact G.A.C. Dubai by cable or telex regarding servicing requirements. Rendezvous positions are selected by Shipmaster.

RAS AL-KHAIMAH: 25.45 N. 56.01 E.

There is a jetty, length 100 m., suitable for berthing smaller vessels, which is protected by a breakwater, and dredged to a depth of 3 m.

This is a small port for very small vessels only. *All* cargo vessels with cargo for Ras Al-Khaimah should assume discharge/loading will be carried out in Mina Saqr. For all other information, see entry for Mina Saqr.

Also see "Mina Saqr".

AUTHORITY: Ras Al-Khaimah Port Services, P.O.Box 5130, Ras Al-Khaimah, U.A.E. *Tel:* 66444. *Telex:* 99280. *Cables:* Minasaqr. *Contact:* Captain Hazem Raouf Assaad, Port Manager.

AGENT: See "Mina Saqr".

SHARJAH (Mina Khalid): 25.22 N. 55.24 E. (See Plan)

DOCUMENTS: The following documents must be in the possession of the ship's Master on arrival or must be forwarded to ship's Agent prior to ship's arrival:

Immigration: The U.A.E. Immigration Department's office in Port Khalid, Sharjah operates 24 hours, 7 days per week. Master to submit Crew List, photographs of each crew member (photos not returned) and Passports/C.D.C. to Immigration Office on arrival. Passport/C.D.C. will be returned to vessel before sailing. Joining/leaving crew must report to the Immigration Office before proceeding to vessel/airport.

Customs:

2 Crew Lists.
2 Passenger Lists.
2 List of Alcoholic Beverages.
2 Cargo Manifests.

Port Operations:

2 Cargo Manifests.
2 Dangerous Goods List.
2 Stowage Plans.
Certificate of Registration.
Classification Certificates.

The original of all the ship's Certificates shall be produced to any Port Official on demand. Where a ship is more than 15 years old, a valid Certificate of Condition issued by a recognised Surveyor shall be on board.

Where Certificates are found to be invalid, the ship may be removed from the Port Area, at ship's expense and re-entry permitted only after validity has been established.

Failure to produce any Certificate to a Port Official when demanded renders the Master liable to a fine of up to DH. 5000, and the removal of the ship from the Port Area.

PILOTAGE: Pilotage is compulsory for all ships entering and leaving the deep water harbour. On entry, Pilots will board to seaward of the Fairway Buoy; a pilot ladder should be provided. Port Khalid operates a 24 hour, 7 day week pilotage service. Notice is required before 2200 hrs. for pilotage requirements between 2400 hrs. and 0600 hrs.

ANCHORAGE: The Fairway Buoy in position Lat. 25° 22.9′ N. Long. 55° 22.9′ E. is a red and white pillar, Isophase every 6 secs. Vessels approaching should await Pilot to seaward of Fairway Buoy, anchoring if necessary.

Protected Anchorage: A limited number of vessels may anchor at moorings within the deep water harbour with prior approval of the Port Operator.

MAX. SIZE: Approach channel dredged to 12.0 m. MLLW. Max. draft 11.5 m.

HEALTH: Normal Quarantine Regulations apply.

Radio Pratique will be granted on receipt of radio message from Master, via his Agent, stating that no serious illness has occured during the preceding 30 days. All crew members must be in possession of valid cholera certificates. The Health Officer will only board when the vessel is alongside.

RADIO: *Notice of Arrival:*

Vessels should advise their Agent ETA Port Khalid, giving draft, LOA, and intended cargo operations to be performed, at least 72 hours prior to arrival.

Agents should arrange berthing and labour with the Port Operator.

VHF: Vessels should contact Port signal station on VHF Channel 16 (call sign "Sharjah Port Control") when within range. Working Channels 6, 12, 13, 74 and 67.

TUGS: Tug services are available for all ships entering the deep water harbour. At the discretion of the Port Operator ships may be obliged to use the services of a tug or tugs.

Tugs are fitted with VHF.

The harbour tugs are fitted with fire fighting hoses and monitors and foam tanks.

BERTHING: Arrangements made with Harbour Master by ship's Agent for necessary berthing as required.

Berth No.	*Depth at MLLW*	*Usage*
1A	11.5 m.	Containers
1	10.5 m.	Containers
2	10.5 m.	Containers
3	8.5 m.	General Cargo
4	8.5 m.	General Cargo
5	9.5 m.	General Cargo/Ro-Ro
6	9.5 m.	General Cargo/Ro-Ro
7	9.5 m.	General Cargo/Ro-Ro
8	8.5 m.	Reefer
9	8.5 m.	General Cargo/Reefer
10	8.5 m.	General Cargo
11	9.5 m.	General Cargo

Total length Berths No. 1A, 1 and 2 – 575 m. Total length Berths No. 3, 4, 5, and 6 – 725 m. Deep water Berth No. 6 – 274 m. Berth No. 7 – 220 m.

Total length Berths No. 8 and 9 – 360 m. Berth No. 10 – 210 m. Berth No. 11 – 195 m.

Equipment: The Sharjah Container Terminal (SCT) which comprises Berths No. 1A, 1 & 2 in the deep water harbour is equipped with 2 Liebherr T115 35 tonne gantry cranes; 2 Valmet 30 tons SWL transtainers. SISU TV10 tugmaster tractor units for Ro-Ro top lift container handlers and forklifts; LCL facilities available; 44 reefer points for containers. These berths are also equipped with specialised equipment to handle containers in the storage area. Each berth is provided with fork lift trucks, trailers and yard hustlers to facilitate the movement of cargo. Pallets are available to assist cargo handling. 2 heavy lift mobile cranes of 40 tons and 90 tons capacity are available on request from the Port Operator. Other equipment, including cranes, trailers, etc., will be made available upon request to the Port Operator with 24 hours' notice.

Lighterage; Lighterage services are available.

Storage Facilities: Storage facilities consists of 11 sheds (2 of which are located in the Container Terminal area) having an area under roof of 28,000 sq.m. In addition, hard surfaced yards and Sharjah Container Terminal Stacking/Packing area provide extensive storage capacity.

Cold Store: A 5,000 ton capacity cold store (frozen and chilled) is located at Berth No. 8 with mechanical handling from ship's hold to store. Second cold store of 3,500 tons capacity also available.

STEVEDORES: The port will operate on a 24 hour, 7 day week basis ashore and afloat. Additional charges will apply outside normal working hours which are defined as follows:

Saturday to Thursday except public holidays.

First shift	0600 to 1400 hrs.
Second shift	1400 to 2200 hrs.
Third shift	2200 to 0600 hrs.

Overtime Rate Applicable:

General Cargo/Container Vessels: 3rd shift, Fridays and holidays.
Reefer Cargo Vessels: Fridays and holidays.
Car Carriers: Nil.

Normal working hours are subject to change during Ramadan, when working hours will be at the discretion of the Port Operator.

Requirements for port labour must be submitted by ship's Agent to the Port Operator by 1600 hrs. for work during the first shift on the following day and by 1100 hrs. on the same day for work during the second and third shifts.

MEDICAL: Upon application to ship's Agent, medical examination of crew members can be arranged. Personnel will either be sent to private Doctor or to Public Health Department, as circumstances dictate. Serious cases will be referred to Government Hospital Doctor. Distance to Al Qassemi Hospital in Sharjah is 8 km.

TANKERS: Tanker jetty situated in harbour on main breakwater. Max. size 60,000 d.w.t. Max. draft 9.5 m. Limited bunkering facilities.

DENSITY: 1025/1028.

FUEL: Deliveries of fuel oil, gas oil or blends may be arranged through vessel's Agents. Marine lubricants will be delivered to ship's side. Both services require 48 hours' notice.

FRESH WATER: Fresh water is obtainable at all berths.

REPAIRS: Good facilities for repairs. Divers available. Largest vessel for repairs 220,000 d.w.t.

DRY DOCKS: None.

SURVEYORS: Services are available upon request.

REPATRIATION: Proximity of Sharjah International Airport will permit efficient crew changes and repatriation. Off-shore crew changes facilities can be arranged.

Transit visas are not required for crew changes. Ship's passengers require a valid visa for transit or temporary stay.

AIRPORT: Dubai and Sharjah. Distance to Sharjah International Airport is 15 km.

HOLIDAYS: The following are days that will be observed as public holidays. Premium tariff rates will apply on these days.

1st January	New Year's Day
*16th March	Ascension of the Prophet Night
*17th May	
*18th May	Eid al Fitr
*19th May	
23rd July	Arafat Day
*24th July	
*25th July	Eid al Adha
*26th July	
*6th August	Ascension Day
*14th August	Hiriji New Year
25th October	Prophet's Birthday (Eid al Mawled)
2nd & 3rd December	U.A.E. National Day

*Dates are subject to change from year to year.

TIME: GMT plus 4 hours. Permanent.

SHORE LEAVE: Shore leave is permitted for crew members (0800 hrs. - 2000 hrs.) provided identification card or seaman's papers are deposited with Immigration office situated in the port and collected upon return. Also see "Documents."

GENERAL: *Pollution:* The provisions of the Sharjah Maritime Law shall apply with respect to the operation of vessels in Sharjah Coastal Waters. Garbage disposal services are provided by the Port Operator and are compulsory.

Ship's Chandlers: Complete ship chandlering facilities are available, handling provisions, laundry and bonded stores.

Chart: B.A. Chart No. 3714.

National Restrictions: No alcoholic beverages, explosives, firearms or contaminated food.

AUTHORITY: Sharjah Port Authority, P.O.Box 510, Sharjah, U.A.E. *Tel:* (06) 541666. *Telex:* Seagul EM 68138. *Cables:* Seagul. *Contact:* Sheikh Saud Bin Khalid Al Qasimi, Chairman of Ports and Customs. Sheikh Abdul Rehman Bin Salem Al Qasimi, Deputy Chairman of Ports and Customs. Abdul Aziz Suleiman Al Sarkal, Director General of Ports. Mr A. Ashcroft, Port Engineer. Captain Mohammed Saleh – Port Operations Manager. Captain Maghdad Al Suwedy, Harbour Master. Mr. Simon Keen – Marketing Manager.

AGENT: Gulf Agency Co. (Sharjah) W.L.L., P.O.B. 435, Sharjah, U.A.E. Cables: "Confidence" Sharjah. Tel.: 544446. After office hours 354249. Telex: 68019 ("Gacshj EM"). Radio: Marine VHF radio, stand-by on Channel 16 (156.8 MHz). Call sign: "Confidence" Sharjah.

Air-freighted spare parts and ships' mail to Sharjah should be addressed to GAC Sharjah, but sent to Sharjah International Airport or Dubai Airport marked "Ship's Stores In Transit for M/S . . ." Certificates of Origin should follow the airwaybill or in cases of emergency be sent to GAC Sharjah, soonest after shipment. Cable "Confidence" Sharjah, of flight details and airwaybill number.

TYPE.

UMM AL NAR, Abu Dhabi: 24.27 N. 54.29 E.

(See Plan)

LOCATION: The Umm Al Nar Petroleum Port is situated at the South Eastern tip of Abu Dhabi Island and consists of 2 island type berths connected to the shore through a causeway. Vessels will use Mina Zayed and Khawer Al-Bhagi navigation channels to the Port. The total length of both channels is 16 nautical miles. Vessels will berth port or starboard side to, at the discretion of the Pilot.

APPROACHES: *Water Depths:*

The channel depths are as follows:

(a) 13.0 m. for Mina Zayed navigation channel.
(b) 11.0 m. for Khawer Al Bhagi navigation channel keeping in mind that all levels are relative to C.D.

MAX. SIZE: The 2 jetties have been equipped with marine facilities to accommodate vessels having the following characteristics:

Max. size of vessel	30,000 d.w.t.
Min. Size of vessel	5,000 d.w.t.
Length overall	170 m.
Beam (max.)	26.50 m.
Draft (max.)	9.25 m.

HEALTH: Masters will be required to produce the standard International Bill of Health.

RADIO: *Arrival Telegram Ship/Shore:* On ship's arrival at the pilot station, a telegram shall be passed to the refinery through the ship's Agent with the following information:

ETA at berth.
Arrival draft.
Estimated departure draft.
Quantity and type of Cargo/Cargoes.
Vessel's maximum loading/discharging rate.
Quantity of dirty ballast and discharging rate.
Quantity of clean ballast to be discharged overboard and time required.
Size of manifold.
Are reducers to 6 in., 8 in. and 10 in. available on board?
Any vessel's requirements.
Master's Name.

BERTHING: Umm Al Nar Refinery Jetty consists of 2 berths, each of which accommodates vessels in the range of 5,000 d.w.t. to 30,000 d.w.t. and is provided with the following facilities:

(a) Loading platform.
(b) 4 mooring dolphins.
(c) 5 breasting dolphins (with 2.16 m. berthing line).
(d) 4 × 60 ton quick release hooks with capstan.
(e) 2 × 30 ton bollards.
(f) Hydraulically operated gangway.
(g) 2 fire-fighting monitor towers.

Each platform is provided with 6 loading arms having the following flexibility:

*No.**	*Size of Flanges inches*	*Cargo Flexibility*	*Max. Rate cu.m./hr.*
1	6	Lub. oil	400
2	8	A.T.K.	1,000
3	6	Straight Run Residue	500
4	8	Mogas	1,000
5	10	Gas oil/Naphtha	1,500
6	10	Straight Run Residue/Ballast	1,000
7	3	Fresh water	13

*The loading arm numbers are from the gangway side.

Berthing Aids: Umm Al Nar Refinery Jetties are equipped with navigational aids to allow safe navigation during day and night, namely:

(a) 2 white coloured leading lights to affix navigation for channel's centre line, placed ashore at 5.0 m. and 11.0 m. above the ground level.
(b) 6 navigation lights with radar reflectors to define basin limits.
(c) Each jetty is provided with 4 red coloured lanterns, 2 at each end, at 5.0 m. above deck level. This is in addition to the operational flood lights.
(d) Each mooring dolphin is provided with flood lighting.

Moorings: When at berth, vessels must be moored to the entire satisfaction of the Pilot. The breasting dolphins are each equipped with 60 ton quick release hooks and a power operated capstan. the mooring dolphins are each equipped with 60 ton quick release hook and a power operated capstan.

Vessels must be ready at all times to put out extra moorings as requested by terminal personnel, or as dictated by weather changes. It is the Master's responsibility to ensure that vessel's mooring lines are checked frequently to prevent excessive movement of the vessel in berth, which could activate the ESD/ERS systems and/or cause severe damage to the loading arms and other terminal equipment.

LOADING/UNLOADING: Also see "Berthing."

(i) The Master must give the Terminal a "Stand By" warning 10 minutes before being ready to commence loading or discharging.

(ii) Upon "Commence Loading" from the Master or his deputy only 1 pump will be used to ensure a slow flow rate until it is established that all systems are operating correctly and pressures are constant. Full loading rate may then be ordered.

(iii) The vessel's cargo tanks shall be inspected prior to and during loading and should it be found that tanks are not tight all loading shall cease, the vessel be rejected and further loading refused. The vessel will not be accepted later until satisfactory evidence of repair is produced duly certified by ABS, Lloyd's or other officially accredited classification society or surveyor.

(iv) During the hours of darkness vessels loading/discharging products, lub. oil or ballast shall rig overside lights to illuminate the surface of the sea around the ship to the Terminal Operators satisfaction to ensure that any oily products on the surface may be detected quickly and early action taken as appropriate.

Deballasting: The jetties are equipped with dirty ballast/slops receiving facilities. Vessel discharging dirty ballasts/slops ashore will use the deballasting arm. The maximum ballast reception rate is 1,000 cu.m./hr. Prior to arrival the Master is to advise Umm Al Nar Refinery (through the arrival telegram) how much dirty ballast/slops on board to be discharged to the shore facilities. (A "Declaration Letter" is provided for Master's signature) accepting clean ballast for overside discharge is subject to a declaration signed by the Master and delivered to the terminal representative.

Communications: To maintain the necessary continuous communications between refinery, vessels and shore control rooms during cargo operations and also in emergencies, the vessel will be provided with a walkie-talkie set. It is required that this set must remain at all times with the officer responsible for the cargo operation.

FRESH WATER: Fresh water is obtainable at Refinery berths and should be arranged through the Ship's Agent.

FUEL: No Bunker facilities in Umm Al Nar Refinery Terminal.

GENERAL: *Customs:* Custom's officers will board the ship on arrival and prior to sailing for necessary port clearance.

Stores and Provisions: Stores and provisions are not permitted to be loaded at Refinery berths and must be taken on board in the anchorage.

South Basin: The South Basin has been closed for shipping recently due to its proximity to the intakes of the Power Station.

AUTHORITY: Petroleum Ports Authority – ADNOC, P.O.Box 898, Abu Dhabi, U.A.E. *Tel:* 666029 and 562600 (ext. 6386) at Umm Al Nar. *Telex:* 22215 ADNOC EM. *Cables:* ADNOC. *Contact:* Captain H. Masri, PPA – Manager. Captain A. M. Massoud, Port Officer.

AGENT: See "Mina Zayed".

UMM AL QAIWAIN: 25.35 N. 55.35 E. (See Plan)

LOCATION: Approx. 20 miles North of Sharjah.

PILOTAGE: Service not available at the present time.

RESTRICTIONS: Depth of channel is presently 10 m., width 100 m., tidal range +0.2 m. to +1.7 m.

MAX. SIZE:

Details of shipping able to berth at individual wharves:

Ship	Size	Draft (m.)	Length (m.)
Town Wharf:			
Passenger ship	500 gross tons	4.0	50
Freighter	700 d.w.t.	3.6	52
Freighter*	1,000 d.w.t.	4.1	60
Tanker	700 d.w.t.	3.8	54
Tanker*	1,000 d.w.t.	4.2	61
Deep Water Wharves No. 3 and No. 4:			
Passenger ship	30,000 gross tons	9.5	210
Freighters	17,000 d.w.t.	9.8	173
Container	16,900 d.w.t.	9.8	200
Tanker	20,000 d.w.t.	9.5	164
Ore Carrier	25,000 d.w.t.	9.8	176

*Dependent on state of tide.

BERTHING: *Town Wharf:* This wharf is 800 m. long providing berthing facilities for ships with a max. draft of 4 m. A guide to the size of ships able to berth at this wharf is given under "Max. Size". Bollards are located at 12 m. intervals and timber fenders and rubbing strips have been incorporated. The capping beam level is +2.66 m. above Admiralty Chart Datum and the minimum dredged level adjacent to the wharf is −4.0 m. Steps have been incorporated at the Western end of the wharf to enable loading of small local boats. The allowable surcharge loading adjacent to the wharf is 2.0 tonnes/sq.m.

The channel in front of the wharf is 100 m. wide and is dredged to a minimum depth of 4 m. The channel extends from the Eastern end of the wharf along its full length and for a distance of approximately 3 km. along the Western shore of the creek. At the Western end of the wharf the channel has been widened to form a turning circle. The channel has been marked with standard buoys and beacons in accordance with International Regulations.

The area behind the wharf is a minimum of 50 m. wide, the boundaries being the wharf and the existing road. This area has been reclaimed using dredged fill and surfaced with local materials. Other reclaimed areas exist along the Western bank of the channel and opposite the existing fish market. Both these areas have been reclaimed to a surface level of +3.0 m.

Deep Water Wharf:

This wharf is divided into four sections:

Wharf No. 1	130 m. long	Dredged depth – 5.5 m.
Wharf No. 2	115 m. long	Dredged depth – 7.5 m.
Wharf No. 3	200 m. long	Dredged depth – 9.5 m.
Wharf No. 4	400 m. long	Dredged depth – 10.0 m.

Wharves No. 1 and No. 2 are similar to the Town Wharf previously described but with increased dredged depths. Wharves No. 3 and No. 4 provide berthing facilities for ships with a max. draft of 9.5 m. and 10.0 m. respectively and a max. length of 200 m.

A guide to the size of ships able to berth at these wharves is given under "Max. Size". Bollards are located at 22.4 m. intervals and rubber "V" type fenders have been incorporated on Wharf No. 4. The capping beam level is +2.66 m. and the allowable surcharge adjacent to the wharf is 2.0 tonnes/sq.m.

A 30 m. wide concrete hard standing is provided behind all 4 wharves and the entire wharf area is lit by 400 watt H.P.S. High Mast Lighting. Potable water facilities have been installed together with provision for future fuel bunkering and connection to the local telephone exchange.

The entrance channel to Umm Al Qaiwain Port is a minimum of 100 m. wide increasing to 160 m. wide at the Northern end of Wharf No. 4 and connects with a 500 m. diameter turning circle at the Southern end of Wharf No. 3. The channel and turning circle are both dredged to a minimum depth of 10.0 m. and are marked with standard buoys and beacons in accordance with International Regulations.

Navigational information for entering the Port of Umm Al Qaiwain can be found on BA. Chart No. 3714.

AUTHORITY: Umm Al Qaiwain Municipality, P.O.Box 12, Umm Al Qaiwain, U.A.E. *Tel:* 9716-666144/5. *Contact:* Director General.

Ahmed Bin Rashid Port, P.O. Box 225, Umm Al Qiwain, U.A.E. *Telex:* 69711 Mualla Em. *Contact:* Port Manager.

AGENT: See "Dubai".

ZIRKU ISLAND, Jazttzarakku Island, Abu Dhabi: 24.52 N. 53.04 E. (See Plan)

LOCATION: Zirku Island is located at 24° 52′ N., 53° 04′ E. approximately 75 nautical miles W.N.W. of Abu Dhabi.

It is 5 km. long and 2.5 km. wide.

A zone of very rugged hills with ridges is located in the N.N.W. with an elevated point of 163 m. and a low flat sandy and dusty zone in the S.S.E. where the airport lies.

(A) SERVICE HARBOUR
(B) OIL TERMINAL

(A) SERVICE HARBOUR

PORT LIMITS:

(a) Lat. 25° 03.0′ N., Long. 52° 53.3′ E.
(b) Lat. 25° 00.0′ N., Long. 52° 53.3′ E.
(c) Lat. 24° 48.9′ N., Long. 53° 04.8′ E.
(d) Lat. 24° 48.9′ N., Long. 53° 11.0′ E.
(e) Lat. 24° 56.8′ N., Long. 53° 11.0′ E.
(f) Lat. 25° 03.0′ N., Long. 53° 04.4′ E.

Refer to British Admiralty Chart 3778.

NAVIGATION: *Manoeuvring and Navigation:* All vessels should manoeuvre and navigate within the port in accordance with the International Regulations for the Prevention of Collision at Sea.

Lights and Shapes: All vessels should exhibit such lights and/or daytime marks as defined by International Regulations for the Prevention of Collisions at Sea.

Special attention should be paid by vessels, barges or tugs moored or anchored in the vicinity of the jetties which should show at night the lights defined in these regulations.

High Tide Manoeuvres: Deep draft vessels and barges will be berthed at high tide only.

Shallow Water: While proceeding to the jetties, Masters should pay sharp attention to navigation due to the presence of shallow water existing in the vicinity.

Caution: Masters should consider the possibility of having less water than predicted by tide tables after a long period of bad weather.

Harbour Facilities: No tugs or mooring launches are presently available accordingly, vessels calling at Zirku harbour should have very good manoeuvrability.

Navigation Aids:

1. Flashing lighthouse (Zirku, Zarakuh or Zarqa) located at the top of the pylon on the hill.
   Height =200.86 m.
   Lat. 24° 53.0′ N. Long. 53° 04.1′ E.
   One flash every 10 seconds.
2. Flashing lighthouse at the end of the sea water intake.
   Lat. 24° 53.0′ N. Long. 53° 05.3′ E.
   Height=9 m.
   V.Q. (3) 5 secs.
3. Flashing lighthouse at the end of the main jetty.
   Lat. 24° 52.3′ N. Long. 53° 05.5′ E.
   Flash=Fixed and flashing (1) 10 secs.
   Height=11 m.
   Colour=Green.
   Obscured approximately 70° – 150° (80°).

4. *Aero Lights* (occasional).
   Located on the airport control tower (green).
   Lat. 24° 51.6′ N.   Long. 53° 04.6′ E.
   Located on the hill (red).
   Lat. 24° 52.5′ N.   Long. 53° 04.1′ E.
   Height=67 m.
5. *Two Flares:*
   Lat. 24° 52.5′ N.   Long. 53° 04.3′ E.
   Height=145 m.
   Fixed red lights.
6. *Pylon on the hill top.*
   Height=200 m.
   Fixed red lights.
7. *Anchorage Buoy.*
   Lat. 24° 51.3′ N.   Long. 53° 06.9′ E.
   Yellow cylindrical.
   Flashing yellow (1) 5 secs.
8. *Zirku Flare Platform "ZFP".*
   Lat. 24° 51.5′ N.   Long. 53° 02.6′ E.
   Height=85 m.
   Mo "U" every 15 sec.
   Range=15 miles.

ANCHORAGE:

Waiting Anchorage: Small vessels and barges waiting for a berth alongside the main jetty can anchor beyond 0.5 mile in the S.S.E. of the end of existing jetty in approximately 7 m. of water depth.

Three fixed mooring buoys without lights have been installed at around 0.7 mile in the South and S.E. of the main jetty.

Sharp lookout must be kept when navigating in these areas.

An anchoring buoy (yellow Fl. (1) 5 secs.) has been installed in position: Lat. 24° 51.3′ N., Long. 53° 07.0′ E. marking the N.E. corner of the waiting anchorage area (see Admiralty Chart 3778).

Prohibited Anchorage Areas: To avoid the underwater oil pipe-lines being damaged, prohibited anchorage areas are defined as follows:

0.5 nautical miles on each side of the M.O.L. (Main Oil Line) input line.

0.5 nautical miles on each side of the loading lines.

0.5 nautical miles on each side of the SATAH lines.

M.O.L. input line from Zakum field comes ashore on the middle of the East Coast.

Loading lines to the oil terminal SPMs leave the Island from the N.N.W. point of the Island.

Anchorage Berths and Moorings: All vessels or barges entering the port should occupy such anchorage berth or mooring as may be directed by the Port Supervisor and shall move to any other anchorage, berth or mooring as and when required by this authority.

No vessel or barge shall shift or change the anchorage, berth or mooring allotted without Port Supervisor authorisation except if instructed to do so.

No claim will be accepted by Company for berthing or mooring due to arrival priority.

RADIO: International VHF Channels 6, 62, 64, 68 and 69 have been allotted to "Zirku Island Traffic". Permanent watch maintained by "Zirku Island" on Channel 62, semi-duplex for vessels to Zirku Island & vice versa.

When contact established, change to Channel 64.

Channel 68 is to be used for ship to ship calling and conversation.

ARRIVAL ADVICE: *Notice of Arrival:* Vessels and barges calling at Zirku harbour should advise their ETA at least 48 hours before their arrival by telex to Zirku Marine.

In case of change of the scheduled ETA by more than 6 hours Zirku Marine should be informed by the same way.

Confirmation of ETA should be sent a few hours before arrival at Zirku as soon as a radio link can be set up on VHF Channel 62 or 68 with "Zirku Island" radio room.

Berthing prospects will be given to incoming ships by "Zirku Marine" at this time. If the vessel is instructed to anchor, she must keep a permanent watch on VHF Channel 16, 62 or 68.

During berthing operations contact will be set up with "Zirku Marine" on VHF Channel 68 or 69.

Arrival Message: The first message should be sent according to the following form but any items which are the same as a recent previous voyage to this port may be omitted.

Name of vessel (tug or barge):
ETA Zirku.
Type of vessel.
Length.
Width.
Max. draft on arrival.
Cargo loaded (briefly).
Contractor charterer.
Name of Master.
Coming from and ETD.

BERTHING: Zirku Island Harbour is a private port, hence only vessels and barges chartered by the Company Zadco (Zakum Development Company), acting on behalf of ADNOC (Abu Dhabi National Oil Company) and its contractors are allowed to moor alongside the jetties.

Jetties: The main jetty located on the East coast of the Island is allotted to the general supplying of the Island and the transit of equipment for the Company.

Temporary jetty "A" (on the South of the Island) is now completely silted up.

Temporary jetty "B" (on the West of the Island) is now deteriorating and no longer in use.

Vessels: Contractors shall charter tugs, barges, landing crafts, supply boats, etc. whose dimensions, weight and draft are suitable to the existing jetty.

Emergency use: Other craft may use this harbour only in emergency and must immediately report their arrival to the Port Supervisor.

All craft using the harbour are subject to the control of the port operating company representative. (Zirku Marine Superintendent or his deputy) and the Port Petroleum Authority (Port Officer)

Berth Occupancy: The Port Supervisor will define the allocation of berth in accordance with the Company's requirements of priority upon Manager's recommendations.

Contractors should start discharging as soon as vessel or barge is berthed and should unload until all the cargo has been discharged.

Contractors should not store their cargo on the jetty. They must remove it as unloading proceeds.

Vessels and barges should leave as soon as the handling of cargo is completed in order to free the quays. The Port Supervisor can order vessels and barges to leave the quay at any time (even though not completely unloaded), so they must be able to move, therefore barge shall keep a tug alongside during the whole time of unloading.

BERTHING FACILITIES: *Main Jetty:* The main jetty located on the East coast of the island is approximately 1,200 m. long and orientated N.W./S.E.

The quay at the end of the main jetty has a water depth of 2 m. and is 12.5 m. long (41 ft.) at the inward end; 2.3 m.×40.5 m. long (132 ft.) in the centre and 3 m.×57 m. long (187 ft.) at the seaward end (water depth is calculated under chart datum C.D.)

The quay is fitted with 8×30 ton bollards, 12 pairs of rubber fenders from a level of 1.50 below C.D. to top of quay level and 3 steel ladders running from a level of 1.50 m. below C.D. to the top of quay level.

The quay available for berthing is 110 m. long (360 ft.) orientated N.W./S.E. as is the main jetty breakwater.

At the inward end a 20 m. long quay orientated S.W./N.E. is available for small launches though badly equipped with mooring points.

The Port Supervisor Office and Police ward room are located on the top part of the jetty. The jetty working area has been asphalted.

CRANES: *Fixed Crane:* There is no fixed crane on the jetty since the big derrick installed for the construction has been removed.

Contractors have to supply the Island with their own mobile equipment to discharge vessels and barges, if not previously arranged with Company.

As soon as the unloading is completed users should remove their mobile equipment to keep the jetty area clear.

Location of Cranes: The main quay can bear anywhere a 30 ton crane (up to 45 tons for exceptional cases). For heavy loads two locations are defined as follows:

100 tons crane: one rectangle of which axle is situated at 15 m. from the inward end of the quay.

300 tons crane: the centre of the crane must be situated at 15 m. from the edges of the jetty seaward end.

MEDICAL: A medical officer is resident on the Island for emergency cases only. The Company maintains a small hospital.

FRESH WATER/FUEL:

Water and Fuel Loading and Unloading Critical Area:

Connection pipes are located on the inward and outward ends of the quay.

Inward end of the quay is fitted with 3 in. and 1 in. diesel oil connections and with 3 in. fresh water connection.

The outward end of the quay is fitted with 3 in. connections for fresh water and diesel oil and 8 in. line for fresh water. The Ship's Master should apply the safety rules and inform Zirku Marine about any unsafe conditions.

Ships coming for diesel oil or fresh water should be fitted with sufficient length of hoses to be connected to the Island fixed pipe.

A safety ball valve is required on shore and diesel oil hose.

SAFETY: *Reporting of emergency:* Should any vessel be in danger through fire, explosion, collision or whatsoever cause, the Master should immediately report the fact to the Port Supervisor and Port Officer (Petroleum Port Authority) by VHF Channel 62 or 68.

When alongside the main jetty they can report through the shore telephone system located on the jetty. Grey for Island Network, Red for Safety.

Phone Numbers:
Day and Night: Safety 6333
Radio Room 6666/6403
Clinic 6222.
Day: Marine Superintendent 6400.
Port Officer (PPA) 6471

Fire fighting equipment: There are 2 monitors and 3 hydrants supplied by a 12 in. pipe able to reach any point of the main jetty on emergency call.

Ship's fire fighting equipment: This equipment must be in constant readiness at all times with sufficient skillful personnel on board for its efficient operation.

Particular safety requirements for vessels unloading inflammable products:

All cargo/bunker tank lids must be closed.

A fire fighting hose must be ready for use and supplied with water near the piping and connection on the deck.

In the same way extinguishers must be disposed on the deck.

Cargo/bunker hoses must be properly rigged without leakage.

Cargo tanks being discharged and open to atmosphere must be fitted with an agreed venting system.

Foam and/or dry powder monitors, if fitted, shall be ready for use.

Portable fire extinguishers, shall be conveniently placed for use near the ship's hoses' connection.

A checking will be performed by the Safety Supervisor jointly with the Port Supervisor and the vessel's Master, and a form will be signed by the same, after which offloading of said hazardous cargo will be authorized.

EMERGENCY: *Emergency moving of vessels:* In case of accident vessels shall be able to move quickly, so no repairs to engines are allowed when alongside for self propelled vessels. Barges shall keep a tug alongside during the whole time of unloading.

WEATHER: *Winds:* Four kinds of winds on the Island: The most frequent (54% of the time) are named Shamals they blow from W.N.W. to N. principally in Winter. From N.N.E. to E.N.E. some 20% of the time the Noshi. Local effects of Monsoon, the Kaus blows from E. to S. 17% of the time.

Finally, during the Winter only, and 9% of the time blows from W.S.W. to W. the Suhaili.

Tides: Around Zirku Island the tide is of mixed type with small diurnal predominance, however this semi diurnal effect is not of great significance and for all practical purposes it can be taken that there is only one high water and one low water per day.

The mean spring tide range is approximately 1.2 m. The maximal range would be of about 1.4 m. The mean usual range would be 0.9 m.

Zirku Island tide prediction supplied by operating company, copy can be obtained from Marine Zirku.

There is a tide recorder on the main jetty. Tidal information also available from Zirku Marine on VHF, Channel 68.

Tidal Currents: At Zirku Island tidal currents are semi diurnal roughly flow runs from West to East and Ebb runs from East to West. Eddies are created at vicinity of any obstacle, (breakwater, jetties etc.) especially close to the South sandy end of the island. Currents can reach a speed of 2 knots. It is expected that these data are profoundly changed by winds, especially Shamal.

SHORE LEAVE: No person may go on shore without authorisation from the Zirku Police Authority and only if handed a shore leave or permanent authorisation card.

GENERAL: *Marks:* Name or number and draft marks should be readable from the jetties.

Unsuitable Vessels: The Port Officer reserves the right to refuse berthing and unloading of any vessels considered unsuitable by reason of inadequate or unsatisfactory mooring equipment, insufficient derrick capacity, insufficient fender protection, overloading, inability to comply with the safety regulations or any circumstances which would create unusual risk to the Company's jetties, quays, facilities, personnel and equipment whatsoever.

Prevention of Sea Pollution: It is strictly prohibited to discharge or throw overboard oil, oily water, chemicals, ashes, bilge water or other refuse within the port limits that may result in pollution of the sea.

International oil pollution conventions must be strictly observed by all vessels or crafts.

The Master of any vessel contravening this rule so as to cause pollution shall be charged with an offence against these rules and upon conviction be liable to a fine and shall be incurred in the removal of such pollution.

The harbour users, Contractors and all vessel Masters, before leaving and/or sailing should make sure that jetty area is clean and all their refuse has been removed.

National Courtesy Flag: All vessels calling at Zirku are required to fly their national flag and the national flag of Abu Dhabi.

Swimming & Diving: No person shall swim or dive from or near any vessel or alongside quay or berth.

No person shall engage in diving with the assistance of breathing apparatus within the above mentioned areas without the permission or instruction from the Port Authority.

(B) OIL TERMINAL

PORT LIMITS: The port area of Zirku Petroleum Port covers the area bounded by straight lines connecting the following points:

A:	Lat. 25° 03′ N. Long. 52° 53.3′ E.	B:	Lat. 25° 00′ N. Long. 52° 53.3′ E.
C:	Lat. 24° 48.9′ N. Long. 53° 04.8′ E.	D:	Lat. 24° 48.9′ N. Long. 53° 11′ E.
E:	Lat. 24° 56.8′ N. Long. 53° 11′ E.	F:	Lat. 25° 03′ N. Long. 53° 04.4′ E.

Masters of all vessels entering the port must follow instructions given by the Company's Marine Superintendent as to approach, anchoring, berthing and unberthing.

DOCUMENTS: On arrival the tanker should prepare the following documents to be handed over to the different authorities coming on board:

Tanker Enquiry Form (ZADCO Form).
Navigation Aids Dues Certificate (M.E.N.A.S. Form).
Notice of Readiness.
Crew List.
Certificate of Registry.
Load Line Certificate.
Safety Certificate (Equipment).
Oil Liability TOVALOP/CLC.
Derat Certificate.
Radio Certificate.
International Oil Pollution Prevention Certificate.
Suez Canal Tonnage Certificate.
Panama Canal Tonnage Certificate.

PILOTAGE:

1. *General:* On arrival and on departure the pilotage is compulsory within the Port Limits. The Company reserves the right to render the pilotage compulsory through the departure route for any reason. Nevertheless, upon Masters request Zirku Pilots could assist any tanker on Zirku Departure Route to and from Buoy No. 6 (Lat. 25° 13′ N., Long. 52° 59′ E.). Within Port Limits and on Zirku Departure Route the speed *shall not exceed 8 knots.*

2. *Direct Berthing:* Instructions for berthing having been received by voice communication the tanker should proceed to the agreed Pilot boarding point.

3. *Waiting:* In case of a berth not being available, the approaching tanker will be instructed to proceed to an anchorage area and anchor at the agreed location. The tanker will wait at this allotted location until further instructions.

4. *On Departure:* A Pilot will assist loaded tanker as stipulated in No. 1 above.

5. *Pilot Access:* The Pilot access should be in good condition, safe, clean and ready. Pilot ladders constructed of light material such as aluminium will not be accepted. Where the freeboard exceeds 10 m. the vessel should have a combination of accommodation ladder and pilot ladder rigged. The bottom of the accommodation ladder shall be at least 7 m. above the water line.

6. *Pilot Embarkation:* To embark the Pilot safely the incoming tanker should reduce speed (no more than 5 knots), make a good lee to minimise adverse weather conditions and take the way off. On the tanker's deck the boarding of the Mooring/Loading Master should be attended by at least one officer and one A.B.

7. *Pilot Boat:*

Name	Jarada
Engine	2×955 h.p.
Speed	20 knots
Marked	Zirku Pilot
Fibre Glass Hull	

NAVIGATION AIDS:

Separation Scheme: A traffic separation scheme between Zakum Field and Umm Shaif Field crosses the port area.

This scheme includes:
(a) A separation zone, 0.75 nautical miles wide.
(b) A traffic lane for Westbound traffic, 1.25 nautical miles wide.
(c) A traffic lane for Eastbound traffic, 1.25 nautical miles wide.

The main traffic directions are: 050° – 230°
072° – 252°

This scheme is marked by the following two light buoys.

1. Zakum Middle
   Lat. 25° 59.15′ N. Long. 53° 08.50′ E.
   R.W.V.S. Pillar L.Fl. 10 sec.
2. Zakum West
   Lat. 24° 56.60′ N. Long. 52° 59.85′ E.
   R.W.V.S. ISO 6 sec.

Reference Charts: British Admiralty 3733, 3952, 2889, 3778.

Zirku Island:

Zirku, Zarakuh or Zarqa beacon:
Lat. 24° 53.0′ N. Long. 53° 04.2′ E.
Fl. 10 sec. 22 miles Height 200 m.

Main Jetty:
Lat. 24° 52.2′ N. Long. 53° 05.4′ E.
Fixed Green 7 miles and Flash 10 sec. Height 11 m. 9 M.

Sea Water Intake:
Lat. 24° 53′ N. Long. 53° 05.3′ E.
3 Fl. W. 5 sec. Height 9 m.

Radio Tower:
Lat. 24° 53′ N. Long. 53° 04.1′ E.
Fixed Red light – Height 198 m.

Zirku Flare Platform 'ZFP":
Lat. 24° 51.5′ N. Long. 53° 02.6′ E.
Flashing White light, morse "U" every 15 sec. Range 15 miles.

Flares:
Lat. 24° 52.5′ N. Long. 53° 04.3′ E.
Fixed Red light – Height 145 m.

Repeater Platform:
Lat. 25° 01.7′ N. Long. 52° 55.7′ E.
2 White flashing lights Morse "U" 15 sec. at level +18 m.
2 Red lights at level +34 m.
2 Red lights at level +51 m.
Horn Morse "U" every 30 sec.

Isolated Danger Mark:
Capped well-head.
Lat. 24° 59.8′ N. Long. 52° 57.1′ E.
Black-Red-Black – Pillar Fl. 2.5 sec.

Navigation Warning within Port Limits:

All vessels transiting through the Zarakkuh Port Limits are to follow the following procedures:

1. Vessels transiting along the Separation Zone may do so as normal.
2. Vessels intending to cross the Separation Zone Northwards must inform Zarakkuh Radio on Channels 16 or 62 of their intention and follow the instructions given.
3. Vessels Southbound, intending to cross the Northern Port Limits, must inform Zarakkuh Radio of their intention on Channels 16 or 62 and follow the instructions given.
4. No vessel is to pass between Buoy No. 1 (Lat. 25° 02′ N., Long. 53° 00.8′ E.) and the oil loading terminal or enter the no unauthorised entry limts around the oil loading terminal or the Repeater Tower (Lat. 25° 01′ 42″ N., Long. 52° 55′ 40″ E.), or "ZFP" (Lat. 24° 51.5′ N. Long. 53° 02.6′ E.).

MAX. SIZE: The SPMs are suitable for berthing tankers from 30,000 d.w.t. up to 350,000 d.w.t. loaded at 80% of their capacity.

The max. draft allowed for departure is 21 m.

ANCHORAGES: *Small Vessels Anchorage:* Located close to Zirku Main Jetty is designated for small vessels to service harbour.

1 Yellow buoy Fl. 5 sec. in N.E. corner (Lat. 24° 51.3′ N., Long. 53° 06.9′ E.).

Limits:	Lat. 24° 51.3′ N.	Lat. 24° 50.0′ N.
	Long. 53° 07.0′ E.	Long. 53° 07.0′ E.
and		
	Lat. 24° 51.3′ N.	Lat. 24° 50.0′ N.
	Long. 53° 05.4′ E.	Long. 53° 05.4′ E.

Tankers East Anchorage:

Limits:	Lat. 24° 56.8′ N.	Lat. 24° 54.8′ N.
	Long. 53° 11′ E.	Long. 53° 11′ E.
and		
	Lat. 24° 56.8′ N.	Lat. 24° 54.8′ N.
	Long. 53° 07.8′ E.	Long. 53° 07.8′ E.

Tankers North Anchorage:

Limits:	Lat. 25° 03′ N.	Lat. 25° 00′ N.
	Long. 53° 02.2′ E.	Long. 53° 02.2′ E.
and		
	Lat. 25° 03′ N.	Lat. 25° 00′ N.
	Long. 53° 04.4′ E.	Long. 53° 04.4′ E.

where 2 buoys are installed at Eastern corners. Colour yellow – Flash yellow 5 sec.

This area is designated for incoming and outgoing deep draft tankers.

Prohibited Anchorage Area: Anchorage within Port Limits, outside waiting anchorage areas is prohibited. Exceptional authorisation may be given by the Port Officer.

Sea-bed: The sea-bed in the Terminal area is rock, covered by a few inches of loose sand. Some patches of coral can be found. Holding is poor and vessels are advised to pay out more cable than usual.

RADIO: Messages can be sent to the Company by the following means:

Telex or Telegram through Bahrain Radio addressed to ZADCO Marine. Telex No.: 22948 ZDCAUH EM. Cable: ZIR Marine.

Voice communication to "Zirku Marine" by SSB. Operation Mode A3J Upper Side Band within a range of approximately 250 km.

Permanent watch on carrier frequency: 2036.4 kHz.

Talking on standard Marine Duplex HF Channel: 405, 605, 828

Notice of Arrival: Arrival Message shall be sent to ZADCO Marine 96 hours before arrival at the Port Limits.

Confirmation shall be given 72 hours, 48 hours, 24 hours, and 6 hours from ETA.

Voice contact shall be made with "Zirku Marine" by SSB or VHF 6 hours prior to arrival.

Arrival Message: Arrival Message should contain the following:

Vessel's name and Master's Name/Abu Dhabi Agent's Name/Port of Registry/n.r.t.
ETA Port Limits
Arrival drafts/Departure draft F & A
Quantity of ballast
Estimated deballasting time
Possibility of simultaneous operation/permanent ballast
Cargo required
Maximum loading rate & IGS operative.
Part cargo and slops/to comingle
Derrick capacity/No. and size of manifolds/mooring brackets
Last Port of call and next Port/EDP accepted
Direction of approach

VHF: Voice communication to "Zirku Marine" by VHF Channels: 16, 62 and 68. Channel 64 is used by the Pilots.

Permanent simultaneous watch maintained on these Channels.

Arrival: VHF contact should be made with Zirku Marine requesting instructions.

Once contact has been established through Channel 16 further conversation should be conducted on either Channel 64 or 62 upon operator's instructions.

Pilot/Loading Master on board: Although he will bring on board his own VHF communication units with private frequencies, the tanker VHF should remain operational at all times.

At Anchorage: Permanent watch should be kept on Channel 16 and on other Channels (62 or 64) as requested by the Zirku Marine operator.

Traffic Separation: North-bound vessels intending to cross the Separation Traffic Scheme, and South-bound vessels intending to cross the North port limit, should report their intention on Channels 16 or 62 and follow instructions.

TUGS: A tug of 2×1,500 h.p. and a mooring launch of 2×275 h.p. will assist the berthing.

SPMs: The terminal of Zirku Petroleum Port is located about 8 nautical miles N.N.W. of Zirku Island and consists of two single Point Mooring buoys whose exact coordinates are as follows:

SPM "Alpha"	Lat. 25° 00′ 32″ N.	Long. 52° 59′ 02″ E.
SPM "Bravo"	Lat. 25° 01′ 36″ N.	Long. 52° 59′ 30″ E.

A small mooring buoy for small craft is in position: 0.3 miles West of No. 1 channel buoy.

SPM Description: Both buoys are identical.

Buoy Body: The buoy is a circular steel structure with a diameter of approximately 12.5 m. It has a rotating assembly. The colour is orange.

Hoses: The buoy is equipped with 2×20 in. floating hoses with a 16 in. tail end hose connection. The outer hose string is 296 m. and the inner one 285 m. Each string is equipped with winker lights.

Hawser: The mooring systems consist of a single 18 in. circumference grommet hawser of double braided nylon, with an overall length of 53.4 m., ended by a short length of 76 mm. diameter chafe chain.

Light: The buoy is fitted with a navigation light emitting a Morse "U" flashing signal every 15 seconds visual on 360° up to a 5 nautical miles range.

Fog Horn: Fitted on the buoy, emits a Morse "U" blast every 30 seconds and is activated when necessary by a remote control system.

Radar Reflector: A radar reflector is installed on the buoy structure.

Water Depth: The minimum water depth in the vicinity of the SPM Buoys is 27 m. above chart datum.

MOORING: All vessels arriving at this port are required to have adequate draft and trim for safe manoeuvring purposes. The propeller should be completely immersed. The recommended trim for manoeuvring in ballast is 3.0 m. List will not be tolerated.

Tanker Material Equipment: The tanker must have the port side derrick rigged for lifting the shore equipment on board, the minimum derrick capacity shall be 10 tons.

A good messenger line of approximately 4 in. circumference nylon line to be ready on the forecastle.

The forecastle should be fitted with Smit or Chain Stopper type brackets, strong mooring bitts and Panama Leads.

Terminal Material Equipment: One basket will be lifted on board with hose connection equipment and tanker mooring equipment if necessary.

Procedure: Full power must be available on tankers' main engine.

Once the optimum approach route has been selected the tug will pull away the hose strings and the tanker will proceed toward the buoy at a suitable speed.

When approximately 300 m. from the buoy the mooring launch will be instructed to bend on the messenger line from the Panama Lead to the mooring hawser pick up line.

The tanker will be brought to a dead stop at 60 m. from the buoy. The chafe chain will then be winched aboard and secured.

Once the tanker is secured, the tug will pass its towline to the tanker's stern and then maintain tension on the towline throughout, to avoid any buoy kissing.

Emergency Fire Wire: All ships shall have a fire wire hanging from the bow and the stern to enable tugs to immediately connect in case of emergency – Circumference of wire to be at least 6 in.

Weather Limits: Mooring operation can be carried out in up to 25 knots wind speed and significant waves up to 5 ft.

HOSE CONNECTION: *Terminal Connection Team:* After mooring is completed, the hose connection team will board, to assist the crew.

Tanker Connection Team: An officer should attend the hoses with at least 3 deck hands and 1 boatswain. In addition one skilful winchman will be required.

Tanker Material Required: Miscellaneous tools, shackles, wires, ropes plus fire hose and extinguisher should be ready close to the manifold. The area around the manifold should remain free of all equipment to enable safe hose handling.

Terminal Material Supplied: 16 in. to 16 in. Spool pieces. Chain hoists, tirfors, gaskets, wrenches, flange bolt sets, butterfly valve handles, set of miscellaneous chains, ropes, slings, etc.

Flange size: The tail end hose flange size is a 16 in. camlock coupling. Before berthing the tanker manifold should be ready for direct connection, blind flange removed, and 16 in. to 16 in. spool piece fitted.

The two tanker manifold connections should be chosen in such a way that access to both flanges is possible.

Procedure: Having completed the mooring operation, the mooring launch will proceed to the end of the floating hoses to tow them to a position beneath the tanker's derrick hook.

The inner (or shorter) of the hoses will be lifted above deck level and the end swung inboard.

The hose will be lifted by such length to match the distance between the rail and the tanker manifold, then held with snubbing chains and the hose end lowered and connected to the manifold flanges.

The same operation will be performed on the outer (or longer) one.

LOADING: *Rate:* The maximum loading rate will be 12,500 cu.m.p.h. using both hoses.

Care will be taken not to exceed the rated working pressure to be supported by the hoses which is 15.5 bars (225 p.s.i.).

Procedure: Once the hoses have been connected and checked, the butterfly valves opened and the tanker pipe network set up, the Loading Master can give the go-ahead upon request from the Chief Officer and pumping will commence at slow speed at the beginning (by gravity), approximately 7,000 bbls./p.h., then the rate increased up to the rate requested by the Chief Officer.

An inspection of the floating hose strings and the buoy, including waters around the terminal, should also be made during the first few minutes of cargo transfer to ensure there is no leakage.

Once reached, the flow rate will be maintained until further instruction is given by the Chief Officer to the Mooring/Loading Master.

Valve Closure: No valves which will stop or seriously impair or reduce the flow rate of oil from the shore pumps are to be operated without prior agreement with the shore control room (ZCC) through the Loading Master.

10 minutes' notice should be given to the Loading Master for reducing the loading rate or stopping.

The practice of throttling back on the ship's cargo valves is to be avoided. If a lower rate is required, the shore is to be advised and the pumping rate will be reduced to the required level.

The Master will be held liable for any damage arising from the sudden cessation of flow caused by default of the ship.

It cannot be over-emphasised that to do so can be extremely dangerous and cause extensive damage to equipment in addition to possible oil pollution.

Failure of Communication: In case of failure of communications between the Loading Master and Zirku Control Room (ZCC), the loading will be automatically stopped.

Accommodation: Cabins: Two single cabins on board the tanker must be allotted to the Mooring/Loading Master and his Assistant.

Terminal Team: A rest room must be allotted to the hose connection team (3/4 people) should they be required to stay on board by the Mooring/Loading Master. This will only be the case in adverse weather conditions.

Working Location: The working location of the Mooring/Loading Master is the cargo control room.

A portable unit of around 25 kgs. will be installed in this room and operate from either a 110/115 v. or 220/240 v., 50/60 kHz. supply, such a socket must be available in the cargo control room.

Terminal Personnel: As long as the tanker is secured to the Buoy a permanent watch will be performed by the Mooring/Loading Master and/or his assistant in the cargo control room with the portable unit.

Contact will be permanently kept with the Zirku Control Room (ZCC) private VHF Channel.

Tanker Personnel: A tanker officer speaking English should be permanently on duty with the Mooring/Loading Master. The Chief Officer must be available at any time during the deballasting and loading operations (room and telephone number).

In addition to the tanker officer at least two crew members will be in contact with control room through adequate W.T. and must be on duty permanently on the deck keeping watch on the tanker and terminal equipment.

Accommodation ladder will be continuously adjusted by the crewmen with regard to the sea state and tanker draft to provide safe access to the deck at any time of the operations.

Ullages: Ullage measurements shoud be taken by remote gauge while loading.

Opening the tank ullage lids should be avoided.

When necessity involves opening the lids the Mooring/Loading Master's approval must first be obtained.

The Mooring/Loading Master will check and approve the ullage report according to ullage measurements.

Characteristics:

API: around 34
S.G.: around 0.85
Temperature 20°C. to 35°C.

More accurate characteristics will be transmitted to the tanker on arrival.

BALLAST: *Quantity:* Tankers arriving at Zirku Petroleum Port for berthing should keep onboard at least 30% of their d.w.t. as ballast until further instructions received from the Mooring/Loading Master.

Tankers capable of deballasting and loading simultaneously should have on board a total of not less than the 30% d.w.t. requested for berthing so that in normal circumstances they will not be flying light whilst moored at the buoy.

Vessels arriving with insufficient ballast may be required to increase the quantity, should the Mooring/Loading Master consider it necessary.

Quality: Vessels arriving with ballast on board to be discharged into the sea must ensure that the ballast, lines and pumps are clean and free from oil before commencing discharge. If necessary the initial quantity and the drainings should be pumped into the slop-tank. A permanent deck watch shall be kept during this operation with overside lights displayed at night on both sides of the vessel at the discharge points.

Deballasting Facilities: There are no deballasting facilities at Zirku Terminal for receiving dirty ballast.

UNMOORING/DEPARTURE: As soon as the loading operation is completed, the vessel will vacate the berth.

The tanker's cargo manifold valves and butterfly valves at the hose end will be closed. The hoses once disconnected will be swung outboard and lowered to the water with the derrick and released.

The tanker will leave the terminal by slipping the mooring. Once the mooring is slipped, the tanker will put the engines astern, drop back until clear of the floating hose, and then steam clear of the terminal.

The mooring launch will be positioned to tow the floating hoses clear, where necessary. The tug will help the tanker to clear the terminal if so required by the Mooring/Loading Master. The mooring connection team will disembark at this stage and the terminal equipment be lowered into the tug. It will be necessary to make a lee to perform these operations safely.

Waiting Area: In the case of no "Early Departure Procedure" arrangements having been made, the tanker will be anchored in one of the anchorage areas waiting for cargo, documents which will be sent by the pilot boat as soon as possible.

In case of the tanker being delayed from sailing for any reason (engine repairs, waiting order, etc) the Mooring/Loading Master will disembark once securely anchored.

When the tanker is ready to sail through the North Departure Route, 2 hours' notice will be given to the Mooring/Loading Master.

Departure Route: Any deep draft tanker leaving Zirku Petroleum Port will proceed through the following departure route at a speed not exceeding 8 knots.

Buoy No. 1	Lat. 25° 02′ N. Long. 53° 00.8′ E.
East Mark	BYB VQ(3)5s.
Buoy No. 2	Lat. 25° 04.4′ N. Long. 53° 02.4′ E.
Safe Water	RW Occ 15s.
Buoy No. 3	Lat. 25° 06.4′ N. Long.53° 03.0′ E.
Safe Water	RW LFI 10s.
	Crossing Pipe 30 in.
Buoy No. 4	Lat. 25° 09.8′ N. Long. 53° 02.6′ E.
Safe Water	RW Occ 8s.
	Crossing 3 pipes 18 in. & 30 in.
Buoy No. 5	Lat. 25° 11.2′ N. Long 53° 00.2′ E.
Safe Water	RW MO(A) 10 s.
Buoy No. 6	Lat. 25° 13.0′ N. Long 52° 58.9′ E.
West Mark	YBY VQ(9) 10s.

To Das Channel Buoy No. 10. Leave to starboard.

MEDICAL: Although a medical officer is resident on Zirku Island, consultations will be possible only on an emergency basis.

DENSITY: The salinities are high as a result of the high rate of evaporation.

At the terminal, the water density depending on the sea temperature ranges from 1030 to 1035.

SERVICES: Following services are NOT available at Zirku Petroleum Port:

Bunkers.
Fresh Water.
Food.
Engine Repairs.
Deratisation.
Shore leave for the crew.
Crew changes.

WEATHER: *Seasons:* Two principal seasons can be distinguished in the Gulf. The cool "Winter" season extends from mid November to mid March and the hot "Summer" season from mid May to mid September. The two intermediate periods are transitional and the weather experienced may have either Summer or Winter characteristics.

Winds: The most frequent (54% of the time) is named 'Shamaal' and blows from W.N.W. to N. principally in Winter. The 'Noshi' blows from N.N.E. to E.N.E. for 20% of the time.

Local effects of Monsoon, called the 'Kaus', blows from E. to S. 17% of the time.

Finally, during Winter only, the 'Suhaili', blows for 9% of the time from W.S.W. to W.

The strength of these winds is approximately proportional to their probability of occurrence but at their strongest they can give rise to sandstorms and rough seas for several consecutive days.

Temperature: The extreme monthly mean values of air temperature are 20°C in February and 34°C in August with a lowest minimum of 9°C and a highest maximum of 44°C during the same months.

Tides: Around Zirku Island the tide is variable with small diurnal predominance. However this semi diurnal effect is not of great significance and for all practical purposes it can be said that there is only one high water and one low water per day.

The maximum range is about 1.5 m.

The mean usual range is 1.0 m.

Currents: At the terminal tidal currents are semi diurnal.

The current speed reaches 1 knot regularly at each tide.

Roughly the flood runs S.W. and the ebb N.E. but the turn of tide is very slow when the current directions are variable.

Predictions may be found to be considerably influenced by strong winds, especially the 'Shamaal'.

GENERAL: *Navigation Aids Dues:* The light dues for the Gulf navigational aids will be levied for the account of M.E.N.A.S.

These dues will be paid once per voyage at the first port of call in the Gulf.

Masters are requested to keep the receipt as a voucher if requested by any other Port authority within the Gulf.

Agency: Ship-owners must have their own representative Agency in Abu Dhabi.

Zadco will be acting as a sub-Agency to liaise with the main Agency in Abu Dhabi for all queries regarding mail, telexes, medical assistance, letters of Protest etc.

AUTHORITY: Petroleum Ports Authority – ADNOC, P.O.Box 898, Abu Dhabi, U.A.E. *Tel:* Abu Dhabi 666029 or 667400 (ext. 6471) at Zirku. *Telex:* 22215 ADNOC. *Contact:* Captain H. Masri, PPA – Manager. Captain H. Al Holli and Captain M. Abu Shahba, Zirku – Port Officers.

AGENT: National Shipping Gulf Agency Co. (Abu Dhabi) Ltd., P.O.Box 377, Abu Dhabi, U.A.E. Cables: "Confidence" Abu Dhabi. Telex: 22248 ("Gacauh Em"). Tel: 334300. Fax: 339350.

United Kingdom

HEALTH – ALL PORTS:

PORT HEALTH (The Public Health (Ships) Regulations)

1. Simpler procedures for health clearance of ships arriving in the United Kingdom came into operation with effect from 1st April 1978.

2. Under these new rules the Master of a ship arriving from a foreign port must report to the Port Health Authority†

(1) The occurrence on board during the voyage* of
  (a) death, other than by accident,
  (b) Illness where the person or persons concerned
    (i) has or had a temperature of 38°C or greater which was accompanied by a rash, glandular swelling or jaundice, or persisting for more than 48 hours;
    (ii) has or had diarrhoea severe enough to interfere with work or normal activities, or
(2) the presence on board of
  (a) a person suffering from an infectious disease or who has symptoms which may indicate the presence of infectious disease
  (b) any animal or captive bird of any species including rodents and poultry, or mortality or illness among such animals or birds.
(3) any other circumstances which are likely to cause the spread of infectious disease.

If there is nothing to report under any of these headings the Master has no need to obtain health clearance unless an authorised officer otherwise directs. A proportion of ships will be boarded and checked. If any of the conditions in (1)a (1)b and (2)a or (3) have occurred permission (Free Pratique) from an authorised officer will be necessary before disembarkation or commencing operation.

3. If the Master has something to report under 2 above he must:

(1) send a radio message not more than 12 hours and where practicable not less than 4 hours before arrival, giving the relevant information, to the Port Health Authority
or, if the ship is not equipped with a radio transmitter, notify the Port Health Authority, wherever practicable before arrival and otherwise immediately on arrival;
(2) show or give the appropriate day or night signal when the ship enters the jurisdiction of the Port Health Authority (the codes are set out below);
(3) Until "Free Pratique" for health purposes has been given see to it that no person, other than Pilot, Customs officers, Immigration officer or authorised officer boards or leaves the ship without the permission of the medical officer;
(4) complete a Maritime Declaration of Health and arrange for it to be handed to the authorised officer.

In relation to the presence or illness of animals on board, etc., the requirements at (2), (3) and (4) do not apply but where plague has occurred or is suspected amongst rats or mice or there has been abnormal mortality among them, a Maritime Declaration of Health should be completed.

The requirement at 3(4) above does not apply to a ship which has come directly from a port in the expected area of the Council of Europe i.e., Belgium, Denmark, France, Germany F.R., Greece, the Irish Republic, Italy, Netherlands, Norway, Portugal, Spain and the United Kingdom.

4. Where it is necessary to obtain "Free Pratique" for health purposes the Master should have already to hand the authorised officer, a list of passengers and crew leaving the ship together with the addresses they are going to in the United Kingdom.

5. An authorised officer may, in circumstances other than those set out above, direct that the Master shall complete a Maritime Declaration of Health and that the Master shall apply restrictions on boarding or leaving the ship.

6. The Master of a ship that has met another ship, which has proceeded from a foreign port, or has met an off-shore installation, is required to comply with the rules in paragraphs 2-3 (but if the ship has proceeded from an excepted port a Maritime Declaration of Health need not be completed).

7. If the Port Health Authority† is satisfied that the Master of a ship was aware, or should have been aware, of conditions and failed to report them then action may be taken under the Public Health legislation which may result, on summary conviction, to a maximum fine of £100 plus £50 per day.

† Or the local Authority responsible for Port Health Control.

* If more than 4 weeks have elapsed since the voyage began it will suffice to give particulars for the last 4 weeks.

INTERNATIONAL CODE OF SIGNALS
PRATIQUE MESSAGES

ZS	My vessel is "healthy" and I request Free Pratique	Q
	*I require Health Clearance	QQ
ZT	My Maritime Declaration of Health has negative answers to the six health questions.	
ZU	My Maritime Declaration of Health has a positive answer to question(s)..........(indicated by appropriate number(s)).	
ZV	I believe I have been in an infected area during the last thirty days.	
ZW	I require Port Medical Officer.	
	ZW1 Port Medical Officer will be available at (time indicated).	
ZX	You should make the appropriate Pratique signal.	
ZY	You have Pratique.	
ZZ	You should proceed to anchorage for Health Clearance (at place indicated).	
	ZZ1 Where is the anchorage for Health Clearance?	
	I have a doctor on board.	AL
	Have you a doctor?	AM

*By night, a red light over a white light may be shown, where it can best be seen, by vessels requiring Health Clearance. These lights should *only* be about 2 m. (6 ft.) apart, should be exhibited within the precincts of a port, and should be visible all round the horizon *as nearly as possible*.

Health Clearance may be given in three ways:
a) Wholly in plain language.
b) Partly in the above signal code, remainder in plain language.
c) Wholly in the above signal code.

Issued by the Health Departments of the United Kingdom.

GENERAL:

Regulations for tankers entering or leaving ports in the United Kingdom:

Application of the Regulations: The British Government have issued the following regulations, which came into force on 15th October, 1981, applicable to tankers of 1,600 g.r.t. and over of any nationality which:

Have a cargo of chemicals, gas or oil in bulk, or;
Have not been declared gas free after having carried such a cargo.

Reports: Before entering the limits of any harbour a report must be made to the Harbour Master of that harbour giving the following information:

(a) Name and call sign.
(b) Country of register.
(c) Length, draft and beam.
(d) Destination. (This may not be the same as the harbour through which the tanker is passing).
(e) ETA at pilot station or harbour limits.
(f) Brief description of cargo and quantity in tonnes.
(g) Is vessel fitted with inert gas system?
(h) If inert gas system is fitted, is it operational?
(i) Have cargo tanks been rendered non-inflammable?
(j) Has a certificate been issued that the vessel complies with the IMO Codes for the Construction and Equipment of Ships carrying:
  (i) Dangerous chemicals in bulk, or;
  (ii) Liquefied gases in bulk?
(k) Any defect in the hull, machinery, or equipment which may:
  (i) affect the safe manoeuvrability of the tanker or;
  (ii) affect the safety of other vessels in the vicinity of the harbour, or;
  (iii) constitute a hazard to the marine environment, or;
  (iv) constitute a hazard to persons or property in the vicinity of the harbour.

Any changes to the above which occur before entering the harbour limits or while within those limits must be notified to the Harbour Master.

Check List: A Check List is required by the Pilot and the Harbour Master giving the following information:

Details and classification of the vessel.
State of machinery, anchor, fire-fighting, navigational and radio equipment.
State of Safety Certificates and other documents.
Details of officers' Certificates of Competence.

Check List Forms can be obtained from Department of Transport Marine Offices at the following ports: Aberdeen, Avonmouth, Belfast, Cardiff, Dover, Falmouth, Glasgow, Great Yarmouth, Greenock, Hull, Leith, Liverpool, London, Middlesbrough, Milford Haven, Newcastle, Plymouth, Shetland (Mossbank), Swansea.

SHIP MOVEMENT REPORTING: Notice to Mariners No. 631/1986.

Ship Movement Reporting in the English Channel and Dover Strait.

From 1st July, 1986, a revised message format is to be used in the voluntary ship movement reporting system for the English Channel and Dover Strait (MAREP). The changes will bring the MAREP system into agreement with the General Principles for Ship Reporting Systems adopted by the International Maritime Organisation (IMO).

This Notice gives the new message format and also includes amendments to the description of the MAREP system which was given in former Notice No. 1520/81.

Ship Movement Reporting (MAREP):

Introduction:

(1) The objective of the MAREP scheme is to assist the Mariner, to improve safety of navigation in the English Channel and Dover Strait, and to reduce the risk of pollution of the coasts of the United Kingdom and France in this area. Participation in the scheme is voluntary and the International Maritime Organisation (IMO), through its Maritime Safety Committee, has recommended that ships to which the scheme applies should participate. The transmission of reports is free of charge.

(2) The MAREP scheme provides for certain categories of ships to report-in to a number of designated shore stations in the area of the Traffic Separation Schemes and associated Inshore Traffic Zones off Ushant, off Casquets and in the Dover Strait. Broadcasts will be made by shore stations on a regular basis and as required and will include information on any known situations which could affect the safe navigation of ships in these Traffic Separation Schemes or associated Inshore Traffic Zones.

(3) Ships with certain defects and ships in other categories are also invited to report when elsewhere in the English Channel.

Participation:

(4) Ships of the following categories intending to enter the areas described in paragraph 5 below are invited to participate:

(a) All loaded oil and chemical tankers and loaded gas carriers of 1,600 g.r.t. and over.
(b) Any ship "not under command" or at anchor in a traffic sparation scheme or associated inshore zone.
(c) Any ship "restricted in her ability to manoeuvre", ships engaged in towing, deep draft ships, or ships with a defect in their propulsion or steering.
(d) Any ship with a defect in those navigational aids which could adversely affect her navigation under prevailing conditions.

When to Report:

(5) Ships mentioned above are invited to report to the designated shore stations (paragraph 8 below) when intending to enter:

(a) The Traffic Separation Schemes off Ushant and off Casquets, or their associated inshore traffic zones:
  (i) Reports should be made at a distance of 10 nautical miles before entering the area described in (a) above.

(b) The Traffic Separation Scheme in the Dover Strait or the associated inshore traffic zones:
  (i) On proceeding Eastward into this Scheme or its associated inshore traffic zones when arriving within 2 nautical miles of a line joining the Royal Sovereign Light Tower and Bassurelle Light Buoy and extended to the French coast.
  (ii) When proceeding Southwestward, when arriving within 2 nautical miles of a line from North Foreland extended through the Falls Light Vessel to the Belgian coast.
  (iii) When departing from a port within the associated inshore traffic zones.

(6) The phrase "entering a Traffic Separation Scheme" covers ships intending to use the traffic separation lanes, joining them from the side, or crossing the Schemes as described in Rule 10(b) and (c) of the International Regulations for Preventing Collisions at Sea, 1972.

(7) Any ship not under command or any ship of the categories described in paragraph 4(c) and (d) above wherever it is in the English Channel area (East of a line joining Ushant S.W. Buoy and Bishop Rock Lighthouse and West of the line described in paragraph 5(b) (ii) above) is invited to report to a shore station. These ships may be asked to make subsequent pre-arranged reports to shore stations.

Reports and Shore Stations:

(8) Ships with no defects should make a Position Report (POSREP). Ships with defects, i.e. when not under command, with a defect in propulsion or steering or as described in paragraph 4(d) above should make a Defect Report (DEFREP). Where appropriate a subsequent Change Report (CHANGEREP) should be made. Reports in the English language should be transmitted by VHF using the format at the Appendix and using for guidance the IMO Standard Marine Navigational Vocabulary and the International Code. The reports should be made to the following designated shore stations:

	Traffic Separation Zone	*MAREP Receiving Station*	*VHF Frequency*
(a)	Ushant	Ouessant Traffic	16 – 11
(b)	Casquets	Jobourg Traffic	16 – 11
		Portland Coastguard	16 – 69

Channel 11 should be used for calling and working Ouessant and Jobourg Traffic, but these stations should be called outside the times set for broadcasts in paragraph 10.

Channel 69 should be used for calling and working Portland Coastguard.

(c)	Dover Strait	Gris Nez Traffic	16 – 69
		Dover Coastguard	16 – 69

Channel 69 should be used for calling and working these stations.

(d) Ships requiring further information or assistance may be transferred by the Centres at Ushant, Jobourg and Gris Nez Traffic to Channel 79 and by Dover Coastguard to Channel 80.

(9) Ships referred to in paragraph 7 should make their report to the nearest designated station. If unable to make contact with any of these stations the report should be made through a Coast Radio Station and addressed to one of the designated stations.

Information Broadcasts:

(10) Routine broadcasts will be made by the Centres at Ushant, Jobourg, Gris Nez and Dover on VHF Channel 11 with additional routine broadcasts in restricted visibility at the following times:

	Clear Weather	*Restricted Visibility*
Ushant Traffic	H+10	H+25
	H+40	H+55
Jobourg Traffic	H+20	H+05
	H+50	H+35
Gris Nez Traffic	H+10	H+25
Dover Coastguard	H+40	H+55

(11) Urgent broadcasts will be transmitted as necessary at any time.

(12) All broadcasts will be preceded by a forewarning on VHF Channel 16.

(13) Broadcasts will cover navigational and traffic information of immediate interest and information on movements of ships which appear to be navigating within a traffic separation scheme contrary to the requirements of Rule 10 of the International Collision Regulations.

Ship's Radio Watch:

(14) In order to derive the fullest benefit from the MAREP scheme a continuous watch should be maintained between routine broadcasts on VHF Channel 16 (and on Channel 11 where two channel reception is available).

Caution

(15) It is emphasised that the MAREP scheme does not absolve the Master from his sole responsibility for the safe conduct of his ship.

APPENDIX:

Ship Reporting System:

System Identifier	MAREP	
Type of Report	POSREP	(Position Report) or
	DEFREP	(Defect Report) or
	CHANGEREP	(Change Report)

Heading	*Text*	*Explanation or Example*
Identification of message	MAREP	
Type of message		POSREP
Identity of ship	ALFA+name of ship plus call sign	
Group date/hour	BRAVO+6 figure (Zulu)	Date of month: 2 figures. Hours and minutes: 4 figures
Position	CHARLIE+Latitude and Longitude	Latitude: 4 figures followed by N or S Longitude: 5 figures followed by E or W
	or CHARLIE+name of port of departure	If the vessel is sailing from a port in the coastal zone
	or DELTA+bearing – distance in relation to a sea mark	Bearing: 3 figures in degrees. Distance: 2 figures in miles from land/sea mark indicated
True Course	ECHO+true course	3 figures in degrees from North
Speed	FOXTROT+speed in knots and tenths of knots	3 figures
Destination	INDIA+name of port of destination and probable time of arrival	
Radio-Communications	MIKE+VHF Channel number	Give number of VHF Channel monitored and if applicable number of second Channel monitored
Draft	OSCAR+maximum present draft	4 figures in metres and centimetres
Cargo	PAPA+industrial name of product or IMDG Code No.+quantity	Nature of cargo. Quantity expressed in tonnes
Navigational Restrictions	QUEBEC+brief description in clear	Stopped, moored, hampered by draft; generally any restriction on manoeuvrability
Additional Comments	X-RAY+brief particulars	Any other information which may be useful.

Note: The headings QUEBEC and X-RAY can be omitted when there is nothing to report.

Specimen Messages:

1. Position Report

	MAREP
	POSREP
ALFA	NONSUCH/MIKE BRAVO CHARLIE DELTA
BRAVO	ZERO TWO ONE ZERO THREE ZERO ZULU
CHARLIE	FIVE ZERO FIVE FIVE N ZERO ZERO ONE TWO EIGHT E
ECHO	ZERO FOUR ZERO
FOXTROT	ONE FIVE FIVE
INDIA	EUROPORT
MIKE	SIXTEEN
OSCAR	TWO ONE FIVE ZERO
PAPA	CRUDE

2. Defect Report

	MAREP
	DEFREP
ALFA	SUCHNON/MIKE BRAVO CHARLIE LIMA
BRAVO	ONE SIX ZERO FOUR THREE FIVE ZULU
DELTA	THREE FOUR FIVE DEGREES ONE THREE MILES FROM CASQUETS
INDIA	THAMES
MIKE	SIXTEEN
PAPA	GENERAL
QUEBEC	NOT UNDER COMMAND MAIN ENGINE FAILURE AWAITING TUG

ABERDEEN: 57.09 N. 02.03 W. (See Plan)

DOCUMENTS:

1 Maritime Declaration of Health.
1 Crew's Effects List.
2 Ship's Report by Master.
1 Home Office Form 1B6.
1 Stores List.
1 Certificate of Deck Cargo Tonnage.
1 Light Certificate.
1 Port Dues Certificate.
Ship's Certificate of Registry.
Mercantile Marine Office Certificate – for British ships only.
Load-line Certificate.
Safety Equipment Certificate.
Lloyd's Certificate.
Derat Certificate.
Ship's Register.
Light Bills.
Safety Radio Certificate.

In addition, Manifests and Bills of Lading are usually sent to Agent direct from loading port.

PILOTAGE: Aberdeen has a compulsory pilotage district and there are 10 licensed Pilots. Boatage service, although not compulsory, is available. There are 10 licensed boatmen.

There is a Navigation Control Service equipped with harbour surveillance radar which is operated by Navigation Control Officers who operate on a 24 hour basis.

RESTRICTIONS: Navigation Channel: Max. designed width 33.5 m., max. designed depth at HWOST 10.25 m. Traffic signals regulate the movement of vessels in the Navigation Channel.

Entrance to Victoria Dock, depth at MLWS 6.6 m., clear width at entrance 43 m.

MAX. SIZE: Assuming no siltation the port can accommodate vessels up to 160 m. in length, 24.4 m. beam and drawing up to 9.3 m. at MHWS or 8.3 at MHWN. Larger vessels may be accepted after consultation with the Harbour Master. A vessel 166 m. in length has ben handled.

HEALTH: Foreign arrivals to complete Maritime Declaration of Health. They are cleared immediately on arrival by either a port doctor or an Officer of H.M. Customs depending on where the ship comes from and whether there is sickness on board.

Vessels arriving from ports within accepted area (N. European ports) and coastal arrivals need not present Declaration in all cases; when there is sickness on board the Port Health Authority must be informed preferably not more than 12 hours and not less than 3 hours before arrival.

Also see "Health – All Ports" before first UK port.

VHF: There is a VHF radio communications system which operates on Channels 6, 11, 12 and 16.

BERTHING: Tidal:

	Length	Depth MHWS
Tidal Harbour	732 m.	9.3 – 10.3 m.
Albert Basin	1,806 m.	8.7 – 13.6 m.
River Dee (Navigable)	913 m.	8.4 – 10.8 m.
River Dee Dock	417 m.	9.3 – 10.8 m.
Upper Dock	463 m.	9.0 – 10.3 m.
Victoria Dock	1,532 m.	10.3 – 13.6 m.

Deep-Water Berths:

No. 1 Atlantic Wharf: This is 146 m. long with 9.3 m. at MLWS. Two-storey transit shed. Excellent road and rail connection.

No. 2 Pacific Wharf: This is 160 m. long with 9.9 m. at MLWS. Open quay. 2×6 ton and 1×50 ton electric Portal cranes capable of handling heavy lifts and containers. 1×3,000 t.p.d. grain conveyor (Private), outreach of boom 27 m.

No. 3 Waterloo Quay: This is 180 m. long with 9.9 m. at MLWS. 2×20 ton cranes at Waterloo Quay West. Ro-Ro service operated by P&O to Shetland.

No. 4 Regent Quay East: This is 228 m. long with 9.9 m. at MLWS. Two transit sheds. 2×8 ton level luffing electric portal cranes capable of handling 11 tons at 25 m. radius. Excellent road connections. Forest products terminal in operation.

FRESH WATER: This service is provided by the Grampian Region Water Services and is available at all quays.

REPAIRS: Ship repairing facilities and shipping supplies are offered by a number of private firms and individuals with premises beside the harbour.

DRY DOCKS: (Pontoon Docks).

	Overall Length (m.)	*Breadth at Entrance* (m.)	*Depth on Blocks* (m.)	*Lifting Capacity*
No. 1	55	8.8	4.9	700 tonnes
No. 4	64	11.6	5.5	1,000 tonnes

There is also 1 privately owned slipway and 1 drydock.

SURVEYORS: Lloyd's and Det Norske Veritas.

MEDICAL: Doctors and hospitals facilities available. Agents should be advised in advance of any medical attention required.

CUSTOMS ALLOWANCES: At the discretion of Local Customs Inspector. Normal allowances are equivalent to 8 oz. of tobacco per man and equivalent to 1 bottle of wine per man. Allowances may be halved for home trade vessels. Vessels in port for more than 3 or 4 days may receive extra allowances.

CONSULS:

Belgium	G. D. G. Mackinnon, 23 Market Street
Denmark	R. P. H. Pirie, 62 Marischal Street
Finland	D. G. R. Stroud, 62 Marischal Street
France	G. D. G. Mackinnon, 23 Market Street
Germany F.R.	A. H. S. Lewis, 186 Albert Quay
Iceland	D. G. R. Stroud, 62 Marischal Street
Netherlands	D. M. Grant, 21 Golden Square
Norway	D. G. R. Stroud, 62 Marischal Street
Spain	D. G. R. Stroud, 62 Marischal Street
Sweden	R. P. H. Pirie, 62 Marischal Street

AIRPORT: International airport nearby at Dyce. There are frequent daily jet services to London operated by British Airways, and in addition British Airways also operate services to Edinburgh, Glasgow, Prestwick, Wick, Orkney and Shetland. There are also services to Manchester and Birmingham.

Air U.K. operate direct services from Aberdeen to Amsterdam, Bergen, Copenhagen, London (Stansted), Stavanger, Edinburgh, Jersey, Leeds/Bradford, Humberside, Newcastle, Norwich, Isle of Man and Teesside.

TIME: BST is GMT plus 1 hour. GMT during Winter months.

HOLIDAYS: 1st and 2nd January; Spring Holiday (variable date); Summer Holiday (variable date); September Holiday (variable date); Christmas Day (25th December).

POLICE/AMBULANCE/FIRE: Dial 999 from any telephone and ask for service required.

TELEPHONES: There are berths at which GPO telephone service can be made available to vessels. All operational posts are linked by telephone network.

AUTHORITY: Aberdeen Harbour Board, 16 Regent Quay, Aberdeen AB9 1SS, United Kingdom. *Tel:* (0224) 592571. *Telex:* 73324. *FAX:* (0224) 571507. *Contact:* J. R. Turner, General Manager. Captain B. Atkinson, Harbour Master.

AMLWCH: 53.27 N. 04.20 W.

S.B.M. DISCHARGE FACILITY CEASED OPERATIONS IN 1988. BUOY REMOVED.

ARBROATH: 56.33 N. 02.35 W.

APPROACHES: Arbroath, situated between Dundee and Montrose, has been recently downgraded from a commercial port to a fishing harbour.

There is a bar 400 m. S.E. of the Piers, depth 0.609 m. LWS, which is dangerous in heavy Easterly weather.

MAX. SIZE: Largest vessel, 65 m. length, 4 m. draft.

BERTHING: Outer harbour has an area of 1.5 ha., depth of 4.57 m. at HWST. Length of quayage 451 m.

Between the outer harbour and entrance jetty is a Wet Dock with a patent slipway (122 m. long).

FRESH WATER: Available.

FUEL: Diesel available.

AIRPORT: Dundee, 29 km.

REPAIRS: Can be carried out at repair yard.

DRY DOCKS: None. Patent Slipway 122 m. long. Length of cradle 32.6 m. Lifting power 150 tonnes.

POLICE/AMBULANCE/FIRE: Dial 999.

Arbroath Harbour is a station for a R.N.L.I. Lifeboat "Shoreline" and an inshore inflatable boat.

AUTHORITY: Tayside Regional Council, Harbour Office, Arbroath Harbour, Tayside. *Tel:* Arbroath 72166. *Contact:* Captain G.D. Easton, Harbour Supervisor.

ARDROSSAN: 55.38 N. 04.49 W. (See Plan)

DOCUMENTS: Normal documents required:

Customs Documents.
Health Documents.
Crew List.
Passenger List.
Ship's Papers, etc.

PILOTAGE: Pilotage compulsory for vessels over 750 g.r.t. operated by Clyde Pilotage Authority. Pilot boards off Little Cumbrae Island. Pilot boat on VHF Channels 16 and 14.

24 hours notice required and amendment if ETA changes.

ANCHORAGE: In 12 to 15 fathoms 1 mile S.W. of breakwater.

RESTRICTIONS: 3 red lights vertically day and night above Port Control Tower (see "Plan") indicates "Port Closed".

MAX. SIZE: Eglinton Dock approx. 420 ft. by 57 ft. by 16 ft./18 ft. (depending on tide). North Montgomerie Pier Tanker Berth – max. length 575 ft., max. draft, up to 70 ft. beam, 23 ft./26 ft.; over 70 ft. beam, 22 ft./25 ft.

HEALTH: All vessels requiring attention of Medical Officer shall show flag signal ZW by day, or between sunset and sunrise, either morse signal ZW by lamp, or a red light over a white light, not more than 6 ft. apart. Other vessels shall show flag signal "Q" by day, or between sunset and sunrise either morse signal Q by lamp or a red over a white light, not more than 6 ft. apart.

Certificate of Pratique will be issued by Customs Boarding Officer on receiving a satisfactory and fully completed Maritime Declaration of Health. No further formalities required at subsequent ports of call in the U.K.

Also see "Health – All Ports" before first U.K. port.

RADIO: VHF Channels 12, 14, and 16. Radio telephone via Portpatrick.

TUGS: On application to Clyde Tug Owners.

BERTHING: No special requirements except with draft over 16 ft. when vessel may be delayed waiting for tide.

STEVEDORES: Orders to be given by 1130 hrs. previous day.

MEDICAL: No advance notice required unless medical attention is necessary immediately on vessel's arrival. No hospital facilities in Ardrossan, nearest hospital being at Irvine, 6 miles and Kilmarnock 16 miles.

TANKERS: Hoses 8 in. Berths (1) Up to 3,000 d.w.t. (2) Up to approximately 20,000 d.w.t. Max. draft 22 ft./26 ft. depending on beam and tide.

DENSITY: 1025.

FRESH WATER: Available continually at all berths.

FUEL: Marine oils available by road tanker.

FIRE PRECAUTIONS: Patrolman required for hazardous cargoes.
GANGWAY/DECK WATCHMEN: Recommended.
OPENING/CLOSING HATCHES: Opened and closed by crew.
CERTIFICATES: Following Certificates are requested: Load Line, Safety Radio, Safety Equipment, Safety Construction, Derat, and Current Trinity House Light Bills.
CUSTOMS ALLOWANCES: Standard U.K. allowances.
IDENTIFICATION CARDS: Not required.
CONSULS: Norwegian Vice Consulate, Danish Vice Consulate: C.A. Mair (Shipping) Ltd., Winton Buildings, Ardrossan. Tel. Ardrossan 605284.
REPAIRS: Limited repair facilities.
REPATRIATION: Customs Boarding Officer acts for Immigration Dept. and arrangements for repatriation can be arranged in conjunction with ship's Agent.
AIRPORTS: Prestwick 18 miles. Glasgow 25 miles.
TIME: BST, that is GMT plus 1 hour. GMT in Winter months.
HOLIDAYS: 1st and 2nd January; Easter Monday; May Day, First Monday in May; Third Monday in July; First Monday in October; Christmas Day and Boxing Day. Cargo work may be available on certain holidays by special arrangement.
POLICE/AMBULANCE/FIRE: Police tel. Saltcoats 63966; Ambulance, Fire: Ask telephone operator.
SHORE LEAVE: No restriction.
DEVELOPMENTS: Roll-on/Roll-off berth for specialised traffic.
AUTHORITY: Ardrossan Harbour Company Limited, Harbour Office, Ardrossan, Ayrshire, KA22 8DB, United Kingdom. *Tel:* (0294) 63972-4. *Telex:* 777954. *Contact:* Captain D. Gillespie, Managing Director and Harbour Master.

AYR: 55.28 N. 04.38 W. (See Plan)
TROON: 55.33 N. 04.40 W. (See Plan)

LOCATION: *Ayr:* On the West coast of Scotland, at the mouth of the River Ayr.
Troon: 14.5 km. (9 miles) North along the coast from Ayr.
DOCUMENTS:
Customs Require:
- 2 copies Form XS1.
- Ship's Register.
- Load-line Certificate.
- Safety Radio Certificate.
- Passenger List.
- Crew List.

Port Health Require:
- Derat Certificate.

Agents Require:
- 1 copy Form XS4.
- Bills of Lading.
- 2 copies Manifest.

PILOTAGE: Compulsory for vessels over 1,600 g.r.t. Pilot boards off Bar Light Buoy. 24 hours' notice of ETA required for Pilot via Agent or Dock Authority. Ayr Pilots listen on Channel 16 and work on Channel 14 VHF. VHF watch hours: Monday-Thursday 0800-2400. Friday 0800-2300.
ANCHORAGE: To Pilot's advice. Easterly winds Ayr Bay, Westerly gales anchor East side of Arran Island.
RESTRICTIONS: Draft restriction at LW. Enter on Pilot's advice.
MAX. SIZE: Dock: Length 95 m. Max. draft 6.00 m. River (Ayr): Length depending on berth. Max. draft 6.20 m. Max. length for turning 110 m.
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: Local station, call sign GPK on 2381 kHz. VHF radio only, operating on Channel 14 and listening on Channel 16.
TUGS: 1 tug of 5 tonnes bollard pull.
RADAR: No radar station.
BERTHING:

Dock	Quay Length (Total) (m.)	Depth of Water (m.)	Maximum Size of Vessel Length (m.)	Beam (m.)	Draft (m.)
Ayr:					
Tidal	610	6.0	95	18.0	5.8
River (North)	549	6.4	No restriction	—	6.2
River (South)	488				
Troon:					
Tidal	366	6.0	55	12.2	—
Outer	1,372	7.5	146	No restriction	7.3

Storage and Warehousing Facilities: Open storage space totalling 2.7 hectares.
Cranage and Mechanical Handling: 1 mobile crane 1.5 tonnes, 2 mobile cranes 3 tonnes; 2 mobile cranes 35 tonnes, 1 mobile crane 40 tons, 1 mobile crane 70 tons, 8 mechanical shovels from 0.5 to 5.0 cu.m. capacity. 2 conveyors loading speed 300 – 650 tonnes/p.h. There is also a fixed coaling appliance capable of loading 600 tonnes/p.h. 2 forklifts 2.7 tonnes, 1 forklift 8.2 tonnes, 2 forklifts 5 tonnes, 1 forklift 4 tonnes.
STEVEDORES: 24 hours notice of ETA should be given to stevedores.
Port Working Hours: Monday-Thursday 0800 – 1700 hrs., Friday 0800 – 1600 hrs. Overtime 0600 – 0800 hrs., 1700 – 2100 hrs.
Saturday 0600 – 1200 hrs. Sunday 0800 – 1700 hrs. Any other hours by arrangement.
MEDICAL: Hospital facilities nearby in town.
DENSITY: Varies according to weather.
FRESH WATER: Available at all berths.
FUEL: All grades available, 24 hours notice.
GANGWAY/DECK WATCHMEN: Deck watchman required; may be supplied by arrangement with stevedores.
OPENING/CLOSING HATCHES: Performed by ship's crew.
CUSTOMS ALLOWANCES: 0.25 lb. of tobacco or equivalent cigarettes, and one-sixth of a gallon wine/spirits per man.
IDENTIFICATION CARDS: Seamen's identity cards should be carried.
REPAIRS: Most engine and deck repairs available.
DRY DOCKS: Two at Troon, Ailsa–Perth Ltd.
No. 1 Dock: 85.3 m. long, 11 m. wide, 3.5 m. depth over sill.
No. 2 Dock: 140.4 m. long, 17 m. wide, 4.7 m. depth over sill.
AIRPORT: Nearest at Prestwick, 7 miles away, mostly International flights.

Air UK flights from Edinburgh to Aberdeen, Amsterdam, Esbjerg, Humberside, Leeds/Bradford, London (Stansted), Norwich and Paris.
TIME: GMT plus 1 hour, reverting to GMT in Winter months.
HOLIDAYS: Christmas Day and Boxing Day.
POLICE/AMBULANCE/FIRE: Dial 999, and ask for service required.
TELEPHONES: No connection on board vessel.
SERVICES: Special arrangements can be made for tank washing and compass adjusting through Glasgow.
SHORE LEAVE: No restrictions on shore leave.
AUTHORITY: Associated British Ports – Ayr & Troon, Port Office, Ayr KA8 8AH, United Kingdom. *Tel:* (0292) 281687. *Telex:* 778853 Kenny G. *FAX:* (0292) 287787. *Cables:* Dainnex Ayr. *Contact:* T. L. Kenny, Port Manager.

BANGOR: 54.39 N. 05.40 W. (See Plan)

PORT LIMITS: A line drawn from Wilson's Point to Luke's Point.
DOCUMENTS: Standard U.K. documentation.
PILOTAGE: Not compulsory but advisable if unfamiliar with the area. Pilot may be obtained from the pilot station at Carrickfergus after call on VHF Channel 16.
ANCHORAGES: 2 cables off North Breakwater or in Ballyholme Bay with offshore winds.
RESTRICTIONS: Due to limited amount of berthing facilities, permission should be sought from the Harbour Master before entering the Harbour.
MAX. SIZE: LOA 70 m. Draft 4.0 m. at HWOST. In 1990 it is intended that vessels of up to 75 m. in length will be able to berth at the New Centre Pier, which will be a steel piled structure with a depth alongside of 2.9 m. at LW.
Also see "Berthing."
HEALTH: Standard regulations apply. Vessels should inform Port Health Officer Belfast of any sickness on board.
VHF: A listening watch is kept on VHF Channel 16 from about 1 hour before HW till HW when vessels are expected. Working frequency is Channel 11.
TUGS: Can be ordered from Belfast if required.
BERTHING: Commercial traffic into Bangor has been suspended until approximately April/May 1989, due to the construction of the new Pickie Breakwater and the extension of the Centre Commercial Pier.
BRIDGES: None.
STEVEDORES: None locally.
MEDICAL: Full hospital facilities available.
FRESH WATER: Available on Central Pier.
FUEL: Available by tank wagon.
TANKERS: No facilities.
CONSULS: Nearest at Belfast.
REPAIRS: Minor repairs only.
SURVEYORS: Available from Belfast.
GANGWAY/DECK WATCHMEN: Not usually available.
HATCHES: Opening/closing done by ship's crew.
CUSTOMS ALLOWANCES: U.K. Regulations apply.
CARGO GEAR: The harbour's 5 tonne crawler crane has been removed, and in future vessels will have to use their own cargo gear, or hire one of the available mobile road cranes in the district.
REPATRIATION: Can be arranged by Agent.
AIRPORT: Aldergrove Airport.
TIME: GMT plus 1 hour from late March – late October. GMT for rest of year.
POLICE/AMBULANCE/FIRE: Dial 999.
TELEPHONES: Cannot be placed on board. Several in vicinity of berth.
SHORE LEAVE: No restrictions.
DELAYS: There should be no delays in berthing when the Centre Pier is in use again. Berthing times will depend on the arrival drafts.
DEVELOPMENTS: The new North Breakwater runs in a Northwesterly direction with seaward side built of S.H.E.D. units, and the sheltered S.W. side of corrugated steel piling, where safe berthing is available over a distance of 95 m. with a minimum depth of 3.7 m. at LW.

A 600 berth marina is to be constructed in the inner harbour, where the minimum depth will be approximately 2.0 m. at LW.
AUTHORITY: North Down Borough Council, Town Hall, Castle Grounds, Bangor, Co. Down, Northern Ireland BT20 4BT. *Tel:* (0247) 270371. *Contact:* Captain W. O. Burns, Harbour Master, Tel: (0247) 270371, ext. 255.

BARROW-IN-FURNESS: 54.07 N. 03.14 W. (See Plan)

PORT LIMITS: The seaward boundaries of the port are a line joining Westfield Point (Lat. 54° 05′ 33″ N., Long. 03° 11′ 10″ W.) with Scar End Point on Walney Island (Lat. 54° 03′ 31″ N., Long. 3° 12′ 17″ W.).

DOCUMENTS:

2 Crew Lists.
2 Passenger Lists.
Health Declaration.
Ship's Certificates and Cargo Documents.

PILOTAGE: Pilot boards at Lune buoy, using Pilot cutter, usually 2 or 3 hours before high water.

The Heysham Lake Pilot vessel listens on 2182 kHz (MF) and is also equipped with VHF listening continuously on Channel 16. The working frequencies are 2241 kHz and 2246 kHz and Channels 6, 12 and 14 respectively. Ships which are suitably equipped should pass their ETA through any United Kingdom Post Office Coast Station to their Agent 24 hours before arrival.

ANCHORAGE: At Lightning Knoll Buoy, depth of 10 m. at LW. In adverse weather conditions vessels proceed to Ramsey Bay, 16 km. away, for shelter.

RESTRICTIONS: No docking after HW. Tidal range 7.1 m. MHWN, 9.2 m. MHWS. Deduct 0.5 m. from height of high water to allow for invert at dock entrance. Access to the port, which is protected from the prevailing Westerly winds by Walney Island, is gained from the Irish Sea through the harbour along the well-defined Walney Channel. The depth of water on the Ramsden Dock entrance sill can range from 10.06 m. at high water springs to 6.4 m. at high water neaps.

MAX. SIZE: Length 183 m. Beam 23 m. Draft according to tide.

HEALTH: Vessels arriving from abroad are given Pratique by Customs Boarding Officers. In case of suspected disease or fever on board notify Agent prior arrival. Agent will advise Port Health Authorities.

Also see "Health – All Ports" before first U.K. port.

RADIO: Local stations: Anglesey Radio, and/or Port Patrick Radio.

VHF: Port VHF service. Call sign 'Ramsden Dock Radio'. Channel 16 (156.8 MHz) Calling and Safety. Channel 12 (156.6 MHz) Port Operations.

TUGS: Liverpool tugs available on request. Notice required.

BERTHING:

Docks	*Water area in Hectares*	*Width of entrance*
Ramsden	22.5	30.48 m.
Buccleuch	13.0	30.48 m.
Devonshire	5.0	24.4 m.

Walney Channel Deep-water Berth: 259.10 m.×30.48 m.×10.06 m. depth.

Ramsden includes: Ramsden Dock Basin with 3 berths with a total quayage of 378 m., taking vessels of up to 9.15 m. draft, and Anchor Line Basin with three berths 256 m., 152.4 m., and 274.3 m., long respectively, taking vessels of up to 7.3 m. draft. Anchor Line berth equipped for Ro/Ro traffic.

DENSITY: 1015 to 1025.

FRESH WATER: Available from quayside hydrants.

FUEL: Can be obtained from bunkering facility at No. 3 Berth, Ramsden Dock Basin.

GANGWAY/DECK WATCHMEN: Compulsory.

OPENING/CLOSING HATCHES: Handled by ship's crew.

IDENTIFICATION CARDS: Seaman's Book or Passport required by non-British crew.

CONSULS: Netherlands, Portugal, Spain (Vice-Consul) represented by James Fisher & Sons PLC. Tel. Barrow-in-Furness 22323.

AIRPORT: Regular scheduled flights to Manchester and the Isle of Man from Walney Airport, located 4 miles from the docks. Contact Air Furness Ltd. Tel. Barrow–in–Furness 42442.

TIME: As for other UK ports.

HOLIDAYS: As for other ports in England.

POLICE/AMBULANCE/FIRE: In emergency Tel. 999; for enquiries and other calls – Police: Barrow 24532; Ambulance: Carlisle (0228) 20345; Fire Service: Barrow 21363.

SHORE LEAVE: No restrictions.

AUTHORITY: Associated British Ports – Barrow and Silloth, Port Office, Ramsden Dock Road, Barrow-in-Furness, Cumbria, LA14 3NB. *Tel:* (0229) 22911. *FAX:* (0229) 35822. *Contact:* Captain J.W. Green, Port Manager and Harbour Master.

BARRY: 51.24 N. 03.16 W. (See Plan)

DOCUMENTS: Required for arrival:

C.142	2 Copies	Crew Declaration
C.14	3 Copies	Stores Declaration
C.13	2 Copies	General Declaration (completed by Agent)
C.16	2 Copies	Cargo Inward Declaration
C.74	1 Copy	Master's Authority (Agent's complete)
C.1320	2 Copies	Cargo in un-registered spaces.

These documents are to be completed and presented with copies of manifests and ship's documents at the time of report.

PILOTAGE: Telegraphic address of pilot station: S.E.W.P.A. Pilots, Pier Head, Barry Docks. Amount of advance notice of ETA required: 24 hours. Final confirmation to be given by VHF or R/T when within 2 hours of pilot station. VHF channel or frequency to be used when contacting pilot boat or pilot station: VHF Channel 16 thence working Channels 6, 8, 10, 11, 22.

Pilot boat: Motor launch black hull with "S.E.W.P.A. Pilot" in white on same. White superstructure. Light or sound signals to be made by vessels requiring a Pilot: flag "G" over numeral "6" flown by day, or "6" sounded on whistle or siren; flashed by lamp at night.

Exact area where pilot boat is located normally between Nash Point and Breaksea Lanby Buoy. Smaller vessels may be boarded in Barry Roads.

ANCHORAGE: Barry Roads, 10 fathoms, safe anchorage. Large vessels should anchor West of Breaksea Lanby Buoy. Small vessels 0.75 mile S.E. of Barry Dock Entrance.

RESTRICTIONS: Entrance only 4 hours before HW to 4 hours after HW.

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: Barry Docks Radio, Channels 10 and 11.

VHF: Channels 16, 10, 11 and 22.

TUGS: Join vessel at Barry Roads. Tug's or ship's lines utilised.

BERTHING:

Dock	*Quay Length (Total)* (m.)	*Normal Depth of Water* (m.)	*Max. Size of Vessel Length* (m.)	*Beam* (m.)	*Draft* (m.)	*Max.* d.w.t.
No. 1 Dock	2,894	9.8	178	23	9.1	23,000
No. 2 Dock	(9,490 ft.)	9.8	178	23	9.1	23,000
No. 3 Dock Basin		Semi-tidal	178	23	9.1	23,000

Vessels up to 22.9 m. beam can be accepted on favourable tides. Max. 23,000 d.w.t. with draft of 9.1 m.

Storage and Warehousing Facilities: 3,700 sq.m. transit shed and 1,860 sq.m. temperature controlled holding store within dock basin. No. 2 Dock provides a further 2 transit sheds totalling 7,413 sq.m. Additional covered storage within the port area comprises 4 sheds totalling 7,686 sq.m. (82,650 sq. ft.). Ample open storage space is also available.

Cranage and Mechanical Handling: Basin: 4 × 6 tonne. No. 2 dock, South Side: 4 × 6 tonne and 2 × 5 tonne. Berth No. 31: 5 × 10/11.5 tonne grabbing cranes.

Forklift Trucks: 32 of varying capacities up to 25 tonnes.

Pallet Trucks: 41 × 2 ton capacity.

Specialised Facilities:

i) One of the largest tank storage facilities in Britain with tank capacity of more than 260,000 tonnes suitable for oil, chemicals, and natural gas.

ii) 2 fixed Ro/Ro berths, located in No. 2 Dock and No. 3 Dock Basin. These are backed by 4 hectares (10 acres) of land for marshalling and storage of vehicles.

iii) The port is licensed to handle explosives both in dock and at specially approved anchorages.

iv) A bulk loading conveyor installed at No. 2 Dock is capable of handling coal and coke at a speed of 450 tonnes per hour and is served by road and rail, with stocking areas.

v) Windward Terminal: Banana Terminal used by Geest Industries. 6,400 sq.m. of storage area (temperature controlled). 4 × 6 ton quay cranes. Terminal can accommodate vessels of 10,000 d.w.t.

BRIDGES: Bridge swung to vessel's requirements.

STEVEDORES: An early ETA essential. Enables planning to be effected in conjunction with other work in port.

Port Working Hours: Monday – Thursday: 0700 – 1630 hrs. Friday 0700 – 1530 hrs.

Daily and weekend overtime available and shiftwork can also be arranged on request.

MEDICAL: Hospital facilities available. Advance notice desirable.

TANKERS: 6 tanker berths, maximum draft 28 ft.

DENSITY: Density 1020.

FRESH WATER: 15/20 t.p.h. per hose.

FUEL: By barge or road transport.

GANGWAY/DECK WATCHMEN: The services of watchmen provided at discretion of Shipowner or Agent.

OPENING/CLOSING HATCHES: Work normally undertaken by ship's crew but the port will, if requested, provide a crane to assist in this work on completion of a "Hatch beam form". Riggers may be employed on this work at request of shipowner.

CUSTOMS ALLOWANCES: Refer to Customs. Tel: Cardiff 488088.

IDENTIFICATION CARDS: Not needed by Port Authority.

CONSULS: None. Many located at Cardiff 8 miles East of Barry.

REPAIRS: All types of repair undertaken by private ship repairers.

DRY DOCKS: One dry dock, length 286.5 m. and width 23.9 m. – not in use.

REPATRIATION: All facilities available.

AIRPORT: Cardiff (Wales) Airport, 4 miles, served by regular airlines.

TIME: GMT, except late March – late October when British Summertime (GMT plus 1 hour) is in operation.

HOLIDAYS: Bank Holidays. Arrangements made to work if essential.

POLICE/AMBULANCE/FIRE: Call operator by dialling 999.

TELEPHONES: At main berths.

SHIP SUPPLY SERVICE: A Ship Supply Service could be provided by Cory Ship Towage with their tugs at Cardiff if required. Address: Cory Ship Towage Ltd., S.E. Wales Office, Alexandra Dock, Newport, Gwent. NP9 2NP. Tel: Newport 56835/6.

AUTHORITY: Associated British Ports, Pierhead Building, Bute Docks, Cardiff, South Glamorgan CF1 5TH. *Tel:* (0222) 471311. *Telex:* 498542. *FAX:* (0222) 471100. *Contact:* Mr. B. J. Harding, Port Manager, Cardiff and Barry. N.S.H. Palmer, Operations Manager. Captain R.S. Grubb, Harbour Master.

BELFAST: 54.36 N. 05.56 W. (See Plan)

DOCUMENTS:

1 Passenger and Crew List for Immigration.
1 Crew Declaration C142 (for H.M. Customs).
1 List of Ship's Stores (for H.M. Customs).
1 Maritime Declaration of Health.
1 Cargo Manifest.

PILOTAGE: Pilot station is situated on end of East Pier at Carrickfergus. It is manned continuously. Vessels requiring a Pilot should give as much advance notice as possible of ETA, but in any case not less than 2 hours. Pilots may be ordered through:

(i) Pilot Station Carrickfergus, tel. Carrickfergus 62329. VHF Channels 16, 9 and 12.
(ii) Port Operations Station, tel. Belfast 234422 Ext. 234, or Belfast 238506.
(iii) Belfast Harbour Office, tel. Belfast 234422 Ext. 231, 0900 – 1700 hrs. Monday-Friday.

There are two motor launches servicing Pilots. "Pilot Boat I" is 33 ft. long and "Mabel Helen" is 46 ft. 8 in. long. Both vessels are painted black with word Pilot in white letters on each side.

Pilot launches may be contacted on VHF Channel 16 and working frequency Channel 6, 8 and 12.

Usual international signals should be made for a Pilot. Pilots board from 1.5 to 2 miles S.E. of Carrickfergus. In poor visibility the pilot launch makes a sound signal of 4 short blasts. Vessels may be led into calm water before boarding.

ANCHORAGES: Safe anchorages, according to draft and size of vessel are available through Belfast Lough East of a line from Carrickfergus to Grey Point.

RESTRICTIONS:

Intended depths in the entrance channels: Victoria Channel, sea to Refinery berths – 30 ft. below datum. Refinery to Thomson Wharf – 26 ft. below datum.

Musgrave Channel, 24 ft. below datum.

Herdman Channel, 21 ft. below datum.

MAX. SIZE: Vessels' size is restricted only by depth of water available. See "Restrictions", "Berthing" and "Tankers".

HEALTH: Use International Code quarantine signals. Master of a ship approaching a port in Northern Ireland from a foreign port other than an excepted port must ascertain state of health of all persons on board, and must fill in and sign Declaration of Health. It should be completed and ready to deliver to the Customs Officer, or authorised officer of the Port Health Authority, whichever first boards the ship.

If any suspected diseases on board, Free Pratique will not be granted by Her Majesty's Customs until the ship has been visited by the Port Medical Officer. Therefore in these cases notify "Portelth Belfast" by radio in advance.

Also see "Health – All Ports" before first U.K. port.

RADIO: The best station for messages, cables, etc., is Port Patrick call signal GPK.

VHF: Belfast Port Operation and Information service is situated in the main harbour office building. A continuous watch is maintained on VHF on Channel 16. Working Channel is 12. Call sign is Belfast Harbour Radio.

TUGS: Tugs are owned by Cory Ship Towage Ltd., Tel. Belfast 743278. They are fitted with VHF Channels 16, 14, 12, 8 and 6. Tugs normally meet inward bound vessels in vicinity of No. 20 beacon. Use of tugs' lines is optional. Charge for use of each tug line is £15.

BERTHING: The following berths are equipped for handling containers or drive-on, drive-off traffic:

Berth	*Max. draft (ft.)*
Donegall Quay 2 (1×35 tonne Scotch derrick)	18
Donegall Quay 4 (2×7.5 tonne portal crane) also Ro/Ro	18
Donegall Quay 5 (No cranes)	18
Donegall Quay 6 (No cranes)	18
Ballast Quay (1×25 tonne derrick crane) also Ro/Ro and 600 ton heavy Ro/Ro pad	18
York Dock A (No cranes)	24
York Dock 1 (New self-contained container terminal, 1×30 ton transporter crane)	24
Herdman Channel West (2×30 tonne transporter cranes)	18
Gotto Wharf (2×30 tonne transporter cranes)	21
Stormont Wharf 2 (200 tonne cantilever crane)	28
Pollock Dock 7 (1×35 tonne derrick crane)	18 – 34

Numerous general cargo berths and cranage from 3 – 15 tonnes.

Unitank Storage Co. Ltd. have constructed a bulk liquid terminal for the storage of petroleum, chemical products, etc. Special tankers ship liquid gas to the storage installation of Calor Kosangas (Northern Ireland) Ltd. at Musgrave Channel.

MEDICAL: All kinds of medical treatment are available. Agent should be given as much notice as possible for arrangements to be made.

TANKERS: Tankers have to observe (i) Belfast Harbour Commissioners By-Laws for loading, discharging, etc., of petroleum spirit. (ii) Chamber of Shipping Tanker Safety Code. (iii) The Merchant Shipping (Tankers) (EEC requirements) Regulations 1981.

6,000 tons of tank washings can be processed at B.P. Refinery.

Tanker Berths: Oil Berth No. 4 – 35 ft. Oil Berth No. 1 – 28 ft. Oil Berth No. 2 – 28 ft. Oil Berth No. 3 – 28 ft.

STEVEDORES: Two schooling times per day for stevedoring gangs – 0800 and 1300 hrs. Gangs for all week-end work are schooled at 1300 hrs. on Fridays.

DENSITY: Average density of water in Inner Harbour is about 1012, and Outer Harbour is about 1024.

FRESH WATER: Available at almost all berths. Delivery is by hose at a rate of approx. 30 t.p.h. Arrangements can be made through Dept. of Environment (Water Services Division). Tel. 746581.

FUEL: All grades of fuel oil are available by road tanker only. 48 hours' advance notice of requirements should be given.

FIRE PRECAUTIONS: Special precautions for vessels carrying petroleum, explosives, calcium carbide and dangerous goods are set out in the appropriate by-laws. A copy of general port fire notice, delivered to all ships on arrival.

Also see "Tankers".

GANGWAY/DECK WATCHMEN: Normally, a member of ship's company acts as watchman. Shore watchmen may be obtained through Agent.

OPENING/CLOSING HATCHES: Conventional beams and hatches and slab hatches are opened and closed by stevedores. McGregor or patent steel hatches are worked by ship's personnel. Ship's personnel required to work all types of hatches at grain silos.

CERTIFICATES:

Register. Radio Certificate. Load Line Certificate. Safety Equipment Certificate. Safety Construction Certificate. Light Bills. Passenger Certificate if applicable. Chain Register. Derat Certificate.

CUSTOMS ALLOWANCES: Tobacco: 8 oz. tobacco are permitted per man and issues are made at 8 day intervals. Wine and/or Spirits: Wine, beer and spirit issues are made, in moderation, at 4 day intervals.

IDENTIFICATION CARDS: Seamen's identity cards required.

CONSULS:

Belgium	Hillsborough 682671
Denmark	Belfast 230581
Dominican Republic	Belfast 230321
France	Belfast 660325
Germany F.R.	Ballymena 41412
Italy	Belfast 778353
Netherlands	Belfast 243126
Norway	Belfast 242242
Spain	Belfast 227571
Sweden	Belfast 230581
Switzerland	Carrickfergus 61195
U.S.A.	Belfast 228239

REPAIRS: All types of deck and engine repairs are possible.

DRY DOCKS: Belfast Dry Dock, length of floor 1,100 ft. breadth of floor 167 ft., breadth of entrance 165 ft., level of sill 26 ft. 6 in. below datum.

Harland and Wolff Building Dock, length of floor 1,825 ft., breadth of floor and entrance 305 ft., level of sill 16 ft. 10 in. below datum.

Two other dry docks available.

REPATRIATIONS: Crew may be changed and repatriations arranged. Immigration must be informed.

AIRPORT: Aldergrove Airport is approximately 17 miles from Belfast. There are daily flights to all parts of United Kingdom. Belfast Harbour Airport has daily flights to several U.K. cities.

Air UK flights to Aberdeen, Amsterdam, Copenhagen, London (Stansted) and Leeds/Bradford.

TIME: British Standard Time is kept, that is GMT plus 1 hour. Reverting to GMT in Winter months.

HOLIDAYS: Stevedore holidays are 1st January, 17th March, Easter Monday and Easter Tuesday, 12th and 13th July and 25th and 26th December.

POLICE/AMBULANCE/FIRE: All can be contacted by telephoning 999 and ask for services required. Additionally: Fire Brigade Belfast 222222; Ambulance Belfast 241212; Harbour Police Belfast 232235; *or* through Belfast Harbour Radio on VHF Channels 16 and 12.

TELEPHONE: Telephone can be placed on board at certain berths.

SERVICES: All principal makes of radio, radar and gyro equipment can be serviced. Compass adjusting and D/F calibration can be carried out.

SHORE LEAVE: Normally no restrictions on shore leave.

DEVELOPMENTS: A new Ro/Ro berth is under construction and is due for opening in 1989.

AUTHORITY: Belfast Harbour Commissioners, Corporation Square, Belfast BT1 3AL. *Tel:* (0232) 234422. *Telex:* 74204. *FAX:* (0232) 242663. *Contact:* Captain Hugh O'Byrne, Harbour Master. Mr. G. Irwin, General Manager. Mr. J. F. McNamee, Chief Engineer.

BLYTH: 55.08 N. 01.30 W. (See Plan)

DOCUMENTS:

Certificate of Registry.
Load Line Certificate.
Wireless Telegraphy and/or Safety Radio Certificate.
Safety Equipment.
Ship Construction.
Light Dues Payments.
Bills of Lading, Manifest and Stowage Plan usually sent in advance of vessel.
List of Members of Crew (of ship arriving in U.K.) who are aliens or were engaged outside U.K. (Home Office Form I.B.6A). Passenger form to be completed when reporting vessel's arrival from foreign ports.

PILOTAGE: Call by R/T when within 50 miles of port, and VHF (Channels 16, 6, 8 and 10) when approx. 1 hour off port. Pilot boats black hull with words "Pilot" on hull or superstructure. Letters in white. Fly International Pilot Flag at masthead and at night show International Light Signals for pilot boat on station.

Vessel requiring Pilot sounds 2 short and 3 long blasts or exhibits International Code Flag "G". By night flashes International Code Signal "G" or "PT". Pilot boats operate and will board within radius of 2 miles of East Pier Lighthouse, or further, weather permitting. Pilots board at Pier end area during adverse weather.

ANCHORAGES: No anchorages within harbour – in good weather vessels can anchor off port East of Fairway Buoy.

RESTRICTIONS: No night restrictions. Entry according to draft. Channel dredged to 7.6 m. LAT and approaches 8.5 m. LAT. Upper River and South Harbour 6.7 m. LAT. Rise of tide 4.3 m. Springs, 2.1 m. Neaps.

MAX. SIZE: Bulk carriers up to 22,500 d.w.t. discharge at Alcan (U.K.) Limited Terminal. Max. draft 9.8 m. LOA 190 m.

For other berths max. length 190 m., draft 8.5 m.

HEALTH: International quarantine signals to be used. Pratique will be granted by Customs or Port Health Officer if Maritime Health Declaration is clean. If suspected diseases on board radio "Portelth Blyth" in advance advising details.

Also see "Health – All Ports" before first U.K. port.

RADIO: Cullercoats Radio.

VHF: Details of movements within port given over VHF from Port Control Office (Tel: (0670)-352678). Calling Channel 16, working Channel 12.

TUGS: Normally join vessel at harbour entrance. Extra charge for use of tugs lines.

BERTHING: Alcan Bulk Alumina Terminal, dredged depth alongside 10.4 m. LAT. Alcan is offering the use of its ship unloading terminal at Blyth Harbour to other firms requiring bulk cargo unloading facilities.

North Quay, South Harbour, depth alongside 8.5 m. LAT.

Coal-loading berths and waiting berths, 5.2 m. to 8.5 m. LAT. West Quay, dredged depth 7.0 m. LAT (Sto-Ro/Ro-Ro Terminal "Blyth Progress"). South Side Berths, dredged depth 8.6 m. LAT, Wimbourne Quay (Sto-Ro Terminal – "Link Blyth" – Pontoon) dredged depth 6.7 m. LAT.

STEVEDORES: Blyth Harbour Commission, Traffic Department, South Harbour, Blyth. Tel. (0670) 352066. ETA requested day before arrival.

MEDICAL: Notice not necessary but advisable. Hospital facilities available. Inoculation, vaccinations and/or certificates not specifically required.

DENSITY: Sea water. Fresh water effect negligible.

FRESH WATER: Obtainable from shore hydrants. Rate of delivery varies from 10 t.p.h. – 50 t.p.h. according to location.

FUEL: BHC operate a bunkering Agency on behalf of Shell UK Ltd. 24 hours notice usually required. Grade – gas oil.

GANGWAY/DECK WATCHMEN: Not usually employed as these duties are carried out by the crews.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CUSTOMS ALLOWANCES: Tobacco: 50/250 grammes. Wine/Spirit: Wine up to 0.75 litres. Spirits up to 0.375 litres.

IDENTIFICATION CARDS: Seaman's Book or Passport desirable.

CONSULS: Denmark, Norway, Netherlands.

REPAIRS: All types of deck and engine repairs possible.

REPATRIATION: Can be arranged by H.M. Immigration Office, Blyth.

AIRPORT: 24 km. Served by regular airlines.

TIME: BST is GMT plus 1 hour. GMT in Winter months.

HOLIDAYS: Christmas Day; New Year's Day; Good Friday; Easter Monday; May Day (first Monday in May); Spring Bank Holiday (last Monday in May) and Late Summer Holiday. Cargo work can be arranged on these days by request.

POLICE/AMBULANCE/FIRE: Tel: 999.

TELEPHONES: Can be fixed aboard by arrangement.

AUTHORITY: Blyth Harbour Commission, 79 Bridge Street, Blyth, Northumberland NE24 2AW, United Kingdom. *Tel:* (0670) 352066. *Telex:* 537567. *FAX:* (0670) 368540. *Contact:* P. J. Camp, General Manager.

BOSTON: 52.58 N. 00.02 W.

DOCUMENTS: Usual U.K. requirements.

PILOTAGE: Compulsory for all vessels greater than 50 g.r.t. Pilot boards from launch in the approaches to River Witham. Pilot Office Tel: 0205-62114.

ANCHORAGES: Vessels awaiting tide anchor to South of No. 9 Buoy in depths of 7.3 m.

Anchorages available in Boston Deeps, depths 5.5 m. to 9.1 m.

RESTRICTIONS: Entrance to dock normally restricted to 2.5 hours before and 1.5 hours after HW.

Lock Dimensions: Length 91.4 m., width 13.7 m., depth on sill 5.4 m. MHWN; 7.5 m. MHWS.

Sill clearance of 1.5 m. normally required.

MAX. SIZE: Dock: Length 100 m. Riverside quays: Length 90 m.

HEALTH: Normal U.K. procedure. Port Health Officer, Tel: 0205-62114.

VHF: Port radio station maintains VHF watch (Channels 16 and 12) during office hours and from 3 hours before till 2 hours after HW.

TUGS: 1 tug available, 7 tons bollard pull.

BERTHING: *Boston Dock:*

North Quay: Length 253 m.
South Quay: Length 256 m. Transit shed 2,787 sq.m.
West Quay: Length 137 m. Transit shed 2,160 sq.m.
Two Ro/Ro ramps.

Riverside Quay: Length 750 m. Transit shed 1,765 sq.m. Berths dry out at LW.

CRANES: At Boston Dock:

4×6 tonnes electric portal cranes.
2×3 tonnes electric portal cranes.
1×25 tonnes Scotch Derrick.
8 mobile cranes.

At Riverside Quay: 1×7.5 tonnes electric portal crane.

Forklifts available at both Boston Dock and Riverside Quay.

BULK CARGO FACILITIES: Two silos for grain, each capable of storing 5,000 tonnes.

(i) King's Lynn Silos at Riverside Quay, with 2 loading towers.
(ii) Witham Wharf, opposite Riverside Quay. Privately owned.

Lingrain Silos: There is a 46,000 tonne grain silo adjacent to Dock and connected to North Quay. 2×500 t.p.h. mobile shiploaders available.

SPECIALISED CARGO-HANDLING FACILITIES: Containers are discharged at South Quay, using a 25 tonne Scotch Derrick and by a 35 ton container gantry on the North Quay. 20 ft. and 40 ft. containers are handled.

Container handling yard (1.2 ha.) with 30 tonne top lift truck available.

BRIDGES: A power cable with 150 ft. vertical clearance exists to East of lock.

STEVEDORES: Several local companies can supply stevedores.

MEDICAL: Doctors, dentists and hospital available locally.

FRESH WATER: Available.

FUEL: Available from road tankers. Contact Agents to make arrangements.

CONSULS: Denmark, Vice-Consul; Netherlands, Vice-Consul; and Norway, Vice-Consul.

REPAIRS: Can be undertaken by local companies. Divers available.

CUSTOMS ALLOWANCES: Usual U.K. regulations. H.M. Customs, Tel: 0205-63070.

TIME: GMT; Summertime kept from late March – late October (GMT plus 1 hour).

POLICE/AMBULANCE/FIRE: Dial 999 for emergency service.

AUTHORITY: Port of Boston Authority, Dock Office, Boston PE21 6BN. *Tel:* 0205-65571. *Telex:* 378114 Bosdock G. *FAX:* 0205–310126. *Cables:* Neptune, Boston. *Contact:* Captain G. Hulland, Harbour Master. Tel: 0205-62328.

BRAEFOOT BAY: 56.02 N. 03.19 W. (See Plan)

Braefoot Bay Marine Terminal is a facility shared between Essochem Olefins Inc. and Shell U.K. Exploration and Production as the shipping point for the products of the Mossmorran gas fractionation complex situated approximately 7 km. inshore from the Terminal. The Terminal is located on the Fife Shore of the River Forth between the communities of Dalgety Bay and Aberdour and separated from the main shipping fairway by the Island of Inchcolm.

The Eastern jetty is operated by Essochem Olefins and exports ethylene in ships between 2,400 cu.m. and 12,000 cu.m. capacity.

The Western jetty is operated by Shell U.K. Exploration and Production for the export of propane, butane, and natural gasoline in ships of up to approximately 60,000 cu.m.

Each jetty carries out loading operations independently, while the co-ordination and administration of marine activities is the responsibility of the Terminal Supervisor who is the local senior representative for Braefoot Bay Marine Terminal appointed by Shell U.K. Exploration and Production and acting on behalf of itself and Essochem Olefins Inc. with direct responsibility for the Management of all ship related activities at Braefoot Bay.

DOCUMENTS: See "Leith".

PILOTAGE: Pilotage is compulsory for all vessels calling at or sailing from Braefoot Bay Marine Terminal.

Pilots are licensed by the Forth Pilotage Authority and must be ordered for both inward and outward passages.

Vessels bound for the Forth must confirm their ETA 2 hours before arrival at pilot station.

Pilots may be contacted by calling "Forth Pilots" on VHF Channel 16 and working on VHF Channel 14.

ANCHORAGE: Vessels requiring anchorage in the Forth Estuary (other than in emergency) should apply to the Forth Navigation Service (Harbour Master) for direction to a designated anchorage.

APPROACHES: "General Directions for Navigation in the River and Firth of Forth" are published by the Forth Ports Authority and administered by the Forth Navigation Service. Vessels entering or navigating the Forth must notify Forth Navigation Service 24 hours before entering and 1 hour before leaving a berth, of their proposed intentions and obtain subsequent clearance to carry out such intentions. Forth Navigation Service can be contacted on VHF Channels 16 and 12.

RESTRICTIONS:

(a) All movements are subject to the directions of the Forth Navigation Service.

Pilotage is compulsory for all ships arriving at, or departing from Braefoot Bay Marine Terminal.

(b) Vessels will not be accepted for berthing at Braefoot Bay, and departures will not be authorised unless visibility is at least 0.5 nautical miles at Braefoot Bay jetties, that is to say that by day, the Haystack Rock shall be visible; by night No. 3 or No. 4 buoys shall be visible from the jetties.

(c) (i) Tankers of or greater than 145 m. length (approx. 12,000 cu.m. capacity) shall berth port side to the jetties on slack water or flood tide only. It is a requirement of Shell Expro and the Forth Ports Authority that such tankers shall only approach the Terminal through the Western channel of Mortimer's Deep.

(ii) Tankers bound for the Eastern (Ethylene) jetty of less than 145 m. overall length may (at the discretion of the Terminal Supervisor) be allowed to berth starboard side to the jetty on slack water or ebb tide only. It is agreed with the Forth Ports Authority that tankers of less than 145 m. berthing in this manner may approach the Terminal through the Eastern channel of Mortimer's Deep.

(iii) It is a requirement of the Forth Ports Authority that all tankers departing from the Terminal shall do so through the Eastern channel from Mortimer's Deep. Vessels which have berthed as in (ii) above will therefore be required to "swing" on departure and may only do so provided that they are assisted by at least 2 tugs unless the vessels can satisfy the Ports Authority and the Terminal Supervisor that in the particular circumstances 1 tug would be sufficient.

Also see "Regulations".

MAX. SIZE: Western jetty: Depth 15.0 m. Eastern jetty: Depth 10.0 m. Eastern exit channel bar depth (Hawkcraig Point leading line) – least depth by sounding 9.5 m., swept depth 8.5 m. below chart datum.

HEALTH: See "Health – All Ports" before first U.K. Port.

RADIO: *Pre-arrival information:*

Masters must send ETAs at least 72 hours in advance of arrival and thereafter advise of any variation of more than 12 hours.

Confirmation ETA should be sent at least 24 hours in advance of arrival and thereafter advise of any variation of more than 4 hours. (When voyage duration is less than 72 hours, Masters should send ETA as soon as possible.)

A standard pre-arrival message will be sent to each gas carrier requesting the following information/confirmation. A similar message (excluding items (a) to (g)) will be sent to Natural Gasoline Tankers.

Quote:

(a) Remotely operated valves: through a complete open/closed cycle, ensure proper functioning and ascertain valve type (ball, gate, etc.) and actual valve closing times.

Remote valves must close within 30 seconds of operation but so that the final 20% of closure takes at least 6 seconds.

(b) Gas detection system operational and set (high or low sensors) and calibrated for the cargo to be loaded.

(c) Cargo transfer emergency stops tested from all locations to ensure correct operations of valves, alarms and interlocks.

(d) Ensure operation of the tank high level and pressure alarms and interlocks.

(e) Where adjustable setting safety valves are installed, confirm they are set for the cargo to be received.

(f) Confirm fire fighting equipment including water spray system fully operational and tested.

(g) Manifold Configuration and presentation (forward to aft) e.g. LVVL. It is most important that the specific duty (ethylene, propane, etc., liquid or vapour return) of each presentation flange is known to the terminal at least 24 hours prior to the ship's arrival. Delays consequential on non compliance with this requirement will be for ship's account.

(h) Advice that only clean sea water ballast can be discharged at this terminal.

(i) *For first time callers – manifold configuration:*

(i) Size rating and standard of connecting flanges, e.g. 12 in. Ansi 150/8 in. Ansi 300/6 in. Ansi 300
(ii) Distance of manifold centre line from bow
(iii) Height above uppermost continuous deck
(iv) Distance of manifold from ship's side
(v) Maximum loaded draft
(vi) Minimum draft while at berth
(vii) Distance from face to support (max. acceptable is 1,200 mm.)
(viii) Height of manifold above keel
(ix) Distance between manifold flange centres.

(j) Details of ANY DEFECTS IN VESSEL OR EQUIPMENT affecting cargo operations or manoeuverability or confirmation that there are no known defects.

Unquote.

Note: The foregoing information is required in addition to the pre-arrival information requirements of the Forth Ports Authority – SI.1077 Merchant Shipping (Tankers) (EEC Requirement) 1981 refers.

Telex: A telex machine is sited in the Braefoot Bay control room for incoming messages only, the number is 728245 Moship G, and is operable 24 hours per day. This telex number may be used to receive urgent information concerning ship movements and cargoes. Messages should normally be transmitted through the ship's agent.

VHF: "Braefoot Terminal" maintains a listening watch on VHF from at least 2 hours before vessel's ETA on Channel 16 and may work on Channels 15, 44, 48, 69 or 73. (Channel 69 is normally reserved for jetty mooring towing operations.)

RADAR: Port and Estuary Radar Service operated by Forth Navigation Service. (See "Leith".)

TUGS: Only tugs licensed by the Forth Ports Authority to do so, may operate at Braefoot Bay Marine Terminal.

Availability of tugs is assured by Forth Estuary Towage Ltd., provided at least 24 hours' notice of requirements is given in accordance with the agreed ordering and call out procedures set out in the published Tariff. Tug orders may be placed through ships' Agents, the terminal or direct to Forth Estuary Towage Ltd., Leith. 24 hours' notice of towage requirements is necessary for programming tug commitments and obtaining priority for service. In the event of ship delays within the 24 hours' notice period, cancellation or ETA adjustment for service previously ordered will not be subject to charge, provided that adjustment notice is received during normal working hours and that the tugs have not left their normal berths to attend on the vessel's original order.

The tugs available are as follows:

2×12 tonne bollard pull Voith Schneider.
2×19 tonne bollard pull Voith Schneider.
1×27 tonne bollard pull Voith Schneider.

As a guide to ordering in advance and to avoid delays it is strongly recommended that the following table is regarded as minimum requirements for tug assistance:

Size of Ship	*Tugs (tonnes-bollard pull)*
40-60,000 cu.m. berthing	1×27 tbp+2×19 tbp
40-60,000 cu.m. sailing	1×27 tbp+1×19 tbp
20-40,000 cu.m. berthing/sailing	2×19 tbp
6-20,000 cu.m. berthing/sailing	2×12 tbp

Masters of smaller vessels who do not anticipate requiring tug assistance for berthing/unberthing may order an escort/standby tug.

Tugs attending vessels will normally rendezvous with arriving ships in the area Inchkeith Island to Burntisland Roads and also escort departing ships to that area.

Out of hours and in emergency tugs may be contacted through the Forth Navigation Service Duty Officer on VHF Channel 16.

Boatmen: Only Boatmen approved by the Companies and licensed by the Forth Ports Authority to do so, may operate at Braefoot Bay Marine Terminal.

Availability of mooring boats is assured by C. & R. Briggs Ltd., providing at least 24 hours' notice is given, through ships' Agents, the terminal or direct to C. & R. Briggs, Burntisland. Telex: 727377 Crbcom G.

Pre-ordered mooring boats will be in attendance at the terminal 30 minutes in advance of the arranged berthing/departure time and can be contacted on VHF radio. In the event of the ship delay within the 24 hours' notice period, cancellation or adjustment for services previously ordered will be without charge provided that adjustment notice is received between 0900 hrs. and 1630 hrs. Monday to Friday and that the mooring boats have not left their base to attend on the vessel's original order.

MOORING:

(a) Vessels unable to make fast alongside the Braefoot Bay Terminal jetties with an all wires, or wires with synthetic rope tails mooring system may be required to provide additional restraint by doubling or using both ends of certain mooring lines.

A minimum of 2 spring lines of the same material (preferably wire) shall be used at each end of the vessel.

(b) Mooring lines used in any particular direction of service (head/stern lines, breast lines, springs) shall be of similar breaking strength and material. Under no circumstances will a mixture of wire and synthetic ropes in the same direction of service and to the same dolphin be acceptable except where a synthetic rope has been used as "first line ashore" for positioning purposes, then this may be excluded in the consideration of the final mooring plan.

(c) If conditions as in (a) cannot be complied with, the loading arms will not be connected until alternative arrangements have been agreed with the Terminal Supervisor.

(d) Once moored, ships' winches must be secured with the brakes hardened up. Winches must not be left on Automatic Tension.

(e) Masters of vessels are responsible for ensuring that:

(i) their vessels are safely secured in accordance with the preceding paragraphs.
(ii) a strict watch is kept on their vessel's moorings and that they are tended as required to prevent slack or overtaut lines and undue movement of the vessel.
(iii) their vessel's mooring ropes or wires are secured only to the proper fixtures provided for that purpose.

BERTHING: *Pre-Operations Meeting and Inspection:*

Before any operations commence a meeting will take place between the Terminal Supervision and the Ship's Master (or his authorised deputy). They will:

(a) Complete/carry out the ship/shore Safety Check Lists and Safety Inspection in accordance with the O.C.I.M.F. Standards if required.

(b) Discuss any deficiencies shown up by (a) above and agree any additional precautions required. The terminal reserves the right to refuse to load or discharge a vessel if the required standards are not met.

(c) Complete a loading/discharge plan that includes:

Connecting/disconnecting procedures
Quantities and grades of cargo to be loaded/discharged
Loading/discharge rates (see "Loading" – Pressure Surges)
Deballasting procedure (see "Ballast")
Vapour return procedure
Cool down procedure (if required)
Maximum permitted pressure at ship's rail
Location of Emergency Stop Buttons/use of Umbilical Cord
Ensure that ship has on board data sheets for product being handled
Emergency Procedures (see "Safety").

(d) Check the previous cargo record (last 3 cargoes) and agree that ships' tanks are ready to receive product.

The Companies reserve the right to:

(i) Sample and analyse the condition of ships' tanks or quality of cargo and ballast tanks before commencing to load or discharge.
(ii) Instruct a third party independent surveyor for the sampling and measurement of cargo and/or tanks, the costs for which will be for the account of the Jetty Operating Company.
(iii) Place approved portable equipment on board as required for sampling, testing or communication purposes during loading/discharging operations.
(iv) Refuse to load product and/or accept return vapour when ships' tanks are not within specification for product to be loaded.

Reasonable Notice of these requirements will be given.

BERTHING FACILITIES: Western Jetty:

Jetty Operating Company: Shell U.K. Exploration & Production.

Manifold Limitations: B.F.O. 8 in. and LPG/Gasoline 12 in. 150 ASA flanged presentations arms.

	Max.	*Min.*
Manifold height above water line	19.65 m.	5.15 m.
Manifold set back from ship side	9.6 m.	3.00 m.

For multiple 12 in. arm connections the minimum centre to centre adjacent connection distance is 1.3 m.

L.P.G. 8 in. 300 ASA flanged presentation arms.

	Max.	*Min.*
Manifold height from water line	11.15 m.	1.95 m.
Manifold set back from ship side	8.6 m.	2.00 m.

For connection of 2×8 in. arms the minimum centre to centre adjacent connection distance is 0.75 m.

N.B. For connection to any arm: Distance between ship's outboard presentation flange and first ship's manifold piping support must not exceed 1,200 mm. to prevent cantilever overstressing of ship's piping.

Product/Vapour Return: LPG: Vapour return arm will be connected before loading operations commence to enable vessels to return vapour to storage tanks or to flare.

Vapour return may go to flare subject to the quality being acceptable to Shell Expro but always provided the oxygen content of such vapour return to flare does not exceed 4.0% vol. max. as may be established under the pre-operations meeting/inspection. (See "Berthing" (d)).

Shell Expro at its sole discretion may accept vapour return to storage always subject to the quality being acceptable to Shell Expro and normally provided the previous 3 cargoes were LPG and also that such vapour does not contain more than:

(i) 0.3% vol. oxygen
(ii) 0.5% vol. non condensible gas
(iii) 0.5% vol. propylene
(iv) 0.1% vol. butadiene
(v) 10 ppm ammonia
(vi) 10 ppm VCM
(vii) 5 ppm water vapour

However, Shell Expro at its sole discretion may accept vapour from any vessel to shore storage provided that the quality of such vapour is acceptable to Shell Expro. When appropriate ships returning vapour to shore storage will be automatically credited for such returns.

LPG Loading/Vapour return rates available to ships via each pair of loading arms are:

via 12 in. loading arms, up to 3,000 cu.m./hr. per product
8 in. loading arms, up to 1,100 cu.m./hr.

Simultaneous loading of propane and butane is available on 12 in. arms only.

NOTE: Propane/Butane is delivered to ships in fully refrigerated state, i.e. approx. −42°C/−5°C as appropriate. There are no cargo heating facilities at this terminal.

Natural Gasoline: Natural gasoline loading is via No. 4 12 in. loading arm with rate of up to 2,000 cu.m./hr. available.

Bunker Fuel Oil (when available): Bunker fuel oil is loaded/discharged through No. 7 (8 in.) flanged loading arm only at a rate of up to 350 cu.m./hr.

Marine Diesel (when available): Marine diesel is handled through a 3 in. flexible hose only, at a rate of up to 30 cu.m./hr.

Eastern Jetty:

Jetty Operating Company: Essochem Olefins Incorporated.

Manifold Limitations: Ethylene 6 in. 300 ASA flanged presentation arms.

	Max.	*Min.*
Manifold height above water line	11.2 m.	2.75 m.
Manifold set back from ship side	4.6 m.	0.85 m.

For connection of 2 arms the minimum centre to centre adjacent connection distance is 0.75 m. The maximum distance is 1.5 m.

Ethylene: Vapour return arm will be connected before loading operations commence to enable vessels to return vapour to storage tanks or flare. Vapour return may go to flare always provided the oxygen content of such vapour to flare does not exceed 4.0% vol. max. as may be established under the pre-operations meeting/inspection. (See "Berthing" (d)).

Essochem Olefins Inc. at its sole discretion may accept vapour return to storage always subject to the quality being acceptable to Essochem Olefins Inc. and provided that the last cargo was ethylene or that vessel has been purged with ethylene vapour to the satisfaction of Essochem Olefins Inc.

A loading rate of up to 250 tonnes/p.h. is available to vessels.

LOADING:

Marine Loading Arms: All products (with the exception of marine diesel) are delivered to ships via marine loading 'hard arm' units which are individually fitted with Emergency Release Systems (ERS).

The emergency release systems consist of two ball valves located above the presentation flange. Only after closure of the ball valves, the hydraulic clamp between the ball valve opens, leaving one ball valve closing off the ship's manifold and the other closing off the loading arm. The loading arm then returns to the parking position.

On hearing 'ERS' alarm (a flashing red beacon with oscillating tone) all staff should vacate the vicinity of the manifold/loading arms. The emergency release system will be manually initiated from onshore or AUTOMATICALLY in the case of over extension of the loading arms, e.g. if ship drifting outside the loading arm envelope.

Pressure Surge Precautions: Non-routine closing of the loading systems, automatic intervention or 'fail-safe' closure of shipboard Emergency Shut Down (ESD) valves can generate dangerous surge pressures. A careful check of ship's ESD system will be made prior to loading. The Master (or his deputy) will be asked to operate the system to enable timing of the valves and may be requested to have valves adjusted according to the provisions of the IMO Codes for Ships Carrying Liquified Gases in Bulk. The Terminal Operating Companies reserve the right to restrict loading rates if valve closing times are not compatible with rates otherwise agreed. Excess loading times caused by such a restriction will be charged to the ship if port time/lay time is exceeded.

The shore system is designed to withstand the high surge pressures which can be generated and safe emergency shut down will be accomplished by using the shore ESD pendant control provided to vessels.

In the event of an emergency the pendant 'ESD' must be activated which will immediately result in:

1. Shore pumps close
2. On shore delivery valves close.

ONLY THEN MAY THE VESSEL MANUALLY ACTIVATE ITS OWN ESD SHIPS MUST NEVER CLOSE VALVES AGAINST THE SHORE LOADING PUMPS

Masters are referred to ICS Safety Guide (Liquified Gas) paras, 1.8.2 and 4.5.2 and the International Safety Guide for Oil Tankers and Terminals para 7.3

Operational Procedures: The Loading/Discharge Plan and operation must comply with the following procedures:

(a) The Company will be responsible for connecting/disconnecting loading arms/hoses to the agreed ship's presentation flanges as indicated by the responsible ship's officer.

(b) The Loading Arms are normally purged and remain under Nitrogen between loading operations. Vessels must, therefore, be prepared to receive a small volume of Nitrogen vapour at the commencement of loading operations. (0.5 cu.m. at the Eastern jetty, 10 cu.m. at the Western jetty.)

(c) The responsible terminal representative and ship's officer will agree that systems are correctly lined up before transfer operations begin.

The terminal staff will pressurise the loading arm with Nitrogen against the ship's manifold valve and the loading arm connection will be tested for leaks. When manifold has been proven 'tight' the loading arm will be depressurised and transfer commenced at the agreed starting rate.

Loading must be commenced slowly to avoid rapid pressure build up. When liquid flow is established the terminal will increase rate as requested by the ship up to the agreed maximum bulk rate.

(d) During transfer operations ship will confirm with the shore at suitable intervals that they are in agreement with the quantity of product actually transferred and the quantity/time estimated to complete the operation.

(e) EXCEPT IN EMERGENCY VENTING OF LPG OR ETHYLENE VAPOURS TO ATMOSPHERE IS PROHIBITED AT BRAEFOOT BAY. All such displaced vapour must be reliquified on board by ship's systems or returned to shore via the vapour line.

During loading of liquified gas carriers the jetty operator must be advised of and log the ship's tank pressure every half hour.

The LPG/ethylene return vapour line will in any case be connected and available for pressure relief.

Displaced Natural Gasoline vapour shall only be vented to atmosphere via the ship's elevated or collective fixed vent system, as agreed in the ship/shore check list.

(f) During transfer operations

(i) An Operator/Technician will remain on the jetty at all times.
(ii) A responsible English speaking ship's officer equipped with an approved portable UHF radio tuned to the agreed ship/shore communication channel shall be on duty at all times.
(iii) A responsible member of the ship's crew capable of understanding and relaying the jetty Operator/Technician's communications to the Responsible Ship's Officer shall be stationed on deck so that he can:
    (a) observe the manifold connections
    (b) observe the gangway
    (c) exchange visual/vocal signals with the jetty Operator/Technician.
(iv) The ship must inform the terminal and the terminal must advise the ship of any deviation from the agreed Loading/Discharge Plan.

(g) At least 15 minutes' notice must be given of transfer rate changes (including "topping off") being required except in emergency when the requirements of "Pressure Surge Precautions" (see above) must be observed.

(h) If for any reason there is an unusual evolution or accumulation of gas, loading shall be stopped or the loading rate into a particular tank reduced at the discretion of either the Terminal Supervision or responsible Ship's Officer.

(i) The vessel must by day fly Flag 'B' of the International Code, and by night exhibit an all round red light.

(j) Prior to, and on completion of loading/discharging an Operating Company representative will witness ship's dips/ullages and obtain from the Master the quantity loaded according to ship's figures.

(k) Operations shall be stopped during electrical storms in the vicinity of the ship and all cargo valves shall be closed. During periods of high winds (gusting to 40 knots or over), and/or on the instruction of either the Harbour Master or Terminal Supervision, operations shall be stopped and the loading arms disconnected. For ships with a presentation flange of 4 in. this will be 27 knot gusts and for 6 in. and above 40 knot gusts as maximum limits but which may be reduced according to prevailing circumstances.

At suitable intervals with regard to the estimated duration of cargo transfer the responsible Terminal Representative and Ship's Officer will carry out a repetitive check and confirm that:

The Safety Check List remains valid
Operational procedures are satisfactory
Jetty Regulations are not being contravened.

BALLAST: *Avoidance of Pollution:*

(a) No oil or mixture containing oil shall be discharged or allowed to escape from a vessel while at the terminal, the approaches or in the River and Firth of Forth.

No garbage, or other materials, either liquid or solid shall be discharged overboard from a vessel, but shall be retained in suitable receptacles on board or arrangements made for disposal ashore.

(b) Discharge overboard of the clean ballast contained in the cargo tanks of clean petroleum product tankers is permitted, but only after inspection has been carried out by the Terminal Supervisor, who shall also obtain the approval of the Harbour Master prior to commencement of such ballast discharge. Discharge of clean segregated ballast water overboard is permitted subject to approval and/or inspection by the Terminal Supervisor.

The Forth Ports Authority Harbour Master will be informed if inspection either before or during discharge shows ballast water is contaminated and such discharge shall immediately cease.

Except as herein specified, all ballast water other than that contained in segregated ballast tanks shall be retained on board.

DIRTY BALLAST CANNOT BE DISCHARGED AT THIS TERMINAL

(c) By arrangement with the Terminal Supervisor oily residues and bilge slops may be discharged ashore via flexible hose provided that such discharge is not concurrent with product transfer via hard arms and that delays so incurred are for ship's own account if port time/laytime is exceeded.

The onshore oily slops reception tank has a limited handling capacity and in no case will slops quantities in excess of 100 tonnes be accepted from any one vessel. Slops transfer to this facility for ships at the Eastern jetty is via a 20 cu.m. holding tank and transfer rates limited to 5 tonnes per hour.

(d) Prior to Oil (including Natural Gasoline) or slops transfer the Anti-Pollution Check List must be completed and no leakage or spillage shall be swept or allowed to leak overboard. Swabs or sawdust used for mopping up spillages must be brought ashore for destruction.

Any leakage or spillage must be reported immediately to the Terminal Supervisor and operations suspended until the leakage or spillage has been cleaned up to the satisfaction of the Terminal Supervisor and the Harbour Master. The Terminal Supervisor may mobilise resources to assist in the containment and cleaning of pollution caused by a ship, without the authority of the Master but in such action he shall be considered to be acting on behalf of the Master and with his approval.

It is statutory requirement that any pollution be immediately reported to the Harbour Master.

MEDICAL: Doctors and Hospitals in Kirkcaldy and Inverkeithing.

DENSITY: 1015 – 1025 (depending on rainfall).

FRESH WATER: Potable fresh water is normally available from hydrants at each jetty. Ships requiring water are responsible for supplying and connecting their own hoses to the jetty hydrant as indicated available by the jetty operator. A nominal charge may be made for water in which case a ship's officer may witness shore meter readings as the Master will be required to authorise water bill for payment of charges by the ship's Agent.

FUEL: B.F.O. and Marine Gas Oil (if and when available) can only be supplied to ships loading at the Western (LPG) jetty. Requests for bunkers must be notified as early as possible and confirmed in the ETA notices through ship's Agent.

CONSULS: See "Leith".

REPAIRS/DRYDOCKS: See "Grangemouth".

AIRPORT: Edinburgh Airport 30 miles.

POLICE/AMBULANCE/FIRE: Control have a direct line.

TELEPHONES: A public pay telephone is located at the jetty trestleway root.

Smoking is expressly prohibited in the telephone kiosk, infringements by individuals of this regulation will necessitate withdrawal of the facility.

STORING: *General cargo, bunkering and stores handling:*

(a) No general cargo including petroleum in drums or other containers, or liquified gas in cylinders shall be handled during:

- (i) Loading or transfer of LPG, Ethylene or Natural Gasoline
- (ii) Gas freeing, purging or tank cleaning

Note: Bunker services are not available to ships calling at the Eastern Jetty.

(b) The handling of ship's stores and bunkers (if available) may be permitted during operations but only with the permission of both the Terminal Supervisor and the Master of the Vessel and provided that:

- (i) the cargo operations remain adequately supervised.
- (ii) any cargo operation which may allow vapours to escape on deck should be stopped whilst stores are being handled e.g. pumping of strippings to an after tank or sampling/ullaging gasoline tanks or disconnection of loading arms, etc.
- (iii) Drums of oil paint, steel plates and any other heavy metal parts which may cause a spark, should be landed on rubber or other suitable matting and not directly onto vessel's steel deck. These items may not be dragged or rolled along the deck.

(c) Gas cylinders must not be rolled along the deck of a vessel or jetty.

(d) The jetty cranes are for hose-handling and other jetty purposes. They may only be operated by Terminal Staff and may only assist in loading items of ship stores provided that Terminal Staff are available to operate a crane without detriment to their other duties.

(e) Under no circumstances will stores delivery vehicles be allowed on the jetty head or approach beyond the designated points for setting down of ship stores. One vehicle only at a time is permitted to visit a vessel. Other vehicles scheduled to deliver stores must queue outside the main gate until given permission to enter. Waiting vehicles will park in such a manner that no obstruction for emergency vehicle entry through the main gate will result.

The size and weight of ship stores delivered by road vehicle are to be such as they can always be physically *manhandled* and carted between the set down point and ship by delivery staff or ship's crew. Larger deliveries of stores and heavy items of equipment may be loaded from a barge by an arrangement with Agents or chandlers and subject to safety regulations.

These services are readily available in the area, though of course, delays due to storing or bunkering are for vessel's own account where laytime/port time is exceeded.

Note: Vessels at anchor may be stored by barge/boatmen of their own choice but vessels alongside must be stored by licensed boatmen (C & R Briggs Ltd.) See "Tugs".

SAFETY: *Emergency Signals:*

(a) Fire and onshore emergency alarm.

1. At the Western Jetty: Intermittent siren.
2. At the Eastern Jetty: Continuous warble.

In the event of siren failure alarm will be sounded by air horns.

(b) Onshore emergency (other than fire).

1. At the Western Jetty: Air Horns.
2. At the Eastern Jetty: Air Horns.

(c) Shipboard emergency (or reported from ship): At least 6 blasts, each of not less than 10 seconds duration.

NOTE: Onshore, alarm may be raised by activating one of the "Break Glass" fire alarms situated at numerous points throughout the terminal – this will also automatically activate the jetty spray systems.

Actions in Event of Emergency:

Ashore: Sound alarm signal.

Terminal staff will communicate with you via:

1. The UHF portable radio (supplied on arrival).
2. The jetty operator.
3. The jetty loudspeaker system.
4. The Marine VHF Channel 16.

In any emergency terminal staff will shut down loading operations, may activate fixed water spray system and implement the Terminal Emergency Plan as appropriate to the incident:

Aboard: Sound alarm signal.

Inform terminal by communications systems as listed above.

You must be prepared to:

1. Cease all cargo operations.
2. Close all cargo valves.
3. Disconnect ship to shore pipe-lines (shore hard loading arms may be emergency disconnected by terminal staff).
4. Move your ship (engines to immediate readiness) subject to the overriding control of the Harbour Master.

Emergency Towing Wires: Emergency towing wires of adequate strength and condition must be positioned on both the offshore bow and quarter of the ship with the towing eyes maintained just above water level.

They must be properly made fast on the ship's bollards while having sufficient slack flaked out on deck for effective towing, the slack being secured from running free by rope yarns or other easily broken means.

Emergency Precautions: In order to meet emergencies ships must:

(a) Retain sufficient suitable crew members on board at all times to man emergency services and to move the ship if so directed by Terminal or Port Authority personnel.

(b) Have adequate emergency equipment and fire fighting appliances, including main emergency fire pumps, ready for immediate use with pressure maintained on the fire main while alongside. The appliances will include at least:

- (i) Two fire hoses, fitted with jet/fog nozzles, uncoiled and connected to the fire main on the main deck.
- (ii) Portable fire extinguishers, of the dry chemical type, conveniently placed near the ship's fire manifold.
- (iii) An International Ship/Shore Connection available at an agreed position on the ship's fire main for ready connection to the shore main.
- (iv) Where a vessel is equipped with a fixed dry powder system, hoses should be run out and control boxes open for access.
- (v) The ship's offshore lifeboat shall be rigged ready for lowering and use as an emergency escape.

A pilot ladder or accommodation ladder shall be rigged or positioned on the outboard side of the vessel ready for immediate lowering as a means of escape in the event of an emergency.

In the event of an emergency the Master must proceed as agreed in the "Pre-operations Meeting and Inspection".

State of Readiness and Engine Immobilisation:

(a) The ship must be able to move under its own power at short notice.

(b) Repairs or other work which may immobilise the vessel shall not be commenced without the prior approval in writing of the Terminal Supervisor who shall also obtain the approval of the Harbour Master.

Such approvals will not be granted except where unavoidable repair breakdown occurs and may be conditional on the Master hiring sufficient standby tugs to move the vessel if so required.

(c) Should immobilisation as in (b) above occur and prior approval having been impossible, the respective jetty Operating Companies reserve the right to order tug or tugs as above on the Master's behalf.

Vehicle and Personnel Access and Security:

(a) Only authorised persons or those with entry permits issued by the Terminal Management will be allowed through the terminal security gates.

Ship's personnel must have a temporary pass signed by the Master or his deputy for clearance with the security guard at the entrance gate.

Masters will be provided with a supply of suitable pass forms by the Terminal Supervision. The Master or ship's Agent are required to furnish a list of chandlers, services, new crew and authorised visitors expected during the ship's stay at the terminal.

Persons who have not been authorised or notified as above will be refused entry to the terminal until the Security Guard has been given clearance from the Terminal Supervision.

(b) As pedestrians (other than plant employees and authorised personnel) are not normally allowed passage through the terminal, a limited fixed schedule transport service may be provided between the shore end of the jetty trestleways and a local destination after consultation and agreement between the Terminal Supervision and the Ship's Master. Extra journeys by the approved transport service must be ordered by direct arrangement with the contractor and the Terminal Supervision advised accordingly.

(c) Visiting vehicles are not normally allowed beyond the gatehouse parking area and must not proceed onto the jetty trestleways without the express permission of the Terminal Supervisor. No vehicle may proceed past any "NO ENTRY" sign indicating that Class A petroleum is being handled or that petroleum vapour may be present.

Vehicles and their contents which are permitted to enter the Marine Terminal do so at the owners' risk and drivers must obey all traffic signs, plant traffic regulations, or directions given by Terminal Staff. Such vehicles shall not be parked in position obstructing fire hydrants, roadside alarms or other traffic. If parked, keys will be left in ignition, the ignition switched off and the doors unlocked. If required, any unattended vehicle may be moved by Terminal Staff.

(d) In the interests of Safety and Security any vehicle or person entering or leaving the terminal is liable to be searched for contraband material or unauthorised persons. Acceptance of this requirement is a condition of entry. Persons who appear to be intoxicated will not be allowed access to or from ships at the terminal unless escorted by a responsible Ship's Officer.

Personnel Access to/from Ships:

(a) When available, access between jetty and vessel will be provided by the Company by means of a gangway tower structure. The operation of such gangway will be the responsibility of the jetty Operating Company, but Masters shall ensure that personnel can safely transfer between the ship's main deck and the gangway. When, for any reason, the gangway tower is not available, Masters of vessels shall provide a means of safe access between jetty and ship, which shall when necessary include an upper platform and bulwark ladder to provide safe access to the ship's deck. The means of access shall be provided with stanchions, guard ropes, securing lines and safety netting, shall be adequately illuminated and shall be maintained in a clean and well tended condition.

A lifebuoy with at least 25 m. of lifeline attached shall be positioned on the vessel near the gangway.

(b) No person other than H.M. Customs and Excise, Port Health Authorities, Pilots or other H.M. Customs Authorised personnel is allowed to board or disembark from a vessel berthing at the Marine Terminal from a foreign port until Clearance and the Master's permission has been obtained.

(c) Boarding and disembarking shall be by gangway only except in emergency.

Scuppers and Drip Trays: During transfer of bunker fuels, gas oil or natural gasoline, deck scuppers and drain holes must be suitably plugged and accumulated water drained off as required. Scuppers should otherwise remain open during LPG or ethylene loading operations.

Drip trays must be placed under connections and likewise drained of accumulated water.

Prior to transfer of any oil product the ANTI-POLLUTION CHECK LIST MUST BE COMPLETED.

Portable R/T Sets, Hand Lamps and Electrical Equipment: Portable R/T sets, lamps and hand lamps, electric or otherwise shall not be used unless of an approved type (e.g. B.A.S.E.E.F.A.).

The use of portable electric lamps and equipment on wandering electric cables is prohibited in any cargo or adjacent ballast space, pumproom, cofferdam, bunker compartment, hold or anywhere over the cargo tanks.

Portable domestic radios, photographic flash equipment, electronic calculators, tape recorders or any other battery powered equipment of non-approved type shall not be used on the main deck nor in any other place where petroleum gases may be encountered.

Ship's Radio and Radar Equipment: Except for VHF telephone equipment, ship's main radio station transmission equipment, including emergency transmitters, shall not be used while the ship is within 400 m. of the terminal. While berthed at the terminal, the transmitting aerials shall be disconnected and earthed.

Ship's radar installation having a peak pulse in excess of 60 kW shall not be operated while the vessel is within 300 m. of the terminal and no radar installation shall be operated during cargo or ballast transfer operations while alongside the terminal berths, except as may be permitted under "Repair Work", see "Safety".

Repair Work: Repair work involving either hot or cold work or the use of naked lights is prohibited unless the permission of the Terminal Supervisor has been requested and granted in writing and the conditions and precautions required by the Terminal Supervisor are rigidly observed.

Repair work includes but is not restricted to boiler tube clearing, chipping and scraping, hull painting, testing or servicing of electrical equipment (including radar and radio installations).

If permission is granted a list of shore workmen employed on the vessel must be given to the Terminal Supervisor before work commences.

(The Harbour Master's permission is also required in the case of hot work and certain repair work including test transmissions of radio or radar equipment.)

Tank Cleaning/Gas Freeing: Tank cleaning, inerting, purging or gas freeing may not be carried out at this terminal except under specific circumstances when approval in writing is granted in advance or under a repair work permit as in "Repair Work" above.

Movements of Tugs and Other Craft: During berthing, unberthing and cargo handling operations no vessel or small craft shall be allowed alongside the vessel unless authorised by the Terminal Supervisor and agreed by the Master.

When tugs or authorised craft are alongside or assisting a vessel, all cargo system openings must be closed unless tanks are gas free.

GENERAL:

Forth Ports Authority/Dockyard Port of Rosyth: The Forth Ports Authority is the controlling body for the waters of the Firth of Forth in conjunction with the Ministry of Defence through the Queen's Harbour Master Rosyth.

The Rules as to Navigating in the dockyard Port of Rosyth are published under the Dockyard Port of Rosyth Order 1975 and are summarised as a note to the "River of Firth of Forth Byelaws". As general information, the Rules impose a speed limit of 12 knots on vessels exceeding 120 m. in length and 15 knots on vessels less than 120 m. in length.

The Rules also detail the signals for prohibition of movement in the "Protected Channel" (being approximately the Main Fairway in a Westerly direction from Buoy No. 13, passing South of Inchcolm Island) to Rosyth Dockyard and the signals (3 red lights in a vertical line or black cylinder by day) denoting one of Her Majesty's vessels underway, and from which, other vessels shall keep clear (within the Dockyard Port).

Copies of the "River and Firth of Forth Byelaws" and "Directions for Navigation" may be obtained from the Forth Ports Authority, Shipping Agents or on request to the Terminal Supervision.

Tides: The predicted tides in the Forth Estuary may be significantly affected by weather conditions, e.g. strong winds from N.N.E. through E. to E.S.E., or heavy rainfall.

The range for Spring Tides is 5.0 m., the range for Neap Tides is 2.5 m.

The Highest Astronomical Tide is 6.3 m. The Lowest Astronomical Tide is 0.0 m.

The breasting line of the jetties at Braefoot Bay is 075°/255° and the direction of tidal flow is approximately 260° on the Flood and 066° on the Ebb with maximum rates of 2.6 knots (Springs) and 1.3 knots (Neaps).

Shipping Agents: Masters are requested to confirm their Agents' name in any direct communication to the Terminal.

Communications:

UHF Radio: The terminal will supply an approved UHF hand set radio to the vessel Master or his deputy for use during the loading operation. The radio will be used for contact with the Terminal Staff during normal loading operation and for notification of an emergency condition.

The hand set radio must be returned to the Terminal representative at the time the departure documents are delivered on board.

Acknowledgement of the return of the hand set radio will be noted on the vessel's copy of the "Master's Receipt for Shipping Documents".

Klaxon: Each jetty is equipped with air horns for audible alarm of fire, and an oscillating tone siren for imminent E.R.S. activation. One short blast may be sounded if required to gain attention of ship's deck personnel if there is an urgent need for communication.

REGULATIONS: *Rules for the Movement of Tankers using Braefoot LPG Terminal:*

1. Every tanker destined for the terminal shall regulate its approach so as not to arrive before the agreed berthing time.
2. When a tanker is turning from the channel for deep draft vessels into Mortimer's Deep to approach the terminal from S.W., no other vessel shall enter that section of the channel between No. 15 light-buoy and a line joining Hound Point and Hopeward Point; or when turning into Mortimer's Deep to approach the terminal from the East, no other vessel shall enter that section of the channel between Nos. 7 and 11 light-buoys.
3. When any tanker is leaving the terminal it shall do so, except in an emergency, in an Easterly direction.
4. When a tanker having left the terminal is entering the channel for deep draft vessels from Mortimer's Deep in an Easterly direction, no other vessel shall enter that section of the channel between Nos. 7 and 11 lightbuoys. In addition if such a tanker is loaded with liquified gas and is more than 145 m. in length, no other vessel, whether navigating within or without the channel for deep draft vessels, shall approach within 1 mile of the tanker while it is within that section of the channel between No. 13 light buoy and Fairway light buoy at 3° W.
5. When tankers are navigating within or without the channel for deep draft vessels between Fairway light buoy and a line joining Hound Point and Hopeward Point it may be necessary to hold or slow down other vessels. Inward bound vessels may be directed to a holding area North of No. 3 light buoy until an outward bound tanker is sufficiently far downstream.
6. No vessel shall enter Mortimer's Deep when the terminal is occupied or when a tanker is manoeuvring in the area, except that a second tanker may enter and berth when the first tanker is securely berthed.
7. Radio transmissions and the operation of radar are prohibited in the vicinity of the terminal, except that a vessel's normal equipment may be tested provided that a source of ignition is not present and that the Chief Harbour Master's permission has been obtained.

Ship's radar equipment having a peak pulse of less than 60 kW. may be operated for berthing and unberthing and at times when cargo operations are not taking place.

SHIPMASTER'S REPORT: November 1984 (updated 1988).

Vessel called at Braefoot Bay Marine Terminal for the purpose of loading LPG (Butane).

The terminal is operated by Shell Expro and Essochem Olefins, and is located 3 miles East of the Forth Railway Bridge on the North side of the Firth.

Port Limits: Within the area of the Firth of Forth Navigation Authority.

Documents:

Register and Light dues.
All Safety Certificates.
Derat Certificate.
Health Declaration.
Cargo Documents.
Last Port Clearance or Coastwise Documents.
2 copies C.13 Customs General Declaration.
3 copies C.14 Customs Stores Declaration.
2 copies C.142 Customs Crew Declaration.
6 copies Crew Lists.
2 copies Ship's Store Lists.

Pilotage: Compulsory in the Firth of Forth. Pilot boards at Fairway Buoy in position 56° 03.5' N., 03° 00' W. VHF Channel 16. 24 hours' advance notice required.

Anchorage: Allocated by Forth Navigation Service, usually Aberlady Bay.

Restrictions: Vessels enter Mortimer's Deep from the West, leave to the East, in what is called clockwise navigation.

Therefore berthing is done on the start of the flood, turning off No. 17 buoy, ensuring, especially in a Westerly wind, that the tide has really started to flood.

Sail an hour before high water to cross the bar at about the top of the flood.

The Esso jetty may, however, allow berthing/entry from the East for smaller vessels.

Max. Size: Shell Jetty 60,000 cu.m. Esso Jetty 12,000 cu.m.

Health: See 'Health – All Ports' before first UK port.

Radio: Wick GKR.

VHF: Forth Navigation Service Channel 71 (working on Channel 20) controls traffic and reporting in points.

Braefoot Terminal: Channels 69 and 73.

Tugs: Channel 69.

Public Channels: Forth Radio Channels 16 and 24.

Radar: Forth Navigation Service locates vessels at Port Limits, and checks identity by VHF.

Ships Radars are to be switched off within 300 m. of the terminal and must not be switched on whilst alongside, except for pre-sailing checks provided loading operations have been completed.

Tugs: Join the vessel off Inchkeith and make fast (tugs lines) before Oxcar. 5 tugs are available, 1×27 tonne, 2×19 tonne and 2×12 tonnes bollard pull. Larger vessels use 3 tugs for berthing (1×27 tonne, 2×19 tonnes) and 2 tugs for sailing (1×27 tonne, 1×19 tonne).

In an emergency tugs take 1.5 hours to reach the vessel.

Berth: Rate of loading Butane, 1,900 cu.m./p.h.

Shore gangway used.

Medical: Good facilities nearby at Dunfermline and Kirkcaldy.

Density: 1025.

Fresh Water: Available ex-mains for nominal fee.

Fuel: M.D.O. available (max. loading rate 40 cu.m./p.h.), only at the Shell jetty.

Fire Precautions: Normal for LPG – 3 allocated onboard smoking areas.

Consuls: Numerous in Edinburgh. If vessel bound for USA then Consulate requires 48 hours to visa 2 Crew Lists, thus these should be left behind with the Agent who will arrange for express delivery to the discharge port.

Gangway/Deck Watchmen: Not necessary.

Customs Allowances: Normal U.K. Regulations apply.

Repatriation/Airport: Edinburgh Airport nearby has shuttle flights at one to two hour intervals to London Heathrow.

Time: GMT plus 1 hour (BST) in Summer months.

Police/Ambulance/Fire: Telephone 999.

Emergency Co-ordination Centre: VHF Channel 16, Forth Navigation Service and/or Forth Coastguard.

Telephones: None onboard, Public Pay phone at jetty root.

Storing: Stores have to be manhandled/hand trucked along 200 m. of jetty before lifting onboard with jetty crane. Alternatively they can be delivered by barge, but not concurrent with cargo and liable to weather delays.

Only Diesel engined stores lorries are permitted in the terminal and Ship Chandlers and Laundries should be made well aware of this.

Shore Leave: Permitted, but personnel are not allowed to walk through the installation and so rely very much on the Marine Officer on duty for a lift to the gatehouse.

Identification Cards: Shore passes are issued.

If visitors for the ship's complement are expected, it is wise to leave a list with Security at the terminal gate, to expedite their boarding.

Regulations: 72 hours in advance of arrival send to Agents, asking them to relay same, questionnaire replies to Harbour Master Forth Ports and also to Braefoot Terminal. (See "Radio" – pre-arrival information and "General" before first UK port.)

General: Laundry facilities are available, good quality.

AUTHORITY: Shell U.K. Exploration and Production, P.O.Box 16, Mossmorran, Cowdenbeath, Fife. *Tel:* (0383) 892000. *Telex:* 728244 Moshell G. Shipping Department 728245 Moship G. *Contact:* Captain R. D. Izatt, Terminal Supervisor.

BRIDLINGTON: 54.05 N. 00.12 W.

DOCUMENTS:

Crew List.
Passengers List.
Ship's Register.
Customs Documents.
Manifests.
Bills of Lading.
Ship's papers.

PILOTAGE: Vessels approach within 0.25 mile, flying "G" Flag. Local fishermen act as Pilots and board approx. 1 hour prior to berthing time.

ANCHORAGES: For small vessels of not more than 12 ft. draft, 1 mile S.E. of harbour. Deeper-drafted vessels 3 miles East of Harbour. Good holding grounds except in heavy weather from East to South.

RESTRICTIONS: In accordance with state of tide and draft restrictions.

HEALTH: Pratique required from all vessels other than from a British port. "Q" Flag to be flown.

Also see "Health – All Ports" before first U.K. port.

RADIO: Humber Radio Station is the best for a vessel to route ETA, etc.

VHF: Call sign "Bridlington Harbour". Call on Channel 16. Working 12 and 14.

TUGS: None available.

BERTHING: No cargo vessels. Fishing harbour handles fishing vessels and yachts.

MEDICAL: Agents require advance notice of required medical attention. Hospital facilities available. Relevant medical information, i.e. fever, etc., required.

DENSITY: Sea water.

FRESH WATER: Unlimited quantity available. Delivery from shore pipeline at the rate of 3 t.p.h.

FUEL: All grades available. Delivery by road tankers.

IDENTIFICATION CARDS: Not required.

CONSULS: No local Consuls. Nearest port of availability, Hull, Yorks.

REPAIRS: Limited engine and deck repairs.

REPATRIATION: No facilities exist for crew change.

AIRPORT: Yeadon, 45 miles, served by regular airlines.

HOLIDAYS: Normal Bank Holidays. Fish landings can be worked on these days.

POLICE/AMBULANCE/FIRE: Police Bridlington 672222; Ambulance 0482 – 881198; Fire 73585.

TELEPHONES: No arrangements exist for placing telephones aboard.

SHORE LEAVE: Crew members allowed ashore.

AUTHORITY: Bridlington Piers and Harbour Commissioners, Harbour Office, Harbour Road, Bridlington, Yorkshire YO15 2NR, United Kingdom. *Tel:* (0262) 670148/9. *Contact:* G. W. Wallis, Harbour Master.

BRISTOL (Avonmouth): 51.30 N. 02.42 W. (See Plan)

DOCUMENTS:

1 Maritime Declaration of Health.
1 Vaccination Certificate.
1 Crew's Effects List.
2 Ship's Report by Master.
1 Home Office Form I.B.6.
1 Stores List.
1 Certificate of Deck Cargo tonnage.
Grain Certificate.
1 Light Certificate.
1 Port Dues Certificate.
1 Passenger List.
1 Landing Card for each passenger.
Ship's Certificate of Registry.
Derat or Derat Exemption Certificate.
Mercantile Marine Office Certificate (British ships only).

In addition, Manifests and Bills of Lading are usually sent to Agent direct from loading port.

PILOTAGE: Compulsory. Telegraphic address, "Brispilot Avonmouth". Notice required, at least 12 hours prior to arrival at Breaksea Lightfloat. Pilots can also be embarked off Ilfracombe (24 hours advance notice required). Breaksea boarding and landing station is one mile North of Lightfloat. Pilots board from 58 ft. motor pilot boat, black hull, "Bristol Pilot" in white letters amidships, operating from Barry Harbour.

VHF Channel calling 16, working 6. Ships report to Avonmouth Radio (VHF Channel 12) at English and Welsh Grounds and Walton Bay.

Details of rates and other particulars including tonnage and coastwise exemptions from pilotage available from Haven Master, R. E. Dock, Avonmouth Dock pilotage. Pilotage for locks to berth available but not compulsory.

ANCHORAGES: Barry Road affords good anchorage in moderate weather for vessels awaiting a Pilot.

APPROACHES: *Cautionary Advice:* Several points should be borne in mind.

Tides in the Bristol Channel are strong (up to 5 knots at Springs) and their effect must be allowed for accordingly.

Vessels should slow down in ample time before reaching the pilot station.

From the English and Welsh Grounds Lightfloat inwards, navigation becomes more difficult as the channel for deep draft vessels narrows. Traffic is heavier and more congested with vessels entering and leaving the docks, some of which are small vessels without Pilots.

RESTRICTIONS: Royal Portbury and Royal Edward Locks are manned from 4.5 hours before to 3.5 hours after HW, Portishead Locks from 2.5 hours before to 1.5 hours after HW.

MAX. SIZE: *Royal Portbury:* Max. length 950 ft., max. beam 130 ft., draft 40 ft.

Royal Edward: Max. length 690 ft., max. beam 95 ft., draft 34 ft.

Avonmouth Dock through Junction Cut from Royal Edward: Max. length 560 ft., max. beam 75 ft., draft 26 ft. 6 in.

Portishead Dock: Max. length 415 ft., max. beam 60 ft., draft 24 ft.

Note: The above quoted drafts are for tides that reach below Mean High Water i.e. on many tides a greater draft could be accommodated, on a few tides vessels of the quoted draft would be neaped.

HEALTH: Foreign arrivals are required to complete Maritime Declaration of Health and to report to Port Health Authority by radio, sickness, prior to arrival if possible, otherwise report on arrival at dock entrance.

Onus of reporting sickness is the personal responsibility of the Master.

All vessels are required to report the presence of animals or birds aboard vessel and any disease amongst such animals or birds.

Vessels arriving from ports within the excepted area and coastal arrivals need not present Declaration, but when there is sickness on board Port Health Authority must be informed.

Also see "Health – All Ports" before first U.K. port.

RADIO: Lands End (HF, VHF), Ilfracombe (HF, VHF), Celtic (VHF), Severn (VHF).

RADAR/VHF: Port radar coverage of King Road in low visibility conditions. VHF coverage (Avonmouth Radio) from Breaksea to dock entrances.

TUGS: Ships for Royal Portbury Docks are normally met by tugs West of Portishead Point.

Other vessels docking on flood tide normally meet tugs at old oil jetty to Northward of the entrance lock. Vessels docking on ebb tide, tugs join between Firefly and Cockburn Buoys. Ship's line always used.

BERTHING: In general, conventional and combi vessels are handled at Avonmouth, with Royal Portbury catering for unit load traffic, Ro/Ro or dedicated user traffic.

Avonmouth, Royal Edward Docks: There is 12,320 ft. of operational quay at the Royal Edward Dock, Avonmouth, including dry and liquid bulk berths with a self contained oil basin containing 8 berths, 4 of which are equipped with common user pipe-line systems. The majority of berths are equipped with shore cranes.

New developments announced include a 5 acre metal reclamation terminal for Chepstow-based Bird Group of Companies, a 14 acre LPG terminal for B.P Gas and new cement import and distribution facility for Castle Cement.

Royal Portbury Dock: The Port of Bristol's modern Royal Portbury Dock is equipped to handle Lo/Lo and Ro/Ro traffic. The 575 m. (2 berth) Gordano Quay has 2×45 tonne gantry cranes and is backed by 59 acres of paved area for unit loads and forest products. 250,0000 sq.ft. of covered storage is also available on Berth No. 2.

St. George's Quay, Berth No. 3, has a Ro/Ro cut out and 13 acres of paving, which extends into Berth No. 4. Berth No. 4 also has a Ro/Ro cut out ramp and limited paved area.

United Molasses Company, a Division of Tate & Lyle Ltd., operates an import and distribution depot with a tankage capacity of 53,000 tonnes. This development is situated behind Berth No. 4, where Redland Plasterboard will construct a £25 million plasterboard manufacturing terminal on a 30 acre site. Work on the site commenced in May 1988, with completion due in early 1990.

Two large vehicle handling terminals are adjacent to the Dock. Abbey Hill have expanded their Portbury Terminal by 10 acres to 35 acres, while Nissan UK, on the other side of the Port's motorway access road, have expanded by 5 acres to 25 acres.

Meanwhile on the Portbury Estate, new developments have been announced. Ashton Corrugated (Southern) and Christies Panel Products are to build factories on 9 acre and 6 acre plots, respectively. While retail giant, ASDA, are to build a regional distribution centre on a 20 acre site. These new developments join a large cold store owned by Frigoscandia, an animal compounding mill for BOCM-Silcock Ltd. and the Peter Lane Group's transport and distribution depot.

CRANES: Various types up to 12.5 tonnes at Avonmouth together with one 150 tonne floating crane. At Royal Portbury, 2×45 tonne gantry container cranes.

BRIDGES: Avonmouth Docks. Junction between Avonmouth Dock and Royal Edward available at all times if necessary by arrangement with Dock Master.

STEVEDORES: At least 24 hours notice required in order that necessary labour may be allocated.

MEDICAL: Absolutely necessary for Agent to have as much notice as possible of any medical attention required. All facilities available.

DENSITY: Avonmouth Docks: Average density 1012 to 1015; in the river fluctuates according to tides. Portishead Docks: The density is 1015.

FRESH WATER: Available at most berths, 24 hours a day from hoses connected to standpipe. Delivery rate 25 – 30 t.p.h.

FUEL: Most grades available – 24 hours notice required.

FIRE PRECAUTIONS: According to local laws, available on request.

GANGWAY/DECK WATCHMEN: Not absolutely necessary – Available if required.

OPENING/CLOSING HATCHES: If crew open hatches on the first day then they must continue to do so whilst vessel is discharging/loading, otherwise dockers attend to this.

CERTIFICATES:

Load Line Certificate.
Safety Equipment Certificate.
Lloyd's Construction Certificate.
Derat Certificate.
Ship's Register.
Light Bills.
Safety Radio Certificate.

CUSTOMS ALLOWANCES: Current allowance for crew members of British and foreign ships in British waters.:

Tobacco: (incl. cigars and cigarettes) – 30 grammes (1 oz.)

Spirits: (incl. liqueurs, perfume and toilet water) – 0.185 litre (0.75 of a bottle) of which not more than half may be perfume

Wine: 1.5 litres (2 bottles)

IDENTIFICATION CARDS: Not necessary unless being repatriated.

CONSULS:

Belgian Consul
Chilean Consul
Danish Consul
French Consular Agent
Finnish Vice Consul
German F.R. Consul
Greek Consul
Italian Consular Agent
Netherlands Vice Consul
Norwegian Vice Consul
Spanish Vice Consul
Swedish Vice Consul

REPAIRS: All types of repairs are carried out. Contact Bristol Ship Repairers Ltd., Graving Dock Works, Royal Edward Dock, Avonmouth, Bristol BS11 9AZ. Tel: Avonmouth (0272) 823422/5. Telex: 498477 Drydok G.

DRY DOCK:

	Total length	*Length over blocks*	*Width of Entrance*	*Depth of water on sill*
Avonmouth Docks	875 ft.	850 ft.	100 ft.	32 ft.

REPATRIATION: Repatriation can be effected to all parts of world.

AIRPORT: Local airport approximately 12 miles away. London can be reached in 1.5 hours by train.

TIME: BST is GMT plus 1 hour. GMT in Winter months.

HOLIDAYS: New Year's Day; Easter (varies); May Day; Spring Bank Holiday (last Monday in May): Summer Bank Holiday (varies, usually last Monday in August); Christmas Day (25th December); Boxing Day (26th December). Work can be arranged on these holidays, except 25th/26th December.

POLICE/AMBULANCE/FIRE: *Royal Portbury and Avonmouth Docks:* Dock services can be contacted by dialling 222/333 on port's exchange or 822591 on British Telecom exchange.

Otherwise dial 999 on British Telecom. Exchange for national emergency services.

EMERGENCY CO-ORDINATION CENTRE: H.M. Coastguard, Mumbles, Swansea, West Glamorgan. Tel: (0792) 66534.

TELEPHONES: Can be put on board at most berths.

BANKS: National Westminster Bank Ltd., 1 Gloucester Road, Avonmouth. Tel: 823991.

Barclays Bank Ltd., Gloucester Road, Avonmouth. Tel: 822814.

Midland Bank Ltd., 7 Gloucester Road, Avonmouth. Tel: 822106, 828637.

Lloyds Bank Ltd., 265 Avonmouth Road, Avonmouth. Tel: 827191/2. (Major international banks located in Bristol's finance sector centred mainly around the "Corn Street" locality).

SHIP SUPPLY SERVICE: At Avonmouth limited services could be provided by the tug company, Cory-King, Towage, Tel: (0272) 822021.

The Pilotage Authority occasionally assists with sick crew members, limited numbers of personnel and small packages. Tel: (0272) 822354.

DEVELOPMENTS: See "Berthing".

AUTHORITY: Port of Bristol Authority, The Port Office, St. Andrews Road, Avonmouth, Bristol, Avon BS11 9DQ, United Kingdom. *Tel:* Avonmouth (0272) 823681. *Telex:* 44240. *FAX:* 820698. *Prestel:* 2029414. *Contact:* Nasim Aasim, Port Manager.

AGENT: Lovell, Hodder, Whitwell Ltd., Junction Cut, Avonmouth Docks, Avonmouth, Bristol BS11 9BH. Cables: "James Avonmouth". Tel. (0272) 823671. After office hours: (0272) 822855. Telex 44168, 44718.

BRIXHAM: 50.24 N. 03.30 W. (See Plan)

PORT LIMITS: The area below the level of high water enclosed by:

(a) An imaginary line drawn from Shoalstone Point in the Parish of Brixham, extending in a W.N.Westerly direction for a distance of 6,500 ft. or thereabouts, until it intersects the imaginary line next described:

(b) An imaginary line drawn from the centre of the Old Quarry at O.S. Ref. SX91445723, in a N.Easterly direction for a distance of 3,000 ft., or thereabouts, until it intersects the imaginary line first described, and:

(c) The land line of the coast from the centre of Old Quarry aforesaid to the said Shoalstone Point.

DOCUMENTS:

1 Crew List,
1 Passenger List,
2 General Declarations (Customs),
1 Health Document,
1 Manifest,
1 Each Bill of Lading,
1 Ship's Papers,
1 Ship's Certificates,
or
as for other small U.K. Ports.

PILOTAGE: Trinity House Pilot. Tel: Brixham (08045) 2214/4939. After hours (08045) 51649.

DEEP SEA AND COASTAL PILOTAGE: Pilots for all European and U.K. ports including the Baltic.

Ships requiring a Pilot at Brixham should cable at least 48 hours before arrival to "Hutchinson, Gravesend" advising and updating ETA Brixham.

2 hours before arrival Brixham – contact "Brixham Pilots" on VHF Channel 9. Pilots board by fast launch 1 mile N.E. Berry Head (or by arrangement). Pilot boats, length 40 ft. and 50 ft., black hull, orange wheelhouse, with "Pilot" in black on wheelhouse. Listening VHF Channel 9.

Also see "London" – Pilotage.

ANCHORAGES: In Torbay or outside port limits. Contact pilot station on VHF Channel 9 for advice.

MAX. SIZE: Unlimited at anchor. Also see "Berthing".

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: Landsend Radio/Niton Radio/Portishead Radio.

VHF: Brixham Coastguard – Channel 16.

Harbour Office – "Brixham Port Radio" – Channels 16 and 14.

Pilots and/or Agents – "Brixham Pilots" – Channel 9.

TUGS: By arrangement.

BERTHING: Small coastal vessels in Inner Harbour by arrangement with Harbour Master. Vessels up to 500 ft. (draft 26 ft.), at Jetty, on Brixham Breakwater by arrangement with Brixham Bunkering and Devon Marine Ltd., (Telephone Brixham 2250), or with Harbour Master, Brixham.

MEDICAL: Contact Brixham and Torbay Shipping Agents.

DENSITY: 1025.

FRESH WATER/FUEL: Available from Brixham Bunkering and Devon Marine Jetty on Breakwater.

REPAIRS: Electronic, gyro, engine welding, plumbing by local firms.

SURVEYORS: West Marine Surveyors & Consultants Limited, Consulting Marine Surveyors, Engineers & Naval Architects, The Old Custom House, Brixham, South Devon. Tel: Brixham (Std 08045) 2604. After normal office hours Tel: (0803) 842925. Cables: Surveyor, Brixham. Telex: 42962 – Survey G.
REPATRIATION: See "Services".
AIRPORT: Exeter 35 miles away, Plymouth 34 miles away (daily flights to/from London).

Air UK flights from Exeter to Amsterdam, Brussels, Guernsey, Jersey and Southampton.
POLICE/AMBULANCE/FIRE: Brixham 2231 or 3065 or 999.
SERVICES: No tank cleaning.

Torbay and Brixham Shipping Agents Ltd. (0803) 882214. Telex: 42737. Cables: Dencade. VHF: Channel 9 and 16. Services offered: Boarding and landing deepsea and river pilots, technicians/service engineers, superintendents, repair squads, surveyors, crew changes, full repatriation facilities, medical assistance, divers/underwater inspections, chemist, charts/publications, compass adjuster, spares, stores, provisions, engine/radio/radar/gyro repairs.

Small loads and personnel by fast launch.

Supply boats/barge facilities for storing.

Vessels serviced off-limits, underway or safe deep water anchorage.
SHORE LEAVE: Allowed.
AUTHORITY: Borough of Torbay, Town Hall, Torquay, TQ1 3DR, United Kingdom. *Tel:* (0803) 296244, ext. 356. *Telex:* 42929. *FAX:* 0803-26244, ext. 337. *Contact:* Captain R. Wells, Harbour's Administrator.

BUCKIE: 57.41 N. 02.57 W. (See Plan)

PILOTAGE: Pilots keep VHF watch (Channel 16) 1 hour prior to arrival of vessel.
ANCHORAGES: 1 mile West of West Mucks Beacon.
RESTRICTIONS: Vessels with max. draft berth/sail at HW only.
MAX. SIZE: LOA 82 m., beam 12 m., draft 4.5 m.
BERTHING: Depth at entrance 3.3 m. below LAT. Depth alongside 5.2 m. below LAT.
FRESH WATER: Available.
FUEL: Available.
REPAIRS: Deck, engine, radio and radar repairs undertaken.
AIRPORT: Dyce (Aberdeen), 55 miles away.
AUTHORITY: Harbour Master – Buckie, Harbour Office, 28B Commercial Road, Buckie AB5 1UN. *Tel:* 0542 – 31700. *Telex:* 739148 (Ref-328). *FAX:* 0542–34742. *Cables:* "Harbourmaster". *Contact:* Captain W. F. Wood, Harbour Master.

Grampian Regional Council, Woodhill House, Westburn Road, Aberdeen AB9 2LU.

BUDE: 50.50 N. 04.33 W. (See Plan)

DOCUMENTS/HEALTH/CONSULS: Port not equipped to accept vessels from abroad.
PILOTAGE: Not normally available (special arrangements may be made).
ANCHORAGES: Outer Harbour dries out at half tide.

Inner Harbour (Canal) 8 ft. draft maximum.
MAX. SIZE: Inner Harbour (Entry via Lock) length 90 ft. Beam 25 ft. Draft 8 ft.
RADIO: MF Ilfracombe Radio. VHF Severn & Celtic Radio.
VHF: Bude Harbour Office listens on VHF Channel 16 when a vessel is expected.
FRESH WATER: Available via 0.5 in. hose pipe.
TELEPHONE NUMBERS: Harbour Master Bude 3111 (Office), Bude 3531 (Home), Coastguard Harland 235*, Police Bude 2131.

*Nearest Coastguard.
GENERAL: Port little used by commercial shipping.
SPECIAL REGULATIONS: Entry to the Harbour is made by leaving Chapel Rock (linked to the Main Land by a Breakwater) to starboard. Head towards the Lock in the Channel marked by 2 pairs of Leading Beacons.

The outer pair of Beacons, bearing 075° 30′ (T) consist of a front mark – white Spar with Yellow Diamond Topmark, rear mark – white flag staff, both on cliff top on North side of Harbour.

The inner pair of Beacons, bearing 131° 30′ (T) consist of a front beacon – white Pile Beacon with Yellow Triangle Topmark, rear beacon – white spar with Yellow Triangle Topmark, placed 0.5 cable West of Lock Entrance.

The approach to Bude, either from the North or South, should be made from a S.W. direct direction in line with the first pair of Leading Marks.

Immediately on passing Barrel Rock (0.5 cable North of Chapel Rock and marked by a Beacon Barrel) turn to starboard and pick up the inner pair of Leading Marks from which the Lock is clearly visible.

Entry to the Harbour at night not recommended.

Heavy ground swell and breaking seas may prohibit entry and exit.

The Harbour dries out at each Tide and entry of vessels is normally restricted to 2 hours either side of High Water.

For Locking, 18 ft. minimum of water above Chart Datum is required to Lock. A heavy swell may also prohibit the operation of the Lock.

Prior notification of arrival should be made to the Harbour Master if possible.
AUTHORITY: North Cornwall District Council, Kingshill Industrial Estate, Bude, Cornwall EX23 8QN, United Kingdom. *Tel:* Bude (0288) 3111. *Contact:* W. Cloke, Harbour Master/Beach Safety Officer.

BURNTISLAND: 56.03 N. 03.14 W. (See Plan)

DOCUMENTS: See "Leith".
PILOTAGE: Compulsory. See "Leith".
RESTRICTIONS: Dock gates normally opened from 3 hours before HW until HW.
MAX. SIZE: Width of dock gate 18.2 m. Max. width through gates 16.8 m. Max. depth 8.6 m. MHWS.
RADIO: See "Leith".
RADAR/VHF: Through Forth Navigation Service from Leith.
TUGS: Available from Leith.
BERTHING: 443 m. of quayage at East Dock. Depth 8.6 m. MHWS.
CRANES: 2×10 tonnes grabbing cranes. Mobile cranes available.
BULK CARGO FACILITIES: Bauxite vessels discharge into 2×8,000 tonne barges at anchor. The barges are unloaded by shore cranes in the East Dock.
STEVEDORES: Local company supplies labour.
REPAIRS: Fabrication yard situated in West Dock. 2×300 ft.×85 ft. bays, depth 19 ft.
AUTHORITY: Forth Ports Authority, Dock Office, Burntisland. *Tel:* Burntisland 872236. *Telex:* 72208. *FAX:* (0333) 24873. *Contact (at Methil):* Captain T. S. Sutherland, Port Superintendent. *Tel:* Leven (0333) 26725.

CALEDONIAN CANAL: 57.27 N. 04.18 W.

PORT LIMITS: Craft are considered to be within the Canal when they have entered the sea lock structures.
DOCUMENTS: Masters of craft on through passage must report to the Sea Lock Office at Corpach with the ship's measurement certificates to enable toll declaration to be made. Masters of craft on partial passage starting and returning to the East coast should report to the Clachnaharry Canal Office.
PILOTAGE: Approach pilotage compulsory at Inverness end. Contact Inverness Pilots by Link Call through Inverness 232845 or 235264 (Ships of NRT under 100 tons are exempted). Pilotage within the Canal and West approaches optional. For Pilotage into Corpach from the West contact Mr. H. McKinnon at Corpach by Link Call to Corpach 304 and for Canal Pilotage, by Link Call to Caledonian Canal Office, Inverness 233140.
RESTRICTIONS: Entrances to sea locks restricted for 2 hours either side of LW springs. There is generally no restriction at LW neaps. The Canal is operated on normal manning from 0800 hrs. until 1700 hrs. (Sundays excepted).
MAX. SIZE: 48.77 m. (160 ft.) length overall × 10.67 m. (35 ft.) beam × 2.74 m. (9 ft.) draft fresh water or, alternatively, 45.72 m. (150 ft.) × 10.67 m. (35 ft.) × 4.11 m. (13 ft. 6 in.) draft fresh water.

Corpach sea lock will admit craft to the Corpach Basin only of size 61.87 m. (203 ft.) length overall × 10.67 m. (35 ft.) beam × 4.11 m. (13 ft. 6 in.) draft fresh water.

All dimensions are overall and *NOT* moulded.
HEALTH: Vessels from foreign ports will be boarded by the Customs/Immigration/Health at the sea locks and they should fly the appropriate international flags on approach.

Also see "Health – All Ports" before first U.K. port.
RADIO: Western approaches via Oban Radio. Eastern approaches via Wick or Stonehaven Radio.
VHF: VHF at Corpach Sea Lock. Call Sign "Corpach Dock".
RADAR: None.
TUGS: A Canal tug is available if required. Service should not be required on normal passage.
BERTHING: At Corpach Old and New Wharves (limited Customs approval). At Inverness Glenmhor and Glen Albyn Wharves below Muirton and Upper Muirton Wharf at the top of Muirton. Water depth available for craft having 4.110 m. (13 ft. 6 in.). Normally ships gear or road mobile cranes used. Corpach New Wharf equipped with 2 × 7 ton Derrick Cranes owned and operated by Scottish Pulp and Paper Mills.
BRIDGES: Road and rail swing bridges are operated to permit the passage of craft. Headroom restricted to 36.576 m. (120 ft.) by overhead electric cables near Inverness.

Kessock Bridge at Inverness: Headroom restricted to 28.96 m. (95 ft.) over HW springs.
STEVEDORES: Traffic to Scottish Pulp and Paper Mills at Corpach unloaded by Pulp Mill gangs. Elsewhere arranged through Shipping Agent.
MEDICAL: Normal General Practitioners service available at main centres along the Canal. Full Hospital facilities at Inverness.
FRESH WATER: Fire hose supply available at Glen Albyn Wharf, Inverness. Small domestic supplies available at the main lock flights.
FUEL: Available by road tanker from principal oil companies by telephoning Shell, Inverness 238850 or Fort William 2404; Esso, Inverness 237222 or Fort William 2903.
REPAIRS/DRY DOCK: Limited repairing facilities at the Thornbush Slipway and Engineering Company Limited, Inverness.
AIRPORT: Highlands and Islands domestic flights from Inverness (Dalcross).

POLICE/FIRE/AMBULANCE: Emergency calls to these services on 999.
GENERAL: The Caledonian Canal is part of the Customs Port of Inverness.
AUTHORITY: British Waterways Board. Caledonian Canal Office, Clachnaharry, Inverness IV3 6RA. *Tel:* Inverness (0463) 233140. *Contact:* At Corpach: Mr. N. Rix. Tel: (03977) 249. At Inverness: Mr. L. Tait. Tel: (0463) 233140.

CAMPBELTOWN: 55.25 N. 05.36 W. (See Plan)

DOCUMENTS: 2 Crew Lists; 2 Passenger Lists; 1 Store List; 1 Personal Effect List; Ship's Register; 1 Manifest or Bill of Lading.
PILOTAGE: Although *not* in Clyde Port Authority area, where large vessels are concerned, it is advisable to have the services of a qualified Clyde River Pilot or where applicable a Certificated Naval Pilot. As neither are based in Campbeltown, it is essential that at least 24 hours notice be given to Agent, when required.
ANCHORAGE: For large vessels in 6 to 10 fathoms in the area between the Orange leading lights and the Methe Bank Buoy, for smaller vessels a wider area can be used but South side of loch best holding.
HEALTH: Normal UK Port requirements. In event of disease or fever prior notice should be given to Agent.

Also see "Health – All Ports" before first U.K. port.
RADIO: All messages through normal coastal stations or by radio telephones via Portpatrick Radio when nearer port. Cables should be addressed to Agents.
RADAR/VHF: No port radar service. Direct contact with Harbour Authority on VHF Channels 12, 13 and 14. P.O.L. Depot, Campbeltown can be called on 30 – 40 mile radius on Channels 6, 12, 18. Same channels for tugs, lying off port, when arranged previously.
TUGS: Must be ordered at least 24 hours beforehand as they come from Glasgow area further North on River Clyde. Precise requirements concerning arrival/departure times requested owing to heavy costs entailed for waiting time.
BULK CARGO FACILITIES: Berth for vessel up to 230 ft. in length with maximum permissible draft 12 ft. (Salt water). Discharge by shore crane, Maximum lifting 5 tons.
SPECIALISED CARGO HANDLING FACILITIES: One berth for Roll-on/Roll-off ferry inside harbour, max. draft of vessel 12 ft. General cargo discharged.
STEVEDORES: Agents arrange all cargo discharges, including mechanical handling. Portable cranes only available. Ship's gear used when available to minimise costs.
MEDICAL: One casualty hospital available. Serious casualties transferred to Glasgow either by air or road, according to condition. Five local doctors.
TANKERS: All intended arrivals should be notified to Officer-in-Charge, P.O.L. Depot, Campbeltown (Tel. No. 0586/2226) at earliest.

P.O.L. Jetty, minimum depth, 40 ft. One discharging berth available.
FRESH WATER: Available at all times, delivery by hose.
FUEL: Marine gas oil supplied on commercial quay. Naval requirements by arrangement with P.O.L. depot.
REPAIRS: Minimal repairs only. Notify Agent as early as possible.
SURVEYORS: Arrange through shipping Agents.
GANGWAY/DECK WATCHMEN: Available but not compulsory.
OPENING/CLOSING HATCHES: Ship's option.
CARGO GEAR: See "Stevedores". Ship's gear preferred where possible.
REPATRIATION: Air service available once daily in forenoon, except Sunday.
AIRPORT: Machrihanish – 3 miles distant.
TIME: GMT. GMT plus 1 hour in Summer.
HOLIDAYS: New Years Day (1st January) Christmas Day, Boxing Day, 3 Statutory Local Holidays, Annual Holidays 1st fortnight in August.

Work can be carried out by arrangement with Stevedores.
POLICE/AMBULANCE/FIRE: Dial 999.
EMERGENCY CO-ORDINATION CENTRE: Coastguard, New Quay, Campbeltown, Tel: 2770.
TELEPHONES: By arrangement.
SERVICES: Laundry/Dry Cleaner, Minimal Radar/Radio, VHF Repairs. No tank-cleaning equipment available or compass adjusting.
IDENTIFICATION CARDS: Not required. P.O.L. Depot request production of Seamen's Cards.
BANKS: Bank of Scotland, 9 Longrow, Campbeltown Tel: 2274.

Royal Bank of Scotland, 11 Castlehill, Campbeltown Tel: 3617.

Clydesdale Bank, 19 Longrow, Campbeltown Tel: 2130.
SHORE LEAVE: After clearing inwards, crew members are allowed to go ashore without special permission.
GENERAL: Basin of the Clyde Lat. 55° 25′ 0″ N., Long. 5° 35′ 30″ W. *Tides:* Spring rise 8.9 ft.; Neap rise 7.5 ft.; depth at sea entrance, 12 ft. low water spring tide; there is a rise of 8 ft. in spring tide in harbour.
AUTHORITY: Strathclyde Regional Council, Harbour Office, Old Quay, Campbeltown. *Tel:* Campbeltown (0586) 20365 or 52552. *Contact:* Mr. A. Stewart, Harbour Master, Campbeltown.

P.O.L. Depot, Campbeltown. Officer-in-Charge, Kilkerran Road, Campbeltown.

CARDIFF: 51.29 N. 03.10 W. (See Plan)

PORT LIMITS: A vessel is considered as "arrived" when it is in the lock.
DOCUMENTS: Documentation required for arrival:

C142	2 copies	Crew Declaration
C14	3 copies	Stores Declaration
C13	2 copies	General Declaration (completed by Agent)
C16	2 copies	Cargo Inward Declaration
C74	1 copy	Master's Authority (Agents complete)
C1320	2 copies	Cargo in un-registered spaces

These documents are to be completed and presented with copies of manifests and ship's documents at the time of report.
PILOTAGE: Channel pilotage and dock pilotage not compulsory except for vessels carrying passengers. Pilots embark from pilot cutters operating from Barry Harbour.

Pilot cutters are marked on each side "S.E. Wales Pilots" and operate radio continuous watch on VHF. Signal for pilot cutter – numeral "7" on whistle or siren. Telegraphic address: Barry Sewpil (telex). Minimum of 24 hours notice required of ETA. VHF Channels 16, 9, 14 and 11.
ANCHORAGE: Barry Roads: Good anchorages in moderate weather in depths from 5 to 6 fathoms (9.1 m. to 11 m.) about 0.5 miles S.W. of the entrance to Barry Docks. Clay bottom.
RESTRICTIONS: Entry to docks restricted to a period of 4 hours before and 3 hours after high tide, according to size and draft of vessel.

Entrance lock 850 ft. length, 90 ft. wide.
MAX. SIZE:
Queen Alexandra Dock: LOA 650 ft., beam 88 ft. 3 in., max. draft 34 ft.
Roath Dock: LOA 650 ft., beam 85 ft. 6 in., max. draft 30 ft.

Vessels near maximum dimensions may be accepted on certain tides after consultation with the Dock and Harbour Master.
HEALTH: Maritime Declaration of Health to be made to Port Authority or Customs Officer, whoever boards ship first. In event of contagious fever on board, Port Health Authority must be advised by radio before arrival. No Pratique necessary if vessel is entering port from another port in U.K.

Also see "Health – All Ports" before first U.K. port.
RADIO: Ilfracombe Radio and Portishead Radio.
VHF: A port operation VHF service maintained at dock entrance during tidal hours. Call sign "Cardiff Radio" calling on Channel 16 and operating on Channel 14 or Channel 11. There is also "Severn Radio".
TUGS: Tugs normally join vessel 0.5 mile to seaward of Outer Wrach Channel Buoy, and arrangements for attendance of tugs should be made through ship's Agent.
BERTHING: Arranged through Dock and Harbour Master, and berths within docks are flat quays. Rise and fall usually varies up to 1 ft.

Dock	*Quay Length (Total)*	*Normal Depth of Water*	*Max. Size of Vessel*			
			Length	*Beam*	*Draft*	*Approx.*
	(m.)	(m.)	(m.)	(m.)	(m.)	*d.w.t.*
Queen Alexandra	2,234	11.3	198.12	26.9	10.37	33,000
Roath Dock and	2,181	11.0	198.12	26.06	10.37	33,000
Roath Basin	1,174	11.0	158.00	21.30	8.50	18,000

Storage and Warehousing Facilities: Quayside: 5 transit sheds – 32,810 sq.m. (351,050 sq.ft.).

Back sheds: 13,870 sq.m. (149,280 sq.ft.).

Open storage: 8.7 hectares (21.5 acres) with a further 17.4 hectares (43 acres) managed by independent terminal operators.
Cranage and Mechanical Handling: Crane capacity: 1×15 tonnes; 8×7.5 tonnes; 3×5 tonnes; 7×3 tonnes.

2 additional 10 tonne grabbing cranes are provided by a terminal operator within the docks. The port provides a fleet of fork lift trucks for quayside cargo handling ranging from 4,000 lb. to 88,000 lb. capacity.
SPECIALISED CARGO HANDLING FACILITIES:

(i) Cold Storage: King's Wharf Cold Store, managed by the International Cold Storage Co. Ltd. has a capacity of approximately 12,000 tonnes and can operate with temperatures down to −23°C.

(ii) Cool Storage: Cool store with a capacity of approximately 60,000 cartons at any one time. The store is equipped with cooling machinery to maintain temperatures at 50°F – 55°F. (10°C – 13°C.).

(iii) Timber Terminals: Bulk carriers received at deep water berths, discharge of 2,000 cu.m. of timber in a single gang shift, large hardstanding storage areas plus covered accommodation for woodpulp and specialised timber products.

(iv) Combi Vessels: A modern front loading truck of 40 tonne capacity, capable of stowing containers three-high, available for handling.

(v) Bulk Cargoes: 1 grain loading appliance.

(vi) 2 Scrap Berths.
BRIDGES: Bridges throughout the port can be operated on tide times.
STEVEDORES: Arrangements for employment of stevedores undertaken by A.B.P. through ship's Agent.
Port Working Hours:

	Day Work	*Shift Work*
Monday – Friday	0700 – 1630	0600 – 1400 1400 – 2200
Saturday	0700 – 1130	0600 – 1000 1000 – 1400
Sunday	0600 – 1400	0600 – 1400 1400 – 2200

Vessels may also choose to work 0700 – 1630 (2 hours extra to finish if need be), Monday – Friday.
MEDICAL: All facilities available. Agents should be advised in advance if medical services required.
TANKERS: 2 tanker berths available, one in Queen Alexandra Dock and one in Roath Dock. Special instructions are issued to Master on arrival at port. Average discharge approximately 448 cu.m.p.h.
DENSITY: 1008-1018.
FRESH WATER: Available 24 hours daily from quayside, delivery 20 t.p.h. maximum.
FUEL: Fuel of all grades available.

FIRE PRECAUTIONS: For tankers, strict fire precautions required in accordance with latest safety procedures.

Emergency Action – Fire: In the event of an outbreak of fire (no matter how small) immediately dial 999 on the ship-to-shore telephone. When the operator answers, say "Fire", and wait until you are connected to the Fire Station Control. Then repeat: "Fire at Berth, (name of berth)". In event of the ship-to-shore telephone being inaccessible or out of order, use short blasts on ship's siren to alert Police and Port Authority. VHF can be used on tide times.

GANGWAY/DECK WATCHMEN: Performed by ship's crew and necessary for tankers.

OPENING/CLOSING HATCHES: Carried out by ship's crew.

CUSTOMS ALLOWANCES: Usual U.K. allowances.

IDENTIFICATION CARDS: Not needed.

REPAIRS: All types of repairs possible.

DRY DOCKS:

	Length	*Width at Entrance*
Bute Dry Dock	182 m. (597 ft.)	21.7 m. (71 ft.)

Bute Dry Dock owned and operated by Bristol Channel Ship Repairs Ltd.

REPATRIATION: Facilities exist to exchange crews and repatriate to any part of world.

AIRPORT: Airport 11 miles from Cardiff, serving other airports to all parts of world.

TIME: GMT. GMT plus 1 hour in Summer.

HOLIDAYS: New Year's Day; Good Friday; Easter Monday; Whit Monday (Spring Holiday); May Day (1st Monday in May); August (Summer Holiday) one day; Christmas Day; Boxing Day.

POLICE/AMBULANCE/FIRE: Dial 999 on public telephone service and ask for service required, or short blasts on ship's siren to alert Dock and Harbour Master.

TELEPHONES: Ship/Shore telephone supplied at certain berths – service organized through ship's Agent.

SHIP SUPPLY SERVICE: A Ship Supply Service could be provided by Cory Ship Towage with their Tugs at Cardiff if required. Address: Cory Ship Towage Ltd., S.E. Wales Office, Alexandra Dock, Newport, Gwent. NP9 2NP. Tel: Newport 56835/6.

GENERAL: Cardiff is a port which has very big range of tides and important that accurate ETAs and max. drafts supplied by ship's Master in order that Agent may place orders for tugs and Pilots in sufficient time to be in attendance when required.

AUTHORITY: Associated British Ports – Cardiff and Barry, Pierhead Building, Bute Docks, Cardiff, South Glamorgan CF1 5TH, United Kingdom. *Tel:* (0222) 471311. *Telex:* 498542 ABPCB G. *FAX:* (0222) 471100. *Contact:* B. J. Harding, Port Manager.

CARRICKFERGUS: 54.43 N. 05.48 W. (See Plan)

PORT LIMITS: No. 1 Buoy Belfast Lough.

DOCUMENTS:

2 Crew Lists,
2 Passenger Lists,
1 Store List,
1 Personal effects List,
Ships Register,
1 Manifest or Bill of Lading.

PILOTAGE: Port Pilotage not compulsory but advisable. Pilots based at Carrickfergus Harbour. All Pilotage carried out by Belfast Pilots. Pilots board at No. 1 Buoy, Belfast Lough. Pilots can be contacted by VHF Channel 12.

ETA Messages: Advise Agents at least 24 hours before arrival through any British Coast Station and Pilots not less than 1 hour before arrival. (A) ETA No. 1 Buoy (B) ETA GMT or BST (C) Draft SW.

ANCHORAGE: Midway between Harbour and Greypoint.

HEALTH: No Certificates required, in event of disease contact Agents. Also see "Health – All Ports" before first U.K. port.

RADAR/VHF: No Port Radar Service. Harbour VHF Channels 14, 12 and 16 operated approximately 3 hours before HW to 1 hour after if ships are due. Contact Harbour on Channel 16.

TUGS: Tug available in harbour. Notice required 30 minutes.

BERTHING: Harbour Tidal:

Depth alongside all berths MHWST	4.88 m.
Depth alongside all berths MLWST	1.83 m.
Max. draft of vessels	4.88 m.
Max. Beam of vessels	12.20 m.
Width at entrance	19.80 m.

Quays:

Length of Commercial Quay	278 m.
No. 1 Berth (Caustic Acid)	64 m.
No. 2 Berth (Tanker Berth)	74 m.
No. 3 Berth (Most bulk cargoes)	76 m.
No. 4 Berth (Coal,Sulphur, Meal, etc.)	64 m.

Vessels discharging take bottom on soft mud.
Average Discharge 2 Grabs 150 t.p.h. at No. 3 and 4 Berth.

STEVEDORES: Provided by Messrs. John Kelly Ltd., Tel: 62612. Telex: 74210 and Kane Shipping, Tel: 51999.

TANKERS: Discharge controlled by Texaco Ltd., as plant is owned by them privately. Rate of discharge approximately 200 t.p.h. 2×8 in. diameter pipes and 1×6 in. pipe.

Usual safety precautions prevail.
Tankers not to enter Port without permission of Harbour Master.
Max. draft MHWST 4.88 m.

MEDICAL: One hospital available.

DENSITY: 1024.

FRESH WATER: Supplied alongside Quay approximately 10 t.p.h.

FUEL: Supplied by road tankers. All grades available from major Oil Companies.

GANGWAY/DECK WATCHMEN: Not compulsory.

OPENING/CLOSING HATCHES: All vessels by crew.

CERTIFICATES: Ship's Register on arrival.

CUSTOMS ALLOWANCES: 200 cigarettes each crew member. Spirit, wine, etc., at discretion of Water Guard.

CARGO GEAR: Three crawler mounted diesel grab cranes, 3,100 kg. and 3,045 kg.

IDENTIFICATION CARDS: Not required.

CONSULS: None. Most countries are represented at Port of Belfast approximately 9 miles from Harbour.

REPAIRS: Light repairs and welding only major repairs can be arranged at Belfast.

DRY DOCKS: None. Nearest at Belfast.

SURVEYORS: Most Classification Societies based at Belfast.

REPATRIATION: Good facilities for crew changes. Good railway and bus services.

AIRPORT: Belfast Airport approximately 22 miles served by regular lines.

TIME: GMT, plus 1 hour in Summertime.

HOLIDAYS: New Years Day, Easter Monday and Tuesday. 12th and 13th July, Christmas Day and Boxing Day.

POLICE/FIRE/AMBULANCE: Carrickfergus 62021.

TELEPHONES: Not possible to place on board. Good phone service convenient to ships.

SERVICES: All services readily available from Port of Belfast.

SHIP SUPPLY SERVICE: Off-shore service operated from the Port of Carrickfergus by 2 tugs, the "Ceres" and "Cobh".

Lagan Marine Services, 2 Downhill Park, Newtownabbey, Co. Antrim, BT36 6TX, Northern Ireland. Tel: Glengormley 2353, Belfast 746051.

SHORE LEAVE: After clearing inwards no restriction on shore leave.

AUTHORITY: Carrickfergus Borough Council and Harbour Master, Town Hall, Carrickfergus, Co. Antrim. *Tel:* (09603) 51604 (Council) 51292 (Harbour Master). *Contact:* Captain R. S. Heddles, Harbour Master/Manager.

CASTLETOWN, Isle of Man: 54.04 N. 04.40 W.

PORT LIMITS: Castletown Bay, North of line between Scarlet Point and Langness Lighthouse.

DOCUMENTS: Same as U.K.

PILOTAGE: If required, Pilot will board East of can buoy in bay.

ANCHORAGE: About 2 cables East of red can buoy. Exposed to S.-S.W.'ly weather.

RESTRICTIONS: Berthing at HW only. Max. draft 11.5 ft. Springs, 9.5 ft. Neaps.

MAX. SIZE: LOA 170 ft., beam 27.5 ft., draft subject to tides.

HEALTH: Same as U.K. ports.

VHF: Calling Channel 16, working Channel 12. Listening only when vessels due.

TUGS: None.

BERTHING: 4 berths, 170 ft. max. length. All dry out.

CRANES: Mobile crane, SWL 7.5 tons available.

BRIDGES: At entrance to Inner Harbour. Opened on request.

STEVEDORES: 24 hours notice should be given to Agent.

MEDICAL: Full hospital facilities available.

TANKERS: No facilities.

DENSITY: 1025.

FRESH WATER: Available ex-hydrant at all berths.

FUEL: Diesel available.

FIRE PRECAUTIONS: Usual.

CONSULS: None.

REPAIRS: Minor repairs only.

DRY DOCKS: None.

SURVEYORS: I.O.M. Harbour Board, Marine Administration. Tel: (0624) 23813. Telex: 629335 Iomhar G.

HATCHES: Crew or stevedores to operate hatches.

CUSTOMS ALLOWANCES: Same as U.K.

CARGO GEAR: Ship's gear or mobile crane used.

AIRPORT: 2 miles away. Daily flights to U.K. and Eire.

TIME: GMT and BST.

HOLIDAYS: December 25th and 26th, January 1st and 2nd, Good Friday, Easter Monday, Spring Bank Holiday, July 5th and August Bank Holiday.

POLICE/AMBULANCE/FIRE: Police – Tel: 0624-822222. Ambulance/Fire – Tel: 999.

SERVICES: Compass adjusting.

SHORE LEAVE: Permitted.

IDENTIFICATION CARDS: Seaman's Book sufficient.

EMERGENCY CO-ORDINATION CENTRE: Ramsey Coastguard MRSC, Tel: (0624) 813255.

AUTHORITY: Department of Highways, Ports and Properties, Sea Terminal Buildings, P.O.Box 11, Douglas, Isle of Man. *Tel:* (0624) 23813. *Telex:* 629335 Iomhar G. *Contact:* Chief Harbour Master.

CLYDE PORT (Including Glasgow, Greenock, Finnart and Hunterston): 55.51 N. 04.16 W. (See Plan)

PORT LIMITS: For limits of jurisdiction see "Plans" – "Firth of Clyde and Sea Lochs".

DOCUMENTS: Following required on arrival:
3 Crew Lists on IMO Standard Form.
3 General Declarations. Customs Form C13.
3 Ships Stores Declarations. Customs Form C14.
2 Cargo Manifests. Customs Form C16.
1 Personal Effects Declaration. Customs Form C142.
1 Declaration of Health.
Bills of Lading.
Register.
Load Line Certificate.
Safety Equipment Certificate.
Safety Radio Certificate.
Safety Construction Certificate.
Derat or Derat Exemption Certificate.

PILOTAGE: Compulsory pilotage.

Pilotage shall be compulsory in the portion of the Pilotage District within the area bounded on the West by that part of the line of Longitude 5° 06′ West commencing on the North shore of Loch Striven and then proceeding in a Southerly direction to the North shore of the Island of Bute and by the same line of longitude, from the South shore of the Island of Bute South to the latitude of Gull Point; thence by a line extending due East (T) to Gull Point; thence towards the S.E. by a line proceeding in a 143° (T) direction for 7 nautical miles; and thence on or towards the N.E. by a line proceeding in a 053° (T) direction to the North boundary of the Harbour of Saltcoats.

Within this area pilotage is compulsory for vessels exceeding 1,600 g.r.t. Pilots board off Little Cumbrae Island.

To the East and North of a straight line drawn from Kempock Point, Gourock, due West to the Cowal Shore, pilotage is compulsory for vessels exceeding 100 g.r.t. Pilots board West of Kempock Point.

Gourock Pilot Station, tel: Gourock 34631.

VHF Channels 14 and 16. Call "Clyde Pilots".

Vessel to advise Agent 72, 48 and 24 hours before arrival with subsequent advice of any changes to ETA, stating where Pilot required to board, ETA and draft.

Normal ladder, etc., for Pilot boarding.

Limits of Pilotage District:

(i) To the East of the Isle of Arran a line drawn due East and West across the river or Firth of Clyde from the coast of Ayrshire to Corrygills Point on the East Coast of the Isle of Arran; and

(ii) in Kilbrannan Sound a line drawn due East and West across the river or Firth of Clyde from the N.W. coast of the Isle of Arran to the coast of Kintyre being an extension of a line drawn due East and West from the Southernmost point of the island of Little Cumbrae to the N.W. of the Isle of Arran.

ANCHORAGES: Anchorages are available for vessels of all drafts in the Tail of the Bank area (off Greenock) and lower Firth of Clyde.

Anchorages are allocated by Clyde Port Estuary Radio. The anchorage positions are shown on Admiralty Charts Nos. 1907 and 1994.

RESTRICTIONS: Vessels entering the river channel are restricted to a maximum fresh water draft of 32 ft. Entry time for deeply laden vessels is dependent on the rise of tide.

Damaged vessels and vessels that are not in class must have a current Seaworthy Certificate and prior permission from the Harbour Master before entering the area of jurisdiction of the port.

MAX. SIZE: As agreed by Clyde Port Authority for berths in Glasgow and Greenock and subject to consideration of particular circumstances prevailing in each case.

HEALTH: Masters should report by radio to "Portelth Glasgow" any infectious illness which has occurred, or which has been suspected, during the voyage.

Also see "Health – All Ports" before first U.K. port.

RADIO: Traffic should be routed through any British coast station.

Clyde Pilot Vessel: Calling 2182 kHz. Working 2241 kHz. Hours: Listens each hour + 15 minutes.

VHF: Clyde Port Estuary Radio: Channels 16, 14, 12 and 11.
Gourock Pilots Radio: Channels 16 and 14.

RADAR: There is no port radar.

TUGS: As required by Master and under advice of the Pilot. Tug's lines are always used.

BERTHING: *General Cargo:* Discharged and loaded at Shieldhall Riverside Quay and King George V Dock, Glasgow.

Container Vessels: Handled at Greenock Container Terminal where 2 ships can work simultaneously. Berth is equipped with 1×40 ton and 2×35 ton transporter cranes with an outreach of 105 ft. beyond the line of the cope. The quay is 1,200 ft. long with a depth of 42 ft. at LWOST.

Ro-Ro Units: Can be handled at King George V Dock, Glasgow and at James Watt Dock and Garvel Basin, Greenock.

BULK HANDLING FACILITIES: Iron ore and coal are handled at Hunterston Terminal where discharging vessels up to 350,000 d.w.t. and loading vessels up to 70,000 d.w.tonnes can be accommodated. Depth alongside up to 29 m. Max. draft 26.0 m. 2 unloaders, rates up to 3,000 tonnes per hour for ore and 1,000 tonnes per hour for coal.

Scrap iron and minerals are handled at Rothesay Dock (Clydebank) where vessels up to 535 ft. in length with a draft of 31 ft. in fresh water can be accommodated. With prior arrangement vessel in excess of 535 ft. may be accepted.

Sugar and molasses are handled at James Watt Dock, Greenock. Vessels using the dock are restricted to a salt water draft of 27 ft. 9 in. and a beam of 70 ft. The max. length accepted for sugar vessels is 550 ft. and for molasses vessels 500 ft.

Grain is discharged at Meadowside Quay (Glasgow) to the 132,000 tonne granary which is situated behind the dockside goods sheds. There are 6 grain elevators each with a capacity of 200 t.p.h. Max. draft for vessels using Meadowside Quay is 32 ft. in fresh water.

CRANES: Cranes presently in use by Clyde Port Authority at Glasgow are: 7×5 tons, 3×6 tons, 2×10 tons, 1×25 tons, 1×30 tons, 1×35 tons, 1×160 tons.

BRIDGES: Erskine Bridge which spans the navigable river channel has a 180 ft. working clearance above MHWS.

STEVEDORES: Arranged by ship's Agent in accordance with Master's advice of ETA.

MEDICAL: Full medical and hospital facilities available.

TANKERS: BP Oil Ltd.: Privately operated crude oil terminal at Finnart.

The terminal is located on the East side of Loch Long (Lat. 56° 07′ N., Long. 04° 50′ W.) 25 miles from the pilot station off Little Cumbrae. There are 2 berths of which No. 3 accommodates about 300,000 d.w.t. tankers with a max. draft 75 ft. and No. 2 Berth, to the S.W., is used for about 200,000 d.w.t. with a max. draft 54.5 ft. and smaller tankers.

Berth Approach and Berthing: The berths are well sheltered, the water in Loch Long is deep and, with little tidal flow, berthing can be done at any state of the tide.

Berthing is done only in daylight, but ships can sail at any time. Vessels are turned about 0.5 miles seaward with tug assistance and backed up to the berth port side to, head out.

Tugs push on the off-shore side to breast the vessel alongside until secured.

Moorings: Ship's moorings are landed by launches. The usual pattern of moorings at Berth No. 3 is 5 head ropes, 5 stern ropes, 1 ship's breast rope at each end and 2 backsprings at each end to the jetty head. A 5.5 in. wire with "braidline" tail is provided by the shore as an additional breast mooring at each end. All ship's ropes are secured to quick release hooks.

At Berth No. 2 vessels secure to bollards with 4 head ropes, 4 stern ropes and 1 backspring at each end to the jetty head. A shore wire is provided at each end as a breast mooring.

Gangway: At Berth No. 3 a shore gangway is provided. At Berth No. 2 the ship must provide a safe gangway. Access to and from the ship must be by the gangway only.

Limitation on Height of Ship's Manifold: Prior notice must be given to the terminal if the height of the ship's manifold will exceed 68 ft. above waterline.

Cargo Handling: Each berth has the following Woodfield Combination hose/booms: 4 for crude oil (10 in. on Berth No. 2, 16 in. on Berth No. 3), and 2 for fuel oil imports and bunkering (8 in. on Berth No. 2, 10 in. on Berth No. 3). These connect with tankfarm by 2×12 in. fuel oil pipe-lines and 14×12 in., 24 in., 42 in. crude oil pipe-lines.

The maximum pressure allowed is 200 p.s.i.

There are facilities for loading lube oils.

Ballast and Slops: There is no facility for receiving dirty ballast or slops at the terminal. The tank cleaning berth at Greenock is no longer in operation.

Density of Water: The specific gravity averages 1.012 at the berths.

Services: No bunkers are available over the jetty. Ample prior notice is required for delivery by barge. Fuel and diesel oils are delivered by a barge with a fuel oil capacity of 440 tons and a diesel oil capacity of 118 tons. A 6 in. hose is used and the barge delivers both grades at 100 t.p.h.

Fresh water, of good soft quality, is piped to the berths at 50 t.p.h. Maximum quantity is 500 tons.

Normal domestic services, stores, laundry, etc. may be handled over the jetty with permission of the Terminal Authority.

A 1.5 ton crane is available for use at the berths.

A coin-operated telephone will be put on board, upon request.

Esso: Located at Bowling. This is a privately owned product distribution terminal, located 11 miles from Kempock Point (Gourock Pilots) and 9 miles up the River Clyde on the North Bank. It comprises 2 marginal jetties seaward of the silted up Dunglass Basin as well as quayside berths for small coasters and barges above the basin.

No. 1 Jetty was brought into service after major reconstruction in 1974. No. 2 Jetty, down river, is silting up and has no facilities. It is only used in an emergency.

The acceptable size of tankers in low-flash service is limited by a maximum LOA of 550 ft. (560 ft. with thruster fore and aft) which can be turned off Dunglass Basin as low-flash tankers are not permitted in the river above Bowling. Max. draft 31 ft.

Tankers, other than low-flash, up to 600 ft. with connections at mid length are acceptable. Such vessels have to turn off Rothesay Dock 4.5 miles up river, only in daylight, and by prior arrangement.

Moorings: Normal complement of mooring lines is 6 at each end, i.e., 2 backsprings, 2 breast ropes, 2 head/stern lines each end.

Cautionary Note: Moorings need to be carefully tended at all times but particularly while other vessels are passing along the channel.

Although all vessels are required to pass the terminal at dead slow speed, the effect of their passing tends to cause moored tankers to range in the berths. Moorings have been known to part.

Gangway: The vessel must provide a safe gangway and access to and from the vessel must be by the gangway only.

Manifold Preparation: Unless the vessel is to turn before berthing, the port side manifold should be prepared by removing blanks to present 8 in. ASA flanges. All off-shore manifolds and connections not required for use must be securely blanked. All derricks, stays, radio aerials, etc., should be clear of the manifold area.

Cargo Handling: The jetty is fitted with 8 in. ASA 150 EMCO Wheaton hard arms, 3 for black oils which connect with 16 in. and 12 in. pipe-lines, and 4 for clean grades which are connected on the jetty head with 12 in. product pipe-lines.

There are 3 connections for lube oils, which are handled by 6 in. flexible hoses.

There is no bunker connection on the jetty. Also, there is no facility for receiving ballast or slops at the terminal. Tankfarm is located within a mile or so of the jetty and mostly at sea level, but a few clean oil tanks stand about 100 ft. above sea level.

Maximum pressure allowed on black/clean oil arms is 100 p.s.i. Maximum pressure allowed on lube hoses is 50 p.s.i.

If wind speed reaches 30 – 35 m.p.h., then cargo operations will be stopped, arms drained, disconnected and secured.

Services: No bunkers are available over the jetty. Prior notice is required for delivery by barge.

Fuel and diesel oils are delivered by a barge with a fuel oil capacity of 440 tons and a diesel oil capacity of 118 tons. A 6 in. hose is used and the barge delivers both grades at 100 t.p.h.

Fresh water is piped to the berth at 20 t.p.h.

Normal domestic service (stores, laundry) up to 1 ton loads can be handled over the jetty. Heavier loads require arrangement of a barge.

Departure: Ample warning required for Pilot and tugs.

Normal practice is for vessels in ballast to unberth and proceed slightly up river and swing in the turning area off Dunglass Basin at 1 hour before HW, on the last of flood.

Cautionary Note: The turning area is reasonably restricted and great care should be exercised in keeping vessel's speed to a minimum as well as making sure vessel is in correct turning position before commencing swing.

DENSITY: Glasgow – Fresh; Greenock – Brackish; Hunterston – Salt.

FRESH WATER: Available by hose at all berths operated by the Clyde Port Authority.

FUEL: Most major oil companies are represented in Glasgow. All grades of bunker oil can be supplied by barge or road tanker and by pipeline at Bowling Terminal.

FIRE PRECAUTIONS: Masters of vessels at the Authority's berths are given, on arrival, a copy of the Port Fire Protection Regulations.

Oil tanker berths are privately owned and the operators issue their own Fire Regulations.

CONSULS:

Belgium
Brazil
Canada
Cyprus
Denmark
Domincan Republic
Ecuador
Finland
Gambia
Germany F.R.
Greece
Iceland
India
Italy
Netherlands
Norway
Panama
Peru
Philippines
Poland
Portugal
Spain
South Africa
Sweden
Thailand
Uruguay

REPAIRS: All types of repairs can be effected in the area.

DRY DOCKS: Largest dry dock is 1,000 ft. long with 145 ft. clear width at entrance.

In addition there are 9 other smaller dry docks in the Glasgow and Greenock area.

SURVEYORS: The following are represented in the area: Lloyd's Register of Shipping, Norske Veritas Register of Shipping, Bureau Veritas Register of Shipping, American Bureau of Shipping, The Salvage Association.

In addition, a number of independent marine and cargo surveyors are available.

GANGWAY/DECK WATCHMEN: Shore watchmen are available from private contractors but need only be engaged at the discretion of the Master.

HATCHES: Opening and closing of mechanical hatches may be carried out by ship's crew. Wooden hatches are handled by dock labour.

CUSTOMS ALLOWANCES: Standard United Kingdom allowances.

CARGO GEAR: Under normal circumstances, cargo is handled by shore equipment.

REPATRIATION: Repatriation can be arranged to all countries.

AIRPORT: Glasgow Airport (12 miles from city centre) and Prestwick Airport (30 miles from city centre) are both served by a number of major airlines.

Air UK have flights from Glasgow to Amsterdam.

TIME: GMT, but British Summer Time (1 hour ahead of GMT) in force during the Summer.

HOLIDAYS: Details of official dock holidays on which cargo work cannot be arranged can be obtained from the Marketing Department of the Port Authority, on request.

POLICE/AMBULANCE/FIRE: Can be called on the public telephone system by dialling 999 or by contacting Clyde Port Estuary Radio on VHF Channel 16.

EMERGENCY CO-ORDINATION CENTRE: H.M. Coast Guard (Marine Rescue and Co-Ordination Centre), Navy Buildings, Eldon Street, Greenock. Tel: (0475) 29988. Telex: 777006.

TELEPHONES: British Telecom can supply telephones at most berths. Agent will arrange and advise costs.

SERVICES: Facilities are available for repairs and service to radio equipment and navigation aids. A compass adjuster is based at Glasgow.

There are no facilities for cleaning oil tankers, but small quantities of oil/sludge may be removed by road vehicles.

SHORE LEAVE: Shore leave is at Master's discretion.

IDENTIFICATION CARDS: Not required to be carried.

REGULATIONS: Tankers having on board or having carried cargo with a flashpoint below 73°F are prohibited from proceeding East of Bowling.

Special regulations apply to the handling and transit of explosives.

There are special requirements in force regarding the production of a gas free certificate for OBO and ore/oil vessels calling at Hunterston Ore/Coal Terminal.

It is a requirement of the Clyde Port Authority that every vessel in excess of 1,600 g.r.t., constructed or adapted for the carriage of oil, chemicals or gas in bulk, complies with the reporting procedures as specified in Statutory Instrument 1981 No. 1077, entitled, The Merchant Shipping (Tankers) (EEC Requirements) Regulations 1981.

BANKS: All National and many European and International banks have branches in Glasgow.

SHIP SUPPLY SERVICE: *Surface Craft:* Clyde Marine Motoring Co Ltd., Princes Pier, Greenock, Renfrewshire.

Clyde Shipping Tugs Ltd., Clydesdale Bank Building, Greenock Renfrewshire.

Cory Ship Towage (Clyde) Ltd., Customs House Quay, Greenock Renfrewshire.

Marine Craft Services (Clyde) Ltd., 87 Main Street, Fairlie, Ayrshire.

R. Ritchie, Esq., 1 Royal Street, Gourock, Renfrewshire.

Talisman Offshore Services, 46 Cambusdoon Place, Kilwinning Ayrshire.

Helicopters: Air Charter (Scotland) Ltd., Glasgow Airport, Paisley.

Burnthills Aviation Ltd., Glasgow Airport, Paisley.

McAlpine Helicopters Ltd., Glasgow Airport, Paisley.

AUTHORITY: Clyde Port Authority, 16 Robertson Street, Glasgow G2 8DS. *Tel:* (041) 221-8733. *Telex:* 778446. *FAX:* (041) 248-3167. *Contact* J. Mather, Managing Director. Captain D. B. McMurray, Director Marine and Operations. Captain W. W. Clements, Harbour Master.

COLCHESTER: 51.54 N. 00.55 E. (See Plan)

PORT LIMITS: Brightlingsea Anchorage.

DOCUMENTS: As normal British port.

PILOTAGE: Part of Trinity House London District. Sunk Pilot Cutter cruises near the Sunk Light Vessel. Give as much notice as possible by radio telephone or VHF Channel 16. River Pilots are ordered by local Agents and board vessels at Brightlingsea Anchorage.

ANCHORAGES: Off Brightlingsea, in 3 to 4 fathoms.

RESTRICTIONS: Vessels with deck cargoes of timber, and vessels which are large for the port not worked at night.

MAX. SIZE: Max. length at Colchester, 200 ft. Max. length at Rowhedge and Wivenhoe, 250 ft. Max. draft at Colchester, 12 ft. 06 in. Spring tides 8 ft. 06 in. Neap tides. Max. draft at Rowhedge and Wivenhoe 14 ft. 06 in. Spring tides, 10 ft. Neap tides.

HEALTH: Normal procedure. Any abnormal conditions advise Harbour Master. Pratique automatic if from U.K. port.

Also see "Health – All Ports" before first U.K. port.

RADIO: North Foreland Radio, Humber Radio or Niton Radio. 2182 kHz

VHF: "Colchester Harbour Radio", VHF Channel 14. Office hours watch plus tide time watch when ships expected. Vessels should call when approaching port anchorage, giving deepest draft, and keep listening watch on Channel 14 when manoeuvring.

RADAR: None.

TUGS: Small motor tug available through Harbour Master. Private tugs also available.

BERTHING: 1,000 ft. of private quays. 3,200 ft. of public (corporation) quays. All berths use shore equipment and handle all cargoes. Port dries at LW. (Berths at Wivenhoe 450 ft., at Rowhedge 500 ft. additional to above.)

CRANES: A number of 4 ton – 6 ton mobile cranes.

BULK CARGO FACILITIES: Bulk cargoes handled at most berths, 3 grain silos.

STEVEDORES: Arranged by Local Agents. Average rate for all cargoes 100 t.p.h.

MEDICAL: Advance notice if possible. Hospital available.

TANKERS: No facilities.

DENSITY: Density varies with tide, average 1015.

FRESH WATER: Fresh water points on quays, rate approximately 9 tonnes/p.h., cost £13.0 to £25.0, based on size of vessel.

FUEL: All fuel deliveries by road tanker.

FIRE PRECAUTIONS: None.

CONSULS: None.

REPAIRS: No facilities.

SURVEYORS: Lloyd's Agent (W. Fieldgate & Son) or ship's Agent can arrange.

GANGWAY/DECK WATCHMEN: Not normally required.

OPENING/CLOSING HATCHES: By crew.

CUSTOMS ALLOWANCES: British standard allowance.

CARGO GEAR: Shore gear, no heavy lifts.

REPATRIATION: Arranged by Agents.

AIRPORT: London 70 miles. Stansted 30 miles.

TIME: GMT. GMT plus 1 hour in Summer.

HOLIDAYS: Normal British holidays, work sometimes arranged.

POLICE/AMBULANCE/FIRE: Tel. 999.

EMERGENCY CO-ORDINATION CENTRE: U.K. Coastguard – Dial 999 or VHF Channel 16 or Tel: Walton-on-Naze 5518.

TELEPHONES: None.

SERVICES: Compass adjusting arranged by Agents.

BANKS: Barclays, Midland, Nat-West, Lloyd's and Williams & Glyn a have branches in the town.

STORING: See "Prelims".

1. By truck.
2. Not applicable.
3. Yes, subject to cargo handling.
4. Yes
5. Normal U.K. Requirements.
6. Yes.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Not required.

DELAYS: Normally tidal delays only.

AUTHORITY: Colchester Borough Council, Harbour Office, Hythe Quay Colchester, Essex, United Kingdom. *Tel:* Colchester (0206) 57585 *Contact:* Captain R. Grimer, Harbour Master.

COLERAINE: 55.03 N. 06.40 W.

PORT LIMITS: 5.5 mile tidal stretch of the River Bann to the river entrance.

River entrance: 55° 10′ N., 06° 46′ W.

DOCUMENTS: Normal U.K. requirements.

PILOTAGE: Compulsory, order through Agents or direct from Harbour Office or Pilot. 24 hours notice preferred. Pilot Station, Portstewart Bay. Pilot boat call sign "S. G. Martin", call on Channel 16, working Channel 12.

ANCHORAGES: Vessels awaiting tide can anchor in Portstewart Bay in offshore winds or in Skerry Roads, East of Portrush.

RESTRICTIONS: The port is tidal and deeper vessels are restricted to high tides. Limited night working.

MAX. SIZE: The recommended maximums are 80 m. length, 12.2 m. breadth and 4.3 m. draft.

HEALTH: Normal U.K. procedure.

TUGS: Not normally required, nearest available tug is at Londonderry Harbour.

BERTHING: Main Quay 900 ft., 2 detached wharves 140 ft. and 150 ft. and separate Oil Jetty. Max. draft vessels may ground safely on mud at LWST.

CRANES: Two Priestman Lion 35 grabbing cranes for bulk coal, etc. One NCK Pentland for bags, pallets, etc. 1×35 ton Henderson derrick crane for containers or heavier lifts.

SPECIALISED CARGO HANDLING FACILITIES: No facilities for Ro/Ro traffic.

BRIDGES: A railway bridge with 60 ft. lifting span crosses the river 0.5 miles down stream from the Harbour.

STEVEDORES: Messrs Wm. Dalzell & Sons Ltd. Tel: (0265) 54365. Telex: 74512.

MEDICAL: Full hospital/medical facilities available.

DENSITY: Varies between fresh and salt, depending on weather and tide conditions.

FRESH WATER: Fresh water is available from mains hydrants at all berths.

FUEL: All grades available, 48 hours notice advisable.

REPAIRS: Local engineers can carry out most repairs. Divers also available for underwater work.

DRY DOCKS: None.

HATCHES: Hatches normally opened or closed by the crew.

AIRPORT: Belfast International (Aldergrove) 40 miles. Belfast (harbour airport) 60 miles, Eglinton, 24 miles.

HOLIDAYS: 1st January, Easter Monday/Tuesday, May Day, 12th/13th July, Last Monday in August, 25th/26th December.

POLICE/AMBULANCE/FIRE: Tel: 999 in emergencies.

DELAYS: Vessels may be delayed by swell at the river entrance in very bad weather conditions.

AUTHORITY: Coleraine Harbour Commissioners, The Harbour Office, The Quay, Coleraine BT52 1BJ, Co. Londonderry. *Tel:* 0265-42012. *Contact:* W. R. Dalzell, Harbour Master.

COWES (including Newport, Isle of Wight): 50.46 N. 01.18 W.

OCUMENTS: As for "Portsmouth".

PILOTAGE: Vessels subject to compulsory pilotage. Cowes Pilots conduct vessels between the anchorage area and berths in Cowes Harbour and Newport, 5 miles further up the River Medina. Pilots board from launches *Thosbro 1 and 2*, which are equipped with VHF, Channels 16, 12, 9 and 6. A Pilot can always be obtained by making a link-call to Cowes 293812 or 292501 (24 hours service) or via Cowes Harbour Radio VHF Channel 16.

Note: This will all change to a new system in September 1988 – dependent on the enactment date of the new Pilotage Bill.

ANCHORAGES: Vessels waiting to proceed to Cowes or Newport should anchor within the area bounded by Old Castle Point, "Prince Consort" light-buoy and the harbour entrance light-buoy. The prohibited anchorage on either side of the leading line must be respected, and vessels must not obstruct the fairway into Cowes, nor the deep water channel used by large vessels bound for Southampton. The mooring buoy is reserved for the Trinity House lighthouse tender and naval vessels. Mooring chains run East and West for 500 ft. from each of these mooring buoys. Tidal streams in the anchorage are strong. Cowes is an international yachting centre, and the anchorage is often crowded with small craft, especially during July, August and September.

Cowes Roads anchorage, North of the deep water channel, is used by large vessels waiting to berth in Southampton Water, taking bunkers or changing crews.

MAX. SIZE: Cowes – 300 ft. long, 17 ft. draft at HWS. Vessels must expect to take the bottom in soft mud at LW. Newport – 150 ft. long, 8 ft. draft. Newport Harbour practically dries out at LW.

RESTRICTIONS: Tankers may load and discharge at all times, subject to the Petroleum Acts.

FLOATING BRIDGE: A chain ferry plies between East and West Cowes. An all-round amber light is shown from the leading end of the bridge when under way. Approaching vessels should sound 1 prolonged blast on the whistle when not less than 0.5 mile away. The bridge gives way to all river traffic. The chains of the ferry are at least 2 ft. above the river bottom in mid-channel at all times.

HEALTH: See "Portsmouth".

RADIO: See "Southampton" for Sea Pilot communications. See "Pilotage" for local communications.

Southampton Port Radio, the port operations and radar station for the port of Southampton, will often assist in cases of difficulty, although there is no obligation for them to do so and they accept no responsibility. Southampton Port Radio VHF Channels 16, 14, 12, 11, 10, 18, 20 and 22. Medium frequency through Niton Radio.

TUGS: Harbour tug (3.5 ton bollard pull) and tow-boat launches are available to assist vessels.

BERTHING: *Medina Wharf:* Vessels 17 ft., Spring draft, LOA 270 ft. Loading and unloading bulk cargoes of stone, coal, fertilisers, grain, etc. *Kingston Wharf:* As for Medina Wharf, above.

STEVEDORES: By arrangement with Agent and wharf owners. Normal working hours: 0800 – 1700 hrs. Monday to Friday. Overtime on Saturdays, etc., by arrangement. No work on public holidays.

MEDICAL: All medical facilities are available. Agent should be given advance notice of requirements. If call is solely to land sick personnel, see "Southampton" entry.

DENSITY: Cowes – 1025 salt water.

Newport – varies according to amount of recent rainfall and state of tide.

FRESH WATER: Available on all commercial wharves.

FUEL: Fuel and Diesel oil available by arrangement with Agent.

CRANES: Hammerhead crane at Elliot Turbo Machinery Ltd., 50 tons. Medina Wharf: 2 grabbing cranes of 4.5 tons for bulk cargoes.

OPENING/CLOSING HATCHES: By ship's crew.

REPAIRS: All hull and engine repairs undertaken to vessels capable of Cowes entry. Graving dock for ships up to 200 ft. in length and 14 ft. draft.

SERVICES: Compass adjuster, radar and radio mechanics available locally. Charts and general stores available locally.

SHIP SUPPLY SERVICE: *Thomas Bros.:* 2×40 ft. launches (20 knots) available throughout 24 hours for stores – 12 persons – liberty boats, surveys, etc., and marine contract work – U.K. and Northern France. Tel: (0983) 293812.

Solent Cruises: 2×45 ft. fast vessels with twin screw, D.O.T. loadline exemption, able to carry up to 89 persons (reduced number in Winter).

Solent Cruises are contractors to the local authorities for the transfer of sick persons from the Isle of Wight to the mainland.

Contact on VHF Channel 16, (Jenny Lee – 2 RAH) when afloat or Telephone Isle of Wight (0983) 64602.

A 24 hour service is offered for transport of personnel, stores and passengers.

Marine Support and Towage Limited: Tel: (0983) 295369, 296424, 297363 (24 hours). Office (0983) 296934.

Details of Vessels:

Name	*Length*	*General Description and Capabilities*
Roperunner	33 ft.	Heavily fendered steel work launch, used for running mooring ropes/wires for large vessels 6,000 tons – 250,000 tons. Large open after work space, forward wheelhouse. Fitted with radar and multi-channel VHF radio. 120 h.p. diesel, 1 ton bollard pull. Speed 8 knots.
A. Stopford	40 ft.	Keith Nelson twin screw diesel fast launch, for personnel transport and light storage duties, open after cockpit with towage facility. Licenced for 12 passengers. 2×145 h.p. diesels. Speed 16 knots – 18 knots. Fitted with radar, VHF radio and echo sounder.
MST Lock	64 ft.	Steel harbour and esturial motor tug. 300 h.p. Crossley diesel, 3 ton bollard pull. Fitted with radar, VHF radio and echo sounder.
Presstan	68 ft.	Steel coastal tug, full D.O.T. loadline. 545 h.p. diesel, 6.5 tons bollard pull. Fitted with radar, VHF radio and echo sounder.

Above vessels are available on hourly, daily or long term charter, U.K. coast or continent. Company is experienced in offshore back-up, ship supply, etc. A 24 hour office facility call out is maintained.

St. Helens Laundry Ltd.: Tel: (0983) 872250, 873731.

Able to supply laundry and dry cleaning services to any vessels at Southampton Docks, Fawley Terminal, Netley, The Solent, Portsmouth Harbour or Docks, and the St. Helens Roads and Nab Anchorages.

OIL POLLUTION: Cowes and the Solent are world-famous yachting centres. Pollution is dealt with severely.

AUTHORITY: Cowes Harbour Commissioners, Harbour Office, Town Quay, Cowes, Isle of Wight, PO31 7AS. *Tel:* (0983) 293952. *Contact:* Captain H. N. J. Wrigley, Harbour Master/Chief Executive Officer.

CROMARTY FIRTH PORT (See Plan)

(A) INVERGORDON/EVANTON: 57.41 N. 04.10 W.
(B) NIGG OIL TERMINAL: 57.41 N. 04.02 W.

(A) INVERGORDON

DOCUMENTS: *At Boarding on arrival:*

1 copy Maritime Health Declaration and Derat Exemption.

Form I.S.6 – List of members of the crew who are aliens or who were engaged outside the United Kingdom.

Form C.13 – General Declaration (in duplicate).

Form C.14 – Ship's Stores Declaration (in triplicate).

Form C.16 – Cargo Declaration (in duplicate).

Form C.142 – Crew Declaration (in duplicate).

List 142.A – Parcels list – small packages of merchandise and addressed packages not borne on the ship's report.

Account of cargo in unregistered spaces (deck cargo) if arriving from a port outside Home Trade limits.

For vessels carrying cargo on deck or in other unregistered spaces (e.g. oil fuel in double-bottom and other ballast tanks), the Master must also complete Form SUR.238 Declaration of Deck Cargo in duplicate.

Delivery of forms. When a vessel is not boarded by a Customs Officer on arrival, 1 copy of each of the forms listed must be delivered by the Master or his authorised agent to the proper place at the port of arrival. The Regulations require delivery of these forms within 3 hours of the vessel's arrival at the place of loading or unloading. The second copy of Forms C.14 and C.142 must be retained on board by the Master or other responsible officer for use by Customs Officers who may subsequently visit the vessel.

Certificate of Registry.

Certificate of British Tonnage.

Light Dues Certificate relating to the vessel.

To the Agent:

Bills of Lading.

Cargo Manifests.

PILOTAGE: It is proposed that 24 hour pilotage be introduced late in 1988. Vessels under 300 g.r.t. are exempt. Cruising station of pilot boat is the Cromarty Lighthouse, where Pilot will board. Pilot boat painted black hull, buff upper structure.

Pilot boards from tug at Fairway Buoy for large tankers and oil rigs.

Approaching vessels may give their ETA to pilot station via VHF Channel 16, when in the vicinity of 30 miles, but a 24 hour notice will be required. In the event of bad weather, vessels will be guided by Pilot launch to safety where Pilot will board. Watch kept on VHF Channels 16 and 11 (24 hours) by Cromarty Firth Port Authority. Call sign "Cromarty Firth Port Control". Local weather forecasts available.

ANCHORAGES: Large tankers anchor 1 mile South of Fairway Buoy (L.Fl. 10 secs. Racon). Main anchorage West of Cromarty Ness Light.

RESTRICTIONS: Vessels bound for Invergordon or Evanton with a draft over 43 ft. are not handled at low water.

MAX. SIZE: Max. permissible length 900 ft., max. draft 40 ft.

Nigg Oil Terminal: See "Section B".

HEALTH: International quarantine signals to be used. Advise "Portelth Dingwall" in advance if any suspected diseases on board.

Also see "Health – All Ports" before first U.K. port.

RADIO: Vessels approaching from North should pass their ETA cable via Wick Radio GKR 431, and vessels approaching from East via Stonehaven Radio GND 458 to their Agents.

VHF: Link calls through Cromarty Radio (based at Wick) Channel 16 and working Channel 28 and 84. Also see "Pilotage".

TUGS: Caledonian Towage Co. Ltd. – Tel: Invergordon 852611. Suitable tugs up to 50 tonnes bollard pull stationed at the port which work in conjunction with Pilots. Tug's lines used.

BERTHING: *Admiralty Wharf:* The wharf is the property of M.O.D. (Navy), however the berths are used regularly by commercial vessels.

Berths 1 and 2 (Outer South): Lengths 443 ft. Max. draft 36 ft. Max. LOA 800 ft. Also see "Tankers".

Berth 3: Max. draft 18 ft. Max. LOA 290 ft.

Berth 6: Max. draft 18 ft. Max. LOA 200 ft.

British Alcan Pier: Outer Berth: Length 318 ft. Dredged depth 38 ft. MLWS (1974). Max. berthing length 750 ft. approx. using dolphins. (50,000 d.w.t.)

Inner Berth: Length 200 ft. Depth 20 ft. MLWS (1974).

Invergordon Oilfield Support Base, Invergordon: Front berth 150 m., side berth 60 m. Front dredged to 8.9 m. below C.D. Side 5.5 m. minimum. Bunkers diesel – see "Fuel".

Queen's Dock: Length 150 m. Depth at Chart Datum 12.0 m. Also see "Developments".

Highland Deephaven – Evanton: Berthing face length 35 m. Minimum dredged depth 6.4 m. at Chart Datum. Berthing is mainly used by pipe-spooling vessel "Apache" for mooring stern on to berth. Berth also used for conventional coasters and supply vessels up to about 80 m. length and 6.0 m. draft.

CRANES: Mobile cranes up to a maximum 50 tonnes available from stevedoring firms, plus crane-barge of up to 200 tonnes capacity from Caledonian Towage.

STEVEDORES: F. Lyons (Stevedores and crane hirers) – Burghead STD (0343) 835360. James Jack (Stevedores and crane hirers) – Tel: Evanton STD (0349) 830388.

MEDICAL: Medical cases can be dealt with at short notice through local Agent. Hospital facilities available.

TANKERS: Vessels up to 800 ft. Max. draft 36 ft. may use Admiralty Wharf, Berths 1 and 2 combined. Also see "Section-B".

DENSITY: 1022.

FRESH WATER: Obtainable alongside quay. Rate of delivery 30 t.p.h., each hydrant. Rate of delivery at Supply Base is 80 t.p.h.

FUEL: This can be ordered through local Agent, delivery by road tanker, or ex-quay at Invergordon Supply Base (up to 2,500 tonnes of diesel).

GANGWAY/DECK WATCHMEN: Ship's gangway and safety net required. Watchmen from ship's personnel.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CERTIFICATES: The following Certificates are required to be held on board for production when required:

International Load Line Certificate.

International Tonnage Certificate.

Safety Construction Certificate.

Safety Equipment Certificate.

Safety Radio Certificate.

CUSTOMS ALLOWANCES: Following quantities are generally left out for use on board by each member of crew:

Ships arriving from foreign ports within Home Trade Limits: Tobacco 125 gm. (4 oz. or 100 cigarettes). Spirits 0.185 litre (0.25 bottle), wine 0.375 litre (0.5 bottle).

All other ships from foreign ports: Tobacco 250 gm. (8 oz. or 200 cigarettes). Spirits 0.375 litre (0.5 bottle), wine 0.75 litre (1 bottle).

IDENTIFICATION CARDS: Not required.

REPAIRS: General repairs undertaken by Cromarty Firth Engineering Co. Ltd. – Tel: Evanton 830551; MacKay & MacLeod – Tel: Evanton 830363 and Wm. Cook Engineering – Tel: Evanton 830484. Scottish Rig Repairers – Tel: Invergordon 852788.

REPATRIATION: Can be arranged.

AIRPORT: Dalcross Airport at Inverness, flights by British Airways, Dan Air and Loganair, distance from Invergordon 30 miles (via Kessock Bridge).

TIME: British Summer Time, 1 hour advanced on GMT. GMT in Winter months.

HOLIDAYS: 1st and 2nd January. Christmas Day.

POLICE/AMBULANCE/FIRE: Police, tel. Invergordon 852222 or dial 999; Ambulance, arrangements through local doctor, tel. Invergordon 852522; Fire Station, dial 999 and ask for their service.

TELEPHONES: H.M. ships only.

SHORE LEAVE: Allowed.

GENERAL: Permit must be obtained from Port Authority or Ministry of Defence when burning or welding is to be carried out at Admiralty Pier.

DEVELOPMENTS: The newly completed Queen's Dock, opened in late 1987, includes warehousing and nearly 30 acres of lay down area for cargoes such as timber, coal, scrap, containers, etc.

(B) NIGG OIL TERMINAL

LOCATION: Nigg Oil Terminal operated by Britoil plc., provides shipping facilities for crude oil piped ashore from the Beatrice Field in the Moray Firth. The terminal is located on the North side of the Cromarty Firth in approximate position Lat. 57° 41.5′ N., Long. 4° 02.5′ W. and comprises a single berth jetty linked to the shore by a trestled roadway.

PILOTAGE: Invergordon Pilot will board from a tug at the Fairway Buoy. Call "Invergordon Pilots" on VHF Channels 16 or 11, working on Channel 13.

East of 4° 09′ W. the Cromarty Firth is a non-compulsory pilotage area. Vessels using Nigg Oil Terminal must however employ the Admiralty Pilot, who will board at the Fairway Buoy.

ANCHORAGE: The recommended anchorage for vessels awaiting a berth is 1 mile South of the fairway buoy in approximate position Lat. 57° 40′ N., Long. 3° 54′ W. An anchorage within the Cromarty Firth may be made available by the Port Authority.

RESTRICTIONS: *Depth alongside berth:* A minimum depth of water of 21 m. below chart datum is available alongside the berth.

Channel depths: The least depth in the approaches to the terminal in March 1988 was 15.1 m. below C.D. and occurred in the buoyed fairway approximately 0.5 nautical miles within the port limits. Loaded tankers may sail with a draft up to 17.5 m. dependent on the tide. Advice should be sought from Cromarty Firth Port Authority prior to vessel's arrival.

Tidal range: Tides range at Springs from 0.8 m. at LW to 4.3 m. HW.

Tidal restrictions: Subject to draft, vessels will be able to berth and sail at any state of the tide, possibly excepting Spring ebbs. Berthing head Eastwards is to be preferred.

MAX. SIZE: *Length restrictions at berth:* Max. 290 m. LOA. Minimum 190 m. LOA. *Max. displacement:* 157,500 tonnes.

VHF:

Communications:	Port Authority	Channel 11 & 16
	Port Emergency	Channel 11
	Invergordon Pilot	Channel 13
	Tugs	Channel 13
	Pollution Control	Channel 10
	Nigg Oil Terminal	Channels 49, 50

Portable VHF/UHF sets: These must not be used within the Terminal Area unless they are classed as "intrinsically safe". The Terminal will lend approved VHF equipment if necessary.

TUGS: Berthing and unberthing operations will be assisted by a minimum of 2 tugs of 50 tons and 38 tons bollard pull respectively. A relief tug of 40 tons bollard pull may be substituted for either of these tugs. A third tug of 34 tons bollard pull will also be available if required. The vessel's agent will arrange for tugs as required by the Master. A firefighting tug will remain on standby at all times when a tanker is at the Nigg Oil Terminal Jetty. Whilst underway within Port limits a 1 tug escort is required.

BERTHING: *Berthing velocity:* A Doppler speed of approach measuring instrument is installed on the jetty with a dual display atop the jetty gangway tower. This display gives digital information in ft./min. on the speed of approach of each end of a berthing vessel. The digital display is supplemented by coloured lights calibrated as follows:

Flashing green – speed of approach 0/10 ft./min.

Flashing amber – speed of approach 11/20 ft./min.

Flashing red – speed of approach greater than 20 ft./min.

A steady green light indicates a receding velocity.

Vessels must not exceed a berthing velocity of 20 ft./min., regardless of displacement, and should aim to achieve a berthing velocity of less than 10ft./min. (i.e. 2 flashing green lights.).

Mooring arrangements: The Plan (see "Plan") depicts a mooring arrangement for a typical 80,000 d.w.t. vessel. Similar configurations will be employed for all vessels in the range 40,000/160,000 d.w.t.

Seebeck quick release mooring hooks are fitted on all dolphins.

Each mooring dolphin is fitted with a 3-hook assembly; each hook of 100 tonnes capacity.

Each berthing dolphin is fitted with a 2-hook assembly; each hook of 100 tonnes capacity.

The 50 tonnes bollards at the corners of the jetty head are for use by small craft only.

LOADING: *Loading arms:* 3×16 in. Emco Wheaton loading arms, each designed to ANSI 150 lb. pressure rating, are installed on the jetty head. Each arm may be used either for deballasting or for loading and these operations can take place concurrently provided that the terminal approves the system of onboard separation.

The minimum acceptable ship's figure size is 12 in. Nominal Bore. The M.I.B. couplings can be adjusted to 12 in., 14 in. or 16 in. flange sizes. Vessels must present manifold flanges with a minimum clearance of 8 in. behind the flange and 3 ft. axial clearance around the centre of the flange face in order to provide adequate clearance for the coupling jaws. If necessary spool pieces must be fitted. Flanges of steel or nodular iron must be presented. Cast iron manifold materials are not acceptable. The vessel's manifold connections must remain within an envelope between 2.85 m. and 6.1 m. off the berthing face and between 4.6 m. and 25.6 m. above chart datum.

If ranging or drift-off exceeding 2.7 m. occurs the coupling ball valves will close and the couplings will automatically disconnect.

If sustained wind speeds exceed 35 knots loading operations will stop and arms will be drained. Arms will be disconnected if wind speeds exceed 40 knots.

Loading rates and pressures: Loading rates of 50,000 bbls.p.h. are attainable utilising 2 loading arms. the maximum pressure permitted at the ship's rail is 128 p.s.i.

Ballast reception: Ballast water reception facilities are available at the Terminal. Ballast must not be discharged overboard within the port. Vessels not having segregated ballast tanks must deballast ashore. Vessels with segregated ballast must retain their ballast onboard for inspection and analysis after berthing, and disposal of this ballast is subject to the results of this inspection and analysis. Permission will not be granted for the overboard discharge of segregated ballast with an oil content in excess of 5 parts per million.

FRESH WATER: Fresh water is available on request from the Terminal from a connection on the jetty head. Approximate maximum delivery rate is 30 t.p.h.

FUEL: Bunkers are not available at Nigg Oil Terminal.

REPAIRS: Repairs may only be commenced upon receipt of a work permit signed by the Terminal Superintendent. Immobilisation of a vessel alongside the jetty is only permitted with the written permission of the Terminal Superintendent and of the Port Authority.

Readiness to vacate berth: Engines and all other essential equipment of vessels alongside the jetty must be maintained in a state of readiness for vacating the berth at short notice.

STORING: Loading of stores onto a vessel alongside the jetty may be carried out only with the specific permission of the Terminal Superintendent and in a manner and at a time approved by him.

SHORE LEAVE: A pass system will operate. Shore leave will normally be by launch from the jetty launch landing pontoon. Shore leave arrangements are the responsibility of the vessel's Master and will normally be made by the ship's Agent. Details of the arrangements are to be provided to the Terminal Superintendent.

GENERAL: *Permanent watch:* During operations a responsible member of the ship's crew must be stationed in the vicinity of the manifold.

Smoking: No smoking is permitted in the Terminal Area or on the weather deck of any vessel in the Terminal Area. Smoking may be permitted at the Master's discretion in two onboard locations, to be approved by the Terminal Superintendent.

Emergency: In the event of an emergency any assistance required must be summoned via the Terminal Control Room.

Craft alongside: Craft may not lie alongside a vessel at the jetty without the written permission of both the Master of the vessel and the Terminal Superintendent.

Refuse: No refuse or waste may be disposed of overboard from a vessel within the Port.

I.S.G.O.T.T.: Vessels must be provided with a copy and be familiar with the contents of the International Safety Guide for Oil Tankers and Terminals. Reference copies are available on temporary loan from the Terminal.

Important telephone numbers:

Nigg Oil Terminal: Nigg (086 285) 631.
Cromarty Firth Port Authority: Invergordon (0349) 852308.

AUTHORITY: Cromarty Firth Port Authority, Port Office, Shore Road, Invergordon, Ross-shire IV18 0HD. *Tel:* Invergordon (0349) 852308. *Telex:* 75263. *FAX:* (0349) 852308, ext. 36. *Contact:* Captain D. R. F. Miller, Harbour Master. Captain P. J. Taylor, Port Manager. Captain I. Dunderdale, Deputy Harbour Master. Captain W. Thomas, Assistant Harbour Master.

DARTMOUTH (Including Totnes): 50.21 N. 03.34 W. **(See Plan)**

PORT LIMITS: A line from Inner Froward Point to Combe Point.
DOCUMENTS: Normal documents for U.K. ports.
PILOTAGE: No direct radio contact with Pilots. Contact local Agent or Berry Head Coastguard Station who will telephone Pilot.

Pilot station 5 cables S.S.E. Castle Ledge Conical Buoy.

ANCHORAGE: Anchor at pilot station.
MAX. SIZE: Max. length 500 ft., max. draft 28 ft.
HEALTH: Pratique granted by Customs on arrival.

Also see "Health – All Ports" before first U.K. port.

RADIO: Route cables, etc., through Niton or Lands End Radio Stations.
VHF: Watch maintained on Channel 11, 0900 – 1700 hrs. during weekdays. Call sign "Dartnav".
TUGS: Tugs can be arranged.
BERTHING: All berthing on midstream buoys.
Totnes: Max. Size: At Spring Tides coasters of about 1,000 tons up to 240 ft. LOA and drawing 12.5 ft. proceed up river to the Baltic Wharf which lies half a mile below Totnes Bridge.

Berthing: 750 ft. quay. Dries out all tides.

MEDICAL: All medical services are available; if possible give notice of requirement.
DENSITY: Normally salt. 1025.
FRESH WATER: Available at the South Embankment.
FUEL: Diesel available by barge.
FIRE PRECAUTIONS: Normal.
GANGWAY/DECK WATCHMEN: It is advisable to have watchmen.
OPENING/CLOSING HATCHES: Crew open.
CARGO GEAR: Ship's gear.
REPAIRS: All repairs unless of a major or underwater type can be carried out.
SURVEYORS: West Marine Surveyors & Consultants Limited, Consulting Marine Surveyors, Engineers & Naval Architects, The Old Custom House, Brixham, South Devon. Tel: Brixham (STD 080 45) 2604. After normal office hours tel: 0803 842925. Cables: Surveyor, Brixham. Telex: 42962 – Survey G.
REPATRIATION: Facilities exist.
AIRPORT: 35 miles from Exeter airport. Internal and short range Continental flights.
TELEPHONES: Not normally available, except for H.M. ships.
HOLIDAYS: Not applicable.
POLICE/AMBULANCE/FIRE: Dial 999 for emergencies. Local hospital adjacent to Harbour Office.
SHORE LEAVE: Permitted. Seaman's Book adequate.
GENERAL: Dartmouth does not now operate as a commercial port except for small vessels up to about 800 d.w.t. en route to Totnes, although the harbour is suitable for ships of 18,000 d.w.t., and mooring buoys are available for such vessels.

Lay-up facilities available for vessels up to 22,000 tons displacement.

AUTHORITY: Dart Harbour and Navigation Authority, The Old Post Office, South Embankment, Dartmouth, Devon. *Tel:* Dartmouth 2337/3767. *Cables:* "Harbour Master Dartmouth". *Contact:* Captain C. J. Moore, Harbour Master.

DOUGLAS, Isle of Man: 54.09 N. 04.28 W. **(See Plan)**

PORT LIMITS: That part of the coast including all creeks, bays and headlands from HW mark Ordinary Spring Tides which extends from Port Soderick Landing Jetty (Lat. 54° 07′ 24″ N., Long. 04° 31′ 48″ W.) in a Northerly direction to the most Easterly point of Clay Head (Lat. 54° 11′ 42″ N., Long. 04° 23′ 05″ W.) thence in a straight line drawn in a 135° True (S.E.) direction for 3 nautical miles, thence in a straight line drawn to a position 3.5 nautical miles 135° True (S.E.) from Port Soderick Landing Jetty, thence in a straight line drawn to Port Soderick Landing Jetty.

All shipping entering the above defined area should contact Douglas Radio on Channel 16 VHF.

DOCUMENTS: Same as for all U.K. Ports.
PILOTAGE: Not compulsory. Arrangements usually made at least 24 hours before vessels' arrival, through Ships' Agent, or to Harbour Master, Douglas – Tel: 23813. Call Douglas Radio on Channel 16 and then transfer to Channel 12 for instructions 1 to 2 hours before ETA Douglas Bay.
RESTRICTIONS: Enter only on Harbour Master's instructions.
Traffic Signals: International Port Traffic Signals (see Admiralty Notice to Mariners 568/83) are exhibited when required, by day and night, from a mast at the head of Victoria Pier, visible from seaward and from inside the harbour, as follows:

Signal	*Meaning*
3 fixed red lights, disposed vertically	Vessels may not proceed
Fixed green, white, green lights, disposed vertically	A vessel having received specific permission by RT may proceed
3 fixed green lights disposed vertically	All vessels may proceed

Supplementary signals will be exhibited simultaneously in lights from a panel on the roof of a building near the head of Victoria Pier, visible from seaward and from inside the harbour, as follows:

Signal	*Meaning*
Red St. Andrew's Cross	Vessels unless specified may not proceed
White arrow	Vessels may proceed in the direction indicated

The panel will have a flashing orange light at each top corner.

ANCHORAGES: In Douglas Bay:
Douglas Head bearing 196° (T) 7 cables in 6 fathoms.
" " " 199° (T) 9.3 cables in 7 fathoms.
" " " 200° (T) 8 cables in 6.5 fathoms
" " " 212° (T) 7.9 cables in 10 fathoms

MAX. SIZE: Max. size of cross channel vessels 350 ft. LOA, draft 13 ft.

Max. size of cargo vessels 190 ft. LOA, draft 12 ft. Spring tides, 9 ft. Neaps to Inner Harbour, dries out at LW.

Max. size of tankers 230 ft. LOA, draft 13 ft. at LWOST.

HEALTH: See "Health – All ports" before first U.K. port.

RADIO: Port Patrick for vessels coming from North. Anglesey for vessels coming from South.

VHF: Douglas Harbour Radio manned at all times. Channel 16 and 12 only.

RADAR: Port Radar available for use in fog or when required. Used with Channel 12 VHF.

TUGS: 2 tugs with bollard pull of 4 tons operated by Laxey Towing Company Ltd. Tugs fitted with VHF.

BERTHING: Passenger vessels – 6 berths for vessels of 350 ft. in length, 13 ft. draft LWST at Victoria Pier and King Edward Pier.

Office Berth – vessels 225 ft. LOA, draft 13 ft., dries out at LW.

Cargo Vessels – Battery Pier berth vessels 180 ft. LOA with draft 12 ft. aft, 8 ft. forward at LWST.

Coffee Palace Berth will accommodate vessels of 190 ft. LOA, draft 12 ft. Springs, 9 ft. Neaps, dries out at LW.

Market Berth same as Coffee Palace Berth.

Battery Pier – Tankers up to 290 ft. LOA, draft 5.0 m. at LWOST. Berth at inner end of Battery Pier for vessels of up to 180 ft. LOA, draft 12 ft. aft, 8 ft. forward at LWOST. Discharging of cargo vessels and container vessels can be done by shore crane.

All berths at Douglas are salt water.

CRANES: The cranes are 5 ton mobile cranes, capable of lifting about 2 tons – 3 tons when working at full radius. One mobile grab crane.

BULK CARGO FACILITIES: Bulk cargoes of coal and scrap metal are handled at Coffee Palace and Market Berths described above, and timber at Victoria Pier.

Rate of discharge for coal about 60 t.p.h. – 70 t.p.h. by grab crane.

SPECIALISED CARGO HANDLING FACILITIES: Ro/Ro service operated to Victoria Pier by I.O.M. Steam Packet Co.

Ro/Ro cargo service operated by Isle of Man Steam Packet Co. to King Edward VIII Pier.

LPG cargoes are handled at inner end of Battery Pier as described above.

BRIDGES: Swing Bridge only to Inner Harbour.

STEVEDORES: Advice required to Ship's Agent. Rate of discharge – cement 60 t.p.h.; coal 60 – 70 t.p.h.

MEDICAL: Advise Agent when possible, alternatively contact Harbour Master with advance warning. Hospital available.

TANKERS: Tankers pipe-lines 6 in. Tanker berth at Battery Pier – Max. draft. 5.0 m. at LW Spring tides. Discharging rate 180 t.p.h. – 200 t.p.h.

DENSITY: Density of water salt (1025).

FRESH WATER: Fresh water available on request to Agent or Harbour Master.

FUEL: Fuel delivered by road tanker only. Contact Manx Petroleum or Esso.

FIRE PRECAUTIONS: Fire precautions as normal.

CONSULS: None.

REPAIRS: Limited facilities only.

DRY DOCKS: None.

SURVEYORS: 4 I.O.M. Marine Department Surveyors.

GANGWAY/DECK WATCHMEN: Could be arranged by Agent.

OPENING/CLOSING HATCHES: Handled by crew.

CUSTOMS ALLOWANCES: Same as U.K.

CARGO GEAR: Cargo can be discharged by ship's own gear or mobile cranes.

REPATRIATION: Repatriation only done through arrangement with Agents.

AIRPORT: Ronaldsway Airport 8 miles from Douglas and served by regular airlines.

TIME: Same as U.K.

HOLIDAYS: Good Friday, Easter Monday, Spring Holiday, T.T. Friday (1st week in June), Tynwald Day (5th July), August Holiday, Christmas Day, Boxing Day, New Year's Day.

TELEPHONES: Connections to ships can be arranged at passenger piers.

POLICE/AMBULANCE/FIRE: Police Tel: 26222; Ambulance Tel: 73661; Fire Brigade Tel: 73333.

EMERGENCY CO-ORDINATION CENTRE: H.M. Coastguard, Ramsey, Isle of Man.

SERVICES: None.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Identification cards not required for British Ships. Same as U.K.

STORING: See "Prelims".

1. By truck.
2. Not applicable.
3. Trucks can go alongside vessels except tankers when working cargo or ballasting.
4. Fork lift trucks could be permitted.
5. U.K. Customs regulations.
6. Storing usually done by crew.

SHIP SUPPLY SERVICE:

1. General Marine Services Limited (Tel: (0624) 22364 or 28904), who operate the pilot launch and ship to shore transfers of personnel, stores, etc. This launch is kept afloat and a 24 hour-service is available.
2. Laxey Towing Company Limited operate one tug of 420 h.p., and two dumb barges. This company carries out towing and lighterage operations in addition to the transport of cargoes by barge. Tel: (0624) 23556; after hours (0624) 781724.

There is no helicopter service on the Island.

REGULATIONS: No unusual regulations.

DELAYS: Delays can be expected due to tidal conditions, or awaiting a berth; also delays caused by N.E. gales, which make Douglas Outer Harbour untenable.

AUTHORITY: Isle of Man Harbour Board, Sea Terminal Building, P.O.Box 11, Douglas, Isle of Man. *Tel:* (0624) 23813, Ext. 153. *Telex* 629335. *Contact:* Captain W. B. Kinley, Chief Harbour Master.

DOVER: 51.07 N. 01.18 E. (See Plan)

PORT LIMITS: The seaward boundary of the Port extends 1 mile of both the Eastern and Western entrances.

DOCUMENTS: Required on arrival:

Crew List H.O. Form I.S.6. or IMO FAL Form 5 (in duplicate).
Crew Declaration Form C.142 (in duplicate).
Ship's General Declaration (in duplicate) C13.
Ship's Surplus Stores Declaration (in triplicate) C14.
Derat Certificate available for inspection.

It is required to report and clear a vessel at Customs House i remaining in port more than 24 hours for loading and discharging cargo or embarking and disembarking passengers, with following:

Passenger List. Cargo Manifests (2 copies). Ship's documents.

PILOTAGE: Requests for Pilot normally made by local Agent.

Dover bound vessels from Westward, subject to compulsory pilotage must embark their Pilots at a position 1.5 miles S.W. of Folkestone Harbour. Such vessels should inform the Folkestone Pilot Station o their ETA 6 hours and 2 hours in advance.

Folkestone Pilot Station is situated close Westward of the root of the Breakwater. Pilot launches have black hulls and white wheelhouses and display the pilot flag by day and exhibit pilot lights by night. When embarking/disembarking a Pilot from these launches, headway should be maintained. The pilot station and launches are equipped with VHF. Vessels leaving Dover Westbound must be under pilotage to this same position.

Dover bound vessels from Eastwards, subject to compulsory pilotage and requiring a Pilot off Dover, should report their ETA 12, 6 and 2 hours in advance to Dover Port Control, giving g.r.t. and maximum draft. Such Pilots are embarked 1 mile S.E. of the Eastern Entrance, the pilot boats are operated by the Dover Motor Boat Company.

Dover Port Control maintain a 24 hour watch on Channels 74, 16 and 12.

Note: Pilotage arrangements will change late 1988 as a result of the 1987 Pilotage Act. Details not available.

DEEP SEA AND COASTAL PILOTS: For Channel, North Sea and British Coast.

Contact agency 48 hours before arrival by radio, giving ETA Dover and destination port(s).

Agencies are: "Hutchinson Gravesend" and "Hammond Dover".

On approaching Dover contact Port Control by VHF for instructions.

Pilots will also board at any U.K. or continental port as required.

ANCHORAGE: Limited space available in Outer Harbour. Contact Port Control in advance for instructions.

The Outer Harbour comprises an area of approximately 600 acres. The Northern extremity indicated by two buoys 'East' and 'West' and 4 intermediate marker buoys, the Southern extremity denoted by a line through the Southern most tip of the Prince of Wales Pier and the Southern most tip of the Eastern Arm. The Eastern boundary is formed by a S.E.'ly line drawn through East Buoy and the Western boundary is formed by a S.E.'ly line drawn through West Buoy.

The maximum depth at MLWS is 7.3 m.

RESTRICTIONS: Attention is drawn to the strict requirement of obtaining permission from Port Control to enter or leave the harbour.

It will be noted that although the traffic control signal may be exhibited for entry/departure, every vessel manoeuvring to enter or leave the port is required to obtain specific permission to enter or leave, as the case may be.

Vessels awaiting permission to proceed should keep at a safe distance of at least 1.5 miles clear of the entrance until so authorised. Responsibility for entering or leaving with caution and the safe navigation of each vessel subsequent to the receipt of permission to proceed continues to remain the responsibility of the Master.

Explosives – Dangerous Cargo: Declaration is to be made and permission obtained prior to entering the harbour. Dover Harbour Board is not compellable to receive within the harbour any articles which in their opinion would endanger safety of harbour or vessels or goods.

HEALTH: Pratique, obtained by radio via Coastguard Station giving name of ship, ports of call during voyage, nature of cargo, number of crew and passengers, port of destination and Agent, condition and health of all on board with details of any sickness. Coastwise vessels from U.K. ports have automatic Pratique.

Also see "Health – All Ports" before first U.K. port.

RADIO: Vessels from East use North Foreland Radio call sign GNF and vessels from Westward use Niton Radio call sign GNI.

RADAR/VHF: Port Control and Admiralty Pier Signal Station are fitted with radar and VHF, vessels can make initial contact with "Dover Port Control" on VHF Channels 74, 16 and 12. Operational frequency is Channel 74. See "Pilotage".

TUGS: Two tugs of 2,900 h.p. each. Tug names 'Deft' and 'Dextrous'. Twin engined Voith Schneider. Tugs will normally join vessels inside harbour entrance, but may meet vessels outside by arrangement. Tug's rope used. Tug charges on application from Dover Harbour Board.

BERTHING: All berths in Outer Harbour can be reached at all times. There are 3 berths available on the Eastern Arm fitted with Yokohama fenders, minimum depth MLWS is 8.3 m. Berths are used for lay-by, general cargo and vessels taking water, stores and crew changes.

Those berths in the Wellington and Granville Docks can normally be reached from 1 hour before each high water. All berthing requirements are allocated by Port Control.

Western Docks: This comprises the International Hoverport, Jetfoil Terminal, the Admiralty Pier, and Train Ferry Berth, the Inner Harbour, Tidal Basin incorporating the tug haven, Granville and Wellington Docks.

Granville Dock: This dock is non-tidal and comprises an area of 4.5 acres with depths of water of 21 ft. (6.4 m.) at MHWS, 17 ft. (5.2 m.) at MHWN. The entrance is 65 ft. (19.8 m.) wide and depth on the sill at MHWS is 21 ft. (6.4 m.). Transit sheds and open storage space are available at the Dockside.

Berth No.	*Length* (m.)		
1/2	146	Fruit/Veg/General	Portal cranes
3	76	Fruit/Veg/General	Portal cranes
4	40	Lay-by/Ro/Ro	
5	73	For lay-by only (no hot work)	
6	137	Grain	No cranes
7	96	Coal/Limestone/Coke/Pumice (leased to Cory Bros.)	

Wellington Dock: This dock is non-tidal and comprises an area of 8 acres with depth of water 15 ft. (4.6 m.) at MHWS, 11 ft. (3.4 m.) at MHWN. The entrance is 70 ft. (21.3 m.) wide and depth on the sill at MHWS is 15 ft. (4.6 m.). Transit sheds and open storage space are available. A slipway 567 ft. (173 m.) in length is capable of taking private and commercial vessels on its cradle, up to 53.3 m. in length.

Berth No.	*Length* (m.)		
8	93	Private	
9	51	Lay-by/Grain	
10	98	Lay-by/Grain	
11	38	Private	
12	116	Sand/Ballast	
13	79	Private	
14	103	Private	
15	110	Fruit/Veg/General	No cranes (mobile only)

Prince of Wales Pier: This separates the inner and outer harbours. Please note that berthing alongside the Prince of Wales Pier is only permitted by special arrangement with the Harbour Superintendent.

Hoverport: All hovercraft services operate from the Hoverport adjacent to and West of the Prince of Wales Pier. "Hoverspeed" operate daily services for passengers and accompanied cars to Boulogne and Calais.

Admiralty Pier: Length 4,140 ft. (1,260 m.), with depths alongside ranging from 6.0 m. to 9.1 m.

There is one single width, single deck, multi-purpose Ro-Ro berth, other berths are used for passenger only services and for lay-bys.

At 150 m. from the base of the Admiralty Pier a jetty 75 m. in length has been constructed, to provide a breakwater for the jetfoil terminal contained to the North of this jetty. The entrance to the jetfoil terminal has been dredged to a depth of 5.0 m. below chart datum. Jetfoils operate daily services to Ostend for foot passengers only.

Train Ferry Berth: Situated on the Admiralty Pier and is operated by Sealink UK for British Rail and SNCF. Trains run direct into the ferries which operate daily services of passengers and freight to Dunkirk throughout the year.

Tidal Basin: This forms the entrance to the Wellington and Granville Docks and is entered between the Admiralty and Prince of Wales Piers. It comprises an area of approximately 12 acres.

The entrance is 140 ft. (42.7 m.) wide, with a depth of 10.8 m. at MHWS. There are 2 berths in the Tidal Basin, Nos. 16 and 17. No. 16 has a length of 300 ft. (91 m.). No. 17, length 360 ft. (110 m.) used for berthing small boats.

A tug haven has been constructed in the Tidal Basin adjacent to Clarence Quay. The jetty 45 m. in length is positioned perpendicular and to the Southern end of Clarence Quay. To the North of the new breakwater is positioned a pontoon 90 m. long parallel to Clarence Quay, providing berths for all harbour craft including the 2 tugs, dredger, patrol launch, work boats and RNLI Lifeboat. Private berth users will not be allowed to use the berth without express permission from the Harbour Superintendent or Duty Marine Officer.

Eastern Docks:

The docks comprise the Eastern Arm and Car Ferry Berths.

Car Ferry and Freight Terminal: Operated by Dover Harbour Board. Berth No. 1, situated at the North end of the Eastern Arm, is a general purpose Ro-Ro berth for all classes of Ro-Ro vessels.

Berths No. 2 and 3, situated either side of Pier A are for large Ro-Ro ferries of length 168 m. and beam 28 m. with double deck and double width loading bridges. Berth No. 4 being situated to the Westward on Pier 'B', Berths No. 5 and 6 situated at Pier 'C', with double lane loading bridges of 23 m. plus covered passenger bridges. The car ferry/freight berths provide berthing for vessels up to 150 m. in length with depths of water of 7.0 m. at MLWS. Berths are connected with loading bridges to enable cars, coaches and freight to drive on direct on board the vessels, operating to Calais, Boulogne, Ostend and Zeebrugge. Shore facilities provide modern reception buildings, a new passenger handling complex, Customs clearance halls, restaurant, banking facilities, shipping operators' offices, spacious assembly car parks.

BULK HANDLING FACILITIES: 2×550 t.p.h. shiploaders for grain operated by Dover Stevedoring Co. Ltd.

CRANES: *Enclosed Docks:* There are 5 electrical portal cranes of SWL 3 tonnes installed at Berths 1, 2 and 3 in the Granville Dock also 2 mobile cranes SWL 20 tonnes available for cargo handling. The 2 mobile cranes may be employed for other duties. Hire charges on application to Dover Harbour Board.

Eastern Docks: Two container gantries, 2×20 tonnes SWL are available for hire.

CARGO HANDLING FACILITIES: Seven berths equipped for handling scheduled Ro/Ro traffic.

STEVEDORES: No particular ETA required as ship's Agent makes all necessary arrangements.

MEDICAL: Medical assistance can be arranged by Agent to vessels passing Dover Harbour. Doctor will board a vessel in English Channel or on arrival at anchorage in Outer Harbour. Hospital facilities are available.

DENSITY: 1020.

FRESH WATER: Available to all vessels by pipe-line 25 t.p.h.

FUEL: Gas oil available from Shell Mex & B.P. Ltd., and Esso. 24 hours notice required.

GANGWAY/DECK WATCHMEN: Supplied on request.

OPENING/CLOSING HATCHES: By crew.

CERTIFICATES: Certificates to be obtained for foreign clearance: Register, Load Line, Safety Construction, Passenger and Safety Equipment.

IDENTIFICATION CARDS: Are necessary, plus passes for ship's personnel at Eastern Arm berths having to pass through Eastern Docks Terminal. Passes obtainable from Mooring Party foreman.

CONSULS:

France	Dover 204080
Italy	Folkestone 53692
Denmark	Dover 201201 (office) Dover 203333 (night)
Finland	
Germany F.R.	
Iceland	
Netherlands	
Norway	
Spain	
Sweden	

REPAIRS: Facilities available for minor engine repairs. Radio and Radar repairs also possible.

REPATRIATION: All facilities exist.

AIRPORT: Most repatriations by air through London/Gatwick and London/Heathrow.

TIME: Local time: BST (British Summer Time) 1 hour in advance of GMT. Reverting to GMT in Winter months (late March to late October).

HOLIDAYS: Official holidays: 1st January; Good Friday; Easter Monday; May Day Holiday; Spring Holiday (end May); August Bank Holiday; Christmas Day; Boxing Day.

The port is open every day for cargo and passengers, except Christmas Day.

POLICE/AMBULANCE/FIRE: Dial 999.

TELEPHONES: Not available.

BANKS:

Barclays Bank Ltd., Tel: Dover 214516.
Lloyd's Bank Ltd., Tel: Dover 240808.
Midland Bank Ltd., Tel: Dover 201131.
National Westminster Bank Ltd., Tel: Dover 201308.
National Westminster Bank Ltd., (Car Ferry Terminal, Eastern Docks), Tel: Dover 201474 or 202744.
Trustee Savings Bank, Tel: Dover 202037.

SERVICES: Repairs to radar equipment, compass adjusting, supply of charts and crew changes can be arranged outside Dover Harbour through local Agents at all times.

SHIP SUPPLY SERVICE: The Dover Motorboat Co. Limited, a Hammond subsidiary, operates a 24 hours a day launch service to provide vessels off the port with Pilots and stores, etc., telephone (0304) 206809 or alternatively call the Dover Harbour Board Port Control on VHF Channel 74 to contact the Dover Motorboat Co. and allocate a working channel.

SHORE LEAVE: Allowed, subject to Port Passes (see "Identification Cards").

AUTHORITY: Dover Harbour Board, Harbour House, Dover, Kent CT17 9BU, United Kingdom. *Tel:* Dover (0304) 240400. *Telex:* (Harbour House) 965619, (Eastern Docks – 24 hours) 965620. *FAX:* (0304) 240465. *Cables:* Harboard, Dover. *Contact:* J. Sloggett, Managing Director.

AGENT: George Hammond (Shipping) Ltd., Limekiln Street, Dover, Kent CT17 9EE. Tel: (0304) 201201, (0304) 203333 after hours. Telex: 96115. Fax: (0304) 240374. Lloyd's Agent and Agent for leading P & I Clubs.

DUNBAR: 56.01 N. 02.31 W. (See Plan)

PORT LIMITS: A line drawn across seaward end of entrance channel.
DOCUMENTS: Standard U.K. documents.
PILOTAGE: Local pilotage may be obtained.
APPROACHES: Leading lights bearing 198°, occulting green 6 secs.
ANCHORAGES: Safe anchorage in Castle Bay except in Northerly gales.
RESTRICTIONS: No berthing if heavy swell entering harbour.
MAX. SIZE: LOA 50 m., draft 4 m. at HWS. Vessels lie aground on sandy bottom at LW.
HEALTH: Standard U.K. procedure.
RADIO: Forth Radio.
VHF: None.
RADAR: None.
TUGS: None.
BERTHING: Prior permission must be obtained for vessels of 20 m. LOA or greater.

Cargo unloaded by ship's own gear.

CRANES: None.
MEDICAL: No medical facilities at harbour.
FRESH WATER: Available on quayside by hose connection.
FUEL: From road tanker by prior arrangement.
CONSULS: None.
REPAIRS: Minor repairs possible.
SURVEYORS: Lloyd's at Leith Docks.
GANGWAY/DECK WATCHMEN: By arrangement with Harbour Master.
CARGO GEAR: By ship's gear or mobile crane (by arrangement with Harbour Master).
AIRPORT: Edinburgh (Turnhouse) 35 miles.
TIME: GMT. GMT plus 1 hour in Summer (late March – late October).
HOLIDAYS: None.
POLICE/AMBULANCE/FIRE: Dial 999 in an emergency. Police, Tel: Dunbar 62718; Ambulance, Tel: Haddington 3307.
BANKS: Local branches of Bank of Scotland and Royal Bank of Scotland only.
EMERGENCY CO-ORDINATION CENTRE: H.M. Coastguard, Maritime Rescue Sub-Centre, Forth District, Crail. Tel: Crail 666.
STORING: Small quantities of stores can be loaded from quay. Trucks can come alongside at quay.
AUTHORITY: Department of Water and Drainage, Lothian Regional Council, Alderston House, Haddington, East Lothian EH41 3SY. *Tel:* Haddington 4131. *Telex:* 727 586. *Contact:* T. Brown, Harbour Master, *Tel:* Dunbar 63005.

DUNDEE: 56.28 N. 02.57 W. (See Plan)

PORT LIMITS: A vessel is considered to be an "arrived ship" when:
(a) For berthing turn-arrival at Fairway Buoy.
(b) For Laytime – usually "off or at the berth" and subject to Charter-Party terms.

DOCUMENTS:
3 Crew Lists.
3 Passenger Lists.
1 Tobacco Manifest.
1 Health Declaration.
Cargo Manifests.
Bills of Lading.
Derat Certificate.
Lights Certificate.

PILOTAGE: The port is approached by a well-defined main channel with up-to-date navigational aids. To provide information on navigation and safety the Authority operates a Port Control Service which maintains a 24 hour listening watch on VHF Channel 16 (156.8 MHz) and also operates on Channels 12 and 11 (156.6 MHz and 156.5 MHz).

Pilotage is compulsory in Dundee Pilotage District. Pilots board incoming vessels within a 3-mile radius seaward of Tay Fairway Buoy or as close to as weather permits. The pilot boat is only on sea station when shipping is expected and accurate ETAs are essential.

ETA should be given 6 hours before arrival either by radiotelephone link call to Dundee Port Control 24121 or by radiotelegram to "Dockyard Dundee" Dundee or by telex 76644 Dpa G. Amendments should be made up to 2 hours before the original ETA. When within VHF range (approx. 25 miles from Tay Fairway Buoy) ETAs may be confirmed by contacting "Dundee Harbour Radio" on Channel 16 and transferring to Channel 12 to pass messages.

Pilot boats, when on station, keep a listening watch on Channel 16 and transfer to Channel 6 (156.3 MHz) to pass messages.

ANCHORAGES: Pilots are instructed where to anchor vessels. There are 3 deep-water anchorages to accommodate vessels up to 28 ft. draft. Two anchorages for vessels up to 22 ft. draft, and other minor anchorages.
RESTRICTIONS: Tide and draft 28.5 ft. at MHWS. Vessels enter 2 hours before HW. 26 ft. at MHWN. Vessels enter 2 hours before HW.
MAX. SIZE: Length 600 ft./700 ft., beam 90 ft., draft 28.5 ft.
HEALTH: Health declaration on arrival – if clean, automatic Pratique. Suspect disease as per international requirements. Pratique automatic if already called at another port.

Also see "Health – All ports" before first U.K. port.

RADIO: Any UK coast station. Nearest stations – Stonehaven and Forth.
VHF: See "Pilotage" and "Tugs".
TUGS: Towage is operated by the Authority's tug – 'Abertay' (1,280 h.p. Bollard pull 17 tons). Tug joins vessel in the vicinity of West Ferry. Tug operates on Channels 16, 12 and 6. Tug lines optional, charge made if tugs lines used.
BERTHING: See "Table" below.

Deep-drafted vessels must arrive at the Fairway Buoy at least 2 hours before HW to berth on same tide.

Wharves	Length	Depth MLWS	Cranes No.	Capacity	Type	Shed Accommodation	Other Facilities
King George V	445 m. (1,459 ft.)	8.6 m. (28 ft.)	3 1	7 tonne 5 tonne	Grabbing/General Grabbing/General (Hydraulic/Mechanical)	15,873 sq.m. (19,000 sq.yds)	Road Connections Open Container Area
Eastern	213 m. (700 ft.)	6.1 m. (20 ft.)					Road Connections Ro-Ro Berth (42 tons) Trailer Parks
*Princess Alexandra	256 m. (840 ft.)	6.7 m. (22 ft.)	Mobiles up to 30 tonnes can be arranged			2,590 sq.m. (3,100 sq.yds.)	Open Areas
*Queen Elizabeth	194 m. (636 ft.)	7.6 m. (25 ft.)	2	5 tonne	General	3,592 sq.m. (4,300 sq.yds)	B.P.Oil Base Open Areas Road Access
*Caledon West	137 m. (450 ft.)	5.5 m. (18 ft.)	Can be arranged	Mobile	Heavy Lift	3,074 sq.m. (3,680 sq.yds.)	Open Areas Warehouse adjacent
Caledon East	150 m. (492 ft.)	4.87 m. (16 ft.)			Heavy Lift Mobile	—	Open Areas Warehouse Area
*West Quay (Tidal Harbour)	76 m. (250 ft.)	5.2 m. (17 ft.)	Mobiles up to 30 tonnes can be arranged				Open Areas
*Prince Charles	125 m. (410 ft.)	Davy/GVA 8.0 m. LAT	Marine Repair and Fabrication Berth				

*North Sea Oil Support Berths

Docks	Water Area	Quayage	Entrance		Cranes	Shed Accommodation	Other Facilities
			Depth	Width			
Camperdown	3.04 ha. (7.5 acres)	739 m. (2,425 ft.)	5.5 m. (18 ft.)	16.5 m. (54 ft.)	Can be arranged	5,430 sq.m. (6,500 sq.yds.)	Timber Berths
Victoria	4.33 ha. (10.7 acres)	1,176 m. (3,860 ft.)	4.9 m. (16 ft.)	16.5 m. (54 ft.)	Can be arranged	6,934 sq.m. (8,300 sq.yds.)	Dry Docks Repair Berths

CARGO HANDLING FACILITIES: All types of general cargo are handled, including packaged timber and side-loading of forest products. Grab facilities for bulk material. 4 conveyors are arranged for grain and suitable bulk materials.
Cold Storage: Private cold storage in the vicinity of the port is accessible on application.
Containers: Container handling with ship's gear or mobile cranes and stevedores' transporters.
Cranage: Wide range of cranage, both mobile and portal, with grabbing facilities. Heavy lifts up to 100 tonnes can be arranged.
Grain Handling: Grab facilities. 5 conveyors are available.
Grain Storage: Temporary shed accommodation leased by Grainfax.
Minerals Handling: Lander hydraulic grabs. Pressure discharge of cement and barytes.
Sheds: All riverside berths are equipped with transit sheds not less than 30.5 m. wide, fronted by broad concrete aprons. Total shed area is 37,075 sq.m. Within the harbour area there is extensive storage area and warehouse facilities.
Ro/Ro Berth: At Eastern Wharf. Accepts vessels up to 25 m. beam with stern ramps up to 12.5 m. wide. Linkspan single-lane carriageway 4 m. wide. Road vehicles up to 42 tonnes. Trailer park adjacent. Also 2 Secure Trailer Parks.
Timber Yards: As a major East Scotland port for forest product imports, the port has extensive private yards and open-stacking areas for timber.
STEVEDORES: One ETA to Agent or port suffices for all services.

Full stevedoring facilities are arranged by: Dundee Stevedores and Porters Ltd., Victoria Lockway, The Harbour, Dundee. Tel: 0382 21571.
MEDICAL: Advance notice required for ordinary medication for arrivals week-ends. Hospitals and casualty stations available.
TANKERS: Diameter of hoses – 8 in. Slop discharge facilities not available. 2 tanker berths – 28 ft. draft. Discharge only at West Berth.
DENSITY: 1005 at MLWS. 1002 at MHWS.
FRESH WATER: Available, 24 hour service. Delivery, hose from quays. Rate, 30 t.p.h.
FUEL: Bunkering by direct pipe-line is readily available to vessels up to 300 ft. (92 m.) in length with 18 ft. (5.5 m.) draft or by road tanker to any vessel. Large quantities of any fuel type by coastal tanker, subject to 3 or 4 days' notice.
FIRE PRECAUTIONS: Regulations are handed to Master on arrival.
GANGWAY/DECK WATCHMEN: Recommended for large vessels.
OPENING/CLOSING HATCHES: By crew.
CERTIFICATES: As required by Department of Transport (Lifesaving, Radio, Registry, Drugs, Crew Agreement, Load Line) also Derat.
CUSTOMS ALLOWANCES: Foreign-going: 25 cigarettes or 1 oz tobacco per day. 8 days allowance granted. Home trade: same as for foreign-going but only 4 days allowance granted. Spirits: quarter pint per day for 4 days, further issue granted after 4 days for foreign-going only.
CONSULS:

Denmark	23044	Netherlands	23111
Finland	23111	Norway	23044
France	21252	Sweden	21061
Italy	65222		

REPAIRS: Dundee can offer fitting-out wharves and heavy lift capacity. Various local firms undertake engine and electrical repairs to vessels. Construction, repair and maintenance services for the offshore oil industry are now well developed.
DRY DOCK: Dry dock available for vessels of up to 500 ft. length, 46 ft. beam, draft 13 ft. 6 in. Springs.
SURVEYORS: Lloyd's and D.O.T.
REPATRIATIONS: Facilities exist.
AIRPORT: Dundee Airport: Only U.K. flights and charter flights available.
TIME: British Standard Time (GMT plus 1 hour). GMT in Winter months.
HOLIDAYS: 1st, 2nd and 3rd January; 2nd Monday April; 1st Monday in May; Last Monday July; 1st Monday October; Christmas Day and 26th December.
POLICE/AMBULANCE/FIRE: Tel: 999.
TELEPHONES: Quay telephones installed.
SHORE LEAVE: At the discretion of the Master.
IDENTIFICATION CARDS: Not required.
GENERAL:
Electric Power: Electric power to vessels available at repair berths.
Fire Fighting: Tayside Fire Brigade Services.
Mooring: The Authority provide boatmen's services for the mooring and unmooring of ships.
Motor Vehicle Compounds: An area of 1 acre which can be extended.
Navigation Lights: The main estuarial approach light is the Abertay Lightfloat supported by port and starboard buoys marking the main channel as detailed in Admiralty Chart 1481.
Passenger Cruise Liners: Dundee is a port of call for passenger cruise liners at riverside berths. The city has quick access to some of Scotland's finest scenery and places of historic interest.
Policing: Effective security is provided by Tayside Police.
Ships Stores: Ship supplies are offered by a number of private firms with premises adjacent to the harbour. These include the special requirements of the offshore oil industry.
Steelyards: The port has 3 road transport weighbridges and portable weighbridges in sheds for sampling, etc.
Tidal Reference: Tide heights are related to Lowest Astronomical Tide (Admiralty Chart Datum).

Range of tides at HWN – 4 m. (12 ft.).
Range of tides at HWS – 5.2 m. (17 ft.).
REGULATIONS: Absolutely no smoking, penalty £50.
AUTHORITY: Dundee Port Authority, Harbour Chambers, Dock Street, Dundee DD1 3HW, United Kingdom. *Tel:* (0382) 24121. *Telex:* 76644 DPA G. *FAX:* (0382) 200834. *Cables:* Dockyard, Dundee. *Contact:* John J. Watson, Chief Executive. Captain John T. Fyffe, Harbour Master.

DUNOON: 55.57 N. 04.55 W. (See Plan)

Priority is given to the ferry services using this pier, although other shipping may use the facility.

The wharf has two access arms to shore and an adjustable Ro/Ro link span for side loading vessels. The main berth is 150 m. long with a depth of 4.3 m. below Chart Datum. Fresh water is available. VHF Channels 16, 12 and 31 are available, call sign "Dunoon Pier".
AUTHORITY: Strathclyde Regional Council (SRC), Department of Roads, Strathclyde House, 20 India Street, Glasgow G2 4PF. *Tel:* 041-227-2475. *Contact:* W. S. McAlonan, Director. Piermaster, *Tel:* 0369 2652.

FALMOUTH: 50.09 N. 05.04 W. (See Plan)

DOCUMENTS:
2 Crew's Effects Lists (C142).
1 Ship's Report by Master, or Authority (C74).
1 Home Office Form IMO FAL Form 5.
2 General Declarations (C13).
1 Certificate of Deck Cargo Tonnage.
Light Certificate if applicable.
1 Port Dues Certificate
Ship's Certificate of Registry.
Mercantile Marine Office Certificate – for British ships only.
Load-line Certificate.
Safety Equipment and Construction Certificates, Radio Certificate.
Derat Certificate.
Agents to complete Health Arrival Report.

The Crew Effects Lists (C142) and the General Declarations (C13) must be delivered to the Custom's Office if boarded on arrival. If not boarded on arrival one copy of each must be delivered to the designated post box at the Customs House within 3 hours of arrival.
PILOTAGE: This is a compulsory pilotage district with certain exemptions. The Pilot will board from a cutter 3 miles South of St. Anthony's Lighthouse. Pilots maintain VHF watch on Channel 16 and can be contacted through coast stations throughout 24 hours – Call sign "Falmouth Pilot Radio"; preferred working frequency Channel 9.
ANCHORAGES: Vessels in excess of 203 m. usually anchor in Falmouth Bay. Other vessels in outer harbour. Mooring Buoys available.
MAX. SIZE: See "Tankers".
HEALTH: See "Health – All ports" before first U.K. port.
VHF: Falmouth Harbour Radio (office hours) Channels 16, 14, 13 and 12.
TUGS: 4 tugs available. On call during working hours and outside of hours when required if advance notice given. Tug's lines are to be used.
BERTHING:

Name	*Length of Wharf* (m.)	*Length of Berth* (m.)	*Depth (at C.D.) Alongside* (m.)
County Wharf	204.0	160.0	8.8
Duchy Wharf	235.5	190.0	8.8
Western Wharf	342.5	342.5	6.1 – 7.3 (Cat)
Kings Jetty			
South Side	246.0	183.0	7.3
North Side	240.5	192.0	7.3
Empire Jetty			
South Side	203.5	122.0	7.3
North Side	206.0	168.0	5.5
Queens Jetty			
South Side	159.0	152.0	6.4
North Side	189.5	189.5	7.3
Northern Arm			
South Side	209.5	198.0	6.1
North Side	209.5	209.5	6.1
Eastern Breakwater	291.0	150.0	8.5
		180.0	7.3
		210.0	5.3

13 deep-water berths. Combined frontage 8,000 ft. Vessels of 920 ft. have been accommodated. Draft LWOST 5.5 m. – 8.85 m. depending on berth.
Dry Bulk Facilities: 2 grabbing cranes, each capable of discharge rates of up to 1,000 tons per day. 3 elevators capable of loading 1,000 tons per day. 3,500 sq.m. of covered storage for bulk, palletised or general cargo.
Cross Roads Buoy and St. Just Moorings: Max. size of vessel normally permissable on the Cross Roads Buoy, except by special arrangement with the Harbour Master: Length overall: 183 m. (600.5 ft.) Draft: No limit. Anchor cable size: 77 mm. SQ (U2) steel.

Max. size of vessel on fore and aft St. Just Mooring normally permissable except by special arrangement with the Harbour Master: Length overall: 205 m. (672.5 ft.) Draft: No limit. Anchor cable size: 82 mm. SQ (U2) steel.
Caldy and Frigate Buoys: Max. size of vessel normally permissable on either of these buoys except by special arrangement with the Harbour Master: Length overall: 61 m. (200 ft.) Draft: 3.5 m. (11.5 ft.). Anchor cable size: 28 mm. SQ (U2) steel.
Offshore Exploration: Falmouth Docks and Engineering Co. operates an offshore supply base with all services and on an exclusive basis.
STEVEDORES: Employed through The Falmouth Docks and Engineering Co.

TANKERS: 3 Tankers berth at Eastern Breakwater provided draft not more than 8.3 m. There is a tank-cleaning installation available. Tankers of 256 m. with draft 17 ft. forward and 23 ft. aft have been accommodated at Eastern wharf.

Coastal Tankers berth at Boyers Cellars, max. draft 4.9 m.

FUEL AND FRESH WATER: Full marine bunkers service by Falmouth Oil Services (Tel: 01-946 9912). Gas oil is available and water is piped on the Dock Company wharves. At the repair berths, or in Carrick Roads or Falmouth Bay, bunkers and water must be delivered by barge. Water by tug in Carrick Roads or Falmouth Bay.

CONSULS: Denmark, France, Germany F.R., Greece, Netherlands, Norway and Spain represented by G. C. Fox & Co.

GANGWAY/DECK WATCHMEN: Available in shipyard on request.

OPENING/CLOSING HATCHES: Normally carried out by crew.

AIRPORTS: London (Heathrow) one hour by air from Newquay Airport, or 4.5 hours by train from Truro.

Distances from Falmouth: Newquay – 28 miles. Bristol – 183 miles. London – 277 miles.

MEDICAL: Doctors and hospital facilities available. Agents should be advised in advance of any medical attention required.

CUSTOMS ALLOWANCES: Usual U.K. allowances.

REPAIRS: All ship repairs can be carried out by Falmouth Shiprepair Ltd. Contact: Iain Campbell, Commercial Director.

DRY DOCKS: Falmouth Shiprepair Ltd. (Tel: (0326) 311400).

Total wharf space: 2,438 m. Minimum depths alongside 6.10 m. to 8.53 m. LWOST. 24 hour access.

Cranage up to 48 tons.

Services: Electricity, water, steam and air.

Gas-freeing and tank cleaning facilities.

Bunkering.

Dry Docks	*Length* (m.)	*Breadth* (m.)	*Depth on sill at HWOST* (m.)
No. 1	169	22.9	7.9
Queen Elizabeth Dock	259	39.6	11.0
No. 3	229	26.8	8.5
No. 4	198	26.2	8.2

Dry docks can accommodate vessels up to 100,000 d.w.t.

Repairs can be carried out at 13 deep-water berths and in deep-water harbour.

Engineering, fabrication and electrical services; grit blasting and high pressure water-washing. Sea-going maintenance teams.

Personnel experienced in handling all types of cargo, including explosives. Rail links to berths. Open storage, warehousing and office accommodation. Diving services. Management and secretarial services. Helicopter Pad. Security – 24 hour patrol.

REPATRIATION: Facilities available.

TIME: British Standard Time is GMT. British Summer Time – GMT plus 1 hour (Summer).

HOLIDAYS: 1st January; Good Friday (variable date); Easter Monday (variable date); Spring Bank Holiday (variable date); August Bank Holiday (variable date); Christmas Day (25th December); Boxing Day (26th December).

POLICE/AMBULANCE/FIRE: Dial 999 from any telephone and ask for service required. Or County Police, Falmouth 72231; Dock Police, Falmouth 311400; County Fire Service, Falmouth 314274; Docks Fire Service, Falmouth 311400; Ambulance, Truro 2349.

EMERGENCY CO-ORDINATION CENTRE: Coastguard MRCC, dial 999 or Falmouth 317575 or VHF Channel 16 – Falmouth Coastguard.

TELEPHONES: Can be placed on board in dry dock and most repair berths but not at Eastern Oil Wharf.

SERVICES: *Storing:* Storing by sea or alongside and no restrictions on vehicle access at most berths.

Tank Cleaning: Full tank cleaning service and slops receipt service available on the Eastern Jetty.

SHORE LEAVE: Granted.

AUTHORITY: Port of Falmouth, Falmouth Harbour Commissioners, 44 Arwenack Street, Falmouth TR11 3JQ. *Tel:* (0326) 312285 or 314379. *Telex:* 45349 Falhar G. *Contact:* Captain D. G. Banks, Chief Executive and Harbour Master.

Falmouth Shiprepair Ltd., The Docks, Falmouth TR11 4NR. *Tel:* (0326) 311400. *Telex:* 45536 Faldoc G. *FAX:* (0326) 319433. *Contact:* Iain Campbell, Commercial Director. T. K. Duncan, Managing Director.

FELIXSTOWE: 51.57 N. 01.21 E. (See Plan)

DOCUMENTS:

Stores List.

Crew List.

Health Declaration.

Manifests.

Bills of Lading.

Ship's papers, including Register, Load-line Certificate, Safety Equipment Certificate, Radio Certificate, U.K. Light Dues, if any.

PILOTAGE: Pilots embark and disembark in the vicinity of the Sunk Light vessel by fast launch.

Vessels bound to and from the North whose course does not take them past the Sunk Light Vessel may use the pilot station 'Cork' in the vicinity of the South Bawdsey Buoy. The costs of these services are the same at both stations.

Inwards: Inward bound vessels for the Sunk and the Cork must give 8 hours' advance ETA to the Harwich Pilot Station stating destination, gross tonnage, maximum draft and ETA. Confirmation to be given at least 3 hours before arrival. In the case of vessels engaged in the short sea trade the time of giving the compulsory ETA is accepted as the time of leaving the previous port, if this time is less than 8 hours. Failure to comply with the above will incur surcharges, and may result in delays.

Contact to be made to Harwich Pilot Station by:

(i) telephone Harwich (0255) 503129 or 506300
(ii) telex 98472 'Pilhar G'
(iii) VHF 'Harwich Pilot Radio'. Calling Channel 16 and switching to working Channel 9.

Long range ETA's to be made by telex or radio link call.

Outwards: Pilot should be ordered through Harwich Pilots at least 2 hours in advance, giving maximum draft and whether bound via Sunk or Cork.

Sunk Station: Served by fast launch from Harwich. The black hulled launches have orange superstructure and are marked 'Trinity House Pilots'. Precise area of working, dependent on weather, can be found by contact with Harwich Pilot Radio, Channel 16.

Vessels bound for Felixstowe may embark their Pilot at previous continental port or from Brixham in the English Channel, by prior arrangement with the Harwich Pilot Station.

Cork Station: Pilots board, weather permitting, in the vicinity of the South Bawdsey – Harwich Approach Buoys by fast launch from Harwich. Contact with Harwich Pilot Radio as above.

Also see "Radar/VHF".

Note: Owners, Masters and Agents should note that the Haven Ports Pilotage Service, on behalf of the competent harbour authorities in the area, including Felixstowe, will be assuming responsibility for pilotage within the currency of this publication. Any changes in procedures will be widely advised to the shipping community before they are introduced.

Further information may be obtained from the Director of Pilotage, Tel: (0255) 504303. Telex: 987304.

ANCHORAGES: For vessels needing to anchor at the Sunk to await Pilot or berthing:

(i) Recommended Deep Water Anchorage approximately 2.5 miles East of Sunk Light Vessel.
(ii) King's Channel Anchorage approximately 3 miles S.W. of Light Vessel.

For vessels proceeding via Cork:

(i) Recommended Deep Water Anchorage at the Bawdsey Anchorage.
(ii) The Cork Anchorage North of the Harwich Channel Approaches.

Inside Harwich Harbour are the:

(i) Inner Anchorage, South of the Pitching Ground Buoy.
(ii) For small vessels, the Shelf and River Stour Anchorages.

Information on all these anchorages is available from Harwich Harbour Radio VHF Channel 71. See "Radar/VHF" – "Harbour Operations Service".

APPROACHES: Traffic Regulatory Systems in effect. Details of current harbour Bye-laws and General Directions for navigation available. See "Radar/VHF" – "Harbour Operations Service".

RESTRICTIONS: Approach Channel dredged to 11.0 m. (below Chart Datum). Deepest water alongside is 13.4 m. (C.D.) at Trinity Container Terminal. At least 3 ft. keel clearance required at all times between channel bed and keel of vessel.

MAX. SIZE: General cargo vessels: Dock Basin 145 ft. wide entrance. Depth 6.7 m. (C.D.). No lock gates. Suitable vessels able to leave on any state of tide.

North Quay: 195 m. in length.
South Quay: 186 m. in length.
East Quay: 131 m. in length.

Container Vessels: Landguard Container Terminal, depth 11.9 m. (C.D.) for 280 m. of quay, 9.75 m. (C.D.) for remainder. At Dooley Container Terminal, depth 11.6 m. (C.D.). Walton Container Terminal, depth 11.9 m. (C.D.). Trinity Terminal to the North of Walton Container Terminal, depth of 13.4 m. (C.D.).

Ro/Ro vessels Ferry Terminal: Ro/Ro Bridge No. 1: Vessels up to 184.6 m. overall, depth 7.3 m. (C.D.). Ro/Ro Bridge No. 2: Vessels up to 151.0 m. length, depth 7.3 m. (C.D.) Ro/Ro Bridge No. 3: Vessels up to 137.2 m. length, depth 7.3 m. (C.D.). Ro/Ro Bridge No. 4: Depth 9.75 m. (C.D.). Vessels up to 213 m. overall.

Tanker Jetty: Vessels 180 m. overall, depth 9.7 m. (C.D.).

All berths subject to siltation between maintenance dredging periods.

HEALTH: Pratique flag in daylight and lighted signals in darkness to be displayed by vessel on arrival. Health Declaration to be given in writing or verbally by Master on arrival. If disease suspected, then report to pilot station who will advise Health Authorities.

Also see "Health – All ports" before first U.K. port.

RADIO: North Foreland, Humber, Niton (or any other radio station convenient to vessel's position).

RADAR/VHF: *Harbour Operations Service:* A joint Operations Service is operated by the Harwich Harbour Board and Trinity House Pilots, and is provided from the Harbour Master's Office, Harbour House, Harwich. The Harbour Duty Officer and Trinity House Duty Pilot co-operate on a 24-hour basis to provide all vessels using the harbour with navigational information and advice. The following facilities are available:

(1) VHF Channel 16 – Calling and safety
Channel 71 – Prime Harbour Operations Channel
Channel 20 – Harbour Operations radar/fog
Information:
Channel 11 – Harbour Services frequency
Channel 9 – Pilotage working Channel
Channel 38 – Pilots' service Channel

(2) Telephones:
Harbour Operations and shipping information
Harwich (0255) 506535 (24 hours)
Pilotage Service
Harwich (0255) 503129

(3) Telex:
Trinity House Pilots 98472 PILHAR G
Harbour Operations 987304 HAROPS

The centre is equipped with comprehensive radio and telecommunications, advanced radar surveillance displays, VHF and direction finding equipment, electronic tide gauges, and wind instruments, to provide full and up to date navigational information to seafarers.

All vessels over 50 gross tons must carry suitable VHF R/T equipment, capable of communicating with the Harwich Harbour Operations Service (call sign "Harwich Harbour Radio") and must maintain a listening watch on Channel 71 (156.575 MHz) while navigating within the harbour and approaches. Vessels entering or leaving the harbour must contact the Operations Service for permission to navigate through the area, in accordance with the procedures laid down in current Harwich Harbour General Directions for Navigation.

Traffic regulatory procedures exist with respect to the Harwich Deep Water Channel and within other areas of the harbour, depending on circumstances. The Harbour Operations Service will keep vessels suitably advised.

TUGS: Up to 4 tugs (18 – 40 tons bollard pull) and 1 reserve tug join vessels in Harwich Approaches, or where ordered by Pilot. Tugs listen on Channel 16 and Channel 71 (24 hours). Main tug working Channel when engaged in towing is Channel 69.

In addition 3 dock tugs up to 11 tons bollard pull are available. Contact on Channel 71 or via Harbour Operations.

BERTHING: All berthing information available through Harbour Operations via Harwich Harbour Radio, who have direct links to Port Master's Office at the Port of Felixstowe.

CARGO HANDLING FACILITIES: *General Cargo Division:* Mobile pneumatic grain discharger, discharge rate 30 t.p.h. into silo with capacity of 3,500 tons.

Mobile cranes, capacity 27.5 tons. Scotch derrick crane, capacity 32 tons at 90 ft. radius.

Roll-on/Roll-off Division: No. 1 Berth: P & O European Ferries Terminal. Upper and Lower deck loading ramps. Electric travelling crane, capacity 32 tons at 110 ft., depth 23.3 ft.

No. 2 Berth: P & O European Ferries Terminal: One hydraulic loading ramp designed to carry loads up to 140 tons. Upper loading ramp designed to carry loads up to 32 tons. Least depth 25.3 ft. LWOST.

No. 3 Berth: Hydraulic loading ramp designed to carry two lanes of traffic with loads up to 140 tons. Electric travelling crane with capacity of 35 tons at 95 ft. radius, least depth 25.3 ft.

No. 4 Berth: Allows a combination of Roll-on/Roll-off and container vessels to be accommodated. The hydraulic loading ramp is designed to carry two lanes of traffic with loads of up to 140 tons.

STEVEDORES: 24 hours notice required by Agent to advise stevedores of vessel's ETA, in order to arrange berthing and allocation of labour. All stevedoring arranged between Dock Company and vessel's Agent.

MEDICAL: Prior notice desirable through Agent to arrange attention. All services available.

TANKERS: 4 in. and 6 in. connections. No slop facilities, except as required by MARPOL Regulations. No facilities for gas freeing alongside or in harbour.

One tanker berth available. Vessels up to 183 m. overall, 25,000 d.w.t. Depth of water 9.1 m. at C.D.

DENSITY: 1025 salt water.

FRESH WATER: Pipe-line connections to all quays. Delivery approx. 20 t.p.h. Barge service available for supplies to vessels at anchor.

FUEL: Marine diesel and gas oil available, pipe-line and barge delivery. 24 hours notice required.

FIRE PRECAUTIONS: Standard precautions at all berths.

GANGWAY/DECK WATCHMEN: Not compulsory. If required, cost negotiable.

OPENING/CLOSING HATCHES: Work undertaken by crew.

CERTIFICATES:

Valid Derrick and Rigging Certificates.
Ship's Register.
Load-line.
Safety Equipment.
Radio.
Derat.
Construction.
(Light Dues Receipts).

CUSTOMS ALLOWANCES: 100 cigarettes or equivalent in tobacco or cigars per man. 1 bottle spirits.

IDENTIFICATION CARDS: Not necessary if in possession of Seaman's Book or Passport.

CONSULS: Royal Norwegian Vice-Consul Ipswich (9) 59281; Royal Swedish Vice-Consul Felixstowe 278844; Icelandic Vice-Consul Felixstowe 285651/4; Netherlands and Germany F.R. Harwich 6666.

REPAIRS: Facilities exist for small repairs only.

DRY DOCKS: None available.

REPATRIATION: All facilities available.

AIRPORTS: Ipswich – 10 miles; Southend – 70 miles; Heathrow – 90 miles. International flights.

Air UK flights from Norwich to Aberdeen, Amsterdam, Bergen, Edinburgh, Humberside, Leeds/Bradford, London (Heathrow), Newcastle and Teesside. Internal and continental flights from Ipswich.

TIME: GMT. In Summer months, April to October, time advanced 1 hour.

HOLIDAYS: All normal Bank Holidays, but official notification of port closures for such holidays is given well in advance of relevant dates.

POLICE/FIRE/AMBULANCE: Emergency points on all quays. Tel: 4300 or, outside dock area, 999.

TELEPHONES: Shore connections available by prior arrangement for vessels on regular trades.

SERVICES: Most services available for dry cargo vessels, but no special tank cleaning or tank washing facilities for tankers.

SHORE LEAVE: No restrictions.

GENERAL: ETA to Agent required 72 hours, 48 hours, and 24 hours prior arrival.

DEVELOPMENTS: Trinity Terminal to be extended by 72 m. in the near future.

AUTHORITY: Felixstowe Dock & Railway Co.. European House, The Dock, Felixstowe, Suffolk IP11 8TB. *Tel:* Felixstowe (0394) 604500. *Cables:* Dock, Felixstowe. *Telex:* 98277 or 98535 (Operations). *Contact:* R.O. Guille, Chairman/Managing Director. A.R.G. MacLeod, Deputy Managing Director. Captain J. M. Bubb, Portmaster.

CONTAINER TERMINALS:

	Depth of Water at C.D.	*Length of Quay in metres (feet)*	*Quayside Cranes*	*Park Gantry Cranes*	*Forklift Trucks*	*Towing Units*	*Port Trailers*	*Remarks*
Landguard Container Terminal	11.9 m. for 280 m. of quay and 9.7 m. for remainder (dredged annually)	469.4 (1,540) 3 container berths	2×40 ton and 2×30 ton capacity cranes.	8 Paceco Transtainer cranes with a 35 ton capacity. (Rubber tyred with automatic lifting frame for containers.)	97 forklifts with a capacity of up to 40 tons, including 17 Short Mast Trucks, 49 paper clamp attachments. 12 pallet trucks, with a capacity of up to 2 tons.	112 elevating fifth wheel tug units.	338 fifth wheel trailers with a capacity of up to 50 tons.	This equipment also in the Dock Basin and Northern Roll-on/Roll-off Terminals.
Dooley Container Terminal	11.6 m. (dredged annually)	244 m. (800 ft.) container quay	3 container cranes with 40 ton capacity	5 Paceco Transtainer cranes with a 35 ton capacity. (Rubber tyred with automatic lifting frame for containers).				
Walton Container Terminal	11.9 m. (dredged annually)	305 m. (1,000 ft.) container quay	2 container cranes with 40 ton capacity	7 Paceco Transtainer cranes with a 35 ton capacity. (Rubber tyred with automatic lifting frame for containers).		16 elevating fifth wheel tug units.	24 fifth wheel trailers with a capacity of up to 50 tons.	
Trinity Container Terminal	13.4 m.	550 m.	4×40 tonne container cranes.	12×35 ton rubber tyred gantries.				

Rail Facilities: All berths are served by rail including 2 Freightliner Terminals, 1 of which serves the Landguard Container Terminal, the second the Walton, Dooley and Trinity Container Terminals.

FISHGUARD: 52.01 N. 04.58 W. (See Plan)

DOCUMENTS: See "Cardiff".

PILOTAGE: Local Pilot available on request. Pilotage compulsory.

ANCHORAGES: Eastward of a line joining Northern and Eastern breakwaters.

MAX. SIZE: Max. draft 18 ft.

HEALTH: See "Health – All ports" before first U.K. port.

RADIO/VHF: Fishguard Radio, VHF Channel 16 and 14.

TUGS: None.

FACILITIES: Stern loading, car and Roll-on/Roll-off Ferry Port. Also Lift-on/Lift-off crane of 22 tons.

CRANES: 1×6 tons and 1×22 tons.

STEVEDORES: No stevedores – vessels worked by Sealink British Ferries staff.

MEDICAL: Doctors available. Hospital facilities 16 miles away.

DENSITY: 1025.

FRESH WATER: Available alongside quay.

FUEL: Available with prior warning.

GANGWAY/DECK WATCHMEN: Ship's crew.

OPENING/CLOSING HATCHES: Crew.

REPAIRS: Minor repairs by Sealink workshops and contractors.

CUSTOMS ALLOWANCES: (Crew allowance) 40 cigarettes. No wine or spirits unless proceeding on leave.

SURVEYORS:

1. Cargo Surveyor: Captain D. Hughes, tel: Fishguard 873880.
2. Lloyd's Surveyor: Tel: Milford Haven (06462) 4811.

AIRPORT: Cardiff, Swansea and Haverfordwest.
POLICE/FIRE/AMBULANCE: Dial 999. British Rail police and Sealink Port Supervisor on duty 24 hours.
EMERGENCY CO-ORDINATION CENTRE: Coastguard – Tel: Dale 218.
SHORE LEAVE: Allowed.
BANKS: Barclays Bank, The Square, Fishguard, Dyfed. Tel: Fishguard 873226. No telex.

Midland Bank, West Street, Fishguard, Dyfed. Tel: Fishguard 872232. No telex.

Lloyds Bank, West Street, Fishguard, Dyfed. Tel: Fishguard 872309. No telex.

STORING: See "Prelims".

1. Vessel can be stored by barge or truck, limited space of approximately 15 ft. width available for trucks.
2. Loading of stores can be carried out from barge with ships equipment.
3. Trucks of limited size can proceed alongside berth.
4. Fork lifts can be used to handle stores.
5. Prior notification to local customs,.
6. Sealink can assist with stores if given prior notification.

AUTHORITY: Sealink UK Ltd., Fishguard Harbour, Dyfed, SA64 0BU, South Wales. *Tel:* Fishguard (0348) 872881. *Telex:* 48167. *FAX:* (0348) 872229. *Contact:* C.B.Fenemore, General Manager. Captain D.R.C.Lewis, Ship Manager. M.J.Connellan, Port Administration and Operations Manager. Captain N.R.Brown, Assistant Ship Manager.

FLEETWOOD: 53.55 N. 03.00 W. (See Plan)

LOCATION: The Port of Fleetwood is situated on the Lancashire coast approximately 38 km. (24 miles) North West of Preston and 42 km. (26 miles) South West of Lancaster.
DOCUMENTS:

Manifests.
Bills of Lading.
Ship's papers.
Crew Lists.
Customs Documents.
Health Documents.

PILOTAGE: Pilot to be picked up off No. 1 Fairway Buoy. Ordered through ship's Agent giving 24 hours notice of ETA.
ANCHORAGES: Good anchorage in outer limits of harbour in Lune Deeps in 14 fathoms.
RESTRICTIONS: Vessels under power must not navigate any portion of this harbour above No. 11 Buoy at a greater rate of speed than is necessary to navigate safely, also on passing other vessels, either steam or sail, hopper barges, pontoons in tow, etc., in the channels outside the above mentioned No. 11 Buoy and within harbour limits due care must be taken to pass them at a rate of speed that will not cause risk from displacement or what is commonly called "backwash", and that all vessels must be navigated in this harbour strictly in conformity with Rule 9 (Narrow channels) contained in the Collision Regulations for Preventing Collisions at Sea, 1972.

Vessels bound into Fleetwood must not enter the river without being sure they have sufficient depth of water to ensure their getting to the quays or piers to which they are bound.

In the event of any vessel grounding on the "Tiger's Tail" or in any other part of the Fleetwood Harbour, the Master shall not attempt to refloat the vessel by reversing the engines, or by any other means whatsoever, until all incoming vessels following have passed the stranded vessel and the channel is clear of shipping.

Locks are normally open from 2 hours before HW to 1 hour after HW.
MAX. SIZE: (Within enclosed docks): 107 m. LOA: 14.1 m. beam.

So far as draft is concerned, allowances have to be made for clearing the lock invert. These allowances vary according to the beam of the ship and the following scale may be taken as a guide:

Beam of Vessel (m.)	*Clearance Required* (m.)
11.28	0.69
13.41	1.22
14.02	2.21
14.17 maximum	3.12

HEALTH: See "Health – All ports" before first U.K. port.
RADIO: VHF Port Operations and Information Service. Call sign: Fleetwood Harbour Radio Channel 16 (156.80 MHz): Calling and Safety. Channels 11 and 12: Port Operations.

All movements of vessels arriving for and sailing from the Harbour and Docks are controlled by the Harbour Master using the VHF Port Operations and Information Service located in the Harbour Master's Office on the West side of Fleetwood Harbour. (Lat. 53° 55′ 30″ N., Long 3° 00′ 12″ W.). This service is operated for the 24 hour period, and vessels must maintain a listening watch when approaching or leaving the Port. Messages must be restricted to matters appertaining to general navigation, berthing instructions and the safety of ships or persons within the Port Area. Messages of any other nature will not be accepted.
TUGS: Tug service available.
MEDICAL: Ship's Agent will organise medical attention if required.
DENSITY: 1015 at half tide; 1025 at high water.
FRESH WATER: Fresh water available through stand pipes. Charge according to consumption (sliding scale).
FUEL: All grades of fuel available.
BERTHING: Under normal conditions the lock gates operate for 2 hour before to one hour after HW.

There is a Roll-on/Roll-off berth in the harbour. This is a twice dail service to Larne for wheeled vehicles and trailer loads.

Dock	*Quay Length (Total)* (m.)	*Depth of Water (Absolute Min.)* (m.)	*Max. Size of Vessel*			*Approx d.w.t.*
			Length (m.)	*Beam* (m.)	*Draft* (m.)	
Wyre Dock	823	5.5	107	14.1	5.5	3,500
Fish Dock	800	5.5	107	14.1	5.5	3,500
Harbour/	To suit vessel					
Ro-Ro Berth	150	4.5	152	20.3	4.2	5,000
Isle of Man Berth	91	As required	107	—	4.2	—

Storage and Warehousing Facilities: One covered transit she totalling 720 sq.m. (8,000 sq.ft.) is located on the Wyre Dock quayside Ample open storage space is available within the docks estate.

Fish Dock: Modern facilities for fish handling, marketing an processing are available operated by Fish Handling (Fleetwood) Ltd and a large number of wholesale fish merchants.

Ro-Ro Berths: Separate berths handling Irish Sea and Isle of Ma freight and passenger ferry services are located within the port. Ampl land is available for development of Ro-Ro business.

Offshore Supply Facilities: The port has been used as a supply bas for oil exploration in the Irish Sea and facilities for offshore operation include a helicopter pad.
FIRE PRECAUTIONS: No specific requirement outside usua "No smoking" precautions.
GANGWAY/DECK WATCHMEN: Ship's watchmen required.
OPENING/CLOSING HATCHES: Normally carried out by crew.
REPAIRS: 2 slipways located in Fish Dock with lifting capacities o 1,050 tons and 50 tons respectively.
REPATRIATION: Arranged through ship's Agent.
AIRPORT: Squires Gate, Blackpool, 10 miles away.
TIME: GMT in Winter. GMT plus 1 hour in Summer months.
HOLIDAYS: Christmas Day and Boxing Day; New Years Day; Goo Friday and Easter Monday; Spring Bank Holiday; May 1st; Autumn Ban Holiday.
POLICE/AMBULANCE/FIRE: Police 999; Ambulance 999; Fire 999.
TELEPHONES: Can be arranged through Post Office.
SERVICES: Compass adjusting.
SHORE LEAVE: Crew members are allowed ashore.
AUTHORITY: Associated British Ports – Fleetwood, Dock Office Fleetwood, Lancs. FY7 6PP. *Tel:* (03917) 2323/6. *Telex:* 677296. *FA* (03917) 77549. *Contact:* N. Pounder, Port Manager.

FOSDYKE BRIDGE: 52.52 N. 00.02 W.

PILOTAGE: Service provided by Boston Pilots. Tel: 0205-62 114. VH Channels 16, 12.
APPROACHES: Common approach channel shared with Port o Boston.
MAX. SIZE: Spring tides: Draft up to 5.0 m.; LOA 56 m. (exceptional 58 m.).

Lowest Neap tides: Draft 2.8 m.; LOA 50 m. – 52 m.
VHF: Fosdyke Port Radio operates on Channel 14. A listening watch i maintained during shipping movements on the River Welland.
TUGS: Service operated by wharfingers.
BERTHING: Private wharf 69.50 m. long giving 2 berths alongside situated on North bank of river, operated by John Parsons Marketin Ltd., Fosdyke Bridge, Boston, Lincs. PE20 2DB. Tel: 0205-85 355. Tele 37208.
FRESH WATER: Available.
AUTHORITY: Port of Fosdyke Ltd., Fosdyke Bridge, Boston, Lincs PE20 2DB. *Tel:* Fosdyke (0205–85) 240. *Contact:* Port Manage Assistant Harbour Master.
AGENT: Welland Ships' Agents, Fosdyke Bridge, Fosdyke, Bosto Lincs. PE20 2DB. Tel: (0205-85) 240. Telex: 37208. Contact: R. A Waterfield, Manager. Tel: 0945-583181 (Home).

FOWEY: 50.20 N. 04.39 W. (See Plan

PORT LIMITS: The whole of the Fowey River to a line across th entrance to the harbour. A vessel is considered to have arrived o entering the harbour unless she is anchored just outside by the Pilot t await suitable conditions for entering, in which case she is considere to have arrived on being so anchored.
DOCUMENTS:

Crew and Passenger Lists are essential, using IMO forms.
Aliens List is essential.
List of Bonded Stores, including beer.
List of Personal Dutiable Articles owned by Crew.
Bill of Health, if available.
Derat Certificate.
Manifest of all cargo on board.
Copies of Bills of Lading.
Stowage plan, if available.
Normal Ship's Papers.

PILOTAGE: Vessel requiring Pilot gives ETA as far in advance as possible to Agent. Vessel displays normal signals off port. VHF calling Channel 16, working Channel 9. Pilot cutter (LOA 55 ft.) has a dark blue hull and orange upperworks. The Pilot boards off entrance. Vessels can anchor South of entrance if necessary.

Pilots VHF station open for messages from arriving ships up to 2 hours before time of ETA received by Agent.

RESTRICTIONS: Vessels can enter at any time, if their draft is less than 18 ft. Otherwise according to tide. Depth of ship channel at LWOST – 22 ft.

MAX. SIZE: LOA 450 ft., beam 60 ft. Loaded draft of 28 ft. Vessels of this draft have to be handled at or near high water.

Vessels up to 540 ft. in length have been handled, but subject to prior consultation with the Harbour Master and owners of the loading berths.

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: Land's End Radio, Niton, or Portishead.

VHF: For arriving vessels see "Pilotage".

Fowey Harbour Commissioners "Fowey Harbour Radio" calling Channel 16, working Channel 12, ECC Ports Ltd., loading berths operators, "Fowey Port Radio", calling Channel 16, working Channels 9 and 6.

TUGS: Two diesel tugs are available and normally join vessels on entering entrance. Ship's lines usually used. No tug required for vessels under 90 m. in length under normal conditions. Only 1 tug required for vessels under 100 m. length. Harbour Master may require particular vessels to enter with tug assistance.

BERTHING: Vessels waiting for berths are normally moored, using their own anchor with their stern to a buoy. On the berth, vessels require long ropes.

Berth	Max. LOA (approx.) (m.)	Depth of Water at LWOST (m.)
Jetty No. 3	110	7.0
Jetty No. 4	120	7.3
Jetty No. 5/6	170	6.7
Jetty No. 8	140	8.5

CARGO FACILITIES: The port is specially equipped to handle china clay and ball clay in bulk and to a limited extent in bags. Occasional cargoes of timber are handled. Discharge is by mobile crane. There are 5 berths. Berth No. 4 has a bulk conveyor capable of handling up to about 330 t.p.h., Berth No. 6 up to 500 t.p.h. and Berth No. 8 up to 1,000 t.p.h. Berth No. 3 for liquid slurry coal only. 6 tonne and 3 tonne mobile cranes are available.

STEVEDORES: Earliest ETA possible is required, especially when a vessel arrives over week-end.

MEDICAL: If Medical Officer is required on arrival, advise Agent earliest opportunity. Hospital facilities are available.

DENSITY: River fully salt at all states of the tide.

FRESH WATER: Available at all jetties, delivered by hose and rate very variable.

FUEL: Gas Oil only available. As much notice as possible is advisable.

GANGWAY/DECK WATCHMEN: Not normally employed.

OPENING/CLOSING HATCHES: Carried out by crew.

CUSTOMS ALLOWANCES: 200 cigarettes *or* 100 cigarillos *or* 50 cigars *or* 250 grams tobacco. Drink over 22% alcohol 0.5 litre *or* under 22% alcohol 1 litre *or* 1 litre fortified sparkling wine. 2 litres still wine. 50 grams perfume. 0.25 litre toilet water. Half this allowance for vessels arriving from home trade ports which for this purpose is from Elbe/Brest range of ports.

IDENTIFICATION CARDS: Not needed.

CONSULS:

Finland	J. A. Samuel, c/o S.C.U.K. Ltd., Fowey. Tel. 072683–3161
France	J. A. Samuel, c/o S.C.U.K. Ltd., Fowey. Tel. 072683–3161
Denmark	Ross Carter, c/o S.C.U.K. Ltd., Fowey. Tel. 072683–3161
Netherland	Ross Carter, c/o S.C.U.K. Ltd., Fowey. Tel. 072683–3161

REPAIRS: Fowey Harbour Commissioners have repair facilities for minor repairs and welding.

SURVEYORS: West Marine Surveyors & Consultants Ltd., Consulting Marine Surveyors, Engineers & Naval Architects, The Old Custom House, Brixham, South Devon. Tel: Brixham (080 45) 2604. After normal office hours: Tel: 0803 842925. Cables: Surveyor, Brixham. Telex: 42962 Survey G.

REPATRIATION: Facilities exist.

HOLIDAYS: Saturdays, Sundays, and all Public Holidays.

POLICE/AMBULANCE/FIRE: Telephone 999 or VHF Channel 16.

TELEPHONES: No arrangements made for connection on board.

SERVICES: Compass adjusting can be arranged.

SHORE LEAVE: Allowed.

DELAYS: There is a possibility of delay in heavy rain.

AUTHORITY: Fowey Harbour Commissioners, Albert Quay, Fowey, Cornwall PL23 1AJ. *Tel:* (072683) 2471/2. *FAX:* (072683) 3738. *Contact:* Captain M. J. Sutherland, Chief Executive and Harbour Master. Captain A. E. Woollam, Assistant Harbour Master.

GARSTON: 53.21 N. 02.54 W. (See Plan)

LOCATION: On the North bank of the River Mersey, 6 miles from Liverpool city centre.

DOCUMENTS, HEALTH: and all general information, refer to "Liverpool".

RESTRICTIONS: Locking into/out of Garston commences 3 hours before HW and ceases 3 hours after for vessels of 250 ft. in length or under. Vessels over this length must enter when the river and dock are level – about 1 hour before HW to half an hour after.

MAX. SIZE: Length 500 ft., beam 63 ft., draft 27 ft.

RADIO: As Liverpool.

VHF: Stalbridge Pierhead is linked to the Mersey Docks & Harbour Co. Port Operation Radio/Telephone system. Docking and berthing instructions may be obtained through Channel 20 (call sign "Garston Docks"). Information will also be conveyed through these Channels or through Anglesey Radio on MF R/T.

BERTHING:

Dock	*Quay Length (Total) (m.)*	*Maximum Size of Vessel* Length (m.)	Beam (m.)	Approx Draft (m.)	d.w.t.
Stalbridge Dock	975	152	19.2	8.3	10,000
Old & North Docks	1,405	Old 152	19.2	5.5	5,000
		North 122	19.2	5.5	5,000

Storage and Warehousing: Garston provides a covered transit shed 32,614 sq.ft. (3,031 sq.m.) in area, located on the North Dock and a warehouse 5,005 sq.ft. (465 sq.m.) at Stalbridge Dock. Also see "Developments".

Forklift Trucks: 2×12,000 lbs., 1×10,000 lbs., 3×4,000 lbs.

Dock Facilities:

Stalbridge Dock:

	No.	Capacity
Cranes	1 (Scotch Derrick)	32 tonnes
	2	10 tonnes
	2	7.5 tonnes
	3	6 tonnes

Two belt loading coal shipping appliances loading capacity 500 tonnes per hour.

High capacity fork and clamp lift trucks available.

Old & North Docks:

	No.	Capacity
Cranes	1 (Scotch Derrick)	32 tonnes
	2	7.5 tonnes
	2	6 tonnes

CONTAINER FACILITIES: North Dock Container Berth in operation, equipped with 2×35 tonne transporter cranes and back-up facilities.

STEVEDORES: *Port Working Hours:* Monday – Thursday: 0800 – 1700. Friday 0800 – 1600 (overtime by arrangement). Saturday and Sunday 0800 – 1700 by arrangement.

DENSITY: 1025.

FRESH WATER: Available Monday to Friday 0800 to 1600 hrs. All watering required outside of these hours is by arrangement and must be paid for at overtime rates. Rate of delivery, 10 t.p.h.

OPENING/CLOSING HATCHES: Hatches to be opened and closed by the crew except on request.

AIRPORT: Liverpool Airport, 1 mile distant.

HOLIDAYS: Normal English Bank Holidays. Vessels can be worked on these days but this involves additional payment.

POLICE/FIRE/AMBULANCE: Dial 999 and ask for service required.

TELEPHONES: No connection can be made to vessels. Shore base facilities.

DEVELOPMENTS: Provision of additional covered storage facility at New Dock Road (866 sq.m.) plus a timber storage area (open air).

AUTHORITY: Associated British Ports – Garston, Port Office, Dock Road, Garston, Liverpool L19 2JW. *Tel:* (051-427) 5971. *Telex:* 628706. *FAX:* (051–427) 5971, Ext. 246. *Contact:* A. Winfield, Port Manager.

GIRVAN: 55.15 N. 04.51 W. (See Plan)

DOCUMENTS: Normal U.K. documentation. H.M. Customs attendance obtained by contacting Harbour Master.

PILOTAGE: By local fishermen only – contact Harbour Master.

ANCHORAGES: To seaward clear of channel approaches. This area is hazardous in gales, particularly from the N.W.

RESTRICTIONS: Draft currently very restricted at MLWS due to siltation. Harbour Master will advise on water depths available.

MAX. SIZE: LOA 50 m., beam 9 m., draft 3.5 m. Vessels with max. draft will only be moved at or near HW.

HEALTH: Under H.M. Customs control.

RADIO: ETA messages, etc. via Portpatrick Radio Station, Call on 2182 kHz – VHF Channel 16 (British ships may call on 2381 kHz but listen on 1792 kHz).

VHF: Harbour VHF ship to shore available 0900 – 1700 hrs. daily, Monday to Friday inclusive. Calling: Channel 16; Working: Channel 12.

TUGS: None.

BERTHING: South Pier Quay: 107 m. long, depth 2.1 m. MLWS.
Ailsa Berth: 49 m. long, depth 2.2 m. MLWS.
Fish Wharf: 42 m. long, depth 2.1 m. MLWS.
Fish Quay: 62 m. long, depth 2.2 m. MLWS.

Note: Fish Wharf and Fish Quay used only for fishing vessels.

CRANES: No port cranes available. Mobile cranes can be hired from local companies.

MEDICAL: Small local hospital, contact Harbour Master for assistance.

DENSITY: Water brackish, being sea water with fresh water river discharge.

FRESH WATER: Available.

FUEL: Diesel fuel only.

FIRE PRECAUTIONS: Normal safety procedures.

CONSULS: None, nearest at Glasgow.

REPAIRS: Small engine and deck gear repairs may be carried out alongside.

DRY DOCKS: None. 2 slipways, max. length of vessel which can be slipped, 21 m. – 33 m. overall.

SURVEYORS: Not available.

GANGWAY/DECK WATCHMEN: None. If desired would have to come from ship's crew.
HATCHES: Worked by crews.
CUSTOMS ALLOWANCES: Apply to H.M. Customs Officers.
CARGO GEAR: Hire-in mobile cranes or ship's own gear.
REPATRIATION: No arrangements.
AIRPORT: Prestwick, distance 38.4 km. North Atlantic services only. Glasgow, distance 91 km. Internal U.K./Europe/Scandinavian services.
TIME: Winter – GMT. Summer – March to October, British Summer Time i.e. 1 hour ahead of GMT (dates as announced).
HOLIDAYS: Cargo working unlikely on Christmas Day and New Year's Day.
POLICE/FIRE/AMBULANCE: In emergency dial 999 otherwise telephone numbers are: Police: Girvan (0465) 3587. Fire: Ayr (0292) 267471. Ambulance: Girvan (0465) 2571.
EMERGENCY CO-ORDINATION CENTRE: Marine Rescue Co-ordination Centre, (H.M. Coastguard), Greenock Tel: Greenock (0475) 29014 or 29988. Telex: 777006.
TELEPHONES: No ship links.
SERVICES: No special services available locally. Compass adjuster available from Glasgow.
SHORE LEAVE: Unrestricted after Customs clearance.
IDENTIFICATION CARDS: Clear requirements with Customs.
REGULATIONS: No unusual regulations.
DELAYS: Normal breakdown/weather delays.
BANKS: Local banks only.
STORING: See "Prelims".

3. Yes.
4. Yes.

There is no accommodation for storage.

SHIP SUPPLY SERVICE: The units used for supply are small motor vessels approximately 10 m. long. They are licenced to carry up to 12 passengers under the D.O.T. regulations. They are limited to operating up to 3 miles off-shore, with an extension for operating supply services to Ailsa Craig.

The operators are:-

1. Alexander Ingram, 5 Shalloch Square, Girvan. Tel: Girvan 2320.
2. John McCrindle, 7 Harbour Street, Girvan. Tel: Girvan 3219.

GENERAL: The harbour is formed at the mouth of the river known as "Water of Girvan". The water in the channel and basin is, therefore, a mixture of sea and fresh water.

A breakwater protects the inner part of the channel on the North side. A timber and steel sheet pile jetty protects the basin from river scour. Access is hazardous in N.W. gales.

In 1988 the harbour channel was deepened to give a minimum depth of water of 3 m. at MLWS. Siltation is a continuing problem and the depth available has been reduced as noted in previous sections.

The harbour is primarily a fishing port. However, it is used regularly by small tankers and cargo vessels of the coasting type, bringing in raw materials for local industry. As may be noted, berthing accommodation is very restricted.

AUTHORITY: Strathclyde Regional Council, Department of Roads, 15 Links Road, Prestwick KA9 1QG. *Tel:* Prestwick (0292) 76716. *Contact:* Mr. George Forbes, Harbour Master, Girvan. *Tel:* Girvan (0465) 3648.

GLENSANDA: 56.34 N. 05.32 W. (See Plan)

LOCATION: Glensanda is on the Western shore of Loch Linnhe some 9 miles North of Oban in approximate position 56° 34′ N., 05° 32′ W. Glensanda is over 6 miles along a track from the nearest road and that road is only a narrow highland lane, thus it is necessary to appreciate that Glensanda is remote and that its services are severely restricted. The only commodity that can be supplied at Glensanda is crushed granite.

PORT LIMITS: The limits of the Company's jurisdiction are from position 56° 35.862′ N., 05° 29.982′ W. on the shore, S.E. to position 56° 34.826′ N., 05° 27.922′ W., then S.W. to position 56° 31.165′ N., 05° 33.975′ W., then N.W. to the shore at position 56° 31.839′ N., 05° 35.312′ W.

DOCUMENTS: Usual U.K. requirements. Customs attend from Oban.

PILOTAGE: The pilot boarding station is one mile off Port Donain on the Isle of Mull (in about 56° 24′ N., 05° 37′ W.). If Masters are willing, they may enter Loch Linnhe and take the Pilot at Glensanda's Southern harbour limit (in about 56° 31′ N., 05° 35′ W.). Thus the position for boarding the Pilot reflects the Master's wishes and judgement. Masters are required to inform Glensanda of their decisions in this respect. Certain ships are not to berth or unberth without the Pilot being on board. Vessels should not enter Glensanda's harbour limits without the Harbour Master's express permission.

Vessels to call Pilot on VHF Channel 14.

APPROACHES: The approaches to Glensanda Harbour and to the berth are deep and clear. The port is well served by a Pilot, a tug, mooring launches, lighthouses and beacons. Generally ships will enter Glensanda Harbour in Loch Linnhe through the Firth of Lorne between the islands of Mull and Lismore. Smaller ships can safely enter Loch Linnhe through the Sound of Mull.

ANCHORAGE: If the berth cannot take the ship for any reason there are many sheltered and safe anchorages in the vicinity. The Harbour Master recommends anchorages:

South of Lismore at 56° 27′ N., 05° 33′ W. (depth 35 m.)
West of Lismore at 56° 32.5′ N., 05° 30′ W. (depth 50 m.)

RESTRICTIONS: Berthing is generally restricted to the hours of daylight, unless the Harbour Master considers conditions for manoeuvring off the berth in the dark are acceptable. Unberthing is performed without regard to light.

MAX. SIZE: Panamax or 100,000-120,000 d.w.t. part load.

RADIO: Masters should keep Glensanda well informed of their approach with notices to the Glensanda Harbour Master (cable address "Glensanda Oban") 5 days, 3 days, 2 days and 1 day prior to arrival. Over the last 3 days these ETA's should be timed to reach Glensanda for their opening (0700 hrs.) to permit their day's work to be planned and to be ready for the ship.

Ships are asked to guard Portishead Radio Station whilst on passage to Glensanda as the Agent and Harbour Master will use that station by preference should they have a message for the ship.

Masters are especially asked to telex Foster Yeoman Ltd. (See "Authority") with the following details from their previous port:

1. Ship's particulars.
   a) Ship's name.
   b) Master's name.
   c) Flag.
   d) Radio call sign.
   e) Satcom number.
   f) Marine telex number.
   g) Summer deadweight.
   h) Gross registered tonnage.
   i) Number of hatches.
2. Proposed Stowage.
   a) Tonnage to be loaded in each hold.
   b) Grade to be loaded in each hold.
   c) Sequence and Tonnages in which each hold is to be loaded.
3. Pilot Station.
   Advise if the Pilot is to board off Port Donain (3 miles South of Lismore) or at Glensanda's Southern harbour limits. This decision can be revised as the ship approaches Glensanda to reflect current conditions.

VHF: The Quarry Office and Pilot maintain watch on Channel 14.
TUGS: 1 tug available (25 ton bollard pull).
BERTHING: The depth of water at the berth is at least 12.3 m. at chart datum. To this depth may be added the rise of tide in the range of 0.2 m. at low water to a maximum of 4.4 m. at high water (spring tides).
LOADING: *Conditions:* The matter of ballast is of particular interest as manoeuvrability must be maintained.

The air draft of the ship loading arm can be raised to 21 m. above the highest high tide, so high that there is no need to ballast deeply to get a ship below it.

The shiploader is intended to load at 6,000 tonnes per hour and has almost to achieve this speed if demurrage is to be avoided on some contracts of affreightment.

It is Glensanda's experience that large bulk carriers (i.e. Panamax class) can berth and rapidly deballast if they approach with their peak tanks, ballast hold and top wing tanks full and their double bottom ballast tanks empty. If the ballast hold is needed for cargo, it is of no concern if its tank top is damp or even has puddles when it is loaded.

CARGO: The aggregate is manufactured in 4 basic grades, by diameter:
a) 1.5 in. – 0.75 in. – for rail ballast.
b) 0.75 in. – 0.375 in. – for concrete.
c) 0.375 in. – 0.1875 in. – for road surfacing.
d) 0.1875 in. – dust – for various uses.

These basic grades are frequently mixed to form special categories for specific requirements. The final grades must not be co-mingled. For each final grade, hold separation is required.

Base Grades Diameter (in.)	*Stowage Factors* (Tonnes per cu.m.)	*Angles of Repose*
a) 1.5 – 0.75	1.44	36°
b) 0.75 – 0.375	1.45	38°
c) 0.375 – 0.1875	1.46	39°
d) 0.1875 – dust	1.65	43°

(i.e. every grade stows at about 21 cu.ft. to 25 cu.ft. per long ton).

For loading aggregate, holds may be damp, as the material is immune to fresh water. On completion of loading, hatches are to be covered to reduce the weight of rain water in the cargo. However, salt water is an unacceptable contaminant and must be avoided. Hatches must be watertight.

The cargo is loaded by automated shiploader. This machine can span the full length and width of all the hatches of a 60,000 ton – 70,000 ton bulk carrier without having to shift the ship. The loader operates at up to 6,000 tonnes an hour and can distribute the cargo without peaks forming. It is operated from the deck of the ship by radio control allowing direct contact between the ship's staff and the loading supervisor.

Loading is performed around the clock on every day of the year except for Christmas Day and New Year's Day. Rain will not interrupt loading but the shiploader will cease work if the wind speed exceeds 48 knots.

Holds are inspected for cleanliness by Glensanda's staff and must be approved before the Notice of Readiness is accepted and permission to start loading is given. Glensanda's Inspectors will be checking to determine that there are no traces of any previous cargoes or loose scale. Some cargoes, such as coal, petcoke, bauxite, alumina, sulphur and salt, can seriously devalue aggregate and any traces of these materials is unacceptable. Although hold washing is not always necessary, for some grades of aggregate and for some trades it is unavoidable. A covering letter of instruction will be issued when hold washing is considered necessary. Holds may be washed with salt water and need not necessarily be dry for loading to start. Thus the ballast hold can be loaded as soon as it has been pumped out.

MEDICAL: Emergency medical services are available. Glensanda has a small airstrip and aircraft for emergency evacuation. The Yeoman staff includes a first aid man and a doctor is available from Oban's small hospital and Port Appin.
DENSITY: 1023-1025.
FRESH WATER: Not available.
FUEL: Not available.
SURVEYORS: If required, surveyors attend from Glasgow.

Belt weight figures used for Bill of Lading.

REPAIRS: Repairs are not to be contemplated, partly because the weather can rapidly deteriorate and partly because there is no service for repairs in the vicinity.

HOLIDAYS: Christmas Day and New Year.

REPATRIATION: Not recommended.

GENERAL: *Visitors:* To visit Glensanda, other than by ship, needs Yeoman's co-operation. Visitors can take a train to Oban or fly to Glasgow and take a car to Yeoman's Rhugh Garbh depot which is some 10 miles North of Oban on the A828 main road towards Fort William. Yeoman's passenger launches ply on a regular schedule between Rhugh Garbh and the Glensanda Quarry. This journey takes about 30 minutes to cover the 8 miles down Loch Creran and across Loch Linnhe to the quarry.

Harbour Conditions: Loch Linnhe is free of swell as its approaches are well protected by the islands of Mull and Lismore.

The waters of Glensanda Harbour are virtually free of tidal streams at any depth. A sluggish stream of up to 1 knot has been irregularly observed during the fall ebb of spring tides.

Glensanda's times of high and low water are observed to follow closely those of Oban. Glensanda has a tide pole clearly visible from the berth. It is noticeable that the level of high water stands for about 90 minutes after each high tide before falling rapidly.

Wind observations have been made from a meteorological station set on a knoll some half a mile from the berth. At the berth the Harbour Master believes winds are less strong and more inclined to blow from the N.E. or S.W. It is difficult to draw any conclusions, but Glensanda is a windy place. Winds tend to vary in strength and direction in an unpredictable manner though S.W. and N.E. winds do predominate. The berth lies along this S.W./N.E. axis.

Services: Glensanda ought not to be depended upon for any services except those to cover the immediate work in hand of loading aggregate.

Cash: By prior arrangement and transfer, the Agent can supply the Master with cash, in Sterling, on arrival.

Notary: A local Oban Notary can accept Notices of Protest, though the time taken to reach his office and to return to the ship may delay vessel's sailing.

AGENCY: *The Glensanda Harbour Agent:* Morvern Shipping Agency Limited, Rhugh Garbh Depot, Barcaldine, Oban, Argyll, Scotland PA37 1SE. Tel: (063 173) 415. Telex: 777792. FAX: (063 173) 460. Cables: "Glensanda Oban".

The Quarry Office maintains radio watch on VHF Channel 14 during office hours and around the clock when a ship is approaching or is in the port.

The Glensanda Harbour Master shares these communication facilities with the Agent. The Harbour Master's Office and home telephone number is (063 173) 446. He may be reached on VHF radio by calling "Glensanda Harbour Master".

The Agent can provide Masters with details of any other services that are required. H.M. Customs attend ships in the normal manner. Masters can always contact emergency services if the Agent is not available through the Oban Coastguard on VHF Channel 16.

AUTHORITY: Foster Yeoman Limited, Rhugh Garbh Depot, Barcaldine, Oban, Argyll, PA37 1SE. *Tel:* Office (063 173) 415. *Telex:* 777792. *FAX:* (063 173) 460. *Contact:* Captain J.A.Jackson, Harbour Master. Tel: (063 173) 446.

GOOLE: 53.42 N. 00.50 W. (See Plan)

PORT LIMITS: Goole is a river port with conservancy jurisdiction to the junction of rivers Humber, Ouse, Trent. However, laytime commences from commencement of next normal working shift after ship is on berth and ship's Agent has issued "Notice of Readiness". This may be 0800 hrs. or 1300 hrs. dependent on time of issue of notice.

Precedence of order of arrival of vessels is determined by arrival time at Ocean Lock Entrance, Goole Docks.

DOCUMENTS:

Bills of Lading/Manifests (prepared by Agents at port of origin).
"Imperfect" Customs Entry.
Request (to work vessel).
*Request for Immigration Officer to be in attendance – if carrying passengers.
*Crew List to Immigration Officer (for foreign personnel).
Ship's Register.
*Ship's Agent will normally notify Immigration Officer.

PILOTAGE: Compulsory from Spurn to Goole, two stages.

1st stage: Spurn Light Vessel to Hull Roads.

See "Grimsby" Pilotage.

2nd stage: Hull Roads to Goole. Pilot will board vessel in Hull Roads.

ANCHORAGES: Bull Anchorage on chart of Humber Estuary, or in Hull Roads, otherwise only on advice of Pilot.

RESTRICTIONS: State of tide, Springs or Neaps. Port entered during tidal hours, 3 hours 15 minutes before HW to 1 hour (approx.) after HW, according to draft. Pilots will advise.

Locks: 3 entrance locks, largest being 110 m. long and 25 m. wide. Depth on sill 8.0 m. (MHWS) and 6.0 m. (MHWN).

MAX. SIZE: Subject to suitable tides, vessels of approximately 100 m. overall length, 5.5 m. draft, 24 m. beam and 4,500 d.w.t. (approx.) can be accepted. It should be noted that vessels with a beam in excess of 13.4 m. will find certain berths in the port inaccessible due to bridgeway restrictions.

HEALTH: Pratique issued by H.M. Customs Waterguard (in absence of Port Health Official). Pratique accepted when entering after calling at another port in the U.K.

Also see "Health – All Ports" before first U.K. port.

RADIO: Via Humber Radio, call sign GKZ – call on Channel 16. Give ship's name and call sign and pass message.

VHF:

Station	*Call Sign*	*Channel Nos.*	*Operational Times*	*Remarks*
Humber Ports Operation and Information Service, Pilot Office, 50 Queen Street, Hull.	"V.T.S. Humber"	16 12 10 13	Continuous watch maintained	Calling and safety. Navigation and safety information etc. for Rivers Humber, Ouse and Trent.
Blacktoft Jetty	"Blacktoft Jetty Radio"	14	3 hours before HW Goole until 1 hour after HW Goole	Port Operations and berthing instructions for Blacktoft.
Goole Docks	"Goole Docks Radio"	14	Continuous watch maintained	Port operations and docking instructions for Goole.

Also see "Hull".

TUGS: Tugs available but not normally used. If required, to be arranged through Ship's Agent.

BERTHING: Berthing instructions given to vessel on arrival at entrance locks. No specific requirements.

SPECIALISED CARGO HANDLING FACILITIES: Boothferry Terminal for specialised container handling, 26,000 sq.m. hard standing and sheds, equipped with 35 tonne and 25 tonne fork lift trucks, 32 tonne Scotch derrick crane, a mobile port tower (container crane) and a 70 tonne capacity crawler crane.

2 appliances for loading of rail-borne bulk cargoes, e.g. coal, coke, pitch, fluorspar, etc.

2 appliances for loading of canal-borne bulk cargoes (coal, coke, pitch, etc.).

1 mobile shiploading conveyor for grain, rate 100 t.p.h.

12×7.5 tonne and 5×6 tonne quay cranes, equipped with suitable grabs for sand, ores, fertilisers, coal, grain, sulphur, scrap, etc.

7 mobile cranes up to 40 tonne capacity and fleet of forklift trucks with capacities up to 35 tonnes and capable of lifting 20 ft., 30 ft. and 40 ft. containers.

1×32 tonne Scotch derrick crane for container handling at Stanhope Dock.

50 tonne and 40 tonne electric travelling cranes for heavy lifts.

2 Ro/Ro ramps for abnormal loads of up to 450 tonnes – otherwise no special facilities needed as water is maintained at a constant level.

Some bulk liquids (creosote, tar), direct to or from road tanker vehicles.

Timmgrain Ltd. operate 2 separate silo facilities which give 8,000 tonnes of storage capacity for grain, maize, maize products, etc.

Damac Bulk Handling Ltd. operate a 3,000 tonne silo for cement cargoes.

STEVEDORES: Arrangements made by ship's Agent who should be given ample notice of time of arrival of vessel.

Port Working Hours:

	Monday to Thursday	0800 – 1200	1300 – 1700
	Friday	0800 – 1200	1300 – 1600
Overtime	Monday to Thursday	0600 – 0800	1700 – 1900
	Friday	0600 – 0800	1600 – 1800
	Saturday	0600 – 1200	
	Sunday	0600 – 1200	1300 – 1700

MEDICAL: Ship's Agent will arrange for attendance of doctor on notification. Doctor's, dentists and hospital services available. Ship's Agent can arrange service required.

DENSITY: Water in Goole Docks is fresh water and is maintained at constant level. Entry is by locks. Density 1000.

FRESH WATER: Delivery by water-boat through hose-pipes. Rate 30 t.p.h.

FUEL: All grades available on reasonable notice being given to Ship's Agent.

FIRE PRECAUTIONS: No specific precautions unless there are exceptional circumstances, when special arrangements can be made with local Fire Service.

GANGWAY/DECK WATCHMEN: Necessary. Usually provided from crew. Otherwise by negotiation locally.

OPENING/CLOSING HATCHES: Responsibility of crew.

SHIP CERTIFICATES:

Ship's Register (including load-line)
Ship's Gear Certificates (when gear is used in port)
Radio Safety
Life-Saving
Light Dues
Change of Articles
Derat Certificates

CARGO GEAR: Normally not required, as ample port facilities available.

IDENTIFICATION CARDS: May be required to be produced to Immigration Officer or H.M. Customs Offical, especially in the case of foreign flags.

CONSULS: France, Netherlands and Denmark.

REPAIRS: All types of deck and engine repairs possible by local ship repairers.

DRY DOCKS: No. 2 Dry Dock: 301 ft. length, 50 ft. width at entrance, 15 ft. depth on sill. One other dry dock. The water in the wet docks at Goole is maintained at a constant level and all dry docks are entered direct from the wet docks.

REPATRIATION: Arranged by Ship's Agent.

AIRPORT: Humberside Airport. Daily services to Amsterdam, Aberdeen, Bergen, Edinburgh, Newcastle, Norwich and London.

TIME: GMT in Winter; GMT plus 1 hour in Summer months.

HOLIDAYS: Good Friday; Easter Monday; May Day; Spring Bank Holiday (last Monday in May); late Summer Bank Holiday (last Monday in August); Christmas Day; Boxing Day and New Years Day. No cargo working on these days.

POLICE/AMBULANCE/FIRE: Dial 999 and ask for service required.

EMERGENCY CO-ORDINATION CENTRE: Contact Port Manager's office.
BANKS: Midland Bank, Tel: 2401. Barclays Bank, Tel: 2431. National Westminster Bank, Tel: 4541.
TELEPHONES: No arrangements for ship connection.
SHORE LEAVE: No restrictions.
REGULATIONS: Visitors to vessels require permits from Port Authority and Master or ship's Agent. Smoking not permitted ashore in dock area.
AUTHORITY: Associated British Ports – Goole, East Parade, Goole, North Humberside, DN14 5RB. *Tel:* (0405) 2691/6. *Telex:* 57626. *FAX:* (0405) 767419. *Contact:* C. Silvester, Port Manager.

GRANGEMOUTH: 56.01 N. 03.43 W. (See Plan)

PORT LIMITS: At Grangemouth a vessel is not considered to be an "arrived vessel" until she is tied up at the allocated berth.
DOCUMENTS:
1 Crew List.
1 Passenger List.
1 List of all high duty goods in crew's possession.
1 Cargo Manifest.
All Valid Certificates.
PILOTAGE: Compulsory in river. Pilot boards at Inchkeith. Pilot boat on VHF, also see "Radio".
ANCHORAGES: North of Grangemouth West Buoy, 2 fathoms. Charleston Roads 5 fathoms. East of Inchkeith, up to 8 fathoms.
RESTRICTIONS: 24 hour locking system in operation depending on draft. The height of the tide must always be taken into account when dealing with larger vessels.
MAX. SIZE: Dry cargo vessels: Length 600 ft., beam 90 ft. Tankers: Length 575 ft., beam 90 ft. Draft according to state of tide. Vessels other than tankers max. draft 25 ft. 6 in. Tankers, up to 34 ft. max. draft.
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: Wick, Stonehaven and Cullercoats coastal stations. Forth Radio.

Port VHF (FM) Communications: Station: Lock Control Office, Lock Entrance, Grangemouth. This centre will maintain a continuous watch. Call sign: Grangemouth Docks.

156.8 MHz Channel 16 calling and safety. All vessels should maintain a listening watch on this Channel and use it to establish contact with Grangemouth Docks. Once contact is established the Duty Operator will request vessels to shift to the Port Operations Channel.

156.7 MHz Channel 14, Port Operations. A working Channel restricted to messages relating to the movement and safety of ships, and in emergency, to the safety of persons.

156.6 MHz Channel 10, Inter-ship. A working Channel for tug-to-tug and tug-to-bridge communications.

156.3 MHz Channel 6, Inter-ship. A working Channel for communication with other vessels.

156.5 MHz Channel 9. A working Channel for tug to tug and tow to tow communications.

No message of a personal character or messages of any other nature than those pertaining to the general navigation and safety of ships and persons within the Port Area can be accepted.
TUGS: Tugs can join vessel at Hen and Chicken Buoy or Lock Gates and should be pre-booked. Tugs' lines used. 2×25 ton bollard pull tugs available.
BERTHING: The water in Grangemouth Docks is maintained at the same level by impounding pumps. On passing through the lock entrance berthing is allocated according to the nature of the cargo and draft of vessel.

The depth of water available at the berths varies in each dock, the max. depths being approx.: Grange Dock 26 ft.; Carron Dock 23 ft.; Old Dock 17 ft.
CARGO HANDLING FACILITIES: Bulk cargoes can be handled at most berths within the port. The East Wall berth has 4×10 ton grabbing cranes, 2×7.5 tonne mobile cranes are available. Other berths have 10 and 6 ton cranes. 1×35 tonne Scotch derrick. Container berth is 1,000 ft. long and has 2×32 ton transporter cranes.

A Ro-Ro berth in operation. Liquid chemicals and LPG Carriers are handled at the LPG berth and BP jetties. No. 1 North Jetty, which is a common user jetty handles chemicals.
STEVEDORES: No particular advice necessary to stevedores. Essential, however, advise Agent 24 hours prior arrival, who will advise stevedores.
MEDICAL: No advance notice necessary. Hospital facilities available in immediate district.
TANKERS: B.P. Refinery (Grangemouth) Limited. Private jetties in Eastern Channel. South Side Jetties "J2" and "J3" 34 ft. "J4" and "J5" 19 ft. 6 in. North Side Jetties "E1" and "E2" 34 ft. No. 1 North Side Jetty, pipe-lines connected to Ross Chemical and Storage Co. are 1.5 in. nitrogen line, 6 in. chemical line, 10 in. heavy fuel line, 2 in. fresh water supply, 8 in. motor spirit line, 8 in. gas oil line. Draft at No. 1 North 32 ft. 6 in.
DENSITY: 1019 average.
FRESH WATER: Available in most berths. Watermen supervise delivery on request. Delivery rate varies depending on berth.
FUEL: All grades available from oil installations.
GANGWAY/DECK WATCHMEN: Not necessary but can be done by ship's personnel.
OPENING/CLOSING HATCHES: Custom of port is crew open and close hatches but stevedores will do so if required.
CUSTOMS ALLOWANCES: At the discretion of Local Customs Inspector. Normal allowances are equivalent of 5 ounces tobacco per man and equivalent of 1 bottle of wine per man. Allowances may be halved for home trade vessels. Vessels in port more than 3 or 4 days may receive extra allowances.
CERTIFICATES: For Customs Clearance valid Certificates in respect of radio, load-line, construction, safety equipment, deratisation, necessary.
CONSULS: Norwegian, Danish and Swedish consuls available locally.
SURVEYORS:
(1) Macleod & McAllister Ltd., Old Granary Office, Meadowside Quay, Glasgow G11.
(2) Thomas Nicol and Son, 11 Bothwell Street, Glasgow G2.
(3) S. A. Greer & Co., 15 North Claremont Street, Glasgow G3.
(4) E. K. Wallace & Son Ltd., 11 Bothwell Street, Glasgow G2.
(5) Lloyd's Register of Shipping, 27 Thistle Street, Edinburgh.
REPAIRS: All types of repairs can be carried out afloat.
DRY DOCKS: Carron dry dock length 350 ft., breadth 50 ft., depth 22 ft.
REPATRIATION: All facilities exist.
AIRPORT: 1 hour from Glasgow and Edinburgh airports where numerous connections for London thence world wide travel.
TIME: British Standard Time (1 hour ahead of GMT). GMT during Winter months.
HOLIDAYS: First 3 weekdays in January; 1st Monday May; 3rd Monday July; 2nd Monday September; Christmas Day and 26th December.
POLICE/AMBULANCE/FIRE: In public telephone dial 999 and ask for appropriate service. With dock circuit telephone dial 222 and ask for Police/Fire/Ambulance.
EMERGENCY CO-ORDINATION: Coastguard Fifeness Tel: 033 35 666. Major Port Emergencies are controlled by the Police dial 999 or contact through Harbourmaster Grangemouth Tel: 486839.
SERVICES: Compass adjusting, calibrating, etc., can be done in river. No equipment for tank cleaning but can accept tank washings ashore.
BANKS: Royal Bank of Scotland, La Porte Precinct, Grangemouth. Bank of Scotland, La Porte Precinct, Grangemouth.
STORING: See "Prelims".

Vessels may be stored by trucks alongside dry cargo berths. There are no facilities for storing, by trucks, vessels berthed at jetties in Eastern Channel.

Trucks may, by prior arrangement, proceed alongside dry cargo berths to store vessels.

Stevedores fork lifts may be employed to handle ship's stores.

Customs regulations are in force for stores remaining on board. Details of stores, including bonded goods such as spirits, etc., must be supplied to Customs on arrival, and a constant check is kept whilst the ship is in Port. Regarding stores loaded aboard, any bonded goods must be presented to Customs for inspection and approval. Restricted amounts only are permitted.

Local riggers may be employed for storing.
SHORE LEAVE: Allowed.
AUTHORITY: Forth Ports Authority, Dock Office, Grangemouth, Stirlingshire FK3 8UE. *Tel:* (0324) 482591. *Telex:* 777432. *Contact:* J.R.Grant, Port Manager.

GRANTON: 55.59 N. 03.13 W. (See Plan)

DOCUMENTS: See "Leith".
PILOTAGE: Pilot station Firth of Forth located at Granton, boarding station West of Fairway Buoy at Longitude 3° West. Contact with pilot cutters can be made on VHF Channel 16 and R/T 2182 kHz. Pilotage not compulsory for vessels passing South of Inchkeith Island.
ANCHORAGES: Good holding ground at Leith roadstead 8 m. – 19 m. at C.D. Request should be made to Forth Navigation Service for suitable anchorage position.
RESTRICTIONS: The entrance between the breakwaters is 103 m. in width. The rise of tide, 5.182 m. at Springs and 3.658 m. at Neaps permits the entry or exit of vessels up to 7.07 m. draft at HW.

A red flag bearing St. George's Cross exhibited at the Middle Pier Head signifies that vessels should not enter the harbour until the flag is lowered.
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: Forth, Stonehaven and Cullercoats radio stations.
RADAR/VHF: Port and estuary radar service. Contact should be made with "Leith Harbour Radio" for berthing instructions on VHF Channel 12. Forth Navigation Service should be contacted on VHF Channel 71 by all vessels passing Forth Ports Authority seaward limit (line joining North and South Carr Beacons), working on Channels 20 and 12.
TUGS: Sound signal for vessels requiring tug services is four long blasts. Tugs, if required, join the vessel in the roads. Tugs towing gear available and compulsory.
BERTHING: Middle Pier: Quayage 210 m. max. depth 5.1 m. LWOST. In addition, there is a 122 m. crosspiece at the end of the pier where depth of water is 5.1 m. LWOST. Ro-Ro ramp available.
West Pier: Closed to all traffic.
TANKERS: Jetty closed.

MEDICAL: No advance notice of medical attention required. All hospital facilities available.
FRESH WATER: Available alongside at all berths.
FUEL: All grades available subject 24 hours notice in advance.
REPAIRS: Facilities available for all minor repairs.
AIRPORT: Edinburgh Airport, served by regular airlines, situated about 6 miles away.
CONSULS: See "Leith".
HOLIDAYS: Public holidays observed annually: Third Monday in April; third Monday in September; Christmas Day (25th December); 26th December; 1st, 2nd and 3rd January.
AUTHORITY: Forth Ports Authority, Port Office, Tower Place, Leith, Edinburgh EH6 7DB. *Tel:* (031) 554 4343. *Telex:* 72681. *FAX:* (031) 553 7462. *Cables:* "Harbour Leith". *Contact:* Mr. T.J. Skinner, Port Manager, Leith and Granton.

GREAT YARMOUTH: 52.34 N. 01.44 E. (See Plan)

DOCUMENTS: Usual U.K. requirements.
PILOTAGE: A 24-hour service is provided by Trinity House, subject to 1 hour's notice. Pilots can be contacted on VHF Channels 12 and 9.
RESTRICTIONS: When large or awkward vessels are navigating within the port, it may be necessary to hold or slow down other vessels. This is normally done in consultation with the Pilots concerned.
SIGNALS – Control Tower – South Pier: Amber fixed light or all lights extinguished – DO NOT ENTER.
Harbour Office – Brush Bend: Two horizontal red fixed lights – VESSEL(S) ENTERING.

Vessels proceeding downriver must not come below the passenger slipway 132 m. from the North end of Brush Bend while lights are exhibited.

Entry Signals – Control Tower – South Pier:
Fl. amber 1 ev. 5 secs. Ebb less than 1 knot, height 4.2 m.
Fl. amber 2 ev. 5 secs. Ebb less than 1 knot, height 4.5 m.
Fl. amber 3 ev. 10 secs. Ebb less than 1 knot, height 4.8 m.
Fl. amber 4 ev. 10 secs. Flood.
Fl. mauve 1 ev. 5 secs. Ebb more than 1 knot, height 4.2 m.
Fl. mauve 2 ev. 5 secs. Ebb more than 1 knot, height 4.5 m.
Fl. mauve 3 ev. 10 secs. Ebb more than 1 knot, height 4.8 m.
Fl. mauve 4 ev. 10 secs. Flood.

MAX. SIZE: Max. length 138 m., max. draft 5.7 m. HWOST.

With a tidal range of only 1.8 m. and a minimum entrance depth of 4.3 m., Great Yarmouth can be used by vessels up to 4,000 d.w.t. and with a length of up to 120 m. at any time.

HEALTH: Usual U.K. procedure. Contact Port Health Officer for Derat, Fumigation, Quarantine or Livestock Quarantine.
VHF: Masters of vessels intending to enter the harbour must notify the Harbour Master at least 1 hour before arriving off South Pier, giving ETA, max. draft, gross tonnage, any dangerous cargo and last port of call. Masters must also obtain clearance before starting to navigate through the entrance between the piers.

Where possible, VHF radio-telephone must be used for giving information and obtaining clearance to navigate from the Harbour Master. The following VHF Channels and frequencies are used: 9, 11, 12 and 16.

Yarmouth Radio keeps a continuous watch on Channels 12 and 16. The Haven Bridge operates on Channel 12.

Reporting: All vessels over 50 g.r.t. and any others fitted with VHF must report to Yarmouth Radio when passing Ocean Terminal, Atlas Berth and Turntide Jetty (Breydon Water), giving direction of travel.

TUGS: The port's 550 h.p. tug *Hector Read* has a bollard pull of nearly 7 tonnes and can be used for all harbour work, including salvage in the port and approaches. It is fully equipped with salvage and fire fighting pumps as well as other salvage equipment. Contact should be made through the Harbour Master.
BERTHING:
South Quay: Length 470 m.
ABC Wharf: Length 140 m., used for carrying out repairs afloat.
Fish Wharf: Used by Norfolk Line and offshore companies.
East Quay: Length 202 m. Great Yarmouth Warehousing Co. has its main depot on the East Quay, comprising 2,209 sq.m. of warehouses and 3,716 sq.m. of open storage.
Atlas Quay: Length 240 m., with Ro/Ro ramp.
Ocean Terminal: Ro/Ro berth with 70 m. quay. Max. loading 40 tonnes.
Bollard Quay: Length 297 m.
Southtown Wharf: Two berths, lengths 98 m. and 115 m. Can accommodate 2 vessels of length 100 m. simultaneously.
CRANES: The Port and Haven Commissioners have 5 mobile cranes, including 3 that can lift up to 24 tonnes and 2 that can lift 3.5 tonnes. All are equipped with grabs and hooks. Cranes can also be hired from several local companies.
BRIDGES: *Signals – Haven Bridge:*
Northbound Vessels:
By Day: Blue flag hoisted S.E. Buttress.
By Night: Fixed blue light over fixed white light S.E. Buttress exhibited (5 minutes before bridge opening).
Southbound Vessels:
By Day: Red flag hoisted N.W. Buttress.
By Night: Fixed red light over fixed white light. N.W. Buttress exhibited (5 minutes before bridge opening).
Channel Lights: Exhibited when bascules raise for passage of shipping.
S.E. corner of West Buttress – 2 fixed red vertical.
N.E. corner of West Buttress – 2 fixed red vertical.
S.W. corner of East Buttress – 2 fixed green vertical.
N.W. corner of East Buttress – 2 fixed green vertical.
Breydon Bridge: At the approaches to Breydon Water.

Navigation advice from Harbour Master or direct to the Bridge on VHF Channel 12.

STEVEDORES: A pool of more than 80 dockers is available to the port's 3 stevedoring companies through Great Yarmouth Port Labour Company. Arrangements are made by Port Agents.
MEDICAL: Doctors and dentists can be arranged through Agents. Hospital facilities available.
FRESH WATER: Water, drinking or fresh, is available on the public quays. Those currently in use are East Quay, Bollard Quay, South Quay and Ocean Terminal.
FUEL: A bunkering station is operated by B.P. Gas Oil is delivered at up to 50 tonnes per hour to any vessel able to use the port.

Total storage capacity of all fuels is about 10,200 tonnes, of which about a third is available for marine use.

CONSULS: Belgium: Consul, Lowestoft. Tel: (0502) 2301.
Denmark: Vice-Consul, Great Yarmouth. Tel: 856831.
Finland: London Embassy. Tel: (01) 235 9531.
France: Consul, Lowestoft. Tel: (0502) 2301.
Italy: London Embassy. Tel: (01) 235 8643.
Netherlands: Vice-Consul, Great Yarmouth. Tel: 856831.
Norway: Vice-Consul, Great Yarmouth. Tel: 850431.
Spain: London Embassy. Tel: (01) 235 5555.
Sweden: Consul, Felixstowe. Tel: (03942) 78844.
REPAIRS: Several ship repair companies are located in Great Yarmouth and most types of repairs can be undertaken.
DRY DOCKS: Richards (Shipbuilders) repairs ships up to 80 m. long and 12.5 m. beam. Sill depth 4.45 m. at MST. Also a shipbuilding berth.
SURVEYORS: Both Marine and Cargo Surveyors can be arranged through the Agent.
AIRPORT: Flights are available by helicopter and light aircraft from North Denes Airfield, 5 km. from the North of the town.

Air U.K. and Genair operate scheduled daily flights from Norwich to British and Continental destinations.

An emergency helipad has been built on the Port Authority premises close to the harbour entrance.

TIME: GMT. Summertime (GMT plus 1 hour) kept from March to October.
POLICE/AMBULANCE/FIRE: Dial 999 in an emergency.
EMERGENCY CO-ORDINATION CENTRE: H.M. Coastguard, Tel: 851338.
SERVICES: Compass adjusting can be carried out.

As this port services the oil industry, many types of oil-related services are available from several companies.

BANKS: Barclays Bank plc. Tel: 857601.
Lloyd's Bank plc. Tel: 855177.
Midland Bank plc. Tel: 843631.
National Westminster Bank plc. Tel: 857521.
DEVELOPMENTS: Redevelopment of the Fish Wharf is under way.

Passenger terminal available at Atlas Quay.

AUTHORITY: Great Yarmouth Port & Haven Commissioners, 21 South Quay, Great Yarmouth, Norfolk NR30 2RE. *Tel:* 0493-855151. *FAX:* 0493–653464. *Telex:* 975102 (Gyport). *Contact:* M. C. M. Boon, Chief Executive. Captain R. W. Forbes, Harbour Master. Tel: 0493-663476.

GRIMSBY: 53.34 N. 00.04 W. (See Plan)

VESSEL TRAFFIC SERVICES HUMBER: See "Hull".
NOTICES: See "Hull".
DOCUMENTS: See "Immingham".
PILOTAGE: See "Immingham".
ANCHORAGES: Hawke and Sunk Roads, Haile, Spurn and Bull Anchorages. See "Hull". The Pilots will advise where to proceed to anchor and also provide Pilot.
RESTRICTIONS: See "Berthing" – entrance locks.
MAX. SIZE: Maximum breadth 19.8 m., maximum length of vessel that can be locked 81.7 m. but vessels of greater length can enter docks on HW when all lock gates are open. 0.91 m. clearance under the keel is required. Vessels having a draft of 5.8 m. can normally enter the docks on any tide when the height of water is sufficient to allow 0.91 m. clearance. Vessels with 6.4 m. draft can be taken on spring tides. Vessels can enter usually approx. 3 hours before and 2.5 hours after high water.
Commercial Docks: Max. LOA 139 m., draft 5.8 m., beam 19.8 m.
Fish Docks: Max. LOA 73.2 m., draft 5.5 m., beam 12.2 m.
HEALTH: Master has to report any "Reportable" illness as detailed in Form "Port 38" to "Porthealth Grimsby". Also see "Health – All Ports" before first U.K. port.
RADIO: Humber Radio, 2182 kHz, or VHF Channel 16. Also see "Hull".
VHF: See "Hull" – Vessel Traffic Services Humber.
TUGS: Normally join in Grimsby roads. Optional whether use ship's or tug's lines. Tugs operate from Immingham so plenty of notice required.
BERTHING: *Grimsby Docks:*

	Commercial Docks	Fish Docks
Entrance Locks:		
Length	90.0 m.	21.4 m.
Width	21.4 m.	13.0 m.
Sill level MHWN	6.8 m.	6.8 m.
Quay cranes	11 electric – capacity 3 to 7.5 tonnes 2 mobile cranes – capacity 20 tonnes for ship discharge	1 mobile – capacity 15 tonnes

There are 2 Ro/Ro berths in the Royal Dock, one to/from Esbjerg and a second to/from Norway. There is also one in the Alexandra Dock for motor vehicles.

A recent development is the establishment by Humber Terminals of a Lo/Lo unit load service at the West side of the Royal Dock. A 35 tonne crane is being provided and the initial users are Floatline for their weekly service to Halmstadt and Rotterdam.

STEVEDORES: Vessels are allocated labour in order of arrival so it is only necessary to give the Agent the ETA preferably before noon on the previous day. Normal working hours 0800 – 1700 hrs., Friday 0800 – 1600 hrs. Overtime can be worked 1700 – 1900 hrs. Monday to Thursday. On Saturdays and Sundays as required.

MEDICAL: Hospitals and all other medical facilities are readily available. If immediate attention is required on arrival please advise Agent by radio or telegram.

FRESH WATER: Available at all quays. Rate approx. 20 t.p.h.

FUEL: Normal gas and diesel oils available by both road and barge with at least 24 hours notice. This is also quayside tankage in fish docks.

GANGWAY/DECK WATCHMEN: Not necessary, but the service is available if Master requires it.

OPENING/CLOSING HATCHES: Responsibility of the crew. The hatch beams can be removed and replaced by the shore cranes but there is an extra charge for this operation.

CUSTOMS ALLOWANCES: 200 cigarettes per 8 days. 1 bottle wine and 1 bottle spirits per 4 days. All seals to be broken.

CARGO GEAR: In accordance with the regulations laid down by H.M. Factories Inspector.

IDENTIFICATION CARDS: Some sort of identification whilst crew are ashore is advisable. (Seaman's Book or Passport).

CONSULS:

Belgium, Vice-Consul	Hull	27464
Denmark, Vice-Consul	Grimsby	357521
Dominican Republic	Grimsby	359101
Finland, Consul	Immingham	571387
France, Consular Agent	Grimsby	47221
Germany F.R.	Hull	25781
Greece, Vice-Consul	Hull	224151
Iceland	Grimsby	357543
Netherlands, Vice-Consul	Immingham	76246
Norway, Vice-Consul	Hull	224151
Sweden, Vice-Consul	Immingham	571387

REPAIRS: Facilities are available for all deck and engine repairs.

DRY DOCKS: Nearest at Immingham.

SURVEYORS: See "Immingham".

REPATRIATION: Can be arranged if required.

AIRPORT: Humberside, 15 miles from Grimsby, daily service to Amsterdam (3 flights daily), Bergen, London, Edinburgh, Norwich and Aberdeen. Easy access to all major airports via rail, etc.

Leeds Bradford Airport, 3 flights daily to Amsterdam, Aberdeen, Belfast, Copenhagen, Norwich, London (Stansted), Paris and Edinburgh. One flight to Dublin.

HOLIDAYS: New Year's Day; Christmas Day; Boxing Day; Good Friday; Easter Sunday and Monday; May Day; Spring Bank Holiday (end May); Late Summer Bank Holiday (end August). All except Christmas Day, New Year's Day, Good Friday and May Day can be worked as overtime if sufficient staff are willing.

POLICE/AMBULANCE/FIRE: Port Security 52713; Grimsby Police – Grimsby 359171. Emergency – Police/Fire/Ambulance 999.

EMERGENCY CO-ORDINATION CENTRE: See "Immingham".

TELEPHONES: Not available for connection on board.

SERVICES: Compass adjusting, tank cleaning, etc., are available.

SHORE LEAVE: Crew are allowed ashore.

BANKS: See "Immingham".

STORING: See "Immingham".

GENERAL: The Grimsby Dock Master can be contacted on VHF Channel 16 and then change to Channel 18 or 9 for speaking.

AUTHORITY: Associated British Ports, Port Office, Cleethorpe Road, Grimsby, South Humberside DN31 3LL. *Tel:* (0472) 359181. *Telex:* 52250. *FAX:* (0472) 48275. *Contact:* D. Dunn, Port Manager.

HARTLEPOOL: 54.42 N. 01.12 W. (See Plan)

DOCUMENTS: *Ship's Official Papers including:*

Ship's Register.
Ship's Construction Certificate.
Load Line Certificate.
Derat Certificate.
Safety Equipment Certificate.
Radio Equipment Certificate.
U.K. Light Dues Certificate.
Crew List.
Bills of Lading, Manifest and Stowage Plan (Usually sent in advance).
Ship's Stores List.

PILOTAGE: Call by VHF when 3 hours from port and again 30 minutes before arrival. 2 hours required for sailing. VHF Channel 16, 14, 12, 9, 8 and 6.

Pilotage not compulsory. Tel. No. Hartlepool 266030.

Pilots usually board in vicinity of Longscar Buoy from a cutter showing the usual international signals.

ANCHORAGE: N.E. of Longscar Buoy but special care must be exercised in vicinity of prohibited anchorages near Ekofisk Oil Pipe-line and River Tees Fairway.

RESTRICTIONS: Daylight entry only for vessels exceeding 24.4 m. beam. Entrance Channel 1.1 km. long., 61 m. wide. Nominal dredged depth 5.0 m. below LAT.

MAX. SIZE: Overall length 181.3 m. Beam 29.2 m. reduced draft of 7.92 m. Vessels approaching any of the max. sizes must consult Dock Master in advance.

HEALTH: New Regulations. The Public Health (Ships) Regulations in force.

Also see "Health – All Ports" before first U.K. port.

RADIO: Cullercoats Radio. VHF Hartlepool Port Radio Channel 16 and 12.

TUGS: Two twin screw diesel (1,200 h.p.) tugs available during tidal periods. Tugs ropes available at extra charge.

BERTHING: Victoria Harbour, Deep Water Berth. Length 295 m. Depth 9.5 LAT. Equipped with 10 tonne cranes. Ro/Ro pontoon available.

Victoria Berth (ex-Wood Quay): Construction to commence in 1988.

Entrance to the enclosed docks at Hartlepool is by 'The North' entrance, Victoria Harbour, which has a depth of water 8.18 m. on the sill at MHWST the entrance width is 21.33 m.

North Basin (Non-Tidal): Length of Dock 182.87 m. Depth on sill is 3.1 m. below LAT. No Cranes.

N.W. Corner: Roll-on/Roll-off berth. Max. LOA 135 m. Max. beam 20 m. Max. draft 6.25 m.

Central Dock (Non-Tidal): Length of Dock 301.73 m. Width of Entrance 21.33 m. Depth alongside is 2.5 m. below LAT. No Cranes.

West Quay – Conveyor: A dry cargo bulk loading appliance capable of loading any cargo of sizes up to 3 in. cube into vessels of 8,000 tonnes carrying capacity or less, according to tidal conditions prevailing at the entrance locks.

North-West Corner and South-West Corner: Roll-on/Roll-off Berth. Max. length of vessel 135 m. Max. beam 20 m. Max. draft 6.25 m.

Union Dock (Non-Tidal): 11 Cranes 10 tonnes – 3 tonnes. Length of quayage 1,551.94 m. Width of Entrance 20.32 m. Depth of Water of 2.2 m. below LAT.

Roll-on/Roll-off berth to handle loads of up to 450 tonnes. Max. length of vessel 85.34 m. Max. beam 14.93 m. Max. draft 5.79 m. Bulk road vehicle chute.

Coal Dock (Non-Tidal): Length of Quayage 689.11 m. Width of Entrance 20.32 m. Depth of Water of 2.2 below LAT.

Jackson Dock (Non-Tidal): Length of Quayage 600 m. Width of Entrance 20.32 m. Depth of Water of 1.6 m. below LAT.

STEVEDORES: All stevedoring undertaken by Port Authority on day work basis with voluntary overtime available (including week-ends). Shift working can also be provided.

MEDICAL: Full hospital and emergency services available at all times. Shore Telephone No. 999 or call on VHF 16.

DENSITY: 1025.

FRESH WATER: Available from shore hydrants and tugs at 20 t.p.h.

FUEL: Available by road and bunkering vessels.

GANGWAY/DECK WATCHMEN: Available by private arrangement through Agents.

HATCHES: To be opened and closed by ship's crew.

IDENTIFICATION CARDS: Seaman's Book or Passport advisable.

CONSULS:

Belgium
Denmark
Finland
French Consular Agency
Germany F.R.
Netherlands
Norway
Portugal
Sweden

REPAIRS: Deck and engine repairs available.

SURVEYORS: Hull and cargo surveyors available through Shipping Agent.

AIRPORT: Teeside Airport nearby with regular U.K. and Continental Services.

TIME: GMT and BST (GMT plus 1 hour) during Summer months.

HOLIDAYS: Normal Bank Holidays.

STORING: See "Prelims".

1. Yes.
2. Yes – no regulations concerning storing.
3. Yes.
4. Yes.
5. Normal standing regulations.
6. Yes.

EMERGENCY CO-ORDINATION CENTRE: Tees Harbour Office.

AUTHORITY: Tees and Hartlepool Port Authority – Hartlepool Docks, Middleton Road, Hartlepool, Cleveland TS24 0SE. *Tel:* Hartlepool (0429) 276771. *Telex:* 58669. *Contact:* N. Britton, Director. Captain A. Kirk, Dock Master.

HARWICH (Including Parkeston Quay and Navyard Wharf): 51.56 N. 01.15 E. (See Plan)

The Harbour Authority is the Harwich Harbour Board whose jurisdiction extends from the seaward area of the Deep Water Channel to the mouth of the River Orwell on one hand and as far up the River Stour as the tide flows on the other.

The Harbour Master's Office is at Harbour House, Angel Gate, Harwich (Tel: (0255) 504303. Telex: 987304), at which is based the Harwich Harbour Operations Service maintained on a 24 hour basis by a Duty Officer and a Trinity House Duty Pilot.

The Harbour Operations Service (Call sign "Harwich Harbour Radio") maintains a listening watch on Channel 16, and operates on Channel 71.

The service is equipped with surveillance radar, radar information is available on request.

British Rail, at Parkeston Quay, keep a 24 hour listening watch on Channel 16 and work on Channel 18.

DOCUMENTS:

1 Home Officer Form 1.B.6 may be obtained from H.M. Customs Boarding Officer.
1 C.142 Crew Declaration List.
1 Maritime Declaration of Health ("Q" Flag procedure).
2 Ship's Report by Master.
1 Stores List.
1 Certificate of Deck Cargo Tonnage (if carried).
1 Grain Certificate (if carried).
1 Light Certificate.
1 Port Dues Certificate.
1 Passenger List required by vessels other than packet vessels.
1 Landing Card for each passenger.
1 Ship's Certificate of Registry.
1 Mercantile Marine Office Certificate – for British vessels only.
1 Load Line Certificate.
1 Safety Equipment Certificate.
1 Lloyd's Certificate.
1 Derat Exemption Certificate.
1 Ship's Register.
1 Lights Bill.
1 Radio Safety Certificate.

In addition Manifests and Bills of Lading are usually sent to Agent direct from loading port.

Dangerous Goods: Notification is required to Harwich Harbour VTS 24 hours in advance of the vessel's arrival at the port. Notification may be made by the following means:

(1) By facsimile – Fax No. (0255) 508448.
(2) By telex – Telex No. 987304.
(3) By post/courier to: Harwich Harbour Board,
Harbour House,
Angel Gate,
Harwich,
Essex CO12 3EJ.
(4) By telephone – (0255) 506535 (24 hour number).

PILOTAGE: Pilotage into harbour is compulsory for all ships of 50 tons and over, with the exception of vessels of not more than 3,500 tons gross regularly employed in the home and coasting trades and not carrying passengers. Pilots require 8 hours and 3 hours notice of arrival.

Also see "Felixstowe".

CORK PILOT STATION

Boarding Point: To facilitate the arrival and departure of ships trading to and from the ports of Felixstowe, Harwich and Ipswich, a Pilot station operates in the vicinity of the Cork in a position Lat. 51° 56′ 42″ N., Long. 01° 27′ 06″ E. *This station is additional to, but is not a substitute for, the Sunk pilot. It is for the use of ships bound to or leaving the above-mentioned ports whose normal course does not take them past the Sunk pilot.* Full service is also provided at the Sunk station by fast launches from Harwich.

The Cork station is operated by a fast Pilot launch with black hull and white wheelhouse, flying the Pilot flag, and at night exhibiting lights and signals in accordance with Rule No. 29 of the International Rules for the Prevention of Collisions at Sea.

The attention of Masters is drawn to the requirement when being served by a fast pilot launch of maintaining headway throughout the operation of shipping or landing a Pilot.

ETAs and Amendments: Inward Bound Ships. Ships requiring a Pilot at the Cork station should apply to the shore station at Harwich in the same manner and giving the same information but stating their estimated time of arrival at the Cork.

Outward Bound Ships: Masters of ships about to sail from Harwich and Felixstowe and wishing to use the Cork pilot station should state this when ordering their Pilots for departure. However ships may carry their Pilots out to the Sunk pilot station should they so desire. Pilots for ships outward bound should be ordered by telephoning Harwich (code 0255) 503129 – see "Harwich Shore pilot station" below.

Contact Procedure: The Cork pilot launches keep a constant listening watch on Channel 16 (VHF).

Working Frequencies: Vessels should call on the working frequency, Channel 9 (VHF).

HARWICH SHORE PILOT STATION (OPERATIONS)

The Shore pilot station (Operations) is situated at Harbour House, Harwich and is part of the VTS jointly operated by the Harwich Harbour Board and Trinity House. It should be noted that Pilots' accommodation and administrative offices are situated at the main pilot station at Town Quay, Harwich.

The pilot station (Operations) is manned by a Duty Pilot and is equipped with VHF, telex and telephone.

All requests for the services of Pilots for ships bound into or out of Harwich and Felixstowe should be made to this station. Orders for Pilots for outward bound ships should state whether the Pilot will be landed at the Sunk or the Cork. Requests from inward bound ships for the services of the Ipswich Pilots and for the Pilots for the Rivers Colne, Blackwater, Crouch and Roach may also be passed through this station.

Contact Procedure: A 24-hour listening watch is maintained on Channel 16 (VHF). The call sign is "Harwich Pilots Radio".

Working Frequencies: Vessels should call on the working frequency, Channel 9 (VHF).

Other communication details are:

Telephone number: Harwich (code 0255) 503129 or 506300
Telex number: 98472, Pilots Harwich

APPROACHES: Traffic Regulatory System in effect.

ANCHORAGES:

Erwarton: Situated to the North and West of Parkeston Quay with an average depth of 5.5 m. at LW.

Parkeston: Situated to the North of Parkeston Quay, with an average depth of 5.5 m. at LW.

Shelf: Situated on the Western side of the main Channel between the North and South Shelf Buoys. Average depth of 3.7 m. at LW.

Inner: Situated at the Pitching Ground. Average depth 8.0 m. at LW.

Cork: Situated to the North of the Harwich Channel. Area approx. 2 miles×1 mile. Average depth 6.5 m.

RESTRICTIONS: Normal max. draft allowed alongside the berths at Parkeston Quay is 26 ft.

Normal cargo working at Parkeston Quay ceases at 2200 hrs., but berthing and night work by arrangement at any time.

MAX. SIZE: Normal max. permissible length 500 ft. Arrangements for larger vessels can be made. Normal max. permissible breadth for Roll-on/Roll-off is 75 ft. Normal max. permissible draft – 20 ft. The height of the tide does not restrict a vessel berthing alongside the quay if her draft is within 20 ft.

HEALTH: Maritime Declaration of Health required ("Q" Flag procedure). Obtain Pratique through H.M. Customs Boarding Officer if no sickness on board.

If there is sickness on board the Customs Official will notify the Duty Port Medical Officer.

If the vessel is from another port in the U.K. Pratique is automatic.

Also see "Health – All Ports" before first U.K. port.

RADIO: North Foreland Radio (call sign GNF) or Humber Radio (call sign GKZ) are the most convenient stations to pass ETA cables, etc., to Agents or receivers

VHF: VTS in operation. Also see "Pilotage" and "Tugs".

TUGS: 5 tugs are available in Harwich Harbour for use in the area. M.T. "Alfred", M.T. "Crosby" and M.T. "Ganges", 40 ton bollard pull.; M.T.'s "Sauria" and "Egerton", 18 tons bollard pull. Tugs' lines usually used.

24-hour service, 7 days per week. Constant watch on Channel 16 VHF. Additional tugs up to 2,250 h.p. can be obtained from London at 24 hours' notice.

BERTHING: There are 8 berths at Parkeston Quay, of which 2 are Portal Ro-Ro berths and 1 is a Pontoon Ro-Ro berth. Normally max. draft permissible alongside is 20 ft. A new berth is under construction.

Berthing, etc., by arrangement. Applications for berths must be made through the Shipping or Port Manager, British Rail, Parkeston Quay, giving as much advance notice as possible. Also see "Navyard, Harwich" before "Authority".

STEVEDORES: All labour at Parkeston Quay are members of National Union of Railwaymen, and arrangements for their use must be made through the Shipping and Port Manager, British Rail, Parkeston Quay.

MEDICAL: Prior notice through British Rail, Parkeston Quay, desirable to arrange attention. All services are available.

TANKERS: A berth is available for tankers for the purpose of discharging and loading to the local oil refinery.

DENSITY: 1025 (sea water).

FRESH WATER: Fresh water can be supplied from quayside hydrants.

FUEL: Can be arranged by either barge or road tanker.

GANGWAY/DECK WATCHMEN: Watchmen are not provided or required by the port, but ships may use their own watchmen.

OPENING/CLOSING HATCHES: To be carried out by ship's crew.

CARGO GEAR: There are 2 transporter cranes, 30 tons SWL and 4×30 ton Goliath rubber tyred gantries. A 35 ton gantry crane is available at Parkeston Quay.

IDENTIFICATION CARDS: Seaman's Identity Cards sufficient.

CONSULS: Dutch, German F.R., Danish, Belgian.

REPAIRS: Minor repairs can be carried out by British Rail workshops at Parkeston Quay. As much advance notice as possible required.

REPATRIATION: All facilities available.

AIRPORT: Nearest is Ipswich, 22 miles; Southend, 70 miles.

HOLIDAYS: All normal Bank Holidays. Only passengers and car travellers are dealt with at Parkeston Quay on these days. Freightliners sail only if loaded before the holiday. Train ferries operate normal services.

POLICE/FIRE/AMBULANCE: Dial 999 and ask for service required.

TELEPHONES: Arrangements can be made, with advance notice given.

SHIP SUPPLY SERVICE:

The Alexandra Towing Co. (Felixstowe) Ltd., The Dock Office, Felixstowe Dock, Felixstowe, Suffolk.

Felixarc Marine, Felixstowe Dock, Felixstowe, Suffolk.

Orwell & Harwich Navigation Co., The Quay, Harwich, Essex.

DEVELOPMENTS: Eastern end of Parkeston Quay to be lengthened in due course to provide more container berths.

NAVYARD, HARWICH:

Operators: Harwich Dock Co. Ltd. Telephone: Harwich 508949. Telex: 98229. Listens on VHF Channel 16, working Channel 22.

Berths:

Berth No. 1: Length 42 m.
Berth No. 3: Length 160 m., depth 8.6 m.
Berth No. 4: Length 90 m., depth 4.5 m.
Berth No. 5: Length 160 m., depth 6.5 m.
(Berths 3, 4 and 5 equipped with Ro/Ro ramps).

Stevedores:

All labour at Navyard is employed by Harwich Dock Co. Ltd. Berths and labour must be booked through Operations Manager (24 hour service available).

Cargo Equipment:

2 Ransome Rapier NCK 60 mobile cranes – capacity 35 tonnes.

Other equipment includes 14 tugmasters, 10 forklifts to 25 tonnes.

Other Services:

Telephones, fresh water, bunkers, medical services can all be arranged. Harwich Dock Company Ltd., provides ships and goods agency services at this and other ports.

AUTHORITY: Harwich Harbour Board, Harbour House, Angel Gate, Harwich CO12 3EJ. *Tel:* (0255) Harwich 504303. *Telex:* 987304. *FAX:* (0255) 508448. *Contact:* Captain R. W. Shaw, Harbour Master.

HEYSHAM: 54.02 N. 02.55 W. (See Plan)

DOCUMENTS: As for other British ports plus Walney Light Dues.
PILOTAGE: Trinity House Pilotage Service, Barrow District. Compulsory for all vessels of 50 tons gross tonnage and over with the exception of vessels of not more than 1,500 tons gross regularly employed in the home and coasting trades and not carrying passengers. Also see "Barrow-in-Furness".
ANCHORAGES: Heysham Lake. 0.5 mile W.N.W. of No. 1 Buoy. Position: Lat. 53° 59.6′ N., Long. 3° 00.0′ W. Depth: 40 ft. at LW.
RESTRICTIONS: Entry possible at all states of tide. Harbour maintained at 4.1 m. below Admiralty chart datum of chart No. 2010.
MAX. SIZE: 525 ft. (160 m.) length, draft 17 ft.
HEALTH: See "Health – All Ports" before first UK port.
RADIO: Heysham Harbour Radio, VHF Channels 16, 14 and 74.
TUGS: None available.
BERTHING: Vessels may be berthed at any time. 1 Ro/Ro ramp, 1 berth exclusively for gas base, 1 general cargo berth North Quay, 2 general cargo berths South Quay and 1 berth West Quay.
CRANES: 1×30 ton portal crane on North Quay; 1×23 tonne portal crane; 4×7.5 ton portal cranes on South Quay.
DENSITY: Salt water.
FRESH WATER: Available from the quays.
FUEL: Gas oil by road vehicle.
GANGWAY/DECK WATCHMEN: Ship's watchmen required.
AIRPORT: Nearest, Liverpool and Manchester; 60 miles.
REPAIRS: Small repairs possible, no docking facilities.
PROVISIONS: Available locally.
POLICE/AMBULANCE/FIRE: Telephone 999 in emergency.
SHORE LEAVE: No restrictions on landing.
AUTHORITY: Sealink Harbours Ltd., Sea Terminal, Heysham, Lancs. LA3 2XF. *Tel:* Heysham (0524) 52373, 52284. *Telex:* 65260. *FAX:* (0524) 53301. *Contact:* Captain P. A. Read, Port Manager/Harbour Master.

HOLYHEAD: 53.19 N. 04.41 W. (See Plan)

DOCUMENTS:
1 Crew List and where applicable a Passenger List.
1 Pratique issued by Customs.
1 Crew Declaration (C.142 for H.M. Customs).
1 List of Consumable Stores (tobacco, snuff, alcohol).
1 Declaration of Health.
1 Cargo Manifest.
1 Ship's Report.
PILOTAGE: Pilotage compulsory under Trinity House Authority. Local Pilot available on request.
ANCHORAGES – PROHIBITED ANCHORAGE: The breakwater affords partial shelter to the outer anchorage and complete protection to New Harbour; there are depths of up to 12.0 m. in the former and of up to 12.0 m. in the latter.

The accommodation for vessels of deep draft in New Harbour is limited. Small vessels should always proceed into New Harbour and anchor in the S.W. part, leaving the outer part and the roadstead for large vessels. The bottom is hard, overlaid with mud but the holding ground is sufficiently good if an adequate amount of cable is veered. During Easterly winds an uncomfortable sea is raised; vessels may then obtain shelter in the Eastern part of outer anchorage. Anchorage is prohibited within 1.5 cables on either side of the track followed by Passenger Ferries from the head of the breakwater to the entrance to Old Harbour; the limits of this area are shown on charts.

MAX. SIZE:
Inner Harbour: Restricted to vessels of 4.5 m. draft and vessels exceeding this draft will only be accepted after consultation with the Port Manager or Harbour Master.
New Harbour: Vessels of approximately 60,000 tons can be accepted alongside the Anglesey Aluminium Jetty where the berth is dredged to 13.5 m. at L.A.T.

Ro-Ro vessels up to 150 m. length and 7.0 m. draft accepted.
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: Holyhead Radio, VHF Channel 16, No Port Radar.
TUGS: Available through Agents. Tugs up to 1,375 h.p.
BERTHING: By prior arrangement with the Port Manager.
Ferry Ramps and Services: There are 2 berths available in the port which are used by Sealink Multi-purpose (Car and Ro/Ro traffic) ferries. The main one is termed the 'Station Berth' and as its name implies is an integral part of the rail station complex offering quick and easy rail/ship interchange with all the necessary H.M. Customs, passenger waiting and ticket checking facilities. Two mechanical gangways are available. A similar berth is available at Salt Island (Admiralty Pier) with again passenger waiting and H.M. Customs clearance facilities available on the spot. Transfer for rail passengers can be made by connecting coaches.

	Station Berth	*Salt Island Berth*
Maximum length of ship accepted	130 m.	140 m.
Datum depth of water available	4.6 m.	4.6 m.
Ramp width	3.4 m.	3.0 m.
Maximum weight of vehicles over ramp	40 tonnes	30 tonnes
Maximum width of vehicles at ramp	3.7 m.	3.5 m.

General Cargo Handling: General Cargo berth is heavily used for exports of Aluminium ingots, steel, powdered chemicals and various other commodities. Imports include fertiliser, timber and steel. Staff are available to handle ship at all times with prior arrangement.

Cranage facilities on offer include:–
73 ton rough terrain road mobile.
Mobile 25 ton crane.
11 ton yard crane.
Cranes are usually hired out including drivers.
Quotes supplied upon request.

There is a railed 15 ton crane on the berth. One or two other mobile cranes, together with a fleet of fork lift trucks and other handling equipment are available. There is ample storage space available as a back up to this berth, and if necessary, covered storage can be provided in the 'Pontoon House' with 2,000 cu.m. capacity.

Length of berth	170 m.	(total quayage)
Depth of water available	4.4 m.	datum

CONTAINER HANDLING FACILITIES:
Sealink Container Terminal berth is used by Sealink Container Shipping Services to Dublin and Belfast. There is, however, spare capacity for other operators' ships and services. A regular twice weekly service has been operated by the Ford Motor Company between Holyhead and Cork for example. In addition Sealink have handled over 70 other Container ships for lines such as OCL, DART and CAST.

Sealink have 2×30 ton Wellman Transporter cranes for ship to shore movements and 2×30 ton Goliath cranes for rail to road transfer. The storage capacity of the Terminal is around 600 TEUs. Customs clearance is available on the spot, serviced by Sealink. Sealink's own fleet of lorries and trailers feed the cranes and ship discharge/loading rates of over 30 containers per hour are normal.

Daily Freightliner services operate to Manchester, Birmingham, London, Cardiff, Liverpool and Felixstowe. Special train movements can be arranged as required. Alternatively, road movements can be accepted or arranged.

Length of berth	135 m.
Datum depth of water available	4.8 m.

STEVEDORES: No stevedores. Vessels loaded and discharged by Sealink dock porters. Outside vessels berthing at Public Quay can be discharged and loaded by making prior arrangements with Agent.
MEDICAL: Medical Officer available. Stanley Sailors Hospital situated in close proximity to Harbour.
DENSITY: Salt water (1025).
FRESH WATER: Available at all berths within the Inner Harbour and alongside Anglesey Aluminium Jetty.
FUEL: Fuel oil and diesel oil available provided that adequate warning is given to Agent. Only 1 berth available for bunkering of large vessels of deep draft alongside Anglesey Aluminium Jetty.

Prior arrangements must be made with Sealink Harbours Ltd. in conjunction with Anglesey Aluminium Metals Ltd., telephone Holyhead 3333.

No oiling barge available for bunkering vessels at anchor.
GANGWAY/DECK WATCHMEN: Required at all times when vessels are in port.
REPAIRS: Repairs can be carried out by Sealink Harbours Ltd workshops.
DRY DOCK: Closed until further notice. Length 124 m., breadth 20.5 m. depth on sill 6.0 m. at Spring tides.
SURVEYORS: Cargo Inspectors can be contacted, if required.

Surveyors representing Lloyd's Register, Bureau Veritas, etc., can be contacted on request.
AIRPORT: RAF Station Valley, Anglesey (6 miles away).
HOLIDAYS: Saturdays, Sundays and all Public holidays.
POLICE/AMBULANCE/FIRE: Tel. 999.
EMERGENCY CO-ORDINATION CENTRE: Maritime Rescue Sub-Centre, Coastguard. Tel: 0407-2051.
TELEPHONES: No telephone connection for outside vessels. Public telephone within port limits.
SERVICES: Compass adjusting can be arranged. Agency can be arranged through Port Authority.
BANKS: British banks only available in the Holyhead area, exchange facilities are provided.
STORING: See "Prelims".
1. Vessels can be stored by barge or truck, usually by truck.
2. Vessels can be stored during loading or discharging.
3. Trucks can proceed alongside at the berth.
4. Forklift trucks can be used to handle stores.
5. Customs Regulations, where applicable, in force.
6. Local riggers can be employed, if necessary.

SHORE LEAVE: Allowed.
AUTHORITY: Sealink Harbours Limited, Sealink House, Turkey Shore Road, Holyhead, Gwynedd LL65 2DD. *Tel:* (0407) 2304 Ext. 7. *FAX:* (0407) 5118. *Telex:* 61283. *Contact:* T.M.Rielly, Port Manager. D.E.Ing Harbour Master. R.Parry, Operations Manager. D.M.E.Lindsay Container Terminal Manager.

HOUND POINT: 56.00 N. 03.22 W. (See Plan)

LOCATION: The terminal is operated by B.P.

Position of terminal Lat. 56° 00′ 20″ N., Long. 03° 21′ 45″ W.

DOCUMENTS:

1 Crew List.
1 Passenger List.
1 Crew's Effects List.
1 Stores List.
All valid Certificates.

PILOTAGE: Pilotage in Firth of Forth is compulsory. Contact "Forth Pilot" VHF Channel 16. Pilot boards large vessels in vicinity of Fairway Buoy 56° 03.5′ N., 03° 00′ W. as there is limited depth and manoeuvring space at normal Pilot boarding ground East of Inchkeith. For large vessels in ballast, Pilots require gangway/pilot ladder combination rig.

ANCHORAGE: When vessel has to wait for Pilot, berth or tide, "Forth Navigation Service" will assign anchorage. These anchorages are in a line E.S.E. to S.W. of Fairway Buoy. Good holding ground at anchorages.

RESTRICTIONS: Vessels will be berthed at slack water – flood or ebb – only. The same in most cases for unberthing.

MAX. SIZE: Vessels up to 300,000 d.w.t. can berth at Hound Point Terminal with no defined restriction on LOA. Vessels berth starboard side alongside, heading East.

Max. permitted loading draft 20.72 m. (Neap tides) 21.64 m. (Spring tides). Minimum depth alongside terminal 25.0 m.

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: Arrival advice: For advance notice refer to Charterer's instructions.

RADAR/VHF: Estuary radar service. VHF contact can be made with Forth Navigation Service Channel 71, working Channels 20 and 12. Hound Point Terminal operates VHF Channel 9; B.P. Grangemouth VHF Channel 16 (calling) and Channel 19.

TUGS: 4 tugs of 35 tonnes bollard pull available. Tugs ropes are used.

BERTHING: Hound Point Terminal (leased and operated by British Petroleum) is a Sea Island in the Firth of Forth about 13 miles from Fairway Buoy. The approach channel from Fairway Buoy to berth is marked by buoys and has a guaranteed minimum depth of 66 ft. at LWST.

Maximum of 4 loading arms of 16 in. available for deballasting and/or loading. Loading rate about 8,000 t.p.h. by gravity and with 2 arms connected. This rate decreases as tank level drops.

When 4 arms are connected loading rate can be as high as 18,000 t.p.h. by means of booster pumps.

Facilities to receive any amount of dirty ballast are available. Discharge through 16 in. loading arms into 24 in. line with minimum of 5 kg./sq.cm. back pressure.

No need to prepare ship's derricks unless stores are taken on board. API of cargo about 36.7.

Berthing and Unberthing: The number of tugs employed will vary according to the size of the vessel and the prevailing weather conditions. Under normal conditions tankers in excess of 120,000 d.w.t. will use 4 tugs berthing and 2 tugs unberthing and ships of less than 120,000 d.w.t. will use 2 – 3 tugs berthing and 2 unberthing.

Berthing is undertaken during daylight or darkness at LWS and in normal circumstances vessels will berth heading East.

Minimum acceptable visibility for berthing and unberthing is 1 mile.

Berthing will not be attempted if the wind is in excess of 20 knots (Force 5) blowing onto or off the berth from a direction up to 45° either side of a line at right angles to the longitudinal axis of the berth, or if in excess of 30 knots (Force 7) from any other direction.

Berthing will not be attempted if the current is in excess of 1 knot, and a similar 1 knot flood limit applies to the unberthing of vessels if berthed heading West. The unberthing of vessels in excess of 54 ft. draft will also be restricted by the tidal rise, otherwise, any other limit conditions will be assessed at the time of unberthing, the controlling depth being 19.2 m. (65 ft.) in the Approach Channel.

Approach to the berth is made after having stopped some 200 m. off and parallel to the berthing line. Normal practice is for tugs to swing the vessel in this position prior to berthing starboard side to.

Speed of approach equipment is provided to assist in ensuring a safe speed during the final breasting in manoeuvre. The equipment operates a display panel which indicates the distance each end of the vessel is off the berthing fenders by means of 2 white bar lights which diminish in length as the vessel approaches. Speed of approach for each end of the vessel is indicated by 2 "traffic light" systems which show:

Flashing Red – dangerous speed, 8 cm./sec. and above.
Flashing Amber – marginally safe speed, 5 – 8 cm./sec.
Steady Green – safe speed, 5 cm./sec. and below.

A stand-by fire tug on 15 minutes notice will remain in attendance at the specially provided buoy mooring while the berth is occupied.

Safe Mooring Guidelines: The following table shows recommended mooring layouts:

200,000 – 300,000 d.w.t.
  4 head/breast lines.
  4 stern/breast lines.
  2 spring lines forward and aft.
100,000 d.w.t.
  2 head and stern lines.
  2 breast lines forward and aft.
  2 spring lines forward and aft.
50,000 d.w.t.
  2 head and stern lines.
  2 breast lines forward and aft.
  1 spring line forward and aft.

These layouts do not include synthetic first lines ashore used for manoeuvring vessels equipped with wire mooring systems into position.

The attention of the Master is particularly directed to the following:

(a) Shore moorings are available from each of the mooring dolphins and it is strongly recommended that all vessels should make use of them. Shore moorings are also available from the outer breasting dolphins to supplement the ship's backsprings if required.
(b) Masters shall ensure that mooring lines are in good condition and free of visible defects. Winch brakes or securing devices should be in efficient operating order and should have a holding power at least 60% the breaking load of the mooring lines. A number of vessels are known to have mooring winches with brakes designed to yield as low as 25% of the mooring line breaking load, and this considerably reduces a vessel's mooring capability. It is therefore most important that the holding power of a vessel's mooring winch brakes is advised to the terminal, together with any known defects in a vessel's mooring equipment in order that possibly more limiting "Action Guidelines" may be agreed.
(c) If mixed moorings of wire and fibre lines are used it is important that due to the differing elasticity of these materials their use in the same direction of restraint should be avoided.
(d) As soon as a vessel is secured, brakes on all mooring winches must be firmly applied. Winches shall not be left on automatic tensioning. Full steam pressure must be maintained on deck and available to all mooring winches throughout the period the vessel is alongside. On split drum mooring winches only one layer of rope shall be permitted on the working half of the drum.
(e) An efficient watch must be maintained on the vessel's moorings (including any shore wires used) to ensure that all lines are properly tensioned and tended when required.
(f) The flow booms are vulnerable to damage should a vessel range or move off the berth and it is essential that a vessel shall be held securely alongside throughout the period in the berth. Particular care should be exercised to ensure sufficient transverse restraint from the breast line moorings.
(g) The terminal is entitled to stop operations and/or summon tugs if it appears that a vessel's movement will endanger the flow booms, or in the absence of an alert and efficient deck watch.
(h) All vessels arriving at Hound Point in ballast should, in order to facilitate manoeuvring ability, have their propeller completely immersed. In addition to this requirement, vessels between 50,000 d.w.t. and 120,000 d.w.t. should be trimmed not exceeding 10 ft. by the stern, and vessels over 120,000 d.w.t. not exceeding 12 ft. by the stern.
(i) The ships accommodation ladder is to be rigged on offshore side for use as a secondary means of escape in the event of an emergency at the terminal. The lower end of the ladder must be maintained about 5 ft. above sea level and adquately lit at night.
(j) Displacement is not to exceed 150,000 tons.

DENSITY: 1020 – 1025.

FRESH WATER: Not available.

TIME: GMT in Winter. GMT plus 1 hour in Summer.

CONSULS: See "Leith".

GENERAL: Outside the Firth of Forth, clear of the land on the South side, streams are weak, spring rate up to 1 knot, but at spring tide the velocity at the terminal is up to 3.5 knots (Refer to Tidal Stream Atlas).

AUTHORITY: Forth Ports Authority, Port Office, Tower Place, Leith, Edinburgh EH6 7DB. *Tel:* (031) 554 4343. *Telex:* 72681. *Cables:* "Harbour Leith". *Contact:* Captain A. R. C. Childs, Chief Harbour Master – Firth of Forth.

HULL: 53.44 N. 00.14 W. (See Plan)

VESSEL TRAFFIC SERVICES HUMBER:

The Humber Ports Operation and Information Service operates a VHF (FM) radio telephone service available to all vessels navigating the Rivers Humber, Ouse, and Trent from the Queen Elizabeth Dock.

A continuous watch is maintained on Channels 10, 12, 14, 16 and 52. The call sign is "VEE TEE ESS" Humber. The telephone number is Hull 0482 – 701787. Telegraphic address "Humberops". Telex: 597656. Fax: 0482-795221.

The Service provides information regarding the arrival, berthing, anchoring and departure of vessels and also information on navigational aids, navigation generally, visibility, and the safety of vessels and persons. Tidal information, including the height of tide at Spurn Pilot Jetty, Immingham, Hull and Hessle, is also available on request. Messages of any other nature and messages of a personal character cannot and will not be accepted. Messages of this kind should be passed through the British Telecom Ships Telephone Service via "Grimsby Radio" on Channel 27.

Other VHF (FM) Stations situated on the River Humber and the Channels used are shown in the Appendix to this Notice. These Stations provide direct communication between a vessel and the Dock or Pier Master at the place of destination. In general, vessels should obtain their navigation and safety information from the Vessel Traffic Services Humber and their berthing, docking and other pre-arrival information from the Station serving their destination.

A general broadcast giving weather reports, tidal information and navigational warnings is made by the Vessel Traffic Services Humber on Channel 12 every 2 hours commencing at 0103 hrs., prior notification being given on Channel 16.

Procedure:

(i) Vessels fitted with appropriate VHF R/T equipment on approaching the Humber should set watch on Channel 16.

(ii) Vessels wishing to communicate with the pilot station should call "Spurn Pilot" on Channel 16 and shift to Channel 14 for exchange of traffic.

(iii) On entering and before sailing or moving in the Humber, vessels should call "VEE TEE ESS" Humber on Channel 16. When contact is established they will be requested to transfer to Channel 12 for exchange of arrival or departure information. Watch should then be resumed on Channel 16 and 12.

(iv) Vessels wishing to communicate with the Station serving their destination should do so at the appropriate time on the Channels shown in the Appendix, reporting their departure from Channel 12 to "VEE TEE ESS" Humber. Vessels are advised that, when communicating with these Stations, contact with the Vessel Traffic Services Humber can only be re-established through Channels 16 and 12 and it is particularly advisable to maintain a listening watch on Channel 16 whenever practicable in the event of unforeseen circumstances developing in the River.

All times in messages should be given in local time using the 24 hour notation.

To achieve the full advantage of efficient communication, strict telephone discipline and attention to procedure, particularly on the Calling Channel, is imperative. The operating procedure should be in accordance with that laid down in Chapters VI and VII of the G.P.O. Handbook for Radio Operators (1975 Edition, with Supplements).

These services will be offered and will be rendered on the condition that neither the Associated British Ports, nor any of its servants or Agents, shall be liable to any person for loss or damage of any kind howsoever caused or arising whether as a result of negligence or otherwise or as a result of the non-availability of the services.

Appendix:

Station	*Call Sign*	*Channel Nos.*	*Operational Times*	*Remarks*
ASSOCIATED BRITISH PORTS				
Vessel Traffic Services Humber, Queen Elizabeth Dock, HULL	"VEE TEE ESS" Humber	16	Continuous watch maintained	Calling and safety.
		12		Navigation and safety information, etc., for the Rivers Humber, Ouse and Trent
		10, 14 and 52		
Grimsby Docks	"Grimsby Docks Radio"	16	Continuous watch maintained	Calling and safety
		18		Docking instructions for Grimsby Docks.
		9		Short range berthing instructions.
Immingham Docks	"Immingham Docks Radio"	16	Continuous watch maintained	Calling and safety
		19		Berthing instructions for tankers.
		22		Docking instructions for Immingham Docks.
		9		Short range berthing instructions.
Saltend Jetties ,	"Saltend Radio"	16	Continuous watch maintained	Calling and safety.
		19		Berthing instructions for tankers.
King George Dock	"King George Dock Radio"	16	Continuous watch maintained	Calling and safety.
		20		Docking instructions for King George Dock.
		9		Short range berthing instructions.
		10		
Blacktoft Jetty	"Blacktoft Jetty Radio"	16	3.25 hours before HW Goole until 0.75 hour after HW Goole	Calling and safety.
		14		Port Operations and berthing instructions for Blacktoft.
Goole Docks	"Goole Docks Radio"	16	Continuous watch maintained	Calling and safety.
		14		Port Operations and docking instructions for Goole.
CRUDE OIL TERMINALS (HUMBER) LIMITED (Operated by Conoco, Ltd.)				
Tetney Oil Terminal	"Tetney Base"	16	Continuous watch maintained	Calling and safety.
		19		Berthing instructions for Mono-Mooring Buoy.
		48		
SPURN SHIPPING COMPANY LIMITED	"Oil Base"	9	Continuous watch maintained	Short range berthing instructions for Immingham Oil Terminal.
HULL CORPORATION				
River Hull Port Operational Service	"Drypool Radio"	16	2 hours before HW Hull until 1 hour after HW Hull, Mon. to Sat.	Calling and safety.
		9		Port Operations in River Hull.
		6	0900 – 1100 hrs. Sat. irrespective of tide.	Inter-ship use.

NOTICES:

GENERAL DIRECTIONS FOR NAVIGATION IN THE HUMBER: PROCEDURE AND INSTRUCTIONS FOR SHIPS USING THE RIVER HUMBER

1. *Time of arrival. ETA:*

1.1 Ship Owners, Masters and Agents are required to inform the Associated British Ports of the Estimated Time of Arrival of their vessels as per the General Directions together with relevant information regarding draft, air draft if proceeding under the Humber Bridge, EEC Check Lists, hazardous cargo, last port of call, nationality of vessel. In this context the Associated British Ports means the Dock Master at the particular port to which the vessel is bound, the Vessel Traffic Services Humber or the Pilot Office at Spurn. Reference British Transport Docks Board Notice to Mariners Nos. 2 and 3 of 1974.

1.2 Ship Owners or Agents are requested to inform the Masters of their vessels of the importance of amending ETA's as necessary due to changing circumstances. Such amendments can be passed to the Associated British Ports by radio through Grimsby Radio either in the form of a link call or telegram.

1.3 Within the Associated British Ports organisation Vessel Traffic Services Humber will disseminate relevant information received to all interested parties.

1.4 Within the river any message related to the movement and safety of vessels will be passed by Vessel Traffic Services Humber to the vessel concerned and Ship Owners and Agents may avail themselves of this service at any time.

2. *Time of Departure. ETD:*

2.1 In order to maintain a complete and up to the minute picture of traffic movement Dock Masters are requested to notify the Vessel Traffic Services Humber of the intended time and actual time of departure of vessels from their docks. This information should be passed by land line. Exchange of information thus engendered should ensure that all Officers of the Associated British Ports are fully informed of traffic movements. In the case of berths not under the jurisdiction of a Dock Master (e.g. wharves on the River Trent), requests for services of Pilots on Telex No. 527393 Spilot g duplicated to Telex No. 597656 Vtshumg.

3. *Navigation of the river:*

3.1 Vessels entering the river should communicate with the Vessel Traffic Services Humber (VHF Channels 16 and 12). A two way exchange of information is essential to ensure the smooth flow of traffic on the Humber necessary for the safety of vessels using the ports. In addition the Vessel Traffic Services Humber can fully advise Owners, Agents and Dock Masters, etc., as to the movement on the river of the vessels in which they are interested. Vessels approaching their destinations desirous of communication with the station serving their destination should do so as per the instructions in Notice to Mariners No. 3 of 1974.

4. *Completion of passage or departure from river:*

4.1 Inward bound vessels should on completion of their passage report to Vessel Traffic Services Humber indicating the closing down of their station. VHF/RT should not be used whilst laid alongside in dock.

4.2 On departure from the river vessels are requested to report the disembarking of their Pilots and their intention of proceeding to sea.

4.3 All reported departures from normal traffic movement (e.g. engine failures, vessels weather bound at Spurn etc.), will be disseminated by the Vessel Traffic Services Humber to the appropriate authorities.

DOCUMENTS:

1 Maritime Declaration of Health.
1 Crew's Effects List.
2 Ship's Report by Master.
1 Home Office Form 1B6.
1 Stores List.
1 Certificate of Deck Cargo Tonnage.
1 Grain Certificate.
1 Light Certificate.
1 Port Dues Certificate.
1 Passenger List.
1 Landing card for each passenger.
Ship's Certificate of Registry.
Mercantile Marine Office Certificate – for British Ships only.
Load Line Certificate.
Safety Equipment Certificate.
Lloyd's Certificate.
Derat Certificate.
Ship's Register.
Light Bills.
Safety Radio Certificate.
EEC Check List.

In addition Manifests and Bills of Lading are usually sent to Agents direct from the loading port.

PILOTAGE: Compulsory. *Humber Pilotage District – Spurn Pilot Station:* Mariners are advised that the Pilotage Control Station (Tel: 0964-650392; Telex: 527393 Spilot G) is established on the Spurn Peninsula in a position Lat. 53° 34′ 29″ N., Long. 00° 06′ 48″ E.

The station is manned at all times with a Pilot Master in attendance and vessels bound to the Humber requiring the services of Humber Pilots must give advance notice by signal through a G.P.O. Coast Station or by telex to the Spurn Pilot Station giving ETA at the seaward limits of the Humber Pilotage District, draft, and destination at least 12 hours in advance. Any adjustment to the time should be given at least 2 hours before arrival.

Vessels wishing to communicate direct with the Spurn Pilot Station by VHF radio telephony may if within VHF range (approximately 20 miles) call "Spurn Pilot" on VHF Channel 16 and after contact transfer to Channel 14 for passing messages.

(Note: Attempts to establish communication on VHF at extreme range can cause unnecessary interference).

All requests for Pilots for ports or berths on the Humber, Ouse or Trent will be processed from Pilotage Control Station at Spurn (Telex: 527393 Spilot G. Tel: 0964-650392).

Compliance with this procedure will ensure, as far as possible, the shipping of Pilots without delay.

ANCHORAGES: The undermentioned anchorages have been designated for the use of sea-going vessels. Masters are asked to co-operate by using these anchorages and to avoid anchoring in the Fairway or elsewhere.

Spurn Anchorage for vessels awaiting Pilot, Bull Anchorage for vessels awaiting berth and vessels outward (awaiting orders, etc.), Hawk Anchorage for vessels sheltering and Haile Anchorage for vessels carrying explosives.

Spurn Anchorage. From position "A" 121° distant 3.65 miles from Spurn Lighthouse, in a 125° direction 1.60 miles; thence in a 020° direction 0.60 mile; thence in a 077° direction 1.00 mile; thence in a 347° direction 0.70 mile; and thence in a 257° direction 2.40 miles to position "A".

Haile Anchorage: (Explosives): From position A, 216° distant 2.18 miles from Spurn High Lighthouse in a 284° direction 0.77 mile; thence in a 139° direction 0.80 mile; and thence in a 027° direction 0.46 mile to position A.

Bull Anchorage: From Position "A", 193° distance 2.1 miles from Spurn High Lighthouse, in a 090° direction 1.96 miles thence in a 294° direction 1.76 miles, thence in a 274° direction 0.93 miles, thence in a 206° direction 1.0 miles, thence in a 116° direction 0.88 miles, thence in a 026° direction 0.55 miles to Position "A".

Hawk Anchorage:
(1) Lat. 53° 35′ 00″ N., Long. 00° 04′ 14″ E.
(2) Lat. 53° 36′ 16″ N., Long. 00° 01′ 33″ E.
(3) Lat. 53° 36′ 09″ N., Long. 00° 00′ 52″ W.
(4) Lat. 53° 34′ 51″ N., Long. 00° 04′ 02″ E.

RESTRICTIONS: Vessels may be accepted through the day and night, the only restrictions on the larger vessels being influence of tides together with the undermentioned physical limitations. The larger deep drafted vessels are usually docked from 3 hours before HW until HW, with similar restrictions on vessels sailing. Ships drawing up to 19 ft. can have access to the docks over the full 24 hours on Neap tides and can be docked/undocked over an 18 hour period on Spring tides.

Locks	*Entrance lock* *Length* m.	*Width* m.	*Depth of water on sill* *at MHWS* m.	*at MHWN* m.
King George Dock	228	25.7	12.75	11.25
Albert and William Wright Docks	97	24.3	8.52	7.02
			at MLWS	
Salt End Jetty Number 1	tidal		10.64	
Salt End Jetty Number 3	tidal		10.64	

MAX. SIZE: The maximum permissible dimensions for a general cargo/bulk carrier vessel (excluding tankers) requiring a berth in the enclosed docks are as follows: King George & Queen Elizabeth Docks, length 196 m., beam 25.5 m., draft 9.5 m. at Neaps, up to 10.4 m. at Springs.

HEALTH: Pratique is normally automatic. In case of suspected illness, death on board or the presence of captive birds or animals on board, Master must radio the Hull and Goole Port Health Authority through the Post Office or Coastal Radio Stations not more than 12 hours or less than 4 hours before arrival using the following telegraphic address "Portealth Hull" or through the Vessel Traffic Services Humber using call sign "Vee Tee Ess" Humber on VHF Radio Channel 12. The usual flag or light signals should be shown except where only animals are present and Free Pratique should be obtained from the Hull and Goole Port Health Authority.

RADIO: Portishead Radio – call sign GKL but when within 200 miles of the Humber can go through Grimsby Radio – call sign GKZ.

VHF: See "Vessel Traffic Services Humber".

TUGS: Head boat normally joins vessel in vicinity of Salt End, about 2 miles from dock, and the other tug or tugs connect with vessel when approaching the dock. Where vessel supplies own ropes for towage these to be good stout hawsers. Wire ropes will not be accepted. There is a charge for use of tug's hawsers.

BERTHING:

Dock or Jetty	*Length of Operational Quays* (m.)	*Normal Depth* (m.)	
King George	3,423	11.5	Impounded
Queen Elizabeth	1,646	11.5	
Albert and William Wright	3,453	as HW	
Salt End Jetty No. 1	79	9.8	At C.D. which is at L.A.T.
Salt End Jetty No. 2	121	9.8	
Riverside Quay	325	4.8	

BULK HANDLING FACILITIES: Container terminal at Queen Elizabeth Dock equipped with 3 container gantry cranes of 35 tonnes, 40 tonnes and 45 tonnes capacity, 5 rubber-tyred gantries and a fleet of tractors and trailers.

Ro/Ro container services operated from King George and Queen Elizabeth Docks.

Cargill UK operate a grain storage and export facility for vessels up to 34,000 d.w.t. Loading rate 1,200 tonnes/h. Storage capacity 60,000 tonnes. The facility can handle vessels with length 650 ft., beam 83 ft. and draft 32 ft.

Edible oil storage available.

CRANES: 47×3-10 tonnes, 2×32 tonnes and 1×35 tonnes capacity.

STEVEDORES: Enable Agent order gangs important receive accurate ETA. See "Holidays".

Working hours: 0800 – 1630 hrs. Monday to Friday. Overtime possible 1630 – 1830 hrs. Monday – Friday; 0800 – 1200 hrs. on Saturdays and 0800 – 1830 on Sundays.

MEDICAL: Necessary for Agents to be advised of any urgent cases of illness in order that they can arrange for a doctor or if necessary an ambulance to be available immediately on berthing. Hospital facilities available.

If vessel required to remain in river awaiting berth, arrangements can be made for any serious case to be taken from vessel by lifeboat and conveyed to Grimsby for immediate treatment.

TANKERS: The Oil terminal at Salt End handles refined or semi-refined chemical, liquefied ammonia (see "Developments") and petroleum products which are transferred from the vessel along the oil jetties through a series of chemical and service pipes which range from 4 in. for chemicals, 8 in. and 12 in. for spirit, 16 in. for fuel oils and molasses and 8 in. (300 ASA) for ammonia.

There are 2 tanker berths at Salt End and maximum dimensions of vessels are length 214 m., draft 10.4 m. Max. size 40,000 d.w.t.

Berthing Operations: Vessels normally berth on a rising tide from 2.5 hours before HW, swinging off berth and mooring port side to jetty. Late arrivals may be taken on up to 1 hour after HW, berthing starboard side to jetty but this is subject to tidal and weather conditions prevailing at time.

Moorings are to dolphins and buoys and normally consist of a minimum 2 head lines (to buoys), 2 stern lines (to dolphins), 2 breast lines forward (to buoys), 2 breast lines aft (to dolphins), 2 springs forward (to jetty), 2 springs aft (to jetty).

Cargo Handling and Requirements: Ship's derricks are needed to assist in hose connection. Shore hoses have 6 in., 8 in. and 10 in. 150 ASA flanges.

Discharge rates are governed by a maximum back pressure of 7 kg. (100 p.s.i.).

Facilities and Services:
Fresh water available.
Ship's gangway required.
Public telephone situated at jetty head.
No deballast or slop facilities are available.

Unberthing: Normally up to one hour either side of HW or LW slack.

DENSITY: 1013/1015.

FUEL: Fuel oil available, viscosity up to 3,500 secs. Redwood. Gas oil and diesel also available. At least 24 hours notice required. Delivered by barge or road tanker.

FRESH WATER: King George and Queen Elizabeth Docks. Rate of delivery – 15 t.p.h. Also available at Salt End if berth vacant, at 50 t.p.h.

At Albert Dock water is delivered by water boat.

If water required urgently after 1700 hrs. weekdays or on Saturdays or Sundays Agents must be notified in good time to enable them order men out.

FIRE PRECAUTIONS: Masters receive an emergency services dock plan with an explanatory leaflet.

GANGWAY/DECK WATCHMEN: Watchmen available if required by Master.

OPENING/CLOSING HATCHES: Can be carried out by stevedores when ordered. Ship charged with actual cost, but ship's crew may do so if required.

CUSTOMS ALLOWANCES: Foreign trade – max. allowance 0.5 lb. cigarettes or cigars or tobacco. Home Trade – (Elbe/Brest limits) half the above. Wine and/or Spirits. Foreign Trade – 1 pint – opened. Home Trade – (Elbe/Brest limits) half the above allowance.

CARGO GEAR: When working with ship's gear a Register of Machinery, Chains and Wire Ropes, etc., with all Test Certificates and record of inspections to be produced to the stevedores before work commences.

CONSULS:

	Tel:		*Tel.*
Belgium	0482 631159	Luxembourg	0482 631159
Denmark	0482 655875	Netherlands	0482 224911
Finland	0482 25781	Norway	0482 224151
France	0432 631159	Spain	0482 29764
Germany F.R.	0482 74220	Sweden	0469 72387
Iceland	0482 34024	Thailand	0482 29925
Italy	0482 447118		

REPAIRS: Facilities available for all types of deck and engine repairs.

DRY DOCKS:

Wm. Wright Dock.

Net length	137.0 m.
Width at cope level	25.9 m.
Width at entrance.	15.2 m.
Depth of water on sill MHWS	6.6 m.
Depth of water on sill MHWN	5.1 m.

AIRPORT: Humberside Airport. Air UK operate flights to Aberdeen, Amsterdam, Bergen, Edinburgh, London (Heathrow), Newcastle and Norwich.

REPATRIATION: Crew changes can be effected and repatriation arranged by sea or air.

TIME: BST (British Standard Time) GMT plus 1 hour, GMT during winter months.

HOLIDAYS: New Year's Day; Good Friday (movable Holiday); Easter Monday (movable Holiday); May Day (1st Monday after May 1st.); Spring Holiday (last Monday in May); Bank Holiday (last Monday in August); Christmas Day (25th December); Boxing Day (26th December).

POLICE/AMBULANCE/FIRE: Emergency Calls – Police – Fire – Ambulance – Coastguard – Dial 999 and ask the operator for the service required, or by VHF Channels 16 or 12 to VTS Humber.

TELEPHONES: Can be placed on board at the majority of berths in King George and Queen Elizabeth Docks.

SERVICES: Tank cleaning, facilities for discharge of tank washings slop (residue), compass adjusting, etc., available.

SHORE LEAVE: Crew members allowed ashore.

DEVELOPMENTS: Associated British Ports are to invest over 2 million pounds on improving facilities at the Port of Hull to meet the demands of BP Chemicals' expanding operation at Salt End.

BP Chemicals, longstanding major users of the port, are investing in a new ammonia plant which will become operational later this year (1988) followed by a new acetic acid plant during 1989. Both operations will greatly increase the cargo passing over the Salt End Jetties which are owned by ABP.

The improved facilities to be provided by ABP include new fire fighting equipment, a mooring dolphin and four new cranes with telescopic jibs for handling ships' hoses.

AUTHORITY: Associated British Ports, P.O.Box No. 1, Kingston House Tower, Bond Street, Hull, North Humberside, HU1 3ER. *Tel:* (0482) 27171. *Telex:* 592251. *FAX:* (0482) 26283. *Contact:* M.G. Fell, Port Manager.

IMMINGHAM: 53.37 N. 00.12 W. (See Plan)

VESSEL TRAFFIC SERVICES HUMBER: See "Hull".

NOTICES: See "Hull".

DOCUMENTS:

2 Copies Immigration, Crew and Passenger List, H.O. Form I.S.6 Supplied by Agents.

Form C.13 General Declaration (In duplicate).

Form C.14 Ship's Stores (In triplicate).

Form C.142 Crew Declaration (In duplicate).

Form C.143 Small Parcels List. (1 Copy) if appropriate.

Form D.C.1 Self Declaration Deck Cargo (In duplicate).

1 Copy Cargo Manifest.

1 Copy Dangerous Cargo List.

PILOTAGE: Compulsory.

Humber Pilotage District – Spurn Pilot Station: A Pilotage Control Station (tel. No. 096–46–392; telex No. 527393) is established on the Spurn Peninsula in a position Lat. 53° 34′ 29″ N., Long. 00° 06′ 48″ E.

The station is manned at all times with a Pilot Master in attendance and vessels bound to the Humber requiring the services of Humber Pilots must give advance notice by signal through a Coast Station to the Spurn Pilot Station giving ETA at the seaward limits of the Humber Pilotage District, draft, and destination at least 12 hours in advance. Any adjustment to the time should be given at least 2 hours before arrival.

Vessels wishing to communicate direct with the Spurn Pilot Station by VHF radio telephony may if within VHF range (approximately 20 miles) call "Spurn Pilot" on VHF Channel 16 and after contact transfer to Channel 14 for passing messages.

(Note: Attempts to establish communication on VHF at extreme range can cause unnecessary interference).

Inward vessels bound for ports up river of Hull desiring to pick up a Goole or Trent Pilot in Hull Roads should give at least two hours advance notice of their ETA in Hull Roads to the Vessel Traffic Services Humber on VHF Channels 16 or 12 or through a Coast Station (telegraphic address "Humberops") or by telex No. 527656.

Compliance with this procedure will ensure, as far as possible, the shipping of Pilots without delay.

ANCHORAGES: "Hawk", "Bull" and "Haile Explosives Anchorage".

The Pilot station will advise where to proceed to anchor and also provide Pilot. See "Hull".

RESTRICTIONS: No restrictions, vessels may enter the harbour day or night. Max. draft for entering harbour 10.36 m. HW. Compulsory Pilots boarding Spurn Light-vessel, decide whether vessel shall proceed up river or anchor and await suitable state of tide.

MAX. SIZE: Also see "Tetney Terminal" and Immingham Oil Terminal under "Tankers".

Immingham Dock: Max. length 198 m., breadth 26.2 m., draft 10.36 m. on density 1010.

HEALTH: Master to report any "Reportable" illness as detailed in form "Port 38" to "Porthealth Immingham".

See "Health – All Ports" before first U.K. port.

RADIO: Humber Radio – 2182 kHz or VHF Channel 16. Dock Master VHF Channel 16. Tankers use Channel 19.

VHF: See "Hull" – Vessel Traffic Services Humber.

TUGS: Will join vessel off dock entrance, optional use of tow lines. If using tug's tow lines, charge for this service, depending on vessel's length.

BERTHING: Unless Master or Agent indicates preference, the Port Authorities will decide which side alongside. River Pilot deciding in conjunction with Dock Master most suitable berthing time for harbour and river installations.

Ro/Ro Terminals: The enclosed dock system incorporates 2 Ro/Ro freight terminals: 1×4 berth facility is operated by Exxtor while a second single berth terminal is available on a common user basis.

BULK HANDLING FACILITIES: *British Steel Corporation Ore Terminal:* Adjoins N.C.B. Terminal. Max. length 1,095 ft., max. draft subject to approach channel, 43 ft. – 46 ft. Two appliances for discharging, rate 2,000 tonnes per hour each.

British Coal Corporation: Adjoins B.S.C. Ore Terminal, length – no restriction up to 600 ft. thereafter dependent on vessel using ore berth. Draft average 40 ft.

One appliance for coal loading, rate 4,000 tonnes per hour.

Grain: 2×500 t.p.h. shiploaders available.

CRANES: 17 electric cranes 3 – 20 tonnes capacity.

1×40 ton crane at Exxtor berths.

STEVEDORES: Firm ETA to Agent required if possible before noon on previous day before arrival.

Working Hours: Monday – Thursday, 0800 – 1700 hrs.; Friday, 0800 - 1600 hrs.; overtime by arrangement.

MEDICAL: No advance notice necessary for medical treatment as all hospital facilities available.

TANKERS: Also see "Tetney Terminal".

Immingham Oil Terminal: Up to 250,000 d.w.t. with part cargo conducive with Humber dredged channel. Length up to 1,100 ft., breadth, no restriction, draft depends on height of water in channel, average 43 ft. Three 12 in. lines for crude oil. Two lines 12 in. and 10 in. all other products. One 8 in. line for bunkers.

Mooring Operations: Vessels normally berth at HW port side to jetty. Ideally, vessels of maximum size should stop off jetty and approach beam on at rates of no more than 20 ft. per minute. Tugs are normally placed in the following positions: 2 forward, 2 aft and 2 pushing; but this may vary according to Pilot/Master preference, weather conditions, etc.

There is no fixed doppler or berth approach rate indicators installed on jetty.

Normal mooring pattern for maximum sized vessel: 5 headlines, 5 sternlines, 3 breastlines forward, 3 breastlines aft, 3 springs forward, 3 springs aft, plus one breastline forward and one breastline aft from ashore if required.

Berthing is normally postponed if winds reach Force 7 from any direction from S.E. through South to N.W. and less if from N.W. through North to S.E.

Unberthing: Due to the strong tidal currents which develop in the vicinity, vessels normally sail on or around HW or LW slack.

Maximum size vessels, having made fast their tugs, come off the berth bodily, and swing in a position just to the S.E. of the terminal.

Eastern Jetty: Max. Length approx. 650 ft. breadth, no restriction, draft depends on LW, range 27 ft. to 36 ft. Lines 10 in., 8 in., 6 in. depends on Receivers. Bunker line available.

Western Jetty: Max. Length approx. 800 ft. breadth, no restriction, draft depends on LW, range 27 ft. to 36 ft.

Berthing Operations: (Eastern and Western Jetties): Normal berthing time for vessels is not more than 1 hour either side of HW or LW slack.

Vessels berth either port or starboard side to jetty depending on weather and tidal conditions prevailing at time.

Jetties are of wooden piling and fender construction and consequently care should be taken to ensure vessel does not land too heavily when berthing.

Draft restrictions can be calculated by taking the BTDB predictions on the outer sill at Immingham for LW and adding 0.5 m. (1.6 ft.).

Normal mooring pattern is 3 headlines, 3 sternlines, 2 breastlines forward, 2 breastlines aft, 2 springs forward and 2 springs aft.

Unberthing; Normal sailing time, in view of strong tidal conditions which develop, is at HW or LW slack or up to one hour either side of these times.

Killingholme North: Length 580 ft. max., beam, no restriction, draft 30 ft. 6 in. One 8 in. line. One 4 in. bunker line.
Berthing Operations: Normal berthing time for vessels is at HW or LW slack and not more than 1 hour either side of these times. Vessels berth either port or starboard side to jetty depending on weather or tidal conditions prevailing. The mooring pattern is similar to that used at Immingham East and West Jetties (see above).
Unberthing: Normally up to one hour either side of HW or LW slack.

Killingholme South: Length 800 ft. max., beam, no restriction, draft 31 ft. One 8 in. line. Bunker line available. No slop tanks available.
Berthing Operation: Normal berthing time for vessels is at HW or up to 1 hour before and after. Vessels berth either side to jetty depending on weather and tidal conditions prevailing at time.

Apart from draft restrictions, vessels up to 244 m. (800 ft.) equivalent to a partially laden 65,000 d.w.t. vessel can be handled. Similar mooring pattern as in previous two terminals.
Unberthing: Normally up to one hour either side of HW or LW slack.
LPG FACILITIES: Jetty located at South Killingholme.
Max. Vessel Size: LOA – 280 m. (Min. 65 m.). Beam – No restriction. Capacity – approx. 78,000 cu.m. (dependent on draft).
Max. Draft: No restriction at HW. Berth dredged to 12 m. LAT with guaranteed depth of 10 m. below LAT alongside at all times. Mud bottom on berth. Capable of future dredging to 14.8 m below LAT.
Tidal Range: Springs – 6.4 m. (21 ft.) (approx.) Neaps – 3.2 m. (10.5 ft.) (approx.)
Max. Tidal Ebb Speed: Springs – 4.5 – 5 knots. Neaps – 2.54 – 3 knots.
Approach to Berth: Sunk Dredged Channel and Main Channel. Two Channels are marked by light buoys and light floats. Pilotage compulsory.
Jetty Berth: 6 facing fenders. 6 mooring dolphins (3 Fore/3 Aft). Minimum flat side vessel – 28 m. with manifolds midships.
Presentation Arm: 1 × 10 in. Fixed WR marine loading arm. Provision for 3 additional loading arms.
Jetty Pipe-lines: 1×14 in. and 1×4 in. Product Lines for Propane/ Butane loading and discharging. Capacity is available on pipe track for up to 7 future lines, if required.
Cargo Handling Rates: Loading – 2 Pumps each 300 cu.m. per hour with facility for 3rd pump to be installed later, if required. Discharging – Butane up to 1,800 cu.m. per hour. Propane – up to 1,000 cu.m. per hour. (Discharge speeds dependent upon ability of Jetty heaters to warm product from vessel).
Fresh Water: Available from berth.
Bunkers: Available only by barge.
Stores: Limited access to Jetty. Rigid vehicles only but no parking facility at Jetty Head. (Always refer to Agent).
DENSITY: In harbour 1010.
FRESH WATER: Available all berths by hose. Rate of delivery 20 t.p.h.
FUEL: 24 hours notice required. All grades available.
FIRE PRECAUTIONS: Copy of these regulations handed to the Master on arrival.
GANGWAY/DECK WATCHMEN: Watchmen not usually employed, but left to the discretion of the Master.
OPENING/CLOSING HATCHES: See "Grimsby".
CERTIFICATES:
Ship's Register.
Load Line.
Safety Radio.
Safety Equipment.
Safety Construction and any British Light Dues Receipts.
Derat Certificate.
Oil Pollution Certificate (Tankers).
CUSTOMS ALLOWANCES: 8 days – 200 cigarettes per person approx. Wine/spirits, 4 days – 0.25 pt. per day; this depends on the Customs Officer's discretion.
CARGO GEAR: This must comply with the Department of Employment and Productivity regulations. Normally discharge carried out by shore cranes, although overside berths available.
IDENTIFICATION CARDS: Seaman's Book or Passport sufficient for crew members going ashore.
CONSULS:

Finland	Immingham 573187	Netherlands	Immingham 76246
Denmark	Grimsby 357521	Norway	Hull 224151
Greece	Hull 224151	Sweden	Immingham 571387

REPAIRS: All major repairs possible.
DRY DOCKS: Length 225.6 m., width at entrance 17.1 m.
SURVEYORS: Classification/P&I and cargo surveyors available.
REPATRIATION: All facilities exist for dealing with crews and passengers.
AIRPORTS: Leeds Bradford Airport and Humberside Airport for Amsterdam (3 flights from each daily), Aberdeen and London for International destinations.
TIME: GMT. Summertime, GMT plus 1 hour.
HOLIDAYS: See "Grimsby".
POLICE/AMBULANCE/FIRE: Port Security – 72067, 72068. County Police – Immingham 76444. Ambulance; County – Cleethorpes 692912. Fire; 999 ask for Fire.
EMERGENCY CO-ORDINATION CENTRE: Humber Estuary, Humber Ports Operations and Information Service. Tel: Hull 35599 – Hull Radio on VHF Channels 16 and 12.
TELEPHONES: Public telephones available.
STORING: See "Prelims".

1, 2, 3. It is normal practice for such stores to be delivered to ships side at in-dock berths by road vehicles. At the Eastern and Western River Jetties at Immingham, however, vehicles are not permitted and the approximate distances fom the root of the Jetties to ships side is from 400 m. to 500 m.

4. Fork lift trucks could be used at in-dock berths, if necessary.

If proceeding to NCB/BSC or Immingham Oil Terminals – check with Terminal Authorities.

BANKS: All major U.K. Banks have branches in the area.
DEVELOPMENTS: A deep water bulk cargo terminal is planned for North Killingholme. If permission is given for construction it is estimated that the terminal will be operational in 1991. Vessels up to 65,000 d.w.t. will be handled.
AUTHORITY: Associated British Ports, Port Office, Cleethorpe Road, Grimsby, South Humberside DN31 3LL. *Tel:* (0472) 359181. *Telex:* 52250. *FAX:* (0472) 48275. Contact: D. Dunn, Port Manager.

INVERNESS: 57.29 N. 04.14 W. (See Plan)

DOCUMENTS:
2 Crew Lists.
2 Passenger Lists.
Customs and Excise and Health Documents.
Manifest.
Bills of Lading, etc.
PILOTAGE: Compulsory for all vessels over 50 g.r.t. Apply direct to Agent or to Pilot, telephone Inverness 232845. ETA 24 hours. Pilot equipped with VHF. Pilot cutter blue launch with letter "P". Pilot station Munlochy Buoy. Location of anchorage while awaiting Pilot – Munlochy Buoy.
ANCHORAGES: Munlochy Buoy in 5 – 8 fathoms. Beauly Basin in 15 fathoms.
RESTRICTIONS: Vessels may enter and leave from 2 hours before HW until 2 hours after HW.
MAX. SIZE: Ship max. 360 ft. length, 20 ft. draft, high water springs. 18 ft. draft, high water neaps
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: Wick Radio.
VHF: Harbour Office on VHF Channels 16, 14 and 12 during office hours.
TUGS: 1 privately owned tug, 6.5 tons bollard pull.
BERTHING: *Longman Quay:* Length 180 m. Depth 5.0 m L.A.T.
Thornbush Quay: Length 156 m. Depth 3.0 m L.A.T.
New Citadel Quay, Old Citadel Quay and *Central Quay:* Each about 100 m. in length, and *Shore Street Quay,* about 150 m. in length, form a continuous length of quayside on the East side of the harbour at its upper end; there are depths of 3 m. alongside. L.A.T.
BRIDGES: Kessock Road Bridge, max. clearance 29 m. at MHWST.
STEVEDORES: Arrange through Agent. 24 hours notice required.
MEDICAL: Doctor available.
DENSITY: 1002.
FRESH WATER: Available on demand, 5 t.p.h., ex-hose on quay.
FUEL: Marine diesel and petroleum on request.
GANGWAY/DECK WATCHMEN: Supplied by ship.
OPENING/CLOSING HATCHES: Done by crew.
CUSTOMS ALLOWANCES: Tobacco/Wines/Spirits. Usual amount allowed by Customs and Excise.
IDENTIFICATION CARDS: None.
CONSULS: Sweden (Mr. John Fraser), Tel: Inverness 238366.
REPAIRS: Thornbush Slipway Tel: 233813.
REPATRIATION: Facilities available.
AIRPORT: Dalcross, 7 miles from Inverness.
HOLIDAYS: 1st and 2nd January; Easter Monday; July Bank holiday; First Monday in October; and Christmas Day. All official holidays, cargo work can be arranged on these days.
POLICE/AMBULANCE/FIRE: Police Inverness 239191; Fire Brigade Inverness 222722; Ambulance Inverness 231511.
TELEPHONES: On quay.
SHORE LEAVE: Unrestricted.
AUTHORITY: Inverness Harbour Trust, Harbour Office, Longman Drive, Inverness IV1 1SU, Scotland. *Tel:* (0463) 233291. *Contact:* Captain D. S. Gilmour, Harbour Master.

IPSWICH: 52.03 N. 01.10 E. (See Plan)

DOCUMENTS: Masters can conclude all documentation in port. Ship's Agent will give the necessary advice.
PILOTAGE: A pilot station has been established in the Orwell Navigation Centre at Ipswich Dock Head, Tel: Ipswich (0473) 211347 (after hours Tel: (0473) 231010) who will receive orders, and requests for information, regarding the pilotage of vessels in the Ipswich Pilotage District – Pilots should be ordered at least 2 hours prior to departure.
Note: It is anticipated that during the latter part of 1988 Pilotage to and from Ipswich will be transferred from Trinity House to the Haven Pilotage Services. Any changes in procedures will be widely advised to the shipping community before they are introduced.

Further information can be obtained from the Ipswich Harbour Master, Tel: (0473) 231010 or direct from the Directory of Pilotage, Tel: (0255) 504303. Telex: 987304.
ANCHORAGES: No anchorages within port. All vessels will proceed direct to berth, otherwise anchorage provided in Harwich Harbour or as indicated by Harwich Harbour Radio (VHF Channel 71).
RESTRICTIONS: Up to 80 m. in length the lowest permissible U.K.C. is 0.75 m. Over 80 m. and up to 110 m. in length the lowest permissible U.K.C. is 1.0 m. Over 110 m. in length by special arrangement. (U.K.C.=Under Keel Clearance).

See "Notices" – "Guidelines – Vessels Navigating the River Orwell and the Port of Ipswich" and "Dangerous Substances in Harbour Areas Regulations".

MAX. SIZE: 460 ft. (140.2 m.) overall length and 25 ft. 6 in. (7.7 m.) draft.
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: Masters to contact ship's Agent through North Foreland, Humber, Niton or Portishead depending on position of vessel. All these radio stations hold cable addresses and staff telephone numbers of Agents.
VHF: A 24 hour VHF radio facility is in operation. Vessels arriving should contact "Ipswich Port Radio" on VHF Channel 16 on entering the River Orwell and report and/or maintain a listening watch as instructed. Channels 14 and 12 will be used for the passing of messages which should be restricted to the safety of navigation or persons.
TUGS: Vessels of 110 m. in length and up to 130 m. will use 1 tug. Vessels of 130 m. in length and over will use 2 tugs. Vessels of less than 110 m. in length but having a deadweight capacity of 5,000 tons or more will use 1 tug.

Special consideration may be given to vessels fitted with bow thrust facilities trading regularly to the port.
BERTHING: Vessels bound for berths in the Wet Dock should arrive off the lock 2 hours before HW.
Cliff Quay: Length: 3,250 ft (990 m.).

Depth of water alongside: 8.2 m. below Chart Datum. Subject to silting. Approach Channel: 5.6 m. below Chart Datum.

Cranes: 8 portal jib cranes from 3 tonnes to 35 tonnes lifting capacity. A Karrilift container gantry is also available.

Largest vessel which can be accommodated: 460 ft. (140.2 m.) overall in length, 25 ft. 6 in. (7.7 m.) draft inwards, 24 ft. 6 in. (7.4 m.) outwards.

The Quay handles containers and heavy lifts up to 35 tonnes and is particularly well equipped to handle cargoes direct to and from both road and rail transport. The South end has been developed as a modern terminal for handling all types of general cargo, including containers, flats, palletised units and bulk cargoes. Spacious modern transit sheds and a container park are sited on part of this Quay. Vessels up to 25 ft. 6 in. (7.7 m.) draft can be handled at the terminal.
Grain Terminal: Located at Cliff Quay. Capable of handling vessels up to 10,000 tonnes capacity at a loading rate of 550 t.p.h. (malt) and 700 t.p.h. (other grain products). Grain silo capacity 11,000 tonnes.
Container Terminal: The terminal has a 40 tonne ship to shore luffing crane and 2 shoreside gantries with 1-9-1 configuration.
West Bank Terminals: These terminals provide 3 berths with a total quay frontage of 310 m. and are dredged to 5.8 m. below Chart Datum. 2 container berths are backed up by 5.5 hectares of hardstanding, including a transit shed of 2,750 sq.m. floor area. The berths are served by portal cranes of 40 tonnes, 37.5 tonnes and 10 tonnes capacity and are adjacent to a Freightliner Terminal offering daily services and incorporated into the Railfreight Speedlink network.

A Ro-Ro berth is backed up by 7 hectares of hardstanding. The bridge ramp is designed to carry a load of 180 tonnes with maximum axle loads of 45 tonnes. The ramp has a carriageway of 36.9 m. long×7 m. wide and can handle traffic at all states of the tide.
The Dock: The dock is situated within the town of Ipswich. It is some 26.25 acres (10.63 hectares) in extent and is approached by an entrance lock.

NAVIGATION - THE ENCLOSED DOCK, IPSWICH
VHF Radio: The Lock Master is equipped with VHF Marine Radio and may be contacted through the Orwell Navigation Service (Ipswich Port Radio) on Channel 14.
Maximum Size Vessels that can:

(a) Lock In or Out: 80.76 m. LOA and 14.50 m. beam.
(b) Enter the Dock: 114 m. LOA and 14.50 m. beam. (Vessels over 80.76 m. LOA can only enter the Dock when the Outer and Inner Lock-gates are open, that is for approximately one hour prior to HW on most tides but this is not guaranteed).
(c) Maximum Draft: Owing to the shape of the Lock Pit, modern vessels require a minimum Under Keel Clearance depending upon their beam. To ascertain the maximum permissible draft *add* the following to the height of the Tide above Chart Datum at time of entry.

Vessel's Beam (m.)	(m.)
12.00	+2.09
12.50	+1.81
13.00	+1.59
13.50	+1.43
14.00	+1.28
14.50	+1.17

Notwithstanding the above, the maximum draft for any vessel in the enclosed dock is 5.50 m.

Locking Times:

(i) Commercial Vessels:
May Lock In or Out from 2 hours before HW to 40 minutes after HW.
Special arrangements may be made for vessels to enter or leave one hour either side of these times, subject to the Lock Master being advised during the preceeding tide, there being sufficient water and at additional cost to the User.

(ii) Non-Commercial Vessels:
Should enter or leave the Dock from one hour to quarter hour prior to HW, if possible.

Entry Signals:

Lights fixed above the Orwell Navigation Service Building on the East-side of the Lock indicate to vessels whether the Lock is open or closed for entry from the River or the Dock as appropriate.
ONE RED LIGHT *Lock closed* to vessels entry.
ONE GREEN LIGHT *Lock open* for vessels entry.

Flood Protection Gates:

These gates are closed when the tide level is 4.6 m. or more above Chart Datum. During this period the Dock Entrance is closed to navigation.

Inside, in addition to some 2,700 ft. (823 m.) of private quays owned by merchants having warehouses or mills adjoining, where small vessels can berth, there are the following quays owned by the Authority:

(i) *South West Quay:* This quay is 800 ft. (244 m.) in length with a depth of 19 ft. (5.79 m.) of water alongside at mean dock level. The quay is served by 3 modern 7.5 tonne portal electric travelling cranes and mobiles as required.

(ii) *Timber, Public Warehouse,* and *End Quays* total 940 ft. (286 m.) in length and have a depth of water alongside varying from 12 ft. (3.65 m.) to 20 ft. (6.09 m.). Public Warehouse is served by mobile cranes capable of lifting up to 5 tonnes.

(iii) *Tovell's Wharf* is a 600 ft. (183 m.) reinforced concrete quay with 22 ft. (6.70 m.) of water alongside. It is served by mobile cranes up to 5 tonnes lifting capacity.

(iv) *Orwell Quay* is 775 ft. (236 m.) in length, with 18 ft. (5.48 m.) of water alongside and includes a Ro/Ro berth. One transit shed, with a floor area of 10,100 sq.m. is situated immediately behind the quay apron together with further extensive covered and open areas.
BRIDGES: The River Orwell Bridge has a clearance of 38.8 m. above MHWOST (43.07 m. above Chart Datum).

Masters of larger vessels are advised to check their air drafts and if in any doubt contact their Agent or the Ipswich Port Authority before proceeding up the River Orwell.
STEVEDORES: Ship's Master normally advises his Agent of his ETA, distribution of cargo on board, and all relevant details. The Agent passes this information to Stevedores.
MEDICAL: All medical facilities available in port. Vessels requiring medical assistance on arrival should advise all details by radio telephone or in their ETA cables.
TANKERS: It is desirable that when Master of a tanker gives an ETA he also indicates the size of pipe-line, size of connection and discharging point in order that necessary arrangements can be made at discharging point of receiving oil terminal. There are no slop facilities at Port of Ipswich, however arrangements can be made, through the Port Authority (Tel: (0473) 231010) for firms using road tank vehicles to remove sludge or oily-waste. All cleaning and gas-free operations must be carried out outside precincts of the Harwich Harbour Board. Only one tanker berth at Ipswich but there are 6 intake points on quay and it is usual for 3 coastal tankers to be accommodated, depending on the overall length and berth availability. A maximum draft on the berth of 23 ft. (7 m.) subject to silting.

Also see "Notice".
DENSITY: Approximately 1020, depending on the amount of fresh water in river due to heavy rain.
FRESH WATER: Available at all quays. Delivery by hose through meter at 10 t.p.h.
FUEL:

Gas oil 35 secs. Redwood.
Light fuel oil 200 secs. Redwood.
Medium fuel oil heated 950 secs. Redwood.
Heavy fuel oil heated 3,500 secs. Redwood.
At least 24 hours' notice required.

GANGWAY/DECK WATCHMEN: No watchmen required by Port Authority, but sufficient men available at all times to move vessels, if necessary.
OPENING/CLOSING HATCHES: Hatches opened and closed by ship's crew.
CERTIFICATES:

Following certificates are required by Agents in order to arrange Customs Clearance:
Ship's Register.
Radio Certificate.
Load Line Certificate.
Safety Equipment Certificate.
Derat Certificate.
British Tonnage Certificate, if required.

CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes, or equivalent in tobacco, per man. Wine and/or Spirits, 1 bottle per man.
CARGO GEAR: Cargo working gear is supplied by stevedores. Normally, quayside cranes are used for discharging and loading. In event of cargo gear being used in port, Ship's Gear Certificate, duly certifying that all gear has been examined and is in every way workable and suitable for discharge and/or loading of cargo, is to be produced.
IDENTIFICATION CARDS: Not required as long as each crew member has in his possession a Seaman's Book and/or Passport.
CONSULS: Vice-Consul for Sweden and Vice-Consul for Norway Tel: (0473) 59281.
REPAIRS: Only small repairs on board.
SURVEYORS: Lloyd's Register, Tel: (0502) 81117.
REPATRIATION: Facilities exist at port for effecting crew changing and arranging repatriation.
AIRPORT: Ipswich Airport is 2 miles from the port. Charter flights available for ship's crew. Tel: (0473) 70111.
HOLIDAYS: Normal holidays for English ports.
TIME: GMT in Winter months. Summer time, GMT plus 1 hour.
POLICE/AMBULANCE/FIRE: In emergency dial 999. Otherwise Police – Ipswich (0473) 725363.
SHORE LEAVE: Allowed.
DEVELOPMENTS: Main channel at Harwich presently being dredged to 11.0 m.

NOTICES: *Guide Lines – Vessels Navigating the River Orwell and the Port of Ipswich*

1. *Length and Under Keel Clearance (UKC):*
Vessels up to 80 m. LOA – lowest permissible UKC 0.75 m.
Vessels between 80 m. LOA – 140 m. LOA – lowest permissible UKC 1.0 m.
Vessels over 140 m. will only be accepted by special arrangement with the Harbour Master.
Air Draft under the Orwell Bridge is 43.07 m. above Chart Datum.

2. *Towage:*
Up River from No. 5 Buoy, vessels between 110 m. LOA and 130 m. LOA – 1 Tug. Vessels 130 m. LOA and above – 2 Tugs.
Vessels of less than 110 m. LOA but having a deadweight capacity of 5,000 tons or more – 1 Tug.
Special consideration may be given by the Harbour Master to vessels fitted with bow thrust facilities which trade frequently to the Port of Ipswich.

3. *Speed:*
A Master of a vessel will at all times navigate with caution and at such speed that no damage to the environment, or hazard will be created to other craft which may be navigating or moored in the vicinity. When passing the yacht anchorages at Pin Mill, Woolverstone and other places, or other vessels moored, or dredgers operating; or works of repair, maintenance or construction in progress within the Harbour and from a point abreast of the Cliff Quay Power Station to the Lock Gates and while within the Dock, the speed of vessels must be reduced to the minimum consistent with safe navigation.
The maximum speed for vessels under 50 g.r.t. shall be deemed to be 6 knots.

4. *Petroleum Tankers and Chemical Tankers having Hazardous Cargo:*
These vessels may navigate at any time (subject to tidal constraint if appropriate) provided that:
(a) Between one hour after Sunset to one hour before Sunrise there is no opposing traffic on the River above No. 5 Buoy, the size or draft of which would present a potential hazard.
(b) Weather and visibility conditions are of a standard acceptable to the Master and the individual Pilot concerned.
To satisfy Condition 6 (a) Masters and/or Pilots of Inward bound vessels *must* contact the Orwell Navigation Service and liaise, if necessary, with any Outward bound vessel.
Master and/or Pilots of Outward bound vessels *must* ascertain the position in the Channel from the Orwell Navigation Service, prior to leaving the berth and liaise, if necessary, with any Inward bound vessels.

5. *Sound Signals:*
In addition to the Sound Signals required to be made by the Regulations for the Prevention of Collisions at Sea, the following signals will be used by vessels navigating within the Ipswich Pilotage District:
4 short blasts followed by 1 long blast = Vessel swinging to starboard.
4 short blasts followed by 2 long blasts = Vessel swinging to port.
1 long blast followed by 2 short blasts = Vessel intending to overtake another on that vessel's port side.
1 long blast, given by the vessel to be overtaken indicates that she is ready to be passed.
1 long blast given when approaching the Woolverstone and Pin Mill areas between the hours of Sunrise and Sunset. (Inward bound vessels between No. 4 and 5 Buoys and Outward bound vessels when passing No. 7 Buoy).
1 long blast when leaving Cliff Quay or West Bank Berths during daylight hours on Saturdays and/or Sundays.

6. *Position Reporting:*
(a) A Master shall report to the Orwell Navigation Service on VHF Channel 14/12.
  (i) on entering the Port, report to the Orwell Navigation Service when passing Shotley Point and before reaching No. 1 Buoy and further progress reports shall be made when passing No. 4 Buoy; Cathouse Buoy and No. 9 Buoy. If any such vessel is in a damaged condition which renders such vessel in any way unseaworthy, or inhibits the vessel's ability to manoeuvre, full particulars on such damage shall be given in such report.**
  ***Note:*
  The Harbour Master on receiving a report from a Master of a vessel may give directions to the Master of such vessel under powers in that behalf given by Section 59 (2) (a) of the Ipswich Dock Act 1971.
  (ii) on leaving the Port, report to the Orwell Navigation Service at the following places:
    Prior to leaving berth
    On clearing berth and proceeding
    Passing Cathouse Buoy
    Passing No. 4 Buoy
    Passing No. 2 Buoy
    Immediately before leaving the Port
  (iii) while navigating within the Port at all times maintain a listening watch as directed by Orwell Navigation Service;
(b) if such vessel is not fitted with VHF radio-telephone or is fitted with one which is not operational at the time of entry into the Port or departure from a berth therein, on arrival at a berth owned or occupied by the Authority, prior to leaving a berth in the Port and before moving from one berth to another, report to the Orwell Navigation Service in person or by telephone.

7. Nothing in these Guide Lines will remove from any Pilot the right to advise Masters against navigating in the River if in the professional opinion of the Pilot a proposed course of action is considered to be imprudent.

8. Notwithstanding anything contained in the generality of these or other arrangements regarding the navigation of the River Orwell, vessels of over 140 m. LOA may, under certain special circumstances and conditions, navigate in the River subject to prior consultation with the Ipswich Harbour Master.

9. Nothing in these Guide Lines shall preclude the Ipswich Port Authority Harbour Master, after consultation with the Ipswich Pilots, from giving consideration to the exemption of a specific vessel from any of the conditions and requirements hereinbefore mentioned.

Signed: Harbour Master
Date: 8th February 1988.

Dangerous Substances in Harbour Areas Regulations:

1. A Ship Master; Agent; Transport Operator; Contractor or any person who intends to bring a dangerous substance, as defined in Regulation 1(a) of the Merchant Shipping (Dangerous Goods) Regulations 1981, into the Harbour or Harbour Area of the Port of Ipswich, either from Inland or from the Sea, is required under the above regulations to give the Harbour Master and the Berth Operator advance notice of their intention.
The Harbour Master reserves the right to refuse transit through the Harbour Area of certain highly dangerous substances, or to require them to be handled direct to or from transport into a vessel or vice versa.

2. Notification should be made to both the Harbour Master and the Berth Operator from 14 days to 24 hours prior to the goods entering the Harbour Area. However, under certain circumstances the following may apply:
Inward Cargoes:
In the case of ships reporting inward from near Continental passages, where it is impracticable to comply with the foregoing, then the maximum notice possible should be given but *never less* than 6 hours.
Export Cargoes:
In cases where it is not possible to comply with the above regulation, a lesser notification *may* by accepted but *never less* than 12 hours prior to the arrival of the goods in the Harbour Area.

3. Notification must include full details of Dangerous Substance to be presented into the Harbour Area, which should be given in the following format:
(a) Name of Agent and/or Operator presenting the notification.
(b) Name of Vessel.
(c) Berth.
(d) Date/Time due.
(e) Commodity.
(f) IMO Class.
(g) UN Number/Flash Point/IMDG Page Number.
(h) Quantity.
(i) Method of Packaging.
(j) Transport.

4. Radioactive Substances and Explosives which are subject to the Port's Licence may only be brought into the Harbour Area after prior booking and by agreement with the Harbour Master and the Berth operator as to the type, quantities and dates of transit in line with the foregoing.

5. A Dangerous Substance brought into the Harbour or Harbour Area under the Merchant Shipping (Dangerous Goods) Regulations 1981, must also conform to the following regulations:
International Maritime Organisation – Dangerous Goods Code.
Classification, Packaging and Labelling of Dangerous Substances Regulations 1984.
Dangerous Substances (Conveyance by Road in Road Tankers and Tank Containers) Regulations 1981.
The Classification and Labelling of Explosive Regulations 1983.
Radioactive Substances (Carriage by Road) (GB) Regulations 1974.
Regulations for the Safe Transport of Radioactive Materials.
International Carriage of Dangerous Goods by Rail (RID).
International Carriage of Dangerous Goods by Road (ADR) Geneva 1957.

6. *Contacts to advise regarding dangerous substances to be brought into the Harbour Area:*
(a) Ipswich – Harbour Master's Department

Telephone:	(0473) 231010 ext. 269 (manned 24 hours).
FAX:	(0473) 230915 – Shipping and Dangerous Substances – Notification Only (24 hours).
Telex:	98642 IPSDOK G – Shipping and Dangerous Substances – Notification Only (24 hours).
Letter: (Letters should be sent early enough to ensure delivery prior to the Goods being presented).	Harbour Master (Dangerous Substances Notification) c/o Orwell Navigation Service Dockhead Ipswich IP3 0DP

(b) Berth Operators:
Ipswich Port Authority – West Bank (Excluding Cast Terminal)

Telephone:	(0473) 230932 (0473) 231010 ext. 202/204.
FAX:	(0473) 602266
Telex:	98642 IPSDOK G
Letter: (By Hand or GPO)	Ipswich Port Authority (Dangerous Substances Notification) West Bank Terminal Office Wherstead Road Ipswich IP2 8LY

(c) Ipswich Port Authority – East Bank (excluding Powell Duffryn Terminal)
Telephone: (0473) 231010 (Ask for Berth)
FAX: (0473) 230915
Telex: 98642 IPSDOK G
Letter: To the Relevant Berth on Cliff Quay
(By Hand or GPO) Ipswich Port Authority
(Dangerous Substances Notification)
c/o No. 1 Stevedores Office
Cliff Quay
Ipswich IP3 0BS

(d) Cast Terminal
Telephone: (0473) 690593
FAX: —
Telex: 988891
Letter: Cast Terminal (UK) Ltd.
(By Hand or GPO) (Dangerous Substances Notifications)
Cast Terminal
Wherstead Road
Ipswich IP2 8NB

(e) Ipswich Cargo Services (Orwell Quay)
Telephone: (0473) 230412
FAX: (0473) 230807
Letter: Ipswich Cargo Services Limited
(By hand or GPO) (Dangerous Substances Notifications)
Orwell Quay
Ipswich

(f) Powell Duffryn Terminals
Telephone: (0473) 217177
FAX: —
Telex: 98124
Letter: Powell Duffryn Terminals Limited
(By Hand or GPO) (Dangerous Substances Notification)
Landseer Road
Ipswich IP3 0BG

Signed: Harbour Master.
Date: 11th February 1988.

AUTHORITY: Ipswich Port Authority, Old Custom House, Key Street, Ipswich IP4 1BY. *Tel:* (0473) 231010. *Telex:* 988787. *FAX:* (0473) 230915. *Contact:* A. J. Hanson, Commercial Manager. Captain G. C. Jones, Harbour Master.

KING'S LYNN: 52.45 N. 00.24 E. (See Plan)

DOCUMENTS:
Pilot Note to be filled in and signed by the Master on completion of pilotage services both inwards and outwards.

Cargo tonnage return to be completed by the ship's Agent.

PILOTAGE: Pilotage is compulsory between an East-to-West line through Bar Flat Buoy in the Wash and the Freebridge at King's Lynn.

Vessels may be boarded from pilot cutter in the Wash from approx. 2.5 hours before HW between Cork Hole, the Sunk Buoy and Roaring Middle Light Float. Unless prevented by weather or breakdown a pilot cutter cruises between King's Lynn No. 1 Light Buoy and the Sunk Light Buoy approx. 2.5 hours before HW until such time as it is too late for a vessel to transit the Approach Channel on that tide.

Requests for a Pilot sent at least 24 hours before the service is required (with amendments if necessary up to 14 hours before) to the Pilot Office, Common Staith, King's Lynn (Tel: King's Lynn 773411, telegrams "Conservator" King's Lynn) or through local Agent. The Pilot Office is at the Harbour Office and maintains VHF R/T watch on Channels 16 and 14 from 0900 – 1700 hrs. Monday to Friday and from 4 hours before HW until 1 hour after HW on each tide after 1700 hrs. and before 0900 hrs. The pilot cutter listens on Channel 16 when on station and is fitted with Channels 14, 12, 11 and 6 as working channels.

No. 3 and 4 pilot launches "Brackley" and "Denver" are 40 ft. fibre glass craft with blue hulls, white superstructure and orange tops to the wheelhouses. In the event of bad weather the pilot launch on duty will fore-run vessels into Cork Hole (Lat. 52° 53′ N., Long. 00° 24′ E.) before boarding Pilots.

Requests for Pilots for ships in port, should be made to the Pilot Office at least 2 hours before the Pilot is required to attend the ship. The signals to be used or displayed where the services of a Pilot are required in accordance with the provisions of the Merchant Shipping (Pilot Signals) Order, 1970.

ANCHORAGE: In the Wash vessels anchor within an area bounded by the Roaring Middle Light Float and the King's Lynn No. 1 Light Buoy and the Sunk Light Buoy. Anchoring close to No. 1 Buoy in sufficient depth of water assists early boarding of Pilots. Depth of water 20 ft. minimum.

RESTRICTIONS: King's Lynn Harbour is situated on the River Great Ouse about 2 miles inland from its mouth, at the S.E. corner of the Wash.

The shipping channel in the approaches to King's Lynn and its approaches in the Wash is subject to changes in depth and direction as published on Admiralty Charts.

Harbour Master will advise in advance upon the suitability of vessels and tides.

All ship movements are at HW, times in accordance with a position list maintained at the Harbour Office on the basis of information supplied in advance from Masters of vessels and their Agents.

At the Docks entrance lock docking signals are exhibited from a signal mast.

MAX. SIZE: Max. dimension for vessels entering the Harbour: length 315 ft. (No. 6 Berth, South Quay), beam 45 ft., draft 11 ft., on lowest Neap tides, and 18 ft. on highest Spring tides. Access over high tide only. Harbour Master to be consulted for vessels approaching these limits.

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: The King's Lynn Conservancy Board operates in the River Great Ouse and its approaches in the Wash a VHF (FM) port operations and information radio-telephone service in the International Maritime Band, call signs: "King's Lynn Harbour Radio" (Channels 16, 14, 12 and 11); "King's Lynn Pilots" (Channels 16, 14, 12, 11 and 6).

Associated British Ports operates a docks operations and information service, call sign: "King's Lynn Docks Radio" (Channels 16, 14 and 11).

TUGS: Controlled by King's Lynn Conservancy Board and in attendance at the discretion of the Board's Harbour Master. Vessels joined in the Wash Approaches and/or lower reach of River Great Ouse (Marsh Cut). Vessels should provide own hawsers. If ordered, tug hawser available.

Harbour Master may require any vessel to use and employ a tugboat.

BERTHING: *Alexandra Dock:* Size 780 ft. × 310 ft. Approached from the River Great Ouse and King's Lynn Harbour by a lock. Vessels of length 119 m. and beam 13.80 m. can be accepted. The depth of water on sill is 22 ft. to 26 ft. (Springs) and 18 ft. (Neaps).

Bentinck Dock: Size 1,000 ft. × 400 ft. Connected with the Alexandra Dock by a passage and gates over which pass 2 swing bridges. Also double-sided jetty 235 ft. long. Container storage terminal with 42 ton capacity forklift.

The quays of the 2 docks have a water frontage of approximately 1 mile and provide a total of 16 berths.

3 quay cranes up to 20 tons capacity available.

South Quay (King's Lynn Harbour): Grain loading and discharging facilities at South Quay No. 6 Berth. Lay-by facilities at South Quay No. 1 Berth. Ships berthing at South Quay take the ground at LW.

STEVEDORES: Gangs usually can be provided at minimum notice. Main commodities and handling rates: timber (200 cu.m. pre-pack, pre-slung, per gang-hour), steel coils (250 tons per gang-hour), tinplate (90 tons per gang-hour), grain (200 t.p.h. per gang hour), also Ro/Ro and container handling.

TANKERS: 3 tanker berths in enclosed docks. Discharge from vessels is to 6 in. connecting pipes feeding 8 in. pipes to storage tanks.

MEDICAL: It is advisable to give advance notice of required medical attendance via Agent. In emergency the Harbour Office will pass on requests received over the VHF R/T Port Operations and Information Service. For other medical information, refer to the Port Medical Officer of Health and H.M. Customs.

FUEL: Available at berths alongside King's Lynn Harbour on 24 hours previous notice. Light-grade fuel oil, gas oil, petrol and paraffin only.

FRESH WATER: Available on all berths through 4 in. pipes off hydrants from public supply.

OPENING/CLOSING HATCHES: Done by crew. Cranes available for heavy beams.

GANGWAY/DECK WATCHMEN: Vessels responsible for providing own gangways at King's Lynn Harbour berths, where the Regulations require the Master or other person having the care of any ship or other craft to have a proper number of hands on board to attend moorings and to comply with all the requirements and directions of the Harbour Master or his Deputy or Assistants.

CONSULS: Vice-Consul for the Netherlands and Germany F.R.

REPAIRS: Limited facilities only available locally for hull and engine repairs.

AIRPORT: Charter flights and some regular flights, from Cambridge and Norwich airports about 45 miles from King's Lynn. Regular flights from London (Heathrow) about 100 miles from King's Lynn.

POLICE/AMBULANCE/FIRE: In emergency dial 999 and ask for the service required. Normal service: Police – King's Lynn 761311; Ambulance – King's Lynn 773503 or 773910; Fire Service – King's Lynn 775163.

HOLIDAYS: Cargo work usually available at overtime rates on Saturday and Sundays and on all public holidays.

AUTHORITY: The King's Lynn Conservancy Board, Harbour Office, Common Staith, King's Lynn, Norfolk PE30 1LL. *Tel:* (0553) 773411 and 773412. *Telex:* 817588. *Cables:* "Conservator" King's Lynn. *Contact:* M. J. Kiddle, General Manager. Captain D. W. Garside, Harbour Master and Pilot Master.

Associated British Ports, – King's Lynn, St. Ann's Fort, King's Lynn, Norfolk PE30 2EU. *Tel:* King's Lynn (0553) 691555. *Telex:* 81368. *FAX:* (0553) 761335. *Contact:* D. George, Port Manager. C. B. Greenwell, Assistant Port Manager.

KIRKCALDY: 56.07 N. 03.09 W. (See Plan)

DOCUMENTS/PILOTAGE: See "Leith".

RESTRICTIONS: Dock gates open for 2 hours before HW until HW.

MAX. SIZE: Vessels of 1,500 d.w.t. regularly use the port. Width at dock gates 15.2 m. Depth 4.8 m. Max. width to enter 14.6 m.

RADIO: See "Leith".

VHF/RADAR: Forth Navigation Service from Leith or Methil Harbour Radio.

TUGS: Towage available.

BERTHING: 494 m. of berthing space available in dock.

CRANES: Mobile cranes available.

BULK CARGO FACILITIES: Privately owned grain discharge plant.

STEVEDORES: Available from Methil.

AUTHORITY: Forth Ports Authority, Dock Office, Methil KY8 3RE. *Tel:* (0333) 26725. *Telex:* 72208. *FAX:* (0333) 24873. *Contact:* Captain T.S. Sutherland, Port Superintendent.

KIRKWALL: 58.59 N. 02.58 W. (See Plan)

PORT LIMITS: See "Plan".
DOCUMENTS:
Maritime Declaration of Health.
Vaccination List.
Immigration Form H.O. Form IS6.
Crew List – 2 copies.
Ship's Stores List.
Crew Personal Effects Declaration. Customs Form C142.
Last Port Clearance.
Ship's Register.
Load Line Certificate.
Safety Construction Certificate.
Safety Radio and Safety Equipment Certificates.
Derat Certificate.
Previous British Light Dues Receipt.

Customs and Health: Customs, Immigration, Health and Agent will embark at anchor in Kirkwall Bay or alongside pier.

PILOTAGE: Non-compulsory except for passenger vessels over 50 g.t. Pilotage limits same as harbour limits. 15 licensed Pilots available. Arrange through Harbour Authority Office, Scapa. Tel: 0856-3636. VHF Channel 16. Telex: 75475 or by local Agents.

ANCHORAGES: Two areas. See "Plan".

RESTRICTIONS: Kirkwall Pier tidal berthing restrictions on draft. See "Berthing".

MAX. SIZE: See "Berthing".

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: Coast station call sign "Orkney Radio" (Wick Radio). Call Channel 16 VHF, working Channel 26 VHF.

VHF: Continuous watch Channel 16 VHF, call sign "Orkney Harbour Radio". Working on Channels 9, 10, 11 and 20 from 0800–1700 hrs. weekdays and when vessel expected. "Kirkwall Harbour Radio" Channel 16 VHF, working Channel 12.

RADAR: No facilities at Kirkwall Harbour.

TUGS: No tugs available.

BERTHING: See "Plan" for berths.

	Depth (m.)	*Length* (m.)	*Max. Draft at L.A.T.* (m.)	
East "1"	5.2	75	4.5	
East "2"	4.6	75	4.0	
West "1"	5.2	60	5.0	
West "2"	3.8	54	3.6	
West "3"	3.2	55	3.0	(Tanker berth – no petrol)
Basin	3.0	46	2.5	

Tidal Reference: Range 3.0 m. at Springs and 2.0 m. at Neaps.

Cargoes: Load/discharge ship's gear and mobile crane. Cargoes: Bulk, general, livestock, fuel oils (not petrol), passengers.

DENSITY: 1025.

CRANES: 2 Jones mobile cranes with grabs. S.W.L. 11 tons at 12 ft. radius and 2.75 tons at 40 ft. radius.

STEVEDORES: Kirkwall Port Employers Association have 25 dockers available. Contact local stevedores for detailed information.

MEDICAL: Medical and dental services are available by arrangement. Hospital facilities are available at Balfour Hospital at Kirkwall.

FRESH WATER: Available at all berths by 51 mm. mains supply. May be restricted in dry periods. 0.71p per tonne.

FUEL: Available by road tanker only from Esso – Shell/B.P.

FIRE PRECAUTIONS: Standard precautions. Local fire brigade.

CONSULS: Denmark, Netherlands, Norway, Germany F.R.

REPAIRS: Several small engineering firms can carry out minor repairs.

DRY DOCKS: None.

SURVEYORS: Not available.

GANGWAY/DECK WATCHMEN: Not available.

HATCHES: Opening/closing by crew.

CUSTOMS ALLOWANCES: As per British Customs scales.

REPATRIATION/TRAVEL: There are daily air services during the week to Aberdeen, Inverness, Glasgow and Edinburgh from Kirkwall Airport. There is no service on Sunday. There is a daily ferry service from Stromness to Scrabster to connect with British Rail. During the Winter months there is no service on Sunday.

AIRPORT: Approximately 4 miles from Kirkwall. Airlines: British Airways and Logan Air.

TIME: GMT. BST (GMT plus 1 hour) March – October.

HOLIDAYS: Public holidays vary except for Christmas and New Year (25th and 26th December, 1st and 2nd January).

POLICE/AMBULANCE/FIRE: Emergency – 999. Police: 2241. Ambulance: 2763.

EMERGENCY CO-ORDINATION CENTRE: Coast Guard: Tel. 3268. Telex: 75211.

SERVICES: Radio/radar technicians, divers, charts, etc., all available. Contact Agents.

SHORE LEAVE: No restrictions.

DELAYS: Stevedores also work Stromness when required, delays to vessels at Kirkwall can be expected due to lack of labour.

BANKS:
Bank of Scotland, 56 Albert Street, Kirkwall. Tel: 0856-2169.
Bank of Scotland, 99 Victoria Street, Stromness. Tel: 0856-850238.
Clydesdale Bank plc, 3 Broad Street, Kirkwall KW15 1DH. Tel: 0856-3237.
The Royal Bank of Scotland plc, P.O.Box 6, 1 Victoria Street, Kirkwall. Tel: 0856-2718. Telex: 75327.
The Royal Bank of Scotland plc, P.O.Box 1, 3 Victoria Street, Stromness. Tel: 0856-850217.

DEVELOPMENTS: Proposed extension to Kirkwall main pier, no details available at present.

AUTHORITY: Department of Harbours, Orkney Islands Council, Harbour Authority Building, Scapa, Orkney KW15 1SD. *Tel:* 0856-3636. *Telex:* 75475. *Contact:* Captain H.A. Banks, Director of Harbours.

LARNE: 54.51 N. 05.48 W. (See Plan)

DOCUMENTS: See "Belfast".

PILOTAGE: Not compulsory. Private Pilots available through Ships' Agents. Pilots board off Fairway Buoy. Contacted through Port Information Service on Channel 16, Call Sign 'Larne Harbour'. ETA 3 hours and 1 hour in advance, giving name, nationality, length, draft and gross tonnage. For Ballylumford Power Station call Belfast Pilots on VHF Channel 12.

Berths arranged by Harbour Master in advance.

ANCHORAGES: Inner anchorage at Larne up to 9 m. Anchorage outside Fairway Buoy in 11 m.

MAX. SIZE: Draft dependent on berth but max. 22 ft. 03 in. (6.8 m.) at Mac Kean Quay. Oil tankers proceed to Ballylumford Power Station which lies across Larne Lough directly opposite Larne Harbour. Approach channel has a minimum depth of 30 ft. below datum and berth has 35 ft. below datum.

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: Portishead/Portpatrick.

VHF: Port Information Service maintains continuous watch on Channel 16. Call sign 'Larne Harbour'. The service provides information regarding arrival, berthing, anchoring, departure and movements of vessels. Also information including pilots, wind direction and strength, visibility, tidal information, etc.

TUGS: 1×18 ton, 1×7 ton and 1×3.5 ton bollard pull tugs are stationed at Larne. Tugs from Belfast serve oil tankers to Ballylumford.

BERTHING: 1 berth equipped with 2×5 ton cranes for grabbing and general cargo work. 2 berths are equipped with cranes of 32 tons and 35 tons capacity for handling containers. 4 berths (3 twin level ramps for vessels up to 170 m.) are equipped with Ro/Ro ramps, capable of taking loads up to 180 tons and ships up to 24 m. beam.

STEVEDORES: Larne Harbour Ltd. carry out all the stevedoring. 24 hours' notice required for arrangements. Normal hours 0800 — 1700. Overtime by arrangement.

Main commodities: Fertiliser in bulk (150 t.p.h.), palletised fertiliser (200 t.p.h.), pulp (200 t.p.h.), steel plates and general cargo, etc.

MEDICAL: No advance notice required. Ample hospital facilities available within near vicinity.

TANKERS: For Ballylumford, see "Max. Size".

DENSITY: 1025.

FRESH WATER: Available at all berths. Order through Agent. Rate 15 t.p.h.

FUEL: Bunkering carried out by road tanker. Major grades of bunker fuel, diesel and marine lubes can be obtained through suppliers.

GANGWAY/DECK WATCHMEN: Ship's gangway. Watchmen by arrangement with Agents.

OPENING/CLOSING HATCHES: Performed by ship's crew.

CUSTOMS ALLOWANCES: Usual allowances as per H. M. Customs & Excise.

CERTIFICATES:
Safety Construction Certificate.
Safety Equipment Certificate.
Safety Radio Certificate.
Load Line Certificate.
Ship's Register.
Derat Certificate.

IDENTIFICATION CARDS: Not required.

CONSULS: Consuls in Belfast (20 miles) can be contacted through ship's Agent.

REPAIRS: Small repairs by local firms. Major repairs by Belfast firms.

DRY DOCKS: See "Belfast".

REPATRIATION: Crew changes and repatriation without difficulty by sea and air.

AIRPORT: Belfast International Airport and Belfast Harbour Airport 20 miles distant. Frequent flights to all parts of U.K.

HOLIDAYS: Christmas Day and New Year's Day. No cargo worked on these days, except by special arrangement.

POLICE/FIRE/AMBULANCE: Dial 999 and ask for Emergency service required. Also through Port Information Service on VHF Channel 16.

TELEPHONES: Placed on Cross Channel vessels. Public telephones in port area.

SHORE LEAVE: No restrictions.

SHIP SUPPLY SERVICE: John McLoughlin & Son (Shipping) Ltd., North End, The Harbour, Larne. Tel: Larne 73785 & 74085.

Ship supply and personnel transfer to ships alongside or at anchor.

AUTHORITY: Larne Harbour Ltd., 9, Olderfleet Road, Larne BT40 1AS, County Antrim, Northern Ireland. *Tel:* (0574) 79221. *Telex:* 747814. *FAX:* (0574) 74610. *Contact:* Captain A. K. W. Gardiner, Harbour Master/ Operations Superintendent. D. P. Galway, General Manager.

LEITH: 55.59 N. 03.10 W. (See Plan)

DOCUMENTS:
2 Report Forms (C. 13).
3 Stores Declarations (C. 14).
2 Crew Declarations (C. 142).
Crew Lists }
Passenger Lists } As Required.

Also additional forms for specific circumstances, e.g. deck cargo, hazardous cargo, livestock etc.

(Also see "Glasgow".)

PILOTAGE: Pilot station Firth of Forth located at Granton, boarding station West of Fairway Buoy at Long. 3° West. Contact with pilot cutters can be made on VHF Channels 16 and radio-telephone 2182. Pilotage not compulsory for vessels approaching South of Inchkeith Island.

Large vessels are normally docked 1.5 hours before HW. Vessels up to 20 ft. draft, dock at any time.

BERTHING:

Dock/Basin	*Quayage* (m.)	*Maximum Depth* (m.)	*Entrance Width* (m.)	*No.*	*Quayside Cranes Capacity* (tonnes)	*Type*	*Remarks*
Imperial Basin Common User Berth	200	9.6	31.6				Tanker Berth Oil bunkering facilities available.
Imperial Dock	1,100	9.5	31.6	1	120	Heavy lift	3 travelling grain elevators rated capacity 660 t.p.h. Road and rail access. Siwertell bulk unloader, rated capacity 355 t.p.h. 2×50 cu.m. mobile hoppers.
Roll-on/Roll-off Berth				1	15 – 16	Grabbing/General Cargo	
				3	7.5 – 10	Grabbing/General Cargo	
				2	6	General Cargo	
				2	7.5	General Cargo	
				2	7.5	Grabbing/General Cargo	
Edinburgh Dock Coal loading plant	1,615	8	18.2			G.E.C. M.G.R. System	Rated capacity 3,000 t.p.h. Road and rail access.
Albert Dock	677	8	18.2	1	30	Container Crane	Container quayside handling equipment (privately owned) and break bulk sheds. Road and rail access.
Container Berth				1	20	Scotch Derrick	
Roll-on/Roll-off Berth				2	3	General Cargo	
Victoria Dock	558	7.4	18.2				Road and rail access.
Western Harbour	296	10.3	31.6				3 travelling grain elevators (privately owned).
Berth Nos. 8 and 10 Harbour	305	9.5	31.6				Grain outloading terminal. 2 Fyson Mobile Conveyors, rated capacity 500 t.p.h. each.
Berth No. 6 Harbour Roll-on/Roll-off Berth	149	8	31.6				Road and rail access.

ANCHORAGES: Good holding ground at Inchkeith Island and Leith roadstead, depths 8 m. – 19 m. at C.D. Request should be made to Forth Navigation Service. Other anchorages as per Admiralty Charts of the area.

APPROACHES: *Cautionary Advice:* Tidal streams set across the approach channel with rates up to 1.5 knots (in a 080/260° (T) direction). Great care should be exercised in ensuring sufficient set is allowed to maintain the correct approach course when slowed down in the channel immediately prior to entering the locks.

RESTRICTIONS: None. Vessels can enter harbour day or night.

Lock: Entrance to the port is from the Firth of Forth through the entrance lock which is 259 m. long and 31.6 m. wide between fenders, depth over the outer sill MHWST 12.239 m.

The lock is operated 24 hours a day, 7 days a week.

MAX. SIZE: Governed by draft of vessels. Max. permissible draft alongside in Imperial Dock 9.1 m. and in Western Harbour 9.7 m., in dock water density is 1015.

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: Forth, Stonehaven and Cullercoats Radio Stations.

RADAR/VHF: Port and Estuary radar service. VHF contact can be made with Leith Harbour Radio on Channel 16. Forth Navigation Service must be contacted on VHF Channel 71 by vessels entering Forth Port Authority Seaward Limit (line joining North and South Carr Beacons), working Channels 20 and 12.

TUGS: 5 tugs, 12-27 tonnes bollard pull. Attend inward-bound vessels in Leith roads. Tug's towline available and compulsory. Tugs on VHF Channels 16, 6, 8, 11, 12 and 14.

CRANES: 2×11 tonnes, 1×7.3 tonnes and 1×3 tonnes mobile diesel cranes. Also see "Berthing".

BULK HANDLING FACILITIES: See "Berthing".

Grain Storage: Imperial Basin: 55,880 tonnes. Western Harbour (private) 53,848 tonnes.

STEVEDORES: ETA advices given by Master to ship's Agent and conveyed by them to stevedores.

MEDICAL: No advance notice of medical attention required. All hospital facilities available.

TANKERS: 1 tanker berth available – max. permissible draft 9.1 m. in dock water of density 1015. Discharge lines 6 in. and 8 in. No slop discharge facilities.

DENSITY: 1015.

FRESH WATER: Available alongside at all berths.

FUEL: All grades available subject to 24 hours notice in advance.

GANGWAY/DECK WATCHMEN: Usually supplied by ship but shore watchmen arrangeable by special agreement.

OPENING/CLOSING HATCHES: Custom of the port is that this work is normally carried out by ship's crew.

CERTIFICATES:
- Ship's Register.
- Load Line.
- Safety Radio.
- Safety Equipment.
- Cargo Construction.
- Derat Certificates.
- Light Dues receipt.

CUSTOMS ALLOWANCES: Usual amounts allowed by Customs and Excise.

CARGO GEAR: No additional requirements necessary to comply fully with local safety regulations as all gear supplied by stevedores.

IDENTIFICATION CARDS: Not required.

CONSULS:

Australia: Miss J. Richardson, Consul, 4 Hanover Street, Edinburgh EH2 2HQ. Tel: (031) 226 6271.

Austria: I.D. Millar, Consul, 16 Heriot Row, Edinburgh EH3 5HR. Tel: (031) 556 2896.

Belgium: R. De Maere, Acting Consul, 3rd Floor, 13 Charlotte Square, Edinburgh. Tel: (031) 225 3490.

Denmark: R. S. Salvesen, Consul, 50 East Fettes Avenue, Edinburgh EH4 1EQ. Tel: (031) 552 7101. J. Ralph, Vice-Consul, Mandal House, South Shore Road, Grangemouth. Tel: (0324) 486721.

Federal Republic of Germany: Dr. W. A. Thonnes, Consul General, 16 Eglington Crescent, Edinburgh EH12 5DC. Tel: (031) 337 2323.

Finland: Hemming Renlund, Consul (for Scotland), 27 Abercromby Place, P.O. Box 69, Edinburgh EH3 6UD. Tel: (031) 557 2738. G. H. Elliot, Honorary Consul (for Edinburgh), 50 East Fettes Avenue, Edinburgh EH4 1EQ. Tel: (031) 552 7101.

France: Rene Gros, Consul General, 7 Wemyss Place, Edinburgh EH3 6EL. Tel: (031) 225 7954.

Greece: George Tombazis, Consul General, 9 Regent Terrace, Edinburgh EH7 5BW. Tel: (031) 556 1701. I. D. Ross, Consul, 1 Thistle Court, Edinburgh EH2 1DE. Tel: (031) 225 6744.

Iceland: S. Magnusson, Consul General, 2 Orchard Brae, Edinburgh EH4 1NY. Tel: (031) 332 5856. Snjolaug Thomson, Vice-Consul, 5 Abinger Gardens, Edinburgh EH12 6DE. Tel: (031) 337 2066.

Italy: Dr. Pietro Lonardo, Consul General, 6 Melville Crescent, Edinburgh EH3 7JA. Tel: (031) 226 3631.

Latvia: R. D. Cairns, Consul, 1 Royal Terrace, Edinburgh EH7 5AD. Tel: (031) 556 5362.

Monaco: F. J. Steward, Consul, 39 Castle Street, Edinburgh EH2 3BH. Tel: (031) 225 1200.

Netherlands: Mr. Souness, Consul, Life Association of Scotland Ltd., 8-12 George Street, Edinburgh 2. Tel: (031) 225 8494.

Nigeria: Dr. Onoh, Deputy High Commissioner, 3-11 North St. Andrew Street, Edinburgh EH12 1HJ. Tel: (031) 557 0275.

Norway: Knut Sagen, Royal Consul General (for Scotland), 86 George Street, Edinburgh EH2 3BU. Tel: (031) 226 5701. L. Kidd, Consul, J. T. Salvesen & Co. Ltd., Grangeburn Road, Grangemouth. Tel: (0324) 482801. L. M. Harper Gow, Honorary Consul (for Edinburgh), 50 East Fettes Avenue, Edinburgh EH4 1HQ. Tel: (031) 552 7101.

Portugal: J. F. Hall, Consul, Gogar Park, 167 Glasgow Road, Edinburgh EH12 9DJ. Tel: (031) 339 5345.

Sweden: John D. Bottomley, Consul, 6 John's Place, Edinburgh EH6 7FP. Tel: (031) 554 6631.

United States of America: Leonard Willems, Consul General, Miss N. C. Abell, Consul, 3 Regent Terrace, Edinburgh EH7 5BW. Tel: (031) 556 8315.

REPAIRS: Facilities available to carry out all types of deck and engine repairs.

DRY DOCKS: Largest dry dock "Imperial", length 167.6 m. width of entrance 21.3 m. depth over blocks at 7.7 m. also 2 smaller dry docks.

REPATRIATION: All facilities available for effecting crew changes and repatriation by sea, air and rail.

AIRPORT: Edinburgh Airport served by regular airlines and located approx. 9 miles from Leith.

TIME: British Standard Time, GMT plus 1 hour. GMT in Winter months.

HOLIDAYS: Public holidays observed annually: 3rd Monday in April, 3rd Monday in September; Christmas Day (25th December); 26th December; 1st, 2nd, and 3rd January. Cargo work can be arranged on public holidays except 25th December and 1st and 2nd January.

POLICE/AMBULANCE/FIRE: Tel. 999 and ask for service required or call Leith Harbour Radio on VHF Channels 16 and 12.

TELEPHONES: Can be arranged with G.P.O.

SERVICES: Compass adjusting facilities available.

SHORE LEAVE: No restrictions.

DELAYS: Minimal delays in berthing, loading and discharging.

AUTHORITY: Forth Ports Authority, Port Office, Tower Place, Leith, Edinburgh EH6 7DB. *Tel:* (031) 554 4343. *Telex:* 72681. *FAX:* (031) 563 7462. *Cables:* Harbour Leith. *Contact:* Mr. T. Skinner, Port Manager, Leith & Granton.

LERWICK: 60.09 N. 01.08 W. (See Plan)

PORT LIMITS: All waters contained within the following boundaries including Dales Voe and Aith Voe.

Straight line drawn from the N.E. extremity of Hawks Ness (Lat. 60° 13′ 27″ N., Long. 1° 10′ 00″ W. approx.) in an East Southeasterly direction to the N.E. extremity of Green Holm and thence in a Southeasterly direction to the N.E. extremity of Score Head in the island of Bressay. Thence in a Westerly and Southerly direction along the HW mark of all foreshores to Whinna Skerry (Lat. 60° 07′ 45″ N., Long. 1° 07′ 17″ W. approx.). Thence in a straight line in a Westerly direction to the S. extremity of Ness of Sound. Thence along high water mark of all foreshores in a generally Northerly direction to Hawks Ness.

BUOYAGE: Buoyage in Lerwick Harbour is IALA System "A".

DOCUMENTS: See "London".

PILOTAGE: *Pilot Office:* At foot of Victoria Pier in Harbour Master's Office. Lat. 60° 09′ N., Long. 1° 08′ W. Limits of Pilotage District similar to Port limits given above. Licenced Pilots always available on 24 hour service subject to following correct procedure given below.

Call Sign: Lerwick Harbour Radio.

Frequencies: Calling: VHF Channel 16. Working: VHF Channel 12. Pilot Cutter: VHF Channels 6, 11, 12 and 16.

Port Control: Fitted with VHF Channels 11, 12 and 16. Continuous watch is maintained 24 hours per day, 7 days per week on Channel 16 except when working vessels on Channel 12.

Procedure: The Port Control Office controls the movement of all vessels arriving or departing by either entrance and all movement within the harbour from public or private quays or supply bases, whether such vessels are under the control of Pilots or not.

(a) Vessels requiring pilotage should arrange with Agent not less than 24 hours before arrival. Vessels without Agent should contact Lerwick Harbour Master through Coast Radio Stations not less than 24 hours before arrival. Vessels leaving ports less than 24 hours steaming away should advise time of sailing, projected speed and ETA at time of leaving last Port. Vessels inward from Continental Shelf should advise time of leaving location, projected speed and ETA at time of leaving last location. Amended ETAs should be advised 2 hours before the time given in the last transmitted ETA. VHF contact should be made with Lerwick Harbour Radio while still 1 hour away when final pilotage and berthing arrangements will be made. Port control cannot guarantee a Pilot on station unless 1 hour's notice is given.

(b) ETA messages should also contain information on which harbour entrance is to be used, draft and length overall. Vessels entering by the South entrance will be boarded West of Kirkabister Lighthouse or near Knab Point if weather conditions are unsuitable. Vessels entering by the North entrance will be boarded abeam of the Green Holm and 0.5 miles N.E. of Beosetter Holm. If boarding conditions in this area are unsuitable the South entrance must be used.

(c) "Knab", 18 m. Dark blue hull, white upperworks. Pilot boat and tug, can be used for towing, bollard pull 8 tons.

(d) Outward vessels should call the Port Control 1 hour before departure when information on traffic movement will be given and arrangements for pilotage will be made. When moving within the harbour all vessels should maintain a continuous listening watch on Channel 16. All vessels moving within the harbour should report to the Port Control immediately prior to leaving the berth or anchorage, whether a Pilot is on board or not.

(e) Pilotage within Lerwick Harbour is compulsory, but all vessels not carrying passengers are exempt.

(f) Telephone number of Lerwick Harbour Master and pilot station is Lerwick 3462.

ANCHORAGE: Ample anchorages in harbour roads.

Inner South Harbour depth up to 60 ft.

Breiwick Bay (Inner South Harbour) depth up to 90 ft.

MAX. SIZE: Vessels up to 20 ft. draft and 320 ft. long alongside berth as routine. Vessels of greater length and for draft may be accommodated alongside after discussion with Harbour Master. Anchorages available for any size of vessel subject to prior consultation with Harbour Master, if above 10,000 g.r.t. No mooring buoys available.

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: Nearest Coast Radio Station "Shetland Radio" Frequency and other details as for "Wick Radio" except for VHF working Channel which is Channel 27.

"Lerwick Harbour Radio" see "Pilotage".

TUGS: No tugs available but Pilot cutter will give towage assistance within her capabilities.

BERTHING: Berths are available for the handling of most cargoes including Roll-on/Roll-off and arrangement should be made through Agents well in advance of arrival. No berths available for handling liquid chemicals. Mobile cranes available from Harbour Authority up to 30 tons capacity or through private operators to 110 tons capacity.

	Length of Quay (ft.)	*Depth* (ft.)
South Harbour	3,000	10 – 35
Shell & B.P. Bases, Holmsgarth	1,000	15 – 25
Holmsgarth, 5 berths, including 2 Ro–Ro	3,000	18 – 35
O.I.L. (Shetland) Ltd.	2,656	18 – 24
Dales Voe Rig Repair Base	164	41

STEVEDORES: Arranged through Agent.

MEDICAL: Medical aid can be arranged through Agent or Coastguard at any time day or night.

TANKERS: BP Oil have their own discharging berth. Tankers are also able to discharge at various offshore oil industry supply berths

DENSITY: Density 1025 at all states of tide.

FRESH WATER: Available at most berths, 65 t.p.h. to 100 t.p.h. No water boat.

FUEL: Gas oil available on demand.

FIRE PRECAUTIONS: No-smoking regulations in operation inside all transit sheds. Usual tanker terminal regulations in operation. Handling of explosives covered by local Bye-Law.

GANGWAY/DECK WATCHMEN: Ships usually supply own watchmen. No fixed sum if shore watchman is employed.

OPENING/CLOSING HATCHES: Crew open hatches.

CUSTOMS ALLOWANCES: Tobacco, wine/spirits; at the discretion of the Customs and Excise.

IDENTIFICATION CARDS: Foreign seamen have to supply same if left behind, i.e. hospital, etc.

CONSULS:

Denmark	(C.W.L. Aitken)	Tel. 2533
Finland	(F. Garriock)	2556
France	(W.H. Stubbings)	2556
Germany F.R.	(J. Smith)	2556
Iceland	(C.W.L. Aitken)	2533
Netherlands	(C.R. Duncan)	2533
Norway	(Mrs. N. Sinclair)	2556
Sweden	(M.M. Shearer)	(0595 82) 363

REPAIRS: Repairs to fishing vessels and other small craft in steel, wood and fibre glass. Also engine and machinery repairs. Comprehensive electronics repair facilities.

DRY DOCKS: No dry dock available, slip available to take small vessels up to 100 d.w.t.

REPATRIATION: Facilities exist.

AIRPORT: 25 miles to airport. 5 services per day to Aberdeen operated by British Airways. Charter flights by Dan Air and other airlines.

Tingwall, 7 miles from Lerwick, Loganair Twin Otter service to Edinburgh.

HOLIDAYS: Scottish holidays. Working can be arranged on these days if so desired.

POLICE/AMBULANCE/FIRE: Emergency telephone 999 or call Port Control VHF Channel 16. Harbour Master and Port Control 3462 night or day.

COASTGUARD: Lookout on top of Knab Point manned 24 hours a day. Fitted with MF and VHF Radio Channels 16, 13, 10 and Zero.

TELEPHONE: Ships telephones can be arranged.

SERVICES: No tank-cleaning equipment. Compass adjuster can be procured if necessary.

SHORE LEAVE: No restrictions.

AUTHORITY: Lerwick Harbour Trust, 1/2 Alexandra Buildings, Lerwick, Shetland, ZE1 0LL. *Tel:* (0595) 2991, 2828, 3462, 4192. *Telex:* 75496. *FAX:* (0595) 3452 (Main Office); (0595) 5911 (Port Control). *Contact:* A.B. Laurenson, General Manager. A.S. Wishart, Assistant to General Manager. Captain D.I. Polson, Harbour Master.

LIVERPOOL: 53.28 N. 03.02 W. (See Plan)

DOCUMENTS: Required on arrival, Crew List Form I.B.6 to be completed; this list to include all passengers and any British subjects who joined vessel outside of U.K. If any person falling into this category should be on board they must not leave until permission to land is granted by Immigration Officer.

Customs Form C.142, Declaration of goods obtained abroad or during a voyage, must be completed and signed by Master, and each crew member. Health Declaration must be completed. Above forms should be obtained from Pilot.

Manifest and Bills of Lading should be forwarded to vessel's Agent so as to be available before vessels arrival.

Ship's Papers Required:

Ship's Register.
Certificate for British Tonnage (if issued).
Safety Equipment Certificate.
Safety Radio Certificate.
Safety Construction Certificate.
International Load Line Certificate.
Derat Exemption Certificate.

PILOTAGE: At least 48 hours before arrival, vessels should give ETA Lynas/Mersey Bar to Agents who will arrange docking and pilotage and advise the Master accordingly.

NOTICES: The Mersey Docks and Harbour Company, Notice to Mariners, No. 17 – 1986 (dated 10th November 1986):

Liverpool Pilotage Authority
Compulsory Pilotage

Obtaining Pilots at the Bar Lighted Buoy, Point Lynas Pilot Station, and from Ports on the River Mersey:

1. General:

Shipowners and Masters of ships subject to Compulsory Pilotage must employ the services of a Licenced Liverpool Pilot whilst navigating within the limits of the Liverpool Pilotage District. Failure to comply with this requirement renders the Master liable to prosecution under Section 30 of the Pilotage Act, 1983, unless he or the First Mate is the holder of a current Pilotage Certificate for the District.

To ensure that sufficient Pilots are available at the Pilot Boarding Station normally off Point Lynas, Anglesey, for vessels bound to the Mersey from the Southward and Westward, and similarly at the Pilot Boarding Station in the vicinity of the Bar Lighted Buoy, for vessels bound to the Mersey from the Northward, at least 24 hours notice must be given to the Pilotage Service of estimated times of arrivals of vessels.

2. Inward Bound Vessels:

An estimated time of arrival message (hereinafter referred to as an ETA) shall be sent to the Pilotage Control Centre for any inward bound vessel for which a Pilot must by law be taken. Such ETA must be received at least 24 hours before the expected arrival of the vessel at the Pilot Station at which the Pilot must be taken, and shall state:– Ship's name, draft, Gross Registered Tonnage, destination, date and time of expected arrival of the vessel, the Pilot Station at which the Pilot must be taken, last port of call and origin of message.

If a vessel will not arrive within 3 hours of the time specified in the original ETA, an amended ETA must be received at least 12 hours before arrival and 6 hours before the original ETA.

Provided that if a voyage is less than 24 hours duration, a vessel shall be deemed to have complied with the requirement of ETA procedure if the ETA is transmitted immediately on leaving the previous port, bound for the Mersey.

If a vessel fails to arrive at the Pilot Station within 6 hours after the time stated in the last ETA notification, the ETA will be regarded as invalid.

Failure to comply with the above requirements will result in an increase of Pilotage payable for the vessel as set out in the list of charges made pursuant to Section 9 of the Merchant Shipping Act, 1979.

Such increases may equal 50% of Pilotage Dues normally payable.

3. Outward Bound Vessels:

An outward bound vessel for which a Pilot must by law be taken shall be booked at the Pilotage Control Centre giving her position, estimated time of departure, Gross Registered Tonnage and her sailing draft, at least 4 hours before intended departure.

Outside the hours of 0700 – 1700 hrs. daily Monday to Friday inclusive and 0700 – 1000 hrs. Saturday a late booking fee, as appears in the list of charges will be charged for such an outward booking.

When a Pilot is required at less than 4 hours notice, he will be supplied as soon as possible, subject to an additional attendance fee.

4. Communications:

(i) From December 1986, Anglesey Radio will be unmanned and have no direct contact with Point Lynas. W/T messages via coast Stations should therefore be addressed "LIVERPOOL PILOTAGE".
The same address may also be used by vessels sending automatic radio telex (via Portishead) or telegrams (via VHF, MF or HF).

(ii) Vessels wishing to communicate with the Liverpool Pilotage District Point Lynas Shore Station by VHF should call "LYNAS PILOT" on Channel 9. Channel 16 should only be used in case of difficulty in establishing initial contact.

(iii) Vessels wishing to communicate with the Liverpool Bar Pilot on VHF should call "LIVERPOOL PILOTAGE CONTROL" on Channel 11. Channels 16 and 12 should only be used in case of difficulty in establishing initial contact.

(iv) Lynas Pilot Station Duty Officer Tel: 0407-830-203.

(v) Liverpool Pilotage Control Tel: 051-922-9653.
Telex Pilotage Liverpool 627458 RADAR G.

The Mersey Docks and Harbour Company, Notice to Mariners No. 15 – 1987 (dated 9th November 1987):

Liverpool Pilotage Authority
Compulsory Pilotage

This Notice to be read in conjunction with Notice to Mariners No. 17 – 1986 "Obtaining Pilots at the Bar Lighted Buoy, Point Lynas Pilot Station and from Ports on the River Mersey" (See above).

As from 0001 hrs. 1st December 1987, *ALL* vessels under 1,600 g.r.t. may board their inwards pilots at the Bar Pilot Station. This includes those vessels under 1,600 g.r.t. from the South and West who normally board their compulsory pilots at the Lynas Pilot Station.

Agents and Masters of the ships concerned *MUST* continue to give 24 hours ETA Notice of Arrival at the Bar and will be allowed to proceed to the Bar to anchor and/or await their Pilot unless the Bar Station is not operating due to bad weather.

Masters of vessels under 1,600 g.r.t. from the South and West should contact Lynas Pilot Station on Channel 9 (or 16) when they round the Skerries advising their ship's name, g.r.t., ETA at the Bar, etc., and should then be guided by the advice received. Additionally Liverpool Pilotage Control on Channel 11 (12 or 16) should be contacted 2 hours before arrival at the Bar.

Masters must realise that Pilots cannot be readily available at Lynas without prior notice and should contact Pilotage about 12 hours prior to arrival to obtain a situation update.

ANCHORAGE: In the event of berths not being readily available for vessels, normally they must wait at the Mersey Bar Anchorage which is in the open roadstead. There are river anchorages, but these are only usually for vessels about to enter the dock system.

RESTRICTIONS: No restrictions on night entry, except VLCCs, tidal restrictions depend on vessel's draft and to which berth vessel proceeding, larger vessels usually have to wait for HW.

MAX. SIZE: ✓ Tranmere: up to 41 ft. (12.5 m.) draft dependent on tide.
✓ Birkenhead: up to 28 ft. 6 in. (8.68 m.) draft.
Liverpool Docks: up to 42 ft. (12.8 m.) draft.
Royal Seaforth Dock: 42 ft. (12.8 m.) of water depth, up to 75,000 d.w.t.

HEALTH: Maritime Declaration of Health Form must be completed and handed to Customs Officer or Port Health Officer, whoever first boards ship. This form is obtainable from Pilot. In event of any suspected disease or fever on board, or if ship has called during last 4 weeks at any port in Brazil, China, Indo-China, India, Pakistan, Burma, Colombia and the port of Dar-es-Salaam, West African ports between Lat. 20° North and 20° South, the Master should, prior to entering port, make radio contact with Liverpool Port Health Authority, via Anglesey Radio or Port Radar Station (Signal "Portelth Liverpool") giving them following information:

1. Name of Ship. 2. Date of departure from and name of last infected port. 3. Number, ages and sex of any cases of infectious diseases or other relevant information. 4. Expected time of arrival at Rock Light.

Before reaching the Rock Light, if medical clearance has not been obtained, the following signal must be displayed: By day – fly the flag signal "Z W". By night – show red light over white light.

When medical clearance is obtained Pratique will be issued at discretion of Customs Officer.

If there is no suspected disease on board and vessel has not called at any of the above ports listed, Master can radio for Free Pratique. Unless otherwise instructed, Customs Officer will again issue Pratique.

Vessels arriving from another U.K. port do not require Pratique or health clearance.

Also see "Health – All Ports" before first U.K. port.

RADIO: Portishead Radio, call sign: GKL; Landsend Radio, call sign: GDL; Wick Radio, call sign: GKR; but on approaching Liverpool, the local radio station is Anglesey Radio, call sign: GLV.

RADAR/VHF: VTS operational. Vessels should establish contact by VHF/RT with the Port Operations Control, call sign "Mersey Radio", before sailing and inward bound when within VHF/RT range and not later than when in the vicinity of the Bar Lighted Buoy.

Harbour Radar: The radar coverage extends seaward over Liverpool Bay for a radius of 20 miles from the station and in the River Mersey as far South as the approaches to the Manchester Ship Canal.

Vessels entering or leaving the Port in conditions of low visibility can, on request, be supplied with continuous information of their position whilst navigating in the river or sea channels.

A general situation and movement statement, giving all intended movements inwards and outwards for the Port of Liverpool, Eastham, Garston and Cammell Lairds and approximate times at the dock entrance or river berth, together with a list of Local Navigation warnings in force, latest weather reports and area forecast, is broadcast on Channel 9 at 3 hours before each HW. This full statement is repeated with any amendments and the disposition of the River Anchorages North and South at 2 hours before each HW.

Any local navigation warning, gale warnings and amendments to gale warnings are broadcast on receipt on Channel 12.

A full list of navigation warnings and gale warnings is broadcast on Channel 9 every 4 hours, commencing at 0001 hrs. No separate broadcast of this list is made during the period from 4 hours before HW to 1 hour before HW as such warnings are included in the General Situation and Movement Statement.

Docking Instructions: The VHF/RT Stations at the Dock Entrances and Stages are provided to facilitate docking and berthing operations and to provide direct communication between the Dock Master or Stage Master and a vessel. The Range of these stations is limited to a distance of 6 miles to 8 miles.

Tug Communications: Channels 8 and 10 are reserved for tug communications and should not be used for any other purpose. Due to the heavy working of these Channels, especially at tide time, and in order to minimise interference, vessels and their tugs when communicating to one another on VHF/RT, should, when possible transmit on reduced power.

Large Vessels Swinging: Vessels of 150 m. or over in length intending to swing in the river should give advance notice of at least 10 minutes to Mersey Radio of their intentions so that Mersey Radio can broadcast on Channel 12 a swinging warning to all ships.

Port VHF Radio Telephone Communications System:

Station	*Call Sign*	*Hague Channel Number*	*Remarks*
Liverpool Port Operations Control	Mersey Radio	16	Calling and safety
		12	Port Operations – Calling and navigation.
		9	Port Operations and routine broadcasts
		18,22	Port Operations and Radar information
		19	Radar information and general, for tanker traffic for Tranmere only.
			A continuous watch is kept on Channels 16 & 12 at Port Radar Station
Gladstone Dock Master's Office	Gladstone Dock	5	Port Operations and Docking Instructions.
Langton Dock Master's Office	Langton Dock	21	
Alfred Dock Master's Office	Alfred Dock	5	
Tranmere Stage Master's Office	Tranmere Stage	19	
Associated British Ports			
Garston Dock Master's Office	Garston Dock	20	Port Operations and Docking Instructions.
M.D.C.			
Canning	Canning Dock	37	Berthing Instructions
Manchester Ship Canal			
Eastham Locks Office	Eastham Locks	7	Port Operations and Docking Instructions
M.D. & H.C. Pilot Stations			
Point Lynas Shore Station	Lynas Pilot	16	Calling and safety
		9	Ship to shore.
Liverpool Control Centre	Liverpool Pilot	16	Initial calling
		12	Initial calling
		11	Calling & ship to shore

Local Priority Messages: A vessel which has an urgent message to transmit to Mersey Radio concerning urgent navigation matters and which message should receive priority over normal Port Operations R/T Communications, should indicate the urgency of the message by prefixing the call sign of the Port Operations Control with the spoken word "PRIORITY" i.e. "PRIORITY MERSEY RADIO" repeated 3 times followed by normal procedure.

In special circumstances such as the launch of a vessel or in an emergency such as a wreck, it may be necessary temporarily to establish a patrol for the control of traffic. Vessels will be warned of the existence of any such patrol by "Mersey Radio" and any such patrol vessels or launches will maintain a listening watch on Channel 12 and communicate with other vessels on Channel 6.

R/T Procedure

Channels to be used for Calling and for Preparatory Signals: Mersey Radio and ship stations will call on Channel 12. Channel 16 should only be used for distress, urgency or safety communications.

Channels for Reply: Calls received on Channel 12 should be replied to on the same Channel, but if calls are received on Channel 16, replies should be made on this Channel.

Indication of the Channel to be used for Radio Telephone Traffic: When communication has been established on Channel 12 between a ship and "Mersey Radio", the shore station will indicate the Channel to be used for passing and receiving information if Channel 12 is busy.

Times: All times in messages should be given in local time, i.e. BST or GMT, using the 24 hour notation.

R/T Discipline: To ensure that the full advantage of efficient communication is achieved, strict telephone discipline and attention to procedure, particularly on the calling Channel is imperative. Channel 16 must only be used for establishing contact between ship and shore or ship and ship, and must not be used for the passing of messages except in cases of distress within Port limits. Channel 12 should be used for establishing contact between ship and shore or ship and ship.

Sequence of R/T Communication for Vessels Entering the River Mersey:

(i) Vessels wishing to communicate with the Liverpool Pilotage District Point Lynas Shore Station should call "Lynas Pilot" on Channel 9. Channel 16 shall only be used in case of difficulty in establishing initial contact.

(ii) Vessels wishing to communicate with the Liverpool Pilotage Control Centre should call "Liverpool Pilot" on Channel 11. Channels 16 and 12 should only be used in cases of difficulty in establishing initial contact.

(iii) When within VHF R/T range and not later than when in the vicinity of the Bar Lighted Buoy the vessel should establish contact with Mersey Radio on Channel 12 and pass her arrival information on Channel 12 or other Channel indicated by Mersey Radio, watch should be kept on Channel 12 unless instructed to remain on another working Channel for Port Operational reasons. A vessel at anchor at the Bar anchorage should keep watch on Channel 16.

(iv) Vessels requiring radar information or assistance will be requested to shift to Channel 18 or 22.

(v) Vessels should inform Mersey Radio when they are ceasing to keep a listening watch on Channel 12. If they are shifting to a tug or a dock entrance or Tranmere Oil Stage Channel they should inform Mersey Radio of such intention.

Vessels Sailing from the River Mersey: Vessels, on sailing from any Stage or Dock, should establish contact with Mersey Radio on Channel 12 and then maintain watch on that Channel unless instructed to remain on another working Channel for Port Operational reasons. Vessels requiring radar information or assistance will be requested to work on Channel 18 or 22.

TUGS: Join vessel after passing Rock Light. Normally use tug's lines but optional. Charge for tug's hawsers.

BERTHING: 35 general cargo berths.

BULK CARGO FACILITIES: *Grain Berths:* Royal Seaforth Grain Terminal accommodates ships of up to 75,000 d.w.t. up to 260 m. overall length and 12.8 m. draft. Discharge is by 2 marine towers at up to 2,000 tonnes p.h. into 133,000 tonnes capacity silo. 2×750 tonnes per hour dischargers (Buhler) for animal feedstuffs at Berth S.2, storage capacity 30,000 tonnes.

Other grain berths include Birkenhead East Tower Berth accommodating vessels up to 150 m., draft 8.7 m.; Ranks/Ocean Mill, max. length 144.7 m. (152 m. by arrangement), draft 8.7 m.

Grab Cargoes: (Minerals, ores, coal, meals, etc.).

N.3 Huskisson Branch Dock: 2 berths for vessels up to 9.5 m. draft, each equipped with 4 grab cranes.

S.E.2 Alexandra Dock: Vessels up to 8.84 m. draft, equipped with 3 grabbing cranes for handling animal feeding stuffs; discharge to road via hoppers and direct by conveyor to silo storage.

E. Bramley Moore: 2 × 5 tonnes grabbing cranes for handling vessels up to 3,000 tonnes d.w.t. and 5.8 m. draft. Discharge direct to road vehicles.

North Bidston Dock: Quay length 305 m., 8.7 m. draft, max. length 192 m., 3 transporters each with an hourly digging capacity of 350 tonnes discharging to road or rail via 175 tonnes hoppers or into coasters or barges.

Cavendish Quay: 2 × 20 tonnes level luffing jib cranes with a grabbing capacity of 15 tonnes. Each designed to handle up to 450 t.p.h. Loading to road or rail with 2 × 100 tonnes capacity mobile weigh hoppers.

Duke St. Wharf: Vessels up to 8.7 m. draft discharged by 2 × 7.5 tonnes electric level luffing cranes.

S.2 Gladstone Dock: Bulk terminal with length 250 m. and depth 12.5 m. The terminal will handle Panamax (75,000 tonnes) vessels with 2 grab cranes.

BULK LIQUID FACILITIES: *Tranmere:* Petroleum oils at Tranmere South Stage, accommodating tankers up to 115,000 tons displacement, max. draft 11.1 m. plus height of tide and Tranmere North Stage accommodating tankers after lightening up to 210,000 tons displacement, max. draft 12.0 m. plus height of tide. Facilities operated by Shell U.K. Ltd.

Cautionary Advice: Vessels which are required to pump over the tide must discharge so as to reach, 30 minutes before LW, a draft not greater than 41 ft. plus height of LW at the North stage, or 38 ft. plus height of LW at the South stage. (These figures may vary slightly from time to time and should be checked with the Berthing Master).

Liverpool: N.2 Gladstone (edible oils berth total quay length 175 m., 12.8 m. draft).

S.1 Canada (edible oils and molasses, up to 213 m. length, 9.75 m. draft).

S.E. Nelson (wines and spirits for vessels up to 99.1 m. length, 6 m. draft).

S.E. Salisbury (edible oils for vessels up to 6 m. draft).

Birkenhead: N. Alfred (8.6 m. draft, edible oils).

Ilchester Wharf (8.6 m. draft).

E. Lewis (edible oils, bulk chemicals and molasses for vessels up to 192 m. in length, 8.7 m. draft).

SPECIALISED CARGO HANDLING FACILITIES: *Containers:* The container terminal at Royal Seaforth Dock has a continuous quay 1,100 m. in length, served by 6 gantry cranes up to 40 tons capacity and a fleet of straddle carriers working to a 22 ha. container park supported by a 26 ha. back-up area. Tractor trailer units are used to feed the integral Freightliner Rail Terminal.

Containers can also be handled at all general cargo berths.

Timber and Forest Products: At the Royal Seaforth Timber Terminal, 793 m. of continuous quay are served by 4 × 10 tonnes cranes discharging packaged timber to a 26 ha. stacking and back-up area. 3 sheds provide covered storage of 16,000 sq.m. for plywood, pulp-kiln-dried timber.

Ro/Ro: There are 12 berths in the port with Ro/Ro ramp facilities; Royal Seaforth, S.3, S.6 and S.10; Gladstone No. 3, North Hornby. N.W. Alexandra, E. Langton, N.E. 3 Canada, S.E. Nelson, S.E. Trafalgar, S.W. Princes and S. Bidston (Birkenhead).

Heavy and Indivisible Loads: Good road access and specialised facilities include 3 berths strengthened to accept loads of up to 300, 400 and 1,000 tonnes respectively.

STEVEDORES: Earliest possible ETA to be given to arrange gangs.

MEDICAL: If doctor is required to attend immediately on arrival of vessel, prior notice will be required, but generally doctor is arranged for most convenient time after vessel's arrival.

Hospitalisation is available, but seamen will only be admitted if immediate treatment is required. It is preferred for foreign seamen requiring hospital treatment to be repatriated, if able to travel.

Dentist available by appointment only.

TANKERS: See "Bulk Liquid Facilities".

DENSITY: River Mersey salt water. Docks approx. 1020.

FRESH WATER: Available at all berths, ex-quay. No water barges available. Rate of delivery 15-20 t.p.h.

FUEL: Most major oil companies are represented and can supply range of fuels of various viscosities. Notice required depends on the berth at which vessel is lying as bunkers are supplied ex-lighter at most berths. Notice required can vary depending on availability of barges, but generally at least 3 to 4 days notice is required.

FIRE PRECAUTIONS: Tankers may not carry out repairs whilst at discharging berth unless permission is obtained from Harbour Authorities. Fire precautions notice is placed on board by Harbour Authorities.

GANGWAY/DECK WATCHMEN: Watchmen not necessary but available if required.

OPENING/CLOSING HATCHES: Carried out by ship's crew for bulk cargoes and by stevedores for general cargoes.

CERTIFICATES:

- Register/Certificate of Measurement.
- Certificate of British Tonnage (if issued).
- Safety Radio Certificate.
- Safety Construction Certificate.
- Safety Equipment Certificate.
- Load Line Certificate.
- Derat Certificate.
- Cargo Gear Test Certificates.

CUSTOMS ALLOWANCES: Crew members who remain on vessel during vessel's stay in port may be allowed, under certain conditions, to keep, for their own use on board, small quantities of any tobacco, spirits and other goods declared on Customs Form C.142. The amount allowed depends on the number of days the vessel is in port.

CARGO GEAR: Cargo Gear Certificates must be produced with the necessary up-to-date endorsement.

IDENTIFICATION CARDS: Not required.

CONSULS: The following countries have representatives in Liverpool:

Australia
Belgium
Bolivia
Brazil
Chile
Colombia
Denmark
Dominican Republic
Ecuador
El Salvador
Finland
France
Germany F.R.
Greece
Haiti
Hong Kong
Iceland
India
Japan
Lebanon
Liberia
Monaco
Netherlands
Nigeria
Norway
Panama
Paraguay
Peru
Philippines
Spain
Sweden
Thailand
Uruguay
U.S.A.
Venezuela

SURVEYORS: (1) Caleb Brett and other companies available.
(2) Lloyds, A.B.S. and B.V. are available.

REPAIRS: All types of deck and engine repairs can be carried out.

DRY DOCKS: Largest (Cammel Laird) – length 950 ft. × 140 ft. Also 7 smaller dry docks (M.D.H.C., Wright and Beyer, and Mannings Marine).

REPATRIATION: Can be effected, but must be arranged through Agent, so that Immigration Clearance can be arranged.

TIME: British Standard Time, which is 1 hour in advance of Greenwich Mean Time, reverting to GMT in Winter months.

AIRPORT: City Centre to Airport approximately 7 miles, regular service to London for international connections.

Regular Services from Liverpool Airport to:

Aberdeen	Air Ecosse
Amsterdam	Genair
Belfast	British Midland
Brussels	Jersey European Airways
Cork	Jersey European Airways
Dublin	Jersey European Airways
Dublin	Air Lingus
Isle of Man	British Midland
Jersey	British Midland
Gatwick	Genair
Heathrow	British Midland
Stansted	Jersey European Airways
Newquay (Cornwall)	Genair

(The above are all passenger services with the exception of Dublin which is mainly freight).

HOLIDAYS: Good Friday; Easter Monday (movable); 1st Monday in May; last Monday in May; last Monday in August or first Monday in September, whichever may be closest to August 31st. December 25th-26th and New Year's Day. Weekly holidays Saturday, Sunday. Cargo can be worked on official holidays, other than 25th-26th December, also arrangements can be made for cargo to be worked on Sundays.

POLICE/AMBULANCE/FIRE: Telephone 999, ask for service required.

EMERGENCY CO-ORDINATION CENTRE: "Liverpool Coast Guard" Tel: Liverpool (051) 931-3341/43.

TELEPHONES: A temporary telephone can be placed on board a vessel, at most berths, whilst in port.

SERVICES: Compass adjusting, D.F. calibration can be arranged.

BANKS: Allied Irish Bank Ltd, 5/9 Renshaw Street, Liverpool 1; Banco Exterior C A, 6 Victoria Street, Liverpool 1; Bank of Credit & Commerce, International (Overseas Ltd), 41 Castle Street, Liverpool 2; Bank of Ireland, 25 Victoria Street, Liverpool 1; *Citibank Trust Ltd, Tower Buildings, 22 Water Street, Liverpool 2; *American Express International, Travel Agents, Lord Street, Liverpool 2.

*Not Banks as such but possibly undertake closely allied functions.

STORING: See "Prelims".

1. All vessels can be stored by either barge or truck.
2. Barge storing at Tranmere Oil Stages is restricted to "Approved" barges.
3. Trucks do not always have direct access to vessels by driving along quayside. Approach may be via sheds.
4. Forklift trucks can be used in most cases.
5. As per British Customs Regulations.
6. Riggers can be employed.

SHORE LEAVE: All bona fide crew members may be granted temporary shore leave during the vessel's stay in port, on condition that they leave in the same ship. This permission does not apply to any alien member of the crew who is refused leave to land by an Immigration Officer, or to whom an Immigration Officer has given notice prohibiting him from landing without leave.

SHIP SUPPLY SERVICE: Alexandra Towing Co. Ltd., Castle Chambers, 43, Castle Street, Liverpool 2. Tel: 051-227 2151.

Carmet Tug Co. Ltd., Lock Head, Bromborough, Wirral. Tel: 051-645 5579.

Rea Towing Co. Ltd., Odyssey Works, Corporation Road, Birkenhead, Merseyside. Tel: 051-647 6263.

In addition the Port of Liverpool has the Buoyage Tender and Salvage vessel "Vigilant" which has fire fighting capability and is Classed 100 A1 for River Mersey and Liverpool Bay Service.

DEVELOPMENTS: Floating crane "Mersey Mammouth" with capacity 250 tonnes operational.

AUTHORITY: The Mersey Docks and Harbour Company, Port of Liverpool Building, Pier Head, Liverpool L3 1BZ. *Tel:* (051) 200-2020. *Telex:* 627013 MDH G. *Contact:* Captain K. J. Lewis, Marine Operations Manager (*Tel:* (051) 700-2114).

LOCHMADDY: 57.36 N. 07.11 W.

PORT LIMITS: Lochmaddy Bay.

PILOTAGE: Pilot can be arranged if required. VHF Channels 16 and 12. Tel: 087 63 337/282/226.

ANCHORAGES: Available in Lochmaddy Bay.

RADIO: Skye Radio.

VHF: Lochmaddy Harbour on Channels 16 and 12.

RADAR: No radar service.

TUGS: None.

BERTHING: Length of berth 370 ft. (South Face). Depths alongside at LWS: East end 6.0 m., West end 4.5 m.

Length of berth 180 ft. (North Face). Depth alongside at LWS is 4.0 m.

CRANES: Available by arrangement. 10 ton lift.

BULK CARGO/SPECIALISED CARGO-HANDLING FACILITIES: Ro–Ro Linkspan at North West end of South Face berth on pier.

BRIDGES: None.

MEDICAL: Doctor and hospital available.

TANKERS: No facilities.

DENSITY: Salt water.

FUEL: Gas oil available. Tel. 087 94 238.

FIRE PRECAUTIONS: None.

CONSULS: None.

REPAIRS/DRY DOCKS/SURVEYORS: None.

GANGWAY/DECK WATCHMEN: Available if required.

HATCHES: Opening/closing carried out by crew.

AIRPORT: 20 miles to Benbecula Airport.

POLICE/AMBULANCE/FIRE: Police Tel: 087-63-328. Ambulance Tel: 087-63-324. Fire Tel: 0463-222722.

SERVICES: None.

BANKS: Bank of Scotland Tel: 087-63-323 or 266.

SHORE LEAVE: Permitted.

IDENTIFICATION CARDS: Not required.

REGULATIONS: None.

SHIP SUPPLY SERVICE: Crew members, and essential stores can be transported between ship and shore at Lochmaddy by launch. Ships requiring such service should contact Harbour Office. VHF Channel 16 or Telephone 087-63-337 or 282, and at night 087-63-226.

AUTHORITY: Western Isles Islands Council, Council Offices, Stornoway, Isle of Lewis. *Tel:* 0851–3773. *Telex:* 75164. *Contact:* Captain A. Frater, Harbour Master.

Local Authority: The Port Manager, Harbour Office, Lochmaddy, Isle of North Uist. *Tel:* Office 087-63-337 and 087-63-282. After Hours 087-63-226. *Telex:* 777273. *Contact:* U.I.M. Robertson, Port Manager.

LONDON and Thames District: 51.30 N. 0.05 W. (See Plan)

PORT LIMITS: The seaward limit means lines drawn from Lat. 51° 37′ 00″ N., Long. 00° 57′ 19″ E. (Foulness Point in the County of Essex) to Lat. 51° 46′ 05″ N., Long. 01° 20′ 32″ E. (Gunfleet old lighthouse) and thence to Lat. 51° 26′ 36″ N., Long. 01° 25′ 30″ E. and thence to Lat. 51° 24′ 55″ N., Long. 00° 54′ 21″ E. (Warden Point in the County of Kent).

An arrived ship is considered (subject to Charter Party terms) to have arrived when vessel is instructed to anchor at a designated anchorage, as ordered by the Port Authority, if berth where vessel's operations are to be carried out is not available. Otherwise when vessel is alongside. Usual anchorage for larger vessels is below Southend, which is allocated to vessels by the Port Authority.

DOCUMENTS:

1 copy of H.M. Customs and Excise Form C.142 to be completed showing each crew members declaration as to the amount of cigarettes, tobacco, spirits, wine, radios, lighters, etc., belonging to them on board the ship to enable Customs to ascertain if in conformity or excess of requirements.

1 copy of IMO Crew List.

1 copy of List of Passengers on board, showing names, place of joining vessel, passport details.

Ship's Register to be available for inspection on arrival.

List of space occupied by cargo in unregistered spaces.

Chief Engineer's declaration as to the quantity of fuel carried in double bottom tanks.

Details of any livestock on board.

Ship's Stores Declaration arrival Form C.14 to be completed.

Details of previous ports of call.

PILOTAGE:

Port of London Notice to Mariners No. 60 of 1988:

The Port of London Authority, (a competent harbour authority under the Pilotage Act 1987), in exercise of their powers under Section 7 of that Act, intend to direct that on and after 1st October 1988 pilotage shall be compulsory for all ships of 50 m. or more in length overall when navigating between London Bridge and the Seaward Limits of the Port of London.

On and after that date, a ship which is being navigated in the compulsory area and in circumstances in which pilotage is compulsory for it, must be under the pilotage of:-

(a) an authorised pilot, or

(b) a person who is bona fide the Master or First Mate of the ship and possesses a Pilotage Exemption Certificate granted by the Port of London Authority in respect of the area (or a specified part thereof) and ship.

2. PROCEDURE FOR OBTAINING THE SERVICES OF AN AUTHORISED PILOT.

It is imperative that good notice is given of the requirement for the services of a pilot. To comply with the compulsory procedure, an order for a pilot must relate to the time that the pilot is required at the Boarding Point, whether inward bound or departing from the Port. If the pilot service is unable to supply a pilot, due to stress of weather or other unforeseen circumstances, due allowance will be made. Ships' Owners or Masters who fail to provide the proper information in a timely manner may be liable to a surcharge and may cause a delay to the ship.

2.1 Folkestone Pilot Station:

At midnight on 30th September 1988, the Folkestone Pilot Station closes and thereafter any ship bound for a port in the former London Pilotage District will NOT be able to place an order for a pilot on that station.

2.2 ETAs for Inward Bound Ships:

Ships requiring the services of an authorised pilot at the N.E. Spit, Sunk, Warps or Gravesend Pilot Stations must make a provisional notification of arrival to the Thames Navigation Service, at Gravesend *24 hours in advance,* stating the ETA at the appropriate boarding/landing station, GRT/GT, length overall, draft and destination (name of berth or anchorage). This notification may be in the form of a provisional order and will not incur surcharge penalties.

Confirmation of the above information must be given to the Thames Navigation Service *not later than 8 hours in advance.* (This constitutes the COMPULSORY NOTICE after which time a surcharge may be imposed).

Up to 4 hours in advance, any change in ETA must be notified to the Thames Navigation Service. Thereafter, any further changes and the final confirmation of ETA must be given when the ship is in VHF radio contact with the appropriate Pilot Station.

Ships engaged in short sea voyages may give notice of the Compulsory ETA at the time of leaving the previous port, where this is less than the above Compulsory Notice.

Should the services of an authorised pilot be cancelled within 4 hours of the confirmed ETA, a cancellation charge will be made.

2.3 ETDs for Outward Bound Ships, Ships Proceeding from One Berth to Another or Ships Moving from an Anchorage:

Ships requiring the services of an authorised pilot to depart from a berth, buoy or pier, in the Port of London, move from one berth to another, or to move from an anchorage, must notify the Thames Navigation Service *24 hours in advance,* giving their ETD from the berth, buoy, pier or anchorage, GRT/GT, length overall, draft, destination and landing point. This notification may be in the form of a provisional order and will not incur surcharge penalties.

Confirmation must be given to the Thames Navigation Service *not later than 4 hours in advance* (this constitutes the COMPULSORY NOTICE, after which time a surcharge may be imposed). Thereafter, changes to the ETD must be notified to the Thames Navigation Service until 2 hours before sailing when contact should be made direct to the Gravesend Pilot Station by VHF radio or telephone.

Should the services of an authorised pilot be cancelled within 3 hours of the confirmed ETD, a cancellation charge will be made.

2.4 Ships Anchoring in the Port of London:

Ships required to anchor before proceeding to their berth, must confirm with the Duty Pilot at the Gravesend Pilot Station by VHF radio, that the pilot may remain on board until the ship is required to get underway. No arrangement may be made with any individual pilots.

Under normal circumstances, when a ship anchors for an extended period, the pilot will disembark and be replaced by another pilot when the ship proceeds.

Inward or outward bound ships required to anchor and which have used the services of an authorised pilot must, as soon as is practicable, advise the Gravesend Pilot Station on VHF radio of their ETA at the anchorage in order to land the pilot. When a pilot is required to move from the anchorage, the ship must comply with the requirements of paragraph 2.3 above.

2.5 Ships Requiring Pilots to Join or Disembark at Continental Ports:

Shipowners/Agents wishing a pilot to board the ship at a Continental Port or to remain on board to a Continental Port must obtain the approval of the Pilotage Manager at the Gravesend Pilot Station (Tel. Gravesend (0474) 356646) *not later than 5 days* before the service is required. Charges for this service will be published by the P.L.A. No arrangements may be made with individual pilots.

Should the services of an Authorised Pilot be cancelled within 2 days prior to the date required to join the ship at a Continental Port, a cancellation fee will be made.

Pilots authorised by the Port of London Authority may only act as pilots within the Port of London Compulsory Pilotage Area. The Port of London Authority will not grant such pilots a Deep Sea Pilotage Certificate.

2.6 Berthing Pilots:

Ships of 160 m. or more in length overall are required to employ the services of an Authorised Berthing Pilot when berthing or unberthing at the oil wharves or jetties at Shellhaven, Coryton, Canvey Island or the Canvey Methane Terminal.

3. BOARDING AND LANDING POINTS FOR SHIPS BOUND TO OR FROM THE PORT OF LONDON.

Boarding and landing of pilots will be carried out by launches operating from Harwich (Sunk Light Vessel), Ramsgate (N.E. Spit Buoy), Sheerness (in the vicinity of the Warps to the East of Sea Reach No. 1 Buoy) and Gravesend as appropriate. Pilot boats have a black hull, the word "Pilots" on the side of the wheelhouse and fly a pilot flag by day and by night display the signals required by Rule 29 of the International Regulations for Preventing Collisions at Sea. Under normal circumstances, these pilot launches operate from their respective bases to ship and land pilots.

3.1 Folkestone Pilot Station:

From midnight on 30th September 1988, the use of Folkestone Pilot Station as a boarding and landing station will cease. Thereafter, the only stations operating a boarding and landing service for vessels entering or leaving the Port of London will be:-

3.2 N.E. Spit Buoy:

Ships approaching the Port of London from the East and South or departing to ports to the East or South will normally ship and land their pilots (provided by launch from Ramsgate) in the general vicinity of N.E. Spit Buoy and the Elbow Buoy, the charted location being Lat. 51° 25′ N., Long. 01° 30′ E. Ships from or to the ports referred to in this paragraph, which are constrained by reasons of their draft from using the Edinburgh Channels, may embark their pilot at N.E. Spit or proceed direct to the Sunk boarding and landing station.

3.3 Sunk Light Vessel:

Ships approaching the Port of London from the North and North Easterly directions or departing to the same area will normally ship and land their pilots (provided by launch from Harwich) in the vicinity of the Sunk Light Vessel, charted location being Lat. 51° 51′ N., Long. 01° 35′ E.

3.4 Warps: Ships which are exempt from compulsory pilotage for Areas 1 & 2, as defined in the Port of London General Requirements for Pilotage Exemption Certificates, will normally ship and land their pilots (provided by launch from Sheerness) in the vicinity of the Warps and to the East of Sea Reach No. 1 Buoy. Ships requiring this service should call the Gravesend Pilot Station.

3.5 Gravesend: Ships which are exempt from Compulsory Pilotage for Areas 1 & 3 or 2 & 3, as defined in the Port of London General Requirements for Pilotage Exemption Certificates, will normally ship and land their pilots at Gravesend off the Royal Terrace Pier.

4. SHIPPING OR LANDING A PILOT.

Mariners will appreciate the need to provide a satisfactory lee when shipping or landing a pilot and may be requested by the pilot launch to change speed and course to enable the operation to be carried out safely.

5. ADVERSE WEATHER CONDITIONS.

When a pilot launch is unable to operate in the normal location due to adverse weather conditions, or any other unforeseen circumstances, information will be broadcast on the service available by the appropriate pilot station on VHF radio and Pilotage Information Messages will be broadcast by Coast Radio Stations. Subject to permission being granted by the Duty Officer at Thames Navigation Service, nominated inward bound ships may proceed to the Warps Boarding Station under controlled conditions from the Thames Navigation Service. Similarly, nominated outward ships may land their pilots in the same area and proceed under the same controlled conditions.

6. SHIPS CLAIMING EXEMPTION FROM COMPULSORY PILOTAGE.

Ships claiming exemption from Compulsory Pilotage, as defined in the General Requirements for Pilotage Exemption Certificates, must notify the Thames Navigation Service *24 hours in advance* of their intention to claim exemption, giving ETA/ETD as appropriate, ship's name, GRT/GT, length overall, maximum draft, name, initials and Exemption Certificate Number of the Master or 1st Mate who will be piloting the ship on that voyage. Failure to provide this information will necessitate the ship taking the services of an Authorised Pilot and could involve the ship in a delay as well as the imposition of a surcharge on the pilotage dues. Ships arriving from ports less than 24 hours distant must provide the information immediately after departure from that port.

7. COMMUNICATIONS.

The Thames Navigation Service operates 24 hours a day and is the new centre for all initial orders for pilots. It is equipped with VHF radio, telephones, telex and facsimile equipment.

Long range ETAs from ships at sea may be passed through a United Kingdom Coast Radio Station by M.F or VHF radio telephone, telex or telegraph addressed to "Thames Navigation, Gravesend".

The Gravesend Pilot Station operates 24 hours per day and is the administration centre for all pilotage services and is able to provide advice to Shipowners/Agents on all pilotage arrangements. It is equipped with VHF radio, telephones, telex and facsimile equipment.

7.1 Thames Navigation Service (Gravesend):

(i) Gravesend:

Call Sign	Gravesend Radio
VHF Radio Channels	16, 12, 09, 18 and 20
Telephone	Gravesend (0474) 560311/2/3 Gravesend (0474) 357724/5
Telex	262880 Platns G
Facsimile (Group 3)	Gravesend (0474) 352996
Hours	H24

(ii) Woolwich:

Call Sign	Woolwich Radio
VHF Radio Channels	16, 14 and 22
Telephone	London (01) 855 0315
Telex	896157 Plabar G
Hours	H24

7.2 Gravesend Pilot Station:

Call Sign	Gravesend Pilots
VHF Radio Channel	09
Telephone	Gravesend (0474) 567716/7
Telex	96444 Pilgra G
Facsimile	To be advised
Hours	H24

7.3 N.E. Spit Pilot Station (Ramsgate):

Call Sign	N E Spit Pilots
VHF Radio Channel	09
Telephone	Thanet (0843) 583786
Telex	To be advised
Hours	H24

7.4 Sunk Pilot Station (Harwich):

Call Sign	Sunk Pilots
VHF Radio Channels	16, 09
Telephone	Harwich (0255) 503129 Harwich (0255) 506300
Telex	98472 Pilhar G
Hours	H24

8. NOTE.

The attention of Masters is drawn to General Directions for Navigation in the Port of London 1975, and to Sections 15, 16, 17, 18, 19, 20 and 22 of the Pilotage Act 1987.

ISSUED BY:
The Chief Harbour Master,
Port of London Authority,
Thames House, St. Andrews Road,
Tilbury, Essex, RM18 7JH.

PORT OF LONDON

Pilot Ladders: Instances of the use of unsatisfactory and unsafe pilot ladders continue to be reported by ~~Trinity House~~ Pilots.

Faulty ladders endanger the lives of Pilots.

Instructions have been issued to all ~~Trinity House~~ Pilots to report immediately any pilot ladders which do not comply strictly with the provisions of the Merchant Shipping (Pilot Ladders) Rules 1965, the Merchant Shipping (Pilot Ladders) (Amendment) Rules 1971 and the Merchant Shipping (Pilot Ladders) (Amendment) Rules 1972.

(3/

Masters of ships are reminded of their obligation to comply with the statutory rules and are requested also to comply with the following ~~Trinity House~~ recommendations, ensuring that:

1. The Officer responsible for the embarkation and disembarkation of the Pilot is a Watch-keeping Deck Officer.
2. The ladder is in one length and does not consist of two or more lengths shackled or lashed together.
3. The ladder is secure.
4. The ladder is used solely for embarking and disembarking Pilots.
5. A light is provided so that the pilot ladder overside and also the position where the Pilot boards the ship is adequately lit.
6. The ladder is clean and free from oil and grease.
7. Means are provided to enable the Pilot to pass safely and conveniently from the head of the ladder into the ship or on to the ship's deck. Where portable stanchions and accompanying bulwark step ladders are used for this purpose, the portable stanchions *must* be rigidly secured to the ship's structure against being unshipped and supported at not less than 2 points to prevent lateral movement, and the bulwark step ladder should also be independently attached and firmly secured. The stanchions should be of reasonable height and adequately capped to allow firm grip. *Under no circumstances should a stanchion or handrail be attached to the bulwark step ladder.*
8. The ladder is in good condition and its treads remain horizontal. The treads are to have a rough upper surface.
9. The length of the ladder does not exceed 30 ft. Whenever the distance from sea level to a point of access to the ship is more than 30 ft., access from the pilot ladder to the ship must be by means of an accommodation ladder or other equally safe and convenient means.
10. The ladder is rigged so that each step rests firmly against the ship's side.
11. Spreaders are provided not more than 10 ft. apart to prevent the ladder twisting.
12. 2 manropes and a safety line are provided; and a lifebuoy with self-igniting light is available.
13. The ladder is rigged well clear of discharges and water outlets, and at a place where most lee can be given to the Pilot Vessel.
14. Where a pilot hoist is used a ladder must be at hand ready for use in case the hoist fails.

The Masters of small, "all-aft" ships, in which the main deck is frequently awash when a Pilot is being shipped or landed, or of any type of ship in which the bulwark rails are below the deck of the pilot vessel coming alongside, are asked to provide a boarding platform on each side of the forward end of the raised quarter deck and on the same level as that deck.

The platform should be easily accessible from the quarter deck and should have adequate handrails, those on the outboard side being portable. Fittings should also be provided for the rigging of a pilot ladder. When a pilot ladder is rigged from a boarding platform the top rung of the ladder should not be less than 12 in. nor more than 15 in. below the level of the platform. The top of the ladder should be secured at least 3 ft. 6 in. above the platform in such a way as to make a safe handhold for the Pilot entering or leaving the platform.

If a pilot ladder is unsafe a Pilot may refuse to board, thus delaying the ship. If the ladder is unsatisfactory for boarding the Master of that ship renders himself liable to a fine of double the amount of the pilotage dues involved, for failure to comply with the Pilotage Act 1913; and if the ladder does not meet the statutory requirements, the Master renders himself liable to a fine not exceeding £50 in accordance with the Merchant Shipping Act 1984.

RESTRICTIONS: Certain restrictions are placed on the navigation of vessels carrying petroleum, chemicals, explosives and other hazardous commodities (See "Notices").

Vessels which are carrying any of the above mentioned cargoes should call Gravesend for details of these restrictions and ascertain whether it is permitted for them to navigate.

Notwithstanding any of the aforementioned restrictions, all vessels should comply with the "General Directions for Navigation in the Port of London 1975". (Copies obtained from the Harbour Master, Port of London Authority, Thames House, Tilbury Docks, Essex RM18 7JH.)

The tides at London Bridge have a range of 4.6 m. at Mean Neaps and 6.6 m. at Mean Springs.

The sea approach to Shellhaven is dredged to allow the passage of vessels to 13.7 m. at Mean Neap tides. For latest channel depths contact the Harbour Master or Thames Navigation Centre.

THAMES NAVIGATION SERVICE:

Thames Navigation Centre: (Call sign "Gravesend Radio") is the main operations centre for traffic information within the Port of London Authority area of jurisdiction. All information required by the Authority regarding ETAs and ETDs, etc., should be passed to this Centre. It also deals with matters concerning moorings in the River and enquiries concerning Byelaws, regulations and shipping information.

Communications: VHF radio: Channels 16, 12, 18, 20. Telephone: Gravesend 560311 ~~& 357724~~. Telex: 262880 Platns G. Facsimile: Group 3. Gravesend 352996.

Radar coverage and area of responsibility: From Crayfordness to the sea.

Tidal Information: Information on tidal heights from gauges at Walton, Margate, Shivering Sands, Southend and Tilbury is available on request.

Procedures: All vessels must report to this station on entering the Port Limits inward bound or when leaving a berth within the area of responsibility outward bound or when moving from one berth to another. It is also a requirement to report the vessel's progress at the "reporting points" indicated on the Admiralty Charts of the area. Regular half-hourly broadcasts of navigational information are made on VHF Channel 12 on the hour and 30 minutes past the hour.

Thames Barrier Navigation Centre: (Call sign "Woolwich Radio") is a sub-centre to the Thames Navigation Centre with particular responsibility for controlling navigation through the Thames Flood Barrier.

Communications: VHF Radio Channels 16, 14, 22. Tel.: 01-855 0315. Telex: 896157 Plabar G.

Radar coverage and area of responsibility: Radar from Crayfordness to Greenwich. Area of responsibility from Crayfordness to Teddington.

Tidal Information: Tidal information from a gauge at North Woolwich is available on request.

Regular half hourly broadcasts of Navigational information are made on VHF Channel 14 at 15 minutes and 45 minutes past each hour.

Procedures: All vessels navigating in the area of responsibility must inform this station of their intention to do so and maintain a listening watch on VHF radio. Progress reports should be made at the "reporting points" indicated on the Admiralty Charts. Special regulations are in existence for navigating through the Thames Flood Barrier and the Barrier Control Zone (Margaretness to Blackwall Point). See Port of London Notice to Mariners – No. 3 of 1986.

Tilbury Dock: All vessels wishing to enter or leave Tilbury Dock must book a time with the Lock Co-ordinator. Telephone Number Tilbury (0375) ~~859677~~ 852456, Telex 995176. The Lock Co-ordinator also deals with enquiries for dock tugs, dummy pontoons, floating crane and other services for vessels in the Dock.

Patrol Service: A 24-hour patrol service is maintained by the Authority whose launches can be contacted on VHF radio (Call sign "Thames Patrol") on VHF Channels 16, 12, 14 and 6. They can also be contacted through Gravesend Radio or Woolwich Radio.

General: The Thames Navigation Service maintains close liaison with Owners, Agents, Pilots, Watermen, Port Health, Customs and Excise and all the Emergency Services. It is available to give help and advice on any matters affecting ships and shipping.

ANCHORAGES: Great Nore and Little Nore Anchorages allocated by Medway Port Operations, all other anchorages allocated by the Thames Navigation Service dependent upon the size and draft of vessel, the length of stay required at the anchorage and the specific details of the vessel, i.e. explosives, petroleum, etc.

Explosives anchorage at Chapman Anchorage for discharging loading to/ex barge to/from appointed river wharves.

MAX. SIZE: Tankers:

Berth	*Depth at Chart Datum*	*Length*
Coryton	14.0 m. maximum	1,100 ft.
Shellhaven	14.6 m. maximum	1,200 ft.
Holehaven	11.2 m. maximum	720 ft.
Purfleet	8.6 m. – 11.2 m. maximum	700 ft.
Grays	11.2 m. maximum	620-750 ft.

Other river and tanker berths restrictions apply according to tides and berth.

Passage for deep-draft tankers for berthing at Shellhaven and Coryton is sometimes over a period of 2 tides. Passage on the first tide to deep water anchorage, vessel to leave anchorage on make of second tide and arrive off the installation half an hour before HW of this tide.

HEALTH: Port of London Health Authority:
Public Health (Ships) Regulations, 1979.

Notes for the guidance of Masters/ships Agents:

(1) It is the responsibility of the Master of a vessel due to arrive in the Port of London to report to the Port Health Authority the presence of sickness, animals or captive birds on board, or of the occurrence, during the voyage, of the death, other than by accident, of a crew member or passenger.

(2) This information should be transmitted to North Foreland Radio Station for forwarding to "Portelth London", not more than 12 hours or less than 4 hours before vessel's arrival in the Port.

(3) Vessels already in the Port can contact the Port Health Authority directly by telephoning Tilbury (03752) 2663.
At Public Holidays (and all times other than 0900 – 1700 hrs Monday to Friday) an answering machine is connected to this number giving the telephone number of the Duty Officer who will give any advice or assistance required.

(4) The Port of London Health Authority District includes that part of the River Medway comprising Sheerness, Isle of Grain, Ridham Dock and Queenborough.

Also see "Health – All Ports" before first U.K. port.

RADIO: Outside U.K. waters from the South, call long range station "Portishead Radio"; approaching London, "Niton Radio" or "Northforeland Radio", giving Agent vessel's draft and ETA. "Gravesend Radio" when in the Thames and its estuary.

TUGS: Tugs usually pick up vessels for Shellhaven and Holehaven in reaches approaching berth, or Gravesend for berths/docks up river. Tugs and lines can be hired from Alexandra Towing Co. (London) Ltd. Alexandra House, Royal Pier Road, Gravesend, Kent. Tel: (0474) 359361.

P.L.A. provide a towage service within the enclosed docks.

BERTHING:

Cargo Berths: The Port of London Authority operates one enclosed dock system at Tilbury Docks (Tel: (07352) 3444).

Specialist and general purpose facilities for handling general cargo, rolling cargo, forest products, latex, grain, unitised cargo/containers and passengers are provided at Tilbury Docks in Essex. Bulk wine and spirits are handled at Phoenix Wharf, Rainham, Essex.

Port of London Authority:

PLA facilities are managed in three divisions: Containers, Conventional and Grain.

Depths of water shown for berths in the enclosed docks and on the river are the authorised depths to which the berths may be dredged. Actual depths may be less than the authorised depth and the advice of the PLA or tenants Operating Manager should be sought if necessary.

TILBURY DOCKS:

Entrance lock dimensions: Length 1,000 ft. (305 m.). Width 110 ft. (33.5 m.). Depth 45.5 ft. (13.9 m.).

Access to berths (except the Grain Terminal, Northfleet Hope Container Terminal, cargo and repair jetties, riverside Ro/Ro terminal and passenger landing stage) is gained through an entrance lock.

Berth	*No of Berths*	*Length (ft.)*	*Depth (ft.)*	*Equipment*	*Remarks*
Northfleet Hope Terminal	1 (in dock) 1 (in river)	850 1,000	35.0 41.0 (MLWS)	2 container cranes 45 tonnes (in dock), 2 container cranes 35 tonnes (riverside), straddle carriers, tractors and trailers.	P & O Containers/ACT and partners. Container services. Accommodation for 5,000 containers at any one time (inc. 1,464 reefers). Operation: 24 hours per day, 7 days a week.
PLA Container Terminal	3	2,540	38.0	4 container cranes 30 tonnes, van carriers, tractors and trailers, forklift trucks.	(Container Division). Containers to and from cellular and purpose built lift-on/lift-off all container or semi-container vessels. Electrical reefer points. Floating cranes for uncontainerisable cargo. Operation: 24 hours per day, 7 days a week.
PLA General Purpose Berths 1, 2, 4, 34, 38, 40, 13/16 (2 berths)	9	6,900	up to 38.0	20×5 tonne quay cranes, light and h/duty forklifts, mobile cranes, tractor/trailer units, 80 tonne mobile, 36 tonne land based and up to 120 tonne floating heavy lift cranes, 1×30 tonne container crane, 1×30 ton gantry crane.	(Conventional Division). Conventional, Ro/Ro and unitised general import and export cargoes. Containers to and from semi-container/Ro/Ro vessels. Forest products. Heavy lifts. Scrap metal.
PLA Riverside Ro/Ro Terminal		Ship length up to 500 ft.	20.0 (MLWS)	Tractors	(Conventional Division). Ro/Ro. Suitable for bow or stern ramp vessels.
Tilbury Passenger Landing Stage	1/2	Ship length up to 740 ft.	Dredged to 10 m. below datum	2 covered gangways.	(Conventional Division). Embarkation and disembarkation of passengers for ships, hovercraft, hydrofoils and launches and Tilbury/Gravesend local ferry.
42 Berth (Tilbury) Ltd.	1/2	700	38.0	Heavy duty forklift trucks, tractors and 35 tonne trailers.	Forest products.
44 Berth	1	750	38.0	Forklift trucks 4 ton-22 ton capacity – roll trailers/tractors.	Forest products.
46 Berth (Seaboard Pioneer)	1	750	38.0	Forklifts 4 ton-12 ton capacity, roll trailers/tractors	Forest products.
PLA Tilbury Grain Terminal	1 Deep Sea 1 Short Sea 6 barge berths 1 Coaster discharge berth	900 230	42.0 (MLWS)	2×1,000 tonnes per hour marine leg elevator towers, coaster and barge loading points, 2×200 tonnes per hour pneumatic elevators (coastal jetty). Silo capacity 100,000 tons. Export vessels now handled. 30,000 tonnes on outer jetty and 10,000 tonnes on inner jetty.	(Grain Division). Terminal has direct feed by conveyor to 5 adjacent privately-owned mills: Allied Mills Ltd., Rank Hovis Ltd., Spillers French Milling Ltd., Cargill Albion Ltd. Laing National Ltd.

Private Wharfingers:

Berth	*No. of Berths*	*Length (ft.)*	*Depth (ft.)*	*Equipment*	*Remarks*
Bridge Wharf (Bow Creek)	7 (barges)	270-290	15.0 (MHWS)	Up to 20 tonnes, mobile.	Metals of all descriptions and bulk ore by grabs.
Bridges Wharf (Battersea)	1	225	13.0 (MHWS) Dries at LW	2 cranes up to 10 tons.	Handling and storage of inflammable and hazardous chemical products etc.
Convoys Wharf	1	800	18.0 (MLWS)	Ro/Ro pontoon and jetty, 4×2 tonne cranes 1× 50 tonne mobile crane.	Equipped with 2 floating Ro/Ro berths handling newsprint, forest products and general cargo.
	1	442	18.0 (MLWS)	Ro/Ro pontoon.	Operators of nationwide warehousing, transport and freight forwarding.
Dartford International Ferry Terminal	2	200 m. (downstream) 150 m. (upstream)	36 (LLW)	1 Sku container mover, 12 tractor units, 4 forklift trucks.	2 Ro/Ro berths (bow, stern or quarter ramp) 22 acres hardstanding. 4,260 sq.ft. transit shed. Extended driver facilities and restaurant.
Denton Wharf	3	260-600	34.0 (MHWS)	11×3 – 30 tonnes. 2×30 tonne container park gantries.	Discharge and loading of all types of conventional cargo and containers to and from ships and barges. Groupage service. Licensed for handling explosives.
Erith Deep Wharf	1 (ship) 2 (barges)	600 600	21.0 (MLWS)	4×6.5 – 7.5 tonnes. 2×4.5 tonnes.	Direct handling ship/road transport or ship/warehouse. Handling of forestry products. Lash/Seebee barges.
Imperial Wharf	1	300	26.0	3×5 tonnes.	Forest products.
The London Steel Terminal	2	295	16.4 (MHWS)	2 cranes up to 30 tonnes.	Handling of steel using electro-mechanical grabs for steel coils. All operations including shipwork carried out under cantilevered roof providing all weather working.

Private Wharfingers: (continued)

Berth	*No. of Berths*	*Length (ft.)*	*Depth (ft.)*	*Equipment*	*Remarks*
Lovells Wharf	1	280	18.0 (MHWS)	3 cranes up to 20 tonnes.	Steel and other metals (London Metal Exchange approved warehouse).
Mast Pond Wharf	1	220	16.5 (MHWS)	1×5 tonne, mobile.	Bulk handling, overside or direct delivery.
Mulberry Wharf	1	225	17.0 (MHWS)	1×5 tonne mobile, 1×2.5 tonne fixed.	Bulk handling, overseas and direct delivery.
Phoenix Wharf	2	625-800 (floating jetty)	21.0 (MLWS)	5 cranes up to 30 tonnes. (8 – 10 tonnes ex-ship's hold). 9 quay cranes up to 10 tonnes.	Forest products in all forms, steel, fertilisers and bulk cargoes, empty containers. Bulk wine and spirits. General cargo.
	1 (Ro-Ro Berth)	450	16.0 (MLWS)	3 tugmasters.	For continental ferry service and Import/Export of motor vehicles.
Purfleet Deep Wharf	2	1,000	27.5 (MLWS)	7 (jetty)×5 – 6 tonnes. 2 (shoreside)×40 tonnes.	Equipped with modern floating Ro/Ro berth. Handling of forestry products and general cargo.
Victoria Deep Water Terminal	2	850	22.0 (MLWS)	1 crane 32 tonnes. 2×30-40 tonne gantries.	
	1	350	15.0 (MHWS)	1×30 tonne park gantry.	

The depths quoted are to be taken as approximate only. For detailed information contact the wharf operator or Thames Navigation Service.

TANKERS: (Also see "Notices"). There are about 40 berths for tankers in the Thames District, main terminals of which are listed below. Recommended that Masters cable terminal with discharge manifold size, enabling wharf have correct pipes ready. Slop tanks are available at most wharves.

Company	*Berths*	*Length **(ft.)*	*Depth **(ft.)*	*Remarks*
BP (Northfleet)	1	170.0	—	Able to handle vessels 3,000 d.w.t. High and low flash point products. Storage capacity 20,000 tons.
BP (Fulham)	1	—	—	Lube oil, gas oil and spirits.
Esso (Purfleet) No. 1	1	Max. LOA 628	26.5 (LWS)	Max. size 28,000 d.w.t. Products handled: F.O., G.O., D.O., kero, gasoline. 4×10 in. (clean products); 2×10 in. (fuel oil). Max. pressure 150 psi.
Esso (Purfleet) No. 2	1	Max. LOA 628	26.5 (LWS)	Max. size 18,000 d.w.t. Products handled: F.O., lube oil, G.O., kero. 3×6 in. (lube oil); 2×6/8/10 in. (fuel oil); Max. pressure 150 psi. Total capacity (Berth Nos. 1-2): White oils 187,000 tons. Fuel oil 126,000 tons. Lube oil 39,000 tons.
Mobil* (Coryton) No. 1	1	Max. LOA 650	Max. draft 33 (MLW)	Max. displacement 40,000 tons. Products handled: L.P.G., gas oil, lube oil, fuel oil, gasoline.
Mobil* (Coryton) No. 2	1	—	Max. draft 18 (MLW)	Coaster berth, max. displacement 2,000 tons. Products handled: Same as No. 1 Berth (excluding L.P.G.).
Mobil* (Coryton) No. 3	1	Max. LOA 900	Max. draft 44 (MLW)	Max. displacement 100,000 tons. Products handled: Crude and fuel oil (3,000 t.p.h.), gas oil (2,000 t.p.h.), gasoline (1,000 t.p.h.), products (350 – 500 t.p.h.). Other products handled: Diesel oil, naphtha and Av. Tur.
Mobil* (Coryton) No. 4	1	Max. LOA 1,200	Max. draft 45 (MLW)	Max. displacement 230,000 tons (320,000 d.w.t. with part load). Crude oil only handled. 4×16 in. steel arms. Rate 3,500 t.p.h. each arm.
Mobil* (Coryton) No. 5	1	Max. LOA 200 m. Max. draft 37 ft.	Depth 43 (MLW)	Max. displacement 40,000 tons. 4×10 in. arms for loading/discharging fuel oil, gasoline and gas oil (rate 2,000 t.p.h.). 1×10 in. arm for receiving refrigerated butane.
Conoco Ltd.	1	256 Max. LOA 625 ft.	44.0 (MHWS)	White oils, capacity 70,000 tonnes.
London & Coastal Oil Wharves Ltd., Canvey Island	1	720	36.0 Av. LW	Low flash bonded storage for hydrocarbon oils, chemicals and edible oils. 114 tanks totalling 305,000 cu.m. with tanks ranging from 45 cu.m. – 20,350 cu.m.
London & Coastal Oil Wharves Ltd., Dagenham	1 (ship)	750	34.0 (MLWS)	Mild and stainless steel storage – 134 tanks totalling 93,000 cu.m. with tanks ranging from 27 cu.m. – 4,532 cu.m.
	2 (barge)			Low/high flash, bonded storage for chemical, minerals, fuel and edible oils.
Murco Petroleum Ltd.	2	730	37.0 (MLWS)	Motor spirit, distillates. Storage capacity: 52,000 tonnes motor spirit. 10,870 tonnes distillates. Shares Blue Circle Industries Ltd.'s Wouldham Jetties with Unitank Storage Company Ltd.
Powell Duffryn Terminals Ltd.	6	840	34.0 (MLWS)	Hydrocarbon oils and all chemicals. Total storage capacity: 423,000 cu.m. Oil storage capacity: 365,000 cu.m. Chemical storage capacity: 58,000 cu.m. (50 cu.m. to 15,000 cu.m. capacity tanks).
Tate & Lyle Feeds Ltd.	1	100-200	25.0 (MHWS)	Hydrocarbon oils, some chemicals, molasses. Storage capacity: 21,000 water tons of bulk liquid storage tanks (260 – 3,700 tons water capacity).
Thames Matex (West Thurrock)	3	750	34.0 (MLWS)	Hydrocarbon oils, chemicals, vegetable oils. Storage capacity: 352,000 cu.m. (125 tanks – 200 cu.m. to 10,000 cu.m. capacity).
Unitank Storage Co. Ltd.	2	750	37.0 (MLWS)	High and low flash petroleum, some chemicals. Storage capacity: 310,000 cu.m. in 52 mild steel tanks (1,700 cu.m. – 20,800 cu.m. capacity). Shares Blue Circle Industries Ltd.'s Wouldham Jetties with Murco Petroleum Ltd.
Shell (Shell Haven) "A"	1	—	† 8.7 m.	LPG vessels only. Max. size 5,000 cu.m. due to loading arm envelope. Berth kept clear if VLCC on Jetty B. 1×6 in. LPG line.
Shell (Shell Haven) "B"	1	Max. LOA 350.0 m.	†14.6 m.	VLCC's and large crude carriers berth head down river at slack HW. Berth handles crude, fuel and white oils. 4×10 in. and 4×8 in. (white oils and fuel oil). 4×10 in. and 4×16 in. (crude).
Shell (Shell Haven) "C"	1	Max. LOA 238.0 m.	†10.4 m.	Max. deadweight 40,000 tons. Berth handles black and white oils. Max. deadweight allowed if VLCC on Jetty B is 12,000 tons. 4×10 in. lines.
Shell (Shell Haven) "E"	1	Max. LOA 183.0 m.	†8.6 m.	Max. displacement 20,000 tons. Chemicals and luboil only handled. 5×6 in. lines.

TANKERS (continued)

Company	*Berths*	*Length* **(ft.)	*Depth* **(ft.)	*Remarks*
Shell (Shell Haven) "G"	5	No LOA restriction	(outer) †8.3 m. (inner) †5.6 m.	Berths No. 3, 4 and 5 are for estuarial craft only, max. deadweight 1,000 tons. Berth No. 1 (outer) max. deadweight 3,500 tons. Berth No. 2 (outer) max. deadweight 10,000 tons. if vessel over 3,000 deadweight tons on Berth G2 then restricted size only on Berth G1. 6×8 in. lines at outer berths and 5×6 in. lines at inner berths.
Texaco (Canvey Island)	1	Max. LOA 580 ft.	Depth (subject to dredging) 40 ft. Max. draft 32 ft.	Products handled: Gasoline, gas oil, diesel, kerosine, jet fuel. Pumping rates into barges, 200 – 250 t.p.h. with max. pressure 100 p.s.i. Discharge rate 400 – 1,500 t.p.h.

Other Wharves: In addition to the above some manufacturing and service industries have their own riverside premises with ship berths. Thames Navigation Service will assist with information. Otherwise contact Waterside Manufacturers and Associated Industries. Tel: 01-481 3681.

*Bunkers available at all berths. Fresh water not available.

**Unless otherwise stated.

†All berths subject to siltation, and Marine Superintendents should be consulted for current depths.

‡Tank cleaning is permitted when back loading operations are to take place. Tank cleaning for other purposes may take place only after agreement from the Terminal.

Dirty ballast separator system allows a cumulative rate of 1,500 cu.m./hr. from all jetties. No waxy material, chemicals or chemical additive is accepted.

Vessels should arrive with minimum possible ballast commensurate with safe handling of vessel.

Shell – Shellhaven: *Cautionary Advice:* Shellhaven Terminal is situated on the concave side of a bend in the river and, as a consequence, the tide does not run parallel to the berths. There is a strong outflow of tide from behind "A" and "B" (the VLCC berth) during the ebb.

When swinging off the terminal before berthing or (for smaller ships) on sailing, due allowance must be made for the run of the tide and a close watch kept on passing traffic. Before a VLCC is berthed on Berth B the adjacent Berths A and C should be vacant or occupied by small craft.

Berthing Masters: All vessels of 11,500 g.r.t. and over, bound for oil jetties in the Shellhaven area are required to employ the services of a Berthing Pilot. (Drawn from ~~senior Trinity House Pilots~~ PLA). The Berthing Pilot will normally board the vessel from one of the berthing tugs.

Berthing Procedures: Deep draft ships (over 12 m.) are swung before berthing and should, therefore, arrive off the berths on a flood tide. Other ships berth heading up or down river according to the tidal direction at the time of arrival (always head to tide).

Tugs are made fast off No. 7 Sea Reach Buoy. Ships are swung off the berth with due allowance for the set of the tide being made. Extreme care should be exercised in selecting the precise swinging position as the flood tide sets strongly onto "Mucking Flats".

During the swing all tugs are on the hook. For VLCCs there are 3 tugs from the forecastle head and 1 from the poop. When swinging, 2 forward tugs will let go and come alongside to push the ship onto the berth. The vessel should always land on the fenders parallel to the berth. 2 "boatmen" will board the ship in the vicinity of the berth to assist and liaise between ship's crew, the mooring boats and the jetty during mooring operations. Moorings are taken ashore by motor boats (one at each end of the vessel). Spring lines are normally taken first, followed by breast lines, then head and stern lines. Liaison between the Pilot/Berthing Master and the terminal in positioning the ship is not always good, and it is recommended that a ship's officer with portable VHF be stationed near the manifold to assist in positioning.

Moorings – Cautionary Advice. During Spring tides a surface current of up to 2 knots setting out from behind the berth can be experienced on the ebb tide. Large deep ships should be securely moored prior to the start of operations. Upstream moorings in particular, must be of good material and well positioned. Mixed moorings of wire and fibre are not recommended and the terminal recommends that fibre tails be removed from wire moorings. There are no shore moorings.

Mobil – Coryton: *Berthing Masters:* All vessels of 11,500 g.r.t. and over, bound for jetties in the Coryton area are required to employ the services of a Berthing Pilot. (Drawn from ~~senior Trinity House Pilots~~ PLA.). The Berthing Pilot will normally board the vessel from one of the berthing tugs.

Berthing Procedures: Regardless of draft, VLCCs must not enter the berth dredged box until 1 hour prior to HW.

Deep draft ships (over 12 m.) are swung before berthing and should, therefore, arrive off the berth on a flood tide. Other ships berth heading up or down river according to the tidal direction at time of arrival (always head to tide).

Tugs are made fast at No. 6 Sea Reach Buoy. Ships are swung off the berth with due allowance for set and tide being made.

During the swing all tugs are on the hook. For VLCCs there are 3 tugs from the forecastle head and 1 from the poop. When swung 2 forward tugs will let go and come alongside to push the ship onto the berth. Berth 4 (VLCC) is fitted with a Marconi Semi Mark II approach speed measuring device. Information from this equipment is supplied to the ship by means of VHF radio telephone. (The service will be offered to the vessel when radio contact is first made, and radios will be placed aboard the vessel prior to its arrival off the berth).

Maximum impact velocity is 25 ft. per minute for a maximum displacement of 230,000 tons at a maximum angle of 12°.

Mooring arrangements for Berth 4 are as follows:

4 mooring dolphins are provided to take the breast ropes and head ropes from vessels. The 4 mooring dolphins are of equal strength and are capable of taking a load of 150 tons. Each mooring dolphin is fitted with triple hook assemblies capable of taking a load of 50 tons on a single hook.

Mooring hook assemblies are also fitted to each of the 2 berthing dolphins and at either end of the jetty head. Each assembly comprises two hooks which are capable of taking a load of 50 tons on a single hook. These mooring arrangements are intended to take the spring lines of vessels and have been designed to be capable of taking a load of 100 tons acting either parallel to berth face or up to an angle of 20° from this line. Any significant load applied at an angle greater than 20° from the berthing line may cause severe damage to the jetty head.

Mooring diagrams will be available to each vessel from tugs or boatmen.

2 shore breasting wires are provided, and it is recommended that vessels should make use of these.

2 "boatmen" will board the ship in the vicinity of the berth to assist and liaise between the ship's crew, the mooring boats and the jetty during mooring operations. Moorings are taken ashore by motor boats (one at each end of the vessel).

Moorings: Cautionary Advice. Strong tidal flows, especially during Spring ebb tides which can generate tidal flows up to 4 knots, demand a diligent tendering of vessel's moorings at all times.

Esso – Purfleet: *Berthing:* A vessel should come up river on the flood tide so as to arrive off the berth about 2 hours before HW. Then turn to starboard and berth port side to the jetty head.

Moorings: At Berth No. 1 the first lines run are a head rope to the buoy and a spring to the jetty. When the vessel is secured, she should have 2 head/stern ropes to the buoys, 2 breast lines to shore, and 2 backsprings to the jetty head. For large vessels the eye of a 5 in. shore wire is taken aboard and put over a set of bitts located aft. This wire is tensioned from ashore.

For large vessels or in bad weather, additional heavy wire/combination backsprings may be available from shore.

The vessel must provide "emergency towing wires" on her offshore bow and quarter, with eyes maintained at water level.

Thames Matex – West Thurrock: *Cautionary Advice:* Both main berths are of similar construction. No. 2 Berth (down-river) is subject to heavy silting.

Berthing: Depending on the size of the ship and the weather, 2 or 3 tugs usually accompany the vessel from Gravesend. They secure with the tug's towline on the hook when about 1 mile from the terminal. When sailing, 1 or 2 tugs are used depending on the flash point of the product.

Vessels berth head to tide and may secure either side to jetty. Those with drafts not exceeding 25 ft. can berth at any stage of the tide. Deep draft vessels (34 ft.) usually berth about 1 hour before HW, during the last of the flood tide, and turn off the terminal and secure port side to the jetty.

Moorings: No particular pattern of mooring is specified. Vessels usually secure with 2 or 3 head and stern ropes, 1 or 2 breast ropes, and a spring at each end. 2 mooring launches are in attendance while berthing. The vessel must provide emergency towing on her offshore bow and quarter, with eyes placed at water level.

No shore moorings are available.

CRANES: See "Berthing".

BULK CARGO FACILITIES: See "Berthing".

SPECIALISED CARGO HANDLING FACILITIES: See "Berthing".

BRIDGES: No bridges below Tower Bridge which opens for shipping on request.

STEVEDORES: Ordered by the Agents; no ETA to stevedores from vessel necessary; labour to be ordered by 1200 hrs. day before required.

At PLA General Purpose Berths order by 1100 hrs. day before except for weekends/public holidays when 1600 hrs. 2 days before. PLA/TCS Container Terminals work 24 hours a day, including weekends.

MEDICAL: Not necessary to contact Agents once port health requirements satisfied unless urgent medical treatment required on board on arrival. All medical treatment, vaccinations available.

DENSITY: Varies according to position and tides.

FRESH WATER: Available at all berths either from shore or barge.

FUEL: All types, grades available by barge, or from terminals.

FIRE PRECAUTIONS: Tankers – no smoking on open decks, only cabins. Deck fire hoses to be connected. Fire monitors to be trained on manifold area. Explosive workings at Chapman Anchorage, same precautions. Red flag to be flown by these vessels. Fire tug to be in attendance when explosives being worked. Smoking not permitted in the docks or berths.

GANGWAY/DECK WATCHMEN: Available but not compulsory, Master's discretion.

OPENING/CLOSING HATCHES: Liner vessels by crew, with stevedore assistance. Tramp vessels according to charter party.

CERTIFICATES: These certificates to be on board.
Ship's Register.
Load Line.
Safety Radio.
Safety Equipment.
Safety Construction.
Oil Record Book.
Derat Exemption.
Previous U.K. Light Due Bills.
Cargo Gear and Chain Register complying to U.K. Factory Acts.
British Tonnage Certificate if available.

CUSTOMS ALLOWANCES: Customs usually permit 200 cigarettes or 0.25 lb. tobacco per person on board for 4 days. They can refuse to issue duty free or amount allowed at their discretion. Usually permit 1.3 pints or 1 bottle spirits per person for 4 days. They can issue less or refuse to allow as duty free at their discretion.

CARGO GEAR: To comply with U.K. Factory Acts, valid chain and Cargo Gear Register to be on board. Stevedores usually supply cargo slings, etc.

IDENTIFICATION CARDS: Seamen's Identity Book required to be retained on board in port.

BANKS: All British and most foreign banks represented in London. British banks have branches in Thameside towns.

CONSULS: All British Commonwealth countries are represented in London by a High Commissioner's Office.

Most foreign countries maintain embassies or a consular representative in London.

REPAIRS: All repairs, gas freeing possible; pre-advice recommended.

DRY DOCKS: Largest dry docks at Tilbury, 752 ft. length, 133 ft. breadth. There are smaller dry docks available on the river.

REPATRIATION: All facilities exist for changing crews, repatriations.

AIRPORTS: London Heathrow and Gatwick Airports. Southend Airport serves domestic and Continental services.

TIME: British Summer Time which is 1 hour in advance of GMT. GMT during Winter months.

HOLIDAYS: *Public Holidays:* Work is available on official holidays if practical. New Year's Day, Good Friday; Easter Monday; May Day Monday; Spring Bank Holiday Monday; August Bank Holiday Monday; Christmas Day; Boxing Day.

POLICE/AMBULANCE/FIRE: Contact by public telephone; dial 999 and ask for service needed. PLA telephones dial 259 (fire) and 222 for others.

EMERGENCY CO-ORDINATION CENTRE: See "Thames Navigation Service" and "Notices".

TELEPHONES: Ship to shore connections available at most berths.

SERVICES: All types of service for navigational aids, radar, compass adjusting, nautical instruments repaired, slop discharge barges available. Tank-cleaning, gas-freeing services available.

SHORE LEAVE: Crew members allowed ashore.

REGULATIONS: No livestock allowed ashore without permission Customs and Port Health Authorities. Rabies regulations enforced.

NOTICES: *Emergency Procedures for Vessels on The River Thames:* Report immediately by the quickest means available to either Thames Navigation Service on VHF radio, Gravesend Radio, VHF Channel 12; Woolwich Radio, VHF Channel 14, or public telephone Tel: 999.

Message: Vessel's name and present position together with details of emergency and assistance required.

Collision, Fire or Other Accident: If involved in or sighting a collision or accident report as above.

Human Injury or Man Overboard: In event of serious personal injury or recovery of a person from the river when vessel's crew require additional assistance report as above.

Machinery or Steering Failure: In event of machinery or steering failure report as above.

If necessary to anchor then endeavour to anchor clear of the fairway if size and draft permit.

Details of Port of London Authority Combined Accident Procedure Applicable to Vessels (POLACAP): In event of a major accident, the Thames Navigation Service will broadcast on appropriate VHF Channels an outline of the accident, including in the message:

Word	*Meaning*
"POLACAP"	Serious accident as specified has occurred – Combined Accident Procedure is in force.

Action by Vessels on Receipt of POLACAP Message: Maintain current communications watch, keeping requests for information to MINIMUM. If in vicinity of accident be prepared for traffic regulation, which, if required, will be operated by PLA Harbour Master's Launches.

If directly involved in or assisting with the accident, switch to VHF Channel 16 for inter-ship/craft communications, and report to Thames Navigation Service.

On scene control will be exercised from the forward control craft using call sign POLACHIEF. This craft will identify itself by a blue rotating light and in addition by day will hoist a red ball at the masthead.

When Combined Accident Procedure is no longer in force, Thames Navigation Service will pass:

Words	*Meaning*
"CANCEL POLACAP"	Combative measures to deal with the major accident are completed and no further action required.

June 1984.
Director of Port Services, Port of London Authority.

This Notice supersedes similar Notice dated February 1968.

Notice to Mariners – 27 of 1983.

Merchant Shipping (Tanker) Regulations 1981 and (Amendment) Regulations 1982 (EEC Requirements):

In compliance with the above regulations: (Statutory Instruments 1981, No. 1077 and 1982 No. 1637). The Master of any tanker of 1,600 g.r.t. or over which is:

(a) Carrying a cargo of chemicals, gas or oil in bulk; or
(b) Non gas free from any of these cargoes shall:

Section I: Make a report to the Harbour Master by telex (Telex No. 262880) or via G.P.O. Coast Station before entering or navigating within the limits of the Port of London which shall provide the following information in the order listed:

(a) Tanker's name and call sign.
(b) Country where registered.
(c) Length, beam and arrival draft.
(d) Destination and ETA.
(e) Tankers bound for the Medway, ETA at Medway Buoy.
(f) Nature and type of cargo (together with Flash Point if known).
(g) Is an inert gas system fitted?
(h) If an inert gas system is fitted, is it fully operational?
(i) Do any of the cargo tanks have an atmosphere which has been rendered non-flammable?
(j) If the tanker has a cargo of chemicals or gas has it been issued with a certificate stating that it complies with:
  (i) IMO Code for Ships carrying dangerous chemicals.
  (ii) IMO Code for Existing Ships carrying Liquefied Gas.
  (iii) IMO Code for Ships carrying Liquefied Gas.
(k) Does the tanker have any hull, machinery or equipment defects which may materially affect:
  (i) Its safe manoeuvrability.
  (ii) The safety of other vessels.
or constitute a hazard to:
  (iii) The marine environment.
  (iv) Persons or property.

If the answer is 'Yes' to any of the 4 questions contained in (k), then details of the problem must also be provided.

If the Master fails to make a report or knowingly provides false information to the Port Authority or to a Pilot when boarding his ship he shall be guilty of an offence and liable on summary conviction to a fine not exceeding £1,000 or on conviction on indictment a fine.

If any Pilot boarding a ship to pilot it in or out of the port believes there are defects as described in sub-section (k) which have not been reported to the Port Authority he shall inform the Master of those defects and if the Master then fails to inform the Port Authority the Pilot shall forthwith give such information to the Authority himself.

If the Pilot knowing the Master has failed to make a report, then himself, fails to make a report of any known defect as defined in sub-section (k) he shall be guilty of an offence and liable on summary conviction to a fine not exceeding £400.

Section II: Make a check list available to the Pilot when he boards the vessel and make a copy of the same check list available to the Harbour Master (if necessary through the vessel's agents).

If the Master fails to make a check list available the Pilot shall forthwith notify the Harbour Master.

If the Master knowingly makes a check list available which is materially false he shall be guilty of an offence and liable on summary conviction to a fine not exceeding £1,000 or on conviction on indictment a fine.

Notice to Mariners – 50 of 1981.

Inert Gas Systems and Crude Oil Washing (COW): (Reference Statutory Instruments No. 541, 544 and 687 of 1980).

The attention of tanker Masters are drawn to the following conditions, which must be observed whenever crude oil washing of tanks is to be undertaken in the Port of London.

1. *Notification*

(a) At least 24 hours prior notification of the intention to COW is to be received by the Director of Marine Operations (through the Thames Navigation Service) together with written assurance that all systems have been checked and found satisfactory in accordance with the ship's COW Manual and IMO requirements.

(b) One hour before the actual commencement of COW, a further advice must be received by the Director of Marine Operations (through the Thames Navigation Service) that COW is about to commence and that all systems are fully operational.

2. *Terminal Approval*

No vessel is to undertake COW without the approval of the Terminal Management and having complied with IMO COW requirements applicable to that ship.

3. *Failure of Systems*

Following the failure of the inert gas system to supply either the correct quality or quantity of inert gas, or a failure of any other part of a COW system, all cargo discharge, de-ballasting and tank cleaning must cease forthwith, and the Authority is to be immediately advised. Operations are NOT to be resumed until after consultation has taken place and agreement reached between the Authority, the Terminal Management and the ship's Master.

4. *Tanker Drafts*

No tanker crude oil washing is to be accepted at any berth where the vessel cannot safely be afloat at any state of the tide.

Notice:

Dangerous Substances in Harbour Areas Regulations 1987

1. INTRODUCTION

The Dangerous Substances in Harbour Areas Regulations 1987 ("DSHA Regulations") came into force on 1st June 1987. They apply in every harbour and harbour area in Great Britain, including therefore the Port of London.

On the same date certain provisions for the control of dangerous substances in the port of London were repealed –

(a) sections 150, 151, 152 and 160 of the Port of London Act 1968;
(b) the Port of London Explosives Byelaws;

and, subject to temporary exceptions, –

(c) the Port of London Petroleum Spirit Byelaws;
(d) the Port of London Liquid Methane Byelaws.

The exceptions are Petroleum-Spirit Byelaws 7, 8, 9, 10 and 17 and Liquid Methane Byelaws 8 and 9. These remain in force until the end of 1989, and in the meantime replacement byelaws may be made if thought appropriate.

2. MEANING OF "DANGEROUS SUBSTANCE"

The term "dangerous substance" is defined in regulation 3 of DHSA Regulations. For a full understanding of the term, reference should be made to that definition. Essentially, however, it means any substance which by reason of its characteristic properties creates a risk to the health or safety of any person when the substance is in a harbour or harbour area. It includes any substance or article which is within the definition of "dangerous goods" in Regulation 1 (2) of the Merchant Shipping (Dangerous Goods) Regulations 1981.

3. NOTICE OF ENTRY

Regulation 6 requires that a dangerous substance shall not be brought into a harbour or harbour area, unless *notice* containing the required particulars has first been given. The notice must be of *not less than 24 hours* unless –

- (a) the Harbour Master requires a *longer* time (up to 14 days) for operational reasons; or
- (b) a *shorter* time is agreed, if it is not reasonably practicable to give 24 hours' notice.

A. Entry by Vessel – Notice by Master or Agent

A.1 Persons to be notified

If a dangerous substance is intended to be brought in by a vessel, the notice must be given by the Master or Agent to –

- (a) the PLA's Harbour Master at the address mentioned below (*Note* – the requirement applies even if the vessel is in transit to or from the Medway); *and*
- (b) the berth operator (*Note* – if the berth is at the PLA's Tilbury Docks, notice must be given to the Berth Superintendent as well as to the Harbour Master).

A.2 Form

The PLA's Harbour Master and the berth operator must be *in receipt* of the notice *before* the specified time. Notices should therefore preferably be sent by *telex* or *facsimile*.

The notice to the Harbour Master should be sent ~~–~~ To

~~(a) between 0800 and 1600 hours, Monday to Friday, to~~ –
~~Harbour Master, Thames House, St. Andrew's Road, Tilbury, Essex RM18 7JH.~~
~~Telex 995553. Fax Group 3 – Tilbury (03752) 2291.~~
~~(b) at other times (including weekends and public holidays), to~~ –
Thames Navigation Centre, Royal Pier Road,
Gravesend, Kent DA12 2BG
Telex 262880 Fax Group 3 – 0474 352996.

A.3 Contents

The notice must contain such information as is *adequate to evaluate the risk* created by the substance and –

- (a) Name of vessel, and PLA voyage reference number (if allocated).
- (b) Berth to be used.
- (c) Whether substance is to be discharged or remain on board in transit.
- (d) Product name
  IMO class
  UN number
  IMDG Code page number
  Weight in tonnes or kilos.
- (e) Mode of carriage: i.e. bulk, containers, Ro/Ro trailer or general.
- (f) If in bulk –
  - (i) whether petroleum or chemical, and
  - (ii) Flash Point (FP) closed cup (if only an open cup FP can be given, this fact should be stated).
- (g) Whether vessel has current certificate of fitness (if recommended by IMO).
- (h) If an oil tanker, whether vessel has valid cargo-ship Safety Construction and Safety Equipment Certificates (if required under a SOLAS convention).

B. Entry by Road or Rail – Notice by Transport Operator and Ship's Agent.

B.1 Transport Operator

If a dangerous substance is intended to be brought in by road or rail, the notice must be given by the transport operator.

The notice must be given to the Manager of the berth concerned, who for the purposes of notification under Regulation 6 (1) (b) of the Dangerous Substances in Harbour Areas Regulations 1987 shall be deemed to be both the harbour master and the berth operator.

The notice must contain such information as is *adequate to evaluate the risk* created by the substance and –

- (a) Name of the transport operator.
- (b) Berth to which substance is to be sent.
- (c) Name of vessel for which intended (if known), with date and estimated time of departure.
- (d) Product name
  IMO class
  UN number
  IMDG Code page number
  Weight in tonnes or kilos.
- (e) Method of packaging.

B.2 Ship's Agent

Information about the loading and estimated time of departure of the vessel (as required at (c) above) is important but may not be readily available to the transport operator. Also, the PLA's Harbour Master needs to have the information in a *form* which related mainly to the vessels on which the substances are to be carried. The information given by transport operators under the DSHA Regulations will not normally be in this form, but information in this form has hitherto been given by ship's agents in accordance with PLA Notice to Mariners No. 4 of 1985. *Ship's agents* should therefore *continue* to give notice to the PLA's Harbour Master at least *24 hours before* a dangerous substance is *loaded* on to a vessel *anywhere* in the Port of London. The notice should be given in the manner stated at A.2 above and should contain the information stated at A.3 above (except for item (c)).

4. TILBURY DOCKS

Dangerous goods intended for loading or discharge in the PLA's docks continue to be subject to the PLA's published Schedule of Dangerous Goods. Attention is particularly drawn to the terms and conditions for explosives (class 1) and radio-active substances (class 7).

In addition to notification under the DSHA Regulations, some descriptions of dangerous substances (designated in the Schedule as Group 3, require the *prior approval* of the PLA before entering the PLA's docks. Application for approval should be made to the Dangerous Substances Section, Accident Prevention, Tilbury Docks, Essex RM18 7EH. Telephone: Tilbury (03752) 3444, ext. 276.
Telex: 995170.

5. FURTHER REQUIREMENTS OF DSHA REGULATIONS

It is impracticable to set out all the provisions of the DSHA Regulations in this notice, but particular attention is drawn to the following:

5.1 Movement of Vessels

- (a) Regulation 7 confers on the Harbour Master powers of prohibition, removal and regulation relating to dangerous substances.
- (b) Regulation 10 requires that a vessel shall not be placed alongside another vessel carrying Schedule 3 dangerous substance without the permission of the Master of the other vessel and of –
  - (i) the berth operator, or
  - (ii) the Harbour Master (if the vessel is not at berth).
- (c) Regulation 14 requires the Master of a vessel carrying a dangerous substance to anchor or moor his vessel only where directed by the Harbour Master.
- (d) Regulation 15 requires that the Master of a vessel (other than a dumb barge) carrying a Schedule 3 dangerous substance shall ensure that the vessel is in a state of readiness to be moved at any time (tidal conditions permitting).

5.2 Permission for Certain Operations

- (a) Regulation 20 requires the Master of a vessel to obtain the Harbour Master's written permission before transferring a dangerous substance by pipeline to another vessel.
- (b) Regulation 22 requires the Master of a vessel carrying or which has carried dangerous substance in bulk to obtain the Harbour Master's permission before discharging slops or ballast, pumping bilges, gas-freeing or purging tanks and before crude oil washing a cargo tank.

5.3 Marking of Vessels

- (a) A vessel carrying a Schedule 3 dangerous substance must carry the lights or flags required by regulation 8. Masters should note that the *all round red light* hitherto required by Byelaw 5 of the Port of London Petroleum-Spirit Byelaws must *not* since 1st June 1987 be displayed when *under way*.
- (b) A barge carrying one or more dangerous substances in the quantities stated in Regulation 11 (1) must display the hazard warning panels required thereby (or those panels and the labels required by regulations 11 (2)).

6. OTHER PROVISIONS

Attention is drawn to the following:

(a) Port of London River Byelaws 1978

No. 6 –Escape of dangerous substance – vessel not to proceed above No. 1 Sea Reach Buoy except with permission of Harbour Master.

No. 7(f)–Spillage of liquid in bulk to be forthwith notified to Harbour Master.

(b) Merchant Shipping Notice 1152

Reporting of incidents involving loss of dangerous substances.

AUTHORITY: ~~Port of London~~ Authority, Thames House, St. Andrew's Road, ~~Tilbury, Essex RM18 7JH.~~ *Tel:* Tilbury (03752) 3444. *Telex:* 995553. *FAX:* (03752) 2291. *Contact:* ~~John N. Black, Chief Executive.~~ John S. McNab, Director of Tilbury. Captain Gordon Varney, Chief Harbour Master.

LONDONDERRY (incl. Moville): 54.59 N. 07.19 W.

(See Plan)

The main port of Londonderry is situated about 21 miles from the sea on the River Foyle.

PORT LIMITS: Extend from Lifford Bridge to a line drawn from Greencastle Fort in the County of Donegal to the Tower on Magilligan Point in the City and County of Londonderry.

DOCUMENTS: For Londonderry see "Belfast". For "Moville" see "Dublin".

Since the Port of Londonderry falls within the Republic of Ireland and the United Kingdom, both Governments are concerned in regard to Customs documents. Moville, which is situated down river from Londonderry, is located in the Republic of Ireland and is the anchorage where deep-sea vessels lie prior to proceeding to Londonderry. Should vessels discharge cargo or load cargo at this anchorage, Irish documents are required. The port is under the control of the Londonderry Port and Harbour Commissioners who are recognised by both Governments.

PILOTAGE: The Londonderry Port and Harbour Commissioners are the Pilotage Authority for the Londonderry Pilotage District. For information regarding pilotage application should be made to The Secretary, Harbour Office, Londonderry, Northern Ireland. Tel: (0504) 262553.

Pilotage is compulsory, vessels normally taking the Pilot at Carrickarory Pier, Moville. A Pilot may be taken at the Fairway buoy by special arrangement.

The Pilot station is located at Carrickarory Pier, Moville, 55° 10′ 57″ N.; 07° 03′ 27″ W.

Deep-draft vessels usually take Pilot 2 hours before HW time Londonderry, so as to arrive at Londonderry on the top of HW.

Pilotage service may be obtained in response to following signals: *Inward-bound vessels:* By day. 1. The International Code Signal G; 2. The International Code Signal P.T.; 3. The Pilot Jack hoisted at the fore; 4. By daylight signalling lamp to the pilot station. If required after hours telephone Harbour Radio (Londonderry 363218).

By night. Pilot Station unattended at night. Vessels should contact harbour radio on VHF Channel 16 or Londonderry (0504) 363218.

By day or night. 1. By VHF (FM) radiotelephony to the pilot station at Carrickarory Pier. 2. By VHF (FM) radiotelephony to the pilot launch "James McDonald." 3. After hours and weekends VHF (FM) to Harbour Radio.

In poor visibility. By sounding the letter G in Morse Code on the steam whistle or siren.

As visibility to seaward from Carrickarory Pier is restricted it is important that Owners, Masters or Agents notify the Berthing Master (tel: Londonderry 263680) or outside Office hours Harbour Radio (tel: Londonderry 363218) of the name of vessel; estimated time of arrival at the Fairway Buoy; draft of water of the vessel. It is also important that VHF (FM) communication be established with pilot station, pilot launch "James McDonald", or Harbour Radio as early as possible before arrival in Lough Foyle. Call signs, frequencies and procedure are as follows:

VHF (FM) Communications:

1. Pilot Station at Carrickarory Pier, Moville: Call sign "Foyle Pilots". Equipment VHF (FM) R/T single frequency working. A continuous listening watch is kept during office hours on Channel 16 (156.80 MHz.) except when pilot launch is operating, when watch is transferred to the launch. When communication has been established on Channel 16 (calling and safety channel) operators should switch to Channel 14 (156.70 MHz.).

2. Harbour Radio: A continuous listening watch is kept on Channel 16 (156.80 MHz) outside of office hours. Once communication has been established switch to Channel 14 (156.70 MHz).

3. Pilot launch: Name of vessel "James McDonald". Equipment VHF (FM) R/T single frequency working. When launch is operating a listening watch is kept on Channel 16 (156.80 MHz). When communication has been established on Channel 16 (calling and safety channel) operators should switch to Channel 14 (156.70 MHz).

4. Harbour Office, Londonderry: Call sign "Harbour Office". Equipment VHF (FM) R/T single frequency working. All vessels fitted with VHF (FM) R/T while navigating in the river or at anchor in Moville Bay should keep a listening watch on Channel 16 (156.80 MHz). When communication has been established on Channel 16 (calling and safety channel) Operators should switch to Channel 14 (156.70 MHz).

Messages must be restricted to those related to the movement of vessels and safety of vessels and persons. Messages of any other nature and messages of a personal character cannot be accepted.

Outward-bound vessels and vessels shifting:

When the services of a Pilot are required for an outward-bound vessel or for shifting a vessel, 4 hours notification should be given to the Berthing Master (Tel: Londonderry 263680) during office hours, of name of vessel; time of departure; draft of water of vessel; where bound. Early notification should be given to enable Pilot to board vessel in good time.

ANCHORAGES: The only anchorage at Londonderry is located at Moville.

RESTRICTIONS: See "Max. Size".

MAX. SIZE: For vessels using main port of Londonderry, overall length 152.5 m. draft 7.2 m.

Due to new road bridge at Madam's Bank, height clearance 32 m. H.W.O.S.T.

For vessels using N.I.E.S. Oil Jetty, Coolkeeragh, Londonderry, overall length 183 m. draft (salt water) 7.2 m.

Maximum draft of vessels is increased on Spring tides at Coolkeeragh and Londonderry.

HEALTH: Pratique is automatic except in the case where the Master suspects one of the dangerous diseases on board when he should notify the Agent.

Also see "Health – All Ports" before first U.K. port.

RADIO: Malin Head Radio Station, Republic of Ireland, covers W/T and R/T transmissions and Portpatrick Radio Station, Scotland, covers R/T transmissions.

TUGS: One tug is available which is owned by the Londonderry Port and Harbour Commissioners. Tugs lines normally used.

BERTHING: Vessels of deep draft or large dimensions can only berth at Londonderry to arrive on top of high water. Decisions in this matter are taken by the Pilots in conjunction with the Harbour Master.

A total of 800 m. of ferro-concrete wharf is available. All berths dredged to 7.6 m. LWOST

CRANES: 3×5 tons electric grabbing cranes; 2×2 tons electric hook cranes; 1×1.5 tons mobile crane; 3×20 tonnes mobile cranes; 1×30 ton mobile crane; 1×10 ton mobile grab crane and 1×35 ton container crane.

STEVEDORES: ETA advices should be given before 1600 hrs. on weekdays to arrange work for the next morning and before 1100 hrs. on Saturday to arrange work for Monday morning.

MEDICAL: Doctors and hospital facilities available. Agents should be advised in advance of any medical attention required.

DENSITY: Water at Londonderry is brackish and average density 1005 to 1018.

FRESH WATER: Available at all berths direct from shore lines.

TANKERS: No slop facilities available. Deep-sea tankers discharge heavy fuel oil for electricity power station at N.I.E.S. Jetty, depth 8.8 m., Coolkeeragh, diameter of pipes 8 in. Crew are required to connect and disconnect hoses under port conditions.

Shell Oil: Max. LOA 120 m. Depth 6.0 m.

Du Pont: Depth 8.5 m.

FUEL: Gas-oil and light marine diesel available by road tankers and from Shell Jetty at Pennyburn. Shell Mex and B.P. can supply light, medium and heavy fuel oil by road tanker.

GANGWAY/DECK WATCHMEN: Can be covered by crew; shore watchmen available if required.

OPENING/CLOSING HATCHES: This is required to be carried out by ship's crew under local port labour conditions.

CARGO GEAR: Ship's winches and derricks should be in good working order and have DTI Certificates or equivalent. Cluster lighting is required for night work.

IDENTIFICATION CARDS: Not obligatory but should be carried.

CONSULS: Nearest at Belfast.

REPAIRS: Deck and engine repairs are carried out by a local engineering works. No major repairs available.

REPATRIATION: Can be arranged by ship's Agent on request.

AIRPORT: The nearest airport to Londonderry is Aldergrove (Belfast) Airport, which is 61 miles from Londonderry.

HOLIDAYS: Port Holidays at Londonderry are: St. Patricks Day (17th March); Easter Monday; 12th July; 1st Monday and Tuesday in August; Christmas Day and Boxing Day.

POLICE/AMBULANCE/FIRE: Dial 999 and ask for service required, or Police 265161; Ambulance 45171; Fire 264321.

TELEPHONES: No telephones available for connecting on board.

SERVICES: No tank cleaning available or facilities for discharging of tank-washings. Compass adjusters available from Glasgow.

REGULATIONS: Copies of Port Bye-Laws may be obtained through Agent.

AUTHORITY: Londonderry Port and Harbour Commissioners, Harbour Office, Londonderry BT48 6AF, Northern Ireland. *Tel:* (0504) 264884, 264885, 262553. *Telex:* 748039. *Contact:* Captain H. Stewart, Chief Executive. G. S. Wilson, Secretary.

LOWESTOFT: 52.29 N. 01.45 E. (See Plan)

DOCUMENTS:

Crew List (at least 2 copies).

Passenger List (at least 2 copies).

Manifest (at least 3 copies).

Customs & Health Documents (normal U.K. regulations).

Ship's Papers (to be presented to Customs and Port Authorities).

PILOTAGE: Pilots on standby at all times. Pilot launch fitted with VHF and maintains listening watch on Channel 14. Pilots can also be ordered by R/T via Humber and Northforeland Radio, hence by phone.

Pilot's telephone No. Lowestoft 60277, or at the Lowestoft Harbour Masters Office, tel. Lowestoft 2286 (this number manned 24 hours). Pilot boat, black hull, white upper work with "Pilot" painted on each side. Light and sound signals as laid down in the International Code of Signals.

Pilot boards vessel at West Holm Buoy or East Barnard Buoy. Vessel should not approach harbour closer than these limits when awaiting Pilot.

ANCHORAGES: Pilotage anchorage North of a line joining West Holm Buoy and Lowestoft Lighthouse.

RESTRICTIONS: No specific restrictions provided the height of tide is sufficient for draft of vessel. Large vessels normally enter on slack tide due to cross currents at entrance.

There are regulations governing the passage of vessels through the harbour entrance. Masters of vessels shall observe the Harbour Control Light which is a white flashing light situated below the occulting red light on the South Pier Lighthouse. This light is visible except between 232° to 286° true from the light. When this light is flashing vessels may proceed to sea, but no vessel shall enter the harbour. At all other times vessels may enter the harbour, but no vessel shall proceed to sea.

A green occulting light is shown on the North Pier Head and a red occulting light on the South Pier Head, from sunset to sunrise.

Several Inner Pier lights will be clearly visible from a vessel upon entering the harbour and some will also be visible from certain directions before entry.

A "horn" signal is fixed on the South Pier Head for use in foggy weather. 4 blasts of 2 seconds each will be given every minute.

MAX. SIZE: Max. length approx. 410 ft. Draft up to 21 ft. MHWS. (Check with Port Authority for current situation.)

HEALTH: See "Health – All Ports" before first U.K. port.

TUGS: A number of tugs are available; tug's lines normally used.

BERTHING: *Outer Harbour* (comprising Hamilton and Waveney Docks and Trawl and Yacht Basins). Used largely for fish traffic, sea aggregates and offshore module construction:

Width at entrance	148 ft.
Depth at entrance	23 ft. MHWS
Water area	40 acres
Length of quays	4,500 ft.
Depth of water at quays	18 ft. MHWS 12 ft. MLWS

Inner Harbour. Used for general cargo and grain traffic.

Width of bridge	74 ft.
Water area	70 acres
Length of quay	6,800 ft.
Depth of water at quays up to	23 ft. MHWS 17 ft. MLWS

CRANES: 1×200 tonne crane, 1×35 tonne crane and 1×32 ton container crane. Mobile cranes also available.

CARGO HANDLING FACILITIES: *Grain Silo:* Grain silo has a capacity of 14,000 tonnes and discharging and loading rates of 120 tonnes and 350 tonnes/p.h. respectively.

Containers: Purpose built container terminal is equipped with a 32 tonne container crane and 2 park-gantry cranes.

STEVEDORES: Shipping Agent should be advised of ETA, etc., to enable gangs to be available. Working hours: 0800 – 1700 hrs. (1600 hrs. Friday). Overtime as required.

MEDICAL: Advance notice desirable of medical attention required on arrival. Hospital facilities available in the district.

FRESH WATER: Can be supplied at various points on quays from hydrants with waterman in attendance. Normal hours 0800 – 1700 hrs. Monday to Thursday and 0800 – 1600 hrs. Friday, outside those hours overtime rates payable. Approx. flow 15 t.p.h.

FUEL: Marine diesel available from road tankers or fuel barge within the harbour. 24 hours notice is normally required for supplying gas oil or boiler fuel; this comes from road tankers.

FIRE PRECAUTIONS: Local fire services available in an emergency. Special arrangements can be made for taking fire-fighting equipment to sea. Normal harbour fire-prevention regulations apply to all berths.

OPENING/CLOSING HATCHES: Carried out by crew.

CONSULS:

Belgium	Tel: Lowestoft 572301
Denmark	" " "
France	" " "
Netherlands	" " "
Norway	" " "

REPAIRS: All types of deck and engine repairs are possible in the port.

DRY DOCKS: One dry dock. Length 248 ft. Width at entrance 48 ft. Depth of water on sill 14.5 ft. MHWS.

AIRPORTS: Nearest international airport served by regular airlines is London (Heathrow). Smaller airport at Norwich (27 miles) served by regular airlines.

POLICE/AMBULANCE/FIRE: In an emergency dial 999 and ask for service required. For normal enquiries: Police Lowestoft 2121; Ambulance Lowestoft 2572; Fire Lowestoft 2227.

GENERAL:

Air/Sea Rescue Services at R.A.F. Cottishall (35 miles).

Royal National Lifeboat Institution, lifeboat berthed at Lowestoft.

Modern transit sheds.

SERVICES: Compass adjusting. VHF, Radar, radio repairs. All ships' provisions are available by arrangements with the shipping Agencies.

SHORE LEAVE: Leave is permitted.

AUTHORITY: Associated British Ports, Port House, Lowestoft, Suffolk, NR32 1BG. *Tel:* (0502) 572286/7. *Telex:* 97448 Abplow G. *FAX:* (0502) 500032. *Contact:* L. R. Gravestock, Port Manager. Captain M. J. C. Graham, Dock and Harbour Master.

LYDNEY: 51.43 N. 02.33 W. (See Plan)

PILOTAGE: Available from Sharpness.

RESTRICTIONS: Entry and exit only possible at HW and for a very short period afterwards.

VHF: Not permanently manned. Used solely for directing vessels. Standard multi-channel. Channel 16 for call up.

BERTHING: *Tidal Basin:* 82.3 m.× 22.8 m. Width of entrance 10.5 m. Depth at HWST 7.3 m.

Inner Dock: 237.7 m.×32 m. Width of entrance 7.0 m. Depth 3.6 m.

FRESH WATER: Limited supply from small bore tap.

FUEL: Not available.

AIRPORT: Gloucester (Staverton) 24 miles, Bristol 24 miles, Cardiff 30 miles.

GENERAL: The port does not offer any cargo handling facilities and traders need to make use of the overhead crane owned by Mallinson-Denny Limited. This is situated upstream of the inner lock gates and therefore severely limits the size of vessel which can enter.

AUTHORITY: Severn-Trent Water Authority, Lower Severn Division, Southwick Park, Gloucester Road, Tewkesbury, Gloucestershire GL20 7DG. *Tel:* Tewkesbury (0684) 294516. *Telex:* 43520. *Contact:* Mr. R. J. Bishop, Water Amenity Officer. W. B. Price, Harbour Master, Tel: (0594) 562303 (part-time only – 48 hours notice required).

MANCHESTER: 53.29 N. 02.14 W. (See Plan)

GENERAL: The Port of Manchester includes the whole of the Manchester Ship Canal and Queen Elizabeth II Dock. The Canal is approximately 36 miles long from its entrance at Eastham on River Mersey to the Manchester Docks.

PILOTAGE: Non-compulsory. Orders for Pilots may be lodged with the Harbour Master's Office at Eastham (Tel. 051-327 1242/4). As much notice as possible should be given, particularly in the case of inward-bound vessels due to arrive at Eastham. Helmsmen can be obtained in same manner.

DOCUMENTS:

1 Maritime Declaration of Health.
1 Crew Effects List.
2 Ship's Report by Master.
1 Home Office Form 1B6.
1 Stores List.
1 Certificate of Deck Cargo Tonnage.
1 Grain Certificate.
1 Light Certificate.
1 Port Dues Certificate.
1 Passenger List.
1 Landing Card for each Passenger.
Ship's Certificate of Registry.
Mercantile Marine Office Certificate – for British ships only.
Load-Line Certificate.
Safety Equipment Certificate.
Lloyd's Certificate.
Derat Certificate.
Ship's Register.
Light Bills.
Safety Radio Certificate.

In addition, Manifests and Bills of Lading are usually sent to Agent direct from loading port.

RESTRICTIONS: Eastham Locks. The main entrance to the Canal is at Eastham where there are two locks side by side, one 600 ft. by 80 ft., and the other 350 ft. by 50 ft. The outer or lower sill of each lock is 11.36 ft. below Chart Datum (1975). The levels of upper sills of the 80 ft. and 50 ft. locks are 32 ft. and 29 ft. respectively below statutory water level in Canal.

Both locks are operated for incoming and outgoing vessels of suitable draft during a period of 8 hours on each tide, i.e. from 4 hours before high water to 4 hours after high water.

The size of vessel which can navigate the Canal is governed by the dimensions of locks, the height of fixed bridges and limitations for the draft of vessel.

Maximum length: The greatest length measured between perpendiculars drawn at the foreside of the foremost extremity and at the afterside of the aftermost extremity of the hull or any attachments to the hull shall not exceed 560 ft. The acceptance of ships proceeding above Ince with overall length greater than 530 ft. is subject to approval of the Harbour Master.

The length measured between perpendiculars drawn at the foreside of the stern and at the afterside of the rudder post, or through centre of the rudder stock if there is no rudder post, on the Summer load waterline shall not exceed 535 ft.

The length measured between perpendiculars drawn at the afterside of the rudder plate and at the foreside of the foremost extremity of any part of the hull which is below a horizontal line drawn through the top of the rudder plate shall not exceed 544 ft.

Maximum beam: Vessels not proceeding beyond Ince Oil Berth: 72 ft. overall. Vessels proceeding beyond Ince Oil Berth: 63 ft. 6 in. overall.

Provided the height of masts and/or funnels or other structures is not more than 70 ft. 9 in. from water-line, vessels can pass under all fixed bridges under normal conditions. As, however, the headroom is less during periods of high-water levels, a vessel, in order to avoid possible detention, should reduce masts and funnels or other structures to 70 ft. above the water-line. The restriction as regards height does not apply to vessels proceeding only as far as Runcorn Bridge.

Facilities are available at Eastham for removing and replacing tops of masts and funnels.

MAX. SIZE: When vessels are loading inwards for the Canal, Masters should take these facts into their calculations and have regard to the following limitations, all of which are expressed as maximum draft in fresh water:

Vessels inward bound to a berth	*Arrival draft (in fresh water) at Eastham not to be such as would exceed:*
Between Eastham Locks and Ince Oil Berth	8.78 m.
Between Ince Oil Berth and Runcorn Lay-by (Other than Runcorn Docks)	8.07 m.
Between Runcorn Lay-by and Mode Wheel Locks	7.31 m.
In the Manchester Docks upstream of the Inner Gates of Mode Wheel Locks and downstream of the Railway Swingbridge.	4.88 m.
In the Manchester Docks upstream of the Railway Swingbridge to No. 3 Dock Pomona	4.27 m.

HEALTH: Foreign arrivals to complete Maritime Declaration of Health. They are cleared immediately on arrival by either a port doctor or an officer of H.M. Customs depending on where ship comes from and whether there is sickness on board.

Vessels arriving from ports within accepted area (N. European ports) and coastal arrivals need not present Declaration in all cases; when there is sickness on board the Port Health Authority must be informed preferably not more than 12 hours and not less than 3 hours before arrival.

Also see "Health – All Ports" before first U.K. port.

TUGS: The Canal Company maintains a fleet of high-powered tugs which may be hired to assist vessels, 12 hours notice required.

RADIO: FM VHF R/T equipment is installed at Eastham, Stanlow, Latchford, Irlam, Barton and Mode Wheel Locks as an aid to navigation on the Canal.

Ships which are equipped with the appropriate R/T channels are requested to establish contact with the nearest shore station before leaving a berth or lock within the harbour and thereafter to maintain a continuous listening watch on Channel 14.

Station	*Call sign*	*Channel*	
Eastham Locks	Eastham Locks	7	Docking instructions: When approaching Eastham Locks from seaward.
Eastham Locks	Eastham	14	Port operations: Vessels moving within the harbour should maintain a listening watch on Channel 14. After contact has been established the shore station will request the ship to switch to the appropriate speech Channel.
Stanlow Oil Docks	Stanlow	14 20	
Latchford Locks	Latchford	14 20	
Irlam Locks Lockmaster's Office	Irlam Locks	14 18	
Barton Locks Lockmaster's Office	Barton Locks	14 18	
Mode Wheel Locks Lockmaster's Office	Mode Wheel Locks	14 18	
Ship/tug communications	Name of ship/tug	8 10	Inward bound Outward bound

BERTHING:

Locality	*Miles above Eastham*	*Bank N–North S–South*	*Total Length in feet*
Queen Elizabeth II Dock	—	S	3,155
Eastham Laybyes	—	N	645
Eastham Laybyes	—	S	1,560
30-ton Crane Berth	0.50	S	600
Manisty Wharf	2.00	S	1,100
Ellesmere Port (inc. Cawoods)	2.875	S	2,250
Associated Octel Wharf	4.00	S	600
Stanlow Oil Docks Nos. 1 & 2	4.50	N	2,070
Stanlow Laybye	4.625	S	600
Shell Company of the United Kingdom Ltd., Ince Coaster Berth	5.25	S	352
Shell Company of the United Kingdom Ltd., Ince Oil Berth	5.375	S	600
Ince (C.E.G.B.) Berth	5.50	S	600
I.C.I. Salt Berth	11.25	S	500
Runcorn Docks	12.25	S	7,500
Du Pont Co. UK. Ltd., Acton Grange Wharf	17.50	N	300
Warrington Wharf	19.00	N	350
Partington	27.375	N	1,885
Partington	27.375	S	1,236
Iriam Wharf	27.75	N	600
Barton Oil Berth	31.875	S	508
Irwell Park Wharf	32.25	N	1,100
Eccles Oil Wharf	32.50	N	600
Cerestar Wharf	32.75	S	700
Weaste Oil Wharf	33.25	N	557
Southern Oil Wharf	33.625	N	500
Esso Petroleum Co. Ltd. Wharf, Mode Wheel	33.75	S	934
Manchester Docks (including Pomona Docks)	34.50	N & S	—

Weston Point Docks: Near Runcorn, 11 miles from canal entrance at Eastham. 10-12 berths for vessels up to 2,500 tonnes. Fixed, portal and mobile cranes for handling bulk cargoes.

CARGO HANDLING FACILITIES: Heavy duty floating crane with capacity up to 120 tonnes. Roll-on/Roll-off berth with strengthening to take loads of 300 tonnes.

STEVEDORES: The stevedores require to sight a certificate covering inspection and S.W.L. of slings used in pre-slung cargoes.

TANKERS: *Queen Elizabeth II Dock.* This dock is adjacent to the locks at Eastham which give access to the Canal, and is approached from River Mersey through its own entrance lock. This lock is 807 ft. long by 100 ft. wide. The level of outer sill is 18.36 ft. below Chart Datum (1975). The dock covers an area of 19 acres in the form of a square and has four berths designed to accommodate large tankers, the dimensions of berths being as follows:

Berth No. 1 800 ft.	Berth No. 3 900 ft.
Berth No. 2 725 ft.	Berth No. 4 730 ft.

The dock is directly connected to oil installations by pipe-lines.

Stanlow Oil Docks. No. 1 & 2 (5 berths) 4.5 miles above Eastham Lock. Length 560 ft., draft 28 ft., beam 72 ft.

Ince Oil Berth. 5.5 miles above Eastham Lock. Length 560 ft., draft 28 ft., beam 72 ft.

Ince Coaster Berth: Max. length 350 ft., beam 53 ft. draft approx 21 ft. dependent on current survey.

Barton. 32 miles above Eastham Lock. Length 508 ft., draft 24 ft., beam 63 ft. 6 in. Max. height above water-line 70 ft.

DENSITY: The water in lower section of the Canal between Eastham Locks and Latchford Locks is brackish. In all sections above Latchford Locks the water is fresh.

MEDICAL: Doctors and hospital facilities available. Agent should be advised in advance of any medical attention required.

FRESH WATER: Available.

FUEL: Oil bunkers may be taken by arrangement with oil companies either from craft alongside or at various oil berths along the Canal.

CUSTOMS ALLOWANCES: At discretion of local Customs Inspector. Normal allowances are equivalent to 0.5 lb. tobacco per man and equivalent to 1 bottle of wine per man. Allowances may be halved for home trade vessels. Vessels in port for more than 3 or 4 days may receive extra allowances.

CONSULS:

Austria	Greece	Netherlands
Bangladesh	Iceland	Norway
Belgium	Italy	Portugal
Bolivia	Jamaica	Spain
Denmark	Latvia	Sweden
Dominican Republic	Lebanon	Switzerland
Finland	Liberia	U.S.A.
France	Monaco	Venezuela
Germany F.R.		

TIME: British Standard Time is GMT plus 1 hour. Reverting to GMT during Winter months.

HOLIDAYS: New Years Day (January 1st); Good Friday (variable date); Easter Monday (variable date); May Day (variable date); Spring Bank Holiday (variable date); August Bank Holiday (variable date); Christmas Day (25th December); Boxing Day (26th December).

POLICE/AMBULANCE/FIRE: Dial 999 from any telephone and ask for service required.

AUTHORITY: Manchester Port (Manchester Ship Canal Company), Collier Street, Runcorn, Chester, WA7 1HA. *Tel:* (09285) 67465. *Telex:* 628116. *FAX:* (09285) 67469. *Contact:* Mr. J. B. Chilton, Port Director. Captain J. F. Scrivens, Harbour Master.

MEDWAY PORTS

(A) MEDWAY ✓
(B) SHEERNESS ✓
(C) ISLE OF GRAIN
(D) CHATHAM DOCKYARD ✓
(E) ROCHESTER ✓
(F) OTHER FACILITIES

1. BLOORS WHARF
2. FAVERSHAM
3. KINGSNORTH JETTY
4. OAKHAM NESS JETTY
5. OTTERHAM QUAY
6. QUEENBOROUGH ✓
7. RIDHAM DOCK ✓

(A) MEDWAY (See Plan)

PILOTAGE: *Pilotage to and from the Medway:*

Ships navigating through the compulsory area of the Port of London to or from the Medway will be subject to the same requirements as those navigating to or from places in the Port of London. However, the Medway Ports Authority will be empowered to authorise Medway Pilots (viz. persons authorised by the Authority to act as Pilot in or in part of that Authority's area) to act as Pilot in the Port of London of ships navigating to or from that area.

Also see "London".

VHF/RADAR: Medway Navigation Service (Medway Ports Authority) is situated at Garrison Point, Sheerness. Tel: Sheerness 663025. Telex: 96435 (call sign "Medway Radio"). Fax: (0795) 666596. Fitted with VHF, Channels 16, 74, 9 and 22. The station has radar service surveillance of Inner Estuary, Sea Reach, Medway Approach Channel and Lower Reaches of River Medway.

Tugs operate on Channel 73.

REGULATIONS: All vessels required to proceed in accordance with instructions of Port Authority. Vessels are requested to advise Medway Ports Authority – Medway Port Operations Service (call sign "Medway Radio") VHF Channels 16, 74, 9 and 22 of ETA, shifting of sailing movements.

Prior notification to the Medway Ports Authority is required, detailing the carriage of all explosives and "dangerous goods".

GENERAL:

Tidal Information:

Tidal streams in the River Medway vary between about 2.5 knots at Springs and 1.5 knots at Neap Tides, although velocities vary considerably from Reach to Reach, the areas of maximum encountered velocities are: off Garrison Point Sheerness and through Rochester Bridge.

Average Tidal Heights are as follows: (metres)

Sheerness	5.7 MHWS	4.8 MHWN
Chatham	6.0 MHWS	4.9 MHWN
Rochester	6.2 MHWS	5.0 MHWN

High Waters occur approximately:

Margate	45 minutes	before Sheerness
Herne Bay	20 minutes	before Sheerness
Whitstable	10 minutes	before Sheerness
Rochester	9 minutes	after Chatham
Wouldham	28 minutes	after Chatham
New Hythe	33 minutes	after Chatham
Allington Lock	41 minutes	after Chatham

Tide Tables may be obtained at the offices of the Medway Ports Authority.

(B) SHEERNESS: 51.27 N. 00.44 E. (See Plan)

Situated on Isle of Sheppey at junctions of Thames and Medway Rivers.
DOCUMENTS: See "London".
PILOTAGE: See "Medway".
ANCHORAGES: For vessels entering River Medway up to 107 m. length, Little Nore Anchorage, Sheerness. Over 107 m. length – as directed by Medway Navigation Service (Medway Radio) or Thames Navigation to Great Nore, Sea Reach or Warps.
RESTRICTIONS: Subject to tidal conditions and under keel clearance appropriate size of vessel. Minimum depth of Medway Approach Channel 8.5 m. at Chart Datum.

Entry as directed by Medway Navigation Service (Medway Radio). Station keeps watch on VHF Channels 16, 74, 73, 9 and 22.

Occasional restriction for vessels over 130 m. overall length entering approach channel between sunset and sunrise when the Traffic Warning Lights are exhibited from Garrison Point.
MAX. SIZE: Five deep water terminals for vessels up to 230 m. in length and 11.0 m. in draft. Also see "Developments".
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: Portishead. Local Stations: From South – Lands End, Niton, Northforeland. From North, Cullercoats, Humber, Northforeland.
VHF/RADAR: See "Medway".
TUGS: River Medway – For Sheerness, Ridham Dock, Isle of Grain, Oakham Ness – Tugs usually meet vessels at Garrison Point, Sheerness. Tug's lines used, no extra charge.
BERTHING: Sheerness, deep water berths and Ferry Terminal – as directed by Medway Navigation Service (Medway Radio).

Berths equipped for handling containers, forest products, motor vehicles and wine in bulk and for general cargo of all kinds, including fresh fruit and vegetables.

Storage facilities available for bulk wine, vehicles, forest products and the warehousing of general cargo.

Sheerness Deep Water Berths – No. 1 – Suitable for vessels up to 230 m. length and 11.0 m. draft.

No. 2. Suitable for vessels up to 210 m. length and 11.0 m. draft.

No. 1/2. Retractable Ro/Ro pontoon serves both berths simultaneously, capable of 60 tonne payload.

No. 3. Suitable for vessels up to 230 m. length and 11.0 m. draft.

No. 4. Suitable for vessels up to 250 m. length and 9.0 m. draft.

Also see "Developments".

Ferry Terminal – Berth 11. Suitable for either bow or stern door vessels of up to 165 m. in length and 7.0 m. in draft. Present service twice daily Sheerness/Flushing and vice versa.
STEVEDORES: All stevedoring at Sheerness is provided by the Port Authority.

CRANES:

Berth No.	*Remarks*
1	3×5 tonne Electric 1×30 tonne Container Gantry
2	4×3 & 5 tonne Electric
3	5×3 & 5 tonne Electric
4	None (Car Terminal)
11	Ro/Ro/Ferry Terminal
12	10 tonne static (Launches)
12A	Mobile (Marine Services)
14	Mobiles (Launches)
15	Mobiles (Ship Repairs)
16	Mobiles (Ship Repairs)

MEDICAL: 24 hours notice to Agents so that Port Medical Officer can be advised. Normal boarding point – Garrison Point Sheerness. All usual hospital facilities available within 15 mile range of Sheerness.
DENSITY: Average density 1021/22.
FRESH WATER: Available alongside all berths at Sheerness.
FUEL: All grades available at BP Refinery Isle of Grain – or available by barge or lorry given 48 hours notice.
GANGWAY/DECK WATCHMEN: Gangway watchmen – services recommended as all berths at Sheerness are tidal with average rise and fall of 5 m.
OPENING/CLOSING HATCHES: Within Sheerness Docks rigging gangs are employed by the Authority for this purpose.
SURVEYORS: Cargo Surveyors available from London or Gravesend. Lloyd's Agent in docks.
REPAIRS: All types of deck and engine repairs can be carried out either in berth, in dry dock or at river buoys.
DRY DOCKS: Sheerness: 2 dry docks available. Largest for vessels up to 86 m., otherwise only small slipways available.
REPATRIATION: Usual facilities available for crew changes – repatriation can be arranged by various air/sea routes.
TELEPHONES: Police: Sheerness 661451; Fire: Sheerness 662382 or dial 999 and ask for Fire Service; Ambulance: Sheerness 664079.

At Sheerness coin boxes are available for placing on board.
EMERGENCY CO-ORDINATION CENTRE: Medway Navigation Service, Garrison Point Fort, Sheerness Docks, Sheerness, Kent ME12 1RX. Tel: Sheerness 663025.

STORING: See "Prelims".
1. Yes.
2. No limitations except when loading dangerous goods or explosives.
3. Yes.
4. Yes.
5. Standard practice – 24 hour customs availability.
6. No.

GENERAL: All shipping movement co-ordinated by Medway Navigation Service, Tel: Sheerness 663025, all arrangements being made after notification of arrival or departure by vessel's Agent.
REGULATIONS: See "Medway".

DEVELOPMENTS: The third and final phase involves the demolition and complete reconstruction of Olau's Ferry Terminal Building in Sheerness Docks. This latest stage of Olau's investment programme will, when completed in mid-1988, provide both passenger and freight customers with a modern terminal facility, designed to meet anticipated future growth of the 1990's and the challenge of the Channel Tunnel.
AUTHORITY: Medway Ports Authority, Dockyard House, Sheerness Docks, Sheerness, Kent ME12 1RX. *Tel:* 0795-580003. *Telex:* 96233. *Telex* (commercial): 965503. *FAX:* (0795) 660093. *Contact:* Mr. P. Vincent, Chief Executive. Captain R. L. Collins, Harbour Master. Mr. J. L. Carey, Director of Operations.

(C) ISLE OF GRAIN: 51.26 N. 00.43 E. (See Plan)

DOCUMENTS:
- 2 Crew's Effects Lists.
- 2 Stores Lists.
- Ship's Certificate of Registry.
- Load Line Certificate.
- Safety Equipment Certificate.
- Derat Certificate.
- Ship's Register.
- Safety Radio Certificate.
- Safety Construction Certificate.
- 2 Cargo Declarations.
- 1 Oil Pollution Certificate (OPIC).

PILOTAGE: See "Medway".
ANCHORAGES: *Estuary Passage and Anchorages:* Vessels proceeding to Isle of Grain will initially contact the Thames Navigation Service (Gravesend Radio Channels 16-12) and comply with the 'General Directions for Navigation in the Port of London 1975' until entering the Medway Area. Prior contact should be made with the Medway Navigation Service (Medway Radio, Channels 6-74-9-22). Anchorages are allocated according to size and draft of vessel and if outside the Medway area are nominated by the T.N.S.
RESTRICTIONS: Tidal port. 24 hour movements, subject to tidal conditions and under-keel clearance appropriate to size of vessel. The declared depth in the Medway Approach Channel is 8.5 m. at chart datum.
HEALTH: Under new procedures which apply from April 1st, 1978 a Health Clearance is only required if the vessel is "Suspect". In this case the Port Health Authority should be advised by radio message addressed to "Portelth London" not more than 12 hours and where practicable not less than 4 hours before arrival.

See "Health – All Ports" before first U.K. port.

RADIO:

Notice of 72 hours and over	– Portishead Radio.
Notice of 12 – 72 hours	– Landsend Radio.
Notice up to 12 hours	– from South, Northforeland Radio.
	– from North, Humber Radio.

RADAR/VHF: See "Medway".
TUGS: 3 tugs available from 0900 hrs.–1700 hrs. weekdays. If required outside these hours they must be ordered by 1600 hrs. the previous day for night work or by 1600 hrs. on Friday for weekend work. One tug is equipped for fire-fighting. Tugs join and leave vessels at Garrison Point, Sheerness. Normally use tug lines, cost included in tug hire.
BERTHING: There is one jetty (No. 2) of "T" headed design, suitable for coastal and ocean going vessels, which can accommodate vessels of various sizes up to a maximum of 40,000 tonnes deadweight and 250 m. LOA. Maximum safe draft for the Medway Approach Channel and on the berths can be advised on request.

Deballasting facilities are available for the disposal of ballast from clean oil product carriers only. Ballast containing detergents and chemicals is not accepted.
DENSITY: Approx. 1020.
FRESH WATER: Available by pipe-line.
FUEL: Only gas oil is available from the jetty, prior arrangements can be made for the delivery of other fuel oils by barge.
MEDICAL: Advance notice of medical attention and inoculations required is advisable. Hospital facilities available in surrounding areas.
FIRE PRECAUTIONS: *Safety Regulations:* A copy of the BP Oil Kent Distribution Terminal Jetty Safety Regulations is put on board each vessel on arrival. The booklet additionally contains various tear-out check lists, forms for confirmation of bunker requirements and requests for immobilisation and permitted repairs. These must be completed by ship and shore representatives before operations commence.
GANGWAY/DECK WATCHMEN: *Gangways:* Vessels provide their own gangway and are responsible for maintaining it as a safe means of access.
REPAIRS: Local marine repair company can undertake repairs of general nature. No drilling or hot-work permitted alongside jetties.
REPATRIATION: All facilities for repatriation by land, sea and air, through London and Dover. Attendance of Foreign Consulate Officials arranged through Agent.
TELEPHONES: Public telephone kiosks on the foreshore road.
CUSTOMS ALLOWANCES: At the discretion of the local Customs Officer. Normal allowances are 200 cigarettes (F.G.) or 100 cigarettes (H.T.) or equivalent and 1 bottle of spirits per man. Additionally 1.5 litres of wine per man per day. Separate arrangements apply when crew are leaving ship. Vessels in port more than 4 days may receive an additional allowance.

TIME: British Standard Time is GMT plus 1 hour. GMT in Winter months.
SHORE LEAVE: The Shift Supervisor will board each vessel on arrival to collect from the Master a copy of the Crew List. This should specify which crew members are leaving the vessel, the names of wives or other visitors expected and, if known, details of crew members joining. It should also note if any crew members are not permitted to go ashore.

The list will be retained by the Shift Supervisor and passes will be issued when crew members pass out and collected from them on their return.
GENERAL: Agents have difficulty in providing most services at weekends, therefore, requests for Bond, cash, Consular Officials, etc., should be radioed as soon as possible.
OPERATOR: BP Oil Kent Distribution Terminal, Isle of Grain, Nr. Rochester, Kent ME3 0AG. *Tel:* Medway (0634) 270710. *Telex:* 965584 BP Oil G. *FAX:* (0634) 270509.

(D) CHATHAM DOCKYARD: 51.24 N. 00.33 E. (See Plan)

Until 1984 the Naval Dockyard and now operated by the Medway (Chatham) Dock Co. Ltd., under the control of the Medway Ports Authority.
DOCUMENTS: See "London".
PILOTAGE: See "Medway".
ANCHORAGES: See "Sheerness".
RESTRICTIONS: Movement of vessels subject to tidal conditions and under keel clearance appropriate to the size of vessel. Entry as directed by Medway (Chatham) Dock Co. Ltd. on VHF Channel 73.
Limiting Depths: Medway Approach Channel 8.5 m. at Chart Datum.
Long Reach 5.8 m. at Chart Datum.
North Lock 3.9 m. at Chart Datum.
South Lock 3.5 m. at Chart Datum.
MAX. SIZE: All berths in No. 3 Basin can accommodate vessels drawing up to 8.0 m. The locks can accept vessels of unlimited length provided the beam does not exceed 25 m. Vessels drawing up to 4.5 m. can be accommodated at any state of the tide.
HEALTH: See "Medway (Rochester)".
RADIO: Portishead. From South: Lands End, Niton, North Foreland.
From North: Cullercoats, Humber, North Foreland.
VHF/RADAR: See "Medway".
TUGS: A number of tugs are available, operated by J. P. Knight Ltd., and Crescent Shipping.
BERTHING: Access to Basins No. 2 and 3 is via the North or South Lock situated at Bull Nose in Gillingham Reach. A & P Appledore Limited carry out voyage repairs, services, etc. in No. 3 Basin. Tel: Medway (0634) 812401/827369.

All 8 berths are presently confined to No. 3 (Outer) Basin.

Berth No.	*Length (m.)*	*Cranes (tons)*	*Operator*	*Remarks*
1	168	None	Kent Wire Ltd.	Weldmesh Manufacture
2	150	None	Kent Line/ Norfolk Line	Ro/Ro Ferry Terminal
3	150	1×5 1×10 1×20 1×11 (mobile)	Crescent Shipping Limited	General Cargo
4	150			Ro/Ro Berth
5	150	1×5	A & P Appledore	Shiprepairing
6	140	None	Transit Freights Ltd.	Ro/Ro Berth
7	140	None	Common User	Ro/Ro/Sto/Ro Berth
8	168	2×6 1×20	Honigs (Rochester) Ltd.	Sto/Ro Terminal

For further details contact: Mr. J. F. Simmonds, Locks Manager. Tel: Medway (0634) 405397/814936.
STEVEDORES: All stevedoring provided by the berth operators (see "Berthing").
MEDICAL: Advance notice of medical attention and inoculations required is advisable. Hospital facilties available in surrounding area.
DENSITY: 1020 (within No. 3 Basin).
FRESH WATER: Metered supply available on all berths.
FUEL: No facility within the dockyard for the supply of fuel, although subject to weather conditions being suitable, bunkering from barges can take place in the anchorages.
GANGWAY/DECK WATCHMEN: Ship's responsibility.
SURVEYORS: Cargo surveyors available from London or Gravesend.
REPAIRS: All types of deck and engine repairs can be carried out either in berth, in dry dock or at river buoys. (See "Berthing").
DRY DOCKS: Sheerness: 2 dry docks available; the largest for vessels up to 86 m.
REPATRIATION: Usual facilities available for crew changes. Repatriation can be arranged by various sea routes or by air through Heathrow or Gatwick.
TELEPHONES: 4 public telephone kiosks are available on the quayside. In an emergency contact Docks Security on Medway 827130 or Locks Office on Medway 827317, or by radio, call sign "Bullnose" on Channel 73. Alternatively call Medway Port Operations and Information Service, call sign "Medway Radio" on Channels 16, 74 or 11. (Tel: 663025).
GENERAL: All shipping movements co-ordinated by Medway Port Operations and Information Service.
REGULATIONS: See "Medway".
AUTHORITY: Medway (Chatham) Dock Co. Ltd. Flagstaff House, Chatham Docks, Chatham, Kent. ME4 4SW. *Tel:* Medway 405397, 814936/7/8. *Telex:* 966642. *FAX:* (0634) 830915. *Contact:* Mr. J. F. Simmonds, Locks Manager.

(E) ROCHESTER: 51.23 N. 00.30 E. (including Chatham, Strood, Upnor, Gillingham, Snodland, Halling & New Hythe) (See Plan)

DOCUMENTS: See "London".
PILOTAGE: See "Medway".
ANCHORAGES: See "Sheerness".
RESTRICTIONS: No entry restrictions only as to state of tide and draft and as directed by Medway Radio (Medway Navigation Service, Garrison Point). Station keeps watch on Channel 16, 74, 73, 22 and 9. Channel 74 is allocated for port operations generally. For vessels exceeding 106.67 m. (350 ft.) in length, normally daylight navigation.
MAX. SIZE:
Ship Berths: Max. Length: 114 m. (122 m. LOA with special dispensation obtained from the Harbour Master. Bow thruster, tug, etc., required). Max. draft 7.6 m.
River Berths: Length 49 m. – 122 m. Depth 4.3 m. – 7.6 m. MHWS 2.7 m. – 6.1 m. MHWN. Max. LOA 46 m. – 122 m.
HEALTH: Pratique obtained on arrival at Berth.
Also see "Health – All Ports" before first U.K. port.
RADIO: From South: Lands End, Niton, Northforeland. From North: Cullercoats, Humber, Northforeland.
TUGS: J. P. Knight (Rochester) Ltd., 348 High Street, Rochester (Tel. Medway STD 0634 – 42408 and Sheerness STD 0795 – 662821), cover the whole of the Medway Ports Area.

The following companies operate within the Medway Ports Area on a smaller scale with towing and recovery services:
Medway Towing & Light Recovery – Medway STD 0634 – 54300
N.E. Murray (Marine Contractors) – Sheerness STD 0795 – 663701
P. E. Woodger (Craft Hire) Ltd. – Sittingbourne 23874
Mr. J. Oliver – Medway STD 0634 – 406525
BERTHING:
Rochester: There are 3 dredged berths maintained by the Medway Ports Authority and mooring buoys to accommodate 15 lighters situated between Chatham Reach and Rochester Bridge.

Size restrictions vary from 46 m. to 140 m., the latest minimum depths can be obtained from the Medway Navigation Service situated at Sheerness (Garrison Point).

The facilities or riverside berths are operated by commercial interests:

Arco Shipping Ltd. at Neptun Wharf	Medway 716737
Transit Freights Ltd. at Crown Wharf	Medway 717811
Honigs (Rochester) Ltd. at Limehouse Wharf	Medway 46261
Wm. Cory & Sons Ltd. at Cory's Wharf	Medway 41022
Anglosped Ltd. at Stanley's Wharf	Medway 407285
Lynch and Sons Ltd. at Lynch's Wharves	Medway 714661
Crescent Shipping Ltd. at Barnetts Wharf	Medway 719541
Fairclough Howard at Crown & Quarry Wharf and Howards Wharf	Medway 402040 (20 lines)

Details of alongside berths handling equipment, latest depths and relevant information can be obtained from the appropriate wharf concerned.

Current depths can be ascertained from Medway Navigation Service.
Pier Wharf: (Lat. 51° 24′ North; Long. 0° 33′ East)

Situated at the Western Arm of Gillingham Dock. Length of wharf 183 m. with varying depths from 3 m. to 5 m. at MHWS. Storage warehouses and storage capacity available.

Ship repair and boat builder – Medway Marine Engineering – STD 0634 - 576600.
Tylers Wharf: (Lat. 51° 24.6′ North; Long. 0° 34′ East)

Situated at West Hoo Creek owned and operated by the Lifeline Moulding Co. Ltd. Length of wharf 73 m. with a depth of 3 m. at MHWS. Large sheerlegs of 30 tons and mobiles available. Boat builders and outfitters.
Mooring Facilities: Buoys are provided at points within the River Medway and Swale. Arrangements to use these buoys and current charges can be made through the Medway Ports Authority.
Kethole Reach: Buoys 20, 21, 22, 23 and 24: 4 fore and aft moorings to accommodate vessels up to 200 m. length and 16,000 tonnes displacement.
Saltpan Reach:

Buoy No.	*Class*	*Maximum Displacement*	*Remarks*
1	3rd	1,000 tons	Max. Length 122 m.
2	Super 1st	70,000 tons	Max. swinging circle 300 m.
4	Super 1st	70,000 tons	Max. swinging circle 300 m.
5	4th	1,000 tons	
6	4th	1,000 tons	
7	4th	1,000 tons	
8	4th	1,000 tons	
9	4th	1,000 tons	
10	4th	1,000 tons	
11	4th	1,000 tons	

MEDICAL: Port Medical Officer available if necessary on arrival at Sheerness with 24 hours notice to Agents. Doctor and hospital facilities available at Rochester.

DENSITY: 1020 unless excessive land water coming down river.
FRESH WATER: Quantities up to 200 tons available for delivery by water barge.
FUEL: Oil bunkers may be obtained at the main installation at the Isle of Grain Oil Refinery or by barge or by road tanker. The last 2 methods require minimum 48 hours notice, similarly with supplying lubricating oil which is not available at the Isle of Grain.
OPENING/CLOSING HATCHES: To be carried out by crew.
CARGO GEAR: Discharge by ship's gear at ship berth and by mobile cranes up to 10 tons at all river berths.
CONSULS:
Vice-Consul Netherlands, Tel. Medway 43256.
Consul Sweden, Tel. Medway 44632.
Vice-Consul Finland, Tel. Medway 44632.
REPAIRS: The Medway Dry Dock Co. Ltd. (Tel: Sheerness STD 0795 – 662241/662461) provide 2 Dry Docks of 87.84 m. and 65.58 m. respectively. A smaller slipway is available and alongside berths also.

Acorn Shipyard (ex New Medway), Gas House Road, Rochester, Kent ME1 1PJ (Tel: Medway STD 0634 – 41355/6/7), provide ship repair facilities at the Isle of Grain; Sheerness and River Medway, and operate 1 patent slipway of 85.0 m. working length and 1 grid situated at Rochester.
DRY DOCKS: All repair facilities available on river berths for vessels up to 60.96 m. (200 ft.) in length; on a grid for up to 76.19 m. (250 ft.), and a slipway for up to 42.67 m. (140 ft.).
AIRPORTS: London (Heathrow), Southend, Gatwick and Rochester.
POLICE/AMBULANCE/FIRE: Dial 999 and state service required and where vessel berthed, also contact Medway Radio in cases of emergency.
SERVICES: Compass adjustors available.
REGULATIONS: See "Medway".
DEVELOPMENTS: Development of Frindsbury Marshes (Rochester).
AUTHORITY: Medway Ports Authority.

(F) OTHER FACILITIES:

(1) BLOORS WHARF – RAINHAM CREEK: 51° 22′ 48″ N., 00° 36′ 42″ E.

Situated at the head of Rainham Creek a distance of 10.3 nautical miles from Rochester. Main wharf 183 m. long with 3.1 m. at MHWS. The Western arm is 61 m. long with a depth of 2.1 m. at MHWS. 5×2.5 tonne grab cranes and 2×40 tonne crawler cranes.

Mobile cranes, forklifts and crushing equipment available. Large storage capacity and warehouses also available. Shipbreaking and recycling of metals.

This wharf temporarily not in use due to Medway Metals Ltd. being in receivership.

(2) FAVERSHAM: 51° 19′ N., 00° 54′ E.

DOCUMENTS: See "London".
PILOTAGE: Not compulsory. Advisable to engage local person by arrangement with Agent or contact Medway Navigation Service.
ANCHORAGE: The Swale (East) 1 mile (approx.) upstream of the Sand End buoy.
RESTRICTIONS: No night restrictions. Tidal creek – vessels enter from 1.5 hours before High Water according to draft.
MAX. SIZE: 43 m. LOA, 7.6 m. beam, 2.7 m. draft, on Spring tides only. Larger vessels may be accepted under certain conditions on application to the Harbour Master.
RADIO: North Foreland.
VHF/RADAR: See "Medway".
TUGS: None available.
BRIDGES: Maximum size of vessels proceeding to basin above Faversham Swing Bridge – 43 m. length, 7 m. beam. Draft – the minimum clearance for vessels up to 34 m. in length is 0.5 m. over the sill, and for longer vessels 0.6 m. over the sill.
MEDICAL: Notify Agent of any medical treatment required.
FRESH WATER: Available on some berths.
FUEL: No local installation. Bunkers may be obtained by road tanker – contact Agent.
REPAIRS: Minor repairs can be carried out locally. For nearest grid, slipway and dry dock facilities see "Rochester" and "Sheerness".

(3) KINGSNORTH: 51° 25′ N., 00° 36′ E.

DOCUMENTS: See "London".
PILOTAGE: See "Medway."
ANCHORAGES: Vessels proceeding to Kingsnorth must contact Medway Navigation Service (VHF Channels 16 and 74) when a designated anchorage will be allocated appropriate to the size of the vessel.
RESTRICTIONS: Tidal port. 24 hour movements, subject to tidal conditions and underkeel clearance appropriate to size of vessel. Minimum depth of approach channel 8.5 m. at Chart Datum.
MAX. SIZE: Max. length: 229 m. No breadth restriction. Depth: 6.3 m. min. depth alongside at Chart Datum.
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: Notice of 72 hours and over, Portishead Radio. Notice of 12-72 hours. Landsend Radio. Notice of up to 12 hours, from South, Northforeland Radio, and from North, Humber Radio.
RADAR/VHF: See "Medway".
TUGS: Although tugs are not normally required for berthing at Kingsnorth 3 tugs are available, 1 of them equipped for fire fighting. Tugs join and leave vessels at Garrison Point, Sheerness. Normally use tug lines, cost included in tug hire.
BERTHING: *Kingsnorth Jetty:*
Lat. 51° 24′ 36″ N.
Long. 0° 36′ 18″ E.

The jetty is owned and operated by C.E.G.B. (Kingsnorth) and is situated at the Western end of Long Reach a distance of 6.3 nautical miles from Sheerness and 5.85 nautical miles from Rochester.

The jetty is of concrete construction and is 580 m. long and "L" shaped with a 306.3 m. face, there is a single upstream connected dolphin making an overall face of 330.7 m.

The size of vessels using the jetty are governed by draft.
Minimum depth at MLWS is 6.9 m.
MHWS is 12.8 m.

There is an inner spur situated on the approach arm 396 m. from the jetty face. It is primarily intended for stern Ro/Ro craft, and has 2 starboard berthing dolphins situated at 30.5 m. and 61.0 m. respectively.
Depth at MLWS is 0.6 m. above Chart Datum.
MHWS is 5.3 m.

The jetty is used for the import of coal for Kingsnorth Power Station.

Address: Kingsnorth Power Station
(South Eastern Region)
Hoo, Rochester,
Kent ME3 9NQ
Telephone: STD 0634 – 250088 Telex 965015

MEDICAL: Advance notice of medical attention and inoculations required is advisable. Hospital facilities available in surrounding areas.
TANKERS: Advisable radio Agents connection sizes required. No slop tank available. 1 large tanker berth only.
DENSITY: Approx. 1018.
FRESH WATER: Available by pipe-line on jetty.
FUEL: Bunkers not usually available on jetty, but may be delivered by barge. Advance notice essential.
FIRE PRECAUTIONS: No immobilisation or repairs allowed without prior authorisation. No hot-work allowed alongside jetty.
GANGWAY/DECK WATCHMEN: Services of shore watchmen not necessary. Shore gangway may be used.
REPAIRS: Local marine repair company can undertake repairs of general nature. No drilling or hot-work permitted alongside jetty.
REPATRIATION: All facilities for repatriation by land, sea and air, through London and Dover. Attendance of British Ministry and Foreign Consulate officials arranged through Agent.
POLICE/AMBULANCE/FIRE: Dial 999 from public call box. Medway Navigation Service can be alerted on Channel 16 and 74 to call these services.
TELEPHONES: No facilities exist for placing telephones onboard.
GENERAL: Agents have difficulty in providing most services at week-ends, therefore, requests for bond, cash, consular officials, etc., should be radioed as soon as possible.

(4) OAKHAM NESS JETTY: 51° 24′ 55″ N., 00° 38′ 45″ E.

The jetty is jointly owned and operated by C.E.G.B. and K.C.A. International Ltd. and is situated in Kethole Reach a distance of 4.5 nautical miles from Sheerness (Garrison Point). The jetty is of concrete construction and is 1,960 m. long. The jetty head is 27.5 m. long with upstream and downstream attached dolphins making a 85 m. face. There are 2 further berthing dolphins unattached, both upstream and downstream. The max. size of vessel permitted on the jetty is restricted to 55,000 d.w.t. with a max. length of 229 m.
The depth at MLWS is 10.6 m.
at MHWS is 16.7 m.

C.E.G.B. have a separate storage capacity of 300,000 tons for crude oil primarily for Kingsnorth Power Station.

(5) OTTERHAM QUAY – RAINHAM: 51° 22′ 30″ N., 00° 37′ 42″ E.

Situated at the head of Otterham Creek a distance of 2.75 nautical miles from the junction of Long Reach and Kethole Reach and 10.25 nautical miles from Rochester.

There is 192 m. of quay space with a max. length restriction imposed on loaded vessels of 73 m. There is 3.3 m. at HWNT and 4.6 m. at HWST.

The Quay is owned and operated by Crescent Shipping (sole proprietors London and Rochester Trading Co.). Telephone STD 0634 – 815501. Telex: 96312.

(6) QUEENBOROUGH: 51° 26′ N., 00° 44′ E.

Area of harbour extends from Queenborough Spit to Long Point in the West Swale. Queenborough Creek is landlocked and small commercial interests operate within the creek which is buoyed, all berths dry out but are safe berths.
MHWS 5.8 m. Weather – prev. S.W.

The ex-Coal Wharf known as the Washer Wharf, situated at Loden Hope is operated by Queenborough Rolling Mill Ltd. (Tel: Sheerness 668080) and is primarily used for loading scrap metals.

(7) RIDHAM DOCK: 51° 23′ N., 00° 46′ E.

Situated 900 m. (0.5 nautical miles) S.E. of Kingsferry Bridge in the Swale. Restrictions on vessels governed by London Pilotage Committee in the light of water available in the Swale, Kingsferry Bridge and restricted bends in the navigational channel. Max. LOA 102 m. Beam 15.3 m. and draft 6.7 m.

Beam of vessels transiting Kingsferry Bridge restricted to 15.3 m. maximum.

Vessels of 82 m. and over LOA require a tug in attendance.

Ridham dock is owned and operated by Independent Sea Terminals (Tel: STD 0795 – 70881). The terminal has 4 berths, 2 of 244 m. and 2 of 213 m. approximately. These are serviced by 8 electric cranes 2×6 tonnes and 6×5 tonnes. There is a fleet of forklift trucks 8,000 lbs. to 36,000 lbs. plus a 25 ton container handler. 5 hectares of marshalling area for containers including refrigerator points.

Vessels dock only on or near HW and take the ground at LW, the bottom being soft mud. Special facilities for reefer ships going aground.

The terminal covers approximately 26.7 hectares and 13,000 sq.m. of warehousing are available.

Authority: Independent Sea Terminals Ltd., Ridham Dock, Sittingbourne, Kent. *Tel:* 0759 70881. *Telex:* 96409.

METHIL: 56.11 N. 03.01 W. (See Plan)

DOCUMENTS/PILOTAGE: See "Leith".
ANCHORAGES: Deep water anchorages available in Largo Bay.
RESTRICTIONS: Dock gates opened from 3 hours before HW until HW.
MAX. SIZE: Max. beam 14.6 m. to pass dock gates.
RADIO: See "Leith".
VHF: Methil Harbour Radio on Channel 16. Working Channel 14.
TUGS: Available from Leith.
BERTHING: No. 1 Dock has 340 m. of berthing space, max. depth alongside 6.7 m. MHWS. No. 2 Dock has 500 m. of berthing space, max. depth alongside 8.2 m. MHWS. Transit shed with 1,120 sq.m.
CRANES: 4×4 tonne mobile cranes (with grabs) available.
BULK CARGO FACILITIES: 2×1,000 tonnes capacity grain silos and discharge plant at No. 1 Dock (private).
STEVEDORES: Local company supplies labour.
AUTHORITY: Forth Ports Authority, Dock Office, Methil KY8 3RE. *Tel:* Leven (0333) 26725. *Telex:* 72208. *FAX:* (0333) 24872. *Contact:* Captain T.S. Sutherland, Port Superintendent.

MILFORD HAVEN: 51.42 N. 05.10 W. (See Plan)

PORT LIMITS: The seaward boundary of the port is 3 miles from St. Ann's Head.
DOCUMENTS:
5 Crew Lists.
2 Crew Stores Declarations (C.142)
2 Ship's Stores Declarations (C.13)
2 E.E.C. Safety Check Lists.
Agents will prepare other Customs papers.
Ship's Papers:
Register.
Load Line Certificate.
Safety Construction Certificate.
Safety Equipment Certificate.
Safety Radio Certificate.
Oil Pollution Insurance Certificate (tankers).
British Tonnage Certificate (if applicable).
U.K. Light Dues for Current Year (if applicable).

PILOTAGE: Pilots normally board incoming ships from a green-hulled pilot vessel, in a position S.W. of Mid-Channel Rock Light-tower, as close thereto, as weather, size of ship and circumstances permit. When the Western Channel is being used by very large ships other ships may be requested by the Port Signal Station, or by the pilot vessel, to use the Eastern channel, if draft, and length of ship permit, in which case the Pilot will board close to Sheep Buoy. Deep-draft ships should not approach too close whilst awaiting the pilot vessel. They should remain at least 4 miles S.W. of Mid-Channel Rock Light-tower. It is important, when manoeuvring at slow speeds to embark a Pilot to make proper allowance for the set of the tidal stream, which sets across the entrance. *Accurate times of arrival* are requested so that the pilot vessel may be on station at the correct time. ETAs should be given at least 12 hours before arrival and amendments should be made 2 hours before the latest ETA.

ETAs and subsequent amendments should be passed by telex or radio telephone through any United Kingdom Coast Station to Milford Haven Signal Station (Milford Haven 2343. Telex: 48575) or to the local Agent of the ship. Alternatively when within 30 miles of St. Ann's Head ETA's may be passed direct to Milford Haven Conservancy Board Signal Station calling on VHF Channel 16 then transferring to Channel 12 (the Port working frequency). In addition ships may call the pilot vessel on MF radio calling on 2,182 kHz and transfer to the working frequencies 2,241, 2,246 or 2,301 kHz. However, VHF contact is preferred.

ANCHORAGES: Anchorage normally available for vessels up to 40 ft. draft in Dale Roads. Anchorage for smaller vessels normally available in Dale Shelf or Stack anchorages. Signal Station will advise mariners on the availability of these anchorages.

RESTRICTIONS: The West Channel with minimum depth of 55 ft. at the entrance and 54 ft. inside is the channel used by the largest tankers. The East Channel with minimum depth of 32 ft. is available to all vessels of suitable size and vessels able to do so are requested to use it when the largest tankers are entering or leaving in the West Channel. The inner channel Eastward of Texaco Jetty has a minimum depth of 53 ft.

MAX. SIZE: Vessels of 65 ft. draft can be handled on virtually all high waters, but draft restriction always dependent on tide, 63 ft. at worst HW Neaps, or up to 68 ft. in favourable conditions.

HEALTH: The Port Health Authority must be notified in advance if any animals on board or of any suspected disease or fever.

Also See "Health – All Ports" before first U.K. port.

RADIO: Lands End Radio, Ilfracombe Radio, Celtic Radio and Cardigan Bay Radio.

VHF: It is important to maintain continuous radio telephone contact with Signal Station when within one hour's steaming of St. Ann's Head, and at all times when in Haven and not safely moored to an alongside berth, including all times spent at anchor or at buoys.

All vessels equipped with VHF radio should adopt following procedures:

Entering the Harbour: Contact Signal Station on Channel 16 when within one hour's steaming of St. Ann's Head. After making contact ship will be requested to maintain watch on Channel 12 until vessel safely moored alongside or at anchor.

Going to anchor or to a buoy mooring: Report to Signal Station when secured and then maintain a continuous watch on Channel 16.

Berthing alongside: Report to Signal Station when safely moored and may then shut down.

Leaving the Haven: Maintain continuous listening watch on Channel 12 until Pilot has disembarked, when Signal Station should be informed and vessel should maintain a continuous watch on Channel 16 until one hour after passing St. Ann's Head.

Navigating within the Haven: Maintain a continuous watch on Channel 12. When radio telephone is used between vessel and tugs during berthing operation, Channel 6 or 8 will be used and Signal Station should be informed before vessel comes off Channel 12.

Signal Station will answer calls on Channel 16 for any ship in the port which has been instructed to move off international calling frequency.

RADAR: Harbour surveillance radar in operation, range 24 miles.

TUGS: Tugs normally join vessels to Westward of Esso Jetty, but Master will be advised by Pilot. Tug's lines used, cost of lines inclusive of towage charge.

BERTHING: VLCCs enter at HW and normally berth heading East. Vessel will be required to swing after unloading and prior to departure.

Milford Docks: Enclosed dock, minimum depth on sill 26 ft., lock length 550 ft., width 69 ft., 5,033 ft. of quayage includes 420 ft. fish market and two modern cargo handling berths, one of 732 ft. and the other 455 ft. in length. Vessels of up to 34 ft. draft may be handled on Spring tides.

Pembroke Dock:

Govan Davies Dock:

Quay	*Length* (ft.)	*Depth at C.D.* (m.)	*Remarks*
1	600	10.8	Can accept bulk carriers and container vessels up to 700 ft.
2	354	8.0	Can accept bulk carriers and container vessels up to 450 ft.
3	235	6.1	Can accept general cargo vessels up to 340 ft.
4	1000	—	To be built.

Vessels with Ro/Ro ramps (bow or stern) can berth in the basin between Berths No. 2 and 3.

Mainport Jetty: One cargo berth, depth 20 ft., for vessels up to 350 ft. length. Max. size approximately 6,500 d.w.t.

CRANES: In Milford Docks – 1×25 ton mobile, 2×6 ton electric. Further mobile cranage available if required.

SPECIALISED CARGO HANDLING FACILITIES:
Containers: Container traffic is handled at Milford Docks although there is no specialised container handling equipment.
Ro/Ro: Pembroke Dock Ferry Terminal has one Ro/Ro berth, depth alongside 21 ft., and can accommodate ferries up to 425 ft. in length, max. size 6,000 g.r.t. (approx.).
LPG: LPG is handled at the Amoco, Gulf and Texaco oil terminals.

STEVEDORES: Ordered prior to arrival.

MEDICAL: All oil terminals have well equipped medical centres. Local hospital facilities available.

TANKER TERMINALS:

Amoco:

No. 1 Berth: Depth 64 ft., 1×18 in., crude line, 2×12 in. and 3×8 in. product lines, max. size 275,000 d.w.t.

No. 2 Berth: Depth 38 ft., 1×18 in., 1×12 in., 2×10 in. and 2×8 in. product lines, 1×8 in. and 1×6 in. LPG lines, max. size 30,000 d.w.t.

No. 3 Berth: Depth 22 ft., 1×18 in., 1×8 in. and 2×6 in. product lines 1×8 in. and 1×6 in. LPG lines, max. size 5,000 d.w.t.

Herbrandston:

Ex-Esso Terminal. New general purpose terminal with 5 berths, able to handle VLCC size ships to coasters.

Gulf Oil:

No. 1 Berth: Depth 44 ft., 3×10 in. and 2×12 in. cargo lines max. size 65,000 d.w.t.

No. 2 Berth: Depth 55 ft., 6×12 in. cargo lines, max. size 140,000 d.w.t.

No. 3 Berth: Depth 32 ft., 6×8 in. product and 1×4 in. LPG cargo lines, max. size 6,000 d.w.t.

Texaco:

No. 1 Berth: Depth 56.7 ft., 4×16 in. crude, 4×6 in. black oil and 4×10 in. clean oil cargo lines, max. size 275,000 d.w.t.

No. 2 Berth: Depth 41.3 ft., 2×12 in. LPG ship discharge lines with 1×8 in. vapour return line, 4×10 in. black oil, 6×10 in. clean oil and 2×10 in. ballast/bunker lines, max. size 100,000 d.w.t. (75,000 cu.m. LPG).

No. 3 Berth: Depth 35.4 ft., 1×12 in. LPG ships discharge with 1×4 in. vapour return line, 2×12 in. black oil and 4×10 in. clean oil lines max. size 35,000 d.w.t. (30,000 cu.m. LPG).

No. 4 Berth: Depth 16.4 ft., 1×8 in. black oil, 3×6 in. clean oil, 1×6 in. LPG and 1×6 in. ballast lines, max. size 2,000 d.w.t.

No. 5 Berth: Depth 16.4 ft., 1×8 in. black oil, 3×6 in. clean oil, 1×6 in. LPG and 1×6 in. ballast lines, max. size 4,500 d.w.t.

No. 6 Berth: Depth 59.7 ft., 4×16 in. cargo lines, max. size 275,000 d.w.t.

No. 7 Berth: Depth 48.5 ft., 4×10 in. cargo lines, max. size 113,000 d.w.t.

No. 8 Berth: Out of commission.

No ballast facilities at Berths No. 6, 7 and 8.

Report: *Cautionary Advice:* In-Port: There are 3 major oil terminals within the Haven and the previous Esso Terminal, now the Herbrandston General Purpose Terminal, which is located less than 2 miles E.N.E. of the Angle Buoy. Ships bound for this terminal make tugs fast between the Angle Buoy and South Hook Buoy.

VLCCs which require 5 or 6 tugs have little but adequate time to make them fast. It is, therefore, extremely important for a deep tanker bound for a terminal in the Haven to have everything ready and the crew on stations prepared to make tugs fast by the time the Angle Buoy is reached and that after the turn is made the speed over the ground is reduced quickly so that by the time the South Hook Buoy is reached, all tugs are fast and speed reduced to about 2.5 knots.

Ships bound upstream of Herbrandston Terminal must proceed at the slowest speed consistent with safe navigation, as they pass quite close to ships lying alongside other terminals and can cause considerable "passing ship" problems. They usually make tugs fast after passing South Hook Buoy.

Berth Approaches: Ships are strongly advised against steaming into the berths at any terminal.

The only safe manoeuvre being to bring the ship to rest, stopped over the ground, parallel to and about 40 – 60 m. off the berth before breasting in.

This particular manoeuvre is of importance to vessels of 70,000 d.w.t. and over.

Most of the incidents during berthing operations have arisen because of a combination of an angled approach to the berth, excessive headway and berth approach speed with a sheer resulting from strong astern engine movements.

Anchorages: Ships of up to 12.80 m. draft for which there is no berth available on arrival can find anchorage within the Haven. (See below). Deeper draft ships which have to wait for tide or berth should only attempt to anchor outside when weather conditions are good and for limited periods only. A number of large tankers have successfully anchored S.W. of St. Ann's Head outside the 36.5 m. contour, but tides are strong. The Milford Haven Signal Station should be consulted before anchoring in this location mainly due to the high incidence of port and passing traffic.

When Easterly winds prevail, there is good anchorage in St. Bride's Bay. Carmarthen Bay is not recommended, as there is a gunnery range covering the area but not marked on the charts.

Vessels at anchor outside must keep listening watch on VHF Channel 16, and it is stressed that enough time must be allowed to weigh anchor and reach the entrance at the proper time for shipping the Pilot to enter port.

Anchorages within the Haven: The recognised anchorages within the Haven are shown on the large scale charts.

Dale Roads is the only anchorage for ships over 7.00 m. and under 12.00 m. draft. It is exposed to wind and swell and has an uneven rocky bottom which does not always afford a good holding ground. *Many ships have dragged anchor here and several have lost an anchor, and it is emphasised that a full anchor watch must be maintained on all ships with a listening watch on VHF Channel 12.*

If at anchor in Dale Roads at the onset of a gale, it is usually sound advice to pick up the anchor and proceed to sea. After rounding the Angle Buoy, if Mid-Channel Rock Lighthouse is kept fine on the port bow, this will take a ship clear of dangers. Before departing, the status of the buoys should be checked out with the Signal Station and then proceed with caution.

The 2 entrance buoys should not be relied upon as they sometimes drag out of position during gales.

Stack Anchorage can be used by medium sized ships of up to 7.00 m. draft. It is a little more sheltered and has a better holding ground.

Small ship anchorages are at Dale Shelf, Sandy Haven, and with the exception of LPG ships between Milford Shelf Buoy and Newton Noyes Pier. Some small ships find shelter South of the channel opposite the Herbrandston Terminal.

Herbrandston Terminal – Cautionary Advice: Each berth has a designed maximum speed of approach for the maximum size ship acceptable.

The berths are in an exposed position with prevailing winds blowing on to the berths. Strong winds from the Northerly semi-circle do occur and usually with a sudden shift in wind. Ships with high freeboard can be badly affected by these strong winds and it is, therefore, very important that moorings are kept tight and are properly tended at all times.

Description of Berthing Procedures: All vessels berth head to tide. Ships of less than 265 m. and 14.6 m. draft can be berthed on the flood tide and, therefore, swung before berthing. These ships are usually swung off the berth. Ships of greater draft will always berth at HW or on the ebb tide and will, therefore, always be port side to.

All moorings are taken ashore by boat and lifted on to the dolphins by power winch.

Breast and spring lines are usually put out first.

Good messengers are required at each position for this operation. This system is for VLCCs only.

DENSITY: 1025.

FRESH WATER: Available at all berths.

FUEL: All oil terminals can supply all grades of bunkers. Fuel also available within Milford Docks and from bunkering barge elsewhere in the Haven.

FIRE PRECAUTIONS: Fire wires to be rigged fore and aft on all tankers.

GANGWAY/DECK WATCHMEN: Available if necessary – very rarely required.

CUSTOMS ALLOWANCES: Tobacco, 0.5. oz. per man per day. Spirits, 0.25 pint per man per day.

IDENTIFICATION CARDS: Not necessary.

CONSULS: The following countries are represented by Consuls at the port or elsewhere in South Wales:

Belgium
Brazil
Denmark
Finland
France
Germany F.R.
Italy
Netherlands
Norway
Spain
Sweden
Turkey

REPAIRS: All types of deck and engine voyage repairs carried out.

DRY DOCKS: One dry dock at Milford Docks, 600 ft. × 63 ft. × 18 ft.

SURVEYORS: Lloyd's at Swansea, ABS and NV in South Wales. Cargo inspectors available – Saybolt, Moore, Barrat and Redwood have local offices.

REPATRIATION: Crew changes frequently carried out and repatriation arranged. Crew arriving by rail to join vessels at Amoco, Herbrandston, Gulf and Milford Docks should be directed to Milford Haven station. If joining vessels at Texaco to Pembroke station, and for vessels at Port Operators and Storage or Pembroke Dock Ferry Terminal, to Pembroke Dock station.

AIRPORT: Nearest main airport is Cardiff (Wales) Airport, distance approximately 100 miles. Flights to London for onward connections.

TIME: GMT in Winter months, BST (GMT plus 1 hour) March to October.

HOLIDAYS: Oil Terminals operate 24 hours/365 days. Other berths observe standard U.K. holidays but cargo work can be arranged if required.

POLICE/AMBULANCE/FIRE: Police – Milford Haven 2351, Pembroke 682121; Ambulance – Haverfordwest 3347; Fire – Carmarthen 231181.

EMERGENCY CO-ORDINATION CENTRE: Emergencies within the port are co-ordinated by the Milford Haven Conservency Board Signal Station. Emergencies outside the port and S.A.R. co-ordinated by H.M. Coastguard St. Ann's Head (Tel: Dale 218).

TELEPHONES: No telephones on board. Public call boxes exist on all oil jetties.

SERVICES: Ministry of Defence compass adjuster available subject to operational commitments.

SHORE LEAVE: Shore leave allowed.

STORING: Vessels can be stored by barge or truck and local riggers are available to assist. Storing can normally take place during cargo operations but, in the case of oil tankers, trucks cannot proceed alongside the ship and storing from a barge must be carried out near the stern of the ship. Fork lift trucks cannot be used to store oil tankers.

SHIP SUPPLY SERVICE: D.V. Howells and Sons Ltd., P.O. Box 14, Milford Haven, Dyfed SA73 3ER. Tel: Milford Haven (06462) 3091/2418. Telex: 48575.

Marine & Port Services Ltd., The Dockyard, Pembroke Dock, Dyfed SA72 6TF. Tel: Pembroke (0646) 682271/5. Telex: 48303.

Additionally, there is a tug company operating in Milford Haven with a fleet of locally based tugs whose prime duty is the berthing and unberthing of tankers at oil terminals in the Haven and firefighting responsibilities, although occasionally a tug may be called offshore for salvage purposes. The tug company is Cory Towage Ltd., Slip Hill, Milford Haven, Dyfed SA73 3BB. Tel: Milford Haven (06462) 2296/7.

There is a helicopter squadron based at RAF Brawdy, Haverfordwest, which provides a rescue service and, on occasions, airlifts seriously injured or sick personnel from ships in the area, usually on request through the local Coastguard Station.

AUTHORITY: Milford Haven Port Authority, P.O.Box 14, Milford Haven, Dyfed, SA73 3ER, U.K. *Tel:* Milford Haven (06462) 3091 office, Milford Haven signal station (06462) 2342 or 2343. Signal Station – 24 hours. *Telex:* 48575 – 24 hours. *Contact:* Captain J. E. Frost, Harbour Master.

AGENT: G. S. Kelway Ltd., Murray Crescent House, The Rath, Milford Haven SA73 3JR, Dyfed. Tel: Milford Haven 2313/4. After hours: Milford Haven (06462) 5587, 2615, 2364. Telex: 48213. Cables: "Kelway Milford Haven".

MISTLEY: 51.57 N. 01.05 E. (See Plan)

LOCATION: Private port situated on the River Stour within Harwich Harbour. Seven tidal berths, vessels lay safe aground (also see "Harwich").

DOCUMENTS: Normal requirements – local Agents will advise.

PILOTAGE: Order via Agents or direct with Harwich Pilots.

Call sign: "Harwich Pilots".
VHF: Channel 16 and 9.
Telephone: Harwich (0255) 3129.
Telex: 98472.

Compulsory ETA 8 hours before arrival and 2 hours confirmation. Details required: Name of vessel, ETA, destination, max. draft., g.r.t.

ANCHORAGES: Safe anchorage in Harwich Harbour or Cork Pilot Station.

RESTRICTIONS: Vessels can enter/depart on HW, according to state of tide and draft. Day and night navigation.

MAX. SIZE: No length or beam restrictions. Draft varies between 3.3 m. Neap tides to 4.3 m. Spring tides. Dredging work to channel and berths presently on hand will result in an increase in acceptable draft limits.

HEALTH: As per Port Health Regulations. See "Harwich".

RADIO: Northern Approach: Humber Radio, Tel: (0521) 73447. Southern Approach: North Foreland Radio, Tel: (0843) 20592.

VHF: Harwich Harbour Radio, Channel 14.

TUGS: Available from Felixstowe and Mistley via ship's Agents.

BERTHING: Instructions given via Pilot or Agents. Loading/discharging via shore cranes/elevators.

CRANES: Mobile cranes up to 10 tons and Scotch Derrick up to 30 tons.

BULK HANDLING FACILITIES: Bulk cargo facilities available for discharge of grain, ores, fertilisers, etc., by grab. Loading elevators for grain, etc.

STEVEDORES: All cargo handling instructions and enquiries to: Mistley Quay and Forwarding, High Street, Mistley, Manningtree, Essex. Tel: 0206 394431. Telex: 98692.

MEDICAL: All requirements via Agents with advance notice.

DENSITY: 1026.

FRESH WATER: Available with notice. Up to 10 tons-charge £20 plus overtime charges if incurred.

FUEL: Bunkers available from major suppliers via Agents.

SURVEYORS: Cargo inspectors, superintendents and surveyors are available locally via Agents.

GANGWAY/DECK WATCHMEN: Ship's gangway, watchmen not necessary.

HATCHES: Opening and closing by crew.

CUSTOMS ALLOWANCES: Normal U.K. Regulations.

CARGO GEAR: All work by shore cranes, heavy lift up to 30 tons.

REPATRIATION: Facilities via Agents.

TIME: GMT. Summertime, GMT plus 1 hour.

HOLIDAYS: No work on public holidays unless overtime working is arranged in advance.

POLICE/AMBULANCE/FIRE: See "Harwich".

TELEPHONES: No onboard facilities available.

SHORE LEAVE: Possible.

IDENTIFICATION CARDS: Not necessary.

DELAYS: None.

DEVELOPMENTS: Dredging of the approach channel to Mistley and within the port to increase acceptability of larger vessels is presently in hand but at present it is not possible to indicate when such improvements will be completed. Please enquire to the Port Owners, Mistley Quay & Forwarding.

AUTHORITY: *Port Owners:* Mistley Quay & Forwarding, High Street, Mistley, Manningtree, Essex CO11 1HB. *Tel:* Colchester (0206) 394431. *Telex:* 98692. *FAX:* (0206) 393882. *Contact:* I.J. Forbes, Director. T.P. Crossley, Commercial Manager.
Local Port Authority: The Harwich Conservancy Board.

MONTROSE: 56.42 N. 02.17 W. (See Plan)

PORT LIMITS: The port is bounded by a line drawn in a Northwesterly direction from Scurdie Ness Lighthouse to the Annat Bank and thence by both banks of the river to the road bridge which completes the inner boundary.

DOCUMENTS:

1 Crew List,
1 Passenger List,
1 Store's List,
1 Personal Effects List for baggage coming ashore,
1 Manifest or Bill of Lading.
Ship's Register, Load Line Certificate, Radio Certificate and LSA and Safety Certificates to be sighted.

PILOTAGE: Pilotage is compulsory. Pilots are available throughout the 24 hours. International Code Flag "G" to be exhibited.

Vessels should approach the port to a position with Scurdie Ness Lighthouse bearing 250° distance 0.5 mile where Pilot will normally board.

Pilot cutter *"Celurca"* has a dark blue hull with white upper works and "Pilots" painted in black on each side of the wheelhouse. The normal red and white pilot flag is flown during daylight and regulation lights exhibited at night. VHF Channel 16 for calling with a working frequency on Channel 12.

In bad weather it may be necessary for a ship to proceed inwards at the radioed directions of a Pilot to a position on the outer leading marks and inside the lighthouse where the Pilot may board safely. This will only apply during periods of strong Easterly gales and very heavy seas and may be applicable for only a few times in a year. Similarly the port may be closed under severe weather conditions, on average 2.5 days per year.

ETA Messages: Masters should cable Agent with 24 hours' notice of arrival giving overall length and deepest draft and also call "Montrose Port Control" within 2 hours of arrival at the pilot station.

ANCHORAGE: In position mentioned above with Scurdie Ness bearing 250° distance 0.5 mile, in about 13 m.

MAX. SIZE: Since the harbour was reconstructed and deepened ships of 450 ft. LOA and 5,500 tons have been handled on a max. draft of 24 ft.

HEALTH: "Q" flag to be flown when coming from a foreign country until cleared inwards. In event of disease or fever onboard, advise Agents by radio. Strict attention paid to quarantine regulations regarding dogs which are not allowed ashore.

Also see "Health – all ports" before first UK port.

RADIO: Messages to Agents may be sent through Stonehaven Radio. Harbour service is on Channel 12. Call Montrose Port Control on Channel 16.

RADAR/VHF: No port radar service. Harbour service and pilot vessel work on VHF Channels 16 and 12.

TUGS: Pilot vessel is equipped with towing hook and pusher bow to assist in berthing and unberthing if necessary. Vessel's lines used. Small charge made for such work.

In addition to the pilot vessel, the tug "Glenesk", 425 b.h.p. (4 ton bollard pull) is available.

BERTHING: North Riverside Quays: No. 6 – 112 m., No. 7 – 141 m., No. 8 – 87.5 m., No. 9 – 69 m. No., 10/11 – 152 m.

Depths vary from 18 ft. at No. 8 (see "Developments") to 16 ft. at No. 10/11 at Chart Datum.

South Riverside Quays: Berth Nos. 12, 13, 14, 15, 16, 17 and 18. These are extensively used by oil related vessels.

Total wharf length available is 1,600 ft. with depth alongside 20 ft. at MLWS.

Fixed Ro/Ro Ramp available between Berth Nos. 6 and 7. Vessels able to land bow or stern ramp of width 8 m. Depth alongside 18 ft.

STEVEDORES: Provided by J. M. Piggins & Co. Ltd., Tel: Montrose 72827. Telex 76251.

CARGO HANDLING FACILITIES: The stevedores are well equipped with mobile cranes, fork lifts, etc., and only rarely is ship's gear used unless it is of rapid, modern type. Grab discharge is used for bulk cargoes and conveyor belt systems for loading same.

Rates of loading or discharge:— Bagged cargoes 250 tons per gang per day; Bulk 400 tons; Bulk grain loading 700 tons; Unitised pulp 500 tons; Paper 500 ton; Timber 500 tons all per gang per day.

A large motor transport fleet is always available at the port and the Agents also have their own road haulage company.

TANKERS: There is no oil berth in the harbour except the facilities offered by Rix Petroleum for the receipt into their 3,000 ton storage depot of gas oil.

MEDICAL: Small hospital in Montrose. Several major units within easy reach by road.

DENSITY: At high water average 1024 but can be as low as 1005 at LW during heavy river outflow.

FRESH WATER: Supplied from quayside hydrants at all berths.

FUEL: Obtainable from road tanker, gas oil and H.S.D. from more prominent oil companies. Rix Oils can supply gas oil from local stocks. Contact J. Piggins.

FIRE PRECAUTIONS: Normal rules to be observed.

CONSULS: None in Montrose.

GANGWAY/DECK WATCHMEN: Can be arranged. Owing to range of tide on riverside berths mooring watch strongly recommended.

OPENING/CLOSING HATCHES: Normally done by ship's crew.

CERTIFICATES: On arrival Ship's Register may be asked for.

CUSTOMS ALLOWANCES: As arranged between Customs Officer and Master.

CARGO GEAR: The port is equipped with mobile cranes which can be used at any berth. These are of various capacities and the maximum lift is 100 tons for which prior notice is required.

IDENTIFICATION CARDS: Not required.

REPAIRS: Minor deck and engine repairs can be carried out.

DRY DOCKS: None.

SURVEYORS: Cargo ship and engine surveyors Johnston & Smart Swan & Co., or Pirie & Smith available from Aberdeen at short notice.

Cargo Superintendents regularly working at the port on loading out and discharging various bulk cargoes, include Cargo Superintendents (London) Ltd., 50 Wellington Street, Glasgow; James Patterson, The Old Granary Buildings, Meadowside Quay, Partick, Glasgow, and Malcolm Main at same address.

REPATRIATION: Facilities available with excellent railway connections. Air connections from Aberdeen.

AIRPORT: Aberdeen 36 miles. Montrose has facilities for light aircraft and helicopter landing.

TIME: GMT with 1 hour advance for British Summer Time, approximately March to October.

HOLIDAYS: *Port Holidays:* Christmas Day; Boxing Day; 1st and 2nd January; One day Spring, mid-Summer and Autumn Trades Holidays.

POLICE/AMBULANCE/FIRE: Report to Dock Office immediately. Dial 999 and ask for whichever emergency service required.

EMERGENCY CO-ORDINATION CENTRE: Maritime Rescue Sub Centre – Forth District Tel: Crail 666.

TELEPHONES: Not possible to place telephones aboard. Kiosk on Wharf near Agents office. Comprehensive connections to Continent and Telex services from Agent's office.

SERVICES: Laundry, Ship Chandlers and Lloyd's Agent immediate.

Compass Adjuster, Radio/Radar Mechanics can be called in from Aberdeen at short notice.

BANKS: Usual branches of Scottish banks all in High Street. No American or European banks.

STORING: Vessels can be stored by truck. Trucks can proceed alongside vessel. Fork lifts can be used if required. Customs notification required for all bonded stores.

Stevedores can be employed to assist with storing and also lashing and fastening deck cargo.

SHORE LEAVE: No restrictions on crew members after inward clearance.

DEVELOPMENTS: Berth No. 8 has been reconstructed to provide 293 m. of continuous quayside with a minimum depth of 18 ft. below C.D.

AUTHORITY: Montrose Harbour Trust, Harbour Office, South Quays, Ferryden, Montrose, Tayside. *Tel:* (0674) 72302, 73153, 72729. *Telex:* 76407. *FAX:* 0674-75530. *Contact:* Captain H. J. Johansen, Harbour Master.

NEWHAVEN: 50.47 N. 00.04 E. (See Plan)

PORT LIMITS: A line drawn from a position 300 ft. South of breakwater in a 075° direction to Seaford Bay.

DOCUMENTS: See "London".

PILOTAGE: Trinity House Pilots, Newhaven District: VHF "Newhaven Radio" Channels 16 and 12. Pilot boats are small fast launches painted orange. Light and sound signals for a Pilot is "G". Notice of ETA 12 hours before arrival, if possible. Anchorage for a vessel awaiting a Pilot is 0.5 to 1 mile S.W. of the breakwater, depending on weather conditions. Pilots normally board S. to S.W. of the breakwater, but in severe gale conditions they keep station 100 m. from breakwater end, and guide vessels in with VHF or lamp. Notice should also be given to the red and green signal lights at the West Pier end lighthouse, and on no account should vessels pass breakwater end if signal is at red. In normal weather, pilot ladder should be on lee side about 1 m. above water. In Southerly gales Pilots prefer a ladder on each side, if available.

RESTRICTIONS: 5.0 m. through entrance to port LWOST. Inner harbour then dredged depth of 4.0 m. in accordance with chart datum 3.5 m. below OD Newlyn (tide gauge readings are directly applicable to soundings).

MAX. SIZE: Max. LOA 520 ft. 25 ft. draft taking bottom on soft mud at low water. Vessels greater than 350 ft. LOA length must either be towed into or out of port. Vessels for North Quay must not exceed 250 ft. length, draft 17 ft.

HEALTH: See "Health-All Ports" before first UK port.

RADIO: Radio Station Newhaven Radio, call sign Newhaven Radio.

RADAR/VHF: No radar service. Ship's may contact West Pier control point on Channel 16, working on Channel 12.

TUGS: One tug available upon request, owned by Sealink U.K. Ltd.

BERTHING: Vessels may be berthed at any time, with prior notice given.

CRANES: 4×3 ton and 1×30 ton (container gantry).

BRIDGES: Vessels requiring to berth at North Quay must arrive within 2 hours either side of HW in order to pass through swing bridge which governs access to this quay.

STEVEDORES: ETA should be given as far in advance as possible and not less than 24 hours before ETA.

DENSITY: Salt water.

FRESH WATER: Available on request. Supplied by shore hosepipe.

FUEL: Available by previous arrangement.

FIRE PRECAUTIONS: Usual no-smoking precautions on quayside in port area.

GANGWAY/DECK WATCHMEN: Not provided by Port Authorities but recommended at discretion of Ship's Master.

CONSULS: Norwegian Vice-Consul and French Consular Agency.

REPAIRS: Repairs of a temporary nature only may be carried out by Sealink U.K. Ltd. workshops, Ship & Industrial Repairs Ltd., Unit A3, Beach Road, Newhaven and C. R. Irving Ltd., Chapel Street, Newhaven.

AIRPORT: Nearest airport Gatwick, distance 30 miles. Served by regular airlines and Shoreham, distance 17 miles.

POLICE/AMBULANCE/FIRE: Police: Civil, Newhaven 515219; Port, Newhaven 514131 (extension: 229). Ambulance: 0830 – 1700 hrs., Lewes 515400; 1700 – 0830 hrs., Lewes 512819; Fire: 999.

SHORE LEAVE: Allowed.

DEVELOPMENTS: Southern Port Services Container Terminal now completed. 1×30 ton capacity Tango crane in operation.

A second Ro–Ro ramp has now been completed at Railway Quay.

AUTHORITY: Sealink U.K. Ltd., Beach Road, Newhaven Harbour, Sussex BN9 0BG. *Tel:* Newhaven (0273) 514131. *Telex:* 87151. *FAX:* 512902. *Cables:* Sealink, Newhaven. *Contact:* G. G. Burke, Port Manager. Captain A. Flint, Harbour Master.

NEWPORT: 51.35 N. 02.59 W. (See Plan)

DOCUMENTS: Required for arrival.

C142	2 copies	Crew Declaration
C14	3 copies	Stores Declaration
C13	2 copies	General Declaration (completed by Agent)
C16	2 copies	Cargo Inward Declaration
C74	1 copy	Master's Authority (completed by Agents)
C1320	2 copies	Cargo in unregistered spaces

These documents are to be completed and presented with copies of manifests and ship's documents at the time of report.

PILOTAGE: Telegraphic address – "Sewpil G 498180". Advance notice required – 24 hours. VHF Channel – Channel 16 for contact, thence Channel 6 for conversation. Description of pilot boat – diesel launch, black hull, white superstructure. Particular light or sound signals to be made by vessels requiring a Pilot – Code Signal 8, i.e. 3 longs 2 shorts. Pilot boat is located in vicinity of Breaksea Lightvessel, or in vicinity of Merkur Buoy, for small vessels. Maintain VHF contact (if possible) with pilot cutter and obey instructions with reference to positioning of vessel to facilitate boarding of Pilots.

ANCHORAGES: Large vessel should anchor in deep water to North of one Fathom banks. Deeper water anchorage (10 – 14 fathoms) in area between Breaksea Lightvessel and East 1 Fathom Bank Buoys to the South, and shallow water off Barry Roads to the North. Small vessels will find safe anchorage in Barry Roads in varying depth, depending on weather conditions and draft.

RESTRICTIONS: Entrance to Newport Docks is by means of a sea lock 1,000 ft. long, 100 ft. wide. Entry possible from 4 hours before to 4 hours after HW, depending on size of vessel.

MAX. SIZE: Max. size of vessels accepted at Newport is 800 ft. long, 96 ft. beam, 34.5 ft. draft.

HEALTH: Port Health Authority board vessel at entrance lock and Pratique is automatic.

See "Health – All Ports" before first U.K. port.

RADIO: At sea – Land's End radio station, call sign GIL. Within Bristol Channel use Portishead Radio.

VHF: Vessels requiring entry can contact port on VHF radio Channels 16, 9 and 11.

TUGS: Normally join at Newport Deeps. Ship's line used.

BERTHING: South Dock, normal depth of water 35 ft. North Dock, normal depth of water 27 ft. Junction passage connecting South and North Dock restricts vessels to a max. size of 56 ft. 6 in. beam and 25 ft. draft.

SPECIALISED CARGO HANDLING FACILITIES:

Combi Ship Operations: Heavy lift/containers for combi vessels are handled by the 25 tonne cranes at the same berth where breakbulk general cargo is handled.

Forest Products: The North side, South dock area extends to over 11 hectares with 1 hectare under cover.

Banana Imports: There is a terminal of 3 hectares for a weekly Jamaican service importing bananas and exporting general cargo. Included within the terminal is a transit shed of 3,716 sq.m.

CRANES: Heavy lift/container cranes: 2×25 tonne electro-hydraulic and 1×32 tonne Scotch Derrick cranes.

Bulk handling: 6×11.5 tonne electric grabbing cranes.

General cargo: 2×11.5 tonne, 2×10 tonne and 20×6 tonne electric cranes.

Handling equipment up to 27 tonnes capacity with a comprehensive range of attachments is available.

STEVEDORES: Labour is allocated to vessels on arrival.

Working Hours: Monday to Friday: 0730 – 1700 hrs., 0600 – 1400 hrs., 1400 – 2200 hrs.

Saturday: 0730 – 1200 hrs., 0600 – 1400 hrs., 1000 – 1400 hrs.

Sunday: 0600 – 1400 hrs., 1400 – 2200 hrs.

MEDICAL: No advance notice of medical attention for crew members is required and hospital facilities are available.

DENSITY: Average density of water in docks is 1016.

FRESH WATER: Available at all berths.

FUEL: All classes of fuel available.

GANGWAY/DECK WATCHMEN: Available but not compulsory.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CUSTOMS ALLOWANCES: Tobacco, 0.5 lb. per crew member, reduced by 50% on coastal trade. 1 pint of spirit and 1 pint wine per crew member, reduced by 50% on coastal trade.

IDENTIFICATION CARDS: Not required.

REPAIRS: All wet dock and engine repairs possible.

DRY DOCK: Bristol Channel Ship Repairers Ltd., 454 ft. × 64 ft.

REPATRIATION: All facilities for the changing of crew and repatriation are available.

AIRPORT: Glamorgan Rhoose Airport terminal 28 miles from Newport. Regular connection planes to London Airport.

TIME: BST, GMT plus 1 hour. GMT in Winter months.

HOLIDAYS: Work not undertaken on Christmas, Easter, Spring and Summer Bank holidays. With the exception of Christmas holiday (25th and 26th December) dates on other holidays vary.

POLICE/AMBULANCE/FIRE: Telephone number 999 stating which service is required.

TELEPHONES: Telephone facilities are available aboard vessels.

SERVICES: Tank cleaning equipment. Facilities for tank washing, compass adjusting are available.

SHORE LEAVE: No restrictions to crew members.

SHIP SUPPLY SERVICE: A ship supply service could be provided by Cory Ship Towage with their tugs at Cardiff if required. Address: Cory Ship Towage Ltd., S.E. Wales Office, Alexandra Dock, Newport, Gwent, NP9 2NP. Tel: Newport 56835/6

AUTHORITY: Associated British Ports, Dock Office, Alexandra Dock, Newport, Gwent NP9 2UW. *Tel:* (0633) 244411. *Telex:* 498585. *FAX:* (0633) 246070. *Contact:* R. C. F. Williams, Port Manager.

PADSTOW: 50.35 N. 04.55 W.

PORT LIMITS: A line from Stepper Point to Gulland Rock, thence N.E. to Newland Rock, thence S.E. to Pentire Point.
DOCUMENTS: All usual documentation required by H.M. Goverment.
PILOTAGE: Trinity House Pilot compulsory. Contact via Harbour Office, Tel: Padstow (0841) 532239, or direct to Pilot on Padstow (0841) 532541, daytime or Padstow (0841) 532603 at night time. VHF via Padstow Harbour Office on Channel 16 during all office hours and 2 hours either side of HW at Padstow. ETA's should be given at least 12 hours before arrival, amendments up to 2 hours before ETA. Pilot boards from fishing vessel off Stepper Point in normal conditions. In adverse conditions ships should endeavour to close the pilot boat as near to the starboard hand buoy as possible in safety. Padstow Bay experiences heavy ground swell. Anchorage not recommended in onshore wind or sea.
MAX. SIZE: Max. length approximately 350 ft. (depending on draft). Max. draft 11 ft. any tide. Up to 18 ft. draft on Spring tides. No airdraft restriction.
VHF: Harbour office, call sign 'Padstow Harbour' listens VHF channel 16 during office hours and 2 hours either side of HW at Padstow. Call on Channel 16, working Channel 14.
TUGS: Not available. Local fishing vessels may assist.
BERTHING: All berths dry to firm mud or sand bottom. Depth alongside, South Jetty 11 ft. every tide and 18 ft. Springs. Depth alongside South Dock and West Quay 9 ft. every tide and 16 ft. Springs. Lesser depths in Inner Harbour and Outer Basin.
CARGO HANDLING: Undertaken by Padstow Harbour Commissioners. Dry bulk and unitised cargoes handled. Limited storage facilities. Cranes hired by Harbour Commissioners to suit requirements.
FRESH WATER: Available, delivery from standpipes. Cost £1 per 100 gallons.
FUEL: Marine gas oil available direct from bunker tank on South Pier.
REPAIRS: Welding and general engineering services readily available.
STORES: All usual stores available.
AUTHORITY: Padstow Harbour Commissioners, Harbour Office, West Quay, Padstow, Cornwall PL28 8AQ. *Tel:* Padstow (0841) 532239. *Contact:* E. M. Wakelin, Port Administrator/Harbour Master.

PEEL, Isle of Man: 54.14 N. 04.40 W. (See Plan)

PILOTAGE: Not compulsory.
MAX. SIZE: See "Berthing".
VHF: Channels 16 and 12 available only when vessels expected.
BERTHING: Outer Harbour: Max. LOA 250 ft., although twin screw cross-channel vessels up to 350 ft. LOA can be accommodated under certain conditions. Max. draft 14 ft. to lie afloat over LWOST. Not tenable with strong Northerly winds.

Inner Harbour: Max. LOA 160 ft., draft 10 ft. on Neaps, 13 ft. on Springs. Dries out at LW. No quay space for storage.
AUTHORITY: Harbours and Marine Division, Department of Highways, Ports and Properties, Sea Terminal Building, P.O.Box 11, Douglas, Isle of Man. *Tel:* 0624-23813. *Contact:* H. G. Moore, Chief Executive.

Harbour Master at Peel: Captain C.A. Clague. Tel: (0624) 842338.

PENZANCE: 50.07 N. 05.32 W. (See Plan)

PORT LIMITS: The seaward boundaries of the Port for the purposes of charter parties are considered to be the harbour walls.
DOCUMENTS: H.M. Customs require the Master or Agent of any vessel arriving from a Port outside the United Kingdom to present the following documents at the Customs House within 3 hours of the vessel's arrival, during office hours (0900–1230) Monday to Friday or within 6 hours during night hours.

1 copy	Crew Declaration (Form C.142)
1 copy	General Declaration (Form C.13)
1 copy	Stores and Livestock Declaration (Form C.14)
2 copies	Deck Cargo Declaration (if any) (Form SUR.238)
2 copies	Crew List (IMO Fal.Form 5)

The above is intended to be a guide only, not a definitive list.
PILOTAGE: Trinity House Pilots are available at all times. Call "Mounts Bay Pilots" during normal working hours or when vessel is expected on VHF Channel 16. Working Channels 12 and 9 are also available. Ships are asked to give advance notice by R/T or telegram through Land's End Radio (GLD) to either the Pilot or Local Agent. Alternatively, through the Port Radio which maintains watch on Channel 16, 12 and 9. The Pilot boards at a point immediately adjacent to the Low Lee Buoy (50° 05.6′ N., 05° 21.2′ W.) from one of the pilot boats operated in Mounts Bay. The boat operated from Newlyn is an ex–Trinity House pilot boat, black hulled, white deck house with "Dayglow" roof. The second boat stationed at Penzance is a black hulled open boat with a white shelter forward.

The pilot boat only cruises when a vessel is expected.
ANCHORAGE: Vessels awaiting orders or entry into Penzance may anchor in a minimum depth of 15 m., in position 50° 06.1′ N., 05° 31.5′ W.
RESTRICTIONS: The dock gates at Penzance are normally open, enabling vessels to enter from 2 hours before high water until one hour after high water, although this period may be increased so that the gate is open earlier or later by prior arrangement. The depth on the dock gate at MHWS is 5.49 m. and at MHWN 4.4 m. The entrance is 15.3 m. wide.
MAX. SIZE: Vessels up to a maximum of 95 m. in length and 2,000 net registered tonnes may normally enter within the draft and beam limitations listed.
HEALTH: No health or Pratique documents are required under normal circumstances.
RADIO: Vessels may pass messages, telegrams or link calls through Land's End Radio (GLD).
VHF: Penzance Harbour maintains VHF Radio watch on Channels 16 and working Channels 12 and 9, whenever the dock gates are manned from 2 hours before high water until one hour after high water on both tides, 7 days a week throughout the year. In addition, the radio is manned Monday to Friday between 0830 hrs.–1200 hrs. and 1300 hrs.–1630 hrs. and on Saturday from 0830 hrs.–1230 hrs. local time.
RADAR: There is no port radar.
TUGS: Tugs are available with prior notice, however, normal berthing is undertaken with the aid of pilotage workboats.
BERTHING: The wet dock has an entrance 15.3 m. wide and has 5 berths. Vessels discharging cargo should have a maximum length of 90 m.

The outer harbour has 4 berths. Berth No. 1 is for the use of the Isles of Scilly Ferry and Berth No. 7 is normally designated as a drying out berth for ship repair.
CRANES: Cranes are available with maximum lifts of up to 15 tonnes. Dual gear is normally used for discharge and mobile cranes of greater capacity are available locally.
BULK CARGO FACILITIES: Bulk cargo is discharged and loaded by Grab.
SPECIALISED CARGO HANDLING FACILITIES: There is one drying berth with an operational depth of 4.7 m. at MHWN which has been adapted for heavy lift Ro/Ro vessels. This berth is available by prior arrangement.
BRIDGES: A swing bridge provides access into the dry dock basin.
MEDICAL: Full hospital and dental services are available in Penzance through the Agents or Port Medical Officer. Evacuations are arranged through the Port Medical Officer and the Mounts Bay Boarding Service.
STEVEDORES: Generally 24 hours notice is needed to provide stevedores.
DENSITY: The density of the dock water is 1025. Fresh water can be provided on all berths, delivery rates nominally 15 tonnes per hour.
FRESH WATER: Available on all berths.
FUEL: Marine gas oil by pipeline at 3 bunkering points along the South Pier with up to 55,000 litres available immediately from harbourside tanks. Greater quantities may be supplemented by road tanker. Lubricating oil and other fuel plus liquid petroleum gas available through ship's Agent.
CONSULS: Vice–Consuls for France and the Netherlands are resident in Penzance and Consulates for Denmark, France, Greece, Norway, Spain, Sweden and Germany F.R. are located nearby.
REPAIRS: All types of engine and deck repairs carried out to both cargo and tanker vessels.
DRY DOCKS: There is one dry dock 74.73 m. long with a breadth of 11.9 m. and a maximum draft of 3.35 m.
SURVEYORS: Department of Transport, Lloyd's, Norsk Veritas, Bureau Veritas, American Bureau and the Salvage Association have surveyors readily available at Penzance, as are several independent surveyors and consultants.
GANGWAY/DECK WATCHMAN: The employment of a watchman would only be needed in Penzance wet dock if the vessel is un–manned.
OPENING/CLOSING HATCHES: The opening and closing of hatch covers is usually carried out by the ship's crew.
CUSTOMS ALLOWANCES: The following are permitted from Ports within Home Trade limits:

Items	*Descriptions*	*Quantities*
Tobacco	Cigarettes	100
	Cigarillos	50
	Cigars	25
	Smoking Tobacco	125 grams
Alcohol	Over 20% volume	0.25 litre
	Under 20% volume and fortified or sparkling wine	0.50 litre
	Still table wine	1 litre

Arrival from Ports outside home trade limits:

Items	*Descriptions*	*Quantities*
Tobacco	Cigarettes	200
	Cigarillos	100
	Cigars	50
	Smoking Tobacco	250 grams
Alcohol	Over 20% volume	0.50 litre
	Under 20% volume and fortified or sparkling wine	1 litre
	Still table wine	2 litres

REPATRIATION: Facilities are readily available for effecting crew changes and repatriation where this is necessary and may be done with medical escort or not as required (see "Ship Supply Service").
AIRPORT: Newquay Airport has connecting flights to London (Heathrow) via Plymouth and/or Exeter and also regular flights to Aberdeen. Total travel time Penzance to London (Heathrow) is 2.5 hours. There is also a Heliport in Penzance with regular flights between the Isles of Scilly.
TIME: Local time is GMT with Summertime being kept at GMT plus one hour.
HOLIDAYS: Public Holidays in the United Kingdom: New Year's Day, Good Friday, Easter Monday, early and late May Bank Holidays (Mondays), August Bank Holidays (first and last Monday), Christmas Day and Boxing Day.

The Harbour does not close for any of these holidays.
FIRE/POLICE/AMBULANCE: The Emergency Services are obtainable by dialling 999 or on more routine matters on the following telephone numbers: Police (0736) 62395; Fire Service (0736) 62918; Ambulance (0872) 78181; Coastguard (0326) 317575.

EMERGENCY CO–ORDINATION CENTRE: Falmouth Marine Rescue Co–ordination Centre is available on Falmouth (0326) 317575 or on Telex 45560. The station maintains a 24 hours, 365 day watch.

SHIP SUPPLY SERVICE: *Mount's Bay Boarding Service:*

By helicopter: British International Helicopters operate a regular service between Penzance and the Isles of Scilly (30 miles S.W. of Land's End). Mount's Bay Boarding Service (MBBS) can charter helicopters for rendezvous with ships at sea for transfer of equipment and personnel.

Parcels: MBBS collect and despatch stores, parts, charts, etc, via British Rail "Red Star" parcels service, T.N.T. "Overnite" and "Courier", part of the G.P.O. Datapost and Securicor.

Charts: All British Admiralty charts and publications are available within 12 hours.

Stores: Fresh, frozen and dry stores are obtainable within 6 hours notice, while Bonded stores are available at 24 hours notice.

Spare parts: MBBS arrange clearance, forwarding and transport of spare parts to meet vessels on arrival. Undivided lifts of 1.5 tonnes can be handled (up to 10 tonnes by arrangement).

Crew transfer: MBBS can land and clear crew through Customs and Immigration as well as arranging for their travel onward to worldwide destinations. MBBS can also meet crew and either embark or accommodate them until the vessel's arrival.

Landing sick crew: Although in urgent cases, vessels are in direct contact with Falmouth's Coastguard MRCC, MBBS arrange the landing of non-urgent cases. In both instances MBBS liaise with local Coastguards, Customs, Immigration, Doctors and Hospitals, and can usually provide interpreters for non–English speaking crew. MBBS visit and look after the interests of hospitalised crew, and can report to their company/family. MBBS arrange travel and repatriation of crew members either with or without medical escort, according to Doctors' or hospital instructions.

Contact: J.H. Bennetts Ltd. (See "Agent".)

SERVICES: Compass adjusting at 2 hours notice, vessels can be swung in daylight hours in Mounts Bay. Divers, engineers, welding, hydraulic repair, radar, radio and other electronic repairs or servicing are available 7 days a week.

BANKS: The four principal clearing banks have branches in Penzance: Midland, Lloyd's, Barclays and National Westminster.

STORING: Vessels can be stored alongside from lorries which park immediately alongside the vessel. The operation can usually be carried out by the ship's crew, however, fork–lift trucks can be made available.

SHORE LEAVE: There are no restrictions on crew shore leave.

IDENTIFICATION CARDS: An International Seaman's Card is sufficient identification for crew members.

REGULATIONS: There are no unusual Regulations affecting the Port.

DELAYS: Vessels will berth on the tide and will either commence discharge upon arrival or the following morning if they have arrived overnight.

DEVELOPMENTS: Port development is under review.

AUTHORITY: Penwith District Council, St. Clare, Penzance, Cornwall TR18 3QW. *Tel:* (0736) 62341. *FAX:* (0736) 64292.

Harbour Master, Harbour Office, Wharf Road, Penzance, Cornwall TR18 4AB. Tel: (0736) 66113 office hours; 62341 Ext: 294 office hours; 61119 outside office hours.

AGENT: J. H. Bennetts Ltd., 72 Market Jew Street, Penzance, Cornwall TR18 2LF. Tel: 0736-60660. Telex: 45530 (Jhb G).

PERTH: 56.24 N. 03.29 W. (See Plan)

LOCATION: On River Tay, 35.4 km. above Dundee and 48.3 km. from sea.

DOCUMENTS: Normal documentation for arrival and departure U.K.

PILOTAGE: Not compulsory but highly advisable. Approaching River Tay, vessels should call "Dundee Port Control" as per Dundee Port Information. Masters will be advised by Dundee Port Control when River Pilot will board for transit up river from Dundee to Perth. River Pilots board at Dundee 2 hours before high water Dundee.

ANCHORAGES: No anchorage above Dundee.

RESTRICTIONS: Clearance under bridges 78 ft. at MHWOS. Vessels draft for acceptance at the discretion of the Harbour Master (Perth). *Longest Vessel:* 275 ft. for those vessels specifically designed for operation on inland waterways (Rhine Trader type) and 250 ft. for conventional vessels.

MAX. SIZE: Length 84 m. Max. draft 4.2 m.

RADIO: VHF for upper river transit. "Perth Harbour" Channel 9.

TUGS: By arrangement with Agents. Small tug/push boat is available at harbour.

BERTHING: Tidal harbour about 3 acres with total quayage of 2,400 ft. Depth at LW 9 ft. HWST 15 ft. At LW vessels sit evenly on soft muddy bottom.

CRANES: 14 mobile cranes available. SWL ranging from 5 to 40 tons. Ample fork lifts and elevators for loading bulk.

STEVEDORES: North Eastern Shipping and Warehousing Co. Ltd., Tel: 0738-33226. Telex: 76611.

Calport of Perth. Tel: 0738-26675/24372. Telex: 76458.

DENSITY: River Tay above bridges pure fresh water.

BRIDGES: See "Restrictions".

FRESH WATER: Available at all berths.

FUEL: Available by road tanker, arranged by Agent.

REPAIRS: Small repairs undertaken locally by good engineering firm. Major repairs undertaken at Dundee.

AIRPORT: Edinburgh (Turnhouse) 44 miles, Glasgow (Abbotsinch) 70 miles, Prestwick 90 miles. Motorway M90, connects Perth with airports. Dundee operates variety of daily air services.

HOLIDAYS: (1988): January 1st, January 4th, April 4th (Easter Monday), May 2nd (1st Monday), May 23rd (4th Monday), September 12th (2nd Monday), October 10th (2nd Monday), December 26th and December 27th.

Stevedores may work on Public Holidays if required.

POLICE/AMBULANCE/FIRE: Police: 21141. Ambulance: 22123. Fire: 22226.

DEVELOPMENTS: Berth No. 1 to be extended.

AUTHORITY: (a) Tayside Regional Council, Roads & Transport, Transport Unit, Parker Street, Dundee, DD1 5RW. *Tel:* (0382) 23281. *Contact:* Mr. L. Watson, Planning Manager.

(b) Tayside Regional Authority – Perth Harbour, Harbour Office, Friarton Road, Lower Harbour, Perth PH2 8BH. *Tel:* Perth (0738) 24056. *Contact:* Captain N. H. Lawrance, Harbour Master. Mr. P. Hannah, Assistant Harbour Master.

PETERHEAD BAY HARBOUR: 57.30 N. 01.47 W. (See Plan)

DOCUMENTS: On arrival at Peterhead, Masters should have the following Customs documents ready for presentation:

2 copies C13 – General Declaration.
2 copies C142 – Declaration of Goods.

PILOTAGE: Compulsory on all vessels except H.M. Ships, fishing vessels and vessels under 50 tonnes. Masters must call "Peterhead Pilots" on VHF Channel 16 giving minimum one hour's notice of ETA.

In the message of ETA, the following information must be included:

1. Name/call-sign of vessel.
2. Nationality.
3. Length, draft and g.r.t.

Pilot boards within 0.5 miles of breakwaters in fair weather. In adverse weather Pilot boards inside bay.

ANCHORAGE: Depth within bay up to 12 m. Poor holding in Easterly gales.

TUGS: A twin-screw tug of 36 tonnes bollard pull is normally stationed in the harbour and is available through Peterhead Towage Services, Tel. (0779) 78065. Additional tugs may be procured if sufficient advance notice is given.

BERTHING: Two supply bases for oil-related support work. Aberdeen Service Co. (North Sea) Ltd. have a quay 457 m. long with a minimum depth of 6.8 m., situated at the South side of the Bay, with support berthage on the South Breakwater and about 10 hectares of back up land. Total of 12 berths. Cranage available up to 200 tons.

Aberdeen Service Company (ASCO) also have a jetty situated on the North side of the Bay. Two outside berths 121.9 m., inside 112.7 m. with a minimum depth of 3.6 m., with support berthage on the North Breakwater of 420 m., depth up to 21.2 m. Total of 7 berths. Cranage available up to 200 tons. Facilities for Ro/Ro, semi-submersible drill rigs, etc. Ample storage space.

Note: Breakwaters are subject to closure during adverse weather and vessels must be ready to leave at short notice.

CRANES: See "Berthing".

TANKERS: One berth for vessels up to 40,000 d.w.t. Max. LOA 200 m., Max. draft 11.5 m. Four loading arms with 12 in. flanges feed the Boddam Power Station via a 24 in. pipe-line. This berth can accommodate semi-submersible drill rigs, vessels loading grain and other commodities.

FRESH WATER: Available.

FUEL: Available.

REPATRIATION: Crew changes and repatriation possible.

REPAIRS: Most deck and engine repairs can be carried out.

AIRPORT: Aberdeen, Dyce 34 miles. Feeder routes to main international airports, some continental air transportation.

TIME: GMT. Clocks advanced 1 hour last Sunday in March.

Last Sunday in October, clocks retarded 1 hour.

POLICE/AMBULANCE/FIRE: Emergency 999. Police 72571. Ambulance 72494. Fire (emergency only) 999.

RESCUE CO-ORDINATION CENTRE: Moray Coastguards. Call on VHF Channel 16, telephone emergency 999 or Peterhead 74278.

DEVELOPMENTS: Fishery harbour breakwaters under construction.

AUTHORITY: Peterhead Bay Authority, Harbour Office, West Pier, Peterhead AB4 6DZ. *Tel:* Peterhead (0779) 74020, after hours (0779) 74281. *FAX:* (0779) 75712. *Contact:* Captain A. M. Flett, Chief Executive/Harbour Master.

PLYMOUTH: 50.22 N. 04.09 W. (See Plan)

DOCUMENTS: Importer to supply Agent with Customs documentation, e.g. original B/L with cheque to cover various details; plus copies of invoice and Forms C.105 with packing lists. Derat or Exemption Certificate required.

PILOTAGE: Compulsory for merchant vessels. Call sign FSG, or 4 short blasts on whistle. Vessels not subject to compulsory pilotage may obtain Docking Pilot in Plymouth Sound otherwise pilot station off Penlee Point.

Pilot boat is motor boat with white upperworks, black hull. "Pilot" in black on wheelhouse.

ANCHORAGES: In Plymouth Sound.

MAX. SIZE: Maximum depth of water 9.0 m. Vessel drawing 8.0 m. would leave anchorage 2 hours before HW. Also see "Berthing".

Ro/Ro Berth No. 1: Max. LOA 145 m. Max. beam 20 m. Max. draft 5.5 m.
Ro/Ro Berth No. 2: Max. LOA 200 m. Max. beam 30 m. Max. draft 8.5 m.
Inner Basin: Max. LOA 130 m. Max. beam 22 m. Max. draft 5.0 m.

HEALTH: Pratique – Apply to Customs Waterguard. Pratique issued when requirements satisfied.

See "Health – All Ports" before first U.K. port.

RADIO: *Pilots:* The calling and listening frequency is 2182 kHz and the working frequencies are 2246 or 2301 kHz. A listening watch is kept on 2182 kHz at every even hour to 15 minutes past, local time and for longer periods when a ship is expected.

VHF: The pilot vessel is equipped with VHF and should be called on Channel 16; the working Channels 6, 8 or 12 should be used for passing messages. Alternatively the shore-based Trinity House Pilot Station, Plymouth, call sign "Cattewater Harbour Radio", maintains a continuous watch on Channel 16 (calling Channel) and is fitted with Channel 12 (first choice Port Operations Channel) and 18.

"Millbay Radio" operates 24 hours, on Channels 16, 14, 13, 12 and 9.

TUGS: Available in Sound.

BERTHING: *Millbay Docks:* (Associated British Ports).

Inner Basin. (Entered through Outer Harbour). (Gates open 2 hours before HW. Shut at HW).

By 1989 the Inner Basin will be closed and infill will be under way.

Outer Harbour:

Water Area	11.00 Hectares
Length of West Wharf	200 m.
Depth alongside MLWST	8.6 m. – 9.0 m.
Length of Trinity Pier	146 m.
Depth alongside Northside and West end MLWST	5.8 m.
Ro/Ro Berth No. 1 (3 Round dolphins)	
Max. length of vessel	145 m.
Depth alongside MLWST	6.7 m.
Ro/Ro Berth No. 2	
Max. length of vessel	200 m.
Depth alongside MLWST	9.0 m.

Fresh Water available at all berths.
Large transit shed on Trinity Pier.

Victoria Bulk Wharves: Pier No. 1. Length 475 ft. Depth 20 ft. LWOST. Pier No. 2. Length 350 ft. Depth 20 ft. LWOST. Max. beam 38 ft. (Larger with prior notice.) Max. d.w.t. 3,000 tons. Bulk products loaded by conveyor ex-railway trucks and lorry.

Cattedown Wharves: Length 712 ft. Depth 24 ft.–26 ft. LWOST. Max. LOA 560 ft. Max. draft 26 ft. Max. size 12,000 g.r.t. 1×5 ton and 2×3 ton cranes.

CRANES: 4 quayside cranes of 6 tonnes capacity. 3 mobile cranes up to 28 tonnes capacity.

STEVEDORES: Commodities regularly handled include fresh fruit and vegetables, timber, scrap metal and general cargoes.

Imports: Fertiliser, clinker, pumice and bulk cargoes.

Working Hours: Monday – Thursday 0800 – 1700. Friday 0800 – 1600. Overtime by arrangement.

Shift working is also regularly undertaken 7 days per week to meet specific requirements.

MEDICAL: No advance notice required; hospital facilities in Plymouth.

TANKERS: Vessels of the Shell "H" class can be handled at Cattedown Wharves. Max. draft 26 ft. 5 hose connections, diameter 10 in. 2 for black oil and 3 for white oil.

FRESH WATER: Available from shore at all berths.

FUEL: All normal grades available at short notice.

OPENING/CLOSING HATCHES: Performed by ship's crew or by stevedores at request of ship.

CERTIFICATES: Tonnage registration.

CONSULS:

Belgium	65154	Italy	63445
Dominican Rep.	63175	Netherlands	64846
France	65154	Norway	65154
Germany F.R.	66444	Spain	65154
Greece	60604	Sweden	65154

REPAIRS: Ship repairing facilities available.

HOLIDAYS: Cargo work can often be arranged on Public Holidays subject to prior notice.

POLICE/AMBULANCE/FIRE: Telephone 999.

TELEPHONES: By special arrangement with British Telecom, can be placed on board.

SHIP SUPPLY SERVICE: Cory Ship Towage Ltd., 1-3 Buller Road, Torpoint, Cornwall PL11 2LD.

Bellamy & Co. (Plymouth) Ltd., Millbay Pier, Millbay Docks, Plymouth PL1 3DT. Tel: (0752) 665154. After hours 779586, 330338, 775957. Telex: 45225.

The Royal Navy maintain a helicopter service for landing sick crew men from ships beyond the port limits.

AUTHORITY: Associated British Ports, Port Office, Millbay Docks, Plymouth, Devon PL1 3EF. *Tel:* Plymouth (0752) 662191 *Telex:* 45219 Apply G. *Contact:* E. S. Chapman, Port Manager. Captain J. R. Willan, Docks and Marine Superintendent.

Cattedown Wharves Ltd. for Cattedown Wharves and Bethyl Gwynn Ltd. for Victoria Wharves.

POOLE: 50.43 N. 01.59 W. (See Plan)

DOCUMENTS: As for other British ports.

PILOTAGE: Pilots board 0.5 mile South of Poole Bar Buoy from cutter. Prefer ladder 0.50 m. from water and a good lee. VHF watch kept on Channel 16 working Channels 9 and 14. As much notice as possible. Address: Pilots, Poole.

ANCHORAGE: Vessels can anchor anywhere in Poole Bay and Studland Bay. Good holding ground and protected in all but Easterly gale.

RESTRICTIONS: Vessels drawing up to 3.7 m. can enter at any state of tide. Drafts of 5.0 m. must wait to within 2 hours of HW.

MAX. SIZE: Max. length 140 m., beam – no limit, draft 5.0 m.

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: Vessels using the Port may call the Harbour Master direct on VHF Channel 16 – working frequency Channel 14 call-sign "Poole Harbour Radio".

TUGS: 2 tugs, 8 ton and 7 ton bollard pull. Join at Stakes Buoy, by special application arrangements can be made to join at North Haven Point. Ship's lines. No difference in charges.

Pilots will advise whether a tug is necessary or not. Any vessel in excess of 1,000 d.w.t. or 300 ft. LOA due to pass through the Poole Bridge is required to take a tug. The gap in the bridge is 60 ft.

BERTHING: Berthing time depends on draft at some private quays. No restriction at New Quay or Ro/Ro berths.

Ro/Ro Terminal (CFFT):
Size of vessel:
Max. draft 5.0 m.
Max. length 140 m.
Depth 5.0 m. at Chart Datum.

Berths/Equipment: Two linkspan berths for Ro/Ro vessels, Berth No. 1 utilises mooring dolphins, Berth No. 2 has 90 m. long working quay. Vehicles up to 180 tonnes gross weight can be handled subject to prior approval of Port Authority. A total of some 7 hectares (17 acres) of terminal is surfaced to a high standard, providing parking places for 280 heavy goods vehicles. A further 11 hectares (28 acres) of reclaimed land is available for future port expansion. Warehousing facilities; self weighing weighbridge; fleet of Tugmasters and fork lift trucks; 35 tonne gantry crane in Terminal for handling 20/30/40 ft. containers to/from road.

New Quay:
Length: 158 m.
Depth alongside: 16 ft. (4.9 m.) at Chart Datum.

Equipment: 3 ton capacity level luffing rail-mounted crane and 35 tonne capacity crawler crane equipped for hook/bulk/grab/spider grab duties giving an operational capacity of 6 tonnes at 18 m.; warehousing 3,000 sq.m. plus open storage; mobile crane capacity up to 200 tonnes.

Yard Quay:
Length: 200 ft. (61 m.).
Depth alongside: 2.6 m. at Chart Datum.
Equipment: Warehousing facilities; limited open storage.

Ballast Quay:
Length: 270 ft. (82 m.).
Depth alongside: 4.0 m. at Chart Datum.

Equipment: 6.5 ton capacity level luffing crane fitted with grab/hook for bulk handling/general cargo duties.

Poole Town Quay:
Length: 1,300 ft. (396 m.).
Depth alongside: 3.6 m.–4.5 m. at Chart Datum.
Equipment: Mobile crane capacity 40 tonnes.

Bulwark Quay:
Length: 91 m.
Depth alongside: 4.3 m. at Chart Datum.

Equipment: 25 ton Scotch Derrick; warehousing facilities; open storage.

Private Quays:
J. T. Sydenham (Timber Wharf)
Length: 250 ft. (76 m.).
Depth alongside: 15.3 ft. (4.6 m.).
Equipment: Mobile crane capacity 45 tonnes.

Other Private Quays:
Corrals (Fuel)
J. Bolson & Son Ltd. (Marine Repair & Engineering).
South Coast Sand & Ballast (Sea Dredged Aggregates).
Southern Ocean Shipyard Ltd. (Yacht Builders).
Enoxy Chemicals Ltd.
Central Electricity Generating Board.

Oil Jetty:
Length: 270 ft. (82 m.).
Depth alongside: 4.1 m. at Chart Datum.

BRIDGES: Poole Bridge (Max. width 60 ft.) at West end of Poole Quay. Will open at any time on request by commercial vessel.

STEVEDORES: Normal notice for gangs.

MEDICAL: Advance notice required for ambulance services. Normal medical and hospital services available. Distance to hospital is 2 miles.

TANKERS: 3 oil berths. Diameter of load/discharge lines 6 in.

DENSITY: 1021.

FRESH WATER: Delivery 25 t.p.h. by 2 in. hose.

FUEL: Gas oil only.

GANGWAY/DECK WATCHMEN: Not required.

OPENING/CLOSING HATCHES: Work carried out by crew.

IDENTITY CARDS: Not required.

CONSULS: At Southampton.

Belgium
Danish
Finnish
French
German F.R.
Greek
Italian
Netherlands
Norwegian
Spanish
Swedish

REPAIRS: All types deck and engine repairs can be carried out. Slipways (2) available for vessels up to 220 ft. LOA by 40 ft. beam and 120 ft. LOA by 30 ft. beam.

POLICE/AMBULANCE/FIRE: Call 999 and ask for service required.

SHIP SUPPLY SERVICE:

Poole Harbour Commissioners: 2 small tugs (448 Kw and 320 Kw) speed 10 knots and 11 knots.

J. Harvey & Sons (Poole) Ltd.: West Quay Road, Poole. Tel: 674063. Operators of small passenger boats.

Crosons Ltd.: New Cray Road, Hamworthy, Poole. Tel: 673201. Operators of passenger vessels carrying up to 200 persons

Hurn Airport: Situated 7 miles from Poole. Full international facilities. Suitable for helicopter landing etc.

AIRPORT: Charter flights for crew changes can be carried out from Hurn Airport 9 miles away from port.
AUTHORITY: Poole Harbour Commissioners., Harbour Office, Town Quay, Poole BH15 1HG, Dorset. *Tel:* (0202) 685261. *Telex:* 41134 PHC G. *FAX:* (0202) 665702. *Contact:* Captain J. S. Barton, Harbour Master.
AGENT: John Carter (Poole) Ltd., C.F.F.T., New Harbour Road, Poole BH15 4AJ, Dorset. Tel: Poole 674102. Telex: 418282. Cables: Maritime Poole. Lloyd's Agents.

PORT ASKAIG: 55.51 N. 06.07 W. (See Plan)

Operated mainly as a ferry port although other shipping may use the facilities available.

The wharf operated by Strathclyde Regional Council (SRC) is 60 m. long with a depth of 4.06 m. below Chart Datum. It has a Ro/Ro ramp suitable for use by end loading vessels. Fresh water is available. Strathclyde Regional Council operate a second Ro/Ro berth at Port Askaig.
AUTHORITY: Strathclyde Regional Council (SRC), Department of Roads, Strathclyde House, 20 India Street, Glasgow G2 4PF. *Tel:* 041-204 2900. *Contact:* W. S. McAlonan, Director.

Port Askaig: Piermaster *Tel:* (049) 684 208.

PORT ELLEN: 55.37 N. 06.13 W.

Operated by Caledonian MacBrayne Ltd., used mainly by ferries. Chart BA. 2037 covers the area.
PILOTAGE: Not compulsory.
ANCHORAGE: Approach with Carraig Fhada Light bearing 332°(T) until 2 cables off light. Alter course to 026°(T) till lighthouse bears 270°(T) × 2.2 cables, then altering course to 353°(T). Anchorage position is reached when lighthouse bears 206°(T) × 3.6 cables, equidistant with Na Sglithean Beach, 3.6 cables. Depth at anchorage 5 fathoms.
APPROACHES: Harbour entrance 7 cables wide, depth 7 to 8 fathoms.
BERTHING: Car Ferry Berth can accommodate vessels up to 1,200 g.r.t. either side of the dolphin. Inner Berth can accommodate vessels up to 600 g.r.t. Depth at pier 12 ft. LWOST, range 3 ft. to 4 ft.
AUTHORITY: Caledonian MacBrayne Ltd., The Ferry Terminal, Gourock PA19 1QP. *Tel:* 0475-33755. *Telex:* 779318. *Cables:* "Calmac" Gourock.

PORTLAND: 50.34 N. 02.26 W.

PILOTAGE: Available from Weymouth. Pilot boards in position Lat. 50° 36′ N., Long. 02° 24′ W.
ANCHORAGE: Vessels seeking shelter from Westerly gales are likely to find more room and better shelter outside the breakwaters in Weymouth Bay.
VHF: All Harbour movements are controlled on VHF Channel 13.
Traffic Regulations: Due to the frequent movements by naval vessels in the vicinity of Portland Harbour, all vessels approaching Portland Harbour, which are fitted with VHF, should make reports on the appropriate channel to Queen's Harbour Master, Portland, when passing through various Radio Reporting Points, whose positions can best be seen on the charts. In addition it is mandatory that such vessels should keep watch on the appropriate channel when within 3 nautical miles of "A" Head (50° 35′ N., 20° 25′ W.). For details of frequencies see 'Admiralty List of Radio Signals'.
Radio Reporting Points:
- Positions 'EE' and 'CB' are for inward bound vessels.
- Position 'CH' is for inward bound vessels proceeding to the Noise Range buoys, moored 0.75 miles S.E. of "D" Head, and for outward bound vessels proceeding between Bill of Portland and The Shambles.
- Position 'CG' is for inward bound vessels, and for outward bound vessels proceeding East of The Shambles.
- Position 'CF' is for inward bound vessels approaching Portland Harbour from East, and for outward bound vessels proceeding in an Easterly direction.

Reports should include the following information:
- Inward bound vessels:
  - Name of ship.
  - Position (i.e. Reporting Point letters).
  - Destination and ETA.
- Outward bound vessels:
  - Name of ship.
  - Position (i.e. Reporting Point letters).
  - Intended route East or West of The Shambles (if appropriate).

TUGS: Admiralty tugs available.
BERTHING:
Castletown Pier: Castletown Pier is a commercial wharf and leased to Kingston Minerals Ltd. for the discharge of fertilisers. Max. LOA of vessel 82.3 m, beam 12 m. with max. draft 5.3 m.
CRANES: 1 mobile crane.
FUEL: Available by road tanker.
GENERAL: The Harbour and the immediate vicinity are classified as a Dockyard Port under the supervision of the Queen's Harbour Master, Portland. Attention is drawn to Chart 2268 which gives details of the Restricted Area around the Naval Base, of designated Anchor Berths for H.M. Ships, of Prohibited Anchorage areas and of the numerous Admiralty moorings and telephone cables. The Harbour, which is protected by breakwaters, is easily accessible by the North Ship Channel (12 m. LWS) or East Ship Channel (12.5 m. LWS). The South Ship Channel is blocked both above and below the surface and is only suitable for small boats.
AUTHORITY: Flag Officer Sea Training, H.M. Naval Base, Portland. *Contact:* Queen's Harbour Master, H.M. Naval Base, Portland, Dorset. DT5 1BQ. *Tel:* Portland (0305) 820311 Ext. 2106.

PORTREE: 57.24 N. 06.07 W. (See Plan)

PILOTAGE: No Pilots available.
ANCHORAGE: No defined areas, left to the discretion of the ship's Master.
RESTRICTIONS: Berthing of larger vessels dependent on state of the tide. Larger vessels tend to anchor off and transhipment carried out by ship's tender.
MAX. SIZE: LOA 65.5 m., beam 11.25 m., draft 4.08 m. (Summer) and 3.99 m. (Winter).
BERTHING: Depth alongside 4.8 m. (Neaps) and 6.3 m. (Springs). Depth at entrance 9.1 m.
TANKERS: Fuel oil discharged to B.P. storage depot by means of fuel line under pier.
FRESH WATER: There is 1 water supply outlet.
FUEL: Ordinary gas oil available from B.P. Depot during normal working hours.
GANGWAY/DECK WATCHMEN: At the discretion of the ship's Master.
OPENING/CLOSING HATCHES: By ship's crew.
CARGO GEAR: Ship's gear used.
REPATRIATION: No facilities.
AIRPORT: At Broadford, 50 km. from the harbour. One flight a day to Glasgow on Mondays, Tuesdays, Thursdays and Fridays with an additional flight on Saturdays in the Summer.
TIME: GMT in Winter. GMT plus 1 hour in Summer.
HOLIDAYS: January 1st, 2nd and 3rd; Good Friday; Easter Monday; May 1st; Christmas Day and Boxing Day.
POLICE/AMBULANCE/FIRE: Police Tel: Portree 2888.
EMERGENCY CO-ORDINATION CENTRE: Coastguard: Shetland District for Portree. Tel: Oban 63720. Station at Portree not continually manned.
BANKS: Royal Bank of Scotland plc, Bank Street, Portree.
Clydesdale Bank plc, Portree.
Bank of Scotland, Somerled Square, Portree.
STORING: No facilities for storing.
SHIP SUPPLY SERVICE: Not available.
SERVICES: The following are NOT available: Radio, VHF, radar, tugs, cranes, stevedores, medical facilities, consuls, repairs, surveyors, telephones.
GENERAL: Arrivals and departures not desirable on Sunday.
AUTHORITY: Highland Regional Council, Department of Roads and Transport, Regional Buildings, Glenurquhart Road, Inverness IV3 5NX. *Tel:* (0463) 234121. *Telex:* 75313. *FAX:* (0463) 223201.

The Harbour Master, Divisional Engineer's Office, Dunvegan Road, Portree, Isle of Skye. *Tel:* Portree 2727.

PORT ST. MARY, Isle of Man: 54.04 N. 04.44 W. (See Plan)

PILOTAGE: Not compulsory.
MAX. SIZE: See "Berthing".
VHF: Channels 16 and 12 available only when vessels expected.
BERTHING: Outer Harbour (Alfred Pier): Max. LOA 170 ft., draft not to exceed 10.5 ft. to lie afloat over LWST.

Inner Harbour: Max. LOA 160 ft., draft 8.5 ft. at Neaps, 12 ft. at Springs. Harbour dries out at LW. No quay space for storage.
AUTHORITY: Department of Highways, Ports and Properties, Sea Terminal Building, Douglas, Isle of Man. *Tel:* 0624-23813. *Telex:* 629335 Iomhar G.

Isle of Man Harbour Board, Harbour Master's Office, Port St. Mary, Isle of Man. *Tel:* (0624) 833206. *Contact:* Captain A. D. McKaig, Harbour Master.

PORTSMOUTH: 50.48 N. 01.07 W. (See Plan)

DOCUMENTS: (Those marked* to be produced to H.M. Customs Boarding Officer.)

*1 Maritime Declaration of Health.
*1 Crew's Effects List C142.
2 Ship's Reports by Master.
*1 Home Office Form 1B6.
*1 Stores List.
*1 Certificate of Deck Cargo Tonnage.
*1 Grain Certificate.
1 Light Dues Certificate.
1 Port Dues Certificate.
*1 Passenger List.
*1 Landing Card for each non-British passenger.
*Ship's Certificate of Registry.
Mercantile Marine Office Certificate (British ships only).
*Load Line Certificate.
*Safety Equipment Certificate.
Lloyd's Certificate.
*Derat Certificate.
Ship's Register.
Light Bills.
Safety Radio Certificate.
*List C143 for packages not cargo or crew/passenger effects.
*Danish Tollpass for ships arriving from Denmark.

Form of Authority for Agent to make Report and clear vessel outwards for Master.

Note: Where cargo is to remain on board for unloading at another port after Portsmouth, 3 copies of Ship's Report are required by the Customs House.

PILOTAGE: Pilotage is compulsory for all vessels over 48 m. LOA. The Pilot boards at the Warner Buoy or the North Sturbridge Buoy. The pilot boat has a white hull with "Portsmouth Pilots" in black letters on the side of the hull. Pilot boat on VHF Channel 9 and Queen's Harbour Master and Portsmouth Harbour Radio on Channel 11. Pilots require 12 hours' notice of arrival. This notice to include draft, length, beam and particulars of cargo. Vessels should also contact Pilot 2 hours prior to arrival.

When leaving the port, the Pilots require 6 hours' notice (Tel. No. (0705) 834721).

Strict compliance with the requirements of the Merchant Shipping (Pilot Ladders) Safety Rules is requested by the Pilots, who may refuse to board vessels with unsatisfactory and dangerous ladders. Manropes are not required. Ladders should reach to about 3 ft. from the water, each rung resting firmly against the ship's side; a good lee should be provided whilst making approximately 3 to 7 knots headway.

ANCHORAGES: Small vessels may anchor close Westward of the 'Outer Spit' Buoy, unless prohibition signal flying – see "Restrictions". Larger vessels will be allocated a numbered anchor berth in the Spithead Man-of-War anchorage.

If anchorage is prohibited in Spithead, St. Helen's Roads, Ryde Roads or Cowes Roads are the nearest safe anchorages. Mooring Buoys 1, 2 and 3 off North Corner in the Harbour are sometimes used. Pilots will be fully informed before the vessel's arrival.

RESTRICTIONS: The following traffic signals are exhibited and must be complied with by all vessels. Shown by *Central Signal Station (C), Blockhouse (B), Gilkicker (G), Dolphin Pier (D) and H.M. ships concerned (S).

Day	*Night*	*Meaning*	**Shown by*
Red flag with white diagonal.	Red Green Green	No vessel to enter or leave harbour or enter approach channel North of Outer Spit Buoy.	C B G
Red flag with white diagonal over black ball.		No vessel to enter harbour or approach channel. Outward shipping may proceed.	C B G
Black ball over red flag with white diagonal.		No vessel to leave harbour. Inward-bound shipping may proceed.	C B G
Black pendant.	White Red Red	No merchant or private vessel to anchor in man-of-war anchorage in Spithead.	G
Answg. Pendant over Pt 0.		All vessels North of Outer Spit keep clear of warship flying this signal.	S
Answg. Pendant over Pt. 9.	Green Green Green	All vessels and boats keep clear of H.M. ships under way.	C B G
Answg. Pendant over flags N E.	Green Red	Proceed with great caution, ships leaving Camber (Not ferries).	B
Answg. Pendant over flag A.	Red Red	Divers down, keep clear.	Diving boat.
Flag E	Orange	Submarine entering or leaving Haslar Lake. At night, light flashes when sub. under way. All vessels keep clear of submarines.	B D

Speed limit of 10 knots in harbour and when within 1,000 yards of shore in any part of the dockyard port; 12 knots within 1,000 yards of any H.M. ships in any part of the Dockyard Port not covered by the 10 knots limit. Dockyard Port boundaries are shown on Admiralty charts.

MAX. SIZE: See "Berthing".

HEALTH: Foreign arrivals to complete Maritime Declaration of Health. They are cleared immediately on arrival by either a Port Doctor or an officer of H.M. Customs, depending on where ship comes from and whether there is sickness on board.

Vessels arriving from ports within accepted area (North European ports) and coastal arrivals need not present Declaration in all cases; when there is sickness on board, Port Health Authority must be informed preferably not more than 12 hours nor less than 3 hours before arrival.

See "Health – All Ports" before first U.K. port.

RADIO: See "Southampton" for pilotage communications.

Harbour Control is exercised through "Queen's Harbour Master" for commercial traffic on VHF Channels 16 and 11. Gilkicker Radio on Channels 16 and 14 is also available for commercial vessels, and all vessels entering the area bounded by the "Warner" Buoy in the East and the "Sturbridge" Buoy in the West must contact Gilkicker, even if only passing through the District. Channel 13 is the working channel for H.M. ships and the Q.H.M.'s office; call sign "Q.H.M.". H.M. ships are required to keep a listening watch on Channel 16 when in the Portsmouth and Southampton control areas, and will 'shift' to working frequencies selected by mutual agreement. Gilkicker is also equipped for visual signalling. Medium frequency calls to Pilots and Port Authorities only available by link call through Nitonradio.

TUGS: Tow-boat services are available for commercial vessels at commercial berths. In addition Admiralty tugs available at commercial berths by arrangement with Queen's Harbour Master.

BERTHING: Commercial berths: Camber – length 80 m., depth 16 ft. Flathouse – length 137 m., depth 2.0 m. below C.D. Albert Johnson Quay – length 143 m. Depth 3.5 m. below C.D. Continental Ferry Port Ro/Ro Linkspans – Max. length 150 m., depth No. 1 – 5.0 m. below C.D., depth No. 2, 3 and 4 – 7.0 m. below C.D.

Vessels at the Camber, Flathouse and Rudmore Wharves must expect to take the bottom in soft mud.

STEVEDORES: Available by arrangement with stevedoring companies.

MEDICAL: All medical facilities available. Agent should be advised in advance. (See "Southampton" entry if arrival is solely to land sick personnel).

CUSTOMS ALLOWANCES: As for "Southampton".

DENSITY: 1025 salt water.

FRESH WATER: Available.

FUEL: Fuel and Diesel Oil available by road tanker or bunker barge from Fawley.

FIRE PRECAUTIONS: Notices will be delivered to Master if berthing at any jetty where special precautions apply.

OPENING/CLOSING HATCHES: By ship's crew.

CRANES: 32 ton Scotch Derrick at Flathouse Quay. Mobile cranes provided by stevedoring companies.

CONSULS:

Belgium
Denmark
Finland
France
Netherlands
Norway
Sweden

REPAIRS: Minor deck and engine repairs can be carried out locally. Larger repairs and dry dock facilities at Southampton.

AIRPORT: Fast train service from Portsmouth to London Airport. Eastleigh Airport local, but mainly short flights to Channel Islands and feeder services.

SERVICES: All marine, radio and radar services can be obtained from Southampton.

REPATRIATION: All facilities exist.

TELEPHONES: None on board.

SHIP SUPPLY SERVICE: J. Butcher & Sons (Port Services) Ltd. 19 Pembroke Road, Old Portsmouth PO1 2NS. Tel: (0705) 822584. After hours 821347 and 821033.

The Company provides the majority of the towing services in the commercial port, operating in the Eastern Solent from Cowes to Nab Shoal including Spithead, The Mother Bank and St. Helen's Roads. A fleet of 11 vessels is operated, headed by the 525 b.h.p. Kort Nozzle Tugs "Janet James" and "Carol James" providing towing services (including tow boats for smaller ships) and boats for mooring, rope running and berthing purposes. The passenger launch and workboat service transports ships' crews, Agents, technicians, stores and equipment within the harbour area and Eastern Solent.

The tugs and tow boats have been purpose built for berthing and unberthing ships up to 140 m. at the commercial port.

Services of an Admiralty tug available on application to the Queen's Harbour Master.

DEVELOPMENTS: With the opening of the Portsmouth section of the M27 and M275, there is immediate access to the Flathouse and Albert Johnson quays at the Rudmore Roundabout. At present, P & O operate services to Cherbourg and Le Havre; Brittany Ferries to Caen and St. Malo; British Channel Island Ferries to Channel Islands and Sealink to Cherbourg and Channel Islands in Summer.

AUTHORITY: City of Portsmouth, Port Manager's Department, Harbour Officers, George Byng Way, Continental Ferry Port, Portsmouth PO2 8SP. *Tel:* Portsmouth (0705) 834790. *Telex:* 265451 Monref G. Attention 74: SKK 103. *FAX:* (0705) 828441. *Contact:* Rear-Admiral A. S. George Port Manager.

✓

PORT TALBOT: 51.35 N. 03.49 W. (See Plan)

DOCUMENTS: Documentation required for arrival:

C142	2 copies	Crew Declaration
C14	3 copies	Stores Declaration
C13	2 copies	General Declaration (completed by Agent)
C16	2 copies	Cargo Inward Declaration
C74	1 copy	Masters Authority (Agents complete)
C1320	2 copies	Cargo in unregistered spaces

These documents are to be completed and presented with copies of Manifest and ship's documents at the time of report.

PILOTAGE: Compulsory. Station – Swansea Bay. Usual International signals. VHF Channels 16 and 12.

ANCHORAGES: Swansea Bay.

RESTRICTIONS: *Ore Terminal* in New Harbour, entrance channel 1.5 miles long, 550 ft. wide. Depth 60 ft. MHWS, 53 ft. MHWN.
MAX. SIZE: *Ore Terminal:* 100,000 tons d.w.t. ore carriers. Draft 48 ft. 6 in. Also see "Developments".
HEALTH: See "Health – All Ports" before first U.K. port.
TUGS: Join off Breakwater.
BERTHING: *New Harbour:* British Steel Corporation provide 3 unloading appliances on the jetty and also a conveyor-belt system to carry the iron ore to the stocking ground close to harbour and steel works. Grabs on the unloading appliances weigh 22 tons each, and each have a pay-load of 22 tons. The 3 discharging appliances together have an unloading rate of 5,400 t.p.h. Average rate throughout discharge from start to finish of the 3 discharging appliances together is 2,700 t.p.h.

A continuous ship unloader constructed and currently under proof working. At a latter stage 1 or 2 of the existing appliances will be removed. The continuous unloader is rated at 3,000 t.p.h. for iron ore and 1,500 t.p.h. for coal.
STEVEDORES: ETA advices sent by vessels to local Agent and then advised to British Steel Corp. as stevedores. Labour ordered by Agent from B.S.C.
DENSITY: Ore Terminal 1025.
FRESH WATER: By gravity 10 t.p.h. Harbour pumping 100 t.p.h.
FUEL: By barge or road tanker. Any grade available.
GANGWAY/DECK WATCHMEN: None, but bye-laws state that vessel must be manned.
OPENING/CLOSING HATCHES: Performed by crew.
CUSTOMS ALLOWANCES: Tobacco, 1 oz. per day/man, max. 8 days. Wine/Spirits, 0.25 pint per day/man, every 4 days.
IDENTIFICATION CARDS: Docks Police would require identification to be available.
CONSULS: None at Port Talbot, contact Swansea.
REPAIRS: Facilities exist.
SURVEYORS: Cargo Surveyors available locally.

Hull surveyors available from Swansea and Cardiff.
REPATRIATION: All facilities exist.
AIRPORT: Rhoose Airport 25 miles away. Mainly short trips connecting with main airports.
TIME: GMT plus 1 hour. GMT in Winter months.
HOLIDAYS: It is the custom, at the Tidal Harbour, to work on Bank Holidays, except Christmas and New Year.
POLICE/AMBULANCE/FIRE: Dial 999 and ask for service required.
EMERGENCY CO-ORDINATION CENTRE: Search and Rescue Centre - Mumbles. Tel: Swansea 66534.
TELEPHONES: Can be connected on board.
BANKS: Lloyds Bank Ltd., Station Road. Tel: Port Talbot 891401.

Barclays Bank Ltd., Station Road. Tel: Port Talbot 887655.
STORING: See "Prelims".

1. Yes.
2. None.
3. Yes.
4. No.
5. Usual regulations.
6. Riggers not available.

SHIP SUPPLY SERVICE: It is the practice for pilot cutters of Swansea and Port Talbot to ferry personnel, stores, etc. to vessel off shore and due to dock at the respective ports.
Contact: Swansea and Port Talbot Pilotage Authority, 90 Exchange Buildings, Swansea SA1 1SY, W. Glam., S. Wales. Tel: Swansea (0792) 53631. Cables: Pilority.
DEVELOPMENTS: Between April 1988 and October 1988 the channel, harbour and berth are to be deepened in order that vessels of 55 ft. draft and 150,000 d.w.t. may be accepted.
AUTHORITY: Associated British Ports, Harbour Office, Adelaide Street, Swansea, West Glamorgan SA1 1QR. *Tel:* Swansea (0792) 50855. *Telex:* 48150. *FAX:* (0792) 50729. *Contact:* Mr. A.R.Klinck, Port Manager. Captain T. Boyd, Dock and Harbour Master.

RAMSEY, Isle of Man: 54.19 N. 04.21 W. (See Plan)

PORT LIMITS: Line joining Shellag Point (3.25 miles North of harbour entrance) and Cor Stack (2.75 miles S.E. of harbour entrance) defines the port limits.
DOCUMENTS: Same as other U.K. ports.
PILOTAGE: Service provided by Harbour Master and is not compulsory. There is no regular pilot boat. Pilot will board 0.5 miles East of harbour entrance.

Contact Harbour Master direct by telephone (0624) 812245 or by VHF Channels 16 and 12 at tide times only. In all cases as much notice as possible should be given.
ANCHORAGES: No specific anchorages, but anchoring not permitted within 4 cables of harbour entrance or within 4 cables of Queen's Pier (3.5 cables S.E. of harbour entrance). Moderately good holding ground in sand, often used by sheltering vessels in S.S.W. or N.W. gales.
RESTRICTIONS: Harbour dries out each LW.

MHWN: Max. available depth 3.80 m.
MHWS: Max. available depth 5.50 m.
MAX. SIZE: For East Quay and West Quay: Max. length 61 m., breadth 9.0 m. Draft 3.0 m. on Neap tide, 4.0 m. at Spring tides.

For Channel Berth: Max. length 70 m., breadth 13 m.

For all berths max. available depth will vary according to tide.
HEALTH: Standard U.K. procedure.
RADIO: R/T, W/T and VHF through Portpatrick Radio (GPK) or Anglesey Radio (GLV).
VHF: Coverage from Harbour Master's Office includes port and approaches, Channels 16 and 12 at tide times only.

Coverage of North Irish Sea from Snaefell Summit by Douglas Harbour Radio, continuous 24 hour watch on Channel 16. Messages may be passed through Douglas Harbour Radio to amend ETA Ramsey etc.
RADAR: No port radar.
TUGS: Two tugs (420 i.h.p. and 345 i.h.p.) based at Douglas. Can be made available with sufficient notice, if required.

BERTHING: All berths dry out each LW. Bottom is sand and shingle.

Name	*Length* (m.)	
Channel Berth	76	
East Quay	116	
West Quay	80	
North Quay	73	For lay-by only.

With exception of North Quay all berths readily accessible to road traffic. Load/discharge by ship's gear or shore equipment at ship's discretion.
CRANES: No cargo handling gear at any berth. Mobile cranes can be arranged through Agents with reasonable notice.
BULK CARGO FACILITIES: Bulk cement handling facility at East Quay No. 2 Berth with 2×500 ton silos. Privately owned.
SPECIALISED CARGO HANDLING FACILITIES: No Ro/Ro, container handling or bulk liquid handling facilities.
BRIDGES: Access to upper harbour through swing bridge, by arrangement with Harbour Master. Sufficient depth of water usually available 2 hours either side of HW. At least 24 hours' notice required to swing the bridge outside normal working hours, weekends and holidays. Within normal working hours less notice is acceptable.
STEVEDORES: Arranged through Agent. A minimum of 24 hours' notice required and all working hours are negotiable in advance. Main commodities discharged are grain and coal by mobile crane with grab – average discharge rate is approx. 60 t.p.h. Occasional grain cargo loaded by mobile elevator at approx. 40 t.p.h.
MEDICAL: Hospital and dental facilities available without prior notice.
TANKERS: No tanker facilities or berths available.
DENSITY: 1025.
FRESH WATER: Available by hose at approx. 30 t.p.h. on East, West and North Quays. Labour charge £7.30 per hour (minimum 2 hours) plus £1.45 per 1,000 gallons.
FUEL: Delivery by road tanker from Douglas to all berths except North Quay. Gas oil and medium fuel oil available at 24 hours' notice. Tel: (0624) 74652 or via Agent. Minimum 100 gallons, maximum unlimited.
CONSULS: None.
REPAIRS: All types of deck and engine repairs possible by small shipyard in upper harbour.
DRY DOCKS: No dry docks but 2 slipways; one for vessels about 185 g.r.t. and one for about 50 g.r.t. Both slipways in upper harbour.

Also a grid in upper harbour which dries out at approx. half tide, length 40 m., breadth 7.5 m. This grid used occasionally by vessels of up to 300 g.r.t. for bottom plate inspection/repairs. At least 72 hours' notice required, more if possible. Grid hire arrangement through Harbour Master.
SURVEYORS: All surveyors from Liverpool by arrangement.
GANGWAY/DECK WATCHMEN: Not required.
HATCHES: Normally handled by ship's crew.
CUSTOMS ALLOWANCES: Standard U.K. allowance.
CARGO GEAR: Loading/discharging of general by ship's gear or mobile crane. Discharge of bulk by grab equipped mobile cranes. A wide range of mobile cranes up to 25 tons available for hire at reasonable notice.
REPATRIATION: Facilities available for repatriation of crew members.

Daily scheduled aircraft connections to London and other U.K./Irish airports. Daily ferry services to Heysham. These services operate all year with supplementary air and sea services to other destinations during the Summer.
AIRPORT: 25 miles distant.
TIME: GMT and BST.
HOLIDAYS: New Year's Day, Good Friday, Easter Monday, May Day, Whit Monday, Senior TT Race Day (usually 1st or 2nd Friday in June), Tynwald Day (5th July), August Bank Holiday, Christmas Day, Boxing Day.

Cargo not normally worked on these days but all working hours are negotiable in advance.
POLICE/AMBULANCE/FIRE: All emergency services available by telephoning 999 on any telephone, no charge is made for this call. Assistance possible from H.M. Coastguard on VHF Channel 16.
EMERGENCY CO-ORDINATION CENTRE: H.M. Coastguard, Ramsey Marine Rescue Sub-Centre, Queen's Promenade, Ramsey. Tel: (0624) 813255. Telex: 627382. VHF Channel 16.
TELEPHONES: There are no facilities for telephones to be placed on board.
SERVICES: Compass adjuster and Lloyd's Agent available. Decca, Kelvin Hughes, Furano, etc., repairs and servicing available locally. Divers available via Harbour Master.
SHORE LEAVE: When Immigration and Customs requirements satisfied (for vessels arriving from a port outside the U.K.), no restriction on crew shore leave provided that they rejoin prior to the vessel's departure.
IDENTIFICATION CARDS: Not required.
DELAYS: Berthing delays are not usual (disregarding awaiting tide) except when strong N.E. to S.E. winds make navigation in the harbour entrance hazardous. These conditions may cause 1-2 days delay if severe.
BANKS: Barclays Bank, 52 Parliament Street. Tel: (0624) 813124.

I.O.M. Bank, 20 Parliament Street. Tel: (0624) 812829.
Lloyd's Bank, 71 Parliament Street. Tel: (0624) 812225/814233.
Midland Bank, St. Paul's Square. Tel: (0624) 814000.
Nat. West Bank, Peel Street. Tel: (0624) 812109.
Major banking facilities are available in Douglas.

STORING: See "Prelims".

1. Vessel may be stored by barge or truck.
2. No restrictions unless dangerous cargo being handled. If dangerous cargo being handled as cargo or as part of the stores then all other cargo work/storing to cease.
3. Berths accessible to all road traffic.
4. Fork lift trucks may be used on quayside.
5. Bonded stores available through local agent, who will arrange necessary clearance, etc. H.M. Customs may attend at their discretion.
6. Riggers may be arranged through local agent at reasonable notice.

SHIP SUPPLY SERVICE: See "Douglas".

AUTHORITY: Department of Highways, Ports and Properties, Harbours and Marine Division, Sea Terminal Building, Douglas, Isle of Man. *Tel:* 0624-23813. *Telex:* 629335.

Harbour Office, East Quay, Ramsey, Isle of Man. *Tel:* 0624-812245. *Contact:* Captain M. Brew, Harbour Master.

RAMSGATE: 51.20 N. 01.24 E.

(A) RAMSGATE WESTERN TERMINAL

PILOTAGE: Compulsory for most merchant vessels. Tel: (0843) 592277. VHF Working Channels 16 and 9.

Minimum notice: Inward 12 hours. Outward: 2 hours.

ANCHORAGE: Anchorage at Margate Roads and The Downs off Deal (Chart No. 1828 Dover to North Foreland).

APPROACHES: *Approach Channel:* The approach channel has a depth of −6.5 c.d. with a base width of 85 m. Tidal range is +0.3 c.d. to +5.2 c.d. (predicted). The channel extends East from Long. 1° 25′ 30″ E. for a distance of 2,000 m. from Ramsgate breakwater heads which are marked as follows:

East Brake Buoy: East Cardinal QK FL. 3 every 10 seconds W. Lat. 51° 19′ 27″ N., Long. 01° 29′ 06″ E.

Starboard Channel Buoy No. 1: Green conical with green conical topmark. FL. every 5 seconds. G. Lat. 51° 19′ 30″ N., Long. 01° 27′ 19″ E.

Port Channel Buoy No. 2: Red can with can topmark. FL. 4 every 10 seconds. R. Lat. 51° 19′ 27″ N., Long. 01° 27′ 19″ E.

Mid Channel Buoy No. 3: Green conical with green conical topmark. FL. every 2.5 seconds G. Lat. 51° 19′ 30″ N., Long. 01° 26′ 39″ E.

Mid Channel Buoy No. 4: Red can with red can topmark. QK FL. R. Lat. 51° 19′ 26″ N., Long. 01° 26′ 39″ E.

Dike Beacon Buoy No. 5: South Cardinal. QK FL. 6 plus 1 long every 15 seconds W. Lat. 51° 19′ 30″ N., Long. 01° 26′ 00″ E.

Quern Beacon Buoy No. 6: North Cardinal. QK FL. W. Lat. 51° 19′ 26″ N., Long. 01° 26′ 00″ E.

East Breakwater Light Tower: Lat. 51° 19′ 31″ N., Long. 01° 25′ 34″ E. Day mark red and white. Qk. Fl. Green.

West Breakwater Light Tower: Lat. 51° 19′ 25″ N., Long. 01° 25′ 30″ E. Day mark green and white. Qk. Fl. Green.

Front Lead Beacon: Lat. 51° 19′ 29″ N., Long. 01° 24′ 59″ E. Occulting 8 secs. on, 2 secs. off. Racon beacon fitted. Coloured sectors light: green 10°, white 2°, red 10°.

Rear Lead Beacon: Lat: 51° 19′ 29″ N., Long: 01° 24′ 44″ E. Fl. every 5 secs. White.

Harbour Signals: Harbour signals conform with proposed International Harbour Signals will be established at the West Pier Signal Station when the Harbour Authorities requires that the deep water approach channel be kept clear.

Ramsgate Turning Basin: Maximum dimensions 500 m. North–South; 550 m. East–West, giving a free swing diameter of 300 m. (ref. to Chart No. 1827 Ramsgate Harbour and Approaches).

VHF: *Vessel Traffic Services:* All arriving vessels are to notify the VTS Office at the West Pier Control Tower on VHF Channels 14 or 16 of intended arrival and requirements. Tel: (0843) 592277.

Vessels should report when approximately 1 hour from Point "R" (Romeo) which is defined as a radius of 2.5 miles from the centre of a line joining the Channel Entrance buoys.

TUGS: 1×18 tons bollard pull.

BERTHING: *No. 1 Berth/Linkspan:* Depth: 6.5 m. (c.d.); beam: 17 m. – 19 m. (vessels). 4 point mooring system: 2 concrete dolphins with fenders; 1 pile cluster mooring point aft, 1 mooring buoy forward.

Note: The linkspan is presently being replaced by a pontoon type linkspan with a similar specification to that forming Berths No. 2 and 3.

Fender positions from the ship end of the linkspan.
No. 1: 38 m.
No. 2: 80 m.
Linkspan Length: 50 m.
Widths: ship end: 14 m.
A.O. bridge: 4 m.
clear road: 3.5 m.
Ship end free board: variable.
Road level at hinge end: +8.07 m. (c.d.).
Safe Working Load: 50 tons.

No. 2 and 3 Berths/Linkspans: Depth: – 6.5 m. (c.d.). Beam: 25 m. (vessels).

9 point mooring system along the centre line of the berthing structure. 4 fenders on each side.

Fender positions from the linkspan front face:
No. 1: 38 m.
No. 2: 63 m.
No. 3: 80 m.
No. 4: 100 m.
(outer bollard 110 m.).

Pontoon type linkspans:
Length: 31.0 m.
Breadth: 23.0 m.
Depth moulded: 4.4 m.
Depth working: 1.0 m.
Ship end free board: variable
Ramp:
Length: 40.0 m.
Width: 9.1 – 10.7 m.
Free width: 7.0 – 9.7 m.
Axle load: 50 tonnes

CARGO HANDLING FACILITIES: 2 in No. 4 terminal tractors, 70 ton drawbar pull. 6 in No. 2 terminal tractors, 50 ton drawbar pull. Fork lift 12 ton lift. Fork lift, 1.5 ton lift. Baggage tractors.

Craneage available to maximum lift 100 tonnes at 24 hours' notice.
Port area of 21.25 acres or 86,000 sq.m.
Freight transit shed: internal area 1.050 sq.m.
Open storage areas.

MEDICAL: Hospital, doctor and dentist available.

FRESH WATER: Available.

FUEL: Available.

FIRE PRECAUTIONS: Fire hydrants available at each berth.

REPAIRS: Possible.

A. & P. Appledore, Military Road, Ramsgate.

REPATRIATION: Possible.

AIRPORTS: 3 miles West of Ramsgate is Manston Airport. Manston has one of the longest runways in the U.K. and is able to handle the largest trans-Atlantic jumbo freighters. Seabourne Aviation have been granted a 99-year lease from the Ministry of Defence to develop the airport as a major freight handling centre.

Intermodal transport opportunities enabling cargo to be flown in from around the world and transhipped by Ro/Ro to all parts of Europe is a special attraction for Port Ramsgate users.

In addition to Seabourne Aviation, the commercial operators of Manston who run the Seabourne Express intra-European delivery service, there is a major trans-Atlantic air cargo consolidator, Air Express International.

AEI now uses Manston for its CL44 freighter flights from New York because of its superior location in relation to the Continent and its 24 hour, congestion-free terminal.

Seabourne and AEI are discussing the possibility of feeder services linking with AEI's trans-Atlantic flights. With the help of precise timetabling, it is reckoned that cargo could be transhipped at Manston and be on a ferry to the Continent in less than 3 hours.

A full range of passenger reception facilities are available at Manston, and have been used by British Air Ferries for weekly flights to and from Jersey.

DEVELOPMENTS: Port Ramsgate's Phase III Development was completed in June 1986. The contract involves the provision of a further 20,000 sq.m. of hard-standing South of the existing terminal extension, the connecting of the two separate sections of breakwater with each other and the shore, and the construction of an extra section of breakwater from the end of the Eastern arm of the Royal Harbour in a Southeasterly direction, thus narrowing the port entrance.

Development, however, will continue despite the fact that with the completion of Phase III, Port Ramsgate will be fully protected from all states of the weather and capable of handling two additional operators.

Long term plans will result in the provision of a further 60,000 sq.m. of hard-standing, up to 3 more Ro/Ro, 2 Lo/Lo berths and a widened and deepened approach channel and turning area within the breakwaters. A new terminal for passengers and accompanied car traffic is also planned, in addition to further back-up facilities for freight operators.

AUTHORITY: Thanet District Council, P.O.Box 9, Margate, Kent *Tel:* (0843) 225511.

West Pier Control Tower: *Tel:* (0843) 592277.

Operator: Port Ramsgate Ltd., Ramsgate, Kent CT11 8RP. *Tel:* (0843) 587661. *Telex:* 966340. *FAX:* (0843) 589570. *Contact:* R. Cooper, Managing Director. P. Rangeley, Operations Manager.

(B) ROYAL HARBOUR

ANCHORAGE: Vessels waiting to enter Ramsgate may anchor in Margate Roads or in the vicinity of the Broadstairs Knoll Buoy, paying due regard to the presence of submarine cables.

APPROACHES: *Approach Channel:* The main channel, 85 m. wide at the base, extends 2,133 m. to seaward from the harbour entrance. Additionally a turning area has been dredged West of the harbour entrance and in the vicinity of the ferry terminal. The centre of the channel is indicated by leading lights and marks 090°–270° True.

Harbour Signals: Permission to enter the channel and the Royal Harbour may be requested by radio from the Harbour Control. Harbour signals to conform with the International Harbour Signals, are displayed by the Harbour Control and also at the Lock Head to the marina.

RESTRICTIONS: *Times of Entry:* The main channel has been dredged to a depth of 6.5 m. below datum, allowing unrestricted entry to the Western Terminal. The entrance to the Royal Harbour is maintained at 3.0 m. below datum and vessels are advised that this normally allows entry for at least 2 hours on either side of HW.

MAX. SIZE: Max. LOA 105 m. Max. draft 4.8 m. (2 hours either side of HW).

VHF: *Vessel Traffic Service:* Vessels wishing to enter Ramsgate Harbour must report to the Harbour Control on Channel 14 when arriving at a point 2.5 miles from the channel entrance buoys. This point is referred to as "Point Romeo" and permission must be obtained to enter the channel before proceeding further.

BERTHING: Commercial Quay: Length 109 m. Width 18.0 m. Berthing possible on the East side.

Ro/Ro Berth: Vessels berth against dolphins which are 36 m. apart. Linkspan available.

CRANES: 1×18 ton crane available. Private cranes up to 130 tons capacity may be hired. Fork lift trucks available.
STEVEDORES: Available locally.
MEDICAL: Hospital, doctors and dentists available locally.
FRESH WATER: Available.
FUEL: Small quantities available by barge. Larger quantities available by road tanker.
CONSULS: See "Dover".
SURVEYORS: Available locally.
REPAIRS: Minor repairs possible. Slipway for up to 500 tons capacity.
HATCHES: Opened and closed by crew.
AIRPORT: See "Port Ramsgate".
EMERGENCY CO-ORDINATION CENTRE: The RNLI maintains a motor lifeboat stationed in the harbour, and Air Sea Rescue facilities are provided by RAF helicopters from nearby Manston Airport.
POLICE/AMBULANCE/FIRE: Dial 999.
SERVICES: The following are available: radio repairs, ship chandler, diving services, charts, compass adjusting, Derat and fumigation.
AUTHORITY: Thanet District Council, P.O.Box 9, Margate, Kent CT9 1XZ. *Tel:* (0843) 25511. *Telex:* 966182.

Ramsgate Harbour Office, Military Road, Ramsgate, Kent. *Tel:* (0843) 592277. *Telex:* 965861. *FAX:* (0843) 590941. *Contact:* Capt. T.R. Phinn, Harbour Master. Commander C.H. Marsh, General Manager.

RYE: 50.56 N., 00.47 E. (See Plan)

PORT LIMITS: An imaginary line between No. 2 red light and No. 1 white light.
DOCUMENTS: Usual documents required for Customs.
PILOTAGE: Call "Rye Pilots" 1 hour before to 1 hour after HW. Pilots attend station when vessels expected – ETA 24 hours in advance.

Vessels fitted with VHF Radio should keep watch on Channel 14 when arriving and sailing from Rye and call for instructions on traffic movements.

Pilotage will be compulsory when the Pilotage Act is ratified.
ANCHORAGES: Vessels may anchor at the Fairway Buoy or shelter from Southwesterly winds in the East Roads (St.Mary's Bay).
NAVIGATION: *Leading Marks:* Inner Leading Light – Occulting Green 4 secs. with white sector 326°T to 331°T.
Tide Signals: Shown from harbour office, 0.75 miles inside harbour entrance on East Bank.

Night – 7 ft. to 10 ft. on bar. Fixed Green.
Over 10 ft. on bar. Fixed Purple.

Day – None, but horizontal timbers on tripod beacon at harbour entrance indicate plus 5 ft., plus 10 ft., plus 15 ft. above Ordnance Datum.
Traffic Signals: Day and Night: Qk. Fl. Yellow above Harbour Office and at West end of Alsford's Wharf denote immediate shipping movement into or out of harbour.

Day – on Flagstaff yard arms behind Harbour Office denotes expected shipping movements on tide.
One Black Ball – ship arriving from sea.
Two Black Balls side by side – ship sailing.
Three Black Balls in a triangle – ships arriving and sailing.
Fog Signals: East Pierhead Horn every 7 secs.
RESTRICTIONS: Night navigation possible for vessels of less than 210 ft. LOA.

Also see "Berthing".
MAX. SIZE: LOA 235 ft. Max. draft 13 ft. 06 in.
VHF: Call sign "Rye Harbour Radio" Channels 16 and 14. 0900 – 1700 hrs. daily. "Dover Coastguard" VHF Channels 16 and 67.
TUGS: None available. Harbour launch will assist if requested.
BERTHING: Cargo vessels entering Rye Bay should follow the coast from Dungeness coming from the East or Fairlight coming from the West keeping at least 2 miles offshore until Rye Fairway Buoy is reached (Spher. R.W. Fl. 10 secs.), position 149° T, 1.8 miles from the harbour entrance. Anchorage 5 fathoms. at MLWS.

The entrance is 42 m. (140 ft.) wide and is recognised by a conspicuous tripod beacon (Fl. 5 secs. Red), 30 m. seaward of the West Groyne which is 240 m. seaward of the East Pier with the light tower (Qk. Fl.(9) 15 secs.). The channel virtually dries and is liable to change. The East Pier submerges at HWS and is marked by starboard hand beacons. There is a strong eddy inside the East Pier during the flood stream.

Inside the entrance the channel narrows to 30 m. and runs straight for half a mile (329°T) to Rye Harbour Village where there is an inner leading light (Occ. W.G. 4 secs.). Strict attention should be paid to Port Hand Beacons (4 with Qk. Fl. Red) which mark a training wall on the West side of the channel (submerged at plus 8.3 O.D.N.)

The Rother has a strong flood stream and as the harbour dries out it should NOT be approached 3 hours either side of LW. In gales from the S.E. through to S.W. waves break across the entrance.

The best time for any vessel to enter or leave the port is 1 hour either side of HW but care is needed because movement of cargo vessels takes place during this period (see "Navigation" – "Traffic Signal"). Visiting yachts may berth at the Admiralty Jetty by the Harbour Office and in mud berths at Strand Quay in Rye by arrangement with the Harbour Master. Subject to weather conditions it is possible for vessels drawing less than 1.5 m. to enter the harbour at HW minus 2.5 hours (before the flood tide flows at maximum rate) to plus 3 hours.

H.M. Customs clear craft entering from abroad at the Harbour Office.

Alsford's Wharf is located 1 mile from the entrance on the West bank of the river.

Length of quay 600 ft. Berth handles grain, aggregate, fertilisers, general cargo, etc.
CRANES: 2 mobile cranes of 3 tons (SWL) available for cargo handling. Stores are loaded by these cranes.
BRIDGES: No airdraft restrictions.
STEVEDORES: Stevedores ordered through vessel's agent. Usual working hours 0730 – 1700 hrs., Monday to Friday. Overtime is possible by arrangement.
MEDICAL: The Royal East Sussex Hospital at Hastings (15 miles) maintains a 24 hour casualty service. Doctors and Port Health Officers available locally.
TANKERS: No facilities.
DENSITY: 1025.
FRESH WATER: Available from the quay by hose.
FUEL: Agent arranges supply through a local supplier.
FIRE PRECAUTIONS: Usual precautions necessary.
CONSULS: None locally.
REPAIRS: Minor engineering repairs possible. Radio and radar repairs by arrangements.
DRY DOCKS: None locally.
SURVEYORS: Cargo inspectors arranged by agent. No Classification Society surveyors locally.
GANGWAY/DECK WATCHMEN: Not available.
OPENING/CLOSING HATCHES: Normally carried out by crew.
CUSTOMS ALLOWANCES: Standard British allowances.
REPATRIATION: Possible. Crew may be repatriated through Heathrow Airport or Dover and Newhaven for continental ferry services.
AIRPORT: Heathrow Airport is 1.5 hours by road.
EMERGENCY CO-ORDINATION CENTRE: Contact Dover Coast Guard on VHF Channels 16 and 67.
TELEPHONES: Not available.
SERVICES: Any services required should be arranged with the agent prior to arrival.
BANKS: Major banks located in Rye.
STORING: See "Prelims".

1. By truck.
2. N.A.
3. Yes.
4. Yes.
6. Yes.

SHORE LEAVE: Permitted.
DELAYS: None.
GENERAL: *Tidal Information:* These tide tables are referred to Ordnance Datum Newlyn and GMT.

Chart Datum equals O.D. Newlyn minus 4 m. (13 ft.)
O.D. Newlyn equals Chart Datum plus 4 m. (13 ft.)
Duration of Mean Rise at Rye Harbour:
Spring – 3 hours 15 minutes.
Neaps – 5 hours 00 minutes.

Latest Surveys (September 1987) indicates that the main channel leads E.S.E.'ly from red light marking end West Groyne. Average depth in the channel at the entrance:
At MHWS – 5.5 m. (19.2 ft.)
At MHWN – 4.5 m. (15 ft.)
Depth over bar:
At MHWS – 4.2 m. (13.8 ft.)
At MHWN – 2.5 m. (8.2 ft.)

For depth at HW at Alsford's Quay add 1.52 m. (5 ft.) to predicted height given in tables.

For depth at HW at Strand Quay mud berths deduct 0.6 m. (2 ft.) from predicted height.

The following approximate corrections for level and time of HW should be added/subtracted to convert these tables for use at the undermentioned coastal areas:

Hastings	minus 0.8 ft.	minus 2 minutes
Dungeness	plus 0.9 ft.	minus 6 minutes
Folkestone	minus 1.6 ft.	minus 15 minutes

AUTHORITY: Southern Water, Kent Division, Luton House, Capstone Road, Chatham, Kent ME5 7QA. *Tel:* Medway (0634) 830655. *Telex:* 965134 Krw Me G. *Contact:* Mr. George Roberts, Rivers Controller. Tel: Rye 223256. Captain C. Bagwell, Harbour Master. Tel: Rye 225225.

SCALLOWAY: 60.08 N. 01.16 W. (See Plan)

Scalloway is a small port on the Atlantic side of the Mainland of Shetland and is located only 7 miles by road from Lerwick.

The main trade is centred around the catching, processing and export of fish, but there has been a marked increase in general trade since the recent improvement of port facilities.

Most services are available and can be arranged through the local shipping Agents.
Communications: Listening watch is maintained on Channel 16 only during office hours. At other times contact to be made through Shetland Radio. Local shipping agent Tel: Scalloway 636 (office), after hours: Scalloway 304. Pier Master's Office, Scalloway 574, home Scalloway 324. Assistant Pier Master, Lerwick 3485.
ANCHORAGES: Good holding bottom in Scalloway Bay.

Anchorage may also be obtained at several locations within the port approaches and vessels intending to do so should advise the Scalloway Pier Master via VHF who will provide advice on areas encumbered by static fishing gear.

PILOTAGE: Licensed Pilots are available and requests for pilotage should be made at least 12 hours in advance of ETA and confirmed 1 hour before arrival by calling Scalloway Harbour Radio on VHF Channels 12 or 16. Requests for pilotage should be made through Scalloway Harbour Office (Scalloway 574), through Sullom Voe Port Control Tel: 0806 – 242551 or Telex: 75142 (manned 24 hours), or through agents. No particular light or sound signals are required and pilot boat freeboard is 1.5 m. Pilot boarding stations are charted on the current edition of BA. Chart No. 3294. Masters should advise the intended pilot boarding station when confirming ETA and should note that the Northerly station is preferred in bad weather or high swell. Pilotage is not compulsory except for vessels carrying hazardous cargoes for which it will be compulsory after October 1st 1988.
RESTRICTIONS: No night time or tidal restrictions. Largest scale and up to date charts essential.
MAX. SIZE: Maximum length 95 m., max. draft 6.0 m. Vessels exceeding these dimensions may be accepted by prior arrangement. A tide gauge is being installed and precise tidal heights will be available on request by radio.
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: Shetland Radio.
VHF: Vessels should listen to Channel 16 VHF when in VHF range.
BERTHING:

Berth No.	*Length* (m.)	*Least Depth* (m.)
1	66	7.5
2	53	4.0
3	77	4.2
4	75	6

Berth No. 1 can accommodate vessels up to 95 m. in length.
CRANES: Mobile cranes available. Ships normally employ their own cranes.
STEVEDORES: Should be arranged through Agents.
MEDICAL: Doctor based at Scalloway. Hospital at Lerwick.
FRESH WATER: Available from standpipe at all berths, rate 10 t.p.h.
FUEL: Marine gas oil by pipe or from road tanker. 1 hour advance notice through Agent.
REPAIRS: Most types deck and engine repairs.
SLIPWAYS: Slip accommodation for vessels up to 180 tons.
SURVEYORS: Lloyd's Agency at Lerwick: Hay and Company (Lerwick) Ltd., 106a Commercial Street. Tel: (0595) 3057. Telex: 75295.
CUSTOMS ALLOWANCES; See "Lerwick".
REPATRIATION: Facilities for effecting crew changes.
AIRPORT: Sumburgh Airport 25 miles. British Airways several times daily. Tingwall Airstrip 3 miles.
HOLIDAYS: Cargo or shipping operations not affected by holidays.
POLICE/AMBULANCE/FIRE: Dial 999.
TELEPHONES: No arrangement for placing telephones on board. The Port Authority provide a telephone box in the harbour area.
SERVICES: Compass adjusting. Provisions of all kinds can be obtained locally.
SHORE LEAVE: Crew members allowed ashore.
AUTHORITY: Shetland Islands Council, Ports and Harbours Department, Port Administration Building, Sella Ness, Graven, Mossbank, Shetland ZE2 9QR. *Tel:* Sullom Voe (0806) 242551. *Telex:* 75142. *Contact:* Captain G. H. Sutherland, Director of Ports & Harbours. Captain C. J. Nicolson, Deputy Harbour Master/Deputy Port Director.

SCAPA FLOW (Flotta Terminal), Orkney Isles: 58.53 N. 03.05 W. (See Plan)

OPERATOR: Occidental of Britain Inc., Flotta Terminal, P.O.Box 14, Kirkwall, Orkney. Tel: Longhope 341.
DOCUMENTS:

Maritime Declaration of Health (Form supplied by Pilot or Agent).
Vaccination List.
Immigration Form H.O. Form IS6.
Crew Lists — 2 required.
Ship's Stores List.
Crew Personal Effects Declaration, Customs Form C.142.
Last Port Clearance.
Ship's Register.
Load Line Certificate.
Safety Construction Certificate.
Safety Radio and Safety Equipment Certificates.
Derat Certificate.
Previous British Light Dues Receipts.

Customs and Health: Weather permitting, Customs, Immigration, Health and Agent will embark inside Scapa Flow.
Customs House: Customs clearance inward and outward will be the responsibility of ship's Agents.
Light dues will be paid by the vessel.
Cargo Documents: Bills of Lading; Cargo Manifest, Quantity and Quality Report; Tanker Time and Loading Report; Certificate of Origin; Ship's Cargo and Ullage Reports; Master's Receipt for Shipping Documents and Documentation Transmittal Reports will be prepared by Company Representative.
Ship's Agent: All ship's business other than Cargo and Customs documentation and the shipping documents under section above will be conducted by the ship's Agent.
EDP: Early Departure Procedures apply to most vessels. Blank Bills of Lading are signed by the Master on arrival, and the tonnages inserted on completion of loading.

PILOTAGE: Pilot vessels *Scapa Pathfinder, Scapa Pilot* and *Scapa Patrol* watch VHF Channel 16.
Inside pilot station (Lat. 58° 46′ N., Long. 03° 07′ W.) located 2 miles 180° from Cantick Head Lighthouse.
Unfamiliar vessels, VLCCs, also any vessel without full information about the unusually strong currents in Pentland Firth is recommended to embark the Pilot at the appropriate outside position (Refer to Tidal Stream Atlas, Admiralty Publication H.O. Number NP 209).
Port Restrictions which may cause delays: Weather preventing embarkation of Pilot at either inside or outside positions.
Local wind conditions in Scapa Flow preventing a safe approach to the berth.
Remarks: In Scapa Flow the weather conditions, in particular the wind, can change suddenly and quickly deteriorate, not only in Winter but at any time of the year.
Mooring Masters: A Company Mooring Master will board vessels to the Northward of the Calf of Flotta or at her designated anchorage within Scapa Flow prior to berthing at any Terminal Facility. A Company Mooring Master will be on board during the time that a vessel is moored and he will liaise between the Terminal and ship personnel throughout any deballasting, loading or discharging operation.
The Company Mooring Master may ensure that Masters of vessels are familiar with, and strictly observe, all local regulations concerning the safety of operations and pollution of the sea by oil whilst laid at the Company's facilities.
Vessels using the Company's facilities are required to provide the Mooring Master with accommodation and messing of a standard equivalent to that enjoyed by the vessel's officers.
ANCHORAGE: Inside Scapa Flow several anchorages are available depending upon prevailing winds. Sea anchorage outside, in the approaches to the Pentland Firth, is not possible.
APPROACHES: The approach to the Terminal is through the Pentland Firth from East or West, and then Northward through Hoxa Sound, the main entrance to Scapa Flow. Consult Admiralty Sailing Directions Vol. 1, and Admiralty Tidal Stream Atlas for Orkney and Shetland, Publication No. 209. Principal charts are as follows and Decca coverage is available: Admiralty Chart Nos. 2162, 2581, 35.
MAX. SIZE/RESTRICTIONS: The current maximum sizes of crude tankers permissible at Flotta is 200,000 d.w.t. at the SPMs and 150,000 d.w.t. at the jetty.
Since the advent of segregated ballast tankers, an anomaly has arisen between the physical size of tankers, upon which these maximums are based and the deadweight capacity. In order to prevent confusion as to the size of tanker that is acceptable, the following guidelines will be enforced.

	Conventional Ballast Tankers	*Segregated Ballast Tankers*
SPMs	200,000 d.w.t.	170,000 d.w.t.
Jetty	150,000 d.w.t.	130,000 d.w.t.

Prior to accepting crude vessels it must be clarified whether the vessel is a segregated ballast tanker or a conventional ballast tanker. If a segregated ballast tanker then the deadweight must be indicated. If the tanker has been converted from a conventional ballast tanker to a segregated ballast tanker, then the original deadweight should also be indicated.
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: Arrival Notices.
Pilots: By coastal radio station 24 hours and 12 hours prior to arrival. VHF contact at least 3 hours prior to arrival at the pilot station.
Terminal: By coastal radio station 7 days, 72, 48 and 12 hours prior to arrival at the pilot station.
VHF contact should be established at least 3 hours prior to arrival at the pilot station.
The Terminal must be advised by VHF via the "Harbour Control", when the Pilot has boarded or when 6 miles from Stanger Head at the entrance to Hoxa Sound.
INFORMATION REQUIRED PRIOR TO ARRIVAL:
Radio Advice Prior to Arrival: Terminal operated by Occidental of Britain, Flotta Terminal, Telex: 75212 (Oxyops G), via Portishead Radio, of ETA with following details. Also advise Agent of ETA, drafts fore and aft for arrival, and any immediate requirements on arrival.

Standard Message to Crude Vessels (Initial Visit): Masters are advised that reception facilities are available for clean ballast only. All ballast must be discharged to reception facilities ashore. No ballast from either cargo or permanent ballast tanks is permitted to be discharged into Scapa Flow.
Please advise the following details:

AAA	Arriving and sailing drafts and ETA.
BBB	Cargo requirements in metric tonnes.
CCC	Grade of previous cargo.
DDD	Quantity of Cargo tank ballast and position uplifted.
EEE	Quantity of permanent ballast and position uplifted.
FFF	Quantity of ballast for discharge ashore.
GGG	Last port and destination.
HHH	Is inert gas system fully operational and cargo tanks inerted?
JJJ	Oxygen level in cargo tanks.
KKK	Gross nett and summer d.w.t. tonnages.
LLL	Maximum loading rate.
MMM	Total time for deballast.
NNN	Number and size of cargo manifolds.
OOO	Availability of reducers to adapt manifolds to suit 16 in. 150 ASA flanges three required.
PPP	Can vessel load and deballast simultaneously while maintaining a minimum of a two valve separation?
QQQ	Is vessel equipped with a patent A.K.D. stopper or similar capable of accepting an 80 mm. end link?

Vessels are required to load part cargo prior to discharging ballast.

Minimum 10 ton SWL derrick required on port side for SPMs. Derrick required at jetty if it is necessary to fit spool pieces to accept loading arms. Ballast manifold is aft of two crude connections on SPM.

Your attention is drawn to the serious view taken by Port and Terminal Authorities of pollution. Heavy fines are imposed to which is added the cost of clean-up operations. Please ensure all crew members are conversant with and comply with pollution requirements.

Principal pollution causes are leaking sea valves overboard discharge valves and cargo or bunker overflows. We recommend sea valves, overboard discharge and bilge discharges are checked tight. Prior arrival cargo and bunkering procedures should be reviewed with chief officer and chief engineer. All scuppers to be plugged.

NOTE: On subsequent visits vessels should only answer AAA to JJJ inclusive.

Standard Message to Liquid Gas Carriers (Initial Visit):

LIQUID GAS CARRIERS ARRIVING AT SCAPA.

LPG vessels arriving at Flotta Terminal with ballast for discharge to Scapa Flow will comply with the following instructions in respect of this ballast.

1. Ballast for discharge must have been taken on board within 24 hours of arrival and at a distance of at least 12 miles off shore.

2. The Master will provide the Terminal with signed advice stating date, time and positions between which ballasting operations were carried out, quantity of ballast for discharge and tanks in which it is contained.

Harbour Authority Officials may board vessels to ascertain that these procedures have been adhered to and the quality of the ballast is suitable for discharge. The Authority's decision as to whether or not the ballast is acceptable for discharge will be final. Non compliance will result in delays being occasioned by the vessel.

Masters are advised that this concession for discharge of permanent ballast relates only to LPG carriers and your attention is drawn to the serious attitude adopted by Port and Terminal Authorities to pollution incidents of any kind.

To prevent problems arising due to surge pressures caused by too rapid closure of emergency shutdown valves (ship side) it is required that the minimum closure rate from fully open to completely closed be 9 seconds when loading LPG or 13 seconds for Ethane loading.

Please advise the following details:

AAA	Arriving and sailing draft and ETA.
BBB	Cargo requirements in metric tonnes.
CCC	Previous cargo and quality of tank atmospheres.
DDD	Tank temperature on arrival.
EEE	Time required for cooldown.
FFF	Height of manifold above water line at arrival draft.
GGG	Closure timed of emergency shutdown valves.
HHH	Quantity of ballast and amount to discharge.
JJJ	Last port and destination.
KKK	Gross, nett and summer deadweight tonnages.
LLL	Maximum and cooldown loading rates.
MMM	Availability of deck tanks to accept coolant and quantity required.
NNN	Size of cargo/vapour return manifold and position of vapour return manifold relative to cargo manifold.

Purging and/or coolant is not carried out alongside.

Vessel will require to load sufficient coolant for purging and/or coolant to be carried out at anchor.

NOTE: On subsequent visits vessels should only answer AAA to JJJ inclusive.

VHF: *Harbour Pilots and Harbour Control:*

VHF Listening: 16 Telex: 75475

Working: 9, 11 and 20

Mooring Masters/Terminal:

Mooring Masters	161.15	Private Frequencies Only
Terminal	161.30	
Loading Operations	161.15	Private Frequencies Only
" "	161.30	

N.B. Launches are fitted with VHF Listening Channel 16.
Working Channels 14, 12, 8, 6

READINESS: *Notice of Readiness to Load/Discharge:*

Notice of Readiness will be accepted subject to the following conditions;—

a. The Terminal is open (this decision shall be communicated to the Master of the vessel by the Company).

b. i) The vessel has been boarded by the Company Mooring Master prior to her proceeding towards the berth *or*

ii) The vessel has anchored within the anchorage area awaiting a berth.

N.B. Although vessels will be loaded in order of acceptance of Notice of Readiness, it should be borne in mind that acceptance of Notice of Readiness is contingent upon complete compliance with all the requirements of Port Conditions.

c. Acceptance of Notice of Readiness may be withdrawn by the Company upon the occurrence of any of the following events:

The decision by the Mooring Master that the vessel's drafts, equipment and/or appurtenances are not suitable for berthing at the Terminal. If this decision has not been taken, for reasons within the Mooring Master's control, within 24 hours from Acceptance of Notice of Readiness, the Company shall be deemed to have waived its right to withdraw acceptance under this sub-paragraph.

Any supervening decision of the Harbour Authority which prevents the vessel from berthing.

N.B. A derrick or crane with a safe working load of not less than 10 tons is required for handling hoses at the SPM berths.

TUGS: 3 tugs (2×37 ton bollard pull and 1×45 ton bollard pull) are available, and compulsory, for berthing. They are fire fighting tugs and equipped with Warren Springs pollution dispersent equipment.

Whenever a tanker is on a berth, 1 stand-by tug is anchored in the close vicinity for safety and pollution purposes. Fire wires must be rigged off-side forward and aft.

1 tug (standby tug) is towing aft whilst tanker is moored to SPM.

BERTHING:

Position:

SPM 1: Lat. 58° 52′ 11.86″ N., Long. 3° 07′ 20.68″ W.

SPM 2: Lat. 58° 52′ 17.72″ N., Long. 3° 05′ 47.79″ W.

Main Control Building (Radio Mast): Lat. 58° 50′ 31.05″ N., Long. 3° 07′ 08.01″ W.

SPM Particulars:

Pillar Type Single Buoy Mooring – 2.
Tanker Size – 35,000 d.w.t. – 200,000 d.w.t.
Minimum Water Depth – 75 ft.
Max. Draft – 72 ft.
Mooring System – 10 m.×3 in. chain, 40 m.×21 in. rope grommet, 10 m.×3 in. chain and 6 m.×2$^5/_8$ in. chain.
Crude Manifolds – 2×16 in.
Ballast Manifolds – 1×16 in.
Maximum Loading Rate – 80,000 bbls.p.h.
Hose Weight – Minimum 7.5 tons
Ballast connection is positioned aft of the 2 crude connections.

A load monitoring system is fitted to each SPM giving constant strain readings to the Terminal Control Room and the Mooring Master on board the tanker. In adverse weather conditions strain gauge readings will indicate when vessel should prepare to vacate the berth.

LPG/Crude Oil Jetty:

Finger type jetty with breasting dolphins.
Tanker Size – 4,000 d.w.t. – 150,000 d.w.t.
Minimum Water Depth – 63 ft.
Maximum Draft – 62 ft.
LPG Manifolds – 1×10 in. loading plus 1×10 in. vapour return.
LPG Loading Rate – 10,000 bbls.p.h.
Crude Manifolds – 4×16 in.
Crude Loading Rate – 80,000 bbls.p.h. maximum.
Ballast Manifold – 1×16 in. (crude gantry only).
Maximum Deballasting Rate – 40,000 bbls.p.h.

LPG: Gas tankers also load at the jetty and in their case the only relevent restriction is a requirement for the cargo manifold flange to be able to work within the operating envelope of the LPG loading arms which have the following parameters:- Max. Airdraft 13.18 m.; Min. Airdraft 1.75 m.; Max. distance ship's side to flange 7.0 m.; Min. distance ship's side to flange 3.1 m.

Terminal Capacity:

1. Crude Oil:

There are 5 tanks, each of 500,000 bbls. nominal capacity for storage of stabilised crude oil, plus a further 2 of 1,000,000 bbls. each.

2. Liquid Petroleum Gas:

There are 2 tanks, each of 100,000 bbls. nominal capacity for storage of propane.

3. Ethane:

There are 5 ethane tanks, each of 500 cu.m. nominal capacity.

Remarks: Vessels moored to the SPMs are required under conditions to maintain a tug towing astern to keep the mooring system under a tension of 15 tons – 20 tons.

When ship's piping does not permit the pumping of permanent ballast through the manifold, the possibility to load some cargo prior to deballasting the cargo tanks' clean ballast may be granted by prior arrangement with the terminal. In all cases where ships intend to deballast and load simultaneously there must be at least a 2 valve separation.

Lightering Operations: Ship-to-ship lightering operations can be carried out in Scapa Flow on vessels up to 72 ft. draft.

Tug facilities and oil pollution equipment readily available.

DENSITY: 1025.

MOORING AND HOSE HANDLING:

On SPMs: Ship's derrick (SWL 10 tons) and manifold connections will require to be prepared on the port side. An accommodation ladder will be rigged to starboard with a pilot ladder ready to port.

Securing equipment for single chain mooring forward and hose connecting gear will be hoisted on board from Company work launch by ship's derrick. A good mooring line will be required from forecastle head as a messenger for the buoy mooring.

Tanker Loading Pier: The loading pier is equipped with rigid articulated pipe arms mounted on gantries for loading liquid petroleum gas and also for loading crude oil. The crude oil gantry is also fitted with a ballast discharge arm.

There is an access roadway between the Pier head and the shore. Mooring lines are run to dolphins by terminal mooring boats. Vessels with tension winches when moored at the pier must have winches on 'Manual brake'.

Arrival Draft: Vessels must arrive at the Company's facility in an adequate ballast condition compatible with safe manoeuvring during handling. Excessive trim or insufficient ballast could incur delay until such time as an acceptable condition is reached.

BALLAST: All berths are equipped with water ballast discharge lines. There is a water ballast tank of 500,000 bbls. capacity and a ballast treating facility capable of handling 40,000 bbls.p.h. It is prohibited to discharge water ballast into Scapa Flow.

Bilge Ballast Discharge: Vessels should arrive in Scapa Flow with clean ballast only.

The discharge of bilges and/or ballast by vessels into Scapa Flow is strictly prohibited.

N.B. All ballast water including permanent ballast must be discharged through the Terminal ballast reception and cleaning facility.

Discharge of ballast and simultaneously lifting of cargo is not permitted unless approval has been given by the Mooring Master.

The salvage in ballast shall become the property of the Company, in consideration of the Company's operation of the Terminal ballast reception and cleaning facility.

MEDICAL: Medical and dental services are available by arrangement. Hospital facilities are available at Balfour Hospital, Kirkwall.

FRESH WATER: Not available.

FUEL: Bunkers not available at present, but lubricants in small quantity available. Ships should cable requirements to Agent as soon as possible.

REPAIRS: There are no dry-docking facilities available, but local engineering firms undertake minor repairs to machinery and equipment.

Immobilisation of Engines: Not allowed on any of the berths, and not recommended when at anchor. When at the anchorage, however, in special circumstances, and provided the Harbour Master's permission is first obtained, it may be possible.

TRAVEL: There are daily air services, during the week, to Aberdeen, Inverness, Glasgow and Edinburgh from Kirkwall Airport. There is no service on Sunday, There is a daily ferry service from Stromness to Scrabster to connect with British Rail. During the Winter months there is no service on Sunday.

CONSULS: Denmark, Netherlands, Norway and Germany F.R.

LAUNCH SERVICES: Launch services from Flotta and SPM berths are available by arrangement with local Agents to Scapa Pier.

SHORE LEAVE: There are no restrictions on shore leave for ships' personnel. For vessels moored at SPMs arrangements can be made with the Agent for a launch service to be operated to the shore. For safety reasons, the boat selected for this service must have good stability, to prevent accidents in cases of hazardous boarding due to weather conditions.

SAFETY: Should communications fail, the Mooring Master will authorise continuous soundings of the ship's whistle or siren as a signal to stop loading (ships in the vicinity capable of so doing should inform the Terminal Control by VHF that this signal is being sounded in case it is inaudible ashore). Ships hearing the signal and unable to contact the Terminal should inform "Harbour Control".

SERVICES: Stores are of good quality, and the laundry facilities are good, but limited. Tank cleaning and dirty ballast facilities are not available.

GENERAL:

Accidental Spills and Leakage: All oil spills and leakages must be immediately reported to the Mooring Master, who will inform the Harbour Authority forthwith. All deballasting/loading/discharging operations will be immediately suspended until the cause of the spill/leakage has been determined, and rectified to the satisfaction of the Mooring Master, and the Harbour Authority.

Galley and Other Refuse: Dumping of all refuse into Scapa Flow and approaches is prohibited. Refuse must be retained on board in sealed containers. (Vessels in port over a long period may make arrangements with their local Agent for collection).

Lighting: Sufficient lighting must be provided in the way of all overboard discharge points to facilitate detection of leaks or spillage. Adequate lighting must also be provided at the loading manifold.

Lifting of Stores; When tankships are at SPMs, loading or off-loading of stores, provisions, drums or any other goods or articles on, to or from the main tank deck is prohibited while cargo is being lifted.

Under certain circumstances and with the approval of the Company's Mooring Master, stores may be worked on the poop during the cargo lifting.

When tankships are moored at the pier, vessels and boats are prohibited from coming alongside during cargo lifting, unless all cargo operations are shut down, all tank openings are closed and secured, and permission from the Mooring Master has been obtained.

Working of stores over the pier will not normally be allowed.

During Loading/Deballasting Operations at SPMs: Mooring Masters will carry Company communication equipment. Ship's VHF must also be available to the Mooring Master at all times. Ship's whistle must be available throughout the time a Mooring Master is on board.

Emergency signals in the event of complete communication failure will be as follows:

By day: Continuous blasting of ship's whistle accompanied by the hoisting of 2 black balls in a position conspicuous to the Terminal Control Room.

By night: Continuous blasting of ship's whistle accompanied by continuous flashing on an Aldis type signal lamp aimed towards the Terminal Control Room.

In the event of such a communication failure all loading operations shall cease until an effective means of communications has been established.

AUTHORITY: Orkney Islands Council, Department of Harbours, Harbour Authority Building, Scapa, Orkney KW15 1SD. *Tel:* 0856-3636. *Telex:* 75475. *Contact:* Captain H. A. Banks, Director of Harbours.

AGENT: John Jolly, 21 Bridge Street, Kirkwall, Orkney Isles KW15 1HR. Telegraphic Address: "Jolly Kirkwall Telex", Telex: 75253. Tel: Kirkwall (0856) 2268 (24 hours answering service) and 3462. VHF call sign (Private frequency 161.25 mHz): Jolly.

SCRABSTER: 58.37 N. 03.32 W. (See Plan)

PILOTAGE: Not compulsory. Pilotage available for Pentland Firth and locally. Pilots can be contacted on Channel 16, working Channel 12.

MAX. SIZE: 5.2 m. draft, 2,500 d.w.t. can be accommodated at Ro/Ro berth.

VHF: See "Pilotage".

TUGS: None.

BERTHING: Ro/Ro Berth: Length 100 m., depth 5.5 m.

Inner Harbour: 2 wharves, length 30.5 m., depth 3 m.

Fishing Berths: Quay 300 m. long, depth 1 m.

CRANES: Mobile cranes up to 36 tons available.

SPECIALISED CARGO HANDLING FACILITIES: Ro/Ro Berth available. See "Berthing".

STEVEDORES: Cargo worked 24 hours.

TANKERS: Vessels up to 2,000 d.w.t. can use Tanker Terminal.

FRESH WATER: Available.

FUEL: By road from Tanker Terminal, 24 hours notice required. Also from tanks on Ro/Ro lay-by.

REPAIRS: Engine and minor hull repairs can be undertaken.

AIRPORT: Nearest at Wick, 32 km. away.

HOLIDAYS: Usual U.K. holidays.

GENERAL: Ice available to fishing vessels throughout 24 hours.

AUTHORITY: Scrabster Harbour Trust, Harbour Office, Scrabster, Thurso, Caithness KW14 7UJ. *Tel:* 0847-62779/64618/65747. *Telex:* 75449 Thurso G. *Contact:* Captain R.G.McKay, Harbour Master.

AGENT: Scrabster Harbour Trust, Shipping Agents, see above.

SEAHAM: 54.50 N. 01.19 W. (See Plan)

PILOTAGE: Not compulsory. Trinity House Pilotage Service available with VHF watch on Channel 16 over tidal period. Call sign: Seaham Harbour Pilots. Tel: (091) 5817052.

ANCHORAGE: Good anchorage approximately 1 mile N.E. of North Pier Lighthouse. Shallow water and rocks to South of South Pier (Liddle Scars). Depth on bar at HWST 6.85 m.

RESTRICTIONS: The entrance to harbour is formed by North and South Piers and is 84.34 m. wide. South Dock gates are manned from 2.5 hours before HW to 1.5 hours after HW. Gateway to South Dock 19.81 m. wide.

No vessel can enter at LW and entrance should not be attempted during strong on-shore winds.

MAX. SIZE: *Largest Vessel:* 106 m. LOA, 16 m. beam and draft subject to tidal rise.

VHF: VHF watch on Channel 16 over tidal period and during office hours (0800 – 1800 hrs.) Monday – Friday. Working Channels 6 and 12.

TUGS: 1 tug with 8 tons bollard pull available.

BERTHING: *South Dock:* 8 berths. 625 m. quayage with cranage up to 100 tons capacity. Gravity spouts and conveyors for loading vessels up to 6,000 tons. 60 ton weighbridges with 18.4 m. platforms available. Railway connections.

North Dock: Used by fishing boats only.

CRANES: Four cranes with capacity up to 35 tons.

BULK CARGO FACILITIES: Chute, conveyor and cranage handling facilities available for loading/discharging bulk cargoes from/to road transport.

SPECIALISED CARGO-HANDLING FACILITIES: *Container and Ro/Ro Facilities:* Area available for handling containers. 42 ton container handling forklift truck available.

STEVEDORES: *Working Hours:* Monday to Friday 0800 – 1200 hrs., 1300 – 1700 hrs. Overtime to be ordered by 1300 hrs.

Saturday and Sunday: Work at overtime rates can be arranged with 8 hour minimum period. Weekend overtime to be ordered by 1600 hrs. Friday.

Public Holidays: Overtime possible except New Year's Day, Christmas Day and Boxing Day.

MEDICAL: Nurse available on site. Hospital at Sunderland, distance 6 miles.

TANKERS: No facilities.

FRESH WATER: Available on quay.

FUEL: Available by barge or road tanker.

REPAIRS: Facilities available at Sunderland and the Tyne.

OPENING/CLOSING HATCHES: By crew.

AIRPORT: Newcastle Airport, 32 km. Teesside Airport, 40 km.

HOLIDAYS: *Local Holidays:* Port closes for two weeks in July/August and one week at Christmas.

POLICE/AMBULANCE/FIRE: Dial 999.

EMERGENCY CO-ORDINATION CENTRE:

Maritime Rescue and Search Centre. Tel: North Shields 091–2572691.

BANKS: Barclays, National Westminster, Lloyd's and Midland.

GENERAL: *Chart:* B.A. Chart No. 1627.

Weather: The prevailing winds are from the West.

Tides: Normal range in enclosed dock: 1.97 m. Spring range 4.42 m. Neap range 3.5 m.

Provisions: Available from local chandlers.

Storage: Transit shed of 1,394 sq.m. and warehouse space of 6,000 sq.m. Open storage of 10 acres also available.

AUTHORITY: The Seaham Harbour Dock Co., Seaham House, North Terrace, Seaham, Co. Durham SR7 7EU. *Tel:* Administration 091–5813877; Harbour Office 091–5813246; Security 091–5813320 *FAX:* 091–5130700. *Telex:* 537368 SEADOC G. *Contact:* D. Clifford, Managing Director; G. Hicks, Operations Director/Harbour Master; T. Elliott, Pier Master.

SHARPNESS and GLOUCESTER: 51.43 N. 02.29 W. (See Plan)

The Port of Gloucester comprises the wet docks at Sharpness and Gloucester which are connected by a ship canal named "The Gloucester and Sharpness Canal".

PORT LIMITS: Sharpness Dock entrance.

DOCUMENTS:

1 Maritime Declaration of Health.
1 Crew's Effects List.
2 Ship's Report by Master.
1 Home Office Form 1B.6.
3 Stores Lists.
1 Certificate of Deck Cargo Tonnage.
1 Grain Certificate.
1 Light Certificate.
1 Port Dues Certificate.
1 Passenger List.
1 Landing Card for each passenger.
Ship's Certificate of Registry.
Mercantile Marine Office Certificate (British ships only).

In addition Manifests and Bills of Lading are usually sent to Agent direct from loading port.

PILOTAGE: Pilotage is compulsory. Masters of vessels bound for the Ports of Gloucester, Sharpness, Chepstow and Lydney requiring the services of a Pilot at the Barry Roads Station must give at least 24 hours notice of their intended arrival at the Pilot Station. Failure to give this notice could lead to a vessel being delayed. Draft and g.r.t. are also required. Masters who expect their passage time to be less than 24 hours should send advice from their sailing port with gross tonnage, draft, speed and ETA. Masters of vessels bound for Chepstow should also state mast height above the appropriate water line and whether masts can be lowered. (Vertical clearance limited by Bridge to 52 ft. (15.8 m) above MHWS)

Vessels are boarded at Barry Roads by the Cardiff Pilot Cutter which is equipped with VHF Channels 16, 6, 8, 9, 11 and 14. Radio contact with the Cardiff Pilot Cutter should be made not later than 1 hour before arrival at Breaksea L.V. In fog ships sound "9" (4 longs, 1 short). Pilot replies the same. Masters can send ETAs direct to the Pilotage Agent, Sharpness. Tel: Dursley (0453) 811323.

Dock Pilots: Dock Pilots are available, not compulsory but advisable for berthing in Sharpness Dock, transit of the Sharpness Canal and in Gloucester Dock.

ANCHORAGES: Barry Roads afford good anchorage in moderate weather for vessels awaiting a Pilot.

RESTRICTIONS: 3 ft. (0.9 m.) water clearance over outer sill for vessels of maximum draft 21 ft. 6 in. (6.55 m.) Neap tides impose certain restrictions.

Beam	*Clearance Required*
Less than 10.36 m.	0.61 m.
10.36 m. – 13.71 m.	0.76 m.
13.72 m. – 16.76 m.	0.91 m.

Note: The River Severn at Sharpness dries out at LW.

MAX. SIZE: Maximum Length – no restriction. Maximum beam – 55 ft. (16.76 m.) Maximum draft – 21 ft. 6 in. (6.55 m.).

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: Niton Radio, Lands End Radio, Ilfracombe Radio.

VHF: Sharpness Radio Channels 16, 14 and 9. Range normally within pilotage waters only.

TUGS: *(River):* Larger vessels normally pick up tugs off Avonmouth if required by Pilot. *(Dock Tugs):* Not suitable for river work. 3 tugs available in Sharpness Dock and for use between Sharpness and Gloucester if required. All tugs take ships lines.

BERTHING: Max. draft 21 ft. 6 in. (6.55 m.) Fresh Water. Range of dock level 4 in. (0.1 m.)

Available Berths: 10 to 14 berths depending on ship length. This includes a scrap berth. Available length of Quay – 12,000 ft.

Cargo Equipment and Methods: Cranes 5×3 tons, 5×6 tons, all Portal and 1 Scotch Derrick of 32 tons. 2 Mobile Cranes, Grabs, Slings and Pallets, etc. Load/discharge by shore gear.

BULK CARGO FACILITIES: 2 grain silos, 1 fixed suction plant.

Belt driven elevators provided as required.

1×300 t.p.h. mobile hopper for handling fertiliser into 4×2,500 ton storage bays.

BRIDGES: 16 swing bridges between Sharpness and Gloucester. Mast height restriction 32 m. (105 ft.)

STEVEDORES: British Waterways Board.

MEDICAL: Absolutely necessary for Agent to have as much notice as possible if any medical attention is required. All facilities available.

DENSITY: 1000/1003.

FRESH WATER: Available by stand pipe, 20 t.p.h.

FUEL: Through Agents, 12 hours notice, most grades available.

FIRE PRECAUTIONS: According to local laws available on request.

CONSULS: See "Bristol".

REPAIRS: All types of deck and engine repairs are possible.

DRY DOCK: 360 ft. by 47 ft. by 14 ft. over blocks.

SURVEYORS: Most Societies are available.

GANGWAY/DECK WATCHMEN: Ship's personnel, but watchmen can be arranged if necessary.

HATCHES: Opened by ship's crew.

CUSTOMS ALLOWANCES: As for other U.K. ports.

REPATRIATION: All arrangements through Agents.

AIRPORT: London or Birmingham within 2 hours. Local taxi service available.

TIME: BST is GMT plus 1 hour. GMT in Winter months.

HOLIDAYS: Easter (varies). May Day. Spring Bank Holiday (last Monday in May). August Bank Holiday (varies, usually last Monday in August). Christmas Day (25th December), Boxing Day (26th December). Work can usually be arranged on these holidays although unusual to work 25th/26th December.

POLICE/AMBULANCE/FIRE: Telephone 999 ask for service required.

TELEPHONE: No ship to shore connection. Public telephone kiosks available.

SERVICES: Taxi. Laundry. Ship chandlery.

SHORE LEAVE: Possible.

IDENTIFICATION CARDS: Not necessary unless being repatriated.

REGULATIONS: British Waterways Board Byelaws 1962.

GENERAL: *Gloucester and Sharpness Canal and Gloucester Dock:* Maximum size of vessel: Length 205 ft. (62.5 m.), beam 31 ft. (9.45 m.), draft 11 ft. 6 in. (3.5 m.) fresh water. Vessels exceeding these dimensions may be considered subject to Harbour Master's approval.

AUTHORITY: British Waterways Board, Dock Office, Sharpness Docks, Gloucestershire GL13 9UD. *Tel:* (0453) 811644. *Telex:* 43376 BWB SDS G. *Contact:* Mr. M. Vale, Port Manager. Captain G. A. Boyack, Harbour Master.

SHOREHAM: 50.50 N. 00.15 W. (See Plan)

DOCUMENTS and all general information, refer to "London". Distance from London, 80 km.

PILOTAGE: Pilotage is compulsory for all foreign-going vessels, all coastal vessels of over 1,500 g.r.t. and all passenger-carrying vessels. Send ETA 12 hours and 2 hours in advance, including max. draft. Pilot boards within 2 nautical miles of harbour entrance. Tel: Brighton (0273) 592455. Cables: Shoreham Pilots. VHF: Channels 16, 6, 9, 14. Hours: Pilot Station office hours and tidal hours.

ANCHORAGE: Off Harbour. Depths as per English Channel Charts.

RESTRICTIONS: No night restrictions. Locks manned 4 hours either side of HW. According to size and draft these times can be extended by prior arrangement.

Main entrance channel, 122 m. wide, leads into a 91.4 m. channel to the Eastern arm.

Dimensions of Prince Philip Lock: 113.9 m. length, 17.3 m. width.

MAX. SIZE: *Canal:* Length 105.9 m., beam 16.7 m., draft 6.7 m. (subject to tide). Vessels over 103 m. are subject to the Harbour Master's approval.

Western Arm: Length 82.3 m., beam 14.3 m., draft subject to tide.

East Arm: Max. LOA 120 m. Max. Draft 6.4 m. (subject to tide).

HEALTH: See "Health – All Ports" before first UK port.

RADIO: Niton Radio/Northforeland Radio. ETA to Shoreham Harbour Master 24 hours prior to arrival.

VHF: When within VHF range advise Harbour Master (via "Shoreham Harbour Radio"), ETA, draft, beam, LOA and of any circumstances which may affect seaworthiness or handling capacity of the vessel.

Port Operation and Information Service manned continuously, contact by VHF calling Channel 16, working Channel 14. Station is situated on the middle pier.

TUGS: One tug (Bollard Pull 10 tonnes). Tug lines used for which no extra charge. Communications between vessel and tug take place on VHF Channel 6.

BERTHING: See "Restrictions".

Heavy lift cranes of 35 tons capacity for container handling.

Bulk wine terminals capable of handling 4,731,750 litres of wine are available.

A grain silo terminal with a storage capacity of 13,000 tonnes has been constructed within the canal.

A Ro/Ro berth has been constructed at the East end of Aldrington Basin.

STEVEDORES: Reasonable ETA is sufficient for gangs to be called.

MEDICAL: All facilities available.

TANKERS: Shell and Texaco at Berths No. 48 and 53 respectively in the Canal.

DENSITY: Approx. 1025.

FRESH WATER: Available at most berths.

FUEL: Available by road tanker.

CONSULS: Denmark.

REPAIRS: Minor repairs possible.

SURVEYORS: Available locally.

GANGWAY/DECK WATCHMEN: Recommended.

HATCHES: Opening and closing by crew.

REPATRIATION: Possible.

AIRPORT: Gatwick Airport.

POLICE/AMBULANCE/FIRE: Dial 999.

TELEPHONES: There are no arrangements for placing telephones aboard ship.

BANKS: Barclay's, National Westminster, Lloyd's and Midland Bank all have branches locally.

STORING: No restrictions. Stevedores not required to load stores.

SHORE LEAVE: Possible.

AUTHORITY: Shoreham Port Authority, Harbour Office, Albion Street, Southwick, Brighton BN4 4ED. *Tel:* Brighton (0273) 592613. *Telex:* 878178. *FAX:* (0273) 592492. *Contact:* Captain J. Robertson, Harbour Master. P. Lacey, General Manager.

SILLOTH: 54.52 N. 03.24 W **(See Plan)**

PORT LIMITS: A vessel is considered to be an "arrived vessel" for the purposes of stemming when she arrives at the pilot station off Workington (see Admiralty Chart No. 1346). Laytime normally commences when the vessel berths in the New Dock, Silloth.

DOCUMENTS: Normal U.K. requirements.

PILOTAGE: Compulsory for all vessels except for those qualifying for special exemption. Vessels should send their ETA to local Agents or to the Dock Master, Silloth, at least 12 hours before arrival. Pilot boat "Medway Patrol" is stationed off Workington when vessels are expected and listens out on Channels 16, 14 or 12 VHF. Pilot boards vessels between 2.5 hours and 1.5 hours before HW, Silloth.

ANCHORAGES: Vessels may anchor at the pilot station in good weather, but are advised to seek shelter in Ramsey Bay, Isle of Man or Wigtown Bay in adverse weather conditions.

RESTRICTIONS: The port lies in a relatively sheltered position in the Solway Firth, and in consequence, access during adverse weather is mainly governed by the practicability of boarding and landing Pilots off Workington. Vessels over 75 m. in length do not normally enter the port at night.

MAX. SIZE: *Neap Tides:* Length 90 m., beam 15 m., draft 4 m.
Spring Tides: Length 90 m., beam 15 m., draft 6 m.

Typically, the port is used by vessels of between 500 tonnes and 1,500 tonnes deadweight.

VHF: A "Port Operation" and Information Services operates on Channels 16 and 12 from 2.5 hours before HW, Silloth, call sign, "Silloth Harbour Radio".

TUGS: There are no tugs available at the port.

BERTHING: The port comprises two docks:

The outer, Marshall Dock is tidal and contains no berths.

The inner, New Dock is enclosed by dock gates which are opened from 1 hour before to 1 hour after HW. Minimum depths in the New Dock are maintained at 4 m. on Neaps and 6 m. on Springs. The specific gravity of the water in the dock is normally about 1.022.

Cargo Berths: The New Dock contains 7 berths:

Berth No. 1: A "single user" bulk grain import berth operated by Carr's Flour Mills Ltd. Suction elevators, 60 tonnes p.h.

Berth No. 2: A general cargo berth with limited quay space.

Berth No. 3: A specialised bulk molasses import terminal operated by Carr's Flour Mills Ltd. and general cargo berth.

Berth No. 4 'A': A "common user" import terminal for bulk agricultural materials (mainly animal feeds) operated by D. A. Harrison & Co. Suction elevators and grabs; 100 tonnes p.h., automated handling and storage.

Berth No. 4 'B': A specialised import/export bulk cement terminal operated by D. A. Harrison & Co. 100 tonnes p.h., automated handling and storage of cement powders.

Berth No. 5: Main general cargo berth. Mobile cranes and elevator, heated-covered storage.

Berth No. 6: Specialised livestock import terminal operated by Frans Buitelaar Ltd., under the control and supervision of M.A.F.F. officials. Lairaging facilities for 800 cattle. The berth can also be used for general cargo.

Berth No. 7: General cargo berth for small vessels of up to 50 m. in length.

BULK CARGO FACILITIES: See "Berthing".

STEVEDORES: D. A. Harrison & Co., Anvil House, West Newton, Aspatria, Cumbria. Tel: (06973) 20529. Telex: 64493. Working hours in the port are unlimited 24 hours per day, 365 days per year.

Storage: Stevedores D.A. Harrison & Co. also operate a large covered storage facility adjacent to the Port with a capacity of more than 40,000 tonnes, and can provide inland road transport to and from this facility to all parts of the United Kingdom using own vehicles.

CRANES: 4 × 30 tonne mobile cranes are permanently available in the port. Larger or additional cranes can be conveniently hired in. Ship's gear is never used.

HATCHES: Always handled by ship's crews.

FRESH WATER: Available at all berths.

FUEL: Fuel oil can be loaded from road tanker.

POLICE/FIRE/AMBULANCE: Police: Tel. 31313 or 09002422; Fire: Tel. 999; Ambulance: Tel. 31309 or 999. The nearest public telephone is at the entrance to the docks.

REPAIRS: Any type of repair which does not require dry dock facilities can be carried out by local contractors.

DRY DOCKS: None.

AIRPORT: Nearest airports are Carlisle, 39 km., Newcastle 140 km., Prestwick 225 km. and Manchester 260 km.

BANKS: The Midland Bank, Station Road, Silloth. The National Westminster Bank, Eden Street, Silloth.

AUTHORITY: Associated British Ports, Dock Office, Silloth Docks, Cumbria CA5 4JQ. *Tel:* (06973) 31358 or 31165. *Cables:* Dock Office, Silloth. *Contact:* Captain J. R. W. Myers, Dock Master.

SOUTHAMPTON (Including Fawley): 50.54 N. 01.24 W. **(See Plan)**

DOCUMENTS:

1 Maritime Declaration of Health.
1 Crew's Effects List.
2 Ship's Reports by Master.
1 Home Office Form 1B6.
1 Stores List.
1 Certificate of Deck Cargo Tonnage.
1 Grain Certificate.
1 Light Certificate.
1 Port Dues Certificate.
1 Passenger List.
1 Landing Card for each Passenger.
Ship's Certificate of Registry.
Mercantile Marine Office Certificate – for British ships only.
Load Line Certificate.
Safety Equipment and Safety Construction Certificates.
Lloyd's Certificate.
Derat Certificate.
Ship's Register.
Light Bills.
Safety Radio Certificate.

In addition, Manifests and Bills of Lading are usually sent to Agent direct from loading port.

PILOTAGE: Compulsory, with usual regular Home Trade and other small exemptions. In addition to 48 hours' notice to local Agent, advise Nab or Needles Pilot as appropriate, ETA 48 hours and again 2 to 3 hours immediately prior to arrival. The Nab and Needles stations are maintained by fast launches under the control of the Duty Pilot at The Pilot Station, Berth 37, Southampton Docks. Duty Pilot keeps a continuous watch on VHF Channel 16; call sign Nabpilot or Needlespilot as appropriate. Working frequency; Channel 9 only, but can listen on Channels 6, 12 and 14. No medium frequency: M/F and R/T messages via Nitonradio. Duty Pilot's telephone numbers: Southampton 32345 and 32346.

The launches only put to sea when required. *Failure to send an accurate ETA 2 to 3 hours before arrival could cause delay to the offending vessel.*

The Nab and Needles stations also provide Pilots for vessels bound for Portsmouth, Cowes or other small ports within the Trinity House Southampton and Isle of Wight Pilotage District.

Strict compliance with the requirements of the Merchant Shipping (Pilot Ladders) Safety Rules is requested by the Pilots, who may refuse to board vessels with unsatisfactory and dangerous ladders. Manropes are not required. Ladders should reach to approximately 3 ft. from the water, each rung resting firmly against the ship's side; and a good lee provided whilst making approximately 5 to 7 knots headway.

Eastern Approaches or Nab Tower. The station is maintained by 40 ft. fast launches, black hulls, white wheelhouses, showing international signals. VHF Channels 6, 9, 12 and 16. Vessels under 40 ft. draft are normally boarded between the "New Grounds" and "Dean Tail" light buoys, approximately 2 miles N.N.W. of Nab Tower, although in bad weather, boarding at the "Warner" Buoy or St. Helen's Roads might be advised by the Duty Pilot. Launches operate from Ryde Pier or from Portsmouth Harbour.

Vessels over 35 ft. draft are restricted by tide for time of entry, and will be advised by the Duty Pilot. Vessels of 40 ft. draft and over use the Nab Channel and a message advising Tanker Master of transit times will be sent by "Essoship Fawley" and confirmed prior to arrival by Duty Pilot by VHF.

The Nab Channel has a limiting depth of 39.7 ft. (although 43 ft. can be carried to West of centre line (1976)) below Chart Datum (April 1976). Pilot will board all vessels of 40 ft. draft and over in a position 2 to 3 miles South of the Nab Tower. Masters of such vessels are strongly recommended not to approach closer than 2 miles to the Nab Tower without a Pilot, owing to strong tidal streams. It is advisable for a deep-drafted ship to anchor 3 miles South of the Nab Tower if waiting for the tide. Advice will always be given on request to the Duty Pilot by VHF.

Pilot *will not* board vessels under 40 ft. draft outside the defined pilotage district unless specifically requested by the Master to do so. The additional "Out of District" charge for boarding beyond the normal limits will be debited to Owners.

Western Approach – Needles: Vessels drawing more than 31 ft. are advised to enter via the Nab. Masters are strongly urged not to proceed beyond the Fairway Buoy without a Pilot, especially on the flood tide. Safe anchorage in vicinity of Fairway Buoy.

Station maintained by 40 ft. fast launch, black hull and white wheelhouse, showing international signals. Launch operates from Yarmouth Harbour or Lymington. Needles pilot launch is fitted with VHF Channels 6, 9, 12 and 16. No medium frequency.

When it is considered that the weather is deteriorating to the extent that the boarding and landing of Pilots could in the near future become dangerous, a message will be sent to all ships through Niton Radio, as follows:

> "Needles Pilot operating bad weather routine. Vessels should ascertain at least 3 hours before their ETA Needles whether a Pilot will be available. This information can be obtained either through Niton Radio or direct from Needles Pilot on VHF".

If it is not safe to ship or land the Pilot at the Needles, Masters will be advised to proceed to the Nab.

In poor visibility a vessel requiring Pilot at either Nab or Needles uses a distinguishing signal of "G" to which the pilot launch will reply with "H".

Also see "Notices".

GENERAL NAVIGATION: A Duty Operations Officer, responsible to the Dock and Harbour Master Southampton maintains a continuous watch in the Port Signal and Radar Station (Berth 37): call sign "Southampton Port Radio". He is to be informed prior to any movement to, from or within the port area and will give information on the movement of other vessels.

Harbour Radar Information and guidance will be given on request. The Radar reference line shown on the Admiralty Charts is superimposed on the Harbour Radar displays.

Particular attention should be paid by Masters to the designated "Reporting Points" marked on the Admiralty Charts. Reports should be made on VHF to Southampton Port Radio, to enable the proper identification and co-ordination of the ship movement, to be made to the benefit of all mariners navigating within the Solent area. This applies equally to naval and to non-compulsory vessels.

The following VHF Channels are operated within the port.
Southampton Port Radio: Channels 16, 14, 12, 18, 20 and 22.
Harbour Patrol Launch (Call sign Southampton Patrol) Channels 16, 14, 12, 10, 8 and 6.
Nab and Needles Pilot Launches: Channels 16, 14, 12, 9, 6 and 0.
Nab and Needles Pilot Stations: Channels 16 and 9. (Duty Pilot).
Southampton Pilot Launch (call sign Southampton Pilot) Channels 16, 14, 12, 9, 6 and 19.
Southampton Pilot Station (call sign Southampton Pilot) Channels 16 and 9 (Duty Pilot).
Tugs: When berthing vessels: Channels 71 or 74.
Esso Petroleum Terminal, Fawley: Channels 16, 14 and 19.
B.P. Oil Ltd., Hamble. Channels 16 and 19.

A patrol launch (Harbour Master flag by day, all-round blue light by night) is controlled by the Duty Operations Officer Southampton for pollution detection and keeping channels clear of pleasure craft for the passage of large vessels.

Vessels *(a)* drawing more than 10.5 m. *(b)* more than 288 m. in length *(c)* of more than 100,000 d.w.t. and *(d)* LPG vessels exhibit a large black cylinder by day and 3 vertical red lights by night. Vessels showing these signals are not to be passed or overtaken within channel limits between the "West Bramble" and "Hook" light buoys, these vessels are considered to be constrained by their draft or restricted in their ability to manoeuvre and may not be able to comply with the Collision Regulations at other times. Will indicate inability by 5 short blasts on the whistle. "Clear channel" control is exercised by the Duty Operations Officer at Port Signal and Radar Station, Berth 37, Southampton Docks. The Thorn Channel has a limiting depth of 12.6 m. (April 1976) at low water datum.

Up to 7 vessels other than LPG vessels (only 3 LPG) of under 91.4 m. in length are permitted with prior permission to anchor out of the channel to the East of the "Hook" Buoy in the designated Small Ships Anchorage, the limits of which must be strictly observed. Three numbered anchorages are available in an emergency for vessels not exceeding 168 m. in length in Fawley Reach, where vessels must moor to 2 anchors. Permission to anchor including within the small ships and numbered anchorages must be obtained from the Duty Operations Officer, Southampton Port Radio. Also see "Notices".

APPROACHES:

(a) Prolonged high barometric pressure or strong N.E./N.W. winds may reduce predicted tide levels by 0.45 m. – 0.6 m.

(b) Deep drafted vessels enter via the Nab dredged channel. The tidal currents set at almost 90° to this channel, and, as it is marked by buoys on one side only, care must be taken to keep within the confines of the channel. At its Northern end the channel swings about 45° to the West but it is not marked on either side. Care must be taken by deep draft vessels not to cut the corner too finely when making up to pass between Nab End and Dean Tail Buoys.

(c) When passing Portsmouth, ships should be prepared to encounter crossing traffic bound to and from that port.

(d) The most difficult part of the navigation between Nab and Fawley is that between Prince Consort Buoy, Cowes Roads, Black Jack Buoy and Calshot, particularly for VLCCs on maximum draft which have to take a wide sweep down to East Gurnard Buoy before making a 145° starboard turn into Western approach channel which narrows to 305 m. Tidal currents in this area are somewhat uncertain but can reach up to 3.5 knots on a Spring ebb tide and 2.5 knots on a Spring flood tide. In Summer many yachts and other small pleasure craft are encountered. The closest contact should be maintained with Southampton Port Radio with ships ensuring that the best possible helmsman is at the wheel and that engine responses are prompt and accurate.

(e) VLCCs are not to enter the Thorn Channel on a flood tide when the wind is between West and S.W. and in excess of 30 knots. The Pilot will board VLCCs with the latest weather report and will advise Masters accordingly.

(f) It is also important, before the VLCC enters Thorn Channel, that Southampton Port Radio is contacted to confirm that no ship which, by virtue of its size or draft, could interfere with the safe navigation and manoeuvring of the VLCC, will be allowed to enter the main channel between Cadland and Prince Consort Buoys after the VLCC has entered this channel.

HEALTH: See "Health-All Ports" before first UK Port.

TUGS: 2 tugs are permanently stationed at Fawley; if more than 2 tugs are required it should be noted that week-end requirements have to be advised to the tug operators not later than 1530 hrs. on Friday of each week.

If a vessel required more than 2 tugs and is due to arrive at Fawley between 0001 hrs. Saturday and 0900 hrs. Monday, ETAs must be submitted well in advance of 1530 hrs. on the Friday prior to arrival. It is usual to use the wires provided by the tugs for towing.

BULK HANDLING FACILITIES: Grain handling at Berths No. 36, 47, 101, 102 and 109.

Berth 36: Southampton Grain Silo: 8×1,600 tonnes capacity cells and 4 cells with total capacity 15,000 tonnes.

Receiving rate by truck 500 t.p.h. 1×1,000 t.p.h. shiploader available with travel of 135 m. (443 ft.).

Berth 47: Continental Grain: 16×1,000 tonnes silos. 1×1,000 t.p.h. shiploader with travel of 220 m. (720 ft.).

Western Docks: 1×32,500 tonne grain silo.

Ro/Ro facilities at Berths No. 105 and 201 – 202.

Scrap metals handled at Berths No. 43 and 44 by 2×10 ton cranes with grabs.

CRANES:

Type	*No.*	*Capacity in tonnes*
Container cranes	5	Up to 35
Quayside cranes	27	Up to 10
Floating crane	1	200
Dry dock cranes	7	Up to 51
Mobile cranes	2	10

MAX. SIZE: The largest passenger and container vessels call regularly at Southampton. Tankers: Fawley can accept partly loaded VLCCs up to 14.9 m. draft.

BERTHING: The Pilot boarding the ship at the Sea Station or anchorage will also berth the ship. Non-compulsory vessels can obtain or disembark a Pilot in the vicinity of the "N.W. Netley" or "Hook" Buoys by contacting "Southampton Pilot" on VHF.

Dock or Quay	*Berths Nos.*	*Nominal Dredged Depth * below Chart Datum†*		*Length of Quays*	
		m.	ft.	m.	ft.
Container Berths	204-5-6	12.8	42	930	3050
Cable ship Berth	203	9.1	30	274	900
Car Import/Export	202	12.2	40	274	900
Terminal	201	10.2	33.5	280	919
Western Docks	101 – 104	10.2	33.5	1118	3668
	105 – 106	11.7	38.5	525	1722
	107 – 109	10.2	33.5	620	2034
	Cross-Berth	11.7	38.5	60	197
Ocean Dock (Entrance 121.9 m., 400 ft. wide)	42	10.2	33.5	36	118
	43 – 44	11.7	38.5	450	1476
	45	10.2	33.5	189	620
	46 – 47	10.2	33.5	485	1592
Test Quays	51	—	—	205	673
	50	4.1	13.5	110	360
	48-49	7.1	23.3	226	743
	41	8.7	28.5	172	565
	40	9.3	30.5	192	630
	38-39	10.5	34.5	316	1038
Dock Head	37	7.8	25.5	143	470
Empress Dock (entrance 48.5 m., 159 ft. wide)	20-21	7.5	24.5	258	848
	22-23	6.8	22.3	234	770
	24-27	7.2	23.5	502	1647
Itchen Quays	28	2.0	6.5	213	700
	29	5.6	18.5	106	350
	31-33	9.1	29.8	263	879
	34-36	9.1	29.8	484	1590

Other berths are available. Lesser draft berths not shown. The depths of water are maintained as far as practicable, but are subject to variation and are not guaranteed.

* To find the depth of water in the berths add the tidal rise to the depths shown in the above table.

† Chart datum is approximately the lowest low water level.

TANKERS: Esso Marine Terminal, Fawley.

Cautionary Advice: All ships berth at Fawley stemming the tide, i.e. starboard side to berth on flood tides, port side to berth on ebb tides. Because of the "double high water" feature of the port the ebb tide is of short duration 3.75 hours, compared with 9.0 hours of flood over each tidal period. Therefore, most ships swing before berthing and berth starboard side to.

For VLCCs there is a turning width of about 1.5 ship's lengths off Berth No. 5 which is the Pilots' preferred swinging position. Because of these tight turning conditions it is VERY IMPORTANT that:

(a) The ship is in the correct position in relation to the channel before commencing to swing. For this the Pilot uses the 326°–327° leading lights shown on the chart.

(b) THE SHIP MUST BE STOPPED OVER THE GROUND BEFORE COMMENCING TO SWING. For several reasons the Pilots prefer to swing to port, i.e. to the West and towards the jetty and a serious accident has occurred because a VLCC was not stopped over the ground whilst swinging and collided with the jetty,.

In order to protect both ship and jetty, equipment to positively indicate to the ship that it is stopped over the ground is being provided on the jetty. Until this is installed VLCCs MAY BERTH PORT SIDE TO ONLY, i.e. without swinging before berthing. The doppler speed of approach equipment provided on the jetty is not effective in measuring the ship's speed parallel to the berth after it has passed a point about 500 m. South of Berth No. 5 and is therefore of no value in determining if the ship is stopped over the ground when off the berth. Ship's doppler logs are sometimes unreliable when a ship is manoeuvring with low bottom clearance and with the assistance of tugs.

Procedures: On closing the berth, either after swinging or when berthing port side to, advice as to the bodily speed of approach will be provided for all VLCCs using Berth No. 5 over UHV pocketfone, one of which is also issued to the Pilot acting as communications officer. This information is also displayed on a visual digital read out with 100 m. range in normal visibility for the direct use of the pilot. The MAXIMUM IMPACT VELOCITY SHOULD NOT EXCEED 8 cm./sec. (15 ft./min.) normal to the jetty faceline.

The doppler speed of approach equipment can also be used to provide accurate speed along the channel axis information up to a point when ship is about 500 m. South of Berth No. 5.

Prior to arrival off the berth, mooring lines should be lowered to 1 m. above the water and the winches of the first ropes on the mooring plan provided by the Pilot to be in gear ready to pay out the moorings to the rope running launches. Prevailing winds are off berth and the emphasis is on the use of springs and breast lines. The number used will depend on the size of the ship, condition of mooring lines and positions of fairleads, but generally minimum requirements are 2 spring lines and 4 breast lines of wire at each end. Additional head and stern lines may be required. Mooring plans are taken on board VLCC's by the Pilot. These must be closely followed.

Backsprings are always first lines ashore.

Tugs on hooks usually let go and push up on offside during the mooring operation.

Approach: Terminal is approached by either the Nab or the Needles. The Nab with a dredged channel of 43 ft. below chart datum admits the larger vessel. Double HW with an average tidal range of 13.25 ft. (Springs) and 7.75 ft. (Neaps). Rate of Spring tide 2 knots, Neap tide 1 knot.

Anchoring in the fairway adjacent to the terminal requires permission from Southampton Harbour Authorities. Approval will only be given to vessels of 300 ft. or under. Usual practice is not to moor with both anchors. This applies to Controlled Anchorage only. Depth of 41 ft. LW is available. Anchorages in the Solent and Cowes Roads are more generally used. Good holding ground with depth of 50 ft. LW.

Accommodation: Terminal has 2 approach trestles, 1,900 ft. long leading seaward to the main pierhead trestle with its 9 berths. This trestle is 4,575 ft. long and lies parallel with the channel. 5 main ocean berths are on the seaward side and the 4 coastal berths on the landward side. Dimensions of the berths are as follows:

Berth	*Length of 'T' Head*	*Distance between centres*
No. 1	222 ft.	800 ft.
No. 2	222 ft.	800 ft.
No. 3	222 ft.	800 ft.
No. 4	222 ft.	800 ft.
No. 5	300 ft.	1,000 ft.
No. 6	80 ft.	395 ft.
No. 7	80 ft.	400 ft.
No. 8	80 ft.	400 ft.
No. 9	100 ft.	440 ft.

Equipment: Suitable cargo hose handling equipment is positioned at each of the 9 berths. To facilitate the handling of mooring lines, air powered hoists are available at each of the berths. Mooring boats are in attendance for running lines. VLCCs are required to meet minimum standards with regard to their mooring equipment. All water ballast containing oil or likely to contain oil must be pumped ashore. 2×67,000 barrel ballast tanks are provided on shore. With the approval of the Terminal Manager minor repairs can be undertaken whilst discharging/loading at the Terminal. Major repairs can be undertaken at anchor or at Southampton Docks. Working is continuous throughout. Facilities installed at the berths and available for use by tankers include fresh water, bunkers, steam, compressed air, nitrogen. Ship's stores of all kinds are available in any quantity at Southampton. All deliveries of stores must be made by water transport. For quarantine purposes vessels are either boarded prior to berthing or immediately after berthing. Two firefighting tugs of 2,530 h.p. are permanently stationed at the Marine Terminal. Additional tugs can be provided on notice from Southampton.* All tugs are equipped with Radio Telephone and operate on Channels 8 or 10 of the Port Operations Service. Provision of shore steam is made in exceptional circumstances.

*A standby charge is levied on vessels over 16,000 d.w.t.

Pilotage: Compulsory. Inward-bound vessels embark Pilots at the Nab or Needles entrances. Tankers up to 250,000 d.w.t. berthed at any time during the day or night subject to tidal conditions.

Berthing:

1. Cautionary Advice:

Prevailing strongest winds are off berth and a considerable number of large container ships, passenger ships and ferries pass the terminal at close quarters. Drift-offs and excessive surging have been experienced at Fawley berths and have caused damage. It is therefore very important that ships, particularly deep draft or high freeboard ships, pay particular attention to moorings.

2. Mooring Requirements and Procedures:

In the case of VLCCs, minimum mooring rerquirements are laid down. These preclude mixed moorings except under special circumstances agreed prior to acceptance of the ship.

Moorings reeled on winches must be held by brakes hardened up to full torque. Self-tensioning devices are not allowed. The moorings must be reeled in such a direction as to assist the brake, not oppose it. Where split drum winches are used, a maximum of two layers should be on the working drum when the mooring reaches the shore bollards or mooring hooks. Brakes must be in good condition and certificate of brake holding power should be available.

VLCCs should strictly adhere to requested order of running. This is done by motor launches.

There are limits applicable to freeboard both from a windage point of view and also because of the upper reach limit of the hard arms. These together with maximum operable wind speed will be discussed with Masters of VLCCs by a terminal supervisor shortly after the ship berths.

Special attention must be paid to ballasting of permanent ballast spaces and use of over-deck systems into emptied cargo tanks during cargo discharge and, if necessary, and with the agreement of terminal supervision, into emptied cargo tanks using the cargo system, in order to keep the freeboard within reasonable limits.

The ship must be held firmly against the fenders at all times. It is unnecessary and dangerous to slack away lines, even if they appear taut, if the ship is not against fenders.

Rules for Berth Planning: The following limitations are now in force when planning berth movements.

1. Berth size restrictions:

Berth No. 1: Max. size of vessel 50,000 tonnes displacement.
Berth No. 2: Max. size of vessel 82,000 tonnes displacement.
Berth No. 3: Max. size of vessel 65,000 tonnes displacement.
Berth No. 4: Max. size of vessel 176,000 tonnes displacement.
Berth No. 5: Max. size of vessel 240,000 tonnes displacement.
Berth No. 6: Max. size of vessel 3,500 tonnes displacement.
Berth No. 7: Max. size of vessel 3,500 tonnes displacement.
Berth No. 8: Max. size of vessel 3,500 tonnes displacement.
Berth No. 9: Max. size of vessel 8,000 tonnes displacement.

2. Vessels on Berth 6 must not exceed 330 ft. (100.5 m.) in length.

3. Distance between vessels secured on any berths must be 100 ft. (30.48 m.) or more. (This is required under local by-laws for fire regulations.)

4. Distance allowed for berthing vessels must not be less than vessel's length +$^2/_5$ length. (Agreement with Pilots).

5. Maximum draft of vessels:

Berth No. 1	33 ft. 03 in.	(10.2 m.)
Berth No. 2	41 ft. 00 in.	(12.6 m.)
Berth No. 3	41 ft. 00 in.	(12.6 m.)
Berth No. 4	49 ft. 00 in.	(14.9 m.)
Berth No. 5	49 ft. 00 in.	(14.9 m.)
Berth No. 6	18 ft. 06 in.	(5.6 m.)
Berth No. 7	18 ft. 06 in.	(5.6 m.)
Berth No. 8	18 ft. 06 in.	(5.6 m.)
Berth No. 9	21 ft. 08 in.	(6.6 m.)

These drafts are subject to change and are therefore updated quarterly.

6. Tide charts are to be prepared for Nab and Thorn Channels for vessels over 40 ft. (12.19 m.) draft.

7. Check product can be loaded on nominated berth.

8. Check product or ullage availability before berthing vessel.

9. Check that maintenance will not interfere with operation of berth.

10. No vessels to berth on Ocean Berths with mean wind speed above 30 knots from N.W. through to S.W. to S.E.

11. No vessels to berth on Coaster Berths with mean wind speed above 30 knots from N.W. through to S.W. to S.E.

12. Ensure liaison maintained with S.P.R. regarding sailings coinciding with movement of vessels over 70 knots (hovercraft).

Fawley Coastal Berth Manoeuvring Requirements: Fawley Coastal Berths comprise Berths 6, 7, 8 and 9 and are situated on the inside (Western Side) of the Marine Terminal complex.

Before any manoeuvring is undertaken on these Berths the following requirements are to be followed:

1. Marine Controllers are to be informed of vessel manoeuvring plan.

2. Vessels without bow thruster capability should berth stemming the tide.

3. All vessels over 61 m. (200 ft.) LOA must have the assistance of the Esso mooring boat when:

(a) berthing.
(b) sailing if berthed starboard side to.

4. Vessels over 85 m. (279 ft.) in length will not normally swing West of a line between Fawley Buoy and the S.E. of Fawley Jetty. Exceptions may be made only *after* consultation between Terminal and the Pilot or Master of the vessel. Due account must be made of wind, tide, weather and time. Only then will vessels be permitted to swing West of that line referred to above.

5. Vessels over 85 m. (279 ft.) LOA without bow thruster capabilities must have in attendance when berthing port side to or sailing after being starboard side to:

(a) Esso mooring boat, *and one tug*.

Such vessels when berthing starboard side to or sailing after being port side to must have in attendance:

(a) Esso mooring boat.

They may also be required to have a tug if prevailing conditions require it.

6. Vessels of 91.5 m. (300 ft.) LOA or more when berthing at Nos. 6, 7 or 8 to have at least one adjacent berth vacant during the berthing movement.

7. No vessel to berth when wind is from South to West with mean wind speed above 30 knots, i.e. within S.W. quadrant.

8. The Esso mooring boat will be made available on request to assist with any vessel not covered in these instructions. Its communication Channel is 71 (74 in an emergency). These boats must not be used for towing.

Grade/Rates:

MAIN BERTHS:

Grade	*Line*	*Berths*	*Rate* (t.p.h.)
Plus Gasoline	321	1, 2, 3, 4	1,000
Regular Gasoline	322	1, 2, 3, 4	900
Extra Gasoline	4939	1, 2, 3, 4	800
Virgin Naphtha 100	328	1, 2, 3, 4	850
Virgin Naphtha 500	121	1, 2, 3, 4	700
Vaporising Oil	4921/337	1, 2, 4	230
White Spirit	326	1, 2	220
Premium Kero.	329	1, 2, 3, 4	850
Regular Kero.	337/4920	1, 2, 3, 4	220
ATF. 2494	324	1, 2	600
ATF. 2452	6401	(2 filters) 4	200
Diesel Fuel Oil	323	1, 2	1,000
Diesel Fuel Oil	323	3, 4	600
Gas Oil	325	1, 2	900
Gas Oil	325	3, 4	600
Marine Diesel Oil	330	1, 2, 3, 4	550
SWHO/SWADO	1053	1, 2	1,000
C.E. Fuel Oil	4903/332	1, 2, 3, 4, 5	1,500
F.O. Heavy	332	1, 2, 3, 4	1,300
F.O. Heavy	336	1, 2, 3, 4, 5	400
F.O. Medium	331	1, 2, 3, 4	1,000
F.O. Medium	376	1, 2, 3, 4, 5	400
F.O. Light	327	1, 2, 3, 4	850
F.O. Light	334	1, 2, 3, 4	400
Butane (Pressure)		1, 2	100
Propane (Pressure)		1, 2	50
Butane (Refrig.)		1	400
Propane (Refrig.)		1	400
M.E.K.		4	150
Toluene		4	300
Lubes	1, 2, 3, 4	3	80 – 170
Spent Caustic		4	250

COASTER BERTHS:

Plus Gasoline	321/4917	6, 7, 8	300
Regular Gasoline	322/4915	6, 7, 8	300
Extra Gasoline	4939	6, 7, 8	250
Virgin Naphtha 100	328	6	300
Premium Kero.	329	6, 7, 8	250
Regular Kero.	337	6, 7, 8	220
Vaporising Oil	4921	6, 7, 8	230
Diesel Fuel Oil	323/4916	6, 7, 8, 9	300
Gas Oil	325/4919	6, 7, 8, 9	220
Marine Diesel	335	6, 7, 8, 9	250
Bitumen	12/13	6	150
C.E. Fuel Oil	4903	6, 7, 9	1,100
F.O. Heavy	332	6, 7	1,000
F.O. Heavy	336	6, 7, 9	400
F.O. Medium	331	6, 7, 9	1,000
F.O. Medium	376	6, 7, 9	400
F.O. Light	334	6, 7, 8, 9	400
Paranox/P.I.B.	3711	7, 8	40
Heptene	4907	6, 7	160
Benzene	1032	7, 9	300
Toluene	1031	7, 9	300
M.E.K.		7, 9	150
Nonene/Octene/Decene	7001	7, 8	100
A.T.F. 2452		7, 8	100
Chem. LPG (Rich C_4)		8	40
(Spent C)		8	30
(Butadiene)			
(Isoprene)			
(Isobutylene)			
Ethylene		9	100
Spent Caustic		9	250

B.P. Terminal, Hamble. Situated immediately opposite Fawley; has one main berth on the outside face, having a depth of 31 ft. 6 in. below PLWD alongside and in the approaches. The berth face is 250 ft. long, so head or stern moorings are taken to 2 mooring buoys at the N.W. end of the berth. They are hook buoys; no lashings or mooring shackles are needed.

Facilities and services as for Fawley with the exception of transport, no transport being available within the depot. Ship's personnel are allowed to walk through the installation to Hamble Village where public transport to Southampton is frequent.

All grades of fuel and diesel bunkers and fresh water are available.

Also see "Notices".

BUNKERS AND WATER: All grades of fuel oil and diesel oil are available and water is piped on all berths. Bunkers and stores can also be obtained by barge in Cowes Roads anchorage, but water is not readily obtainable there.

CONSULS:

Country	*Status*	*Address/Telephone No.*
Belgium	Consul	c/o A.C.T. Services, 204-206 Berths, Prince Charles Container Port, Southampton SO1 0HH Tel: 634433 Telex: 47192
Denmark	Vice-Consul	c/o Ackerleys, Canute Chambers, Canute Road, SO9 1FJ Tel: 27171
Dominican Republic	Consul	Mascot Ships Agents, c/o MacIntyre Scott & Co. Ltd., West Bay Road, SO9 4NW Tel: 634033
Finland	Vice-Consul	c/o Sandell Bros. Ltd., Ryde Terrace, SO9 2UL Tel: 30966
France	Consular Agent	R. H. Hammond Ltd., 236 Winchester Rd., SO1 2SB Tel: 772442
Germany (Federal Republic)	Consul	c/o Wainwright Bros. Bowling Green House, 1 Orchard Place, SO1 1BR Tel: 223671
Greece	Vice-Consul	c/o Keller Bryant & Co. Ltd., 21-22 Queens Terrace, SO9 3FD Tel: 28566
Italy	Consular Agent	c/o Herbert Ferryman Ltd., Galen House, 1-9 Oakley Road, SO9 7AT Tel: 788011
Netherlands	Consul	c/o Macship Agencies Ltd., 4th Floor Havelock Chambers, Queens Terrace, SO1 1BP Tel: 229051
Norway	Consul	c/o G. Haswell & Co. Ltd., 28 Queen's Terrace, SO9 2UJ Tel: 23555
Philippines	Consul	Mann & Son (London) Ltd., Test Road, Eastern Docks, Southampton Tel: 637233
Spain	Consul-General	Richmond House, (First Floor) Terminus Terrace, College Street, SO1 1EJ Tel: 35835
Sweden	Consul	c/o Meadows Freight, 12-14 Queens Terrace Tel: 225033

REPAIRS/DRY DOCKS: All ship repairs can be effected. Largest dry-dock is 1,141 ft. long overall, 132.5 ft. wide and has 34 ft. over the blocks. One other dry dock maintained within the Port by Vosper Ship Repairers Ltd.

SURVEYORS: Lloyd's Register. Tel: 220353.
Salvage Association, Tel: 227983.
Topmarine, Tel: 220585.
Murray Fenton & Associates, Tel: 229787.
International Shipping Trustees (UK) Ltd. Tel: 37596.

OIL POLLUTION: Southampton Water is an international yachting centre and has many holiday beaches on its shores. Consequently, oil pollution is treated very severely and heavy fines are imposed on offenders.

The Esso Refinery, Williams Shipping and BP Oil Response Base operate a clean-up service, the full economic cost of which is billed to the offending ship.

MEDICAL: Doctors and hospital facilities available. Agent should be advised in advance of any medical attention required.

An organisation exists for hospitalisation of sick seamen from vessels off Cowes, Isle of Wight. Arrange through Niton Radio, Nab, Needles or Southampton Pilot or through vessel's Agent. Minimum delay to vessel.

CUSTOMS ALLOWANCES: By statute, crews of vessels in port are allowed 25 cigarettes per day per man. 0.3 litres (0.5 pint) of spirits and 1 bottle of table wine per day per man.

TIME: British Standard Time is GMT plus 1 hour, reverting to GMT in Winter months.

AIRPORT: Eastleigh Airport. Air U.K. have flights to Amsterdam, Guernsey and Jersey.

HOLIDAYS: Good Friday (variable date); Easter Monday (variable date); May Day; Spring Bank Holiday (variable date); Autumn Bank Holiday (variable date); Christmas Day (25th December); Boxing Day (26th December); New Year's Day (1st January).

POLICE/AMBULANCE/FIRE: Dial 999 from any telephone and ask for service required.

SHIP SUPPLY SERVICE: Williams Shipping Company (Fawley) Limited, Clyde Buildings, Town Quay, Southampton SO1 1LX. Tel: (0703) 225271. Telex: 47436.

Services Supplied: Fast launches for personnel ship to shore, essential small packages and/or sick crew members.

D.O.T. approved to operate; not more than 6 passengers, area Swansea to Selsey, not more than 5 miles offshore.

Motorised barges for all types of supplies, deck and engine, and stores. Also, vessel with U.K. loadline that can meet vessels passing in the English Channel with essential stores.

Mainly used for storing vessels in Oil Terminals, Cowes Roads and Motherbank.

Also see "Cowes".

NOTICES: *Notice to Mariners No. 14 of 1986.*

The Dockyard Port of Portsmouth,
The Port of Southampton
and the Isle of Wight Pilotage District

Movement of Gas Tankers in the Solent

1. Notice is hereby given that these directions have been jointly promulgated by the Queen's Harbour Master, Portsmouth and the Dock and Harbour Master, Southampton, in agreement with the Isle of Wight Pilotage Service, to ensure the safe navigation of gas tankers within the Isle of Wight Pilotage District.

2. This Notice applies to all gas tankers loaded or partly loaded and gas tankers which have not been rendered gas free.

3. Gas tankers in transit within the Isle of Wight Pilotage District may not enter an area in which the visibility is less than 0.5 miles.

4. Before navigating within the area between the North Sturbridge Buoy and the Warner Buoy, all gas tankers must establish communications with the Queen's Harbour Master Portsmouth on VHF R/T Channel 11 to advise of their transit and to ascertain movements into and out of Portsmouth Harbour.

5. Gas tankers when navigating between Hook Buoy and West Bramble Buoy in the Western Approach Channel shall be given the sole occupancy of that channel.

6. Gas tankers when navigating between East Bramble Buoy and Calshot Buoy in the North Channel shall be given the sole occupancy of that channel.

7. No vessel may anchor closer to a gas tanker than twice their combined lengths.

8. At no time will more than 3 gas tankers be permitted to anchor within the designated Small Ships Anchorage in Southampton Water.

9. No gas tanker exceeding either 8,000 cu.m. total capacity or 6,000 g.r.t. will be permitted to enter or leave the Port of Southampton via the West Solent.

Signed: Dock and Harbour Master.

Notice to Mariners No. 15 of 1986.

The Merchant Shipping (Tankers) (EEC Requirements) Regulations 1981 Isle of Wight Pilotage District

1. Notice is hereby given that the Merchant Shipping (Tankers) (EEC Requirements) Regulations 1981 (SI 1981 No. 1077) came into operation on Thursday, 15th October, 1981.

2. Application.

These Regulations apply to all tankers of 1,600 g.r.t. or over which:

(a) are carrying a cargo of chemicals, gas or oil in bulk; or

(b) having previously carried such a cargo, have discharged that cargo, but whose tanks are not free of vapours given off by residues of such cargo, and have an atmosphere which has not been rendered non-flammable.

The Regulations do not apply to any ship belonging to Her Majesty or owned or operated by any State and used, for the time being, only on the non-commercial service of that State.

3. Reporting.

The Master of a tanker to which these Regulations apply shall at least 24 hours in advance of entering the Isle of Wight Pilotage District notify the Dock and Harbour Master Southampton the following information by telegram or telex using one of the following modes:

Telegraphic Address: Dock and Harbour Master Southampton
Telex Number: 477161 – Dhmspr G
VHF Radio: Southampton Port Radio
Call Sign SPR, Channel 12, 14.
Telephone Number: 0703 – 223844 extn: 2440

(a) the name and call sign of tanker;

(b) the country in which the tanker is registered;

(c) the overall length, draft and beam of the tanker;

(d) the harbour where the Master intends first to berth the tanker;

(e) unless the Master does not propose to berth the tanker at the harbour which is being entered, the ETA at the pilot station or harbour limits of the harbour where the Master intends first to berth the tanker;

(f) the nature and quantity of any chemicals, gas or oil carried by the tanker;

(g) whether the tanker is fitted with an inert gas system;

(h) whether the inert gas system, if fitted, is fully operational;

(i) whether the cargo tanks have an atmosphere which has been rendered non-flammable.

(j) whether or not a certificate has been issued in respect of the tanker;
  (i) if its cargo includes chemicals, that it complies with the IMO Code for Ships carrying Dangerous Chemicals; and
  (ii) if its cargo includes gas, that it complies with the IMO Code for Existing Ships carrying Liquefied Gases or with the IMO Code for Ships carrying Liquefied Gases;

(k) any defect in hull, machinery or equipment of the tanker, which may:
  (i) affect materially the safe manoeuvrability of the tanker; or
  (ii) affect materially the safety of other vessels in or in the vicinity of or in the approaches to the harbour; or
  (iii) constitute a hazard to the marine environment; or
  (iv) constitute a hazard to the persons or property on land or in the vicinity of the harbour.

4. The Master of a tanker to which the Regulations apply shall in advance of entering the Isle of Wight Pilotage District forthwith notify the Dock and Harbour Master Southampton of any change in the information notifiable under item 3 (k) above which occurs after such information was notified to the Dock and Harbour Master Southampton.

5. While a tanker to which these Regulations apply is within the Port of Southampton or the Dockyard Port of Portsmouth, the Master of that tanker shall notify the Dock and Harbour Master Southampton or through him the Queen's Harbour Master Portsmouth of any change which occurs in the information where appropriate notifiable under items 3 (k) and 4 above.

6. Check List.

The Master of a tanker to which these Regulations apply shall make available a check list in the form set out in the Schedule contained in the Regulations and completed in respect of the tanker to the Dock and Harbour Master Southampton or the Queen's Harbour Master Portsmouth if they so request.

7. Isle of Wight Pilotage District.

The Isle of Wight Pilotage District comprises that part of the sea with all harbours, docks and tidal waters within an imaginary line drawn from a point 1 mile true South from LW mark of ordinary Spring tides at Selsey Bill to a position in Lat. 50° 40′ N., Long. 00° 57′ W., thence to a point 1 nautical mile true South from LW mark of ordinary Spring tides at Whitehorse Culver Cliff in the Isle of Wight thence to a point 1 nautical mile true South from St. Catherine's Point and thence direct to Peverell Point but excluding any docks belonging to the Admiralty and any part of this area which lies within the Poole Pilotage District.

8. Authentication.

This Notice where applicable within the Port of Southampton is the direction of the Dock and Harbour Master as authorised pursuant to Section 52 of the Harbours, Docks and Piers Clauses Act 1847 and the Southampton Harbour Act 1939. The Port of Southampton is as defined in the Southampton Harbour Act 1887 as amended by the River Hamble Revision Order 1969 and extended by the British Transport Docks Act 1972. (The limits of the Port of Southampton are as shown on Admiralty Charts).

9. This Notice where applicable within the Dockyard Port of Portsmouth is the direction of the Queen's Harbour Master as authorised pursuant to the Dockyard Ports Regulation Act 1865, and the Dockyard Port of Portsmouth Order 1978. (The limits of the Dockyard Port of Portsmouth are as shown on Admiralty Charts).

10. These Directions have been jointly promulgated by the Queen's Harbour Master Portsmouth and the Dock and Harbour Master Southampton.

Signed: Dock and Harbour Master.

Notice to Mariners No. 17 of 1986.

Port Operations, VHF Communications and Radar Information

1. Notice is hereby given that the following Port Operations, VHF R/T communications and radar information procedures are effective in the Port of Southampton and its approaches.

2. There is no alternation to the availability of the existing services including the provision of Harbour Radar Information. Messages on Port Operations Channels must be restricted to the movement and safety of ships and the safety of life.

3. Marine Incidents and Accidents.

A vessel involved in a marine incident or accident must immediately report this to Southampton Port Radio (SPR) and state whether or not assistance is required.

4. The Solent and Southampton Water Marine Emergency Plan.

This plan has been prepared to deal with any serious marine accident occuring in the Solent or in the Ports of Portsmouth or Southampton and is intended to ensure that adequate Service and Civilian resources are made available to deal with any emergency.

5. VHF R/T Communications.

(a) The Port Signal and Radar Station Southampton, call sign SPR, maintains a continuous watch on Channels 16, 14, 12, 18, 20 and 22 and monitors Channels 71 and 74.

(b) The Queen's Harbour Master Portsmouth, call sign QHM, maintains a continuous watch on Channels 11, 13 and 73.

(c) Vessels should maintain a continuous watch on VHF R/T Channel 12 or 14 and report to SPR as appropriate when passing the designated reporting points, and, in addition, if embarking a Pilot, when the Pilot has boarded.

(See "Appendix".)

6. Co-Ordination of Shipping Movements.

(a) The Duty Operations Officer responsible to the Dock and Harbour Master, Southampton maintains a continuous watch in the Port Signal and Radar Station. Tel: 0703 – 223844, extn: 2440.

(b) The movement of vessels and the general situation in the Port and its approaches is monitored continuously at Southampton Port Signal and Radar Station whence information will be passed to Masters and Pilots. The full exchange of information is essential to efficient operations and the need to maintain R/T communications with SPR cannot be over-emphasised.

(c) In co-ordinating the movement of vessels it may be necessary for the Duty Operations Officer to require certain vessels to remain alongside or at anchor, or to regulate their time of entry into the Port, their departure or progress.

7. Movement Reporting Procedure.

(a) All vessels in excess of 20 m. length, bound to or from or passing through the Port of Southampton, vessels bound to or from Portsmouth or passing through the Dockyard Port of Portsmouth and vessels bound to or from anchorages or other locations in the Solent are required to communicate by VHF R/T with SPR.

(b) Inward bound vessels should establish contact when approaching Nab or Needles.

(c) Vessels outward bound from the Port of Southampton should establish contact at least 15 minutes prior to leaving the berth.

(d) Vessels clearing Portsmouth Harbour should establish contact when passing Southsea War Memorial.

(e) Vessels leaving an anchorage either inward or outward bound should first establish contact at least 15 minutes before getting underway.

(f) Vessels bound to or from Portsmouth Harbour are also required to report to QHM. See Port of Portsmouth Dockyard, Local Notices to Mariners.

8. Movement Reporting Points.

(a) Vessels bound to or from the Ports of Southampton and Portsmouth, or other destination in the Solent or passing through the Solent are required to report by VHF R/T when passing Movement Reporting Points indicated on Admiralty Charts.

(b) The initial report by all inward bound vessels should include:

1. Ship's Name or IRCS.
2. Deepest draft.
3. Destination and Last Port of Call.
4. ETAs at various locations as requested.
5. Deficiencies of ship, navigation equipment, machinery and cargo.
6. Tankers in addition should report any change in the information notifiable under the Merchant Shipping (Tankers) (EEC Requirements) Regulations 1981 and confirm that a check list has been completed.

(c) The initial report by outward bound vessels from the Port of Southampton should include:

1. Ship's name or IRCS.
2. ETD.
3. Deepest draft.
4. Other information requested.
5. Where applicable, tug working Channel to be used.
6. ETAs at various locations as requested.
7. Next Port of Call.

(d) The initial report by vessels from anchorages and other locations in the Solent should follow the procedure for inward or outward bound vessels as appropriate.

9. Harbour Patrol.

The Operations Officer is assisted by a Patrol Officer who maintains a continuous harbour patrol. To assist Mariners in identifying the Harbour Patrol Launch at night, a blue all round light is exhibited at the mast head. The Harbour Patrol is fitted with VHF R/T call sign SP.

10. Height of Tide.

Automatic tide gauges are located at Calshot, Dock Head and Prince Charles Container Port. Tidal information is available on request and is recorded.

11. Wind Speed and Direction.

Wind speed and direction information is available on request and is recorded.

12. Harbour Radar.

(a) Remote controlled radar Stations are situated at Calshot Spit and Hythe and depicted on Admiralty Charts. Each station is fitted with a 25 ft. horizonal aperture scanner 110 ft. above MHWS searching over a 0.3° horizontal and 4° vertical beam width rotating at 20 rpm in winds up to 80 knots.

(b) Vessels can be supplied with continuous information relating to their progress, approach to navigation marks and other vessels, transits and turning marks, channel margins and the manner in which the vessel is progressing round the West Bramble and Calshot turns. Manoeuvring instructions, however, will not be given unless specifically requested by the Master or Pilot.

(c) Computer Assisted Measurement System.

This system employs a small digital computer and a variable marker which can be placed over any target on the display to provide the following information:

1. The bearing and distance between the scanner and a selected target.
2. The bearing and distance between any two targets.
3. The course made good by a selected target.

Facilities are available to store up to 24 targets such as Navigation Buoys, vessels at anchor, etc. The bearing and distance from any selected target to any one of the stored targets can be quickly obtained and the closest point of approach determined.

(d) Accuracy of Bearing and Distance Measurement.

Bearing accuracy from point A to point B is to 0.5° and distances are to 25 m. or to 0.3% of the most distant echo from the scanner, whichever is the greater.

(e) Radar Reference Line.

An alternative position fixing system indicates the position of a vessel relative to a Reference Line electronically produced as points 1 cable apart on the radar display linked to the Calshot Radar only. The Radar Reference Line is shown on the Admiralty Charts of the area as a broken line with points at 1 cable and circles where the line changes direction.

A vessel underway will, upon request, be given her position using the distance between the points of the Reference Line as a scale to estimate the position:

1. As a distance RIGHT or LEFT of the Reference Line relative to her direction of progress.
2. As a distance along the Reference Line to a navigational mark or marks in transit.

The position of another vessel will be given:

3. As a distance from the Reference Line ON THE SAME SIDE or ON THE OTHER SIDE.
4. As a distance along the Reference Line.

Note: In areas where a Reference Line is not shown progress will be indicated relative to navigational marks and other vessels.

(f) Bearings and Distances.

Bearings and distances will be related to the bow (stem) of the vessel concerned unless otherwise stated.

13. This Notice is issued in agreement with QHM Portsmouth.

Signed: Dock and Harbour Master.

DEVELOPMENTS: A sixth quayside gantry crane is to be ordered for the container berths (No. 204-5-6).

A second Linkspan is to be installed at Berth No. 25.

AUTHORITY: Associated British Ports, Dock House, Canute Road, SO9 1PZ. *Tel:* (0703) 330022. *Telex:* 47334. *FAX:* (0703) 336402. *Contact:* W. D. Noddings, Port Director.

AGENT: Keller Bryant & Co., Ltd., Havelock Chambers, 21/22 Queen's Terrace, Southampton. Telephone: (0703) 228566/7/8/9. Telex: 47568. Fax: (0703) 339631. Cables: Keller Southampton. After hours telephones: (0703) 734055, (0703) 225585.

APPENDIX:

VHF R/T COMMUNICATIONS SCHEDULE

Station	*Channel* No.	*Frequency* MHz		*Details*
Southampton Port Signal and Radar Station	16	156.80	Calling, Safety and Distress	Continuous Watch
	10	156.50	Department of Transport	Marine Pollution Control
	12	156.60	Port Operations	Calling and Working
Call Sign SPR	14	156.70		
			All vessels are required to establish R/T Contact with SPR on one of these Channels when approaching the NAB or NEEDLES inward, when passing SOUTHSEA WAR MEMORIAL outward from PORTSMOUTH and at least 15 minutes before leaving a berth or anchorage.	
	18	156.90 161.50	Port Operations	Selected Working and Harbour Radar Information
	20	157.00 161.60	Port Operations	Selected Working and Harbour Radar Information
	22	157.10 161.70	Port Operations	Selected Working and Harbour Radar Information
	71	156.575	Port Operations	Manoeuvring – Ship/Tug – Pilot/ Berthing Master
	74	156.525	Port Operations	Manoeuvring – Ship/Tug – Pilot/ Berthing Master
Queen's Harbour Master Portsmouth	11	156.55	Port Operations	Calling and Working – Commercial Vessels
Call Sign QHM	13	156.65	Port Operations	Calling and Working – HM Vessels
	73	156.675	Port Operations	Calling and Working – Dockyard craft
			Note: Consult Dockyard Port of Portsmouth N to M	
Southampton Patrol	16	156.80	Calling, Safety and Distress	Continuous Watch
Call Sign SP	12	156.60	Port Operations	Continuous Watch
	All	All	Maritime International VHF Band	
			All Channels available as applicable for Port Operations and Maritime use.	
Pilots	16	156.80	Calling, Safety and Distress	
	9	156.45	Working Channel	
Tugs	16	156.80	Calling, Safety and Distress	
	10	156.50	Department of Transport	Marine Pollution Control
	12	156.60	Port Operations	
	14	156.70	Port Operations	
	19	156.95 161.55	Working Channels	Esso Marine Terminal Fawley and BP Oils Ltd. Terminal Hamble
	71	156.575	Manoeuvring	Ship/Tug – Pilot/Berthing Master
	74	156.725	Manoeuvring	Ship/Tug – Pilot/Berthing Master
Esso Marine Terminal Fawley	16	156.80	Calling, Safety and Distress	
	14	156.70	Working Channel	
	19	156.95 161.55	Working Channel	
BP Oil Terminal Hamble	16	156.80	Calling, Safety and Distress	Non-continuous Watch
	19	156.95 161.55	Working Channel	Non-continuous Watch

STORNOWAY: 58.12 N. 06.22 W. (See Plan)

PORT LIMITS: Extend to a line from Southern end of Holm Island on the East to Rudh A'Bhaigh Uaine on the West – approximately 7.5 cables to seaward of Arnish Point Light.
PILOTAGE: Pilotage not compulsory. Vessels requesting Pilot request same with ETA. Boarding off Arnish Point Lighthouse.
ANCHORAGES: Anchorage in harbour between Goat Island and mouth of Creed River, 8 fathoms.
RESTRICTIONS: Entry night or day and at any state of tide. No bar on entrance.
MAX. SIZE: 400 ft. by 60 ft. by 22 ft. draft to berth alongside, 600 ft. length by 35 ft. draft for anchorage in bay.
HEALTH: The customary flying of "Q" flag.
Also see "Health – All Ports" before first U.K. port.
RADIO: Wick Radio or alternatively Stonehaven Radio.
RADAR/VHF: R/T-VHF established in harbour, call "Stornoway Harbour" on Channels 16 and 12. Emergency messages may be passed through Stornoway Coastguard on 81.8 m.
TUGS: No tugs available at port. Fishing vessels have been used, when necessary, for this purpose.
BERTHING: Vessels can be berthed at any time, provided berth is free.
Ro/Ro ferry terminal for Stornoway/Ullapool service in operation.
Depth of Water at Low Water Spring Tides: West side No. 1 Pier: 24.5 ft. shallowing to 12 ft. at junction of North Beach Quay. East side No.1 Pier: 24.5 ft. shallowing to zero at inward end. West side No. 2 Pier: 17.5 ft. shallowing to zero at inward end. East side No. 2 Pier: 16.5 ft. shallowing to zero at inward end. Inner Harbour decreases from 12 ft. at junction of Esplanade Quay to 8 ft. at upper end of Cromwell Street Quay.
STEVEDORES: Arranged by Agents on receipt of ETA.
MEDICAL: Advance notice desirable, Hospital facilities available in the town.
TANKERS: Normal safety requirements. One tanker berth only 15 ft. mean draft, max. length 220 ft.
DENSITY: Practically always dead salt; 1025 density.
FRESH WATER: Fresh water available by hose at 15 t.p.h.
FUEL: 24 hours notice required.
GANGWAY/DECK WATCHMEN: Service of watchmen not necessary. Watchmen from shore may be employed if required.
OPENING/CLOSING HATCHES: Normally crew.
IDENTIFICATION CARDS: Not required.
CONSULS: French, Swedish, Norwegian; Tel: Stornoway 2920, 2054, 3173 respectively.
SURVEYORS: Marine & Engineer Surveys (Hebrides) Ltd., Stornoway.
REPAIRS: Minor deck and engine repairs can be carried out locally.
DRY DOCKS: No dry dock but one slipway of 750 tons displacement.
REPATRIATION: Facilities exist for this service.
AIRPORT: 3 miles from port, served regularly by British Airways from Glasgow and Inverness.
HOLIDAYS: New Year's Day, Christmas Day and all other local Bank Holidays. Cargo work can be arranged except New Year's Day. (No Sunday work.)
POLICE/AMBULANCE/FIRE: Police, Stornoway 2222 (can deal with all three services).
EMERGENCY CO-ORDINATION CENTRE: Stornoway Coastguard Tel: 2013 or 2014.
TELEPHONES: Can be arranged by prior application through Aberdeen office.
STORING: See "Prelims".

1. By truck.
2. –
3. Yes.
4. Yes.
5. Notice No. 69.
6. Yes.

GENERAL: ETA to be sent 24 hours beforehand so that necessary arrangements can be made.

AUTHORITY: Stornoway Pier and Harbour Commission, Amity House, Esplanade Quay, Stornoway, Isle of Lewis PA87 2XS. *Tel:* (0851) 2688. *Telex:* 75408. *Cables:* Harbour Commission. *Contact:* General Manager or Harbour Master.

STRANRAER: 54.55 N. 05.02 W. (See Plan)

DOCUMENTS: As for other British ports.
PILOTAGE: Not compulsory.
ANCHORAGE: Deep water anchorage at Lady Bay.
MAX. SIZE: Largest vessel handled 420 ft. long. Working draft 5.0 m.
HEALTH: See "Health – All Ports" before first UK port.
TUGS: Not available.
RADIO: VHF watch kept on Channel 16 at Sealink Scotland Ferry Terminal. Working Channel is 14.
BERTHING: *East Pier:* 3 berths, depth 5.0 m. at L.A.T. One with vehicular ramp (single tier).
Ross Pier: Length 500 ft. Dredged to 16 ft. at L.A.T. Double tier vehicular ramp at this berth.
CARGO GEAR: Portable crane of 15 tons maximum capacity.
MEDICAL: Medical Centre and hospital in town.
FRESH WATER: Available at all berths.
FUEL: Limited quantities of fuel oil can be supplied from road tankers.
REPAIRS: Small repairs can be carried out by local engineering firm.
GENERAL: Inshore lifeboat based at Stranraer.
AUTHORITY: *East Pier:* Sealink Harbours Ltd., Sea Terminal, Stranraer Harbour, Stranraer DG9 8EL. *Tel:* (0776) 3531. *Telex:* 778125. *Cables:* Sealink Port Stranraer. *Contact:* A. Boland, Port Manager. Captain H.A.C. Ross, General Manager.
West Pier: Harbour Master, Dumfries and Galloway Regional Council.

SULLOM VOE: 60.27 N., 01.17 W. (See Plan)

GENERAL: The Port of Sullom Voe is a major deep water harbour. It is owned and operated by the Shetland Islands Council as Harbour and Pilotage Authority.

The Sullom Voe Oil and Gas Complex is located within the port limits on Calback Ness in position 60° 27.5′ N., 01° 17.0′ W. and is operated by BP Petroleum Development Limited on behalf of several oil company participants. The oil delivered to Sullom Voe through the Brent and Ninian pipelines is collected from a group of oilfields located in the East Shetland basin.

The Port Administration Building, from which all marine operations are monitored and controlled, is located on Sella Ness in position: Lat. 60° 26.8′ N., Long. 01° 16.5′ W.

Services offered by the Harbour Authority and financed through conservancy charges include port radar, navigational advice to Shipmasters, intensity controlled navigational lighting to assist in poor visibility, meteorological advice and shore access gangways at all oil and gas jetties. Services offered and financed through separate charging structures include pilotage and mooring boat services. Boat hire can be arranged for vessels anchored or standing off. Helicopter hire is also available at times. The towage service is operated by a separate towage company and financed directly through towage charges.

The harbour is presently designed to routinely accept tankers up to around 365 m. LOA, with a draft of up to 22.6 m. and LPG carriers up to around 260 m. in length with a draft up to 15.9 m. In addition to liquid bulk and LPG cargo, the port is designed to handle general, dry bulk, Ro/Ro, containerised cargo and quarried rock.

There are 2 entrances to Yell Sound. The primary Northern route, suitable for oil and gas tankers, lies on the Western side of Yell Sound and is marked by leading lights situated on Gluss Isle. The South Eastern approach is considered suitable for vessels of up to 200 m. LOA and having a draft of not more than 11.6 m.

Both routes merge at the entrance to Sullom Voe; the lead into the Voe is indicated by leading markers located on Fugla Ness. In the case of vessels other than coasters, all manoeuvres South of Lamba Island will be assisted by tugs.

Ships will generally be berthed starboard side alongside at the oil loading berths. This will involve swinging each vessel within the Voe in areas adjacent to the tanker jetties. Vessels may be berthed port side alongside during adverse wind conditions.

For the purpose of manoeuvring within the pilotage district a minimum under keel clearance of 2.0 m. is required at all times.

Although current rates of up to 7 knots may be experienced in areas of Yell Sound, records indicate that the maximum current likely to be experienced within Sullom Voe on the deep draft route, is unlikely to exceed 1 knot.

The maximum tidal range within the Harbour Area is 2.3 m. at Springs and minimum 0.6 m. at Neaps. The main tidal current flows to the South on the flood and to the North on the ebb.

Moorings: Strong winds are frequently experienced at Sullom Voe and may be accompanied by sudden gusts from any direction. The prevailing wind direction is S.W.

It is essential that whilst alongside the jetty, moorings are tended carefully and regularly and conform with the mooring requirements. (See "Plan").

CONDUCT OF VESSELS ENTERING YELL SOUND:

a) Masters of tankers and gas carriers entering the Port of Sullom Voe are advised to refer to Charts BA 3298, 3297 and 3292.
b) Navigation within the Pilotage District is prohibited unless the vessel is mechanically and navigationally sound, anchors have been cleared away and there is a responsible person who can speak and understand English on the bridge.
c) The berthing of tankers and gas carriers is suspended when wind speeds are regularly and frequently gusting in excess of 30 knots. Masters will be advised by Port Control in the event of such suspension.
d) Vessels should afford a safe lee for the pilot boat during boarding and landing operations at the Northern Station – Reporting Point A ('Alpha').
e) At Reporting Point B ('Bravo') the Master should alert the crew in preparation for securing tugs, while speed is reduced accordingly.
f) The bow and stern tugs will be made fast when it is considered safe to do so, soon after passing the Outer Skerry.
g) The alongside tugs shall be secured as soon as possible thereafter.
h) The vessel's speed must not exceed 5 knots South of a line joining Skaw Taing and Trumba Point.
i) Standard practice requires vessels to be swung on arrival (except when weather conditions dictate otherwise) and berthed starboard side alongside the jetty designated (see "Plans" for mooring guidelines).

Note: Tugs will use their own lines for securing.

MINIMUM REQUIREMENTS: In order to avoid delays, all vessels programmed for Sullom Voe should comply with the recommendations of the Council of the European Committee for Vessels Transitting Community Seaports, and be fitted with:

(i) Fully operational radar.
(ii) Fully operational VHF radio with Channels 16, 14, 20 12, 10 and 9.
(iii) Sufficient crew to handle tugs' lines and moorings efficiently.
(iv) Efficient propulsion and deck machinery.
(v) Efficient and adequate moorings to secure vessels safely.
(vi) Efficient signalling equipment.
(vii) Fully operational tachometer, rudder and helm indicators.
(viii) Efficient mooring stations communications systems.
(ix) An efficient anchor windlass and anchors.
(x) A complete and valid set of Safety Certificates.

(xi) All officers to be properly qualified and carry recognised certificates of competency.

Note: If any vessel cannot comply with any of the above, Sullom Voe Port Control should be advised prior to arrival or departure.

DOCUMENTS:

General Declaration (C13). In duplicate.
Cargo Manifest (if appropriate).
Crew Declaration (C142). In duplicate.

Procedure:

(i) The Master of a ship is responsible for making Report.

(ii) The Report is to be completed in duplicate on arrival.

(iii) If the ship is visited on arrival, the Report is to be handed to the visiting Officer.

(iv) If the ship is not visited on arrival, the original copy of the Report is to be lodged at the Designated Place (H.M. Customs & Excise, Charlotte House, Lerwick), not later than 3 hours after the ship has arrived at its place of loading or unloading.

PILOTAGE: Pilotage is compulsory within the Sullom Voe harbour area. The Sullom Voe Harbour Area is defined in 'The Sullom Voe Harbour Revision Order 1980' as: "The entire area of Yell Sound and Sullom Voe and adjacent inlets within a line commencing at Ell Wick thence in a Northerly direction along the line of the low water mark on the West side to a point in Latitude 60° 38.27′ N., Longitude 01° 18.27′ W. on the line of low water mark at the Northern extremity of the Point of Fethaland, thence in an Easterly direction following a straight line to a point in Latitude 60° 38.23′ N., Longitude 01° 11.13′ W. on the line of low water mark at the Northern extremity of Fogla Lee on the Island of Yell, thence generally in a Southerly and Easterly direction along the line of low water mark on the East side to a point in Latitude 60° 29.15′ N., Longitude 01° 05.80′ W. on the line of low water mark at the South–eastern extremity of the Ness of Copister, thence in a Southerly direction to a point in Latitude 60° 28.68′ N., Longitude 01° 05.97′ W. on the line of low water mark at the South–eastern extremity of the Island of Orfasay, thence in a South–westerly direction following a straight line to a point in Latitude 60° 27.73′ N., Longitude 01° 08.37′ W. on the line of low water mark at the Southern extremity of Samphrey Island, thence in a Westerly direction following a straight line to a point in Latitude 60° 27.75′ N., Longitude 01° 10.82′ W. at the root of Mossbank Pier and thence generally in a Northerly and Southerly direction following the line of low water mark to the point of commencement.

Pilots: Licensed Pilots are available on a 24-hour basis. A continuous watch is maintained. Call sign "Sullom Voe Harbour Radio" on Channel 16 or Channel 14.

Pilot Boarding Areas: Ships arriving from sea which are compelled to take a pilot in compliance with this Direction, or otherwise require a pilot, shall take the pilot on board in the following areas:

(a) Ships approaching the North Entrance of Sullom Voe Harbour Area should rendezvous with the pilot in position Lat. 60° 38.3′ N., Long. 01° 14.8′ W., with Point of Fethaland lighthouse bearing 260° (T) × 1.8 miles.

(b) Ships approaching the East Entrance of Sullom Voe Harbour Area should rendezvous with the pilot in position Lat. 60° 28.5′ N., Long. 00° 56.5′ W., with Firths Voe lighthouse bearing 260°(T) × 7 miles.

(c) Ships may take a pilot on board in other areas only if expressly directed to do so by an authorised pilot or the Harbour Master.

Note: Vessels boarding pilots by helicopter will usually carry out such operations near North of the normal boarding position for the North Entrance given above. This may be varied due to weather or other cause and vessels should proceed in accordance with advice from Sullom Voe Port Control when helicopters are used.

Exemption from Compulsory Pilotage: Without prejudice to the generality of the foregoing, the following ships shall be exempt from compulsory pilotage within the Sullom Voe Harbour Area unless as may otherwise be directed by the Harbour Master:

(a) All ships of not more than 300 tons gross registered tonnage which do not have on board dangerous substances to which the provisions of the Dangerous Substances in Harbour Areas Regulations 1987 apply.

(b) All fishing vessels.

(c) All tugboats operating as such exclusively within Sullom Voe Harbour Area.

(d) All ships in transit through the Sullom Voe Harbour Area which do not pass South of a line joining the most Northerly point of Gluss Isle and the most Northerly point of Calback Ness.

(e) All ships belonging to Her Majesty.

Pilotage Exemption Certificates: The Secretary of State has directed that the Shetland Islands Council may refuse to grant such Certificates in respect of vessels using Sullom Voe Harbour Area.

Pilot Boats: The Authority has 3 boats for use at the Port of Sullom Voe.

(i) "Sullom Mareel" LOA 16.2 m., service speed 16 knots.

(ii) "Sullom Spindrift" LOA 19.8 m., service speed 20 knots.

(iii) "Sullom Shoormal" LOA 19.8 m., service speed 20 knots.

All boats are of GRP construction and are fully equipped with modern navigational aids.

The freeboard of each boat is approximately 1.5 m.

Pilot Ladder Requirements: All vessels calling at the Port of Sullom Voe must comply with "The Merchant Shipping (Pilot Ladders and Hoists) Regulations 1987 (S.I. 1961)".

The following points are stressed:

(i) The rigging of pilot ladders and the embarkation and disembarkation of Pilots thereby shall be supervised by a responsible deck officer of the ship.

(ii) Every pilot ladder shall be secured in a position clear of any possible discharges from the ship, and so that each step rests firmly against the ship's side.

(iii) Every pilot ladder shall be secured in a position where the Pilot can gain safe and convenient access to the ship after climbing not less than 1.5 m. and not more than 9.0 m.

(iv) Whenever the distance from the water to the point of access to the ship exceeds 9.0 m., access to the ship must be by means of a combination of a pilot ladder and an accommodation ladder, or an equally safe and convenient means.

(v) Owners, Charterers and Masters of vessels should be aware that Sections 6 and 7 of the M.S. (Pilot Ladders and Hoists) Regulations 1987 specifies very clearly the conditions under which accommodation ladders are permitted to be used in combination with a pilot ladder when the freeboard exceeds 9 m. The attention of those involved is drawn particularly to Section 7(2)(A) of these regulations which reads as follows ". . . the lower end of the accommodation ladder rests firmly against the side of the ship within the parallel body length of the ship and, as far as is practicable, within the mid-ship half section *and leading aft*".
Masters are advised that these regulations will be strictly enforced by the Harbour Authority. Any vessels unable to comply with the above section in every particular way should contact their Agent in good time before arrival in order to arrange alternative means for embarking the Pilot.
Any delays and/or additional costs incurred by vessels unable to comply with the above regulations will be strictly to the ship's own account.

(vi) Adequate lighting shall be provided at night so that the pilot ladder overside and also the position where the Pilot boards the ship shall be properly illuminated.

(vii) Actual sea conditions for small craft are not always appreciated when viewed from the bridge of a large vessel. Boarding and landing of pilots is a potentially hazardous operation which requires whole-hearted co-operation between those in control of both the tanker and pilot boat. Hard and fast rules cannot be laid down to fit every set of circumstances but the following points of guidance should be noted.

  (a) All vessels being serviced should be at the pilot station at the agreed time and not significantly early or late.

  (b) All vessels being serviced should be ready to respond to all reasonable requests from the pilot boat to ensure a safe transfer. Agreement as to how and where the transfer is to take place should be reached in ample time and the manoeuvre executed where sufficient sea room exists.

  (c) All vessels being serviced should inform the pilot boat of their intention to change their heading and when that change of heading has been completed.

Pilot Hoists: Pilots are not obliged to use pilot hoists. Any use of these devices must only be at the option of the Pilot, and in general, pilot hoists are not acceptable for the boarding and landing of Pilots at Sullom Voe.

Any pilot hoist offered must, in any case, comply fully with IMO recommendations on performance standards for mechanical pilot hoists and also with the recommendations of the European Maritime Pilots Association.

Note: Because of the low ambient air temperature combined with strong wind conditions, experience has shown that it is not uncommon for pilot hoists driven by compressed air to freeze. Careful attention should be paid to this equipment during the Winter months.

Pilot Boarding Arrangements: In all normal circumstances the boarding and landing of Pilots at Sullom Voe will be carried out by the Authority's pilot vessels, which are approved for this purpose. Helicopters may be used at certain times and under certain conditions as set out below.

Pilot Transfer by Helicopter: Sea conditions at the North Entrance to Yell Sound can at times prevent the boarding and landing of Pilots by boat even though wind speeds may be within operational limits. Helicopters may be used at the discretion of the Authority to carry out Pilot transfer when such conditions exist. Helicopters may also be used in cases where a vessel is unable to provide a satisfactory pilot ladder/accommodation ladder. Factors affecting the use of helicopters for these purposes are set out below.

1. From 1st October 1988 until 2359 hrs. on 30th April 1989 an MBB Bolkow 105 helicopter is contracted to the Authority on a sole user basis for purposes of Pilot transfer. This helicopter may also be available for ad hoc use outside of the aforementioned dates.
2. The first choice helicopter is capable only of landing on vessels to be serviced. Winching operations cannot be carried out by this aircraft. It is a small twin-engined helicopter of approximately 2 tonnes weight and with a rotor height of 3 m. Experience has shown that this helicopter can safely land on 90% of vessels calling at Sullom Voe.
   Winch-capable helicopters may be available but will take much longer to obtain and delays could result to the requesting vessel.
3. The permission of the Master and/or Agents as appropriate will be obtained prior to any transfer taking place using the Bolkow 105 helicopter.
4. All transfers by helicopter will be carried out strictly in accordance with the UK CAA Regulations and the Procedures set out in the "Guide to Helicopter/Ship Operations" published by the International Chamber of Shipping (see extracts reprinted below).
5. The Bolkow helicopter service is available only to crude carriers and combination carriers provided with suitable helicopter operating areas. It is not available to LPG carriers.
6. Any helicopter service is available during daylight hours only. The MBB Bolkow 105 helicopter is generally available during all daylight hours during the contract period. Service by winch – capable aircraft may be available only during ordinary airport opening hours which may be 0730 – 2030 weekdays and 1045 – 1430 Sundays.
7. During the contract period defined in Section 1 (above), no extra charge accrues to the vessel when boarding and landing by the MBB Bolkow 105 helicopter for reasons of weather and/or adverse sea conditions. The regular and published boarding and landing fee is applied.

8. During the contract period defined in Section 1 (above), when the MBB Bolkow 105 Helicopter is used to service a vessel with defective boarding and landing equipment a charge of £1,400 plus the regular published boarding and landing fee per operation plus re-charges at cost will be applied.
9. Helicopter operations are co-ordinated by Sullom Voe Port Control. Vessels serviced in this manner should follow instructions issued by Sullom Voe Port Control to facilitate such transfers.
10. Helicopters used are operated only by the well-established companies, currently Bond Helicopters Ltd. and British International Helicopters Ltd., which operate to the highest standards and are approved to carry out transfers of Sullom Voe personnel by the Harbour Authority.
11. Only experienced aircrew are used and Marine Pilots of this Authority are all experienced in this mode of transfer and trained in accordance with Section 8(h) of the ICS Guide to Helicopter/Ship Operations.
12. Outside the contract period defined in Section 1 (above), when continuous service by MBB Bolkow 105 Helicopter is not available, vessels which require helicopter services for reasons of defective pilot boarding equipment must give early and specific advice of this requirement if delays are to be avoided. Helicopters may be obtained on an ad hoc basis for this purpose subject to availability and will generally transfer by winching only. Only helicopter operators approved by the Harbour Authority will be used.
13. Outside contract period defined in Section 1 (above), all helicopter services will be charged at cost.
14. At all times, any helicopter secured to carry out winching operations for whatever reason will be charged at cost.

Note: The Sullom Voe Harbour Authority will endeavour to advise a vessel's Agent or Operator when an additional cost is likely to be incurred due to use of a helicopter for pilot transfer(s). However, all Agents and Operators should be aware that notwithstanding the above, the Harbour Authority will, at their sole discretion, secure helicopters for the purpose of pilot transfers when they deem such service is required.

For convenience of ships Masters the following extracts from the current "Guide to Helicopter/Ship Operations" are reproduced by kind permission of the International Chamber of Shipping:

5.1 Operational Checks

The Officer in charge should check all operational requirements on deck shortly before the arrival of the helicopter. Different types of ships may require specialist checks.

The general requirements for all types of ships are listed below.

5.1.1 Ship Checks

(a) All loose objects within and adjacent to the operating area must be secured or removed;

(b) All aerials and standing or running rigging above or in the vicinity of the operational area should be lowered or secured;

(c) Fire pumps should be running with sufficient water pressure on deck;

(d) Fire hoses should be ready. (Hoses should be near to but clear of and, if possible, upwind of the operating area pointing away from the helicopter);

(e) Foam equipment operators (at least 2 wearing the prescribed firemen's outfits) should be standing by, and have foam nozzles pointing away from the helicopter;

(f) A rescue party should be detailed with at least 2 members wearing firemen's outfits;

(g) The man overboard rescue boat should be ready for immediate lowering;

(h) The following items of equipment should be to hand:
   (i) Portable fire extinguishers.
   (ii) Large axe.
   (iii) Crowbar.
   (iv) Wirecutters.
   (v) Red emergency signal/torch.
   (vi) Marshalling batons (at night).
   (vii) First aid equipment.

(i) The correct lighting and signals (including special navigation lights) should be switched on prior to night operations;

(j) The deck party should be ready, and all passengers clear of the operating area;

(k) Hook handlers should be equipped with electricians' strong rubber gloves and rubber soled shoes to avoid electric shocks from static discharge;

(l) All the deck crew should be wearing bright coloured life vests and protective helmets securely fastened with a chin strap;

(m) The Officer of the watch on the bridge should be consulted about the ship's readiness.

5.1.2 Landing On (These checks are additional to those in 5.1.1):

(a) The deck party should be made aware that a landing is to be made;

(b) The operating area should be free of heavy spray or seas on deck;

(c) Awnings, stanchions and derricks and, if necessary, side rails should be lowered or removed.

As outlined under "Pilot Transfer by Helicopter" the Port Authority uses a MBB Bolkow 105D Helicopter for boarding and landing of pilots in certain circumstances.

The primary purpose is to provide a service when sea and swell conditions at the boarding stations are such that boatwork must be suspended, but it is also used when vessels are unable to provide the correct pilot boarding equipment.

This helicopter cannot carry out pilot transfer by winching and must land on the vessel to be serviced. The arrangements approved by the United Kingdom Civil Aviation Authority for the MBB Bolkow 105D to land on vessels are shown in the "Plan Section". However, for a trial period, approval has been given by the CAA which allows the helicopter to land on vessels to be serviced at Sullom Voe without the necessity for the vessel to lower the shipside rails. This temporary approval may not continue in the longer term and owners and managers of vessels trading to Sullom Voe who wish to continue to avail themselves of the service must now consider carrying out the minor structural modifications shown in the "Plan Section".

The modifications required are adaptation of the ship-side rails in way of the landing area to allow these to fold down inboard and remain secured in the folded down position and the application of non-skid paint to the landing circle. Both items are inexpensive and may be carried out without waiting for the next drydock or repair schedule.

Operators of ships trading regularly to Sullom Voe are hereby strongly urged to ensure that their vessels are adapted and equipped to comply with this requirement at the earliest opportunity.

Should further clarification be required this may be obtained by contacting the Port Authority.

APPROACHES: *Routeing and Aerial Surveillance in Shetland Waters.*

Vessel routes in Shetland Waters:

Applicable to all tankers, combination carriers and LPG vessels calling at Sullom Voe.

Shetland Islands Council, conscious of the dangers to navigation around the Shetland coast, due largely to offshore obstructions, strong tides, rapid weather changes and the presence of fishing vessels, vigorously discourages navigation within 10 miles of the coastline.

An agreed procedure has been reached between the Oil Industry and Shetland Islands Council of which the following is an extract:

1. Masters are strongly recommended to keep at least 10 miles off the Shetland Islands, including Foula and Ve Skerries, when approaching or leaving Yell Sound. Since Fair Isle is part of Shetland Islands it is recommended that vessels navigate the Fair Isle Channels approximately midway between Fair Isle and either Mainland Shetland or North Ronaldsay, Orkney.
2. It is further recommended that passage between off-lying islands/skerries etc., including Foula and Mainland Shetland should not be attempted.
3. For the final approach to/departure from Yell Sound, vessels are strongly recommended to navigate on the offshore side of the boundaries joining the following co-ordinates:

When approaching from/proceeding to the West:

A. Lat. 60° 42.5′ N., Long. 01° 42.0′ W.
B. Lat. 60° 42.5′ N., Long. 01° 22.0′ W.
C. Lat. 60° 40.0′ N., Long. 01° 17.0′ W.

When approaching from/proceeding to the East:

D. Lat. 60° 40.0′ N., Long. 01° 14.0′ W.
E. Lat. 60° 56.5′ N., Long. 01° 14.5′ W.
F. Lat. 61° 01.5′ N., Long. 00° 59.5′ W.
G. Lat. 61° 01.5′ N., Long. 00° 48.0′ W.
H. Lat. 60° 56.5′ N., Long. 00° 27.0′ W.

4. Vessels which have permission to use the pilot station at the S.E. entrance to Yell Sound are requested to navigate as follows:

A. Vessels approaching the Shetland Islands from the South and making for the pilot station at the S.E. entrance to Yell Sound or wishing to anchor in Colgrave Sound are advised to navigate to a position 10 miles East of Out Skerries before altering course to the pilot station or to Colgrave Sound.

B. Vessels approaching from the North and making for the pilot station at the S.E. entrance to Yell Sound or wishing to anchor in Colgrave Sound are advised to navigate to a position 10 miles East of Fetlar before altering course to the pilot station or Colgrave Sound.

5. Where, for any reason of safety or emergency, it is not possible to comply with the foregoing, you are required to notify immediately your intentions with reasons, to Sullom Voe Port Control by VHF Channel 16 or via Agents. Charts should not be cleaned off until berthed at Sullom Voe to assist checking by Port Authority.

ANCHORAGES: There are no suitable anchorages available for large tankers in the Port of Sullom Voe.

However, LPG carriers of less than 180 m. LOA may be anchored in a designated area within the harbour at the discretion of the Harbour Master.

Vessels are permitted to anchor in Colgrave Sound (Lat. 60° 35′ N., Long. 00° 57′ W. approx.) when circumstances dictate that this is appropriate. In doing so, Masters should make reference to charts B.A. 3282 and 3292, the North of Scotland Pilot – NP.52 page 99 and "Routeing and Aerial Surveillance in Shetland Waters", see "Approaches".

In addition, the following guidance to the usage of Colgrave Sound is relevant and all vessels intending to anchor there should comply with the advice given herein.

1. Colgrave Sound is used extensively by fishing craft throughout the year and Masters of other vessels are requested and required to give such fishing vessels a wide berth.
2. Three designated anchorages in Colgrave Sound have been identified as being suitable for large vessels and clear of established fishing grounds. These anchorages should be used in preference to any other area of Colgrave Sound. (See "Plan"

3. Colgrave Sound is outside the Sullom Voe Harbour Area and also outside the extended area of coverage of the Harbour surveillance radar. It is however observed several times each day by the surveillance aircraft. Therefore any information given by Sullom Voe Port Control to vessels proposing to anchor in Colgrave Sound is given in good faith and on the understanding that neither the Harbour Authority nor its servants will accept liability for the consequences of any vessel dragging anchor, colliding with any other vessel, stranding, causing pollution, or any other occurrence occasioned by or to the vessel concerned whilst navigating or at anchor within Colgrave Sound and its approaches.
4. Sullom Voe Harbour Authority will, however, give all assistance to any vessel seeking information about the Colgrave Sound area with the objective of establishing orderly navigational disciplines in the area for the benefit of all users.
5. To this end any vessel (including oil rigs, oil exploration vessels, barges and supply craft) wishing to anchor in Colgrave Sound is requested, in the first instance, to contact Sullom Voe Port Control. The vessel will then be advised which designated anchorage is believed to be unoccupied and which may therefore be used by the vessel.
6. The designated anchorages are identified by the numbers 1, 2 and 3 (see "Plan") and also by bearing and distance of the White Hill Light House (Lat. 60° 34.9′ N., Long. 01° 00.1′ W.) as follows:
   Anchorage 1: White Hill Lighthouse bearing 238°T×1.50 miles.
   Anchorage 2: White Hill Lighthouse bearing 253°T×0.95 miles.
   Anchorage 3: White Hill Lighthouse bearing 260°T×1.68 miles.
7. Masters of vessels making use of any of the designated anchorages are requested to provide Sullom Voe Port Control with details of their anchorage position when brought up.
8. Masters of vessels approaching or at anchor within Colgrave Sound are requested to strictly observe the regulations prohibiting the dumping of industrial debris, offensive and noxious substances and oil pollution.

Masters should beware of 2 submarine oil pipe-lines on the East Side of Shetland shown on the latest charts and referrred to in "North Coast of Scotland Pilot", pages 94 and 95.

Except when advised otherwise, Masters should proceed to a point 6 miles off Gruney Island (Lat. 60° 39′ 00″ N., Long. 01° 18′ 00″ W.). Thereafter, Masters should follow directions in "North Coast of Scotland Pilot", page 54, noting, however, that there are areas of poor VHF communication with Sullom Voe Harbour Radio to the West and North of Yell Sound.

MAX. SIZE: See "Berthing", "Loading/Discharging Facilities" and "Liquefied Petroleum Gas Facilities".

HEALTH: The following Port Health procedure applies at the Sullom Voe Terminal.

The Master has no need to obtain health clearance unless:
(i) An authorised officer otherwise directs.
(ii) A death or illness has occurred as defined in the Public Health (Ships) (Scotland) Regulations.
(iii) An abnormal mortality among rats or mice on board has occurred.

Where it is necessary to obtain "Free Pratique" for health purposes, the Master should provide the following documents:
(i) Maritime Declaration of Health.
(ii) A list of passengers and crew leaving the ship, together with the addresses they are going to in the United Kingdom.

Derat Exemption Certificates: The Sullom Voe Terminal is an "approved" Port, and Derat Exemption Certificates will be issued by the local Health Authority.

Also see "Health – All Ports" before first U.K. port.

RADIO:

ETA Requirements: Vessels bound for Sullom Voe are required to provide the Pilotage Authority with the following information.
(i) An estimated time of arrival at least 24 hours prior to arrival or on leaving the last port (whichever is later). In addition to this ETA Masters are to include the estimated time of crossing Lat. 58° 20′ N. and estimated longitude on crossing that latitude, and the intended inward courses and turnpoints to the Gruney Island Pilot Station. Vessels arriving from the North Atlantic or Northern North Sea should use a position 200 miles from the pilot station.
(ii) Confirm the vessel's ETA at least 6 hours before arrival at the seaward limit of the Pilotage District and thereafter notify any significant change in excess of 1 hour.
(iii) On coming within range of "Sullom Voe Harbour Radio", the ETA to be given by VHF (Channel 16 or Channel 14).

Pre-Arrival Information: 24 hours prior to arrival, all vessels calling at Sullom Voe should cable "Portcontrol Sullomvoe" the following information:
(i) Ship's name and call sign.
(ii) Port of Registry.
(iii) Name of Master.
(iv) G.R.T.
(v) Summer deadweight (tonnes).
(vi) Length overall and beam (metres).
(vii) Draft fore and aft.
(viii) Whether to berth or in transit.
(ix) Whether loaded or in ballast. If loaded, nature and quantity of cargo.
(x) Whether vessel is carrying segregated ballast.
(xi) If so, quantity and at which port taken onboard.
(xii) Dirty ballast quantity (tonnes).
(xiii) Total ballast/bunkers/FW and stores as a percentage of the Summer d.w.t. (minimum acceptable 35%).
(xiv) Which pilot station on arrival.
(xv) Pilot boarding arrangements.
(xvi) Number of crew.
(xvii) Last Port of call.
(xviii) Does ship have a fully operational inert gas system?
(xix) Your vessel will be required to "closed-load" at all times even during topping off, can you comply? Y/N.
(xx) Are all cargo/slop tanks inerted to less than 8% oxygen content (2% for LPG carriers)?
(xxi) Is all navigation, safety, anchoring and mooring equipment fully operational and ready for use? If not, specify. All anchors to be cleared away on arrival at the pilot station.
(xxii) Confirmation to be given that vessels are complying in all respects with "The Merchant Shipping (Tankers) (EEC Requirements) Regulations 1981".

VHF Radio Communications:
1. Sullom Voe Harbour Radio maintains a continuous listening watch on the following VHF Channels: 16, 9, 10, 12, 14 and 20. Vessels should, when possible, only use Channel 16 for initial calling and refrain from using Channel 10, which is designated for emergency purposes and Channel 9 which is the primary pilotage/tug working channel.
2. All vessels entering or leaving the Sullom Voe Harbour Area are requested to contact "Sullom Voe Harbour Radio" initially on VHF Channel 16, or Channel 14. This includes all vessels transiting Yell Sound.
3. Any vessel intending to use the deep water channels marked by the leading lights of Gluss Isle, the white sector of Queyfirth Light, the white sector of Skaw Taing Light, the Fugla Ness leading lights or the Sella Ness leading light, for the purpose of fishing must report such intentions to "Sullom Voe Harbour Radio" and report at intervals not exceeding 2 hours while fishing.
4. Any vessel may receive traffic information on request by contacting "Sullom Voe Harbour Radio" on Channel 16 or Channel 14.
5. Brief local weather forecasts will be broadcast on request. Call "Sullom Voe Harbour Radio" on Channel 16 or Channel 14.

VHF: *Port Operation and Control Services:* All shipping movements within the Pilotage District are monitored from a Port Control Room in the Port Administration Building at Sella Ness.

The Port Control Room is manned on a 24 hour basis by Marine Officers who are licensed Pilots.

These Marine Officers, in their capacity as Port Control Officers, maintain a continuous VHF and radar watch. They provide advice to Masters and Pilots on all navigational aspects (including weather forecasts) within the area, direct shipping movements within the port, and liaise with the Terminal Operator and emergency services.

The following VHF Channels are continuously monitored in the Port Control Room:

Channel 16	Calling, Safety and Distress.
Channel 9	Tanker pilotage and tug handling.
Channel 10	Port emergency, fire or oil pollution.
Channel 12	Secondary Port Control working frequency.
Channel 14	Main Port Control working frequency.
Channel 20	Secondary Port Control working frequency.

The call-sign for Sullom Voe Pilots is "Sullom Voe Harbour Radio".

In addition, Sullom Voe Terminal constantly monitors Channels 16 and 19. Pre-arrival information will be given on Channel 19. Initial contact should be made on Channel 16 using call sign "Sullom Voe Terminal".

It is emphasised that Masters should try to contact the terminal as soon as possible prior to arrival at the Pilot Boarding Area, so that loading information may be exchanged before commencing the inward passage through Yell Sound.

Channel 24 — Link calls for commercial radio traffic can be arranged on this channel. Call-sign "Collafirth Radio".

Control of Traffic: The Port Control Room directs the movements of all vessels within the Pilotage District and the Harbour Area. Overtaking and passing is prohibited in the Deep Water Channel within an area bounded by a line joining Queyfirth Light and the Northern extremity of Lamba Island and a line joining Skaw Tang Light and the front leading light on Gluss Isle.

No vessel having an overall length in excess of 50 m. shall navigate so as to pass or overtake an LPG carrier underway anywhere within Yell Sound or Sullom Voe between lines drawn between the Northern extremity of Muckle Holm (Lat. 60° 35.1′ N., Long. 01° 15.8′ W. approximately) and the Northern extremity of the North Holm of Burravoe (Lat. 60° 35.4′ N., Long. 01° 18.2′ W. approximately) and between the Northern extremity of Lunna Holm (Lat. 60° 27.5′ N., Long. 01° 02.4′ W. approximately) and the Southern extremity of Heoga Ness (Lat. 60° 29.4′ N., Long. 01° 02.4′ W. approximately).

Reporting Positions: During transits of Yell Sound and approaches to Sullom Voe, all vessels are required to report to Port Control when passing the following positions:

A. Lat. 60° 38.25′ N., Long. 01° 14.82′ W. with Point of Fethaland Lighthouse bearing 260° T×1.8 miles.
B. Lat. 60° 34.95′ N., Long. 01° 16.56′ W. with Muckle Holm Lighthouse bearing 105°T×0.35 miles.
C. Lat. 60° 31.35′ N., Long. 01° 18.49′ W. with Queyfirth Lighthouse bearing 285°T×0.49 miles.
D. Lat. 60° 29.32′ N., Long. 01° 17.47′ W. with Skaw Taing Lighthouse bearing 118°T×0.41 miles.
X. Lat. 60° 28.50′ N., Long. 01° 10.70′ W. with Mossbank Lighthouse bearing 175°T×1.25 miles.

The provision of additional reporting points in the S.E. entrance is under review.

RADAR: Full radar coverage exists for Yell Sound and Sullom Voe. Comprehensive coverage also includes the 'funnel' of approach to the Northern Pilot Boarding Station and also the S.E. entrance channels and the associated seaward approaches.

The main scanner is located on the Hill of Vats Houlland (Lat. 60° 27.57′ N., Long. 01° 17.28′ W. and the secondary scanner, which provides coverage of the S.E. entrance and Western approach channels, is located near Brough (Lat. 60° 28.90′ N., Long. 01° 13.04′ W.). Both scanners are connected by microwave links to displays in the Port Control Room.

Port Control Officers maintain a continuous radar watch, and the transit of each vessel is monitored and recorded. Advice is available to vessels on request.

TUGS: At present a fleet of harbour tugs provide a towing service for vessels at the Port of Sullom Voe. These are stationed at the Sella Ness Jetty adjacent to the Port Administration Building.

The fleet is operated by Shetland Towage Ltd., a private company owned and operated by a joint venture between Shetland Islands Council, Clyde Shipping Company and Cory Ship Towage.

The fleet consists of 3 twin screw 3,800 h.p. vessels, each having a bollard pull of 55 tons. These vessels are fully equipped as fire-fighting tugs and pollution control vessels and were built by Hall Russell and Company Ltd., in Aberdeen, in 1978. Named after Shetland birds, they are:

"Stanechakker", "Swaabie", "Lyrie"

Two additions to the fleet are Voith water tractors, built in 1983 by Ferguson Ailsa Ltd., at Port Glasgow. These vessels have twin 32G Voith units developing 4,000 b.h.p. and a bollard pull of 45 tons. Also given bird names, they are:

"Tirrick", "Shalder"

The use of tugs and their numbers will be as directed by the Harbour Master. Prior to arrival, vessels should ensure that heaving lines of adequate length and breaking strain are readily available to assist in securing the tugs.

Tugs will normally meet incoming vessels at a position North of Lamba Island. Officers and crew should be standing by to receive lines and all necessary tugs must be secured before the vessel's ability to manoeuvre becomes restricted.

When a vessel is berthing, tugs will be secured to the bow and stern of the vessel with towing lines and alongside in a push pull mode. Their mode of operation and disposition will be fully explained by the Pilot on arrival. Tug lines will normally be used throughout, either from towing hook or towing winch.

It is requested that wherever possible tug orders for movements before 0900 hrs. be placed not later than 1700 hrs. on the preceding day.

BERTHING: The following criteria apply to conventional vessels loading at crude and gas jetties at Sullom Voe.

The minimum under-keel clearance allowed is 1 m. required alongside jetties and 2 m. elsewhere in the Harbour Area.

Oil tankers in the range of 18,000 tons deadweight to 350,000 tons deadweight may be accepted at Sullom Voe, as a matter of routine.

Vessels outside the parameters listed below and vessels of conventional design may be accepted at Sullom Voe subject to individual consideration by the Harbour Master and Terminal Operator.

Limiting Vessel Sizes:

No. 1 Jetty:	**Crude Oil Carriers**
LOA	170 m. to 280 m.
Depth alongside	16.9 m.(minimum)
Max. allowed draft	15.9 m.
	LPG Carriers
LOA	140 m. to 260 m.
Capacity	10,000 cu.m. to 75,000 cu.m.
No. 2 Jetty:	**Crude Oil Carriers**
LOA	210 m. to 365 m.
Depth alongside	23.1 m. (minimum)
Max. allowed draft	22.1 m.
No. 3 Jetty:	**Crude Oil Carriers**
LOA	170 m. to 365 m.
Depth alongside	23.6 m. (minimum)
Max. allowed draft	22.6 m.
No. 4 Jetty:	**Crude Oil Carriers**
LOA	170 m. to 365 m.
Depth alongside	23.6 m. (minimum)
Max. allowed draft	22.6 m.

Note: (i) Vessels entering in ballast or partially loaded conditions should ensure that their draft does not exceed 13 m. as this is the draft normally allowed in the South Turning Area.

(ii) Where it is not possible for vessels to arrive with a draft of 13 m. or less, berthing will be carried out in accordance with the Harbour Master's directions.

Loading Systems:

All crude loading arms are 150 ASA 16 in. hydraulic connections. This includes No. 1 Jetty where 16 in. connections are attached to 12 in. arms. All LPG loading arms have 150 ASA Camlock connections.

No. 1	Crude	4×12 in.	Loading arms	hydraulic connections.
	LPG	2×12 in.	Loading arms	hydraulic connections.
		1× 8 in.		
No. 2	Crude	4×16 in.	Loading arms	hydraulic connections.
No. 3	Crude	4×16 in.	Loading arms	hydraulic connections.
No. 4	Crude	4×16 in.	Loading arms	hydraulic connections.

Manifold Heights:

	Heights above chart datum	
	Max.	*Min.*
No. 1 Crude	22.70 m.	1.80 m.
LPG	21.50 m.	3.50 m.
No. 2 Crude	31.30 m.	2.60 m.
No. 3 Crude	31.30 m.	4.23 m.
No. 4 Crude	31.30 m.	4.23 m.

Maximum allowable pressure on lines and connections: 150 p.s.i.

Jetty Orientation:

No. 1	280°/100°
No. 2	135°/315°
No. 3	135°/315°
No. 4	145°/325°

Gangway: Shore tower type gangways are provided at all times. If for any reason, a shore gangway will not be available, ships will be advised in good time.

MOORING: The 4 loading berths are located in deep water on the Northern shores of Sullom Voe, adjacent to the Terminal complex at Calback Ness.

The berths are numbered 1 to 4 in sequence from East to West. No. 1 Jetty has facilities for both crude and LPG carriers and can accommodate vessels up to 120,000 d.w.t. Jetty Nos. 2, 3 and 4 have crude loading facilities only and are designed to accommodate tankers up to 350,000 d.w.t. range. (Larger tankers may be accepted at the discretion of the Harbour Master).

Each jetty is of conventional "T" shaped construction with 4 breasting dolphins in line with the jetty head. The mooring dolphins are offset from the line of breasting dolphins to provide an optimum lead for mooring lines. Vessels may land at a maximum angle of 8° to the jetty face. Quick release mooring hooks are fitted on all dolphins. For use with large vessels, quick release mooring pulleys have been fitted on Berths No. 2, 3 and 4. These pulleys, 1 at each end of the berth are designed to accept a ship's mooring wire in the form of a bight.

Large flexible rubber fenders are fitted to the outer faces of each breasting dolphin. Each has a generous energy absorbing capacity.

Each mooring operation will be assisted by 2 purpose-built mooring boats.

ACTIONS TO BE TAKEN IN SEVERE WEATHER CONDITIONS

1. At least 1 tug shall be called out to assist in keeping *any* vessel alongside when all the following conditions exist:

(a) Where the mean freeboard height of the vessel exceeds the mean draft,
(b) Where the wind is gusting to 50 knots or more and
(c) When the wind is from a direction in line with or inside the berthing line of the jetty.

2. At the time of suspending loading/deballasting operations because of deteriorating weather conditions, the Terminal Loading Supervisor will advise Port Control immediately of any vessels in the condition stated in 1(a) above.

3. When a tug is called out under the conditions stipulated in (1) above:

(a) The Terminal Loading Supervisor will notify the Master of the situation and request that the vessel be brought to a state of immediate readiness.
(b) With the exception of the Port Controller, such Pilots as are available will station themselves aboard those vessels which are considered to be most vulnerable, and any vessel with a tug alongside must be attended by a Harbour Pilot throughout the period a tug is required.
(c) The Duty Harbour Master will be notified.

4. Tugs may be necessary to assist in keeping vessels alongside when some of the conditions in (1) above are absent, and may or may not be called for by the vessel. In such circumstances any vessel requiring tug assistance will also be attended by a Harbour Pilot who will board the vessel as soon as possible and remain on board throughout the whole period a tug is in attendance. In these circumstances the Duty Harbour Master will be informed.

5. Notwithstanding anything contained in 1 – 4, the Duty Port Controller may, *after consultation with the Harbour Master,* call out such tugs as are required, at any time, if he feels the situation warrants this action. In the case of large vessels in light condition for example, it may be prudent in certain circumstances to call out the tugs when the wind off the berth is less than 50 knots. In such cases the Duty Port Controller should exercise his discretion.

6. In all situations where tugs are required to assist a vessel moored alongside, a Harbour Pilot will also be stationed on board that vessel as soon as possible after tugs are called out, and will remain on board throughout the whole period the tugs are in use.

General Mooring Requirements:

1. Masters should ensure that mooring lines are in good condition, winch brakes or securing devices should be in efficient operating order and should have a holding power of at least 60% of the breaking load of the vessel's mooring lines. (On vessels constructed before 1978 these conditions may be met by placing the winch in gear and applying power in addition to applying the brake).
2. Any known defects in the vessel's mooring system or limitation of mooring winch brakes should be reported to the Pilot and the Terminal before arrival in order that, if necessary, additional precautions may be agreed.
3. In order to avoid damage to loading arms and the serious consequences of oil pollution, the vessel should be kept close alongside at all times.
4. It is recommended that wires (or wires fitted with synthetic fibre rope tails of at least 25% greater breaking load than the wire), should be used for all mooring lines.
   - 4.1 The following mooring requirements shall apply to all crude and gas tankers in excess of 10,000 tons gross and in general all mooring operations shall be conducted in accordance with the OCIMF "Guidelines and Recommendations for the Safe Mooring of Large Ships at Piers and Sea Islands".
   - 4.2 Where a crude or gas tanker is equipped with synthetic mooring lines or a random mixture of synthetic and wire mooring lines, the ship shall be secured by a minimum of 4 headlines/sternlines, 4 breastlines and 2 springs at each end of the ship.
   - 4.3 Where a crude or gas tanker is equipped with wire mooring lines only, the ship shall be secured in accordance with the appropriate mooring guide plan contained in the Sullom Voe Port Information Booklet.

4.4 Where a crude or gas tanker is not designed or equipped to comply with the requirements outlined in Sections 4.2 and 4.3 it shall be secured as near to these requirements as possible and in any case to the satisfaction of the Master, the Pilot and the Loading Supervisor. If such ships cannot be secured satisfactorily, the loading arms must not be connected and the Duty Harbour Master shall be contacted immediately.

4.5 Mooring lines leading in the same direction of restraint shall be of similar material and construction throughout their lengths from jetty mooring point(s) to vessel's securing point(s).

4.6 Where a crude or gas tanker has undergone a mooring audit on a previous visit to Sullom Voe, the ship must be moored exactly in accordance with the mooring plan. If for any reason this is not possible the ship should be secured in compliance with Sections 4.2, 4.3 or 4.4 as appropriate and the details reported to the Port Controller for the attention of the Director of Ports and Harbours. Audited mooring plans shall not be altered, amended or edited without the approval of the Director of Ports and Harbours.

5. Particular care should be taken to ensure sufficient transverse restraint from breast moorings. When synthetic fibre mooring lines are used, pre-tensioning of these lines on making fast will help prevent drift of the vessel away from the berth in "off the berth" wind conditions.
6. As soon as the vessel is secured, brakes on all mooring winches should be firmly applied. Winches must not be left on automatic tensioning. Full steam pressure or power to all mooring winches should be maintained at all times when alongside. On split drum mooring winches only one layer of rope shall be permitted on the working half of the drum.
7. An efficient watch must be maintained on the vessel's moorings at all times to ensure that all lines are properly tensioned and tended when required. The deck watch should make regular checks that mooring winch brakes are applied at the correct setting.

LOADING: *Maximum Loading Rate per Arm:*

Crude: 16 in. loading arm	5,000 metric t.p.h.
Crude: 12 in. loading arm	2,500 metric t.p.h.
LPG: 8 in. loading arm	900 cu.m/hr.
LPG: 12 in. loading arm	2,100 cu.m/hr.

Connection of Loading Arms: Confirmation to be given that vessels will arrive with the required spool pieces fitted to their manifold for either crude or LPG fitting.

Manifolds should comply with latest OCIMF Standards. As a minimum there must be 500 mm. between faces of spool/reducer presented for connection. Reducers must be equally tapered.

Failure to present correct reducer/spool will result in delays. The Terminal does not have reducers, but does have 16 in. to 16 in. spool pieces. Should it be necessary to use the Terminal's spools a charge will be levied.

CRUDE The connection of loading arms will be undertaken by shore personnel. Vessels should arrive with 16 in. 150 ASA manifolds, ready for connecting to the loading arms.

LPG The connection of loading arms will be undertaken by shore personnel. Vessels must have 150 ASA manifolds for connection to the loading arms. Sizes will either be 12 in. or 8 in. as directed by the Terminal.

Failure to present reducer spool will result in terminal levying a charge for their own equipment, if available.

Masters should ensure that the deck firemain is pressurised at all times and fire extinguishers and fire hoses are ready for use at the ship's manifold in accordance with Jetty Regulations.

Crude Oil Storage: 16 conventional floating roof storage tanks are constructed, each with a capacity of 600,000 bbls. These provide storage facilities in the event of port closures and ensure sufficient stocks to enable tankers to load without delay.

The storage tanks have been constructed with bases as much as 30 m. above sea level, to allow gravity loading. However 6 oil loading pumps are installed to increase the loading rate as may be required by the vessel.

Loading Rates: A maximum loading rate of 30,000 t.p.h. can be provided by the Terminal with a maximum of 20,000 t.p.h. to any one berth.

The LPG loading system delivers up to 3,000 cu.m./hr.

Cargo Measurement: Meters are installed for cargo measurement.

Early Departure Procedure: An Early Departure Procedure is operated at the Sullom Voe Terminal, but may only apply to certain crude oil exports.

LIQUEFIED PETROLEUM GAS FACILITIES: There is a single LPG insulated pipe-line from the LPG storage area to Jetty No. 1 for tanker loading. The LPG tankers using Jetty No. 1 will range in size from 10,000 to 75,000 cu.m. capacity and they will transport butane and propane under refrigerated conditions as in the onshore tankage.

Navigation, Mooring, Berthing: Except by permission obtained from the Harbour Master, no LPG ship shall at any time be navigated in, lie on, or be moored in any part of the harbour.

No LPG ship shall be anchored or moored except

(a) at a quay duly approved by the Harbour Authority
or
(b) in such position as the Harbour Master shall from time to time direct

and no LPG ship shall be removed from such last mentioned position except in accordance with the order or permission of the Harbour Master or for the purpose of leaving the harbour forthwith.

An LPG ship shall at all times lie safely afloat.

While an LPG ship is at a quay

(a) it shall be securely made fast as close alongside as possible in a manner approved by the Harbour Master.
(b) its moorings shall be adjusted from time to time to allow for the rise and fall of the tide and for the loading and discharging of cargo.

Except in accordance with such conditions as may from time to time be prescribed by the Harbour Master, no ship or harbour craft shall, when moored, unmoored or anchored, lie or pass within 30 m. of any LPG ship which is moored or anchored, without permission of the Harbour Master.

Loading and Discharging: All jetty LPG drains and ships' scuppers whereby LPG can, in case of spillage, escape to the Harbour shall be open before loading or discharging commences and shall be kept open during the whole period of such operations.

All vessels calling at Sullom Voe Terminal must be in possession of a certificate of fitness under the terms of the IMO code for the construction and equipment of ships carrying liquefied gases in bulk, or be in possession of an appropriate Classification Society's Certificate.

Also see "Report" dated October 1983.

DRY CARGO FACILITIES:

Construction Jetty: A concrete pier suitable for coastal traffic is located in Garths Voe, East of Jetty No. 1.

This pier, orientated on a 108°/288° axis is 100 m. long and can accept ships on both the North and South faces.

The North Berth is equipped with a fixed Ro/Ro ramp which has a width of 10.7 m., a total length of 23.7 m. and a fixed gradient of 1:22. The height of the sill is 1.67 m. above MHWS.

The pier is well fendered with patent fenders and tyres. The depths at the pier range from 9.9 m. at the Eastern extremity, rising to 3.9 m. at the Ro/Ro ramp.

Bunkers can be supplied by road tankers to vessels using this jetty.

There is no permanent dock labour force available on site at Sullom Voe. However, stevedoring services can be obtained as and when required from Lerwick, arrangements for which should be made through the local ships' Agents or receivers of cargo, as appropriate.

Garths Pier: This 2 finger jetty is situated adjacent to Sella Ness Industrial Estate.

The inside berths have a length of 41 m. and the outside berth a length of 65 m. Each finger is 7.3 m. wide. There is a depth of 4 m. alongside for the lengths stated; thereafter the depth decreases rapidly.

Graven Pier: A small concrete fishing pier is situated on the Southern shore of Garths Voe. The pier has been designated as an unsafe structure and must not be used. Vessels previously using Graven Pier should now use Garths Pier.

Tug Jetty: Harbour tugs and pilot boats are stationed at an "L" shaped jetty located on the Southern shore of Garths Voe adjacent to Sella Ness. This jetty, of cellular design is constructed of concrete and steel.

Fendering arrangements consist of used tyres suspended at intervals along the jetty face. This pier is suitable for coastal traffic but is not used as such on a regular basis.

The present minimum depth off the main face of the jetty is approximately 6.9 m.

Duty paid gas oil available from bunkering points on this jetty.

Gaza Jetty: (Lat. 60° 26′ 10″ N., Long. 01° 21′ 02″ W.).

A small jetty has been constructed at Gaza near Sullom for the purpose of exporting aggregates from nearby quarries. The jetty face is located on the N.E. side of the seaward extremity of a rock armoured causeway. The jetty face is 30 m. in length and is well fendered. The orientation is on a 111°/291° axis. The depths alongside the pier range from 4.5 m. to 3.7 m. below chart datum at the landward extremity.

An anchor with cable and clump weight has been laid S.W. of the jetty head. A wire is attached to the cable for the purpose of attaching the vessel mooring lines.

At the Harbour Master's discretion vessels up to 75 m. in length may use the jetty.

OIL POLLUTION SURVEILLANCE: Only clean ballast contained in tanks completely segregated from main cargo tanks will be allowed to be discharged into the Harbour, but then only after testing by the Terminal Operator and approval by the Port Authority.

Recent pollution of beaches and serious damage to wildlife around the shores of Orkney and Shetland suggests that certain vessels have disregarded the IMO Conventions on Oil Pollution and discharging dirty ballast whilst approaching or immediately after sailing from Sullom Voe.

Such procedures cannot be condoned by the U.K. Department of Trade, Local Authorities or the Terminal Operator, and with the object of preventing this practice (which is contrary to internationally agreed rules) air surveillance of all shipping in waters around Orkney and Shetland has been introduced.

As detailed in the section entitled "ETA Requirements" (see "Radio"), Masters are requested to advise Sullom Voe Port Control (Telex: Sulvoe 75142. Telegraphic Address: Portcontrol Sullomvoe) of their ETA 24 hours in advance of arrival. In addition, this message is to include the estimated time of crossing Lat. 58° 20′ N., Longitude on crossing this Latitude, and the intended inward courses and turnpoints to the Gruney Island Pilot Station (Lat. 60° 38.6′ N., Long. 01° 15.3′ W.). Vessels arriving from the North Atlantic or Northern North Sea should use a position 200 miles from the pilot station.

Prior to sailing from Sullom Voe, all vessels are requested by the Port Authority to indicate intended outward bound courses and turnpoints until South of Lat. 58° 20′ N. or 200 miles from the pilot station as appropriate. This should be detailed on the Tanker Safety Checklist provided by your Agent.

Any vessel sighted discharging dirty ballast will be immediately reported to the U.K. Government Authorities for appropriate action to be taken. In such circumstances, vessels may be liable to extensive delay until investigations have been completed.

Prevention of Oil Pollution: Prior to arrival, vessels are requested to ensure that all crew members are conversant with the anti-pollution regulations, which must be complied with at all times.

Principal causes of pollution are leaking ship side valves, cargo/bunker overflows and pumping engine room bilges. Therefore it is recommended that sea valves, overboard discharges (which should be shut) and ballast/cargo/bunker/bilge operations are checked by the Chief Officer and the Chief Engineer before arrival. Scuppers must be plugged on main and poop decks in respect of vessels loading/discharging bulk oil.

On arrival the terminal will give all assistance necessary but are empowered to take action in the event of contravention of pollution prevention requirements.

Masters must advise if their vessel has sustained any damage which could cause oil pollution and confirm any known oil losses from hull or sea valves.

Vessels are required to arrive at the Sullom Voe Terminal with a total deadweight of not less than 35% of Summer d.w.t including bunkers, fresh water and stores.

Vessels should confirm in advance the amount of ballast, indicating the quantities of segregated ballast, and cargo tank ballast, separately. (See "Radio" – Pre-arrival information).

BALLAST:

Ballast Requirements: For the purpose of manoeuvring, all vessels are required to maintain a reasonable ballasted condition, subject to the requirements specified in the section dealing with Oil Pollution Surveillance.

Vessels should carry sufficient ballast so that the propeller remains immersed whilst maintaining a reasonable stern trim.

Masters are advised that the Port Authority requires, unless otherwise directed by the Harbour Master, that the propeller of any ship to be immersed at all times when vessels are alongside. When operations permit, the proportion of cargo loaded to ballast remaining onboard must be such as to ensure that the vessel can be safely manoeuvred at any time whilst in the harbour. It must be understood that shifts of wind and changes of wind force in Sullom Voe are at times violent and the adoption of an adverse trim in relation to the ship's optimum manoeuvring characteristics will not be accepted.

Ballast Reception Facilities: It is prohibited to discharge any ballast other than segregated clean ballast into the waters of Sullom Voe.

All dirty ballast or non-segregated ballast will be discharged ashore for treatment. Non-segregated ballast includes ballast contained in any tank designed for or capable of being used for the carriage of crude oil. Tanks having a permanent connection to the cargo piping system are not considered to be segregated ballast tanks.

The Terminal can accept ballast whilst providing the vessel with cargo. Ballast will initially be pumped into settling tanks where excess oil will be skimmed off into recovered oil tanks. The remaining ballast will undergo further treatment before being discharged into Yell Sound. The ballast water will be monitored throughout the cleaning process.

Inert Gas: A random check of the quality of the inert gas in 3 of the vessels' tanks will be made on arrival alongside to ensure the vessel complies with the statutory requirements regarding inert gas. If any of the tanks are found to have an oxygen content in excess of 8% the vessel will be required to vacate the berth and return to sea to complete inerting.

Purging of tanks whilst alongside is not permitted.

Vessels must arrive at the berth with positive I.G. pressure.

Discharge of Dirty Ballast Water: The discharge of ballast water from oil cargo tanks or non-segregated ballast tanks or any ballast water containing quantities of oil or high levels of mineral or chemical pollutant, into the waters of the harbour is prohibited.

The discharge of ballast water from segregated or permanent ballast tanks into the waters of the harbour will be permitted provided that:

1. The Master of the vessel advises the Harbour Authority prior to arrival:
   (a) The place at which the ballast was taken.
   (b) The quantity and disposition of the ballast.
   (c) That to his knowledge the ballast is free from oil contamination.
2. Samples have been taken and analysed by the Terminal Operator. Hydrocarbon level to be 5 p.p.m. or less.

The Oil Pollution Control Officer of the Harbour Authority will on occasions board vessels carrying segregated ballast to obtain samples. Analysis will be made of these samples to ascertain the quantity of hydrocarbon, colliforms and heavy metal pollutants within the ballast. The Harbour Authority may, as a result of information so obtained, refuse permission for the discharge of segregated ballast water taken on board in certain locations.

The discharge of segregated ballast is not to commence before permission has been received from the Loading Supervisor. He will have confirmed with the laboratory that the hydrocarbon level is 5 p.p.m. or less.

MASTERS ARE STRONGLY ADVISED TO CLOSELY MONITOR THE DISCHARGE OF SEGREGATED BALLAST AT REGULAR INTERVALS TO ENSURE THAT OIL IS NOT ENTRAINED IN THE BALLAST WATER.

MEDICAL: Medical attention for ship's crews is available on request through Agents. Some specialist services including inoculation and vaccination are available.

FUEL: There are no bunkering facilities available for tankers calling at the Port of Sullom Voe.

FRESH WATER: Potable water can be supplied to tankers at Sullom Voe in an emergency. A small charge is levied for the use of the facility.

Vessels requiring fresh water should inform their Agents prior to arrival.

CUSTOMS: A selective system of boarding commercial vessels arriving from a non-U.K. port, will apply at the Sullom Voe Terminal.

AIRPORT: Shetland's airport network is within easy reach of Sullom Voe and scheduled flights are available daily to all major U.K. cities, with connections to worldwide destinations.

CONSULS: In Lerwick.

Denmark	(C. W. L. Aitken)	66 Commercial St.	Lerwick 2533
Finland	(L.J. Smith)	Garthspool	Lerwick 2556
		Fax	Lerwick 5949
		After Hours	Lerwick 2186
France	(W. H. Stubbings)	Garthspool	Lerwick 2556
			Lerwick 4400
Germany F.R.	See Finland		
Iceland	(C. W. L. Aitken)	66 Commercial St.	Lerwick 2533
Netherlands	(C. R. Duncan)	66 Commercial St.	Lerwick 2533
Norway	(Mrs. A. E. Sinclair)	Garthspool	Lerwick 2556
			Lerwick 3060
		After Hours	Lerwick 2186
		Fax	Lerwick 5949
Sweden	(M. M. Shearer)	Birka, Bressay	Bressay 363

REPAIRS: Engineering facilities are available to carry out repairs afloat to hull and machinery. Drydock facilities do not exist for vessels over 120 ft.

Electronic Navigational Aids and Radio: All major companies have agencies in Shetland. Repair facilities exist for all types of electronic equipment.

Engine Readiness: Main engines must be maintained in a state of readiness for vacating the Terminal at short notice at all times except in the cases of approved repair work as detailed in Regulation 19 of "Jetty Safety Regulations".

REPATRIATION: Crew changes can normally be arranged. Air and sea connections are available to mainland destinations.

It should be borne in mind, however, that during the Winter months delays to air traffic are not uncommon due to prevailing weather conditions whilst in Summer delays can be experienced due to low visibility.

Ships will not be permitted to retain their berth awaiting the arrival of crew members.

BANKS:

Bank of Scotland. Tel: Lerwick 2624. Telex: 75309.
Clydesdale Bank. Tel: Lerwick 5664.
The Royal Bank of Scotland. Tel: Lerwick 4520.

GENERAL:

The following services can be provided for vessels by the Shipping Agencies. Masters are requested to provide notice of requirements prior to arrival.

Compass Adjusting: A service is available for large vessels. Requests should be made in good time to ship's Agents in order that the adjuster may board with the Pilot on arrival.

Storing: Due to the high berth occupancy at Sullom Voe it is not possible to carry out major storings. However, a limited amount of fresh provisions for immediate store requirements can be supplied providing it can be easily handled by the ship's crew.

Fresh and frozen meat can be supplied in any quantity with Shetland lamb a speciality. Shetland knitwear goods of high quality are available at reasonable prices. Other local products include sheepskin rugs, traditional jewellery, handicrafts and salmon (fresh and smoked).

Bonded Stores: Bonded stores are available in any quantity.

Lubricating Oils: Most major oil companies have authorised dealers in Shetland. Lubricating oils of all grades are available at competitive prices.

Charts and Nautical Publications: Available on application to ship's Agents. Advance notice is required for the supply of large sets.

Lloyd's and Salvage Association: If service or survey is required, this may be obtained through their Shetland Agents, Hay & Co. (Lerwick) Ltd.

Sea Travel: P&O Ferries maintain a regular Ro/Ro and Passenger ferry service between Lerwick and Aberdeen.

Provisioning: This service is provided by ship's Agents on request.

Shore Leave/Taxis: All personnel proceeding ashore must be in possession of a shore pass, a supply of which is handed to Masters on the vessel's arrival.

Transport is provided free from the root of each jetty to Seafarers' Centre, and taxis can be arranged for those wishing to travel further afield in Shetland.

There is no public transport system serving the Sullom Voe area.

Telephones: This facility is provided at the Seafarers' Centre operated by the British Sailors' Society and situated outside the main gate.

There are public telephone boxes on the roadside adjacent to the end of each jetty. There are portable telephones available for use aboard a vessel, however, these are NOT intrinsically safe and must only be used within the accommodation spaces. The ship's Agent will supply a list of all call details after use.

Weather Routeing: This service is available to Shipmasters on application to Shetland Weather Centre.

British Sailors' Society: The British Sailors' Society has a Seafarers' Centre just beyond the Terminal Entrance. A free mini-bus service is provided between the jetties and the centre which is open from 1100 hrs. to 2300 hrs. Monday to Saturday and from 1230 hrs. to 1430 hrs. and 1900 hrs. to 2300 hrs. on Sundays.

Amongst the facilities provided are the following: A Chapel, Library, three International Telephones, Television Room, Snooker and Pool Tables, Darts, Shop, Fully Licensed Bar and Light Meals.

The resident manager, Mr. David Hughdie, is there to assist all seamen whatever their Nationality, Colour or Creed and there are three Honorary Chaplains whose services are also available.

Any Seafarer in need of practical, spiritual or welfare help is invited to contact the manager or his staff on Sullom Voe 242715.

Sjomannsstua Havly: 9 Mounthooly Street, Lerwick. (50 Km. from Sullom Voe). Tel. Lerwick 4369. Billiards, T.V., Films, Mini-Bus Service.

CHARTS AND PUBLICATIONS:

Charts: British

B.A. 1119	Orkney and Shetland Islands, Fair Isle Channel.
B.A. 3281	Shetland Islands, N.W. Sheet
B.A. 3282	Shetland Islands, N.E. Sheet
B.A. 3283	Shetland Islands, South Sheet
B.A. 3297 (INT 1531)	Sullom Voe.
B.A. 3298	Yell Sound.
B.A. 3292	Eastern Approaches to Yell Sound, etc.
B.A. 1233	Northern Approaches to Shetland Islands.

Pilot Books: North Coast of Scotland Pilot N.P. 52 and current supplement.

Admiralty Tide Tables: Orkney and Shetland Islands N.P. 209.

Tidal Stream Atlas: Approaches to Sullom Voe and South Eastern approach to Sullom Voe (Shetland Islands Council Publication).

Lights: Admiralty List of Lights, Volume A.

Admiralty Agents for the supply of hydrographic charts and publications are Hay & Co. (Lerwick) Ltd.

NOTICES:

Landing in Great Britain of Live Animals, Live Birds and Meat:

The attention of Masters is drawn to "Notice to Masters of Vessels and Commanders of Aircraft (IM24 (Rev 79))" of which the following are extracts:

Diseases of Animals Acts 1950 and 1975, Rabies Act 1974, Destructive Imported Animals Act 1932 and Ponies Act 1969.

WARNING: Her Majesty's Government exercise strict controls at ports and airports to prevent the introduction of animal disease and destructive animals into Great Britain. Severe penalties may be applied to those who do not comply with the import regulations.

Dogs, cats and other mammals (including ship's pets) brought to Great Britain on board a vessel which are not intended to be landed do not need a licence, but must at all times be securely confined in an enclosed part of the ship so as to prevent their escape and must not come in contact with any other animals except those similarly confined. The authorities must be informed immediately if any animal should escape.

Notice to Mariners 4/82:

Spur Booms

Anti-Pollution Spur Booms have been established at several permanent sites around the shores of Sullom Voe, and mooring buoys have been laid to facilitate quick deployment at each location as follows:

Location	*Boom Layout*	*Buoy Position*	
		Latitude	*Longitude*
Tivaka Taing	Spur Boom	60° 28′ 41″ N.	01° 18′ 37″ W.
Fugla Ness	Spur Boom	60° 27′ 04″ N.	01° 18′ 50″ W.
Lang Ayre	Twin Boom	60° 26′ 53″ N.	01° 20′ 12″ W.
Voxter Voe	Twin Boom	60° 24′ 36″ N.	01° 20′ 40″ W.
Calna Taing	Spur Boom	60° 26′ 26″ N.	01° 19′ 21″ W.
Scatsta Voe	Twin Boom	60° 26′ 38″ N.	01° 16′ 50″ W.
RAF Jetty	Spur Boom	No buoy used.	
Roe Clett	Spur Boom	60° 28′ 56″ N.	01° 17′ 19″ W.

Buoy Description: Body: Yellow Pillar; Character: Gp. Fl. (4) ev. 12 sec.; Daymark: Yellow St. George's Cross; Range: 3 miles; Light: Yellow.

Notice to Mariners 5/82:

Bight of Haggrister: Mooring Buoy. A permanent barge mooring has been established in position: Lat. 60° 24′ 37″ N., Long. 1° 22′ 02″ W. Description: Yellow cylindrical; unlit.

Mariners are requested to exercise caution when navigating in the vicinity of these locations.

HYDROGRAPHIC NOTES:

Prohibited Anchorages

1. Owing to the existence of the tanker turning area within the vicinity of Sella Ness and Scatsta Ness, Mariners are advised that anchoring East of a line joining the following positions is prohibited, viz.:

From Position: Lat. 60° 26′ 57″ N., Long. 01° 19′ 17″ W.
To Position: Lat. 60° 26′ 32″ N., Long. 01° 18′ 10″ W.

2. Owing to the existence of an outfall pipe between Skaw Taing and Swarta Taing, all vessels are advised that fishing and anchoring is prohibited within the area bounded by Little Roe and lines produced seawards from 2 sets of day transit marks diamond in shape and yellow in colour which are established in the following positions:

A: Lat. 60° 29′ 15″ N., Long. 01° 16′ 42″ W.
Lat. 60° 29′ 10″ N., Long. 01° 16′ 44″ W.
B: Lat. 60° 29′ 10″ N., Long. 01° 16′ 21″ W.
Lat. 60° 29′ 06″ N., Long. 01° 16′ 21″ W.

Outfall Marker Buoy – Calback Ness: A yellow spherical navigational buoy with a yellow St. Andrews cross topmark and a radar reflector showing a light Gp. Fl. 4(Y). ev. 12s. has been established in position: Lat. 60° 29′ 29″ N., Long. 01° 16′ 08″ W.

This buoy marks the seaward end of the ballast water outfall pipe.

Permanent Navigation Marks Tanker Jetties – Sullom Voe

Permanent navigation marks have been established on the mooring dolphins at either extremity of the tanker jetty complex as follows:

No. 1 Jetty East end dolphin in position Lat. 60° 27′ 21″ N., Long. 01° 17′ 02″ W. two fixed red lights vertically disposed 2 m. apart, the lower of which is 5 m. above MHWS.
Visible 3 miles.

No. 4 Jetty West end dolphin in position Lat. 60° 27′ 56″ N., Long. 01° 18′ 20″ W. two fixed red lights vertically disposed 2 m. apart, the lower of which is 5 m. above MHWS.
Visible 3 miles.

Misuse of VHF Radio:

Owners, Masters and Skippers are reminded to read Merchant Shipping Notice No. M814, which refers to the misuse of VHF Radio.

The improper use of VHF is illegal and can cause serious disruption to communications concerned with the movement of shipping in the port area.

The co-operation of all port users is requested to ensure that such misuse does not occur.

SAFETY: *Smoking:* Smoking is prohibited in vessels during loading operations, except in 2 or at most 3 smoking rooms allocated by the Master and approved by the Terminal Representative.

Matches and lighters must not be carried by personnel outside the approved smoking areas, or on the jetties or anywhere within the terminal.

The Seaman's Pass issued to personnel going ashore by Sullom Voe Terminal carries the information that matches are available at the Main Gate for use outside the Terminal premises. The matches are issued free of charge.

Special arrangements have been made for ship's personnel leaving or joining vessels at the terminal, details of which are in the Terminal Regulations, or can be advised by the ship's Agent.

Fire Precautions: Every vessel's fire-fighting appliances, (including main and emergency fire pumps) must be kept ready for immediate use with at least 1 fire pump maintaining pressure on the main.

Before deballasting and loading/discharging operations commence, and during periods when permitted repair work is being carried out, at least 2 fire hoses must be uncoiled and connected to the fire main. One of the fire hoses must be sited forward and the other abaft the manifold.

An International Shore connection shall be available on the vessel's fire main in the vicinity of the gangway.

Jetty Fire-Fighting Facilities: The oil loading jetties are each equipped with 2 independent fire-fighting systems, one for water alone and the second for either water or foam mixture.

These jetties supply hydrants which are spaced along the jetty access road and jetty head.

Monitors are installed to provide a water curtain in the area of the jetty head and between the access tower and manifold area. Elevated monitors are also positioned at the top of the access and monitor towers. A sprinkler system protects the access tower.

Hose couplings are 2.5 in. standard instantaneous female type and the fire main to the access tower can accept international connections.

The working pressure of the fire system is 250 – 260 p.s.i. A fire hose connection is situated on the construction jetty to allow fire-fighting tugs to link into the system.

POLLUTION: It will be appreciated that oil spillages are viewed seriously by Government, Local Authorities, Port Authorities and Terminal Operators. Spillages will be investigated by the appropriate authorities and the Master and/or Owner may be liable to prosecution. Delay to the vessel could well arise.

Masters are therefore requested to ensure that every precaution is taken to prevent oil spillages at the Sullom Voe Terminal.

COASTGUARD SERVICES: H.M. Coastguard is the authority responsible for initiating and co-ordinating all sea and coastal search and rescue operations in the Shetland sea area. They also keep in close touch with the S.A.R. organisations of all countries in adjoining sea areas.

Regular stations are maintained at Lerwick M.R.S.C. (Marine Rescue Sub-Centre), with sector offices in the Port Administration Buildings at Sella Ness and Lerwick.

Rescue equipment is maintained and manned by auxiliary coastguards at Baltasound, Mid Yell, Fetlar, Out Skerries, Whalsay, Bressay, Noness, Sumburgh, Fair Isle, West Burra Isle, Walls, Huxter, Hillswick, North Roe and Papa Stour.

Safety and Weather Information is available through the remote controlled VHF radio sites at Saxa Vord (Unst), Collafirth, Lerwick and Sumburgh. A 24 hour radio watch is maintained by Lerwick M.R.S.C. (call sign "Shetland Coastguard") on Channel 16 and 2182 kHz, and by Sullom Voe Coastguard (Channel 16) during normal office hours or as required.

This enables safety and distress calls from vessels, up to 40 miles out from Shetland, to be picked up on the Coastguard VHF network. On receiving a call for assistance or advice, the Coastguard can instantly alert the appropriate facility, which might be a military or civilian helicopter, RNLI lifeboat, shore rescue teams or vessels at sea.

Other VHF Channels are 0, 6, 10, 67 (working) and 73.

A VHF D/F facility through (Compass Head) Sumburgh Aerial on Channels 0, 6, 10, 16, 67 and 73.

Civilian Search and Rescue Helicopters, based at Sumburgh, are contracted by the Department of Transport (H.M. Coastguard) for long range search and rescue purposes. These helicopters are fitted for winching, and carry comprehensive rescue equipment including a salvage pump and inflatable dinghy capable of being dropped to vessels in distress.

They have a speed of about 100 knots and a range of approximately 150 nautical miles from Sumburgh. Navigation equipment includes V.O.R., I.L.F., Decca A and D/F Console. Communications facilities are:

MF	2182, 3095 and 5693.5 kHz
VHF AM	118/135.95 MHz
VHF FM	Marine Frequencies

MEDICOS: Vessels requiring medical advice or medical assistance should adhere to the radio regulations and contact either Collafirth or Shetland Radio on Channel 16 VHF. If unable to contact the radio station, vessels can contact Shetland Coastguard direct on Channel 16 VHF.

R.N.L.I. STATIONS: The following lifeboats are on station:

Lerwick: 52 ft. Arun Lifeboat 'Soldian'.
Details: Speed 18 knots, range – 220 nautical miles.
Navigation – Radar, Decca, VHF/DF, MF/DF, etc.
Communications MF 2182 kHz, 1647.5 kHz, 1662.5 kHz.
1827 kHz, 2226 kHz, 2241 kHz.
2306 kHz, 2381 kHz, 2548 kHz.
VHF/FM (Marine Band) 60 channel set.

Aith: 52 ft. Arun Lifeboat 'Snolda'.

Details: Speed 17.2 knots, range 237 nautical miles.

Navigation – Radar, Decca, echo sounders, MF D/F, VHF D/F.

Communications MF (RX): 1647.5, 1662.5, 1792, 1827, 2182, 2241, 3023.

MF (TX): 1647.5, 1662.5, 2009, 2016, 2104, 2182, 2241, 2381, 3023 kHz.

VHF/FM (Marine Band): 60 Channel set.

All requests for lifeboat or helicopter assistance should be routed through Shetland Coastguard M.R.S.C.

EMERGENCY SERVICES AND PROCEDURES:

Fire.	Tel: Sullom Voe 242798	VHF Channel 10
Oil Pollution	Tel: Sullom Voe 242798	VHF Channel 10
Ambulance	Tel: Sullom Voe 242798	VHF Channel 10
Security.	Tel: Sullom Voe 242798	VHF Channel 10

All emergency services at the oil terminal are co-ordinated by the "Emergency Response Control Room" situated at the Terminal fire station.

On vessel's arrival at the Terminal, the responsible ship's officer and the Loading Supervisor will discuss action to be taken in an emergency situation. The Master of the vessel should study and comply with the 'Jetty Safety Regulations', a copy of which will be supplied.

Safety inspections will be undertaken by the Loading Supervisor throughout the vessel's stay alongside. Spot checks will also be made by the Terminal Emergency Response Branch.

In the event of an emergency, vessels should immediately contact Sullom Voe Port Control 242494/242495/242551 or VHF Channel 10.

TELEPHONE NUMBERS: SV=Sullom Voe.

Sullom Voe Harbour Authority:

Sullom Voe Harbour Authority, main switchboard, 24-hours,	Sullom Voe (0806) 242551
Director of Ports & Harbours, Capt. G. H. Sutherland	ext. 201
Deputy Director of Ports & Harbours (Senior) Capt. J. Anderson	ext. 202
Deputy Director/Deputy Harbourmaster, Capt. C. J. Nicolson	ext. 203
Deputy Director, Port Engineer, Mr. R. Jack	ext. 214
Oil Pollution Control Officer, Mr. J. T. Dickson	ext. 209
Assistant Oil Pollution Control Officers	ext. 210
Administrative Officer, Mr. A. Lovett	ext. 211
Port Control Room (Pilots)	ext. 280/1/2/3/4/5

Sullom Voe Harbour Authority (All Departments):

Telephone:	Sullom Voe (0806) 242551
Telex:	75142
Cables:	Portcontrol Sullomvoe
Telefax (Group 3):	Sullom Voe (0806) 242237

Sullom Voe Terminal Control:

Main Switchboard (24 hours): Sullom Voe (0806) 243000

	Internal Telephone System	*External Lines*
Terminal Emergency Services	222	SV 242798
Fire	222	SV 242798
Ambulance	222	SV 242798
Oil Pollution	222	SV 242798
Terminal Security	222	SV 242798
Emergency Services – Administration		SV 243000

External Numbers:

	Telephone	*Telex*
Police	Lerwick 2110	
Sullom Voe Coastguard	SV 242561	
Lerwick Coastguard	Lerwick 2976/4600	75141
Lifeboats – Lerwick	Bressay 363	
– Aith	Bixter 207 (Night–346)	
H.M. Customs & Excise (Headquarters)	Lerwick 2835	75241
Shetland Weather Centre	SV 242069	75404
D.O.T. (Marine Office)	SV 242090	
British Sailors' Society	SV 242715	
Sjomannstua "Havly"	Lerwick 4369	
Wick Radio	Wick (0955) 2271/2272	75284

SHIPMASTER'S REPORT: 1983.

It is necessary to provide access to the vessel on the offshore side, in the form of accommodation ladder with vessels having high freeboard, at all times when alongside.

All crew members require passes for shore leave and must use transport from the jetty. This transport is arranged by the security guard in the hut at shore end of jetty.

Usually with moorings it is springs first then breast lines. The Terminal is not concerned with head or stern ropes. Some of the dolphins are fitted with shore based pulley systems and these count as 2 ropes for mooring purposes.

Telephone calls may be made from the Mission (U.K. and International) and paid for in pounds sterling.

REPORT: October 1983.

Gas Carriers: Gas carriers shall conform to the following requirements and the pipe-line operators concerned shall, at the time of nomination, confirm to the terminal operator that the carrier nominated so conforms throughout the time she will be within the port limits.

a. The tanker conforms to the standards required in the EEC memorandum of understanding or to state control.

b. The tanker complies with the Statutory Instrument 1981 No. 1077 Merchant Shipping, Merchant Shipping (Tankers) (EEC requirements) Regulations 1981.

c. The tanker can comply with the conditions of carriage as specified on her IMO Certificate of Fitness.

d. The tanker will during the loading and simultaneous handling of ballast follow the procedures as outlined in her approval trim and stability document.

e. The tanker can be adequately moored to equivalent OCIMF standards, i.e. resisting loads due to any of the following current conditions acting simultaneously with a 60 knot wind from any direction:
3 knots at 0° and 180°
2 knots at 10° and 170°
3/4 knots from direction of maximum beam current loading.

f. The tanker can accept a minimum bulk loading rate per hour of 3% of her total cargo carrying capacity up to a maximum of 3,000 cu.m./hr.

g. The tanker reliquefaction units are capable of handling a minimum bulk loading rate per hour of 3 per cent of her total cargo carrying capacity up to a maximum of 3,000 cu.m./hr.:
(a) without venting to atmosphere and:
(b) without the use of a vapour return line to shore.

h. All cargo tanks will be cooled down on arrival and the vessel ready to commence loading. Any vessel that cannot comply and requires to purge and/or cooldown prior to loading will only be accepted on the basis of prior agreement having been reached between the terminal operator and the pipe-line group nominating the vessel.

i. That the following tests will be carried out within 24 hours before arrival and any defect, and any change in the status of the systems thereafter, be reported to the Port Authorities:
(a) ventilation of compressor/pump/control room.
(b) gas detection system
(c) emergency shut down system
(d) pressure and temperature control units
(e) cargo tanks' safety relief valves setting.

SHIPMASTER'S REPORT: August 1984 (Updated 1988).

Vessel: 140,000 d.w.t.

Tugs: Normally 4 tugs for berthing and 2 tugs for sailing, tugs' lines. All tugs make fast and 2 push. On arrival the forward tug requires a heaving line from the main deck, he then steams forward to pass his line up through the centre fairlead.

Moorings: Under normal conditions first 2 backsprings, then 2 to 3 breasts, then 2 to 3 head/sternlines.

Gangway: Shore gangway.

Departure: On departure Pilot normally boards 1 hour after completion of loading. EDP is standard procedure.

Surveyor: Lloyd's Surveyor comes from Aberdeen and requires 2 to 3 days' notice.

AUTHORITY: Shetland Islands Council, Ports and Harbours Department, Port Administration Building, Stella Ness, Mossbank, Graven, Shetland ZE2 9QR. *Tel:* Sullom Voe (0806) 242551. *Telex* 75142 Sulvoe G. *FAX:* Sullom Voe (0806) 242237. *Cables:* Portcontrol Sullomvoe. *Contact:* Captain G. H. Sutherland, Director of Ports and Harbours, Harbour Master – Sullom Voe.

SUNDERLAND: 54.55 N. 01.21 W. (See Plan)

DOCUMENTS:

Crew List. Form I.B.6A to be delivered to an Immigration Officer within 24 hours of arrival.

Passenger Lists. Form P.R.4. in duplicate and Form P.R.10 in duplicate.

Customs Documents. Crew Declaration Form C.142 in duplicate.

Cargo Manifests, triplicate.

Ship's Papers:

Register.

Load Line Certificate.

Safety Radio Certificate.

Safety Equipment Certificate.

Safety Construction Certificate.

Derat Certificate.

Customs Light Bills.

PILOTAGE: Call Sunderland Harbour Radio, Channel 16, working Channel for port is 14. Pilotage not compulsory, but advisable for all but small vessels. Pilots maintaining continuous watch on VHF Sound signals for vessel requiring Pilot is Morse Code No. 6. Pilot boards 0.5 to 0.75 miles off piers. In bad weather pilot cutter leads vessel into inner harbour, and Pilot boards there.

ANCHORAGES: 0.5 to 0.75 miles N.E. of Roker Pier Lighthouse.

RESTRICTIONS: Vessels may enter South Dock from 2 hours before until half an hour after high-water. Vessels may lock in outside of these times depending on draft and state of tide. For North Dock and Corporation Quay restrictions depend on draft and state of tide.

MAX. SIZE: South Dock – length 142 m. beam 18.9 m., draft 8.08 m. with Spring tides, 7.16 m. with Neap tides.

River – length 183 m., beam – no restriction, draft 8.38 m. subject to siltage.

HEALTH: Pratique procedure: Pratique granted by Port Health Authority on arrival.

Suspected disease or fever: All ships from suspected areas must radio Port Health Authority 24 hours in advance of arrival, stating general condition of crew members. Pratique is automatic when ships arrive from other U.K. ports.

Also see "Health – All Ports" before first U.K. port.

RADIO: Cullercoats.

TUGS: Join vessel at or outside harbour entrance. Tug's ropes normally used.

BERTHING: In South Dock vessel must arrive from 2 hours before up to 30 minutes after high water. Vessels may lock in as under "Restrictions". At Corporation Quay small vessels berth at any time. Large vessels usually berth at same time as mentioned for South Dock.

Bridge swung to allow vessels to pass through.

BRIDGES: In South Dock bridge swung to allow vessel to pass through. Railway Bridge clearance, 25.1 m. MHWS.

STEVEDORES: The Port of Sunderland Authority carry out all stevedoring. Agents should advise as early as possible in order to arrange berthing and gangs, 5 to 6 days notice if possible. ETA from ship 2-3 days in advance. Working rates of principal commodities are;

Bagged cargoes	15	t.p.h.	
Scrap – fragmented	100	,,	
Scrap – heavy	25	,,	
Chrome and heavy ores	40	,,	
Wood Pulp	30	,,	(loose bale)
Wood Pulp	80/90	,,	(unitised)
Limestone	325	,,	
Containers	15	units per hour	

MEDICAL: Well served with General practitioners and hospital facilities, and attention can be arranged at very short notice. However, unless urgent, 24 hours notice desirable.

TANKERS: 4 installations (lines either 0.16 m. or 0.2 m.) 3 installations in South Dock and 2 berths, the S.E Oil Berth 98 m., the S.W. Oil Berth 89 m. 1 vessel of maximum length 142 m. can use this berth, draft 8.08 m. Spring tides; 7.16 m. Neap tides. At Corporation Quay vessel 183 m. long, draft 8.58 m.

DENSITY: Usually 1025. May be less after heavy rain.

FRESH WATER: Available. Arrangements can be made to supply water at any time.

FUEL: Bunkers supplied at Corporation Quay pipe-line from Petrofina Ltd. All grades available – Corporation Quay and Hendon Dock. Viscosities range from 32 secs. to 3,500 secs., and can be blended to any requirement in this range. 12 hours' notice necessary. Rate 250 t.p.h.

GANGWAY/DECK WATCHMEN: Watchmen's services recommended.

OPENING/CLOSING HATCHES: This work is normally carried out by ship's crew, otherwise shore riggers.

CERTIFICATES:

Register.
Load Line Certificate.
Safety Radio Certificate.
Safety Equipment Certificate.
Safety Construction Certificate.
Derat Certificate.

CUSTOMS ALLOWANCES: As per H.M. Customs and Excise Regulations.

IDENTIFICATION CARDS: Not required. Must possess valid Seaman's Book and/or Passport.

CONSULS:

Denmark	Tel.	Sunderland	670811
Iceland	,,	,,	670811
Finland	,,	,,	672846
France	,,	,,	673694
Netherlands	,,	,,	75441
Norway	,,	,,	670101

REPAIRS: All repairs possible.

DRY DOCKS: One dry dock in use, length 112 m., breadth 16.5 m.

Floating dock, length 65.5 m., breadth 13.72 m.

REPATRIATION: Facilities available for effecting repatriations, with good rail, road and air communications.

AIRPORT: Approximately 20 miles. Newcastle Airport served by regular airlines, all the year round, to all parts of the world. Air UK operate flights to Aberdeen, Amsterdam, Bergen, Copenhagen, Humberside, Norwich, Paris and Stavanger.

HOLIDAYS: Official Holidays for General Cargo ships: New Year's Day (no work except by special agreement); Good Friday; Easter Monday; May Day; Spring Bank Holiday; Summer Bank Holiday; Christmas Day (no work except by special agreement); Boxing Day (no work except by special agreement).

POLICE/AMBULANCE/FIRE: Police Station Tel: Wearside (091) 567-6155; Ambulance Control Tel: (091) 567-9337; Fire Tel: (091) 261-6523, or call 999 from any telephone and ask for service required.

TELEPHONES: Permanent arrangements do not exist, but a temporary arrangement can be made at any time.

DEVELOPMENTS: A Ro-Ro terminal is to be constructed on 30 acres of reclaimed land. Initially a single berth of 150 m. length will be available.

AUTHORITY: Port of Sunderland Authority, Barrack Street, Sunderland SR1 2BU. *Tel:* (091) 5140411. *Telex:* 53483. *Fax:* 5109014. *Contact:* Harbour Master.

SWANSEA: 51.37 N. 03.56 W. (See Plan)

DOCUMENTS:

C142	2 copies	Crew Declaration
C14	3 copies	Stores Declaration
C13	2 copies	General Declaration (completed by Agent)
C16	2 copies	Cargo Inward Declaration
C74	1 copy	Master's Authority (Agents complete)
C1320	2 copies	Cargo In unregistered spaces

These documents are to be completed and presented with copies of manifests and ship's documents at the time of report.

PILOTAGE: Compulsory for vessels of 1,500 g.r.t. and above. Request for Swansea Bay Pilots by International Signal Code for Sea Pilots, by telephone call for Dock Pilots. Telegraphic address for Swansea Pilots is "Pilority, Swansea".

Advance notice of ETA required at least 12 hours. VHF Channels 16 and 6. Pilot boat has bright yellow hull with red boot-topping; superstructure painted white. Pilot cutter's sound signal is "SM", 3 short and 2 long blasts. The area of boarding is usually 1 mile S.E. of Mumbles Lighthouse in all weathers. Usual requirements for ladders are in force, and Pilots require ladder to be about 4 ft. to 5 ft. above water.

ANCHORAGE: About 1 mile S.E. of the Mumbles Lighthouse.

RESTRICTIONS: Berthing is in accordance with tide. King's Dock Lock operates for a minimum of 8 hours each tide. River-side berths and Swansea Ferryport Terminal operate over a greater period.

No night-time restriction of entry.

MAX. SIZE: Max. size for entry is 655 ft. long, 86 ft. beam, 32 ft. 6 in. draft.

These vessels are docked over HW period. Any vessel whose dimensions are approaching maximum, or slightly in excess, for port should advise Port Manager well in advance. A vessel with a beam of 87 ft. 4 in. has been accepted.

HEALTH: Usual international health regulations are to be observed. Any vessel which is suspect should inform Port Medical Officer of Health.

RADIO: All communications for ship movements through "Swansea Dock Radio" Channels 16 and 14 VHF. Agents, receivers, etc., can be called through usual coastal radio stations – this includes Ilfracombe Radio.

TUGS: Towage undertaken by private operators. The Alexandra Towing Co. Ltd., at present use a modern fleet of tugs at Swansea and Port Talbot. It is optional whose lines are used, but if tugs line is taken, an extra charge will be made.

BERTHING:

Dock	*Quay Length (Total)* (m.)	*Depth of Water (Absolute Min.)* (m.)	*Maximum Size of Vessel* *Length* (m.)	*Beam* (m.)	*Draft* (m.)	*Approx. d.w.t.*
Kings Dock	2,268	10.1	199	26.5	9.9	30,000
Prince of Wales Dock	1,219	8.1	122	20.7	7.3	—
Queen's Dock	Oil Jetties (Operated by BP Co.)	10.7	199	26.5	9.9	30,000

Ro/Ro Berth: Situated on the East bank of the River Tawe, this facility provides a 137 m. berth, hinged shore bridge 76 m. long, with a 6 m. roadway. Adequate vehicle marshalling areas and Customs/ passenger facilities are available. The nose of the bridge can be lowered through 12.95 m. to allow for variation in tides and ship's flotation.

BULK HANDLING FACILITIES: *Petro Chemicals:* One jetty in Queen's Dock and 4 jetties for bulk liquid fuels, feedstock, etc. operated by BP Chemicals International Ltd.

Bulk Cargoes (Sulphur, coal, ores, etc.): Two berths in King's Dock equipped with 5×7.5 ton and 5×10 ton grabbing cranes. Operated by Associated British Ports.

Ferryport: On East bank of River Tawe.

CRANES: 2×25 ton and 9×11.5 ton, 4×7.5 ton and 9×6 ton electric cranes. 2×4 ton mobile cranes also available.

40 fork-lifts up to 11.5 tons, 1×25 tonnes capacity, and 1×40 tonnes capacity.

BRIDGES: One in dock bridge is under direction of duty Assistant Dock Master. A vessel which has to pass will be informed by the Assistant Dock Master as to the availablity.

STEVEDORES: Stevedoring services are provided wholly by Associated British Ports. Advice of labour requirements must be received by the following times:

General Cargo: By 0700 hrs. to start work at 0700 hrs.

Weekend work to be ordered by 1030 hrs. on Friday.

MEDICAL: Port Medical Officer of Health has an office on King's Dock Lock. Medical attention can be obtained at short notice. In emergencies, the duty Assistant Dock Master can be communicated with, to obtain medical help. Hospital facilities available, and there is a first-class medical centre on the Prince of Wales Dock. Vaccination and fever certificates will be examined when receiving Pratique.

TANKERS: All tankers arriving, working cargo, and departing are required to observe port's Petroleum By-laws and Oil in Navigable Waters Act. British Petroleum Company has further private directives for oil tankers. 5 main tanker berths, 1 petrochemical berth, 2 coastal tanker berths and 2 lay-by berths in Queen's Dock. 1 tanker/general cargo berth in King's Dock. Deepest draft permitted is 32 ft. 6 in.

Tankers of 1,600 g.r.t. and over to observe Merchant Shipping (Tankers – E.E.C. Requirements) Regulations 1981.

DENSITY: King's Dock Lock density is 1025.

FRESH WATER: Fresh water supplied from hydrants on quays by watermen. Rate of delivery is 2,000 g.p.h., approx., depending on the demand.

FUEL: Various grades of gas oil and diesel can be supplied by barge or road vehicles, or it can be delivered ex-pipeline at Queen's Dock.

FIRE PRECAUTIONS: All matches and lighters must be declared at entrance to oil installation. There are arrangements at the Queen's Dock depot for shore cooking and eating. There is an oil boom between the King's Dock and Queen's Dock to serve as an oil fire break between two docks.

GANGWAY/DECK WATCHMEN: Under Port Regulations, there shall always be on board sufficient men to move or take care of the vessel. Some vessels employ watchmen.

OPENING/CLOSING HATCHES: Normally done by the ship's crew, but if riggers are employed by vessel for general duties they open up hatches.

CUSTOMS ALLOWANCES: At discretion of local H.M. Customs Inspectors.

CERTIFICATES:
Certificate of Freeboard.
Certificate of Registry.
Certificate of Pratique.
Light Bill.
Manifest.
Bill of Health.
Bills of Lading.
~~AA (1) Certificate.~~

IDENTIFICATION CARDS: Not compulsory, but they are helpful if a crew member has to identify himself to Authorities.

CONSULS:

France	Tel: Swansea 50021
Norway	Tel: Milford Haven 2313
Vice-Consuls:	
Belgium	Tel: Milford Haven 2313
Sweden	Tel: Gorseinow 895881

SURVEYORS: Cargo Inspectors available locally.
Ship Surveyors located in Swansea and Cardiff.

REPAIRS: All types of deck and engine-room repairs are possible.

DRY DOCKS: 2 dry docks in port are entered from King's Dock. Dry docks: "Duke of Edinburgh" 670 ft.×92 ft.; "Palmers" 560 ft.×75 ft.

REPATRIATION: Arrangements can be made for repatriation through the Consular Channels.

AIRPORT: Nearest airport at Swansea, 8 miles from Docks. Next are Rhoose (Cardiff) and Bristol Airports where regular scheduled flights are handled.

TIME: Local time is British Standard Time which is plus 1 hour to Greenwich Time. Reverting to GMT during Winter months.

HOLIDAYS: Christmas (25th December); Boxing Day (26th December); New Year's Day; Easter, Good Friday and Monday (movable dates); Spring Holiday, May Day, Summer Bank Holiday (both movable dates). No cargo is worked on these days.

POLICE/AMBULANCE/FIRE: Call 999 from any telephone, and ask for service required.

EMERGENCY CO-ORDINATION CENTRE: S.A.R. Centre based at Mumbles. Tel: Swansea 66534.

TELEPHONES: Arrangements at most berths for placing telephones on board ships in port.

BANKS: Lloyd's Bank Ltd., 25 Wind Street, Swansea. Tel: 475555.
Barclays Bank Ltd., 57 Wind Street, Swansea. Tel: 465007.

STORING: See "Prelims".
1. Yes
2. No interference with cargo work.
3. Yes
4. Yes
5. —
6. Yes.

SHIP SUPPLY SERVICE: It is the practice for the Swansea and Port Talbot pilot cutter to ferry personnel, stores, etc., to vessels offshore and due to dock at the respective ports.

Swansea and Port Talbot Pilotage Authority, 90 Exchange Buildings, Swansea SA1 1SY, West Glamorgan, South Wales. Tel: Swansea (0792) 53631. Cables: Pilority.

GENERAL: Entrance lock is 875 ft. in length, 90 ft. across at cope level. The inner sill is 7 ft. higher than the outer sill. The outer sill is 2.8 m. below Admiralty Chart datum (Chart No. 1161).

Tugs are available at the port for in-dock as well as sea towage.

A diver can usually be obtained by enquiry to the A.B.P. Port Engineer, Swansea.

Port Manager: Tel: 50855/200. Port Engineer: Tel: 50855/275. Dock Master and Fire Officer: Tel. 50855/260.

AUTHORITY: Associated British Ports, Harbour Office, Adelaide Street, Swansea, Glamorgan SA1 1QR. *Tel:* (0792) – 50855. *Telex:* 48150. *FAX:* (0792) 50729. *Contact:* Mr. A.R.Klinck, Port Manager. Captain T.E.W.Boyd, Harbour Master.

TEES RIVER: 54.39 N. 01.08 W. (See Plan)

PORT LIMITS: The Port facilities extend from the river entrance to the I.C.I. Billingham Oil Jetty 16 km. up river.

Arrival in the port is accepted as time of passing South Gare Lighthouse inward, or time of anchoring in the Tees Bay.

DOCUMENTS: Ship's official papers including:
Register.
Load Line Certificate.
Derat Certificate.
Safety Equipment Certificate.
Radio Safety Certificate.
Construction Safety Certificate.
U.K. Light Dues.
Oil Pollution Certificate. (Tankers).
Crew List.
C14 Ship's Stores List.
C13 Arrival General Declaration.
C142 Crew Declaration.
Tanker Check List (Tankers over 1,600 g.r.t.)

PILOTAGE: The Tees Pilotage District extends from a radius of 5.6 km. seawards of the South Gare Lighthouse, as far up river as Victoria Bridge, Stockton, including Seaton Channel and is under the control of the Tees Pilotage Authority.

Official Address: Tees Pilotage Authority, 13-14 Bridge Street East, Middlesbrough, Cleveland TS2 1NS. Tel: Middlesbrough 242924 (during office hours). Pilots should be ordered through Redcar 485648 (all hours). Telegraphic Address: "Tees Pilots, Middlesbrough".

Pilot station is situated at South Gare and pilot cutter on duty is moored there. Cutters are painted blue with white or orange upper structure and fly the pilot flag by day when on duty and International Regulation lights by night. The duty cutter is equipped with VHF Radio, call sign "Tees Pilots" on Channel 16. Radar is also fitted.

As much advance notice of a vessel's arrival as possible should be given to Pilots. Minimum requirement for vessel arriving is 1 hour and for vessel sailing 1 hour 15 minutes.

Pilot boards in vicinity of Tees Fairway Buoy although smaller vessels are occasionally boarded off the South Gare lighthouse. During severe weather the duty cutter may move to Tees Dock and the Pilot will board as far seaward as the conditions permit.

Pilotage is not compulsory.

APPROACHES: Vessels are prohibited from anchoring:—
(i) inside the dredged channel.
(ii) within a radius of 1,113 m. of the Tees Fairway Buoy.
(iii) within the limits of 2 divergent lines starting and extending from the dredged channel limits 244 m. apart at the South Gare Light Station, to 550 m. apart between their respective points of intersection with the circumference of the circle defined in (ii).

Small vessels can anchor close N.E. of No. 4 Light Buoy: larger vessels at Fairway Buoy and in all cases outside the 20 m. contour. Vessels waiting Pilots anchor in these areas.

Anchoring in the vicinity of the Ekofisk Pipe-line is to be avoided. See Notice to Mariners (Trinity House) No. 2724 of 1977.

RESTRICTIONS: *Traffic Control:* This is operated by the Harbour Master when vessels over 200 m. in length are moving within the river limits. The primary purpose is to allow the subject vessel to negotiate the channel without embarrassment from other traffic. Overtaking/passing is decided by the Harbour Master when circumstances favour such actions.

Restricted Transit Control: This is imposed by the Harbour Master upon vessels carrying certain hazardous cargoes. The subject vessel is intended to proceed from sea to berth or from berth to sea without meeting other traffic. As a consequence such vessel must be restrained from entering the main channel until an 'all clear' route is available. Some regulated passing.

Port Safety Control: Masters of ALL vessels before committing their vessels to the River Tees Channel are required to satisfy the Harbour Master in respect of shipboard equipment by affirming to the following questionnaire:—
Question No. 1: Your vessel is in all respects seaworthy.
Question No. 2: All secondary power or mechanical systems are in operation and *immediately* available in the event of failure of any primary system.
Question No. 3: Steering is under direct manual control.
Question No. 4: Anchors are ready for use.

In view of the controls it is essential for contact to be made with the Harbour Master before considering entering the river, leaving the berth. VHF Radio use Channels 22, 16 or 14 to contact. Tel: (0642) 452541. Telex: 58145.

MAX. SIZE: This matter is constantly under review. At present the largest dimensions acceptable are quoted as: Length 305 m. (1,000 ft.); Beam 45.7 m. (150 ft.); Draft 16.76 m. (55 ft.). This depends on the berth nominated, tidal influence and prevailing weather.

Vessels requiring in excess of 16.15 m. (53 ft.) draft should be the subject of prior consultation with the Harbour Master.

A vessel with unusual dimensions e.g. oil rig, or any vessel with dimensions approaching the port maxima, must be the subject of consultation with the Harbour Master.

HEALTH: New Regulations. The Public Health (Ships') Regulations in force from 1.4.78.

See "Health – All Ports" before first U.K. port.

RADIO: Ships approaching from the North or at anchor in Tees Bay use Cullercoats Radio. Ships approaching from Southward use Humber Radio or Whitby Radio which is a slave-station to Cullercoats.

VHF Station	*Call Sign*	*Channel Fitted (min.)*
Harbour Master's Office	TEES HARBOUR RADIO	22,16,14,12,11,8
Harbour Master's Launch	TEES HARBOUR LAUNCH	16,14,12,11,9,8,6
Tees & Hartlepool Port Authority Maintenance Craft	"NAME"	16,11,6, etc.
Tees Pilot Cutter	TEES PILOTS	16,14,12,9,8,6
Tees Pilot Station (South Gare)		16,14,9
Tees Tugs	NAME	16,14,12,8,6, etc.

Tees Harbour Radio is manned 24 hours per day and is also available to Hartlepool shipping for relaying port operational messages.

Channel	*Use*	*Channel*	*Use*
22	Port Operations	11	Domestic Port Operations
16	Calling and Safety	9	Pilot Port Operations
14	Port Operations	8	Intership
12	Port Operations		

Vessels should listen on Channel 14 at all times when underway in the port.

RADAR: 3 scanner sites give full radar coverage from Tees Offshore Base/Tees Dockyard Ltd. to Fairway Buoy and up to 20 miles to seaward. Advice/information available to Masters/Pilots at any time. Advice in poor visibility in prescribed form. Call "Tees Harbour Radio". (See "VHF").

The Ekofisk oil pipe-line runs 220 miles from the Ekofisk oilfield to Teesside, coming ashore just North of the Tees Entrance; the inshore section is vulnerable to anchor damage from large ships and to give the pipe-line optimum protection, a computerised radar has been installed in the Harbour Office.

TUGS: Official Address: Tees Towing & Co. Ltd., Tees Wharf, Dockside Road, Middlesbrough, Cleveland TS3 6AB. Tel: Middlesbrough 247277 day and night.

Fleet of 7 tugs between 2,200 h.p. and 3,650 h.p. Tugs join vessel in Redcar Reach between No. 9 and No. 17 Buoys depending on size, draft and destination. Tug's lines are used.

Tugs are on duty daily and available on 6 hours' notice for sailing and arriving after normal office hours.

BERTHING: Small vessels can usually berth at any stage of the tide. Deep drafted vessels enter in accordance with the tide.

T.H.P.A. General Cargo Facilities:

Tees Dock: Quay No. 1. 3 conventional general cargo berths each of 183 m. length, 1 of 174 m. length and 1 of 213 m. length with flush faced quay. Road and rail access to all vessels. Ample cranage and spacious sheds/open ground. Nominal dredged depth 10.9 m. below LAT.

Quay No. 2: Two berths each 183 m. in length have been built and equipped with electric luffing cranes up to 25 tonnes capacity. Nominal dredged depth 10.9 m. below LAT.

BULK HANDLING FACILITIES: *Redcar Ore Terminal:* Handles iron ore imports for British Steel. Berth dredged to nominal 17.30 m. and able to accommodate vessels up to 305 m. in length, approx. 150,000 d.w.t. 3 ore dischargers capable of handling 2,000 t.p.h.

Teesbulk Handling Ltd.: Built on the East side of Tees Dock, this loading/discharging facility is for the export of Potash mined in North Yorkshire. Dredged to a nominal depth of 10.90 m., the quay is intended to accommodate vessels simultaneously. The main loader is capable of 1,500 t.p.h. or 1,000 t.p.h. each to 2 vessels. A silo on the site has a storage capacity for 56,900 tons. Grain is exported from the terminal utilising a 7,500 ton silo as well as direct transport. Coal, soda ash and bentonite also handled.

ROLL-ON/ROLL-OFF FACILITIES: A link span Ro/Ro berth in Tees Dock can accommodate ships of up to 160 m. in length and 23.7 m. beam. Nominal dredged depth of 8.7 m.

Designed for loads up to 182 tonnes (when carried on 4 axles).

CONTAINER FACILITIES: A privately owned (Bell) purpose-built Container Berth utilising a 32 tonne gantry crane is established downstream of Tees Dock.

CONSTRUCTION FACILITIES: There are a number of yards specialising in oil-rig module construction work, all capable of handling flat-top barges up to 92 m. and unit loads to 4,000 tons.

Whessoe Offshore, Redpath Offshore South, Davy Offshore and Davy Normanby are on the South side of the river, while Redpath Offshore North are on the North side.

STEVEDORES: In order to prepare for loading/discharging, i.e. ordering of gangs, transport, etc., it is necessary to give ETA through their Agents not less than 24 hours before arrival.

In Tees berths, the port works 2 shifts daily, i.e. 0600 – 1400 hrs. and 1400 – 2200 hrs. Mondays to Fridays, with voluntary overtime at weekends.

TANKER BERTHS:

Name	*Vessel Length (m.)*	*LAT Nominal depth (m.)*	*Remarks*
No. 1 Jetty Riverside	295	18.2	Phillips North Sea Petroleum 150,000 d.w.t. (crude) 60,000 cu.m (gas tanker)
No. 2 Jetty Riverside	295	18.2	
No. 3 Jetty Inset Dock	216		
No. 4 Jetty Inset Dock	295	18.2	
No. 5 Jetty Inset Dock	295	18.2	
No. 6 Jetty Riverside	92		
No. 7 Jetty Inset Dock	67		
No. 8 Jetty Inset Dock	67		
Crude Oil Jetty (see "Developments)	265	13.32	100,000 d.w.t.
Tar Residual No. 1	197	10.4	
No. 2	78	9.72	
Tees Storage No. 1 Jetty	76	10.27	
No. 2 Jetty	179	10.27	40,000 d.w.t.
No. 3 Jetty	under construction		7,500 d.w.t.
B.A.S.F. No. 1 Jetty	152	5.1	
No. 2 Jetty		7.24	
Teesport Queen Elizabeth II Jetty	198	10.9	40,000 d.w.t.
Teesport West Byng Jetty	198	10.0	40,000 d.w.t.
Arthur Taylor Jetty	90	6.80	3,000 d.w.t.
North Tees I.C.I./P.I.P.			
No. 4 Jetty	271	12.72	80,000 d.w.t.
No. 3 Jetty	193	11.81	
No. 2 Jetty	201	10.69	
No. 1 Jetty	92	7.2	
"A" Jetty	107	7.0	1,000 d.w.t.
Middlesbrough Dock			
South Wharf	82	4.8	7,000 d.w.t.
Billingham Oil Wharf	80	4.5	2,500 d.w.t.

Clarence/Deep Water Wharves also handle tankers.

Report: *Cautionary Advice:* Vessels approaching River Tees should have BA Charts 2566 and 2567. Both are large scale charts, having complete coverage of River Tees and associated terminals, and Tees Bay. BA Charts 134, 152 and 1191 are recommended for use from seaward to the Tees Bay area.

It should be noted that there are two 15 m. wrecks outside the 30 m. line in positions within 3 miles of the Fairway Buoy (54° 41′ N., 1° 02′ W. and 54° 42.5′ N., 1° 24′ W. (PA)). Tides in the vicinity of the Fairway Buoy and the pilot boarding areas set at approximate right angles to the channel, with rates up to 1.5 knots. Great care should be exercised when slowing down to embark the Pilot.

During or after Northeasterly gales, a heavy ground swell can build up in this area.

North Sea Petroleum Teesside: Docking and Berthing: It is the normal practice to berth port side to. The vessel is swung in Seaton Channel turning circle and backed into the berth. There are no approach speed indicators on the jetties. Mooring boats are used to run the lines ashore (usually spring lines first, followed by a head line and a stern line). All moorings should be of the same construction and material.

ICI North Tees: Docking and Berthing: Vessels may berth either side to any of these jetties (except No. 4 which is starboard side to only) according to tide and weather conditions, but port side to is favoured by Harbour Authorities so that the vessel is heading seaward. If the vessel is berthing port side to, normal practice is to swing off Tees Dock. There are no approach speed indicators. Also see "Shipmaster's Report" – April 1988.

Tees Storage Terminal: Docking and Berthing: Vessels may berth either side to at No. 2 Jetty according to tide and weather conditions prevailing, but port side to is favoured by Harbour Authorities so that the vessel is facing seaward. Vessels berthing port side to are swung in the Tees Dock turning circle and then pushed into berth with the aid of tugs. A third jetty is under construction and will be operational late 1988.

Teesport Oil Jetties: Docking and Berthing: Vessels may berth either side to these berths according to tide and weather conditions prevailing, but starboard side to is favoured by Harbour Authorities so that the vessel is facing seaward. If the vessel is berthing starboard side to, it is swung in the Tees Dock turning circle. There are no approach speed indicators.

Shell Oil Jetty: Docking and Berthing: Vessels may berth either side to this jetty depending upon prevailing weather and tidal conditions, but starboard side to is favoured so that the vessel is heading seaward.

Normal practice for vessels berthing starboard side to is to swing in the turning circle off Tees Dock and proceed to berth; however, occasionally vessels are swung in Seaton Channel turning circle. There are no approach speed indicators.

Billingham Oil Jetty: Docking and Berthing: Vessels may berth port or starboard side to depending on weather and tidal conditions prevailing at the time.

If vessel berths port side to, an anchor is sometimes used when swinging the vessel off the berth. 2 springs are run from each end of the vessel, then 2 messengers are passed from jetty deck to vessel, one to bow and one to stern. 2 shore head lines and 2 shore stern lines are brought on board and made fast.

B.A.S.F. Terminal: Docking and Berthing: Vessels may berth either side to according to tide and weather conditions prevailing at the time, but port side is favoured by Harbour Authorities so that vessel is facing seaward. If vessel is berthing port side to it is swung in the turning circle off Tees Dock and then pushed into the berth with the aid of tugs.

DENSITY: The density of the river water fluctuates with the seasons and rain amount, being between 1015 and 1025 mainly. Below Tees Offshore Base/Tees Dockyard Ltd. the fresh water influence is minimal.

FRESH WATER: Plentiful from wharf and small quantities available from tug in emergency, approx. 20 t.p.h.

FUEL: All grades available by road or river delivery. 48 hours notice of requirements is requested for barge delivery.

MEDICAL: All medical facilities available. Vessels requiring doctor to board are advised to give maximum notice. Emergency medical attention can be arranged through VHF radio contact to Tees Harbour Radio on Channels 22, 16 or 14.

GANGWAY/DECK WATCHMEN: Recommended. Majority of berths are tidal with 5 m. range at Springs.

OPENING/CLOSING HATCHES: Always by crew. Riggers available.

CUSTOMS ALLOWANCES: 0.5 lb. tobacco or 200 cigarettes. (0.25 lb. tobacco for coasters). 1 spirit and 1 wine bottle (0.5 bottle spirit and 0.5 bottle wine for coasters).

IDENTIFICATION CARDS: Not used in Tees.

CONSULS: Sweden, Norway, Denmark, Netherlands, Germany F.R., Finland. Also French Consular Agency.

REPAIRS: Facilities available for all deck or engine repairs.

DRY DOCKS: Tees Dockyard Ltd. 1 dry dock 175 m.×22.25 m. capacity 26,000 tons.

SURVEYORS: 1. Moore Barrett & Redwood Ltd., and Caleb Brett cargo inspectors available.

2. Lloyd's Register, American Bureau, German Lloyd, Bureau Veritas, Salvage Association, U.S. Salvage, N.K.K., RIMA and Corporation of China available.

AIRPORT: Teesside Airport with regular flights to London, etc. is 12 miles from Middlesbrough Centre.

Air U.K. have flights to Aberdeen, Amsterdam, Bergen, Norwich and Stavanger.

REPATRIATION: All facilities exist.

TIME: GMT in Winter months. BST (GMT plus 1 hour) operates between late March and mid-October as decided by government.

HOLIDAYS: Normal English Bank Holidays. On certain holidays work can be arranged if suitable notice is given.

POLICE/AMBULANCE/FIRE: Telephone 999 in emergency. If no phone available contact the Harbour Master on VHF Radio Channel 16 or 14.

EMERGENCY CO-ORDINATION CENTRE: H.M. Coast Guard Maritime Rescue Sub-Centre, Tyne/Tees. Tel: Tyneside (091) 257-2691. Telex: 58839.

TELEPHONES: Many berths can be connected to telephone system using coin boxes; a connection charge is made.

BANKS: All major U.K. banks have branches in Middlesborough, Redcar and Hartlepool.

STORING: See "Prelims".

1. Both.
2. Tankers – No.

Storing may take place before or after cargo operations, while all tanks are battened down.

3. No. Distance varies from 100 yards to half mile depending on berth.
4. No.
5. Applicable to spirits, cigarettes, tobacco and bonded meat only.
6. Yes, but normally by suppliers/ship's crew.

DEVELOPMENTS: The Port Authority is undertaking a feasibility study into provision of a coal terminal on the redundant oil terminal site. The terminal is to be a common user terminal for 80,000 d.w.t. and 140,000 d.w.t. (part loaded) vessels.

SHIPMASTER'S REPORT: April 1988.
Chart: BA. Chart No. 2566.
Pilot: Pilot boards at Tees Fairway Buoy (Racon) from a fast sea cutter. If the weather is poor the Pilot boards inside South Gare.

When leaving, extra charges are incurred if the Pilot has to standby for more than 1 hour.

Entry: It is about 30 minutes from the Pilot to ICI North Tees.
Tugs: There are several powerful tugs available. Tugs are not normally used by small vessels. When ordering tugs, 2 hours' notice required.
Berthing: For ethylene, Jetty A only can be used, depth of water approximately 7.5 m. at low water.

When berthing, side alongside is dependent on the tide, but in general vessels berth starboard side to. Vessels swing off the berth and sometimes the anchor is used. Good fendering is provided by 3 large 'Yokahama' type fenders which ride up and down with the tide on the wooden quay face. Mooring boat assists with running the lines.

Great care should be taken when lining vessel up with the manifolds as shore personnel alignment may not be accurate. The ICI Jetties can handle Gas Ships up to a maximum of 60,000 cu.m.

Cargo: There is an 8 in. liquid line and a 6 in. vapour line. The shore personnel connect and disconnect the Chicksan arms. There are often long delays between connection of arms and commencement of operations.

The shore compressor extracts ship's vapour, so can use all ship's plant for internal cooling.

Negative cool down on completion. We had a temperature of −101.7° C on completion of loading. This can vary from −101° C to −102° C, depending on the time of year.

Average loading rate 124 t.p.h. (shore maximum). We stopped loading 12 tonnes before being full (there is a stop button at the ship's manifold) and the remaining product was blown to the ship in about 45 minutes.

Oxygen samples taken before loading.

All documentation, including Bills of Lading, handled by Surveyor, who accepts Notice of Readiness and Protests. The Supervisor is located in a cabin near the vessel and was very helpful.

General: Fresh water is obtainable from a hydrant on the Jetty and is free.

Transport delivering stores is permitted to within 25 m. of the ship's side.

Ship's gangway used but was troublesome due to the rise and fall of the tide.

There is a public telephone near the vessel. Collect calls may be made via the operator (no coin box). The Master is able to use the telephone in the Supervisor's office for any local official business.

Customs are very strict, all forms are to be completely correct.

AUTHORITY: Tees and Hartlepool Port Authority, Harbour Master's Office, Tees Dock, Grangetown, Middlesbrough, Cleveland TS6 6UD. *Tel:* (0642) 468127. *Telex:* 58145 HMTees G. *FAX:* (0642) 467855 (office hours only). *Contact:* Captain P. J. Lewis, Harbour Master.

TETNEY MARINE TERMINAL: 53.32 N. 00.07 E.

LOCATION: *Tetney Marine Terminal* is the deep water crude oil terminal of Crude Oil Terminals (Humber) Limited, operated by Conoco Limited.

The position of the mono-buoy is 53° 32′ 18″ N., 00° 06′ 48″ E., lying in approx. 60 ft. of water at low water and about 2.5 miles offshore.

Tetney is an open roadstead in the entrance of the River Humber on the East coast of England. The tidal rates in the vicinity of the mono-buoy reach 3.5 knots during Spring tides and the direction of the ebb and flood tides is generally East and West respectively. The tidal range varies between 7 ft. and 22.5 ft.

DOCUMENTS: The following documents should be completed for arrival:

General Declaration – Form C13 (duplicate).
Crew Declaration – Form C142 (duplicate).
Crew List – IMO (duplicate).
Tanker Check List Log 22.

Normally the Agent will board the tanker from one of the 2 berthing tugs prior to berthing, and the previously mentioned documentation, with the exception of the Tanker Check List (which will be handed to the Berthing Controller, together with cargo documents) will be handled by him.

Stores can be taken at the berth provided the Agents are given the order at least 72 hours before arrival.

The Master of the tanker shall notify to the Harbour Master prior to arrival the information required under S.I. 1981 No. 1077, The Merchant Shipping (Tankers) (EEC Requirements) Regulations 1981.

PILOTAGE: Vessels are requested to send ETA and draft to Spurn Pilot 12 hours before arrival and any adjustment to that time at least 2 hours before arrival. Spurn Pilots listen continuously on VHF Channel 16 and use Channel 14 as a working frequency.

Additionally, Agents should be advised of ETA 72 hours before arrival and the following information should be included in the cable: Arrival draft, type of OCIMF approved bow stoppers, size of forecastle centre mooring fairlead, bow to manifold distance and cargo manifold size.

Pilotage is by Humber Pilots who board in the vicinity of the Humber Light Vessel from a fast launch. Additional berthing information can be obtained from Tetney Base.

The Berthing Controller and his Assistant will board as the vessel approaches the mono-buoy and will assist the Pilot in the mooring operation. He will advise the ship's Officers during the mooring operation, hose connection and disconnection, and will act as Company representative throughout the vessel's stay in the berth.

Vessels must provide a pilot ladder with spreaders and grab lines for the Pilot and Berthing Controllers to board and whilst in the berth a suitable gangway with a pilot ladder near the end in order to board from a small boat.

HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: *Pre-Arrival Procedure:*

In addition to the ETA requirements the following information is required by the terminal within 6 hours of clearing the previous port, or as soon as receiving orders for Tetney.

(a) Name of ship.
(b) Name of the last port from which the vessel cleared and the name of the loading port if different from above.
(c) Estimated date and time of arrival at Humber.
(d) Cargo loaded (barrels and metric tons – gross and nett).
(e) API and gravity.
(f) Arrival draft fore and aft.
(g) Lifting capacity of derricks.
(h) Size of manifolds.
(i) Slops in cargo.
(j) Personal requirements.
(k) Ship's stores.

About 48 hours from the pilot station a second cable should be sent to the Agent with the following information:

(a) Name of Ship and Master.
(b) Amended time of arrival.
(c) Names of crew leaving the vessel.
(d) Requirements in way of doctor and dentist.
(e) Stores and water.
(f) Additional requirements.

About 24 hours from the pilot station a final cable should be sent to the Agent confirming:

a) Time of arrival.
(b) Ship's bond remaining on board.
(c) Amendments.

VHF: There is a VHF station at Tetney which is manned 24 hours a day and has the call sign, 'Tetney Base'. A continuous watch is kept on VHF Channels 16, 19 (156.8/156.95), and 48 (163.00/158.40). Channel allocation is as follows, 16 calling, 19 ship to shore, and 48 port operations. UHF (467.725 MHz) is allocated for use by the Conoco Berthing Controller, Tetney Terminal and the Conoco owned work boats.

The Pilot and Berthing Controllers carry portable VHF hand sets for use during berthing for inter-ship and ship to tug communications, Channel 9 (156.45 MHz).

Portable radios can be provided for vessels not having a VHF set and the Agents should be so informed in order to allow time to dispatch a set to the ship on arrival. A vessel arriving without suitable means of communication and not having informed the Agent of the fact could incur delays.

BERTHING: Hose hang-off chains and securing equipment are placed aboard the vessel when the Berthing Controller boards from the Conoco service craft, "Spurn Haven".

Vessels will moor using an OCIMF Approved Mooring Stopper.

The vessel approaches the mono-buoy on a Westerly heading. A messenger (min. 40 mm. diameter) should be lowered to the water and this will be picked up by the Conoco mooring launch "Monogirl" when approx. 150 m. from the mono-buoy. This messenger will be made fast to a 80 mm. × 92 m. polypropylene pick up rope which should be heaved up as the vessel makes the final approach to the buoy. When the chafing chain is in the fairlead the open links are secured to the bow stopper.

HOSES: Hoses are taken on the port side and the port derrick (minimum S.W.L. 10 tons) should be rigged and ready for use on arrival.

2×16 in. hoses are taken aboard, manifolds should be 16 in. 150 ASA and 10 in. and 12 in. 150 ASA can be accommodated by the provision of reducers. Should a vessel have any other size of manifold or be unable to provide adaptors to suit one of the sizes, Tetney Terminal will need to be notified at least 72 hours before arrival.

Hose connection and disconnection is carried out by the ships crew under the supervision of the Berthing Controller. Upon completion of discharge the hoses will be filled with sea water by the ship after which disconnection can commence. When the hoses are blanked off they will be hung off until just before sailing when they will be lowered to the Spurn Haven for towing clear.

POLLUTION: It is the Master's responsiblity to see that no oil of any kind is pumped or spilled overboard from his vessel. This includes oil water from the bilges, crude residues from previous voyages or any other matter that may result in the pollution of the sea. Owners and Masters should comply with any international regulations and recommendations concerning the prevention of pollution of the sea, especially in regard to the river Humber.

SHORE LEAVE: None of the officers or crew shall be allowed shore leave and no boats of any kind, except in an emergency, shall be lowered during the vessel's stay in the berth.

OPERATOR: Tetney Marine Terminal, Crude Oil Terminals (Humber) Ltd., Tetney Lock Road, Tetney, Nr. Grimsby, South Humberside DN36 5NX. *Tel:* (0472) 814101. *Telex:* 527055 Coth G. *Contact:* Captain B. R. Stephenson, Harbour Master & Terminal Superintendent.

TYNE DISTRICT: 55.01 N. 01.24 W. (See Plan)

(Including Newcastle, North and South Shields, Jarrow, Tynemouth, Wallsend and Gateshead).

PORT OPERATIONS AND INFORMATION SERVICE: VHF: Call sig "Tyne Harbour Radio" on Channel 16, frequency 156.80 MHz and on Channel 12, frequency 156.60 MHz. The control station is situated a the Harbour Master's Office, North Shields (Tel: 091 – 2572080 2570407), and is manned on a 24 hour basis. Vessels must obtai permission by VHF from the control station before entering the port similar permisson must be obtained before movement within, or befor sailing from the port. A service is provided for the passing of informatio to shipowners and Agents.

DOCUMENTS:
1 Crew List for H.M. Immigration Office.
1 Form C.142 (Tobacco List) supplied by H.M. Customs.
1 List of Private Addressed Packages not manifested (C.143), supplied by H.M. Customs.
Details of Oil in double bottom tanks, also measurement in cubic feet of cargo in non-registered spaces.

PILOTAGE: Pilots normally board outside Harbour entrance within 1 mile radius. In bad weather Pilots will advise concerning entering. 12 hours advance notice via Agent requested. Frequency medium wave 2182 kHz. Call "Tyne Pilots". VHF – Call on Channel 16, working Channel 9. Cutter – 55 ft. in length painted black with white lettering "Pilots" – displaying Pilot's flag. Efficient pilot ladder required as per D. Tp. Regulations.

ANCHORAGE: Off entrance River Tyne, recommended 1.5 mile N.E. of North Pier. Minimum 12 fathoms.

RESTRICTIONS: Depths below Chart Datum (L.A.T.) from piers to Jarrow Quay Corner 8.61 m. thence to West end of Jarrow Staith 6.0 m., thence to Swing Bridge 5.2 m. (except in main channels of Swing Bridge and High Level Bridge) thence to Redheugh Bridge 5.61 m. West of Redheugh Bridge there is no authorised dredged depth.

MAX. SIZE: Harbour entrance, length and breadth: no limit. Draft 8.0 m. any state of tide: up to 11.0 m. at high water.
Riverside Quay, draft up to 10.00 m.
Esso Oil Terminal, draft up to 9.00 m.
Newcastle Quay, 27 – 28 berths – 7.5 m.

HEALTH: See "Health – All Ports" before first U.K. port.

RADIO: Cullercoats Radio W/T "GCC." Cullercoats Radio on R/T.

TUGS: Normally join inside piers, tow ropes optional except manufactured of man-made fibres. Orders for week-end arrivals must be given before 1030 hrs. Saturday. Rates on application to Tyne and Wear Tugs Ltd. Tel: (091)-2553361.

BERTHING:

Albert Edward Dock:
Warehouse Quay: 356 m. long, depth of water 7.9 m.
East Dock Wall: 162 m. long, depth of water 7.9 m.
Ro/Ro Berth No. 1, East Dock Wall: depth of water 7.5 m.
Heavy Load Berth (Ro/Ro No. 2) for heavy unit loads on transporters up to 510 tonnes; depth of water 7.9 m.
Tyne Commission Quay: 335 m. long, depth of water 7.11 m.
Tyne Commission Quay Extension: 118 m. long, depth of water 6.21 m.

Car Ferry Terminal:
Ro/Ro No. 3: 125 m. long, depth of water 7.11 m.
Ro/Ro No. 4: 140 m. long, depth of water 7.5 m.
Whitehill Point Jetty: 90 m. long, depth of water 5.5 m.

Tyne Dock:
North West Quay: 243 m. long, depth of water 8.2 m.
Factory Quay: 196 m. long, depth of water 7.0 m.
Riverside Quay: 384 m. long, depth of water 10.5 m.
Tynegrain Ltd. (Extension of Riverside Quay): Terminal, 37,000 tonnes silo capacity. Loading rate 1,000 tonnes per hour. Max. size 40,000 d.w.t. Depth of water 10.51 m.
Tyne Coal Terminal: 1 berth, depth of water 10.5 m. Loading rate 2,800 tonnes per hour.

Newcastle Quay:
Spillers Tyne Mill: 237 m. long, depth of water 8.01 m., discharge rate 150 tonnes per hour. Silo capacity 34,000 tons.

Jarrow Staith: 1 berth, depth of water 7.11 m. Loading rate 400 tonnes per hour.
Harton Staith: 1 berth, depth of water 6.8 m.

TANKERS:
Esso Petroleum Company Limited, Howdon:–
Ocean Jetty: 274 m. long, depth of water 9.51 m.
Coaster Jetty: 167 m. long, depth of water 6.0 m.
Jarrow Oil Jetty: Length 189 m.
Rohm & Haas Ltd. Jarrow: Chemical Berth, length 180 m. Depth 5.6 m.
Velva Liquids Limited, North Shields: 248 m. long, depth of water 7.11 m.

Report: *Cautionary Advice* – Port Approaches: The approach to the Tyne Piers is clear of danger and adequate navigation aids are provided and well maintained. The entrance, however, is exposed to Easterly winds and early contact should be made with "Tyne Pilots" on VHF when bad weather prevails to facilitate boarding and avoid unnecessary delays.

In addition to close attention to other coastal traffic, a sharp lookout should be maintained for local fishermen whose craft are often badly lighted and poorly painted, with colours which may blend rather than contrast with the background.

Entry: Provided that the out-going stream is not making strongly, which causes maximum turbulence, there should be no difficulty entering the port with winds between N.E. and S.E. It is preferable to enter while the in-going stream is still running although at that time it also sets across the entrance. This precaution is especially necessary during N.E. gales, which cause the heaviest seas at the entrance. In Northerly gales vessels should keep close under the lee of North Pier and in Southerly gales, especially with the out-going stream running, close under the lee of South Pier.

Entry: After embarking Pilot prior to entry, vessel proceeds at half to full speed keeping leading lights in line 258°(T).

Normal entry times for maximum draft vessel (although sufficient water at any state of tide) from 3 hours before HW to HW River Tyne North Shields.

During this period tide sets across entrance from North to South in a 160° direction with Spring rates up to 1 knot.

Vessels must approach entrance with sufficient speed and set allowed to maintain a true course of 258°(T) keeping leading marks and lights in line.

Leading line must be disregarded as soon as the Tyne Piers are passed, when a vessel should reduce speed and be guided by the light buoys and beacons.

Inside the piers, tidal streams tend to run with the channel at rates up to 3 knots during Spring tides.

Vessels should pass in mid channel between Nos. 1 and 2 light buoys on the North side and Herd Light Buoy and Herd Groyne Light Structure on the South side.

Regulations also state that vessels are to keep Southward of mid channel when proceeding to sea and Northward of mid channel when entering, so as to pass each other port side to port side.

Distance from Tyne Piers to Herd Groyne 0.8 miles, course approx. 255°(T).

Tugs meet vessel in the area between Tyne Pier and Herd Groyne.

Passage up river from Herd Groyne to Esso Tynemouth is approximately another 2 miles. Vessels speed when transitting this region should be between Dead Slow and Slow. This tends to be a very busy area with numerous riverside berths. Two bends, one to port and one to starboard, are negotiated before vessel reaches the swinging area off Esso Tynemouth Terminal.

Vessels coming up river on the flood tide swing in the turning area and berth port side to Esso Tynemouth Terminal.

Vessels late for the tide are accepted on a spot basis and have been berthed up to 2 hours after HW. In these cases, vessels go straight alongside, starboard side to, and swing in the turning area outward bound.

Prescribed turning area is 289.56 m. (950 ft.) in diameter.

Tugs are made fast between Herd Groyne and the swinging area, and normal practice is to swing to starboard heading vessel to the jetty when all way is off the vessel.

Mooring boats are employed for running the ship's lines to shore. Normal practice is to hold vessel alongside with tugs. First lines ashore are usually breast lines forward and aft, followed by springs, and finally the head lines and stern lines. Riggers will board vessel on arrival to secure 2 shore springs.

BRIDGES: At Newcastle 10 miles from entrance, Swing Bridge negotiated against tide; other bridges, maximum mast height 24.7 m. above MHWS.

STEVEDORES: Principal Stevedores Port of Tyne Authority. All arrangements through Agent. Stowage plan required prior to arrival.
Plant pool as follows:–

Albert Edward Dock:
Warehouse Quay – 7 cranes, 6 tonnes – 30 tonnes.
East Dock Wall – 3 cranes, 5 tonnes.
Tyne Commission Quay – 5 cranes, 3 tonnes – 40 tonnes.
Tyne Commission Quay Extension – 2 cranes, 6 tonnes.
Ro/Ro Berths – 4 terminal tractors.

Tyne Dock:
Riverside Quay – 7 cranes, 6 tonnes – 12 tonnes.
North West Quay – 5 cranes, 5 tonnes – 10 tonnes.
Factory Quay – 2 cranes, 3 tonnes.

There is a pool of 32 fork lift trucks of 5,000 lbs. – 25 tonnes capacity available for any location. These trucks can be fitted with attachments for handling paper, pulp, etc.
Also see "Dry Docks".

MEDICAL: Hospitals available, Advise Agent in advance if medical attention required on arrival.

DENSITY: Entrance/Tyne Dock – 1025; Tyne Dock/Jarrow 1020; Newcastle Quay 1005/1010.

FRESH WATER: Available ex-water boat, rate of delivery up to 150 t.p.h.

FUEL: All grades ex-installation, or by barge, 24 hours notice required.

GANGWAY/DECK WATCHMEN: Available if required.

OPENING/CLOSING HATCHES: Crew allowed open and close.

CERTIFICATES:
Register.
Load-line.
Safety Construction.
Safety Equipment.
Safety Radio.
Trinity House Light Bills.

CUSTOMS ALLOWANCES: At the discretion of Local Customs Inspector. Normal allowances are equivalent of 0.5 lb. tobacco per man and equivalent to 1 bottle wine per man. Allowances may be halved for home trade vessels. Vessels in port more than 3 or 4 days may receive extra allowances.

IDENTIFICATION CARDS: Required by crews of passenger vessels at Terminal Berths at North Shields.

CONSULS:

Belgium	tel. Tyneside (091)	2328345
Chile	tel.	2611661
Denmark	tel.	2581301
Finland	tel.	2612711
France	tel.	2570225
Germany F.R.	tel.	2611063
Iceland	tel.	2841112
Liberia	tel.	2612711
Luxemburg	tel.	2328345
Netherlands	tel.	2611431
Norway	tel.	2326358
Sweden	tel.	2815934
Spain	tel.	2364126

REPAIRS: All types of repairs possible at many building/repair yards.

DRY DOCKS:

Name of Owner or Occupier	*Dock*	*Length on Bottom (m.)*	*Breadth at Entrance (m.)*	*Depth on Sill at M.H.W.S (m.)*
NORTH SIDE OF RIVER				
*Tyne Shiprepair Ltd. Wallsend	No. 1	170.7	23.2	7.8
	No. 2	143.4	21.3	7.6
	No. 3	173.7	24.4	7.9
	No. 4	217.9	32.0	8.8
Smiths Shiprepairers (North Shields) Ltd., North Shields	No. 4	149.4	20.7	7.1
	No. 5	152.4	20.7	7.4
	No. 6	167.6	22.1	6.9
	No. 7	90.5	15.9	5.4
	No. 8	216.1	29.6	8.5
	No. 9	149.4	20.7	7.1
SOUTH SIDE OF RIVER				
Tyne Dock Engineering Co. Ltd., South Shields	No. 1	96.0	13.7	5.0
	No. 2	85.3	14.0	5.6
*Tyne Shiprepair Ltd. South Shields	No. 1	103.6	14.6	5.5
	No. 2	145.4	17.7	6.4
	No. 3	152.4	19.5	7.2
	No. 4	197.1	24.4	7.9
Tyne Dock Engineering Co. Ltd., West Yard, South Shields	No. 1	100.9	14.6	5.2
	No. 2	152.4	19.8	6.1

Slipways:

Name of Owner or Occupier	*No. of Slipways*	*Length of Cradle*
SOUTH SIDE OF RIVER		
Powerport Eng. Ltd.	2	61 m. 27.4 m.
Robsons Boatbuilders Ltd.	1	20 m.

Heavy Lift Cranes:
New Technology Park, Walker: 250 tonnes. Depth of water 6.9 m. C.D.
Titan III Floating Crane: 150 tonnes.
REPATRIATION: All facilities available.
AIRPORT: Newcastle Airport: Regular scheduled services operating to European Continent, Scandinavia and Ireland. Daily scheduled services to London Heathrow, London Gatwick, Manchester, Birmingham, Cardiff, Bournemouth, Norwich, Glasgow and Aberdeen.

Air U.K. flights to Aberdeen, Amsterdam, Bergen, Copenhagen, Humberside, Norwich, Paris and Stavanger.
TIME: British Standard Time, GMT plus 1 hour. GMT in Winter months.
HOLIDAYS: New Year's Day; Good Friday; Easter Monday; May Day; Spring Holiday; Late Summer Holiday; Christmas Day; Boxing Day.
POLICE/AMBULANCE/FIRE: Dial 999, and ask for service required.
TELEPHONES: Can be arranged on board at certain berths.
SHORE LEAVE: Allowed.
AUTHORITY: Port of Tyne Authority, Bewick Street, Newcastle upon Tyne, NE1 5HS. *Tel:* (091) 2325541. *Telex:* 53595. *FAX:* (091) 2619739. *Contact:* Mr. E. W. Oakes, Commercial Director.

WARRENPOINT: 54.06 N. 06.16 W. (See Plan)

PORT LIMITS: Seaward to a line from Ryland River (South Coast) to Ross Memorial (North Coast) approximately 3,000 m. from Warrenpoint.
DOCUMENTS:
2 Crew Lists.
2 Passenger Lists.
1 Stores List.
Vessel's Papers and Certificates.
1 Manifest or Bill of Lading.
PILOTAGE: Not compulsory, if required Tel. (06937) 62549. Pilot station at Greencastle Pier at entrance (North side) to Carlingford Lough. VHF (Warrenpoint Pilot) radio, Channels 16 and 12. Notice to Agents of ETA at 48 hours and 24 hours.
ANCHORAGES: Safe anchorage at Fairmont Roads S.E. Greenore and also inside Carlingford Lough N.W. of Buoy No. 13.
RESTRICTIONS: None except draft of vessel. Advise Agents.
HEALTH: No certificate necessary. In event of disease or fever contact Agent in advance. Hospitals available.
Also see "Health-All ports" before first U.K. port.
RADIO: All messages to Agents through Portpatrick Radio or Anglesea Radio.
VHF: Pilot station (Warrenpoint Pilot) and Port Radio (Warrenpoint Harbour) on Channels 16 and 12.
TUGS: None.
BERTHING: All berths except Town Dock have 17 ft. at LWOST.
STEVEDORES: Warrenpoint Harbour Authority. Telephone: Warrenpoint 3381. Telex: 74660
CARGO HANDLING FACILITIES:
2×35 tonne Liebherr Transporter container cranes;
2 Poclain HC300 hydraulic cranes;
1 Jones 971 HLB dockside crane;
2 Babcock Wilcox Luffing grabbing cranes;
1 Gottwald 25 tonne harbour mobile crane.
BULK CARGO FACILITIES: Coal – 2 Luffing Grabbing Cranes at 150 t.p.h.

Grain discharged at up to 250 t.p.h. to Grain Silo of 8 bins, total capacity about 4,800 tonnes. Flat grain store capacity 4,000 tonnes also available.
SPECIALISED CARGO HANDLING FACILITIES: Ro/Ro berth with 17 ft. at LWOST. Ramp 6 m. wide Marshalling area about 6 acres.
FUEL: Available by road tankers. 48 hours' notice usually required.
FRESH WATER: Available from pipes on quay.
CONSULS: None.
REPAIRS: Small repairs can be undertaken.
DRY DOCKS: None.
SURVEYORS: Lloyd's – Jos. Fisher & Sons, Ltd. Warrenpoint 3500.
GANGWAY/DECK WATCHMEN: Neither compulsory nor necessary.
HATCHES: Opening and closing by crew.
CUSTOMS ALLOWANCES: As permitted by U.K. Customs and Excise.
CARGO GEAR: Ship's gear only used if shore cranes not available.
REPATRIATION: Airports (Belfast and Dublin) 2 hours away. Transport available. By sea – Belfast 1 hour.
AIRPORTS: Belfast (Aldergrove) 60 miles. Dublin 75 miles. Schedule flights daily to London.
TIME: GMT. GMT plus 1 hour in Summer.
HOLIDAYS: New Year's Day; St. Patrick's Day (17th March); Easter Monday and Easter Tuesday; 1st Monday in May; 12th July; 13th July; 15th August; Christmas Day and Boxing Day.
POLICE/AMBULANCE/FIRE: Dial 999 and ask for service required.
TELEPHONES: Not possible to place telephones on board.
SERVICES: Check with Agents. Most services can be supplied given 24 hours' notice.
SHORE LEAVE: After clearance inwards, Crew members allowed ashore without restriction. No passes issued.
DELAYS: Delays in loading or discharging are minimal and infrequent.
AUTHORITY: Warrenpoint Harbour Authority, The Docks, Warrenpoint, Northern Ireland BT34 3JR. *Tel:* (06937) 73381/73382. *Telex:* 74660. *Cables:* Harbour Authority. *Contact:* A. J. McGuffin, General Manager Harbour Master.

AGENT: Samuel Stewart and Co. Ltd., The Docks, Warrenpoint. Tel: (06937) 72215. After hours: (0693) 5223. Telex: 747092. FAX: (06937) 74024.

WATCHET: 51.11 N. 03.20 W. (See Plan)

DOCUMENTS: Crew List, Stores List, Ship's Register, Manifest or Bills of Lading.
PILOTAGE: Trinity House Outport District, Compulsory, ETA 24 hrs. before arrival to Harbour Master's Office, Watchet (0984) 31264, after hours Minehead (0643) 3430.
ANCHORAGE: Safe anchorage Blue Anchor Road.
RESTRICTIONS: Accordance with state of tide and draft. Vessels enter 2 hours before HW.
MAX. SIZE: Max. permissible length 90 m., breadth 16 m., draft restrictions according the height of tides, max. draft Neap tides 12 ft. and Spring tides 14 ft. – 18 ft.
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: It is best for vessels to give ETA by R/T to Lands End or Ilfracombe Radio.
VHF: Watchet Radio Channels 16, 12, 14 and 9.
TUGS: None.
BERTHING: 2 quays, 1×150 m., 1×120 m.
CRANES: 3 cranes, 2×5 tons, 1×10 tons.
BULK CARGO: Cranes with grabs.
STEVEDORES: Watchet Marine Ltd.
MEDICAL: Port Doctor in Watchet.
DENSITY: Salt 90%.
FRESH WATER: Available on the quay.
FUEL: All grades, advance notice required.
FIRE PRECAUTIONS: Normal port precautions.
CONSULS: At Bristol.
REPAIRS: Normal repairs to ships possible notice required.
SURVEYORS: West Marine Surveyors & Consultants Limited Consulting Marine Surveyors, Engineers & Naval Architects, The Old Custom House, Brixham, South Devon. Tel: Brixham (STD 08045) 2604 After normal office hours Tel: 0803 842925. Cables: Surveyor, Brixham Telex: 42962 – Survey G.
OPENING/CLOSING HATCHES: Carried out by crew.
CUSTOMS ALLOWANCES: Decided by the Customs Officer in charge
CARGO GEAR: Shore gear, cranes and forklifts.
REPATRIATION: Facilities exist for crew changes.
AIRPORT: Nearest airport at Bristol.
TIME: GMT and British Summertime.
HOLIDAYS: Cargo work can be arranged.
POLICE/AMBULANCE/FIRE: Phone 999 for all three services.
TELEPHONES: None on quay.
SERVICES: Chandler available.
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: None required.
DEVELOPMENTS: New warehouse and lorry park.
AUTHORITY: West Somerset District Council, East Wharf, Watchet, Somerset. *Tel:* (0984) 31264. *Cables:* Port of Watchet. *Contact:* Captai C. Muller.

WEYMOUTH: 50.36 N. 02.27 W.

LOCATION: Situated to the North of Portland Bill, midway between Southampton and Plymouth. Weymouth is the nearest U.K. port to Cherbourg and the Channel Islands.
PORT LIMITS: The area within a line drawn 090° (T) from the Nothe Fort distance 1.7 miles and the Sluice Gate Beacon at Greenhill.
PILOTAGE: Compulsory for all vessels exceeding 150 ft. LOA. The Pilot boards 1.0 miles East of the Harbour entrance. Notice of ETA and request for a Pilot must be advised at least 24 hours in advance and any amendment of this ETA must be made not less than 2 hours prior to vessel's arrival at the Pilot Station. Weymouth Pilot listens on VHF Channel 16 and working frequency is Channel 9. Messages for the Pilot may be relayed via Weymouth Harbour Radio (VHF 16/12) or Portland Coastguards (VHF 16/67) or Queen's Harbour Master, Portland (VHF 16/13).
ANCHORAGE: Good holding ground can be found 1.5 miles to 1.0 miles East of the Harbour entrance.
RESTRICTIONS/MAX. SIZE: Vessels up to 125 m. LOA with a maximum draft of 5.2 m. can enter or leave at all states of the tide, entrance being made to a sheltered harbour between two piers. The Pier Heads are 137 m. apart and the channel is 76 m. wide.
HEALTH: Weymouth Port Health Authority offer facilities for food/meat examination and health clearance requirements.
RADIO: Weymouth Harbour Radio, hours of duty when vessel expected or during working hours 0630 – 2200. Calling Channel VHF 16, Working Channel VHF 12.
VHF: See "Pilotage" and "Radio".
TUGS: Several tugs are available from the Naval Dockyard at Portland.
BERTHING: There is a deep-water berth inside the pier heads with a dredged depth of 5.2 m. (Berth No. 1). This berth can take vessels of up to 115 m. LOA and is used for Lo/Lo operations of bulk cargoes and Ro/Ro side loading/discharging.

Linkspan and Ro/Ro facilities are available at Berth No. 3 with further general cargo/lay-by berths at Berths No. 5 and 6.
CRANES: Berth No. 1 has a 20 tonne SWL Mobile Crane. Other cranes can be hired locally up to 80 tonnes SWL.
STEVEDORES: Weymouth is a scheme port of the National Dock Labour Board.
MEDICAL: Full hospital facilities are available without notice.
TANKERS: No facilities.
FRESH WATER: Available at all berths.
FUEL: Available at all berths by road tanker.
CONSULS: All consulates and agencies are at Southampton.
REPAIRS: Hull and engine repair facilities are available.
DRY DOCKS: None.
SURVEYORS: At Southampton.
HATCHES: Opened and closed by crew.
REPATRIATION: Possible.
AIRPORT: Hurn and Exeter Airports.
POLICE/AMBULANCE/FIRE: Dial 999.
EMERGENCY CO-ORDINATION CENTRE: Contact U.K. Coastguard, Tel: (0305) 820441.
TELEPHONES: Not available.
SERVICES: Radio and radar repairs. Charts and publications available.
SHORE LEAVE: Permitted.
AUTHORITY: Weymouth and Portland Borough Council, Harbour Master's Office, 20 Custom House Quay, Weymouth, DT4 8BQ. *Tel:* (0305) 760620. *Contact:* Captain P. C. Tambling, Port Manager and Harbour Master.

WHITEHAVEN: 54.33 N. 03.36 W. (See Plan)

DOCUMENTS: Usual required for clearing a vessel from foreign port, i.e. Crew List, Passenger List, Customs Documents, Ship's Register, Manifest and Bills of Lading.
PILOTAGE: Request for Pilot is made by International Code signal G, sound and visual. ETA should be sent 12 hours in advance either to ship's Agent or Harbour Master or both. Area for taking Pilot on board 4 to 5 cables West of Harbour. Pilot boats are Trinity House Pilot Boats – "Viking" and "Cumbria". VHF is installed.
ANCHORAGE: Same area as for boarding Pilot according to draft.
RESTRICTIONS: Vessels may dock from 1.5 hours before HW till 1 hour after HW according to draft.
MAX. SIZE: 270 ft. length, 40 ft. beam and 17 ft. draft (deepest) on Spring tides, 14 ft. draft (deepest) on Neap tides.
HEALTH: See "Health – All Ports" before first U.K. port.
RADIO: Port Patrick and Anglesey Radio Stations.
TUGS: No tugs.
CRANES:
2×10 tonnes lifting capacity.
1×15 tonnes lifting capacity.
2×5 tonnes lifting capacity.
MEDICAL: Agent should receive notice in advance of any medical treatment required. Hospital services are readily available.
DENSITY: Any state of tide density is 1025.
FRESH WATER: Fresh water is available on all berths, any quantity on request to ship's Agent.
FUEL: Most grades and types available.
FIRE PRECAUTIONS: Usual precautions are taken when inflammable cargo is being loaded or discharged.
GANGWAY/DECK WATCHMEN: Advisable to have a watchman but not absolutely necessary.
OPENING/CLOSING HATCHES: Always opened and closed by crew.
CERTIFICATES: Derat Certificate, Load Line Certificate, Radio R/T Certificate, etc.
CUSTOMS ALLOWANCES: 200 cigarettes, 1 bottle spirits.
IDENTIFICATION CARDS: None required.
CONSULS: Norway, Sweden, Denmark and the Netherlands.
REPAIRS: All types of deck and engine repairs carried out.
REPATRIATION: Facilities exist for effecting crew changes and arranging any necessary repatriations.
AIRPORTS: Nearest airports are at Manchester, Newcastle and Prestwick, all approx. 130 miles away.
HOLIDAYS: Cargo may be worked on following days: New Year's Day, Good Friday, Easter Monday, Whit Monday, August Monday, Christmas Day and Boxing Day.
POLICE/AMBULANCE/FIRE: Telephone numbers of these services in order are: Whitehaven 2616, 3181 and 2151.
TELEPHONES: No special arrangements exist for placing telephones on board vessels.
SHORE LEAVE: Crew members may come and go at all times.
DELAYS: There are very seldom any delays in berthing and none in loading, discharging or bunkering.
AUTHORITY: Whitehaven Harbour Commissioners, Harbour Office, Pears House, 1 Duke Street, Whitehaven, Cumbria CA28 7HW. *Tel:* Whitehaven (0946) 2435. *Contact:* Captain B. Ashbridge, Harbour Master (*Tel:* 2436). R. W. Crosbie, General Manager.

WHITSTABLE: 51.21 N. 01.02 E. (See Plan)

PILOTAGE: Pilotage is available but Pilots must be ordered through the Lloyd's Agent. A minimum of 4 hours notice is required as Pilots are from Dover.
APPROACHES: Vessels are advised to arrive at the Whitstable Street Buoy not later than 1.5 hours before HW.

To ensure that vessel's approach on the correct heading, (122.5°), and to assist in identifying the entrance, the Whitstable Oyster Buoy has been established in a position bearing 310°×1,950 ft. from the light on the Dolphin on the Western side of the Harbour. This is a red can, flashing 2 red every 10 seconds.

The entrance to the Harbour is marked by a Sector Light fixed to the West Quay Dolphin and shows White, Green and Red. The outer end of the East Quay is marked by 2 fixed Vertical Red Lights. There are fixed Red Leading Lights on the South Quay bearing 122.5° from seaward.
Harbour Signals: A fixed Red Light shown below the fixed Harbour White Light at night means entry of vessels is prohibited. A fixed White Light *only* means Port open for entry.
MAX. SIZE: The Harbour is tidal and dries out at LW with berths of soft mud capable of accepting vessels of up to 2,000 tonnes capacity. There are 4 quays having a total overall length of 2,205 ft. (679 m.), with accommodation for up to 8 vessels at drafts of 15 ft. 6 in. (4.72 m.) at Spring tides and 12 ft. 0 in. (3.66 m.) at Neap tides.
VHF: Ship to shore communication is maintained by VHF Radio, the call sign being "Whitstable Harbour Radio", listening on Channel 16 and working Channels 12 and 9. The station is manned for 3 hours before HW to 1 hour after HW and daily from 0800 hrs. – 1700 hrs.
In event of VHF Breakdown: On day tides between the hours of sunrise to sunset (from 3 hours before until 1 hour after HW), a Docking Light Signal may be in operation, exhibited from the Light Tower in position Lat: 51° 21′ 48″ N., Long: 01° 01′ 39″ E. Character to indicate Port Closed: Fixed White. Character to indicate Port Open and Clear for Entry: One flash every 3 seconds.
TUGS: The services of a tug can be made available via Lloyd's Agent, 24 hours notice is required.
BERTHING:
East Quay: Length 900 ft. (274 m.). 3 berths.
Storage – Transit Shed 12,000 sq.ft. (1,115 sq.m.)
Warehouse 4,000 sq.ft. (371 sq.m.)
Bins – Stone, Slag and Ballast at Inner Berth.
South Quay: Length 500 ft. (152.4 m.). 2 berths.
Storage – 1. Warehouse 9,000 sq.ft. (836 sq.m.)
2. Warehouse 7,000 sq.ft. (650 sq.m.)
Open Storage – Bulk Stone, etc. – 2,000 tonnes.
Open Storage and Trailer Park – 5,000 sq.ft. (464 sq.m.)
North Quay: Length 205 ft. (62.5 m.). 1 berth.
West Quay: Length 600 ft. (183 m.), width 130 ft. (40 m.).
Storage – Warehouse 19,000 sq.ft. (1,765 sq.m.)

Depth of Water:

Quay:	*HWS*	*HWN*
North	13 ft. 6 in. (4.11 m.)	10 ft. (3.05 m.)
South	15 ft. 6 in. (4.72 m.)	12 ft. (3.66 m.)
East	15 ft. 6 in. (4.72 m.)	12 ft. (3.66 m.)
West	15 ft. 6 in. (4.72 m.)	12 ft. (3.66 m.)

CRANES: Cranes are privately owned and consist of 4 mobile cranes on tracks. SWL up to 10 tonnes.
FRESH WATER: Available.
FUEL: Available.
AUTHORITY: Canterbury City Council, Whitstable Harbour, Harbour Street, Whitstable, Kent CT5 1AB. *Tel:* Whitstable (0227) 274086. *Contact:* Commander F. J. Bloom, Harbour Master.

Please send corrections and additions to Shipping Guides Ltd., 75 Bell Street, Reigate, Surrey, England

WORKINGTON: 54.39 N. 03.34 W. (See Plan)

DOCUMENTS: Standard U.K. documents.
PILOTAGE: Compulsory. Minimum notice 12 hours via vessel's Agents. Pilot boards 1 mile West of entrance.
ANCHORAGES: 1.5 miles to 2 miles N.W. of the entrance.
MAX. SIZE: 10,000 d.w.t., length 137.2 m. beam 62 ft. and draft 25 ft.
HEALTH: Standard U.K. procedure.
VHF: Workington Harbour Radio operates on Channels 16, 14 and 11. A listening watch is maintained daily from 2.5 hours before HW until 2 hours after HW.
TUGS: Vessels over 92 m. LOA shall, if the Harbour Master so requires, be assisted by a tug or tugs.

A tug is no longer berthed at the port. Shipowners/agents are responsible for making their own arrangements. In the event of a tug being required, the Harbour Master shall be provided in writing, with the tugs specification, at least 48 hours in advance.

The Port Authority also reserves the right to appoint a tug or tugs to attend any vessel if, with due regard to the prevailing circumstances, the Harbour Master deems it necessary.

BERTHING: *Tidal Harbour:* 853 m. of quayage for fishing vessels and other small craft. Depths are from 4.1 m. Neap tides to 7.2 m. Spring tides.

Prince of Wales Dock: Enclosed dock, width of entrance 21.2 m. There is 772.7 m. of quay frontage with depths from 7.2 m. Neaps to 10.2 m. Springs. The dock is 97.8 m. wide at the West end, 76.2 m. at the East end. There is a transit shed situated at the general cargo berth.

CRANES: 3 × 7 tonnes and 2 × 10 tonnes cranes are available. There is a Scotch derrick of 28 tonnes capacity.
BULK CARGO FACILITIES: The new automated coal terminal is capable of handling 1,750 tonnes of coal per hour.
SPECIALISED CARGO HANDLING FACILITIES: Ro/Ro facility available.
STEVEDORES: Normal working 0800 – 1700 hrs. with 3 hours evening overtime if requested.
FRESH WATER: Available.
FUEL: Available.
TIME: GMT plus 1 hour (late March – late October), otherwise GMT.
AUTHORITY: Cumbria County Council, Port of Workington, Dock Office, Workington, Cumbria CA14 2JH. *Tel:* (0900) 2301. *Telex:* 64253. *Cables:* Dock, Workington. *Contact:* Captain W.S. Worthington, Harbour Master and General Manager.

NOTES

Please also advise Shipping Guides Ltd.

1871
1063
1027
7862
735
735 × 3
735 × 43
= 100
100 × 43
735
5.8

1762
109
10.0 × 10.9
10.8 × 1.62

1871
109.

United States of America

GENERAL

SHIPMASTER'S REPORT: January 1987.

Preparation for arrival in U.S.A. Ports

Refer to:

1. Annual Summary of Notices to Mariners (British) No. 22 – Charts and Publications.
2. C.F.R. Title 33, Part 164 (especially 164.25/164.30/164.33, 35, 37, 38, 41, 53, etc. Also 159.59 and 155.440, 700, 740, 750).

Action Required:

Purchase (if necessary) large scale U.S. charts, current Coast Pilot and Light Lists, Tide Tables, Loran Charts, Tidal Stream Tables; but British publications are usually acceptable if up to date and charts are of largest scale.

Arrival Preparations:

U.S. Department of Agriculture prepare for inspection of:

1. Galley, storerooms, and possible sealing of prohibited fruits and meats.
2. Covered and leakproof garbage cans.
3. Rat guards.
4. Declare all animals and birds.
5. Hold inspections for grain, etc. Carried out by teams of 2 men, and extremely severe. Failure of holds will result if loose paint scale, loose rust scale, insects or deposits of past cargoes are found. High powered flash-lights used to probe the most remote corners. They are very experienced and know where to look!

U.S. Public Health Service: Ship not boarded unless sickness is reported or vessel is from an infected area.

U.S. Coast Guard: Do a preliminary check, using a "Vessel Compliance Check-List" or an old "Vessel Inspection Form". Before arrival ensure navigation equipment is tested as per C.F.R.33 Part 164.25 and a good Log entry has been made. Check Oil Record Book (151.35); Placard re-discharge of Oil (155.440); Oil transfer procedures are posted (155.750); Marine Sanitation device is working and instructions for use are visible.

Read British Annual Notice to Mariner 4B (The Amver System) especially paragraph 5, (Constructive compliance with C.F.R.33, Part 161.7).

U.S. Customs: Will examine all Certificates.

U.S. Bureau of Labour: Will examine Cargo Gear Register and Certificates.

Documents:

- 4 Crew Lists (Form I-418).
- 4 Passenger Lists (Form I-418).
- 4 Ship's Stores Declarations (Form 1303), to include Shop and Bond Lists, Steward Stores Lists, Medicine Lists, Fire-arms Lists.
- 4 Crews' Effects Declarations (Form 1304).
- 1 Master's Oath (Form 1300).
- 3 Cargo Manifests (Form 1302), if cargo on board original showing all cargo on board and 2 copies showing only cargo for this port.
- 1 General Declaration (Form 1301), usually completed by Agent.

All ship's certificates should be to hand. Also Last Port Clearance and previous Tonnage Tax Vouchers.

All entry papers must be prepared on proper U.S. Customs Forms, with no attachments permitted.

The Crew List must be made out correctly in alphabetical manner as prescribed. Also a Crew List must be prepared at the previous port and visaed by the U.S. Consulate. For this purpose 2 copies are made.

The original has Columns 1 to 3 completed as usual, but the duplicate must list in Column 4 the date, city and country of birth, and in column 5 the Place and Authority issuing the crew member's passport or document. If this visaed Crew List cannot be produced on arrival a waiver can be granted, for which the Agent must pay US$15 in cash. If the vessel has crew from the People's Republic of China or other communist countries, then shore leave will not be granted at all, without that visaed Crew List. No waiver will be issued for them.

Crewman's Landing Permits (Form I-95A) must be prepared before arrival for each man. Previously used shore passes can be used again, but only if the seaman is still on the same ship.

Some ports require less than the number of documents stated above. The Mississippi consists of 3 Custom areas (New Orleans, Gramercy, and Baton Rouge). If the the ship moves to another area, then new forms may be needed, so extra copies are useful, in the case of Forms 1303 and 1304.

AGRICULTURE: All ports.

Arrival Notification: The vessel's Master or Port Agent must provide advance notification of intent to arrive. Notice is to be received by the U.S. Department of Agriculture (USDA) no less than 12 hours before the estimated time of arrival and must include:

1. The name or other identifying feature of the vessel.
2. The date and estimated time of arrival.
3. The specific location of arrival (dock, pier, mole, anchorage, etc.).
4. The names of all foreign and noncontinental United States ports where any cargo, crew or passenger destined for the continental United States has been boarded since the vessel's most recent arrival in the United States.

Changes in the above information must be communicated as soon as known. If the place of arrival is an anchorage; subsequent movement to a pier, wharf, etc., must be reported as soon as known.

Documents: The cargo, stores, and crews' effects lists or manifests must be available for review by the boarding USDA Inspector.

Inspection: The USDA Inspector will examine the galleys, storerooms, lockers, mess areas, and crew quarters in some instances for prohibited plant materials (fruits, vegetables, and plants) and meat products. Also, inspections may be made of on-board cargo and cargo holds.

Stores Sealing: The USDA Inspector will place under seal certain fresh fruits and vegetables in stores aboard vessels calling at ports in Florida, Mississippi, Alabama, Louisiana, Texas and California. Routine sealing will be limited to fruits likely to carry exotic tropical fruit flies. In addition, USDA Inspectors at any port may require sealing of any vessel stores when pest infestations are detected. It is recommended that each vessel construct a special compartment for sealing fruits and vegetables so that it will not be necessary to seal the entire vegetable locker.

Garbage: All food wastes aboard vessels arriving from foreign or offshore areas (except Canada) must be handled in accordance with USDA Regulations. Garbage must be held aboard vessels in leakproof, covered containers inside the rails for later disposal or, it may be removed with permission and under supervision of a USDA Inspector for incineration or sterlisation in approved facilities.

Penalties: Monetary civil penalties may be imposed for violation of USDA Regulations including, but not limited to:

1. Failure to provide adequate arrival notification.
2. Breaking U.S. Department of Agriculture seals.
3. Unauthorised or unsupervised removal/disposal of garbage.
4. Unauthorised removal of fruits, vegetables, meats or animal products, or live plants.
5. Failure to keep garbage in other than closed, leakproof containers.

Treatments: If quarantine-significant pests are found aboard a vessel, an Emergency Action Notification may be issued to the Master. It will prescribe what treatments are required to the affected articles or area of the vessel and when this treatment must be accomplished.

Honeybees: Honeybees may not be brought into the United States. This is a precaution to keep out Africanised bees, which could gravely upset beekeeping in North America. Do not disturb any signs of bees on board, such as live swarms, dead bees, or hives. Contact the ship's Agent before entering U.S. ports for appropriate instructions regarding disposal and treatment from the USDA inspector.

Animals/birds: All live animals or birds aboard vessels must be retained on-board and reported to the USDA Inspector.

For additional information: Write to "Quarantines", U.S. Department of Agriculture, Federal Building, Hyattsville, MD 20782. Tel: (301) 436–8295, 436–8455.

Notice

To: Ship's Masters:

From: United States Department of Agriculture, Animal and Plant Health Inspection Service.

On April 1st, 1985, the Animal and Plant Health Inspection Service (APHIS) will implement routine sealing of certain fresh fruits and vegetables in stores aboard vessels calling at ports in Florida, Mississippi, Alabama, Louisiana, Texas and California. Routine sealing will be limited to fruits likely to carry exotic tropical fruit flies. In addition, APHIS Officers at any port may require sealing of any vessel stores when pest infestations are detected.

This is an interim measure in preparation for full implementation of a new Maritime Clearance and Monitoring Guideline on or about June 1st, 1985. You will receive additional information in the near future.

It is recommended that each vessel construct a special compartment for sealing their fruits and vegetables so that it will not be necessary to seal the entire vegetable locker.

You are reminded that the following may result in a civil/monetary penalty:

1. Breaking U.S. Department of Agriculture seals.
2. Unauthorised or unsupervised removal/disposal of garbage.
3. Unauthorised removal of fruits, vegetables, meats or animal products, or live plants.
4. Failure to keep garbage in other than closed, leakproof containers.

Further information can be obtained by calling (713) 229-3541.

Purser's Note: It is advisable to have a locker ready prior to arrival in order that fruit and vegetables may be transferred for sealing.

HEALTH: All ports.

The U.S. Public Health Service does not maintain Quarantine Stations at each port of entry. The smaller ports are under the jurisdiction of Quarantine Stations located at strategic ports of entry. Matters of public health significance occurring on vessels destined to ports not staffed by Public Health Service personnel should be reported to the Quarantine Station having jurisdiction over that port.

U.S. PORTS

PORT	QUARANTINE STATION
Albany	New York
Alexandria	New York
Anacortes	Seattle
Anchorage	Seattle
Ashtabula	Chicago
Astoria	Seattle
Atreco	Miami
Baltimore	New York
Bangor	New York
Baton Rouge	Miami
Baytown	Miami
Beaumont	Miami
Bellingham	Seattle
Benicia	San Francisco
Boston	New York
Brownsville	Miami
Brunswick	Miami
Buffalo	New York
Burnside	Miami
Cape Cod Canal	New York
Castle Island	Seattle
Charleston	New York
Chicago	Chicago
Cleveland	Chicago

PORT	QUARANTINE STATION
Coos Bay	Seattle
Cordova	Seattle
Corpus Christi	Miami
Deer Park	Miami
Destrehan	Miami
Detroit	Chicago
Duluth-Superior	Chicago
Erie	Chicago
Eureka	San Francisco
Everett	Seattle
Fall River	New York
Ferndale	Seattle
Freeport	Miami
Galena Park	Miami
Galveston	Miami
Geismar	Miami
Good Hope	Miami
Gramercy	Miami
Grays Harbor	Seattle
Green Bay	Chicago
Gulfport	Miami
Haines	Seattle
Hampton Roads	New York
Hilo	Honolulu
Homer	Seattle
Honolulu	Honolulu
Houston	Miami
Hueneme	Los Angeles
Huron	Chicago
Jacksonville	Miami
Juneau	Seattle
Kahului	Honolulu
Ketchikan	Seattle
Kings Bay	Miami
Kodiak	Seattle
Lake Charles	Miami
Long Beach	Los Angeles
Longview	Seattle
Los Angeles	Los Angeles
Magpetco	Miami
Metlakatla	Seattle
Miami	Miami
Milwaukee	Chicago
Mobile	Miami
Morehead City	New York
Myrtle Grove	Miami
Nawiliwili	Honolulu
New Bedford	New York
New Haven	New York
New London	New York
New Orleans	Miami
New York	New York
Nikiski	Seattle
Oakland	San Francisco
Ogdensburg	New York
Olympia	Seattle
Orange	Miami
Ostrica	Miami
Palm Beach	Miami
Panama City	Miami
Pasadena	Miami
Pascagoula	Miami
Pensacola	Miami
Petersburg	Seattle
Philadelphia	New York
Piney Point	New York
Port Adams	Miami
Port Angeles	Seattle
Port Arthur	Miami
Port Canaveral	Miami
Port Everglades	Miami
Port Huron	Chicago
Portland, Maine	New York
Portland, Oregon	Seattle
Port Lavaca/ Point Comfort	Miami
Port Neches	Miami
Port St. Joe	Miami
Port San Luis	Los Angeles
Port Sulphur	Miami
Redwood City	San Francisco
Richmond, California	San Francisco
Richmond, Virginia	New York
Riverhead	New York
Rochester	New York
Sacramento	San Francisco
San Diego	Los Angeles
San Francisco	San Francisco
Savannah	Miami
Searsport	New York
Seattle	Seattle
Seward	Seattle
Sitka	Seattle
Skagway	Seattle
Smiths Bluff	Miami
Stockton	San Francisco
Tacoma	Seattle
Tampa	Miami
Texas City	Miami
Toledo	Chicago
Valdez	Seattle
Vancouver	Seattle
Wilmington, Delaware	New York
Wilmington, North Carolina	New York
Wrangell	Seattle

The U.S. Public Health Service, Quarantine, station in Miami, Florida is also responsible for Ports in Puerto Rico and the U.S. Virgin Islands.

Masters of Vessels arriving at United States ports

Effective July 1, 1973, Radio Pratique as a method of Quarantine Clearance was discontinued at all ports under control of the United States.

Vessels Subject to Public Health Inspection

The only vessels that will be subject to on-board public health inspection upon arrival or during stay at ports under control of the United States are those carrying crew or passsengers having:

1. Temperature of 100°F.(38°C.) or greater, accompanied by a rash, glandular swelling, or jaundice, or which has persisted for more than 48 hours; or
2. Diarrhoea, defined as the occurrence in a 24-hour period of three of more loose stools or of greater than normal (for the person) amount of loose stools; or
3. On-board occurrence of death, regardless of the signs and symptoms above.

Procedures. In accordance with regulations you must inform the quarantine station, through your vessel's Agent, at or nearest the intended port of your vessel's first arrival in the United States of the occurrence of illness as specified above. Arriving vessels no longer need to complete a Maritime Public Health Declarataion.

These changes reflect our confidence that you will continue to report, in advance of arrival in the United States, the on-board occurrence of death or illness compatible with the signs and symptoms specified above, or death or illness while in port if such occurs after arrival.

AUTHORITY: Department of Health and Human Services, Centers for Disease Control, Program Operations Branch, Division of Quarantine CPS (EO3), Atlanta, Georgia, GA. 30333. *Tel:* (404) 639–2574.

CONTROLLED FLAG VESSELS:

SHIPPING AGENT GUIDELINES
UNITED STATES
PORT ENTRY REQUIREMENTS
FOR
CONTROLLED FLAG, CHARTERED AND
CREWED VESSELS
REVISED AUGUST 1986
PREVIOUS EDITIONS OBSOLETE
Issued by Department of Transportation
Commandant U.S. Coast Guard (G-MPS-2)
2100 2nd Street S.W.
Washington, DC 20593

1. GENERAL PROVISIONS

A. *INTRODUCTION:*

The purpose of this document is to clarify and explain administrative procedures for affected vessels. This document is intended to provide primary assistance to shipping Agents in arranging entry into United States ports for vessels they represent.

This document provides guidance for entry by commercial maritime vessels of certain nations into United States ports. These nations are Bulgaria, Czechoslovakia, German Democratic Republic, Hungary, Poland, Romania, Union of Soviet Socialist Republics, and the People's Republic of China. Interested parties should note that vessels registered to, owned or operated by, or chartered by *Albania, Cambodia, Cuba, the People's Republic of Korea (North Korea), Vietnam, Iran, Nicaragua, Libya, South Yemen, and Syria are not permitted entry into the U.S. territorial sea or ports* (except as in certain cases stated in section "F"). The requirements apply to the Owner, Master, Agent or person in charge of commercial maritime vessels of these nations. The requirements apply also to the commercial maritime vessels of other nations which are owned by, chartered to or employ citizens of these nations. Adherence to these requirements will facilitate legitimate entry of the vessels to which the requirements apply. The requirements do not apply to entry by public vessels of these nations. Public vessel entry applications are handled only on a government-to-government basis.

Access to U.S. ports by any foreign vessel is subject to compliance with applicable laws and regulations of the Federal Government and of state and local authorities in the areas wherein they have jurisdiction. United States port entry procedures and applicable Federal laws and regulations apply generally to all foreign vessels. Specific mention is made in this document of those limited instances where commercial maritime vessels of certain nations are treated differently from other foreign vessels.

National security interests require that the movement of any vessel within the territorial waters of the United States be subject to U.S. Government review. Authority for this is found in Title 50, United States Code, Section 191, Executive Order 10173 as amended, and Title 33 Code of Federal Regulations, Part 6. These authorities are exercised by the U.S. Coast Guard. The requirements herein are intended to expedite this review for vessels to which the requirements apply.

Additionally, these requirements implement and support provisions of treaties, conventions, agreements and similar instruments in force between the government of the United States and the governments of certain nations concerning maritime matters. Interested parties are advised that Title 1, United States Code, Section 112a directs the Secretary of State to compile a publication *"United States Treaties and Other International Agreements* (UST) which shall contain all treaties to which the United States is a party . . ." It also states that the UST "shall be legal evidence of the treaties, . . . in all courts of the United States, . . ." In some instances, these instruments and supporting documents state specific procedures for entry to United States ports, and should be consulted for a complete understanding of requirements applicable to affected vessels. This document addresses only those port entry requirements administered by the United States Coast Guard.

B. *DEFINITIONS:*

1. *4-Day Notice:* This period is *exactly* 96 hours. It commences at the precise hour and minute that the Agent's entry application message is received in Coast Guard Headquarters. Weekends and Federal holidays have no effect on 4-Day Notices. 4-Day Notices should not be submitted more than 2 weeks in advance of the first desired U.S. port call.

2. *4-Working Day Request:* This period excludes the day of receipt, day of entry, weekend, and Federal holidays. For example, to obtain clearance for a ship to call on a Tuesday, the request is required in Coast Guard Headquarters no later than the preceding Tuesday provided no Federal holidays are involved. 4-Working Day Requests may not be submitted more than 2 weeks in advance of the first desired U.S. port call.

3. *7-Working Day Request.* This period excludes the day of receipt, day of entry, weekends, and Federal holidays. For example, to obtain clearance for a ship to call on a Monday the request is required in Coast Guard Headquarters no later than the Wednesday 12 days preceding provided no Federal holidays are involved. 7-Working Day Requests may not be submitted more than 3 weeks in advance of the vessel's first desired U.S. port call.

4. *14-Day Request.* This period excludes the day of receipt only; not day of entry, weekends, or Federal holidays. For example, to obtain clearance for a ship to call on the 15th of the month, the request is required in Coast Guard Headquarters by no later than the 1st of that month. 14-Day Requests may not be submitted more than 4 weeks in advance of the first desired U.S. port call.

5. *Government-to-Government.* These requests are co-ordinated at embassy level. They are handled through diplomatic channels between the 2 governments only. When the initial U.S. entry request is government-to-government and future itinerary changes are desired, those also *must be handled on a government-to-government basis.*

6. *Agent-to-Coast Guard.* Co-ordination of applicable port entry requests, itinerary changes, and special waivers are specifically conducted between the USCG Headquarters Special Interest Vessel Desk and the U.S. Shipping Agent representing vessels covered by these guidelines.

7. *U.S. Coast Guard's Special Interest Vessel (SIV) Desk.* The individual entry of all vessel's covered by these guidelines into the U.S. territorial sea and ports is co-ordinated by the USCG's SIV Desk. Under direction of the Chief, Port Security Branch, USCG Headquarters (G-MPS-2), the SIV Desk annually co-ordinates approximately 1,000 port calls. The SIV Desk is available 24 hours a day. During working hours, call (202) 267-0476; after hours and weekends, call Coast Guard Headquarters Flag Plot at (202) 267-2100 for non-routine matters and ask for the Port Security Watch Officer.

8. *Port Call.* A port call includes anchoring or mooring *within the territorial sea or internal waters of the geographical limit of the port area described in Section "B"*. It may be within these limits as long as they are either en route to an approved port call or departing from such a port call. These vessels must have a Commandant approved itinerary and entry date-time "window" for any U.S. port call (see Section "A4"). In addition, a required 24-hour advance notice of arrival (33 CFR 160.207) (see Section "A5") is *mandatory* for all vessels to submit to the local Coast Guard Captain of the Port (COTP). Good communications with Coast Guard COTP's, Coast Guard vessel traffic services, liaison with Pilots, Port Authorities, U.S. Customs, and U.S. Immigration and Naturalisation will enable shipping Agents to efficiently move their vessels without delays.

9. *Port Area Descriptions.* Geographical Port Limits are defined for certain U.S. ports for purposes of administering this programme. The port descriptions were developed for use in negotiating maritime agreements and apply to port calls involving the countries covered by these guidelines. Port areas for which there is no geographical description are considered to include that area which encompasses the physical facilities of the port, the internal water approaches, and the seaward approaches to the limits of the territorial sea.

U.S. Port	*Geographical Description*
Alameda, California	(see San Francisco).
Albany, New York	Hudson River bounded by Rensselaer County to the East and Albany County to the West.
Anchorage, Alaska	Waters of Cook Inlet Northward from line drawn between Cape Douglas and Cape Elizabeth.
Astoria, Oregon	Coincident with Clatsop County, Oregon.
Baltimore, Maryland	North and West of a line from North Point to Bodkin Point, but including Annapolis anchorage area between the Chesapeake Bay Bridge and Kent Point.
Baton Rouge, Louisiana	Mississippi River Mile 170 to 255.2.
Bay City, Michigan	Saginaw River Mouth to navigable limit.
Beaumont, Texas	The Neches River from the Intracoastal Waterway (ICW) to Interstate 10 Bridge.
Bellingham, Washington	Bellingham Bay.
Berkeley, California	(See San Francisco).
Boca Grande, Florida	Boca Grande Channel from sea buoy to Port Boca Grande on Gasparilla Island.
Boston, Massachusetts	Boston Harbour proper, including Mystic River and Chelsea River to limit of navigation.
U.S. Port	*Geographical Description*
Brownsville, Texas	The Brownsville Ship Channel from the sea buoy to the Brownsville Turning Basin.
Burnside, Louisiana	Mississippi River mile 155 to mile 170.
Camden, New Jersey	(See Philadelphia).
Charleston, South Carolina	(See Section "C"). Same as MSO Charleston COTP zone limits.
Chicago, Illinois	Between Burns Harbour (including Burns Waterway Harbour) and Northern limits of Chicago Harbour, inlcuding Lake Calumet and other waterways, inland to intersection of the Chicago Sanitary and Ship Canal with Calumet Sag Channel.
Cleveland, Ohio	Cleveland Harbour, including Cuyahoga River to limits of navigation.
Coos Bay, Oregon (including North Bend)	All of Coos Bay to North of Coos River.
Corpus Christi, Texas	The Corpus Christi Channel from the sea buoy to the Viola Turning Basin, and the La Quinta Channel from its junction to the Corpus Christi Channel.
Duluth, Minnesota/Superior, Wisconsin	Duluth/Superior Harbour only.
Erie, Pennsylvania	Erie Harbour located within Presque Isle Bay.
Eureka, California	Humboldt Bay.
Everett, Washington	N.E. end of Possession Sound.
Fall River, Massachusetts	Mount Hope Bay and Taunton River coincident with corporate limits of the city of Fall River.
Galveston/Texas City, Texas	The Galveston and Texas City Channels from their intersection with the Houston Ship Channel to their respective Turning Basins.
Georgetown, South Carolina	Entrance channel between Sand and North Islands and North Island at South Island bend through Wingah Bay, including all Georgetown and Sampit River, North to where Waccamaw River and Pee Dee River merge at U.S. Route 17 into Winyah Bay.
Gulfport, Mississippi	Ship Island Pass and Gulfport Ship Channel from the sea buoy to the harbour basin.
Hampton Roads (including Norfolk, Newport News, Jamestown, Yorktown, Portsmouth, Virginia and access to the James River.)	(See Section "C").
Honolulu, Hawaii	(See Section "C"). Honolulu Harbour proper.
Hilo, Hawaii	Eastern end of Kohio Bay on N.E. coast of the Island of Hawaii.
Houston, Texas	The Houston Ship Channel from Five Mile Cut to the Houston Turning Basin and the Bayport Turning Basin.
Kenosha, Wisconsin	Kenosha Harbour proper.
Ketchikan, Alaska	Tongas Narrows, N.E. of a line between Mountain Point and Gravina Point, and S.E. of a line between Point Higgins and Guard Island, and including Vallendar Bay.
Long Beach, California (including Eastern part of Terminal Island).	That portion of San Pedro Bay and Cerritos Channel within the City of Long Beach, California.
Longview, Washington	Columbia River between Mile 62 and Mile 70.
Los Angeles, California (including San Pedro, Wilmington, and Western Terminal Island)	That portion of San Pedro Bay and Cerrritos Channel within the City of Los Angeles, California.
Milwaukee, Wisconsin	Milwaukee Harbour and Rivers to limits of navigation within Milwaukee breakwater.
Mobile, Alabama	The Mobile Ship Channel from the sea buoy to the Cochran Bridge, and the Hollinger's Island Channel from its junction with the Mobile Ship Channel.
Morehead City, North Carolina	Morehead City Harbour, including Radio Island from the sea buoy at Beaufort Inlet, North Carolina.
New London and Groton, Connecticut	(See Section "C").
New Orleans, Louisiana	Sea Buoy to Mississippi River Mile 155.
New York, New York (including both the New York and New Jersey parts of the New York Port Authority.)	From highway route No. 740 South, West from Sandy Hook to Condy Island, North to George Washington Bridge, East to Throg's Neck.
North Bend, Oregon	(See Coos Bay).
Oakland, California	(See San Francisco).
Olympia, Washington	Coincident with Thurston County, Washington.
Orange, Texas	The ICW from Mile 276.5 to Mile 265; the Sabine River from the intersection with the ICW; North to the Navy Yard.
Panama City, Florida	(See Section "C").

U.S. Port	*Geographical Description*
Pensacola City, Florida	(See Section "C").
Philadelphia, Pennsylvania (including Camden)	Trenton, New Jersey to the Delaware state line.
Ponce, Puerto Rico	Playa de Ponce only.
Port Arthur, Texas	The ICW from Mile 276.5 to Mile 288.5 including the East Basin, West Basin, and Turning Basin of Taylor Bayou.
Port Everglades, Florida	Port Everglades coincident with Broward County, Florida.
Portland, Maine	Hussey Sound and Fare River to combined fixed railroad and highway bridge (Route 1 Bridge).
Portland, Oregon	Three Oregon Counties: Multnomah, Clackamas, and Washington, and the Port of Vancouver, Washington.
Portsmouth, New Hampshire (including Kittery, Maine, and Dover, New Hamshire, on the Piscataqua River).	(See Section "C").
Port Canaveral, Florida	(See Section "C").
Port Hueneme, California	(See Section "C").
Port St. Joe, Florida	(See Section "C").
Richmond, California	(See San Francisco.)
Richmond, Virginia	James River from Benjamin Harrison Memorial Bridge, Hopewell, Virginia, to limits of navigation.)
San Diego, California	(See Section "C").
Sacramento, California	Sacramento Harbour proper, Sacremento River to limits of navigation.
San Francisco, California (including Alameda, Oakland, Berkeley, and Richmond).	San Francisco Bay, South of Richmond/ San Rafael Bridge.
San Pedro, California	(See Los Angeles).
Savannah, Georgia	Savannah River from the Route 17 Bridge to the territorial sea limit.
Seattle, Washington	Coincident with King County, Washington.
Stockton, California	Stockton Harbour proper and San Joaquin River to limits of navigation.
Skagway, Alaska	Taiya Point (in Tiaya Inlet on Lynn Canal) to the town of Skagway, Alaska.
Superior, Wisconsin	(See Duluth).
Tacoma, Washington	Coincident with Pierce County, Washington.
Tampa, Florida	That portion of Tampa Bay contained within Hillsborough County.
Terminal Island, California	(See Los Angeles).
Texas City, Texas	(See Galveston).
Toledo, Ohio	Maumee River to limits of navigation.
Vancouver, Washington	(See Portland, Oregon).
Wilmington, California	(See Los Angeles).
Wilmington, Delaware	Extending from the Mouth of the Christina River Westward to the Third Street Bascule Bridge (39° 44.06′ N., 79° 30.16′ W.).
Wilmington, North Carolina	The Cape Fear River from the Sea Buoy to Point Peter, and then the N.E. River to the Turning Basin at Mile 2.

C. UNAVAILABLE (CLOSED) PORTS:

The following ports are UNAVAILABLE to Warsaw Pact flag, owned or operated, or registered vessels. Free-flag vessels crewed with Warsaw Pact nationals or Non-Entrant nationals may be denied entry into these ports pending removal of certain of these crew members. *For crew make-up vessels, Agents should refer to Section E.*

1. Portsmouth, New Hampshire (includes Kittery, Maine and Dover, New Hampshire on the Piscataqua River).
2. New London and Groton, Connecticut.
3. Hampton Roads, Virginia (including Norfolk, Jamestown, Yorktown, Newport News and Portsmouth Va, and access to James River).
4. Charleston, South Carolina.
5. Kings Bay, Georgia.
6. Port Canaveral, Forida.
7. Panama City, Florida.
8. Pensacola, Florida.
9. Port St. Joe, Florida.
10. San Diego, California.
11. Port Hueneme, California.
12. Honolulu, Hawaii.

D. CHARTERED VESSELS.

The U.S. Port Security Programme applies to "free flag" vessels chartered or crewed with nationals from countries covered by these guidelines, as well as to the flag vessels of the countries previously mentioned. Since flag vessels furnish a required advance itinerary request or notice in accordance with these guidelines, they seldom experience delays when entering U.S. ports once approval is granted. In the case of "free flag" vessels chartered by these countries, it is recommended that the shipping Agent provide charter information in advance to the local Coast Guard upon submitting the required 24-hour advance notice of arrival. *When advance information is provided to the Coast Guard, a vessel chartered to one of these countries, in all likelihood, will receive delay-free entry.* Conversely, in those cases where charter information is brought to Coast Guards attention by other means, there may be delays while processing the entry. Providing advance charter notification will in most cases expedite the vessel's entry, and thus it is clearly in the vessel's best interest. (Note: Vessels chartered to Non-Entrant nations are not allowed entry into U.S. ports.)

E. CREW MAKE-UP VESSELS:

Free-flag vessels with Warsaw Pact or Non-Entrant national crew members on board occasionally seek entry to U.S. ports. These crew members may be restricted from entering certain U.S. ports, especially those ports listed as UNAVAILABLE in Section C. Additonally, the presence of these crew members on board free-flag vessels may constitute a security risk in AVAILABLE ports and, therefore, be subject to restriction on board the vessel. If prior information is furnished concerning the presence of such crew members, problems involving the vessel's entry to a U.S. port can be resolved in advance of the vessel's arrival. Vessel delays can be minimised if this crew information is provided to the local Coast Guard and the local Immigration and Naturalisation Service (INS) office with the normal 24-hour advance notice of arrival in accordance with 33 CFR 160.207. *Agents should submit proposals to the Coast Guard Headquarters Special Interest Vessel Desk (G-MPS-2), (see Annex D), for the removal or restriction of those crew members prior to the vessel's entry into the U.S. territorial sea and ports.* Removal is co-ordinated with Coast Guard Headquarters (G-MPS-2), the local Coast Guard COTP, and the local INS office. Proposals for removal should normally specify location, method, and date of removal, the location where the crew member(s) will be kept (normally under guard supplied by the Agent) and the location, method, and date the crew member(s) will be returned to the ship. The names and positions of the crew members should also be noted in the proposal message. *Each proposal is evaluated on a case-by-case basis.* Agents should allow for a minimum of 48 hours for the processing of these proposals.

F. UNUSUAL ENTRIES:

1. *National Marine Fisheries Service (NMFS) Observer/Programme.* Under Authority of the Fisheries Conservation Management Act, NMFS can place U.S. observers aboard foreign fishing vessels while they fish within the U.S. 200-mile Fisheries Conservation Zone (also referred to as the Exclusive Economic Zone by Presidential proclamation of March 10th, 1982). In some instances, it is advantageous for a foreign fishing vessel to enter the U.S. 3-mile territorial sea briefly to embark/disembark a NMFS observer. When specifically authorised by the Commandant, a Coast Guard District Commander may permit brief entry of commercial fishing vessels of countries subject to these guidelines into the territorial sea of the U.S. for the sole purpose of embarking/disembarking NMFS observers.

Note: To date, this Authority has been delegated to the Commander, Coast Guard Pacific Area and Commander, Seventeenth Coast Guard District for Pacific and Alaskan U.S. territorial sea. These fishing vessels must have a valid Governing International Fishing Agreement (GIFA) permit).

(a) Entry of these vessels for any purpose other than, or in addition to, NMFS observer transfer must be approved by the Commandant.

(b) Vessels ordered or permitted to enter U.S. waters to effect NMFS observer transfers need not provide a 24-hour Advance Notice of Arrival in accordance with 33 CFR 160.207; however, vessels must notify the local Coast Guard of their arrival and departure times into and out of the U.S. territorial sea.

(c) Vessels permitted entry under this Authority must return to international waters immediately upon transfer of observers.

(d) Vessel's Agents should submit their proposal for NMFS observer transfer in Alaskan waters direct to: "Commander, Seventeeth Coast Guard District, Juneau, Alaska; Telex: 09945305, Answerback US Cogard Jnu." NMFS transfers requests for other West coast ports should be submitted to: "Commander, U.S. Coast Guard Pacific Area, Alameda, California; Telex: 172343, Answerback: CG ALDA." For all other NMFS observer transfers to occur in the U.S. territorial sea, Agents should submit their proposals to "Commandant (G-MPS), U.S. Coast Guard, Washington, D.C.; Telex: 89-2427. Answerback: Coast Guardwash."

Note: For all cases of unusual entry, vessels discharging oil into the U.S. territorial seas and the contiguous zone are liable for cleanup costs and subject to a civil penalty under the Federal Water Pollution Act. A Certificate of Financial responsibility (COFR) is required before entering the U.S. territorial sea.)

2. *U.S.-Warsaw Pact Co-operative Marine Scientific Research.* When specifically authorised by the Commandant, a Coast Guard District Commander may permit brief entry of research vessels (ocean and fishing) of countries subject to these guidelines into the territorial sea of the U.S. for the sole purpose of embarking/disembarking U.S. scientists and their equipment.

Note: To date, this Authority has been delegated to the Commander, Coast Guard Pacific Area and Commander, Seventeenth Coast Guard District for Pacific and Alaskan U.S. territorial sea.

(a) Entry of these vessels for any purpose other than, or in addition to, U.S. scientist and equipment transfers must be approved by the Commandant.

(b) Vessels permitted to enter U.S. waters to effect U.S. scientist and equipment transfers need not provide a 24-hour Advance Notice of Arrival in accordance with 33 CFR 160.207; however, vessels must notify the Coast Guard of their arrival and departure times into and out of the U.S. territorial sea.

(c) Vessels permitted entry under this Authority must return to international waters immediataely upon transfer of the scientists and their equipment.

Vessel's Agents should submit their proposal for U.S. scientist and equipment transfer in Alaskan waters direct to: "Commander, Seventeenth Coast Guard District, Juneau, Alaska; Telex: 09945305 Answerback: US Cogard Jnu." Scientist tranfer requests for other West coast waters should be submitted to: Commander, U.S. Coast Guard Pacific Area, Alameda, California; Telex: 172343, Answerback: CG Alda." For all other U.S. scientist and equipment transfers to occur in the U.S. territorial sea, Agents should submit their proposals to "Commandant (G-MPS), U.S. Coast Guard, Washington, D.C. Telex: 89-2427. Answerback: Coast Guardwash."

Note: For all cases of unusual entry, vessels discharging oil into the U.S. territorial seas and the contiguous zone are liable for clean-up costs and subject to a civil penalty under the Federal Water Pollution Act. A Certificate of Financial Responsibility (COFR) is required for entry into the U.S. territorial sea.

3. *Force Majeure.* In accordance with this international doctrine, a foreign vessel may enter the U.S. territorial sea under a condition of force majeure. The Coast Guard COTP is to be notified before the vessel's entry into the U.S. territorial sea. Original declaration of force majeure is subject to corroboration by the Coast Guard.

4. *Innocent Passage.* Innocent passage is navigation through the territorial sea for the purpose of traversing that sea without entering internal waters for lawful entry, or from internal waters following lawful clearance to the high seas. It may include stopping or anchoring only when this is incident to ordinary navigation (such as when awaiting a favourable tide to traverse a particular narrows) or when rendered necessary by force majeure or by distress. *Innocent passage specifically does not include hovering, stopping or anchoring for other reasons, and it does not include fishing.* Anchoring or slow steaming within the U.S. territorial sea to avoid early arrival in a port for which the vessel holds an approved itinerary will not be considered innocent passage and will result in cancellation of the vessel's intinerary, except when the vessel's movements are directed by Coast Guard Vessel Traffic Service (VTS) for purposes of safety of navigation.

5. *Medical Emergency.* From time to time it may be necessary to remove crew men in need of *immediate* medical attention from foreign flag vessels. Vessels not previously approved for a U.S. port of call may enter U.S. waters for the sole purpose of transferring crew in need of medical attention. The local Coast Guard COTP is to be notified before entry as soon as possible. Upon completion of such transfer the vessel must depart the U.S. territorial sea. Repatriation of foreign nationals who have been evacuated for emergency medical treatment should be arranged and paid for by their native countries. Requests for vessel entry for the purpose of repatriating their nationals should be forwarded to "Commandant (G-MPS), U.S. Coast Guard, Washington, D.C.; Telex: 89-2427, Answerback: Coast Guardwash." Each request will be treated on a case-by-case basis.

G. NON-ENTRANTS:

Interested parties should note that vessel registered to or chartered by *Albania, Cambodia, Cuba, the People's Republic of Korea (North Korea), Vietnam, Iran, Nicaragua, Libya, South Yemen, and Syria* are not permitted entry into U.S. territorial sea except under conditions of force majeure, medical emergency, innocent passage or a Canadian approved passage of the St. Lawrence Seaway en route to Canadian ports.

H. REMOTE PORTS UNDER U.S. JURISDICTION:

The requirements of this programme apply to remote Alaskan ports as well as to Guam, American Samoa and the Commonwealth of the Northern Marianas Islands (CNMI).

I. DEEPWATER PORTS:

Port calls at U.S. deepwater ports require the same conditions of advance notification for entry as applicable in U.S. coastal ports.

II. SPECIFIC REQUIREMENTS: FOR FLAG VESSELS.

A. *PORT ENTRY APPLICATION REQUIREMENTS:*

1. *General:* All Port Entry Applications must be in writing. However, telephone inquiries are welcome during normal business hours (0700 to 1530 Eastern Time). The Special Interest Vessel desk, in the Port Security branch at U.S. Coast Guard Headquarters, can be reached by calling (202) 267-0475/6. For non-business hour emergencies, call U.S. Coast Guard Headquarters Flag Plot (Situation Room) at (202) 267-2100. Port Entry Applications (except Government-to-Government requests) should be submitted by the vessel's Agent direct to Coast Guard Headquarters. *Telex messages are preferred.* Port Entry Applications will *not* be accepted by local or regional Coast Guard Commands. Make application only to one of the following Coast Guard Headquarters addresses:

(a). Telex address: "Commandant (G-MPS), U.S. Coast Guard, Washington, D.C. 20593" Telex No. 89-2427. Answerback: "Coast Guardwash".

(b) TWX address: "Commandant (G-MPS), U.S. Coast Guard, Washington, D.C. 20593" TWX No. 710-822-1959. Answerback: "Cgdotwsh".

(c) Western Union address: "Commandant (G-MPS), U.S. Coast Guard, 2100 2nd Street S.W., Washington, D.C. 20593 (Prepaid)".

2. *Required Information:* All Port Entry Applications must provide certain information in an orderly manner. See example formats provided in Annex B of this document for additional information. Agents should *double check all information,* including spelling of foreign translations, since incorrectly submitted applications may lead to entry delays. All port entry applications should include the following:

(a) The Agent's complete address, commercial telephone number, and Telex/TWX number with answerback code or Western Union address.

(b) Appropriate message title identification: For example, 4-day notice, 4-working day request, 7-working day request, or 14-day request.

(c) Itinerary number: For example, Initial Itinerary, or Change 1, 2, 3, etc.

(d) Vessel type: This information must precede the vessel's name; however, in most cases you can use an abbreviation as follows:

Merchant Vessel	M/V
Passenger Vessel	P/V
Fishing Vessel	F/V
Fishing Support Vessel	F/V
Fishing Research Vessel	None authorised
Hydrographic Research Vessel	None authorised

(e) Vessel's name, call sign, flag and Lloyd's number.

(f) Itinerary Information:

i. Desired U.S. Port of Call.

ii. Desired arrival *and* departure dates.

(g) Cargo information, although optional, is desired.

(h) Last foreign Port of Call, if known.

(i) Masters' name.

(j) Next Foreign Port of Call.

3. *Arrival and departure dates:*

(a) Only one day overlap is allowed for multiple port calls (i.e. New York 6/17-19, Philadelphia 6/19-21, Baltimore 6/21-6/27).

(b) Should any single port call exceed two weeks, your Port Entry Application must include an explanation of why.

(c) All approved itineraries *automatically* terminate upon the vessel's departure for a foreign port of call, except when the vessel departs for Canadian ports, which have been noted on the Port Entry Application message.

(d) The vessel's official notification period commences upon receipt of the Agent's request or notice at Coast Guard Headquarters. By return message, Coast Guard Headquarters will inform the Agent of the exact Greenwich Mean Time (GMT) his message was received. All entry and departure times are calculated and specified in GMT. Conversion to local time is the responsibility of the vessel and Agent.

4. *Approved Itinerary Entry Times.* If the vessel's itinerary is approved, the Agent is notified by a USCG Headquarters (G-MPS) message which specifies the official entry date-time or "window". Port entry and departure dates begin and end at midnight Greenwich Mean Time (GMT) (for example, an entry period approved for 12/28-01/03 is from 0001 GMT on 28th December until 0001 GMT on 4th January). The vessel has 24 hours after the starting date/time to enter that specific port (for example, from 0001 GMT 28th December until 0001 GMT 29th December). Upon releasing the Agent's message, USCG Headquarters (G-MPS) sends an entry approval notification message to the appropriate local Coast Guard commands specifying the approved entry "window" for the vessel.

5. *24-hour Advance Notice of Arrival.* None of the procedures outlined in this document relieves the Master or Agent of his legal requirement to provide 24-hour advance notice or arrival to each local Coast Guard Captain of the Port (33 CFR 160.207) and compliance with other applicable laws and regulations.

6. *Denials.* Vessels will be denied U.S. entry when there is insufficient information or insufficient advance notification in the Agent's application messages. *However, this does not prevent the Agent from submitting a new corrected entry application for the vessel.* In such cases, the official notification period commences upon receipt of the corrected entry application, *not the original entry application* which was denied. Occasionally an Agent's initial entry application may request that a portion of the official notification period be waived. In the event the waiver is denied, the Coast Guard may recognise the time of receipt of the waiver is denied, the Coast Guard may recognise the time of receipt of the waiver request as the official notification period. Only if the initial entry request specifically states that a waiver is requested would this consideration be recognised.

7. *Early Arrival:* A vessel which holds an approved itinerary for a United States port entry shall not enter the U.S. territorial sea earlier than necessary to make an expeditious passage to the port for which the itinerary was approved. Deliberate slow steaming or anchoring within the U.S. territorial sea to avoid early arrival will not be considered innocent passage and will result in cancellation of the vessel's itinerary.

B. *ITINERARY CHANGE REQUESTS:*

1. *General:* Agents seek Itinerary Change Requests generally for three reasons: (i) to add ports, (ii) to change the prior Coast Guard approved port call sequence and/or dates, and (iii) to cancel planned port calls after receiving Coast Guard approval to enter. In each case, *the Agent's message request must list the vessel's full remaining itinerary, in addition to the desired change. Failure to list the vessel's entire desired U.S. calls will lead to automatic cancellation of the vessel's itinerary other than the requested change.* Use the same message procedures outlined in the prior section (Port Entry Application Requirements) for Itinerary Change Requests. Actions applicable to the three type of Itinerary Change Requests follow:

2. *Additional Port Calls:* Request for additional port calls are reviewed using the same criteria as for initial port calls. Details as follows:

(i) When the criteria calls for an initial government-to-government request, all requests for additional ports must be made at the Embassy level.

(ii) Agent message should be titled CHANGE 1, 2, 3, etc.

3. *Change Port Call Sequence/Dates:* Change requests to a vessel's approved port call sequence/dates are accepted by the Coast Guard, and in some cases approved, provided the following criteria are met:

(i) The initial port request was not government-to-government. (All others which are government-to-government must continue to be handled at the Embassy level).

(ii) Prior Coast Guard approval was given for the vessel to initially enter the port.

(iii) The itinerary change request was submitted far enough in advance. For example, the maximum processing time needed within the Government ranges from 14 days for a "14-Day Request Port" to 96 hours for a "4-Day Notice Port". However, the Coast Guard will try to expedite whenever possible. Normally 48 hours is the minimum processing time required by the Coast Guard to process an itinerary change request. Whenever possible, the Coast Guard will try to expedite the itinerary changes, however, requests made within the minimum processing time may be delayed.

REMEMBER – The vessel's entire U.S. itinerary must be contained in the message requesting port call sequence or date changes. When a port is not mentioned, the Coast Guard concludes that the port is no longer desired and will delete it from the approved itinerary.

4. *Cancelled Port Calls:* Occasionally cargo loading plans change and certain U.S. port calls may not be desired even though they have previously been requested. Agents should notify the Coast Guard of cancelled port calls as far in advance as possible. Failure to arrive at a port will lead to a vessel's remaining itinerary being cancelled, while, re-entry to a previously approved port will require the minimum entry requirement.

5. *Waivers:* The Coast Guard recognizes that unusual circumstances arise which require Agents to request waivers. Approval of waiver requests will tend to be the exception rather than the rule and all waiver requests should be well documented.

Waiver requests will normally be processed within 48 hours; however, do not consider this a guaranteed time frame.

6. *Late Arrival Notices:* Will, in most cases, be accepted by the Coast Guard in lieu of Itinerary Change Requests. While strictly optional, Late Arrival Notices do provide Agents with a simplified means to extend by 24 hours, the approved entry date. (see Example 3 of Annex B for additional details).

6a. In most cases, automatic late entry privileges will be extended to the vessel. Return message traffic will not be sent to the Agent unless late entry is denied. The following criteria apply:

(1) Late Arrival Notices may be submitted for any vessel which has prior Coast Guard approval to enter the U.S. including those processed as government-to-government.

(2) Only *one* Late Arrival Notice may be submitted per vessel per port of call.

(3) The Late Arrival Notice does not change the vessel's approved official entry or departure time. It does, however, delay by 24 hours cancellation of a vessel's itinerary lacking an approved itinerary change request. Itinerary Change Requests and government-to-government requests remain the only means of changing the vessel's official entry or departure time.

(4) The Late Arrival Notice does not replace or eliminate the requirement for 24 hour advance notice of arrival to each local Coast Guard COTP or Marine Safety Office (MSO).

ANNEX A:

Specific Entry Requirements.

Specific entry requirements for vessels registered in Bulgaria, Czechoslovakia, German Democratic Republic, Hungary, Poland, Romania, the Union of Soviet Socialist Republics and the Peoples' Republic of China are contained in Appendices 1 through 8 respectively. National security interests require that vessels registered in Bulgaria, Czechoslovakia, German Democratic Republic, Hungary, Romania and the Union of Soviet Socialist Republics be prohibited entry to selected U.S. ports. Additionally, personnel from these countries serving as crew members aboard "free flag" vessels may require removal prior to the vessel entering selected ports. All non-public vessels are subject to a U.S. Coast Guard boarding at anytime. This may be, but is not limited to, the first port of call. Questions concerning these and other port entry matters should be directed to the vessel entry desk at Coast Guard Headquarters at (202) 267-0775/6.

Appendix 1 – Bulgaria (BU).
Appendix 2 – Czechoslovakia (CZ).
Appendix 3 – German Democratic Republic (GC).
Appendix 4 – Hungary (HU).
Appendix 5 – Poland (PL).
Appendix 6 – Romania (RO).
Appendix 7 – Union of Soviet Socialist Republics (UR).
Appendix 8 – Peoples' Republic of China (CH).

Appendix 1 to Annex A:

BULGARIA (BU)

A. *Merchant and Passenger Vessels.*

1. Requirements: 7-working day request for all available U.S. ports. Vessel's Agent to submit port call applications to U.S. Coast Guard Headquarters (G-MPS).

B. *Fishing Vessels.*

1. Fishing vessels (includes fishing support vessels) authorised by the Fisheries Conservation and Management Act of 1976 (PL 94-265) are permitted to enter selected ports upon providing notice to Commandant U.S. Coast Guard (G-WPE) at least 4 days in advance of the desired entry. Those ports include:

Astoria Or
Baltimore Md
Boston Ma
Coos Bay Or
Eureka Ca
New York NY
Philadelphia Pa

2. Entry to all other available U.S. ports are subject to requests submitted on a government-to-government basis at least 14 days in advance of the desired entry date.

3. The U.S./Bulgaria GIFA currently in effect expires 1st July, 1988.

C. *Research Vessels.*

1. All research vessels must submit requests for entry on a government-to-government basis at least 14 days in advance of the desired entry date.

D. *Public Vessels.*

1. All public vessel entry applications are handled on a government-to-government basis.

Appendix 2 to Annex A:

CZECHOSLOVAKIA (CZ)

A. *Merchant and Passenger Vessels.*

1. Requirements: 7-working day request for all available U.S. ports. Vessel's Agent to submit port call applications to U.S. Coast Guard Headquarters (G-MPS).

B. *Fishing Vessels.*

1. Entry to all available U.S. ports for fishing vessels are subject to requests submitted on a government-to-government basis at least 14 days in advance of the desired entry date.

C. *Research Vessels.*

1. All research vessels must submit requests for entry on a government-to-government basis at least 14 days in advance of the desired entry date.

D. *Public Vessels.*

1. All public vessel entry applications are handled on a government-to-government basis.

Appendix 3 to Annex A:

GERMAN DEMOCRATIC REPUBLIC (GC)

A. *Merchant and Passenger Vessels.*

1. Requirements: 7-working day request for all available U.S. ports. Vessel's Agent to submit port call applications to U.S. Coast Guard Headquarters (G-MPS).

B. *Fishing Vessels and Fisheries Research Vessels.*

1. Under provisions of the U.S./German Democratic Republic Governing International Fishing Agreement (GIFA), fishing vessels (including fishing support vessels and fisheries research vessels) authorised by the Fisheries Conservation and Management Act of 1976 (PL 94-265) are permitted to enter selected ports upon providing notice to USCG Headquarters (G-MOS) at least 4 days in advance of the desired entry. those ports include:

Baltimore, Maryland,
Boston, Massachusetts,
New York, New York,
Philadelphia, Pennsylvania.

Fisheries research vessels are also permitted entry to the following select ports, under the provisions of the U.S./German Democratic Republic GIFA, upon providing notice to USCG Headquarters (G-MPS) at least 4 days in advance of desired entry:

Buzzards Bay, Massachusetts,
Woods Hole, Massachusetts.

2. Entry requests for all other available U.S. ports must be submitted on a government-to-government basis at least 14 days in advance of the desired entry date.

3. The U.S./German Democratic Republic GIFA currently in effect expires July, 1988.

C. *Research Vessels.*

1. All research vessels (including fishing research vessels) must submit requests for entry on a government-to-government basis at least 14 days in advance of the desired entry date.

D. *Public Vessels.*

1. All public vessel entry applications are handled on a government-to-government basis.

Appendix 4 to Annex A:

HUNGARY (HU)

A. *Merchant and Passenger Vessels.*

1. Requirements: 4-Working day request for all available U.S. ports Vessel's Agent to submit port call applications to U.S. Coast Guard Headquarters (G-MPS).

B. *Fishing Vessels.*

1. Entry to all available U.S. ports for fishing vessels is subject to requests submitted on a government-to-government basis at least 14 days in advance of the desired entry date.

C. *Research Vessels.*

1. All research vessels must submit requests for entry on a government-to-government basis at least 14 days in advance of the desired entry date.

D. *Public Vessels.*

1. All public vessel entry applications are handled on a government-to-government basis.

Appendix 5 to Annex A:

POLAND (PL)

A. *Merchant and Passenger Vessels.*

1. Requirements: 4-Working day request for all availble U.S. ports. Vessel's Agent to submit port call applications to U.S. Coast Guard Headquarters (G-MPS).

B. *Fishing Vessels.*

1. Fishing vessels (includes fishing support vessels) authorised by the Fisheries Conservation and Management Act of 1976 (PL 94-265) are permitted to enter selected ports upon providing notice to Commandant U.S. Coast Guard (G-MPS) at least 4 days in advance of the desired entry. Those ports include:

Astoria Or
Baltimore Md
Boston Ma
Coos Bay Or
Camden NJ
Dutch Harbour Ak
New York NY
Philadelphia Pa
San Francisco Ca
Seward Ak

2. Entry to all other available U.S. ports are subject to requests submitted on a government-to-government basis at least 14 days in advance of the desired entry date.

C. *Research Vessels.*

1. All research vessels must submit requests for entry on a government-to-government basis at least 14 days in advance of the desired entry date.

D. *Public Vessels.*

1. All public vessel entry applications are handled on a government-to-government basis.

Appendix 6 to Annex A:

ROMANIA (RO)

A. *Merchant and Passenger Vessels.*

1. Requirements: 4-Working day request for all available U.S. ports Vessel's Agent to submit port call applications to U.S. Coast Guard Headquarters (G-MPS).

B. *Fishing Vessels and Fisheries research Vessels.*

1. Entry request for all available U.S. ports must be submitted on a government-to-government basis at least 14 days in advance of the desired entry date. There is no Governing International Fishing Agreement currently in effect.

C. *Research Vessels.*

1. All research vessels must submit requests for entry on a government-to-government basis at least 14 days in advance of the desired entry date.

D. *Public Vessels.*

1. All public vessel entry applications are handled on a government-to-government basis.

Appendix 7 to Annex A:
UNION OF SOVIET SOCIALIST REPUBLICS (UR)

A. *Merchant and Passenger Vessels.*

1. Requirements: 14 day request for all available U.S. ports. Vessel's Agent to submit port call applications to U.S. Coast Guard Headquarters (G-MPS).

B. *Fishing Vessels.*

1. Fishing vessels (includes fishing support vessels) authorised by the Fisheries Conservation and Management Act of 1976 (PL 94-265) are permitted to enter selected ports upon providing notice to Commandant U.S. Coast Guard (G-MPS) at least 4 days in advance of the desired entry. Those ports include:

Astoria Or　　　Dutch Harbor Ak　　　Portland Or
Boston Ma

2. Entry to all other U.S. ports are subject to requests submitted on a government-to-government basis at least 14 days in advance of the desired entry date.

C. *Research Vessels.*

1. All research vessels must submit requests for entry on a government-to-government basis at least 14 days in advance of the desired entry date.

D. *Public Vessels.*

1. All public vessel entry applications are handled on a government-to-government basis.

Appendix 8 to Annex A:
PEOPLE'S REPUBLIC OF CHINA (CH)

A. *Merchant and Passenger Vessels.*

1. Requirements: 7-Working Day Request for all U.S. ports. Vessel's Agent to submit port call applications to USCG Headquarters (G-MPS).

B. *Fishing Vessels.*

1. Under provisions of the U.S./PRC Governing International Fishing Agreement (GIFA), fishing vessels (including fisheries support vessels) authorised by the Fisheries Conservation and Management Act of 1976 (PL 94-265) are permitted to enter selected ports upon providing notice to Commandant U.S. Coast Guard (G-MPS) at least 4 working days in advance of the desired entry. Those ports include:

Seattle, Washington,
Kodiak, Alaska,
Dutch Harbor, Alaska,
Nome, Alaska.

2. Entry requests for all other available U.S. ports must be submitted on a government-to-government basis at least 14 days in advance of the desired entry date.

3. The U.S./PRC GIFA currently in effect expires 1st July, 1990.

C. *Research Vessels.*

1. All research vessels must submit requests for entry on a government-to-government basis at least 14 days in advance of the desired entry date.

D. *Public Vessels.*

1. All public vessel entry applications are handled on a government-to-government basis.

ANNEX B
EXAMPLE MESSAGE FORMATS

EXAMPLE 1: This sample message format may be used by an Agent desiring entry of a People's Republic of China (CH) registered vessel into one of the designated 4-day Notice Ports outlined in Annex C.

FM:　Agent Name
　　Complete Address
　　Commercial Phone Number
　　Telex/Twx No. (including Answer Back Code)
TO:　Commandant, U.S. Coast Guard (G-MPS)
　　Washington DC
　　Telex No. 892427
4 Day Notice
M/v. Dong Hai (CH) (Call Sign)
Initial Itinerary (or Change 1, 2, etc.)
New York 6/17-6/19, Philadelphia 6/20-6/21
Cargo: In Ballast. To Load Grain
Last Port of Call: Shanghai

EXAMPLE 2: This sample message format may be used by Agents for vessels desiring access to "request" ports.

FM:　Agent Name
　　Complete Address
　　Commercial Phone Number
　　Telex/Twx No. (including Answer Back Code)
TO:　Commandant, U.S. Coast Guard (G-MPS)
　　Washington DC
　　Telex No. 892427
4-Working Day Request or 7-Working Day Request or 14-Day Request.
M/v. Polinski (PL) or m/v Czechlava (CZ) (Call Sign)
Initial Itinerary (or Change 1, 2, etc.)
Morehead City 6/30-7/4
Cargo: General
Last Port of Call: Gdynia
*NOTE: Bulgarian, Romanian, Hungarian also apply to Example 2.

EXAMPLE 3: Coast Guard port entry approval messages will provide the official entry time that the vessel is cleared to enter a particular port. This will either be the exact conclusion of the 96 hour official notification period for all four day notices, or at 0001 GMT of the day requested for all other cases. Actual vessel entry is expected to occur during the 24 hour period commencing from the official entry time. An additional 24 hour period may be requested (but is not guaranteed) by providing the Coast Guard Headquarters with a Late Arrival Notice message.

1. Message format as follows:

FM:　Agent Name
TO:　Commandant (G-MPS) (See paragraph C.2. for various message addresses)
　　1. This is a Late Arrival Notice.
　　2. The (type of vessel, name, flag and call sign) has received CG Headquarters approval to enter (name of port) at (date and time)
　　3. Revised ETA (date and time. This must not be later than 48 hours after official entry approval time.).
　　END OF MESSAGE

2. In most cases, automatic late entry privileges will be extended to the vessel. Return message traffic will not be sent to the Agent unless late entry is denied. The following criteria apply:

(a) Late Arrival Notices may be submitted for any Communist vessel which has prior Coast Guard approval to enter the U.S. including those processed as government-to-government.

(b) Only one Late Arrival Notice may be submitted per vessel per port call.

(c) The Late Arrival Notice does not change the vessel's approved official entry or departure time. They do, however, delay by 24 hours a vessel's itinerary being cancelled lacking an approved Itinerary Change Request. Itinerary Change Requests and government-to-government requests remain the only means of changing the vessel's official entry or departure time.

(d) The Late Arrival Notice does not replace or eliminate the requirement of 33 CFR 161.7 for 24 hour advance notice of arrival to each local Coast Guard Office (i.e. Captain of the Port (COTP) or Marine Safety Office (MSO)). Agents may, however, desire to send an identical message to Coast Guard Headquarters in fulfillment of 33 CFR 161.7. In this case, change your first sentence to read:

THIS IS A LATE ARRIVAL NOTICE AND 24 HOUR ADVANCE NOTICE OF ARRIVAL.

ANNEX C – Cancelled.

ANNEX D
AGENT PROPOSAL FOR REMOVAL OF NATIONALS

FM:　Agent Name
　　Complete Address
　　Commercial Phone Number
　　Telex/Twx No. (including Answer Back Code)
TO:　Commandant, U.S. Coast Guard (G-MPS-2)
　　Washington DC
　　Telex No. 892427
Subject: m/v "Judith Schulte" (Flag) (call sign and Lloyd's Number); Crew Removal.

ETA Cape Henry late p.m. hours 20th April, 1984 to Sewells Point anchorage. Vessel scheduled to work cargo in Norfolk 23rd – 24th April then transit to Richmond, Va; thereafter transiting outbound 27th April bound for Jacksonville, Fla.

The above vessel has 2 Polish crew members on board. Details are as follows:

Name/Rank	*Passport No.*	*Date of Birth*
Robert Pazdiorek (C/E)	SA934255	4/6/42
Lech Szymonski (2/E)	SA478176	9/2/44

On behalf of the vessel's Owners, we propose to remove the 2 Polish crew members on arrival at Lynnhaven Anchorage by commercial launch. The 2 men will be escorted to and remain under guard at the America House Hotel, Cape Charles until the vessel completes cargo activities at Norfolk International Terminal and Richmond Waterfront Terminal. We will arrange to have these individuals rejoin the vessel at Lynnhaven Anchorage during the vessel's outbound transit. The local Coast Guard and INS Office has been advised and we will co-ordinate with them.

During the time the Polish crew members are not on board the vessel, their positions will be filled by suitable replacements to ensure the safe navigation of the vessel and as per manning requirements.

PILOTAGE: North West Coast of U.S.A.
Columbia River Bar Pilots are "Sea Pilots" for all ports in Columbia and Willamette Rivers. Namely, Astoria and Portland (Oregon), Longview, Kalama and Vancouver (Washington) – when entering from sea and if providing above Astoria, Columbia River Pilots relieve Bar Pilots for balance of transit.

COLUMBIA RIVER BAR PILOTS
Foot of 14th Street,
P.O.Box 81, Astoria, Oregon 97103
TWX 9104668014
Telephones (503) 325-2641 or 325-2642

RADIO FACILITIES

Pilot Boat Peacock	WS 7217
Pilot Boat Columbia	WYE 7344
Bar Pilots Office, Astoria	KOK 360
(Ch. 16) (156.80 MHz)	
Astoria Marinephone "KFX"	
Ship's Call on	2206 kHz
KFX Answers on	2598 kHz

Or call on and receive KFX on Channel 26.

In order there be no delays, vessels due to arrive at the Columbia River and desiring a Bar Pilot, must cable or telephone the Columbia River Bar Pilots. (Pilot normally not on station unless cable or telephone message received.) USE RADIO STATION KLB, EVERETT, WASHINGTON at least 12 hours before arrival at the lightship. Code address, "BAR PILOTS, STATING THE TIME OF ARRIVAL". If transmitted by any other radio station, delay may occur. If vessel is equipped with VHF, use Channel 16 (156.80 MHz) to call the pilot boat or Bar Pilots' Office, Astoria (KOK 360) and shift to Channel 13 (156.65 MHz).

PILOT LADDER INSTRUCTIONS

1. Please contact the pilot boat via voice radio (Channel 16 or Channel 13 approximately 30 minutes prior to arrival for desired lee and boarding instructions.

2. The Columbia River Bar Pilots have 2 pilot vessels; the "Peacock" and the "Columbia". When the "Peacock" is on station, Masters will be instructed to rig their pilot ladder 4 ft. above the water's edge. When the "Columbia" is on station, the Master will be instructed to rig the ladder 10 ft. – 12 ft. above the water's edge. The above-mentioned distances above the water are of the utmost importance, particularly in the case of the "Columbia", as the pilot boat can and has pulled the ladder down when it becomes pinched between the pilot boat and the side of the vessel. Pilot ladders and boat ropes shall not be permitted to drag in the water. No tag lines, pull ropes or trailing lines shall be attached to the bottom of the ladder.

3. Pilot ladders shall be rigged amidships, over "draft marks" clear of all obstructions, such as accommodation ladders, and clear of overside discharges from the engine room and deck scuppers.

4. The pilot ladder should be kept clean and used for embarking and disembarking Pilots only. The ladder shall be made in one continuous length, not 2 sections shackled or lashed together. The ladder shall be equipped with spreaders approximately 10 ft. apart in accordance with SOLAS regulations. The ladder must be in good condition, the treads horizontal and the upper surface of rough non-skid quality.

5. The ladder must be adequately lit at night by means of a light shining well over the ship's side in the vicinity of the ladder. The area of the deck where the Pilot boards and leaves should be free of debris and well lighted. Where portable stanchions and bulwark steps are used, they shall be rigidly attached to the ship's structure. A life ring with water light and lifeline attached should be ready at hand. Rigging of the ladder and embarking and disembarking of the Pilot must be under the supervision of a licensed officer.

6. Boat ropes are not to be used, all pilot boats are power propelled.

7. Manropes shall be of manila 3 in. circumference. The manropes shall be free of any knots including the lower end. The manropes should be rigged 1 ft. – 2 ft. longer than the pilot ladder. Manropes are not to be rigged for boarding unless otherwise advised.

8. If vessel is to take a deck load of logs, please discuss with your Agent the building of a catwalk to provide safe passage to and from the pilot ladder.

Long Island Sound and Connecticut Ports: The Connecticut State Pilots Association is offering pilot service for all foreign and registered vessels en route to and from Connecticut Ports via the Long Island Sound. U.S. enrolled vessels will continue to be services by Interport Pilots using the same boats and pilots. Pilots are licensed by the Federal Government and the State of Connecticut.

The Pilot Station established off Montauk Point provides a more direct route to Long Island Sound ports. Vessels using Connecticut State pilots through the mile wide, 58 ft. deep, Montauk Passage, will save between 1 hour and 3 hours steaming time as opposed to being diverted to pilot stations at Point Judith or Brenton Reef, Rhode Island.

The U.S. Navy uses the Montauk Passage for its nuclear submarines bound to and from Connecticut ports and, as Interport Pilots, we have used this route for vessels in the coastwise trade for over 30 years.

Notice of Arrival is required. A 24 hour to 36 hour advance notice of ETA is suggested. A 12 hour update and a 6 hour update is necessary in order to co-ordinate dispatching of pilots.

The Pilot boarding point is 3 miles East of Montauk Sea Buoy.

Connecticut State Pilots Association, State Pier, New London, Ct. 06320. Tel: 1 (800) 346-4877 or in New Jersey 1 (201) 291-1310. Cables: Port Pilots, Atlantic Highlands, N.J. Pilot Boat: Call Sign – "Connecticut Pilot".

Constitution State Pilots Association also offer pilot service in Long Island Sound and all Connecticut ports.

The pilot boat "Constitution" is located 8 miles East of Montauk Point at Lat. 41° 02′ N., Long. 71° 42′ W.

Constitution State Pilots Association, Suite 316, 920 Main Street, Hartford, Connecticut 06103. Tel: (203)783-5991. FAX: (516)582-6550.

AUTOMATIC RADAR PLOTTING AIDS: With effect as from July 1st, 1982, vessels carrying oil or hazardous materials in bulk must have automatic radar plotting aids.

A fine for failure to carry an ARPA could be multiplied by the number of days of the violation.

The United States Coast Guard has stressed, however, that its official policy is enforcement by denial of entry and restriction of operation and not primarily by the enforcement of fines.

While the Coast Guard recognises that the Public Law enables financial penalties to be incurred, it is believed that the terms of the Port and Tanker Safety Act under which the U.S. Coast Guard operates directs it to monitoring and identification of previous offenders and enforcement by prevention of entry into U.S. ports or subsequent restriction of trade and departure.

COAST GUARD REGULATIONS: The U.S. Coast Guard has announced its intention to develop the following regulations implementing sections of the 1978 U.S. Port and Tanker Safety Act requiring:

1. Existing crude oil carriers of 20,000 d.w.t. or above but less than 40,000 d.w.t. to have segregated ballast tanks (SBT) or a crude oil washing system (COW) by January 1st, 1986, or when they reach 15 years of age, which ever occurs later; and

2. Existing product carriers of 20,000 d.w.t. or above but less than 40,000 d.w.t. to have SBT or dedicated clean ballast tanks (CBT) by January 1st, 1986, or when they reach 15 years of age, whichever occurs later.

POLLUTION: Any vessel which does not have a valid I.O.P.P. Certificate on board will not be allowed to transit U.S. waters.

NOTICE: *B.A. Notice to Mariners No. 3013(T) of 1983:*
UNITED STATES OF AMERICA – Chart and Publication requirements.

A statement concerning the U.S. Navigation Safety Regulations relating to Navigation, charts and Publications has been issued in the U.S. Notices to Mariners Weekly 44/83. This is reproduced below. Admiralty Annual Notice to Mariners No. 22 will be amended as appropriate in the 1984 edition.

CHART AND PUBLICATION REQUIREMENTS

Sections 164.30 and 164.33 of Title 33 of the Code of Federal Regulations Part 164 (33 CFR 164), which detail requirements for the carriage of nautical charts and publications, are amended effective October 28, 1983. The regulations contained in these sections are applicable to each self-propelled vessel of 1,600 g.r.t. or more, operating on the navigable waters of the United States, except the St. Lawrence Seaway, and are reprinted as follows:

§164.30 Charts, publications, and equipment: General.

No person may operate or cause the operation of a vessel unless the vessel has the marine charts, publications, and equipment as required by §§164.33 through 164.41 of this part.

§164.33 Charts and publications.

(a) Each vessel must have the following:

(1) Marine charts of the area to be transited, published by the National Ocean Service, U.S. Army Corps of Engineers, or a river authority that:

(i) Are of a large enough scale and have enough detail to make safe navigation of the area possible; and

(ii) Are currently corrected.

(2) For the area to be transited, a currently corrected copy of, or applicable currently corrected extract from, each of the following publications:

(i) U.S. Coast Pilot.

(ii) Coast Guard Light List.

(3) For the area to be transited, the current edition of, or applicable current extract from:

(i) Tide tables published by the National Ocean Service.

(ii) Tidal current tables published by the National Ocean Service, or river current publication issued by the U.S. Army Corps of Engineers, or a river authority.

(b) As an alternative to the requirements for paragraph (a) of this section, a marine chart or publication, or applicable extract, published by a foreign government may be substituted for a U.S. chart and publication required by this section. The chart must be of large enough scale and have enough detail to make safe navigation of the area possible, and must be currently corrected. The publication, or applicable extract, must singly or in combination contain similar information to the U.S. Government publication to make safe navigation of the area possible. The publication, or applicable extract must be currently corrected, with the exceptions of the tide and tidal current tables, which must be the current editions.

(c) As used in this section, "currently corrected" means corrected with changes contained in all Notices to Mariners published by Defense Mapping Agency Hydrographic/Topographic Centre, or an equivalent foreign government publication, reasonably available to the vessel, and that is applicable to the vessel's transit.

SHIP'S OFFICER'S REPORT: The information given for the port of New Orleans (U.S.A.) applies to all the ports in the U.S.A. in the event of the vessel arriving from abroad or from a previous U.S. port. All the documents such as Crew List, Passenger List (Form I-418), Deck, Engine, Steward's and Bonded Stores Lists (Form 1303), Crew's Effects Declaration (Form 1304), are required in duplicate at each port for entry inward.

ALBANY, New York: 42.40 N. 73.45 W. **(See Plan)**

DOCUMENTS: If first port of call in U.S., 2 complete Customs Manifests describing all cargo on board and ports of discharge. Also 1 Cargo List for Albany cargo, 3 Crew Lists, 3 Stores Lists, 3 Curio Lists, Ship's Register, Load Line Certificate and Tonnage Tax Certificate.
PILOTAGE: Hudson River Pilot boards vessel off Yonkers, N.Y. Cable address: "Hudpilots, Yonkers, N.Y."
ANCHORAGES: Several anchorage areas in Hudson River en route to Albany if required due to weather. Vessels cannot anchor at Port of Albany.
RESTRICTIONS: Hudson River Channel to Albany has controlling depth of 32 ft. MLW. Vessels with draft in excess of 28 ft. will be required to transit river on favourable tide as directed by Pilot.
MAX. SIZE: Max. permissible length 750 ft., breadth 110 ft., draft 30 ft. Turning basin at Albany 1,100 ft. in width.
HEALTH: See "Health: All Ports" before first U.S.A. port. Illness Reports made to New York Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port.
TUGS: One 2,500 h.p. tug stationed at port at all times; additional tugs available upon advance request. Normally 1 tug is sufficient for turning and docking. Tug's lines are used.
BERTHING: 5,000 linear ft. of marginal wharf available at APDC terminal for general cargo, grain, lumber, etc., 32 ft. alongside wharf. Various privately operated deep-water petroleum terminals in port area. *Facilities:* 13.5 million bushel grain elevator. 17 million gallon molasses storage – 3 terminals. Scrap Iron Terminal, Banana Terminal.
Equipment: Available at the Port of Albany:

2 Diesel-operated wharf cranes, 5 ton capacity each
1 Gasoline crawler crane, 15 ton capacity
3 Fork-type telescopic lift trucks, 15,000 lb. each (height of lift 17 ft.)
12 Fork-type telescopic lift trucks, 5,000 lb. to 7,000 lb. each
12 Clamp equipped telescopic lift trucks, 7,000 lb. capacity each

9	Gasoline operated lumber carriers
2	Front-end loaders, 1.25 cu.yd. capacity each
1	180 ton capacity bulk car unloader
21	5/8 cu.yd. clamshell buckets
	Hoppers for shipside bulk materials handling
	Complete bagging equipment for all bulk materials

BRIDGES: Minimum vertical clearance of bridges on Hudson River en route to Albany is 135 ft.

STEVEDORES: Rates and information can be obtained from I.T.O. Corporation; 7 gangs available.

TANKERS: Bray/Getty Terminal:

Location: The Bray/Getty Terminal is located approximately 126 miles from the Battery (NYC), about 0.8 miles Northward of Island Creek. It is an offshore wharf 250 ft. long with a dock height above the waterline of 11 ft.

Berthing: Normal berthing is starboard side to with the use of only one 1,800 h.p. tug. An additional tug may be required if adverse weather conditions exist. The vessel approaches the berth from midstream on approximately a 30° angle to the pier. The tug is used on the port bow to control the direction of the vessel during the approach. Once alongside the pier, spring lines are run out and the vessel is held in position with her own engines until the tug is secured. See "Plan".

Gangway: The terminal does not provide a gangway.

Fresh Water: Not available at this terminal.

Bunkers: Fuel is not available at this terminal.

Slop/Deballast: The terminal is not equipped to receive slops or dirty ballast.

Security: The terminal is fenced and guarded.

Pollution: Although an oil boom is permanently in place inside the dock area, outside contractors must be contacted for clean-up in the event of the oil spill.

Firefighting: The terminal is equipped with one 150 lb. dry chemical extinguisher with additional firefighting support by shorebased fire trucks.

Cirillo Terminal:

Location: The Cirillo Terminal is located approximately 125 miles from the Battery (NYC), about 0.5 miles Northward from Island Creek. It is a bulkhead wharf 280 ft. long with a dock height above the waterline to 10 ft. It is owned by Albany Port District Commission and operated by Cirillo Brothers.

Berthing: Normal berthing is port side to with the use of one 1,800 h.p. tug. An additional tug, may be required if adverse weather conditions exist. The vessel approaches the berth on the ebb tide and slowly approaches the marginal berth in the usual manner. The current in this area sets fair with the dock face creating an ideal docking environment. See "Plan".

Gangway: The terminal does not provide a gangway.

Fresh Water: The terminal can supply fresh water upon request.

Slop/Deballast: The terminal is not equipped to receive slops or dirty ballast.

Security: The terminal is fenced and guarded at all times.

Pollution: Although an oil boom is readily available for oil spill containment, all clean-up must be performed by outside contractors.

Metropolitan/Arco Terminal:

Location: The Metropolitan/Arco Terminal is located approximately 126 miles from the Battery (NYC). The dock is of an offshore wharf construction with dolphins.

Berthing: Normal berthing is starboard side to with the use of 2×1,800 h.p. tugs. All ships are usually docked at Slack High Water. The vessel approaches the dock from the centre of the channel and is carefully breasted alongside the pier, using her tug and the current to slide over against the breasting dolphins. Spring lines are run first, followed by breasts, then head and stern lines. See "Plan".

Gangway: The terminal does not provide a gangway.

Fresh Water: Piped fresh water is available.

Bunkers: Fuel is not available at the dock.

Slop/Deballast: The terminal is not equipped for slops or dirty ballast receipt.

Security: The terminal is fenced and guarded. The main gate is locked when no vessels are at the dock. When a vessel arrives the dock is continually manned by terminal employees.

Pollution: The terminal is equipped with a workboat and 1,000 ft. of boom for spill containment. Local contractors must be contacted for clean-up operations.

Firefighting: The dock is equipped with one 150 lb. dry chemical extinguisher. Additional back-up is supplied by local firefighting departments.

Niagara/Mohawk Terminal:

Location: The Niagara/Mohawk Terminal is located approximately 125 miles from the Battery (NYC).

Berthing: Normal docking is port side to with the assistance of one 1,200 h.p. tug. The vessel approaches the marginal berth at minimum velocity with the ship's engines used to maintain relative position of vessel while lines are passed. The tug assists in the breasting of the vessel towards the dock. See "Plan".

Gangway: The terminal does not provide a gangway.

Fresh Water: Piped fresh water is available at the dock.

Bunkers: Fuel is not available at this terminal.

Slop/Deballast: The terminal is not equipped to receive slops or dirty ballast.

Security: The terminal is fenced and guarded.

Pollution: The dock is equipped with 2,500 ft. of boom for oil spill containment.

Firefighting: Portable CO_2 extinguishers provide adequate firefighting capabilities.

Sears Terminal:

Location: The Sears Terminal is located approximately 124 miles from the Battery (NYC), about 1.2 miles Southward of Island Creek. It is an offshore wharf 191 ft. long with a dock height above the waterline of 10 ft.

Berthing: Normal berthing is port side to with the use of one 1,800 h.p. tug. An additional tug may be required if adverse weather conditions exist. The vessel approaches the dock on the first of the ebb tide, slowly stemming the tide during the approach. The tug is positioned on the starboard bow to control the vessel's movements. After a normal approach, the vessel is spotted and spring lines are led out. The vessel is then held in position with the tug and own engines while the breast, head and stern lines are led out. See "Plan".

Gangway: The terminal does not provide a gangway.

Fresh Water: Not available at this dock.

Bunkers: Fuel is not available.

Slop/Deballast: The terminal is not equipped to receive slops or dirty ballast.

Security: The terminal is fenced and guarded at all times.

Pollution: Although the terminal is equipped with a workboat and boom for oil spill containment, all clean-up equipment and personnel must be secured through local contractors.

Roseton, N.Y.: Central Hudson Gas & Electric Terminal:

Location: The Central Hudson Gas and Electric Terminal is located on the Hudson River approximately 74 miles from the seabuoy.

Berthing: Normal berthing is starboard side to with use of one 3,500 h.p. tug. An additional tug may be required during adverse weather conditions. The vessel proceeds to a point opposite to or a little above the dock, turns midstream with the aid of the tug and comes down parallel to the dock. She is then breasted in and held alongside by the tug while the spring and breast lines are led out. The tug then handles the head and stern lines (synthetic required). See "Plan".

Gangway: The terminal does not provide a gangway.

Fresh Water: Not available at the dock.

Bunkers: Fuel is not available at this terminal.

Security: The terminal is fenced and guarded.

Pollution: Booms and absorbent materials are available on the dock in the event of an oil spill.

Firefighting: The dock is equipped with one 250 lb. purple K extinguisher, 2×2.5 in. fire hoses with fog nozzles on a 6 in. main.

Ravena, N.Y. (Port of Albany): Atlantic Cement Terminal:

Location: The Atlantic Cement Terminal is located on the Hudson River approximately 127 miles from the seabuoy and is under the jurisdiction of the Port of Albany.

Berthing: All vessels must dock and undock during daylight hours only. Normal berthing is port side to with the use of one 2,100 h.p. tug. An additional tug may be required during adverse weather conditions or when docking on a rising tide. The dock is of a marginal design, parallel to the channel axis. Normal approach is with a tug breasting the vessel onto the dock.

Gangway: The terminal does not provide a gangway.

Fresh Water: Not available at the dock.

Bunkers: Fuel is not available at this terminal.

Slop/Deballast: The terminal is not equipped to receive slops or dirty ballast.

Security: Although the terminal is not fenced or guarded, dock personnel are in attendance at all times.

Pollution: In the event of an oil spill, the containment and clean-up equipment available at the dock consists of:

1. 7,400 ft. of 12 in. collar boom.
2. Oil retention gate mounted on dock.
3. 23 ft. 150 h.p. tow boat.
4. 30 ft. deck barge for oil boom.
5. 500 ft. of 2.5 in. fire hose.
6. 100 bags of oil absorbent material.
7. 15 bags plastic "Oil Snares".
8. Air bubbling system-along dock face.

Firefighting: The dock is equipped with one 500 lb. dry chemical extinguisher, 350×2.5 in. hose and fog nozzles located adjacent to the dock manifold.

FRESH WATER: Supplied during regular working hours daily, except Saturdays, Sundays, and holidays, at $2.75 per 100 cu. ft. plus $22.00 service charge per daily delivery on straight time. Additional charge if supplied during other periods.

GANGWAY/DECK WATCHMEN: Available via ship chandler, not required but recommended.

CONSULS: Italian Vice-Consulate located at Albany, other consulates available at New York City.

REPAIRS: Minor deck and engine repairs can be handled.

AIRPORT: 7 miles distant from port: served by Allegheny, America, Altair and Executive Airlines.

TIME: Eastern Daylight Saving, (GMT minus 4 hours) from first Sunday in April till last Sunday in October.

HOLIDAYS: Standard U.S. holidays; cargo work can be arranged on all holidays at overtime rates, except July 4th, Labour Day and Christmas Day.

SHORE LEAVE: Crew members allowed ashore unless restricted by Customs or Immigration requirements.

SHIPMASTER'S REPORT: February 1980.

Pilotage: Compulsory. Pilot boards at Ambrose Light Tower and Hudson River Pilot boards at Yonkers.

Restrictions: Vessels able to enter and leave during darkness at any stage of the tide.

Max. Size: LOA 750 ft. (Approx). Max. Draft: 31 ft. to 32 ft. depending on height of river.

Tugs: One tug stationed at Albany (approx. 2,500 h.p.). Additional tugs come from New York.

VHF: Tug only listens out on VHF before vessel arrives.

Services: Following services available: Fresh water, fresh provisions, small repairs, machine shop, airport, Lloyd's surveyor (from New York), Salvage surveyor (from New York), lubricating oil, groceries and meats.

Berthing: Pier No. 2 Albany: Berth located 3 miles from Albany and 145 miles from the entrance. Vessel's size limited by draft and space available in swinging room in basin. Max. size approx. LOA 600 ft., draft 31 ft. Least depth of water in channel from sea to berth 33 ft. (approx). Vessels able to dock and undock at any stage of the tide, day or night.
Grain Loading Facilities: Available.
Ro/Ro Facilities: Available, port now being used to discharge cars from car carriers. No floating cranes available.

AUTHORITY: Albany Port District Commission, Administration Building, Port of Albany, Albany, N.Y. 12202. *Tel:* (518) 463-8763. *Telex:* 910-2404745 Port alb ny uq. *Contact:* F. Keane, General Manager.

ALEXANDRIA, Virginia: 38.48 N. 77.03 W. **(See Plan)**

LOCATION: On the Potomac River 7 miles from Washington D.C.
DOCUMENTS/PILOTAGE: Refer to "Hampton Roads".
RESTRICTIONS: Anchoring necessary between 2200 hrs. – 0600 hrs. Berthing daylight only.
Channel: Width 200 ft. Depth 24 ft. Turning basin: length 6,700 ft. Width 300 ft.
MAX. SIZE: Governed by draft only – max. 22 ft. 6 in. all times.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness reports made to New York Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: WMH Baltimore, Md.
TUGS: None required.
BERTHING: 2 open piers. Berthing 0600 hrs. to 2200 hrs.
BRIDGES: 1 bridge, closed Monday through Friday 1600–1830 hrs. and 0630–0900 hrs.
STEVEDORES: Informally arranged through Receivers or Shipper's Agents.
MEDICAL: Hospital available.
FRESH WATER: Available at berth – 10 t.p.h.
FUEL: Not available.
GANGWAY/DECK WATCHMEN: Shore watchman provided.
OPENING/CLOSING HATCHES: Stevedores. Vessel – depending on understanding.
IDENTIFICATION CARDS: Required by Immigration.
REPAIRS: Minor facilities.
REPATRIATION: Facilities exist.
AIRPORT: 3 miles. Washington National – multiple flights.
TIME: GMT minus 5 hours.
POLICE/AMBULANCE/FIRE: Agents arrange. Watchmen on duty.
SHORE LEAVE: Allowed.
DELAYS: No unusual delays.
SERVICES: Searle Consortium, Ltd. in Alexandria (Tel: (703) 768-6026) and their sister company, Seaward Marine Services can provide the following: Diving and general underwater inspection services; underwater hull cleaning; Salvage survey and underwater repairs of a salvage nature; assistance in the refloating of stranded vessels and assistance in the arranging/engineering of towage.
AUTHORITY: Virginia Port Authority, 600, World Trade Center, Norfolk, Va. 23510. *Tel:* (804) 623-8000. *Telex:* Twx. 710-881-1231. *Cables:* Vastports-Norfolk.

ANACORTES, Washington: 48.31 N. 122.36 W. **(See Plan)**

DOCUMENTS, PILOTAGE, etc: Refer to "Tacoma".
ANCHORAGES: East End Guemes Channel, 54 ft. minimum depth.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: Join vessel in Guemes Channel at Anacortes – lines optional.
BERTHING: Pier No. 1, depth 30 ft.; Pier No. 2, depth 44 ft.
TANKERS: Shell Jetty: depth alongside 42 ft.
STEVEDORES: Request 24 hours' notice.
FRESH WATER: Available from city water system.
FUEL: Available from Shell and Texaco.
GANGWAY/DECK WATCHMEN: Not required by port.
OPENING/CLOSING HATCHES: Stevedores or crew before vessel's arrival.
CUSTOMS ALLOWANCES: No definite quantities prescribed; reasonable allowance at discretion of Customs Inspector.
CARGO GEAR: ILWU requirements.
IDENTIFICATION CARDS: Required.
REPAIRS: Minor repairs only.
AIRPORT: 75 miles Seattle International.
TIME: GMT minus 8 hours. From end April to end October, Pacific Daylight Saving Time, GMT minus 7 hours.
HOLIDAYS: See "Tacoma".
POLICE/AMBULANCE/FIRE: Police, Ambulance and Fire dial 911.
TELEPHONES: Available at Pier 2 and at Pier 1 by Phone Co.
SHORE LEAVE: Allowed.
AUTHORITY: Port of Anacortes, P.O.Box 297, Anacortes, Washington 98221. *Tel:* (206) 293 – 3134 (Scan System 576 – 6371). *FAX:* (206) 293-9608. *Contact:* M. Hardy, Marine Terminal Supervisor.

ANCHORAGE, Alaska: 61.12 N. 150.00 W. **(See Plan)**

DOCUMENTS:
3 copies Cargo Manifest (Form 1302), the original showing all cargo on board, and 2 copies showing only cargo for this port.
2 copies Crew Manifest (curio list).
2 copies Stores List.
2 copies Passenger List (Form I-418).
2 copies Crew List (Form I-418).
Customs Boarding Officer will also examine Ship's Register and Loadline Certificate. In addition, the following documents will be required for formal entry to be made within 48 hours of arrival from abroad, or 24 hours from arrival from a United States port:
Master's Oath (Customs Form 1300).
All foreign clearances.
U.S. Certificates of payment of tonnage tax (Customs Form 1002).
Certified Crew List.
PILOTAGE: The pilot station for Anchorage is at Homer, Alaska. Vessels may contact Pilot by radio telephone. Telegraphic address "Almarrpilot", ETA notice requested 24 hours. Listens VHF Channel 10. Pilot boat green and white. Pilot flag by day, pilot light at night. Pilot boat 1 mile South of Homer Spit (Coal Point), Homer, Alaska. In bad weather, wait inside Homer Spit and advise via radio-telephone.
Also see "Homer".
ANCHORAGES: The best anchorage for deep-draft vessels is West of Anchorage in depth of 10 fathoms to 12 fathoms, silt bottom. Holding ground is good.
TIDE AND CURRENTS: The diurnal range of tide is 29.6 ft., currents from 1.7 knots to 6 knots or more in mid-channel.
RESTRICTIONS: Flow and pan ice is encountered in the Cook Inlet from approximately the end of November until the end of February. This ice does not freeze solid due to the tidal action. The port is in year-round use and expert information on Winter conditions may be obtained from any of the highly qualified licensed ship pilots available in the area.
MAX. SIZE: All berths 35 ft. MLLW.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Port of Anchorage "KBT-42" on HF-AM and SSB. "WHJ-82" on VHF-FM.
Radio Advice: Masters must notify Agents at Anchorage of ETA at Homer Spit, Alaska, as early as possible. Homer Spit position: 59° 35′ N., 151° 40′ W. To avoid confusion ETA message to Anchorage should indicate Time Zone used. Alaska Communication System Stations are located at Juneau – call sign AKM – Keeping watch on 500 kHz and working on 452 kHz. This station is reported to be very difficult to contact and is closed during weekends.
The fastest way to forward radio messages in the North Pacific is via San Francisco Radio KPH.
The U.S. Coast Guard Station Kodiak – call sign NOJ – keeps W/T watch on 500 kHz, working on 470 kHz.
Due to difficulties reported in contacting local Alaskan stations, Masters of vessels engaged on trans-Pacific crossings are advised to route radio messages to Alaska and Europe via Singapore Radio or Choshi Radio until the dateline, thereafter via San Francisco radio.
TUGS: Join vessel 1.5 miles S.W. of docks.

BERTHING: 600 ft. General Cargo Terminal No. 1, apron width 95 ft., live road limit 600 lb. per sq. ft. General Cargo Terminals No. 2 and 3, 610 ft. and 893 ft. respectively, apron width 69 ft. Depth alongside face at MLLW 35 ft.
CRANES: Shore Cranes: Level luffing gantry, Paceco and Mitsubishi container cranes. Capacity: Level luffing gantry 7.5 tons and 40 tons (5 ton high-speed whip lines). Container cranes 28 tons and 40 tons.
Outreach from fender face is 70 ft. for the gantries and 81 ft. on the Paceco. Clear height above MLLW is 132 ft.
TANKERS: The Petroleum Terminal at the Port of Anchorage is contiguous to the general cargo docks. The POL Dock is 612 ft. long and contains multiple petroleum manifolds. Depth 35 ft. alongside.
STEVEDORES: *Working Hours:* Stevedores do not work on January 1st, September 6th, November 25th and December 25th. The first 6 hours of any shift between 0800 hrs. and 1500 hrs. is at the straight time rate. Work performed on Saturdays, Sundays, holidays and between 1700 hrs. and midnight is at overtime rate. Meal breaks are 1145 hrs. to 1300 hrs. and 1745 hrs. to 1900 hrs. Stevedores do not normally work between midnight and 0700 hrs.
SPECIALISED CARGO HANDLING FACILITIES: 2×28 ton Paceco and 1×40 ton Mitsubishi container cranes servicing general cargo Terminals 1, 2 and 3; private bulk cement pipe-lines to shore silos. Ro-Ro service available.
DENSITY: From 1009 to 1010.
MEDICAL: All facilities available. 3 local hospitals.
FUEL: All grades available.
FRESH WATER: Public Health Service certified water station.
GANGWAY/DECK WATCHMEN: Required shipside.
OPENING/CLOSING HATCHES: By stevedores.
SURVEYORS: B. J. Logan and Associates, (Lloyd's Agency correspondence to AIMU; National Cargo Bureau), 237 E. Third Avenue Anchorage, Alaska 99501. Tel: (907) 272-7724.
AIRPORT: 5 miles; served by regular foreign and domestic airlines.
CUSTOMS ALLOWANCES: At the discretion of Customs Officer. Normal allowance is 200 cigarettes or 2 lb. tobacco and 1 quart wine or spirits per man. Additional allowances may be given if considered necessary, due to length of vessel's stay in port.
IDENTIFICATION CARDS: Standard U.S. Immigration Forms I – 95 to be made up for each crew member on arrival. Not necessary for crewmen already holding Form I–95, issued for the same vessel.
POLICE/FIRE/AMBULANCE: Police 786–8900; Ambulance/Fire 267–4900.

HOLIDAYS: New Year's Day (January 1st); Lincoln's Birthday; Washington's Birthday; Seward's Day (March 30th); Memorial Day; Independence Day (July 4th); Labour Day; Columbus Day; Alaska Day (October 19th); Veterans' Day; Thanksgiving Day; Christmas Day (December 25th).
EMERGENCY CO-ORDINATION CENTRE: U.S. Coast Guard, Anchorage, Alaska 99513. Tel: (907) 271-5137.
TELEPHONES: Telephones available shipside.
BANKS:
- Alaska Continental Bank
- Alaska Pacific
- Alaska State Bank
- Alliance Bank
- First Federal Bank of Alaska
- First National Bank of Anchorage
- Home Saving & Loan
- National Bank of Alaska
- Ranier Bank Alaska

STORING: See "Prelims".
1. Yes.
2. No restrictive regulations.
3. Yes: Immediately adjacent to ship.
4. Yes.
5. No.
6. Yes.

AUTHORITY: Port of Anchorage, 2000 Anchorage Port Road, Anchorage, Alaska 99501. *Tel:* (907) 272-1531. *Telex:* 090-26-431. *FAX:* (907) 277–5636. *Contact:* Larry Dinneen, Port Director.

ASHTABULA, Ohio: 41.53 N. 80.48 W. (See Plan)

Refer to "St. Lawrence Seaway" for important general information.
PILOTAGE: Nearest pilot station is the Welland Canal, Canada.
ANCHORAGES: No anchorage inside boundaries. Good anchorage outside to East of the entrance, depth approx. 20 fathoms.
MAX. SIZE: The Pinney Dock and Transport Company stevedoring dock handling overseas cargoes located just East of entrance to the port. Channel depth of 28 ft. 4 berths, 27 ft. alongside; length of facilities up to 700 ft. by 75 ft. beam. No facilities for oil carriers.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness reports made to Chicago Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: Contact Lorain, Ohio ship-to-shore station for local connections.
TUGS: Tugs normally join vessels just inside harbour entrance. Use ship's or tug's lines optional; if tug lines used an additional charge of 10% of the tonnage will be added. For tug service call ship-to-shore tug Idaho, FM Channel 51.
BERTHING: See "Developments" and "Max. Size".
STEVEDORES: Work gangs for loading and unloading provided by the Pinney Dock and Transport Company.
MEDICAL: Vessels requiring medical attention call U.S. Coastguard station located in the main river by calling AM Channel 20. Ambulance and hospital service available. No inoculation, vaccinations, or fever certificates required.
DENSITY: Fresh water.
FRESH WATER: Available at stevedoring dock.
FUEL: Available on 24-hour notice.
FIRE PRECAUTIONS: City fire department. Also water line on face of the dock available.
GANGWAY/DECK WATCHMEN: Overseas stevedoring dock enclosed wire fence, watchmen on dock at all times, guard at main gate.
OPENING/CLOSING HATCHES: Optional by crew or stevedores.
CUSTOMS ALLOWANCES: Only allotments per person consumed aboard allowed.
IDENTIFICATION CARDS: Required.
CONSULS: Nearest at Cleveland.
REPAIRS: All types of deck and engine repairs available; also topside shell repairs.
REPATRIATION: Can be arranged.
AIRPORT: Nearest airport approx. 10 miles South with commuter services to Cleveland Hopkins Airport. Cleveland Hopkins Airport approx. 70 miles West.
TIME: Local Eastern Standard Time except from first Sunday in April till last Sunday in October – Daylight Saving Time.
HOLIDAYS: Stevedoring docks double time on holidays and time plus one-half on Saturdays and Sundays.
POLICE/AMBULANCE/FIRE: Police, 998-2221; Ambulance, 998-2345; Fire, 998-2121.
TELEPHONES: No provisions for placing telephones aboard vessels.
SHORE LEAVE: Crew allowed ashore.
DEVELOPMENTS: A second slip (length 2,000 ft.) and a third pier (length 2,000 ft., depth 28 ft.) have been completed.
AUTHORITY: Ashtabula Port Authority, P.O.Box 889, Ashtabula, Ohio 44044. *Tel:* (216) 992 8428. *Contact:* Robert Weiner, Chairman. Nicholas Paulchel, Harbour Master.

ASTORIA, Oregon: 46.11 N. 123.50 W. (See Plan)

PILOTAGE: Columbia River Bar Pilots, P.O. Box 81, Astoria, Oregon, 97103. Tel: 503-325-2641. Also see "General – Pilotage" before first U.S.A. port (Albany).
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
GENERAL: The Port of Astoria Terminals are located 10 miles upstream from the mouth of the river and 86 miles downstream from the City of Portland, Oregon.

The channel in the Columbia River, from the ocean to Astoria, has a width of 500 ft. and project depth at low water of 40 ft.

At Astoria, the mean range of tide is 7.5 ft. with extreme tidal range of about 12 ft. On a flood tide a velocity of 2 knots is seldom exceeded, but the velocity sometimes attains 5 knots during the ebb tide. This variation is due largely to the strength of the river discharge, with maximum velocity during the freshets which occur during the months of May, June and July. These freshets, however, do not effect the height of water at Astoria. The Columbia River is navigable throughout the year.

A total of 9 berths at the Port of Astoria Terminals are periodically dredged to 35 ft. and 40 ft. at zero tide, but depths vary from time to time.
TUGS: Tugs are available for assisting ships at the option of the vessel.
BERTHING: The 3 piers, including Ro-Ro facilities and barge ramp, comprising the Port of Astoria Terminals are located in the Western part of the City of Astoria at the confluence of Youngs Bay and the Columbia River. Astoria is served by 1 railroad, 3 major highways and 6 barge lines. The piers extend to the main ship channel, allowing vessels to berth or sail at any time. The terminals are operated by the Port of Astoria Commission as a public property open to all carriers and shippers.

Pier No. 1:
Location: Foot of Portway Street, adjacent to Pier No. 2, and separated therefrom by a water slip 400 ft. in width.
Principal Commodities: General commodities, break bulk, plywood, frozen tuna, grain, sacked goods.
Berths: 2 vessels. 875 ft. face or Northerly end; 1,000 ft. slip or Westerly side, depth 40 ft.
Pier Apron: Width 24 ft., slip side; 16 ft., face or end. Dock is 16.1 ft. above MLW.
Equipment: Dock tractors, 2 container straddle carriers, fork lift trucks, trailer trucks, hand trucks and other necessary miscellaneous cargo handling equipment.
Water Services: Portable meters and hose connections for vessel service. Rates of delivery, 10,000 g.p.h. Water pressure about 110 p.s.i.
Fire Protection: Complete automatic dry pipe sprinkler system and hose stand pipes.
Electric Current: Face Pier No. 1 – 440 volt, 3 phase. Lighting 110 volt, 2 phase, 60 cycle, 35 amperes, alternating current. Portable meter and plug-in service available at all berths.

Pier No. 2:
Location: Between Piers No. 1 and 3. Separated from Pier No. 1 by a water slip, 400 ft. wide, and from Pier No. 3 by a water slip, 350 ft. wide.
Warehouse Shed: 65,000 sq.ft. steel building with foundation and sprinkler system.
Principal Commodities: Lumber, logs, general cargo, break bulk, bulky cargo in open storage.
Berths: 5 vessels; 425 ft. face or Northerly end; 1,307 ft., slip Easterly side, 40 ft. depth; 1,445 ft., slip Westerly side, 35 ft. depth.
Open Dock: 535,000 sq.ft. Dock level 16.1 ft. above MLW.
Equipment: Modern lighting. Tractors, fork trucks, etc. as listed under Pier No. 1, when required. Portable meters and hose connections. Pipe lines on pier for bunkering.
Barge Ramp: A barge ramp capable of handling loads up to 50 tons is now in operation at the outer berth of Pier No. 2. The ramp is utilised for transfer of cargo from barge or vice versa.
Water Service: City service. Portable meters and hose connections for service to vessels. Rate of delivery, 10,000 g.p.h. Water pressure about 110 p.s.i.
Electric Current: Lighting 110 volt, single phase, 60 cycle, 35 amperes, alternating current. Power 220 volts, 3 phase, 60 cycle, 35 amperes, alternating current. Portable meters and plug-in service at all berths.

Pier No. 3:
Location: Foot of Hamburg Avenue, (adjacent to and separated from Pier No. 2 by water slip 350 ft. wide).
Principal Commodities: Canned goods, wood pulp, paper products, general cargo, break bulk, dry bulk.
Berths: 2 vessels. 1,750 ft. slip on Easterly side; 35 ft. in depth.
Warehouse Transit Shed: Floor area 248,000 sq.ft. Floor load 600 lbs. East side; 1,000 lbs. West side, per sq.ft.

Shed width 160 ft. Shed length 1,550 ft. Mill type reinforced concrete walls and floor construction. Concrete and blacktop floor. Complete automatic sprinkler system.
Pier Apron: Width, slip side 24 ft. Dock level, 16.1 ft. above MLW.
Equipment: Tractors, trailers, fork trucks, etc., as listed under Pier No. 1, when required.
Water Supply: Portable meters and hose connections for service to vessels. Rate of delivery, 10,000 g.p.h. Water pressure about 110 p.s.i.
Fire Protection: Automatic dry sprinkler system. Hose stand pipes.
Electric Current: Lighting 110 volts, single phase, 60 cycle, 35 amperes, alternating current. Power 220 volts, 3 phase, 60 cycle, 35 amperes, alternating current. Portable meters and plug-in service available at all berths.
CONTAINER HANDLING: Container Yard (West of Pier No. 3) 11.5 acres paved, fenced and lighted.
CRANES: 30 ton crane on Pier No. 2.
STEVEDORES: Stevedore Services of America and Jones-Oregon.
FRESH WATER: Available, delivery to vessel through portable hose.
FUEL: Bunkering oil facilities for ocean vessels are maintained at Pier No. 2. The rate of delivery for heavy fuel oil is 1,500 b.p.h., and for diesel oil, 800 b.p.h.
AUTHORITY: Port of Astoria, 1 Portway, Astoria, Oregon 97103. *Tel:* (503) 325-4521. *Contact:* Steve Felkins, Director.

BALTIMORE, Maryland: 39.17 N. 76.35 W. (See Plan)

PORT LIMITS: North Point is the outer limit of Baltimore Harbour for arrival purposes. The anchorage off Annapolis at Thomas Point, for vessels assigned thereto, is considered arrived for charter purposes.

DOCUMENTS:
3 Copies Cargo Manifest (Form 1302).
Direct Arrival – 2 All Cargo on Board.
1 Cargo this Port.
Coastwise Arrival – 1 All Cargo on Board.
2 Cargo this Port.
3 copies Crew Manifest (curio list) (Form 1304).
3 copies Stores Lists (Form 1303).
3 copies Passenger List (Form I-418).
3 copies Crew List (Form I-418).

Customs Boarding Officer will also examine Ship's Register and Load Line Certificate. In addition, the following documents will be required for formal entry to be made within 48 hours of arrival from abroad, or 24 hours from arrival from a United States port.
Master's Oath (Customs Form 1300) 3 copies.
General Declaration (Customs Form 1301) 3 copies.
All foreign clearances.
U.S. Certificates of payment of tonnage tax (Customs Form 1002).
Certified Crew List (Visa Crew List – U.S. Immigration).

PILOTAGE: Each vessel entering the Chesapeake Capes under foreign flag or carrying foreign cargo is required to employ a Pilot of the Association of Maryland Pilots. Pilots are furnished with a small transistorised portable radio unit, which provide ships' bridge to bridge communication system to ensure navigational safety while traversing the waters of Chesapeake Bay. It is a positive means of communication to ensure ship's position reporting, the safety and movement of vessels, as well as messages related to the operational needs of vessels proceeding to the port, and provide the Pilots' communications instructions expediting operations of vessels when they are aboard.

Send ETA pilot station via WMH, 48 hours before arrival and confirm 24 hours before arrival.

The ETA message should state whether arriving via Chesapeake and Delaware Ship Canal or Cape Henry, and deepest draft and speed of vessel.

Cable address of Pilot: "Marpilot, Baltimore", pilot vessel "Maryland" on VHF Channels 11, 13 and 16. Telex: 87-574. Tel: (301) 276-1337.

The large ocean station pilot vessel has been removed from station. Inbound and outbound traffic is monitored by the new Cape Henry Pilot Tower on shore just seaward of Cape Henry Light. The Pilot Tower maintains both a radar and radio watch for the area. Vessels should contact the Pilot Tower on VHF Channel 16 whence they will be directed to a working frequency. Vessels are requested to contact the tower 2 hours prior to arrival at the pilot boarding area.

Pilots are despatched from Lynnhaven Inlet by high-speed all-weather boarding launches and will rendezvous with vessels at CBJ Buoy, approximately 2 miles ENE of Cape Henry Light.

Pilots may request a relief pilot during transit who will board the vessel at the Pilot Transfer Station located 90 miles Northward near the Patuxent River. Under certain conditions of speed and draft, 2 pilots may be provided at the outset of the transit. Relief pilots are provided at no extra charge.

ANCHORAGES: Numerous anchorages located within harbour limits for ocean-going vessels. 6 such areas are available for vessels of light and deep draft. 4 of these anchorages are located on the East side of the main ship channel between the entrance channel to the Central Soya Company Grain Elevator and Fort Carroll. 2 are on the West side of the main ship channel. At Thomas Point, approximately 22 miles South of Baltimore, there is an emergency anchorage in natural deep water with depth of 50 ft. or more. The U.S. Coast Guard is responsible for the anchorages, but in practice, the Pilots make the assignments.

RESTRICTIONS: There are two different approaches and exits to the sea lanes. The principal route is by way of the Southerly course through the Chesapeake Bay and Cape Henry to the ocean. The distance by this route is approximately 150 nautical miles. There is a main ship channel 20 miles long from Baltimore to the Chesapeake Bay; this channel is 800 ft. wide and 42 ft. deep.

The other route to the sea lanes is via the Chesapeake and Delaware Ship Canal. This offers a short protected route between Baltimore and other leading North Atlantic ports by way of Delaware Bay and allows ships serving North Atlantic European ports to save about 115 miles sailing distance.

Entrance to the Chesapeake and Delaware Ship Canal is located about 50 miles North of Baltimore. Depth of channel 35 ft. The width of the channel is 450 ft. Max. LOA 886 ft. Max. draft 31 ft. (Temporary condition, normally 32 ft.). The canal itself is 15 miles in length, and from the Delaware Bay side the distance to sea lanes is about 60 miles. Navigation lights are maintained so the canal is open to navigation day and night. Mean range of tide is 1.1 ft. at Baltimore. Currents are 0.8 knot on flood and ebb tides.

MAX. SIZE: Length 1,250 ft., draft 42 ft. at Consolidated Coal Pier. No restriction on beam.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to New York.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: The port has an efficient fleet of tugs in operation. The tugs usually take vessel in tow at Francis Scott Key Bridge. Tug's lines are used at no extra charge.

BERTHING: Major piers and terminals:
Abbreviations:
WC = Whirley Crane (Tower Gantry) LT = Long Ton
CC = Container Crane T = Net Ton
M.T. = Marine Terminal

Breakbulk – Container, General Cargo:

Name	*Berths (ft.)*	*Water Depth (ft.)*	*Cranes*	*Other Features*
Pennwood Wharf	1–870	32		
Dundalk M.T.	1–1050	38	10 CC at 40 LT	2 Ro-Ro ramps
	1–840	38		7 container berths
	1–800	34	2 WC at 50 T	
	3–750	38	2 WC at 60 T	
	7–600	34		
Sea-Land M.T.	1–700	32	1 CC at 27.5 T	1 container berth
Rukert Terminals	1–575	34		
	1–525	36		
Clinton St. M.T.	4–550	32	1 WC at 15 T 1 WC at 18 T	
Locust Point, North Piers 3, 4 & 5	7–600	34	2 WC at 75 T	
Locust Point, South	4–850	36	3 CC at 40 LT 1 WC at 100 T 1 Stiffleg Derrick 350 T	2 container berths
Port Covington	2–600	33	2 WC at 10 T	
	1–850	33	2 WC at 10 T	
	1–1000	33		
	1–650	33		
Chesapeake Terminal	1–700	30		

Also see "Developments".

Dry Bulk:

Name	*Berths (ft.)*	*Water Depth (ft.)*	*Commodity*	*Cranes*
Sparrows Point	2–1020	45	Iron Ore	3×26 T Ore unloaders
Pier 6 Port	1–1434	30	Ore, coal	1×9 T Ore crane
Covington	1–1524	40		1×15 T, 1×9 T Ore cranes
Curtis Bay Ore Pier	1–650	42	Ore	2×15 T Ore cranes
Rukert Pier 5	1–820	36	Ore	1×21 T Ore crane
Hawkins Point	1–720	36	Ore (Alumina)	1×30 T Ore crane
CCSC Coal Pier	1–1253	50	Coal	1 Shiploader 7000 T per hour
Canton Coal Pier	1–939.5	32	Coal	2 loading towers 1000 T per hour
Bayside Coal Pier	1–1000	42	Coal	1 Shiploader 6000 T per hour
Curtis Bay Coal Pier	1–900	42	Coal	1 Shiploader 6000 T per hour
Canton Grain Elevator	1–1418	39	Grain	2 loaders & spouts 125,000 bushels per hour
Pier 7, North Locust Point	1–1000	38	Grain	4 conveyor booms & spouts, 75,000 bushels per hour
Pier 2 Port Covington Grain Terminal	1–1340	37	Grain	6 loading spouts 70,000 bushels per hour
National Gypsum Pier (Gold Bond)	1–594	32	Gypsum	Receiving hopper & belt, 500 T per hour
U.S. Gypsum Dock	1–746	27	Gypsum	Receiving hopper & belt, 900 T per hour
Amstar Corp.	1–970	32	Sugar	2×12 T unloading towers, 600 T per hour
Penwood Shipping Wharf	1–870	32	Export steel products	
Davison Chemical Co. Rock Pier	1–345	28	Sulphuric acid and sodium silicate	

Liquid Bulk:

Name	*Berths (ft.)*	*Water Depth (ft.)*	*Commodity*
Pier 10, Locust Point North M.T.	1–610	34	Molasses, Caustic Soda Asphalt, Latex
ST Services Pier	1–900	36	Petroleum, edible and chemical
	1–900	35	Liquids
Olin Corp Main Wharf	1–800	28	Liquid Sulphur
Berths 5 & 6 Dundalk M.T.	1–600	34	Molasses
Agrico Pier	1–450	30	Liquid fertiliser
Pier 4 & 5, North Locust Pt. M.T.	1–600	34	Latex (Guthrie)
	1–600	34	Latex (Firestone)
Pier 3, North Locust Point M.T.	1–600	34	Latex (Firestone)
Hawkins Point Pier	1–720	36	Liquid Fertiliser, Hydrogen Peroxide
Exxon Pier 1	1–830	35	Petroleum and petroleum products
Exxon Pier 3	1–405	36.5	Petroleum and petroleum products
Continental Dock 188	1–585	32	Petroleum and petroleum products
Continental Pier 189	1–785	34	Petroleum and petroleum products
Shell Oil Wagner's Point Pier	1–840	30	Petroleum and petroleum products
Amoco Oil Dock No. 1	1–675	33	Petroleum and petroleum products
BP-Texaco Pier	1–435	33	Petroleum and petroleum products
Amerada Hess Pier	1–700	37	Petroleum and petroleum products

RADIO: Marine Radio Station WMH with a world wide range operates on 500 kHz., 8610 kHz. and 12952.9 kHz.

CRANES: *Floating:* 1×150 tons.

One stiff legged derrick, capacity 350 tons, located at South Locust Point Marine Terminal.

BRIDGES: The Chesapeake Bay Bridge-Tunnel is located across the entrance to the Bay, between Cape Henry and Cape Charles. This vehicular crossing consists of fixed causeways and bridges 15 miles in length, and 2 tunnels – one under the Chesapeake Channel and one under the Thimble Shoal Channel. A horizontal clearance of 1,400 ft. at 60 ft. water depth exists.

The Francis Scott Key Memorial Bridge crosses the main ship channel in Baltimore Harbour and is 8,640 ft. long, with main channel horizontal clearance of 800 ft. and vertical clearance of 185 ft. Vessels en route to the harbour from the ocean via the Chesapeake Bay pass under the Chesapeake Bay Bridge (2 parallel bridges), about 138 statute miles above the ocean entrance to the bay. This bridge is 3.7 miles long from shore to shore; its Western end is 0.5 miles S.W. of Sandy Point and its Eastern end is on Kent Island, 4 miles S.W. of Love Point. Least clearance width of 1,500 ft. and vertical clearance 186 ft.

By way of the Chesapeake and Delaware Canal the least horizontal clearance is 500 ft. and vertical clearance of 133 ft.

The Curtis Creek and Middle Branch sections of harbour are each crossed by highway and railroad bridges.

DENSITY: Fresh water.

TANKERS:

Exxon: The Exxon Terminal in Baltimore Harbour is located 153 miles from the Sea Buoy and consists of 2 berths (North and South Piers). The controlling depth at this terminal is:

Navigation Channel – 41 ft. 0 in. North Berth 35 ft. 0 in.
South Berth 36 ft. 6 in.

The max. size vessels received at these berths are:

North Berth – 28,000 d.w.t.
South Berth – 76,000 d.w.t.

The controlling height of the vessel's mast – 180 ft. Vessels dock and undock at all stages of the tide. Constant Northwesterly winds may cause substantial variation in tide and delay docking.

At this terminal there are 3 terminal personnel on the scene at all times who will advise vessels of any critical conditions.

When docking, vessels normally use 2 tugs and when undocking, 1.

On approach to the berths, vessels transit the Fort McHenry Channel with a controlling depth of 41 ft. MLW and minimum width of 300 ft. Vessels are then turned 90° Eastward for berthing on the North side of the finger pier starboard side to or on the South side of the finger pier port side to.

Shell: The Shell Oil Dock is located in Fairfield, Maryland Harbour, 162.5 miles from the Sea Buoy. Although the controlling depth for vessels in the navigation channel is 39 ft., the max. allowable draft is limited to 33 ft. 6 in. due to the water available alongside the berth. The average size vessel normally received at this terminal is 28,000 d.w.t. Vessels can dock and undock at any stage of the tide. Passing traffic at this terminal could cause vessel to surge. When docking vessels utilise 2 tugs, and when undocking normally 2 tugs unless weather conditions permit 1.

The terminal is located on the port hand at Fort McHenry Channel on approach to berth. Vessels make a 90° turn to port and enter approach channel to berth. The distance from the main channel to the berth is approximately 270 ft. When undocking, vessels are backed down Approach Channel to the Main Channel where they are then turned.

Also see "Berthing".

MEDICAL: All facilities available.

FRESH WATER: Can be supplied at all berths. Water barges available.

FUEL: All grades supplied by numerous oil companies by barge or ex-wharf at the oil berths.

REPAIRS: *Bethlehem Steel Corporation:* At the Sparrows Point Shipyard vessels up to 300,000 d.w.t. are constructed, and the facilities include all the necessary equipment for the construction of large and small vessels.

One other marine yard, which is located on the Eastern end of Locust Point adjacent to Fort McHenry.

In addition to the above mentioned facilities there are numerous companies specialising in minor ship's repairs, tank cleaning, repair of all types navigational and optical instruments, fumigation.

AIRPORT: BWI Airport, 8 – 10 miles or 20 minutes from harbour by vehicle with 32 regular scheduled airlines and 580 flights daily.

SURVEYORS:

Capt. Dieter E. Albers, 532 Anchor Dr., 21085. Tel: 679-5260.

American Bureau of Shipping and ABS Worldwide Technical Services, Inc. The World Trade Center, Baltimore, Suite 331, 21202. Tel: 752-0828. J. A. Schilling, Area Principal Surveyor. I. J. C. Owen, Senior Surveyor.

Allcargo Surveyors, Inc., 1205 St. Paul St., 21202. Tel: 837-0555. Mario A. Dialinos, Director. Tel: 661-0447.

American Marine of Maryland, Inc., Old Scale House, 2700 Broening Hwy. 21222. Tel: 288-1080. Paul N. Trapani, Pres. Tel: 592-2692. Capt. Alok K. Praharaj, Surveyor, Larry T. English, Principal Surveyor. Tel: 686-5194.

Baltimore Cargo Surveyors, 1432 Light Street, 21230. Tel: 727-3770. Capt. Joseph A. Arena, Marine Surveyor. Tel: 486-3816.

John L. Bauer & Associates, Inc., 609 Sussex Road, 21204. Tel: 321-9043. John L. Bauer, Marine Surveyor. Tel: 321-9043.

Bulk Liquid Surveys, Inc., 4646 Parkside Drive, 21206. Tel: 485-0374. Norman F. Cumberland, Pres. Tel: 485-0374.

Carman & Co., 935 S. Wolfe St., 21231. Tel: 342-2935. Morgan P. Bodie, Jr., Marine Surveyor, Prop.

Edward F. Carter & Associates, Inc., Dundalk Marine Terminal, 2700 Broening Hwy., 21222. Tel: 539-1346. Capt. Frederick A. Johnson, Marine Surveyor. Capt. Sumner R. Dolber, Marine Surveyor. Capt. Emmett G. McCarthy, Marine Surveyor.

James M. Fesmire Jr., 1210 Clearfield Circle, 21093. Tel: 828-1147.

Hull and Cargo Surveyors, Inc., 1531 Edgemere St., Suite C, 21227. Conrad J. Rosemere, Jr., Principal Surveyor. Tel: 679-7088. A. Randall Jordan, Marine Surveyor.

Intermodal Technical Services, Dundalk Professional Bldg., A-3, 40 S. Dundalk Ave., 21222. Tel: 282-6100. Samuel S. Lancelotta, Territory Mgr. Richard L. Schott, Marine Surveyor. Tel: 282-8341. Ronald L. Trott, Container Specialist. Tel: 781-4691.

International Cargo Surveyors, 2700 Broening Hwy., Dunmar Bldg. N, Suite 209, 21222. Tel: 633-3340. Stefhen D. Meirnicke, President.

Lloyd's Register of Shipping, World Trade Center, Baltimore, Suite 625, 21202. Tel: 547-1150. Peter J. Beare Sr., Surveyor. Tel: 661-8509.

Peter F. Luard & Co., Inc., 105 Terminal Office Bldg., Dundalk Marine Terminal, 21222. Tel: 633-6257. J. Robert Benjamin, Vice-Pres. John M. Kinsey, Branch Manager, Kenneth Hillyard, Marine Surveyor.

Marserv Inc., 744 Dulaney Plaza, Suites 14 and 15, 21204. Alois F. Cherney, Pres. Tel: 828-7436. John J. Lambros, Vice-Pres. Tel: 828-8249. E. Lee Insley, Vice-Pres. Tel: 377-6981.

George E. Meese, Naval Architects & Marine Engineers, 194 Acton Rd., Annapolis, 21403. Tel: 263-4054. George E. Meese, Owner.

Mid Atlantic Cargo Services, Inc., 11 S. Gay St., 21202. Tel: 539-2841. James Gill.

National Cargo Bureau, Inc., Room 201, 33 S. Gay St., 21202. Tel: 685-5538. Capt. K. V. Cookson, Surveyor-in-Charge. Tel: 821-0267. Capt. E. Siethoff, Surveyor. Capt. W. Benjamin, Surveyor.

Capt. Heiner Popp, Inc., 601 Baltimore Annapolis Blvd., Suite 400, 21146. Tel: 544-1422. Capt. Heiner Popp. Marine Surveyor. Tel: 544-1452. Robert T. Majewski, Marine Surveyor.

Port Supervision, Inc., 207 E. Redwood St., Room 801, 21202. Tel: 539-5158. Tore N. Johansson, Capt., M. S. Mills, Capt.

SGS Control, Services, Inc., 1622 S. Clinton St., 21224, Tel: 563-1822. Lewis Taylor, Branch Mgr.

Vernon K. Spjut, 8402 Merrymount Drive, 21207. Tel: 922-8262.

Neil L. Stein Assoc. Inc., 13 Linstead Rd., 21146. Tel: 647-6416. Neil L. Stein, Pres. Tel: 647-1207.

Arthur H. Sulzer Associates, Inc., 1508 Open Street, 21226, Tel: 355-7400. Arthur H. Sulzer, Sr., Marine Surveyor.

Toplis and Harding, Inc., Dundalk Marine Terminal, 2700 Broening Hwy., Room 208, Dunmar Bldg., 21222. Tel: 288-1447. R. C. Boblitz, Branch Mgr., Tel: 521-5867. John B. Cunningham, Jr., Surveyor. T. G. Chesney, Adjuster.

John W. Treadwell, 8617 Chestnut Oak Road, 21234. Tel: 661-8336. J.W. Treadwell, Marine Surveyor.

CUSTOMS ALLOWANCES: At the discretion of Customs officers. Normal allowance is 200 cigarettes or 2 lb. tobacco and 1 quart wine or spirits per man. Additional allowances may be given if considered necessary, due to length of vessel's stay in port.

IDENTIFICATION CARDS: Standard U.S. Immigration Forms I – 95 to be made up for each Crew member on arrival. Not necessary for crew man already holding Form I – 95, issued for the same vessel.

REPATRIATION: Crew changes can be made and repatriation arranged at the port.

CONSULS:

Argentina
Belgium
Colombia
Costa Rica
Denmark
Dominican Republic
Ecuador
El Salvador
Finland
France
Guatemala
Honduras
Italy
Netherlands
Norway
Panama
Senegal
Spain
Sweden
Tunisia
Turkey
Venezuela

TIME: Eastern Standard Time, GMT minus 5 hours. Daylight saving time from first Sunday in April till last Sunday in October.

POLICE/AMBULANCE/FIRE: Baltimore City: Police tel: 222-3333. Fire tel: 685-1313. Ambulance tel: 396-1111.

Baltimore County: 911.

Emergency matters relating to the Coast Guard – Tel: 962-5100. VHF Channel 81 (157.075 MHz).

EMERGENCY CO-ORDINATION CENTRE: No official Centre at Baltimore. In an emergency contact Captain of the Port – Coast Guard. Tel: 962-5100. VHF Channel 81 (157.075 MHz) is monitored.

BANKS: The Equitable Bank, N.A., P.O.Box 1167, 21203. Tel: 547-4000. Cable: Equibalt. Telex: 4422012.

First American Bank of Maryland, 210 E. Lombard St., 21202. Telex: 892354.

First National Bank of Maryland, International Banking Division, Light & Redwood Streets 21202. Tel: 244-4500. Cable: Firstbank. Telex: 87-532.

Maryland National Bank, International Division, 2 N. Charles Street, 21201. Tel: 244-6804. Cable: Mnbintad 197637.

Mercantile Safe-Deposit & Trust Company, International Department, 2 Hopkins Plaza, 21201. Tel: 237-5304.

Union Trust Company of Maryland, International Division, Box 1077, 7 St. Paul St., 21203. Tel: 332-5777.

STORING: See "Prelims".

1. Normally by truck. Possible by barge at anchorage.
2. Varies from terminal to terminal. Normally vessels can be stored during working hours. No specific port regulations.
3. In most cases truck can go alongside.
4. Yes. (Where apron size permits).
5. Customs regulations apply to bonded goods.
6. Yes.

SHIP SUPPLY SERVICE:

Launch Services:

Annapolis Launch Service, Inc., P.O.Box 44, Annapolis 21404. Tel: 269-0878.

Baltimore Launch and Marine Services, Inc., 2701 Boston St., 21224. Tel: 563-3411.

Bay Taxi Service, Inc., 2121 Aliceanna St., 21231. Tel: 675-3553.

Inner Harbor Transport Service, Inc., The World Trade Center Baltimore, Suite 723, 21202. Tel: 539-1440/41. Pier Office – 1000 Key Highway East. Tel: 727-7955

International Marine Transport Service, Inc., Passengers and Cargo Service, 653 Sherwood Forest, Annapolis 21405. Tel: 974-1179.

Marine Launch (Div. of Broadway Meat Co., Inc.), 2700 Lord Baltimore Dr., 21207. Tel: Office 944-6328, Dock: 327-0881.

Ralford Operating Co., 2701 Boston St., 21224. Tel: 675-0977.

Standard Marine Supply & Service Co., Inc., 911 S. Wolfe St., 21231. Tel: 276-5454/5756, Nights and Holidays 557-9117.

Ship Services:

American Ship Service Co., Inc., 1103 S. Highland Ave., 21224. Tel: 342-8810.

Aquatel Industries, Inc., 3741 Old Georgetown Road, 21227. Tel: 242-4340.

Arkay Steamship Corporation, 5935 Talbott Street, 21207. Tel: 788-0073. TWX: 710-236-9013 (ARKAY SS BAL) Cable: "ARKAY" Baltimore.

Baltimore Ship Repair (Phillyship of Baltimore), 1508 Open St., 21226. Tel: 355-7400.

Davis Ship Service, Inc., 1143 Hull St., 21230. Tel: 234-0531.

Inner Harbor Transport Services, Inc., The World Trade Center Baltimore, Suite 723, 21202. Tel: 727-7955.

Marine Service Company, Inc., 1601 Thames St., 21231. Tel: 522-4444/45.

Phillyship, 1508 Open Street, 21226. Tel: 962-1141. TWX: 83-4627. Cable: Phillyship.

Port Supervision, Inc., Rm. 801, 207 E. Redwood St., 21202. Tel: 539-5158. TWX: 87495.

DEVELOPMENTS: Maintenance dredging to 42 ft. underway.

A new 3 berth container facility (3,232 ft. length × 42 ft. depth) (Seagirt Marine Terminal) to be built. The first berth will be available in Spring 1989. 3×50 ton cranes will be available in the initial stages.

Brewerton Extension Channel to Baltimore to be dredged from 8.2 m. to 10.0 m. and widened from 122 m. to 137 m. The channel may be dredged to 10.7 m. at a later date.

An additional crane is to be constructed at South Locust Marine Terminal.

Approval has been given for main approach channel to be dredged from 42 ft. to 50 ft., completion expected September 1990.

AUTHORITY: Maryland Port Administration, World Trade Center Baltimore, Baltimore, Maryland, 21202, U.S.A. *Tel:* 659-4550. *Telex:* 710-234-1075. *Cables:* Marport. *Contact:* David D. Wagner, Port Administrator.

AGENT: Rice, Unruh Co., Suite 400, 200 South President Street, Baltimore, MD 21202. Tel: (301) 385-2484 (10 lines). (Note: Answering Service in attendance outside normal office hours). Telex: 87-839, TRT 198285. Cables: "Riceunruh Baltimore".

BANGOR (including Brewer and Orrington), Maine:

44.49 N. 68.47 W. **(See Plan)**

LOCATION: Bangor is located on the West bank of the Penobscot River at the head of navigation. Brewer is on the East bank of the river opposite Bangor and Orrington is on the East bank of the river 2 miles below Brewer.

DOCUMENTS:

1 copy of Crew List.
1 copy of Passenger List.
2 copies of Stores Lists.
2 copies of Foreign Purchase Lists.
2 copies of Inward Foreign Manifest.
1 Form 1300 (Master's Oath on entry of vessel).
2 Forms 1374 Outward Foreign Manifest.

PILOTAGE: Pilotage is compulsory for all foreign vessels and U.S. vessels under register in the foreign trade, with a draft of 9 ft. or more, entering or departing from any port or harbour within the waters of Penobscot Bay and Penobscot River North of a line drawn from Marshall Point Livat Port Clyde, thence to Matinicus Rock Light, and thence to Western Head, Isle Au Haut. Pilotage is optional for vessels powered by sail.

Cable PENBAY via Chatham Radio. Ship's Agent usually notifies Pilot 48 hours and 24 hours before arrival at the pilot station. Pilot boat usually stands by on their radio 1 hour before ETA on RT 2182 kHz and VHF Channel 16. Pilot boards at Monhegan Is., Lat. 43° 45′ N., Long. 69° 22′ 5″ W. Pilot uses a white boat 36 ft. long and displays "H" by day and the Pilot signals at night. Vessels awaiting Pilot in bad weather must heave-to outside.

ANCHORAGES: The usual anchorage for vessels waiting at the river entrance for a towboat or favourable wind and tide is Northward of Fort Point on the West side of the channel.

Vessels bound up the river anchor anywhere in the channel where soft bottom is found. Vessels towing to Bangor, if the tide does not serve, often anchor off Winterport. On account of the strong ebb current, it is better for vessels going to Bangor, particularly large vessels, to anchor off Fort Point and start up the river about 3 hours after LW.

RESTRICTIONS: CHANNEL:– The controlling depth in the marked channel in Penobscot River from Bucksport to Bangor is 19 ft. to Winterport, thence 13 ft. to Bangor. The channel is marked by buoys to a point about 1.5 miles below South Brewer.

Caution: Deep-draft vessels should exercise caution above Fort Point as depths of 31 ft. to 32 ft. are in mid-channel, about 0.5 miles Eastward of Sandy Point, and rocky ledge, covered 34 ft., also in mid-channel, is reported about 0.2 miles S.W. of Odom Ledge Daybeacon.

The most difficult sections for vessels are off Lawrence and Luce Coves just North of Bucksport where it is difficult to mark the best water and off Frankfurt Flats where large vessels experience difficulty with the sharp turns.

The channel in Penobscot River is crooked and narrow in places, and frequent changes occur. Vessels should not attempt to carry drafts greater than 10 ft. to Bangor at LW. With a deeper draft a Pilot or towboat should be used; 14 ft. or 15 ft. is carried to Bangor and Brewer at HW, and deeper drafts occasionally to the oil berth at South Brewer. The safest time is on a rising tide. Navigation of the river at night is extremely dangerous due to lack of lighted navigation aids. After unusually high tides many logs, dangerous to small craft, are in the river. At times of maximum ebb currents, buoys are occasionally pulled under.

Tides: The mean range of tide varies from 10.3 ft. at Fort Point to 13.1 ft. at Bangor. Currents of 3 knots are not unusual from Odom Ledge to Orrington, and during Spring runoff currents approaching 5 knots may be encountered. Because of these currents, larger vessels should use caution navigating the river. Passage up the river is more advisable during flood current.

Ice impedes but usually does not prevent navigation above Winterport for nearly 5 months each year, beginning about December. During extreme Winters the river is closed to the mouth. The most difficult place below Winterport is abreast Fort Knox, where ice jams occur. If vessels can pass this point, they usually can go to Winterport. The river is kept open by an icebreaker, which prevents much of the damage that might otherwise be caused by ice and freshets. However, in recent years, according to local information, there has been very little ice and the river has seldom frozen over below Bangor. The brackish water formed by tidal action and the river current no doubt have contributed to this.

Freshets occur in the river during March and April; at times they are dangerous to vessels.

MAX. SIZE: At present ships of 560 ft. are taken up the river 2 hours before HW during daylight. Size and draft of ship depend on the berth.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to New York Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Vessels arriving Bangor use radio station at Chatham Mass., or call on the R/T through station WOU at Boston, Mass.

TUGS: 4 tugs available up to 1,200 h.p. Tugs join at Belfast to assist in turning and berthing.

BERTHING:

Texaco Oil Co. Terminal: A timber pile, timber-decked pier, approximately 5,250 sq.ft., used for berthing oil tankers. There are 8 storage tanks and 1 warehouse/office building with 1,920 sq.ft. of floor space.

Mobil Oil Co.: A timber crib pier approximately 8,500 sq.ft., used for berthing tankers. There are 10 storage tanks and a garage at this facility.

Webber Terminal Inc.: A timber crib pier, approximately 2,340 sq.ft. used for berthing tankers. Adjacent to this pier, there is another timber crib pier, approximately 5,280 sq.ft., also used for berthing tankers. There are 2 storage tanks and a storage building with 480 sq.ft. of floor space.

Astroline Petroleum Corp. of Maine: There is a log filled bulkhead used for berthing tankers. This facility includes 5 storage tanks and 1 tool shed.

Bangor Municipal Dock: A new wooden and steel float with gangway, 1,500 sq.ft. located just below the Joshua Chamberlain Bridge, also 4×4 ton guest moorings are available for recreational use.

Webber Tanks Inc. – Brewer: A rock and timber crib, timber decked pier, approximately 7,200 sq.ft., used for berthing tankers. There are 5 storage tanks and a warehouse with approximately 3,850 sq.ft. of floor area.

C. H. Sprague – Brewer-Orrington: A timber pile wharf, approximately 1,600 sq.ft., used for berthing tankers. The wharf is in Orrington and fuel is pumped to 3 storage tanks located in Brewer. There is one building, a pump house, approximately 600 sq.ft.

Hampden Recreational Boating Facility: 2 launch ramps with ground float; landing dock; 2 guest moorings, 8 ft. MLW to ramps, 80 ft. wide channel.

Town Launch Ramp – Orrington. This is a paved launch ramp; no docking facilities. There is a 40-space (30 car – 10 trailer) gravel parking area.

BRIDGES: 1 suspension bridge below Bucksport with a height of 135 ft. at HW. Horizontal clearance is 750 ft.

The overhead power cable that crosses the river just above Bucksport has a clearance of 145 ft.

MEDICAL: No advance notice required. There are 3 large hospitals.

TANKERS: 1 berth for ocean-going vessels. 1×8 in. hose with a 10 in. line. 22 ft. at low water. Also see "Berthing".

DENSITY: Nearly fresh water.

FRESH WATER: Supplied at ocean-going berth at the rate of 50 t.p.h.

FUEL: Only available at oil berth.

CERTIFICATES:

Load Line.
Foreign Clearance.
Safety Certificate.
Radio Operator's Licence.

CUSTOMS ALLOWANCES: 200 cigarettes per man, 1 bottle wine spirits per man.

IDENTIFICATION CARDS: Form I – 95 must be filled out upon arriving unless seaman has made one out before on a previous trip.

CONSULS: None.

REPAIRS: Only machinery repairs.

REPATRIATION: Arrangements must be made ahead of time by telegram.

TIME: GMT minus 5 hours in the Winter and minus 4 hours from first Sunday in April till last Sunday in October in the Summer.

AIRPORT: Bangor International is 2 miles from the city.

POLICE/AMBULANCE/FIRE: Police 9427377; Ambulance 9893311; Fire 9422293.

TELEPHONES: None put aboard. 1 pay phone on ocean-going berth.

SHORE LEAVE: Allowed subject to Immigration approval.

AUTHORITY: City of Bangor, Dept. of Harbour and Wharves, Harbour Master.

BATON ROUGE, Louisiana: 30.28 N. 91.12 W.

(See Plan)

DOCUMENTS:
Original and 3 copies Crew Lists.
Original and 3 copies of Passenger Lists.
Clearance from last foreign port.
Original and 3 copies of Inward Manifest.
Derat Certificate.
Load Line Certificate.
Safety Certificate.
Ship's Register.
3 copies Curio List.

PILOTAGE: Advise Agents ETA sea-buoy 48 hours in advance. Agent then makes arrangements for Pilots. Seven 46 ft. pilot boats – red hulls white cabins, flying white and blue pilot flags. Suggest pilot ladder 6 ft. above water level, no life-line. Call on 2738 kHz or VHF Channel 9, 30 miles to 40 miles out. Safe anchorage within 2 miles South Pass or S.W. Pass entrance.

ANCHORAGES: General anchorage Baton Rouge as directed by Pilots.

RESTRICTIONS: No night-time restriction for entry or clearance, docking or undocking.

MAX. SIZE: Exxon Oil Docks can accommodate 1,000 ft. vessels – unlimited breadth; draft governed by S.W. Pass – project depth 40 ft. usually restricted from 37 ft. to 30 ft. draft May through August, due to low water and silting.

15

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: ETA cables can be routed through Tropical Radio WNU New Orleans.

TUGS: Available at Baton Rouge for docking and undocking. Ship's lines used.

BERTHING: No time restrictions on berthing. 2 general cargo docks with total 400,000 sq. ft. transit shed and 2,265 ft. long, 40 ft. wide apron with double marginal tracks; grain elevator and bulk terminal at Burnside, for handling ores, concentrates, etc.; container marshalling yard adjacent cargo docks; also 20-acre paved staging area for project cargo.

BULK HANDLING FACILITIES:

Grain: Cargill Grain Elevator: Max. draft 40 ft. Loading rate 1,000 t.p.h. Silo storage 160,000 tons.

Dry Bulk: Burnside Terminal: 2 unloading gantries for bauxite. Rate 2,000 t.p.h. Max. draft 40 ft.

Molasses: Molasses terminal, leased to Manard Molasses Company, has an 11 million gallon capacity.

Coal: Coal Monitor One: The ultimate in the midstream transfer of coal, Coal Monitor One is a joint venture of Ryan-Walsh Stevedores and P & C Bituminous Coal, Inc. The device has the ability to sample and blend as well as aerate and cool the coal as it is transferred from barge to vessel.

Coal has become a major commodity at the Port with the safe, convenient anchorage buoy facility for ocean going vessels and the connection through major rivers and waterways to the primary coal-producing states.

Coal Monitor One can handle vessels with air draft of 65 ft. and beam 135 ft. Loading rate 1,800 tonnes per hour.

Midstream Transfer: The Port's midstream anchorage buoy facility is located in the Mississippi River just opposite its docks for the transfer of cargo between barges and ships. Primarily for the transfer of export coal, the operation is capable of handling import or export steel, salt, coke, unitised cargoes in slings and other bargeborne commodities by the use of floating cranes.

BRIDGES: Sufficient clearance for all stages of river at all times; 3 bridges cross at New Orleans, 1 at Baton Rouge, 1 at Donaldsonville, and 1 at Luling-Destrehan.

CRANES: 3×150 ton crawler; 2×70 ton crawler; 1×50 ton motor crane; 2×45 ton motor crane; 2×35 ton motor crane; 1×30 gantry and 5×100 ton rail car pushers.

STEVEDORES: May be obtained by Agent with 4 hours' notice.

MEDICAL: Agents should receive 24 hours' notice when medical attention is required. 2 excellent hospitals at Baton Rouge, U.S. Public Health Hospital at New Orleans.

TANKERS: Oil tankers load various petroleum and chemical products at Exxon Oil Docks, Apex Oil Co. and Placid Refinery. Oil residue slop facilities available.

Report:

Approaches – Cautionary Advice: Vessels make arrival at the S.W. Pass Sea Buoy located in position Lat. 28° 52.7′ N., Long. 89° 26′ W. Approach to the Sea Buoy should be made from the South to S.E. Vessels should remain in the fairways because of numerous structures in the approach area. Pilots board just South of the Sea Buoy. Precautions should be taken to remain to the East of the Sea Buoy, Buoy No. 1, and Buoy No. 3, when approaching the bar. At times strong cross-currents are encountered in the area of S.W. Pass Channel Entrance and precautions should be taken to prevent the vessel from being set onto shoal grounds on the West side of the channel. There is a large anchorage area to the East of the S.W. Pass Entrance Channel.

Exxon Refinery Terminal:

Docking: 1 tug is used for docking and 1 is used for undocking. On a very high river with a swift current 2 tugs should be used to turn the vessel when sailing, due to the close proximity of the Baton Rouge Highway Bridge as well as the limited turning basin. 2 tugs should also be used when the ship must be berthed between 2 other vessels. Vessels berth starboard side to. Vessels should not drop anchor due to numerous submerged pipe-lines.

A normal mooring configuration should be used with additional head lines in view of the river current.

Cautionary Advice: Channel traffic which is passing close by could cause ships to move away from the berths which could result in damage to the hard arms. It is essential that more than usual attention be given to maintaining the ship in position alongside. It is recommended that several crew members be specifically assigned to tend the mooring lines and winches.

Under no circumstances should mooring lines be slack.

Exxon U.S.A. Refinery Terminal: 232 miles AHP: The refinery dock, consisting of 5 berths, is a concrete and steel structure 50 ft. wide and running in a North – South direction along the river bank for about 2,750 ft. The berths are numbered 1 through to 5 from South to North. All products are transferred through hoses or 10 in. hydraulically operated steel loading arms. The loading arms for crude oil at No. 1 Berth, however, are 12 in. connections. Cargo hoses are handled by electric hoisting equipment. Vessels are moored to 50 ton quick release hooks located on the dock. Electric capstans are used for hauling the mooring lines to the mooring hooks.

The loading arms and hose connections are manifolded to permit washing into a slop line for change of grade.

All hose diameters are 4 in., 6 in. and 8 in. The 10 in. loading arms have 8 in. reducers.

Each berth has an office equipped with a telephone which is tied into a public address system. In addition, each berthman is equipped with a portable radio for communicating with the dock as well as all control centres. The emergency shut down system for the dock can be operated from each office.

The main control centre for the entire dock is equipped with telephones, a process radio, an FM and AM marine radio and the control station for the public address system. All loading line pressures are displayed on a panel. The public address system provides communication with each transfer location or berth office. The dock emergency shutdown system may also be operated from the control centre.

Cargo Handled and Shore Installations: Berth No. 1 handles nearly all products except lubes and some chemicals. It is also the primary berth for receiving crude oil.

Berth No. 2 handles specialties, chemicals, carbon black, asphalt and wax. Caustic soda is not handled at this berth.

Berth No. 3 handles clean products, lubes, chemicals, carbon black and dirty products.

Berth No. 4 handles clean and dirty products, chemicals and carbon black.

All berths can handle crude.

Pipe-lines range from 4 in. to 24 in.

Berthing: The River Pilot berths the vessel starboard side to.

Approach to Berth No. 1 should never be attempted from directly below the dock, due to a shoal area. This shoal area is known to the Pilots and must be given a wide berth. The Pilot should be consulted as to the exact location of the shoal area.

Vessels should approach dock at dead slow ahead and as parallel to it as possible.

All vessels over 30,000 d.w.t. must use 2 tugs for docking and undocking. Light vessels under 30,000 d.w.t. must dock and undock with at least 1 tug. A bow thruster does not substitute for a tug. A normal mooring configuration should be used with additional head lines due to the river current. Minimum mooring requirements are 4 bow lines, 2 breast lines, 2 forward springs, 2 after springs and 2 stern lines. Mixed moorings in the same direction are discouraged.

When the Baton Rouge River gauge is 30 ft. and above, vessels greater than 30,000 d.w.t. must use a minimum of 6 bow lines plus 2 breast lines. In addition, all vessels over 60,000 d.w.t. must be attended by a tug actively pushing on the bow until the vessel has discharged 75% of its cargo.

When the Baton Rouge gauge is above 40 ft. a tug is required during entire time vessel is alongside Berth No. 1, regardless of ship size.

In the event of an emergency, tugs are readily available within 15 minutes. Tugs can be contacted via VHF Channel 13.

Mooring: Mooring is provided through the use of fairleads and quick release hooks at all of the ship berths. These hooks are rated at 38 tons and 50 tons throughout the berths.

The refinery provides a line handling crew for each ship berthing/unberthing. The line handling crew is assisted by electric driven capstans. This service is provided at no extra charge to the vessel.

Normal mooring line sequence: Forward springs, head and forward breast lines, after springs and stern lines. It is the ship's responsibility to provide all mooring equipment.

Terminal monitors mooring throughout operations and provides each vessel with a standard mooring plan.

Terminal has no requirements to limit wind area of vessel; however, in the event of unexpected high winds, vessel may be required to ballast down.

Manifold Criteria: The vessel's manifold must not be allowed to get more than 42 ft. above or below the dock deck. When connected to a vessel, the end of the arm should be positioned between 13 ft. and 19 ft. from the edge of the vessel if the 12 in. loading arms are used; between 4 ft. and 10 ft. for the 8 in. arms. The vessel's flanges to which the arms are to be connected must be spaced at least 3 ft. 6 in. apart and be vertical and parallel to the vessel's side. The vessel's flange should be no more than 3 ft. from the last permanent support and it should be attached to that support.

Before a vessel arrives at the dock, vessel personnel are advised of the size of flanges needed for connection to the loading arms or hoses.

Dock Communications: The Baton Rouge dock is equipped with a positive ship-to-terminal radio communications system. On arrival, vessel will be provided with a radio for which a signed receipt is required. The radio must be monitored by the English-speaking person in charge at all times. The ship's personnel will be instructed in the proper use of these radios at the time of receipt. If these radios are not returned in good condition, a charge of $2,000 will be levied against the vessel.

Each berthman is equipped with a portable radio on the same frequency as the radio provided to the ship. This will be the primary means of communication.

The main control centre for the entire dock is equipped with telephones, a radio on the same frequency as the berthman and an AM/FM marine radio with Channels 9, 16, 18 and 22.

Bunkers and Fresh Water: Bunker C, diesel and fresh water are available.

Ballast Facilities: Ballast facilities are limited to 20,000 barrels.

DENSITY: No tide – fresh water at all times.

FRESH WATER: At public docks. At Exxon Oil Terminal simultaneous with loading or discharging at no cost. Ship's crew to make water connections.

FUEL: All grades subject inquiry. Barging essential.

FIRE PRECAUTIONS: Usual fire lines and sprinkler systems. Fireboat "Exxon Bayou State" on station.

GANGWAY/DECK WATCHMEN: Only if Master requires.

OPENING/CLOSING HATCHES: Depending on terms of charter, usually by ship's crew.

CUSTOMS ALLOWANCES: Tobacco, each crew member allowed 1 carton cigarettes. Master allowed reasonable quantity. Wine and/or Spirit, each crew member allowed 1 bottle each of wine and spirits. Master allowed reasonable quantity.

CARGO GEAR: Safety certificate required for ship's gear.

IDENTIFICATION CARDS: Usual passports.

CONSULS: Norwegian only, all other consuls at New Orleans – 85 miles distant.

REPAIRS: All types of deck and engine repairs may be carried out.

SURVEYORS: *Testing, Sampling, Weighing and Cargo Certification:*

Caleb Brett USA Inc., P.O.Box 46039, Baton Rouge 70895. Tel: 927-0020.

Chas. Martin, Inspectors of Petroleum, 2835 Plank Rd., Baton Rouge. Tel: 355-8833.

Pittsburgh Testing Lab., 2166 Monroe Ave., Baton Rouge. Tel: 355-2641.

Saybolt, E. W. Co., 10023 Mammoth Avenue, Baton Rouge. Tel: 925-1231.

Transport Management & Consulting, Inc., 4137 Sherwood Forest Blvd., Suite 110, Baton Rouge 70816. Tel: 293-3025.

USDA, FGIS, Port Allen. Tel: 389-0373.

USDA, FGIS Field Office, Lutcher. Tel: 536-2811.

Marine Surveyors:

Jorgensen, Capt., N.E. 865 E. Riveroaks, Baton Rouge. Tel: 926-6828.

McAnally Engineering Co., Box 66012, Baton Rouge 70809. Tel: 766-8992.

National Cargo Bureau, 7414 Perkins Rd., Suite 180, Baton Rouge. Tel: 769-6353.

REPATRIATION: Crew repatriation and crew changes may be made.

AIRPORT: 6 miles to Ryan Airport, served by regular airlines.

TIME: Local time is Central Standard Time – GMT minus 6 hours; from April through October local time is CS daylight saving time, GMT minus 5 hours.

POLICE/AMBULANCE/FIRE: Tel. Nos. Public Dock: Police 343 – 9234; Ambulance 343 – 6691; Fire 343 – 6691.

TELEPHONES: No arrangements for placing telephones aboard.

GENERAL: Tankers in ballast advised of drift wood conditions in river and ballast their vessels accordingly so as to avoid propeller damage.

SERVICES: Because of restricted river width inadvisable adjust compasses. This is usually accomplished below New Orleans where river of sufficient width to permit large vessels to swing. 3 firms engaged in tank cleaning, namely, Watson Marine, Robin Hood Fleeting and Port Allen Marine Cleaning Plant. Slop facilities available at the Exxon Oil & Refining Co. dock.

SHORE LEAVE: Shore leave permitted except when detained aboard by U.S. Immigration.

SHIP SUPPLY SERVICE: *Launch Service:*

Capital Marine Supply, Inc., Box 3018, Baton Rouge. Tel: 343-8379.

Tri-G Marine Supply, Inc., Box 3808, Baton Rouge. Tel: 344-7664.

DELAYS: Normally no delays at Exxon Oil docks in berthing except when vessel's tanks unsuitable for loading. Normally no delay at city wharf.

NOTICE: To all Masters from a Ship's Agent:

Please be advised that the Agent will need a copy of the Notice of Readiness and Dry Tank Certificate. The Agent will pick these two certificates up from the Master on sailing of vessel. These are needed by the Agents to send out to the Owners and/or Charterers along with the other documents. We have been having problems receiving these documents from the terminal and/or Cargo Surveyor. The terminal will require, on the vessel's arrival at the berth, one copy of the Bill of Lading and/or Customs Manifest. It would be appreciated if you could make an additional copy of these documents when they are prepared by your vessel.

AUTHORITY: Greater Baton Rouge Port Commission, P.O.Box 380, Port Allen, Louisiana 70767-0380. *Tel:* (504) 387-4207. *FAX:* (504) 387–1534. *Contact:* Gary C. Pruitt, Executive Director. Doris J. Bautch, Director of Trade Development. Richard Savoy, Director of Terminal operations.

BAYTOWN, Texas: 29.44 N. 95.01 W. **(See Plan)**

DOCUMENTS, PILOTAGE, etc.: Refer to "Houston".

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO/VHF: Exxon Dock "KNQ-Baytown" on VHF Channel 19.

TUGS: Available if required. Tel: 713-928-5406.

BERTHING: All berths at Baytown 39 ft. (Fresh water). Agent should verify safe arrival/departure draft with Exxon Docks prior vessel arrival.

STEVEDORES: Available. Call L. S. Mitchell Co. Tel: 713-426-4575.

MEDICAL: All medical assistance available.

TANKERS: *Caution:* Channel traffic which is passing close by could cause ships to move away from the berths which could result in damage to the hard arms. It is essential that more than usual attention be given to maintaining the ship in position alongside. It is recommended that several crew members be specifically assigned to tend the mooring lines and winches.

Under no circumstances should mooring lines be slack.

The terminal prefers the use of self-stowing winches with mooring wires.

Berthing: Tugs of up to 3,200 h.p. and bollard pull of up to 46 tons are available. Tugs use the "alongside" method. Tugs normally use a head line and quarter line; however, larger tugs will usually use 2 head lines.

By pre-planning discussions with the Pilot, Masters are to assure themselves that a sufficient number of tugs, each with sufficient horsepower, are ordered well in advance by the Pilot.

Depending on the size and draft of the vessel, 2 – 4 tugs will meet the vessel in the vicinity of the tunnel about 1 mile below Baytown and escort the vessel into the turning area. Vessels scheduled to Berth No. 1 will moor starboard side to, bow up stream. Vessels at Berth No. 2 will be turned about and moor port side to. Vessels scheduled to Berth Nos. 3, 4, 5 or 6 will be turned and backed into the berth, bow out. There are virtually no exceptions to these mooring rules.

Tidal height, current speed and direction are monitored by the Baytown Dock Co-ordinator. This information may be obtained prior to berthing by calling KNQ.

This information is particularly important when turning ship and backing into Berth No. 5.

Exxon Berth No. 1: Vessels assigned to this berth must dock starboard side to, bow upstream. Winch mounted wires are preferred, however, mooring ropes are acceptable. Additional lines will be required for vessels not equipped with all wire moorings. Vessels in this berth are passed close to by ships transitting the Ship Channel, therefore, all moorings must be well-tended and tight.

Products handled at this berth include gasolines, distillates, lube oils, and various petro-chemicals. All products are handled through 4 in., 6 in. or 8 in. hoses. All hose connections are bolted-type connections. Maximum pressure that all products are pumped at is 100 p.s.i. Ballast and slops are handled at this terminal. Maximum pumping pressure for ballast and slops is 100 p.s.i.

Exxon Berth No. 2: Bow to manifold should not exceed 320 ft. and stern to manifold is limited to 400 ft. due to berth overhang and interface with Berth No. 3.

Vessels assigned to this berth must dock port side to, bow downstream. Winch mounted wires are preferred, however, ropes are acceptable, though vessels with ropes will be required to use more lines than wire-equipped ships. Vessels in this berth are passed close to by ships transitting the Houston Ship Channel, therefore, all moorings must be tended and kept tight to prevent breakout or damage to hoses.

Products handled at this berth include gasolines, distillates, lube oils, and various petro-chemicals. All products are handled through 4 in., 6 in. or 8 in. hoses. All hose connections are bolted-type connections. Maximum pressure that all products are pumped at is 100 p.s.i. Ballast and slops are handled at this terminal. Maximum pumping pressure for ballast and slops is 100 p.s.i.

Exxon Berth Nos. 3 and 4: Vessels assigned to these berths are backed alongside the berth and then pushed by tugs against the dock. Extreme care should be taken not to approach the berth at too great an angle, and every effort should be made to manoeuvre into position prior to making contact with the breasting works. 2 or more tugs are required depending on vessel size and weather conditions.

Vessels always manoeuvre stern first into the slip utilising the turning area adjacent to the docks. Vessels are moored starboard side to Berth No. 3 and port side to Berth No. 4.

Winch mounted wires are preferred, but ropes are acceptable. Usually the spring lines are taken first followed by the stern then bow moorings.

Berthing of vessels at Berth No. 4 is predicated by the presence of a ship or tows at adjacent Berth No. 5. Terminal regulations are based upon the sum of the beam of vessels in adjacent berths to allow sufficient room for manoeuvring.

Products handled at Berth Nos. 3 and 4 include motor fuels, aviation fuel, distillates, solvents, petro-chemicals and bunkers. All products are transferred through 6 in. and 8 in. hoses, and 12 in. arms. Maximum pumping pressure for all products is 125 p.s.i. Ballast and slops are handled at both berths.

Exxon Berth Nos. 5 and 6: Vessels always manoeuvre stern first into the berth, utilising the turning area adjacement to the berth. 3 or 4 tugs are usually used to assist the vessel, depending on vessel size and weather conditions. Vessels are moored starboard side to Berth No. 5 and port side to Berth No. 6.

Docking: There is a large round mooring dolphin at the head of the finger-pier forming Berth Nos. 5 and 6 where loaded 80,000 – 90,000 d.w.t. vessels normally berth.

Although this dolphin has a fender system its sole purpose is to provide mooring points. It is not suitable to land on nor can it be used as a turning dolphin. On several occasions ships have come into contact with this structure resulting in both hull damage and damage to structure itself.

To prevent recurrence of such incidents it is necessary that the Master

1. Before the berth approach is made reviews with the Pilot the intended docking manoeuvres which provide the widest possible berth to the mooring dolphin.
2. Monitors the docking manoeuvre carefully and plans corrective action in a timely fashion so that ship's contact with the dolphin will be prevented.

Tug Assistance: 4 tugs of minimum 3,000 h.p. each are to be used for 80,000 – 90,000 d.w.t. vessels. The tugs making fast on the outward side – not facing the berth – should use 2 headlines and a quarterline.

The Master should include these tug requirements in his first ETA message to the port Agent and ask for confirmation that such arrangements have been made.

Tidal Information: Having knowledge of tidal conditions in the Baytown area is of particular importance with regard to the docking manoeuvre.

Information on the velocity and direction of the current should be obtained from the Pilot.

Water level information should be obtained from the Baytown Dock Co-ordinator by VHF radio.

DENSITY: Mainly fresh.

FRESH WATER: Available ex-wharf.

FUEL: Bunker C and MDO only, no intermediate fuels. No bunkering by barge.

GANGWAY/DECK WATCHMEN: Required only if crew detained by Immigration.

CUSTOMS ALLOWANCES: Each man 300 cigarettes or 100 cigars or 1 lb. tobacco; 1 quart wine/spirits.

STORING: Permissible with advance notice/approval.

REPAIRS: Should be cleared with terminal before vessel arrives at dock.

SHORE LEAVE: No restrictions. Terminal bus transports crew from dock to refinery entrance.

AUTHORITY: Port of Houston Authority.

Operator: Exxon Company, U.S.A., P.O.Box 3950, Baytown, Texas 77520. *Tel:* 425-4452, 425-4453. *Telex:* 510-891-7885 Exxon Dock-Bton. *Contact:* Dock Co-ordinator.

Secondary Contact: Exxon Shipping Company, P.O.Box 3251, Baytown, Texas 77520. *Tel:* 713-427-7370. *Contact:* Transportation Co-ordinator.

BEAUMONT, Texas: 30.05 N. 94.05 W. (See Plan)

LOCATION: On Neches River, above Sabine Lake.

DOCUMENTS, PILOTAGE, RADIO, etc., Refer to "Port Arthur".

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Meet vessel in Neches River before arriving at berth. Normally 2 tugs used for docking, 1 for undocking.

BERTHING:

Wharf	*Length* (ft.)	*Depth* (ft.)	*Remarks*
1	580	30	
2, 3 and 4	1,373	38	Ro-Ro Ramp
5, 6 and 7	1,483	36	
Harbour Island Marine Terminal	1,200	40	Ro-Ro Ramp
Carroll St. Wharf	765	40	
Grain Wharf	543	40	3.5 million bushel grain elevator Loading Rate: 1,875 t.p.h. (grain); 1,100 t.p.h. (soya).

CARGO HANDLING FACILITIES: For container ships, conventional break-bulk ships, heavy lift ships or side-loading Ro-Ro ships, the Harbour Island Marine Terminal – 1,200 linear ft. berthing space; 120,000 sq.ft. transit shed; 93 ft. wide apron facing transit shed; 240,000 sq.ft. open wharf space; 8 acres heavy duty hard stand adjacent to open wharf, backed up by 25 more acres for vehicle marshalling; twin marginal rail tracks for full length of wharf; 220 ton capacity truck-mounted mobile crane for containers and heavy lifts; 40 ton forklift machine with, expandable spreaders for container handling and 3-high container stacking or, blades for heavy cargo; 600 ft. undercover working track for all-weather rail car unloading inside transit shed; 200 linear ft. of truck height unloading platform along rear of open wharf; 20 ft. high × 18 ft. wide shed doors for high wide loads and entry for all-weather truck unloading or container stuffing; 40 ft. of water alongside; 1,200 lbs. per sq. ft. deck load capacity.

For stern loading Ro-Ro vessels, wharves 2 and 3 – 758 ft. in length with 75 ft. wide Ro-Ro platform at one end of the wharf. Ro-Ro platform deck elevation +15.89 ft. above mean low Gulf. (12 ft. 7 in. above average tide) 36 ft. of water alongside wharf; convenient roadway access to Ro-Ro platform from 15 acre storage area adjacent to the wharf; double marginal rail tracks for full length of wharf; 60 ton capacity gantry crane travels 700 ft. along face of wharf; 120,000 sq. ft. open wharf space; wharves 2 and 3 may also be used as an alternate to Harbour Island Wharf for containers, conventional break bulk, heavy lift or side loading Ro-Ro vessels. Covered wharf 4 is adjacent, extending total wharf length to 1,300 ft. and offering 57,000 sq.ft. covered area.

For security of cargo, all Port of Beaumont wharves are entirely within a chain link, barbed wire topped security fence, and all vehicular access is through the port's main gate, guarded 24 hours a day. The port is an approved outport of the Military Traffic Management Command, Eastern Areas, U.S. Army, is heavily used for shipments of military material, equipment and supplies, and is subjected to regular security inspections by Army personnel who have given the port high ratings.

For security of small, high value items that are considered especially subject to possible pilferage, the port will permit fencing and shelving of a limited designated security area within a transit shed.

For heavy lift requirements beyond the capacity of the 60 ton gantry (at Wharf No. 2 & 3) or the 220 ton mobile crane (at Harbour Island Marine Terminal), a 500 ton capacity derrick barge is available.

STEVEDORES: *Public Wharves:* Normal working hours 0800/1200 and 1300/1700 Monday to Friday.

TANKERS: *Amoco:* Terminal is located on the Neches River Channel 44 miles from the sea buoy. The controlling depth for the channel and turning basin is 40 ft. while the controlling depth for the North and South berth is 35 ft. The water is fresh (density 1000). The maximum size vessel normally received at the terminal is approximately 28,000 d.w.t. The limited strength of the docks combined with passing traffic should be noted. Vessels dock and undock day and night. A minimum of 2 tugs are used to dock and undock vessels. Pilings are not to be used as turning points. Vessels in ballast are turned prior to berthing starboard side to. Loaded vessels are berthed port side to and turned after discharge. Judicious use of tugs during turning manoeuvres is essential as vessels have a tendency to "overshoot" the pier when turning. Several mooring dolphins have been knocked out of position. Short wire springs are accepted. All other lines must be rope due to the weak pile clusters. Docks do not have winches nor do they supply a gangway.

Fuel and water are not available.

The terminal is fenced and guarded.

Pollution Control: Consists of 2,000 ft. of spill booms and a launch. Amoco is a member of Neches River Oil Control Committee.

Fire Protection includes a foam system with a tank on the dock. Water monitors and hoses are kept in readiness.

Mobil: Terminal is located on the Neches River Channel 56 miles from the sea buoy. The controlling depth for the channel and turning basin is 40 ft. The water at the terminal is brackish. The maximum size vessel normally received at the terminal is 50,000 d.w.t. Depth alongside 36 ft. The berths are subject to passing traffic and Master's are advised to keep mooring lines tight. No repair work may be done while transferring cargo at this port.

While berthing, a minimum of 2 tugs are used. 1 tug is needed when unberthing. 3 hours advance notice is required when ordering tugs.

Vessels normally proceed to the berth directly from the channel, prior communications establish whether ship will berth head-up or head-down the channel depending upon the LOA and hose connections. Ships can berth starboard side to; however, port is preferred. A normal complement of mooring lines is used. Wire lines are accepted with nylon pendants recommended. A mooring contractor is employed. The vertical range of hoses is 40 ft., 50 ft., if vessel uses its own derrick.

Fuel and fresh water are available at the Mobil terminal.

The terminal is fenced and guarded.

Pollution Control consists of 1,500 ft. of spill boom and a launch. Terminal has vacuum trucks.

Fire protection is provided by a terminal fire brigade. Monitors are situated on the shore, foam and water along with dry chemical are located on the dock. Fire hose is on reels, water is under pressure and spray nozzles are located under the wharf.

Also see "Smith's Bluff".

MEDICAL: All facilities available.

DENSITY: Fresh water.

FRESH WATER: Available at berths, or by barge.

FUEL: Available ex-wharf at Mobil terminal. All grades available by barge to other locations.

GANGWAY/DECK WATCHMEN: Not required unless crewmen detained by Immigration.

CUSTOMS ALLOWANCES: 300 cigarettes and 1 quart wine/spirits for each man.

IDENTIFICATION CARDS: Foreign crew require only Immigration landing permit.

CONSULS: Nearest at Houston.

REPAIRS, DRY DOCKS: Beaumont's Bethlehem Shipyard offers all types ship repair or reconditioning – plus vessel conversion and jumboizing. 2 side-launching ways over 800 ft. each. Floating dry dock with extreme length of 648 ft.; length on bottom 576 ft.; breadth at entrance, 87 ft.; and lifting capacity 17,500 tons. Active in design and construction of mobile drilling platforms and oil and gas production and storage facilities for service offshore.

HOLIDAYS: Longshore holidays are: New Year's Day: Martin Luther King's Birthday (January 15th); Lincoln's Birthday (February 12th); Washington's Birthday; Texas Independence Day (March 3rd); St. Patrick's Day (March 17th); Good Friday; Memorial Day (last Monday in May); Emancipation Day (June 20th); Fourth of July; Labour Day; Columbus Day; Veteran's Day (November 11th); Thanksgiving Day; Christmas Day.

AUTHORITY: Port of Beaumont, P.O.Drawer 2297, Beaumont, Texas 77704. *Tel:* (409) 835-5367. *Telex:* 779486. *Cables:* Portbomont. *Contact:* James W. Martin, Port Director. Billy G. Masters, Executive Managing Director.

BELLINGHAM, (Including Cherry Point), Washington: 48.45 N. 122.31 W. (See Plan)

DOCUMENTS: Refer to "Tacoma".
PILOTAGE: Compulsory.
HEALTH: See "Health: All Ports" before first U.S.A. Port (Albany). Illness Reports made to Seattle Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: Available, join vessel in Bellingham Bay.
ANCHORAGE: Deep water available, but poor holding ground.
RESTRICTIONS: Channel depth 32 ft.
BERTHING: North Terminal, Berths No. 1 & 2 length 1,400 ft., depth alongside 33 ft. MLLW. Berth No. 3, length 400 ft., depth alongside 25 ft. MLLW. Georgia Pacific Dock, Berthing length 600 ft., depth alongside 28 ft. MLLW. Ro-Ro facilities available within the port.
CRANES: 1 × 50 ton floating crane.
STEVEDORES: 8 local gangs. Additional gangs imported if required.
TANKERS: Cherry Point: 48° 52′ N., 122° 30′ W. 3 oil jetties.

Arco Jetty: Depth 70 ft. Intalco Jetty: Depth 37.5 ft. Mobil Jetty: Depth 43 ft.

Deadweight limit in Puget Sound is 125,000 tons.

HOLIDAYS: See "Tacoma".
MEDICAL: All medical facilities available. 2 local hospitals.
DENSITY: Salt water.
FRESH WATER: Available at all wharves.
FUEL: Available. Barge delivery only.
REPAIRS/DRY DOCKS: *Fairhaven Terminal:* Home to Maritime Contractors, Inc., large vessels repair and the Port's 2,800 ton capacity floating dry dock, which can accommodate vessels up to 116 m. length and 18 m. beam.
GANGWAY/DECK WATCHMEN: Required only if detainees aboard.
CUSTOMS ALLOWANCES: No definite quantities prescribed; reasonable allowance at discretion of Customs Inspector.
AIRPORT: 3 miles from the city.
TELEPHONES: Available.
AUTHORITY: Port of Bellingham, P.O.Box 1737, 625 Cornwall Avenue, Bellingham, Washington 98227. *Tel:* (206) 676-2500. *Telex:* 882806. *FAX:* 436-1011. *Contact:* D. C. Fleming, Executive Director.

BENICIA, California: 38.03 N. 122.10 W. (See Plan)

DOCUMENTS: Health and all General Information: refer to "San Francisco".
PILOTAGE: Port located about 25 miles above Golden Gate Bridge. River Pilot joins at San Francisco, using VHF for traffic information. Passage includes passing under 2 bridges, Carquinez Strait Bridge having the least clearance, with 146 ft. (HW) and 151 ft. (LW) (using North Channel). River passage is timed to arrive at Benicia at the first of ebb tide; this is approximately 2.5 hours after HW at Fort Point (Golden Gate).
ANCHORAGE: At San Francisco.
RESTRICTIONS: Tankers must lighten to 36 ft. fresh water draft. This is done at No. 7 Anchorage, 1.5 miles East of Alcatraz Island. This cargo will later be pumped back to the tanker as barges cannot overcome shore back pressure. Turning basin off the berths, radius 1,800 ft.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to San Francisco Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: 1 small tug assists berthing. Only 1 normally required for unberthing.
BERTHING: Continuous wharf 2,404 ft. long with berth for 3 vessels. The West berth is used for the loading of petroleum products, and the centre and East berths are equipped for handling general and bulk cargoes. East of this facility is another berth that will accommodate one tanker for discharge of crude oil (Exxon), depth alongside – 38 ft.
MOORINGS: 2 head wires, 4 breasts and 2 springs forward. This is necessary because of current off the bank during ebb tide. 2 stern lines, 2 breast lines and 2 springs aft.
BULK HANDLING FACILITIES: Waterside silos' capacity 26,000 tons with loading conveyor belt capacity 1,000 t.p.h.
TANKERS: Crude oil discharge through 2×12 in. Chicksan arms and 36 in. shoreline, 2.5 miles long. Shore tanks are situated 164 ft. above sea level, initial back pressure 65/70 p.s.i.
FRESH WATER: Available from shore lines.
FUEL: Can only be delivered by barge. Averate rate 300 t.p.h.
DEVELOPMENTS: Current plans call for development of a complete container terminal.
AUTHORITY: Benicia Port Terminal Company, P.O.Box 315, Benicia, California 94510. *Tel:* (707) 745 – 2394. *FAX:* (707) 746-1485. *Contact:* J. A. Gaidsick, Vice-President.

BOCA GRANDE, Florida: 26.43 N. 82.15 W. (See Plan)

LOCATION: On the Eastern side of the Southern end of Gasparilla Island, about 60 miles South of Tampa Bay.
DOCUMENTS: See "Tampa".

Government Officials must travel from Tampa to Boca Grande at vessel's expense.

PILOTAGE: Compulsory for all foreign-going merchant vessels. The Pilot boards vessel near the sea buoy. Pilotage available 24 hours a day.

Request should be made to ship's Agents via Tampa Marine Operator. VHF Channels 16, 12 and 13.

ANCHORAGES: Good holding ground near the sea buoy (Lat. 26° 39.8′ N., Long. 82° 19.6′ W.)
APPROACHES: The Belcher Oil tanks are clearly indicated on the radar at approximately 25 miles distance.
RESTRICTIONS: The channel is less than 300 ft. wide in some places. Project depth 32 ft. at MLW. The traffic is one way and vessels enter only when the stream is half strength or less. Strong Westerly winds may cause a swell which prevents vessels using the channel.
MAX. SIZE: Beam: 80 ft. with 24 ft. max. distance from outside ship's hull to inside hatch coaming.

Draft: 28 ft. recommended by Pilots. The channel is 30 ft. deep at MLW.

Length: 550 ft. should be a maximum because distance between end bollards is 475 ft.

HEALTH: Same procedure as for any other U.S. port.

A U.S. Public Health physician is located on the island.

RADIO: Tampa Radio – WPD.
VHF: Pilots on VHF Channels 16, 12 and 13. U.S. Coastguard on Channel 16.
TUGS: A small tug for light towing operations is available.
BERTHING: An oil handling berth with 28 ft. depth is located close Southward of the phosphate pier.
TIDES: Approximately 2 ft. variation.
TANKERS: *Belcher Oil:* Depth 28 ft.

Vessels enter and berth only when currrent is at half strength or less. The strength of the current has been reported to reach 4 knots. The current generally flows in 030°–210° direction, although the flood tide varies in direction. The pier face lies in a 060°–240° direction. A vessel uses an anchor to swing around and then to hold its head up into the current while mooring lines are run out to mooring buoys and the breasting cells. 2 mooring buoys forward for headlines and 2 mooring buoys aft for stern lines are used. A total of 14 mooring lines are required to safely tie up. Wires are permitted as spring lines only. Lines must be carefully tended and maintained in a tight condition with vessel snug alongside at all times. *There have been reports of floating timbers in the area; caution is advised.*

Also see "Berthing".

DENSITY: Salt water.
FRESH WATER: Available.
FUEL: No local facilities. Prior arrangements with ample notice must be made via the ship's Agent at Tampa.
CONSULS: See "Tampa".
REPAIRS: No local facilities. To be arranged via Agents with ample notice.
SURVEYORS: The nearest Lloyds' office is at Jacksonville. American Bureau available from Tampa.
STORES AND PROVISIONS: No facilities available for normal ship chandlering. Prior arrangements should be made via Tampa.
GENERAL: Boca Grande is the older of "Seaboard Coast Lines" (SCL) two existing loading facilities, the new one being at Tampa. All Agents are based at Tampa, about 100 miles by road.
AUTHORITY: Robert W. Johnson, Harbour Master. P.O.Box 274, Boca Grande, Fl. 33921. *Tel:* (813) 964-2348. *FAX:* (813) 964-2245.

BOSTON, Massachusetts: 42.21 N. 71.05 W. (See Plan)

DOCUMENTS:

- 3 copies Cargo Manifest (Form 1302), 2 copies showing all cargo on board, and 1 copy showing only cargo for this port.
- 3 copies Crew Manifest (Form 1304).
- 3 copies Stores List (Form 1303).
- 3 copies Passenger List (Form I-418).
- 3 copies Crew List (Form I-418).

Customs boarding officer will also examine Ship's Register, Safety Equipment Certificate and Load Line Certificate. In addition, the following documents will be required for formal entry to be made within 48 hours of arrival from abroad, or 24 hours from arrival from a United States Port:

- General Declaration (Form 1301).
- Health Pratique.
- Master's Oath (Customs Form 1300).
- All foreign clearances.
- Certificate of Financial Responsibility (Oil Pollution).
- U.S. Certificates of payment of tonnage tax (Customs Form 1002).
- Certified Crew List.

PILOTAGE: Pilotage is compulsory for all foreign vessels, with few exceptions, and for United States vessels under register in foreign trade. It is optional for coastwise vessels which have on board a Pilot licensed by the Federal United States government for these waters.

Pilot boats meet vessels within sight of Boston Lighted Horn Buoy B. During Winter, with a Northwesterly wind, pilot boats may meet vessels to the Northwestward of Boston Approach Light Buoy BG. Pilot boats often land or pick up Pilots at the town wharf at Nahant Harbour.

Both the 70 ft. (21.3 m.) "Boston Pilot" and the 52 ft. (15.8 m.) "Thomas Knox" have black hulls with the word "Pilot" in black letters on either side of the white superstructure. Both are equipped with radar and maintain a 24 hour radio watch on VHF Channel 16 and a 0700 to 1800 hrs. watch on VHF Channel 11.

Vessels are asked to give a 4 hour advance notice of their time of arrival. Pilots for Weymouth, Quincy, Lynn and Saugus are obtained from the Boston pilot boat. Pilots can be notified by radio, telegraph or by radiotelephone through the Boston Marine Operator.

Boston Pilots: Massport Pier 1, East Boston, MA. 02128. Tel: (617) 569-4500. Cable: BOSPILOT.

ANCHORAGES:

ANCHORAGE No. 1. *Upper Harbour Anchorage:* Steam and motor vessels permitted to anchor in this basin anchor within the following area: S.E. of a line bearing 205° True from N.E. corner of Boston and Albany Pier No. 5, East Boston; N.E. of a line bearing 122° True from S.E. corner of Lewis Wharf, North Pier; S.W. of a line bearing 292° True from N.E. corner of Southernmost Airport Approach Pier; N.W. of a line bearing 025° True from Buoy No. 12, Fl.R.6 sec.

ANCHORAGE No. 2. *President Roads Anchorage* (40 ft. anchorage): All vessels anchoring in this basin anchor within an area beginning at a point bearing 237°, 522 yards from Deer Island Light; thence to a point bearing 254°, 2,280 yards from Deer Island Light; thence to a point bearing 261°, 2,290 yards from Deer Island Light; thence to a point bearing 279°, 2,438 yards from Deer Island Light; thence to a point bearing 319°, 933 yards from Deer Island Light; thence to a point bearing 319°, 666 yards from Deer Island Light; and thence to point of beginning. *President Roads Anchorage* (35 ft. anchorage): All vessels anchoring in this basin anchor within an area beginning at a point bearing 256°, 2,603 yards from Deer Island Light; thence to a point bearing 258°, 3,315 yards from Deer Island Light; thence to a point bearing 264°, 3,967 yards from Deer Island Light; thence to a point bearing 261°, 2,290 yards from Deer Island Light; and thence to point of beginning.

ANCHORAGE No. 3. *Nantasket Roads Anchorage:* Vessels anchoring in this anchorage basin anchor within following area: Westerly of a line bearing 143° from wharf at Gallups Island to Bell Buoy No. 2, S.W. of Georges Island; Northerly of a line bearing 260° from Bell Buoy No. 2, Georges Island, to the Northerly end of Rainsford Island; Northerly of a line bearing 273° from the Northerly end of Rainsford Island to Bass Point, Long Island; Southerly of a line bearing 270° from the wharf at Gallups Island to Long Island.

ANCHORAGE No. 5. *Peddocks Island and Explosive Anchorage:* Vessels anchoring in this anchorage basin anchor within following area; S.W. of a line bearing 122° True from the Easterly end of Rainsford Island to the N.E. end of Rainsford Island to the N.E. end of Peddocks Island, N.E. of a line bearing 165° True from the Westerly end of Rainsford Island to the S.E. end of Peddocks Island.

RESTRICTIONS: There are 3 main entrance channels from sea to President Roads.

Broad Sound North Channel from Broad Sound to President Roads from N.E. Dredged 35 ft. deep and 1,500 ft. wide and is deepened to 40 ft. in a width of 900 ft. to 1,100 ft. It is well marked by lighted buoys.

Broad Sound South Channel from Broad Sound S.W. and Westerly to President Roads. Dredged 30 ft. deep and 1,200 ft. wide. This channel is well marked by buoys and ranges but most aids to navigation are not lighted.

The Narrows is channel leading into Boston Harbour from S.E. between Boston Lighthouse and Lovells Island on the N.E. and Point Allerton, Georges Island and Gallups Island on S.W. Depth is 27 ft. Width is generally 1,000 ft. except in a section between Narrows Light and Georges Island where shoaling on N.E side limits it to 700 ft. Channel is well marked.

The Main Ship Channel of Boston Harbour extends from President Roads to the mouths of the Chelsea and Mystic Rivers and to Charlestown Bridge on the Charles River. Channel has been dredged 35 ft. deep and 1,200 ft. wide to the inner end where widths decrease near the river mouths. It has been deepened to 40 ft. for 600 ft. width from President Roads to the mouth of the Mystic River, with a widening to 1,200 ft. at the bend just Northerly of Commonwealth Pier No. 5, South Boston.

Charles River is approach by water to Cambridge and Watertown. About 0.5 mile above the lower bridge there is a dam with a lock 45 ft. by 350 ft. with depth of 17 ft. over the lower sill. Depths above dam decrease gradually to 9 ft., basin level, at head of navigation.

Mystic River is approach by water to Everett, Malden and Medford. Controlling depths are 35 ft., from Mystic River bridge to approximately 1 mile above, thence 20 ft. from the 35 ft. channel to 800 ft. above the Malden Bridge to a point abreast Monsanto Chemical Company plant.

Chelsea River is approach to City of Revere. Channel from entrance to a point opposite the Belcher Oil Co. Terminal has a controlling depth of 35 ft.

Weymouth Fore River is approach by water to Quincy and Weymouth. Controlling depth is 30 ft. to Fore River Bridge. Controlling depth for a distance of 2,800 ft. above Fore River Bridge is 30 ft.

Town River extends N.W. from Weymouth Fore River at Quincy Point. River has a controlling depth of 34 ft. from deep water in Weymouth Fore River to a point opposite the Quincy Oil Co. Terminal. Opposite Quincy Oil Co. Terminal there is a turning basin 34 ft. deep, 400 ft. wide and 1,000 ft. long.

MAX. SIZE: The primary entrance to Boston Harbour is via the North Channel and President Roads. Controlling depth is 35 ft. MLW. Average rise of the tide in Boston is 9.5 ft.

Generally speaking, vessels drawing 40 ft. are taken at the top of the tide to Belcher Oil Terminal and Exxon only. Vessels going to berths in the Mystic River above the Mystic River Bridge are limited by the bridge's vertical clearance of 135 ft. MHW.

Vessels consigned to berths in the Chelsea Creek are limited to a length of 661 ft., beam of 90.5 ft. and draft of 36 ft. high water docking. Furthermore, vessels which exceed 630.5 ft. length and 85.5 ft. beam going above the Chelsea Street Bridge are restricted to daylight docking. Daylight sailing is required from the berths above the McArdle Bridge if the vessel is over 585 ft. long.

As a rule, vessels are docked bow in at the Chelsea Creek berths. If docked between the bridges, departure is stern first through the McArdle Bridge. If docked above the Chelsea Street Bridge, then on sailing, the vessel is turned in the basin West of the B.P. and Belcher Terminals.

The controlling depth in the channel leading to Weymouth Fore River is 28 ft. MLW. Vessels with a max. draft of 33 ft. 6 in. will be taken at high water, but it should be noted that docking and undocking in Fore River are daylight operations – between sunrise and sunset – and no vessel longer than 628 ft. will be handled.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to New York Quarantine Station.

RADIO: *Advance Notice of Arrival:* 24 hours advance notice of arrival be given. This notice is made to the office of the Captain of the Port – 223-6979.

The information to be provided consists of: Vessel's Agent's name; Vessel's name, type, flag, and call sign; the ETA; Berth; Last port and next port; Dangerous cargo on board. In return the Captain of the Port will assign a consecutive log number to the vessel.

In event the vessel's ETA is changed by more than 24 hours from first notice, the Captain of the Port should be so notified, identifying the vessel by its assigned log number.

VHF: The following VHF Channels are able:

Coast Guard, Boston pilot boat and shore station: 6, 10, 11, 12, 13, 14, 16, 21, 22, 23, 81 and 83.

Distrigas: 16 and 10.

In the event of an emergency, Channel 16 or 13 will be guarded.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Vessels can proceed from the sea to Boston Upper Harbour under own power. Barges usually left by the outside tugs at the anchorage grounds, to be docked later by harbour tugs.

Tugs up to 4,300 h.p. are available at Boston for towing, docking, undocking and shifting. Tugs maintain radio communications on VHF Channel 10. Inbound vessels are usually met in the vicinity of Anchorage Areas 1 or 2. Arrangements are usually made in advance through ship's Agents.

BERTHING: There are 119 piers or wharves in the Port of Boston. Many of them have railroad connections. The depths of water available alongside these terminals range up to a maximum of 40 ft. at mean low water. Practically all terminals fronting on main ship channel are in close proximity to storage warehouses, both cold and dry which greatly facilitates transfer of cargo between vessel and warehouse.

Sea-land Container Terminal, South Boston (Berth 11, Conley Terminal – Castle Island):

Operator – Sea-Land Service, Inc.

Type of Pier – Single face, 550 ft.

See "Conley Terminal".

Conley Terminal, Castle Island, South Boston:

Operator – Massachusetts Port Authority. Tel. 973-5354.

Type of Pier – Single face. 6 berths 3,705 ft. (Berths No. 11 – 16). Berths No. 12 – 15 handle break bulk general cargoes. Berth No. 11 – containers. Berth No. 16 – automobiles. 294,000 sq.ft. covered storage, 4 million sq.ft. open storage (including 32 acres fenced in automobile storage and 20 acres lumber storage), 50 ton crane, rail service. Terminal equipped with 2×40 ton gantry cranes and 1 × 30 ton Paceco portal crane.

Depth alongside at MLW – 40 ft.

Normal ship side to dock – Varies.

Line handling boat not required.

Access to vessel (for stores and repairs) – trucks to ship's side. Minimum 40 ft. apron.

Products handled – General cargo, containers.

J. F. Moran Container Terminal, Charlestown:

Operator – Massachusetts Port Authority. Tel. 973-5354.

Type of pier – Single face, 1,100 ft. long. 1×45 ton container crane, 1×70 ton container crane, 38,000 sq.ft. container stuffing shed, 30 acre container storage area, rail service.

Depth alongside at MLW – 40 ft.

Normal ship side to dock – Varies.

Line handling boat not required.

Access to vessel (for stores and repairs) – trucks to ship's side.

Products handled – Containers.

Boston Army Base, South Boston:

Operator – Port Terminals, Inc. Tel. 542-4500.

Type of Pier – Single face, three sides: South 3,705 ft., East 351 ft., North 964 ft., 950,000 sq.ft. covered storage, rail service, 2×27.5 ton rail mounted cranes.

Depth alongside at MLW – 35 ft.

Normal ship side to dock – Varies.

Line handling boat not required.

Access to vessel (for stores and repairs) – trucks to ship's side. 50 ft. apron incorporates rail lines.

Products handled – General cargo, containers.

Massport Marine Terminal – South Boston:

Owned and operated by: Massport, Maritime Department.

Adjacent to the former South Boston Naval Annex, this terminal features a 47 acre (19 ha.) site used for discharge and handling of automobiles, bulk road salt, lumber and other commodities; 2,700 ft. (822.96 m.) face; 38 ft. (11.58 m.) alongside depth; 16 ft. (4.88 m.) deck height; 750 lb./sq.ft. (340 kg./sq.cm.) load capacity. Railway track connection; stevedore equipment available as needed. An estimated 50,000 imported cars processed here yearly. Expansion space is available for future container facilities and additional cargo storage space.

Black Falcon Cruise Terminal, South Boston:

Operator – Massachusetts Port Authority. Tel. 973-5560.

Type of Pier – Single face, 600 ft.

Depth alongside at MLW – 32 ft.

Normal ship side to dock – Varies.

Line handling boat not required.

Access to vessel (for stores and repairs) – trucks to ship's side. 20 ft. apron incorporates rail lines.

Used for docking excursion vessels, and occasional passenger vessels.

Pier 1, East Boston: No cargo activity.

Operator – Massachusetts Port Authority Tel. 482-2930.

Type of Pier – Single face, three sides: East and West 605 ft., South 390 ft., 196,000 sq.ft. covered storage.

Depth alongside at MLW – 35 ft.

Normal ship side to dock – Varies.

Line handling boat not required.

Access to vessel (for stores and repairs) – trucks to ship's side.

Belcher Oil Terminal, South Boston:

Operator – Belcher, Inc. Tel. 269-8400.

Type of Pier – Single face.

Depth alongside at MLW – 40 ft.

Normal ship side to dock – Port (bow in).

Line handling boat – required.

Access to vessel (for stores and repairs) – limited, trucks can approach only to within 150 ft. of gangway or ship's side.

Products handled – Avjet, Heating Oil, No. 6 Oil, Molasses.

Size and number of pipe-lines – Numerous – 24 in., 20 in., 16 in., 12 in.

Bbls. per hour discharge capacity – 12,000 to 18,000.

Average distance to storage tanks – 1,000 ft.

Pollution control equipment – 1,600 ft. boom, 16 ft. boat, 300 absorbent pillows, 2,000 gallon pumpout truck.

Atlantic Fuels and Marketing Corp., Chelsea:

Operator – Metropolitan Petroleum Company. Tel. 729-3000.

Type of Pier – Timber pile, offshore.

Depth alongside at MLW – 35 ft.

Normal ship side to dock – Starboard (bow in).

Line handling boat not required.

Access to vessel (for stores and repairs) – by hand cart only.

Products handled – Heating Oil, No. 6 Oil.

Size and number of pipe-lines – 2 × 8 in.

Bbls. per hour discharge capacity – 6,000 to 8,000.

Storage tanks adjacent to berth.

Pollution control equipment – 1,000 ft. boom, 18 ft. boat, 50 absorbent pillows, 150 gallons Aqua-clene.

Note:– Bow to manifold 370 ft. No wire ropes used to moor vessel.

Vessels require 3 tugs while docking, depending on the deadweight of the vessel. A minimum of 2 tugs are required for undocking. Caution is advised while docking and undocking due to traffic congestion in this area of the channel.

Exxon Company U.S.A., Everett:

Operator – Exxon Company U.S.A. Tel. Marine Department 387-1733, Marketing Terminal 381-2828.

Type of Pier – Timber pile wharf with caissons.

Depth alongside at MLW – 42 ft.

Normal ship side to dock – Starboard.

Line handling boat not required.

Access to vessel (for stores and repairs) – by rail-mounted hand cart.

Products handled – Asphalt, Chemicals, Diesel Oil, Jet Fuel, LPG, Kerosene, Gasoline, No. 2 and No. 6 Oil.

Size and number of pipe-lines – numerous.

Bbls. per hour discharge capacity – Up to 35,000.

Average distance to storage tanks – 5,000 ft.

Pollution control equipment – 1,500 ft. boom, skiff.

Vessels meet tugs and Docking Master off Castle Island and then proceed up the main channel. Vessels pass under the Mystic Bridge on the approach to the berth and then dock starboard side to. If the vessel is equipped with a bow thruster 2 tugs are required when docking and undocking, otherwise 3 tugs are required. The vessel turns on departure from berth. A gangway is provided by the Terminal.

Distrigas of Massachusetts Corporation, Everett:

Operator – Distrigas of Mass. Corporation. Tel. 381-9444.

Type of Pier – Single face, 165 ft. long, with 900 ft. berthing space with dolphins and use of adjacent wharves. Concrete platform contains 5 Chicksan Marine LNG unloading arms.

Depth alongside at MLW – 36 ft.

Normal ship side to dock – Port (bow out).

Line handling boat is required.

Access to vessel (for stores and repairs) is limited.

Products handled – Liquefied Natural Gas.

Prolerized New England, Everett:

Operator – Prolerized New England Company. Tel. 389-8300.

Type of Pier – Straight face.

Depth alongside at MLW – 36 ft.

Normal ship side to dock – Port (bow out).

Access to vessel (for stores and repairs) – trucks to ship's side, but access may be limited due to vessel's position at conveyor.

Products handled – Ferrous scrap (including Prolerized shredded scrap).

General notes: Pier is equipped with 2×50-ton cranes. Shredded scrap is loaded from fixed conveyor requiring vessel to be shifted as each hatch is served.

Massachusetts Port Authority, Charlestown:

Operator – International Salt. Tel. 973-5354.

Type of Pier – Straight face.

Depth alongside at MLW – 33 ft.

Normal ship side to dock – Port (bow in).

Line handling boat not required.

Access to vessel (for stores and repairs) – trucks to ship's side.

Products handled – Discharge salt.

U.S. Gypsum, Charlestown:

Operator – U.S. Gypsum Co. Tel. 241-9100.

Type of Pier – Single face. (410 ft.).

Depth alongside at MLW – 27 ft.

Normal ship side to dock – Port.

Line handling boat not required.

Access to vessel (for stores and repairs) – access to berth.

Products handled – Gypsum rock from Nova Scotia, carried in company's own vessels, specially fitted and adapted for discharge at this berth. Silo storage 25,000 tons. Open storage 38,000 tons.

Mobil Oil, East Boston:

Operator – Mobil Oil Corporation. Tel. 567-9080.

Type of Pier – Straight face, with centre relieving platform.

Depth alongside at MLW – 32 ft.

Normal ship side to dock – Starboard.

Line handling boat required.

Access to vessel (for stores and repairs) – trucks to ship's side.

Products handled – Gasoline, Heating Oil.

Size and number of pipe-lines – Various.

Bbls. per hour discharge capacity – 8,000.

Average distance to storage tanks – tank farm adjacent to berth.

Pollution control equipment – 950 ft. boom.

Amerada Hess Oil Terminal – East Boston: (No cargo activity).

Owned and operated by: Amerada Hess Corp.

For receiving and shipping petroleum products; 20 ft. (6 m.) face, 296 ft. (90.2 m.) total berthing space with dolphins, 35 ft. (10.67 m.) alongside depth, 13 ft. (3.96 m.) deck height. Pipe-lines extend from wharf to 10 steel storage tanks with total capacity of 595,250 bbls.

B.P. Oil Company, Revere:

Operator – B.P. Oil Company. Tel. 289-4201

Type of Pier – Timber pile, wooden deck.

Depth alongside at MLW – 10 ft. – 35 ft.

Normal ship side to dock – Starboard.

Line handling boat not required.

Access to vessel (for stores and repairs) – only by hand cart.

Products handled – Heating Oil, Gasoline.

Size and number of pipe-lines – 3×10 in., 2×12 in.

Bbls. per hour discharge capacity – 8,000 per line.

Average distance to storage tanks – 2,500 ft.

Pollution control equipment – 1,600 ft. boom, 16 ft. boat.

3 tugs are normally used for docking and undocking vessels at this berth. Vessels normally dock starboard side to.

Belcher New England Ship Pier – Revere:

Owned and operated by: Belcher New England, Inc.

Used for receiving and shipping petroleum products, the South side of pier has 600 ft. (182.88 m.) of berthing space; 37 ft. (11.27 m.) LW alongside depth; 15 ft. (4.57 m.) deck height. Pipe-lines extend to storage tanks with 1.25 million barrel capacity.

Belcher New England Inc., Revere:

Operator – Belcher New England Inc. Tel. 284-4490.

Type of Pier – Timber pile, wooden deck.

Depth alongside at MLW – 37 ft.

Normal ship side to dock – Port.

Line handling boat required.

Access to vessel (for stores and repairs) – only by hand cart.

Products handled – Heating Oil, Mogas, Alcohol, No. 6 Oil.

Size and number of pipe-lines – 5×12 in.

Bbls. per hour discharge capacity – 8,000 per line.

Average distance to storage tanks – 2,500 ft.

Pollution control equipment – 1,600 ft. boom, 16 ft. boat. (Shared with B.P., Arco, Northeast.)

Vessels meet tugs and Docking Master in vicinity of Castle Island. The maximum size vessel which can be safely accommodated at this berth is about 38,000 d.w.t. Vessel normally require 2 tugs when docking and undocking at Union Oil Terminal. Vessels dock starboard side to, and when undocking are turned in the turning basin. Vessels must utilise their own gangway at this berth. Fully loaded vessels are docked or undocked at HW only, day or night.

Gulf Oil Company, Chelsea: (Cumberland Farms)

Operator – Gulf Oil Company. Tel. 884-5980.

Type of Pier – Single face.

Depth alongside at MLW – 36 ft.

Normal ship side to dock – Port.

Line handling boat not required.

Access to vessel (for stores and repairs) – trucks to ship's side.

Products handled – Heating Oil, Gasoline, Jet Fuel.

Size and number of pipe-lines – 5×12 in.

Bbls. per hour discharge capacity – 8,000 per line.

Average distance to storage tanks – 1,000 ft.

Pollution control equipment – 1,600 ft. boom, 16 ft. boat.

Vessels require 3 tugs when berthing and normally 2 when unberthing. Vessels dock daylight only, normally port side to, and when undocking proceed up river to the turning basin and are turned before proceeding outbound.

Atlantic Fuel and Marketing Corp., Chelsea:

Owned and operated by: Ultramar Petroleum Inc.

Used for receiving and shipping petroleum products, bunkering vessels; can accommodate vessels up to 690 ft. (210.3 m.) in length; 33 ft. (10 m.) alongside depth; 14 ft. (4.26 m.) deck height. Pipe-lines extend from wharf to 14 steel storage tanks with total 660,000 barrel capacity.

Belcher, Chelsea:

Operator – Belcher Terminal. Tel. 884-7000, Offices 269-2111.

Type of Pier – Single face.

Depth alongside at MLW – For 575 ft. vessels: 31 ft. fwd., 34 ft. aft. For 624 ft. vessels: 21 ft. fwd., 34 ft. aft.

Normal ship side to dock – Port.

Line handling boat not required.

Access to vessel (for stores and repairs) – trucks to ship's side.

Products handled – Avjet, Diesel Oil, Gasoline.

Size and number of pipe-lines – 7×12 in.

Bbls. per hour discharge capacity – 5,000 to 10,000.

Average distance to storage tanks – tank farm adjacent to berth.

Pollution control equipment – Automatic boom being installed.

3 tugs are normally required for berthing and 2 for unberthing. Vessels require a 300 ft. messenger fore and aft for handling lines. Vessels normally dock port side to. Due to the limited manoeuvring area adjacent to the berth, vessels when unberthing are towed out stern first and then turned in the main channel.

Quincy Oil, Quincy:
Operator – Quincy Oil Company. Tel. 773-2500.
Type of Pier – Timber pile, timber deck, offshore wharf.
Depth alongside at MLW – 35 ft.
Normal ship side to dock – Port.
Line handling boat not required.
Access to vessel (for stores and repairs) – by hand cart only.
Products handled – Gasoline, Heating Oil.
Size and number of pipe-lines – 2×8 in.
Bbls. per hour discharge capacity – 6,000.
Average distance to storage tanks – tank farm adjacent to berth.
Pollution control equipment – 800 ft. boom, work boat.

Vessels meet tugs and Docking Master in the vicinity of Nantasket Roads and then proceed up the Weymouth Fore and Town Rivers to the Quincy Terminal.

Vessels should enter Town River at S.W. Extreme caution should be used when turning into Town River because of the narrow channel. Narrow channels demand extreme caution when navigating up to the terminal. Vessels normally berth port side to, and are swung around in the turning basin when unberthing. 3 tugs are required when docking or undocking. Vessels must utilise their own gangways.

Proctor and Gamble, Quincy:
Operator – Proctor and Gamble. Tel. 770-3155.
Type of Pier – T-head with dolphins.
Depth alongside at MLW – 32 ft.
Normal ship side to dock – Starboard.
Line handling boat not required.
Access to vessel (for stores and repairs) – trucks to ship's side.
Products handled – Palm Oil.
Size and number of pipe-lines – Various.
Bbls. per hour discharge capacity – 8,000.
Average distance to storage tanks – tank farm adjacent to berth.
Pollution control equipment – shared with Sprague.

C.H. Sprague & Son Co., North Weymouth:
Operator – C.H. Sprague & Son Co. Tel. Terminal 337-2040, Offices (603) 431-1000.
Type of Pier – Timber pile, concrete deck.
Depth alongside at MLW – 35 ft. 06 in.
Normal ship side to dock – Starboard.
Line handling boat not required.
Access to vessel (for stores and repairs) – trucks to ship's side.
Products handled – No. 6 Oil.
Size and number of pipe-lines – 2×12 in.
Bbls. per hour discharge capacity – 10,000 per line.
Average distance to storage tanks – 2,500 ft.
Pollution control equipment – 500 ft. boom, 16 ft. boat. (Shared with Mobil.).

Vessels dock and sail during daylight only. 3 tugs are required when berthing and unberthing. Vessels met the tugs and Docking Pilot in the vicinity of Nantasket Roads and then proceed to the manoeuvring area near the berth where the vessels are turned and berthed starboard side to. Vessels must utilise their own gangway at this berth.

Citgo Oil Company, Braintree:
Operator – Citgo Oil Company. Tel. 848-2595.
Type of Pier – 4 cylindrical caissons.
Depth alongside at MLW – 35 ft.
Normal ship side to dock – Starboard.
Line handling boat not required.
Access to vessel (for stores and repairs) – trucks to ship's side.
Products handled – Heating Oil, Gasoline.
Size and number of pipe-lines – 1×10 in., 4×12 in.
Bbls. per hour discharging capacity – 10,000.
Average distance to storage tanks – 2,500 ft.
Pollution Control Equipment – 1,500 ft. boom, work boat.

Vessels meet tugs and Docking Master in the vicinity of Nantasket Roads and then proceed up the Weymouth Fore River, through the Fore River Bridge, and berth starboard side to at the terminal. Vessels dock and undock during daylight hours only. 3 tugs are normally required when docking and undocking. Vessels must utilise their own gangways.

Bulk Cement Piers:
There are 2 berths in Boston used exclusively for the discharge of bulk cement from barges. Both are in the Mystic River.
No. 28: Independent Cement Corp.
No. 33: Blue Circle, Atlantic Cement Company, Inc. Tel: 241-9040.

SPECIALISED CARGO HANDLING FACILITIES: Also see "Berthing".

	Location	Depth at MLW (ft.)
Bulk Cement		
Blue Circle Atlantic Cement	Charlestown	30
Independent Cement	Everett	20
Coastal Cement	South Boston	38
General Cargo Terminals		
Massport Marine Terminal	South Boston	40
Conley Terminal	South Boston	40
Container Terminals		
J.F. Moran Docks	Charlestown	40
Conley Terminal	South Boston	40
Gypsum Rock		
U.S. Gypsum Company	Charlestown	27
Salt		
Massport Marine Terminal	South Boston	40
Piers 48, 49 & 50	Charlestown	25
Revere Terminal (Massport)	Charlestown	30

	Location	Depth at MLW (ft.)
Scrap		
Prolerized N.E. Co.	Everett	37
Vegetable Oil, Liquid Caustic Soda, etc.		
Proctor & Gamble Mfg. Co.	Quincy	32
Automobiles		
Conley Terminal	South Boston	40
Massport Marine Temrinal	South Boston	40
LNG Terminals		
Distrigas	Everett	36
Plywood		
Harbour Gateway Terminal	South Boston	35
Passenger Cruise Terminal		
Black Falcon Cruise Terminal	South Boston	32

CRANES: 1×60 ton floating crane and mobile cranes up to 150 tons capacity.

TANKERS: Also see "Berthing".

Tanker Berths	*Location*	*Depth at MLW* (ft.)
Belcher	South Boston	40
Distrigas LNG Terminal	Everett	36
Exxon Terminal	Everett	42
Atlantic Fuels Marketing Corp.	Chelsea	35
Belcher New England	Chelsea	35
Gulf Oil Terminal (Cumberland Farms)	Chelsea	36
Belcher Oil Terminal (Revere)	Revere	37
Northeast Petroleum	Revere	36
BP, also used by Global	Revere	35
Mobil	East Boston	32
Citgo	Braintree	35
C.H. Sprague	Weymouth	35

Berthing at all berths normally effected on a rising tide. It is the practice of the port for deep draft vessels to pump part cargo overtide in order to bring vessel to a safe draft by the next Low Water. Berthing at Sprague, North Weymouth is usually starboard side to, which involves swinging vessel.

LNG/LPG: Handled at Distrigas on the Mystic River, Everett.

U.S. Coast Guard Instructions: The following is only part of the instructions. Full copies may be obtained from U.S.C.G. Marine Safety Office, 447 Commercial Street, Boston, MA 02109-1096. Tel: (617) 565-9000.

Foreign flag vessel owners intending to transport liquefied gases in U.S. ports must obtain a Certificate of Compliance from the Coast Guard. The procedures for obtaining a Certificate of Compliance are detailed in 46 CFR 154. Both U.S. and foreign flag vessels must meet essentially the same requirements. Most requirements conform to the IMO Gas Carriers Code, but some construction requirements are more stringent.

PART A – LNG/LPG VESSEL OPERATIONS IN BOSTON HARBOUR

I. NOTIFICATION

The Master of an LNG/LPG vessel notifies COTP Boston 72 hours in advance of arrival at Broad Sound Anchorage. This advance notice of arrival is by message and includes the vessel's Agent in Boston, distance from keel to highest projection, maximum draft, and a statement by the Master to the effect that:

"To the best of my knowledge and belief, there are no known casualties to this vessel or its machinery which might affect her seaworthiness. I further state that all cryogenic handling and detection equipment is in proper operating condition and has been operating for the duration of this passage."

Signed
Master__________

Should any deficiency develop after the 72 hour advance notice is given, another message describing the discrepancy or condition in detail is sent to COTP Boston immediately.

Telex 910-2506309 (Answerback "US CG")

In addition to the certification of equipment, the Master includes the names and qualifications of crew that have changed since the last port visit.

The Vessel Movement Office (VMO) at the U.S. Coast Guard Marine Safety Office, Boston is the contact point for all notifications and requests of the COTP. Upon notification of arrival, the VMO:

a. Initiates an action file including vessel data, messages, letters, etc.
b. Reviews the vessel history and communicates any special requirements with the Coast Guard inspectors.
c. Notifies appropriate Coast Guard units.
d. Maintains daily updates of the vessel's estimated time of arrival.
e. Arranges and co-ordinates Coast Guard inspection, escort and monitoring details.
f. Passes any unusual or additional information to interested parties.
g. Obtains a long range weather forecast for the period of transit and transfer and compiles updates as they occur.

One day prior to arrival of the vessel, the VMO:

a. Firms up probable transit time for planning purposes.
b. Prepares and transmits Oporder and marine information broadcast messages, and
c. Notifies other concerned parties of the estimated time of harbour transit and any special requirements affecting harbour transit.

II. ARRIVAL AND ENTRY

U.S. Coast Guard inspectors from MSO Boston board and inspect each vessel prior to its entry into port. The purpose of this inspection is to ensure that the vessel meets the requirements of its certificate and that all cargo control equipment and safety equipment is operative. Vessels will normally anchor in Broad Sound pending inspection.

The vessel's Master must provide safe access for the Coast Guard inspectors. Should sea conditions preclude a safe boarding while anchored, the LNG/LPG vessel may be required to resume manoeuvring and provide a lee. A combination of the vessel's accommodation ladder and pilot ladder is acceptable.

While the vessel is at anchor, a live bridge watch shall be maintained. LNG/LPG vessels arriving at the Port of Boston must maintain a radio guard on VHF-FM Channels 13 (156.65 MHz) and 16 (156.8 MHz). A round of bearings fixing the vessel's position shall be taken and recorded at least hourly, followed by a report if there is a significant change in position or other problem aboard the vessel. The report may be made to COTP Boston by radio via the U.S. Coast Guard Group Boston or via the vessel's agent if timely notification is possible.

An LNG/LPG vessel must have its cryogenic sensing and indicating instrumentation and gas detection system in operation while the vessel is in U.S. waters. The Master of the ship must be prepared to demonstrate that the cryogenic handling and gas detection equipment is in proper working order. The vessel shall have on board a cylinder of properly certified span gas for testing the gas detection system.

In addition to a valid Certificate of Compliance, vessels must have onboard all required ship's documents and an up-to-date set of plans, in English, specifying:

a. Cargo tank arrangement
b. Cargo tank venting arrangement
c. Cargo piping arrangement
d. Capacity plan
e. Firefighting plan
f. Up-to-date cargo system operating and safety procedures.

The vessel may enter the harbour only after the vessel equipment, publications and documents are inspected, confirmed to be in satisfactory condition, and COTP Boston has cleared the vessel for entry.

The U.S. Coast Guard, Captain of the Port must ascertain that crews are qualified to carry out transfer operations safely. On U.S. flag vessels carrying LNG, the Master, Chief Engineer, Chief Mate and First Assistant Engineer must be licensed and certified by the Coast Guard. On vessels other than U.S. flag, a valid Certificate of Compliance issued by the Coast Guard and a valid Certificate of Fitness (issued in compliance with the IMO Gas Carriers Code) is evidence of compliance with specific U.S. equipment requirements and home state requirements for certification.

Crew training standards of the Code (Chapter 18) require that personnel involved in cargo operations be adequately trained. All officers should be trained to deal with emergencies involving cargo leaks, spills or fires. The code also refers to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978.

Each officer and rating with specific duties involving cargo and cargo equipment should complete a course of instruction, or undergo onboard training, applicable to his or her duties. As crew members change, the operator must keep the Coast Guard apprised of the new members' training. A company initiated letter or message indicating the completion of an administration approved formal training course will serve as evidence of this training. All crew members should have formal training, or onboard instruction, in the special hazards of LNG and LPG and an awareness of the general safety features of the vessel.

Serious discrepancies found during any boarding or examination which affect the safety of the port must be corrected prior to vessel entry or cargo transfer operations. Examples of serious discrepancies are leaking cargo tanks, inoperative leak detectors or inoperative fire-fighting equipment. Determination to permit or deny port entry or cargo transfer is made by the COTP. In unusual circumstances, however, Commandant (G-MTH) may be requested to advise or furnish a technical representative.

A fully or partially loaded LNG/LPG vessel will always transit the harbour within a moving safety zone. This concept enhances safety by avoiding crossing or passing situations. The LNG/LPG vessel may not enter the main ship channel until clearance is received from COTP Boston and a U.S. Coast Guard escort vessel is in position to begin the escort.

III. LNG/LPG VESSEL TRANSIT MANAGEMENT

Fully or partially loaded LNG/LPG vessels may transit the harbour only during the hours between sunrise and sunset and then only during periods of adequate visibility.

One hour prior to scheduled LNG/LPG vessel transit, the Vessel Movement Officer assumes the watch in Group Boston Communications Centre, to perform the following duties:

a. Ensure that the tugs and the Coast Guard escort vessel are in position, two emergency towing lines are rigged fore and aft on the LNG vessel within 6 ft. of the water, and the inspectors have found no discrepancies in the condition of the vessel.
b. Contact the LNG/LPG vessel and initiate the transit.
c. Ensure that the Marine Information Broadcast is being properly sent by Group Boston and the escort craft. Keep Group Boston Duty Officer informed of LNG/LPG vessel position as reported by the escort vessel.
d. Notify Logan Airport Control Tower of the LNG/LPG vessel transit when the vessel approaches Deer Island.
e. Monitor Channel 13 VHF-FM and communicate with vessels to ensure no unauthorised vessels get underway in violation of the safety zone.
f. Address all vessel movement questions received via radio and telephone during the transit.
g. Keep the COTP informed of the progress of the evolution.
h. Notify Group Boston Duty Officer when safety broadcast can be terminated.
i. Maintain a logbook with appropriate entries (transit commenced, escort craft and adequate number of tugs on scene, emergency tow lines rigged, names of Boston Pilot and Docking Master onboard, vessel moored etc.).

The Vessel Movement Officer (VMO) can be contacted at the Marine Safety Office (565-9000) or by radio (Channel 13 VHF-FM)

If the visibility falls to less than 2 miles at any point in the transit, the Master shall notify the VMO of the situation and request authorisation to proceed.

When the LNG/LPG vessel enters Boston North Channel inbound, the Master notifies the Vessel Movement Officer via Channel 13 VHF-FM. The VMO will then notify the Chief or Assistant Chief Controller at Logan Airport. The Federal Aviation Administration imposes flight restrictions over the LNG/LPG vessel in keeping with the desire to maintain maximum standards of safety during an LNG/LPG vessel movement.

The vessel's Master shall ensure that calculations are made comparing the air draft of the LNG/LPG vessel to the height of any fixed objects under which it must pass. These calculations are to be made available to the Docking Master as an assurance that the LNG/LPG vessel can safely transit Boston Harbour.

Tugs meet the incoming LNG/LPG vessel at the Eastern end of President Roads and are used as needed during the vessel's transit of Boston Harbour. During the docking and undocking operation the tugs will be strategically positioned consistent with the Master's sound judgement and consultation with the Docking Master. Emergency towing lines must be rigged fore and aft within 6 ft. of the water during transit.

For vessels under 60,000 cu.m. cargo capacity, a minimum of 3 tugs with total of 5,400 shaft horsepower or greater shall attend the needs of the vessel.

Vessels of 60,000 cu.m. or over will be required to use a minimum of 5 tugs. Two of the tugs must be 3,000 h.p. or greater. The remaining 3 tugs must be 1,200 h.p. or greater. Note that the referenced 3 or 5 tugs are minimums. Nothing herein should be construed to overrule the Master's sound judgement in employing additional tugs.

While a fully or partially loaded LNG/LPG vessel is underway in the harbour, all other vessels in the harbour are required to remain moored unless otherwise authorised by the COTP. The COTP has given permission for towing vessels without tow and other vessels under 100 gross tons to transit outside the main ship channel:

IF they establish bridge to bridge radio contact with the LNG/LPG vessel upon their approach and advise the Master of their intent, AND they can safely navigate outside the main ship channel.

Other examples of vessel movements that may be allowed are:

a. A cargo ship requests permission to get underway in the main ship channel and transit Boston Harbour outbound while a LNG/LPG vessel is inbound. Permission may be granted by the COTP for the transit outbound if the cargo ship will not approach within 2 nautical miles ahead or one nautical mile astern of the LNG/LPG vessel.
b. A tankship requests permission to get underway for inbound transit of the harbour at the same time an LNG/LPG vessel is inbound. Permission by the COTP may be given for the tanker to proceed but to remain at least one nautical mile astern of the LNG/LPG vessel.

During an LNG/LPG vessel transit, the maximum allowable speed for any vessel permitted within the moving Safety Zone will be 8 knots. This speed applies to all vessels within the restricted area. At least one Coast Guard escort craft will be present to enforce the safety zone restrictions. Additional craft may be assigned to the escort if conditions warrant.

Marine information broadcasts will be made on Channel 16 VHF-FM, switching to Channel 22, beginning 24 hours prior to the ship's harbour transit. The escort craft will issue a broadcast bridge to bridge on Channel 13 at the beginning of the transit and every 30 minutes thereafter until the LNG/LPG vessel is moored. At the end of each broadcast, the escort craft will state the current location of the LNG/LPG vessel.

The escort craft should normally take station several hundred yards ahead and to one side of the bow of the LNG/LPG vessel and precede it through the harbour. The escort craft is responsible for enforcing the vessel movement requirements of the safety zone. The escort craft will monitor and use Channel 13 VHF-FM to provide vessel traffic control during the transit of the LNG/LPG vessel.

An officer from MSO Boston will be assigned to ride each LNG/LPG vessel during the inbound transit. The senior member of the pre-arrival inspection team will assume this role when the inspection and transit occur on the same day. When these events occur on separate days, arrangements will be made to place an officer aboard the vessel prior to commencing the harbour transit.

This officer will remain in the pilothouse, maintain radio communications with the VMO via Channel 13 VHF-FM, and shall be responsible for the following:

a. Serve as a direct communications link to the VMO to report any casualties or unusual incidents, obtain amplifying information, and relay instructions to the vessel's Master or Pilot as directed by the VMO.
b. Assist in making determination as to the nature and seriousness of a casualty and if the inbound vessel should be directed to exit the harbour and return to anchorage in Broad Sound or if it should be permitted to proceed to its berth.
c. Remain vigilant and report any situation that could affect the safety of the port or that could adversely impact the safety zone and vessel escort.

Should an emergency situation occur aboard the LNG/LPG vessel (loss of steering, grounding, fire, etc.) the Master/Pilot will immediately notify the MSO Officer on board who will inform the VMO of the emergency via Channel 13 VHF-FM. The escort craft will then provide traffic control to keep all vessels (other than tugs, fireboats, etc.), clear of the LNG/LPG vessel.

IV. CARGO TRANSFER OPERATIONS

The COTP will provide personnel to ensure safety during the process of cooling down and to monitor the progress of transfer operation. A Coast Guard patrol craft will also be present to provide continuous waterside safety zone enforcement to prevent any vessel approaching within 50 yards of the LNG tanker while it remains in a loaded condition or is conducting cargo operations.

LNG/LPG vessels must moor bow to seaward with at least 2 wire cable mooring lines (firewarps) at the water's edge, fore and aft on the outboard side, for emergency towing hook-up if the need should arise. The vessel must be maintained in a state of readiness with sufficient crew on board to enable the ship to get underway and clear the pier in an emergency within 30 minutes of notification. The LNG/LPG vessel must also be capable of navigating out of the Port of Boston, using the main ship channel, at all times and under all prevailing tidal conditions.

The following minimum personnel must be on board the vessel during transfer operations:

a. Two Licensed Officers, fully qualified to supervise cargo transfer operations.
b. Two deckhands.
c. One Licensed Deck Officer for duties other than cargo transfer.

The officers on the vessel supervising cargo transfer operations should be fully rested prior to commencing tranfer operations. A minimum of 8 hours sleep is recommended. All ship's personnel directly involved in the transfer operation must be able to communicate in the English language, or be provided with an interpreter.

Venting cargo gas to the atmosphere is not permitted in port. However, nothing in this instruction should be construed to require or authorise elimination of installed ship safety equipment. If emergency venting is necessary, the officer supervising cargo transfer on the vessel will immediately notify the COTP Boston. This notification should include location and amount of venting, the cause of the emergency venting, wind velocity and direction at the time of venting.

All LNG/LPG facilities in the Port of Boston shall meet the requirements of 33 CFR 127. The facility will be responsible for controlling access to the vessel while it is at the dock.

The facility and the vessel must discuss arrangements for emergency shutdown of cargo transfer and emergency breakaway of the vessel from the facility.

During cargo transfer, the facility shall have at least one person onboard the vessel and one person in the facility control centre who will be in constant communication with each other at all times. In addition to sufficient personnel to safely conduct all physical transfer operations, a person specially trained and certified as knowledgeable in the properties and hazards of the cargo to be tranferred shall oversee all discharge operations.

The permission of the Captain of the Port is required before loading stores or bringing vessels alongside the LNG/LPG vessel during cargo transfer operations. Bunkering or other transfer of petroleum products or other compressed or liquefied gases is prohibited while the vessel has gas or liquid cargo in the transfer piping.

The transfer of liquid cargo shall not begin until the Coast Guard inspector is satisfied with cooldown. The inspector must certify that all items in the Cooldown Inspection List are examined. The primary function of this inspection is to ensure that all connections, piping, pumps, etc. are in satisfactory operating order and that no deficiencies develop during the cooldown phase. Full pumping may commence upon satisfactory completion of cooldown operations.

The monitoring detail supervises the LNG/LPG transfer operation from hookup to disconnect and maintains an official logbook. The primary function of the monitor is to ensure compliance with safety requirements during the transfer and to maintain an alert security posture.

The individual Coast Guardsmen that make up the monitoring detail represent the Captain of the Port. Their responsibility is to keep informed of the progress of transfer and to oversee the safety of the operation. The person representing the facility onboard the vessel and the vessel cargo officer *must* promptly report all problems or abnormal conditions encountered during transfer operations, on the vessel or facility, to the Coast Guard watchstander. Updates of the condition and corrective action planned are also required.

The monitoring detail logs the commencement of pumping, completion of pumping, disconnecting times and any unusual occurrences and informs the COTP at each stage in the operation.

All cargo operations must cease if electrical storms are observed nearby. However, cargo transfer connections should be maintained. If gale warnings are posted, additional mooring lines and/or tug assistance may be required.

Should an emergency occur, the monitoring detail should immediately get clear and inform the COTP of the situation. Detailed emergency instructions to the monitoring detail can be found in Part B (Emergency Operations) of this plan.

The safety zone enforcement craft will be located so that vessel movements within a mile of the LNG/LPG vessel can be readily observed in order to detect any unusual waterborne activities that may pose a threat to either the vessel or the facility. Any unusual circumstances such as suspicious craft in the vicinity of the LNG/LPG vessel, approaching thunderstorms, sudden changes in the direction or increase in wind speeds, or any leaking gas vapour cloud wil be reported to the monitoring detail.

All firefighting equipment on the safety zone enforcement craft will be on standby, ready for immediate use in the event of an emergency. In the event of a threat of or actual fire or explosion, the enforcement craft will be positioned upwind and clear of the danger area to assist in response efforts.

Upon completion of the transfer operations when all cargo transfer piping is disconnected, the monitor on watch will notify COTP Boston. The MSO Duty officer will ensure that the safety zone broadcast is cancelled. A safety zone will normally be continued after cargo operations are complete and until the LNG/LPG vessel clears Deer Island Light *only* if the LNG/LPG vessel is partially loaded. When the vessel is empty, the VMO notifies Group Boston Communications Centre and releases the safety zone enforcement vessel.

V. LNG/LPG VESSEL DEPARTURE

A fully or partially loaded LNG/LPG vessel will always transit the harbour within a moving safety zone. This concept enhances safety by avoiding crossing or passing situations involving other vessels in the harbour. A U.S. Coast Guard escort craft will enforce the safety zone until the outbound LNG/LPG vessel clears Deer Island Light. The same requirements set forth in Section A-III will be used for transit of LNG/LPG vessels if a safety zone is set for departure.

LNG/LPG vessels departing the Port of Boston that are empty (in heel) will not require a safety zone. A Coast Guard escort or other additional requirements may be established in certain circumstances at the discretion of COTP Boston. Empty LNG/LPG vessels may transit the harbour during darkness.

When an empty LNG/LPG vessel gets underway outbound, the Master notifies the Vessel Movement Officer. The VMO will then notify the Chief or Assistance Chief Controller at Logan Airport. The Federal Aviation Administration imposes flight restrictions over the LNG/LPG vessel in keeping with the desire to maintain maximum standards of safety during an LNG/LPG vessel movement.

CERTIFICATES AND DOCUMENTS

(May be completed by Master prior to vessel entry and checked by attending inspector.)

____SOLAS Cargo Ship Safety Construction Certificate
Issued by__________at__________expires__________
____SOLAS Cargo Ship Safety Equipment Certificate
Issued by__________at__________expires__________
____SOLAS Cargo Ship Safety Radiotelephony/telegraphy Certificate
Issued by__________at__________expires__________
____Load Line Certificate of Fitness
Issued by________at________expires________endorsed________
____IMO Certificate
Issued by________at________expires________endorsed________
____International Oil Pollution Prevention (IOPP) Certificate
Issued by________at________expires________endorsed________
____Certificate of Compliance
Issued at__________expires__________Last Entry__________
____Registry Certificate/Certificate of Inspection
Issued by__________at__________expires__________
____Certificate of Financial Responsibility
Issued by__________at__________expires__________
____Certification of Cargo Relief Valve Settings
by______________date______________
____Cargo Manual (if no IMO Certificate) yes______no______
____Crew List and Officer Competency date______
____(3) Deck Officer Watchstanders? ______
____(3) Engineering Officer Watchstanders? ______
____(2) Cargo Officers (not watchstanders)? ______

STEVEDORES: Available at various rates.

FRESH WATER: Plentiful supply of excellent water in Boston. It is supplied by terminal at prevailing rates.

FUEL: All grades available in various viscosities. Normally supplied by barge subject to advance notice.

CUSTOMS ALLOWANCES: At the discretion of Customs officers. Normal allowance is 200 cigarettes or 2 lb. of tobacco and 1 quart wine or spirits per man. Additional allowances may be given if considered necessary, due to length of vessel's stay in port.

IDENTIFICATION CARDS: Standard U.S. Immigration Forms I-95 to be made up for each crew member on arrival. Not necessary for crew man already holding Form I-95, issued for the same vessel.

GANGWAY/DECK WATCHMEN: Available at prevailing prices.

OPENING/CLOSING HATCHES: Performed by stevedores.

CONSULS:

Argentina
Australia
Austria
Belgium
Brazil
Canada
Cape Verde
Chile
Colombia
Costa Rica
Cyprus
Denmark
Dominican Republic
Ecuador
Finland
France
Germany F.R.
Great Britain
Greece
Haiti
Ireland
Israel
Italy
Japan
Korea
Lebanon
Luxembourg
Mali
Mexico
Monaco
Netherlands
Norway
Pakistan
Panama
Paraguay
Peru
Portugal
Senegal
Spain
Sweden
Switzerland
Turkey
Venezuela

REPAIRS/DRY DOCKS: Any type of repair undertaken.

East Boston, Massachusetts	Length	Capacity
Floating Dry Dock No. 1	622 ft.	18,000 tons
Floating Dry Dock No. 2	479 ft.	20,000 tons
Graving Dry Dock No. 4	256 ft.	

Modern facilities for repair, overhaul, and conversion of vessels of all sizes:

(a) a 10,000 ton capacity floating dry dock serviced by 2×150 ton overhead cranes with a yoked capacity of 350 tons. The 5-section dock is 415 ft. long, 120 ft. wide, and has an inside dimension of 85 ft. 7 in.

(b) 3 building basins (actually a 3-positioned graving dock). 2 are 132 ft. wide, 867 ft. long; 1 is 150 ft. wide, 938 ft. long. Each basin serviced by 2 Whirley type cranes of 75 and 50 ton capacity.

(c) 4 outfitting piers capable of handling up to 10 ships simultaneously provide adequate space for dockside work and

(d) for mooring personnel or service barges.
3 conventional "sliding" ways capable of handling ships up to 1,000 ft. in length.

Major Shops: 2-bay fabricating shop served by 17 bridge cranes. Machine shop equipped with large vertical and horizontal mills planers, lathes and a complete small machine complement. Fully equipped sheet metal, joiner, boiler, blacksmith, pattern foundry, galvanizing, pipe and copper, and electrical shops. Complete facilities for inspection of all types including non-destructive testing such as radiography, magnetic particle, liquid penetrant and ultrasonic.

General Ship Corporation, East Boston: Dry docks for vessels up to 680 ft. × 90 ft. Damage and voyage repairs.

REPATRIATION: Good facilities exist.

AIRPORT: Logan International Airport.

HOLIDAYS: New Year's Day (1st January); Washington's Birthday (22nd February); Patriots' Day (19th April); Memorial Day (30th May); Bunker Hill Day (17th June); Independence Day (4th July); Labour Day (first Monday in September); Columbus Day (8th October); Veteran's Day (22nd November); Thanksgiving (fourth Thursday in November); Christmas Day (25th December).

Note: "Or any day celebrated in lieu thereof".

POLICE/AMBULANCE/FIRE: Boston Fire Dept. 725-2880; Boston Police Dept. (Harbour Master) 242-6096; Everett Fire Dept. 387-7443; Everett Poice Dept. 3878-1212; Chelsea Fire Dept. 884-1410; Chelsea Police Dept. 884-1212.

TIME: Eastern Standard Time, GMT minus 5 hours. Daylight saving time from first Sunday in April till last Sunday in October.

AUTHORITY: Massachusetts Port Authority, Transportation Building, Ten Park Plaza, Boston, Massachusetts, U.S.A. 02116-3971. *Tel.* (617) 973-5500. *Telex:* 940365. *FAX:* (617) 973-5357. *Contact:* Anne D. Aylward, Port Director.

AGENT: Rice, Unruh Co., 451 D Street, Suite 804, South Boston, MA 02210. Tel: (617) 330-6930 (4 lines), (Answering service in attendance outside normal office hours). Telex: 94-0309, TRT 174382. Cables: "Riceunruh Boston". Fax: (617) 330-6934.

BRIDGEPORT, Connecticut: 41.07 N. 73.11 W. (See Plan)

DOCUMENTS: Refer to "New York".

PILOTAGE: Vessel usually notifies Agent 48 hours before arrival, who will arrange Pilot boarding. Pilot boards either at Brenton Reef in position Lat. 41° 25′ N., Long. 71° 23′ W. or Point Judith in position Lat. 41° 17′ N., Long. 71° 29′ W.

Note: Non-U.S. flag vessels and U.S. flag vessels under registry approaching from Block Island embark Pilot about 2.5 miles South of Point Judith.

U.S. flag vessels under enrolment approaching from Block Island embark Pilot 1.4 miles East of Old Harbour - Block Island.

ANCHORAGE: 2 miles South of the entrance with depths in excess of 50 ft.

APPROACHES: *Via New York:*

Charts: 12339, 12366, 12367, 12363, 12369.

Vessels leaving New York bound for Bridgeport will be transitting New York's East River and Western Long Island Sound. All shoals and rocks are well marked and the close proximity to the shore line provides an excellent radar target for position checking. During Summer months, thick fog will present a hazard on this route. Long Island Sound is also a major yachting centre, so extreme care must be exercised while transitting this area. There are several dangers to be wary of when making the passage from New York to Bridgeport.

In order of approach they are:

1. East River and Hell Gate are areas of strong tidal currents averaging 4.6 knots for the ebb current which sets in Southwesterly direction. Vessel drawing up to 35 ft. may transit Hell Gate at slack High Water only. Sluggish handling vessels should arrange for tug assistance up the East River and through Hell Gate.
2. 26-ft. Bouy "32A" usually passed well clear to the South.
3. Cable and Anchor Reef usually passed to the South.

Via Block Island:

Charts, 13205, 13215, 13209, 12354, 12369.

Block Island's Southern shore high rock cliffs provide a good radar target. Also, bearings can be taken from the RDF station at S.E. Light. Care should be exercised by vessels deeper than 30 ft. to always approach Block Island to East in views of the numerous shoals on the Western side of the Island.

It is also advisable to remain at least 1 mile to the East of Block Island due to the numerous shoals close in shore.

There are numerous dangers to be wary of when making the passage from the pilot station to Bridgeport. In order of approach they are:

1. Block Island North Reef Buoy "1B1" marks a dangerous shoal and should be passed well clear.
2. The Race is a narrow channel into Long Island Sound. Strong East to West currents exist during maximum ebb or flood and knowledge of position should be maintained in view of the possibility of unusual set. Valiant Rock may be passed on either side.
3. Great caution should be exercised during the Summer months when transitting through Block Island and Long Island Sound due to the heavy small boat traffic, especially the area in proximity to The Race.
4. Dense fog is prevalent during the Summer months. Good judgement should be used before transitting the area during fog.

Good water is found in Long Island Sound from The Race to Bridgeport as long as the mid-channel Buoys "P1" and "CF" are passed close aboard and care is taken so as not to pass North of Twenty-Eight Foot Shoal buoy.

Vessels usually pass one mile to the South of Stratford Shoals light before altering course for Bridgeport. Radar is the best navigational aid in this area. There are numerous RDF stations that can be used in conjunction with echo sounder readings to ascertain positions.

RESTRICTIONS: Entrance channel has a project depth of 35 ft. at MLW, is 400 ft. wide and 3 miles in length.

Normal time allowed for transit from outside to off the dock is 30 – 40 minutes. Docking time varies from 30 minutes to 1 hour, dependent on which terminal is the destination, and weather conditions.

The New Haven – Bridgeport Pilots Association believe 4 ft. of water in excess of the ship's draft is needed. As a rule of thumb, 31 ft. at low to 37 ft. at high. Any variations from this, a Pilot should be directly consulted. The range of tide is 6.7 ft. Wind strongly affects the tide in the main entrance channel. Flood and ebb cross the channel at a right angle, and velocities depend on the rise of tide for the day.

Vessels up to 70,000 d.w.t. and LOA 825 ft. call at the port.

MAX. SIZE: See "Berthing and Restrictions".

HEALTH: Vessel to cable Agent 24 hours prior to arrival of any illness on board, otherwise Radio Pratique not necessary.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Vessels arriving from North use Chatham Radio. Vessels from South use Amagansett Radio on Long Island.

TUGS: Tugs available from Red Star. The Despatcher monitors VHF and is available 24 hours a day through Channel 24 at Bridgeport.

BERTHING: *Cilco Terminal:* Cilco is a bulkhead dock, length approximately 1,100 ft. Vessels dock port or starboard side to. Two ships can moor at the same time. This is a dry cargo facility. Ships load or discharge all kinds of products. Several mobile cranes are available. Depth 33 ft. at MLW. Bunkers are only available by truck. Fresh water is available.

TANKERS: *Bridgeport Shell – Buckley Bros.:* The Shell berth is located on the East side at right angles to the main entrance, and ships must be turned 90° to approach the dock. The dock is approximately 200 ft. long with 2 main dolphins and catwalks to shore. Head lines and stern lines are run ashore by a messenger. The size of vessels is governed by manifold distance. Light oil products 300 ft. and heavy oil 350 ft. Vessels of length 700 ft. have been moored, 38 ft. at MLW in ship berth. Ships dock port side to.

Bunkers and fresh water are available.

United Illuminating: Berth is 0.6 miles inside the breakwater on the West side of the channel. A turn to port of 120° must be made into a dredged cut 140 ft. wide. The dock is concrete caissons on pilings with catwalks and centre platform. Depth 32 ft. to 37 ft. at MLW. Vessels of 70,000 d.w.t. call, but bow to manifold distance governs size of vessel. (350 ft. – 375 ft.). Vessels dock starboard side to.

Fresh water is available, but bunkers are not. Every tanker, when moored here, has an anti-pollution boom placed around it.

FRESH WATER: Available at all berths.

FUEL: No fuel barge service available. In emergency, tank truck delivery can be arranged.

MEDICAL: All facilities available.

AIRPORT: Bridgeport Airport about 3 miles away. New York airports about 50 miles distant.

CONSULS: All countries represented in New York.

HOLIDAYS: New Year's Day (1st January); Lincoln's Birthday (12th February); Washington's Birthday (18th February); Good Friday; Memorial Day; Independence Day (4th July); Labour Day; Columbus Day (14th October); Veterans' Day; Election Day (5th November); Thanksgiving Day (28th November); Christmas Day (25th December).

TIME: Daylight Saving Time, GMT minus 4 hours from April to October.

SERVICES: Ship's stores and launch service available from New Haven. Vessels must provide their own gangway at all docks.

AUTHORITY: City of Bridgeport, Office of the Harbour Master, City Hall, Room 223, 45 Lyon Terrace, Bridgeport, Connecticut 06604. *Tel:* (203) 576 7288. *Contact:* Gilbert Zawadski, Harbour Master. *Tel:* (203) 334-2585 (Home).

BROWNSVILLE, Texas: 25.54 N. 97.28 W. (See Plan)

DOCUMENTS: See "Houston".

PILOTAGE: When a vessel is scheduled to arrive at Brownsville, the vessel's Agent notifies the Harbour Master's office of the approximate ETA. Later, when a firm ETA is received, the Harbour Master's office notifies the pilot office that the vessel is expected on the bar at a certain time and also gives the time which she would like to enter.

The telegraphic address of the pilot office is: Brazos-Santiago Pilots, 411 First National Bank Bldg., Brownsville, Texas.

If possible, it is desired that the Harbour Master's Office be notified 2 hours in advance of the ETA of any vessel.

The VHF Channel to be used when contacting the pilot boat and Harbour Master is 16. When contact is made, this will be switched to Channel 13.

The pilot boat is a steel hull length 43 ft., beam 16 ft. and draft 8 ft. 250 h.p. diesel. Gross tonnage 36 tons.

No light or sound signals are necessary from vessels requiring a Pilot, although light signals may sometimes be used at night – ordinarily a vessel is picked up by visual sighting.

The pilot boat is located on the South tip of Padre Island – the Pilot station is adjacent to the entrance to ship channel with a clear view of the approach to the jetties.

The Pilot is taken on board an incoming vessel at the sea buoy which is located 2 miles off shore.

The anchorage for a vessel awaiting Pilot is 1.5 miles North of sea buoy.

ANCHORAGES: Anchorages are marked on charts.

RESTRICTIONS: *Brazos Island Harbour:*

		Dredged Dimensions		*Minimum depths in channel entering from seaward*		
Name of Channel	*Width* (ft.)	*Length* (miles)	*Depth* (ft.)	*Left Outside Quarter* (ft.)	*Middle Half of Channel* (ft.)	*Right Outside Quarter* (ft.)
Brazos Santiago Pass:						
Entrance Channel	300	1.9	38	40.0	39.0	37.0
Channel across Laguna Madre	200	2.9	36	38.0	38.0	38.0
Brownsville Channel:						
Junction Basin to Boca Chica Passing Basin	200	4.0	36	38.0	38.0	38.0
Boca Chica Passing Basin to Goose Island Passing Basin	200	5.4	36	38.0	38.0	38.0
Goose Island Passing Basin to Brownsville Turning Basin	200	2.8	36	37.0	38.0	37.0
Brownsville Turning Basin (extension)	500	1.4	36	37.0	38.0	37.5
Brownsville Turning Basin	500-1000	0.5	36	36.0	37.0	35.0

MAX. SIZE: The max. permissible length 850 ft. – 900 ft., beam 160 ft., draft 34.5 ft.

RADIO: ETA cables to Agent, etc., should be addressed to the Agent via Mackay Radio at Galveston or RCA in Port Arthur. When within 60 miles range of the port, calls may be made through the Harbour Master's office on VHF Channel 16 and the calls will then be transferred to land lines to any point. Also Brownsville Marine Operator, VHF Channel 26.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

VHF: A vessel approaching the Port of Brownsville may contact the Harbour Master's office on VHF Channel 16.

TUGS: Tugs normally join an incoming vessel 1.25 miles before she enters the turning basin. The tug's lines are used for which there is no charge.

BERTHING: Cargo facilities include over 7,500 ft. of modern, marginal dry cargo wharves, 14 deep sea docks and 10 barge berths, together with over 583,000 sq.ft. of transit shed space. In addition there is 242,000 sq.ft. of open storage space at the deep-draft docks and 271,000 sq.ft. of open storage at the shallow draft docks.

BULK HANDLING FACILITIES:

Public Grain Elevator: Located at the approach to the Turning Basin, the port-owned and operated elevator has a capacity of over 3,800,000 bushels. An adjacent bulk plant provides flat storage for all types of dry bulk commodities.

Two large gantry cranes handle the loading of vessels. The maximum spout clearance for loading vessels is 45 ft. above the water.

Equipped with two truck dumps and two hopper car dumps, the elevator has the rated loading capacity of 1,200 short tons per hour (1,000 L/T per hour on bulk carriers without wing tanks and 600 L/T per hour on tween deckers).

The 400 ft. wharf is 12 ft. above water and has an unlimited berth length. The draft at dockside is 34 ft. and the channel control depth is 36 ft.

The grain elevator also has the flexibility of unloading vessels (barge unloading capacity is 300 t.p.h.).

Liquid Bulk Handling: Liquid Terminals, Inc., is a new facility that was built to handle and store all types of liquid commodities in bulk. The large storage tanks vary from 5,000 to 20,000 barrels each, providing a total of more than 125,000 barrels capacity for the entire installation. The modern liquid dock adjacent to the facility accommodates vessels with a deep draft of up to 34 ft. Loading racks provide for the efficient transfer of liquids to either truck or rail.

Four oil and chemical docks are located on the North side of the ship channel and are utilised by companies such as Exxon, Texaco, Union Carbide, Petroleos Mexicanos, Line Service, Continental and Permian Oil to handle bulk petroleum and chemical products. Also see "Tankers".

CRANES: Two large floating cranes, rated at 150 metric tons each, are available for heavy lifts at any dockside location in the port area.

STEVEDORES: To arrange for gangs the vessel needs to notify the ship's Agent of ETA; the Agent will in turn notify the stevedores. It is necessary that the Agent be advised of an ETA before 1900 hrs. for an 0800 hrs. start.

Main commodities and average load discharge rates:

Grain	Bulk carrier 1,200 t.p.h.
Grain	tween deck 600 t.p.h.
Cotton	100 bales per hour per gang
Lead and zinc pigs	40 tons per hour per gang
Citrus in boxes	22 tons per hour per gang
Onions and carrots in bags	22 tons per hour per gang
General cargo	25 tons per hour per gang

MEDICAL: When medical attention is required, advance notice should be given to the Agent by ship's radio.

TANKERS: Ballast facilities are available up to 6,000 barrels per hour. The port loads refined petroleum products. The port has 4 tanker berths, with max. draft 34 ft. 7 in.

Vessels proceeding to Brownsville normally turn in the basin and berth Port side to. Berthing at Port Isabel Oil Wharf also generally Port side to. Mooring boat employed.

DENSITY: The average density is 32 parts per 1,000.

FRESH WATER: Fresh water is available and can be delivered to a vessel through hose or pipe-line at 150 gallons per minute.

FUEL: No fuel is available locally. It must be barged in from Corpus Christi – advance arrangements are necessary.

FIRE PRECAUTIONS: Tankers are required to berth head out.

GANGWAY/DECK WATCHMEN: Such services are necessary only when detainees are held on board.

OPENING/CLOSING HATCHES: This work is done by the stevedores.

IDENTIFICATION CARDS: Immigration requires Form No. I - 95 Landing permit.

CONSULS: Mexico: tel. 542-4431.

REPAIRS: Marathon, located at the port, is equipped to handle all normal temporary ship repairs.

DRY DOCKS: None available.

REPATRIATION: There are facilities for this service.

AIRPORT: The local airport is located 2 miles from the port. Ozark Airways operates 4 flights daily.

TIME: Local Time is 6 hours behind GMT.

HOLIDAYS: The following holidays are observed here: Veterans' Day (4th Monday of October); Thanksgiving; Christmas; New Year; Washington's Birthday (Feb. 22nd); Texas Independence Day (March 2nd); Emancipation Day (June 20th); July 4th; Labour Day (1st Monday in September); Decoration Day (last Monday in May).

No work shall be performed on Labour Day or Christmas Day except in case of fire or where property is in danger. When holidays fall on Sunday, the following day will be recognised as the holiday. Also, no work will be performed between 1600 and 1900 hrs. on election days.

POLICE/AMBULANCE/FIRE: Sheriff 546-2451; Brownsville Fire Dept. 542-4375; Ambulance Service 542-2121.

TELEPHONES: Telephones are not available for placing on ships.

SERVICES: Tank cleaning service is available at the port. Ballast facilities are available at Oil Docks 1, 2 and 3. P.I.B. can take care of compass adjusting, etc.

DELAYS: There are no delays unless an incoming ship has been assigned to a berth now occupied. Bunkers must be barged in; arrangements may be made ahead of time to avoid delay.

DEVELOPMENTS: The Federal Government has made an appropriation to initiate a study on deepening ship channel from 36 ft. to 42 ft. and to widen the channel from 200 ft. to 300 ft., bottom width. Plans are being made to build another grain elevator/bulk materials dock, and another chemicals dock in the future.

AUTHORITY: Brownsville Navigation District, Port of Brownsville, P.O.Box 3070, Brownsville, Texas 78523-3070. *Tel:* (512) 831-4592. *Telex:* 766612. *Contact:* James M. Beaman, Director of Trade Development.

BRUNSWICK, Georgia: 31.09 N. 81.30 W. (See Plan)

DOCUMENTS:

Crew Lists: 1 certified copy for Immigration; 2 copies uncertified for Customs.

1 copy Pratique.

3 copies Inward Customs Manifests.

3 copies each Stores, Curio & Narcotics List.

PILOTAGE: Compulsory. 24-hour Pilot service arranged by Agent with 48 – 24 hour prior notice from ship. Pilot boards vessel day or night approximately 1 mile outside "STS" Buoy (Lat. 31° 03′ 20″ N., Long. 81° 15′ 20″ W.). Distance to East River Terminals is 13 miles. Pilot contacted on VHF Channels 12, 14 and 16. Pilot boat is 25 ft. white hull. Marking is "Pilot" on hull.

Brunswick Bar Pilots' Association, 411 Arnold Road, St. Simons Island, Ga. 31522. Tel: (912) 638 2380.

ANCHORAGES: 3 miles S.E. of Buoy "STS", sand and mud bottom. In event of deep draft (30 ft.) and high winds, anchorage obtained near Ocean Buoy "2B" and inform Pilot as in "Pilotage". Vessels in need, or for other good reason, may anchor in St. Simon's Sound, depth 10 fathoms.

APPROACHES: The harbour is located about midway between Savannah and Jacksonville. The harbour is reached by a channel from the Atlantic Ocean, running between St. Simons and Jekyll Island. The channel has a minimum width of 500 ft. and a depth of 32 ft. to St. Simon's Sound, thence a width of 400 ft. and a depth of 30 ft. to Sidney Lanier Bridge, where the channel divides, 13 miles from sea. The Northern branch leads to Lanier Dock, State Dock and the city, 400 ft. wide and 30 ft. deep. The other branch leads N.W. to the pulp plant dock, chemical docks and electrical generating plant, 300 ft. wide and 30 ft. deep.

RESTRICTIONS: Vessels with a draft of 28 ft. may enter at any time and over 28 ft. on flood tide. Max. size vessel is Panamax. Vessels with draft of 34 ft. may proceed to or from Colonel's Island on high tide. Vessels with 30 ft. draft berth in the East River on high tides. Tidal range 6 – 8 ft.

MAX. SIZE: Max. permissible length 650 ft. Max. d.w.t. over 33,000 tons.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Prior arrival, use Commercial Lantana, Chatham Radio for advices to Agent, 48-24 hours in advance.

TUGS: Tugs join vessel near Sidney Lanier Bridge if inbound for the East River and Mayor's Point Terminals and just West of Lanier Bridge if bound for Colonel's Island. Harbour pilot on board vessel carries out the docking manoeuvre with tugs. 3 small tugs (500 h.p.)

BERTHING: 1,600 ft. continuous marginal wharf; steel and concrete construction, 57 ft. wide apron. Vessels normally turned to moor port side alongside unless deck cargo or other vessel obstruction means cargo may not be worked over port side. Gantry crane of 27 tons capacity available.

The Brunswick Port Authority operates a bulk commodity terminal at Lanier Dock. The facility is 500 ft. long and constructed of steel and concrete, with a project depth of 30 ft. MLW (mean low water), equipped with a grab bucket, conveyors and marginal tracks for handling bulk cargoes at rates up to 600 t.p.h. It operates covered warehouses with a capacity of approx. 60,000 tons. A limited amount of open storage space is available equipped with a conveyor system and reclaim facilities. Lanier Dock lies directly adjacent to the Brunswick State Docks and warehouses. Both wharves have a turning basin of 1,000 ft. in length and 600 ft. wide with a project depth of 30 ft. MLW also Barge Dock facility 250 ft. long.

Colonel's Island: Multi-product dry bulk facility. 1×2,400 t.p.h. travelling ship-unloader, outreach 100 ft. Length of berth 600 ft. Storage area 135,000 sq.ft.

Mayor's Point: 3 berths. Total length 1,500 ft. 235,000 sq.ft. of transit sheds and 5 acres of open storage.

BRIDGES: Lanier Bridge lift bridge; 235 ft. horizontal clearance between fenders, 139 ft. vertical clearance in up position at HW. Vessels under control of Pilot and tugs when passing through.

STEVEDORES: Radio to Agent 48-24 hours prior arrival with number of gangs, working hatches and space in hatch, and special factors, e.g. pilferable cargo, autos, heavy-lifts, etc.

MEDICAL: Advance notice to Agent, or notify on arrival.

TANKERS: Liquid bulk cargo is pine oil distillates loading. Petroleum storage 310,000 barrels, 3 tanks.

Outward Passage – Cautionary Advice: The berth is located just up river from the Sidney Lanier Bridge.

In view of the short distance to the bridge and the fact that a considerable course alteration must be made to port just before reaching the bridge, it is essential that the ship is properly lined up on the bridge before proceeding into the bridge passage.

It is advisable that the Master acquaints himself with the Pilot's plan for the approach and passage of the bridge.

An anchor party should be standing by and anchors should be ready to let go. Special attention should be given to make certain that the helmsman accurately follows the Pilot's orders.

DENSITY: Average 1016 (high) to 1014 (low). Water inside considered brackish.

FRESH WATER: From shore connections at 20 t.p.h.

FUEL: Bunker "C" available at piers. Distillate and blends by barge, if required. 72 hour advance notice to Agent, giving type and quantity.

GANGWAY/DECK WATCHMEN: Not required but available.

OPENING/CLOSING HATCHES: "MacGregor" hatches must be opened by vessel prior working. All others may open at discretion to save turn-around time.

CERTIFICATES: Registry, U.S. tonnage tax, CFR Pollution, Load line, SOLAS, Derat.

CUSTOMS ALLOWANCES: Tobacco, 2 cartons. Customs will open bonded stores on request. Spirits, reasonable amount.

IDENTIFICATION CARDS: U.S. Immigration Landing Permits.

CONSULS: None. Consulates at Savannah, Ga., and Jacksonville, Fla., may be used as required by vessel.

REPAIRS: Limited to minor replacement parts to engine, radio, radar of standard makes. Major repairs may be arranged with shipyards of Savannah or Jacksonville.

DRY DOCKS: None.

SURVEYORS: American Bureau of Shipping (912) 232-3793. Atlantic Marine Surveying, Inc. (912) 354-9938. Coleman, Kenney & Silas, Inc. (912) 352-7420. International Adjusters Southern Ltd. (912) 352-7420. National Cargo Bureau, Inc. (912) 236-1527. SGS Control Services, Inc. (912) 232-1995. L. O. Smith, Inc. (912) 233-9876. Southeastern Marine Surveying Company (912) 233-4157. J. W. Tarver, Jr. (912) 233-6661. Charles T. Theus, Inc. (912) 233-3588.

REPATRIATION: Through Agent.

AIRPORT: 20 minutes' drive from quays; 4 flights daily.

TIME: GMT minus 5 hours. Daylight Saving Time from first Sunday in April till last Sunday in October. April: advance; October: retard.

HOLIDAYS: 1st January, 22nd February, 30th May, 4th July, 1st Monday in September, 4th Thursday in November, 25th and 26th December.

POLICE/FIRE/AMBULANCE: Numbers given in Boarding Brochure.

TELEPHONES: None placed aboard. Public pay (coin) telephones on quay clearly marked.

GENERAL: Brunswick, Georgia, is a small port specialising in export of woodpulp in bales, pine-tree products in drums. Imports bulk salt, oil, fertiliser materials and gypsum, some break-bulk general cargo. Vessel requirements handled by Agent in residence, communication by wireless or R/T essential in advance.

AUTHORITY: Brunswick Port Authority, P.O.Box 1039, South Yards, Brunswick, Georgia 31521-1039. *Tel:* (912) 265-3700. *Telex:* TWX 810-7825071. *Contact:* Robert W. Turner, General Manager.

BUFFALO, New York: 42.55 N. 78.55 W. (See Plan)

DOCUMENTS: For vessels arriving from foreign ports:

3 Unfreighted copies of Complete Manifest covering all cargo to be discharged in the Great Lakes.
4 Personal Effects Lists.
4 Crew Lists.
4 Narcotics Lists.
Vessel's Registry and copies of Paid Tonnage Tax Certificates.
Health Pratique.
Clearance from previous port.

PILOTAGE: Not compulsory. Seaway Pilots will assist if required.

ANCHORAGE: Inside South Breakwater, depth 27 ft.

MAX. SIZE: Limited by Seaway Locks. 730 ft. length and Seaway draft.

RESTRICTIONS: St. Lawrence Seaway navigation season. Approximately from 1st April to 15th December. Controlling depth 27 ft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to New York Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Available, but not normally required.

RADIO: WBL – Buffalo.

BERTHING: Outer Harbour: Total berth space 2,400 ft.; depth alongside 27 ft. LW. 2 transit sheds – total of 184,000 ft. dry dock space; sprinkler system equipped, seaway piers for bulk cargoes. South and North Piers 3,506 ft. of berth space, 200 acres open storage area. Depth alongside 27 ft.

BULK HANDLING FACILITIES: *Grain:*

Frontier

Operator: General Mills, Inc. Berthing Space - 705 ft. Max. OA Dimensions (with turning) 647 ft.×70 ft. Storage Capacity: 4,200,000 Bushels.

Depth at Dock (ft.)	*Depth in Channel (ft.)*	*Unload Legs*	*Unload Speed (b.p.h.)*	*Load Spouts*	*Load Speed (b.p.h.)*	*Deepest Vessel Can Unload (ft.)*
22	22	2	21,000	None	–	36

Lake and Rail:

Operator: International Multifoods, Inc. Berthing Space - 535 ft. Max. OA Dimensions 647 ft.×70 ft. Storage Capacity: 4,600,000 Bushels.

Depth at Dock (ft.)	*Depth in Channel (ft.)*	*Unload Legs*	*Unload Speed (b.p.h.)*	*Load Spouts*	*Load Speed (b.p.h.)*	*Deepest Vessel Can Unload (ft.)*
22	22	2	23,000	None	–	36

Pillsbury:

Operator: The Pillsbury Co. Berthing Space - 875 ft. Max. OA Dimensions 647 ft.×70 ft. Storage Capacity: 5,000,000.

Depth at Dock (ft.)	*Depth in Channel (ft.)*	*Unload Legs*	*Unload Speed (b.p.h.)*	*Load Spouts*	*Load Speed (b.p.h.)*	*Deepest Vessel Can Unload (ft.)*
22	22	2	30,000	1	17,000	36

SPECIALISED CARGO HANDLING FACILITIES: A mobile gantry crane capable of handling lifts of 55 tons at 40 ft. and portable bulk conveyors. Crawler crane, capacity 230 tons. Conveyor, capacity 2,200 t.p.h. Additional heavy lift equipment available from the Port of Buffalo and commercial sources.

STEVEDORES: Gangs to be ordered by 1700 hrs. for 0800 hrs. start following day, ample gangs available.

DENSITY: Fresh water.

MEDICAL: U.S. Public Health Outpatient Clinic as well as numerous hospital facilities.

FRESH WATER: Available at most berths.

FUEL: All grades available by tank truck delivery or by harbour tank barge.

CONSULS: Canada, Costa Rica, Ecuador, France, Germany F.R., Italy, Mexico, Netherlands and Sweden.

REPAIRS: Machinery and above-water repairs available.

AIRPORT: 5 miles, served by 4 regular airlines.

SHORE LEAVE: No restrictions when cleared by US Immigration Officials.

GENERAL: Refer to "Great Lakes Pilot".

AUTHORITY: Port of Buffalo, 901 Fuhrman Blvd., Buffalo, New York 14203. *Tel:* (716) 852 1921. *Telex:* 855-7443. *Contact:* Noel Painchaud, Port Director.

BURNS HARBOUR, Indiana: 41.38 N. 87.11 W. (See Plan)

The entrance to Burns International Harbour is at Lat. 41° 38′ N., Long. 87° 11′ W., and is located on the South shore of Lake Michigan at Portage, Indiana, some 30 miles East of Chicago in an area known as the Indiana Dunes.

PILOTAGE: Available.

RESTRICTIONS: Average Navigation Season: Domestic cargo by lake freighters – March 15th to February 1st. Ocean going vessels via Seaway – April 1st to December 15th. Lake river barges – 12 months.

Approach to Harbour: Controlling depth of water at harbour entrance 30 ft., entry is from deeper water. Length and beam limitations – none. Approach open 24 hours per day.

Harbour: Controlling depth of water for outer harbour 28 ft.; East and West harbour arms 27 ft. Turning basin – 1,600 ft. radius with water depth of 28 ft. Accessible 24 hours a day. Length and beam limitations – none.

TUGS: Available if required.

BERTHING: The port provides 30 ft. depth at the entrance channel, 28 ft. at the inner harbour, and 27 ft. at berths. The harbour is protected by an all weather breakwater.

The port has 10 modern berths plus a mooring facilitiy specifically designed for self-unloader ships. Ultimately the port will have 15 ship berths. Recently completed are 2 modern, heated, sprinkler-equipped transit sheds providing 146,000 sq.ft. of space for general cargo, which are being operated by competent stevedores.

A refrigerated storage building is in operation.

CRANES: 3×150 ton crawler cranes; 3×75 ton crawler cranes 3×60 ton crawler cranes.

FRESH WATER: Available.

DEVELOPMENTS: 1 berth, length 700 ft. under construction.

AUTHORITY: Burns International Harbour – Port of Indiana, Indiana Port Commission, 143 West Market Street, Suite 204, Indianapolis, IN 46204. *Tel:* (317) 232-7150. *Telex:* 510-601-4224. *Contact:* James H Hartung, Port Director.

BURNSIDE, (including Convent and St. James), Louisiana: 30.08 N. 90.55 W. (See Plan)

DOCUMENTS/PILOTAGE: For all general information refer to "New Orleans".
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made out to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Not normally required see "Tankers".

BERTHING: Bulk Marine Terminal: Berth 800 ft. long, 40 ft. depth.
Ormet Corporation: Berth 825 ft. long, 50 ft. depth. Situated at Mile Point 169. Max. LOA 305 m. Max. beam 41 m. Max. draft 12.19 m. (60,000 d.w.t. or 130,000 d.w.t. part load) 2 travelling gantry cranes (1,000 t.p.h. each) and 1 shiploader (1,500 t.p.h.). Height above LWL 27.5 m., outreach 19.2 m. Travel 198 m. Loading rate 600 – 1,000 t.p.h.
Rogers Terminal and Shipping (Cargill Inc.): Floating feed transfer facility at Convent. 330 ft.×75 ft. Loading rate to vessels 1,300 t.p.h.

TANKERS: *Shell – St. James:* The facility is located on the West bank of the Mississippi River at Mile 160 above Head of Passes (AHP).
There are 2 berths, one of which is 800 ft. long and the other 1,100 ft. long. At the newer dock there are 2×16 in. arms and the berth is capable of unloading 28,000 bbls.p.h.
The depth alongside these berths is 55 ft. to 60 ft. However, the draft of the vessel is limited to that available at Southwest Pass.
It is important to note that due to the design of this terminal it is impracticable for vessels to receive stores at this location. Additionally there are no bunkers provided at this terminal nor is there any fresh water available from the terminal and there is no authorised anchorage in the immediate area of this facility. Vessels expecting less than 24 hours delay awaiting berth are generally anchored at New Orleans and then proceed to the terminal (which is a different port of entry for Customs) otherwise vessels would have to anchor at Burnside which is about 10 miles up river from St. James.
Because of an underwater pipe-line near the dock, the terminal management requires all vessels using their facility to have at least 1 tug of 1,800 h.p. to assist in docking and undocking.
As a point of reference it generally takes approximately 15 or 16 hours transit from Southwest Pass to St. James Terminal for most vessels.
Texaco – Convent: The Texaco Dock is located 167 miles AHP. The berths are located near the edge of the navigable channel and interaction caused by downbound laden vessels can result in excessive surge by deeply loaded vessels docked alongside.
Current in the river at this location varies between 3 and 8 knots, depending on the height of the river.
The docks are located near an area of revetment, therefore anchors should not be used while alongside.
Cargo Handled and Shore Installations: Berth No. 1 handles mainly clean products and petrochemicals, e.g., aviation gas, jet fuel, unleaded gasoline, hi-test gasoline, etc., and serves mainly as a loading dock.
Berth No. 2 handles clean as well as dirty products including crude oils, charge stocks, petrochemical feed stock, furnace and fuel oils, etc. This dock both ships and receives cargoes.
All cargo transfer is made through 12 in. Chicksan arms which are bolted at the ship's manifold. Maximum rail pressure for discharging vessels is 125 p.s.i.
An emergency loading stop control is located in each dock house and portable unit is provided for vessels docked at the berths.
Docking: Docking is always performed by the River Pilot or Docking Master, with the aid of at least 2 tugs. 2×1,800 h.p. tugs are required for vessels up to 60,000 d.w.t. docking and undocking, vessels larger than 60,000 d.w.t. are required to use 3×1,800 h.p. tugs for these operations. Approach is made parallel to the berths, stemming the current with 2 or 3 tugs on the port side. Mooring lines, either wire or synthetic, are run to mooring dolphins by boat.
At least 12 mooring lines are required for all vessels, i.e., 2 head lines, 2 stern lines, and a combination of 4 breast and or spring lines, depending on available leads, both forward and aft.
Nylon messengers or heaving lines are not permitted and will be refused by line handlers in the boats or on the docks.
Bunkers and Fresh Water: Bunker-C and fresh water are available upon request; however, no barges are allowed alongside vessels at any time.
Ballast/Slop Facilities: A maximum of 10,000 bbls. of oily slops may be discharged ashore for storage/treatment.

FRESH WATER: Available ex-berth.

FUEL: Not available.

DENSITY: Fresh water, 1000.

NOTICE:
Agent to Shipmaster:
Vessels over 100,000 Summer Deadweight:
This is to advise you that the Pilots will not allow your vessel to transit outbound between Pilottown and Southwest Pass during darkness hours if your vessel is at a draft in excess of 35 ft. fresh water upon arrival at Pilottown outbound. The times involved are from 1600 hrs. until 0700 hrs. the next day.
We feel certain with various ballasting procedures you will be able to comply with this draft upon reaching Pilottown even though you may leave the *St. James Berth* at a greater draft. If you cannot comply, please advise your Agent boarding with this letter in order that he may inform all parties interested.
By anchoring at Pilottown you will be costing yourself an additional $3,500 minimum in tug and Pilot expense. Therefore, we sincerely require your utmost co-operation.

SHIPMASTER'S REPORT: February 1979.
Location: St. James – West Bank.
Documents: Ship's stamp on cash receipts.
Anchorage: Usually at Grandview in the Customs District of Gramercy, where launch service available and about 1 hour's drive to New Orleans.
From Capline (St. James) about 45 minutes' drive to Baton Rouge.
VHF: All berthing and river pilotage on Channel 13.
Tugs: 3 tugs recommended.
Berthing: Always port side to. No shore gangway, moorings 4, 2, 2 each end for tankers of 100,000 d.w.t. and upwards.
Cranes: Not available.
Tankers: Require ship's gangway at Berth No. 2.
Consuls: Honorary British Consul at New Orleans. (321 St. Charles Avenue). Open 1000 hrs. – 1200 hrs. and 1400 hrs. – 1600 hrs.

AUTHORITY: Greater Baton Rouge Port Commission, P.O.Box 380, Port Allen, Louisiana 70767. *Tel:* (504) 387-4207. *FAX:* (504) 387–1534.
Contact: Gary C. Pruitt, Executive Director.
Burnside Terminal, P.O.Box 25, Burnside, Louisiana 70738.

CAPE COD CANAL, (including Sandwich Oil Terminal), Massachusetts: (See Plan)

The Cape Cod Canal is a sea-level canal, extending from a point on Cape Cod Bay about 50 miles S.E. of Boston Harbour, Mass., to the head of Buzzards Bay, Mass. In general direction the Canal trends from Cape Cod Bay Westerly to Buzzards Bay.
PILOTAGE: The Corps of Engineers, Department of the Army , does not maintain pilot service but independent Pilots, licensed by the U.S. Coast Guard, are usually available at the canal. Messages will be transmitted to Pilots with the understanding that the Government will assume no responsibility in connection therewith.
Pilotage is compulsory and available 24 hours.
Pilot boards:
1. East Entrance: Position Lat. 41° 47.9′ N., Long. 70° 28.5′ W., midway between the Sea Buoy and the breakwaters.
2. West Entrance: Near West end of Cleveland Ledge.
3. By special request: Near Brenton Reef Light (Lat. 41° 25.6′ N., Long. 71° 23.4′ W.) or 2 nautical miles South of Point Judith Light Buoy No. 2 in position Lat. 41° 19.2′ N., Long. 71° 28.5′ W.
Pilots are available from the following associations:
Northeast Marine Pilots Incorporated, Newport, Rhode Island (Tel: 401-847 9050 (HJ), 401-331 4824 (HN)).
Interport Pilots Associates. Tel: 201-291 1310.
Boston Pilots, East Boston. Tel: 617-569 4500.
Associated Coast Pilots. Tel: 201-887 7114.
Association of East Coast Pilots. Tel: 609-435 1239.
RESTRICTIONS:

	Width bottom (ft.)	*Length* (miles)
Easterly Entrance to Station 430	480*	8.4
Station 430 to Wings Neck (Hog Island Channel)	500	4.3
Wings Neck to Cleveland Ledge (Cleveland Ledge Channel)	700	4.7

*Except narrows to 450 ft. opposite State Pier.

The canal and approach channels have been dredged to the project depth of 32 ft. below MLW.
RADIO: Direct communication with the Cape Cod Canal sub-office, New England Division, Corps of Engineers, is available at all hours by means of telegraph, telephone, or radio. The telephone number is 759-4431.
The nearest ship to shore telephone stations are at Scituate, call letters (WOU) and Chatham, call letters (WCC). Bridge to bridge radio-telephone facilities are available on 156.65 MHz, 156.6 MHz, 156.7 MHz and 156.8 MHz. Vessels equipped for communications with the Cape Cod Canal are requested to keep their radio-telephone tuned to the above frequencies.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to New York Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
VHF: Pilot Office and pilot vessel on Channels 16 and 13. Tugs on Channels 13 and 18A. Pilot listens 1 hour before vessel is expected.
BERTHING: Mooring basins are located at the East and West ends of the canal. The East Mooring Basin, located on the North side of the canal is 2,500 ft. in length, 350 ft. in width and is maintained at a depth of 25 ft. at MLW. The West Mooring Basin, located on the S.E. side of the Hog Island Channel is 3,300 ft. in length, 350 ft. in width and is maintained at a depth of 32 ft. at MLW. Mooring dolphins are provided in both mooring basins.
BRIDGES: 2 fixed span high-level highway bridges and 1 vertical lift railroad bridge cross the canal.
The minimum bridge clearance for the available width of channels are as follows:

	Horizontal Clearance	*Vertical Clearance (MHW)*
Highway Bridges	480 ft.	135 ft.
Railroad Bridge (vertical Lift)	466 ft.	135 ft. (open) 7 ft. (closed)

TANKERS: See "Shipmaster's Report".
COAST GUARD STATION AND WEATHER SIGNALS: A U.S. Coast Guard Station is located near the Eastern entrance.

TRAFFIC LIGHTS: Red, green and amber electric lights, visible for a distance of about 2 miles in clear weather, day or night, are located at the following points:

(a) Eastern or Cape Cod Bay entrance, on South side of entrance at an elevation of about 55 ft. above high water.

(b) Western or Buzzards Bay entrance, Wings Neck, near Wings Neck Light at an elevation of about 48 ft. above high water.

SHIPMASTER'S REPORT: September 1984.
Sandwich Oil Terminal: 41° 46.3′ N., 70° 30.9′ W. (See "Plan").
Location: 2,200 m. inside North Breakwater from Cape Cod Bay, South side of Cape Cod Canal.
Max. Draft: 40 ft. (salt water).
Salinity: 1025.
Anchorage: Good anchorage N.E. of Breakwater.
Berthing: Berthing and unberthing only when slack tide.

Berthing port side alongside when arrival from Cape Cod Bay.

Berth must be approached with care.

Ship's gangway to shore.

Derrick rigged to take onboard two cargo hoses 10 in. diameter.

After discharging, vessel to proceed through Cape Cod Canal as there is no turning basin. Max. draft 28 ft. Airdraft 135 ft. when passing 3 bridges.

Vessel can also enter from Buzzard Bay but draft according to Canal Control is 28 ft.

AUTHORITY: Department of The Army, Division Engineer, New England Division, Corp of Engineers, 424 Trapelo Road, Waltham, Massachusetts 02254-9149. *Contact:* Statistics Section.

CASTLE ISLAND, Alaska: 56.39 N. 133.11 W.

Located in Duncan Canal off Kupreanof Island between Wrangell and Petersburg. Open all year.
DOCUMENTS: See "Anchorage, Alaska".
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
PILOTAGE: From sea via Dixon Entrance up Clarence Strait to Guard Island. Under pilotage from Guard Island.
MAX. SIZE: Harbour depth 45 ft.
TIDES: Diurnal range 16 ft. Also see "Berthing".
ANCHORAGE: Fair weather anchorage only.
CUSTOMS: Quarantine and Immigration available from Guard Island. Customs available from Petersburg or Guard Island.
BERTHING: Alaska Barite facility: Dolphins and 2 floats. Present facilities limited to about 22,000 ton ships. Loading equipment consists of 1 loading spout for bulk cargo. Production average of 1,000 t.p.h.
TUGS: From Wrangell, 3 available 500 h.p. each.
STEVEDORES: Sufficient to work ore loading facility 24 hours a day when necessary.
REPAIRS/WATER/FUEL: None.
MEDICAL: Facilities available in Petersburg or Wrangell.
AIRPORT: Charter airplane only.

CHARLESTON, South Carolina: 32.47 N. 79.56 W.
(See Plan)

DOCUMENTS:

3 Crew Lists.
3 Curio Lists.
3 Stores Lists.
3 Manifests.

At least 1 copy of Bill of Lading, if provided by shipper, and 1 copy of Parting Crew List.

PILOTAGE: Shipmasters to notify Agent 48, 24 and 12 hours prior arrival at C-2 Buoy. Pilot may be contacted by VHF Channels 16 and 18. Pilot boards on lee side from black-painted launch with "Pilot" painted in white letters on the side. Normally vessel is berthed by Docking Master from tug company.

Charleston Branch Pilots Association: 2 North Adgers Wharf, Charleston. Tel: (803) 577-6695. Monitors VHF Channel 16 and 18A, Channel 14 also available.

Masters please advise ETA and deepest draft and changes in ETA as soon as possible. If no contact is made please announce ETA and draft over the air. Savannah and Cape Fear Pilot Stations will also pass on this information for you.

Pilot vessels: Call sign WZF 7266 "Carolina" 55 ft. length; "Palmetto State" 55 ft. length; "Sis" 37 ft. length.

Pilot vessel when on station guards following frequencies: VHF Channel 16; VHF Channel 13; VHF Channel 18A, 156.95 MHz.

Location of pilot station: Charleston C-2 Buoy Lat. 32° 40.7′ N., Long. 79° 42.9′ W., in 42 ft. of water.

Pilot ladder requirements: Have ladder in good repair, clean and approximately 6 ft. above water. Please provide escort to and from bridge. Personal portable VHF transceivers are carried by Pilots.

Distances from pilot station to all berths approximately:

	Nautical Miles
Union Pier	12
Columbus Street	12.5
Exxon Dock	14.5
Wando Terminal	14
Ship Yard River	15 – 16
Navy Yard	16 – 19
Other Oil Docks	19 – 20
State Port Terminals	21
Army Transportation Docks	22
Naval Weapons Station	25
Cainhoy	22.5

ANCHORAGES: Rarely required.
RESTRICTIONS: Only restriction affecting operation relates to channel depth of 35 ft. at low tide.
MAX. SIZE: Can handle vessels 930 ft. long. Present private tanker facilities measure 475 ft. from centre of discharge pipe-line to end of dock.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to New York Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: Normal procedure. No special or unusual procedures required.
RADAR/VHF: Services required are handled through Agent.

Tug Companies: Marine Contracting and Towing: 723-7442 Radio frequency Channel (7A).

White Stack Towing: 577-6556 Radio frequency Channel 19A.

Marine operator on Channel 26 VHF.

Weather Station on Channel 39 VHF.

TUGS: Tugs usually join tankers between Cooper River Bridge and Coal Pier, approximately 0.5 miles from dock. Tug lines used. No charge made for this service.

Tugs are required for any vessel docking at or sailing from any state port berth which has a crane.

BERTHING: *Union Pier:* State Pier No. 2: 4 berths. Break-bulk terminal, length 2,471 ft. Depth 35 ft. 1×30 ton gantry. LASH barge handling capabilities, and 87,453 sq. ft. of open storage area.
Columbus Street Terminal: State Pier No. 8. 6 berths. Length 3,875 ft. Depth 35 ft. Terminal handles break-bulk and containers. One 440 ft. banana berth. 1×75 ton gantry crane, 1×50 ton gantry crane and 1×150 ton gantry crane serve 1,940 ft. of berthing space along the South end of the pier. 1×475 ton capacity sheer-leg, 1×90 ton truck crane and 3×40 long ton container cranes.
North Charleston Terminal: State Pier No. 15: Total length 2,500 ft. One container berth length 600 ft., one grain berth length 675 ft. 2 container berths each 930 ft. length. 4×50 ton container cranes, one grain elevator, capacity 1.5 million bushels. Additional 25 acres of container storage area recently completed.
Wando Terminal: 3 container berths, each 809 ft. length. 4 container cranes each 40 tons capacity. Max. draft 35 ft. Paved container storage area recently extended to 185 acres.
BULK HANDLING FACILITIES: *Shipyard River Coal Terminal:* Operator: Massey Coal Terminal Corp. Max. size: 50,000 d.w.t. Max. draft 38 ft.

Accommodation includes a single ship berth at the confluence of the Shipyard and Cooper Rivers. The pier is served by a travelling and shuttling shiploader with telescopic chute, which has a maximum capacity of 2,500 t.p.h. and loads at an average of 1,650 t.p.h.

CRANES: 1×40 ton, 1×90 ton, and 2×140 ton mobile cranes are available to work any Port Authority Terminal. 1×67.5 ton floating crane at Wando Terminal.
BRIDGES: *Cooper River Bridges Specifications:* Main Channel Span: 150 ft. above MHW at Centre Line, 750 ft. horizontal.

Town Creek Span: 135 ft. above MHW at Centre Line, 750 ft. horizontal.

STEVEDORES: *Working Hours:* Labour may be ordered for work to start at the following times: 0800, 1000, 1200 and 1900 hrs. Labour will usually work as long as necessary; shift system not used in this port.
MEDICAL: Advance notice when possible.

TANKERS: *Private Facilities:* Discharge lines all 8 in. dia. and 1 solvent line 8 in. Adapter to conform to ship's discharge lines supplied. Draft not to exceed 35 ft. low tide. Tanker berths operated by Humble Oil, Shell Oil, Hess Oil, BPT, and Phillips Petroleum, all suitable for 35 ft. draft. Gulf Oil Berth, max. draft 30 ft. Texaco Berth, max. draft 32 ft.
Report: *Exxon Terminal:* The berth, located 14.5 miles from the Sea Buoy, is of marginal type construction, and traffic passes in close proximity to the facility. Passing traffic combined with tidal conditions experienced on ebb tide require that a vessel be moored as follows:

Vessels arriving at the Port of Charleston with a draft in excess of 33 ft. (salt) are scheduled to commence channel transit 2 hours after LW slack at the channel entrance. This schedule allows the vessel to berth and be fully secured prior to the start of the strong ebb current out of Shipyard Creek. (See Chart: US 11524).

On arrival, the vessel is breasted into the berth port side to, and 1 forward spring run to assist in spotting and maintaining vessel's position.

With vessel positioned, attending tug will work bow of vessel in. Once an angle of 5° is attained, vessel will then run 5 head lines and 3 forward breast lines. Efficient stoppers shall be available to "stop off" mooring lines during transfer from winch to bitts without loss of tension. With aforementioned lines all fast, attending tug will then work stern of vessel in; any required adjustment of head and/or breast lines to attain equal tension on all leads shall be undertaken during this period. With vessel in position, an additional forward spring line will be used. Recommended stern leads are as follows:

(a) 2 spring lines.
(b) 2 breast lines.
(c) 3 stern lines.

Mooring lines are to be kept taut during cargo transfer. Any required slacking of head lines shall only be attempted during flood tide. Vessel to consult tide tables for times of HW and LW. Also see "Plan" for mooring arrangements.

Vessels arriving with a draft of less than 33 ft. begin transit approximately 1 hour after LW slack at the channel entrance and follow the same procedures when mooring.

The U.S. Coast Guard has recommended that moored vessels maintain a listening watch on VHF Channel 13 and to pay close attention to moorings while deep draft vessels are transitting the North Charleston and Filbin Creek Reaches. Since maintaining a bridge watch to monitor VHF during the entire discharge is not practicable, nor is it permissible to operate radio equipment at any time during cargo transfer, it is suggested that vessels consult with the Agent to obtain advice on expected times of transit of passing vessels. Prior to vessels passing, crews should exercise particular care in maintaining a close watch on mooring lines to make certain vessel is alongside and mooring lines are in taut condition.

Failure of vessels to moor in a safe and proper manner will result in terminal's refusal to connect cargo hoses. Tidal conditions experienced at the berth require a full deck and engine room watch be kept; failure to comply will result in suspension of cargo transfer.

FRESH WATER: Available via 2.5 in. hose at a rate of 500 bbls.p.h.

FUEL: Bunker "C" at API of 14.4 to 16.6 (approx.) and blended Bonded intermediate grades from 1 to 30.

FIRE PRECAUTIONS: Normal precautions.

GANGWAY/DECK WATCHMEN: Supplied by Agent upon request from Shipmaster only.

CERTIFICATES: Normal International Certificates.

CUSTOMS ALLOWANCES: Tobacco, Wine and/or Spirits, governed by length of time in port and existing Customs Regulations.

CONSULS:

Chile: Dr. Carlos Salinas, 948 Equestrian Dr., Mount Pleasant, S.C. 29464, Tel: (803) 792-2489, (803) 884-6224.

Denmark: G. L. Buist Rivers, Jr., 28 Broad St., P.O. Box 993, 29402, Tel: (803) 577-4000.

Ecuador: M. O. Salvador, Box 844, Lake City, S.C. 29560.

France: Ms. Caroline Proovost, 60 Church Street, Charleston, S.C. 29201.

Ms. Jacqueline Dietrich, 2 Sylvan Court, Spartanburg, S.C. 29302.

Norway: James D. Lucas, III, 198 East Bay Street, Post Office Box 536, Charleston, S.C. 29402. Tel: (803) 577-5782.

Switzerland: Dr. Hans Kuhn, 176 West Park Drive, Spartanburg, S.C. 29301. Tel: (803) 585-3922.

REPAIRS: Available.

SURVEYORS:

American Bureau of Shipping, P.O.Box 1844, Summerville, S.C. 29483, Tel: 875-0073.

Associated Marine Surveyors, P.O.Box 5174, 29406, Tel: 747-8651, 899-6327.

Atlantic Marine Surveyors, 15 Briarcliff Dr., 29407, Tel: 571-4082, 572-7297 (pager).

William P. Cart, Jr., 1043 Fort Sumter Dr., 29412, Tel: 795-0233.

Charleston Marine Surveyors, Inc., 321 East Bay Street, P.O.Box 716, 29402, Tel: 723-8111.

Coastal Container Surveyors, P.O.Box 1305, 29402, Tel: 572-7167 (pager).

Capt. Arthur A. Fontaine, 1530 N. Pinebark Ln., 29407, Tel: 766-9383.

GAB Business Services, Inc., 1527 Hwy. 7, P.O.Box 33185, 29407, Tel: 571-5210.

Intermodal Transportation Services, P.O.Box 1001, 29411, Tel: 747–1442, 728–8472 (pager).

Law & Company of Charleston, 4736 Spruill Ave., 29406, Tel: 747-1589.

Lucas & Brown, Inc. (representing American Institute of Marine Underwriters, Lloyd's Agency), 198 East Bay Street, P.O.Box 536, 29402, Tel: 577-5782.

Dana C. McLendon Co. (representing Institute of London Underwriters, International Adjusters-Southern-Ltd.), 18 Broad St., Suite 409, P.O.Box 1233, 29402, Tel: 723-9274.

Capt. Vincent J. Mitchell, 1005 E. Ashley Ave., Folly Beach, S.C., 29439, Tel: 766-9383, 588-9566.

George Shane, Tel: 766-1264, 899-6821.

L. O. Smith, Inc. P.O.Box 2401, 29403, Tel: 747-5728.

Alfred A. Sorensen & Associates, 619 Piedmont Ln., Ladson, S.C., 29456, Tel: 797-5555.

DRY DOCKS: 1×10,000 ton floating dock, 1×1,500 ton, and 2×1,000 ton floating docks.

REPATRIATION: Facilities available.

AIRPORT: 10 miles from Terminal, served by regular airlines.

HOLIDAYS: Work continues on holidays (except New Year's Day, July 4th, Labour Day and December 25th).

EMERGENCY CO-ORDINATION CENTRE:

Marine & Air Emergency, Oil & Chemical Spills: 196 Tradd St., P.O.Box 724, 29402, Tel: 724-7600.

Captain of the Port, Marine Safety Office, 196 Tradd St., P.O.Box 724, 29402, Tel: 724-4218.

Georgetown: Belle Isle, P.O.Box 1440, 29440, Tel: 546-2742.

POLICE/AMBULANCE/FIRE: Emergency Medical Service, 577-7080; Hospital (Roper), 724–2147; Charleston Fire Dept., 911; City Police, 911; County Police, 911.

TELEPHONES: No arrangements exist for placing phones aboard vessels. Phone facilities are situated within 100 ft. of vessel at dock.

SERVICES: No tank cleaning/washing facilities available at dock. Can be arranged and handled at local shipyard. Practically any other service available at dockside.

STORING: See "Prelims".

1. Yes
2. Yes
3. Yes
4. Yes
5. Standard U.S. Regulations
6. Yes

BANKS:

Bankers Trust of South Carolina, 1 Broad St., P.O.Box 610, 29402, Tel: 723-6800.

Citizens & Southern National Bank of South Carolina, 1-26 at Aviation Ave., P.O.Box 10608, 29411, Tel: 554-0860.

First National Bank of South Carolina, 18 Broad St., P.O.Box 959, 29402, Tel: 577-4400.

Liberty National Bank, 151 Meeting Street, P.O.Box 935, 29402, Tel: 722-3333.

South Carolina National Bank, 16 Broad Street, P.O.Box 700, 29402, 723-8311.

Southern Bank & Trust Co., 145 King Street, P.O.Box 1041, 29402, Tel: 577-9100.

SHIP SUPPLY SERVICE: *Tug and Launch Service:*

Harbor Launch & Line Service, P.O.Box 4D, Ravenel, S.C. 29470. Tel: 722-7781, 889-8937.

Marine Contracting & Towing Co., 50 Immigration St., P.O.Box 153, 29402. Tel: 723-7442.

Richards Launch & Towing Service, Inc., Hagood Ave., P.O.Box 666, 29402. Tel: 577-6449.

Skinner Marine Towing Co., 1505-A Harbour View Rd., 29412. Tel: 797-0893, 747-6505 (pager).

Stevens Towing Co., Post Office Bldg., Yonges Island, S.C. 29494. Tel: 889-2362.

White Stack Towing & Transportation Co., Inc., Foot of Laurens St., P.O.Box 627, 29402. Tel: 577-6556.

Georgetown: Marine Contracting & Towing Co., Foot of Meeting St., Charleston 29402. Tel: 546-0765.

SHORE LEAVE: Subject to Shipmaster's permission and existing Immigration Regulations.

DELAYS: Normally, no delays beyond normal time required to connect/disconnect hoses.

DEVELOPMENTS: The main navigation channel is to be deepened to 40 ft.

Floating Ro/Ro ramp in operation.

AUTHORITY: South Carolina State Ports Authority, Port of Charleston, 176 Concord Street, P.O.Box 817, Charleston, South Carolina 29402. *Tel:* (803) 723-8651. *Telex:* 810-881-1860. *Cables:* SC Portsauth. *Contact:* W. Don Welch, Executive Director. Paul I. Hawkins, Harbour Master. *Tel:* (803) 577-8659.

Berthing Office: Tel: (803) 577-8659, 24 hours / 7 days a week, VHF call KPC 636 on Channels 16 and 14.

CHICAGO, Illinois: 41.50 N. 87.45 W. (See Plan)

DOCUMENTS:

For Agent in Montreal:

3 unfreighted copies of Complete Manifest for Seaway Toll purposes, covering all cargo to be discharged in the Great Lakes.

In first U.S. port: a "Traveller" is made up by the Customs Inspector with the following documents:

2 complete sets of U.S. Cargo Manifests, plus 6 copies for Agents.

- 1 set Manifest of Cargo for first U.S. port.
- 4 Stores Lists.
- 4 Personal Effects Lists.
- 4 Firearms and Ammunition Lists.
- 4 Crew Lists, Form I-418.
- 4 Narcotics Lists.
- 4 Vessel's Itinerary Lists.
- Vessel's Registry and copies of Paid Tonnage Tax Certificates.
- Health Pratique.
- Clearance from previous port.
- 2 sets Bills of Lading.
- 3 copies Stowage Plan.

In subsequent U.S. ports the following are required:

- 5 sets Manifest of Cargo for that port.
- The "Traveller" and Permit to Proceed issued in previous port.
- 2 Stores Lists.
- 2 Personal Effects Lists.
- 2 Firearms and Ammunition Lists.
- 2 Crew Lists.
- 2 Narcotics Lists.
- 2 sets Bills of Lading.
- 3 copies Stowage Plan.

PILOTAGE: Compulsory unless Master holds Exemption "B" Licence. 24 hours' notice of arrival required by Agents who arrange Pilot.

ANCHORAGES: In Chicago Harbour, Anchorages A and B designated for merchant ships and marked on charts. In Calumet Harbour vessels should not anchor within 1,000 ft. of the breakwaters.

RESTRICTIONS: St. Lawrence Seaway navigation season approx. from April 1st to December 15th. Controlling depth 27 ft.

Inland waterways to New Orleans open 12 months.

MAX. SIZE: Limited at Seaway Locks. 730 ft. length, 26 ft. draft. Depth alongside terminals 27 ft.

Inland waterway handles barges with draft 9.0 ft.

RADIO: Port can be contacted by Illinois telephone station WAY.

Notice of arrival; Master must give at least 24 hours' notice to Commander, 9th Coast Guard District, Cleveland, Ohio, of the vessel's ETA at Snell Lock. Also at least 24 hours' notice of ETA at first U.S.A. discharge port is required.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Chicago Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Available, not compulsory and not required at Iroquois Landing Terminals, but recommended for downriver transit to Lake Calumet berths.

BERTHING: 2×100,000 sq. ft. terminal warehouse facilities. 90 acres of the 194 acre site has been set aside for maritime operations adjacent to the 3,000 ft. of berthing space on the South side of the Calumet River entrance from Lake Michigan.

Calumet River Terminals: Iroquois Landing Lakefront Terminals. Operator: Ceres Marine Terminals. Facilities at the mouth of the Calumet River. Handles general cargoes, steel products and containers. The terminal has 3,000 ft. of berthing space. Heavy lift cranes run from 75 to 140 tons in capacity. Also numerous lift trucks, with capacities to 46,000 lb.

Federal Marine Terminals Inc. handles general cargo, steel products and containers. This facility has 730 ft. of berthing space, 34,000 sq. ft. of covered storage space and 11 acres of open storage space. Heavy lift cranes at Federal Marine range from 20 tons to 150 tons. Lift truck capacities range up to 52,000 lb.

The Rail to Water Transfer Corp. (RTW) on the Calumet River specialises in handling, storing and distributing raw materials or dry bulk commodities. RTW's twin bulk loading facilities offer 2 deep-water berths, each more than 700 ft. long. The facility has railroad yards that accommodate 2,200 rail cars adjacent to the dock. The twin loading towers provide fast handling at up to 2,500 t.p.h.

Lake Calumet Terminals: Stolt Terminals (Chicago) Inc. in Lake Calumet transfers liquid bulk cargoes – animal fats, vegetable oils and chemicals. Bulk Terminals has 600 ft. of berthing space, with storage capacity of more than 750,000 barrels and 16,000 sq. ft. of drumming warehouse space. This facility has a transfer capacity of approximately 200 t.p.h. Bulk also has 5 miles of internal railroad trackage and a switch engine.

Ceres Terminals (North), Inc. at Lake Calumet handles steel, ores, pig iron, scrap and containers. The terminal was designed for easy interchange of cargoes to and from deep sea vessels. Mississippi River barges, Great Lakes vessels, railroads and trucks – both local and interstate. Truck and railcar weighing services are available also. Ceres has 1,500 ft. of berthing space; 45,000 sq. ft. of covered storage and 27 acres of open storage. Heavy lift equipment includes 5 cranes ranging from 125 tons to 150 tons. Lift truck capacities range up to 50,000 lb. per unit.

Tri-River Docks on Lake Calumet have 100,000 sq.ft. of general covered storage with access to additional 68,000 sq.ft. Equipment includes lift trucks to 52,000 lbs. capacity, cranes 100 tons – 150 tons; 1,000 ft. of berthing for deep-draft vessels and inland barges. Speciality in steel, lumber, pulp and general cargoes.

South Shore Marine on Lake Calumet specialises in bagged exports with 68,000 sq.ft. covered storage with rail to loading dock capability, serving deep-draft vessels and inland waterway barges.

Emesco (Dockside) Terminals warehousing and marine terminal facilities on Lake Calumet are designed for efficient handling of steel, machinery, containers, scrap, pig iron, ferro-alloys and other metallic bulk commodities. Emesco's 800 ft. of heavy duty bulkhead and 2×75 ton gantry mounted cranes operating over 3,700 ft. of tracks provide more than 1,000,000 sq. ft. of open storage under cranes. Emesco has 100,000 sq. ft. of heated warehouse. Other features are 25 acres of open storage, miscellaneous auxiliary cranes, an electronic truck and rail scale, 25,000 ft. of railroad track, ship to barge transfer.

Trade Zone Distribution, Inc.: Operates Free Trade Zone No. 22 for warehousing, storage and distribution. 200,000 sq.ft. covered warehouse and 25 acres of open storage area have FTZ designation.

BULK HANDLING FACILITIES: Continental Grain Company's Elevator "B" on the Calumet River has a storage capacity of 6,800,000 bushels. Elevator "B" has 5 loading spouts with a shipping capacity of 40,000 bushels per hour. Unloading capacity from barges is 15,000 bushels per hour. Receiving capacity from rail cars is 10,000 bushels per hour and from trucks 15,000 bushels per hour. The berthing space at Elevator "B" is 1,025 ft.

The Cargill Inc. grain elevator on the Calumet River has a capacity of 23 million bushels. In addition to grain, this facility handles salt, molasses, and grain by-products. Cargill has 3,600 ft. of berthing space – 1,200 ft. of this for elevator use, and 20 acres of open storage. Loading capacity is 60,000 bushels per hour, while unloading is 12,500 bushels per hour. Cargill has 3 marine legs, and 5 loading spouts.

The Gateway Elevator of the Indiana Grain Co-Operative at Lake Calumet offers storage capacity of 6,500,000 bushels for bulk grains. The 8 loading spouts have a capacity of 20,000 bushels each per hour. Unloading speed is 10,000 bushels per hour. Berthing space is 1,000 ft.

Continental Grain's Elevator "C" at Lake Calumet has a capacity of 6,500,000 bushels of bulk grain and grain products. The 8 loading spouts have a capacity of 20,000 bushels each per hour. Unloading capacity is 10,000 bushels per hour. This facility has 1,000 ft. of berthing space.

DENSITY: Fresh water.

MEDICAL: Doctors, hospital and all facilities available.

FRESH WATER: Available at most berths.

FUEL: All grades available, ex-wharf, or delivered by barge.

CONSULS:

Argentina
Australia
Austria
Belgium
Brazil
Canada
China
Colombia
Costa Rica
Cyprus
Denmark
Dominican Republic
Ecuador
El Salvador
Finland
France
Germany F.R.
Great Britain
Greece
Guatemala
Haiti
Honduras
Iceland
India
Ireland
Israel
Italy
Jamaica
Japan
Korea
Liberia
Lithuania
Luxembourg
Mexico
Netherlands
Norway
Pakistan
Panama
Paraguay
Peru
Philippines
Poland
Portugal
Senegal
South Africa
Spain
Sri Lanka
Sweden
Switzerland
Thailand
Turkey
Venezuela
Yugoslavia

REPAIRS: All marine repairs can be effected.

SHIP SUPPLY SERVICE: Services are available for ship to shore transfer of personnel. The U.S. Coast Guard is also available with boats as well as a helicopter for emergency situations.

Calumet Marine Towing Co., Chicago, IL 60617. Tel: (312) 721-1180.
Canonie Transportation Muskegon, MI 49443. Tel: (616) 722-6641.
North American Towing Co., Chicago, IL 60633. Tel: (312) 646-0101.
U.S. Coast Guard, Chicago, IL 60607. Tel: (312) 353-6601.

GENERAL: Refer to "St. Lawrence Seaway" for important general information.

AUTHORITY: Illinois International Port, 12800 South Butler Drive, Lake Calumet, Chicago, Illinois 60633. *Tel:* (312) 646-5606. *Contact:* Frank Albert, General Manager or Helen Brohl, Director of Marketing.

AGENT: Norton Lilly Intl., 230 N. Michigan Avenue, Suite 1600, Chicago, Illinois 60601. Tel: (312) 641-3555. Telex: 6871702.

CLEVELAND, Ohio: 41.31 N. 81.43 W. (See Plan)

DOCUMENTS:

For Agent in Montreal:

3 Unfreighted copies of Complete Manifest for Seaway Toll purposes covering all cargo to be discharged in the Great Lakes.

In first U.S. port: A "Traveller" is made up by the Customs Inspector with the following documents:

2 complete sets of U.S. Cargo Manifests, plus 6 copies for Agents.
1 set Manifest of Cargo for first U.S. port.
4 Stores Lists.
4 Personal Effects Lists.
4 Firearms and Ammunition Lists.
4 Crew Lists, Form I-418.
4 Narcotics Lists.
4 Vessel's Itinerary Lists.
Vessel's Registry and copies of Paid Tonnage Tax Certificates.
Health Pratique.
Clearance from previous port.
2 sets Bills of Lading.
3 copies Stowage Plan.

In subsequent U.S. ports the following are required:

5 sets Manifest of Cargo for that port.
The "Traveller" and Permit to Proceed issued in previous port.
2 Stores Lists.
2 Personal Effects Lists.
2 Firearms and Ammunition Lists.
2 Crew Lists.
2 Narcotics Lists.
2 sets Bills of Lading.
3 copies Stowage Plan.

It is especially important that vessels try to have their visaed Crew List on board, which is required by U.S. Immigration at first U.S. port. Failure to have this visaed Crew List can result in all personnel being detained on board. Visa waivers are applied for and granted fairly regularly but Immigration has the discretion to refuse these at will.

PILOTAGE: Compulsory, unless Master has a "B" Certificate on board. Vessels are not permitted to transit the lakes from Port Colborne to Cleveland without either a "B" Certificate on board or a special Waiver from the U.S. Coast Guard.

ANCHORAGE: In the outer harbour, 28 ft. depth, mud and sand bottom.

RESTRICTIONS: St. Lawrence Seaway navigation season approx. from April 15th to December 15th. Controlling depth 25 ft. to 27 ft. Access to berths in the River is limited by height restriction of 97 ft. above waterline.

MAX. SIZE: Limited at Seaway Locks, 730 ft. length, 26 ft. draft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Chicago Quarantine Station.

AGRICULTURE: See "Agriculture" first U.S.A. port (Albany).

TUGS: Available and use is compulsory in Cuyahoga River and Old River Channel.

RADIO: U.S. Coast Guard can be contacted by R/T on 2182 kHz.

Notice of Arrival: Master must give at least 24 hours' notice to Commander, 9th Coast Guard District, Cleveland, Ohio, of the vessel's ETA at Snell Lock. Also at least 24 hours' notice of ETA at first U.S. discharge port is required.

BERTHING: See "Tables".

DENSITY: Fresh water.

MEDICAL: Doctors, hospital and all facilities available.

FRESH WATER: Available at most berths.

FUEL: Marine gas oil and diesel oil readily available, ex-wharf or delivered by barge.

CONSULS:

Austria
Belgium
Canada
Denmark
Finland
Germany F.R.
India
Italy
Japan
Korea
Netherlands
Norway
Panama
Sweden
Switzerland
United Kingdom
Yugoslavia

REPAIRS: Edward E. Gillen Co. Tel: (414) 744-9824. Telco Inc. Tel: (216) 447-0331.

GENERAL: Refer to "St. Lawrence Seaway" for important general information.

AUTHORITY: Cleveland-Cuyahoga County Port Authority, 101 Erieside Avenue, Cleveland, Ohio 44114. *Tel:* (216) 241-8004. *Cables:* Cleport. *Contact:* Rear Admiral A. F. Fugaro, Executive Director. Stephen Pfeiffer, Deputy Director.

AGENT: Norton Lilly Intl., Truman Building, 1030 Euclid Avenue, Suite 430, Cleveland, Oh 44115. Tel: (216) 696-4622. Telex: 6873231.

BULK HANDLING FACILITIES: (Cleveland)

Ore: Unloading Docks:

Dock and Location	Operator	Unloading Equipment	Total Discharge Rate (t.p.h.)	Length (ft.)	Width (ft.)	Out-Board Reach	Storage Capacity (tons)	Depth at Dock	Remarks
"C. & P." (Lakefront)	Ohio & Western Pennsylvania Dock Co.	4-17 ton Huletts	3,300	1,875	535	60 ft. 0 in.	1,000,000	27 ft.	
LTV Steel (Cuyahoga River)	LTV Steel Co.	Upper Self-unloaders only	1,000	1,250	360	57 ft. 1 in	785,000	23 ft.	633 ft.×72 ft. max. O.A. dimensions
		Lower Self-unloaders only	900	3,340	360	44 ft. 4 in.	750,000	23 ft.	633 ft.×72 ft. max. O.A. dimensions
Note: Also receives limestone at this dock by self-unloader. Storage capacity: 35,000 and ship's pig iron and steel. Storage capacity: 10,000 tons.									
LTV Steel (Cuyahoga River)	LTV Steel Co.	Self-unloaders only	—	1,780	54	—	850,000	23 ft.	633 ft.×72 ft. max. O.A. dimensions
Note: Also receives limestone at this dock. Storage capacity: 150,000 tons.									

Stone, Sand and Dry Bulk Cargo Docks: (Cleveland)

Dock and Location	Operator	Loading Equipment	Total Load Speed (t.p.h.)	Unloading Equipment	Total Unload Speed (t.p.h.)	Storage Capacity (tons)	Dock Length (ft.)	Depth at Dock (ft.)	Remarks
Akzona-International Salt (Whiskey Is., Old River)	Akzona, Incorporated	1 Shuttle Conveyor Belt	1,200	None		6,000 Salt (covered) 55,000 Salt open storage	602	21	617 ft.×64 ft. max. O.A. dimensions
Note: Outboard reach from Face of Dock to end of pulley is 38 ft. 6 in. Underside of belt to L.W.D. is 37 ft. Stationary. Vertical movement downward.									
CBS "Cuyahoga Plant" (Below West 3rd Street Bridge)	Cleveland Builders Supply Company	None	—	Self-unloaders only	—	20,000 Sand or Salt	750	20	631 ft. max O.A. Length
CBS No. 1 (Above Jefferson Street Bridge)	Cleveland Builders Supply Company	None	—	Self-unloaders only	—	45,000 Stone 25,000 Sand	480	20	561 ft. max. O.A. Length
CBS No. 2 (Between Nickel Plate Bridge & West 3rd Street Bridge)	Cleveland Builders Supply Company	None	—	Self-unloaders only	—	120,000 Stone 50,000 Sand 15,000 Salt	1,680	22	633 ft.×72 ft. max. O.A. dimensions
Clifton Concrete (Foot of Mahoning Avenue)	Clifton Concrete & Supply Company	None	—	Self-unloaders only	—	25,000 Stone 18,000 Sand	690	18	610 ft. max. O.A. Length
Dock 20 (Foot of Old River Road, River Mouth)	Cleveland-Cuyahoga County Port Authority	None	—	Self-unloaders only	—	500,000 Bulk Commodities	1,300	27	1,000 ft. max. O.A. Length
Ford Motor (Above Lorain-Carnegie Viaduct)	Ford Motor Co.	None	—	Self-unloaders only	—	780,000 Sand and Stone Pig Iron and scrap direct to cars.	630	21	633ft. max. O.A. Length
Huron Cement (Sycamore Slip)	Cement Division National Gypsum Co.	None	—	Unloading pipes	—	31,332 Cement	415	24	502 ft.×68 ft. max. O.A. dimensions
LTV Steel (Just below Union Terminial Viaduct)	LTV Steel Co.	None	—	Self-unloaders only	—	100,000 Iron Ore and Stone	620 & 300	23	633 ft.×72 ft. max. O.A. dimensions
LTV Steel East Pier (Above Turning Basin)	LTV Steel Co.	None	—	Self-unloaders only	—	87,000 Stone 8,300 Fluorspar	2,565	23	633 ft.×72 ft. max. O.A. dimensions
Note: Dock also receives ship's pig iron, steel products and scrap.									
M.C.C. (Above Eagle Street Bridge)	Mid-Continental Coal & Coke Co.	2 Shuttle Conveyors	500	None	—	30,000 Coke Breeze	1,550	23	633 ft. max. O.A. Length, 72 ft. Beam
Merwin Avenue Dock (Between Foot of British Street and Viaduct)	Cuyahoga Lime Co. Incorporated	None	—	Self-unloaders only	—	45,000 Stone 65,000 Marl	245	23	666 ft.×72 ft. max. O.A. dimensions
Ontario Stone No. 1 (Above Penn Central Bridge, Mouth Cuyahoga River)	Ontario Stone Corp.	None	—	Self-unloaders only	—	125,000 Stone	495	23	664 ft. max. O.A. Length
Ontario Stone No. 2 (Left Bank, above West 3rd Street Bridge)	Ontario Stone Corp.	None	—	Self-unloaders only	—	75,000 Stone	695	23	633 ft.×72 ft. max. O.A. dimensions
Ontario Stone No. 3 (Old River Bed, on Whiskey Island)	Ontario Stone Corp.	None	—	Self-unloaders only	—	175,000 Bulk commodities	700	24	647 ft.×70 ft. max. O.A. dimensions
Sand Products (Whiskey Island, Old River)	Sand Products Corp.	None	—	Self-unloaders only	—	95,000 Sand	850	22	633 ft. max. O.A. Length, 72 ft. Beam

Grain: (Cleveland)

Elevator	Depth at Dock (ft.)	Depth in Channel (ft.)	Unload Legs	Unload Speed (t.p.h.)	Load Spouts	Load Speed (t.p.h.)	Deepest Vessel Can Unload (ft.)
CEREAL FOOD Operator: Cereal Food Processors, Inc. Berthing Space – 350 ft. 621 ft.×60 ft. max. O.A. Dimensions Con Rail	20	23	1	4,500	None	None	35

Storage capacity: 590,000 tons

This elevator is located on the Cuyahoga River directly beneath the Superior Avenue high level bridge.

CHANNELS

Cleveland Harbour entrance is maintained at 28 ft. Cuyahoga River is maintained at 23 ft. throughout above the Con Rail Railroad Bridge just above the harbour entrance. Width of the channel is generally 250 ft. throughout the Cuyahoga River.

BERTHING: General Cargo Docks (Cleveland)

Pier	Owner/ Operator	Berth features	Depth (ft.)	Mechanical Equipment
Dock 24 West 9th St. Pier	Cleveland Stevedore Co.	East 670 ft. North 519 ft. West 640 ft.	27	8 Mobile Cranes 40 to 200 tons. Fork Trucks to 62,500 lbs. Complete container handling gear. 1 Magnetic mobile crane. Front end loader.
Dock 26 West 6th St. Pier	Ceres Terminals	East 698 ft. North 297 ft. West 721 ft.	27	7 Mobile Cranes 65 to 200 tons. Fork Trucks to 62,500 lbs. Complete container handling gear.
Dock 28 West 3rd St. Pier	Cleveland Cuyahoga County Port Authority	West 710 ft.	27	One 150 ton Heavy Lift Stiff-Leg
Dock 30 Stadium Pier		North 1,606 ft.	27	7 Mobile Cranes 65 to 200 tons. Fork Trucks to 62,500 lbs. Complete container handling gear.
Dock 32 Stadium Pier		East 712 ft. North 572 ft.	27	7 Mobile Cranes 65 to 200 tons. Fork Trucks to 62,500 lbs. Complete container handling gear.

TANKERS: (Cleveland)

Dock & Location	Operator	Type of Dock	Type of Cargo Handled	Size of Pipe-line (in.)	Storage Capacity barrels	Distance from Dock to Storage Tanks (ft.)	Length of Dock (ft.)	Depth at Dock (ft.)	Remarks
Allied Oil (Old River, Slip No. 2, Whiskey Island)	Allied Oil Co. Division of Ashland Oil, Inc.	Loading and Unloading	No. 6 Fuel Oil	8	372,000	270	435	20	430 max. O.A. Length
Byerlite-Koppers (Foot of Mary Street Cuyahoga River)	Byerlite Co. of Koppers Company, Inc.	Unloading	Asphalt .	8	47,620	1,100	210	19	
C.I.L. (West Bank below Foot of Mary Street)	C.I.L. Chemicals Inc.	Unloading	Sulphuric Acid	12	29,760	800	500	22	
LTV Steel (Cleveland Works)	LTV Steel Co.	Unloading	No. 6 Fuel Oil	10	238,500	2,100	390	23	
LTV Steel East Side (East Bank Cuyahoga River, above Turning Basin)	LTV Steel Co.	Unloading	No. 6 Fuel Oil	24	285,700	2,000	967	19	631 ft.×65 ft. max. O.A. dimensions.
Marathon (Above W. 3rd St. Bridge at Bend, East Side)	Marathon Petroleum Company	Unloading	Asphalt	8	165,000	200	800	23	861-6100 ? 638 ft.×68 ft. max. O.A Dimensions

COOS BAY, Oregon: 43.22 N. 124.13 W. (See Plan)

DOCUMENTS: Local Port Authority does not require any documents from merchant vessels entering this harbour. This does not preclude United States Customs requirements for documents.
PILOTAGE: No specified amount of advance notice of ETA required. Radio contact may be made on frequency 8182 kHz, also on frequency 2182 kHz. Most used frequency is VHF Channel 16. Pilot will be taken on board at entrance to Coos Bay Channel. No designated anchorages for vessels awaiting a Pilot.
ANCHORAGES: North of Entrance Buoy.
MAX. SIZE: Max. permissible length is 725 ft., breadth 110 ft. A 2 ft. clearance under keel is considered necessary for safe navigation. Vessels entering Coos Bay from sea draw down about 0.166 in. per foot of draft because of difference in density.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: Pilots, Agents and stevedores monitor VHF Channel 16.
TUGS: Pilot vessel acts as Tug. Emergency small harbour tugs available and ship's lines generally used.
BRIDGES: 2 bridges cross the main ship channel. The Southern Pacific railway drawbridge 9 miles from the entrance and the Coast Highway Bridge 9.6 miles from the entrance. Clearance height of the Highway Bridge is 149 ft. in the centre of the span at MLW. Clearance width of swinging railway bridge 194 ft.
BERTHING: *Note:* All berths with the exception of oil berths dredged to 35 ft. in 1979.
'T' Dock: Distance from entrance 6 miles.
Barge Facility: Distance from entrance 6.5 miles.
Roseburg Lumber Co. Dock: Length 635 ft. Depth alongside at MLW 35 ft. No fresh water available. Distance from entrance 8 miles.
Ocean Terminals Dock: Length 400 ft. Depth alongside at MLW 35 ft. No dock cranes available. Fresh water available. Distance from entrance 11 miles.
Weyerhaeuser Dock: Length: (Lumber Dock) 1,433 ft. (Wood Chip Dock) 694 ft. Depth alongside at MLW 35 ft. No dock cranes available. Fresh water available. Distance from entrance 12 miles.
Fibrex and Shipping Co. Dock: Length of floating walkway 700 ft. Depth alongside at MLW 35 ft. Wood chip loaded by pneumatic pipe. Fresh water available. Distance from entrance 12.5 miles.
Bayshore Dock: Length 504 ft. Depth alongside at MLW 35 ft. No dock cranes available. Fresh water available. Distance from entrance 13 miles.
Dolphin Terminals: Vessels moor to dolphins adjacent to apron 60 ft. long and 26 ft. wide which is joined to the shore by a causeway length 190 ft. and width 12 ft. Depth alongside at MLW 35 ft. Fresh water available. Distance from entrance 13 miles.
Central Dock: Length 1,348 ft. Depth alongside at MLW 35 ft. No dock cranes available. Fresh water available. Distance from entrance 13.5 miles.
Portland Dock: Length 576 ft. Depth alongside at MLW 35 ft. No dock cranes available. Fresh water available. Distance from entrance 15 miles.
Coos Bay Dock: Length 1,326 ft. Depth alongside at MLW 35 ft. No dock cranes available. Fresh water available. Distance from entrance 15 miles.
STEVEDORES: Should have minimum of 48 hours to arrange gangs. Also see "Radio".
MEDICAL: Advance notice of required medical attention is desirable, in order to expedite use of ambulance, if necessary.
TANKERS: 2 tanker berths, Standard Oil and Union Oil Co., draft 30 ft. Tankers discharge into tank farms. Union Oil Co. is the bunkering Agent.
FRESH WATER: Available. Cost per ton is negotiable.
FUEL: 24 hours advance notice desirable, both bunker and diesel fuel available.
GANGWAY/DECK WATCHMEN: Service of watchman at discretion of ship's Master.
OPENING/CLOSING HATCHES: Normally by stevedores.
IDENTIFICATION CARDS: Not required by local authorities.
CONSULS: None.
REPAIRS: Only minor deck and engine repairs possible.
DRY DOCKS: Largest dry dock handles vessels not exceeding 220 ft.
REPATRIATION: Repatriation through local Customs and Immigration Office.
AIRPORT: All docks within 5 miles of airport. Airport served by regular airlines.
TIME: GMT minus 8 hours, clocks advanced 1 hour on first Sunday in April, clocks retarded 1 hour last Sunday in October.
HOLIDAYS: All legal holidays observed, plus state-wide elections. Cargo work through negotiations with stevedore contractors.
POLICE/AMBULANCE/FIRE: Police: Coos Bay 269-1181, North Bend 756-3161; Ambulance 756-3234; Fire: Coos Bay 267-4123, North Bend 756-6111.
SHORE LEAVE: Crew members allowed ashore except when Federal Directives may be applied to a specific vessel.
SHIP SUPPLY SERVICE: For general ship stores: Day Ship Supply, 602 W. Hemlock St., Coos Bay, Oregon 97420. Tel: (503) 267-3813.

For transportation of personnel: The Coos Bay Pilots' Association, P.O.Box 254, Coos Bay, Oregon 97420. Tel: (503) 267-4186 would be the initial contact.

There are also numerous charter boat operators who provide charter services.

For emergency services the U.S. Coast Guard maintains a helicopter squadron in port. They bring sick crew members directly to the hospital. Their information phone number is (503) 756-4142, and their emergency number is 756-4141.
DELAYS: No delays in berthing, loading or discharging, or bunkering can normally be expected.
GENERAL: New enterprise zone and foreign trade zone within port district.
DEVELOPMENTS: Depth of channel at entrance 45 ft. MLLW. Inner channel, to head of channel 35 ft. MLLW. An additional anchorage (Turning Basin) will be installed, directly East of Beacon 17.
AUTHORITY: Oregon International Port of Coos Bay, Port Building, Front and Market Streets, Coos Bay, Oregon 97420. *Tel:* 267 – Port. *Telex:* 360315. *Contact:* Frank Martin, Jnr., General Manager.

CORDOVA, Alaska: 60.33 N. 145.46 W.

Located at S.E. side of Prince William Sound at the head of Orca Inlet. Open harbour year round.
APPROACHES: Via Prince William Sound.
DOCUMENTS: See "Anchorage, Alaska".
PILOTAGE: Pick-up point is Sheep's Point. Prior arrangements required.
ANCHORAGES: Good holding ground. Mud bottom between Spike Island and Municipal dock.
MAX. SIZE: Recommend max. draft 25 ft. Tidal variation: 18 ft. – 19 ft.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: Contact port on VHF Channels 16 and 68; Citizens Band, Channel 5 or SSB 2509 kHz.
TUGS: Limited availability. Prior arrangements need to be made.
BERTHING: Berthing Permit required. Advance notice of 48 hours requested.

Municipal Dock: 18 ft. deep, 400 ft. long, 72 ft. wide. Open storage of 10 acres. One 140 ton P & H mobile crane.
Container and Ro/Ro facilities: Movable ramp, 4.57 m. wide, available for Ro/Ro operations. 4 ha. container staging area.
STEVEDORES: ILWU No. 66, Box 335, Cordova, Alaska, 99574. Tel: (907) 424-5447.

Working hours – 24 hours.
REPAIRS: Radio, radar, welding, machining and light engine repairs can be effected.
FRESH WATER: Available at docks.
FUEL: No bunker "C" available. Fuel oil available.
MEDICAL: 22 bed hospital and a medical clinic, with 3 doctors, 1 dentist also public health nurse.
CUSTOMS: Quarantine – local. Immigration and Customs from Anchorage, Alaska.
AIRPORT: 13 miles from city centre. Small plane field near town, available for charter air service.
HOLIDAYS: None.
TIME: Alaska Standard time.
POLICE/FIRE/AMBULANCE: All available. Tel: (907) 424–6100.
AUTHORITY: City of Cordova, Box 1210, Cordova, Alaska 99574. *Tel:* (907) 424-6400. *FAX:* (907) 424–6000. *Contact:* Doug Loshbaugh, Harbour Master/Port Director.

CORPUS CHRISTI, Texas: 27.48 N. 97.23 W. (See Plan)

PORT LIMITS: Corpus Christi's port limits include all of Nueces County, which has been officially designated as Port of Corpus Christi Authority of Nueces County, Texas. The Corpus Christi Turning Basin, Avery Point Turning Basin, Chemical Turning Basin, Tule Lake Turning Basin and the Viola Turning Basin are interconnected by the Industrial Canal; the Tule Lake Channel and the Viola Channel constitute the Corpus Christi Inner Harbour. Other Bay points included in the Port of Corpus Christi area are: Harbor Island, the North end of Mustang Island, near the inner end of the Aransas Pass Entrance, and Port Ingleside and La Quinta along the route of dredged deepwater channels on North side of Corpus Christi Bay; and the Rincon Barge Canal System. All of the ship channel has now been deepened from 40 ft. to 45 ft. to the Chemical Turning Basin. The channels and basins to Viola Basin are 40 ft. deep.
DOCUMENTS:

- 3 copies Cargo Manifest (Form 1302), the original showing all cargo on board, and 2 copies showing only cargo for this port.
- 2 copies Crew Manifest (Form 1304).
- 2 copies Stores List (Form 1303).
- 2 copies Passenger List (Form I–418).
- 2 copies Crew List (Form I–418).

Customs Boarding Officer will also examine Ship's Register, Load-Line Certificate, Safety Equipment Certificate and Certificate of Financial Responsibility. In addition, the following documents will be required for formal entry to be made within 48 hours of arrival from abroad, or 24 hours from arrival from a United States port:

- Master's Oath (Customs, 2 copies Form 1300).
- General Declaration (2 copies Form 1301).
- All Foreign clearances.
- U.S. Certificates of payment of tonnage tax (Customs Form 1002).
- Certified Crew List.

PILOTAGE: Pilot boards off Port Aransas.

RESTRICTIONS: No restrictions, 24 hour service. The Port of Corpus Christi is situated on the West side of Corpus Christi Bay, in South-Western Texas. Port facilities at Inner Harbour lie along a 9.5 miles stretch of dredged channels and basins about 18 miles from Aransas Pass entrance at the Gulf of Mexico. Channel depth 40 ft., width 400 ft.

Turning Basins: 5 turning basins in the Inner Harbour are each minimum 1,000 ft. wide and more than 1,000 ft. in length.

MAX. SIZE: Cargo vessels: 39 ft. draft. Tankers: 40 ft. draft. Harbor Island has tanker docks with 45 ft. draft. Also see "Berthing".

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: KLC ITT-Radio-Arcadia, Texas. KLC RCA-Radio-Galveston, Texas.

VHF: KKQ 769 – Harbour Master – Channels 12 and 16. WR 8879 – Pilot Boat. KQU – Pilot Office – Aransas-Corpus-Christi Pilots Channels 12 and 16. KBP 384 – Harbour Tugs – Channel 12. U.S. Coast Guard – Channels 16 and 22. Pilot Office KQU 371.

TUGS: Tug assistance available. Tugs join vessels berthing at Harbor Island in Jetty channel. Tugs accompany vessels entering Inner Harbour outside Corpus Christi Harbour Bridge.

BERTHING: The Corpus Christi Turning Basin is over a mile long and 1,000 ft. wide. There are 4 additional basins in the Inner Harbour, which extends Westward from Corpus Christi Harbour Bridge for 9.5 miles. The water in all basins, channels and canals is 40 ft. deep.

Draft for public docks will be furnished upon request to the Harbour Master or steamship Agent. Draft for private docks will be furnished upon request to the dock owners or steamship Agents.

Also see "Port Limits" and "Developments".

Inner Harbour – Public Docks: The length limit indicator is not of necessity the max. length for a vessel as larger vessels can berth if adjacent berth is not occupied.

Cargo Docks No.	*Length Limit* (ft.)
1 – 2	700
3 – 6	1,300
8	600
9	750
10 – 11	700
12	700
14 – 15	1,000
Bulk Materials Dock	835
Public Grain Elevator Dock	900

Inner Harbour – Private Docks: (Other than oil docks).

PPG Industries Inc., Cargo Dock: Length of pier 450 ft. Length of Head 100 ft.

Producers Grain Port Terminal Elevator Dock; Lone Star Cement Corp. Dock; Berry Contracting Company; Centex Cement Company.

CONTAINER FACILITY: New container facility in operation located on 6 acres behind Cargo Dock 14. Terminal provides full service for receiving, delivering and handling of marine containers. Containers are handled with new Kalmar lift machine with capacity of 90,000 lb. Kalmar has telescopic spreader for handling 20 ft. or 40 ft. units. U.S. Customs maintain on site inspection facilities.

BULK CARGO FACILITIES: *Ore, Minerals, Coal, Petroleum Coke:* Bulk Materials Dock with travelling unloading tower capable of direct discharge from vessels to railcars or trucks at rate of 1,000 t.p.h..

A new Bulk Loading Terminal to load vessels directly from trucks, railcars or stockpiles at rate of 1,500 t.p.h. is in operation. The new dock has a 45 ft. draft alongside, 63 ft. airdraft and 1,300 ft. slip length.

Grain: 2 export grain elevators are located in the Inner Harbour. The Corpus Christi Public Elevator has a 5,000,000 bushel capacity. Rated truck unloading capability is 1,000 t.p.h.; railcars can be unloaded simultaneously at 2,000 t.p.h. The Interstate Grain Port Terminal Elevator is privately owned and has a 6,400,000 bushel capacity.

TANKERS: Between Corpus Christi Turning Basin and Viola Basin are 11 public and 10 private Oil Docks, some capable of berthing tankers of 150,000 d.w.t. capacity. Also see "Berthing".

Inner Harbour – Public Docks:

Oil Dock	No. 1	Length Limit 965 ft. Max. Draft 45 ft. (SW)
	No. 2*	Length Limit 350 ft.
	No. 4†	Length Limit 965 ft. Max. Draft 40 ft. (SW)
	No. 6*	—
	No. 7†	Length Limit 965 ft. Max. Draft 40 ft. (SW)
	No. 8	Length Limit 900 ft. Max. Draft 40 ft. (SW) Also see "Shipmaster's Report" – dated September 1987
	No. 9	Contact Harbour Master
	No. 10*	—
	No. 11†	Length Limit 965 ft. Max. Draft 42 ft. (SW), subject to Pilot's approval
	No. 12*	—

*Limited to barge operations.

†Larger vessels may be berthed when adjacent berth not occupied.

Inner Harbour – Private Docks:

Mobil Oil Dock.

Southwestern Refining Co.
  Oil Dock No. 1 (barge only).
  Oil Dock No. 2. Max. draft 38 ft. (SW).
  Oil Dock No. 3. Max. draft 45 ft. (SW).

Champlin Petroleum Co.,
  Oil Dock No. 1. Max. draft 38 ft. 06 in. (SW).
  Oil Dock No. 2 (barge only).
  Oil Dock No. 3. Max. draft 39 ft. 05 in. (SW).

Valero Refining Co.,
  Oil Dock No. 1 (barge only).
  Oil Dock No. 2. Max. draft 42 ft. (SW).
  Oil Dock No. 3. Max. draft 42 ft. (SW).

Outside of Inner Harbour – Private Docks:

Harbor Island
  American Petrofina Oil Dock. Max. draft 45 ft. (SW). Also see "Shipmaster's Report" – dated September 1987.
  Exxon, Oil Dock No. 1. Max. draft 45 ft. (SW).
  Exxon, Oil Dock No. 2.

Ingelside
  Sun Pipe Line Co. Oil Dock. Max. draft 40 ft. (SW).

La Quinta Channel
  Du Pont Ship Liquid Chemicals Dock.
  Du Pont Ship Liquid Chemicals Barge Dock No. 1.
  Du Pont Ship Liquid Chemicals Barge Dock No. 2.
  Reynolds Metals Co. Bauxite Unloading Pier. (Also see "Shipmaster's Report" – dated April 1988.)
  Reynolds Metals Co. Alumina Loading Dock. (Also see "Shipmaster's Report" – dated April 1988.)

Report: *Cautionary Advice:* Special precautions and procedures are required for all vessels calling at Exxon's Harbor Island Dock No. 1 because of tidal current, wind conditions and passing traffic. Masters must ensure that their vessels are properly moored at all times to minimise the effect of these conditions and prevent the vessel from breaking out of the berth.

The special precautions and procedures, for deep-loaded vessels (34 ft. draft or deeper) are:

Deep-loaded vessels experience maximum effect from tidal current during the flood tide which forces the vessel away from the dock, particularly when clearance between the keel and bottom is 5 ft. or less.

Accordingly, deep draft vessels are docked at the end of the flood tide to allow ample pumping time so that maximum underkeel clearance be attained before the next flood tide reaches full strength.

(Vessels should anchor off the sea buoy to await the suitable stage of the tide.)

Vessels equipped with segregated ballast capability should not commence ballasting these systems until draft is 30 ft. or less.

If during the flood tide the vessel's draft is in excess of 34 ft. (mean), a tug should be in attendance to assist the vessel in staying alongside the dock. To ensure tug availability, the Master should advise the Agent 3 hours in advance if planned pumping does not proceed to permit a lesser draft than 34 ft. at the full strength of the next flood tide.

Vessels with drafts that exceed 34 ft. (mean) should be equipped with 12 mooring wires. If they are not so equipped, the Dockmaster will require the vessel to use additional mooring ropes.

Wind Conditions: Winds from the Northern quadrants, which occur particularly during the Winter months, place heavy loads on mooring lines when a vessel is in a fully light condition.

A contract weather service provides an alert to Masters (via the Agent and/or Dockmaster) and to the Dockmaster when abnormal weather conditions are predicted. The Dockmaster will require cargo transfer shutdown when wind velocity exceeds established limits.

In order to minimise wind effect, the vessel's segregated ballast tanks should be filled before completion of cargo discharge.

Combined Wind and Tide Conditions: Particular attention should be paid to unfavourable combinations of wind, tide and current which will place high loads on mooring lines.

Passing Traffic: The close proximity of the Exxon Berth to the Corpus Christi Channel results in interaction from passing traffic. This can be severe, depending on the speed and displacement of the passing vessel.

Propeller wash from vessels (mooring/unmooring) at the Petrofina Berth and the wash from assisting tugs also have an unfavourable effect. Special attention must be given to spring lines to ensure they are kept taut at all times.

The Exxon Terminal at Harbor Island has established wind and current limitations at which cargo operations should be stopped. Cargo operations are also stopped if a vessel moves off the berth. Hoses are disconnected by the terminal when required due to wind, current, etc.

Port Approaches: Vessels should approach Aransas Pass through the prescribed Safety Fairways, exercising due caution at all times as the lanes are unmarked. Numerous fishing vessels may be encountered. The low shore lines will start to show on radar at a range of between 15 and 20 miles. A large number of shore lights in the background make it difficult to distinguish the navigational aids. The entrance channel through Aransas Pass is protected by jetties. The outer bar channel, the Jetty channel and the inner harbour basin have project depth of 45 ft.

Tugs: Tugs will come alongside at Buoys No. 9 and 10. A minimum of 3 tugs are usually required for a loaded vessel and 2 for a vessel in ballast under good conditions. Tugs up to 3,200 h.p are available.

CARGO GEAR: 7 locomotive cranes including 4×30 tons, 1×25 ton, and 1×45 ton. Heavy lift facilities: Derrick at Cargo Dock 14 has 100 ton capacity, at 53 ft. radius, and can handle containers 40 ft. or larger; otherwise ship's gear used. Heavy lift facility also available at Bay, Inc.

Facilities are available for all types of liquid cargo, dry bulk and general cargo, but cannot handle restricted cargo such as ammunition and explosives.

BRIDGES: Corpus Christi Harbour Bridge: Vertical clearance at MHW is 138 ft.

Upper Harbour Lift Bridge: Vertical clearance at MHW when raised is 138 ft.

MEDICAL: Ample hospital and dental facilities available.

FRESH WATER: Water available at all public docks for $2.50 per 1,000 gallons; minimum charge of $25.00 for each connection.

FUEL: 24 hours notice required.

Bunker C, Marine diesel, Light diesel – Pipe-line or Barge, Truck.

FIRE PRECAUTIONS: No working barges alongside (except bunkering barges) and normal precautions such as shut down cargo operations during lightning, storm, etc.

REPAIRS: See "Services".

SURVEYORS: American Bureau of Shipping; J. E. Orrell, Lloyd's Sub-Agency and National Cargo Bureau.

GANGWAY/DECK WATCHMEN: Not necessary.
HATCHES: Hatches may be opened by crew before entering harbour, after the ship has entered harbour it is carried out by stevedores.
CUSTOMS ALLOWANCES: 300 cigarettes per man. 1 quart liquor per man.
POLICE/AMBULANCE/FIRE: Police 882-1911, Ambulance 882-5571, City Fire 884-5563 or 911, Refinery Terminal Fire Co. 882-7801.
EMERGENCY CO-ORDINATION CENTRE: U.S. Coast Guard Marine Emergency (512) 937-1898.
TELEPHONES: No arrangements exist.
SERVICES: Coastal Iron Works, Inc., 2,500 ton dry dock, 1,000 ton marine railway, machine shop Tel: (512) 882-8807 and (512) 884-5581.
Jay Bludworth, Inc., Ship Repairs. Tel: (512) 887-7981.
International Marine, Ship Repairs. Tel: (512) 884-2491.
Ship Chandlers:
Atlantic Steamers, Mr. Rick Castillo. Tel: (512) 883-5187.
Galley Stores & Supply Company, Inc., Mr. L. A. Harahan. Tel: (800) 535-1946.
Gunderland Marine Supply, Inc., Mr. Tex Tilton, Mr. Chuck West. Tel: (512) 882-4231.
Moore Ship Chandlery, Mr. Leroy Mann. Tel: (512) 883-5561.
Offshore Galley Supply Company, Ms. Gloria Neely. Tel: (512) 887-0281.
Texas Marine & Industrial Supply, Mr. Terry Fleming. Tel: (512) 289-7375.
Local Radio Repair:
Radio-Holland Texas, Inc., 6205 Brookhill, Houston, TX. 77087. Tel: (713) 649-2811.
Gulf Radiotelephone & Electronics, Inc., 203 Allen Blvd., Aransas Pass, TX. 78336. Tel: (512) 758-7571.
Tug Boat Rentals:
Loyd W. Richardson Corporation, P.O.Box HHH, Aransas Pass, TX. 78336. Tel: 512/882-8434.
SHIP SUPPLY SERVICE:
Helicopter Charter, Rental and Leasing:
Evergreen Helicopters, P.O.Box 7781, Corpus Christi, TX. 78415. Tel: (512) 854-995.
Home Office (Evergreen Helicopters), Route 3, Box 198, Galveston, TX. 77553. Tel: (409) 740-0231.
Omniflght Offshore, Inc., P.O.Box 7519, Corpus Christi, TX. 78415. Tel: (512) 289-1181.
Pumpkin Air, Inc., P.O.Box 10264, Corpus Christi, TX. 78410. Tel: (512) 289-6363.
CONSULS: Danish Consul, 4517 Baldwin. Tel: (512) 884-6344.
German (F.R.) Consul, 5440 Old Brownsville Rd. Tel: (512) 289-2416.
Mexican Consul, 1740 First City Tower I. Tel: (512) 882-3375.
Spanish Consul, 19833 Melissa Lane. Tel: (512) 887-7246.
AIRPORT: Approximately 7.75 miles from Port. Serviced by 3 regular airlines.
TIME: Daylight Saving Time from first Sunday in April till last Sunday in October (minus 5 hours GMT). Central time remainder of year (minus 6 hours GMT).
HOLIDAYS: New Year's Day (January 1st); Martin Luther King's Birthday (January 15th); Lincoln's Birthday (February 12th); Washington's Birthday (3rd Monday of February); Texas Independence Day (March 2nd); Good Friday (varies); Memorial Day (last Monday of May); June 20th; July 4th; Labour Day (First Monday of September); Columbus Day (2nd Monday of October); Veterans' Day (4th Monday of October); Thomas W. Gleason's Birthday (November 8th); Thanksgiving (4th Thursday of November); Christmas Day (December 25th).

Possible to work on any holiday, except Labour Day or Christmas, only in case of fire or danger to property. If holiday falls on Sunday, Monday is observed.
SHORE LEAVE: Possible.
IDENTIFICATION CARDS: Standard Immigration Forms I-95 to be made up for each crew member on arrival. Not necessary for crew man already holding Form I-95, issued for same vessel.
DEVELOPMENTS: Port plans include deepening the Inner Harbour to 45 ft.
SHIPMASTER'S REPORT: September 1987.
Vessel: Tanker, 95,000 d.w.t.
Coastguard: For U.S.C.G. annual tank inspection, the authorities need to inspect the Cargo Gear Book, in addition to all other documents. Additionally U.S.C.G. require that for tankers, stores, gas cylinders, etc., must not be on cargo tanks.
Pilot: The Pilot requires the ladder 8 ft. above the water.
Berthing: Berthing carried out 24 hours a day.

At the Petrofina Berth at Harbour Island, fresh water and telephone are not available. Due to strong currents and passing vessels, the moorings consisted of 4 head/stern lines, 2 breast lines and 4 springs at each end. Three tugs assisted in berthing. Bunkers may be taken whilst alongside but this will usually depend on the Charterers or Receivers permission.

Just off the Petrofina Berth there is a shallow patch where deep draft vessels usually touch the bottom, but it appears to be soft mud.

The pilots, tugs and linesmen all require 2 hours notice.

At Oil Dock No. 8, 2 tugs are required and if vessel turns before berthing then only 1 tug will be required when unberthing. Moorings consisted of 3 head/stern lines, 2 breast lines and 2 springs at each end.

The ship's gangway was required at both berths.

If vessel is cleared for a foreign port and diverted to another U.S. port, the Agent at the sailing port should be informed, in order that he may advise the authorities accordingly. If the authorities are not advised the vessel is liable to a fine of U.S.$1000.00. Vessels have to pay a user fee to U.S. Customs of U.S.$397.00 regardless of size. Also if vessel is diverted to another U.S. port after being cleared for a foreign port, advise the Agent of any slops on board for Customs purposes.

SHIPMASTER'S REPORT: April 1988.
Port: Gregory.
Location: 27° 52′ 43″ N., 97° 15′ 38″ W.

The private docks of Reynolds Metals Co. are located on the North side of Corpus Christi Bay, Texas, on Chart No. 11309. The facility is known as Gregory Reynolds Sherwin Plant Dock.
Weather: Humid sub-tropical climate with prevailing winds onshore from East and Southeast at 10 – 15 knots. "Northers" may be expected from November to March with winds over 20 knots. These may be severe from December to February and up to 50 knots. Generally lasting from 1.5 – 3 days. Tropical storms/hurricanes may occur from June to October, reaching a peak in September, infrequently in May and November.
Communications: Reynolds Metal Co., Richmond, Va. Telex No. 827448 AAB REMETCOGO RCH, or via Agent.
Pilot: Aransas Corpus Christi Pilots are on VHF Channel 12, call sign "KQU 371".
Time: GMT minus 6 hours. Summer time of GMT minus 5 hours is applied from first Sunday of April to last Sunday of October each year.
Channel: Navigation to Sherwin Dock is via Main Corpus Christi Channel from Aransas Pass inlet, thence via La Quinta Channel to the Dock. Total distance 22 miles. Several commercial marine installations and private homes border the channel. These are susceptible to wash damage from vessels' wakes. Vessels are cautioned to reduce speed on approaching such installations and enter the reduction in the ship's log book.
Draft: Channel controlling depths are published in Notice to Mariners. Draft is presently restricted to 45 ft. Bauxite Pier Facility No. 5 – depth of water 45 ft. Alumina Pier Facility No. 90 – depth available 38 ft. at MLW (subject to shoaling).
Density: Generally 1022.
Tidal Range: 1.4 ft. Strong winds also affect water levels in Corpus Christi Bay as much as the tides.
Bauxite Pier Facility No. 5:
Max. LOA: 800 ft.
Max. beam: 106 ft. (larger vessels by arrangement).
Air draft: Max. of 50 ft. from top of hatch cover in open position to water line.
Hold depth: Max. of 66 ft. from top of hatch cover in open position to bottom of hold.
Min. hatch size 39 ft. × 39 ft.
Max. overhang into wings: 36 ft.
Min. distance after end last hatch to front of accommodation: 10 ft.

Washing of holds at the berth is permitted but the wash water cannot be pumped overboard or a fine will result. Free surface in the holds is also detrimental to the clean up process, as the vessel must be kept as level as possible because of the rotary motion on the tank top by unloader as it makes its final pass. Gantry travel of the Sumitomo Continuous Unloader is 606 ft. Max. unloading rate 2,000 tonnes per hour. Overall average rate 1,000 – 1,200 tonnes per hour. Plant personnel used exclusively. Plant labour make a good job of residue removal, but at the same time 2 or 3 crew may work in hold during final clean-up.

Vessel design: Deck should be clear of obstructions such as cranes, raised deck houses, light stands at side, log racks, etc.
Alumina Pier Facility No. 90:
Max. LOA: 680 ft. but this depends on distance from forward hatch to stern, which should not exceed 550 ft.
Loading chute outreach from fender line: 67 ft.
Air draft: Max. of 31 ft. 06 in. at ship's rail/bulwark.

The chute travels out on an incline so can usually accept 33 ft. 06 in. at hatch coaming, depending on distance in from side of vessel. If necessary list the vessel to meet this requirement. A list of 5° – 7° is considered the maximum allowable by plant personnel for working safely and ballasting cannot be started until boarding party is off the vessel and a draft survey complete. Most large vessels find it necessary to fill one cargo hold with water ballast to meet this restriction and caution must be taken when deballasting not to exceed loading rate. Loading rate about 500 tons per hour. Cargo stows at 55 lb./cu.ft. or 41 cu.ft. – 43 cu.ft./ton. Cargo is very dusty and abrasive. Wheelhouse should be sealed and accommodation ventilation "air washers" should be used if fitted. It is also helpful if a positive pressure of about 1 p.s.i. can be maintained in the accommodation by adjusting the supply/exhaust fans. There is no shore scale and although Plant may use a Surveyor to determine Bill of Lading quantity, vessel is responsible to advise terminal when loading is complete.

Hatches must be clean, fresh water washed and dry, with no residue in hold or underside of covers. A Surveyor will carry out a "Cleanliness" inspection before the vessel will be accepted. Crew must open/close hatches and haul ship alongside berth during loading operation. Gangway of the vessel used and safety net is recommended. Vessels normally turn and berth head out, port side to, using 2 tugs.

Fuel oil and Diesel oil are available by barge and small amounts of diesel oil available by tank truck, but some vendors do not like to deliver during cargo operations due to dust. U.S.C.G. also prohibits tank truck hose from loading over water so coordination with loading sequence is essential at Alumina Berth. Barging cost from Corpus Christi is about U.S.$3,600.

Fresh water may be taken in quantities up to 300 – 400 tons at no cost, but ship's crew must connect/disconnect and use own hose. Connection must be tight with no water leaking to dock.

AUTHORITY: Port of Corpus Christi Authority, P.O.Box 1541, Corpus Christi, Texas 78403. *Tel:* (512) 882-5633. *Telex:* 910-876-1446 Ccpe Coc. *Contact:* Harry G. Plomarity, Executive Director. Ed Altemus, Director of Trade Development. Fred Bingham, Harbour Master.

DESTREHAN, Louisiana: 29.56 N. 90.21 W.

East bank of Mississippi River about 121 miles from sea.
DOCUMENTS/PILOTAGE: For all general information refer to "New Orleans."
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: At least 1 tug required for mooring/unmooring.
BERTHING: (a) St. Charles Elevator, berth 1,000 ft. length, Minimum 41 ft. depth. Loading rate, Max. 75,000 bushels per hour; 2 loading belts. Storage capacity 168,000 tonnes.
(b) Bunge Grain Elevator, berth 700 ft. length, Minimum 41 ft. depth. Loading rate, Max. 70,000 bushels per hour; 2 loading belts. Storage capacity is 115,000 tonnes.
(c) ADM Midstream loading buoys – 2 mooring facilities.
FRESH WATER: Available ex-berth.
FUEL: Not available.
DENSITY: Fresh (1000).
OPERATOR: (a) St. Charles Grain Elevator Company, P.O.Box 267, Destrehan, Louisiana 70047. *Tel:* (504) 764-7586. *Telex:* TWX 810-955-5503. *Contact:* John W. Imms, Vessel Co-ordinator.
(b) Bunge Corp., P.O.Box 156, Destrehan, Louisiana 70047. *Telex:* 587386 Bunge Dstr.
(c) Artco, 104 Campus Drive, Suite 104, Destrhan, Louisiana 70047. *Telex:* TWX 810-951-5348.

e

DETROIT, Michigan: 42.19 N. 83.05 W. (See Plan)

Refer to "St. Lawrence Seaway" for important general information.
PILOTAGE: Compulsory unless Master holds Exemption "B" Licence. 24 hours' notice of arrival required by Agents who arrange Pilot.
ANCHORAGES: In depths from 29 ft. – 51 ft. in the Detroit River off the marine terminals and away from main channel.
RESTRICTIONS: St. Lawrence Seaway navigation season approx. from April 15th to December 15th. Controlling depth 27 ft. Minimum depth of 25 ft. in the Detroit River. The Amherstburg Channel has a depth of 27 ft. 6 in. for upbound traffic.
MAX. SIZE: Limited at Seaway Locks. 730 ft. length, 26 ft. draft.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Chicago Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: Available, not compulsory but recommended for some terminals.
BERTHING: *Detroit Marine Terminals (Scoffen Street):*
2,100 ft. dock with 27 ft. LW depth.
2 berths.
Container Freight Station – U.S. Customs approved. 100,000 sq.ft. covered storage.
Total 32 acres of which 20 acres dedicated to container operation.
1×200 ton heavy lift crane with automatic container spreader.
3×85,000 lb. top-loading container handlers.
1×25,000 lb. empty container handler.
1×250 ton diesel crawler crane.
1×200 ton diesel crawler crane.
1×50 ton diesel electric travelling gantry crane.
1×25 ton diesel electric travelling gantry crane.
1×15 ton diesel electric travelling gantry crane.
1×150 ton rail scale.
Fork trucks up to 45,000 lb. capacity.
Lift trucks up to 80,000 lb. capacity.
1×80,000 lb. top loader for 20 ft. – 40 ft. containers.
Detroit Marine Terminals (River Rouge):
1,400 ft. dock with 27 ft. LW depth.
2 berths.
80,000 sq.ft. covered storage.
200,000 sq.ft. storage pads.
Total 45 acres.
2×250 ton crawler cranes.
1×150 ton crawler crane.
4×140 ton crawler cranes.
1×50 ton gantry crane.
3×40 ton railroad cranes.
1×25 ton gantry crane.
2×600 h.p. switch engines.
1 rail scale 212,000 lb. capacity.
1 truck scale 212,000 lb. capacity.
7 magnets.
8 clam buckets.
Yard and warehouse lift trucks up to 70,000 lb. capacity.
Narridon Terminal, Inc:
790 ft. dock.
1 berth.
2×250 ton crawler cranes.
1×50 ton hydraulic crane.
Michigan Marine Terminal:
650 ft. dock.
Liquid bulk products (from No. 2 Oils to heavy residual fuels).
14 storage tanks.
Can ship and receive by water, truck and rail. Can receive by Buckeye pipeline.
Hickman, Williams and Co.:
1 berth.
Load bulk materials with conveyor. Unloading by self-unloaders.
Nicholson Terminal & Dock Company (Ecorse Dock):
3,400 ft. dock with 27 ft. LW depth.
4 berths.
275,000 sq.ft. covered storage.
Total 50 acres.
2 cranes, 70 ton capacity at 40 ft. radius and 50 ton capacity at 60 ft. radius.
4×12 ton gantry cranes.
6×30 ton diesel locomotive cranes.
1×85 ton mobile crane.
1×200 ton crawler crane.
3×1,000 h.p. diesel yard engines.
1×290 h.p. diesel yard engine.
1×150 ton railroad scale.
1×72 ft. combination rail and truck scale 400,000 lb. capacity.
2×87 in. magnets.
11×65 in. magnets.
5×55 in. magnets.
12 buckets: 1.5 yds. to 15 yds. capacity.
1 forklift truck, 50,000 lb. capacity.
1 forklift truck, 40,000 lb. capacity.
25 forklift trucks, various capacities.
3×12 yd. bucket front end loaders.
Nicholson Terminal & Dock Company (Summit Street Dock):
1,530 ft. dock with 28 ft. LW depth.
2 berths.
250,000 sq.ft. covered storage.
Total 16 acres.
2 crawler cranes, 200 ton capacity.
12 forklift trucks; 12,000 lb. to 45,000 lb. capacity.
1×60 ft. truck scale 300,000 lb. capacity.
DENSITY: Fresh water.
MEDICAL: Doctors, hospital and all facilities available.
FRESH WATER: Available at most berths.
FUEL: All grades available, ex-wharf, or delivered by barge.
CONSULS:
Australia
Austria
Barbados
Belgium
Canada
Chile
Colombia
Costa Rica
Denmark
Dominican Republic
El Salvador
Finland
France
Germany F.R.
Guatemala
Haiti
Honduras
Iceland
Italy
Japan
Jordan
Korea
Lebanon
Liberia
Malta
Mexico
Netherlands
Norway
Panama
Paraguay
San Marino
Spain
Sweden
Switzerland
Thailand
Yemen A.R.
REPAIRS: All marine repairs can be effected.
SURVEYORS:
Champness & Associates, 10573 W. Jefferson Avenue, River Rouge 48218. Tel: 849-2345.
Fisher Marine Surveys, Inc., 11772 Postlane, South Lyon 48178. Tel: 1-437-9655.
General Adjustment Bureau, 30100 Van Dyke, Suite 306, Warren 48093. Tel: 573-7600.
Robert Harris, 1812 Wiltshire, Berkley 48072. Tel: 544-8736.
Intermodal Technical Services Inc., 30100 Van Dyke, Suite 335, Warren 48093. Tel: 575-9311/2.
Intersurvey, Inc., 22519 Maxine, St. Clair Shores 48080. Tel: 779-8954.
John P. Kauserud, 262 Fowlerville Road, Fowlerville 48836. Tel: 517-223-9730.
Robert V. Ricard, 17372 Collinson, East Detroit 48021. Tel: 776-6220.
Lennon A. Thompson Marine Consultants, Ltd., 2936 Biddle, Wyandotte 48192. Tel: 282-0052.
Toplis and Harding, Inc., 1150 Griswold – Suite 1400, Detroit 48226. Tel: 965-3033.
BANKS: Banks with International Department:
Comerica, 211 West Fort Street, Detroit, Michigan 48275-1103. Tel: (313) 222-3300.
First Independence National Bank of Detroit, 234 State Street, Detroit, Michigan 48226. Tel: (313) 256-8200.
First of America, International Division, 645 Griswold, Room 639, Detroit, Michigan 48226. Tel: (313) 965-1900, ext. 6650.
362-5000.
Liberty State Bank, P.O.Box 5823, Troy, Michigan 48007-5823. Tel: (313) 362-5000.
Lloyds Bank International Ltd., 100 Renaissance Center, Suite 2070, Detroit, Michigan 48243. Tel: (313) 259-1160.
Manufacturers National Bank of Detroit, International Dept., P.O.Box 659, Detroit, Michigan 48231. Tel: (313) 222-4000.
Michigan National Bank of Detroit, 30665 Northwestern Highway, Farmington Hills, Michigan 48018. Tel: (313) 737-3119.
National Bank of Detroit, 611 Woodward Avenue, Detroit, Michigan 48226. Tel: (313) 225-1174.
AUTHORITY: Detroit-Wayne County Port Authority, Suite 650, 200 Renaissance Center, Detroit, Michigan 48243. *Tel:* (313) 259-8077. *FAX:* (313) 259-5095. *Contact:* James H. Kellow, Executive Director.
AGENT: Norton Lilly Intl., 100 Renaissance Center, Suite 1810, Detroit, Michigan 48243. Tel: (313) 259-7600. Telex: 6877152.

DONALDSONVILLE, Louisiana: 30.05 N. 91.00 W.

(See Plan)

SHIPMASTER'S REPORT: September 1980 (updated 1988).

The report was compiled over 4 visits between August 1979 and August 1980.

APPROACHES: The coastline is low at the mouth of the river and consequently does not give a good radar return. The Racon on East jetty shows up between 12 to 17 miles. Fog and mist is a complication as it is very prevalent with the added problem of the oil rigs. These are located mainly on the East side of the safety fairway but in August 1980 construction was proceeding on a structure right on the Western boundary of the safety fairway about 4 miles S.W. of the East pier.

The Sea Buoy is difficult to locate, vessel should approach as per the leading line indicated.

A strong West flowing current across the entrance can be encountered.

Draft restriction varies throughout the year and should be ascertained in good time. August 1980 at 40 ft.(FW) but patches of 39 ft. 6 in. in places. (Mud, so no difficulty.)

Officially the Bar at the S.W. Pass is the limiting factor but in practice other areas of the river up to New Orleans are as much of draft restriction factor.

Above New Orleans to Baton Rouge a battle is being fought against silting up and a large dredging programme will have to be commenced soon, otherwise the draft will be severely limited – still at 40 ft. officially.

A new road bridge about 15 miles above New Orleans is under construction called 'Ascension', clearance is likely to be 150 ft., the lowest on the river, at zero gauge or about 130 ft. at High River.

PILOTAGE: Pilot boards at Sea Buoy from a fast cutter. Ladder/gangway arrangements 6 ft. from water, normal port gangway at S.W. Pass.

Change at Pilot Town about 1 hour 45 minutes above S.W. Pass and New Orleans about 6 hours above Pilot Town.

If at anchor and requiring a Pilot a minimum of 3 hours' notice is required. Normally order Pilot through Agent. The Baton Rouge-New Orleans Pilots may only berth ships at Donaldsonville about 3 times per month.

ANCHORAGES:

Belle Chase	Mile post 75	1 hour below New Orleans
12 Mile Pt.	Mile post 81	30 minutes below New Orleans
Bonte Carre	Mile post 128	2 hours above New Orleans
Burnside	Mile post 169	4 hours above New Orleans

All anchorages are standing moor operations, if proceeding down river 2 tugs will be required to swing vessel into current, this is *essential* in High River season.

The bank is steep and muddy and as long as vessel lies quietly onto bank little damage can result. In fact this is preferable to hanging out in midstream and getting hit by passing barge strings and shipping.

VHF: Public correspondence as per ALRS. Moving upriver-Venice, New Orleans, Convent (Channel 25) and Baton Rouge. Just about in coverage all the way up from Pilot Town to berthing, all stations very busy in working hours.

Pilot ordered through Agent and on Channel 16.

USCG: Follow VTS booklet.

Boat service: At 12 Mile Point anchorage a launch service operates on Channel 20. Pilots and Agent board by this service.

TUGS: 'Crescent' tugs of around 2,000 h.p. are stationed at Burnside which are available if not handling larger vessels.

BERTHING: *Berth approach and depths:* This is the cause of most concern at Donaldsonville. The channel is at its narrowest off Triad Berth (the downstream berth 0.5 miles below C.F. Industries at Mile Post 173.5), having a minimum depth of 30 ft. (Zero Gauge at Donaldsonville) over a width of 140 ft. and is steep to, falling to 20 ft. over 180 ft. in width.

Gauge reading can vary from about +5 ft. after a dry Summer to +26 ft. or more at the end of the Winter season when the snows to the North are melting.

There is a set onto the Triad Berth varying with the main current. Again as the river height increases, the current varies from 0.5 knots in late Summer to upwards of 5 knots or more in late Winter. Effect is increased by a Northerly wind.

Berth Approach: Head upriver on berthing, unberth stern first until clear of shoal, approximately when bow is 50 ft. downriver of lower Dolphin on Triad Berth, then swing with aid of tugs. Actual depth alongside (Zero Gauge) C.F.I. Berth = 44 ft. (minimum) Triad Berth = 41 ft. (minimum).

Guidelines for berthing as follows:

C.F.I. Berth: Berthing or unberthing at night possible. No vessels to be on Triad, berthing or unberthing.

Triad Berth: Night movements dependent on wind, tug power, etc.

The question of taking bunkers thereby increasing the draft arises. If berthing at Triad only, can take before berthing. If also berthing at C.F.I. it is best left until clear of C.F.I. berth.

Berths: C.F.I. Berth: Reasonable condition. Short steel jetty with 2 dolphins plus mooring buoy at either end, the nearest dolphins either side of the jetty are interconnected by a catwalk.

At 26 ft. the maindeck is level with dolphins so gangway must be turned in. B.O.T. type gangway by pilot ladder position to after dolphin. Port side alongside.

Berth also used for loading bulk fertiliser. Watch the bulk boom as it is left unsecured and can be fouled.

Triad: 0.5 miles downstream from C.F.I. (plants back onto each other). Basically the same as C.F.I. but dolphins not connected to jetty. No mooring buoys, all dolphins, not as good condition as C.F.I. Bulk fertiliser also loaded. Port side alongside, B.O.T. type gangway amidships.

Moorings: Basically 3, 2, 2, crossed after springs each berth. Mooring boat which moors forward first then aft. Lets go aft first – very handy as propeller is clear quickly. (See "Plan") – have moorings ready before arrival.

CARGO: Ammonia only at both berths plus bulk fertiliser. Labour on both berths assists in connecting up.

C.F.I.: Ship's 12 in. to 8 in. reducer plus shore 150 – 300 ASA spool piece.

No vapour return line, no venting. Loading at 450 t.p.h. but depends on pumps available, normally two. Emergency stop for ship operation.

Triad: Ship's 12 in. to 8 in. reducer. No VRL, no venting. Loading at 350 t.p.h. but again depends on available pumps. Shore tanks are set back further than C.F. Industries and line heating is apparent.

FRESH WATER: Not available at Triad Berth. Available at C.F.I. Berth (Rate 1 t.p.h.). Barge from New Orleans costs about $1,500.

TELEPHONE: On both berths through the terminal operator. Local calls free, long distance calls collect.

GENERAL: Donaldsonville Town nearby, about $5.00 in a taxi. Baton Rouge about 45 minutes away. The International Airport at New Orleans is about 1.5 hours away.

Stores: Lorries can back down jetty roadway to within a few feet of manifold area. A permit has to be obtained at both berths.

USCG: Usual pre-arrival hazardous ship reports to Coast Guard Captain, New Orleans.

Necessary to have a Coast Guard escort through New Orleans. Check must be made that the Pilot is advising the USCG of the vessel's position and that she requires an escort. Escort with blue flashing light (fast patrol launch) joins off Algies Point and goes through to Huey P. Long Bridge, and vice versa.

THE FOLLOWING REPORT (Dated November 1980) IS TO BE READ IN CONJUNCTION WITH THE REPORT ABOVE.

SW Pass: The West flowing current is very strong, about 5 knots across entrance and in region of Fairway Buoy. Steer well to the East.

9 Mile Anchorage: Boat charges $35.00 per boat, any number persons, 24 hour basis. Runs on hour every hour for shore leave purposes by arrangement. Call 'Port Ship Services Poydras' on Channel 20. Minibus to New Orleans at $5.00 per person can be arranged.

Tugs/Pilot: Minimum 2 hours' notice, order through Agent.

VHF: Agent: On Channel 16 and 73, Tricon (Trammo Agent) on Channel 16 and 73. Chandler: Sarussen Marine, on Channel 16 and 9.

Films: Sea View Films: Best to cable direct as per Walport Instructions. Also change Vidpack. Change from launch if required when passing New Orleans.

Burnside Anchorage: Boat Charges: $20 per boat plus $5 per person. Call "Webber Marine" Burnside on Channel 16 and 18A.

Agents: Call Tricon Burnside on Channel 16 and 73 (Trammo Agents).

Donaldsonville: Depths – See latest chart, shoaling alongside CF Industries and off Triad.

Berthing/Leaving scraped alongside Triad berth, maximum 30 ft. off.

Turn when one ship's length below "Triad", lower dolphin.

Three "Parish" tugs used in and out.

To line up manifold at C.F.I., pilot ladder gate should be in line with gangway on lower dolphin.

Water rate is 5 t.p.h. from fire hydrant stand pipe, not hose.

Water by barge from Baton Rouge at $4.00 per tonne. Minimum 100 tonnes plus $85.00 per hour for tug. Minimum 4 hours =$740.00.

No bunkers officially allowed alongside, but can probably take diesel at night.

Agents: Tricon in Burnside are now Trammo Agents.

AUTHORITY: *Operator:* C. F. Industries, Inc. P.O.Box 468, Donaldsonville, Lousiana 70346. *Tel:* (504) 473-8291. *Contact:* Arne M. Christiansen, Port Captain.

DULUTH-SUPERIOR, Minnesota: 46.49 N. 92.09 W.

Refer to "St. Lawrence Seaway" for important general information.

PILOTAGE: U.S. or Canadian Pilot compulsory except when Master or officer specially qualified to navigate waters concerned. Pilots obtained from Upper Great Lakes Pilots Inc., 802 Garfield Avenue, Duluth. Duluth entry – Pilots picked up at point 2 miles due East of pierhead lights. Superior entry – pick up Pilot 2 miles N.N.E. of lighthouse. Advise Agents 24 hours in advance of ETA for scheduling Pilot, Customs, Immigration, and Agricultural Inspection. Masters should hold to the South of convergence of shipping lanes at the Duluth Entry and to North of this convergence at Superior Entry when approaching to embark a Pilot.

ANCHORAGES: Anchorage areas near Duluth and Superior entries are South and Eastward and North and Eastward respectively of main channel through harbour. Marked by anchorage buoys. Vessels must only anchor clear of channels at all times.

RESTRICTIONS: Because of varying conditions of wind and current, no restriction placed on speed passing through entry piers at either Duluth or Superior entry. Speed throughout harbour limited to 7 knots. Speed through bridges other than the Aerial Bridge at Duluth entry limited under normal conditions to 6 miles per hour. Because of current conditions at inner end of Duluth entry, both inbound and outbound vessels must leave vertical black/white striped mid-channel or traffic buoy on starboard hand. This gives outbound ships maximum straight run.

MAX. SIZE: Draft 26 ft. Duluth Harbour Entry: Duluth ship's canal, minimum width 300 ft. Superior Entry: Minimum width 500 ft. minimum depth at inner end of 27 ft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Chicago Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Prior to entering harbour vessels must make "Security Call" on Channel 51 from 10 to 20 minutes in advance advising intended movement. All vessels should monitor Channel 51 at all times when under way to determine position and intent of other vessels moving in constricted areas within harbour and approaches.

TUGS: Available, not compulsory.
BRIDGES: Aerial Bridge spanning Duluth entry vertical clearance of 138 ft. Signal for opening bridge shall be given by vessels approaching from lakes, in all circumstances, when not less than 1 mile from bridge. A flashing amber light on harbour side of Aerial Bridge warns outbound vessel of approach of inbound vessel in lake.
BERTHING: *Clure Public Marine Terminal.* Also see "Developments".

Length of dock: 6,600 lineal ft., 7 ship berths, 4 for unloading/loading, 3 for fitting, cleaning, standby, etc. Water depth: 30 ft. 2×90-ton Clyde gantry cranes for container handling. 12 grain loading berths.

Bulk Cargo Docks	*Berth Length* (ft.)	*Depth* (ft.)	*Storage Capacity* (tons)	*Main Commodities*
Amoco Oil	550	21	703,000 (bbls.)	Petroleum Products
*Burlington Northern 1	2,244	27	110,000	Taconite
Burlington Northern 2	2,100	27	52,500	Ore, Taconite Pellets
Burlington Northern	816	28	72,000	Taconite Pellets
Cutler–Magner Superior	1,250	27	500,000	Limestone
Cutler Magner Salt	1,000	26	300,000	Granulated & Rock Salt
**DM & IR Dock 5	2,304	28	Out of Service	
**DM & IR Dock 6	2,304	28	110,000	Taconite Pellets & Ore
Hallett Dock 6A	2,000	24	(outside)(inside) 500,000 125,000	Misc.
Hallett Dock 5	2,373	27	550,000	Coal, Stone, Misc.
Hallett Dock 6	2,060	23	600,000 (Liquid Storage Tank – 3,000,000 Gal. Cap.)	Coal, Ore, Stone, Steel, Misc.
Lafarge Corp. Duluth	345	22	14,000	Cement
Lafarge Corp. Superior	1,186	26	8,290	Cement
Marine Fuelling	980	22	90,000 (bbls.)	Petroleum Products
C. Reiss Terminal Duluth	2,854	23	800,000	Coal, Stone, Misc.
St. Lawrence Cement	600	27	43,000	Cement
Superior Midwest Energy Terminal	1,200	27	7,000,000	Coal

*Burlington Northern also has 5.2 million ton pellet storage yard.
**Dm & IR also has 2.75 million ton Lakehead Storage Facility for pellets.

Grain Elevators	*Berth Length* (ft.)	*Water Depth* (ft.)	*Total Spouts*	*Capacity* (Bushels)
Cargill B–1	1,000	27	2	7,800,000
Cargill B–2	1,000	27	4	2,000,000
Peavey Co. Elevator M	800	28	0	2,100,000
Peavey Co. Connors Point	790	30	6	3,500,000
Peavey Co. Globe Elevator	620	27	3	4,000,00
General Mills Elevator A Bagging Plant	1,900	27	2	3,792,000
Great Northern Elevator (Archer–Daniels–Midland)	1,800	27	3	12,500,000
Harvest States Cooperatives No. 1	700+Gallery	30	10	8,000.000
Harvest States Cooperatives No. 2	1,250	27	6	11,000,000
International Multifoods (Capitol)	930	27	1	4,100,000

Private Terminals	*Berth Length* (ft.)	*Depth* (ft.)	*Closed Storage* (tons)	*Open Storage* (tons)	*Cranes*
Meehan Seaway Service–Superior	1,059	27	260,000	10 acres	None
Hallett 5	2,373	27	20,000	550,000	None
Hallett 6 (Dry)	2,060	23	None	600,000 tons	2×18 ton
(Liquid)				Liquid Tank storage 3,300,000 gals.	
Hallett 6A	2,000	24	125,000	500,000	None
Hyman Michaels Co. Div. of Azcon Corp.	1,586	26	None	75,000	2×40 ton 1×50 ton 1×30 ton Gantry 2×50 ton Crawlers
Incan Superior	45	18	None, rail car ferry: Roll–on/Roll–off terminal facility		None
C. Reiss Terminal Duluth	2,854	23	None	800,000	None

MEDICAL: All medical assistance available.
DENSITY: Fresh water.
FRESH WATER: Available at most docks in both ports.
FUEL: Available from dock or by barge.
FIRE PRECAUTIONS: No open fire permitted on deck of any vessel while in harbour. This restriction does not apply to a vessel at a shipyard which will be governed by the shipyard's local rules, nor to vessels in lay-up or fit-out status at ore docks.

Ocean vessels, upon docking, shall put on off-shore side of vessel, wire rope lines fore and aft as tow lines for use in pulling ship off dock face in case of fire. Such tow line shall be securely made fast to bitts with eye about 1 ft. above the water.
CERTIFICATES: Masters are required to present Safety Inspection Certificate of cargo handling equipment and gangways to stevedoring companies and other employers of harbour labour upon request.
IDENTIFICATION CARDS: Required by Immigration.
REPAIRS: All ship repairs can be effected.
DRY DOCKS: At Superior: Fraser Shipyards: one 831 ft. by 95 ft. and one 628 ft. by 76 ft.
SHORE LEAVE: Allowed.
AUTHORITY: Seaway Port Authority of Duluth, P.O.Box 16877, Duluth, Minnesota 55816 – 0877. *Tel:* (218) 727-8525. *Telex:* 910-561-0052 Norcenter Dul. *FAX:* (218) 727–6888. *Contact:* Davis Helberg, Port Director.

EL SEGUNDO, California: 33.54 N. 118.27 W.

OPERATOR: El Segundo is a Chevron U.S.A. offshore multi-buoy marine terminal and refinery.
LOCATION: The terminal Sea Buoy is located approximately 600 yards W.S.W of Berth No. 3 in 102 ft. of water at Lat. 33° 54′ 28″ N., Long. 118° 27′ 29″ W. This lighted bell buoy is painted red with 6 in. high white letters reading, "2 ES". It exhibits a white flashing light every 4 seconds (flash 0.4 secs., eclipse 3.6 secs.). The lantern is 11 ft. above water.

In addition to the many tanks of the El Segundo Refinery, the chimneys of power plants adjacent to the Marine Terminal form prominent landmarks. 2×334 ft. chimneys painted with alternating red and white horizontal stripes mark the Los Angeles Department of Water and Power Scattergood Steam Plant located just North of the Terminal. Directly South of the Terminal is a set of 4 shorter chimneys at the Southern California Edison Co. Power Plant.
DOCUMENTS: Five copies each of the following documents are required for entry and clearance:

Crew List (I-418)
Crew's Effects Declaration (1304)
Ship's Stores Declaration (1303)
Inward Foreign Manifest (1302: If vessel is to discharge at more than one port, each port, with its cargo, must be listed on a separate manifest).

MAX. SIZE:

Berth No.	*Maximum Draft* (ft.)	*Maximum Length* (ft.)	*Vessel Tonnage* (d.w.t.)	*Water Depth at MLW* (ft.)
1	28	550	Up to 30,000	38
2	42	650	Up to 50,000	50
3	51	1,000	Up to 150,000	63
4	56	1,000	Up to 150,000	65

RADIO: *Pre-arrival radio message to ship:*

The vessel's Agent will normally advise the vessel by radio of the following general information when the vessel is approximately 3 days out:

Mooring Master boards 2 miles S.W. of sea buoy in Lat. 33° 54.5′ N., Long. 118° 27.5′ W.

Have starboard hose boom derrick rigged (if so equipped) and 7 good strong mooring lines ready – 3 main deck forward, 3 main deck aft, 4 poop deck (polyester lines only).

Sumatran Crude average cargo temperature must be 125°F on arrival.
Anchor in Anchorage "A" or "B" as directed by message from shore.
Have pilot ladder rigged on starboard side.
Assure 125 p.s.i. pressure on riser during discharge.
Any Customs, quarantine, etc., special information.
Advise if all cargo pumps are in good operating condition, and best average discharge rate.

Radio Communication Prior to Arrival:

Estimated time of arrival (ETA) and requirements for services should be directed to the ship's Agent. ETAs should be sent 7 days, and repeated 3 days and 24 hours, prior to arrival.

Within 2 hours of arrival, communications may be established with the mooring launch via VHF radio Channel 10.

Radio and Telephone Ship to Shore Communications:

UHF Radio. The Mooring Master is equipped with a UHF radio for direct communications with the Terminal Control room at all times from the start of mooring until the vessel has cleared the mooring on departure.
BERTHING: It is expected that the vessel will provide berthing and messing facilities for the 3 man launch crew as well as for the Mooring Master.

Mooring Gear: Each anchor shall be equipped with no less than 10 shackles of chain. Vessels over 50,000 d.w.t. shall have at least 12 shackles on each anchor. Wires on mooring winches should be at least 1,000 ft. (preferably 1,200 ft.) and should be 1.25 in. to 1.625 in. in diameter, depending upon the size of the vessel. Constant tension winches must be braked by means of manual brake.

Synthetic fibre lines of dacron or polyester must be at least 9 in. in circumference and 120 fathoms in length.

NOTE: Polyester/Dacron lines are the only lines acceptable. If vessel is not so equipped polyester mooring lines can be rented from the terminal.

Mooring lines should be located as follows:

1. At least 3 lines on the main deck forward
2. At least 3 lines on the main deck aft
3. At least 4 lines on the poop deck.

If vessel over 100,000 d.w.t. fittings must permit doubling of all lines. Each synthetic line requires a separate bitt.

Mooring Facilities: Berth No. 1 is a 6-point mooring and is used for transfer of refined stock, primarily lub oils and chemical. The unlighted spar buoys mark the offshore end of the pipe-lines and is located approximately 1 mile East of the sea buoy and 1,100 yards offshore. There are also 3 hose marker buoys, one for the end of the chemical hose string and one for the end of each lub oil string. The chemical hose string consists of seven 8 in. diameter × 25 ft. lengths. The lube oil strings are a parallel set of seven 8 in. diameter × 25 ft. lengths which are connected at the ship-end by a piping manifold which the ship provides.

Berth No. 2 is a 6-point mooring and is used for transfer, of light oils (primarily gasoline and jet fuel). It is located approximately 700 yards N.W. of Berth No. 1 and 1,600 yards offshore.

Berth No. 3 is a 7-point mooring used for the transfer of fuel and crude products. It is located approximately 750 yards West of Berth No. 2, and 2,400 yards offshore.

Berths No. 2 and 3 are each equipped with 1 unlit spar buoy and a can buoy. The seaward spar buoy marks the location of the offshore end of the submarine hose when the hose is on the bottom. A can buoy or hose marker buoy, is connected to the end of the submarine hose by a chain. The submarine hose string in Berth No. 2 consists of nine

12 in. diameter × 25 ft. lengths of which one is over-the-rail, connected to the seaward end of a 16 in. submarine pipe-line leading to the shore facility. The submarine hose string in Berth No. 3 is connected to the seaward end of a 26 in. submarine pipe-line and a 12 in. line for circulation, by seven 16 in. diameter × 25 ft. lengths of hose followed by one 12 in.×25 ft. length hose and one 12 in. diameter × 30 ft. long over-the-rail hose.

Berth No. 4 is equipped with 1 unlit spar buoy and 1 unlit can buoy. The inshore spar buoy marks the end of the 36 in. submarine line and 14 in. circulation line. One hose string comes off the main 36 in. submarine line. The hose string consists of 5×35 ft. long lengths of 20 in. hose, followed by a reducer and then 2×25 ft. long lengths and 1×30 ft. long over-the-rail length of 16 in. hose. The end of the hose string is connected to a can buoy by a chain.

NOTE: All berths are equipped with UHF direct dial radio telephones. VHF marine operator is also available, marine operators are located at Redondo Beach and San Pedro.

Hose Handling: The vessel will be expected to have suitable equipment on deck and ready for making the connection to the submarine hose.

Berths No. 1 and 2 require lifting capacity of at least 5 long tons.

Berth No. 3 requires a lifting capacity of at least 7 long tons for vessels up to 30,000 d.w.t. and at least 8 long tons for vessels over 30,000 d.w.t.

Berth No. 4 requires a lifting capacity (calculated load) of 10 long tons.

Procedure for Discharging: At the completion of most cargo discharges the vessel will be required to receive a 150 bbl. hose wash displacement of cutter stock or gas oil. This is to prevent the hose from plugging while not in use.

Product Transfer Rates, Pressure and Temperature: Lubricants and chemicals are transferred at Berth No. 1 at varying rates depending on the particular product, the maximum rate being approximately 2,100 bbls.p.h. Hoses are rated to 275 p.s.i.

Gasoline and jet fuel loaded at Berth No. 2 are usually transferred at 7,000 – 12,000 bbls.p.h. with a pressure at the ship's rail not to exceed 50 p.s.i. Gasoline and jet fuel are discharged at Berth No. 2 with a pressure not to exceed 125 p.s.i. at the ship's rail. Hoses are rated to 150 p.s.i.

Fuels and crude are loaded at Berth No. 3 at rates to 20,000 bbls.p.h. No. 3 Berth hoses are heavy duty 275 p.s.i. rated. Vessels are expected to maintain discharge pressure of at least 125 p.s.i. at the ship's rail and/or a flow rate of 20,000 – 25,000 bbls.p.h.

No. 4 Berth hoses are heavy duty 275 p.s.i. rated, and the system has a normal working pressure of 180 p.s.i. On this one hose system, vessels are expected to maintain flow rates of up to 50,000 bbls.p.h.

Sumatran Crude cargo will not be accepted by the facility unless the ship's average tank temperature is at least 125°F. However, the average temperature for Sumatran Crude should not exceed 130°F. in order to avoid excessive vaporization of the light fractions in the crude. Heavy viscous residue fuel cargo will not be accepted from a ship unless the ship's average tank temperature is at least 130°F.

MEDICAL: Several hospitals are available in the area. U.S. Coast Guard or local ambulance service may be expected to know what hospital is best suited to handle a particular emergency.

FRESH WATER: Potable water is not available at this mooring. Water barge service is not available in the area. Closest supply is the harbour at San Pedro.

FUEL: Bunker fuel for ship's use is not available in the moorings of the El Segundo Marine Terminal, but may be arranged through Chevron International, San Pedro.

BALLAST: No ballast can be accommodated at the Terminal.

CONSULS: Consulates of most of the maritime Nations are maintained in both the cities of Los Angeles and Long Beach.

AIRPORT: The Terminal is located approximately 2 miles South of Los Angeles International Airport.

TIME: Standard Time along the entire West Coast of the United States is GMT minus 8 hours. Daylight Saving Time is from first Sunday in April till last Sunday in October. Clocks are advanced 1 hour in Summer.

WINDS/TIDES/CURRENTS: *Winds:* Westerly, onshore winds usually prevail. Gales are very rare in Santa Monica Bay, but the local thermal winds blowing from a Northerly direction sometimes necessitate interruption of transfer operations and require moving a ship from the mooring to anchor.

Northerly winds occur during the period from October through May.

In the Autumn and Spring, duration averages 4 to 6 hours

In November, December and January, duration averages 10 hours.

Velocities up to 52 knots have been recorded.

Tides and Currents: Normal tides of approximately 6 ft. pose no significant problems in this open roadstead.

Currents run unpredictably North or South along the coast in the vicinity of the Terminal. The current is most commonly from North to South and is stronger in Summer than in Winter.

TELEPHONE: Each berth is equipped with telephone service. To call El Segundo Terminal, ask Mooring Master. To call local outside numbers within the Los Angeles area, ask Mooring Master.

GENERAL: *Supplies:* Modest quantities of supplies may be taken aboard while at the moorings if absolutely necessary, provided the Mooring Master gives prior approval. This practice is discouraged in view of the sea swell and wind conditions that can develop in the open roadstead of the moorings, as well as the long distances to normal marine supply facilities.

Launch service: A company operated launch may be chartered for vessel's use through the vessel's Agent at the option of the Owner's representative. This launch operates between the moorings and the Port-O-Fino Dock in King Harbour, Redondo Beach, on a published 4 hours' schedule which may be obtained from the Mooring Master. A one-way trip takes approximately 40 minutes. There is a waiting room for use by all tanker personnel awaiting the launch. The waiting room is in the second building facing the yacht moorings. Blue arrows are painted on the side walk between this waiting room and the launch ramp, to assist in identifying the waiting room.

Pilot Ladder: The vessel shall rig a safe and secure pilot ladder or pilot hoist (not accommodation ladder) for the Mooring Master and Government Officials to use in boarding and leaving the vessel.

Air Pollution: Any vessel showing visible smoke in excess of 3 minutes is in violation and may expect to be cited and required to pay substantial fines.

Dumping of Garbage: Dumping of rubbish or garbage overboard within 50 miles of the coastline is prohibited.

AUTHORITY: *Operator:* Chevron Shipping Co., P.O.Box 910, San Pedro, California 90733, U.S.A. *Tel:* (213) 832-6478. *Telex:* TWX 910-345-6396. *Contact:* Captain Gary R. Roberts, Port Superintendent/Mooring Master.

U.S.C.G., Captain of the Port, Los Angeles/Long Beach, 165 N. Pico Avenue, Long Beach, CA 90802. Tel: (213) 590-2315.

El Segundo is an open roadstead marine terminal with no official Port Authority other than U.S.C.G.

ERIE, Pennsylvania: 42.10 N. 80.05 W. (See Plan)

Refer to "St. Lawrence Seaway" for important general information.

PILOTAGE: Not compulsory. Seaway Pilots will assist if required.

RESTRICTIONS: Navigation season from 14th April to 26th December approx. The port is connected to Lake Erie by an entrance channel, depth 28 ft. Vessel's size restricted by Seaway locks.

MAX. SIZE: 730 ft. length; 26 ft. draft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Chicago Quarantine Station. Quarantine procedure undertaken at Quebec City for incoming vessels from foreign ports.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Master must give at least 24 hours' notice to Commander, 9th Coastguard District, Cleveland, Ohio, of the vessel's ETA at Snell Lock. Also, at least 24 hours' notice of ETA at first U.S. discharge port is required.

TUGS: Available. Not compulsory, but sometimes necessary in bad weather.

BERTHING:

City of Erie Grain Elevator: Owned by the Port Authority, leased by the Port Authority, berthing length 980 ft., depth of water alongside 24 ft., 2.5 million bushel capacity.

Erie Marine Inc. (subsidiary of Litton): New ship assembly yard with graving dock (largest on Great Lakes), available for dry dock repairs.

Ore Dock: 1,000 ft. long, 26 ft. – 27 ft. of water alongside. The ore dock has 400,000 ton storage pad available for lease.

Port Authority East Bay Industrial Site: 75 acres available for sale or lease.

Erie International Marine Terminal: Leased to Codan Corporation, stevedores for the Port of Erie; 1,400 ft. long, with 28 ft. of water. Terminal used for bulk and general cargo; 23 acres; 750,000 sq. ft. of warehousing and transit sheds with truck and rail loading facilities; 2×200 ton and 1×230 ton mobile cranes equipped with magnets, buckets and gear for heavy lifts, also 300 ton stiff leg crane. Terminal served by ConRail with reciprocal switching for N&W and B&LE railroads. A total of more than 100 acres of waterfront property is available where an industrial complex may be constructed.

DENSITY: Fresh water.

MEDICAL: All facilities available.

FRESH WATER: Obtainable by pipe-line at all docks.

FUEL: All grades available by pipe-line at all docks.

REPAIRS: Local shipbuilding company can handle most repairs. Dry dock available.

AUTHORITY: Erie-Western Pennsylvania Port Authority, Room 507, Municipal Building, Erie, Pa. 16501. *Tel:* (814) 456-8561. *Telex:* 91-4429. *Contact:* Joseph G. Rosenthal, Port General Manager.

EUREKA, California: 40.48 N. 124.10 W. (See Plan)

DOCUMENTS: In addition to the documents detailed below, Agent will present to Master normal Customs forms to be signed, such as Master's Oath, Permit to Lade, Inward & Outward Manifest, etc. These forms will be filled out by local Agent and Customs Broker and presented to local Customs house when entering and clearing vessel:

Foreign Flag Vessels:

I. Entering from another U.S. port:
  3 Crew Lists.
  3 Passenger Lists (only if passengers on board).
  3 Curio Lists.
  3 Stores Lists.
  Permit to Proceed (issued at last U.S. port).
  Travelling Manifest (only if there is foreign cargo on board).
  Ship's Register.

II. Entering from a foreign port:
  3 Crew Lists.
  3 Passenger Lists (only if passengers are on board).
  3 Curio Lists.
  3 Stores Lists.
  Travelling Manifest.
  Permit to Proceed.
  Ship's Register.
  Ship's Tonnage Tax Certificate.
  Clearance from a foreign port.

PILOTAGE: Telegraphic address of Pilot station "Humbar". 24 hours advance notice of ETA; in case of change in ETA give minimum 4 hour notice. Contact pilot boat on VHF 156.8 MHz (Channel 16). Radio watch is maintained 2 hours prior to arrival at sea buoy on Channel 16. Working Channels are 6, 13, 18A and 77.

No Pilot boat on station. Local Pilots use tug "Thor" length 65 ft. 800 h.p. Tug colours: red funnel, red and white superstructure and black hull. As no Pilot boat on station, sound signals not required. Visual international flag and light signals observed. Pilot will board vessel within 1 mile radius North, South and West of sea buoy. Sea-buoy located 1.4 miles from end of North jetty lined up with range lights bearing 105 degrees true.

Specific requirements: *(a)* Pilot ladder with spreaders in accordance with Solas regulations, and 9 ft. above water. *(b)* At night – brilliant light to illuminate ladder. *(c)* Recommended anchorage outside Humboldt Bay located 1 mile South of sea-buoy in 15 fathoms of water.

ANCHORAGES: Inside harbour, weather permitting. Light draft vessel (22 ft. or less) South of Fairhaven Dock (Simpson) and West of Standard Oil Dock. Deep draft vessels (22 ft. to 32 ft.) will anchor North of Union Oil Terminal and South of Samoa Channel entrance buoys.

RESTRICTIONS: Humboldt Bay is a 24 hour port; restrictions if any would depend upon manoeuvrability and horsepower of vessel during peak tide. Range of tide normally 8 ft., extreme cases 10 ft.

MAX. SIZE: Max. LOA 740 ft., max. beam 115 ft. Max. draft 35 ft.

HEALTH: See "Health: All ports" before first U.S.A. port (Albany). Illness Reports made to San Francisco Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Send cables through one of the following stations:

ITT World Communications, Inc. – San Francisco Marine Radio Station KFS.

RCA Global Communications – San Francisco Marine Radio Station KPH.

TUGS: 3×650 h.p. tugs available, 1 tug acts as pilot boat, other tug joins vessel when in harbour. Tug's lines are normally used, occasionally a ship's line is used. No extra charge assessed for use of tug's line. Two tugs minimum are used.

BERTHING: No specific requirements relating to berthing; normal procedures prevail. Vessel normally docks stemming the tide.

Berths presently available at Eureka as follows:

Simpson Pulp Co.
Eureka Forest Products.
Louisiana-Pacific Corporation.
Humboldt Dock & Shipping Co.
Olson Terminal.
Standard Oil of California.
Union Oil of California.
North Coast Exporting Co.

Harbour channels maintained to 35 ft. zero tide except for South Bay Channel to Olson Terminal which is maintained at 26 ft. Most of berths at above-mentioned docks also maintained at 35 ft. zero tide; however, some occasionally fill in and recommended check with Agent as to depth available at specific dock where vessel intends moor and load.

STEVEDORES: 6 local gangs available. Groups ordered at 0630 hrs. in the morning for both day and night gangs. Therefore essential that local Agent or stevedore company receives accurate ETA by 0600 hrs. in the morning. Normally, vessel will advise arrival sea-buoy with a 24-hour ETA and correct ETA at a later time if necessary. The basic commodities exported from Eureka are woodpulp, woodchips, logs and lumber.

Westfall Stevedore Co. Cable Address: Westfall, Eureka. Tel. (707) 443-5688.

MEDICAL: Not necessary for Agent to receive advance notice of required medical attention unless ambulance and doctor are required on arrival. 3 hospitals in immediate area. Inoculation and vaccination certificates should be up-dated.

TANKERS: 2 tanker berths available: Standard Oil of California – deepest draft 35 ft. at zero tide. Union Oil – deepest draft 35 ft. at zero tide. Normally only Company tankers use own facilities. Facilities privately owned and are not available for bunkering other vessels.

DENSITY: 1024-1026 (depending on time of year).

FRESH WATER: Available all berths. Delivery by hose. Rate of delivery: 10 t.p.h.

FUEL: If bunkers required, Agent must go through major contractors, who in turn will inform their local supplier of requirements. Generally speaking bunkers are only supplied to vessels on an emergency basis in limited quantities. The bunkers usually diesel grade and delivered by truck on a prearranged schedule.

GANGWAY/DECK WATCHMEN: Services of gangway guards available if required by ship.

OPENING/CLOSING HATCHES: Normally stevedores' work unless done prior to docking. Vessel's crew may assist in opening and closing hatches, if hatches require special attention.

CERTIFICATES:

Ship's register.
Load Line Certificate.
Derat Certificate.
Cargo Gear Certificate.

Tonnage Tax Certificate and all other usual certificates required.

CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes and 1 lb. of tobacco. Wine and/or Spirit, 1 bottle (approx. 1 quart).

CARGO GEAR: Must be in good order and safe operating condition and all cargo gear certificates must be valid.

IDENTIFICATION CARDS: Alien seamen require Crewman Landing Pass (U.S. Form I-95).

CONSULS: None. Nearest consuls at San Francisco.

REPAIRS: Small welding jobs, and minor machine work only. Major repairs normally carried out in San Francisco.

DRY DOCKS: None.

REPATRIATION: Normally done in conjunction with San Francisco, Portland, Los Angeles or Seattle Agent.

AIRPORT: Airport located approximately 20 miles North of Eureka. Limousine service available. Major airline, Republic Air Lines. At present 3 flights per day to San Francisco and 1 flight per day to Portland.

TIME: Local time is Pacific Standard Time and is GMT minus 8 hours. However, from first Sunday in April till last Sunday in October, Eureka is on Daylight Saving Time.

HOLIDAYS: No work performed on following holidays: New Year's Day (January 1st); Thanksgiving Day; Christmas Day (December 25th).

POLICE/AMBULANCE/FIRE: Eureka City Police 442-4545; Eureka City Ambulance 442-4551; Eureka Fire Department 443-5656; Humboldt County Sheriff Department 443-5671; Arcata Fire District 822-2424; Humboldt Fire District No. 1 442-1212.

TELEPHONES: No arrangements for placing telephones on board; however, there are pay phones nearby at each dock as well as phones in nearby offices.

SERVICES: Specific services such as tank cleaning, compass adjusting, tank washing,etc., are not normally performed in the port of Eureka and are usually performed in one of the close major ports such as San Francisco; however, there are facilities available for minor repair.

SHORE LEAVE: Crew members allowed ashore unless restricted for Customs or Immigration reasons.

DELAYS: Berthing delays seldom incurred primarily due to the fact that the prime Agents are always in contact with the local Agent at Eureka informing them of vessel's ETA and prime Agent is always advised with regard to all arrivals and possible berth conflicts at this port.

AUTHORITY: Humboldt Bay Harbor, P.O.Box 1030, Eureka, California 95502-1030. *Tel:* (707) 443-0801. *Contact:* Jack B. Alderson, Chief Executive Officer.

EVERETT, Washington: 47.59 N. 122.13 W. (See Plan)

DOCUMENTS, PILOTAGE, etc.: Refer to "Tacoma".

PILOTAGE: Pilot boards off Port Angeles Pilot Station.

ANCHORAGE: Unlimited deep water anchorage in Possession Sound.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Available, join vessel off berth. 17 tugs, 150 to 900 h.p.

BERTHING:

South Terminal: Length 700 ft. Approach depth 90 ft. Transit shed 45,000 sq.ft.

Pier No. 1 South: Usable berth length 520 ft.; Approach water depth 90 ft.; Water depth at pier 29 ft. MLLW; Plank and piling; 20 ft. Apron; Transit shed with 57,960 sq.ft. on pier; Access by road, barge and rail.

Pier No. 1 North: Usable berth length 600 ft.; Approach water depth 90 ft.; Water depth at pier 40 ft. MLLW; Multi-purpose 35-ton bridge crane (Containers – convertible for bulk cargo handling); Rail spur on dock; Plank and piling; 40 ft. Apron; Transit shed with 36,000 sq.ft. adjacent to pier; Access by road, barge and rail.

Pier No. 3 South: Usable berth length 650 ft. Depth alongside 38 ft. Pier of concrete construction.

Pier No. 3 North: Usable berthing length 650 ft. Depth alongside 40 ft. Pier of concrete construction.

Pier "D": Usable length 500 ft.; Approach Water depth 32 ft.; Water depth at pier 40 ft.; Two 35-ton Whirley cranes; Plank and piling construction; 45 ft. Apron; Access by road and barge.

Pier "E": Usable length 450 ft.; Approach water depth 32 ft.; Water depth at pier 40 ft.; Plank and piling construction; 45 ft. Apron; Access by road and barge.

Norton Terminal: Usable length 1,100 ft.; Approach water depth 90 ft. Channel and berth depth 32 ft. 20 acres terminal, 16,000 sq.ft. chill facility. Rail spur on terminal.

STEVEDORES: 11 local gangs, additional gangs may be imported if required.

HOLIDAYS: See "Tacoma".

MEDICAL: Doctors and local hospital available.

DENSITY: Changes daily as port is at the mouth of a fresh water river.

FRESH WATER: Available at wharves.

FUEL: Available by barge from Seattle.

GANGWAY/DECK WATCHMEN: Required only if detainees aboard.

CUSTOMS ALLOWANCES: No definite quantities prescribed; reasonable allowance at discretion of Customs Inspector.

AIRPORT: Seattle – Tacoma International Airport is 45 miles South of City of Everett on excellent highway. Driving time is approx. 45 minutes.

POLICE/AMBULANCE/FIRE: Port of Everett Security: 259 – 3164; Everett City Police: 259 – 8711; Everett City Fire Dept.: 252 – 1111; Ambulance Service: 252 – 1234.

TELEPHONES: Will be placed on board vessel on request. Charges are only for calls made. Arrangements should be made through ship's Agent.

SHORE LEAVE: Crew members are able to visit Everett at all times.

AUTHORITY: Port of Everett, 2928 Terminal Avenue, P.O.Box 538, Everett, Washington 98206. *Tel:* (206) 259 – 3164. *Telex:* 4740140-Poeui. *FAX:* (206) 252-7366. *Contact:* Phil Bannon, Executive Director

FALL RIVER, Massachusetts: 41.42 N. 71.10 W.

DOCUMENTS: If first port of call in U.S., 2 complete Customs Manifests describing all cargo on board and ports of discharge. Also 1 Cargo List for Fall River cargo; 3 Crew Lists; 3 Stores Lists; 3 Curios Lists; Ship's Register, Load Line Certificate and Tonnage Tax Certificate.
PILOTAGE: Vessel first contact ship's Agent for Pilot and tug arrangements. Northeast Pilots' Association radio call letters KDF-375 on frequency 156.9 MHz, Channel 18. Usual Pilot pick-up is at Brenton Reef Light Tower off Newport, R.I.
RADIO: Chatham Radio or Amagansett Radio.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to New York Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: Tugs for N.E. Power Station meet at Buoy 6; all other berths North, meet tugs at Buoy 10. Tugs provide own lines at no extra charge.

2 tug companies serve Narragansett Bay and Port of Fall River.

4 tug boats – 24 hour dispatching service. 2×3,000 h.p. boats.
BERTHING: *State Pier:* Principal maritime cargo terminal at State Pier. Berth 600 ft. long with depth of 35 ft. MLW alongside.

Ro-Ro facility 80 ft. wide by 42 ft. inboard depth. (8° incline at water's edge – concrete deck on wood piling).

All utility services available. Further information telephone 617-674-5707 or ship Agents.
BRIDGES: All bridges have 135 ft. clearance with exception of Brightman Steel Bridge at approach to Montaup Electric Co. and Shell Oil docks. This bridge has a draw clearance of 97.5 ft. and passage allowed for vessels with less than 75 ft. beam. No unusual requirements. Practice is to depart on flood tide. (See "Developments".)
TANKERS: Berth at Shell Oil Docks. Depth alongside 35 ft.
FRESH WATER: Available at most berths. State Pier delivery is at 125 pounds pressure.
OPENING/CLOSING HATCHES: Usually performed by stevedores.
CERTIFICATES: All certification of vessel, safety conditions and radio facilities should be available for U.S. Coast Guard.
CARGO GEAR: No additional safety requirements.
TELEPHONES: Available at most berths. Contact Agents.
IDENTIFICATION CARDS: Standard U.S. Immigration Forms I-95 to be made up for each crew member on arrival. Not necessary for crew man already holding Form I-95 issued for the same vessel.
TIME: Eastern Standard Time, GMT minus 5 hours. Daylight Saving Time GMT minus 4 hours from first Sunday in April till last Sunday in October.
HOLIDAYS: New Year's Day (January 1st); Washington's Birthday (February 22nd); Patriots' Day (April 19th); Memorial Day (May 30th); Independence Day (July 4th); Labour Day (1st Monday in September); Columbus Day (October 12th); Veterans' Day (November 11th); Thanksgiving Day (last Thursday in November); Christmas Day (December 25th); or any day celebrated in lieu thereof.
SHORE LEAVE: Permitted, but consult Agents.
DEVELOPMENTS: Plans for construction of a new 150 ft. wide draw bridge to replace the existing Brightman Street Bridge. This will mean unobstructed use of the entire port area.
AUTHORITY: Fall River Port Authority, State Pier, Water Street, Fall River, Massachusetts 02721. *Tel:* (617) 674-5707. *Contact:* William J. Torpey, General Manager.

FERNDALE, Washington: 48.49 N. 122.43 W.

(See Plan)

DOCUMENTS/HEALTH/etc.: Refer to "Seattle".
PILOTAGE: Compulsory. Pilot boards at Port Angeles.
TUGS: Tug escort required if vessel is loaded and is larger than 40,000 d.w.t. Tug horsepower must be 5% of d.w.t. Available up to 3,000 h.p. Additional tugs ordered from Seattle if required.
RESTRICTIONS: Vessels enter any hour day or night.

Regulations prohibit tankers larger than 125,000 d.w.t. in U.S. waters East of a line from Discovery Island Light to New Dungeness Light.
MAX. SIZE: Length 1,000 ft.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
BERTHING: Terminal used for crude and product discharging. Vessels berth alongside finger pier, lines to quick release hooks. Inner berth for barges only. Outer berth 900 ft. long, depth alongside 40 ft. at MLW. Dirty ballast water 3,000 long tons with prior notification.
OPERATOR: Mobil Oil Corporation, Ferndale Refinery, P.O.Box 8, Ferndale, Wa. 98248. *Tel:* (206) 384-1011. *Telex:* 910-449-2412. *Contact:* A. P. Johnson, Refinery Manager.

FORT PIERCE, Florida: 27.27 N. 80.19 W.

PILOTAGE: Compulsory. Pilot boards at sea buoy. Send vessel's ETA to Agent 72 hours, 48 hours and 24 hours prior to arrival.
ANCHORAGE: Vessel anchors and awaits Pilot 0.5 miles seaward of sea buoy.
RESTRICTIONS: Vessels are able to berth and unberth during hours of darkness if the weather is clear. The leading lights are good but the channel is narrow and a number of buoys are unlit. Diameter of turning basin 1,000 ft. Least depth of water in the channel from sea to berth 25 ft. Some shoaling occurs and from time to time the Harbour Master requires vessels over 24 ft. 6 in. draft to depart and arrive at high water only.
MAX. SIZE: Max. draft 25 ft. Range of tide averages 2 ft.
TUGS: One 500 h.p. tug and one 1,000 h.p. tug available. Large vessels should use tugs when berthing.
RADIO: Tampa Radio.
VHF: Channels 16 and 13. Watch only maintained when vessel expected.
BERTHING: Berthing at Fort Pierce is at Indian River Terminal. This privately owned facility has berths of 454 ft., 330 ft., 150 ft. and 200 ft. The city operates an adjacent facility with mooring for small vessels including a Ro-Ro ramp used by a landing craft trading with the Bahamas.

Vessels up to 560 ft. have safely berthed at the terminal facility which is well maintained and fendered. Vessels can arrive or depart at any stage of the tide, however, the Harbour Master has temporarily restricted vessels over 24 ft 6 in. draft to high water movements only.
CARGO HANDLING FACILITIES: Indian River Terminal provides excellent facilities for general cargo. The pierside refrigerated warehouse serves the citrus industry. Shore side cranes are available on request but most cargoes are discharged and loaded at this facility with ship's gear. The terminal and local stevedores are fully equipped with forklifts, hand trucks, slings and pans for handling palletised or breakbulk products, most particularly fruits and vegetables. Containers and heavy lift cargoes have also been loaded at this facility which is serviced by a rail spur directly from the FEC railroad main line. The adjacent city facility provides berthing for several small craft and presently accommodates a cross state waterway inland cruise vessel and a small island trader.

A tug/barge bulk facility that handles argonite occupies an area North of the Indian River Terminal. This facility has a 3-dolphin mooring system for vessels up to 16 ft. draft.
FRESH WATER: Available.
FUEL: Light diesel is available by truck from nearby facilities. Heavier fuel must be barged or trucked from Port Canaveral or Port Everglades.
MEDICAL: Doctor and hospital available.
AIRPORT: Local airport 5 miles from port, nearest international airport is within 2 hours by car.
SERVICES: Fresh provisions, laundry services, groceries and meats available.
REPAIRS: No facilities available.
GENERAL: The Port of Fort Pierce is on the threshold of development. The present level of activity at Indian River Terminal indicates a need for additional facilities to accommodate the expanding export citrus trade and other business. The United States Corps of Engineers has recently approved a harbour deepening and expansion project to allow vessels up to 28 ft. draft to berth. Local community leaders are working to acquire port side undeveloped land that is presently privately held. The Port Authority at the present time does not own or operate any port property.

Stevedores at Indian River Terminal excel in handling breakbulk and palletised citrus fruit. Production and quality of stow are excellent.

Agency and stevedoring personnel are keen, helpful and anxious to co-operate fully.

For more information contact: Curtis King, Fort Pierce Port and Airport Authority or John Butler, General Manager, Indian River Terminal Company, P.O.Box 1208, Fort Pierce, FL 34954. Tel: (407) 465-7700.
AUTHORITY: Fort Pierce Port & Airport Authority, 2300 Virginia Avenue, Fort Pierce, Fl. 33482-5652. *Tel:* (407) 461-7899. *Contact:* Curtis King, Manager.

FREEPORT, Texas: 28.57 N. 95.21 W.

(See Plan)

DOCUMENTS: See "Houston".
PILOTAGE: VHF Channels 6, 8, 12, 13, 14, 16 at sea buoy. Pilot Office (tel. 233-1120), 200 West 2nd, Freeport, Texas; Pilot boards 0.25 mile North of sea buoy. Anchor 1 mile from sea buoy if awaiting Pilot.
ANCHORAGES: 1 to 2 miles from sea buoy.
RESTRICTIONS: Depth 36 ft. at bar.
MAX. SIZE: Length 670 ft., draft 36 ft. for ships from bar to within upper turning basin, 30 ft. from upper turning basin to Public Facilities. Tide governing these dimensions – plus or minus 3 ft.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: Galveston Marine Operator.
TUGS: Join vessel at shore line. Tug's lines to be used, and no charge for use of lines.
BERTHING: 1 hour to reach berth. Deep water terminals at Public Facilities consist of 1,250 linear ft. of deep water bulkhead wharf with 3 modern transit sheds consisting of 200,000 sq.ft. 1 berth of 250 linear feet of deep water bulkhead wharf with transit shed of 36,000 sq.ft. In addition a back-up warehouse is available consisting of 60,000 sq.ft. The large transit sheds and back-up warehouse have railroad tracks under cover, permitting all-weather work and preventing cargo damage.

Ro-Ro facility in operation.

A new public liquid barge dock and tank farm in operation (in connection with the Old River Co.).

The Navigation District owns a total of 9,700 acres of land for future Port and industrial development, 6,500 ft. of this land is situated on the Brazos River.
CRANES: Vessel is required to use own gear, shore cranes are available in area for hire.
STEVEDORES: Obtained through Agent.
MEDICAL: Obtained through Agent and advance notice required. Doctors, hospital available.

TANKERS: Facilities operated by Phillips Petroleum, Dow Chemical and Seaway Pipeline Inc.

Report: Entering and Berthing: Vessels inbound over 630 ft. LOA are to enter harbour only during daylight hours from sunrise to:

1. 30 minutes before sunset going to berths below Phillips Terminal.
2. 1.5 hours before sunset going to berths at Phillips Terminal and above when loaded.
3. Vessels under 630 ft. judged unsafe for handling after dark will be limited to daylight hours.
4. Inbound operations will be suspended during times when weather conditions do not permit safe navigation.

DENSITY: 1020.
FRESH WATER: Available ex-wharf at Brazos Harbor.
FUEL: All grades available by barge from Houston.
GANGWAY/DECK WATCHMEN: None required but available through Agent.
OPENING/CLOSING HATCHES: Stevedore contract.
CUSTOMS ALLOWANCES: Local Customs Agent control.
IDENTIFICATION CARDS: None needed.
CONSULS: None. Nearest at Port Arthur or Houston.
REPAIRS: Available.
DRY DOCKS: None.
REPATRIATION: Possible, through Agent.
AIRPORT: Houston Intercontinental Airport – Houston, Texas (80 road miles to Brazos Harbor); Metro Airlines – Shuttle to Angleton, Texas (15 miles from Brazos Harbor).
TIME: GMT minus 6 hours. Daylight saving time starts last Sunday in April and ends the last Sunday in October – GMT minus 5 hours.

HOLIDAYS: New Year's Day (January 1st); Martin Luther King's Birthday (January 15th); Lincoln's Birthday (February 12th); Washington's Birthday (Third Monday in February); Good Friday; Texas Independence Day (March 2nd); St. Patrick's Day (March 17th); Decoration Day (Last Monday in May); Emancipation Day (June 19th); Independence Day (July 4th); Labour Day (First Monday in September); Columbus Day (Second Monday in October); Veteran's Day (Novembe 11th); Thomas W. Gleason's Birthday (November 8th); Thanksgiving Day (Fourth Thursday in November); Christmas Day (December 25th). No work on Christmas Day or Labour Day.

If any of the above holidays fall on Saturday or Sunday the following Monday will be recognised as the holiday.
POLICE/AMBULANCE/FIRE: Police 239-1211; Fire 233-2651; Ambulance Service 233-2651.
TELEPHONES: No arrangements exist for placing telephones on board.
BANKS: First Freeport National. Tel: (409) 233-4401.
SERVICES: Tank-cleaning facilities available locally. Compass adjusting available from Houston.
SHORE LEAVE: Crew members allowed ashore.
DEVELOPMENTS: In May 1986 the port will commence a dredging and widening project, which will on completion give a channel depth of 45 ft. and an alongside depth of 36 ft. The main channel will be widened to 400 ft.

Berths No. 1 and 2 to be extended Eastward to provide a new berth (Berth No. 3) with a length of 640 ft. Berth will be dedicated to rice export.

Berth 'A' is to be extended by 400 ft.
AUTHORITY: Port of Freeport, Brazos River Harbor Navigation District of Brazoria County, 1001 Pine Street, P.O.Box 615, Freeport, Texas 77541. *Tel:* (409) 233-2667. *Telex:* 989173 Pt Freeport Tx. *FAX:* (409) 233-5625. *Contact:* A. J. Reixach, Port Director.

GALVESTON, Texas: 29.17 N. 94.50 W. (See Plan)

DOCUMENTS:
1 visaed Crew List.
3 Passenger Lists.
3 or more copies of complete Manifests of Cargo for discharge at all United States ports.
2 or more copies of Manifest of Cargo for each United States port.
2 Souvenir Lists.
2 Stores Lists.
Ship's Register.
Tonnage Tax.
Load Line Certificate.
Nationality Certificate.
Certificate of Financial Responsibility.
I.O.P.P. Certificate.
No health document required.

PILOTAGE: Radio to local Agent who arranges Pilot and specifies boarding time. United States Coast Guard require 24 hours' notice of arrival at Galveston Bar. Contact pilot boats and pilot station on VHF Channel 14. Pilot boats can be signalled by light in international code. Pilot taken on board at sea buoy No. 1 located 6.7 miles from Galveston.
ANCHORAGES: In Bolivar Roads, 6.7 miles inwards from sea buoy No. 1. Depths 32 ft. – 34 ft.

RESTRICTIONS: Prolonged North winds can reduce water level as much as 4 ft. in Winter. Channel depth 40 ft. F.W.
MAX. SIZE: No length restrictions. Draft according to berth depth.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: International Telephone and Telegraph station Galveston call sign KLC.
TUGS: Available if required.

BERTHING:

Pier No.	Apron Length (ft.)	Depth (ft.)	Shed Area (sq. ft.)	Open Area (sq. ft.)	Truck Served	Rail Served
Pier 10 (Container Terminal)	1,346	40	—	1,894,900	⋆	⋆
Pier 12	845	34	—	—	⋆	⋆
Pier 14 East (Project Cargoes)	664	36	—	142,000	⋆	⋆
Pier 14 West (Project)	689	35	—	142,000	⋆	⋆
Pier 15	664	35	84,916	56,600	⋆	⋆
Pier 16/18 Banana Terminal	1,203	34	109,012	261,400	⋆	⋆
Pier 19	620		—	—		
Pier 21	620			291,800		
Pier 23/26 (Break Bulk Cargoes)	1,585	32	295,504	—		
Pier 27	169	32	—	104,500	⋆	⋆
Elevator B	850	45	6 million bushel storage	—	⋆	⋆
Union Equity (Export Elevator)	1,000	45	3 million bushel storage	—	⋆	⋆
Pier 30/33 (Break Bulk)	632	38	184,795	73,500	⋆	⋆
Pier 34	632	38	—	370,300	⋆	⋆
Warehouse 35 (Break Bulk)	—	33	92,173		⋆	⋆
Pier 35/36 T Head (Import Sugar Terminal)	642	36	30,000 ton storage	—	⋆	⋆
Pier 36 (Break Bulk)	1,200	33	238,753	—	⋆	⋆
Pier 37/38 (Project)	P37-1,160 P38-1,185	31-33 38-20	75,000	352,836	⋆	⋆
Pier 39 (Break Bulk)	1,173	34	234,304	—	⋆	
Pier 39/40 T-Head	787	34	—	30,142	⋆	
Pier 40 (Break Bulk)	1,163	34	223,816	—	⋆	
Pier 41 (Break Bulk) (2-Storey)	1,195	34	471,283	—		⋆
Pier 41 T-Head	373	34	—	13,017	⋆	⋆

⋆ = Yes

East End Container Terminal, wharf 1,346 ft. length, equipped with 4 container cranes handling 40 tons under the spreader or 60 tons with carg hooks at 100 ft. outreach – depth alongside 40 ft.

Bulk loading rate at Union Equity is 2,000 t.p.h. (2 spouts) and at Bunge 1,700 t.p.h.

Note: Water depths are based on MLW. Depths may be less due to siltation.

STEVEDORES: Order before 1800 for 0700 or 0800 hrs. following day. During day can be ordered at 2 hours' notice. Gangs must be ordered before 1800 hrs. on Saturday for Sunday or holiday.

MEDICAL: All medical assistance available.

FRESH WATER: Available at all wharves.

FUEL: All grades available. Delivery only by barge from Houston.

GANGWAY/DECK WATCHMEN: Required only if crewmen detained by Immigration.

OPENING/CLOSING HATCHES: By stevedores only.

CUSTOMS ALLOWANCES: Each man 300 cigarettes, or 100 cigars or 1 lb. tobacco; 1 quart wine/spirits.

IDENTIFICATION CARDS: Immigration Form I-95 required.

CONSULS: Italy and Norway.

DRY DOCKS: 1×18,000 tons capacity. 1×40,000 tons capacity (Todd Shipyards).

TIME: Central Standard Time. Daylight Saving Time effective from April to October.

HOLIDAYS: *ILA Holiday:* January 1st; Martin Luther King Day, President's Day; Texas Independence Day; Good Friday; Memorial Day; Emancipation Day; July 4th; Labour Day; Veterans Day; Thanksgiving Day; Christmas Day.

POLICE/AMBULANCE/FIRE: All services provided. Tel: (409) 766-2100.

SHORE LEAVE: No restrictions unless detained by Immigration.

DEVELOPMENTS: Future plans include the expansion of the container terminal by filling and paving the slip area between Piers No. 12 and No. 14 and resurfacing Pier No. 14, adding approximately 9 acres. Additionally, the extension of the container dock to 3 full berths is proposed.

The port is currently studying a potential new cargo facility, or a retail-tourist waterfront development to include a festival marketplace pavilion located at Piers 19/21, an area of 711,000 square feet. A proposed cruise ship terminal to be located at Pier No. 25 is in the initial stages.

AUTHORITY: Port of Galveston, P.O.Box 328, (123–25th Street, 8th Floor, 77550) Galveston, Texas 77553. *Tel:* (409) 765-9321. *Telex:* 765436 Prt. Galv. *FAX:* (409) 766-6107. *Contact:* Doug Marchand, General Manager/Port Director, (409) 766-6103. Willy Wiseman, Director of Operations (409) 766-6117. John Gately, Director of Port Development (409) 766-6112. Oscar Molina, Harbour Master (409) 766-6115.

GEISMAR (Including Sunshine), Louisiana: 30.13 N. 91.01 W. (See Plan)

East bank of Mississippi River, about 187 miles from sea.

DOCUMENTS/PILOTAGE: For all general information, refer to "New Orleans".

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Available if required; normally not used (see "Tankers").

BERTHING: BASF Corporation: Berth 620 ft. long, 32 ft. depth. BASF Corporation Chemical Division, P.O.Box 457, River Road, Geismar, Louisiana 70734. Tel: (504) 473-9871. Telex: 510-600-7967. Contact: Plant Security.

TANKERS: *BASF Corporation: – Geismar:* General: The BASF Chemical Dock is located on the North side of the river, approximately 180.4 miles above Head of Passes (AHP). A series of mooring dolphins interconnected by rubber faced steel pile fenders form a 615 ft. berthing face. Electric driven warping winches on the dock and mooring dolphins handle vessel's mooring lines.

Cargo Handled and Shore Installations: Various chemicals are handled at this dock, e.g., methanol, ethylene dichloride, perchloroethylene, caustic soda, etc. All chemicals are generally loaded through 6 in. hoses connected to shore lines which are generally 6 in. diameter and vary in length from 0.5 miles to 4 miles.

An emergency loading stop control is located on the dock.

Docking: All vessels are required to use a 600 h.p. tug for assistance in docking and undocking. Vessels should approach the dock stemming the current with a tug on the port bow. The vessel is then manoeuvred alongside for a starboard side to docking.

Docking and undocking are generally performed by the River Pilot.

Nordix/No. 1 – Sunshine: General: The Nordix Dock is located on the left descending bank of the Mississippi River, approximately 170 miles AHP. The dock consists of a hose platform attached by catwalk and fender system to several mooring dolphins for a total dock length of 960 ft.

River current at the dock varies from 1 knot to 4 knots, depending on the height of the river.

Cargo Handled and Shore Installations: Crude is transferred through 2×8 in. hoses at a maximum discharge pressure of 100 p.s.i. on the dock.

Docking: Docking is strictly starboard side to and is performed by the River Pilot. 2×1,200 h.p. tugs are required for all docking/undocking operations.

The normal mooring arrangement calls for 2/3 head lines, 2 stern lines, 1 spring line forward and 1 spring line aft. The leads for breast lines are poor.

Willow Glen/No. 1 – Sunshine: General: The Willow Glen Terminal, approximately 180 miles AHP is on the left descending bank of the Mississippi River. The dock consists of a 150 ft. hose handling platform, 2 breasting dolphins and 4 mooring buoys. All mooring points are equipped with electric capstans for line handling. The dock is normally served by barge but is capable also of handling tankers.

Current at this dock varies between 1 knot and 4 knots, depending on river height.

Cargo Handled and Shore Installations: No. 2 and No. 6 fuel oil are the only products handled. These are transferred to the dock through 4×8 in. Chicksan arms at a maximum discharge pressure of 100 p.s.i. Portable jacks are provided by the terminal to support the cargo arms on the ship.

Docking: Docking is performed by the River Pilot and is strictly starboard side to, vessels of 30,000 d.w.t. or greater are required to use 2 tugs for docking and undocking; smaller vessels are required to use a single tug for these operations.

The normal mooring arrangement calls for 2 head lines, 1 breast line forward and 1 aft, 1 spring line forward and 1 aft and 2 stern lines. Wire or synthetic mooring lines may be used.

Petro United – Sunshine: General: The Petro United Dock is located approximately 170 miles AHP on the left descending bank of the Mississippi River. The dock consists of a 65 ft. hose handling platform and 6 mooring dolphins interconnected by 2 catwalk and fender systems.

At high river the current often causes swirling eddies off the dock which should be accounted for when approaching, docking and undocking.

Shore Installations: 4×10 in. and 2×12 in. hoses are available for the transfer of cargo.

Docking: 2 tugs are normally required for docking and undocking operations. All tugs must come from St. James or Baton Rouge so that a minimum of 2 hours advance notice must be given to the terminal and Agent prior to docking or undocking. Extensive delays have been known to occur due to tug unavailability and insufficient advance notice of docking/undocking requirements.

Docking is performed by the River Pilot and is strictly starboard side to.

The terminal generally requires the use of 3 head lines, 2 stern lines, 2 breast lines forward, 2 breast lines aft, 3 spring lines forward and 2 spring lines aft.

FRESH WATER: Available ex-wharf.

FUEL: Not available.

DENSITY: Fresh water (1000).

GEORGETOWN, South Carolina: 33.22 N. 79.17 W. (See Plan)

PILOTAGE: Available. Make contact on VHF Channel 16. Pilot boards at Sea Buoy "2WB" in position 33° 11.6′ N., 79° 05.4′ W. for the 14 mile passage to Georgetown.

ANCHORAGE: Vessels wait for berth at Buoy "2WB".

RESTRICTIONS: Vessels over 600 ft. LOA dock during daytime only.

MAX. SIZE: Max. LOA 700 ft. Max. beam 100 ft. Depth at all terminals 27 ft. MLW.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to New York Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

VHF: Pilot and tug on Channel 16. Port Authority have no facilities.

TUGS: 2×1,000 h.p. tugs assist vessels from Buoy 28 to the dock.

BERTHING:

Berth No.	*Wharf Length* (ft.)	*Depth at LW* (ft.)
1	500	27
2	700	27
Steel Dock	600	27

CRANES: 1×90 ton P & H truck crane at the terminal. A 140 ton P & H truck crane available at 72 hours notice.

STEVEDORES: Advise requirement 1600 hrs. day prior to arrival in order to commence work 0800 hrs. next day.

MEDICAL: Georgetown Memorial Hospital 3 miles from port.

TANKERS: No facilities.

FRESH WATER: Available.

FUEL: Bunkers available through ship's Agent.

CONSULS: None locally.

REPAIRS: Minor repairs and small engine repairs possible.

DRY DOCKS: Tugs and barges only.

SURVEYORS: Available.

GANGWAY/DECK WATCHMEN: Ship's gangway used. Watchman available.

OPENING/CLOSING HATCHES: Opened by crew or stevedores.

REPATRIATION: Facilities available.

AIRPORT: 35 miles from port.

TIME: Eastern Standard Time. Daylight Saving Time from first Sunday in April till last Sunday in October.

POLICE/AMBULANCE/FIRE: Police 527-4454. Ambulance 546-8140. Fire 546-5151.

DEVELOPMENTS: Delta Cement Corporation: Bulk storage facility recently completed. Capacity 20,000 tons. Discharge rate for cement 700 t.p.h.

AUTHORITY: South Carolina State Ports Authority, Dock Road, State Pier 31, P.O.Box 601, Georgetown, South Carolina 29442, U.S.A. *Tel:* (803) 527-4476. *Telex:* 810-677-2265. *Contact:* Claude Baker, Port Director.

GOOD HOPE (including Norco), Louisiana: 29.59 N. 90.24 W.

(See Plan)

East bank of Mississippi River, 126 miles above Head of Passes.
DOCUMENTS: For all general information, refer to "New Orleans".
ANCHORAGES: South of berth in river for unlimited number of ships.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: 1 tug used for mooring/unmooring.
BERTHING: General American Tank (GATX) storage terminal; 4 tanker berths, 40 ft. depth alongside. 2 × 12 in. arms or 8 in. hose. Loading 20,000 bbls.p.h. No ballast facilities.
Norco: Shell Oil Co. 2 tanker berths (80,000 d.w.t., 900 ft. LOA downstream, 55,000 d.w.t., 750 ft. LOA upstream) 16 in. and 8 in. loading arms for transfer, transfer rate variable, ballast line 12 in., capacity 20,000 bbls.

Berthing always starboard side to. Requires 2 tugs to assist in berthing. Forward and aft mooring lines handled simultaneously.

Report: *Norco – Shell/Amoco:*

General: The berth at Norco is approximately 126 miles AHP and consists of a single dock constructed of steel pilings and a concrete deck. A continuous fender system of wood-faced steel piles provides continuity between the dock and mooring dolphins.

All cargo is handled through 6×12 in. loading arms with 8 in. reducers. The arms are arranged so as to permit washing of the arms into a slop tank ashore; thus, grade changes may be made without removing the arms.

Cargo Handled and Shore Installations: Various products are handled through a common shoreline including crude, clean products, jet fuel, kerosene and heating oil.

The maximum allowable rail pressure for discharging vessels is 150 p.s.i.

An emergency shutdown system to stop loading is located in the dock office and at the levee in the guard office.

Docking: Docking is normally performed by the River Pilot and is strictly starboard side to. 1×800 h.p. tug is required for both docking and undocking operations.

Vessels should approach the dock with a tug on the port bow, stemming the current, at a maximum angle to the dock of 10° and at a velocity no greater than 5 ft./sec.

Communications: A public telephone located at the head of the dock is available for use by ship personnel.

Gangway: The ship's gangway must be used and should be properly rigged and illuminated.

Bunkers and Fresh Water: Bunkers are not available.

Fresh water is available at Norco.

Ballast/Slop Facilities: Ballast and slop facilities are available. The shore storage/treatment tank has a 150,000 bbls. capacity and is connected to the dock manifold by a 14 in. shore line.

FRESH WATER: Available ex-wharf at Shell Oil Co. Berth.
FUEL: Bunker "C" not available ex-wharf at Shell Oil Co. Berth.
DENSITY: Fresh water, 1000.
SURVEYORS: Surveyors and Cargo Inspectors available.
STORING: See "Prelims".

1. Yes.
2. Not allowed when loading Grade A and B products.
3. Alongside ship at loading manifold.
4. Yes.
5. Yes.
6. Yes.

SHIPMASTER'S REPORT: February 1979.
Restrictions: Not allowed to take bunkers, lub oils or stores from dock while alongside. Large tankers often require 2 tugs pushing all the time to keep them alongside, especially when river is in flood. This at GATX No. 4.
VHF: Standby on Channel 13 during pilotage and when anchored. Agents normally place walkie-talkie aboard for their direct communication.
Berthing: Always starboard side to. Forward will have 2 backsprings to jetty, 4 headropes, 2 breasts to buoys, lashings not required, same aft. Only one boat used and secures the bow first.
Telephones: Not available at GATX No. 4 but there is one on next jetty upriver.

AUTHORITY: General American Tank.
Shell Oil – Shell Chemical, Norco Manufacturing Complex, P.O.Box 10, Norco, Louisiana 70079.

GRAMERCY (including Garyville and Pauline), Louisiana: 30.03 N. 90.41 W.

a

DOCUMENTS/PILOTAGE: For all general information, refer to "New Orleans".
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: Available if required; normally not used.
BERTHING: Colonial Sugar Refinery: Berth 600 ft. long, 40 ft. depth. Kaiser Aluminium and Chemical Corp: Berth, 40 ft. depth.

TANKERS: *Garyville:* The Marathon Dock is located on the right ascending bank of the Mississippi River, approximately 145.4 miles above Head of Passes (AHP). It consists of 2 separate berths fitted with quick connecting hydraulic Chicksan arms for cargo transfer and quick release hooks on all mooring points.

Each dock is equipped with an emergency stop at the Chicksan arm assembly.

Cargo Handled and Shore Installations: Both docks handle asphalt, No. 6 fuel oil, unleaded gasoline and No. 2 diesel oil. Each dock can effect the transfer of No. 6 fuel oil through 2×16 in. arms, No. 2 diesel oil through 2×16 in. and/or 3×12 in. arms, unleaded gasoline through 2×12 in. arms and asphalt through a 1×16 in. arm. All cargo is transferred to or from storage tanks 1 mile away through 16 in. to 24 in. shore lines.

Docking: The River Pilot normally docks vessels at these berths; docking is strictly starboard side to. Vessels of 600 ft. LOA or greater are required to use 2 tugs for assistance in docking and undocking; smaller vessels may use a single tug.

Approach to the docks is made with the vessel stemming the current at slow speed. Tugs assist in positioning the vessel alongside.

The Marathon Terminal requires that vessels use 2 head wires or synthetic head lines, 3 forward spring lines (wire or synthetic), 2 spring lines aft (wire or synthetic) and 2 stern wires or 3 stern ropes. All mooring points are equipped with quick release hooks.

Communications: Public telephones are available for use by ship's personnel.

Gangway: The vessel's gangway must be used and should be properly rigged and illuminated.

Bunkers and Fresh Water: Bunker C and diesel fuel are available on request; however, no bunker barges are allowed alongside a vessel docked at either berth.

Ballast/Slop Facilities: Ballast and slops can be received by the docks in limited quantities.

FRESH WATER: Available ex-wharf.
FUEL: Not available.
DENSITY: ~~Fresh water,~~ 1000.

3)

SHIPMASTER'S REPORT: December 1979.
Port: Pauline. a
Location: 3 miles up river from Gramercy at St. Elmo Point.
Anchorage: A waiting anchorage is situated 2 miles down river from the elevator at Grand View Reach.
Tugs: Available from Gramercy.
Berth: Peavey Grain Elevator. Depth of water alongside is 60 ft. Loading rate with one spout is 1,000 t.p.h.

The berth is a concrete pier on steel girders with 4 weak fenders. Spring lines are run to the pier, and head and stern lines to dolphins.
Fresh Water: Available from pier, rate 6 t.p.h. (approx.)
Fuel: Not available from quay.
Services: Provisions available from New Orleans, will be delivered by launch from Gramercy as pier can only be reached on foot over a catwalk 700 ft. long including stairs.

AUTHORITY: South Louisiana Port Commission, 152 Belle Terre Boulevarde, P.O.Box 909, Laplace, Louisiana 70069-0909. *Tel:* (504) 652-9278, 568-6269. *Telex:* 58364 Nln. *FAX:* (504) 652-9518.
Contact: R.J. Clements, Executive Director.

GRAYS HARBOR, Washington: 46.55 N. 124.08 W.

(See Plan)

DOCUMENTS, etc.: Refer to "Tacoma".
PILOTAGE: A vessel approaching requested to give 24 hours advance notice of arrival to Grays and Willapa Pilots through Everett Radio, KLB which runs on a calling frequency of 500 kHz and VHF Channels 6, 8, 12 and 16. Pilot boat, "Mercury", 65 ft. long, with an 18 ft. beam, powered by a 330 h.p. GM diesel engine. "Mercury" moored at Westport Fishing Basin, and delivers Pilots to vessels outside Grays Harbor Bar.
ARRIVED VESSEL: Vessels must be inside Grays Harbor Bar to be considered an "arrived vessel".
ANCHORAGES: No specific areas in Grays Harbor have been designated as anchorage grounds. The best area is Southward of Sand Island Shoal in depths of 35 ft. to 40 ft.; the holding ground is good.
RESTRICTIONS: Bar Channel and Approach Channel, depth 30 ft. MLLW. Mean tidal range about 10 ft.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
BERTHING: 6 wharves in port dock. Depths alongside from 15 ft. – 35 ft.
BULK CARGO FACILITIES: 1 bulk cargo berth, 1 Ro/Ro berth. No liquid chemical or LPG berths. One berth with container capability.
STEVEDORES: 20 local gangs. Additional gangs imported if required.
HOLIDAYS: See "Tacoma".
MEDICAL: All medical facilities available. Local hospital.
DENSITY: Salt water.
FRESH WATER: Available at all wharves.
FUEL: Available at berth or anchorage. Capacity of barge 15,000 bbls.
GANGWAY/DECK WATCHMEN: Required only if detainees aboard.
CUSTOMS ALLOWANCES: No definite quantities prescribed; reasonable allowance at discretion of Customs Inspector.
AUTHORITY: Port of Grays Harbor, P.O.Box 660, Aberdeen, Washington 98520. *Tel:* (206) 533-9530. *Contact:* Henry E. Soike, General Manager.

GREEN BAY, Wisconsin: 44.32 N. 88.02 W. (See Plan)

For important general information refer to St. Lawrence Seaway.
DOCUMENTS: No special documents required. All necessary Customs and St. Lawrence Seaway documentation should be accomplished prior arrival.
PILOTAGE: Pilot not compulsory although some Masters prefer Pilot aboard. Pilot boards prior to arrival.
CHANNEL: From Grassy Island, outside mouth of Fox River, to C&NW Railway bridge, channel is maintained 24 ft. below low-water-datum (576.8 ft. above Father Point, Quebec) and 300 ft. width except through bridges. Above C&NW Railway bridge channel and turning basin is maintained at 20 ft. below low-water-datum. From Grassy Island lakeward channel maintained at 26 ft. below low-water-datum varying in width from 300 ft. to 500 ft. for approximately 8 miles. 24 ft. deep turning basin maintained at confluence of Fox River and East River opposite Leicht's North Dock. Currents will flow up and down river and will influence channel depths at times. Present high-water will add 1 ft. – 2 ft to channel depths.
RESTRICTIONS: Entry may be made at any time of day or night subject to Master's discretion.
MAX. SIZE: Subject water depths and width of bridge openings.
HEALTH: See "Health: all Ports" before first U.S.A. port (Albany). Illness Reports made to Chicago Quarantine Station.

Pratique may be obtained prior to entry of St. Lawrence Seaway. Suspected disease should be reported locally.

Rat guards required on all lines.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: Ships' Agents located at Milwaukee and Chicago, ETA should be directed accordingly.
TUGS: Join vessel at any designated point. Charges should be obtained from tug operators. Use ship's lines.
BERTHING: General cargo at Leicht's North Dock, 1,500 ft. length, full channel depth. Discharge by ship's gear and shore based equipment. Bulk cargo handled at several docks.
CRANES: Shore based lifting devices to 20 tons. 100 ton stiff-legged derrick available for heavy cargo.
BULK CARGO FACILITIES: Available at several places for coal, salt, fertiliser, chemicals, liquid cargo, stone, pig-iron, etc.
BRIDGES: No bridge opening restrictions for railroad bridges. Highway bridges permit vessels of 300 tons or over to transit at any time. However, heavy land traffic occurs about 0730 – 0830 hrs., 1145 – 1315 hrs. and 1630 – 1730 hrs., and co-operation of Masters is urged during these times so that city bridges may remain closed.
STEVEDORES: Services performed by Leicht Transfer and Storage Co. and arrangements should be handled by ship's Agent or directly with Leicht's.
MEDICAL: Subject to regulations of U.S. Customs and Immigration and St. Lawrence Seaway Authorities. 3 excellent hospitals.
TANKERS: The major oil companies have facilities. Limited only by harbour dimensions.
DENSITY: Fresh water.
FRESH WATER: Available through ship's Agent and water company.
FUEL: Fuel oil available in any quantity. Normal fire precautions.
SURVEYORS: Available through ship's Agent.
GANGWAY/DECK WATCHMEN: Available at ship's option.
OPENING/CLOSING HATCHES: By stevedores.
REPATRIATION: Available through local Immigration officials.
CONSULS: No consuls. Nearest are at Milwaukee, Chicago, and Minneapolis.
REPAIRS: Topside and engine repairs available. Complete repair service available at Sturgeon Bay, 45 miles North.
DRY DOCKS: No local facilities. Available at Sturgeon Bay, Wisconsin.
AIRPORT: 8 miles from port. Served by regular airlines with over 30 flights daily.
TIME: Central Standard Time. Central Daylight Saving Time in effect from the first Sunday in April to the last Sunday in October.
HOLIDAYS: January 1st (New Year's Day), May 31st (Memorial Day), July 4th (Independence Day), 1st Monday in September (Labor Day), Last Thursday in November (Thanksgiving Day), December 25th (Christmas).
POLICE/AMBULANCE/FIRE: Police: Green Bay – Administrative calls 436-3800, Emergency 911, Sheriff 911, Ambulance 432-0305, Fire Dept. Rescue – 911, Fire: 911.
TELEPHONES: On board service. Contact Wisconsin Telephone Co.
SERVICES: Tank cleaning, fumigation, waste disposal, chandler.
SHORE LEAVE: Permitted.
IDENTIFICATION CARDS: Proper identification should be carried.
DELAYS: Expect no delays for berthing or harbour movement.
DEVELOPMENTS: Authorisation has been given for a 27 ft. Channel.
AUTHORITY: The Port of Green Bay, Brown County Board of Harbor Commissioners, P.O.Box 1600, 305 E. Walnut Street, Green Bay, Wisconsin, 54305. *Tel:* (414) 436-3265, 468-5645. *Contact:* Alan T. Johnson, Port Director.

GULFPORT, Mississippi: 30.21 N. 89.05 W. (See Plan)

DOCUMENTS: See "New Orleans".
PILOTAGE: Compulsory from Outer Sea Buoy to docks, provided by Gulfport Pilots Association, arranged through Agent. Pilot boards at Sea Buoy.

Pilot boat has red hull, white superstructure with "Pilot" in black lettering. When pilot boat is underway, contact can be made by VHF Channel 16.
RESTRICTIONS: The Gulfport Channel is 12 miles long running between Ship Island and Cat Island. Channel is 225 ft. wide and has a minimum depth throughout of 30 ft. at MLW. Harbour is dredged rectangular basin about a 0.25 mile wide and 0.5 mile long, this area being protected by piers. Depth in harbour and along wharves is 30 ft. with a 2.5 ft. tide variation. No entry restrictions as to time.
MAX. SIZE: Length of vessel is restricted to approximately 900 ft. by turning basin, no breadth restrictions.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: Gulfport Radio KNBB 777 – VHF Channel 16. Continuous service.
TUGS: 2 tugs (1,200 h.p. and 2,000 h.p.) available but not required unless requested to assist in berthing.
BERTHING: 5,000 linear ft. of berthing space.
CARGO HANDLING: 4 gantry banana terminal capable of unloading 16,000 boxes per hour. 50,000 sq.ft. transit shed refrigerated facility.

2 container cranes, 1×30 ton and 1×35 ton, in operation. Ship's gear usually used but mobile cranes available with 48 hours' notice.
STEVEDORES: Must have 12 hours' notice to arrange stevedore gangs. Normal work day 0800 – 1200 hrs., and then 1300 – 1700 hrs. Monday to Friday.
MEDICAL: No advance notice required for medical attention, doctor and hospital care readily available.
FRESH WATER: Fresh water is available. Rate 10 t.p.h.
FUEL: Suppliers of marine fuel at the port provide direct barge to ship service. A 185,000 gallon fuel barge is moved from its mooring and placed alongside the vessel for refuelling. The barge is manoeuvred by an 800 h.p. twin screw push boat. Once alongside, pumps on the barge deliver fuel at a rate of 32,000 gallons per hour. Shallow draft coastal traffic can be fuelled at the port or 6 miles South in the Intra-coastal Waterway.
DENSITY: Brackish.
GANGWAY/DECK WATCHMEN: Port guards.
CONSULS: Many countries have consuls within a 100 mile radius of Gulfport.
REPAIRS: Most deck and engine repairs could be arranged within port facilities.
SURVEYORS: Available from Mobile or New Orleans.
AIRPORT: Gulfport Municipal Airport is approximately 4 miles from the port and served by regularly scheduled airlines.
REPATRIATION: Can be arranged.
TIME: The Port of Gulfport is on Central Standard Time, GMT minus 6 hours; clocks are moved ahead 1 hour during Summer months.
HOLIDAYS: United States national holidays are observed, cargo work can be arranged on these days at a penalty time.
POLICE/FIRE/AMBULANCE: Telephone number for all emergency services is 911.
TELEPHONE: Can be placed aboard only by special arrangement; not normally available.
AUTHORITY: Mississippi State Port Authority at Gulfport, P.O.Box 40, Gulfport, Mississippi 39502. Street Address: Corner Highway 90 and 30th Avenue (Shipping) *Tel:* (601 865–4300) *Telex:* 785197 Gulfp Port Gup. *Contact:* William T. Duke, Port Director.

HAINES, Alaska: 59.15 N. 135.25 W. (See Plan)

In Lutak Inlet. Located 5 miles N.W. of Haines. Open all year.
APPROACHES: Lynn Canal to Lutak Inlet.
DOCUMENTS: See "Anchorage, Alaska".
PILOTAGE: Pilot pick-up point located in vicinity of Point Retreat.
ANCHORAGE: Lutak Inlet.
MAX. SIZE: Harbour depth 36 ft. at zero tide. Tides: Diurnal range 16 ft. Also see "Berthing".
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
CUSTOMS: Quarantine, Immigration and Customs locally.
TUGS: 3 available.
BERTHING:

1. Haines Dry Cargo Dock can be secured by request through City of Haines (Telephone: Area code 907 number 766-2231). Berthing length – 967 ft. and an open surface of over 300 ft. in width. Depth at face of dock – 36 ft. MLLW. No covered sheds, 6 acre open staging area. Crane may be available. Continuous to 300 ft. Alaska State Ferry facility.

   Ro/Ro cargo facility at N.W. end of Dry Cargo Dock.

2. Schnabel Lumber Co. Dock: Berthing length – 640 ft. long and 80 ft. wide. Depth at face of dock – 45 ft. No covered storage. Open storage. 35,000-ton capacity for bulk cargo storage. Chip loader with 350 t.p.h. capacity. Crane available.

STEVEDORES: 4 gangs.
REPAIRS: None.
FRESH WATER: Available in small quantities in temperate seasons only.
FUEL: ~~None.~~ NOT AVAILABLE
MEDICAL: Doctor/dentist available.
TRANSPORTATION: Air, ferry. Haines Highway principal route connecting Southeast Alaska with the Alcan Highway leading to the interior of Alaska and Canada.
AUTHORITY: City of Haines, P.O.Box 576, Haines, Alaska 99827. *Tel:* (907) 766–2231, 766–2448. *Contact:* Larry Monroe, Harbour Master.

HAMPTON ROADS DISTRICT, Virginia: (See Plan)

NORFOLK: 36.51 N. 76.19 W.
NEWPORT NEWS: 36.59 N. 76.26 W.
PORTSMOUTH: 36.50 N. 76.17 W.

DOCUMENTS:

3 copies Cargo Manifest (Forms 1302), the original showing all cargo on board, and 2 copies showing only cargo for this port.

2 copies Crew Manifest (Curio List).

2 copies Stores List.

2 copies Passenger List (Form I-418).

2 copies Crew List.

Customs Boarding Officer will also examine Ship's Register and Load Line Certificate. In addition, the following documents will be required for formal entry to be made within 48 hours of arrival from abroad, or 24 hours of arrival from a United States port:

Health Pratique.

Master's Oath (Customs Form 1300).

All foreign clearances.

U.S. Certificates of payment of Tonnage Tax (Customs Form 1002).

Certified Crew List.

F.M.C. Certificate of Financial Responsibility.

PILOTAGE: Compulsory; is generally arranged through port Agent. Vessels approaching port may use VHF telephone, Channel 16, radio telephone 2738 kHz. Advance notice of 24 hours is required of ETA. Pilot Lookout Tower located at Cape Henry, Virginia, the entrance to Chesapeake Bay.

The Virginia Pilot Association can be contacted by telephone at (804) 496-0995. Pilot monitors tower VHF-FM Channel 11 and VHF-FM Channel 16.

ANCHORAGES: 4 deep draft anchorages have been dredged at Hampton Roads. Two of the anchorages at Sewell's Point, one of which was dredged to 45 ft. and the other to 40 ft. The other 2 anchorages at Newport News are each 40 ft. deep.

Additional deep draft anchorages exist in the protected waters of the Chesapeake Bay at Cape Charles and Lynnhaven. These 2 anchorages, located near the entrance to the Hampton Roads harbour, have a water depth ranging to 47 ft. and can accommodate approximately 120 additional vessels. In addition, the inner harbour anchorage areas of lesser depth can accommodate up to 40 vessels.

Anchorage Regulations: A change in U.S. Coast Guard Regulations permits colliers and other bulk carriers, such as grain ships, to use the Big Stone Anchorage in Delaware Bay. Previously, the anchorage was open only to oil tankers. The new rules are advantageous to super colliers that are able to carry up to 150,000 tons, taking advantage of the anchorage's minimum natural depth of 55 ft. The super colliers then can be partly loaded up to about 90,000 tons, at Hampton Roads, Virginia, and topped off at the Stone Anchorage by two 30,000 ton barges.

RESTRICTIONS: Ships entering Hampton Roads from the sea follow a course between the Virginia Capes, across the lower end of Chesapeake Bay via Thimble Shoal Channel into the deep waters of Hampton Roads.

2 improved deep water channels extend through Hampton Roads. One channel, 19.6 miles long, extends Southward into Norfolk, Portsmouth and Chesapeake via the Elizabeth River and its Southern Branch. The other channel, 4.8 miles long, extends Westward to Newport News and thence up the James River, 68 and 90 miles, respectively, to the ports of Hopewell and Richmond.

The present project depth from the Virginia Capes to a point just South of the NW Railway coal piers at Lambert's Point is 45 ft. A 40 ft. channel extends from the coal piers to the NW Railway Bridge on the Southern Branch. Beyond this point a 35 ft. channel extends 4.6 miles to a point 0.8 miles above the Interstate 64 Bridge where the channel connects with the Atlantic Intracoastal Waterway route through the sounds of North Carolina to the South Atlantic Coastal states.

The Eastern Branch Channel has an authorised depth of 25 ft. from its junction with the Southern Branch to the NW Railway Bridge at the Ford Plant, a distance of 2.5 miles.

The Channel to Newport News project depth is 45 ft. over a width of 800 ft.

Thimble Shoal Channel is 1,000 ft. wide and 45 ft. deep.

The width of Norfolk Harbour Channel is 1,500 ft. from its outer end to a point opposite the Norfolk International Terminals; thence, 800 ft. to the NW Railway Coal Piers; thence, 750 ft. to the junction of the Eastern and Southern Branches; thence, up the Southern Branch 450 ft. wide to the Belt Line Railroad Bridge; thence, 375 ft. wide for one mile to the NW Railway Bridge; thence, 250 to 500 ft. wide to its junction with the Atlantic Intracoastal Waterway route.

Also see "Developments".

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to New York Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Radio-telephone communications in the Hampton Roads area are furnished by the Chesapeake and Potomac Telephone Company of Virginia. A regular ship-to-shore channel transmits to ship on 2538 kHz and the ship returns the call on 2142 kHz. A "day-time" ship-to-shore channel transmits to ship on 2450 kHz and the ship returns the call on 2366 kHz. In the very high frequency band, "XY" ship-to-shore is available which transmits to the ship on 161.9 MHz and the ship returns the call on 157.3 MHz. A second "day-time" ship to shore channel transmits on Channel 20 and monitors Channel 16.

TUGS: Tugs are arranged for by the vessel's Agent according to ETA information. The required number of tugs and the horsepower are determined by the assigned tonnage, handling characteristics and final berth destination. Should vessel be unable to manoeuvre normally, Master to advise the Agent and request additional tug power. There are 17 tugs with horsepower up to 4,300 available in the port.

BRIDGES: Sufficient clearance at all times.

BERTHING: *Public General Cargo Facilities:*

Lambert's Point Docks:

		Length (ft.)	*Depth* (ft.)	*Remarks*
Pier L	Berth 1	756	32	Tanker berth and lay-by berth
	Berth 2	756	32	
	Berth 3	756	32	
	Berth 4	756	32	
Pier N	Berth 1	550	32	Breakbulk
	Berth 2	550	32	"
	Berth 3	550	32	2×15 ton gantries (South side) Breakbulk
	Berth 4	550	32	
Pier P	Berth 1	600	32	2×25 ton cranes serve al berths
	Berth 2	600	32	
	Berth 3	600	32	
	Berth 4	600	32	
Sewell's Point Docks:				
Pier A	Berth 1	600	32	Breakbulk
	Berth 2	600	32	"
Pier B	Berth 1	600	32	"
	Berth 2	600	32	"
Pier A and B	Berth 1	498	32	
Norfolk International Terminals:				
Pier 1	Berth 1	660	40 (N. side)	Breakbulk
	Berth 2	660	40 (N. side)	"
	Berth 3	660	35 (S. side)	"
	Berth 4	660	35 (S. side)	"
Pier 2	Berth 1	660	32 (N. side)	"
	Berth 2	660	32 (N. side)	"
	Berth 3	660	40 (S. side)	"
	Berth 4	660	40 (S. side)	"
Marginal	—	900	32	Ro/Ro
Container Pier	Berth 1	896	35	1×50 ton, 2×30 ton, 1×45 to Paceco Portainer cranes, 3×40 ton Kone cranes
	Berth 2	896	41	
	Berth 3	896	41	
	Berth 4	1,540	41	
Newport News Marine Terminal:				
Pier B	Berth 1	600	28 (N. side)	Breakbulk
	Berth 2	600	33 (offshore)	"
	Berth 3	600	34 (S. side)	"
Pier 2	North	605	22	Lay-by, Breakbulk
	South	605	25	Lay-by, Breakbulk
Pier 8	North	818	35	Lay-by, Breakbulk
	South	818	28	Lay-by, Breakbulk
Pier C	North	750	35	1×40 ton Le Tourneau cran and 2×30 ton Paleco cranes.
	South	930	35	1×40 ton Paceco Portaine crane and 1×50 ton CMI crane capable of lifting 182 ton heav lifts.
Portsmouth Marine Terminal				
	Berth 1 Berth 2 Berth 3	2,490	38	3×30 ton Paceco Portaine cranes, 1×40 ton Kone crane and 1×110 Clyde gantry rai crane; 350 ton heavy lift derric barge crane serves entire por area. Ro/Ro platform available.

Sealand: Sealand handles container cargo at Portsmouth with 2×30 to Paceco cranes. Facility has private cargo facilities: 1 berth, 600 ft. long 38 ft. depth.

Elizabeth River Terminal Inc.:

Pier 1	1,200	35	3×50 ton Clyde gantry cranes equipped with clamshell and magnets. Shiploader with rate 450 t.p.h liquid storage 6,000,000 gallons.
Pier 2	750	35	

Port Area: Metro Machine Works Nos. 2 and 3, 27 ft. depth; Forme U.S. Coast Guard Base, 1 berth 500 ft. long, 25 ft. depth; N.B. & C Lin Piers, 4 berths, 800 ft. long, 20 ft. depth; Koch Industries, 3 berths, 372 f long, 35 ft. depth.

BULK HANDLING FACILITIES: Grain: *Norfolk:* Cargill Inc.: One bert Length 500 ft. depth 39.5 ft. (41 ft. at HW), airdraft 55 ft. 2 Peco gant shiploaders with combined loading rate of 60,000 bushels per hou Storage for 6.8 million bushels of grain and shed for storage of 15,00 tonnes of soyabean meal and/or bulk products.

Continental Grain Co.: Length 1,035 ft., depth 40 ft., airdraft 42 f 3 shiploaders can load at rate 80,000 bushels per hour and a marin leg can unload barges at rate of 20,000 bushels per hour. Elevato storage capacity 3,300,000 bushels.

Coal:

Newport News: Pier No. 14, 2 berths, 1,090 ft. long, max. airdraft 47 f 45 ft. depth. 2×4,500 t.p.h. loading towers; Pier No. 15, 1 berth, 1,000 f long and 38 ft. depth. Max. LOA 600 ft. Max. beam 85 ft. Max. airdraft 39 f

Massey Coal Terminal Pier 9: Two berths, length 1,200 ft., width 88 f airdraft 75 ft., depth 46.5 ft., max. size – LOA 1,000 ft., beam 155 f draft 45 ft. Shiploader: Travel 650 ft., max. outreach from fender fac 103 ft. Loading rate 6,500 t.p.h. Also see "Plan".

Dominion Terminal Associates: 2 berths. Length each side 1,221 f Depth 46.5 ft. Airdraft 79 ft. Max. loading rate 6,500 t.p.h. best 8 hou shift 44,091 tons. Best 24 hour shift 99,840 tons. Max. draft 46.5 ft.

Norfolk: Pier No. 5, 1 berth, 980 ft. long, 36 ft. depth, Max. airdraft 43 f 1×1,000 t.p.h. conveyor; Pier No. 6, 2 berths, 1,800 ft. long, 46.5 f depth. Max. airdraft 55.5 ft. Loading rate 16,000 t.p.h. – 20,000 t.p max.

TANKERS:

Operator	*Location*	*Length* (ft.)	*Depth* (ft.)	*Remarks*
Amoco	Chesapeake	60	27-29	1×3 ton derrick with 2×45 ft. booms for hose handling. 655,000 barrels storage for gasoline, light fuel oil, bunker C and asphalt.
Minote Man Fuels	Chesapeake	600	14.5	
BP Oil Inc.	Portsmouth	317	30.0	4×8 in. and 5×6 in. pipe-lines. 16 storage tanks, total capacity 410,000 barrels.
Crown Central Petroleum Corp.	Chesapeake	40	30-31	3×6 in. pipe-lines. 8 storage tanks. Total capacity 9 million gallons. Products handled are No. 2 fuel oil and gasoline.
Gulf Oil	Portsmouth	1,020	30-32	1×10 in., 7×8 in., 10×6 in., and 2×4 in. pipe-lines. 20 storage tanks. Complete range of marine fuels.
Exxon	Sewell's Point Norfolk	1,300 (N. side) 1,300 (S. side) Barge berth	40.0 40.0 12-26	1×24 in., 2×18 in., 1×16 in., 2×14 in., 3×12 in., 4×8 in. and 3×6 in. pipe-lines to storage tanks.
Koch Fuels Inc.	Newport News	Tanker Dock Barge Dock	35.0 19-27	1×20 in., 5×12 in., 2×10 in. and 2×8 in. pipe-lines to storage tanks total capacity 520,000 barrels. Products handled are diesel fuel oil, bunker fuels, asphalt, cement and coal tar.
Mobil Oil	Chesapeake	45 ft. Face	36.0	3×12 in. and 4×10 in. pipe-lines with 8 in. Tanker connections. 14 storage tanks – 10 million gallons of gasoline, 6.7 million gallons of kerosene, 9 million gallons of fuel oil, 2 million gallons of diesel oil and 11 million gallons of bonded bunker and marine diesel fuel.
Swann Oil	Chesapeake	50 ft. Face	35.0	1×14 in., 2×10 in. and 2×8 in. pipe-lines to 9 storage tanks (850,000 barrels). 2×10 in. loading arms for off-loading ocean going tankers. Products handled: fuel oil, bunker oils and asphalt.
Tenneco-Cities Services	Chesapeake	200 ft. Face	27.0	2×14 in. and 2×12 in. lines to 6 storage tanks (capacity 350,000 barrels).
Texaco Inc.	Chesapeake	600 ft. Face	32.0	1×12 in, 3×10 in., 4×8 in. 5×6 in. and 13×4 in. Pipe-lines extend to 163 tanks on shore. Products handled: fuel oil, gasoline, lubricating oil and asphalt.
Union Oil Co.	Chesapeake	45 ft. Face	15-20	4×8 in. mechanical loading arms with 10 in. pipe-line. 7 storage tanks (capacity 400,000 barrels). Products handled: gasoline, fuel oil and diesel oil.
Atlantic Energy Inc.	Chesapeake	–	32	Extreme dolphins 800 ft. apart 2 breasting dolphins 125 ft. either side of dock. 1×14 in. line for propane or butane and 1×6 in. vapour return line. 1×12 in. hydraulically operated marine arm on dock. Safe working height of arm 55 ft. at MLW. Storage capacity 20 million gallons.

Amoco: The terminal of the Amoco Company is located on the Southern Branch of the Elizabeth River, in Chesapeake, about one mile South of the Norfolk Naval Shipyard. This company has a site comprising 80 acres, with a splendid waterfront, on which are erected a ship and barge pier, pipelines, storage tanks, boiler house, tank-car and truck loading racks, and other facililties requisite to a modern petroleum storage terminal.

The terminal has storage capacity of 705,000 barrels for handling gasoline, kerosene, light fuel oil, bunker C and asphalt.

Vessels carry petroleum products to its terminal from various refineries located in the U.S.A. and from abroad. Petroleum products are also received through the Colonial Pipeline system.

Fuel oil deliveries may be made to vessels at the company's wharf. Deliveries are also made by barge to any section of Hampton Roads, Richmond, various other points in the Chesapeake Bay area and its tributaries. Loading equipment for making such delivery consists of barges with the necessary pumps, hose, flanges and other equipment for making up connections.

Exxon: The Exxon Terminal at Norfolk (Sewell's Point) can handle vessels up to 88,000 d.w.t. Maximum length allowed is 810 ft. and maximum beam allowed is 125 ft. Total maximum draft allowed is 41.5 ft. with a maximum draft forward of 40 ft. Water at this berth is brackish.

Exxon's bunkering terminal is located on the Norfolk side of the harbour 2 miles from the Sewell's Point anchorage.

Exxon operates self-pumping barges which can deliver bunker C fuel oil, marine diesel fuel oil, intermediate fuels and marine gas oil to ships anywhere in the harbour.

Rates for this service may be obtained from the supplier or local shipping agents.

Exxon lubricants are available for delivery to any location in Hampton Roads.

Gulf: The Gulf Oil Terminal at Norfolk can accommodate vessels up to 28,000 d.w.t. Maximum length allowed is 630 ft.; maximum draft allowed is 29 ft. This terminal is located on the Southern Branch of the Elizabeth River on the main 40 ft. ship channel. It has a storage capacity of 800,000 barrels of petroleum products.

Mobil: The Mobil Oil Corporation's terminal is located on the Southern branch of the Elizabeth River. Terminal facilities include bulk storage for 10 million gallons of gasoline, 6.7 million gallons of kerosene, 9 million gallons of fuel oil, 2 million gallons of diesel, and 11 million gallons of bonded bunker and marine diesel fuel.

The Mobil Oil terminal can accommodate vessels up to 32,000 d.w.t. Maximum length allowed is 660 ft. with maximum beam up to 90 ft. Maximum draft allowed is 35 ft. Water at this berth is brackish.

Swann: The Swann Oil terminal complex is located on the Southern branch of the Elizabeth River. This is a deep water port that can accommodate vessel drafts of 35 ft. and lengths up to 630 ft. with beams to 90 ft.

The Company's facility has a storage capacity of more than 550,000 barrels and handles a complete range of industrial fuel oils. The terminal operates around-the-clock and is connected with the Colonial Pipeline system.

Koch: The Koch Terminal is situated adjacent to the C&O Railroad yards in Newport News. It has a storage capacity in excess of 520,000 barrels for handling diesel fuel, No. 2 fuel oil, No. 6 fuel oil, bunker fuels and asphalt.

Products are received into the terminal by tanker and barge. This is a deep water port that is located 24 miles from the sea buoy. Maximum draft allowed is 34 ft. Max. length of vessel allowed is 630 ft. with a beam up to 90 ft.

Limitations from environmental factors on berth operations do not exist. The tidal current sets across the approach. Vessels generally sail at any stage of the tide. Controlling depths in the navigation channel are 45 ft. and at the berth the controlling depth is 33 ft. Flood tide is in a N.W. direction, ebb tide is in a S.E. direction. Current velocities are between 1.1 knots and 1.4 knots.

Equipment available at the terminal to contain oil spills include: 200 ft. of boom, launch, oil snares, and absorbent material. Firefighting equipment on the pier is limited, but includes: 2×150 lb. dry powder extinguishers, and 2×20 lb. dry powder extinguishers. There is no water under pressure on the pier. A public telephone is the only means on the pier used for fire emergencies.

CRANES: 350 ton capacity floating crane operated by Tidewater Construction Corp.

Capacities (short tons)	*Outreach from edge of barge* (ft.)
350	50 ft.
299	60 ft.
218	80 ft.
154	100 ft.

Virginia Marine Services Inc. operate 1×1,000 ton and 1×150 ton floating crane.

STEVEDORES: Labour arranged through International Longshoremen's Association.

1. Straight Time – work between the hours of 0800 and 1200 and between the hours of 1300 and 1700 daily except Saturdays, Sundays and holidays.
2. Double Time – hours daily between 0600 to 0700 and 1200 to 1300, 1800 to 1900, 2400 to 0100 hrs. and all Sundays.
3. Time and one-half – shall be all those hours not included above, except holidays.

DENSITY: Average 40% fresh.

FRESH WATER: Available at all berths. Barge service available if required.

FUEL: All grades available at oil company berths. Delivery by barge to all other locations.

GANGWAY/DECK WATCHMEN: Not required unless crew members detained by Immigration.
CERTIFICATES: Cargo Gear Certificate, Derat, Radio, Safety Equipment, and Ship's Register.
CUSTOMS ALLOWANCES: At the discretion of Customs Officers. Normal allowance is 200 cigarettes or 2 lb. tobacco and 1qt. wine/spirits per man. Additional allowances may be given if considered necessary, due to length of vessel's stay in port.
IDENTIFICATION CARDS: Identification required by Immigration for shore passes.
CONSULS: The following countries are represented at Norfolk:

Brazil	Germany F.R.	Norway
Costa Rica	Great Britain	Panama
Denmark	Iceland	Senegal
Dominican Republic	Italy	Sweden
Finland	Mexico	
France	Netherlands	

REPAIRS: Newport News Ship Building and Dry Dock Company in James River; 5 outfitting piers up to 1,160 ft. length. Floating cranes up to 67 tons capacity. Gantry crane to 900 tons capacity. Other repair facilities and cranes also available.

Norfolk Ship Building and Dry Dock Corporation, situated on East Branch of Elizabeth River. Channel depth 25 ft.; 7 piers equipped for ship's repairs. 4×30 ton diesel locomotive cranes.

Other repair companies in addition.
DRY DOCKS: Norfolk: 1 dry dock 450 ft. long, 57 ft. beam. Berkley plant features the Titan Steel floating dock 950 ft. long, with lifting capacity of 54,250 long tons and second floating dock 670 ft. long, 126 ft. wide lifting capacity 20,000 tons.
Newport News: Dry docks:

	Length inside gate	*Width of entrance*	*Depth of water over sill MHW*
No. 1	649 ft.	92 ft.	33 ft.
No. 2	862 ft.	118 ft.	31 ft. 3 in.
No. 3	459 ft.	72 ft.	33 ft.
No. 4	525 ft.	75 ft.	33 ft.
No. 10	961 ft. 6 in.	128 ft.	35 ft.
No. 11	1,101 ft.	137 ft.	40 ft.
No. 12	1,613 ft.	250 ft.	33 ft.

Slipways: The shipyard has 2 inclining slipways with lengths up to 650 ft.
SURVEYORS: American Bureau of Shipping, P.O.Box 5189, Newport News 23605 and 65 Broadway, New York, New York 10006.
Eagleton, Henry, Co., Inc., (Lloyd's Agent) P.O.Box 1569 (01).
Fife, Alyn F, 38 Green Oaks Road, Newport News 23601.
Hull & Cargo Surveyors, Inc., Suite 209, Bldg. 20, Koger Executive Center (02).
Intermodal Transportation Service, P.O.Box 759 Portsmouth 23705.
National Cargo Bureau, Inc., 1128 W. Olney Road (07).
Nicholson, Alfred L., Ltd. (Correspondent-American Institute of Marine Underwriters), 201 Granbys 40 Mall (10).
Oulie,O.T., Inc., 2830 Shore Dr., Suite 813 Virginia Beach,VA 23451.
Salvage Association, 1504 United Va. Bank Bldg. (10).
Thomas Scott, III, P.O.Box 351 (01).
Stott and Ogram, Inc. P.O.Box 232 (01).
United States Salvage Association, Inc., 11 Koger Executive Center, Suite 109, (02).
Williams, Rolf (Surveyor for Scandinavian Marine Claims Office, Inc. and Det Norske (Veritas)), 201 E. City Hall Ave. (10).
AIRPORT: Norfolk International Airport, and Patrick Henry International Airport at Newport News, over 100 flights daily.
TIME: Eastern standard time, GMT minus 5 hours. Daylight saving time, GMT minus 4 hours, from first Sunday in April till last Sunday in October.
HOLIDAYS: New Year's Day; Lee-Jackson-King Day (3rd Monday in January); Washington's Birthday (3rd Monday in February); Good Friday; Memorial Day (Last Monday in May); Independence Day (July 4th); Labour Day; Election Day (1st Tuesday after 1st Monday in November); Veterans Day (November 11th); Thanksgiving Day; Christmas Day. No work can be arranged on New Year's Day, Labour Day or Christmas Day.
TELEPHONES: Onboard telephones only available at shipyards.
DEVELOPMENTS: *Portsmouth:* Coal terminal to be constructed to handle vessels up to 170,000 d.w.t., draft 55 ft. at one shiploader (rate 7,000 t.p.h.) 60,000 d.w.t. at a second shiploader.
Dredging: Outbound channel dredging underway to approximately 50 ft. Completion expected mid-December 1988.
AUTHORITY: Virginia Port Authority, 600 World Trade Centre, Norfolk, Virginia 23510. *Tel:* (804) 623-8000. *Telex:* TWX 710-881-1231. *FAX:* (804) 623-8500. *Cables:* Vastports. *Contact:* J. Robert Bray, Executive Director.

AGENT: Rice, Unruh Company, 129 West Virginia Beach Boulevard, Suite 202, Norfolk, VA 23510. Tel: (804) 625-4525 (6 lines). Telex: 82-3689. TRT: 157193. Cables: "Riceunruh Norfolk". Fax: (804) 625-2102.

7/12

HILO: Hawaii 19.46 N. 155.06 W. (including Kawaihae 20.02 N. 155.50 W.) (See Plan)

PILOTAGE: Pilots boats have VHF. Contact is made on VHF Channel 16, then switch to Channel 12. Pilot service is provided on a 24-hour basis upon suitable advance notice.

At Hilo, Pilot boards on starboard side in position 0.75 mile due East of Paukaa Light. In picking up Pilot, vessels should be on Southerly course with enough speed for steerageway. Special instructions will be given by radio telephone.

At Kawaihae, Pilot station in position 1 mile 287° true from Buoy No. 2. Pilot usually boards on port side with vessel on course for the entrance at dead slow speed.

DOCUMENTS:
4 Crew Lists.
4 Passenger Lists.
Customs Documents.
Clearance, Travelling Manifest.
Local Manifests.
Health Documents.
Bill of Health and Vaccination Certificates.
4 Manifests.
4 Bills of Lading.
Ship's Papers.
Certificate of Registration or Enrolment.
Annual Inspection Certificate.
Load Line Certificate.
Derat Certificate.
Drinking Water Certificate.
Radio Certificate and Licence.
4 Stores Lists.
ANCHORAGES: No safe anchorages either Hilo or Kawaihae for vessels awaiting Pilot. In this situation, a vessel should heave to or steam. Under good weather conditions, safe anchorage can be had in Hilo Bay. Anchorage is inside pilotage waters and requires local knowledge for safety; vessels should not anchor without Pilot.
RESTRICTIONS: At Hilo, under good weather conditions, vessels with draft up to 32 ft. 6 in. can be handled at any time.

At Kawaihae, vessels with draft up to 33 ft. handled anytime.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Honolulu Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: Communicate through RCA or ITT stations in Honolulu.
TUGS: Tugs join vessels at entrance at Kawaihae and at Coconut Island at Hilo. Tug's lines are usually used at no extra charge.
BERTHING: There are many factors which affect berthing at Hawaii Island ports, the most important of which are surge and wind. Vessels should be well equipped with long mooring lines and sufficient additional line to make up 2×900 ft. buoy lines. In all instances, berthing instructions will be given after details concerning vessel and her cargo are received.

Pier No. 1 in Hilo handles bulk sugar vessels and container vessels, 1,220 ft. of berthing space.

Pier No. 3 in Hilo handles tankers, 575 ft. of berthing space.

Kawaihae has one overseas berth which handles both bulk sugar vessels and tankers, 605 ft. of berthing space.
CRANES: Shore cranes available, max. capacity 90 tons.
STEVEDORES: Hilo Transportation and Terminals Co. (Hilo) and Kawaihae Terminals Inc. (Kawaihae).
MEDICAL: All facilities available.
DENSITY: Variable in Hawaii area due to fresh water run-off.
FRESH WATER: Available from county of Hawaii by pipe-line.
FUEL: Can be supplied subject advance notice.
GANGWAY/DECK WATCHMEN: Required for tankers. Other ships as may be necessary due to special circumstances.
OPENING/CLOSING HATCHES: Normally carried out by stevedores.
CUSTOMS ALLOWANCES: 200 cigarettes, 50 cigars per man, and one U.S. quart bottle, wine or spirit.
IDENTIFICATION CARDS: Seamen's passports only required.
REPAIRS: Limited repair service available; almost any type of machine work, welding and ordinary electrical repairs can be handled.
REPATRIATION: Direct air service to Continental United States and to Honolulu International Airport.
AIRPORT: About 1 mile from Port of Hilo and is served by regular airlines.
POLICE/AMBULANCE/FIRE: *Hilo:* Police 9353311; Ambulance and Fire 961-6022.

Kawaihae: Police 8857334; Ambulance 885-7334; Fire 961-6022.
TIME: GMT minus 10 hours all year round.
TELEPHONES: Special arrangements may be made with Hawaiian Telephone Co.
SHORE LEAVE: Allowed.
AUTHORITY: State of Hawaii, Department of Transportation, Harbours Division, Port of Hilo, Hilo, Hawaii 96720. *Tel:* (808) 935-4877. *Contact:* Ian Birnie, District Manager.

AGENT: See "Honolulu".

7

HOMER Alaska: 59.36 N. 151.25 W. (See Plan)

APPROACHES: Via Cook Inlet. Port located at mouth of Kachemak Bay on Kenai Peninsula.
DOCUMENTS: See "Port of Anchorage, Alaska".
PILOTAGE:
(1) Homer Pilots' Association, Radio KTE 21, Tel. 235-8783.
Pilot boards 1 mile South of Homer Spit Light on Coal Point.
(2) The Southwest Alaska Pilots' Association serves all ports in Cook Inlet, Prince William Sound, Resurrection Bay, Kodiak Island, the Aleutian Islands, Bristol Bay and Bering Sea. The pilot station for vessels entering Cook Inlet waters is Lat. 59° 36.2′ N., Long. 151° 24.5′ W. approximately 1 mile South of Homer Spit Light on Coal Point. The pilot station cable address is "Homerpilot". The pilot station stands by on VHF Channels 10 and 16, 24 hours a day; call sign "WAB-917 Southwest Pilots". The pilot station also stands by on single side band radio as follows:
8284.4 kHz between 0800 and 1200 hrs. Alaska time, weekdays.
4136.3 kHz between 1300 and 1700 hrs. Alaska time, weekdays.
Call sign "WAB-917 Southwest Pilots".

MAX. SIZE: Harbour depth 40 ft. MLLW. Tidal range 28 ft. (−6ft. to +22 ft.) Max. draft for berthing 30 ft. at MLLW.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
ANCHORAGES: Kachemak Bay is excellent anchorage for vessels of any size. Foreign vessels may enter bay to anchor, but must have a Pilot aboard to come to dock.
RADIO: Homer Port Radio monitor CB Channel 17. Callsign "KCN 7188 Port of Homer".
VHF: Homer Port Radio monitor Channel 16. Call sign "WAB 935".
TUGS: 1 tug available.
BERTHING: Homer City Dock, 410 ft. long and 50 ft. wide. Limited to draft of 30 ft. 3 privately owned mobile cranes available. Capacity 15, 35 and 70 tons.

410 ft. face with sloping bottom suitable for vessels with 20 ft. draft or less at chine. Inside and outside storage is available for holding and staging. Water, gasoline and diesel are available on dock.
FRESH WATER: Available from the berth.
FUEL: Available for small craft only.
REPAIRS: No facilities for repairs.
MEDICAL: Homer Hospital is a 38 bed hospital with 5 full-time doctors.
EMERGENCIES: Police department and a volunteer fire department are available plus a rescue truck.
AIRPORT: Daily air service.
AUTHORITY: City of Homer, 4350 Homer Spit Road, Homer, AK 99603-8005, U.S.A. *Tel:* (907) 235-3160. *FAX:* (907) 235-3140. *Contact:* Richard David, Harbour Master. William Toskey, Port Director.

HONOLULU, Hawaii: 21.19 N. 157.52 W. (See Plan)

(A) HONOLULU AND PEARL HARBOUR
(B) HAWAIIAN INDEPENDENT REFINERY INC. (HIRI) – BARBER'S POINT
(C) CHEVRON U.S.A. INC. – BARBER'S POINT.

(A) HONOLULU AND PEARL HARBOUR

DOCUMENTS:
4 Crew Lists.
4 Passenger Lists.
Customs Documents.
Clearance, Travelling Manifest.
Local Manifests.
Health Documents.
Bill of Health and Vaccination Certificates.
4 Manifests.
4 Bills of Lading.
Ship's Papers.
Certificate of Registry.
Annual Inspection Certificate.
Load-line Certificate.
Derat Certificate.
Radio Certificate and Licence.
4 Stores Lists.

Vessels scheduled to call at Pearl Harbour are required to furnish 6 copies of Crew Lists and Passenger Lists, if applicable, at least 1 working day prior to arrival, for Naval security requirement.

The United States Immigration Service requires that the Master of vessels manned by alien crew members arriving from a foreign port present the United States Immigration and Naturalisation Service's Officer with a current Crew List (Form I-418) properly visaed in their possession. An I-94 should be prepared for each passenger prior to vessel's arrival.

U.S. Immigration Department representatives are not stationed at any Hawaiian outports. Customs Officials, however, are stationed at all entry ports and accomplish both Customs examination and Immigration.

The United States Agriculture Service examines and seals ship's stores from restricted ports. Special arrangements for garbage disposal may also be required by this Agency, if for example meat aboard has been purchased in a port where there is a high incidence of "hoof and mouth" disease. All garbage should be disposed of prior to arrival in port.

All regulatory bodies assess overtime charges for services of their personnel if rendered on Saturdays, Sundays, holidays or after hours on week-days.
PILOTAGE: Pilot requested by Agent. Channels 16, 12 and 9, call "WXZ 456". Pilot boat, 37 ft. cabin cruiser, yellow with black striping. Only "H" flag necessary for vessel requiring Pilot. Pilot station, Lat. 21° 16′ 12″ N., Long. 157° 53′ 24″ W., no alternative.
RESTRICTIONS: Entry at any time subject to harbour control signals. 24 hours' notice of arrival is obligatory.
MAX. SIZE: *Entrance Channel:* Depth 45 ft. *Harbour:* Depth 40 ft. Some piers accept no draft greater than 33 ft.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Honolulu Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany). Illness reports made to Honolulu Quarantine Station.
RADIO: VHF Channel 16, call KFQ907, Aloha Tower Harbour Control Station.
TUGS: Tugs normally join vessel within harbour limits. Both ship's lines and tug's lines used depending on conditions.
BERTHING: Berthing given on a "first-come-first-served basis" according to type of vessel and particular requirements as to cargo, bunkering, etc. Must be arranged through a local shipping Agent.
STEVEDORES: Gangs must be ordered 24 hours in advance. General cargo, average load per hour: 15 long tons; average discharge per hour: 15 long tons.
MEDICAL: Agents would like as much advance notice as possible. Complete medical facilities available. Vaccinations in accordance with U.S. Public Health requirements.
TANKERS: 4 tanker berths, max. draft 36 ft. No slop discharge facilities. *Pearl Harbour:* U.S. Navy Terminal. Max. LOA 800 ft. Max. draft 38 ft. 6 in.

Also see Sections "B" and "C".
DENSITY: Pure salt water, no fresh water allowance.
FRESH WATER: Delivered via 2.5 in. fire hose with meter on pier. Rate of delivery between 30 t.p.h. and 60 t.p.h., depending on the berth.
FUEL: All U.S. grades available, no advance notice other than establishment of credit.
FIRE PRECAUTIONS: Fire wires required by tankers berthed alongside. Permit required for hot work whilst in port.
GANGWAY/DECK WATCHMEN: Services of watchman recommended, usually arranged by Agent.
OPENING/CLOSING HATCHES: Normally carried out by stevedores.
CUSTOMS ALLOWANCES: 200 cigarettes, 50 cigars per man, and 1 bottle, U.S. quart, wine or spirits.
IDENTIFICATION CARDS: Seamen's passports needed.
CONSULS: The following countries are represented in Honolulu:

American Samoa
Australia
Austria
Denmark
Finland
France
Germany F.R.
Great Britain
Guatemala
India
Indonesia
Italy
Japan
Korea
Mexico
Monaco
Nauru
Netherlands
New Zealand
Norway
Panama
Philippines
Portugal
Sweden
Switzerland
Thailand
Western Samca

REPAIRS: All types of deck and engine repairs possible. Hull repairs below water-line in accordance with dry dock capacities.
DRY DOCKS: Commercial within Honolulu Harbour. Dry dock: 2,800 long ton lifting capacity, 385 ft. long, 56 ft. wide. Floating Dock: Lifting capacity 2,620 tons. Length 200 ft. Width 100 ft. Marine railway: 1,400 long ton lifting capacity, 223 ft. long, 65 ft. wide.

Commercial within Barber's Point Harbour. Dry dock: 7,875 long tons lifting capacity, 516 ft. long, 110.5 ft. wide.
REPATRIATION: All facilities, crews generally leave State within 24 hour period.
AIRPORT: International airport, served by all major airlines, 5 miles from harbour.
HOLIDAYS:

New Year's Day	January 1st or following Monday
President's Day	Third Monday in February
Kuhio Day	Third Monday in March
Good Friday	Friday before Easter
Memorial Day	May 30th or nearest Monday or Friday
Kamehameha Day	June 11th or nearest Monday or Friday
Admission Day	Third Friday in August
Labour Day	First Monday in September
Discoverer's Day	Second Monday in October
General Election Day	First Tuesday after First Monday in November (election year)
Veteran's Day	November 11th
Thanksgiving Day	Last Thursday in November
Christmas Day	December 25th

POLICE/FIRE/AMBULANCE: Police, Ambulance, Fire dial 911.
TIME: GMT minus 10 hours all year round.
TELEPHONES: Telephones can be placed on board at any dock.
SERVICES: All services found in major U.S. ports are available.
SHIP SUPPLY SERVICE:

Name & Address	*Vessels*	*Services*
Dillingham Tug & Barge Pier 21, Honolulu, HI 96817 (Tel: 5439325)	Mioi, Huki, Ma'a	Ship stores and fuel.
P & R Water Taxi, Pier 40, Honolulu, HI 96817 (Tel: 8412113)	Hikino, Keoki, Hanai	Water taxi, ship stores, spare parts.
Sause Bros., Pier 20, Honolulu, HI 96817 (Tel: 5215082)	Fuel barge, Hanalei	Fuel only.
Uaukewai Diving Salvage & Fishing, Inc. 1750 Kalakaua Ave., No. 1205 Honolulu, HI 96826 (Tel: 9476881; 7374312)	Nene, Nahoa, Nahiku	Diving, mooring, ship support service.

Helicopters:
AG Helicopters Inc., Maui, Tel: 878-1202 or 879-1637.
Hawaii Pacific Helicopters Inc., 228 Lagoon Dr., Rm. 207, Tel: 836-1566.
Helicopters Hawaii, Tel: 836-3315.
Jetcopters Inc., 228 Lagoon Dr., Rm. 102, Tel: 839-3001.
Kenai Helicopters, 550 Paiea, Rm. 219, Tel: 836-2071.
M&H Helicopters Inc. (Based at Hotel Inter-Continental Maui Maui) Tel: 879-1601.
Moore's Hawaiian Helicopters Inc., Tel: 623-9862.
Papillon Helicopters Ltd., Hanalei, Kauai, Tel: 826-6591; Kapalua, Maui, Tel: 669-4884.
Paradise Helicopters Ltd., Tel: 847-2191.
Royal Helicopters Inc., Tel: 836-2868.

SHORE LEAVE: No restrictions if papers are in order.
AUTHORITY: State of Hawaii, Department of Transportation, Harbours Division, Oahu District, P.O.Box 397, Honolulu, Hawaii 96809. *Tel:* (808) 5486255. *Contact:* Captain D. E. Gately, Oahu District Manager.

AGENT: Theo Davies Marine Agencies, Inc., P.O.Box 3020, Honolulu, Hawaii 96802. Head Office: 608 Fort Street (Pier 10), Honolulu, Hawaii 96802. Tel: (808) 531-8531. Telex: ITT 743-0018 Steam, RCA 723-8305 Davs HR. Fax: (808) 531-0858. Cables: Dracosteam.

(B) HAWAIIAN INDEPENDENT REFINERY INC. (HIRI) – BARBER'S POINT

LOCATION: HIRI's offshore tanker Marine Terminal is located at Lat. 21° 16.4′ N., Long. 158° 05.5′ W., approximately 2 miles bearing 146° True from Barber's Point Light on the Island of Oahu in the Hawaiian Islands.

The Marine Terminal consists of a CALM-type Single Point Mooring buoy, 38 ft. in diameter with 14 ft. moulded depth. The buoy has an amber flashing navigation light with 5 miles visibility. 3 floating hose strings, 840 ft. in length, are connected to the buoy. The hose strings have quick-flashing amber warning lights attached.
DOCUMENTS: *Arrival and Departure Requirements:* All arrival and departure requirements are handled through the ship's Agent. All matters related to arrival or departure should be referred to that Agent.
VESSEL ACCEPTANCE: Hawaiian Independent Refinery's Marine Terminal CALM-type Single Point Mooring (SPM) is designed for tankers up to 150,000 d.w.t. In order to maintain safe control and to avoid any serious mishap, all vessels must be nominated to and accepted by HIRI prior to arrival. HIRI reserves the right to refuse any nominations due to vessel's specifications or previous experience of similar vessels at the mooring.

In general, tankers having the following maximum particulars are acceptable; however, in no case can acceptance be considered automatic on nomination as operating conditions can always preclude receiving the vessel:

L.O.A.	945 ft.
Breadth	150 ft.
Summer DWT	150,000 tons
Bow to Centre Manifold	470 ft.

Depth of water at the berth is in excess of 90 ft., so no draft limitation is necessary.

A tanker may be rejected if, upon inspection by Mooring Master and/or Petroleum Inspector, it is not properly equipped; is not suitably manned; has dirty ballast which has not been previously accepted; has tank unsuitable for cargo; or is not considered seaworthy in all respects.

A tanker must be equipped with a good working propulsion unit as passed by the appropriate survey society. Inoperative tankers or partially operative tankers are not acceptable. All vessels are subject to U.S. Coast Guard inspection at any time and must receive U.S. Coast Guard approval.

No repairs are to be made while mooring or unmooring or at the berth, without the express written permission of the Mooring Master.

A ship's Deck Officer *must* be present and *must* direct the ship's crew in all hose handling operations.
PILOTAGE: Tankers to be moored will be boarded by the Mooring Master as well as a third party Petroleum Inspector in the immediate vicinity of the Marine Terminal, or at anchorage if the ship has been delayed and is at anchor. Ships are requested to have a pilot ladder safely and securely rigged, ready for immediate use, and long enough to reach approximately 1.0 m. above the water. A light line should be ready to take aboard the Mooring Master's and Inspector's equipment. There should be adequate lighting at night. The tanker should provide a lee for the personnel when boarding and leaving.

The Mooring Master will advise the ship's Master on approaches to the berth, mooring, unmooring, and all operations within the mooring area. The Mooring Master will also inspect the ship's gear for its adequacy and initiate the safety inspection procedure. Tanker's crew are to perform all operations concerning raising, connecting, disconnecting, and lowering of the hoses, and furnish the appropriate manifold reducers. If, in the opinion of the Mooring Master, conditions so dictate, shore personnel may be used to ensure safe hose handling operations.

Manoeuvring of ships during approach to and within limits of the berth shall be done in accordance with the advice of the Mooring Master, subject to the understanding that in all cases and circumstances, the Master of the vessel being manoeuvred shall remain solely responsible on behalf of his vessel's owners, for the safety and proper manoeuvring of the vessel. The ship's Master or a qualified Deck Officer must be on the bridge at all times while the ship is manoeuvring.
ANCHORAGE: Vessels have anchored in the vicinity of 21° 16.6′ N. and 158° 03.5′ W. when waiting for mooring opportunity, but are cautioned to remain clear of approaches to both HIRI and Chevron Offshore Terminals. Vessels may also anchor in the designated explosive anchorage area in the vicinity of Honolulu Harbour but must contact their local agent for anchorage assignment and Pilot.

Under no circumstances should a tanker enter the restricted area around the Marine Terminal Buoy (See "Plan") without a Mooring Master aboard.
RESTRICTIONS/MAX. SIZE: See "Vessel Acceptance".
TUGS: 2 boats are used to run lines to the buoys. Tugs may be used to assist manoeuvring at the Mooring Master's discretion. A standby/diving boat will assist in lifting floating hoses. This boat will normally be one of the line handling boats and will remain with the ship throughout the period the tanker is in the berth.

Personnel launches may be arranged by ship through ship's Agent.

RADIO: 72 hours, 48 hours and 24 hours prior to arrival, tankers should advise HIRI and local Agents of their ETA by telex or cable.

VHF: During loading/discharging operations, the Mooring Master will have 2 portable VHF transmitter/receiver radios for communications between the tanker and HIRI Pumphouse Control Station.

Pacific Resources Terminals, Inc. and Hawaiian Independent Refinery Inc. have been licensed to use the following Simplex VHF frequencies:

Channel 6	Emergency	156.30 MHz
Channel 9*	Ship to Shore (primary)	156.45 MHz
Channel 16	Calling/Emergency	156.80 MHz
Channel 19A*	Ship to Shore (Secondary)	156.95 MHz

(*Either 9 or 19A may be used as working Channel).

HIRI Pumphouse	Call Channel 16, Communicate Channel 9/19A, Call sign: "KTD 466".
Pacific Resources, Inc.	Call Channel 16, Communicate Channel 9, Call sign: "KIZ 799" (Not guarded).

Other useful VHF Channels are:

Aloha Tower, Honolulu Harbour Control:	Call Channel 16, Communicate Channel 12, Call sign: "KFQ 907" (Guarded 24 hours)
Honolulu Pilots:	Call Channel 16, Communicate Channel 12, Call sign: "WXZ 456"
Chevron Shipping:	Call Channel 16, Communicate Channel 10, Call sign: "KEN 778"
Davies Marine Agencies:	Call Channel 16, Communicate Channel 11, Call sign: "KXJ 712"
Hawaii Pacific Maritime:	Call Channel 16, Communicate Channel 10, Call sign: "KMC 208"
P & R Water Taxi	Call Channel 16 Call sign: "WYH 6327"
Hawaiian Tug & Barge (Pier 21)	Call Channel 16, Communicate Channel 18A Call sign: "WLX" (Guarded 24 hours)
Uakewai Diving, Salvage & Fishing, Inc./Marine Logistics, Inc.	Phone: 947-6881 or 737-4312
M/V "Nene"	Call sign: "WSR 3068"
M/V "Nahoa"	Call sign: "WJ 7030" Call Channel 16, Communicate any working Channel

TERMINAL FACILITIES: Hawaiian Independent Refinery, Inc. (HIRI) is located onshore in Campbell Industrial Park about 2 miles from the offshore tanker Marine Terminal.

A 30 in. crude pipe-line combined with a 16 in. pipe-line (black oil system) is used for receiving crude or loading black products and a 20 in. pipe-line is used for receiving/loading clean products.

The black oil system is connected by 2×16 in. floating hose strings reduced to 12 in. hoses over-the-rail with 150 lb. ASA flanges. The clean products system is connected by a 12 in. hose string with 150 lb. ASA flanges.

Maximum discharge rates from crude tankers at 150 p.s.i. rail pressure is approximately 45,000 bbls.p.h. Loading rate for black products is approximately 12,000 bbls.p.h. maximum; clean products approximately 10,000 bbls.p.h. maximum.

Normally, no dirty ballast is accepted. However, there are facilities to handle up to 20,000 bbls. of dirty ballast with charge for such use.

HIRI offers limited testing capabilities for crude received and products loaded.

MOORING/UNMOORING: Adequate floodlights should be rigged on both wings of the bridge when moored at night to facilitate detection of oil on the surrounding waters, and to illuminate mooring buoys, mooring lines, and tanker's gangway.

The ship's Master is responsible to ensure that no communication by the ship's main radio transmitter is allowed within the terminal area.

The Master of each tanker will be given a copy of the General Instructions, Discharging/Loading Orders and Indemnification Letter which he will be asked to sign (See "Appendix").

Tankers must have sufficient clean ballast for safe manoeuvring.

Officers accommodation should be ready for the Mooring Master and the Petroleum Inspector, and meals should be provided for both.

The Marine Terminal consists of a CALM-type SPM buoy and is designed to handle tankers up to 150,000 d.w.t. using 3 floating hose strings. 2×16 in. hose strings with 12 in. over-the-rail hoses with 150 lb carbon steel flanges per ANSI-B 16.5 are available for crude oil/black products. 1×12 in. hose with 150 lb. carbon steel flanges per ANSI-B 16.5 is available for clean products. The tanker's port boom is to be rigged to lift the floating hoses. Minimum SWL is 5 tons for tankers less than 50,000 d.w.t. and 6 tons for larger tankers.

Tanker manifold arrangement and lifting equipment should be in accordance with OCIMF "Standards for Oil Tanker Manifolds and Associated Equipment", Third Edition, 1981 and as afterwards revised.

Mooring hawser is 18 in. circumference, double braided nylon grommet-type with standard OCIMF chafe chain B (76 mm./3 in.) and D (54 mm./2.125 in.). Pick-up rope is 9 in. polypropylene, 500 ft. long with soft eye. The tanker is required to provide suitable messenger preferably 8 in. or 9 in. mooring line, to workboat from bow for connection to pick-up line.

Equipment provided by tanker is to be in accordance with OCIMF "Standards for Equipment Employed in the Mooring of Ships at Single Point Mooring", 1978, and as afterwards revised, and includes specifically the following:

1. Maximum acceptable tanker size is 150,000 d.w.t.
2. Tankers less than 100,000 d.w.t. to have bow mooring equipment to connect a single 54 mm. (2.125 in.) chain with bow fairlead that measures at least 254 mm. (10 in.) in diameter. All bitts, bow chain stoppers or Smit-type brackets to have a minimum 100 ton SWL.
3. Tankers over 100,000 d.w.t. to have bow mooring equipment to connect a single 76 mm. (3 in.) chain with bow fairlead that measures at least 600 mm. × 400 mm. (23.5 in. × 17.75 in.). All bitts, bow chain stoppers or Smit-type brackets to have a minimum 200 ton SWL.
4. Tankers to have adequate forward winch heave capacity for lifting chafe chain system with buoy (approximately 1.5 tons).
5. Tankers with Smit-type brackets to have OCIMF chain part "D" or "F" and connecting shackles as appropriate.
6. Maximum distance from bow to centre of manifold is 470 ft.
7. Port side manifold to have 2×12 in. standard ANSI-B 16.5, BS 1560 Series 150 or equivalent flanges, with bitts, straps, tuggers, etc., ready for connecting 12 in. over-the-rail hoses.
8. Tanker crew to assist in securing the mooring chafe chain to vessel and connecting hoses to vessel's port side manifold.

LOADING/UNLOADING: Hawaiian Independent Refinery, Inc. will make every effort to load or unload the tanker upon arrival or as promptly as berth is available, weather and other requirements permitting.

Notice of Readiness will not be received at the time of arrival at the Marine Terminal unless the tanker is in all respects ready to load or unload.

The Ship's Master is responsible for his own ship at all times. The HIRI Mooring Master will advise the Master in respect to operating conditions and hazards, but will not direct the loading or unloading except as may be necessary to protect the terminal facilities. Manipulation of ship's valves is the direct responsibility of ship's personnel.

The tank inspection will be made by the Mooring Master or third party Petroleum Inspector, in company with the Chief Officer or Master of the ship. The Chief Officer will also insure that the sea suction valves are closed and sealed. Any computation of cargo by use of vessel's ullages will be the responsibility of the tanker.

It is extremely dangerous to close a ship's valves against the oil stream. Such a procedure creates excessive pressure, which may damage hose, ship's piping, or terminal facilities. Tankers will be held liable for damages resulting from failure to observe this precaution.

When normal ship-to-ship communications fail, the transfer of oil will be steadily reduced until stopped. Pumping will not be restarted until communication is restored.

During loading or unloading, the International Code Flag "Bravo" must be displayed from a topmast signal halyard during daylight hours. A red light is to be displayed at night.

All rules and regulations concerning safety, local conditions, terminal operations and the transfer of oil will be carried aboard the tanker by the Mooring Master.

BALLAST: Owners and Masters are responsible for observing international laws and government regulations concerning pollution of the sea, having particular regard for this area of the Pacific Ocean.

Facilities can be made available to receive up to a maximum of 3,000 tons (approximately 20,000 bbls.) of dirty ballast. No contaminated ballast or bilge water will be discharged in the surrounding water. Tankers must notify the terminal 24 hours prior to arrival of ballast conditions. Ballast will be unloaded through the black oil system at a maximum pressure of 150 p.s.i. The exact amount of ballast to be accepted at any time will depend on the terminal conditions, and will be specified for each berthing. A charge is made for handling dirty ballast.

Drip pans must be used when disconnecting hoses. The waters in and adjacent to the terminal mooring must not be polluted. It is the responsibility of the ship's Master to see that no oil of any kind is pumped or spilled overboard from his ship.

In addition to the lights usually displayed, a tanker discharging or loading cargo during darkness will illuminate the area around the ship and the tanker's deck at the satisfaction of the Mooring Master, in order that any oil on the surface of the sea may be readily detected and appropriate action taken. If evidence of oil appears at any time, the tanker may be rejected or refused further loading or discharging.

A tanker must have sufficient ballast for safe handling, having due regard to existing weather and sea conditions. Through a careful watch of the weather and sea conditions, frequent exchange of information between ship and Terminal, and by a knowledge of the behaviour of his own ship, a ship's Master may come to the Terminal with a minimum of ballast and thus lessen any possibility of infringement of sea pollution regulations.

Tankers equipped with a separate system of ballast tanks will be allowed to discharge ballast and load oil simultaneously, providing approval is first obtained from the Mooring Master.

Most responsible Shipowners have adopted a system of tank cleaning using circulatory methods of transfer of tank washing (COW) on shipboard and treating these washings with chemicals. The result is that no oil is discharged into the sea and the oil separated is collected in a slop tank. With the written permission of lifting companies, the Terminal will load on top of such slops. This system is highly recommended to avoid pollution of the Pacific Ocean.

Masters are warned that inspection of ballast is strict.

If at any time an overflow of oil occurs, loading will be suspended immediately, and not resumed until the oil is cleaned up and removed from the decks of the tanker, and/or from the surface of the sea, and any damage is repaired and no further danger exists. It is stressed that during loading and discharging operations, the Mooring Master will immediately slow down or stop the rate on receipt of a request from the ship's Deck Officer in charge of loading or discharging.

All spillages of oil must be reported immediately to the Mooring Master, to the U.S. Coast Guard National Response Centre (NRC) (toll free phone number: 1-800-424-8802) and to the local U.S. Coast Guard Captain of the Port (808-541-2068/9). Subsequently, a detailed report in writing must be submitted by the Master of the tanker, or his agent, to the Captain of the Port, Port of Honolulu, U.S. Coast Guard, giving all relevant details.

Under United States law, the consequences for failure to comply with the above will automatically result in a fine of not more than $10,000.00, or to imprisonment of not more than one year, or both.

FRESH WATER: Fresh water is available only at Honolulu Harbour at limited locations.

FUEL: Subject to availability, bunkers and diesel can be provided through advance arrangements with HIRI. Bunkers and diesel can be delivered by barge in Honolulu Harbour or off port and at Piers 29A and 32 – 35 in Honolulu Harbour. Products available are MGO, MDO, IF180, Bunker C, intermediate grades. Bunker orders: Telex: 7430292. Telephone: (808) 547-3269 or 547-3205.

WEATHER/TIDES: The Master is referred to published sailing instructions for this area for information on tides, currents, wind and weather.

The Hawaiian Islands are dominated in all seasons by tradewinds from the N.E. These tradewinds are present about 75% of the time and their average velocity is 12.5 m.p.h. They exceed 20 m.p.h. approximately 2% of the time; however, gusts approaching 100 m.p.h. are possible.

Hawaii's average temperature ranges from about 74°F in March to 79°F in September. Almost everywhere in Hawaii, the warmest and coolest months differ, on the average, by only 9° or less.

"Kona" weather refers to the Southerly winds which occur most frequently during the months of October through April. During these storms, heavy rainfall and cloudiness can be expected. Moorings scheduled during these months may be subject to delay.

The predicted times and heights of the high and low tides are published for Honolulu. The periodic tides around Barber's Point average only 1 ft. to 2 ft. and are normally mixed. The effect of strong winds added to normal tidal action may cause water levels to fall considerably below chart datum and/or rise considerably above MHHW. At Barber's Point where the trades usually blow directly off the land, a shift to Kona winds or to a calm has been observed to raise the tide level a few tenths of a foot.

Currents at the mooring normally run parallel to shore in an Easterly and Westerly direction. The maximum velocity varies from 3.0 ft. per second on the surface to 1.3 ft. per second 3 ft. above the sea bottom.

Tsunamis or tidal waves are possible in this area although quite infrequent. On receipt of a tsunami warning, tankers will be unmoored and will proceed to safe locations until the warning is lifted or the danger is passed.

APPENDIX:
TO: Master
SUBJECT: GENERAL INSTRUCTIONS, DISCHARGING/LOADING ORDERS AND INDEMNIFICATION

In addition to those Regulations mandated by the U.S. Coast Guard for vessels operating in U.S. waters, the following instructions and guidelines are provided to encourage safe operations while your vessel is moored at the HIRI Marine Terminal.

A. GENERAL. It is expressly understood and agreed that at all times and under all circumstances, the Master of the vessel will remain solely responsible to his vessel and her Owners for manoeuvring, mooring and unmooring of the vessel, connecting and disconnecting cargo hoses, discharging and loading cargo, ballasting, pollution prevention and adherence to Coast Guard Regulations and these instructions.

B. POLLUTION PREVENTION. A Mooring Master has been assigned to assist in the mooring of your vessel, connecting of cargo hoses, discharging/loading of cargo, disconnecting cargo hoses, unmooring and departing from the Marine Terminal, and to provide information on matters relating to the Terminal facilities. The Mooring Master additionally will act as a Pollution Prevention Officer. In this capacity, he will maintain surveillance over cargo operations and require that all regulations be observed. The Mooring Master may direct your vessel to discontinue cargo operations or unmoor at any time he deems it necessary for the safety of the vessel or the Marine Terminal, or to prevent violations or infringement of U.S. Coast Guard Regulations or these instructions.

C. INDEMNIFICATION. It is understood and agreed by you on behalf of the vessel and its Owners that the Mooring Master, operators and crew of the tugs, assist and standby launches, and said launches and tugs, are supplied upon the condition that in the performance of any service they may render to your vessel, that they are the servants of the vessel and its Owners in every respect and not the servants of Hawaiian Independent Refinery, Inc., Pacific Resources Terminals Inc., Pacific Resources, Inc., or its subsidiaries, or the Owners of said launches. It is further agreed that the Hawaiian Independent Refinery, Inc., Pacific Resources Terminals, Inc., Pacific Resources, Inc., and its subsidiaries, and the Owners of the assist and standby launches, from any liability, loss, claims or damages arising out of the rendering of services to your vessel by said Mooring Master, operators, crews and launches, whether or not arising out of the fault of said Mooring Master, operators, crew or said indemnitees. In addition, it is expressly agreed that the presence of the Mooring Master on board in no way relieves you, the Master of the vessel, of any legal responsibilities. FINAL DECISIONS REMAIN YOUR PREROGATIVE.

D. CHARGES. Charges for the service of the Mooring Master will be for the account of your vessel and Owners.

E. LANGUAGE OF PORT. The official language of the Marine Terminal is English. The ship will provide personnel available at all times capable of communicating in English with the Mooring Master and between the ship and personnel ashore.

F. DISCHARGING. After your vessel is properly moored at the Marine Terminal, cargo hose(s) will be connected to the ship's manifold. The ship's crew will be required to perform this function, supervised by a qualified Deck Officer. When the vessel is ready in all respects to commence cargo operations, and the HIRI personnel have indicated their readiness to receive cargo, the vessel shall commence the discharge of cargo at the rate of approximately 12,000 U.S. bbls.p.h. in order to displace the material in the pipe-line. Thereafter, upon receipt of instructions from the Mooring Master, vessel shall increase to maximum pumping rate using all main cargo pumps, but not exceeding either 225 p.s.i. at the vessel's rail or a flow rate of 34,000 b.p.h per 12 in. cargo hose.

G. LOADING. After your vessel is properly moored at the Marine Terminal, cargo hose(s) will be connected to the ship's manifold. The ship's crew will be required to perform this function, supervised by a qualified Deck Officer. Prior to commencement of loading, the tanks must be inspected by an independent third party inspector to determine whether the tanks are in suitable condition to receive cargo. When the vessel is ready in all respects to receive cargo, it must notify the Mooring Master who, in turn, will co-ordinate the commencement of loading with the refinery. The refinery will commence loading at the rate acceptable to you and will increase the loading rates as per your instructions. The maximum refinery loading rate is approximately 12,000 b.p.h.

H. BALLASTING. For the safety of your vessel and at your discretion based upon the weather, sea and wind conditions, etc., the discharge of cargo should be arranged so that when approximately 65% of the total cargo has been discharged, there will be sufficient empty and dry tanks to accommodate ballast as required to produce a mean draft of approximately 25 ft. and in a trim condition, not to exceed 6 ft. by the stern upon the completion of discharging operations. The independent third party inspector will conduct the inspection of the tanks prior to the loading of ballast and again upon the completion of discharge of all cargo.

I. OIL SPILL. It is unlawful to pollute the waters adjacent to the State of Hawaii. It is the responsibility of the Master of the vessel to assure that no oil (crude oil, bunker fuel, diesel, bilge oils, etc.) is spilled or pumped overboard. Drip pans must be provided at the flange connections. In the event of an oil spill, or anyy other occurrence which results in pollution of the sea, the U.S. Coast Guard, the Mooring Master and the vessel's "Agent" must be notified immediately. The Mooring Master will notify the U.S. Coast Guard immediately if the ship's Master fails to do so. By Federal Order CFR 153.305, no dispersants will be applied to an oil spill without U.S. Coast Guard approval. Failure to report pollution, regardless of the extent thereof, will result in severe penalties being imposed by the State of Hawaii and the U.S. Coast Guard. No garbage or trash will be discharged in the mooring.

J. EMERGENCY UNMOORING. A sufficient number of officers and crew members must be on board at all times to disconnect the hoses, unmoor, and vacate the berth, should such action become necessary, or be deemed advisable. The main engine must be kept ready for use at all times. Under no circumstances are engine repairs to be undertaken while the vessel is moored in the sea berth.

K. MISCELLANEOUS. We desire that the discharging and/or loading of cargo will be done safely and efficiently, and that your stay in Hawaii will be pleasant. To this end, please do not hesitate to call upon us for any assistance we may be able to render.

You are requested to sign and return the attached copy of these instructions in acknowledgement of receipt, understanding, and agreement therewith.

Hawaiian Independent Refinery, Inc.
Refinery Manager.

Master

Date and Time

SAFETY: Tanker personnel safety equipment will be adequate, readily available and clearly identified, as required by U.S. Coast Guard Regulations. The tanker shall ensure that life ring buoys are kept available in the vicinity of the pilot ladder and the ladder will be kept at a proper height for safe boarding on and off. The vessel's fresh air masks and resuscitators shall be in readily accessible locations for immediate use.

GENERAL: *Stores:* Stores are available in Honolulu. Stores cannot be loaded on the tanker while in the mooring berth without the express permission of the Mooring Master; vessel usually receives stores off Honolulu.

Laws: The laws of the United States govern this Terminal, and all personnel are required to abide by them.

Language: Language of the port is English. Interpreters for certain other languages may be arranged by ship's Agent. Tanker officers in charge during cargo and bunkering operations must have English conversational capability.

Charts/Publications: Vessels should have U.S. NOAA Charts No. 19340 (Hawaii to Oahu), No. 19357 (Island of Oahu) and No. 19362 (South Coast of Oahu: Ahua Point to Barber's Point) or the equivalent British Admiralty Charts on board.

United States Coast Pilot, Volume 7, provides detailed navigational information to supplement that printed on the charts.

OPERATOR: Hawaiian Independent Refinery, Inc., 733 Bishop Street, P.O.Box 3379, Honolulu, Hawaii 96842. *Tel:* (808) 547-3241/3648. *Telex:* ITT: 7430292. *Cables:* Primarine.

(C) CHEVRON U.S.A. INC. – BARBER'S POINT:

LOCATION: Chevron U.S.A. Inc. has been granted the use of the following anchorage for its Barber's Point Offshore Tanker Terminal:

> The waters of the Pacific Ocean within an area beginning at a point in Latitude 21° 16′ 58″ N. and Longitude 158° 04′ 39″ W., thence on a bearing of 090° true, 850 yards, thence on a bearing of 180° true, 450 yards, thence on a bearing of 270° true, 850 yards, thence on a bearing of 000° true, 450 yards to the point of commencement.

The centre of the above described area is on an "approximate" bearing of 119° true, 2.3 miles from the Barber's Point Light. The four corners of the mooring are marked by buoys. The two Southerly corners of the area are marked by lighted buoys which are painted yellow and red and are in 84 ft. of water. The Northerly corners of the area are marked by white spar buoys and are in 66 ft. of water. The area is designated as Area "C" – See Plan.

The offshore terminal facilities in the above described area are owned and operated by the Chevron U.S.A. Inc., Hawaiian Refinery, and serve to handle cargo between the refinery at Barber's Point and tankers calling at the terminal.

The offshore tanker terminal is the responsibility of the Blending and Shipping Area Supervisor, Chevron U.S.A. Inc., Barber's Point, Oahu, Hawaii. The marine representative in Hawaii is the Chevron Shipping Company Senior Mooring Master. He is responsible for all ship operations.

DOCUMENTS:

A. *For Immediate Entry for Customs* (for Preliminary Entry Certificate Issuance):
- Original and 3 copies of I–418, Crew List and Passenger List.
- Original and 3 copies of CF–1304, Customs Crew Effects Declaration.
- Original and 3 copies of CF–1303, Customs Ship's Stores Declaration.
- Original and 3 copies of CF–1301, Customs General Declaration.
- Original and 3 copies of CF–1302, Customs Inward Foreign Manifest.
- Original and 3 copies of CF–1300, Customs Master's Oath of Entry.

For Immigration Inspector:
- Visaed Crew List (Form I–418) or Waiver prepared in lieu – fee U.S.$15.00.
- Form I–95, completed for each crew member for issuance of D–1.

For USDA Inspector (when entering Honolulu Harbour):
- Shipmaster's Declaration (AIQ–43) – (Inspector will bring on board).

B. *Required for Formal Entry and Clearance at U.S. Customs House:*

Entry:
- Original set of Preliminary Entry Manifest as prepared dockside (see above).
- Port Clearance (last port).
- Vessel's Certificate of Registry.
- U.S. Tonnage Tax Receipts (CF–1002), prior voyages.
- SOLAS Certificate (Safety Equipment Certificate).
- Load Line Certificate.
- Certificate of Financial Responsibility (CFR).

Clearance:
- Master's Oath of Clearance, original and 2 copies, CF–1300.
- General Declaration, original and 2 copies, CF–1301, signed by Master.

PILOTAGE: Pilotage is compulsory for all vessels using the berth. This service is performed by the Chevron Shipping Company Mooring Master who remains aboard the vessel the entire time the vessel is in the berth. The Mooring Master will advise the vessel's Master on approaching and departing the berth, mooring, and unmooring. With the concurrence of the vessel's Master, this advice may take the form of directions to members of the vessel's crew. All manoeuvring within the mooring area should be done in accordance with the advice of the Mooring Master. Nevertheless in all cases the Master of the vessel shall remain solely responsible on behalf of the vessel's owner, for the safety and proper manoeuvring of the vessel. The vessel's Master and a qualified deck officer must be on the bridge at all times while the vessel is manoeuvring.

Pilot Station: When not anchoring on arrival, a Chevron Shipping Company Mooring Master will board arriving vessels. For vessels arriving from the West, the Mooring Master boards about 2 miles South of the anchorage area. For vessels arriving from the East, the Mooring Master boards about one mile South of the anchorage area.

ANCHORAGE: Pilotage is not required for anchoring in the Barber's Point Terminal area. Foreign flag vessels, however, should not enter inland waters North of a line connecting Barber's Point Light to Diamond Head Light and all vessels must remain clear of several prohibited anchorage areas. Masters should be aware that this is a very limited area for anchorage with deep water and poor holding ground. Vessels awaiting berth may anchor, however, in such a position so that the approach to and departure from the berths is not impeded. Chevron recommends (but does not warrant the safety of) anchoring within a 500 yard radius circle centred on position: Latitude 21° 16.2′ North Longitude 158° 03.7′ West (approximately 3.2 miles East–Southeast of Barber's Point Light). Vessels should not anchor directly South of the Chevron U.S.A. Berth unless next scheduled for berthing as notified by Chevron Shipping Company, Honolulu.

RESTRICTIONS: Mooring and unmooring operations can be conducted at any time, day or night, weather permitting.

MAX. SIZE: *Berth Capacity:*

A. Maximum length overall 1,000 ft.

B. Maximum distance stern to centre manifold 500 ft.

C. Maximum deadweight tonnage 125,000. Chevron may allow vessels of a larger size under special circumstances to be determined on a case–by–case basis by Chevron Shipping Company.

D. Maximum draft 50 ft. (salt water). Vessels with a draft greater than 50 ft. (salt water) may be accepted on a case–by–case basis.

HEALTH: Vessels arriving from a foreign port must clear with U.S. Customs and Immigration before handling cargo. This is normally done with the assistance of a local agent. Either the vessel or the agent is required to furnish the U.S. Coast Guard at least 24 hours' advance notice of the ship's arrival time.

The agent brings the port authorities to the mooring area in a launch where they board.

Should a vessel arrive from a foreign port with sickness on board, the U.S. Public Health Service must be notified. This is usually done through the agent.

TUGS: At the Mooring Master's discretion one or more tugs are normally used to assist the vessel in mooring at this terminal for vessels over 70,000 d.w.t. A mooring launch is used to attach the vessel's lines to the mooring buoys and assist in picking up the submarine hoses. A mooring launch stands by continuously to assist in unmooring and in any emergency which may arise while the vessel is in the berth.

BERTHING: Within the mooring area there are 7 mooring buoys. Vessels should moor by using both of the ship's bow anchors and by running lines to the mooring buoys.

Mooring Equipment: Chevron U.S.A. Inc. reasonably believes, but does not warrant, that vessels meeting the following criteria may safely moor at the berth.

A. All ground tackle must be in good working condition. Vessels up to 50,000 d.w.t. must have at least 10 shackles of chain on each anchor. Vessels over 50,000 d.w.t. must have at least 12 shackles of chain on each anchor.

B. Mooring wire and rope requirements are shown on the "Summary of Minimum Wire and Rope Requirements" – See "Appendix".

C. To accommodate wires and/or ropes, winches, fairleads, bitts and chocks must be so placed that mooring lines (wires or ropes) may be handled as follows:
  1. Vessels smaller than 80,000 d.w.t.:
     a. 3 lines on the forecastlehead or main deck forward (2 to weather side, 1 to lee side).
     b. 3 lines on the main deck aft (2 to weather side, 1 to lee side). It is desirable that winch or warping head arrangement be capable of working one line or wire out of each side simultaneously.
     c. 4 lines on the poop deck (2 to weather side, 1 aft and 1 to lee side).
  2. Each synthetic line must be secured to a separate bitt.
  3. For vessels larger than 80,000 d.w.t., fittings must permit doubling of all lines for a total of 14 mooring lines.

D. Each mooring winch must be capable of heaving the first layer of wire or rope on the drum at a no–load speed of at least 150 ft./min. and a loaded speed of at least 75 ft./minute. The respective winch speed must be maintained during simultaneous operation of one winch on the main deck forward, one winch on the main deck aft, 2 winches on the stern and one anchor windlass operating.

E. Mooring winches must be capable of warping the vessel in position without tug assistance. On a case–by–case basis the Mooring Master may waive this requirement and utilise tug assistance instead. Tugs will be for vessel's account.

Berthing Procedures: The procedure is modified to fit conditions of the berth, wind, current, sea state, vessel size/loading, limitations of vessel's mooring gear, and other factors as recognised with the advice of the Mooring Master.

In general, the following procedure is followed for typical berthing.

Vessel approaches the mooring on a due North heading, passing approximately 200 yards East of No. 6 mooring buoy.

Starboard anchor is let go at Point A and 9 – 9.5 shackles of chain are paid out on the run, starboard chain is then held.

When starboard chain fetches up leading aft, port anchor is dropped at Point B and stern is worked into berth as the starboard chain is held and the port chain is paid out to approximately 8 shackles and the lines are run to the mooring buoys. Then both chains are adjusted as necessary to position the vessel properly in the berth.

Wind and current will largely govern usage of tug assistance and which mooring lines are run out first.

Miscellaneous Vessel Requirements:

A. Vessels should be equipped with a searchlight on each bridge wing to assist in illuminating buoys during mooring and unmooring at night.

B. The ship's crew is required to perform all hose handling work (including raising, connecting, adjusting, disconnecting, and lowering the hoses), and adjusting of mooring wires and anchor chains. In addition, the crew will be required to take aboard a gear basket and to return it to the mooring launch before departure. All of this work will be done with the advice of the Mooring Master.

C. All vessels are required (at their expense) to provide food and accommodation for the Mooring Master and up to 3 mooring launch personnel for the duration of the visit.

D. All vessels shall comply with regulations and procedures set forth in the Operations Manual for the Chevron Barber's Point Offshore Tanker Terminal in addition to U.S. Coast Guard Regulations set forth in Title 33 of the Code of Federal Regulations (33 CFR). In the event of conflicts between the Operations Manual and the USCG Regulations, the provisions of the USCG Regulations shall prevail, except when provisions set forth in the Operations Manual are more stringent than USCG's and other government regulations.

E. All vessels are subject to inspection to confirm their suitability for the Barber's Point berth. Vessels not meeting any one of the requirements may be refused berthing.

F. Vessels may be required to unberth and/or otherwise incur delay during adverse weather conditions.

Departure from Berth: The procedure for leaving the berth is conventional for such moorings and includes the following steps:

Hose is disconnected, blinded and lowered to the sea bottom.

Lines to buoys are slacked by the vessel's crew then released at the buoy by the mooring launch crew.

Anchors are either heaved in simultaneously or the port anchor is heaved in first, while No. 5 line is held until the vessel's stern is well clear of the spar buoys.

Mooring Master leaves the vessel after it is underway and clear of the moorings.

HOSES: Two pipelines serve to transfer products between the terminal and the refinery, 1×20 in. diameter and 1×30 in. diameter. Hose strings attached to the ends of each of these pipelines are raised by lifting the free end of the hoses by their attached buoys and chains. When the free end of the hose string is above the vessel's deck, the hose string is secured to the vessel by an attached chain bridle between the end and second lengths of the hose string. The end of the hose is then lowered in a smooth curve to the deck, the cap removed and the hose connected to the vessel's manifold. Both pipelines and hose strings terminate on the port side of the vessel.

The hose string description is as follows:

Pipeline	*Hose Order from Shore*	*No. of Sections*	*Hose Diameter* (in.)	*Hose Length* (ft.)	*Total Length* (ft.)
20 in.	1	1	16	25	25
	2	5	16	30	150
	3	2	12	30	60
	Total	8		Total	235
30 in.	1	1	16	25	25
	2	10	16	30	300
	3	2	12	30	60
	Total	13		Total	385

Each hose string is terminated on the free end of the last 12 in. diameter section by a lever–operated, blanked butterfly valve and a standard 12 in. 150 ANSI flange. The 20 in. system is normally used for transferring residual products such as bunker fuel and low sulphur fuel oil. The 30 in. system is normally used for transferring crude oil.

The submarine pipelines extend nearly 2 miles to the shore and then approximately one additional mile across flat land to the Chevron Refinery. Both submarine pipelines contain internal gut water lines which can be used to provide heat when hot water is circulated through them. Water is pumped out one gut line from the refinery and returns through the other. The two gut lines are connected at the seaward end by a short submarine hose.

Hose Handling/Cargo Transfer Equipment Requirements:

A. Port hose boom and related equipment shall have minimum safe working load capacity of 10 long tons except that vessels up to 30,000 d.w.t. may have 7 long ton minimum safe working load capacity.

B. Bitts for hanging off the hose chain should be provided in front of the port side manifold. If the vessel is to load bunkers while handling cargo, separate bitts shall be provided for the bunker hose, also on the port side.

C. Rail to manifold distance should not be less than 15 ft. Top of roll bar should not be higher than the lower lip of the manifold flange(s).

D. All fittings, piping and valves outside of and including the first valve on the ship's cargo and bunker systems must be of steel construction and properly supported by a permanent installation (i.e., vessel must meet the Arco Cast Iron Clause). No more than one reducer outside the vessel's permanent installation will be allowed and in any case all connections must be made inside the oil drip pan.

E. All vessels must have the capability of loading segregated ballast during discharge equal to at least 30% of vessel deadweight. Those with the capability of handling segregated ballast quantity above 30% will be less subject to delay during adverse weather conditions. Vessels may load segregated ballast during discharge of cargo. Ballast may be loaded into unsegregated systems either during cargo discharge or when discharge is interrupted, but only if piping used for ballast is segregated from cargo piping by at least two valves. Single valve separation is acceptable if it can be shown that no leakage will occur through the valve except that in this case ballast cannot be loaded concurrently with transfer of cargo. Vessels not capable of meeting these requirements may be forced to vacate the berth prior to completion of discharge.

BALLAST: There are no shore facilities for handling either dirty or clean ballast at the terminal.

Pollution: It is imperative that no oil or pollutants of any type escape into the water. All regulations regarding pollution of the sea or air must be complied with.

Reporting Oil Discharges or Spill: Any oil spill into the water from a vessel in the moorings, at anchor, or underway in the vicinity of the Terminal shall be immediately reported to United States Coast Guard and the Terminal facility. If a Mooring Master is onboard, he shall notify the shore facility by radio as appropriate. In addition, the ship's Master shall in all cases notify the vessel's agents of the occurrence of the spill, no matter how small nor from what cause. If no Mooring Master is aboard, the vessel shall inform the Terminal facility by the most expeditious means available. Any other notifications required of the vessel by law shall also remain the responsibility of the vessel to carry out.

MEDICAL: Arrangements must be made with the ship's Agent for medical services. Medical services are normally obtained by taking the patients to Honolulu by launch. This is a distance of 12 miles (one way). Ambulance service is provided by the City & County of Honolulu through the island–wide emergency telephone No: 911.

FRESH WATER: Not available.

FUEL: Arrangements for bunkers are made with the ship's Agent.

Bunker "C" only is available at the mooring by submarine hose. It must be arranged for at least one week in advance through the ship's Agent. Pumping rate is approximately 2,000 b.p.h. Bunkering by barge is not permitted at the mooring.

REPAIRS: Repairs which render the vessel incapable of getting underway are prohibited while the vessel is in the berth.

TIME: All islands in the State of Hawaii are on Zone plus 10 (10 hours slow of Greenwich Mean Time) throughout the year. All communications should be in local time.

WEATHER: *Normal/Storm Conditions:* The local weather is usually moderate with temperatures between 75°F. to 85°F. and N.E. trade winds between 10 to 15 miles per hour. Tropical storms and hurricanes occasionally affect the islands between June and November. They cause high surfs and wind conditions at the mooring. In Winter months, storms with strong southerly winds called "Kona" winds may render the berth unusable for several days at a time. All vessels must be especially alert to the dangers caused by this type of weather condition.

Other violent winds may occur with the passing of a frontal system or a trough. These are more localised and occur from either the North or the South with violence and little warning.

A complete discussion of local weather is contained in the U.S. Coast Pilot No. 7. Up-to-date weather information is broadcasted by the National Weather Service on 162.55 MHz.

Any changes in the weather should be immediately brought to the attention of the Mooring Master so he may take appropriate action.

Tides and Currents: The maximum tidal range at the Mooring Area is approximately 3 ft. Mean higher high water is 2.0 ft., mean tide level is 0.8 ft. and mean lower low water is 0.0 ft. The extreme low water is −1.0 ft.

Currents normally set from East to West and are influenced more by wind than tide. However, they do sometimes reverse. When setting from West to East, they are usually strongest when the wind velocity is low and from the N.E. or when the wind direction is from the South to West quadrant.

Visibility: The visibility in the mooring area is usually excellent with only rare occasions of limited visibility.

SAFETY:

Fireboats: A fireboat is available only from Honolulu harbour. Because of the distance to the harbour, this fireboat would be called upon only in the event that the ship's equipment cannot control a fire.

Crude Washing: Crude washing should be undertaken only with approval of Mooring Master. The Shore Control Operator shall also be notified.

Inert Gas Systems: Normally a vessel fitted with an inert gas system (IGS) will not be permitted to carry on cargo operations unless the inert gas system is in good order and in operation. When an IGS equipped vessel arrives with the system inoperative, the vessel will not be berthed until the IGS is repaired and/or put in operation. If after a reasonable time the system is not operative and/or cannot be repaired, the terminal may elect to berth the vessel and carry on the cargo operation under strictly controlled conditions and in compliance with existing governmental regulations. If the IGS breaks down after the vessel has berthed, all cargo operations will be stopped and the terminal may elect to take the vessel off the berth unless the IGS is repaired in a reasonable time. If the IGS cannot be repaired, the terminal may elect to carry on cargo operations under strictly controlled conditions and in compliance with existing governmental regulations.

All time lost because of the IGS being inoperative and/or out of order will be for the vessel's account.

Containment Equipment: The area of the refinery where the marine pipelines emerge above ground is protected by dykes which are designed to adequately impound any oil leakage from valve packings, flange leaks or pipeline leaks.

The Refinery is a member of Clean Islands Council Oil Spill Cooperative (CIC). Should an onshore or offshore oil spill occur, the Refinery has access to all the CIC equipment.

A "Vikoma hull" with 1,500 ft. of "Zoom–Boom" is provided by CIC and is stationed in the berth area whenever a vessel is present. This equipment is to provide immediate first response capability in case of an offshore oil spill.

Onshore response time is within one hour. Offshore deployment time is dependent on the availability of tugs. A mooring tug is available to assist in the event of an offshore oil spill, under the operational control of the Mooring Master. Depending on the reason for the spill, ocean conditions, and the vessel's situation, the Mooring Master may or may not allow the tug to return to port to obtain the spill containment equipment.

GENERAL:

Charts and Publications:

The anchorage area is shown on the following charts:

National Oceanic and Atmospheric Administration

19362 – Oahu, Ahua Point to Barber's Point.

19357 – Island of Oahu.

Publications of value and interest are:

Current edition of United States Coast Pilot No. 7 (Pacific Coast).

Hawaiian Refinery Emergency Plans and Procedures Manual.

U.S. Coast Guard Regulations 33CFR153, 154, 155 and 156.

Rules of the Road: All vessels should be aware that inland rules apply inshore of a line connecting the Diamond Head Light and Barber's Point Light.

Provisions: Arrangements for provisions are made with the ship's Agent. Provisions are brought from Honolulu to the ship by launch. Weather conditions usually allow loading only on the vessel's port side. Terminal Regulations prohibit lifting stores with the hose boom while the submarine hose is connected.

Launch Service: If shore leave is allowed, the vessel's Master must make arrangements with the Agent to provide personnel launch service. A mooring launch is provided for line handling. The mooring launch does not leave the terminal area while the ship is in the berth.

Check List: A Marine Terminal Check List has been prepared for vessels using the berth. It must be signed by the vessel's Master and Chief Engineer and the Mooring Master before cargo can be handled. Its purpose is to ensure that important safety and anti-pollution procedures are followed by all personnel aboard the vessel.

OPERATOR: Chevron U.S.A. Inc., P.O.Box 1299, Honolulu, HI 96807.
Tel: (808) 527–2764. *Telex:* TWX 7238372, answerback 8373 Chevr Hr.
FAX: (808) 533–2807.

APPENDIX: SUMMARY OF MINIMUM WIRE AND ROPE REQUIREMENTS.

	Wires				Synthetic Lines					
Vessel Size d.w.t.	*Number*	*Diameter* (in.)	*Length (Note 2)* (ft.)	*Breaking Strength* (lb.)	*Number*	*Circumference* (in.)	*Length* (ft.)	*Material*	*Breaking Strength* (lb.)	
Up to 50,000	7	1.25	1,000	130,000	4	8 (minimum) 10 (maximum)	720	Note 3	130,000	
				OR						
	any combination of wires and ropes (per above)									
				OR						
					11	9 (minimum) 10 (maximum)	720	Note 3	175,000	Note 1
50,000 to 80,000	7	1.5	1,000	165,000	4	8 (minimum) 10 (maximum)	720	Note 3	175,000	
				OR						
	any combination of wires and ropes (per above)									
				OR						
					11	9 (minimum) 10 (maximum)	720	Note 3	175,000	Note 1
Over 80,000	7	1.5	1,000	165,000	7	8 (minimum) 10 (maximum)	720	Note 3	175,000	

Notes:
(1) Vessels equipped with fewer than 7 wires may be required to unberth and/or otherwise incur delay during adverse weather conditions.
(2) Synthetic rope pendants may be used to achieve the necessary length if the breaking strength of the pendant is at least 1.25 times that required for the wire.
(3) Polyester required. Nylon or polypropylene not acceptable.

HOUSTON, Texas: 29.45 N. 95.20 W. (See Plan)

DOCUMENTS:
1 Visaed Crew List.
3 Passenger Lists.
3 or more copies of complete Manifests of Cargo for discharge at all U.S. ports.
2 or more copies of Manifest of Cargo for each individual U.S. port.
1 Souvenir List.
1 Stores List.
Ship's Register.
Tonnage Tax.
Load Line Certificate.
Nationality Certificate.
No health document required.

PILOTAGE: Compulsory. Radio to local Agent who arranges Pilot and specifies boarding time. U.S. Coast Guard requires 24 hours' notice in advance of arrival Galveston Bar. Pilot boats and station on VHF Channel 66, Bridge to Bridge is Channel 13 and tugs for docking and off-docking on Channel 14. 3 Pilot boats marked "HP No. 1" – 53 ft., "HP No. 2" – 61 ft. and "HP No. 3" – 106 ft. in length. Pilot boats contacted by light in International Morse code; no sound signal. Pilot taken on board at Sea Buoy No. 1, located 6.7 miles from Galveston. Seldom, if ever, is water too rough for boarding at above location. Anchorage located in Bolivar Roads, 6.7 miles inward from Sea Buoy No. 1.

ANCHORAGES: Vessels are prohibited from anchoring in the Houston Ship Channel or Turning Basin, except in cases of emergency, in which circumstances they shall anchor as near as possible to the channel edge or Turning Basin so as not to interfere with free navigation or obstruct the approach to any pier.

Vessels may anchor in the Gulf of Mexico in the Galveston Entrance Anchorage Areas, just inshore of the intersection of the Galveston Safety Fairway with the Coastwise Fairway. Inside Galveston Harbour, a federally designated anchorage area has been established along the North side of the Inner Bar Channel, this area is described as follows: bounded by the North edge of the channel, extending West from Buoy 10 (Latitude 20° 20′ 48.5″ N., Longitude 94° 42′ 52.5″); thence to Buoy 12 (Latitude 29° 20′ 43″ N., Longitude 94° 44′ 46.5″ W.) thence 029° to Buoy B (Latitude 29° 21′ 15″ N., Longitude 94° 44′ 47″ W.) thence 096° to Buoy A, (Latitude 29° 21′ 05.3″ N., Longitude 94° 42′ 51.4″ W.); thence 183.5° to the point of origin. This anchorage area is for temporary use of vessels of all types, but especially for naval and merchant vessels awaiting favourable weather and travel conditions. Except when stress of weather makes sailing hazardous, vessels are not permitted to anchor in this area for periods exceeding 48 hours, unless longer periods are expressly authorised by the Captain of the Port.

In Galveston Bay, small craft can anchor anywhere outside the dredged channels where the depth is sufficient. The water in the bay may be lowered as much as 2 ft., by a "Norther" and vessels should anticipate this when selecting an anchorage during the Winter.

RESTRICTIONS: None with respect to time of day or night, or with state of tide.

Authorised Project Dimensions
Houston Ship Channel and Ancillary Channels

Section of Waterway	*Depth** *(MLT)* (ft.)	*Bottom Width* (ft.)	*Length of Section* (ft.)
Galveston Harbour:			
Entrance Channel	42	800	24,999
Outer Bar Channel	42	800	8,764
Inner Bar Channel	40	800	16,864
Bolivar Roads Channel	40	800	5,048
Houston Ship Channel:			
Bolivar Roads to Morgan Point	40	400	138,154
Morgan Point to Boggy Bayou	40	400	67,385
Baytown Bend Easing	40	525(1)	2,700
Boggy Bayou to Greens Bayou	40	300	12,465
Greens Bayou to Sims Bayou	40	300	27,800
Hunting Bayou Turning Basin	40	900-1,000 (2)	1,375
Clinton Island Turning Basin	40	800	1,592
Sims Bayou to Southern Pacific Slip	40	300	2,881
Southern Pacific Slip to Houston Turning Basin	40&36(3)	300	15,571
Brady Island Turning Basin	36	300-700(2)	1,100
Houston Turning Basin	36	400-1,000	3,100
Upper Turning Basin	36	150	1,000
Brady Island Channel	10	60	4,800
Barbour Terminal Channel	16	100	7,800
Turning Basin	16	1,100	1,000
Five Mile Cut Channel	8	125	10,000
Light Draft Channel:			
Upper Turning Basin to Jensen Dr.	10	60	21,898
Turkey Bend Channel	10	60	4,400
Jensen Dr. to White Oak Bayou	10	60	7,900
Greens Bayou Channel:			
Mile 0.0 to Mile 0.37	36	175	1,754
Mile 0.37 to Mile 1.65	15	100	6,646
Mile 1.65 to Mile 2.73	12	100	Inactive

Notes: (1) Includes 400 ft. channel width.
(2) Includes 300 ft. channel width.
(3) 40 ft. to Brady Island. Authorised.

*All depths refer to the plane of mean low tide.

Tidal Range and Currents of Galveston Bay:
Under ordinary conditions, mean tidal range is 0.6 ft. to 1.3 ft. in the lower and upper parts of Galveston Bay and 0.5 ft. to 1 ft. in the San Jacinto River and Buffalo Bayou. Extreme ranges, under ordinary conditions, are about 2 ft. in the lower part of Galveston Bay, 1.2 ft. in the upper part of the bay and 1 ft. in San Jacinto River and Buffalo Bayou. Freshets cause rises of over 12 ft. in Buffalo Bayou, however, this condition has not occurred since completion of Addicks and Barker Dams for flood control on the upper watershed of Buffalo Bayou. Height of tides is dependent largely on the wind, and during strong "Northers" in Winter season the water surface of Galveston Bay may be depressed 2 ft. below mean low tide.

MAX. SIZE: Max. 850 ft. long, 115 ft. breadth and 39 ft. draft. Tide minimal, affected primarily by wind only. Should a vessel's draft exceed 39 ft., permission to enter must be obtained from the U.S. Coast Guard.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: International Telephone and Telegraph – ITT – Galveston call letters KLC.

TUGS: Tugs come alongside just off dock or immediately prior to entering turning basin if vessel is to turn, or at Pilot's discretion.

BERTHING: No special requirements other than authority from terminal operator local Agent.
Public Wharves – Port of Houston Authority Facilities:

Wharves	*Length* (ft.)	*No. of Berths*	**Project Depth* (ft.)	*Remarks*
No. 1	600	1	33	
No. 2	525	1	33	
No. 3	802	2	33	
No. 4	779	2	27	
No. 8	624	1	36	
No. 9	581	1	36	
No. 10	600	1	33	
No. 11	530	1	33	
No. 12	530	1	33	
No. 13	460	1	33	
No. 14	480	1	35	
No. 15	480	1	35	
No. 16	603	1	36	
No. 17	600	1	36	
No. 18	600	1	36	
No. 19	577	1	36	
No. 20	593	1	36	
No. 21	600	1	36	
No. 22	600	1	36	
No. 23	600	1	36	
No. 24	600	1	36	
No. 25	600	1	36	
No. 26	600	1	36	
No. 27	600	1	36	
No. 28	600	1	36	
No. 29	600	1	36	
No. 30	600	1	36	
No. 31	576	1	36	
No. 32	800	2	36	25 acre open area
Nos. 41-48	3,428	8	32	
Manchester No. 1	296	1	32	
Manchester No. 2	500	1	32	
Manchester No. 3	500	1	32	
Bulk Plant No. 1	650	1	32	
Bulk Plant No. 2	600	1	32	
Barbours Cut LASH Ship Berth	287	1		
Barbours Cut Container				
Berth No. 1	1,000	2	40	
No. 2	1,000	2	40	
No. 3	1,000	2	40	
No. 4	1,000	2	40	
Barbours Cut Ro/Ro Platform		2		

*Dredging is accomplished every 4 years.

Petty Terminal Corporation (PETCO) Dock: Deep-water shipside terminal located on South side of channel. One ship berth 720 ft. long with water depth of 40 ft. One covered warehouse 100,000 sq.ft. with rail track inside warehouse and on outside concrete apron. Complete services available for discharging and shipping general cargo. Owned by Intercontinental Terminals Company and operated by Petty Terminal Corporation.

Care Shipping Inc.: Located 12 miles East of Houston. Deep-water terminal. Length 500 ft. Depth alongside 38 ft.

Manchester Terminal Company: 3 ship berths – 1,650 ft. in length (including 1 piling cluster). Depth 32 ft.

Served by 1 marginal track and 2 outside tracks behind docks plus loading tracks to all other facilities. Special loading-unloading docks for motor trucks available.

Equipment: 62 lift machines; 7 tractors; 1 towmotor, 30,000 lbs. capacity; 4 sweepers, 3 scrubbing machines.

Manchester Terminal Company also has 18,000 cargo pallets.

New Terminal Warehouse Corporation: Capacity 3 ship berths. Wharf 1,400 ft. long. Open storage areas of 50,000 sq.ft. Covered storage areas of 200,000 sq.ft.

Other Wharf Facilities: In addition to the for-hire terminals Port of Houston has some 43 ship berths plus various barge facilities on the Ship Channel maintained and used exclusively by industries. Most of these facilities are tanker ship berths at the refineries. There are also 4 liquid-bulk terminals for hire: Amerada Hess Terminal and General American Tank Storage Terminals, the latter having 2 separate locations; South Coast Terminals; Robertson Terminals, Inc.

Barbours Cut Terminal: The Port of Houston Authority continues development of its massive intermodal facility. Barbours Cut is located 2.5 hours from open sea where the Houston Ship Channel enters Galveston Bay. The facility is equipped to handle container, Ro/Ro and LASH services. There are 4 container berths each 1,000 ft. in length, representing 4,000 ft. of continuous quay. The channel is dredged to a depth of 40 ft. Additionally, 8 Paceco Portainers service the 4 container berths. The 4 container berths are backed up by approximately 150 acres of container marshalling are suitable for both grounded and wheeled operations. 11 rubber tyred yard cranes handle the stacking of containers in the container yard.

A Ro/Ro platform is provided for vessels equipped with ramps. There is a 100,000 sq.ft. Ro/Ro transit shed as well as 28 acres of concrete paved open storage for heavy equipment and automobiles. A "U" head pier and mooring dolphins provide for berthing of LASH ships. Additionally, a barge fleeting area and barge mooring dolphins are provided.

There is a container freight station with 55,000 sq.ft. of covered storage and rail service available. A railroad yard or ramp point with 1 lead track, 1 storage track and 2 working tracks provides a facility to unload containers and trailers to and from flat cars. The car capacity on the working and storage tracks is approximately 138×55 ft. long cars.

Container and chassis repair services are available on and off terminal. Container storage areas are available adjacent to the terminal as are automobile storage and preparation facilities.

Bayport Division: A 300 ft. wide by 42 ft. deep Bayport Ship Channel and its 1,600 ft. diameter turning basin connects with the Houston Ship Channel in Galveston Bay and extends approximately 2 miles inland to provide berths for deep-draft tankers and bulk freighters. Petro United Inc., Celanese Corporation, American-Hoechst Corporation and Hudson Oil Company have docks and facilities on the Bayport Ship Channel.

BULK HANDLING FACILITIES:

Public Grain Elevators: Back of Wharves 14 and 15. Capacity 6,000,000 bushels. Max. LOA 700 ft. Air draft 36 ft.

Equipped to unload from 110 to 120 cars in 10 hours, or deliver a combined total of 80,000 bushels per hour to 2 ships. 6 mechanical grain trimmers are in use at the Elevator as well as other major equipment including 2 car dumpers and 7 hopper scales of 150,000 lbs. capacity. 2 modern grain truck dumpers can unload up to 30 trucks per hour.

Public Bulk Materials Handling Plant: At Greens Bayou. Loading capacity 1,800 short t.p.h., unloading capacity 1,200 short t.p.h. free digging rate. Fully automatic plant handles dry bulk commodities rapidly to and from ships and barges through the loading and unloading towers, conveyor systems, hoppers, pits, surge bins and scales; with rail and truck facilities and ample ground storage. Rail cars are rapidly moved with large rubber-tyre tractors. These tractors are equipped with two-way radios for instant communication with unloaders. Boom of unloading tower reaches 76 ft. from face of dock, bucket capacity is 12 tons; loading tower boom reaches out 66 ft. from dock face and is equipped with automatic trimmer. Both towers can travel the full length of the dock. Mooring facilities for a waiting vessel have been installed next to existing dock. Also available: a boxcar unloading system (Augermobile), 2 heavy-duty front-end loaders and 4 heavy-duty car shakers. Max. LOA 750 ft. (larger if cleared with Houston Pilots prior to chartering). Max. beam 116 ft. Max. draft 39 ft. Air draft 40 ft. Depth of water 40 ft. Minimum hatch size 25 ft.×25 ft. Travel of loader 500 ft.

Elco Shipside Elevator Company: 2,000,000 bushel capacity elevator which loads up to 25,000 bushels per hour to vessels berthing at Dock No. 2 of the Port Authority's Manchester Wharves. Length of berth 650 ft. Depth 36 ft.

Goodpasture, Inc. and Continental Grain Company: Grain elevator with 12,000,000 bushel capacity – 4 ship berths. Also general cargo handling. Max. draft 38 ft. Loading rate 1,000 t.p.h.

Union Equity Co-Operative Exchange: Grain elevator with 6,000,000 bushel capacity, 1 grain berth, 1 lay berth, each 980 ft. long, water depth of 40 ft. for all berths. Loading rate 1,200 t.p.h.

Adams Terminal: Phillips Terminal Company. 2,700 linear ft., capacity 5 vessels. Bulk cargo loading conveyor system rated at 400 t.p.h.; horizontal boom, hammerhead-type clamshell unloader equipped with five-yard ore bucket, rated at 150 to 250 t.p.h.; 2 gantry cranes, capacity 40 tons at 30 ft. radius; Robbins heavy-duty car shakeout; 20-ton truck mounted crane. One D & H gantry crane modified to handle five-yard bucket for bulk ore discharge. 100 t.p.h. Specialists in import and export bulk cargo. Covered storage – 73,000 sq.ft.

International Terminal Corp.: Shiploading Rate 3,000 t.p.h. Depth in turning basin 42 ft. Storage capacity 150,000 tonnes (corn, soya, wheat, etc.).

Jacintoport Terminal: Deep-water shipside terminal located on the North side of the Ship Channel some 15 miles downstream from the Turning Basin.

Three ship berths (length 1,500 ft.) with water depth alongside the wharf at 32 ft. 24,000 sq.ft. of transit sheds; 60,000 sq.ft. of back covered storage warehouse space, and 300 acres available for open storage. Rail service by the PTRA and Missouri Pacific. 200 igloos provide storage with less than 4° change in temperature year around. 500 cargo pallets. Slip is 4,200 ft. long and 400 ft. wide. 3,600 ft. marginal trackage. Owned and operated by Bethlehem Steel Corporation.

Cargill, Inc.: Grain elevator with a capacity of 5,700,000 bushels. 2 ship berths. Max. draft 40 ft. Loading rate 70,000 bushels per hour to 140,000 bushels per hour.

MEDICAL: Give sufficient notice to order doctor or ambulance. Numerous hospitals available. Seaman's health certificate required.

CRANES: (Capacities 1 ton=2,000 lbs.)
Mobile Crane – Diesel: Capacity 80 tons
Gantry, American Revolver R-25 Electric: Capacity at 65 ft. radius – 50 tons
Gantry, Clyde Whirley, Diesel Electric: Capacity at 45 ft. radius – 30 tons
Gantry, Portainer, Electric: Capacity at 81 ft. reach – 27.5 tons
Gantry, Portainer, Diesel Electric: Capacity at 113 ft. reach – 44 tons
Gantry, Portainer, Electric: Capacity at 140 ft. reach – 30 tons
Stiff Leg Derrick, Electric: Capacity at 50 ft. reach – 75 tons

BRIDGES: Two bridges cross channel, one immediately East of Public Wharf 31, clearance of 135 ft. and the other immediately West of the Shell Terminal, clearance 175 ft.

STEVEDORES: Stevedore, on advice from representative of local Agent, must order labour prior to 1700 for 0700 or 0800 hrs. start the following day. Can order at 0800 for 1000, 1100 for 1300 and 1700 for 1900 hrs. start. Gangs must be ordered prior to 1700 hrs. on Saturday for Sunday or holiday.

TANKERS: No specific requirements for oil carriers with respect to load discharge lines. Tankers must be gas free to enter turning basin area. 12 tanker berths available

Limitations: Houston Ship Channel Limitations are set by the Pilot Association:

(a) Bolivar Roads to Barbours Cut: 950 ft. LOA, 135 ft. beam, 95,000 d.w.t., 40 ft. draft.
(b) Baytown to Boggy Bayou (Shell Terminal): 860 ft. LOA, 120 ft. beam, 80,000 d.w.t., 40 ft. draft.
(c) Boggy Bayou to Sims Bayou (Arco Terminal): 750 ft. LOA, 116 ft. beam, 55,000 d.w.t., 40 ft. draft.

Note: For vessels with beam from 105 ft. to 116 ft. no passing traffic above the Shell Terminal at Boggy Bayou.

(d) Sims Bayou to Turning Basin: 750 ft. LOA, 106 ft. beam, 45,000 d.w.t., 38 ft. draft.

Note: For vessels greater than 700 ft. LOA and/or 37 ft. draft daylight transit only.

All dead ships and LPG/LNG vessels greater than 550 ft. LOA daylight transit only through the entire Houston Ship Channel.

Arco/Sims Bayou: General: The Arco Refinery Terminal consists of berths "B" and "C". This terminal is located in the vicinity of Sims Bayou, approximately 48 miles from Sea Buoy.

Mooring and Berth: At both berths 2 or 3 tugs are used for docking, while only 1 is necessary for undocking. The tugs and Docking Master meet the vessel 1 mile below the berths and turn the ship at the Arco Turning Basin for a starboard side berthing. The terminal does not provide a gangway.

Cargoes handled at both berths include crude, gasoline, distillate, lube oil, av. gas, jet fuel, and petro-chemicals. Sizes of cargo hoses are 4 in., 6 in. and 8 in. All cargoes are pumped at 100 p.s.i. Both berths can receive ballast and slops. Only av. gas and jet fuel are handled by a common pipe-line.

Charter International Oil – Traweek: General: The Charter International Oil Company Berth is the Traweek Dock located 49 miles from the Sea Buoy on the Houston Ship Channel.

Mooring and Berth: Tug requirements are determined by the vessel's Master. Vessels are generally turned, if light, in the vicinity of the berth and moored starboard side to. Breasting units keep the vessels directly off the side of the dock. All lines are doubled-up. Long bow/stern leads allow considerable fore and aft movement of the vessel. To counter the movement good spring lines are required. Hooks on shore are secured to 2×1.625 in. wires to a "deadman" on the upper bank. All lines are handled by a workboat. The terminal does not provide a gangway.

Passing ships in the Ship Channel affect vessels at this berth. Strict attendance to mooring lines is essential.

Cargoes handled at this terminal include gasoline, fuel oils, jet fuel, No. 6 fuel oil, and kerosene. All cargoes are transferred through 8 in. lines and hoses at a maximum pressure of 100 p.s.i. Connections at the manifold are made with bolted flanges. Both ballast and slops can be received at this berth.

Crown Central Petroleum Co.: General: The Crown Central Petroleum Co. Berth is located 50 miles from the Sea Buoy on the Houston Ship Channel.

Mooring and Berth: 2 or 3 tugs are used for docking and 1 or 2 tugs are used for undocking. Tugs meet the vessel below the berth depending on existing conditions and turn the vessel prior to docking. No gangway is provided at this terminal.

Cargoes handled at this terminal include distilliate, gasoline, petro-chemicals, heavy fuel oil and crude oil. Petro-chemicals are handled through 6 in. lines at 40 p.s.i. All other products and crude are handled through 8 in. lines with pressures varying between 30 p.s.i. and 100 p.s.i. All cargo hose connections are ASA-type connections. Ballast and slops are received at this terminal.

GATX No. 1 and No. 2 – Galena Park: General: The Galena Park Terminal of GATX consists of 2 berths, No. 1 and No. 2. Storage capacity: 5 million barrels.

Mooring and Berth: 2 tugs are used for both docking and undocking. Vessels are usually turned when in the light condition. The terminal does not provide a gangway.

Cargoes handles at both berths include heavy fuel oil, special petroleum products, solvents, and other clean products. Heavy fuel oils are handled through 8 in. lines only. All other products are handled through 4 in., 6 in. and 8 in. lines. Maximum pumping pressure for all products is 100 p.s.i. All connections are ASA flange connections.

GATX – Pasadena: Mooring and Berth: Tug requirements are determined by the vessel's Master. Vessels are normally turned in the light condition. The berth is close to the Houston Ship Channel and vessels can be affected by passing traffic. Vessels moored at this berth should be well moored and all lines kept taut. The terminal does not provide a gangway.

This terminal handles a variety of products. Crude oil or products requiring heating are not handled by this terminal. All products are handled through 4 in., 6 in. and 8 in. lines at 100 p.s.i. Hose handling may be expected to be slow on account of the limited equipment on the pier.

Hess No. 1: General: The No. 1 Ship Dock of the Amerada Hess Corp. is located 48 miles from the Sea Buoy on the Houston Ship Channel.

Mooring and Berth: Vessel's Master determines tug requirements for docking and undocking. The vessel proceeds past the berth when docking and backs into the berth for a port side berthing. The stern will be approximately 100 ft. from the North bulkhead of the berth. The terminal does not provide a gangway. Gangway placement is critical.

Cargoes handled at this terminal include crude oil, fuel oil, light oil and gasoline. Fuel oil is handled through a 10 in. line at 150 p.s.i. All other cargoes are handled through 12 in. lines at 150 p.s.i. Connections are all "quick connections". There are no ballast or slops storage space at this terminal.

Hess No. 2: General: The Amerada-Hess Corp. No. 2 Ship Dock is located 45 miles from the Sea Buoy on the Houston Ship Channel.

Mooring and Berth: A minimum of 2 tugs are used for docking and undocking. Loaded vessels approach from the channel, normally starboard side to. After discharging the vessel is than turned to seaward. A loaded vessel can be turned should a port side mooring be required. All lines are carried to mooring dolphins by a small boat. A gangway is not provided by the terminal.

Intercontinental No. 1: Mooring and Berth: 2 tugs are required for docking and undocking. The vessel is met by the tugs and Docking Master near Lynchburg Crossing. As the vessel approaches Slough, tugs assist in turning the vessel broadside to the channel and in line with the berth. The vessel is then manoeuvred into the berth. Most vessels are moored starboard side to. A gangway is not provided by the terminal.

Various clean products are handled by this terminal. There are no facilities for receiving ballast or slops.

Oil Tanking No. 1, No. 2 and No. 3: General: These berths are located at the Oil Tanking of Texas Terminal which is 42 miles from the Sea Buoy on the Houston Ship Channel.

Mooring and Berth: 2 or 3 tugs are used for docking and 2 tugs are used for undocking. Vessels docking at Berth No. 1 are turned to starboard for a port side mooring. Vessels are moored head-in, starboard side to in Berth No. 2 and port side to, head- in at Berth No. 3. At Berth No. 2 and No. 3 mooring lines are handled by a launch. Bollards on the outer breasting/mooring platform are fitted with hooks on steel wire pennants so as to be accessible to the boat crew. The terminal can provide a gangway at all 3 berths.

Vessels should use extra spring lines leading aft as there are no stern line leads available. The terminal plans to install a mooring buoy between the platform and the nearer channel line.

Crude oil and clean products are handled at Berth No. 1. Crude oil is the only product handled at Berth No. 2 and No. 3. All cargo transfer lines are 16 in. Connections are made with ASA flanges, reducers are furnished by the terminal. There are no facilities for ballast or slops.

Paktank No. 1 – Deer Park: Cautionary Advice: There is a considerable chance that passing traffic and/or wind could cause a ship exceeding 630 ft. LOA to break away from the berth, which could lead to disastrous consequences with regard to oil pollution.

General: The Paktank Terminal is located at Deer Park which is 36 miles from the Sea Buoy on the Houston Ship Channel.

Mooring and Berth: A mooring buoy has been installed by the terminal to secure stern lines. This mooring buoy is apparently inadequate both from a standpoint of proper location and strength.

2 tugs are normally used for docking and undocking. The vessel is turned into the berth directly off the channel, upbound. A complement of mooring wires and leads are used at this terminal.

Crude oil, petro-chemicals, and various refined petroleum products are handled by this terminal. All transfer hose and lines are 6 in. or 8 in. Connections to the manifold are bolted. Maximum pumping pressure is 100 p.s.i. There are no facilities for receiving ballast or slops.

Shell No. 1, No. 2, No. 3 and No. 4 – Deer Park: General: The Shell Oil Company Refinery is located 42 miles from the Sea Buoy on the Houston Ship Channel.

Mooring and Berthing: When docking at any of the 4 berths at this terminal, 1 or 2 tugs are used. 1 tug is normally used for undocking. Vessels are turned prior to docking for a starboard mooring. The usual complement of mooring lines and/or wires are used at these berths. Constant attention must be paid in keeping proper tension on all lines due to the surging effect caused by passing ships in the channel. Gangways are provided by the terminal at all 4 berths.

Crude oil, No. 6 fuel oil, gasoline, diesel fuel, jet fuel, aviation fuels, and other refined petroleum products are handled at this terminal. All cargoes are transferred through 8 in. lines with bolted connections to the ship's manifold. Maximum pumping pressure for all products is 100 p.s.i. The terminal has facilities for handling ballast and slops.

Warren Gas No. 2 and No. 5: General: The Warren Gas Terminal Berth No. 2 and No. 5 are located 46 miles from the Sea Buoy on the Houston Ship Channel.

Mooring and Berthing: Tug requirements for undocking and docking are determined by the Master. Vessels proceed directly into Berth No. 2 for a port side mooring. A motor launch is used to run wires or lines to the mooring points. Gangways are only provided when requested prior to arrival.

Propane and butane are handled at Berth No. 2 and No. 5. All transfer lines are 12 in. at Berth No. 2 and 16 in. at Berth No. 5. Connections to ship's manifold are bolted. Maximum pumping pressure is 100 p.s.i at Berth No. 2 and 150 p.s.i. at Berth No. 5.

DENSITY: Classed as full fresh but varies with rainfall and tide, usually 4 in. to 5 in. allowance on full draft.
FRESH WATER: Available at all terminals through pipe and hose.
FUEL: All grades and viscosities available.
FIRE PRECAUTIONS: All standard precautions per code of Federal Regulations plus local ordinances. Tankers, unless gas free, not permitted at wharves in the immediate turning basin area.
GANGWAY/DECK WATCHMEN: Not required, but are available and can be arranged by local Agent at Master's request.
OPENING/CLOSING HATCHES: By stevedores only – vessel will be charged for this work if done by crew.
CUSTOMS ALLOWANCES: Tobacco, 300 cigarettes, 100 cigars, 1 lb. of tobacco or combination for each man. Wine and/or Spirit, 1 quart bottle for each crew member.
CARGO GEAR: Cargo gear safety certificate required.
IDENTIFICATION CARDS: Immigration Form I-95 card required.
CONSULS:

Australia
Austria
Argentina
Belgium
Bolivia
Botswana
Brazil
Cameroon
Chile
China
Colombia
Costa Rica
Cyprus
Denmark
Dominican Republic
Ecuador
Egypt
El Salvador
Finland
France
Gambia
Germany F.R.
Guatemala
Haiti
Honduras
Iceland
Indonesia
Israel
Italy
Japan
Jordan
Korea
Liberia
Malawi
Malta
Mexico
Morocco
Netherlands
Norway
Pakistan
Panama
Paraguay
Peru
Philippines
Portugal
Saudi Arabia
Senegal
Somalia
South Africa
Spain
Sweden
Switzerland
Syria
Taiwan
Turkey
United Kingdom
Venezuela

REPAIRS: All types available.
DRY DOCKS: Todd Shipyard, 12,000 ton dry dock at Greens Bayou and 14,000 ton capacity (length 400 ft.) dry dock in the Houston Ship Canal.
SURVEYORS: District Headquarters for the following Societies:

Panama Bureau of Shipping, Inc.
Registro Italiano Navale.
Hellenic Register of Shipping.
8200 La Porte Road, Suite 2,
Houston, Texas 77012-3734.
Telephone: 713-923-3900.
Telefax: 713-923-8010.
Telex: 795403 Marisurv Hou (Wu).
225530 Marisurv Hou (RCA).

REPATRIATION: Danner Guard Service can handle all phases.
AIRPORT: Approximately 0.5 hours by car; served by regular airlines.
TIME: Central Standard with daylight saving time effective from April to October.
HOLIDAYS: January 1st; January 15th; February 12th; 3rd Monday in February; March 2nd; March 17th; Good Friday; last Monday in May; June 19th; July 4th; First Monday in September; 2nd Monday in October; November 8th; November 11th; 4th Thursday in November; December 25th. When holiday falls on Saturday or Sunday the following Monday will be holiday.
POLICE/FIRE/AMBULANCE: All services provided or available.
TELEPHONES: Currently no arrangements for placing telephones aboard but easily accessible on wharves.
SERVICES: All services available.
SHORE LEAVE: Shore leave granted except when individual not qualified.
DEVELOPMENTS: Channel depths to be maintained at 40 ft.

Bayport development East and South of Morgans Point to have deep draft berths for liquid bulk and general cargo.

Construction of Berths No. 5, 6 and 7 at Barbours Cut underway.

SHIPMASTER'S REPORT:
Customs:
Bond remained sealed.
2 copies of Curio Lists.
2 copies Stores Lists.
1 copy Crew List.
Immigration:
No visit. 1 copy Crew List.
Agents:
Given Travelling copies of Clearance last port, Tax Tonnage receipt last port plus cargo manifests.
Agricultural Dept. Re-sealed meat and vegetable rooms. Inspected Galley Messrooms, etc. Garbage cans to be covered.
Provisions and Stores. Satisfactory. Select own ship chandler.
Laundry. Facilities available but not used.
Coast Guard. No visit.
National Cargo Bureau: Same as New Orleans.
Watchmen: None placed on board. Security at gate strict.
Telephone: None placed on board. Use dock office.
Fresh Water: Available.
Fuel: Available by barge if required. Do not over stem.

Engineering and Repairs: Efficient and satisfactory. Price high compared to N.Z.

Radio Messages: Send ETA after departure New Orleans to Agents and Houston Pilots with draft. Notify Agents of any explosives.

Stevedores: Hours of work. 0800 to 1200 hrs., 1300 to 1800 hrs., 1900 to 2300 hrs. Weekday gangs will work through meal hours to finish. At weekend, day labour works right through to midnight if necessary on time and a half then double time for meal hours.

Crew must not clean hatches. Labour has claim on cleaning and has to be paid in addition to crew. Crew open and close hatches, but not until hatch foreman present. Not before labour working hours.

Working heavy lifts with ship's gear loading rate very slow, especially at end of shift. Due to nature of deck cargo; 11 ton lifts 52 ft. long.

Constant supervision needed for deck cargo.

Head stevedore checks Factory Act Book before starting.

If detailed plan is required for break bulk (general cargo) additional clerk must be ordered.

General: Pilot boards from large grey metal cutter off Fairway Buoy. Flash every 2.5 seconds. Give good lee and have ladder 8/10 ft. above water with usual manropes, heaving line, etc.

If you have to anchor, most vessels use the Eastern anchorage about 1.5 miles East of fairway buoy and clear of fairway marked channel. Soft mud bottom. Use plenty of cable.

Berth: Ships spaced very close to each other. Rise and fall of tide about 1 ft.

Moorings: at least 4 head lines and stern lines plus 2 springs each end. Ships frequently passing and channel narrow consequently a good deal of surge. Lines to be frequently looked at and kept tight. Parted 3 springs in as many days!!! Gangway also to be watched. General rule is to use ship's gangway. Wide apron in front of sheds with rail lines but fork-lifts used most.

Agents have office on wharf with direct line to city office and outside lines.

Wooden piling which acts as fenders. Bollards of the large cleat type. Sufficient but not plentiful. Two linesmen each end when arriving and departing. No permanent cranes but mobile ones can be hired. Quay about 25 ft. above water.

Recommended not to walk about or up to bus especially at night. Better for 2 or more to get a taxi. Fairly good, 3–4 dollars to Houston.

Seaman's Mission near by. Very good, new and modern.

Tugs: Used for berthing and unberthing. Had 2 on arrival due to strong wind and close proximity of mast top to bridge.

Sailing had 1 tug lashed up alongside forward shoulder.

Tugs use own lines.

Bridge: There is a bridge above Upper Clinton Bend from Manchester on the South to Clinton Park on the North. This is a relatively new bridge to be passed under with a clearance of only 135 ft. Check the rise of tide on way up.

SHIPMASTER'S REPORT: August 1980.
Tenneco Terminal – Vessel discharged ammonia.

Approaches: BA Chart 975.

The safety fairway is usually very busy and it is advisable to ensure that you are in fact keeping to the starboard side.

At the entrance to the fairways there are many oil rigs. With the predominately low lying coast, radar positions are extremely difficult. Satellite navigator is highly useful in this respect. The first good check is off the buoys in the final safety fairway. These showed on radar at about 7 miles.

Some radar echoes are received from Galveston itself.

The charted rigs in Anchorage 'A' are in fact in those positions.

Pilotage: If anchored, the pilot boat will call vessel into the "Whistle Buoy" for boarding.

The cutter is a large, fast launch and usually lies inside until working a vessel.

Pilot ladder about 8 ft. from the water to clear the boarding platform.

Contact can be made via Galveston Pilots initially on Channel 16 who will relay the messages. Houston Pilots themselves work on Channel 14.

One Pilot, the length of pilotage is about four hours to the first line ashore. Two tugs used.

No night time pilotage for a vessel of this size (32,000 g.r.t.) and type. There is a TV video surveillance system operating throughout the length of the channel.

Berth: About 4 miles below Warren Terminal.

Plant and terminal now owned by Occidental (Oxy) but Tenneco rent the berth.

Berth is far too small for this vessel, at least as far as the moorings are concerned. Typical American 'T' barge jetty, the head of which is only about 25 m. long, with walkways leading to 3 dolphins at each end. The bow and stern overlap these mooring dolphins and head and stern lines are taken to posts on the river bank. These are only breast lines and it is advisable to make advance preparations to put out as many as 4 springs at each end. There is a great deal of traffic passing continuously.

Gangway: The gangway should remain stowed until in position. Whether vessel can use the accommodation ladder will depend on draft. If vessel deeper than 26 ft. there will not be sufficient clearance from the fender so a "B.O.T." type gangway resting on accommodation turntable will have to be used.

When the accommodation ladder is used it has to be turned through 120° and landed on the aft dolphin immediately adjacent to the jetty head.

Discharge: 12 in. flexible hose 150 ASA used. 'T' piece, two shore hoses.

Max. back pressure allowed is 50 p.s.i. Vapour return line is 4 in.

The plant ashore is only equipped to export cargo and its reliquefaction plant is small.

A shore walkie-talkie is placed with the officer of the deck.

Discharge rate can vary (October 1979 – 260 t.p.h., August 1980 – 550 t.p.h.).

Shore surveyors figure taken for bill of lading. Density 1001.

USCG: No inspection prior to commencement, apparently this is normal. The port is far too busy for them to visit every ship. But be prepared, they are very particular on navigation equipment and Officers' Certificates and experience.

General: It is possible to load bunkers by barge alongside the terminal if prior arrangements and permission are obtained but it depends on Agent and Authorities.

Fresh water is available from the jetty, at a very low rate.

Storing can present difficulties as the after crane does not plumb the dolphin. By arrangement, vessel can use shore crane when the operation is not too difficult.

Public telephone on dock – minimum charge 25c.

Liferaft service available, 24 hours' service.

A considerable distance from the city, which rather complicates services and communications.

Agents leave a radio onboard for contact with Agent and office, but often outside range, office on maximum range.

No private transport (taxis) allowed into refinery area. Transport to the gate by their own minibus and then telephone for taxi. Crew transport service allowed into berth area with pass from Agent.

AUTHORITY: Port of Houston Authority, P.O.Box 2562, Houston, Texas 77252-2562. (1519 Capitol Avenue, Houston, Texas 77002) *Tel:* (713) 226–2100. *Telex:* 910–881– 5787. *FAX:* (713) 226-2134. *Contact:* James D. Pugh, Executive Director. James Baker, Director of Operations. Thomas Kornegay, Managing Director.

AGENT: ~~Norton Lilly International, Inc., 1121 Walker Street, Suite~~ 500, ~~Houston, Texas 77002. Tel: (713) 222-9601. Telex:~~ 6868758.

RICE UNRUH

HUENEME, California: 34.09 N. 119.12 W. (See Plan)

PORT LIMITS: No laytime boundary. "Arrived Ship" status commences at berth dockside.

DOCUMENTS: See "San Francisco".

PILOTAGE: It is requested that ships entering port stand-by 1 mile off harbour entrance just seaward of the Port Hueneme seabuoy designated "R2" (Fl. R. 4 secs. Bell) and await port Pilot who will board from a tug. The U.S. Coast Guard Station at the Channel Islands Marina maintains a radio beacon. Contact Pilot or "Port Hueneme" on VHF Channel 16, shifting to Channel 14 for Administration; VHF Channel 65A for tug/pilot bridge.

All vessels 300 g.r.t. and over or carrying a foreign flag entering, leaving and shifting within the Port of Hueneme, including area of the Oxnard Harbour District, must be piloted by a port Pilot duly licensed to perform the services of piloting vessels within the Port of Hueneme. The Oxnard Harbour District does not maintain Pilots; licensed Pilots are available on a 24-hour-a-day basis from Port Hueneme Pilots' Association (Captain Carl Dingler at (805) 984-4933).

ANCHORAGES: If there is a wait for Pilot caused by weather, visibility, congestion in harbour, or any other reason, the best anchorage area is W.S.W. of the harbour entrance where there are no hazards and there is some protection afforded by the natural curve of the coastline.

RESTRICTIONS: The length of entrance channel is 2,300 ft. The narrowest width of harbour entrance channel is 330 ft. However, because of prevailing fresh winds, this is a one-way channel; thus, deep-draft ships not able to manoeuvre easily in a restricted channel have precedence over smaller craft. Vessels may enter/leave at any time day or night.

MAX. SIZE: Due to the 1,400 ft. × 1,200 ft. turning basin, vessels with greater length than 700 ft. requires U.S. Navy permission to enter. Longest vessel berthed in harbour was 826 ft. Vessels draft normally to be 2 ft. – 3 ft. less than water depth.

RADIO: The "Port Hueneme Wharfinger" guards Channel 16 and will normally shift to Channel 14 for administrative purposes. The harbour tugs guard Channel 16 continuously. The harbour Pilots, when expecting a commercial merchant vessel guard Channel 16 voice circuit and voice call "Port Hueneme Commercial Pilot".

Tugboat working frequency is VHF Channel 65A (156.275 MHz).

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Los Angeles Quarantine Station.

Ships required to pass quarantine may enter port and moor. "Q" Flag is to be flown. Upon mooring, ship must post gangway watch until ship has passed quarantine. When Port of Hueneme is its port of first arrival in the United States from foreign ports or from States other than California, a ship must be inspected by the Department of Agriculture. There is a local representative in Oxnard. The Oxnard Harbour District will order officials if requested by ship or Agent.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Tug services for Port of Hueneme are furnished by the Oxnard Harbour District, Port Hueneme, California. Requests for tug services may be made to the Executive Director or Director of Operations of the Oxnard Harbour District, who will act as Agent for ship in forwarding them. 3 tugs are available on a 24 hour basis. The tugs are 3,000 s.h.p. single and twin screw vessels. The number of tugs to be used on any movement is determined by port Pilot in charge of the movement. Tugs are not available for deep-sea towing, except in case of emergency to save life or property. A twin screw 500 h.p. pusher/pilot boat is also available for small tows and assistance work. As a service to all vessels the Oxnard Harbour District, acting as Agent for vessel, will pay all tug fees to United States Government when necessary, subject to reimbursement conditions as arranged between the vessel, her Owners or Agents, and the Executive Director, Oxnard Harbour District. Seldom are tug charges more than the minimum due to the short transit time to berths.

BERTHING: Berthing arrangements should be made with the Director of Operations by Agent as far in advance of arrival date as possible, specifying dates of arrival and sailing, and nature and quantity of cargo to be handled. Agent is requested to submit Berthing Application in timely manner. The Oxnard Harbour District also has a licence agreement with the U.S. Naval Construction Battalion Center, Port Hueneme, for the use of additional berths and terminal facilities on an "as available" basis. Prior arrangements must be made, should use of these additional facilities be desired or necessary. The Port of Hueneme has 5×600 ft. berths with depth 35 ft. MLW and appropriate terminal facilities. (Berth No. 5 to be completed in August 1988). At the present time there are 11 deep-draft berths within the entire port area.

Bottom is sand and mud. Mean low water is + 1.5 ft. Height of wharf above the MLLW is 13 ft. 6 in.

CRANES: Many land cranes available which can handle loads up to over 100 tonnes in most cases.

STEVEDORES: Stevedore work is presently performed by resident stevedores, the Marine Terminals Corporation, Stevedore Services of America and Metropolitan Stevedoring Co., who also have offices in San Francisco, Long Beach, etc. MTC maintain an office at 111 Ponoma Street, Port Hueneme; SSA at 241 Market Street, Suite 1 and MSC at P.O.Box 547, Wilmington, CA 90748. They provide modern handling equipment to suit cargo's need. There is no special fixed bulk handling equipment available as yet. Longshoremen are members of the International Longshoremen's and Warehousemen's Union and conform to the Pacific Coast Longshore Agreement. Hours of work are as outlined in this agreement. Longshoremen at this port do all covering and uncovering of hatches and rig the gear. There are 8 gangs available in the port. Day and night gangs for Tuesday through Saturday (except Monday through Saturday, 1900 hrs. initial start) must be ordered by 1500 hrs. the previous day. Night gangs required Monday for a 1900 hrs. initial start, and Sunday and Monday gangs must be ordered by 1100 hrs. Saturday. Cancellation time is same as ordering time, if gangs which have been ordered are cancelled after the aforementioned deadlines, the agreement's 4 hour minimum applies. Normal day shifts begin at 0800 hrs. and normal night shifts at 1800 hrs. Each shift consists of 8 hours and on sailing day 10 hours may be worked by the final shift. There are no obstructions on the wharf to keep all hatches from being worked concurrently.

MEDICAL: Patients are provided with medical attention at the Medical Center, Port Hueneme, or St. John's Hospital, Oxnard California. Temporary visa must be obtained from Department of Immigration and Transportation if a crew man or passenger must remain after the ship sails.

FRESH WATER: Fresh water is available. There are hydrants along the wharves and delivery to ship is effected by hose. Water is good to taste but is hard. It is not suitable for boilers. Contact wharfinger on duty for delivery of water. Boiler feed water is available by truck upon request.

FUEL: Diesel oil and bunker fuel is available by pipe-line at Wharf No. 1 and by truck at all wharves.

REPAIRS: Minor repairs may be made in port. Machine shops in Ventura and Oxnard are qualified for normal voyage repair work.

GANGWAY/DECK WATCHMEN: Gangway or special wharf watchmen are available upon request.

TELEPHONES: Pay telephone booths are located at the centre of Wharf 2 and 12 pay telephone booths on Wharf No. 1. The wharfinger's office has a telephone which may be used by people calling in to contact the ship. This telephone is manned 24 hours a day for convenience. Its number is (805) 488-4615. The Port of Hueneme office telephones are available to ship's officers and Agents for local calls or collect long distance calls. Wharf lines permit a telephone to be installed at a nominal charge if desired by Agent.

HOLIDAYS: U.S. Federal and State holidays are observed by the Port and Terminal management. If stevedoring is required on holiday it is performed in accordance with the International Longshoremen's and Warehousemen's Union-Pacific Coast Longshore Agreement.

SHIP SUPPLY SERVICE: Port Hueneme Marine Supply, 700A Hueneme Road, Port Hueneme, CA 93041. Tel: (805) 488-0988. FAX: (805) 488-3141. Total ship chandlery, except food.

Allied Maritime Agency, 345A Ponoma Street, Port Hueneme, CA 93041.

AUTHORITY: The U.S. Navy (Commanding Officer, U.S. Naval Construction Battalion Center) exercises overall Port Control Authority; the Oxnard Harbour District is solely responsible for its commercial operations.

Port of Hueneme, Oxnard Harbour District, P.O.Box 608, Port Hueneme, California 93041-0608. *Tel:* (805) 488-3677. *Contact:* Robert K. Harmuth, Director of Marine Operations. Anthony J. Taormina, Executive Director.

HUNTINGTON BEACH, California: 33.38 N. 118.00 W.

(See Plan)

LOCATION: Approximately 1.3 miles off Huntington Beach as shown on United States West Coast California San Pedro Channel Chart 18746, published by the U.S. Department of Commerce National Oceanic and Atmospheric Administration.

A lighted Bell Buoy "2HB" is located 2,242 ft. from the spare buoy at the Western approach to the Seaberth. It is a private aid to navigation and is shown on the above chart.

PILOTAGE: Mooring Master will board the vessel in the Los Angeles area for an inspection and acceptance of the ship's mooring facilities. He may accompany this vessel, after agreement, to the Seaberth. On repeat visits, he may join vessel at Seaberth area.

RESTRICTIONS: In addition to max. size, wind force, wave height and direction in conjunction with mooring lines, sizes, place limits on conditions for remaining in the mooring. When these conditions are approached or predicted the vessel will return the submarine hose to the seabed after flushing, as necessary, to avoid damage to the crude unloading facilities. The determination of these limitation conditions is made by the Mooring Master in conjunction with the Terminal Supervisor.

MAX. SIZE: Length 1,000 ft., beam 150 ft., draft 43 ft.

TUGS: A mooring vessel will run the ship's lines to the buoys and serves also as a first response Pollution Control Vessel. It has aboard, for immediate deployment, 1,000 ft. of 14 in. Expandi Boom.

BERTHING: *Multi Point Mooring:* Consists of 8 buoys. Water depth 50 ft. Tidal range 5 ft. to 6 ft. Bottom sand. Current max. 1.7 knots, excluding storm conditions.

Normal Mooring: Bow anchors and 7 buoys are used.

Mooring Equipment: Require 14 lines, either 9 in. synthetic or 1.25 in. wire rope minimum. Minimum length for 9 in. synthetic rope 720 ft. Minimum length of 1.25 in. wire rope on drum 1,200 ft. Both bow anchors serviceable with an appropriate length of chain for vessel's size according to Lloyd's or ABS requirement. Usual mooring conditions require 8 to 10 shackles of chain in the water.

To allow flexibility in the charter market or vessel availability, the 1,200 ft. wire rope on drum requirement can be reduced to 900 ft. provided 720 ft. is usable at the rail and a 2,500 h.p. to 3,000 h.p. tug is utilised, charged to the vessel's account. The tug will normally only be needed during the mooring operation if the vessel cannot slip its wire mooring lines off the drums. A tug, again, may be necessary for the vessel's account in unmooring.

If mooring wires are used, the synthetic tail or eye, if so fitted, must be in good condition and of 125 per cent breaking strength of the wire. The tail or eye, if so fitted, shall be connected to the wire with a Mandell Shackle or equal. A minimum pennant length of 60 per cent, if possible, is requested for ease of handling by the mooring vessel.

Mooring Gear: If ship's gear and winches preclude fast deployment of mooring lines a tug may be required. This applies primarily to vessels with hydraulic winches and is dependent on the size of vessels, sea and wind conditions.

General: The moorings at seaberth have been modified to allow handling of vessels up to 150,000 d.w.t. under certain wind, wave and sea conditions. This modification includes the repositioning of all buoys, increasing the size of the dip and riser chain to 3.125 in. and the installing of additional 5 ton anchors to supplement the 10 ton existing anchors.

No. 4 or D buoy, which is at the stern of the vessel, has 2×3.125 in. dip and riser sections and 4 shackles of 3.125 in. chain. Mooring lines to this buoy are doubled during each mooring operation. Weight has been added to each buoy to decrease the buoyancy. An additional buoy, No. 8 or H, was added to allow the moorings to be used by barges.

DISCHARGING: *Lifting Equipment Requirements:* Derrick that can be utilised to lift the 12 in. hose from the seabed and swing the hose to the ship's manifold. Minimum lifting capacity, 5 tons.

Products Received: Crude, Naphtha and other refinery requirements.

Discharge Rate: Maximum 22,000 bbls./p.h. through 8 or 9 lengths (200 ft. – 225 ft.) of hose, 12 in. diameter into 22 in. I.D. sealine. Emergency flush possible from cross connected 10 in. line from shore. Pumping distance to shore tanks 9,479 ft. Height to shore tank 3 ft. – 4 ft. Tank height max. 39 ft. 6 in.

Temperature Limitation at Rail: Maximum product, Crude or Fuel Oil temperature of 150°F.

General: Refinery will furnish the Mooring Master with pertinent information on crude pours and vessel charter conditions, e.g. pump rates or lay time, in order that the Mooring Master can be fully appraised of the Charter Party Terms and conditions. Deviations from the Charter Party Terms furnished, if not correctable in discussions with the vessel's Master, will be discussed via radio with the Supervisor of Pipe-lines and Terminals to determine if a protest should be filed.

FRESH WATER: Not available.

FUEL: Not available.

BALLAST: No facilities.

AUTHORITY: Berth within Los Angeles Customs District.

Operator: Golden West Refining Co., 13539 E. Foster Road, Santa Fe Springs, CA 90701. Postal address: P.O.Box 2128, Santa Fe Springs, CA. 90670. *Tel:* (213) 921-3581. *Telex:* 910-583-4797 GWR-CO-SFES-UD. *Contact:* John W. DeVries, Manager, Shipping and Receiving.

HURON, Ohio: 41.24 N. 82.35 W.

Refer to St Lawrence Seaway for important general information.

PILOTAGE: None required other than what is required for Great Lakes.

ANCHORAGES: Depth 3 to 10 fathoms.

MAX. SIZE: Length 716 ft., breadth 75 ft., draft 26 ft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Chicago Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: WMI Lorain.

TUGS: Meet vessel at the pier head. Use ship's lines.

BERTHING: Norfolk and Western Ore Dock, operated by the Lake Erie Dock Co., can handle 15,000 tons of ore in 8 hours. Ore slip is 1,400 ft. long with 26 ft. of water.

Limestone Dock, 700 ft. length with 26 ft. of water.

Grain loading facilities operated by the Pillsbury Company. Load speed, 20,000 bushels; unload speed, 15,000 bushels; berthing space, 832 ft.; max. length 610 ft.

STEVEDORES: None available.

FRESH WATER: Available.

FUEL: None available.

IDENTIFICATION CARDS: Required by Immigration.
CONSULS: Nearest at Cleveland.
REPAIRS: No facilities.
REPATRIATION: No facilities.
AIRPORT: 50 miles from port (Cleveland International Airport).
POLICE/AMBULANCE/FIRE: 433-4114.
SHORE LEAVE: Allowed.
AUTHORITY: The Huron Joint Port Authority, P.O.Box 468, Huron, Erie County, Ohio 44839.

JACKSONVILLE, Florida: 30.20 N. 81.40 W. (See Plan)

DOCUMENTS:
Public Health:
Maritime Quarantine Declaration Form HSM 13.19.
Customs:
3 U.S. Customs Manifests for cargo to be discharged at first port of entry.
2 U.S. Customs Manifests covering all other cargo on board vessel for discharge at other than first port of entry.
3 Stores Lists.
3 Crew Lists.
3 Passenger Lists.
3 Curio and Crew Personal Items Lists.
Vessel's Clearance from last port.
Vessel's Register and Load Line Certificate.
Vessel Utilisation and Performance Report.
Form MA.578 for dry cargo vessels.
Immigration:
1 Certified Crew List and Landing Permit form I-95 for each crew member.
Valid passport for each crew member.

PILOTAGE: Vessels approach Pilot Entrance Buoy STJ No. 2 (Red) approximately 6 miles at sea off jetty entrance to St. John's River. Pilot station located just inside jetty on river channel at Mayport Naval Station. Pilot station operates both VHF and HF frequencies, VHF Channels 16 and 18 A. HF Frequencies 2738 and 2182 kHz. Pilot cable address "Jaxpilot". Pilot boards from pilot boat "Jaxpilot" just East of Entrance Buoy STJ No. 2. Pilot boat does not maintain station at sea but answers call or is dispatched on information by vessels' Agents. Vessels anchoring awaiting Pilot should anchor as near Entrance Buoy as safely possible.

ANCHORAGES: 2 anchorages located inside harbour near dock sites with depth of about 31 ft.

RESTRICTIONS: For vessel drawing not more than 38 ft. water no restrictions and vessel can enter and clear harbour on 24 hour basis. Pilots and tug assistance available all hours day or night. Vessels drawing more than 38 ft. required to await tide.

MAX. SIZE: Draft should not exceed 38 ft. for dry cargo vessels and tankers.

Note: St. John's Bar Pilot Association advises max. draft 37 ft. (20th April, 1982).

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Tropical Radio, Miami, Fla. Call letters WAX. Lantana Radio, Boynton Beach, Fla. Call letters WOE.

TUGS: Under normal conditions with vessels able to proceed under own power, tugs approach vessel in vicinity of pier at which vessel is to dock. Tugs use own lines but no charge made.

BERTHING: Vessels can dock day or night. Transit time from pilot station to berths about 2 hours.

Blount Island Terminal: Operator: Jacksonville Port Authority. Length of berth, 4,700 ft. Depth alongside at MLW 38 ft. (11.5 m.). Containers, autos, paper and general cargo are handled.

Blount Island has 3 on-terminal transit sheds with a total cargo floor area of 372,000 sq. ft. There are also 220 acres of paved open storage area, with more under construction. For cargo handling, Blount Island offers 3×40 ton capacity container cranes 3×70,000 lb. container stackers; a 100 ton capacity gantry crane; a 40 ton Le Tourneau straddle hoist; a 50 ton capacity gantry crane; 2×80,000 lb. movable Ro/Ro ramps; 2 self-propelled multi-level rail car automobile loading ramps; and 200 reefer outlets.

Also see "Developments".

Tallyrand Docks and Terminals: Operator: Jacksonville Port Authority. Length of berth 2,880 ft. Depth alongside at MLW 38 ft. Cargo handled – general, cars, lumber, containers, steel, coffee and petroleum.

There is over 400,000 sq. ft. of warehouse space available, with 500,000 cu. ft. being refrigerated. Talleyrand's cargo handling equipment includes 1×50 ton capacity gantry crane; 1×100 ton multi-purpose crane: a dry bulk conveyor system; 2×35 ton straddle carriers; 9 container stackers; 2 self-propelled multi-level rail car automobile loading ramps; and tanker discharge facilities

Talleyrand and Blount Island are served by railroad and truck service. 2 surface tracks on the pier apron and 2 platform-level tracks serve both facilities.

Also see "Developments".

Sealand Terminal: Operator: Sea-Land Service, Inc. Adjacent to Tallyrand Docks and Terminals (See "Plan"). Length 1,200 ft. Depth alongside at MLW 34 ft. 2 container cranes, capacity 27.5 tons and 30 tons.

8th Street Terminal: Operator Joyserv Ltd. Adjacent to Sealand Terminal (See "Plan"). Length of berth 707 ft. Depth alongside at MLW 34 ft. Cars are handled.

Commodore Point Terminal: Length of wharf 2,750 ft. Depth alongside 34 ft. Cargo handled: Oil, cement and liquid chemicals. Terminal also occupied by North Florida Shipyards. Storage facilities: Charter Oil; 340,000 barrels. Glidden – Durkee: 60,171 barrels for chemical storage. Atlantic Cement; 6 silos capacity 40,000 tons. Universal Atlas Cement; 6 silos capacity 32,000 tons.

Jacksonville Bulk Terminals: A subsidiary of Occidental Petroleum. Length of loading berth 1,000 ft. Depth at MLW maintained at 36 – 38 ft. 2 fixed loading towers capable of loading vessel at a rate of 2,850 long tons of phosphate per hour. Maximum outreach 81 ft., clearance above MLW of 40 ft. Terminal also capable of loading superphosphoric acid, phosphate rock, zircon sand (of sufficiently low moisture), granular fertilisers, tachonite, ilmenite and mullite. Storage facilities: 6 concrete silos, each with a designed capacity of 5,000 tons of phosphate rock. Six tanks with capacities of 15,000 tonnes of superphosphoric acid each.

Dunns Terminal: Length of wharf 1,000 ft. Depth 38 ft. Leased for exclusive use by Military Sea Transportation Services.

Celotex Corp: Tel: (904) 751-4800. Berth: 635 ft. (205 m.) with dolphins. Depth: 32 ft. (9.8 m.). Terminal for receipt of gypsum rock by self-unloading vessels.

BRIDGES: Only 1 bridge that vessel would have to negotiate and that only if docking at Commodore Point terminal.

STEVEDORES: Master should keep Agents closely advised by radio of ETA and any amendments to first ETA given. Recommended that Master give ETA 72, 48 and 24 hours in advance of arrival. Enables ordering gangs or cancelling gangs ordered in event of delayed ETA.

MEDICAL: Hospital facilities available. International Vaccination Certificates required by all crew members.

TANKERS: All petroleum terminals provide own hose ranging from 8 in. to 12 in. Prior to arrival, Master should request information from Terminal Company size of connection required.

Private Terminals:

Amerada Hess: Tel: (904) 765-4427. Berth: 200 ft. (60.1 m.) with dolphins. Depth: 30 ft. (9.2 m.). Tank storage capacity: 460,000 barrels. Receipt of petroleum products.

Alton Box Board Company: Tel: (904) 353-3611. Berth: 750 ft. (230 m.) with dolphins. Depth: 24 ft. (7.2 m.). Receipt of residual fuel oil.

Eastern Seaboard Petroleum Company: Tel: (904) 355-9676. Berths 250 ft. (80 m.) with dolphins (1); 160 ft. (48 m.) with dolphins (2). Depth: 18 ft. (5.5 m.). Tank storage capacity: 1,266,000 barrels.

Shipping of petroleum products by barge; loading of barges for bunkering vessels at berth in the harbour; fueling of tugs and small vessels.

Gulf Oil & American Oil: Berth: 200 ft. (60.1 m.) with dolphins. Depth: 33 ft. (11.5 m.). Tank storage capacity: 900,000 barrels.
Gulf: Tel: (904) 765-5541.
American: Tel: (904) 768-2583.
Receipt of petroleum products and loading of barges.

Phillips Petroleum Company: Tel: (904) 353-6740. Berth: 205 ft. (60.2 m.) with breasting dolphins. Depth: 34 ft. (10.5 m.). Tank storage capacity: 243,000 barrels. Receipt of petroleum products.

Shell Oil Company Wharf: Tel: (904) 355-5521. Berth: 230 ft. (98 m.) with dolphins. Depth: 33 ft. (10 m.). Tank storage capacity: 448,500 barrels. Receipt of petroleum products; occasionally fuels towboats and loads barges for bunkering vessels at berth in the harbour. Light marine diesel fuel only.

Standard Oil Company Terminal: Tel: (904) 353-1094. Berths: Barge –300 ft. (92 m.) with dolphins; Tanker – 760 ft. (230 m.) with dolphins. Depth: Barge – 10 ft. (3.1 m.); Tanker – 32 ft. (9.8 m.). Tank storage capacity: 595,000 barrels. Receipt and shipment of petroleum products. No bunkering of vessels.

Texaco Pier: Tel: (904) 356-6344. Berth: 550 ft. (167 m.) with dolphins. Depth: 32 ft. (9.8 m.). Tank storage capacity: 320,000 barrels. Receipt and shipment of petroleum products; fuels towboats.

Report: *Approaches:* The Jacksonville Sea Buoy lies outside the entrance of the St. Johns River on the edge of the Gulf Stream where a strong Northerly current is usually experienced. The Sea Buoy ("2STJ") is a red/white, lighted and whistle (Morse (A)) buoy. A counter current setting to the South is usually found close along the coast just inshore of the Sea Buoy. Both the direction and velocity of currents and counter currents vary depending on past and prevailing weather conditions.

Broken ground with least depths of 4 to 5 fathoms lies from 4 to 6 miles from the coast for a considerable distance Northward and Southward of the St. Johns River entrance.

Numerous fish havens are Eastward of the entrance to St. Johns River; the outermost, marked by a private unlighted buoy, is about 27 miles Eastward of St. Johns Light.

All vessels should approach Jacksonville Sea Buoy from between S.E. and N.E. to avoid shallow water along the coast. There are many bright lights ashore at night which would cause confusion or mistaken identity with navigation lights. Refer to current N.O.S. charts regarding danger and cautionary areas.

Sea traffic, especially Southbound ships steaming inshore near the Sea Buoy to avoid the force of the Gulf Stream and take advantage of the counter current, may be encountered.

Naval vessels may be encountered entering and departing Mayport and may also be encountered on exercises outside the Sea Buoy area.

Entrance Channel: A Federal project provides for a channel depth of 42 ft. from the ocean to St. Johns Point. A lighted whistle buoy is about 2 miles off the entrance to the river. The 800 ft. wide entrance channel between 2 converging rubblestone jetties is marked by lighted buoys. Two-way traffic is normal.

The echo sounder should be monitored continuously for any silting that may occur and findings reported.

Anchorages: Vessels waiting outside the entrance to St. Johns River can anchor in depths of 36 ft. – 50 ft. N.N.E. of the jetties if wind and sea permit. Anchorage South of the jetty is not recommended because of heavy shrimp boat activity in that area.

Pilots sometimes anchor vessels in the channel opposite Mayport Basin or at St. Johns Bluff in emergencies or while waiting for weather to clear upstream; however, these anchorages are not recommended due to strong currents. A tug should be stationed alongside to assist turning during change of tide.

St. Johns River Designated Permanent Anchorages:

General (Upper) Anchorage: Located on the South shore off Commodore Point between Miller Creek and Empire Point. Vessels remaining in the anchorage more than 24 hours require a permit from the USCG Captain of the Port.

Quarantine (Lower) Anchorage: Located in the area off the Tallyrand Docks and Terminal. Use requires permit from the USCG Captain of the Port.

The holding ground in both anchorages is only fair and both are somewhat constricted. It is not recommended that vessels with drafts over 34 ft. use these anchorages.

DENSITY: Varies from fresh water 1.000 density to mixed salt water 1.0075 density. St. John's River is fed from fresh water sources and for most practical purposes may be considered fresh.

FRESH WATER: Potable water is available through hose connections at all berths operated by the Port Authority. No water barges.

FUEL: Most grades marine fuels available ranging from bunker "C" to light marine diesels with intermediate blends in between. Most major oil companies have bunkering facilities.

FIRE PRECAUTIONS: No smoking except in officers' lounge and crew's lounge. No open flames. No sparking from funnel.

GANGWAY/DECK WATCHMEN: Watchmen services available but not necessary.

OPENING/CLOSING HATCHES: Crew may open hatches prior to vessel's arrival at dock. After arrival at dockside this work reserved for longshoremen. Vessels equipped with MacGregor type or other automatic opening devices, crew may open hatches at any time. Longshoremen do not open and close these type hatches.

CERTIFICATES: Vessel Register, Load Line, Gear Certificate, Derat.

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes per man. If vessel remains in port over extended period of time, sea stores can be opened under Customs supervision and additional allowances made. Wine/Spirits: No specific limits as to quantity allowed per man; Customs accept Masters' recommendations for allowances so long as they are reasonable. This applies to beers, wines and spirits.

IDENTIFICATION CARDS: Form I-95A only.

CONSULS: Denmark, Dominican Republic, Finland, France, Germany F.R., Guatemala, Italy, Norway, Sweden, Uruguay.

REPAIRS: All types engine and deck repairs possible. 2 well-equipped shipyards.

DRY DOCKS: 3 large dry docks of 18,000 to 33,000 tons capacity and 6 smaller with capacity of 1,000 to 12,000 tons.

SURVEYORS: *Hull Surveyors:*

American Bureau of Shipping, 2254 Gulf Life Tower, Jacksonville, FL 32207. Tel: (904) 396-4993.

John M. Bell, 814 East Coast Drive, Atlantic Beach, FL 32233. Tel: (904) 249-2741.

Caleb Brett U.S.A. Inc., P.O.Box 40232, Jacksonville, FL 32203. Tel: (904) 246-9686. Marine bulk oil surveyors, cargo superintendent, analytical and testing laboratory, tank calibrator, draft surveys, hull and machinery surveys.

Fortson Marine Surveyors, Inc., 3366 Lake Shore Blvd., Jacksonville, FL 32210. Tel: (904) 389-0904. Light commercial.

Hull & Cargo Surveyors, Inc., 4161 Carmichael Avenue, Suite 216, Jacksonville, FL 32207. Tel: (904) 399-4114.

Intramarine, Inc., 2130 East Adams Street, P.O.Box 53043, Jacksonville, FL 32201. Tel: (904) 353-0828. Telex: 56-8421. Answerback: Intramar Jax.

Lloyd's Register of Shipping, Brownett Building, Suite 200, 4080 Woodcock Drive, Jacksonville, FL 32207. Tel: (904) 396-6788.

Capt. J. Ole Markussen, 4987 San Pablo Road South, Jacksonville, FL 32224. Tel: (904) 246-1850.

H. E. (Harry) Martin, P.O.Box 5028, Jacksonville, FL 32207. Tel: (904) 396-0422.

Robert L. Martin, 11350 Beacon Drive, Jacksonville, FL 32225. Tel: (904) 641-9892, (904) 641-9018.

Rudolph F. Matzer & Associates, Inc., 13891 Atlantic Blvd., Jacksonville, FL 32225. Tel: (904) 246-6438. Twx: 810/828-6094. Answerback: Matzer Jax.

The Salvage Association, 1946 Gulf Life Tower, Jacksonville, FL 32207. Tel: (904) 396-1861. Telex: 5-6216. Answerback: Wreckage Jax.

Schmahl & Schmahl, Inc., 2121 Corporate Square Blvd., Jacksonville, FL 32216. Tel: (904) 721-1699, (800) 432-0656.

Soucy-St. George & Co. Inc., 2070 Talleyrand Avenue, P.O.Box 16593, Jacksonville, FL 32216. Tel: (904) 356-7171, (904) 354-2442.

Strocchi & Company, 1914 Beachway Road, P.O.Box 16541, Jacksonville, FL 32216. Tel: (904) 398-1862, (904) 724-1641. Only vessels under 300 gross tons.

Dave Swan, 3327 Olive Street, Jacksonville, FL 32207. Tel: (904) 398-0305.

Toplis & Harding, Inc., 1045 Riverside Avenue, Suite 165, Jacksonville, FL 32204. Tel: (904) 356-5871. Telex: 5-6568. Answerback: Toplis Jax. Cable: Lloydagent.

United States Salvage Association, Inc., 1919 Beachway Road, Suite 5C, Jacksonville, FL 32207. Tel: (904) 398-1174.

Wignall & Company, 1000 Riverside Ave., Suite 303, Jacksonville, FL 32204. Tel: (904) 354-6993.

Cargo Surveyors:

Horvath Associates, Inc., P.O.Box 52148, Jacksonville, FL 32201. Tel: (904) 356-7876, (904) 268-2812.

Intermodal Transportation SVCS. (Div., General Adjustment Bureau), 4057 Carmichael Avenue, Suite 127, Jacksonville, FL 32207. Tel: (904) 398-7526.

National Cargo Bureau, 2070 Talleyrand Avenue, P.O.Box 16593, Jacksonville, FL 32216. Tel: (904) 354-2442.

SGS Control Services, Inc., 4306 Plymouth Street, Suites 1 & 2, Jacksonville, FL 32205. Tel: (904) 384-9830.

Schmahl & Schmahl, Inc., 2121 Corporate Square Blvd., Jacksonville, FL 32216. Tel: (904) 721-1699 (800) 432-0656

Soucy-St. George & Co., Inc., 2070 Talleyrand Avenue, P.O.Box 16593, Jacksonville, FL 32216. Tel: (904) 356-7171, (904) 354-2442.

Toplis & Harding, Inc., 1045 Riverside Avenue, Suite 165, Jacksonville, FL 32204. Tel: (904) 356-5871. Telex: 5-6568. Answerback: Toplis Jax. Cable: Lloydagent.

Wignall & Company, 1000 Riverside Avenue, Suite 303, Jacksonville, FL 32204. Tel: (904) 354-6993.

REPATRIATION: Facilities available to effect crew changes and repatriation.

AIRPORT: Airport 20 miles. Daily flights to all major U.S. cities.

TIME: Eastern Standard Time and Daylight Saving Time during Summer from first Sunday in April till last Sunday in October.

HOLIDAYS: Holidays observed by Stevedores: New Year's Day (Jan. 1st); Martin Luther King's Birthday (Jan. 15th); Lincoln's Birthday (Feb. 12th); George Washington's Birthday (Feb. 22nd); Good Friday; Memorial Day (May 30th); Independence Day (July 4th); National Election Day; Labor Day (First Monday September); Columbus Day (October 12th); Armistice Day (Nov. 11th); Thanksgiving (Fourth Thursday November); Christmas Eve, Christmas Day; New Year's Eve.

When holidays fall on Sunday, the following Monday observed to the extent of paying overtime and 8 hour minimum pay period shall apply. No work performed on the following holidays: New Year's Day, Independence Day, Labor Day, Christmas Day.

POLICE/AMBULANCE/FIRE: Police 633-4111; Ambulance 633-2211; Fire 633-2211.

EMERGENCY CO-ORDINATION CENTRE: *U.S. Coast Guard:*

U.S. Coast Guard, Captain of the Port, Marine Inspection Office, 2831 Talleyrand Avenue, Room 200, Jacksonville, FL 32206. Tel: (904) 791-2648, (904) 246-7341, if no answer. Cable: CG Captain of the Port Jax. Contact: Captain of the Port or Officer in Charge.

Certification of U.S. merchant vessels, port safety and security; licensing and certificating of merchant vessel personnel, documentation, and marine environmental protection.

U.S. Coast Guard, Group Mayport, State Road A1A, P.O.Box 385, Mayport, FL 32267. Tel: (904) 246-7341 (No TWX. or Telex). Contact: Commanding Officer.

Search and rescue, and law enforcement between Savannah, Georgia, and Cape Canaveral, Florida. 24 hour monitor; Channel 16, FM-VHF and 2182 kHz; HF-SSB emergency radio communications.

TELEPHONES: No facilities available for placing phones on board vessels except in shipyards.

SERVICES: Compass-adjusting, radar, navigational equipment. No tank-washing or tank-cleaning services available.

SHORE LEAVE: No restriction on shore leave if not detained by Immigration.

STORING: See "Prelims".

1. Vessel can be stored by barge or truck.
2. No regulations concerning barge storing except when vessel is loading or discharging dangerous cargo.
3. Trucks can proceed alongside at the berth.
4. Yes, fork lift trucks can be used on the jetty to handle stores.
5. Customs regulations in force regarding storing – ship's stores usually supplied free of U.S. excise taxes and supplies (such as alcoholic beverages and tobacco products) must be loaded under the supervision of the U.S. Customs Service for tax exemption to apply.
6. If possible, local Riggers can be employed to assist with storing but usually deliveries are made directly by the supplier.

REGULATIONS: No garbage to be disposed overside, no pumping of dirty ballast into river. Smoke emissions must be controlled to minimum.

BANKS: Atlantic National Bank of Florida, 200 West Forsyth Street, General Mail Center, Jacksonville, FL 32231. Tel: (904) 632-6767. Telex: 5-6311. Answerback: ATL/BK Intl Jax. Cables: Atlane.

Barnett Bank of Jacksonville N.A., Downtown Office, 100 Laura Street, P.O.Box 990, Jacksonville, FL 32231. Tel: (904) 791-7579. Telex: 5-6351. Answerback: Barbk N A Jax. Cables: Natbank.

Flagship Bank of Jacksonville, Prudential Building, P.O.Box 2494, Jacksonville, FL 32203. Tel: (904) 396-2861. Telex: 56-8410. Answerback: Flagbank Jax.

Florida National Bank of Jacksonville, 214 Hogan Street, General Mail Center, Jacksonville, FL 32231. Tel: (904) 359-5363. Telex: 5-6337. Answerback: Flanb Jax.

Jacksonville National Bank, 51 West Forsyth Street, P.O.Box 90 F, Jacksonville, FL 32231. Tel: (904) 359-7099.

Southeast Bank of Jacksonville, 231 East Forsyth Street, P.O.Box 2297, Jacksonville.FL 32203. Tel: (904) 350-1700.

DEVELOPMENTS: The entire river channel from the jetties on the Atlantic Ocean to Mile 20 has been dredged to a minimum depth of 38 ft. MLW.

Blount Island Terminal to be equipped with 3×40 ton Paceco portainer cranes. Delivery will be made September 1988, November 1988 and March 1989 respectively.

AUTHORITY: Jacksonville Port Authority, P.O.Box 3005 (2831 Talleyrand Avenue), Jacksonville, Florida 32206. *Tel:* (904) 633-5240. *Telex:* 810-827-1323. *Contact:* Paul D. de Mariano, Managing Director.

JUNEAU, Alaska: 58.18 N. 134.24 W.

Located at N.E. side of Gastineau Channel, 8 miles from Stephens Passage. Juneau is the capital of Alaska. Open all year.
APPROACHES: Via Chatham Straits, Lynn Canal and Stephens Passage.
DOCUMENTS: See "Anchorage, Alaska".
PILOTAGE: Pick-up point is Guard Island.
ANCHORAGE: 16 fathoms in centre of Juneau Harbour.
Restrictions: A Safety Zone has been established, comprising the area between the shore and a line extending 9 cables N.W. from No. 2A light-buoy. Within this zone, which is effective from June 1st to September 30th annually, no vessel other than passenger carrying vessels of 500 gross tons and over (including cruise ships and ferries) may anchor without the express consent of the Captain of the Port. There is no restriction on vessels navigating within the area.
MAX. SIZE: Harbour depth 15/19 fathoms. Tides: diurnal range 16.4 ft. Also see "Berthing".
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
CUSTOMS: Quarantine, Immigration and Customs, locally.
BERTHING:

1. Foss Alaska Line Dock: berthing length 550 ft. 36 ft. LW. No cranes.
2. Juneau Cold storage: berthing length 250 ft., 36 ft. LW. Cranes, 2 electric hoists, 3 lift trucks, 40,000 sq. ft. covered shed space. Fresh water.
3. Juneau Ferry Terminal: berthing length 400 ft. 32 ft. LW. No cranes. This is a Ro/Ro facility for wheeled vehicles and self-propelled or towed. 35 tons capacity. No covered shed space. Fresh water.
4. Coast Guard Dock: 750 ft. long, 31 ft. deep at face. No storage. Restricted use.
5. Trucano Construction Co. Dock: Length 500 ft. Crane with 90 ft. boom available, capacity 50 tons.

STEVEDORES: 1 gang.
REPAIRS: Engine repairs possible.
WATER: Available.
FUEL: Available.
MEDICAL: Hospital available.
TRANSPORTATION: Air and ferry.
AUTHORITY: The City and Borough of Juneau, Harbor Department, 155 South Seward Street, Juneau, Alaska 99801. *Tel:* (907) 586-5255, 9425. *Contact:* Ron Raykowski, Harbour Master.

KAHULUI, Hawaii: 20.53 N. 156.28 W. (See Plan)

DOCUMENTS:
4 Crew Lists.
4 Passenger Lists.
Customs Documents.
Clearance, Travelling Manifest.
Local Manifests.
Health Documents.
Bill of Health and Vaccination Certificates.
4 Manifests.
4 Bills of Lading.
Certificate of Registry.
Annual Inspection Certificate.
Load-line Certificate.
Derat Certificate.
Radio Certificate and Licence.
4 Stores Lists.
PILOTAGE: Request for Pilot normally made through Agent or through Captain K. Bohlin, Tel: 572-7343. Contact Pilot on VHF Channel 12. Pilot boards 0.25 mile East of Waihee Reef lighted Buoy No. 2. Anchorage 0.5 mile East of Buoy.
ANCHORAGES: No anchorage inside breakwaters. Only anchorage 0.5 mile East of Waihee Reef lighted Buoy No. 2 in 9 to 12 fathoms.
RESTRICTIONS: 24 hours' notice of arrival is obligatory. No tide restrictions.
MAX. SIZE: Max. length 700 ft. Max. draft 32 ft. 6 in.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Honolulu Quarantine Station. (Health: Tel. 244-4273.)
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany). (Agriculture: Domestic Overseas Arrivals Tel: 877-7801. Foreign Arrivals Tel. 244-3882.)
RADIO: Communicate through RCA or ITT stations in Honolulu.
TUGS: 1 × 1,500 h.p. tug stationed at Kahului. Additional tugs dispatched from Honolulu if necessary. Tug joins vessel between breakwater and Waihee Reef Lighted Buoy No. 2. Tug's lines normally used. No extra charge.
CARGO HANDLING: Kahului has 1 berth specially equipped to load bulk sugar. Matson Navigation Company operates a straddler to move Matson containers.

Young Brothers Ltd. operate a forklift to move containers.

Dock Load Limits: 500 lb./sq.ft. over the area supported by piles, cylinders or seawall. 1,000 lb./sq.ft. over the area supported by land or fill.
STEVEDORES: To be ordered by 1500 hrs. of day prior to operations.
MEDICAL: Hospital facilities available. Tel: 244–9056.
TANKERS: Discharge only. 12 in. line for molasses, 12 in. line for heavy fuel oil, 6 in. lines for light fuel oils. No slop discharge facilities. 2 berths available for tankers, max. draft 32 ft. 6 in.
FRESH WATER: Available from 2 in. water line at each berth. Rate of delivery about 200 gallons per minute.
FUEL: Small amount of diesel fuel and heavy fuel available in an emergency only.
GANGWAY/DECK WATCHMEN: Services of watchman recommended, usually arranged by Agent.
OPENING/CLOSING HATCHES: Normally carried out by stevedores.
CUSTOMS ALLOWANCES: 200 cigarettes, 50 cigars per man, and 1 bottle wine or spirits. (Customs Port Director Tel: 877-6013).
REPAIRS: Minor deck and engine repairs only.
AIRPORT: Distance to airport 1.5 miles. Served by Inter Island Airlines.
TELEPHONES: Arrangements made with Hawaiian Telephone Co. (Tel: 242-5211), to install on board.
DELAYS: Occasional delays due to limited berthing space and shortage of stevedore gangs.
POLICE/FIRE/AMBULANCE: Police 911; Ambulance 911; Fire 911.
EMERGENCY CO-ORDINATION CENTRE: U.S. Coast Guard: Tel. Honolulu 536-4336 or Locally Tel. 244-5256.
TIME: GMT minus 10 hours all year round.
STORING: 48 hours' free time for domestic cargo. 120 hours' free time for foreign cargo. Trucks allowed alongside to handle special cargoes, bulk and heavy lifts.
AUTHORITY: State of Hawaii, Dept. of Transportation, Harbors Division, P.O.Box 216, Kahului, Maui, Hawaii 96732. *Tel:* (808) 877-6051. *Contact:* Harold T. Campbell, District Manager and Harbour Master.

AGENT: See "Honolulu".

KETCHIKAN, Alaska: 55.20 N. 131.38 W.

DOCUMENTS: See "Anchorage, Alaska".
APPROACHES: Port located on Revillagigedo island. Open all year round. Ships coming from Hecate Straits or outside Graham Island proceed into Dixon Entrance to vicinity of Guard Island where the Pilot will meet them.

Vessels coming up the inside passage from Vancouver, B.C., are met at Lucy Island Pilot Station.
PILOTAGE: South Eastern Alaska Pilots' Association, Box 1539, Ketchikan, Alaska 99901. Telegraphic address; Alaska Pilots Ketchikan.

The Alaska Pilot Service requires 5 days, 48 hours, and 12 hours advance notice of ETA and can be contacted on Channel 16 VHF or 2182 kHz.

The pilot boat "Magdalene" (WA 7513) normally rendezvous with the vessel 0.75 miles from Guard Island.
ANCHORAGE: Safe anchorage can be obtained in the area for deep draft vessels; however there are no specified anchorage areas.
MAX. SIZE: The largest vessel to be berthed to date is a 26,000 ton freighter; however larger vessels could be accommodated.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: Cables to Agent, Receivers, and Pilots can best be routed through AKM Juneau.
TUGS: Tugs can be arranged through the ship's Agent. Lines from tug are normally used with no additional charge.
BERTHING: City Berth I-S: Length 450 ft., depth 33 ft. LW.

City Berth I: Length 375 ft., depth 26 ft. at North end.

City Berth II: Length 575 ft., depth 33 ft.

Ketchikan Pulp Company (at Wards Cove, 6 miles North of Ketchikan) private dock, berthing length 800 ft., depth 33 ft. at low water. 50 ton crane on rails, also mobile units and fork lifts.
STEVEDORES: Stevedores obtained through shipping Agent. 24 hours notice normally required.

4 or possibly 5 gangs available dependent on obtaining casual labour.
MEDICAL: Medical matters may be referred to shipping Agent. Excellent hospital and out-patient treatment facilities are available.
FRESH WATER: Water available at City Berths. Contact Harbour Master for service charge.
FUEL: Fuel available for deep draft vessels: No. 2 Diesel and gasoline.
TANKERS: Tow lines (fire wires) required fore and aft.
GANGWAY/DECK WATCHMEN: Recommend security watch for passenger vessels. Watchmen can be arranged through the shipping Agent.
OPENING/CLOSING HATCHES: Done by longshoremen.
IDENTIFICATION CARDS: Crew identification cards are required by Immigration Officials.
CONSULS: The nearest Consul is in Anchorage, Alaska.
REPAIRS: Excellent welding and machine-shop services are available.
DRY DOCKS: Ketchikan Shipyard, 600 ft., depth 30 ft.; 434 ft. floating dry dock. Facility in first stage of shipyard development.
REPATRIATION: Repatriation matters can be handled through the shipping Agent and Immigration Officials.
AIRPORT: Daily flights to and from Seattle as well as points North may be obtained.
TIME: Ketchikan is on GMT minus 8 hours during the Winter and GMT minus 7 during the Summer. Time changes from first Sunday in April till last Sunday in October.
AUTHORITY: City of Ketchikan, 334 Front Street, Ketchikan, Alaska 99901.

Supervisor, U.S. Coast Guard, Marine Safety Detachment, c/o U.S. Coast Guard Base, Ketchikan, Alaska.

KINGS BAY (Submarine Naval Base), Georgia: 30.49 N. 81.31 W.

NO LONGER A PUBLIC PORT FACILITY.

DOCUMENTS:

Crew List, from foreign movements, 1 Crew List visaed by American Consul in or near foreign port of departure; Coastwise U.S.A. 3 copies, 1 for Customs, 1 for Immigration and 1 for the Agent's office.

Curio List, 3 copies, from both foreign and coastwise movements.

Stores List, 3 copies, from both foreign and coastwise movements.

5 copies of Foreign Manifest.

Permit to sail from foreign port.

International Vaccination Certificates and/or other health certificates.

PILOTAGE: Channel entrance is between Cumberland and Amelia Islands, and is approximately 14 miles in length, 400 ft. wide and 38 ft. deep at MLW. Cumberland Pilots usually boards vessels at the St. Mary's Entrance Sea Buoy No. 2. Cumberland Pilots may be reached by marine telephone (ship-to-shore) Fernandina Beach, Florida, Tel: 261-3158. Naval Submarine Base Kings Bay is in the Northwestern part of Cumberland Sound, about 6 miles above its Southern entrance.

HEALTH: See "Health: All Ports" before first U.S. port Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

VHF: Port Services: VHF Channels 13, 16 and 17, Tel: 912-673-2550.

BERTHING: Day or night. Naval Submarine Base has a 1,996 ft. concrete pile wharf with depths of 38 ft. reported alongside in January 1984; deck height is about 14 ft. A rail spur line connects the terminal with the Seaboard System Railroad; 2 transit sheds, 2×30 ton mobile and 1×70 ton mobile hoists are available. 2×70 ton YD-243 and YD-239, one ARDM, 4 YTB tugs and 3 Civil Service Pilots are on site. There is 1 turning basin, 1,996 ft. long by 800 ft. wide with project depth of 38 ft. at MLW.

STEVEDORES: Riggers and crane operation supplied by Civil Service.

FRESH WATER: Plenty of fresh water available, pumped into ship's tanks by hose, bilge water via hose.

FIRE PRECAUTIONS: Smoking in the warehouse, on wharf or on any unit while unloading or discharging any flammable or explosive cargo is strictly prohibited. In the event of a fire occurring on board any unit, Tel: 2263/3333.

EMS Dispatcher: 2222.

Safety Manager: 2525.

Emergency: 2222/3333.

GANGWAY/DECK WATCHMEN: Required.

TIME: Eastern Standard Time and Eastern Daylight Saving Time.

HOLIDAYS: New Year's Day, Washington's Birthday, Memorial Day, Independence Day, Labour Day, Columbus Day, Veteran's Day, Thanksgiving Day, Christmas Day. In the event one of the above holidays falls on a Sunday, the following Monday will be observed.

POLICE/AMBULANCE/FIRE: Police Departments St. Mary's and Kingsland, Georgia, plus County Sheriffs and Naval Security. Ambulance, Kingsland. Fire, both Kings Bay and St. Mary's, Georgia.

TELEPHONES: Navsubase Operator Autovon and FTS lines, Commercial, 912-673-2000, Autovon, 860-2111, FTS, 970-2112.

SHORE LEAVE: Naval bus and taxi on base only.

GENERAL: *Recreational Services:* Theatre, swimming pool, bowling centre, library, Officer's Club Lounge, Chief Petty Officer's Club Lounge, Enlisted Club Lounge, Deli/Hungry Dolphin, Consolidated Package Store, Gymnasium.

DEVELOPMENTS: The channel from the dock area to the sea to be dredged to 44 ft. – 46 ft.

AUTHORITY: United States Department of the Navy, Washington.

Naval Submarine Base, Kings Bay, Georgia 31547. *Tel:* 912-673-2000 (commercial). *Contact:* Port Services Officer.

KODIAK, Alaska: 57.47 N. 152.24 W. (See Plan)

Located near the N.E. tip of Kodiak Island in the Gulf of Alaska, South of Anchorage and East of the Alaska Peninsula.

DOCUMENTS: See "Port of Anchorage".

PILOTAGE: Pilot can be contacted through South West Pilots' Association in Homer, Alaska, Tel: (907) 235-8783. 24 hours' notice should be given when requesting a Pilot. Pilot station: Lat. 57° 42′ 24″ N., Long. 152° 14′ 12″ W. (St. Paul Rocks Morris Alfa Buoy). Pilot boat is tug "Kodiak King". Tel: (907) 486-5503. VHF Channels 10, 12 and 16. Single Side Band 4125 kHz.

APPROACHES: North Entrance: Buoy No. 4 off Spruce Cape.

Pickup Point: Hutchinson Reef Buoy.

East Channel Entrance: Humpback Rock off Cape Chiniak. Steer 280°T until reaching St. Paul Buoy.

ANCHORAGES: Safe anchorage between Puffin and Gull Islands East of shipping channel.

Prohibited Anchorage: The City of Kodiak has declared that vessels are prohibited from anchoring within the inner Boat Harbour Light 1 (LLNR 3536.10) to a point at position 57° 46′ 56″ N., 152° 25′ 09″ W., thence to the North Pacific Fuel Pier (formerly the old Union Oil Pier at position 57° 47′ 05″ N., 152° 25′ 18″ W.) due to possible fouling and damage to waste water discharge from the canneries in that vicinity (St. Paul Harbour anchor zone).

Note: Mooring Buoys available in St. Paul inner anchorage and in St. Herman Harbour.

MAX. SIZE: Harbour depth in excess of 30 ft. Tides: Range approximately 10 ft.

HEALTH: See "Health": All Ports before first U.S.A. ports (Albany). Illness Reports made to Seattle Quarantine Station.

RADIO/VHF: Stevedoring Agent: Sea-Land Services, Inc. Tel: (907) 486-5795 or 486-4137. Call Sign KKI 38, VHF Channel 10, SSB 4419.4.

Harbour Master's Office, Tel: (907) 486-5438 or 486-5789. Call Sign KXE 279 for Channels 12 and 16. CB Channel 9 and SSB 4125.

TUGS: Alaska Tug and Salvage: Tel: (907) 486-5503. Radio Call Sign WYN66116. VHF Channel 10, 12 and 16. SSB 4125 kHz.

BERTHING: Pier 1/Ferry Dock: 204 ft.×28 ft., 28 ft. at MLLW. Use: Mooring, loading and unloading and bunkering.

Pier 2/City Dock: 360 ft.×64 ft., 38 ft. at MLLW. Use: Loading and unloading commercial freight vessels, moorage for fishing vessels. Covered warehouse space available. 20 ton and 90 ton cranes available. Various size forklifts.

Pier 3/Container Terminal: 360 ft.×64 ft. (880 ft. bollard to bollard), 38 ft. at MLLW, container services/general cargo, 30 ton gantry crane available.

CRANES: See "Berthing" and "Stevedores".

STEVEDORES: Sea-Land Services, Inc., Operations P.O.Box 2542, Kodiak, AK 99615. Tel: (907) 486-5795 or 486-4137.

Mobile cranes 20 tons, 40 tons and 90 tons available.

REPAIRS/SERVICES: Most deck, hull, engine, R/T, radar, gyro, hydraulic, electrical, refrigeration and all types of marine electronic repairs. Divers available for underwater surveys and repairs.

MEDICAL: Ample hospital facilities available. Also paramedics, doctors, dentists and optometrists.

FRESH WATER: Available.

FUEL: Light fuels only. 2 fuel companies. 24 hour service available.

SURVEYORS: Norm Holm, Box 365, Kodiak. Tel: (907) 486-5616.

DRY DOCKS: None available for large vessels.

AIRPORT: 5 miles from city centre. Various flights available depending on time of year. Ferry service available March to December.

POLICE/FIRE/AMBULANCE: Emergency 911, Police (907) 486-3221, Fire & Ambulance (907) 486-5728.

EMERGENCY CO-ORDINATION CENTRE: Coast Guard, Search and Rescue (Kodiak Island) Zenith-5555 anywhere in Alaska. VHF Channel 16.

AUTHORITY: City of Kodiak, P.O.Box 1397, Kodiak, Alaska 99615. *Contact:* George V. McCorkle, Harbour Master, Tel: (907) 486-5438 or 486-5789.

LAKE CHARLES, Louisiana: 30.13 N. 93.15 W. (See Plan)

PORT LIMITS: Buoy No. 26, In Calcasieu Ship Channel, 3 miles off Cameron, Louisiana.

DOCUMENTS:

U.S. Customs: If foreign cargo on board for discharge at any port:

3 copies of Cargo Manifest of all Cargo.

3 copies of Crew List.

3 copies of Stores List.

3 copies of Curio List (crew personal effects).

3 copies of Passenger List if carrying passengers.

If vessel in ballast, only 2 copies of above documents required.

If vessel in ballast and carrying passengers, 3 copies of above documents required.

1 copy of Clearance from last port.

2 copies of Customs Form 1300 (Master's Oath).

2 copies of Customs Form 1301 (General Declaration).

U.S. Customs Boarding Officer must examine Load Line Certificate, Safety Equipment Certificate, Tonnage Tax Receipt, Certificate of Financial Responsibility (Oil Pollution), Ship's Register and Ship's Certificate of Nationality (if any).

1 copy of Certified Crew List (If American Ship).

Bonded lockers may be sealed by Customs.

U.S. Immigration:

1 copy of Visaed Crew List from American Consul at foreign port of clearance (if any).

1 I-95 (Identification Card) for each crew member on board.

All passports must be validated for each crew member.

U.S. Bureau of Etomolgy:

All meat lockers and freezers with restricted meat will be sealed. All fruit from prohibited countries will be confiscated. All animais or birds from foreign countries must remain on board.

PILOTAGE: Radio Agent ETA, who will arrange Pilot board at Calcasieu Bar.

ANCHORAGE: At Calcasieu Bar only.

RESTRICTIONS: Entrance channel 40 ft. depth. Distance 40 miles.

During LNG/LPG movements, special restrictions may be placed on the waterway by the local Coast Guard Captain of the Port.

MAX. SIZE: 1,000 ft. length, 38 ft. draft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first USA port (Albany).

RADIO: Tropical – New Orleans, WNU.

VHF: Pilots may be contacted on Channel 12, 13, 65 and 66.

TUGS: Meet vessel 30 minutes away from berth. Use tugs' own lines. 2 for berthing, 2 for unberthing.

BERTHING: General Cargo Berths: 10 with total length: 5,675 ft. All have draft of 36 ft. (fresh water).

CRANES: Mobile pneumatic and track cranes available with lifts up to 50 tons.

BULK HANDLING FACILITIES: 3 bulk-loading berths: No. 1, West bank of Calcasieu River, 8 miles below main port facilities, 1,200 ft. length, 40 ft. depth, loading rate 1,600 t.p.h. Clam bucket type ship unloading crate, unloading rate of 600/800 short tons per hour.

No. 2, Contraband Bayou Section, main port, 920 ft. length, 35 ft. depth, loading 480 t.p.h. 16,000 long tons storage facilities.

No. 3, Contraband Bayou Section, main port, 320 ft. length, 35 ft. depth, loading rate (bulk rice) 180 t.p.h. from stationary tower. Twin 1,250 tons storage tanks adjacent.

No. 4, Bulk unloading facility, length 850 ft., depth 30 ft. Barite and petroleum coke unloaded, rate 250 t.p.h.

SPECIALISED CARGO HANDLING FACILITIES: 1 berth suitable for Ro/Ro traffic. 2 berths at main port for liquid chemicals, No. 5 for creosote oil import and No. 6 for import/export. Private berth for private company for receiving LNG.

BRIDGES: One bridge with vertical clearance of 135 ft.

STEVEDORES: Notice of firm ETA and request for gangs must be received prior to 1600 hrs. CST for work following day.

TANKERS: Citgo Petroleum Corp. B-Dock, 673 ft. length, 36 ft. depth; C-Dock, 660 ft. length, 34 ft. depth; D-Dock 665 ft. length, 36 ft. depth. Also see "Shipmasters Report No. 1".

Continental Oil Co. Berth 1, 1,000 ft. length, 40 ft. depth; Berth 3, 1,000 ft. length, 40 ft. depth.

PPG, 700 ft. length, 40 ft. depth.

Olin Corp. Dock: 400 ft. length, 28 ft. depth. Also see "Shipmaster's Report No. 2".

MEDICAL: Hospital facilities available.

DENSITY: Salt water in Summer, fresh water in Winter. Allow density 1000 for drafts.

FRESH WATER: Available at all berths.

FUEL: Bunker "C" and diesel available at Cities Service berths; other berths served with bunkers by barge.

FIRE PRECAUTIONS: Usual precautions.

DRY DOCKS: None.

SURVEYORS: 1. Cargo inspectors are available.
2. Surveyors are available.

GANGWAY/DECK WATCHMEN: Not required.

HATCHES: Rigging performed by stevedores. MacGregor-type hatches opened by crew, others by stevedores.

CARGO GEAR: Shore cranes available at ship's request.

CUSTOMS ALLOWANCES: At the discretion of Customs officers. Normal allowance is 200 cigarettes or 2 lb. tobacco and 1 litre wine or spirits per man. Additional allowances may be given if considered necessary, due to length of vessel's stay in port.

REPAIRS: Small repairs carried out only; very limited facilities.

REPATRIATION: Facilities exist. Arrange through Agent.

AIRPORT: 7 miles from port. 26 flights per day.

TIME: CST, that is GMT minus 6 hours.

HOLIDAYS: Only 2 days affected on which no work carried out – Labour Day and Christmas Day.

POLICE/AMBULANCE/FIRE: Police or Fire, 911. Fire only 491–1350. Police only 491–1311. Ambulance 433–1677, 433–4411 and 433–1668.

EMERGENCY CO-ORDINATION CENTRE: United States Coast Guard, Sabine, Texas. Tel: (713) 971–2361.

TELEPHONES: None on board ship.

SHORE LEAVE: Allowed if not detained by Immigration.

IDENTIFICATION CARDS: Standard U.S. Immigration Forms I-95 to be made up for each crew member on arrival. Not necessary for crew man already holding Form I-95, issued for the same vessel.

BANKS: Calcasieu Marine National Bank, 844 Ryan Street, Lake Charles, Louisiana 70601.

Premier Bank of Lake Charles, 3401 Ryan Street, Lake Charles, Louisiana 70605.

Gulf National Bank, 825 Ryan Street, Lake Charles, Louisiana 70601.

Lakeside National Bank, One Lakeside Plaza, Lake Charles, Louisiana 70601.

National Bank of Commerce, 535 Kirby Street, Lake Charles, Louisiana 70601.

STORING: See "Prelims".

1. Vessel can be stored by barge or truck.
2. Vessel can be stored during loading/discharging as long as it does not interfere.
3. Trucks can proceed alongside berth.
4. Forklifts can be used on docks.
5. No customs regulations for United States stores.
6. Longshoremen must be employed to assist in storing.

SHIP SUPPLY SERVICE: *Offshore Waters Personnel Transfer:*

Air: ERA Helicopters, Inc., P.O.Box 6566, Lake Charles, La. 70606. Tel: (318) 478-6131.

Petroleum Helicopters Inc., P.O.Box 16490, Lake Charles, Louisiana 70616. Tel: (318) 433-6658, 433-1749.

Boat: McCall Boat Service, P.O.Box 186, Cameron, La. 70631. Tel: (318) 775-5685.

Inland Waters Personnel Transfer:

Land and Water: Port Shuttle, Inc., P.O.Box 1772, Lake Charles, La. 70601. Tel: (318) 433-1613.

DELAYS: Very few delays encountered at any berth.

SHIPMASTER'S REPORT No. 1: 1977.

Cities Services Oil Co., Clifton Ridge:

Location: Lat. 30° 09′ 32″ N., Long. 93° 19′ 30″ W.

Max. Size: Length 805 ft., beam 115 ft., draft 39 ft. (FW).

Density: 1005.

Restrictions: Vessels may berth and unberth at any stage of the tide day or night.

Anchorage: At Bar: 2 miles East of seabuoy in depth of 42 ft. For Bunkering: South of Clooney Island in Old Calcasieu River Channel in midstream.

Distance to Berth: Sea buoy to berth 45 miles.

Terminal Information: 2 × 10 in. Chicksan arms. Max. discharge pressure 150 p.s.i. Derricks not required. Accommodation ladder not required.

Services: Fresh water, provisions, fuel oil, diesel and lube, doctor, hospital, airport and laundry.

The following services are not available: Repairs, drydocks, Lloyd's Surveyor and slop tanks.

Telephone Numbers: Dock 318-583-2432. Terminal Supervisor 318-491-6121, 318-491-6437.

SHIPMASTER'S REPORT No. 2: 1979. Olin Chemical Berth.

Approach: If without Loran "C" or satellite navigator the approach at night can be awkward, best made in daylight.

Due to flat coastline, lack of European navigation aids (Decca and Racon) plus numerous oil rigs the entrance to Calcasieu River (like Sabine) is difficult to make.

Calcasieu and Sabine D/F good.

Numerous oil rigs South of buoyed channel which are either side of safety fairway. This corridor can be clearly seen on radar and provides a good longitude.

The soundings, in particular the 100 fathom line, give a good latitude.

The wreck buoy on chart 975 – (Approach to Calcasieu River) at Lat. 29° 19.5′ N., Long. 93° 12′ W. has been removed.

'CC' Buoy was picked up at 6 miles.

Pilot/Channel: (B.A. chart 975). The channel is easy to follow as long as US system of buoyage is remembered. Vessels under 30 ft. can go out of the channel on their starboard side leaving starboard hand buoys to port. This is quite in order up to Pilot Area No. 1. Do not go on port side or West as this is spoil ground.

A Westerly current sets across channel 90% of the time and up to 1 knot. The boarding area is as Vol. No. 6 ALRS. If vessel takes a Pilot at Area No. 3 it costs $300 more than No. 1 (not necessary unless vessel restricted by draft – 24 hour service).

Pilot boat is an ex-fishing cutter. White, very fast and strong. Minimum notice for Pilots: Boarding at Area No. 1 four hours, Area No. 3 six hours. For sailing from Lake Charles 2 hours. From Area No. 1, one Pilot to Lake Charles, from Area No. 3, two Pilots. Pilot will *not* use hoist.

VHF: Calcasieu Pilots Channels 12, 13 and 16. Difficult to contact pilot station until well into channel North of 'CC' Buoy.

Public Correspondence: Several stations in area – Port Arthur, Cameron, Erath, Lake Charles, a number, notably Erath and Lake Charles have the "80" Channels which they use in preference to "20" Channels. Very busy, but if you search around you can get through fairly quickly. As with all U.S. Marine Operators, overseas ships have difficulty if not calling 'Collect'.

Calcasieu Channel: About 35 miles to Lake Charles from breakwaters. 5 hours from Pilot Area No. 1 to 'Olin' Chemical Dock.

With Northerly wind and heavy rain on ebb, a current of up to 5 knots at Cameron at entrance just North of breakwater.

Bridge: Highway 102 gives 135 ft. clearance HW. 3.75 hours North of breakwater.

Draft: Max. transit draft of 38 ft. 6 in. (FW) from No. 30 buoy to Lake Charles Docks. We consistently had 39 ft. on echo sounder.

Tugs: 2 tugs of 2,500 h.p. and 3,200 h.p. secure in American style, port side, at bridge 102 and leave in same area.

Berthing: Olin Chemical.

Dock: At head of seagoing navigation at bridge interstate 10. In cut, so no traffic passing. New concrete pier upgraded from barge dock. Min. depth 30 ft. Head in, starboard side to. Vessel left at 0200 hrs without difficulty.

Moorings: 3 headlines, 2 breast lines and 2 springs each end. Springs go on to bollards on the jetty and breast lines and stern lines on to hooks on the bank.

Cargo Hoses: 8 in. × 300 ASA and spool piece to 12 in. × 150 ASA 3 lengths, ship connects. Takes about 1 hour to connect and disconnect.

VRL: No.
Venting: No, on shore there are detectors on the tanks for ammonia. Generally the wind is onto the works which makes the detection of venting immediate. Vessel has to wait for a change of wind from the North.
Samples: Taken by chemist of tank atmosphere before loading. Must have min. 97% NH_3 by volume before loading.
Rate: Max. 330 t.p.h. (15 minutes of notice if possible, to stop).
Nitrogen: Available but not for hose purge.

Fresh Water: Water on berth very acid. Difficult to get hold of fresh water barge.

Stores: Ship's crane can reach end of jetty. Also small crane on hose platform on jetty which can be used for stores. Lorry cannot get to ship's side.

Gangway: No difficulties. Some ships have to use pilot ladder.

Developments: LPG dock at Beacon 85/86 about half way up the canal owned by Citgo Petroleum Corp. Good mooring facilities. 1 Chicksan Dredged area 1,000 ft. long, 45 ft. deep.

SHIPMASTER'S REPORT No. 3: June 1988.

Louisiana pilot's office works on Channel 66. Passage in and out varies between 2 hours and 5 hours, depending on tide and when vessel leaves pilot on way out.

The Customs District for this port is New Orleans.

At Conoco Berth (Clifton Ridge), their regulations prohibit the loadin of any flammable goods while vessel discharging cargo. (I pointed ou that we were discharging 66,000 tonnes of flammable goods, i.e. crud oil and on our return we were able to load flammable goods durin discharge). However, vessels unable to take bunkers alongside an have to go further up river and then anchor, 1 shackle in water and l against the bank. This means that vessels require 2 tugs when departin from anchorage.

AUTHORITY: Lake Charles Harbor and Terminal District, Port of Lak Charles, 150 Marine Street, P.O.Box AAA, Lake Charles, Louisian 70602. *Tel:* (318) 439–3661. *Telex:* 50–2449 Port Lk Cha
Contact: Burton Andrepont, Port Director.

LONG BEACH, California: 33.45 N. 118.13 W. (See Plan)

DOCUMENTS:

Certificate of Registry.
International Load Line Certificate – Tonnage Certificate (Admeasurement).
Inspection Certificate.
Derat Certificate.
Safety Radio Certificate.

Inbound cargo for discharge – United States must have a Travellers' Manifest (Form 7527), original manifest, and dock inspection copy covering cargo to be discharged at first U.S. port of entry, Custom's Utilisation Form 1302 (Inbound), Form 1302A (Outbound) must be filed within 10 working days after vessel's entry at first U.S. port. Landing permits must be made out prior to arrival (Form I-95) for each crewman of alien origin for the U.S. Department of Immigration (and Form I-418 for each passenger of alien origin). 3 sets of Crew Lists (Form I-418) must be presented to U.S. Customs, plus 2 sets to the Immigration Inspector, and 1 for the U.S. Public Health Service (Quarantine), and 3 sets Stores Lists plus 3 sets Curio Purchases List for U.S. Customs.

American Ships from Foreign Ports:
Safety Equipment Certificate.
Cargo Ship Safety Construction Certificate.
Customs Form CF 226 Affidavit of Repairs Abroad.
Certified Crew List.

Foreign Ships:

1 copy of Visaed Crew List for Immigration (Form I-418 & 5 copies). Other forms may be necessary under certain circumstances, but normally can be taken care of after the vessel's arrival.

If a foreign vessel from a foreign port departs for a foreign port, 2 copies of (Form I-418) covering crew changes in the United States must be submitted to the Department of Immigration upon sailing of the vessel.

(a) Number of copies required: all single except as noted.
(b) The reports mentioned above are all government laws, requested by U.S. Customs, U.S. Immigration, Department of Agriculture, Public Health Service, and B.I.A.
(c) Purpose of documents: to record all vessel movements such as cargo, crew changes, health standards, etc.
(d) Procedure of presenting documents: documents must be presented to Quarantine Boarding Officer and Customs Broker and/or Agent, during or immediately after Quarantine.

PILOTAGE: Pilots ordered by local Agents. Order placed by telephone to 435-6354/5. Pilots require 1 to 2 hours notice prior to arrival. Pilot station contacted on VHF radio Channel 12 (156.6 MHz) or Channel 16 (156.8 MHz). Call sign KMA – 372 Long Beach Pilots. Pilot boats motor cruisers, light grey, fly International Flag "H". Local whistle signal for a Pilot on ship's whistle, 1 short and 1 long blast. Pilot boat normally meets vessels in vicinity Long Beach Sea Buoy or approximately 1 mile South of breakwater entrance. Vessels should have a Pilot ladder on starboard side, weather permitting. In bad weather vessels may be required to proceed inside breakwater entrance prior to Pilot boarding. Pilot boat on VHF Channel 13.

ANCHORAGE: Preferably outside anchorage approximately 0.5 mile S.E. of Long Beach Sea Buoy in 66 ft. of water. Inside anchorage available N.E of channel in outer harbour at approximately 8 fathoms of water depth. Special explosive anchorages available by request, on both sides of entrance channel in 48 ft. of water.

U.S. Coast Guard Anchorage Regulations:

1. The Master of every vessel upon anchoring shall notify the Coast Guard Captain of the Port giving vessel name, anchorage number and time anchored.

2. The Master of every vessel upon departing anchorage shall notify the Coast Guard Captain of the Port giving vessel name, anchorage number, time underway and destination; i.e., bound for sea or for berth number.

3. For the above reports, the call to the Coast Guard Captain of the Port should be made on VHF Channel 16.

RESTRICTIONS: Vessels with dangerous cargoes aboard or loading or discharging such cargo within port district shall obtain permit from U.S. Coast Guard, countersigned by Long Beach Fire Prevention Bureau and Long Beach Port Authority, subject to safety inspection prior entry to assigned anchorage or berth. (Application for entry or handling dangerous cargoes must be requested by Steamship Company or authorised Agent and approved prior entry.)

Also see "Tankers" last paragraph.

MAX. SIZE: (1) Designed depth of water at general cargo berths is 30 ft. – 42 ft. at MLLW.

The Entrance Channel is maintained at 60 ft. MLLW.

(2) No length or breadth restrictions at general cargo berths.

(3) Dry bulk facility berths designed depth at MLLW is 36 ft. to 50 ft. No restriction on length. However, ships with over 130 ft. beam might experience some difficulty in loading without turning ship.

There are 10 bulk oil facilities, 1 with 76 ft., 1 with 55 ft. of water at MLLW and 8 with 37 ft. to 52 ft. of water at MLLW alongside berths. It is feasible that vessels over 1,000 ft. in length could use the deep-water oil facilities. There are no restrictions as to beam.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Los Angeles Quarantine Station.

QUARANTINE: Quarantine Station, U.S. Public Health Service, 200 World Way, L.A. International Airport, Los Angeles, CA 90045, Tel: 215-2365. Hours: 0600 – 1800 hrs. regular boarding hours. 1800 – 0600 hrs. overtime boarding hours.

STANDARD PROCEDURE FOR MARITIME BOARDING

Dockside Boarding: Vessels subject to Quarantine Inspection are normally boarded upon arrival in berth.

A vessel crewman should be stationed at the gangway to prevent any crew member from going ashore and shore personnel from coming aboard until the vessel has been passed by the Quarantine Boarding Officer.

Vessels are boarded at anchor.

Boarding in the Stream: Vessels are boarded at anchor:

Only if ship is to be at anchor for some time, such as waiting berth, etc.

Or upon special request by the ship's Agent.

Effective July 1st, 1973, Radio Pratique as a method of quarantine clearance was discontinued at all ports under control of the United States. Changes in regulations, policies, and procedures concerning Maritime Public Health Clearance has been promulgated.

Vessels Subject to Routine Inspection: Only vessels in the following categories will be subject to on board Public Health Inspection upon arrival at ports under control of the United States:

A. Vessels which, during the 15 days prior to arrival in the United States, or since the last U.S. port (whichever period is shorter) have or have had on board among passengers or crew any of the following conditions or illness signs or symptoms:

1. Temperature of 100°F (38°C) or greater (a) which persisted for 2 days or more; or (b) which was accompanied or followed by any one or all of the following: rash, jaundice, glandular swelling; *or*

2. Diarrhoea severe enough to interfere with work or normal activity; *or*

3. On board occurrence of death, regardless of the signs and symptoms above.

B. Vessels which have been in plague infected country in the 60 days prior to arrival in the United States.

Procedures: Vessels in any of the categories A or B above will be granted Provisional Pratique and boarded upon arrival for inspection. In addition, vessels boarded for quality control may be boarded upon or subsequent to arrival. IN ACCORDANCE WITH REGULATIONS YOU MUST INFORM THE QUARANTINE STATION, THROUGH YOUR VESSEL AGENT, AT OR NEAREST THE INTENDED PORT OF YOUR VESSEL'S FIRST ARRIVAL IN THE UNITED STATES OF THE OCCURRENCE OF ILLNESS AS SPECIFIED IN A ABOVE. Based on information you provide your Agent, or information your Agent already possesses regarding your vessel's itinerary, your Agent will notify the Quarantine Station if your itinerary included a plague infected country.

ARRIVING VESSELS NO LONGER NEED TO COMPLETE A MARITIME PUBLIC HEALTH DECLARATION UNLESS BOARDED FOR INSPECTION AS DESCRIBED ABOVE. THE BOARDING INSPECTOR WILL PROVIDE THE DECLARATION.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Station KOU Marine Operator, San Pedro.

Channel 1 — ship transmit on 2009 kHz
ship receive on 2566 kHz
Channel 4 — ship transmit on 2126 kHz
ship receive on 2522 kHz

Station KOU also monitors Channel 16 (156.8 MHz) and Channel 26 (157.3 MHz) for distress, safety and calling.

Hours of report 0805, 2005 PST. Operator gives notice 5 minutes prior to each report. No ship traffic is handled during report period.

RADAR/VHF: Radar service provided to vessels only if Pilot aboard, in which case radar advisory information will be fed from shore-based radar at Pilot Station.

Use	Channel	Frequency (MHz)
Distress, Safety and Calling	16	156.80
Safety, S.A.R.	06	156.30
Bridge to Bridge	13	156.65
Marine Exchange VTIS	13	156.65
Marine Exchange Non-VTIS	12	156.60
Marine Exchange Non-VTIS	14	156.70
Long Beach Pilots, KMA 372	12	156.60
Los Angeles Pilots, KEB 260	14	156.70
U.S. Navy, Control No. 2	12	156.60
Harbour tugs, primary	77	156.875
Harbour tugs, secondary	65A	156.275
San Pedro Marine Operator	24	157.20
San Pedro Marine Operator	26	157.30

Note: The Marine Operator does not guard Channel 16.

Channel 77 – Pilot/Tug channel: This channel is restricted to communications by a harbour pilot and support personnel in the movement and docking of ships. The use by commercial and recreational boat users is *in strict violation* of FCC rules. The loss of communications between a pilot and his assisting tugs due to interference by unauthorised users could result in a serious catastrophe within a harbour.

Channels 12, 14, 65A – Port Operations channels: Messages are restricted by FCC rules to "the operational handling, movement and safety of ships and, in emergency, to the safety of persons." Other use is a violation of FCC rules.

Channel 13 – Navigational Bridge to Bridge channel: Use of this channel is restricted by FCC rules to navigational communications, such as meeting and passing arrangements, and vessel traffic services. No shore-based of this channel is permitted in this harbour area except Marine Exchange VTIS and the Cerritos Channel lift bridges.

Vessel Traffic Information Service: Upon entering the precautionary area, vessels are encouraged to contact the Marine Exchange on VHF Channel 13 (Call Sign KGW-299) to ascertain what vessel traffic may be expected.

TUGS: Tugs will meet vessel inside breakwater prior reaching inner harbour area. Pilot and tugs are in communication.

BRIDGES: No restrictions into Port of Long Beach. The Gerald Desmond Bridge over Back Channel has vertical clearance of 155 ft. Cerritos Channel which connects Long Beach through Back Channel to Port of Los Angeles has 2 bridges which must be opened for passage of vessels.

Signal for Opening: 3 long blasts on horn or whistle. During inclement weather, call through a megaphone or make a loud and distinct stroke on a bell.

BERTHING: No requirements as to time of entry providing berthing arrangements have been made with Port Authority. Assignments classified as follows:

Preferential Assignments. Secondary Assignments, Subordinate Right granted for use of Preferential Assigned Berth. Temporary Assignment – temporary permission granted to use certain berth.

Note: All berth assignments shall be held by Assignee subject provisions of Port of Long Beach Tariff as to charges, rates, rules and regulations applicable thereto, and to all of terms, conditions and provisions contained in such assignment.

Depths/Elevations: Average elevation of wharf decks above mean lower low water datum and design depth of water alongside berths below mean lower low water datum. (Design Depths are subject to variations) (Data as of 1986)

Berth	*Elevation* (ft.)	*Design Depth* (ft.)
Pier A:		
1	25.3	30
2	25.3	30
3	22.4	30
4	22.3	30
6	15.0	50
8	15.0	50
10	15.0	50
201	16.0	32
208	19.0	40
209	19.1	40
210	19.2	40*
211	19.2	40*
*45 ft. at 9 ft. out		
Pier B:		
12	22.2	32
13	22.4	32
16	10.7	21
17	19.1	32
17 Ro/Ro	13.7	33
18	18.7	36
Pier C:		
20	18.0	32
21	18.1	32
22	18.8	32
23	11.0	32
24 Ro/Ro	11.3	35
24	18.3	35
25	17.6	35
26	17.3	35
27 Ro/Ro	12.9	14
Pier D:		
28	10.7	43
29	10.5	43
30	10.9	43
31	12.0	43
32	13.8	36
33	13.8	36
34	13.6	36
Pier E:		
118	21.5	55
119	21.7	55
121	20.0	76
122	22.7	40
122**	14.5	40
**Barge Ramp		
Pier F:		
204	18.4	36
205	18.5	36
206	18.5	32
207	18.5	32
Pier G:		
212	18.8	50
214	18.5	37†
227	15.6	42
228	15.5	42
229	15.4	42
230	15.4	42
†42 ft. at 9 ft. out		
Pier J:		
232	15.9	36
233	15.9	36
234	15.9	42
242	14.9	36
243	15.9	42
244	15.9	42
245	16.0	36††
246	15.9	36††
247	15.9	36††
††40 ft. at 8 ft. out		
Pier 1:		
48	17.0	36
49	16.9	36
50	17.5	36
Pier 2:		
52	10.5	36
53	10.6	36
54	11.3	36
Other Inner Harbour Berths:		
43	13.0	40
44	13.0	40
46	12.0	36
62	12.0	42
69	11.7	40
73		36
76	19.0	40
77	19.0	40
78	19.0	40
82	14.3	38
83	14.4	38
84	16.2	52
85	16.2	52
86	16.3	52
87	16.3	52
101	14.0	42

GENERAL CARGO FACILITIES:

Berth 1, 2:	
Terminal Operator:	Salen Shipping Agencies
Cargoes Handled:	Fresh citrus fruit, bananas, frozen shrimp.
Total Terminal Area:	7.9 acres (2.8 ha.)
Length of Berths:	1,070 ft. (326 m.)
Wharf Height:	25.3 ft. (7.7 m.)
Wharf Area:	37,995 sq.ft. (3,530 sq.m.)
Apron Width:	34 ft. (10.4 m.)
Open Storage Area:	174,240 sq. ft. (16,204 sq.m.)
Loading Platform Area:	13,000 sq.ft. (1,208 sq.m.)
Design Depth of Water:	30 ft. (9.1 m.)
Transit Shed Area:	108,000 sq.ft. (10,044 sq.m.)
Special Equipment/Facilities:	Specialised equipment to handle unitised cargo. Also handles general cargo and containers.
Berths 3, 4:	
Terminal Operator:	Cooper/T. Smith Stevedoring Co.
Cargoes Handled:	Steel, lumber.
Total Terminal Area:	8.5 acres (3.4 ha.)
Length of Berths:	1,000 ft. (304.8 m.)
Wharf Height:	22.4 ft. (6.8 m.)
Wharf Area:	34,075 sq.ft. (3,166 sq.m.)
Apron Width:	35 ft. (10.7 m.)
Open Storage Area:	275,000 sq.ft. (25,548 sq.m.)
Loading Platform Area:	11,505 sq.ft. (1,069 sq.m.)
Design Depth of Water:	30 ft. (9.1 m.)
Transit Shed Area:	99,840 sq.ft. (9,275 sq.m.)
Special Equipment/Facilities:	Mobile cranes, forklifts.
Berth 201:	
Terminal Operator:	Port of Long Beach.
Cargoes Handled:	Standby berth.
Length of Berths:	600 ft. (183 m.)
Wharf Height:	16 ft. (4.9 m.)
Wharf Area:	36,000 sq.ft. (3,066 sq.m.)
Apron Width:	60 ft. (18.3 m.)
Open Storage Area:	36,000 sq.ft. (3,066 sq.m.)
Loading Platform Area:	36,000 sq.ft. (3,066 sq.m.)
Design Depth of Water:	32 ft. (9.8 m.)
Special Equipment/Facilities:	None.
Berth 208:	
Terminal Operator:	Standard Fruit and Steamship Co.
Cargoes Handled:	Fresh bananas.
Total Terminal Area:	5.7 acres (2.3 ha.)
Length of Berths:	600 ft. (183 m.)
Wharf Height:	19.1 ft. (5.8 m.)
Wharf Area:	24,000 sq.ft. (2,044 sq.m.)
Apron Width:	40 ft. (12.2 m.)
Loading Platform Area:	14,000 sq.ft. (1,300 sq.m.)
Design Depth of Water:	40 ft. (12.2 m.)
Transit Shed Area:	4 electric, travelling banana
Special Equipment/Facilities:	unloaders. Capacity 17,000 boxes (365 tons) per hour. Electric conveyor system from unloaders to trucks, with automatic computer controlled diverter system. Truck scale, maintenance building, 41,500 sq.ft. refrigerated warehouse
Berths 12, 13, 17, 18:	
Terminal Operator:	California United Terminals.
Cargoes Handled:	Steel, lumber, breakbulk, containers rolling stock.
Total Terminal Area:	20.4 acres (8.3 ha.)
Length of Berths:	2,696 ft. (821 m.)
Wharf Height:	18.7 ft. – 22.2 ft. (5.7 m. – 6.8 m.)
Wharf Area:	108,462 sq.ft. (10,076 sq.m.)
Apron Width:	45 ft. – 200 ft. (13.7 m. – 61 m.)
Open Storage Area:	186,325 sq.ft. (17,310 sq.m.)
Loading Platform Area:	12,000 sq.ft. (1,115 sq.m.)
Design Depth of Water:	32 ft. – 36 ft. (9.7 m. – 11 m.)
Transit Shed Area:	180,000 sq.ft. (16,722 sq.m.)
Special Equipment/Facilities:	Mobile cranes, forklifts, container handlers, Ro/Ro ramp. Heavy lift capability. Rail spur.
Berths 28, 29, 30, 31, 34:	
Terminal Operator:	California United Terminals.
Cargoes Handled:	Breakbulk general.
Total Terminal Area:	30 acres (12.1 ha.)
Length of Berths:	2,900 ft. (884 m.)

Wharf Height:	10.5 ft. – 18.5 ft. (3.2 m. – 5.6 m.)
Wharf Area:	126,000 sq.ft. (11,705 sq.m.)
Apron Width:	45 ft. – 130 ft. (13.7 m. – 39.6 m.)
Open Storage Area:	288,600 sq.ft. (26,811 sq.m.)
Loading Platform Area:	9,000 sq.ft. (836 sq.m.)
Design Depth of Water:	36 ft. – 43 ft. (11 m. – 13.1 m.)
Transit Shed Area:	96,000 sq.ft. (8,922 sq.m.)
Special Equipment/Facilities:	Stevedoring equipment. Access for rail to heavy lift berths. Ro/Ro ramp.

Berth 122:

Terminal Operator:	Weyerhaeuser Company† Fremont Forest Products‡
Cargoes Handled:	Lumber and lumber products.
Total Terminal Area:	19.9 acres (8 ha.)† 7.5 acres (3 ha.)‡
Length of Berths:	600 ft. (183 m.)
Wharf Height:	22.7 ft. (6.9 m.)
Apron Width:	50 ft. (15.2 m.)
Open Storage Area:	432,600 sq.ft. (40,188 sq.m.)† 210,000 sq.ft. (1,951 sq.m.)‡
Design Depth of Water:	40 ft. (12.2 m.)
Transit Shed Area:	2 dry storage sheds total 10,000 sq. ft. (929 m.)‡
Special Equipment/Facilities:	150 ft. notched wharf to accommodate barges and lumber handling equipment. Notch height – 12.7 ft. (3.9 m.) Weyerhaeuser storage located at Berths No. 115-116.

Berths 204, 205:

Terminal Operator:	Steel Terminal, Inc. (SSA).
Cargoes Handled:	Steel and lumber products.
Total Terminal Area:	18.9 acres (7.6 ha.)
Length of Berths:	1,275 ft. (335 m.)
Wharf Height:	18.5 ft. (5.6 m.)
Wharf Area:	130,000 sq.ft. (12,077 sq.m.)
Apron Width:	50 ft. – 150 ft. (15.2 m. – 45.7 m.)
Open Storage Area:	480,000 sq.ft. (45,335 sq.m.)
Loading Platform Area:	9,000 sq.ft. (836 sq.m.)
Design Depth of Water:	36 ft. (11 m.)
Transit Shed Area:	180,000 sq.ft. (16,722 sq.m.)
Special Equipment/Facilities:	Stevedoring equipment. Terminal services.

Berths 206, 207:

Terminal Operator:	Crescent Terminal, Inc. (SSA).
Cargoes Handled:	Steel products.
Total Terminal Area:	17.5 acres (7 ha.)
Length of Berths:	1,192 ft. (313 m.)
Wharf Height:	18.5 ft. (5.6 m.)
Wharf Area:	57,500 sq.ft. (5,341 sq.m.)
Apron Width:	48 ft. (14.6 m.)
Open Storage Area:	530,000 sq.ft. (49,237 sq.m.)
Loading Platform Area:	13,800 sq.ft. (1,288 sq.m.)
Design Depth of Water:	32 ft. (9.8 m.)
Transit Shed Area:	190,000 sq.ft. (17,651 sq.m.)
Special Equipment/Facilities:	Stevedoring equipment. Terminal services.

Berth 62:

Terminal Operator:	Cooper/T. Smith Stevedoring Co.
Cargoes Handled:	Steel, plywood, automobiles, trucks.
Total Terminal Area:	20 acres (8 ha.)
Length of Berth:	750 ft. (228.5 m.)
Wharf Height:	12 ft. (3.9 m.)
Apron Width:	89 m.
Open Storage Area:	579,348 sq.ft. (53,879 sq.m.)
Design Depth of Water:	42 ft. (12.8 m.)
Transit Shed Area:	44,160 sq.ft. (4,107 sq.m.)
Special Equipment/Facilities:	Stevedoring Equipment. Terminal services.

Berth 50:
Berths 52, 53 54:

Terminal Operator:	Forest Terminals Corp.
Cargoes Handled:	Newsprint/lumber/lumber products.
Total Terminal Area:	17.1 acres (6.9 ha)
Length of Berths:	3 wharfs, 1,982 ft. (604 m.)
Wharf Height:	10.2 ft. – 17.1 ft. (3.1 m. – 5.2 m.)
Wharf Area:	63,645 sq.ft. (5,912 sq.m.)
Apron Width:	30 ft. – 38 ft. (9.1 m. – 11.6 m.)
Open Storage Area:	6.9 acres lumber storage
Loading Platform Area:	9,750 sq.ft. (906 sq.m.)
Design Depth of Water:	40 ft. (12.2 m.)
Transit Shed Area:	2 × 247,400 sq.ft. (22,984 sq.m.)
Special Equipment/Facilities:	Specialised ships and barges designed for newsprint vacuum handling, loading and unloading. Vacuum lift truck on dock, heavy-duty lift trucks for lumber handling, easy access to L.B. Frwy. Minimum time truck loading.

Berths 82, 83:

Terminal Operator:	Pasha Group*/Toyota Motor Sales, U.S.A.**
Cargoes Handled:	Automobiles.
Total Terminal Area:	78.4 acres (31.7 ha.)* 79.3 acres (32 ha.)**
Length of Berths:	1,300 ft. (396 m.)
Wharf Height:	14.4 ft. (4.4 m.)
Wharf Area:	61,750 sq.ft. (5,737 sq.m.)
Apron Width:	95 ft. (30 m.)
Open Storage Area:	2,730,000 sq.ft. (253,617 sq.m.)* 2,100,000 sq.ft. (195,090 sq.m.)**
Design Depth of Water:	38 ft. (11.6 m.)
Special Equipment/Facilities:	Pasha Group – office, processing and assembly buildings, body shop, dewax, truck maintenance building. Capacity for 36 rail cars. Toyota Motor Sales, U.S.A. – office and processing buildings, body shop, car wash, truck bed installation building.

*Pasha Group †Weyerhaeuser Company
**Toyota Motor Sales, U.S.A. ‡Fremont Forest Products

CONTAINER FACILITIES:

Berths 6, 8, 10:

Terminal Operator:	Long Beach Container Terminal, Inc.
Total Terminal Area:	85.3 acres (34.5 ha.)
Length of Berths:	2,700 ft. (823 m.)
Wharf Height:	15 ft. (4.6 m.)
Crane Truck Gauge:	100 ft. (30.4 m.)
Clear Lift/Above Water:	105 ft. (32 m.)
Boom Outreach:	137 ft. (41.8 m.)
Backreach:	50 ft. (15.2 m.)
Open Storage Area:	3,216,000 sq.ft. (298,766 sq.m.)
Design Depth of Water:	50 ft. (15.2 m.)
Cargoes Handled:	General cargo in containers.
Special Equipment/Facilities:	Ground and chassis operation. 4 travelling container cranes of 40 long ton capacity; 46 tons without spreader. 11 transtainers, 4 and 5 high stacking. 14,000 TEU ground capacity, incl. 340 reefer outlets, 2,000 FEU chassis slots, 600 FEU chassis stacked vertically.

Berths 20, 22, 24, 26:

Terminal Operator:	California United Terminals.
Total Terminal Area:	96 acres (38.8 ha.)
Length of Berths:	1,950 ft. (594 m.)
Wharf Height:	11.3 ft. – 18.4 ft. (3.4 m. – 5.6 m.)
Crane Truck Gauge:	50 ft. (15.2 m.)
Clear Lift/Above Water:	98 ft. (29.9 m.)
Boom Outreach:	115 ft. (35 m.)
Backreach:	50 ft. (15.2 m.)
Open Storage Area:	2,520,000 sq.ft. (234,108 sq.m.)
Design Depth of Water:	37 ft. (11.3 m.)
Cargoes Handled:	General cargo in containers, Ro/Ro cargo, breakbulk and steel slabs.
Special Equipment/Facilities:	2 Ro/Ro ramps, one stern ramp. 4× 40 ton travelling container cranes, transtainers, top handlers, side handlers. Container storage space for 14,400 TEU ground capacity, 2,500 FEU chassis slots, 360 reefer outlets. 11-lane main gate and 6 scales. Rail spurs.

Berths 227, 228, 229, 230:

Terminal Operator:	Sea-Land Service, Inc.
Total Terminal Area:	108.6 acres (44 ha.)
Length of Berths:	2,550 ft. (778 m.)
Wharf Height:	15.6 ft. (4.8 m.)
Crane Truck Gauge:	100 ft. (30.4 m.)
Clear Lift/Above Water:	106 ft. (32.3 m.)
Boom Outreach:	115 ft. – 127 ft. (35 m. – 38.7 m.)
Backreach:	60 ft. (18.3 m.)
Open Storage Area:	5,317,200 sq.ft. (493,619 sq.m.)
Design Depth of Water:	42 ft. – 44 ft. (12.8 m. – 13.4 m.)
Cargoes Handled:	General cargo in containers
Special Equipment/Facilities:	Ground and chassis operation. 1×40 ton, 6×30 ton travelling container cranes. Space for 10,230 TEU containers, 2,550 grounded, 5,900 chassis, including 482 reefer chassis spaces. Container freight station separate from terminal with 71,150 sq.ft. (6,610 sq.m.). 4 transtainers.

Berths 232, 233, 234:

Terminal Operator:	International Transportation Services, Inc.
Total Terminal Area:	103.6 acres (42 ha.)
Length of Berths:	2,300 ft. (701 m.)
Wharf Height:	16 ft. (4.9 m.)
Crane Truck Gauge:	50 ft. – 100 ft. (15.2 m. – 30.4 m.)
Clear Lift/Above Water:	96 ft. – 106 ft. (29.3 m. – 32.3 m.)
Boom Outreach:	115 ft. – 137 ft. (35 m. – 41.8 m.)
Backreach:	45 ft. – 50 ft. (13.7 m. – 15.2 m.)
Open Storage Area:	2,980,460 sq.ft. (276,885 sq.m.)
Design Depth of Water:	36 ft. – 42 ft. (11 m. – 12.8 m.)
Cargoes Handled:	General cargo in containers.
Special Equipment/Facilities:	Ground and chassis operation. 4×30 and 2×40 long ton container cranes. 6×40 long ton and 4×30 long ton capacity transtainers. Space for storing 12,800 TEU containers on ground, including 264 reefer outlets. 4,000 TEU chassis slots. Container Freight Station with 60,100 sq.ft. (5,583 sq.m.).

Berths 243, 244:
Terminal Operator: Maersk Line Agency.
Total Terminal Area: 45.1 acres (18.2 ha.)
Length of Berths: 1,200 ft. (366 m.)
Wharf Height: 15.9 ft. (4.8 m.)
Crane Track Gauge: 50 ft. (15.2 m.)
Clear Lift/Above Water: 106 ft. (32.3 m.)
Boom Outreach: 115 ft. – 125 ft. (35 m. – 38 m.)
Backreach: 50 ft. (15.2 m.)
Open Storage Area: 1,512,000 sq.ft. (140,464 sq.m.)
Design Depth of Water: 42 ft. (12.8 m.)
Cargoes Handled: General cargo in containers.
Special Equipment/Facilities: Chassis operation. 3×40 ton travelling container cranes. 2×40 ton transtainers. 2,460 FEU container slots on chassis and 1,800 TEU container slots grounded, 250 reefer outlets. Side handler and top pick with 15 and 40 ton capacity. One rail line through Berth 246.

Berths 245, 246, 247:
Terminal Operator: Pacific Container Terminal.
Total Terminal Area: 62.5 acres (25.3 ha.)
Length of Berths: 2,100 ft. (640 m.)
Wharf Height: 15.9 ft. (4.8 m.)
Crane Track Gauge: 50 ft. (15.2 m.)
Clear Lift/Above Water: 91 ft. – 106 ft. (27.7 m. – 32.3 m.)
Boom Outreach: 115 ft. – 125 ft. (35 m. – 38 m.)
Backreach: 50 ft. (15.2 m.)
Open Storage Area: 2,500,000 sq.ft. (232,250 sq.m.)
Design Depth of Water: 36.4 ft. – 40 ft. (11 m. – 12.2 m.)
Cargoes Handled: General cargo in containers.
Special Equipment/Facilities: Ground and chassis operation. 4×40 ton travelling container cranes. 40 ton transtainers. Athwartship capability. Space for storing 12,000 TEU containers. Complete reefer container services and storage, with 168 reefer outlets. Container freight station, 34,000 sq.ft.

DRY BULK FACILITIES:

Berths 32, 33:
Terminal Operator: Pacific Coast Cement Corp.
Cargoes Handled: Bulk cement.
Total Terminal Area: 2 acres (0.8 ha.)
Length of Berths: 676 ft. (206 m.)
Wharf Height: 13.8 ft. (4.2 m.)
Open Storage Area: 157,623 sq.ft. (14,643 sq.m.)
Design Depth of Water: 36 ft. (11 m.)
Special Facilities/Equipment: Silo capacity 50,000 tons. Screw-type unloader capacity 600-800 t.p.h., unloads to conveyor system direct to silos. Highest elevation vertical screw 42.5 ft., lowest elevation vertical screw 38 ft. Max. reach 94 ft. from face of wharf (concrete), 91.5 ft. from pierhead line. Vertical clearance under boom at MHW 89 ft., under vertical screw at MHW 20 ft. Truck loading spouts.

Berth 46:
Terminal Operator: Domtar Gypsum.
Cargoes Handled: Gypsum.
Total Terminal Area: 9 acres (3.6 ha.)
Length of Berths: 600 ft. (183 m.)
Wharf Height: 12 ft. (3.7 m.)
Design Depth of Water: 36 ft. (11 m.)

Berth 82:
Terminal Operator: Gold Bond Building Products.
Cargoes Handled: Bulk gypsum.
Total Terminal Area: 17.3 acres (7 ha.)
Length of Berths: 650 ft. (198 m.)
Wharf Height: 14.4 ft. (4.4 m.)
Open Storage Area: 65,340 sq.ft. (6,076 sq.m.)
Design Depth of Water: 38 ft. (11.6 m.)
Special Facilities/Equipment: Adjustable, elevated receiving hopper served by an elevated electric belt conveyor system extending to a 40,000 ton capacity storage bulding. 800-900 t.p.h. capacity.

Berths 209, 210:
Terminal Operator: Ocean Salt Co.
Cargoes Handled: Bulk salt.
Total Terminal Area: 4.9 acres (2 ha.)
Length of Berths: 1,100 ft. (335 m.)
Wharf Height: 19.2 ft. (5.9 m.)
Open Storage Area: 117,740 sq.ft. (10,938 sq.m.)
Design Depth of Water: 40 ft. (12.2 m.)
Special Facilities/Equipment: Movable inclined elevated electric belt conveyor system with receiving hopper extending from wharf to stock pile area. Packaging plant adjacent.

Berths 210, 211:
Terminal Operator: Koch Carbon Co.
Cargoes Handled: Dry bulk products.
Total Terminal Area: 6.7 acres (2.7 ha.)
Length of Berths: 1,100 ft. (335 m.)
Wharf Height: 19.3 ft. (5.9 m.)
Open Storage Area: 291,000 sq.ft. (27,000 sq.m.)
Design Depth of Water: 40 ft. (12.2 m.)
Special Facilities/Equipment: Truck wash, new conveyor system, truck dump for petroleum coke with new control room. Silo storage 65,000 tons.

Berths 212, 213, 214, 215:
Terminal Operator: Metropolitan Stevedore Co.
Cargoes Handled: Bulk petroleum coke, coal, potash, borax, soda ash, iron ore and prilled sulphur.
Total Terminal Area: 39.2 acres (15.9 ha.)
Length of Berths: 1,900 ft. (243 m.)
Wharf Height: 18.5 ft. – 18.8 ft. (5.6 m. – 5.7 m.)
Open Storage Area: 75,000 metric tons
Design Depth of Water: 37 ft. – 50 ft. (11.3 m. – 15.2 m.)
Special Facilities/Equipment: Stockpile area 85,682 sq.ft. (7,960 sq.m.). Two electric, travelling bulk shiploaders. The first with retractable straight-line bridge boom having 58 ft. (17.7 m.) outreach beyond pierhead line, 60 ft. (18.3 m.) above MLLW to bottom of shuttle, 47.5 ft. to bottom of swivel. Boom equipped with 48 in. (1.2 m.) electric belt conveyor and a telescopic loading spout with mechanical trimming head. Loading rate 3,900 long tons/hr. The second shiploader features a retractable straightline bridge boom with a 75 ft. (24.2 m.) outboard reach 66 ft. (20.1 m.) air draft telescoping loading spout with spoon. Designed loading rate is 5,000 metric tons/hr. Rail facilities: 85 car unit trains can be accommodated while waiting movement to dump sites. One rotary and one bottom dump system. Shiploaders travel on rails along rear of wharf for distance of 1,485 ft. (453 m.); working range is 1,175 ft. (358 m.). Bulk materials are handled by 48 in. (1.2 m.) and 72 in. (1.9 m.) belt conveyor systems extended to shiploader through tunnel reclaim from car unloading sheds and storage areas. Prilled sulphur also exported from facility. Two covered silos with 30,000 tons of sulphur storage capacity.
Covered Storage: 380,000 tons
Silo Storage: 30,000 tons

CRANES: Barge cranes available capacity 45 tons – 275 tons. A U.S. Navy floating crane capacity 385 tons available for hire.

MEDICAL: Advance notice preferable. Adequate hospital and medical facilities available for providing necessary or emergency care. From information available, Public Health Department may, if required, request certain information prior to granting Free Pratique for inoculations, Vaccination/Fever Certificates.

TANKERS:

Berths 30, 31, 32:
Terminal Operator: Baker Commodities Inc.
Cargoes Handled: Tallow, vegetable oils (coconut oil, palm oil, cotton seed oil).
Total Terminal Area: 1.2 acres (0.5 ha.)
Length of Berths: 992 ft. (302.4 m.)
Wharf Height: 10.9 ft. – 12.1 ft. (3.3 m. – 3.7 m.)
Design Depth of Water: 43 ft. (13 m.)
Special Facilities/Equipment: 2×6 in. pipelines from Wharf D-30 to storage tanks. Storage capacity 6.7 million gallons. Also 3×10 in. pipelines from Berth D-32 to storage tanks.

Berths 73, 74:
Terminal Operator: Powerline Oil Company.
Cargoes Handled: Crude oil and fuel oil.
Total Terminal Area: 8.8 acres (3.6 ha.)
Length of Berths: 830 ft. (253 m.)
Wharf Height: 11.7 ft. (3.6 m.)
Design Depth of Water: 37 ft. (11.3 m.)
Special Facilities/Equipment: Storage capacity: 570,000 bbls.

Berths 76, 77, 78:
Terminal Operator: Four Corners Pipe Line Company.
Cargoes Handled: Petroleum.
Total Terminal Area: 28 acres (11.3 ha.)
Length of Berths: 2,150 ft. (655 m.)
Wharf Height: 14.4 ft. (4.4 m.)
Design Depth of Water: 46 ft. (14 m.)
Special Facilities/Equipment: Capacity for storage: 1,800,000 bbls.

Berths 82, 83:

Terminal Operator:	Petro-Diamond.
Cargoes Handled:	Gasoline, gasoline blend stocks, diesel, toluene, MTBE and lube oil. 1×8 in. dock hose conecting into one of 2×500 ft., 12 in. dock lines capable of receiving up to 7,500 bbls./hr.
Total Terminal Area:	5.4 acres (2.2 ha.)
Length of Berths:	1,300 ft. (396 m.)
Wharf Height:	14.4 ft. (4.4 m.)
Design Depth of Water:	38 ft. (11.6 m.)
Special Facilities/Equipment:	Terminal has pipeline connections which allow petroleum products to be shipped to most L.A. Basin Refiners and common carrier pipelines. Truck rack at the Terminal is capable of loading 100 trucks per hour period. Permits are available for DSP and bonded storage. Capacity for petroleum products: 410,000 bbls.

Berths 84, 85, 86, 87:

Terminal Operator:	Texaco Inc.
Cargoes Handled:	Crude oil, petroleum products, bunker fuel.
Total Terminal Area:	10.7 acres (4.3 ha.)
Length of Berths:	1,770 ft. (540 m.)
Wharf Height:	16.3 ft. (5.0 m.)
Design Depth of Water:	52 ft. (15.8 m.)
Special Facilities/Equipment:	Discharge capacity 32,000 bbls./hr.; 24 in. pipeline to storage and tank farm. Storage capacity: 245,000 bbls.

Berth 118:

Terminal Operator:	Four Corners Pipe Line Company.
Cargoes Handled:	Petroleum products.
Total Terminal Area:	3.3 acres (1.3 ha.)
Length of Berths:	1,000 ft. (305 m.)
Wharf Height:	21.5 ft. (6.6 m.)
Design Depth of Water:	55 ft. (16.8 m.)
Special Facilities/Equipment:	4×12 in. (30.5 cm.) hydraulic-operated, marine swivel-jointed loading arms mounted on elevated steel structure on centre wharf. Discharge capacity is 50,000 bbls. (7,950,000 litres) per hour.

Berths 120, 121:

Terminal Operator:	Four Corners Pipe Line Company.
Cargoes Handled:	Crude oil and petroleum products.
Total Terminal Area:	5.7 acres (2.3 ha.)
Length of Berths:	1,100 ft. (335 m.)
Wharf Height:	20 ft. (6.1 m.)
Design Depth of Water:	76 ft. (22.4 m.)
Special Facilities/Equipment:	4×16 in. diameter articulated crude unloading arms and 1×8 in. diameter articulated bunker/diesel loading arm; 275 p.s.i. max. working pressure; designed to accommodate tankers from 50,000 to 265,000 d.w.t. tankers; arms are FMC Chicksan with hydraulic couplings. Storage tankers available at ARCO facilities in Carson and the inner harbour via 42 in. and 24 in. pipelines.

Berths 209, 210, 211A:

Terminal Operator:	Golden West Distribution.
Cargoes Handled:	Petroleum products and bunker fuel.
Total Terminal Area:	4.6 acres (1.9 ha.)
Length of Berths:	790 ft. (241 m.)
Wharf Height:	19.1 ft. (5.8 m.)
Design Depth of Water:	40 ft. (12.2 m.)
Special Facilities/Equipment:	Storage tankage for bunker fuel 404,570 bbls. Discharge rate: 4,500 bbls./hr.

Berth 210:

Terminal Operator:	C. Brewer Terminals.
Cargoes Handled:	Crude products.
Total Terminal Area:	1.9 acres (0.77 ha.)
Length of Berths:	570 ft. (174 m.)
Wharf Height:	19.1 ft. (5.8 m.)
Design Depth of Water:	40 ft. (12.2 m.)
Special Facilities/Equipment:	Storage capacity; 62,000 bbls.

Berth 242:

Terminal Operator:	C. Brewer Terminals.
Cargoes Handled:	Bulk molasses, miscellaneous bulk liquid chemicals and bunker fuel.
Total Terminal Area:	7.4 acres (3 ha.)
Length of Berths:	700 ft. (213.4 m.)
Wharf Height:	15.0 ft. (4.6 m.)
Design Depth of Water:	36 ft. (11.0 m.)
Special Facilities/Equipment:	Pumping and pipeline system designed to handle product from barges, ships rail cars and trucks. Heavy duty pumps to handle a variety of bulk liquids, storage tank capacity: 13 million gallons. Also use Pier A, Berth 210.

The following is part of a letter sent by the Captain of the Port to a tanker operator:

The safety of the port and the VLCC tankers using the harbour for bunkering and provisioning is of paramount concern to the Coast Guard. Consequently the following guidelines have been established for all such vessels 200,000 d.w.t. and larger when utilising the Outer Harbour (inside of the breakwater) of the ports of Los Angeles/Long Beach:

a. Vessels may enter or depart the harbour areas inside the breakwater only during daylight if over 56 ft. draft.
b. Minimum visibility of 1 mile is established for vessel movement.
c. Adequate tugboat assistance shall be provided when passing through the breakwater entrances upon entering or departure, and when navigating inside the breakwater to and from anchorages.
d. A qualified Pilot must be onboard when entering or departing the harbour. One way traffic is to be maintained during the VLCC's transit through the breakwater entrance.
e. Vessel must have a 10% draft clearance under the keel when crossing either the Los Angeles or Long Beach entrance.
f. No "dead ship" status will be permitted without prior approval of the Captain of the Port.
g. No vessel with a beam in excess of 200 ft. shall enter either harbour without the permission of the Captain of the Port.

DENSITY: Local water density 1.025 grams per millilitre or pure sea water at all stages of tide.

FRESH WATER: Potable fresh water available all Municipal berths through 2 in. lines. Rental charge for use of each 50 ft. length water hose when furnished.

FUEL: All grades (viscosities) of bunker fuels available in any amount through pipe-lines at most Municipal berths, and by barge at anchor or at berths if desired. Notify quantity and type desired to local Steamship Company or Agent.

FIRE PRECAUTIONS: 2 fire boats and 1 fire station; in addition City fire service available.

Special fire precautions required at all berths handling petroleum products or dangerous cargoes. In addition to all applicable provisions of Long Beach Municipal Code, flammable and combustible liquids and flammable gases shall be handled and stored at Marine Petroleum Terminals in accordance with minimum fire safety requirements promulgated by Chief, Department of Fire, City of Long Beach.

GANGWAY/DECK WATCHMEN: Normally used, but only compulsory when detainees aboard.

OPENING/CLOSING HATCHES: Crew can open or close hatches at sea or at anchor. If closed or opened at dockside, the use of longshoremen compulsory.

CUSTOMS ALLOWANCES: Tobacco, each crew member entitled to 300 cigarettes, 50 cigars and 3 lb. of tobacco or combination of above. If the stay in port is such that additional tobacco is required, Customs will so issue. Wine and/or Spirit, not to exceed 1 quart of alcoholic beverage each adult non-resident. This exemption for alcoholic beverages may be applied to more than one kind but not to an aggregate volume of more than 1 quart for each adult crew member.

Note: Upon arrival of vessel from foreign port, or vessel engaged in foreign trade from a domestic port, sea stores and ship's stores not required for immediate use or consumption on board while vessel in port, and articles acquired abroad by officers and members of crew, for which no permit to land has been issued, shall be placed under seal, unless Customs Officer is of the opinion that circumstances do not require such action.

CARGO GEAR: Employer shall not use ship's cargo handling gear until he has ascertained that vessel has a current and valid Cargo Gear Register and Certificate indicating that cargo gear has been tested, examined and annealed in accordance with requirements of International Labour Organization Convention No. 32.

CONSULS: (Consul Generals, Consul or Vice-Consul). In Los Angeles. (Area code 213)

	Tel. No.		Tel. No.
Argentina	687-8884	Kenya	274-6635
Australia	380-0980	Korea	931-1331
Austria	380-7550	Latvia	620-0300
Bangladesh	275-4024	Lebanon	467-1253
Barbados	380-2198	Liberia	277-7692
Belgium	385-8116	Lithuania	889-7724
Bolivia	680-0190	Luxembourg	394-2532
Botswana	626-8484	Malawi	373-2123
Brazil	937-4044	Malaysia	621-2991
Canada	627-9511	Malta	685-6365
Chile	624-6357	Mauritius	788-3720
Colombia	382-1137	Mexico	624-3261
Costa Rica	461-9534	Monaco	655-8970
Denmark	387-4277	Morocco	550-3646
Dominican Republic	627-3361	Netherlands	380-3440
Ecuador	628-3014	New Zealand	477-8241
El Salvador	680-4343	Norway	626-0338
Estonia	463-5542	Panama	627-9139
Finland	203-9903	Paraguay	(714) 969-2955
France	653-3120	Peru	975-1152
Germany F.R.	852-0441	Philippines	387-5321
Great Britain	385-7381	Portugal	277-1491
Guatemala	621-2904	Saudi Arabia	208-6566
Guyana	389-7565	Senegal	938-3361
Honduras	623-2301	South Africa	858-0380
Iceland	(818)789-3308	Spain	686-6050
Indonesia	383-5126	Sri Lanka	207-8000
Israel	651-5700	Sweden	472-0901
Italy	820-0622	Switzerland	388-4127
Ivory Coast	550-1288	Thailand	380-4400
Jamaica	735-4950	Turkey	937-0118
Japan	624-8305	Venezuela	977-0996
Jordan	557-2243	Western Samoa	666-2154

IDENTIFICATION CARDS: U.S. Department of Justice, Immigration and Naturalization Service Form I-95-A (Form I-94 for passengers) must be completed.
REPAIRS: Within greater port area facilities to accomplish all types of deck and engine repairs.
DRY DOCKS: Within greater port area 2 large private commercial dockyards, Bethlehem Shipbuilding and Repair, and Todd Shipyard Corporation with large floating dry docks and repair facilities. Also, 3 large capacity graving docks located at Naval Shipyard available for emergency use by merchant vessels when not occupied by naval vessels.
SURVEYORS:

1. Lloyd's Register (local office), 1328 N. Avalon Blvd., Wilmington, CA 90744, (P.O.Box 575) 90748. Tel: (213) 834 2334.

American Bureau of Shipping, 200 Pine Ave., Suite 415, Long Beach, CA 90802. Tel: (213) 437-6488.

2. Pacific Cargo Inspection Bureau, Pier A, Berth 4, Long Beach, CA 90802. Tel: 435-7861.

Jacobsen and Associates, Inc., 1324 N. Avalon Blvd., P.O.Box 248, Wilmington, CA 90748. Tel: 834-4553.

REPATRIATION: Through U.S. Department of Justice, Immigration and Naturalisation Service, and clearance of personal effects by U.S. Customs.
AIRPORT: Los Angeles International Airport approximately 18 miles from port, and provides regular scheduled and international airline service.
TIME: GMT minus 8 hours. United States observes Daylight Saving Time, from first Sunday in April till last Sunday in October.

HOLIDAYS: The subject Legal holidays are defined as follows: New Year's Day (1st January); Lincoln's Birthday (12th February); Washington's Birthday (3rd Monday February); Memorial Day (Last Monday May); Independence Day (4th July); Labour Day (1st Monday September); Admission Day (9th September); Columbus Day (2nd Monday October); Veterans' Day (11th November); Thanksgiving Day (4th Thursday November); Christmas Day (25th December).

Notes: (1) Also, every Statewide Election is a holiday.
(2) Also, any other legal holiday that may be proclaimed by State or National authority is a holiday.
(3) When one of the above days falls on Sunday, the following Monday shall be observed as a holiday.

POLICE/AMBULANCE/FIRE: Port of Long Beach – Police 590-7320 (routine), 911 (emergency); Fire Department and Paramedics 911; Harbour Security Officers 590-4195; U.S. Customs 590-2457.

In an emergency dial 911.

EMERGENCY CO-ORDINATION CENTRE: U.S. Coast Guard, Captain of the Port, 165 N. Pico Ave., Long Beach, CA 90802. Tel: (213) 590-2326.
TELEPHONE: Installation of telephone aboard ship at Municipal berths.
SERVICES: All services from tank cleaning to compass and instrument repair available at various locations within greater port area.

STORING: See "Prelims".

1. Vessel can be stored by barge or truck by prior arrangement.
2. No restriction on storing from barge while vessel is discharging or loading except when the vessel is handling hazardous cargo, petroleum products or bunkering.
3. Truck can proceed alongside the berth for the purpose of delivering or receiving stores and chandlery supplies.
4. Forklift trucks may be used on the berth to handle stores with approval of the stevedoring company.
5. Custom regulation regarding storing: Stores *not in bond* may be taken on board the vessel on an export declaration certified by the Customs' Inspector on duty. Stores *in bond* must be signed off by the bonded warehouse on a vessel supply export document and received on board the vessel by the Customs' Inspector on duty.
6. Riggers employed to assist with storing, stevedores or longshoremen assist with the stores on the wharf but the storing on board vessel is done by the ship's crew.

SHIP SUPPLY SERVICE: See "Los Angeles".
SHORE LEAVE: Crewmen allowed shore leave providing necessary application presented to U.S. Immigration Officer is approved and crewmen's Landing Permit issued (Form 5129). Customs declaration required for articles to be landed by crew members (1 quart of alcoholic beverage with seal broken is allowed).
DELAYS: Arrival at berths are normally on time as scheduled. However, there are times of inclement weather or lack of cargo at a berth which create a short delay. Shortage of longshoremen can also cause a delay in discharging or loading cargo. No delay experienced in bunkering.
GENERAL: For information regarding various social organisations, call 436-9041. Long Beach Recreation Department, for information.
DEVELOPMENTS: The Port Authority are seeking approval of landfill adjacent to Pier J of 147 acres. If approval is given, work on 2 new container terminals will start in 1988, with completion in 1991 and occupancy in 1992.

AUTHORITY: Board of Harbor Commissioners, Port of Long Beach, P.O.Box 570, (925 Harbor Plaza), Long Beach, California 90801 – 0570. *Tel:* (213) 437-0041. *Telex:* 656452. *FAX:* (213) 437-3231. *Cables:* Portobeach. *Contact:* James H. McJunkin, Executive Director. Stan Westover, Director of Operations.

AGENT: Norton Lilly Intl., 2001 John Gibson Blvd., San Pedro, CA 90731. Tel: (213) 547-1156. Telex: 6831863.

LONGVIEW, Washington: 46.10 N. 122.55 W.

(See Plan)

DOCUMENTS:

3 Complete Cargo Manifests.
3 Stores Lists.
3 Possessions Lists.
3 Crew Lists on Immigration forms.
Vessel's Documents.
Tonnage Tax Statement.
Quarantine Form completed.

At first port of arrival, ship is boarded and inspected by Customs, Immigration, Public Health and Agriculture officials. At each subsequent port only Customs Agent will board prior to docking.

PILOTAGE: See "General – Pilotage" before first U.S.A. port.
ANCHORAGE: Safe anchorages indicated by Columbia River Pilots.
RESTRICTIONS: None in regard to arrival time or state of tide. Channel depth 40 ft. at mean low water and tidal range varies between 2.5 ft. and 4 ft.
MAX. SIZE: No limitation on length or breadth. Depth alongside 40 ft.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: Columbia River Pilots have knowledge of tug positions and other knowledge pertaining to tugs aiding a vessel.
BERTHING: 7 berthing facilities are available at Port Longview, starting adjacent to the Lewis & Clark Bridge and extending upstream for a distance of nearly a mile.

Berths 1 through 4 are located on one continuous wharf 2,350 ft. long. Berths 1, 2 and 3 are equipped to handle general cargo, bulk feed grains, bulk ores, chemicals and petroleum products. 2 gantry cranes serve Berths 1 and 2 and a 600-ton capacity heavy lift is located at Berth 3. A paved 2.8 acre assembly area fronting Berth 2 is suitable for handling lumber or multi-commodity project shipments. Both gantry cranes can be used at this facility. 3 transit sheds and 1 gear locker are located near the three berths which are also served by 1,500 ft. of surface track on the wharf apron plus 2 spur tracks under the gantry cranes.

Berth 4 is used for receiving and shipping grain and is served by a 5 million bushel grain elevator operated by the Continental Grain Company. The overhead grain gallery extending along the wharf is served by 6 gravity-fed loading spouts. A marine leg located at the inland side of the wharf is used for unloading grain barges.

Berth 5 is a 515 ft. wharf and is an exporting facility for the shipment of bulk chemicals. It is also available for the loading of logs using ship's gear from the water side of the vessel, and handling barges.

Berths 6 and 7 form a continuous wharf 1,500 ft. long. The ship-side container crane is located at Berth 7, with a 50 ton gantry crane at Berth 6. Both cranes are rail mounted. An open cargo handling area of 54 acres is located adjacent to the 2 berths. On the dock is one large transit shed (100,666 sq.ft.) and a gear locker. 3 rail tracks are located along the length of the apron. There is a rail spur on the inland side of the transit shed.

With the exception of the grain elevator facility, Port Longview operates its own facilities and performs all terminal services between ship's tackle and consignees or inland carriers.

In addition to these facilities operated by the Port, there are 9 other berths operated privately in the Longview Port District. Weyerhaeuser Company owns 6 berths and Reynolds Metals Company, International Paper Company and Longview Fibre Company each operate 1 berth apiece. 6 of the 9 berths are used primarily for export while the other 3 are used mainly for receiving raw materials used by the mills.

BULK HANDLING FACILITIES:

Containers: Port Longview's container facility centres around a 30 long ton, electrically operated, rail mounted crane.

The crane has a rated lifting capacity of 30 long tons below the spreader and 37 long tons below the cargo beam. The telescopic spreader can be adjusted to handle 20 ft., 27 ft., 35 ft. and 40 ft. ISO Sealand containers. It is designed to handle 20 load/discharge containers per hour.

The boom can be raised and lowered to provide clearance of ship superstructure and is designed for through-leg rapid load-handling.

With an outreach of 124 ft. from the waterside rail and a vertical reach of 110 ft., the crane can service Panamax size vessels.

Utilising a unique "trailer-train" system, a continuous flow of containers can be maintained between storage and staging areas to sustain loading/unloading operations.

A 40-acre area located behind Berth 6 – 7 is for use as a container storage yard.

Containers received from the vessel can be immediately inspected and rerouted either to warehouses for devanning or to rail or truck for ongoing movement. Export containers are staged to the vessel in loading sequence in the adjacent cargo assembly area.

Grain: The Continental Grain Company operates the 5,165,000 bushel capacity grain elevator at the Port of Longview Terminal.

Pellets/Coke/Fertiliser: Port Longview has three dry bulk shipping facilities. Sugar beet pulp pellets are loaded at Berth No. 1 through a 600 t.p.h. loader.

A "portable" belt conveyor and loader for handling bulk dry products (200 t.p.h.) is available at Berth No. 3.

Atlantic Richfield Co. uses a calcined coke storage/loading facility at Berth No. 5.

Two portable hoppers with belt conveyors are available to handle inbound free flowing dry bulks unloaded by ship's gear or dock Whirley cranes equipped with clams.

Roll-on/Roll-off: A 240 ft. extension to the upstream end of Berth 7 to accommodate Ro/Ro vessels is available at the Port of Longview. 96 ft. of the extension is constructed at a level 8 ft. lower than the remainder of the dock and serves as the loading/unloading area to accommodate a Ro/Ro vessel's stern ramp.

BRIDGES: One bridge crossing Columbia River at Longview has sufficient clearance so as not to present a problem. Clearance 169 ft. – 185 ft. depending on season.

CRANES: 2 electric-powered gantry cranes serve Berths 1 and 2 on 550 ft. of track. They are readily adaptable for handling various types of bulk cargoes, containers, logs, machinery and large equipment. 1 crane is equipped with a 130 ft. boom and has a capacity of 60 tons at a 45 ft. radius. The other crane has a 120 ft. boom with a 50 ton capacity at a 45 ft. radius. Both cranes are served by two 400 ft. railroad tracks permitting direct handling between rail cars and vessels.

A third gantry crane serves Berth 6 on 500 ft. of track. This crane has a 165 ft. boom with a capacity of 50 tons at a 45 ft. radius. 2 × 1,000 ft. rail tracks are located between the crane tracks for handling rail cars at shipside.

The 'Columbia Giant', a 600-ton capacity shore-based crane located at the port, is one of the largest capacity lifting facilities on the West Coast. The twin booms of the derrick reach 130 ft. above the dock and have a tested lifting capacity of 660 tons. The blocks can be hoisted separately or in tandem. The lifting system is certified by Federal and State agencies and has passed safety requirements for heavy lifting of AEC controlled projects. The 'Columbia Giant' is available for single lifts ranging from 65 short tons up to its rated capacity of 600 short tons.

Also see "Berthing" – Berth Nos. 6 and 7.

STEVEDORES: At least 24 hours notice necessary to arrange gangs before ETA. Arrange through Port Office via Ship's Agent.

MEDICAL: Hospital facilities available.

TANKERS: No facilities.

DENSITY: Columbia River is fresh water at Longview.

FRESH WATER: Available through 8 in. line with 2.5 in. connections. Rate of delivery approx. 14.5 t.p.h.

FUEL: Not available.

GANGWAY/DECK WATCHMEN: Not needed, but arrangements can be made if necessary.

OPENING/CLOSING HATCHES: Work carried out normally by stevedores.

CUSTOMS ALLOWANCES: See "Portland, Oregon".

IDENTIFICATION CARDS: Advisable but not necessary.

CONSULS: At Portland, Oregon.

REPAIRS: Some deck and minor engine repairs are possible at Longview.

REPATRIATION: No facilities for effecting crew changes or repatriations.

AIRPORT: Nearest airport served by regular airlines is in Portland. Charter flights may be arranged from a small local airport.

TIME: GMT minus 8 hours. In addition, clocks are moved ahead 1 hour on the first Sunday in April and returned back 1 hour on the last Sunday in October, at 0200 hrs. local time on those 2 days.

HOLIDAYS: New Year's Day (January 1st); Washington's Birthday (February 22nd); Memorial Day (May 30th); Independence Day (July 4th); Labour Day (first Monday in September); Veteran's Day (November 11th); Thanksgiving Day (fourth Thursday in November); Christmas Day (December 25th). Cargo work can be arranged on most of these holidays.

POLICE/FIRE/AMBULANCE: Police 911; Fire 911; Ambulance 636-3120.

TELEPHONES: Available at dockside.

SHORE LEAVE: Crews allowed ashore if papers are in order.

BANKS: Rainier National Bank and Seattle First National Bank.

STORING: See "Prelims".

1. Yes.
2. Yes.
3. Yes.
4. Yes.
5. —.
6. Yes.

SHIP SUPPLY SERVICE: The only firm currently engaged in the ferrying of personnel from ship to shore in the Columbia River in the Port Longview area is Knappton Towboat Co. Their address is: Knappton Corporation, 611 East "A" Street, Rainier, Oregon 97048, U.S.A.

AUTHORITY: Port Longview, P.O.Box 1258, Longview, Washington 98632-0126. *Tel:* (206) 425-3305. *Telex:* 289990. *Contact:* Ken O'Hallaren, Port Manager.

L.O.O.P. TERMINAL (Louisiana Offshore Oil Port), Louisiana: 28.53 N. 90.01 W. (See Plan)

OPERATOR:

Official Address: LOOP Inc., One Seine Court, Box 6638, New Orleans, Louisiana 70174-6638.

Requests for Port Information: LOOP Inc., One Seine Court, Box 6638, New Orleans, Louisiana 70174-6638. Attention: Vice-President, Operations.

TWX Address: LOOP Inc. (810) 950-5875 (LOOP M.T. GALO), (810) 951-5165 (LOOP Inc., Nola).

Cable Address: LOOP Inc. (Radio messages via WNU Slidell, WLO Mobile or WPA Port Arthur).

Telephone Number:

New Orleans Office	(504) 368-5667.	Contact: A.B. Cranstoun, Administrative Coordinator
Operations Centre	(504) 632-6970	
Marine Terminal	(504) 396-2351	

Radio Contact Frequencies:

Call sign "KR – 7808" VHF-FM.
U.S. Channel 10 156.500 MHz (Simplex only)
U.S. Channel 16 156.800 MHz (Simplex only)
U.S. Channel 74 156.725 MHz (Simplex only)

Time Zone: Local-Central Standard Time (CST). Greenwich Mean Time (GMT) minus 6 hours or Zone plus 6.

Note: From the first Sunday in April to the last Sunday in October, this is modified by use of Daylight Time to minus 5 hrs. GMT or Zone plus 5.

Official Language: English.

U.S. Coast Guard TWX: Uscg Nln 58-4197.

The LOOP Inc. deepwater port and associated facilities are designed for unloading crude oil cargoes from deep draft tankers. The marine terminal is located in open waters of the Gulf of Mexico approximately 29 km. (18 statute miles) offshore from the State of Louisiana.

The port is owned and operated by LOOP Inc. under licenses granted by the Government of the United States of America and the State of Louisiana. The port is governed by the laws of the United States in the same manner as if the port were an area of exclusive federal jurisdiction located within a state.

LOOP shall not permit a tanker registered in a foreign state or flying the flag of a foreign state to utilise its facilities unless the foreign state involved, by specific agreement with the United States, has agreed to recognise the jurisdiction of the United States over the tanker and its personnel while the tanker is located within the safety zone of the port, and unless the tanker owner or operator has designated an agent in the United States for receipt of service of process in the event of any claim or legal proceeding resulting from activities of the tanker or its personnel while located within the port safety zone, and unless the tanker owner carries insurance or demonstrates financial responsibility as required by Title 33, United States Code Annotated, Section 1517 and any amendment.

LOOP shall also maintain a list, as provided by the Office of the Secretary of Transportation, of such foreign states that have objection to U.S. jurisdiction.

At the time of nomination of a tanker, LOOP shall require the person nominating the tanker, or his authorised agent nominating the tanker, to provide LOOP with the name and address of the tanker's designated agent in the United States.

The U.S. Coast Guard's Captain of the Port, whose office is in New Orleans, has governmental authority over all ports in the area, including LOOP.

LOOP's Port Superintendent has overall authority over the marine terminal and port. This encompasses all personnel at the port, including contract personnel, and all vessel and aircraft operations at the port. During emergency conditions, all response activities at the port are directed by the Port Superintendent. This includes the shutdown of tanker cargo discharge. Emergency conditions are those that, in the Port Superintendent's judgment, involve or could involve safety, environmental protection, personnel injury or property damage. Examples of these emergencies include, but are not limited to, the following, if they occur at the marine terminal, or on a tanker, or other vessel or aircraft, or at any other location anywhere in that portion of the deepwater port that lies within the safety zone:

(a) Oil spill.
(b) Fire or explosion.
(c) Tanker collision, actual or potential, with another vessel or with the pumping platform complex.
(d) Tanker grounding.
(e) Electrical power failure on the platform.
(f) Disruption of communications between shore and the port.
(g) Aircraft disaster.
(h) Serious illness, injury or death.
(i) Presence of poisonous gas.
(j) Evacuation operation of the platform (usually due to impending hurricane).

The Port Superintendent is present at the port at all times.

ABBREVIATIONS:

AMM	Assistant Mooring Master
ANSI	American National Standards Institute
AST	Atlantic Standard Time (ZD + 4)
CFR	Code of (U.S.) Federal Regulations
CST	Central Standard Time (ZD + 6)
EST	Eastern Standard Time (ZD + 5)
FERC	Federal Energy Regulatory Commission
GCLW	Gulf Coast Low Water (Datum)
GPM	Gallons Per Minute
M	Thousands (used with barrels of oil)
MBH	Thousands of barrels per hour
mi	Miles
MM	Mooring Master
n	Nautical (used with the word *miles*)
NOAA	National Oceanographic and Atmospheric Administration
PLEM	Pipe-Line End Manifold (at the SPM)

PLATFORMS:

Pumping Platform Complex:

The marine terminal pumping platform complex consists of the pumping platform and the control platform. The two platforms are connected by a walkway bridge between the lower decks. The top of the lower deck of each platform is 21.3 m. (70 ft.) above MHW.

The pumping platform measures 61 m.×65.5 m. (200 ft.×215 ft.) and contains equipment for receiving, measuring, sampling, controlling and pumping oil to assist in cargo unloading.

The control platform contains a control room manned 24 hours a day for communications, traffic control, monitoring and surveillance purposes. Also, a supervisory control and monitoring system provides the capability for the control room personnel, when so directed, to assume control of all marine terminal processes otherwise normally initiated from the Operations Centre located near Galliano, Louisiana.

The control platform is a two-deck structure measuring approximately 21.3 m.×21.3 m. (70 ft.×70 ft.). The lower deck contains platform utility equipment and supporting facilities. The upper deck supports a two-level control building.

DOCUMENTS: See "New Orleans".

PILOTAGE: See "Tanker Arrival".
MAX. SIZE: See "Berthing".
TANKER ARRIVAL:
Arriving from Seaward: Tankers will normally approach LOOP via the 63 mile Safety Fairway. Communications with LOOP shall be established when the tanker is 20 miles from the entrance of the Safety Zone on the International Calling Frequency 156.800 MHz (Channel 16). The Vessel Traffic Controller will assign a working frequency, usually 156.725 MHz (Channel 74) and will pass instructions to the vessel. The arrival time for a tanker is recorded as the time and date the inbound tanker enters the Safety Zone.

Tankers Proceeding Directly to a Mooring:

(a) Weather permitting, the tanker should have on both sides, a pilot ladder 2.0 m. above the water and, when so instructed, an accommodation ladder properly prepared for use by the Mooring Master and Assistant Mooring Master. The tanker will be advised of what side the mooring and connecting equipment will be handled on, so that the appropriate derrick can be topped and rigged in preparation for lifting the equipment aboard and for handling the hose after mooring. The derrick block should be plumbed midway between the rail and the manifold at the manifold centreline. Tankers are asked to turn and make a lee in order to allow for a safer boarding and an easier equipment handling operation.

(b) The Mooring Master and Assistant Mooring Master will board the tanker, and the port furnished equipment is picked up by the tanker prior to entering the Safety Zone. The boarding area is usually at the North end of the Safety Fairway where it turns and joins the approach section at the Safety Zone. The entrance to the Safety Zone is marked at the lateral boundaries by Buoys No. 1 and 2. (Note: Also see "General" – "Helicopter Transfer of Personnel and Supplies" – Section (B) for times when Mooring Master boarding is done by helicopter).

(c) Equipment brought aboard the tanker for use in the mooring arrangement is transported to the tanker's bow by the tanker's personnel if it was not taken aboard at the bow. Supervised by the tanker's designated officer and advised by the Assistant Mooring Master, tanker personnel prepare and arrange the tanker's mooring equipment and fittings for the mooring operation to the satisfaction of the Assistant Mooring Master and tanker's Master.

(d) After the Mooring Master is aboard, the tanker may proceed under his guidance into the Safety Zone to the assigned berth for mooring. The shipper and tanker owner shall be responsible and liable to LOOP for any damage or injury done by his tanker to any LOOP facility, equipment or personnel. Services of the Mooring Master, Assistant Mooring Master, mooring launches and their crews, and such other LOOP personnel as may be required aboard the tanker are provided with the express understanding that the Master of the tanker has and accepts the ultimate responsibility for the tanker and crew. If it becomes necessary for the Master of a tanker to disregard a Mooring Master's advice in order to ensure the safety of his ship, it is requested that a written report from the Master be submitted promptly to LOOP.

(e) Specific tanker speed will be recommended by the Mooring Master to the vessel, consistent with the International Rules for Navigation, Rule 6 – Safe Speed.

Tankers Proceeding Directly to LOOP's Anchorage (in Safety Zone):

(a) Tankers proceeding directly to LOOP's anchorage may proceed into the Safety Zone without a Mooring Master on board when the following conditions are met:
(1) The tanker is proceeding directly to the designated anchorage section.
(2) Entry is via the designated Safety Fairway through Buoys No. 1 and 2.
(3) Clearance is obtained from the Vessel Traffic Controller.
(4) No other tankers are underway in that portion of the Safety Zone that is South and East of Buoys No. 3 and 4.
(5) No more than 4 tankers are anchored in the designated anchorage.

(b) Specific tanker speeds are to be consistent with the International Rules for Navigation, Rule 6 – Safety Speed.

(c) The shipper and tanker owner shall be responsible and liable to LOOP for any damage or injury done by his tanker to any LOOP facility, equipment or personnel.

Tankers Proceeding to Mooring from Anchor (in Safety Zone):

(a) The Vessel Traffic Controller advises the tanker of the arrival time of the Mooring Master and Assistant Mooring Master and of the equipment to be made ready. Included is advice for preparation of an accommodation ladder and/or pilot ladder and equipment hoist. (Note: See "General" – "Helicopter Transfer of Personnel and Supplies" – Section (B) for times when Mooring Master boarding is done by helicopter).

(b) Upon receiving clearance from Vessel Traffic Controller, tanker may get underway without a Mooring Master on board for the purpose of making a lee only. The Mooring Master will then board the vessel and proceed to the bridge to pilot the vessel to berth.

(c) Equipment brought aboard the tanker for use in the mooring arrangement is transported to the tanker's bow by the tanker's personnel if not taken aboard at the bow. Supervised by the tanker's designated officer and advised by the Assistant Mooring Master, tanker personnel prepare and arrange the tanker's mooring equipment and fittings for the mooring operation to the satisfaction of the Assistant Mooring Master and tanker's Master.

(d) Specific tanker speed will be recommended by the Mooring Master to the vessel, consistent with the International Rules for Navigation, Rule 6 – Speed.

Tanker Proceeding to Mooring from Anchor (Outside of Safety Zone):

(a) The Vessel Traffic Controller advises the tanker of the arrival time of the Mooring Master and Assistant Mooring Master and of equipment to be made ready. Included are instructions for preparation of an accommodation ladder and/or pilot ladder and equipment hoist. (Note: See "General" – "Helicopter Transfer of Personnel and Supplies" – Section (B) for times when Mooring Master boarding is done by helicopter). Tanker may raise anchor and get underway prior to Mooring Master's arrival, but under no circumstances shall the tanker enter the Safety Zone until the Mooring Master is on board.

(b) Equipment brought aboard the tanker for use in the mooring arrangement is transported to the tanker's bow by the tanker's personnel if not taken aboard at the bow. Supervised by the tanker's designated officer and advised by the Assistant Mooring Master, tanker personnel prepare and arrange the tanker's mooring equipment and fittings for the mooring operation to the satisfaction of the Assistant Mooring Master and tanker's Master.

(c) Specific tanker speeds will be recommended by the Mooring Master to the vessel consistent with the International Rules for Navigation, Rule 6 – Safe Speed.

Navigational Assistance: During the mooring operation the Mooring Master and the Assistant Mooring Master perform the following functions:

(a) The Mooring Master advises the tanker's Master on operational and ship control matters and regulations that are peculiar to the port, such as navigational aids, depth and current characteristics of the manoeuvring area during existing conditions, mooring equipment and procedures, and the port's vessel control procedures. The Mooring Master will maintain communications with the Vessel Traffic Controller, mooring launches and the Assistant Mooring Master until the mooring operation has been completed.

(b) The Assistant Mooring Master is stationed on the forecastle of the tanker during mooring operations to assist the Mooring Master by reporting position approach data relative to the SPM and to advise the tanker's personnel in the handling of mooring equipment peculiar to the port.

Vessel Routeing and Approach to Moor: Tankers must enter and depart the port via the Safety Zone between Buoys No. 1 and 2. *Tankers proceeding to moor must have anchors housed and windlass brakes must be checked for absolute tightness in order to prevent the anchors from being accidentally dropped, with resultant damage to submarine pipe-lines.*

Transiting the Approach Section and Anchorage Section: The Master of the tanker, a competent deck watch officer and a competent helmsman must be on the bridge at all times while the ship is manoeuvring in the approach section and anchorage. A competent deck officer is to be on the bow along with one seaman as lookout, who is capable on command of letting go the anchor, if necessary. A watch engineer and sufficient crew to operate the power plant shall be in the engine room.

Transiting the Terminal Section and Approach to Moor: The Master of the tanker, a competent deck watch officer and a competent helmsman must be on the bridge at all times while the tanker is transiting the terminal section of the Safety Zone and approaching an SPM to moor.

A competent deck officer is to be on the bow along with one seaman as lookout. Sufficient qualified engineers should be in the engine room to operate the plant properly and safely.

Anchor Watch: While the tanker is at anchor in the anchorage section of the Safety Zone, a competent deck officer shall be stationed at all times on the bridge to watch for any dragging of the anchor which can be detected by taking radar ranges or rounds of bearings as necessary on the pumping platform or on any other fixed object.

Manoeuvring Capabilities: LOOP SPM buoys are located on a radius of 2,438 m. (8,000 ft.) from the Marine Terminal Pumping Platform Complex, with spacing between buoys of 1981.2 m. (6,500 ft.). Tankers must have the capability to perform the manoeuvring required to approach and depart from an SPM within an area not greater than 1,524 m. (5,000 ft.) radius from the buoy at speeds not exceeding 5.5 km./hr. (3 knots). LOOP may require evidence of a tanker's capability to approach and enter the safety zone. The Mooring Master may determine this by pre-berthing checks of a tanker's manoeuvring characteristics.

Berthing Order: When a buoy becomes available, the tanker with the earliest Firm Arrival Window will be berthed, provided that tanker has issued its Notice of Readiness to Discharge. LOOP may adjust a tanker's position in the queue a maximum of one position when such adjustment is necessary for optimum operations of the LOOP system.

VESSEL REQUIREMENTS:
Navigation Equipment: Any vessel calling at LOOP must meet the U.S. Coast Guard navigational equipment requirements for a vessel entering U.S. waters; i.e. 33 CFR 164.35. Coast Guard personnel will board selected arriving vessels to ensure compliance with Federal Regulations.

Pre-arrival, Connection and Transfer:

Preparations, procedures, tests and inspections to be followed both by the tanker and by the LOOP platform during the pre-arrival time, connection and transfer must meet the requirements of 33 CFR 150(D), and the recommendations of the OCIMF Safety Guide.

The Mooring Master will have a LOOP check list, which includes a Declaration of Inspection, that shows all the items to be tested or inspected in order to comply with the Federal Regulations and with current OCIMF recommendations. This check list is to be signed both by the tanker's Master and by LOOP's Mooring Master.

Oil Transfer Equipment:

All tankers must meet the requirements of 33 CFR 155, with regard to oil transfer equipment. Cargo hoses must be connected by the tanker's personnel, under the guidance of the Mooring Master or the Assistant Mooring Master.

Physical Parameters of Vessel:
Tankers to be accepted by LOOP must:

(a) Have oil transfer equipment that conforms to the technical recommendations of the Oil Companies' International Marine Forum (OCIMF). (Any OCIMF recommendations that change after issuance of this manual are overriding to LOOP's requirements).
(b) Be equipped with shipboard mooring fittings installed and located for safe and effective mooring to an SPM.
(c) Be equipped with a derrick, located near the cargo manifold for hose handling, capable of lifting and sustaining a safe working load of 10 tons to a height of 13.7 m. (45 ft.) above deck level. (ULCCs should have a 15 ton crane because of the extra hose weight due to their greater freeboard).
(d) Not exceed maximum mooring load limitations of SPMs. See "Berthing".
(e) Have serviceable pumping equipment.
(f) Be capable of delivering a cargo size or quantity that is in accordance with LOOP's Terms and Conditions of Service.

Deck Floodlighting:
Illuminated Locations:
In addition to the light usually displayed, tankers are required to furnish adequate additional lighting for night operations including:

(a) Proper safety lighting of the accommodation ladder for personnel embarkation and disembarkation. This is particularly essential for arriving and departing tankers when the Mooring Master and Assistant Mooring Master board or depart the tanker. A deck officer is required to supervise these procedures.
(b) Lighting of the forecastle area.
(c) Lighting of areas encompassing the derricks, deck and water during equipment and hose handling operations.
(d) Lighting to illuminate the cargo manifold.
(e) Proper safety lighting for any bunkering or transfer of supplies or equipment.
(f) Portable or hand-held safety lanterns for inspections and other deck activities that may require particular attention.

Type of Equipment: Only explosion-proof lighting equipment and electrical apparatus certified intrinsically safe for use in a hazardous area is permitted to be used on deck while a tanker is at an SPM. Portable electric lamps or other apparatus with flexible cable shall not be used without permission from the ship's officer-in-charge and from the responsible LOOP representative aboard the tanker. In this regard, the recommendations of ISGOTT paragraph 2.4.2 should be followed.

Accommodation:
Tankers discharging at LOOP must provide meals and accommodation for the Mooring Master and the Assistant Mooring Master during their time on board and for an independent Petroleum Inspector during his required time on board. In addition to these persons there is at times a United States Coast Guard Inspector, who also may need accommodation.

NAVIGATION AIDS:
SPM Buoys: In addition to the port name "LOOP" and an SPM number, each SPM buoy is painted white on top with yellow sides and is equipped with the following navigational aids:

(a) A quick flashing (0.3 seconds "on", 0.7 seconds "off") white light installed on the buoy at a height of 5.5 m. (18 ft.). The light can normally be seen through 360° of arc at a range of 7.4 km. (4 nautical miles). It is actuated by a solar photo-electric switch.
(b) A 406.4 mm. (16 in.) diameter all-directional radar reflector mounted on the highest point of the buoy.
(c) Buoy number daymarks at 90° intervals around the buoy hull.

Platform Complex Beacon Light: A rotating beacon which shows a flashing white light (6 flashes per minute) is mounted above the pumping platform atop the communications tower at an elevation of 64 m. (210 ft.) above MHW and it is visible all around the horizon. It is actuated from the control platform. The light is 47,000 candela and is visible for at least 18 miles.

Platform Complex Obstruction Lights: Obstruction lights are installed at each corner of both platforms and one on the bridge connecting the structures. The lights on the pumping platform are 25 m. (82 ft.) above MHW and on the control platform are 23 m. (76 ft.) above MHW. They are quick flashing white (0.3 seconds "on", 0.7 seconds "off") (60 flashes per minute). They flash in unison and are placed so that at least one light can be seen for a minimum of 5 nautical miles from any approach angle to the platform complex. They are actuated from the Control Platform at night and in periods of low visibility.

Platform Complex Fog Signals: 2 fog horns are installed at the platform complex. One is hung below the lower deck near the middle of the Northwest edge of the pumping platform about 21.3 m. (70 ft.) above MHW, and the other is hung below the lower deck on the Southern edge of the control platform. The signals are synchronized to sound a 650-800 Hz 2 second blast every 20 seconds and can be heard for at least 3.7 km. (2.0 nautical miles). They are actuated from the control platform.

Buoys: The following table lists the characteristics of the buoys marking the approach section of the safety zone:

Buoy Daymark	*Buoy Colour*	*Water Depth Metres*	*Water Depth Feet*	*Lantern Colour*	*Radar Reflector*	*Fog Signal*
No. 1	Black	47.5	156	Green	X	X
No. 2	Red	46.3	152	Red	X	None
No. 3	Black	37.5	123	Green	X	None
No. 4	Red	36.9	121	Red	X	None

From seaward, Buoys No. 1 and 3 define the port (left) lateral limits of the approach section and Buoys No. 2 and 4 the starboard (right) lateral boundary. Buoys No. 1 and 2 are located at the entry to the approach section when proceeding from seaward.

Safety Zone Boundary Marker Buoys: The safety zone is shown in "Plan Section" together with the location of floating aids to navigation and marine terminal components. International "Rules of the Road" apply in the safety zone. The purpose of a deepwater port safety zone is to define an area in which any activity that may directly or indirectly increase the environmental and safety risks associated with port operation may be minimised or prohibited. The Inter-Governmental Maritime Organization (IMO) vessel routing measure known as a precautionary area; i.e. a routing measure comprising an area within definite limits where ships must navigate with particular caution and within which the direction of traffic flow may be recommended, has been adopted as the concept for U.S. deepwater port safety zones. The safety zone is made up of 3 parts; the approach section, the anchorage section, and the terminal section. Inside the terminal section there are 4 "areas to be avoided"; one is 600 m. in radius around the pumping platform complex and 3 are 500 m. in radius around each of the SPMs. "Areas to be avoided" conform to IMO measures to keep ships or certain classes of ships outside a delineated area. 4 navigational marker buoys define the boundaries of the approach section of the safety zone. Proceeding from seaward, the 3.7 km. (2.0 nautical miles) wide approach section extends 9.3 km. (5 nautical miles) from the Safety Fairway to the terminal section. The buoys have the following characteristics:

Daymarks:	Reflective, located at 90° intervals around buoy superstructures; visible range 3.7 km. (2 nautical miles) minimum.
Lights:	Installed at 4.6 m. (15 ft.) above the water; slow flashing (0.6 seconds "on", 5.4 seconds "off"); light intensity 75 candela, actuated by solar photoelectric switches.
Radar Reflectors:	All-directional; detectable from at least 15 km. (8.0 nautical miles) by typical shipboard radar systems.
Fog Signal:	(Buoy No. 1 only) minimum audible range approximately 1 km. (0.5 nautical miles); programmed to send Morse code "L" at 20 second intervals. This buoy's fog signal operates continuously.

Safety Fairway: The LOOP Safety Fairway, shown in NAV 3A, "Plan Section", has no marker buoys. To lessen the chance of accidents, ships enter and leave U.S. Gulf Coast ports via safety fairways. The fairways are 2 miles wide. No offshore drilling rigs or structures are permitted in them. LOOP recommends that tankers enter or leave the LOOP Safety Fairway at its Southernmost point or at least South of 28° 18′ N. NOAA Chart 11359 has details of the LOOP Deepwater Port including pipe-lines within the safety fairway and safety zone.

Service Vessel Mooring Buoys: The 2 buoys provided for mooring port service vessels at the marine terminal are white with a horizontal blue band between the top of each buoy and the waterline. The buoy identification is reflective. Battery powered, slow flashing (0.4 seconds "on", 3.6 seconds "off") white lights are installed 2.4 m. (8 ft.) above the water, and are actuated by solar photoelectric switches.

Also see "Anchorage".

ANCHORAGE: *Anchorage Section Marker Buoys:*
The designated anchorage section of the safety zone is a 3.7 km. (2.0 nautical miles) wide area beginning at safety zone Buoy No. 2 and extending 7.4 km. (4.0 nautical miles) along and next to the Eastward boundary of the safety zone. Buoys "L-B" and "L-A" mark the corners and define the outer boundaries of the anchorage section. The anchorage section buoys have characteristics as follows:

Daymarks:	Reflective, located at 90° intervals around buoy superstructures; visible range 3.7 km. (2.0 nautical miles) minimum.
Lights:	Installed at 4 m. (13 ft.) above the water; slow flashing (0.6 seconds "on", 5.4 seconds "off"), actuated by solar photoelectric switches.
Radar Reflectors:	All-directional; detectable at 15 km. (8.0 nautical miles) by typical shipboard radar systems.

Buoy Daymark	*Buoy Colour*	*Water Depth Metres*	*Water Depth Feet*	*Lantern Colour*	*Radar Reflector*	*Fog Signal*
L-B	White	45.7	(150)	White	X	None
L-A	White	37.1	(122)	White	X	None

Also see "Tanker Arrival".

RADIO/VHF: *Notices of Arrival:*
The Master of a tanker bound for LOOP should send his first arrival advice message as nearly as possible to 7 days before his expected date of arrival, even if he is in port at the time. If his trip to LOOP is less than 7 days he should also send another arrival advice as soon as possible after leaving his loading port. His next arrival advice should be sent 72 hours before the estimated time of arrival. The arrival advices should be transmitted and updated again at 48 hours and again not later than 24 hours before the estimated time of arrival. An arrival advice message can and should be sent at any time when there is a significant change in a previously estimated arrival time. These arrival advice messages should be sent to LOOP INC. The first message should contain, at a minimum, the following:

1. Tanker's name and call sign.
2. Estimated time of arrival at LOOP.
3. Draft fore and aft.
4. Type(s) and amount(s) of cargo on board.
5. Preferred order of cargo discharge by type.
6. Cargo manifold size and type, if 16 in. not available.
7. Type of mooring equipment installed.
8. Expected discharge rate.
9. Expected number of ballast hours upon completion.
10. Any special requirements which need early actions.

These messages can be sent by Western Union International TWX (810) 950-5875, LOOP M. T. GALO or by radio to coast stations WNU Slidell, WLO Mobile or WPA Port Arthur. It is suggested that ETA advices also be sent to tanker's Agents, with logistics requirements.

24 Hour Message: By regulation, the 24 hour arrival message shall be addressed both to the Coast Guard Captain of the Port (NOLA) and to LOOP INC. This message should contain the following:

1. Name, gross tonnage, and draft of the tanker.
2. Type and amounts of cargo on board.
3. Any condition on the tanker that may impair its navigation, such as fire, malfunctioning propulsion machinery or steering equipment, or limitations on navigational or radiotelephone capabilities because of equipment or material malfunctions.
4. Any leaks, structual damage, or machinery malfunctions that may impair cargo transfer operations or cause a discharge of oil.
5. ETA at the safety zone. If the information reported changes at any time before entering the safety zone, or while the tanker is in the safety zone, the Master of the tanker shall report the changes to the Coast Guard Captain of the Port and to LOOP INC. as soon as possible, by cable and single side band.

Radio Frequencies for Berthing: In addition to the above notices, radio communication on the International VHF Maritime Band (Channel 74, 156.725 MHz.) should be started at a distance of 20 nautical miles from the safety zone, or more, if possible. This Channel should be used for a "twenty-mile", final arrival notice, and for communications with the terminal and with the Mooring Master, until he boards the tanker.

Radio Communications at the Port: The LOOP platform always guards the international calling frequency 156.800 MHz. (Channel 16). LOOP's working frequencies are VHF Maritime Channel 74 (Primary), and Channel 10 (Secondary). Use of shipboard radar and HF radio is forbidden while moored to an SPM. While in port, LOOP communicates with the tankers via the Mooring Master's UHF portable radio.

LOOP's Communications Facilities: LOOP has the ability to use the following communications for vessels trying to contact the Port:

Type of Communications	*Frequencies*	*Call Sign*
VHF-FM Maritime Mobile	(Carrier assigned in MHz) 156.500 Channel 10, Commercial Working.	KR-7808
	156.800 Channel 16, Distress, Safety and Calling.	
	156.725 Channel 74, Port Operations.	

Transit Traffic: LOOP maintains a VHF Maritime radio system capable of communicating with vessels other than tankers or LOOP support vessels if such vessels are equipped with comparable equipment. When necessary to communicate with vessels of unknown communications capabilities, the Vessel Traffic Controller will attempt to contact such vessel on VHF Channel 16. If such efforts at radio communication are unsuccessful, a LOOP mooring launch or personnel boat will be dispatched to advise the vessel of any potential danger to the vessel as observed by the Vessel Traffic Controller's surveillance and also to advise the vessel operator of the port's precautionary areas and areas to be avoided.

When requested by a Master of a vessel other than a LOOP support vessel or tanker, the Vessel Traffic Controller shall furnish information concerning tankers, support vessels, and other vessels underway or moored in the safety zone.

Weather Advisory System: Coast Guard radio stations make two types of marine information broadcasts: radiotelephone (voice) for all seagoing users, and radiotelegraph (CW) for vessels carrying trained radio operators. Scheduled radiotelephone broadcasts include routine weather reports, small craft warnings, storm warnings, navigational information and other advisories on working frequencies, following a preliminary call on the voice international distress and calling frequencies. Urgency and safety broadcasts are made upon receipt of the information, urgency information is repeated 15 minutes later, and both are included in the next schedule broadcast unless cancelled before that time. Additional broadcasts may be made at the discretion of the originator. Urgency broadcasts are preceded by the signal: "PAN" for radiotelephone and "XXX" for radiotelegraph. Both the urgency signal and message are transmitted on 2182 kHz and 156.80 MHz (Channel 16). Safety broadcasts are preceded by the signal: "SECURITE" for radiotelephone and "TTT" for radiotelegraph. After a preliminary call on 2182 kHz, or 156.80 MHz, the station shifts to its assigned working frequency for the broadcast.

The following Coast Guard Radio stations in the Gulf of Mexico area and its approaches make urgency, safety and scheduled marine information broadcasts preceded by a preliminary call on 2182 kHz or 156.8 MHz, at the times and on the working frequencies indicated:

Station	*Working Frequency*	*Time(s)*
NCF, Miami Beach, Florida	2670 kHz.	0400, 0600, 0800, 1050, 1300, 1900 and 2250 EST
	157.10 MHz (Channel 22)	0630, 1200 and 1730 EST
NOK, Key West, Florida	157.10 MHz (Channel 22)	0600, 1200 and 1700 EST
NMA-21, St. Petersburg, Florida	2670 kHz	0920 and 2320 EST
	157.10 MHz (Channel 22)	0650, 1250 and 1750 EST
NMG, New Orleans, Louisiana	2670 kHz	0430, 0635, 1035, 1150, 1635 and 2350 CST
	157.10 MHz (Channel 22)	0450, 1050 and 1650 CST
NMG-15, Grand Isle, Louisiana	157.10 MHz (Channel 22)	0435, 1035 and 1635 CST
NOY, Galveston, Texas	2670 kHz	0450, 0650, 1050 and 1650 CST
NOY-3, Port Aransas, Texas	157.10 MHz (Channel 22)	0440, 1045 and 1645 CST
NCH, Port Isabel, Texas	2670 kHz	0440, 0640, 1040 and 1640 CST
	157.10 MHz (Channel 22)	0435, 1035 and 1635 CST
NMR, San Juan, Puerto Rico	2670 kHz	1100 and 2300 AST
	157.10 MHz (Channel 22)	0710, 1310 and 1810 AST

Scheduled radiotelegraph broadcasts include routine weather reports, small craft warnings, storm warnings, navigational information and other advisories on working frequencies following a preliminary call on the radiotelegraph international distress and calling frequency 500 kHz. Urgent and safety broadcasts are made as follows:

(a) Safety broadcasts are made upon receipt of the information; urgent broadcasts are also made upon receipt of the information except within 10 minutes of the next silent period.

(b) Safety and urgent messages are made during the last 15 seconds of the first silent period after receipt, and are repeated at the end of the first silent period which occurs during the working hours of one-operator ships, unless the warning has been cancelled or superseded by a later warning message. Urgent broadcasts are preceded by the signal "XXX". Both the urgent signal and the message are transmitted on 500 kHz. Safety broadcasts are preceded by the signal "TTT". After the preliminary call on 500 kHz, the station shifts to its assigned working frequency to transmit the broadcast. The following Coast Guard radio stations in the Gulf of Mexico area and its approaches make urgent, safety and scheduled marine information broadcasts preceded by a preliminary call on 500 kHz, at the times and on the working frequencies indicated:

Station	*Working Frequency*	*Time(s)*
NMA, Miami, Florida	440 kHz	1100 and 2000 EST
NMG, New Orleans, Louisiana	428 kHz	1120 and 1830 CST
NMR, San Juan, Puerto Rico	466 kHz	1220 and 2120 AST

LOOP also has weather and sea monitoring equipment installed at the Marine Terminal and receives private and government weather advisories. Upon request, weather information will be transmitted to tankers in the vicinity.

In addition, NOAA gives continuous weather information, forecasts and warnings on the following frequencies:

WX1 162.500 MHz WX2 162.400 MHz.

RADAR: *Navigation Advisory System (Surveillance Radar):* 2 radar surveillance systems, X-band and S-band frequencies, are installed at the marine terminal. The systems provide coverage from the platform complex to a range of about 50 km. (27 nautical miles) for tankers, and include, among other things, a collision avoidance system. After an incoming tanker makes radio contact on the VHF system about 20 miles from the safety zone, the Vessel Traffic Controller will advise of the location of navigational hazards as well as relative positions and estimated courses and speeds of other vessels within radar range of the platform.

Radar Beacon: The LOOP radar beacon (RACON) operates 24 hours daily on the X-band frequency from 9300 to 9500 MHz. The transponder is mounted on top of the communications tower 64 m. (210 ft.) above MHW. The RACON will respond to incoming signals by transmitting Morse coded letter "O" as the identifying signal for the marine terminal platform complex. The RACON has a range of about 40 km. to 48 km. (22 nautical miles to 26 nautical miles), depending on the height of shipboard radar antennas.

TUGS: Support Vessels: *List of Characteristics by Vessel Name:* The following 2 launches are operated by LOOP for the primary purpose of assisting in mooring operations:

Names: "Loop Line" and Loop Loader".
Length overall: 26 m. (85 ft.).
Beam: 7.9 m. (26 ft.).
Draft: 2.1 m. (7 ft.).
Propulsion: 2 model 16V-92 GM diesel engines, twin screw 1,200 h.p. total.
Maximum speed: 14 knots.
Bollard pull: 3,629 Kg. (8,000 lb.) line pull.
Navigation and Communications: Sitex 48 mile radar, digital fathometer, SSB and VHF radios (Channel 10, 16 and 74 plus an 8 Channel LOOP UHF radio).
Construction material: Steel.
Fuel Capacity: 75,708 litres (20,000 gallons).

The LOOP maintenance vessel functions primarily for inspection servicing, and maintenance of marine terminal components.

Name: "Loop Lifter".
Length overall: 61 m. (200 ft.).Beam: 15.2 m. (50 ft.).
Draft: 3.7 m. (12 ft.).
Propulsion: 2 D-399 Caterpillar engines, twin screw, 3,000 h.p. total.
Maximum speed: 11 knots.
Navigation and communication: Auto pilot, Sitex 48 mile radar fathometer, SSB and VHF radios (Channels 10, 16, and 74 plus an 8-Channel LOOP UHF radio.
Construction material: Steel.
Fuel Capacity: 80,000 gallons.
Fire pump: 302,832 litres per minute (2,500 GPM).
Pollution control equipment: 610 m. (2,000 ft.) of containment boom.

LOOP also employs a crew boat for transporting LOOP personnel between the small boat harbour and the marine terminal.

BERTHING: LOOP single point moorings (SPM) are the single anchor leg mooring (SALM) type, designed for tankers up to 700,000 d.w.t. The SPMs are numbered clockwise and are described as follows:

SPM 102:

Water Depth	35.1 m. (115 ft.)
Maximum Tanker Draft*	28.7 m. (94.3 ft.)
Maximum Tanker Length	427 m. (1,400 ft.)
Minimum Tanker Length	230 m. (755 ft.)
Maximum Mooring Load	650 tons
Tail/Rail Hose Diameter	406 mm. (16 in.)
Maximum Discharge Rate	15,900 cu.m./h. (100 MBH)

SPM 103:

Water Depth	35.7 m. (117 ft.)
Maximum Tanker Draft*	29.4 m. (96.3 ft.)
Maximum Tanker Length	427 m. (1,400 ft.)
Minimum Tanker Length	230 m. (755 ft.)
Maximum Mooring Load	650 tons
Tail/Rail Hose Size	406 mm. (16 in.)
Maximum Discharge Rate	15,900 cu.m./h. (100 MBH)

SPM 104:

Water Depth	35.1 m. (115 ft.)
Maximum Tanker Draft*	28.7 m. (94.3 ft.)
Maximum Tanker Length	427 m. (1,400 ft.)
Minimum Tanker Length	230 m. (755 ft.)
Maximum Mooring Load	650 tons
Tail/Rail Hose Diameter	406 mm. (16 in.)
Maximum Discharge Rate	15,900 cu.m./h. (100 MBH)

*The maximum drafts shown here allow for a gross underkeel clearance of 6 m. (19.7 ft.) during Gulf coast LW and calm seas. The maximum drafts result in a clearance of 2.9 m. (9.4 ft.) above the SPM base U-joints, since the U-joints are 3.4 m. (11.3 ft.) above the ocean bottom. Gross underkeel clearance means the distance between the keel of a tanker and the ocean bottom when the tanker is moored in calm seas. Net underkeel clearance means the distance between the ocean bottom and the keel of a tanker that is anchored, considering ship motion in response to wind, wave, tide and current conditions. It is required that there be a net underkeel clearance of 4.7 m. (15.3 ft.) during bad weather. Underkeel clearance during bad weather when a tanker may be pitching or rolling must be taken into consideration.

MOORING:

Mooring Equipment: In accordance with OCIMF recommendations LOOP will provide, in addition to the mooring hawser assemblies, the supporting equipment needed to connect the mooring lines to the tanker. Such equipment includes snotters, shackles, and devices for holding the mooring while connection is made. This equipment will include such items as special mooring gear and a hawser load monitoring device to be used at the bow, gaskets, bolts, tools, elbows, and adapter spool pieces (when required). Mooring equipment and other associated gear supplied by LOOP is lifted aboard the tanker from the mooring launch which transports the Mooring Master and Assistant Mooring Master. *Prior to arrival the ship should notify LOOP of the type of mooring equipment installed on the ship in order for required port-furnished equipment to be readied to be put aboard the tanker.* As recommended by the Oil Companies' International Marine Forum (OCIMF) the shipowner, depending on tanker mooring equipment, should supply as a means of securing the mooring chafe chain:

(a) Bow chain stoppers, designed to accept the 76.2 mm. (3 in.) section of the chafe chain; or
(b) Smit type brackets built to specified dimensions; or
(c) Mooring bitts, suitably positioned and of adequate strength; and
(d) Bow fairleads spaced near the tanker's bow and capable of accepting two 76.2 mm. (3 in.) chafe chains with a triangular plate 356 mm. (14 in.) wide;
(e) Pedestal roller fairleads and winch drums or capstans to provide proper leads and clearances (drum end of anchor windlass is acceptable). Tankers are requested to remove the blank flanges from their discharge manifolds before mooring so as to expedite the connecting of the floating hoses.

Mooring Hawser System: Before a tanker is accepted for offloading, LOOP may require information necessary to determine whether the mooring equipment installed on the tanker is capable of sustaining the safe working load that will be imposed on it when the tanker is moored at a LOOP SPM. It is recommended that tankers calling at LOOP be fitted with properly installed and positioned bow chain stoppers or Smit type towing brackets and bow fairleads for mooring at SPMs. Other arrangements are acceptable when evidence is provided that such arrangements will not be below the required safe working load for the tanker. The exact arrangement will be determined by the Assistant Mooring Master after inspection of ship's fittings and equipment. *Mooring and unmooring is to be done by the crew of the tanker with the advice of the Assistant Mooring Master.*

Two launches will normally assist in mooring. One launch will tend the hawser systems. Successively for each of the two hawser systems, the launch personnel will secure the tanker's messenger line to a pick-up line in order for the hawser system chafing chains to be winched aboard the tanker and secured to the shipboard mooring fittings. All tankers are required to utilise the two hawser systems to moor to the buoy. The second launch tends the floating hose strings during the tanker mooring, drawing the hoses aside from the tanker's track during the approach and mooring. LOOP has no tugs to assist in mooring.

Hawser Monitoring: Each SPM is provided with a hawser load monitoring system, with strain gauges mounted in pins in mooring couplers on the mooring buoy. Also see "Tanker Arrival".

HOSES: *Floating Hoses:* The floating hoses, which extend approximately 1,100 ft. from each buoy, consist of 2×24 in. outside-diameter crude oil discharge hoses with 16 in. inside-diameter tails, each with 150 ANSI flanges for connection to the tanker's manifold. Each hose-string has a one-candela yellow light on a pick-up buoy at its end, along with a pick-up wire. In order to avoid delays in connecting hoses, tankers should have an adequate number of reducing spools to fit 16 in. standard ANSI flanges. *Connecting and disconnecting of the cargo hoses is to be performed by the crew of the tanker under the advice of the Assistant Mooring Master.*

Hose Handling: Mooring launches tow each floating hose into position beneath the tanker's lifting derrick. The derrick runner is lowered to the launch and secured to the hose pick-up wire. After the hose is lifted above the level of the tanker's rail, it is swung inboard. A snubber chain connected between the first and second hose-lengths are then used to control its angle; i.e., to guide it towards its proper place on the cargo manifold. When the hose has been raised enough to span the distance between the tanker's rail and the cargo manifold, the snubbers can be made fast. The hose end is then lowered to the manifold and connected to it. Upon completion of discharge, each hose is disconnected from the manifold after its weight is borne up by the derrick runner. It is then swung outboard, lowered to the water, and released.

Care in Raising and Lowering the Hose: Care is necessary in raising the hoses before discharge and particularly in lowering them after discharge. At these times they are especially vulnerable to kinking.

Damaging Configurations for the Hose: While the cargo transfer hose is connected to the tanker, certain positions that the tanker might take relative to the SPM could cause the hose to bend excessively and thus could damage it.

For example, if a tanker overrides the buoy, it could damage both the hose and the buoy. This condition can be corrected by the tanker's going astern or being pulled astern.

Another damaging position could happen if the SPM seabed swivel does not turn as the tanker swings around it. In such a case the Mooring Master will seek LOOP's assistance. If this situation is not immediately resolved, the Port Superintendent or the Mooring Master should issue the order to stop pumping cargo.

Also see "Tanker Arrival".

CARGO OPERATIONS: *Discharge Operation:*

The discharge operation will be controlled and personally supervised by a ship's officer, to the satisfaction of the Mooring Master or the Assistant Mooring Master. Upon being informed by the ship's officer on watch that the tanker is ready to begin discharging, the Mooring Master will request the discharge operation to proceed according to a previously agreed upon plan regarding start-up rates and maximum discharge rates. *In the event of any emergency, either on board the tanker or on the operating platform, or anywhere in the LOOP system, all oil transfer must be stopped and all oil transfer valves closed.*

These emergencies are:

(a) Fire or explosion of a tanker, on the platform, or anywhere on the LOOP system.
(b) Loss of power or steering on a tanker underway in the safety zone.
(c) Breakage of a hawser.
(d) Rupture of a floating hose.
(e) Any confirmed pipe-line rupture in the LOOP system.
(f) Power failure at any LOOP pipe-line facility.
(g) Severe electrical storm in the area of the port. (Ballast receipt must also be stopped during such electrical storms.)
(h) Failure of the UHF radio communication system.

In the event of failure of the UHF radio communication system, the tanker will sound 5 long blasts on her whistle. Cargo discharge is then stopped until communications are re-established.

Oil Transfer Watch: One crew member will be stationed at the bow and an additional crew member stationed at the cargo manifold area. A licensed officer and pumpman will be based in the cargo control room, with the pumpman moving onto the deck as necessary. During the cargo transfer, the watch organisation must provide the capability to shut down pumping on short notice and to stay in constant communication with the Mooring Master and LOOP personnel at the Marine Terminal and the Galliano Operations Centre. Communications for cargo handling will be directly with the Mooring Master through the LOOP UHF portable radio system. (NOTE: Each Tanker shall have an officer who is fluent in English on duty at all times.).

Crude Oil Washing (COW): Crude oil washing of cargo tanks is allowed after LOOP is assured that the operation will be done safely. In order for crude oil washing to be undertaken, the tanker and the tanker's personnel must satisfy the following requirements:

(a) Strict compliance with USCG Regulations 33 CFR 157. A copy of this regulation must be aboard the tanker and readily available to key shipboard personnel.
(b) Strict adherence to "Guidelines for Tanker washing with Crude Oil", published by OCIMF. A copy must be aboard the tanker and readily available to key shipboard personnel.
(c) Notwithstanding the above regulations and guidelines, no COW will be permitted until the Mooring Master is satisfied that:
    1. All cargo tanks have discharged at least 1 m. of cargo depth in order to eliminate any water that may have accumulated on the bottoms of cargo tanks.
    2. The Chief Officer or the person in charge of the COW operation has participated at least twice in crude oil wash operations aboard a tanker similarly equipped.
    3. There is a sufficient number of adequately trained personnel onboard to assist in the dual operations of transferring cargo and crude oil washing, in order to ensure that:
        (i) Gun nozzles are rotating in proper sequence.
        (ii) Enough source product remains in the tank supplying the cleaning oil.
        (iii) The on-deck piping system carrying the cleaning oil is continuously watched.

Departure Readiness: Vessels at moorings or anchorage must maintain engines and propulsion machinery in readiness to clear the marine terminal area under full power on short notice. No repairs are permitted which would interfere with this requirement. Masters of tankers are advised to have sufficient personnel aboard to enable them to depart upon advice from the Vessel Traffic Controller. The Master of a tanker may, in an emergency, for the protection of life or property, depart without clearance from the Vessel Traffic Controller if the Master advises the Vessel Traffic Controller of the circumstances, by radio, at the earliest possible moment.

DEPARTURE: *Normal Departure Procedure:* Upon completion of the cargo discharge, the tanker's Master or Chief Officer and the Mooring Master together estimate the time needed to prepare the tanker for departure. This time will be given to the Vessel Traffic Controller on the control platform, so that clearance for departure can be planned and so that a mooring launch can be summoned to assist the tanker in the operations of unmooring.

When the tanker is ready to leave the SPM, the Assistant Mooring Master on the bow recommends the use of the tanker's engines in order to ease the load on the mooring lines. When the load is eased enough, the tanker's crew can then disengage the mooring hawser and lower the mooring lines to the water.

Departure time is the time when the last mooring line is cast off. After the tanker is unmoored, she manoeuvres to go clear of the SPM buoy and to take a course for departure through the safety fairway.

Departure from the SPM to the disembarking point of the Mooring Master is done under the Mooring Master's guidance and the Vessel Traffic Controller's surveillance.

Emergency Departure Procedures: An emergency departure can be initiated either from the control platform or from the tanker. If initiated from the platform, the Mooring Master is so notified. The tanker's engines must then be made ready for immediate service, and if cargo is being discharged, the tanker's pumps must be shutdown in accordance with the seriousness of the emergency. *If an abrupt shutdown of the platform's booster pumps is necessary, it is essential that the tanker's pumps either be immediately shutdown or else immediately shifted to a recirculation mode.* In accordance with the nature of the emergency, cargo hoses may be lowered by line-slipping to the water. All other procedures are the same as those initiated from the ship. The Master of a tanker may, in an emergency, for the protection of life or property, depart from an SPM without clearance from the control platform.

Emergency Shutdown: Following are the procedures to be followed in case the offload pumping must be quickly stopped because of some emergency.

(a) LOOP's Cargo Transfer Supervisor notifies the tanker's watch officer and the Mooring Master of the emergency shutdown.
(b) The LOOP system automatically goes into a pumping rate reduction, and shuts down the pumps and meters as the flow rate dictates.
(c) The tanker's manifold valves and the hose end butterfly valves are closed as soon as LOOP's pumps and the tanker's pumps are shut off.
(d) The Pumping Platform Supervisor shuts LOOP's PLEM valves.
(e) If the emergency is one that makes a quick departure of the tanker necessary, the emergency departure procedures of the preceding paragraph will then be followed.

MEDICAL: Agents can arrange medical and dental treatment as well as consultation and hospitalisation at short notice.

FIRE PRECAUTIONS: As per the "International Safety Guide for Tankers and Terminals".

FRESH WATER: Not available.

FUEL: LOOP does not provide any bunkering services or facilities to tankers operating in the LOOP deepwater port area. Such bunkering will be conducted by private concerns under arrangements made with the owners or operators of tankers. Bunkering will not be allowed to interfere with the safe and expeditious unloading of crude oil from tankers. All companies, craft, equipment and personnel involved in bunkering inside LOOP's deepwater port area *must* have LOOP's prior approval and must also follow LOOP's Bunkering Guidelines and Regulations, copies of which are available upon request from LOOP.

REPAIRS: Skilled craftsmen are available for all on-board repairs through Agent.

SURVEYORS:

Petroleum Inspectors: A contracted "Inspector of Record" is available at the port to make shipboard inspection of the cargo. Use of this service is at the option of the shipper and is at shipper's expense. Shipper shall have the right to have representations witness the inspection. Shipper should contact LOOP or the "Inspector of Record" regarding the prevailing fees and to make known intentions regarding use of the service.

AIRPORT: New Orleans International Airport is serviced by major airlines with world wide connections. The airport is located 90 miles from LOOP.

REPATRIATION: Crew changes and repatriation of crew members can be arranged through Agent.

WEATHER: *Waves and Currents:* At the port, significant wave height is less than 1.8 m. (6 ft.) for 72% of the time, and greater than 3 m. (10 ft.) for 5.4% of the time. Waves usually arrive from an Easterly direction. Currents take a generally Easterly direction 25% of the time. Average current speed is 0.72 knots, but 3% of the time the current can reach a speed of 2 knots.

Weather at the Port: LOOP's marine terminal is located in a semi-tropical zone. Average Summer temperature is 29°C (84°F), and average Winter temperature is 14°C (57°F). Lowest temperature recorded is −12°C (10°F) and highest is 38°C (100°F).

Thunderstorms in Summer and cold fronts in Winter develop quickly and can be quite severe, with storm winds (up to Force 10) developing for short periods. The Terminal is in a hurricane zone, and although such storms are an infrequent occurrence at the port, the area is often affected adversely between the months of June and November by hurricanes passing East or West of the port. Poor visibility occurs most often in January when visibility of 2 nautical miles or less occurs 2% of the time.

Weather Operating Rules: As a general rule, the LOOP Port Superintendent will use the following guidelines in deciding whether various port activities will be allowed to begin or continue, or whether they will be terminated:

(a) Bunkering is generally allowed in significant seas of up to 1.5 m. (5 ft.)
(b) Tanker mooring and hose hook-up generally are allowed in significant seas of up to 2 m. (6 ft.)
(c) Operation of the mooring launches and work boat, as well as cargo discharge, are generally considered safe in significant seas of up to 4 m. (12 ft.)
(d) In seas of 4 m. (12 ft.) or more, cargo discharge may be stopped and cargo hoses disconnected, especially if a storm is building up.
(e) Tankers may be required to depart:
    (1) if seas become greater than 5 m. (15 ft.);
    (2) if winds become greater than 22 m. per second (44 knots);
    (3) if current becomes greater than 1 m. per second (1.8 knots) and is aligned with winds of 20 m. per second (40 knots) or more;
    (4) if current becomes 0.6 m. per second (1.2 knots) and is perpendicular to 20 m. per second (40 knot) winds.
(f) The complete shut-down of all systems and the evacuation of the port will be ordered when it is predicted that the centre of a hurricane will pass within 290 kilometers (180 statute miles) of the port. Normally evacuation orders will be issued 36 hours before the storm's expected arrival.
(g) A hurricane alert is issued 72 hours ahead of an approaching hurricane. No incoming tankers will be berthed after a hurricane alert, and berthed tankers will complete discharging as soon as possible and depart the port.

Also see "Radio".

GENERAL:

Charts: The following official charts of the National Oceanographic and Atmospheric Administration (NOAA) are recommended for use when approaching LOOP's marine terminal:

11340 (U.S. Gulf Coast – Mississippi River to Galveston).
11358 (U.S. Gulf Coast – Barataria Bay and Approaches).
11359 (U.S. Gulf Coast – Louisiana, LOOP Deepwater Port).

The latest editions of NOAA charts are listed in NOAA's publication "Dates of Latest Editions", which is issued quarterly and available free from National Ocean Survey, Division C44, Riverdale, Maryland 20840, U.S.A.

Support Vessel Base: National Oceanographic and Atmospheric (NOAA) Administration Chart No. 11358 shows the navigable route from the marine terminal to the small boat harbour located on the East shore of Bayou Lafourche near Belle Pass where the support vessels are based.

Onshore Components: Major onshore components are: the Clovelly Dome Storage Terminal for receiving and storing the oil coming from the marine terminal and for delivering it to connecting facilities; the Operations Centre for controlling and monitoring system operations; and the Fourchon Booster Station for helping to pump the crude oil from the marine terminal to Clovelly Dome Storage Terminal.

Services: LOOP does not provide facilities for logistic services to tankers using the port. The company is not an "Agent", but does render to all tankers calling at its terminal the services necessary to effect a prompt, efficient turnaround. LOOP provides those services and facilities necessary for scheduling, receiving, mooring, unloading of cargo and departure of tankers calling at the port. Arrangements for logistic services must be made through each tanker's agent. Lists of logistic services can be obtained from the Agents. Messages concerning such requirements, except in an emergency, will not be accepted by LOOP.

Vessel used to deliver bunkers and tanker supplies will have to be approved by LOOP. Such vessels must apply for approval in accordance with the LOOP Guidelines and Regulations covering logistical service. Lists of currently approved vessels are available from LOOP on request. No telephone service is available to the ships.

Included in tanker services that need to be arranged through tankers' agents are mail services and medical services. There are no facilities for handling mail. *It is important that mail for tankers not be addressed to LOOP Inc.* There is no medical service on LOOP's offshore platforms. Medical service ashore, as well as helicopter service for medical evacuation, is available through the Agents.

Helicopter Transfer of Personnel and Supplies: Helicopter operations are sanctioned on tankers, subject to the Master's and the Port Superintendent's approval, for the following situations:

(a) Medical evacuation, personnel transfer and replenishment of supplies by helicopter is permitted on an individual basis. The Port Superintendent has authority to determine when conditions are not safe for such helicopter operations. Shoreside treatment for medically evacuated patients must be arranged by the tanker through the tankers' agent. LOOP will assist with communication relays for emergency medical purposes but will not act as agent.
(b) When weather conditions dictate, helicopters may be used for transfer of Mooring Masters and other port personnel at the discretion of the tanker's Master. The Mooring Master and the Port Superintendent jointly decide when such a condition exists.
(c) In order to facilitate decisions about the safety or feasibility of helicopter operations on tankers, LOOP advises Masters of the characteristics of any helicopters that LOOP itself dispatches.

Personnel Transportation: LOOP provides no boats for transportation of tankers' personnel to shore. When transportation is required, it must be arranged through tanker's agents. There is almost no public transportation on land from towns near the LOOP platform. Any such land transportation should also be arranged in advance through tanker's agents.

Small Boats and Visitors: No boats are permitted or authorised to come alongside tankers calling at the port except those required by LOOP or by the ship to furnish services or carry out official business, and then only after clearance from the Vessel Traffic Controller and Mooring Master.

It is strongly recommended to Masters of tankers that visitors to the ship be restricted to a minimum, because of the hazards involved. Visitors to the ship are not allowed to embark or disembark by the way of LOOP's platforms or launches.

Masters of vessels are advised that decks and the ship's ladders should be well lighted and ladders should be kept well clear of the water during unloading to prohibit unauthorised persons from boarding the ship.

Cargo Documentation: The cargo quantity and quality report, which is a LOOP document, will be completed as much as possible by LOOP personnel before each tanker's arrival. After the tanker finishes discharging, the Mooring Master receives the necessary figures by radio from the control platform so that the document can be completed before sailing. Cargo quantity is measured by representatives of LOOP by using turbine meters and provers on the pumping platform. Cargo quality is monitored by automatic sampling devices on the platform, and for accounting purposes manual tests are done on samples taken from the automatic sampler on the platform. LOOP furnishes United States Customs authorities with the necessary documentation.

Pollution: Discharge of oil or oily slops into the sea is strictly forbidden. LOOP has no facilities for receiving any oil residues or oily ballast water. Tankers wishing to offload such substances must do so elsewhere. Tankers that release oil or oily ballast water either at the SPMs or in the anchorage area will be held responsible for all clean-up costs. The U.S. Coast Guard Regulations concerning water discharges at sea are contained in 33 CFR 157.25 to 157.49. Regulations in 33 CFR 159.7 require an operable marine sanitation device aboard all vessels in United States waters. For purposes of these regulations the LOOP safety zone is considered U.S. waters.

NOTE: All ballast and bilge overboard discharge valves are to be shut and sealed and all deck scuppers plugged while at a LOOP SPM or anchorage, although scuppers can be temporarily opened to drain off rainwater.

Safety: LOOP maintains a vigorous safety programme. The Mooring Master, as LOOP's safety representative on board, will discuss and review LOOP's safety requirements and procedures with tanker's Master and Chief Officer before cargo discharge begins. Coast Guard Inspectors will board all foreign vessels, at least annually, to ensure compliance with federal regulations, including Part 164, Title 33 of the United States Code of Federal Regulations, Navigation Safety.

Customs: LOOP furnishes customs authorities with documentation of volumes and evidence of quality of cargoes received into the system based on measurements at the marine terminal pumping platform. Arrangement for the posting of such sureties and payment of fees or duties, and for other documentation that may be required, is the responsibility of the importer and/or operator of the tanker. The importer's customs broker, or his other authorised representative, will advise the importer regarding procedures and the amount of duty or fees levied on oil shipped through the port complex.

Storage: Procedures and charges for storage of crude oil by shippers in excess of normal residence time are covered in the Terms and Conditions of Service.

State Fees: There are presently no usage fees directly assessed by Louisiana to shippers and tankers at the deepwater port. If Louisiana imposes fees in the future, tankers will be responsible to pay them.

Regulated Vessels Activities: Vessel activities permitted and prohibited at the port, controls on those activities, and the specific safety zone areas in which the controls apply are set forth in 33 CFR 150.345.

Provisions: All deck and engine room stores are available in quantity. High quality fresh and frozen provisions available through Agent.

AUTHORITY: LOOP Inc. (See "Operator").

LOS ANGELES, California: 33.43 N. 118.17 W.

(See Plan)

PORT LIMITS: The seaward boundary of the port of Los Angeles is, for most purposes, the breakwater through which arriving vessels pass at Angels Gate Light.

DOCUMENTS: First Port of Arrival.

1 Complete Manifest deposited with Customs, original and traveller.
1 Complete Manifest returned to vessel.
1 Manifest of first port cargo deposited with Customs broker.
2 Quarantine Declarations (Form PHS 43).
2 Agriculture Declarations (Form AIQ 43).
1 Visaed Crew List (Form I-418) 5 additional copies.
1 Crewman's Landing Permit (Form I-95A) for each crew member and (Form I-94) for each passenger.
1 Dangerous Cargo Manifest deposited with Captain of the Port.
1 copy in hands of Chief Officer for review by the Fire Department.
The Coast Guard Captain of the Port must be informed of vessel's ETA 24 hours prior to vessel's arrival.

Second and each subsequent Port of call in U.S.
2 Manifests of Cargo for second U.S. port left with Customs.
1 Travelling Manifest returned to Master.

(*Note:* Travelling Manifest is carried and deposited with Customs at final port of discharge in U.S. – in addition to above required documents 4 additional copies should be available.)

PILOTAGE: Request made through Agent. Contact can be made through VHF Channels 14 (156.7 MHz) or 16 (156.8 MHz). Call: KMB 466 Los Angeles Pilots. Tel: 519-3805. Not less than 1 hour's notice of arrival or departure. 1 long and 1 short blast on ship's whistle or siren, or international signal. Pilot will board in vicinity of sea-buoy ("LA" entrance buoy, lighted bell buoy "L.A." red and white vertical stripes. Radar reflector).

Under normal weather conditions, the pilot ladder should be on the starboard side 1 m. above water.

Arriving vessels should keep to Eastward of Los Angeles Sea-Buoy. Departing vessels should keep to Westward of Los Angeles Sea-Buoy.

Masters or Agents are requested to advise the pilot station whenever there is a change in the arrival or sailing time.

Note: Ships arriving can usually make good VHF radio contact except between Point Vicente and Point Fermin.

ANCHORAGES: Anchorages defined on charts. No permit required to anchor less than 10 days. Permit for over 10 days obtained from Captain of the Port, USCG and Harbour Department Port Warden. Permit is required for Explosives anchorage.

BERTHING: Generally arranged through Agent. Berthing under control of Port of Los Angeles' Chief Wharfinger. There are 32 general cargo berths with depth alongside 45 ft. (See "Max. Size".)

Berth No.	*Depth (ft.)*	*Remarks*
37–40	35	
49–50	51	Coal (Berths No.49–53). Loading rate 1,400 t.p.h. Travel 600 ft.
51–55	35	
56	35	
57–60	30–35	
72	14	
73 A–E	20	
73 W–Z	25	
87–89	45	
90–92	35	Cruise Ships (Berth 91)
93 A	37	Cruise Ships
93 B	45	
126–131	45	
134–135	45	Cars
136–139	45	
142–144	45	Omni-use, Ro-Ro
153–155	45	Breakbulk
156–160	45	
174–176	45	Grain and tallow terminals at Berth 174
177–179	45	Steel, lumber, rubber
180–181	45	
191	45	Pelletised sulphur
195–199	45	
200 A–H	45	Cars (A) Timber (B–H)
207	45	
208–209	45	
210–211	38	Scrap
215	45	
216–217	45	Cars, containers, general
218–225	45	Cars, containers, general
227	45	
228 A & B	45	Cars, Ro-Ro, containers
228 D & E	45	Cars
229	45	Cars
230	45	Cars
231	45	
232	45	
233	45	
234	45	
235	45	
238	45	
239	45	
240 A	45	
240 B	45	
259	18	
261–264	15–20	
265–267	12–20	

APPROACHES: Vessels approaching the ports of Long Beach/Los Angeles should use the prescribed traffic separation scheme. Be advised that the traffic scheme has been temporarily modified, pending adoption of permanent changes by the Maritime Safety Committee. The modification reconfigures the Western approach to the Los Angeles/Long Beach precautionary area in the following manner: a portion of the TSS separation is reduced from 2 miles to 1 mile in width and merges with the existing separation zone at a slightly adjusted turn point; the outbound lane has been shifted 1 mile South of its present charted location; and the precautionary area is reduced in size on its Eastern side. Vessel charts should be corrected as per most recent Notice to Mariners for geographical positions of these changes. Large tankers should pick up the Pilot 1 to 2 miles South of the sea buoy and Pilots should have the opportunity to board without excessive way on the vessel so as to have her under control before entering the breakwater area. All vessels entering the port should pass Eastward of the respective sea buoy and vessels outbound shall pass Westward of the sea buoy. The Master should use extreme caution in the Precautionary Area due to proximity of outbound traffic and numerous small craft, when at night, their lights are not easily distinguishable in and around breakwaters or against the background of harbour lights. Outbound vessels should avoid setting course before clearing South of the sea buoys and adjoining anchorages and be alert for crossing traffic.

MAX. SIZE: Restrictions on draft only. Supertanker terminal in outer harbour has fairway of 51 ft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Los Angeles Quarantine Station.
Quarantine: U.S. Quarantine Station, P.O. Box 90834, Los Angeles, California 90009. Tel: (213) 642-5966.

1982 Standard Procedure: Radio Free Pratique clears vessel to enter harbour without inspection provided there is no illness on board.

Inspection officer boards ships in the following categories:

A. 15 days prior to entering a U.S. port any crew member or passenger exhibits these symptoms.

1. Temperature of 100° or higher for 2 days or is accompanied by: a. rash; b. jaundice or c. glandular swelling.
2. Diarrhoea severe enough to prevent performing duties.
3. Death aboard ship.

B. Any ship visiting a plague-infested country within 60 days prior to entering a U.S. port.

If subject to inspection, boarding hours are 0600 – 1800 Monday – Saturday regular; 1800 – 0600 overtime including Sundays and holidays.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: International Telephone and Telegraph, call letters "KOK" Los Angeles Radio.
RADAR/VHF: The Los Angeles Harbour Pilot's station equipped with radar for use of Pilot. The Pilots also monitor VHF Channels 14 (156.7 MHz) and 16 (156.8 MHz). Also see "Long Beach" and "Services".
TUGS: On stand-by 24 hours a day. However, should be ordered prior to arrival. Tugs join vessel in main channel, tug lines used, except when towing astern.
BRIDGES: Highway suspension bridge (Vincent Thomas) crosses main channel between Berth 95 and Berth 225; overhead clearance of 185 ft. in centre. 2 bridges on Cerritos Channel separating Los Angeles and Long Beach harbours, 1 double leaf-bascule (Badger Avenue Bridge) the other is a lift bridge (Schuyler F. Heim), as these bridges are less than 50 ft. apart they will be treated as one, overhead clearance 155 ft. at centre of Heim Bridge.

SPECIALISED CARGO HANDLING: Bulk loading facility, especially designed to handle coal and other dry bulk materials. Wharf length 800 ft. Depth alongside 51 ft. Loading rates up to 3,000 t.p.h., and unloading 500 t.p.h.

The grain and tallow terminals at Berth 174 have 13 silos that hold 410,000 bushels. Vessels can be loaded at a rate of up to 400 t.p.h. Accommodating vessels up to 35 ft. draft, any length. (See "Max. Size".)

Other specialised facilities include the GATX Petrochemical Terminal, designed especially to receive petrochemicals; the Hugo Neu Corporation installation, where old automobiles are reduced to scrap metal for export; Coos Head and Louisiana Pacific Terminals; United Brands Company's Banana Terminals; and the processing and shipping plant of the U.S. Boron Company.

CRANES: *Barge Cranes:* 1×350 tons capacity (Crowley Construction) and 1×386 tons capacity (U.S. Navy).

STEVEDORES: Agents make necessary arrangements.

MEDICAL: Necessary to notify Agents of required medical attention; this can be done when final ETA is determined. Hospital facilities available (private).

Vaccinations/fever certificates, etc., shall conform with rules and models prescribed by the International Sanitary Regulations.

DENSITY: Average density 1026 (exception during or after heavy rain).

FRESH WATER: Availability unlimited, delivery universal, rate of delivery 100 t.p.h.

FUEL: Unlimited fuel, all grades at attractive rates. 48 hours' advance notice generally required.

CONTAINER HANDLING FACILITIES:

Terminal name and location	*Korea Shipping Line Terminal Berths 87 – 88*	*APL Terminal Berths 121 – 126*	*Los Angeles Container Terminal Berths 127–129*	*Matson Terminal Berths 206 – 209*
Terminal Operator	Marine Terminals Corp., P.O.Box 1068, 1601 West Water St., Long Beach CA 90802 (213) 831-8901	American President Lines, P.O.Box 1551, San Pedro, CA 90733 (213) 548-8777	Los Angeles Container Co. Inc. 1830 John S. Gibson Blvd., San Pedro, CA 90731 (213) 831-0645 L.A. Container Co. Inc.	Matson Terminals, Inc. P.O.Box 3367, Terminal Is., CA 90731 (213) 519-6538
Stevedore Company Used by (Shipping Lines)	Marine Terminals Corp.	Eagle Marine American President Lines	Yamashita-Shinnihon Japan Line	Matson Terminals, Inc. Matson Line NYK Line Showa Line
No. of Operational Berths	2 (for containers)	2	2	3
Length of berths	1,600 ft.	960 ft. and 1,040 ft.	1,000 ft. each	2,180 ft.
Elevation of Wharf Deck (nearest 0.5 ft.)	15 ft.		15 ft.	15.5 ft.
Depth of water	40 ft – 45 ft.	43 ft.	45 ft. MLLW	45 ft. MLLW
Total land area	26 acres	114 acres	54 acres	92 acres
Container storage area	25 acres	—	30 acres	34 acres Chassis: 800 spaces
Number of container spaces (stacked one high)	2,662	3,960	3,830 TEUs	10,000 (3 and 4 high)
Number of reefer outlets	200	228	200	600-700
Container Cranes				
Number	2	4	2	5
Lifting capacity	40 long tons,	40 long tons	40 long tons	4 – 33.5 tons, 1 – 25 tons
Outreach offshore	107 ft., 115 ft.,		106 ft. 5 in.	102 ft., 96 ft.
Outreach inshore	88 ft., 90 ft.,		91 ft.	73 ft., 74 ft. 6 in.
Wheelspan	50 ft.		50 ft.	34 ft., 34 ft.
Container capacity	30 – 20 ft./hr. 35 – 20 ft./hr.		70 – 20 ft./hr.	56 – 20 ft./hr. 40 – 20 ft./hr.
Travel crane and Straddle carrier			5-Drott, 40 ton/cap. (3)	4-bridge cranes, Morgan Eng. 37.5 tons./capacity (4) 4 Transtainers 1 Paceco 25 ton/capacity (2) 4-Clark, 25 ton/capacity (2) 2-Clark, 30 ton/capacity (3)
Fork lifts		51	3-Hyster, 7 ton/capacity (3)	2-Raygo Wagner 35 ton/capacity (3)
Container freight station	200 ft.×1,008 ft. 201,600 sq. ft.	154,033 sq. ft.		776 ft.×80 ft. 62,080 sq. ft.
Railroad and truck service	Yes		Yes	Yes
Route of service	U.S./Japan/Hong Kong/Taiwan/ S.E. Asia/S. Pacific Is./ Indonesia/India/Pakistan/ Australia/New Zealand/Sri Lanka		U.S./West Coast/ Japan	U.S./Hawaii/Japan/Guam
Frequency of calls	6-8 monthly		6 monthly	8 monthly

CONTAINER HANDLING FACILITIES: (Continued)

Terminal name and location	*Indies Terminal Berths 216 – 218*	*Overseas Terminal Berths 228 – 231 ABC*	*Evergreen Terminal Annex Berths 231 – 233*	*Evergreen Terminal Berths 233 – 236*
Terminal Operator	Stevedoring Services of America, 965 Harbour Scenic Way, Long Beach, CA 90802. (213) 547-3351	Overseas Terminal Co. Inc. P.O.Box 3128, Terminal Is., CA 90733 (213) 832-3341	Evergreen Marine Corp., Calif, Ltd. 260 West 5th Street, San Pedro, CA 90731. (213) 514-4000	
Stevedore Company	Stevedoring Services of America	Metropolitan Stevedoring	Metropolitan Stevedoring	
Used by (Shipping Lines)	Elma Nedlloyd Mitsui Yang Ming	Johnson Scan Star Barber Blue Sea Blue Star Line and others	Evergreen Lines	
No. of Operational Berths	—	4	2	2
Length of berths	3,000 ft.	3,200 ft.	1,000 ft.	1,700 ft.
Elevation of Wharf Deck (nearest 0.5 ft.)		15 ft.	15 ft.	15 ft.
Depth of water	45 ft.	45 ft.	45 ft. MLLW	45 ft. MLLW
Total land area	99 acres	62 acres	20 acres	51 acres
Container storage area	40 acres	25 acres	19 acres	15 acres
Number of container spaces (stacked one high)		3,000 TEUs	1,860 TEUs	3,600 TEUs 636 – 20/40 ft. chassis stalls
Number of reefer outlets	220	176	120	130
Container Cranes				
Number	4	2	2	4
Lifting capacity	40 long tons	40 long tons	40 long tons	40 long tons
Outreach offshore		81 ft., 133 ft. 6 in.	115 ft., 120 ft.	115 ft.,120 ft.
Outreach inshore		20 ft., 61 ft.	90 ft.	90 ft.
Wheelspan		70 ft., 50 ft.	50 ft.	50 ft.
Container capacity		30 – 20 ft./hr. 40 – 20 ft./hr.	60 – 40 ft./hr.	30 – 20 ft./hr.
Travel crane and Straddle carrier		2-Paceco, Drott 30 ton/cap. (3) Various types 20-ton/capacity (2)	2-Raygo Wagner Top handler (Port Packers) 3-Paceco transtainers 30 ton/capacity (3)	2-Raygo Wagner (Port Packers) 35 ton/cap. (3) 4-Drott travellers 22.8 ton/cap. (2 + pass over) 35.5 ton/capacity
Fork lifts		2-Raygo Wagner 35 ton/capacity (3)	Side Picker (forklift with attach.) 20 ton/capacity	
Container freight station	154,033 sq.ft.	880 ft. × 160 ft. 137,200 sq. ft. Main use is for break-bulk cargo		
Railroad and truck service		Yes	No	
Route of service		U.S./Europe/Japan/ Taiwan/Hong Kong/ S.E. Asia/Panama/ Venezuela/New Zealand	U.S./Far East/ Australia/Mediterranean	U.S./Japan/Korea/ Hong Kong/Taiwan
Frequency of calls		13 monthly	5 monthly	3 monthly

FIRE PRECAUTIONS: Whenever vessel bunkering, sufficient serviceable fire hose with suitable nozzles attached to reach all parts of vessel shall be connected to fire main on vessel and made ready for instant use at all times during bunkering operations. If no adequate water pressure available on board, connections shall be made to shore lines to obtain adequate pressure. All tankers shall be moored bow seaward and have wire towing pendants rigged fore and aft readily available for emergency use, fire hoses shall be connected as above at all times while vessel in port.

International fire signals will be used in case of fire (5 prolonged blasts of ship's whistle or siren of 4 to 6 seconds duration).

CERTIFICATES: *Passenger Vessels:*
Safety Certificate, with 50 or more passengers.
Load-Line Certificate.
Radio Certificate.
Radio Telephone Certificate, if aboard.

Cargo Vessels:
Safety Equipment Certificate.
Load-Line Certificate.
Certificate of Inspection/Home Certificate.
Trading Certificate.
Cargo Gear Certificate.
Radio Certificate, Radio Telephone Certificate, if aboard.
If carrying passengers from U.S. ports, vessels must have PAC (Persons in Addition to Crew) Certificate issued by USCG.

Tanker Vessels:
Same as cargo. Exception: if carrying exotic cargo, required to have cargo facilities plan reviewed and approved by USCG, Washington, D.C. On vessel's first visit it will be inspected and receive a letter of compliance.

GANGWAY/DECK WATCHMEN: Gangway watch recommended. Tankers and vessels handling dangerous cargo required to have gangway and deck watch.

OPENING/CLOSING HATCHES: Automatic hatches may be opened and closed by crew, manual hatches opened and closed by stevedores.

CUSTOMS ALLOWANCES: Tobacco, either 300 cigarettes, 50 cigars, or 3 lb. of smoking tobacco, for the personal use of crew member. Wine and/or spirit, 1 quart for personal use of crew member.

CARGO GEAR: Gangway net attached between ship and dock; extending 5 ft. beyond turntable in one direction and 5 ft. beyond point of intersection of gangway and stringpiece in the other direction. Preventer guy must be rigged separately to head of boom from working guy. Exception if cast head of boom is capable of withstanding the stress of all the lines attached thereto. (This is a West-Coast requirement.)

IDENTIFICATION CARDS: 1 crewman's landing permit (Form I-95A) or Immigration card (Form D-1).

REPAIRS: All types of deck and engine repairs possible.

DRY DOCKS: Largest dry dock 659 ft. by 97 ft., 22,000 displacement tons. 3 smaller dry docks (17,500, 15,000, 10,000 tons).

Todd Shipyards Corp. have a 48,000 tonnes deadweight capacity synchrolift. Capacity – LOA 780 ft.×beam 105 ft.×39 ft. draft.

SURVEYORS: ABS, Det Norske Veritas, Lloyd's Register and NKK.

TANKERS: Load and discharge lines have 6 in. and 8 in. standard flanges (super-tanker terminal has 12 in. lines with standard flanges). If not so equipped ship must furnish its own "C" clamps. Recommend ship have reducers on board to handle 6 in. and 8 in. flanges. Residue discharge facilities available for limited quantities. All types and grades of petroleum available. Also see Long Beach – "Tankers".

Berth No.	*Length (ft.)*	*Depth (ft.)*	*Operator*	*Remarks*
45–47	898	51	Union/Mobil	Crude, bunkering, products. 5 loading arms. Pipe-line 1.4 miles by 30 cm. 2 conveyor belts for stores.
70–71	575	38	GATX	Petrochemicals, petroleum products. 111 tanks, capacity 578,000 barrels. Pennzoil use Berth 71 for lube oils.
97	848	32	Chevron	Petroleum, bunker fuel, diesel, lube. 21 tanks, capacity 660,000 barrels. Access by road only.
102	805	32	Chevron	
118–119	821	35	GATX	GATX have 4×30 cm. and 2×15 cm. pipe-lines from wharf to 11 storage tanks, total capacity 535,000 barrels. B.P. North American Petroleum also use this public berth.
120–121	418	35	Western Fuel Oil Co.	Petroleum, LPG and chemicals. 30 cm., 25 cm. and 15 cm. pipe-lines to Western Fuel, Petrolane, B.P. and GATX tanks.
148–151	1,344	45	Union Oil	Refined products.
163–164	892	45	Golden Eagle	Used by Golden Eagle, Chevron and Champlain, receives fuel oil, diesel and unrefined oil.
165–166	679	45	Borax	Exports borates. Rate 1,000 t.p.h.
167–169	1,249	45	Shell	Receives crude, receives and ships petroleum products. 16 storage tanks, capacity 672,000 barrels.
171–173	1,412	45	GATX	Public terminal. Receives crude, ships petroleum products. 19 storage tanks, total capacity 1,000,000 barrels.
187–190	—	45	Wilmington Liquid Bulk Terminals Inc.	No length limitation. Public terminal for storage and shipping of various liquids (lube, diesel, caustic, coconut oil, etc.). 51 tanks, capacity 626,000 barrels.

REPATRIATION: Arrangements can be made through Immigration on request of Agent to have crewman change ship or return to home port.
AIRPORT: Approximately 20 miles to International Airport which serves all major airlines.
TIME: Standard Time, GMT minus 8 hours. Daylight saving time GMT minus 7 hours (April through October).
HOLIDAYS: Cargo may be worked on holidays with holiday pay scale.
POLICE/AMBULANCE/FIRE: The telephone numbers are Fire (213) 832-4241, Police (213) 832-7211, Ambulance (213) 832-4243. Fire Alarm boxes adjacent to all cargo sheds.
EMERGENCY CO-ORDINATION CENTRE: Coast Guard Rescue Co-ordination Centre. Tel: 590-2225.
TELEPHONES: Connections for passenger vessels at passenger terminals only.
SERVICES: A ship-reporting service "The Marine Exchange" located at entrance to main channel, Los Angeles harbour. They monitor Channels 14 (156.7 MHz) and 16 (156.8 MHz) VHF and have Channel 9 (156.45 MHz) VHF as their own. Primary duties are reporting arrivals, departures and locations of vessels.
SHORE LEAVE: Crew members are allowed ashore.
BANKS: Over 50 international banks.
SHIP SUPPLY SERVICE:

Far East Marine Supplies, 804 W. 14th Street, Long Beach, Ca. 90802, U.S.A.

Griffith Ship Supply, 1365 Daisy Ave., Long Beach, Ca. 90802, U.S.A.

L.A. Harbor Supply Co., 601 W. 14th Street, Long Beach, Ca. 90802, U.S.A.

Trans Intermodal Transport Inc., 530 E. Wardlow Rd., Long Beach, Ca. 90802, U.S.A.

Unitor Ship Service Inc., 1416 W. 15th Street, Long Beach, Ca. 90802, U.S.A.

CONSULS:
Argentina – Consul
Australia – Consul General
Austria – Consul General
Bangladesh – Consul
Barbados – Consul
Belgium – Consul General
Bolivia – Consul General
Botswana – Consul
Brazil – Consul General
Canada – Consul General
Chile – Consul
China – Consul General
Colombia – Consul General
Costa Rica – Consul General
Cyprus – Consul
Denmark – Consul General
Dominican Republic – Consul General
Ecuador – Consul General
El Salvador – Consul General
Estonia – Vice-Consul
Fiji – Consul General
Finland – Consul
France – Consul General
Germany F.R. – Consul General
Great Britain – Consul General
Guatemala – Consul General
Guyana – Consul
Haiti – Consul General
Honduras – Consul General
Iceland – Consul
Indonesia – Consul
Israel – Consul General
Italy – Consul General
Ivory Coast – Consul General
Jamaica – Consul
Japan – Consul General
Jordan – Consul
Kenya – Consul General
Korea – Consul General
Latvia – Consul
Lebanon – Consul General
Liberia – Consul
Lithuania – Consul General
Luxembourg – Consul
Malawi – Consul
Malaysia – Consul
Mali – Consul
Malta – Vice-Consul
Mauritius – Consul
Mexico – Consul General
Monaco – Consul
Morocco – Consul
Netherlands – Consul General
New Zealand – Consul General
Nicaragua – Consul General
Norway – Consul General
Panama – Consul General
Paraguay – Consul
Peru – Consul General
Philippines – Consul General
Portugal – Consul
Saudi Arabia – Consul General
Senegal – Consul
South Africa – Consul
Spain – Consul General
Sri Lanka – Consul
Sweden – Consul General
Switzerland – Consul General
Taiwan – Consul
Thailand – Consul General
Turkey – Consul General
Upper Volta – Consul
Venezuela – Consul
Western Samoa – Consul

Commercial Representatives of Foreign Governments:
Australia – Trade Commissioner
Austria – Trade Delegate
Belgium – Commercial Officer
Brazil – Trade Commissioner
Canada – Trade Commissioner
Denmark – Consul Attache
France – Commercial Counsellor
Finland – Trade Commissioner
Germany – Deputy Consul General
Great Britain – Commercial Consul
Hong Kong – Trade Development Council
Israel – Consul
Italy – Trade Commissioner
Japan – Consul
Korea – Consul
Mexico – Commercial Attache
Netherland – Vice-Consul
Nicaragua – Commercial Attache
Philippines – Trade Representative
Portugal – Trade Office
Sweden – Trade Commissioner
Switzerland – Vice Consul
Yugoslavia – Trade Commissioner

REGULATIONS: Permits required for hot work (welding, cutting, etc.). Permit required for any dangerous cargo. Permit to discharge ballast (clean water) required. Restrictions on bunkering operations (scuppers plugged, valves closed).
DELAYS: No delays in berthing, load or discharge or bunkering can be expected.
DEVELOPMENTS: Depths at Los Angeles will be increased from 51 ft. to 65 ft. in the Outer Harbour.
Berth 135 – 139: Container terminal under construction. Length of berth 1,850 ft. Berth to be equipped with 3 gantry cranes. Completion expected mid-1987. The berth will probably be leased to Mitsui OSK Line.
Berth 174 – 181: Container terminal under construction on Morman Island. Length of berth 1,000 ft.
AUTHORITY: Port of Los Angeles, P.O.Box 151, (425 S. Palos Verdes Street), San Pedro, California 90733-0151. *Tel:* (213) 519-3456. *Telex:* LTX 18-2387. *Contact:* Executive Director.

AGENT: Norton Lilly Intl., 2001 John Gibson Blvd., San Pedro, CA 90731. Tel: (213) 547-1156. Telex: 6831863.

MANITOWOC, Wisconsin: 44.06 N. 87.38 W.

LOCATION: Situated on the Western shore of Lake Michigan, 70 miles North of Milwaukee. Port open all year round.
DOCUMENTS: Vessels cleared by Quarantine Officials at Quebec. Customs Officer stationed at Green Bay.
PILOTAGE: Not locally required or available. Pilots should be taken on board prior to entering harbour.
MAX. SIZE: Max. draft 21 ft., vessels up to 600 ft. LOA can berth.
HEALTH: See "Documents".
TUGS: Not available.
BERTHING: 2 breakwaters protect the harbour. Entrance dredged to 25 ft. Outer harbour from pier heads to inner red light dredged to 23 ft. Inner harbour up to Medusa Cement Company dredged to 21 ft. Maximum depth alongside docks, 19 ft. Turning basin, 600 ft. radius.

All berths owned by private industry and located as follows from harbour entrance:

1. Manitowoc Public Utilities: 2 slips capable of handling 400 ft. car-ferries which handle railroad freight cars or Ro/Ro vehicles. Located port side at a right angle to river channel South side of harbour.
2. C. Reiss Coal Company, 509 Jay Street: A 900 ft. slip just inside car-ferry docks, at a right angle to river channel, South side of river.
3. Manitowoc Company Inc., 500 South 16th Street: 800 ft. long. South side of channel, parallel docking.
4. Busch Agricultural Resources Inc., 605 Washington Street: 490 ft., South side, has marine leg for unloading grain.
5. McMullen & Pitz Construction Company, 901 Commercial Street: 300 ft. North side of river between 8th and 10th Street bridges.
6. Soo Line Railroad Company, 923 Commercial Street: 300 ft. North side of river just above 10th Street bridge. This includes an unused car-ferry slip capable of handling a 400 ft. car-ferry. Also, 600 ft. North side just above car-ferry dock but is unimproved.
7. Manitowoc Company Inc., 500 South 16th Street: Approximately 8 berths varying in length from 180 ft. to 850 ft., port side bordering the peninsula.
8. Medusa Cement Company, 1801 Spring Street: Final large dock upriver, 1,200 ft. starboard side.
9. Consumers Steel & Dock, 1311 Spring Street: 330 ft. starboard side just prior to Medusa dock.
10. Burger Boat Company, 1811 Spring Street: 300 ft., starboard side, just beyond Soo Line Railroad swing bridge.

CRANES: Manitowoc Company Inc.: One fixed crane max. 80 tons lift. Travelling crane max. 70 tons lift.

Burger Boat Company: One stiff leg derrick, 40 tons max.

BRIDGES: Operating regulations in effect. Contact City Police or the Harbour Master in advance.
DENSITY: 1000.
FRESH WATER: Available.
FUEL: Available.
REPAIRS: Can be undertaken by Bay Shipbuilding Co.
DRY DOCKS: Floating dock available. Length 604 ft., width 70 ft., depth over blocks 13 ft., max. LOA 640 ft. – Bay Shipbuilding Co., Sturgeon Bay, Wis.

Bay Shipbuilding Co. have 1 drydock which will accept vessels of 1,000 ft. LOA and 35,500 gross tons. Depth over sill 17 ft.

SURVEYORS: Lloyd's surveyor available from Cleveland.
TIME: GMT minus 6 hours.
AIRPORT: Manitowoc County. N.W. side of City off Monasha Avenue. Simmons Airlines, commercial feeder line, passenger and freight.
AUTHORITY: City of Manitowoc, Harbour Commission, 817 Franklin Street, Manitowoc, Wisconsin 54220. *Tel:* (414) 683-4440. *Contact:* B. M. Brennan, Harbour Master. Tel (414) 684-9192.

METLAKATLA, Alaska: 55.08 N. 131.35 W.

LOCATION: Located on Annette Island. Open all year.
DOCUMENTS: See "Anchorage, Alaska".
PILOTAGE: Ships coming up from the Hecate Straits or outside of Graham Island proceed into Dixon Entrance to the vicinity of Point McCartey where the Pilot will meet them. Vessels coming up the inside passage from Vancouver, B.C. are met at Lucy Island Pilot Station.
ANCHORAGES: Good anchorage in gravel and mud.
RESTRICTIONS: Usually daylight berthing only.
MAX. SIZE: Depths in harbour 120 ft. Tides: diurnal range – 14.7 ft. Also see "Berthing".
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
CUSTOMS: Quarantine, Immigration and Customs, from Ketchikan.
VHF: Harbour Master monitors Channel 16.
TUGS: Available in Ketchikan. A minimum of 2 tugs required for berthing and unberthing. Arrangements made with Pilot from Ketchican.
BERTHING: 2 berths: 1. City Dock: 400 ft. long and 60 ft. wide. More than 35 ft. deep. Due to shallow water at East end, a starboard landing is usually made. No covered storage, temporary open storage. 4 fork lifts, 2 of 20,000 lb. capacity.

2. Annette Island Canning Co.; 200 ft. long and 23 ft. deep. 15 ton crane and 2 fork-lifts. 1×25 ton fork lift.

CRANES: No Port Authority cranes.
STEVEDORES: 4 gangs available.
REPAIRS: Facilities at Ketchikan.
SURVEYORS: Cargo Inspectors and Surveyors available in Ketchikan.
SUPPLIES: Bonded and unbonded stores from Ketchikan.
WATER: Available.
FUEL: Not available.
MEDICAL: Hospital available in Ketchikan; small clinic in Metlakatla.
AIRPORT: Small charter plane only. Jet to Juneau and Seattle via Ketchikan Airport only.
BANKS: National Bank of Alaska.
EMERGENCY CO-ORDINATION CENTRE: At Ketchikan.
STORING: See "Prelims".

1. By truck.	4. Yes.
2. Yes.	5. None.
3. Yes.	6. Yes.

DEVELOPMENTS: New state ferry pier under construction.
AUTHORITY: Port of Metlakatla, P.O.Box 8, Metlakatla, Alaska 99926. *Tel:* 886 – 4646. *Contact:* Bruce Guthrie, Harbour Master. *Tel:* 886 – 3531 (Residence).

MIAMI, Florida: 25.46 N. 80.10 W. (See Plan)

PORT LIMITS: The Miami harbour embraces the artificial basins, slips and channels that have been dredged along the bay front of Miami and in the bay and through the shoal water of Biscayne Bay to the ocean, and is located generally at Lat. 25° 46′ N., Long. 80° 10′ W.

Administration: The Port of Miami is a "non-operating" port, taxpayer-owned and administered by the Seaport Department, a function of Metropolitan Dade County Government. Permanent facilities are leased to port users and operators. All equipment (except the gantry cranes) is owned and operated by private companies. The gantries are lease-operated under Seaport Control. Berth space is authorised by the Port Director, and scheduled by Seaport Operations. The U.S. Coast Guard serves as Captain of the Harbour.

Physical:
Total port land area: 600 acres (242.83 hectares).
Dodge Island: 300 acres (121.41 hectares).
Lummus Island: 300 acres (121.41 hectares).
Total lineal dimension: 30,000 ft. (9.144 km.).
Bulkhead berth space: 11,510 ft. (2.18 miles) (3.51 km.).
Container berth: 3,000 ft. (914.4 m.) piling-supported concrete.
Lineal balance 17,635 ft. (3.34 miles) (5.38 km.) under development.
Dodge and Lummus Islands connected by two-lane partial, temporary connecting causeway.

DOCUMENTS:

Customs: All foreign and "in bond" goods entering the Port/Country are subject to Customs examination and duty. Manifest of foreign cargo inbound must be presented to the Customs Boarding Officer prior to commencing discharge.

Ship's Agent must notify Customs 48 hours prior to the ship's arrival. Regular working hours, Monday through Friday 0800 – 1700, telephone 536-5261. Outside normal working hours, telephone contact 526-2305; overtime is charged.

Forms required:

2 Master's Oath on Entry of Vessel in Foreign Trade	Form 1300
2 General Declaration	Form 1301
2 Ships Manifests	Form 1302
2 Ship's Stores Declaration	Form 1303
2 Crews' Effects Declaration	Form 1304
Crew Members' Declaration (1 Declaration for each Crew member)	Form 5129
1 Application – Permit – Special Licence (Unloading, loading, overtime services)	Form 3171
2 Passenger Lists	Form I – 418
2 Crew Lists	Form I – 418
Customs Declaration (Passengers) (1 Declaration for each family)	Form 6059 – B
2 Declarations of foreign repair to vessels (U.S. flag vessels only)	Form 226

Immigration: An Immigration Inspector will meet all ships entering port. Valid travel documents/passport/visa/entry permit are required in some cases.

Ship's Agent must notify Immigration at least 1 hour prior to ship's arrival. Regular working hours, Monday through Friday 0800 – 1630, telephone 350 – 5739. Outside normal working hours, telephone contact 526 – 2626; overtime is charged.

Forms required:

Crewmen's Landing Permit	Form I – 95
Alien Passengers' Landing Permit	Form I – 94
Passenger List	I – 418
Crew List	I – 418

PILOTAGE: All vessels with a draft of 7 ft. or more are required to take a Pilot who boards near the Outer Sea Buoy, 2.5 miles offshore.

Request Pilot through Biscayne Bay Pilots Association, 24 hours in advance, call sign KGW 303, VHF Channel 16, direct from ship or through vessel's steamship Agent accompanied by particulars of draft and berthing assignment. Ship to confirm on VHF Channel 16 one hour prior to arrival. Channel 16 is monitored 24 hours and station can monitor VHF Channels 10, 12 and 14. Ship may cable pilot station direct through RCA Radio Lantana, Florida, call sign, Miami Pilots. Estimated time of departure should be made when ship docks and must be confirmed by phone (375-9453) 1 hour prior to the Pilot boarding.

ANCHORAGES: The prescribed anchorage area for vessels anchoring outside the harbour is located Eastward of a line about 1.5 nautical miles offshore and Northward of a line about 0.2 miles nautical miles North of the sea buoy at the entrance to the ship channel. The entire anchorage area lies North of the entrance channel to Miami. The Northern and Southern extremities of this area are marked by spar buoys. Vessels desiring to anchor off the entrance to the Harbour of Miami are required to do so within this area, to avoid possible damage to cables laid on the ocean bottom in the vicinity. Refer to anchorage area 202.188 on Coast and Geodetic Survey Chart No. 547.

RESTRICTIONS: *Locations:* Main Turning Basin: Lat. 25° 47′ N., Long. 80° 11′ W. Sea Buoy and Channel Entrance: Lat. 25° 46′ N., Long. 80° 06′ W. (approx.).

Channels, Turning Basins: The main channel is marked by 2 sea buoys about 2 miles (3.38 km.) East of the port, at the Western fringe of Gulf Stream shipping lanes. From that point, at which the depth is 40 ft. (12.19 m.), the channel runs 1.02 miles (1.65 km.) at 256° magnetic to a bend, changing to a control depth of 38 ft. (11.58 m.) and turning to 296° for 3.64 miles (5.82 km.), terminating in a 1,700 ft. (518.16 m.) (along North-South axis) by 1,650 ft. (502.92 m.) (East-West) turning basin. MLW depth in the main channel, at Northside berths and in the turning basin, is 36 ft. (10.96 m.). At a distance of 1.3 miles (2.08 km.) from the entrance channel bend at the outer bar cut, the Fisherman's Channel (South Channel) branches off due West for 1.01 miles (2.69 km.), then turns parallel to the main channel for another 1.01 miles, then turns to 247° for 1,500 ft. (467 m.) to intersect the Intracoastal Waterway. Depth along the entire Fisherman's Channel is 25 ft. (7.62 m.), except for the Easternmost 3,300 ft. (975.36 m.), where it is 38 ft. deep. Width of the main channel is 400 ft. (121.92 m.) from the sea buoys, for 3.65 miles (5.84 km.), and 900 ft. (247.32 m.) wide along Dodge Island and into the main turning basin. Width of Fisherman's Channel is 500 ft. (152.4 m.) along its entire length.

MAX. SIZE: No limit to length at port complex. Dodge Island has 4,300 ft. (1,310.64 m.) of lineal berthing space for general cargo, quarter ramp and side ramp vessels plus 4,740 ft. (1,444.75 m.) for 10 Ro-Ro berths at MLW depths from 25 ft. (7.62 m.) to 36 ft. (10.97 m.). Lummus Island container berth has 3,500 ft. (1066.8 m.) of berthing with a MLW depth of 42 ft. (12.80 m.).

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.

Ship's Agent must request quick clearance, "Pratique", from United States Public Health Department.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

An Agriculture inspector will board all foreign, coastwise and domestic ships on arrival.

Ship's Agent must notify Agriculture at least 1 hour prior to ship's arrival. Regular working hours, Monday through Friday 0800 – 1630, telephone contact 536-4758. Outside normal working hours, telephone contact 526 – 2821; overtime is charged.

Forms required:
1 Copy of Cargo Manifest.
1 Report of Ship's Stores and Port of Origin.

Forms provided by and filled out by the inspector:
Cargo Form 212
Boarding Report 288

RADIO/VHF: The Coast Guard and pilot station can be raised on VHF Channel 16. Telephone contact to Agents, receivers, etc., can be made via Miami Marine Operator.

Port of Miami maintains a guard on VHF Channel 16, call letters "KCE 254".

TUGS: Large tugs up to 3,000 h.p. available 24 hours per day. Request tug service via pilot station. Big tugs privately owned by Belcher Towing Company who work closely with Pilots. Smaller tugs available on Miami River and operated by Backus Towing Inc.

BERTHING: Berths are all marginal berths, no piers or slips. 9,040 ft. (2,755.40 m.) at MLW depths of 25 ft. (7.62 m.) and 36 ft. (10.97 m.). Dock aprons are 68 ft. (20.72 m.) wide. Large ships are able to turn at berthside in the 900 ft. (274.32 m.) wide main (North side) channel or may continue into the 1,700 ft. (518.16 m.) × 1,650 ft. (502.89 m.) turning basin. The new (Fisherman's Channel) South Channel is 500 ft. (152.40 m.) wide and 42 ft. (12.80m.) depth at the Eastern end for a distance of 3,200 ft. (975.36 m.) and continues Westerly at a depth of 25 ft. (7.62 m.) for its remaining 10,000 ft. (3,048 m.) with 3 turning basins: one at the confluence with the main channel, one midway and one (under construction) at the Western junction with the Intracoastal Waterway. There are 10 Ro-Ro berths for bow and stern loading vessels. Lummus Island container berth at port's Eastern end is 3,500 ft. (1066.8 m.) long with a MLW depth of 38 ft. (11.58 m.).

Gear and Heavy Lift Equipment: 20 shipside cranes, all truck-mounted, rubber-tyred with outriggers, capacity 40 to 90 tons; 2×140 tons; 2×150 tons, 1×165 tons, 1×180 tons and 2×200 tons; 6 container movers ("port packers") to 85 tons, 2×35 ton forklifts, 7 forklifts from 15 to 31 ton capacities, and about 125 smaller forklifts from 3,000 lb. to 30,000 lb. capacities.

Cruise Ship Piers: Marginal berthing for 12 cruise ships, each with modern air-conditioned passenger lounge and Custom Inspection areas.

Container Handling: 3×40 long ton (with telescoping spreader for 20 ft. and 40 ft. containers; 45 long ton under hook) gantry cranes with 130 ft. outreach and 85 ft. vertical clearance over apron. Duty cycle 40 per hour and 3×50 long ton (with telescoping spreader for 20 ft., 40 ft and 45 ft. containers with 60 ft. clearance between legs; 70 long tons under hook) gantry cranes with 151.5 ft. outreach and 85 ft. backreach with 100 ft. vertical clearance over apron. Duty cycle 45 per hour. All 6 cranes service a 3,500 ft. (1066.8 m.) concrete container berth at the Easternmost end of Fisherman's (South) Channel, just 2.3 miles (3.7 km.) from ocean shipping lanes, with a MLW depth of 42 ft.

Cold Storage Cargo: Not in port but ample on the mainland by commercial companies. (Cold store under construction in the port).

Commercial Warehouses: Ample on the mainland. On Port, 81,754 sq.m. in 7 modern transit cargo buildings.

STEVEDORES: All receiving, recording, moving, loading and discharge of cargo is performed by the stevedoring companies. They employ longshoremen members of the International Longshoremen's Association (I.L.A.). Normal working hours 0800 – 1700. Overtime is charged for Saturdays, Sundays, and holidays. Port open 24 hours per day.

BRIDGES: There are no bridges between the open sea and the port or the Miami River. The new South Channel provides direct access from shipping lanes and the river, as well as all berthing on the seaport's South side. A highway and rail bridge spans the Intracoastal Waterway between the island seaport and the mainland, and is manned 24 hours per day. It is primarily used for pleasure craft. The bridge maintains a guard on VHF Channel 16, call letters KCE 254. Only smaller ships enter the Miami River, which is dredged to 15 ft. at HW and is 150 ft. wide for a distance of 3 miles above entrance. A bridge about 0.5 miles from entrance is closed from 0700 hrs. to 0900 hrs. and 1600 hrs. to 1800 hrs. local time.

MEDICAL: Clinic available.

TANKERS: No slop (residue) discharge facilities in the Port.

Private facility: Belcher Oil Company, Fisher Island – No slop (residue) discharge facilities. One tanker berth available, 760 ft. Max. draft of 34 ft. at MLW. No special fittings required. Telephone contact 672-1065.

Report: Cautionary Advice – Approaches: All approaches to the Sea Buoy should be made from the East to avoid shoal areas to the North and South of the Entrance Channel. The Gulf Stream current running to the North may be felt just outside the Sea Buoy. A counter current usually sets to the South in the vicinity of the Sea Buoy and Southbound traffic is usually encountered 1 mile off the Sea Buoy.

Miami has numerous passenger ships calling at this port. Most movements between Sea Buoy and berths take place between 0500 to 0700 hrs. and again at about 1700 hrs.

Care must be taken to carefully identify each navigation light to avoid mistaken identity with bright lights along the coast.

Vessels may anchor to the Northward of the Sea Buoy outside the 50 ft. depth line.

Entering and Berthing: Vessel should have full manoeuvring power available and competent helmsman at the wheel. The currents around Fisher Island are strong (3 to 4 knots reported), and the ebb tide runs from a direction of 270° at the berth to approximately 300° in the Main Channel. Ranges and buoys are used to identify channel limits. The Outer Channel is 500 ft. wide and the Main Channel starting between the jetties narrows to 400 ft. The distance between Sea Buoy and Fisher Island is 4.5 miles.

The draft of a tanker berthing at Fisher Island is limited due to depth limitation at the berth and just offshore of the bow and stern areas of a vessel in the berth. (See "Plan").

Berthing is limited to beginning of ebb tide period in order to take advantage of higher water level as well as to stem the outgoing tide. The ship is difficult to control in the Turning Basin off the berth with a strong current running. Unberthing is carried out during flood tide when current is weak.

The berth at Belcher Oil Terminal has a total berthing face of 700 ft. with a total of 8 pier bollards spaced 100 ft. apart. The ship berths port side to the pier.

Gangway: There is no pier gangway available. There is ample room on the pier deck for the ship's gangway.

FRESH WATER: Available every 240 ft. at Port of Miami, Dodge Island. Delivered via hose.

FUEL: All grades; bunker, intermediate and marine gas oil, Diesel, bunker C. Ships fuelled at dockside from Belcher Oil Co. barges.

Also available from Florida Fuels, Inc., 1040 Port Blvd, Suite 406 Miami, Florida 33086 U.S.A. Tel: 305/358-3835. Telex: 853274 Flor Fuel. Cables: Florfuel Miamiflorida.

All deliveries in both ports are made by barge. Forida Fuels can deliver all grades of bunker fuels including Bunker 'C', all IFO's, MDO, and MGO.

FIRE PRECAUTIONS: Usual safety precautions on smoking, flying "B", mooring pendant available, ample persons aboard to fight fires, fire hose led out, etc.

Belcher Oil Company tugs equipped with fire fighting equipment.

GANGWAY/DECK WATCHMEN: Usual shipboard watches to tend lines. Special guards (security) through Wackenhut, Burns Security, etc.

OPENING/CLOSING HATCHES: Normally done by longshoremen.

CUSTOMS ALLOWANCES: See "Jacksonville".

IDENTIFICATION CARDS: Definitely needed in order to return to ship at night. A security guard at Port of Miami will check.

CONSULS:
(Area Code 305).

Argentina	Tel: 373-1889	Israel	Tel: 358-8111
*Austria	Tel: 325-1561	*Italy	Tel: 854-1758
Bahamas	Tel: 373-6295	Jamaica	Tel: 374-8431
*Belgium	Tel: 573-0784	*Japan	Tel: 445-1477
Bolivia	Tel: 358-3450	*Korea	Tel: 358-9300
Brazil	Tel: 377-1734	*Lebanon	Tel: 266-1900
Chile	Tel: 373-8623	Mexico	Tel: 371-2202
Colombia	Tel: 448-5558	*Netherlands	Tel: 350-7273
Costa Rica	Tel: 377-4242	Norway	Tel: 358-4386
*Denmark	Tel: 374-6719	Panama	Tel: 379-7280
Dominican Republic	Tel: 373-4862	Paraguay	Tel: 444-8250
		Peru	Tel: 374-1305
Ecuador	Tel: 371-8366	*Portugal	Tel: 371-6333
El Salvador	Tel: 371-8850	*Senegal	Tel: 371-4286
*Finland	Tel: 444-7555	Spain	Tel: 446-5511
France	Tel: 372-9798	*Sweden	Tel: 467-3507
Germany F.R.	Tel: 358-0290	*Thailand	Tel: 445-1477
Guatemala	Tel: 443-4828	*Togo	Tel: 371-4286
Haiti	Tel: 377-3547	*Turkey	Tel: 371-4286
Honduras	Tel: 358-3477	Uruguay	Tel: 358-9350
*Iceland	Tel: 944-1795	Venezuela	Tel: 446-2851

*Indicates Honorary Consuls.

REPAIRS: All deck and engine dockside repairs available.
DRY DOCKS: 2 small drydocks, max. size 600 tons.
SURVEYORS:

American Nautical Services Inc., (Hull, Cargo & Intermodal Eqpt.), 530 Biscayne Blvd., Suite 200, 11231 S.W. 164th Terrace, Miami, Fl. 33157. Tel: (305) 252-0293, (305) 358-1414. Hull, cargo and intermodal equipment.

E. R. Ascher, Inc., (Hull and Cargo), 2001 N.E. 180th Street, North Miami Beach, Fl. 33162. Tel: (305) 944-0544. Audio-gauging and consulting, representing National Cargo Bureau Inc.; Marine safety inspectors for Liberia and Panama.

Caleb Brett U.S.A., Inc., 10748 S.W. 24th Street, P.O.Box 651010, Miami, Fl. 33165. Tel: (305) 552-5905. Marine bulk oil surveyors, cargo superintendent, analytical and testing laboratory, tank calibration, draft surveys, hull and machinery surveys.

Jones & Handy (Hull & Cargo), 615 S.W. Second Avenue, Miami, Fl. 33130. Tel: (305) 371-0506. Representing P&I clubs.

Donald J. Mahoney & Co. Inc., (Hull & Cargo), 8776 S.W. 8th Street, P.O.Box 340805, Miami, Fl. 33134. Tel: (305) 553-7066. Telex: 52-2268. Answerback: Donmahoney. Representing Lloyd's of London, American Institute of Marine Underwriters, Institute of London Underwriters, and other domestic and foreign underwriters.

Marine Surveyors Inc., (Hull & Cargo), 1500 Bay Road, Suite 317, P.O.Box 012314, Miami, Fl. 33101. Tel: (305) 885-9989.

Uhlig & Associates, Inc., Umco Div. of Uhlig & Associates, Inc., (Hull & Cargo), 8295 S.W. 188th Street, Miami, Fl. 9157. Tel: (305) 251-2451. Telex: 51-2479. Answerback: Uhlig Amia. Telex: 52-2510. Answerback: Uhlig Bmia. Consulting, designing, technical and management services, and troubleshooting on all types of ships. Engineer and design department offers complete technical planning services, technical and inspection equipment. On call 24 hours for repairs at dockside or at sea. Sells and services Contrology, UK brand of solid state digital meters and control devices. Repair facility is fully equipped, including fabrication machine shop.

John R. Wheeldon Marine Surveyor (Hull & Cargo), P.O.Box 557331, Miami, Fl. 33155. Tel: (305) 446-1288, Office; (305) 264-8449, Home.

Nelson & Associates, Inc., (Hull & Cargo) 1405 N.W. 167th Street, Miami, Fl. 33169. Tel: (305) 625-1043, Telex: 51-5704. Answerback: Nelsurvey Mia.

Thornton Laboratories, Inc., (Hull & Cargo), 1145 E. Cass Street, Tampa, Fl. 33601. Tel: (813) 223-9702. TWX: 810/876-9145. Answerback: Thornt Lab Tpa. Independent marine samplers, inspectors and surveyors. Quality and quantity surveys of petroleum and chemicals (bulk, solids, gases, liquids). Cargo and vessel documentation.

Capt. Tom Smith Associates, (Hull & Cargo), 11320 S.W. 108th Court, Miami, Fl. 33176. Tel: (305) 238-0202. General Surveyors.

AIRPORT: Miami International Airport is located 8 miles, or 15 minutes by expressway, from downtown Miami and the Port of Miami. It is serviced by 46 foreign (12 cargo only) and 32 U.S. (9 cargo only) scheduled air carriers.
TIME: Eastern Standard Time, GMT minus 4 hours. Daylight Saving Time in effect from first Sunday in April to last Sunday in October and adds 1 hour to Eastern Standard Time.
HOLIDAYS: *Port Legal Holidays:* New Year's Day, January 1st; Washington's Birthday; Martin Luther King's Birthday, 3rd Monday in January; 3rd Monday in February; Memorial Day, Last Monday in May; Independence Day, July 4th; Labour Day, 1st Monday in September; Columbus Day, 2nd Monday in October; Veteran's Day, November 11th; Thanksgiving Day, 4th Thursday in November; Christmas Day, December 25th.

In the event a legal holiday falls on a Saturday, it is celebrated on the preceding Friday, and in the event a legal holiday falls on a Sunday, it is celebrated on the succeeding Monday.
POLICE/AMBULANCE/FIRE: Emergency only Tel: 911, City of Miami Police Tel: 579 – 6640, Dade County Police Tel: 547 – 7911. City of Miami Fire Department Tel: 579 – 6300.
TELEPHONES: Telephone available by order to telephone company.
BANKS:

Algemene Bank Nederland, N.V. Tel: (305) 372-1596.
American Express Int'l. Banking Corp. Tel: (305) 350-7750.
Banca Nazionale del Lavoro. Tel: (305) 374-5441.
Banco Cafetero Int'l. Corp. Tel: (305) 372-9909.
Banco Central S.A. Tel: (305) 373-0739.
Banco de Bilbao, S.A. Tel: (305) 371-7544.
Banco de Brasil, S.A. Tel: (305) 358-3586.
Banco de Iberoamerica. Tel: (305) 374-7515.
Banco de la Nacion Argentina. Tel: (305) 371-7500.
Banco de Santander - Miami Agency. Tel: (305) 358-1502.
Banco de Vizcaya - Miami Agency, Coral Gables. Tel: (305) 442-9882.
Banco do Estado de Sao Paulo, S.A. Tel: (305) 358-9167.
Banco Espanol de Credito, S.A. Tel: (305) 374-1442.
Barclays Bank plc. Tel: (305) 374-1043.
BCP International Bank. Tel: (305) 372-0762.
Credit Lyonnais. Tel: (305) 374-0900.
Credit Suisse. Tel: (305) 374-1144.
Deutsch Sudamerikanische Bank. Tel: (305) 374-6181.
Dresdner Bank, A.G. Tel: (305) 374-7766.
Israel Discount Bank, Ltd. Tel: (305) 579-9225.
Lloyds Bank plc. Tel: (305) 579-8922.
Standard Chartered Bank, plc. Tel: (305) 358-7766.
The Bank of Nova Scotia. Tel: (305) 358-4920.
The Fuji Bank Ltd. Tel: (305) 374-2226.
The Royal Bank of Canada, Coral Gables. Tel: (305) 442-1242.
The Royal Bank of Canada - Miami Agency. Tel: (305) 442-1242.
Vereins-Und Westbank. Tel: (305) 372-9000.
Many American banks also available.

SERVICES: All types of special services such as tank cleaning, compass adjusting, admeasurement, radar/radio repairs, rathometer repairs, etc., available.
SHORE LEAVE: Crew members are allowed ashore after clearance by Customs, Immigration and Quarantine.
AUTHORITY: Port of Miami, 1015 North America Way, Miami, Florida 33132, U.S.A. *Tel:* (305) 371-7678. *Telex:* 52-2745 Port Mia. *Contact:* Mr. Carmen J. Lunetta, Port Director.

MILWAUKEE, Wisconsin: 43.01 N. 87.53 W. (See Plan)

PORT LIMITS: The Port of Milwaukee limits are generally considered to be the harbour breakwall housing the harbour entrance lighthouse. However, unless specifically declared to the contrary in the covering charter party, a vessel will be considered an "arrived ship" upon anchoring outside the harbour breakwall, in the event that a proper berth and/or anchoring space inside the harbour breakwall is not available.
DOCUMENTS:
Vessels from Canadian ports:

Dominion clearance and Public Health Pratique (both issued at Montreal).

Vessels from all other nations:

Inward Foreign Manifest(s)
Stores Lists, over Master's oath.
Curio Lists, over Master's oath.
Permit to Lade and Unlade.
Discharge Manifest.
Inspection by U.S. Dept. of Immigration (Crew List).
Inspection by U.S. Dept of Agriculture.
Receipt of Entrance fee.
Receipt of Tonnage Tax.

Additional documents may be required, dependent on commodity involved in the carriage, point of origin, flag or any unusual circumstances existing.
PILOTAGE: Pilot boards at Montreal and at several other stations along St. Lawrence Seaway route.
ANCHORAGES: The chart does delineate anchorage area for large vessels and shows the 28 ft. depth just East of South Piers 1, 2, and Liquid Cargo Pier. This deep area, about 2,400 ft.×5,400 ft., used by large vessels for anchorage.
MAX. SIZE: 739 ft. × 75 ft. with 27 ft. draft. No tidal effect, although lake levels vary seasonally. Minimum depth above low water level 27 ft.
HEALTH: See "Health: All Ports" before first U.S. port (Albany). Illness Reports made to Chicago Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: Radio station at City Heavy Lift Dock. Harbour Master and Dock Superintendent can be reached at this facility Monday through Friday between 0800 and 1630 hrs.; 156.8, 156.6 and 156.5 MHz.
TUGS: Normally pick up vessel inside breakwater. Tugs optional at discretion of ship's Master. Fee for use of tug's lines.
BERTHING: The time of passing harbour entrance lighthouse establishes order of berthing, provided vessel is ready to work.
BRIDGES: (Inner Harbour only) Bridges closed between 0730 and 0830 hrs. and 1630 and 1730 hrs. except on Sundays and 8 legal holidays. In addition, 2 hours' notice required for opening bridges across Milwaukee River North of and including Buffalo Street.
SPECIALISED CARGO HANDLING FACILITIES: In addition to the 3 general cargo terminals of approx. 340,000 sq. ft. covered area (9 berths), and dry bulk terminal, the port is served by a refrigerated warehouse of 10,000 sq. ft.; 1 open dock area (2 berths) for handling bulk commodities such as pig iron; 1 open dock (3 berths) for heavy lifts and equipped with a 220-ton stiff leg crane and 2 gantry cranes of 70 and 50 tons; 1 liquid cargo pier for edible and inedible fats, greases and tallow; 2 grain elevators of 3.5 million and 2.5 million bushel capacity and 2 scrap iron loading facilities. The port is also equipped with a mobile heavy lift/container crane, of 200 tons capacity, capable of serving all berths.
STEVEDORES: Vessel should provide a stowage plan, manifest of inbound cargo and exceptions list (unusual vessel or cargo characteristics affecting facilitation of cargoes). Vessel should comply with the U.S. Dept. of Labor's safety regulations.
MEDICAL: Advance notice desirable. Hospitalisation available.
TANKERS: Diameter of load lines and discharge lines 8 in. and 10 in. Slop residue facilities. 4 berths available, with draft to seaway depth.
FRESH WATER: Potable water available at most berthing areas.
FUEL: All grades of fuel oil available by truck delivery at shipside, also 24 hour refueling berths available for bunkering.
GANGWAY/DECK WATCHMEN: Not necessary, but available on request.
OPENING/CLOSING HATCHES: At the option of ship.
CERTIFICATES:

Registry of Ship.
Master's Licence.
1st, 2nd and 3rd Officer's Licences.
Radio Licence.
Wireless Operator's Licence.
Derat Certificate (done each year).
(Additional certificates may be required, dependent upon Registry, cargo, trade route engaged in, nationality of crew, etc.).

CUSTOMS ALLOWANCES: Tobacco, 10 packages or 200 cigarettes in possession at any time. Wine and/or Spirits, 1 bottle per officer.
IDENTIFICATION CARDS: U.S. Immigration rules.
CONSULS: The following countries are represented:

Belgium
Costa Rica
Denmark
Dominican Republic
France
Nicaragua
Norway
Sweden
Yugoslavia

REPAIRS: Full service repairs, except large vessel dry docking.

REPATRIATION: Local Agents effect repatriation.
AIRPORT: 5 miles distant.
TIME: U.S.A. Central Time. Central Daylight Time from early April to late October – 5 hours behind GMT. Central Standard Time from late October to early April – 6 hours behind GMT.
HOLIDAYS: Memorial Day, Columbus Day, Veterans Day, July 4th (if on a Sunday, Monday is a holiday); First Monday in September; Fourth Thursday in November; Christmas Day; New Year's Day. Cargo can be worked on these days at holiday pay.
POLICE/AMBULANCE/FIRE: Police – non-emergencies Tel: 273-8660; Emergency, including emergency ambulance service Tel: 765-2323; Fire, including rescue squad service Tel: 347-2323.
TELEPHONES: Can be arranged, but unnecessary because sufficient phones available in dockside offices.
SHORE LEAVE: Crew allowed ashore.
DELAYS: No delay.
GENERAL: Chandlery services for foodstuffs, ship complements and laundry services available. Garbage and waste disposal are available through private operators, chandler usually making the arrangements.

The Liquid Cargo Pier is also available for non-petroleum liquid cargoes and vessel bunkering.

DEVELOPMENTS: Full service Seamen's Club operational in Port. Milwaukee inner harbour berth for maximum size bulk vessels undergoing comprehensive site enhancement.
AUTHORITY: Port of Milwaukee, 500 North Harbor Drive, Milwaukee, Wisconsin 53202, U.S.A. *Tel:* (414) 278-3511. *Telex:* TWX 910-262-3042. *Cables:* Milharcomil. *Contact:* Kenneth J. Szallai, Municipal Port Director.

MOBILE, Alabama: 30.40 N. 88.02 W. (See Plan)

DOCUMENTS:
3 copies Cargo Manifest (Form 1302), the original showing all cargo on board, and 2 copies showing only cargo for this port.
2 copies Crew Manifest (curio list).
2 copies Stores List.
2 copies Passenger List (Form I.418).
2 copies Crew List (Form I.418).

Customs Boarding Officer will also examine Ship's Register and Load Line Certificate. In addition, the following documents will be required for formal entry to be made within 48 hours of arrival from abroad, or 24 hours from arrival from a United States port:
Health Pratique.
Master's Oath (Form 1300).
All foreign clearances.
U.S. Certificates of Payment of Tonnage Tax (Customs Form 1002).
Certified Crew List.

PILOTAGE: Pilotage is compulsory.
ANCHORAGES: If berth is congested, vessel may anchor at the bar (35 miles from harbour).
RESTRICTIONS: Controlling depth: 40 ft. for entrance, channel and anchorages. Mean tidal range 1.5 ft. Nature of bottom: soft mud. Vessel can dock and sail at any hour at any stage of the tide.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: There are 7 tugs, available 24 hours, with max. 2,600 h.p.
BERTHING: There are 34 berths at most of which, direct loading or unloading can be effected from quayside tracks.Ro/Ro berth available.
Public Grain Elevator: Depth alongside 40 ft. Loading rate 115,000 bushels/hour for grain. Grain received by rail, truck and barge.
McDuffie Terminals: 2 berths. No. 2 with dolphins, total length 320 m., No. 1 length 170 m. Bulk coal handling plant, depth alongside the berth is 40 ft. Shiploaders can load over 4,000 t.p.h. or 7,000 t.p.h. combined. 3 stacker/reclaimers can handle 4,000 t.p.h., one tipple for rail cars which can dump 30 cars per hour and one tipple that can dump 60 cars per hour, rated at 4,000 t.p.h. and 3 barge unloaders that work 3,500 t.p.h. each. A conveyor belt system connects the entire complex.
Bulk Handling Plant: 2 berths, depth alongside 40 ft. Total quay length 1,500 ft. 2 unloading towers which can unload 3,000 t.p.h. and 2 loading conveyors, rate 2,000 t.p.h.

Depth alongside other public berths as follows:

Pier 2	38 ft. MLW	Pier River End B	38 ft. MLW
Pier 3	38 ft. MLW	North Pier B 1	40 ft. MLW
Pier 4	38 ft. MLW	Pier North B 2	40 ft. MLW
Pier 5	38 ft. MLW	Pier North B 3	40 ft. MLW
Pier 6	38 ft. MLW	Pier South C1	41 ft. MLW
Pier 7	38 ft. MLW	Pier South C 2	41 ft. MLW
Pier 8	38 ft. MLW	Pier South C 3	41 ft. MLW
Pier South A	37 ft. MLW	Pier River End C	38 ft. MLW
Pier River End A	30 ft. MLW	Pier North C 1	39 ft. MLW
Pier North A 1	38 ft. MLW	Pier North C 2	37 ft. MLW
Pier North A 2	38 ft. MLW	Pier D Cold Storage	37 ft. MLW
Pier North A 33	38 ft. MLW	Berth 1 tipple	Under repair
Pier South B 1	41 ft. MLW		
Pier South B 2	41 ft. MLW	Berth 2 tipple	44 ft. MLW
Pier South B 3	41 ft. MLW	Berth 3 tipple	40 ft. MLW

CRANES: 1,600 ton capacity (1,200 tons at 208 ft.) crane, 75 ton stationary crane, 50 ton mobile crane and 80 ton floating crane.
SPECIALISED CARGO-HANDLING FACILITIES: Container berth, length 894 ft., equipped with 1×45 ton lift capacity crane.

1 Ro/Ro berth at Pier A.

TANKERS: Max. length 950 ft. restricted by turning basin. American Bituminals & Asphalt Co. – Jetty berth dredged to 38 ft.
Magazine Point: Hess Terminal: Jetty berth dredged to 43 ft.

FRESH WATER: Available ex-wharf at all berths.
FUEL: Most grades fuel/diesel available via pipe-line, barge or truck.
STEVEDORES: Normal working hours for the port are 0800/1700 hrs. Monday through Friday.
DENSITY: 1000 (Fresh Water).
REPAIRS: *Alabama Dry Dock & Shipbuilding Company* – Dry Docks ranging from 5,000 to 18,000 tons displacement all serviced by 51 ton gantries. Dock length range from 380 ft. to 620 ft. Also available is a 70 ton floating crane. Any type of repair can be effected.
Bender Ship Repair. 1 dry dock of 2,500 tons displacement. Majority of repair work is top-side. 100 ton floating crane available.
CUSTOMS ALLOWANCES: At the discretion of customs officers. Normal allowance is 200 cigarettes or 2 lb. tobacco and 1 quart wine or spirits per man. Additional allowances may be given if considered necessary, due to length of vessel's stay in port.
IDENTIFICATION CARDS: Standard U.S. Immigration Forms I-95 to be made up for each crew member on arrival. Not necessary for crew man already holding Form I-95, issued for the same vessel.
HOLIDAYS: Normally no work is performed on New Year's Day, Easter, July 4th, Labour Day, Christmas Eve (1200 hrs.–2400 hrs.), Christmas Day and New Year's Eve (1200 hrs.–2400 hrs.). Working holidays are New Year's Eve (0001 hrs.–1200 hrs.), Martin Luther King's Birthday Holiday, Mardi Gras Day, Monday after Easter, Veteran's Day, Thanksgiving Day and Christmas Eve (0001 hrs.–1200 hrs.).
DEVELOPMENTS: The 400 ft. wide ship channel to be dredged to 45 ft. in the first phase and at a later stage to 55 ft. with a width of 550 ft.
AUTHORITY: Port of Mobile, Alabama State Docks Department, P.O.Box 1588, Mobile, Alabama 36633, U.S.A. *Tel:* (205) 690-6047. *Telex:* TWX 810 – 741 – 7748. *Contact:* E.G. Browning, Jr., General Manager, Market Development.

MOREHEAD CITY, N. Carolina: 34.43 N. 76.42 W. (See Plan)

DOCUMENTS:
3 copies Cargo Manifest (Form 1302), the original showing all cargo on board, and 2 copies showing only cargo for this port.
2 copies Crew Manifest (Curio List).
2 copies Passenger List (Form I-418).
2 copies Crew List (Form I-418).
Customs Boarding Officer will also examine Ship's Register and Load-line Certificate. In addition, the following documents will be required for formal entry to be made within 48 hours of arrival from abroad, or 24 hours from arrival from a United States port:
Health Pratique.
Master's Oath (Form 1300).
All Foreign Clearances.
U.S. Certificates of Payment of Tonnage Tax (Customs Form 1022).
Certified Crew List.

PILOTAGE: Pilots obtained from Morehead City Pilots' Association, Morehead City, North Carolina 28557. Tel: 919-726-6134.

The Port Terminal at Morehead City is 3.5 miles from the Sea Buoy. The port is located on the Intracoastal Waterway and is situated 75 miles S.W. of Cape Hatteras and 14 miles West of Cape Lookout.

Pilots should be given 24 hours notice and then contacted by VHF Channel 16 about 2 hours before arrival at Sea Buoy R "2BI".

Pilot boat is about 40 ft. long, with white hull and superstructure; the hull is marked with "Pilot" in black letters on both sides.

RESTRICTIONS: The channel at Morehead City is maintained at a controlled depth of 40 ft. – MLW.

The East Turning Basin has a depth of 42 ft. and the West Turning Basin has a depth of 35 ft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to New York Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Available. Service provided by Carteret Towing Co. Inc., Radio Island, Morehead City, North Carolina 28557. Tel: 919-726-5440.

BERTHING: The wharf is 5,250 ft. long. This length enables the port to provide berths for 10 × 500 ft. general cargo ships and 1 petroleum tanker at any given time.

Adjacent to the general cargo dock area is a 1,000 ft. deep water berth for out-loading through the bulk handling facility.

The wharf is constructed of concrete and steel and has marginal tracks and crossovers for full length. Truck ramps are located at various points for easy Roll-on/Roll-off access.

Morehead City also provides a barge terminal with 1,200 ft. of modern berths. This terminal was developed as a part of the bulk handling facilities, but is also used for the loading or off-loading of a variety of cargoes.

Bulk Handling Facilities: 3,000,000 ton annual capacity bulk facility for receipt, conveyance, storage and shipment of bulk cargoes. Loading capacity 3,000 t.p.h. Storage capacity 225,000 tons discharge rate for coal is 1,500 t.p.h.

CRANES: 2×115 ton capacity gantry cranes with container handling capability.

FUEL: Available from Colonial Oil and Texaco Inc.

CONSULS: Royal Norwegian Consulate, Wilmington, North Carolina 28402. Tel: 919-763-8271

SURVEYORS: Saybolt, Lloyd's, S.G.S. and National Cargo Bureau.

IDENTIFICATION CARDS: Standard U.S. Immigration Forms I-95 to be made up for each crew member on arrival. Not necessary for crew man already holding Form I-95, issued for the same vessel.

REPATRIATION: This is possible but should be avoided as there is no Immigration Office. Closest airport is about 1 hour's drive from the town.

TIME: Eastern Standard Time, GMT minus 5 hours. Daylight Saving Time, GMT minus 4 hours from first Sunday in April till last Sunday in October.

SERVICES: There are no shipyards in the port. Service on any kind of electronic equipment is not available.

AUTHORITY: North Carolina State Ports Authority, P.O.Drawer 829, Morehead City, North Carolina 28557. *Tel:* (919) 726-3158. *Telex:* 510 924-2983. *Contact:* Robert D. McMahan, Port Manager.

MYRTLE GROVE (incl. Davant), Louisiana: 29.38 N. 89.57 W.

LOCATION: West Bank of Mississippi River, about 82 miles (via Southwest Pass) from sea (at Mile 61.5 above Head of Passes).

DOCUMENTS/PILOTAGE: For all general information refer to "New Orleans".

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Minimum of 2 tugs required for berthing and unberthing. Additional tugs at Elevator Management's discretion.

BERTHING: *Mississippi River Grain Elevator, Inc.:* Distance between bollards 1,000 ft., alongside 500 ft. dock, depth 40 ft. (consistent with Southwest Pass). Loading rates, 80,000 to 120,000 bushels per hour. Loading Spouts: 4 spouts in use with 1 additional planned. Total distance between 5 spouts after completion (pivot to pivot) 500 ft.

International Marine Terminal: Max. LOA 290 m. Max. draft 12.2 m. Max. beam 48 m. Berth length 312 m. Length of travel of loader 244 m. One loading spout. Max. loading rate for coal 9,000 tonnes per hour.

Davant:
Electro Coal Transfer Corporation: Terminal located 55 miles above Head of Passes opposite Myrtle Grove. Total length of dock 3,000 ft. Channel depth 12.19 m. Depth alongside 18.0 m. One fixed loader, rate 4,840 tonnes per hour and one travelling loader, rate 6,000 tonnes per hour.

There is to be a Topping-Off operation 2 miles from the S.W. Pass entrance using 4×600 t.p.h. cranes mounted on a 38,000 d.w.t. ocean-going barge.

FRESH WATER: Not available.

FUEL: Not available.

DENSITY: Fresh Water (1000).

AUTHORITY: Plaquemines Port, Harbour and Terminal District, Woodlawn Building, Rt.1, Box 53A, Braithwaite, Louisiana 70040. *Tel:* (504) 682-0081.

Mississippi River Grain Elevator, Inc., Main Office: Suite 2730, Energy Centre, 1100 Poydras St., New Orleans, Louisiana, 70163-2730. *Tel:* (504) 582-2200.

Elevator: Rt. 1-Box 606, Belle Chase, Louisiana 70037. *Tel:* (504) 656-2212. *Telex:* 209330. *Contact:* P. Grand, General Manager. J. T. Dugas, Traffic Manager.

NAWILIWILI, Hawaii (including Port Allen): 21.57 N. 159.21 W. (See Plan)

DOCUMENTS:
4 Crew Lists.
4 Passenger Lists.
Customs Documents.
Clearance, Travelling Manifest.
Local Manifests.
Health Documents.
Bill of Health and Vaccination Certificates.
4 Manifests.
4 Bills of Lading.
Ship's Papers.
Certificate of Registration or Enrolment.
Annual Inspection Certificate.
Load-line Certificate.
Derat Certificate.
Drinking Water Certificate.
Radio Certificate and Licence.
4 Stores Lists.

PILOTAGE: Vessel's Agent orders Pilot 48 hours in advance by telephone, correcting ETA as necessary with 4 hours final notice if a last minute change occurs. Tug-boat *"H. A. Walker"* serves as pilot boat for Nawiliwili and Port Allen, 75 ft. long, black hull, white house, topsides red. Radio telephone within 1 hour of arrival and while tug is working. Channels 12, 16 and 18. "WYB 8343". Pilot boards 1 mile East of Nawiliwili and 0.5 miles South of Port Allen. Signals in accordance with International Code.

ANCHORAGES: *Nawiliwili:* Between Nawiliwili Light and Carters Point in 5 – 9 fathoms. Not good in strong trade-wind weather. Fair holding ground. Not recommended.

Port Allen: 0.5 miles South of Port Allen Breakwater Light in 5 – 10 fathoms. Fair holding ground. Untenable in Kona or S.W. storms which occur from November to March.

RESTRICTIONS: 24 hours notice of arrival is obligatory. Nawiliwili: Arrivals sunrise, departures sunset time. From October 21 to March 21 Pilot boards at 0630 hrs. Balance of year 0600 hrs. Port Allen: No time restrictions.

MAX. SIZE: *Nawiliwili:* Length 687 ft., draft 32 ft. 6 in.

Port Allen: Length 687 ft., draft 32 ft. on North side and 28 ft. on South side. Pier is 600 ft. long, so larger vessels overhang.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Honolulu Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Communicate through RCA or ITT stations in Honolulu. Also KQM marine operator for radio telephone and telephone to Kauai.

TUGS: One 1,500 h.p. tug meets vessels off port and in outer harbour. Both ship's lines and/or tug's line may be used. Has radio telephone, "WBY 8343" and Channel 12 is usually used. Extra tugs available from Honolulu.

BERTHING: Limited to 1 large vessel at Nawiliwili and 1 at Port Allen. Considerable barge traffic. Prior reservations by Agent necessary with District Manager. Berth conflicts usually solved in Honolulu by rerouting of Island ports.

New Ro/Ro barge facility at Pier 1.

CARGO HANDLING FACILITIES: Nawiliwili has 2 sugar loading gantries on Pier 2; no equipment or storage to handle grain, ore, coal, sulphur. Fertiliser is discharged by self-unloading barge, and the bulk hauled away via truck. There is a container yard but no facilities to off-load containers. Weekly service is by a self-unloader. Roll-on/Roll-off cargo is moved on ramps furnished by barges. LPG and petroleum product lines are privately owned.

STEVEDORES: All stevedoring by McCabe Hamilton and Renny Co. Ltd., with headquarters in Honolulu and branches in outports. 48 hours notice by Agent for labour and equipment. Inward cargo is containers, general, bulk fertiliser, petroleum products, and building and construction materials. Outward is raw sugar, general and molasses. Foreign vessels are subject to heavy fines for carrying stevedore gear inter-island without Customs Clearance.

MEDICAL: 2 hospitals on Kauai with 2 doctors under contract to United States Public Health Service. Standard international inoculations and vaccination required. Advance notice by Agent desirable but not necessary.

TANKERS: All piers have pipe-line connections for incoming cargo and outgoing molasses. Fuel oil 10 in., molasses 10 in., water line 6 in., gasoline, kerosene and diesel 8 in. These are the main lines under the wharves. Hose connections to ships vary with the type of riser and hose so size of fittings should be checked with Agent. No slop discharge facilities available. 4 tanker berths available.

DENSITY: Varies from full salt to brackish in periods of heavy rainfall with freshets in the streams. No specifics available.

FRESH WATER: Available from 2 in. dock hydrants via ship's hose. About 100 gallons per minute.

FUEL: Bunker C not available for large vessels. Diesel fuel available via tank truck with 6 hours notice. Weekend and holidays order previous day.

GANGWAY/DECK WATCHMEN: Tankers discharging gasoline required to have uniformed dock watchman. Usually off duty policeman. All ships provide own gangway and deck watch.

OPENING/CLOSING HATCHES: Normally done by stevedores. A few foreign ships prefer doing it with own crew.

CUSTOMS ALLOWANCES: 200 cigarettes, 50 cigars per man, and one bottle, U.S. quart, wine or spirits.

IDENTIFICATION CARDS: Desirable but not required by law.

CONSULS: All in Honolulu.

REPAIRS: Light machine shop, welding and burning and pipe work available. Plantations may do some heavy repairs if part can be sent to their shop. Their engineers are helpful in emergencies. Heavy or technical repairs must be done in Honolulu.

REPATRIATION: Agent can arrange by air via Honolulu. Immigration clearance necessary.

AIRPORT: Lihue is 3 miles from Nawiliwili and 20 miles from Port Allen; served by inter-island regular carriers. Numerous lines, and charter flights available.

TIME: GMT minus 10 hours, all year round.

HOLIDAYS: National: New Year's Day (January 1st); President's Day (February 22nd); Memorial Day (May 30th); July 4th; Labour Day (first Monday in September); Election Day (first Tuesday in November); Veteran's Day (November 11th); Thanksgiving Day and Christmas Day (December 25th). Cargo can be worked but at penalty rates.

POLICE/AMBULANCE/FIRE: Emergency calls – Dial 911 for all services, or dial "O" for operator.

EMERGENCY CO-ORDINATION CENTRE: Coast Guard Search/Rescue Centre, Tel: 245-4521.

TELEPHONES: Arrangements by Agent.

SHORE LEAVE: Permitted after Immigration check. Iron Curtain or Communist visitors may be restricted.

DEVELOPMENTS: Turning basin may be enlarged to handle liners and large bulkers. Project depth 35 ft.

AUTHORITY: State of Hawaii, Department of Transport, Harbours Division, P.O.Box 946, Lihue, Kauai, Hawaii 96766, U.S.A. *Tel:* (808) 245-6996. *Contact:* Charles E. Scharsch, Harbour District Manager.

AGENT: See "Honolulu".

NEW BEDFORD, Massachusetts: 41.38 N. 70.55 W.

(See Plan)

DOCUMENTS: See "Boston".

PILOTAGE: Compulsory. 3 Massachusetts State Pilots available, ordered through Agent. VHF Channel 16 monitored. Pilot on station only after 12 hours notice. Small pilot vessel with basic communication equipment. Pilots board all vessels at Buzzards Bay Buoy at the entrance to New Bedford Outer Harbour situated at Lat. 41° 30′ 42″ N., Long. 70° 50′ 07″ W.

ANCHORAGE: It is recommended that vessels delayed due to weather, etc., anchor 0.5 miles South of Buzzard's Bay Bell Buoy.

RESTRICTIONS: A modern harbour approach begins at Buzzard's Bay Buoy and runs a straight course of 7.5 miles direct to the pier facilities. The channel is 350 ft. wide and has a depth of 30 ft. MLW. The channel leads into a moderate size (1,000 yd.) turning basin.

Hurricane dyke barrier gate 150 ft. wide with depth of 30 ft. MLW.

MAX. SIZE: 700 ft. length. Vessels over 30 ft. draft restricted by tides.

HEALTH: See "Health: All Ports" before first U.S. port (Albany). Illness Reports made to New York Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: RCA Chatham Radio, New Bedford Marine Operator for VHF, and Boston Marine Operator for ship to shore frequencies.

VHF: Pilot vessel on Channels 16 and 13. Pilot office on Channels 16 and 18A.

TUGS: Tugs join vessel in inner harbour. Tug lines used. 2 tugs available. Tugs are not normally used at the State Pier in docking and undocking of deep-water vessels. The large turning harbour basin, the wind-sheltered position of the pier and lack of tidal current minimise use of tugs. In extreme weather conditions tugs are used.

BERTHING: At State Pier, berthing space for 3 ships:

North side 600 ft. length, South side 775 ft. length, East side 450 ft. length.

Depth of water at all berths is 30 ft. MLW.

Maritime Terminal, depth 27 ft.

BRIDGES: Passage to upper reaches of harbour to Maritime Terminal requires navigation through the New Bedford and Fairhaven Bridge only in daylight for larger vessels over 250 ft. length.

STEVEDORES: 24 hour notice required for New Bedford Stevedoring Corporation to prepare gear. 25 tons discharged or loaded per hour as average production per gang. Nearly all cargoes handled.

MEDICAL: 24 hours notice required. Excellent hospital facilities available.

DENSITY: Static, since tidal variations light. Density same as ocean water.

FRESH WATER: Fresh water available.

FUEL: All types available, to be ordered in advance.

GANGWAY/DECK WATCHMEN: Watchmen available. Non police or police.

OPENING/CLOSING HATCHES: Depends on negotiated contract and cargo handled.

CUSTOMS ALLOWANCES: Designated by U.S. Customs with regard to particular circumstances.

CONSULS: Most Consuls available in Boston, 50 miles or 1 hour away.

REPAIRS: All types of minor ship repairs available.

REPATRIATION: Agent can handle formalities.

AIRPORT: 3 airports within 1 hour's drive. All international services.

HOLIDAYS: New Year's Day (January 1st); Washington's Birthday (February 22nd); Patriot's Day (April 19th); Memorial Day (May 30th); Independence Day (July 4th); Labor Day (first Monday in September); Columbus Day (October 12th); Veterans' Day (November 11th); Thanksgiving Day (last Thursday in November); Christmas Day (December 25th).

TELEPHONES: No telephones on board, but exist adjacent to pier.

SERVICES: All services can be obtained if required.

SHORE LEAVE: If U.S. Immigration has cleared crew member, he is allowed ashore.

SHIPMASTER'S REPORT: December 1982.

Documents: See "Boston"

Pilotage: Compulsory. Pilot boards at "BB" in Buzzards Bay. Advise Agent 6 hours prior to arrival.

Restrictions: Vessels enter and leave on rising tide during daylight hours. The approach is hazardous as vessel has to pass through hurricane barrier (width 150 ft.) and swing bridge (width 94 ft.).

Max. Size: LOA. 600 ft. Beam 85 ft. Draft 25 ft. Underkeel clearance of 5 ft. required in channel. Mean tidal range 3 ft.

Radio: Chatham Radio.

Tugs: 3 tugs available (2,000 hp.). 2 tugs are normally sufficient for berthing/unberthing.

VHF: Pilot on VHF Channel 16.

Berthing: Maritime Terminal Wharf: Distance from "BB" Buoy to Berth is 9 miles. U.S. and U.K. Pilot Books indicate 30 ft. to 31 ft. at berth. Least depth in Channel from sea to berth 30 ft. Nature of bottom at berth – very soft mud. Density 1025. Good security. Palletised cargo and 20 ft. and 40 ft. containers handled. Ample storage space for containers.

Services: Fresh water, fresh provisions, limited repair facilities, Lloyd's Surveyors (at Boston), Salvage Surveyor (New York), laundry service (Boston). Bunker fuel oil, diesel oil, lubricating oil, doctor, hospital, groceries and meats (Boston).

AUTHORITY: City of New Bedford, Harbor Development Commission, Pier 3, Wharfinger Building, New Bedford, Massachusetts 02740. *Tel:* (617) 993-1770. *Contact:* Martin Manley, Director.

NEW HAVEN, Connecticut: 41.14 N. 72.55 W.

(See Plan)

DOCUMENTS: Refer to "New York".

PILOTAGE: Compulsory. State Pilots are available on a 24 hour basis and are usually arranged through the ship's Agent or directly by shipping companies. Pilot will board vessel in vicinity of New Haven Sea Buoy, marked "N.H." – short and long flash; black and white vertical stripes. Boarding will be from a 44 ft. steel launch named *New Haven Pilot* - blue hull with "Pilot" marked on both sides in white letters, or from a tug-boat. Contact can be made via VHF telephone, Channel 13 (156.65 MHz), Channel 16 (156.80 MHz), or Channel 19A (156.95 MHz).

Pilotage Association Report: The New Haven – Bridgeport Pilots maintain a tide gauge, from where they depart to meet vessels. The normal tidal range is 6 ft. They believe that 4 ft. of water in excess of the ship's deep draft is necessary for a safe transit. A rule of thumb, used by them, is 31 ft. on LW, and 37 ft. on HW. (For any variation of this, a Pilot should be consulted.) A normal transit time from the entrance buoy to any of the berths in the inner harbour is 45 minutes to 1 hour. Docking time of 30 minutes to 1 hour should be added to this average dependent on where the ship is berthing, as well as possible weather conditions.

There was a maintenance dredging of New Haven Harbour, completed in 1983. The after-dredging survey submitted to them by the U.S. Army Corps of Engineers shows a controlling depth, with rock bottom of 35 ft. at MLW. This rock is located at South West Ledge Light at a point where a 35° turn is executed by the ship.

Prevailing winds are Westerly, and have a decided effect on the rise of tide. The tide gauge is the determining factor as to the time of entry when wind conditions do exist.

ANCHORAGES: Vessels awaiting berth, and or tides, will find good anchorage up to 40 ft. draft within 1 mile S. – S.E. of the "N.H." Buoy.

APPROACHES: *From New York:*

Charts: 12339, 12366, 12367, 12363, 12354, 12371.

Vessels leaving New York bound for New Haven will be transiting New York's East River and Western Long Island Sound. All shoals and rocks are well marked and the close proximity to the shore line provides an excellent radar target for position checking. During Summer months thick fog will present a hazard on this route. Long Island Sound is also a major yachting centre, so extreme care must be exercised while transiting this area.

There are numerous dangers to be wary of when making the passage from New York to New Haven. In order of approach they are:

1. East River and Hell Gate are areas of strong tidal currents averaging 4.6 knots for the ebb current which sets in a Southwesterly direction. Vessels drawing up to 35 ft. may transit Hell Gate at HWS only. Sluggish handling vessels should arrange for towboat assistance up the East River and through Hell Gate.

2. 26 ft. Buoy "32A" usually passed well clear to the South.

3. Cable and Anchor Reef usually passed to the South.

4. Stratford Shoals deep draft vessels pass at least 1 mile off the South of the shoal then alter course to New Haven Sea Buoy.

From Block Island:

Charts: 13205, 13215, 13209, 12354, 12371.

On approaching Block Island from the Southerly direction, Block Island's Southern shore is mainly high rock cliffs, and a good radar target is obtained along with bearings taken from the RDF station at Southeast Light.

Care should be exercised by vessels deeper than 30 ft. to always approach Block Island to the East due to the numerous shoals found on the Western side of the island.

It is also advisable to remain at least 1 mile to the East of Block Island due to the numerous shoals close in shore.

There are numerous dangers to be wary of when making the passage from the pilot station to New Haven. In order of approach they are:

1. Block Island North Reef Buoy "1B1" marks a dangerous shoal and should be passed well clear.

2. The Race is a narrow channel into Long Island Sound. Strong East to West currents exist during maximum ebb or flood and knowledge of position should be maintained in view of the possibility of unusual set. Valiant Rock may be passed on either side.

3. Great caution should be exercised during the Summer months when transiting through Block Island and Long Island Sound due to the heavy small boat traffic, especially in the area in proximity to The Race.

4. Fog is prevalent during the Summer months and is heavy. Good judgement should be used before transiting the area during fog.

Good water is found in Long Island Sound from The Race to New Haven as long as the Mid-Channel Buoys "P1" and "CF" are passed close to and care is taken so as not to pass North of "Twenty-Eight Foot Shoal" lighted bell buoy. When a vessel is within 4 or 5 miles of New Haven, the depth of the water is reduced, so caution is again needed. Radar is the best navigational aid in this area. There are numerous RDF stations that can be used to ascertain positions. Also fathometer readings will be helpful.

RESTRICTIONS: Vessels can proceed to and from berths in New Haven Harbour at any hour during the day or night, weather and tide permitting. Entrance channel dredged to 35 ft. MLW and width 400 ft.

MAX. SIZE: Draft up to 38 ft. subject weather and tides. Vessels of 50,000 d.w.t. with part cargo, do call occasionally, but should consult with the Pilot and terminal concerned.

BERTHING:

Wyatt Inc.: Ships are not docked on the West side at ebb tide, though ships in ballast can sail whenever ready, regardless of flood or ebb tide. The East berth docking is done on flood or ebb, with draft to be considered. In the Spring of 1983, this terminal was dredged to 37 ft. on the West side, and 32 ft. on the East side. Fresh water and bunkers are available, with steam on the East side available through a 2 in. line, with 125 lb. pressure.

Ships of 715 ft. are regularly docked here. Vessels are docked port side to on the West side, and would be delayed if the East berth is occupied by a ship.

Gulf Terminal: The Gulf Dock is located parallel to the channel on the East side of the inner harbour, and ships of 35,000 d.w.t. with draft of 35 ft. and LOA of 675 ft. are considered to be maximum size. (350 ft. from bow to manifold.)

The dock parallels the channel and consists of 2 main caissons, a centre platform and dolphins connected by a catwalk. Ships consigned for T.A.D. Jones Terminal use this facility.

T.A.D. Jones: This dock is on the East side of the harbour, a 500 ft. finger pier at a 90° angle to the channel. The North side has 27 ft. of water and the South side is used for barges. Tankers, or dry cargo ships no longer call at this pier. (Also see "Late Reports").

Arco Terminal: Arco Dock parallels the main channel, and is 750 ft. long, with 2 main caissons, dolphins, and platform, connected by catwalks. Ships up to 50,000 d.w.t., and 35 ft. draft use this berth arriving on the rising tide, and 35 ft. on LW in berth. Ships are docked starboard side to.

Bunkers are not available, though fresh water is, but only in mild weather.

New Haven Terminal, Inc.: This facility has 3 ship berths on a 90° heading from the channel, dredged in 1983. The Scrap Dock, as it is called, is a continuous pier, with a wearing strip cushioned by a rubber backing. The pier is 650 ft. long, with 35 ft. at MLW. Scrap is loaded from here and all types of dry cargo handled. Two gantry cranes are on the dock and additional mobile cranes are available. Railroad cars can be brought on to the dock. Ships berth port side to.

The Finger Pier on the North side is a continuous pier, 650 ft. long, and is mainly used as a tanker berth. Bow to manifold is 350 ft. (additional hoses can be added to increase this distance.) The slip is 196 ft. in width, and 2 ships may be accommodated at the same time, as long as 30 ft. is allowed for a tug boat between the ships. Depth 35 ft. at MLW.

The South side is a tanker or general cargo berth, with 40 ft. at MLW. Bow to manifold is 350 ft. and additional hoses may be used. Ships of 700 ft. may be secured at all 3 of these berths.

Bunkers can be trucked in, and fresh water is available at all berths.

Exxon Terminal: Exxon Dock parallels the main channel. The dock is 750 ft. long with 2 main caissons, dolphins, and platform connected by a catwalk.

Ships of 50,000 d.w.t. call at this dock, with a draft of 36 ft., docking on the rising tide. Ships are docked starboard side to. Bunkers are not available, though fresh water is.

HEALTH: See "Health: All Ports", before first U.S.A. port (Albany). Illness Reports made to New York Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Vessels arriving from North use Chatham Radio. Vessels from South use Amagansett Radio on Long Island.

Bridgeport Marine Operator on VHF Channels 24 and 27.

TUGS: Red Star Towing Company operates tugs based in New Haven and serves Long Island Sound Ports. The office is on Channel 19A. Tugs monitor 19A, 16 and 13. Dispatchers can be reached 24 hours a day on Channel 19A. The number for Red Star is area code (212) 536-3841 or (800) 225-5470. 3 tugs 1,600 h.p. – 1,800 h.p.

TANKERS: See "Berthing".

BALLAST: There are no slop lines available.

FUEL: Available from oil terminals or delivered by barge.

FRESH WATER: Available at all terminals.

MEDICAL: All facilities available.

CUSTOMS ALLOWANCES: At the discretion of Customs Officers. Normal allowance is 200 cigarettes or 2 lb. of tobacco and 1 quart wine/spirits per man. Additional allowances may be given if considered necessary, due length of vessel's stay in port.

AIRPORT: New Haven Airport 1 mile distant. New York International Airport 70 miles distant.

CONSULS: All countries represented in New York.

HOLIDAYS: New Year's Day (1st January); Washington's Birthday (22nd February); Memorial Day (30th May); Independence Day (4th July); Labor Day (first Monday in September); Columbus Day (12th October); Veteran's Day (11th November); Thanksgiving (fourth Thursday in November); Christmas Day (25th December).

TIME: Eastern Standard Time, GMT minus 5 hours. Daylight Saving Time, GMT minus 4 hours from first Sunday in April till last Sunday in October.

SERVICES: Professional Sea Services (monitor Channels 16 and 19A) of New Haven offers launch service to ships at anchor, movement of stores, and skin divers. Tel: (203) 932-2159.

GENERAL: Through a co-operative agreement, all the terminals have a slick boom, skimmers and absorbent available at all times.

There are no slop tanks available in this port for pumping ballast.

None of the terminals supply gangways; ships must use their own.

AUTHORITY: U.S. Coast Guard, Captain of the Port, New Haven.

Contact: Captain D. V. Monks, New Haven-Bridgeport Pilots' Association Inc., 23, Highland Drive, Wallingford, Connecticut 06492.

Tel: (203) 878-8667.

NEW LONDON (Including Groton), Connecticut: 41.21 N. 72.06 W. (See Plan)

DOCUMENTS: Refer to "New York".

PILOTAGE: Vessel usually notifies Agent 48 hours before arrival, who will arrange Pilot boarding. Pilot boards at Sarah's Ledge, which is close to anchorage at harbour entrance.

ANCHORAGES: In Thames River, and in Long Island Sound, approx. 2 miles W.S.W. of New London Ledge Light bounded by lines connecting points which are following bearings and distances from New London Ledge Light: 246°, 2.6 miles; 247°, 2.1 miles; 233°, 2.1 miles; and 235°, 2.6 miles.

RESTRICTIONS: Pilots recommend daylight docking but can dock at night if necessary. Entrance channel 40 ft. deep.

MAX. SIZE: Dry cargo vessels and tankers 700 ft. long are using the harbour.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to New York Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Vessels arriving from North use Chatham Radio on Cape Cod. Vessels from South use Amagansett Radio on Long Island. However, either one may serve the purpose.

TUGS: Usually join vessel at Ledge Light if a dry cargo vessel, and off Sarah's Ledge if a tanker. Tugs use ship's lines; if tug's lines are used this is part of charge.

BERTHING: Advance ETA must be made for berthing, and it is suggested to dock during daylight hours when possible.

State Pier No. 1: Depth, 32 ft. – 36 ft. MLW.
Dow Chemical Co. Wharf: Depth, 22 ft. MLW.
City Wharf Ferry Terminal: Depth, 22 ft. MLW.

BRIDGES: There are no bridges across Main Ship Channel. However, at New London, at the head of the Main Harbour, the Thames River is crossed by 1 drawbridge and a twin fixed bridge: the Amtrak Railroad bascule bridge with a horizontal clearance of 151.5 ft. and a vertical clearance of 30.9 ft. at high water and a fixed highway bridge with a horizontal clearance of 200 ft. and a vertical clearance of 135 ft. at high water.

STEVEDORES: ETA of 72, 48 and 24 hours is required, as gangs must be requested by 1500 hrs. on weekdays. Average discharge, about 20 tons per gang per hour.

REPAIRS: 3 waterfront marine repair plants are equipped to repair vessels at the port. The Nelseco Navigation Co. and Thames Shipyard Inc. each owns and operates a plant at New London on the right bank of the Thames River; the General Dynamics Corp., Electric Boat Division owns and operates a shipyard and marine repair plant at Groton on the left bank of the river.

DRY DOCKS: 1 floating dry dock, 1 graving dock and 3 marine railways are available to the public at 2 of the marine repair plants.

1 floating dry dock, steel construction, with a lifting capacity of 6,500 tons, located on the West side of the pier E, has an overall length of 448 ft. length of 435 ft. 6 in. on the keel blocks, overall width of 97 ft. inside clear width of 70 ft. and depth of 26 ft. of water over the keel block when submerged.

1 graving dock, located South of Piers A, B, C, and E, has length of 515 ft., width of 70 ft., and 35.5 ft. depth of water over the sill and 34.5 ft. over the keel blocks at MHW.

TANKERS: Hess Oil Dock: Depth alongside 36 ft. (Lines 10 in. and 12 in.).

Texaco Wharf: Depth alongside 18 ft.

Pfizer Wharf: Depth alongside 18 ft.

Report: Port Approaches – Cautionary Advice: When approaching Block Island from the South or East, prior to picking up the Pilot, all mariners should be aware of the precautionary zone to the S.E. of Block Island. Usually ships bound for Long Island Sound will make for 1 mile East of Block Island S.E. lighted whistle buoy then, traffic permitting, head due North, to pick up the Pilot. All traffic is this area should be monitoring VHF Channels 13 and 16. Principal navigational aids used in making landfall are RDF stations at Montauk Point, S.E. Point, Point Judith, Brenton Reef Light and Buzzards Bay Light Tower. The high bluffs on the South side of Block Island also provide excellent radar targets for position fixing. For ships whose draft exceed 30 ft., care should be taken to approach the pilot station from the East side of Block Island due to the numerous shoals found on the island's Western side. There are numerous dangers to be wary of when making the passage from the pilot station to Groton. In order of approach they are:

Block Island North Reef Buoy "1B1" marking a dangerous shoal which should be given a wide berth.

"The Race" which is a narrow channel leading into Long Island Sound. Strong Easterly and Westerly currents exist during maximum flood and ebb tides (flood set to the West) and an accurate position should be maintained at all times so that any unusual set may be observed.

It should also be noted that sport fishing boats frequent the area in great numbers practically all year round. Tugs with large barges on long hawsers can also be expected. Valiant Rock, in the middle of "The Race", may be passed on either side. Security broadcasts should be made on VHF Channels 16 and 13 when approaching the area and passing situations discussed before entering "The Race".

Cautionary Advice: Extreme caution should be exercised during the Summer months when transitting through Block and Long Island Sounds due to heavy small boat traffic, especially in the area around "The Race".

Submarine operating areas are in the approaches to New London Harbour and off the Northern end of Long Island. Submarines may be operating either surfaced or submerged in these areas.

Fog is prevalent during the Summer months and can be very dense. Prudent judgement should be used before transitting the area during fog because of the aforementioned hazards.

Berthing: (Hess Oil – Groton): The harbour provides excellent room for manoeuvring. Currents of up to 0.5 knots exist but set fair with the channel. The tidal range averages 2.6 ft. with a spring range of 4.3 ft. Vessels under 30,000 d.w.t. dock with the assistance of 1 tug; vessels over 30,000 d.w.t. require 2 tugs. All vessels require 1 tug for undocking. Vessels approach the berth at a small angle stemming the last of the ebb tide. All vessels dock starboard side to. Once alongside the platform, the bow will be secured first, followed by the stern. The Platform is well protected by rubber fenders. Lines are run to offshore piles and a mooring buoy by a small boat. 12 mooring lines are used under normal weather conditions. (See "Plan").

MEDICAL: All facilities available.

FRESH WATER: Available at pier side through 2.5 in. and 1.5 in. hoses.

FUEL: Available at tanker berths or by barge.

GANGWAY/DECK WATCHMEN: Not required and not recommended.

OPENING/CLOSING HATCHES: Performed by stevedores.

IDENTIFICATION CARDS: Not required.

CONSULS: Nearest at New York.

REPATRIATION: Facilities exist.

AIRPORT: Nearest airport is Groton - New London Airport, situated about 3 miles East of Groton, Connecticut. There are scheduled commercial airlines serving this field. Pilgrim Airlines and Business Express Airlines run frequent connecting flights to Bradley and Kennedy International Airports.

TIME: Eastern Standard Time, GMT minus 5 hours. Daylight Saving Time, GMT minus 4 hours, from first Sunday in April till last Sunday in October.

HOLIDAYS: New Year's Day (1st January); Lincoln's Birthday (12th February); Washington's Birthday (22nd February); Good Friday; Memorial Day (30th May); Independence Day (4th July); Labour Day; Columbus Day (12th October); Veteran's Day; Thanksgiving Day; Christmas Day (25th December). Cargo work can be arranged on holidays.

POLICE/AMBULANCE/FIRE: Police, Tel: 443 – 4315; Ambulance, Tel: 443 – 4388; Fire, Tel: 443 – 4381.

TELEPHONES: Available if required.

SHORE LEAVE: Allowed.

DELAYS: Availability of berthing might cause some delay.

AUTHORITY: State of Connecticut, Dept. of Transportation, Bureau of Waterways, State Pier, New London, Connecticut 06320, U.S.A. *Tel:* (203) 443-3856. *Contact:* Francis M. McDermott, Director Bureau of Waterways.

NEW ORLEANS, Louisiana: 29.56 N. 90.04 W.

(See Plan)

DOCUMENTS:

3 copies Cargo Manifest (Form 1302), the original showing all cargo on board, and 2 copies showing only cargo for this port.

2 copies Crew Manifest (Curio List).

2 copies Stores List.

2 copies Passenger List (Form I-418).

2 copies Crew List (Form I-418).

2 copies previous Tax Certificates (Form 1002).

2 copies Certificate of Financial Responsibility.

2 copies General Declaration (Form 1301).

2 copies Vessel Repairs (Form 226) (Required only for American Flag vessels arriving from foreign ports).

Customs Boarding Officer will also examine Ship's Register and Load Line Certificate. In addition, the following documents will be required for formal entry to be made within 48 hours of arrival from abroad, or 24 hours from arrival from a United States Port:

Master's Oath (Customs Form 1300).

All foreign clearances.

Certified Crew List.

The Bureau of Customs at New Orleans, Louisiana, will not, regardless of the circumstances, accept Customs Entry Papers from vessels unless they are on the proper U.S. Customs Forms and properly prepared.

Specially referred to are Customs Forms 1303 (Ship's Stores Declaration), 1304 (Crew Effects Declaration) and 1302 (Inward Foreign Manifest).

U.S. Customs at New Orleans require that the 1303 be completed, that is all stores (deck, engine, etc.) be listed on the form; it must also include firearms and medicines. They will not accept "as per attached list".

Form 1304, Crew Effects List, must likewise be properly completed. All effects and curios will have to be listed on the form. The term "souvenirs" is not sufficient and may not be used. All values have to be listed. Attachments to the 1304 are not permitted. (This does not apply to American Flag vessels using the Form I-418 Crew List with Crew Declaration numbers listed for their souvenir list.)

Also see "Berthing – Ama (Shipmaster's Report) – General" regarding Customs' areas of jurisdiction.

PILOTAGE: Advise Agents ETA at sea buoy 48 hours in advance. Agent will arrange for Pilot. Pilot boat 46 ft. long, red hull, white cabin, flying blue and white Pilot flag. Pilot boards at sea buoy, requires Pilot ladder 6 ft. above water level, and in compliance with Chapter V, Regulation 17 of the International Convention for the Safety of Life at Sea, 1974. Pilot boats can be contacted by VHF, Channel 9 or 16 when 30 to 40 miles off. Bar Pilot is exchanged for River Pilot at Pilottown, Head of Passes.

Following Advice Received from Crescent River Port Pilots' Association:

Cable: Crespilots, New Orleans.

Vessels bound to any destination on the Mississippi River and Mississippi River Gulf Outlet (MRGO) are requested to supply the following information via Coastal Radio Telegraph addressed to Crespilots, New Orleans:

(1) ETA – 24 hours before expected arrival at pilot station (Sea Buoys), and any change of ETA in excess of 6 hours.

(2) Indicate if vessel is arriving Mississippi River or Mississippi River Gulf Outlet.

(3) Deepest fresh water draft and speed of vessel.

(4) Please contact pilot station at entrances via VHF Radio Phone on Channel 16 (156.80 MHz), Channel 9 (156.45 MHz), or, Channel 13 (156.65 MHz) at least 2 hours prior to arrival for boarding instructions. (This is normally done by the Bar Pilot).

Your co-operation will greatly assist in expediting the dispatching of Pilots and avoid costly delays to your vessels.

ANCHORAGES: Safe anchorage within 2 miles of South Pass or S.W. Pass entrance. Vessels may anchor at the Point below New Orleans. Depending on ship size, weather, etc., tug assistance may be required.

APPROACHES: *Operator's Report:* 1984 (Corrected to 1988 conditions).

The coastline of the Mississippi River delta is low lying and generally swampy, having no easily distinguished geographic characteristics. The oil rigs and drilling platforms off Southwest Pass are usually sighted well before any navigational aids or landmarks. The first navigational aid to be seen is normally the Southwest Pass Entrance Light near the end of the East Jetty, a red tower on a white dwelling, 85 ft. above the water. The Entrance Light is also equipped with a Racon displaying Morse K (– · –) and Radio Beacon "OT" (307 kHz). The East End Jetty is also a conspicuous navigational aid consisting of a red triangular daymark on a red skeleton tower, 50 ft. above the water.

The sea buoy ("SW") is a red/white light (Morse (A)) buoy located approximately 1.6 miles South of the jetties and may be difficult to distinguish at long range due to the numerous oil wells and other lights in the vicinity.

Entry and transit should not be attempted during dense fog or any other unfavourable conditions.

River Transit: *General:* The Army Corps of Engineers has the responsibility for maintaining a project depth of 45 ft. in the entrance to and along the navigable channel in the Mississippi River up to Mile 150 AHP and 40 ft. from Mile 150 AHP to Baton Rouge. However, even with regular dredging, there will be occasions when the project depth cannot be maintained, resulting in a reduction of the transit draft. A decrease in water depth is most likely to occur when:

(a) the river stage is at its highest usually between January and June and

(b) the river current velocity decreases causing siltation primarily after major Winter and Spring run-offs of rain and melted snow.

The influence of the above factors on water depth cannot be accurately predicted, neither for the day nor the location in the river. While this is not of concern for many miles of the river where deep water is always available, it is of particular concern within the 9 crossings between New Orleans and Baton Rouge.

Within these crossings it is, therefore, necessary for the Corps of Engineers to take frequent soundings not only to keep track of where the least water depth is, but also to determine the priority crossing for dredging.

Soundings taken for this purpose are very comprehensive, i.e., lines of soundings within each crossing are along the centre line ranges as well as along parallel lines 125 ft. to 250 ft. on either side of the centre line; soundings are recorded on these lines at about 150 ft. intervals

The maximum allowable transit drafts within the river are determined by the available water depth in the deepest 250 ft. wide channel in the 500 ft. wide crossings. As a result, Pilots in selecting such a navigable route may not always proceed on the centre line ranges of a crossing. The maximum draft will never exceed 45 ft. to Mile 150 AHP and 40 ft. from Mile 150 AHP to Baton Rouge.

Currents in the river vary according to the stage of the river (currents due to tides are a negligible factor) being of greater strength and velocity during high river flood stages and of lesser velocity during low river stages. High river stages normally occur in April and the low stages in October. Vessels transitting the river during flood stages should take precautions to avoid wash damage to the banks.

Extra caution is required in navigating the river in the vicinity of Algiers Point, particularly when the river is high. When the Carollton Gauge reaches 10 ft. on a falling stage, all vessels in the vicinity of Algiers Point shall be governed by the Governor Nichols and Gretna traffic lights. Furthermore, low powered vessels should not navigate the area unless they can clear Algiers Point during daylight.

When transitting the river it should be noted that the VTS is not in operation. Thus, the mariner may be confronted at any time with unreported hazards. It is important, therefore, that all Pilot rules and other applicable rules and regulations be strictly adhered to.

Six bridges cross the Mississippi River between Head of the Passes and Baton Rouge, with the following clearances:

Mile (AHP)	*Bridge*	*Horizontal Clearance* (ft.)	*Vertical Clearance* (ft.)	*Span*
94.0	Hale Boggs	1,400	170.0	A
95.7	Greater New Orleans	1,400	170.0	A
106.1	Huey P. Long	725	153.0	A
121.7	Luling & Destrehan	1,200	154.9	A
167.4	Sunshine	750	168.0	B
229.3	Baton Rouge I-10	500	172.5	A

Note: The vertical distance is measured at zero elevation of the river at the nearest gauge on the river. For example: the Baton Rouge I-10 bridge shows a clearance of 172.5 ft. at zero on the gauge. When the gauge shows 10 ft., the clearance is 172.5 ft. − 10 ft. = 162.5 ft.

Ferries transport passengers and cars across the river at Pointe a la Hache, Belle Chase, Chalmette, New Orleans, Gretna, Destrehan, Reserve, Lutcher, Donaldsonville, White Castle and Plaquemine.

When fog is predicted for the lower Mississippi River and/or Gulf, outbound vessels above New Orleans should anchor around Norco or above. Vessels below New Orleans should anchor well above Pilottown unless the weather can be expected to remain clear up to the entrance of the pass.

Draft/Speed Relationship: It is important to take account of the effect of "squat" when navigating within the crossings of the Mississippi River. For your guidance, the increase of draft due to "squat effect" is approximately 1 ft. for each 5 knots of speed.

River Crossings: The 9 crossings are critical areas, therefore, it is desirable to obtain either from the Pilot or local Agent the most recent information on locations where soundings indicate water depth less that the project depth 40 ft. or 45 ft. You should discuss with the Pilot what the intended track within a crossing should be in order to remain within the deepest water. In order to further reduce the risk of bottom touching, a reduction in speed is considered necessary in these circumstances. Reduction of speed should be discussed with the Pilot to ensure that the effect of "squat" is compensated for while in a crossing. Since it is important to ensure the desired ship response to rudder movements while in a crossing, speed reduction has to be carried out before entering a crossing.

The manoeuvres required at the crossings are rather unique. In most cases the channel is not parallel to the river current, and the Pilot will, therefore, utilise the set of the current to negotiate the crossing. Speed has to be sufficient to compensate for the effect of the current, while at the same time maintaining a balance with increased draft due to "squat". Full sea speed is to be avoided.

When entering or leaving a crossing, the Pilot may manoeuvre close to the bank and on occasions take advantage of bank rejection to aid the manoeuvre.

Experienced helmsmen are required during the entire river transit between New Orleans and Baton Rouge.

River Traffic: Surging caused by passing channel traffic is a common problem. To avoid damage to Chicksan/hose connections and the parting of wires or lines, special attention should at all times be given to the condition and tautness of moorings. It is recommended that one or several qualified crew members be assigned exclusively to the tending of mooring lines and winches.

RESTRICTIONS: Draft governed by Southwest Pass, project depth 45 ft. Entrance day and night. New Orleans is 115 miles upriver.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Available, and join vessel off berth if required. One tug normally used for berthing/unberthing at New Orleans.

BRIDGES: 6 bridges. 3 bridges cross river at New Orleans, 1 at Baton Rouge, 1 at Destrehan and 1 at Donaldsonville. Sufficient clearance at all times.

BERTHING: *Public Grain Elevator:* No. 2 Berth, 670 ft. long, 40 ft. depth; No. 3 Berth, 650 ft. long, 40 ft. depth; No. 4 Berth, 635 ft. long, 40 ft. depth.

Loading Rates 20,000 bushels per hour per belt, in Berths No. 2 and 3; up to 40,000 bushels per hour per belt, in Berth No. 4. Each berth has 2 loading belts.

Southern Scrap Material Co.: Berth 550 ft. long, 32 ft. depth. Loading 200 t.p.h. with cranes.

Kaiser: Chalmette Wharf: Aluminium discharge facilities, max. draft 38 ft.

Westwego: Continental Grain Elevator: 2 Berths, 600 ft. long and 500 ft. long, 40 ft. depth; loading 5,000 t.p.h., 4 loading belts. Louisiana Dock: 28 ft. alongside, bulk oil products loaded 200 t.p.h. Pacific Molasses Co.: Berth 35 ft. alongside.

Ama: Shipmaster's Report: February 1985 (Corrected to 1988 conditions).

Berth: Farmers Export Elevator Co.

Location: Lat. 29° 56.4′ N.,Long. 90° 18.5′ W. On the S.W. bank of the Mississippi about 122 miles from the Southwest Pass (New Orleans Customs Zone).

Health/Agriculture: See "U.S.A. – General" before first Port.

Tugs: Tugs normally used.

Berth: Length of berthing face about 550 ft.

Port side to, head up. Head, stern, breast lines to dolphins. Springs to wharf or dolphins according to size. Strong current along berth. River traffic passes close by. Substantial moorings required, with regular adjustment. Poop gangways generally do not reach wharf. A contractor's gangway normally on wharf but is charged for delivery, collection in addition to rental. Access road very narrow, no vehicles allowed on wharf. Road deliveries must be collected manually from levee 300 yards away. Otherwise delivery by boat from Fairview Wharf. All provisions, laundry, etc., from New Orleans. Public telephones on wharf.

Loading: Loading rate about 1,500 t.p.h. – 2,000 t.p.h. Using 4 "Buhler" arms simultaneously. Sometimes there is a delay in back weighing cargo for preparation of documents.

Fuel: By barge at anchorage only.

Density: 1000.

General: The River is divided into 3 Customs divisions, namely Baton Rouge, Gramercy and New Orleans. To pass from one to another requires a new port entry with fresh copies of Crew Lists, Stores Lists, Crew Personal Manifests, etc. Additional copies should be prepared at the same time as those for the first entry, as the Agents can then go ahead with the formalities.

It is a common practice for ships to anchor below New Orleans for clearance by Customs, N.C.B. and U.S.D.A. before going on towards a bulk or grain loading terminal. Bunkers are generally taken during this period as the grain elevators normally refuse permission to do this alongside.

Authority: Farmers Export Company, P.O.Box 97, Ama, La 70031.

CONTAINER HANDLING FACILITIES: Handled at most docks. Full container facilities at France Road Berth No. 1 with 830 ft. leased to Sea-Land. Napoleon Avenue wharf 1,520 ft. Nashville/Henry Clay wharf 2,820 ft.

France Road Berth No. 4, wharf 700 ft. France Road Berth No. 5, wharf 900 ft. Berth No. 6, 800 ft. Berth No. 4 leased to Navieras de Puerto Rico and Berths No. 5 and 6 leased to New Orleans Marine Contractors, Inc.

France Road Berth No. 6, with Ro/Ro pier.

STEVEDORES: Working hours 0800 – 1200 and 1300 – 1700, Monday to Friday.

MEDICAL: All facilities available.

TANKERS:

Chalmette: Humble Oil Terminal: Tanker berth 30 ft. depth; Tenneco Oil Terminal: Tanker berth 35 ft. depth.

Amesville: Texaco Tanker Loading Berth, 34 ft. alongside. 2×8 in. hoses loading up to 12,000 bbls.p.h. No ballast facilities.

Avondale: American Liberty Tank Terminals Berth, 60 ft. alongside. 4×6 in. hoses loading up to 18,000 bbls.p.h. No ballast facilities. International Tank Terminals Berth, 45 ft. alongside. 12 in. hoses loading 150 t.p.h.

Gretna: Publicker Chemical Corp.: Berth 30 ft. alongside. Southern Pacific Company: Berth 600 ft. long, 35 ft. depth; dry cargo discharging only. Industrial Molasses Corp: Berth 27 ft. depth; 2×10 in. pipe-lines, loading 200 t.p.h.

Marrero: Hess Terminal Corp: Tanker berth 38 ft. depth; 6×12 in. hoses loading 500 t.p.h. Texaco: Tanker berth 35 ft. depth; 6×16 in. lines loading 250 t.p.h. No ballast facilities.

St. Rose: Cities Service: Tanker berth 35 ft. depth; International Tank Terminals: Berth 35 ft. depth; no fresh water available.

Operator's Report:

Pilottown: General: The Texaco Terminal is located on the East side of the river, 1.7 miles AHP and is a crude oil terminal consisting of a single berth. The dock, mooring dolphins and walkway are constucted of steel and concrete. The dock itself is a 'T' head dock 60 ft. in length; the total cluster of mooring dolphins, however, spans 1,000 ft.

Water at the berth is brackish with an approximate tidal range of 1 ft.

The berth is isolated and far from any commercial centre or district. Launch service to Venice, a small fishing village 8 miles upriver from Pilottown, may be available on request.

Cargo Handled and Shore Installations: Crude oil is loaded to vessels from an 820,000 bbls. capacity storage tank through a 22 in. shoreline leading into 3×8 in. hoses; maximum loading rate is 24,000 bbls.p.h. The hoses are supported by a steel boom at the top of the hose handling structure on the dock.

The berth is equipped with an emergency shutdown system located on the dock; the vessel is provided with a similar piece of equipment for emergency use.

Docking: The River Pilot berths the vessel. No tugs are required for docking or undocking; docking is strictly starboard side to.

Vessels should approach the dock stemming the current, dropping the port (offshore) anchor when off the dock. The anchor is then used to help manoeuvre the vessel alongside the dock. When undocking, the anchor is hove up as the vessel manoeuvres away from the dock.

Mooring bollards on the main dock structure are rated at 100 tons; mooring hooks on the dolphins are rated at 60 tons or more.

Gangway: The ship's gangway must be used and should be properly illuminated and rigged.

Bunkers and Fresh Water: No bunkers or fresh water are available at the dock.

Ballast/Slop Facilities: No ballast or slop facilities are available at Pilottown; vessels arriving with dirty ballast should plan for this.

Venice: General: Getty No. 1 Dock is a crude oil loading dock located on the West bank of the river approximately 11.8 miles AHP.

The 3 arms provided for loading cargo have a designed maximum rail to manifold distance of 12.5 ft. Vessels with a manifold inset greater than 12.5 ft. must use a 10 ft. long spool, provided by the dock, to connect the loading arms.

Cargo Handled and Shore Installations: Crude, the only cargo handled, is loaded through 3×12 in. Chicksan loading arms fitted with 8 in. manifold connections. Maximum loading rate is 40,000 bbls.p.h. The terminal requires that a minimum rate of 10,000 bbls.p.h. be maintained throughout the loading.

Emergency shutdown systems are located in the dock office and on the approach to the dock. The vessel is provided with a portable emergency stop.

Docking: Port side to docking is required and is normally performed by the River Pilot. No tugs are required for docking or undocking; the vessel's starboard anchor is usually used to control the vessel's movement during these manoeuvres. Approach should always be made with the vessel stemming the current.

Gangway: The ship's gangway must be used and should be properly rigged and illuminated.

Connecting Hoses: Chicksan arms are connected to the ship's manifold by ship's personnel.

Communications: A public telephone located at the terminal site, near the dock, is available for use by ship personnel.

Repairs: Only emergency repairs which do not involve hot work are allowed.

Bunkers and Fresh Water: No fuel or fresh water are available at this berth.

Ballast/Slop Facilities: A single 64,000 bbls. capacity tank is available for ballast storage/treatment. The maximum permissible discharge pressure is 150 p.s.i.

The terminal specifies that ballast shall not be loaded or discharged while handling bulk cargo and requests that vessels arrive with the minimum possible amount of ballast under the prevailing weather/river conditions.

Empire: General: The Chevron Terminal is a crude oil loading dock and is located at Mile 26.7 AHP on the East bank of the river. The dock consists of a 'T' head hose handling platform, 2 breasting dolphins and 5 mooring buoys (3 upsteam of the platform and 2 downstream). The dock is connected to shore by a 12 ft. wide pier capable of supporting 2-ton loads.

Cargo Handled and Shore Installations: Crude is loaded through 3×12 in. hoses attached to a loading arm assembly on the hose platform. The maximum delivery rate is 40,000 bbls.p.h.

An emergency shutdown system is located on the hose handling platform with a portable remote control unit aboard the ship.

Docking: Docking is generally performed by the River Pilot and only starboard side to dockings are allowed. No tugs are required for docking or undocking as the vessel uses its offshore anchor to manoeuvre alongside the dock.

Approaches should be made stemming the river current and the port anchor should be dropped when the vessel is above the dock to facilitate manoeuvring into position. The anchor is hove up as the vessel leaves the dock.

Repairs: Only emergency repairs which do not involve hot work are allowed.

Communications: A public telephone located on the hose handling platform is available for use by ship's personnel.

Gangway: The vessel's gangway must be used and should be properly rigged and illuminated.

Bunkers and Fresh Water: No bunkers or fresh water are available at this dock.

Ballast/Slop Facilities: All dirty ballast and slops must be pumped to the shore ballast tank, (capacity 80,000 bbls.) connected to the hose platform by a 16 in. pipe-line. Ballast and cargo operations cannot be handled simultaneously.

Maximum discharge rate for ballast is 20,000 bbls.p.h. at a maximum rail pressure of 125 p.s.i.

Bellechase: General: The Gulf/Alliance dock is a multiple product berth located on the right descending bank of the river, approximately 65.6 miles AHP.

Transfer of cargo is made through a set of 10 in. hoses attached to a loading arm assembly on the dock. Shore lines vary in size from 8 in. for toluene and benzene to 20 in. for crude oils.

Tank washing while alongside the dock is strictly prohibited.

Cargo Handled and Shore Installations: Products commonly handled by the dock include xylene, LPG, crude, naphtha, carbon black, toluene, benzene, gasolines, jet fuel and heating oil.

Maximum allowable rail pressure for discharging vessels is 100 p.s.i.

An emergency loading stop is located on the dock; another, portable, unit is placed aboard the ship.

Docking: The River Pilot normally handles docking and undocking operations. Docking is port side to only and generally requires the aid of a 1,200 h.p. tug. Small tankers are occasionally allowed to dock without the aid of a tug, using their starboard anchor instead. However, since dock regulations prohibit the use of an anchor while alongside, it is recommended that a tug be used by all vessels calling at the berth.

Approach to the dock should be made stemming the current with a tug on the vessel's starboard bow. The vessel is then manoeuvred into position alongside the dock.

Repairs: Minor repairs, excluding hot work, may be undertaken with written consent from the dock's Chief Operator countersigned by the offsite Shift Supervisor.

Gangway: The ship's gangway must be used and should be properly rigged and illuminated.

Bunkers and Fresh Water: Bunkers are not available at Gulf/Alliance. Fresh water, however, is available and can be delivered at a maximum rate of 7 t.p.h.

Ballast/Slop Facilities: All slops and ballast must be discharged ashore. The shore storage tank has a 100,000 bbls. capacity; ships discharge ballast/slops into this tank through an 18 in. line at a maximum rate of 12,000 bbls.p.h.

Meraux: General: Murphy Oil Refinery is located on the North side of the Mississippi River, approximately 75 miles AHP. The tall stacks and cracking towers of the refinery are prominent features of the shoreline.

The berth serves as a primary receiving dock for crude oils which are refined into various petroleum products for transfer by ship and barge to other ports.

Cargoes Handled and Shore Installations: Crude is received at a maximum rate of 20,000 bbls.p.h. or a maximum 125 p.s.i. rail pressure. Refined products (gasolines, jet fuel, etc.) are loaded on to vessels at an average rate of 5,000 bbls.p.h. All cargo transfer is made through 8 in. hoses.

Docking: Docking is normally performed by the River Pilot and is strictly starboard side to. All vessels are required to use a minimum of 1 tug for docking and undocking; more tugs may be used at the Master's discretion. Vessels approach the refinery dock stemming the current with a tug on the port bow. The tug assists vessels manoeuvring into position alongside.

Communications: A public telephone located at the head of the dock is available for use by ship's personnel.

Gangway: The ship's gangway must be used and should be properly rigged and illuminated.

Bunkers and Fresh Water: Bunker-C, diesel fuel and fresh water are available upon request.

Ballast/Slop Facilities: No ballast or slop facilities are available at this dock.

Chalmette: General: The Exxon dock is a small dock with 310 ft. of dock face consisting of a concrete deck on steel pilings. Mooring bollards on the dock and mooring dolphins are serviced by air driven capstans for hauling ship's mooring lines.

Cargo Handled and Shore Installations: Marine diesel and Bunker-C are handled at this dock. The dock is equipped with a loading arm assembly to which 3×8 in., hoses are attached for the transfer of cargo. Maximum allowable discharge pressure at the rail is 125 p.s.i.

An emergency loading stop control is located on the dock.

Docking: Docking and undocking are performed by the River Pilot and require the aid of an 800 h.p. tug. Vessels approach the dock stemming the current with a tug on the port bow and are then manoeuvred into position, starboard side to, alongside the dock.

Gangway: The ship's gangway must be used and should be properly rigged and illuminated.

Bunkers and Fresh Water: Bunker-C, inter-fuel, diesel fuel and fresh water are available upon request.

Ballast/Slop Facilities: There are no ballast or slop facilities available at the berth.

Harvey: General: The Commercial Solvents Wharf is located on the South side of the river near Harvey Canal; and consists of an 'L' shaped dock with 370 ft. of dock face and 6 mooring dolphins.

Cargo Handled and Shore Installations: Various clean speciality products are handled. The product most frequently handled is methanol. Cargo is transferred through a single 6 in. hose with a 6 in flanged connection at the vessel's manifold. Maximum rail pressure for vessel's discharging is 100 p.s.i., maximum loading rate is 2,500 bbls.p.h.

Docking: Docking is performed by the River Pilot and is strictly port side to. 2 tugs are required for docking operations and a single tug for undocking. The general mooring arrangement calls for 2 head lines, 2 stern lines, 1 breast line forward, 2 breast lines aft, 2 forward spring lines and 2 after spring lines for a total of 11 mooring lines.

Gangway: The ship's gangway must be used and should be properly rigged and illuminated.

Bunkers and Fresh Water: No fuel or fresh water are available at the dock.

Ballast/Slop Facilities: There are no ballast or slop facilities at the terminal.

St. Rose: General: The International Matex Tank Terminal berths are located on the North side of the river, approximately 103 miles AHP. The terminal consists of two individual tanker berths (No. 1 and No. 5) and a barge dock.

No. 1 Dock, upstream of No. 5 Dock, consists of a small 'T' head dock with 5 mooring buoys to accommodate head, stern and breast lines. No. 5 Dock has a longer dock face which can accommodate all but the head and stern lines. Both docks are connected to shore by catwalks.

The velocity of the river current at both berths varies between 1 knot and 4 knots, depending on river conditions.

Cargo Handled and Shore Installations: No. 1 Dock handles mainly the receipt of crude oils and the shipment of Bunker-C, No. 2 fuel and naptha. The cargoes most frequently handled at No. 5 Dock are No. 6 fuel oil and No. 2 diesel oil.

No. 1 Dock is fitted with a set of 12 in. Chicksan arms. Cargo at No. 5 dock is transferred through a maximum of 3×8 in. hoses. Maximum discharge pressures are 100 p.s.i. at No. 1 Dock and 90 p.s.i. at No. 5 Dock.

Docking: Docking is performed by the River Pilot and is strictly starboard side to at both berths. All vessels are required to use at least 5 tugs for docking and undocking; 3 tugs are required when the river is above 15 ft. on the St. Rose gauge.

The general mooring arrangement at No. 1 Dock call for 4 head lines, 2 breast and 2 spring lines forward, 2 spring lines aft and 2 stern/breast lines. The lead for stern lines is poor. Wires may be used on all bollards and hooks except those on the loading platform. The terminal prefers polypropylene lines to wires for docking at No. 5 Dock. This dock requires 2 head lines, 2 stern lines, and one breast and one spring line both forward and aft.

Communications: Public telephones located on each dock and at the shoreside end of each catwalk are available for use by ship's personnel.

Gangway: The vessel's gangway must be used and should be properly rigged and illuminated.

Bunkers and Fresh Water: Fuel (Bunker-C, inter-fuel and diesel) and fresh water are available at each dock upon request.

Ballast/Slop Facilities: No ballast or slop facilities are available at either dock.

Marrero – Texaco: General: The Texaco Tanker Berth is located on the South side of the river some 86.5 miles AHP. The berth consists of a 'T' head dock with pontoons and mooring buoys alongside forming a 750 ft. berthing space.

Cargo Handled and Shore Installations: Various products are shipped and received by barge; the only product handled by tanker is bonded heavy fuel oil. This product is received through a single 10 in. hose at a maximum pressure of 100 p.s.i. on the dock.

Docking: Docking is normally performed by the River Pilot and is strictly port side to. Tugs are recommended, but are not compulsory, for docking and undocking operations.

Approach is made stemming the current and parallel to the dock. When no tugs are used for docking, the vessel's starboard anchor must be used to manoeuvre the vessel alongside.

Gangway: The ship's gangway must be used and should be properly rigged and illuminated.

Bunkers and Fresh Water: Fresh water is available upon request; fuel, however, cannot be obtained at this berth.

Ballast/Slop Facilities: There are no ballast or slop facilities at the terminal.

Marrero – Hess: General: The Hess Tanker Dock is a concrete structure with steel pilings and 320 ft. of dock face. Mooring dolphins provide a location for head, breast and stern lines.

Current at this dock varies from 2 knots to 4 knots, depending on river conditions.

The dock is located on the South or left descending bank of the river approximately 86 miles AHP.

Cargo Handled and Shore Installations: Crude oils, Bunker-C and heating oil are commonly handled at this berth. All cargo transfer is made through 8 in. or 10 in. Chicksan arms.

Maximum loading rate for crude oil is 25,000 bbls.p.h. and for other products approximately 6,000 bbls.p.h. Maximum rail pressure for discharging vessels is 100 p.s.i.

An emergency loading stop control is located near the dock manifold.

Docking: Docking is strictly port side to and performed by the River Pilot. Vessels under 35,000 d.w.t. are required to use 2 tugs for docking and undocking; vessels greater than 35,000 d.w.t. are required to use 3 tugs. During extremely high river stages all vessels are required to use 4 tugs for docking and undocking operations.

Berth mooring requirements specify that 4 head lines, 4 spring lines forward, 2 after spring lines, 2 after breast lines, and 4 stern lines be used by all vessels (a total of 16 mooring lines.)

Gangway: The ship's gangway, properly rigged and illuminated, must be used.

Bunkers and Fresh Water: Bunker-C, diesel oil, inter-fuel and fresh water are all available upon request.

Ballast/Slop Facilities: No ballast or slop facilities are available at the terminal.

DENSITY: Fresh water (1000).

FRESH WATER: Available ex-wharf.

FUEL: Only available by barge. Oil companies can supply Bunker "C" ex-terminals at Amesville and Marrero. Chemoil can also supply fuel.

GANGWAY/DECK WATCHMEN: Recommended if any crew detained by Immigration.

CONSULS:

Argentina	523-2823	India (Honorary)	582-8000
Belgium	522-0298	Italy	524-2271
Bolivia	523-7488	Japan	529-2101
Brazil	588-9187	Korea (Honorary)	524-0757
Chile	523-4368	Liberia	524-1526
Colombia	525-5580	Mexico	522-3596
Costa Rica	525-5445	Monaco	522-5700
	and 288-5495	Netherlands	586-0666
Denmark	525-1018	Norway	522-3526
Dominican Republic	522-1843	Panama	525-3458
Ecuador	523-3229	Paraguay	522-7424
El Salvador	522-4266	Spain	525-4951
Finland	523-6451	Sri Lanka	891-9933
France	897-6381	Thailand	522-3656
	and 522-9767	United Kingdom	
Germany F.R.	524-0356	(Honorary)	524-4180
Greece	523-1167	Uruguay	525-8354
	or 529-5288	Venezuela	522-3284
Guatemala	525-0013		and 524-6700
	or 525-4364	Yugoslavia	288-6202
Honduras	522-3118		

REPAIRS: 7 berths available.

CUSTOMS ALLOWANCES: At the discretion of Customs Officers. Normal allowance is 200 cigarettes or 2 lb. tobacco and 1 litre wine or spirits per man. Additional allowances may be given if considered necessary, due to length of vessel's stay in port.

IDENTIFICATION CARDS: Standard U.S. Immigration Forms I-95 to be made up for each crew member on arrival. Not necessary for crew man already holding Form I-95, issued for the same vessel.

AIRPORT: New Orleans International Airport, served by most airlines.

TIME: Central Standard Time GMT minus 6 hrs. Daylight Saving Time from first Sunday in April till last Sunday in October.

HOLIDAYS: New Year's Day (1st January); Clarence Henry's Birthday (7th January); Martin L. King's Birthday (third Monday in January); Mardi Gras; Washington's Birthday (third Monday in February); Good Friday; Memorial Day (last Monday in May); Independence Day (4th July); Labour Day (first Monday in September; Veteran's Day (11th November); Thanksgiving (fourth Thursday in November); Christmas Day (25th December). No work on New Year's Day, Mardi Gras, Labour Day and Christmas Day. Mail, baggage and perishable cargo excepted.

Holidays are observed on following Monday, if designated day is a Sunday.

POLICE: Harbour Police Department has jurisdiction over harbour area. Tel: 528-3371 or 3372.

BANKS:

American Bank and Trust Co., International Branch – WTC Building, New Orleans, LA 70130. 504/569-0482.

Citizens and Southern Intl. Bank of New Orleans, WTC Building, New Orleans, LA 70130. 504/581-1586. Telex: 58-7409

First National Bank of Commerce, 210 Baronne Street, New Orleans, LA 70112. 504/561-1371.

Hibernia National Bank of New Orleans, P.O.Box 61540, New Orleans, LA 70161. 504/586-5555.

Whitney National Bank of New Orleans, 228 St. Charles Avenue, New Orleans, LA 70130. 504/586-7272.

SHORE LEAVE: Allowed for any crew member not detained by Immigration.

DEVELOPMENTS: Jourdan Road Terminal Complex comprising of a two berth facility with 290,000 sq.ft. of open space, 144,000 sq.ft. transit shed, complete with crane rails and marginal track, plus 440,000 sq.ft. marshalling area. Marshalling area adjoining the terminal complex consisting of 10 acres with an additional 34 acres of preload area to be developed as required.

Lower Mississippi River dredged to 45 ft.

SHIPMASTER'S REPORT: 1975.

Customs: Stores List. Curio List. 1 Crew List. Sealed High Duty Bond, Unchecked.

Immigration: Visaed Crew List. Seaman's Red I.D. Card or Passport along with American Crew Pass. Typed. Question asked by Officials "How long at sea?" I.D. Card handed back to seaman with American Pass stamped. Department very thorough and efficient.

No mail or money to be distributed until Immigration completed, also no persons permitted ashore or onboard until formalities completed except for Agents and Officials.

If no visaed crew list Master signs official form. Cost US$10.0 for whole ship's company.

Port Health: Radio Pratique not granted as Seaman's Cards not completed. No representative visited vessel. Report any death through Agents.

Agriculture Dept.: Inspected vessel. Galley, Messrooms, Store-rooms, etc. Meat and Vegetable rooms sealed.

Garbage bins to be covered (Collection expensive, retain on board until sail if possible).

Ratguards to be used.

Provisions and Stores: Select own supplier. Prices comparable U.K. with good quality expensive. Stores and Medicines ordered through providore.

Laundry: Satisfactory. Billed by weight. 24 hour service.

Watchmen: None placed on board but security police at section openings.

Telephone: None placed on board. Use office on quay side.

Water: Plenty available. Shore connections used.

Bunkers: Delivered by barge. Charged for what is ordered. Do not over stem. Barge hired from private firm. Any bunkers not taken paid for and revert to barge owners.

Walport Films: Exchanged.

Coast Guard: Require number of Oil Pollution Certificate (Certificate of Financial Responsibility). Whether AMVER participant. Require ship's particulars including horsepower. Displacement tonnage on sailing. Name of Master and Chief Officer. Dangerous cargo particulars and stowage.

National Cargo Bureau: Representative from National Cargo Bureau comes onboard and requests ship's particulars also ports of call to and from. Inspector looked at hatches where cargo to be loaded. He then issues a Certificate of Readiness. Loading can then commence.

Code of Federal Regulations: Each ship should have a copy. Difficult to come by. Acquired 1970 copy from Agents. Equivalent to our 'Blue Book'.

Repairs: Select own firm. Anxious to please. Unable to judge as little work contracted out.

Money: Delivered by separate security firm. Satisfactory.

Radio Messages: Send ETA at least 48 hours before arrival to Agents and Branch Pilots with draft. Notify Captain of the Port of any explosives for discharge or in transit. If all healthy and documentation correct ask for Radio Pratique. Confirm ETA at 24 and 10 hours. Inwards send ETA to Agents after passing Pilot Town. Agent will notify if Radio Pratique granted. Not necessary to fly "Q" flag going up river.

Stevedores: Hours of work 0800 to 1200 hrs., 1300 to 1700 hrs. Straight time. Weekday gangs will work until 1800 or 1900 hrs. to finish. Night: 1800 hrs. to midnight, 0100 to 0600 hrs. Head Stevedore checks Factory Act Book. Gangs will work continuously except for 3 hours in any 24 hours. 4 different Union Contracts. Plan maker makes own plan then airmails same to ports of discharge. Crew open hatches also close same. Crew not to do any cleaning.

General: Use S.W. Pass at all times. South Pass has only 18 ft. of water and shoaling all the time.

Pilot boards on lee side at Sea Buoy – Flash "A" (· –) from fast launch painted black. Ladder about 6 ft. from water level. Branch Pilot takes vessel to Pilot Town where River Pilot takes over. Ladder usually starboard side inward and port side outward 8 ft. above water. First come first served at sea buoy. About 1.5 to 2 hours from Sea Buoy to Pilot Town and about another 6 hours to berth. Proceed up river at harbour full speed. Reduce speed occasionally for long tows, dredgers and ships on loading berths.

River Pilot docks vessel.

Signals by day "H" flag. By night nothing.

Inland waterways rule of road applies.

We had clear daylight run up river and down at night. Mid December. Start of fog. Low fog experienced on water also some patches, fairly thick. If fog does develop it is worth remembering that once past Pilot Town Southbound, few if any places to anchor and one has to continue on.

Racon at entrance useful. Anchorages as per charts. When arriving contact Pilot on VHF Channels 9, 12, 13.

Berth: Satisfactory. 24/29 Market Street. Just past bridge. Quite a long walk to open section to get out of docks. Recommend at night get taxi back and if walking into town by day at least 2 persons.

Sufficient bollards. No cranes. Berth head up. Usually starboard side to.

Moorings. 4 headlines, 4 sternlines plus 2 springs each end. Passing traffic fairly heavy with considerable wash. Ratguards a requirement.

Ship's gangway. Quay about 25 ft. above water level. Wooden pile fenders very effective.

Tugs: Used for berthing and unberthing. 1 only alongside port forward shoulder. 2 tug's lines. When making fast tug passes portable Walkie Talkie on board to send up to Pilot on bridge. Pilot left by tug which used own ladder.

Radar: Satisfactory repairs carried out.

SHIPMASTER'S REPORT: 1979.

South West Passage:

Pilotage: Pilots prefer accommodation ladder together with pilot ladder but will sometimes use pilot hoists, on larger vessels.

Restrictions: For 100,000 d.w.t. vessel max. draft for S.W. passage is 35 ft., (fresh water) to sail out at any time.

SHIPMASTER'S REPORT: 1979.

Mississippi Lightening Area:

Port Limits: Centred at Lat. 28° 00′ N., Long. 89° 30′ W. and within 15 nautical miles radius.

Documents: Officials take photostat copies of Bill of Lading and give receipt for cargo, and take one copy of Notice of Readiness.

Pilotage: They are equipped with Loran "C".

Anchorages: Very deep. Vessel drifted 7 nautical miles N.N.E. in 11 hours (February) with wind N.E. – 3. Checked with satellite navigator.

Health: No formalities.

Radio: Initial contact on W/T via "WLO" Mobile then by R/T 12427.5 kHz A3J. When close enough Channel 16 VHF; then Channel 11 for all operations. If vessel fitted with bridge wing VHF extension then best to give all engine room orders over Channel 11 so that lightening vessel can also hear.

Berthing: As per OCIMF/ICS SSTG (P). Require 2 headlines and 1 stern line from STBL after putting aboard their lines which are all polypropylene except springs which are wires with nylon tails. Steamed at about 3.5 knots. They throw across heaving lines and carry all necessary equipment. Do not require derrick, they have gangway and 4 'Yokohama' fenders.

Tankers: STBL can load at up to 10,000 t.p.h. They prefer to use 2 centre manifolds with reducers down to 16 in.

Identification Cards: Required.

DISTANCE TABLE No. 1: (Supplied by New Orleans/Baton Rouge Steamship Pilots' Association).

Location	*Nautical Miles*
South Pass – to Above Head of Pass	13.9
South West Pass – to Above Head of Pass	20.0
Pilot Town	0
Point Anchorage – N.O.	78.8
Avondale – Int. Tank	94.2
Ama Elevator & Anchorage	102.2
St. Rose – Int. Tank	103.1
Destrehan – Bunge – St. Charles	104.3
Good Hope – G.A.T.X.	109.8
Norco – Shell	110.2
Union Carbide – Taft	111.1
Bonne Carre Anchorage	111.2
Hooker, Becker – Taft	112.0
La Place – Anchorage	117.0
Reserve – Anchorage	119.1
Godcheaux Sugar – Reserve	120.0
Bayside Elevator – Reserve	120.6
Cargill Elevator – Reserve	121.1
Marathon – Ecole	121.8
Kaiser – Gramercy	126.1
Colonial – Gramercy	127.0
Grandview Anchorage	127.7
Peavy Elevator – Pauline	130.5
Pauline Mooring	130.7
Capline – St. James	138.0
Freeport – Convent	139.4
Burnside Anchorage	144.5
Agrico – Burnside	145.1
Texaco – Burnside	145.9
Ormet – Terminal Burnside	147.5
Getco – Burnside	149.5
Triad – Donaldsonville	150.7
Central Farmers – Donaldsonville	150.9
Mile – 175 – Mooring	151.3
Mile – 180 – Mooring	156.4
Shell – Geismar	159.4
Wyondotte – Geismar	159.8
Allied – Geismar	162.3
Cos-Mar – Marbon Geismar	163.3
Stauffer Chem – St. Gabriel	173.6
Gulf States Util. St. Gabriel	175.2
Nordex	177.1
Hercules – Plaquemine	178.0
Georgia Pacific – Plaquemine	178.5
Dow – Plaquemine	182.4
Dow – Missouri-Bend	192.7
General Anchorage B.R.	196.6
Cargill Elevator – B.R.	198.9
General Cargo – 1 B.R.	199.1
Apex (Gen-Cargo 2) B.R.	199.4
Exxon – Baton Rouge	201.8
Solvey – Baton Rouge	202.5
Kaiser – Baton Rouge	203.1

DISTANCE TABLE No. 2: (Supplied by Port of New Orleans)

Distance Table Mississippi River
Gulf to Upper Boundary of the Port of New Orleans

PLAQUEMINES PORT, HARBOUR AND TERMINAL DISTRICT

(R) West Bank Terminal/Wharf	*Mile Number*	*(L) East Bank Terminal/Wharf*
	BHP = Below Head of Pass	
Shell Oil Company (South Pass) BHP	11.4	
California Co. (Southwest Pass) BHP	4.8	
	7.2	Shell Oil Co. (Southwest Pass) BHP
	8.6	Shell Oil Co. (Southwest Pass) BHP
	8.8	Gulf Oil Co. (Southwest Pass BHP
	8.9	California Co. (Southwest Pass) BHP
California Co. (Southwest Pass) BHP	8.9	
	9.0	California Co. (Southwest Pass) BHP
Shell Oil Co. BHP	16.1	
	2.3	Texas Pipe Line Co.
U.S. Engineers	10.6	
Texaco Inc.	10.9	
Tidewater Oil Co.	11.6	
Getty Oil Co.	11.9	
	16.5	California Co.
Chevron Oil Co.	16.8	
Texaco Co.	18.6	
Gulf Refining Co.	24.6	
Exxon Co.	25.1	
	25.7	Gulf Refining Co.
	26.6	Cal-Ky Pipe Line Co.
	35.1	Richardson and Bass
John W. Mecom	38.8	
Freeport Sulphur Co.	39.0	
	40.4	Exxon Co.
Exxon Co.	41.2	
Jefferson Lake Sulphur	49.0	
Rock Island Oil	49.3	S. W. Richardson
	51.7	Texas Pipe Line Co.
Gulf Refining Co.	54.3	
	55.3	Electro Coal Transfer Corp.
International Marine Terminals	57.0	
Mississippi River Grain Elevator	61.5	
Gulf Oil Co.	62.0	
Gulf Oil Co.	63.0	
Chevron Chemical Co.	72.3	
Jayred Oil & Gas Co.	72.8	
Ayers Materials Co.	73.0	
Red Star Yeast & Products Co.	76.0	
	76.3	Amax Nickel Refining Co.
	76.6	Freeport Nickel Co.

BOARD OF COMMISSIONER PORT OF NEW ORLEANS
DISTANCES FROM HEAD OF PASSES

(Add 20 miles via S.W. Pass for distance to Gulf of Mexico)

	86.9	Murphy Oil Co.
	87.8	Mobil Oil Corp.
	88.2	Tenneco Oil Co.
	88.5	Exxon Co.
	88.6	Tenneco Oil Co.
	89.3	Kaiser Aluminium
	91.6	St. Maurice St. Wharf
	91.7	Alabo St. Wharf
	91.9	Charbonnet St. Wharf
Avondale Shipyards	92.0	Andry St. Wharf
Avondale Shipyards	92.6	Industrial Canal Entrance
U.S. Navy	92.7	New Orleans Army Terminal
U.S. Navy	92.9	Poland St. Wharf
U.S. Navy	92.9	Pauline St. Wharf
U.S. Navy	93.0	
U.S. Navy	93.1	
U.S. Navy	93.2	
	93.3	Piety St. Wharf
	93.4	Louisa St. Wharf
	93.7	Press St. Wharf
Crescent Towing Co.	93.8	Mandeville St. Wharf
Bermuda St. Wharf	93.9	Esplanade Ave. Wharf
	94.0	Gov. Nicholls St. Wharf
	94.3	Toulouse St. Wharf
	94.6	Bienville St. Wharf
Algiers Iron Works	94.8	Canal St. Wharf
	95.0	Poydras St. Wharf
Eastern Associated Terminal	95.3	Julia St. Wharf
	95.4	Erato St. Wharf
	95.6	Thalia St. Wharf
Perry St. Wharf	95.9	Robin St. Wharf
	96.1	Orange St. Wharf
	96.3	Market St. Wharf
	96.5	Celeste St. Wharf
Williams Mollasses Co.	96.6	
	96.8	St. Andrew St. Wharf
Gulf Oil Co.	97.2	First St. Wharf
	97.3	Third St. Wharf
	97.4	Washington Ave. Wharf
	97.6	Seventh St. Wharf
Witco Chemical Co.	97.7	
Publicker Chemical Co.	97.8	Harmony St. Wharf
Sonneborn Chemical Co.	98.0	
Swift & Co.	98.2	Louisiana Ave. Wharf "F"
Delta Commodities	98.4	Louisiana Ave. Wharf "E"
	98.5	Louisiana Ave. Wharf "D"
Penick & Ford Ltd.	98.6	Louisiana Ave. Wharf "C"
Commercial Solvents	98.8	Louisiana Ave. Wharves "A – B"
Texaco Inc.	99.0	Milan St. Wharf
Hess Terminal Corp.	99.1	Napoleon Ave. Wharf "C"
	99.2	Napoleon Ave. Wharf "B"
Clark Oil Corp.	99.7	Napoleon Ave. Wharf "A"
	99.9	Public Grain Elevator
Johns-Manville Corp.	100.3	Public Grain Elevator
Valley Lines Fleeting	100.4	Public Grain Elevator
Lykes Seebee Fleeting	100.4	Nashville Ave. Wharf
Celotex Corp.	100.5	Henry Clay Ave. Wharf
Pacific Molasses Co.	100.9	
U.S. Industrial Chemicals	101.0	
Publicker Chemical Co.	101.0	
Gulf States Asphalt Co.	101.3	
National Gypsum Co.	101.5	
Publicker Chemical Co.	102.0	
	102.1	U.S. Industrial Chemicals Co.
Ayers Materials Co.	102.2	
Atlantic Richfield	102.3	
Continental Grain	103.5	
	103.7	International Lubricant
	103.8	American Creosote Works
	104.0	Bertucci Bros. Construction
Koch-Ellis Marine Contractors	105.0	
	106.0	W. P. Villere Co.
Exxon Co.	108.2	
American Liberty Tank Terminal	108.2	
Permain Corp.	108.2	
American Cyanamid Co.	114.4	Exxon Co.
	115.0	Humble Pipe Line Co.

AUTHORITY: Board of Commissioners, Port of New Orleans, P.O.Box 60046, New Orleans, Louisiana 70160, U.S.A. *Tel:* (504) 522-2551. *Telex:* 58-7496. *FAX:* (504) 524-4156. *Contact:* Mark Reynolds, Port Marketing & Sales. Kenneth Parker, Marine Terminals.

AGENT: ~~Norton Lilly International, Inc., Saratoga Building, 212 Loyola Avenue, Suite 300, New Orleans, La. 70112. Tel: (504) 581-6215. Telex: 6822011.~~

RICE UNRUH.

NEW YORK, New York and New Jersey:
40.43 N. 74.00 W. (See Plan)

DOCUMENTS:

3 copies Cargo Manifest (Form 1302), the original showing all cargo on board, and 2 copies showing only cargo for this port.
2 copies Crew Manifest (Curio List).
2 copies Stores List.
2 copies Passenger List (Form I – 418).
2 copies Crew List (Form I – 418).

Customs Boarding Officer will also examine Ship's Register and Load Line Certificate.

In addition the following documents will be required for formal entry, to be made within 48 hours of arrival from abroad:

Health Pratique.
Master's Oath (Form 1300).
All Foreign Clearances.
U.S. Certificates of payment of Tonnage Tax (Customs Form 1002).
Certified Crew List.

Vessel's certificates may be inspected by a Coast Guard Boarding Officer during the vessel's Port call. Some of the certificates that may be required by the Coast Guard Boarding Officer include:

Certificate of Financial Responsibility (Mandatory).
National Cargo Bureau Certificate (Optional).
Load Line Certificate (Mandatory).
Oil Record Book (Mandatory).
International Oil Pollution Prevention Certificate (IOPP Mandatory).
SOLAS Safety Equipment Certificate (Mandatory).
SOLAS Safety Construction Certificate (Mandatory).
Radiotelephone Certificate (Optional).
Radiotelegraphy Certificate (Mandatory).
Vessel's Deck Log (Mandatory).

Note: The vessel's navigational charts are also subject to Coast Guard inspection. Mariners should have onboard and corrected up to date, the largest scale (greatest detail) charts for the intended route of transit through the port. Certain foreign charts have been approved for use. Contact Captain of the Port, New York for details.

Shipmaster's Report: March 1987.

3 copies of all necessary documents. All are given to Agent, who distributes them to Immigration, Customs, etc.

For all U.S. ports, the name of vessel's operator must be the same on Form 1300 as that shown on the U.S.C.G. Certificate of Financial Responsibility (Water Pollution).

For tankers, the cargo figures shown on Form 1302 should be in gallons and barrels.

PILOTAGE: Compulsory for foreign flag ships, and U.S. ships bound to and from foreign ports.

24 hours notice of ETA required. Pilot boat should be contacted on VHF Channel 16, call "Ambrose Pilot", pilot vessel also on Channels 13, 8 and 18A or ship-to-ship Channel 2638 or 2738. Vessels requiring Pilot should hoist signal letter "G" in daytime. In foggy weather the letter "X" should be sounded on whistle.

Pilot boat is generally found about 1.5 miles West of Ambrose Light Tower. In bad weather Pilot tries to stay windward of normal pilot station.

In poor visibility an inbound ship should make Ambrose Tower and then proceed at slow speed to the Ambrose Channel Sea Buoy while blowing the letter "X" on her whistle. If no Pilot is obtained by the time she is in the vicinity of the sea buoy she should then anchor about 0.5 mile to 1 mile North of the line from Ambrose Tower to the sea buoy and await Pilot.

ANCHORAGES: For ships entering from Sandy Hook there are anchorages in Lower New York Bay, Gravesend Bay, Raritan Bay, and Arthur Kill off Perth Amboy. In the Upper Bay, anchorages available off Bay Ridge for 30 days, off Jersey City for 72 hours, and off Stapleton for 48 hours. For vessels entering via Long Island Sound there are anchorages in the Western end of the Sound and in the East River.

Vessels must notify the Captain of the Port when it anchors, of the vessel's name, length and draft and its position in the anchorage.

Regulations for anchorages may be found in the 33 Code of Federal Regulations, Part 110.155.

Vessels entering New York Harbour are required to have 2 working anchors, by U.S.C.G. regulations.

Also see "Approaches".

APPROACHES: Ambrose Channel, 2,000 ft. wide, is the principal entrance from the Sea to the Lower Bay and onward to The Narrows between Staten Island and Brooklyn, which is 15 miles from Ambrose Tower. The project depth of this channel is 45 ft. MLW. Vessels proceeding up Sandy Hook Channel are limited by a project depth of 35 ft. MLW and an 800 ft. wide channel.

Vessels arriving at the Port of New York normally utilise General Anchorages No. 23 and No. 24 which are North of the Verrazano Bridge and adjacent to the Stapleton Quarantine Station or Anchorage No. 21 off Bay Ridge. However, at times it may be necessary to direct inbound tonnage to the Gravesend Anchorage, No. 25, South of the Verrazano Bridge. Occasionally, due to congested conditions at the above locations, vessels may be directed to anchor at the newly established anchorage adjacent and N.W. of Ambrose Tower. Vessels instructed to use the anchorage off Ambrose Tower must pick up a Pilot for proper selection of an anchorage location.

For limits of anchorages generally used in the Port of New York see "Plan". Use of Charts 12349 and 12334 is strongly recommended.

Specific operating and safety procedures have been agreed upon with the Pilot's Association, as follows:

1. Flood Tide Procedure:

Vessels with an LOA in excess of 800 ft. or a draft of more than 40 ft. (salt water) will not be brought in from sea to the General Anchorages off Stapleton, Staten Island (Southern part of No. 23 and entire area of No. 24) on the flood tide. This will avoid the need to turn around in order to anchor at a location which may be congested with traffic and ships at anchor.

2. Transit Restrictions:

Ambrose Channel: Guideline for starting in from Ambrose Tower during normal weather conditions. (Suggested max. draft 45 ft.).

Vessels with drafts of 45 ft. (44 ft. 6 in. – 45 ft.). 30 minutes after HW, Sandy Hook.

Vessels with draft of 44 ft. 6 in. (43 ft. 6 in. – 44 ft. 6 in.). From 30 minutes after HW, Sandy Hook to 1 hour and 30 minutes after HW, Sandy Hook.

Vessels with drafts of 43 ft. 6 in. (42 ft. 6 in. – 43 ft. 6 in.). From 30 minutes after HW, Sandy Hook to 2 hours and 30 minutes after HW, Sandy Hook.

Vessels with drafts of 42 ft. 6 in. (41 ft. 6 in. – 42 ft. 6 in.). From 30 minutes after HW, Sandy Hook to 3 hours and 30 minutes after HW, Sandy Hook.

Vessels with drafts of 41 ft. 6 in. (40 ft. – 41 ft. 6 in.). From 30 minutes after HW, Sandy Hook to 5 hours after HW, Sandy Hook.

The procedures outlined above are guidelines only. Weather conditions, tides, currents and ship capabilities should, of course, be taken into consideration.

3. Anchoring Procedures:

The Pilot Association has notified the Pilots to stay aboard all arriving ships at anchorage until the following procedures are carried out:

(a) The anchor chain is to be brought up and ship is to be stationary.
(b) The Pilot will point out landmarks so proper bearings may be obtained and plotted on the charts.
(c) Pilots will inform the Master of conditions that he may encounter at the anchorage.
(d) The Master will be briefed on currents and time of tide change.
(e) All Pilots must record the ship's bearings on the back of their Pilot Orders.

In order to assist the attending Pilot, the Master should inform him on boarding of any special characteristics of his vessel, such as port manoeuvring speeds, turning circle, compass error and exact draft.

4. Anchor Watch:

Due to usually congested anchorages, strong tidal current, occasional fresh winds and traffic, all Masters are cautioned to maintain a continuous bridge anchor watch by a deck officer with engine on standby. Anchor bearings should be taken frequently and plotted to ensure proper anchor holding. During change of tides, the anchor windlass should be in readiness with a deck officer standing by.

If an anchorage becomes dangerously congested after a ship has been anchored, the ship's Master may request Agent to (a) send a Pilot to relocate vessel to a safer anchorage, or (b) send a tug to assist vessel in turning during a change in tide, or to stand by during fresh wind conditions.

RESTRICTIONS: Ambrose Channel, 10 miles long, maintained to a width of 2,000 ft. and a depth of 45 ft. MLW. The Northern approach to the harbour is through Long Island Sound into the East River. Main channels in the port are maintained to a depth of 45 ft. MLW.

MAX. SIZE: Restricted only by berth depth and location.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to New York Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

VHF: All vessels over 100 tons gross are required to keep continuous watch on VHF Channel 13 when in areas where U.S. Inland Water Regulations apply.

V.T.S. in operation. Channels used are 16, 13, 11, 12 and 14. (Scheduled to close by July 1988).

TUGS: Over 50 private towing and transportation companies registered in the port.

BERTHING:

Brooklyn: 8 berths at South Brooklyn Marine Terminal, including 2 container berths; 4 berths at 23rd Street Pier; 7 berths at Red Hook Marine Terminal.

Hudson River: Passenger Ship Terminal on Manhattan Shore between 48th and 52nd Streets provides 6 ship berths.

Hoboken Port Authority Marine Terminal: 2 piers, 4 general cargo berths.

Jersey City: 2 berth container facility at Port Jersey (Global Terminal) with 5 gantry cranes.

Newark, N.J.: Port Newark (22 general cargo, 5 specialised, and 4 container berths). Depth range alongside 30 ft. – 34 ft. Berth Nos. 10 and 12 handle coal with 3 floating cranes, rate 10,000 tonnes per day.

Elizabeth, N.J.: Elizabeth Port Authority Marine Terminal, 22 full container berths, channel depth 35 ft.

Department of Ports, International Trade and Commerce: The Department of Ports, International Trade and Commerce (PITC) of the City of New York is responsible for maintaining, leasing, and developing City-owned waterfront property. One of the principal maritime agencies in the nation's busiest port, the Department is actively involved in harbour affairs. As part of its commitment to the economic vitality of the Port, the Department plays a leading role in pressing for streamlined dredging operations, improved transportation connections, expansion of marine terminals, and the development of international trade and investment opportunities.

Terminals: The Department is the sole lessor for five major cargo facilities in the port. Additionally, PITC is a participant in a joint venture operation on the Brooklyn waterfront.

Howland Hook Container Terminal – Staten Island:

Operator: Vacant.

Shipping Line: —

Situated on 187 acres in N.W. Staten Island, this facility offers 2,500 f of berthing space with a depth of 35 ft. 4×40 long-ton and 1×50 long ton capacity container cranes on rail tracks move the entire length o the wharf so that vessels may be worked simultaneously by an combination of cranes. Special features include 360 reefer outlets 22,000 sq.ft. of refrigerated warehouse space, plus 21,000 sq.ft. o hazardous cargo storage area. Shedded space of 280,000 sq.ft. i exclusively devoted to LCL shipments. The terminal handled 2,200,00 long-tons of cargo in 1986.

A Chessie System rail turnout directly links Howland Hook with Conra track at Staten Island Junction in New Jersey. The terminal's locatio offers excellent access to the New Jersey Turnpike and Metropolita New York.

South Brooklyn Marine Terminal:

Operator: Vacant.

Shipping Lines: —

Located directly off the Buttermilk Channel, this multi-purpose termina can service as many as 9 vessels – container, LASH, Ro/Ro an breakbulk – simultaneously. Special features on this 110 acre sit include a 90 ft., 75 ton capacity Ro/Ro ramp and 137 outlets fo refrigerated containers. The terminal has a 70 short-ton, 2×50 long-to capacity container cranes and a 140 long-ton P&H mobile crane Also available is 705,000 sq.ft. of shedded space.

The Terminal is adjacent to the New York Cross Harbor Railway, a intermodal rail yard, providing carfloat/bridge and overland servic connecting the terminal and Bayridge rail line with Oak Point Yard i the Bronx to points throughout the U.S., Canada and Mexico Connections via Interstate 278 provide direct access to the region major truck routes and airports.

The City of New York and the State of New York have near $40 million in capital funds available for terminal improvements when new terminal operator is selected.

Red Hook Container Terminal – Brooklyn:

Operator: Universal Maritime Service Corporation.

Shipping Lines: Elma-Empresa Lineas Maritimas-Argentinas-Elma, A Bottacchi S.A. de Navegacion, America Africa Europe Line, Fro Amazonica, Chilean Line, D. B. Turkish, Egyptian National Line Grancolombiana, Torm Lines, Venezuelan Line, Ivaran Lines, Hoeg Lines, Holland Pan-American Line, Jugolinija, P.T. Djakarta Lloyd Waterman.

The newest cargo terminal in the harbour, Red Hook, is a joint ventur between the City of New York, New York State and the Port Authorit of New York and New Jersey. Situated on the 40 ft. deep Buttermil Channel, this 79 acre facility offers 6,700 ft. of berthing space service by 4×40 long-ton capacity container cranes, 660 ft. of Ro/Ro berthin space. Water depth alongside the container berth is 40 ft. (MLW) an 35 ft. (MLW) by the Ro/Ro and breakbulk berths. Approximately 350,00 sq.ft. of cargo consolidation and breakbulk handling space is availab at dockside. A computerised inventory control system provide maximum efficiency and security.

Red Hook's convenient location saves 3 hours sailing time over mos New Jersey terminals and saves in tugboat costs. Direct rail access t the New York Dock floatbridge is available, allowing for direct deliver of boxcars and flatcars. Connections via Interstate 278 provide direc access to the region's major truck routes.

Pier 36 Terminal – Manhattan:

Operator: Vacant.

Situated on 10 acres off the East River, Pier 36 is the sole marin terminal in Manhattan capable of handling breakbulk, Ro/Ro an containerised cargo. In 1986, 82,000 long-tons were handled. The facili offers 1,300 ft. of berthing space with a dockside depth of 32 ft. an 175,000 sq.ft. of covered transit shed space. Its location offers direc access to the lucrative Manhattan market, as well as convenient acces to major truck routes in the Metropolitan area.

Pier 42 Terminal – Manhattan:

Operator: Vacant.

Shipping Lines: —

More recently used for handling imported bananas, pineapples an coconuts, Pier 42 is located on the East side of Lower Manhatta 4 specialised gantry cranes and a highly mechanised operation enab this terminal to move 150,000 boxes of fruit per day. The facility handle 200,000 long-tons of fruit over the course of calendar year 1986. Th terminal contains over 120,000 sq.ft. of warehouse space including a air-conditioned storage area. Water depth at dockside is 32 ft. 48 truc loading bays ensure that goods move quickly from dockside to the roa

CONTAINER FACILITIES: *Atlantic Container Line Terminal/Elizabet*

Location: South side of Elizabeth Channel (Berths 68, 70, 72, 7 and 76).

Owner or Lessee: The Port Authority of NY and NJ.

Terminal Operator: Atlantic Container Line.

Address and Telephone: 2170 North Fleet Street, Elizabeth, N 07201. Tel: (201) 289-3000 or (800) 526-6802.

Total Area of Terminal: 102 acres.

Length of Ship Berths: Berths 68 to 74: 2,825 ft. Berth 76: 750 ft.

Container Cranes: 3×30 tons (Paceco).

Equipment: 5 Clark straddle carriers (31.5 tons.) 15 Ottawa hustle (25-ton capacity). 13 Ottawa hustlers (35-ton capacity). 1 Ottawa hustle (125-ton capacity). 1 P & H truck crane with 70 ft. boom (90-to capacity). 2 Hyster cranes (5-ton capcity). 41 Hyster trucks (capacitie ranging from 2.5 tons to 23 tons). 1 Kalmar truck (25-ton capacity).

Stuffing and Stripping Facilities: 145,880 sq.ft. 88 truck bays. Serve by rail siding.

Ro/Ro Accommodations: 2 ramps×60 tons.

Rail Service: Conrail.

Global Marine Terminal/Jersey City: Location: West shore of Upper New York Bay at the Jersey City-Bayonne boundary (part of the Port Jersey industrial complex).

Owner or Lessee: Global Terminal and Container Services, Inc.

Terminal Operator: Global Terminal and Container Services, Inc.

Address and Telephone: P.O.Box 273, Jersey City, NJ 07303. Tel: (201) 451-5200 or (212) 344-7020.

Total Area of Terminal: 100 acres.

Length of Ship Berth: 1,800 ft.

Container Cranes: 3 Star×40 tons. 1 Krupp×40 tons.

Toploader: 1 Taylor×30 tons.

Sideloader: 1 Taylor×8 tons.

Mobile Yard Gantry Cranes: 3 Drott×30 tons. 2 Krupp×40 tons EP.

Fork Lift Trucks: 1×26 tons, 1×30 tons, 2×15 tons.

Stuffing and Stripping Facilities: 140,000 sq.ft. 150 truck bays. Served by rail siding.

Rail Service: Conrail and Port Jersey R.R.

Chassis Vertical Stacking: 18 racks with a total capacity of 324 chassis stored vertically.

Howland Hook Terminal/Staten Island: Location: Staten Island on the Arthur Kill just North of Goethals Bridge.

Owner or Lessee: The Port Authority of NY & NJ.

Terminal Operator: Howland Hook Marine Terminal Corp.

Address and Telephone: 300 Western Avenue, Staten Island NY 10303. Tel: (718) 448-8900.

Total Area of Terminal: 187 acres.

Length of Ship Berth: 2,500 ft.

Container Cranes: 4 IHI×40 tons, 1 Peiner×50 tons with rotating spreader, 2 Paceco×50 tons (2 on order).

Fork Lift Trucks: 19×10 tons to 50 tons.

Stuffing and Stripping Facilities: 208,000 sq.ft., 150 truck bays, 22,000 sq.ft. refrigerated warehouse plus MID defrost and inspection facility, 21,000 sq.ft. Special cargo warehouse.

Equipment: 4 heavy fork lifts (11.5 tons to 30 tons), 4 top loaders×50 tons, 3 top loaders×35 tons, 1 top loader×30 tons, 48 yard tractors, 79 hilos×2.5 tons.

Rail Service: Delaware Otsego Corp. (SIRC).

Maher Terminal/Fleet Street, Elizabeth: Location: South side of Elizabeth Channel (Berths 62, 64 and 66).

Owner or Lessee: The Port Authority of NY and NJ.

Terminal Operator: Maher Terminals, Inc.

Address and Telephone: 202 North Fleet Street, Elizabeth, NJ 07201. Tel: (201) 527-8200 or (212) 962-6322.

Total Area of Terminal: 94 acres.

Length of Ship Berth: 2,000 ft.

Container Cranes: 2 Star×40 tons, 2 Star×30 tons.

Equipment: 20 straddle carriers, 30 yard hustlers, 14 fork lifts×15 tons, 15 fork lifts×4 tons, 30 fork lift×2.5 tons.

Stuffing and Stripping Facilities: 155,000 sq.ft. 120 truck bays. Served by rail siding.

Rail Service: Conrail.

Maher Terminal/Tripoli Street, Elizabeth: Location: Newark Bay (Berths 78, 80, 82, 84 and 86).

Owner or Lessee: The Port Authority of NY and NJ.

Terminal Operator: Maher Terminals, Inc.

Address and Telephone: 4010 Izmir Street, Elizabeth, NJ 07201. Tel: (201) 527-8400.

Total Area of Terminal: 243 acres.

Length of Ship Berth: 3,150 ft.

Container Cranes: 3 Paceco×40 tons (low profile), 1 Canron×30 tons, 3 Morris×30 tons.

Equipment: 80 yard hustlers, 12 stackers (15-ton capacity), 7 top-loaders×40 tons, 40 fork lifts×2.5 tons, 60 fork lifts×4 tons, 4 transtainers.

Stuffing and Stripping Facilities: 371,000 sq.ft., 238 truck bays. Served by rail siding.

Rail Service: Conrail.

Maersk Line Terminal/Port Newark: Location: North side of Elizabeth Channel (Berth 51).

Owner or Lessee: The Port Authority of NY and NJ.

Terminal Operator: Maersk Container Service Co., Inc.

Address and Telephone: 231 Tyler Street, Port Newark, NJ 07114. Tel: (201) 465-1000.

Total Area of Terminal: 61.8 acres.

Length of Ship Berth: 764 ft.

Container Cranes: 2 Paceco×30 tons.

Equipment: 1 top loader×50 tons, 1 top loader×35 tons, 1 top loader×13 tons, 1 stacker×15 tons, 70 hilos×5 tons to 7 tons.

Stuffing and Stripping Facilities: 198,000 sq.ft., 154 truck bays. Served by rail siding.

Rail Service: Conrail.

Navieras de Puerto Rico Terminal/Elizabeth: Location: South side of Elizabeth Channel (Berths 52, 54, 56, 58 and 60).

Owner or Lessee: The Port Authority of NY and NJ.

Terminal Operator: Puerto Rico Marine Management, Inc.

Address and Telephone: P.O.Box 1910, Elizabeth, NJ 07207. Tel: (201) 352-2700 or (212) 775-7330.

Total Area of Terminal: 97 acres.

Length of Ship Berth: 2,875 ft.

Container Cranes: 3 Paceco×30 tons.

Stuffing and Stripping Facilities: 116,700 sq.ft., 163 truck bays. Served by rail sidings.

Ro/Ro Accommodations: 3 ramps for side port operations.

Rail Service: Conrail.

Red Hook Container Terminal/Brooklyn: Location: Brooklyn Waterfront, near entrance to Brooklyn-Battery Tunnel.

Owner or Lessee: The Port Authority of NY and NJ.

Terminal Operator: Universal Maritime Service Corp.

Address and Telephone: Building 115, foot of Hamitlon Avenue, Red Hook, Brooklyn, NY 11231. Tel: (212) 875-0777.

Total Area of Terminal: 79 acres.

Length of Ship Berth: 3,030 ft.

Container Cranes: 3 Paceco×40 tons.

Equipment: 11 top handlers, 2 fork lifts×26 tons, 5 fork lifts×15 tons, 33 yard hustlers, 16 flatbed trailer, 125 hilos×3 tons.

Stuffing and Stripping Facilities: Break-bulk consolidation shed, 200,000 sq.ft., 80 truck bays.

Ro/Ro Accommodations: 660 ft. berth.

Rail Service: New York Dock Railway.

Sea-Land Terminal/Elizabeth: Location: Newark Bay (Berths 88, 90, 92, 94, 96 and 98).

Owner or Lessee: The Port Authority of NY and NJ.

Terminal Operator: Sea-Land Service, Inc.

Address and Telephone: P.O.Box 1050, Elizabeth, NJ 07207. Tel: (201) 558-6000.

Total Area of Terminal: 232 acres.

Length of Ship Berth: 4,519 ft.

Container Cranes: 6 Paceco×40 tons.

Equipment: 3 top loaders×30 ton capacity, 45 fork lifts×2.5 tons to 12.5 ton capacity, 60 yard hustlers.

Stuffing and Stripping Facilities: 306,000 sq.ft., 328 truck bays. Served by rail siding.

Rail Service: Conrail.

South Brooklyn Marine Terminal/Brooklyn: Location: Brooklyn shore of Upper New York Bay.

Owner or Lessee: The City of New York.

Terminal Operator: International Terminal Operating Co. Inc.

Address and Telephone: Foot of 39th Street, Brooklyn, NY 11232. Tel: (718) 499-3900.

Length of Ship Berths: 1,535 ft. container berth plus 7 general cargo berths.

Container Cranes: 1 Star×50 tons, 1 Star×70 tons, 1 Kone×50 tons

Equipment: 9 Valmet straddle carriers, 6 Clark straddle carriers, 10 Ro-Ro yard Tractors, 8 stackers, 65 fork lift trucks (varying capacity).

Stuffing and Stripping Facilities: 705,050 sq.ft., 4 separate LTL sheds 446,000 sq.ft. CFS and general cargo sheds.

Roll-On/Roll-Off Accommodations: 2

Rail Service: New York Cross Harbour Railroad Terminal Corp.

Universal Terminal/Port Newark: Location: North side of Elizabeth Channel (Berths 53, 55, 57 and 59).

Owner or Lessee: The Port Authority of NY and NJ.

Terminal Operator: Universal Maritime Service Corp.

Address and Telephone: 221 Starboard St., Port Newark, NJ 07114. Tel: (201) 589-6200.

Total Area of Terminal: 85 acres.

Length of Ship Berth: 3,058 ft.

Container Cranes: 3 Paceco×40 tons.

Equipment: 11 top handlers, (42-ton capacity), 2 fork lifts, (26 tons), 5 fork lifts (15 tons), 33 yard hustlers, 16 flatbed trailers, 25 hilos (3 tons).

Stuffing and Stripping Facilities: Break-bulk shed 400,000 sq.ft. Served by rail sidings.

Rail Service: Conrail.

Also see "Berthing".

CRANES: Mobile floating cranes with capacity up to 500 tons available.

STEVEDORES: 13 stevedoring firms are active in the port, many of whom are also terminal operators. Normal working hours 0800 – 1700 hrs. Bulk Cargo work usually continues through 24 hours.

TANKERS: There is a history of repeated breakouts in the New York area due to sudden wind gusts of up to 60 knots, particularly associated with squalls. Moorings should, therefore, be kept tight and winch brakes tightened up after moorings have been adjusted.

Brooklyn: Paragon Oil Terminal, 2 berths, depth 37 ft.; Patchoque Oil Terminal, 2 berths, depth 29 ft. and 35 ft.; Whale Oil Terminal, 1 berth, depth 36 ft.

Hudson River: Tappan Oil Co., 1 berth, 35 ft. depth.

Bayonne, New Jersey: Public Oil Terminal, 3 berths, 32 ft. depth; Humble Oil Terminal, Constable Hook, up to 38 ft. depth; Belcher Oil Co., 3 tanker berths up to 38 ft. depth; Texas Oil Co., 4 tanker berths, up to 32 ft. depth; Texaco, 4 berths up to 32 ft. depth. Constable Terminal: 1 berth for handling caustic soda, chemicals, vegetable oil and molasses. 27 tanks (9 million gallons). Max. draft 31 ft. MLW.

Kill Van Kull: Lehigh Tanker Terminal, chemicals, 35 ft. depth; Humble Oil Co., 3 tanker berths, up to 38 ft. depth; Texas Oil Co., 4 tanker berths up to 32 ft. depth; Ross Oil Co., 1 berth up to 32 ft. depth.

Newark, New Jersey: 4 berths, 31 ft. and 32 ft. depth.

Elizabeth New Jersey: Chevron Oil Company, 1 tanker berth, 26 ft. depth; Crown Central, 1 tanker berth, 30 ft. depth.

Arthur Kill: **Perth Amboy,** Chevron Oil Co. (tanker berth, 26 ft. depth); Hess Oil Co. (tanker berth 30 ft. depth); Cities Service (tanker berth, 34 ft. depth); **Stolt-Nielsen,** (tanker berth max. draft 38 ft.); **Sewaren,** Royal Petroleum Co. (tanker berth, 32 ft. depth); Public Service Co. (tanker berth, 35 ft. depth); Shell Oil Co. (tanker berth, 35 ft. depth). **Port Socony,** Mobil Oil Co. (2 tanker berths, 27 ft. and 30 ft. depths). **Carteret,** American Oil Co. (tanker berth M, 25 ft. depth); General American (2 tanker berths, 25 ft. and 35 ft. depth). **Linden,** Cities Service (tanker berth, 32 ft. depth); Humble Oil Co. (tanker berth, 35 ft. depth); Sinclair Oil Co. (tanker berth 31 ft. depth). **Gulfport,** Gulf Oil Co. (tanker berth, 32 ft. depth).

Lightering Operations: Most crude and black oil tankers and an occasional clean oil tanker entering the Port of New York must be lightered before proceeding to their assigned discharge berths. All such vessels are assigned an anchorage either off Stapleton, Bay Ridge, or

Gravesend Bay. (See "Anchorages" and "Approaches").

Lighters used in the New York area range from 1,000 – 12,000 d.w.t. capacity.

The U.S. Coast Guard has established regulations for oil transfer operations in U.S. waters as a means to avoid oil pollution. These regulations are enforced. The principal items covered by the new regulations are as follows:

1. Designation of person(s) in charge.
2. Qualifications of person(s) in charge.
3. Oil transfer procedures.
4. Emergency shutdown.
5. Records.
6. Requirements for oil transfer.
7. Connections, drip pans.
8. Declaration of Inspection.
9. Supervision by person in charge.

In most instances, an oil Company employed Oil Pollution Prevention Inspector will board vessel at anchorage to assist with the USCG requirements. In any case, the lighter officer must contact vessel for a joint inspection and completion of a Declaration of Inspection before oil transfer can be started.

Exxon Bayonne Terminal: The Exxon Bayonne Terminal at Bayonne, New Jersey, is located on the Northside of Kill Van Kull, 1.6 miles East of the Bayonne Bridge.

The terminals structure is a 700 ft. long concrete pier having a hose gantry and shore gangway. 2 teflon faced fenders breast the vessel out into the dredged basin.

Lube Dock – Pier 1: Docking/Mooring: Usually all vessel dock portside to at Bayonne with 2 tugs assisting. Vessels should arrive off the berth at slack water, turn, and head into the slip. Care should be taken not to have too much headway or to set down on the corner of the pier which is not fendered. Vessels should be taken completely into the slip before landing on the fenders. Fenders are teflon faced and will not slow the forward motion of the vessel. Once in position, 2 tugs will hold the ship while lines are run out. If the vessel extends past the end of the pier, then extra lines should be used aft as a precaution for the tidal current and passing traffic. Vessels having a bow thruster can undock with 1 tug, at the discretion of the Master. (See "Plan").

Hoses/Pumping: All shore connections are 6 in. A maximum pressure of 125 p.s.i. is enforced. There are no slop facilities ashore.

Bunkers/Water: Bunkers are not available at this facility. Bunkering can be arranged at anchor. For bunker requirements, the vessel's Agent should be contacted prior to taking arrival at Ambrose. Fresh water is not available at the dock.

Weather: There is a history of repeated breakouts in the New York area due to sudden wind shifts accompanied by strong and gusty winds. Vessels alongside the dock must insure that mooring lines are taut and properly set. Vessels are strongly advised to maintain a VHF weather watch and to shut down operations if conditions warrant. The terminal closes the berth during sustained Westerly winds of 50 m.p.h. or during sustained winds over 73 m.p.h. from any direction. During these conditions, vessel must shut down and disconnect; a tug may be required to stand by.

Fuels and Specialty Dock – Pier 6: The Fuels and Specialty docks are located on the North side of Kill Van Kull, just off the Constable Hook Range. The terminal structure is a steel and concrete pier connected to a concrete capped turning dolphin and fender system on the offshore end.

Docking/Mooring: Prior to berthing the intended docking manoeuvres should be reviewed with the Pilot. Information on the velocity and direction of the current as well as water height should be obtained from the Pilot. Tidal data is recorded from stations at the Battery, New York and Bergen Pt., New Jersey every 6 minutes. Readings can be obtained through VHF Channel 9 KEH 567.

Generally, vessel is assisted by 2 tugs. One of the 2 tugs will make fast near the bow. The second tug stands by on the inboard berthing side forward without making fast. As the vessel approaches the berth the inboard tug moves aft along the ship's side. This tug then shifts to the outboard quarter of the vessel in order to assist in berthing the ship against the dock fenders.

If installed, bow thruster should be ready for immediate use.

Ships should arrive off the berth at slack water. Care should be taken approaching the berth with minimum headway. Vessel should be taken completely into the slip before landing on the dock fenders.

Occasionally, unexpected cross currents are experienced while approaching the berth. Immediate corrective action may be required to maintain the ship within the dredged area in the vicinity of the berth.

Vessels approaching Pier 6 for docking on the North berth will apear to be making an approach towards the South berth. When the vessel's bow is close to the dolphin a the end of Pier 6, the ship is moved laterally North and ahead a sufficient distance to clear the fender line of the North berth. This manoeuvre is necessary due to the shoal area North of the dredged basin. Once in position 2 tugs will hold the ship while lines are run out. If the vessel extends past the end of the pier, then extra lines should be used aft as a precaution for the tidal current and passing traffic. Vessels having a bow thruster can undock with 1 tug at the discretion of the Master. (See "Plan")

Hoses/Pumping: Presentation flange sizes are grade dependent and can be obtained from Agent prior to arrival. A maximum hose pressure of 125 p.s.i. is enforced. There are no slop facilities ashore.

Bunkers/Water: Bunker C is available at this facility. Other bunkers can be arranged at anchor. For bunker requirements, the vessel's Agent should be contacted prior to taking arrival at Ambrose. Fresh water is available in limited quantities at a rate of about 20 t.p.h.

Exxon Bayway Terminal: The Exxon Bayway Terminal, consisting of 2 marginal type berths, is owned and operated by Exxon Company, U.S.A.

It is situated on the West bank of the Arthur Kill just below the Goethals Bridge.

Proceeding from Anchorage to Bayway: The Pilot/Mooring Master and tugs join the vessel at the anchorage. One of the tugs will assist in holding the stern of the ship up against the tide if a turn is required in the anchorage. Departure from anchorage is timed so that the vessel will arrive off Bayway at HW slack.

Before leaving the anchorage, the Pilot will broadcast a message by VHF advising other ships and New York VTS of the position of the vessel and the route it will follow. Normally 2 tugs attend the vessel while proceeding from the anchorage through the Kill Van Kull and Arthur Kill (between Staten Island and New Jersey) to the berth.

Three bridges are passed:

Bayonne Bridge: Vertical clearance of 140 ft. over channel at MHW.

Lift Bridge: Vertical clearance of 135 ft. over channel at MHW.

Goethals Bridge: Vertical clearance of 137 ft. over channel at MHW.

Because of the heavy traffic situation in the Port of New York and the close proximity of berthed vessels, ships should proceed at a moderate speed during the entire passage to Bayway. Also, ship personnel should stand-by the anchors.

On entering the Kill Van Kull the tide will be setting Northwestward and attention is to be paid to stay well clear of the bank extending Southward from Robbins Reef.

As a rule, the Pilot will be aware in advance of seagoing vessels proceeding Eastward through the Kill Van Kull. Normally the vessel will not enter the Kill until such outbound vessels have cleared the entrance.

Extreme caution is to be exercised when approaching and passing Bergen Point (about 3 miles Westward of the entrance to the Kill Van Kull) where 3 channels converge. In this are the view is obstructed by the Bayonne Bridge and by oil storage tanks located on Bergen Point.

The Pilot will communicate (VHF Channel 13) with the Pilots on the other vessels approaching this point and make arrangements for the vessel to pass this area without encountering other seagoing ships. Traffic information is also obtained from the operators of the railroad drawbrige across Newark Bay.

At times, cargo ships with destination Port Elizabeth wait off Bergen Point for the drawbridge to open. Normally, the Pilot is aware of this situation well in advance and the speed is adjusted to ensure that such ships are not passed off Bergen Point.

Berthing: The dock is a substantial concrete marginal-type with bollards located on land and on the dock. Most breast lines are run to hooks located on the dock which are secured to the shore bollards by wires. Spring lines are generally passed to the dock first. Large vessels dock and undock with the assistance of 2 tugs.

Large ships are berthed starboard side to (see "Plan") heading Southward; LPG ships docking at No. 2 Berth may berth portside to (See "Report" dated August 1984).

The dredged basin at No. 1 Berth requires that the vessel be stopped off the berth and breasted into position. During docking, when vessels are in position, tugs hold the vessel alongside until all mooring lines are passed.

Passing traffic could cause the ship to break away from the Berth if mooring lines are not maintained tight and if the ship is not kept snug alongside at all times.

The following minimum moorings are required at the Bayway Pier:

Forward	*Aft*
2 head lines	2 stern lines
2 breast lines	2 breast lines
2 spring lines	2 spring lines

Depending on circumstances, additional moorings may be run out.

Departure:

1. Ships under 660 ft. LOA and mast height up to 130 ft. are turned off the berth and proceed to sea along the route which was followed when entering. The same precautions have to be taken when approaching the area off Bergen Point outward.

2. Ships over 660 ft. LOA are not turned off the berth because of limited manoeuvring space. They proceed to sea via the Southern part of Arthur Kill and Raritan Bay. A tug will accompany the ship until it has cleared Tufts Point (about 4 miles South of Bayway). The depths in the channel Southward of Bayway limit the departure draft to 33 ft.

The bridge across the channel near the Southeastern tip of Staten Island has a clearance of 143 ft. over the channel at MHW. Rounding Tremley Point (about 2 miles South of Bayway) requires particular attention. The view in this area is obstructed, therefore, before reaching this point the Pilot should ensure that there is no traffic approaching from the South which could hamper safe passage. Off Tufts Point, a 70 course alteration to starboard has to be made. The manoeuvring space is limited, and if required, the attending tug will assist in making the turn.

Tidal Information: Off Bayway the HW levels vary between 2.5 ft. and 5.0 ft. above MLW. Extreme LW has been reported as low as 4.0 ft below MLW level. Current velocities of up to 2.0 knots are experienced.

Loading Connections: Berth No. 1 has 3×10 in. Chicksan Arms for receipt of crude oil.

Berth No. 2 has 3×10 in. Chicksan Arm for LPG receipt.

Both berths can also handle many refined black and clean products with various hose sizes up to 10 in.

Bunkers and Fresh Water: No bunkers are available through the pier connections at Bayway. All grades of bunkers may be supplied by barge either at anchorage or while alongside the pier, providing arrangements are made in advance.

Fresh water is available in unlimited quantities, at approximately 20 t.p.h. to 25 t.p.h.

Stores, Provisions, Lubricants: All kinds of stores and provisions can be made available and delivered by truck or lighter, if advance request of at least 24 hours is received. During normal working days, stores and provisions may be supplied on very short notice.

Weather: There is a history of repeated breakouts in the New York area due to a sudden wind shifts accompanied by strong gusty winds. Vessels alongside the dock must ensure that mooring lines are taut and properly tended at all times and that winch brakes are properly set. During wind shifts and frontal passages, vessels have been blown off the dock with vessel and dock damage as well as pollution resulting

Vessels are strongly advised to maintain a VHF weather watch and to shut down operations if weather conditions warrant. Dock personnel will also advise vessels to shut down operations if an electrical storm is in the vicinity or if winds exceed 30 m.p.h. At 35 m.p.h. to 40 m.p.h., hoses and/or arms may be disconnected.

Belcher Bayonne Terminal: The Belcher Terminal in Bayonne, New Jersey is located 1.1 miles East of the Bayonne Bridge on the North bank of Kill Van Kull. The dock's facilities consist of 2 concrete mooring islands protecting a 600 ft. long wooden pier on which all pipe-lines and the hose gantry are supported.

Transit from Anchorage to Terminal: The Pilot/Mooring Master will board and heave anchor approximately 1.5 hours to HW (Battery). Then proceed into Kill Van Kull. 2 tugs will assist the vessel in docking. (See also Bayway Terminal).

Docking and Mooring: All vessels dock starboard-side-to with the assistance of 2 tugs. Vessels approach the terminal at time of HW slack with minimal headway. Due to the shape of the dredged basin all vessels are normally spotted off the berth and then moved broadside into position alongside the breasting islands. Tugs hold vessel in position while a small line boat runs head and stern lines to pile clusters. Note that the head line cluster is placed well inshore resulting in long (460 ft.) head lines leads. Head and stern lines cannot be wire due to the inadequacy of the small line boat. See "Plan".

Due to heavy passing vessel traffic, all mariners are advise to run extra lines to ensure that the vessel will remain safely in berth at all times.

The minimum suggested mooring arrangement is as follows:

4 head lines
3 forward springs
3 after springs
4 stern lines

Due to the poor mooring line leads from the bow, extra care should be given to the tending of all lines during the discharge. *There have been reports of vessels being pulled from the berth by passing traffic; exceptional care must be taken to properly tend mooring lines at all times.*

Hoses and Pumping: Cargo manifolds should be prepared prior to docking. The proper size and number of reducers should be in place and the blanks removed. Prior to berthing, ask the vessel's Agent what number and size of reducers are required. This will vary depending on the particular cargo being delivered. All shore hoses are equipped with 8 in. American standard flanges. Maximum working pressure allowed at the manifold is 125 p.s.i.

Bunkers and Water: Some grades of fuel oil are available from the dock in emergency situations, but most vessels bunker by barge. Fresh water is available in unlimited quantities at approximately 20 t.p.h.

Weather: There is a history of repeated breakouts in the New York area due to sudden wind shifts accompanied by strong and gusty winds. Vessels alongside the dock must ensure that mooring lines are taut and properly tended at all times and that winch brakes are properly set. Vessels are strongly advised to maintain a VHF weather watch and to shut down operations if weather conditions warrant.

Shipmaster's Report: 1976.

Greater New York Terminal, Astoria, Long Island:

Location of Berth: Lat. 40° 47′ N., Long. 73° 53.7′ W.

Distance from Entrance to Berth: 28 miles.

Max. Size at Berth: LOA, 900 ft. Draft, Pilot stated 34 ft.

Restrictions: Vessel should be ballasted sufficiently to pass under Brooklyn Bridge, clearance 127 ft.

Vessels may berth and unberth day and night but only at certain stages of the tide.

Anchorage: At Stapleton as designated by USCG.

Terminal Information: Starboard side manifold to barge at Stapleton Anchorage, use 6 in. hoses. Port side manifold used at the berth, ship's hoses not required. The connection is 12 in. running into 18 in. Nearest shore tank 1,000 ft. from berth. Line fitted with steam jacket but not efficient. Max. pressure allowed 125 p.s.i. Shore gantry used at berth. Derrick used at anchorage for discharging into barge. Product handled: Fuel Oil (Heating Oil). No slop tanks available.

General: Pilotage compulsory. Ambrose Pilot requires 24 hours' notice of arrival. Radio station handling traffic is Chatham. Most services are available at the berth, however it is advisable to take stores and send laundry from Stapleton Anchorage as there is no means of delivery at the berth other than carrying by hand. Stapleton Launch Service, tel. 981-8333/8384. Fresh water may have to be taken by barge in very severe weather as shore lines become frozen.

Approaching: From a Line from Rockaway Inlet to Ambrose thence Highlands Light, vessel must remain on VHF Channel 13 for ship-to-ship communication. When Pilot on board he maintains this Channel and ship can use own VHF other Channels. Marine operator on VHF 26 (call). For the passage of East River (remember Brooklyn Bridge Clearance 127 ft.) one tug each bow alongside. After Hell's Gate and passing Port Morris to port, vessel cants to starboard to pass between North and South Brothers to starboard and Rikers Island to port through 500 ft. wide buoyed channel (some unlit) South to berth (inwards). It is preferable to come through Hell's Gate at HW or LW slack, thus avoiding cross currents between Brothers at other times.

Report: August 1984.

Exxon LPG Berth at Bayway:

United States Coastguard requires all vessels with cargo on board (other than heel) to both enter and depart via Southern Channel, regardless of length. If vessel discharges completely (only heel remaining), then vessel is considered non-dangerous by U.S.C.G., and may depart via North Channel (without turning). (If completely discharged, other gas carrier restrictions – daylight only, 2 mile visibility, etc. – also do not apply.)

There are obstructions to South of Exxon berth which limits distance between manifold and bow or stern to 330 ft. (May be stretched to 335 ft. by Exxon on case by case basis.)

Other limitations given by Exxon for berth:

Draft: 31 ft.
Beam: 100 ft. (may be stretched)
Manifold Position: 13 ft. to 68 ft. above water line, 6 ft. to 15 ft. from deck edge.

Therefore any vessel which sails with part cargo must be turned for departure to comply with U.S.C.G. although it is physically possible to turn vessels up to 725 ft. – 730 ft. LOA off Exxon Berth provided there is no vessel berthed opposite Exxon at Gulfport (it has been done). Exxon is afraid that vessel might damage sea water intake structure for refinery while turning, and therefore says vessels longer than 660 ft. (may be stretched to 680 ft.), cannot be turned.

Other possibilities for turning are:

Continue North about 1 mile to Elizabethport Container Terminal where channel is wider.

Back ship anywhere between a few ship lengths to 0.5 miles South of Exxon, and then turn. We were advised by East Coast Pilots that it is possible to turn ship up to 730 ft. LOA at that location, with draft limit 25 ft. forward, 30 ft. aft. However, others advise that although oil tankers customarily turn at that location, it involves touching bottom (mud) at bow, and is therefore inadvisable for gas tankers.

FRESH WATER: Available at most piers in the port district at a nominal rate. Water barge available to serve vessels at anchor in emergency but this is expensive.

FUEL: All grades of fuel readily available. Except for tankers loading or discharging, bunkers are normally delivered by barge. It may be economical to shift vessel to refuelling berth.

GANGWAY/DECK WATCHMEN: Available and recommended if any crew detained by Immigration.

CUSTOMS ALLOWANCES: 200 cigarettes or 2 lb. tobacco, 1 quart wine/spirits per man.

IDENTIFICATION CARDS: Standard U.S. Immigration Forms I – 95 to be made up for each crew member on arrival.

CONSULS:

Argentina
Bangladesh
Belgium
Bolivia
Bulgaria
Burma
Cameroons
Canada
Chile
Costa Rica
Czechoslovakia
Denmark
Ecuador
Finland
France
Germany F.R.
Greece
Guatemala
Guyana
Honduras
Hungary
Iceland
Indonesia
Iran
Liberia
Luxemburg
Madagascar
Malaysia
Malta
Morocco
Netherlands
New Zealand
Nicaragua
Nigeria
Pakistan
Poland
Romania
Sierra Leone
Somalia
South Africa
Suriname
Switzerland
Thailand
Turkey
United Kingdom
Venezuela
Yugoslavia

REPAIRS: All facilities available for any size vessels.

DRY DOCKS: 4 docks with lifting capacities up to 25,000 tons (Bethlehem) and 1 dry dock capable of handling vessels of up to 1,100 ft. LOA, 140 ft. beam and 120,000 d.w.t.

TIME: Eastern Standard Time, GMT minus 5 hours. Daylight Saving Time, GMT minus 4 hours from first Sunday in April till last Sunday in October.

AIRPORT: Kennedy International Airport, Newark International Airport, La Guardia Airport.

HOLIDAYS: New Year's Day (January 1st); Lincoln's Birthday (February 12th); Washington's Birthday (February 22nd); Good Friday; Memorial Day (May 30th); Independence Day (July 4th); Labour Day (first Monday in September); Columbus Day (October 12th); Armistice Day (November 11th); Thanksgiving (fourth Thursday in November); Christmas Day (December 25th). No work on New Year's Day, Independence Day, Labour Day and Christmas Day.

SHORE LEAVE: Allowed except for crew members detained by Immigration.

DEVELOPMENTS: Newark Bay and Kill Van Kull Channels to container berths to be dredged to 40 ft.

Howland Hook, Red Hook and South Brooklyn Container Terminals to be extended.

AUTHORITIES: Port Authority of New York and New Jersey, One World Trade Center, New York, N.Y. 10048. *Tel:* (212) 466-7000, (201) 622-6600. *Telex:* ITT 424747 Panynj; WUI 620518 Panynj 620518 UW; TWX 710-581-5057 Pa Nynj Nyk. *Contact:* Port Promotion Representative.

Captain of the Port, U.S. Coast Guard, Building 109, Governor's Island, N.Y. 10004. *Tel:* (212) 668-7834, 24 hours (212) 668-7936. *Telex:* 910-250-6309 US CG. *Radio:* VHF Channel 16.

Department of Ports and Terminals, Battery Maritime Building, New York, N.Y. 10004. *Tel:* (212) 806-6841. *Contact:* Michael P. Huerta, Commissioner. Julian Stein, Director of Port Promotion.

AGENT: Rice Unruh Co., 29 Broadway, Suite 1800, New York, NY 10006. Tel: (212) 943-2350. Telex: 6720325. TRT 175519. FAX: (212) 363-5032.

NIKISKI (including Kenai), Alaska: 60.41 N. 151.24 W.

(See Plan)

Located on West side of Kenai Peninsula between Homer and Anchorage. Pan and brash ice in Inlet from November to March. Never freezes solid. Open all year.
APPROACHES: Via Cook Inlet.
DOCUMENTS: See "Anchorage, Alaska".
PILOTAGE: Pilot pick-up point 1 mile South of Homer Split light. Also see "Homer" Pilotage.
ANCHORAGES: Good anchorage.
MAX. SIZE: Harbour depth in excess 40 ft. Max. size 80,000 d.w.t. Tides diurnal range 28 ft. Also "Berthing".
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
CUSTOMS: Quarantine, local. Immigration and Customs from Anchorage, Alaska.
TUGS: From Anchorage.
BERTHING:

1. Port Nikiski Dock: 3 sided, 550 ft. long, 200 ft. on each side, 1,000 ft. wide, 12 feet at MLLW. 400 ft. by 75 ft. covered storage.

2. Three finger piers for tankers and bulk carriers. All exceed 40 ft. depth.

All 3 berths are dolphin berths ideal for rapid bulk loading. Main products:

(a) Union Chemical Dock: Bulk urea and ammonia gas. See "Shipmaster's Reports".
(b) Phillips Petroleum Dock: Petroleum products and liquid natural gas.
(c) Kenai Pipe-line Dock: Refined and crude petroleum products.

TANKERS: Report: February, 1985.

Vessel to load ammonia at Kenai in position 60° 33′ N., 151° 16′ W.

Regulations:

1 Vessel must have on board 20-24 mooring lines, each a minimum of 400 ft. in length, depending on weather on arrival.

2. Fresh water and provisions cannot be obtained or loaded at the wharf.

3. No preventative engine maintenance can be allowed at the wharf and vessel's engines must be maintained in such a way as to permit immediate manoeuvring power at all times while vessel is alongside the berth.

4. Sufficient vessel personnel must remain on board during loading to handle any emergency situation and adequate deck watch must be maintained on a 24 hour basis.

5. For proper light ship survey vessel must arrive suitably trimmed and sufficiently submerged both fore and aft.

6. Ballast tanks must be either full or empty and all cargo holds must be totally devoid of any ballast.

7. Please also ensure vessel has all certificates in order, including Oil Pollution Certificate (Certificate of Financial Responsibility).

General:

Please obtain Master's acknowledgment and confirmation of all above. Advise Master that pilot station is located Lat. 59° 36.2′ N., Long. 151° 24.5′ W. Master should cable ETA Homer pilot station to Agent.

Master to monitor ITT KFS (San Francisco) while in transit. If ship has telex on board, please provide number.

Rental mooring lines available at US$300 each plus loading/unloading costs of US$1800. Advise how many lines onboard and Agent will request funds based on how many rental lines necessary.

Berth Operator sometimes makes exceptions to restrictions on a case by case basis.

IFO fuel is virtually unobtainable in Alaska. While there is one supplier at Kenai (and none elsewhere in Alaska), they have a long standing and firm 5,000 bbl. minimum requirement with no exceptions.

Vessel will vacate berth during purging and will either purge at anchor off berth or at Homer.

Load rate 400 tonnes/p.h., except during purging, when rate much slower.

Confirm vessel has Letter of Compliance issued by Coast Guard and that vessel has been licensed to carry propane/ammonia simultaneously.

STEVEDORES: Two gangs.
REPAIRS: Some at Kenai.
FRESH WATER: Limited.
FUEL: Not available.
MEDICAL: Health Centre, 3 doctors, 3 dentists.
TRANSPORTATION: Highway to Anchorage and Homer. Air transport available.

SHIPMASTER'S REPORT: July 1985.
Union Chemical Dock: (Formerly Collier Pier):

In addition to the comments on the "Plan", which see; the following notes are to be considered as a advice to those entering the Port of Nikiski:

Mooring without tugs. There is a 24 hour mooring service.

No mooring during slack tide.

Currents from up to 1.5 knots to 6.0 knots experienced.

Whilst mooring present bow first as near as possible to the pier at an angle of about 25° to the pier.

Firstly pass 2 spring lines and 2 head lines forward, engines running ahead for riding off the current.

It is most important during the entire mooring operation to hold both forward springs and both head lines tight.

Send out 2 breast lines forward; tighten; put both head lines on the bitts making sure not to allow any slack.

Send out 2 spring lines and two stern lines aft and tighten.

Send out 2 breast lines afft as soon as both stern lines are on the bitts and heave the stern along. Keep both aft springs tight at all times.

Note: Ships loading urea have to shift alongside when changing t another hatch, as the conveyor belt is a single point loading type.

Whilst shifting along the pier be aware of strong currents, or ice i Winter season getting caught between pier and ship's bow.

SHIPMASTER'S REPORT: October 1987.
Union Chemical Dock: This dock is the Southernmost dolphin berth an extends into the sea for approximately 800 m. It has a fixed loader fo Urea. Ammonia gas is also loaded at this berth.
Anchorage: No anchoring allowed off Nikiski or Kenai. If the vessel has to vacate the berth for a priority vessel/barge, the vessel is take back to Homer, a distance fo 84 nautical miles.
Berthing: Well handled by Pilots, making use of the tidal streams. N tugs available. The tidal stream runs at up to 6 knots and the range o the tides are up to 28 ft. For this reason a vessel is moored with a tota of 19-20 ropes. Extra ropes can be hired and put on board at Home Pilot Station.

Shifting alongside: This is only possible shortly before the changin of the tide. At all times have engines ready. Shifting up to 50 m. (2 holds is not too difficult. We shifted from Hold No. 1 to No. 5 (100 m.) whic took us about 3 hours. This is a much bigger operation than moorin as all ropes have to be shifted and there are only 4 men available asho to assist. Also, by the time we finished there was already a strong floo tide running. When shifting over such a distance, I advise vessels t make use of a pilot.
Ice/Winds: According to pilots, some ice in Winter which makes berthin even more difficult. Strong southern winds may cause swell alongsid
Bunkers: Apparently fuel is available at another dolphin berth whe unoccupied, but probably expensive.
Provisions: No ship chandler locally. Agents can arrange a small quanti of provisions from a supermarket at Kenai. No vehicular access to th vessel. Provisions transported on small car which runs through narro 1 km. tunnel to the gate. This is also used by the crew.
Loading: Loading rate approximately 500 – 700 tonnes/hr. The sho figures may be wrong by 2% or more. The figures of a draft survey ar taken for the final cargo loaded.

NORTHPORT, New York: 40.57 N. 73.20 W.

LOCATION: The Northport offshore oil discharge facility is operated b the Long Island Lighting Company. It is located in Lat. 40° 57′ 15.4″ N Long. 73° 20′ 29.6″ W. approximately 10,000 ft. offshore from the pow station, and approximately 2.6 miles East of Eatons Neck Point.
PILOTAGE: Vessels approaching from Block Island embark Pilot abo 2.5 miles South of Point Judith.

U.S. flag vessels under enrolment approaching from Block Islan embark Pilot 1.4 miles East of Old Harbour – Block Island.

The pilot boat 'Rhode Island Pilot' or 'Northeast Pilot' should be calle via VHF Channel 16 approximately 1 hour prior to arrival at the pi station.

APPROACHES: *Approaches to Pilot Station and Transit to Northpo* On approaching Block Island from the South, Block Island's hi Southern shore provides a good radar target. Also, bearings can b taken from the RDF station at Southeast Light.

It is advisable to remain at least 1 mile to the East of Block Islan due to the numerous shoals close in shore.

There are several dangers to be wary of when making the passa from the pilot station to Northport.

Block Island North Reef Buoy "1B1" marks a dangerous shoal a should be passed well clear.

The Race is a narrow channel into Long Island Sound. Strong Ea to West currents occur during maximum ebb or flood and knowledge position should be maintained in view of the possibility of unusual se Valiant Rock may be passed on either side.

Caution should be exercised during the Summer months whe transiting through Block Island and Long Island Sound in view of th heavy small boat traffic, especially in the area in proximity to The Rac

Dense fog is prevalent during the Summer months.

Good water is found in Long Island Sound from The Race to Northpo as long as the mid-channel buoys "P1" and "CF" are passed close t and care is taken so as not to pass North of "Twenty-Eight Foot Sho Buoy. "Stratford Shoal" should be passed to the South.

In the event that adverse weather restricts berthing, vessels shou anchor, if necessary, North and East of the facility to avoid electric cab on the bottom. The submarine cables lie West of the facility and a shown on Chart No. 12363.

RADIO: *ETA:* Vessels are required to send ETA message 72, 48 a 24 hours in advance of arrival at Block Island Pilot Station. The messages are to be sent to Agent in New York. Advise arrival draft (s water) in initial message.
VHF: Pilots can be contacted on VHF Channels 16, 13 and 18A.
BERTHING: *Precautionary Weather Information:* There is a history repeated breakouts in the New York area due to sudden wind sh accompanied by strong and gusty winds. Vessels alongside the platfo must insure that mooring lines are taut and properly tended at all tim and that winch brakes are properly set. Vessels are strongly advised maintain a VHF weather watch and to shut down operations if weat conditions warrant.

The terminal requires suspension of transfer operations and possi clearing of the berth whenever sustained winds of 40 m.p.h. or grea are experienced. Southerly winds (off the platform) of 30 m.p.h. m require similar action. The terminal is equipped with an anemome Similarly, heavy swells may require the suspension of trans operations.

Berth Facilities: The berth consists of 3 concrete platforms and 6 mooring buoys. The 2 outer platforms provide a breasting face of 310 ft. The centre platform is fitted with 2×12 in. Chicksan arms.

A quick flashing white light is located 26 ft. above the extreme outboard end of each breasting platform.

Each mooring buoy is fitted with a quick release hook.

Berthing Operation: Vessels approach Sea Berth stemming current and/or wind.

Berthing port side to is recommended, weather permitting.

A minimum of 2 tugs are required for mooring and a minimum of 1 tug for unmooring. Terminal requires 1 tug in attendance while vessel is alongside. A launch is provided by terminal to run vessel's lines to the mooring buoys. Launch will stand-by throughout operations.

The minimum safe mooring arrangement for the facility is as follows: (see "Plan")

2 lines to Buoy "A" (synthetic or steel)
2 lines to Buoy "B" (synthetic or steel)
2 lines to Buoy "C" (mandatory steel cables)
2 lines to Buoy "D" (mandatory steel cables)
2 lines to Buoy "E" (synthetic or steel)
2 lines to Buoy "F" (synthetic or steel)
2 forward springs to breasting island (steel preferred)
2 aft springs to breasting island (steel preferred; synthetic acceptable)
2 forward breast lines from main deck to breasting island (synthetic)
2 aft breast lines from main deck to breasting island (synthetic)

The chicksan arms are designed to permit fore and aft drift and some lateral movement. However, vessel should maintain position at all times. Failure to observe this will result in suspension of operations and disconnection of unloading arms. Ship's crew connect and disconnect arms.

FRESH WATER/FUEL/STORES: Bunkers and fresh water are not available ex-berth. Stores cannot be loaded from dock.

Transfer of bunkers from barge is not permitted while alongside.

GENERAL: *Fire Fighting Facilities:* The terminal has very limited fire fighting equipment. 4×100 lb. CO2 extinguishers are provided; no fixed fire fighting gear is available. The standby tug is fitted with a low capacity fire pump hose.

Fire wires should be hung, one forward and one aft, on the offshore side for easy reach by a tug in case of fire.

The tanker should have all fire fighting equipment aboard in readiness to combat any fire that may arise.

Pollution: All U.S. harbours have stringent pollution regulations forbidding the discharge of oil into harbour waters or the emission of heavy smoke. Long Island Sound is a particularly sensitive area and all anti-pollution regulations are rigidly enforced. In the event of an emergency or pollution, the Agent should be contacted immediately.

AUTHORITY: Long Island Lighting Co., Waterside Avenue, Eatons Neck Road, Northport, N.Y. 11768. *Contact:* Jim Brennan, Manager.

OAKLAND, California: 37.50 N. 122.18 W. (See Plan)

See "San Francisco" *for Documents, Pilotage, etc.*

HEALTH: See "Health: all Ports" before first U.S.A. port (Albany). Illness Reports made to San Francisco Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

BERTHING:

Outer Harbour:

Bay Bridge Terminal: Berths No. 8, 9 and 10: Operator: Pasha Maritime Services, 1625 Maritime Street, Oakland, CA 94626. Tel: (415) 456-5669.

Berths: 3; length 296 m. (3,039 ft.); water depth 107 m. (35 ft.) MLLW.

Multi-purpose cargo terminal designed to handle breakbulk, heavy lift cargoes, automobiles and Ro/Ro operations.

Sea-Land Container Terminal: Berths No. 20 and 21: Operator: Sea-Land Services, Inc., 1425 Maritime Street, Oakland, CA 94607. Tel: (415) 271-1000.

Berths: 2; length 1,355 ft.; water depth 10.7 m. (35 ft.) MLLW.

Container handling facilities: 3×30 ton Paceco gantry container cranes; 3 truck scales, 250 refrigerated container outlets. Chassis operation.

Outer Harbour Public Container Terminal: Berths No. 22 and 23: Operator: Stevedoring Services of America, 1195 Maritime Street, Oakland, CA 94607. Tel: (415) 271-1800. Berth No. 23 is preferentially assigned to NOL, OOCL and YS Line.

Berths: 2; length 560 m. (1,839 ft.); water depth 12.8 m. (42 ft.) MLLW.

Container handling facilities: 3 gantry container cranes (1×30 ton Paceco, 2×40 ton Krupps); 6 Raygo Wagner Port Packers; 2 rubber tyred transtainers; 224 refrigerated container outlets; 4 truck scales; additional equipment as required. Combination, port packer/transtainer operation.

Maersk Line Terminal: Berth No. 24: Operator: Marine Terminals Corporation, 909 Ferry Street, Oakland, CA. 94607. Tel: (415) 763-4289.

Berths: 1; length 274 m. (900 ft.); water depth 12.8 m. (42 ft.) MLLW.

Container handling facilities: 2×50 ton KSEC container cranes; 190 refrigerated container outlets; 2 truck scales, Chassis operation.

Trans Bay Container Terminal: Berths No. 25 and 26: Operator: Trans Bay Container Terminal Co., 707 Ferry Street, Oakland, CA 94607. Tel: (415) 839-8228.

Berths: 2; length 309.4 m (1,015 ft.); water depth 11.3 m. (37 ft.) MLLW.

Container handling facilities: 2 gantry container cranes (modified 'A' frame Paceco 40 ton cranes); 1 truck scale; 120 refrigerated container outlets; 5 rubber-tyred, diesel generated, electrically powered straddle cranes (3 built by Mitsui and 2 by Paceco). One has a 30 long ton capacity and is capable of stacking 4-high, one has a 40 long ton capacity and is capable of stacking 4-high, and three have 40 long ton capacity and are capable of stacking 5-high; 12 yard hostlers.

7th Street Harbour:

Matson Container Terminal: Berths No. 32, 33 and 34: Operator: Matson Terminals, Inc., 3050 7th Street, Oakland, CA 94607. Tel: (415) 271-9733.

Berths: 3, including 1 for Ro/Ro operations; length 686 m. (2,220 ft.); water depth 10.7 m. (35 ft.) MLLW.

Container handling facilities: 3 gantry container cranes (1×30 ton Star, 1×28 ton Paceco and 1×40 ton Mitsui-Paceco); 2 truck scales; 460 refrigerated container outlets; straddle carrier-type operation with containers stored 2 or more high.

7th Street Public Container Terminal: Berths No. 35, 36, 37 and 38: Operator: Marine Terminals Corporation, 5190 7th Street, Oakland, CA 94607. Tel: (415) 271-0404.

Berths 4; 3 container, 1 Ro/Ro and/or combination breakbulk/container; length 748 m. (2,453 ft.); water depth 10.7 m. to 12.2 m. (35 ft. to 40 ft.) MLLW.

Container handling facilities: 3 gantry container cranes (40 ton Paceco), low profile; 5 truck scales; 128 refrigerated container outlets; 20 Clark 3-high straddle carriers with adjustable spreaders; 3 Raygo Wagner 35-ton port packers; 6 side picks; 4 forklifts; 6 yard hostlers and trailers. Stacked system of storage.

Berth 40: Available for use as required, contact Port of Oakland, Manager of Marine Operations (415) 444-3188, ext. 302.

Berths: 1; length 185 m. (608 ft.), water depth 10.7 m. (35 ft.)

Facility: multi-use facility capable of handling a variety of general and specialised commodities as well as heavy lifts requiring direct ship to truck/rail transfer. Single rail access splitting into double tracks parallel to wharf.

Middle Harbour:

American President Lines Container Terminal: Berths No. 60, 61, 62 and 63: Operator: American President Lines, Inc., 1395 Middle Harbour Road, Oakland, CA. 94607. Tel: (415) 272-2010.

Berths: 4; length 836 m. (2,743 ft.); water depth 11.6 m. (38 ft.) MLLW.

Container handling facilities: 6 gantry container cranes (2×45 ton and 4×40 long ton container cranes); 3 truck scales; 250 refrigerated container outlets. Chassis operation.

Inner Harbour:

Charles P. Howard Terminal: Berths No. 67, 68 and 69: Operator: Stevedoring Services of America, One Market Street, Oakland, CA 94607. Tel: (415) 271-1880.

Berths: 3; length 694.4 m. (2,278 ft.): water depth 10.7 m. to 12.2 m. (35 ft. to 42 ft.) MLLW.

Container handling facility: Multi-use facility capable of handling full containerships, combination, Ro/Ro and conventional cargo ships. 3 gantry container cranes: 2×40 ton Hitachi modified 'A' frame cranes with articulated booms and 1×50 ton KSEC modified 'A' frame with articulated boom; 144 refrigerated outlets; 6 Taylor 35 ton capacity container top handlers; one rubber tyred fixed gantry crane; 12 yard hostlers/trailers; 1 side pick with additional heavy lift/cargo handling equipment available as required.

9th Avenue Terminal: Berths No. 82, 83 and 84: Operator: Marine Terminals Corporation, foot of 9th Avenue, Oakland, CA 94606. Tel: (415) 452-3742.

Berths: 3; length 638 m. (2,093 ft.); water depth 10.7 m. (35 ft.) MLLW.

Facilities: Import steel and bulk cargo handling centre. 5 Manitowac crawler truck cranes (capacity 100 tons). Bulk-loading facility with 10 steel storage silos capable of holding 9,750 cu.ft. each. Rail track alongside berth.

Schnitizer Steel Products: 2 private piers, foot of Adeline St. Tel: (415) 444-3919. 73.15 m. (240 ft.) of berthing space. Water depth 10.00 m. (33 ft.).

Facility used for loading scrap metal. Privately owned derrick barge with crane of 325 tons capacity available 24 hours a day.

AIRPORT: Oakland International Airport.

DEVELOPMENTS: A major new 37 acre (15 hectare) container facility (Carnation Terminal) continuous to the Port's Outer Harbour and Seventh Street Terminal Complex.

Berths 1; length 274 m. (900 ft.); water depth 12.8 m. (42 ft.).

First phase demolition for this project is scheduled to commence in March, 1988.

The outer harbour channel is to be deepened from 10.7 m. (35 ft.) to 12.8 m. (42 ft.) and widened. The inner channel is also be deepened from 10.7 m. (35 ft.) to 12.8 m. (42 ft.). Both projects to begin in 1988.

AUTHORITY: Port of Oakland., (P.O.Box 2064, CA 94604), 66 Jack London Square, Oakland, California 94607. *Tel:* (415) 444-3188. *Telex:* 336334. *Contact:* General Manager, Marine Terminals Dept.

AGENT: See "San Francisco".

OGDENSBURG, New York: 44.42 N. 75.30 W. (See Plan)

Refer to "St. Lawrence Seaway" for important general information.

PILOTAGE: Seaway Pilot boards at Cape Vincent or Snell Lock and acts as docking Pilot.

ANCHORAGES: Anchorage area West of city at open roadstead area.

RESTRICTIONS: No tide. No restrictions other than Pilots' discretion as to wind and visibility.

MAX. SIZE: Largest vessel to enter 730 ft. long. Draft 27 ft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to New York Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Western Union to OCN Corp. VHF Seaway Channel via Maria Radio Cardinal.

TUGS: No tugs necessary.
BRIDGES: Ogdensburg/Prescott International Bridge – 126 ft. clearance MWD.
BERTHING: By prior notice only. Port Authority Terminal, length 1,200 ft., depth 27 ft. One Grain Elevator capacity 500,000 bushels.
CRANES: Available, up to 82 tons capacity.
STEVEDORES: Order by 1800 hrs. day preceding arrival. Advise any change of ETA.
MEDICAL: Excellent medical service and availability of doctors. No vaccination necessary.
DENSITY: Fresh water.
FRESH WATER: Available by pipeline at Port Authority Terminal.
FUEL: One day's notice, all grades. Diesel, Bunker "C", Kerosene.
GANGWAY/DECK WATCHMEN: Normally not used.
OPENING/CLOSING HATCHES: By stevedores.
CUSTOMS ALLOWANCES: Tobacco, wine/spirits, normal Customs allowance U.S. Ports.
CARGO GEAR: 25 ton mobile crane, fork trucks to 13 tons capacity. Ship's gear to be in good working order.
IDENTIFICATION CARDS: Needed as per Immigration Department requirements.
REPAIRS: Limited dockside repairs available.
REPATRIATION: Can be arranged.
AIRPORT: (0.5 mile from city). Allegheny Airline – 3 flights daily to Syracuse, New York, etc.
TIME: Eastern Standard Time GMT minus 5 hours. Daylight Saving time in Summer GMT minus 4 hours from first Sunday in April till last Sunday in October.
HOLIDAYS: New Year; Washington and Lincoln's Birthdays; Memorial Day; 4th July. Labour Day, Veteran's Day.
POLICE/AMBULANCE/FIRE: Police, Tel: 393-1551; Ambulance, Tel: 393-1221; Fire, Tel: 393-1010.
TELEPHONES: Available at Pierside (315) 393-7580.
SHORE LEAVE: Crew members allowed ashore.
AUTHORITY: Ogdensburg Bridge and Port Authority, Bridge Plaza, Ogdensburg, New York 13669. *Tel:* (315) 393-4080. *Telex:* WUT 93-7486. *FAX:* (315) 393-7068. *Cables:* Ogdenport. *Contact:* Salvatore L. Pisani, Port Director.

OLYMPIA, Washington: 47.00 N. 122.53 W. **(See Plan)**

PORT LIMITS: Vessel is to be considered an "Arrived Ship" at the Port of Olympia, Washington, when anchor is dropped in Budd Inlet or when the vessel is all fast at the dockside.
DOCUMENTS: See "Tacoma".
PILOTAGE: The vessel picks up Puget Sound Pilot at the Port Angeles Pilot Station located at the entrance to Puget Sound on the Straits of Juan de Fuca, and it is normal for the vessel's Agent to provide the pilot station with a 48-hour, 24-hour, 12-hour and 8-hour ETA. The pilot station monitors VHF Channel 13.
ANCHORAGE: Safe anchorage is located North of Olympia Shoal in 30 ft. to 45 ft. of water. The bottom is sandy and area is a sheltered inlet.
RESTRICTIONS: Channel depth 30 ft. MLW with a high tidal range of 14.4 ft. Also restricted turning basin of 800 ft. Vessels max. size would be governed by the turning basin of 800 ft. and draft of 30 ft. at MLW.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: "KPH" San Francisco or Mackay Radio, Everett "KLB".
VHF: No VHF other than Pilot to tug or ship to tug available at Olympia.
TUGS: 2 Crowley Maritime tugs are berthed at the port. They use ship's lines to assist the vessel in turning at the turning basin and to moor.
BERTHING:

Berth No. 1 is a concrete dock with depth of 40 ft.
Berth No. 2 is a concrete dock with 40 ft. depth MLW.
Berth No. 3, 40 ft. depth MLW. Primarily used for loading waterborne cargo.

BULK CARGO FACILITIES: Presently discharged with ship's gear at Berths No. 1 and 2. Primary backup cargo yard of approximately 12 acres handling coke, coal, pig iron and other bulk-type cargoes.
SPECIALISED CARGO HANDLING FACILITIES: Olympia has approximately 100 acres of open cargo yard; 28 acres are paved, however, it can be adapted for Ro-Ro traffic and is presently engaged in handling bulk cargoes such as coal, coke, etc.
Warehousing: Olympia has a 76,000 sq.ft. warehouse between Berth Nos. 1 and 2. The site has a 150 ft. apron from the face of the pier and is served by rail. In addition, there is another 40,000 sq.ft. of off-dock warehousing available for cargo storage.
BRIDGES: None pertinent to this area.
STEVEDORES: 3 stevedoring companies available in the Olympia area. 9 local gangs available for loading or discharging.
MEDICAL: Medical and hospital facilities are available without prior notification for emergencies; otherwise all medical and dental requirements can be taken care of by appointment.
TANKERS: No shore facilities for loading or unloading of tankers.
DENSITY: Salinity is on an average 29 parts per thousand.
FRESH WATER: Delivered to vessel by shoreside hose.
FUEL: Most grades available by barge from Seattle for fueling at dockside.
FIRE PRECAUTIONS: Standard for U.S. ports.
CONSULS: Most located at Seattle 60 miles to the North.
REPAIRS: All types of repairs possible.
DRY DOCKS: None available in Olympia. Nearest 60 miles to North a Seattle.
SURVEYORS: Lloyd's, A.B.S., N.V. available out of Seattle area.
GANGWAY/DECK WATCHMEN: Not required at Olympia under mo circumstances unless crew members detained.
CUSTOMS ALLOWANCES: Sufficient quantities of tobacco, wine an spirits are permitted out of bond for each crew member sufficient t cover length of stay anticipated at the time of arrival. Actual quantitie are at the discretion of the boarding customs officer.
CARGO GEAR: Generally vessels are loaded and/or discharged usin ship's gear.
REPATRIATION: Facilities exist for repatriation of crew members.
AIRPORT: Local airport service by commuter airlines only. Majo international airport (Seattle-Tacoma) located 40 miles to the North.
TIME: GMT minus 8 hours. Daylight saving time in effect during Summe months, from first Sunday in April to last Sunday in October.
HOLIDAYS: Official holidays observed by the State of Washington fo 1980 were: January 1st, February 12th, February 18th, May 26th, Ju 4th, September 1st, November 11th, November 27th, November 28 and December 25th.

Work is available on an overtime basis on all days except Christma December 25th; January 1st, New Year's Day; and July 4th and 5th.

POLICE/AMBULANCE/FIRE: Telephone dispatch for emergen services, the numbers 911 dialled on any public telephone.
TELEPHONES: Public telephones are located within 100 ft. of any ber and are not provided on board the vessel.
SERVICES: Tank-cleaning, tank-washings, compass adjusting, etc., an all available from the Seattle area, located 60 miles to the North, an most services provide travelling repairs.
SHORE LEAVE: Crew are allowed shore leave by U.S. Immigratio depending on individual case.
IDENTIFICATION CARDS: Not issued by the Port of Olympia, an Seaman's Book is generally sufficient to allow Immigration to determin whether shore leave should be granted.
REGULATIONS: Similar to all North American ports; no special rule or regulations applied to vessels by the Port of Olympia. Rules are se forth in Tariff No. 6.
DELAYS: Only delays that should be encountered at the Port of Olymp would be in the event of berth congestion.
GENERAL: Rail Service: The Port of Olympia is served directly by th Burlington Northern and Union Pacific railroads.

Highway Access: The Port of Olympia is 0.7 miles from Intersta Highway 5, the major North-South highway on the West coast. Acces to and from the Port is unobstructed.

DEVELOPMENTS: Berth No. 3 is scheduled for demolition an reconstruction. A new concrete structure will replace the existing woode structure.
AUTHORITY: Port of Olympia, 915 Washington Street N.E., P.O.Bo 827, Olympia, Washington 98507. *Tel:* (206) 754-1650. *Telex:* 15268 *FAX:* (206) 586-4653. *Contact:* James J. Jackson, Director Operations.

ORANGE, Texas: 30.06 N. 93.44 W. **(See Pla**

DOCUMENTS: Crew Lists, Passenger List and Customs Documents
PILOTAGE: Radio to Agent, 12 hours and Pilots 2.5 hours in advanc of ETA. Pilots contacted by VHF Channels 12 and 13. Pilots board Sabine Pass, Sea Buoy position 29° 36′ N., 93° 48′ W. or upon reque board at 29° 25′ N., 93° 40′ W. Pilot boats FM (VHF) Channel 65 156.275 MHz.
ANCHORAGE: Off Sabine Bar – 40 ft.
RESTRICTIONS: Sabine River Channel: Project depth 30 ft.; botto width 200 ft., including slip at port; marked and lighted for 24-ho navigation. Turning basin, 1,000 ft. × 3,000 ft.
MAX. SIZE: Length – no limit, breadth – no limit, draft – 30 ft.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illnes Reports made to Miami Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: RCA – Global Communications.
TUGS: Join vessel in port turning basin. Tug's line used, no charge.
BERTHING: 2,308 ft. mooring space to accommodate 4 deep-se vessels; all concrete docks; additional berthing space in slip for layin up 4 vessels. Lay-berth facilities also available. 11 finger piers rangi in length from 480 ft. to 900 ft.
STEVEDORES: 5 stevedore companies – handled through Agent.
MEDICAL: Local facilities – complete.
TANKERS: Limited to 30 ft. draft.
DENSITY: Brackish.
FRESH WATER: Ample fresh water, through 2.5 in. connection, rate delivery about 500 gallons per minute.
FUEL: All grades available; 8 hours advance notice required.
FIRE PRECAUTIONS: No welding or burning without U.S. Coast Gua welding permit; also special authority required for ships load explosives.
CONSULS: None available locally.
REPAIRS: Facilities available.
DRY DOCKS: Texas Drydock:

388 ft. × 142 ft. 10,000 tons, 10 ft. 6 in. draft over blocks.

SURVEYORS: National Cargo Bureau, Inc., 550 Fannin, Petroleu Building, Suite 821, Beaumont, Telex: 77701.

American Bureau of Shipping, 398 Pearl Street, Goodhue Buildin Suite 806, Beaumont, Telex: 77701.

REPATRIATION: Can be arranged through area Immigration.
AIRPORT: Local, no scheduled airlines. Mid County Airport wi scheduled airline service – 30 miles.

HOLIDAYS: New Year's Day; Martin Luther King's Birthday; Texas Independence Day; Good Friday; Memorial Day; Emancipation Day; Independence Day; Labour Day; Veterans' Day; Thanksgiving Day; Christmas Day; Any holiday which falls on Saturday or Sunday will be recognised on the following Monday. No work performed on Labour Day or Christmas Day.
POLICE/AMBULANCE/FIRE: Police Tel: 883-5654; Ambulance Tel: 883-6414; Fire Tel: 886-7431.
EMERGENCY CO-ORDINATION CENTRE: U.S. Coast Guard tel: (713) 983 8230.
TELEPHONE: Can be connected on board.
BANKS:

First City National Bank of Orange, P.O.Box 848, Orange, Texas 77630.
M. Bank, P.O.Box 1029, Orange, Texas 77630.
Orangebank, Orange, P.O.Drawer 969, Orange, Texas 77630.

STORING: See "Prelims".

1. Yes.
2. Yes.
3. Yes.

GENERAL: No strong tidal currents at the berths, excellent shelter during tropical storms.
DEVELOPMENTS: Additional 190 acre tract on Sabine River for future development.
AUTHORITY: Orange County Navigation and Port District, P.O.Box 516, Orange, Texas 77630. *Tel:* (409) 883-4363. *Telex:* 779325. *FAX:* (409) 883-5607. *Contact:* Joe J. Romano, Port Director. Walter S. Tilley, Harbour Master.

OSTRICA, Louisiana: 29.22 N. 89.32 W.

LOCATION: East Bank of Mississippi river about 42 miles above Southwest Pass Entrance.
DOCUMENTS/PILOTAGE: For all general information refer to "New Orleans".
ANCHORAGES: Available in river downstream of docks.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: Not normally required.
BERTHING: Gulf Refining Co. Terminal, tanker berth 45 ft. depth. 2×8 in. hoses loading 34,000 bbls.p.h. Ballast line 18 in. for slop discharge.
Report: General: The Gulf Terminal is located on the East bank of the river, approximately 23.2 miles AHP. The only access to the dock is by launch; a dock launch, however, is available for use at all times.

Cargo Handled and Shore Installations: Crude, heating oil, Bunker-C, premium, low-lead, and regular gasolines are types of cargo handled. Maximum loading rates vary from 34,000 bbls.p.h. for crude oils to 1,000 bbls.p.h. for Bunker-C, 4,000 bbls.p.h. for heating oil and 9,400 bbls.p.h. for gasoline.

Docking: No tugs are required for docking or undocking. Vessels should approach the dock stemming the current and drop the port anchor when above and off the dock. The vessel is then manoeuvred alongside with the aid of the anchor. The anchor is brought in as the vessel undocks.

Docking is starboard side to only and is normally performed by the River Pilot.

Gangway: The ship's gangway must be used and should be properly rigged and illuminated.

Bunkers and Fresh Water: Bunkers are available upon request and are delivered through a 16 in. line at a maximum rate of 900 bbls.p.h. There is no fresh water at the dock.

Ballast/Slop Facilities: Ballast and slop facilities are available at the terminal. Maximum discharge rate ashore is 15,000 bbls.p.h. at a maximum rail pressure of 125 p.s.i.
FRESH WATER: Not available.
FUEL: Bunker "C" available ex-wharf.
DENSITY: Fresh water (1000).

OSWEGO, New York: 43.28 N. 76.30 W. (See Plan)

LOCATION: Oswego Harbour is located on the South shore of Lake Ontario about 15 miles from its East end at the outlet to the Oswego River. It is the first major port on the Great Lakes off the seaway. It is also the Great Lakes entrance to the Great Lakes – Hudson River Waterway which connects with the Hudson River at Troy.
PILOTAGE: No requirements.
RESTRICTIONS: Average navigation season – April 1st to December 15th.
Approaches: Through entrance between the Arrowhead Breakwater pier heads and detached breakwater.

Entrance is 750 ft. wide with a depth of 25 ft. at LW datum.
Controlling depth of water 25 ft. at datum.
No vessel length and beam limitations.
Approach open 24 hours a day.
Navigation lights available

Harbour: Controlling depth – front of each terminal open for public use. 21 ft. on West side. 28 ft. on East side.

Turning Basin – 115 acres.
Accessible 24 hours per day.
No vessel length and beam limitations.

HEALTH/AGRICULTURE: See "Health" and "Agriculture" before first U.S.A. port (Albany).
TUGS: Towage facilities available on request.
BERTHING: The general cargo facilities are operated by the Port of Oswego Authority. The West Side Facility is a finger pier 1,000 ft. long providing 4 berths and has 21 ft. of water alongside at LW datum. 28,000 sq. ft. of covered storage is available with limited open storage. A million bushel grain elevator is situated on this pier. The East Side Facility is a marginal wharf 1,900 ft. long, providing 3 berths and has 27 ft. of water alongside at LW datum. 134,000 sq.ft. of covered storage is available with unlimited open storage.

Oswego exports general cargo. It imports grain, cement, wood pulp, petroleum and general cargo.
New Marginal Wharf: Length of berth 1,750 ft. Depth 25 ft. at LW datum.
BRIDGES: None.
CRANES: Mobile heavy lift equipment available.
BULK HANDLING FACILITIES: One 1,000,000 bushel capacity elevator equipped with 3 loading spouts, 2 Marine legs and 2 car pits.
FRESH WATER: Available at all general cargo docks.
FUEL: Seaway Terminal of Metropolitan Petroleum Corporation, 4 tanks – Capacity 327,000 barrels of No. 2 and No. 6 oil. Coal bunkerage available by truck delivery.
CONSULS: None.
REPAIRS: Above waterline repairs available.
AUTHORITY: Port of Oswego Authority, P.O.Box 387, Foot of East First Street, Oswego, N.Y. 13126. *Tel:* (315) 343-4503. *Telex:* 92-6060. *FAX:* (315) 343-5498. *Contact:* John E. Fitzgibbons, Executive Director.

PALM BEACH, Florida: 26.46 N. 80.03 W. (See Plan)

LOCATION: Port is located on a salt water sound known as Lake Worth and lies 1.3 miles from the 37 ft. contour of the Atlantic Ocean to which it is connected by an artificial cut at the North end of Lake Worth known as Lake Worth Inlet. The Inlet is located within the boundaries of the City of Riviera Beach, Florida.
PORT LIMITS: Sea Buoy at channel entrance. Dockage charges commence when vessel is made fast to wharf, and are on a 24 hour basis or fraction thereof.
DOCUMENTS: Basic Customs Documents for Entry:

2 copies Master's Oath, Form CF-1300.
2 copies General Declaration, Form CF-1301.
2 copies Arrival Crew Lists, Form I-418.
2 copies Passenger List, Form I-418.
2 copies Stores Lists, Form CF-1303.
2 copies Crew's Effects Declaration, Form CF-1304.
1 copy Clearance from Last Foreign Port (if available).
1 copy Manifest of *All* Foreign Cargo onboard.
1 copy Manifest of Cargo for Discharge.
1 copy Dangerous Cargo Manifest.
1 copy Form CF-3171 for formal entrance at Customs House.
Valid original vessel documents.

All vessels shall, upon arrival, report to Port Director all cargo to be discharged. Such report shall be in form of copies of Ship's Manifest, or certified statements, and shall show number of units, commodity, weight, destination, consignee, and all other information which Port of Palm Beach deems necessary for compilation of commercial statistics, for reserving of necessary warehouse or wharf space, or other purposes. (Also see "Jacksonville").
PILOTAGE: Compulsory. Provided by Pilots' Association of the Port of Palm Beach, 200 13th Street E, Riviera Beach, Florida, 33404. Tel: (407) 845-2628. Telex: 529327.

Pilot's communicate with vessel on VHF Channel 16; if no answer contact Marine Operator to call Pilots on land line. Tel: (305) 845-2628.

Notice of ETA and request for Pilot must be made to the Pilots at least 24 hours in advance.
CHANNEL: Entrance to the harbour is by a dog-leg channel running due West through the jetties and then turning South-westerly to the terminals. The channel is 400 ft. wide, narrowing to 300 ft. in width as it continues across the lake another 3,000 ft., leading into a trapezoidal turning basin, 1,400 ft. by 1,310 ft. adjacent to the port terminals on the West shore, with an extension of 672 ft. at 25 ft. depth to the New North Wharf and Loading Ramps. Present depth of entrance channel is 33 ft. at MLW.
ANCHORAGES: Anchorage is designated by the Bar Pilots, which in most instances is at sea. Port has two designated anchorages, one South of the entrance channel and one North of the entrance channel.
MAX. SIZE: Vessels up to 620 ft. in length with draft of 33 ft. have used facilities.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: Port has no communication equipment. U.S. Coast Guard Station, Peanut Island, Riviera Beach, Florida, can be reached on 2182 kHz – 2678 kHz or VHF Channel 16 (156.8 MHz). Pilots VHF Channel 16.
TUGS: Available to assist berthing. Service is provided by the Port Towing Corporation, P.O.Box 12425, Lake Park, Florida 33403. Office Tel: 622-6422 and 622-8688, nights and holidays 844-4244.

Tugs normally join vessel at jetty entrance. Tug's lines normally used.

BERTHING: 2 slips and 4 marginal wharves with 6 Ro/Ro ramps including a 29 acre dedicated container yard.

Berth		*Length* (ft.)	*Depth* (ft.)
No. 1	South Marginal	210	25
No. 2	East Half, South Side of Slip 2	310	33
No. 3	West Half, South Side of Slip 2	310	33
No. 4	West End of Slip 2	220	25
No. 5	West Half, North Side of Slip 2	320	33
No. 6	East Half, North Side of Slip 2	320	33
No. 7	Middle Marginal	215	25
No. 8	East Half, South Side of Slip 1	350	25
No. 9	West Half, South Side of Slip 1	350	25
No. 10	South Ramp, West End of Slip 1	70	25
No. 11	Middle Ramp, West End of Slip 1	70	25
No. 12	North Ramp, West End of Slip 1	70	25
No. 13	West Half, North Side of Slip 1	350	25
No. 14	East Half, North Side of Slip 1	350	25
No. 15	South Section, North Marginal	204	27
No. 16	Mid-Section, North Marginal	203	27
No. 17	North Section, North Marginal	203	27
No. 18	East Section, South Side	150	25
No. 19	West Section, South Side	150	25
No. 20	South Ramp	67	25
No. 21	Middle Ramp	67	25
No. 22	North Ramp	67	25
No. 23	North Side Container Wharf	80	25
No. 24	South Half Container Wharf	225	25
No. 25	North Half Container Wharf	225	25

Supplementing the berths are 183,775 sq.ft. of transit shed storage space. Open storage areas consist of approximately 44 acres. 33 acres dedicated to container handling.

All vessels, their Owners or Agents, desiring a berth at wharves, shall, as far in advance of date of docking as possible, make application to port specifying date of docking, sailing, nature and quantity of cargo to be handled, and name of the vessel.

SPECIALISED CARGO HANDLING FACILITIES: Ramps for Roll-on/Roll-off cargo and wharfside accommodation for equipment to handle containerised cargo only.

Dry Bulk Storage: 55,000 short tons (Cement); 20,000 short tons (Sugar).

Liquid Bulk Storage: 6,700,000 gallons (Molasses).

Freezer/Chill Facility: U.S. Dept. of Agriculture and U.S. Customs approved facility. 17,600 sq.ft. off pier site with rail siding. 5 minute trucking time to port docks.

Also see "Developments".

CRANES: See "Cargo Gear".

STEVEDORES: The recognised working hours of port are from 0800 until 1200 hrs. and from 1300 until 1700 hrs., Monday through Friday, holidays excepted. During the recognised working hours services will be charged for on a straight time basis.

When vessels are loading or discharging cargo the port may furnish checker-foremen to supervise release of cargo being loaded and/or check cargo being discharged. The charge for each man furnished will be based on labour-furnished rates for foremen, with the Port reserving right to furnish as many men as they deem necessary to protect their interests. Charges for this service will be rendered against the vessels, their Owners, or Agents.

MEDICAL: Full hospital facilities available without prior notice. Dentists available during normal work hours.

TANKERS: The port receives tankers each month in the 15,000 to 18,000 gross ton range. Petroleum tankers are handled in Slip 2, Berths 2/3 or 5/6. All petroleum tankers are boomed during pumping operations. Slop facilities at port by mobile tank trucks of private companies.

Report: Port Approaches – Cautionary: All approaches to the Sea Buoy must be made from the East to avoid shoal waters near the coast to the North and South of the Entrance Channel. The Gulf Stream current running to the North may be felt a short distance East of the Sea Buoy. A counter current usually sets to the South in the vicinity of the Sea Buoy. However, this may vary depending on weather conditions. Southbound vessels, avoiding the Gulf Stream, are encountered in close vicinity of the Sea Buoy.

Care must be taken to carefully identify navigation lights to avoid mistaken identity with strong lights along coast.

Vessels may anchor S.E. of the Sea Buoy in approximately 75 ft. – 100 ft. of water.

Entering and Berthing: Vessel should have full manoeuvring power available and competent helmsman at the wheel. Vessels leaving the Gulf Stream usually set sharply to the South and care must be exercised to keep vessel in channel. Ranges and buoys are used to identify channel limits. The turning basin is situated adjacent to No. 2 Slip where tankers berth. Tidal currents in Lake Worth Inlet set North on flood tide and South on ebb tide. Berthing has been limited to High Water Slack period, due to the limitation of tug horsepower. If a current is against the tide, an anchor is usually dropped and dragged into the berth. Due to the limited depths of water and the possibility of holing the ship's bottom if the anchor is run over, the use of anchor should be limited to emergency use.

The slip is 700 ft. in length with a width of 225 ft. Pier bollards are situated 50 ft. apart. The last soundings survey indicated depths of 35 ft. or more throughout area of slip with exception of extreme inside section where depths decreased to 32 ft.

FUEL: Private firms (9) with trucks or barges available by prior arrangement through vessel's Agent.

FRESH WATER: Fresh water delivered to vessels at wharves or docks by pipe-line. Hoses can be supplied by port per tariff charges. Fittings on pipe-line are 2.5 in. Minimum charge of U.S.$25.00. Water $0.72 per ton of 240 gallons.

DRY DOCK/REPAIRS: No major facilities at port. Mobile repair companies available. No berths dedicated for repair work.

SURVEYORS: Marine surveyors representing Lloyd's, A.B.S., N.V. operate at the port or nearby ports.

C. L. Marine Inc., 825 Oleander Street, Boca Raton, FL 33432 Tel: (305) 391-8932.

Douglas G. Lamb & Associates, P.O.Box 11367, Fort Lauderdale, FL 33339. Tel: (305) 491-7467. Telex: 159052 (ASST. CTR.)

Continental Marine Consultants, Inc., P.O.Box 14915, North Palm Beach, FL 33408. Tel: (305) 626-6610.

Donald J. Mahoney & Co. Inc., Marine Surveyors & Adjusters, The Tamiami Mall, 8776 S.W. 8th Street, Miami, Florida 33174. Tel: (305) 553-7066. Telex: 522268.

GANGWAY/DECK WATCHMEN: No requirement for watchmen required except for special vessel conditions or security reasons as determined by Port Director.

HATCHES: Normally opened and closed by ship's crew.

CUSTOMS ALLOWANCES: United States Customs Regulations.

REPATRIATION: Facilities exist for changes of crews and repatriation of seamen. Scheduled aircraft service Palm Beach area daily with additional flights from two nearby airports. Airports are 5 miles, 35 miles and 70 miles from port.

POLICE/AMBULANCE/FIRE: Police Tel: 845-4123 or 911; Fire Department Tel: 845-4111; Sheriff Tel: 833-7471; Ambulance Tel: 844-6577; Hospital Tel: 844-6300.

FIRE PRECAUTIONS: Smoking is strictly prohibited in transit sheds, warehouses, or on apron of wharves and on vessels, handling dangerous, hazardous, or inflammable cargo. Smoking is also prohibited in any areas where gasoline or like materials are being handled or serviced to equipment.

Explosives and hazardous or highly inflammable commodities or materials may be handled over, or received on, the wharves or other facilities of Port of Palm Beach by special arrangements with and at the option of the Port Director, and the receiving, handling, or storage of such commodities shall be subject to Federal and State laws, rules and regulations.

In all cases where explosives and hazardous or highly inflammable commodities or materials are to be handled, prior consent by the U.S. Coast Guard must be received and a copy of the consent filed with the Port Director. Responsibility for safeguarding of life and property will be the duty of the shipper. Proof of sufficient liability insurance must be presented to Port Director prior to arrival of such materials.

CARGO GEAR: Crane capacity can accommodate single lifts up to 300 tons. Also available are 2×150 ton cranes, 3×200 ton crane, 1×6 ton crane and 1×40 ton crane also 1×23 ton fork lift. 5×40 tonne straddle carriers, 7×40 ton fork lifts, 3×25 ton fork lifts, 1×20 ton fork lift, 33 tractors in terminal (10×40 tons and 23×35 tons). Load/discharge operations can be performed by ship's gear or shore gear.

HOLIDAYS: New Year's Day; Washington's Birthday; Columbus Day; Decoration (Memorial) Day; Independence Day; Labour Day; Veteran's (Armistice) Day; Thanksgiving Day; Christmas Day. When any one of these falls on Sunday, the following Monday is observed as a holiday. When any one of these falls on Saturday, the preceding Friday is observed.

BANKS: *Banks with Foreign Departments:*

Barnett Bank, 46 West 20th Street, Riviera Beach, FL 33404 Tel: (407) 844-4351.

First National Bank in Palm Beach, 255 South County Road, Palm Beach, FL 33480. Tel: (305) 655-7111.

Royal Trust Bank of Palm Beach, N.A., 411 South County Road, Palm Beach, FL 33480. Tel: (305) 655-3900.

GENERAL: Marine terminal 1.3 miles from the open sea, served by U.S. Highway 1 and is directly connected by port-owned belt-line railroad to the Florida Coast Railway.

Broad aprons (80 ft.) with ship-side rail, and warehouses backed by open storage areas. The slips and wharves are located on a salt water sound, fully protected from the sea by barrier islands; departures from the slips average only 15 minutes through inlet to open sea.

DEVELOPMENTS: New 6 acre container marshalling area has been recently added. Raw sugar storage facility at Slip 2 capacity 20,000 tons, loading rate 600 t.p.h. Acquisition of additional land for port expansion underway. Port Administration Building completed offering Government Services and office space for Maritime companies located at the port. A foreign trade zone is available.

AUTHORITY: Port of Palm Beach, P.O.Box 9935, Riviera Beach, Florida 33419. *Tel:* (407) 842-4201. *Telex:* TWX 510-601-5031 Port of P.B.U.D. *FAX:* (407) 842-4240. *Contact:* Benson B. Murphy, Executive Director. Martin A. Mets, Deputy Director Operations and Marine Services. Jack Smith, Dock Master.

✓

PANAMA CITY, Florida: 30.10 N. 85.40 W. (See Plan

DOCUMENTS:

3 Passenger Lists.
3 Crew Lists.
3 Curio Lists.
3 Stores Lists.
Register.
Load Line Certificate.
Tonnage Tax Certificate.
Certificate of Financial Responsibility (Oil Pollution).

PILOTAGE: Compulsory. Pilots board at sea-buoy. Guard Channel 1 VHF. Safe anchorage at sea-buoy if waiting for Pilot.

PC Port Pilots Inc.: Pilot boat, grey and white hull with black lettering. Tel: (904) 785-2209.

PC Pilots Inc.: Pilot boat, red and white hull. Tel: (904) 769-0058.

ANCHORAGES: Several safe anchorages inside bay with 32 ft. or more depth.

RESTRICTIONS: Maximum safe draft over bar is 32 ft. No other restrictions except in case of bad weather.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Preferably WLO Radio, Mobile, Alabama, U.S.A. Also good service from RCA. Vessel should radio ETA and cash requirements.

TUGS: 2 tugs available. Tug is used only to assist in berthing. Always uses ship's lines.

BERTHING: Any time, except for unusual weather. Good safe port. Berths are about 1 hour from Pilot station.

Deepwater Terminal in St. Andrew's Bay:

1. 2,590 ft. of deepwater berthing:
   (a) 5 berths.
   (b) Mean depth of water 32 ft.
   (c) Concrete apron 60 ft.
   (d) Construction – steel sheet piling.
2. 6 Transit sheds totalling 280,000 sq.ft.
3. Bulk Warehouse (28,800 sq.ft.). Storage Silos (6,500 ton capacity) with scale weight in and out.
4. Covered loading/unloading rail service to each warehouse.
5. Truck dock serving each warehouse.
6. Marginal track capability.
7. Heavy lift capability by prior arrangement.
8. 24 hour security service.
9. Paved open storage – 300,000 sq.ft.
10. Ro/Ro capabilities.
11. Container facilities.
12. Barge/Container feeder service.

Barge Terminal in St. Andrew's Bay and Gulf Intracoastal Waterway:

1. 600 ft. of shallow draft:
   (a) Mean depth of water 12 ft.
   (b) Concrete apron.
   (c) Construction – steel sheet piling.
2. Transit shed totalling 30,000 sq.ft.
3. Bulk transfer capability.
4. Service for:
   (a) Covered rail loading and unloading.
   (b) Truck loading and unloading.
5. Paved open storage – 90,000 sq.ft.
6. Heavy lift capability by special arrangement.

Port Equipment:

1. 8 lift trucks, 5,000 lb. capacity.
2. 9 paper roll clamp machines, 7,000 lb. lift capacity.
3. 1 trackmobile switcher.
4. 1 diesel switch engine.
5. Rail tracks owned by Panama City Port Authority, capable of accommodating approximately 80 rail cars.
6. Sweepers.
   (a) Tennant.
   (b) Tractor with brush and front end loader.

STEVEDORES: 7 companies. Must have ETA by 1500 hrs. local time in order commence loading 0800 hrs. next day. Normal work day 0800 – 1200 hrs., then from 1300 – 1700 hrs., Monday through Friday.

MEDICAL: Medical and hospital service available.

TANKERS: No slop discharge facilities, oil waste by barge.

DENSITY: Salt water. 1.5 ft. tide range.

FRESH WATER: Available all berths but ships must supply hose.

FUEL: Limited amount of diesel oil available. No heavy fuel. Local agents can make available through truck transfer or barge. Midstream Fuel Supply located at Port.

GANGWAY/DECK WATCHMEN: Only if required by ship's Owners or Master.

OPENING/CLOSING HATCHES: Only MacGregor hatches may be opened by the crew.

CUSTOMS ALLOWANCES: Tobacco, 1 carton 200 cigarettes. Wine/Spirits, reasonable quantity – 1 or 2 bottles.

CARGO GEAR: Must show safety inspection if requested.

IDENTIFICATION CARDS: All crew must have U.S. Immigration Landing Permit.

CONSULS: None.

REPAIRS: Limited deck and engine repairs can be effected.

REPATRIATION: Available.

AIRPORT: Approximately 4 miles from port. Served by 2 scheduled air lines (Republic Airlines and Air New Orleans).

TIME: Central Standard Time (GMT minus 6 hours).
Central Daylight time in Summer (GMT –5 hours).

HOLIDAYS: *No work holidays:* New Year's Day; Easter; 4th July; Labour Day; Christmas Day.

Working holidays: Lincoln's Birthday (February 12); George Washington's Birthday (Third Monday in February); Memorial Day (Last Monday in May); Veterans' Day (Fourth Monday in October); Fall Festival Day, Thanksgiving Day (Fourth Thursday in November).

POLICE/AMBULANCE/FIRE: Dial operator, or Tel: 785-6161.

TELEPHONES: Placed aboard only by very special arrangement – not normally available.

SERVICES: Most repairs to radio, radar and other such equipment. Advance notice required.

SHORE LEAVE: Any time – any berth.

DELAYS: Normally, delays infrequent and for short durations.

DEVELOPMENTS: 11,000 sq. ft. office building. 30,000 sq.ft. warehouse for South Atlantic Services. Public truck scales recently completed.

AUTHORITY: Panama City Port Authority and Foreign Trade Zone 65, P.O.Box 15095, 5321 West Highway 98, Panama City, FL 32406. *Tel:* (904) 763-8471. *Telex:* 324775 Port Pc Usa. *FAX:* (904) 769-5673. *Contact:* H. R. Etheredge, Port Director. T. L. Berry, Assistant Port Director.

PASADENA, Texas: 29.43 N. 95.13 W.

Refer to "Houston" for all general information.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

PASCAGOULA, Mississippi: 30.21 N. 88.34 W.

(See Plan)

PORT LIMITS: Subject to Charter-Party Terms, an "arrived ship", subject to jurisdiction of the Port Authority, occurs when a ship arrives at Horn Island Sea Buoy.

DOCUMENTS: See "New Orleans".

PILOTAGE: Compulsory. Pascagoula Bar Pilots' Association ((601) –762 – 1151). Pilot boat to be contacted on VHF Channel 16, pilot boat has black hull with white house, International light and sound signals to be made by vessel requiring a Pilot. Pilot to be taken aboard vessel in vicinity of Horn Island sea buoy. Usual safety measures are required, with respect to boarding. Vessels may anchor in this area while awaiting Pilot, there is a 35 ft. to 50 ft. depth with good holding bottom.

ANCHORAGES: Only anchorages permitted are in vicinity of Horn Island Sea Buoy or seaward.

RESTRICTIONS: Under normal conditions there are no entry restrictions as to time or state of tide.

From Horn Island Sea Buoy to Horn Island Pass the channel is 350 ft. wide by 40 ft. deep; from Horn Island Pass to Pascagoula River Turning Basin the channel is 350 ft. wide and 38 ft. deep; the Pascagoula River Turning Basin is 950 ft. wide and 38 ft. deep.

Channel into Bayou Casotte (East Harbour) from Junction Buoy to mouth of Bayou Casotte Harbour is 225 ft. by 38 ft. deep; thence at inner harbour channel is 300 ft. wide and 38 ft. deep into the Bayou Casotte Turning Basin; the Bayou Casotte Turning Basin is 940 ft. wide and 38 ft. deep. All dimensions listed are project dimensions; depths refer to MLW datum.

No vessel or tow shall enter Bayou Casotte Channel outbound after a seagoing vessel or tow has passed Buoy 30 inbound, and; no vessel or tow shall enter Bayou Casotte Channel inbound after a seagoing vessel or tow has passed Buoy 11 outbound. Vessels or tows which are at a dock should remain at the dock until the inbound seagoing vessel or tow has passed, or until it has reached its berth, whichever occurs first.

MAX. SIZE: Length of vessel is restricted to approx. 900 ft. by turning basin, no breadth restriction, draft 38 ft. at MLW. Normal tidal range 1.6 ft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Use of Pascagoula Marine Radio (KLU-775) is advisable for ETA cables to Agent. Stands by on VHF Channel 16 and operates on Channel 27 throughout 24 hours.

RADAR/VHF: Radar and VHF radio on pilot boat, Channel 16.

Every vessel shall, when entering the Horn Island Pass Channel, and the Bayou Casotte Channel, or when getting underway from a berth, or when approaching the Pascagoula Channel while transiting the Intracoastal Waterway:

(a) Maintain a radio watch on VHF – FM Channels 13 and 16 in accordance with Vessel Bridge to Bridge Telephone Regulations of January 1st, 1973.

(b) Check on other traffic operating in the area by transmitting on Channel 16:

"SECURITY, SECURITY, SECURITY
(Vessel Calling)
THIS IS ....
ENTERING...............................
CHANNEL PROCEEDING FROM
...................TO ....
CHECKING FOR TRAFFIC, STANDING
BY ON CHANNELS 13 and 16,...........
(Vessel Calling)
.... OUT"

If other traffic replies, utilise Channel 13 for exchange of information relative to safe navigation.

TUGS: Tugs will join vessels in harbour or off docks. No escort required. Tugs lines normally are used.

BRIDGES: None affecting 38 ft. channels.

Two bridges across the Pascagoula River above the turning basin, not passed through between channel and harbour.

BERTHING: Private and public berths are available, by prior arrangement, in both the Pascagoula River Harbour (West Harbour) and the Bayou Casotte Harbour (East Harbour).

West Harbour – Public: Grain Elevator, 3,100,000 bushel capacity, 900 ft. berth at 780 ft. wharf and 38 ft. deep.

Terminal 'A' with transit shed, 500 ft. wharf and 38 ft. deep.
Terminal 'B' with transit shed, 544 ft. wharf and 38 ft. deep.
Terminal 'C' with bulk cold storage, 718 ft. wharf and 38 ft. deep.
Terminal 'D' with 737 ft. by 187 ft. open wharf by 38 ft. deep.
South Clusters, 1 ship berth approximately 600 ft. by 24 ft. deep.

West Harbour – Private – Ingalls Shipbuilding: Note. These berths are normally occupied with ships being fitted out and are not normally available.

West Bank Shipyard, 4,410 ft. bulkhead, 5 berths by 38 ft. deep.

East Bank Shipyard, three 600 ft. piers, one 800 ft. pier, each 32 ft. deep.

Ham Industries, rig repair facility; 1,100 ft. wharf by 38 ft. deep.

East Harbour – Public:
Terminal 'E' with transit shed, 517 ft. wharf by 38 ft. deep;
Terminal 'F' with transit shed, 737 ft. wharf by 38 ft. deep;
Terminal 'G' with transit shed, 516 ft. wharf by 38 ft. deep;
Terminal 'G' Extension 695 ft. by 64 ft. open wharf by 12 ft. deep.
Terminal 'H' with transit shed, 556 ft. wharf by 38 ft. deep.

East Harbour – Private:
Chevron U.S.A. Inc., Wharf No. 1, 5 berths by 38 ft. deep;
Chevron U.S.A. Inc., Wharf No. 2, 1 berth by 38 ft. deep; (crude and coke dock).
Chevron U.S.A. Inc., Wharf No. 3, 1 berth by 38 ft.;
Mississippi Chemical Company, 2 loading docks each 475 ft. by 34 ft. depth;
Chicago Bridge & Iron Company, slip 900 ft. by 16 ft. deep.

SPECIALISED CARGO HANDLING: Chevron U.S.A. Inc., Wharf No. 1 has facilities for handling acid, caustic, ammonia, and LPG, in addition to petroleum products. Chevron U.S.A. Inc., No. 2 has facilities for handling coke and crude. Chevron U.S.A. Inc., No. 3 has facilities for handling crude.

Mississippi Chemical Company loading docks are equipped for handling phosphate rock and other bulk materials, liquid and dry.

Terminals E & F are equipped for exporting bulk ores.

Gulf Cold Storage Inc.:
Freezer Area: 1.5 million cu.ft. of −10°F. storage.
Cooler Area: 500,000 cu.ft. of +40°F. storage.
Blast Freezers: 2× −50°F. Capacity 160,000 lbs. per day.
Location: Approx. 3 miles South of 1 – 10 of the West Bank area of the port. Adjacent to dock on a 38 ft. channel.

CRANES: The Port has a heavy lift capability of 400 tons by an arrangement with Ingalls West Bank Facility. Truck cranes with capacity up to 110 tons also available in the port area.

STEVEDORES: 12 hours notice requested to arrange stevedore gangs. *Straight Time:* 0800 hrs. – 1200 hrs. and 1300 hrs. – 1700 hrs. Mondays through Fridays except Holidays. All other hours and days are overtime.

MEDICAL: Agents to be advised if immediate medical attention is required. Free Pratique granted except in case of communicable diseases aboard, inoculations required by Public Health Service, etc. Doctors and hospital services readily available.

TANKERS: Chevron U.S.A. Inc. owns and operates 3 wharves on East side of Bayou Cosotte harbour. Facilities have 6 in., 8 in. and 12 in. lines with adaptors, discharge tanks with a capacity of 60,000 tons, 3 tanker berths with a 38 ft. draft. Wharf No. 2 for receiving crude oil from large tankers. Wharf designed and built for 50 ft. draft, but presently limited to 38 ft. draft on account of channel and seaward. Wharf No. 2 also handles coke ships.

Also see "Shipmaster's Report" and "Specialised Cargo Handling".

DENSITY: Density varies with the state of tide and wind, from fresh to salt water.

FRESH WATER: Potable water is available at most berths. Water at public terminals can be delivered at flow rate of 50 g.p.m.

FUEL: Vessels are bunkered at berth in the harbour by truck or barge. All grades of fuel are available.

FIRE PRECAUTIONS: Usual safety precautions required. Verify unusual procedures for approval of U.S. Coast Guard.

GANGWAY/DECK WATCHMEN: Port guards are furnished for the general cargo terminals at the port's expense. At least 1 person must be on duty aboard vessel.

HATCHES: Opening/closing hatches by the crew is at the discretion of the ship.

CUSTOMS ALLOWANCES: Each crew member is allowed either 300 cigarettes or 50 cigars or 3 lbs. of tobacco. In addition, each member is allowed 1 quart of alcoholic spirits as regulated by provisions of the Mississippi Alcoholic Beverage Commission Rules.

CARGO GEAR: No requirements for cargo gear other than it be certified by a recognised International organisation.

CONSULS: Many countries have consuls within a 100 mile radius of Pascagoula. (Mobile and New Orleans).

REPAIRS: Most deck and engine repairs could be arranged within port facilities.

DRY DOCKS: Ingalls Shipbuilding Corporation, West Bank Shipyard, has 1 launch pontoon (dry dock) with 38,000 ton capacity.

Ingalls Shipbuilding Corporation, East Bank Shipyard, has 1 graving dock, 485 ft. inside length, 75 ft. wide gate, 34 ft. deep, with loading capacity of 1 ton per sq. ft.

Flechas Shipyard has one 600 ton dry dock.

There are several marineways in vicinity, capacities 50 – 100 tons.

SURVEYORS: Licensed Marine Surveyors are available in Port.

REPATRIATION: The City of Pascagoula is served by regularly scheduled transportation. Vessel's Agent to arrange clearance with Customs and Immigration officials.

HOLIDAYS: New Year's Day (January 1st); King's Birthday (3rd Monday in January); Washington's Birthday (3rd Monday in February); Mardi Gras (41 days before Easter – Tuesday); *Easter Sunday/Easter Monday (1st Sunday after 1st full moon after March 21st); King's Memorial Day (April 4th); Memorial Day (Last Monday in May); *Independence Day (July 4th); *Labour Day (1st Monday in September); Veterans' Day (November 11th); Thanksgiving Day (Last Thursday in November); *Christmas Eve (December 24th); *Christmas Day (December 25th); *New Year's Eve (December 31st).

(*Non-working). Non-working holidays are observed from midnight of the holiday through to 0700 hrs. of the following day with the exception of Christmas Eve and New Year's Eve when the non-working portion of the holiday commences at noon.

Should any of the above holidays except Easter, Christmas Eve, and New Year's Eve fall on a Sunday the following Monday will be observed.

Elevator employees observe Martin Luther King's Memorial Day instead of Birthday.

Saturday shall not be considered as a layday in determining time ships are in berth in this harbour.

AIRPORT: An airport is available approx. 35 miles from the city and served by regularly scheduled airlines.

TIME: The Port of Pascagoula is on Central Standard Time, GMT minu 6 hours; clocks are moved ahead 1 hour during Summer months. (Fir Sunday in April to last Sunday in October).

POLICE/FIRE/AMBULANCE: Telephone numbers for emergenc services are: Fire 762-1133; Police 762-2211; Ambulance 762-4949 762-4848. Universal emergency No. 911.

TELEPHONES: Not available.

SERVICES: Facilities are available for compass adjusting. Tan cleaning and receipt of tank washings can be arranged by contrac services available in the area.

SHORE LEAVE: Allowed for any crew member not detained b Immigration Office.

IDENTIFICATION CARDS: Standard Immigration Form I-95 to be mad up for each crew member on arrival. Not necessary for crewmen alread holding Form I-95 issued for the same vessel.

DELAYS: Berths at Public Terminals and the South Clusters ar assigned by the Harbour Master of the Port of Pascagoula. Berths a private docks are assigned by the respective owners. No exceptions t this are allowed. Berth at grain elevator is assigned by the Lesse Operator, the Louis Dreyfus Corporation. No delays are encountered b following this procedure, emergencies excepted.

GENERAL: Some difficulty encountered by unscheduled tows who us harbour for shelter in inclement weather. Pilot Association aware current situations. Ample barge storage is available in Barge Fleetin Area South of Ingalls Westbank Shipyard – capacity is 96 barges operated by Colle Towing Company who may be contacted on VH Channel 16 (KKV-933). Tel. (601) 762-5700.

SHIPMASTER'S REPORT: June 1980.

Vessel: 32,000 g.r.t., loading ammonia at Chevron Refinery.

Approaches: Charts BA. 3981 and 3380.

Approach made from the South East along the Safety Fairway usin "Satnav" positions for the approach to the fairway entrance. Failing th the echo sounder may be used to good effect in conjunction with sight

Two large oil rigs were sighted at the South East entrance to th fairway, but their positions were not plotted.

On the final approach visibility is often reduced due to industrial smo and the outlying islands are low and give no reliable positions until abou 8 miles off. There are 4 conspicuous flares beside the Chevron Refiner which will give a good lead to the "HIP" Buoy. These flares are no marked on either chart, but their approximate position is La 30° 20.2′ N., Long. 88° 29.3′ W.

Petit Bois Island is the first to show but with no distinguishing featur until close to it. "HIP" Buoy is easily identified at least 8 miles away an shortly afterwards the channel buoys may be identified on radar. Thes buoys are not marked on BA. 3380, but help indentify "HIP" Buoy should there be fishing boats in the vincinity. There are numerous fishin vessels in the approaches but they do seem to keep the fairway clea Many tugs and tows also in the area.

Pilotage: There is no berthing at night for vessels of this size (32,00 g.r.t.) due to having to turn in the turning area above the berth. Vesse may sail at night but careful consideration should be given to weathe conditions before agreeing to do so.

Contacted Pilot Office on VHF Channel 16, thereafter working Channel 13.

Pilot boards from a fast, black hulled launch off "HIP" buoy, ladde on lee side about 1 m. above water.

> *CAUTION:* The outer channel is well marked with conspicuou buoys but the configuration of the channel is liable to change. Th approach may be swept with strong conflicting cross currents an since the widest section is only 350 ft., very careful attention mu be paid to steering.

Once inside Petit Bois Island the channel narrows to 225 ft. in place the Pilots do have an unofficial 'one way traffic scheme' in progress bu this is not always adhered to by tows and fishing vessels.

Proceeding inwards, the vessel is turned at the very head of th harbour with the assistance of 2 tugs; vessel is turned to starboard an the head tug then shifts from the port bow to the starboard bow f berthing. Berthing is always port side alongside.

There is not a great deal of room in the turning basin, although th Pilots say that vessels over 800 ft. are turned there regularly.

On sailing, with a deep draft (32 ft. maximum) special care must b paid to steering within the channel. With a width of just over 200 ft. the is no room for error. I would advise that the watchkeeping officer be attendance on the helmsman throughout the passage.

Time from Pilot aboard to 1st line ashore is about 2 hours.

Berth: Chevron Refinery: Least depth sounded 12.2 m. Very good, wi a substantial Chicksan area and fairly good mooring arrangements.

Once made fast and loading a very careful watch must be kept the moorings since large tankers pass up and down the harbour to th tanker berth close ahead; the shore personnel will not hesitate to st loading if they think the moorings will allow the vessel to surge.

No motor access to the gate some 200 m. distant.

Telephone on the quay.

Loading: No difficulties were experienced. The facility is very keen pollution and will watch the discharge of ballast very closely.

The refinery do require ballast to be discharged ashore but that is of the question. A disclaimer will be presented for the ship to sign.

Since the upreach of the Chicksan is not sufficient, the low extensi or flexible hoses will have to be rigged prior to arrival. Shore connecti is 8 in. 150 ASA and was done on this occasion by ship's personnel

No vapour return line.

There is a recirculating system and there was no need to blow throu lines on completion.

Product was cold at this call but 'warm' product has been experienc here in the past. Overall load rate was 343 t.p.h. which the sho personnel were extremely happy with. Hourly rates frequently o 500 t.p.h.

Shore Surveyor attended and all figures were based on ship's gauges. Personnel generally helpful.

General: Fresh water available on the quay but reported as *not potable*. Bunkers available.

Stores have to be manhandled along the jetty but there are small trolleys available.

Gangway: Best left turned in until in position thence no problem, being clear of obstructions.

No objection made to ship's crew "touching up" ship's side from quay.

U.S.C.G.: No inspection this call but they are known to carry out both cargo and navigational inspections.

Films: Exchanged by ship chandler: Bow and Stern Marine.

Consul: The nearest British Consul is at Houston or Atlanta, should any surveys be required.

AUTHORITY: Port of Pascagoula, 3033 Pascagoula Street, P.O.Box 70, Pascagoula, Mississippi 39567. *Tel:* (601) 762-4041. *Telex:* 161858 PRT PASC. *Contact:* Paul W. Smith, Port Director. Allen E. Moeller, Harbour Master.

PENSACOLA, Florida: 30.25 N. 87.13 W. (See Plan)

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

BERTHING:

Berth Number	Length (ft.)	Depth at MLW* (ft.)	Use
No. 1	640	35	General Cargo and Bulk Handling Faciliites
No. 2	400	35	General Cargo
No. 3	425	35	General Cargo and Lumber
No. 5	425	35	General Cargo
No. 6	580	35	General Cargo

*While the Port of Pensacola has 35 ft. depth at MLW in berths, the Corps of Engineers project draft of 33 ft. is the controlling draft for the Port.

Transit Sheds:

Warehouse	
No. 1	72,000 sq.ft.
No. 5	72,000 sq.ft.
No. 6	90,000 sq.ft.
No. 8	83,000 sq.ft.
Total	317,000 sq.ft.

BULK HANDLING FACILITIES: *Dry Bulk Handling:* Bulk warehousing capacity is 88,100 sq.ft. in 2 buildings. Each building with rail and truck loading capability. Bagging services provided on the port premises through arrangements with private stevedoring companies.

TANKERS: *Private:* Belcher Oil Co. of Pensacola. J.R. Sauls, Manager, Mid Gulf Area, Port of Pensacola, P.O.Box 12626. Pensacola, FL 32574. Tel: 904-432-2471. Facilities: Industrial, Marine Fuels. 6 bulk oil tanks of 662,000 barrels capacity connecting by pipeline to berths 1, 2 and 3. 5 positions for loading and unloading. 5 bunkering stations and a truck loading facility.

Report: Port Approaches – Cautionary Advice: Vessels can approach the Sea Buoy with little or no difficulty. Deep loaded vessels should not enter past Buoy No. 1 without a Pilot. Currents in the Gulf of Mexico are varied, but will usually set in direction of the wind; sometimes approaching 4 to 5 knots during severe storms. When entering harbour full manoeuvring power and a good helmsman are essential as the current in the Entrance Channel can reach 5 knots. Currents inside the harbour are approximately 1 knot and set fair with channel. Vessel should anchor outside of Buoy No. 1 and off the centre of channel line when no Pilot is available to take them to the Inner Anchorage. Lightering is permitted at the Inner Anchorage. Harbour bottom consists of soft mud. There is very little harbour traffic.

Entering and Berthing: This harbour is serviced by one 1 Pilot organisation who knows all anticipated movements within the harbour, so no unexpected traffic should be encountered and all passing is done at desirable positions. Vessels can enter and berth at any stage of tide. Pilots will use West Channel for ships docking at No. 3 Berth on the pier face. When docking at No. 3 Berth, the Pilot approaches the berth dredging the vessel's anchor and passes her lines. When tugs are available in the harbour, Pilots will employ them.

CRANES: Mobile cranes up to 85 tons.

EQUIPMENT: Leased Equipment: 18×6,000 lb. fork lift trucks, 8×9,000 lb. fork lift trucks, 2×5,000 lb. fork lift trucks, 1 front end loader, 2 motorised driven sweeper, 1 motorised driven scrubber, 1 paper clamp and stevedoring equipment: Fork lift trucks have individual heights of 10, 14, 15, 16 and 17 ft. Attachments permit conversion for handling paper rolls and bales.

FRESH WATER: Available.

AIRPORT: Pensacola Regional Airport is served by both domestic and international air carriers in addition to intrastate airline service.

AUTHORITY: City of Pensacola, Marine Operations Department, P.O.Box 889, Pensacola, Florida 32594. *Tel:* (904) 436-4270. *Telex:* 702435. *Contact:* David A. Schaller, Port Director.

PETERSBURG, Alaska: 56.49 N. 132.57 W.

Located on Mitkof Island, Northern end of Wrangell Narrows. Open all year.

DOCUMENTS: See "Anchorage, Alaska".

PILOTAGE: (From sea via Dixon Entrance up Clarence Strait to Guard Island.) Under pilotage from Guard Island.

ANCHORAGE: Good anchorage in Scow Bay, mud bottom.

MAX. SIZE: Harbour depth 24 ft. MLLW. Tides: Diurnal range 15.7 ft. Also see "Berthing".

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

CUSTOMS: Immigration, Guard Island. Quarantine and Customs, local.

TUGS: 1×320 h.p.

BERTHING: Pacific American Fisheries Inc.: 75 ft. long, 65 ft. wide. Vessels should dock at slack water. Strong current.

STEVEDORES: 1 gang.

REPAIRS: Marine ways to 35 tons.

WATER: State approved water available.

FUEL: Diesel and gasoline available.

MEDICAL: 21 bed hospital.

TRANSPORTATION: Scheduled and charter airlines and ferry.

AUTHORITY: City of Petersburg, P.O.Box 329, Petersburg, Alaska 99833. *Contact:* Tom Gustafson, Mayor.

PHILADELPHIA, Pennsylvania: 39.57 N. 75.10 W. (See Plan)

DOCUMENTS:

3 Crew Lists, Form I-418 (suggest 6 be made).
3 Passenger Lists, Form I-418 (suggest 6 be made).
3 Customs Stores Lists (suggest 6 be made).
3 Curio Lists (own ship Form) (suggest 6 be made).
3 Narcotics Lists (own ship Form) (suggest 6 be made).
Manifest (Ship Cargo List). If Philadelphia first port of call, require 1 copy for Customs and 1 copy to be used as "traveller" surrendered last port of call. If Philadelphia not first port of call, 2 copies required, all cargo to be discharged at Philadelphia.

For Immigration Service:

Visaed Crew List.
Valid passport or Seaman's Book for each person on board.
Crewman's landing card (Form I-95) for each crew member.

PILOTAGE: Pilotage is provided by members of the Pilots' Association for the Bay and River Delaware who maintain a shore station and operations tower at Cape Henlopen. The pilot station is in operation on a 24 hour basis and guards VHF Channels 16 and 14. Telegraphic address is: Delpilots, 214 S. Eleventh Street, Philadelphia, Pa. 19107. Arrangements for Pilot may be made by the local Agent although an ETA and draft either by cable or VHF radio will be greatly appreciated and will facilitate prompt boarding on arrival. The pilot boarding area is inside a line between Entrance Buoys No. 5 and 6, or approximately 2 to 2.5 miles S.E. of Harbour of Refuge Lighthouse. Pilots may board further off-shore upon special request.

ANCHORAGES: Large and deep draft vessels awaiting berth are encouraged to avail themselves of the deep water anchorage adjacent to the Breakwater near the pilot station. There are 13 anchorage areas available along the Delaware for moderate size vessels of lesser draft.

Shipmaster's Report: Good holding ground at Big Stone Anchorage. There is a launch service from Big Stone Anchorage to the shore, call VHF Channels 9 and 14.

RESTRICTIONS: There are no restrictions imposed upon entry except those dictated by vessel draft. Throughout most of its length, the Delaware river is dredged to 40 ft. at MLW. In addition there is a mean tidal range of about 5.7 ft. Vessels of 40 ft. fresh water draft can safely transit the river on a rising tide.

MAX. SIZE: Deep-draft oil carriers are lightered in a special anchorage approximately 10 miles N.W. of the pilot station. Vessels are restricted to a max. draft of 55 ft. by Federal Law.

Notice: April 1988.

The Pilot Association for the Bay and River Delaware announced that with immediate effect the max. draft for inbound vessels and outbound vessels is restricted to 39 ft. (fresh water).

Chesapeake/Delaware Canal: See "Wilmington" – Delaware.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to New York Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

VHF: A port radio service operated by The Ports of Philadelphia Maritime Exchange on a 24 hour basis is also available to all vessels while transiting the Delaware River. VHF Channels 16 and 14 guarded for purposes of this service.

Ship reporting service in operation.

BERTHING:

Northern Shipping Co. Terminal	6 berths, depth 30 ft. to 35 ft.
Tioga Terminal	7 berths, depth 40 ft.
Delaware River Terminal	4 berths, depth 29 ft. to 32 ft.
Port Richmond	10 piers, depth alongside 26 ft. to 36 ft.
Delaware River	21 piers, depth alongside 26 ft. to 35 ft.
Packer Avenue Terminal	5 berths, depth alongside 40 ft.
Greenwich Point	2 berths 850 ft. length, depth 40 ft. to 42 ft.
Girard Point	3 piers, depth alongside 31 ft. to 40 ft.
Camden	3 piers, depth alongside 30 ft. to 40 ft.
Holt Marine Terminal	7 berths, depth up to 45 ft.

TUGS: Tugs normally join vessels adjacent to berth. Tug's lines are used.

CONTAINER HANDLING FACILITIES: *Tioga Marine Terminal:* Handles containerised and Roll-on/Roll-off cargoes. The terminal is equipped with 2 container cranes. Length of the marginal wharf is 3,300 ft., upper slip berth 725 ft. and lower slip berth 625 ft.

Packer Avenue Marine Terminal: Handles containerised and Roll-on/Roll-off cargoes. The terminal is equipped with 3 container cranes, one has a heavy lift capacity of up to 375 tons. The marginal wharf is 3,200 ft. in length and the Roll-on/Roll-off slip berth is 825 ft. in length.

Holt Marine Terminal: 2×35 ton container cranes. Ro-Ro facilities available.

BULK HANDLING FACILITIES:

Berth No.	*Location*	*Operator*	*Berth Length* (m.)	*Depth* (m.)	*Loading Rate* (tonnes/p.h.)
Pier No. 124	Greenwich	Conrail	310	12.19	5,000 (coal)
Pier No. 122 South	Greenwich	Conrail	260	12.19	3,000 (ore)
Pier E	Port Richmond	Conrail	260	12.19	2,000 (coal)
Camden-Beckett Bulk Terminal	Camden	South Jersey Port Corp.	200	11.50	500 (coal)

STEVEDORES: Ship's Agents make arrangements for stevedore gangs. Agents should be kept advised of any change in ETA.

MEDICAL: Advance notice of requirements desirable to the extent possible. Hospital facilities are available.

TANKERS: There are 83 petroleum handling berths along the Delaware River. All terminals are equipped with reducers. There are slop (residue) facilities at most terminals. Some main terminals listed below:

Fort Mifflin	Atlantic Refining and Marketing Co.	40 ft. depth
Point Breeze	Atlantic Refining and Marketing Co.	32 ft. depth
	Ballast Wharf	32 ft. depth
Hog Island	Chevron U.S.A. Oil Terminal	40 ft. depth
Paulsboro	Mobil Oil Terminal	30 ft. and 40 ft. depth
	B.P. Oil Terminal	36 ft. depth
Marcus Hook	B.P. Oil Corp.	35 ft. depth
	Sun Oil Co.	40 ft. depth
Westville (Eagle Point)	Coastal Eagle Point Oil Co.	40 ft. depth
Pennsauken	Texaco Inc.	34 ft. depth
Girard Point	Chevron U.S.A.	33 ft. depth
Delair	Amerada Hess Corp.	31 ft. depth
Delaware City	Texaco Inc.	37 ft. depth

Atlantic Refining and Marketing Co. – Fort Mifflin: Entering and Docking: There is a 5-knot tidal current that may cause extra care in tending lines while moored. Passing river traffic also requires constant attention to mooring lines. "A" and "B" Berths are 800 ft. in length and total mooring leads to each berth being 15. Maximum bow/manifold at "A" Berth is 375 ft.; head lines are 4 breast line leads. "A" Berth also requires 4 forward springs, 2 stern lines, 2 stern/breast lines and 4 after spring lines. "B" Berth requires 2 head lines, 2 forward breast lines, 4 forward spring lines, 2 stern lines, 2 after breast lines, 4 after spring lines. A gangway is not provided by the terminal.

Berthing: If the vessel is under 50,000 d.w.t., 2 tugs (1,000 h.p. – 2,000 h.p.) are required. Vessels in excess of 50,000 d.w.t. and equipped with a bow thruster may utilise 2 tugs. However, if the vessel is in excess of 50,000 d.w.t. and has no bow thruster, then 3 tugs should be used for docking. During normal conditions for vessels of any tonnage 1 tug (1,000 h.p. – 1,500 h.p.) should be employed for undocking. The vessel is normally turned off the dock prior to docking for starboard side mooring. Normal mooring is done approximately 1.5 hours prior to HW. A Pilot is required during docking and undocking. All hoses are 10 in. with bolted flanges. Cargoes handled are: crudes, gasolines, heating oil and kerosene. Maximum working pressure is 100 lbs. The terminal has no facilities for handling ballast or slops.

British Petroleum – Marcus Hook:

Pilotage and Docking: The services of a Pilot and Docking Master is both compulsory and recommended. When docking vessels of tonnages up to 30,000 d.w.t., 1 tug (1,700 s.h.p.) is required. Tonnages less than 50,000 d.w.t. require 2 tugs and vessels with a tonnage greater than 50,000 d.w.t. require 3 tugs when docking. For undocking vessels of any tonnage 1 tug is required.

Hose Connection: Crude oil is discharged through 2×10 in. and 1×8 in. arm. All cargo connections are made with hydraulic quick coupler loading arms. Maximum loading and discharge pressure is 100 lbs. Fuel oils and heating oil are discharged through 10 in. and 8 in. arms to the vessel. The terminal has storage facilities for up to 92,000 bbls. of ballast and does not handle slops.

Facilities and equipment available at the terminal for cargo control include check valves on the dock leading to the shore pipe-line system. An emergency control to stop loading is located at the dock manifold.

Bunkers: Fuel oil and diesel oil are available from an 8 in. line with a maximum delivery rate of 2,500 bbls.p.h Quantities delivered are as required. Fresh water is piped at a maximum rate of 20 t.p.h. through a 3 in. line, there are no restrictions on amount delivered.

British Petroleum – Paulsboro:

General: The BP refinery at Paulsboro is located 1.5 miles Eastward of Bramell Point (87 miles from the Sea Buoy). The terminal has 2 offshore wharves which provide 1,053 ft. of berthing space. Depths of 38 ft. are reported alongside, and deck heights are 11 ft. and 12 ft. There is a 3.5 million-barrel storage capacity. The terminal is used for receipt and shipment of petroleum products and bunkering vessels. The berths are parallel to the channel and each have 4 steel dolphins.

Vessels up to 675 ft. in length and a maximum of 38,000 d.w.t. can be accommodated at the Terminal Dock. Max. draft (fwd) is 37 ft. at the dock. Docking of vessels is done 2 hours prior to HW. Vessels up t 26 ft. can dock or undock at any stage of the flood tide. Vessels in exces of 26 ft. must wait for HW to dock or undock. Passing river traffic wi cause some surge to take place. Proper tension should be maintaine on all mooring leads. A gangway is not provided by the terminal.

Pilotage and Tugs: The services of a Pilot and Docking Master is bot compulsory and recommended. Vessels tonnages in excess o 1,000 g.r.t. required tug assistance from 1 or 2 tugs depending o prevailing winds. For undocking vessels of any tonnage 1 tug is required Due to shoaling adjacent to the berth, be advised that undocking vessel should be lined up on the Billingsport Range prior to the exchange o the Docking Master and Pilot.

Hose Connection: Clean products, No. 4 fuel oil and No. 6 fuel oil ar handled at this terminal through 8 in. hoses. These hoses are connecte with bolted flanges, there are 2 connections for each product. A products are pumped with a maximum pressure of 100 lbs. The termina has no facilities for handling ballast or slops.

Bunkers: Fuel oil and diesel oil are available in desired quantitie Maximum delivery rate is 2,000 bbls.p.h. through 8 in. lines. Fresh wate is not available.

Dupont – Gibbstown:

General: Deepwater Point, located 0.6 miles above the New Jerse end of the Delaware Memorial Bridge and 59 miles from the Sea Buoy is the site of the Dupont Chemical Company plant. The 550 ft. wha (Lat. 39° 41′ 37″ N., Long. 75° 30′ 40″ W.) at the plant can provide 600 f of berthing space with dolphins. Depths of 33 ft. are reported alongsid dock height is 10.5 ft. Liquid sulphur, acids, and chemicals are handle at the wharf.

Pilotage and Docking: Vessels up to 630 ft. in length, beam 90 ft. an 28,000 d.w.t. can be accommodated at the dock. Max. draft allowed i 32 ft. The dock has a limited strength. Shoaling in the berth places limit on vessel draft. For drafts of 32 ft. docking is done 2 hours prior t HW. Undocking can be done at any stage of the tide. Passing river traffi will cause the vessel to surge in it's berth. Proper tension should b maintained on all mooring leads. A gangway is not provided by th terminal.

The services of a Pilot and Docking Master is compulsory an recommended. Recommended mooring is with the bow downriver. Th vessel is turned off the dock with tug assistance. For docking, 2 tug (approximately 2,000 h.p.) are required. When undocking 1 tu (approximately 2,000 h.p.) is sufficient. The dock runs parallel to th river channel. All vessels are moored port side to. No mooring cable can be employed. All leads must be manilla or polypropylene lines.

Hose Connection: Fuel oil is discharged through 2×10 in. lines. Thes lines are connected by a flange. Maximum pumping pressure is 100 lbs Numerous cargo lines are located on the dock for handling barg shipments of petro-chemicals and acid. Assigned vessels are cautione to keep mooring lines clear of cargo lines. Safety check-lists ar employed at this facility. Personnel at the facility are familiar with an follow safety practices. The terminal has no facilities for ballast or slop

Fresh Water: Fresh water is only available at the dock. Fresh wate is piped at 20 t.p.h. and supplied in an emergency only.

Chevron Oil – Hog Island (Berth Nos. 3 and 4):

General: The Hog Island Wharf is located 90 miles from the Sea Buo on the Mifflin Range section of the Delaware River at Lat. 39° 51′ 46″ N Long. 75° 14′ 15″ W. The terminal is a deepwater berth providin 2,754 ft. of berthing space with dolphins. Depths of 37 ft. are reporte alongside the dock and deck height is 16 ft. The terminal is used fo receiving crude oil and shipping refined petroleum products. There is 5.5 million-barrel storage capacity at the terminal.

Entering and Docking: Vessels up to 1,000 ft. in length, 135 ft. bea and 110,000 d.w.t. can be accommodated at both berths. Maximu fresh water departure draft allowed is 37 ft. Vessels over 35,000 d.w have a maximum fresh water departure draft of 36.5 ft. For vesse making arrival to the Hog Island Berths that have pre-arriva displacements over 35,000 d.w.t. a lightering service is available in th vicinity of Big Stone Beach. Chevron provides Yokohama Fenders fo the lightering operations. Vessels over 35,000 d.w.t. should have minimum arrival draft of 36.5 ft. (salt) prior to transit up the Delawa River. A gangway is not provided by the terminal.

Pilot and Tugs: The services of a Pilot and Docking Master compulsory and recommended. Vessels should arrive off the berth hours prior to HW. All vessels are turned prior to docking for starboar side berthing with the heading down-river. 2 tugs are required if the tu is between 1,000 h.p. and 2,000 h.p. 3 tugs are required for vesse exceeding 35,000 d..w.t. For undocking 1 tug is required for all tonnage No gangway is provided by the terminal. Passing river traffic will caus berthed vessels to surge. All mooring lines and/or wires should b tended at all times. Additional spring lines are recommended for vesse in excess of 35,000 d.w.t.

Hose Connection: Crude oil is discharged through 4 loading arms both berths. The hoses are 12 in. and are connected with a bolted flange Max. discharge pressure is 100 lbs. All lines on shore are common crud lines. The terminal has no facilities for ballast or slops.

Fresh Water/Fuel: Fresh water when required by the vessel can b provided by the terminal. Max. delivery rate is 50 t.p.h. through a pipe line. Fuel oil can be delivered by barge only.

Mantua Petroleum – Mantua Fuel Pier:

General: The Mantua Fuel Pier is located at the S.W. limits of Mantu Anchorage, 81 miles from the Sea Buoy. The entrance of Mantua Cree is adjacent to the Western end of the Fuel Pier dolphin located at eac end of the pier. The terminal is used for the discharge of crude oil, fu oil, heating oil, jet fuel and petrochemicals.

Vessels up to 800 ft. in length, 125 ft. beam and 80,000 d.w.t. can b accommodated at the berth. Maximum fresh water draft allowed at th pier is 37.5 ft. Shoaling at the berth may place further limitations on th allowed fresh water draft.

Pilotage and Tugs: The services of a Pilot and Docking Master compulsory and recommended. Following transit of the Delaware Rive on a rising tide, vessels should arrive off the dock 2 hours prior to HW. Vessels are turned around in the Anchorage Area North of the terminal with 2 tugs assisting. After completion of the turn the vessel is then breasted, port side, into the berth. The berth is almost parallel to the channel. 2 tugs are used for docking vessels of all sizes. 1 tug is used for undocking all vessels. Approximate tug horse-power required is 2,000 h.p. All vessels are moored port-side to. The terminal recommends that manila or polypropylene mooring lines be used at this location. Passing river traffic will cause surging of the vessels at the berth. To minimise this surging, the terminal recommends doubling of fore and aft spring lines. All mooring lines should be tended constantly.

Hose Connection: Cargo handled at this terminal includes crude, heating oil, fuel oil and jet fuel. Jet fuel is handled through an 8 in. line. All other cargoes are handled through 10 in. lines. Connections of hoses are made with flanges. Maximum pumping pressure is 90 lbs. On completion of cargo discharge the terminal displaces the cargo in the hose with nitrogen. The terminal connects and disconnects all hoses and has no facilities for ballast or slops.

Bunkers and Freshwater: No fuel or freshwater is available at the berth. The terminal will not permit fueling of vessels at this berth.

Mobil Oil – Paulsboro:

General: The Mobil Oil Terminal is located at Bramell Point at the West end of the Paulsboro waterfront which is approximately 80 miles from the Sea Buoy. Facilities include a 2,453 ft. marginal wharf providing 2,254 ft. of berthing space. Depths of 39 ft. have been reported alongside and deck height is 12.5 ft. There is a 6.2 million-barrel storage capacity. The terminal is used for the receipt and shipment of petroleum products and bunkering vessels.

Vessels up to 900 ft. in length, unlimited beam and 80,000 d.w.t. can be accommodated at the terminal berths. Drafts to 38 ft. (freshwater) have also been accommodated at these berths. Shoaling at the berth may place further limitations on the allowed fresh-water draft.

Pilots and Docking: The services of a Pilot and Docking Master is compulsory and recommended. Vessels should arrive off the dock 2 hours before HW and are turned prior to docking for a port side mooring. After completion of the turn the vessel is breasted into the berth. Additional spring lines are recommended to prevent surging caused by passing river traffic. To insure a proper lead on the spring lines, the terminal recommends the spring lines be crossed. The terminal does not provide a gangway.

Tugs: Tug requirements for docking vessels include: 1 tug for vessels up to 30,000 d.w.t., 2 tugs for vessels over 30,000 d.w.t. For undocking vessels tug requirements include 1 tug for vessels up to 50,000 d.w.t. and 2 tugs for vessels in excess of 50,000 d.w.t.

Hose Connection: Crude is discharged at No. 1 Berth. 4 loading arms with 10 in. hoses using bolted flanges are connected to the ship. Max. discharge pressure is 125 lbs. Clean lubes are handled at No. 2 Berth, through 3 loading arms when loading and 4 loading arms when discharging. 8 in. hoses with bolted flanges are connected to the ship. Max. line pressure is 100 lbs. Lube oils are handled at No. 3 Berth in the same manner as No. 2 Berth. The terminal has limited facilities for handling ballast through a 6 in. line. There are no common pipe-lines for cargo in the terminal. Safety checklists and practices are followed by terminal personnel.

Bunkers and Fresh Water: All quantities of fuel oil, diesel oil and fresh water are pumped to the vessel as required.

Sun Oil – Marcus Hook: (Also see "Shipmaster's Report").

General: Located at Mile 69 North, Marcus Hook is an important petroleum centre where large quantities of crude oil are received and refined petroleum products are shipped. Vessels can be bunkered at the rate of 1,500 and 5,000 bbls.p.h. Sunoco Wharf No. 3 (Lat. 39° 48′ 23″ N., Long. 75° 25′ 10″ W.), and Sunoco Wharf No. 2 (250 yards and Northeastward of Wharf No. 3) are both owned and operated by Sun Oil Company.

Wharf No. 2A can accommodate vessels up to 750 ft. in length, 125 ft. beam, max. 50,000 d.w.t. and max. fresh water draft 35 ft. Wharf No. 3A can accommodate vessels up to 810 ft. in length, 125 ft. beam, max. 76,000 d.w.t. and max. fresh water draft of 35 ft. Wharf No. 3C can accommodate vessels up to 1,000 ft., 125 ft. beam and draft 35 ft. Shoaling at the berth may place further limitations on allowed fresh water drafts.

Pilots and Docking: The services of a Pilot and Docking Master is compulsory and recommended. Vessels should arrive off the dock 2 hours prior to HW. Vessels are turned above the facilities prior to docking. Undocking is done at any stage of the water height. After completion of turn the vessel is then breasted into the berth for a starboard side mooring. Passing river traffic will cause moored vessels to surge unless proper tension is maintained on mooring leads at all times.

Tugs: Tug requirements for docking vessels include 2 tugs between 1,500 h.p. and 2,000 h.p. For vessels undocking 1 tug is sufficient.

Hose Connection: Crude and fuel oil are discharged at Berth Nos. 2A and 3A. Both berths have 4 loading arms, 12 in. hoses, and max. pumping pressure of 125 lbs. All connections are made with a bolted flange. Clean products are handled at all 3 berths through 8 in. or 12 in. hoses. Maximum pumping pressure is 125 lbs. Petro-chemicals are discharged at Berth No. 3A through a 10 in. line with a max. pumping pressure of 125 lbs. All connections for clean products and petro-chemicals are made with bolted flanges.

Bunkers and Fresh Water: Fuel oil and water is available at all berths. Fuel oil is delivered at 2,000 bbls.p.h. through an 8 in. line. Fresh water is piped at a rate of 45 t.p.h. Quantities available are enough to satisfy individual vessel requirements.

Swann Oil – Harkness Point, Schuylkill River:

General: The Schuylkill River is approximately 85 miles from the Sea Buoy on the Northside of the Delaware River. The junction is marked with a flashing red 4 sec. light mounted on a stone pile on the right side of the junction and Buoy "C1" on the lest side of the junction. A fog signal is located on the West side of the river junction. A lighted range (bearing 021.5°T) marks the entrance. Vessels proceeding to Harkness Point will pass under the Girard Point Bridge and Penrose Avenue Bridge, 0.6 miles and 1.3 miles, respectively, above the river mouth. Both bridges have fixed spans with clearances of 135 ft.

Pilotage and Docking: The terminal berth can accommodate vessels up to 630 ft. in length, 90 ft. beam, max. 28,000 d.w.t. and max. fresh water draft of 33 ft. There is a bow-to-manifold restriction and no proper breast line leads therefore the present mooring arrangement considered to be unsafe. Vessels should arrive at the Schuylkill River at HW slack for docking. Undocking can take place at any stage of the tide. A parallel approach is made when docking. A Pilot and Docking Master are compulsory and recommended. 2 tugs are assigned to all vessels when docking. For all vessels undocking 3 tugs must be employed. Undocking vessels have to be backed down the Schuylkill River to the junction with the Delaware River before turning can be accomplished.

Hose Connection: Fuel oil, heating oil, bunker and gasoline are all offloaded at this terminal. Bunkers are also loaded onto vessels at the berth. 4×10 in. lines are used for fuel oil and heating oil. All cargo lines are connected with a bolted flange. Max. pumping pressure on all lines is 100 lbs. 1×6 in. line is used for bunkers and 1×8 in. line is used for gasoline. The terminal has no facilities for ballast or slops. The dock manifold only permits the discharge of one grade at a time, this could affect the trim of the vessel.

Fresh Water/Fuel: Fuel oil and water is available at the berth. Fuel oil is delivered through a 6 in. line at 2,000 bbls.p.h. as per vessel requirements. Fresh water is piped at 40 t.p.h. maximum delivery rate.

Coastal Eagle Point Oil Co. – Westville Nos. 2 and 3:

General: The Terminal is located 90 miles from the Sea Buoy at Lat. 39° 52′ 43″ N., Long. 75° 09′ 30″ W. East of Eagle Point. The facility has an offshore wharf which provides 1,380 ft. of berthing space. Depths of 40 ft. are reported alongside and deck heights are 6 ft. and 16 ft. There are water and elecrical shore power connections. Vessels can be bunkered at the rate of 1,500 bbls.p.h.

The terminal can accommodate vessels up to 910 ft. in length, unlimited beam, max. 85,000 d.w.t. with a ma. fresh water draft of 38 ft. The controlling depth at the berth is 40 ft.

Pilotage and Docking: A Pilot and Docking Master are compulsory and recommended. Vessels dock at HW or first stage of ebb. Undocking takes place at any stage of the tide. For docking 2 tugs are recommended. For undocking the Master may decide to use 1 or 2 tugs, depending on the weather and tidal conditions. Vessels are turned prior to docking for a port side mooring. No gangway is provided by the terminal. A normal mooring arrangement is used. Distance between shore manifolds is 878 ft. The terminal requires 100 ft. clearance between vessel when Berth Nos. 2 and 3 are occupied simultaneously.

Hose Connection: Berth No. 2 handles off-loading of crude, No. 4 and No. 6 fuel oil through 12 in. and 8 in. hoses. All connections at both berths are bolted flanges. Max. pumping pressure at both berths is 100 lbs. for all cargoes except chemicals which are pumped at 95 lbs.

Berth No. 3 handles No. 4 and No. 6 fuel oil through 6 in., 8 in. and 12 in. hoses. The terminal can handle up to 10,000 tons of ballast providing the separator is operational. Slops can also be sent ashore. The shore ballast line is segregated. Fuel Oil and crudes are handled through a common line.

Fresh Water/Fuel: Available.

Dirty Ballast Facilities:

Marcus Hook (Sun): Line 8 in. Max. quantity acceptable 1,800 tons. Rate 250 t.p.h. Clean ballast may be pumped overboard.

Marcus Hook (B.P.): Line 8 in. Max. quantity acceptable 2,000 tons. Rate 250 t.p.h. Clean ballast may be pumped overboard.

Paulsboro (Mobil): Line 6 in. Max. quantity acceptable 2,000 tons. Rate 150 t.p.h. Clean ballast may be pumped overboard.

Paulsboro (Exxon): Line 10 in. Max. quantity acceptable 4,000 tons. Rate 800 t.p.h. Clean ballast may be pumped overboard.

Point Breeze (Atlantic): Line 6 in. Max. quantity acceptable, no limit. Rate 300 t.p.h. Clean ballast may be pumped overboard.

Eagle Point (Coastal): Line 10 in. Max. quantity acceptable, no limit. Rate 1,000 t.p.h. Clean ballast may be pumped overboard.

Girard Point (Chevron): Line 8 in. Max. quantity acceptable, no limit. Rate 500 t.p.h. Clean ballast may be pumped overboard.

General: Lighterage of deep drafted tankers effected at anchorage inside the Capes and before entering the main Ship Channel, i.e. at Big Stone Reach Anchorage, etc.

The holding ground in the upper river anchorages, such as Reedy Point, Marcus Hook, Mantua Creek, etc. is reported to be poor, whilst considerable siltation is also reported in these areas. Masters are therefore advised to take suitable precautions when having to use these anchorages.

Loading Fresh Water: This is effected at Mantua Creek Anchorage only.

Shipmaster's Report: September 1984.
Sun Oil Jetty (3C) at Marcus Hook.

Vessel: 140,000 d.w.t. LOA 270 m.

This is the only berth at Marcus Hook suitable for tankers of this size. Usually berth starboard side alongside, arriving off berth about 2 hours before HW. 1 tug each end, tugs' lines and usually made fast on main deck. 2 back springs first then 2 to 3 breasts and 2 to 3 head/stern lines. With this size of vessel it is better to have forward back springs from forecastle and use main deck moorings as head lines. Aft normally have back springs and stern lines from poop and breast lines from main deck.

Shore gangway and with an accommodation ladder about 20 m. abaft after manifold it is best to remove platform and land shore gangway there.

If bunkering then usual to pull off berth and anchor in Marcus Hook Anchorage.

Berthing Pilot boards off and normally uses accommodation ladder.

LNG/LPG: COAST GUARD REGULATIONS: REQUIREMENTS FOR THE TRANSPORT AND TRANSFER OF LNG/LPG:

The following requirements are issued in the interest of port safety to supplement existing local, State, and Federal Regulations.

A. GENERAL REQUIREMENTS.

1. *Pre-arrival Conference:* Prior to a vessel's initial port call, or when such a vessel has not been to the port within six months, and is laden with LNG or LPG enroute to a facility under the jurisdiction of the Captain of the Port, Philadelphia zone, as defined in 33 CFR 3.15-25, a pre-arrival conference shall be held with all personnel concerned in the delivery and operation of the facility. The purpose of this conference is to disseminate and explain Captain of the Port requirements, local regulations, and establish emergency procedures for that vessel during the initial and subsequent port calls. The conference will include representatives of the Coast Guard, the vessel's Agent and charterer or operator, terminal owner/operator, and local authorities including the fire department.

2. *Notification:* The Captain of the Port must be notified:

a. At least 72 hours in advance of a vessel's arrival at the Delaware Breakwater with confirmation 12 hours in advance, and certification upon arrival.

b. Of the vessel's ETA at Delaware Memorial Bridge.

c. Of the intended length of port call and estimated time of departure.

d. Of any changes in the intinerary.

B. VESSEL DOCUMENTS: Prior to proceeding past the Delaware Breakwater at Cape Henlopen, the Master of the vessel shall ensure the following documents are valid and can be produced on demand:

1. A Certificate of Financial Responsibility issued by the Federal Maritime Commission.

2. If U.S. Flag, a Certificate of Inspection endorsed for the product(s) carried.

3. If foreign flag, a Letter of Compliance (LOC) for the carriage of the product(s) carried.

a. Vessels not holding a valid LOC shall be boarded by a joint COTP/OCMI inspection party at the Breakwater Anchorage prior to proceeding upriver. The vessel shall be examined in accordance with 46 CFR, part 154. If the examination is satisfactory, the vessel will be permitted to proceed upriver to the facility. Compliance with part C of this chapter will be strictly observed.

C. TRANSIT RESTRICTIONS FOR VESSELS LADEN WITH LNG/LPG CARGO:

1. *Vessel Movement:* Vessel movement will be conducted only with prior approval of the Captain of the Port.

2. *Propulsion and Machinery Status Report:* No vessel may proceed past the Delaware Breakwater unless the Master sends a message to the Captain of the Port within 12 hours before arrival stating that "To the best of my knowledge and belief there are no known casualties to this vessel or its machinery and all cargo handling and gas detection equipment is in proper operating condition". Should any condition be present that precludes the sending of this message, the vessel shall be boarded by the Coast Guard at the Breakwater Anchorage so that a determination can be made as to the vessel's seaworthiness and repairs necessary prior to transiting the river.

3. *Transits:* LNG/LPG laden vessels may only transit the Delaware Bay/River daytime during hours if the visibility is two miles or greater. After discharging, a vessel empty of LNG/LPG cargo may depart at any time.

4. *Intra-Harbour Movement:* An LNG/LPG carrier should submit 2 hours' advance notice of intra harbour movement to the Captain of the Port, earlier notice is desired if practicable.

5. *Radio Guards:* Continuous radio guard must be maintained on Channel 13 (156.65 MHz) and Channel 16 (156.8 MHz) during transit.

6. *Tug Escort:* No LNG/LPG laden vessels shall transit the Delaware River above Delaware Memorial Bridge without at least one commercial tug escorting.

7. *Coast Guard Escort:* Unless specifically authorised by the Captain of the Port, no vessel may transit the Delaware River above Delaware Memorial Bridge without a Coast Guard escort vessel.

8. *Meeting and Overtaking:* While transiting the river, the vessel will not overtake river traffic; nor will river traffic be allowed to overtake the vessel. The vessel shall be navigated so as not to meet other vessels at bends in the river channel. During meeting situations, neither vessel shall proceed in such a manner that they will meet at a relative speed greater than 20 knots.

9. *Emergency Situations:* In the event of an emergency situation, the Captain of the Port must be promptly notified of the vessel's position, draft, nature of emergency, time required to restore normal operations and future intentions. The vessel's Master or Agent shall have the authority to immediately enlist commercial assistance in an emergency situation or when the COTP deems that commercial assistance is required to prevent an emergency.

D. ANCHORAGE RESTRICTIONS AND REGULATIONS:

1. Transfer of product at anchorage is not permitted except in the event of an emergency such as to warrant, in the opinion of the Captain of the Port, specific authorisation.

2. A live bridge watch shall be maintained by a qualified watch officer. A round of bearings and/or ranges fixing the vessel's position shall be taken hourly followed by a report on the hour to COTP Philadelphia on Channel 16 FM reporting anchor holding and operations normal or any significant change in position or deviation from the norm. In addition to these requirements, during periods of sustained winds in excess of 25 knots, but less than 40 knots, the vessel must maintain the capacity of having engines on line within 30 minutes; if sustained winds are 40 knots or over, the main propulsion plant must be on line.

3. A continuous radio guard shall be maintained on Channel 16 F while at anchor.

4. Vessels anchored in Mantua and Marcus Hook Anchorages ma be required by the Captain of the Port to have tug assistance during th change of tide.

E. VESSEL TRANSFER OPERATIONS: (The Master shall b responsible for compliance with this section): Prior to th commencement of transfer operations, a Coast Guard boarding par will examine the vessel. Cargo transfer shall commence only afte satisfactory completion of the inspection and issuance of Coast Guar Form 4260, Permit to Handle Dangerous Cargo.

1. The following is a partial list of items inspected by the Coast Guar boarding party:

(a) Relief valve records and data.
(b) Gas detection system/alarms operation and records.
(c) Remote shutdown operation.
(d) Firefighting equipment.
(e) Boiler burn off system (if installed).
(f) Condition of piping, flanges, expansion joints, relief valves, carg valves, and gauges.
(g) Intrinsically safe equipment.
(h) Automatic controls.

2. In addition to the above, the inspection party will ensure th following requirements are complied with:

(a) Person-in-Charge: The Master shall ensure a licensed officer qualified supervisor is aboard the vessel throughout the entire carg discharge/loading operation.

(b) Other Vessel Activities: Only such activities as bunkering, loadin of stores, repairs i.e., normal ship maintenance and support activitie as approved by the Captain of the Port at the pre-arrival conferenc will be permitted – under such conditions as stipulated – while vesse are transferring LNG/LPG. No cutting, burning, welding or other hot wo is allowed on the vessel without specific approval from the Captain the Port.

(c) Smoking Areas: Smoking areas shall be designated by the Mast and posted at the gangway.

(d) Bonding: The terminal manager shall ensure the vessel electrically bonded to the shore ground prior to commencing transf operations. The connection shall be maintained until transfer operation are secured. An approved connection shall be used for securing, i.e alligator clamps are not acceptable. "C" clamps would meet minimu requirements, bolted connections are recommended. The Master sha not commence hookup until this action is taken.

(e) Mooring Requirements: The vessel shall, when possible, mo bow to seaward, and be prepared to get underway on short notice. may be required to have a live tug standing by during operations. A wi rope towing hawser shall be made ready forward, amidships, and a with the bight at water's edge.

(f) Operations During Storms: Cargo transfer operations shall ceas if an electric storm occurs and at any time lightning is observed thunder heard; cargo transfer connections may be maintained.

(g) Language Requirements: Ship's supervisory personnel direct involved in supervision of cargo transfer operations must be able to rea speak and understand the English Language.

(h) Transfer Connections: Each flange in the overall transf operation will be secured with all bolts and properly gasketed, or with Coast Guard approved quick disconnect device.

(i) Venting: Venting of boil off vapours is prohibited. LNG vessels mu demonstrate the ability to contain or consume boil off vapours for minimum of 21 days.

(j) Fire System: The Master shall ensure the vessel's fire main linked to the waterfront facility fire fighting system so that the vessel w maintain a firefighting capability, even if its fire pumps are inoperativ The bonding hose shall never be charged unless in use during a fire.

(k) Personnel Aboard: A minimum number of personnel to be retaine aboard the vessel shall be established during the pre-arrival conferenc or dockside inspection.

(l) Barge Personnel: In operations involving barges. a tankerma possessing an appropriate certificate for the product being handled sha be present during cargo operations.

F. FACILITY OPERATIONS: (The Terminal Manager shall b responsible for compliance with this section).

A pre-arrival conference shall be held in accordance with para A s that the following regulations may be explained and disseminated pri to the initial operation of a facility. Drawings indicating cargo routing fro the dock to all storage tanks shall be provided to Coast Gua representatives. A current list of qualified cryogenic supervisors shall b maintained with copies provided to the COTP. The following regulatio shall be complied with during all transfer operations.

1. *Facility Security:* All facility/terminal security zone areas are to b posted and restricted to personnel authorised by the terminal manage Adequate physical security shall be provided, including a guard force allow on authorised personnel, i.e., those persons who have an offici need for presence on the facility, during operations.

2. *Equipment Inspections:* Immediately prior to handling cargo, th shore piping which is to be used in the operation shall be inspected f proper operation of automatic controls, gas detection, an instrumentation. If any of the system contains air, it shall be purged pri to handling the product by an inert gas, in special circumstances, b using low pressure LNG/LPG vapour. Care shall be taken in purging minimise the volume of flammable mixtures present at *anytim* Following the purging, piping shall be so cooled as to prevent excessi thermal stress.

3. *Supervisor and Personnel:* A designated cryogenics supervis shall be in attendance at the waterfront facility in the proximity of an during all cargo operations. During all periods of cargo transfer, th terminal shall have one man on board the vessel and one man at th tank car or storage tank loading stations who shall be able to co municate with each other at all times with intrinsically safe equipmen

4. *Language Requirements:* All shore supervisory personnel directly involved in supervision of cargo operations must be able to readily read, speak and understand the English language.

5. *Smoking:* No smoking shall be permitted except in designated areas determined by the facility operator, subject to the approval of the COTP.

6. *Hot Work:* Hot Work will not be permitted without prior authority of the COTP.

7. *Notification:* The COTP shall be notified one hour in advance of the commencement and termination of the cargo transfer operations at the waterfront facility.

8. *Fire Equipment:* The terminal manager will ensure currently tested and inspected fire hoses are laid out and connected to hydrants in tank car and storage tank loading areas unless otherwise provided with approved, permanently installed facilities. The international shore connection shall be connected in accordance with para. E, Vessel Transfer Operations. Hydrants shall be tested for satisfactory flow prior to connecting hoses. In addition to portable equipment, the offshore mooring area or waterfront facility area shall have any combination of semi-portable dry chemical extinguishers totalling 600 pounds. A fire main water source and spray equipment must be available as well. It will be the terminal manager's responsibility to have his fire marshall and fire equipment present at the connecting and disconnecting stages of the operation.

9. *Lighting:* Adequate shoreside lighting in conformance with the National Electric Code shall be provided.

10. *Hoses:* Each hose used to handle cargo shall have been designed for handling such products and shall be tested at 1 – 1.5 times its maximum allowable working pressure or 250 psi, whichever is greater, prior to commencing the transfer operation.

11. *Vessel Protection:* Vessels moored to existing facilities and marginally to a channel, or when otherwise deemed necessary by the COTP, must be afforded protection through the use of barges or camels. Any such protection shall have specific approval of the COTP.

12. *Inspection of Reception Facilities:* All tank cars, tank trucks, barges and storage tanks shall be inspected prior to loading. Time of their last test shall be verified. Operability of overpressure protection devices shall be verified by a person designated by the terminal manager.

13. *Remote Shutdowns:* Remote cargo shutdowns shall be certified satisfactory by a person designated by the terminal manager.

14. *Transfer Completion:* Upon completion of all cargo transfers, the product line from pier head to tank car and/or storage loading stations in the type of operations where this applies, shall be unloaded into closed containers and not vented into the atmosphere. Where the operation of the LNG/LPG terminal is such that the product will be circulated continuously, it need not be unloaded – thus there will be no delay at the start of each cargo transfer operation while bringing the piping down to operating temperature, and a resultant reduction in cycling of thermal stresses. However, the unloading arms shall be drained, using nitrogen purge and left in a nitrogen atmosphere with the shipboard end of the unloading arm blanked off until ready for the next transfer operation.

15. *Bonding:* The terminal manager shall ensure the vessel is electrically bonded to the shore ground prior to commencing transfer operations. The connection shall be maintained until transfer operations are secured. An approved connection shall be used for securing, i.e., alligator clamps are not acceptable. "C" clamps would meet minimum requirements, bolted connections are recommended.

DENSITY: Philadelphia ports are fresh-water ports.

FRESH WATER: Fresh water normally not available directly at berth. Fresh water available by tank truck or through fire department. Water by barge available.

River Associates, Inc. of Philadelphia, Tel: (215) 922 – 6027, provides wash water in Philadelphia and Delaware Bay with two barges, 220 tonnes and 1,000 tonnes capacity.

FUEL: Bunker C and diesel fuel available at most oil terminals. Vessel's Agent should confirm berthing space at least 24 hours in advance.

GANGWAY/DECK WATCHMEN: These services are left to the discretion of the Master. It is often recommended by ship's P & I Club that watchmen be engaged when seamen are detained by U.S. Immigration. Ship is subject to fines by U.S. Government if any detained seaman deserts vessel.
OPENING/CLOSING HATCHES: Normally by stevedores.
CERTIFICATES: Ship's Register and Load Line Certificate are mandatory. If vessel is carrying passengers from the U.S. they will require a U.S. Coast Guard Certificate. This can easily be obtained in about 1 or 2 days subject to meeting the requirement for life-saving equipment.
CUSTOMS ALLOWANCES: No set rule. Reasonable amount allowed for personal use.
CARGO GEAR: For exceptionally heavy lifts, Pennsylvania Shipbuilding Co. has a floating derrick with 800 tons lifting capacity.
CONSULS: The following countries are represented in Philadelphia:

Austria
Canada
Chile
Colombia
Costa Rica
Denmark
Dominican Republic
Ecuador
El Salvador
Finland
France
Germany F.R.
Great Britain
Guatemala
Haiti
Honduras
Israel
Italy
Japan
Lesotho
Mexico
Monaco
Netherlands
Norway
Panama
Portugal
Spain
Sweden
Switzerland
Venezuela

REPAIRS: All types of ship repairs can be effected.
DRY DOCK: Floating dock with capacity 70,000 tons.

SURVEYORS: American Bureau of Shipping, Tel: WA 5-2693 (after hours: 896-7586).
Caleb Brett, Tel: 521-1725.
National Cargo Bureau, Tel: WA 5-3546.
W. Saybolt, Tel: 727-1050.
Bureau Veritas, Tel: KI 3-5884.
China Corp. Register of Shipping, Tel: KI 3-5884.
Lloyd's Register, Tel: 836-7296.
Panama Bureau of Shipping, Tel: 543-5884.
U.S. Salvage Association, Tel: 544-4588.
AIRPORT: Philadelphia International Airport is located approximately 6 miles from central harbour area.
TIME: Standard Time GMT minus 5 hours. Daylight Saving Time (GMT minus 4 hours) from first Sunday in April till last Sunday in October.
HOLIDAYS: New Year's Day (1st January); Martin Luther King, Jr. Birthday (15th January); Lincoln's Birthday (12th February); Washington's Birthday (22nd February); Thomas Gleason Birthday (17th March); Richard L. Askew Birthday (6th April); Good Friday; Memorial Day (Decoration Day); Flag Day (14th June); Independence Day (4th July); Labour Day (1st Monday in September); Columbus Day (12th October); November Election Day (1st Tuesday in November); Armistice or Veteran's Day (11th November); Thanksgiving Day; Christmas Eve; Christmas Day; and any other national holiday as may be provided by executive authority.
POLICE/FIRE/AMBULANCE: Fire Tel: LO 3-6700; Police Tel: 231-3131; Port Disaster Tel: 609-WO 3-6420 or WA 5-8780.
SHIP SUPPLY SERVICE:
Fleet Helicopter Service. Tel: 282-4100.
Keystone Helicopter Corp. Tel: 644-4430.
Seaboard Air Charter, Inc. Tel: 563-1564, (302) 856-6545.
Baker, Carver & Morrell of Phila., Inc. Tel: 336-2700.
Delaware Bay Ship Chandlers. Tel: (302) 422-8088.
Delaware Ship Supply Co. Inc. Tel: HO.3 – 1700.
Delaware Bay Launch Service Inc. Tel: (302) 422-8088.
Delaware River Harbour Service. Tel: 365-9777.
Hueber Launch Service. Tel: (215) 872-3544, (215) 425-3155.
GENERAL: If garbage removal is required while in port, it must be done under supervision of the plant quarantine service.
DEVELOPMENTS: Cibro to build coal terminal at Port Richmond.
AUTHORITY: Philadelphia Port Corporation, 1020 Public Ledger Building, 6th and Chestnut Streets, Philadelphia, Pennsylvania 19106. *Tel:* (215) 928 – 9100. *Telex:* WUT 834 – 652. *FAX:* (215) 928-1488. *Contact:* William B. McLaughlin, Director of Corporate Communications.
AGENT: Rice, Unruh Co., 232 South Fourth Street, Philadelphia, Pennsylvania 19106. Tel: (215) 629-1719 (11 lines) (Note: Answering service in attendance outside normal working hours). TRT 173232. Telex: 84-5158. Fax: (215) 692-0242.

PINEY POINT, Maryland: 38.08 N. 76.32 W. **(See Plan)**

Steuart Petroleum Company Terminal on East bank of Potomac River, 82 miles from sea.
DOCUMENTS/PILOTAGE: Refer to "Baltimore".
ANCHORAGE: Unlimited, available in Chesapeake Bay.
RESTRICTIONS: Berthing 24 hours a day with max. draft of 38 ft. Vessels exceeding 725 ft. or 36 ft. draft, 2 tugs required docking and 1 sailing. Vessels under, 1 tug docking and sailing.
MAX. SIZE: Limited by depth at berth, 38 ft.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to New York Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: WMH Baltimore Radio. VHF Channel 26.
TUGS: 2 tugs available for berthing, join vessel off berth. Tugs despatched from Baltimore.
BERTHING: 1 tanker berth only operated by Steuart Petroleum Company. Long lines required for first ashore.
FRESH WATER: Available at berth.
FUEL: Bunker "C" only, available at berth.
AIRPORT: Washington National (80 miles) or Baltimore-Washington (100 miles).
TIME: GMT minus 6 hours. Summertime from April to October.
SHORE LEAVE: Allowed.
GENERAL: Nearest city with full services is Washington, 65 miles distance and Baltimore 110 miles.
AUTHORITY: Maryland Ports Administration, The World Trade Centre Baltimore, Baltimore, Maryland 21202. *Tel:* (301) 659-4550.
Operator: Steuart Petroleum Co., Piney Point, Maryland 20674.

PORT ADAMS, Texas: 29.45 N. 95.11 W.

Refer to "Houston" for all general information.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness reports made to Miami Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

PORT ANGELES, Washington: 48.08 N. 123.25 W. (See Plan)

DOCUMENTS, etc.: Refer to "Tacoma".
PILOTAGE: Compulsory for all vessels except those in coasting trade. Pilot station at Ediz Hook serves all vessels bound for Puget Sound ports. Pilot boards off Port Angeles.
APPROACHES: Depth at entrance 100 ft. – 160 ft. No bar.
ANCHORAGE: In harbour, depth at least 42 ft. MLLW.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: Available from Foss Launch and Tug Co.
BERTHING: 3 pier berths and 2 dolphin berths, depth up to 45 ft. MLLW. One electric gantry crane, capacity 5 tons. Forklifts with capacity to 10 tons.
STEVEDORES: 8 local gangs, additional gangs may be imported if required.
MEDICAL: All medical facilities available. Local hospital.
DENSITY: Salt water.
FRESH WATER: Available at all wharves.
FUEL: Barge delivery only.
REPAIRS: Minor repairs only.
HOLIDAYS: See "Tacoma".
GANGWAY/DECK WATCHMEN: Required only if detainees aboard.
CUSTOMS ALLOWANCES: No definite quantities specified; reasonable allowance at discretion of Custom's Inspector.
AIRPORT: William R. Fairchild International Airport 3.5 miles from the harbour.
AUTHORITY: Port of Port Angeles, P.O.Box 1350, 338 W. 1st Street, Port Angeles, Washington 98362. *Tel:* (206) 457-8527. *Telex:* 469230. *FAX:* (206) 452-3959. *Contact:* D. G. Hendricks, Executive Director. David H. Hagiwara, Director of Marketing.

PORT ARTHUR, Texas: 29.52 N. 93.56 W. (See Plan)

DOCUMENTS:
Entrance Direct from a Foreign Port:
Master's Oath on entry on vessel in Foreign trade, Customs Form 1300 (2 copies).
General Declaration, Customs Form 1301 (2 copies).
Ship's Stores Declaration, Customs Form 1303 (2 copies).
Crew Effects Declaration, Customs Form 1304 (2 copies).
Clearance from Last Port.
Inward Foreign Manifest, Customs Form 1302 (2 copies).
Passenger/Crew List. Form I-418 (3 copies).

In event import cargo is onboard, an additional copy of each of the above Forms is required for travelling Manifest. A copy of the Manifest for each port is also required.

Entrance from Domestic Port:
Clearance from Last Port.
Crew Effect Declaration, Customs Form 1304 (2 copies).
Stores List, Customs Form 1303 (2 copies).
Crew List, Customs Form I-418 (2 copies).
Master's Oath, Customs Form 1300 (2 copies).
General Declaration, Customs Form 1301 (2 copies).

PILOTAGE: Come up in vicinity of the Sea Buoy. 24 hours notice of ETA should be given and revised if ship is delayed 1 hour or more. Telegraphic address is "Sabine Pilots, Port Arthur, Texas". Pilot station keeps 24 hour continuous watch on VHF Channel 12 – 156.6 MHz and on 2738 kHz. Pilot boat is motor vessel with black hull, white housing flying Pilot insignia by day and Pilot light by night. Location of pilot boat is in general vicinity of Sabine Pass Sea Buoy. Pilot ladder only on lee side of vessel.

Pilot will, upon request and at extra cost, board incoming vessels at buoy marked "SB" in position Lat. 29° 25′ N., Long. 93° 40′ W.

Gulf of Mexico Pilots

American Master Mariners licensed by the United States Coast Guard. They are experienced in handling vessels of all types and sizes, and have many years of experience in navigating the Gulf of Mexico.

Gulf of Mexico Pilots cover the entire Gulf and the Florida Straits. They are on call to board vessels wherever requested within the service area, on 48 hours advance notice.

Request for service may be directed to:
Gulf of Mexico Pilots, 3741 Memorial Blvd., Port Arthur, Texas 77640. Cables: Gompilots. Tel: (409) 982-2961.

The Gulf of Mexico Pilot will provide assistance and advise in heavily congested areas. He will utilise up-dated local knowledge of conditions peculiar to navigation in the Gulf of Mexico. He will assist with VHF radio communications, expedite arrivals and departures between the Gulf Ports resulting in savings of time and fuel, while easing the human-fatigue factor caused by the demanding duties of Shipmasters operating in unfamiliar environment and the continuously changing conditions therein.

RESTRICTIONS: The Port Arthur ship channel is in operation 24 hou per day. The only restrictions that might hamper vessel traffic would the draft of the vessel (Port will be able to handle vessels taking up 40 ft. of water) or extremely bad weather conditions such as fog or h winds. Also, vessels of the 85,000 ton or more class can only be mov during daylight hours.
MAX. SIZE: Port Arthur ship channel will be authorised to 40 ft. in dep and will vary from 400 to 800 ft. in width. Turning basin, which is locat at Mile 19 (only about 0.5 miles upstream from existing port facility) 900 ft. in width. Bulk carriers going to grain elevator at Port Arthur or one of the oil refineries would only be restricted by draft which wou vary from 30 ft. to 40 ft. depending on load/discharge berth the vess is en route to. See "Berthing".
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illne Reports made to Miami Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: For a vessel in the Gulf of Mexico, and en route to Port Arth the best way to route an ETA message is to radio "Port Arthur Rad (Radio Marine Corporation of America) whose call sign is WPA. P Arthur Radio will then either send the message through Western Uni via its telefax machine or via telex if the receiver of the message has telex machine. There are also radio stations located in Galveston, Tex (Mackay Radio, call sign KLC) and in Mobile, Alabama (call sign WLC
TUGS: The exact position that the tug meets the vessel varies with ea vessel but usually they meet just below Texaco Island. In some cas they meet as far up as Great Lakes Carbon Co. Berth (usually wh vessel is in ballast and going to Gulf Oil Docks). Whether or not the t uses the vessel's lines or its own lines depends entirely on t circumstances involved but the tugs usually use the ships lines. P Arthur is served by 2 towing companies, (1) Moran Towing of Tex and (2) Sabine Towing & Transportation Company, Inc.
VHF: Pilot office on Channel 20. Pilot boat on Channels 12, 13, and 65A.
BERTHING: The first procedure for obtaining a berth at Port Arthur to submit a Berth Request Form. The Berth Request will contain t following information and will be submitted, in duplicate, to P.O. B 1428, Port Arthur, Texas: Date of request; type and name of vess loading ports; registry or flag; where vessel is to arrive from; ETA; whe vessel is to sail for; estimated date of departure; what inbound cargo any, consists of; what outbound cargo, if any, consists of; date y expect to begin receiving outbound cargo. The Form must be signed the Agent or Owner of the vessel. (Berth Request Form will be ma available by the Port.) Upon receipt of a Berth Request from the Age or Owner, the Port will then, upon determining availability of berth, retu one copy of the initial Berth Request to the Owner or Agent as assignment of berth. Berths are assigned on a first come first serv basis at all times. All changes in vessel's ETA must be given to t Terminal Office immediately. All mooring and unmooring will be do by the Port. Procedure may differ at the various private terminals whi are not under the jurisdiction of the Port Arthur Navigation District.

Also see "Developments".

BULK HANDLING FACILITIES: *Pabtex Terminal Company:* Bu Marine Terminal in the Port's deepwater industrial park is located at M 26, handles dry bulk commodities from rail cars to storage to vessels rates up to 3,000 t.p.h. and has space available for shipper storage tan on pads, with open storage for 300,000 tons. The terminal also includ a 750 ft. wharf and is located directly on the Sabine-Neches Waterw which presently offers an authorised channel depth of 40 ft. All termina described above are served by subject waterway and limitations of dep will vary at the face of dock at individual terminals. Pabtex maintai 40 ft. depth at the face of their facility.
Great Lakes Carbon Co.: Length of berth 300 m. Max. LOA 210 m. Ma draft 10.5 m. 2 loaders with total loading capacity 500 tonnes p Petroleum, coke and coal handled.
CRANES: 1×75 ton diesel electrical crane services Berth Nos. 1 –
BRIDGES: There are no bridges that would require a vessel to arr at any certain time at Port Arthur, however, the first bridge approache involves a vertical clearance of 136 ft. MHW.
STEVEDORES: Advance order for longshore gangs varies as contract held by ILA (International Longshoremen's Association). In Po Arthur, gangs have to be ordered as follows: Order by 1800 hrs. for t next morning (either 0700 or 0800 hrs.); order by 0800 hrs. for 1000 hr order by 1100 hrs. for 1300 hrs.; order by 1600 hrs. for 1900 hrs. Mu order by 1800 hrs. day before for any starting time Sunday or Holida
MEDICAL: It is not usually required that the Agent be given advanc notice of required medical attention but in some instances it is help in arranging transportation to a hospital and in obtaining a bed in t event the hospitals are near full. Port Arthur is served by 2 hospita (1) St. Mary's Hospital and (2) Park Place Hospital, both of which a very well staffed and have adequate facilities for almost any emergen Also, advance notice is helpful when vessel is scheduled to dock la in evening or during night, as doctors are not in their offices and ha to be located.

Particular inoculations required by the Public Health Department va as to the vessel's last foreign port of call. Any crew members who ha not had the required inoculations can usually be given these inoculatio on board either by the Public Health Officer or a Physician. This is usua arranged by the Agent or Owner.

TANKERS: There are 3 major oil companies: Gulf Oil Corporatio Texaco Oil Company, Inc.; and Petrofina Company. Gulf Oil Corporat and Texaco Oil Co., Inc. are 2 of the largest oil refineries in the coun The diameter of load/discharge lines range anywhere from 4 in. to 12 depending on the grade of the petroleum product being loaded. As as slop discharge facilities are concerned there are ballast tanks at major oil companies. Gulf Oil has 3,400 linear ft. of berth accommodati and Texaco Oil Co. has 5,299 linear ft. of berth accommodation togeth enough to accommodate 11 supertankers plus barges. Petrofina C being the smaller of the 3 oil companies, has berth accommodation 3 vessels.

Report: Gulf Oil Terminal is located on the East side of the Taylor Bayou Turning Basin 30 miles from the Sea Buoy. The controlling depth of the channel and turning basin is 40 ft. The maximum size vessel normally received at this terminal is 50,000 d.w.t. The water about the terminal is salt. Docking and undocking occurs day and night. Vessels are cautioned of shoaling in the basin.

Vessels are normally turned upon arrival so as to head out. Wire ropes are not permitted unless fitted with fibre rope pennants of at least 3 fathoms in length. Fire wires must be rigged fore and aft.

Two tugs are normally used when docking unless vessel is over 34,000 d.w.t. when 3 would be used. When undocking, 2 tugs are used for vessels over 30,000 d.w.t., under 30,000 only one tug is used.

Amdel Pipe-line is located at the former ARCO Docks on the Neches River Channel 42 miles from the Sea Buoy and includes Berths 1, A, and B. Controlling depths for the channel, manoeuvring area/turning basin, and berth is 40 ft. The water at the berth is fresh to brackish. Attention to moorings by deck watch is required when passing vessels approach due to the close proximity of the berths to the channel.

Berth No. 1 is the largest and will accommodate vessels of approximately 50,000 d.w.t. Berth "A" normally accommodates vessels of 28,000 d.w.t. Berth "B" is normally used for crude oil and barge traffic. Loaded vessels normally moor starboard side to with standard mooring lines fore and aft. 2 tugs are used for both docking and undocking. Incoming vessels are met by tugs 1 mile below the berth. Vessels are turned just above Berth "B". Fire wires must be out fore and aft. For undocking 2 tugs are normally used.

DENSITY: Varies from fresh water (1000) to pure salt water (1025) depending on amount of rainfall and tide variations. According to figures obtained from the National Cargo Bureau, average density is 50% salt water or (1012.5).

FRESH WATER: The Port has 4 ships service outlets for fresh water, each of which is served by a 4 in. water line. Watering barges are available in the area for facilities which are not equipped to provide watering services.

FUEL: Almost any grade of fuel or marine diesel is available. In some instances there are fuel lines running directly to docks, but if not, bunkering barge is available. An advance notice is usually required by bunkering barge depending on number of vessels awaiting bunkering.

FIRE PRECAUTIONS: The Port has, in each of 4 equally spaced indentations along the front of its transit shed, a fire hose outlet fed by an 8 in. water line and there are numerous fire hose boxes throughout the transit shed. In addition to this a 24 hour guard service is constantly on the watch and is in direct communication with the Port Arthur Fire Department which is only seconds away. Authorized on-dock smoking areas are clearly defined for proper safety controls.

GANGWAY/DECK WATCHMEN: Under normal conditions a watchman is not necessary on most vessels. Under certain conditions such as a communicable disease or a malafide crewman, a watchman would be feasible but the decision is left up to Master or owner of the vessel. There is a $1,000 fine if a malafide crewman disembarks from the vessel.

OPENING/CLOSING HATCHES: Paragraph 2, Rule No. 1 of the Deep Sea Longshore and Cotton Agreement for Texas ports and Port of Lake Charles, Louisiana, states as follows: "When vessel is in loading or unloading berth, loading and laying of dunnage and the opening and closing of hatches, when in connection with the handling of general cargo and/or cotton, is longshore work and will not be done by ship's crew." This agreement, however expired in 1978.

CUSTOMS ALLOWANCES: Tobacco: Each crewman is allowed to keep 300 cigarettes out of bond while in port. Wine and/or Spirits; Each crewman is allowed to keep 1 quart of spirits out of bond while in port.

CARGO GEAR: A current certified Gear Certificate is required to be on board at all times and is to be kept up to date.

IDENTIFICATION CARDS: American crewman do not need any identification card. Foreign crewman need only the landing permit from Immigration Department in order to go ashore.

CONSULS: The nearest Consul-Generals are in Houston, Texas, approximately 90 miles from Port Arthur.

REPAIRS: All types of deck and engine repairs can be accomplished. Main ship repairers are: Vessel Repair, Inc., Bethlehem & Gulf Copper & Manufacturing Corp., Sabine Propeller Company and Coastal Marine Service, all of which are located in Port Arthur.

SURVEYORS: American Bureau of Shipping, Goodhue Building, Beaumont, Texas.

Captain Van. Inc., 550 Fifth Street, Port Arthur, Texas 77640. Tel: (713) 982-2911

National Cargo Bureau, 821 Petroleum Bldg., Beaumont, Texas 77701. Tel: (713) 839-4581

Sabine Surveyors. Inc., 6477 39th Street, Groves. Texas 77619. Tel: (713) 962-3500

Soutex Surveyors, Inc., 3727 Doctors Drive, Port Arthur, Texas 77640. Tel: (713) 983-2004

Triangle Marine, Inc., 8700 Ninth Avenue, Port Arthur, Texas 77640. Tel: (713) 722-1922

Underhill Adjustment Agency, 1335 Proctor Street, Port Arthur, Texas 77640. Tel: (713) 985-9329

World Marine Associates, Inc., 580 Fannin, Suite 718, Beaumont, Texas 77701. Tel: (713) 838-9980.

DRY DOCKS: 2 dry docks, largest being Bethlehem Steel's new full-service rig/vessel facility located 8 miles up-river from the Sabine Pass Anchorage. The dry dock at this new Bethlehem repair yard is big enough to lift any mobile offshore unit working the Gulf today. It will handle any jackup, whether mat-supported or independent-leg. Plus semi-submersibles, submersibles or drill ships. This sectional steel dock offers lift capacity of 56,000 long tons, 30 ft. of water over the blocks and it can be configured to provide a clear docking area of either 362×310 ft. or 825×122 ft., depending on the size and shape of the incoming vessel. The dock is outfitted with machine, pipe and other shops, and has the crane capacity to give it full repair service capacity. For especially heavy lifts Bethlehem's 400-ton capacity derrick barge is available.

The smaller dry dock is Vessel Repair, Inc., which occupies 60 acres with 3,200 linear ft. of frontage on Port Arthur Ship Channel. This yard also designs, constructs and repairs barges, tugs and other vessels. It has fully equipped shops, 2 marine railways with haul-out capacities of 1,000 and 1,500 tons and 1 floating dry dock of 3,000 ton capacity.

REPATRIATION: There are facilities for effecting crew changes and repatriation.

AIRPORT: Port Arthur is served by Mid-Jefferson County Airport which is located approximately 10 miles North of Port Arthur on Highway 69. The Mid-Jefferson County Airport is served by TIA (Texas International Airlines) and Delta Airlines.

TIME: Central Standard Time (GMT minus 6 hours) during Winter. From first Sunday in April till last Sunday in October Central Daylight Time (clocks are moved ahead 1 hour).

HOLIDAYS: Longshore Holidays are: Veterans Day (Nov. 11th), Thanksgiving Day (Fourth Thursday in Nov.), Christmas Day (Dec. 25th), New Year's Day (Jan. 1st), Martin Luther King's Birthday (Jan. 15th), Washington's Birthday (Third Monday in Feb.), Texas Independence Day (March 2nd), Good Friday, Memorial Day (Last Monday in May), June 19th, July 4th, Labour Day (First Monday in September). At Lake Charles, LA., Mardi Gras Day to be substituted for Texas Independence Day. No work shall be performed on Labour Day or Christmas Day, except in case of fire or where property is in danger.

When holidays fall on Sunday, the following Monday to be recognized as the holiday. No work to be performed between 1600 hrs. and 1900 hrs. on election days. When Christmas falls on Sunday, Monday will be an overtime day and gangs will work as ordered.

POLICE/AMBULANCE/FIRE: Police Department Tel: 983-5101; Fire Department Tel: 985-5511; Ambulance Service Tel: 985-5504 or 983-5666.

EMERGENCY CO-ORDINATION CENTRE: Coast Guard Captain of the Port, 2875 75th St., Highway 69, Port Arthur, Texas 77640. Tel: (409) 724-4343.

TELEPHONES: Facilities for placing a telephone on a vessel by request. There is a coin-operated telephone on the dock for anyone's use.

SERVICES: Tank cleaning done in port must be done by longshore labour. All major oil companies have facilities for removing tank washings.

BANKS: Allied Merchants Bank, 441 Austin Avenue, Port Arthur, Texas 77640. Tel: (409) 985-8851.

First Bank & Trust, 4000 Twin City Highway, Groves, Texas 77619. Tel: (713) 963-1141.

M-Bank Port Arthur, 8200 Highway 69, Port Arthur, Texas 77642. Tel: (409) 727-0123.

First National Bank of Port Neches, 1025 Port Neches Avenue, Port Neches, Texas 77651. Tel: (409) 722-4365.

Mid County Bank & Trust, 800 Magnolia, Port Neches, Texas 77651. Tel: (409) 727-2361.

Nederland State Bank, 1308 Boston, Nederland, Texas 77627. Tel: (409) 727-3161.

Sabine Bank, 3723 Gulfway Drive, Port Arthur, Texas 77640. Tel: (409) 982-5741.

STORING: See "Prelims".

1. Vessels are generally stored by truck in the area but barge storing does occur on rare occasions.
2. There are no specific regulations covering barge storing while vessel is working other than what the individual terminal may deem proper.
3. Trucks normally deliver at shipside at the Ports' facilities but this will vary from terminal to terminal.
4. Fork lift trucks are never used on the jetty to handle stores.
5. None other than Bonded Warehouse products.
6. Can but are seldom used. Generally handled by ships crew or other less costly labour that is available in the area.

SHORE LEAVE: The question of whether shore leave is allowed is entirely up to the ship's Master. The only requirements being; each crewman on shore leave must have a landing permit issued by the Immigration Department and no malafide crewman may be granted shore leave. Port Arthur has no restrictions pertaining to shore leave.

DELAYS: Delays in berthing usually arise from vessels ETA being delayed and thereby causing a berth conflict. The port is on a first come, first serve basis.

GENERAL: On vessels arriving directly from a foreign port there are 3 Government Agency Representatives that must board. Already mentioned and explained are Customs and Immigration. The remaining one, Animal and Plant Inspection Services. The Meat Quarantine representative boards the vessel to seal up all meat with the exception of what will be needed while in port. In the event a vessel is detained in port for some reason and more meat is needed the Meat Quarantine Rep. must return to the vessel and personally break the seal and then re-seal the remaining meats. This representative boards all vessels entering the port whether from foreign or coastwise.

The Plant Quarantine Rep. boards all vessels entering from a foreign port to check all fresh fruits and vegetables for any foreign insects such as the Khapra Beetle.

NOTICE:

Notice from U.S. Coast Guard (dated May, 1983).

Liquified Gas Vessels.

This is to clarify U.S. Coast Guard policy regarding liquified gas vessels operating in the Calcasieu Waterway that seems to be causing some confusion. Synopsis of each is as follows:

(1) The Captain of the Port (COTP), Port Arthur, Texas, needs to be informed of the arrivals and departures of all liquified gas vessels, whether loaded or in ballast, a minimum of 4 hours advance notice is required to ensure that a Notice to Mariners is broadcast. The vessel is reminded to have a Calcasieu River Pilot's confirmation of movements prior to notifying the COTP at (409) 724-4330.

(2) The COTP has determined that it is an unsafe practice to bunker a loaded or partially loaded liquified gas vessel at anchor from a barge alongside. If you have a loaded vessel arriving that needs bunkering, make your arrangements so that the vessel is offloaded prior to bunkering. If an empty vessel arrives, make arrangements to have the vessel bunkered prior to loading.

If there are any questions concerning these guidelines, please contact Port Arthur (Tel: (409) 724-4337 or 724-4339) or Lake Charles, La (Tel: (318) 433-3765).

Signed: Captain, U.S. Coast Guard, Capt. of the Port, Port Arthur, Texas.

DEVELOPMENTS: Located only 19 miles from sea, the new Public Ocean Terminal of the Port is located on the Sabine-Neches Waterway, presently 40 ft. deep with a minimum bottom width of 400 ft. The initial facility encompasses 360,000 sq.ft. including 1 transit shed 180 ft. × 1,080 ft. or 194,400 sq.ft. Rail trackage totals 120 car-spots at dockside with a 150-car storage yard behind the wharves. The facility includes a Gantry Crane (handling dry bulk, magnet, container and heavy lift cargoes) which straddles 2 of the 3 marginal tracks, travelling the entire 1,200 ft. length of dock. Crane will lift 75 tons a distance of 75 ft. off the face of docks, with all areas brilliantly lighted for 24 hour cargo operations. In addition to the 25 acre facilities described above, the District owns a total of 73 acres or 1 mile of frontage for future development. The master plan calls for a total of 4 Transit Sheds, additional open-dock wharves and Roll-on/Roll-off facilities.

AUTHORITY: Port of Port Arthur Navigation District of Jefferson County, Texas, 900 Fourth Street, P.O. Box 1428, Port Arthur, Texas 77640. *Tel:* (409) 983-2011. *Telex:* 779-421. *FAX:* (409) 985-9312. *Contact:* Ben Goldstein, Port Director.

PORT CANAVERAL, Florida: 28.25 N. 80.35 W.

(See Plan)

DOCUMENTS: Vessels arriving in the Customs Territory of the United States, Bureau of Customs Documentary Requirements:

1. The vessel's Register, International Load Line Certificate, Tonnage Tax Certificates, Clearance from last Foreign Port, and Certificate of Financial Responsibility (Oil Pollution).

2. Additional Documents required:

(a) Original Manifest (lists) of:
All Cargo on Board – Customs Form 1302.
All Passengers on Board.
Stores List.
Crew Purchase List.
Crew List.
Narcotic List.

(b) All items listed in Nos. 1 and 2 *(a)* must be presented to the boarding Customs Inspector and later at the Customhouse for entry. In addition a Customs Form 1300 (Master's Oath) and Customs Form 1301 (General Declaration) must be presented at the Customhouse.

(c) Duplicate Manifest (lists) of:
1. All Cargo for discharge at this port.
2. All Passengers for discharge at this port.
3. Stores List.
4. Crew Purchase List.
5. Crew List.
6. Narcotic List.
7. CF3171 – Permit to Lade or Unlade (this will usually be furnished by the vessel's Agent prior to the arrival of the vessel).

(d) If vessel is proceeding coastwise from Port Canaveral with residue foreign cargo on board, prepare a Traveling Manifest which is a true copy of everything listed in the Original Manifest (2*(a)*). This must be presented to the boarding Customs Inspector and later at the Customhouse.

3. Other Documentary requirements: The Immigration Officer will require the original certificate crew list on Form I-418. The same for passengers. He will also require the presentation of all passports and documents of seamen and passengers as to their immigration status for entry into the United States. A supply of Seaman's Landing Permit Form No. I-95A and passenger Permit No. I-94 should be maintained and they should be typed and ready for landing.

The Immigration Officer will want to inspect the entire crew. The Customs and Agriculture Officers will want to inspect the food storage areas and the quarters of the crew. The Agriculture Officer will also require a stores list. The Customs Officer will place a seal on the Bonded Stores Locker.

PILOTAGE: Pilotage is compulsory for all foreign vessels and for United States vessels under register in the foreign trade. Pilotage is optional for United States coastwise vessels who have on board a Pilot licensed by the Federal Government. Vessel applies for Pilot through Agent or Port Authority. May also call Pilot Office direct, Tel: (407) 783-4645. Pilot will board at Buoys 3 and 4 (Lat. 28° 22.6′ N., Long. 80° 31.7′ W.). Pilot boat is 37 ft. long with black hull, white house and buff deck, has "Pilot" painted on sides. Standard day/night pilot signals are displayed. Pilot boat stations itself 1 mile S.E. of Buoys 3 and 4, 0.5 hours before ETA of vessel. Vessels may anchor anywhere in area. Pilot boat is equipped with VHF Channels 12 (156.60 MHz) and 16 (156.80 MHz), but no continuous radio watch is maintained. Advance notice of at least 24 hours should be given.

ANCHORAGES: Within the harbour itself, none. Vessels may anchor anywhere in the area of the Pilot Station, Buoys 3 and 4.

RESTRICTIONS: Docking and undocking carried on day and night. Draft restrictions – if draft exceeds 34.6 ft. vessel must await rising tide to enter port.

MAX. SIZE: Length and draft at Tanker Berth No. 1 and No. 2, 650 ft. with 35 ft. draft. Cargo dock, length unlimited – 35 ft. draft.

HEALTH: See "Health: All Ports" before first U.S.A. ports (Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Pilot boat is equipped with VHF Channels 12 (156.60 MHz) and 16 (156.80 MHz) but no continuous radio watch is maintained. Advance notice of at least 24 hours should be given. Best to route ETA cables through Western Union Telegraph. Port Canaveral is equipped with VHF Port Operations frequency 156.6

TUGS: There are 2×1,800 h.p. tugs at Port Canaveral; most ships use the tugs for docking and undocking. Tugs normally join vessel inside jetties and tugs lines are used.

BERTHING: All vessels unless prevented by conditions will be turned around upon entering turning basin and will be berthed headed seaward. No berthing permitted without Port Pilot aboard.

Northside:

Piers 1, 2 and 3, all 35 ft. draft, general cargo, water available. Pier 4 with combined continuous length of 1,200 ft. – 35 ft. draft. Water and electricity available.

Southside:

Marginal Wharf with total length of 1,350 ft. 1,100 ft. at 35 ft. draft 250 ft. at 24 ft. draft, general cargo, bunkers, water available.

Ro/Ro Ramp No. 1: 30 ft. width, elev. + 3 ft. MLW.

Tanker Berth No. 1: Dolphin type, 35 ft. draft, petroleum products cement, bunkers, water available.

Tanker Berth No. 2: Dolphin type, 35 ft. draft, petroleum products, water available.

Cruise Terminals Nos. 2 & 3: 31 ft. draft, 1,300 ft. combined length.

Cruise Terminal 4: 31 ft. draft, 750 ft. berth.

Also see "Tankers".

STEVEDORES: Important that vessel gives accurate ETA at least 24 hours in advance to enable Agent to order gangs.

MEDICAL: Advance notice for Agents not required, but if available is appreciated. No Public Health Clinic in area, but there are good hospital facilities available. A contract physician's office of the U.S. Public Health Service is at Cocoa Beach, just South of the port.

TANKERS: Tanker Berth Nos. 1 and 2 available at present for discharge operations, with 35 ft. draft limit. No oil to be pumped overboard. Heavy fines imposed for oil pollution, however slight. The ship or ship's Agent will immediately report any spillage of oil on the wharf or on the water and the extent of the spill to the Port Manager and the Harbour Master. If spillage is considerable all cargo operations must stop and vessel prepare to undock.

FRESH WATER: All wharves have facilities for supplying fresh water delivered by 4 in. water line.

FUEL: The general cargo wharf and Tanker Berth No. 1 have facilities for supplying fuel. 24 hours' notice requested. Fuelling by truck available at other berths.

FIRE: Ships discovering fire on board or close by on shore will sound repeated long whistle blast signals and use every other available means to report the fire.

Gasoline Tankers: All deck scuppers must be plugged before starting to discharge cargo. Supply of sand or sawdust must be on hand near the discharge headers. Static cable must be connected to wharf. Minimum 100 lb. pressure must be on water main and fire hose connected. Discharging must be stopped during severe lightning. Deck Officers must keep close check on hose connections for gasket leaks. Emergency Ship Movement Policy of Port Canaveral must be observed.

GANGWAY/DECK WATCHMEN: Not usually employed, this service left to discretion of Master.

OPENING/CLOSING HATCHES: Usually done by stevedores.

CERTIFICATES:

Ship's Register.
Load Line Certificate.
Tonnage Tax Certificate.
Derat Certificate or Derat Exemption Certificate.

CUSTOMS ALLOWANCES: 300 cigarettes per crew member. Wine and/or spirits: 1 quart per crew member.

IDENTIFICATION CARDS: Required.

CONSULS: None.

REPAIRS: None – nearest port would be Jacksonville.

SURVEYORS: Surveyors are available on request.

REPATRIATION: All facilities available for effecting crew changes and arranging any necessary repatriations.

AIRPORT: Two airports available, serviced by regular airlines, Orlando International Airport, Orlando, Florida, approximately 50 miles from the Port; Melbourne Regional Airport at Melbourne, Florida, approximately 35 miles from Port. Also Space Coast Executive Airport approximately 25 miles from the Port, but this airport has only limited service.

TIME: GMT minus 5 hours normal, GMT minus 4 hours Daylight Saving Time.

HOLIDAYS: Numerous holidays do not effect operation of port, which operates 24 hours a day, 7 days a week.

POLICE/AMBULANCE/FIRE: Police/Fire, Tel. 783 – 7800; Ambulance, Tel. 452 – 1444.

EMERGENCY CO-ORDINATION CENTRE: United States Coast Guard Station, Port Canaveral. Tel: (407) 853-7601.

TELEPHONES: Arrangements are not available for placing on board.

GENERAL: All vessels, civilian and military, will provide wire ropes from the bow and stern with eyes that can be reached by tugs coming alongside. Pilots will make sure wires are in proper position before leaving vessel. All vessels will undock and proceed to outer anchorage when so ordered by Port Manager and/or Harbour Master in the event of: *(a)* a severe oil spillage; *(b)* fire is discovered on board a vessel laden with petroleum, explosives or a quantity of dangerous cargo; (c vessel is in jeopardy due to conditions on shore. Emergency movement of ships will be made with an able sea watch without awaiting for return of other ships personnel.

SHORE LEAVE: Crew allowed ashore.

BANKS: The American Bank, 326 E. Merritt Island Causeway, Merritt Island, Florida.

Barnett Bank, 430 Brevard Avenue, Cocoa, Florida.

The First Bankers of Florida, N.A., 111 George King Boulevard, Port Canaveral, Florida 32920.

The First National Bank of Brevard, 15 E. Merritt Island Causeway, Merritt Island, Florida.

United National Bank, 82 N. Atlantic Avenue, Cocoa Beach, Florida 32931.

Numerous other banks are available in this area.

STORING: See "Prelims".

1. Vessels stored by truck only.
2. N/A.
3. Yes.
4. No.
5. Usual.
6. Yes, if required.

SHIP SUPPLY SERVICE: No ship supply services operate at the port. In times of emergency, launch or tug service could be arranged through the Port Authority, and helicopter evacuation provided through the United States Coast Guard.

REGULATIONS: All radio frequency radiations from ships in Port Canaveral must be scheduled to prevent any possible interference to missile tests conducted on the Cape Canaveral Missile Test Annex. The only exception is standard ship/shore HF harbour control frequencies. Vessels desiring to radiate will request permission from the Port Manager and/or Harbour Master.

DEVELOPMENTS: Western Basin Expansion started in mid-1986, completion 1995. 7 additional ship berths, including container, general cargo, bulk cargo, shipyard and cruise terminals. Estimated cost $110 million US.

AUTHORITY: Canaveral Port Authority, P.O.Box 267, Cape Canaveral, Florida 32920. *Tel:* (407) 783-7831. *Telex:* 981573 Ptcanaveral. *FAX:* (407) 784-6223. *Contact:* Charles M. Rowland, Port Director. Joseph Lapolla, Deputy Port Director.

PORT EVERGLADES (including Fort Lauderdale), Florida: 26.05 N. 80.05 W. (See Plan)

DOCUMENTS:

3 copies Cargo Manifest (Form 1302), the original showing all cargo on board, and 2 copies showing only cargo for this port.
2 copies Crew Manifest (Curio List).
2 copies Stores List.
2 copies Passenger List (Form I-418).
2 copies Crew List (Form I-418).

Customs Boarding Officer will also examine Ship's Register and Load Line Certificate. In addition, the following documents will be required for formal entry to be made within 48 hours of arrival from abroad, or 24 hours from arrival from a United States port:

Health Pratique.
Master's Oath (Form 1300).
All foreign clearances.
U.S. Certificates of payment of tonnage tax (Customs Form 1002).
Certified Crew List.

PILOTAGE: Pilot boards at Port Everglades Sea Buoy, located Lat. 26° 05′ 30″ N., Long. 80° 04′ 45″ W. Pilot available 24 hours a day.

ANCHORAGE: The prescribed anchorage area at Port Everglades is outside the harbour and North of the channel. Vessels desiring to anchor off harbour of Port Everglades are required to do so in this area to avoid possible damage to cables laid on ocean floor South of the channel.

South of the channel, immediately offshore, there is a Government Restricted Area.

North of the channel, immediately offshore, there is a spoil bank visible at low water.

RESTRICTIONS: Entrance to Port Everglades is by a straight channel running in a due Westerly direction for a distance of 1.7 miles from the 50 ft. contour of the ocean to the turning basin. The channel is 500 ft. wide to turning basin. The water depth is 44 ft. including the turning basin. All depths are at Mean Low Water.

BASIN: The main turning basin is 1,200 ft. East and West and 2,450 ft. North and South with a depth of 44 ft. The North extension of turning basin is 620 ft. wide East and West on the North limits and 900 ft. wide East and West on the South limits and 1,150 ft. North and South, with a depth of 31 ft. The South extension of turning basin is 1,300 ft. wide East and West by 1,300 ft. North and South, with a depth of 37 ft. All depths are at Mean Low Water.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: The following radio channels are available to communicate with facilities at Port Everglades:

Ship calling and safety:	Channel 16, 156.8 MHz.
Harbour Master and operations:	Channel 14, 156.7 MHz.; 7A, 156.35 MHz.; 18A, 156.9 MHz.
Port Everglades Bar Pilot:	Channels 16, 13, 14, 18A, 19A, 77.
Port Everglades Towing Co.:	Channels 16, 13, 77.

TUGS: 3 tugs available to assist berthing with up to 4,200 h.p. Available 24 hours a day.

CRANES: Paceco, modified A and Kone modified A, 30 long ton container cranes located at berths 16, 17 and 18 adjacent to marshalling facility. Up to 140 ton mobile cranes available for hire.

STEVEDORES: These services are provided by licensed stevedoring firms. Arranged by Agent.

BERTHING:

Berth	*Length in feet*	*31 ft. depth*	*37 ft. depth*	*38 ft. depth*	*42 ft. depth*
1 – 2 – 3	1,601	1,300	301		
4	900				900
4A	290				290
5	900				900
6	378		378		
7 – 8	1,200		1,200		
8A	300		300		
9 – 10	1,200		1,200		
11	500		500		
12 – 13	1,225		1,225		
14 – 15	1,225		1,225		
16 – 17 – 18	1,648		1,648		
19 – 20	1,300		1,300		
21 – 22			1,325		
23	240			240	
24 – 25	1,369			1,369	
26 – 27	1,337			1,337	
29	800				800

Ro-Ro facilities at Berth Nos. 4 and 5.

TANKERS:

Berth 4: Length of 900 ft., with a depth alongside of 43 ft. Operators: Belcher Oil Company; Exxon Company, U.S.A.; Marathon Oil Company.

Berth 5: Length of 900 ft., with a depth alongside of 43 ft. Operators: Belcher Oil Company; Exxon Company, U.S.A.; Amerada Hess Corporation; Marathon Oil Company; Shell Oil Company; Trumbull Asphalt.

Berth 6: Length of 400 ft., with a depth alongside of 35 ft. Operators: Belcher Oil Company.

Berths 7 and 8: Length of 1,200 ft., with a depth alongside of 37 ft. Operators: Amoco Oil Company; Belcher Oil Company; Citgo Petroleum Corporation; Exxon Company, U.S.A.; Porto Fina Oil Company; Gulf Oil Company, U.S.A.; Amerada Hess Corporation; Marathon Oil Company; Mobil Oil Corporation; Phillips Petroleum Company; Shell Oil Company; Chevron, U.S.A.; Texaco, U.S.A.; Union Oil of California.

Berths 9 and 10: Length of 1,200 ft., with a depth alongside of 37 ft. Operators: Belcher Oil Company; Citgo Petroleum Corporation; Porto Fina Oil Company; Gulf Oil Company, U.S.A.; Mobil Oil Corporation; Phillips Petroleum Company; Chevron, U.S.A.; Texaco, U.S.A.; Union Oil of California; Amerada Hess Corporation.

Berth 11: Length of 500 ft., with a depth alongside of 37 ft. Operators: Belcher Oil Company; Warren Petroleum Company.

Berths 12 and 13: Length of 1,225 ft., with a depth alongside of 35 ft. Operators: Belcher Oil Company; Citgo Petroleum Corporation; Porto Fina Oil Company; Gulf Oil Company, U.S.A.; Mobil Oil Corporation; Phillips Petroleum Company; Chevron, U.S.A.; Texaco, U.S.A.; Union Oil of California.

Berths 14 and 15: Length of 1,225 ft., with a depth alongside of 37 ft. Operators: Belcher Oil Company.

Size of Pipe-Lines:

American Oil Company: 3×12 in.
Belcher Oil Company:
  Berth No. 1: 6 in. and 8 in. bunker and diesel.
  Berth No. 2: 6 in. and 8 in. bunker and diesel.
  Berth No. 3: 6 in. and 8 in. bunker and diesel.
  Berth No. 4: 10 in. and 8 in. bunker and diesel.
  Berth No. 5: 12 in. bunker; 24 in. gas; 12 in. gas; 12 in. Jet-A; 12 in. diesel; 10 in. bunker; 6 in. diesel; 24 in. crude.
  Berth No. 6: 10 in. bunker and 6 in. diesel.
  Berth No. 7: 12 in. Jet-A; 12 in. diesel; 10 in. gas; 26 in. gas; 12 in. gas; 10 in. bunker; 6 in. diesel; 12 in. J.P. 4; 12 in. crude.
  Berth No. 8: 12 in. Jet-A; 10 in. bunker; 10 in. gas; 10 in. asphalt; 8 in. RC70.
  Berth No. 9: 10 in. bunker; 8 in. diesel; 6 in. diesel.
  Berth No. 10: 10 in. bunker.
  Berth No. 11: 8 in. bunker.
  Berth No. 12: 8 in. bunker; 6 in. diesel.
Belcher Oil has 6 in. and 8 in. bunker and diesel lines on all berths except 23, 26 and 27.
Chevron: 1×24 in.; 2×12 in.; 2×8 in.
Cities Service Oil Company: 3×12 in.; 1×14 in.
Exxon Oil Company: 3×12 in.; 1×8 in.
Gulf Oil Company (Berth Nos. 9 to 13): 6×6 in.; 1×8 in.; 2×10 in.; 1×12 in.; 1×14 in.; 2×16 in.
Hess Oil Company (North Terminal): 1×14 in.
Marathon Oil Company: 2×12 in.; 2×8 in.
Mobil Oil Company: 2×12 in.
Phillips Petroleum Company: 1×12 in.; 1×10 in.
Shell Oil Company: 3×12 in.; 1×8 in.
Texaco, Inc.: 1×14 in.; 2×12 in.; 1×10 in.
Trumbull Asphalt Company: 1×12 in.
Union 76: 2×12 in.; 2×8 in.
Warren Petroleum Company: Propane.

FRESH WATER: Available.

FUEL: Florida Fuels, Inc., 1040 Port Blvd., Suite 406, Miami, Florida 33186 U.S.A. Tel: 305/358-3835. Telex: 853274 Flor Fuel. Cables: Florfuel Miamiflorida.

All deliveries in both ports are made by barge. Florida Fuels can deliver all grades of bunker fuels including Bunker 'C', all IFO's, MDO, and MGO.

Belcher Oil Co., P.O.Box 13124, Port Everglades, Fl. 33316. Tel: (305) 525-4261. All deliveries ex-pipeline or tank truck. All grades of bunkers available.

IDENTIFICATION CARDS: Standard U.S. Immigration Form I-95 to be made up for each crew member on arrival. Not necessary for crew man already holding Form I-95 if issued for the same vessel.

CUSTOMS ALLOWANCE: At the discretion of Customs officers. Normal allowance is 200 cigarettes or 2 lb. tobacco and 1 quart wine or spirits per man. Additional allowances may be given if considered necessary, due to length of vessel's stay in port.
HOLIDAYS: New Year's Day (January 1st); Martin Luther King's Birthday (January 15th); Lincoln's Birthday (February 12th); Washington's Birthday (February 22nd); Good Friday; Memorial Day (May 30th); Independence Day (July 4th); Labour Day; Columbus Day (October 12th); Veteran's Day (November 11th); Thanksgiving Day; Christmas Day (December 25th).

When any of the above holidays fall on a Sunday, they will be observed on the Monday following. Work on these holidays is by special arrangement only.
TIME: Eastern Standard Time, GMT minus 5 hours. Daylight saving time, GMT minus 4 hours, from first Sunday in April to last Sunday in October.
DEVELOPMENTS: Construction of South Terminal to commence during 1988. When completed, the new complex will feature six cranes on a 2,800 ft. berth with 44 ft. MLW depth, a gatehouse complex incorporating a weighbridge, a piggyback rail facility, stuffing and stripping sheds and a computerised cargo tracking system.
AUTHORITY: Port Everglades Authority, P.O.Box 13136, Fort Lauderdale, Florida 33316. *Tel:* (305) 523-3404. *Telex:* 240042. *FAX:* (305) 525-1910. *Cables:* Portglades. *Contact:* C. Thomas Burke, Executive Director. R. Richards, Harbour Master.

PORT HURON, Michigan: 42.59 N. 82.26 W.

Refer to St. Lawrence Seaway for important general information.
PILOTAGE: Compulsory, by Seaway Pilots.
ANCHORAGES: Near head of St. Clair River at Sarnia. Vessels should anchor as close to shore as safely possible to keep channel clear for passing vessels.
RESTRICTIONS: Navigation season from mid-March to end-December approx. Dock channel depth – 25 ft. Vessel's size restricted by Seaway locks.
MAX. SIZE: 730 ft. length; 26 ft. draft.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Chicago Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: Master must give at least 24 hours notice to Commander 9th Coast Guard District, Cleveland, Ohio, of the vessel's ETA at Snell Lock. Also, at least 24 hours notice of ETA at first U.S. discharge port is required. Port can be contacted through Marine Operator, Sarnia.
TUGS: Available. Not compulsory, but sometimes necessary in bad weather.
BERTHING: Port Terminal Co. Dock: 700 ft. long 26 ft. – 31 ft. depth.
DENSITY: Fresh water.
MEDICAL: All facilities available.
FRESH WATER: Obtainable by pipe-line at all docks.
FUEL: All grades available by pipe-line at all docks.
REPAIRS: Machine shops available for limited deck and machinery repairs.
AUTHORITY: *Managers:* Port Huron Seaway Terminal Co., 2336 Military Street, Port Huron, Michigan 48060. *Contact:* W. R. Neal, President.

PORT JEFFERSON, New York: 40.59 N. 73.06 W. (See Plan)

OPERATOR'S REPORT: 1981
APPROACHES: *Port Approaches – Cautionary Advice:* (via New York) Charts: 12339, 12366, 12367, 12363, 12362, 12354.

Vessels leaving New York bound for Port Jefferson transit New York's East River and Long Island Sound.

Sandy Hook Pilots handle the ship in the East River and Hell's Gate, and the Long Island Sound Pilots handle the ship in the Sound. The change of Pilots is made off City Island. The pilot boat can be raised on Channel 13. All shoals and rocks are well marked and the shore line provides an excellent radar target for position checking.

During Summer months, thick fogs present a hazard on this route. Long Island Sound is also a major yachting centre so extreme care must be exercised while transitting this area.

There are several dangers to be wary of when making the passage from New York to Port Jefferson; in order of approach they are:

1. East River and Hell's Gate are areas of strong tidal currents averaging 4.6 knots during ebb tide which set in a Southwesterly direction. Vessels drawing up to 35 ft. may transit Hell's Gate only at Slack High Water. Sluggish handling vessels should arrange for tug assistance through the East River and Hell's Gate.
2. 26-ft. buoy "32A"; usually passed well clear to the South.
3. Cable and Anchor Reef; usually passed to the South.

Port Approaches – Cautionary Advice: (From Block Island) Charts: 13205, 13215, 13209, 12354, 12362.

On approaching Block Island from a Southerly direction, a good radar picture is obtained of the Island's South coast. The RDF station at S.E. Light is also useful.

It is advisable to remain at least 1 mile to the East of Block Island because of the numerous shoals close in shore.

Non-U.S. flag vessels and U.S. flag vessels under registry approaching from Block Island embark Pilot about 2.5 miles South of Point Judith.

U.S. flag vessels under enrolment approaching from Block Island embark Pilot 1.4 miles East of Old Harbour – Block Island.

There are several dangers to be wary of when making the passage to Port Jefferson; in order of approach they are:

Block Island North Reef Buoy "1B1" marks a dangerous shoal and should be passed well clear.

The Race is a narrow channel into Long Island Sound. Strong East to West currents occur during maximum ebb or flood and knowledge of position should be maintained in view of possibility of unusual set. Valiant Rock may be passed on either side. The Race is an extremely popular area for sport fishermen and the area is usually congested with small craft.

Extreme caution should be exercised during the Summer months when transitting through Block Island and Long Island Sound as there is heavy traffic of pleasure craft.

Thick fog is prevalent during Summer months.

Good water is found in Long Island Sound from The Race to Port Jefferson as long as the mid-channel buoys "P1" and "CF" are passed close to, and care is taken so as not to pass North of "28-ft. shoal" buoy.

Vessels headed for Port Jefferson will pass South of "Stratford Shoal" light. Radar is the best navigational aid in this area, also, there are several RDF stations that can be used.
PILOTAGE: Harbour Pilot/Docking Master will board outside of the sea buoy. If at anchor, Docking Master will board at the anchorage.
ANCHORAGE: Anchorage is available North of "Mount Misery" shoal in depth of 80 ft. to 100 ft. Barges are available for lightering from New York. Winter weather conditions with strong winds sometimes hold up lightering operations 2 to 3 days. Vessels with stern anchors can sometimes minimise this delay by making a lee for the barge.
RADIO: Send ETA to Agent 72 hours, 48 hours and 24 hours prior to arrival at Block Island pilot station. Advise max. draft (salt water) in the initial message.
VHF: Pilot: Channel 13, 16 and 18A. Tugs: Channel 19A "KFT 234" 18A. Traffic Control: Channel 13. USCG: Channel 16. Terminal: Channel 13.
TUGS: 3 tugs available from New Haven, 2 single screw diesels of 1,800 s.h.p. and 1,600 s.h.p. and a twin screw boat of 1,800 s.h.p.
TANKERS: Consolidated Petroleum Terminal: Traffic at times may be heavy near the harbour entrance and in the inner harbour. Sand and oil tows, coastal tankers, and the Bridgeport/Port Jefferson ferry may be encountered. Arrangement should be made with the Pilot ensuring that other traffic is not hampering the safe entrance and channel transit.

Vessels start in one hour prior to HW. The entrance between the jetties is made by lining up with the ranges at the head of the harbour. Consideration should be given to a possible cross set. Once inside the jetties, speed is reduced, and the vessel is stopped off the dock. The vessel is then breasted into position starboard side to with the assistance of 1 or 2 tugs. The terminal is located approximately 1.8 miles from the breakwaters on the starboard side of the channel.

Vessels in a light condition, when departing with the assistance of 1 or 2 tugs, are backed and turned off the LILCO dock with the forward draft not exceeding 14 ft.

Shore Facilities: 3×8 in. hoses.
3×16 in. shoreline (3.5 miles long).
Shore booster pumps.

FRESH WATER/FUEL: Bunkers are not readily available; in an emergency, bunkers could be arranged by Exxon Marine, Bayway, N.J. and delivered by barge from New York. Fresh water is available ex berth.
GENERAL: *Gangway:* Ship's gangway is required.
Tides and Depth of Water: The depth of water in the channel determines the safe draft for entering. Agent and Pilot should be consulted as to safe draft. Strong Westerly winds will cause the water level to be lower than usual, and strong Easterly winds will increase the water level. Average range of tide is 6.6 ft.
Oil Pollution: This area is very sensitive to oil pollution, so extreme care should be exercised. In case of an oil spill, consult with Pollution Control Officer and notify U.S. Coast Guard, Terminal Representative and Agent. Visible smoke from ship's stack is also a very critical area of pollution in this port. Spill booms are deployed.
Security: The terminal is fenced and guarded. Maintaining a gangway watch is recommended.
Ballast/Slop Facilities: There are no dirty ballast or slop facilities in Port Jefferson.
Firefighting Facilities: The terminal is equipped with 2 fire pumps which service 2 fire monitors on the dock. The fire line has the capability to deliver foam. There is a 150 lb. wheeled dry chemical extinguisher, various hand extinguishers, and a 2,000 lb. dry chemical extinguishing system at the head of the dock to cover the hose tower area.

Fire wires should be hung, one forward and one aft, on the offshore side with eyes which can easily be reached by tugs in case of fire. The tanker should have all fire fighting equipment aboard in readiness to combat any fire that may arise.
AUTHORITY: Consolidated Petroleum Terminal, Inc., P.O.Box 312, East Setauket, New York 11733. *Contact:* Zenon Czujko, Manager.

PORTLAND, Maine: 43.39 N. 70.14 W. (See Plan)

DOCUMENTS:
1 Crew List.
1 Passenger List.
2 Stores Lists.
2 Foreign Purchases Lists.
2 Inward Foreign Manifests uniform cargo.
Original Bill of Lading.
1 Form 1300 Master's Oath on entry of vessel.
2 Form 1374 Outward Foreign Manifest.

PILOTAGE: Ship's Agents usually notify Pilot approximately 48 hours in advance of arrival then changes are made at 24 and 12 hours. Pilot boat usually called on Channel 16 and then switched to Channel 11 to continue conversation. Pilot goes aboard ship in vicinity of lightship using ladder on lee side. When weather bad, suggest vessel anchors approximately 1 mile North of the large navigation buoy (LNB).

Portland Pilots Inc. Tel: 774-5623. Docking Pilots: McDuffie Pilots Inc. Tel: 781-3954.

ANCHORAGES:
Anchorage A (General): Beginning at Eastern corner of Grand Trunk Railway Company Pier No. 3 (Pier removed); thence approximately 90°, 1,700 yd. to Brooklyn Ledge Buoy 16; thence 330°, 350 yd.; thence 25°, 780 yd.; thence 303°, 750 yd.; thence 254°, 560 yd.; thence 186°, 750 yd.; and thence to the point of beginning.

Anchorage B (General and Quarantine): Beginning at Brooklyn Ledge Buoy 16, thence 58° to Little Diamond Island thence along the S.W. shore to the pier on the Southern end of Little Diamond Island; thence 143°, 1,200 yd.; thence 270.25° to House Island Light; thence along the Western shore of House Island to Fort Scammel Point Light; and thence 329°, 1,620 yd. to the point of beginning. Anchorage B is intended for general purposes, but especially for use by oil tankers and other deep-draft ships entering the harbour at night and intending to proceed to the dock allotted at daylight the following morning, or as soon as practicable. This area also is to be used for quarantine anchorage. Any vessel anchored in this area shall be ready to move on short notice.

Anchorage C: Bounded on the N.W. by House Island; on the North by a line running 90° from House Island Light to Peaks Island; on the East by the Western shore of Peaks Island, by a line running 198° from the Westernmost point on Peaks Island to Cushing Island, and by the shore of Cushing Island to its Westernmost point; and on the Southwest by a line running from the Westernmost point on Cushing Island to Fort Scammel Point Light. Anchorage C is intended for use only by small vessels and for temporary anchorage.

Anchorage D: Southerly and Westerly of a line beginning at Lighthouse Channel Buoy 1; thence 35° to Anchorage Buoy E; and thence 145° to the mainland. Anchorage D is for use only by small yachts and pleasure craft, and small, light draft coastwise freighters.

RESTRICTIONS: No entry restrictions at night. Deep draft vessels brought in on high water only.

MAX. SIZE: Size of vessel restricted to 45 ft. draft in harbour area. No outside installations at port at present.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to New York Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Tugs in Portland Harbour use Channel 07. Vessels arriving at Portland go through radio station in Chatham, Mass., RCA installations, or call station WOU via radio-telephone. VHF Harbour Control at Portland.

VHF: Voluntary reporting system in effect on Channel 13.

TUGS: Tugs join vessel at Spring Point in Portland Harbour. Tugs use own lines at no additional charge. Docking Pilots not supplied by Company but are available.

BERTHING: Tidal conditions govern arrivals and departures. Depth alongside up to 35 ft.

Merrill Marine Terminal: Located in the upper Fore River. 600 ft. × 134 ft. concrete marginal wharf with 4 dolphins and provides 900 ft. berth with 35 ft. MLW. 2 cranes. Liquid storage, covered storage. This Berth handles a variety of cargoes, including woodpulp, steel, fertiliser, long logs, tapioca.

This is the only general cargo facility within the Port. Located on the upper Fore River approximately one mile above the lift bridge and adjacent to the fixed highway (U.S. Route 1) and railroad bridges. Vessels normally navigate the Fore River on a rising or high tide and, depending on vessel's manoeuvring equipment (bow thrusters, etc.), either one or two tugs may be required for berthing. Vessels may dock either port or starboard side to. There is no minimum number of mooring lines required. Each berthing is handled on a case by case basis. Fresh water is available at the berth. Vessels may undock at any time and again may require the assistance of one or two tugs, depending on manoeuvring capabilities.

International Terminal: A passenger and Ro/Ro facility with limited cargo capability. Located immediately East of the lift bridge. Tug boats required for berthing. Wharf is a marginal wooden structure with 700 ft. of face and 27 ft. depth at MLW. Fresh water is available at the berth. Vessels may undock at any time and will require assistance of tugs.

BRIDGES: No undocking on ebb tide through bridge.

STEVEDORES: 4 hours notice on ordering gangs.

MEDICAL: No advance notice required by Agent. 2 hospitals, Maine Medical Center and Mercy Hospital, who take bed patients.

TANKERS: Tankers arriving at Portland Pipe-line, Pier 2, make preparations for 2×10 in. and 12 in. hoses.

Berth	*Depth Alongside*
American Oil Terminal	30 ft. MLW
Chevron Terminal	32 ft. MLW
Portland Pipe-line Pier No. 1	35 ft. MLW
Portland Pipe-line Pier No. 2	48 ft. MLW
Texaco Terminal	30 ft. MLW

Shore Storage: Due to shore storage difficulties the Portland Pipe-line Authorities have requested vessels leaving Venezuelan ports for discharge at Portland to provide the following information in order to avoid ship delays at this terminal:

(a) Vessel's expected time of arrival at Portland.
(b) Quantity and grade of cargo loaded.
(c) In case of split cargoes, intended order of discharge.

The above mentioned information should be radioed to Portland Agent for forwarding to Portland Pipe-line Authorities immediately on sailing from the final Venezuelan loading port.

Report: *General/Anchorages:* Deeply laden vessels will enter Portland through the Witch Rock Channel, passing between Buoys "1" and "2", which mark Witch Rock. Lightly loaded vessels will enter through Willard Rock Channel. All vessels will pass between Portland Head and Cushing Island. The swell usually subsides near Spring Point, allowing the tugs to come alongside. Vessels bound for the Amoco, Exxon, Mobil and Texaco Terminals must pass through the South Portland bascule lift bridge which has a horizontal clearance of 98 ft. 2 tugs assist vessels through the lift bridge; one on the starboard bow with good backing line, the other on the starboard quarter. The bridge will not open between the hours of 0700 to 0900 and 1600 to 1800, Monday through Friday. The bridgetender can be contacted on VHF Channel 13; a minimum of 1 hour's notice prior to arrival at the bridge is desired.

Vessels proceeding to Hussey Sound to lighter will be taken by the Sea Pilot through West Cod Ledge and will enter the sound via the channel between Peaks Island and Long Island. Extreme care should be exercised while passing Soldier Ledge, a rock ledge with 40 ft. of water at MLW marked by lighted buoy "6".

Amoco Terminal: The vessel continues approximately 1 mile above the lift bridge where it is turned to port and worked ahead into the berth. Vessels dock starboard side to with a minimum of 12 mooring lines. The terminal prefers synthetic mooring lines. The first lines positioned on the dock are the forward spring lines which are passed as the vessel moves ahead slowly. The pier is a typical wooden finger pier with 2 woodfaced steel pile breasting dolphins. Breast lines are led across the dock to wood pile clusters. Vessels dock at Slack High Water and generally can undock at any time with the assistance of 2 tugs. Upon undocking, the vessel must back into the channel and turn before heading out to sea.

Chevron Terminal: The Chevron Terminal is located in South Portland about 1 mile outside the lift bridge. The berth consists of 2 steel breasting dolphins 40 ft. in diameter which are fendered with wood. The hose rig and manifolds are located midway between the 2 dolphins. Vessels approach the finger pier and are breasted alongside by 2 tugs. Care should be taken not to work the vessel along the pier face. Vessels dock port side to with a minimum of 10 mooring lines. The 2 stern lines lead to 2 mooring buoys. Vessels start in 3 hours prior to HW in order to arrive at the dock at HW. Vessels undock with either 1 or 2 tugs. Mooring lines should be carefully tended as strong Northeasterly winds may cause a vessel to move off the breasting surfaces.

Exxon-Bancroft Martin Terminal: This Terminal is located at the extreme Western end of the Fore River, approximately 1.5 miles beyond the lift bridge and adjacent to a fixed highway and railroad bridge. Vessels transit the Fore River on a rising tide in order to dock at Slack High Water. The vessel approaches the dock slowly, in line with the pier and slightly off of the face to prevent rubbing on the wood fendering. The vessel should be stopped dead in the water and then gently breasted alongside. All vessels dock port side to with a minimum of 11 lines. Stern lines are run to a mooring buoy. Vessels undock with the assistance of 2 tugs.

Mobil Terminal: This Terminal is a marginal-type berth located on the South bank of the Fore River approximately 1.25 miles above the lift bridge. The dock has 2 breasting cells 160 ft. apart. The cells are concrete capped supported by cylindrical steel pipes. The hose gantry platform is located midway between the breasting cells and is set back 3 ft. from the outer face of the cells. The breasting cells are equipped with hard rubber fixed fendering. The mooring points for head, stern, and breast lines are smaller concrete caps supported by steel pipes. A wood walkway runs the length of the dock connecting the the concrete caps. 2 tugs breast the vessel alongside for a port side to docking. 12 mooring lines are considered the minimum acceptable. Vessels dock at HW. On departure, the vessel is worked astern and then turned off the dock with the assistance of 2 tugs.

Portland Pipe-line Terminal: Portland Pipe-line Corporation operates 2 separate finger piers in South Portland. The Terminal is the Eastern terminus of a pipe-line which carries oil to Montreal, Quebec. Pier No. 1 is the older of the 2 piers. There is a tanker berth on both the East and the West sides of the pier. Vessels dock bow in, starboard side to on the East side and port side to on the West side. On approaching the pier at Slack High Water, vessels are turned to port with the assistance of 2 tugs and are worked into the berth. Forward spring lines are positioned first. 12 mooring lines are recommended. Vessels undock with the assistance of 2 tugs at any stage of the tide.

Pier No. 2 consists of a 975 ft. extension to an older 1,000 ft. finger pier. There is a tanker berth on both the North and the South sides of the pier. Vessels dock bow in, starboard side to on the South side and port side to on the North side. Vessels drawing less than 42 ft. dock at Slack Water. Vessels dock at Slack Water due to the fact that the tide sets across the pier at about 1 knot. Vessels under 80,000 d.w.t. dock with the assistance of 2 tugs; vessels up to 110,000 d.w.t. may require additional tugs. Vessels make a normal approach to the finger pier, are turned to port, and worked slowly into the berth. Forward spring lines are positioned first. 12 mooring lines are considered the minimum acceptable. Vessels undock at any stage of the tide with the assistance of 2 tugs.

Vessels bound for Portland Pipe-line Terminal are usually brought to the inner anchorages, Diamond Island Roads, one tide before their scheduled berthing in order to dock at Slack Water.

Texaco Terminal: The Texaco Terminal is located on the South side of the Fore River directly inside the lift bridge. Vessels dock with the assistance of either 2 or 3 tugs. The vessel must transit the bridge as slowly as possible for it must stop immediately after the bridge. It is then slowly turned slightly to starboard and breasted alongside the pier by the tugs for a port side to docking at Slack High Water. Vessels undock at any time with the assistance of 2 tugs and are turned before proceeding through the bridge outbound. 10 mooring lines are considered the minimum acceptable.

DENSITY: Average density 1024.

FRESH WATER: Available by tug for boilers only at rate of tug hire. Drinking water available at piers.

FUEL: No. 6 diesel oil and blended intermediate fuel oils. Delivery is via barge only and 24 hours notice required.

FIRE PRECAUTIONS: None – except at certain oil piers where information given to Shipmaster upon arrival at pier. Ample fire protection, salt water lines, sprinkler system on pier, local fire department.

GANGWAY/DECK WATCHMEN: Not required.

OPENING/CLOSING HATCHES: Ship's crew open hatches.

CERTIFICATES:

Load Line Certificate.
Certificate of Foreign Clearance.
Ship's Safety Certificate.
U.S. Tonnage Tax Certificate of previous trip if available.
Radio Operator's Licence.

CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes per man. Wine and/or Spirits, 1 bottle per person.

CARGO GEAR: Additional gear may be required for dry cargo. Vessel or agent should contact stevedores regarding same as soon as possible prior to vessel's arrival.

IDENTIFICATION CARDS: Form I-95 must be filled-out on arriving unless seaman has had a prior one made out for a previous arrival on same ship.

CONSULS:

Finnish: Frank W. Bjorklund, 163 Main Street, Norway, Maine.
French: Dr. Paul O. Proudian, 776 Main Street, Westbrook, Maine.
Italian: Dr. Domenico A. Santoro, 43 Deering Street, Portland, Maine.
Norwegian: Allan Kjos-Hanse, 30 Mayer Road, Portland, Maine, Vice-Consul.
Panamanian: Mary Navarro de Cerrillo, Lafayette Town House, Portland.
Swedish: Martin Johnson, Vice Consul, 443 Congress Street, Portland.

REPAIRS: Repair facilities for all types of machinery available.

DRY DOCKS: 3 basins divided into 7 berths which can handle a vessel up to 455 ft. long and 62 ft. wide (not currently activated). Also 3 other smaller marine slipways.

80,000 ton lift floating dock. Depth over keel blocks 14 m. Length 257 m. Clear width 40.7 m.

New Bath Ironworks: New dry dock in operation.

Specifications:	Clear Width:	134 ft.
	Draft:	46 ft. over 4 ft. keel blocks
	Max. Lift:	90,000 long tons
	Dock Length:	747 ft. without outriggers 797 ft. with one outrigger.

SURVEYORS: National Cargo Bureau, Tel: 781-4467.

REPATRIATION: Arrangements must be made with Agent in advance by telegram.

AIRPORT: Portland Municipal Airport 3.5 to 4 miles distant.

HOLIDAYS: Accepted holidays: New Year's Day; Memorial Day; Independence Day; Labour Day; Thanksgiving Day and Christmas Day. Stevedoring available on any of these days by prior arrangement.

POLICE/AMBULANCE/FIRE: Switchboard 775 – 6361. Emergencies 911.

TELEPHONE: Arrangements can be made to have phone put on ship, but most docks have pay phones.

GENERAL: Discussions underway with Coast Guard and other officials to install fixed lighthouse stations to replace lightships at entrance.

DEVELOPMENTS: Plans under way for redevelopment of waterfront. Plans call for deepening Fore River from 35 ft. to 45 ft.

AUTHORITY: Port of Portland, 389 Congress Street, Portland, Maine 04101. *Tel:* (207) 773-1613. *Contact:* Thomas F. Valleau, Director.

PORTLAND, Oregon: 45.30 N. 122.40 W. (See Plan)

PORT LIMITS: The seaward boundary of the Port of Portland is Astoria, 96 miles N.W. of Portland.

DOCUMENTS:

3 Cargo Manifests.
3 Stores Lists.
3 Crew Curio Lists.
3 Crew Lists.
1 Clearance from Last Port.
1 Tonnage Tax Certificate.
1 Copy of Vessel's Register.
1 Itinerary of Vessel, port by port.

PILOTAGE: Compulsory. ETA Bar Pilot Astoria at least 12 hours before arrival giving deepest draft. Bar pilotage covers from sea to the Port of Astoria, river pilotage covers from Astoria to Portland. They change from launch while steaming in channel off Astoria Buoy No. 37.

Warning: Due to heavy swells on bar during stormy Winter conditions, crossings may be temporarily suspended, therefore Masters should attempt earliest VHF radio contact on Channel 16 with Pilots or coastguard station "Cape Disappointment" for latest bar conditions.

During Summer months Masters should use extreme caution in poor visibility as many small fishing craft will be encountered near mouth of Columbia River.

Also see "General – Pilotage" before first U.S.A. port (Albany).

ANCHORAGES: Vessels may anchor to await berths at variou locations on the Columbia River. Usual spots are at Tongue Poi Astoria, Longview and at Vancouver, Washington.

RESTRICTIONS: All vessels Masters or their Agents to obtain Coa Guard Clearance at least 24 hours before arrival. Captain of Port ma impose movement restrictions if any hazardous cargo. Under 36 ft. dra no movement restrictions, 36 ft. and over up to maximum permissib draft of 39 ft. on Pilot's recommendations. Bar Pilots will take vesse up to 45 ft. draft out on HW.

No size restrictions length and beam, however, Corps of Enginee maintain only 600 ft. wide channel, therefore, deep laden vessels ov 600 ft. in length to use extreme caution when turning.

MAX. SIZE: No restrictions length and breadth. Depth at Columbia Riv Bar 55 ft. River channel to Portland/Vancouver maintained at 40 ft. b 600 ft. Seasonal tidal effect up to 3 ft. at Portland.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illnes Reports made to Seattle Quarantine Station.

Master to radio with ETA state of crew health noting any sicknes Agent will report sickness to Seattle Quarantine Station for clearanc instructions.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Route ETA cables through KLBITT Seattle, Washington.

Marine Exchange of the Columbia River District (Merchants Exchange 24 hour marine reporting. Call sign "KDO 759". Call on Channel VHF. Working (Astoria – Longview and 50 miles out to sea) on Chann 9 and (Longview – Portland) on Channel 11 and 18A.

Marine Exchange (Tel: 503 – 228 – 4361) pass messages to vesse from Agents and vice-versa. Coverage is good in river and 50 miles seaward.

TUGS: Tugs normally join vessel at designated berth. Tugs' lines use at no charge.

BERTHING: The port operates 4 public ocean cargo termina containing 22 deepwater berths, including 7 container berths with 9 hig speed container cranes. Present depths alongside berths is 40 ft. mi at MLLW.

There are general cargo berths and berths for commodities whi require special handling. Port facilities include 21 transit sheds, an 8 warehouses with 2.2 million sq.ft. of sprinkler protected storage are

BRIDGES: No arrival times designated if coming from sea and in exce of 750 tons gross. Departures regulated, with bridge closures durin peak traffic flow (0700 to 0900 hrs. and 1615 to 1815 hrs.) unle permission granted by Harbour Master.

SPECIALISED CARGO HANDLING FACILITIES: As well as th 9 container cranes, there are 6 Whirley cranes, a 150 ton shear le crane and a 175 ton mobile crane, largest of its kind on the Paci Coast.

At Terminal 2 is a 2,450 ft. container/general cargo pier with a 40 to a 50 ton and an 85 ton straight line crane and 2×65 ton gantry crane Terminal 2 contains a Roll-on/Roll-off berth. Pier has a 25 acre ope storage yard with rail and truck service. 4 straddle carriers, capable stacking 20 ft. containers 3 high, or 40 ft. 2 high, serve the yard. Piersi warehouse and container freight station 90,000 sq.ft.

At Terminal 4 there is an 8.1 million bushel capacity grain elevat (Cargill), with box car tipper, truck dumper and barge unloading facili Log dock is equipped with 2 Whirley cranes. There is a Dravo bu unloader with digging capacity of 900 t.p.h. Tanks are available special cargoes such as petroleum, molassses, tallow and o concentrates. Also available is a 120 acre open storage area and floati dock for import of automobiles. Ro/Ro ramp to be built in order accommodate large vessels. Also see "Developments".

The Terminal 5 elevator is the most modern grain outloading facil in the lower Columbia River and is operated under sub-lease Columbia Grain Inc.

The elevator has a storage capacity of 1.5 million bushels and is th fastest on the river, with an outloading capability of 2,100 tonnes/p. The facility can receive grain by rail, truck and barge. The barge l operates at 1,000 t.p.h., trucks are unloaded at 225 t.p.h. and abo 65 railcars can be unloaded in an 8-hour shift.

Terminal 6 has a container pier, length 2,850 ft., with 3×50 ton an 2×40 ton straight line cranes and a 60,000 sq.ft. container freight statio Also a 75 acre open storage area and floating dock for import automobiles.

Bunge Corp: Depth alongside 40 ft. Storage Capacity: 8,000,00 bushels. Receiving Capacity: Ex-barge 500 t.p.h.; ex–rail 750 t.p.h. an ex-truck 750 t.p.h. Loading Capacity: 1,800 t.p.h. (1 belt and 5 spouts

Louis Dreyfus: Depth alongside 42 ft. Storage Capacity: 1,500,00 bushels. Receiving Capacity: Ex-barge 600 t.p.h.; Ex-rail 350 t.p. Loading Capacity: 1,200 t.p.h. (2 belts and 6 spouts).

STEVEDORES: Allocation for gangs Monday to Saturday must b confirmed at 1100 hrs. to longshore hiring hall. Allocation for gang Sunday and Monday made at 1100 hrs. Saturday for both day and nig gangs. Same procedure applies to allocation of night gangs, but nig gangs may be cancelled by 1400 hrs. in afternoon if night gangs are work.

MEDICAL: Any type medical treatment provided and hospital facilitie available.

TANKERS:

	Max. Size Vessel	
Berth	*Length*	*Draft*
Shell Oil Company	575 ft.	32 ft.
Standard Oil	660 ft. – 700 ft.	35 ft.
Texaco Inc.	650 ft.	30 ft.
Phillips Petroleum Co.	No maximum	30 ft.
Time Oil Co.	600 ft.	38 ft.
Mobil Oil Corp.	550 ft.	31 ft.
Richfield	600 ft.	30 ft.
Union Oil Co.	550 ft.	30 ft.

DENSITY: Fresh water at all times.

FRESH WATER: Available at all berths delivered through pier-sid connections.

FUEL: Viscosity grades of B and lower. No advance notice required. Barging essential. Also see "Notice" No. 2.

FIRE PRECAUTIONS: Fire precautions respecting tankers administered by U.S. Coast Guard, which enforces shipboard regulations under the Code of Federal Regulations, Part 46, Sub-Part D, Sections 20 to 40; the Police Harbour Patrol, which controls port movements, boards vessels to warn Master regarding harbour regulations, including spilling of oil, etc.; Fire Marshal exercises jurisdiction regarding fire regulations at shoreside facilities serving tankers.

All vessels to have towing cables rigged fore and aft on the offshore side. Cables to be made fast with the eye 1 m. above the water.

GANGWAY/DECK WATCHMEN: Option of vessel Owner/Agent and available through private firms.

OPENING/CLOSING HATCHES: While ship at dock, opening and closing is work of longshoremen. Ship may open or close own hatches while underway.

CERTIFICATES: Registered tonnage certificates. Certificate of Financial Responsibility (all details must agree with vessel's register).

CARGO GEAR: Valid cargo gear certificate required, acceptable to U.S. Bureau of Labor Standards.

IDENTIFICATION CARDS: Immigration Dept. requires form No. I-95A and No. 31 (Repatriation). Changes can be effected at any U.S. Immigration Office.

CONSULS: The following countries are represented in Portland:

Austria
Belgium
Costa Rica
Denmark
El Salvador
Finland
France
Germany F.R.
Ghana
Great Britain
Iceland
Italy
Japan
Korea
Lebanon
Mexico
Netherlands
Nicaragua
Norway
Panama
Peru
Senegal
Sweden
Venezuela

REPAIRS: All types of deck and engine repairs possible.

DRY DOCKS: 3 floating docks, largest 982 ft. × 185 ft. clear width, with lift capacity of 81,000 long tons.

REPATRIATION: Arrangements possible for crew changes or other repatriation.

AIRPORT: Airport 10 miles distant, served by 14 regularly scheduled passenger airlines with direct service and/or connections domestically and world wide. 19 cargo carriers also serve the area.

TIME: GMT minus eight hours. Daylight Saving Time becomes effective annually on the first Sunday in April through the last Saturday in October.

HOLIDAYS: *New Year's Day; President's Day (Feb. 21st); Memorial Day (May 30th); *Independence Day (July 4th); *Labour Day (first Monday in September); Veterans' Day (Nov. 11th); Thanksgiving Day, *Christmas Day (Dec. 25th), State-wide Election Days. Other legal holidays may be proclaimed by state or national authority. When holiday falls on Sunday, the following Monday is observed as holiday. Longshore work performed on any of above listed days is overtime, which is one and a half time rate. Days marked (*) are stop-work days, i.e. no ships will be worked. This also applies to July 5th, which observed locally on unilateral basis.

POLICE/AMBULANCE/FIRE: Police Tel: 226-7551; Fire Tel: 232-2111; Ambulance: provided by several private firms, but can be obtained through police or fire number.

TELEPHONES: Available by order from terminal superintendents at $5.00 connection charge.

SERVICES: All services available such as compass adjusting, major or minor repairs either with work barges or at ship repair berths; lay berths available; charts available from private companies; all chandlery supplies available.

SHORE LEAVE: Crew members permitted ashore except where vessel has made first arrival from Communist-controlled port.

NOTICE No. 1:

Custom of the Port Rules and Regulations:

Pertaining to bulk grain and other bulk commodities customarily handled through regular grain elevators, recognised as the practice in the Columbia River District by the Merchants Exchange. It is not the intent of the Rules and Regulations to supersede the contractural relationship between vessel and shipper or charterers, but rather state customary trade practices for the purpose of facilitating commerce under conditions where the contractural arrangements do not cover specific local conditions, in which case these "Custom of the Port" rules and regulations will apply. These rules are applicable to vessels loading in the Columbia River District, which shall be considered as one port and includes grain berths from Astoria, Oregon, to Portland, Oregon, including Longview, Kalama and Vancouver, Washington. Loading berth(s) to be declared during regular business hours at least 24 hours before arrival at the Columbia River.

Rule 1: Subject to the exceptions enumerated below, vessels shall be assigned to a berth(s) in the order in which they file with the elevator(s) as ready to load. A vessel shall be considered ready when it has obtained Certificate of Readiness issued by the National Cargo Bureau, Inc., and an official certificate of stowage examination from the U.S. Department of Agriculture, Federal Grain Inspection Service, Inspection Division, stating the vessel is completely fit in all compartments in which it is intended to receive cargo.

EXCEPTIONS:

(a) In assigning berth to vessels at any elevator, liners shall be given preference over other vessels, except that any tramp vessel whose allowed loading laytime has expired shall assume the status of a liner vessel for purposes of berth assignment. (For the purpose of these rules, the term "Liner" is defined as a vessel sailing under an advertised Pacific Coast schedule and operated by a line maintaining regular sailings from any Pacific Coast port to named ports, and on which the total quantity of all grain to be loaded shall not exceed one-half of the total deadweight tonnage of the vessel.) A vessel which arrives and presents Notice of Readiness to load in accordance with this rule, but which cannot attain "Liner" status because the allowed loading laytime is not defined in the contract of affreightment, will not lose its berthing priority to a tramp vessel with later Notice of Readiness, that has gone on demurrage.

(b) The elevator may alter the turn of the vessels whenever confronted with the urgent necessity of receiving or loading any particular grade of grain, or to facilitate conditions at the elevator. When requested, elevator operator to supply written confirmation of such loading alteration as authorised under this rule and/or applicable tariff to owner's or charterer's representative.

Rule 2

Normal working days are Monday through Saturday from 0800 hrs. to 1700 hrs. (exceptions are Sundays, legal holidays, and July 5th). Refer to notes below.

(a) July 5th – while not a legal or longshore holiday, has not been worked by Pacific Coast Longshoremen since 1935, and is considered a holiday.

(b) Overtime – is all work over 6 hours in one day, and work between 1700 hrs. and 0800 hrs., Monday through Friday, and all work on Saturdays, Sundays, legal holidays, and overtime days as defined in the Pacific Coast Longshore Contract.

(c) Awaiting vessel – where the same holiday is observed on different days in adjoining states, a waiting vessel not knowing where it could work will observe (for laytime purposes) the holiday in the state that it first works.

Rule 3

Should the vessel refuse to work during a normal working day, or beyond a normal working day when so required in writing by the elevator in accordance with its published tariff, it shall lose its turn and vacate the berth in favour of the next vessel that is willing to work overtime. The vessel so losing its turn shall be entitled to berth as soon as the berth is next available thereafter. Should any vessel refuse to vacate its berth when ordered to do so under the above circumstances, the elevator may effect the removal of such vessel at the vessel's risk and expense.

Rule 4

The Board of Directors of the Merchants Exchange will, on an annual basis, select an abitrator for the purpose of arbitration or interpretation of the Rules and Regulations set forth herein.

Requests for arbitration or interpretation of these rules shall be submitted in writing stating the parties involved and outlining the facts in brief detail to the Manager of the Merchants Exchange. The Manager of the Merchants Exchange and the arbitrator will select the time and place for the arbitration. Failure of the parties named in the abitration to respond or acknowledge the request for arbitration will require the arbitrator to rule on the facts as presented by the requesting party.

Any requests for revisions of these rules must be submitted in writing to the Chairman of the Custom of the Port Rules and Regulations Committee with a copy to the Manager of the Merchants Exchange.

Arbitration fees payable to the Merchants Exchange shall be $50 plus any extra ordinary charges in connection therewith. The above fee shall be paid by the party requesting the arbitration or interpretation.

NOTICE No.2: Issued by the Harbour Master in August, 1980.

SUBJECT: Discontinuing Ship Repairs at Grain and Oil Docks, and Refueling at Grain Docks.

We feel after considerable deliberation that ship repair at Oil and Grain Docks is an unnecessary hazard and should be discontinued at once.

The practice of refueling ships at Grain Docks also would be considered taking an unnecessary risk, and as such, will be stopped.

After surveying numerous longshoremen and Grain Operators who reaffirmed this position, we are hereby notifying the concerned contractors that this will be our policy from now on.

DEVELOPMENTS: New coal export terminal (construction suspended). It is expected to handle a 60,000 d.w.t. vessel in 12 hours. Depth alongside 40 ft.

A new bulk export facility is to be constructed at Terminal 4.

AUTHORITY: Port of Portland, P.O.Box 3529, 700 Northeast Multnomah Street, Portland, Oregon 97208. *Tel:* (503) 231-5000. *Telex:* 910-464-5105. *FAX:* (503) 231-5332. *Cables:* Portofport. *Contact:* Robert Woodell, Executive Director.

AGENT: Norton Lilly Intl., 200 S.W. Market Street, Suite 860, Portland, Oregon 97201. Tel: (503) 224-6612. Telex: 6839232.

PORT LAVACA/POINT COMFORT, Texas:

28.40 N. 96.35 W. **(See Plan)**

DOCUMENTS:

2 Cargo Manifests.
2 Stores Lists, Form CF1303.
2 Crew's Effects Declaration, Form CF1304.
1 Clearance from Last Port.
Vessel's Register, tonnage, tax receipts, etc.
2 Copies Crew List.
2 Copies Passenger List.

PILOTAGE: Ship's Agents notify Matagorda Bay Pilots as to vessel's ETA. Pilot boat can be contacted on VHF Channel 16, then switch to Channel 26 to continue conversation. Pilot boards at buoy 1-A at position Lat. 28° 23′ N., Long. 96° 17′ W.

ANCHORAGES: Marked on chart of Matagorda Bay and approaches.

RESTRICTIONS: Vessels may enter any time day or night. Entrance channel depth 38 ft. Bay Channel depth 36 ft.

MAX. SIZE: Public Dock – max. length approximately 750 ft. Draft controlled by channel depth of 38 ft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Galveston Radio (ITT Mackay Marine) and Port Lavaca Marine operator can be contacted on VHF Channel 16, then switch to Channel 26 for continued conversation.
TUGS: 1 tug available joining vessel shortly before arriving at berth.
BERTHING: Vessels berth at Public Dock.
STEVEDORES: Boyd-Campbell & Co. and Dix Shipping Company of Corpus Christi, Texas. At Alcoa's Dock all plant labour is used.
MEDICAL: No advance notice required. Several clinics and 1 hospital available in Port Lavaca.
DENSITY: Average density is 1010/1012.
FRESH WATER: Fresh water available alongside berth.
FUEL: Fuel is available from VAL-CAP located in Port Lavaca. Can be delivered by barge or truck.
OPENING/CLOSING HATCHES: At Public Dock this is done by stevedores. At Alcoa Dock this is done by ship's crew.
CERTIFICATES: Load Line, Foreign Clearance, Safety Equipment, Financial Responsibility (oil pollution), Tonnage Tax Receipts, will be required.
IDENTIFICATION CARDS: Immigration Crew Landing Permit I-95 required for each man.
CONSULS: Only Norwegian Vice-Consul Tel: 512-987-2311.
REPAIRS: Only minor repairs possible. No dry docks.
REPATRIATION: Arrangements are possible but preferably should be accomplished in larger ports.
AIRPORT: Nearest airport 20 miles at Victoria, Texas, served by Texas International only, Corpus Christi Airport about 90 miles; Houston Airport about 150 miles.
TIME: Central Standard Time during Winter (GMT minus 6 hours). Beginning first Sunday in April until last Sunday in October, Daylight Saving Time (clocks are moved ahead 1 hour).
HOLIDAYS: All holidays observed by contract with ILA. See "Houston".
POLICE/AMBULANCE/FIRE: Police Department, Fire Department and Ambulance Service, Tel: 911.
TELEPHONES: Telephones are available ashore only. Telephone booth on Public Dock.
DEVELOPMENTS: Plans for lengthening dock and another warehouse are now being considered.
AUTHORITY: The Port of Port Lavaca/Point Comfort, The Calhoun County Navigation District, P.O.Box 397, Point Comfort, Texas 77978. *Tel:* (512) 987-2631. *Contact:* Doug Lynch, Port Manager.

Private Dock owned by Aluminium Company of America with its Agent being Alcoa Steamship Company Inc., Point Comfort.

PORT NECHES, Texas: 30.00 N. 93.57 W.

DOCUMENTS, PILOTAGE, RADIO, etc.: Refer to "Port Arthur".
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: Meet vessel in Neches River before arriving at berth. Normally 2 tugs used for docking, 1 for undocking.
BERTHING: Texaco Chemical Co. (Jefferson Dock) Chemical Co.: Distance from sea 30 miles, depth at berth November to March 32 ft., and from March to November 35 ft. Max. LOA 800 ft.

Texaco Terminal: Distance from sea 34 miles, depth at berth 38 ft. Max. LOA 810 ft.
MEDICAL: All facilities available.
DENSITY: Fresh water.
FRESH WATER: Available by barge.
FUEL: Bunker C not available ex-wharf at Texaco Terminal, only by barge from Port Arthur or Beaumont.
GANGWAY/DECK WATCHMEN: Not required unless crewmen detained by Immigration.
CUSTOMS ALLOWANCES: 300 cigarettes and 1 quart wine or spirits for each man.
IDENTIFICATION CARDS: Foreign crew only require Immigration Landing Permit.
CONSULS: Nearest at Houston.
REPAIRS, DRY DOCKS: See "Port Arthur".
AIRPORT: 15 minutes from docks. Several flights a day 0600 hrs. – 2200 hrs. to Houston International Airport.
AUTHORITY: *Operators:* Texaco Chemical Company, P.O.Box 430, Bellaire, Texas 77401, U.S.A. *Tel:* (713) 432-2933. *Contact:* R.C. Sartain, Senior Marine Co-ordinator.

PORT ST. JOE, Florida: 29.49 N. 85.19 W.

DOCUMENTS:
All documentation must be on United States forms.
At least: 3 Passenger Lists.
3 Crew Lists (1 for visa Crew List).
3 Curio Lists.
3 Stores Lists.
2 Complete Manifests.
Clearance from Last Port.
PILOTAGE: Apply for Pilot through ship's Agent – address is "Port St. Joe, Pilots" and advance ETA 18 hours. "VHF – Channel 16". Pilot boat station is at Sea Buoy, Port St. Joe only and location of anchorage for vessel awaiting a Pilot is 1 mile West of Sea Buoy.
ANCHORAGES: Local harbour charts indicate safe anchorage.
MAX. SIZE: Draft 32 ft.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illnes Reports made to Miami Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: Call sign WLO, Mobile, Alabama.
TUGS: None presently available.
STEVEDORES: ETA must be received by 1800 hrs. in order to hav gangs at 0800 hrs. following day.
MEDICAL: No notice required. Hospital facilities available. Inoculation required same as public health U.S. Government requirements.
TANKERS: Discharge lines 8 in. No residue discharge allowed 2 tanker berths 32 ft. draft.
DENSITY: Salt water – heavy concentration.
FRESH WATER: Available in unlimited quantities by hose connectio from dock to ship, 1.5 in. to 2.5 in. size at 60 p.s.i.
GANGWAY/DECK WATCHMEN: Only when requested by ship.
OPENING/CLOSING HATCHES: Work can be performed by eithe stevedores or crew.
CUSTOMS ALLOWANCES: 1 carton of cigarettes per week per cre member permitted. Further allowances would depend on circumstances Wine and/or Spirits 1 bottle per crew member as allocated by Customs
CARGO GEAR: Must be in compliance with "U.S. Governmen Longshoremen Safety Codes".
CONSULS: None.
REPAIRS: None.
DRY DOCKS: None.
REPATRIATION: Can be accomplished by Agent and Immigration bu should be accomplished in larger ports if possible.
AIRPORT: Served by regular airlines. (Southern Airways, Nationa Airways). 6 combined flights a day. Distance 40 miles.
TIME: Standard Time GMT minus 5 hours. GMT minus 4 hours Daylig Saving Time from first Sunday in April to last Sunday in October.
HOLIDAYS: *No Work Holidays:* No work performed New Year's Day Fourth of July, Labour Day, Christmas Day, or December 24th December 26th, and Easter Sunday, except handling of mail, baggag and perishables (except bananas) or unless a ship is in distress, suc as fire or leaking bottom, or, other causes that would damage cargo vessel. In event work done on New Year's Day, Fourth of July, Labou Day, Christmas Day, December 24th & December 26th, or Easte Sunday, rate of pay for such ship work shall be double the normal tim rate. Should above holidays fall on Sunday, double time will be pai Following Monday will be paid at time and one-half.

Working Holidays: Armistice Day, Thanksgiving Day and Memorial Da are to be paid for at overtime rate – one and one-half times straigh time rate. Should any of above holidays, except Sunday fall on Sunda the following Monday will be observed.
POLICE/AMBULANCE/FIRE: Police Tel: 229-8265; 227-452 Ambulance Tel: 227-1115 (Comforter), 277-1818 (St. Clair), 229-811 Fire Tel: 227-1115.
TELEPHONES: Available for placing aboard.
GENERAL: In sending ETA when ship is going to arrive over weekend (Saturday and Sunday), an ETA notice should arrive prior to 1700 hr Friday.
SHORE LEAVE: Shore leave allowed when cleared by Immigration.
REGULATIONS: Normal working hours of longshoremen from 0800 t 2230 hrs. only, 7 days a week.
DELAYS: Only when due to port congestion.
AUTHORITY: Port St. Joe Port Authority, P.O.Box 280, Port St. Jo Florida 32456. *Tel:* (904) 227-1111. *Contact:* Amelia Tapper.

PORT SAN LUIS, California: 35.10 N. 120.45 W.

(See Plan

ANCHORAGE: The best anchorage in the Harbour is on the starboar side, coming from the sea, being the area between No. 3 Pier and th second, Union Oil Terminal Pier. Anchorage be outside of the existin mooring area and the holding ground is primarily sandy bottom.
APPROACHES: The approach channel, directly off the end of th Harbour District's Pier is an entrance channel, which is unlit an identified by large green or red buoys.

The tanker channel runs North/South to Pier No. 2 (Union Oil) an small vessels using Pier No. 3 (Harford) run a course of approx. S.E. N.W.
MAX. SIZE: Tankers up to 750 ft. length and 26 ft. draft.

48,000 d.w.t. tankers may not use Pier No. 3 (Harford). Vessel wishing to use Pier No. 3 must give prior notice in writing, excep commercial fishing vessels.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illnes Reports made to Los Angeles Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: Vessels should contact Union Oil Company through Marin Operator. "Walkie-talkie" sets used for communication with termina VHF station KTD 411, Channels 10 and 16.
VHF: Harbour Office, call sign "KYZ 664", on VHF Channel 1 throughout 24 hours, working Channels 10 and 12.
TANKERS: Tanker berths only at Union Oil Company Pier. Vessels ti off pier at Berth No. 4. Depth alongside 32 ft. MLW.

1×12 in. and 1×16 in. load/discharge lines. No ballast discharg allowed.
DENSITY: Salt water, 1025.
MEDICAL: Services available.
FRESH WATER: Available.
FUEL: The Harbour District maintains and operates a diesel fuel facility capacity 12,000 gallons. The facility is at the end of the District's 1,400 ft pier. Limited use restricted to small vessels up to 300 d.w.t.
CONSULS: Nearest consuls situated at Los Angeles and San Francisco

REPAIRS: Facilities available for all vessels.

AIRPORT: County Airport, San Luis Obispo, situated 12 miles distant. 6 flights daily to Los Angeles and to San Francisco.

HOLIDAYS: Christmas and New Year.

GENERAL: Port San Luis is an official Port of Entry with U.S. Customs. The Port Director is on duty Monday to Friday from 0900 hrs. to 1600 hrs.

There is a boat yard with a 50 ton mobile hoist.

WEATHER: The mean tidal range in San Luis Obispo Bay is 3.6 ft., the Spring range is 5.3 ft. and the maximum range is approximately 9.8 ft. The highest observed tide was 7.5 ft. above MLLW mark in January, 1948. The lowest tide of −2.3 ft. MLLW mark occured on January 7th, 1951. Tidal level above the MHHW or MLLW will occur approximately 20% of the time during severe storms. The existing breakwater gives partial protection from waves approaching from the Western part of the San Luis Bay. The bay is exposed to open sea from the South to Southwest. Northwesterly winds are predominant, except during the Winter months, October through April, when these storms from the South generate waves that approach from the S.W. to S.E. The magnitude of the surge is usually less than 0.5 ft. However, 1 ft. waves are common. The prevailing wind is from the N.W. and averages 5 to 15 knots and, during a Southerly storm, can go up to 60 knots.

The climate and weather are typically mild and favourable. The rainy season, including the storm season, is generally from November 15th to April 15th. Occasionally, brisk winds or fog make it temporarily difficult to navigate within the Port. Rain and heavy winds are not usually experienced at other times of the year. Normally, the temperature is from the low 50's to the high 70's.

AUTHORITY: Port San Luis Harbour District, Pier No. 3, P.O.Box 249, Avila Beach, California 93424. *Tel:* (805) 595-2381 *Contact:* William S. King, Harbour Master. J. K. Elder, Assistant Harbour Master.

PORTSMOUTH, New Hampshire: 43.03 N. 70.45 W.

(See Plan)

PILOTAGE: Pilot boards at entrance.

BERTHING:

New Hampshire Port Authority:

Operator: J. T. Clark & Son of N.H. Inc. Tel: (603) 431-8500.
Location: 3 miles from Outer Anchorage (Buoy KR2).
Depth at Dock: 35 ft. (MLW).
Type of Pier: Length 600 ft. Concrete and steel pile with precast concrete deck.
Products Handled: General cargo, bulk and containerised.
Dry Storage: 50,000 sq.ft. in two sheds.
Dockside: Potable water, power, telephone and marine bunkers.

Modern fork-lift trucks, bucket loaders, tractors and heavy lift cranes are permanently stationed at the facility to prevent any delays in servicing all types of vessels. The 4 cranes range in size from 35 tons to a 165 ton mobile container crane. Additional mobile cranes of 150 ton capacity are readily available.

A certified weighing system is located in the centre of the freight marshalling area for easy access to trucks and containers entering or leaving the terminal.

Fuel Storage Inc.:

Operator: Sea-3.
Address Terminal: Avery Road, Newington, N.H. 03801. Tel: (603) 431-5990.
Office: 144 Washington Street, Portsmouth, N.H. 03801. Tel: (603) 436-6225.
Type of Pier: Steel piled cells offshore 125 ft.
Depth Alongside: 38 ft. (MLW).
Normal ship side to dock: Port.
Line Handling boat required: Motorised shore bollards.
Access to vessel (for stores and repairs): Trucks to shoreside, cart or hand to shipyard.
Product handled: LPG.
Size and number of pipe-lines: 16 in. liquid line, 8 in. vapour return.
Bbls. per hour Discharge capacity: 12,420 bbls.p.hr.
Maximum vessel dimensions: 59,000 c.b.m.
Storage capacity: 400,000 bbls.
Other dock users: Belcher Oil, Sea – 3 Products Inc., U.S. Government, Global, Trimont International, Cyro.

Also see "Shipmaster's Report".

Public Service Co. of N.H. Schiller Station:

Operator: Mobil Oil Corp.
Address: Gosling Road, Newington, N.H. 03801.
Depth Alongside: 34 ft. (MLW).
Normal ship side to dock: Port.
Access to Vessels (for stores and repairs): Limited.
Products handled: Gasoline and distillates.
Size and number of pipe-lines: Various.
Discharge capability of bbls.: 6,000 bbls.p.hr.
Average distance to storage tanks: Tank farm adjacent to dock.

Simplex Wire & Cable:

Operator: Simplex Wire & Cable.
Address: Old Dover Road, Newington, N.H. 03801. Tel: 436-6100.
Type of Pier: T-Shape (permanent).
Depth Alongside: 28 ft. (MLW).
Normal ship side to dock: Port (bow upstream).
Line handling boat required: Yes.
Access to vessel (for stores and repairs): Yes.
Product handled: Ocean cables.

Public Service Co. of N.H. Schiller Station:

Operator: C. H. Sprague & Son.
Location: 1.5 miles above the Interstate Bridge.
Distance seabuoy to dock: 7.1 miles.
Controlling depth in approaches: 35 ft.
Controlling depth at dock – MLW: 37 ft., ledge bottom.
Docking and undocking conditions: Docking is restricted to a high water operation – Pilot starting ship in from anchorage area at high water only.
Undocking: Low water slack at the dock or 1 hour before high water slack at the dock.
Length of dock and construction: 700 ft. with dolphins. Concrete pile, concrete decked T-head wharf with a 100×20 ft. approach.
Tugs and linehandlers: 2 or 3 tugs used to dock and undock. Terminal personnel used as linesmen.
Bunkers: Available through 6 in. line at 2,000 bbls./hr.
Water: Supplied through 2.5 in. line.

C. H. Sprague & Son Co., Newington Terminal:

Operator: C. H. Sprague & Son Co.
Address Terminal: Old Dover Road, Newington, N.H. 03801. Tel: (603) 431-5131.
Office: One Parade Mall, Portsmouth, N.H. 03801. Tel: (603) 431-1000.
Type of Pier: Steel piled cells (2) and mooring dolphins (3) Offshore 300 ft.
Depth Alongside: 36 ft. 6 in. (MLW).
Normal ship side to dock: Port.
Line handling: Motorised capstans on all dolphins. Lines handled by Sprague personnel.
Lines: 6-18 depending on size of vessel.
Access to vessel (for stores and repairs): 5 ton vehicle or less to ship side, 5 ton vehicle or more, cart or hand to ship side.
Products handled: Kerosene, diesel fuel, No. 2 home heating oil.
Size and number of pipe-lines: 1×16 in., 1×14 in., 3×10 in., 1×8 in., 1×6 in.
Discharge Rate: 7,000-20,000 bbls./hr. (varies on product and tank size).
Max. vessel size: 700 ft. overall length.
Storage capacity: 1,200,000 bbls.
Dockside: Potable water, pay telephone, marine bunkers (light oil only).

Gold Bond Building Products Division of National Gypsum Company:

Operator: Gold Bond Building Products.
Address Plant: Freeman's Point, Portsmouth, N.H. 03801. Tel: (603) 436-4840.
Mailing: P.O.Box 270, Portsmouth, N.H. 03801.
Type of Pier: 2 circular marine cells, 40 ft. dia. at shore side.
Depth alongside: 40 ft. (MLW).
Normal ship side to dock: Port.
Line handling boat required: Motorised shore bollards.
Access to vessel (for stores and repairs): Trucks to shoreside.
Product handled: Gypsum ore through a conveyor system designed for self-unloading ships.
Other Dock Users: Northeast Petroleum Corp.
N.H. Trading Corp.

TUGS: The Port of Portsmouth is serviced by 3 regular tugs, one of 1,200 h.p. and two of 1,600 h.p. operated by the Portsmouth Navigation Division of the Central Wharf Towboat Company, Inc. Tel: 1-603-436 1209 (radio frequency 1316). Additional tugs are available in the area if needed.

The rates for moving vessels from the anchorage (1 mile South of Sea Buoy KR2) to berths in the harbour vary according to distance, conditions and tonnage of vessels. Tonnage referred to is s.d.w.t. or Coastwise, whichever greater.

BRIDGES: *Bridge Clearances:*

Memorial Bridge (lift): Horizontal 260 ft., vertical 150 ft.
ME.-N.H Bridge (lift): Horizontal 200 ft., vertical 135 ft.
1-95 Highway Bridge (fixed): Horizontal 440 ft., vertical 135 ft.
General Sullivan Bridge (fixed): Horizontal 100 ft., vertical 46 ft.
New Castle Highway Bridge (Bascule): Horizontal 29 ft., vertical 12 ft.

TANKERS: Also see "Berthing".

Report: Cautionary Advice – Port Approaches: Vessels approaching Portsmouth should pass South of Isles of Shoals, and, if waiting for the Pilot, anchor inside of Gunboat Shoals Buoy No. 1. Vessels should not anchor during periods of heavy swell. It is not prudent to enter port in fog, snow or when swell is running West of Whaleback Reef. Numerous small craft frequent this area during Summer months.

Tugs: 4 tugs are available at this port. Pilot acts as Docking Master and his advice should be heeded concerning number of tugs and number and placement of mooring lines.

General: Portsmouth Harbour is at the mouth of the Piscataqua River and is the approach to all marine terminals located on the river. The terminals are located above the City of Portsmouth. Vessels transitting up-river must pass beneath either 2 or 3 bridges, depending on the terminal. The first bridge is the Memorial Highway Bridge which is a lift bridge with a vertical clearance of 150 ft. in the raised position. The second bridge is the Route No. 1 Bypass and Railroad Bridge (Noble Island Bridge) which is also a lift bridge and has a vertical clearance of 135 ft. in the raised position. The third bridge is the Route 95 Bridge which is a fixed structure with 135 ft. of vertical clearance. The 2 lift bridges monitor VHF Channel 13. The minimum horizontal clearance on the bridges is 200 ft.

The Agent must notify the U.S. Coast Guard 24 hours prior to the vessel entering the harbour. The vessel must notify the U.S. Coast Guard on VHF Channel 16 upon entering the harbour. The Pilot will get a vessel under way approximately 1 hour before the tide changes in order to make a Slack Water passage. Tugs will come alongside after the vessel has rounded Fort Point.

Sea 3 Terminal: LPG vessels scheduled to discharge at this terminal must pass through all 3 bridges. The terminal is located 2.9 miles above the Memorial Highway Bridge on the South bank of the river. An exact ETA is important for LPG vessels due to the nature of the vessel's cargo and necessary notification of state, local, and federal agencies (USCG). LPG vessels must meet the following Port Regulations:

(a) Vessels move within the harbour only during daylight hours (loaded or light).
(b) Vessels move within the harbour only during periods of good visibility. If the visibility falls to less than 2 miles, vessels at sea must not enter port without the permission of the USCG Captain of the Port. If a vessel is under way within the harbour and the visibility deteriorates to less than 2 miles, the vessel must notify the Captain of the Port and then proceed to the berth or anchor as directed.
(c) Vessels must continuously monitor VHF Channel 13 while under way in the harbour. Constant communications must be maintained with the attending tugs and the USCG escort craft.
(d) Vessels transitting in-bound may do so only during periods of Slack Water. This could be either High or Low Slack Water, depending on the vessel's draft. On departure from the berth, vessels leave either at LW or 1 hour before Slack High Water (daylight only).
(e) Vessels transit the harbour with at least 4 tugs in attendance.
(f) LPG vessels should not enter the port unless the terminal is able to immediately receive cargo.
(g) On a LPG vessel's first call to the port, a USCG inspection team will board the vessel at anchorage. All LPG vessels, whether awaiting inspection or harbour transit, must anchor 1 mile South of the Sea Buoy "KR2". After the initial inspection, a vessel on future calls to Portsmouth need only send the following message to the Captain of the Port, South Portland, Maine:

"To the best of my knowledge and belief, there are no known casualties to this vessel or its machinery which might affect its seaworthiness. I further state that all cryogenic handling and detection equipment is in proper operating condition."

This will permit vessel to proceed to the dock for pre-transfer inspection. Failure to send the message will require the vessel to be inspected at anchor.

(h) Vessels must be prepared to get under way on short notice in case of an emergency. One "live" tug must stand-by during all cargo operations.

LPG vessels transit Portsmouth Harbour and the Piscataqua River escorted by a USCG vessel with 4 tugs in attendance. The marginal-type dock consists of 3 concrete cells connected by catwalks. The 4 tugs breast the vessel alongside for a port side to docking. The bow is worked in first while head and forward breast lines are positioned and secured to the bitts. The stern is then worked alongside and the remaining lines positioned. This allows for the required tension on the long mooring leads forward. 20 mooring lines are considered the minimum acceptable as the ebb current forces the vessel off the dock and the bow has a tendency to yaw with the current. All moorings lines must be carefully tended. Light vessels undock with 3 tugs; vessels departing with part cargo must use 4 tugs to undock.

Also see "Shipmaster's Report".

New England Tank Industries – Newington: Located approximately 1 miles rom the Sea Buoy in the Piscataqua River. Vessels generally doc and undock with the assistance of 3 tugs. Vessels are breaste alongside by the tugs for a port side to docking. 12 mooring lines ar considered to be the minimum as current can reach 8 knots especial during spring freshets. Vessels dock and undock day or night. Vesse are turned off the dock or in the turning basin upon undocking afte discharging.

Northeast Petroleum – National Gypsum: Located on the West bank o the Piscataqua River below and adjacent to the Route 95 Fixed Bridg The berth is approximately 5 miles from the Sea Buoy and is above th City of Portsmouth. The marginal-type dock consists of 2 breasting cell set on 163 ft. centres. The hose gantry is mounted on a third cell whic is set back 4 ft. from the face of the breasting cells.

Both breasting cells are fitted with hard rubber fixed fenders. A gypsu unloading conveyor gantry is located at the South end of the pier bu the structure does not interfere with tanker operations. The mooring lin lead to the shore mooring point is approximately 115 ft. Vessels doc day or night with the assistance of 2 tugs. The tugs breast the vesse alongside for a port side to docking. 17 mooring lines are considered t be the minimum acceptable. Vessels undock with the assistance of tugs and are turned below the berth. Due to the strong river curren and the close proximity to the navigational channel, lines must be tende closely.

C. H. Sprague & Son – Company Shiller Station: Located on the Sou side of the Piscataqua River about 7.1 miles above the Route 95 Fixe Bridge. The dock consists of a concrete pile, concrete decked 'T'-hea wharf and dolphins. The overall length of the dock with the dolphins i 700 ft. Pilots start vessels in from the anchorage area at a suitable tim in order to dock during Slack High Water. Vessels dock and undock wi the assistance of either 2 or 3 tugs. Vessels dock port side to usin approximately 14 mooring lines due to the extreme currents experience during maximum stages of ebb and flood. After completion of discharg vessels are turned in the turning basin or off the dock. Vessels undoc either at Slack Low Water or 1 hour before Slack High Water. As wi other terminals, mooring lines must be closely tended at all times du to the strong river currents.

Tides and Depth of Water: Tidal currents are very strong in th Piscataqua River, averaging between 3 – 5 knots. Spring freshe increase this current. Eddies form around most of the berths makin slack tide berthing mandatory. Tidal range is 8.1 ft.

FRESH WATER: Available.

FUEL: Available.

REPAIRS: Facilities available.

BANKS: First National Bank of Boston. Tel: (617) 434-3770.
First National Bank of Portsmouth. Tel: (603) 436-7700.
Maine National Bank. Tel: (207) 439-0451.
State Street Bank. Tel: (617) 786-3839.

GENERAL:

VESSEL ARRIVALS AND DEPARTURES

Marine Section, Federal Building, Room 103, Portsmouth. Tel: (603 436-7620, ext. 737.

District Office (Portland, ME): Tel: (207) 780-3328.

COMMERCIAL VESSELS, ARRIVALS & ENTRY

Report of Arrival: These vessels must report arrival to a U.S. Custom Officer within 24 hours (19 U.S.C. 1433):

A. Vessels arriving at any port or place in the U.S. from any foreig port or place (refers to domestic and foreign vessels);

B. Domestic vessels arriving at any port or place in the U.S. fro another U.S. location with bonded merchandise or foreign merchandis for which entry has not been made. Failure to report results in penaltie

Entrance: Within 48 hours of arrival from a foreign port, the Master i required to make entry of his vessel, even though the vessel may be a anchor awaiting berth. Foreign flag vessels arriving in ballast fro another U.S. port must also make entry within 48 hours of arrival. Whe vessels which have residue foreign cargo and/or passengers on boar arrive from another U.S. port, entry should be made within 24 hours.

Vessels arriving from a foreign port must have made either Preliminar or Formal entry prior to transacting any type of business or permittin anyone on board other than Customs, Immigration, Agriculture, Publ Health, and Agent's personnel. Vessels arriving from another U.S. po to discharge cargo must make Preliminary or Formal entry prior t discharging cargo.

Foreign non-commercial vessels are also required to make entry. I Portsmouth this will be done on board at the time of boarding b Customs. The Officer will provide necessary forms and assistance. No commercial vessels may contact the New Castle Coast Guard Statio for assistance in obtaining a Customs Officer.

WARNING REGARDING SEA STORES

(U.S. Dept. of Agriculture, Animal & Plant Health Inspection Servic

You are hereby warned that WHILE YOUR VESSEL IS IN TH TERRITORIAL WATERS OF THE U.S., regulations of the Departme of Agriculture **prohibit** the unloading for any purpose of:

1. Fresh, chilled or frozen meats;
2. Undrawn poultry carcasses;
3. Plants or plant products, including fruits or vegetables;
4. Garbage, consisting or contaminated with scraps, parts or othe waste of meats, plants, fruits, and vegetables.

DEVELOPMENTS: The Port Authority has developed a comprehensiv plan for maximum utilisation of existing space on a phased basis. A integral part of that plan is another docking facility, 1,000 ft. long with depth of 35 ft. alongside at MLW. This new docking facility will provid additional berthing space for new users as well as prevent costly delay due to terminal congestion. The Port Authority is also planning to develo approximately 10 acres of new land from a tidal basin adjacent to th present facility. This area will be used for open as well as enclose throughput storage.

SHIPMASTER'S REPORT: February 1983.
Sea-3 Terminal:

The vessel arrived off Portsmouth N.H. on the 2nd February, at the entrance to which port the Pilot boards, to take vessels up river to Newington. At the arrival time a S.E. gale was in force, so the passage was ended at 2400 hrs. and the vessel stood some 20 miles off the coast waiting for the weather to abate, as I considered it unwise to proceed to the waiting area to anchor; as the holding ground is not good, and in S.E'ly winds there is no shelter. The vessel cruised around at reduced speed until the following day.

At 1450 hrs. on the 3rd February, with the weather, and sea conditions much improved, the vessel anchored 1 mile South of Kitts Rock No. 2 Buoy (KR2). Two U.S. Coast Guard officers boarded from a local harbour tug after some difficulty in coming alongside, due to the ground swell that was still running. The Officers carried out an inspection of all cargo handling equipment, and shut down systems. The Coast Guard officers then granted permission for the vessel to enter the Port of Newington, and disembarked at 1715 hrs.

As there is a port regulation that no LPG carrier can move during the hours of darkness, and that large vessels can only dock, and undock during slack water periods, it was necessary to wait until the following morning before docking.

At 1020 hrs. on the 4th February the Pilot boarded. At 1040 hrs. anchor aweigh, and the vessel proceeded up river. At the mouth of the river there is a shallow patch with only 35 ft. over it at low water. This left only 5 ft. clearance under the keel, and the vessel had to proceed very slowly over it. Four tugs were made fast, 2 for'd and 2 aft, and a U.S. Coast Guard cutter escorted the vessel up-river. The river is narrow, with some very sharp bends. There are 3 bridges, with the port limitations governed by the Noble Island Bridge. The vertical clearance on this bridge is 135 ft., and the horizontal distance is 200 ft. Maximum draft loaded, and on high water is 36 ft. On approaching this bridge it was necessary to let go the 2 for'd tugs, and allow them to pass through the bridge first, making them fast again when the vessel has passed through.

The vessel docked at Sea 3 Terminal, at 1315 hrs. 4th February. The berth constructed from 3 cement and steel dolphins, joined together by a steel platform. It stands about 150 ft. out in the river, and is connected to the shore by a narrow footbridge. The mooring arrangements for a vessel of this size are poor. There is not sufficient leads on the head lines or stern lines due to the way the mooring bollards are placed on the shore, and all the weight is taken on the spring lines. Recommended mooring arrangements as supplied by the Port Authority (see "Plan"). On the full run of the tide the water runs at up to 4 knots alongside, and because of this there is a port regulation that a tug must stand-by at all times while the vessel is alongside. The cost of this tug, on this call was U.S.$300 per hour, which can add a considerable amount to the overall cost of calling at Newington.

Before loading commenced, a liquid and vapour return line were connected. At 1530 hrs. on the 4th February loading commenced. The vapour return line proved very important as it appeared there was a large percentage of impurities in the product received judging by the performance of the vessel's reliquification plant. It was necessary to return a considerable amount of vapour to the shore tank during loading operations. I issued a Letter of Protest, to the Terminal Manager, protesting the quality of the product.

On docking, the vessel was again boarded by the U.S. Coast Guard, and further inspections were carried out. The Coast Guard personnel remained on board throughout the loading operation; sometimes as many as 6 Officers, but never less than 3 at any one time. It was explained to me by their Commanding Officer that some of the personnel had no experience of LPG vessels, and were on board to learn. In this respect the ship's Officers gave all assistance possible in showing them around. The loading rate was slow, only reaching an average of 400 tonnes/p.h. on full rate, and the shore installations could not supply the product any faster. Loading was completed at 0730 hrs. on Monday, 7th February when the cargo loaded was estimated as follows:

Ship's figure:	23,965.127 tonnes
Surveyor's figure:	23,901.602 tonnes
Shore figure:	23,828.614 tonnes (taken from shore tank gauge reading)

The draft on completion was 33 ft. 00 in. for'd., 34 ft. 08 in. aft.

Owing to port regulations the vessel had to remain alongside until the next daylight high water which was at 0800 hrs. on the 8th February. The vapour return line remained connected during this time, as regulations prohibit releasing uncondensables to the atmosphere, and in view of the impurities in the product it was found necessary to use this vapour return line.

At 0745 hrs. on the 8th February while the vessel was preparing to sail, a Coast Guard Officer boarded and informed me that the visibility in the river was less than 2 miles, and the U.S. Coast Guard would not grant permisson for the vessel to sail. Heavy snow had fallen throughout the previous day, but had cleared during the night, and the visibility at the vessel was over 2 miles. Evidently further down river it was still snowing, and visibility was restricted. The vessel had to remain alongside until the next daylight high water which was 0900 hrs. on the 9th February.

At 0715 hrs on the 9th February while preparing the vesel to sail, the vapour return line was disconnected, and a further survey of the product on board carried out. The result was as follows:

Loss of product as found by ship:	50.283 tonnes
Loss of product as found by Surveyor:	52.568 tonnes

At 0855 hrs. on the 9th February the vessel sailed for the Panama Canal. She was assisted by 5 tugs, as both the Pilot and the U.S. Coast Guard insisted on an additional tug being employed for the down-river passage as the vessel was deep loaded. There was no difficulty in leaving the berth. All stern lines were let go, and the vessel's stern allowed to swing out into the river, while still made fast for'd, with all weight coming on the for'd spring lines. When the vessel was at right angles to the dock all lines were let go, and the tugs pushed her around until she was heading down river. The river passage went without incident, and the Pilot disembarked at 1037 hrs. when approaching Kitts Rock No. 2 (KR2) buoy. The passage commenced at 1100 hrs on the 9th February, 1983.

AUTHORITY: New Hampshire State Port Authority, Port of Portsmouth, 555 Market Street, Box 506, Portsmouth, New Hampshire 03801. *Tel:* (603) 436-8500. *Contact:* Port Director.
Harbour Master: *Tel:* (603) 436-8500.

PORT SULPHUR, Louisiana: 29.28 N. 89.41 W.

(See Plan)

DOCUMENTS, etc: Refer to "New Orleans".
PILOTAGE: A vessel coming into port from sea can arrange to pick up a Bar Pilot (Associated Branch Pilots) by furnishing ETA to the ship's Agents, radio contact by VHF Channel 9 and AM Channels 2738 and 2182. Bar Pilot is exchanged for river Pilot at Head of Passes, Pilot town, Louisiana. River Pilot (Crescent River Port Pilot's Association) can be arranged through ship's Agent in New Orleans and radio contact as above. Vessel awaiting Pilot for departure may remain at dock until Pilot arrives. Advance notice of 3 hours is required for departing Pilots. This can be arranged by the ship's Master with the shipping foreman.
ANCHORAGES: Anchorage is available on East bank of river opposite to Freeport Sulphur Company Dock. Depth of water at anchorage is 40 ft., the controlling depth in the river.
RESTRICTIONS: No restrictions for entry because of time of day, nor conditions of tide or draft except the controlling depth of Mississippi River to Port Sulphur (35 ft. – 40 ft. as published in reports by U.S. Army Corps of Engineers).
MAX. SIZE: Max. permissible length – 750 ft., breadth not limited, draft equal to controlling depth of river.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: Tropical Radio WNU New Orleans.
TUGS: Tugs not normally required. Shore crews usually handle ship's lines. Tug may join the vessel opposite the dock. Charges for handling ship's lines.
STEVEDORES: Not normally required. When requested, stevedoring services can be obtained from Port of New Orleans; contact ship's Agents for particulars.
MEDICAL: Advance notice for personnel requiring medical service is required through ship's Agents. Hospital facilities are available.
TANKERS: 1 tanker berth, permitted draft equal to or greater than controlling depth of Mississippi River. Diameter of loading/discharge lines are 12 in. and 16 in. respectively.
DENSITY: Density in port not affected by tide. Fresh water.
FRESH WATER: Not available.
FUEL: Fuel may be loaded by barge with vessel at anchor. Fuel transfer is not permitted at dock.
FIRE PRECAUTIONS: No welding repair permitted at dockside. Fuel transfer is not permitted. No other specific precautions observed except for "no smoking" precautions, etc.
GANGWAY/DECK WATCHMEN: Services of watchmen desirable but not required. Port does not furnish this service.
CERTIFICATES: Certificate of condition of cargo handling gear required when use of gear is necessary.
IDENTIFICATION CARDS: Immigration Form I-95.
CONSULS: Consuls offices are located in New Orleans, Louisiana.
REPAIRS: Engine and deck repairs are possible when the dock is not otherwise occupied.
AIRPORT: New Orleans International Airport, served by most major airlines. 55 miles from Port Sulphur.
TIME: Local time is Central Standard Time (GMT minus 6 hours), except from April/October, Daylight Saving Time is in effect.
HOLIDAYS: Vessels are loaded on all holidays except Christmas Day.
POLICE/AMBULANCE/FIRE: Police Tel: 564-2525; Ambulance Tel: 564-2525; Fire Tel: 564-3231.
TELEPHONES: Jacks for telephones are provided at no additional cost to tankers loading at port.
SHORE LEAVE: Crew members are allowed ashore.
DELAYS: Loading will not commence until all holds are clean of scale and other foreign matter.
AUTHORITY: Freeport Sulphur Company, P.O.Box 1025, Port Sulphur, Louisiana 70083. *Contact:* A.W. Dow, Operations Manager.
Freeport Sulphur Company, P.O.Box 1025, Port Sulphur, LA 70083. *Tel:* (504) 564-3981.

PORT WENTWORTH, Georgia: 32.09 N. 81.08 W.

PILOTAGE: Compulsory. Pilot boards at Savannah Sea Buoy. 48, 24 and 12 hours notice required through Agent.
RESTRICTIONS: Vessels can enter and leave port during hours of darkness and at any stage of the tide, however, depth of water at River Bends controls draft.
MAX. SIZE: See "Berthing".
VHF: Pilot on Channels 16, 14 and 13.
TUGS: Tugs from Savannah assist with berthing and unberthing.

BERTHING: *Continental Can & Paper Co.:* Port Wentworth is the most inland berth up the Savannah River and is 29 miles from the entrance. Max. size of vessel so far to berth was LOA 628 ft. Pilots would accept vessels of 700 ft. LOA but would be unable to swing with this length. The berth is dredged to approximately 40 ft. for a length of 700 ft. Least depth of water in channel from sea to berth 28 ft.

Mean tidal range at berth 8 ft. to 9 ft. Nature of bottom – mud.

Vessel is able to dock at any stage of the tide, however, vessels undock on the flood to swing off berth. (Approximately one hour's flood tide required). The berth is a timber faced concrete wharf of length 240 ft. *Facilities:* There are no bulk handling facilities or quay cranes. Three mobile cranes used. There are no Ro-Ro facilities or floating cranes available. Fork lifts are available for handling reels of linerboard. There are no facilities for handling containers as berth is only used by Paper Mill.

DENSITY: 1001.

STEVEDORES: Savannah labour used (Experts on loading paper reels).

FRESH WATER: Not available.

FUEL: Bunker fuel oil available by barge. Diesel oil and lubricating oils also available.

MEDICAL: Doctor and hospital available.

SERVICES: (Available locally or from Savannah). Fresh provisions, repairs, dry dock, airport, surveyors and laundry service.

AUTHORITY: Continental Forest Industries, P.O.Box 4068, Port Wentworth, Georgia 31407. *Tel:* (912) 964-1271. *Telex:* TWX 810-784-5635. *Contact:* J. R. Knight, Traffic Dept.

PROVIDENCE, Rhode Island: 41.48 N. 71.23 W.

(See Plan)

PILOTAGE: Compulsory. Pilot boards 1 mile South of Brenton Reef Light Tower (position: Lat. 41° 25′ N., Long. 71° 23′ W.). Send ETA to Agent 24 hours prior to arrival. Pilots (call sign "Rhode Island Pilots") on Channels 16, 12 and 18A.

ANCHORAGES: There is no port anchorage for dry cargo vessels. It was reported that tankers can discharge into barges off Newport.

RESTRICTIONS: Vessels can enter and leave at any stage of the tide, day or night.

MAX. SIZE: Pilot advised max. draft is 38 ft., however, Agent recommends 35 ft. No keel clearance was stated.

TUGS: 9 tugs available, 1,600 h.p. – 3,200 h.p. Vessels may dock and undock without tugs, however, they are required for turning in the harbour.

Providence Steamboat Company serving Ports of Providence, Narragansett Bay, Fall River and New England Electric at Brayton Point. 4 tugboats – 24 hour dispatching service. 2×3,000 h.p. tugboats.

RADIO: Station WCC.

VHF: Port Authority on Channels 16 and 18A. Agent on 16, 18A, 13 and 9. Also see "Pilotage".

BERTHING: *No. 6 Municipal Pier:* The berth is the first port hand berth when entering Providence. Distance from entrance to berth 25 miles. Length and beam no limit. Max. draft 35 ft. Least depth of water in channel from sea to berth reported to be 40 ft. Mean tidal range at berth 4.5 ft. Also see "General".

Cargo Handling Facilities: Mobile cranes only available for handling bulk steel and scrap cargoes. 6 mobile cranes, capacity 100 tons to 250 tons. No Ro/Ro facilities. No floating cranes. There are facilities for handling 20 ft. and 40 ft. containers, also sufficient storage space. There is also adequate storage space for breakbulk and palletised cargoes.

DENSITY: 1016.

FRESH WATER: Available, rate 15 t.p.h. – 30 t.p.h.

FUEL: Bunker fuel oil available if vessel has contract. Diesel oil not available. Lubricating oils available.

MEDICAL: Doctor and hospital available.

TANKERS: LPG/LNG carriers – see "Shipmaster's Report" dated February 1985.

Report: *American Chemical-Wilkes Barre:* General: The Wilkes Barre Terminal of the American Chemical Company is located 26 miles from the Sea Buoy on the Providence River. This facility was formerly operated by Exxon Company, U.S.A. It is now operated by Union Oil Company of California and Getty Oil Co., Inc. The wharf has a 75 ft. face, 300 ft. with dolphins; 30 ft. depth alongside. Deck height of 9 ft.

The berth can accommodate vessels up to 600 ft. in length, 85 ft. beam, maximum 25,000 d.w.t., and maximum drafts to 27 ft. Docking is accomplished at HW or rising tide only. Undocking can take place at any state of the tide.

Pilotage and Docking: The services of a Pilot and Docking Master are recommended. The width in the existing berthing area and required approach manoeuvres make utilisation of the Docking Master mandatory. 2 tugs are required when docking vessels of any tonnage. A minimum of 1 tug (1,800 h.p.) is required when undocking. During strong Southerly winds 2 tugs shoud be employed for undocking.

Mooring: Normal mooring leads are adequate for this berth. However, strong Southerly winds are cause for concern. There is a poor lead for the after spring and breast lines. During times of excessive Southerly winds, all lines should be tended and checked frequently. The terminal does not provide a gangway.

Only No. 2 heating oil is discharged at this terminal. Discharge is accomplished through 2×8 in. hoses using ASA flange connections. Pumping pressure is 125 p.s.i. The terminal has no facilities for receiving ballast or slops.

Amoco – Providence, Kettle Pt.: General: The Amoco Wharf is on the East side of Providence River 26 miles from the Sea Buoy. This wharf is used for the receipt and shipment of petroleum products. The berth is aligned North and South with a total of 6 wooden breasting dolphins. The wharf has a 500-ft. face (600 ft. with dolphins). Hose rig and hoist are located on a "T" head 90 ft. long, 30 ft. wide at the centre of the pier.

Entering and Docking: 2 mooring dolphins located approximately 90 ft. inside the main pier and used for fore and aft breast lines, head lines are run to a mooring dolphin, and stern lines to bollards located on shore.

Vessels can dock either port or starboard side to but a starboard side berthing is preferred. Deep draft vessels dock on Slack High Water only, day or night, and can unberth at any stage of the tide any time.

Depth of water alongside the berth is 35 ft. MLW. Average tide at Providence is 4 ft. 6 in.

A Docking Master is recommended. Docking should not be attempted without local knowledge. 2 tugs are used for docking under normal conditions. One tug is used for normal undocking. Both tugs and Docking Master meet the vessel 0.5 miles below Kettle Point and assist vessels to the berth.

Gasoline, heating oil, diesel, and No. 5 fuel are all discharged through 8 in. hoses. All connections are made with ASA flanges. Maximum pumping pressure for all cargo lines is 90 p.s.i.

Gulf – Gulf Oil Pier: General: The berth projects Westerly into the river for a distance of 800 ft., and is 50 ft. wide, wooden piling, open faced construction, and wooden decked, terminating in a "T" head 90 ft. long and 30 ft. wide which is aligned North and South.

There are a total of 6 wooden piling breasting dolphins, 3 on each side of the "T" head for a total face of 280 ft. The hose rig, hoist, and discharge heads are located at the centre of the "T" head.

Entering and Docking: Vessels can berth heading either North or South, but a starboard side-to or up-river berthing is preferred. Bow, stern, and breast lines are run to mooring buoys.

Vessels can dock day or night, any stage of the tide, depending on draft. The depth of water alongside the berth is 35 ft. MLW.

In this area local features are such that current movement in particular is subject to considerable distortion.

This berth can accommodate vessels up to 675 ft. in length, maximum 100 ft. beam and maximum draft to 31.5 ft. at MLW. Docking should not be attempted without a Docking Master. 2 tugs are employed for docking and undocking all vessels. Tugs and Docking Master meet the vessel in the vicinity of Kettle Point and assist the vessel to the berth generally with the starboard side alongside the berth. Head lines and stern lines are run out to mooring buoys. Forward and back spring lines are run out to the "T" head. The terminal does not provide a gangway.

Mobil – South Terminal: General: The Mobil Oil Corporation Terminal is located 25 miles from the Sea Buoy on the Eastern side of the Providence River. This facility is used for the receipt and shipment of petroleum products and bunkering vessels.

Maximum size of vessels that can be accommodated at this facility include lengths up to 750 ft., beams to 125 ft., 50,000 d.w.t. maximum, and drafts to 39.5 ft. The water at this berth is brackish. Distance from bow to manifold is limited to 390 ft. Docking is done at HW only day or night.

Entering and Docking: The services of a Docking Pilot is both compulsory and recommended. 2 tugs are used for docking and one tug for undocking. Tugs and Docking Master meet incoming vessels in the vicinity of Sabin Point and assist vessels to the berth for a starboard side docking. If a port side landing is required, vessels proceed about 1 mile beyond the berth to Fox Point Reach and turn around. Normal mooring leads are used at this berth. No gangway is provided by the terminal.

C. H. Sprague: General: The C. H. Sprague and Son Terminal is located 26 miles from the Sea Buoy at the Allens Avenue Terminal.

The main pier projects Easterly into the river and is 526 ft. long and 37 ft. wide, wooden piling, open faced construction. A turning dolphin, concrete crown, wooden fendered, and connected by a walkway extending out from the main pier an additional 75 ft. and fitted with 2 bollards, making for a total face of 601 ft. The berth also has 3 unloading towers serving a belt conveyor system.

The South side of the pier is not used and has a depth of 12 ft. to 14 ft. alongside. The North side has a depth of 35 ft. LW, but commences to shoal up 35 ft. from the inner bulkhead.

Vessels up to 650 ft. in length, maximum beams of 100 ft., and drafts at MLW of 35 ft. can be accommodated at this terminal. Maximum deadweight of vessels at this terminal is 38,000 d.w.t. The water at this terminal is brackish.

Ships having a large flared bow should exercise caution as the loading towers extend over the pier, and in light condition the ship has to be given a 3° list before undocking.

Maximum limit bow to manifold is 380 ft. There are 4×8 in. hoses and 2 lines, 1×18 in. for No. 6 fuel and 1×12 in. line for heating oil. Vessels scheduled to call at this terminal should have hose derrick ready for lifting the hose as there are no facilities on the berth for this operation.

Deep draft vessels dock day or night, HW only, and undock anytime, any state of the tide.

Entering and Docking: A Docking Pilot is not compulsory but is recommended. Docking should not be attempted without local knowledge. 3 tugs are used for docking all vessels and 2 tugs are used for undocking all vessels. Tugs and Docking Master meet incoming vessels in the vicinity of Kettle Point and manoeuvre vessels to the berth. Normal mooring leads are used at this berth.

Normal docking is done port side to. The terminal does not provide a gangway.

Texaco/Curran: General: The Texaco/Curran Terminal is located 26 miles from the Sea Buoy at the Allen's Avenue Terminal.

The berth projects Easterly into the river for a distance of approximately 100 ft. and is 70 ft. wide, wooden piling, open faced construction, concrete decked for the first 800 ft. and the remainder of the dock is wooden decked.

The South side has a total of 3 wooden pilings, concrete crowned 20 ft.×20 ft. breasting dolphins, wooden fendered for a total face of 500 ft. Usable length of the berth on the South side is 650 ft. for fully loaded vessels and 700 ft. for partially loaded vessels and a controlling depth of 32 ft. MLW.

The hose rig hoist and discharge headers on the South side are located on a 60 ft.×25 ft. concrete platform 35 ft. from the extreme Eastern end of the pier, and is used by Texaco.

The North side of the dock has a turning dolphin at the extreme Eastern end of the pier, open faced wooden piling construction with a 12 in.×12 in. chafing string piece.

The North side has a usable length of 650 ft. for fully loaded vessels and 700 ft. partially loaded. A controlling depth of 32 ft. MLW. The hose rig and discharge headers are located 320 ft. from the extreme Eastern end of the pier and is used by Curran & Burton.

Vessels up to 700 ft. in length, beams of any width, drafts to 32 ft. at MLW, and 35,000 d.w.t. maximum can be accommodated at this berth. Vessels normally dock at HW, day or night, and undock at any stage of the tide. Water at this berth is brackish.

Entering and Docking: The services of Docking Master are not compulsory but are recommended. Docking should not be attempted without local knowledge. Docking Master and tugs meet the vessel about 0.5 miles below the berth and proceed to off the berth where the vessel is turned 90° and manoeuvred into the berth for a starboard side landing. 2 tugs are used for all vessels and 1 tug is used for all undockings under normal conditions. Normal mooring leads are used at this berth.

Cargoes handled at this terminal include heating oil, kerosene, gasoline, jet fuel, diesel fuel, and avgas. Sizes of cargo lines are 6 in., 8 in. and 10 in. All connections are ASA bolted connections. Maximum pumping pressure on all lines is 100 lbs.

REPAIRS: Minor repairs possible, machine shop available.

AIRPORT: At Boston and Green Airport, Providence, R.I.

SURVEYORS: At Boston.

GENERAL: *Quay:* Granite slab construction with a wooden pile facing. A large number of the piles are missing but there are still sufficient to land on. Surface of quay looks very rough and covered in sand and earth but it is metalled under this and will take heavy mobile crawler cranes.

Ship Chandler: Satisfactory, prices reasonable.

Laundry: Satisfactory and prices reasonable. Laundry collected Saturday 1430 hrs. and returned Sunday morning.

SHIPMASTER'S REPORT: September 1982.

Documents: The same as for other U.S. ports.

Pilotage: (Serving all ports in the Narragansett Bay area).

Pilot boards near Brenton Reef Light structure. There is a 24 hour service. Cable address for Pilots is "Rispilot Providence". Pilot launch as well as their shore establishment have VHF and operate on Channels 16 and 10.

Anchorages: There are a number en-route to Providence. Our vessel anchored off Jamestown for 3 days in a well sheltered place and good holding. Max. draft allowed I was informed is about 36 ft.

Berths: There are a number of isolated tanker berths in and around Providence, details of which are found in the Sailing Directions.

A total of 6 berths comprise the Municipal Docks. Most of these are in a poor state of repair although some major work is in progress on repairs. There are 2 cargo storage sheds one of recent construction. There are no quayside cranes but mobile cranes can be hired through the stevedores. These are only suitable for small vessels because of their outreach.

Fresh Water: Fresh water is laid on to the quay.

Stevedores: Normal cargo working is from 0800 hrs. – 1700 hrs. (Monday to Friday), overtime can be worked until 1900 hrs. and also weekends.

Cargo-Imports: Mainly automobiles from Europe and Japan, containers from feeder vessels, steel from Europe by regular liner trade.

Cargo-Exports: Scrap steel, logs, timber and latterly wastepaper.

Our vessel loaded a full cargo of wastepaper (cardboard) of almost 12,000 tons. Stowage factor was 135 cu.ft./tonne. 1,400 tons were stowed on deck suitably lashed and covered. The whole cargo was loaded in 27 working days using ship's cranes. Sizes of paper bales varied immensely with weights ranging from 500 kg. to 800 kg.

Bunkers: Not available.

Repairs: Main repair facilities are at Boston (e.g. Bethlehem Steel).

General: It was found difficult to bring the vessel alongside the quay nearer than 4 ft. during the whole stay in port. This was due to strong water outlets on the quay face from the adjacent sewage works.

Vessel should be amply moored to compensate for strong off-shore winds which are quite common even in Summer.

Do not forget the rat guards as huge rats were seen prowling the quay at night!

SHIPMASTER'S REPORT: February 1985.

Port Limits: Entrance to Narraganset Bay, Brenton Tower.

Documents: Standard for U.S.A. Customs & Immigration. Coastwise Documents are sufficient if coming from a U.S. port, no others are asked for.

Pilotage: Rhode Island Pilots, arranged via Agents, require 8 hours' notice. Board off Brenton Tower, listen VHF 16.

Anchorage: Can be obtained 1.5 miles S.E. of Brenton Tower but bottom is rock hard and holding will be doubtful in bad weather. There are allocated anchorages within Narragansett Bay.

Restrictions: Vessels can enter/leave at any time except for LNG/LPG Tankers. These must transit in/out in daylight only, whether they have cargo onboard or just cooldown 'heel' remaining. LPG Tankers are provided with a Coast Guard escort vessel, which creates a Safety Zone 2 miles ahead and 1 mile astern, keeping all other traffic clear.

Max. Size: 35 ft. draft was quoted; this vessel went in at 30 ft. comfortably.

Health: Standard U.S.A. requirements.

Radio: WCC Chatham.

VHF: All Channels used as necessary, no special allocation. "Securite" messages for LPG Tanker transit are broadcast on Channels 13 and 16.

Radar: No radar surveillance or Vessel Traffic Scheme (VTS) Control.

Tugs: Join off berth, using their own lines.

Berthing: LPG (Propane) is discharged at Municipal Wharf No. 5, with empty oil drums providing a safety area around the shore manifold, as this is a Public Wharf with free access.

Moorings were adequate, 2 headlines, 1 breast line, 2 springs forward and similar aft, the berth being a continuous quay with rubber tyre fenders.

Bridges: One vertical bridge, clearance 194 ft.

Medical: All facilities available.

Tankers: LPG discharged at No. 5. Municipal wharf at a bulk rate of 750 tonnes per hour, through a 10 in. Chicksan. This chicksan is a mobile one connected temporarily into an underground line, and jacked up off its wheels; thus it is rather fragile and demands precise positioning during berthing, and careful control of the list during the discharge as it is at its maximum reach when a 60,000 cu.m. vessel is in ballast.

Density: Salt.

Fire Precautions: LPG Tanker, only those imposed by the ship.

Surveyors: Saybolt attended this LPG vessel on behalf of receivers.

Gangway/Deck Watchmen: None. Ship's accommodation ladder was used to the wharf.

Customs Allowances: Usual U.S.A. allowances but no check of bond made on this visit.

Repatriation: Local Airport with services to Philadelphia for International flights, or by bus – approximately 1 hour ($7.00) to Boston International.

Airport: See above.

Time: GMT minus 5 hours. Eastern Daylight Saving Time GMT minus 4 hours in the Summer.

Emergency: U.S.C.G. "Castle Hill" on Channel 16 VHF, working 22A or 12.

Telephone: At No. 5 Municipal Wharf there is a public telephone booth within 250 ft. of the foot of the gangway, against the wall of a warehouse.

Storing: No known restrictions.

Shore Leave: Bus route into town (2 miles) about 100 yards from No. 5 Wharf.

Identification Cards: Standard U.S.A. Immigration requirements.

Regulations: All LNG/LPG Tankers have to anchor off Brenton Tower for U.S.C.G. inspection (2 – 3 hours), even those with valid letters of compliance and if no LOC then the inspection could take about 6 – 7 hours. During the discharge of LPG, 2 U.S.C.G. personnel are permanently stationed by the shore manifold, and do occasional spot checks onboard.

Delays: See above.

AUTHORITY: Port of Providence, Marine Terminal Building, Municipal Wharf, Providence, Rhode Island 02905. *Tel:* (401) 781-4717/8.

Contact: Eugene G. Neary, Port Director.

REDWOOD CITY, California: 37.50 N. 122.28 W.

(See Plan)

DOCUMENTS, PILOTAGE and all general information refer to "San Francisco".

RESTRICTIONS: Though a natural deep water channel extends down the bay to Redwood City there is controlled depth channel 500 ft. wide and 30 ft. deep across San Bruno Shoal. The entrance channel to the port is 2 miles long and 30 ft. deep (all depths are at MLLW) and 300 ft. to 350 ft. wide. There are 2 large turning basins at either end of the port harbour channel. See also San Francisco.

BERTHING:

Port of Redwood City:

Berth	*Length* (ft.)	*Depth* (ft.)	*Remarks*
No. 1	500	36	General cargo and bulk cement through pneumatic pipelines.
No. 2	355	36	
No. 3	450	36	General cargo, heavy lifts and scrap metal.
No. 4 (New Berth)	450	36	General cargo USGS facility.
No. 5	500	36	Designed to accommodate large tankers, general cargo and heavy lift cargoes.
Private Facilities:			
Bell Marine	649	12	Barge unloading dock. Used for storage (not in use).
Lone Star Industries	496	18	Barge dock for loading cement. Not in use.
Lone Star Industries	20	16	Oil berth. Not in use.
Leslie Salt Co.	200	33	Elevator berth used for loading crude bulk salt.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness reports made to San Francisco Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
BRIDGES: The San Mateo Hayward Highway Bridge with a vertical clearance of 141 ft. and horizontal of 500 ft. crosses the ship channel.
DEVELOPMENTS: See "Plan".
AUTHORITY: Port of Redwood City, 675 Seaport Boulevard, Redwood City, California 94063. *Tel:* (415) 365-1613. *Telex:* WUT 172251 Portrdcy. *FAX:* (415) 369-7636. *Contact:* Floyd Shelton, Executive Director.

RICHMOND, California: 37.56 N. 122.25 W. (See Plan)

(A) STANDARD OIL COMPANY OF CALIFORNIA TERMINAL.
(B) OTHER TERMINALS AT RICHMOND.

(A) STANDARD OIL COMPANY OF CALIFORNIA TERMINAL.

DOCUMENTS and all general information, refer to "San Francisco".
LOCATION: Richmond Long Wharf and Point Orient Wharf are situated on N.E. side of San Francisco Bay, a protected harbour. The refinery and storage tanks are near the wharves.

The exact position of the Long Wharf is Lat. 37° 55′ 20″ N., Long. 122° 24′ 35″ W. Wharf heading is 324° to 144°.

The exact position of the Point Orient Wharf is Lat. 37° 57′ 20″ N., Long. 122° 25′ 39″ W. Wharf heading is 356° to 176°.

There is adequate anchorage and room for manoeuvring in the bay.
DOCUMENTS: To clear vessel for entry, the Custom House requires the following documents:

Last Foreign Port Clearance.
Vessel's Register.
Vessel's Tonnage Tax Receipts.
Master's Oath of Entry.
Certificate of Financial Responsibility.
General Declaration.

If vessel is arriving from (or departing for) a foreign port, Master must also furnish:

6 Copies Crew List.
3 Copies Stores List.
3 Copies Passenger List.
3 Copies Curio List.
4 Copies Cargo Manifest.

The Boarding Inspectors may require additional information.
PILOTAGE: Federal and/or State Regulations require licensed pilotage in and out of San Francisco Bay. Make arrangements for this ahead of time with the Ship's Agent.

Pilots may be picked up near the Light Buoy, 9 miles W.S.W. of the entrance to San Francisco Bay: Lat. 37° 45.0′ N., Long. 122° 41.5′ W.

To signal for Pilots:
In Fog – Approach, San Francisco approach Lighted Horn Buoy "SF", lay to, and blow four long blasts.
When Clear – By day, hoist International Code Flag "G".
By night, make four long flashes on signal light.

When necessary, Pilots may be contacted on 2182 kHz or VHF Channels 10 (156.5 MHz) and 16 (156.8 MHz). The Pilot boats may also be contacted by radio telephone.

The Pilot will serve as the Mooring Master until the ship is berthed.

If vessel goes to anchorage, a licensed Bay Pilot will be required before vessel can proceed to berths.
MAX. SIZE: The main ship channel into San Francisco has a project depth of 50 ft. However, the 35 ft. depth of the Southampton Shoal channel restricts the size of ships to wharves.
LIGHTENING: When a lightening operation is necessary the terminal management will direct the ship to Anchorage No. 9. The ship to be lightened will install fenders before the lighter ties alongside. The terminal will provide the fenders. The lightening Supervisor and ship's officer will hold a meeting to discuss the cargo transfer. During transfer, follow the same precautions and safety regulations that apply to cargo transfer at the wharf. The transfer rate will be regulated by the lightening vessel. The lightening Supervisor will observe all the lightening operations. The terminal will provide oil spill recovery equipment during lightening.
HEALTH: See "Health: All Ports" before first U.S.A port (Albany). Illness Reports made to San Francisco Quarantine Station.
Quarantine and Pratique: Vessels are not required to pass a quarantine inspection. It is necessary that vessels notify their Agents at least 2 days in advance of arrival in San Francisco Bay if sickness or disease is on board. The Agent shall notify Public Health for further action if necessary.

All vessels arriving from foreign ports will require clearance by the following U.S. Government Agencies: Customs House, Immigration Service, Department of Agriculture.

The vessel's Agent should make arrangements for the inspectors to board dockside or at anchorage.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO/VHF: The official language of the terminal is English. Therefore, vessel must have personnel on duty at all times who can communicate in English with the wharf personnel.

San Francisco Harbour Advisory Radar System, designated bridge-to-bridge frequency: VHF Channel 13 (156.65 MHz).

Federal communication regulations require that at any time VHF radio is in operation, Channel 16 must be monitored (156.8 MHz distress and calling frequency).

The U.S. Coast Guard requires all vessels anchored in San Francisco Bay to maintain a radio listening watch on VHF-FM Channel 13 (156.65 MHz) when the wind is 20 knots or greater. Any ship not equipped with Channel 13 shall maintain the listening watch on Channel 16 (156.8 MHz).

The 2-3 MHz radio telephone call letters for the San Francisco Bay area are KLH.

Richmond Long Wharf (radio call KCE 373 – Chevron Shipping) is equipped with VHF radio, manned 24 hours per day. Channel 10 (156.5 MHz) is the operating frequency. While at anchor, in San Francisco Bay, vessels should maintain normal listening watches on VHF Channel 10.
ETA Requirements:

The Master of a vessel bound for San Francisco Bay is requested to advise Chevron Shipping (Cables address: Chevronship Richmond Sanfrancisco) of ETA, 7 days, 3 days and again 1 day (24 hours) before arrival at the wharf. First ETA message should include:

Estimated time of arrival at the wharf (local time).
Last port of call.
Estimated deep draft on arrival.
Quantity of ballast to be discharged.
Quantity and grade of cargo to be transferred.
Distance from bow to cargo and bunker manifolds.
Size and type of cargo and bunker connections.
Quantity and grade of bunkers and lubes required.
Quantity of fresh water required.
Number of crew replacements expected.
Amount of provisions and stores to be loaded.
Repair work anticipated.
Make 24 hour ETA as accurate as possible and whenever arrival time changes, by 1 hour or more, send a correcting message promptly.

BERTHING: At least 1 hour before docking contact Chevron Shipping, in Richmond, by VHF radio (Channel 10, 156.5 MHz) and request a berth assignment. They will try to berth vessel as soon as it arrives. However, if no berth is available, anchor in the prescribed anchorage (as directed by the Captain of the Port) and maintain radio contact with Chevron Shipping, Richmond.
Recommended Docking Practices: The terminal require the use of adequately powered tugboats when docking at the wharves. Chevron Shipping Company has two tugs that can be hired, provided arrangements are made prior to vessel's arrival.

(a) In order to ensure maximum safety while berthing and unberthing ships at Long Wharf and Point Orient Wharf, the following minimum tug assistance is required:

		Minimum Total Horsepower Required	
Vessel Size	*No. of Tugs*	*Mooring*	*Unmooring*
Up to 20,000 d.w.t.	1 or more	1,000 h.p.	1,000 h.p.
20,001 to 50,000 d.w.t.	2 or more	2,000 h.p.	1,500 h.p.
50,001 to 80,000 d.w.t.	2 or more	3,000 h.p.	2,000 h.p.
80,001 to 100,000 d.w.t.	2 or more	3,500 h.p.	2,500 h.p.
Over 100,000 d.w.t.	2 or more	4,000 h.p.	3,000 h.p.

(b) Bow thrusters are acceptable provided the horse power rating equals or exceeds the minimum requirements.

(c) Always stem the tide when docking.

(d) If possible, avoid steep-angle approaches.

(e) In view of the strong tidal currents at both wharves, make sure vessel is moored securely. Check on the number of lines and their strength. Pay special attention to the fore and aft leads.
Gangway: Rig gangway properly and safely, with handrails and adequate illumination, suspend a safety net under gangway. If vessel does not have a gangway, the pier has some available in limited sizes. However, the Company cannot be liable for the manner in which the ship's crew rigs the gangway. Berths 1 and 4 have permanent gangways installed.

There are 2 piers that accommodate oil transfers. They are referred to as Richmond Long Wharf and Point Orient Wharf.
Long Wharf: Richmond Long Wharf, a "T"-head pier, has an overall length of 3,396 ft. It consists of concrete and wooden piles and a concrete superstructure connected to the shore, 4,200 ft. away by a piled causeway. The fender-to-fender width is 132.5 ft.

Berths 1, 2 and 3 deck level is 15.5 ft. above MLLW. Berth No. 4 deck level is 25 ft. above MLLW.

There are four deep water berths on the West side. Berth No. 1 is 950 ft. long, Berth No. 2 is 650 ft. long, Berth No. 3 is 700 ft. long and Berth No. 4 is 1,050 ft. long. They are numbered 1 through 4 from South to North. Water depth is maintained at 38 ft. at MLLW. There are two inner Berths No. 9 and No. 11 that are used primarily for barge loading or discharging. Water depth is maintained at 18 ft. at MLLW.
Point Orient: The Point Orient Wharf, an "L"-head pier, is 2.25 miles North of the Long Wharf. It is 504 ft. long and 60 ft. wide. It is supported on wooden piles and has a causeway that extends 1,200 ft. to the shore.

There is one ship berth, No. 1 where the water depth is 32 ft. at MLLW. There is also one barge berth No.2. Deck level is 14.5 ft. above MLLW.
LOADING AND UNLOADING: Berth No. 2 is fitted with 4 in., 6 in, and 8 in. hoses for cargo transfer. Berth No. 1 has two 12 in. and two 16 in. Chicksan loading arms. Berths No. 3 has two 8 in. and four 12 in. Berth No. 4 has two 12 in. and four 16 in. arms.

NOTE: All terminal flange facings are carbon steel ANSI 150 lbs. rating.

No cast iron is allowed outside of (and including) the first valve on the vessel's cargo or bunker system.

Berth vessel so that its manifold is positioned within the horizontal and vertical limits of the hoses or Chicksan arms.
Cargo Transfer:

(a) Pre-Transfer Declaration of Inspection – Before cargo transfer begins, the Wharfmaster and Vessel Co-Ordinator will board vessel. They will discuss the safe transferral of your cargo. They will also review the Declaration of Inspection and sign it with you when all items are understood and agreed upon.

(b) Inspection During Cargo Transfer – These representatives will also visit the ship during cargo transfer. With the approval of Deck Watch, they will check to ensure that safe working practices are being observed by both ship and wharf.

(c) Minimum Cargo-Handling Crew – When transferring cargo or ballast, the officer in charge of cargo transfer must have at least two assistants: one to maintain watch on the open-deck cargo transfer manifolds; the other to assist in handling valves, tank gauging, or shutdowns of transfer pumps in case of emergency. Other crew members may be needed depending on the size and complexity of ship transfer system. These requirements will be developed at the pre-cargo-transfer conference. When loading ship's bunkers and lubes, the Master and Chief Engineer will assure the terminal that this transfer will be handled in a similar manner.

Loading Rates: Several products can be loaded at each berth. Loading rates depend on a multitude of situations. These will be discussed at the pre-cargo-transfer conference.

Unloading Rates: Unloading rates also depend on many things – vessel's pumps, the size and availability of terminal lines and tanks, refinery operations, etc. The pre-cargo-transfer conference will develop the estimated unloading and deballasting rates and procedures.

To expedite cargo transfer, it may be necessary to use booster pumps. To eliminate hazards to this equipment, notify the Berth Operator 15 minutes ahead of time whenever you are going to: Stop or change any cargo transfer rate, strip any tanks, switch tanks.

Maximum Temperature and Pressure Limits: The terminal cargo-handling system is designed to comply with the 150 lbs. ANSI flange rating. For example: 275 psig at 100°F, 240 psig at 200°F, etc. Special restrictions apply for aromatic and other hazardous stocks. These will be explained during the pre-cargo-transfer conference.

Tank Gauges: To ensure proper handling of each cargo, the terminal requires U.S. flag company vessels to be gauged every *two* hours and matched with shore-tank gauges. Non-company vessels are not required to gauge, but may wish to compare their gauges against the shore gauges. Transfer operations will shut down immediately if:

— the transfer rate is over 1,000 b.p.h. and there is a discrepancy in the tank's gauges that amounts to more than 20% of that transfer rate.

OR

— the transfer rate is under 1,000 b.p.h. and there is a discrepancy in the tank's gauges that amounts to more than 30% of that transfer rate.

For example: Vessel arrived with 120,000 bbls. of crude. First 2 hour gauge at 1000 hrs. Estimated rate 7,000 b.p.h.

	Ship	*Shore*	*Difference*
1000 hrs.	14,241	13,996	245
1200 hrs.	28,435	25,643	2,792

As the estimated transfer rate is 7,000 b.p.h., the allowable difference would be 1,400 bbls. The 245 bbls. difference at 1000 hrs. is OK and transfer should continue. The 1200 hrs. gauge of 2,792 bbls. difference is out of tolerance and the transfer should be discontinued until discrepancy can be resolved.

BALLAST: Ballast facilities at Richmond Long Wharf only (max. capacity 25,000 bbls. – normal capacity 15,000 bbls.). None available at Point Orient. However, arrangements for this to be made through Agent before arriving at the wharf. All ballast to be discharged must be pumped to shore while berthed at wharves.

POLLUTION: The Federal Water Pollution Control Act prohibits the discharge of oil or oily waste in the waters of San Francisco Bay which causes a film or sheen on the water or discolours it or causes a sludge or emulsion beneath the surface of the water.

Regulations enforced by the Bay Area Pollution Control District also prohibit the emission of smoke and soot. Vessel can be fined if it emits visible smoke (Ringelmann 1) for more than 3 minutes in one hour, or blows its boiler tubes enough to create a soot nuisance on shore.

In addition, the terminal has certain regulations designed to eliminate obnoxious odours. Vessel may, therefore, be required to follow special procedures before tank cleaning, loading or ballasting. If, in spite of precautions, vessel does cause such odours, loading or unloading operations may be stopped.

OIL INSPECTIONS: To control product quality, the terminal has several requirements for sampling and gauging the oil as it is being transferred. These requirements will be explained during pre-cargo transfer conferences. Outside inspection service is provided by the following independent companies:

Charles Martin & Company, 488 Wright Avenue, Richmond, California 94802. Tel. (415) 232-5270.

E. W. Saybolt Company, 889 Ensenada Avenue, Berkeley, California 94710. Tel. (415) 525-0417.

Caleb Brett U.S.A. Inc., P.O.Box 673, Station A, 310 29th Street, Richmond, California 94808. Tel: (415) 236-1733. Telex: 171-330.

S. G. S. Control Services Inc., 2917 MacDonald Avenue, Richmond, California 94804. Tel: (415) 236-3007.

MEDICAL: No facilities at wharves. Local ambulance may be reached at: Cadillac Ambulance Service (415) 234-3242; Alhambra Air-ground Ambulance Service (air) (415) 228-1096; California Aviation Service Inc. (air) (415) 569-3855.

FRESH WATER: Potable water available. Arrange through Agent.

FUEL: Many grades of bunkers, diesel and lubricating oils are available in bulk or drum quantities. Agents order them from Supply and Distribution or Chevron International at least 48 hours before vessel arrives, otherwise, vessel may be delayed.

To take on bunkers and diesel, vessels must be able to connect to terminal's 4 in., 6 in. and 8 in. hoses in Berth 2, connect to 8 in. Chicksan in Berth 3, to 12 in. Chicksans in Berths 1 and 4.

PROVISIONS: Provisions and stores are available through ship's Agent. However, they will be loaded only at the Richmond Long Wharf, and only when the loading does not interfere with cargo or ballast transfer. No hydrocarbons, paints, detergents or other polluting materials will be allowed to go aboard the vessel by means of slings or cargo nets. If the vessel is large and is not equipped with booms, the Agent may need to supply a spark-proof crane for the loading. Stores will not be handled by wharf personnel. Contact Wharf Master for weight restriction of equipment on the wharf.

REPAIRS: There are many major repair facilities located in the San Francisco Bay Area. The Agent can probably make arrangements for use of their services.

Repairs at the terminals are not normally permitted on non-company vessels, unless it is absolutely necessary in order to move the vessel. Any repair work that would necessitate hot work must have approval from refinery management. No repairs will be allowed that would delay cargo transfer or lengthen the transfer time.

TIME: Local time: Pacific Standard Time GMT minus 8 hours or Zone plus 8 hours.

(Note: From the first Sunday in April to the last Sunday in October, this is modified by use of Daylight Time to GMT minus 7 hours or Zone plus 7 hours)

All communications should refer to local time.

REPATRIATION: Facilities exist for repatriating of crew by sea or air. Make the arrangements through ship's Agent, and notify the terminal management.

STORING: See "Prelims".

1. Vessels cannot be stored by barge while at docks; however, they can be stored by small trucks.
2. Storing by truck requires the truck to be cleared by operations and towed into location. No paint or hydrocarbon may be lifted by net over local waters. This is described in the "Provisions".
3. Trucks can come alongside vessel (within 50 ft. of vessel).
4. There are no forklifts available at the terminal and the rental of one requires the rental of a "spark approved" forklift. Arrangements must be made with the Wharf Master.
5. All customs rules and regulations are enforced.
6. Local riggers can be employed to help get stores aboard vessel, but the vessel must make arrangements with ships Agents, and all storing of vessels must be approved by Wharf Master.

Also see "Provisions".

SHORE LEAVE: Chevron Shipping Co. provides bus service from the Long Wharf to shore and from there ship's personnel can connect with local taxi or bus service nearby. For transit – system information, call (415) 232-5665.

No ship's commercial passengers are ever allowed to board or leave a ship at the wharves.

GENERAL:

Tides and Currents: The maximum tidal range is approximately 9 ft. and the mean range is 4.2 ft.

Tidal currents in the wharf area can be very strong. They generally run in a North'ly and South'ly direction.

Winds: Winds of varying strength may come from any quarter. The normal wind, however, is from the N.W. in Summer, and S.W. in Winter.

Visibility: The visibility in this area of San Francisco Bay is generally fair to excellent, with occasional late evening fog in the Summer lasting until noon the following day. In the Winter, morning or tule fogs frequently occur. The Winter fogs are generally more dense than those of Summer.

Weather: The local weather is usually moderate, with average temperatures ranging between 40°F and 85°F.

The U.S. Coast Guard radio stations make scheduled weather broadcasts (preceded by a preliminary call on 500 kHz and 2182 kHz) at the times and on frequencies shown below:

Radio Telegraph – NMC San Francisco, Calif. 420 kHz, 2000 hrs. and 0900 hrs. PST.

Radio Telephone – NMC San Francisco, Calif. 2670 kHz, 1800 hrs. and 0600 hrs. PST.

VHF Radio – KHB 49 San Francisco, California 162.55 MHz.

Navigation: Master is required to notify the U.S. Coast Guard Captain of the Port at least 24 hours before arriving in the Bay. Master will satisfy this requirement automatically if he reports in accordance with the U.S. Coast Guard's voluntary Automated Merchant Vessel Report (AMVER) System.

On entering the Bay, follow the traffic-separation scheme shown on United States Coast and Geodetic Survey Chart 5072.

Charts and Publications: The following official charts and publications are recommended for use when entering San Francisco Bay:

United States Coast & Geodetic Survey Charts:
No. 5002 – San Diego to Point St. George.
No. 5072 – Gulf of the Farallones.
No. 5532 – San Francisco Entrance.

West Coast of North and South America Tide Tables, published by U.S. Coast and Geodetic Survey.

Tidal Current Charts – San Francisco Bay, published by U.S. Coast and Geodetic Survey.

Coastal Pilot No. 7 for West Coast of United States, published by U.S. Coastal and Geodetic Survey.

U.S. Coast Guard Regulations 33 CFR 154, 155 and 156, published by U.S. Coast Guard.

Current Edition of Operating Manual, S.F. Harbor Advisory Radar, published by U.S. Coast Guard.

Light Lists for United States and Possessions, published by U.S. Coast Guard.

Radio Navigational Aid, Pacific and Indian Oceans (Publication No. 117113), published by U.S. Hydrographic Office.

Wharf Communication: The Richmond Wharves are equipped with a positive and dedicated ship-to-terminal radio communication system. On arrival, vessel will be provided with one radio (walkie-talkie). It must be with an English-speaking person on duty at all times. Vessel will be instructed in the proper use of this radio during the pre-cargo transfer conference. If the radio is not returned, a charge of $2,500 will be levied.

Telephone: A telephone will be placed on the open deck of the ship near the gangway. It is to be used for the local calls only. the following is a partial list of commonly used numbers:

Wharf Master	4388
Vessel Co-Ordinator	4620
Head Operator (PAD) Long Wharf	4494
Terminal Superintendent	2314

There are two public telephones on the Long Wharf for outside calls, one between Berths 1 and 2 and one at Berth 3. There is also a public telephone at Point Orient Wharf.

1. Boiler–tube Blowing — Do not blow boiler tubes and take every precaution to prevent sparks from escaping from the funnel. If vessel safety is at stake, stop transfer operations and move the ship to anchorage before blowing the tubes. In case vessel has boiler trouble, notify Chevron Shipping Co. who in turn will notify the Air Pollution District Control.
2. Cargo Tank Tops:
   - (a) Before berthing, all tank tops, ullage plugs, and gauge tapes must be closed and dogged down unless the Master certifies that the tanks are gas free.
   - (b) Cargo and bunker tank tops must be kept closed. This also applies to permanent ballast tanks.
3. Cargo Connections, Unused – blank unused cargo and bunker connections. A proper-sized bolt in *every other hole* is the minimum requirement. Offshore risers on systems being used are to be fully bolted.
4. Engines – Keep the engines ready and the vessel trimmed so it can leave the piers under short notice. If the vessel becomes unable to get underway 2 tugs of adequate size will be standing by at all times.
5. Fire Fighting – Keep fire and emergency equipment in readiness. At least 2 fire hoses to be uncoiled and laid out at the vessel's manifold area. Place two portable fire extinguishers near the manifold.
6. Gas Venting:
   - (a) Ullage Holes – Keep all ullage or gauge tapes completely closed (not secured) except for intermittent periods needed to ullage or gauge ship's tanks.
   - (b) Flame Screens – When open, all ullage ports must be protected by clean, well-fitted flame arrestors of wire-gauge screens: these must be of an approved type and have no defects.
7. Gas Freeing and Tank Cleaning – Do not gas-free or clean any tanks at berth without prior approval of terminal management.
8. Gangways – Tend the gangway and keep it safely rigged, secured and lighted.
9. Mooring Lines – Tend mooring lines to keep them taut and keep the vessel in position. See that tension winches are on manual brake. During ebb tide and East winds, when the ship has a tendency to drift away from the pier, tend the mooring lines with special care.
10. Portholes – Portholes and passageway hatches facing the cargo transfer area must remain closed. Portholes facing the wharf must also remain closed or be suitably screened.
11. Repairs – While at berth, do not perform any repair work, hot work, or maintenance work without prior approval from the terminal management. Hot work will require *written* approval by terminal management.
12. Radio – At all times in port, keep the radio transmitter and aerials switched off and grounded. Portable radios (walkie-talkies) that are certified intrinsically safe may be used.
13. Sea Suctions and Bilge Valves – See that all ship's sea, bilge, and overboard discharge valves connected to the cargo system are tightly closed, lashed and sealed in accordance with U.S. Coast Guard Regulation 33 CFR 155.

    The seals are *not* to be broken while berthed except in the presence of the Vessel Co-Ordinator or in case of emergency.
14. Sewage Discharge – Install deflection plate over the sewage discharge if it is capable of discharging on the wharf.
15. Smoking – Allow smoking on board only in places which the Master has personally approved. There is to be NO SMOKING ON THE WHARF OR WEATHER DECK OF THE VESSEL AT ANY TIME.
16. Stern Discharge Line – Keep the stern discharge line, if any, blanked at all times.
17. Towing Wires – Keep the towing wires (fire wires) for emergency use, lowered to the water's edge from the offshore bow and stern. Tend them to keep the "eye" near the water's edge, where they can be reached by tugs in case of emergency.

B. Cargo Transfer – Observe the following additional regulations DURING CARGO TRANSFER:

1. Air Intakes and Air Conditioning Units – Close any central air-conditioning or fresh-air intakes which might take in gas. Close all intakes within a combined total of 100 ft. vertically and horizontally of cargo tank openings and venting points. External window-type air-conditioning units that face the cargo transfer area must be kept disconnected.
2. Communication – Ship/Shore – Station a responsible member of the crew on the loading deck by the transfer connections to maintain communications or remain in visual contact with the Berth Operator. He is to advise the Operator when changes in rates are required, using radio pack sets or voice contact.
3. Passageway hatches to open weather decks facing the cargo area and wharf must be kept secured except for momentary passage.
4. Electric Lights and Cables – Use only vapour-proof electric lights of an approved type, on the open deck. Disconnect portable electrical equipment on the open deck unless certified for use in hazardous areas.
5. Galley Fires – Light no galley fires unless you can first assure the terminal that they present no hazard to the cargo transfer.
6. Hand Torches (Flashlights) – See that hand torches used during cargo transfer are of an approved type, certified as safe in hazardous locations.
7. Hoses:
   - (a) Before transfer, inspect cargo-loading hoses or arms to see that they are in good condition, *fully bolted*, and properly connected.
   - (b) The hoses must be supported at not more than 12 ft. intervals with a bridle or mat to minimise kinks or chafing. They must not be bent to a radius less than 12 times their diameter. Do not use single slings when taking aboard or supporting during transfer.
   - (c) The hose or arm-to-riser connections must have drip pans of adequate size installed under them.
   - (d) When cargo transfer has concluded, each hose/arm is to be drained via the drain valve and blank-flanged *before* being removed from the vessel. The Terminal Head Operator is to be aboard the vessel to oversee the connecting and disconnecting of the loading arms and, also, to alert crew members when passing the arms.
8. Scuppers – All deck scuppers must be plugged and cemented oil tight or sealed with a Coast Guard approved device. Do not remove the plugs until ship has departed, except when necessary to drain off rain water. In such cases, supervise the draining closely and replace the plugs immediately. Install splash boards (on dock side) over scuppers. Cement is to be supplied by the ship.
9. Special Stock Hazards:
   - (a) Static-Ignition Hazards – Some kinds of stock require special precautions because of the static they accumulate. Their handling will also be fully discussed during pre-cargo transfer inspection. Lube oils may be loaded through ship's risers or connections to butterworth plates. No overall loading is permitted.
   - (b) Hydrogen-Sulfide Hazards – Some kinds of crude may contain dissolved hydrogen-sulfide or mercaptans in concentrations which would cause the gases vented during tanker ballasting to be hazardous or odorous. Do not ballast or load into cargo tanks that might contain H_2S or mercaptan vapours, unless the tanks have been passed for loading by the Wharfmaster. The vessel must proceed to sea for clean-up prior to loadback if the Wharfmaster deems the tanks unsuitable for loadback.
   - (c) Aromatic-Stock Hazards – Special precautions are required for toxic cargoes such as aromatics. It is recommended that Masters review the instructions by Owners/Charterers about toxic chemical hazards.
10. Valve Shut-off – Many new tankers have motor-operated valves, operated from a central location. Never operate these valves to close off against full oil-delivery rates unless the valve closure action takes at least 60 secs. Closure times less than 60 secs. may result in surge and hammer of sufficient force to rupture the loading arm/hoses.
11. Ventilators – Keep ventilators suitably trimmed with regard to tank vents and prevailing wind conditions to prevent entry of flammable vapours.

AUTHORITY: Standard Oil Co. of California, Richmond, California.

(B) OTHER TERMINALS AT RICHMOND

BERTHING: *Levin-Richmond Bulk Commodity Wharf:*

Owners: Levin-Richmond Terminal Co.

Operated by: Levin-Richmond Terminal Co.

Use: Receipt and shipment of various dry-bulk commodities and scrap metal.

Water Depth: 35 ft. - 36 ft.

Mechanical handling facilities: On wharf; 4×50 ton electric, travelling full portal gantry cranes, each with 100 ft. boom and 2×45 ton electric travelling full portal gantry cranes, each with 118 ft. boom.

Dimensions: Length of face 600 ft.

Remarks: 50,000 sq.ft. warehouse. Railroad on premises.

Santa Fe Sugar Dock:

Owned and operated by: Atchison, Topeka and Santa Fe Railway Co.

Use: Presently not in operation, but the railroad should be contacted for further use.

Dimensions: Length of face 545 ft., lower end 51 ft.; depth alongside at MLLW 24 ft.

Richmond Terminal No. 3:

Owners: City of Richmond.

Operated by: Multi-Terminals Richmond Inc.

Use: Receipt and shipment of containerised and breakbulk cargoes in all trades.

Dimensions: Length of face 1,009 ft.; depth alongside at MLLW 41 ft.

Mechanical handling facilities: Two rail-mounted dock cranes and two transtainers, two transfer devices and two bridge cranes. Semi-automated operation.

Remarks: Area of container terminal – 16 acres plus a 400,000 sq.ft. enclosed warehouse.

Richmond Terminal No. 4 Wharf:

Owners: City of Richmond.

Operated by: Richmond Terminal Agency, Pacific Molasses Co. Ltd. & Paktank Corporation.

Use: Bulk Liquids.

Dimensions: Length of face 1,047 ft.; South side 175 ft.; North side 100 ft.; depth alongside at MLLW 32 ft. - 50 ft.

Richmond Terminal No. 5:
Owner: City of Richmond.
Use: Available for tug, barge and vessel lay-ups.
Dimensions: Two finger piers, each 550 ft. long; Pier No. 1, East side-depth 13 ft. and West side-depth 30 ft. Pier No. 2 East side-depth 16 ft. and West side-depth 12 ft.

Pt. Potrero Marine Terminal – Terminal No. 7:
Owner: City of Richmond.
Operated by: Pasha Maritime Services.
Use: Import service and delivery of foreign automobiles.
Dimensions: Length of face 700 ft.; depth alongside at MLLW 35 ft.; usable berthing space with dolphin 900 ft.
Mechanical handling facilities: Mobile handling equipment available.

Richmond Terminal No. 6:
Owner: City of Richmond.
Operated by: Various Lessees.
Use: Five shipyard basins available for lay-berthing, fleet mooring, lay-up and project consideration.
Dimensions: No. 1, 4 and 5: 575 ft.×100 ft., 84 ft. gate. – Depth 15 ft. MLLW.
No. 2: 748 ft.×100 ft., 84 ft. gate. – Depth 26 ft. MLLW.
No. 3: 587 ft.×100 ft., 84 ft. gate. – Depth 26 ft. MLLW.

TANKERS: *Atlantic Richfield Tanker Dock:*
Owned and operated by: Atlantic Richfield Co.
Use: Receipt and occasional shipment of petroleum products; bunkering vessels.
Dimensions: Length of face approx. 250 ft.; lower and upper sides 40 ft. each; depth alongside at MLLW 35 ft.

Atlantic Richfield Barge Dock:
Owned and operated by: Atlantic Richfield Co.
Use: Receipt and shipment of petroleum products by barge; bunkering vessels.
Dimensions: Length of face 150 ft.; depth alongside at MLLW 34 ft.

Richmond Terminal No. 1 Wharf:
Owners: City of Richmond.
Operated by: Petromark Inc.
Use: Receipt and shipment of petroleum products, chemicals and petrochemicals.
Dimensions: Length of face 557 ft.; depth alongside at MLLW 35 ft.

Richmond Terminal No. 2 Liquid Cargo Wharf:
Owners: City of Richmond.
Operated by: Richmond Terminal Agency.
Use: Receipt and shipment of vegetable oils, chemicals and petrochemicals.
Dimensions: Berthing length 720 ft.; depth alongside at MLLW 35 ft.

Texaco Wharf:
Owners: Texaco Inc.
Operated by: Texaco Inc.
Use: Receipt and shipment of petroleum products.
Number of Berths: 1.
Water Depth: 35 ft.
Dimensions: Length of face 600 ft.

Time Oil Company Wharf:
Owned and operated by: Time Oil Co.
Use: Receipt and shipment of petroleum products.
Number of Berths: 1.
Water Depth: 35 ft.
Special Remarks: 3×10 in. pipe-lines extend to 25 steel storage tanks in rear; total capacity of 618,000 barrels.

Union Oil Co. Tanker Dock:
Owned and operated by: Union Oil Co. of California (also services Unitank).
Use: Receipt and occasional shipment of petroleum products; bunkering vessels.
Dimensions: Length of face 225 ft.; lower end 45 ft.; upper end 45 ft.; depth alongside at MLLW 35 ft.
Mechanical Handling Facilities: Hose handling at wharf is by ship's gear and small tractor crane.

Union Oil Co. Barge Dock:
Owned and operated by: Union Oil Company of California.
Use: Shipment and occasional receipt of petroleum products; bunkering vessels.
Dimensions: Length of face 150 ft. (approx.); lower end 45 ft.; depth alongside at MLLW 35 ft.
Mechanical Handling Facilities: Hose handling at wharf is by ship's gear and small tractor crane.
Remarks: Wharf and Tanker Docks are spaced about 230 ft. apart; together they provide 1 large tanker berth.

BANKS:
Bank of America, Richmond Main Office, 261 Harbour Way South, Richmond, California. Tel: 415-231-1729. Telex: TWX (San Francisco) 910 372 7720.
Central Bank, Civic Center Office, 2705 Macdonald Avenue, Richmond, California. Tel: 415-233-5710. Telex: TWX (Oakland) TLX 17-1329.
Crocker National Bank, 3900 Macdonald Avenue, Richmond, California. Tel: 415-235-6458.
The Mechanics Bank, Civic Center Office, 22nd and Macdonald Avenue, Richmond, California. Tel: 415-222-0340. Telex: TWX 910 382 8167.
Wells Fargo Bank, 1221 Macdonald Avenue, Richmond, California, Tel: 415-232-3435. Telex: TLX 34-0284 (San Francisco-International).

EMERGENCY CO-ORDINATION CENTRE: The Emergency Co-ordination Center for the Port of Richmond is the U.S. Coast Guard, San Francisco, California. CA. Tel: (415) 556-2103.
SURVEYORS: Surveyors are available from various San Francisco Bay Area companies and organisations.
STORING: See "Prelims".
1. Yes.
2. Yes.
3. Yes.
4. Yes.
5. Normal U.S. Customs Regulations apply.
6. Yes.
AUTHORITY: City of Richmond, Port of Richmond, City Hall – Room 301, 27th Street and Barrett, Richmond, California 94804. *Tel:* (415) 620-6784. *Contact:* Michael R. Powers, Port Director.
AGENT: See "San Francisco".

RICHMOND, Virginia: 37.32 N. 77.25 W. (See Plan)

LOCATION: On the James River, 90 miles from Chesapeake Bay.
DOCUMENTS: See "Hampton Roads".
PILOTAGE: Entrance through Hampton Roads. Virginia Pilots Assn. original contact same as for Norfolk, Virginia. Pilots will arrange for change of Pilots to proceed up the James River.
ANCHORAGE: Hampton Roads Anchorage, also river anchorage approximately 40 miles up river, shown as "Upper Brandon" on charts.
RESTRICTIONS: Navigation of river above Upper Brandon recommended in daylight hours, except vessels under 250 ft. length.
MAX. SIZE: Max. length recommended by Pilots 559 ft., draft 21 ft. 6 in. on any tide, depth of channel 25 ft. MLW tide, change 3 ft. 5 in.
HEALTH: See "Health: All ports" before first U.S.A. port (Albany). Illness Reports made to New York Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: See "Hampton Roads".
TUGS: Not needed for berthing unless vessel is to be turned around. Tug available from Blaha Towing, Inc. on reasonable notice.
BERTHING: Vessels berth alongside wharf 1,200 ft. long. Depth 25 ft. at MLW.
Turning Basin: 585 ft. at widest point, 1,600 ft. length.
CRANES: 2 Manitowic 4100W Series Two 230 ton capacity cranes.
BRIDGES: 2 bridges across river between Hampton Roads and Richmond. No specific time or notice required. Air draft 145 ft.
STEVEDORES: Arrangements to be made through Agents. 48 hours notice requested.
MEDICAL: Vessels cleared by U.S. Health Officials at Hampton Roads before proceeding up river.
DENSITY: 1000.
FRESH WATER: Available at pier.
FUEL: Bunkers available from Ocean Shipping Services, Richmond.
GANGWAY/DECK WATCHMEN: None required, unless crew detained by U.S. Immigration.
OPENING/CLOSING HATCHES: On bulk vessels, usually opened and closed by ship's crew, also steel hatches handled by ship's crew, sometimes determined by terms of Charter.
CERTIFICATES:
Ship's Register.
Load-line Certificate.
Safety Certificate.
Tonnage tax receipts.
Certificate of nationality.
Passenger Certificate.
CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes (1 carton for 2/3 days) if further allowance is needed Customs Officer will return on request of Master. Wine and Spirit, 1 bottle per officer, Customs Officer will return on request of Master.
IDENTIFICATION CARDS: Immigration landing permit required.
CONSULS: No consuls in Richmond, handled through Hampton Roads or Washington, D.C. if needed.
REPAIRS: Only minor repairs, no shipyards.
REPATRIATION: Handled through Norfolk, Virginia.
AIRPORT: Approximately 10 miles from port, regular airline service.
TIME: Eastern Standard Time, GMT minus 5 hours. Daylight saving time from first Sunday in April to last Sunday in October.
HOLIDAYS: January 1st, January 15th (Martin Luther King Day), Good Friday, May 30th, July 4th, Labour Day (1st Monday in September), Thanksgiving Day, Christmas Day.
POLICE/AMBULANCE/FIRE: Police Tel: 780-9461; Ambulance Tel: 780-9404; Fire Tel: 780-9191.
TELEPHONES: No arrangements for placing aboard vessels.
SHORE LEAVE: Allowed. Proper papers should be available.
AUTHORITY: Port of Richmond.
Operator: Meehan Overseas Terminal Inc., 5000 Deepwater Terminal Road, Richmond, Virginia 23234. *Tel:* (804) 743-7678, 275-9248.

RIVERHEAD, Long Is., New York: 41.00 N. 72.39 W. (See Plan)

LOCATION: The fixed Offshore Tanker Berth is situated 1.2 miles offshore from the North shore of Long Island in Long Island Sound, 4 miles 257° True from the beacon on Mattituck Inlet Breakwater and 12.7 miles 178.5° True from Falkner Island Lighthouse. The geographical position of the centre point of the Operating Platform is in Lat. 41° 00′ 01″ N., Long. 72° 38′ 50″ W. The platform has 4 navigation lights situated on each corner of the structure flashing every second. A similar navigation light is also situated on each of the East and West mooring dolphins.

DOCUMENTS: See "New York".

Terminal will provide "Declaration of Inspection" Form which must be completed before cargo transfer begins.

PILOTAGE: Pilotage must be arranged by the vessel or vessel's Agent. Vessels arriving from sea with a draft of 40 ft. or less will pick up the pilot 2 miles South of Point Judith Buoy No. 2 (normally found at Lat. 41° 19.3′ N., Long. 71° 28.5′ W.).

Vessels proceeding to Riverhead from the New York Harbour will normally embark a Pilot at anchor or at a berth in New York.

The Pilot Associations serving the Riverhead area are:

Interport Pilots Associates, Inc.,
Post Office Box 312,
Atlantic Highlands.
New Jersey 07716.
Tel: 201-291-1310.
Cables: Port Pilots – Atlantic Highlands, New Jersey.

Northeast Marine Pilots, Inc.,
243 Spring Street,
Newport,
Rhode Island 02840.
Tel: 401-847-9050 (weekdays), 401-331-4824 (nights, weekends and holidays)
Cables: RIS Pilots Providence.

Sandy Hook Pilots
201 Edgewater Street,
Staten Island,
New York 10305.
Tel: 718-448-3900.

The Pilot will act as Docking Master when berthing vessels alongside the Northville Industries Corp. Platform.

The Pilot is required to remain aboard the vessel (for Northville's account), on standby, while the vessel is moored at the offshore platform.

ANCHORAGES: Vessels awaiting berth will normally anchor North of the Offshore Platform. Vessels drawing more than 50 ft. may wish to anchor in deeper water Northwest of the platform. Pilots are familiar with the best anchoring areas. Holding ground is good, and a scope of 90 fathoms (6 shackles) of chain is considered adequate.

RESTRICTIONS: Generally, vessels are moored on any stage of the tide and at night when weather conditions permit.

MAX. SIZE: The maximum size vessel which can be received in the North Berth is 250,000 d.w.t., 1,150 ft. LOA and 62 ft. draft.

The maximum vessel size which can be received in the South Berth is 42,000 d.w.t., 700 ft. LOA and 42 ft. draft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to New York Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

COMMUNICATIONS: Telephone at Riverhead, station to station: Dial (516) 727-5600. Cable Address "Northville Riverhead New York". Radio I.T.T. Amagansett. TWX No. 96-1415 Northville Melville and TWX No. 510-224-6443 or 510-226-7837 Northville Melville.

Use of the vessel's main radio equipment while at the platform is expressly prohibited. If a tanker's main radio telegraph must be tested following repairs, arrangements must be made to stop the transfer of cargo during the tests.

Wireless messages are most expeditiously received if transmitted via "RCA Chatham".

VHF: Communications with the Terminal may be conducted by VHF Channels No. 16 and 19A; with the platform on Channels No. 16 and 19A; and the utility boat on Channels No. 13, 16, 19A, 12, 6 and 22. Channel No. 16 is monitored by all stations when manned. A private frequency radio is provided to the Person-in-Charge of the vessel during oil transfer operations.

VHF Marine Operators use VHF Channels: Riverhead (N.Y.) Marine Operator 28; New London and New Bedford Marine Operators 26; Bridgeport Marine Operator 24; to place land calls.

TUGS: Tug assistance for docking is required, and will be arranged by the vessel's Agent. Normally, 2 or 3 tugs will be used for docking and one tug for undocking at the Riverhead Tanker Platform, subject to the agreement of the Pilot and Master. Tugs are usually arranged through Red Star Towing Co., based in New Haven, Connecticut (because of the shorter running time from that port).

Tugs normally based in New Haven are:

Newport (1,800 s.h.p., 20 ton B.P.)	Single Screw
New Haven (1,800 s.h.p. 17 ton B.P.)	Twin Screw

Call Red Star Towing Co. on (212) 536-3800.

Tugs must be ordered at least 24 hours in advance of the scheduled docking time.

Red Star has additional horsepower available, if given adequate notice, including:

Stanford (3,000 s.h.p., 32 L.T. B.P.)
Crusader (4,000 s.h.p., 47 L.T. B.P.)

Other tugs are available from New York Harbour, or from the Providence Steamboat Co., Providence, Rhode Island, on (401) 331-1930, which has 3,000 h.p. tugs available.

BERTHING: Vessels calling at the Offshore Platform or pier are moored at any time. The tidal current periods are substantially the same as the Race. Strong winds from the North and Northwest are experienced during the Winter and Spring. Tidal currents during maximum ebb and flood may reach 3 knots. Both docking and undocking operations may be delayed due to adverse weather conditions.

The mean range of the tide is 5.4 ft.

A terminal working crew will board arriving vessels from a 60 ft. utility boat on approach to the mooring platform. This crew will provide assistance and information to the vessel's Master and the line handling crews. The crew carries private-frequency radios for communication with the platform in positioning and mooring the ship.

The designated Person-in-Charge for Northville Industries Corp. will receive and sign the Notice of Readiness and complete all paperwork necessary for the transfer of cargo. Two representatives of the terminal will board each tanker as it approaches the platform. They will provide radio communications with the platform and terminal, and advice and assistance while mooring the ship.

North Berth: Vessels berthed during flood tide will moor starboard side to and during the ebb tide current will moor port side to. Forward and stern spring lines are secured to breasting dolphins and bow and stern lines are made fast to mooring dolphins located to the East and to the West of the platform structure. Terminal Foreman boards vessel to provide communications and assistance during mooring operation.

South Berth: Vessels berthed during flood tide current will moor port side to and during the ebb tide current will moor starboard side to. Forward and stern spring lines are secured to the breasting dolphins in the South Berth. Bow and stern lines are made fast to the mooring dolphins located to the East and West of the platform structure. Breast lines are secured to the North breasting dolphins.

Two mooring buoys are situated South of the mooring facility which were formerly used for mooring vessels in the North Berth. Mooring buoys will be used at the discretion of the Docking Master (Pilot) and/or Northville's Marine Supervisor.

Masters will note that platform is situated in an open roadstead and that all mooring equipment must be in proper working order and in good condition. If, in the opinion of the Pilot (Docking Master) or Northville's Marine Supervisor, the vessel's mooring equipment is inadequate, the vessel will not be permitted to remain in the berth.

Vessels must be equipped with 12 manilla or better mooring lines of not less than 8 in. circumference and not less than 90 fathoms length.

Vessels having wire moorings secured on warping winches with brake are acceptable. Warping winches must be adequate to handle mooring lines under heavy strain. Efficient stopper lines must be readily available to "stop off" mooring lines for transfer from winch to bitts without loss of tension.

The Docking Master (Pilot) will assist the Master in the berthing of the vessel and supervise the mooring and unmooring operations.

No gangways are used at this terminal. Crew must use ship's ladder for launch service. Crew are forbidden to go on to the Platform, except on ship's business.

BERTHING FACILITIES: *North Berth:* The distance between the North Breasting Dolphins is 294 ft., centre to centre. The depth of water in the North Berth is 64 ft. at low tide. Spring lines from forward and aft are secured on to quick-release hooks situated on the North corners of each of the North Breasting Dolphins. Vessels moor heading either East or West and can normally be moored at any stage of the tide. Mooring dolphins located East and West approximately 350 ft. from the centre of the platform provide the mooring points for bow and stern lines from the vessel. The mooring dolphins have 4 quick-release hooks each for the North Berth, and 2 quick-release hooks each for the South Berth. These mooring hooks are provided with hydraulic releasing mechanisms which can be operated remotely from the mooring platform during vessel departure. Two mooring buoys are situated South of the mooring dolphins to provide securing points for extra bow and stern lines from very large vessels or in cases where anticipated severe weather conditions indicate the need for additional lines.

South Berth: The distance between the South Berth Breasting Dolphins is 160 ft., centre to centre. Spring lines from forward and aft are secured to bollards situated on the South Breasting Dolphins. Bow and stern lines are secured to the mooring dolphins described for the North Berth, breast lines to the South bollards or the mooring hooks on the lower decks of the North Breasting Dolphins. Depth of water 45 ft. at MLW.

Operating Platform: The Operating Platform is 100 ft. long by 45 ft. wide.

The East Building contains 2 diesel powered 100 KW. generators, either of which will supply sufficient power to drive the deepwell Fire Pump rated at 750 g.p.m. at 120 p.s.i. The other generator will supply power to the hydraulic system for the operation of the loading/unloading (L/U) arms, the electric mooring capstans and air compressor, as well as illumination of the structure, including floodlighting and other electrical devices. A diesel powered 15 KW. alternator is available for normal power requirements such as charging emergency lighting system batteries, navigation aid batteries and normal illumination.

The West building contains quarters for personnel, office space for recordkeeping, radio and telephone communication equipment, and emergency and other control equipment. The quarters and control room are situated in the North half of the building and South half of the building is available for storage of emergency equipment, i.e. sorbent boom, life jackets, etc.

There are 4 hydraulically operated L/U arms, 2×12 in. and 2×16 in. situated at the North end of the Operating Platform. At the South end of the platform 2×12 in. L/U arms are situated to accommodate the South Berth. Connections can be made to 8 in., 10 in., 12 in., 14 in. and 16 in. 150 p.s.i. A.N.S.I. manifold flanges. Connections cannot be made directly to valve flanges (spool pieces must be provided). Adjacent connections cannot be made to flanges less than 6 ft. apart. The L/U arms are connected to the platform manifold which is designed to handle all products to or from either berth and is connected to the 2×24 in. submarine pipelines leading to the shore facility.

Approximately 1,200 ft. of 6 in. oil containment boom is stored adjacent to the catwalks leading from the platform to the North Breasting Dolphins. The boom is stored in a manner so that it may be safely and effectively deployed in the event of an accidental discharge of petrolem into Long Island Sound.

Terminal Transfer Piping: Vessels discharging cargo at the offshore platform should understand that they are discharging to an oil storage terminal approximately 1.5 miles distant from the dock and at an elevation of 150 ft. above sea level. The pipeline is 24 in. in diameter. The static head pressure generated by this pipeline arrangement is about 56 p.s.i.

Booster Pump Operation: Booster pumps are available to assist with the discharge of vessel's cargo. However, the Person-in-Charge of the vessel must realise that it is necessary for the ship to generate sufficient discharge pressure (minimum of 75 p.s.i.) and volume (minimum of 7,000 bbls./hr.), at the booster pump inlet, to start moving the product in the pipeline and to permit the booster pump to be engaged. Each booster pump will normally move 10,000 barrels per hour. The normal start-up procedure when discharging at Northville Industries Corp. docks is as follows:

a) following agreement to begin transfer, the shore opens the platform manifold valves;
b) the vessel will start its cargo pumps and increase pump speed until a discharge pressure of about 60 p.s.i. is obtained at the top of the pump room;
c) the ship opens its manifold valves;
d) ship pump's speed is increased until a discharge pressure of 100 p.s.i. is obtained;
e) the pumpman on the ship is stationed at the pump controls and the shore is requested to start the booster pumps;
f) as the booster pumps are started, ship personnel adjust their pumps as necessary to prevent engaging the overspeed trip;
g) the ship adds pumps and increases pump speed as necessary to maintain desired discharge pressure.

Rapid fluctuations in the discharge pressure of the ship will cause the booster pumps to trip-out. To avoid this, speed adjustments to the ship's pumps should be made gradually. Booster pumps are set to trip-out at a low pressure of 75 p.s.i. and, therefore, can provide no assistance to the ship for stripping cargo ashore.

After all cargo tanks have drained and the pumps have lost suction, the discharge of cargo will be declared finished. With the agreement between the Ship's Officer and the Platform Operator, the oil transfer valves on the Operating Platform will be closed. All product remaining in the unloading arms will be drained back into the vessel. If the vessel's pipeline system does not allow the complete draining of the unloading arm, then arrangments must be made to drain the arm into a container or via a drain hose into a cargo tank. *No product will be permitted to drain out on to the open deck of the vessel.* After the arms have been completely drained, they may be disconnected and the ends blanked off to prevent any drippage of oil.

The discharge pressure at the rail shall be a minimum of 100 p.s.i. (maximum 125 p.s.i.) or the vessel's pumping rate shall be a minimum of 10,000 bbls./hr.

LOADING/DISCHARGING:

Discharging: Tankers are expected to achieve an unassisted discharge rate of 10,000 barrels per hour. Ships discharging at less than 10,000 barrels per hour will be subject to additional wharfage charges for the extra platform time used.

High Pour Petroleum: High pour petroleum must be discharged at 4,500 barrels per hour or more. If the discharge rate falls below 4,500 barrels per hour for more than 2 consecutive hours, the vessel will be instructed to stop discharge of cargo and leave the platform. If the submarine line must be displaced from shore to vessel due to low discharge rate, ship will be responsible for all expenses due to this procedure. Laytime will stop and wharfage will commence.

No. 6 oils, or other viscous products shall be heated, before discharge, to at least 120°F (49°C), or at least 30°F (17°C) above the pour point of the product, whichever temperature is higher. (For example: Oil with a pour point of 75°F must be heated to 120°F or higher. Oil with a pour point of 100°F must be heated to 130°F or higher).

A "viscous" oil is one which has a Saybolt Furol Reading greater than 25 seconds at 122° F. (This requirement is dependent, to a degree, on the pour point, discharge temperature, viscosity, and average discharge rate. The terminal reserves the right to order any vessel to stop discharging at any time terminal operations require.)

Loading: Tankers can be loaded at rates up to 30,000 barrels per hour at the request of the vessel and with the agreement of the terminal.

BALLAST: No ballast disposal facilities. Long Island Sound is inland water and United States Anti-Pollution Regulations rigidly enforced. No bilge water, oil-contaminated water, garbage or any waste matter which may pollute sea water is to be discharged overboard while vessel within Long Island Sound and approaches.

Ballast suction valves must be sealed with a numbered seal on arrival. Terminal personnel will inspect seals before and after cargo transfer.

STORES/FRESH WATER: No fresh water facilities. Stores should be ordered through the ship's Agent. For delivery of stores at anchor, or alongside the platform, Miller Launch, Tel: (516) 473-0132, or Whalen Launch, Tel: (516) 698-0036, provides transfer services.

FUEL: Bunkers *may* be available by special arrangement *if* pipelines are in black-oil service.

Ship's bunkers should be ordered through the Agent, from the regular supplier for delivery, by barge, at anchor. Bunkering of ships is not permitted while alongside Northville Industries Corp. Docks. Eckloff Marine (212) 442-1112 and Standard Marine Services, Inc. (212) 888-1818 will perform bunkering services.

QUARANTINE, CUSTOMS AND IMMIGRATION: New York City is the quarantine, customs, immigration and agricultural quarantine port of entry for Northville. Officials are stationed in New York City. Arrangements for inspections of vessels arriving from foreign ports must be made by ship's Agent in advance, not less than 24 hours before arrival on Monday through Friday, and 48 hours on Saturday or Sunday. Vessels arriving from foreign ports are reminded to provide 24 hours' pre-arrival notice to the U.S. Coast Guard, Captain of the Port, New Haven, Connecticut.

Officials will board vessels in the anchorage prior to arrival, within the vicinity of the offshore platform.

Customs Officers: Customs officers will board all vessels arriving from a foreign port, or U.S. flag vessels arriving with foreign cargo. The Customs Officer must be the first person aboard the ship (with the exception of the Pilot). He will require the close assistance of the ship's cargo officer and the public inspector, for the prompt completion of his duties. Agents are requested to order U.S. Customs Inspectors for a time *2 hours before* the vessel's ETA at the terminal.

For questions concerning Customs business, the Regional Office should be contacted on (212) 466-4407 during business hours, otherwise the Communications Office on (212) 466-5472 should be contacted.

Immigration: An Immigration Officer will normally board vessels arriving from foreign ports. Until clearance is obtained from the Immigration Officer, no crew members may leave the ship.

For questions concerning Immigration matters, contact the District Office on (212) 264-5886.

Coast Guard Inspections: Coast Guard Officers may board tankers or barges at any time for the purpose of making inspections necessary to enforce the laws of the United States.

The Riverhead Terminal is within the jurisdiction of the Captain of the Port, New Haven, Connecticut, on (203) 773-2464.

A Regional Office is maintained at 146 Beach Street, Port Jefferson, New York on (516) 473-3570.

MEDICAL: A full-service hospital is available in Riverhead for treatment of medical emergencies. This is Central Suffolk Hospital located at the traffic circle/intersection of Roanoke Avenue (Route 73) and Route 58, Riverhead, about 4 miles from the Northville Terminal.

Emergency transportation to this hospital can be obtained by dialling 911 and indicating to the dispatcher the location of the medical emergency, for instance: "on the ship at the Northville Industries Terminal on Sound Shore Road".

WEATHER AND TIDE: Strong winds from North and N.W. experienced during Winter and Spring. Tide during maximum ebb and flood often reaches 3.5 knots to 4 knots velocity.

DENSITY: Flood tide density 1025. Ebb tide density 1020.

CUSTOMS ALLOWANCES: Tobacco, wine and/or spirit allowance: Same as permitted in New York Harbour.

IDENTIFICATION CARDS: Issued by Immigration Officer.

CONSULS: All Consuls offices located in New York City.

REPAIRS: No repair facilities are available. Vessel must remain in sailing readiness at all times while moored at the platform facilities.

DRY DOCKS: At New York Harbour.

SURVEYORS: *Inspection Companies:*

Caleb Brett – New Jersey. Tel: (201) 925-8282.
Independent Petro. Insp. Tel: (201) 925-4960.
J. J. Mullins – New York City. Tel: (212) 338-4135.
S.G.S. Control Services. Tel: (201) 541-7200.
Saybolt. Tel: (201) 245-3100.

Surveyors:

American Bureau of Shipping, 65 Broadway, NY, NY 10006. Tel: (212) 440-0300.
Bureau Veritas, 17 Battery Pl. N., NY, NY 10004. Tel: (212) 442-2317.
Det Norske Veritas, 616 Palisade Avenue, Englewood Cliffs, NJ. Tel: (212) 868-6595.
Lloyd's Register of Shipping, 17 Battery Pl., NY, NY 10004. Tel: (212) 425-8050.
Panama Bureau of Shipping, 104 E. 40 St., NY, NY 10016. Tel: (212) 867-4760.

REPATRIATION: Crew members departing vessels from the Northville Terminal may obtain transportation to domestic or foreign destinations (i.e. to an from either of the major internacional airports: J.F. Kennedy International Airport or LaGuardia Airport), by one of several methods.

The Riverhead Station of the Long Island Rail Road is located 10 minutes from the terminal by taxi and has services for both railway and bus.

Another method is limousine service. The following are limousine companies serving this area:

Long Island Airport Limousine. Tel: (516) 582-4077.
Winston Limousine. Tel: (516) 563-1323.
Transport Limousine of L.I. Tel: (516) 567-5100

AIRPORT: New York Airports, 80 miles distant.

POLICE/AMBULANCE/FIRE: Terminal attends Police/Ambulance and Fire services.

State Police Tel: 727-2727, Police Tel: 911 (Emergencies only). Fire Tel: 0 (to report fire, otherwise 727-2750). Ambulance Tel: 911 or 298-4016.

EMERGENCY CO-ORDINATION CENTRE: United States Coast Guard at New Haven, Connecticut. Tel: (203) 773-2464; and the United States Coast Guard National Response Centre. Tel: (800) 424-8802 (toll free number).

BANKS: European American Bank, located at 209 West Main Street, Riverhead, New York, NY 11901. Tel: (516) 727-7082.

STORING: Bunkers must be taken at anchor. Stores can be loaded during transfer.

Trucks cannot proceed alongside the berth, but by launch only.
Fork lift trucks cannot be used to handle stores.
Customs Regulations regarding storing are not known by this terminal.
Local Riggers can be employed to assist with storing.

TELEPHONES: A coin telephone is located in the platform office. Tel: (516) 727-9549.

SHORE LEAVE: Shore leave permissible by arrangement with local launch service.

SHIP SUPPLY SERVICE: James Miller Marine Services operate Coast Guard inspected crew boats on a charter service to vessels in the Long Island Sound area. They also have available LCMs with a 25 ton capacity for stores and equipment. These vessels are based in Port Jefferson, Long Island, New York and are on call 24 hours a day, 7 days a week. Tel: (516) 654-4900.

James Miller Marine Services also operates inspected crew boats for passenger service on a per head basis in New York Harbour. The operations centre is at Pier 13, Staten Island. They can be reached on Channel 16 VHF "Miller's Launch" or call (212) 727-7303 or (516) 654-4900. Also available at this location are similar LCMs with 25 ton capacity for stores and equipment.

AUTHORITY: Northville Industries Corp., P.O.Box 111, Riverhead, NY 11901. *Tel:* (516) 727-5600. *Telex:* 96-1415. *Cables:* Northville, Melville. *Contact:* Earl Espeland, General Manager. A. Golz, Marine Supervisor.

ROCHESTER, New York: 43.17 N. 77.36 W. (See Plan)

Refer to "St. Lawrence Seaway" for important general information.

See "General" below.

PILOTAGE: Not necessary.

ANCHORAGE: No anchorage available within harbour limits.

RESTRICTIONS: Permit for non-emergency docking must be obtained 2 weeks in advance by mail or telephone request.

MAX. SIZE: Channel depth 20 ft. (LW). All depths in channel or alongside wharves should be checked carefully against the latest recorded elevated or lake level. This may vary from month to month. Entrance width 300 ft., turning basin depth 20 ft., 600 ft. in width.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to New York Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Rochester Coast Guard Station.

TUGS: Not available.

BERTHING: Entrance piers are parallel to each other, and about 450 ft. apart. The West Pier is 3,036 ft. long and the East Pier 2,699 ft. long. Fog horn and beacon on West Pier, East pierhead lighted. Radio beacon. Port Authority Terminal located on West bank of Genesee River at end of Lake Pier. Has a quay wall of about 1,400 ft. in length. Depth of water alongside quay wall uncertain, estimated at between 10 ft. and 16 ft. Charlotte Docks located about 2 miles upstream from mouth of river on West bank.

CRANES: Not available, except through private arrangements.

BRIDGES: New York Central Railroad swing bridge near mouth of the river and upstream from Port Authority Terminal. Traffic lift bridge about 0.25 mile upstream from railroad bridge.

STEVEDORES: Vessel to make own arrangements.

DENSITY: Fresh water.

FRESH WATER: Available at both docks.

FUEL: Vessel to make own arrangements.

IDENTIFICATION CARDS: Required.

CONSULS: None.

REPAIRS: Minor only.

REPATRIATION: Can be arranged.

AIRPORT: Approximately 10 miles from port.

POLICE/AMBULANCE/FIRE: Police, Ambulance and Fire Tel: 911.

SHORE LEAVE: Allowed.

GENERAL: Rochester, New York, no longer operates a commercial port. The facilities are available only for tour and cruise boats to take on and discharge passengers, and by commercial vessels in the case of an extreme emergency.

It should be stressed that emergency docking is completely the Master's responsibility. The City of Rochester and the Department of Recreation and Community Services assume no liability for any vessel docking under emergency conditions at the former Port of Rochester.

AUTHORITY: City of Rochester, Department of Parks, Recreation and Human Services, Office of the Director, Room 226B, City Hall, Rochester, New York 14614. *Tel:* (716) 428-6755.

SACRAMENTO, California: 38.32 N. 121.30 W. (See Plan)

DOCUMENTS: See "San Francisco".

PILOTAGE: Pilots board vessel in San Francisco Bay. (Also see "San Francisco").

RESTRICTIONS: *Ship Channel:* Distance Fort Point to Sacramento, 79 nautical miles (146 km.). Bottom width in river reach 300 ft. (91.4 m.). Bottom width in channel reach 200 ft. (61.0 m.). Min. depth at MLLW 30 ft. (9.1 m.).

Harbour: Area 60 acres (24.3 hectare). Min. depth at MLLW 30 ft. (9.1 m.). Tidal variation 5 ft. (1.5 m.) average.

MAX. SIZE: 800 ft. LOA and 106 ft. beam, 30 ft. deep at MLLW.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness reports made to San Francisco Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: KBA 386, 156.9 MHz (24 hours).

TUGS: Join vessel at Light 76 (turning basin).

BERTHING: Anchor – ships will have at least 1 anchor ready to let go in case of emergency, when docking or undocking. Anchor will be raised immediately upon ship being made fast to wharf.

Insurance lines are required on off-shore side, fore and aft, immediately after ship is made fast to wharf.

A cargo net shall be securely placed under gangways. Save-all nets shall be rigged abreast of holds at which general cargo is being handled.

Rat guards, at least 3 ft. in diameter, shall be placed on all mooring lines immediately after docking, and shall be maintained in place until ship's departure.

Pier 1:
Owned and operated by: Port of Sacramento.
Use: Bulk-loading rice facility.
Construction: Concrete with timber fender piles, length 600 ft. (182.9 m.).
Water depth: 32 ft. (9.8 m).
Storage capacity: 22,000 tons; 8 silos at 2,200 tons each; 6 silos at 470 tons each; 6 silos at 270 tons each.
Mechanical handling facilities: 3 loading spouts dockside, conveyor system to storage facility.
Loading rate: 600 t.p.h.

Wharf 2:
Owned and operated by: Port of Sacramento.
Use: General cargo.
Construction: Concrete with timber fender piles; apron width 60 ft. (18.3 m.); length 600 ft. (182.9 m.).
Water depth: 30 ft. (9.1 m.).
Transit sheds: One, 86,400 sq. ft.

Pier 5:
Owned by: Port of Sacramento.
Operated by: Cargill of California, Inc., as a public utility.
Use: Bulk-grain facility.
Construction: Concrete and steel silos; concrete with timber fender piles; length 600 ft. (182.9 m.).
Water depth: 32 ft. (9.8 m.).
Storage capacity; 1,250,000 bushels (30,000 tons); 17 concrete silos; total capacity 500,000 bushels; 6 steel silos; total capacity 750,000 bushels.
Mechanical handling facilities: Bulk ship loader (600 t.p.h.), conveyor belt system connects bulk storage/rail/truck.

Wharf 6:
Owned and operated by: Port of Sacramento.
Use: General cargo and containers.
Construction: Concrete with timber fender piles; length 600 ft. (182.9 m.); apron 60 ft. (18.3 m.).
Water depth: 30 ft. (9.1 m.).
Mechanical handling facilities: 2 gantry cranes, 45 tons each.
Remarks: 6 acres of open wharf; 70,000 sq. ft. off dock warehouse.

Wharves 7-8:
Owned and operated by : Port of Sacramento.
Use: Bulk material facility and general cargo.
Construction: Concrete with timber fender piles; apron 60 ft. (18.3 m.), length 600 ft. (182.9 m.).
Water depth: 30 ft. (9.1 m.).
Storage capacity: Covered 200,000 tons, open 750,000 tons.
Mechanical handling facilities: Conveyor-belt system from truck to storage, from ship to storage; from storage to ship, or from storage to truck; 2 gantry cranes, 45 tons each.
Loading rate: 600 t.p.h.
Transit shed: 86,400 sq. ft. Bagging facilities for bulk cargoes.

STEVEDORES: Same as San Francisco.

MEDICAL: All normal medical facilities available.

DENSITY: Full fresh.

FRESH WATER: Available at all berths.

FUEL: All grades available with 24 hours notice. Delivered by barge.

GANGWAY/DECK WATCHMEN: Each ship shall have a security detail in readiness on board at all times it is in port. The security detail shall perform tasks of an emergency nature and shall have information concerning cargoes aboard in case of need for fire fighting purposes.

OPENING/CLOSING HATCHES: Opening/closing hatches is stevedore work while docked in port.

IDENTIFICATION CARDS: A pass signed by the Master or his designated officer will be required for crew members, passengers and their personal property to leave the port's fenced area. Property may be subject to physical inspection before leaving the fenced area.

CONSULS: Nearest at San Francisco.

REPAIRS: Limited repair facilities available.

REPATRIATION: Can be arranged through local Agent.

AIRPORT: 16 miles from port and served by regular airlines.

TIME: GMT minus 8 hours.

HOLIDAYS: Only days not worked are 4th and 5th July, Labour Day, Christmas Eve and Day, New Year's Eve and Day.

POLICE/AMBULANCE/FIRE: Tel: 371-8000. Extensions 252 and 228.

TELEPHONES: Telephones are available.

SHORE LEAVE: Crew members allowed ashore subject to Immigration clearance.

REGULATIONS: Ships will not blow boiler tubes while in port. Bilge water or oil will not be discharged into harbour. Accidents will be reported immediately to the Terminal Superintendent. Splash boards will be placed over disposal vent-pipe openings on inboard side of vessel.

Garbage – United States and California State laws make it unlawful to dispose of ship's garbage except in approved ways. Garbage retained on board must be kept in tightly closed containers.

Smoking – Smoking prohibited in and around cargo compartments, and on open decks except that it may be permitted in marked areas under sheltered portion of weather decks on offshore side. Smoking prohibited on wharfs and piers except in marked areas. Smoking prohibited on or near ship while it is bunkering.

Welding/Burning – Welding or burning will not be done until written approval is obtained from the Terminal Superintendent and the Fire Marshal. All requirements of both the Superintendent and Marshal will be strictly adhered to.

Fire Signal – Upon detection of a fire, regardless of location or size, the alarm of fire will be sounded. The alarm shall be sounded by telephone and/or whistle or siren blasts. 5 each, 5 second blasts repeated as necessary.

AUTHORITY: Port of Sacramento, P.O.Box 815, World Trade Centre, West Sacramento, California 95691. *Tel:* (916) 371-8000. *Telex:* TWX 910-367-3581. *Contact:* Dennis Clarke, Director.
AGENT: See "San Francisco".

SALEM, Massachusetts: 42.31 N. 70.53 W. (See Plan)

SHIPMASTER'S REPORT: August 1986.
DOCUMENTS: See "Boston".
PILOTAGE: Cape Ann Pilots Association (serves Gloucester and Salem). Pilot on VHF Channels 16 and 12. Pilot boards about 1 mile South of Eastern Light Buoy No. 2.
ANCHORAGES: About 2 miles S.W. of Eastern Point.
RESTRICTIONS: Salem Channel 150 ft. in width only, therefore large vessels berth or unberth in daylight hours only.
MAX. SIZE: Length 700 ft. (approx.). Breadth 110 ft. (approx.) and draft 34 ft. (salt water).
TUGS: Available from Boston.
BERTHING: New England Power Company (NEPCO) operates Salem Terminal Wharf to supply Salem Harbour Station with coal and fuel oil.

No cranes available, coal is discharged from "self-unloading vessels" only.
TANKERS: 2 arms (Chicksan-type), 12 in. diameter. Discharging rate: 7,000 bbls. each. Length of wharf (incl. dolphin) 250 m. (approx.) dredged to 34 ft. at LW.
DENSITY: 1022 – 1025.
AIRPORT: See "Boston", about 45 minutes. Cost US$50.00 by van.
TELEPHONES: Not placed on board, however communication with Agents via VHF possible.
GENERAL: Port is served by 1 or 2 colliers a week, and about 3 tankers a month.

NEPCO Representative acts as Loading Master. Linesman are provided from the power station.

REPORT: From Tanker Operator:
Port Approaches: The RDF stations at Cape Cod, Boston Buoy 'B' and Eastern Point are useful navigation aids. The rocky shore lines provides a good target for position fixing by radar. Fathometer readings should not be relied on for position fixing purposes, since bottom contours are erratic. Fishing boat traffic in Massachusetts Bay is heavy especially near Gloucester. It should be noted that the small fishing vessels in this area sometimes display working and running lights that could be mistaken for reguar range lights. During the Summer months, the yacht traffic is considerable. Most yachts reportedly show up poorly on the radar screen.
Channel Transit and Berthing: Loaded tank vessels enter with a rising tide. The Pilot and Agent should be consulted with regard to the actual water depths available in the channel during the intended period of transit.

The transit from the pilot boarding area to the terminal is about 10 miles. Salem Sound is entered via the Salem Channel between Bakers Island and Little Misery Island, leading Westwards for 3 miles thence Southwestward through a dreged section to the turning basin off the berth. The channel is well marked with buoys and range lights.

Shallow vessels and tows crossing the channel may be met. During Summer months, Salem Sound is crowded with pleasure craft. Coast Guard patrol boats must sometimes be utlised to clear a path.

The tugs usually join the ship before entering the inner dredged channel Buoy No. 16. The ship is berth port side to, which requires a starboard turn of approximately 130° before landing.

During normal weather conditions, 10 mooring lines are considered to be the minimum acceptable.
Weather: Gales occur year round. The severest storms occur during the Winter months. Rain or snow associated with these storms, at times, reduce visibility to zero for extended periods. During the Winter months, freezing spray may be experienced.

Fog presents a problem year round, being heaviest during late Spring and early Summer. It is not advisable to enter or leave in thick weather.

SAN DIEGO, California: 32.41 N. 117.07 W. (See Plan)

PORT LIMITS: The seaward boundaries of the Port of San Diego at which a vessel is considered to be an "arrived vessel" is that time when the vessel is boarded by a Port Pilot at Sea Buoy No. 1 and (subject to charter party terms) lay time commences when Notification of Readiness is tendered at berth.
DOCUMENTS:
- Crew Lists.
- Passenger Lists.
- Customs Documents.
- Manifests.
- Stores Lists.
- Crew Curio Declaration List.

If the vessel arrives from foreign direct, 3 copies each of the above documents are required.

If the vessel movements are between U.S. ports, 2 copies each of the above documents are required.

Health Documents. Arrival from foreign direct, 1 copy only. All crew members should be in possession of valid vaccination certificates.

Manifests. Arrival from foreign direct, 1 copy of travellers manifest which remains with vessel, and 3 copies each of U.S. Customs inward foreign manifest. Bills of lading, ship's papers carried aboard vessel varies with steamship companies.
PILOTAGE: Compulsory. The San Diego Pilots do not maintain Pilots on station. Service is rendered according to ETA received from vessel. If any vessel's arrival or departure is delayed over 1 hour, an additional charge will be made. Telegraphic address of pilot station – radio ETA to "Pilots", San Diego. Advance notice of ETA required – 24 hours prior to arrival of vessel with amendments 2 hours prior to arrival. Pilot boat is 54 ft. in length, painted white. The exact area where Pilot boards the vessel is No. 1 sea buoy. Pilot on VHF Channels 16 and 12 (Tel: (619) 233-7814).
ANCHORAGE: 3 miles S.E. of Point Loma Light.
MAX. SIZE: Length, breadth – no restrictions. Max. draft alongside face of terminal, 36 ft.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Los Angeles Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: All radio messages go through the Los Angeles station for relay.
VHF: The Port of San Diego Harbour Police maintains a listening watch on Channels 12 and 16. Channel 11 is available after initial call-up on Channel 16.
TUGS: Tugs normally join vessel approximately 1 mile before berth. 5 available ranging from 200 h.p. – 2,400 h.p. There is no charge for the use of tug's lines.
CONTAINER FACILITY: A new generation, high-speed, all-electric container crane capable of handling 20 ft. and 40 ft. units, or single hook lifts of 40 long tons at National City Marine Terminal. This 17.4 acre facility includes 32,500 sq. ft. for a container freight station, a container steam-cleaning facility, office, maintenance shop, truck scales, railroad spur, and paved storage for 2,280 containers including electrical outlets for 45 refrigerated containers. Depth 35 ft.
SPECIALISED CARGO HANDLING FACILITIES: High-speed bulk-loading facilities exist with 800 ft. of 35 ft. deep water berthing space and bulk storage, plus a bulk loader boom that travels 500 ft. laterally and can be extended or raised enough to load nearly any size or type of ship.

High-speed bagging of bulk commodities is available for bagging of bulk materials from powder to pellets at the rate of 1,000 tons per hour.
STEVEDORES: Advance notice of 24 hours desired in order to arrange gangs.
MEDICAL: Agents should receive notification of medical attention required 24 hours prior to ETA of vessel. Complete hospital facilities available.
TANKERS: Diameter of load/discharge line 6 in. to 8 in. Slop (residue) discharge facilities available upon request. 2 tanker berths – max. draft 35 ft. There are also 2 tanker berths at National City Marine Terminal with 12 in. discharge lines.
DENSITY: Salt water in bay.
FRESH WATER: Fresh water available, delivery via pipeline.
FUEL: Diesel and bunker fuel available.
GANGWAY/DECK WATCHMEN: Available if considered necessary.
OPENING/CLOSING HATCHES: Carried out by stevedores.
CERTIFICATES: Registered Load Line Certificate, Certificate of Inspection, Safety Certificate.
CUSTOMS ALLOWANCES: Tobacco: Per each crew member U.S. Customs allowed 2 cartons of cigarettes and 1 box of cigars. Wine and/or Spirits: Quantity allowed per each crew member – 1 quart.
CARGO GEAR: Up-to-date certification of all cargo gear required in order to comply with Pacific Coast Marine Safety Code.
IDENTIFICATION CARDS: U.S. Immigration requires completion of Form I-95, U.S. Coast Guard requires landing permits.

CONSULS:
- Chile
- Costa Rica
- Denmark
- Dominican Rep.
- Ecuador
- El Salvador
- Finland
- France
- Germany F.R.
- Honduras
- Italy
- Mexico
- Netherlands
- Norway
- Panama
- Peru
- Sweden

REPAIRS: All types of deck and engine repairs are available.
DRY DOCKS: Largest dry dock 700 ft. length, 104 ft. width. Capability can accommodate C – 2 Mariner type or San Diego type hulls (600 ft. length, 85 ft. width) and up to and including 28,000 displacement tons. 4 additional floating dry docks with capabilities up to and including 3,500 displacement tons.

New floating dock, length 800 ft.
SURVEYORS: A full complement of cargo inspectors and surveyors are available locally.
AIRPORT: Distance from marine terminal approximately 5 miles. Airport is serviced by major airlines.
TIME: Local time GMT minus 8 hours. Daylight Saving Time becomes effective the first Sunday in April and continues to the last Sunday in October.
HOLIDAYS: Recognised holidays are: New Year's Day; Lincoln's Birthday; Washington's Birthday; Memorial Day, Independence Day, Labour Day, Columbus Day, Veteran's Day, Thanksgiving Day, Statewide Election Day, Christmas Day, or any other legal holiday that may be proclaimed by State or National Authority; when a holiday falls on a Sunday, the following Monday shall be observed as a holiday.
POLICE/AMBULANCE/FIRE: Police Tel: 236 – 5911; Emergency Ambulance (Paramedic) Tel: 238 – 1212; Fire Tel: 238 – 1212.
EMERGENCY CO-ORDINATION CENTRE: Local maritime emergency co-ordination is handled by the U.S. Coast Guard, San Diego Region, 2710 North Harbor Drive, San Diego, CA 92101. Tel: (619) 293-5860.
TELEPHONES: Arrangements exist for placing telephones on board. No charge for hooking up.
SERVICES: Tank-cleaning equipment. Facilities for tank washings Compass and radar adjustments, etc.
SHORE LEAVE: Permitted.
BANKS: Full banking services for both domestic and international transactions are available locally.

STORING: Storing and provisioning may be accomplished at dockside or via barge by prior arrangement. Trucks and forklifts may be used alongside and riggers are available by arrangement with the representative Agent. U.S. Customs Agents will board on arrival and seal all bonded items. Otherwise, normal procedures concerning controlled items will be observed by the vendor.

DEVELOPMENTS: Broadway and 'B' Street Piers have been reconstructed for use as a passenger vessel facility, public park, for berthing of public visit Naval vessels, and for berthing and clearance of fishing vessels. U.S. Customs has an office at the end of Broadway Pier.

AUTHORITY: Port of San Diego, P.O. Box 488, 3165 Pacific Highway, San Diego, California 92112. *Tel:* (619) 291-3900. *Telex:* 695-456. *Cables:* Sun Harbor San Diego. *Contact:* Don L. Nay, Port Director.

SAN FRANCISCO, California: 37.48 N. 122.25 W. (See Plan)

DOCUMENTS:

General Declaration (arrival) on Customs Form 1301.

Cargo Manifest (Customs Form 1302). One original copy indicating all the cargo on board, used for making formal entry. One copy listing all cargo on board, to be used by the Customs Inspector. One copy indicating cargo for this port only.

2 copies of Crew's Effects Declaration on Customs Form 1304.

2 copies of Ship's Stores Declaration on Customs Form 1303.

2 copies Passenger List (Form I-418).

2 copies Crew List (Form I-418).

1 Copy "Oil Pollution Certificate", issued in Washington D.C.

Customs Boarding Officer will also examine Ship's Register and Load-Line Certificate. In addition, the following documents will be required for formal entry to be made within 48 hours of arrival from abroad, or 24 hours of arrival from abroad, or 24 hours of arrival from a U.S. port:

(a) Health Pratique.

(b) Master's Oath (Customs Form 1300).

(c) U.S. Certificates of Payment of Tonnage Tax (Customs Form 1002).

(d) Certified Crew List (U.S. vessels only).

PILOTAGE: Pilotage in and around Golden Gate Region is performed by the San Francisco Bar Pilots who provide service from sea to all ports within the regions, including the Ports of Sacramento and Stockton.

The San Francisco Bar Pilots' Association, maintains a sea station 12 miles outside the Golden Gate, in the vicinity of the large navigation buoy for vessels arriving and leaving the area.

On station around-the-clock. Pilot boats are equipped with VHF radio-telephone, and maintain continuous watch for ship traffic and operate co-operatively with the Marine Exchange Communication Centre and lookout station. The Bar Pilots also carry portable VHF radios.

Some 8,500 ships are piloted annually into and out of the port complex, through the Golden Gate and the 2,000 ft. wide, 55 ft. deep main ship channel across the sand bar about 9 miles outside the Gate.

Considerable Summer fog is experienced on the pilot grounds. In Winter months radiation or tule fogs frequently occur. The tidal prism of hundreds of square miles of inland waters cause unusually swift and changing currents in the area. Pilotage for San Francisco Bar and entrance is compulsory and available 24 hours a day. The pilot boat is at a station 3 miles outside Main ship Bar Channel about 14 miles from San Francisco, VHF Channels 18A and 10 for radio contact. Vessels with a draft of 42 ft. or more are requested to arrive at the pilot station for the inward passage about one hour before high water at the Golden Gate Bridge.

ANCHORAGES: Several anchorages available in San Francisco Bay for any type of vessel up to 50 ft. draft.

The well-protected bay affords excellent shelter and anchorage in all weather. The Captain of the Port (Coast Guard) will assign an anchorage to a vessel upon request. In San Francisco and San Pablo Bays, there are a large number of anchorages available for naval, quarantine, general and explosives.

The specific anchorages available include:

1. *General Anchorage*

(a) No. 5 – found just South of the Richmond-San Rafael Bridge, has no limitations.

(b) No. 9 – found in the South Bay, also has no limitations.

2. *Temporary Anchorage*

(a) No. 7 – found off Treasure Island, has a 12 hour limit. A ship cannot lighter nor bunker at this mooring.

No. 8 – same as No. 7 but has a 6 hour limit.

3. *Explosive Anchorage*

No. 12 – is normally not activated.

No. 13 – found off Larkspur, this mooring is activated only as the need arises.

No. 14 – found in the South Bay, this mooring is always activated.

4. *Naval Anchorage*

No. 10 and No. 21 are the most frequently utilised.

RESTRICTIONS: The San Francisco Bay region is the first on the West Coast to have sea lanes established by the Coast Guard for greater safety in its ocean approaches. Use of the lanes is not mandatory, but is strongly recommended to reduce chance of ship collisions in congested approach and departure areas. The lanes are not intended to supersede or alter applicable rules of the road.

The lanes begin within 6 miles of the San Francisco Lightship, with each lane inbound and outbound separated by a buffer zone. The headings are: North lane outbound, 305°; North lane inbound 120°, main line outbound, 247°; main line inbound, 058.5°; Southern lane outbound, 169°; Southern lane inbound 343°.

The size of the bay and the narrowness of the Golden Gate cause tricky and sometimes difficult tidal and current conditions. The flood current sets into all parts of the bay and causes swirls as far East as Alcatraz and Angel Islands. At the San Francisco-Oakland Bay Bridge there are large current eddies near the foundation piers which may require care to maintain proper course.

The Bar Channel is dredged to 55 ft. MLLW by the U.S. Army Corps of Engineers. Entrance channels to the various ports are dredged to 35 ft., with the exceptions of Sacramento, Stockton and Redwood City, which are 30 ft. Stockton, however, is approved for a 6 ft. deepening, and study of similar deepening for Redwood City is being completed.

MAX. SIZE: The max. permissible draft for tankers at the oil installation is 35 ft., for regular freighters and passenger ships at the San Francisco piers is 40 ft. No restrictions on length or berth. The best time to dock with max. draft is at a rising tide.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to San Francisco Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Tugs available and normally join the vessel when approaching their pier. Tug's lines are always used, with no extra charge.

BERTHING: No restriction on berthing other than draft limitation and preferable at slack water.

Pier	*No. of Berths*	*Length (ft.)*	*Depth (ft.)*	*Remarks*
9	2	154 Face 800 North 800 South	35	Mooring for tugboats
15-17	3	490 F 800 N 800 S	35	Importing newsprint
19	2	160 F 800 N 800 S	35	Foreign trade Zone No. 3
23	2	160 F 800 N 800 S	35	Foreign trade Zone No. 3
26	2	200 F 620 N 635 S	50 35 35	Ship repair and tug boat mooring
27 and 29	3	206 F 750 N 1,340 S	35	General and project cargo
28	2	150 F 541 N 675 S	35	Ship repair
30 and 32	3	622 F 845 N 932 S	35 35 35	General cargo (some containers)
34	2	139 F 634 N 652 S	30 35 35	Ship repair
35	2	200 F 802 N 1,053 S	38	Passenger lines
36	2	588 S 713 S	35 35	Ship repair Ship repair
38/40	2	905 S 888 N	35 35	Ship repair Ship repair
45 A-C	2	1,314 S	35	Ceremonial pier
46 B	2	1,035 F	35	Lay-up berth
48 A	1	216 F 610 N	35 35	Newsprint and lumber
48 B	1	155 F 636 S	35 35	Newsprint and lumber
50 A-C	2	1,480 N	35	General cargo
50 B-D	2	1,682 S	35	Ship repair
	2	1,000 F	35	Ship repair
52				Ferry slip
54	2	700 S 700 N	35 35	Ship repair Ship repair
64 North	2	48 & 130 F 408 & 240 N 719 S	30 25 25	Barge mooring
64 South	2	126 F 588 N 852 S	25 25 20	Barge mooring Todd Shipyard
70	2	723 F 1,100 F	38 38	Importing automobiles and petroleum transfer
80	5	5,041	40	Container and general cargo
84	1	428	35	Coconut oil imports
92	1	702 F 166	35 35	Receiving automobiles, bulk animal and vegetable oils
94 and 96	3	2,400	40	Containers, LASH

Alameda: (See Plan). (Not part of the Port of San Francisco). Alameda, an island and city across the Inner Harbour channel from Oakland, is the home of Encinal Terminals, the largest privately owned and operated steamship terminal in the United States. There are 6 berths for vessels at Encinal.

Berths 1, 2, 3 and 4: Used for general cargo and bulk liquids. Total berthing length 2,125 ft. Depth 31 ft. to 33 ft.

Berth 5: Used for general cargo. Length 750 ft. Depth 35 ft. Berth equipped with Paceco crane.

Berth 6: Used for receipt and shipment of bulk liquids. Depth 30 ft. Facility has tank storage of 12 million gallons.

Operator: Encinal Terminals, 1521 Buena Vista Avenue, P.O.Box 2453, Alameda, CA. 94501. Tel: (415) 523-8800. Telex: TWX (910) 366-7174.

RADIO: Radio station via RCA – Radio Corporation of America – Station KPH ITT – World Communications – Station KFS.

Safe and efficient navigation for all bay vessel traffic is maintained through a Ship Location and Reporting Service operated by the Marine Exchange. U.S. Coast Guard Vessel Traffic Service on Yerba Buena Island and at Port Bonita maintains 24 hour radar surveillance of all traffic from Golden Gate on the West (with 32 mile capacity beyond) to Oakland on the East, Dumbarton Bridge on the South and Port San Pablo on the North. Vessel Movement Reporting System (VMRS) extends beyond Port San Pablo all the way to the Ports of Stockton and Sacramento. Coast Guard urgently requests that all vessels as specified below, moving anywhere within the VMRS (including all area under radar surveillance), tune to Channel 13 (156.65 MHz., VHF FM): All ships of 300 gross tons and over, passenger ferries for hire over 100 gross tons, and tugs with tows of barges or dredging rigs of over 26 ft. length.

Coast Guard Regulations: Foreign tankers should give 72 hours' advance notice of arrival to ensure that U.S.C.G. has enough time to check the vessel's records for compliance or outstanding violations and to arrange for any onboard inspections required. Failure to provide 72 hours' notice may delay the commencement of cargo transfer while awaiting the required U.S.C.G. inspections. Letter of Compliance inspections must still be arranged through Washington D.C. The statutory notification remains at 24 hours. This notice applies only to the San Francisco Bay area. Any vessel required to have an inert gas system must have its tanks inerted at all times unless they are gas free.

VHF: VTS in operation. Call sign "San Francisco Vessel Traffic Centre", operates on Channels 16, 13, 12 and 18A.

CONTAINER/BULK HANDLING FACILITIES: *San Francisco Container Terminal - (SFCT) South:*
(formerly Pier 94/96).
Container Ship Terminal.
Cargo Way.
Steamship Lines: Evergreen Line, Columbus Line, COSCO/Grancolombiana Line, United Yugoslav Line, Evergreen Line, Zim Container Service, Japan Line.
Assigned to: Stevedoring Services of America.
Dimensions: Total terminal area is 76 acres. Outer apron is 2,456 ft.
Number of berths: Three at 40 ft. MLLW alongside and a design load of 800 p.s.f.
Special Facilities: The ondock Intermodal Container Transfer Facility accommodates up to 20 rail cars on a single switch. Port packers used for yard operations. Elevated control tower with radio and PA communications systems. A maintenance and repair building of 24,000 sq. ft. is sprinklered and has a 5-ton capacity overhead bridge crane. Other buildings include an administration building (14,000 sq. ft.) and gate house/terminal office building (2,475 sq. ft.). 135×240 volt and 32×480 volt reefer outlets.
Lift equipment: 2×30 ton Paceco Cranes, and 2×30 ton Starporter cranes, rail mounted. The spreaders can be expanded in order to afford easy accommodation of both 20 ft. and 40 ft. containers. Each crane has a 50 ft. gauge with an outreach of 115 ft., backreach of 30 ft. and an 88 ft. clear hoist above HW (to be upgraded to 103.5 ft. clear hoist above HW). The Paceco can load and off-load containers thwartships. There is also 1×25 ton P&H mobile crane.
Connections: Trucks via Cargo Way; Southern Pacific Railroad tracks. San Francisco Belt RR.

San Francisco Container Terminal - (SFCT) North:
(formerly Pier 80)
Combination Terminal - Container/Ro-Ro/Unitized Break Bulk.
Foot of Army and Marin Streets.
Construction: Concrete pilings, concrete deck.
Steamship Lines: National Shipping Corporation of Philippines, Barber Blue Sea, ELMA, Lloyd Brasileiro, South Seas Steamship, Tranportacion Maritima Mexicana, Canadian Tropic Line, Navicana Line, Nedlloyd Lines, Shipping Corporation of India.
Assigned to: California Stevedore & Ballast Company and Lykes Lines.
Dimension: Total terminal area is 68.5 acres. The face measures 1,296 ft. North measures 1,138 ft. and South measures 2,657 ft.
Berths: Four at 40 ft. MLLW alongside.
Special facilities: 2 steel-framed transit sheds totaling 396,000 sq. ft., 273×220 volt and 36×480 volt reefer outlets and Container Freight Station accommodations. The van yard is fully lighted and completely fenced for security.
Lift equipment: 1×30 ton and 3×40 ton Paceco Cranes, and 1×30 ton Starporter Crane, rail mounted. All cranes can accommodate 20ft. and 40 ft. containers. Each crane has a 34 ft. gauge and an 88 ft. clear hoist above high water. (2 New Paceco cranes have a clear hoist of 95 ft. above HW). Cranes can load and off-load containers thwartship.
Connections: Via Army Street or Marin Street; UP System Railroad tracks.

Pier 70-72: Automobile Terminal.
Foot of 23rd Street.
Assigned to: Fred F. Noonan Company.
Construction: Timber pile, timber deck.
Steamship lines: Wallenius Line.
Dimensions: The total terminal area is 24.5 acres. The face measures 723 ft.
Berths: Two at 40 ft. MLLW alongside.
Special facilities: 22 acres of open storage for car-loading, unloading and processing.
Connections: Via Third Street, East on 20th Street.

Pier 50: Combination Terminal.
Container/Ro-Ro/Unitized Breakbulk.
Foot of Mission Rock Street.
Construction: Concrete piles, concrete deck.
Steamship Lines: Various.
Dimensions: Total terminal area is 20.8 acres. The face measures 1,000 ft. North measures 1,480 ft. and South measures 1,100 ft. and 582 ft.
Berths: Four at 35 ft. MLLW alongside.
Special facilities: This pier offers 8 acres of open storage, 4 transit sheds totaling 274,000 sq. ft. and reefer outlets.
Connections: Via Mission Rock Street; Santa Fe Railroad tracks.

Pier 27 – 29: Newsprint/General Cargo/Containers.
Foot of Lombard Street.
Assigned to: Marine Terminals Corp.
Construction: Concrete piles, concrete deck.
Steamship lines: B.C. Forest Products, Papua New Guinea Line, Sig. Bergesen, Star Bulk Shipping, Atlantic Cargo Services and Scann Scot.
Dimension: The face measures 206 ft., North measures 750 ft. and South measures 1,340 ft.
Berths: Three at 35 ft. MLLW alongside.
Special facilities: Piers 27-29 are integrated piers connected by a 117,000-sq. ft. bulkhead and 2.5 acres of open storage space. It also offers 601,700 sq. ft. of transit shed space.
Connections: Via Embarcadero; Belt Railroad tracks.

Pier 92: Automobile and Bulk Liquids Terminal
Cargo Way.
Assigned to: Baker Commodities (Bulk Liquids) and California Stevedore and Ballast (Fishmeal).
Construction: Concrete piles and deck, timber apron.
Dimensions: The face measures 702 ft. and 166 ft. This facility also has a transit shed measuring 57,270 sq. ft.
Special Facilities: 10 acres of open storage space for automobiles, automobile detailing and repair centre, bulk oil processing and storage equipment, and heated and cooled pipe-lines connecting pier with the storage tanks.
Berths: One with 38 ft. MLLW alongside.
Connections: Via Cargo Way from Third Street; Southern Pacific Railroad/S.F. Belt

STEVEDORES: Stevedores orders must be placed 1000 hrs. for night gangs and day gangs. 2×8 hour shifts 7 days a week. Sunday and Sunday night gangs must also be ordered on Saturday 1000 hrs.

MEDICAL: Medical, and all hospital facilities available. No advance notice required.

TANKERS: All major oil companies have their own oil discharging piers which are outside the jurisdiction of the Port Authority. Reducing pieces are available. The max. drafts are 35 ft. Tankers arriving with a greater draft are partly discharged in the bay before docking.
Davis Point: Union Oil Co. Oleum Refinery Wharf, depth up to 38 ft. MLW.
Martinez: Shell Oil Co. Wharf, depth alongside 30 ft. – 42 ft. MLW. Phillips Petroleum Co. Amorco Wharf, 2 berths, depth 30 ft. – 42 ft. MLW. Phillips Petroleum Co. Avon Wharf, depth alongside 35 ft. MLW. Urich Oil Co. depth alongside 35 ft.
Ozol: Oil Wharf, depth alongside 39 ft. MLW.
Hercules; Sequoia Ref. Corp. Terminals, depth 35 ft. MLW.

DENSITY: Average density in the bay is 1016.

FRESH WATER: Available at all piers rate between 25 t.p.h. and 50 t.p.h.

FUEL: Fuel available by barge or at the oil companies own pier. Special blends require some advance notice.

FIRE PRECAUTIONS: Any special instructions are given to the Master upon docking.

GANGWAY/DECK WATCHMEN: Not required but this service available at Master's request.

OPENING/CLOSING HATCHES: Normally done by stevedores. But crew may open and close before arrival at the dock or after departure.

CUSTOMS ALLOWANCES: Each crew member may land free of duty and/or taxes articles acquired abroad not exceeding $10 in value, plus 50 cigars or 300 cigarettes or 3 lb. of smoking tobacco, and not over 1 quart of alcoholic beverages.

IDENTIFICATION CARDS: Standard U.S. Immigration Forms I-95 to be made up for each crew member on arrival. Not necessary for crew man already holding Form I-95, issued for the same vessel.

CONSULS: All Maritime countries represented at San Francisco.

REPAIRS: The major yards in the Golden Gate region have fully equipped machine-shop facilities capable of handling virtually any job; welding, heavy plate construction, turning, boring, facing, grinding, milling and rolling.

The larger yards also have facilities for pipe, sheet metal, electrical, carpentry, painting, rigging, machining and boiler work.

Southwest Marine, Westwinds, Service Engineering, SFW Corp., Todd and Triple "A" Repair are all located in San Francisco and provide berth space for all types of ship repairs at plant and at any location in the San Francisco Bay area.

DRY DOCKS: San Francisco shipyard has 3 floating dry docks, 1 with 22,000 tons capacity and 654 ft. long, 1 of 11,400 tons capacity and 542 ft. long, and 1 of 6,500 tons capacity and 450 ft. long. With a recently completed pier, its tie-up and outfitting space totals 4,271 ft.

Continental Maritime - New floating dock, carrying capacity 22,000 tons, LOA 664 ft., length over blocks 579 ft. clear draft over blocks 34.5 ft., clear width for docking 138 ft. Dock will accept vessels up to 70,000 d.w.t.

Williamette Iron and Steel Company's yard in Richmond has 5 concrete graving docks. 4 of these docks can each accommodate a vessel 600 ft. long with 83 ft. beam, and 1 dock can handle a vessel 750 ft. × 83 ft.

Tonnage capacity is limited only by the above dimensions. Williamette's facilities include 1,500 ft. of concrete outfitting pier for in-the-water repairs. The graving docks are served by 4 gantry cranes of 60 ton capacity and 2 of 45 ton capacity, and the outfitting pier by 3×45 ton cranes. Williamette has fully equipped shops for repair and conversion work, and mobile units for out-of-yard work at all Bay Area piers.

Hunters Point Naval Shipyard: (Triple A Machine Shop) Under lease from the U.S. Navy, graving docks and repair facilities available to all types of ships. Triple A operates 3 graving docks: (No. 4) 200 ft. beam×1,100 ft. length and 50 ft. depth; (No. 3) 150 ft.×1,000 ft. and 39 ft. depth; (No. 2) 100 ft.×800 ft. and 27 ft. depth, 17 repair berths can serve ships of any length. 12 gantry cranes of 50 ton capacity serve graving docks and repair berths. 50 ft. depth channel from Golden Gate to Hunters Point; unique to West side of San Francisco Bay.

REPATRIATION: All facilities available for crew changes by sea, air or land.

AIRPORT: Distance about 10 miles South of San Francisco and is served by most domestic and international passenger airlines plus 20 international air cargo carriers..

TIME: GMT minus 8 hours. Summertime from first Sunday in April till last Sunday in October – GMT minus 7 hours.

HOLIDAYS: New Year's Day; Lincoln's Birthday (February 12th); Washington's Birthday (February 22nd); Good Friday (afternoon); Memorial Day (May 30th); Independence Day (July 4th); Labour Day (1st Monday in September); Admission Day (Calif. only Sept. 9th); Columbus Day (October 12th); Veteran's Day (November 11th); Election Day (1st Tuesday after the first Monday in November); Thanksgiving Day (last Thursday in November); Christmas Day.

When any of the holidays fall on Sunday, the hoiiday will be observed on Monday.

On a holiday the longshoremen are working at the overtime rate (time and a half) except on the following days when no work will be performed:

1. New Year's Day;
2. Bloody Thursday (July 5th, memory of 3 longshoremen killed during the 1936 strike);
3. Labour Day;
4. Thanksgiving Day;
5. Christmas Day.

POLICE/FIRE/AMBULANCE: Police, tel. 533-0123; Fire, tel. 861-8020; Ambulance, tel. 431-2800.

TELEPHONES: On some piers telephone connections to ships are available, no extra cost for this service.

SHORE LEAVE: Crew members are allowed to go ashore after passing U.S. Immigration at first U.S. Port.

GENERAL: Vessels arrival has to be reported to the U.S. Coast Guard 24 hours prior arrival by Agent.

DEVELOPMENTS: The channel over the bar has been deepened to 55 ft. A new channel will be cut 600 ft. wide and 45 ft. deep (at low water), through the upper bay and the channel through San Pablo and Suisun Bays will be deepened to 45 ft. Manoeuvring areas near Richmond and the refinery terminals will be widened. The Stockton Deep Water Channel will be deepened to 35 ft. and the channel alignment improved.

Improvements to Pier 35 – Passenger Terminal: Improvements to the passenger boarding and unloading facilities at Pier 35, including a new Customs area have been completed.

Pier 35 is the major steamship passenger facility in the Bay Area and the point of disembarkation for tens of thousands of cruise passengers who look forward to San Francisco as a port of call or destination. An improved passenger terminal will be beneficial to our city and its tourist industry.

The area involved contains a 200,000 square foot passenger processing facility on the first floor with a 10,000 square foot visitor waiting area on the second floor.

The cost of the initial phase of the improvement is estimated at $1 million.

Expansion of Rail Capabilities to Pier 94-96: New track construction, as well as reconstruction of existing track, from the Terminal to Southern Pacific's mainline track has been designed to allow unit train access onto the Container Terminal.

The Container Terminal is composed of Piers 94-96. This 65 acre three-berth facility is serviced by 4 rail-mounted cranes and represents a $45 million capital investment. An additional 75 acres of expansion area lies adjacent to the Pier.

Direct rail access to this terminal will position San Francisco as a competitive intermodal port offering direct land-bridge and mini-bridge services through Port facilities. By being able to move containers directly from ship to rail, carriers will have the advantages of reduced costs, better control of containers and less damage.

San Francisco will be the first port in California with this capability.

AUTHORITY: Port of San Francisco, Ferry Building, San Francisco, California 94111. *Tel:* (415) 391-8000. *Telex:* 275940 PSF UR. *FAX:* (415) 398-1269. *Cables:* Sfportcomm. *Contact:* Vello Kiisk, Acting Executive Director. Roger Peters, Intermodal Manager.

AGENT: Norton Lilly Intl., 100 Spear Street, Suite 680, San Francisco, CA 94105. Tel: (415) 882-3400. Telex: 6771454.

SAVANNAH, Georgia: 32.02 N. 81.07 W. (See Plan)

DOCUMENTS:

3 Crew Lists.
3 Stores Lists.
3 Curio Lists.
3 Manifests.
3 Passenger Lists.

These documents required in order to enter vessel at U.S. Customs.

Direct Foreign Arrival – Quarantine Pratique issued by Public Health Service representative; Cargo on Customs Form 1302, in duplicate with Abstract Manifest of Savannah only cargo; Crew List on Form I – 418, in triplicate; Passenger List on Form I – 418, or other acceptable form, in triplicate; Crew Curio List, in triplicate, with Crew Declaration on Customs Form 1304, or Crew List on Form I–418, in triplicate, with numbers of attached Forms 5129 endorsed thereon for American vessels, List of Sea Stores and Ship's stores Customs Form 1303, in triplicate; for American vessels, Repair Declaration on Customs Form 226; for American vessels, Certified Crew List; Clearance from Last Foreign Port, if one issued.

Coastwise arrival with Residue Foreign Cargo or Passengers – Form 1301, "Permit to Proceed", in duplicate; Travelling Manifest; Abstract Manifest, in duplicate, of cargo to be discharged in Savannah; Stores List, in duplicate; Crew List, in duplicate; Crew Purchase List, in duplicate, and any Crew Declarations on Customs form 5123 for Savannah for American vessels; Passenger List, in duplicate.

PILOTAGE: Savannah Pilots' Association, 550 E. York, Savannah, Georgia, 31401 (telegraphic); Pilot required all vessels; ETA 24 hours advance notice, change ETA 8 hours; VHF Channel 16 (monitored at all times), 18, 12, 13 – Radio telephone 2182 and 2738 kHz. Pilot boards vessel 1 mile outside fairway buoy.

SHIP CHANNEL: Project depth and widths are as follows: Sea buoy to jetties 40 ft. depth×600 ft. width; New Channel Range through Upper Flats Range 38 ft. depth×500 ft. width; The Bight Channel 38 ft. depth×600 ft. width; Fort Jackson Range to Wreck Channel 38 ft. depth×500 ft. width; City Front Channel to Kings Island Channel 38 ft. depth×400 ft. width; Whitehall Channel 35 ft. depth×400 ft. width.

ANCHORAGES: Outside Fairway Buoy, North and N.E. of Fairway Buoy; no anchorages in river.

RESTRICTIONS: 31 ft. at any time; over 31 ft. on incoming tide, no restrictions day or night.

MAX. SIZE: Abbreviation OT: Ocean Terminal. Vessels berthing at OT 14 – 15 – 16 – 17 (slip 1). Vessels 550 ft. to 600 ft. on slack water; vessels less than 550 ft. any time to Berths 14 and 17; vessels docking or undocking at OT 15 – 16, with vessels in OT Berths 14 and 17, can be docked or undocked during slack water.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Vessels route ETA cables to Agents, etc., via Radio Lantana.

TUGS: Tugs join vessels at city front for berths above city; for berths below city, tugs usually meet vessels in vicinity of Fort Jackson or well below berth. Tugs' lines used at all times.

BERTHING: The Georgia Ports Authority operates 12 general cargo berths, 2 tanker berths, 5 container berths and 1 dry bulk cargo berth.

CRANES: *Ocean Terminal:* One 175 short ton gantry crane, one 100 short ton gantry crane, two 50 short ton gantry cranes, one 30 short ton gantry crane, one 100 ton mobile crane, one 30 ton mobile crane.

Garden City Terminal: Two 35 short ton gantry cranes, one 100 ton mobile crane, one 30 ton mobile crane. Garden City Terminal (container port) – 9×45 short ton container cranes, 9×45 short ton rubber tyred bridge cranes. Other cranes, floating and mobile, are available from various private contractors.

BULK CARGO FACILITIES: Located at the Georgia Ports Authority's Garden City Terminal are 1 dry bulk cargo berth (loading). This facility is suited for the handling of various ores, grains, peanuts, meals and fertiliser materials. The storage at this facility consists of silos for the storage of grain and grain type products as well as flat floor storage for these various other materials.

Colonial Terminals: Kaoline/mineral bulk terminal. Handling rate 800 t.p.h. 12×109 cu.ft. Silos for kaoline. Minerals stored in 8×73,000 cu.ft. storage bays.

SPECIALISED CARGO HANDLING FACILITIES: Located at Container Central, on the up-river end of Berth 60, is a stern Ro-Ro ramp which is situated as to allow a vessel to utilise the Ro-Ro ramp and container cranes at the same time. Accommodating side and quarter ramps also available. At the Garden City Terminal there is a modern cold storage facility. The refrigerated space consists of 3 rooms of approximately 68,000 sq. ft.

BRIDGES: *Eugene Talmadge Memorial Bridge:* 135 ft. vertical clearance for 400 ft. at MHW. Distance between fender uprights – 600 ft.

Also see "Developments".

MEDICAL: Agent should be advised as far in advance as practicable for required medical attention. U.S. Public Health Clinic in Savannah, also other extensive medical facilities. Standard information required as to inoculations, vaccinations, etc.

TANKERS: Standard requirements on diameters of load/discharge lines. No facilities for slop (residue) discharge facilities except American Oil Company. A.P.I. of local types of oil is 36 gravity marine diesel fuel. 8 tanker berths in port, max. drafts range from 32 ft. – 38 ft.

DENSITY: Average density of water at 20° Centigrade in channels of Savannah Harbour are:

	High Water	*Low Water*
Savannah River Entrance		
Surface	1.0196	1.0090
Bottom	1.0196	1.0181
Port Area		
Surface	1.0022	0.99915
Bottom	1.0120	1.0075

FRESH WATER: Available at all terminals.

FUEL: Marine gas oil (No. 2 Fuel). Marine diesel oil (No. 4 Fuel Oil). All Intermediate grades from Intermediate 30 (=30 centistokes at 50°C) to Intermediate 420 (=420 centistokes at 50°C) Bunker fuel oil (No. 6 Fuel). Advance notice of 24 hours required.

FIRE PRECAUTIONS: No special fire precautions. All tanker berths have water and fire extinguishers on dock. Fire fighting equipment on dock. Fire fighting equipment on tugs.

GANGWAY/DECK WATCHMEN: Garden City and Ocean Terminals of Georgia Ports Authority, East Coast Terminal Company and Georgia Kaolin International require that a watchman, or someone in authority will be aboard any vessel tied to their facilities at all times.

CERTIFICATES: See "Documents". Current Registry Papers, Load Line Certificates, Certificates of Inspection, etc., are required.

CUSTOMS ALLOWANCES: Tobacco, a crew member may take ashore 50 cigars, 300 cigarettes, or 2 kilos of smoking tobacco, or a proportionate amount of each. An appropriate amount of tobacco products may be held out of bond for use of passengers and crew members while aboard ship when in port. Wine and/or Spirit, a crew member may take ashore one litre of alcoholic beverages for his own use. Container should be opened, that is the seal should be broken. An appropriate amount of wine and/or spirits may be held out of bond for consumption by passengers and crew while aboard ship when in port.

CARGO GEAR: Certified in accordance with U.S. Department of Labor Regulations. Supplied by stevedores.

IDENTIFICATION CARDS: Identification required by crew members coming ashore. U.S. Immigration & Naturalisation Service issues landing permit, I-94, to any passenger; and I-95, to any crew member of a foreign vessel who is not considered a security risk. This form must be in man's possession any time he is ashore.

CONSULS:

Savannah: Brazil (912) 234-2266. Dominican Republic (912) 234-2266. France (912) 236-2491. Germany F.R. (912) 236-8165. Italy (912) 232-5581. Sweden (912) 238-2301.

Atlanta: Consulate of Austria (404) 252-7920. Consulate General of Belgium (404) 659-2150. Consulate of Bolivia (404) 320-9312. Consulate of Brazil (404) 659-0660. Consulate General of Canada (404) 577-6810. Consulate of Chile (404) 266-1650. Consulate of Colombia (404) 320-9665. Consulate of Costa Rica (404) 455-1007. Royal Danish Consulate (404) 522-8811. Consulate General of Ecuador (404) 475-4751. Consulate of El Salvador (404) 252-8425. Consulate of Finland (404) 446-1400. Consulate of France (404) 525-1100. Consulate General of Federal Republic of Germany (404) 659-4760. British Consulate General (404) 524-5856. Consulate of Greece (404) 261-3313. Consulate of Guatemala (404) 255-7019. Consulate of Haiti (404) 455-3434. Consulate of Iceland (404) 321-0777. Consulate General of Israel (404) 875-7851. Consulate of Italy (404) 875-6177. Consulate General of Japan (404) 892-2700. Consulate General of Korea (404) 522-1611. Consulate of Luxembourg (404) 952-1157. Consulate of Mexico (404) 688-3258. Consulate of The Netherlands (404) 525-4513. Consulate of Nigeria (404) 577-4800. Consulate General of Panama (404) 521-0221. Consulate of Sweden (404) 223-0374. Consulate of Switzerland (404) 872-7874. Consulate of Turkey (404) 451-8100.

REPAIRS: All types of deck and engine repairs possible at Sayler Marine. Deck repairs from Diamond Manufacturing Company.

Radar/VHF Repairs: Coastal Electronic Maintenance has qualified radar and RDF, also VHF men available. They can be contacted through ship's Agents or through the Pilots or Atlantic Towing if vessels should require service on arrival.

DRY DOCKS: Sayler Marine Dry Dock 540 ft.×72 ft.×21 ft.

SURVEYORS:

Savannah: Atlantic Marine Surveying, Inc. (912) 354-9938. Coleman Kenney & Silas, Inc. (912) 352-7420. International Adjusters Southern Ltd. (912) 352-7420. International Maritime Services, Inc. (912) 964-8970. Maritime Bureau Incorporated (912) 238-3400. National Cargo Bureau, Inc. (912) 236-1527. SGS Control Services, Inc. (912) 355-4429. L.O. Smith, Inc. (912) 233-9876. Southeastern Marine Surveying Co. (912) 233-4157. J.W. Tarver Jr. (912) 233-6661. Charles T. Theus, Inc. (912) 233-3588.

Atlanta: East Coast Maritime Services, Inc. (404) 252-3990. INA Loss Control Services (404) 292-2363. Marine Associates, Inc. (404) 448-2593.

REPATRIATION: Responsibility of Owner's Agents. Can be arranged to all points.

AIRPORT: Savannah International Airport regularly served by Delta Airlines, Inc. with 7 scheduled flights daily; Eastern Airlines with 5 flights daily; Piedmont Air with 4 flights daily.

TIME: Savannah maintains Romeo or Eastern Standard Time, GMT minus 5 hours, from 0200 hrs. the last Sunday in October, to 0200 hrs. the first Sunday in April. Quebec or Eastern Daylight Saving Time, GMT minus 4 hours maintained from April to October.

HOLIDAYS: New Year's Day (January 1st); Martin Luther King's Birthday (January 15th); Lincoln's Birthday (February 12th); George Washington's Birthday (third Monday in February); Teddy Gleason's Birthday (March 17th); Memorial Day (Last Monday in May); Independence Day (July 4th); Labour Day (First Monday in September); Columbus Day (second Monday in October); Armistice Day (November 11th); Thanksgiving Day (Fourth Thursday in November); Christmas Eve (December 24th); Christmas Day (December 25th); New Years Eve (December 31st); Good Friday; one National Election Day annually.

No work will be performed on New Year's Day, Independence Day, Labour Day, and Christmas Day.

POLICE/AMBULANCE/FIRE: Police: (Emergency only) Tel: 911; Police, City: Tel: 232-4141 and 233-9321. County Police: Tel: 352-7780; Ambulance: Chatham County Emergency Medical Service: Medstar, Tel: 355-7515; Fire: (Emergency only) Tel: 911; City: Tel: 232-5121.

TELEPHONES: G.P.A., Garden City and G.P.A., Ocean Terminals: telephones on board can be provided through local Agents. S.C.L. Terminal – not available to ship (phones on dock).

SHORE LEAVE: Crew members are allowed ashore provided they are not detainees.

STORING: See "Prelims".

1. Yes
2. Yes
3. Yes
4. Yes
5. Usual U.S. Customs Regulations
6. Yes

DELAYS: With reasonable advanced notice of ETA no delay anticipated in berthing, loading, discharging or bunkering.

BANKS:

Savannah:

Bank South, P.O.Box 9208, 31412. Tel: (912) 236-5521.

Carver State Bank, P.O.Box 2769, 31402. Tel: (912) 233-9971.

Citizens & Southern National Bank, P.O.Box 9586, 31412. Tel: (912) 944-3000.

First Bank of Savannah, P.O.Box 8759, 31412. Tel: (912) 944-6000.

Georgia Federal, P.O.Box 9209, 31412. Tel: (912) 236-8212.

Great Southern Federal, P.O.Box 8206, 31412. Tel: (912) 944-6200.

Savannah Bank & Trust Company, P.O.Box 9947, 31412. Tel: (912) 234-3441.

Southern Bank & Trust Company, P.O.Box 9747, 31412. Tel: (912) 235-4400.

Trust Company Bank, P.O.Box 8668, 31402. Tel: (912) 944-1000.

Atlanta:

Citicorp (U.S.A.), Inc. 211 Perimeter Ctr. Pkwy, Suite 800, 30346. Tel: (404) 391-8500. Telex: 804832.

Citizens & Southern National Bank, 35 Broad Street, N.W., 30303. Tel: (404) 581)-2121. Telex: 542346.

First National Bank of Atlanta, 2 Peachtree Street, N.W., 30383. Tel: (404) 588-5000. Telex: 542309.

Bank of America, P.O.Box 56567, 30343. Tel: (404) 656-1000. Telex: 804345.

Bank of the South, P.O. Box 4387, 30302. Tel: (404) 529-4111. TWX: 810-751-3120.

Chase Bank International, 5775-F Peachtree Dunwoody Road, 30342. Tel: (404) 255-7717. Telex: 549541.

Manufacturers Hanover International, Banking Corp., 230 Peachtree St. NW, Suite 1800, 30303. Tel: (404) 223-5400. Telex: 804697.

National Bank of Georgia, 34 Peachtree Street, N.W., 30301. Tel: (404) 586-8000. Telex: 542318.

Trust Company Bank, P.O. Box 4418, 30302. Tel: (404) 588-7711. Telex: 542491.

Foreign Bank Representative Offices in Atlanta:

Algemene Bank Nederland, N.V., Atlanta Agency, One Ravinia Drive Suite 1200, 30346 Tel: (404) 396-0066. Telex: 1TT 4611012.

Banca Nazionale Del Lavoro, Atlanta Representative Office, Peachtree Center Gaslight Tower, Suite 2000, 235 Peachtree Street, N.E., 30303. Tel: (404) 581-0143. Telex: 542194.

Banco Do Brasil, 230 Peachtree Street, N.W., Suite 800. 30303. Tel: (404) 577-4050. Telex: 804299.

Bank of Nova Scotia, 2 Peachtree Street, N.W., Suite 909. 30383. Tel: (404) 581-0807. Telex: 542319.

Bank of Tokyo, Ltd., 235 Peachtree Street, N.E., Suite 1001. 30303. Tel: (404) 577-2960. Telex: 542462.

Barclays Bank, 1800 First Atlanta Tower, 30383. Tel: (404) 588-0437. Telex: 542575.

Bayerische Verrinsbank, 230 Peachtree St., NW, Suite 600, 30303. Tel: (404) 522-2636. Telex: 804688.

Canadian Imperial Bank of Commerce, 2 Peachtree Street, 1400 First Atlanta Tower, 30383. Tel: (404) 577-1628. Telex: 542413.

Commerzbank, 2 Peachtree Street, N.W., Suite 1010. 30383. Tel: (404) 524-0665. Telex: ITT 4611085.

Credit Suisse Bank, 1601 First Atlanta Tower, 2 Peachtree St. NW, 30383. Tel: (404) 577-6100.

Credit Lyonnais, 235 Peachtree St. NE, Suite 2210, 30303. Tel: (404) 524-3700. Telex: 804567.

Industrial Bank of Japan, 235 Peachtree Street, N.E. Atlanta Gaslight Tower, Suite 1500, 30303. Tel: (404) 524-8770. Telex: 543711.

Kredietbank N.V., First Atlanta Tower, Suite 2936, 2 Peachtree Street, N.W., 30383. Tel: (404) 688-3470.Telex: 804376.

Lloyd's Bank International, 235 Peachtree Street, N.E., Suite 1400. 30303. Tel: (404) 524-6544. Telex: 804270.

Swiss Bank Corporation, 235 Peachtree Street, N.E., Suite 1700. 30303. Tel: (404) 522-1600. Telex: 542356.

Toronto Dominion Bank, 133 Peachtree Street, N.E., Suite 3900. 30303. Tel: (404) 522-9360. Telex: 542434.

DEVELOPMENTS: Ocean Terminal rehabilitation underway will provide one 1,000 ft. berth, 800,000 sq.ft. transit space, two 200,000 sq.ft. warehouses.

Container Berth No. 5 recently completed. Facilities include a 1,000 ft. berth, 60 acres of paved storage and 3×45 ton cranes.

New bridge under construction with clearance of 186 ft. at HW.

SHIPMASTER'S REPORT: August, 1980.

Pilotage: Because of difficulties with the port crane and large storing programme we elected to berth starboard side alongside this call.

The Pilot will only undertake this on the flood (since vessel is invariably deep, berthing will only be done on the flood in any case) but because of a delay we were off the berth very nearly at slack water. The Pilot carried out the manoeuvre in the most reassuringly competent manner and I would not hesistate to do the same again if necesary; only with a Pilot prepared to carry out the manoeuvre.

Vessel is swung downriver off the container berth, about 4 cables below the berth.

When landed on starboard side to, it is just possible to plumb the berth with the crane by making the connection to the after crossover.

Discharge: Straightforward; some slight initial delay. Capable of receiving cargo at over 1,000 t.p.h. Our rate 810 t.p.h. overall.

Connection 12 in. 150 ASA. No VRL.

Density 1000 this call.

Storage capacity about 50,000 cu.m. Storage plant only for filling road and rail tankers.

U.S.C.G.: Deck inspection before commencing. Vessel was congratulated on her 'very high standard of equipment and personnel'. Monitoring detail on board throughout. Scuppers unplugged, please.

They are aware of the draft problem at LW and boarded immediately on berthing.

General: Lloyd's Surveyor easily available.

Bunkered lube oils whilst discharging with U.S.C.G. approval.

Can touch up ship's side from quay.

Movements allowed at night, dependent on draft/tide.

Chandler: Southern Marine: Poor service this time despite our cables. This is in contrast to excellent service last time. These services are entirely at the mercy of ship representative.

SHIPMASTER'S REPORT: October, 1980 (updated 1984).

Approach: From East: The coast between Sandy Point to Isle of Palms near Charleston shows up at 40 miles and South of Hunting Island near Port Royal Sound at 35 miles, on radar. Port Royal Channel gives a good radar echo at 15 miles. Soundings give little indication of position until fairly close inshore. Savannah light was observed at 28 miles.

DF stations at Tybee and Charleston are useful if nothing else is available.

Anchorage: Pilots advise anchoring to N.E. of Savannah Light Beacon. Good holding ground without obstructing arriving and departing traffic.

Arrival Procedure: ETA through Agents.

For deep draft ships proceeding to Ammonia Berth No. 61 about 5 miles above town, Pilot will board between 3 hours to 1.5 hours before HW.

Under 31 ft. can berth/sail any state of tide day or night. Berthing day or night.

Can berth either side to, the generally accepted side to is port side. However, if taking stores try for starboard side as the crane plumbs better, plus the Chicksan arm is in the way of trucks.

For starboard side to, arrive well in time for earliest Pilot boarding time.

The problem is the berth has a reported 36 ft. at LW (actually by lead line we found (Oct. '80) a minimum of 33 ft. 9 in. reduced to datum along the dock face). Therefore before LW you have to pump out about 2,000 tonnes, any delay can be important.

Pilots: Board from large cutter between Savannah Light and Whistle Buoy.

Give plenty of notice as cutter might be lying up-river at pilot station. Based at Cockspur Island in the ship channel. Call "Savannah Pilots".

Pilot ladder must be 8 ft. above water. Side dependent on wind. Berthing Pilot joins from tug using own ladder at Kings Island.

On departure from berth, Pilot requires 1.5 hours notice.

VHF: "Alpha" Channels used frequently.

U.S.C.G. uses 22A, Pilots use 18A, tugs use 19A. Otherwise use 16, 12 and 13.

Channel: The maximum draft of vessels has been 39 ft. with a 6 ft. tide. Normal maximum 37 ft. This can only take place on the flood so as to be on the berth at slack water.

Channel is narrow, less than Houston Ship Canal. Constant dredging is required. From Whistle Buoy to berth is about 3 hours.

Vessel is swung in Argyll Turning Basin off the container quay. 24 hour navigation is undertaken.

From soundings from Savannah Light Beacon to Berth No. 61 proceeding inwards 3 hours before Savannah HW (2.5 m.) a minimum of 1.6 m. under keel was found with draft 11.15 m.

Berth: Depth: "See Plan". Minimum depth reduced to datum found to be 33 ft. 9 in. along jetty face.

Berth No. 61: Owned by G.P.A. and leased to Occidental.

Concrete jetty on piles with centre section connected by roadway to shore, and mooring dolphins either end connected to jetty by catwalk. Length of centre section 266 m. Good fendering.

The upriver dolphin is not used due to damage. Can turn gangway out before arrival.

Pilot with the aid of powerful tugs swings vessel in very competent manner at Argyll Turning Basin.

Density: 1001 to 1002.

Moorings: Basic 3, 2, 2, each end. Forward headlines (3) go to Ro-Ro dock and breastlines to dolphin with springs to main jetty. Due to damage the upriver dolphin cannot be used so all stern and breast lines go to Grain Berth No. 62.

Springs out first, last in. Mooring boat used. Port Authority mooring gang require 4 hours notice.

Tugs: Atlantic Towing Company and Crescent Towing and Salvage Company of Savannah, Inc. based along town water front. Several large and powerful tugs. Two used, one each end, American style, tie up with own lines alongside. One and a half hours notice required.

U.S.C.G.: Very co-operative. Although Agent will try to get them to board in river for pre-inspecton, they board at dock. Carry out check list and inspection before cargo allowed to be worked. Takes about 30 minutes.

One U.S.C.G. rating on board at all times (8 hour shifts). Strict on pollution.

The U.S.C.G. do not seem to mind which way round the ship is berthed. Scuppers to be plugged.

Discharge: Into mobile Chiksan (as berth only leased). After manifold if starboard side too. Maximum rate about 1,200 t.p.h. but generally nearer 900 t.p.h. to 1,000 t.p.h. Connection 12 in. 150 ASA. No vapour return line. Shore tank capacity 45,000 tonnes, which fills rail and road tankers. Takes about 45 minutes to connect/disconnect. Shore labour assist. Shore personnel always in attendance. Manager very helpful.

In light ship condition we had 18 m. air draft which did not create any difficulties.

General: Lloyds Surveyor easily obtainable from Jacksonville. Fresh water from jetty, require 6 hours notice, especially at weekends.

Lube oils whilst discharging with U.S.C.G. permission. Stores lorry able to get close alongside ship.

Ship's crane (if starboard side to) will just plumb after end of jetty.

Liferaft service (Beaufort) at Southern Ship Supply – 24 hour service.

Shoreline infested with rats, snakes and big spiders.

Chandler: Southern Ship Service, good fresh produce.

Town: About 5 miles away. Can telephone for taxi – free of charge local calls, from hut at grain berth about 100 yards from gangway.

Airport 6 miles South of town centre with regular flights to Atlanta International, etc.

AUTHORITY: Georgia Ports Authority and East Coast Terminal. Savannah Port Authority.

The Savannah Port Authority does not operate terminals; however, is engaged in port and industrial development for the City of Savannah and Chatham County, Georgia. Harbour Regulations, pier and bulkhead lines, etc., come under the jurisdiction of this organisation.

Georgia Ports Authority, P.O.Box 2406, Savannah, Georgia 31402. *Tel:* (912) 964-3811. *Telex:* 804782 and TWX 810-784-5634. *Cables:* Gaports. *Contact:* John J. Powers, Jr.

SEARSPORT, Maine: 44.28 N. 68.56 W. (See Plan)

LOCATION: The Port of Searsport is located on Penobscot Bay, approximately 112 road miles East of Portland, and 20 miles from Bangor.

DOCUMENTS:

Clearance from Last Port.
2 copies of Form 1300 (Master's Oath).
2 copies of Form 1301 (General Declaration).
3 copies of Form 1302 (Inward Foreign Cargo Manifest).
NOTE: Form 1302 will only be accepted.
2 copies of Form 1303 (Ship's Stores Declaration)
(Including Narcotic Medicines).
Form 1374 Outward Foreign Manifest.
2 copies of Form 1304 (Crew Effects Declaration).
2 copies of I-418 (Crew List).

Also available: Vessel Register, Safety Equipment Certificate, Load Line Certificate, Certificate of Financial Responsibility, (Oil Pollution), and U.S. Tonnage Tax Receipts.

PILOTAGE: Ship's agent notifies Pilot approximately 48 hours in advance of arrival, correcting at 24 hours. Pilot's boat called on Channel 16.

Vessels from South and West, Pilot boards at Monhegan Island (Buoy 14M). Vessels from East, Pilot boards at Matinicus (Buoy 2WB). The pilot station is located on Matinicus Rock Island. Pilot boards at Wooden Ball Light Bell Buoy "2WB." Lat. 43° 49′ N., Long. 68° 50′ W.

The pilot boat is a fishing boat with a white hull showing the international signals.

Pilot signal: 3 long and 2 short on ship's whistle.

Radio contact: VHF Channel 16 (156.8 MHz).

36 and 24 hours ETA requested, cable "Penbay – Belfast/Maine", via Chatham Radio.

ANCHORAGES: No restrictions on anchoring.

RESTRICTIONS: No restrictions at night. Deep draft vessels brought in only on high water. Draft in concurrence with docks, 32 ft. low water. 10 ft. rise in tide – approach to Searsport 35 ft. – Bay 60 ft. limit.

MAX. SIZE: Size of vessel restricted to 38 ft. draft in harbour area. No outside installations at the port yet.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to New York Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Tugs in Searsport Harbour use Channels 16 and 13. Vessels arriving Searsport go through radio station at Chatham, Mass., RCA installation, SSB station or a VHF public correspondence station.

TUGS: Penobscot Bay Towing Co., Marshall Wharf, Belfast, Maine 04915. Tel. (207) 338-3000. 24-hour service. Requested that orders for tugboat service be given during normal business hours, 24 hours in advance.

Tugs: "Patrick McAllister", 1,200 h.p.
"Brian F", diesel 1,200 h.p.
"Roderick McAllister", diesel 1,200 h.p.
"Bronx", diesel 1,800 h.p.

Radio: Ship to ship, VHF Channels 16-13-10.

Sea Pilots dock ship with tug's assistance.

BERTHING: Draft conditions govern arrival and departures.

Bangor and Aroostock Pier: Length 800 ft., width 100 ft. Depth alongside (East side) 34 ft., (West side) 30 ft.

This pier handles a wide variety of cargoes including petroleum, forest and agricultural products, such as newsprint, tapioca, long logs, dimension lumber, potatoes, etc.

Cargoes can be off-loaded or loaded directly from or to railroad cars or trucks. There are 4 warehouses on the facility available for import or export cargoes.

C. H. Sprague Dock: Length 614 ft., depth alongside East side 33.6 ft.

This facility has and can handle many bulk cargoes, including salt, coal, gypsum, potash, bauxite, liquid chemicals, and Bunker C petroleum. There are 3 towers for discharge of bulk cargoes.

Turning basin off docks, depth 34.5 ft. and 1,200 ft. width.

STEVEDORES:

Weekdays:
Order gangs by 1700 hrs. for following day 0800 start.
Order gangs by 0900 hrs. for same day 1300 start.
Order gangs by 1300 hrs. for same day 1800 start.
Weekends:
Order gangs by Saturday 1200 hrs. for a Sunday 0800 start.
Order gangs by Saturday 1200 hrs. for a Monday 0800 start.

MEDICAL: No advance notice required by Agent. 1 hospital, Waldo County, which takes bed patients.

TANKERS: 2 berths at Searsport – 2 for No. 6 oil and 1 for light oil and gas. 2×8 in. hoses. 34 ft. LW.

DENSITY: Average density 1024.

FRESH WATER: Available by tug for boilers only at rate of tug hire at anchorage. Drinking water available at piers.

FUEL: No. 6 oil at C. H. Sprague Dock. Light oils delivered by tank truck at dock.
FIRE PRECAUTIONS: At certain oil piers information given to Shipmaster upon arrival at pier. Ample fire protection, salt-water lines, sprinkler system on pier, local fire department.
GANGWAY/DECK WATCHMEN: Not required.
OPENING/CLOSING HATCHES: Ship's crew may open hatch after longshoremen boarded ship.
CERTIFICATES:

Load Line Certificate.
Certificate of Foreign Clearance.
Ship's Safety Certificate.
U.S. tonnage Tax Certificate of previous trip if have them.
Radio Operator Licence.

CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes per man. Wine and/or Spirit allowance 1 bottle per person.
CARGO GEAR: No additional cargo gear necessary.
IDENTIFICATION CARDS: Form I-95 must be filled out on arriving unless seamen has had a prior one made out for a previous arrival on same ship (on plastic card).
CONSULS:

French: Dr. Paul O. Proudian, 776 Main Street, Westbrook, Maine.
Finnish; Frank W. Bjorklund, 163 Main Street, Norway, Maine.
Italian: Dr. Domenica A. Santoro, 43 Deering Street, Portland, Maine.
Norwegian: Allan Kjos-Hansen, 30 Mayer Road, Portland, Maine, Vice-Consul.
Panamanian: Mary Navarro de Carrillo, Lafayette Town House, Portland, Maine.
Swedish: Martin Johnson, Vice Consul, 443 Congress St., Portland, Maine.

REPAIRS: All types of machinery repairs.
DRY DOCKS: None.
REPATRIATION: Arrangements must be made with Agent in advance by telegram.
AIRPORT: Bangor International Airport, 30 miles, Delta, United Airlines.
HOLIDAYS: New Year's Day; Washington's Birthday; Patriot's Day; Memorial Day; Independence Day; Labour Day; Thanksgiving Day; Christmas Day and Veteran's Day. Possible to get gangs to work all days except on Labor Day and Christmas.
POLICE/AMBULANCE/FIRE: Police Tel: 548-6372; Ambulance Tel: 548-2900; Fire Tel: 548-2900.
TELEPHONE: Arrangements can be made to have phone put on ship, but most docks have pay phones.
DEVELOPMENTS: Directly across from the Port of Searsport lies Sears Island. A major new cargo facility and industrial park will be constructed. Emphasis will be directed toward potential user groups, equipment assembly and manufacturing, plus a full spectrum of forest products storage and shipment.

This development will feature modern container-handling facilities and breakbulk handling capability.

AUTHORITY: Maine Department of Transportation, Division of Ports & Marine Transportation, State House Station No. 16, Child Street, Augusta, Maine 04333. *Tel:* (207) 289-2841. *FAX:* (207) 623-1109. *Contact:* R. D. Elder.

Town of Searsport, Maine, P.O.Box 499, Searsport, Maine 04974. *Contact:* Wayne Hamilton, Harbour Master. Tel: 548-2985.

SEATTLE, Washington: 47.36 N. 122.20 W. (See Plan)

PORT LIMITS: Port of Seattle limits are co-extensive with the boundaries of King County in which Seattle is situated. A vessel has "arrived" when it has tied-up to a berth.
DOCUMENTS (on arrival from foreign):

Clearance from Last Foreign Port.
2 Crew Lists on Form. I-418.
2 Passenger Lists on Form I-418 (if applicable).
Passenger Declarations if applicable.
2 Stores Lists.
2 Crew Purchase (curio) Lists.
2 Manifests of Cargo for discharge on CF1302.

If first arrival port on an inward voyage, must also have 2 sets of Manifests of complete cargo on 1302, one for Customs at this port and the other for use as a "Travelling Manifest" to go forward to other discharge ports.

A – For U.S. Public Health Quarantine Boarding Officer: "Quarantine Declaration" on Form PHS.43. (Only required if boarding on arrival is necessary) see "Health" before first U.S.A. port.
B – For U.S. Dept. of Agriculture Boarding Officer: "Shipmaster's Declaration and Warning Notice" on Form AIQ.43.
C – For U.S. Immigration Boarding Officer:

Crew List on Form I-418 visaed by U.S. Consul abroad.
Passenger List on Form I-418.
Attachment to Passenger List on Form I-92.
Form I-94 for each passenger.
Form I-95 or ID Card (Form 184) for each crewman. (These are re-usable for multiple entries, but for seamen on first trip to United States a new Form. I-95 must be ready for presentation on arrival.)

D – For U.S. Customs Boarding Officer and Agent or Broker:

3 copies Crew List (Form I-418).
3 copies Cargo Manifest on Form 1302.*
3 copies Stores List – Form 1303.*
3 copies Crew Purchases or Curio List (Form 1304).*
3 Passenger Lists on Form I-418.
For U.S. Ships – Declaration re foreign repairs on Form 3415.
For U.S. Ships – Certified Crew List from last U.S. port before going foreign.

*At subsequent U.S. ports of call 2 copies required of extracts Cargo Manifests of cargo for the port concerned, and 2 copies of lists of stores and curios remaining on board.

PILOTAGE: Compulsory for all vessels except those on coasting trade. Pilots may be obtained from Port Angeles Pilots' Association, Seattle, at short notice. Inward, Pilot boards vessel at pilot station off Port Angeles.
Port Angeles Pilots: Pilotage service furnished to any port or place on Puget Sound and its adjacent inland waters.

Pilot stations are located on Ediz Hook, Port Angeles and Seattle Washington.

Vessels desiring a Pilot should proceed to a position 0.25 miles East of Ediz Hook, where Pilot will board the vessel. If a Northwest wind, sea, or swell exists, vessels are requested to proceed to a position inside and South of Ediz Hook to obtain a lee and facilitate boarding.

In clear weather, vessels should indicate their desire for a Pilot by hoisting the International Code Flag "G" and by blowing the whistle signal of 1 long, 1 short and 1 long blast.

In fog or thick weather, the blowing of this whistle signal will attract the attention of the pilot station and repetition of this signal will assist the pilot boat to locate the vessel.

The pilot station is located 1,200 yards, 277° from Ediz Hook Light. At night, the station will show from a mast, 3 vertical lights, the highest and lowest being red and the middle one green, to indicate that the pilot boat is en route to the ship. The pilot station is equipped with radar to locate and track vessels. The pilot boats, 'Juan de Fuca' and 'Puget Sound' are equipped with radar.

Communications: Vessels may ensure prompt service by advising their ETA, Port Angeles, 24 hours in advance, via radio to station KLB, addressed to Port Angeles Pilots, Seattle, Washington. A vessel may also advise the pilot station, Port Angeles, Washington, addressed to "Pilots Port Angeles" of their ETA, and amended ETA, when subsequent conditions make it necessary. The message is transmitted immediately from KLB to Port Angeles via telephone. The pilot station, Port Angeles, monitors VHF Channels 14 and 16 continuously and transmits on Channel 13.

At the time of passing Cape Flattery, inbound vessels are requested to re-affirm their ETA by calling the pilot station directly, using VHF calling Channel 16 and transmitting on Channel 13.

Channel 14 is for Vessel Traffic System only.

Pilot Ladder Requirements:

1. Please contact pilot boat via voice radio (Channel 13) approximately 30 minutes prior to arrival for desired lee.
2. The ladder must be kept clean and used solely for embarking and disembarking Pilots.
3. Rigging of the ladder, along with embarking and disembarking Pilot, must be under supervision of a licensed officer.
4. The ladder must be made in 1 length and not consist of 2 lengths shackled or lashed together, and should be equipped with spreaders about 10 ft. apart to comply with SOLAS Regulation 17, Chapter 5.
5. The pilot boats have their own lights to illuminate the pilot ladder, but a standby light should be ready for an emergency.
6. The area of the deck where the Pilot boards and leaves must be well lighted and the area must be clear of all obstacles to ensure a safe passage for the Pilot.
7. *No tag lines, pull-up ropes, or trailing lines may be attached to the lower ends of the ladder.*
8. Ladders must be rigged well clear of discharge and water outlets and at a place near midship which affords the best lee for the Pilot. At no time should the ladder be rigged near the stern of the vessel.
9. Means must be provided to allow the Pilot to pass safely onto the ship's deck. Where portable stanchions and bulwark steps are used for this, the portable stanchions must be rigidly attached to the ship's structure and not the steps. The bulwark steps must also be securely fastened.
10. The ladder must be in good condition. the treads must remain horizontal when used and the upper surface must have a rough nonskid quality.
11. Manropes approximately 3 in. manila in circumference, a heaving line and a ring buoy with a self-igniting light must be provided.
12. If your vessel is to take a load of logs, make sure the Agent makes arrangements to have a cat-walk to provide safe passage to and from the ladder.

Accommodation Ladders for Embarking or Disembarking of Pilots:

1. All vessels where the distance from sea level to the point of access of the ship exceeds 9 m. (30 ft.) at any time, should carry on each side an accommodation ladder. The ladder is to be so sited that when in use the lower end of the ladder shall rest firmly against the ship's side under all conditions of roll and heel, clear of all discharges, and within the parallel length of the ship.
2. A conventional pilot ladder should be rigged just abaft the lower platform of the accommodation ladder. The pilot ladder should be secured firmly to the lower platform to allow access between the pilot ladder and accommodation ladder. The pilot ladder should extend at least 2 m. (6 ft.) above the lower platform of the accommodation ladder. Manropes to be provided and rigged alongside the pilot ladder.

ANCHORAGES: Extensive anchorage in Eliott Bay, depths of 90 ft.
RESTRICTIONS: Overhead power cables at Burlington Northern Railroad Bridge with a vertical clearance of 155 ft.

MAX. SIZE: Controlled by depth at berth.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
TUGS: Available, 2nd tug normally used.

BERTHING: Over 46 berths for ocean-going vessels. Depths alongside, ~~30 ft. to 73 ft.~~ MLLW. 10·6 m. – 21 m./

Terminal No.	*Total Length (m.)*	*Depth (m.)*	*Remarks*
2	244	12.0	Leased to North Star Forwarding – barge berths.
5	537	13.5	3 container berths.
	166	—	Undeveloped berth (one).
18	1,844	12.0 – 15.0	Container, breakbulk, bulk, Ro-Ro, non-petroleum products. 352 reefer plugs.
25	482	15.0	2 container berths. 120 reefer plugs.
30	823	12.0	Container and breakbulk. 2 container berths and 2 general cargo berths.
37	270	15.2	1 container berth. 186 reefer plugs.
42	290	15.2	1 container berth
46	336	15.2	1 container berth. 217 reefer plugs.
48	585	10.6	State passenger and freight terminal (Alaska Marine Highways).
66	436	8.5 – 10.6	3 berths. Passenger ship terminal.
86	130	21.0	Export grain terminal operated by Cargill, Inc.
91	3,058	10.66	General cargo, auto import, fruit, frozen meats and seafood. Oil tank farm handles bunker fuel and waste oil products. Chill space 53,802 cu.m. Liquid storage 213,000 barrels.
115	366	12.0	Steel imports, fish and crab processing, general cargo.
	122	4.25	Barge berth.

SPECIALISED HANDLING FACILITIES: Terminals 18 and 20 combined and now designated as Terminal 18. Pipe-lines are available to carry molasses, tallow or other non-petroleum liquid cargo, and has a tank farm for storage.

Terminal 115 – 2 berths, capacity, import steel.

Terminal 115 – Jore Corporation Barges, has specialised finger piers, to handle container-to-barge operations.

Terminals 5, 18, 25, 37, 42 and 46 – Container Terminals, equipped with large container cranes and yards to handle van shipments. Depth alongside, Terminals 18 and 25 – 50 ft. Terminals 5, 37 and 46 – 40 ft.

Pier 86 – fully automated, deep water, Grain Terminal. 1 berth, length 600 ft. (Max. LOA 1,400 ft. using dolphins). Depth of water 70 ft. at MLLW. Grain Terminal: capacity 4.2 million bushels, loading rate 3,000 t.p.h. via twin conveyor belts.

CRANES: *Terminal 5:* 4×50 ton container cranes.
Terminal 18: 6×45 ton and 1×33 ton container cranes.
Terminal 20: 1×50 ton revolving crane.
Terminal 25: 2×45 ton and 1×33 ton container cranes.
Terminal 30: 1×50 ton gantry, 2×50 ton container cranes.
Terminals 37, 42 and 46: 6×45 ton container cranes.
Terminal 115: 1×50 ton gantry crane.

STEVEDORES: 40 local gangs available. Gang requirements must be made known to the contracting stevedore prior to 1100 hrs. on day before vessel plans to dock. Order before 1030 hrs. on Saturday for Saturday afternoon, Sunday, and Monday.

DENSITY: Salt water in Outer Port. Fresh water inside Canal Locks.

FRESH WATER: Available at all wharves.

FUEL: Available.

Bunker Fuel Suppliers:

British Petroleum/North America Trading. Tel: 775-0444.
McCall Oil Co. Tel: (800) 547-1400.
Mobil Oil Corp. Tel: 623-5340.
Pacific Northern Oil Corp. Tel: 382-9777.
Shell Oil Co., Harbor Island Plant. Tel: 453-3051.
Ship-Shore Inc. Tel: 783-9343.
Texaco, Inc., U.S.A. Tel: 623-6101.

GANGWAY/DECK WATCHMEN: Watchmen required if detainees aboard.

OPENING/CLOSING HATCHES: Normally carried out by stevedores while in port.

CERTIFICATES:

- Certificate of Registry.
- Certificates for any previous U.S. tonnage tax payments within the past year.
- International Load Line Certificate.
- Safety Radio Certificate.
- Derat Certificate.
- Cargo Gear Inspection Certificate.
- Certificate of Inspection (for U.S. vessels).

CUSTOMS ALLOWANCES: No definite quantities prescribed; reasonable allowance at discretion of Customs Inspector.

IDENTIFICATION CARDS: Required.

CONSULS: (And Trade Commissioners).

- Australia
- Austria
- Belgium
- Bolivia
- Canada
- Chile
- China
- Colombia
- Costa Rica
- Denmark
- Ecuador
- Finland
- France
- Germany F.R.
- Guatemala
- Honduras
- Hong Kong
- Iceland
- Italy
- India
- Indonesia
- Japan
- Korea
- Luxembourg
- Malaysia
- Mexico
- Netherlands
- New Zealand
- Norway
- Panama
- Paraguay
- Peru
- Philippines
- Singapore
- South Africa
- Sweden
- Switzerland
- Taiwan
- Thailand
- United Kingdom
- U.S.S.R.

REPAIRS: All types of repairs possible.

DRY DOCKS: 10 dry docks for vessels up to 20,000 tons.

SURVEYORS:

Inspecting and Testing:

American Bureau of Shipping; ABS Worldwide Technical Services. Tel: 762-6200.
Columbia Inspection, Inc. Tel: 522-7490.
Container Chassis Inspection Service. Tel: 282-9742.
Global Marine Surveyors, Ltd. Tel: (Snohomish) 568-7447, 334-6413.
Industrial Testing, Inc. Tel: 932-7991.
Laucks Testing Laboratories, Inc. Tel: 767-5060.
Northwest Centre Industries. Tel: 285-9140.
Northwest Laboritories of Seattle, Inc. Tel: 622-0680.
Pacific Testing Laboratory. Tel: 282-0666.
Pittsburgh Testing Laboratory. Tel: 762-4664.
Rosenau, Otto, & Associates. Tel: 725-4600.

Marine Surveyors:

American Bureau of Shipping. Tel: 762-6200.
Billstein, Herbert H. & Associates, Ltd. Tel: 624-2958.
Blair, N. T. & Associates. Tel: 467-4161.
China Corporation Register of Shipping, see Coffer.
Coffer, Ian T., & Associates, Inc. Tel: 232-2288.
GAB Business Services, Inc. Tel: 282-8055.
Global Marine Surveyors, Ltd. Tel: (Snohomish) 568-7447, 334-6413.
Gow, Alexander, Inc. Tel: 285-0520.
Huycke, Capt. Harold D. Tel: 774-1444.
Intermodal Transportation Services, Inc. Tel: 575-8255.
Kambarn, M. L. "Maury". Tel: 542-8164, 542-7915.
Koegel, Glen A., and Associates, Inc. Tel: 743-6003.
Lloyd's Register of Shipping. Tel: 623-8118.
London Salvage, (see The Salvage Association).
Maritime Survey Associates, Inc. Tel: 932-9004.
National Cargo Bureau, Inc. Tel: 682-2165.
Newton, D. D., & Associates, Inc. Tel: 285-4205.
Northern Marine Surveys. Tel: 822-6815.
Registro Italiano Navale, (see Coffer, Ian T., & Associates).
Stream, M. A., Associates, Inc. Tel: 282-1311.
The Salvage Association. Tel: 623-7587.
Toplis & Harding, Inc. Tel: 624-3971.
United States Salvage Association, Inc. Tel: 747-5398.
World Shipping Pacific, Ltd. Tel: 842-6616.

REPATRIATION: All facilities exist.

AIRPORT: Sea-Tac (Seattle-Tacoma) International Airport.

TIME: Pacific Standard Time, GMT minus 8 hours; Pacific Daylight-saving Time, from early April to end October, is GMT minus 7 hours.

HOLIDAYS: January 1st, New Year's Day (no work); January 15th, Martin Luther King Day, normal working day; February 12th, Lincoln's Birthday (work); Third Monday in February, Washington's Birthday (work); Last Monday in May, Memorial Day (work); July 4th, Independence Day (work); July 28th, Harry Bridges Birthday, normal working day; First Monday in September, Labour Day (no work); Second Monday in October, Columbus Day (work); November 11th, Veteran's Day (work); First Tuesday in November, Statewide Election Day (work); Fourth Thursday in November, Thanksgiving Day (no work); December 24th, Christmas Eve, paid holiday, work until 1500 hrs.; December 25th, Christmas Day (no work); December 31st, New Year's Eve, paid holiday, work until 1500 hrs. In addition July 5th, known as "Bloody Thursday", while not a holiday, is a no work day for longshoremen.

SHIP SUPPLY SERVICE: Helicopter pick-up of sick crew members provided by the United States Coast Guard. All other services provided by privately operated businesses.

BANKS: *Banks with International Departments:*

Algemene Bank Nederland N.V. Tel: 587-2330.
Bank of California, N.A. Tel: 587-6100.
Bank of Tokyo, Ltd. Tel: 382-6000.
Barclay's Bank International, Ltd. Tel: 624-4757.
Canadian Imperial Bank of Commerce. Tel: 223-7951.
Citibank International. Tel: 382-6200.
Continental Bank International. Tel: 625-9179.
First Interstate Bank. Tel: 292-3712.
Fuji Bank, Ltd. (representative office). Tel: 624-4757.
Hokkaido Takushoku Bank, Ltd. Tel: 624-0920.
Hong Kong & Shanghai Banking Corp. Tel: 622-8490.
Korea Exchange Bank. Tel: 622-7821.
Mitsui Bank, Ltd. Tel: 622-0330.
National Bank of Alaska
International Banking Corporation. Tel: 621-8660.
Old National Bank. Tel: 447-7373. Ext. 317.
Peoples National Bank of Washington. Tel: 344-4626.
Puget Sound National Bank. Tel: 622-5210.
Rainer National Bank, International Division. Tel: 621-5409.
Seattle-First National Bank. Tel: 583-6143.
Seattle Trust & Savings Bank. Tel: 223-2000.
Security Pacific International Bank. Tel: 587-0900.
Standard Chartered Bank, plc. Tel: 622-4830.
Sumitomo Bank, Ltd. Tel: 625-1010.
Taiyo Kobe Bank, Ltd. Tel: 682-2312.

SHORE LEAVE: Allowed, except for crewmen detained by Immigration.

AUTHORITY: Port of Seattle, P.O. Box 1209, Seattle, Washington 98111; 2201 Alaska Way, Seattle, WA 98121. *Tel:* (206) 728-3000. *Telex:* 703433 Port Sea. *FAX:* (206) 728-3252. *Contact:* James Dwyer, Executive Director.

AGENT: Norton Lilly Intl., 615 Second Avenue, Suite 632, Seattle WA 98104. Tel: (206) 623-0930. Telex: 6838147.

SEWARD, Alaska: 60.06 N. 149.27 W. (See Plan)

DOCUMENTS:

3 copies Cargo Manifest (Form 1302) the original showing all cargo on board, and 2 copies showing only cargo for this port.
2 copies Crew Manifest (Curio List).
2 copies Stores List.
2 copies Passenger List (Form I-418).
2 copies Crew List (Form I-418).

Customs Boarding Officer will also examine Ship's Register and Load Line Certificate. In addition, the following documents will be required for formal entry to be made within 48 hours of arrival from abroad, or 24 hours from arrival from a United States port:

Health Pratique.
Master's Oath (Form 1300).
All Foreign clearances.
U.S. Certificates of payment to tonnage tax (Customs Form 1002).
Certified Crew List.

PILOTAGE: Alaska Marine Pilot's Association, Box 273, Homer, Alaska 99603. 48 hours advance notice. 2182 calling frequency KC – KTE – 21. Anchorages as noted on chart. C. & G. S. 8529 Resurrection Bay. Pilot boards at Cains Heads in Resurrection Bay.

MAX. SIZE: Harbour depth 35 ft. MLLW.

ANCHORAGE: Suitable anchorage in 30 fathoms depth; available for deep draft vessels at the head of the Bay, South of marked buoy.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: KWA 346 (AM) Alaska Railroad Dock, frequency monitored 2182 kHz. KWA 364 (SSB) Alaska Railroad Dock frequency monitored 4-6-8-12 Megs.

TUGS: Tug service available. Anderson Tug & Barge (907) 224-5506.

BERTHING: *Alaska Railroad Corp.:* 24 hour berthing. Berthing permit required. Advance notice of 48 hours requested.

200 ft. by 735 ft. steel and concrete finger pier.

East Side — 450 ft. long with 35 ft. depth of water (10 ft. out from dock face).

West Side — 600 ft. long with 35 ft. depth of water.

South End — 200 ft. long with 35 ft. depth of water.

(East and West Berths serviced by railroad spurs).

Ro/Ro capability provided through a triple deck, articulating ramp along West Berth.

CRANES: East and West Dock Face – 2 gantry cranes. Maximum capacity – 45 short tons, maximum radius – 105 ft. Forklifts ranging up to 35 ton capacity.

Operator: The Alaska Railroad Corp., P.O.Box 95, Seward, Alaska 99664. Tel: (907) 224-5550.

BULK HANDLING FACILITIES: *Terminal Specifications:*

Unit Train Unloading	3,000 tonnes*/p.h.
Stacking	
Rail-mounted stacker/reclaimer	1
Stacking capacity per hour	3,000 tonnes
Reclaiming capacity per hour	1,000 tonnes
Shiploading	
Fixed position slewing shiploader	1
Loading capacity per hour	1,000 tonnes
Ship berth	1
Maximum d.w.t.	120,000
Maximum draft (MLLW)	58 ft.
Additional Data	
Seward Coal Terminal Area	33.91 acres
Total conveyor length	6,590 ft.
Stockpile capacity	120,000 tonnes
Annual throughput capacity	3,000,000 tonnes

*1 tonne is equivalent to approximately 2,204 lbs.

Operator: Suneel Alaska Corporation, P.O.Box 1789, Seward, Alaska 99664. Tel: (907) 224-3120. Telex: 25353 Suneel Swrd.

City Dock Facilities: City Dock: Located inside Small Boat Harbour. Up to 100 ft. vessels. Depth 15 ft. MLLW.

Fourth Avenue Dock: Up to 300 ft. vessels. Depth 35 ft. at MLLW. Power available. Mobile cranes to 100 tons.

Seward Marine Industrial Centre: Basin is 660 ft. × 1,200 ft. with depth of 21 ft. at MLLW.

Syncrolift shiplift 300 ft. × 80 ft. with 3,600 ton lift capacity.

Adjacent 100 acre industrial site.

Light cargo dock 300 ft. long with 21 ft. at MLLW.

STEVEDORES: Northern Stevedoring and Handling Corporation supply labour force.

MEDICAL: Fully staffed 30 bed hospital. All medical facilities available.

DENSITY: 1.0248 at Mean High Water.

FRESH WATER: Available at East and West berths. 4 in. water line; 67 lb. pressure.

FUEL: Marine Gas Oil available from pipe-line at South & West Berth. Marine Diesel Oil available from same pipe-line during Summer months only (Maritime Oil, Vancouver, B.C.).

OPENING/CLOSING HATCHES: Handled by crew, if done before berthing ship. By stevedores if tied to dock.

IDENTIFICATION CARDS: U.S.C.G. Port Security Card or Seaman's Card required.

REPAIRS: Radio, radar, welding, machining and light engine repairs can be effected.

DRY DOCKS: Syncrolift available. See "Berthing".

AIRPORT: 1 mile. 1 flight daily to Anchorage.

TIME: Alaska Standard Time.

HOLIDAYS: All holidays are time and one half. Cargo can be worked on all except Christmas, New Year's and Labour Day.

POLICE/FIRE/AMBULANCE: Tel: 911.

AUTHORITY: City of Seward, P.O.Box 167, Seward, Alaska 99664. *Tel:* (907) 224-3331. *FAX:* (907) 224-3248. *Contact:* Foster Singleton, Harbour Master.

SITKA, Alaska: 57.03 N. 135.20 W. (See Plan)

Located on the Western side of Sitka Sound, Baranof Island. Open all year.

APPROACHES: 3 natural channels: Western, Middle and Eastern.

DOCUMENTS: See "Anchorage, Alaska".

PILOTAGE: Pilot pick-up point – close vicinity of Eckholm Light.

ANCHORAGE: Jamestown Bay.

MAX. SIZE: Harbour depth 22 ft. MLLW. Tides: diurnal range – 9.9 ft.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

CUSTOMS: Quarantine, Immigration and Customs, local.

TUGS: 7 tugs 300 h.p. to 1,200 h.p.

BERTHING: 3 wharves.

1. Conway Dock: Berthing length 160 ft., depth 30 ft. MLLW. No cranes, 3 lift-trucks; 10,000 sq. ft. covered shed space; fresh water.
2. Japonski Dock: Government dock for limited commercial use only.
3. Alaska Lumber & Pulp Co.: (Private) Berthing length 700 ft., depth 35 ft. LW. Walking cranes only. Not less than 12 lift-trucks, 30,000 sq. ft. covered shed space; fresh water. (Located at Silver Bay, Sawmill Cove, 4 miles South of Sitka). 30,000 sq. ft. open storage.

STEVEDORES: 3 gangs.

DRY DOCKS: 1×400 ton floating dock at Jamestown Bay, approximately 3 miles East of Central Sitka.

REPAIRS: Light repairs only.

FRESH WATER: Available.

FUEL: Not available.

MEDICAL: Sitka Community Hospital and U.S. Public Health Service Hospital on Japonski Island.

TRANSPORTATION: Air and ferry.

AUTHORITY: City and Borough of Sitka, 304 Lake Street, Sitka, Alaska 99835. *Tel:* (907) 747-3439, 747-3294, 747-3245. *Contact:* Richard J. Guhl, Harbour Master.

SKAGWAY, Alaska: 59.27 N. 135.18 W. (See Plan)

Located at the Northern end of Lynn Canal, 14 miles North of Haines.

APPROACHES: Via Lynn Canal.

DOCUMENTS: See "Anchorage, Alaska".

PILOTAGE: Pick-up point located in vicinity of Point Retreat.

MAX. SIZE: Harbour depth 30 ft. running out to 300 ft. Tides diurnal range 16.7 ft. Also see "Berthing".

ANCHORAGE: In Lutak Inlet, 14 miles South of Skagway.

HEALTH: See "Health: All ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

CUSTOMS: Quarantine, Customs and Immigration available in Skagway.

TUGS: 2 tugs available at Skagway.

BERTHING: 1. White Pass and Yukon Railroad Dock: Containerised cargo to Vancouver and Whitehorse is the principal use, also used for tankers and cruise ships. 1,240 ft. long, 100 ft. wide; depth at face varies from 20 ft. to 43 ft. No covered storage. Open storage 80,000 sq.ft. 1 fork-lift is available. Containers presently loaded and unloaded with ship's gear. 2 straddle cranes for containers on dock. Deck for 400 lbs. per sq. ft. loading.

2. Skagway Terminal Co.: Ore loading facility. 1,000 ft. berth, fender dolphins, and walkway. 42.5 ft. deep at face. Used for bulk cargo ships and cruise ships. Vehicle ramp available. Adjacent to the berth is a warehouse of 108,000 sq.ft. Also available are 50 acres for open storage. Loading equipment consists of 1 fixed loading spout with a capacity of 1,500 t.p.h.

3. State: City joint use ferry pier – barge off-loading facility. Upland storage of 120,000 sq.ft.

4. City of Skagway: Small boat harbour, approx. 100 stalls. Fuel available. Water available in temperate seasons.

STEVEDORES: 3 gangs.

REPAIRS: None.

SURVEYORS: Not available locally.

WATER: Available in temperate seasons only.

FUEL: Available at Chevron Dock and small boat harbour.

MEDICAL: Medical clinic and one nurse.

AIRPORT: One mile from harbour. Scheduled and charter flights available daily. 3,400 ft. paved runway.

TELEPHONE: Pay phone at top of small boat harbour ramp.

POLICE/AMBULANCE/FIRE: Police Tel: 983-2301. Ambulance Tel: 983-2300. Tel: Fire 983-2300.

BANKS: National Bank of Alaska, Skagway.

EMERGENCY CO-ORDINATON CENTRE: Skagway Fire Hall, Tel: 983-2300

STORING: See "Prelims".

Storing at White Pass Railroad Dock:

1. By truck.
2. No barge storing.
3. Trucks can proceed alongside, except south 400 ft. of dock.
4. Fork lift trucks can be used.
5. Customs perform supervision of loading/unloading of all bonded stores. Customs/Immigration Tel: 983-2325
6. Local riggers are available.

GENERAL: Highways: Klondike Highway open all year round.

AUTHORITY: City of Skagway, P.O.Box 415, Skagway, Alaska 99840. *Tel:* (907) 983-2297. *Contact:* Port Manager or Harbour Master.

SMITHS BLUFF, Texas: 30.00 N. 93.59 W. (See Plan)

DOCUMENTS, PILOTAGE, RADIO, etc.: Refer to "Port Arthur".

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Meet vessel in Neches River before arriving at berth. Normally 2 tugs required berthing/unberthing.

BERTHING:

Sun Oil Co.: Distance from sea 38 miles, depth at berth 40 ft.

Sun Marine Terminals:

Operators: Sun Marine Terminals, Incorporated, P.O. Box 758, Nederland, Telex: 77-9469. Tel: 409-727-2301.

Type of terminal: Handling crude oil & lub.

Density: Fresh water.

Controlling Depth: From channel to berth – 39 ft. – 40 ft. Actual depth alongside – 40 ft.

Vertical clearance at HW: 136 ft.

Max. length of berth facility: 150 ft.

Max. length of vessel to be moored safely: 900 ft.

Hoses: 4×12 in. (Crude). 6×6 in. (Lub).

Usual Discharge Pumping Capacity: 50,000 bbls.p.h. (Crude). 2,000 bbls.p.h. (Lub).

Usual Discharge Pumping Capacity: 50,000 bbls.p.h.

Ballast Facilities: Deballasting facilities available with prior notification.

Fresh Water: Available on 24 hour basis.

Fuel: Available ex-wharf.

Tugs: Per Pilot's requirements.

Anchorage: Max. draft 39 ft. (2 anchorages).

Report: Sun Marine Terminals is located on the Neches River 38 miles from the Sea Buoy. The terminal is owned, operated and used by Sun Company. The controlling depth of the channel and turning basin is 40 ft. The specific gravity of the water at this terminal is 1000. The maximum size vessel normally received at this terminal is approximately 76,000 d.w.t. at Berth No. 1 and 130,000 d.w.t. at Berths No. 2, 3, 4 and 5. Vessels are docked and undocked day or night. Vessels are cautioned to keep mooring lines tight and be on alert for passing traffic.

2 tugs are normally used while docking and 1 while undocking. Sabine Towing requests a 3 hour advance notice when ordering tugs.

Vessels are berthed head upstream port side to with a usual arrangement of mooring lines including 2 forward springs and 2 aft springs. Head and stern lines run by launch. Pilots require one-way traffic and daylight navigation for all vessels in excess of 85,000 d.w.tonnes (83,700 LT). 2 lay-berths are provided across the channel. These consist of trenches dredged into the entrances of an unused ox-bow in the river. There are mooring points but most vessels lie to an anchor in the trench.

Sun Marine Terminals provides a gangway.

Fuel and fresh water are available at the terminals.

The terminal is fenced and guarded.

Pollution Control: 3,400 ft. of spill boom launch.

Fire: There are foam nozzles and monitors on the dock.

MEDICAL: All facilities available.

DENSITY: Fresh water.

FRESH WATER: Available ex-wharf.

FUEL: Available ex-wharf.

GANGWAY/DECK WATCHMEN: Not required unless crewmen detained by Immigration.

CUSTOMS ALLOWANCES: 300 cigarettes and 1 quart wine or spirits for each man.

IDENTIFICATION CARDS: Foreign crew only require Immigration Landing Permit.

CONSULS: Nearest at Houston.

REPAIRS/DRY DOCKS: See "Port Arthur".

AUTHORITY: *Operator:* Sun Marine Terminals, Inc., P.O.Box 758, Nederland, Texas 77627. *Tel:* (409) 727-2301. *Telex:* 77-9469 Sun NDLN.

STOCKTON, California: 37.57 N. 121.19 W. (See Plan)

DOCUMENTS: See "San Francisco".

PILOTAGE: Pilots commissioned by Stockton Port District. Pilots obtained by contacting Secretary of California Inland Pilots' Association, located at Marine Exchange, World Trade Center, San Francisco, California (KBP 386). Also see "San Francisco"

ANCHORAGE: Emergency anchorage only permitted in Turning Basin, 32 ft. depth.

RESTRICTIONS: Restrictions only in effect if water at flood stage. See "San Francisco".

MAX. SIZE: Draft restrictions of 35 ft. at low tide, 37 ft. at high tide (fresh water). (Also see "Developments").

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to San Francisco Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Ship to shore Radio (KBP 376 – Marine Channel 18A) enables constant contact with Pilots who therefore aware of any problem that may develop up or down river. Arrangements also may be made for readiness of ordered gangs within 15 minutes of ship's arrival.

TUGS: 2×1,000 h.p. tugs available. Tugs join vessel 0.5 miles up river from Main Channel; generally, ship's lines used, however, tug lines may also be utilised. 2 companies – Stockton Tugboat, Tel: (209) 462-6471. Delta Tugboat, Tel: (209) 462-5534.

BERTHING: *Port Stockton Bulk Material Wharf, Berths 12-13:*

Owned by: Stockton Port District.

Operated by: Stockton Port District.

Use: Shipment of dry-bulk commodities, both systems handle the following: coal, petroleum coke, clay, copper concentrates, fertiliser, soda ash, sulphur, and other dry bulk commodities; receipt of molasses and petroleum products.

Dimensions: Length of face 566 ft.; lower side 13.5 ft., upper side 13.5 ft.; depth alongside at MLLW 35 ft.; usable berthing space 566 ft.

Mechanical handling facilities: Two bulk handling systems. *One:* Max. vessel loading rate 600 short tons/p.h. Equipped with shiploader, belt conveyor, 360 degree spout trimmer, bottom drop car dump (Max. 7.5 cars per hr.) and truck unloader hopper (Max. 24 trucks per hr.) *Two:* Max. vessel loading rate 4,000 short tons/p.h. Conveyor system equipped with a 54 in. belt, rotary car dump, loop railroad for unit train.

Port Stockton Wharf, Berths 10-11:

Owned by: Stockton Port District.

Operated by: Stockton Port District.

Use: Container-handling dock; receipt of molasses, petroleum products, bulk dry cargo, container cargo and general cargo. Delivery of scrap steel, container cargo and general cargo.

Dimensions: Length of face 810.5 ft., lower side 102 ft.; depth alongside at MLLW 32 ft.; usable berthing space 810.5 ft.

Remarks: Face of wharf is in line and continuous with face of Berth 9 providing a total of 1,455.5 ft, of berthing. This dock has 5.5 acres of open marshalling area.

Port Stockton General cargo Wharf, Berth 9:

Owned by: Stockton Port District.

Operated by: Stockton Port District.

Use: Receipt and shipment of general cargo and receipt of bulk cargo.

Dimensions: Length of face 645 ft., upper side 75 ft.; depth alongside at MLLW: Face 37-34 ft., upper side 35 ft.; usable berthing space: Face 645 ft. upper side 110 ft. with dolphin; width of apron: Face 41.25 ft.

Mechanical handling facilities: Forklift trucks and other types of cargo-handling equipment, owned by the Port District and by stevedoring companies, are available as needed.

Port Stockton Wharf No. 8:

Owned by: Stockton Port District.

Operated by : Stockton Port District.

Use: Receipt and shipment of general cargo; Liquid sugar facility and receipt of molasses. Anhydrous Ammonia also unloaded at this dock through refrigerated pipelines.

Dimensions: Length of 396 ft.×88 ft.; depth alongside MLLW 37-36 ft.; usable berthing space 484 ft. with trestle.

Port Stockton Wharf No. 7:

Owned by: Stockton Port District.

Operated by: Stockton Port District.

Use: Receipt and shipment of general cargo.

Dimensions: Length 516 ft. depth alongside MLLW 37-36 ft.; usable berthing space 516 ft.; width of apron 31 ft. with trestle.

Port Stockton Wharf No. 6:

Owned by: Stockton Port District.

Operated by: Stockton Port District.

Use: Receipt and shipment of general cargo.

Dimensions: Length 418 ft.; depth alongside MLLW 37-36 ft.; usable berthing space 329 ft.; width of apron 31 ft.

Port Stockton Wharf No. 5:

Owned by: Stockton Port District.

Operated by: Stockton Port District.

Use: Receipt and shipment of general cargo.

Dimensions: Length of face 428 ft.; depth alongside MLLW 34-32 ft.; usable berthing space 429 ft.; width of apron 31 ft.

Port Stockton Grain Wharf No. 4:

Owned by: Stockton Port District.

Operated by: Stockton Port District.

Use: Receipt and shipment of general cargo, receipt of bulk cargoes.

Dimensions: Length of face 461 ft.; depth alongside MLLW 32-35 ft.; usable space 462 ft.; width of apron 31 ft.

Port Stockton Wharf No. 3:

Owned by: Stockton Port District.

Operated by: Stockton Port District.

Use: Receipt and shipment of general cargo and receipt of bulk cargoes.

Dimensions: Length of face 461 ft.; depth alongside MLLW 32-36 ft.; usable berthing space 461 ft.; width of apron 81 ft.

Dock has 30 ton bridge crane capable of handling general and bulk cargoes, as well as containers.

Port Stockton Open Wharf No. 2:

Owned by: Stockton Port District.

Operated by: Stockton Port District.

Use: Receipt and shipment of general cargo; shipment of logs, and handling of heavy-lift cargo. Also receipt of bulk cargo.

Dimensions: Length of face 506 ft.; depth alongside MLLW 32-36 ft.; usable berthing space 506 ft.; width of apron: open.

Remarks: Wharf has 39,000 sq. ft. of open storage area and 5 bulk cone shaped buildings for handling inbound dry bulk cargo, 2 cone shaped buildings for handling inbound cement bulk cargo, with direct belt conveyor from dock to cone buildings, with a capacity of 70,000 short tons to the rear of the dock area. At the Industrial Park approx 104 acres of open storage area are located South of W. Washington Street; over 50 acres of this area can be used for storing logs awaiting shipment. An additional 56 acres of open storage are located North of W. Washington Street. There is a total of other warehousing with a capacity of 2.7 million sq. ft. of covered storage area comprised of 33 separate units.

Logs may be transferred to wharf by trucks and by tractors equipped with log clamps.

This dock also has two Whirley type gantry cranes with a 30 short tons capacity each at 36 ft. offshore reach. Equipped to handle bulk dry materials, containers, heavy lifts, etc. Cranes may be geared double to accommodate lifts up to 60 short tons.

Continental Elevators Grain Elevator Main Wharf No. 1:
Owned by: Continental Elevators Inc.
Operated by: Continental Grain Co.

Use: Shipment of grain by vessels and by ocean going and inland waterway barges; receipt of grain by self-unloading barges.

Dimensions: Length of face 564 ft., West side 20 ft., East side 20 ft.; depth alongside at MLLW 35-37 ft.; usable berthing space 564 ft.; width of apron, open end 20 ft.

Mechanical Handling Facilities: 2 towers on wharf, each with 13 in. diameter, telescopic, mechanically operated, grain-loading spout; loading rate, 900 short t.p.h. (29,877 bu.) at East tower; 800 (26,557 bu.) at West tower; combined rate, 900 short tons.

Remarks: Grain gallery connecting towers on wharf has a 30 in., electric-belt conveyor; and gallery extending from East tower to grain elevator has 2×30 in. belt conveyors. Grain elevator capacity 6,000,000 bushels.

BRIDGES: Fixed-span high-level toll bridge across Carquinez Strait, with minimum clearance of 134 ft. above MHHW. Southern Pacific Railroad lift span bridge crosses Suisun Bay 6.5 miles upstream from Carquinez Bridge, with minimum clearance above MHHW of 70 ft. when closed and 135 ft. when open. Horizontal clearance on lift span 291 ft. A third bridge, 22 miles above Southern Pacific bridge, is near Antioch. It has a fixed span bridge with minimum clearance above MHW 135 ft.

STEVEDORES: *General Cargo* – For gang start at 0800 hrs., orders must be placed at 1600 hrs. of previous day; night gangs must be ordered by 1100 hrs. These times pertain to week-day gangs. For weekend gangs, 1100 hrs. Saturday for Saturday night, Sunday morning, Sunday night and Monday morning. Day shifts from 0800 to 1700 hrs. Night shifts 1700 to 0300 hrs. Arrangements can be made for a special third shift from 0300 to 0800 hrs. Rates quoted on request.

Bulk Ore and Grain Cargoes – Orders for gangs must be placed at same time as for general cargo. This operation on 24 hour basis; day shift, 0800 to 1600 hrs., night shift 1600 hrs. to midnight, swing shift, midnight to 0800 hrs. Stop work meeting first Tuesday of each month.

Also see "Radio".

MEDICAL: Arrangements with San Joaquin Medical Society for physicians, surgeons and dentists. 5 hospitals within radius of 6 miles from port. Ambulance service readily available. Telephone number for this service is 466-9535 (day or night).

TANKERS: 2 berths, 32 ft. depth available.

FRESH WATER: Available through pipelines.

FUEL: All grades of fuel available with 1 day's advance notice.

GANGWAY/DECK WATCHMEN: Services of watchmen not necessary. Available if requested.

OPENING/CLOSING HATCHES: Hatches may be opened prior arrival and closed after ship sailed from port; any opening or closing of hatches at dockside must be performed by stevedores.

CERTIFICATES: See "San Francisco".

CUSTOMS ALLOWANCES: See "San Francisco".

CARGO GEAR: Safety regulations require strict adherence to max. loading or unloading weight capacity of ship's gear.

IDENTIFICATION CARDS: Not required.

CONSULS: See "San Francisco".

REPAIRS: Minor types of repairs carried out.

DRY DOCKS: Nearest dry docks, San Francisco.

REPATRIATION: No facilities in Stockton for effecting crew changes and arranging any necessary repatriations. Special arrangements may be made through Customs.

AIRPORT: Stockton Metropolitan Airport located approx. 6 miles from port. Serviced by Frontier, Air West and PSA.

TIME: Pacific Standard Time, GMT minus 8 hours; Pacific Daylight Time goes into effect on first Sunday of April until last Sunday in October, when clocks are advanced 1 hour.

HOLIDAYS: New Year's Day; Martin Luther King's Birthday; Lincoln's Birthday; Washington's Birthday; Memorial Day; Independence Day; Harry Bridge's Birthday; Labour Day; Admission Day; Columbus Day; Veteran's Day; Thanksgiving Day; Christmas Eve Day; Christmas Day and New Year's Eve Day are all holidays. In addition to above, General Election Day, both State and National, as well as any day proclaimed by Governor of California or President of United States shall be observed as holiday. Work can be arranged for all holidays except New Year's Day, Labour Day, Thanksgiving Day and Christmas Day.

POLICE/AMBULANCE/FIRE: Security Force on duty 24 hours a day and can be reached by dialling extension 228 for any emergency that might arise. Stockton Police Department's emergency telephone number 911, or (209) 943-9111. Stockton Fire Department 911, or (209) 464-4646. Ambulances may be secured by telephoning (209) 466-6869; 464-4846; 464-4611; 466-0223; 948-6056 and 948-5117.

TELEPHONES: Telephones placed aboard on request.

ELECTRIC CURRENT: At wharves where current available for ship's use, it is 110 volt, single phase, 60 cycle for lighting and 440 volt, 3 phase, 60 cycle for power.

SHORE LEAVE: Permitted.

REGULATIONS: Port of Stockton requests notice of ship's intent to come into port at least 7 days prior to arrival; vessels, who have made prior arrangements, will have precedence over vessels who sail into port without previous notice.

GENERAL: *Railroad Service:* Three transcontinental railroads serve the Port – Santa Fe, Southern Pacific, and Union Pacific (Western Pacific Division) with reciprocal switching privileges.

Truck Scales: Public truck scale available, operated by the Port.

AUTHORITY: Port of Stockton, 2201 West Washington Street, Stockton, California 95202. Postal address: P.O.Box 2089, Stockton, California 92501-2089. *Tel:* (209) 946-0246. Toll free outside State of California (800) 344-3213 or 344-3214. *Telex:* 35-9467 and TWX 510-765-6661. *Contact:* Alexander Krygsman, Port Director. M. Tollini, Marine Operations Manager.

TACOMA, Washington: 47.14 N. 122.28 W. (See Plan)

DOCUMENTS (on arrival from foreign port):
Ship's document.
Clearance from Last Foreign Port.
2 Crew Lists on Form I-418
2 Passenger Lists on Form I-418 (if applicable)
Passenger Declarations if applicable.
2 Stores Lists.
2 Crew Purchase (curio) Lists.
2 Manifests of Cargo for Discharge on C.F. 1302.

If first arrival port on an inward voyage, must also have 2 sets of Manifests of complete cargo on C.F. 1302, one for Customs at this port and other for use as a "Travelling Manifest" to go forward to other discharge ports.

A – For U.S. Public Health Quarantine Boarding Officer: "Quarantine Declaration" on Form PHS.43.
B – For U.S. Department of Agriculture Boarding Officer: "Shipmaster's Declaration and Warning Notice" on Form A1Q.43.
C – For U.S. Immigration Boarding Officer:
Crew List of Form I-418 visaed by U.S. Consul abroad.
Passenger List on Form I-418.
Attachment to Passenger List on Form I-92.
Form I-94 for each passenger.
Form I-95 of ID Card (Form 184) for each crewmen. (These are re-usable for multiple entries, but for seamen on first trip to United States a new Form. I-95 must be ready for presentation on arrival.)
D – For U.S. Customs Boarding Officer and Agent or Broker:
3 copies Crew List (Form I-418).
3 copies Cargo Manifest on Form 1302.
3 copies Stores List – Form 1303.
3 copies Crew Purchases or Curio List – Form 1304.
3 Passenger Lists on Form I-418.
For U.S. Ships – Declaration re foreign repairs on Form 3415.
For U.S. Ships – Certified Crew List for last U.S. port before going foreign.

* At subsequent U.S. ports of call 2 copies required of extracts Cargo Manifests of cargo for the port concerned, and 2 copies of lists of stores and curios remaining on board.

PILOTAGE: Compulsory for all vessels except those under coasting trade on West coast of the United States, including Alaska and British Columbia. Pilots board off Port Angeles Pilot Station.

ANCHORAGE: The depths as a rule are too great for convenient anchorage, but vessels occasionally anchor under the Northern shore about 1 mile Eastward of Brown's Point. Vessels may anchor in about 18.29 m., 450 yards N.N.W. of the outer end of Puyallup Waterway West Jetty.

City Regulations permit anchorage in any part of the bay outside harbour lines so as not to interfere with vessels arriving or departing from their docks.

MAX. SIZE: Length over 305 m. (centre to centre dimensions of mooring dolphins), draft subject to berth depth.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Available, join vessel in Commencement Bay, approx. half way between Brown's Point and the designated Dock. Tug's lines are used and there is a charge for tug's lines.

BERTHING: 32 deep water berths. Water depths: 9.15 m. to 21.34 m. below MLLW.

General Cargo: 161,000 sq.m. warehouse space, 91 hectares of open storage paved, lighted, fenced, serving all piers.

Logs are handled at the Port's Blair Terminal, where special shipments of heavy equipment are also handled. Total terminal area is 12 acres with 2 berths totalling 1,200 ft. (366 m.) and 32 acres of backup storage space.

Pierce County Terminal at 147 acres, is used for special cargoes and auto imports. It has 2 berths totalling 1,420 ft. (433 m.)

BULK HANDLING FACILITIES: 550 m. pier with 12 m. to 15 m. water depth. 5 heavy lift Whirley cranes and bulk unloading crane with 750 to 1,500 t.p.h. capacity; 150,000 tons capacity alumina storage structure with load-out facility; 12.14 hectare stockpile area including holding area for 300 rail cars.

Bulk Grain Elevator: Continental Grain: 3 million bushel capacity: loading rate: 2,400 t.p.h.; 137 m. dock with dolphins to 244 m.; 21.34 m. water depth.

Bulk Liquid Facility: 3.5 million gallon capacity; heated tanks and piping for both rail and truck shipping and receiving; serves vessels at Pier 1, 676 m., 10.67 m. water depth.

CONTAINER HANDLING FACILITIES: *Terminal 4:* Container handling and general cargo. Container handling capability – 10,000 units per month. 2 berths, total length 492 m., width 42.7 m., Depth 13.7 m. MLLW. 1 warehouse 14,536 sq.m., 2×40 ton IHI container cranes, 2×40 ton Sumitomo container cranes, 10.12 hectares paved, lighted, fenced, back-up storage. 200 Reefer container outlets (240-480 volts). Direct rail access to pier. Intermodal yard for containers loading to rail cars.

Terminal 7: Containers and General cargo. 4 berths, total length 823 m., width 41 m., depth 13.7 m. MLLW. 2 warehouses each 9,290 sq.m. 3×40 ton Whirley cranes, 1×40 ton IHI multi-purpose crane, 1×50 ton Peiner multi-purpose crane (Containers, dry bulk). 1×40 ton IHF container crane, 1×40 ton Sumitomo container crane, 17 hectares paved, lighted, fenced, back-up storage. 24 Reefer container hook-ups (240-480 volts). Direct rail access to pier.

Tacoma Terminals Inc: Leased to Sealand. 5 container cranes.

BRIDGES: The 11th Street Bridge: All ships are required to notify for opening 2 hours in advance. The Puyallup River Bridge on 11th Street has been deactivated. The Blair and Hylebos Bridges have no restrictions. Closed periods apply to the 11th Street Bridge and the hours are as follows: 0645 – 0745 hrs., 1530 – 1730 hrs.

STEVEDORES: Jones-Washington Stevedore Company and Eagle Marine Services Ltd., and Stevedoring Services of America (SS of A).

Gang requirements must be made known to contracting stevedore prior to 1100 hrs. on day before the vessel plans to dock. (1030 hrs. on Saturdays for gangs on Saturday p.m., Sunday and Monday.)

Stowage of cargo for discharge or load determines the gang size requirements. Sufficient information for intelligent gang orders is a necessity – i.e. advance cargo plans, unusual size and/or weight, etc.

TANKERS: Loading/discharge lines 8 in. and 10 in. 150 ASA flanged connections. Slop discharge facilities not available. Fresh water available. Coast Guard Regulations strictly enforced.

DENSITY: The average density in the port is 1016.8 at 15°C.

FRESH WATER: Available. Delivers to vessel through portable meter hose.

FUEL: Available. Advance notice required.

Grade	*Viscosity at 122°SSF*
Bunker "C"	165 – 175
PS – 400	112 – 116
Bunker Special	50 – 60
PS – 300	32 – 35

FIRE PRECAUTIONS: Very strict precautions in force.

GANGWAY/DECK WATCHMEN: Watchmen required if detainees are aboard.

OPENING/CLOSING HATCHES: Normally carried out by stevedores. In practice, however, the crew can perform this task while in transit.

CERTIFICATES:

Certificate of Registry.
Certificates for any previous U.S. tonnage tax payments within the past year.
International Load Line Certificate.
Safety Radio Certificate.
Derat Certificate.
Cargo Gear Inspection Certificate.
Certificate of Inspection (U.S. vessels).

CUSTOMS ALLOWANCES: Tobacco and Wine/Spirit: No definite quantities prescribed; reasonable allowance at discretion of Customs Inspector.

IDENTIFICATION CARDS: Required.

REPAIRS: The largest repair yard in Tacoma can haul out vessels up to 1,000 tons for all kinds of repairs, including electronics, welding, painting and machining; shafts up to 30 ft. in length are machined here. Another plant does shipbuilding exclusively, but will perform topside repairs if needed. Wreckage and salvage facilities are available. Larger vessels go to Seattle for dry-docking. Minor repairs and services for small craft are available at marinas on the City Waterway and the N.E. shore of Commencement Bay.

AIRPORT: Seattle – Tacoma International Airport is 16 miles North from Port and Tacoma Industrial Airport 8 miles West.

TIME: Local time reference is GMT minus 8 hours. In Summertime it is GMT minus 7, or Pacific Daylight Saving Time, starting the first week-end in April and finishing the last week-end in October.

HOLIDAYS: New Year's Day (January 1st) no work; Lincoln's Birthday (February 12th); Washington's Birthday (February 22nd); Memorial Day (May 30th); Independence Day (July 4th) no work; Bloody Thursday (July 5th); no work; Labour Day (September 1st) no work; Columbus Day (Friday after Thanksgiving); Veterans' Day (November 11th); Thanksgiving Day (November 27th) no work; Christmas Day (December 25th) no work.

POLICE/AMBULANCE/FIRE: Emergency tel. numbers:
Police 593-4911; Fire MA 7-0151; Ambulance 473-1611.

TELEPHONES: Pay telephones available at Piers 1, 2, 4, 7, Blair Terminal, Pierce County Terminal, Grain Docks 23 and 24. There is no charge for this service.

SHIP SUPPLY SERVICE: Contact: Foss Launch and Tug, 225 East F Street, Tacoma, WA. 98421. Tel: (206) 272-0362.

SHORE LEAVE: Allowed.

DEVELOPMENTS: *Terminal 3:* Adjacent to Terminal 4, the Port's new $30 million state-of-the art container terminal will be completed in March, 1989. The new terminal creates an additional 25 acres of container storage yard and a 950 ft. long pier to accommodate the largest container ships afloat. Located next to the North Intermodal Yard, Terminal 3 can operate with less acreage while still being able to serve over-the-road carriers by use of chassis space.

AUTHORITY: Port of Tacoma, P.O.Box 1837, Tacoma, Washington 98401. *Tel:* (206) 383-5841 or Seattle (206) 838-0142. *Telex:* 32-7473 A/B Port of Tac, TWX: 910-441-2646. *Contact:* Rod Koon, Director – Port Relations.

TAMPA, Florida: 27.57 N. 82.28 W. (See Plan)

DOCUMENTS:

Passports and Seamen's Books.
Vaccination Certificate for each Seaman.
Certified Crew List: must be on American Form and certified by American Consular office at foreign country from which departed.
Crew List.
Ship's Register.
Load Line Certificate.
Certificate of Financial Responsibility (Oil Pollution Certificate).
U.S. Customs requires Inward Foreign Manifest (original and 3 copies). This must describe cargo which is to be discharged this port and/or any other port in vessel's itinerary. It must show:
  Vessel's name and flag.
  Master's name.
  Last foreign port of departure.
  Net registered tons of vessel.
  When and where vessel built.
  Consigned to Agent.
  Bill of Lading Number.
  Marks and numbers (on cargo).
  Complete description of merchandise.
  Weight in kilos or pounds.
  Port of loading.
  Port of discharge.
Stores Lists (original and 3 copies).
Crew Curio List (original and 3 copies).
Narcotics List (original and 3 copies).
*Dangerous Cargo List (original and 3 copies). This should be filled out even if nothing dangerous aboard.

Health officials will board vessel first. Bills of Lading not needed for Customs purposes.

PILOTAGE: Compulsory for all foreign vessels and U.S. vessels under register in the foreign trade. Pilotage is optional for U.S. coastwise vessels drawing over 7 ft. that have on board a Pilot licensed by the Federal government. Pilots board vessels day or night. Vessels entering by Egmont Channel are boarded between the Tampa Bay Lighted Whistle Buoy "T" (Lat. 27° 35.3′ N., Long. 83° 00.7′ W.) and Egmont Channel Lighted Bell Buoy No. 2 (Lat. 27° 35.4′ N., Long. 82° 59.0′ W.). Vessels entering by S.W. Channel are usually boarded between S.W. Channel Buoy No. 2 and Lighted Bell Buoy No. 3, or if desired, at the lighted bell buoy off the entrance to the channel.

Two pilot organisations, Tampa Bay Pilots and Tampa Tri-County Pilots (Trico Pilots), serve Tampa Bay. Tampa Bay Pilots have 2 launches, *"Manatee"* and *"Tampa Bay Pilot"*, each with a black hull and white deckhouse with the word "Pilot" on either side. Tampa Tri-County Pilots (Trico Pilots) have 2 launches, *"Trico Pilot"* and *"Trico Manatee"* each with a red hull and white deckhouse with the word "Pilot" on front of the deckhouse in red. Both Pilot Associations monitor VHF-FM Channels 10 (156.50 MHz), 12 (156.60 MHz), and 16 (156.80 MHz) continuously; call-signs, Tampa Bay Pilots and Tampa Trico Pilots. The Tampa Tri-County Pilots also monitor VHF-FM Channels 11 (156.55 MHz) and 13 (156.65 MHz). Both Pilot Associations' boats are equipped with VHF-FM Channels 10, 12 and 16 and use Channel 10, 12 and 11 as working frequency. All pilot boats fly the International Code flag "H". For boarding, Pilots request that vessels maintain a speed of 6 knots or less and have the pilot ladder rigged 6 ft. above the water. Vessels are requested to give a 24-hour and a 3-hour advance notice of their time of arrival. Length, beam and max. draft of the vessel should be provided with the first notification. Vessels are normally not moved in dense fog, and during strong North/South winds vessels are boarded inside Egmont Key. In February 1988, the deepest draft entering Tampa Bay was 33 ft. 6 in. Pilots can be obtained by radiotelegraph (cable address: "Tampilot" for Tampa Bay Pilots and "Trico Pilots" for Tampa Tri-County Pilots), by telephone (813-248 3732 for Tampa Bay Pilots and 813-221-3850 for Tampa Tri-County Pilots) through the Tampa Marine Operator, or through ships' Agents.

Pilots for St. Petersburg and Port Manatee can be obtained through the Tampa Bay Pilots or Tampa Tri-County Pilots (Trico Pilots).

ANCHORAGES: Vessels with good ground tackle can anchor anywhere outside Egmont Bar in depths of 35 ft. to 50 ft. Inside anchorages Southward of Mullet Key in depths of 30 ft. to 35 ft.; and S.W. of Gadsden Point in depths of 29 ft. to 36 ft.

Explosives and quarantine anchorages East of Mullet Key and South of Interbay Peninsula.

(1) Explosives Anchorage, East of Mullet Key. A rectangular area in Tampa Bay, approximately 4,459 yd. long and 1,419 yd. wide, beginning at Lat. 27° 38′ 30″ N., Long. 82° 39′ 09″ W., and extending N.E. to Lat. 27° 39′ 48″ N., Long. 82° 37′ 15″ W.; thence S.E. to Lat. 27° 39′ 17″ N., Long. 82° 36′ 46″ W.; thence S.E. to Lat. 27° 37′ 52″ N., Long. 82° 38′ 38″ W.; thence N.W. to point of beginning. Anchorage is used by vessels awaiting loading or unloading at Port Tampa where duration of anchorage will exceed 72 hours.

(2) Temporary Explosives Anchorage, South of Interbay Peninsula. Beginning at a point bearing 107°, 1,750 yd. from Cut F Range Front Light; thence to a point bearing 125°, 2,050 yd., from Cut F Range Front Light; thence to a point bearing 180°, 1,725 yd., from Cut F Range Front Light; thence to a point bearing 222°, 2,180 yd., from Cut F Range Front Light; thence to a point bearing 251°, 1,540 yd., from Cut F Range Front Light; and thence to the point of beginning. Anchorage is used for vessels engaged in loading explosives when duration of the anchorage is less than 72 hours.

(3) Temporary explosives anchorage off Port Tampa. A circular area with a radius of 200 yd. with the point at Lat. 27° 50′ 22″ N., Long. 82° 34′ 15″ W.

(4) Quarantine anchorage. S.E. of the temporary explosives anchorage, beginning at a point bearing 097° true, 4,370 yd., from Cut F Range Front Light; thence to a point bearing 113° 30′, 5,370 yd., from Cut F Range Front Light; thence to a point bearing 161° 30′, 3,770 yd., from Cut F Range Front Light; thence to a point bearing 163° 30′, 2,070 yd., from Cut F Range Front Light; thence to the point of beginning.

MAX. SIZE: Max. draft 33 ft. 6 in. MLW. No limit on length and breadth. Air draft 149 ft. MHW. Skyway Bridge clearance.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Radio station "WPD" should be used by vessel to route ETA cables to Agents, receivers, etc. Station KUZ 383 on Channel 25 VHF, available for public messages.

VESSEL TRAFFIC ADVISORY SYSTEM: The Tampa Port Authority provides a voluntary navigational aid to vessels transiting the bay. The VTAS can be reached by calling WHX362 on VHF Channel 9.

RESTRICTIONS: Draft recommendation is 33 ft. 6 in. No tidal restrictions with exception of loaded vessels into Port Tampa.

43 ft. harbour deepening project is completed, however no berth can accommodate over 33 ft. 06 in.

Existing Channels:

Name of Channel	*Width (ft.)*	*Length (naut. miles)*	*Depth MLW (ft.)*
Egmont Channel	700	3.9	45
Mullet Key Channel	600	2.9	43
Tampa Bay Channel Cuts A-F	500	13.6	43
Gadsden Point Cut	500	3.1	43
Hillsborough Bay Cut A & C	500	6.6	43
Hillsborough Bay Cut D	400	1.0	34
Seddon Channel	300	1.1	28
Garrison Channel	275	0.4	30
Ybor Channel	400	0.9	34
Sparkman Channel	400	1.2	34
East Bay Channel and Turning Basin	2,700	1.5	43
Port Tampa Channel	400	7.3	34
Port Sutton Channel	280	1.0	34
Alafia River Channel	200	3.4	32

TUGS: Positions are:

Main port area – right past Beacon No. 35
Port Sutton & East Bay – Beacon No. 29
Port Tampa – Cut "K"
East Tampa – Beacon No. 16

Tug's lines only.

BERTHING:

Container and Ro/Ro Facilities: Containers are handled at several general cargo terminals, but no specialised container facilities are currently in place. The Ro/Ro dock at Holland Terminal is capable of dual berthing.

Facilities available for smaller vessels.

Operator	*Depth*	*Berthing Space*	*Product Handled*
Morton Salt Co.	14 ft.	600 ft.	Salt
Paktank Florida, Inc.	12 ft.	500 ft.	Grain fertiliser, materials, potash, caustic soda, salt.

Also see "General Cargo Facilities", "Specialised General Cargo Facilities" and "Dry Bulk Facilities".

Also see "Developments".

TANKERS: Also see "Developments".

Company	*Pipelines*	*Berthing space*	*Depth*
U.S. Government	(2) 8"	550 ft.	32 ft.
Amoco Oil Co.	(1) 12" (2) 10"	275 ft.	30 ft.
Fina Oil and Chemical	(2) 10" (5) 8"	370 ft., with dolphins	31 ft.
Brimstone Terminals	(1) 14" (Liquid Sulphur)	700 ft.	34 ft.
Chevron	(2) 8" (Asphalt)	355 ft.	16 ft.
Citgo Petroleum	(3) 10"	563 ft.	28 ft.
Florida Power Corp.	(3) 8" (2) 6"	500/700 ft.	30 ft.
W. R. Grace	(1) 10" (Ammonia)	200 ft.	34 ft.
Gulf Oil Co.	(2) 14" (2) 10" (1) 8" (2) 6" (2) 6"	650 ft.	32 ft.
Marathon Asphalt	(1) 10"	300 ft.	18 ft.
Marathon Oil Co.	(5) 8"	250 ft., with dolphins	32 ft.
Murphy Oil Co.	(1) 12" (1) 8" (1) 6"	Berth 226 – 850 ft.	34 ft.
Petroleum Packers	(1) 6"	Berth 227 – 850 ft.	34 ft.
Phillips Petroleum	(2) 12"	300 ft.	34 ft.
Union Oil Co.	(5) 10"	850 ft.	34 ft.
Shell Oil Co.	(1) 12" (1) 10" (4) 8"	850 ft.	34 ft.
Sulphur Terminal Co.	(2) 10" (1) 4" (Liquid Sulphur)	700 ft.	34 ft.
South State Terminals	(3) 10" (1) 12" (2) 6" (Phosphoric Acid) (1) 6" (Caustic Soda)	800 ft. 2560 ft. 850 ft. 600 ft.	34 ft. 34 ft.
Chevron U.S.A.	(3) 12" (5) 8" (6) 6"	950 ft.	32 ft.
Tampa Electric Co.	(2) 10"	550 ft.	28 ft.
Texasgulf Inc.	(1) 16" (Liquid Sulphur)	1,000 ft.	32-34 ft.
Pasco Terminals Inc.	(1) 10" (Liquid Sulphur)	525 ft.	30 ft.
Texaco Inc.	(5) 8" (4) 6" (7) 4"	280 ft.	33 ft.
Gardinier Inc.	(1) 12" (Sulphur) (1) 10" (Phosphoric acid)	600 ft.	31 ft.
Warren Petroleum Co.	(1) 4" (Propane) (1) 6"	325 ft.	12 ft.
Royster Co.	(1) 16" (Anhydrous Ammonia)	1,760 ft. (2)850 ft.	34 ft.
Western Fuels	(1) 12" (1) 14"	750 ft.	34 ft.
Intercontinental Terminals	(1) 12" (Phosphoric acid)	1500 ft.	34 ft.
Union Chemicals Div.	(10) 6" (Pipe)	880 ft.	32 ft.
COMCO	(1) 10"	300 ft.	18 ft.
IMC	(1) 6" Anhydrous Ammonia	414 ft.	34 ft.
Trans Florida Terminal	(1) 8" Liquid Nitrogen	700 ft.	34 ft.

Note that part of above terminals use same piers. Most terminals have residue discharge facilities.

BRIDGES: The Sunshine Skyway Bridge spans lower Tampa Bay. The older twin central cantilevered span has a navigation clearance of 800 ft. and a maximum vertical clearance of 151 ft. at MLW. The new bridge located to the East of the old bridge has been completed.

DRY BULK FACILITIES:

Operator	*Location*	*Depth*	*Berthing Space*	*Handling Equipment*	*Storage Area*	*Product Handled*
Cargill Inc. (Port Authority Berth No. 256)	North 19th St.	34 ft.	700 ft.	Marine leg for unloading 30,000 bushels/p.h., and spout loader-rate of 600 tons	Capacity of elevator is 1,000,000 bushels; 8,000 ton bulk warehouse; 4,800 ton bulk warehouse.	Grain and dry bulk agriculture products
Detsco Terminals, Inc.	14th St. and Harbor	32 ft.	540 ft.	None.	Storage area leased out.	Cement and caustic soda
Florida Portland Cement Division	Hookers Point	34 ft.	820 ft.	Belt material handling system capable of receiving 4,000 short t.p.h. of cement or 1,500 short t.p.h. of gypsum, 3 electric travelling bridge cranes equipped with 2.5 and 3 cu.yd. grab buckets.	800×100 gypsum storage shed; 215,000 barrel holding tanks for fuel storage (for plant consumption) 220,000 ton capacity open storage.	Gypsum rock, cement
Ideal Basic Industries, Inc.	Port Sutton	34 ft.	1,038 ft.	2×8 in. pipelines to storage. 4×12 in. pipelines to storage.	8 silos with 190,000 barrel capacity. 3 bins with 5,640 ton capacity.	Cement
Tampa Bulk Services	Port Tampa	34 ft.	700 ft.	Belt elevator from storage to loading spout. Rate of discharge 500 t.p.h. Direct transfer from rail cars to vessels at 200 net t.p.h.	Silo capacity of 10,000 net tons.	Citrus pellets and other dry bulk products.
National Gypsum Co.	Port Tampa	34 ft.	950 ft.	Receiving hopper and conveyor–unloading rate of 2,000 net t.p.h.	Open area approx. 10 acres.	Gypsum rock
Paktank Florida, Inc.	Pendola Pt., Port Sutton	34 ft.	700 ft.	Dock crane with 80 ft. boom with unloading rate of 400 t.p.h. Loading tower with rate of 1,200 t.p.h.	Building 125 ft.×700 ft. with storage capacity of 50,000 tons. 4 silos with 8,000 ton capacity.	Potash, phosphatic products.
Tampa Electric Co.	Big Bend	35 ft.	788 ft.	200 ft. high travelling tower-conveyors system with unloading rate of 4,000 t.p.h.	24 acres	Coal
Tampa Electric Co.	Port Sutton Electric Co.	30 ft.	450 ft.	2 electric travelling unloading towers equipped with straight-line boom, and receiving hopper-combined unloading capacity of 1,600 t.p.h.	Exact size unknown	Coal
Tampa Cement	Port Sutton	34 ft.	—			Cement
Gulf Portland	Port Sutton	34 ft.	—			Cement
Dravo Basic Metals (Port Authority No. 220)	Hookers Point	34 ft.	900 ft.	Conveyor. 2 radical stackers.		Building construction aggregates and materials.

GENERAL CARGO FACILITIES:

Operator	*Location*	*Length*	*Depth*	*Remarks and Equipment*
Eller & Co. Inc. (Port Authority Berth No. 209)	Verger Boulevard, Holland Terminal	600 ft. Marginal Wharf	34 ft.	Fork Lifts: 1×10 tons, 4×8 tons, 5×2.5 tons, 11×4 tons. Mobile shore cranes available 70 – 300 tons
Garrison Terminals Inc.	13th and Beatrice St.	1,200 ft. Marginal Wharf	30 ft.	Crawler Cranes: 4 ranging from 37 to 72 tons. Fork Lifts: ranging from 1,000 to 20,000 lb. capacity. Bulk handling: 5 hoppers, clamshell buckets, shipside conveyor.
Spessard L. Holland Terminal (Port Authority Berth No. 202)	Verger Boulevard	600 ft. Marginal	34 ft.	The 100 ft. apron on all berths is public. Cruise Ship Terminal location.
Kreher Terminal Berths No. 223, 224	Carbide Avenue, Hookers Point	1,120 ft. Marginal Wharf	34 ft. (for 800 ft.) 14/16 ft. (for 320 ft.)	Back land leased to South State Terminals and Standard Gypsum. Wharf apron and docking area is public and subject to preferential berthing rights of one tenant.
S.E.L. Maduro (Florida), Inc.	13th and York St.	1,200 ft. Marginal Wharf	30 ft.	All sizes fork lifts including specialised newsprint handling and 52,000 lb. capacity for handling of containers; mobile shore cranes. Modern banana unloading conveyor system.
Metroport Terminals Berths 263, 264, 265, 266.	601 N. 13th Street	700 ft. Marginal Wharf	30/27/25 ft.	Banana unloading conveyor system.
Southport Stevedores Inc. (Port Authority Berths Nos. 251, 252)	Foot of Grant St.	1,200 ft. Marginal Wharf	34 ft.	Cranes: 4×40 tons gantries. Fork Lifts: up to 20,000 lb., conveyor system
Harborside Refrigerated Services, Inc. (Port Authority Berths Nos. 210, 211)	Verger Boulevard	1,200 ft. Marginal Wharf	34 ft.	Fork Lifts. Mobile shore cranes available 70 – 300 tons.
Spessard L. Holland Ro/Ro	Verger Boulevard	—	34 ft.	Public facility.

SPECIALISED GENERAL CARGO FACILITIES:

Operator	*Location*	*Length*	*Depth*	*Remarks and Equipment*
Commercial Metals Transport Co.	West end of Port Sutton, East side of turning basin	530 ft. Marginal Wharf	30 ft.	Scrap metal loading facility. 4 diesel cranes 3×80 ft. boom, 1×70 ft. boom, each equipped with electric magnets.
Tampa Bay Terminal Inc.	Foot of Grant St.	700 ft. Marginal Wharf	34 ft.	Scrap metal loading facility. 2 diesel electric travelling, revolving, full-portal shipside cranes with 130 ft. boom and capacity of 40 tons. Equipped with electric magnets.
Hardaway	Port Tampa	330 ft.	6 ft.	Pre-stressed concrete products. 1×30 ton crane with 120 ft. boom.
Tampa Scrap	Maritime Boulevard	800 ft. Marginal Wharf	34 ft.	Scrap metal loading facility.

DRY BULK FACILITIES: (continued)

Operator	*Location*	*Depth*	*Max. L.O.A.*	*Max. Beam*	*Height of Vessel Waterline to bulwark*	*Chute Travel*	*Loading Rate (N)=Net (L)=Long t.p.h.*
Agrico Chemical Co.	Big Bend	34 ft.	1,500 ft.	120 ft.	47 ft.	1,500 ft.	3,000 (N)
CF Industries Inc. (Port Authority Berth No. 204)	Holland Terminal	34 ft.	600 ft.	85 ft.	47 ft.	Stationary	1,100 (N)
Detsco Terminals Inc.	14th St. and Harbor	32 ft.	380 ft.*	80 ft.	40 ft.	350 ft.	1,250 (N)
Eastern Associated Terminals Co.	22nd St. Causeway Boulevard	34 ft.	850 ft.*	120 ft.	50 ft.	400 ft.	3,500 (N)
Gardinier Inc.	Highway 41 South	30 ft.	600 ft.*	80 ft.	51 ft.	335 ft.	400–900 (L)
IMC Phosphate Terminal Co.	Port Sutton	34 ft.	800 ft.*	104 ft.	43 ft.	378 ft.	1,800 (L)
Rockport	22nd St. Causeway Boulevard	34 ft.	1,450 ft.*	120 ft.	53 ft.	1,450 ft.	3,000 (N)

*Can load longer vessels by shifting during operation.

Shipmaster's Report: Bulk phosphates are loaded in Port Sutton (one berth) and in the East Bay (two berths: Rockport owned by CSX and Eastern Associated Terminal).

Loading rates: about 1,000 t.p.h. at Port Sutton;
about 3,000 t.p.h. at the two berths in East Bay area.

Trimming: The loading elevators are not equipped with trimming devices. Most cargoes can be trimmed by bulldozers. The bulldoze weighs 5 long tons, and is placed on board with ship's gear. The IMC elevators at Port Sutton and the SCL elevator (Rockport) use shore gea to place the bulldozer on board. A minimum of 8 to 7.5 ft. headroom under the coaming is required for bulldozer trimming.

STEVEDORES: Stevedoring gangs must be ordered approximately 24 hours in advance (before 1700 hrs. on day before needed).

MEDICAL: Advance notice for medical attention not required, but is preferable.

DENSITY: Density is affected by local rains due to Hillsborough River. Seasonal variances too great to allow advance prediction.

FRESH WATER: Available all over port and delivered through ships hoses and meters. Rates of delivery various.

FUEL: All grades and types available, including all types of blended fuel and Bunker "C". 24 hour notice required. All types of lube-oil available with delivery in bulk or drums – 24 hours' notice is required. Major oil companies (i.e. Shell, Amoco Oil, Texaco, Gulf, Chevron, Western Fuels, etc.) represented in Tampa. Delivery ex-pipe-line, barge or truck.

FIRE PRECAUTIONS: No specific precautions other than usual.

GANGWAY/DECK WATCHMEN: Watchmen not necessary, but available when required.

OPENING/CLOSING HATCHES: Longshoremen open and close hatches.

CERTIFICATES:

Documentation Papers.
Load Line Certificate.
Certificate of Safety at Sea (when carrying passengers).
Certificate of Safety Equipment.

CUSTOMS ALLOWANCES: Tobacco, 2 packs of cigarettes per day per man; wine and/or Spirit, no set amount. Each boarding officer has different views (i.e. German and Scandinavian vessels allowed 2 bottles of beer per day per man). Allowances made within reasonable bounds at Master's discretion subject to boarding officer's approval.

CARGO GEAR: No local special safety requirements. Longshoremen and U.S. Department of Labor requirements are uniform over the U.S.

IDENTIFICATION CARDS: Passports required.

CONSULS: The following countries are represented in Tampa:

Colombia
Denmark
Finland
Germany F.R.
Honduras
Italy
Mexico
Norway
Panama
Sweden

REPAIRS: All types are possible.

DRY DOCKS: Graving dock: 900 ft. long × 150 ft. wide, 21 ft. from MLW to top of keel blocks; 525 ft. long on bottom × 80 ft. wide, and depth over keel blocks 16-18 ft. at MHW.

Dry dock: 200 ft. long × 65 ft. wide. There are 2 other dry docks besides those listed above.

Also see "Developments".

REPATRIATION: No foreign crew pools in Tampa (located in New Orleans, San Francisco and New York), but crew changes can be made when Master radios requirements to Agent who arranges with local Consul or through crew pool in nearest city named above for applicable country (if no Consul is available in Tampa). American crew pools for all unions in Tampa.

Repatriation available via Tampa International Airport and is handled by Consul or Master.

AIRPORT: Tampa International Airport served by regular airlines and located approximately 15 miles from main port area; 5 miles from Port Tampa and 16 miles from East Tampa.

TIME: Tampa normally on Eastern Standard Time (GMT minus 5 hours) with Daylight Saving Time in effect from first Sunday in April till last Sunday in October.

HOLIDAYS: New Year's Day, January 1st; Martin Luther King's Birthday, 3rd Monday in January; George Washington's Birthday, 3rd Monday in February; Good Friday; Memorial Day, Last Monday in May; Independence Day, July 4th; Labour Day, 1st Monday in September; Armistice Day, November 11th; Thanksgiving Day, 4th Thursday in November; Christmas Eve, December 24th; Christmas Day, December 25th; New Year's Eve, December 31st.

When any of above holidays fall on Sunday, they will be observed on Monday following. Work on these holidays is by special arrangement only.

POLICE/AMBULANCE/FIRE: Police Tel: 223-1112; Ambulance Tel: 681-4422; Fire Tel: 223-4211; Sheriff Tel: 224-9911.

TELEPHONES: Installation of telephone aboard can be arranged.

SERVICES: Compass adjustments available; radio direction finder; radar repairs; tank cleaning.

SHIP SUPPLY SERVICE: Captain Riley F. Bryan, Sea Taxi, P.O.Box 46618, Pass-A-Grille, Florida. Tel: (813) 381-3999.

Suncoast Helicopters, 4111 W. Columbus Drive, Tampa, Florida 33607. Tel: (813) 872-6625.

A. P. St. Philip, Inc., 1305 Shoreline Drive, Tampa, Florida 33605. Tel: (813) 248-1123.

SHORE LEAVE: Immigration Authorities grant Clearance after examination of passport or bona fide seaman's papers.

DELAYS: Delay can be expected in loading phosphate rock (1 or 2 days), and same delay applicable for berthing at elevators. Some delay possible in general cargo loading or unloading.

DEVELOPMENTS: Main harbour channel has been deepend to 43 ft. New general cargo berth is currently being constructed which will be structurally capable of accommodating container cranes. This new berth is part of an expansive general cargo complex, which includes Berth No. 202, a 70,000 sq. ft. warehouse, the Ro/Ro berth, and the recent addition of 52 reefer plugs and 6 acres of heavy paved area for containers. The Port has also recently constructed a dedicated liquid bulk terminal, primarily for the receipt of orange juice concentrate. The Port's huge dockside cold storage facility, Harborside Refrigerated Services, has undergone expansion that bring their total chill and freezer space to 176,000 sq. ft

In 1987, the Port constructed its second cruise terminal, a 17,000 sq. ft. facility designed to accommodate the port's growing cruise trade. Planning continues for the eventual development of a major downtown cruise terminal complex.

AUTHORITY: Tampa Port Authority, P.O.Box 2192, Tampa, Florida 33601. *Tel:* (813) 248-1924. *Telex:* 52441 – Port Auth Tpa. *FAX:* (813) 247-2352. *Contact:* Emmett C. Lee, Jr., Port Director.

TEXAS CITY, Texas: 29.22 N. 94.53 W. (See Plan)

DOCUMENTS, PILOTAGE, etc., refer to "Galveston".

RESTRICTIONS: Controlling depth in entrance channel 40 ft. Otherwise restricted by depth available at berth. Vessels enter day and night.

Industrial canal deepened from 34 ft. to 40 ft., in 1981.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Miami Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: Available if required.

BERTHING:

Dock No.	*User*	*Depth at MLW (ft.)*
1	Sterling Tanker Dock (private)	38
11,12	Arco Tanker Docks (private)	40
14	Barge Dock (T.C.T.)	20
15	Dry Cargo Ship Dock (T.C.T.)	36
16	Tanker Dock – Multi-user (T.C.T.)	40
17	Out of service, leased to Cortest	20
18,20A,20B	Tanker Docks (T.C.T.)	36
19A,19B	Combination Tanker/Container Dock (T.C.T.)	36
22	Barge Dock (T.C.T.)	16
30	Amoco Barge Dock (private)	12
31,32,38	Amoco Tanker Docks (private)	36
40,41	Tanker Dock (Import Crude Oil) (T.C.T.)	40
45	AIMCOR Dry Bulk (private)	40
50	Tanker Dock (Amoco Chem.)	40
66,67	Union Carbide Tanker Docks (private) Dock 66	36
	Dock 67	40

Report: *AMOCO:*

General: The Amoco Terminal at Texas City consists of Berths No. 31, 32, 38, 40 and 41 (Berths No. 40 and 41 also used by T.C.T. and Marathon). Distance from the sea buoy to these berths is 15 miles.

Mooring and Berth: Pilot services for the Texas City port are provided by the Galveston Pilot Association.

Products handled at Berths No. 31 and 32 include gasoline, distillate, anhydrous ammonia, crude and also ballast and slops. Anyhdrous ammonia is handled through 1 stainless steel arm, 6 in. flanged connection and maximum pumping pressure of 35 p.s.i. All other products are handled through 8 in. lines with flanged connections. Maximum pumping pressure on all products is 100 p.s.i.

Berths No. 40 and 41 handle the discharge of crude only. Both berths have 2 loading arms. All lines are 12 in. and are quick disconnect-type connections. Maximum pumping pressure is 150 p.s.i. There are no facilities for handling ballast or slops at these berths.

A minimum of 2 tugs are required for docking and undocking. However, the Master of the vessel and the Docking Master may determine actual tug requirements for their vessel based on vessel manoeuvrability and weather conditions.

The normal mooring arrangement at Berths No. 31 and 32 is starboard side to. Port side mooring is done after turning the vessel in the turning basin. 2 head lines, 2 forward breast lines, 2 spring lines, 2 stern lines, 2 aft breast lines and 2 aft spring lines are sufficient for mooring most vessels. Line handlers are supplied by Texas City Boatman Co. This terminal does not furnish a gangway to vessels.

ARCO:

General: The ARCO facility is located toward the North end and on the West side of the Texas City Turning Basin. Berths No. 11 and 12 are the 2 berths at this terminal. The area around these berths is dredged to 40 ft.

The ship dock is a concrete and steel finger pier permitting vessels to moor on either side. 2 vessels are the maximum that may be discharged at one time. There is no provision to load vessels at the facility and no facilites for dry cargo handling.

Mooring and Berth: Water depth is the factor that limits the size of fully loaded vessels that call at the facility. Lightered or partially loaded vessels of greater size can be accommodated. Distance from the bow of a vessel to the centre of its manifold cannot exceed 468 ft. and from the centre of its manifold to the stern of the vessel cannot exceed 500 ft. Vessels will be docked bow in unless prior arrangement has been made with facility operators to permit bow out mooring. Should the vessel be moored bow out, the bow/manifold restrictions become 500 ft. and the stern/manifold distance 468 ft.

The pilotage of vessels to Texas City is performed by the Galveston/Texas City Pilots. This terminal does not make arrangements for Pilots.

9 mooring structures are installed at each berth and several lines can be secured on each. A boat is required to reach some structures. The ship's Agent will be responsible for arranging mooring and unmooring line handlers. The handlers will be under the orders of the Ship's Officer regarding the handling of each individual line and location of the shore end. The facility has Regulations concerning the minimum number of lines and the type of lines used.

They are:

Vessels less than 525 ft. LOA:
2 head lines
2 forward breast lines
2 forward spring lines
2 aft spring lines
2 aft breast lines
2 stern lines

Mixed moorings not encouraged or allowed.

Vessels greater than 525 ft. LOA:
3 head lines
3 forward breast lines
3 forward spring lines
3 aft spring lines
3 aft breast lines
3 stern lines

Vessel's mooring lines must be kept taut and secure at all times. If the vessel moves more than 4 ft. away from the dock or 4 ft. in either direction along the dock, all cargo transfer operations must be stopped immediately, and the proper manifold valves must be closed. Operations must not resume until the condition has been corrected.

Facility will provide gangway. Vessel's crew must attach gangway to the vessel and furnish/install safety net under gangway. If it is necessary to use vessel's gangway, facility's crew will help position gangway onto dock platform.

Aluminium gangways with rotating platforms and feathering treads are provided. The shipboard end is designed to attach to the vessel's gunwhale or over the ship's rail.

Crude is the only cargo handled at this berth. All lines are 16 in. and have hydraulic connections. Maximum pumping pressure is at 175 p.s.i. There are no facilities for ballast or slops at this terminal.

Municipal Docks No. 16, 18 and 20:

General: Municipal Docks No. 16, 18 and 20 are located adjacent to the Texas City Harbour turning basin.

Dock No. 16 has a 140 ft. face, 283 ft. with dolphins; 40 ft. depth alongside, deck height of 14 ft. This dock is used for receipt of crude oil and shipment of petroleum products, chemicals and petrochemicals.

Dock No. 18 has an 88 ft. face, 320 ft. with dolphins; 34 ft. depth alongside, deck height of 14 ft. This dock is used for receipt of crude oil.

Dock No. 20 has a 98 ft. face, 284 ft. with dolphins; 32 ft. depth alongside, deck height of 14 ft. This dock is used for receipt of crude oil and shipment of petroleum products.

Mooring and Berth: Tug requirements are determined according to vessel size, Master's requirements and recommendations of the Docking Master doing the docking.

The normal berthing manoeuvre into Dock No. 16 consists of a turn of 140° to port from the Texas City Turning Basin. The berth is on the starboard hand of the basin about 1,500 ft. from the turning basin entrance. Vessels tie up either port or starboard side to manila or polypropylene lines are normally used, but wire is permissible. No gangway is provided at this berth.

Vessels destined to Berth No. 18, enter the turning basin from the Texas City Channel. Berth No. 18 is at a right angle to the turning basin approximately 2,000 ft. from the entrance to the turning basin. Vessels normally turn in the turning basin in order to back into the berth. Normal side to dock is the port side. Berth No. 18 is the first berth on the North side of the municipal dock basin. No gangway is available at this dock.

Vessels destined to Berth No. 20 enter the turning basin from the Texas City Channel. Berth No. 20 is also at a right angle to the turning basin approximately 2,500 ft. from the entrance to the turning basin. Vessels turn bow first into this dock area from the turning basin for a port side docking. Manila or polypropylene lines are used. This is the poorest of the 3 docks. Adequacy of mooring facilities is marginal, physical condition of the dock is poor, but acceptable. Dock equipment is fair, but acceptable. No gangway is provided at this berth.

Products handled by Berth No. 16 are all handled through 8 in. lines with flanged connections at pumping pressures between 20 p.s.i. and 125 p.s.i. Ballast and slops are handled through 8 in. lines with a maximum pumping pressure of 100 p.s.i.

At Berth No. 18 crude oil is discharged through 2×8 in. lines with flanged connections. Maximum pumping pressure is 125 p.s.i. Facilities for ballast and slops are available.

Products handled by Berth No. 20 are all handled through 8 in. lines with flanged connections at pumping pressures between 30 p.s.i. and 125 p.s.i. Ballast and slops are handled through 8 in. lines with a maximum pumping pressure of 100 p.s.i.

MEDICAL: All medical assistance available.

DENSITY: Brackish.

FRESH WATER: Available at all wharves except Union Carbide Terminal.

FUEL: Bunker "C" available to tankers loading/discharging. All grades available by barge from Houston.

GANGWAY/DECK WATCHMEN: Required only if crewmen detained by Immigration.

CUSTOMS ALLOWANCES: Each man 300 cigarettes or 100 cigars or 1 lb. tobacco. 1 qt. wine/spirits.

CONSULS: See "Houston".

TIME: Central Standard Time GMT minus 6 hours. Daylight saving time effective from April to October.

SHORE LEAVE: No restrictions unless detained by Immigration.

SHIPMASTER'S REPORT: February, 1979.

Restrictions: Vessels on maximum draft must be clear of Texas City Channel before dark. There is no sailing or berthing during darkness for maximum draft vessels.

For large vessels it is necessary to ballast during discharge otherwise shore connections become too high.

VHF: Channel 13 from sea and Channel 14 for berthing.

Tugs: Usually 4-6 tugs for vessels on maximum draft.

Tankers: Large tankers dock at Docks 40 & 41 usually starboard side to. On either dock it is not easy loading stores from the dock. 2×12 in. connections.

Consuls: British Consul at Houston.

Customs Allowance: All souvenirs to be collected (items intended as presents) and sealed.

Repatriation: As with all U.S. ports must make out Form I-408 – application to pay off or discharge alien crewman.

Airport: At Houston.

Telephone: Pay telephone at bottom of gangway.

General: Will require ship's gangway abaft of manifold if bottom of gangway is more than 115.5 ft. (35.20 m.) abaft after manifold with a freeboard of 23 ft. or more.

AUTHORITY: Texas City Terminal Railway Co., P.O.Box 591, Texas City, Texas 77592. *Tel:* (409) 945-4461. *Contact:* K. L. De Maet, President and General Manager. J. Gilder, Harbour Master.

TOLEDO, Ohio: 41.42 N. 83.28 W. (See Plan)

Refer to "St. Lawrence Seaway" for important general information.

PILOTAGE: By Seaway Pilots.

RESTRICTIONS: Navigation season from mid-March to end-December, approx. The port is connected to Lake Erie by an entrance channel, depth 27 ft. Vessel's size restricted by Seaway locks.

MAX. SIZE: 730 ft. length; 26 ft. draft. Height restriction of 104 ft. above water-line which applies to grain berths only.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Chicago Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Master must give at least 24 hours' notice to Commander 9th Coast Guard District, Cleveland, Ohio, of the vessel's ETA at Snell Lock. Also, at least 24 hours' notice of ETA at first U.S. discharge port is required. Toledo Port can be contacted through Lorain, Ohio or Port Colborne, Ontario.

TUGS: Available. Not compulsory, but sometimes necessary in bad weather.

BERTHING:

C & O Railway Dock: 2,000 ft. long, 26 ft. depth alongside.
Torco Dock: 1,200 ft. long, 26 ft. depth alongside.
Interlake Steel Corporation: 23 ft. depth alongside.
Mid States Terminals: 27 ft. depth alongside.
Cargill, Inc. Elevator: 27 ft. depth alongside.
Port Authority Facility: 4,100 ft. long, 27 ft. depth alongside.
Anderson Elevator: 27 ft. depth alongside.

CARGO HANDLING FACILITIES: 3 grain elevators at Toledo load vessels at 50,000 b.p.h. There are 3 coal-loading machines, each of which can dump 1×100-ton car per minute, also 1 machine which dumps 2 cars simultaneously, for a max. of 6,000 t.p.h.

Iron pellets are received at new Torco Dock from self-unloading lake vessels. Storage Capacity 800,000 tons.

Liquids handled include petroleum products, industrial molasses, trichlorethylene and perchlorethylene.

CRANES: Located at Port Authority Facility No. 1 – electric gantry cranes 72.5 and 110 tons. Four 25-ton gantry cranes.

BRIDGES:

Bridges crossing Maumee River:

Miles above Mouth	Draw Openings – Clear Width(1)			Clear Height above LWD (ft.)
	Right (ft.)	Centre (ft.)	Left (ft.)	
Toledo Terminal Railroad (Swing – Railroad)				
1.3	145	—	143	22.2(2)
Norfolk and Western Railway (Swing – Railroad)				
2.1	136	—	145	20.1(2)
Craig Memorial Bridge (Bascule(3) – Highway)				
3.6	—	200	—	48.0(4)
Cherry Street (Bascule(3) – Highway)				
4.6	—	200	—	31.3(5)
Anthony Wayne (Fixed(6) – Highway)				
5.2	—	747	—	104.0
Conrail Bridge (Swing – Railroad)				
6.0	115	—	115	17.3(2)
M.V. DiSalle (Fixed – Highway)				
7.0(7)	110	—	110	45.0

(1) Right and left sides proceeding upstream.
(2) Closed position.
(3) Double leaf.
(4) Clearance in centre in closed position, reducing to 39.5 ft. at sides of span.
(5) Clearance in centre in closed position, reducing to 17 ft. at sides of span.
(6) High-level.
(7) Upstream limit of deep-draft navigation.

STEVEDORES: Provided by Toledo World Terminal, Inc. and Consolidated Dock, Inc.

TANKERS:

Hocking Valley Pier: 22 ft. depth alongside.
Ashland Oil Company: 22 ft. depth alongside.
Standard Oil Company: 23 ft. depth alongside.

DENSITY: Fresh water.

MEDICAL: All facilities available.

FRESH WATER: Obtainable by pipe-line at all general cargo docks.

FUEL: All grades available at oil piers, and by harbour fuel barge.

REPAIRS: Major repair facilities available.

DRY DOCKS: No. 1: 510 ft.×72 ft. 6 in.; No. 2: 641 ft.×78 ft.

SURVEYORS: American Bureau of Shipping and Salvage Association.

Surveyors: Capt. Ray Fulshaw, Marine Surveyor & Consultant, 3445 Woodley Road, Toledo, Ohio 43606. Tel: 537-0053 (office), 531-8176 (residence). National Cargo Bureau, 7588 Seneca Trail, Temperance, MI 48182. Tel: (313) 847-1087.

Grain Inspection: Federal Grain Inspection Service, 234 Summit Street, Toledo, Ohio 43604. Tel: 259-6221.

BANKS:

The First National Bank of Toledo, P.O.Box 1868, Toledo, Ohio 43603. Tel: 259-6894.

Ohio Citizens Bank, P.O.Box 1688, Toledo, Ohio 43603. Tel: 259-6566.

The Toledo Trust Company, 245 Summit Street, Toledo, Ohio 43603. Tel: 259-8150.

Huntington National Bank, 300 Madison Avenue, Toledo 43603. Tel: (419) 259-1096.

STORING: See "Prelims".
1. Yes.
2. Yes.
3. Yes.
4. Yes.
5. No special restrictions.
6. Yes.

DEVELOPMENTS: Major construction projects by the three riverfront grain operators has increased grain handling capacity from 10.2 million bushels to over 22 million bushels. A new 6 million gallon facility for storage of liquid fertiliser is planned and an additional ship loading dock is under construction.

AUTHORITY: Toledo – Lucas County Port Authority, One Maritime Plaza, Toledo, Ohio 43604-1866. *Tel:* (419) 243-8251. *FAX:* (419) 243-1835. *Cables:* Portol. *Contact:* G. L. Failor, Seaport Director. Norman A. Fox, Trade Development Director.

UNALASKA (Dutch Harbor), Alaska:
53.54 N. 166.30 W. **(See Plan)**

DOCUMENTS:

Customs:
- Masters Oath (1300).
- General Declaration (1301).
- Cargo Declaration (1302).
- Ship's Stores Declaration (1301).
- Crew Effects Declaration (1303).
- Clearance from Last Port.

Immigration:
- Immigration Documentation (I-418).
- Crew/Passenger List.
- Landing Permit (I-95).
- Visa Crew List for Shore Leave (Supplied by Immigration).
- Passport and (or) Seamens' Book.

PILOTAGE: Compulsory. To avoid a delay in obtaining a Pilot, the Owner, Master or Agent of a ship bound for Unalaska/Dutch Harbor must make prior arrangements at least 12 hours before entering port. The following information must be included:
1. Name/Call Sign of vessel.
2. Nationality.
3. Length, draft and g.r.t.

Pilot Boarding Station:
Lat. 53° 55′ 00″ N., Long. 166° 29′ 00″ W. 1 mile (1.61 km.) East of Ulakta Head. Pilots, tugboats, Harbour Master and shipping Agents standby on VHF Channel 16 (156.8 MHz).

Berthing:
(a) Pilot – Compulsory. Shifting of and EDT requires 1 hour advance notification.
(b) Berths arranged by Agent in advance.
(c) 1 small tug available annually. Circumstances may arise when other tugs are available for ship assistance.
(d) Lineman – Arranged through ship's Agent.
(e) Boatmen – Arranged through ship's Agent.

ANCHORAGE:
Outer Anchorage: Lat. 53° 54′ 00″ N. to Lat. 53° 55′ 00″ N. at Long. 166° 27′ 00″ W., Rocky, Depth 12 fathoms.
Inner Anchorages: Domestic and other vessels which have cleared customs.
1. Dutch Harbor: Lat. 53° 54′ 00″ N., Long. 166° 31′ 20″ W., mud, depth 18 fathoms.
2. Iliuliuk Bay: Lat. 53° 52′ 40″ N., Long. 166° 31′ 10″ W., mud, depth 14 fathoms.
3. Captians Bay: Lat. 53° 52′ 00″ N., Long. 166° 33′ 33″ W., mud, depth 15 fathoms.
4. Nateekin Bay: Lat. 53° 53′ 00″ N., Long. 166° 37′ 00″ W., mud, depth 17 fathoms.
5. Broad Bay:
   (a) Lat. 53° 55′ 05″ N., Long. 166° 36′ 30″ W.
   (b) Lat. 53° 56′ 05″ N., Long. 166° 36′ 30″ W.

Must check with the U.S. Coast Guard and the Alaska Department of Fish and Game prior to anchoring or placing an oil rig at these locations. More locations may be forthcoming.
Note: When anchoring in Dutch Harbor, no vessel may anchor in the glide path to the airport.

MAX. SIZE: No restrictions except draft at various facilities and through the East Channel 24 ft., Rocky Bottom at MLLW.

RADIO:
(a) Department of Public Safety, Harbour Master, Pilots, Tugs, Shipping Agents and National Marine Fisheries Observer Transfer Station standby on Marine VHF Channel 16. 4125 A kHz.
(b) Alaska Department of Fish and Game and the Alaska Department of Fish and Wildlife, (State Troopers) standby on Marine VHF Channels 6 and 16. 4125 A kHz.
(c) Marine Operator calls vessels on Marine VHF Channel 16 and receives all radio traffic on VHF Channel 28.
(d) All other traffic stands by on Marine VHF Channel 6.

TUGS: Unimac Pacific Towing – 55 ft., 800 h.p. vessel.
Boatmen:
Victory Services – VHF Channel 78.
Ballyhoo Services – VHF Channel 16.

CRANES: 100,000 lb container lift at American President Lines. Mobile cranes at the other facilities up to 150 tons at request through Shipping Agent.

BERTHING:

Berth No.	*Wharf Length* (ft.)	*Depth at MLLW* (ft.)	*Remarks*
1	420	30	City Dock and Petro Marine tankfarm – Warehouse available.
2	300	40	APL – 208, 3 ph., 60 cycle power. 100,000 lb. gantry crane.
3	360	50	Delta Western Fuel Pier.
4	160	30	Trident Seafoods Inc.
5	234	36	Petro Marine.
6	250	26	Petro Marine.
7	1000	26	Delta Western.
8	35	22	MarCenCo.
9	35	22	Icicle Seafoods Inc.
10	995	35	City Boat Harbor, Fishing Vessels.
11	505	24	Alyeska Fisheries North Dock.
12	300	36	Alyeska Fisheries West Dock.
13	460	30	East Point Seafoods.
14	250	30	Aleutian Processors barge.
15	250	36	Greatland Seafoods.
16	250	30	Universal Seafoods.
17	250	30	Universal Seafoods (barge Vita).
18	90	30	Universal Seafoods (Galaxy Dock).
19	40	30	Universal Seafoods (Viceroy Dock).
20	800	18 (var.)	City Small Boat Harbor, Fishing/ Pleasure.
21	78	20	Walashek Industries (Repair, 300 ton haulout).
22	160	31	Underwater Construction.
23	300	35	Crowley Maritime.
24	420	20	Off Shore Systems Inc.

FRESH WATER: Fresh water is available at most berths. Order through Agent or Dock Operator.

FUEL: Available at Delta Western Fuel Pier No. 3; Petro Marine Piers No. 1 and 6 and Crowley Maritime No. 23.

GANGWAY/DECK WATCHMEN: Usually ship's crew. Ship's gangway used.

OPENING/CLOSING HATCHES: Stevedores or ship's crew whichever to ship's advantage.

REPAIRS/SERVICES: Most deck, hull, engine, radar, RT, gyro, hydraulic, refrigeration and almost all types of marine electronic and electric repairs. Divers available for underwater surveys and repairs.

DRY DOCKS: Walashek Industries 300 ton haulout facility.

SURVEYORS:
1. Kodiak Marine Surveyors, P.O.Box 356, Kodiak, Alaska 99615. Tel: (907) 486-5616.
2. Rocky Point Enterprises, Inc., P.O.Box 1047, Homer, Alaska 99603. Tel: (907) 235-8967.
3. Alaska Marine Surveyors, SRA-2 Box 9312, Eagle River, Alaska 99577. Tel: (907) 694-3055.
4. Capt. Wolslenholm, P.O.Box 3313, Anchorage, Alaska 99510. Tel: (907) 277-5109.

REPATRIATION: Crew changes and repatriation can be carried out with little difficulty.

AIRPORT: Distance 4.5 miles from any facilities. Daily flights to Anchorage with domestic and international connections. Peninsular Airways, Mark Air and Aleutian Aire Ltd. Air charter service state wide.

TIME: GMT minus 9 hours in Winter, and GMT minus 8 hours in Summer. First Sunday in April clocks advanced 1 hour. Last Sunday in October clocks retarded 1 hour.

POLICE/FIRE/AMBULANCE: Tel: (907) 581-1233; Emergency Tel: 911; VHF Channel 16, 24 hours a day.

EMERGENCY CO-ORDINATION CENTER: U.S. Coast Guard. Dial 0 – Ask operator for Zenith 5555 or 2182 kHz.

GENERAL: Fishing vessel's wide lights and search lights must be turned out prior to vessel entering port.

HOLIDAYS: New Year's Day, Lincoln's Birthday, Washington's Birthday (3rd Monday in February), Seward's Day (last Monday in March), Memorial Day (last Monday in May), Independence Day, Labor Day, Alaska Day (18th day in October), Veteran's Day (November 11th), Thanksgiving Day and Christmas Day and every Sunday and every day designated by public proclamation by the President of the United States or the Governor of the state as a legal holiday.

AUTHORITY: City of Unalaska, P.O.Box 89, Unalaska, Alaska 99685. *Tel:* (907) 581-1251. *FAX:* (907) 581-1417. *Contact:* Gary K. Daily, Port Director.

VALDEZ, Alaska: 61.07 N. 146.21 W. (See Plan)

Also see "Valdez Marine Terminal".

D=

Located at head of Valdez Arm in Prince William Sound.
APPROACHES: Via Prince William Sound to the Valdez Pilot Station.
DOCUMENTS: See "Anchorage, Alaska".
PILOTAGE: Pilots board approx. 2 miles North of Busby Light.
MAX. SIZE: Harbour depth over 300 ft. Tides: diurnal range 12 ft. Also see "Berthing" and also see "Valdez Marine Terminal".
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
ANCHORAGE: Excellent, close by dock. Bay is too deep.
CUSTOMS: Quarantine, local. Immigration and Customs from Anchorage.
TUGS: Limited availability.
BERTHING: Valdez City Dock: 36 ft. MLLW. 600 ft. long by 40 ft. wide. 2 warehouses, 1 heated, 1 unheated. Stevedore provides equipment which includes fork-lifts and 2×100 ton mobile cranes and 1×150 ton mobile crane. Dock operated by North Star Stevedoring Co.
Floating Quay: Length 700 ft., width 100 ft. Mobile cranes available. Facilities for Lo/Lo and Ro/Ro.
STEVEDORES: 3 gangs.
TANKERS: *Valdez Dock Co., Petroleum Dock:* Length 200 ft., width 40 ft., depth 36 ft. at MLLW.
Also see "Valdez Marine Terminal".
REPAIRS: Minor repairs only.
FRESH WATER: Available in temperate seasons.
FUEL: Not available.
MEDICAL: 150-bed mental patient hospital; 15 beds for local use; 1 doctor, 1 dentist regularly from Anchorage.
TRANSPORTATION: Air; highway to Fairbanks and Anchorage.
AUTHORITY: City of Valdez, P.O.Box 307, Valdez, Alaska 99686.
Port of Valdez, 200 S.W. Market Street, Suite 985, Portland, Oregon 97201-5713. *Tel:* (503) 227-4567. *Telex:* 360718 Portvaldez Ptl. *FAX:* (503) 226-1023. *Contact:* Vernon W. Chase, Marketing Manager, Port of Valdez, Alaska.

VALDEZ MARINE TERMINAL, Alaska: 61.05 N. 146.24 W. (See Plan)

OPERATORS: Alyeska Pipeline Service Company.
The terminal does not provide any tug, launch or pilotage assistance for the berthing or unberthing of tankers calling at the terminal. These services, as well as any other tanker services, must be arranged separately by tanker owners.
LOCATION: The Trans-Alaska Pipeline Valdez Marine Terminal is situated on the Southern shore of Port Valdez.

Port Valdez is a natural deep-water fjord located at the N.E. part of Prince William Sound which provides access from the Gulf of Alaska. Port Valdez is about 12 miles long and 2.5 miles wide, is surrounded by steeply rising mountains, and remains ice free throughout the year. The approach to Port Valdez is by way of Valdez Arm, a deep-water channel with a minimum width of approximately 3,000 ft.

The overland approach to the site, which is close to the mouth of the Lowe river, is by road about 6 miles long connecting the terminal with the Richardson Highway. The town of Valdez is 14 miles from the terminal by this route. The distance by boat across to Port Valdez is approx. 2.5 miles.

The terminal operates 24 hours per day, 7 days per week, throughout the year.

The administrative offices will normally be open between 0800 and 1630 hrs., Monday through Friday. The office telephone number is (907) 835-2261.

DOCUMENTS:
Certificate of Financial Responsibility.
SOLAS Safety Equipment.
SOLAS Safety Construction, or for U.S. documented vessels: U.S. Coastguard Certificate of Inspection.
SOLAS Radiotelegraphy Certificate.
Crew Lists.
Derat Certificate.
Clearance from Last Port.

PILOTAGE: The Pilot boards off Rocky Point. Arrangements to be made by vessel's Agent.
ARRIVAL ADVICE: Masters of vessels bound for the terminal must advise the terminal as follows:
Last Port ETA: Tankers en route to the terminal, upon departure from their last port of call prior to Valdez, will send a telegram or telex to Alyeska Pipeline Service Company, Valdez, Alaska, Telex No. 090-26-564 (Answerback: Alyeska Valz) advising the estimated Alaskan local time and date of arrival.
72-hour ETA: Not less than 72 hours, unless transit time is less than 72 hours, prior to arrival at Cape Hinchinbrook, tankers will send a telex or telegram to Alyeska Pipeline Service Company providing the terminal with the following information:

a. ETA at Cape Hinchinbrook.
b. Quantity of ballast to be pumped ashore and grade of last cargo.
c. Quantity of oil to be loaded.
d. Distance from the bow to cargo manifolds.
e. Size, number and type of cargo connections.

} At first call to Terminal. Not necessary on subsequent voyages.

f. Amount of provisions and stores to be loaded.

Final ETA: Tankers will send a final ETA, 24 hours in advance of their arrival. This 24 hour ETA shall be as accurate as possible and tankers will notify the terminal whenever the arrival time changes by more than 3 hours.
Notice of Arrival: After entering the Coast Guard's Prince William Sound Vessel Traffic Service, vessels ready to commence loading or deballasting should give immediate notice to the terminal. This notice is extremely important as it can affect berthing priority.
Coastguard Notification: Terminal will advise USCG at Valdez of all ETAs received.
AMVER Participation: The notice of arrival requirement to be given to the U.S. Coast Guard Captain of the Port in Valdez, Alaska, can be met if vessels participate in the Automated Mutual-assistance Vessel Rescue System (AMVER). Participation in AMVER will also make the Coast Guard's Prince William Sound Vessel Traffic Service aware of the tankers that will be entering the service.
Initial Radio Contact: Ship-to-shore radio telephone calls can be made to the terminal, (907)-835-2261, 24 hours a day by normal commercial Channels.

RADIO: All times are GMT – following information produced as a "guide" and subject to change.
Weather Broadcasts:
Weather Service Offices:
Announcement: 2182 kHz.
Broadcast: 2382 kHz AM/SSB
Alternate: 2512 kHz AM/SSB

Station		*Times (GMT)*
Annette	(KGD 58)	0400, 0600, 0800, 1500, 2100.
Juneau	(KC 197)	0325, 0525, 0925, 1225, 1525, 2125.
Yakutat	(KGD 91)	0200, 0300, 0500, 1400, 1700, 1800, 2000.

Coast Guard Stations
Announcement: 2182 kHz
Broadcast: 2670 Kodiak also on 6521.8 kHz (SSB) upper side band

Station		*Times (GMT)*
Biorka	(NMJ 18)	0100, 0800, 1300, 2000.
Ketchikan	(NMJ)	0115, 0815, 1315, 2015.
Ocean Cape	(NMJ 19)	0145, 0845, 1345, 2045.
Kodiak	(NOJ)	0200, 0445, 0900, 1415, 1645, 2100.

Radiotelegraph (CW) Broadcasts of marine weather forecasts Coast Guard Stations.

		Frequency	*Times (GMT)*
Ketchikan	(NMJ)	416	0530 hrs., 1730 hrs.
Kodiak	(NOJ)	470	0630 hrs., 1930 hrs.

Broadcast Notice to Mariners: Broadcast Notice to Mariners are disseminated on the following schedules:
Safety Broadcast:
(1) RADSTA Ketchikan (NMJ). (a) Code (CW) — Last 15 seconds of 1st Silent Period after receipt, next on operator schedule and repeat text only on next scheduled broadcast unless message cancelled. Additional broadcasts as directed, preliminary call on 500 kHz, broadcast on 416 kHz.
(2) COMMSTA Kodiak (NOJ). Voice (AM) — Upon receipt, repeat text only on next scheduled broadcast. Additional broadcasts made as directed with preliminary call on 2182 kHz, broadcast on 2670 kHz.
(3) RADSTA Adak (NOX). Code (CW) — Last 15 seconds of 1st Silent Period after receipt, next on operator schedule and repeat text only on next schedule broadcast unless message cancelled. Additional broadcasts as directed, preliminary call on 500 kHz, broadcast on 450 kHz.
(4) RCA — Alascom Ketchikan (WGG 58). Voice (AM) — On 2400 kHz upon receipt and as directed in broadcast instructions.
(5) RCA — Alascom Ketchikan (WGG 56). Voice (AM) — On 2400 kHz upon receipt and as directed in broadcast instructions.
Note: Watch hours (GMT) for single operator ships:

West Coast	*Central Pacific*
0001 – 0200 hrs.	0001 – 0200 hrs.
0400 – 0600 hrs.	0400 – 0600 hrs.
1600 – 1800 hrs.	0800 – 1000 hrs.
2000 – 2200 hrs.	2000 – 2200 hrs.

Scheduled Broadcasts: (Routine Precedence)
(1) RADSTA Ketchikan (NMJ)
(a) Code (CW) – 416 kHz – 0530Z and 1730Z
(b) Voice (AM) – 2670 kHz – 0630Z and 1800Z
(2) COMMSTA Kodiak (NOJ).
(a) Code (CW) – 2670 kHz – 0630Z and 1930Z
(b) Voice (AM) – 2670 kHz – 0445Z and 1645Z
(3) RADSTA Adak (NOX). Code (CW) – 450 kHz – 0430Z and 2130Z
(4) RCA – Alascom Juneau (WGG 58). Voice (AM) – 2400 kHz – 0830 hrs., 1300 hrs. and 1830 hrs. (local time).
(5) RCA – Alascom Ketchikan (WGG 56). Voice (AM) – 2400 kHz – 0830 hrs., 1300 hrs. and 1830 hrs. (local time).

TUGS: 2×7,000 h.p. and 1×9,000 h.p. twin-screw tugs and 2×300 h.p. single-screw mooring launches are on standby at the terminal to provide oil spill containment, cleanup and contingency services and fire fighting services as required by the terminal. The tugs are equipped with telescoping fire monitors and will be capable of providing 3,500 g.p.m. of foam or fire water at 150 p.s.i.g. at an elevation 70 ft. above the tug's waterline. The tugs are equipped with VHF-FM radio-telephone communication equipment. Should tankers desire to contact the tugs, the tugs may be reached by calling on Channel 16 (156.80 mHz).

The tugs and mooring launches are available to provide berthing and unberthing services to tankers calling at the terminal.
VHF: The Alyeska Pipeline Service Company operates a VHF – FM base station in Valdez, Alaska under the call sign "WAB – 952". This base station is maintained for the purpose of transacting company business with either inbound or outbound vessels and is open 24 hours a day. (Transmit/receive range of this station is limited to Port Valdez.) The official language for all communications shall be English.

Channel	Frequency	Use	At
10	156.500 MHz	Intership and Ship to Coast Guard	A – B – C
16	156.800 MHz	Distress – Safety and Calling	A – B – C

A – Contingency Management Centre
B – Oil Contingency Warehouse
C – Operational Control Centre

The VHF – FM marine radio system utilised by the terminal is compatible with the Prince William Sound Vessel Traffic Service which is operated by the U.S. Coast Guard in Valdez, Alaska. The USCG Vessel Traffic Service will have VHF – FM radio-telephone coverage extending beyond Cape Hinchinbrook and including Prince William Sound, Valdez Arm, and Port Valdez. The tugs available at the terminal will also be equipped with VHF – FM transceivers.

TANKER REQUIREMENTS: *General:* Certain requirements of governmental agencies are in effect at the terminal in order to minimise the chances for a pollution incident. These requirements apply to all tankers calling at the terminal.

Operations at the terminal are primarily aimed toward the safe loading of tankers and the prevention of collisions and groundings of vessels that call at the terminal. These aims will be met by insisting upon and utilizing conventionally constructed tank vessels manned by skilled crews, use of positive vessel traffic control within Prince William Sound and Port Valdez, and use of all traffic advisory and communications services in West Coast ports. The purpose of the following requirements for tankers calling at the terminal is to materially enhance tanker loading and discharge operations and to increase the safety of navigation so that the danger of pollution from oil spills is substantially reduced.

Safe Navigation: Tankers will observe the rules and directions issued by the U.S. Coast Guard as operator of the Prince William Sound Vessel Traffic Service. These rules and directions will pertain to communications check points, ETAs, traffic lane separation, anchorages, one-way traffic, speed, etc.

In addition to the normal instruments used in celestial navigation and piloting (sextant, pelorus, etc.), the following electronic devices must be aboard and in good working order:

a. Fathometer/Depth Sounder.
b. Loran C Receiver.
c. Two Independent Radar Systems. (10 cm. and 3 cm.).
d. Radio Direction Finder.

All vessels must have a qualified Pilot aboard for the transit of Prince William Sound and Port Valdez.

Communications: Tankers calling at the terminal will be required to have the following communications equipment aboard and in good operating condition:

a. VHF – FM radio-telephone with sufficient Channels and speakers to comply with the Prince William Sound Vessel Traffic Service operating rules and the Bridge-to-Bridge Radiotelephone Act.
b. Radiotelegraph.
c. Portable UHF transceiver will be supplied by the terminal.
d. Single sideband radio.

The portable UHF transceiver shall have at least five Channels which are tuned to the berth frequencies listed.

Additional Equipment: Tankers calling at the terminal will be required to have the following additional equipment:

a. Tankers must carry standard 6 in. hose sufficient to make at least 50 ft. in length for emergency lightering purposes.

b. Accommodation ladders and Jacob's ladders must be of sufficient integrity and free from ice and snow to permit safe embarking and disembarking by the Pilot.

c. Mooring lines must be of sufficient size, strength, and quantity to permit safe mooring of the vessel.

d. Manifold reducers, connectors, and extensions must be made of steel. Cast iron reducers will not be permitted.

e. Tankers which call at the terminal will be required to retain all solid waste refuse aboard the vessel, or use a suitable sewage treatment plant before discharge.

f. All ullage caps will remain closed during loading except during gauging or sampling.

g. Prince William Sound emergency towing cable package.

(Continued on next page).

BERTHING FACILITIES: The major ship loading facilities include four independent loading berths, numbered 1, 3, 4 and 5. Berth No. 1 is a floating berth whereas Berth Nos. 3, 4 and 5 are fixed structures.

	Berth No. 1 See Note 1	*Berth No. 3* See Notes 1 and 2	*Berth No. 4* See Notes 1 and 2	*Berth No. 5* See Notes 1 and 2
Vessel Size (Design) d.w.t.	16,000 – 120,000	16,000 – 250,000	16,000 – 265,000	16,000 – 265,000
Type of Berth	Floating dock	Fixed loading platform	Fixed loading platform	Fixed loading platform
Deck Level of Berth above MLLW	32 ft. 8 in.	36 ft. 7 in.	36 ft. 7 in.	36 ft. 7 in.
Depth Alongside at MLLW (ft.)	125	85	85	80
Loading Arms (Number × Size)	4 × 12 in.	4 × 16 in.	4 × 16 in.	4 × 16 in.
Max. Rate Per Loading Arm (bbls.p.h.)	20,000	27,500	27,500	27,500
Max. Design Flow Rate (per berth) (bbls.p.h.)	80,000	110,000	110,000	110,000
Loading Arm Spacing on Operating Dock (ft.)	11	11	11	11
Maximum Ship Manifold Pressure	Pressure alarm points will be set, based upon information given by ship's officers.	See Berth No. 1	See Berth No. 1	See Berth No. 1
Emergency Shutdown	Can be initiated by berth operator or by OCC shutdown complete within 6.5 seconds after initiation.	See Berth No. 1	See Berth No. 1	See Berth No. 1
Access to Ship	42 ft. aluminium gangway	49 ft. 6 in. aluminium gangway	Telescopic Gantry	Telescopic Gantry
No. of Mooring Dolphins	4	4	6	6
No. of Berthing Dolphins	0	4	4	4
Mooring Hooks (One line per hook)	One triple hook per mooring dolphin Four double hooks on the operating dock	One triple hook per mooring dolphin One double hook per berthing dolphin	One triple hook per mooring dolphin One double hook per berthing dolphin	One triple hook per mooring dolphin One double hook per berthing dolphin
Potable Water	None	None	None	None
Bunker Facilities	None	None	None	None
Public Telephone	Available ashore in vicinity of berth	See Berth No. 1	See Berth No. 1	See Berth No. 1
Minimum Ship Manifold Spacing *1*	—	—	—	—
2	—	6 ft. 9 in.	6 ft. 9 in.	6 ft. 9 in.
3	—	6 ft. 9 in.	6 ft. 9 in.	6 ft. 9 in.
4	—	6 ft. 9 in.	6 ft. 9 in.	6 ft. 9 in.
Quick Disconnect Coupling (QDC) Size (in.)	12	16	16	16
Manifold Size Range Acceptable to QDC (in.)	10 to 16	12 to 16	12 to 16	12 to 16

Note: (1) Although all berths are designed to handle vessels in the 16,000 d.w.t. size, loading arm size requires ship's manifolds to be a minimum of 10 in. in diameter. Normally, vessels less than 45,000 d.w.t. will be handled at Berth No. 1.

(2) Because of mooring dolphin limitations, vessels of more than 180,000 d.w.t. would be acceptable only if their deck machinery and mooring leads allowed an efficient bow and stern mooring line pattern. In addition to this requirement, distance from bow to manifold and prevailing weather conditions would have to be considered before berthing of such vessels would be authorised.

TANKER REQUIREMENTS: *(Continued):*
Operational Requirements: The following procedural and operational requirements are listed in order to make tanker Owners and Masters aware of some additional safety and anti-pollution measures in effect at the terminal. These requirements will be restated in the sections pertaining to the pre-loading inspection and cargo loading.

a. No repairs to radars shall be made while a vessel is moored to the loading berth unless authorised by the Terminal Marine Supervisor.

b. The tanker's main CW wireless set must be de-energized and switched off while alongside the loading berth.

c. Tank tops shall remain closed during loading operations. Petroleum vapours shall be vented through mast risers or stand pipes at an appropriate height above the main deck.

d. Ship's crew will assist with connecting and disconnecting loading arms to and from the vessel's cargo transfer manifold. Assurance that the arms are secured properly without damage shall be observed during pre-loading inspection. However, as a convenience the shore crew will aid the ship's crew in connecting loading arms to the ship's manifold as the shore crew will be more familiar with the shoreside facility connection.

e. All sea valves connected to the cargo piping system shall be sealed in the closed position prior to loading oil.

f. Prior to commencement of loading operations, a joint inspection of the vessel and a pre-transfer conference will be held by the Terminal Marine Supervisor and the tanker officer in charge.

g. No repairs that would result in immobilization of the vessel shall be carried out while alongside of the loading berths unless the Terminal Marine Supervisor specifically authorises such work.

BERTHING: *Berth Priority:* Berth priority and berthing order will be determined by the Terminal Marine Superintendent who will use the general guideline of assigning tankers and berths in the order by which tankers enter the Prince William Sound Vessel Traffic Service and are in all respects ready to discharge ballast or load.

Procedures: Tugs will be dispatched by the Marine Shift Supervisor to meet inbound tankers and to assist in berthing at the nominated berth. The Master shall remain solely reponsible, on behalf of his owners, for the safety and the proper navigation of his vessel. Manoeuvring power must be available on the main engines during berthing operations. The positioning of the tanker's loading manifold in relation to the metal loading arms has to be carried out to a proper alignment, as required by the berth operator.

Maximum Allowable Berthing Velocities: The following table gives the designed maximum allowable berthing velocities for Berths No. 1, 3, 4, and 5. The velocities are given in inches per second for the various size tankers in the 40% ballast condition:

	Berth No. 1	Berths No. 3, 4 and 5
85,000 d.w.t.	9 in./sec.	12 in./sec.
120,000 d.w.t.	8 in./sec.	11 in./sec.
265,000 d.w.t.	—	7 in./sec.

Note:
(a) 1 knot=20.2 in./sec.
(b) Velocities are given for a line normal (perpendicular) to the axis of the dock or the berthing dolphins.

Mooring Hooks and Mooring Capstans: Each berthing dolphin and each mooring dolphin will be equipped with a mooring capstan and either 2 or 3 quick-release mooring hooks. Berthing dolphins will have double quick-release hooks, and the mooring dolphins will have triple hooks.

The recommended mooring line arrangement diagrams included in the "Plans" show the location of these double and triple hooks. Since Berth No. 1 has no berthing dolphins, the 4 double quick-release hooks are located on the loading dock.

These mooring hooks are designed to service 1 mooring line per hook. Thus, no more than 3 lines should be led to any mooring dolphin nor should more than 2 lines be led to any berthing dolphin. These mooring hooks may be released locally.

Each mooring capstan will be mounted on, and form an integral part of, the associated double or triple quick-release mooring hook. This will provide a mooring capstan to assist in securing mooring lines at every berthing dolphin, mooring dolphin, and on the floating berth loading dock.

These mooring capstans are designed to give a minimum running pull of 2,000 kg. (4400 lb.) at a rate of 30 m. (98.4 ft.) per minute. The capstan will be positioned at a height sufficient to prevent mooring lines and messengers from becoming snarled on the quick-release hooks.

Mooring launches will be used to assist the tanker in running mooring lines to the mooring dolphins at each berth.

The terminal will provide suitable messengers for heaving in mooring lines from the launches.

Mooring Lines: Mooring arrangements shall be satisfactory to the Marine Superintendent. All critical moorings shall be of similar size and elasticity. Ropes of different material from those used to moor the ship may be used for positioning the vessel but shall not count as part of the final moorings. It is required that in ships of 90,000 d.w.t. and greater all final moorings shall be wire rope. Nylon tails may be used if fitted to all moorings. Ships should be outfitted with sufficient moorings of similar material for normal moorings. Ropes of different material may be used in emergency.

Moorings While Alongside Berth: Tankers must at all times remain adequately secured alongside the berth. Moorings must be kept at an even tension, avoiding a slack line or varying tensioning situation. Should such a situation arise and not be immediately rectified by the ship's crew after communication with the deck officer, the berth operator will suspend any transfer operation. All vessels fitted with tension winches should apply brakes once the tanker is moored and shall not leave winches in the self-tensioning position.

Emergency Towing Wires: While at a loading berth, tankers will provide emergency towing wires positioned at both the offshore bow and stern. The wires shall be in good condition, have an eye in each end, and be of adequate strength to move the vessel off the dock. The outboard eye shall be maintained at water level, and slack aboard ship shall be secured with small pieces of fibre line.

Mooring Line Arrangement Diagrams: (See "Plans"). The recommended mooring line arrangement diagrams are provided in the "Plans" as guidelines to acquaint the tanker Master with the general mooring line arrangement for the loading berths at the terminal. These arrangements are indicative of the minimum suggested number of lines and do not preclude the Master from using additional lines.

PRE-LOADING INSPECTION: *Pre-transfer conference and joint safety inspection:* Prior to the discharging of ballast from cargo tanks or loading of oil, a pre-transfer conference and a joint safety inspection will be conducted by the Terminal Marine Supervisor and a responsible deck officer aboard the tanker who will be in charge of bulk liquid transfers aboard the tanker.

The purpose of the pre-transfer conference and the joint safety inspection is to insure that both the terminal and the tanker are suitable and ready for safe loading and handling of oil.

The Check List is designed to meet the following requirements:

a. Section 4.4 of the International Oil Tanker and Terminal Safety Guide which relates to the agreed procedures and safety checks prior to the commencement of cargo loading.

b. Title 46, U.S. Code of Federal Regulations, Section 35.35-30 relating to a Declaration of Inspection for Tank Vessels.

c. Title 33, U.S. Code of Federal Regulations, Section 156.150, relating to a Declaration of Inspection prior to the transfer of bulk liquid cargo from a shore facility to a large vessel.

The Check List is to be taken aboard the tanker by the Terminal Marine Supervisor and shall be used during the pre-transfer conference and the joint safety inspection of the tank vessel to insure compliance with applicable regulations and safety standards. Columns are provided on the Check List for the Terminal Marine Supervisor and the tanker person-in-charge to initial, indicating that the requirements have been met. The original of the checklist shall remain aboard the tanker, and a copy shall be returned to the Terminal Marine Supervisor for subsequent delivery to the berth operator.

Terminal personnel are authorised to suspend oil transfer operations if any of the safety rules listed or on the checklist are not observed, or if any other danger is believed to exist.

The Master of the tanker or his representative has the right to shut down loading operations in the event he feels shore operations are unsafe.

During the pre-transfer conference, the Terminal Marine Supervisor shall provide the responsible ship's officer with a printed sheet detailing description and location of the fire-fighting system and the other emergency systems at the terminal in general and at the berth to which the tanker is moored in particular. The Terminal Marine Supervisor shall also advise the vessel if any unusual or dangerous weather conditions are forecast or expected.

As the shifts on the berth change, the relieving Terminal Marine Supervisor and berth operator shall assure themselves that all conditions pertinent to their responsibilities are as previously agreed to, and shall sign the copy of the Declaration of Inspection. The relieving officer aboard the tanker shall assure himself that the original conditions still exist and shall sign the original of the Declaration of Inspection aboard the tanker. These relieving personnel will then become the person-in-charge of the transfer operation for the terminal and the tanker respectively.

BALLAST: *Ballast Quantities:* The terminal is to be informed of the approximate quantities of segregated clean and dirty ballast in the Master's pre-arrival message. This message should also state where the ballast was shipped and the grade of last cargo.

Ballast Reception Facilities: The terminal facilities will include three 430,000-barrel ballast reception tanks. Discharge of dirty ballast will be by way of the four 12 in. loading arms (Chicksans) on Berth No. 1 and the four 16 in. loading arms on Berths No. 3, 4 and 5. These loading arms connect to 20 in. lines at the berths and lead into a 42 in. line connecting each berth to the ballast reception tanks. Although the shore lines are insulated, they are not heat traced and there are no booster pumps to assist in the discharge of dirty ballast.

No. 5 Berth is situated approx. 1.25 miles from the reception tanks and has a possible head of 150 ft. Max. pressure 40 p.s.i. (approx.).

In the event of any stripping problems, it is recommended that tanks containing unpumpable ballast be stripped internally to the slop tank and that the Load-on-top procedures be adopted.

Segregated Ballast: Only segregated ballast will be permitted to be discharged overboard. Segregated ballast is defined as ballast water that is introduced into a tank which is completely separated from the cargo oil and the oil fuel system and which is permanently allocated to the carriage of ballast. The deck log book must record all times of ballast discharge and when pumps are started or stopped. This log must also indicate whether or not the segregated ballast is being dropped in the initial stages to sea level. A close watch must be maintained on the overside discharge, with a deck floodlight or portable explosion-proof light being trained on the discharge during hours of darkness. If there are any indications of discolouration or sheen, discharge must be suspended and an investigation must be carried out. If there is any doubt as to the quality of the segregated ballast, all discharge will be made into the shore reception facilities.

Dirty Ballast: All ballast contained in any compartment or tank used for the carriage of oil will be classed as dirty no matter how clean the ballast may appear to be. No ballast carried in cargo tanks may be discharged at sea or in port.

After the connection of the loading arms has been completed and the suitable valves between the arms and the ballast reception have been opened, permission to commence discharge will be given to the responsible tanker officer by the berth operator who will have received approval from the Operations Control Centre (OCC).

Contact between the tanker and the terminal will be by means of the UHF radio that will be placed on board by the Supervisor. As during all transfer operations, there will be a continuous watch near the ship's manifold. In the event of an emergency on the berth, pressing of the emergency alarm will activate the valve closing mechanism.

On hearing this signal, the Crew member at the manifold must stop the ship's ballast pumps to avoid damage by pumping against a closed valve system ashore. (See "Emergency Procedures"). On commencing discharge of dirty ballast and at frequent intervals during the discharge, a watch will be kept on the area around the sea valves even though the sea valves have been inspected during the initial safety checks and a seal has been placed on them by the inspecting Terminal Marine Supervisor. Any indications of any oily sheen will necessitate a shutdown of the discharge pumps and an investigation to be carried out before any further ballast can be discharged. Thirty minutes before completion of discharge, the responsible tanker officer will inform the berth operator who will in turn advise the OCC and the duty Terminal Marine Supervisor.

On completion of the discharge and after pumps have been stopped, the loading arm(s) used for dirty ballast discharge must be drained back into the slop tank. On vessels with an inert gas system, gauging will be taken by way of the deck purge pipes to determine that tanks are empty. It is not intended that vessels will depressure cargo tanks for visual inspections, nor should tank lids be opened on any compartment that is not gas free.

All safety regulations applicable during the loading of oil will also apply during the discharge of ballast.

Governmental Ballast Discharge Requirements:

State of Alaska: The State of Alaska requires that the Master of a vessel scheduled to take on any petroleum product or cargo, complete and sign the State of Alaska Department of Environmental Conservation Ballast Water Discharge Certificate Affidavit. To support this affidavit, the Master must be prepared to produce both deck and engine room log books and a legible copy of that portion of the Oil Record Book relevant to the sea passage from last discharge port to the terminal.

Federal Requirements: Prior to loading oil on any vessel, the terminal is required by the United States Department of the Interior to obtain from the Master of the vessel a legible copy of that part of the Oil Record Book that pertains to the voyage of the vessel to the terminal from the vessel's last oil discharge port. This legible copy shall be certified under oath by the Master as being true and correct. If the vessel is not required to maintain an Oil Record Book or similar records, the Master of the vessel is required to provide the terminal with an affidavit, duly sworn to and signed, stating any and all facts bearing upon any discharge of oil or oily water from the vessel during its voyage to the terminal from its last oil discharge port.

Should the Master be unable to comply with the preceding requirement or if it appears from the Oil Record Book or other documentation that a vessel has discharged oil or oily water during its voyage to the terminal, the terminal is required to promptly notify the Department of the Interior's representative, the Authorised Officer. Tankers discharging ballast water or other oily mixtures may be subject to penalties.

OIL CHARACTERISTICS: The predominent oil to be available at the terminal is currently North Slope Crude Oil. The following preliminary characteristics of North Slope Crude Oil are given to acquaint the Master and the cargo officers of tankers that will call at the terminal with the general properties of the cargo they will load.

Specific Gravity: 0.8933 at 60°F.
API Gravity: 27.0° API.
Pour Point: + 15°F.
Viscosity: 73.5 SSU at 100°F., 169 SSU at 60°F.
Reid Vapour Pressure: 4.0-4.5 lbs.
Sulphur Content: 0.94 per cent by weight.
Waxing: 85-117°F. (begins to precipitate). 50-55°F. (bulk of wax begins to come out of solution).
Mercaptan Sulphur: approx. 14 parts per million.
Loading temperature: approx. 100°F.
Dissolved H_2S: less than 0.2 parts per million.

LOADING FACILITIES: *General:* All loading operations will be accomplished in accordance with the joint inspection pre-transfer conference. Loading operations cannot commence until the vessel has complied with all State of Alaska and Federal Requirements and all required documentation has been provided.

Crew Responsibilities: Ship's crews will be responsible for assisting with handling the loading arms on board the tanker, furnishing and making the adaptor connections, removing blind flanges, and guiding the loading arms (Chicksans) to the appropriate manifold connections. However, as a convenience, the shore crew will aid the ship's crew in connecting loading arms to the ship's manifold as the shore crew will be more familiar with the shoreside facility connection. The Chicksan loading arms and couplings are hydraulically controlled by the berth operator who will be in constant voice communication with the individual responsible for the connection by means of the UHF portable radio that will be supplied to all vessels by the Supervisor.

If required, the terminal will supply 10 in. – 16 in. reducers at Berth No. 1 and 12 in. – 16 in. at Berths No. 3, 4 and 5.

Check List Requirements: After the Terminal Marine Supervisor is satisfied that all the safety requirements have been complied with, permission will be given to commence loading. All operations in connection with starting of loading, switching of tanks, and topping off will be the responsibility of the responsible ship's officers.

Before the maximum pressure or loading rates agreed to at the pre-transfer conference are reached, slow loading will be started and the responsible ship's officer will ensure that the cargo is flowing to designated tanks, thus ensuring that all block valves separating lines are open. On completion of this check and after advising the berth operator, the pressure/rate will be increased to the maximum previously agreed by the Master, or the officer in charge.

A responsible member of the crew will remain near the manifold within sight of the berth operator. This is in addition to the officer on cargo watch who, at frequent intervals, will check the state of loading with the berth operator by means of the UHF radio. This officer will also advise the berth operator when changes in the loading rate are required.

The rate of flow into the tanker can be observed on the large digital readout situated by the berth operator's control position.

Loading Suspension: Terminal: Terminal personnel will suspend loading operations if any safety rules are not followed, or if terminal personnel supervising loading operations believe any other danger exists, providing adequate notice is given to the responsible ship's officer.

Tanker: The Master is required to shut down loading if he feels that shore operations are unsafe, provided adequate advance notice is given to berth personnel.

Emergency Shutdown: In the event of an emergency (See "Emergency Procedures") the following types of shutdown could occur:

(1) "Dangerous" shutdown.
  - (a) All berth block valves close.
  - (b) Metering upstream block valves close.
  - (c) Berth control valves close – one for each loading arm (in 5, 5.5, 6.0, and 6.5 seconds, respectively, to prevent surge to line).

(2) Fire shutdown
  - (a) The preceding valve closures plus fire alarm and start fire pumps.

(3) Emergency shutdown, one per arm, closes control valve only.

(4) Low vapour pressure on any crude tank – initiates (1) preceding.

Pushbuttons for (1) preceding are located in berth area plus one on berth operator's alarm panel.

Pushbuttons for (2) 1 on roadway; 1 on roadway at land; 1 in Power Distribution Cabinet (PDC); 1 in Berth Operator Control (BOC) alarm panel; 1 in loading arm area.

Pushbutton for (3) 1 local at each valve.

Topping Off: Near the end of loading when topping off, the responsible ship's officer will request the gradual reduction of loading rate for topping off operations. This reduction will be achieved by the berth operator slowly closing the berth loading valves. The berth operator will progressively reduce the opening of the berth control valves and will take loading arms out of service, until the point when all berth control valves and block valves are finally closed, when advised by the ship's officer "Shut Down" or "Finished Loading". The loading arms will then be drained into a ship's tank.

Disconnecting: On being satisfied that loading arms and ship's manifold are empty, the order will be given from the responsible ship's officer to the berth operator to uncouple the quick release couplings.

During the period of disconnecting, the USCG Vessel Traffic control Centre at Valdez will have been advised. Tugs will be on standby, and providing that there are no other ship movements that would interfere with sailing, the "Early Departure System" will be carried out. The actual Bill of Lading figures will be sent to the master by W/T or Telex after departure.

COMPLETION/DEPARTURE PROCEDURE: *Topping-Off:* As the tanker begins the topping off stage, the responsible ship's officer shall notify the berth operator who will in turn keep the OCC informed as the cargo loading rate is reduced. When the ship's officer estimates approximately one hour remains in the loading process, he shall notify the berth operator.

Tug Assistance: After being notified by the tanker that one hour remains in the loading sequence, the berth operator shall notify the OCC and the Terminal Marine Supervisor. The OCC shall continue to monitor the topping off process and the Terminal Marine Supervisor shall place the vessel's pre-arranged tugs on standby. The tugs shall be alongside the vessel after all loading arms have been disconnected and before any mooring lines are let go.

U.S. Coast Guard Vessel Traffic Service: The departure of tankers from the terminal shall be in accordance with the published standard operating procedures for the Prince William Sound Vessel Traffic Service. The Coast Guard Operations Centre located in Valdez shall be the directing authority for the operation of the vessel traffic service. The Terminal Marine Supervisor will notify the USCG-VTS one hour prior to the completion of loading and again when loading is complete. When the Terminal Marine Supervisor notifies the USCG-VTS that loading is complete, he will verify the tanker's status to enter the Vessel Traffic Service and will check on any inbound vessel traffic.

SAFETY: After the tanker is secured, the Terminal Marine Supervisor will board the tanker to contact the Master or his representative to:

– provide information on terminal safety regulations.
– agree on designated smoking areas
– advise ship's personnel on "Work Permit" and "Hot Work Permit" procedures.
– present ship/shore Safety Check List.
– present printed sheet describing terminal emergency procedures and fire fighting capabilities.

The following are **some** of the safety requirements.

Warning Signs, Lights, and Signals – Upon arrival at the terminal, a tanker shall display the following notice at the gangway:

WARNING
NO OPEN LIGHTS
NO SMOKING
NO VISITORS

During transfer of oil, and when in the non-gas free condition a red signal (flag by day and electric lantern at night) shall be displayed so that it is visible from all sides.

Blowing tubes – Funnel uptakes and boiler tubes will not be blown while a tanker is berthed at the terminal.

Use of Tools – No chipping or other operation likely to produce sparks will be allowed in any designated hazardous area. The Terminal Marine Supervisor and the responsible ship's officer shall both be satisfied that there is no such activity on the vessel or on the facility.

Flashlights, Hand Torches, Lanterns – Only self-contained battery powered flashlights, hand torches, lamps and lanterns, approved by USCG will be permitted to be used aboard the vessel or on the berths.

Main Engine – While berthed at the terminal, the tanker's main engines, steering machinery, and other essential manoeuvring equipment shall be maintained on standby status to permit the tanker to move from the berth on short notice.

Communications Equipment – A tanker's main transmitter shall be turned off and the main transmitting aerials shall be grounded whenever a tanker is alongside a loading berth at the terminal.

VHF-FM radiotelephone equipment, both portable and fixed, may be used as long as the equipment is permanently installed or intrinsically safe, conforms to FCC marine requirements, USCG requirements, and operates with a power and output of 1 watt or less.

The preceding requirements do not mean that essential servicing of ship's radio equipment cannot take place while alongside a berth. However, suitable arrangements for insuring safety during this work shall be made between the tanker and the terminal, including the securing of an appropriate work permit.

Operating and servicing of radar equipment aboard a tanker berthed at the terminal shall be agreed to by the Terminal Marine Superintendent or Marine Supervisor and shall be the subject of an appropriate work permit.

Vessels Alongside – Unauthorised craft shall be prohibited from securing to a berth at which a tanker is moored.

No craft shall come alongside a tanker while the tanker is handling crude oil or deballasting without the permission of the Terminal Marine Superintendent who shall instruct personnel aboard the craft that smoking, naked light, and galley fire regulations must be observed.

Designated Smoking Areas: Smoking shall be strictly prohibited within an area enclosing all tanker berths and loading docks and on board any tanker while at a berth, except.

- (a) in buildings or other shore locations specifically approved for smoking and with such approval notices posted.
- (b) on board a tanker in places specified by the Master, and agreed to by the Terminal Marine Supervisor.

Places designated for smoking shall not be outside of any of the accommodation areas. Special precautions shall be taken during conditions that may suggest danger; in particular, conditions of no wind or any indication of unusually high gas concentrations.

The Master is responsible for insuring that all on board are informed of the selected places for smoking and for posting suitable notices.

Only safety matches are permitted in approved smoking areas. The use of lighters is prohibited.

Galley Fires and Cooking Appliances – Galley burners are to be adjusted to insure efficient combustion and to prevent galley stack fires and sparks from incandescent soot. Flues are to be cleaned at regular intervals. When bottled gas equipment is used, the gas shall contain an additive which will give it a distinctive odour. Sufficient fire extinguishers shall always be provided near the galley. Oily rags and fat shall not be allowed to accumulate, and the exhaust fan ventilators shall be kept clean.

While a tanker is at a berth, the use of galley stoves and other cooking appliances with non-immersed elements such as electric hot-plates and toasters shall be permitted provided that the Terminal Marine Supervisor agrees that no hazard exists and that such use is in the galley, in the pantry, or in designated smoking areas.

Work Permits – If repairs are to be carried out on a tanker alongside a berth at the terminal, the responsible ship's officer must discuss and obtain agreement from the Terminal Marine Supervisor on the details of the work to be done. Certain types of repairs will be the subject of written work permits which shall be completed by the responsible ship's officer and authorised by the Terminal Marine Supervisor at the time of the pre-loading inspection Check List. These types of repairs include but are not limited to:

- (a) Repairs to main engine, steering machinery, or other manoeuvring equipment which might immobilise the tanker.
- (b) Repairs to tanker's radiotelephone or communications equipment.
- (c) Repairs to radar equipment.
- (d) Repairs to galley equipment and cooking appliances.

Hot Work Permits – Any hot work done at the terminal, either on the berth or aboard a tanker moored to a berth must be approved by the U.S. Coast Guard Captain of the Port, Western Alaska. This approval will be in the form of a signed Hot Work Permit, issued by the U.S. Coastguard.

EMERGENCY PROCEDURES: Fire: The signal for a fire aboard a tanker moored at the terminal shall be 5 prolonged blasts of the ship's whistle or siren supplemented by a continuous sounding of the ship's general alarm. In the event of a fire within the terminal, the tanker shall be notified by the berth operator and, in addition, the terminal fire alarm will also be sounded.

The initial action required of tankers in the event of a fire within the terminal is to prepare for a shutdown of all loading and ballast water discharge arms. This shutdown will be initiated by the terminal and not by the tanker. In case a shutdown does occur, loading and ballast discharge will not be commenced again until the all clear notification has been received from the Terminal Marine Supervisor.

In the event of a fire aboard the tanker or on the loading berth, the initial actions will consist of shutting down all transfer operations. The standby tug, followed by the other tugs, will be dispatched by the OCC to the appropriate berth and the fire water pump shall be started. If necessary, the tanker will be towed off the berth by tugs, using the emergency tow wires. Each berth is equipped with an independent fire water system which includes a 2,000-gallon-per-minute pump and a liquid foam system. Each berth is also equipped with the following fire-fighting equipment:

- (a) 2 fixed foam monitors.
- (b) 2 fixed firewater monitors.
- (c) 5 fire hydrants.
- (d) 3 hose reels.
- (e) 1 shore to ship firewater connection including 75 ft. of 2.5 in. hose.

Each berth also has the capability to be interconnected with the tugs or with fire trucks to provide increased fire-fighting capacity. The foam system is designed for coverage of fire on the berths only and is not normally interconnected for use by shipboard firefighters in the event of a fire.

Note: Regardless of any assistance the terminal may render, vessels at the berth are expected to put their own emergency procedures into effect whenever required.

Man Overboard: In the event of a man overboard from a tanker moored at the berth, rescue efforts will be implemented immediately, and the berth operator shall be advised by UHF radio. The Terminal Marine Supervisor shall also be notified by the berth operator. The standby tug and mooring boat shall be advised by the berth operator and shall get underway immediately to attempt the rescue.

Life rings will be in position around the loading berth and also on the berthing and mooring dolphins. In case of a man overboard, the medical authorities will also be alerted by the berth operator.

Oil Spills: The notification requirements for an oil spill are delineated by Federal Law. The Federal Water Pollution Control Act (FWPCA) requires persons in charge of vessels (among others) to notify the appropriate federal agency whenever an oil spill enters navigable waters or the adjoining shoreline. The appropriate agency designated to receive these reports is the U.S. Coastguard which can be contacted on Channel 16, VHF-FM.

Notification of an oil spill shall be passed by the tanker to the berth operator who in turn shall inform the Terminal Marine Supervisor.

The terminal will call other agencies that are required to be notified.

The terminal will provide any available containment and cleanup assistance for any oil spill at the terminal. The terminal will activate its oil spill response procedures upon notification of an oil spill and shall utilise all available personnel, equipment, and resources to limit and minimise pollution.

CHARTS/PUBLICATIONS: The following official charts and publications are recommended for study when planning a voyage to Valdez, Alaska and the Terminal:

(a) National Ocean Survey Charts:

Chart Number		Title
Old System	New System	
8500	531	Gulf of Alaska – Strait of Juan de Fuca to Kodiak Island
8502	16013	Cape St. Elias to Shumagain Islands
8551	16700	Prince William Sound
8520	16709	Prince William Sound – Eastern Entrance
8519	16708	Prince William Sound – Port Fidalgo & Valdez Arm, Valdez.

- (b) Nautical Chart Catalogue No. 3 – Alaska
- (c) United States Coast Pilot No. 9, Cape Spencer to Beaufort Sea (1964) with current supplement.
- (d) Tides Tables, West Coast, North and South America (current year).
- (e) Tidal Current Tables, Pacific Coast of North America and Asia (current year).
- (f) United States Coastguard Light List, Vol. III, Pacific Coast and Pacific Islands (current year).
- (g) Weekly Notice to Mariners published by Defense Mapping Agency Hydrographic Center (DMAHC).
- (h) Local Notice to Mariners issued by Commander, Seventeenth Coast Guard District, Juneau, Alaska.
- (i) Radio Navigational Aids, Pacific and Indian Oceans (Publication No. 117B), published by U.S. Hydrographic Office.

WEATHER: *Wind:* The mountains which surround Port Valdez tend to constrain the flow of air to either an Easterly or Westerly direction. At Valdez Narrows, the predominant directions are Northerly and Southerly.

Jackson Point experiences stronger winds than Valdez Airport; however, light winds (less than 13 m.p.h.) occur about 85 per cent of the time. The prevailing wind directions are S.W. from May through September and N.E. from October through April. The N.E. Winter winds reach gale force but usually do not prevail for long periods. The site is well protected from Southwesterly winds but is fully exposed to the Northeasterlies and to winds coming off Mineral Creek, directly North of the facility, approx. 2.5 miles away across Port Valdez.

The occurrence of winds with speed greater than 19 m.p.h. from any direction is less than 7 per cent throughout the year.

A wind chill factor chart is presented for use in conducting operations during Winter seasons. As indicated, combinations of low temperatures and high winds combine to provide extremely low equivalent temperatures. Outdoor operations under these conditions should be closely supervised to insure that personnel and crewmen do not suffer from exposure or frostbite.

Precipitation: Precipitation is abundant during all seasons with the majority falling during the months July through November. Valdez has an average annual precipitation of 62.37 in. with a mean total of 244.5 in. of snow per year. Greatest snowfall in a 24-hour period was 43 in. in February 1928. Precipitation of an amount in excess of 0.01 in. occurs an average of 170 days per year. Estimate 1 in. rain = 12-15 in. snow.

Temperature: The mean monthly annual temperature is 35.7°F. with recorded extremes of +87°F. (June 1953) and −28°F. (February 1947). The month of January is the coldest with a mean daily minimum of 11°F. and a mean daily maximum of 26°F. The month of July is the warmest with a mean daily minimum and maximum of 45.2°F. and 60.1°F., respectively.

Visibility: Snow or snow with fog are the major causes of reduced visibility during Winter months. At the Valdez Airport, visibilities of 1 mile or less occur 3.7 per cent of the time, annually. Visibilities greater than 5 miles occur 85 per cent of the time.

Tides: The tide at Port Valdez has a diurnal range of 12 ft. and a mean range of 9.7 ft.

Waves: The port is surrounded by mountains and is well protected from the open sea and the wave action within the port is limited to wind-generated waves which are constrained by the fetch available. The maximum calculated wave height is 9.4 ft. from the East with a period of 4.3 seconds. Waves in the order of 6 ft. could occur from the N.W. quarter. An important exception to this is a tsunami or seismically generated wave which can be far in excess of the heights quoted above. Investigations in 1968 showed mean wave heights 3 ft. to 6 ft. in Winter (independent occurence 0.7 per cent of time) and 2 ft. to 3 ft. in Summer (0.1 per cent of time). Berths at the terminal are designed to withstand waves of 12 ft. with a vessel alongside and 20 ft. when vacant.

Ice: Valdez is an ice-free port as far as tanker operation is concerned. Light ice forms along the banks and in the small boat harbour at Valdez, but this has not interfered with small-boat operations.

Currents: It appears that surface currents measured during calm wind conditions in Port Valdez often oscillate with the tide, moving generally in and out of the port with maximum speeds of 0.5 knot. The Easterly (flooding) surface current during a falling tide may or may not persist throughout the year. Although Volume 9 of the U.S. Coast Pilot for Alaskan waters describes the current in Port Valdez as "too weak and variable to be predicted", measurements of surface current speeds typically show maximums of 0.5 to 1.0 knot.

It is requested that inbound tankers keep the OCC advised of weather conditions in the Gulf of Alaska, Prince William Sound, Valdez Arm, and Valdez Narrows in order that accurate information may be passed to outbound tankers.

VISITORS: Access to the terminal is limited to terminal personnel, authorised governmental personnel and authorised visitors with valid reasons for entry onto the terminal site.

Visitors to the Valdez Marine Terminal are requested to make arrangements through the Administrative Office in advance of their arrival at the Terminal. Authorised visitors shall be met at the main gate, which provides the only land access to the Terminal and is located at the East end of the Terminal site, and shall be escorted through the Terminal area. All persons passing through the main gate shall sign in and out with the guard. Any visitor who arrives at the main gate outside normal working hours of the Administrative Office and who has not made prior arrangements shall be turned away and requested to contact the Administrative Office during normal working hours.

The guard at the main gate shall ask any visitor desiring to meet a tanker crewman to wait at the gate until the vessel is called and arrangements have been made to meet the visitor.

Small boats and other vessel traffic will not be permitted to dock at the terminal site without the approval of the Terminal Marine Supervisor. Only taxicabs with valid passes will be permitted to enter the Terminal site, and any private or commercial vehicles that are permitted in the terminal area will be subject to inspection on entering and departing the area.

SHORE LEAVE: If tanker personnel return to the Valdez Marine Terminal site in such a condition that they might require assistance to insure their safe return to the ship, they shall remain at the main gate until the guard grants them admittance. Should an escort be required, it will be provided by vessel personnel.

All tanker personnel transiting the Terminal area will be required to carry their United States Merchant Mariner's Document (USMMD) and company identification of tanker owner for identification. These documents shall be presented to the guard at the main gate whenever tanker personnel enter or leave the Terminal site. Should a crewman present himself without these documents, he will be detained and the Master will be called to resolve the matter.

TIME: Alaska Standard Time (150th West meridian) for a zone description of +9(ZD9). Local time is modified from the first Sunday in April to the last Sunday in October by the use of Daylight Saving Time for a zone description of +8 (ZD 8) for Alaska Daylight Saving Time. This time is 1 hour behind that in Seattle and California and 4 hours behind New York.

To avoid confusion, all communications regarding sailing times, sailing dates, arrival times, arrival dates, etc. are to be quoted in Alaska Local Time.

FRESH WATER: Only in cases of extreme emergency can potable water be supplied and in a very limited quantity.

FUEL: Not available.

POLLUTION: U.S. Federal Pollution Prevention Regulations and Federal Water Pollution Control Act to be strictly observed.

TELEPHONES: Pay telephones will be located in the vicinity of each loading berth for the use of ship's personnel.

Telephones will not be placed aboard tankships calling at the terminal.

AGENCY: Alyeska Pipeline Service Company will not act as Agent for tankers calling at the Valdez Marine Terminal. Any requirements for such services as ship chandler, etc. must be obtained through the Owner's appointed ship's Agent. For security, the Valdez Marine Terminal must be notified of the appointed Agent.

AUTHORITY: Alyeska Pipeline Service Company, Valdez Marine Terminal, P.O.Box 300, Valdez, Alaska 99686. *Tel:* (907) 835-2261. *Telex:* 090-26564.

Contact: Captain James K. Woodle, Marine Superintendent/Port Captain. *Tel:* (907) 835-6526 or after hours (907) 835-2606.

VANCOUVER, Washington: 45.36 N. 122.40 W.

(See Plan)

DOCUMENTS: 3 copies of following:
Cargo Manifest.
Stores List.
Crew Cargo List.
Crew List.
One copy of following:
Clearance from last Port.
Tonnage Tax Certificate.
Copy of Vessel register and itinerary of vessel port by port.

PILOTAGE: See "General-Pilotage" before first U.S.A. port (Albany).

ANCHORAGES: Only designated anchorages on U.S. Coast and Geodetic Charts are at Tongue Point (Astoria), Oreg. 2 in number and designated on Chart 6151 Columbia River, Pacific Ocean to Harrington Point, as 1 Lower Tongue Point and 2 Upper Tongue Point. Additional locations on Columbia and Willamette Rivers where safe anchorages can be made upon advice of Columbia River Pilots. Anchorage in Vancouver harbour by permission of Harbour Master.

RESTRICTIONS: No restrictions on night entry. State of tide and draft restrictions not applicable to vessels drawing less than 40 ft.

MAX. SIZE: No restrictions length and breadth. Depth at Columbia River entry 48 ft. River channel to Vancouver maintained at 45 ft. by 600 ft. Seasonal tidal effect up to 3 ft. at Vancouver.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

RADIO: Route ETA cables through KBLITT Seattle, Wash.

TUGS: Normally join vessel at designated berth. Tug lines used at no charge.

BERTHING: No special requirements for berthing and no special arrival times required except under particular circumstances.

7 berths. Total length 4,300 ft. Ro/Ro facilities available.

BULK HANDLING FACILITIES: The grain terminal, owned by the Port and operated by the United Grain Corporation, has about 1,000 ft. (305 m.) of dock available. The 7 vessel spouts load 1 vessel at a time at a combined loading rate of 40,000 bushels per hour. The grain terminal can off-load at 18,000 bushels per hour, and they have a storage capacity for 4,500,000 bushels.

EQUIPMENT: The Port of Vancouver has 3 Whirley cranes, 1 of which is rated at 50 short tons at 60 ft. (18 m.) and 15 short tons at 130 ft. (40 m.) the other 2 Whirley cranes have a capacity of 34 short tons at 60 ft. (18 m.) and 10 short tons at 130 ft. (40 m.). These 3 travelling gantry or Whirley cranes operate on parallel tracks on the face of the dock in conjunction with the double direct transfer tracks.

Bulk materials make up a sizeable portion of the Port's traffic, and consequently, large crane buckets are available for handling these cargoes. In addition, the Port has a special crane bucket for the successful handling of zirconium – a very fine sand material considered a "problem" commodity for efficient and waste-free handling.

The Port maintains a full complement of support equipment. They have 42 lift trucks with 2 – 3.5 ton capacities, 9 lift trucks with 7.5 – 15 ton capacities, 1 lift truck with a 26 ton capacity, along with various straddle-carriers, conveyors, front-end loaders, jitneys – and a range of special attachments and gear for all their equipment (such as prong-lifts for steel coils, grabs and squeezers for paper rolls, push-pull slip sheets for bag goods, cartons and boxes) to handle any special situations or problem with which they might be confronted.

STEVEDORES: Allocation for gangs Mondays through Saturday must be confirmed at 1100 hrs. to the longshore hiring hall. Allocation for gangs Sunday and Monday are made at 1100 hrs. Saturday for both day and night gangs. Same procedure applies to allocation of night gangs, but night gangs may be cancelled by 1400 hrs. afternoon of night gangs are to work.

MEDICAL: Any type of medical treatment can be provided and hospital facilities available.

TANKERS: 1 berth. 3 × 6 in. pipe-lines to 21 tanks. Storage capacity 85,800 bbls.

DENSITY: Fresh water at all times.

FRESH WATER: Available at all berths delivered through pier-side connections.

FUEL: Viscosity grades of B and lower. No advance notice required. Barging essential.

FIRE PRECAUTIONS: Port fire precautions respecting tankers are administered by U.S. Coast Guard, which enforces shipboard regulations under Code of Federal Regulations, Part 46, Sub-part D, Sections 20 to 40; Police Harbour Patrol, which controls port movements, boards vessels to warn Master regarding harbour regulations, including spilling of oil, etc.; and Fire Marshal, who exercises jurisdiction regarding fire regulations at shoreside facilities serving tankers.

GANGWAY/DECK WATCHMEN: Services at option of vessel Owner/Agent and available through private firms.

OPENING/CLOSING HATCHES: While ship is at dock, opening and closing hatches is work of longshoremen. Ship may open or close own hatches while under way.

CERTIFICATES: Registered tonnage certificate.

CONSULS:
Austria
Belgium
Costa Rica
Denmark
Dominican Republic
El Salvador
Finland
France
Federal Republic of Germany
Great Britain
Iceland
Italy
Japan
Lebanon
Mexico
The Netherlands
Norway
Republic of Panama
Peru
Sweden
Venezuela

CUSTOMS ALLOWANCES: Tobacco, reasonable quantity. Wine and/or Spirit, reasonable quantity.

CARGO GEAR: Valid cargo gear certificate required, acceptable to U.S. Bureau of Labor Standards.
IDENTIFICATION CARDS: Immigration Dept. requires Forms No. 595 and No. 31 (Repatriation). Changes can be effected at any U.S. Consulate and are honoured here.
REPAIRS: All types of deck and engine repairs possible.
DRY DOCKS: See "Portland, Oregon".
REPATRIATION: Any arrangements possible for crew changes or other repatriation.
AIRPORT: Airport 10 miles from town, served by 7 regularly scheduled airlines with direct service and/or connections domestically and worldwide.
TIME: GMT minus 8 hours. Daylight saving time becomes effective annually on first Sunday in April through last Saturday in October.
HOLIDAYS: Following holidays are recognised: *New Year's Day; Lincoln's Birthday (Feb. 12th); Washington's Birthday (Feb. 22nd); Memorial Day (May 30th); *Independence Day (July 4th); *Labour Day (1st Monday in September); Columbus Day (Oct. 12th); Veteran's Day (Nov. 11th); Thanksgiving Day; *Christmas Day (Dec. 25th); Statewide Election Days. Other legal holidays may be proclaimed by State or national authority. When holiday falls on Sunday, following Monday observed as holiday. Longshore work performed on any of above-listed days is at overtime, which is one-and-a-half time rate. Days marked(*) are stop-work days, viz., no ships will be worked. This also applies to July 5th, which observed locally on unilateral basis.
POLICE/AMBULANCE/FIRE: Police Tel: 693-2555; Fire Tel: 693-1441; Ambulance provided by several private firms, but can be obtained through police or fire number.
SERVICES: All services available such as compass adjusting, major or minor repairs either with work barges or at ship repair berths; lay berths available; charts available from private companies; all chandlery supplies available.
SHORE LEAVE: Crew members permitted ashore except where vessel has made first arrival from Communist-controlled port.
AUTHORITY: Port of Vancouver, P.O.Box 1180, 3103 Lower River Road, Vancouver, Washington 98666. *Tel:* (206) 693-3611. *Telex:* 152-566 and TWX 910-474-8673. *FAX:* (503) 285-6091. *Contact:* Byron H. Hanke, Executive Director.

WHITTIER, Alaska: 60.47 N. 148.40 W.

SHIPMASTER'S REPORT: October 1980. (Updated 1988).

GENERAL: Whittier is a small port in position Lat. 60° 47′ N., Long. 148° 40′ W. The population in October 1984 was 250. There are 2 hotels, 3 grocery stores, a school and a post office. The port was constructed between 1941 to 1943. It was developed as a main supply depot for the storage of oil for the Anchorage area and also as a transhipment port for produce from other areas in the United States. There is regular barge traffic from Seattle and other West coast ports with ammunition, food, merchandise and motor cars. All these are carried aboard flat top railway wagons which can be loaded or discharged at any state of the tide. The port is operated by the Alaska Railroad system and there is no shore gear of any kind. Whittier is surrounded by very high mountains and there is no road or footpath in or out. There is a very short landing strip suitable for small aircraft but the normal communication is by rail which goes under the mountains in two long tunnels. The journey takes about 1.5 hours and the timetable is frequent in the Summer when a lot of people visit Whittier for boating and fishing or to get the ferry to Valdez. During Winter however the service is about four times a week, weather permitting.
APPROACHES: *Recommended Route to Whittier Pilot:* British Charts BA. 3363 and 3364.

When Smith Island bears 256°×8 miles, vessels should leave the traffic zone and steer 277° passing 1.5 miles South of Naked Island and 1.2 miles North of Point Eleanor. Then alter course to 281° passing 1 mile South of Mears Point. After passing Mears Point, steer 350° through Ferry Passage and alter to 280° off Point Culrose Light to the pilot station. It is not locally recommended to pass North of Perry Island through the Dutch Group.
PILOTAGE: Pilotage is operated by the Southwest Alaska Pilots' Association who have an office in Valdez, telephone number (907) 835 – 2134. They also have an office in Homer, telephone (907) 235 – 8783. Both stations maintain a continuous watch on Channels 10 and 16.

In theory, Pilots embark at Hinchinbrook Entrance. This has not been the practice however, for the last year or so, due to the long sea passage for the small pilot boat and the severe weather sometimes encountered in this area. Pilots normally embark at Blight Reef near Glacier Island. The pilot boat is stationed at Rocky Point some 10 miles away. The normal pilot boat is "Bering" which is a 63 ft. long trawler, capable of 10 knots, with a blue hull and white house. A newer boat is also in attendance. This is a 43 ft. glass fibre boat called "Bernhof" capable of 20 knots. She has a white hull.

No vessel may enter Prince William Sound through the Hinchinbrook Entrance without permission from the Coast Guard at the Valdez Traffic Control Centre on Channel 13 or 16. Large vessels may only transit Prince William Sound in daylight hours.

If permission is obtained, vessels may proceed direct to the pilot station at Whittier, 1 mile South of Point Pigot. See "Approaches".
ANCHORAGE: Anchorage off Whittier may be obtained in 12 fathoms at Pigot Bay (Lat. 60° 50.4′ N., Long. 148° 22.0′ E.).
BERTHS/FACILITIES: The 2 railway berths are only for barges carrying flat top railway cars on which all cargo is carried. The Delong Pier is used for oil tankers. The length of the wharf is 140 m. and the maximum length of ship is about 170 m. The minimum depth alongside is 48 ft. at the West end and 80 ft. at the East end.

Tankers normally berth port side alongside. In October 1980 there was one tug "Avenger" in attendance being 2,000 h.p. A shore gangway is supplied. All manifold connections are 6 in. The ship must supply all reducers. 2 lines are used for kerosene. Jet fuel, Mogas and diesel are imported. The distance to the shore tanks is 1.5 miles. All products are pumped from the storage area to Anchorage. Bunkers are not available for large ships. Provisions and supplies can be purchased in Anchorage and shipped down by rail. There is a small clinic with a physician's assistant. The nearest doctor or dentist is in Anchorage. In an emergency there is an ambulance which can run on the road or rails.
GENERAL:
Weather: The winds are very strong and variable. It is very wet in Summer and has an extremely high snowfall in the Winter months. The port is completely ice free the whole year round.
Formalities: All the usual American forms apply. Customs, Immigration and Coast Guard all come from Anchorage as there are no officials at Whittier.
Joining/Leaving: Crew may sign on and off at all times. During Winter Whittier is often cut off by snow.
Accommodation: Pilot and Agent stayed aboard throughout our 36 hour stay which proved very convenient for clearance and paperwork.
Agent: North Star Terminal & Stevedoring Company, Anchorage, Alaska 95510. Cable: "Norstevco Anchorage". Telex: 26471.

AUTHORITY: Whittier Harbour, P.O.Box 608, Whittier, Alaska 99693. *Tel:* (907) 472-2330. *Contact:* Penny Mendenhall, Port Director/Harbour Master.

WILMINGTON, Delaware: 39.44 N. 75.32 W. (See Plan)

DOCUMENTS: Handled through local Agents.
PILOTAGE: See "Philadelphia".
ANCHORAGE: At Cherry Island.
MAX. SIZE: Length unlimited, breadth unlimited, draft 38 ft. MLW tide range 5.5 ft.
Chesapeake/Delaware Canal: Max. LOA 760 ft. Max. draft 35 ft. (FW). Height of mast 133 ft. Max. beam 170 ft.
HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to New York Quarantine Station.
AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).
RADIO: U.S. Coast Guard, Gloucester, N.J.
TUGS: Available through Wilmington Launch Service Tel: 652-1666.
BERTHING: 3,260 ft. marginal wharf. 20 – 100 ton crane capacity. 400 – 600 t.p.h. bulk unloader. Covered bulk storage of 472,000 sq.ft. Dockside freezer capacity of 1,050,000 cu.ft. at present.

Two multi-purpose bulk/container cranes available, capacity 40 tons, outreach 115 ft.

Roll-on/Roll-off cargoes handled.
DENSITY: Fresh water port. Normal 12 hour tides.
FRESH WATER: Hose connection from dock.
FUEL: Available.
GANGWAY/DECK WATCHMEN: Required.
OPENING/CLOSING HATCHES: Optional.
IDENTIFICATION CARDS: See "New York".
CONSULS: All Consuls are located in Philadelphia, Pa.
REPAIRS: Possible.
DRY DOCKS: Major repairs and dry dock facilities – Penn Ship Yard, Chester, Pa.
REPATRIATION: Facilities are available and arranged by Agent.
AIRPORT: Philadelphia International Airport, regular service.
TIME: U.S. Eastern Standard (GMT minus 5 hours) and Daylight Time from first Sunday in April till last Sunday in October.
POLICE/AMBULANCE/FIRE: Police, Ambulance, Fire, Tel: 302-654 5151.
TELEPHONES: Dock-side pay phones.
SERVICES: All services available.
SHORE LEAVE: Allowed unless restricted by Immigration.
DEVELOPMENTS: Additional reefer warehouse space under construction.

AUTHORITY: Port of Wilmington, Delaware, P.O.Box 1191, Wilmington, Delaware 19899. *Tel:* (302) 571-4600. *Telex:* TWX 510-666-2181. *FAX:* (302) 571-4646. *Contact:* Kenneth H. Mack, Port Director. John B. O'Donnell, Director of Trade Development. John H. Doherty, Deputy Port Director.

WILMINGTON, N. Carolina: 34.14 N. 77.57 W. (See Plan)

PORT LIMITS: A ship is considered an "arrived vessel" upon arrival at Buoy 2CF.
PILOTAGE: Pilots board vessels at Buoy "2CF" off the mouth of the Cape Fear River. Masters should notify local Agents by radio of their ETA at Buoy "2CF" in order that the Pilots may be on station in advance of arrival. Additionally, Masters may communicate with Pilots by radio telephone on 2738 frequency and by VHF Channel 18A. Pilots remain on board until harbour limits of Wilmington, where docking Masters normally board vessels for purposes of docking.
APPROACHES: The port terminal at Wilmington is located on the East bank of Cape Fear River, approximately 26 miles from the sea buoy at the mouth of the river. Wilmington is 150 miles S.W. of Cape Hatteras and 26 miles North of Cape Fear.

DOCUMENTS:
3 copies Cargo Manifest (Forms 1302), the original showing all cargo on board, and 2 copies showing only cargo for this port.
3 copies Crew Manifest (Curio List) (Customs Form 1304).
3 copies Stores List (Customs Form 1303).
3 copies Passenger List (Form I-418).
3 copies Crew List (Form. I-418).

Customs Boarding Officer will also examine Ship's Register and Load Line Certificate. In addition, the following documents will be required for formal entry to be made within 48 hours of arrival from abroad, or 24 hours from arrival from a United States port:
Master's Oath (Customs Form 1300).
All foreign clearances.
U.S. Certificates of payment of tonnage tax (Customs Form 1002).
Certified Crew List.
Oil Pollution Certificate.
General Declaration (Customs Form 1301).
Load Line Certificate.
Safety Equipment Certificate.

RESTRICTIONS: The approach channel and basins adjacent to the port are maintained at a depth of 38 ft. MLW.

ANCHORAGE: Vessels awaiting Pilots normally anchor in area off Buoy "2CF". There is no safe anchorage in the port of Wilmington for large vessels to be accommodated. Small vessels can be accommodated for brief periods in anchorage basin, although it is necessary to swing with the tide in order to avoid blocking channel.

MAX. SIZE: No limits on length, breadth, and draft limit is present channel project depth of 38 ft. Master should communicate with local Agent regarding stage of tide for passage of vessels drawing 34 ft. or above.

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to New York Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

TUGS: 3 towing companies operate at Wilmington.

BERTHING: A continuous marginal wharf, 6,000 ft. long. Docking at any hour, day and night. Also see "Developments".

SPECIALISED CARGO HANDLING FACILITIES: State Port Terminal: Fully equipped to serve cellular type container ships, for bulk handling; equipped with 6 yard rehandler buckets, receiving hoppers, and paved open storage areas, 2×45 ton, 1×115 ton, 3×40 ton container cranes, 1×140 ton mobile crane and 1×225 ton gantry crane; 1 berth with tank farm for handling liquid chemicals. 49×480 volt electrical outlets for refrigerated containers (70 additional outlets planned).

Almont Shipping Company: 3 berths, open and covered bulk storage, 2×25 ton cranes and 1×85 ton derrick. No facilities for LPG carriers.

TANKERS: 10 tanker berths with drafts from 30 ft. to 40 ft. MLW. Night berthing at all berths. Fresh water available.

FRESH WATER: Available from shore connections at rates up to 50 t.p.h.

FUEL: Bunker "C" and diesel fuels available locally.

FIRE PRECAUTIONS: Normal precautions observed.

REPAIRS: Minor ship repairs available.

DRY DOCKS: 1×1,000 ton lift floating dry dock.

AIRPORT: New Hanover Country Airport, 7 miles from N.C. State Port Terminal. Served by Piedmont Airlines.

IDENTIFICATION CARDS: Standard U.S. Immigration Forms I-95 to be made up for each crew member on arrival. Not necessary for crew man already holding Form I-95, issued for the same vessel.

TIME: Eastern Standard Time, GMT minus 5 hours. Daylight Saving Time from first Sunday in April till last Sunday in October.

DEVELOPMENTS: A 900 ft. extension to the South end of the wharf for an addition to the container terminal will be completed in January 1989.

AUTHORITY: North Carolina State Port Authority, 2202 Burnett Boulevard, P.O.Box 9002, Wilmington, North Carolina 28402. *Tel:* (919) 763-1621. *Telex:* 510-937-0330. *FAX:* (919) 763-6440. *Contact:* Ron S. DeVoe, Port Manager. W. T. Stover, Manager – Communications.

AGENT: Harrington Ship Agencies, Maritime Trade Center, 2128 Burnett Road, Suite 5, P.O.Box 308, Wilmington, NC 28402. Tel: (919) 762-0345. Telex: 6844926.

WRANGELL, Alaska: 56.28 N. 132.22 W. (See Plan)

Located on Wrangell Island. Open all year.

DOCUMENTS: See "Anchorage, Alaska".

PILOTAGE: (From sea via Dixon Entrance up Clarence Strait to Guard Island.) Under pilotage from Guard Island.

ANCHORAGE: Good anchorage N.E. of Woronofski Island in 22 fathoms of water.

MAX. SIZE: Harbour depth 32 ft. MLLW. Tides: mean range 13.7 ft., diurnal range 16.1 ft. Also see "Berthing".

HEALTH: See "Health: All Ports" before first U.S.A. port (Albany). Illness Reports made to Seattle Quarantine Station.

AGRICULTURE: See "Agriculture" before first U.S.A. port (Albany).

CUSTOMS: Immigration, Guard Island or local Customs Office. Quarantine and Customs, local.

TUGS: 9 tugs up to 1,800 h.p. available with sufficient notice.

BERTHING: 4 wharves.

1. Wrangell Lumber Co. Dock: Berthing length 320 ft., 150 ft. wide, depth South end 32 ft. North end 40 ft. LW. Height of pier from zero tide 23.5 ft. Crane – 1 mobile, 8 ton, 6 lift-trucks. No shed space. 3 acres open storage.

2. Alaska Wood Products: Berthing length 300 ft., 50 ft. wide. Depth at LW 32 ft. Height of pier from zero tide 23 ft. No shed space.

3. Port of Wrangell Wharf: 35 ft. depth at both ends. Fresh water available. Lift trucks on rental from local private firms. Dock face 400 ft. with additional mooring dolphins for a total overall length of 700 ft.

4. Barge: Transfer bridge facilities, 17 ft. wide, capable of up to 70 tons (140,000 lbs.).

STEVEDORES: 4 gangs available.

REPAIRS: None.

WATER: Available.

FUEL: Small quantities available.

MEDICAL: Small but new hospital.

TRANSPORTATION: Air and ferry.

AUTHORITY: City of Wrangell, P.O.Box 531, Wrangell, Alaska 99929. *Tel:* 907-874-3736. *Contact:* Ronald O. Phillips.

YORKTOWN, Virginia: 37.14 N. 76.30 W. (See Plan)

OPERATOR'S REPORT: 1981.

GENERAL: The American Oil Terminal at Yorktown, Virginia is located about 3 miles below the York River bridge on the South side of the river approximately 38 miles from the Chesapeake Bay Sea Buoy "CB". Coordinates of the terminal are Lat. 37° 13′ 37″ N., Long. 75° 26′ 23″ W. A 3,000 ft. finger pier ending with a marginal pier, reaches the deepwater channel in the river. Tankers supply the refinery with crude and intermediate feedstocks which are refined into gasolines, fuel oil, liquefied petroleum gas, coke, and liquid sulphur which is distributed by barges and tankers.

PILOTAGE: Pilots board 1.5 miles N.E. of Cape Henry Light. Vessels should use traffic lanes as outlined on Chart No. 12221 when approaching the pilot area.

U.S. flag should call the Chesapeake Federal pilot boat approximately 1 hour before arrival to arrange Pilot embarkation. Non-U.S. flag vessels should call the Virginia State pilot boat 1 hour before arrival.

APPROACHES: *Cautionary Advice:* RDF stations at Chesapeake Light and Cape Henry provide coverage for position fixing and numerous buoys mark the fairways, channels and obstructions. While proceeding to the pilot station one should be aware of the heavy traffic in this area and the ship should stay within the prescribed traffic lane. Careful consideration should be given to the current, which has a velocity of up to 3.0 knots and higher and which tends to set a vessel out of the channel.

ANCHORAGES: *Anchorage and Lightering:* Vessels requiring lightering proceed to Hampton Roads where all lightering operations are conducted. This channel is well marked and presents no difficulties. Upon completion of lightering, the vessel must return to Cape Henry before proceeding to the berth. The bottom of Hampton Roads consists of soft mud and provides good holding ground.

RADIO: ETA messages should be sent to Agent 72, 48 and 24 hours before arrival. Any change in ETA should also be transmitted, as the pilot vessel is not continually on station. Advise draft (brackish water) in first message.

VHF:

Pilots	Channels 6, 11, 13, 16, 19A
Tugs	Channels 9, 10, 12, 13, 16
U.S.C.G.	Channel 16
Marine Operators – Norfolk	Channels 16, 22, 27

BERTHING: The Docking Master boards the vessel from a tug 1 – 2 miles East of the Amoco Dock. 2 tugs are generally used for docking; vessels over 28,000 d.w.t. may require 3 tugs at the Docking Master's discretion. The vessel makes a normal marginal approach to No. 1 Dock with the tugs breasting the vessel alongside and holding it there until secured. Vessels generally dock port side to at No. 1 Berth. No. 2 Berth is of new construction and is located 1,122 ft. to the West of No. 1 Berth. When docking at No. 2 Berth, vessels approach No. 1 Dock on a Southwesterly heading to initially avoid a shoal area located N.N.W. of No. 2 Berth. When the vessel is within 550 ft. of No. 2 Berth, the approach is made parallel to the dock face until the vessel is off the dock when it is breasted into position port side to by the tugs. Extra caution must be exercised when approaching No. 2 Dock when there is a ship at No. 1 Dock. At No. 2 Dock, difficulties will be experienced in placing vessel's gangway due to the extremely limited dock space amidships.

The berth is equipped with 12 in. Chicksan arms for crude discharge and 10 in. hoses for product loading. Weather conditions are carefully monitored by terminal personnel, and vessels are shut down when conditions warrant such action.

FRESH WATER: Available.

FUEL: Available.

Uruguay

GENERAL:

REGULATIONS: Increased fines became effective in June 1973 in respect of infringements of the Uruguayan Marine Code. There are approximately 119 Articles to the Marine Code, and Owners and Masters of vessels proceeding to Uruguayan ports are recommended to obtain a copy of the Code (which lists port regulations and amounts of fines for infringements, maximum fine being 760 U.R.) prior to arrival. We understand that copies of the Code, entitled "Reglamento Preventivo y Represivo de Infracciones Maritimas, Fluviales y Portuarias", may be obtained from Centro Navegacion Transatlantica, Colon 1486 p. 3, Montevideo.

Freely translated, we give below some extracts of Port Regulations as specifically applicable to Montevideo, but also to all Uruguayan ports in general:

Articles 1 to 8 cover respectively the reasons for setting up this preventive set of regulations; the definition of what a vessel is in terms of the legislation; the establishment and amount of fines (they may be tripled in the event of repeated offences); the fact that very small vessels may only have imposed 10 per cent of the full fine; the jurisdiction for the regulations covering the whole of the Uruguayan coast and river frontage; the stipulation whereby the General Marine Prefecture must send to the Master of the vessel a statement of the offence immediately it is observed and this in triplicate and to the local Agent for the vessel.

The actual information which the form must contain is delineated. Notification of offences can be made after a vessel has sailed, this being to the local ship's Agent by phone and confirmed within 24 hours in writing. All Masters must give written consent to their local Agent, and the Agent must accept this in writing, empowering the Agent to act in the Master's name in all cases of fine payment. The Authorities may delay the sailing of a vessel if they see fit in connection with any offence. Finally, article 8 deals with the right to appeal to the General Marine Prefecture against any fine imposed, this having to be done within 10 days dating from day following personal notification of the offence.

Articles 9 to 119 cover the specific offences subject to fine and indicate individually the full fine imposable in local pesos.

An abridged summary of each of the articles is as follows: No anchoring within 900 m. of the illuminated buoy in the port access channel.

Vessels carrying hazardous cargo must hoist flags according to the International Code of Signals.

Vessels with anyone on board with contagious diseases must hoist appropriate flag (letters "QL").

Flag "Q" must be hoisted and maintained in position until Health Authority has given Free Pratique.

All vessels anchoring in the roads, bay or ante-port must take due precautions not to harm or cause damage to other vessels; the fine will be imposed notwithstanding claims for damages from third parties.

Agents of vessels which may wish to anchor in the Roads must obtain prior permission from the Marine Authority, specifying vessel's measurements and the reason. If authorised, the anchorage to be used will be notified.

No anchoring at the docks unless justified, and anchors must be raised immediately the reason for dropping them has gone. There must be no delay on the part of vessels in complying with the Marine Authorities instructions to change berth or anchorage.

No tying up to other vessels without Marine Authority permission; no attachment to berths which have not been allocated and no changing of berth without authorisation.

No anchoring in places not authorised by the Marine Authority, the maximum fine being applied should this have caused damage to third parties.

No small craft to be tied up obstructing gangway or quays. Where this is necessary for embarking crew members, passengers, provisions, etc., the small craft must be removed immediately the operation has been completed.

Small craft must not be tied up to buoys or beacons. Vessels must not tie up at buoys or beacons.

Maximum speed of vessels in docks is 4 knots.

Navigation in channels of access to ports is governed as follows:

Maximum speed 8 knots.

Vessels must always keep to starboard.

Vessels must not overtake each other, but where this is necessary they must conform to the International Colregs.

No anchorage in channels.

No fishing in channels.

Vessels navigating in channels must keep a distance of 1,000 m. from each other.

Vessels must not cross in front of each other in the fore-ports.

All vessels entering or leaving the ante-port or docks, changing berths or anchorages must be assisted by a Pilot and tug, unless specifically given exception to this rule by the Marine Authority.

No vessel must enter port with damage to hull, machinery or rudder unless prior inspected by the Technical Commission of the Mercantile Marine Directorate.

Any vessel springing a leak whilst navigating in the access channel, and which the bilge pumps cannot overcome, must go aground as quickly as possible outside the channel so as to leave the channel open.

In case of fire on board whilst navigating in the access channel, Masters must observe usual procedure and give signals accordingly.

The strict use of semaphore signals within port must be observed.

When vessels enter the docks or remain in them, Masters, owners or Agents must request permission from the Marine Traffic Office, and report to the Office of Pilotage, and proceed in whatever form they may instruct. On leaving the same procedure must be followed.

Masters and owners of vessels must see that their vessels do nc obstruct or cause harm to port works, beacons, buoys, or semaphore and once tied up they must not slacken ropes without permission of th Marine Authority except under conditions covered by items 1, 2 and of Article 64 of the Port of Montevideo Marine Regulations.

No vessel to have badly stowed cargo, excess weight, or evidence c lists due to bad trimming of cargo.

Only those lines necessary for tying up to be used. When 2 or mor vessels tie up alongside to load or discharge they are all obligated t ensure that the handling of their respective cargoes does not prejudic the working of the others.

Vessels must take proper precautions when loading or dischargin raw material, i.e. sand, bones, ash, coal, etc., by placing suitable plank of wood close together to prevent any such material falling into the wate

No vessel to enter docks with the gangway already rigged.

During unloading operations, no goods to be thrown on to the qua This must be done manually or mechanically.

During discharge operations, cargo must be so positioned on the qua as to leave adequate passage for vehicular traffic, i.e. Police, Fi Brigade, Health Authorities, Customs and Port Officials.

Planks of wood — when planks are used for any operation, they mu not be placed in contact with mooring bitts or cables. When work cease all pieces of wood, ladders, small trucks, etc, must be removed fro quay, and those belonging to the ship must be taken on board, this s as not to obstruct the public path along the quay.

When cleaning or washing ships tied up at quays, no rubbish, wate or cleaning material must be allowed to fall on the quay.

A very serious offence is the throwing into the water of any rubbis sewage or other material susceptible to polluting the water.

Very serious offences are the lightening of ships carrying petrol, cruc oil, or the like, likewise the washing-out of tanks, except in authorise zones. The fine is based on the area spoiled by the wrongful discharg

All ships should have local Agents, otherwise in the case of offence the Master is held responsible and vessels may be detained.

Vessels are responsible to ensure that no damage is made to qua installations by the cargo they load or discharge, and must always leav berths in a tidy and clean state.

Vessels' auxiliary small craft, launches and the like must not har over the side of the vessel in port, except during operations of launchir and reshipping on board, where such operations are conducted at poin indicated by the Marine Authority. Such small craft may only be use for the purpose and at the times authorised by the Marine Authority.

Usual regulations concerning carriage of passengers in vessels ar heavy fines are imposable for the carriage of passengers or cre members not listed.

Vessels exceeding their navigation limits shown in their Certificate Navigability are subject to fine.

All vessels must be cleared to sail by the Marine Authority.

Vessels must use their proper name and this must be painted on letters of minimum of 15 centimetres height and 8 centimetres wid Letters must be white on black or black on light colour.

Masters, Owners and Agents must report any crew offence irregularity on board to the Marine Authority.

Vessels in port must hoist the Uruguayan flag.

N.B. It is recommended that Masters correctly establish the prescribe times for raising and lowering the Uruguayan flag, in order to avo fines.

Vessels must have their gangway equipped with handrails, and th gangway must be clearly lit at night.

All lines to shore must have rat-guards fitted.

When there are hazardous goods on board or when such goods a being worked, the vessel must hoist the International Code Signal lett "B", and at night show a red light on the bow masthead, must alwa have engines in a state of readiness in case of danger, keep two-thir of the crew on board, keep watchmen and firemen available (the numb of whom will be determined by the number of holds containing th hazardous material), must only work with incandescent lights, and kee a Port Pilot on board if the Marine Authority so directs.

Vessels moored at quays must not move propellers, except under th direction of the Marine Authority.

Vessels must not moor in the port access channel. There must be r improper use of the International Code Signal. Signal flags must not b interspersed with flags of nationality.

If a vessel wishes to dress flags over all, or fly a flag at halfmast du to a bereavement on board, the Marine Authority's permission must b first obtained.

The use of whistles, sirens or any other audible signal within the are of the roads, bay, ante-port or docks, for any reason other than justifiab for navigation is prohibited.

Any vessel anchored, tied up to other vessels or to the shore or quay must show a white light from sunset to sunrise which can be seen at distance of 500 m.

In the access channel to Montevideo, no more than 4 vessels ma navigate at one time — 2 entering, 2 leaving.

Maximum speed in the Montevideo ante-port is 6 knots. There mu be no anchoring in the Free Zone, reserved for the manoeuvring vessels entering and leaving.

At Montevideo there must be no anchoring along the route leadir from the Free Zone to Channel "A", between the quay and the pier the same letter. Also on the route leading from Pier "A" along a line 100 m. to the North of the end of the West Jetty.

No anchoring in any area less than 200 m. from Pier "A" in a sem circular coverage, taking as middle point a position half way betwee Quay "A" and Pier "A".

All vessels must keep to the right or to the middle when there are r other vessels in the vicinity.

International Regulations for the Prevention of Collisions apply, plus the following:

Vessels navigating along the routes established in the anteport or which have to pass directly through the passage between Jetties "A" and "B", must keep to the right when another vessel is coming in the opposite direction.

Vessels which have to cross the North, the South route or directly between Jetties "A" and "B", must ensure that they pass any other vessel at a distance not less than 50 m.

Any vessel navigating under her own power must give way to a vessel under tow by a tug.

Vessels with tugs following routes which cross one another, thereby creating a collision risk, the one passing to the starboard of the other is the vessel which must take the precautionary measures to avoid collision. If, however, the risk persists, the vessel passing to port of the other must also take measures to increase the distance between the two vessels.

No vessels to pass in pairs or in opposite direction between Jetties "A" and "B"; the semaphore signals transmitted by Quay "A" must be observed. If the signal is "vessel entering from the ante-port to the docks", the vessel in the docks, ready to sail, must wait until the incoming vessel has entered.

If the signal is "vessel leaving the docks for the ante-port" the vessel in the foreport, moving towards Jetty "A" to enter the docks, must wait in the free zone, stop engines, keeping to the right, and drop anchor if necessary, until the outgoing vessel is outside and well clear of Jetty "A". The same regulation applies to vessels leaving the River Dock. In this case, the vessel leaving Jetty "A" has priority, coming from Docks I and II the first will wait for the second before starting engines.

All vessels navigating in the same direction in the ante-port must keep a distance of not less than 300 m. from each other stern to bow. They must not pass each other or navigate in pairs.

In the event of offences being incurred whilst an Uruguayan Pilot is on board, at the request of the local ship's Agent, the Marine Authority will determine whether the Pilot is responsible for the offence having occurred, and take measures accordingly.

Vessels which load beyond the appropriate load line will be subject to a fine of 1,000,000 pesos.

DOCUMENTS:

Consular Documents: The Consulate in a foreign port from which merchandise is to be shipped to a Uruguayan port must be presented with the following documents:

(a) Cargo Manifest, original and 3 copies.
(b) Crew List, original and 1 copy.
(c) Passenger List (or no-passenger declaration), original and 1 copy.
(d) Bills of Lading, original and 3 copies.
(e) Commercial Invoice, original and 3 copies.
(f) In the event that the vessel is cleared in-ballast, an in-ballast declaration, original and 1 copy.

One copy of each document is filed at the Consulate, and the following are returned, duly visaed:

1 original manifest, 1 copy of each bill of lading, and 1 copy of the commercial invoice, in an envelope addressed to the Customs Administrator of the port of destination.

1 copy of the manifest, and 1 copy of the bills of lading, in an envelope addressed to the National Ports Administration.

1 copy of the manifest, the original and 2 copies of the bills of lading, the original commercial invoice, the original crew list, and the original passenger list (or no-passenger declaration).

Prior to Arrival:

Notification of Arrival – by Ships' Agents.

(a) Container vessels (minimum load 30 FCL and minimum discharge 30 FCL stipulated) and passenger vessels have berthing priority. Agents must notify the arrival of the vessel 10 days in advance to the National Port Administration (ANP) and confirm ETA 2 days ahead of arrival.
(b) For arrival in Uruguayan ports of all other vessels, agents must notify the ANP 48 hours in advance.

All notifications must be made on special forms from the ANP on request for a berth, presenting original and 6 copies, accompanied by a complete set of cargo manifests in Spanish.

For container vessels, Agents must present lists with details of a complete nature covering the containers to be unloaded in Montevideo (prefix, number, contents, gross weight and tare), whether to be discharged to store or to quay, and final destination in the case of transit.

Request for Port Services:

As has been said in the previous section, the berthing request must be presented to the ANP and acts as advice of arrival.

Each morning at 1000 hrs. the ANP designates berthing crews for vessels for the next 24 hours. In the event of there being no berthing staff available, the ANP appoints a place for waiting berthing in turn in accordance with the order of arrival at the port of Montevideo.

On *Arrival:*

Type of Document Basic forms	*Prefectura*	*Customs*	*Im'gration*	*Police*	*Health*	*Agency*	*Total*
	Number and distribution of documents						
1. General Declaration	1	–	–	–	–	1	2
2. Cargo Manifest	1	1(a)	–	–	–	1	3
3. Crew List	3(a)	–	1	1	1	1(a)	7
4. Passenger List	1(a)	–	1	1	1	1(a)	5
5. Ship's Store List	–	2	–	–	–	1	3
6. Crew Effects Declaration	–	2	–	–	–	1	3
7. Maritime Declaration of Health	–	–	–	–	–	1	1
8. Mail List	–	–	–	–	–	1(b)	1
Complete Transit Manifest	1	1	–	–	–	1	3
9. Consular Manifest(c)	–	3(a)	–	–	–	1(a)	4
10. Bills of Lading(c)	–	3(a)	–	–	–	3(a)	6
11. In-ballast Declaration(c)	–	1(a)	–	–	–	1(a)	2
12. Commercial Invoice(c)	–	3(a)	–	–	–	1(a)	4
13. No-Passenger List	1(a)	–	1	1	1	1(a)	5
14. In-Transit Passenger List	1	–	1	1	1	1	5
15. Declaration of Bonded Stores	–	2	–	–	–	–	2
16. List of Dangerous Goods	1	–	–	–	–	1	2
17. Vaccination List	–	–	–	–	1	1	2

(a) Visaed by the Uruguayan Consulate.
(b) For the Postal Service.
(c) The Consulate returns 1 envelope to the Customs Administrator, another to the National Ports Administration (with a copy of Manifests and Bills of Lading), and a third to the agency, with the required visaed documents.

Other Requirements:

The agency must provide a cargo book (tally book) for each port to the National Ports Administration.

Prior to Departure:

24 hours prior to sailing, the vessel must notify the Maritime Prefecture and Migration. Representatives of these agencies must receive a crew list and check any changes. If the vessel carries passengers, the Inspector of the National Migration Administration must prepare a record of a sailing inspection, similar to that required upon the vessel's arrival.

The Maritime Prefecture authorises the clearance of the vessel.

PILOTAGE: Also see "Control". Pilotage is compulsory in all river and port zones, except for vessels coming from the East to ports between La Paloma and Montevideo Roads, or entering Montevideo Roads for no commercial reason. All coastal vessels either Uruguayan or foreign are also exempt.

Pilotage Zones:

1. RIVER PLATE – Comprises zone between imaginary lines in the East from Punta del Este (Uruguay) and Punta Rasa, on Cape San Antonio (Argentina) and on the West between Colonia and San Isidro (Argentina).
2. RIVER URUGUAY – From 56.5 km. of Farallon Channel to Uruguayan ports on the River Uruguay.
3. PORTS – Pilotage zones, comprises limits of each port including its Roads.
4. SBM at Jose Ignacio.

In the River Plate, Pilots presently board to the South of the wreck of the *Calpean Star*, approximately 4.5 km. South and lying 70 m. West of the dredged access channel.

Several of the pairs of buoys are missing, and only the Mid Channel Buoy indicating the entrance to the Access Channel, 5 miles South from the port, and the 2 pairs nearest to the breakwaters are operating.

When taking tankers, the port Pilot usually goes out to the 5-mile mark.

There is no more than 30 ft. in the Access Channel at the moment; dredging is being carried on, but there are only 2 dredgers operating between the channel and the port of Montevideo itself.

The current is across the channel, running at about 1 knot, and changes direction more with the wind than the tide.

Vessels awaiting Pilot should anchor on the West of the channel and South of the *Calpean Star;* there is 24 ft. up to 500 m. West of the channel. The zone to the East of the Access Channel has submarine cables and must therefore be avoided.

Pilots are ordered through the Agent, and have an up to date communications system installed in their office on the 11th floor of Custom Building.

Permanent watch is kept on Channel 16 VHF, and operator speaks English. It is possible to call "Practicos Montevideo" and ask to be connected by phone to the vessel's Agent's office for last minute instructions, etc.

Channel	Frequency	Channel	Frequency
9	156.45	11	156.55
16	156.80		

The port is closed when wind force exceeds 43 knots or, at night 37 knots, or if visibility is less than 1 km., but otherwise vessels can enter or sail at any time.

There is also a Telex machine with 24 hour watch, over which messages can be transmitted to Agents out of office hours, over a weekend, for example. Call sign is DGT 843 Pilot CX. This is particularly useful for vessels sailing late from Buenos Aires, and the Office will pass on the message to the corresponding Agency by phone.

All Pilots carry a "walkie-talkie" and can communicate either with their office, the Port Authority or the Semaphore Station, using Channel 9 for the Port Offices and 11 for the Pilot's Office, 16 being kept for use with vessels.

Ordering of River Pilots for Sailings from Uruguayan River Ports: Although Masters can apply directly for Pilots such applications must be made by telegram addressed to the Practico Mayor Montevideo, it is preferable for them to keep their Montevideo Agent fully informed and leave the latter to order the Pilot.

The opportunity of ordering Pilots at any hour having been discontinued makes it more essential than ever that Montevideo Agents are kept accurately informed regarding expected readiness to sail. Failure to do so will result in unnecessary demurrage being paid to Pilots or delay to the ship concerned.

Pilots for Vessels Proceeding from Sea to a Uruguayan Port on the River Uruguay: A Uruguayan Pilot must be employed to conduct ships from sea to a Uruguayan Port on the River Uruguay.

Vessels must call at Montevideo Roads to embark Pilot and pay the cost of tug to take out Pilot. They can also, alternatively, take an Argentine Pilot at Recalada who will take the vessel to Intersection, where in either case an Argentine River Pilot will board to take the vessel to the Roads of port of destination, where a Uruguayan Port Pilot will come aboard, this being a simpler procedure and all handled by Agents in Buenos Aires (one radio advice).

Vessels from an Argentine Port bound for Uruguayan River Port: Such vessels are normally taken to immediately off port of destination by an Argentine Pilot, but they must be berthed by a Uruguayan Pilot who has to be sent from Montevideo, thus Montevideo Agents must be kept promptly informed of vessel's position to enable them to order a Pilot to berth ship without delay.

Vessels leaving Uruguayan Port for Argentine Ports on the River Parana: Uruguayan River Pilot supplied from Montevideo must be employed for unberthing, and this Pilot takes vessel to the Bravo Channel off Nueva Palmira, where the Argentine River Parana Pilot, who is normally already aboard, takes over.

The Uruguayan Pilot is paid in accordance with tariff to Nueva Palmira plus an unberthing fee and travelling expenses.

HEALTH: In order to be able to enter port and berth without delay, the Authorities accept a radio, cable or telex request, couched in the following terms (messages must be sent in Spanish).

Vessels Arriving from Elsewhere:

Capitan . . . . solicita libre platica
(here the name of the vessel)
informando proceder de Buenos Aires, siendo su escala anterior
. . . .
(here a port in another previous country which could be Santos, Valparaiso, Capetown, etc.)
ondicion sanitaria buena . . . . Capitan
(here the name of the Master)

Vessels Arriving from Buenos Aires:

Capitan . . . . solicita libres platica
(here the name of the vessel)
informando proceder de. . . . .
(here a port of origin, say London – Liverpool – San Francisco – Rijeka – Kotka – Tokyo – Oslo, etc.)
siendo su ultimo puerto . . . .
(here say Santos – Valparaiso – Capetown, etc.)
condicion sanitaria buena . . . . Capitan
(here the name of the Master)

There have been cases of delay in delivery of radio messages, even though passed on by phone, but the original message must accompany Agent's request for Free Pratique, hence it is advisable to use cable or telex services if possible. Messages must be sent at least 24 hours ahead, and changes in ETA advised.

Although it is possible to take Pratique in Uruguayan River ports, there is frequently delay there, and since vessels must enter Montevideo to pick up the river port Pilot also, it is advisable in these cases to ask for Pratique at Montevideo as above, and the order from Sanitary Authorities granting Free Pratique will be handed to the Pilot to take on board with him.

In no case, however, does the granting of Pratique by radio modify the inspection in port, where the usual commission must be the first to go on board.

Illness On Board: Any private doctor attending a patient on board must immediately inform the Sanitary Inspector should the disease be contagious.

No patient can be landed without the consent of the doctor of the Health Department with the exception of accident cases that require immediate medical attention, and even in those cases the Health Department Doctor must be informed in order to issue a Sanitary Pass for the Hospital where the man was taken to.

If a Master does not report the existence of illness on board he is liable to fines which are double if patients land without the consent of the Sanitary Authorities.

RADIO:

Notice to Mariners:

Official Uruguayan Notices to Mariners are transmitted in Spanish only preceded by the signal TTT, the number of the Notice, letter R, then contents and are repeated for 15 days. Should there be no Notices to transmit, the wording "no hay avisos para navegantes" will be radioed.

Punta Carreta CWF 2768.5 kHz. A3 0.4 kW. at 0003, 1403 and 1903 hrs. (after the weather forecast).

Cerrito CWA on 4346, 8602,12750, 17208.8 kHz. A1 1.5 kW., also on 421.5 kHz. A1 and A2 5 kW. at 0000, 1400 and 1900 hrs. (after the weather forecast).

Montevideo CX 16850 kHz. A3 10 kW. at 1302 hrs. and 1602 hrs. on working days, at 1700 hrs. on Sundays.

Montevideo	CX 6	659 kHz	A3 2.5 kW.
	CX 26	1050	A3 all transmit Notices to Mariners at 1600 hrs.
	CX 38	1290	A3 5 kW.
	CXA 4	6125	A3 10 kW.
	CXA 6	9620	A3 20 kW.
	CXA10	11900	A3 20 kW.

Weather Forecast: A weather forecast is transmitted in Spanish to cover 3 zones. (See "Plans").

Reference AAA 830 is the Coastal area from Lat. 30° S., Long. 50° W. out to Lat. 30° S., Long. 46° W. and down to Lat. 33° 30′ S., Long. 53° W. and Lat. 35° S., Long. 49° W.

AAA 860, River Plate zone from Lat. 33° 30′ S., Long. 57° W. to Lat. 35° S., Long. 49° W. and down to Lat. 35° 30′ S., Long. 57° W. to Lat. 39° S., Long. 53° W.

AAA 870 Coast of Argentina from Lat. 35° 30′ S., Long. 57° W. to Lat. 39° S., Long. 53° W. and down to Lat. 41° S., Long. 62° W.

Details of all 3 zones are transmitted as follows, valid for 24 hours.

CWA on 421.5 kHz. A1 5 kW. at 0001, 1400 and 1900 hrs.

CWF on 2768.5 kHz. A3 0.4 kW. at 0005, 1405 and 1905 hrs. and in A1 over 4346 kHz, 8602 kHz, 12750 kHz and 17208 kHz.

Time Signals: Are transmitted from 2 stations in Montevideo at 1500 and 2000 hrs. The hour is indicated by 6 dots preceded by a 10 second dash and a 5 second silence. The last dot indicates the hour.

CX 6 on 650 kHz. A3 25 kW.
CXA 6 9620 kHz. A3 20 kW.

Standard time is GMT minus 3 hours.

Direction Finding: There are 2 radio beacons specially for maritime navigation. Both operating on circular sweep from the lighthouses at Cape Polonio and Isla de Lobos.

Cape Polonio: Lat. 34° 24′ 00″ S., Long. 53° 47′ 45″ W. frequency 295 kHz. A2 range 380 miles, and 500 kHz. A1 A2.

The signal is "P" repeated 3 times in 10 seconds followed by 18 dashes in 30 seconds, repeat "P" 3 times and 10 seconds silence total period 1 minute. This is repeated 4 times after 5 minutes silence, total 10 minutes.

In good weather transmission must be requested from CWM 21 on 500 kHz. A1 A2. In fog, there is continuous transmission from the hour.

Isla de Lobos: Lat. 35° 01′ 33″ S., Long. 54° 53′ 17″ W. frequency 300 kHz. A2 range 380 miles. The signal "L" is repeated 3 times in 10 seconds, followed by 18 dashes in 30 seconds, repeat "L" 3 times, silence 10 seconds. Total period 1 minute, repeated 4 times, then 5 minutes silence total period 10 minutes.

In good weather this transmission must be requested from CWM 26 on 500 kHz. A1 and A2.

In fog transmission is continuous from 05 minutes in each hour.

There are also the following airbeacons which can be used.

		S.	W.	kHz	
Colonia	COL	34° 27′ 33″	57° 45′ 49″	203	A2 0.075 kW. cont.
Montevideo	CAR	34° 46′ 15″	56° 01′ 28″	380	A2 0.05 kW. cont.
	CRO	34° 48′ 55″	56° 01′ 45″	305	A2 0.05 kW. cont.
	CRR	34° 49′ 50″	56° 00′ 15″	280	A2 0.05 kW. cont.
Gral. Artigas	GA	34° 45′ 00″	55° 58′ 00″	260	A2 0.05 kW. cont.
Punta del Este	CB	34° 55′ 00″	54° 55′ 00″	325	A2 occasional only.

GENERAL INFORMATION:

River Uruguay

Rises in Brazil, and later separates Argentina and Uruguay. Its right bank is generally low, wooded and swampy, the left bank high and hilly. Preparatory work has commenced on a large hydro-electric dam to be built at 332 km., above Concordia, which will take some years but will contribute to a regularisation of the river, which at present rises and falls twice every year, with the varying rainfall seasons in its basin, so that approximately half the year the water is low, usually from January to April and again in August. However, the wind also affects the depth of the water as in the River Plate, so that any seasonal forecast is impossible. A safe year round draft to Concepcion del Uruguay can be taken at 20 ft. 6 in., though vessels from time to time load to 22 ft. 6 in.

The Ministry of Marine publishes fortnightly a bulletin with all information on depths of water in the channels, as well as of changes in buoys, lights, etc.

Two new bridges communicating with Argentina now span the Uruguay River at Fray Bentos and Paysandu. The bridge at Fray Bentos has a clearance of 36 m. over zero, and a main span of 220 m.

CARGO

Movement of Cargo

Once stevedores have come aboard, no cargo, either for the port or in transit, may be handled by the crew, as otherwise the vessel will be called on for high extra wages to stevedores. This also affects the lashing of transit cargo on deck.

Stevedores will not work in the rain, except when loading meat, earning double wages while doing so. They can also be persuaded to handle baggage or mail.

When handling dusty cargo in general, or which gives off ammoniacal, nicotine, or organic emanations, masks must be provided for stevedores use.

Overcarried Cargo

Cargo for Montevideo is often overcarried to Buenos Aires with the consequent delays in delivery and expenses for the vessel. Holds should be carefully inspected as soon as discharge is said to have been finished to avoid possible overcarrying.

Clean Receipt

Agents will advise if they wish to receive any cargo for which a clean receipt cannot clearly be given, otherwise the cargo should be rejected. Mate's receipts cannot be claused to cover any damage from rain, wetting or other causes which might be sustained after the cargo is received on ship's tackle.

Bulk cargoes falling or drifting into water or on dock

When handling bulk cargoes vessels must place between the vessel and the dock side a wooden scaffolding, with lateral boards, or strong canvas to collect all material which is liable to fall into the water or on to the Dock during handling. There is a heavy fine for non-compliance.

This should be remembered when writing charter parties, especially under FIO conditions, as this should be for account of shippers or receivers.

Delivery of cargo from vessels

The cargo is discharged direct to Fiscal Warehouses, to lorries, lighters or wagons. When the cargo is delivered to Fiscal Warehouses, receipt for this is given to the vessel's Agents by the Custom House official in charge of the Warehouse. If discharged to lighters the lighterman obtains receipt from the Custom House official once the cargo is received in warehouse. When the cargo is delivered direct to Consignees' lorries, the receipt is given by special Custom House officials called "Cargo Receivers".

The goods are delivered by the Custom House officials to the Consignees against the presentation of the "transferencia" (transfer ticket) signed by the Agents of the vessel. The Agents sign the "transferencia", extended on stamped paper, against the Original Bill of

Lading, which must be legalised by the Uruguayan Consul at the port of loading.

The steamship Agents must keep a special register of all "transferencias", and are responsible to the Authorities for keeping this register. Agents must retain Original Bill of Lading for cargo discharged, as it must be shown to the Customs Authorities immediately if demanded.

When the Consignees have not received the original documents and they wish to take delivery of the goods from the Custom House they must present a Bank guarantee, drawn up in accordance with the form approved by the Shipagents Association.

Cargo manifested to this country in transit to other countries without documents for Uruguay may not be re-shipped to other countries without government permission.

Marks on goods imported to Uruguay

By a Decree dated 30th January 1939, the Uruguayan Government decided that:

"Packages entering Bonded Warehouse, excepting those containing provisions or beverages, and excepting also 'Barraca' articles, shall be marked with the gross weight, the nett weight and corresponding measurement, in a clear and legible manner. These marks may be either 'fire-branded or printed'.

"The 9th August 1939, the Customs Authorities requested that marks and numbers of cases entering Montevideo warehouses should be placed on the extreme ends".

The Customs Authorities have also made known that it is necessary for the packages entering the warehouse to show their weight and measurement in the decimal-metric system.

The inspection of potato cargoes can be effected on board the carrying vessel, and if found in good sanitary condition, can be discharged direct to shore.

Opening and Closing of Hatches

This can be carried out by either crew or stevedores, and hatches must be kept closed when not in use.

Shipments of Meat

These are controlled by the Ministry of Agriculture, whose inspectors check ships' holds before shipment can commence. Holds must be clean and disinfected and temperature controlled to minus 1° to a maximum of plus 1° Celsius for chilled meat, or minus 10° for frozen meat.

Chilled is to be hung on hooks adjustable for height and space and stow of frozen must give a uniform distribution of weight. Alternatively, special cuts are packed and shipped in cartons.

Containers

Use of containers is very limited, since these must be opened up and emptied on the dock alongside, or even on board the vessel. The container itself is considered as part of the vessel's gear, and must be re-shipped without delay.

On rare occasions the Armed Forces have had containers moved out to their barracks.

Consular Dues

All ships arriving at Montevideo must pay Consular dues, with the following exceptions:

Ships that due to a change en route, or by special call of their Agents in Uruguay, during passage, arrive at Montevideo with the sole purpose of receiving orders, as long as no commercial operations are effected.

Ships arriving in distress and which leave port without effecting operations.

Ships arriving for the sole purpose of landing or embarking Pilot.

The Ministry of Foreign Affairs consider bunkering as an operation, therefore ships calling at Montevideo for bunkers must pay Consular dues.

Consular value of the Uruguayan Peso – For the payment of fees abroad, the Executive Power will fix periodically the respective values of the peso, in accordance with exchange fluctuations.

Hours of Attendance at the Uruguayan Consulates – The Office hours of the Consulates will be those fixed by the Government in agreement with the Consuls in each country, endeavouring in each case to have the same working hours as those of the Custom House and other Public Offices of each City. Outside these hours, overtime is charged.

Consular dues on Bills of Lading – When vessels load cargo for Uruguay at ports where there is no Uruguayan Consulate, these dues are collected when the vessel arrives at Montevideo or at any other Uruguayan port. The Agent then recovers these charges from the Consignees.

CREW:

Deserters – Masters and/or Agents must report any deserters when the vessel sails. The Maritime Authorities give intervention to the Police Department, and if the men are located, the Agents must hand them over to the respective Consuls. However, the Agents continue to be responsible before the Authorities for the ultimate repatriation of the men, which must be done at first opportunity.

Vessels are subject to a fine per man. The Agents have also to pay repatriation expenses, in cases where the respective Consuls will not do so.

They must also deposit a guarantee which can be used for repatriation expenses in case the deserter stays in the country for more than 15 days.

Time limit for getting crew members left behind out of the country – According to law, Agents must arrange that such crew members leave the country within 15 days. This period of grace commences as from the date of vessel's departure in respect of deserters and for those disembarked for medical treatment as from date on which they are medically certified as fit for travel.

Upkeep of men left in hospital or temporarily disembarked and traced deserters – The Agents are responsible for the maintenance of men disembarked for medical treatment, or temporarily with a special Immigration permit, and for deserters, until they leave the Country.

Stowaways – Masters of vessels having stowaways on board must report them to the Authorities, stating their name and port of embarkation. The stowaways must be kept on board. If they escape and are found after the vessel sails, Agents will be responsible for their repatriation and upkeep charges until they leave the Country. As with deserters, vessels with stowaways on board are liable to a fine per man if this regulation is not complied with.

Agents must also deposit a guarantee per man, amount to be used for repatriating the stowaway or for conveyance to the port of embarkation.

Landing members of crew – Paying off crew for other than medical assistance is not permitted, but exceptions are granted in special cases. An application must be presented by the Agents to the Immigration Department, and if the permit is granted, a formal declaration is signed by the Master of the vessel, the Agents, the Immigration Inspector and the person wishing to disembark, setting forth length of time he is going to remain in the Country and conditions of departure. The personal documents of the person allowed to land, remain in charge of the Immigration Board.

If any member of the crew is landed for medical treatment or paid off without the corresponding permit, the vessel will be fined.

Gangways and Rat-Guards

A gangway must be placed and ready after a vessel comes alongside the quay, but this must not be presented before coming in to the quay. Authorities will only come aboard by the gangways.

Gangways must also have a lifebuoy with suitable line attached and handy, and a safety net must be placed under the gangway, otherwise shore labour will not board vessels, with consequent delay.

The gangway must also be brightly illuminated at night; an oil lamp is not sufficient.

As soon as vessel is securely moored, regulation size (not less than 80 cm.) rat-guards must be placed on all ropes, wires, fenders, lines and hoses.

Heavy fines are imposed for non-compliance with any of these or other regulations.

Overside Discharges

All overside discharges from latrines, bathrooms, gallery, scuppers, engine room, etc. must be screened or covered when vessel is alongside the quay, as vessels will be fined if the discharge falls on the dock or gangway.

Adjustment of Compasses

Vessels proceeding through Magellan Straits – The disposition issued by the Chilean Shipping Authorities on 13th April 1953, states:

"When a foreign ship arrives at the Magellan Straits and applies for a Pilot, official or private, for navigating the Channels, the Pilot must first check the compass for deviations of more than 5°, and if such deviation has been determined more than 6 months ago, especially in a place with great difference of latitude or different hemisphere, compensation of compass is obligatory when not in true order, and a written declaration to this effect will be made in the pilotage agreement. The Authorities will also send an officer to verify that the compass is in satisfactory condition before entering the Straits".

To avoid probable delays, ships heading for the Straits can make the necessary compensation in the Port of Montevideo or in the ante port whilst waiting for orders for departure. This port is most convenient for this class of compensation because at the present moment there is no magnetic variation and also because it is a quiet harbour with sufficient depth for turning. A compass adjuster may be obtained at any time.

200 Mile Limit and Fishing

Uruguay has declared sovereignty over 200 miles off shore, reserving all fishing and undersea exploitation rights. A number of foreign flag vessels fishing without permits have been seized and heavily fined, their catch and gear being confiscated.

Permits are obtainable, but in no case for vessels over 500 tons gross, to operate within 60 miles from shore, while all activity in territorial waters (200 miles) is forbidden in the months of May and June.

Garbage

Garbage is collected every morning by truck. There is a strict prohibition of dumping anything into the port, and oil tanks must not be cleaned within 30 miles of the coast, and on a falling tide.

Old dunnage should not be dumped or sold, without permission from the Authorities, through Agents.

Ships' Boats

Use of ship's boats is forbidden within the port, unless they are being lowered, with prior permission, for maintenance or exercises.

Fenders

All vessels must have at least 2 large fenders, to keep them 5 ft. or more off the quay. If the vessel has no fenders, or due to deck cargo cannot use them Agents should be warned in advance to rent the necessary equipment and have it ready on arrival.

Dropping Anchor when Berthing

If an anchor is dropped when approaching a dock to berth, to control the vessel as she moves in, it is essential that the anchor should be hove in again once the ship is moored. Port regulations require this and any damage to other craft, real or imaginary, through fouling anchor or chain, would cause considerable trouble.

SYSTEM OF CONTROL CENTRES AND MARITIME INFORMATION (COASTAL STATIONS FP-FT-FW, VHF-FM):

Legal Basis

(a) System of Control and Information of Movement of the Port of Montevideo and its zone of influence made operative on 9/4/75. (Maritime Regulation No. 1).

(b) Control Centre and Information of the Maritime Movement of the Port of Colonia and its zone of influence made operative on 23/9/76. (Maritime Regulation No. 3).

(c) Control Centre and Information of the Maritime Movement of the Port of Nueva Palmira and its zone of influence made operative on 1/10/76. (Maritime Regulation No. 4).

(d) Control Centre and Information of the Maritime Movement of the Port of Punta del Este and its zone of influence made operative on 2/1/77. (Maritime Regulation No. 5).

(e) Control Centre and Information of the Maritime Movement of the Western Coast and its zone of influence made operative on 27/4/78. (Maritime Regulation No. 11).

(f) Control Centre and Information of the Maritime Movement of the Port of La Paloma and its zone of influence made operative on 1/11/78. (Maritime Regulation No. 12).
Note: In all the creations of the Control Centres, due account was taken of Programmes 1.09 and 3.08 corresponding to Law 14.106 and Sub-Programmes: "Maritime Police" and "Direction of Mercantile Marine".

(g) Control and surveillance of fishing vessels in the various fishing areas within the waters in the jurisdiction of the P.N.N. – Sources: Laws Nos. 14.145, 14.521 and 14.106 of the P.N.N. – Programme 1.09. (Maritime Regulation No. 2).

(h) Equipment which fishing vessels under the Uruguayan flag must possess when they operate in the common fishing zone between the Eastern Republic of Uruguay and in the Uruguayan fishing areas proper.
Sources: Maritime Regulation No. 2 of the 23/7/76. Decree of Co-ordination of Punta del Este of 27/1/76 (P.N.N. – P.N.A.). (Maritime Regulation No. 6).

(i) Equipment which vessels and/or craft in the coasting trade, pleasure craft, passenger vessels and working boats must carry where they operate in the Ports of the Republic and Navigate in the River Uruguay. (The zone between International Bridges and the Salto Grande).
Sources: Appendix 18 MAR 2 of the Radio communications regulation of the UIT and the Agreement arising from the meeting between Uruguay and Argentina (Buenos Aires 9/76) in respect of the use of VHF and FM channels and Maritime Regulations Nos. 1 to 6 of the P.N.N. – (Maritime Regulation No. 7).

(j) Law covering the control of pollution: Sources: Law No. 13.833 of the 29/12/69 and in particular articles 2 and 12 of the said Law. Chapter IX Pollution – (Articles 47 to 52) of the Treaty of the River Plate and its Maritime Frontage and Regulation of 28/10/74 of the Prefecture of the Port of Montevideo (Maritime Regulation No. 8).

(k) Zones for lightening ships and complement of cargo: Sources: Resolutions Nos. 2 and 4 of the Administrative Commission of the River Plate of dates 30/9/77 and 26/10/77 as laid down in Article 28 of the Treaty of the River Plate and its River Frontage and established transitorily in the Article 88 of the said treaty (Maritime Regulation No. 9).

(l) "LASH" – Type Operations: Sources: Resolution No. 1/2/78 of the Administrative Commission of the River Plate, Chapter IV. Articles 24 and 27 (Port Facilities, lightening operations and complements of cargo) of the Treaty of the River Plate and its maritime frontage (Maritime Regulation No. 10.).

(m) Agreement on the International Regulation for preventing unauthorised boarding.

(n) The Treaty of the River Plate and its Maritime Frontage.

(o) The Statutes of the River Uruguay.

(p) The International Agreement for the Safety of Human Life at Sea – 1974.

(q) Regulation of Radio-communications of the International Union of Telecommunications (UIT) and nomenclatures.

Particulars of the System

1. AIMS OF THE SYSTEM OF CONTROL CENTRES

(a) To effect positive sovereignty over the Area of the System:
  1. Territorial Sea
  2. River Plate
  3. River Uruguay
  4. Merin Lagoon

(b) To offer support to the National Mercantile Navigation and of third parties, complying with the objectives as propounded by the International Maritime Organisation (IMO) and by the International Telecommunications Union (UIT).

(c) To serve as a chain of Control Towers, effecting control and information of Movement of vessels and Port Operations.

(d) To co-ordinate with Public and Private Institutions who operate within the Ports of the Republic, to facilitate and activate port operations, avoiding delays and inconvenience.

2. GENERAL FUNCTIONS

The General functions of the Centre are:

(a) To maintain real and efficient control of the movement of vessels, in the area of application of the system in order:
  1. To prevent collisions between vessels.
  2. To alert the systems of Search and Rescue and/or Salvage in the event of vessels requiring assistance.
  3. To facilitate BYR operations.

(b) To maintain real and orderly control of the operations in the ports to:
  1. To prevent groundings and collisions with obstacles in port works:
  2. To have prepared emergency plans for cases of disasters and maritime accidents within the Ports and International Bridges (River Uruguay).

(c) To maintain up-to-date information concerning the state of the weather, lighting and all other matters contributing to the safety of navigation and operations in the area.

(d) To maintain up-to-date information for Maritime Agencies and/or Owners, providing such information to facilitate and activate port operations to be effected by vessels, obviating delays and inconvenience at all times.

(e) To serve Public and/or Private Institutions who operate in the Ports, collecting, classifying, analysing, evaluating and disseminating all the necessary information for the better fulfilment of port service.

(f) To comply with all other functions which are specified by the Mandate and to co-operate with Public Authorities and organisations in all matters relating to its functions.

3. CONTROL AND INFORMATION FROM THE CENTRES

The system belongs to the National Navy and is controlled by the National Navy Prefecture. It is directed from the Montevideo Control Centre.

(a) Control of Movement of Vessels – Control of vessels navigating within the Vessel Movement Areas.

(b) Control of Port Operations – Control of vessels manoeuvring within the ports of the Republic, including roads and access channels.

(c) Control of International Bridges – Control of vessels navigating in the International Bridges Zone – Gral. Jose Artigas Bridge at Paysandu, and Gral. San Martin Bridge at Fray Bentos.

(d) Vessel Movement Service – Maritime Mobile Safety Service, between coastal stations and vessels or between vessels, where the messages refer solely to vessel movement.

(e) Port Operation Service – Maritime Mobile Service in a port or in its district, between coastal stations and vessels, where the messages refer solely to vessel operations, movement and safety and, in the event of emergency, to safeguarding persons.

4. ZONES OF CONTROL AND INFORMATION OF THE CONTROL CENTRE SYSTEM

(a) Port of Montevideo (Deep Sea – Coasting – Fishing).
  1. "Alpha" – Control and information of vessel movement.
  2. "Bravo" – Control and information of port operations.

(b) Port of Buceo (Pleasure Craft).
  1. "Oscar" – Control and information of port operations.

(c) Port of Santiago Vazquez (Pleasure Craft – Coasting).
  1. "Papa" – Control and information of port operations.

(d) Port of La Paloma (Fishing Centre).
  1. "Kilo" – Control and information of movement of vessels.
  2. "Lima" – Control and information of port operations.

(e) Port of Punta del Este (Fishing – Pleasure Craft).
  1. "Golf" – Control and information of vessel movement.
  2. "Hotel" – Control and information of port operations.

(f) Port of Piriapolis.
  1. "Tango" – Control and information of port operations.

(g) Port of Colonia (Passage port to Buenos Aires).
  1. "Charlie" – Control and information of vessel movement.
  2. "Delta" – Control and information of port operations.

(h) Port of Sauce (Coasting).
  1. "Uniform" – Control and information of vessel movement and of port operations.

(i) Port of Nueva Palmira (Deep Sea).
  1. "Echo" – Control and information of movement of vessels.
  2. "Foxtrot" – Control and information of port operations.

(j) Port of Carmelo (Pleasure Craft – Coasting).
  1. "Quebec" – Control and information of port operations.

(k) Port of Fray Bentos (Overseas – Navigation – International Bridges).
  1. "India" – Control and information of the movement of vessels
  2. "Juliet" – Control and information of port operations.

(l) Puerto Paysandu (Overseas – Navigation – International Bridges).
  1. "Mike" – Control and information of the movement of vessels
  2. "November" – Control and information of port operations.

(m) Puerto Salto (Coasting – Pleasure Craft – Passages).
  1. "Romeo" – Control and information of the movement of vessels.
  2. "Sierra" – Control and information of port operations.

5. COMMUNICATIONS

All Centres maintain permanent listening on Channel 16 (VHF – FM).

(a) *Language:* The language used in communication is Spanish.
Vessels who have difficulty in communicating in Spanish may do so in English, and if there are problems in hearing properly they may use the groups of the International Code Signals, Tables of Spelling equivalents and Numbers, or "Q" Code.

(b) *Channels – Frequencies and Usages:* There will be those as defined by Appendix 18 Mar 2, of the Radiocommunications Regulations of the International Telecommunications Union, published by the General Secretary of the UIT in Geneva 1976 and the points agreed in the Uruguay – Argentina Meeting, carried out in the City of Buenos Aires 9/76, use of the VHF Channels (Band 156 – 174 MHz.).

Channel	*Frequencies*	*Usage*
6	156.300 MHz.	Bridge to Bridge.
8	156.400 MHz.	Port Operations.
9	156.450 MHz.	Port Operations.
11	156.550 MHz.	Transmission from the Centres in fulfilment of objectives.
13	156.650 MHz.	Transmission from the Centres in fulfilment of objectives.
15	156.750 MHz.	Meteorological Bulletins and Warnings to Navigators.
16	156.800 MHz.	Calling up and Security.
18	156.900 MHz. Reception	Jose Ignacio Oil Terminal.
	161.500 MHz. Transmission	Jose Ignacio Oil Terminal.

Should problems arise with VHF equipment on vessels (the range of same, out of service, etc.) communications should be effected on MF or on HF with the Safety Coastal Stations of the P.N.N.

The services and frequencies of the Coastal Stations are described in the tables at the end of "Uruguay General" Section.

Vessels who, for some reason or other cannot effect communications by radiotelephone (VHF, HF, MF), should do so by radiotelegraphy through the intermediary of the Coastal Station (open to public correspondence) Cerrito Radio CWA.

Radiotelegrams should be sent in time to the telegraphic address Comopre.

(c) *Listening Out by Vessels:*

1. *All vessels* in Uruguayan judicial waters must maintain permanent listening watch on Channel 16 (VHF – FM) except when they are moored in port. If there are problems on VHF they should listen out on 2182 or 4125 KHz.
2. When a vessel cannot, due to any fault of whatever nature, maintain listening watch on Channel 16, she should pass to Channel 11 or 13, but advise the Control Centre first.
3. In the various zones, the vessels must use as a working channel to communicate with the Zone Centre, the frequency which the Control Centre will indicate to them on Channel 16.
4. In all the ports of the Republic, vessels and/or craft in the coasting trade, pleasure craft (Categories A and B), passenger craft and traffic units (tugs, dredgers, launches, lighters, etc.) must be equipped with a VHF – FM transmitter and receiver for local communications with Port Controls, Appendix 18 Mar 2 of the Radiocommunications Regulations of the International Telecommunications Union.
5. *All vessels or craft* navigating or carrying out operations within 25 miles or more of the coast, must be equipped with a BLU transmitter and receiver (with corresponding frequencies) of 150 watts effective power and A3A and A3J type transmission.

(d) *Services and Frequencies of the FP, FC and FW Dependent on the P.N.N.*

Coastal Station (FC), Station for Port Operation (FP), Station for Service of Vessel Movement (FT), Station which is both for Port Operations and for Service of Vessel Movement (FW).

(e) If in fulfilment of the regulations set out by this System, vessels on calling up the Control Centre cannot obtain a reply, they should immediately make the communication in question to the Director of the System (telegraphic address: Comopre) by radiotelegraphy or radiotelephony via Cerrito Radio (CWA) or Punta Carretas Radio (CWF) respectively.

Communications to Centres:

1. From Vessels in the Zone.
   - (a) Position on entering and leaving each Zone of Vessel Movement (Flag, Name, International Call Sign, Where From, Where Bound, Latitude, Longitude, Course, Speed and Maximum Draft).
   - (b) ETA at next port.
   - (c) Problems with characteristic aspects during navigation.
   - (d) If anchoring or raising anchor at any point in the Control Zone of Vessel Movement, it is necessary to ask for authorisation when this is done within Port Operation Zones, and also whenever any manoeuvre is intended to be carried out, and this authorisation expiring within twenty (20) minutes from its request.
   - (e) Any damage suffered by the vessel.
   - (f) Assistance given to damaged vessels or those in difficulty.
   - (g) Any indications of dangerous obstacles to navigation which are not duly indicated by buoys and lights.
   - (h) Any serious reduction in visibility.

2. Pilotage:
   - (a) Whatever is specified in the General Pilotage Regulations.
   - (b) Time of embarkation and/or of disembarkation.
   - (c) Request of Master concerning change, mooring, etc.
   - (d) Difficulties in pilotage.

3. Concerning the Owner or Agent:
   - (a) Monthly list of expected vessels.
   - (b) Confirmation of arrival of vessels 24 hours in advance.
   - (c) News concerning vessels being delayed or arriving early.
   - (d) Information if the vessels are carrying hazardous cargo (explosives or inflammables) 24 hours in advance of arrival, including any such cargo in transit, mentioning:
     - (i) The amount and location of such cargo.
     - (ii) The correct technical name of the substance (the designation used for transportation purposes), the UNO number (if this is given), classification in the IMDG Code (if this is given), the flash point (if applicable) and quantity.
     - (iii) The presence or otherwise on board of a Certificate which is valid showing the ability of the vessel in respect of the cargo which it is carrying (only for hazardous substances carried in bulk);
     - (iv) The stowage of hazardous cargo on board, indicating those which have to be unloaded and those which have to remain on board;
     - (v) The condition in which the hazardous cargo is and any defect which is known in respect of packages or drums, together with the system of containing and handling of the cargo, of the equipment and instruments used (when hazardous bulk cargo is involved), which may engender excessive risk.
     - (vi) Any known defect which may effect considerably the safety of navigation.

(f) *Communications from the Centres:*

1. To vessels (navigating towards Uruguayan Ports).
   - (a) The quay at which they will berth.
   - (b) The Pilot who will assist the vessel.
   - (c) Any information from the Maritime Agent with regard to future operation.
2. To the Pilot:
   - (a) Tugs and cable launches who will assist him.
   - (b) Defences on the sea wall.
   - (c) Bitts which the vessel will use.
3. To the Owner or Agent:
   - (a) Position of their vessel.
   - (b) ETA.
   - (c) Conditions of cargo.
   - (d) Time at which the Pilot will go on board.
   - (e) Time of berthing.
4. To the Centre Director of the System (Control Centre and Information of the Maritime Movement of the Port of Montevideo) immediately any information is obtained with regard to:
   - (a) A BYR incident or any difficulty which is presented to a vessel.
   - (b) A deep sea or coasting vessel (data concerning Naval Messages in accordance with the Abbreviated Code).
   - (c) A fishing vessel, with the Naval Message data being as follows:
     - Where from, Flag, Name, International Call Sign, Month, Day and Hour of sailing, Position (for Customs Clearance), Month, Day and Hour of Position, Activity (fishing or bound for Port).
     - Arrival, Flag, Name, International Call Sign, Month, Day and Hour of Arrival, Port of Arrival.
     - Fishing or within the Zone, or the Port, Flag, Name, International Call Sign, Position, Month, Day and Hour of Position ETA (if it is within the Zone or the Port).

(5) To the adjacent Control Centre:

When a deep sea or coasting vessel sails from a port controlled by the Control Centre, or when this vessel effects a passage to the Vessel Movement Zone controlled by that Centre, this must be informed to the adjacent Control Centre (according to the course of the vessel) stating ETA and the Zone of Vessel Movement of this adjacent Centre.

Note: The Control Centres will effect communications by Naval Message. These Naval Messages must be sent immediately after receipt from vessels or when such information comes to hand from other sources.

(Naval Messages in this context will have Priority Precedence).

(6) Command of to the Naval Control of Maritime Traffic in Uruguay (Contramu). Immediately on receipt all information specified in item (f) – Number (4).

(g) *Communications from Coastal Stations (Vessel Movements – FT, MF-HF)*

1. To the Centre Director of the System (Control Centre and Information of the Maritime Movement of the Port of Montevideo). Immediately on receipt all information specified in Item (f) Number (4).
2. To the Control Centre with responsibility over the zone to which a message refers.

The same as those quoted in the preceding Number 1.

6. FISHING VESSELS:

(a) All fishing vessels clearing entry or departure from any national port towards the different Fishing Areas must communicate to the Maritime Authority the following:

1. On Sailing:
   - a. Flag (FL)
   - b. Name of Ship (SHP).
   - c. International Call Sign (IND).
   - d. Port of Departure (DEP)
   - e. Month, day and hour of departure (TOD).
   - f. Destination (Indicate Fishing Zone and Position) (DST).
   - g. Month, day and hour estimated at arriving at the Fishing Zone (ETA Z/P).
2. On Arrival:
   - a. Flag (FL).
   - b. Name of Ship (SHP).
   - c. International Call Sign (IND).
   - d. Port of Arrival (PORT).
   - e. Month, day and hour of arrival (ARR).

(b) All fishing vessels *navigating* must communicate every 6 hours with the Safety Coastal Station of the National Naval Prefecture of the Eastern Republic of Uruguay which is nearest to them (or to which they are listening) giving the following information:

1. International Call Sign (IND).
2. Position in Latitude and Longitude (POS).
3. Month, day and hour of the position (DHPOS).
4. Port of Destination (DET).
5. Activity: (Fishing – Coming to Port – Going to Zone) (ACT).

(c) *Normal Fishing Zones:*

1. High Seas Zone (Altamar): Zone which is outside the judical waters and within the Common Fishing Area.
2. Common Fishing Area (ZOCOPES): Art. 73 of the River Plate and Territorial Sea Treaty.
3. The Zone of the River Plate (RIPLATA).
4. The coastal Zone of the Atlantic Ocean (COSATLAN): Zone included between our coast on the Atlantic Ocean and a Line 12 miles out.
5. Zone of the River Uruguay (RIURU).
6. Zone of the Merin Lagoon (LAMERIN).

(d) Uruguayan Fishing Vessels which are *navigating* in the Common Fishing Area (Uruguay – Argentine) within the Sector of Argentine Jurisdiction are obliged to communicate its position to the Argentine Maritime Authority. Communications will be made on frequency 3860.6 kHz. to the Coastal Safety Station of the Prefecture of the Mar del Plata.

(e) *Note:* Information to be communicated: All the communications as specified in (b).
All fishing vessels must *listen out permanently* on Channel 16 (VHF – FM), except when they are moored in port. If they are at a distance from the coast which prevents a safe communication on VHF, listening must be effected on 2721.5 kHz. Those effecting operations 25 miles or more from the coast, must be equipped with a BLU transmitter and receiver (with the corresponding frequencies) with 150 watts effective power and type of transmission A3A and A3J, and also fishing vessels must be equipped with a receiver on 2721.5 kHz.

(f) Vessels, after prior request to the Control Centre covering them, may pass to Channel 6 or 8, and keep on those *only for the necessary time* for Fishing Manoeuvres, after which they must return to Channel 16, and advise the Centre accordingly.

7. HYDROCARBONS: It is prohibited to pour hydrocarbons or residual matter arising from the washing of tanks, clearing of bilges and ballast in general or any other action capable of having contaminary effects in waters within the territorial sea of Uruguay with the exception of the zone which is:
(a) Outside the limits of the River Plate.
(b) Outside 100 miles of the Uruguayan Territorial Waters, i.e. 100 miles out from the Atlantic Ocean coast.
(c) Outside the Prohibition area for contaminatory action (Article 78 of the River Plate Treaty).

8. ZONES OF OPERATION FOR LIGHTENING AND COMPLEMENT OF CARGO:
The zones of operation for lightening and complement of cargo are as follows:
Zone "A": Between the Parallels of Lat. South 35° 04′ and 35° 08′ and between the Meridians of Long. West 56° 00′ and 56° 02′.
Zone "B": Between the Parallels of Lat. South 35° 30′ and 35° 33′ and between the Meridians of Long. West 56° 30′ and 56° 38′.
Zone "C": Between the Parallels of Lat. South 35° 35′ and 36° 06′ and between the Meridians of Long. West 56° 30′ and 56° 38′.
Zone "D": Between the Parallels of Lat. South 35° 04′ and 35° 06′ and between the Meridians of Long. West 56° 11′ and 56° 16′.

9. OPERATIONS OF LOADING AND UNLOADING "LASH" TYPE VESSELS:
The operation of loading and unloading "LASH" type vessels for the national territory, on the one hand may be effected apart from within the lightening and complement of cargo areas in ports, also in the corresponding roads.

10. TRANSFER OF VESSELS:
The transfer of vessels between roads and lightening areas and for complement of cargo purposes, will be effected under pilotage and tug control using the Port Services from which the barges in question have come.

CONTROL CENTRES:

Control Centre and Information of Maritime Movement of the Port of Colonia.

LOCATION, INTERNATIONAL CALL SIGN, ADDRESS.

(a) The Centre is controlled from the Prefecture of the Port of Colonia, within the free zone of the Port, located in the main building of the free Port zone of Colonia (Latitude: 34° 28′ 28″ S., Longitude: 57° 57′ 38″ W.).

(b) The call sign of the Control Centre is CWC 23, and for calling up purposes it is possible to use CONTROL COLONIA PREFECTURE.

(c) The Control Centre of the Port of Colonia is located in the Prefecture of the Port of Colonia.
The Prefecture of the Port of Colonia is a dependency of the National Naval Prefecture (2nd Circumscription).
Telephone No. of the Control Centre – 688.
Address – Boulevard Espana 2054 (Department of Colonia).

AREAS OF CONTROL.

(a) The Control Centre and Information of Maritime Movement, covers:
1. Zone "CHARLIE". The area of the River Plate marked by the Meridians which pass through Martin Chico Point (Longitude: 58° 12′ 30″ W.) and Punta Rosario (Longitude: 57° 21′ W.) and the middle line equidistant from both coasts (Law 14.145/74 – "Treaty covering the Limits of the River Plate"), with the exception of the area of water included between the imaginary line which joins San Carlos Point; Lopez West Island; Farallon Island; the Green Buoy of Vienna, Parallel 34° 30′ S., the Meridian which passes through Riachuelo Point Longitude: 57° 43′ 18″ W., and the coast ("DELTA" AREA).
2. "DELTA" area. Area of the River Plate, limited by the imaginary line which joins San Carlos Point; Lopez West Island, Farallon Island; the Green Buoy of Vienna, Parallel 34° 30′ S., the Meridian which passes through Riachuelo Point Longitude: 57° 43′ 18″ W., and the coast.

(b) The Control Centre and Information of Maritime Movement of the Port of Sauce covers:
1. "UNIFORM" zone. The area of the River Plate included between Meridians 57° 25′ 48″ W. and 57° 33′ W., the coast and the parallel Latitude: 34° 29′ 18″ S.

COMMUNICATIONS TO THE CENTRE.

(a) From vessels.
1. In zone "CHARLIE". The Control Centre must be informe when the following points have been passed:
Punta Rosario
Puerto Sauce
Roca Barriles
Puerto Colonia
Km. 56.5 (Farallon Island)
Km. 71.3 (San Pedro Bar)
Km. 101 (Martin Chico Point)
In both Zones of Control the communications as designated i following tables, must be effected.

(b) From the Director of Hydrographic Studies of the MTOP.
1. The place assigned for berthing or mooring.
2. Guard and order tugs (when these exist).

Control Centre and Information of the Maritime Movement of th Port of Fray Bentos

LOCATION, INTERNATIONAL CALL SIGN, ADDRESS.

(a) The Centre is controlled from the Prefecture of the Port of Fra Bentos (Latitude: 30° 06′ 50″ S., Longitude 58° 18′ 27″ W.).

(b) The International Call Sign of the Control Centre and Informatio of the Maritime Movement of the Port of Fray Bentos is CWC 25 When calling up it is possible to use CONTROL FRAY BENTOS PREFECTURA.

(c) The Control Centre of the Port of Fray Bentos is located in th Prefecture of Fray Bentos (5th Circumscription P.N.N.).
Telephone No. of the Control Centre is 321.
Address: Luis A. de Herrera 1249 on the corner with 25 d Agosto, Fray Bentos Department of Rio Negro.

CONTROL AREAS.

(a) The Control Centre Information of the Maritime Movement of th Port of Fray Bentos covers:
1. Zone "INDIA" The area of the River Uruguay marked by th parallel 33° 30′ S. (Punta Amarilla Km. 46) and the paralle 32° 50′ S. (Roman Island) navigable areas of the Rio Negr and San Salvador and the middle line equidistant from bot coasts; with the exception of the Port of Fray Bentos and th area of water marked by the port and maritime construction (zone "JULIET").
2. Zone "JULIET". The port of Fray Bentos and the areas o water marked by the port and maritime constructions.

COMMUNICATIONS TO THE CENTRE.

(a) From vessels:
1. In zone "INDIA". The Control Centre must be notified durin navigation when the following crossings are made:
Km. 46 (Punta Amarilla)
Km. 61 (Riacho Yaguari)
Km. 83 (Paso Barrizal)
Puerto Fray Bentos
International Bridge "General San Martin"
Km. 122 (Nuevo Berlin)
Km. 140 (Roman Island)
In both Areas of Control the designated frequencies are show in following tables.

THE BRIDGE ZONE

All vessels of 100 tons or more gross registered tonnage mus comply with the following instructions:

(a) Navigation day and night in both directions will be made unde the bridges by the marked channel, in the central arch, betwee piles 10 and 11 in the Bridge "Libertador General San Martin".

(b) It is prohibited to cross or overtake between Km. 100 an Km. 102.5 and for this purpose the following passage prioritie are established:
1. Those navigating downstream over those navigatin upstream.
2. Convoys with a tug either pulling or pushing have priority ove all vessels which include those that are navigatin downstream.

(c) The vessel or convoy which has to give way will wait outside th limits indicated in point (b). Between those limits it is prohibite to anchor for any cause, even though the channel is left free.

(d) Between the limits indicated in point (b), speed must be reduce to the minimum compatible with good steering and manoeuvrin

(e) In the zones included between the limits indicated in point (b), i is prohibited to effect any form of dredging operation across th whole width of the river.

Control Centre and Information of the Maritime Movement of th Port of La Paloma

LOCATION, INTERNATIONAL CALL SIGN, ADDRESS.

(a) The Centre is controlled from the Prefecture of the Port of L Paloma (Position: Latitude 34° 39′ 30″ S. and Longitude 54° 08 28″ W.).

(b) The International Call Sign of the Control Centre and Informatio of the Maritime Movement of the Port of La Paloma is CWC 30 For calling up purposes "CONTROL LA PALOM PREFECTURA" may be used.

(c) The Control Centre La Paloma is located in the Prefecture of th Port of La Paloma (8th Circumscription P.N.N.)
Telephone No. of the Control Centre – 16.
Address – Avenida del Navio (Puerto de La Paloma) – Rocha.

CONTROL ZONES.

(a) The Control Centre and Information of the Maritime Movement of the Port of La Paloma comprises:

(1) Zone "KILO". Zone of the Atlantic Ocean (Territorial Sea) situated between the meridians 50° 50′ and 54° 15′ W., limited by the straight line 128° of the Chuy Lighthouse (lateral maritime limit with the Federal Republic of Brazil – Law 14.163) and to the South by the lateral maritime Argentine–Uruguay limit (Law 14.145/974). – "Treaty of Limits of the River Plate". Art. 70), with exception of the Port of La Paloma, between the coast and an imaginary line which goes between the end of the breakwater towards the Eastern point of the Costa Azul (Zone "LIMA"). Zone "LIMA".

(2) Zone "LIMA". Port of La Paloma, zone situated between the coasts and an imaginary line which goes from the end of the breakwater to the Eastern point of Costa Azul.

COMMUNICATIONS TO THE CENTRE.

(a) From vessels to:

(1) In Zone "KILO" – The Control Centre must be informed during navigation when the following points are crossed:

The Lighthouse Chuy
The Lighthouse Cabo Polonio
The Lighthouse Santa Maria

(2) In Zone "LIMA"

During navigation in the Access Channel and within the Port when the Port jetty small light is passed.

Also, in both control zones the communications shown in the following tables must be effected.

(b) From the Hydrographic MTOP Directorate:

(1) Place assigned for berthing or mooring.
(2) Guard or order tugs (when they exist).

Control Centre and Information of the Maritime Movement of the Port of Montevideo.

LOCATION, INTERNATIONAL CALL SIGN, ADDRESS

(a) The Centre is controlled from the National Naval Prefecture, located on the Floors 11, 12 and 13 of the General Command Tower of the Navy (Customs Building Lat. 34° 54′ 03″ S., Long. 56° 12′ 44″ W.).

(b) The International Call Sign of the Control Centre and Information of the Maritime Movement of the Port of Montevideo is CWC 39. In calling up it is possible to use "CONTROL MONTEVIDEO PREFECTURA".

(c) The Call Sign of the Control Centre of the Port of Buceo is "CONTROL BUCE PREFECTURA".

(d) The Call Sign of the Control Centre of the Port of Santiago Vazquez is CWC 38.
In calling up it is possible to use "CONTROL SANTIAGO VAZQUEZ PREFECTURA".

(e) The Control Centre of the Port of Montevideo is located in the building of the Navy General Command.
Telegraphic Address – "Comopre" (Control Montevideo Prefectura).
Telephones – 95.51.01 – 95.24.77 – 95.62.53.
Telex UY 929
Address – Rambla 25 de Agosto de 1825.

ZONES OF CONTROL.

(a) The Control Centre and Information of the Maritime Movement of the port of Montevideo covers:

(1) Zone "ALFA". Zone of the River Plate situated between the Uruguyan coast and the meridians 55° 30′ and 57° 21′ W., and to the South to the limit of the River Plate with the Argentine Republic (Law 14.145/74 "Treaty of Limits of the River Plate").
With the exception of the areas of water included:
(a) Between the meridians which pass through Punta Sayago and Punta Brava, the coast and the parallel of Latitude 35° 01′ S. (Zone "BRAVO").
(b) Between the meridians 56° 00′ and 56° 09′ W. and the parallel 34° 57′ S. (Zone "OSCAR").
(c) Between the meridians 56° 20′ and 56° 40′ W. and the parallel 34° 56′ S. and the coast (Zone "PAPA").

(2) Zone "BRAVO". Zone of the River Plate included between the meridians which pass through Punta Sayago and Punta Brava, the coast and the parallel of Latitude 35° 01′ S., including the Access Channel to the Port of Montevideo, Foreport, Docks, Channel or Inflammable Cargo Docks (ANCAP).

(b) The Control Centre and Information of the Port of Buceo includes:

(1) Zone "OSCAR". Zone included between the meridians 56° 00′ and 56° 09′ W. and the parallel 34° 57′ S.

(c) The Control Centre and Information of the Maritime Movement of the Port of Santiago Vazquez includes:

(1) Zone "PAPA". Zone included between the meridians 56° 20′ and 56° 40′ W. and the parallel 34° 56′ S. and the coast. It includes the Port, Anchorages and all areas of water.

COMMUNICATIONS FROM THE CENTRE

(a) To the National Administration of Ports (A.N.P.).

(1) Time of arrival of each vessel (ahead of time or delayed).
(2) Movement of tugs.
(3) Information from Masters of vessels on his cargo or changes in his berth.

(b) To the Argentine Naval Prefecture:

(1) ETA of vessels which are going to Argentine Ports or to Coastal Ports.

COMMUNICATIONS TO THE CENTRE.

(a) From the National Ports Administration (A.N.P.)

(1) Designation of berths prior to 1700 hrs. on the previous day.
(2) Tugs and launches for guard and order purposes.
(3) Departures for Deep Sea and Coasting vessels.

(b) From the vessels:

(1) In Zone "ALFA". The Control Centre must be informed during navigation when the following points are passed:

(a) To the West of the Access Channel to the Port of Montevideo.

1. By Middle Channel:
The *Graf Spee*
The Panela Lighthouse
The Uruguayan Banco Ortiz Buoy
The Argentinian Banco Ortiz Buoy

2. By North Channel:
The *Graf Spee*
The Panela Lighthouse
The Jesus Maria Buoy
The Arazati Point
The Puerto Rosario.

(b) To the East of the Access Channel to the Port of Montevideo.
Punta Brava
Isla de Flores

(2) In Zone "BRAVO".
During navigation in the Access Channel:
The Eje Buoy
The Jetty

In both areas of control the communications as designated on the following tables should be effected.

Control Centre and Information of the Maritime Movement of the Port of Nueva Palmira.

LOCATION, INTERNATIONAL CALL SIGN, ADDRESS.

(a) The Control Centre is controlled from the Sub-Prefecture of Nueva Palmira (Position Lat. 33° 52.7′ S., Long. 58° 25.3′ W.).

(b) The International Call Sign of the Control Centre and Information of the Maritime Movement of the Port of Nueva Palmira is CWC 31 and when calling up it is permitted to use "CONTROL NUEVA PALMIRA PREFECTURA".

(c) The Control Centre of the Port of Nueva Palmira is located in the Sub-Prefecture of Nueva Palmira.
The Sub-Prefecture of Nueva Palmira is a dependency of the Prefecture of Colonia (2nd Circumscription P.N.N.).
Telephone No. of the Control Centre – 139.
Address – Port Area – Nueva Palmira – Department of Colonia.

AREAS OF CONTROL

(a) The Control Centre and Information of the Maritime Movement of the Port of Nueva Palmira cover:

(1) Zone "ECHO". Zone of the River Plate and the River Uruguay is marked by the meridian 58° 12.5′ W., (Punta Martin Chico Km. 101) and the parallel 33° 30′ S., (Punta Amarillo Km. 46) and the middle line equidistant from both coasts with the exception of the Port of Nueva Palmira and the area of water limited by the port constructions (zone "FOX-TROT").

(2) Zone "FOX-TROT". The Port of Nueva Palmira and the areas of water limited by the port constructions (official quay, the Bed of the Company Navigen and the Higueritas Dock).

COMMUNICATIONS TO THE CENTRE:

(a) From Vessels:

(1) In zone "ECHO", the Control Centre must be informed during navigation of the following crossings:
Km. 101 (Punta Martin Chico),
Km. 121 (Sola Island).
Puerto Nueva Palmira.
Km. 22 (Punta Arenal Grande).
Km. 46 (Punta Amarilla).

In both Areas of Control, the communications as shown in following tables must be effected.

Control Centre and Information of the Maritime Movement of the Port of Paysandu.

LOCATION, INTERNATIONAL CALL SIGN, ADDRESS:

(a) The Centre is controlled from the Prefecture of the Port of Paysandu, located in the main Customs building (32° 18′ 06″ S., 58° 05′ 08″ W.).

(b) The International Call Sign of the Control Centre and Information of the Maritime Movement of the Port of Paysandu is CWC 32, and when calling up it is possible to use "CONTROL PAYSANDU PREFECTURA".

(c) The Control Centre and Information of the Maritime Movement of the Port of Paysandu is a dependency of the Prefecture of the Port of Paysandu (6th Circumscription P.N.N.).
Telephone No. of the Control Centre – 3099.
Address – Presidente Viera and Avenida Brasil – Paysandu (City).

CONTROL AREAS:

(a) The Control Centre and Information of the Maritime Movement of the Port of Paysandu covers:

(1) Zone "MIKE". The area of the river Uruguay marked by the parallel 32° 50′ S. (Roman Island) and parallel 31° 53′ S. (the mouth of the Malo Stream Km. 257 approximately) and the middle line equidistant from both sides with the exception of the zone included between the parallel 32° 20′ S. (the mouth of the Stream "Sacra") and the parallel 32° 14′ S. and the mouth of the Stream "San Francisco". (Zone "NOVEMBER").

(2) Zone "NOVEMBER". The area of the River Uruguay limited by the parallel 32° 20′ S. which passes through the mouth of the Stream "Sacra" up to parallel 32° 14′ S. which passes through the mouth of the Stream "San Francisco".

COMMUNICATIONS AT THE CENTRE:

(a) From vessels:

(1) In zone "MIKE" – The Control Centre must be notified during navigation when the following crossings are made:

Km. 140 (Roman Island)
Km. 160 (San Javier)
Km. 183 (Concepcion del Uruguay)
Punta "N" Almiron Island
Puerto Paysandu
International Bridge "General Artigas"
Punta Piedras
Arroyo Malo

In both Areas of Control the communications are shown in the following tables.

THE BRIDGE ZONE.

All vessels of 100 tons or more gross registered weight must comply with the following instructions:

(a) Navigation both by day and night in both directions will be made under the bridges by the marked channel, in the central arch, between piles 11 and 12 in the bridge "General Artigas".

(b) It is prohibited to cross or overtake between Kms. 208 and 211. For this purpose the following passage priorities are established:

(1) Those navigating downstream over those navigating upstream.

(2) Convoys with a tug either pulling or pushing have priority over all vessels which include those that are navigating downstream.

(c) The vessel or convoy which has to give way will wait outside the limits indicated in point (b). Between those limits it is prohibited to anchor for any cause, even though the channel is left free.

(d) Between the limits indicated in point (b) – speed must be reduced to the minimum compatible with good steering and manoeuvring.

(e) In the zones included between the limits indicated in point (b) – it is prohibited to effect any form of dredging operation across the whole width of the river.

Control Centre and Information of the Maritime Movement of the Port of Punta del Este and Piriapolis.

LOCATION, INTERNATIONAL CALL SIGN, ADDRESS:

(a) The Centre is controlled from the Prefecture of the Port of Punta del Este (Lat. 34° 57′ 48″ S., Long. 54° 57′ 06″ W.).

(b) The International Call Sign of the Control Centre and Information of the Maritime Movement of the Port of Punta del Este is CWC 34.

For calling up purposes it is possible to use "CONTROL PUNTA DEL ESTE PREFECTURA".

(c) The Call Sign of the Control Centre of the Port of Piriapolis CWC 33.

For calling up purposes it is possible to use "CONTRO PIRIAPOLIS PREFECTURA".

(d) The Control Centre of the Punta del Este is located in th Prefectura of the Port of Maldonado (3rd Circumscription P.N.N Telephone No. of the Control Centre – 4.18.84.

Address – Calle 8 and 13 (Department of Maldonado).

(e) The Control Centre of the Port of Piriapolis is located in Sub Prefecture of the Port of Piriapolis (3rd Circumscription P.N.N The Sub-Prefecture of Piriapolis is controlled by the Prefectur of Maldonado.

Telephone No. – 18.

Address – Avenida Piria and Calle Maipu (Piriapolis).

ZONES OF CONTROL

(a) The Control Centre and Information of the Maritime Movemer of the Port of Punta del Este covers:

(1) Zone "GOLF". Zone of the River Plate, Atlantic Ocea (Territorial Sea) situated between the meridians 55° 30′ an 54° 15′ Longitude West, the imaginary line which joins th Punta del Este with Punta Ballena and in the South by th continuation of the limit of the River Plate with the Argentin Republic and the Territorial Sea (Law 14.185/974 "Treaty c the Limits of the River Plate"), with the exception of the exter of water included between meridians which pass throug Punta Iman (55° 16′ 08″ W.) and Punta Raza (55° 14′ 00″ W and the meridian of 34° 56′ 30″ S. (Zone "TANGO") Piriapolis.

(2) Zone "HOTEL". The Bay of Maldonado and the Port of Punt del Este.

(a) The Bay of Maldonado: Zone situated between the coas and the imaginary line which joins Punta del Este wi Punta Ballena, includes also "Boca Grande" and "Boc Chica".

(b) The Port of Punta del Este: Zone situated between th coast and an imaginary line which goes from the end c the jetty to a point which limits to the North of the Mans Beach. It includes all the mooring areas.

(b) The Control Centre and Information of Maritime Movement of th Port of Piriapolis comprises:

(1) Zone "TANGO". Zone of the River Plate included betwee the parallels which pass through Punta Iman (55° 16′ 08″ W and Punta Raza (55° 14′ 00″ W.) and the meridia 34° 56′ 30″ S.

COMMUNICATIONS TO THE CENTRE

(a) From Vessels

(1) In zone "GOLF". The Control Centre must be informed durin navigation when the following points are passed:

The Isla de Lobos (Wolf Island)
The Punta del Este Lighthouse.

(2) In zone "HOTEL". During navigation in the Access Channe and within the Port:

When the Bajo del Monarco Buoy is passed, and
When the Isla de Gorriti Small Lighthouse is passed.

Also within both Control areas the communications indicate in the following tables must be effected.

(b) From the Hydrographic Directorate of MTOP.

(1) The place assigned for berthing or mooring.

(2) Guard and order tugs (when they are present).

COASTAL STATION NOMENCLATURE

(See key at end of tables)

Name of Station	*Symbol*	*Identity of Station*	*Transmission Frequencies*	*Transmission Receiving Frequencies*	*Type of Transmission*	*Power in Kw.*	*Kind of Service*	*Hrs. of Service GMT*	*Rates*	*Co-ordinates of Transmitting Aerial*	*Observations*
Atlantida Radio	FT	CWC 43	156.45 C.9 156.55 C.11 156.65 C.13 10) 156.75 C.15 2) 3) 156.80 C.16	C.16 1)	F3	0.025	CO a) b)/ d) e) f)/ m)	HX	—	34° 46′ 48″ S. 55° 45′ 26″ W.	TF 2604 Teledisced 0372
Carmelo Radio	FP	CWC 22	156.45 C.9 156.55 C.11 11) 156.65 C.13 156.75 C.15 2) 3) 156.80 C.16	C.16 1)	F3	0.025	CO a) b)/ d) e) f)	HX	—	34° 00′ 33″ S. 59° 17′ 42″ W.	TF 315
Colonia Radio	FC	CWC 23	2182 2040.5 2638 2721.5 2) 3) 4) 4125 4143.6 9) 5680 5) 6218.6 9) 6221.6 9)	2182 1)	A3J A3J A3A A3H	0.15 0.15	CO CR a) b) c) d) e) f) h) i)	H24	—	34° 28′ 12″ S. 57° 51′ 05″ W.	TF 0522 2020 2037 2109 Teledisced 0522
	FW	Control Colonia Prefectura CWC 23	156.45 C.9 12) 156.55 C.11 11) 4) 156.65 C.13 10) 4) 156.75 C.15 2) 3) 156.80 C.16	C.16 1)	F3	0.025	CO CR a)/ b) c) d) e) f) h) i) n) o)	H24	—	34° 28′ 28″ S. 57° 50′ 38″ W.	TF 2680 Radar Teledisced 0522

Name of Station	Symbol	Identity of Station	Transmission Frequencies	Transmission Receiving Frequencies	Type of Transmission	Power in Kw.	Kind of Service	Hrs. of Service GMT	Rates	Co-ordinates of Transmitting Aerial	Observations
Fray Bentos	FC	CWC 25	2182		A3J	0.15	CO CR e)/	HX	—	33° 06′ 50″ S.	TF 321
Radio			2040.5				f) d)			58° 18′ 27″ W.	Teledisced
			2638								05352
			2721.5								
			4125								
			4143.6								
			5680								
			6218.6								
			6221.6								
	FW	Control	156.45 C.9 12)		F3	0.025	CO CR a)	H24	—	33° 06′ 50″ S.	TF 321
		Fray	156.55 C.11 11)				b)			58° 18′ 27″ W.	Teledisced
		Bentos	156.65 C.13 10)				d) e) f) h)				05352
		Prefectura	156.75 C.15 2) 3)				i) n) o)				
		CWC 25	156.80 C.16	C.16 1)							
La Floresta	FT	CWC 29	156.45 C.9		F3	0.025	CO e) f)	HX	—	34° 45′ 30″ S.	TF 209
Radio			156.55 C.11				m)			55° 40′ 32″ W.	
			156.65 C.13 10)								
			156.75 C.15								
			156.80 C.16	C.16 1)							
La Paloma	FC	CWC 30	2182	2182 1)	A3	1	CO CR a)	H24	—		TF 16
Radio			2040.5		A3J	1	b)			34° 39′ 30″ S.	
			2638	2721.5 1)	A3A		c) d) e) f)			54° 08′ 28″ W.	
			2721.5 2) 3) 4) 6) 7)		A3H		h) i) m) n)				
			3023 5)	3860.6 1)							
			3860.6 8)	4125 1)							
			4125	C.421 1)							
			4419.4								
			4143.6 2) 3) 9)								
			5680 5)								
			6518.8 13)	C.606 1)							
			6521.9 13)								
			6218.6 2) 3) 9)								
			6221.6 9)	C.821 1)							
			8780.9 13)								
			8291.1 9)								
			8294.2 9)								
			13128.7 13)	C.1221 1)							
			13162.8 13)								
			12429.2 9)								
			12432.3 9)								
			17294.9 13)								
			17260.8 13)	C.1621 1)							
			16587.1 9)								
			16590.2 9)								
			22636.3 13)								
			22658 13)	C.2221 1)							
			22124 9)								
			22127.1 9)								
	FW	Control	156.45 C.9 13)		F3	0.1	CO CR a)	H24	—	34° 39′ 30″ S.	TF 16
		La Paloma	156.55 C.11 11) 4)				b)			54° 08′ 28″ W.	
		Prefectura	156.65 C.13 6) 10) 4)				c) d) e) f)				
		CWC 30	156.75 C.15 2) 3)				h) i) m) n)				
			156.80 C.16	C.16 1)			o)				
Montevideo	FC	CWC 39	2182	2182 1)	A3	1	CO CR a)	H24	—	PTA. TIGRE	TF 70 35 05
Trouville							b)			34° 52′ 00″ S.	TF 70 32 59
Radio			2040.5 7) 4)	2721.5	A3J	1	c) d) e) f)			56° 18′ 40″ W.	TF 70 08 45
			2638	1)	A3A		h) i) m)				
			2721.5 2) 3) 4) 6) 7)		A3H						
			4125	1)	A3H						
			4419.4 13)	4125							
			4143.6 2) 3) 9)	1)							
			5680 5)	C. 421 1)							
			6518.8								
			6521.9 13)								
			6218.6 2) 3) 9)								
			6221.6 9)	C. 606 1)							
			8780.9 13)								
			8291.1 9)								
			8294.2 9)	C. 821 1)							
			13162.8 13)								
			13128.7 13)								
			12429.2 9)	C. 1221 1)							
			12432.3 9)								
			17294.9 13)								
			17260.8 13)								
				C. 1621 1)							
			16587.1 9)								
			22658 13)	C. 2221 1)							
			22636.3 13)								
			22124 9)								
			22127.1 9)								
Montevideo	FW	Control	156.45 C.9 12)	C. 9 1)	F3	0.1	CO CR a)	H24	—	34° 54′ 18″ S.	TF 95 51 01
Centro de		Montevideo	156.55 C.11 11) 4)	C. 11 1)			b)			56° 12′ 44″ W.	95 62 53
Control		Prefectura	156.65 C.13 6) 10)	C. 13 1)	F3	0.1	c) d) e) f)				95 24 77
Radio			156.75 C.15 2) 3)	C. 13 1)	F3	0.1	g) h) i) m)				TLX UY 929
			156.80 C.16	C. 16 1)	F3	0.1	n) o) p) q)				Comopre Radar

Name of Station	*Symbol*	*Identity of Station*	*Transmission Frequencies*	*Transmission Receiving Frequencies*	*Type of Transmission*	*Power in Kw.*	*Kind of Service*	*Hrs. of Service GMT*	*Rates*	*Co-ordinates of Transmitting Aerial*	*Observations*
Nueva Palmira Radio	FC	CWC 31	2182 2040.5 2638 2721.5 4125 4143.6 5680 6218.6 6221.6		A3J	0.15	CO CR e) f) d)	HX	—		TF 139
	FW	Control Palmira Prefect. CWC 31	156.45 C.9 12) 156.55 C.11 11) 156.65 C.13 10) 156.75 C.15 2) 3) 156.80 C.16	C.16 1)	F3	0.025	CO CR a) b) c) d) e) f)	H24	—	33° 52′ 42″ S. 58° 25′ 12″ W.	TF 139
Paysandu Radio	FC	CWC 32	2182 2040.5 2638 2721.5 4125 4143.6 5680 6218.6 6221.6		A3J	0.15	CO CR e) f) d)	HX	—	32° 18′ 06″ S. 58° 05′ 08″ W.	TF 3099 Teledisced 0722
Paysandu Radio	FW	Control Paysandu Prefect. CWC 32	156.45 C.9 12) 156.55 C.11 11) 156.65 C.13 10) 156.75 C.15 2) 3) 156.80 C.16	C.16 1)	F3	0.025	CO CR a) b) c) d) e) f) i) n) o)	H24	—	32° 18′ 06″ S. 58° 05′ 08″ W.	TF 3099 Teledisced 0722
Piriapolis Radio	FP	Control Piriapolis Prefect. CWC 33	156.45 C.9 12) 156.55 C.11 11) 156.65 C.13 10) 156.75 C.15 2) 3) 156.80 C.16	C.16 1)	F3	0.025	CO CR a) b) c) d) e) f) h) i) m) o)	H24	—	34° 52′ 50″ S. 55° 16′ 10″ W.	TF 518 – 23
Puente Fray Bentos (Gral. San Martin) Radio	FT	CWC 42	156.45 C.9 156.55 C.11 156.65 C.13 10) 156.75 C.15 156.80 C.16	C.16 1)	F3	0.025	CO e) f) i)	HX	—	33° 06′ 27″ S. 58° 14′ 46″ W.	
Puente Paysandu (Gral. Artigas) Radio	FT	CWC 41	156.45 C.9 156.55 C.11 156.65 C.13 10) 156.75 C.15 156.80 C.16	C.16 1)	F3	0.025	CO e) f) i)	HX	—	32° 17′ 00″ S. 58° 07′ 00″ W.	
Puerto Sauce Radio	FC	CWC 27	2182 2040.5 2638 2721.5 4125 4143.6 5680 6218.6 6221.6		A3J	0.15	CO CR e) f) d)	HX	—	34° 26′ 20″ S. 57° 26′ 21″ W.	TF 33
	FW	CWC 27	156.45 C.9 12) 156.55 C.11 11) 156.65 C.13 10) 156.75 C.15 2) 3) 156.80 C.16	C.16 1)	F3	0.025	CO CR a) b) d) e) f) h) i) n) o)	H24	—	34° 26′ 20″ S. 57° 26′ 21″ W.	TF 33
Puerto Buceo Radio	FP		156.45 C.9 12) 156.55 C.11 11) 156.65 C.13 156.80 C.16	C.16 1)	F3	0.025	CO d) e) f) i)	HX	—	34° 54′ 37″ S. 56° 07′ 00″ W.	TF 78 32 90
Punta del Este Radio	FC	CWC 34	2182 2040.5 2721.5 2) 3) 4) 6) 7) 3860.6 8) 4125 4143.6 9) 6218.6 9) 6221.6 9)	2182 1)	A31 A3J A3A A3H	0.2 0.15	CO CR a) b) c) d) e) f) h) m)	H24	—	34° 57′ 48″ S. 54° 57′ 06″ W.	TF 41884 – 41967 Teledisced 042
	FW	Control Punta del Este Perfectura	156.45 C.9 12) 156.55 C.11 11) 156.65 C.13 10) 156.75 C.15 2) 3) 156.80 C.16	C.13 1 C.16 1)	F3 F3 F3 F3	0.025 0.1 0.025 0.1	CO CR a) b) c) d) e) f) h) i) m) n) o)	H24	—	34° 57′ 48″ S. 54° 57′ 06″ W.	TF 41884 – 41967 Teledisced 042
Rio Branco Radio	FC	CWC 36	2182 2638 2721.5 2) 3) 6) 7)	2182 1)	A3 A3J	0.2 0.2	CO a) b) d) e) f) i) m)	HX	—	32° 34′ 25″ S. 53° 22′ 20″ W.	TF 86
	FW	CWC 36	156.45 C.9 156.55 C.11 11) 156.65 C.13 10) 156.75 C.15 2) 3) 156.80 C.16	C.16 1)	F3	0.025	CO a) b) d) e) f) i) m) n)	H24	—	32° 34′ 25″ S. 53° 22′ 20″ W.	TF 86

Name of Station	Symbol	Identity of Station	Transmission Frequencies	Transmission Receiving Frequencies	Type of Transmission	Power in Kw.	Kind of Service	Hrs. of Service GMT	Rates	Co-ordinates of Transmitting Aerial	Observations
Salto Grande Radio	FT	CWC 40	156.45 C.9 156.55 C.11 156.65 C.13 10) 156.75 C.15 156.80 C.16	C.16 1)	F3	0.025	CO e) f) i)	HX	—	31° 17′ 00″ S. 57° 56′ 00″ W.	
Salto Radio	FC	CWC 37	2182 2040.5 2638 2721.5 4125 4143.6 5680 6218.6 6221.6		A3J	0.15	CO CR e) f) d)	HX	—	31° 23′ 00″ S. 57° 59′ 00″ W.	TF 5275 Teledisced 0732
	FW	CWC 37	156.45 C.9 12) 156.55 C.11 11) 156.65 C.13 10) 156.75 C.15 2) 3) 156.80 C.16	C.16 1)	F3	0.025	CO a) b) d) e) f) i) n) o)	HX	—	31° 23′ 00″ S. 57° 59′ 00″ W.	TF 5275 Teledisced 0732
Santiago Vazquez Radio	FP	CWC 38	156.45 C.9 12) 156.55 C.11 11) 156.65 C.13 6) 156.75 C.15 2) 3) 156.80 C.16	C.16 1)	F3	0.025	CO a) b) d) e) f) i) m) o)	H24	—	34° 47′ 24″ S. 56° 21′ 05″ W.	TF 32 00 8

KEY TO LITERAL AND NUMERICAL REFERENCES USED IN THE COASTAL STATION NOMENCLATURE

(a) To transmit meteorological bulletins in accordance with the requirements of List VI of RR of the UIT. Special services which are offered by the FC, FP, FT and FW of the P.N.N.
(b) To transmit Notices to Mariners in accordance with requirements of List VI of the RR of the UIT. Special services which are offered by the FC, FP, FT and FW of the P.N.N.
(c) To transmit medical advice on request of navigators.
(d) To transmit urgent messages to Mariners immediately on receipt and to repeat them 3 minutes past every hour and at the normal times of transmission of messages to navigators.
(e) To participate in operations of Search and Salvage.
(f) To alert the Centre's Co-ordinator of Search and Salvage.
(g) To direct the system of Control Centres and Information of Maritime Movement and Port Operations. (FP, FT and FW).
(h) Receive meteorological observations (SHIP) made on the high seas by Masters of vessels.
(i) To effect special transmissions relating to hydrographic and mareographic Information.
(m) To receive reports from fishing vessels (National, Argentine and third nations who are authorised to operate within the area) and to remit them to the Director of the Control Centre System (CONDI) obligatorily in accordance with Maritime Legislation No. 6 P.N.N.
(n) To effect control and facilitate information within the area, receiving reports from vessels navigating within it (obligatory for vessels in accordace with IMP Uruguay).
(o) Effect control and facilitate the supply of information from the port.
(p) Receive by telex or radio requests for pilotage service.
(q) Radiogoniometric Service on VHF (RG).

1. Call up and listening service on a permanent basis and for announcing in advance the intention to transmit.
2. Frequency used for the transmission of meteorological bulletins and Notices to Mariners in accordance with requirements of List VI of the RR of the UIT. Special services offered by FC, FP, FT and FW of the P.N.N. with prior announcement on frequency 156.800 MHz (Channel 16).
3. Frequency used for the transmission of meteorological bulletins and Notices to Mariners in accordance with requirements of List VI of the RR of the UIT. Special services offered by the FC, FP, FT and FW of the P.N.N. with prior announcement on frequency 2182 kHz (Simplex) and 4419.4 kHz (Duplex C.421).
4. Frequency used for the transmission of radiomedical advice on request.
5. Frequency used for operations of Search and Salvage.
6. Frequency used for reports from national fishing vessels.
7. Frequency for Coastal working purposes.
8. Frequency used in common with the Argentine Republic (Naval Prefecture) for the control of fishing vessels of both nations.
9. Provisional working frequency.
10. Working frequency for control and zonal information (Vessel Movement Service).
11. Working frequency for control and Port information (Port Operation Service).
12. Port operation frequency (tugs, traffic launches, tugs and control centres).
13. Duplex frequency Band from 4 to 23 MHz of the Mobile Maritime Service Section 17 REV. RR of the UIT.

CO – Station open exclusively to official correspondence.
CR – Station open to restricted public correspondence.
H24 – Continuous service, day and night.
HX – Intermittent service, day and night or station which has no fixed operating timetable.

SPECIAL SERVICES

Nomenclature of Radiodetermination Stations and Stations which offer Special Services with the P.N.N.

Name of the Station	Symbol	Identity of the Station	Transmission frequencies (kHz – MHz)	Type of Transmission	(GMT) Hours of Transmission	Service (See key in next column)
Atlantida Radio	FT	CWC 43	156.75 M	F3	0533 – 1303 – 1933	1, 3, 4, 6, 7
Carmelo Radio	FP	CWC 22	156.75 M	F3	0303 – 1503 – 2133	1, 3, 4, 6, 7
Colonia Radio	FC	CWC 23	2721.5	A3J	0330 – 1330 – 2100	1, 2, 3, 4, 5, 6, 7
	FW	Control Colonia Prefectura	156.75 M	F3		
Fray Bentos Radio	FW	Control Fray Bentos Prefectura CWC 25	156.75 M	F3	0933 – 1703 – 2333	1, 2, 3, 4, 6, 7
La Paloma Radio	FC	CWC 30	2721.5 4143.6 6218.6	A3J	0303 – 1533 – 2303	1, 2, 3, 4, 5, 6, 7
	FW	Control La Paloma Prefectura	156.75 M	F3		
Montevideo Trouville Radio	FC	CWC 39	2721.5 4143.6 6218.6	A3J	0103 – 1133 – 1903	1, 2, 3, 4, 5, 7
Montevideo Centro de Control	FW	Control/ Montevideo Prefectura CWC 39	156.75 M	F3	0103 – 1133 – 1903	1, 2, 3, 4, 6, 7, 8
Nueva Palmira Radio	FW	Control Palmira Prefec. CWC 31	156.75 M	F3	0903 – 1533 – 2303	1, 2, 3, 4, 6, 7
Paysandu Radio	FW	Control Paysandu Prefec. CWC 32	156.75 M	F3	0103 – 1103 – 1733	1, 2, 3, 4, 6, 7
Piriapolis Radio	FP	Control Piriapolis Prefectura CWC 33	156.75 M	F3	0703 – 1333 – 2103	1, 2, 3, 4, 6, 7
Puerto Sauce Radio	FW	CWC 27	156.75 M	F3	0133 – 1303 – 1933	1, 2, 3, 4, 6, 7
Punta del Este Radio	FC	CWC 34	2721.5	A3J	0133 – 1503 – 2133	1, 2, 3, 4, 5, 6, 7, 8
	FW	Control Pta. del Este Pref.	156.75 M	F3		
Rio Branco Radio	FC	CWC 36	2721.5	A3J	0933 – 1703 – 2333	1, 2, 3, 4, 5, 6, 7
			156.75 M	F3		
Salto Radio	FW	CWC 37	156.75 M	F3	0133 – 1133 – 1903	1, 2, 3, 4, 6, 7

Key:
Key to numerical references used in the nomenclature of radiodetermination stations and stations which offer special services.
METEOROLOGICAL BULLETIN
(Forecast of weather within the 4 Maritime Areas)

1. SYNOPSIS: Inform in clear Spanish text for the 4 Maritime Areas No. 1, 2, 3 and 4 stating:
   (a) General
      1. Name of Station
      2. Validity
      3. Significant Phenomena
      4. Weather Notices
      5. Synoptic Situation
   (b) By Area
      1. General Conditions (Phenomena or general character of the current weather)
      2. Winds (direction and speed)
      3. Sky
      4. Horizontal visibility
      5. Air temperature
      6. Strength of the sea
      7. Wave height
   (c) Reading of radio messages for Coastal Traffic and Radio Messages for local purposes (Notices to Mariners) per area.
2. Messages concerning water height.
3. Offer on request of a vessel, a weather forecast, height of water and local radio messages (Messages to Mariners).
4. The station transmits at any time meteorological safety messages preceded by the Safety signal (SECURITE) and repeat them after periods of silence and during normal transmission periods.
5. Meteorological bulletins, radio notices for coastal traffic (Notices to Mariners) and local Radio notices (Notices to Mariners), announcing the fact previously on frequency 2182 kHz, 4125 kHz Simplex and 4419.4 kHz (C.421) Duplex.
6. Meteorological bulletins, radio messages for coastal traffic (Notices to Mariners) and local Radio messages (Notices to Mariners) announcing the fact previously on Channel 16 (156.800 MHz).
7. For services being offered, listening and working frequencies see Nomenclature of Coastal Stations.
8. Radiogoniometric station on VHF.
   (Station of Radiodetermination which uses the receipt of radioelectric waves to determine the direction of a station or of an object).

COLONIA: 34.28 S. 57.51 W. (See Plan)

LOCATION: Lat. 34° 28′ 28″ S., Long. 57° 50′ 38″ W.
On the River Plate 92 miles from Montevideo and 27 miles in a straight line E.N.E. of the City of Buenos Aires.
DOCUMENTS: Vessels entering the port must provide the following: Machinery, Hull, Safety, Freeboard and Derat Certificates, Stores List, Crew List, List of Passengers or Negative, Cargo Manifest, Declaration of Transport of Inflammables or Explosives, or where not carried a certificate to that effect.
PILOTAGE: No port or river Pilot is required for coasting vessels.
ANCHORAGES: In the Roads with a depth of 10 ft.
In the foreport with a depth of 8 ft., for shallow draft vessels.
RESTRICTIONS: The port will be closed for all vessels when the wind intensity is 70 knots or more. Also all operations are prohibited in the port shelter area.
The port will be closed for vessels of all kinds when the visibility is 500 m. or less due to fog, squalls, etc. Under these conditions vessels are prohibited to carry out any kind of operation within the shelter area.
HEALTH: Inspection is by a Health Doctor, and is carried out jointly with Immigration, Police, Customs, and Naval Prefecture officials.
RADIO: VHF equipment. Operates permanently on Channel 16.
VHF: All communications are carried out by VHF, the call sign being CWC 23 and that for working Control Colonia Prefecture. Channels used are 6, 8, 9, 11, 12, 14, 15, 16, 25, 26, 68, 69.
The Control Centre listens out permanently on Channel 16, whose frequency is 156.800 MHz.
RADAR: Range 16 miles. Does not give service to vessels.
TUGS: There is no tug service.
BERTHING: Union Quay: Running East to West with a length of 178 m., equipped at its two ends with ramps for landing and shipment of cars and lorries.
Coastal Quay: Running North to South, with a length of 111 m.
Ultramar Quay: Running North to South, with a length of 142 m.
These quays are provided with water hydrants and electricity supply points, the Coastal Quay also having a fuel point for operation of tankers.
Warehouses: For general cargo, the National Port Administration has warehouses within the port area.
CRANES: On the Overseas Quay there are two mobile cranes on rails, with 3 tons and 5 tons capacity.
STEVEDORES: There is no permanent service of stevedores, and such requirements must be applied for in advance by the ships' agents at Nueva Palmira.
MEDICAL: 300 m. from the port is the local hospital with a First Aid room and ambulances.
FRESH WATER: Supplied by the National Port Administration.
FUEL: Supplied by road tankers.
FIRE PRECAUTIONS: There is a fire fighting pump with a pressure of 8 kg./sq.cm.
TANKERS: Operate at the Coasting Quay with a watchman and fireman on board.
CONSULS: Argentina and Italy.
REPAIRS: Not possible.
GANGWAY/DECK WATCHMEN: There is a watchmen servic administered by the Prefecture of Colonia.
CUSTOMS ALLOWANCES: Tourists from neighbouring countries ma bring in: 5 kilos of food, 1 carton of cigarettes, 1 litre of alcoholic drin
No products derived from meat can be brought into the country (col meats, sausages, etc.), nor any plants or seeds.
REPATRIATION: Only to Buenos Aires.
AIRPORT: Located on Highway 1 linking Colonia with Montevideo, 7 km from Colonia.
TIME: Local time is GMT minus 3 hours.
HOLIDAYS: 1st and 6th January, Carnival, Touriso, 19th April, 1st May 18th May, 19th June, 18th July, 25th August, 12th Octobe 2nd November, 25th December.
POLICE/AMBULANCE/FIRE: Police Tel: 2962; Hospital Tel: 2994; Fir Brigade Tel: 2577; Prefecture 2020.
TELEPHONES: No arrangements for connecting the telephones o board vessels, but there are telephone boxes for communications withi and outside the country.
SERVICES: Bureau de Change via a branch of the Banco Republica There is a bus service with international service, working in conjunctio with arriving and departing vessels, connecting Colonia with the rest o the country.
Post Office: 200 m. from the port.
Mooring Gangs: Provided at the request of the ships' Agents by th National Port Administration.
AUTHORITY: Prefectura del Puerto de Colonia.

FRAY BENTOS: 33.06 S. 58.18 W. (See Plan

LOCATION: Km. 95 River Uruguay. On the right bank of the Rive Uruguay from seaward 213 miles by river from Montevideo or 145 mile from Buenos Aires.
PORT LIMITS: A vessel is considered to have arrived when she leave the channel and goes to the berth.
DOCUMENTS: Same requirements as for the port of Montevideo.
PILOTAGE: Obligatory, except where bilateral national agreement exist concerning navigation of the River Uruguay, and the Pilot must b taken on board in Montevideo.
ANCHORAGE: Between the channel and the port.
RESTRICTIONS: When the port is closed due to bad weather, also th draft depends upon the depths of water in the "El Marques" and "Punt Caballo" passages.
MAX. SIZE: Controlled only by the draft of the vessel and the length o the berth. Max. draft 26 ft. (FW), water depends upon the river conditions
HEALTH: Same requirements as for Montevideo.
RADIO: The call sign is CWC 25 "Control Fray Bentos Prefectura".
VHF: Port works on the following frequencies:
a) Channel 16: frequency 156.800 MHz; Usage: Calling-up an safety.
b) Channel 9: frequency 156.450 MHz; Usage: Port operations.
c) Channel 11: frequency 156.550 MHz; Usage: Central Contro broadcasts on safety.
d) Channel 13: Frequency: 156.650 MHz; Usage: Same as Channe 11.
e) Channel 15: frequency: 156.750 MHz; Usage: Meteorologica bulletins and Notices to Mariners.
f) Channel 17: Usage: P.N.N.: Maritime Safety.
g) Channel 68: Usage: P.N.N.: Maritime Safety.

Furthermore, on entering the area between Km. 6 and Km. 165 of th River Uruguay, the vessel must communicate to the Fray Bento Prefecture Control:
a) flag.
b) name.
c) destination.
d) position.
e) course and speed.
f) max. draft.

And on leaving this area:
a) accident or fire occurred on board the vessel.
b) whether vessel has given assistance to another vessel which i damaged or in difficulties.
c) whether she has sighted any dangerous object to navigation an which is not marked.
d) any serious reduction in visibility.

RADAR: None.
TUGS: None.
BERTHING: There are two types, quays for deep-sea vessels and fo coasters, both being of cement and wood.

Type	Deep-sea	Coasting
Length	125 m.	250 m.
Direction	East – West	N.W. – S.E.
Average depth	7 m. – 8 m.	5 m. – 6 m.
Signalling lights	Green light – West side Red light – East side	
Fresh water	2 connections	3 connections
Electricity	1 point A.C., 3-phase 220 V. South side quay in shed 3 points 220 V. D.C. (cranes)	3 points 220 V. D.C (cranes)

Also there is the Anglo Quay with a maximum depth of 26 ft., normall used for meat.

CRANES: There are in the port 3 cranes of 3 tons each and 1 of 5 tons which can move about the port. It is possible to use ship's derricks and shore cranes at the same time.
BULK HANDLING FACILITIES: There is a silo with a conveyor belt, having a storage capacity currently of 14,500 tons, and the conveyor has a loading or discharge rate of 100 t.p.h. See "Developments".
SPECIALISED CARGO HANDLING FACILITIES: None.
BRIDGES: None.
STEVEDORES: Can be requested in advance or when the vessel arrives in port. The work is controlled by the following time table: order 0630 hrs., commence work 0700 hrs.; order 1230 hrs., commence work 1300 hrs.; order 1830 hrs., commence work 1900 hrs.
MEDICAL: Doctors and hospital facilities available.
DENSITY: 1000.
FRESH WATER: On the Deep Sea Berth there are 2 connections and on the Coasting Quay there are 3 connections controlled by the ANP. Cost of U.S. $1.20 per 1,000 litres.
FUEL: Not available.
FIRE PRECAUTIONS: Fire Brigade present.
CONSULS: Argentina, others at Montevideo.
REPAIRS: Only minor repairs can be carried out.
DRY DOCKS: None.
SURVEYORS: None.
GANGWAY/DECK WATCHMEN: Same as for the port of Montevideo.
HATCHES: If steel, handled by vessel's crew. If wooden, handled by stevedores.
REPATRIATION: See "Montevideo".
AIRPORT: None, only Montevideo.
TIME: See "Montevideo".
HOLIDAYS: The following dates will be used as national holidays of a traditional character:

1st January; 6th January; Monday and Tuesday of Carnival Week; the 6th week following Carnival, which will be called Tourism Week; 1st May; 2nd November; 25th December.

The following dates will be celebrated as national holidays as they are linked with patriotic exaltation and commemoration.

19th April; 18th May; 19th June; 18th July; 25th August; 12th October.

With regard to the holidays of 1st May, 19th April, 18th May, and 12th October, these will follow the undermentioned plan:

(a) If they occur on Saturday, Sunday or Monday, they will be observed on those dates.

(b) If they occur on Tuesday or Wednesday they will be transferred to the immediately preceding Monday.

(c) If they fall on Thursday or Friday, they will be transferred to the Monday immediately following.

POLICE/AMBULANCE/FIRE: National Prefecture: Tel: 321. Police: Tel: 201. Fire Brigade: Tel. 35. Hospital: Tel: 533.
TELEPHONES: Not possible.
SERVICES: None.
SHORE LEAVE: See "Montevideo".
IDENTIFICATION: Seaman's Book sufficient.
DELAYS: Normally there is no delay.
DEVELOPMENTS: Increase in the storage capacity of the silos of the Ministry of Agriculture and Fisheries by 5,500 tons, and increase of the capacity of the conveyor belt to 400 t.p.h.
AUTHORITY: National Port Administration, Herrera and 25 de Mayo, Fray Bentos, Uruguay. *Tel:* 284.

JOSE IGNACIO: 34.54 S. 54.43 W.

SBM: Position Lat. 34° 53′ 43″ S., Long. 54° 42′ 45″ W.
PILOTAGE: Compulsory. Pilot boards at the Fairway Buoy in position Lat. 34° 57′ 14″ S., Long. 54° 40′ 06″ W.
RADIO/VHF: Call sign "Control Punta del Este", Continuous watch on VHF Channel 16. Intership working on Channel 6.
GENERAL: ANCAP have installed a Single Buoy Mooring, 3,600 m. from the shore in 16.8 m. (55 ft.) depth of water. Vessels of 150,000 d.w.t. can be handled and the average rate of discharge of crude oil is 5,000 cu.m./hr.

The shore terminal receives, stores and pumps the crude to the refinery at Montevideo.

A River Pilot must be ordered from Montevideo for securing to the buoy, and he remains aboard until the vessel sails.

Five days before arrival, Agents must request Free Pratique from the Health Authorities in Montevideo, and the Customs, Prefecture and Immigration Officials, from Punta del Este.

AUTHORITY: Prefectura del Puerto de Maldonado, Calle 8 y 13, Punta del Este (Maldonado), Uruguay. *Tel:* 41884, 41967. *Contact:* Port Captain.

MONTEVIDEO: 34.55 S. 56.13 W. (See Plan)

Also see "General" at beginning of Uruguay section.
APPROACHES: The Roads of Montevideo consist of the Outer Roads situated to the South of the bay and Inner Roads situated outside the Western breakwater.

Both anchorages are very exposed and vessels are recommended to enter the anteport.

The entrance channel has 36 ft.; the channel to Ancap's wharf (La Teja) 30 ft. 6 in. Basins 1 and 2 have a depth of 31 ft., and the River Traffic Basin, 15 ft. These depths depend on dredging being maintained, but even so vessels often "drag" when on the higher marks; the bottom is fine soft silt.

DOCUMENTS:
Health:
- Maritime Declaration of Health.
- 1 List of Passengers Disembarking.
- 1 List of Crew Members.
- 1 Derat Certificate.
- 1 List of Crew International Vaccinations.

Immigration:
- 1 Copy of Crew List.
- 1 Lists of Passengers Disembarking.
- 2 Copies of List of Passengers in Transit.

Police:
- 2 Copies of List of Passengers Disembarking.
- 1 Copy of Crew List.
- 2 Lists of Passengers in Transit.

Prefecture:
- 2 Lists of Passengers in Transit.
- 1 Visaed Copy of List of Passengers with Port of Origin.
- 2 Non-visaed Copies of List of Passengers.
- 1 Passenger List – or Negative – from all ports visited.
- 1 Non-visaed Crew List.
- 1 Cargo Manifest for Montevideo.
- 1 Manifest for Cargo in Transit.
- 1 List of Inflammable Cargo or Hazardous Goods – visaed or straight.
- 1 List of Vessel's Data.

Customs:
- 1 Visaed Manifest
- 1 Copy of Ballast loaded at each port.
- 1 Negative discharge statement for each port.
- If there is no Consul in previous ports, the last port where there was one.
- 2 Stores Lists.
- 2 Lists of Cigarettes and Whisky.
- 2 Lists of Personal Effects.
- 3 Lists of Bunkers on Arrival.
- 1 copy of Passenger List for those disembarking, or negative, and their baggage in the same list (drawn up and signed by the passengers themselves).

Agents:
- 2 Lists of Passengers Disembarking.
- 2 Lists of Passengers in Transit.
- 2 Crew Lists.
- 2 Stores Lists.
- 2 Manifests, including Inflammable Cargo.
- 2 Cargo Plans.

NOTE: The manifest must have a special section with all effects in transit or otherwise, for the free zones of Colonia and Nueva Palmira.

Crew Lists, amended Crew Lists and Inflammable Cargo Lists must be visaed at ports of sailing or loading.

ANTEPORT: The Anteport is to the North of the entrance, between the breakwaters, and has a depth of 33 ft. – 36 ft. Sufficient room for 10 vessels, depending on size.
PORT: The port is formed by the North side of the Montevideo Peninsula and the "Dique de Cintura", a breakwater running parallel to the coast, about 870 m. distant.

It consists of 3 basins, 2 of which are for ocean-going vessels and 1 for river traffic.

Basins 1 and 2 have a depth of 33 ft., and the basin for river traffic 15 ft.

PILOTAGE:

1. The Pilot must be requested via the Agent 24 hours in advance, giving ETA in the roads by W/T (Cerrito Radio – CWA on frequency of 500 kHz). It is not possible to elect a Pilot for the area of the port of Montevideo, except where the vessel exceeds 10,000 tons.

2. On entering into the system of the Control Centres, communication must be made with them, giving the information laid out in the "Basic Rules of the System of Control and Information of Maritime Movements". See "Control" in General Section before first Uruguay port.

3. By VHF on the Channels stipulated in "Basic Rules of the System of Control and Information of Maritime Movements".

4. Channel 11 must be used to communicate with the pilot vessel. The vessel is a powered craft painted reddish orange, with white deckhouse with the inscription "Practicos". During daylight hours, it flies the pilot flag, HOTEL (white and red), and at night it is necessary to have white and red lights indicating "I have a Pilot on board". Where a vessel does not have VHF, light signals must be used to communicate with the pilots' launch.

Should this launch be out of service, Pilots are transported by tugs of A.N.P. and/or BEYLA.

5. The Pilot will await the vessel near the Axis Buoy located at Lat. 35° 00′ S., Long. 56° 14′ W.

6. In the event of bad weather the vessel must anchor near the Axis Buoy.

7. To take the Pilot on board, the gangway must be positioned on the side which gives most advantage *vis-a-vis* wind and sea.

ANCHORAGE: Vessels may anchor near the Axis Buoy with a draft of 30 ft. at zero tide. The sheltered anchorage is located in the foreport inside the shelter of the breakwaters. To gain access to it, the Pilot must be on board and the permitted draft will be that specified previously.

RESTRICTIONS:

1. The port is closed when winds are up to 60 km.p.h. However, up to 80 km.p.h. the Prefecture may authorise manoeuvres. The port is also closed when there is fog, channel obstruction or any other problem which may make manoeuvring difficult.
2. Vessels will not be handled when there is serious damage to engines, hull or rudder.

MAX. SIZE:

1. The largest vessels operating in the port, are of the LASH type, with dimensions approx. as follows:
Overall length 272.22 m.; Beam 30.48 m.; Draft 28 ft.
2. Tankers which berth at the inflammable dock A.N.C.A.P.:
Overall length: 241.50 m.; Beam 32.33 m.; Draft 28 ft.

With regard to the dimensions of the vessel, the state of the tide and time will be considered, the Pilot will advise the Master of the best measures to adopt.

Report: March 1982.

Max. draft to reach Montevideo safely is 31 ft.

HEALTH: The procedure is as follows:

1. Request the Owner or Agent to obtain Free Pratique which will be done via Cerrito Radio Station – call sign CWA.

In the event of there being any suspected illness or fever on board, the vessel must anchor in the roads to await instructions, at the same time communicating this to her Agent/Owner.

RADIO: Cerrito Radio Station CWA operating on 500 kHz, 421.5 kHz, 4346 kHz, 6434.5 kHz, 8602 kHz, 12750 kHz, 17208.8 kHz and 22563 kHz.

Timetable for broadcasting information to Mariners:

	Frequency	*Times*
Cerrito	4,346 kHz	1100 hrs.
CWA	8,602 kHz	1600 hrs.
	12,750 kHz	2100 hrs.
	16,871 kHz	
Sodre (CX 6)	650 kHz	0900 hrs.
Coastal Station		
Punta Carreta	2,768 kHz	1103 hrs.
CWD		1603 hrs.
		2103 hrs.

RADAR: Port Radar Control available. Additional coastal radar stations to be installed.

VHF: The Control Centre has a range of 60 miles on VHF. It also effects communications by "Phone-Patch" between the vessel and or Agent or Owner; this, from their office or private address.

All the operations of the Centre of Control and Information of Marine Movement of the Port of Montevideo are set out in the booklet "Basic Rules of the System of Control and Information of Maritime Movements".

On entering waters of port jurisdiction, communication must be made with La Paloma Control, then Punta del Este Control and the Centre of Maritime Control of the National Naval Prefecture.

TUGS: 8 tugs owned by Port Authority, 1×4,000 h.p., 1×1,1950 h.p., 1×1,680 h.p., 1×1,100 h.p. and 4×500–700 h.p. Beyla S.A. (Private) operate 5 tugs of 250 h.p.–750 h.p. Tugs come alongside in the foreport. Lines are to be supplied by the vessel, and this is not optional. In the event that the vessel has no tug cable, this will be supplied by the tug at a cost of approx. U.S. $500 (as per tariff TM/6).

BERTHING: The berth will be allocated by A.N.P. and is to be requested by the Agent. Vessels may berth or unberth at any time of the day or night, except when the port is closed or due to lack of available berths. Generally, there are fenders placed along the berths. In the event that the vessel requires this service, it must be requested in advance via the Agent.

When berthing or unberthing, the gangway must not be in position due to the proximity of the cranes.

Anteport: 7 anchorage berths in 28 ft. depth. However in practice there is rarely room for more than 5 vessels to anchor. Basin No. 1: 7 berths, 28 ft. to 33 ft. depth alongside. Basin No. 2: 4 berths, 28 ft. to 33 ft. depth alongside. La Teja: Ancap basin with berths for 2 tankers 30 ft. depth in basin and entrance channel.

Berths are allotted by the Port Authorities in the order of arrival of the vessels and according to their category, as follows:

1. Mail vessels.
2. Regular Line vessels carrying immigrants.
3. Cargo vessels.
4. Sailing vessels.

The Authorities allocate the deposit at which vessel must discharge or load.

Port Authorities give preference at Deposit No. 10 to ships operating with refrigerated cargo from this Deposit; and at Deposit No. 11 (Florida Wharf) to tankers discharging to the pipe-line situated there. Conditional that they vacate the berth within 2 hours' notice, to permit berthing a preference vessel, other ships may operate at either berth.

Muelle de Escala: On the pier head, formed by the Southern side of the River Traffic Basin, and running Westwards, a quay has been built, known as "Muelle de Escala", 288 m. long, originally constructed for berthing passenger liners and war vessels, but now used as a container terminal. A fixed heavy lift boom capacity 200 tons is placed at the East end.

The berth is very exposed to wind and swell, and Masters are recommended to take every precaution to ensure their vessels are strongly moored and a lookout kept for changes of weather which, locally, are very sudden.

The depth of water alongside depends on dredging, but generally is over 33 ft.

1×40 tonne container gantry crane installed in 1986.

Also see "Developments".

River Traffic Basin: This basin is situated on the Western side of Pie "A". It is 400 m. long and has a passenger landing station on one side The opposite side of the basin is used by the Navy.

2 warehouses, called Warehouse "A" and Warehouse "B", have bee built on the East side of this basin and are serviced by 3 electric cranes In addition, there are on the quay a 1.5 and 6 ton steam crane, whic are employed when necessary.

These berths can only be used by light-drafted vessels, as depth o water is around 16 ft.

Basin No. 1: This basin is situated between piers "A" and "B". It entrance between the "Dique de Cintura" and the pier head "A" is abou 150 m. wide. It encircles a total mooring space of 1,093 linear metre and 7 vessels can comfortably berth along the quay walls.

Pier "A" is 382 m. long on the West side; 306 m. on the East side and 50 m. wide at the Northern pier-head.

On this pier 2 brick and concrete warehouses, Nos. 1 and 2, have been constructed, consisting of a ground floor, 3 storeys and a basement.

On the City side of Basin 1, length 493 m., there are 3 bric warehouses, numbered 3, 4 and 5, consisting of a ground floor o between 17,800 cu.m. and 19,600 cu.m. capacity.

On the Western side of Pier "B" facing Basin No. 1, there are 2 bric and concrete warehouses, Nos. 6 and 7, with a ground floor and 1 store having a capacity of 30,174 and 33,140 cu. m. respectively.

In Basin No. 1, Berths Nos. 1, 2, 3, 4 and 5 are generally used fo the discharge and/or loading of liners running to timetable.

Depths alongside vary, as it depends upon dredging.

Basin No. 2: This basin is situated between Pier "B" and the foot o Florida Street. The entrance to this basin is also about 150 m. wide. I has a total mooring space of 722 m. and it can accommodate 4 vessels

Pier "B" is 294 m. long on the Western side, 328 m. long on the Eastern side, 148 m. at the Northern pier-head and 13 m. wide on the bend at the Western corner of the pier-head.

At the Northern end of pier-head "B", livestock is embarked. This berth is also used for general cargo operations in times of congestion Moorings must be strong and carefully watched as the berth is very exposed to wash of passing vessels.

There are 2 warehouses on this pier, numbered 8 and 9, facing Basin No. 2, built of brick and concrete, with a ground floor and 1 storey and with a capacity of 33,320 cu.m. each. Warehouse 11 has 3 cold storage rooms with a total capacity of 26,000 cu.m. for storage of frozen meat chicken and fish products at −30°C.

Depths of water alongside vary, depending upon intensity of dredging but are generally 28 ft. to 30 ft.

Coasting Quay Wall: From Florida Street to Mole F, which is the end o the Port, and over a distance of 1,900 m., there is a quay used fo coastal craft, and on part of which a fish-receiving and industrialising plant is being opened; depth in this zone is 15 ft.

A floating dock is also anchored in the N.E. part of this section.

Basin For Inflammables "La Teja". (Also see "Tankers".)

On the North side of the Bay, the National Administration of Alcohol Cement and Fuels, known as A.N.C.A.P., has a basin with concrete walls for the discharge of tankers arriving with oil to their consignment This basin is known as the "Darsena de Inflamables", and has 1 bert for tankers on the North side in 30 ft. 6 in. and for liquid gas discharge on the Southern side, max. draft 22 ft., while on the West or land side there is a berth for coastal vessels. Width of the basin here is 147 m. which is the same as the entrance, while the South berth is 248.75 m long. On the North berth the jetty protrudes 34 m., and is 96 m. long.

Vessels berth bows to shore, and on leaving turn immediately outside the basin, if draft is less than 22 ft., otherwise they must reverse bac down the narrow access channel.

The North berth has separate lines for Crude, 10 in. and 12 in maximum pressure 105 lbs. Fuel oil, 8 in. and 10 in. with a pumping rate of 300 t.p.h. at temperatures between 40°C and 70°C. Diesel/Gas Oil/ Kerosene 6 in. connections and pumping rate of 300 t.p.h. Naptha 8 in. Lube oils 6 in. lines, 150 t.p.h. and a line for Alcohol 6 in. There is no line for Gas. There are 3×5 ton electric cranes and 1×12 ton diese crane. Coal and Cement are also discharged at this berth, the coal to Decauville cars and the Cement to trucks, handling 750 tons per 8 hou day, with 5 gangs.

At the South berth the oil lines are identical, and there is also a 6 in connection for loading or discharging Super Gas, at 200 t.p.h. There are no cranes at this berth.

The Western berth has the same installations except for Super Gas and Alcohol.

There are 3 in. water lines at each berth, and use of 2 tugs is essentia for berthing or unberthing. At the North berth, vessels fully loaded ofte lie up to 15 m. out from the quay, owing to accumulation of mud, and will gradually close in as the vessel lightens. Access gangways are placed by the Port.

Railway Connections: Basins 1 and 2, River Traffic Basin and also Deposits "A" and "B" have railway lines on all sides, belonging to the Port Administration, which are connected with the main lines of the Uruguayan State Railways.

The Port Administration has 2 electric locomotives used exclusively in the port.

Cranes: The Port Administration has 2 heavy-lift floating cranes o 80 tons and 200 tons capacity, a mobile crane of 20,000 kilos, also 46 movable electric cranes of 5,000 kilos each; 5 movable electric cranes of 1,500 kilos each; 1 fixed electric crane of 4,000 kilos; 33 o the aforementioned 5,000 kilos cranes, are placed alongside the quay walls for vessel's operations.

There are also 24 electric trolleys of 1,500 kilos, and one of 1,000 kilos There is a fixed crane for 200 tons on Muelle Escala.

Fiscal Lorries: The Port Administration has purchased special lorries and 12 auto cranes for receiving cargo, as the railway wagons available are not sufficient to carry all the cargo that is at present being handled at this port.

Loading Operations: Loading is effected from carts, lorries and/or wagons and the cargo is hoisted on board with the cranes. Cargo is also loaded from lighters.

Grain Loading: There are 2 mobile grain vacuvators, each of which can load bulk grain at around 60 t.p.h, also 10 smaller machines that can each load around 20 t.p.h.

Fumigation: Montevideo is the only port in Uruguay at which vessels can fumigate, using the cyanide method. The tariff is per cubic metre fumigated over a basic charge which varies according to n.r.t. There are surcharges for overtime.

Disinfection of Mail Bags: To avoid delay through disinfection mail bags can be fumigated on board in a 10% formalin solution and kept in a closed space for 4 hours before vessel gets into port. The closed space will be opened in the presence of a Health Officer who will verify the use of formalin. When in doubt, fumigation will be carried out again and exposed for 2 hours.

Height of Quay above Water: Tide being very small, the height of quay above water only varies from 8 ft. – 10 ft. at LW to 10 ft. – 12 ft. at HW. Wind influence is felt even in the bay, as a South wind will raise water as much as 5 ft., or a Northerly wind reduce it 2 ft. or 3 ft.

PORT EQUIPMENT: *Shore Cranes:*

Berth No.	*No. of Cranes*	*Capacity tons*	*Type*
Muelle de Escala	1	40	Portainer
	1	200	Derrick (fixed)
A – West	3	5	Demag
A – East (1/2)	7	5	Skoda
3-4-5	9	6	Duro Felguera
B – West (6/7)	2	40	Takraf
	4	12.5	Takraf
B – (Front)	4	5	Demag
B – East (8/9)	9	5	Demag
11 – 12	5	6	Duro Felguera

Mobile Cranes/Fork Lifts:

Type	*Capacity tons*	*No.*	*Type*
Fork Lift	2	56	Komatsu
Fork Lift	1	27	Komatsu
Fork Lift	3	10	Komatsu
Fork Lift	12	2	Komatsu
Fork Lift	2	16	Toyota
Fork Lift	1	10	Toyota
Fork Lift	4.5	2	Clark
Fork Lift	28	5	Kalmar (with spreader)
Fork Lift	12	3	Kalmar
Container Crane	60	4	Bellotti
Mobile Cranes	40	2	Poclain
Mobile Cranes	20	2	Poclain
Mobile Cranes	30	1	Bucyrus
Mobile Cranes	1.5/6	13	
Container Trucks	50	12	

STEVEDORES: Working hours: 1st shift, 0700 to 1300 hrs.; 2nd shift, 1300 to 1900 hrs.; 3rd shift, 1900 to 0100 hrs.; 4th shift, 0100 to 0700 hrs.

Normal capacity per gang per hour: *(a)* Rice – about 80/90 tons per gang/hour. *(b)* Meat – about 60/100 tons per gang/hour.

Overtime is compulsory if port is congested.

Lavatory Conveniences for Shore Labour: Each vessel must furnish conveniences for all shore labour employed on board. Work has been stopped until such conveniences are installed. It is advisable, therefore, for vessels calling at Montevideo to be equipped with 2 spare lavatories, 1 for tally clerks and 1 for stevedores, etc.

DENSITY: This varies according to wind and tide (1006 – 1002). The degree of salinity (max. 10 gm. per litre) is broadcast daily in the weather reports by radio, and varies from fresh to brackish to sea water. Steady South winds give the highest degree of salinity.

MEDICAL: Any urgent case must be advised in advance. In normal cases, the Health Service Doctor in the port will visit. For this purpose there are Clinics and Hospitals with optional assistance. Vaccination Certificates are issued by the Port Health Service. There are also private health and medical services which give on-board treatment.

FRESH WATER: Fresh water is supplied by the Port Authorities at all quay berths. Request must be made through the Agents, vessels supplying their own hoses where possible. It is important that the water meter should be read together with the Port official both at connecting and disconnecting to verify the exact quantity. Loading rate 20 cu.m./hr. Water also available by barge (capacity 170 tons) loading rate 18 t.p.h. – 20 t.p.h.

FUEL: This can be taken on board whilst anchored in the foreport via two barges, one of 595 tons delivering at the rate of 250 to 350 cu.m./hr., the other of 310 tons at the rate of 200 to 250 cu.m./hr.

Also available from the Uruguayan tanker "Valiente" (capacity 1,337 cu.m. of fuel, rate of 700 cu.m./hr.) or 196 tons of water at the rate of 70 cu.m./hr. This service can be effected outside the port.

A.N.C.A.P. Information: All grades subject to confirmation, the request being made via the Agent 15 days in advance.

TANKERS: Dirty ballast can be discharged depending on whether or not there is a berth at La Teja, Inflammable Materials Dock. A.N.C.A.P. have the necessary reducers for any type of operation.

Diameter of pipes: Crude – 12 in.
Fuel oil – 8 in.
Dirty ballast – 8 in.

Berth depths: North Quay – 29.6 ft.
South Quay – 22 ft.
West Quay – 14 ft.

GANGWAY/DECK WATCHMEN: Shore watchmen are compulsory. Arranged by Agents. 1 required on deck and 1 for each gangway. Vessels carrying dangerous cargo must also employ a guard of the Prefectura.

Vessels calling for supplies only, for orders, in distress or to land sick crew members or to enter dry dock, need not employ Watchmen. Repairs afloat require a watchman, if they do not carry out commercial operations.

Shifts are of 8 hours, commencing at 0700 hrs. Vessels under repair, and those at ANCAP moles may fix 12-hour shifts, paying a shift and a half.

If special watchmen are required for goods or working equipment, application must also be made to the Union.

If watchmen are needed in the holds, same applies.

Regulations also require a watchmen in the holds wherever the ship has a crew member, cadet or officer permanently on watch to prevent pilferage. However, where ship's personnel are in the hold to watch the stowage of the cargo, no extra watchman is required. Masters should therefore, advise Agents if they intend to place crew members permanently in the holds during discharge, so that Agents can advise the Association before they make their claims.

Care must also be taken on arrival, since the watchman is on duty from 0700 hrs. on, whereas it may be necessary to place the gangway safety net, etc., before that time, so that Pilot may disembark.

Only those involved in this operation should go ashore. The Receiving Commission may ask for the gangway to be opened before 0700 hrs., which is in order, but no one else should use the gangway to avoid claims from the Union.

Vessels lying in the anteport must provide launches for the transport of watchmen employed.

IDENTIFICATION CARDS: The prefecture issues identity cards. Crew not allowed ashore without card.

CONSULS:	*Address*	*Telephone No.*
Argentina	Rio Branco 1412	900897
Austria	Sarandi 693	914000
Belgium	L. Patria 2880	701265/70
Bolivia	Rio Branco 1320	912394
Brazil	18 de Julio 984	911145/46
Chile	Canelones 1165	910696
Colombia	Soriano 791	902606
Czechoslovakia	L.B. Cavia 2996	787808
Denmark	Rio Branco 1389	915238
Ecuador	21 de Setiembre 2816	700727
Egypt	A. D. Costa 3469	799904
El Salvador	Piedras 434	900852
Finland	Solis 1533	914386
France	Uruguay 853	912791
Germany D.R.	Echavarria 3452	788010
Germany F.R.	La Cumparsita	900841/904958
Greece	Misiones 1481	912148
Guatemala	Fco. Soca 1379	782104
Honduras	Misiones	900894
Hungary	P. de Pena 2469	786173
Iceland	J. Benito Blanco 715	702565
Israel	Bvar. Artigas	404164/66
Italy	J. Benito Lamas 2859	785316
Japan	Rincon 487	913936
Korea	Avda Brazil 2385	787679
Lebanon	Fco. Solano Antuna 1882	701834
Mexico	Juncal 1305	916890
Netherlands	Leyenda Patria 2880	701631
Norway	Colon 1580	987121
Panama	J. Benito Blanco 715	703620
Paraguay	Rio Negro 1370	984775
Peru	Juan Gomez 1492	984743
Portugal	P. de Pena 2486	781915
South Africa	Rincon 487	986956
Spain	Libertad 2750	780048
Sweden	Avda. Brasil 3079	780088
Taiwan	Fco. Soca 1128	790577/790312
United Kingdom	Cerrito 420	912501
U.S.A.	H. A. Santos 808	409126/409051
Venezuela	Avda. Artigas 1253	493005
Yugoslavia	Avda. Espana 2697	788129

REPAIRS: All kinds of repairs can be effected, either afloat or in drydock.

DRY DOCKS:

Nacional	Length between perpendiculars	141.30 m.
	Width	28.50 m.
	Height	10.46 m.
	Depth of water	14.11 ft. at zero
Tsakos (Floating)	Lifting power	12,000 tons
	Length	165.99 m.
	Width	28.50 m.
	Height	4.41 m.
	Max. height of stocks	23.16 m.
A.N.P. (Floating)	Length	67.06 m.
	Width	13.72 m.
	Height of water at the stocks	4.75 m.
Maua	Length	79.25 m.
	Length on stocks	74.42 m.
	Depth of water	12 ft.
	Width of pontoon	15.25 m.
	Capacity of operation	2,000 tons

REPATRIATION: There are facilities for exchanging crews.

AIRPORT: Located 30 minutes away by car. There are various regular services to all parts of the world.

TIME: GMT minus 3 hours. (However changes are possible).

HOLIDAYS: 1st January (New Year); 6th January (Epiphany); 3 days in February (Carnival); 7 days in March or April (Tourist Week); 1st May (Labour Day); 18th May (Battle of the Stones); 19th June (Artigas' Birthday); 18th July (Swearing of the Constitution); 25th August (Declaration of Independence); 12th October (Day of the Race); 2nd November (All Souls'); 25th December (Christmas Day).

On these days, work will always proceed when the Agent or Owner requires it or also if the Port Authority requires it, should there be a number of vessels anchored in the Roads awaiting a berth.

POLICE/AMBULANCE/FIRE: Port Police (Immigration): 95.21.51; Fire Brigade: 91.51.51 to 56 – extensions 139/337. Ambulance: 91.51.51 – extensions 272/382.

Prefecture of the Port of Montevideo: 95.21.27 – 95.21.77, 95.54.05, 95.52.01, 95.22.27, 95.24.27 ext. 07, 91.51.51 ext. 199, 91.93.03, 91.53.71 ext. 199.

TELEPHONES: There are services on all quays. Telephones can be requested by the Agent from the Port Authority.

SHORE LEAVE: Allowed.

DEVELOPMENTS: A container park and fish quay have been built alongside the Eastern Quay and in the Mantaras Zone respectively.

A battery of silos will be constructed at C.M.B. (between Warehouses 7 and 8) which will facilitate the loading and unloading of grain.

Report: 1981.

The National Port Administration (Administracion Nacional de Puertos) is building a container terminal with an area of 7 ha. close to the Muelle de Escala.

This berth is at present dredged to 10 m. Its length will be increased from the present 288 m. to 400 m. and the draft increased to 12 m.

The storage capacity will be a maximum 5,000 containers.

The berth will be equipped with 2 container cranes of 40 – 45 tons. Also all necessary equipment ashore for handling containers will be available.

A fishing berth of 320 m. has also been built with 6 m. draft.

SHIPMASTER'S REPORT: July 1983.

Documents: As per "Guide to Port Entry".

Pilotage: Compulsory. Pilot boards at Sea Buoy. 24 hours' notice required.

Anchorages: As per B.A. Chart 2001.

Restrictions: Max. draft 28 ft. Possible to depart/enter 24 hours a day.

Max. Size: Largest vessels using the port are LASH vessels, length 272 m., beam 30 m. – 40 m., max. draft 28 ft.

Health: Inform Agents of vessel's state of health and request Free Pratique.

Radio: Cerrito Radio Station.

VHF: Vessels must abide by Uruguay Regulations as per Radio Signals Volume 6, Part 2 otherwise will be subject to very heavy fines.

As soon as vessel is inside Territorial Waters, i.e., S.W. of a line bearing 128° from Chui Lt. and West of 50° 50′ W., they must report to the appropriate station on VHF.

Pilots and Port operate on Channel 16.

Tugs: Available.

Berthing: Vessel berthed at Darsena/Muella A. Least depth in channel from sea to berth was 30 ft., distance between sea and berth being 6 miles. Mean tidal range at berth is 2 ft. Nature of bottom at berth – mud.

Cranes: Sufficient quay cranes of 4 tons capacity available. One floating crane of 80 tons capacity available.

Equipment and storage available for breakbulk/palletised cargoes.

Stevedores: Stevedores were very helpful.

Medical: Doctor and hospital available.

Density: 1002.

Fresh Water: Available.

Fuel: Bunker fuel and diesel oil available.

Repairs: Can be undertaken.

Dry Docks: Available.

Surveyors: Lloyds' Surveyor based at the port.

Airport: Available.

General: Fresh provisions, meats, groceries and laundry services available.

AUTHORITY: Administracion Nacional de Puertos, Rambla 25 de Agosto de 1825 No. 160, Montevideo, Uruguay. *Tel:* 95-12-54. *Telex:* Naveanp Uy 22351. *Contact:* Ing. Euclides Cotignola, General Manager.

NUEVA PALMIRA: 33.53 S. 58.25 W. (See Plan)

LOCATION: Situated on East bank of Uruguay River, 155 miles above Montevideo. Km. 0 on River Uruguay.

DOCUMENTS: The documentation required is as follows:

- Cargo or Ballast Manifest.
- Negative Passenger List or list of passengers visaed by the Consul.
- Crew List.
- Stores List.
- List of Personal Effects.
- Tonnage Register.
- Consular Clearance.
- Maritime Declaration of Health.

PILOTAGE: The information required from vessels navigating within the area of the Port Control are:

- Time of entry and leaving the area.
- International call sign.
- Name of vessel.
- Flag.
- Estimated course.
- Latitude.
- Longitude.
- Port of destination.
- Estimated time at port of destination or other point of call.

The area appointed for effecting change of Pilots is the Port Roads. The Pilots arrive at the vessel in a launch 5.53 m. overall length, with cabin, painted orange, owned by the Pilots' Corporation of Uruguay.

ANCHORAGE: The area designated for anchoring is located within the roads and fore-port, depth being between 20 ft. and 24 ft.

RESTRICTIONS: There are no restrictions for berthing in the port, except those imposed by weather conditions (winds, etc.). Vessels berth without the aid of tugs.

MAX. SIZE: With regard to length and capacity of vessels, there is no stipulated limit but due account should be taken of the fact that the depth of water in the port is 24 ft.

HEALTH: The Health Authorities will require a Crew List and Maritime Declaration of Health. In the event of disease being detected on board, the Health Official will proceed to inform the Aid Centre who will arrange for a doctor to attend on board, with the vessel placed in quarantine or the patient will be transferred to hospital, depending upon the illness discovered. To date, no such occurrence has arisen in the port.

RADIO: VHF equipment with permanent listening out on Channel 16.

RADAR: There is no radar equipment.

VHF: All communications are effected by means of VHF equipment. The call sign is CWC 31 – "Control Palmira Prefecture", and the following Channels are used: 6, 8, 9, 11, 12, 13, 14, 16, 25, 26, 68 and 69. The station operates permanently on Channel 16, the frequency being 156.800 mHz.

TUGS: The service of a tug is not necessary for berthing vessels.

BERTHING: The port has the Official Quay and the quay owned by Cia. Navigen.

Official Quay: Length 240 m., length of the head 80 m., width in the centre 40 m.

Navigen Co. Quay: Length 234 m. It has a conveyor belt system 500 m. long, running 15 m. above the level of the water. Electrical operating system with a loading and discharge capacity of between 300 t.p.h. and 700 t.p.h., dependent upon whether cereals or ore is being handled.

CRANES: The Official Quay is equipped with 3 cranes of the National Port Administration. They are mobile cranes on rails. Two are for 3,000 kg., and the third is for 5,000 kg.

STEVEDORES: As soon as the vessel communicates the ETA at the port, the Agent will make all necessary arrangements for stevedoring services to commence work as soon as the vessel has obtained Free Pratique. These services will be made available dependent upon the tasks required to be fulfilled.

MEDICAL: The local Public Health Aid Centre is entrusted with furnishing any medical aid which may be necessary on board.

BULK HANDLING FACILITIES: There are no tanks, but there are warehouses for storing grain and general cargo. These warehouses belong to the National Port Administration and to the Free Zone, and are located within the port area.

FRESH WATER: Fresh water is supplied by the National Port Administration.

FUEL: There is a fuel storage depot within the port area, and should it be necessary to supply bunkers to a vessel, application has to be made to ANCAP who will supply via tanker trucks.

FIRE PRECAUTIONS: There are none, other than those of a routine nature.

CONSULS: There are none at local level. In the town of Carmelo, 21 km. from Nueva Palmira, there is the Consulate of the Argentinian Republic.

REPAIRS: Minor repairs possible.

SURVEYORS: None available.

GANGWAY/DECK WATCHMEN: The service of watchmen is not necessary, unless the vessel is carrying flammable cargo.

HATCHES: Opening and closing of hatches is normally carried out by stevedores.

CUSTOMS ALLOWANCE: Each crew member is permitted to carry out of the bonded ship's store, 5 kg. tobacco, 2 cartons of cigarettes and 2 bottles of wine.

CARGO GEAR: Normally, loading and discharge are effected by means of land-based equipment.

REPATRIATION: There are facilities for changing crews, and to effect any repatriation necessary. In both cases, the arrangements are carried out with the participation of the Immigration Authorities and the Maritime Agency concerned.

AIRPORT: There is the airport of Zagarzazu located between Nueva Palmira and Carmelo, approximately 15 km. from this town.

TIME: Local time is GMT minus 2 hours.

HOLIDAYS: 1st January, 19th April, 1st May, 19th June, 18th July, 25th August, 12th October, 8th December, 25th December. Holidays do not interrupt operations on vessels.

POLICE/AMBULANCE/FIRE: Police: Tel. 42, Ambulance: Tel. 82. No fire brigade.

TELEPHONES: It is not possible to have telephones installed on board vessels.

SERVICES: There are stevedoring services, Maritime Agents and Customs Clearance Agents.

SHORE LEAVE: Once Free Pratique is granted, there are no prohibitions for crew members going ashore.

DEVELOPMENTS: The lengthening of the head of the Official Quay by 200 m. to the North is planned. Grain Silo with capacity of 25,000 tons to be built.

AUTHORITY: El Sub-Prefectura de Nueva Palmira.

PAYSANDU: 32.18 S. 58.06 W. (See Plan)

LOCATION: Situated on the East bank of Uruguay River, 380 km. above Montevideo. Km. 204 on River Uruguay.

DOCUMENTS/PILOTAGE/HEALTH/RADIO: See "General" at beginning of Uruguay section.

RESTRICTIONS: River navigation controlled by depth in the passes at Almiron, Vera and Urquiza. Since river conditions vary from season to season, Agents should be consulted beforehand regarding available draft at any particular time.

ANCHORAGE: Off Montevideo.

MAX. SIZE: Up to 15 ft. draft fresh water, depending on river conditions.

TUGS: Available.

BERTHING: Grain Elevator Berth: 20 ft. depth alongside at zero tide. Coastal Berth: Length 300 m. Depth 11 ft. at zero tide.

ANCAP Pier: 1 berth for tankers, 30 ft. depth at zero tide.

There is 1×5 ton crane on the grain quay and 3×3 ton cranes on the coastal berth. Loading on the ANCAP berth is by lorry.

STEVEDORES: Working hours: 0800 – 1200 and 1430 – 1800 hrs. Saturdays: 0800 – 1230 hrs.

MEDICAL: All assistance available.

FRESH WATER: Available at all berths.

FUEL: By negotiating through the intermediary of the Customs Clearance Agent the required quantity is delivered.

REPAIRS: Minor repairs can be effected.

CONSULS: Local representation for Argentina, Brazil, Italy and Paraguay. All other Consuls at Montevideo.

GENERAL: Refer to "Montevideo" for all general information.

NOTES

Please also advise Shipping Guides Ltd.

Republic of Vanuatu

PORT VILA: 17.45 S. 168.18 E. (See Plan)

PORT LIMITS: A line drawn between Pango Point and Devil's Point.
DOCUMENTS:
Last Port Clearance.
2 Crew Lists.
2 Passenger Lists.
2 Cargo Manifests.
2 Stores Lists.
Log Book, Derat and usual Ship's Certificates to be available for inspection.

PILOTAGE: Compulsory for all vessels over 60 m. in length. Pilot boards 2 miles West of the Fairway Buoy, on the leading lights. Pilot launch displays the Pilot (H) flag by day; by night, a red flashing light.
24 hours' notice of ETA to be given.

Telegrams/Telex for Pilot should be addressed to Harbour Master, Vila, or advise through Agents. ETA messages for night arrivals, weekends and public holidays must arrive during office hours, Monday to Friday. VHF watch is kept on Channel 16 during working hours. Contact normally made 2 hours before arrival at pilot station.

ANCHORAGES: When a vessel has to await a berth or tide, the Master may anchor in the main bay North of the leading lights (1,200 m. from lower lead) and well clear of vessels leaving Pontoon Bay; or as directed by the Harbour Master.

RESTRICTIONS: No restrictions except that no services will be provided after 2300 hrs. and before 0500 hrs., unless in emergency or by prior arrangements.

MAX. SIZE: Governed by berth size and max. LOA 250 m.

HEALTH: Pratique messages should be addressed to Harbour Master. If vessel not healthy, medical advice should be requested through Agents.

Pratique messages will not normally be responded to if the vessel is healthy.

RADIO: Messages or communications possible via Port Vila Coastal Radio. Call sign YJM.

VHF: Port and radio station keep watch on Channel 16 during working hours.

RADAR: No radar services.

TUGS: One tug available for berthing/unberthing. 780 h.p., 14 tons bollard pull.

BERTHING:
Main Government Wharf: Steel pile and concrete decking construction; with bollards 30 m. from each end of the wharf. Length of wharf 212 m, width 9 m. and depth 10.7 m. alongside. Loading/discharging by ship's gear.

Transit storage 2,000 sq.m.; open storage 1,000 sq.m. Can take Ro/Ro traffic.

Arammadi Wharf: Privately owned. Length 55 m., depth 8.2 m. alongside. Vessels of 150 m. length can berth safely. Ample open storage, but no closed storage.

Town Wharves: 2 small wharves on town waterfront, depth 2.5 m. alongside. Also see "Tankers".

CRANES: None available.

STEVEDORES: *Working Hours:* Monday to Friday: 0700 – 1100, 1300 – 1700, 1800 – 2300. Saturday: 0700 – 1500. Sundays and Public Holidays: No cargo work. Gangs to be ordered previous day by Agent.

MEDICAL: Government hospital with full facilities. Private doctors and dentists available. Arrangements may be made in advance with Agent by telex or on arrival.

TANKERS: Tankers anchor using a "Mediterranean moor" with 2 lines to the shore. Due to bar at entrance to bay, entry is made at HW only with controlling draft of 7 ft. plus height of tide. Max. size 1,500 d.w.t.

There is an overhead power cable between Iririki Island and the mainland with a vertical clearance of 23 m.

DENSITY: 1025.

FRESH WATER: Available at main wharf at a filling rate of about 38 t.p.h. At the Star Wharf fresh water available at a filling rate of about 2 t.p.h. Water is good quality and potable.

FUEL: Fuel can be supplied by Shell, Mobil and B.P. by road tanker.

CONSULS: Australia, France, New Zealand and U.K. are represented.

REPAIRS: Small repairs can be undertaken.

DRY DOCKS: None.

SURVEYORS: Classification Societies' Surveyors can be brought from Fiji and New Caledonia at short notice.

GANGWAY/DECK WATCHMEN: Not available or necessary.

OPENING/CLOSING HATCHES: Hatches are normally opened and closed by ship's crew.

CUSTOMS ALLOWANCES: 200 cigarettes or 100 cigarillos or 50 cigars or 250 grammes tobacco. 2 litres of wine and 1.5 litres of spirits.

CARGO GEAR: Ship's gear used for loading/discharging. 11 forklifts from 2 – 20 tons, 1×22 ton flat-bed truck, 1 flat-bed truck with 19 ton crane, 1×8 ton tipper truck, 1 prime mover, 1×20 ton semi-trailer, 1×10 ton tilt trailer, 3×3 ton trucks and 1×20 ton container top lift frame (20 ft. containers) available.

REPATRIATION: Arranged by Agent.

AIRPORT: Bauerfield International Airport in Vila about 5 km. from port. Daily services to Noumea. Regular services to Fiji, Auckland, Sydney, Brisbane, Honiara, Papua New Guinea and Naura.

TIME: GMT plus 11 hours. GMT plus 12 hours from late September to late March.

POLICE/AMBULANCE/FIRE: Police tel: 2222; Ambulance tel: 2100; Fire tel: 2333.

TELEPHONES: Available on board at Main Government Wharf through Agent.

SERVICES: Diver available. Tinned, frozen meat and vegetables available, also bonded stores.

BANKS: Available.

SHORE LEAVE: No restrictions.

IDENTIFICATION CARDS: Not required.

REGULATIONS: No special regulations.

DELAYS: Only when more than one ship in port.

DEVELOPMENTS: The privately owned 50 m. wharf to be extended b 40 m. and strengthened for container handling. No date yet fixed fo commencement of construction.

SHIP SUPPLY SERVICE: Tug "Roimata" and pilot boat "Tekoni II" ca be used in an emergency for transport of personnel/essential stores There are various charter boat operators who can be mobilised throug the Department for Emergency Operations.

GENERAL: *Charts:* BA 1493 and 1494 cover this port.

AUTHORITY: Ports and Marine Department, P.O.Box 198, Port Vila Vanuatu, S.W. Pacific. *Tel:* 2339. *Telex:* Vangov 1040 N.H. *Contac* Captain Leith Nosak, Principal Marine Officer/Pilot. Tel. 3646 (home).

SANTO: 15.31 S. 167.11 E.

The Port of Santo is sometimes referred to by the name of the old tow 'Luganville', but nowadays the port and the town are usually calle 'Santo'.

PORT LIMITS: The Port of Santo includes that area of the Segon Channel bounded in the East by a line running due North from Blac Rock Point on Aore Island (from the 'Black Rock' on Chart BA 1736 This is known as Pointe Chapuis on French charts. It is bounded in th West by a line running due East from the Renee River on the island c Espiritu Santo.

DOCUMENTS:
Last Port Clearance.
2 Cargo Manifests.
1 Crew Declaration.
2 Animals Lists (Nil if none aboard).
2 Prohibited and Restricted Goods (Arms and Ammunition).
2 Lists of Ship's Stores (Cigarettes, Tobacco, Alcohol, etc.).
6 Crew Lists.
All the above can be provided on ship's paper.
The following is a Vanuatu form which can be filled in on arrival:
Ship's Report and Arrival Declaration (Vessel's Details).

PILOTAGE: Telegrams for the Pilot should be addressed 'Harbou Master Santo' or advice passed through Agents. ETA messages fo night-time and week-ends must arrive during office hours Monday t Friday.

Ships calling at Port Vila first, may pass ETA Santo through th Harbour Master at Vila.

VHF watch is kept during office hours on Channel 16 and for 2 hour prior to all advised arrivals. Pilot boat also watches Channel 16.

The pilot boat is a 12 m. boat with white hull and superstructure She has 'Pilot' in black letters on the cabin and exhibits a pilot jac She carries a red flashing light with her pilot lights at night.

The pilot station is 1 mile East of Black Rock Point at the Easter entrance to the Segond Channel. By day and in good visibility the Pilo may board or disembark at the South-Western end of the Segon Channel South of Georges Philippar Pass, though this is not normal an should be by prior arrangement.

Pilot ladder should be rigged in accordance with the S.O.L.A.S convention.

ANCHORAGES: Vessels may anchor anywhere in the Segond Channe except in the 'Prohibited Anchorage' close off the Main Wharf (which i shown as 'Dock No. 3' on Chart BA 1736). There is a patch with a leas depth of 14 fathoms 1 mile S.S.W. of the main wharf which i recommended for anchoring, especially for smaller vessels seekin shelter from the S.E. trades. A strong tidal current, normally up to 3 knots, runs in the channel and vessels should give plenty of scope.

RESTRICTIONS: There are no restrictions on entry. However, a stevedores do not work from 2300 hrs. to 0700 hrs., vessels due to arriv between these times are *recommended* to slow down, save fuel an arrive at the pilot station at 0530 hrs. or 0600 hrs. to berth in daylight

MAX. SIZE: Governed by berth size only.

HEALTH: Pratique messages should be addressed to Harbour Maste with ETA message. If vessel is *not* healthy Harbour Master will advis action to take. Pratique messages will not normally be responded to vessel is healthy. Vessels arriving from Port Vila do not require Pratiqu

RADIO: Message should be sent via Port Vila radio, call sign YJM.

VHF: A port watch is kept on Channel 16 during office hours Monda to Friday and from 2 hours prior to advised ETAs. Call 'Harbour Maste Santo'. The pilot vessel also watches Channel 16 VHF when on pilotag duty.

RADAR: No radar service.

TUGS: None, but one may be obtained in emergency from Port Vila.

BERTHING: Salt water Berth 140 m. long with a depth of 10.5 m. a LWS, and this is the maximum draft. Vessels can, and usually do overhang the ends of the wharf with lines on dolphins or bollards on th shore. Dolphins are situated 22.5 m. East and 35 m. West of the Whar

Also see "General".

CRANES: None.

BULK CARGO FACILITIES: Stevedores are currently interested i experimenting with bulk loading of copra (rather than from bags) an various methods are used to suit different ships. All methods, howeve require lifting by ship's gear. There is interest in the construction of small coconut oil mill, storage tanks for which are already constructe

BRIDGES: None.

STEVEDORES: Stevedores work 0700 hrs. to 1100 hrs., 1300 hrs. t 1700 hrs. and 1800 hrs. to 2200 hrs. Advice given at least the previou day by Agents should be sufficient. Stevedores do not work on Sundays or if avoidable on public holidays.

MEDICAL: Medical attention can be arranged after arrival and there is a hospital in Santo. However, medical treatment that is not of an emergency nature should be sought elsewhere.
TANKERS: Tankers berth at the main cargo wharf. The discharge line is 8 in. and the rate of discharge is 150 tonnes per hour.
DENSITY: 1025.
FRESH WATER: Vessels can take up to 500 tonnes if 2 working days' notice are given. Otherwise the maximum amount may be as little as 50 tonnes. Water is good though a little hard.
FUEL: Small quantities can be arranged by truck. Large quantities can be delivered by the 8 in. tanker discharge line, but must be by prior arrangement with Shell or Mobil. Santo is not normally a bunkering port.
FIRE PRECAUTIONS: All normal precautions only.
CONSULS: None.
REPAIRS: No shore facilities suitable for larger vessels.
DRY DOCKS: None. Slipway for vessels up to 50 m. length.
SURVEYORS: None.
GANGWAY/DECK WATCHMEN: Not considered necessary.
HATCHES: Hatches are opened and closed by either crew or stevedores. Recommended that crew carry out this operation on copra loading ships.
CUSTOMS ALLOWANCES: (Per crew member) 200 cigarettes or 100 cigarillos or 50 cigars or 250 grammes tobacco. 2 litres of wine and 1.5 litres spirits.
CARGO GEAR: Ship's gear only. Ashore: 5 forklifts (from 2.5 to 22 tonnes), 2×3 tonnes flat trucks, 1×6 tonnes dump truck, 8 tractors, 100×2 tonnes trailers and 1×22 tonnes container carrier are available. No lighters available.
STORAGE: General cargo sheds of 6,000 cu.m.; 9,000 cu.m. of copra storage. Container yard for 200 TEUs. There is a minimum of 1,600 cu.m. of open storage.
REPATRIATION: Possible from Santo Airport via Port Vila.
AIRPORT: Santo International Airport is about 6 km. from town.
TIME: GMT plus 11 hours. GMT plus 12 hours from 24th September to 24th March.
HOLIDAYS: Holidays vary from year to year. It is recommended to seek advice of local Agents. It is not normally possible to work cargo on public holidays or Sundays.
POLICE/AMBULANCE/FIRE: Police tel: 222; Fire tel: 316; Health Officer tel: 419.

Police station is close to the wharf. There is no ambulance service. The fire service consists of 1 fire tender operated by Public Works Department. The Harbour Master has some hoses and a small foam generating machine stationed on the wharf.
TELEPHONES: There is a public telephone in the Post Office near the wharf.
SERVICES: None.
SHORE LEAVE: No restrictions.
REGULATIONS: No special regulations.
IDENTIFICATION CARDS: Not required.
DELAYS: Only for stevedores non-working times or when there is more than 1 ship present in the port.
GENERAL: Tidal stream in the Segond Channel can reach as much as 4 knots, the Westerly flood stream being predominant and the East going ebb stream occasionally absent. The flood stream can set in a North-Westerly direction at the main wharf, thus setting a vessel down onto the wharf and making an apparently simple berthing manoeuvre a little difficult. It is recommended that when S.E. trades are blowing, and a vessel has to berth port side to in order to stem the tide, the starboard anchor should be laid off whilst berthing with about 5 or 6 shackles leading 2 points for'd of the beam. This is to heave the bow away from the wharf on departure.
DEVELOPMENTS: Construction of a 130 m. long wharf to commence mid-1988.
AUTHORITY: Department of Ports and Marine, Box 148, Santo, Vanuatu. *Tel:* 739 (office); 454 (home). *Contact:* Captain M. Toa, Harbour Master.

NOTES

Please also advise Shipping Guides Ltd.

Venezuela

GENERAL:

BERTHING PRIORITY: The Venezuelan Ministry of Communications has decreed, through the Directorate General for Transport and the Port Captaincies, the following new docking priority system:

1. Vessels owned by the C.A. Venezolana de Navegacion or chartered by that company.
2. Venezuelan vessels belonging to private companies.
3. Vessels of other countries.

Previously, vessels chartered by the C.A. Venezolana de Navegacion did not get priority treatment and it is understood that, with these new priorities, the number of vessels with docking privileges has been tripled, thus resulting in greater delays for vessels operated by foreign companies.

SHIPMASTER'S REPORT: July, 1982.

You may wish to caution all seafarers who may in the future trade to Caripito, and the other similar jungle areas. The problem in this area used to be mosquitoes, but although they are still around, the problem that we have recently experienced is a moth locally known as 'Palometas'. One doctor referred to it as an insect 'Hylesia Canitia'.

My information is limited, due to language difficulties, but the problem is very real, and I cannot caution the unaware strongly enough to take precautions. The vessel has traded to Caripito frequently over the past two years, and this would appear to be the first experience as I can find nothing about these moths in writing and our first warning was given when an Agent saw some of these moths onboard. This type of moth appears suddenly from the jungle with no regular cycle, and like other moths is attracted at night by lights, be they from vessels, homes or berth installations. They are about *one inch* in length, their bodies about pencil thickness and filled with eggs. They flutter in vast numbers around the lights, and it would appear that the dust, pollen, hair or whatever comes off them, falls onto the ship's structure or persons nearby. They do not bite and therefore I assume the dust, breathed in or landing on the skin causes a red pimply rash which gradually spreads over the whole body. It affects everyone differently, some crew were covered in a very heavy bumpy red rash within a few hours of exposure, others only in small patches on the arms which spread over the body taking several days, but in all cases causing extreme discomfort due to the itching and constant desire to scratch. At first it was only crew who were on deck that were affected, but as I assume the dust was brought into the accommodation by clothing, fans and the moths which got past the doors, the engine and catering crew were similarly affected.

Over two thirds of the crew were treated locally within 24 hours, with injections, tablets, lotions & creams but this only brought temporary relief. Rashes picked up 10 days ago with the first incident are now clearing up, but fresh rash areas appeared when we visited the Caripito area 3 days ago. We are on a weekly schedule, and one would hope we will build up a resistance to this problem. The local people also suffer from this rash, but the ones I met only had a very light rash on arms, neck and body. They cannot say how long the moths will be present, varied reports of two weeks to months. However, we are now adopting the following anti-moth measures:

1. Put the air conditioning on recirculation, ensure all openings are closed.
2. At night when underway, blackout the vessel as much as possible. During the San Juan River passage to Caripito, navigation lights only situation if possible.
3. When you anchor in San Juan River to wait for the tide or berth at Caripito, blackout the vessel and allow no one outside if possible at night, anchoring or picking up by torchlight. Having anchor lights on at night is debatable, the local dredger does not.
4. Wash the vessel down completely at daybreak, and sweep all dead moths off the deck.
5. For night mooring/deck operations, have as few lights on as safely possible, all exposed crew should cover themselves completely, particularly around the neck area.
6. After clearing the Maturin Bar (river entrance) wash down the whole ship. The dust off the moths is still active days after leaving the area. Wash all filters of air conditioning units.

Knowing about this problem could have reduced exposure to what is an extremely unpleasant experience, and I have urged the local installation to include a warning in their Port Information Guide.

DOCUMENTS: *Prior to Arrival:*

Arrival Notice: The Agent must submit 24 hours in advance of the vessel's arrival, a letter-notification indicating date and time of arrival, name and nationality, name of Master, length, gross and net registered tonnage of cargo for the port, origin, destination, shipper and agency, in 16 copies, with the following distribution:

Captain of the Port, Customs (2), The National Institute of Ports-INP (3), Armed Forces of Cooperation, National Guard, Police Intelligence Service Bureau-DISIP, National Bureau of Identification and Alien-Immigration, Interpol, Ministry of Health and Social Welfare-Public Health Unit, Ministry of Agriculture and Livestock-Animal and Plant Health, Post Office and Chamber of Commerce.

Information on Cargo and Passengers for the Port: The agency must receive by airmail, sufficiently in advance, the following documents to be submitted to the authorities at least 24 hours before the vessel's arrival:

Documents	*Captain of Port*	*Customs*	*INP*	*Agency*	*Total*
Cargo Manifests(a)	–	1	3	3	7
Correction Letter to Manifest	–	1	–	1	2
Bills of Lading	–	–	2	1	3
Stowage Plan(b)	–	–	1	2	3
Cargo List	–	–	10	–	10
Container List	–	–	12	–	12
Dangerous Cargo List	2	–	1	1	4
Passenger List	–	–	–	1	1
Mail List	–	–	1	–	1

(a) As of January 29, 1979, the Cargo Manifest may be submitted on LAFTA/OAS Form 2, instead of on the Venezuelan Freight List (Sobordo).

(b) The Venezuelan Shipping Association is negotiating to have the stowage plan submitted to the National Institute of Ports on the vessel's arrival, instead of 24 hours in advance.

Request for Port Services: 24 hours before the vessel's arrival, the agency must submit to the Captain of the Port the request for pilotage towage and berthing.

At the same time, it must request permission to disembark and embark passengers and cargo and unload merchandise, on a form addressed to the Customs Administrator, with copies to the INP and the National Guard.

Additional Requests: The agency must draw up and submit to the National Institute of Ports, 24 hours before the vessel's arrival, 12 copies of the cargo index, a document corresponding to tally books.

On Arrival:

Type of Document	*Number and distribution of documents*						
Basic forms	*Captain of Port*	*Customs*	*INP*	*National Guard*	*Public Health*	*Others*	*Total*
General Declaration	1	1	1	1	1	2(a)	7
Cargo Manifest	1	3	–	–	–	–	4
Crew List	2	2	–	2	–	5(b)	11
Passenger List	1	2	3	2	–	5(b)	13
Ship's Stores List(c)	–	–	–	–	–	–	–
Crew Effects Declaration(c)	–	–	–	–	–	–	–
Maritime Health Declaration	–	–	–	–	1	–	1
Mail List	–	–	–	–	–	1(d)	1

(a) DISIP and Identification.
(b) DISIP, Bureau of Military Intelligence, Interpol, Identification and Tourism.
(c) Eliminated by the new Organic Law of Customs, March 5, 1979.
(d) Postal Service.

Additional Documents							
Clearance from last port	1	–	–	–	–	–	1
List of in-transit passengers	1	2	3	2	–	5(e)	13
Freighted Bills of Lading	1	1	–	–	–	–	2
Return Cargo Manifest(f)	–	3	–	–	–	–	3
Cargo Indices	–	2	–	–	–	–	2
Baggage Declarations(g)	–	–	–	–	–	–	–
Vaccination List	–	–	–	–	1	–	1
Narcotics List	–	2	2	1	–	–	5
Firearms List	–	2	2	1	–	–	5

(e) DISIP, Bureau of Military Intelligence, Interpol, Identification and Tourism.
(f) When a vessel returns to the country goods missing in unloading other vessels, it shall submit, in addition to the cargo manifest a return cargo manifest containing the data required for the manifest and the name of the vessels on which the goods were originally manifested (Organic Law of Customs).
(g) Eliminated by the Organic Law of Customs.

Prior to Departure:

Clearance Documents: At least 6 hours in advance, the request for the clearance permit must be submitted to the Captain of the Port.

Request for Pilotage: Also 6 hours in advance, or more, the request for pilotage must be submitted to the Captain of the Port.

AMUAY BAY: 11.46 N. 70.15 W. (See Plan)

OPERATORS: Lagoven, S.A.

ESSENTIAL REQUIREMENTS:

1. Incoming vessels must send ETA at least 3 days before arrival at Amuay Bay. During hours of darkness all vessels must identify themselves on arrival either by radio-telephone or Aldis, preferably the former.
2. If a ship originally cleared for another port (including some other Venezuelan port) is diverted at sea to Amuay Bay, certain information must be radioed prior to arrival to avoid heavy fine and or delays. See "Radio".
3. No dirty ballast may be pumped overside in port or in Venezuelan coastal waters. Ballast disposal facilities are available at Amuay Terminal.
4. The use of Venezuelan Government Pilots is compulsory for docking and for movements inside the bay.
5. The Venezuelan flag should be displayed at the mast-head during daylight hours by ships anchored and berthed in Venezuelan waters.
6. In addition to other clearance documents, 2 copies of an itemised list of articles in the ship's chest must be presented to Authorities on arrival.
7. Emergency fire signal is 5 long blasts on ship's whistle or siren. No other signal is to be given in the case of emergency.
8. Ratguards must be in place on all mooring lines.

LOCATION: The port of Amuay Bay is located on the Gulf of Venezuela on the West Coast of the Paraguana Peninsula, Venezuela. The sea buoy marking the entrance to the bay is located in Lat. 11° 44′ 25″ N. Long. 70° 14′ 50″ W.

DOCUMENTS: Inward Clearance is effected on board immediately after docking by Government Port Officials and a representative of the Marine Department. It is necessary that the following documents be ready on arrival:

Clearance from Last Port.
Ballast Certificate from Last Port.
Crew Lists (5 copies).
Passenger Lists (5 copies).
Baggage List (3 copies).
Lists of Personnel Effects (3 copies).
Stores Lists (3 copies).
Lists of Slop Chest (3 copies).
Sailing Permit (Zarpe).

Vessels arriving with cargo to discharge, will also require:

Manifest (Sobordo) (1 original and 2 copies from each loading port).
Bills of Lading, 1 original and 5 copies from each loading port.
Tally Books (6 from each loading port).
Commercial Invoices (3 from each loading port).

Although vessels proceed directly to Amuay Bay, clearance documents should be prepared showing the port as Las Piedras, Paraguana (Amuay Bay). Failure to observe this requirement may result in penalties up to a maximum of Bs.2,000.

Admeasurement Certificate: All ships calling at a Venezuelan port for the first time must be measured for tonnage by the Captain of the Port. It is the usual practice to take ashore the ship's Panama Canal or Suez Canal Certificate, or any other certificate with which Venezuela is in agreement, which is used as a basis for recalculating tonnage under the Venezuelan Regulations, and is returned before sailing. The Venezuelan Admeasurement Certificate, when later issued, is forwarded to the owners. A fee is charged for this certificate, which is payable only on the ship's first call. Vessels registered in the following countries are excluded from the above regulations: Denmark, France, Germany F.R., Ireland, Netherlands, Norway, Portugal, Sweden, United Kingdom and U.S.A.

Vessels that were originally cleared for another foreign port, or another Venezuelan port, and were subsequently diverted at sea, should radio the following information to "Lagomar-Judibana" prior to arrival:

Vessel's name	Last port of call
Master's name	Port for which originally cleared
Vessel's flag	
Number of crew	Grade and quantity of cargo to be lifted.
Estimated time of arrival.	

This information is required in order to make in advance special arrangements for Inward Clearance, to avoid payment of fine.

Outward Clearance and cargo documents are delivered on board by the Marine Dispatcher. However, in order to obtain the sailing permit, a special form, delivered on board on arrival, must be completed, not later than 2 hours before sailing time. This form gives cargo and freeboard information by the Captain of the Port.

In the event the berth is required by another vessel, a vessel having completed loading may be required to vacate the berth promptly and proceed to anchorage to await cargo documents.

PILOTAGE: Pilots are employees of the Venezuelan Government and pilotage is compulsory for vessels entering or leaving the harbour. The Marine Department will arrange for Pilots to board all vessels as necessary.

The Pilot acts in an advisory capacity; the Master retains responsibility for the ship at all times. In the event it becomes necessary to disregard the Pilot's instructions in order to ensure the safety of the ship, the Master must forward through the Marine Department a full written report of the circumstances, for delivery to the Captain of the Port.

ANCHORAGES: For vessels awaiting berth, there is a good anchorage about 1 mile N.W. of the sea buoy in 8 to 12 fathoms with a sand and mud bottom. Ship Masters are requested not to anchor at a distance greater than 3 miles from the sea buoy.

RESTRICTED AREA: A restricted fishing area has been established by the Venezuelan Government which is prohibited for mechanically propelled vessels drawing more than 5 ft. This zone lies within the area off the Paraguana Peninsula from Punta Macolla, Lat. 12° 5′ 32″ N., Long. 70° 12′ 55″ W., to Punta Estanques (Los Taques), Lat. 11° 48′ 45″ N., Long. 70° 16′ 45″ W., and a line connecting the positions below indicated: Lat. 12° 07′ 40″ N., Long. 70° 14′ 25″ W.; Lat. 12° 03′ 15″ N. Long. 70° 19′ 23″ W.; Lat. 11° 49′ 25″ N., Long. 70° 21′ 50″ W.

HEALTH: *Sanitary Inspections:* A close control of veneral diseases has been put into effect by the Government Sanitary Office.

Immediately after docking a Sanitary Inspector will board the vessel and all Crew members will be checked before going ashore.

Those persons found with infection must be sent to the Government Anti-venereal Clinic for proper medical attention and return to vessel before sailing. 20 Bolivares per ship.

Shore passes will be granted to all healthy persons.

Masters are required to co-operate in this campaign.

MAX. SIZE: Length 1,000 ft.; draft 43 ft. Also see "Berthing".

RADIO: The cable and telegraphic address for the Lagoven S.A. at Amuay is "Lagomar Judibana". Radio messages to and from ships at sea are routed through "Shipward 2 New York" for retransmittal through Aircon system to Judibana (Amuay Bay).

Radio Notice of Arrival should be sent 72 hours prior to arrival at Amuay.

Ship-to-shore telephone: Radio-telephone listening watches are maintained on a 24-hour basis in the Marine Office on the following frequencies: 2182 kHz.; 156.8 MHz.

International telephone: International telephone calls are routed through Caracas, Venezuela. Telephone number is Punto Fijo area 069-51557. (It is usually difficult if not impossible to complete a call.) Telex: 54193 Lagoven.

Also see "Documents".

TUGS: Tug assistance is considered essential and is afforded all vessels entering, leaving or shifting in the harbour by 2 × 1,600 h.p. tugs. Disposition and manoeuvres of tug-boat are directed by the Pilot, who uses a "walkie-talkie" to convey orders to the tugs.

BERTHING: 4 finger piers provide 8 berths, numbered 1 to 8, from South to North.

Berth	1	2	3	4	5	6	7	8
Max. Arrival d.w.t. (m.t.)	70	92	24	44	16	30	16	30
Max. departure d.w.t. (m.t.)	112	112	48	48	38	38	94	94
Max. Draft (S.W.)	43′	43′	*37.6′	*37.6′	*37.6′	*37.6′	*37.6′	43′
Max. Length Ship	1000′	1000′	650′	700′	700′	700′	856′	856′
Max. Beam	Unl.	Unl.	Unl.	†	†	†	†	Unl.
Bow to manifold distance	495′	495′	300′	320′	330′	330′	340′	340′

Ballast line, fresh water and all grades bunkers at all berths.

*The max. draft will be increased to 40 ft.

†Max. beam permissible varies dependent upon the beam of vessel berthed on other side of the slip.

The use of an anchor when docking is permitted at all berths. It is considered prudent to have the outboard anchor hove-out prior to entering the harbour in order to facilitate speedy release if necessary while docking. The Pilot will advise whether the ship is to be berthed port or starboard side to the dock.

Products handled:

Berths No. 1 & 2: F.O., heating, heavy distillates, TJ-102, topped crudes, all crudes.

Berths No. 3 & 4: Lubes, F.O., LCT asphalts (penetration).

Berths No. 5 & 6: Naphtha, jet fuel, crudes, F.O., heating, MC/RC asphalts, kerosene, TJ-102, topped crudes, LCT (pref.).

Berths No. 7 & 8: Naphtha, kerosene, heating, F.O., jet fuel, MC/RC asphalts, all crudes except TJ-102.

LOADING: Loading rates particulary for low-flash products loaded during the hours of darkness or when topping-off cargo tanks, will be reduced by the terminal to meet existing conditions.

All loading and discharging will be stopped during the passage of an electric storm, and ullage covers must be closed and dogged down. During periods of calm, loading of gasoline or other similar low-flash products may be loaded at reduced rates or loading stopped if the heavy vapours are not being dispersed quickly enough to prevent hazards from accumulated gas pockets. Ship's officers are cautioned to be on their guard during such conditions.

Loading rates will be reduced when topping-off, if requested by the ship's officer.

Some of the fuel cargoes are loaded from fuel reservoirs through certified positive displacement meters, and shipping documents are prepared on the metered figures. All reconstituted crudes are line blended with conditions recording of component rates and quantities. Actual loading rates of both this crude and metered fuel cargoes are available at any time upon request of the standby.

Instructions as to grade or grades of cargo, and the approximate loading rate anticipated, will be given to the Master on completion of Inward Clearance. Supplementary information including number and size of lines and hoses will be furnished to the Chief Officer before loading commences.

If vessel's loading orders from owners or charterers do not agree with the terminal's orders, either as to grades or quantity, the marine representative should be advised immediately. The terminal is authorised to load 10% more or less than the quantity nominated; if the cargo to be lifted will be more or less than this 10% limitation it is necessary to cable New York for confirmation.

A terminal employee is stationed at each pier during the entire time the ship is discharging ballast, bunkering, or loading cargo. Fifteen minutes "stand-by" notice should be given to this man prior to completion of ballast, bunkers, or cargo.

Vessels loading Liquid and Flaked Sulphur: *For vessels loading Liquid Sulphur, the following applies:*

Location: Pier 2, Berth 3 at Amuay Bay.

Draft – 40 ft., length overall – 700 ft., beam – no limitation.

Loading will be at the rate of 400 long tons per hour through a 6 in. line and rubber hose.

Maximum cargo size – 25,000 long tons.

Normal loading temperature is 275°F. (Minimum – 265°F. Maximum – 295°F.). Density at normal loading temperature is 112 pounds per cu. ft. Viscosity at same temperature is 8.5 centipoises.

Safety precautions/provisions: Molten sulphur classified as "Grade E Liquid" by U.S. Coast Guard. No naked light, open flames or sparks should be permitted near any tank openings. Molten sulphur is combustible but is handled at temperatures below its flash point (325-370° F) and ignition temperatures (476-502° F).

For vessels loading Flaked Sulphur, the following applies: Physical characteristics of the loading facilities:

(a) Location: Lat. 11° 44′ N., Long. 70° 14′ W. Anchorage approximately 2,000 ft. South Punta Adaro with a depth of 33 ft. 400 yards offshore and dropping off to 50 ft. 1,000 yards offshore. In the rare event that the wind is Westerly vessel would anchor further offshore.

(b) No draft, length or beam limitation. (Vessels loading up to 24 ft. draft may be anchored inside the bay).

(c) Loaded barges whose overall dimensions are 200 × 42 × 17 ft. will be brought alongside with the aid of tugs and removed when required, barges will be equipped with fenders. The hoppers are 160 × 37 × 14 ft. Loading from barges to ship will be done using ship's gear and clam shells of 1.25 ton capacity. Clam shells will be furnished by Lagoven free of charge. Personnel (stevedores) to carry out the loading operation will be supplied by Lagoven or the ship's crew can be used if this is set forth in the charter party. Loading rate 1,000 long tons per day.

(d) The anchorage is sheltered in the lee of the Adaro Peninsula. Wave heights vary between 1 ft. and 2 ft.

(e) Normal Maximum parcel size – 10,000 tons loaded at a rate of 1,000 tons per day, however, an additional 2,500 tons can be supplied at a loading rate of 500 tons per day.

(f) Flaked Sulphur when stored in large quantities varies in density from 55 to 90 pounds per cu.ft. Average density is anticipated to be 70 lbs./cu.ft. Individual flakes are of irregular shape and are less than 0.5 sq.in. in area and less than 0.0625 in. thick. This size data is not a specification nor guarantee and is provided only to indicate the order of magnitude dimensions.

General:

Fee of Bs. 200 will be charged for trips between the Terminal and the anchorage by launch or tug for delivering personnel.

Method of cargo quantity determination: Barge drafts are marked to the nearest inch and capacity tables prepared by Charles Martin. The draft prior to commencement of and upon completion of discharging are noted. The amount transferred is obtained by consulting the tables. The quantity arrived at by totalling the amounts from the barges used is compared to the ships figures and reconciliation reasoned.

BALLAST: Vessels should arrive with sufficient ballast to permit safe handling. The Pilots require a draft of minimum 8 ft. forward, 18 ft. aft, on a T-2 or similar size tanker, 11 ft. forward and 20 ft. aft on a 26,000 d.w.t. or larger vessel. Ballast should be carried in a minimum number of tanks, and all other tanks stripped, so as to minimise deballasting time.

A relatively small amount of salt water remaining in ship's tanks or lines can contaminate crude and cause operating problems for the refiners. It is important therefore to strip tanks and lines as dry as possible.

Vessels provided with completely segregated ballast system are permitted to discharge ballast and load cargo simultaneously.

Absolutely oil-free ballast may be discharged overside. All dirty ballast must be pumped ashore. A 30 in. ballast line, 2×60,000 and 1×120,000 barrel slop tanks and separator system are available.

A considerable number of vessels are now participating in the programme to eliminate pollution of the seas. Under this programme, vessels may arrive carrying quantities of oil/water emulsion. If it is desired to follow the "load-on-top" procedure in such instances, it is requested that the Marine Representative be informed on arrival.

MEDICAL: Medical treatment and hospitalisation, if required, is provided at a hospital located in the Lagoven concession, operated by the Society of Catholic Medical Missionaries. Several dentists are located in the area.

Italian Crew members covered by Casa Maritime insurance receive medical attention from the appointed medical representative in Punto Fijo.

Authorisation forms for medical and dental treatment are provided, which require Master's signature. Transportation is available at the Marine Office. Please note that if the patient does not speak Spanish or English, an interpreter should accompany him.

FUEL: Ship's requirements specifying grade and quantity desired are to be given to the Marine Representative boarding the vessel on arrival. All grades of bunker fuel, intermediate fuels and Diesels are available except Esso diesel. Bunker delivery rates average 2,500/3,500 barrels per hour. Bunkers are loaded through meters which automatically register quantities on bunker receipts.

It is the responsibility of ship's engineer to give "standby" notice to the terminal employee and advise him when to shut down.

FRESH WATER: Fresh water can be supplied if necessary; however, supplies are limited to essential requirements. All fresh water is piped from distant sources. Loading rate is about 10 t.p.h.

CUSTOMS: Venezuelan laws are strict in regard to contraband and Masters are requested to instruct their crews not to take cigarettes or other articles ashore. Cigarettes in carton lots, cigars, tobacco, souvenirs, gifts (particularly items of women's apparel) should be collected prior to arrival in port, listed with the items in the slop chest and placed in the custody of the Master for deposit in the slop chest or closet which will then be sealed for the duration of the vessel's stay in port.

Firearms on board any merchant vessel calling at Venezuelan ports must not exceed one per officer, nor can the ammunition exceed 18 cartridges per officer. All firearms and ammunition must be noted on the stores list. Officers must not carry firearms while the ship is in Venezuelan waters and these side-arms and ammunition should be collected and held in the Master's safe custody. Crew members should be warned against taking knives or other weapons ashore.

While the vessel is in port, Venezuelan National Guard Officials are assigned on board to ensure compliance with Customs regulations. The law requires that meals be supplied to these officials during regular meal hours. Masters are requested to give them the privilege of eating in the officers' mess-room, to avoid difficulties.

DENSITY: The usual density of sea water at the berth is 1025, temperature ranges from 78°F. to 85°F.

CONSULS: Brazil, Great Britain, Italy, the Netherlands, and Norway have consular representatives in the area.

TIME: GMT minus 4 hours.

SHORE LEAVE: Also see "Health". Shore passes will be granted to all healthy persons. A representative of the Captain of the Port boards on arrival and issues the required number of passes. Shore passes are to be collected prior to sailing and given to the Pilot undocking the vessel. Vessels are not permitted to sail until all Crew members are on board, unless hospitalised or prior arrangements made for disembarking. A letter to this effect is required from the Master.

REGULATIONS: (i) *Pollution:* The laws of Venezuela are very strict in regard to the pollution of harbour and coastal waters by oil, and heavy fines are imposed for violations. No dirty ballast, oil or bilge slops are to be pumped or allowed to escape overboard. All overboard discharge valves from cargo tanks and bilges are to be secured before loading or discharging commences. Loading is to be conducted with the greatest care and vigilance in order that errors or delays in handling cargo valve may not result in overflows. All deck scuppers should be plugged befo loading to avoid harbour contamination should an overflow occur. Th Authorities require that a written report be submitted by the ship involve in the event of an oil spill.

(ii) *Gangways:* All vessels using the port of Amuay must provide safe gangway. The use of rung ladders, pilot ladders, etc., is contra to Port Regulations, and Port Authorities will not board except by mean of a safe gangway or accommodation ladder.

(iii) *Passengers:* Passengers will not be permitted to disembark unles in possession of the required visa and documents. To facilita clearance, if passengers are carried, the Master should include advic to this effect in his radio ETA.

(iv) *Visitors:* All visitors to ships are prohibited except those compan employees, petroleum inspectors, etc., whose duties require the presence aboard.

(v) *Rats:* Rat guards required at all times.

GENERAL: *(a) Weather Conditions:* There is little rainfall at Amuay Ba annual precipitation averages 12 in. The so-called rainy season usual coincides with the Caribbean hurricane season, from August November, although Amuay lies South of the usual hurricane trac During these months calms are often experienced and winds from Westerly direction may be expected. Normal winds are steady from th N.E., average Force 4, Beaufort Scale, with a max. of Force Temperatures average about 85°F., with little variation from day to nig or season to season.

(b) Tides: The normal range of the tide is about 12 in.; however, 28 in. range has been observed during spring tides.

(c) Lubricating oil: Supplies of Essomarine lubricating oils a available. Requirements should be given in vessel's radio notice arrival.

(d) Bonded Stores: Cigarettes or other stores in bond are n obtainable in Amuay Bay.

(e) Cash Advances: The local currency is the Venezuelan Bolivar an cash advances are made only in this currency. It is requested that an requirement for cash advances be included in the vessel's ETA radi to permit delivery on board on arrival.

(f) Charts: No supplies of charts or sailing directions are available Amuay Bay.

(g) Laundry: A 6 hour laundry service is available throughout eac working day. Such service should be requested in the vessel's ET message.

(h) Mail: Itemised lists are required for ship's mail, to be signed b the Master. Unless other instructions are given, ship's mail receive after sailing, or for vessels on which no advice has been received, w be held for 30 days and then returned to Owners or Operators at ship expense.

(i) Inspection – Petroleum Products: Chas. Martin & Co. and E. W Saybolt, petroleum inspectors, are available if specified. Telephon numbers, Chas. Martin 44665, 44650 and 44211; Saybolt 44639, 4464 and 44227.

(j) Norwegian Government Seamen Service: A field representative the above service is stationed at Amuay providing Norwegian an Swedish film exchange and other usual services. His telephone numb is 51459.

(k) Personnel – Seamen Left Ashore: In the case of seamen left asho for hospitalisation, repatriation or other reason, all documents an personal effects are to be delivered to the Marine Office before sailin A letter is required from the Master advising the maximum advances be made to the seamen, if any, and instructions concerning h repatriation. All expenses incurred by seamen left ashore, including co of repatriation, are for ship's account.

It is important that Masters bear in mind that the Venezuelan law w at all times hold the vessel, her Master, Agent or owner, responsible f any seamen left behind in Venezuela.

(l) Provisions and Stores: Provisions and stores in limited quantitie are available, the prices and quality of some items, such as fresh fru fish, shrimps, vegetables, etc. are competitive; dry stores a considerably higher than in most ports. The Port Steward will assist filling requisitions.

(m) Radar and Radio: Radar and radio repairs can be effected Amuay. A service repair man is available, but spare parts are limited

(n) Repairs: Shore facilities are available only for emergency repai of a minor nature. The nearest dry docks are those at Puerto Cabel and Curacao, N.A. Several contractors in the area provide labour f hull painting and for tank cleaning. Contracts for these services are mad by the ship's Master directly with the contractor.

(o) Surveyors: There are no appointed surveyors to American Burea of Shipping or Lloyd's in the area. However, with sufficient advanc notice, arrangements can be made to have their nearest representative come to Amuay to attend surveys.

(p) Walport Film Exchange: Subscribers to the Walport Service ma exchange films at the Marine Office.

(q) Plimsoll Marks: The Captain of the port requires that the Plims Marks of all vessels using the port be clearly visible. Vessels will b checked on completion of loading, and if the Plimsoll Marks are n readily legible, permission to sail may be withheld.

(r) Landmarks: Three conspicuous radio towers, 350 ft., painte alternate red and white bands, with red flashing aircraft warning light are located in the refinery area, 1 mile East of the docks.

ATTENDANCE: Representatives of the Marine Department boa vessels immediately on arrival, and it is particularly requested th Masters indicate at that time all ship's requirements. The Marine Offic Building is located at the Pierhead Trestle and personnel are availab for assistance at all hours. Telephones are located on all docks and th Marine Shift Supervisor can be called on telephone No. 444475 444465.

CARIPITO: 10.09 N. 63.02 W.

Also see "General – Shipmaster's Report, July 1982".

OPERATOR: Lagoven, S.A.

LOCATION: Caripito is located on the West bank of the San Juan River in Lat. 10° 09′ 25″ N., Long. 63° 02′ 01″ W.

Also see "General" before first port.

ESSENTIAL REQUIREMENTS:

1. Incoming vessels must send to Caripito their ETA Guiria at least 3 days in advance followed by confirmation 48 and 24 hours before arrival.
2. If a ship originally cleared for another port (including some other Venezuelan port) is diverted at sea to Caripito, certain information must be radioed to Caripito prior to arrival to avoid a heavy fine and/or delays. See "Radio".
3. No dirty ballast may be pumped overside in port or in Venezuelan coastal waters. Limited ballast facilities are available at Caripito Terminal.
4. Vessels calling at Caripito must obtain Government Pilots at Guiria.
5. The Venezuelan flag must be displayed during daylight hours while vessel is within port limits.
6. The emergency fire signal in Caripito dock area is 6 short blasts and 1 long blasts on ship's whistle or siren. No other signal is to be given in the case of emergency.

APPROACHES: The traffic in San Juan River is restricted to one-way from Marieta Point to Caripito. Therefore, instructions are issued at Guiria to incoming vessels relative to what action to take on arrival at Marieta Point. Outbound traffic is controlled so as not to conflict with these instructions.

1. Guiria: The town of Guiria is located on South coast of Paria Peninsula on N.W. shore of Gulf of Paria. When approaching from East a signal tower will be observed on a bluff slightly to North of town.
2. Maturin Bar: Buoy E-1, marks the entrance to Maturin Bar Channel and is located in position Lat. 10° 18′ 57″ N., Long. 62° 28′ 16″ W. (approx.) and displays a flashing white light every 5 secs.
3. Channel: Maturin Bar Channel is 14 miles in length and 400 ft. in width. The tidal range over the bar varies from 4.6 ft. to 5.7 ft. with currents up 3 knots. The average salinity of water is 1.009; however, this may vary considerably between wet and dry seasons and spring and neap tides dredging of channel to 32 ft. (MLWS) has recently been concluded. Maximum draft permitted by Venezuelan regulations is 34 ft. in fresh water. There is a restriction of 6 in. less for all motor tankers. On leaving Maturin Bar Channel the San Juan River narrows from approximately 1.25 miles in width to about 0.7 miles with slight variations in width up to Marieta Point where it narrows to about 1,200 ft. and varies between 800 ft. and 2,000 ft. up to Caripito. Marieta Point marks intersection of Cano Frances and the San Juan River. It is also at this point that course of San Juan River changes approximately 100° to starboard and it is the beginning of one-way traffic. Frequently, incoming vessels are requested to anchor below this point to await outbound traffic. There are 32 lights marking strategic points in San Juan River between Maturin Bar and Caripito Terminal. These light towers are painted aluminium and are easily visible during daylight hours.

DOCUMENTS: (Also see "Radio").

1. *Clearance (inward and outward).* Inward Clearance is effected at Caripito. The Sanitary Inspector boards vessel at anchor or at berth depending on tidal conditions and/or the availability of a berth. The Customs and other Government officials usually board at the berth. However, should there be a delay awaiting berth or tide, the entry will be granted while vessel is at anchor, in which case accommodation ladder must be rigged.

It is necessary that the following documents be ready on arrival:

Ballast List (1 original).
Passenger List (5 copies).
Baggage List (5 copies).
Crew List (7 copies).
Sailing Permit from Last Port (1 original).
Stores List (5 copies).
List of Personal Effects (3 copies).
List of Contents of Slop Chest (3 copies).
List of Passengers in Transit (5 copies).

Cargo documents. These are normally placed on board prior to departure, but in some cases when it is imperative to leave because of the tide, they are delivered at Marieta Pt. while vessel is at anchor awaiting tide to cross the Maturin Bar.

PILOTAGE: Pilots are employees of Venezuelan Government and act in an advisory capacity. The Master retains responsibility for ship at all times. In the event it becomes necessary to disregard the Pilot's instructions in order to ensure the safety of the ship, the Master must forward through the Marine Department a full written report of the circumstances, for delivery to the Captain of the Port.

Pilots are compulsory and are embarked and disembarked at port of Guiria through a sub-Agent. Vessels should proceed to the Guiria Sea Buoy (position Lat. 10° 33′ 25″ N., Long. 62° 15′ 05″ W., displaying a flashing white light every 5 secs.), and await instructions. If arriving during the hours of darkness, certain instructions are usually transmitted by light signals from the signal tower. Voice radio communications can be established at any time with Guiria or Lagoven Caripito on frequencies 2182 kHz, 2638 kHz and 2738 kHz. The launch which embarks the Pilot will also deliver instructions to the Master relative to the movements of his vessel en route to Caripito, port regulations, facilities, etc. The regular pilotage fees cover the area from the entrance to Maturin channel to and from Caripito. The Pilot is to be provided with sleeping quarters and food, equal to that provided for the officers aboard ship. (A representative from Port Services will assist as interpreter, whenever necessary.)

Note: Complaints or observations concerning the Pilot's handling of vessel should be noted on back of pilotage ticket.

TIDES: The normal range of tide in the dock area is about 12 ft. with currents up to 3 knots during the flood and 4 knots during the ebb in rainy season (May-December). The normal current is 2.5 knots during the flood and 3 knots during the ebb.

ANCHORAGE: For vessels awaiting berth, there is an anchorage about 1,000 m. up-stream from the Caripito Terminal. Vessels awaiting clear channel may at times be requested to anchor at Punta Marieta. Vessels awaiting high tide anchor at Punta Marieta or off Punta Gorda.

MAX. SIZE: Vessels up to 660 ft., 61,000 d.w.t. and max. draft *33 ft. (FW) at Berth No. 2 and LOA 775 ft., 61,000 d.w.t. and max. draft *33 ft. (FW) at Berth No. 3 when vessels are loaded. No restriction on vessel's beam at the berths.

*Safe draft per tide tables.

RADIO: The cable and telegraphic address for Lagoven at Caripito is "Lagomar – Caripito". Messages to and from ships at sea are routed through the Government Radio Station at Maiquetia (La Guaira), call letters "YVG". This station operates on a 24-hour continuous watch, on the following frequencies:

Listening Frequencies: Low frequency, 500 kHz; high frequency, 4178, 6267, 8356, 12534, 16712, 22225 kHz. Transmitting Frequencies: Low frequency, 500, 472, 464, 417 kHz; high frequency, 4322, 4352, 6505.5, 6519.5, 8722, 8730, 12817.5, 17141.6 kHz. Radio Notice of Arrival should be sent 72 hours prior to arrival at Guiria and corrected if weather or other conditions delay the vessel.

Radio telephone listening watches are maintained on a 24-hour basis at Guiria and at Caripito on 2182 kHz. The following frequencies are available for communications after contact: 2638 kHz and 2738 kHz.

All vessels en route to Caripito may also communicate with Amuay or La Salina Marine offices and request that message dealing with corrected ETAs, Pilots and other business be relayed to the Caripito Marine Office.

Vessels that were originally cleared for another foreign port, or another Venezuelan port, and were subsequently diverted at sea, should radio the following information to Lagomar Caripito prior to arrival:

Vessel's name
Master's name
Vessel's flag
Number of crew
Estimated time of arrival at Caripito
Last port of call
Port for which originally cleared
Grade and quantity of cargo to be lifted

This information is required in order to make in advance special arrangements for Inward Clearance, to avoid payment of a fine. It is necessary in such a case that the following documents be ready on arrival:

Crew List (original and 6 copies).
List of Personal Effects (original and 2 copies).
List of Contents of Slop Chest (3 copies).
Stores List (original and 1 copy).

Also required are the original and 2 copies of the radiogram instructing Master to proceed to Caripito. Outward Clearance documents are placed on board the vessel prior to departure from the Caripito terminal.

Masters should bear in mind that while vessels are within Venezuelan territorial waters, Government Authorities do not permit the use of ship's radio equipment. Cables and radiograms should be handed to the company representative for transmittal via shore radio communication system. Caripito has also radio telephone communication with North and South America and Europe. For further information contact Port Services Section in the terminal building, telephone 2335/2336.

BALLAST: Ballast is not required when mooring. Any ballast carried should be in a minimum number of tanks, and all other tanks stripped, so as to minimise deballasting time.

A relatively small amount of salt water remaining in ship's tanks or lines can contaminate crude and cause operating problems for the refiners. It is important therefore to strip tanks and lines as dry as possible.

Vessels provided with completely segregated ballast system are permitted to discharge ballast and load cargo simultaneously. All ballast clean or dirty must be pumped ashore. Contaminated residues may be pumped ashore, where facilities are available for receiving up to a maximum of 20,000 barrels.

A considerable number of vessels are now participating in the programme to eliminate pollution of the seas. Under this programme, vessels may arrive carrying quantities of oil/water emulsion. If it is desired to follow the "load-on-top" procedure in such instances, it is requested that the Marine Representative be informed on arrival.

BERTHING: The Marine Office Building is located on the West bank of the San Juan River upstream from the berths. Representatives of the Marine Department board vessel immediately upon arrival and it is particularly requested that Masters indicate at that time all ship's requirements. Personnel are available for assistance at all hours.

Lagoven maintains a deep water terminal, consisting of 2 ocean tanker berths, Nos. 2 and 3. These are T-type piers with breasting dolphins located approximately 10 ft. off the face of each pier.

All terminal facilities are under the control of Lagoven, S.A. The port is open for navigation during day and night. All ocean tankers are moored at Berths No. 2 and 3 on the flood tide only. Vessels may sail from Berth No. 3 at any stage of the tide. Sailings from Berth No. 2 are restricted to flood tide only when Berth No. 3 is occupied.

A vessel entering or leaving port must be assisted by the same Government Pilot taken aboard at Guiria. A Custom guard will board at the same time and remain with the vessel. A Lagoven Representative will deliver to the Master his loading and docking instructions together with any other information pertinent to the vessel's call. He will also sign the Notice of Readiness if requested. The vessel will proceed to anchor to await flood tide to dock, to await berth, or will swing to the flood tide in the turning basin and proceed directly to the berth depending on circumstances.

LOADING: Loading rates, particularly for low-flash products loaded during the hours of darkness or when topping off cargo tanks, will be reduced by terminal to meet existing conditions.

All loading and discharging will be stopped during passage of an electric storm, and ullage covers must be closed and dogged down. During periods of calms, loading of gasoline or other similar low-flash products may be loaded at reduced rates or loading stopped if the heavy vapours are not being dispersed quickly enough to prevent hazard from accumulated gas pockets. Ship's officers are cautioned to be on their guard during such conditions.

Loading rates will be reduced when topping off, if requested by the ship's officer.

Instructions as to grade or grades of cargo, and the approximate loading rate anticipated, will be given to the Master. Supplementary information including number and size of lines and hoses will be furnished to the Chief Officer before loading commences.

If vessel's loading orders from Owners or charterers do not agree with terminal's orders, either as to grades or quantity, the marine representative should be advised immediately. The terminal is authorised to load 10% more or less than the quantity nominated; if the cargo to be lifted will be more or less than 10% limitation consultation is necessary.

A terminal employee is stationed at each pier during the entire time the ship is discharging ballast, bunkering, or loading cargo. Fifteen minutes "standby" notice should be given to this man prior to completion of ballast, bunkers, or cargo.

MEDICAL: Medical treatment and hospitalisation, if required, is provided at a hospital located in the concession. Several dentists are located in the town of Caripito. Authorisation forms for medical and dental treatment are provided, which require Master's signature. Transportation is available at the Marine Office. Please note that if the patient does not speak Spanish or English, an interpreter should accompany him.

FRESH WATER: Fresh water is available in any quantity. Delivery is made through 2.5 in. national standard fire hose thread hydrants. Ship's personnel must provide hoses and connect up.

FUEL: IFO-180, IFO-380, Marine Diesel and Gas Oil are available. It is the responsibility of ship's engineer to give "stand-by" notice to the terminal employee and advise him when to shut down.

CONSULS: There are no consular representatives in the area. Vessels bound for U.S.A. or British Caribbean ports will be provided with a letter stating this fact.

CERTIFICATES: All ships calling at a Venezuelan port for the first time must be measured for tonnage by Captain of the Port. It is the usual practice to take ashore the ship's Panama Canal or Suez Canal Certificate, which is used as a basis for recalculating tonnage under the Venezuelan regulations, and is returned before sailing. The Venezuelan Admeasurement Certificate, when later issued is forwarded to the Owners. A fee is charged for this certificate, which is payable only on ship's first call. Vessels registered in following countries are excluded from above regulations: Denmark, France, Germany F.R., Ireland, Netherlands, Norway, Portugal, Sweden, United Kingdom and U.S.A.

CUSTOMS: While the vessel is in port, Venezuelan National Guard officials are assigned on board to ensure compliance with Customs regulations. The law requires that meals be supplied to these officals during regular meal hours. Masters are requested to give them the privilege of eating in the officers' messroom, to avoid difficulties.

Venezuelan laws are strict in regard to contraband and Masters are requested to instruct their crews not to take cigarettes or other articles ashore. Cigarettes in carton lots, cigars, tobacco, souvenirs, gifts (particularly items of women's apparel) should be collected prior to arrival in port, listed with the items in the slop chest and placed in the custody of the Master for deposit in the slop chest or closet which will then be sealed for the duration of the vessel's stay in port.

Firearms on board any merchant vessel calling at Venezuelan ports must not exceed 1 per officer, nor can ammunition exceed 18 cartridges per officer. All firearms and ammunition must be noted on the stores list. Officers must not carry firearms while ship is in Venezuelan waters and these side-arms and ammunition should be collected and held in the Master's safe custody. Crew members should be warned against taking knives or other weapons ashore.

REPAIRS: Only minor repairs of an emergency nature can be made. There are no electronic repair services available in the area.

SHORE LEAVE: Shore leave is permitted and a representative of the Captain of the Port boards on arrival and issues the required number of passes. Shore passes are to be collected prior to sailing, and given to the Lagoven Despatcher undocking the vessel. Vessels are not permitted to sail until all crew members are on board, unless hospitalised or prior arrangements made for disembarking.

TIME: Local time is GMT minus 4 hours.

GENERAL:

Gangways: Gangways at Berths No. 2 and 3 are provided by the terminal.

Plimsoll Marks: The Captain of the Port requires that the Plimsoll Marks of all vessels using the port be clearly visible. Vessels will be checked on completion of loading, and if the Plimsoll Marks are not readily legible, permission to sail may be withheld.

Surveyors: There are no appointed surveyors to the American Bureau of Shipping or Lloyd's in the area. With 48 hours' notice, non-exclusive surveyors can be obtained from Caracas, or at times from Puerto La Cruz, or qualified Masters or chief engineers may be available for appointment as surveyors when required.

Bonded Stores: Cigarettes or other stores in bond are not obtainable at Caripito.

Cash Advances: The local currency is the Venezuelan Bolivar and cash advances are made only in this currency. It is requested that any requirement for cash advances be included in the vessel's radio ETA, to permit delivery on board on arrival. Cash returns can be accepted only during the normal working day – 0700 to 1600 hrs. Sundays and holidays excluded.

Provisions and Stores: Provisions and stores in extremely limite varieties and quantities are available at prices considerably higher tha in most other ports.

Charts: No supplies of charts or sailing directions are available Caripito.

Personnel – Seamen Left Ashore: In the case of seamen left ashore hospitalisation, repatriation or other reason all documents and person effects are to be delivered to the Marine Office before sailing. A lett is required from the Master advising the maximum advances to be mad to the seaman, if any, and instructions concerning his repatriation. expenses incurred by seamen left ashore, including cost of repatriatio are for ship's account. It is important that Masters bear in mind that Venezuelan law will at all times hold the vessel, her Master, Agent owner, responsible for any seamen left behind in Venezuela.

Laundry; Laundry service is available.

Lubricating Oil: Supplies of marine lubricating oils are available fro Puerto La Cruz. Quantities required should be included in the ETA cab

Mail: Any pending ship's mail will be delivered on board by the mari dispatcher on arrival at Caripito. At the same time he will receive a ship's mail to be dispatched. The marine dispatcher will accept person mail only if it carries the proper amount of Venezuelan postage, or Master authorises postage by signing 7 copies of the Company Po Transmittal form. Masters interested in knowing the individual posta amounts to be paid by each crew member, should provide a list, duplicate, of the senders, and number of letters sent by each o identified by a number written on each letter. Copy of this will be return aboard vessel when leaving this port outward bound. If not ready time, it will be air-mailed to the vessel's next port of call.

Inspection – Petroleum Products and Crude Oil: Inspecciones C. AIVEPET, C.A., Caleb-Brett, C.A. and SGS (Redwood), C.A. petroleu inspectors are available from Puerto La Cruz if specified.

Visitors: All visitors to ships are prohibited except those compa employees, petroleum inspectors, etc., whose duties require th presence aboard.

Passengers: Passengers will not be permitted to disembark unless possession of the required visa and documents. To facilitate clearanc if passengers are carried, the Master should include advice to this effe in his radio ETA.

Pollution of Harbour and Coastal Waters: The laws of Venezuela a strict in regard to pollution of harbour and coastal waters by oil, a heavy fines are imposed for violations. No dirty ballast, oil or bilge slo are to be pumped or allowed to escape overboard. All overboa discharge valves from cargo tanks and bilges are to be secured befo loading or discharging commences. Loading is to be conducted wi greatest care and vigilance in order that errors or delays in handli cargo valves may not result in overflows. All deck scuppers should plugged before loading to avoid harbour contamination should overflow occur. The authorities require that a written report be submitte by the ship involved in the event of an oil spill. Incidents of this natu should be reported immediately, either by VHF or telephone, to the P Services Section.

AUTHORITY: Petroleos de Venezuela, S.A., Apartado 169, Carac 1010-A, Venezuela. *Tel:* 708-4111. *Telex:* 21890, 23489, 244 PDVSA VE. *Contact:* Lermit Rosell, Marine Corporative Manager.

EL CHAURE: 10.15 N. 64.37 W. (See Pla

OPERATORS: Corpoven S.A.

LOCATION: El Chaure Marine Terminal is located on the South sho of the head of Bergantin Bay. 1.8 miles N.E. of Puerto La Cruz: L 10° 14′ 50″ N. Long. 64° 36′ 57″ W.

This terminal is also considered to be Berth No. 6 of 'Puerto La Cru which also see.

DOCUMENTS: To avoid penalties, ships clearing for Venezuelan Po must present certain papers herein set forth for arrival and clearan after docking. The Clearance is made by Government officia accompanied by a company representative.

The following documents must be presented:

1 copy of Ship's Register
Clearance from Last Port
1 copy of Ballast Certificate
6 copies of Crew List
5 copies of Passenger and Baggage List
2 copies of List of Passengers in Transit
4 copies of List of Personal Effects
4 copies of Stores List
2 copies of List of Slop Chest
Sailing permit issued by Marine Authority of last port of call.
Dispatch issued by Venezuelan Consul at last port.

PILOTAGE: Pilots are employees of the Venezuelan Government a pilotage is compulsory for vessels entering or leaving the harbour. T Company will arrange for Pilots to board all vessels as necessa Whenever it might be deemed necessary for the Master to disrega the Pilot's advice in order to ensure the safety of the vessel, a writt report must be submitted by the Master to the Venezuelan Port Capta explaining the reason for such action.

ANCHORAGE: The crossed line portion on the plan is the anchora zone for all ships after arrival at Pozuelos Bay. The Company w dispatch the Pilot, by launch, to all ships when they are ready to docked. On entering the Pilot Zone, the Venezuelan flag must be flo from the foremast; it must be flown at all times between sunrise a sunset.

MAX. SIZE: Max. draft 40 ft., max. LOA 750 ft. max. d.w.t. 60,000 to

RADIO: El Chaure Terminal Office may be contacted on radio-telephone SSB or AM frequencies of 2738, 2638, 2182 and 2120 KHz. Frequency 2182 kHz should be used for initial contact.

Arrival advice: Masters are required to advise by cable their ETA. Such notice should reach El Chaure at least 48 hours ahead of vessel. In cases of ships being diverted at sea to a Venezuelan Port, or to another Venezuelan Port, Venezuelan regulations require, by cable, prior to arrival, name of Master, number in crew, port of departure, port to which originally cleared, flag of ship and net registered tonnage.

VHF: Channel 16 can be used after arrival at Pozuelos Bay.

TUGS: Tug assistance to moor and unmoor is compulsory at El Chaure installations. Ships over 145 m. long must use 2 tugs having not less than 1,600 h.p. each for mooring and unmooring at El Chaure. 1 launch is required for handling the lines.

BERTHING: The wharf has a length of 100 ft. with dolphins established on each side. The dock accommodates vessels drawing up to 40 ft. Sea conditions are usually very good in the entire area. Waves are almost nil and out of the hurricane path. A chain of small islands makes El Chaure a natural port. Only 1 vessel at a time can be moored for loading or unloading. The normal range of the tide is 1 ft.

BALLAST: Vessels arriving in El Chaure must carry sufficient ballast to ensure safe handling. By Venezuelan Law, all dirty ballast must be pumped ashore into ballast pits. Vessels having separate clean tanks for ballast may pump overboard, after first being inspected and passed by Port Authorities. The Company Terminal facilities include a 16 in. ballast line, which empties into ballast pits about 3,500 ft. from the dock. These pits have an elevation of 32 ft. above the dock and will hold 50,000 bbls. The ballast line will stand a pressure of 100 p.s.i.g. The pressure is recorded at the dock. The vessel will be held responsible for damages to the shore ballast line and spills that maybe occur because of line rupture.

LOADING: Before tying up, blind flanges on the ship's manifold should be removed, hose derrick to be topped and rigged to lift shore hoses along with dock booms. All vessels must dock with starboard side to dock. The Company dock supervisor will inform the Master of the vessel as to characteristics of cargo to be loaded, loading rates and all other information necessary for safe and efficient loading operations. During the ship's stay at the dock, company employees are available at all hours to assist in any manner. After loading is completed, if the dock space is required for another vessel the ship must vacate the berth and wait at anchorage until cargo and sailing papers are completed.

FRESH WATER: Available, rate 10 t.p.h.

REPAIRS: Facilities are limited; any repair work must be requested by Master in writing.

CONSULS: The following are in Puerto La Cruz: Belgium, Brazil, Colombia, Denmark, France, Germany F.R., Italy, Norway, Panama, Spain, Sweden and United Kingdom.

SURVEYORS: Aivepet, Charles Martin & Company and E. W. Saybolt maintain offices in Puerto La Cruz for inspection of cargo if required.

TIME: Local time is 4 hours slow on GMT, year round.

POLLUTION: Pollution of coastal waters is strictly forbidden by Venezuelan Law. The escape of dirty ballast or of cargo either at the dock or in the harbour or in territorial waters will result in heavy fines by Venezuelan authorities. If oil is spilled an estimation of quantity should be made by the Master of the vessel, Venezuelan Authorities and Company personnel, acting jointly. Their joint report must be submitted to the Venezuelan Petroleum Inspector from the Energy and Mines Office, and also the National Guard Headquarters in Puerto La Cruz. The Ministry of Energy and Mines will assess a fine based on the quantity of oil that was spilled. Also the ship is held responsible for the spill and cleaning. Chemicals, equipment, boat and labour used for this purpose are for the ship Owner's and/or operator's account. Each ship must maintain strict supervision on discharging of ballast as well as loading cargo in order to avoid spillage.

CUSTOMS: Venezuelan laws are strict in regard to contraband and Masters are requested to instruct crews not to take cigarettes or other articles ashore.

GENERAL: *Crew:* Passes for shore leave for ship's crew will be given to Master by Company Representative on docking or at anchorage. These passes must be filled out for each Crew member prior to Venezuelan authorities' visit. Passes may be used during the ship's stay but must be returned to the National Guard at the dock prior to departure. Before ship's departure a report must be made to the Dock Master if any Crew member is missing. Crew members left behind will be placed in custody by Venezuelan authorities until deported at vessel's expense. A Crew member requiring medical or dental treatment must submit his request for such aid through the Master to the Dock Master. Arrangements for seamen arriving from other ports, transferring to other ships or being repatriated are handled by the vessel's Agency.

Under the Venezuelan law the vessel is responsible for all seamen in the country during their entire stay. Masters are requested to leave written instructions with the Dock Master for handling seamen left ashore. The Master of the ship must indicate his acceptance of the responsibility for all costs incurred in handling a seaman.

Seaman Left Ashore: A letter from the Master is required advising the amount of cash advance and any other instructions concerning the seaman's repatriation. All expenses incurred by the seaman, including the cost of repatriation are for the vessel's account. The documents and personal effects of seamen left ashore for hospitalisation, repatriation or any other reason, must be delivered to the Terminal Office before sailing. Venezuelan Law holds the Master, ship's representatives and Owners responsible for any seaman left behind in this country.

In Dock: Masters are requested to observe the following regulations while alongside the Company Terminal:

1. – Sufficient number of Crew members must be on board at all times, during discharge of ballast and loading of cargo to ensure proper handling of mooring lines.
2. – Rat guards are to be on all mooring lines during entire stay.
3. – Venezuelan authorities do not permit blowing of heavy smoke from vessel's funnel, while in port. Breaking of this rule may result in Government fine and/or removal of ship from the dock.
4. – Venezuelan National Guard personnel are assigned to guard duty for each ship while it is at the dock. Meals must be furnished for these guards in the Officers' Messroom.

Visitors: All visitors to vessels are prohibited, without written permission of the Port Authorities. Dock Master, Petroleum Inspectors, Dispatchers and Terminal employees handling hoses may board ship in performance of their duties.

Charts: Not available at El Chaure.

AGENCY: All incoming vessels must have a local Agent to render all services required for a prompt and efficient tanker turnaround and to cancel all vessel disbursements.

EL GUAMACHE: 10.52 N. 64.04 W. (See Plan)

SHIPMASTER'S REPORT: October 1978.

LOCATION: The Port of El Guamache is a developing port, located about 1000 feet northward of Pta. Mangle on the Isla De Margarita (see B.A. Chart 230).

DOCUMENTS:

Clearance from Last Port.
Sealed envelope for Customs.
Visaed B/L and Sobordos.
Despatch from last Venezuelan port, if any.
6 Crew Lists.
Vaccination Certificates of Crew.
4 Stores Lists (Deck, Engine, Provisions, Bonded store).
4 Personal Effects Lists.
4 Arms & Ammunition Lists.
4 Passengers Lists.
4 Mail Lists.

ANCHORAGE: On the Western side of the Pta. Mangle in Bahia Guamache, depth 8–11 fathoms.

PILOTAGE: Pilotage is compulsory. Pilot boards on arrival or at anchorage. Vessels arriving at the anchorage must keep engines on stand-by and wait for shifting or berthing instructions.

Note: As at other Venezuelan ports, vessels must fly the Venezuelan flag at masthead and lower gangway for boarding party – Agents, Customs Officers, Quarantine Officers, Immigration Officers, Pilot and representative of Port Captain, etc.

RADIO: As a new developing port, no radio service at Margarita Island, all ETA wireless messages must be sent via ITT or YVG – 72, 48, and 24 hours prior to arrival

The port office is equipped with radio telephone installation, operating 0600-2000 hours, transmitting on VHF frequencies 156.8 MHz (Channel 16.) Vessels calling in Spanish language will be answered promptly; if calling in English will be answered by English speaking person when on duty.

TUGS: Not available.

BERTHING: Length 126 m. with 3 dolphins installed at each end with catwalk to dolphins. Depths of water, 36 ft. at LW and 42 ft. at HW.

STEVEDORES: Arranged by Agents, normal working hours 0700 – 2100, cargo discharged into warehouse.

GANGWAY/DECK WATCHMAN: Necessary, normally engaged by Customs or Police.

OPENING/CLOSING HATCHES: Normally by crew.

FRESH WATER: Not available.

FUEL: Not available.

TIME: Local time is GMT minus 4 hours.

AIRPORT: Distance about 15 km. from port. Connections to other cities.

MEDICAL: Available at Polamar City about 31 km. from the berth.

PROVISIONS: Fresh and dry provisions supplied through ship chandlers from Polamar City and delivered on board.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle of wine or spirit.

REPAIRS: No repair facility available.

TELEPHONE: No telephone connection to vessel at present but provided inside warehouse and port office.

DENSITY: 1025

HOLIDAYS: As other Venezuela ports.

SHORE LEAVE: Shore leave permitted. Passes issued by representative of the "Direccion de Marina Mercante" on arrival. Shore passes to be collected prior to sailing and given to Agent.

DEVELOPMENTS: El Guamache has a development programme to construct new wharves Northward from present pier to accommodate 6 ocean-going vessels and expected to complete within 3 years.

All port facilities will be available. Margarita Island is the only free port in Venezuela. Tourism from the mainland and overseas is increasing day by day as Margarita Island has very good weather and beaches.

EL PALITO: 10.29 N. 68.07 W. (See Plan)

OPERATORS: Corpoven S.A.

LOCATION (of El Palito Terminal): The terminal facilities operated by Corpoven S.A. at the port of Puerto Cabello (Punta Chavez), are situated on the Venezuelan coast, 7 miles West of Puerto Cabello. The terminal has a 2,475 ft. pier, part causeway and part trestle, extending out from Punta Chavez along a shallow reef then angling into water 48 ft. deep. 2 tankers can tie up simultaneously at the berths.

WEATHER: Winds are normally from the N.E. with an average Beaufort Scale Force of 2-3. Average temperature about 85°F. The months of January, February and March have the roughest sea and swell, and vessels may not be able to dock due to the weather.

TIDE: The normal range of the tide is 1 ft.

ESSENTIAL REQUIREMENTS:

1. Incoming vessels must send ETA 72 hours before arrival at El Palito Terminal and another 24 hours before arrival advising any change of ETA.
2. If a vessel originally cleared for another port (including some other Venezuelan port) is diverted at sea to El Palito, certain information must be received prior to arrival, to avoid heavy fine and/or delays.
3. Provided Terminal permission is obtained, segregated clean ballast may be pumped overside in the port. Ballast disposal facilities are restricted at El Palito Terminal.
4. The use of Venezuelan Government Pilots is compulsory for docking and undocking.
5. The Venezuelan flag should be displayed at the mast-head during daylight hours by vessels anchored and berthed in Venezuelan waters.
6. In addition to other clearance documents, 2 copies of an itemised list of articles in the ship's slop chest must be presented to the authorities on arrival.
7. The emergency fire signal is 5 long blasts on the vessel's whistle or siren. No other signal is to be given in case of emergency.
8. Rat guards must be in place on all mooring lines.

APPROACHES: The terminal pier is marked by the following lights: One occulting red light at the top of No. 1 (N.W.) fire fighting monitor, 80 ft. above sea level. Lat. 10° 29′ 51″ N., Long. 68° 07′ 13″ W., and one green light, flashing every 3 seconds at the top of No. 2 (S.E.) fire fighting monitor, 80 ft. above sea level, located 275 ft. S.E. of No. 1 fire fighting monitor. A group of 5 crude storage tanks, painted white, visible 20 miles on a clear day, are located 1.25 miles 200° from the head of the pier.

Three large chimneys from a power plant located about 3 miles West of the Terminal, are very conspicuous in the area. They are painted with broad red and white bands.

When approaching, Refinery installations are clearly visible. On clear nights, tanks, Refinery lights and flares provide best landmarks.

White flashing lights are installed at the top of Refinery chimneys and towers for air traffic warning purposes, for the local airport in Puerto Cabello.

Masters approaching the coast should keep a sharp lookout for fishing boats, nets and small crafts.

DOCUMENTS:

A. Admeasurement Certificates. All vessels calling at Venezuelan ports for the first time must be measured for tonnage by the Captain of the Port. It is the usual practice to take the Ship's Panama Canal or Suez Canal Certificate, which is used as a basis of recalculating the tonnage under the Venezuelan Regulations and is returned before sailing. The Venezuelan Admeasurement Certificate is forwarded to the owners at a later date. A fee is charged for the certificate which is payable only on the vessel's first call. Vessels registered in the following countries are excluded from the above regulations: Denmark, France, Germany (F.R.), Ireland, Netherlands, Norway, Portugal, Sweden, United Kingdom and U.S.A.

B. Inward Clearance is effected on board immediately after docking by Government Port Officials and a representative of the Marine Department. It is necessary that the following documents be ready on arrival:

Clearance from Last Port (1 copy).
Ballast Manifest from last port (1 copy).
Crew List (9 copies).
Passenger and Baggage Lists (7 copies).
List of Personal Effects (5 copies).
Stores List (3 copies).
List of Slop Chest (3 copies).
Sailing Permit (issued by maritime authority of last port).

Vessels arriving with cargo to discharge, will also require:

Manifest (Sobordo), 1 original and 2 copies from each loading port.
Bills of Lading, 1 original and 5 copies from each loading port.
Tally books; 6 from each loading port.
Commercial invoices: 3 from each loading port.

Vessels originally cleared for another port, and diverted at sea to El Palito, should radio Corpoven Puerto Cabello the following information as soon as the change of sailing orders are received:

Advise diverted.
Name and class of vessel.
Number of crew.
Flag of vessel.
Last port of call.
Port from which originally cleared.
Estimated time of arrival at Pilot station.
Type and amount of cargo vessel will load.
Time required to discharge ballast.
Master's name in full as signature (John Jones, Master).

This information is required in order to make in advance special arrangements for inward clearance to avoid payment of fines.

Outward Clearance and cargo documents are delivered on board by the Marine Dispatcher. However, in order to obtain the sailing permit, a special form which is delivered on board on arrival must be completed, not later than 2 hours before sailing time. This form gives cargo and freeboard information required by the Captain of the Port. In additio one of the 9 copies of the Crew List specified above, corrected to sho any changes made while in port, should be attached to the form.

PILOTAGE: Service available 24 hours. The Pilot's normal workin hours are from 0600 hrs. to 1800 hrs. There are no special charges fo their assistance during those hours on workdays. On Sundays an holidays they charge overtime. There is also a charge when ship ha anchored in the bay as according to the pilotage law each movemen (and entering the bay is one movement) requires a Pilot. By speci agreement only Pilot's overtime will be charged for anchorage, a anchorage and docking is considered as one movement with respect t Government Pilotage Fee.

Pilotage is a compulsory government service. The governmen charges the Pilot's assistance according to ship's net tonnage. Vessel under flags of Panama and Liberia are required to have their Venezuela Tonnage Certificate. The government charges for docking and sailing

Pilots are employees of the Venezuelan Government and pilotage i compulsory for vessels entering or leaving the harbour. The terminal w arrange for Pilots to board all vessels as necessary. Pilots meet th vessel via launch provided by the terminal. The Pilot may decline t moor the vessel if it is not equipped with satisfactory mooring equipmen lines, gear, etc., or if it is not sufficiently ballasted. It is the responsibilit of the Master to notify the Pilot of any special conditions or peculiarities such as defective navigation equipment, mooring lines, tackle, gear o lack of necessary equipment, which might impose hazards in connectio with the handling, mooring, discharging or loading of vessels.

At the berths, vessels must be moored to the entire satisfaction of th Pilot and the terminal operators' Mooring Master.

The Pilot acts in an advisory capacity. The Master retain responsibility for the vessel at all times. In the event it become necessary to disregard the Pilot's advice in order to ensure the safet of the vessel, the Master must forward a full written report of th circumstances through the terminal for delivery to the Captain of th Port.

ANCHORAGE: Notice of Readiness can be tendered at anchorage. Th suggested anchorage for El Palito Terminal is located 0.5 to 1 mile Nort or West of the seaward end of the pier. The area to the East of the pie is not recommended as an anchorage.

RESTRICTIONS: None. Vessels enter day or night and at any state o tide.

MAX. SIZE: The loading facilities consist of 2 berths. Termin restrictions and safe drafts are as follows:

	Max. Draft	
	Arrival	*Sailing*
Berth No. 1 (West) (starboard side alongside)	40 ft.	40 ft.
Berth No. 2 (East) (port side alongside)	34 ft.	38 ft.
Maximum displacement	65,000 tonnes	
Maximum LOA	750 ft. (228 m.)	
Minimum LOA	328 ft. (100 m.)	

No limitation is placed on tankers beam.

BALLAST: Due to the exposed location of the oil piers, vessels ar required to be ballasted to the following minimum drafts for saf manoeuvring to and from the berths:

Overall Length of Vessel	*Minimum Draft Required*
400 ft. – 480 ft.	Forward 9 ft., Aft 17 ft.
481 ft. – 700 ft.	Forward 12 ft., Aft 20 ft.
701 ft. – 730 ft.	Forward 14 ft., Aft 23 ft.

A total capacity of 25,000 barrel tank and a 20 in. ballast line ar available to receive all ballast.

Vessels with separate ballast tanks, lines and pumps may discharg ballast overside. Ballast for entering the harbour should be carried i the minimum number of tanks, and all other tanks stripped dry so as t minimise the time required for discharging ballast alongside berths.

All ships in ballast from abroad are charged for Consular Balla Certificate.

HEALTH: No Radio Pratique. Health Officers board vessel at berth.

RADIO: Puerto Cabello, Venezuela, Coastal Station call sign YV makes radio contact with all vessels "CQ" on 8722 kHz at the followin hours: 1130, 1330, 1530, 1830, 2130, 0030, 0200 GMT. Also "CQ" o 17141 kHz at 1630 GMT and "CQ" on 4322 kHz at 0430 and 0630 GM

VHF: Master should call El Palito Marine Terminal 3 hours before arriv on Channel 16.

TUGS: Use of tugs compulsory. Usually 2 tugs, from 1,800 h.p. t 2,800 h.p. approximately, assist during docking and undocking.

The terminal will arrange for tugs, which are stationed at Puer Cabello. Service requested 1 hour prior to manoeuvre.

BERTHING: The use of both anchors is required for docking at bo berths. It is considered prudent to have both anchors hove-out prior t entering the harbour in order to facilitate speedy release while moorin The Terminal will advise whether the vessel is to be moored port o starboard side to the dock.

In the event the berth is required by another vessel, a vessel havin completed loading may be required to vacate the berth promptly an proceed to anchorage to await cargo documents.

East Berth: Approach at very dead slow speed along a line paral to a line formed by the East and the West berth at a distance from equal to the distance of the North buoy. Drop the starboard anchor a the point of intersection of the ship's fore with a line formed by the tw East shore range markers. Continue along same path at very dead slo speed until reaching with the ship's fore the East berth. Drop the po anchor. Allow the ship to drift into position alongside berth. This will b done by tying mooring lines as required by Pilot and with the help of th ship's engines and tugs under Pilot's instructions.

West Berth: Approach at very dead slow speed along a line paral to a line formed by the East and West berths and at a distance from equal to the distance of the North buoy. Drop the port anchor at th point of intersection of the ship's fore with a line formed by the two We shore range markers. Continue along same path at very dead slo speed until reaching with the ship's fore the West berth. Drop th starboard anchor. Allow the ship to drift into position alongside ber

This will be done by tying mooring lines as required by the Pilot and with the help of the ship's engines and tugs under Pilot's instructions.

General: Chicksan loading arms with 12 in. connections, 3 for Fuel oil, 1 for diesel products and 1 for leaded or unleaded gasolines. All dirty ballast to be pumped ashore through the fuel oil loading hoses.

LOADING:

Cargo: On completion of Inward Clearance, information regarding the number of hoses and loading rate will be given to the Master and Chief Officer. During ballast discharge supplementary information will be given to the Chief Officer. A 15 minute standby is required prior to finishing any grade.

Contamination of Crude: It has been established that one of the major causes of contamination of crude oil is the small amount of salt water remaining in the ship's tanks, pumps and ballast lines after discharging ballast. This small amount of salt water frequently results in costly damage and downtime to refining equipment and also presents many other problems. Therefore all tanks and lines must be pumped as dry as possible.

Draining of Arms: Arms are drained by gravity on all products and crude. Ship personnel must co-operate with terminal personnel in this operation to ensure complete draining of arms into ship tanks and adequate drip cans must be placed to catch the remaining oil in line. Sand or equivalent must be on standby to clean up any oil leaks.

Loading Rates:

Commodity	*Available at Berths* No.	*Line Size* (in.)	*Estimated Rate* bbls./hr.	*Line Displac.* (bbls.)	*Arms* No. 1 (in.)	No. 2 (in.)
Crude Oil	1-2	24	20,000	6,000	2×12	2×12
Fuel Oil	1-2	24	17,000	2,500	2×12	2×12
Diesel-Kerosene	1-2	16	8,000	1,200	1×12	1×12
Gasoline, Unleaded	1-2	16	8,000	1,300	1×12	1×12
Gasoline, Leaded	1-2	16	7,000	1,300	1×12	1×12
Gasoline, Leaded	1-2	8	2,000	350	1×12	1×12
Lube Oil (Disch.)	1-2	8	1,500	240	1×12	1×12
Fuel Oil (Bunkers)	1-2	8	2,000	300	1×12	1×12
Ballast (Disch.)	1-2	20	10,000	2,000	2×12	2×12
Isobutane (Disch.)	1-2	12	4,000	2,000	1×10	1×10
T.E.L.-CB (Disch.)	2	4	70 tons	27 tons	Ship's Hose	

Loading rates will be reduced by the terminal when topping off tanks at the vessel's request.

Scuppers: Loading will not be started till all deck scuppers are properly sealed to the satisfaction of the terminal.

Simultaneous Deballasting and Loading: Vessels equipped with separate and completely segregated ballast tanks, and lines and pumps never used for oil may be permitted to discharge ballast and load simultaneously providing approval has been obtained from the terminal.

MEDICAL: Medical treatment and hospitalisation, if required, are available at the Seguros Sociales in Puerto Cabello. Several dentists are located in Puerto Cabello. Authorisation for any medical and/or dental treatment must be made by the Master. Transportation is available at the Terminal Office. If the patient does not speak Spanish an interpreter should accompany him.

FRESH WATER: Not available.

FUEL: Bunkers are available only for vessels loading cargo. Disputes as to quantity should be registered by signing the bunker receipt under protest and noting the ship's quantities thereon.

CUSTOMS: While the vessel is in port, Venezuelan National Guard officials are assigned on board to ensure compliance with Customs regulations. The law requires that meals be supplied to these officials during regular meal hours.

Venezuelan laws are strict in regard to contraband and Masters are requested to instruct their crews not to take cigarettes or other articles ashore.

Cigarettes in cartons, cigars, tobacco, souvenirs, gifts (particularly items of women's apparel), should be collected prior to arrival in port, listed with the items in the slop chest and placed in the custody of the Master for deposit in the slop chest which will be sealed for the duration of the vessel's stay in port.

CONSULS: French, Norwegian, Danish, Italian and Panama Consulates are represented in Puerto Cabello. There is no American Consulate. It is necessary for Masters of Panamanian flag vessels to visit the Panamanian Consulate at Puerto Cabello to present documents and receive dispatch as required by law. Regular office hours are from 0800 to 1200 hrs. and from 1400 to 1700 hrs. Mondays through Fridays; any dispatch issued outside of regular office hours is billed at double fees. Agent will arrange transportation to Puerto Cabello upon request.

REPAIRS: Facilities available. Advise Agent in advance of requirements.

REPATRIATION: The documents and personal effects of seamen left ashore for hospitalisation, repatriation or other reason, must be delivered to the Terminal Office before sailing. A letter from the Master is required advising the maximum amount of advances to the seaman and any other instructions concerning his repatriation. All expenses incurred by the seaman, including the cost of repatriation, are for the vessel's account. Venezuelan law at all times holds the Master, Agent or Owner responsible for any seaman left behind in Venezuela.

AIRPORT: Distant about 4 miles.

TIME: Local time is about GMT minus 4 hours.

SHORE LEAVE: Shore leave is permitted and a representative of the Captain of the Port boards on arrival and issues the required number of passes. Shore passes are to be collected prior to sailing and given to the National Guard watchmen on board or the Agent.

Vessels are not permitted to sail until all crew members are on board, or special permission has been obtained to sail without a crew member.

REGULATIONS:

Engines: No engine repairs will be made while the ship is in dock. Engines are to be kept at standby at all times while the ship is in port.

Rat-guards: Vessels must use rat-guards on all mooring lines.

Visitors: All visitors to vessels are prohibited, without written permission in each case by the Terminal Authorities (Terminal Supervisor or his Assistants). Mooring Master, petroleum inspectors, dispatchers, and terminal employees may board ship in performance of their duties.

Pollution: The laws of Venezuela are very strict in regard to the pollution of harbour and coastal waters by oil, and heavy fines are imposed for violations. No dirty ballast or oil is to be pumped or allowed to escape over the side. No engine-room or pump-room bilges may be pumped overboard. All pump-room sea suctions and overboard discharge valves must be secured prior to loading or discharging cargo. Loading must be conducted with the utmost care and vigilance so that errors or delays may not result in spills. All deck scuppers must be plugged tight before loading so that in the event of a spill pollution of the harbour may not result.

Garbage: No garbage is to be thrown over the side while the vessel is in port.

Passengers: Passengers will not be permitted to disembark unless in possession of the required visa and documents. To facilitate clearance, if passengers are carried, the Master should include this information in his ETA.

Firearms: Firearms on board any merchant vessel calling at Venezuelan ports must not exceed one per officer, nor can the ammunition exceed 18 cartridges per officer. All firearms and ammunition must be noted on the store list. Officers must not carry firearms while the vessel is in Venezuelan waters and these side-arms and ammunition should be collected and held in the Master's safe custody.

GENERAL:

Bonded Stores: No cigarettes or bonded stores are available at El Palito.

Cash Advances: Cash advances are available in Venezuelan Bolivares only and should be included in the vessel's radio ETA, to permit delivery on board on arrival.

Charts: No charts or sailing directions are available at El Palito.

U.S.S. Club: There is no U.S.S. Club available at El Palito or film exchange service.

Inspection of Cargoes: According to prior arrangements between Owners/Charterers/Suppliers.

Laundry: Laundry facilities are available at El Palito.

Lubricating Oil: Certain types of Corpoven luboils only are available. Requirements should be sent by radio with ETA to Agent.

Mail: Mail service posted from El Palito has been found to be fair.

Provisions: Provisions are available at El Palito.

Radio and Radar: Arrangements to be made with port Agents prior to arrival.

Gangways: Gangways are provided by El Palito Terminal.

SHIPMASTER'S REPORT: July 1988.

Two tugs are used for berthing, one astern on tug's line and the other to illuminate the forward buoy and push as required.

The aft buoy line is the first line sent away and is used to check the vessel's swing into the berth.

There is a constant swell running, and positioning vessel in the berth is very long and drawn out as the loading arms are restricted in vertical and horizontal movement.

The swell causes the ship to move out of position, all moorings need to be adjusted simultaneously and with the small numbers onboard this was very difficult.

Due to loading arm limits and swell, the ballast and loading have to be carried out together. The shore were very reluctant to accept dirty ballast ashore. There are reception facilities and they did take it, but a distinct impression was that they would prefer clean ballast and this to be pumped into the sea, which is against Venezuelen law, as stated in the "Guide".

Leaving the berth was fairly straightforward, with one tug on aft main deck to pull vessel off while recovering anchors.

Chart B.A. 1966 leaves a lot to be desired for approaching a port. El Palito Terminal can be identified by 3 towers, each with a high intensity light near the top and a flare. There is a mass of background lights and the navigational lights are completely obscured. Coming from the North, these lights are visible at 20 miles and with the flare make the pattern, light, flare, light, light from port to starboard. The berth is situated right below these lights.

The radar picture shows 2 similarly shaped jetties, so the lights are a good guide to the correct berth.

AUTHORITY: Corpoven, S.A., – Refineria El Palito, P.O.Box 102, Puerto Cabello 2023A, Edo Carabobo, Venezuela. *Tel:* (041) 422627, 421110, 421005, (042) 3111/3115. *Telex:* 28013, 23571. *Cables:* Corpoven-El Palito. *Contact:* Terminal Supervisor.

GUANTA: 10.15 N. 64.35 W. (See Plan)

SHIPMASTER'S REPORT: 1978.

LOCATION: Lat. 10° 15′ N., Long. 64° 35.5′ W. About 5 miles East of Puerto La Cruz.

DOCUMENTS:

- 6 Crew Lists.
- 6 Passenger Lists (or negative).
- 6 Ship's Stores Lists.
- 6 Crew Personal Effects Lists (well detailed).
- 1 Declaration of Health.
- Clearance from Last Port.
- Cargo Manifests.
- Full set of Manifests and B/Ls.

Entry Formalities: Normally carried out after docking unless there are no berths available; then vessel can be cleared at anchorage in Bahia Pozuelos, during daytime. At night only in case of emergency.

Accommodation ladder must be rigged.

Hours of entry: From 0700 – 1100 hrs. and from 1300 – 1700 hrs. Overtime outside these hours.

APPROACHES/PILOTAGE: A vessel bound for Guanta has to enter Bahia Pozuelos as she must first call at Puerto La Cruz to embark a Pilot. The anchorage area for waiting berth turn is also in Bahia Pozuelos. This anchorage is in depths of 48 ft. to 80 ft. and is well protected from swell by surrounding islands. No size limitation.

Bahia Pozuelos is the anchorage and Pilot embarking area for 3 ports: Puerto La Cruz, Guanta and Pertigalete.

The use of Government Pilot is compulsory for all vessels docking or undocking. ETA: 48 and 24 hours in advance via the vessel's Agent.

Pilot boarding hours: From 0530 – 1700 hrs. every day. Vessel cannot dock after sunset. Sailing may be arranged at any time.

HEALTH: All vessels boarded by Port Doctor. No automatic Pratique.

RADIO: Curacao Radio PJC. No local station.

VHF: All Agencies maintain radio watch on Channel 16 during office hours. Tugs and launches also equipped with VHF (call: "Ramrey").

TUGS: 3 tugs available: 1×1,700 h.p. and 2×1,200 h.p. All privately owned. Sometimes vessels bound for Guanta or Pertigalete have to wait for 2 or 3 hours as these private tugs have contracts with oil companies in Puerto La Cruz and are available only when no tanker is docking or undocking. Tug's lines used. Normally tugs join the vessel inside Guanta Bay.

BERTHING/MAX. SIZE: One concrete pier on piles, 763 ft. in length where vessels normally dock starboard side to. The apron is 20 ft. wide in centre, 42 ft. at ends.

One modern concrete pier on piles, 1,056 ft. in length where vessels normally dock port side to. The apron is 115 ft. wide in centre and 85 ft. at ends. The piers are well fendered with rubber hoses and used tyres.

Height of piers above HW: 10 ft. Mean tidal range: 1 ft. 6 in. Max. draft alongside small pier: 23 ft. 08 in. Minimum draft alongside long pier: 26 ft. 08 in. Depths varies from a minimum of 27 ft. to a max. of 34 ft. at the Western end of the long pier.

CARGO HANDLING FACILITIES: All cargo normally discharged by vessel's own gear, directly on to truck or trolleys. The piers are not connected to the railroad. No floating crane.

The following mobile cranes are available in the port area: 1 crane max. 120 tons; 1 crane max. 30 tons, with telescopic extension boom, max. 60 ft.; 2 small cranes max. 6 tons with a boom length of 30 ft.

Forklifts: 15 forklifts capacity 3.5 tons; weight 5.2 tons with fixed counterweight. To use these forklifts on board, the hoisting gear should lift over 6 tons.

2 forklifts capacity 5 tons, weight 12 tons; 1 forklift capacity 20 tons, weight 25 tons, specially for containers.

Flatbed trolleys: 30 trolleys capacity 8 tons; 1 trolley capacity 70 tons.

No lighters available.

All discharging gear normally supplied by Agency. For heavy lifts, it is recommended to have special slings on board.

BULK CARGO FACILITIES: On the Eastern side of the Guanta Bay, there is a berth for loading coal by means of a fixed chute. Depth alongside 30 ft.

Grain Cargo: Receivers supply suction machines. There are 2 machines available, capacity 1,000 tons per machine during 24 hours. Grain vessels work round the clock.

Liquid Cargo: Sometimes tallow and liquefied gas are handled. Discharged by vessel's pump into tank trucks. Hoses normally supplied by vessel.

CONTAINER HANDLING FACILITIES: No container berth. No crane. 1 forklift capacity 20 tons. There is a small container stacking area.

STEVEDORES: Normal working hours: 0700 – 1100 hrs. 1300 – 1700 hrs. (Monday to Friday); 0700 – 1100 hrs. (Saturdays).

Overtime: Monday to Friday, 1800 – 2300 hrs. (night shift); Saturday, 1300 – 1700 hrs.

Normally port does not work after 1700 hrs. on Saturdays or Sundays.

Ordering of gangs: For 0700 hrs. requested previous day before 1500 hrs. For 0900 hrs. requested same day at 0700 hrs.

Overtime rates: 50% for the night shift (Monday to Friday); 100% for Saturday afternoon shift.

The gangs consist of 12 longshoremen and 12 stevedores, including 2 winchmen, 1 signalman and 1 checker.

Capable supervision only available from Agency.

Rigging or cleaning gangs are available.

MEDICAL: Private hospitals at Puerto La Cruz. Private doctors generally do not visit ships. If medical attention is required on board, the Port Doctor will attend patient, unless he authorises another doctor to make the visit.

In case of emergency, when the vessel is anchored in Bahia Pozuelos, a launch can be arranged to pick up the sick crew member.

DENSITY: Salt water all the year round.

FRESH WATER: Available at 5 Bolivares per ton at the main pier only. Hoses supplied by ship. Rate: about 5 t.p.h.

Presently there is no water available at Berth No. 3 (Western end of pier).

FUEL: No Bunker "C".

Diesel: Delivered by trucks; arrangement must be made at least 24 hours in advance.

Gas Oil: Delivered by trucks under previous arrangement.

GARBAGE DISPOSAL: No facilities.

CONSULS: See "Puerto La Cruz".

REPAIRS: Only minor engine or electric motors can be repaired.

GANGWAY/DECK WATCHMEN: Not available. No shore gangway available.

DRY DOCK: Not available.

SURVEYORS: None.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 open bottle spirits.

REPATRIATION: Can be arranged. No special requirements.

IDENTIFICATION CARDS: Passes for shore leave are issued by officials of the Port Captain's Office, when boarding the vessel for clearance. These passes should be filled out on board. They are valid for the duration of the vessel's stay in port only and have to be returned before sailing.

In order to comply with Immigration Regulations, crew should b carefully checked before departure and any missing seaman reporte to the Agent. The same applies to passengers in transit.

AIRPORT: At Barcelona, about 15 miles by road. 3 flights daily Caracas.

TIME: 4 hours slow of GMT, all the year round.

HOLIDAYS: New Year's Day, Holy Thursday, Good Friday, Ho Saturday, April 19th, May 1st, June 24th, July 5th, July 24th, Octob 12th, November 24th, Christmas. No labour available on these days.

TELEPHONES: No facilities at Guanta. Private calls can be made fro the central office at Puerto La Cruz (5 miles) during the following hour 0700–2100. Long distance calls dispatched quicker from the Hotel Me at Puerto La Cruz.

SHORE LEAVE: From a ship anchored in Bahia Pozuelos: Allowed the vessel has been cleared and if every crew member has shore pas One private launch available but very expensive.

From Guanta berths: Allowed with shore passes.

DELAYS: Presently, Guanta is somewhat congested and the waitin time varies from a few days to 15 days, especially during the rai season.

GENERAL: Venezuelan regulations strictly prohibit the pumpi overboard of dirty ballast or throwing garbage or dunnage in territor waters. Heavy fines are imposed for pollution of waters and sometim fishermen are quick to report any infringement.

Berthing Turn: On the basis "first come, first served" but Venezuela vessels have some priority.

Supplies and Laundry: Several private firms based at Pto. La Cru Nearly all kinds of fresh provisions are available.

Laundry service available; may be completed in 8 to 10 hours.

General: Guanta is a natural harbour surrounded by mountains whi protect the bay completely in bad weather. The port has never bee closed for bad weather.

Venezuelan Flag: Upon arrival at Pozuelos Bay ship should display t flag from the foremast at all times. When anchored or docked, the fl should be displayed only between sunrise and sunset.

Warehouses and Cargo Sheds: No transit cargo shed. No refrigerate storage available.

There are 5 warehouses with a total floor space of 75,000 sq.ft.

Open Space: A total of 5.7 acres, mostly covered with asphalt concrete.

Weather: The rainy season starts in mid-May and ends in November December. During the rainy season it is usually calm in the early hou of the day followed before mid-day by light Westerly or variable breeze In the afternoon the breezes change to North-Easterly at about 12 kno until midnight. During the dry season the cycle is similar but the Nort Easterly wind may reach 25 knots. This can prevent all communicatio between anchored vessels and the shore.

AUTHORITY: "INP" Instituto Nacional de Puertos.

SHIPMASTER'S REPORT: 1975.

LOCATION: Lat. 10° 14.7′ N., Long. 64° 35.5′ W.

Guanta is located in the Bay of Guanta. It is a well protected p against currents and winds.

The port is entered between 2 well lighted islets.

DOCUMENTS:

Maritime Declaration of Health (together with inoculation list of cre
10 Passenger – (or non-passenger) Lists.
10 Transit passenger – (or non-transit passenger) Lists.
10 Crew Lists.
4 Personal Effects Lists. (new clothes, etc., to be mentioned).
4 Ship's Stores Manifests.
Clearance from Last Port.

PILOTAGE: Government pilotage is compulsory. Pilot is embarked a disembarked near the Sea Buoy of Puerto La Cruz, in position: L 10° 15.5′ N., Long. 64° 41′ W.

ANCHORAGE: On the Pto. La Cruz Roads.

RESTRICTIONS: Entering: In daylight hours only: 0600 – 1800 hrs.

Sailing: Day and night.

TUGS: One powerful tug available, compulsory to use when shi length more than 90 m.

BERTHING: New Pier: Length 322 m. Old Pier: Length 233 m.

Water Depth: According to Pilots information: Old Pier: 29 New Pier: 34 ft.

STEVEDORES: *Working Times:* Monday to Friday: 0700 – 1100 hr 1300 – 1700 hrs., 1800 – 2300 hrs. Saturday: 0700 – 1100 hrs., 1300 1700 hrs. Sunday: No work is done.

Gangs have to be ordered by 1500 hrs. the day before required.

FRESH WATER: Ships can replenish their fresh water tanks witho charge (Included in port charges). Own hoses to be used.

OPENING/CLOSING HATCHES: Opening/Closing hatches, setti derricks: Special Rigger gangs take care of this. It is absolutely forbidd for ship's crew to touch these kind of jobs.

GENERAL: *Waste Water:* Special care should be taken to prevent was water, from sanitary or engine-room systems fouling the jetty. Hea fines are made in case this happens and a special shore gang mig be ordered to clean same.

Customs: 2 Customs Officers have to be provided with food.

OPERATORS: Servicio Portuario de Guanta.

GUARANAO: 11.40 N. 70.13 W.

SHIPMASTER'S REPORT: January 1983.

LOCATION: The port of Guaranao is located on the Gulf of Venezuela on S.W. coast of the Peninsula de Paraguana, Venezuela. It lies between Amuay Bay to the North and Punta Cardon to the South.

DOCUMENTS: Inward Clearance is effected on board immediately after docking by Government Port Officials and a representative of the Marine Department.

The following documents must be ready on arrival:

- Clearance from Last Port.
- Crew Lists (7 copies).
- Passenger Lists if any (5 visaed copies).
- Baggage Lists if any (3 visaed copies).
- List of Personal Effects (4 copies).
- Stores Lists (2 copies).
- Sailing Permit (Zarpe).

PILOTAGE: Compulsory. Vessels have to wait for Pilot about 0.5 miles offshore at anchorage. Ship's can make contact with pilot station by VHF on Channel 16 or 12.

ANCHORAGE: Generally ships must anchor about 0.5 miles offshore to wait for Pilot. Good anchorage is obtained in depths of 28 ft. (8.5 m.), muddy bottom and depths of less than 18 ft. (5.5 m.) extend up to about 0.25 miles offshore in this bay, and depths of less than 36 ft. (11 m.) extend about 7 cables NNW from Punta Zarobon (Guaranao).

APPROACHES: Masters when approaching the coast should keep a sharp lookout for fishing boats, nets, small craft or sunken wrecks. From Punta Zarobon the coast, which is bordered by cliffs from 85 ft. to 65 ft. (25.9 m. to 19.8 m.) high, trends about 2 miles SSW to Punta Gorda.

RADIO: Arrival notices and radio messages to and from ships at sea are usually transmitted through Curacao (PJC) and routed through Agent's head offices at Caracas, Venezuela. The port radio control is Las Piedras Paranagua.

TUGS: One tug is available to assist with berthing/unberthing.

BERTHING: A pier extends about 3 cables Westward from shore at Salinas, Guaranao, and the Southern half of this pier is for Ro-Ro vessels stern to. A floating pier about 1 cable distance South of and parallel to the former, extends Westward from shore about 810 ft. (247 m.) and is 164 ft. (50 m.) wide.

CARGO HANDLING FACILITIES: There are fork lift trucks of all sizes, 6 mobile cranes at the floating pier, and some towing vehicles.

MEDICAL: Services available.

FRESH WATER: Not available.

FUEL: Available if advance notice is given. Fuel/diesel oil and lubricating oil can be obtained from either Amuay Bay or Punta Cardon.

FIRE PRECAUTIONS: This port is used for discharging general cargo, especially waste paper and timber. Waste paper is considered as dangerous cargo, therefore Masters are called to pay attention to their fire-fighting equipment and to have it ready during discharging waste paper.

WATCHMEN: Not available.

SHORE LEAVE: Permitted, but shore passes must be carried and passes returned before the vessel sails.

GENERAL: *Stores:* Provisions, deck and engine stores available but not bonded stores.

Garbage Disposal: No facilities.

AUTHORITY: Las Piedras-Guaranao Port Captaincy, P.O. Box No. 2, Codigo Postal 4102-A, Edo. Falcon, Venezuela. *Tel:* (069) 451921. *Telex:* 54119. *Cables:* Capipuerto Las Piedras. *Contact:* Captain Oscar Ibarra Lavado, Harbour Master.

JOSE TERMINAL: 10.06 N. 64.51 W.

OPERATOR: Corpoven S.A.

FLAG: Venezuelan flag must be displayed from the foremast when entering Pozuelos Bay and when manoeuvring or docking, regardless of the hour; however, while at anchor or while moored at berth, it needs to be displayed only between sunrise and sunset.

LOCATION: The Terminal of Jose is located West of Pozuelos Bay at: Lat. 10° 06′ 19″ N., Long. 64° 51′ 10″ W. on the N.E. coast of Venezuela. The usual hurricane path is several hundred miles to the North.

The lighthouse marking the entrance to Pozuelos Bay is located at: Lat. 10° 18′ 18″ N., Long. 64° 41′ 07″ W. Visibility is 20 miles.

DOCUMENTS: Arrival Clearance is effected on board vessel shortly after docking by Government Officials and a representative of the Company. The following documents are required and should be prepared prior to arrival.

- Ship's Register.
- Ballast Manifest (1 copy).
- Crew List (6 copies).
- Passenger and Baggage List, if any (5 copies).
- List of Passengers in Transit, if any (5 copies).
- List of Personal Effects (4 copies).
- *Stores List (5 copies).
- List of Slop Chests (4 copies).
- Sailing Permit issued by Marine Authority at last port of call.

*Store List should indicate separately all deck, engine and cabin stores.

PILOTAGE: The use of Government pilots is compulsory for all vessels docking or undocking. This service will be arranged at all times. If it becomes mandatory for the Master of the vessel to disregard Pilot's order in order to ensure safety of the ship, a written report in Spanish shall be submitted promptly by the Master of the ship to the Government Port Captain.

APPROACHES: Puerto Jose is approached through a channel 150 m. wide, with a minimum depth of 13.6 m. There is a turning area 460 m. in diameter.

RESTRICTIONS: No restrictions are made on arrival/sailing time.

MAX. SIZE: The loading facilities consist of one Berth.

The docking characteristics are as follows:

Max. Deadweight	45,000 tons
Max. Ship Capacity	75,000 cu.m.
Min. Ship Capacity	11,000 cu.m.
Max. Draft	39 ft.
Max. LOA	800 ft.
Max. Lightship weight	22,000 tons

HEALTH: In theory the Government Port Doctor is to board each incoming vessel and board only outgoing vessels which carry passengers. In practice, however, the doctor boards at his discretion.

RADIO: Masters are requested to advise Corpoven Puerto La Cruz by radio 72 hours in advance of estimated arrival giving vessel's name, date and hour of arrival, bunkers, name of Master, port of departure, draft (arrival), Venezuelan gross tonnage, flag of ship and dates that ships' certificates expire. Vessels may contact the terminal of Puerto La Cruz by radio-telephone on 2182 kHz, SSB and VHF Channel 16. There is standby attention 24 hours a day. The terminal also has the frequencies 2080, 2120, 2638, 2738 and VHF Channels 6, 12, 13, 16, 17, 73 and 74.

Ship-to-shore radios are installed on the oil dock and on both tugs.

TUGS: There are 2 tugs at the port for mooring or unmooring and use is compulsory for all vessels. The tugs available are radio equipped and are 3,000 h.p. or more. Generally the Government Pilot will not begin manoeuvers until he is assured that the tugs are on stand-by.

BERTHING: *Arrival at Dock:* While alongside the berth the following rules must be observed:

(a) Master must ensure that mooring lines are properly tended, and that sufficient personnel are onboard at all times to handle lines. Loading will be temporarily suspended upon infringement of this regulation.

(b) Masters are requested to remove the blank flanges from their vessel's loading manifold before docking, so as to expedite the connecting of the shore loading arms by company personel. Vessels are requested to have their derrick and gangway ready for use.

NOTE: Vessels normally dock with starboard side to dock, unless advised otherwise.

(c) While docked, the discharge of sea water, hot water or steam on dockside of ship is prohibited. Hot water or steam may activate the automatic sprinkler system as well as damage piping located under the dock surface.

(d) Rat-guards must be placed on all ropes connected with the shore.

(e) Heavy exhaust smoke from vessel's funnel is not permitted. Any infringement of this rule will result in Government fine and/or removal of ship from dock.

(f) Meals must be provided in officer's messroom for Venezuelan National Guard personnel who may be assigned to the vessel during her stay in port.

(g) Masters are requested to display on top of mast a red flag in daytime and red light at night indicating that ship is handling dangerous cargo.

(h) Unregulated crafts should not be allowed to come alongside ship moored at Terminal without the permission of the Terminal Operator. It will be the responsibility of the ship's Master to ensure that this regulation is obeyed.

LOADING: *Products Handled:* Natural gas, propane, isobutane, normal butane and pentane.

Loading rates:

Propane	12,000 gallons p.m.
Butane	6,000 gallons p.m.
Gas/Pentane	4,150 gallons p.m.

Only one commodity handled at one time.

After the vessel has been cleared, the Company Dock Supervisor on watch will give the Master of the vessel written instructions with respect to the cargo.

During loading operations, company employees are on watch to administer to the needs of each vessel.

Upon termination of loading cargo, cargo lines are displaced at controlled rates prior to disconnecting.

Shortly after completion of loading, company personnel and an independent inspector, together with a vessel's officer, will take ship's ullages and later, deliver cargo and sailing papers to the Master of the vessel.

Ships must vacate berth upon completion of loading and await papers at anchorage in Pozuelos Bay.

For information regarding completion of loading, the dock supervisor can be contacted by telephone from telephone booth at berth.

BALLAST: There are no facilities for deballasting.

MEDICAL: All requests for medical or dental treatment must be accompanied by a written request from the Master to the vessel's Agent.

FRESH WATER: Not available locally.

Fresh chlorinated water is available in limited quantities at an average rate of approximately 2 tons per hour at the Puerto La Cruz Terminal.

FUEL: Bunkers are not available at this Terminal.

Bunker "C" and Heavy Diesel Fuel and a complete range of intermediate fuels are available in reasonable quantities at Puerto La Cruz Terminal, subject to safety and operational restrictions. Delivery rates to the ships are approximately as follows:

Bunker "C"	200 t.p.h.
Heavy Diesel	150 t.p.h.
Intermediate Fuels	100 t.p.h.

Meters are installed in all bunker systems and are calibrated in net barrels; except diesel meters which indicate gross barrels.

The dock valves on the bunker lines on the docks of Puerto La Cruz Terminal will only be opened and closed upon advice from the ship's personnel.

Lubricants and gasoil are available through the vessel's Agent.

CUSTOMS: Crew members should be warned against taking knives or other lethal weapons ashore, as this is strictly prohibited. All firearms and ammunition must be noted on Stores List. They cannot exceed 1 per officer and 18 cartridges per gun. No arms may be carried while ship is in Venezuelan waters or tied up at dock. Contraband of any description will be confiscated. Each man is allowed 1 package of cigarettes on his person and this package must be opened. No liquor is to be taken ashore. It is prohibited to carry liquor from shore to ship without authorisation from Master of vessel. It is further strictly prohibited to consume liquor in dock area.

It is normally forbidden to take photographic cameras ashore. However, upon written request to the National Guard contingent on the oil dock, special permission may be obtained. This is subject to 2 limitations: (1) that the camera is returned to the ship; (2) that no photographs are taken of the petroleum installations.

IDENTITY CARDS: Passes for shore leave are issued by the officials of the "Capitania de Puerto", who board with the Customs Authorities upon the vessel's arrival at dock. These passes are valid for the duration of the vessel's stay in port and must be returned before sailing to the guard assigned to the vessel.

In order to comply with Immigration Regulations, crews should be carefully checked before sailing, and any missing seamen reported to the vessel's Agent.

Crew members left behind when the vessel sails will be held in custody until deported at the vessel's expense.

CONSULS: The following foreign countries have consular offices in the vicinity of Puerto La Cruz:

Belgium	France	Norway
Brazil	Great Britain	Spain
Colombia	Italy	Sweden
Denmark	Netherlands	

Vessel's Agent should be appraised of vessel's consular requirements promptly upon docking.

REPATRIATION: Seamen discharged from hospital for transfer to another port, seamen arriving from another port or those being repatriated are handled by the vessel's Agent, who must comply with all Venezuelan Regulations.

In the case of seamen left ashore for any reason, Masters are requested to furnish a letter accepting responsibility for all expenses incurred, advances if any, and instructions for repatriation. Venezuelan regulations, at all times hold the vessel responsible for a seaman during his stay in the country. Close contact is maintained by radio with ship owners regarding disposition of their seamen.

TIME: GMT minus 4 hours all year round.

REGULATIONS: *Excessive Smoke:* It is absolutely prohibited to exhaust heavy smoke through a ship's funnel while tied up at the Company's dock. It is also prohibited to blow boiler tubes. Failure to comply with this regulation will result in any or all of the following actions:

1. The loading operation will be immediately shut down.
2. Vessel will be subject to fine.
3. Vessel may be removed from dock.
4. Ship's Agent will be advised of infractions of this regulation.
5. Fines, time lost, and other related expenses will be charged against the vessel.

Pollution: Venezuelan laws are very strict on this subject and local authorities quickly enforce existing statutes. For this reason each Master is handed a circular that emphasises the necessity of complying with federal and local laws and customs.

The spilling or discharge of dirty ballast, crude oil or petroleum products into coastal waters is defined as pollution, as is also the throwing overboard of garbage, trash or other unwanted objects while the vessel is at anchor or dockside. Prior to the start of loading operations all discharge valves, bilges and scuppers must be closed and strict vigilance exercised during deballasting and loading operations.

When a spill does occur, the Master, Government officials and a company representative evaluate the quantity and submit a report to the Government Petroleum Inspector. This report becomes the basis for a federal fine that is practically incontestable. An additional expense occurs when local authorities require assistance in cleaning beaches and shorelines after a major spill and can pinpoint the responsible vessel or source.

TONNAGE CERTIFICATE: Due to reciprocal agreements between Venezuela and the following countries, ships flying the flag of any of the below-named countries are exempted from Arqueo compliance and payment of fees: Denmark, Great Britain, France, Germany F.R., Netherlands, Norway, Portugal, Sweden, United States.

Ships bearing the flag of any other nation shall require a Venezuelan Arqueo Certificate. The cost of measuring is contingent on the size and tonnage of vessel. The certificate is usually issued after the ship sails from port. It is then sent to the marine department of the Owners of the vessel by airmail.

EMERGENCY CO-ORDINATION CENTRE: Seccion de Seguridad, Busqueda y Salvamento Maritimo. Telex: 31154. Tel: (02) 513395, 512156.

SURVEYORS: 1. Saybolt, Caleb Brett, Chas Martin, AIVEPET cargo inspectors available at Puerto La Cruz.

2. Lloyd's Register, American Bureau, Bureau Veritas, P & I available at Puerto La Cruz or from Caracas via the ship's agent.

TELEPHONES: There is a telephone booth on dock. The supervisor on duty may be contacted at any time.

GENERAL: *Dockmaster's Office:* Loading and marine personnel offices of Corpoven S.A. are located at the entrance of the dock. Any matter concerning loading and/or bunkering, is handled through this office, which is open 24 hours every day.

The Documentation Section is located at the Puerto La Cruz Terminal.

On the dock there is a telephone booth and the supervisor on duty can be contacted at any time.

Cash: The local currency is the "Bolivar". Foreign exchange may be secured from local banks. Local banks are open Monday to Friday 0830 – 1130 hrs. from 1400 – 1630 hrs. except holidays.

Ship's Requirements: All ship requirements such as chandlery supplies mail, cash advances, medical attention, dental care, consular services repair work, laundry service, bonded stores, transportation, etc., shoul be obtained through the vessel's Agent.

No charts or sailing books are available in the Terminal. These shoul be forwarded by airmail to the vessel's Agent for delivery to the ship.

Movement of Passengers: Inasmuch as the Company's Terminal is no a public port, only bona fide crew members and Corpoven employees are permitted to join or leave ship in Jose.

AGENCY: All incoming ships to lift cargoes at this Terminal must hav a local Agent to render all services required for a prompt and efficien tanker turnaround and to cancel all ships disbursements during the po stay.

Corpoven as operator of the Terminal charges a fixed fee for Genera Services such as:

Complete documentation service.
Preparation of disbursement accounts for the Agent of Vessel.
Dispatch of vessel.
Control over marine units which service vessel.
Assistance and supervision in docking of vessel. Supervision ove connecting of loading system and related cargo facilities.

Offices of Corpoven loading and marine personnel are located on th first floor of the building between Berths No. 1 and 2. Any matte concerning loading, bunkering, is handled through this office, which i open 24 hours of every day. On the ground floor of this same buildin is the Documentation Section.

LA GUAIRA: 10.36 N. 66.56 W. (See Plan

PORT LIMITS: Between the points 10° 37′ 40″ N., 66° 48′ 30″ W. an 10° 37′ 40″ N., 67° 07′ 07″ W. and the coast line.

DOCUMENTS:

Sealed envelopes for Customs.
Visaed B/L and Sobordos not in envelopes.
Despatch from last Venezuelan port, if any, or
Zarpe from last foreign port, if arriving directly from abroad.
Fumigation Certificate.
Bill of Health.
Vaccination Certificates of Crew.
4 Stores Lists (with arms and narcotics).
4 Lists of Personal Effects.
6 Crew Lists.
12 Lists of Passengers for La Guaira, or negative Passenger List.
8 Lists of Passengers in Transit.
2 Lists of Luggage (only for passenger luggage).
1 Master's Declaration.
1 List of Stowaways, if any.
8 Cargo Lists.

PILOTAGE: Compulsory and vessels have to wait for Pilot in the pilotag zone N.W. of the entrance. Ships can make contact with the pilot statio by VHF Channel 16 or 12.

ANCHORAGES: Generally ships must anchor in the N.E. area of th entrance, the depth varies from 8 to 20 fathoms. The bottom is san and occasionally rocks.

RESTRICTIONS: There are no restrictions imposed upon entry.

MAX. SIZE:

Berth	*Length* (m.)	*Depth* (m.)	*Remarks*
01-E	176	10.95	Roll-on/Roll-off
01-D	176	10.95	General Cargo
01-C	176	9.55	12 ton electrical cranes
01-B	176	8.55	12 ton electrical cranes
01-A	176	8.80	12 ton electrical cranes
01	155	9.15	12 ton electrical cranes
02	155	9.75	12 ton electrical cranes
03	160	9.45	Grain Berth
04	136	5.50	General Cargo
05	161	8.50	General Cargo
06	161	8.80	General Cargo
07	136	8.50	General Cargo
08	136	8.50	General Cargo
09	133	5.50	General Cargo
10	168	8.50	6 ton electrical cranes
11	144	8.80	6 ton electrical cranes
12	144	8.50	6 ton electrical cranes
13	144	9.45	6 ton electrical cranes
14	144	8.80	6 ton electrical cranes
15	168	8.80	6 ton electrical cranes
16	160	8.20	Passenger Berth
17	160	9.15	Passenger Berth
18	171	9.75	Passenger Berth
19	171	9.75	Passenger Berth
19-A	72	4.55	Passenger Berth
20	150	3.00	Fishing Berth
21	290	6.10	Warship Berth

HEALTH: Ships from Venezuelan ports obtain Free Pratique. Ships fro abroad must send a cable to Health Authorities requesting Free Pratiqu or advising illness.

RADIO: In order to enable Agents arrange for quick entry and berthing, Masters should give their ETA message at following intervals, via Curacao Radio (ITT): 72, 48 and 24 hours prior to arrival, indicating in the 48-hour message, the quantity of parcels (or tonnage if bulk cargo) per hatch. This is imperative for applying for the necessary personnel of the Instituto Nacional des Puertos (I.N.P.). Also, draft, passengers, requirements for bunkers, fresh water, provisions, repairs, medical assistance, etc. This telegram the Master to sign with his full name.

VHF: Communication with the Port Authorities and the pilot station are possible by VHF. Ship must make contact on Channel 16 and change after to some Channel between 1 and 70, Channel 12 is normally used for this manoeuvre.

TUGS: The use of tugboats within the port is compulsory, both for entering and leaving port, as well as for manoeuvres in the port area. Ships longer than 139 m. must be assisted by 2 tugboats.

Ship's lines are used in the manoeuvre. The Port of La Guaira has 2 tugboats of 1,800 h.p. each. Normally they join the vessel at the entrance of the port.

BERTHING: Normally a minimum of 24 ocean-going vessels can berth at one time. Berths No. 01-E, 01-D, 01-C, 01-B, 01-A, 01, 02 and 03 are along the Breakwater Pier East-West, parallel to the coast. At Piers No. 01-C, 01-B, 01-A, there are 12 electrical cranes of 12 tons. At Pier No. 03 ships discharge grain directly to a silo by 2 grain towers, average daily rate 2,000 tons. Silo capacity 12,000 tons.

Within the port is a finger pier, parallel to the Breakwater Pier, with 2 Customs warehouses alongside, with berths North and South, 2 each. The main pier is parallel to the coastline, East-West, with Berths No. 10, 11, 12, 13, 14 and 15,, along which piers there is ample Customs warehouse space, including outdoor space on the roofs as well as ample uncovered storage area. There are 15 × 6 ton electrical cranes at this pier.

The Passenger Terminal is on a finger pier, in direction North-East with its land end in the corner of Berth No. 15. There are 2 berths each side, namely Nos. 16 and 17 in the inner basin and Nos. 18 and 19 in the outer basin.

Passenger vessels have priority for berthing and they have to leave port within 24 hours.

BULK CARGO FACILITIES: Bulk carriers only discharge, at Piers 01-D, 01-C and 03. There are no facilities for cargo.

SPECIALISED CARGO HANDLING FACILITIES: The only berth specially equipped for Roll-on/Roll-off traffic is Pier 01-E but Pier Nos. 04, 09 and 16 are also used for this kind of cargo.

There is no fixed equipment for handling containers but the Instituto Nacional des Puertos has some mechanical equipment for handling containers.

This port does not have any other facilities for specialised cargo handling.

BRIDGES: There are no bridges.

STEVEDORES: Supplied exclusively by Instituto Nacional des Puertos at costs per weight of cargo in accordance with governmental decrees.

The Port Agent applies for the necessary number of gangs per ship. Each gang consists of 11 stevedoremen (estiba) and 11 longshoremen (caleta).

Switching of gangs from one hatch to another is not permitted.

There are no longshoremen costs for cargo handled during straight time, but only for that handled during overtime.

(a) *Straight time*
Monday – Friday 0700 – 1100 hrs.
1230 – 1630 hrs.
Saturday 0700 – 1200 hrs.

(b) *Overtime*
Monday – Friday 1800 – 2300 hrs.

(c) *Saturday afternoon* work is not permitted, but if a vessel could terminate operation and sail within a maximum of 3 additional working hours, a special permit would be granted by Customs and Port Authorities. In such a case, the additional working hours are considered as overtime.

(d) *Work on Sunday* is not permitted except for passenger vessels (officially those carrying 69 passengers, but exceptionally vessels with fewer passengers might occasionally obtain same consideration by authorities).

EQUIPMENT:

(a) *Electric Shore Cranes:* Berths 01-C to 01-A have 12 electrical cranes on rails of 12 tons capacity each. Berths 10 to 15 have 15 on rails of 6 tons capacity each. The Instituto Nacional des Puertos allow 2 × 12 tons cranes to lift pieces up to 20 tons or 9 tons weight. At Pier 10 the arms of the cranes reach the roofing of the warehouses.

Use of shore cranes is not compulsory, unless the Technical Board of the Instituto Nacional des Puertos rules to use them. Other piers have no shore cranes.

(b) *Diesel-Driven Rolling Cranes:* There are a considerable number of these cranes which can lift heavy pieces of about 17 tons.

(c) *Floating Cranes:* Not available.

(d) Special lumber carriers of about 20 tons capacity.

(e) Tow trucks, fork-lifts, trucks and trailers up to 10 tons capacity.

LOADING/DISCHARGING: Cargo is discharged on the pier, when free it is taken away by fork-lifts and/or other mechanical equipment supplied by Instituto Nacional des Puertos. The use of such equipment is included in the handling fee for weight.

There are 2 grain towers on Berth No. 3 leading via conveyor belts to storage silos of 12,000 tons capacity. Average daily discharge rate 2,000 tons approximately.

At Berths No. 10 to 15 discharge to the roof of the warehouse or on the pier is possible.

OPENING/CLOSING HATCHES: Not performed by the Instituto Nacional de Puertos but by either the ship's crew, or the assistance labour of the Agent.

FRESH WATER: Available through pipe-line on the pier, day or night, by water trucks of up to 10 tons capacity in day time only.

GANGWAY/DECK WATCHMEN: The watchmen service is not necessary. It is recommended to use a seaman as watchman.

MEDICAL: There are several hospitals in the town and all the medical attention necessary. Should medical assistance be needed on board, contact the Agent.

DENSITY: The average density of water in the port is 1025.

CONSULS: The following countries have consuls in La Guaira; Belgium, Germany F.R., Mexico, Norway, Panama and Sweden. The following countries have Vice-consulates; Denmark, Italy, Portugal and Spain.

REPAIRS: All kinds of deck and engine repairs are possible.

DRY DOCKS: There are no dry docks in this port. (The nearest is at Puerto Cabello).

SURVEYORS: All Classification Societies and P&I Clubs are represented in the port.

POLICE/AMBULANCE/FIRE: *Police:* 26148, 26347 and 27098. *Ambulance:* 22165. *Fire:* 22165 and 22587.

REPATRIATION: There are all kinds of facilities for making crew changes and arranging any necessary repatriation.

AIRPORT: The distance to the International Airport at Maiquetia is 10 km., this is served by different regular airlines.

TIME: GMT minus 4 hours. No change.

HOLIDAYS: January 1st, (New Year); February 18th/19th, (Carnival); April 3rd/4th (Easter); April 19th, (Independence Day); May 1st, (Labour Day); June 24th, (Carabobo Battle); July 5th, (Independence Day Declaration); July 24th, (Simon Bolivar's Birthday); September 4th, (Public Funcionary Day); October 12th, (America Discovery); December 25th, (Christmas).

TELEPHONES: It is not possible to place telephones on board, however calls can be made in the "CANTV" office.

SERVICES: There are no special services available. Radar repairs possible.

SHORE LEAVE: Crew members can go ashore with shore passes issued by the Port Authorities.

IDENTIFICATION: Shore passes are sufficient to go ashore.

REGULATIONS: *Dangerous Goods:*

1. Dangerous goods should be discharged directly to trucks.
2. When goods are grain or powder in bags, these should not exceed 50 kg.
3. Cargo with damaged packing will not be discharged and it should be repacked on board.
4. Cargo should be duly identified and with their dangerous goods labels.
5. Cleaning of the piers after loading or unloading should be done by the importer or exporter, otherwise they should cover the expenses if the INP has to do this cleaning.

OFFICIALS: Once the vessel is anchored at La Guaira, Representatives of Customs, Port Captain, National Guard, Health Service, Immigration and Agency board the vessel.

DEVELOPMENTS: Increase in draft to 35 ft. expected.

AUTHORITY: Harbour Master, Capitania de Puerto, Terminal de Pasajeros de La Guaira.

MARACAIBO LAKE (See Plan)

Including, Section A – BAJO GRANDE
Section B – LA ESTACADA
Section C – LA SALINA
Section D – MARACAIBO
Section E – EL TABLAZO
PUERTO MIRANDA
Section F – PUNTA DE PALMAS
Section G – SAN LORENZO
LA CEIBA

GENERAL: The following "Depth Bulletin", dated June 1978, was received from a Shipmaster in February 1979.

REPUBLIC OF VENEZUELA
NATIONAL INSTITUTE OF CANALIZATIONS
ZULIA ZONE

Depth Bulletin No. BP – 6-78 Dated: 13-06-78

The following data represents the latest information reported and refer to the date shown for each section of the channel. Depths are expressed in metres and are related to the same level of the local Navigation Charts 1001, 1002, 1003 and 1004 of the M.M.M. Mean Monthly Lowest Low Water.

The controlling depths refer to the centre area of the channel demarked by parallel lines on either side at a distance of 60 m. in the outer channel and 45 m. in the rest of the channel. The Puerto Miranda Channel is of 30 m. The theoretical position of the buoys in the aforementioned navigation charts are located at a distance of 30 m. from the edge of the channel.

Main Channel

Channel	From	To	Date	Depth (m.)	Remarks
Outer Section	B – 1	B – 28	19-05-78	12.8	
Inner Section	B – 28	T – 56	10-05-78	12.8	
South Prolongation	T – 56	B – 59	28-04-78	12.8	Entrance to Puerto Miranda (B – 59)
	B – 59	B – 66	26-04-78	12.8	Entrance to La Estacada (B – 66)
	B – 66	B – 76	10-03-78	12.8	Entrance to the Port of Maracaibo
	B – 76	B – 86	24-05-78	13.1	Entrance to Bajo Grande (B – 86)
	B – 86	B – 96	07-02-78	13.1	Entrance to La Ensenada
	B – 96	Parallel 10° 22′ N	14-02-78	12.8	Entrance to La Salina Channel (B – 97 and 10° 22′ N)
	Parallel 10° 22′ N	M – 1	14-02-78	13.1	Entrance to Lake Main Channel (M – 1 and M – 1)
Puerto Miranda Channel		AP – 2	11-05-78	11.6	

Signed.............................
The Port Captain

Signed.............................
The Director N.I. of Can.
Zulia Zone

(N.B. Certain information common to all Vessels entering Maracaibo Lake is given below. For specific details of ports/terminals within the Lake, see relative Section as indicated above).

FLAG: Local authorities require that the Venezuelan ensign be flown at vessel's masthead, from the time of entering the outer channel until clear of the outer channel outbound.

DOCUMENTS: *(a) Inward Clearance for Scheduled Vessels:* Vessels arriving in ballast or with cargo in transit require following documents:
1 copy Sailing Permit from Last Port.
2 copies Ballast Certificate.
4 copies Passenger Lists.
4 copies Baggage Lists.
4 copies List of Passengers in Transit.
4 copies List of Slop Chest.
4 copies List of Personal Effects.
4 copies Stores Lists.
5 copies Crew Lists.
Vessels arriving with cargo should have, in addition to the foregoing:
4 copies Sobordos (Venezuelan Inward Manifests).
6 copies Bills of Lading.
2 copies Inward Manifests.

(b) Inward Clearance for Diverted Vessels: Vessels diverted to Maracaibo Lake Ports to load cargo, should submit all documents indicated above, except consular mail, which they will not have.

Vessels diverted at sea to Maracaibo Lake Ports which do not have a Venezuelan clearance on board, must advise loading port via radio to arrival, the name of vessel, Master's name, vessel's flag, Venezuelan net tonnage (if available, if not, the registered net tonnage), last port of call, destination port for which originally cleared, ETA San Carlos Pilot station and grade and quantity of cargo to be lifted. This information is required in order that Inward Clearance may be arranged with government officials in ample time prior to vessel's arrival. Also 3 copies of the Diversion Telegram received by vessel and signed by Master, together with copies of those documents listed under *(a)* should be presented to the Port Authorities upon arrival at Maracaibo. In the absence of this information, or of presentation of each of these documents to the Port Authorities the vessel will be subject to a fine. Please note, that the documents covered under *(a)* have to be presented upon arrival, regardless, if the vessel is not arriving with Consular Clearance or arriving after being diverted at sea.

(c) In Maracaibo 2 Clearances from Custom's authorities are needed: One for proceeding from Maracaibo to loading berth, and another after loading for proceeding from Maracaibo to destination. For this reason Custom Dispatch charges may be incurred twice.

(d) American Crew List. All non-American vessels loading for a U.S.A. port should have the American Crew List ready on arrival in Maracaibo to be visaed by the American Consulate in Maracaibo and placed aboard ship before departure. The crew list should be prepared on Immigration and Naturalization Service Form No. I. – 418 (Crew List Manifest) and should contain 2 sections:

Section 1 should list those crew members who are American or who possess individual visa documentation to the United States.

Section 2 should list, in the alphabetical order of their last names, those alien crew men who lack United States visa documentation and therefore require inclusion in the visa of the Crew List.

Only one name may be placed on each line of the Crew List. Two names should not be placed in the space of one line, nor should a full line between two names be left vacant. All copies of the Crew List presented must be legible. Occasionally the names of the crew men included on the carbon copies of some crew lists presented at the consulate are blurred beyond recognition.

The information requested under columns 1, 2 and 3 should be filled in completely. Column 1 should always contain the complete first name and middle initial of the crew man. Column 2 should show the nationality of each crew member and the number of his travel Document. Column 3 should always include the name of the port where the crew man was shipped, not simply the country.

At the time of vessel's first application for a Crew List, the Crew Lis must be presented in four copies: Original and 1 copy should contai only information requested under Columns 1, 2 and 3. 2 copies mus include following information of those crew men to be included on Cre List Visa. Column 4 should list date, city and country of each crew man' birth. Column 5 should show place of issuance of Seaman's Trave Document and name of Government which issued travel document. (is not necessary to list date of issuance of travel document).

Below is a sample line correctly entered on the Master Crew List.

(1)	(2)	(3)	(4)	(5)
Bello, Tomas E.	Z.23455 Venezuelan	Maracaibo Venezuela	December 8, 33 Caracas, Venez.	Cabimas, Venez

Upon subsequent Crew List applications by same vessel within sam year, the Crew List need be presented in duplicate only, and th information in Columns 4 and 5 need be provided only concerning an new crew members who require visa documentation. When twelv months have elapsed since presentation of Original Crew List, a Cre List should again be prepared in 4 copies and should contain all th information required in columns 1 – 5. Such a Master Crew List i required after each 12 months' period.

APPROACHES: Also see "General" above. The channels leading t the Lake of Maracaibo are called the Outer Channel, the Inner Channe and the Lake Channel. The controlling depths of the Outer Channe Inner Channel and the channel Southward to Buoys M1 and M2 ar normally 45 ft. At certain times the controlling depth may be less. A such times suitable notices are published advising mariners of thes temporary reductions of controlling depth.

Outer Channel. The Outer Channel starts at the E.M. Buoy in positio 11° 13′ 47″ North and 71° 33′ 31″ West. The light characteristics of E.M Buoy are: flashing white every 5 seconds, visibility approximatel 5 miles. The distance from E.M. Buoy to the Southern end of the Oute Channel, marked by Buoys B – 27 and B – 28, is approximatel 15.75 miles. The channel is 1,000 ft. wide and has a normal controllin depth of 42 ft. minimum monthly observed lowest water (MMOLW) wit tidal range varying about 2 ft. 3 in. This depth is maintained by periodica dredging. Tankers are required to have a keel clearance of at least 2 f and dry-cargo vessels a keel clearance of at least 3 ft. Vessel navigating the channel at the maximum allowable draft are confine from 2 hours before to 2 hours after high water. There are no turns i the channel and the course is 189°.

There is a breakwater 0.5 mile East of, and parallel to, the Oute Channel and extending 1.6 miles Northward from the North side o Zapara Island. The end of this breakwater is marked with a skeleto steel tower with a light 27 ft. above sea-level. Light characteristics - flashing white light every 8 seconds; visibility about 3 miles.

On Zapara Island there is a skeleton iron tower with a height of 136 f above sea-level.

Cross currents are sometimes encountered near Zapara, San Carlo and Pescadero Islands, especially at low water when the cross current are strong. Overtaking at these points should be avoided.

There is one anchorage zone in the Outer Channel which is trapezoid on the port side when navigating inbound near the Buoys B - 14, B – 15, B – 16 and B – 18. All buoys in the Outer Channel ar equipped with radar reflectors.

Caution: Masters are warned to keep adequate speed in the Oute Channel even when embarking the Pilot as strong cross currents ar encountered near San Carlos and Zapara Island. Pilot boats are fa and fitted with a flying bridge.

Inner Channel. The Inner Channel continues on the same course a the Outer Channel for about 10 miles, whereafter the direction change to 150°. Entire length of the Inner Channel is about 12 miles.

The beginning of the Inner Dredged Channel is marked by Buoy B – 29 and B – 30. Channel is marked by beacons, and terminates beacons T – 55 and T – 56. The channel is 800 ft. wide and the norm controlling depth is 43 ft. MMOLW with tidal range varying fro 1.5 ft. to 2.5 ft.

The channel from beacons T – 56 to Maracaibo Harbour is a dredge channel, the end of which is marked by Buoys Nos. B – 73 and B – 7

About 0.2 mile South of Buoys B – 29 and B – 30, there are locate 2 towers – 1 on each side of the channel, and about 1 mile further Sou are 2 more towers. These 4 towers are marked E – 31 and E – 3 (North) and E – 33 and E – 34 (South). Towers No. E – 31 and E – 3 are of single steel pipe construction on a concrete pile base. Tower No. E – 33 and E – 34 are of skeleton steel construction (former oil-we derricks) each mounted on 4 concrete piles. The characteristics of thes towers are:

Tower No.	*Height above LWS (ft.)*	*Light*
E – 31	43	Green – Fl.
E – 32	43	Red – Fl.
E – 33	123	Green – Fl.
E – 34	128	Red – Fl.

Vessels are not allowed to overtake each other in the Inner Chann between Buoys B – 29 and B – 30 and Light Beacons T – 25 and T – 2 Vessels may overtake each other in the Inner Channel between Lig Beacons T – 39 and T – 40 after having exchanged prescribed signa with the vessels to be passed. This manoeuvre is, of course, allowe only if conditions are favourable and no vessel navigating in the opposi direction is in sight.

Lake Channel. The channel starting at Light Beacons T – 39 and – 40 and leading to Maracaibo Roads is called the Lake Channel. Th is a natural channel 3,000 ft. wide and 11 miles long.

The Main Channel through Maracaibo Lake is approximately 83 mil long, not less than 244 m. wide and with a greater depth than the out channels.

The access channels to the various ports and terminals branch from the main channel as described under Section for each port.

CHANNEL NAVIGATION:

(a) Inbound vessels leave to starboard side the buoys and beacons marked with even numbers and to port side the buoys and beacons marked with odd numbers.

(b) Outbound vessels shall leave to port side the buoys and beacons marked with even numbers and to starboard side the buoys and beacons marked with odd numbers.

(c) Vessels should pass as close as possible to the channel's edge on starboard side. Loaded vessels have preference.

(d) Approaching vessels are to reduce speed in order to minimise the suction force of the displacing waters.

(e) Vessels must maintain a distance of 5 ship's lengths by day and 8 ship's lengths by night from other vessels navigating in the same direction.

(f) No vessel should start to manoeuvre to overtake another vessel before having received clearly the affirmative signal from the ship to be passed.

(g) A grounded vessel is not allowed to start any manoeuvre when another vessel is passing.

(h) Dredgers are frequently at work in the channels and caution should be exercised in passing them. Signals used by the dredgers are as follows:

Daytime

Black cylinder hoisted on side of yardarm: You can overtake me on the side on which the cylinder is shown.

Two black balls over the bridge: The channel is blocked.

Night

Green light on side of yardarm (a white light on mast-head helps to show on which side the green light is placed): You can overtake me on the side on which the green light is shown.

2 red lights over the bridge: The channel is blocked.

The tidal range is 4 ft. at neaps.

(i) Maximum speed for vessels navigating in lake channels has been limited to 10 knots. Masters should exercise the utmost care in complying with this regulation as heavy fines may be imposed to offending vessels.

PILOTAGE: (N.B. Maracaibo Pilotage Regulations require that inbound tankers, in ballast, while crossing the Bar, shall not have greater than 8 ft. difference between fore and aft draft. The Government Pilot will not take the vessel if this requirement is not met, unless he is satisfied that the actual draft of the vessel will permit safe navigation through the Outer and Inner Channels).

Every Master of a vessel navigating in Lake Maracaibo who desires to enter the main ship channel in Pilotage Zones No. 1 or No. 2 must first ensure that said Channel is free of traffic.

The limits of the Main Ship Channel in Pilotage Zone No. 1 are from Buoys B1/B2 located at the entrance to the Outer Bar Channel and Buoys B73/B74, of the city of Maracaibo. Pilotage Zone No. 2 begins approximately 1 mile below Maracaibo and extends Southward to Lightfloats M36/M37. All other channels are considered as access channels to their respective port zones and subject to special local rules. Every vessel navigating to or from any port in Lake Maracaibo must follow the prescribed routes through the main and access channels leading to or from such ports, (unless special permission has been granted to do otherwise).

(a) Pilots are employees of the Venezuelan Government and act in an advisory capacity; the Master retains responsibility for the ship at all times. In the event it becomes necessary to disregard the Pilot's instructions in order to ensure the safety of the ship, the Master must prepare a full written report of the circumstances, for delivery to the Captain of the port.

(b) Inbound vessels have the option at present to embark government Pilot at the following areas:

(i) In the channel off San Carlos Pilot Station between Buoys B – 24 and B – 26.

(ii) Anchorage area approximately 5.5 miles N.E. of Pilot station, San Carlos Island. Position 11° 04′ 22″ N., 71° 33′ 48″ W. East of Buoy B – 17. This area is demarcated with green light buoy equipment with radar reflector.

(iii) At the E.M. Buoy.

(iv) At Punta Cardon. See "Note", "Agent's Notice" and "Shipmasters' Reports" – August 1979, July 1981 and August 1981.

(c) The Port Captaincy of Maracaibo is unable to guarantee embarking or disembarking Pilots at the E.M. Buoy or at anchorage area position. For this reason Masters should communicate with San Carlos Pilot Station for necessary instructions as to where to pick up Pilot, who usually embarks between Buoys B – 24 and B – 26. The communication system between San Carlos Pilot Station and vessels will be by Morse lamp and radio-telephone. The stand-by frequency at San Carlos is 2182 kHz. Other existing frequencies are 2120 kHz and 2080 kHz; 156.6 and 156.8 MHz. Each pilot launch has a radio-telephone with 2182 kHz. frequency. The launch that leaves San Carlos Pilot Station with Pilot for ship, takes approximately 20 to 30 minutes to cover distance, and distance between buoys and San Carlos is approximately 6 miles or 10 km.

(d) Pilot Permit to navigate the Outer Channel without aid of a Government Pilot will be granted to those Masters who desire to obtain same. In order to fill the application required, a blank sealed paper and 3 copies should be signed by Master on arrival. Copy of this solicitude duly endorsed by Port Captain of Maracaibo, will serve the Master as temporary permit until the official one has been received. Masters in possession of permits to cross the Outer Channel without a Pilot, have the option to enter channel either at the E.M. Buoy or between any other buoy, taking into consideration the heavy traffic of the channel. Government pilotage through the Inner Channel is compulsory at all times.

(e) Outbound vessels will receive Pilot in Maracaibo, who will Pilot vessel up to San Carlos area approximately between Towers E – 31 and E – 33, where he will disembark. The Port Captain of Maracaibo has instructed that all Masters should always in ample time identify themselves with the San Carlos Pilot Station by radio-telephone regardless of time of day. While inbound – between Buoys B – 17 and B – 19 and sailing outbound – between Markers T – 42 and T – 40. These instructions are obligatory and are required in order for the Pilot service to be aware, at any moment, of any emergencies which may arise, and also to avoid, especially during the night, the launch departing with an official Pilot aboard believing that the ship in sight needs his services, in which case, even though the launch or Pilot services are not rendered, the same will be charged to the company owning the ship, or its representative.

Note: A Master approaching the port for the first time must pick up a Pilot in Punta Cardon before entering Maracaibo Lake Channel. In the case of contravention the vessel will be intercepted by San Carlos Pilot Station and returned to Punta Cardon with a resulting loss of at least 1 day and the Master may also run the risk of a possible fine.

Furthermore, the Master should cable ETA via Curacao Radio 72, 48 and 24 hours before arrival in order to allow sufficient time for Agents at Maracaibo to send a Pilot to Punta Cardon.

Agent's Notice: September 1987.

Subject: Pilot Service from/to Punta Cardon.

Harbour Master's Office has issued new regulations mentioned below.

1. Pilot service from Punta Cardon is only compulsory when Masters are crossing the channel of Lake Maracaibo for the first time. If this is not the case, the pilot should be then embarked at San Carlos.
2. Upon your request this pilot service can be arranged by the agency.
3. On departure, pilot service to Punta Cardon is not required.
4. If official pilot is unable to disembark at San Carlos due to difficulties on board or by force majeure, or if you decide to change the instructions given to the agency with regard to Pilot to disembark in San Carlos, a letter addressed to the Harbour Master stating your reasons should be handed to the Pilot before he disembarks in Cardon.

TONNAGE: Venezuelan Port Authorities base part of their pilotage charges on the size of the vessel, i.e.:

(a) On Registered Net Tonnage. Venezuela will accept the tonnage of ships registered in countries with which they have a reciprocal tonnage agreement. As of this date, such countries are:

Denmark
France
Germany F.R.
Great Britain
Ireland
Netherlands
Norway
Portugal
Sweden
U.S.A.

(b) On Venezuelan Nett Tonnage. Ships not registered in countries listed above, when calling at Venezuelan ports for the first time, must be measured for Venezuelan tonnage by the Captain of the Port. It is the usual practice to take ashore the ship's Panama Canal or Suez Canal Certificate, which is used as a basis for recalculating tonnage under the Venezuelan regulations, and return it before sailing. The Venezuelan admeasurement certificate, when later issued, is forwarded to the Owners. A fee is charged for this certificate, which is payable only on the ship's first call.

(c) In practice, the procedure for stating the tonnage of all ships entering the Lake of Maracaibo is as follows: The inward Pilot boarding the ship presents Master a form on which among others the Master should fill in the tonnage of ship. Pilotage charges are based on this tonnage given by the Master. Master's attention is drawn to the fact that the Venezuelan nett tonnage is usually higher than the International nett tonnage. Care should be taken if an old Venezuelan nett tonnage certificate is on board, because the country in which the ship is registered might later have signed the reciprocal tonnage agreement with Venezuela. If the pilotage charges are made on basis of a higher tonnage than the one that should be applied, it is later very difficult, if not impossible, to get a refund.

CUSTOMS: *(a) Customs Watch.* While vessel is in port, Venezuelan National Guard Officials are assigned on board to ensure compliance with customs regulations. The Law requires meals be supplied to these officials during regular meal hours. Masters are requested to give them the privilege of eating in officers' messroom, to avoid difficulties.

(b) Firearms and Ammunition. Firearms must not exceed one per officer nor may the ammunition exceed 18 cartridges per officer. All firearms and ammunition must be carefully declared on Stores List and should be collected and held in Master's safe custody while vessel is in Venezuelan waters.

(c) Contraband. Strict compliance with the Customs law of the country is enforced by the authorities, and Masters are strongly advised to caution crew members against attempting to smuggle cigarettes. 1 open package per person is allowed to be carried ashore, but greater quantity will result in fine and imprisonment of the offender as well as lost ship's time. Due to very strict enforcement of the Customs regulations, it is recommended that no goods be carried which are not shown on Stores List. Any new articles (clothes, shoes, etc.) should be included in Stores List and marked as personal belongings. If during a check-up by Customs, articles considered as contraband are found, this will not only mean confiscation of these articles, but also hours or days of lost ship's time, while the case is handled at court.

CONSULS: The following nations maintain consular representative in Maracaibo:

Belgium
Chile
Colombia
Costa Rica
Denmark
Ecuador
El Salvador
France
Germany F.R.
Great Britain
Guatemala
Italy
Netherlands
Nicaragua
Norway
Panama
Peru
Portugal
Spain
Sweden
Switzerland
United States of America

TIME: Local time is GMT minus 4 hours.

VISITORS: All visitors to ships are prohibited except those company employees, petroleum inspectors, etc., whose duties require their presence aboard.

PASSENGERS: Passengers will not be permitted to disembark unless in possession of the required visa and documents. To facilitate clearance, if passengers are carried, the Master should include advice to this effect in his radio ETA.

POLLUTION: The Laws of Venezuela are very strict in regard to the pollution of harbour and coastal waters by oil, and heavy fines are imposed for violations. No dirty ballast, oil or bilge slops are to be pumped or allowed to escape overboard. All overboard discharge valves from cargo tanks and bilges are to be secured before loading or discharging commences. Loading is to be conducted with greatest care and vigilance in order that errors or delays in handling cargo valves may not result in overflows. All deck scuppers should be plugged before loading to avoid harbour contamination should an overflow occur. The Authorities require a written report to be submitted by the ship involved in the event of an oil spill.

SEAMAN LEFT BEHIND: Sailing may be withheld until all crew members are aboard with exception of those ashore for justified reasons. It is important that Masters bear in mind that the Venezuelan Law will at all times hold the vessel's Master, Agent, or Owner responsible for any seamen left behind in Venezuela.

SHIPMASTER'S REPORT: August 1979.

MARACAIBO/EL TABLAZO AND APPROACHES

Approaches: If making for the "EM" Buoy direct, positions can be a bit vague due to the low lying coast.

A distance off the coast can be obtained before the "EM" Buoy but no real firm position.

Often there is a strong N.E. wind.

Pilot: In the 'Pilot Book', etc., mention is made of picking up the Pilot at Punta Cardon.

From the Pilots and Agent I have a clearer idea of the official viewpoint and requirements.

There is NO compulsion to take a Pilot before San Carlos.

If you are unsure of the area and the visibility is poor from all sources and in my personal viewpoint it is advisable to take a Pilot at Punta Cardon, giving ETA 12 hours in advance.

If vessel is to pick Pilot up at San Carlos send cable 24 hours beforehand through Curacao "PJC" to 'Piloto San Carlos' requesting permission to use Canal Exterior, ETA at "EM" Buoy and at San Carlos. Reconfirm 12 hours before "EM" Buoy and by VHF an hour before arrival on Channel 12.

The difficulty lies in language, although there is meant to be a traffic control system in Canal Exterior it is only in Spanish and the Co-ordinator speaks little English. Little information is required or given if you only speak English.

The Punta Cardon Pilot costs about U.S.$150 extra plus transport charges and entails extra distance of 70 miles from the West and 15 miles from the East.

The San Carlos Pilot boards from a fast launch at "B28" Buoy and usually leaves just before the buoy. He will use hoist, in spite of official regulations which require gangway ladder arrangement, and leaves on port side outward (boards on starboard side inward). This is nearly always the case with situation of pilot station and wind, but may change.

Communications: Venezuelan station La Guaria (YVG – ALRS 6225). Most vessels use Curacao "PJC", very good. Agents reply through "PJC". Telex very good.

VHF: Call 'Piloto San Carlos' on Channel 16 (working Channel 12). Agent at Maracaibo on Channel 16 (works Channel 14, only during office hours). Agent at La Salina on Channel 16 (works Channel 14, 24 hour service but very distorted at El Tablazo).

Canal Exterior: Leads from "EM" Buoy to San Carlos pilot station. A speed of 10 to 12 knots essential to keep vessel in channel on account of strong N.E. winds and currents across channel. Takes about 1 hour 10 minutes from "EM" Buoy to San Carlos.

The least advertised depth at LW is 12.8 m. but shoals quickly at sides of channel. We found 11.0 m. LW to West side of channel at "B18" buoy.

Buoys "B14", "16" and "18" had shifted about 200 m. to West (August 1979). On the outer section of channel between "B4" to "B8" Buoys a Westerly set right across channel very apparent and near Malecon Breakwater. At "B22" Buoy an Easterly set experienced. Wind N.E. 4 – 5 tide 1 hour before and 1 hour after HW Malecon both cases.

The "E 34" pylon light off Pta. Diablo is very conspicuous. A new dredger 'Wado' works this section with North end Canal Interior. A large suction dredger, pulls to side of channel to let vessel pass. Only Spanish and German spoken. The old 'Zulia' dredger has stopped working. Another dredger is being completed for the Government.

Canal Interior: About 1.5 hours pilotage to Puerto Miranda, speed above manoeuvring. This channel is generally deeper than Canal Exterior. The advertised depth of 12.8 m. seems reliable. Pilot told me they hope to get both channel Interior and Exterior deepened to 15 m. LW in the near future.

Pile Light Beacons "T46" and "T40" have been replaced by buoys.

Pratique: Given on berth.

Notice of Readiness: Can be tendered on arrival at berth. It is finally brought down with Bill of Lading on completion. This is normal practice. As we were cooling down it was received at completion of cooldown. Normally on berthing with lines connected.

EL TABLAZO:

Pilot: A Docking Pilot boards just before berthing and unberthing of vessel.

Tugs: 2 tugs of 1,800 h.p. Secure in "American" style using their lines.

Situation: For all intents and purposes part of Puerto Miranda but operated by different company.

Located just S.E. of Puerto Miranda berths. El Tablazo consists of 3 piers. Bulk, liquid and a small soda pier.

Anchorage: At El Tablazo – off berth, just East of main Maracaibo channel. Good holding – 3 shackles.

Pier: The bulk pier handles bulk and bagged urea fertiliser through 4 shiploaders fed from a conveyor. Three on the South side and 1 on the North side. Two of the loaders on the South side handle bagged urea down corkscrew chutes.

The liquid pier is to the South of bulk pier – berth both sides and handles ammonia, butane, propane, propylene.

Two Chicksans each side. The inshore being of 10 in. both sides and seaward being of 8 in. but fed by 10 in. line. Couplings are 300 ASA but 150 ASA spool pieces generally fitted.

Vapour lines are flexible stainless braided with rubber covering – ship's derrick required, 300 ASA coupling with 150 ASA spool piece. All berths – head IN. On the South side the outer edge of the dredged channel is marked by buoys.

All berths have good rubber fenders. Liquid pier outer end has two full faced mooring dolphins connected to main pier by catwalk. The least depth at all berths at LW is 6 fathoms, except small soda berth which has 2 fathoms at LW.

Moorings: 2-3-1 each end. Ship put alongside pier before moorings out. Plenty of mooring gangs. Very particular on position to within 0.5 m. Gangway no problem.

Fresh Water: At 15 t.p.h. from pipe at manifold amidships. There is a pumped supply at 70 t.p.h. used for loading small tankers to take to outports where supply is limited.

Operations: Language problems. There is one Loading Master who speaks good English. Surveyor on arrival and departure. Very co-operative. Venting allowed up riser.

Vapour return line goes to flare at ship's expense and can only be used if 100% product.

Max. rate ammonia 500 t.p.h., but initially can get plenty of stops. S.G. given at 15°C. The control of the rate is not very fine. You can get down to 20 t.p.h. but increase very broad. Usual notice for completion.

Dock Density: 1003.

Documentation: Carried out at berth inward, sometimes vessel taken off berth outward to local anchorage and clearance given there. Sometimes in the past Inward Clearance done at Maracaibo, NOT NOW.

There is much written in publications and passed around about visaed Crew Lists and deviation cables. I have tried, in talking to the Agent and to the Authorities to clarify the situation.

Visaed Crew Lists are NOT required now. But there is still a requirement that because the ship has no visaed Crew List she must have deviated on passage.

Basically what is required is that the ship should be cleared on sailing for Venezuela to say, Trinidad, for orders or Curacao not Maracaibo, then on passage receive a message deviating her to Maracaibo. If she does not have Deviation Message a fine could be imposed but the Agent says all ships have required cable so do not know of fine being imposed.

Required:

7 Crew Lists.

3 Stores Lists. Victualling only, can include bond.

3 Slop Lists. Could probably combine with above.

2 Ballast Lists. To give amount and cleanliness.

1 Vaccination List.

3 Crew Manifests.

1 Health Declaration.

I cabled in a Pratique message as a matter of practice.

Shore Passes: Given by Agent for each crew member, no photos needed. Not required to be handed back on departure. Valid 3 days. After completion there seems to be a normal documentation delay to obtain clearance of up to 12 hours.

Shore Leave: The Agent will lay on a launch, but not really necessary as at El Tablazo liquid berth vessel is near the boat pier and fast launches run frequently to Maracaibo (takes 15 minutes). Arrange through Loading Master.

Can change sterling or dollars in local hotels, rate Bolivars to $, 4.30.

Films: Change Walport films at Puerto Miranda. Agent will send launch. Crew member has to go with films to change.

Agent: Only Agent on departure – no officials. Bill of Lading given by Terminal before Agent arrives.

SHIPMASTER'S REPORT: July, 1981.

Experienced following when entered Maracaibo Lake, mid-July, 1981.

Arrived EM Buoy and obtained permission from San Carlos Pilot Station via VHF to enter outer channel and pick up Pilot at Buoy No. 26. During the piloting the Pilot asked asked me whether I had previously entered outer channel, which I confirmed with the remark *many years ago.*

After berthed my Agent informed me that a new regulation required Ship Masters to pick up Pilot at Punta Cardon inward bound, unless the Master with said vessel had actually entered Maracaibo Lake *within the past 6 months,* for which he was automatically permitted to enter outer channel and pick up Pilot at Buoy No. 26.

Fines might be enforced upon Masters neglecting this new regulation.

SHIPMASTER'S REPORT: August, 1981.

If the Master of a vessel enters the channel for the first time, or even if *more than six months* since the last visit, he must embark the Pilot close to Punta Cardon. The distance between Punta Cardon and "EM" Buoy is approximately 80 miles.

If less *than six months* since the last visit, Master is authorised to pick up the Pilot when passing Buoy No. 26.

In the first case 24 hours prior notice should be given to the Pilot, and when approaching Punta Cardon vessel should call "Marina Cardon" on VHF Channel 16.

Section A

BAJO GRANDE: 10.29 N. 71.38 W. (See Plan)

(1) **OPERATOR:** Maraven, S.A. Oil Terminal.
(2) **OPERATOR:** Maraven, S.A. Natural gas liquids processing facilities.

(N.B. For important details of Documentation, Pilotage, etc., see "Maracaibo Lake").

(1) **OPERATORS:** Maraven, S.A.

LOCATION:
Maracaibo: On the North-Western shore of the Lake Maracaibo: Position: Lat. 10° 40′ N., Long. 71° 38′ W.

Maracaibo is the capital of the State of Zulia and seat of all Government and Consular Offices, as well as the port of entry for all vessels loading at terminals in the Lake of Maracaibo. Upon arrival at Maracaibo, a representative of the appointed Agency will go on board to assist vessel.

Bajo Grande: Loading Pier: Position: 10° 30′ 50″ N., 71° 36′ 8″ W., about 8 miles (12.8 km.) South of Maracaibo on the Western shore of the Lake and about 9,000 ft. (2,743 m.) offshore with its centre line North-South. Two vessels can berth simultaneously, one outside at Berth No. 1 and one inside at Berth No. 2.

DOCUMENTS: The following documents should be presented by the Master:

Clearance from Sailing Port with the following attached:
- Stores List.
- Crew List.
- Slop Chest Inventory.
- Ballast Certificate.

Special ballast report made up by Master.

The Maracaibo Port Captaincy, requires that the Masters of all vessels entering this jurisdiction, deliver to the Maracaibo Port Captain's representative, during his visit to ships in the Port of Maracaibo, a report which must answer the following questions concerning ballast:

(1) Port or place where ballast was taken.
(2) Quantity taken.
(3) Type of ballast and condition of same.
(4) Where deballasting operation was or is to be carried out.
(5) Approximate deballasting time.
(6) Any other pertinent information that may be required.

Crew List.	6 copies
Stores List.	6 copies
Slop Chest Inventory (Deck, engine and cabin stores listed separately).	6 copies
List of Personal effects.	6 copies
Derat Exemption Certificate.	Original
Venezuelan Net Tonnage Certificate.	Original
American Crew List.	4 or 2 carbon copies

(If required: See under "American Crew List").

Boarding Party: The boarding party usually consists of the following persons:
- One Quarantine Official.
- Two Customs Officials.
- One Sanitation Department Official.
- One Port Captain's Representative.
- One Foreign Service Department Official.
- One Vessel's Agent.

American Crew List: All non-American vessels loading for USA port should have the American Crew List ready on arrival in Maracaibo to be visaed by the American Consulate in Maracaibo and placed aboard ship before departure. The Crew List should be prepared on Immigration and Naturalization Service Form No. 1–418 (Crew List Manifest) and should contain two sections:

Section 1 – Should list those crew members who are American or who possess individual visa documentation to the United States.

Section 2 – Should list, in the alphabetical order of their last names, those alien crewmen who lack United States visa documentation and therefore require inclusion in the visa of the Crew List.

Only one name may be placed on each line of the Crew List. Two names should not be placed in the space of one line, nor should a full line between two names be left vacant. All copies of the Crew List presented must be legible (Occasionally the names of the crewmen included on the carbon copies of some Crew Lists presented at the consulate are blurred beyond recognition).

The information requested under column 1, 2 and 3 should be filled in completely.

Column 1 – Should always contain the complete first name and middle initial of the crewman.

Column 2 – Should show the nationality of each crew member and the number of his travel document.

Column 3 – Should always include the name of the port where the crewman was shipped, not simply the country.

At the time of the vessel's first application for a Crew List, the Crew List must be presented in 4 copies:

Original and 1 copy – Should contain only the information requested under Columns 1, 2, and 3.

Two Copies – Must include the following information of those crewmen to be included on the Crew List visa.

Column 4 – Should list the date, city and country of each crew member's birth.

Column 5 – Should show the place of issuance of the Seaman's Travel Document and the name of the Government which issued the Travel Document. (It is not necessary to list the date of issuance of the travel document).

Cargo documents:
1. *Master's copy of Bill of Lading* – The Bill of Lading form used is the usual Warshipoilvoy form. Masters wishing to use another form should furnish 20 blanks on arrival in Bajo Grande. Master is requested to sign 3 negotiable Bills of Lading (Originals).
2. *One copy of the Certificate of Quantity and Quality (Q. & Q.).*
3. *One copy of the Ullage Report.*
4. *Time Sheet.*
5. *Certificate of Origin.*
6. *Cargo Manifest.*

Outward Clearance:
Following documents are delivered on board by the local Agent before sailing:
1. *Customs Clearance* – Duplicate of "Conocimiento de Embarque" and Duplicate of "Manifiesto de Carga". (Both stamped and signed by Customs) or any other document specifically requested by the consignee or nominating source.
2. *Communication* – A letter from Maracaibo Customs Authorities to Authorities in port of destination.
3. *Zarpe* – Permission to sail signed by Maracaibo Port Captain. This is brought on board in Bajo Grande by the outbound Pilot.

Customs Guard: The Customs Guard will request Master to countersign his time on board the vessel. This is counted from the time the first hose was connected until all hoses were disconnected, regardless of whether the vessel was receiving cargo or not.

Accommodation Ladder: Vessels must provide an accommodation ladder. The use of rung ladders, pilot ladders, etc., is contrary to Port Regulations. Port authorities will board only by means of an *accommodation* ladder. it is recommended to rig this in advance in order to avoid unnecessary delays.

In order to guarantee the security and safeguard the lives of the officers that board the vessel inbound in Maracaibo, it is imperative that Masters strictly comply with the following precautionary measures:

(1) Each of the components and functional parts that holds together or supports the gangway ladder must be maintained in excellent condition.

Therefore, wire ropes, guide blocks and bolts etc., found to be defective or in bad condition must be immediately replaced.

(2) For maximum security, each time that your vessel arrives in this jurisdiction, the above mentioned mechanisms should be thoroughly checked and tested by the personnel aboard vessel before the gangway ladder is used by the boarding party.

APPROACHES:
Channels leading to Lake Maracaibo: The channels leading to the Lake Maracaibo are called the Outer Channel, the Inner Channel and the Lake Channel.

Outer Channel: The Outer Channel starts at the E.M. Buoy position: Lat. 11° 13′ 47″ N., Long. 71° 33′ 31″ W. and ends at the Zapara Island, a distance of about 14 miles. (About 22 km.).

The light characteristics of E.M. Buoy are: flashing white every 5 seconds, visibility approximately 5 miles.

There are no turns in the channel and the course is 189°. The channel is 100 ft. wide and has a normal controlling depth of 44 ft. LWS with tidal range varying about 2 ft. 3 in. Cross currents are sometimes encountered near Zapara, San Carlos and Pescadero Islands, especially at LW when the cross currents are strong. Overtaking at these points is forbidden. There is one anchorage zone in the Outer Channel which is a trapezoid on the port side when navigating inbound near the Buoys B – 14, B – 15, B – 16 and B – 18. All buoys in the Outer Channel are equipped with radar reflectors.

The Southern end of the Outer Channel is marked by Buoys B – 27 and B – 28.

Inner Channel: The beginning of the Inner Channel is marked by Buoys B – 29 and B – 30. The Inner Channel continues on the same course as the Outer Channel for about 10 miles, whereafter the direction changes to 150°, The entire length of the Inner Channel is about 12 miles. Beacons T – 55 and T – 56 mark its Southern end. The normal controlling depth is 44 ft. LWS. The channel is 800 ft. wide. Vessels are not allowed to overtake each other in the Inner Channel between Buoys B – 29 and B – 30 and light beacons T – 25 and T – 26.

Vessels may overtake each other in the Inner Channel between light beacons T – 39 and T – 40 after having exchanged prescribed signals with the vessels to be passed. This manoeuvre is, of course, allowed only if conditions are favourable and no vessel navigating in the opposite direction is in sight. From Beacon T – 56 to Maracaibo harbour the channel is 800 ft. wide, depth 44 ft., its end is marked by Buoys B – 73 and B – 74.

Navigation through Channels:
Inbound vessels leave to starboard side the buoys and beacons marked with even numbers and to port side the buoys and beacons marked with odd numbers.

Outbound vessels shall leave to port side the buoys and beacons marked with even numbers and to starboard side the buoys and beacons marked with odd numbers.

Vessels should pass as close as possible to the channel's edge on starboard side. Loaded vessels have preference.

Approaching vessels are to reduce speed in order to minimise the suction force of the displacing waters.

Vessels must maintain a distance of 1 nautical mile (1,852 m.) by day, or night from other vessels navigating in the same direction.

No vessel should start to manoeuvre to overtake another vessel before having received clearly the affirmative signal from the ship to be passed.

A grounded vessel is not allowed to start any manoeuvre when another vessel is passing. Dredgers are frequently at work in the channels and caution should be exercised in passing them. Signals used by the dredgers are as follows:

Daytime: Black cylinder hoisted on side of yardarm:
You may overtake me on the side on which the cylinder is shown.
Two black balls over the bridge:
The channel is blocked.

Night:

Green light on side of yardarm (A white light on mast head helps to show on which side the green light is placed).

You can overtake me on the side on which the green light is shown.

Two red lights over the bridge:

The channel is blocked.

The tidal range is 4 ft. at neaps. Observed squat in the channels is about 1 ft.

Maracaibo Lake Channel Guard Service Corps have had evidence of vessels travelling out of the navigation channel in the vicinity of Buoys B – 3, B – 5 and B – 7; this risky procedure is considered very dangerous to the safety of the channel buoys and its installations.

Masters of all ships are reminded that all vessels inbound or outbound *must* pass the EM Buoy on the port side. This operation will be registered and controlled by their electronic devices installed at San Carlos Pilot Station.

Violators of this regulation, in addition to being economically responsible for damages to the buoys and related accessories, will be prosecuted in accordance with Article 118, Section I of the Venezuelan Law of Navigation.

In view of the above, and keeping in mind the protection of the interests of your owners, we ask that you comply at all times with this regulation emanated from the Port Captaincy.

PILOTAGE: Compulsory. Vessels proceeding direct to the Bajo Grande Terminal must enter outer channel and embark Pilot between Buoys 25 and 27. After vessel arrives in vicinity of channel entrance, Master must contact *San Carlos Pilot Station* by radio telephone on Channel 16 requesting Pilot at Buoys 25 – 27. The launch that leaves San Carlos Pilot Station with Pilot for ship, takes approximately 20 to 30 minutes to cover distance, and distance, between Buoys and San Carlos is approximately 6 miles (10 km.).

Master must advise Maraven, S.A. and Agent ETA Buoys 25 – 27, 72, 48 and 24 hours prior to arrival there.

Masters of Vessels entering Lake Maracaibo for the first time must cable their Local Agent notifying this fact, in order that the Agent may comply with the Port Regulations. This security measure makes it necessary for the ship to pick up a Pilot at Punta Cardon.

The Master should notify Agent or contact Maraven, Punta Cardon by radio on Channel 12. As no Pilots are available at Punta Cardon, the Local Agent for the vessel requires 48 hours' notice in advance to facilitate making arrangements to fly a Pilot to Cardon and then have Maraven place the Pilot on board the ship.

The co-ordinates of Punta Cardon are approximately Lat. 11° 36′ N., Long. 70° 15′ W. Maraven will charge approximately Bolivares 1100.00 for this service. In addition, the ship will have to pay air fare, hotel expenses, and a higher Pilotage fee for this service. However, if the Master of a ship has previously entered the channel as an officer of a ship, he is not required to pick up a Pilot at Punta Cardon.

Masters are reminded that Pilots are authorised to leave the Jurisdiction, only when they are disembarked in Venezuelan ports. With this understanding, when special circumstances arise in which the Pilot cannot be disembarked at San Carlos and the ship is unable to enter the nearest Venezuelan port to disembark the Pilot, in this case the port of "Las Piedras", it is required that the Agent as well as the Master of the vessel, forward to the Port Captaincy at the earliest opportunity a detailed report giving the reasons that compelled the Master to take the Pilot abroad.

Pilots act in an advisory capacity only, and therefore the Master of the vessel retains full responsibility at all times. In the event it becomes necessary to disregard the Pilot's instruction in order to ensure the safety of the ship, Master must forward to Local Agent a full written report on the circumstances for delivery of same to port authorities.

The Venezuelan Pilotage Law stipulates that Pilots must be provided with the same lodging as is given an officer. In case no extra officer's cabin is available, suggest the hospital be used by the Pilot. Also, Pilot should be seated at the officers' mess for his meals.

In case of accident to Pilot while performing his duty on board, it is the responsibility of the Master to furnish the Pilot with a full written report on the accident before the Pilot leaves the vessel. The Pilot must be able to present such a report in case of a legal claim.

Note: According to new Port Regulations for vessels proceeding to the Bajo Grande Terminal, the Official Pilot (Conduct Pilot) will board to conduct the vessel to Bajo Grande and disembark; vessel will then pick-up the other Official Pilot (Docking Pilot) for berthing manoeuvres.

As a result of accidents that caused the loss of lives, the Maracaibo Port Captaincy issued a Regulation with the view of safeguarding human life at sea and other navigable waters; Official Pilots that must embark on or disembark from undocked ships, must use an automatic-inflated type life vest. This procedure is also compulsory for all persons from private or public entities that are required to go aboard vessels that are anchored, stopped or navigating in the waters of Lake Maracaibo. Likewise, at the side of the boarding ladder where the Pilot boards or disembarks, a hoist or boatswain's chair shall be placed there, and within it a life line and a gas light ready to be used in case it becomes necessary. The Port Captaincy will see to it that this Regulation is strictly complied with.

Docking Pilot: The Government's Pilot will assist in docking operations. It should be borne in mind that Pilot acts as adviser only. The Master retains full responsibility at all times. Any damage incurred to vessel or loading platform which may be deemed to have been caused by the Mooring Pilot's fault or negligence, may be held against the ship.

Undocking: Government's Pilot will assist in undocking. Two tugs will be used as for docking and undocking.

ANCHORAGE: The Pilot will not manoeuvre the ship into anchorage, but will indicate the proper location to anchor. Care should be taken because of small boat traffic.

MAX. SIZE: The following restrictions in size and draft upon loadin exists for vessels docking at Bajo Grande:

	Maximum Loading Draft	*Maximum Vessel Size*	*Max. displacement upon Berthing (tons)*
Outside Berth (No. 1)	39 ft. 00 in.	55,000 d.w.t.	42,000
Inside Berth (No. 2)	32 ft. 00 in.	36,000 d.w.t.	20,000
Berth (No. 3)	39 ft. 06 in.	85,000 d.w.t.	105,000

RADIO: *Information to be cabled to Local Agents 3 days prior to arriva*

1. *Flag:* If the vessel has loaded in Bajo Grande before or is listed i the Tanker Register published by H. Clarkson & Company Ltd., London the nationality of the vessel need not be cabled.

2. *Sailing port and at which other port vessel will call in this area* For clearing the vessel in and out of Maracaibo, local ship Agents mus know beforehand from where the ship comes and which other port i will call in this area. Therefore, it is of importance to inform Agents whether the vessel will load part cargo or bunker, at which terminal, and whether inbound or outbound.

3. *Port for which vessel is cleared:* In case the vessel was diverted *en route* and consequently is not cleared for Maracaibo or one of the terminals in the Lake of Maracaibo, the Local Agents must obtain from authorities special permit for the vessel to enter the Lake of Maracaibo

4. *Ballast Certificate:* If the vessel arrives in ballast a "Ballas Certificate" is mandatory. A fine against the vessel will issued by the Port Authorities if vessel does not have this certificate.

5. *Estimated Time of Arrival:* Cable ETA San Carlos Pilot Station Buoys 25 – 27 (See "Pilotage") or, if the vessel is taking part cargo o bunkering inbound, cable ETA, bunker or first loading port. Please use local time if possible (4 hours behind GMT).

6. *Tonnage:* If the vessel has not loaded at Bajo Grande before, also cable the Gross and Net Tonnages. To determine whether the International or the Venezuelan tonnage should be mentioned, see General – "Tonnage Applicable".

7. *Master's Full Name:* Please sign your first message with Master's name and surname, which is also needed to clear the vessel i Maracaibo.

8. *Changed ETA:* An additional cable should be sent about 48 hours and 24 hours prior to arrival at pilot station Buoys 25 – 27 stating ETA

Proper use of Radio Frequencies: We have received several circulars from the Maracaibo Port Captaincy, requesting Terminal Operators t caution all Masters of vessels calling at Bajo Grande Terminal on the improper use of the International Distress Frequency of (2182 kHz) fo personal conversations. This procedure is contrary to the security o vessels.

A letter containing such caution will be delivered to the Master of eac vessel loading at Bajo Grande by the Agent, requesting that the Maste sign a copy signifying his acknowledgement of said letter of notice.

The International Distress Frequency was established specifically and exclusively for emergency calls such as shipwreck, fire and accidents It is also used by ships and shore stations to make first contact (VHF Channel 16) but immediately after contact is made, the operator shoul switch to one of the 52 Channels available.

9. *Compulsory use of Single Side Band Radio:* A circular letter from the Venezuelan Ministry of Communications, states that no licence wi be granted for the installation of radiotelephone stations of modulated amplitude (A3). The installation and use of Single Side Ban radiotelephone equipment is obligatory.

In consequence, the Ministry has requested that the terminal inform all users of Double Side Band (A3) radiotelephone equipment in orde that they proceed immediately to install in their ships, launches and a other marine vessels Single Side Band equipment with the sam frequencies that are presently in authorised use, which is VHF Channel 16.

The listening and Safety Station YXW – 3 installed at the Venezuela Nautical School is equipped to answer any calls on the Internationa Distress Frequency with their transmitter of 1 kW.

As a result of the foregoing, a letter containing the above informatio has been prepared by the Terminal which will be delivered to the Masters of all vessels calling at the Bajo Grande loading terminal. The Masters of all vessels are required to sign a copy of this letter i acknowledgement of receipt.

TUGS: The Venezuelan Government has ruled mandatory the use o 2 tugs for docking and undocking. Vessels over 60,000 d.w.t. will us 3 tugs for docking and undocking.

NOTICE OF READINESS: Masters are free to tender their ships a being ready to load at any place and time which, in their opinion conforms with the terms of the charter party. Terminal personne authorised to countersign the Notice of Readiness have been instructe to indicate the time vessel was all fast. This does not imperil in any wa the rights of the shipowner in his negotiations with the charterer and limits the Terminal's liability to the consignee.

CARGO OPERATIONS:

Deballasting Facilities: A Circular letter from the Venezuelan Ministry o Communications, Maracaibo's Port Captaincy, states that as of Octobe 1976, no ballast (either clean or dirty) can be discharged into Lak Maracaibo waters. Therefore, all ballast must be pumped ashore to th petroleum terminal on which vessel is to take cargo. Heavy fines a assessed for vessels violating this law and therefore we strongl recommend Masters to be particularly careful in this regard.

Shore deballasting facilities are available at Bajo Grande and a subject to no special regulations and procedures as yet. Tanker ballas water is pumped through 2×8 in. hose connections into 1×24 in. line o about 9,000 ft. in length to a 120,000 bbls. receiving basin situated o shore.

The deballasting basin is limited to receiving *only* petroleu hydrocarbons and petroleum hydrocarbons derivates. Emulsifier caustics, acids and chemical slops are absolutely unacceptabl Contamination of Lake Maracaibo waters with oily or chemical materia of any nature is strictly prohibited by Venezuelan Laws. The terminal required to report to the Authorities any such contamination by vessel docked at Bajo Grande. HEAVY FINES ARE THEN ASSESSED AGAINST THE SHIPS. Vessel's cooperation is requested to prevent contamination from tank overflows, bilge oil, line leaks or from any other source.

Tank Cleaning and Drying: Precautions as are common for any heavy oil should be taken to ensure that no ballast is left in any tank. If the cargo is contaminated with water, the water will not separate from the oil. The salt content of the oil will be raised approximately 10 lbs. per 1,000 bbls. for every 0.10% contamination by sea water. All cargo compartments must be stripped extremely dry.

Cargo pipe-line should be drained and or purged of water. On standard T – 2 type vessels, this can be done by draining the fore and aft main cargo lines, both suction and discharge sides, into the pump room bilges followed by opening of main suction valves on each individual compartment, thereby releasing water retained in dead and transverse lines. After this procedure is completed, each compartment should be restripped with stripping pumps and lines, followed by draining the stripping line to pump room bilges. On other ships equipped with looped systems it is possible to blow the system with air and drain water into the bilges. In other situations, fresh water might be used to flush cargo piping systems of salt water and in turn strip salt water and fresh water as outlined for T – 2 vessels. All deck scuppers should be securely plugged and all precautions should be taken to avoid pollution of lake waters.

Inspection of Tanks: Before loading can commence, tanks and loading system must be inspected and passed. This is usually done by the Terminal's own Cargo Inspector but, if consignee so requests, third party inspection can be arranged.

Inspection Companies available in Maracaibo are the following:
Chas. Martin Venezolana de Inspecciones
E. W. Saybolt & Co., S.A.
Redwood Petroleum and Petrochemical Division
Analistas e Inspectores Venezolanos de Petroleo C.A.
Inspecciones, S.A.
Caleb Brett Venezuela, C.A.

Line Displacement: When a vessel is loading crude and products, it is usually necessary to displace lines once or twice during loading. Masters will be advised of necessary line displacements before loading starts and are required to take note because NOTICE HAS TO BE GIVEN BY VESSEL when pumping should be stopped and tanks changed. Once shore tanks have been changed, it will not be possible to change the quantity of the product already in the ship, as shore lines will then contain a product different from the one already loaded. *Ship's gauges and/or draft should be carefully checked when calculating required quantities.*

Spillage: In case spillage occurs, the Terminal Port Supervisor must be advised immediately, as any spillage must be reported to the Authorities without delay.

There has been considerable discussion in Venezuela concerning oil spillages resulting in contamination of Lake Maracaibo. Considerable pressure is being exerted by Government agencies to eliminate all spillage, and the Terminal is making every effort to avoid contamination of Lake Maracaibo.

While vessel is at Bajo Grande take special precautions to avoid dirty ballast, bilge water or any other contaminant entering the Lake.

If a spill should occur and Terminal representative, the Government's representative of the National Guard observes that the waters of the Lake are being contaminated by any substance from the vessel the Terminal will request that vessel suspends deballasting, loading or discharging operations immediately and all consequences that might arise from this operation such as short loading, the unmooring of your vessel, fines, damages to fishermen, clean up costs, etc., *will be strictly, for vessel's account.*

We strongly recommend to Masters to emphasise to the officers on deck to endeavour to avoid spillages and to make certain that the scupper plugs are installed prior to commencement of loading operations in order to withhold on deck any spillage that might occur.

After Loading: All Butterworth plates, tanks tops and ullage plugs should be inspected to ensure against entry of water. Inspection of ullage plugs should follow on completion of temperature readings because of the necessity of taking temperatures en route. Sea suction valves should be secured by positive means until all cargo has been discharged. This may be accomplished by numbered seals, chains and padlocks. The method of securing should be noted on the inspection documents. Regardless of which method is used, appropriate log entries should be made indicating the date, time and method used and under whose supervision, both vessel officer and/or Cargo Inspector, such method was applied.

About 2 hours is required for the preparation of the cargo documents which are normally delivered on board before sailing.

Temperature of Boscan Crude and Boscan Products at Sea: On short voyages, as for instance to the U.S.A., it has proved most practical to maintain the loading temperature. On longer voyages, as for instance to Europe, the temperature may be dropped to 130°F., which does no harm as long as sufficient time is given to bring the temperature up again to that required for discharging. Masters should, however, not expect a temperature rise of more than 5°F. per day, especially if the sea temperature is low. The heat transfer properties of Boscan Crude are very poor as are those of the heavy products made from this crude. Many ships have been delayed in the discharge port due to too low cargo temperature. A temperature of 160°F. is suggested for discharging Boscan Crude, Topped Boscan and cutback asphalts.

Discharge Cargo: Boscan Crude has a flash point of 110°F. – 160°F. and a maximum viscosity of 1400 SSF at 140°F. The viscosity at other temperatures follows the pattern of other petroleum products. Boscan Crude has been successfully handled in ships fitted with both reciprocating and centrifugal type pumps with forward and after pumprooms respectively. It is generally found that this crude can best be handled at a temperature which brings its viscosity to about 600 SSF – 160°F. Vessels with forward pumproom should control stern trim so that it does not exceed about 4 ft. while stripping the after tanks. Also a 5° list is very helpful when stripping. Once the cargo gets below heating coils, tanks must be pumped empty as fast as possible. At times it has been found helpful to gather tanks strippings into a single tank for discharge ashore, as it is very difficult to strip against heavy back pressures. Watch reciprocating pumps for vapourlock. Because of high viscosity, proper care should be taken that no oil is left in vessel discharge lines at low temperature.

Tank Cleaning After Discharge Cargo: Many Masters have expressed concern over tank cleaning after discharge. Assuming that the ship proceeds to sea for this operation and has sufficient time for proper execution, vessel may be cleaned quite thoroughly using the Butterworth system. However, it is of vital importance that the system be used at maximum pressure and temperature (not below 160 p.s.i. and 170°F respectively). At these conditions and with 2 machines, it has been found that about 4 hours are required for each tank. It is of importance to keep the tanks well stripped during the Butterworthing. Some prefer to steam out the tanks before Butterworthing. If this course is adopted care should be taken that the steaming does not last more that 1 hour as the heat will drive off the light ends of the oil and leave a rubbery residue that is very difficult to remove.

It has been found helpful to keep the machines in LOW position for about 1 hour and the HIGH – MIDDLE and LOW in order, in the usual manner.

Boscan Crude and Products/Light Products:

Loading Product	*API Gravity*	*Tempera-ture °F*	*Loading Lines used*	*Normal Loading Rate B/H*
Boscan Crude	10.0 – 11.0	160	2×18 in.	15,000
Boscan Crude Blends	13.0 – 19.0	140	2×18 in.	15,000
Topped Boscan Crude	9.5 – 10.0	160	2×18 in.	15,000
Topped Boscan Crude Asph. Grade	8.0 – 10.0	160	2×18 in.	15,000
Lagomedio Crude	32.0 – 33.0	90	2×18 in.	20,000
Cutback Asphalt	11.0 – 15.0	170	2×12 in.	5,000
Asphalt Cement (Pas)	5.0 – 8.0	300	1×14 in.	5,000
Gasoil	35.0 – 42.5	90	1×12 in.	6,000
Fuel Oil No. 2	38.0 – 40.0	90	1×12 in.	6,000
Fuel Oil No. 5	21.0 – 22.0	120	1×12 in.	5,000
Fuel Oil No. 6	16.0 – 18.0	160	2×18 in.	16,000
Light Naphtha (LSR)	70.0 – 73.0	85	1×12 in.	6,200*
Heavy Naphtha (HSR)	52.0 – 53.5	85	1×12 in.	6,200*
Jet A-1	45.0 – 51.9	80	1×12 in.	6,200*

*Maximum rate due to Bajo Grande Terminal security regulations.

FUEL:

Advance Notice of Requirement: Should a vessel arriving at Bajo Grande require any bunkers, Owner or Operator must place their nomination with Maraven, S.A. via Telex No. 23535 Mara Vc as much in advance of the delivery date as possible. Telex should indicate name of vessel, ETA at Bajo Grande and quantity and quality of Marine Fuels required. A cash deposit in U.S. Dollars covering the nomination must be made prior to the delivery date into the following account:

Chase Manhattan Bank,
Chase Manhattan Plaza,
34th Floor,
New York, N.Y.
Current Account No. 001-1-992773.

Owner or Operator must also request Chase Manhattan Bank to confirm via Telex to Maraven, S.A. that such deposit has been made in order to cover the cost of bunkers to be delivered to vessel arriving at Bajo Grande at the current ETA. Only after this Telex has been received will delivery actually proceed.

Bunker Facilities: Bunkers are available from pipe-line at Bajo Grande Terminal for vessels loading and unloading cargo at Berth Nos. 1, 2 and New Pier. Bunkering rate is about 2,500 bbls.p.h. for Bunker "C", intermediate bunker fuels and marine gas oil.

Marine Fuels and Lubricants Available: Bunker fuel (sometimes called Bunker "C"), intermediate bunker fuels and marine gas oil.

Lubricants are generally available in the Maracaibo area. Should you require any, we recommend that vessel's local Agent be contacted.

Lighterage: Bunker fuel, intermediate bunker fuels, marine diesel and gas oil are also available for ships in the Maracaibo area. 72 hours' advance notice is required for barge deliveries of all products.

FRESH WATER: Delivery of boiler and potable water is made by barge, *minimum quantity 100 tons.* The barge holds about 160 tons and the pumping rate is about 25 t.p.h. Requirements should be cabled in advance to the Agent of the vessel in Maracaibo.

REPAIRS: No major repair facilities are available in Maracaibo but small repairs can be undertaken by local machine and electric shops. Shore labour can be furnished if required. Technicians are available for minor radio repairs. Nearest dry docks are at Curacao for vessels up to 30,000 d.w.t. and at Puerto Cabello, Venezuela for vessels up to 18,000 d.w.t.

CUSTOMS: *Contraband:* Strict compliance with the Customs Law of the Country is enforced by the Authorities and Masters are strongly advised to caution crew members against attempting to smuggle cigarettes. 1 open package per person is allowed to be carried ashore, but a greater quantity will result in fine and imprisonment of the offender as well as lost ship's time. Due to the very strict enforcement of the Customs Regulations, it is recommended that no goods be carried which are not shown on the Stores List. Any new articles (clothes, shoes, etc.) should be included in the store list and marked as personal belongings. If during a checkup by Customs, articles considered as contraband are found, this will not only mean confiscation of these articles, but also hours or days of lost ship's time, while the case is handled at court.

SURVEYORS: American Bureau of Shipping and Lloyd's Register have Agents in Maracaibo. Their services may be procured by cabling requests to the local Agent at Maracaibo.

CONSULS:
Following countries have consular representation in Maracaibo:

Argentina
Austria
Belgium
Bolivia
Colombia
Costa Rica
Denmark
Dominican Rep.
Ecuador
El Salvador
France
Germany F.R.
Great Britain
Guatemala
Italy
Mexico
Netherlands
Nicaragua
Norway
Panama
Peru
Puerto Rico
Spain
Sweden
U.S.A

HOLIDAYS: The Terminal office will be closed on the following days. New Year's Day (January 1st); Easter Thursday/Friday (March/April); Declaration of Independence (April 19th); Labour Day (May 1st); Battle of Carabobo (June 24th); Independence Day (July 5th); Birthdate of Simon Bolivar (July 24th); Columbus Day (October 12th); Chiquinquira's Day (November 18th); Christmas Day (December 25th); All Saturdays; All Sundays.

SHORE LEAVE: Shore Leave is permitted at the discretion of the Port Authorities; required number of shore passes will be brought on board on arrival in Maracaibo and have to be returned to the Customs Guard again before the vessel leaves Bajo Grande.

GENERAL:

Tonnage Applicable on Fees: On ships registered in countries which have a reciprocal tonnage agreement with Venezuela, the gross tonnage registered in such countries will be applied for calculating pilotage fees. Such countries are:

Denmark
France
Germany F.R.
Ireland
Netherlands
Norway
Portugal
Sweden
United Kingdom
U.S.A.

On ships registered in countries not listed above, such ships calling at Venezuelan ports for the first time must be measured for Venezuelan tonnage by the Port Captain. It is usual practice to take ashore the ship's Panama Canal or Suez Canal International Gross Registered Tonnage Certificate, which is used as a basis for recalculating tonnage under the Venezuelan regulations, and return it before sailing. The Venezuelan Admeasurement Certificate, when later issued, is forwarded to the Owners. A fee is charged for this certificate, which is payable only on the ship's first call.

Firearms and Ammunition: Firearms must not exceed 1 per Officer nor may the ammunition exceed 18 cartridges per Officer. All firearms and ammunition must be carefully declared on the store list and should be collected and held in Master's safe custody while vessel is in Venezuelan waters.

Guards: Customs Guards are stationed on the platform at Bajo Grande. They must be provided with sleeping quarters on the ship and seated in the Officers' mess for their meals. Non-compliance may cause cargo stoppage and fines. Masters are reminded that these guards are representatives of the Venezuelan Government and any uncourteous action on the part of the crew or passenger will be regarded as a slight against the Country itself.

Gangways: The ship is to supply a safe gangway, which allows easy access to the vessel. The Terminal has a gangway which may be used on request with the understanding that any damage to the gangway or ship or shore personnel through its use may be held against the ship.

Safety: Vessel must be in readiness to move at all times. The attention of Masters of turbine steamers are called to this regulation.

Ship's fire fighting equipment must be ready for instant use while vessel is alongside. Shore personnel will render assistance in an emergency but, since no fireboats are stationed in the immediate area, vessels should be prepared to combat fire without outside assistance. It is necessary to obtain Terminal's approval for repairs of propelling machinery.

Normal safety precautions apply. Smoking is not allowed on the pier. No hotwork is permitted on vessels alongside without *written* permission from the Port Supervisor. *Swimming alongside pier is dangerous and absolutely prohibited.*

Launch Service: The launch is primarily for the use of the port staff.

Taxi: Taxi service will be generally available upon request to vessel's Agent.

Visitors: According to Port Regulations concerning access to ships and loading terminals and in the interest of industrial safety, only persons directly concerned with loading operations will be permitted to board vessel or visit the loading platform at Bajo Grande.

Plimsoll Marks: The Port Captaincy requires that Plimsoll Marks be readily visible. If they are not clearly legible, permission to sail may be withheld and a fine imposed. This is applicable to inbound and outbound vessels.

We therefore, request your full compliance with this Regulation from the Maracaibo Port Captaincy.

Marine Stores/Charts: Marine stores are available in limited supply. Marine charts are not available.

Compass Adjusters: There are no compass adjusters in Maracaibo.

Seamen Left Behind: Sailing may be withheld until all crew members are aboard with exception of those ashore for justified reasons. It is important that Masters bear in mind that the Venezuelan Law will at all times hold the vessel's Master, Agent, or Owner responsible for any seamen left behind in Venezuela.

Crew in Transit: In case a crew member is left ashore for a justified cause, such as hospitalisation, repatriation, etc., his documents and personal effects are to be delivered to the vessel's Agent before sailing. A letter is required from the Master with detailed instructions as to maximum cash advance, etc. All expenses incurred by such members are for vessel's account.

Port Supervisor: Masters or their representatives are invited to call at the Port Supervisor's Office on shore in Bajo Grande or over the telephone on the pier, for any further help, information or complaints.

Terminal: Cable Address: Maraven, S.A., Maracaibo.

NOTICE: Issued by Maraven, S.A., Bajo Grande Refinery, Maracaibo.

PROCEDURE FOR BERTHING AND UNBERTHING MANOEUVRES

To the Masters of all the tanker ships arriving at Maraven's Refinery, Bajo Grande Marine Oil Loading Terminal, Lake Maracaibo, Venezuela.

Instructions concerning approaching and manoeuvres for berthing/unberthing at this Terminal.

With a view to prevent any possibility that your ship may cause damage to our installations, we shall highly appreciate it if Masters pay attention and respect to the following procedures:

1. Entrance Bajo Grande Refinery Terminal (Lat. 10° 30′ 50″ N., Long. 07° 36′ 08″ W.) is between the Main Navigation Channel Marker Buoys B86 – B88 and leaving between the Buoys BG2, BG1 and B86.

2. On ship's arrival at the Terminal Entrance Buoys, the Official Pilot, a Marine Officer, acting as a Liaison Officer of Maraven, will board the ship in order to assist her Master and the Official Pilot in all matters concerning inter-communications and co-ordination with the Terminal and on basis of his technical and local knowledge and experience give advice relative with the vessel's safe berthing/unberthing and safe mooring/unmooring to/from the pier.

3. For best manoeuvrability ships arriving on ballast or partially laden, must arrive with a draft forward which should not be less than given in the following table and a trim by the stern of about 0.75% of ship's length on ships of 400 ft. length or more.

Length	*Draft Forward*	*Trim by Stern*
400 ft.	10 ft.	3 ft. 00 in.
500 ft.	12 ft.	3 ft. 09 in.
600 ft.	14 ft.	4 ft. 06 in.
700 ft. ideal	16 ft. (nor less than 14 ft.)	5 ft. 03 in.
750 ft. ideal	17 ft. (nor less than 14 ft.)	5 ft. 08 in.

The ship's total displacement in any case should not exceed 42,000 tons for ships mooring at Berth No. 1 and 20,000 tons for ships berthing at Berth No. 2.

4. For more information please consult the instructions and information for the port which will be issued to you opportunely on your arrival for first time to this Terminal, please comply with them, and see that they are complied with.

5. *Mooring Lines:* Prior to arrival at the Terminal, the vessel shall have all the necessary mooring lines ready for use together with a sufficient number of heaving lines and the equipment and the personnel required for mooring. All the lines used for securing the ship to the berth should be of the same material, construction and of approved characteristics.

6. *Tugboats:* Minimum 2 twin-screw tugboats of adequate horsepower for the size of ships ordinarily berthing at this Terminal will assist the vessel in the berthing/unberthing manoeuvres. If the Master so request or in the case of the size of vessel and wind and/or current conditions so require, the Terminal may order the use of 3 tugboats for the manoeuvres. The tugboats, on arrival, will come alongside the ship before entering in the Terminal.

The first communication with the tugs is via VHF Channel 16 as first contact and then changed as per instructions.

7. *Berthing:* At Bajo Grande ships berth bow to North.

On approaching the berth, approaching bow to or at any angle with the berth is to be avoided.

No. 1 Berth (Outer Berth): The ship will be put in a position parallel and abeam to the berth at a minimum distance of about 50 m. or more, depending upon the prevailing conditions of wind and current.

Once in this position and with the ship motionless or almost motionless, the Liaison Officer will assist you and the Official Pilot in the manoeuvres to nurse the ship alongside sideways with the tugs which, generally, will be alongside the ship's side opposite to the side the ship will berth, already made fast and ready to push.

When the manoeuvre is carried out for berthing to No. 1 or Outer Berth, the starboard anchor will be in cockabill position ready for use in case needs arise and in such case the aft tugs or both immediately ordered to pull on reverse.

It will be avoided to haul the mooring ropes secured to the North platform bollards in order to pull the vessel forward. If need arises the ship's engines may be used to move the ship.

8. *Unberthing:* The use of spring lines must be avoided in order to veer the ship on the mooring platform for clearing the vessel's bow or stern while unberthing. These spring lines will be only used in case of extreme emergency.

After all the mooring lines have been cast off, the ship will be towed sideways away from the berth to a distance where she can safely proceed under own power.

The Official Pilot for manoeuvres and Liaison Officer will disembark when the ship is safely free away and offering no risk to the dock.

Maraven will not permit berthing or unberthing without a Maraven Liaison Officer being onboard.

Note: According to new Port Regulations for unberthing, 2 Official Pilots will board; for unberthing manoeuvres and to conduct the vessel to the Outer Channel, respectively. The undocking Pilot disembarks at Bajo Grande.

9. *No. 2 Berth* (Inner Berth): The same procedure hereinbefore described for berthing at No. 1 Berth will be followed for berthing at No. 2 Berth. The ship will be put first parallel to the berth and then the vessel nursed alongside with the tugs. For unberthing, manoeuvres will be the reverse. During berthing and unberthing manoeuvres, ship's engine(s) will be used only when it becomes necessary.

At this berth anchors must not be used because of submarine pipe lines laid there. In this berth the distance from it must not be more than 50 m.

10. *Emergency Towing-Off Wire:* Whilst berthed alongside the platform, emergency towing-off wire-ropes should be rigged both on the offshore bow and quarter of the ship, with their loops kept near the waterline at all times where the tugs can easily and quickly pick them up.

The wire-ropes should be in good condition and of suitable strength for the ship's size. The wires should be properly led outboard through the nearest fairleads leaving sufficient wire-rope coiled on deck and free to go when the tug hauls and of adequate length to tow her safely off the Terminal.

The overboard length of rope should be adjusted as the drafts decrease or increase.

11. *Mooring Lines Whilst at Berth:* Mooring lines should be periodically inspected and attended to ensure that they are kept taut in order to minimise and movement of the ship along or away from the berth.

In the case of ships equipped with automatic tension winches, the brakes of the winches should be applied and the mooring lines handled on manual operation when required to take up slack or pull them taut.

12. *Safety Practices:* While the ship is lying at the Terminal the Master will ensure that all the safe practices in loading or discharging oil products and related operations are complied with on his ship and also ensure the maximum co-operation between the vessel's crew and the Terminal personnel in their mutual interests of safe and efficient operations.

DEVELOPMENTS: A second jetty, North East of the first jetty, is in service and accepts vessels up to 80,000 d.w.t. (Summer).

Other characteristics are:

(a) Capacity: One vessel only.
(b) Length: 1,114 ft.
(c) Max. Draft: 40 ft.
(d) Lighting System: Yellow lights (completely lighted); and flashing red light through the wharf.
(e) Loading Arms: 2 hydraulic loading arms of 10 in. and 1 for bunkering of 6 in.
(f) Cargo Facilities: Only black oils. Crude and fuels.
(g) Bunker Facilities: Intermediate bunker fuels, bunker fuel and marine gasoil.
(h) Loading Rate: Approx. 17,000 bbls./hr. for cargo.
(i) Fire-extinguisher System: Modern fire-extinguisher system has been set up to serve both jetties. Operates with water and foam or water only.

AUTHORITY: Maraven, S.A. – Bajo Grande Refinery, P.O.Box 93, Maracaibo, Venezuela 4033A. *Tel:* (061) 202673. *Telex:* 61254, 61161. *Contact:* Captain N. Arceo, Terminal Supervisor.

(2) OPERATORS: Maraven, S.A.

LOCATION: S.W. of channel Buoys B – 87 and B – 88.

The installations for processing natural gas liquids at Bajo Grande processes liquids for Maraven, S.A., and they are known as Product Owners. The Plant is situated in Bajo Grande, approximately 10 miles to the South of the Port of Maracaibo, on the West bank of Maracaibo Lake.

FLAG: The local authorities require the Venezuelan flag to be hoisted to the top of the vessel's mast from the time it enters the outer channel on arrival, until it leaves the outer channel on departure.

DOCUMENTS: *Customs Clearance for Programmed Vessels:*

Vessels which arrive in ballast or with cargo in transit, require the following documents (with additional file copies if these are required):

(A) Clearance from the last port
2 copies – 1 visaed Ballast Certificate
4 copies – 2 visaed Passenger List
4 copies – 2 visaed Lists of Equipment
4 copies – 2 visaed List of Passengers in Transit
4 copies – 2 visaed List of Mess Equipment and Spares
4 copies List of Personal Effects
4 copies – 2 visaed List of Stores
5 copies Crew Lists.

Vessels which arrive with cargo must have, apart from the foregoing:

(B) 4 copies – 2 visaed Venezuelan Entry Manifests
6 copies – 2 visaed Bill of Lading
2 copies visaed Entrance Manifests.

In the absence of a Venezuelan Consul at the last port, the Customs clearance documents must be signed by the Consul of a friendly nation, one of the Port Authorities, Notary Public, the Chamber of Commerce, or by two recognised signatories.

Clearance Through Customs of Diverted Vessels:

Vessels diverted on the high seas to Maracaibo to load at Bajo Grande must present all the documents indicated in (A) above, except the consular correspondence, which they will not have.

Vessels diverted on the high seas to Maracaibo (Bajo Grande) which do not have a Venezuelan Customs Clearance on board, must advise their Agents by radio prior to their arrival, the name of the vessel, the name of the Master, nationality of the vessel, net Venezuelan tonnage (if available, if not, the net registered tonnage), last port of discharge, port to which it was originally sailing and the ETA at the Pilot station at San Carlos. This information is required to obtain the Entry Permit prior to the arrival of the vessel. Three copies of the diversion telegram received by the vessel, signed by the Master, together with those documents detailed above, must be presented to the Port Authorities on arrival at Maracaibo. Non-presentation to the Port Authorities of the documents or the information mentioned will occasion a fine to the vessel.

Inspection by Customs: All vessels arriving from foreign ports destined for the dock at Bajo Grande must anchor in the Port of Maracaibo for Customs inspection by the Port Authorities before proceeding to Bajo Grande. The vessel's gangway must be in position prior to arrival at Maracaibo.

A member of the National Guard of Venezuela will come on board every vessel at Bajo Grande to observe the activities in connection with the operations of loading and unloading. This official is authorised as representative of Customs and is known as the "Vigilante de Aduana". He must be fed and lodged at the same standard as ship's officers.

Loading Documentation: The loading and Customs papers will be delivered to the Master by the Agent of the ship on his arrival at the Port of Maracaibo, on his voyage outwards.

PILOTAGE: Vessels entering currently have the option of taking on the official Pilot at:

(a) The channel in front of the pilot station at San Carlos, between the Buoys B – 24 and B – 26.

(b) In front of Amuay Bay or Punta Cardon. However, to arrange this service, Agents must be advised at least 48 hours in advance of this requirement.

The Pilot who boards the vessel in front of San Carlos will take it to Maracaibo, where he will disembark.

Due to weather conditions, the Port Captaincy of Maracaibo cannot guarantee the embarkation or disembarkation of the Pilots at the "EM" Buoy. For this reason, Masters must communicate with the pilot station of San Carlos to receive necessary instructions as to where the Pilot will be embarked, the latter usually coming on board between Buoys B – 24 and B – 26. The system of communication between the pilot station of San Carlos and the vessels will be via radio-telephone. The San Carlos frequencies are: 2182 kHz. and 156.8 MHz. (VHF Channel 16). Other frequencies are: 2122 and 2080 kHz. and 156.6 MHz.

Pilotage to navigate through the inner and outer channels is compulsory at all times. The maximum speed of navigation in the dredged channels is 10 knots.

Vessels leaving will take the Lake Pilot on board at Bajo Grande and on reaching the Port of Maracaibo the Pilot will be changed for another to take the vessel through the channel. The Channel Pilot will pilot the vessel up to the San Carlos Bank, generally between Towers E – 31 and E – 33, where he will disembark. The Port Captain of Maracaibo has issued instructions to all ships' Agents so that they may inform the Master and/or Owners of the vessels that all vessels must identify themselves with the pilot station of San Carlos by radio-telephone, regardless of the time of day, when they are entering between Buoys B – 17 and B – 19 and when they are leaving between Buoys T – 42 and T – 40.

Every time a launch with an official Pilot on board leaves to attend to a vessel in sight, the costs will be charged to the company which owns the vessel or to its representative, even when service has not been given.

A government Pilot will assist each vessel from Maracaibo to Bajo Grande and on the outbound trip to Maracaibo. The government Pilot will also assist in the berthing and unberthing operations. The ship's Agent will inform the Master of each vessel, as well as the government Pilot, the schedule for berthing the vessel.

The Plant Mooring Supervisor will board each vessel prior to approaching the dock. Mooring Supervisor will assist in the mooring and unmooring operations. It should be understood that the Mooring Supervisor acts only in an advisory capacity to the Master. The vessel's Master retains full responsibility at all times. The Plant assumes no responsibility in connection with any acts or advice given by the Mooring Supervisor.

APPROACHES: The buoy which marks the entrance to the outer channel (Buoy "EM") is situated in approximately position 11° 13′ 47″ N., 71° 33′ 31″ W. The characteristics of the light of the "EM" Buoy are: white flash every ten seconds, visibility approximately 5 miles. The distance between the "EM" Buoy to the Southern extremity of the outer channel, marked by the Buoys B – 27 and B – 28, is approximately 15.75 miles. The channel is 1,000 ft. wide and normally has a depth of 42 ft. minimum at low tide observed at the time of neap tides with a tidal amplitude varying 2 ft. 3 in.

There is a breakwater 0.5 miles to the East of and parallel to the outer channel which extends 1.6 miles to the North from the Northern side of the Island of Zupara. The end of this breakwater is marked by a steel frame tower with a light 25 ft. above sea level. Characteristics of the light are: white flash every 8 seconds, visibility about 3 miles.

Commencement of the inner dredged channel is marked by the Buoys B – 29 and B – 30. The length of this channel, which is marked by buoys, is approximately 12 miles, and ends at Buoys T – 55 and T – 56. The channel is 800 ft. wide and the normal checked depth is 43 ft. neap tides with a tidal amplitude varying between 1.5 ft. to 2.5 ft.

The channel from the Buoys T – 56 as far as the Port of Maracaibo is a dredged channel, whose end is marked by Buoys B – 73 and B – 74. It is some 800 ft. wide and has a depth of at least 43 ft. The distance is about 11 miles and the tidal amplitude range is insignificant.

RESTRICTIONS: Bridge clearance at MHHW 146 ft.

MAX. SIZE: The maximum permissible fresh water draft at the dock is 36 ft. and the maximum overall length vessel the dock will accept is 700 ft. Vessels with a berthing displacement up to 20,000 long tons will be accepted, providing the approach velocity can be controlled to 0.3 ft. per second or less.

Vessels with an overall length greater than 700 ft. or with a fresh water draft of more than 26 ft. or a displacement greater than 20,000 long tons will not be accepted for loading at Bajo Grande, unless they have obtained the prior authorisation of Maraven, S.A. If the vessel is not equipped to moor, load and unmoor in a safe manner, the vessel will not be loaded. In such cases, there will be no responsibility on the part of Maraven, S.A.

RADIO: Maraven, S.A. Export Department also has radio-telephones with the following frequencies: 2080, 2120, 2182 (stand-by), 2638 and 2738 kHz and 156.8 (stand-by) and 156.6 MHz. operated in accordance with the following schedule:

Monday – Friday:	From 0730 until 1130 From 1300 until 1700
Saturday, Sunday and Holidays:	From 0730 until 1030 approx.

Any tanker or vessel bound for Bajo Grande shall cable Maraven, at least 5 days in advance of its scheduled arrival time in Maracaibo, giving notice of its estimated time of arrival, loading capacity, amount and type of product to be lifted and condition of ship's tanks.

At least 48 hours in advance of arrival at the San Carlos Pilot Station, the vessel's estimated time of arrival, nationality, Venezuelan net tonnage (if available, otherwise its registered tonnage), quantity and type of cargo required, condition of ship's tanks, name of Agent, last port, Master's name and all requirements of the vessel while in port should be cabled to "Maraven, Maracaibo" and to the ship's Agent. As the cable office in Maracaibo is not able to communicate directly with vessels at sea, messages to "Maraven, Maracaibo" and to Agent should be routed via PJC Curacao, and should be prefixed "Via AAC" (All America Cables and Radio Inc.). Failure to give such proper notices shall absolve the Plant from any claim for delays or demurrage.

TUGS: 2 × 1,600 h.p. tugs used for mooring and unmooring operations.

BERTHING: The dock proper may be identified by the overwater pipeline trestle that connects the dock with shore.

The dock is located approximately Lat. 10° 30′ N., Long. 71° 36′ W., which is 2 miles off shore from the Bajo Grande Natural Gas Liquids Processing Plant and S.W. of channel Buoys B – 87 and B – 88 on the Maracaibo channel. The dock is single sided and consists of 4 breasting pilings, 4 mooring dolphins and a loading platform.

The dock is equipped with a compressor and auxiliary equipment to assist the ship in compressing and re-condensing the ship's vapours. No liability will be assumed by the Plant Operator for unavailability of the Dock's vapour compressor. The dock is also equipped with a vent system to dispose of contaminated vapours.

A tie-up crew will handle all mooring lines before and after loading.

The Plant tie-up crew will assist the ship's crew in positioning and connecting the cargo loading arms and in removing same on completion of loading. The dock loading arms are equipped with 10 in. ASA 300 lb. RF flanges. It shall be the responsibility of the ship to furnish its own fittings to mate with the dock's 10 in. ASA 300 lb. FR flanges.

Mooring Procedure: Any vessels calling at Bajo Grande must be equipped with mooring hawsers of sufficient length and strength to run a line to each of the 2 bow and 2 stern mooring dolphins and shall use such equipment while at the dock. Vessels equipped with tension winches and cables shall utilise these in addition to the mooring hawsers or alone if the vessel has sufficient cables to meet the minimum requirements of running a cable to each of the bow and each of the stern mooring dolphins. For added security of those vessels not equipped with tension and/or cables, 1 steel cable will be furnished for a bow and another for a stern mooring dolphin by the Plant. It should be recognised by all parties that while the use of these cables is strongly recommended, the Plant accepts no responsibilities for loss or damage to any vessel or to any facility or to any person that may result from the failure of this equipment.

For the convenience and safety of all personnel boarding or disembarking while at Bajo Grande it is recommended that the vessel's accommodation ladder be rigged on the port side, this being the side normally laying against the dock. The ladder should be suspended after the Mooring Master boards and during docking operations to avoid being fouled.

BALLAST: There are installations for unloading dirty ballast. Vessels which arrive at Bajo Grande with dirty ballast must advise 48 hours in advance with regard to any emulsifiers, detergents or chemicals which may be present in the ballast and which are going to be unloaded. If these emulsifiers, detergents and chemicals are not acceptable, Maraven will advise the ship and the latter must arrive at Bajo Grande with clean ballast.

The ballast will be unloaded at a rate of approximately 5,000 bbls.p.h., nevertheless in the case of unexpected damage or malfunction of the system at Bajo Grande, Maraven will give instructions to the Master of the vessel so that he may arrive with clean ballast and Maraven will not be responsible for the delays which may be suffered by vessels in cleaning their tanks prior to arrival.

It is strictly prohibited to discharge into the lake any liquid or solid waste resulting from tank cleaning. Therefore it is recommended that the Master gives instructions to all personnel so that they avoid any possible leak or contamination in the lake.

In the event that the representative of the Plant or the National Guard observe that dirty ballast is being discharged into the lake, or even residues or other contaminatory organisms whilst clean ballast is being unloaded, such operations will immediately be suspended and the consequences will be strictly for the account of the ship.

LOADING: *Notice of Readiness:* On arrival at Bajo Grande and after inspection by the Customs Authorities, and having obtained any other official approval required before loading, the Master of the vessel will notify Maraven in writing that the vessel is ready to load. This notification must include a report of the conditions of the tanks of the vessel, specifying in detail the temperature, pressure, last loading, list of vessel and trim, possibility of contaminatory organisms and any other conditions which may affect the loading.

The Master of the vessel may request any equipment and/or service which he considers necessary for the safe and efficient loading of his vessel and Maraven will make every effort to fulfil this request.

It will be the responsibility of the vessel to provide its own connections to join up with the RF 10 in. 300 ASA flanges of the dock.

It will be the responsibility of the ship's Master to ensure that prior to commencement of loading, the atmosphere inside the tanks, which are to receive products are within the safety limits stipulated. Nevertheless, Maraven reserves the right to inspect at any time, to verify the fulfilment of these safety precautions and to refuse to load any vessel which in the opinion of Maraven does not fulfil the safety requirements stipulated.

LPG refrigerated vessels will not be considered ready to load at Bajo Grande unless all the LPG tanks contain LPG vapours and are sufficiently cooled to permit shipment of the nominated products.

Vessels which receive completely refrigerated products must be capable of receiving at their boiling point from 0.5 to 2.5 p.s.i.g. Such vessels must have a refrigeration system capable of liquefying all the vapours resulting from the shipment at the rate specified and including those vapours which form as a result of the heat gained by the vessels' tanks.

Loading Procedure: The positioning and connection of the loading arm must be effected to the satisfaction of the personnel in charge of the vessel. After approval of the personnel in charge of the vessel, the loading valves may be opened to check that the connections do not have leaks and loading may commence.

The maximum loading rate is 8,000 bbls.p.h. (750 – 775 tonnes p.h for completely refrigerated products and petrol) and a minimum loading rate of 250 bbls.p.h. (23 tonnes p.h.).

The pumps are designed to supply a minimum flow of 250 bbls.p.h. at a pressure of 225 p.s.i.g. and, since the installations at the Bajo Grande Dock do not have facilities for controlling the pressure of LPG which is being loaded, they are not responsible for any damage or delay which may occur due to the request for reduction in flow and pressure of LPG in order to cool or purge the vessel's tanks.

There are no installations for generation of inert gases. LPG vessels which require cooling, purging or any other assistance in Bajo Grande can be accepted after prior request in writing from the Master of the vessel; however, these services will be charged to the vessel. The responsibility for helping to effect purging and/or cooling is charged at 733 Bolivares per hour, during the time that such operation of purging or cooling causes the vessel to exceed the permitted period of stay.

The quantity of products used in such purging or cooling will be for the account of the vessel.

In the event that the dock vapour compressor is operated at the request of the vessel's Master for a purpose other than for purging or cooling, this will be charged at the rate of 500 Bolivares per hour to the ship.

All loading and unloading operations must be suspended whilst there is bad weather and the tank covers of the vessel must be closed and secured. During periods of calm, petrol or other products with a low flash point can be loaded at reduced rates or the loading operation can be interrupted if the heavy vapours are not being dispersed with sufficient speed to avoid dangers of gas accumulation. Officers on the vessel must be alerted so that they may be on watch whilst such conditions apply.

Under normal operational conditions it may be necessary to displace the loading line. This will require the person in charge of the vessel advising the representative of the Plant when the loading is nearing completion in order to complete an equal quantity to the capacity of the loading line.

Permitted Period of Stay: (a) The permitted period of stay, as is defined hereunder, shall commence to be counted from 6 hours after arrival of the vessel at Bajo Grande. The permitted period of stay will be terminated when the final mooring cable has been withdrawn from the quay.

For the purpose of these instructions, the Notice of Readiness, may be delivered after the vessel has tied up at the dock; nevertheless, the arrival at Bajo Grande shall be defined as the time when the vessel passes between Buoys B – 87 and B – 88, which mark the Maracaibo navigational channel and are situated approximately 1,000 m. in front of the Bajo Grande Dock.

(b) In the event that a vessel arrives at a different time to that confirmed in the shipping programme, and unless Maraven has approved a different arrival time, vessel must await mooring of other programmed vessels before arriving and which vessels may have arrived at that time and the permitted period of stay will commence when the loading operation commences, or 6 hours after receiving Notice of Readiness, whichever is the later. It is agreed that a vessel shall be included in the loading programme if it arrives at Bajo Grande between the hours of 12.01 hrs. on the accepted date and 0600 hrs. of the following day.

(c) Except for the provisions in (b) above, all vessels arriving at Bajo Grande will have the right to moor in the order in which they appear in the shipping programme. Maraven at their discretion may change the order of shipment when it may be necessary for reasons of safety or for the purpose of obviating a closure of the Plant or reduction in production.

(d) The waiting time permitted shall be 24 hours, plus one (1) hour for each 6,000 bbls. of product loaded in excess of 114,000 bbls. This waiting time shall be that permitted to load the complete cargo or part of the cargo of the vessel, it being understood that any time spent in deballasting operations will not be taken as waiting time. If the loading operations are delayed or interrupted by *force majeure,* which shall include the closure of the shipping terminal due to bad weather, the time thus lost will not be counted as permitted waiting time.

(e) The loading operations shall be considered as terminated when the loading hoses are disconnected. Every vessel will leave the quay as quickly as may be practically possible after having completed shipment of the cargo and the personnel of the vessel and those on land have arrived at an agreement as to the quantity of products shipped.

(f) In the event that a vessel is moored at the quay for 6 consecutive hours after Maraven has notified the Master of the ship that the installations are ready to deliver the product, if the vessel on completion of this time is not in a position to receive products, then at the discretion of Maraven the vessel may be withdrawn from the quay, to prevent the products burning or a reduction in production.

A vessel may be withdrawn from the quay at any time for reasons of safety.

Verification and Measurement: Determining factors to arrive at the official figures of a shipment:

(A) Petrol and Butane:

(1) Correction factors of the individual meters less than 1%. In this event the terminal shall always use the figures of the meters as official (and not take into account the absolute difference in barrels) taking always the precaution of carrying out a comparison between the figures of the ship and those of the land.

(2) Factor of correction in any of the meters greater than 1%. In this event the vessel's figures will be used, comparing them in all aspects with the figure of the meters without applying the correction factor and with the land tanks.

In those cases in which the vessel's figures are used, it is appropriate to suggest that they check their figures.

(3) In the event of the measuring system not operating, and the vessel cannot give its own figures, as a last recourse the figures of the shore tanks will be used.

(B) Propane:

(1) The vessel's figures will be taken proceeding in exactly the same way as in point (2) of sub-section (a) above.

(2) In the event that the vessel cannot supply figures, the figures of the shore tanks will be used.

All volumes will be adjusted to the volume equivalent to 60°F in accordance with the applicable sections of Standard API 2534 and the corresponding tables of the Measurement Tables of Oil ASTM (latest edition) or other methods or standards selected by Maraven.

If the product delivered is LPG, the content of the ship's tanks will include the quantity of the product in the form of vapour.

All volumes will be calculated in U.S. liquid barrels at 60°F and the adjustments at this temperature will be made in accordance with the Oil Measurement Tables ASTM – 1P, American Edition 1952 (or the ruling tables which may replace these).

In the event of the products being loaded in a vessel whose tanks, pipes and equipment are empty when loading commences, the gross volume of products which may remain in the pipes and equipment on completion of shipment and at the time of final measurement, shall be calculated on the basis of the volumetric capacity of those pipes and equipment, adding the calculated volume loaded in the vessel's tanks and including in the total volume delivered to and received by the vessel at that time. In the event that the procedure described is used to determine the volume of products delivered and if during the time of this delivery vapours from the vessel's tanks be vented then the quantity of vapours vented shall be determined as shall also be the liquid volume equivalent to these vapours in normal conditions and this will be added to the quantity determined in (a) and (b) above.

Permissible Composition of the Atmosphere of the Tank for Purging: Maximum percentage per volume of air or oxygen permissible for the safe shipment of the product when the vessel's tanks are purged with CO_2 or N_2:

	%Air		*%Oxygen*	
Product	(CO_2)	(N_2)	(CO_2)	(N_2)*
LPG	50	40	8	7
Petrol	50	40	8	7

*The percentages of nitrogen do not include the nitrogen of the air in the mixtures.

Example: If a vessel is going to load LPG and it is going to be purged with N_2, it must add sufficient N_2 to ensure that the mixture does not contain more than 40% by volume of air. The other 60% will be N_2.

Ref. Principles & Practices of Purging, 1954. American Gas Assoc. – Chapter 2, page 28.

FUEL: Heavy and medium marine diesel, intermediate fuel, and bunker "C" fuel oil are available in the area. Lubricating oils in limited quantities are also available from local contractors. All bunker, lubricating oils, water and other requirements should be cabled to the ship's Agent. For reasons of safety, no bunkers may be taken on the vessel while berthed at Bajo Grande.

FRESH WATER: Available at Maracaibo Harbour.

MEDICAL: Complete medical services are available in Maracaibo.

REPAIRS: Maracaibo: No major repair facilities are available, minor repair jobs can be taken care of through local machine and electrical shops. Shore labour can be furnished if required. Radio, radar and gyro compass technicians are available upon request.

Bajo Grande: No repair facilities are available, but when required, personnel from shops in Maracaibo will travel to Bajo Grande to effect repairs.

CONSULS: The following nations have Consular representation in Maracaibo:

Belgium
Chile
Colombia
Costa Rica
Denmark
Ecuador
El Salvador
France
Germany F.R.
Great Britain
Guatemala
Italy
Netherlands
Norway
Panama
Peru
Spain
Sweden
Switzerland
U.S.A.

SHORE LEAVE: Launch service for official business purposes and emergencies is readily available in Maracaibo. Launch service for shore leave can be arranged through contract marine service and will be the responsibility of ship's personnel. Arrangements for shore leave transportation can be made through the ship's Agent. No shore leave facilities are available at Bajo Grande.

CLASSIFICATION SOCIETIES: American Bureau of Shipping and Lloyd's Register of Shipping, U.S. Salvage Association, Salvage Association of London, Det Norske Veritas, Bureau Veritas, Registro Italiano Navale, and Germanischer Lloyd have Agents in Maracaibo. Surveyors are available by appointment from any of these Agents.

CURRENCY: The Venezuelan unit of currency is the Bolivar (Bs) and is the only currency recognised as legal tender within the country. Masters desiring a cash advance should make the request to their Agent when advising ETA.

MAIL: Outgoing mail for ship's account may be given to the Agent's representative who boards the vessel on arrival at Maracaibo inbound. Personal mail will be accepted only if carrying the correct amount of Venezuelan postage, or if postage is authorised by the Master for the vessel's account.

GENERAL: *Maracaibo Port Captaincy:* Directive which must be observed by vessels entering and leaving Maracaibo Lake:

OBJECTIVES:

To increase the safety of Human Life at Sea, to take all necessary measures to avoid marine accidents in general and to ensure that vessels are navigated with safety in the navigable channels and waters of Maracaibo Lake.

1. All radio-telephone communications between the Control Offices of Maritime Transit under the control of the Port Captaincy of Maracaibo and vessels, shall be made, for the first contact, via Channel 16 (156.8 MHz) and immediately it shall be agreed that for the transmission of required information they will change to Channels 12 or 14. Also this procedure will be adopted in communication from ship to ship.

2. Any vessel which navigates in the vicinity of the Buoy "EM" of the outer channel being 10 miles from the latter shall call the pilot station at San Carlos, requesting permission to enter the zone and will supply the following information:

(a) Name and type of the vessel.
(b) Nationality.
(c) Draft.
(d) Last port of call
(e) ETA at the "EM" and "B – 26" Buoys.

3. The Port Captaincy will authorise by radio, via the pilot station of San Carlos, to Masters of vessels who have reported to that station request to cross the outer channel, or part of it, with the assistance of the Official Pilot, in accordance with the sequence of arrival.

4. Every 5 miles, the Master of the vessel will call up San Carlos, indicating any information which he may have and giving his position within the channel, by reference to the buoys which are on his starboard side.

5. When communication in item 1 has occurred, San Carlos will inform the vessel as follows:

(a) The location of any dredger (mobile or stationary) which is operating in the outer channel, buoys whose lights are out, changes in buoys' positions or where buoys have disappeared, vessels which have sunk, etc.

(b) If there are vessels leaving the port, to give the position of these by reference to the odd numbered buoys.

6. Vessels shall establish radio-telephone communications with the dredger when they are 5 miles from it. In this communication, they will indicate the place they estimate that the vessel will meet the dredger and any other information which they consider necessary for the safety of navigation of both.

7. San Carlos will keep vessels informed of all the circumstances mentioned above, especially the time and place that each of them estimate to pass close to any dredger which is operating in the outer channel, and in order that they do not meet the dredger simultaneously.

8. Masters of vessels will inform the pilot station at San Carlos of any other information which the latter may request.

9. Masters of vessels will keep a watch on Channel 16, on the order of the Official Pilot, until their arrival at port of destination in Maracaibo Lake and on leaving until the Pilot has left the vessel.

10. Pilots, when they are bringing a vessel into the port, at the level of the parallel of Palmas del Norte Point (Buoys T – 55 and T – 56), will call up the Port Captaincy and transmit the following information:

(a) Name of vessel
(b) Time
(c) Port where operations will be effected
(d) Name of Pilot calling.

11. When the vessel continues to navigate to the South of General Rafael Urdaneta Bridge, the Pilot will inform the Control Office of Maritime Transit in Maracaibo, the time at which the vessel will pass Buoy "B – 79".

12. The average speed of vessel in the navigable channels will be ten (10) knots, Masters being authorised as are also Official Pilots, to alter this, when the safety of navigation may require it.

13. San Carlos will check by radio-telephone the transit of vessels from the Entrance Buoy "EM" to the level of the parallel which passes in front of Palmas del Norte Point (Buoys T – 55 and T – 56 and vice versa).

14. Loaded vessels navigating outwards, and being in the outer channel, will have priority over vessels coming in to the same channel, provided that these do not meet with those coming out in the critical zone, included between Buoys B – 21 and B – 22 and E – 33 and E – 34. For this purpose, the San Carlos Pilot Station will inform entering vessels the situation of leaving vessels so that they may take necessary measures to avoid meeting those vessels coming out in the referred zone.

15. The Port Captaincy will check via the office of Control of Maritime Transit, the Navigation of vessels, from the parallel passing Palmas del Norte Point (Buoys T – 55 and T – 56), as far as the terminals and ports to the South of General Rafael Urdaneta Bridge and vice versa.

16. Every Official Pilot navigating outwards when passing the Buoy B – 72, will call up San Carlos by radio-telephone and will supply the following information:

(a) The time that he is passing Buoy B – 72.
(b) The time that he is arriving at San Carlos.

17. When the dredger receives any call from a vessel it will give information as follows:

(a) Location where it is at that time.
(b) Direction of dredging (South North or North South).
(c) The side on which the vessel must pass.
(d) Time necessary to make the manoeuvre indicating on which side of the channel dredging will continue after the manoeuvre.

18. The pilot station at San Carlos will be attentive to all communications made and will take note of them, in the event that their intervention may be required by dredgers or by vessels.

19. Any vessel sailing from any port in the No. 2 Pilotage Area of Maracaibo, will inform the Port Captain as follows:

(a) Type and name of vessel.
(b) Where from and time of leaving the port.
(c) Speed and port of destination.
(d) Estimated time of passing Buoy B – 72.

Signed – Port Captain.

LA ESTACADA: 10.42 N. 71.32 W.

TERMINAL NOT IN USE. BUOYS HAVE BEEN REMOVED.

(N.B. For important details of Documentation, Pilotage, etc., see "Maracaibo Lake").

OPERATOR: Maraven, S.A.

LOCATION: Loading Terminal in the Lake of Maracaibo at La Estacada, located at Lat. 10° 42′ 30″ N., Long. 71° 31′ 40″ W. Entrance to and leaving this terminal is made between Buoys B-65 and B-66.

DOCUMENTS: As soon as vessel is safely moored Agents' representative will board the ship together with Port Authorities. The following documents are needed on arrival:

1. Clearance from Last Port with the following attached:
    Stores List
    Crew List
    Slop Chest Inventory
    Ballast Certificate
2. Crew List (6 copies).
3. Stores List (6 copies).
4. Slop Chest Inventory (Deck, engines and cabin store listed separately) (6 copies).
5. List of Personal Effects (6 copies).
6. Derat Exemption Certificate (original).
7. Venezuelan Net Tonnage Certificate (original).

See "Tonnage Applicable".

The Health Officer sometimes requests to see the Vaccination Certificates of crew members.

PILOTAGE: (See "Maracaibo Lake"). Pilotage Compulsory.

1. All vessels must call Maraven, S.A. and Agent on VHF Channel 16, when passing the E.M. Buoy and when embarking the Pilot at San Carlos.

2. Reduce speed approaching Inner Channel Buoy B-63; rig accommodation ladder starboard side properly illuminated. Company Cargo Co-ordinator will board between B-63 and B-65.

3. Listen during transit on 2182 kHz and VHF Channel 16.

4. In event of unforeseen circumstances requiring vessels to anchor, area West of Estacada Northern Buoy mooring outside of channel limits will be used.

Vessels proceeding to La Estacada Terminal must enter the Outer Channel and embark the Government Pilot between Buoys B-25 and B-27. After vessel arrives in the vicinity of the E.M. Buoy, Master must contact San Carlos Pilot Station by radio-telephone on frequency 2182 kHz or VHF Channel 16 requesting Pilot between Buoys B-25 and B-27.

Caution: Masters are warned to keep adequate speed in the Outer Channel even when embarking the Pilot as strong cross currents are encountered near San Carlos and Zapara Island. Pilot boats are fast and fitted with a flying bridge. Once the Pilot is on board the vessel will proceed to La Estacada, reducing speed in the vicinity of Inner Channel Buoys B-63 and B-65 where Maraven Cargo Co-ordinator will board. Accommodation ladder must be rigged up on starboard side.

MAX. SIZE: Water depth in both buoy moorings is 40 ft. mean monthly observed lowest water (MMOLW). Because of the depth of the surrounding approaches, 39 ft. (MMOLW), admissible mid-ships maximum draft in No. 1 is 35 ft. 06 in. fresh water. Under certain tidal conditions, however, with vessels over 60,000 d.w.t., it may be necessary to restrict loading to draft. Masters are requested to be guided by the Cargo Co-ordinator in appropriate draft be loaded.

Berth No. 1: Length up to 720 ft. Beam unlimited.

RADIO: *Information to be cabled to Agent, Maracaibo.*

Upon vessel's departure from the last port bound for La Estacada cable 72, 48 and 24 hours ETA at San Carlos Pilot Station, including in this message last port, Master's name, if A.C. current on board and any requirements. If diverted, cable original destination, also have 5 copies of diversion cable ready on arrival. If the vessel is nominated to load a part cargo only at La Estacada, indicate at which port cargo will be completed. All cables should be sent via PJC (Curacao Radio) and via ITT All American Cables.

A separate cable should be sent to Maraven, S.A. Maracaibo indicating ETA at San Carlos only.

TUGS: Use of 2 tugs of at least 1,600 h.p. is compulsory for mooring and unmooring at La Estacada (Government Decree). Use of 2 mooring launches with crew including a diver, who inspects the submarine loading hoses, is compulsory at La Estacada. These mooring launches remain alongside ship during stay in berth order act in any emergency.

BERTHING: *(a) Description:* Marine Oil Loading Terminal, is an off-shore installation and consists of two permanent buoy moorings, No. 1 to the South, and No. 2 to the North (out of service).

Berth No. 1 consists of 4×14 ft. cylindrical steel buoys, each fitted with a pelican hook to which ship's mooring lines are attached by contractor's mooring launches. On each buoy there are 2×1.625 in. improved plow steel wirelines to supplement mooring lines in order to provide additional security during strong winds. In Berth No. 1 the plow steel wires are 520 ft. long.

Ships moored heading North or South according to prevailing current.

(b) Deballasting: There are no facilities at La Estacada to receive and treat dirty ballast therefore *same must be clean.* All ballast is discharged ashore through a 16 in. line.

(c) Mooring: All ships should have an adequate supply of stoppers or other special equipment necessary to handle wires attached on mooring buoys. Vessels mooring in berths must be equipped with 4 ropes forward and 4 ropes aft. Vessels are cautioned that good quality ropes are essential and that they will be held liable for any damage occurring through improper or poor mooring ropes or inability to properly handle same.

Vessels in buoy moorings must have deck winches in readiness for use at all times. Method of berthing will be at discretion of the Government Pilot, as weather and other conditions permit.

During berthing and unberthing, ship's engines, tackle and all other gear must be in operative condition and in a state of readiness for use on immediate notice.

Weather permitting, and berths being available, vessels may be berthed at any hour of the day or night. Mooring buoys are properly lighted.

Government Pilots will assist in mooring the vessel in Berth. Loading hoses can be connected both port and starboard side, according to ship's position. The Company Cargo Co-ordinator will remain on board ship to advise on connecting and disconnecting loading hoses, and loading of cargo.

The Government Pilot will later unmoor the vessel and take her out to the channel for departure.

When ship is in position and mooring wires taut, mooring winches such as tension winches must have their manual brakes put on securely, and should not rely on automatic rendering devices.

During time vessel is at the berth, frequent and regular inspection of mooring essential to ensure that mooring lines are kept taut and that movement of ship is kept to a minimum. When tugs are alongside or assisting a tanker, all cargo openings, permanent ballast tanks, lids and pump-room doors must be closed no matter what grade oil is being or has been carried, unless these spaces are gas-free.

The mooring operations are carried out by 2 mooring launches and 2 tugs.

TANK INSPECTION: As soon as all ballast is discharged and hoses connected, production supervisor or cargo co-ordinator will inspect ship's tanks. If same are dry and clean he will sign corresponding certificate.

LOADING: Berth No. 1 has 1×24 in. loading line with the corresponding manifold. 12 in. – 150 lb. marine loading hoses are used. The berth is capable of a max. loading rate of 22,500 bbls.p.h., with an appropriate reduction for topping-off.

However, maximum loading rate entirely at Company's option and will vary according to circumstances and type of tanker concerned. When completing loading, stoppage of cargo will be determined on board, and Masters are requested to inform Cargo Co-ordinator at least 30 minutes in advance in order reduce pumping rate for topping-off. Cargo Co-ordinator will be in continuous contact with pumping station by means of portable radio. Should this means of communication fail, the following signals on ship's whistle will apply:

One long blast = Stand-by
Two long blasts = Commence pumping
Three long blasts = Stop pumping

Upon completion of loading, Cargo Co-ordinator, together with ship's officer, will gauge ship's tanks and later prepare cargo documentation.

FUEL: Bunkers and marine fuels supplied by barge before or after loading operation at anchorage. Agent should be given prior notice.

FRESH WATER: Must be ordered with first ETA cable to Agents so that arrangement can be made with supplier. A water barge and a tug must be hired.

DENSITY: 997 – 1003.

REPAIRS: Only smaller repairs can be effected locally; however, technicians available for radio and radar repairs. Contact Agent.

SURVEYORS: American Bureau of Shipping and Lloyd's Register have Agents in Maracaibo.

CONSULS:

The following have consular representatives in Maracaibo:

Belgium
Chile
Colombia
Costa Rica
Denmark
Ecuador
El Salvador
France
Germany F.R.
Great Britain
Guatemala
Italy
Mexico
Netherlands
Nicaragua
Norway
Panama
Peru
Spain
Sweden
Switzerland
U.S.A.

SHORE LEAVE: Launch is primarily for use of authorities and company staff, but will effect trips for crew if required by Master. Contact Agent who will make necessary arrangements.

GUARDS: One National Guard stationed on board. He must be provided with sleeping quarters and seated in officers' mess for meals.

He is the representative of the Venezuelan Government and therefore any courtesy extended to him will be appreciated.

CLEARANCE: Immediately after termination of loading operations hoses are disconnected and Government Pilot will proceed to unmoor vessel. In the meantime, cargo documents are prepared by Terminal personnel, and as soon as vessel is cleared, she will proceed to her destination.

CURRENT/TIDE: Current velocity max. 4 knots. Nature of bottom, mud. The tidal range in feet for the Estacada Terminal is Springs 1.5, Neaps 0.5.

GENERAL: *(a) Cash Advance:* Cash advance will be in local currency (Bolivares). Cable in advance any such requirements to Agents.

(b) Mail: Outgoing correspondence may be given to the marine dispatcher. For personal mail (crew) a list should be made, indicating name of crew member, quantity of letters and destinations, and handed to Agents.

(c) Ship Chandlers: 2 ship chandlers in Maracaibo who can supply vessels with fresh meat, fish, vegetables, fruits, etc. Requirements should be transmitted in first ETA cable to Agents.

TONNAGE APPLICABLE:

The Venezuelan Port Authorities base part of their pilotage charges on the size of the vessel, i.e. on registered net tonnage or on Venezuelan net tonnage.

On Registered Net Tonnage:

Venezuela will accept the tonnage of ships registered in countries with which they have a reciprocal tonnage agreement.

As of this date, such countries are:

- Denmark
- France
- Germany F.R.
- Ireland
- Netherlands
- Norway
- Portugal
- Sweden
- United Kingdom
- U.S.A.

On Venezuelan Net Tonnage:

Ships not registered in countries listed above, when calling at Venezuelan ports for the first time, must be measured for Venezuelan tonnage by the Captain of the Port. It is the usual practice to take ashore the ship's Panama Canal or Suez Canal Certificate, which is used as a basis for recalculating tonnage under the Venezuelan regulations, and return it before sailing. The Venezuelan Admeasurement Certificate, when later issued, is forwarded to the owners. A fee is charged for this certificate, which is payable only on the ship's first call.

AUTHORITY: Capitania de Puerto, La Ciega – Maracaibo, Venezuela. *Tel:* 226480, 226880. *Cables:* Caripuerto.

Section C

LA SALINA (Lacustre): 10.22 N. 71.28 W. (See Plan)

(N.B. For important details of Documentation, Pilotage, etc., see "Maracaibo Lake").

OPERATORS: All terminal facilities are under the control of Lagoven, S.A.

APPROACH: Entrance and leaving this terminal is made between Buoys B – 97 and B – 98.

LOCATION: La Salina located on Eastern shore of Lake Maracaibo, in Lat. 10° 22′ 18″ N., Long. 71° 27′ 49″ W. about 60 miles from the Entrance Buoy "EM".

DOCUMENTS: These are generally placed on board prior to departure. Vessels whose Master accepts the early departure procedure may sail with documents in blank. Figures are then radioed for inclusion in blank documents. Outward Clearance documents are placed on board the vessel prior to departure.

PILOTAGE: In the event that no contact can be made with San Carlos Pilotage Station, or if there is a language problem, contact should be made with Vensport, at La Salina by voice radio on VHF Channel 16 (156.8 MHz).

The Docking Master boards by tug or launch at the waiting anchorage or in the outer part of the navigation channel leading to the terminal.

ANCHORAGE: The waiting anchorage off La Salina is located immediately Eastward of Buoys B – 97, AS – 1 and AS – 3 (Old numbers M – 1, M – 1a and S – 1); it has a depth of between 40 ft. and 41 ft. and fair to poor holding ground in soft mud.

RESTRICTIONS: None. The port is open for navigation during the day and night, allowing ships to enter and sail at any hour.

MAX. SIZE: Up to 112,000 d.w.t., LOA 900 ft. and max. draft 39 ft. (brackish water) at Berth Nos. 6N, 6S, 7N and 7S. Max. distance bow to manifold 450 ft.

Pier No. 3 (West Side) LOA 690 ft., draft 26 ft. and 36,000 d.w.t.

Pier No. 3 (East side) LOA 575 ft., draft 26 ft. Max. 18,000 d.w.t.

No restrictions on vessel's beam at any of the berths.

The access channel to La Salina has a least depth of 41 ft.

Special Note: Maximum draft for loading vessels at La Salina Lacustre Terminal is actually restricted to 39 ft. Vessels loading at this maximum draft of 39 ft. must cross the outer bar channel at HW.

RADIO: The cable and telegraphic address for the Lagoven, at La Salina is "Lagoven La Salina". Radio messages to and from ships at sea are routed through the Government radio station at Maiquetia (La Guaira) call letters YVG. This station operates on a 24 hour continuous watch on 500 kHz and 2182 kHz.

Listening frequencies: long wave: 500 kHz; medium wave 2182 kHz; short wave Channels 5 and 6.

Working frequencies: long wave 417 kHz and 464 kHz; medium wave 2120 kHz; short wave 4222 kHz, 6351.5 kHz, 8461 kHz and 17141.5 kHz.

Answering frequencies: long wave 500 kHz.; medium wave 2182 kHz.

Hours of watch:

4222, 6531.5 kHz	0100 – 1300 hrs. GMT
8461, 17141.5 kHz	1300 – 0100 hrs. GMT

Cables for vessels may also be routed via Curacao Radio, call sign PJC.

Radio notice of arrival should be sent 72 hours prior to arrival at La Salina and corrected if weather or other conditions delay the vessel.

Vensport La Salina handle all communications between vessels and Lagoven Terminal control tower. VHF radio-telephone Channel 16 (156.8 MHz) may be used for initial contact. Channels 6, 10, 13 and 14 are also available on a 24 hour basis.

All vessels en route to La Salina may also communicate with Lagoven Amuay or Caripito Marine Offices and request that messages dealing with corrected ETAs, Pilots and other business be relayed to Vensport La Salina.

VHF: Transmit on VHF when passing Aruba or Amuay Bay updated ETA messages to either Lago Marine or Amuay Marine for relay to La Salina. Contact Vensport La Salina on VHF when within reach (normally after passing General Urdaneta Bridge) for latest berthing instructions.

TUGS: Lagoven S.A. maintains one 3,000 h.p. diesel tug and one 1,300 h.p. diesel tug. Tug-boat assistance is considered essential and is afforded to all vessels entering, leaving or shifting in the harbour.

Additional tugs can, in an emergency, be ordered from Maracaibo. The tugs are usually employed in the alongside mode and are made fast using their own ropes (2.5 in. diameter nylon).

BERTHING: At La Salina, Lagoven maintains a deep-water terminal (Lacustre) consisting of an island where are located 2 finger piers, each 1,100 ft. in length and 500 ft. between piers, providing 4 berths to accommodate tankers up to 112,000 d.w.t. Berths are numbered 6N, 6S, 7N and 7S, from North to South. At these berths various products can be loaded simultaneously namely – 6N and 6S – Crude, Naphtha and Butane; 7N and 7S – Crude; Pier No. 3 (West side), Propane and Butane; Pier No. 3 (East side), same as West side but not concurrently with West side. In addition there is an offshore platform (Pier No. 3) where liquefied petroleum gases (Butane and Propane) can be loaded.

Instructions concerning berthing are given by Vensport La Salina by means of radio-telephone.

The use of an anchor when docking is permitted at all berths. It is considered prudent to have the outboard anchor hove-out prior to entering the harbour in order to facilitate speedy release if necessary while docking. The Pilot will advise whether the ship is to be berthed port or starboard side to the dock.

The tugs are made fast on the seaward side, one forward and one aft. Vessels berth under normal circumstances always with head in, which is a relatively simple manoeuvre. Vessels are berthed starboard side alongside Berths 6 North and 7 North; portside alongside at Berths 6 South and 7 South.

When the vessel's bow is between two and three ships' lengths from the head of the pier, the engines are stopped or reversed. The vessel then slowly enters the berth parallel to and about 40 ft. from the continuous fender face. When the vessel's bow is just past the berth's manifold area, the forward spring line is sent in by heaving line. The vessel is then positioned by using its ropes and is pushed alongside by tugs. The current sets mostly in a general Northwesterly direction with a velocity between 0 and 2 knots. This should be taken into account, particularly when berthing at the South facing berths where the vessel may be set onto the pier.

Moorings: Mooring bollards spaced with 80 ft. intervals are located on both sides of the pier, and provide the basis for a potentially excellent mooring configuration consisting of:

3 Headlines
3 Sternlines
2 Breastlines
1 Forward, Spring line and
1 Aft Spring line.

BALLAST: Vessel should arrive at La Salina with sufficient ballast to permit safe handling. Government Pilot requirements in this connection under normal weather conditions are interpreted as drawing approximately 8 ft. forward, 18 ft. aft, on a T – 2 or similar type tanker, and 11 ft. forward, 20 ft. aft on a 26,000 d.w.t., on larger type vessels the minimum draft required is 14 ft. forward and 22 ft. aft.

Ballast should be carried in a minimum number of tanks, and all other tanks stripped, so as to minimise deballasting time.

It has been established that one of the major causes of contamination of crude oil is the relatively small amount of salt water remaining in the ship's tanks, pumps, and ballast lines after ballast discharge. This very small amount of salt, nevertheless, frequently results in costly damage and downtime to refining equipment, besides presenting many other processing problems.

It is therefore requested that the full co-operation of the Master and Officers of ships loading for Aruba, be given to ensure that all ballast tanks and lines are flushed with lake water and stripped as dry as possible.

Vessels equipped with a separate and completely segregated system of ballast tanks, lines and pumps, will be permitted to discharge ballast and load cargo simultaneously, providing approval of both the pier foreman and Petroleum Inspector is secured.

A pier supervisor who is in direct communication with the loading pumphouse is stationed at each pier during the entire time the vessel is discharging ballast or cargo or receiving cargo.

All dirty ballast must be discharged ashore. The terminal has a 100,000 bbl. reservoir connected to two high capacity separator units. Max. ballast discharge is 40,000 bbls./hr. with max. 130 p.s.i. at rail. One or two hard arms (12 in.) are usually connected for ballast discharge.

If it is desired to follow the "load-on-top" procedure it is requested that the marine representative be informed on arrival.

POLLUTION: There are no shore facilities to recover an oil spill. The Venezuelan authorities take a very serious view of oil pollution and heavy fines are imposed for violations of the strict pollution rules. A government representative is stationed at the terminal. It is therefore important that all precautionary measures be taken and spills avoided. In case of a spill, the port services section should be informed immediately by VHF or telephone, which is located on the pier. The use of dispersants or detergents on the water is not permitted.

LOADING: Instructions as to grade or grades of cargo, and the approximate loading rate anticipated, will be given to the Master on arrival. Supplementary information including number and size of lines and Chicksan arms will be furnished to the Chief Officer before loading commences. Loading rates will be reduced as required when topping off.

If vessel's loading orders from owners or charterers do not agree with the terminal's orders, either as to grades or quantity, the marine representative should be advised immediately. The terminal is authorised to load 10% more or less than the quantity nominated.

A terminal employee is stationed at each pier during the entire time the ship is discharging ballast, bunkering, or loading cargo. Fifteen minutes "standby" notice should be given to this man prior to completion of ballast, bunkers, or cargo.

Shut-down controls for all crude oil pumps are available at each loading berth at ship's rail of loading vessels for use in case of emergency only.

LOADING RATES: Loading operations at La Salina Terminal are normally carried out at relatively high pumping rates; up to an average of 40,000 bbls.p.h. Ship's officer will be advised by the pier supervisor at what rate the cargo will be loaded. LPG is loaded up to an average max. rate of 7,500 bbls.p.h. at Platform No. 3.

During periods of calm, loading of gasoline or other similar low flash products may be at lower rates or loading stopped if the heavy vapours are not being dispersed quickly enough to prevent hazards from accumulated gas pockets. Ships' officers are cautioned to be on their guard during such conditions.

Loading rates will be reduced when topping off, if requested by the ship's officer.

Cargo Handling: The terminal is mainly a crude exporting facility, but also LPG, bunkers, condensate and gasoline are handled.

The cargo transfer facilities are:

Berth 6 North and South:
3 × 12 in. Chicksan arms for crude loading.
1 × 8 in. Chicksan arm for bunkers (located aft of manifold).
Berth 7 North:
4 × 12 in. Chicksan arms for crude loading.
1 × 8 in. Chicksan arm for bunkers (located aft of manifold).
Berth 7 South:
4 × 12 in. Chicksan arms for crude loading.
3 × 12 in. Chicksan arms for pressurised gas loading (located forward of crude loading manifold)
1 × 8 in. Chicksan arm for bunker (located aft of manifold).

Gasoline, condensate and pressurised butane are handled at Berth 6 at both sides of the manifold.

All connections are standard 150 ASA bolt hole flanges.

The emergency cargo stop button is located in the operators' shelter on both piers.

Crude loading rates up to 50,000 bbls./hr. can be provided.

The loading and discharging of all crude petroleum and its products will be stopped during the passage of an electric storm and ullage covers must be closed and dogged down.

Cautionary Advice: Whenever non-matching flange sizes necessitate the use of reducers (spool pieces), Masters should insist that the reducer or hard arm be adequately supported by a proper jack, and should refuse to let cargo transfer operations commence before a satisfactory vessel manifold and hard arm connection has been provided.

FIRE PRECAUTIONS: The recognised fire alarm signal is 4 long blasts with ship's or tug's whistle. An 8 in. fire water main line runs alongside all 4 berths with numerous double 2.5 in. outlets for connection to ship's hoses. Four elevated water/foam monitors are located on each pier providing relatively good fire fighting protection for the main deck area.

The 2 tugs are also equipped with elevated fire water/foam monitors, though on board foam storage capacity is relatively limited.

MEDICAL: Complete medical, dental and hospitalisation facilities are available at La Salina. Medical treatment is provided at a private clinic.

Authorisation forms for medical treatment are provided which require the Master's signature. Transportation will be supplied by Vensport La Salina.

If the patient does not speak Spanish or English, an interpreter should accompany him.

FRESH WATER: A limited supply of fresh and boiler water is available at La Salina Lacustre Terminal. Delivery is made through 2.5 in. National Standard Fire Hose Thread hydrants. Ship's personnel must provide hoses and connect up.

FUEL: Bunker C fuel oil, marine diesel and intermediate fuels are available at La Salina Terminal Lacustre. Delivery is made alongside Piers 6 or 7 by 8 in. diameter Chicksan hose, located about midships.

Loading Rates: Bunker "C" and intermediate – 3,000 bbls.p.h. Diesel – 2,000 bbls.p.h.

It is the responsibility of the ship's engineer to give "stand-by" notice to the terminal employee and advise him when to shut down.

Supplies of lubricating oils in drums are available. Delivery will be effected while loading and requirements should be incorporated in the radio ETA.

DENSITY: Average density at the berth is 1002 but varies dependent upon amount of rainfall. The temperature ranges from 82°F. to 86°F.

REPAIRS: Vensport's Port Staff will assist with emergency repairs as may be required in each case depending upon availability of competent personnel and equipment. The company's shop facilities while not equipped for extensive ship repairs, may be made available to fabricate or repair items that are urgently required.

The nearest dry docks are those at Puerto Cabello and Curacao, N.A. Several contractors in the area provide labour for hull painting and for tank cleaning. Contracts for these services are made by the ship's Master directly with the contractor.

Radio technicians are available for minor repairs. With sufficient advance notice a radar specialist can be arranged to board the ship at La Salina.

CONSULS: The following countries have consular representatives in the area:

Belgium
Chile
Colombia
Costa Rica
Denmark
Dominican Rep.
Ecuador
El Salvador
France
Germany F.R.
Great Britain
Guatemala
Italy
Netherlands
Nicaragua
Norway
Panama
Peru
Spain
Sweden
Switzerland
U.S.A.

SHORE LEAVE: Shore leave is permitted and a representative of the Captain of the Port boards on arrival and issues the required number of passes. Shore passes are to be collected prior to sailing, and given to Pilot undocking the vessel. Vessels are not permitted to sail until all crew members are on board, unless hospitalised or prior arrangements made for disembarking. No launch service for liberty parties is available while vessel is anchored off La Salina awaiting berth.

TIME: GMT minus 4 hours.

GENERAL: Representatives of Vensport La Salina board vessels immediately on arrival, and it is particularly requested that Masters indicate at that time all ships' requirements. The office building is located at the Pier Head Trestle and personnel are available for assistance at all hours.

(a) Bonded Stores. Cigarettes or other stores in bond are not obtainable in La Salina.

(b) Cash Advances. Cash advances are made in local currency, the Venezuelan Bolivare. Cash requirements should be included in the radio ETA.

(c) Charts. On first arrival of each tanker, the Agency Dispatcher will furnish a set of local charts if required. No supplies of U.S. Hydrographic or British Admiralty charts, or sailing directions, are available.

(d) Classification Societies. American Bureau and Lloyd's Register have non-exclusive Agents in Maracaibo, and qualified Masters and Chief Engineers are available for appointment as Surveyors when required.

(e) Gangways. All vessels using the Port of La Salina must provide a safe gangway. The use of rung ladders, pilot ladders, etc., is contrary to Port Regulations and Port Authorities will not board except by means of a safe gangway or accommodation ladder.

(f) Plimsoll Marks. The Captain of the Port requires that the Plimsoll Marks of all vessels using the port be clearly visible. Vessels may be checked on completion of loading, and if the Plimsoll Marks are not readily legible, permission to sail may be withheld.

(g) Port Services. On arrival at La Salina Terminal, a company representative boards vessels, so it is particularly requested that Masters make known to him all ship's requirements. Master should bear in mind that while vessels are within Venezuelan territorial waters, Government Authorities do not permit the use of ship's radio equipment. Cables and radiograms should be handed to the company representative for transmittal via shore radio communication system. La Salina also has radio telephone communication with North and South America and Europe. For further information contact Vensport in the terminal building, tel. 88491 and 88492.

(h) Rat-guards. By order of the Port Authorities, vessels are required to use ratguards on all mooring lines.

(i) Personnel – Seamen left ashore: In the case of seamen left ashore for hospitalisation, repatriation or other reason, documents and personal effects are to be delivered to the Vensport Office in La Salina before sailing. A letter is required from the Master advising maximum advances to be made to seamen if any, and instructions concerning repatriation. All expenses incurred by seamen left ashore, including cost of repatriation, are for ship's account.

It is important that Masters bear in mind that the Venezuelan law will at all times hold the vessel, her Master, Agent or Owner, responsible for any seamen left behind in Venezuela.

(j) Provisions and stores. Fresh and dry provisions are supplied by various Ship Chandlers in Maracaibo and Cabimas (La Salina). Master should deliver his signed requisition to the Vensport Office representative who boards on arrival. Provisions would then be delivered to the vessel while loading. The prices and quality of some items, such as fresh fruit, fish, shrimps, vegetables, etc., are competitive; dry stores are considerably higher than in most ports. The Fleet Steward will assist in filling requisitions. It is important that the Master sign the Ship Chandlers invoice as authorisation for the Marine Department to make settlement.

(k) Mail. Any pending ship's mail will be delivered on board by the Vensport Dispatcher on arrival at La Salina. At same time he will receive ship's mail to be dispatched. The Vensport Dispatcher will accept personal mail only if it carries the proper amount of Venezuelan postage, or if Master authorises the postage by signing 7 copies of the Company Postal Transmittal form. Masters interested in knowing the individual postage amounts to be paid by each crew member, should provide a list, in duplicate, of the senders, and number of letters sent by each one identified by a number written on each letter.

Copy of this list will be returned aboard the vessel when leaving this port outward bound. If not ready on time, it will be airmailed to the vessel's next port of call.

(l) Inspection of Petroleum Products and Crude Oil. Chas. Martin & Company and E. W. Saybolt petroleum inspectors are available if specified.

(m) Laundry. Laundry service is available between 0700 hrs. and 1700 hrs. on week-days. No guarantee can be given on time of delivery.

AGENT'S NOTICE: December 1987.

TO ALL MASTERS CALLING AT LA SALINA

We would like to draw your attention to the following:

(a) Terminal of La Salina is an artificial island. For safety reasons during your vessel's call, a permanent (24 hours) taxi service has been arranged to take you and your crew from island to main gate and vice-versa.
(b) This taxi service MUST NOT be paid for by you or your crew.
(c) No idling or walking around the island and/or terminal is allowed.
(d) It is impossible to go through La Salina's main gate without the Harbour Office Shore Pass duly filled in with name, nationality, vessel's name, passport number and date.
(e) Your agent's call name at branch office of La Salina is "Agemar La Salina", standing-by 24 hours on VHF Channel 16, telephone numbers 45665 and 43089, direct line of Lagoven 3235. Agency's call name at main office also standing-by 24 hours on VHF Channels 12, 14 and 16 is "Agemar Maracaibo".
(f) Whenever calling "Agemar La Salina" and no reply is obtained, please contact "Agemar Maracaibo" and leave your message.
(g) If an emergency arises concerning bunkers or cargo, you must contact Lagoven's employee-in-charge of the pier at the small house beside the vessel or call by the telephone of the pier to the Loading Master, Tel. No. 3587, 3304 or 3258.

(h) Launch operator's call name is "Servicios Portuarios" on VHF Channel 16 (24 hours), Tel: 3491 and 3492. In case you need to contact Lagoven, there is always an employee on the pier with a telephone. Bunkers or water facilities are available at this pier.

(i) Water and bunkers are available at Piers No. 7 and No. 6. Water is taken through vessel's hose while bunkers by shore's Chicksan or rubber hose.

(j) Two hours before loading operation finishes, a radio call should be made to "Agemar La Salina", so that arrangements for pilot, tugboats and other sailing procedures can be made. (*)

(k) In case of oil spillage, an immediate call should be made to "Agemar La Salina" or "Agemar Maracaibo", giving the name of your P & I Club. We will contact the area representative and request their assistance.

(l) It is recommended that a crew member stands-by on VHF, one hour after vessel finishes loading.

(m) Maximum sailing draft is 39 ft. 00 in. even keel – NOT ONE INCH MORE.

(n) Crew Disembarking – In order to obtain 25% discount on air tickets and to cover IATA Regulations, Master must issue a letter addressed to Agemar requesting the tickets and mentioning name, destination, passport number, nationality, age. If any excess luggage (only 40 kgs. allowed per person), Master has to authorise same and inform agents. Our agent at Maiquetia Airport will take charge of this expense on behalf of Owners. Weighing of baggage should be done onboard and letter must be done on vessel's official paper, signed by Master and with the vessel's stamp on it. Crew members disembarking have to keep their Shore Passes. *All other shore passes must be returned to the Agent and he must be informed whether all crew members are on board.*

(o) Medical Attendance – Call immediately "Agemar La Salina" and send the person that is sick to the hospital, by the taxi, also call Lagoven's Control Tower. Taxi has a visible identification that says "Linea Zulia". Taxi driver will not only take the crew member to the hospital but will also pick up Agemar's agent and service order as well.

(p) No external painting of vessel (hull) is allowed while berthed or anchored. It is forbidden to deballast from cargo tanks (clean or dirty) into the lake. Heavy fines will be imposed on those not complying with these regulations. Smoking is not allowed on all piers.

(*) Please call by VHF Channel 16 to "Agemar La Salina", today at 1800 hours local time, informing the estimated time of completion of loading.

Section D

MARACAIBO: 10.42 N. 71.39 W.

On the N.W. shore of the Lake Maracaibo.

Maracaibo is the capital of the State of Zulia and seat of all Government and Consular Offices, as well as the port of entry for all vessels loading at one of the Terminals in the Lake of Maracaibo. (N.B. For information details of Documentation, Pilotage etc., see "Maracaibo Lake").

Also see "Shipmaster's Report" before Bajo Grande.

ANCHORAGE: The Pilot will not con the ship into the anchorage, but will indicate the proper location to anchor. Care should be taken because of small boats and ferry traffic.

ACCOMMODATION LADDER: Vessels must provide an accommodation ladder. The use of trunk ladders, pilot ladders, etc., is contrary to port regulations. Port Authorities will board only by means of an accommodation ladder. It is recommended to rig this in advance to avoid unnecessary delays.

BOARDING PARTY: The boarding party usually consists of the following persons: One Quarantine Official, Two Customs Officials, One Port Captain's Representative, Two representatives (Agent and Mooring Master).

RADIO: "Radio Marina" transmits information of interest to navigation every day from Monday to Friday from 1000 hrs. to 1015 hrs. and from 1600 hrs. to 1615 hrs. on frequency of 4,420.7 kHz in the 60 m. band, output 1 kW. All bunker, lubricating oils, water and other requirements should be included in the cable giving ETA of the vessel.

TUGS: Service not compulsory, assistance is rendered if required by the Harbour Master.

BERTHING: The manoeuvring area within Maracaibo harbour has a depth of 26 ft.

		Length	*Depth alongside*
Wharf No.	1	106 m.	15 ft.
" "	2	106 m.	15 ft.
" "	3	159 m.	15 ft.
" "	4	159 m.	22 ft.
" "	5	135 m.	25 ft.
" "	6	135 m.	26 ft.
" "	7	135 m.	26 ft.
" "	8	135 m.	26 ft.
" "	9	120 m.	25 ft.
" "	10	120 m.	22 ft.
" "	11	120 m.	22 ft.
National Brewery Wharf		125 m.	19 ft.
Regional " "		120 m.	21 ft.
New Pier (2 berths)		—	30 ft. – 33 ft.

FUEL: Heavy and medium marine diesel, intermediate fuel, and bunker "C" fuel oil are available at Maracaibo from local contractors with barges. Supplied only by barge at the wharves or anchorage. Lubricating oils are also available.

FRESH WATER: All wharves supplied with fresh water by 2 in. hoses. Rate 15/20 t.p.h. Fresh water also available from local contractors with barges.

MEDICAL: Complete medical services are available.

CONSULS:	Telephone		Telephone
Belgium	3235	Italy	—
Colombia	72232	Mexico	6781
Costa Rica	6511	Netherlands	4621
Denmark	6531	Nicaragua	76703
Dominican Rep.	6511	Norway	78911
Ecuador	74055	Panama	78110
El Salvador	74241	Peru	4545
France	5297	Portugal	80870
Germany F.R.	76061	Spain	71118
Great Britain	6169	Sweden	6511
Guatemala	71193	United States	2123

STEVEDORES: Normal working hours 0700 – 1100; 1300 – 1700 and 1800 – 2300 hrs.

TELEPHONES: There is no service for connecting telephones on board vessels. Public telephones are situated in the warehouses adjacent to all wharves.

HOLIDAYS: All Sundays; 1st January; Good Thursday and Friday; 19th April; 1st May; 24th June; 5th July; 24th July; 12th October; 24th October; 18th November; 17th December; 25th December.

POLICE/FIRE/AMBULANCE: Police tel. 3821; Fire tel. 6585; Ambulance tel. 2209.

REPAIRS: No major repairs facilities are available; however, repair work can be done through local machine and electrical shops, and shore labour can be furnished if required. Radio and radar technicians are also available.

AIRPORT: International Airport "Granode Oro" situated N.W. of Maracaibo City served by many national and international airlines. A second airport with cargo and passenger services is situated at Santa Barbara del Zulia, on the banks of the Escalante River.

PROVISIONS: Fresh and dry provisions are available through ship chandlers in Maracaibo for delivery at Maracaibo Harbour or at the terminal.

SHORE LEAVE: Launch service in the Maracaibo harbour is readily available for official ship business. For personnel shore leave, depends on launch availabilities on arrival.

SHIPMASTER'S REPORT: 1976

Communication: Considerable difficulty was experienced raising La Guaira Radio Station (YVG) for transmitting the necessary ETAs. Our messages were transmitted via Portishead (GKR). Agents, however, advised that messages are normally transmitted through Curacao (PJC).

Pilotage: Masters making their first visit to the port are to embark the Pilot at Punta Cardon (Paraguana Peninsula). Ample notice must be given to the Agents as the Pilot has to be flown there from Maracaibo. Masters making their first visit to Maracaibo must also disembark the Pilot at Punta Cardon on departure. Masters may thereafter proceed directly to San Carlos pilot station.

Communications can be made through the Harbour Master's Office Punta Cardon.

Delays experienced off Punta Cardon did not occur on this particular occasion. Pilot boards and normally rests in the pilot's cabin until 30 minutes from the "EM" Buoy.

Berthing: 2 tugs are compulsory for vessels berthing/unberthing when the vessel's length exceeds 476 ft. All other vessels 1 tug compulsory.

Stevedoring:

Normal working hours	
(Monday – Friday)	0700 to 1100 hrs.
	1300 to 1700 hrs.
	1800 to 2300 hrs. (Overtime)
(Saturday)	0700 to 1200 hrs.
(Sundays & Public Holidays)	*No work.*

Vessels must be fully rigged and hatches open and ready in all respects to load or discharge at least 15 minutes before stevedores arrive. If necessary shore labour is available to assist.

SHIPMASTER'S REPORT: 1975.

Arrival Messages: Cable Agent – Maracaibo via La Guaira Radio on departure Cristobal with ETA Punta Cardon, draft, cargo stowage, gangs required and requirements. (For subsequent calls vessel will be permitted to proceed to San Carlos pilot station to embark Pilot).

24 hours prior to arrival repeat ETA Punta Cardon, to be sent as described above.

2 hours before arrival at pilot station – Punta Cardon call on Channel 12 VHF to update time of arrival.

Pilotage: Pilot boards at Punta Cardon about 1 mile off the tanker berths from a launch with a "roof landing", therefore the pilot ladder must be about 6 ft. from the water. This Pilot travels from Maracaibo to meet the vessel at Punta Cardon and takes the vessel all the way to Maracaibo. Punta Cardon to "EM" Fairway Buoy – 78 miles. "EM" Buoy to Maracaibo – 35 miles.

Once the vessel has made a call at Maracaibo the Master is then exempt and may take his vessel direct to the "EM" Buoy and negotiate the buoyed channel for 12 miles to San Carlos Pilot Station. The channel is straight, wide and the buoys are well lit and marked. A Westerly set is said to prevail across this channel from the "EM" Buoy to San Carlos Pilot Station but it was not evident on our passage in or out. However, a strong ebb tide was noticed running out to sea off San Carlos Pilot Station. The channel from the "EM" Buoy to Maracaibo is dredged to 41 ft. but off the berths at Maracaibo the maximum draft is 26 ft. There had been a lot of unseasonal rain prior to our call and we noted that the density of the dock water was 1001.

Documents:

1 Health Declaration.
8 Stores Lists.
8 Crew Lists.
6 Passenger Lists (If no passengers these papers have to be entered as "Nil" passengers).
8 Crew Declaration Lists.
2 Venezuelan Manifests (Sent from N.Z.).
2 Sets Bills of Lading (Sent from N.Z.).
12 Sets Tally Books (Sent from N.Z.).

Stevedores: "Servicios Portuarios de Maracaibo".

They have 24 gangs in the port and mechanical equipment to support 16 gangs. Normal working hours are 0700 – 1130 and 1300 – 1630 hrs. Overtime 1800 – 2230 hrs. Saturday 0700 – 1200 hrs. No work on Sunday.

The labour works well but is not accustomed to working refrigerated ships and when the gangs work into the wings the Agent had to supply the men with warm clothing and hot coffee. Their discharge rate for cartons of frozen cream was 18 t.p.h. In hindsight I would suggest that it would be advisable to stow frozen cream for Maracaibo in a hatch square if possible to obviate the need for the labour to go into the wings as the complaint about the "cold" does not arise until this happens. They had 14 open trucks laid on to take the cartons of cream direct to the butter works and they had an unbroken flow so the "hook" was not held up on this account.

Berthing: There are berths for 6 ocean going ships and they say they can berth these ships up to 26 ft. Tugs are available and because of berthing starboard side to we used 2 tugs. The berths are concrete with rubber fenders and there is plenty of working space for the mechanical vehicles. The Pilots speak a little English but sufficient to make themselves understood and are capable. Fresh water is available alongside but I understand if bunkers are required they have to be brought by barge and there is a minimum charge of $1,000 irrespective of the amount of fuel required. They have a repair facility which is in the hands of a local engineering company. Fresh vegetables are available and can be recommended, supplied by the only providore. He maintains a listening watch on Channel 16 VHF and has a liaison with Agents for any messages sent prior to arrival at the berth. His station is called Automercado Venezia.

Section E.

EL TABLAZO: 10.45 N. 71.32 W. (See Plan)

(N.B. for important details of Documentation, Pilotage, etc., see "Maracaibo Lake".)

Also see "Shipmaster's Report" before Bajo Grande.

LOCATION: S.E. part of Puerto Miranda. Entrance by Buoys 63 and 64. Distance from San Carlos Pilot Station 16.5 miles.

MAX. SIZE:

	Depth alongside MMOLW ft. in.	*Depth approach channel ft. in.*	*Max. recommended Draft ft. in.*	*Max. d.w.t.*	*Max. LOA ft.*	*Limiting Factor*
Solids Dock:						
North Berth (Urea in bulk)	28 00	29 00	28 00	50,000	656	Draft
South Berth (Urea in bags)	29 06	30 00	29 06	50,000	820	Draft
South Berth (General Cargo)			20 00	50,000	656	Draft
Liquids Dock:						
North Berth	30 00	30 00		50,000	787	Draft
South Berth	27 09	29 06		50,000	787	Draft
Salt Dock:	20 06	21 00	20 06	3,000	270	d.w.t.
Heavy Cargo Dock:	14 00	12 00	14 00	No limit	196	Draft

Remarks: Ships willing to wait for tide may add height of tide to maximum recommended draft.

BERTHING:

	Length of Berth ft.	*Width of Pier ft.*	*Height of Pier above MMOLW ft.*	*Mooring Lines*		*Products Handled*
				Bow	*Stern*	
Solids Dock:						
North Berth (Urea in bulk)	735	34	11.5	2 head 1 breast 1 spring	2 stern 1 breast 1 spring	8, 14, 18
South Berth (Urea in bags)	974	34	11.5			7, 14, 18
South Berth (General Cargo)	738	34	11.5			14, 18
Liquids Dock:						
North Berth	856	14.7	11.8	2 head 2 breast 1 spring	2 stern 2 breast 1 spring	6, 5, 12, 17
South Berth	856	14.7	11.8			6, 5, 12, 17
Salt Dock:	364	43	10.5	2 head 1 breast 1 spring	2 stern 1 breast 1 spring	11, 12
Heavy Cargo Dock:	196.8	295	—	—		18

Products Handled: 1. Ethylene; 2. Propylene; 3. Propane; 4. Butane 5. Nat. Gasoline; 6. Anhydrous Ammonia; 7. Urea in Bags; 8. Urea in Bulk; 9. Chlorine; 10. Caustic Soda; 11. Salt; 12. Styrene Monomer 13. Monovinyl Chloride; 14. Potable Water; 15. Inert Gas; 16. Ballast Water; 17. Methanol; 18. General Cargo.

Products to be handled:

Natural Gasoline at	687	t.p.h.	
Estirene	160	,,	
Methanol	687	,,	
Isobutane	687	,,	
Ammonia	525	,,	temp. −33.3°C
Propylene	40	,,	40°/6°C
Butane	160	,,	7.8°C
Monovinyl Chloride	420	,,	37.8°C
Ethylene	80	,,	−104°/−70°C

Cargo Equipment:

North Berth:	One urea in bulk loader Cargo capacity 650/700 t.p.h.
South Berth:	Three urea in sacks conveyors. Cargo capacity 2,400 sacks of 50 kg. each per hour.

FRESH WATER: Available, 8 t.p.h., but expensive.

DENSITY: 997 – 1003.

OPERATOR: Petroquimica de Venezuela, S.A., (Pequiven) – E Tablazo, Apartado 159, Manejo de Productos, Maracaibo, Estado Zulia Venezuela. *Tel:* 311-388. *Telex:* 23206. *Contact:* Captain Antonio Parcero.

PUERTO MIRANDA: 10.46 N. 71.34 W. (See Plan)

(N.B. For important details of documentation, Pilotage, etc., see "Maracaibo Lake").

LOCATION: Situated at Eastern shore of entrance to Lake of Maracaibo in position Lat. 10° 46′ N., Long. 71° 34′ W.

OPERATOR: Maraven, S.A.

DOCUMENTS: On arrival the Master must present to the Port Authorities the following documents:

1 copy Clearance (Note: If the vessel was diverted, Master has to present a telegram in which vessel received instructions to procee to Puerto Miranda).
7 copies Crew List.
3 copies Stores List.
1 copy Vaccination List.
3 copies Personal Effects Lists.

Vessel sailing for U.S. ports requested to have American Crew Lis ready on arrival so it can be forwarded to U.S. Consulate without delay

PILOTAGE: Compulsory. On arrival Puerto Miranda under Governmen Channel Pilot's assistance, the vessel will be boarded by Governmen Berthing Master, who will assist Master in docking and undocking.

For Channel Pilot see "Maracaibo Lake".

ANCHORAGES: North anchorage area is situated at Northern part o the exit channel and is marked by the Buoys No. B57B, AP1, AP2 and AP4. Maximum depth 10.0 m.

South anchorage area is situated at Southern part of the exit channe and is marked by Buoys No. B59, AP3, AP5 and B63. Maximum dept 10.36 m.

RESTRICTIONS: There are restrictions for docking and undocking whe strong currents are running.

MAX. SIZE: Length 910 ft., breadth 147 ft., draft 39.5 ft.

HEALTH: On arrival, when Pratique is requested, all vessels should f international flag signal "Q", or show a yellow light during hours o darkness. Customs will grant Free Pratique only when they are on boar

RADIO: All information such as ETA, ballast, etc. may be sent throug Curacao Radio. Telex No. 1143-6472.

Puerto Miranda can be contacted by Telex No. 61115.

VHF: Channels 16 and 12. Vessels are requested to call Puerto Mirand about 3 hours before arrival at the port. Calls made in Spanish languag will be answered promptly, as there is always a Spanish-speaking cler on duty. Calls in English will be answered by the Supervisor on duty except when he is occupied, in which case the call should be repeate later. As an alternative, the Master could ask Government Pilot to repo in Spanish his arrival to Puerto Miranda.

TUGS: 2 motor tugs of 4,200 h.p. assist all vessels in docking an undocking. Tugs always used as required by pilots.

TANKERS: Discharge lines 12 in.

Tank cleaning and dirty ballast facilities up to a maximum of 25% o vessel's deadweight.

Discharge of waxy slops and sewage water is forbidden.

Maximum receiving rate for ballast discharge 1,000 t.p.h.

Maximum loading rate 6,000 t.p.h.

Winds are mainly from the N.E. quadrant.

Vessels of any deadweight must secure with at least:

Forward: 4 headlines; 4 breasting fibre ropes and 1 spring in Berth No. 1 and 2.

Aft: 2 stern lines; 4 breasting fibre ropes and 1 spring in Berths No. and 2.

In Berths No. 3, 4, 5 and 6. Forward: 2 head lines; 4 breasting line and 1 spring.

A suitable gangway will be provided by the shore installation. Whe it is out of order vessel's gangway has to be used.

The terminal assist in the event of any vessel spillage; but the Maste is obligated to make his own arrangements to control the spillage.

BERTHING:

Jetties/Berths	Depth M.M.O.L.W. ft.	Maximum Permissible Draft ft.	Length ft.	Displacement tons
Jetty No. 2				
1 (North Outer)	42	39.5	910	90,000
2 (South Outer)	42	39.5	910	90,000
3 (North Inner)	35	34	†575	62,000
4 (South Inner)	28	27	‡575	62,000
Jetty No. 3				
5 Inshore (North Seaward)	42	39.5	910	90,000
6 Inshore (South Seaward)	42	39.5	910	90,000

Remarks: Alongside UKC for ships up to 700 ft. LOA = 1 ft.
Alongside UKC for ships over 700 ft. LOA = 2 ft.

(†) LOA in Berth No. 3: This can be increased up to 620 ft. whenever vessel on Berth No. 1 has LOA up to 555 ft.

(‡) LOA in Berth No. 4: This can be increased up to 610 ft. if Berth No. 2 or 5 are empty when vessel arrives, then Berth No. 2 has to be temporarily restricted to vessels up to 665 ft. LOA

The alongside drafts are subject to reduction owing to depth in inner and outer channels.

Vessels drawing over 37 ft. 06 in. will proceed according to monthly sailing draft table issued by Maraven, S.A.

MEDICAL: Written request for medical attendance, as well as a shore pass, is always required. Master must inform by telex how many crew members will be sent to Maracaibo through the Agent. Ample hospital facilities available at Maracaibo.

BALLAST: *Agent's Notice:* September 1987.

For your guidance please note Maraven's tariff stipulates an additional charge of U.S.$515.00 per hour for extra berth occupation covering any delays attributable to the vessel (tank cleaning, repairs, etc.).

It is important that vessel arrives with tanks in suitable condition to load as per charter party.

If tanks are not accepted by Inspector, the Terminal will charge additional berth occupancy as per above, and if vessel proceeds to anchorage for further cleaning, Terminal fee (tugs and launch for running lines) will be charged again in full for second docking.

The volume of ballast accepted without extra charge to the vessel is up to 25% of her Summer deadweight.

For vessels over 115,000 S.D.W.T., volume in excess of 28,750 tons ballast also applies.

DENSITY: Density of water at berths 997-1003.

Density of water in outer channel 1015-1025.

FRESH WATER: Available at all jetties at a loading rate of between 20 t.p.h. to 30 t.p.h., depending on number of vessels being supplied at any one time. Approximate cost is U.S.$4.0 per ton.

FUEL: Available ex-wharf: Bunker "C", thin fuels from 200 to 3,500 seconds Redwood, and marine diesel. Delivery rate 400 t.p.h. and 80 t.p.h. respectively.

Gas oil, fuel oil and thin fuels may be supplied by barge ex-Maracaibo, delivered at anchor at a maximum rate of 110 t.p.h. and 140 t.p.h.

Notice in advance is requested for delivery.

FIRE PRECAUTIONS: Any hot work is forbidden whilst alongside the Pier. Terminal approval is compulsory for any special requirements.

CONSULS: On all Italian vessels, the Consul comes on board on arrival. Other Consulates are at Maracaibo: Colombia, Netherlands, Panama, Peru, Spain, Great Britain, Guatemala, Switzerland, U.S.A., Chile and Portugal.

REPAIRS: There are small workshops in the area. Contact Agent on arrival.

SURVEYORS:

(1) Cargo Inspectors:
Saybolt. Telex 61120 Maracaibo. Tel: 76975.
Caleb Brett. Telex 23333 Caracas. Tel: (02) 325875.
Inspecciones C.A. Telex 62292 Maracaibo. Tel: 78642.
AIVEPET. Telex 21050 Caracas. Tel: (02) 9860422.
Chas. Martin. Telex 62451 Maracaibo. Tel: 78651.
S.G.S. Telex 23324 Caracas. Tel: (02) 338569.

(2) Surveyors:
Lloyd's Register, American Bureau, Bureau Veritas and Norske Veritas.

CUSTOMS ALLOWANCES: One opened packet of cigarettes allowed to be taken from vessel by each crew member when going ashore. When a crew member signs off, he must present his personal effects to the Customs.

REPATRIATION: Crew changes and repatriation possible. All the arrangements are made by the Agent.

AIRPORT: An International Airport is situated in Maracaibo City. It is served by National and International Airlines. All arrangements through the Agent.

TIME: GMT minus 4 hours.

HOLIDAYS: Do not affect port operations, port works throughout 24 hours, 7 days a week.

POLICE/AMBULANCE/FIRE: All contact must be made in Spanish language. The supervisor will assist in making contact.

Telephones: Police 169. Fire 166. National Guard 168.

EMERGENCY CO-ORDINATION CENTRE: Port Captaincy at Maracaibo, Tel: 9-0-223279 or VHF Channel 16.

TELEPHONES: Whilst alongside, a telephone is placed on board for operational purposes, emergency and internal communication with Maraven telephones. There is no charge.

SERVICES: Radar repairs, R/T repairs, gyro-compass adjusting and all types of electronic repairs.

BANKS: The nearest bank is located at Los Puertos de Altagracia or at Maracaibo City.

STORING: Vessel can be stored by barge or truck; but it is strictly prohibited by barge during loading or discharging, likewise it is prohibited for truck to proceed alongside the ship during loading or discharging.

SHIP SUPPLY SERVICES: Available in Maracaibo. Contact to be made through the Agent.

SHORE LEAVE: Not granted until shore passes are stamped and signed by Authorities. Passport and shore pass required by all crew members going ashore. Passes must be shown to guards at gangway and gates. Crew members must be properly dressed before proceeding ashore. Master must collect all passes and return them to Agent before vessel's departure.

DELAYS: Delays can be expected during deballasting if the levels in the pits are high.

GENERAL: *(a) Tides:* In view of the changing depth in the channels which allow navigation to vessels up to about 70,000 d.w.t. fully laden at high water, permanent predictions of sailing draft tables have been prepared by Maraven S.A., and they will send these on board ships of over 47,000 d.w.t.

(b) Currents: The tidal current (Lunar tide) at this port can at times be very strong and subject to changes. Usually the outgoing tide runs for 7 to 8 hours against 4 to 5 hours for incoming tide. Direction approx. at right angles to jetty.

(c) Movement of Passengers: Embarkation or disembarkation of passengers through this port is not allowed by Venezuelan Law, as this Terminal is only authorised by the Treasury Ministry (Ministerio de Hacienda) exclusively for exporting crude oil.

(d) Failure to Rejoin Vessel: If any member of crew is not aboard at sailing time, Authorities will not clear vessel although permission may be given to proceed to anchorage if the berth is required. If sailing permission is granted, Master is required to sign letter accepting all costs in connection with this matter being for Owner's account.

(e) Launch Service: Masters who have to go on business to Maracaibo can make use of public service launches. Please contact your Agent.

(f) Guards: Custom Guards (Guardia Nacional) will be posted on all vessels and Masters are reminded that these guards must be accommodated and treated in the same manner as ships' officers. Non-compliance entails not only a fine but will result in delays in clearance and cargo operations.

(g) Visitors: Only persons on business allowed on piers. Visitors, as guest of Master, allowed to board vessels provided a written and signed request presented by Master to Port Services Department. Further particulars covering procedure for obtaining permits for visitors can be obtained from Port Services Office.

(h) Charts – Nautical Publications: On arrival of each tanker the Agency Representative will furnish a set of lake charts if required. No supplies of U.S. Hydrographic or British Admiralty charts or Sailing Directions, Nautical Almanac, etc., are available at this port.

(i) Films Exchange: Films may be exchanged at Maracaibo.

(j) Fire Alarm: Each Thursday morning at 1100 hrs. there will be a test of fire alarms including sirens at the wharves.

(k) Cash Advances: Local currency is Venezuelan Bolivar and cash advances are made only in this currency. It is requested that any requirement for cash advances be included in vessel's radio ETA, to permit delivery on board on arrival.

REGULATIONS: Following regulations should be strictly observed by the vessel's crew whilst alongside or at anchor. Non-compliance with these instructions entails not only a fine but delays in cargo operations.

1. Use of rafts for painting the ship's sides is strictly prohibited.
2. Lifeboats should not be lowered without the special permission of the Government Port Captaincy.
3. Swimming in the harbour is strictly prohibited.
4. Waste water, sanitary or other must not be discharged on jetty.
5. It is strictly prohibited to paint ship's name or others on jetties. When this occurs the vessel will be charged for the cleaning.
6. Painting in ships alongside is strictly prohibited.
7. Before start of cargo operations it is compulsory to execute all requirements established in the Check List.
8. It is necessary to keep a close and constant watch on moorings and to adjust when necessary. When adjusting, call for assistance of tugs before slackening off any mooring lines, if the current is setting the vessel off the pier.

AUTHORITY: Maraven, S.A. Apartado 829, Codigo Postal 1010A, Caracas, Venezuela. *Tel:* 908.2111. *Telex:* 23535, 23536. *Cables:* Maraven Caracas.

Section F

PUNTA DE PALMAS: 10.24 N. 71.34 W. (See Plan)

(N.B. For important details of Documentation, Pilotage, etc., see "Maracaibo Lake".)

OPERATORS: Maraven, S.A.

FLAG: The Authorities require the Venezuelan flag to be flown from the mast head from the time the vessel enters the outer channel to come into the port until it leaves again by the same channel.

LOCATION: The terminal is located at Punta de Palmas del Sur, approximately 13 miles South of the Port of Maracaibo on the West shore of Lake Maracaibo. The terminal proper may be identified by a 300 ft. radio tower, having 2 small red lights 200 ft. from the base, and 1 large red light on top of tower. The top light flashes every 2 seconds.

PILOTAGE: Vessels which arrive have the option of taking on the Official Pilot at the following places:

(a) In the outer channel of the Lake of Maracaibo, between Buoys B-24 and B-26.

(b) In the anchorage area, located approximately 5.5 miles to the N.E. of the Island of San Carlos and to the East of the Buoy B-17. This area is identified by a green light buoy, equipped with a radar reflector (position: Lat. 11° 04′ 22″ N., Long. 71° 33′ 48″ W.).

(c) On the "EM" Buoy (i.e. Entrance to Maracaibo), there is also a radar reflector (position: Lat. 11° 13′ 47″ N., Long. 71° 33′ 31″ W.).

The Official Pilot who comes on board at San Carlos will take the vessel to Maracaibo. At times, due to bad weather, the Maracaibo Port Captaincy cannot guarantee the embarkation or disembarkation of Pilots at the "EM" Buoy or in the anchorage at Lat. 11° 04′ 22″ N., Long. 71° 33′ 48″ W. For this reason, Masters must contact the pilots station at San Carlos so that they may give him appropriate instructions as to the place of boarding or disembarkation of the Official Pilot, who, generally speaking embarks between Buoys B-24 and B-26.

The system of communications which vessels use with the pilots station of San Carlos will be the morse lamp, radio-telephone or radio.

The frequencies on which San Carlos listens out are: Radio 2182 kHz. Radio-telephone 156.6 MHz. It also operates with frequencies 2080, 2120, 2638, 2738 kHz R/T and 156.8 MHz VHF.

Vessels sailing from Punta de Palmas will take on the Official Pilot at the mooring where they are located after having terminated their loading operations. This Pilot must be requested one hour and forty-five minutes before the estimated time of being ready to sail. Vessels which embark their Official Pilot at Punta de Palmas to sail to Maracaibo will change their Pilot again on arriving at that port. The Pilot who embarks will guide the vessel to the proximities of the Island of San Carlos, between the towers E-31 and E-33, where he will disembark onto a pilot launch. The Port Captaincy of Maracaibo has given instructions to shipping Agents for the purpose of informing Masters and Owners of vessels that every Master must identify himself in advance to the pilot station at San Carlos at any time of the day, when they are arriving at Buoys B-17 and B-19, and when they are sailing at T-42 and T-40. These instructions are of an obligatory nature in order to keep the Pilots' service informed at all times of any emergency that may arise. Also to avoid an Official Pilot going out unnecessarily from his base, especially during the night in the belief that the vessel which is in sight requires his services; in this case both the service of the launch and that of the Pilotage not given will be charged to the ship's Agent or Representative.

Lake Pilotage: An Official Government Pilot will assist every ship in crossing from Maracaibo to Punta de Palmas and in its exit voyage from Punta de Palmas to Maracaibo. This Pilot will also assist in the operations of mooring and unmooring. The Agent will inform the Master and the Official Pilot of the time determined for berthing the vessel when it arrives at Maracaibo. Vessels which load in Punta de Palmas must request a Pilot for their exit journey at least 1 hour 45 minutes in advance of the time at which they consider the vessel will sail.

CARGO DOCUMENTS: Vessel's clearance and cargo papers will be delivered to the Master on arrival in Maracaibo Harbour outbound. Maraven will accept no responsibility for delay in clearing a vessel due to unavailability of personnel from offices of the Port Authorities.

APPROACHES: The buoy which indicates the entrance to the outer channel ("EM" Buoy) is located in the geographical position: Lat. 11° 13′ 47″ N., Long. 71° 33′ 31″ W. The light of the "EM" Buoy has the following characteristics: white light, with 1 flash every 10 seconds, visibility approximately 5 miles. The distance between the "EM" Buoy and the inner extremity (South) of the inner channel, marked with Buoys B-27 and B-28 is approximately 15.75 miles. The outer channel has a width of 300 m. between the limit on both sides. The navigable portion for loaded vessels is 240 m. wide. The average depth which has been checked at low tide is 13.72 m. (45 ft.) and the tidal amplitude is up to a maximum of 1.49 m. (4.9 ft.). There is a breakwater located a half a mile to the East and parallel to the external channel which extends for 2,574 m. (1.6 miles) to the North from the Northern coast of the Island of Zapara. In its outer extremity there is installed the lighthouse of the steel lattice type construction, with a height of 7.62 m. (25 ft.). The characteristics of its light are: white, with 1 flash every 8 seconds, visibility approximately 5,556 m. (3 miles).

The commencement of the internal dredged channel is marked by Buoys B-29 and B-30. The extension of this channel is 19.31 km. (12 miles) approximately and ends at Towers T-55 and T-56. The channel is 244 m. (800 ft.) wide and its normal checked depth is 13.72 m. (45 ft.) at average low tide, with a tidal amplitude which varies between 0.49 m. and 0.89 m. (1.5 ft. and 3 ft.), at Tower T-66, and from 0.82 m. to 1.46 m. (4.5 ft.) at Buoy B-29.

The channel from Tower T-56 as far as the Port of Maracaibo is dredged and its termination is marked by Buoys B-73 and B-74. It is 244 m. (800 ft.) wide and has a depth of 13.72 m. (45 ft.). Its distance is 17 km. (11 miles).

The depth in all the channels may vary in accordance with the sedimentation to which they are subjected and the formation of sand banks. The Port Captaincy at Maracaibo issues Notices to Mariners keeping them informed as to changes in depths in the channels. Navigators are advised to keep themselves up-to-date with these notices of variations of depth when they calculate their exit draft of their respective vessels.

MAX. SIZE:

Berth	*Max. LOA*	*Max. Draft*	*Max. d.w.t.*
No. 1	835 ft.	38 ft.	80,000 tons
No. 2	835 ft.	37 ft. 6 in.	80,000 tons
No. 3	890 ft.	42 ft.	100,000 tons

Also see "Berthing".

RADIO: *Time of Arrival (ETA):* When a vessel leaves its previous port destined for the Terminal of Punta de Palmas, it must inform both its Agent and Maraven S.A. in Maracaibo as to its best estimate of the date and time of arrival in Maracaibo. Then at least 24 hours prior to arrival at the San Carlos pilots' station, it must send another message to confirm the time of arrival at Maracaibo. The nationality of the vessel, name, nett Venezuelan tonnage (if it does not have this, its registered tonnage), last port, name of Master, permanent ballast or cargo in tanks or both, and any other information which is pertinent must be included in this message. The cable address of Maraven S.A. is as follows: Maraven, Maracaibo, Telex 61126. By virtue of the circumstances that the Cable Office in Maracaibo is not equipped to communicate with vessels on the high seas directly, messages sent to Maraven S.A. and to the Agent of the vessel must be transmitted through "PJC" (Curacao), with the prefi "Via ACC" (All American Cables and Radio, Inc.).

We wish to emphasise that by virtue of the fact that our undertaking rents a part of its equipment which it uses for mooring vessels in accordance with the last message of arrival of the vessel, this message must be compiled with the greatest accuracy possible. Any alteration in the time and date of arrival affecting the vessel before or after the time indicated in its message, will be for the account of the vessel as will be the cost of rental of the equipment used.

Maraven S.A. is in no way obligated to carry out the mooring of any vessel, except at the estimated time of its arrival at Punta de Palmas, although exception is made where the vessel may have been delayed in Maracaibo by virture of reasons beyond the control of the Master.

TUGS: Tug service consisting of 2 tugs of not less than 1,600 h.p. each is provided by the terminal operator for all vessels. Both tugs will assist all vessels in mooring and unmooring operations. Should it be deemed necessary by the terminal operator to require a tug in addition to the 2 terminal tugs for mooring or unmooring vessels exceeding 750 ft. in length, charges for this additional service will be for the account of vessel.

Vessels which exceed 835 ft. overall length, and destined for Berth No. 3, require the assistance of at least an additional tug. This additional tug will remain at the convenience of the Terminal for the time that the vessel remains at the berth.

In all cases where there are adverse weather conditions, without taking into account the size of the vessel, the Operator of the Terminal, at his convenience, may request the services of an additional tug to protect the installations of the Terminal and the ship, which will be for the account of the vessel.

The Terminal Department will make the necessary arrangements through the intermediary of the ship's Agent, for contracting additional tugs. These services will be charged to the ship's Agent by the tug operator who is contracted.

MOORING: *Berth No. 1:* Located approximately 8.85 km. (5.5 miles from the Terminal and 2 km. (1.25 miles) to the West of Buoys D-95 and D-96 in the Maracaibo Channel. Distance between the bow and stern buoys is 364.90 m. (1,200 ft.).

This berth is equipped, apart from the mooring buoys, with a transversal mooring pile on its Eastern side, submerged, with chain and cable the same as those of the Buoys. This does not interfere with the operations of mooring and unmooring.

Berth No. 2: Located approximately 8.85 km. (5.5 miles) from the Terminal and 2 km. (1.25 miles) to the East of the Buoys D-95 and D-96 and to the N.E. of Berth No. 1. Distance between the bow and stern Buoys is 350.50 m. (1,150 ft.).

This berth is equipped, apart from the mooring buoys with a transversal submerged mooring pile equal to that of Berth No. 1.

Berth No. 3: Located approximately 9.65 km. (6 miles) from the Terminal 1.2 km. (0.75 mile) to the West of the Buoys D-95 and D-96 and approximately 914 m. (3,000 ft.) to the East of Berth No. 2. Distance between the bow and stern buoys is 365.76 m. (1,200 ft.).

This berth is equipped similarly to Berths No. 1 & 2 with a transversal submerged pile on the Western side of the berth.

Conditions applicable to all berths: (a) Vessels which have a total overal length of 239.26 m. (785 ft.) or more must be equipped with 2 tensio capstans at the bow and on the after deck, with sufficient cable to reac the stern and bow buoys respectively.

(b) Every vessel loading at any of the berths must take int consideration that due to Government regulations, the vessel must hav a minimum clearance of 0.984 m. (3 ft.) below the keel at any poin during its transit through the Maracaibo Channel, without taking int account the limitations of the channel assigned to the 3 berths by th Terminal Operator. In view of this regulation and the constant variation of the depths of the channel, Masters must be guided by the most recen "Depth Bulletins" which are issued by the National Channel Institute and by the tide tables when they are planning their transit time throug the channel, and the maximum draft to which they may load their vesse

Mooring procedures and rules applicable to mooring points: Ever vessel carrying out mooring operations at any of the 3 berths must arriv with a minimum draft of 3.65 m. (12 ft.) forward and respect the followin procedure and rules for berthing:

(a) Anchor: Vessels approaching the berths from the East, in the mos convenient manner and safely as possible they must drop their starboar anchor in its location once the vessel has been berthed, the chain facin East, with a length of not less than 137.16 m. (450 ft.).

(b) Mooring cables: One of the following alternatives for moorin cables at each side of the vessel must be fulfilled:

1. Two cables of synthetic fibre (Nylon or Polypropylene) with 9 i circumference and 1 steel cable which has a minimum diameter 1.25 in.
2. One cable of synthetic fibre (Nylon or Polypropylene) with 9 i circumference and 2 steel cables also supplied by the vessel an which have a minimum diameter of 1.25 in.
3. One cable of synthetic fibre with a 9 in. circumference and safety cable of 1.5 in. diameter which will be supplied by the Termina

(c) Countertension cables: A countertension cable will be attached the stern or fore deck. Vessels which have a length exceeding 800 must use countertension cables on both sides of the dec simultaneously.

(d) Transversal cable: The transversal cable which will be supplie by the Terminal will be attached to the after deck on the starboard sid Vessels mooring at Berth No. 3 must also attach an addition transversal cable to the after deck on the port side.

(e) All cables which are attached to vessels must have 6 turns aroun the bitts, and these must be secured so as to prevent them fro unwinding.

(f) The pressure capstans must be secured in the braked position, once all other cables for mooring the vessel have been secured. These mooring cables must be maintained tight as the vessel goes down in the water whilst it is being loaded.

(g) Vessels must be supplied with sufficient cables as spares which can be used as the Terminal may require. All cables must be maintained in good condition and are subject to acceptance by the representative of the Terminal. Vessels must maintain sufficient personnel on deck during the whole time that the vessel is at the berth to attend to the cables for mooring purposes whenever this may be required by the Terminal.

It is understood by both parties that, when the Terminal may require safety cables to be used, and where such are required, Maraven S.A. accepts no responsibility for damages or losses occasioned to any vessel, installation or person due to the use or failure of this equipment.

The vessel's gangway must be in position so that the mooring supervisor or other personnel from the Terminal can come on board the vessel when it arrives at Punta de Palmas.

This gangway must be suspended whilst manoeuvres are being carried out, this for the purpose of obviating any damage to it occasioned by tugs or launches.

Berthing Supervisor: The Berthing Supervisor of Maraven S.A. will come on board every vessel prior to its entrance to the berth to establish radio contact between the vessel, the Marine equipment and the Office at the Terminal.

Mooring gangs and equipment: The mooring equipment will be handled by the launches employed in the manoeuvres. The tug service will be available 24 hours of the day through the intermediary of the Terminal Port.

The mooring gangs will assist the vessel personnel in the operations of hoisting, connecting and disconnecting the 2×12 in. diameter loading hoses. The approximate weight of the loading hoses is 4 tons.

The launches used for the manoeuvres will place on board equipment to facilitate the work of connecting the hoses. This equipment will be at the disposal of the vessel's personnel when required as are also the launches to transport personnel.

Responsibility: The Master may request any equipment or service which he may consider necessary for a safe and efficient operation of his vessel and the Terminal Operator will do everything within his power to fulfil this requirement. Therefore all owners and operators of vessels arriving at Punta de Palmas will accept the responsibility of the safety inherent in the manoeuvring of their vessels and their movements to and from the Terminal. Maraven S.A. will accept no responsibility for losses or damages occasioned to the ship, its installations and others unless such loss and damage be occasioned due to the faults in the installations belonging to the Terminal or operated by the Terminal with the exception of the security equipment.

Operational check list: At the time when the vessel is moored and the hoses are connected, prior to the commencement of the operations of loading, the representative of Maraven S.A. on board will deliver to the Master an operational checklist. The Master is required, or whomsoever he may appoint to carry out this work together with Terminal representative, to check very carefully that all the safety regulations have been fulfilled.

Berthing Supervisor: The Berthing Supervisor will have charts and plans which will be at the disposal of the Master and his advice if he should require it. The representative will also be available to inspect the vessel's tanks and to act as liaison between the Master of the vessel and the Agent or with the Terminal of Punta de Palmas, to transmit any information relative to the ship. This supervisor must receive lodging and treatment at the same level as the ship's officers.

Unmooring procedure: When the loading operations are completed, the launches will proceed to remove all mooring cables from the buoys under the supervision of the official entrusted with the vessel or the Official Pilot, assisted by the Berthing Supervisor of Maraven S.A.

Documentation: The departure and loading documents will be delivered to the Master by his Agent or his representative, when he passes through the Port of Maracaibo.

BALLAST: *Deballasting:* It is understood that it is not permitted to discharge ballast in the lake, even though this may come from tanks used solely for ballast. Ballast will be discharged with the pumps of the vessel to the deballasting system which exists at the Terminal. As soon as the loading hoses are connected, the personnel of the Terminal will align the system with its respective valves. Once these operations are completed the Berthing Supervisor on board will inform the Master that he may commence deballasting and in turn will keep him informed as to the pressures which will be used in the operation. Once the deballasting operation has been completed, the personnel of the Terminal will align the system again and its valves so that the vessel can receive cargo through the same hoses which are used for unloading ballast and simultaneously the personnel of the vessel will align their systems on board to receive cargo. The personnel of the vessel responsible for receiving the cargo will inform the Representative of Maraven S.A.(Berthing Supervisor) when the vessel is in a condition to receive and he in turn will inform the personnel of the Terminal that they may commence pumping.

LOADING: *Oil leakage:* In order to obviate contamination of Maracaibo Lake and possible legal actions, we recommend strongly that Masters of vessels emphasise to their deck officers in order to obviate leakage that they make sure that all necessary measures have been taken on board to this end prior to commencing the loading operations. The purpose of this is to maintain on deck any leak or wastage which may occur in the vessel.

Guarantee of responsibility: In the event of an oil leakage or any other contamination or any other damages to installations caused by a vessel, the operator of the Terminal, prior to the vessel sailing, will require the Agent to deposit bond in favour of Maraven S.A. to cover the fine or other charges which may be incurred in collecting, cleaning, repairing the installations of the Terminal and also to cover any claims from third parties.

Loading procedure and pumping rates: The position of the loading hoses, supports and connections must be to the satisfaction of the personnel on board. The valves of the hoses for loading purposes will be opened in order to test the connections, detect leaks and then ultimately to commence operations.

The responsibility and custody of the cargo passes to the personnel of the ship from the moment when the cargo arrives at the connection which is the property of the ship.

The minimum loading rate at Berths Nos. 1 and 2 is 4,000 b.p.h. The average pumping rate, under normal conditions is 13,000 b.p.h. Sudden stoppages in loading will not be permitted during loading except in cases of emergency.

Personnel on board, responsible for the loading operations, must notify the Terminal representative, not less than 30 minutes in advance of the completion of loading. This will enable the representative to instruct the operator to reduce the rate of pumping or to continue loading by gravity as he sees fit.

For reasons of security, loading may be suspended and the hoses disconnected from the vessel's manifold when weather conditions are not favourable or at any time that the Terminal considers it convenient to do so due to *force majeure* or other reasons.

Displacement of the line: Sometimes it will be necessary to displace the submarine line in combination with the loading operation. To carry out this operation it is required that the personnel responsible for receiving the cargo notify sufficiently in advance the Berthing Supervisor when the amount of cargo lacking is equal to the capacity of the line.

The capacity of the line is a fixed quantity. Therefore it must not be considered with shortcomings or excesses.

Therefore when it is necessary to effect a displacement, the loading must be calculated carefully by the vessel personnel responsible for this operation.

It is understood that any error or negligence on the part of the vessel personnel in calculating the initiation point of the displacement of the line, will require a land pump to correct the displacement. Due to the submerged manifold it will be necessary to employ a diver to operate the valves and this operation may result in a fairly costly procedure and involve a lot of time. All costs involved in fulfilling this operation, together with the time lost will be for the account of the vessel.

Increase in pumping rates: At the request of the Master and subject to the approval of Maraven S.A., it is possible to suppy a pumping rate of 17,000 b.p.h. up to a maximum of 30,000 b.p.h., provided the operations of the Terminal permit this to be done.

MEDICAL: *Maracaibo:* Complete services are available.

Punta de Palmas: Emergency cases only will be transferred to Maracaibo for treatment, at the request of the official in charge of the vessel.

FUEL: Heavy and medium marine diesel, intermediate fuel, and bunker "C" fuel oil available. Lubricating oils also available. Pumping will be affected during daylight hours and with prior permission of the Terminal.

FRESH WATER: Available from local contractors with barges. Pumping will be affected during daylight hours and with prior permission of the Terminal.

STORES: Fresh and dry provisions procurable through ship chandlers in Maracaibo for delivery at the Terminal.

REPAIRS: *Maracaibo:* There are no facilities available for carrying out major repairs. Nevertheless, repair work may be carried out through local workshops and labour can be supplied if this is required. Technicians in radio, radar, gyro compass repairs are also available.

Punta de Palmas: No type of repair will be effected here, which may prevent the unmooring of the vessel without the authority of the Marine Supervisor. Neither may boiler tubes be "blown" whilst the vessel is moored.

SHORE LEAVE: Launch service for business purposes and emergencies is readily available. Launch service for shore leave can be arranged through contract marine service and will be responsibility of ship's personnel. Arrangements for shore leave transportation can be made through Loading Master on board.

CUSTOMS: All vessels entering from foreign ports and bound for Punta de Palmas Terminal are required to anchor in Maracaibo Harbour for formal customs clearance and visit of government port authorities prior to proceeding to destination.

The vessel's accommodation ladder should be rigged prior to the vessel's arrival at Maracaibo. A member of the National Guard will board each vessel at Punta de Palmas to observe all activities connected with loading or unloading operations. This official is authorised as the customs representative, and is referred to as Customs Watch. Food and accommodation similar to officers should be made available to him by vessel.

CONSULS: See "Maracaibo".

GENERAL:

Transportation: Transportation will be supplied by launch between vessel and Punta de Palmas to the following persons, without exception:

1. Master of the vessel or the Chief Engineer, to attend to matters relating to the ship.
2. Sick personnel who require emergency medical attention.
3. Official Pilot.
4. Members of the National Guard and other Government Officials whose services relate to the tanker.
5. Doctors, when these may be required by Master, in the event of emergency only.
6. Inspectors of the oil industry.

Consular representatives, ship's suppliers, engineers, naval experts, representatives of the oil companies, suppliers of fuel and water and any other person who requires to come on board tankers when they are in Punta de Palmas must make their own arrangements for transportation to and from the ship through the intermediary of the ship's Agent. Also Agents must make their own arrangements for their own transportation.

Personnel of the ship with licence to disembark: The transportation of personnel with licence, when this is required by the Master, must be arranged through the intermediary of the Agent. Also passengers must embark and disembark at the Port of Maracaibo.

Personnel with licence are not permitted to go ashore at the Terminal of Punta de Palmas.

Classification Societies: American Bureau of Shipping, Lloyd's Register of Shipping, Salvage Association of London, Det Norske Veritas, Bureau Veritas, Registro Italiano Navale and Germanischer Lloyd have Agents in Maracaibo or in Caracas. There are experts available through the intermediary of the Agents mentioned above.

Monetary System: The monetary system of Venezuela is the Bolivar (Bs.), and is the only money legally recognised in the country. A Master who requires a cash advance must request same from his Agent when he notifies his ETA. Payment of all invoices for Terminal charges must be made in Bolivares at the Office of Maraven S.A. in Maracaibo, unless other instructions are given.

Mail: Mail for the vessel can be delivered to the representative of the Agent who comes on board the vessel at the time of its arrival or sailing from Maracaibo.

AUTHORITY: Maraven S.A.

Capitania de Puerto, La Ciega – Maracaibo, Venezuela. *Tel:* 226488.

Section G

SAN LORENZO: 09.47 N. 71.05 W.

OPERATOR: Maraven, S.A.

LOCATION: S.E. side of Lake Maracaibo.

APPROACHES: Vessels have to arrive at Maracaibo Roads through a dredged channel with controlling depths of 45 ft. in outer bar, inner channel and Punta Palmas area. In vicinity of terminal the controlling depth is 36 ft.

PILOTAGE: It is compulsory from San Carlos to Maracaibo. Pilot normally boards vessel at Buoy B–26 (Position Lat. 11° 01′ N. Long. 71° 35′ W.). It is also compulsory for all vessels which have to load at any terminal located South of the bridge Rafael General Urdaneta. This bridge has a horizontal clearance of 656 ft. and a vertical one of 148 ft. at 45 ft. MMOLW level. Pilots have to embark and disembark at Maracaibo.

When Masters have no Pilot exemption Certificate for crossing outer bar, permission has to be requested by VHF or 2182 kHz prior to arrival, which is being granted on request.

ANCHORAGES: Masters may use the following:

(a) Near E.M. Buoy, (not recommended because of the distance from San Carlos. The pilot launch never reaches this point).

(b) At Maracaibo Roads.

(c) At terminal approaches, in accordance with depths available in the area, and ship's draft.

LIGHTENING POSITION: In the Southern lake Area, arrangements have to be made in advance. Also at Maracaibo.

HEALTH: Quarantine officials board vessels at Maracaibo Roads. Pratique cannot be granted by radio.

RADIO: San Carlos Pilot Station has VHF Channels 12 & 16. Emergency call 2182 kHz. Terminal has VHF Channel 12.

TUGS: Compulsory. When vessel is over 25,000 d.w.t. a second tug is required, which is available in the area, 1,200 h.p. each. There is also a launch to assist the vessel during manoeuvring.

BERTHING: Continuous wharf 2,340 ft. in length with dolphins. This terminal is only for handling crude and its products. Maximum berthing displacement: 20,000 tons.

	Berth No. 1	*Berth No. 2*	*Berth No. 4*
Max. LOA	560 ft. 00 in.	665 ft. 00 in.	
Max. Depth	24 ft. 06 in.	35 ft. 06 in.	Out of
Max. Draft	23 ft. 06 in.	34 ft. 06 in.	Service
Loading Rate	1,450 t.p.h.	2,000 t.p.h.	

These depths are referred to the minimum monthly observed lowest water level (MMOLW).

DENSITY: At berths 998 and at outer bar between 1020 and 1025.

FRESH WATER: Available ex-barge at Maracaibo Roads.

FUEL: Any grade. In case vessels require grade not available at berth it may be supplied ex-barge at Maracaibo, which has mixing equipment able to supply the grade involved. Rate 20 – 140 t.p.h.

MOORING-UNMOORING: Carried out by Official Pilots. Mooring is Head-out to facilitate departure.

DEBALLASTING: Installations have ballast pit with capacity 650 cu.m. Max. discharge rate 600 t.p.h.

TANK CLEANING FACILITIES: Carried out by outside contractor.

REPAIRS: Minor repairs only, including electronics.

LA CEIBA: 09.28 N. 71.04 W.

SHIPMASTER'S REPORT: 1979.

BERTHING: There is a cement loading installation about 2 cables South of the 160 m. long pier at La Ceiba suitable for vessels up to 120 m. in length.

The approach channel is dredged to 9 m.

END OF MARACAIBO SECTION.

MORON: 10.32 N. 68.11 W.

This Terminal finished operations in 1981. All installations are being dismantled.

Vessels loading/discharging operations are now performed at El Palito Marine Terminal operated by Corpoven, S.A.

ORINOCO RIVER

Including Section A – MATANZAS
Section B – PALUA
Section C – PUERTO ORDAZ
(CVG Ferrominera Orinoco)
Section D – PUNTA CUCHILLO
(Lagoven S.A.)
Section E – VENALUM TERMINAL

IMPORTANT: VHF compulsory. Vessels without at least a VHF radi aboard will not be attended to by the Pilots at the Barima pilot statio and so will not be allowed to enter the Orinoco River.

GENERAL:

1. As early as possible, advise Puerto Ordaz Radio Station, (Radi Marina) call letters YVM, giving ETA at Buoy 0.1 of South (dredged Channel.

Shipmaster's Report: October 1982 (Updated 1988).

Contact with YVM was made 48 hours before arrival Buoy 0.1 accordingly, 72 hours ETA sent via Curacao Radio.

2. 24 hours prior to arrival, send another ETA to YVM.
3. Upon arrival, adhere to following procedure:
   (a) Request permission to enter from "Barima Pilot", via Channe 16. *Do not enter* until granted permission; while awaiting, la to or anchor at least 1 mile outside of Buoy 0.1.
   (b) All vessels must also communicate with the Point Barima pil station, call sign "Barima Pilot" 2182 kHz HF or 43.18 VH to be informed of traffic.
4. While navigating waterway, inbound or outbound, report position t YVM hourly on the hour.
5. No Pilot required nor available for navigation along channel at th Boca Grande of the Orinoco River.
6. The International Rules for Preventing Collisions at Sea appl outside of Buoy 27.
7. Anchoring in channel is forbidden.
8. Throughout Orinoco waterway, the down-bound loaded vessel i the privileged vessel.
9. It is compulsory to fly Venezuelan ensign inside of Buoy 0.1.
10. Vessels can only carry clean ballast within Orinoco Waterway.
11. Pilotage compulsory within Pilotage Zones No. 1 and No. 2 of th Orinoco. Pilots board at outer boundary of said pilotage zone i upstreamward vicinities of Buoy 27 up to Mile 128.1. Zone No. 2 i from Mile 128.1 up to Matanzas.
12. Regulations for the Pilotage Zone No. 1 of the Orinoco apply insid of Buoy 27.

APPROACHES: (Also see "Radio" – paragraphs *(b)* and *(c)*).

1. *The Waterway*

A Radio Direction Finder (non-operational October 1982), located at La 08° 03′ 45″ N., Long. 60° 28′ 28″ W., transmits following sign continuously: YV – AYV. The transmitter has an output of 500 watts wi a range of about 200 miles and operates on a frequency of 305 kH While navigating the waterway, ships should favour the shore on the starboard side to the extent possible, giving preference of manoeuv to loaded vessels in all cases. Ships navigating upstreamward (inbound upon approaching narrow channels should await the passing and gi way to downbound vessels. It follows, therefore, that downbound loade vessels are the privileged vessels.

2. *The Boca Grande (Barima Bar) Channel*

There is 1 navigable channel across the Boca Grande (Barima Ba Vessels navigating the dredged channel are privileged, regardless the direction in which they travel.

The Dredged Channel
The channel is a 400 ft. wide dredged channel. Depths therein accommodate the maximum draft authorised by the Port Captain. The approach from the sea is marked by a battery-operated electric flashing black buoy, identified with the number 0.1. This buoy is located in 45 ft. of water at Lat. 08° 55′ 52″ N., Long. 60° 11′ 17″ W. Its characteristics are: colour of light, white; flash, 0.5 seconds; eclipse, 11.5 seconds; height above water, 25 ft.; visibility, 11 miles. From Seabuoy 0.1, the channel develops along 4 different courses over a total distance of 27.7 Miles to Buoy 27. The course reduces by about 7° True at each of 3 turning points, located at Miles 9, 15 and 21 respectively. The initial course of 234° 18′ True continues to Mile 9 where it changes to 227° 07′ True. Upon reaching Mile 15, the course again changes to 219° 51′ True to Mile 21. At Mile 21, the course changes to 212° 45′ True to Buoy 27 at Mile 27.7. The centreline of the channel on all courses is visually marked by range structures fitted with green flashing, directionally beamed lights. The West (right ascending) side limit of the channel through Mile 21 is also visually marked by range structures fitted with amber flashing, directionally beamed lights; the alignment given by the side ranges develops 200 ft. to the West and parallel to the centreline of the channel. Battery operated electric flashing navigation aids are located along both sides of the channel. All navigation aids along the East (left ascending) side of the channel are located 325 ft. from centreline or 125 ft. outside of the channel lateral limit. White flashing navigation aids are located at 1 Mile intervals through Mile 25.1; all aids along this side are black buoys, except Beacons 8.1, 9.1, 14.1, 15.1, 20.1, 21.1, 22.1, 23.1, 24.1, 25.1, 27.1 and 27.7 (Buoy 27). All navigation aids along the West (right ascending) side of the channel are located 200 ft. from centreline or on the exact lateral limit of the channel. Red flashing buoys painted red are located at 1 mile intervals from Mile 1.6 to Mile 11.6. From Mile 11.6 to Mile 27.7, there are only 2 aids; red buoys 13.6 and 26.0.

3. *The River Channel*
From Mile 27.7, the navigable channel develops upstream. The river channel is generally deep and wide, except for the following 12 reaches which require periodic dredging: Miles 27.7 to 36.5; Miles 37.3 to 38.6; Miles 53.1 to 54.2; Miles 99.0 to 106.5; Miles 109.1 to 111.0; Miles 131.7 to 131.9; Miles 136.6 to 139.0; Miles 141.2 to 145.8; Miles 146.2 to 149.4; Miles 167.6 to 170.8; Miles 178.4 to 182.4; Miles 183.5 to 184.1. Dredged channels are normally 300 ft. in width, but occasionally can be restricted to a minimum of 250 ft. The depth maintained therein can accommodate the maximum draft authorised by the Port Captain. By Notice to Mariners, the Port Captain has instructed all Masters and Pilots to reduce speed and to proceed with caution while navigating the aforesaid reaches, especially during the low water season.

4. *River Stages*
In response to the cycle of wet and dry seasons, the flow of the Orinoco River follows a relatively regular pattern of rise and fall each year. The river normally begins rising in late March or early April and continues to rise until it peaks at crest in late August. In September, the river begins a fairly steady recession until the extreme low-water stage is reached, generally in March. The amplitude of stage variation above the low water plane of reference (0.0 ft.) at Palua (Mile 181.7) averages about 35 ft. with min. variations of 31 ft. and max. variations of 39 ft. The effects of the flood rise decrease progressively below Palua and practically vanish in the upstreamward vicinities of the Boca Grande.

5. *Tides and Currents*

(a) The indicated mean tidal range is 5.4 ft. Tidal influence is not experienced above Mile 60 during high river stages. At low river stages, a tidal effect can be observed throughout the waterway, although it progressively diminishes, moving upstreamward. However, the tidal effect is still significant at Puerto Ordaz, Mile 184, where a max. semi-diurnal change of 1.7 ft. has been recorded.

(b) The strength of river currents is generally commensurate with flow, the strongest currents occurring at high river stages. The velocity of currents at any one time generally decreases moving downstreamward. However, in certain locations, this pattern is affected by particular characteristics of river width and shape as well as by bottom gradient. Max. velocities of about 6 knots have been recorded.

6. *Navigation Aids*

(a) The navigation aids installed along the waterway consist of buoys, beacon and ranges. All aids are lighted. Identification is provided by means of numbers representing the approximate mileage of each aid, to the nearest one-tenth of a mile. The last digit of numbers identifying green lighted aids is odd, while the last digit of numbers identifying red lighted aids is even. Green lighted aids mark the left ascending limit of the navigable channel, while red lighted aids mark the right ascending limit. Aids are placed as to be intervisible, to the extent that — when abreast of any one aid — the preceding and following ones can be sighted. Consecutive aids always carry different light characteristics. Buoys are normally placed on the exact lateral limit of the channel (except for black buoys along the South Channel at the Boca Grande); beacons, instead, are located at variable distances outside of the channel.

(b) During the execution of dredging along any of the reaches which require periodic maintenance, buoys are generally moved 100 ft. outside the channel lateral limits. This information is made available to ships by YVM.

(c) The Ministerio de Comunicaciones, Direccion de Transporte Aguatico, publishes semi-annually a complete list of navigation aids. Monthly lists of changes are also published so that the complete current list can be maintained up to date.

(d) Upon encountering damaged, inoperative, or misplaced navigation aids, vessels should immediately notify YVM.

(e) Vessels are forbidden to make fast to any navigation aid.

7. *Dredging Aids*
Range structures, generally located close to shore or over the bank, are normally used to mark the lateral alignments of the channel along the reaches which require periodic dredging. These ranges are generally fitted with amber flashing, directionally beamed lights. The lights are extinguished except during execution of dredging. Dredging ranges *are not* to be used for navigation.

8. *Navigation Charts*
Navigation charts of the Orinoco Waterway should be aboard vessels for use by the Master. These charts are sold by the Instituto Nacional de Canalizaciones and are also available for purchase from the CVG Ferrominero Orinoco. If requested, CVG Ferrominero Orinoco will, if possible, arrange to make the charts and latest revisions available through the Pilot who boards at Punta Barima, provided such request is received by radio (YVM) at least 48 hours in advance of the Pilot's boarding. A set of navigation charts, corrected to latest revisions, is maintained in the office of the Traffic and Ships' Agency of CVG Ferrominero Orinoco in Puerto Ordaz. Masters may use this facility to keep their charts up to date.

Report: 1986.
Deficient Navigational Aids:
The deep draft New Barima (South) dredged channel is officially a 400 ft. wide dredged channel, but in reality it is considerably less in portions. Many of the red buoys showing a flashing red light which should be placed 200 ft. from the centre of the channel or exactly on the lateral limit, are either missing, out of position or unlit. The light on the black buoy which marks the entrance of the channel is inoperative. Several of the gauge structures fitted with green, flashing, directionally beamed lights, are inoperative. This makes it hazardous for a deep draft vessel to navigate the narrow and shallow channel during the hours of darkness. During the rainy period the authorised drafts declared by the Port Captain are in excess of the depths in certain portions of the channel.

We have been informed that about 20 vessels grounded in this area during the first 6 weeks of this year (1986).

DOCUMENTS: (Clearance, documentation and other requirements).

1. *Consignment of Inbound Vessels*
The official documents of all vessels proceeding to Puerto Ordaz and Palua should show the following consignment: to: CVG Ferrominera Orinoco, Ciudad Guayama.

2. *Customs Requirements*
Vessels bound for Venezuela in ballast, without passengers, from foreign ports outside the West Indies or Guianas, require the following documentation:

The vessel must have a clearance certificate (Certificade de Zarpe) or sailing authorisation issued by the Customs Authorities of the port of departure, representing the government of the country the vessel is departing from. No consular certification need be placed upon this document.

Spare Parts List (Lista de Repuestos). It must contain a note of all the spare parts and objects for the service of the vessel, including fuel. To be signed by the Master and to be current as of the day of entering the Venezuelan port.

List of Effects for use of Captain and Crewmen (Lista de efectos personales de la dotacion). To be signed by the Master and to be current as of the day of entering the Venezuelan port. The Customs are very strict and will confiscate any article that appears new.

3. *Health, Immigration, and Police Requirements*
Vessels bound for Venezuela in ballast, without passengers, from foreign ports outside the West Indies or Guianas, require following documentation.

(a) Current individual International Vaccination Certificates for each member of the crew.

(b) Derat Exemption Certificate.

(c) Crew Lists (original and seven copies).

(d) Panama or Suez Canal or any comparable type measurement certificate.

Contraband: The Venezuelan law is very strict on this subject. It cannot be emphasised too strongly that all new articles, clothing, cigarettes, liquor, etc., must be declared and sealed-up upon arrival.

Meals for Pilots and Government Officials. It is requested these men be granted the privilege of eating in the officers' dining salon.

N.B. Masters of vessels calling at Trinidad for bunkers before proceeding to Venezuela must also have the documents stamped by the Venezuelan Consulate at Port of Spain.

PILOTAGE: In order to expedite the movement of shipping in the waterways, Masters are requested to establish contact with YVM station as soon as possible, giving ETA Seabuoy 0.1. At the same time a radio-telegraph message must be sent to Agents giving ETA Barima and cargo required. When vessels is 24 hours from pilot station, send another ETA via YVM.

After reporting the ETA in advance of arrival, try to contact directly, by VHF, "Barima Pilot" when the ship approaches Seabuoy 0.1 off the bar entrance (about 2 hours before arrival at the pilot station). (It is possible to contact Pilots 100 miles before arrival Seabuoy 0.1.)

After taking the Pilots aboard, report to Radio Marina (YVM) and continue giving the ship's position according to the mile, up-river, at exactly every hour on the hour, and receive from Radio Marina the pertinent information concerning the traffic in the river waterway. If no communication can be established by voice radio aboard, comply by radio-telegraph by way of the YVM station. See "Ship's Officer's Reports" in 1st Section – "General".

Ship's Officer's Report: July, 1980.
Hourly position reports are made on W/T to YVM when the Pilot is aboard (He writes the telegrams in Spanish).

Pilots are the employees of the Venezuelan Government and act in an advisory capacity. The Master retains responsibility for the ship at all times.

(1) Pilotage is not required and Pilots are not available for navigation outside the pilotage zone. Masters will take charge of inbound and outbound navigation on the South Channel outside Buoy 27 at the Boca Grande, without Pilot's assistance.

(2) Pilotage is mandatory within the Pilotage Zones No. 1 and No. 2 of the Orinoco. Inbound vessels will embark the government River Pilot in the upstreamward vicinities of Buoy 27. It is important that vessels pass Buoy 27 and be in sight of the pilot station at Barima in order to avoid any delay, as Pilots may not proceed until vessel is sighted. The government River Pilot will pilot the vessel while navigating the waterway; a special government Docking Pilot will generally take the vessel into and out of the Puerto Ordaz harbour.

Signals

(1) All signals used outside of the Pilotage Zone No. 1 (that is to say, seaward of Buoy 27 – Mile 27.7) shall conform to the International Rules for Prevention of Collisions at Sea.

(2) Within the Pilotage Zones (that is to say, inside of Buoy 27 – Mile 27.7) the signals used shall be in accordance with the "Regulations for the Pilotage Zones No.1 and No. 2 of the Orinoco". It should be noted that these signals are peculiar to the Orinoco Waterway, and are not necessarily in conformance with the International Rules.

(3) Within the Pilotage Zone, special signals are used for passing dredgers at work along the waterway.

Speed

The Captain of the Port has the authority to impose speed restrictions. By means of "Notices to Mariners", the Port Captain has ordered that all vessels reduce speed while navigating by the following locations: San Felix Dock, Mile 179.8; El Toro, Miles 95.4 to 96.6. It is recommended that speed be also reduced while navigating by the Palua Dock (Mile 181.8), Barrancas (Mile 143.2), and Curiapo (Mile 60.4). At the inception of the low water season each year (generally in early January), the Port Captain has in the past issued a "Notice to Mariners" instructing all vessels to reduce speed and proceed with caution while navigating the following river reaches: (1) Miles 184 to 178, (2) Miles 171 to 167, (3) Miles 150 to 141, (4) Miles 140 to 137, (5) Miles 133 to 131, (6) Miles 112 to 109, (7) Miles 106 to 98, (8) Miles 55 to 53, (9) Miles 39 to 36.

ANCHORAGES:

(1) No ships are permitted to anchor in the South Channel at the Boca Grande. Vessels are to anchor at least 1 mile outside of Buoy EO or Buoy 0.1.

(2) Within the Pilotage Zones, no vessel is allowed to anchor in narrow channels, nor close to a turn.

(3) Between Buoy 27 — Mile 27.7 and Mile 137, vessels which need anchoring may do so by coming as close as possible to shore on the ship's starboard side.

(4) Between Mile 137 and Mile 184, the Pilotage Regulations provide for 3 permanent anchorages and 1 seasonal anchorage, as follows: Area No. 5 (permanent); Miles 139.3 to 140.4. Area No. 6 (permanent): Miles 150.1 to 151.7. Area No. 7 (permanent): Miles 178.0 to 179.0. Area No. 8 (seasonal): at the junction of the Caroni and the Orinoco. It should be observed that Area No. 7, as determined in the Pilotage Regulations, partially encroaches on the narrow (dredged) channel and on shore. Vessels are to anchor in the naturally deep and wide part of the area.

(5) The low-water anchorage (for 1 ship only) previously established by the Port Captain between Miles 182 and 183 is no longer in use. This area is currently used as the turning basin for vessels exiting the Palua Channel, upon sailing from the new Palua dock at Mile 181.8.

(6) If due to emergency a ship is required to anchor in places other than the designated areas, it should do so in such a way as not to obstruct the channel and by taking the necessary precautions to avoid swinging around.

(7) Upon anchoring vessels should notify YVM.

MAX. SIZE:

(1) *Max. permissible draft.* The Port Captain of Ciudad Guayama can establish the permissible draft for the Orinoco waterway to a max. of about 44 ft.

(2) *Controlling Depths and Authorised Draft*

The draft authorised by the Port Captain for the Orinoco Waterway is made public by means of a "Daily Bulletin of Depths and Draft" (Boletin Diario de Profundidades y Calado). Each daily bulletin issued by the Port Captain carries the following information, in Spanish and English:

(a) Controlling (minimum) depth between Miles 194 and 0, and corresponding location.

(b) Authorised draft, in feet and decimals of feet.

The controlling depths given for locations comprised between Miles 184 and 42 are actual depths, and reflect depth conditions as of the date of the bulletin. The controlling depth given for locations comprised between Miles 42 and 0 is referred to MLWS and does not include the height of tide at high water.

The authorised draft may be predicted either on the controlling depth existent between Miles 184 and 42 or between Miles 42 and 0, dependent upon whichever is the least.

When the controlling depth between Miles 184 and 42 is the significant factor, the permitted draft authorised is at least 2 ft. less than the controlling depth in this sector.

When the controlling depth between Miles 42 and 0 is the significant factor, the permitted draft authorised is generally less than the mean low water springs controlling depth but occasionally can be equal to the mean low springs controlling depth.

Whenever the MLWS controlling depth existing between Miles 42 and 0 does not provide sufficient clearance under the keel of the vessel at low water, the Master is expected to navigate by the site where the controlling depth is located only at times when the height of tide will assure a safe passage.

(3) *Variations in authorised draft:*

(a) The authorised draft is generally increased or decreased by multiples of 6 inches.

(b) Throughout the year the authorised draft is susceptible to variations, according to the conditions of the depth and width existing in the channel at any one time. On the basis of average river stages i is estimated that the authorised draft should be about 33 ft. in the dry season from December to May.

During the rainy season, from June to November, the max. permissible draft may be as high as 44 ft.

HEALTH: Radio Pratique may be obtained by sending a message, after picking up Pilot, to the Port Health Officer, advising that there is no sickness on board, name of last port, ETA, number of crew and nationality of vessel and name and nationality of Master (This does not apply at Palua).

RADIO:

(a) Communications: Communications are generally handled through the radio-telegraph station at Puerto Ordaz, call letter YVM. This station is operated on a 24 hour basis. The operating frequencies are: 440 kHz 472 kHz; 4322 kHz; 6505.5 kHz. The GMT — CQ times and frequencies are: 0900 hrs., 4322 kHz; 1200 hrs. 6505.5 kHz; 1430 hrs. 8722 kHz 2000 hrs. 8722 kHz; 0030 hrs. 8722 kHz; 0300 hrs. 4322 kHz.

There is no charge for messages from ship to shore or from shore to ship handled directly through YVM. A VHF frequency modulated radio system provides voice communications along the Orinoco Waterway Master sets for the system are installed in the Puerto Ordaz Radio telegraph Station (voice call: "Master Radio"); Marine Radio handles shipping matters exclusively, The system consists of a high-band VHF frequency modulated voice radio network. To ensure a more efficient and satisfactory coverage, this system operates on dual frequencies alternating according to location, so that ships can either transmit on 161.700 MHz receiving on 159.000 MHz, or transmit on 161.150 MHz receiving on 159.850 MHz. For best results, ships should select frequencies according to the following: From sea to Mile 50: transmit on 161.700 MHz, receiving on 159.000 MHz; From Mile 50 to Mile 112 transmit on 161.150 MHz, receiving on 159.850 MHz; From Mile 112 to Mile 159: transmit on 161.700 MHz, receiving on 159.000 MHz; From Mile 159 to Mile 184: transmit on 161.150 MHz, receiving on 159.85 MHz.

Pilot station at Barima Bar, Palua and Matanzas are equipped with this system. For the Puerto Ordaz area, ships will transmit to Marine Radio on a frequency of 43.02 MHz and to others on a frequency of 43.18 MHz, receiving in both cases on a frequency of 43.18 MHz.

Ship's Officer's Report: July, 1980.

The VHF Channels listed are not available on standard marine sets All VHF work is done on Channel 16 (Pilot to Pilot), and reporting on W/T to Radio Marina.

(b) Control of Navigation:

(i) Navigation on the Barima Channel at Boca Grande is free. However vessels are requested to notify the Port Captain, Ciudad Guayama via "Barima Pilots" on Channel 16, upon arrival at Buoy EO, giving ETA at Buoy 27, Mile 27.7.

(ii) Simultaneous navigation in opposite directions by 2 or more vessels is not permitted on the South (dredged) channel at the Boca Grande The restriction is placed on inbound traffic, to the extent that any vessel wishing to enter the South channel requires prior authorisation from the Port Captaincy of Ciudad Guayama. The request for permission to enter the South channel is to be addressed to the Port Captain, Ciudad Guayama, via "Barima Pilots" on Channel 16. and is to be transmitted before the vessel reaches Buoy 0.1. Upon receipt of the request, the Port Captain will notify the vessel via "Barima Pilots" on Channel 16, whether permission is or is not granted, indicating, in the latter case, the approximate waiting time. Until permitted to enter, vessels are to anchor at least 1 mile outside of Buoy 0.1. Once that authorisation has been granted, vessels are to enter the South channel at the earliest opportunity.

(iii) While navigating the Orinoco Waterway inbound or outbound vessels are to report their position to YVM hourly on the hour. Seaward of Punta Barima, to "Barima Pilots".

(c) Accident, Stranding, etc.

(i) Should a collision, stranding or other accident occur in the waterway, or should it be found necessary to take control of the vessel away from the Pilot for any reason, the Venezuelan law requires that a written report be made to the Captain of the Port by the Master of the vessel involved within 24 hours. The report is to be addressed to the Captain of the Port and may be handed to the Pilot or the ship's Agent for delivery. The Master need not appear in person before the Captain of the Port unless specifically ordered to do so.

(ii) Slight groundings or touching of banks and bottom may simply be noted on the reverse side of the receipt for pilotage signed by the Master.

(iii) In case of collision, stranding, slight grounding, touching of bank and bottom, or other accidents, vessels should immediately notify YVM.

738 ft.

Section A

MATANZAS: 08.17 N. 62.52 W. (See Plan)

N.B. See "Orinoco River" for all important entry requirements.

LOCATION: At Mile 195 from sea on Orinoco River.
ANCHORAGES: Between Mile Nos. 195 and 197, Orinoco River.
MAX. SIZE: Length 600 ft., breadth 74 ft., distance between rail and hatch coaming 23 ft., max. draft 41 ft. in rainy season May to November, and 28 ft. in dry season.
RADIO: See "Orinoco River". Cables address of Matanzas terminal operators is "Sidor Matanzas – Telex 86366" and cables may be routed through Caracas, Curacao or Trinidad Radio.
TUGS: Every vessel over 2,000 registered tons is required to use a tug when berthing. Tug is 1,600 h.p.
BERTHING: Reinforced concrete structure consisting of 3 different sections running in a straight line, bearing 065°.

From West to East, 3 sections should be pointed out:

The first section, some 320 m. long, is used mainly for unloading bulk cargoes. Depth 10 m. below MSL.

The second section, 400 m. long, is for handling steel products. Depth 11 m. below MSL.

The third part, some 280 m. long, is for general cargo. Depth 11 m. below MSL.

The level of the river fluctuates from 0.6 m. over MSL at low river water in the dry season (February – March) to 14 m. over MSL at high river water in the rainy season (July – August).

The river bed drops sharply from the edge of the pier to the navigation channel where the depth reaches 30 m. below MSL.

Berth No. 1:	Runs from bollard No. 1 to No. 7, length 155.30 m.
Berth No. 2:	Runs from bollard No. 7 to No. 14, length 176.38 m.
Berth No. 3:	Runs from bollard No. 14 to No. 24, length 204.25 m.
Berth No. 4:	Runs from bollard No. 24 to No. 33, length 182.75 m.
Berth No. 5:	Runs from bollard No. 33 to No. 39, length 160.45 m.
Berth No. 6:	Runs from bollard No. 39 to No. 44, length 158.85 m.

In addition there is another berth, length 149 m., South of No. 6, with 24 ft. of water under MSL, that runs from bollard No. 38 to No. 44.

The reinforced concrete platform is 25 m. wide at the first section and 20 m. at the second and third sections. The surface of the pier is 15.5 m. over MSL.

CRANES: Berths No. 1 and No. 2 are served by 2 "Ceretti Tanfani" bulk unloaders of 22 tonnes capacity, able to handle clamshells of 4.5 cu.m., for iron ore, lime stone and other heavy bulk, 10 cu.m. clamshells for coke and other light bulk and orange peeler and magnets for unloading scrap iron.

The reach of these cranes is 10 m. from the pier edge. The working field is from bollard No. 2 to bollard No. 13.

Berths No. 3 and No. 4 are served by 6 "CMI" gantry/trolley cranes fitted with 2 hoists of 15 tonnes each, with a total capacity of 30 tonnes with the 2 hoists in tandem. The working field is from bollards No. 15 to No. 31.

Berths No. 5 and No. 6 are served by 3 "Ansaldo" gantry/trolley cranes of 16 tonnes capacity. The working area is from bollards No. 35 to No. 44.

At bollard No. 34 there is a stationary rotary derrick of 400 tonnes capacity and a reach of 18 m.

In addition, there are 3 "Grove" auxiliary moving cranes, of the telescopic type, with a rated capacity of 80 tonnes able to work at any part of the pier.

WAREHOUSES: From bollard No. 14 to bollard No. 29, running along the South edge of the pier, there are 10 adjoining warehouses, 30×100 m. each, 3 of them open at either end and the four in the middle roofed. All of them are provided with 1 gantry crane of 25 tonnes each.
STEVEDORES: Operations are round the clock, 7 days a week.
MEDICAL: Private hospital and several doctors available.
FRESH WATER: Available at rate of 12 t.p.h.
FUEL: Available ex-barge.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle spirits allowed per crew member for personal consumption.
IDENTIFICATION CARDS: Provided by authorities, and necessary if crew going ashore.
REPAIRS: Local workshops undertake minor repairs.
AIRPORT: Matanzas is served by Puerto Ordaz Airport with several daily flights from Caracas.
POLICE/AMBULANCE/FIRE: The entire length of the pier is fitted with fire hydrants and at the steel mill, about 6 km. away, there is a well equipped fire brigade with firetrucks, ambulances and rescue vehicles.

A first aid centre is located close to the fire station.

TELEPHONES: No telephones or telex services are available at Matanzas for the use of vessel's personnel. Local telephones only available at the pier and dock supervisor's office. Recommend vessels use their VHF to communicate with their Agents while at anchorage and when alongside.
REGULATIONS:
Pollution: Venezuelan law and Sidor's port regulations are very strict on air and river water pollution, the following restrictions being in force:

1. No smoke to be ejected from vessels' funnels while moored at Sidor's pier.
2. No waste, refuse or garbage to be dumped in the river while in the river channel, at Matanzas roads or laying alongside the pier.
3. All waste, refuse or garbage kept on deck, to be sprayed with anti-vermin and kept covered.
4. No salt water ballast, bilge water, oils, refuse water from galleys and lavatories, etc., to be pumped into the river.

In addition to whatever penalty the vessel shall incur under Venezuelan law, Sidor reserves its right to place the offending vessel "off hire" until she has complied with the regulations.

Safety: Under Sidor's security norms, every person which, for whatsoever the reason or business, has to transit or stand on the pier's platform is bound to use a hard hat. People doing any kind of work on the pier have also to use safety shoes.
GENERAL: Sidor's pier will discharge and/or load cargoes for other industries of the area provided a berth is available and no Sidor vessels are waiting. Permission for such operations must be requested prior to vessel's arrival.

Sidor require Agents to provide stowage plan and cargo documents prior to vessel's arrival otherwise Notice of Readiness will not be accepted.

OPERATOR: C.V.G. Siderurgica del Orinoco C.A., Codigo Postal 8016, Matanzas, Ciudad Guayana, Estado Bolivar, Venezuela. *Tel:* 991111 and 991118. *Telex:* 86366 and 86229 (Sidor). *Cables:* Sidor Matanzas. *Contact:* Superintendent, Port Services.

Section B

PALUA: 08.21 N. 62.41 W.

N.B. See "Orinoco River" for all important entry requirements. Specific details, relevant to Palua only, are as follows:
SUPPLIER: The ore supplier is CVG Ferrominera Orinoco C.A., cable address "Ferrominera". Their Palua office is fitted with VHF radio-telephone on 161.150/159.850 MHz and 2182 kHz (call).
CLEARANCE: Agent will secure the Clearance dispatch.

Note: The Palua dock and facilities are the private property of CVG Ferrominera Orinoco C.A. All Company regulations must be obeyed by vessels and vessels' personnel.

The Bill of lading will be prepared by CVG Ferrominera Orinoco C.A., also the Commercial Invoice on the Consular Invoice form 138. The Inward Foreign Manifest, U.S. Customs form 7527–B, should be prepared by Master after sailing from Palua.

MAX. SIZE: Max. d.w.t. 100,000 tons. Max. LOA 274.32 m. Max. beam 33.53 m.
HEALTH: The vessel will be boarded by the Public Health Doctor after docking at Palua; unless instructions to the contrary.

In the event that the Authorities have to board the vessel anchored out in the stream, an accommodation ladder should be rigged, preferably on the starboard side, to keep the port side clear for docking. Venezuelan authorities and workmen will not use Pilot ladders.

RADIO: Should a vessel receive radio advice at sea to proceed to Palua, and the clearance is to another port, it is requested to send following information to "Ferrominera" at earliest convenience. i.e. Master's full name and nationality, vessel's nationality, port and number of register, net and gross tonnage, type of vessel M/V or S/S, vessel's overall length and width, last port of call, original port of destination. This is necessary in order to comply with the Venezuelan Custom Law.
BALLAST: To provide the best manoeuvring trim on docking, it will be at the discretion of the Master to properly ballast the vessel. But in order to lose no time on loading operations, as well as to prevent short loading, the ballast should be pumped out as soon as possible, using utmost caution not to pump oil or sludge overboard in the port area.
APPROACH AND DOCKING IN PALUA: After passing the village of San Felix, and before reaching the turn off from the main channel, 2 tugs and a Docking Pilot will meet the vessel and will assist in the docking manoeuvre. Although the Master will always be responsible for the vessel's movements either in the case of docking or undocking, the Docking Pilot will actually pilot the vessel to, and dock the ship at Palua.

At Mile 180.5 the ship should leave the main channel, turning to the left to follow the new dredged entrance channel of approach which is marked by 2 flashing buoys: white on the port and red on the starboard side. Diamond-shape range marks of 6 ft. side, painted white with black diagonal cross, indicate the centre line of the approach channel. The front range, fastened on the ore loading pier, shows flashing green light, and the rear range, set on a tower shows flashing green light, and the rear range, set on a tower approximately 2,000 ft. away, has fixed green light.

The docking shall be port side to in all events; and please stow all hatch boards, or pontoons, or steel battens, etc., on the starboard side of the hatch as this will keep the gear cleaner and lessen the work of the ore handling gang.

Vessel's accommodation ladder is used. Nothing should overhang the port side of the vessel on docking.

If the loading berth is not available the arriving vessel would be instructed to anchor at an anchorage just below the entrance to Palua approach channel at Mile 178.

LOADING DOCK: The ore loading port is located at Mile 181.5 of the Orinoco waterway, along the left bank going up-river. The steel dock here is aligned up and down stream in the general direction of the current. It is 907 ft. long between its pointed heads, with 791 ft. of boarding side along, the deck fixed at about 6 ft. over the maximum rise of the river in the flood season. It has a strong fender system of steel structure covered with timber overhanging the side, down to near the lower river stage; and is fitted with 14 bollards plus 2 more, one on each head, for proper docking and securing the vessel.

Once the vessel is moored alongside the new ore loading dock, there shall be no further shifting necessary to load, as the loading tower moves along the dock on rails to facilitate the loading through the various hatches.

LOADING: The ore handling and loading equipment for Palua has a max. capacity to load 3,000 metric tons of ore per hour, for the time being. With this capacity, the vessel's mooring lines should be tended during the operation.

The boom of the loading tower is so designed as to allow free movement in any direction, fore and aft. The gantry and boom travel along the dock for a distance of 518 ft., and can place the ore at a distance horizontally out from the dock fenderline of 23 ft. minimum and 62 ft. maximum at the highest water stage, and from minimum 29 ft. to maximum 67 ft. horizontally out at the lowest stage.

Care must be taken during the course of loading to avoid piling the ore too high in the holds, as this necessitates hand trimming before the hatch covers can be properly secured, and incurs unnecessary trouble.

UNDOCKING: The Master, assisted by a Docking Pilot, if required, will handle the vessel on leaving the dock, going upstream from the dock not less than 0.75 miles distance to the turning basin in the same heading as when the ship moored alongside. Two tugs will go alongside the ship prior to undocking and will assist the vessel until it is headed downstream in the main Orinoco Channel. The amber lights at the heads of the dock form a range to mark the shoreside boundary of the local dredged channel. A red light high up on the loading gantry will come in the same range as the 2 amber lights. In the turning basin a tug-boat will assist the vessel swinging downstream.

When the ship is in the main channel, properly headed downstream, the Docking Pilot will leave on the tug, and the River Pilots (2 of them) will assume the navigational direction. Report to Radio Marina by voice radio and give ETA at Mile 27.

Report again to Radio Marina giving position every hour, and try to contact Barima Pilot Station sometime before arrival at Mile 31, where the Pilots will disembark.

If voice radio communication is not possible, comply by radiotelegraph by way of the YVM station.

REGULATIONS: The Venezuelan law is very strict on the subject of contraband. It cannot be stressed strongly enough that all *new* articles, clothing, cigarettes, liquor, etc., must be declared and sealed up on arrival.

Concerning passes, the regulation states that "members of the crew who are not officers of the vessel, in order to go ashore and return aboard, have to be supplied with an identification card to be issued by the Purser of the vessel or his substitute, which card will contain the name of the vessel, the name of the crew member and the date of issue. This card will have to be signed by the person issuing same and has to be authorised by the respective officer of the Port Captain's office for the district".

GAS-FREE CERTIFICATE: Vessels reporting to Palua to load ore should have the holds and cargo compartments swept clean and ready to receive cargo. Also, any combination ore/tanker vessel tendering to load iron ore at Palua shall present, along with the Notice of Readiness, a Gas-free Certificate if said vessel has in the past been employed in the carriage of petroleum products. Such certificate shall be dated subsequent to the discharge of the vessel's last petroleum cargo. But they are advised that around Palua in Venezuela there is no chemist available for granting such a Gas-free Certificate. It may be secured before arriving at Venezuela by calling at Trinidad, reporting to cable address: Harriman, Port of Spain.

In case of necessity, or for convenience, it could be arranged for the chemist to travel to Venezuela to meet the ship in Palua, advising Harriman (Port of Spain) at least 3 days before arrival at Palua.

If the vessel is equipped with a gas-indicating meter (explosimeter), CVG Ferrominera Orinoco C.A. will accept the Master's certification in writing that the vessel is gas-free. However, they reserve the right to check the vessel with their own equipment prior to acceptance.

CONSULS: See "Puerto Ordaz".

FLOOD SEASON: The port experiences a yearly flood season from the middle of June to the middle of November, to a max. of about 38 ft. at the last days of August, above the lowest stage (during the first days of April) in the dry season that occurs from the middle of November to the middle of June.

TIDE: The wind in the locality blows generally upstream, and on exceptional occasions during the dry or low-river season, when the current is weak, does overcome the current and cause the anchored ships to tend with stern upstream.

REPAIRS: Minor emergency repairs of mechanical, electrical and electronic types may be carried out in the shops by the personnel of the Iron Mines Company of Venezuela. The American Bureau of Shipping has a surveyor at Puerto Ordaz, near Palua.

MEDICAL: There is a medical dispensary at Palua, and a hospital of the Company at El Pao, where seamen may be admitted when requiring hospitalisation in emergency cases.

FUEL: All grades of bunker fuel are available at Palua, delivered by barge.

FRESH WATER: Drinking water is available at the dockside in limited quantity of about 100 tons every 24 hours. Small amounts of fresh provisions may be obtained in the locality.

Section C

PUERTO ORDAZ: 08.21 N. 62.43 W.

OPERATORS: CVG Ferrominera Orinoco.

LOCATION: The operations of the CVG Ferrominera Orinoco are centred in the State of Bolivar in Eastern Venezuela and iron ore is loaded into ocean-going vessels at Puerto Ordaz (08° 21′ N., 62° 43′ W.), at the junction of the Caroni and Orinoco Rivers, approximately 184 nautical miles from the open sea.

GAS-FREE CERTIFICATE: Any combination ore-tanker vessel tendering to load iron ore at Puerto Ordaz shall present, along with the Notice of Readiness, a Gas-Free Certificate if said vessel has in the past been employed in the transportation of petroleum products. Such certificate shall be dated subsequent to the discharge of the vessel's last petroleum cargo. Gas-Free Certificates can be obtained through an approved surveyor in Puerto Ordaz.

APPROACHES: See "Punta Cuchillo".

MAX. SIZE: Max. d.w.t. 115,000 tons. Max. LOA 289.56 m. Max. beam 39.01 m.

HEALTH: Vessels could be boarded by the Public Health Doctor in the stream off Puerto Ordaz. He will not come up a Pilot ladder and will insist on an accommodation ladder which should be rigged and ready when he approaches. In order not to delay docking, this accommodation ladder should be rigged on the port side during low river stage, and starboard side during high river stage. If vessel moves directly to berth, Health Doctor will board vessel at dock.

RADIO: Should a vessel receive radio advice at sea to proceed to Puerto Ordaz, and the clearance is to another port, the Master must radio station YVM Puerto Ordaz, and advise the name of the vessel, flag, port of embarkation, original port of destination, Master's name and number of members in the ship's crew. This is necessary in order to comply with article 17 of the Venezuelan Customs Law.

TUGS: All vessels touching at Puerto Ordaz will be assisted by a tug in docking and undocking manoeuvres. Line-handlers are available on the dock to secure mooring lines on vessel's arrival, and to release them on vessel's departure.

BERTHING:

1. **The Harbour:** The Puerto Ordaz Harbour extends from Mile 183.5 to Mile 184.1 of the waterway. The harbour consists of a natural basin formed by the mouth of the Caroni as it flows into the Orinoco. The width of the turning area within the basin varies from a min. of about 1,600 ft. at low water to a max. of about 2,000 ft. at high water. The lighted buoys marking the navigable limits on either side of the harbour are moved to different positions according to river stages in order to achieve full utilisation of navigable waters. The bottom of the harbour is generally rock, with scattered layers of sand overburden deposited as sediment by the river. This sand is regularly removed by dredging in order to maintain depths which will accommodate the maximum draft authorised by the Port Captain. The bottom configuration across the harbour consists of a rocky shelf extending about 900 ft. from the face of the dock. Beyond this shelf the bottom slopes steeply into a deep gorge, then rises to form a sandy beach along the opposite shore. The velocity of river currents at this site varies according to stage levels. A slower current is generally experienced over the rocky shelf adjacent to the dock, with velocities averaging about 1.5 knots at flood stages and about 0.5 knots or less at reduced river stages. The velocity of the current over and along the deep gorge averages about 3.5 knots at flood stages and 1.5 knots or less at reduced river stages. During extreme low water, the basin is subject to tidal influence and the velocity of currents is minimal, although there is no reversal of flow. The direction of the current is aimed slightly toward the face of the dock at its S.E. end but deflects away from the pier about 500 ft. downstreamward. Access to the harbour is by way of a naturally deep and wide fairway which is the continuation of the gorge as it enters the Orinoco River.

2. **The Dock:** The Puerto Ordaz Dock is located along the right ascending side of the harbour and extends outward from shore on a S.E. by East alignment. The all-steel fixed-height dock is 1,885 ft. long; its elevation is 41 ft. above low water plane (0.0 ft. stage). This dock is fitted with a strong fender system and with a sufficient number of accessible bollards for proper docking and securing.

3. **Arrival:**

(a) Notice of Readiness: When completely ready to receive cargo, vessels will submit "Notice of Readiness" to CVG Ferrominera Orinoco. Vessels will normally be loaded in the order in which Notices of Readiness are accepted by CVG Ferrominera Orinoco. The Company will advise when the vessel may proceed alongside the dock.

(b) Docking: Special Docking Pilots are provided for the docking and undocking of vessels at Puerto Ordaz. These Pilots are qualified River Pilots, thoroughly familiar with local conditions. All vessels will dock starboard side to. During the low water stage, which is from the middle of November to the middle of June, no gangway should be rigged and nothing should overhang the starboard side of the vessel. When the river is sufficiently high which is from the middle of June to the middle of November vessels are requested to have starboard gangway or accommodation ladder rigged and ready to lower immediately after docking in order to expedite the commencement of loading. Venezuelan authorities and workmen will not use Pilot ladders. Vessels reporting to Puerto Ordaz to load ore should have holds and cargo compartments broom clean and ready to receive cargo. Considerable time will be gained if this requirement is met prior to reporting.

(c) Hatches: On arrival at Puerto Ordaz all hatch boards or pontoons, beams, tarpaulins, steel battens, wedges, etc., should be stowed on the port side of the hatch. This will keep the hatch gear cleaner and lessen the work of the ore handling clean-up gang.

(d) Ballast: In order to lose no time with the loading operations, as well as preventing short-lifting, all ballast should be pumped out before arrival at the dock. Use utmost caution not to pump oil or sludge overboard in the port area. CVG Ferrominera Orinoco Ships' Agency Representative will contact vessel on arrival and will assist in every way possible.

4. **Departure:** All vessels which have completed loading at Puerto Ordaz and have received the latest river information from the port offices and are ready for their river transit in every respect, will proceed outward via the Orinoco Waterway, disembarking the Pilot at Mile 27. Once the Pilot has disembarked, vessels shall proceed over the South (dredged) Channel to Mile 0, and exit the waterway.

TANKERS: See "Punta Cuchillo".

MEDICAL: There is a hospital at Puerto Ordaz which will admit seamen requiring hospitalisation.

FRESH WATER: Drinking water is available alongside the dock.

FUEL: Bunker "C" and diesel oil is available.

CONSULS: An Italian consulate Agent at Puerto Ordaz, nearest consuls for other countries at Cuidad Bolivar or Caracas.

REPAIRS: Minor emergency repairs may be carried out in the shops of CVG Ferrominera Orinoco.

TIME: The legal time of Venezuela, which is 4 hours behind GMT, shall be used in Pilotage Zones No. 1 and No. 2 of the Orinoco River.
SHORE LEAVE: Permitted, but it is mandatory that all crew members should report back to their respective ships before sailing time.
GENERAL: 1. *Ore Loading Equipment:* The ore handling and loading equipment installed on the pier has a speed ratio of 6,000 metric tons of ore loaded per hour. Due to this great loading capacity the vessel's mooring lines must be tended at all times.

2. *Handling Facilities:* A movable 110-ton, rail mounted stiff-leg derrick is installed on the dock for the handling of general cargo.

3. *Provisions:* Small amounts of fresh provisions are available.

4. *Surveyor:* The American Bureau of Shipping has a non-exclusive surveyor in Puerto Ordaz. Lloyd's has an Agency in Ciudad Bolivar with a branch office in Puerto Ordaz, and will appoint surveyors upon request.

SHIPMASTER'S REPORT: October 1986.
Terminal: Interalumina Terminal.
Location: Lat. 08° 18.7′ N., Long. 62° 49.0′ W.
Local Time: GMT minus 4 hours.
Approaches: Vessel can anchor 3 miles North of Sea Buoy (Lat. 08° 56′ N., Long. 60° 10.4′ W.). Contact Punta Barima Pilots or Amacuro Pilots on VHF Channel 16. After obtaining permission, vessel must proceed to inbound buoyed channel without Pilot for 27 miles up to Buoy No. 27.1. Channel of sufficient depth, variable width becoming very narrow at times. One way transit only. Current sets are various.
Pilotage: River Pilot boards at Buoy No. 27.1 and continues till 2 miles before berth. There are various buoyed channels enroute with dredging in progress. Several bends in the river, requiring close watch on steering at all times. For outbound pilotage, River Pilot and Berthing Pilot board at berth with River Pilot disembarking at Buoy No. 32.1.
Berthing: Berthing Pilot boards 2 miles before berth. Length of berth over 300 m. One tug available. Multi-purpose berth for alumina loading by chute and bauxite discharge by grabs. Sufficient depth alongside.
Loading: Cargo worked throughout 24 hours. Loading by conveyor-fed telescopic chute, capacity about 1,000 t.p.h. Chute reaches all holds.
Density: About 995 alongside berth.
Fresh Water: Available at berth, good for washing water but unsuitable for drinking.
Bunkers: HFO and DO can be supplied by barge.
Provisions: Fresh provisions and bonded stores can be supplied by Puerto Ordaz Ship Chandlers.
Shore Leave: No restrictions. Shore passes required. Puerto Ordaz City is 30 minutes by car.
Radio: For messages addressed to local Agents in Puerto Ordaz, it is better using some nearby foreign coast stations. YVG (Maracaibo Radio) provides unreliable service on HF. YVM (Puerto Ordaz Radio) does not accept public correspondence and controls all inward bound and outward bound transitting traffic only. Necessary that vessel gives time of passing Entrance Buoy and ETA at Buoy No. 27.1. Vessel is also required to give hourly position at the beginning of each hour until arriving at berth or anchorage and at the same time will obtain information concerning the changes of channel buoy positions and the transitting traffic for the vessels in the channel from the station.

For outward bound vessel, vessel to keep the same watch until passing Entrance Buoy.

The following are the paired frequencies for communicating with YVM (Puerto Ordaz Traffic Control): 468/472; 4192/4322; 6320/6372; 8386/8453 kHz.

SHIPMASTER'S REPORT: September 1988.
The following information is to be read in conjunction with the 1987/88 Edition of the "Guide".

1. The information that advises Masters to pump out all ballast before berthing should be amended.

At the end of September (1988) the river level was 2 ft. less than the highest predicted range. The actual depth at Puerto Ordaz Mineral Quay was measured at 53 ft. and the permitted air draft was 46 ft.

Ship's Masters may adjust their ballast condition through computing the relationship between their draft/air draft and actual depth at the jetty, which is subject to seasonal river level.

In addition to our regular ballast we took 1,100 cu.m. of ballast in the cargo holds in order to reduce our airdraft to the requested 46 ft., whereas we could have pumped out all ballast before going alongside.

2. The officially declared depth is 44 ft. and the permissible draft at Boca Grande Bar in late September was 42 ft.

3. The depth through the Boca Grande Bar Channel and its extension up to the 40 mile Buoy may not conform to the declared depth, and despite the pilot's statement, the part of the Channel on the Bar between No. 30-20 Buoys is the shallowest part of the passage and ships speed is reduced to half speed, instead of the section between Buoys 13.1 – 15.1.

4. The actual position of the Fairway Buoy is Lat. 08° 55.55′ N., Long. 60° 11′ W. and on our visit the buoy was unlit.

5. Many of the channel marking buoys (especially the red buoys) are unlit or have very weak flashing lights.

6. The rate of the river flow averages 3 knots – 4 knots.

7. It is suggested that deep draft vessels, outward bound, adjust their ETA at Buoy No. 44 in order that the vessel may be at Buoy No. 13.6 at daylight, taking into account that the vessel's speed will be reduced to half speed whilst navigating through the Boca Grande Channel from Mile 30 to Mile 13, due to the effect of the flood tide and mud under the keel.

The following figures may be of guidance to other vessels:

Declared depth:	44 ft.
Permitted draft:	42 ft.
Vessel's draft:	39 ft.
Vessel's sea speed:	12.5 knots
Passed Buoy 44:	1400 hrs.
Dropped Pilot at Buoy 32:	1530 hrs.
Arrived Buoy 13.6:	1820 hrs.
Vessel's average speed over the Bar between Buoy 30 – Buoy 13.6:	6 knots
High water time at Buoy 13.6:	1730 hrs.
Height of water at H.W. time:	2.0 m.
Date:	27th September 1988.

8. It is suggested that whilst navigating through the Boca Grande Channel, fuel oil is used in order to reach a high speed as quick as possible.

9. Nett ore loading rate experienced was 3,500 tonnes p.h.

10. The boarding officers were very co-operative and polite and were at all times courteous to the ship's officers and the Master.

The only documents requested were 8 copies Crew List, 3 copies Crew Personal Effects List and 3 copies of the Stores List (indicating fuel, narcotics, arms and ammunition, bonded stores and usual ship's stores).

AGENCY: Mailing Address for Puerto Ordaz: CVG Ferrominera Orinoco C.A., Agencia de Barques, Puerto Ordaz. Telex: 86472 Fmopu.

CVG Ferrominera Orinoco acts as ship's Agent for all vessels consigned to load iron ore at Puerto Ordaz. This function is performed by the Superintendent, Traffic & Ship's Agency and his staff, whose offices are located adjacent to the loading dock at Puerto Ordaz.

AUTHORITY: Capitania de Puerto de Ciudad Guayama. *Tel:* (86) 229268. *Contact:* Captain Lino Garcia Ibarra, Port Captain.

Section D

PUNTA CUCHILLO, (Puerto Ordaz Terminal): 08.20 N. 62.47 W. **(See Plan)**

N.B. See "Orinoco River" for all important entry requirements. Specific details relevant to Punta Cuchillo only are as follows:
OPERATORS: Lagoven S.A.
LOCATION: The terminal and dock is located near Mile Post 192 on the South side of the river.
PILOTAGE: Government Pilot will pilot vessel to Puerto Ordaz. In some cases this same Pilot will act as Mooring Pilot and dock vessel at the terminal. If River Pilot does not also act as Docking Pilot, the River Pilot will disembark at Mile 178 during LW, and Mile 183, in HW, and a Docking Pilot will embark and take the vessel to mooring.

Pilots are obtained at Buoy 27 of the old channel, which is the same as Buoy 27.7 of the new channel and is located 5 miles West of the old lighthouse at Punta Barima at Lat. 08° 36′ 00″ N., Long. 60° 30′ 40″ W. It is important that vessels pass this buoy and be in sight of the Pilot Station (1 mile E.S.E. of Punta Barima Lighthouse), as Pilots will not proceed to the vessel until it has been sighted.
APPROACHES: *Shipowners Report:* 1982.
Cautionary Advice: Due to several wrecks located in the approaches 6 miles North and 13 miles N.W. of the Fairway Buoy, extreme caution is necessary when approaching.

The coastline is difficult to pick up on radar and the Fairway Buoy is detected within a distance of only 3.5 miles. Contrary to the chart, it is currently not fitted with a racon. The buoy is not 25 ft. high as described in pilot books. It is, in fact, a small black buoy with a lattice construction with the radar reflector missing. In clear weather the channel buoys can be visually sighted and detected on radar at about 5 miles.

From the Sea Buoy 0.1 to position Mile 9, a strong N.W. set is experienced and an average of 5° set to channel course can be expected. After position Mile 9 set decreases and becomes variable in direction until arriving at Pilot Station Mile 27 position.

From August until the end of the year the river current can attain a rate of 5 knots, making it necessary for an outbound vessel to reduce speed when approaching river bends in order to ensure bends can be safely negotiated. Due to the strong currents of the Orinoco River, recent experience indicates that, if a vessel goes aground, the Master when attempting to lighter the vessel should drop an anchor prior to discharging ballast.

All stretches of the river have range markers which mark the centre of the channel. While manoeuvring in the river, the vessel tends to steady up when rudder is put midship without any counter rudder. This does not affect the manoeuvrability of the vessel but Master and Pilot should be aware of this so as not to take rudder off too fast when turning.

Buoys are NOT on the edge of the channel from the Sea Buoy to Mile 27.0. White buoys are 125 ft., Red buoys are 75 ft. outside the edge of the channel. Buoys are located at the point where the channel starts to slant downward to the deeper water. The main dredged channel is 400 ft. wide. The ranges are on the centre of the channel.

Masters must refer to the sailing directions for additional information.
MAX. SIZE:

Gauge Reading	*Maximum Draft*	*Tide Required at Bar*
12 ft. – 14 ft.	33 ft.	None
14 ft. – 17 ft.	34 ft.	None
17 ft. – 20 ft.	35 ft.	None
20 ft. – 23 ft.	36 ft.	None
23 ft. – 26 ft.	37 ft.	None
26 ft. – 29 ft.	38 ft.	None
29 ft. – 32 ft.	39 ft.	None
32 ft. – 35 ft.	40 ft.	None
35 ft. – 38 ft.	41 ft.	half of high tide
38 ft. – 41 ft.	43 ft.	half of high tide

HEALTH: Vessel will be boarded by the Public Health Doctor in the stream off San Felix or Puerto Ordaz or occasionally at the Terminal. If he boards before docking, an accommodation ladder should be rigged and ready when he approaches, as he will not come up a pilot ladder.

RADIO: Vessels diverted at sea to Punta Cuchillo which do not have a Venezuelan Clearance on board, must advise Lagoven by radio as soon as they receive their orders to change destination. The following information must be given: Master's name, vessels flag, net tonnage, last port of call, port to which originally cleared and ETA. This information is required in order that inward clearance may be arranged with government officials in ample time prior to vessel's arrival. In absence of this information, vessel will be subject to a fine.

TUGS: The use of tugs is necessary in docking and undocking manoeuvres of boats at this Marine Terminal. Alcoa has a 2,100 h.p. tug available for this service. A tie-up launch will be provided to assist in the mooring of the vessel, and will handle all the mooring lines before and after loading.

BERTHING: The dock at the terminal consists of a docking platform, 2 breasting dolphins and 2 mooring dolphins. The docking platform is connected to shore by a 10 ft. causeway capable of carrying a light truck.

At mean low river stage, water depth at the face of breasting structures is 40 ft. The bank rises sharply from face of dolphins toward shore. The 40 ft. depth contour extends parallel to shore for a considerable distance upstream and down stream from the dock, allowing a flat approach angle.

Current is negligible during low river stage and is approximately 6 knots at midstream at high river stage. Current runs generally parallel to the face of the dock at the dock site.

Top of dock elevation is 45 ft. above low water stage. Buffering system extends from a point below low water stage to a point immediately below top of dock. Nothing should overhang the shoreward side of the vessel when docking during the lower stages of the river. The buffering system is designed to accommodate forces exerted by a vessel of 47,000 tons displacement, approaching the dock with a velocity component perpendicular to the dockface, of 0.5 ft. per second.

Bollards for vessel's lines are provided at the mooring dolphins and at the breasting structures. Mooring dolphins will safely withstand 200,000 lbs. of mooring line tension.

The facilities include a 24 in. diameter submarine pipe-line which crosses the river a short distance down-stream of the dock. The crossing is marked by triangular-shaped signs on both banks of the river. Masters are cautioned against use of vessel anchors in this area.

The terminal pumps are capable of loading oil aboard ship at the rate of approximately 14,000 bbls.p.h.

INWARD CLEARANCE FOR DIVERTED VESSELS: Vessels diverted to Puerto Ordaz to load cargo should submit all documents, except consular mail, which they will not have. In lieu of this, they should submit 4 copies of the cable to divert, leaving enough space for the translation in Spanish. Vessels diverted at sea to Puerto Ordaz (Lagoven Terminal) which do not have a Venezuelan clearance on board must advise Lagoven at Puerto Ordaz, by radio as soon as they receive their orders to change destination. The following information must be given: Master's name, vessel's flag, net tonnage, last port of call, port to which originally cleared and ETA. This information is required in order that inward clearance may be arranged with government officials in ample time prior to vessel's arrival. In absence of this information, vessels will be subject to a fine.

SAFETY: The following is a condensation of the safety precautions that should be observed when the vessel is alongside the dock:

(i) All passageway doors leading to the cargo deck areas are to be kept closed during cargo-loading operations.

(ii) Ship's firefighting equipment must be kept ready at all times while berthed at Lagoven dock.

(iii) Smoking or carrying lighted or unlighted pipes, cigars or cigarettes on the weather decks of the vessel, or on the dock, is strictly prohibited under all circumstances. Masters are requested to instruct their crew not to throw lighted cigars or cigarettes over the side or out of the portholes.

(iv) An efficient watch must be maintained on deck and in the engine-room on the vessel, and a sufficient number of men must be on board at all times to move the vessel any time, in case such is required.

(v) If the galley is located near oil-handling operations of any nature, the skylight lids should be kept down and secured to prevent the galley being sprayed with oil in the event of a burst hose.

(vi) Ventilators in the vicinity should be turned away from the scene of operation.

LOADING: Monagas Crude is the only cargo available at the Puerto Ordaz Terminal. This crude has an API gravity of 11.9° to 12.5° F. (6.490 – 6.517 U.S. barrels per long ton). This cargo must be heated to approximately 140° F. in order to attain normal discharge rates.

Loading is accomplished through 3×10 in. hoses provided with 10 in., 150 lb. ASA flanges. Hoisting gear is provided for handling the hoses. A dock crew will connect the cargo hoses and disconnect them on completion of loading. Some adapters and other tools are available on dock. The oil will be loaded at an elevated temperature.

Precautions, as are common for any heavy oil, should be taken to ensure that no ballast water is left in any tank to be filled with this oil. If the cargo is contaminated with water, the water will not separate from the oil. The salt content of the oil will be raised approximately 10 lb. per 1,000 barrels for every 0.10% contamination by sea water.

All cargo compartments must be stripped dry. Cargo pipe-lines should be drained and/or purged of water.

There is no provision at the Puerto Ordaz Terminal for disposal of dirty ballast or tank washings. Tankers bound for Puerto Ordaz for loading must dispose of all dirty ballast and tank washings before entering the Orinoco River.

Prior to proceeding to sea, all Butterworth plates, cargo tank hatch covers and ullage plugs should be inspected to ensure against entry of salt water.

FRESH WATER: Fresh water is available ex-barge; cable advice of 24 hours is required. Dry provisions may be obtained in very limited quantities.

FUEL: Bunker fuels are available at all hours from Astilleros Orinoco C.A., who operate a floating storage and blending facility in the Orinoco River. Bunker fuels may be received at Lagoven dry dock while loading crude. Full cargoes can be made available.

TIME: GMT minus 4 hours.

MEDICAL: Medical assistance can usually be arranged, particularly in the case of an emergency.

REPAIRS: No major repair facilities are available. However, small repairs can be taken care of through local machine and electrical shops, and shore labour can be obtained if required.

SHIPMASTER'S REPORT: June 1987.

Location: The Terminal at Punta Cuchillo (Puerto Ordaz Terminal) lies some 192 miles up the Orinoco River.

Approaches: The buoyed channel was picked up at a distance of 15 miles, and we made contact with Barima Pilot 2 hours prior to arrival. Pilot Station instructed us to anchor 1 mile East of Buoy "0.1". No vessel may enter Boca Grande Channel without permission from the Pilot or local Radio Station "YVM". We anchored for a few hours and then proceeded up the dredged channel to Buoy 27.1 to the pilot station. The Pilot boarded from a fast launch using the pilot ladder on the starboard side. We continued up the river at 90 r.p.m. making an average speed of 10 knots. The Pilot was competent, but spoke little English. The vessel finally anchored off San Felix, 179 miles up river at 2324 hrs.

BA. Chart No. 3322 is not really adequate, so we obtained the local river charts through the Agent. In the lower reaches the leading lights are poor in daylight, being hard to pick out. The Boca Grande dredged channel is said to be 400 ft. wide, with red buoys with red lights marking the starboard side of the channel inwards and black buoys with green lights marking the port side. At times of dredging, buoys are displaced some 100 ft. outwards from the channel.

Communications: Throughout the river passage, the Radio Officer is in contact with "YVM" on the hour, giving the ship's position; they in return give positions of other ship movements, and navigational information with regards to shifting of buoys and where the dredger is working.

Berthing: We remained at anchor for 10 days, after which we picked up anchor in the afternoon and sailed the last 14 miles to the berth. It is of modern construction, fendered with wooden sheaving, with dolphins for the head and stern lines, which were long leads. Two tugs were used for mooring, tug ropes, close alongside "American style". The after tug was of conventional type, whilst the forward was a powerful flat bottom pusher type boat. The tugs kept the vessel in position whilst moorings were run.

The headlines were taken first, followed by the stern lines, run by a mooring boat, 3 lines at a time, springs by heaving line. Ending up with 3 lines and 2 springs each end. Ship's gangway used.

Cargo Operations: The independent surveyor spoke good English. Vessel loaded Morichal Crude (described as Asphalt) but not what I know as asphalt, being much thinner. API 12.5, loading temperature 132°F. To be kept at loading temperature. Flashpoint 192°F.

A loading rate of 2,467 t.p.h. was achieved using 2 × 10 in. hoses. Shore stop at end of loading.

On completion of cargo operations 3 hours should be allowed for paperwork. The cargo documentation is brought on board by the Agent,who signed for the Notes of Protest on behalf of the suppliers (Lagoven SA).

Officials: The vessel was boarded at San Felix anchorage by the Agent and 5 officials, and everything proceeded smoothly.

The following documents were required:

5 copies Crew List
3 copies Crew Personal Effects List
3 copies Bond List
Clearance from Last Port

The Ship's Certificates were inspected.

Departure: The Docking Pilot took the ship off the berth, using the same 2 tugs. Pilot departed once the ship was swung. We carried 3 river pilots, two were there for the journey only, although they all did a spell on the bridge. The vessel anchored at Buoy 44.3A for 5 hours, awaiting tide. The pilots left at Buoy 32.5. At 90 r.p.m. we made 8.5 knots until we were clear of the channel.

The maximum sailing draft allowed on this occasion was given as 38 ft. 6 in. (F.W.) which, to say the least, was optimistic!

AGENCY: Lagoven handles all papers and documentation connected with the ship's business. Lagoven will also help the ship's Master in providing required land transportation, limited provisions, or any other assistance that may be required for the operation of the ship's norma business. Alcoa will also assure that the ship's requirements are met in regard to Sanitary Inspection, Customs Inspection and Guardia Nacional.

Section E

VENALUM TERMINAL: 08.18 N. 62.50 W.

SHIPMASTER'S REPORT: February, 1981.

LOCATION: Mile 194 on Orinoco River. See "Matanzas – San Felix" in "Plan Section".

ENTRY: See "General, etc." under Orinoco River.

TUGS: Are summoned by Pilot when required.

BERTHING: Modern quay built on piles parallel to the bank with access by two piers, one at either end of the general cargo quay, allowing a one way system to be operated.

Length of general cargo quay – 215 m.
Length of bulk cargo quay – 85 m.
Depth alongside at lowest state of river – 12 m.

CRANES: The general cargo quay has two container cranes of 35 tonnes S.W.L. each. Aluminium ingots are the main cargo but other cargoes are handled. Container spreaders are available and also electro-magnets for use with the cranes.

BULK CARGO FACILITIES: Also see "Berthing".

The bulk cargo quay is served by an elevator with two suckers and is used exclusively for the discharge of alumina. An average rate of 200 tonnes/p.h. is claimed.

STEVEDORES: Working hours – 24 hours a day, 7 days a week.

AUTHORITY: Industrias Venezolanas de Aliminio C.A., Zona Industrial Matanzas, Puerto Ordaz – Edo Bolivar. *Tel:* 27177 (ext. 359 – 530). *Telex:* 86302, 86437. *Contact:* L. Rene Siampon, Traffic Chief.

Industrias Venezolanas de Aluminio C.A., Av. La Estancia, Edificio Torre Las Mercedes, Piso 09, Urbanizacion Chuao, Caracas 1060, Venezuela. *Telex:* 23444. *Contact:* Luis Suarez, Terminal Operator.

END OF ORINOCO RIVER SECTION

PERTIGALETE: 10.15 N. 64.34 W.

LOCATION: Situated in a sheltered bay about 2 miles East of the port of Guanta, or about 4 miles from the pilotage zone situated in the North.

PILOTAGE: The pilotage zone in Pozuelos Bay is the same as for Guanta, i.e. an area situated between the islands of Borracha and Chimana, in the Bay of Pozuelos (formerly called Bergantin Bay).

From the pilotage zone for the port of Guanta/Puerto La Cruz, the private pier Pertigalete is to be approached by sailing between the Isla de Plata and the island of Cachicamo. Pilotage is compulsory in and out and is performed by well-trained government Pilots. The navigation is considered very safe.

MAX. SIZE: The depth of water for ocean-going vessels alongside the Pier is 20 ft. (shore side) to 40 ft. (sea side).

TUGS: Available from Inward Clearance port at Guanta/Puerto la Cruz.

BERTHING: The private pier in Pertigalete for berthing ocean-going vessels is up to 150 m. (492 ft.) long. The apron is ample and allows easy manoeuvre of trucks with cement. On the same pier the cement factory is regularly receiving raw material and machinery, but the berthing is along the West side of the pier for coastal trade, so does not interfere with operations for ocean-going vessels. There are chutes, conveyor belts from the nearby silos. No cranes available.

TANKERS: Berth at private wharf at Pamatacualito, operated by Baroid de Venezuela SA. Length of berth 113.60 m., depth alongside 10 m.

LOADING: The cement factory is able to deliver to the pier 600 tonnes per hour (cement in bulk).

STEVEDORES: Loading operations are performed exclusively by the personnel of the cement factory. All costs, including overtime, are for account of the cement factory.

Under normal conditions on Saturday afternoon there is no work, but almost without exception the cement factory works overtime on Saturdays if by doing so the vessel can be despatched that day. On holidays, if circumstances call for urgent operation, the cement factory has the option to work overtime. Work on Sunday is prohibited.

OPERATOR: Private pier of C. A. Venezolana de Cementos is under the jurisdiction of Customs and Harbour Master of Guanta/Puerto La Cruz, Eastern Venezuela. All charter business and general administration is covered by Caracas Headquarters of C. A. Venezolana de Cementos.

Local address: Venezolana de Cementos, Apartado 4141, Puerto La Cruz. *Tel:* 95421-28. *Telex:* 81154 Vencemos.

AUTHORITY: Capitania de Puerto La Cruz, Paseo Colon, Sector Los Cocos, Puerto La Cruz, Venezuela. *Tel:* 660378. *Telex:* 81386. *Contact:* Captain Asisco Hernandez, Harbour Master.

AGENT: Servicios Navieros Tisa (Sernatica), P.O.Box 4356, Puerto La Cruz, Venezuela. Tel: (081) 95710-713. Telex: 81390. Fax: (081) 95708.

PUERTO CABELLO (inc. Borburata): 10.29 N. 68.01 W. (See Plan)

DOCUMENTS:

Last Port Clearance.
6 Crew Lists.
6 Passenger Lists.
3 Stores Lists.
3 Narcotics Drugs Lists.
2 Lists of Personal Effects.
1 Vaccination List.
Derat Certificate.

PILOTAGE: Pilotage is compulsory, but vessels must first anchor in roads 1 mile North of Punta Brava to await entry formalities and berthing orders.

MAX. SIZE: Bulk Cargo Pier: Up to 32 ft. draft.

Inner Port: Up to 28 ft. draft.

Also see "Tankers".

TUGS: The use of tug-boats within the port is compulsory both for entering and leaving port, as well as for manoeuvres in the port basin, for foreign flag ships over 300 tons.

BERTHING: The port entrance is 100 m. wide in direction West to East. Berth No. 1 and half of Berth No. 2 are along the same entrance channel, where ships are berthed only as an exception or when the port is rather congested. The total length of the North (main) Pier for the berthing of ocean-going vessels is 1,025 m., room enough for 6 to 8 vessels. For administrative reasons the pier is divided into 8 berths of about 128 m. each. Between Berths No. 2 and 3, the pier turns Southwards. Along the pier there are warehouses which under normal circumstances provide sufficient indoor space.

Along the East Pier, of 350 m. length, there are no warehouses. This pier gives berthing facilities to 3 or 4 middle-sized vessels.

Along the South Pier, of 500 m. length, there are 2 warehouses. This pier is exclusively used for coastwise shipping, fishery and small craft in general.

The dredged channel along the East Pier is only 80 m. wide. This is the only channel which connects the main basin of the port with the South basin of the port, the latter served through the South Pier.

Ro-Ro facilities available.

BULK HANDLING FACILITIES: 400 m. long new pier, designed exclusively for the handling of bulk cargoes.

This bulk cargo pier has an apron of about 25 m. and allows ships with a draft of 10 m. at any time.

Ships moored along this new pier are not able to take water there, but have to be shifted to the general cargo piers in the port of Puerto Cabello.

There is no telephone installation on the new pier.

Tug-boat service and assistance of Pilots is compulsory to negotiate the distance to and from the bulk cargo pier.

General cargo is not allowed to be handled at this pier. There are no cargo handling facilities whatsoever and no kind of rolling equipment either. All the vessels, unless they have up-to-date discharging equipment of their own, have to provide derricks of minimum 5 tons capacity to support the SKT discharging equipment of receivers. The cargo is discharged in bulk cargo trucks, fully closed and with only rather narrow manholes for the SKT arm.

The new grain terminal has been opened. The wharf is 400 m. long and allows 2 vessels to berth. Max. depth 30 ft. Average discharge rate 1,500 tons per day.

TANKERS: *Borburata:* The Maraven Terminal lies about 2 miles East of the port entrance.

Berth No.	*Max. length*	*Max. beam*	*Max. draft*
1	400 ft.	—	20 ft.
2	575 ft.	72 ft.	31 ft.

No. 1 Berth is used for bunkering only.

No. 2 Berth is used for the discharge of refined products and bulk chemicals. It is fitted with 4×8 in. Chicksans and a range of hoses from 4 in. to 8 in.

A Pilot is compulsory, and boards at Puerto Cabello. If the vessel is cleared outwards at Borburata, the Pilot may return to the pilot station by road.

Berthing and unberthing in daylight only.

Also see "Shipmaster's Report".

Lagoven Terminal: The buoy mooring is used for the discharge of petroleum products. Max. length 198 m. Max. beam 28 m. Max. draft 34 ft., will be increased to 38 ft. Max. Tonnage 40,000 d.w.t. Vessels berth using 5 shackles on the port anchor, and 6 stern lines to 3 mooring buoys.

Terminal Marino Holanda: Consists of 3 buoys situated in a depth of 45 ft. near Guaguaza Lighthouse. Used for loading/discharge of Chemicals.

STEVEDORES: *Straight Time:* Monday to Friday: 0700 – 1100 hrs. and 1300 – 1700 hrs.

Overtime: Monday to Friday: 1800 – 2300 hrs. Normally overtime beyond 2300 hours is not permitted.

Relief Gangs: Obtainable, if there are not too many ships working in the port at a time, from 1100 – 1300 hrs. and 1700 – 1800 hrs.

Work on Sunday: Not permitted except for passenger vessels, and considered as such are those carrying more than 60 passengers, and with a medical doctor on board.

Saturday Afternoon Work: Not permitted. But if a vessel can terminate operation and sail with a maximum of 3 additional hours' work, a special permit can be obtained from Customs and Port Authorities. In such case, the additional working hours are considered straight time work.

FRESH WATER: Available by tanker trucks only.

The drinking water in Puerto Cabello is tropical treated, well-filtered and wholesome.

Every vessel of over 600 nett tons calling at Puerto Cabello, and other ports in Venezuela, should arrange to take water only at Puerto Cabello in order to avoid double water dues.

OPENING/CLOSING HATCHES: Is not performed by the National Port Services, but instead either the ship's crew or hired assistance labour must be used. Recommended that ship's crew open and close hatches.

WATCHMEN: A very careful watch must be maintained in and around the accommodation as ships' safes and cabins have been broken into.

REPAIRS: The adjacent Naval Yard, the entrance to which is within the main port, opposite the North Pier, is equipped for minor repairs both on engine and hull. For emergency purposes, the dry dock could be used. Its capacity is for ships up to 30,000 to 35,000 tons. All repairs on the hull are effected by a special crew transferred from the Naval Yard.

At the dry dock there is 1 crane of 15 tons capacity. Within the Naval Yard there are 2 slipways for ships of 125 ft. length and 210 ft. length max. respectively.

Venezuelan Navy ships always have priority.

REGULATIONS: Port regulations referring to contamination of the port waters will be strictly applied and fines for contravention will be imposed.

No maintenance to bridgehouse, hull or deck should be carried out whilst in port unless special permit issued by the Port Captain has been obtained.

SHIPMASTER'S REPORT: November 1984 (see "Plans").
Vessel: LOA 170 m., beam 26 m.
Berth: Maraven Berth at Borburata.
Pilot: Pilot boards off Puerto Cabello during daylight hours only.
Max. Draft: 32 ft.
Tugs: When berthing, 2 tugs are made fast on the Main Deck fore and aft.

When unberthing 2 tugs are used, 1 tug tows aft and the other stands by forward.
Charts: BA 1523 and 1966.

SHIPMASTER'S REPORT: October 1985.

Depth within the port received from Agent:

Entrance to the Harbour	31 ft. 6 in.
Pier No. 1	31 ft. 6 in.
Pier No. 2	31 ft. 6 in.
Pier No. 3	31 ft. 6 in.
Pier No. 4	27 ft. 0 in.
Pier No. 5	27 ft. 0 in.
Pier No. 6	31 ft. 0 in.
Pier No. 7	33 ft. 0 in.
Pier No. 8	32 ft. 0 in.
Pier No. 9	32 ft. 0 in.
Pier No. 10	27 ft. 0 in.
Pier No. 11	27 ft. 0 in.
Pier No. 12	27 ft. 0 in.
Pier No. 13 (for Ro-Ro vessels)	24 ft. 0 in.
Pier No. 14	24 ft. 0 in.
Docks At Area 6 (Grain Piers)	
Pier Nos. 25, 25 and 27	30 ft. 0 in.
Pier No. 28	32 ft. 0 in.
Pier No. 29	30 ft. 0 in.
Pier No. 30	29 ft. 0 in.
Pier No. 31	31 ft. 6 in.
Pier No. 32	32 ft. 0 in.
Docks at Area 7 (Floating Docks)	
Pier No. 37	27 ft. 0 in.
Pier Nos. 38 and 39	30 ft. 0 in.
Pier Nos. 40, 41 and 42	32 ft. 0 in.

PUERTO DE HIERRO: 10.38 N. 62.05 W.

DOCUMENTS:
Last Port Clearance.
6 Crew Lists.
6 Passenger Lists.
6 Stores Lists.
6 Narcotic Drugs Lists.
2 Health Declarations (forms provided and filled by doctor on arrival).
Derat Certificate.

PILOTAGE: Pilot boards at Sea Buoy, Lat. 10° 37′ N., Long. 62° 06′ W. If no pilot boat meets vessel on arrival, ship must anchor to wait orders. Send 7 day, 48 and 24 hour ETAs to cable address "Transterm Guiria". Vessels should anchor in the vicinity of Sea Buoy. No radio-telephone available.
ANCHORAGE: Vicinity of Sea Buoy. Good holding ground.
RESTRICTIONS: Vessels may have to wait at anchorage until slack water for docking when tide/current is strong.
MAX. SIZE: Dock, East berth: 30 ft. at LW; 33 ft. at HW; 690 ft. length, 90 ft. beam.

Dock, West berth: 19 ft. at LW; 32 ft. at HW; 600 ft. length, 60 ft. beam. Also see "Berthing".
HEALTH: Doctor boards at berth and grants Pratique. Any suspected disease or fever to be reported at that time. Vessels arriving from a Venezuelan port do not require Pratique.
RADIO: La Guaira, Venezuela.
TUGS: None available.
BERTHING: Berthing at times limited to slack water period depending on strength of tides. Pilot will advise.
Bauxite Terminal: Max. draft 37 ft. Depth alongside 40 ft. Max. 40,000 d.w.t. Loading rate 3,000 t.p.h.
STEVEDORES: Bulk cargoes: discharging rate 700 – 800 t.p.h., loading rate 800 – 1,000 t.p.h. No facilities available for handling general cargo.
MEDICAL: No notice required. Venezuelan Navy Hospital with limited medical assistance.
TANKERS: No oil carriers.
DENSITY: LW – 1020. HW – 1023.
FRESH WATER: Available in limited quantities at berth. Rate of delivery 30 t.p.h.
FUEL: In an emergency. Diesel fuel medium, specific gravity at 60°F 0.85, API gravity at 60°F 35, viscosity SSU at 100°F 37, viscosity engler at 20°C 1.40.
CUSTOMS ALLOWANCES: Two cartons of 200 cigarettes each or equivalent in tobacco. Two 0.75 litre bottles.
IDENTIFICATION CARDS: Issued locally by Navy on arrival.
REPAIRS: None. Small company workshop.
CONSULS: None.
AIRPORT: Nearest airport (1 hour voyage on launch) is Guiria with 2 weekly flights to Caracas and the same number to Port of Spain, Trinidad. Next nearest (1 hour launch plus 2 hours car) is Carupano with 4 daily flights to Caracas.
TIME: GMT minus 4 hours all year round.
HOLIDAYS: Cargo worked 24 hours a day, 365 days a year.

GENERAL: The whole of Puerto de Hierro is a Venezuelan Navy Supply Base. The dock and cargo installations are operated by Puerto de Hierro, S.A., a subsidiary of Caribbean Steamship Company, S.A. Only bulk cargoes transhipped by Caribbean Steamship are handled.
DEVELOPMENTS: Possibility of increasing draft to 42 ft. at loading berth, and to 30 ft. at discharging berth.
AUTHORITY: Puerto de Hierro, S.A.

PUERTO LA CRUZ, (Puerto La Cruz Terminal): 10.13 N. 64.38 W. **(See Plan)**

FLAG: Venezuelan flag must be displayed from the foremast when entering Pozuelos Bay as well as in docking operations regardless of the hour. At all other times the Venezuelan flag must be displayed between sunrise and sunset.
LOCATION: Puerto La Cruz located on Pozuelos Bay on the N.E. coast of Venezuela. Its harbour is well protected by numerous islands against sea currents. The hurricane path is several hundred miles to the North and has never affected the flow of navigation in the Puerto La Cruz area.

The lighthouse marking the entrance to Pozuelos Bay is located: Lat. 10° 18′ 18″ N., Long. 64° 41′ 07″ W. Visibility is 20 miles.
DOCUMENTS: Arrival Clearance is effected on board vessel shortly after docking by Government Officials and a representative of the Company.

The following documents are required and should be prepared prior to arrival:
Ship's Register.
Ballast Manifest (1 copy).
Crew List (6 copies).
Passenger and Baggage List, if any (5 copies).
List of Passengers in Transit, if any (5 copies).
List of Personal Effects (4 copies).
Stores List* (5 copies).
List of Slop Chests (4 copies).
Sailing Permit issued by Marine Authority at last port of call (Original).

*Stores List should indicate separately all deck, engine and cabin stores.
PILOTAGE: The use of Government Pilots is compulsory for all vessels docking and undocking. The Company will arrange for this service at all times. If it becomes necessary for the Master of the vessel to disregard Pilot's orders in order to ensure safety of the ship a written report from the Master shall be submitted promptly to the Government Port Captain in Spanish. Meneven will assist in translation, when necessary.

The zone for Pilot to board or to anchor awaiting Pilot is delineated by the following 3 lines: South by parallel 10° 15′ N., East by meridian 64° 40′ W., and West by an imaginary line from Punta Puinare on Isla Chimana del Oeste to the North point of Morro de Barcelona.

When ready to dock, a Pilot will be despatched by launch to ship.
RESTRICTIONS: No restrictions on arrival or sailing time.
MAX. SIZE: No limitation is placed on width of tankers. Ships up to 1,000 ft. in length can be turned around in the inner harbour area. Max. safe draft alongside (Berth No. 5) is 55 ft. (Also see "Berthing".)
HEALTH: In theory the Government Port Doctor is to board each incoming vessel and board only outgoing vessels which carry passengers. In practice, however, the doctor boards at his discretion.

Ships cleared between the hours of 1700 – 0800. Mondays through Fridays and all day Saturday, Sundays and holidays are charged by Immigration Service for the issuance of shore leave passes. There is no charge for this service from 0800 – 1700 hrs. Mondays through Fridays. Transportation and immigration clearance fees on movemen of seamen are billed at cost.
RADIO: Masters are requested to advise Corpoven Puerto La Cruz by radio 72 hours in advance of estimated arrival giving vessel's name, date and hour of arrival, bunkers, name of Master, port of departure, draft (arrival), Venezuelan gross tonnage, flag of ship. Vessels may contact the terminal by radio-telephone on 2182 kHz and VHF Channe 16. There is standby attention 24 hours a day. The terminal also has the frequencies 2080, 2120, 2638, 2738 and VHF Channel 13.

Ship-to-shore radios are installed on the oil dock and on both tugs. A 350-watt AM transmitter-receiver is monitored 24 hours a day.
TUGS: The use of 2 tugs is compulsory for all vessels over 145 m. LOA. The Company has available a first-class diesel-electric tug of 1,600 h.p. and a contract tug of 2,100 h.p.
BERTHING: The loading facilities consist of 6 berths. Products availabl and safe draft are as follows:

	Berth 1	*2*	*3*	*4*	*5*	*6**
Crudes	×	×	×	×	×	×
Heavy fuel oil					×	
Refined products		×	×	×		×
LPG		×				
Bunker "C" fuel	×	×	×	×	×	
Diesel fuel	×	×	×	×	×	
Intermediate fuels	×	×	×	×	×	
Fresh water	×	×	×	×	×	×
Max. safe draft (ft.)	38	38	38	55	55	40
Max. d.w.t. (thous.)	45	45	45	110	110	60
Max. LOA (ft.)	750	750	750	950	950	750

*El Chaure Terminal – Now Pier No. 6. Also see "El Chaure".

Upon arrival at dock the following rules must be observed:
(a) Masters must ensure that mooring lines are properly tende during the discharge of ballast and loading of cargo, and tha sufficient personnel are on board at all times to handle same Discharging or loading will be temporarily suspended upo infringement of this regulation.

(b) Masters are requested to remove the blank flanges from their vessel's loading manifold before docking, so as to expedite the connecting of the shore hoses by company personnel. Vessels using Berth No. 5 are also requested to have their derrick and gangway ready for use.
Note: Vessels normally dock with starboard side to dock, unless otherwise advised.

(c) While docked, discharge of sea water, hot water or steam on dockside of ship is prohibited. Hot water or steam may activate the automatic sprinkler system as well as damage piping located under the dock surface.

(d) Rat-guards must be placed on all ropes connected with the shore.

(e) Heavy exhaust smoke from vessel's funnel is not permitted. Any infringement of this rule will result in Government fine and/or removal of ship from dock.

(f) Meals must be provided in officers' mess-room for Venezuelan National Guard personnel who may be assigned to the vessel during stay in port.

LOADING: After the vessel has been cleared, the Company Dock Supervisor on watch will give the Master of the vessel written instructions as to grade or grades of cargo, loading rates, information on size of hoses and lines, and other information pertinent to the loading of the vessel.

During loading operations, company employees are on watch to administer to the needs of each vessel.

Upon termination of loading cargo of crude or fuel oil, hoses are normally displaced with air at controlled rates prior to disconnecting. If the ship's officers request that the alternate procedure of draining hoses be effected, shore personnel will be happy to comply provided the following steps are observed by ship's officers:

1. Advice be received prior to termination of loading cargo.
2. Ship's receptacles be situated to receive oil drained on board. It should be noted that heavy fines are imposed for spills or overflows which contaminate the bay.

Shortly after completion of loading, company personnel together with ship's officer will take ship's ullages and, later, deliver cargo and sailing papers to an officer of the vessel.

Ships must vacate berth upon completion of loading and await papers at anchorage if the berth is needed for another vessel. The Dock Supervisor on duty will advise ship's officer on this matter.

BALLAST: Although climatic conditions in Puerto La Cruz are relatively mild, vessels should arrive with sufficient ballast to permit safe handling. Venezuelan regulations strictly prohibit the pumping overboard of dirty ballast in territorial waters. All ballast must be pumped ashore with the exception of vessels especially equipped with clean segregated systems which are reserved for ballast only. Vessels so equipped will be permitted to pump overboard after first being inspected and approved by shore personnel. Heavy fines are imposed for pollution of waters and industrial fishermen are quick to report any infringement. Max. discharge pressure to shore installations is 90 p.s.i. through the 16 in. line which dumps into ballast lakes approximately 300 m. South of dock.

No vessel will be allowed to discharge ballast if any of the following conditions exist:

(a) Last previous cargo was sour crude/product and/or could result in unpleasantness to area inhabitants.

(b) Ballast has lead gasoline, naphtha and/or other volatile residue which may cause an explosive atmosphere at the open ballast pit.

(c) Last previous cargo had to be heated and/or pour point was higher than 80°F. This will be verified by the laboratory.

MEDICAL: All requests for medical or dental treatment must be accompanied by a written request from the Master to the vessel's Agent.

FRESH WATER: Fresh chlorinated water is available at an average rate of approximately 2 t.p.h. Total volume of water that can be supplied during the normal period alongside averages about 150 tons. As water is not held in special reserve for vessels' requirements but supplied from terminal water system, availability may be limited dependent on time of year and other conditions.

FUEL: The terminal is not a general bunker station. Only ships loading petroleum or its products may take bunkers.

Bunker "C", heavy diesel fuel and complete range of intermediate fuels are available in reasonable quantities. Delivery rates to the ships are approximately as follows: Bunker "C", 200 t.p.h.; heavy diesel, 150 t.p.h.; intermediate fuels, 150 t.p.h.

Bunkers are delivered concurrent with the cargo and should be taken as soon as clearance is granted.

Meters are installed on all bunker systems and are calibrated in net barrels; except diesel meters which indicate gross barrels.

The dock valves on the bunker lines will only be opened and closed upon advice from the ship's personnel.

Lubricants and gasoil are available through the vessel's Agent.

CUSTOMS: Crew members should be warned against taking knives or other lethal weapons ashore, as this is strictly prohibited. All firearms and ammunition must be noted on stores list. They cannot exceed 1 per officer and 18 cartridges per gun. No arms may be carried while ship is in Venezuelan waters or tied up at dock. Contraband of any description will be confiscated. Each man is allowed 1 package of cigarettes on his person and this package must be opened. No liquor is to be taken ashore. It is prohibited to carry liquor from shore to ship without authorisation from Master of vessel. It is further strictly prohibited to consume liquor in dock area.

It is normally forbidden to take photographic cameras ashore. However, upon written request to the National Guard contingent on the oil dock, special permission may be obtained. This is subject to 2 limitations: (1) that the camera is returned to the ship; (2) that no photographs are taken of the petroleum installations.

IDENTITY CARDS: Passes for shore leave are issued by the officials of the "Capitania de Puerto", who board with the Customs authorities upon the vessel's arrival at dock. These passes are valid for the duration of the vessel's stay in port and must be returned before sailing to the guard assigned to the vessel.

In order to comply with Immigration Regulations, crews should be carefully checked before sailing, and any missing seamen reported to the vessel's Agent. Crew members left behind when the vessel sails will be held in custody until deported at the vessel's expense.

CONSULS: The following foreign countries have consular offices in the vicinity of Puerto La Cruz:

Belgium
Brazil
Colombia
Denmark
France
Great Britain
Italy
Netherlands
Norway
Sweden

Vessel's Agent should be appraised of vessel's consular requirements promptly upon docking.

REPAIRS: Request for repair work by local contractors must be accompanied by a written request from the Master of the vessel.

REPATRIATION: Seamen discharged from hospital for transfer to another port, seamen arriving from another port or those being repatriated are handled by the vessel's Agent, who must comply with all Venezuelan Regulations.

In the case of seamen left ashore for any reason, Masters are requested to furnish a letter accepting responsibility for all expenses incurred, advances if any, and instructions for repatriation. Venezuelan regulations, at all times hold the vessel responsible for a seaman during his stay in the country. Close contact is maintained by radio with ship owners regarding disposition of their seamen.

TIME: GMT minus 4 hours all year round.

REGULATIONS:

Excessive Smoke. It is absolutely prohibited to exhaust heavy smoke through a ship's funnel while tied up at the Company's docks. It is also prohibited to blow boiler tubes. Failure to comply with this regulation will result in any or all of the following actions:

1. Vessel's discharge of ballast or loading of crude or products will be immediately shut down.
2. Vessel will be subject to fine from authorities.
3. Vessel may be removed from dock.
4. Ship's Agent will be advised of infractions of this regulation.
5. Fines, time lost, and other related expenses will be charged against the vessel.

Pollution. Venezuelan laws are very strict on this subject and local authorities quickly enforce existing statutes. For this reason each Master is handed a circular that emphasises the necessity of complying with federal and local laws and customs.

The spilling or discharge of dirty ballast, crude oil or petroleum products into coastal waters is defined as pollution, as is also the throwing overboard of garbage, trash or other unwanted objects while the vessel is at anchor or dockside. Prior to the start of loading operations all discharge valves, bilges and scuppers must be closed and strict vigilance exercised during deballasting and loading operations.

When a spill does occur, the Master, Government officials and a company representative evaluate the quantity and submit a report to the Government Petroleum Inspector. This report becomes the basis for a federal fine that is practically incontestable. An additional expense occurs when local authorities require assistance in cleaning beaches and shorelines after a major spill and can pinpoint the responsible vessel or source.

TONNAGE CERTIFICATE: Due to reciprocal agreements between Venezuela and the following countries, ships flying the flag of any of the below-named countries are exempted from Arqueo compliance and payment of fees: Denmark, Great Britain, France, Germany F.R., Netherlands, Norway, Portugal, Sweden, United States.

Ships bearing the flag of any other nation shall require a Venezuelan Arqueo Certificate. The cost of measuring is contingent on the size and tonnage of vessel. The certificate is usually issued after the ship sails from port. It is then sent to the marine department of the Owners of the vessel by airmail.

BANKS: Banco Royal Venezolano. Tel: (081) 691921.

Cash: The local currency is the Bolivar.

Foreign currency may be exchanged at local banks. Local banks are open Monday to Friday from 0830 – 1130 hrs. and from 1400 – 1630 hrs., except holidays.

EMERGENCY CO-ORDINATION CENTRE: Seccion de Seguridad, Busqueda y Salvamento Maritimo. Telex: 31154. Tel: (02) 513395, 512156.

STORING: See "Prelims".

1. Vessel can be stored by truck.
2. No need for barge storing while ship is alongside.
3. Trucks can proceed to the berth gate only. Distance from gate to ships berth 200 ft.
4. Fork lift trucks cannot be permitted inside the berth while the ship is either deballasting or loading.

No fork lift trucks whatsoever permitted alongside LPG ships.

5. No Customs regulations in force regarding storing.
6. Local riggers can be employed to assist with storing through ship's local Agent.

SURVEYORS: 1. Saybolt, Caleb Brett, Chass Martin, AIVEPET cargo inspectors available at the Terminal Office.

2. Lloyd's Register, American Bureau, Bureau Veritas, P & I available locally or from Caracas via the ship's agent.

TELEPHONES: There is a telephone booth on each dock. The supervisor on duty may be contacted by calling number 308 or 906.

GENERAL:

No charts or sailing directions are available in the terminal. Same should be forwarded by airmail to the vessel's Agent for delivery to the ship.

All ship requirements such as chandlery supplies, mail, cash advances, medical, dental, consular requirements, repair work, laundry service, bonded stores, transportation etc. should be obtained through the vessel's Agent.

Local authorities strictly forbid the throwing overboard of garbage, trash or any objects while anchored or docked, and they also forbid the exchange of articles between crew members and the occupants of adjacent small craft.

Corpoven as operator of the Terminal charges a fixed fee for General Services such as supervising the docking and undocking manoeuvres, hose connections, loading and documents required by the cargo buyers or consignee. Handling of Telexes, documents and air postage will be charged at cost.

Offices of Corpoven loading and marine personnel are located on the first floor of the building between berths Nos. 1 and 2. Any matter concerning loading, bunkering, is handled through this office, which is open 24 hours of every day. On the ground floor of this same building is the Documentation Section.

SHIPMASTER'S REPORT: February 1979.

Documents:

3 Copies of List of Passengers or nil passengers.

3 copies of a letter by Master stating that vessel was diverted after sailing from previous port and explaining why clearance destination is wrong.

3 copies of cable ordering diversion.

Anchorages: Good holding ground in N.W. part of anchorage area, thick mud.

Restrictions: Maximum height of manifold about 18.95 m., so necessary for vessels of 140,000 d.w.t. to load some cargo before completion of ballast.

Max. Size: If draft less than 30 ft. on arrival vessel can approach berth direct from West, and use 2 tugs. If more than 30 ft. draft then vessel must use channel to the North of berth and use 3 or 4 tugs. This for vessels of 140,000 d.w.t.

VHF: Tankers call "Corpoven" on Channel 16, then change to Channel 12 or 13. Also call Agents on Channel 16.

Berthing: Back springs to bollards on jetty. Breasts and heads and stern lines to hooks on dolphins. These hooks are secured to bollards by wire of circumference 19 cm. or diameter 6 cm.

Consuls: No U.S. Consul available and Agents will give Master letter to this effect for U.S. Immigration.

General: Ballast, if clean, may be pumped overside. If dirty, advise Meneven prior to arrival of quantities to be pumped ashore. They will also accept slops if not sour crude or smelling too badly.

Notice to Shipmasters:

We wish to advise the Masters of all vessels calling at this port that it is strictly prohibited to take photographs.

It is likewise contrary to regulations to carry ashore a camera. Same is liable to be confiscated by the Government Authorities.

Signed S. A. Corpoven.

AGENCY:
All incoming ships to lift cargoes at this Terminal must have a local Agent to render all services required for a prompt and efficient tanker turnaround and to cancel all ships disbursements during the port stay.

AUTHORITY: Capitan de Puerto, Capitania de Puerto, Guanta, Puerto La Cruz. *Tel:* 081-660534, 081-660367. *Telex:* Capipuerto 81386.

OPERATOR: Corpoven S.A.

PUERTO SUCRE (Cumana): 10.28 N. 64.12 W.

(See Plan)

SHIPMASTER'S REPORT: August 1980.

DOCUMENTS: As for Guanta. Entry formalities, normally after berthing but if at anchor will board about 0900 hrs.

PILOTAGE: Pilotage is compulsory for berthing and unberthing. Pilot will anchor vessel if required.

APPROACHES: Approaching Puerto Sucre at night, the lights of the city are visible for many miles, but the light indicated at the end of the pier is non-existent, also the water tower marked on the chart with red lights is non-existent.

Two vessels were alongside when this vessel approached so the pier was clearly visible with the lights of the ships, otherwise there are no lights on the pier.

The pier indicated on the chart just North of the main pier is no longer there although at low water parts of the supports are still visible. Further North there are 3 piers, approximately half cable long, used by fishing boats. They start approximately 1 cable North and 1 cable between each, also there are car ferry terminals before the mouth of the river South of Pta. Carenero. This river mouth is undergoing extensive work which is apparently to be a fishing harbour.

A tall white building is situated in approximate position Lat. 10° 27.8′ N., Long. 64° 11.1′ W., it has a fixed red light and an occulting red light at night. A silo is situated in approximate position Lat. 10° 26.7′ N., Long. 64° 11.25′ W., this has 3 red lights in a horizontal line at night. There is an air light on the control tower at the airport, alternating white and green every 5 seconds, but this is only lit when an aircraft is due.

ANCHORAGE: Anchorage is limited in pilotage area "A". This vessel anchored 3 cables off the shore line and 3 cables off the pier in 30 fathoms of water, vessels also anchor 2.5 to 3 miles S.W. of pier in 25 fathoms, however Pilots prefer vessels to use nearer anchorage.

VHF: Pilots occasionally on Channel 16, but very little English spoken. The ship's chandler has a VHF set and can be very helpful as he speaks very good English.

TUGS: One tug is available to assist with berthing/unberthing.

BERTHING: Vessels use both sides of the pier and Ro/Ro vessels tie up stern to the head of the pier. Soundings were taken around the pier (See "Plan").

CARGO HANDLING FACILITIES: There are numerous fork lift trucks of all sizes, 4 mobile cranes and some small towing vehicles. This vessel had a cargo of bagged fertiliser which was discharged onto lorries and there was no shortage of these, even when working 2 ships with 10 gangs no delays were caused due to lack of transport. Ship's gear is used at all times but the mobile cranes can be hired if required.

MEDICAL: Services available.

FRESH WATER: Available using ship's hoses.

FUEL: Diesel oil is available but difficult to obtain as it has to be brought from Puerto la Cruz by road tankers.

WATCHMEN: Not available, one member of National Guard on board, requires a cabin if one available. This vessel had no spare accommodation but the guard must still be fed.

SHORE LEAVE: Permitted, but shore passes must be carried and passes returned when vessel leaves.

GENERAL: *Provisions and Laundry:* Available.
Garbage Disposal: No facilities.

PUNTA CARDON: 11.38 N. 70.14 W.

PORT LIMITS: The area enclosed by the parallels of Lat. 11° 38′ 00″ N. and Lat. 11° 36′ 38″ N. and the meridian of Long. 70° 14′ 25″ W.

FLAG: It is compulsory to display the Venezuelan flag at the foremast starboard yardarm during daylight hours for ships anchored or berthed in Venezuelan waters. The ship's Services will provide a Venezuelan flag at any time for ship's account.

LOCATION: The port of Punta Cardon is located on the Gulf of Venezuela, on S.W. coast of Paraguana Peninsula, Venezuela. Punta Cardon is an open sea port with practically no swell, due to the Easterly winds prevailing almost all year from the shore side.

ESSENTIAL REQUIREMENTS:

1. Incoming vessels must send ETA at least 3 days before arrival at Punta Cardon.

2. If a ship, originally cleared for another port (including any other Venezuelan port) is diverted at sea to Punta Cardon, certain information must be radioed prior to arrival in order to avoid heavy fine(s) and/or delays.

3. No dirty ballast may be pumped overside in port in Venezuelan coastal waters. Ballast disposal facilities are available at Punta Cardon Terminal.

4. The use of Venezuelan Government Pilots is compulsory for berthing and unberthing.

5. In addition to other clearance documents, 5 copies of an itemised list of articles in the ship's slop chest must be presented to the authorities on arrival.

6. The emergency fire signal is 5 long blasts on the ship's whistle or siren. No other signal is to be given in cases of emergency.

7. Rat-guards must be placed on all mooring lines.

DOCUMENTS: Clearance (inward Pratique). Inward Clearance is effected on board by Government Port and Customs Officials and a representative of the Oil Movements Department immediately after berthing. The following documents must be ready on arrival:

(1) In ballast:

(a) Clearance from Last Port (1 copy).

(b) Ballast Manifest from Last Port (1 copy).

(c) Crew List (7 copies).

(d) Steward's Stores List (all foodstuff, liquors, tobacco, etc.), to be declared on a separate and independent sheet (5 copies, see note (2)).

(e) Deck and Engine Stores and Spare Parts List (paints, varnishes, chains, ropes, etc.), to be declared on a separate and independent sheet (5 copies, see note (2)).

(f) Medicine Chest Lists (including narcotics accurately itemised) (5 copies).

(g) Slop Chest Lists (5 copies).

(h) Personal Effects Lists (4 copies).

(i) Sailing Permit (issued by Maritime Authority at Last Port of call) (1 copy).

(j) Passenger and Baggage Lists (if any) (2 copies).

(k) List of Passengers in transit (if any) (4 copies).

(2) Both the Steward's Stores List, the Deck and Engine Stores and Spare Parts List may be prepared on board prior to the vessel's arrival. The Steward's Stores List must be comprehensive and accurate especially with regard to cigarettes and liquor. All new clothing, gifts souvenirs, etc. are to be clearly marked. All personal effects of the crew are to be collected and placed in the Bonded Stores Locker, ready for sealing by the Customs Authorities on arrival.

Although vessels proceed directly to Punta Cardon, clearance documents should be made out showing the port as "Las Piedras Paraguana (Punta Cardon)". Failure to comply with this requirement may result in fines up to a max. of U.S. $600.00.

(3) Clearance documents out-bound: Outward Clearance and cargo documents are delivered on board by the Ship's Services Representative.

In the event that the berth is required by another vessel, a vessel having completed loading may be requested to vacate the berth promptly and proceed to anchorage to await cargo documents and clearance.

PILOTAGE: Pilots are employees of Venezuelan Government and pilotage is compulsory for vessels entering or leaving harbour. The Ship's Services Office will arrange for this service at any time. If it becomes necessary for Master of the vessel to disregard Pilot's orders in order to ensure safety to the ship, the Master must promptly submit a written report to the Harbour Master on the matter, via the Ship's Services Representative, stating reason for this action.

Pilots sustaining injuries: It is compulsory to submit a full report in cases where a Pilot is injured while performing duties on board vessels

Agent's Notice to Masters: Dated July 1986.
Subject: Pilot Service from/to Punta Cardon

Harbour Master's Office has issued new regulations. Here below are mentioned regulations:

1. Pilot service from Punta Cardon is only compulsory when Masters are crossing the channel of Lake Maracaibo for the first time. If this is not the case, the Pilot should be then embarked at San Carlos.
2. Upon your request this Pilot service can be arranged by the Agency.
3. On departure, Pilot service to Punta Cardon is not required.
4. If Official Pilot is unable to disembark at San Carlos due to difficulties on board or by *force majeure,* or if you decide to change the instructions given to the Agency with regard to Pilot disembarking San Carlos, a letter addressed to the Harbour Master stating your reasons should be handed to the Pilot before he disembarks in Cardon.

Master's Note: With regard to the above, on reflection the content of the letter from Agent may not be too clear to those not familiar with this area. At risk of stating the obvious, what this Notice is saying is that pilotage inwards from the "Em" Buoy, to the San Carlos Pilot Station is only necessary on the Master's first visit to a Lake Maracaibo Port. Thereafter he may navigate the Outer Channel without a Pilot. The Outer Channel Pilot is taken at Punta Cardon on the inward passage, and disembarked there on the outward passage, should a Pilot be so required. SotR.

ANCHORAGE: The anchorage at Cardon roads within a radius of 2 miles from end of jetties has depths varying from 54 ft. to 100 ft. (LWS) and a bottom consisting of mud with some patches of small stones, sand and shells. There are no known obstructions from West to N.W. of the Piers and there is ample water for a clear approach when coming from West and N.W., but the anchorage is limited on the South by a sandspit projecting 1 mile S.W. off Punta Cardon Cape. A beacon is located on this Sandspit in position: Lat. 11° 36′ 03.4″ N., Long. 70° 14′ 15.6″ W. Fl.R. ev. 1 sec. 17 ft. 5 miles (U).

APPROACHES: Restricted Fishing Area. Masters when approaching coast should keep a particularly sharp lookout for fishing boats, nets and small craft.

Mechanically propelled vessels drawing more than 5 ft. are prohibited from navigating in the restricted fishing area that extends off Paraguana Peninsular from Punta Macolla, Lat. 12° 05′ 32″ N., Long. 70° 12′ 55″ W. to Punta Estanques (Los Taques), Lat. 11° 48′ 45″ N., Long. 70° 16′ 45″ W., and a line connecting the position indicated below:

(a) Lat. 11° 37′ 12″ N., Long. 70° 14′ 25″ W.
(b) Lat. 11° 37′ 30″ N., Long. 70° 19′ 23″ W.
(c) Lat. 11° 37′ 36″ N., Long. 70° 21′ 50″ W.

Leading Lines

Jetty	*Position* *Latitude* N.	*Longitude* W.	*Colour*	*Height in Metres (LWS)*
I	11° 37′ 19.2″	70° 13′ 54.6″	Green	4.70
	11° 37′ 23.1″	70° 13′ 47.6″	Green	14.20
II	11° 37′ 32.0″	70° 14′ 02.0″	Red	4.83
	11° 37′ 35.9″	70° 13′ 55.1″	Red	14.30
III	11° 37′ 08.1″	70° 13′ 53.5″	White	3.06
	11° 37′ 09.1″	70° 13′ 50.6″	White	14.94
IV	11° 37′ 41.9″	70° 14′ 12.0″	Blue	5.10
	11° 37′ 42.4″	70° 14′ 09.4″	Blue	21.54

Navigation Aids

A light is located on the outer radio tower.

Position: Lat. 11° 38′ 03″ N., Long. 70° 13′ 56.2″ W.

Characteristics: Fl. White and Red, ev. 10 sec. Height 205 ft. (62.5 m.) 21 miles (U).

Sectors: Red 340° – 009°, White 009° – 202°, Eclipsed 189° – 340°. (All bearings are true from seaward).

2 large chimneys are very conspicuous in the Refinery Area. The North chimney is situated Lat. 11° 37′ 54.6″ N., Long. 70° 13′ 10.8″ W. Height above MLWS 399.6 ft. (121.8 m). The South chimney is situated Lat. 11° 37′ 52.9″ N., Long. 70° 13′ 09.8″ W. Height above MLWS 396.3 ft. (120.8 m.). For daylight distinguishing marks, both are painted with broad red and white bands and at night both have a string of all round fixed red lights at the top and the same at the middle height.

MAX. SIZE:

	Jetty/Berth		*Depth LWS* (ft. in.)	*Draft* (ft. in.)	*Length* (ft.)	*Displac.* (tons)
No. 1	North Outer	(3)	42 00	39 06	710	25,000
	South Outer	(4)	42 06	40 00	710	25,000
	North Inner	(1)	31 06	30 00	575	25,000
	South Inner	(2)	32 06	31 00	575	25,000
No. 2	North Outer	(3)	43 00	40 06	710	25,000
	South Outer	(4)	41 06	39 00	710	25,000
	North Inner	(1)	21 00	19 06	424	25,000
	South Inner	(2)	23 00	21 06	424	25,000
No. 3	North Outer	(3)	47 00	44 06	900	62,000
	South Outer	(4)	48 00	45 06	900	62,000
No. 4	North Outer	(3)	47 06	45 00	900	54,000
	South Outer	(4)	47 06	45 00	900	54,000

TUGS: 2 tugs of 2,700 h.p. are available, and their assistance is compulsory for berthing. Number, disposition and manoeuvres of tugboats are directed by the Pilot. The following tug signals in practice in this port are listed below for Master's guidance:

Short blasts are used to give orders to the tug situated ahead.

Long blasts are used to give orders to the tug situated aft.

1 blast means *push* tug engine, ahead (if it is stopped); *stop* tug engine, stop (if it is moving).

2 blasts, *pull* tug engine, astern.

1 long, 1 short, 1 long and 1 short whistle, "Calling tugs".

2 long and 2 short whistles, "Tugs Dismissed".

RADIO: Arrival messages (ETA). Master of vessels bound for or diverted to Cardon are requested to radio the following information to "Maraven. Caracas" via La Guaira Radio, call sign YVG, 72 hours in advance of estimated arrival, or as soon as possible.

(a) Name of vessel
(b) Flag
(c) ETA
(d) Last Port.
(e) Master's name
(f) Number of crew and passengers
(g) Port for which the vessel is cleared
(h) Quantity of clean ballast on board
(i) All requirements

This information is of the utmost importance to the Harbour Authorities in facilitating the entry of vessels in general, and in case of diversion.

VHF Radio Telephony. The radio and communication centre is located in the Oil Movements Office Building situated at the foot of No. 2 Pier at a height of 50 ft. above sea level. The roof of the building is painted black and the word "Marine" painted across in large white letters.

There is an RT set operating 24 hours a day on the following frequencies, and manned by English speaking operators:

156.6	MHz	FM	VHF	(Channel 12)	Range	limit	25	miles
156.8	MHz	FM	VHF	(Channel 16)	,,	,,	25	,,
2120	kHz	AM	HF		,,	,,	150	,,
2182	kHz	AM	HF	(Channel 1)	,,	,,	150	,,
7620	kHz	(SSB)	HF	(Channel 3)	,,	,,	300	,,

Call sign: "Marine Cardon".

Vessels not equipped with radio telephone may call the installation by signal lamp (Aldis lamp) whereupon the service launch will be sent out to vessel to pick up any message it may have.

BERTHING: Without exception ships always moor head-in on all berths. It is considered prudent to have the outboard anchor hove out prior to approaching piers to facilitate speedy release while docking if necessary. Vessels are to be moored to satisfaction of the Port Services Superintendent or his deputy; mooring lines must be tended regularly and kept hove taut to prevent surging and possible damage to ships, docks or hoses. When adjusting mooring lines, the assistance of harbour tugs should be requested before slackening off any mooring line.

BALLAST: It is suggested that vessels nominated to load at this installation arrive with the minimum of ballast on board, necessary for the safe handling of the vessel under normal conditions. In this connection experience has shown that, under normal weather conditions, vessels can be safely berthed and unberthed with a quantity of ballast of approximately 25% of their respective Summer deadweights. Clean ballast can be pumped into the sea, but Masters are reminded that pollution of the sea incurs heavy fines. Dirty ballast can be received ashore. Maximum discharge pressure to shore installation is 150 p.s.i. in the 20 in. ballast line of Jetty No. 2; Jetties Nos. 4 and 1 have a 24 in. ballast line, and Jetty No. 3 has a 16 in. line. Masters are requested to endeavour to arrive at this port with 20% SDW ballast.

MEDICAL: Facilities are available for medical and dental treatment, vaccination and hospitalisation in a private clinic.

Emergency cases will be attended to at all times.

Masters requiring medical or dental service or vaccination for their crew members should call Ship's Services by dialling 2105. Our representative will make the necessary arrangements with the clinic and arrange for transportation to pick up the crew members on the pier and to take them to the clinic and back. Any crew member who is sent ashore for medical or dental treatment, and who does not speak English or Spanish, must be accompanied by a crew member who speaks one of these languages.

Doctors do not attend patients on board. In serious cases where the patient is unable to walk an ambulance will be provided to take him to the hospital.

FRESH WATER: Fresh water is available at all berths. Loading rate is 30 t.p.h.

FUEL: Available if advance notice given. Funds at to be remitted to Chase Manhattan Bank, One Chase Manhattan Plaza, New York, 24 hours in advance to Maraven S.A. (Account No. 001-1-992773).

CUSTOMS: Venezuelan National Guards are stationed at the piers to ensure that vessels in port comply with regulations.

1. *Smuggling.* Strict compliance with the Customs laws of the country is enforced by the Authorities and Masters are strongly advised to caution crew members against attempting to smuggle ashore cigarettes in carton lots, cigars, tobacco, souvenirs, gifts (particularly items of women's apparel) or other articles. A maximum of twenty cigarettes per person for personal use is allowed to be carried but a greater quantity will result in the imprisonment of the offender with possible heavy fines and delay to the vessel.

2. *Bar.* On Customs Authorities instructions vessels maintaining a "Bar Service" on board for the use of officers, crew, passengers and visitors, must keep the bar closed during the vessel's stay in port.

3. *Firearms.* Firearms on board any merchant vessel calling at Venezuelan ports must not exceed one per officer, nor can the ammunition exceed 18 cartridges per officer. All firearms and ammunition must be declared on stores list. Officers must not carry firearms while ship is in Venezuelan waters. Said arms should be collected together with the ammunition and held in the Master's safe custody. Crew members should be warned against taking knives or other weapons ashore as these will be confiscated and the bearer fined.

TIME: Local time is GMT minus 4 hours.

CERTIFICATES: All ships arriving in Venezuelan ports for the first time must be measured by the Maritime Authorities for issuance of a Venezuelan Tonnage Certificate, known as "Certificado de Arqueo". This document gives the measurements and weight of the vessel in accordance with existing laws. The cost of measuring and issuing of the Certificate is contingent on size and tonnage of vessel.

It is usual practice to take ashore the ship's "General Arrangement" and "Capacity" plans, which are used as a basis for calculations. These plans and the Venezuelan Tonnage Certificate are later forwarded to ship's Owners.

Vessels registered in following countries are exempt from above regulations, due to existing reciprocal agreement with Venezuela: Denmark, France, Germany (F.R.), Great Britain, Ireland, Netherlands, Norway, Portugal, Sweden, U.S.A.

The Venezuelan Tonnage Certificate is used in calculating Venezuelan Government Port charges, such as Port Captain Habilitation for entry and despatch of vessels and Pilotage Dues, for all vessels except those registered in the countries mentioned above, in which case the Lloyd's Registered Tonnage is used.

HOLIDAYS: By order of the local Port Authorities it is requested that all ships in port be fully dressed on the following national holidays: January 1st, April 19th, July 5th, July 24th, October 12th, December 25th.

REPAIRS: Shore facilities are available for emergency repairs of a minor nature. The nearest dry docks are located at Puerto Cabello and Curacao, N.A. Request for repairs should be mentioned in the ship's ETA message.

SHORE LEAVE: Shore leave is permitted and Harbour Master's representative who boards vessel on arrival issues the required number of shore passes. These passes must be shown when proceeding ashore to the Government and Company Guards at the gangway and refinery gates. They are to be collected by Master prior to sailing and handed to Pilot unberthing the vessel. Masters are reminded that in accordance with the instructions of local police, crew members be properly dressed before leaving the vessel, i.e. long trousers and shirts.

Masters are requested to have shore leave expire at least 2 hours before expected departure. Men then found missing should be reported to the Ship's Services Office, tel. 2105, who will endeavour to locate them. An officer must accompany shore personnel in order to identify the missing crew member.

Vessels are not permitted to sail until all crew members are on board, unless said crew members are hospitalised or previously signed off by the Master through the Ship's Services representative. If any crew member is missing at sailing time and cannot be found, his passport and other personal documents must be handed to the Ship's Service representative, as well as written instructions as to his repatriation, when found. All costs and expenses of a crew member so left behind will be for ship's account.

GENERAL:

1. *Animals:* The importation and transit of all birds belonging to the genus parrot or parakeet is prohibited. For other birds a valid health certificate is required. For so-called "small animals" e.g. dogs, cats, monkeys, rabbits, etc. a valid health certificate and a valid rabies vaccination certificate are required.

2. *Bonded Stores:* Stores in bond are not obtainable in Punta Cardon. The nearest port with bonded stores facilities is Curacao.

3. *Board of Trade Gangway:* A safe gangway must be provided by the vessel and should be rigged as soon as possible after mooring to allow the Port Authorities to board, and should not be taken in until Pilot has boarded to unmoor vessel. The use of rung ladders, pilot ladders, etc. is contrary to Port Regulations and Port Authorities will not board except by means of a safe gangway or accommodation ladder.

4. *Damage during Manoeuvres:* When a vessel or the pier sustains damage during manoeuvres with an official Pilot on board, it is the responsibility of the Master to submit to the Ship's Services representatives, immediately after the accident, a report in quintuplicate, for presentation to the Harbour Master. Such reports should give full details of the accident and of all engine movements as ordered by the Pilot, as well as a sketch in triplicate of the ship's manoeuvring position at the time. These will be translated by the Agents into Spanish and forwarded to the Harbour Master.

5. *Cash Advance to Masters:* Cash advances to Masters are made only in Venezuelan currency, which is the Bolivar. Cash requirements should be included in the vessel's ETA message. Foreign currencies are accepted in the United Seamen's Service Club.

6. *Rat-guards:* By order of the Port Authorities rat-guards must be fitted to all mooring lines. Non compliance entails a fine of 200 Bolivares for each unguarded line.

7. *Kerosene, Motor Gasoline, Gas-Oil, Solvents:* Supplies for ship's purposes are available in drums. The return of empty drums ashore is prohibited by Customs regulations. Therefore the cost of each drum will be billed to the vessel in the Port Disbursement Account.

8. *Lubricants, Oils and Greases:* Supplies of products are available. Vessels arriving at Punta Cardon on Saturday or Sunday or on a holiday should give ample notice of their requirements by cable in order that the necessary labour arrangements for delivery can be made. This procedure also applies to the delivery of white oils mentioned under 7 above, when required outside working days.

9. *Laundry Service:* Laundry service is available throughout each working day. Such service should be requested in the vessel's ETA message.

10. *Wireless Transmitters in Port:* It is strictly prohibited to use vessel's wireless transmitters in the Port of Cardon. Non-compliance with this regulation may result in a fine being imposed on the vessel by the authorities.

11. *Mail:* On vessels' arrival, blank Mail List Forms will be handed to the Master to be completed in sextuplicate and duly signed by him, when sending ship's and crew mail ashore for posting. Ship's mail received after ship has sailed, or for vessels on which no advice has been received, will be held for 15 days and then returned by airmail to the owners or operators or senders, at ship's expense unless specific instructions have been received beforehand.

12. *Marine Surveyors:* Both the Lloyd's Agents at Maracaibo and Norske Veritas at Caracas have a representative in Punta Cardon who acts on their behalf when a surveyor is requested. However, in the case of continuous or classification surveys, advance notice of 4 days should be given in order to arrange for an appointed surveyor to come from Caracas. There is also a representative of the American Bureau of Shipping in this area (Caracas).

13. *Miramar Club:* Masters, chief engineers and their wives can visit the Miramar Club. For this purpose entrance passes should be requested from the Ship's Services Office, tel. 2105.

14. *Manaure Bathing Beach:* The above mentioned bathing beach is open to all ship's staff and crew members.

15. *Navigation Charts:* Navigation charts are not available at this port.

16. *Passengers:* Movement of passengers over Cardon Piers is subject to restriction under terms of agreement with the government. Passengers will not be permitted to disembark unless in possession of the required Venezuelan visa and travel documents. If passengers are carried, Master should so advise in his radio ETA so that arrangements can be made for Immigration Authorities to visit vessel on arrival and thus facilitate clearance.

17. *Petroleum Inspection:* Charles Martin & Co., and E. W. Saybolt petroleum inspectors, are available in this area. Contact can be made through the Loading Supervisor (tel. 2821).

18. *Personnel – Seamen Left Ashore:* In the case of seamen left ashore for hospitalisation, repatriation, desertion or other reasons, all documents and personal effects are to be handed to the Oil Movement Department's representative before sailing. A letter is required from the Master advising the maximum advances, if any, to be made to the seamen, and instructions concerning his repatriation. All expenses incurred by seamen left ashore, including cost of repatriation, are for ship's account. It is important that Masters bear in mind that the Venezuelan law will at all times hold the vessel, her Master, or Owner responsible for any seamen left behind in Venezuela.

19. *Photographing:* The taking of photographs within the boundary fence of the Cardon Refinery is prohibited. Taking cameras ashore is likewise prohibited.

20. *Provision and Stores:* Provisions and stores are available. Requisitions should be conducted through the Ship's Services Office. Telephone number 2105 or the Ship's Services representative when he calls on board with the authorities on arrival. Ships' chandlers are not permitted to visit ships, unless specifically instructed to do so by the Agents.

21. *Radar and Radio Repairs:* Repair and maintenance services for radar, radio, gyro compass, radio direction finder, echo sounder, etc. are available. The repair man should be contacted through the Ship's Services Office, telephone number 2105.

22. *Safety of Personnel:* It will be appreciated that persons intoxicated by alcoholic drinks can create risks of accidents; therefore we ask the Master's co-operation to ensure that these persons do not enter the refinery gates and/or board their vessel unless accompanied by sober members of their crew. In this connection we will advise the Master or one of his officers, so that measures can be taken to ensure the safety of the forementioned person(s) e.g. by sending one or more of the crew to the gate to accompany him (or them) to the ship.

23. *Visitors:* Visits to ships are prohibited except from those company employees, petroleum inspectors, etc., whose duties require their presence on board.

24. *Staff and Crew Changes:* No staff and/or crew should be engaged or discharged without consulting Ship's Services (telephone 2105). In case of discharge, identification documents must be handed to the Ship's Services representative or the Norwegian Consular Officer in the case of Norwegian vessels.

25. *Tank Cleaning and Mopping:* Several contractors in the area provide labour for tank cleaning and mopping. Masters in need of this service should submit their requirements to the Ship's Services Office (telephone 2105), who will contact and request a contractor to go on board to discuss details and estimate costs of work to be effected. It must be pointed out that the Master of the vessel is solely responsible for the proper fitness of the ship's tanks for loading his next cargo, and will therefore be held liable for any contamination of the cargo after loading, due to inadequate tank cleaning. Therefore it is up to him to decide the degree of tank cleaning necessary. He may, of course, seek advice from the installation representative in this respect, whenever there is any doubt.

26. *Turnaround:* To promote the economical operation of their vessels Masters are requested to co-operate with installation representatives in minimising their in-port time. Any delays which are considered unnecessary or extensive should be reported to the loading Supervisor (tel. 2133) so that corrective measures can be taken.

TELEPHONES:

Communications Office (General and Port Information, 24 hours service), 2604. Ship's Service Office (All services to ships: mail, doctor, taxi, papers, etc., 24 hours service), 2105. Agents' Office (Weekdays (0700 to 1200 – 1300 to 1600 hrs.), 2125. Loading Supervisor (Re cargo and bunkers), day, 0700 to 1600 hrs., 2821/2133; at night, after 1600 hrs., 2133.

AUTHORITY: Las Piedras – Guaranao Port Captaincy, P.O.Box. No. 2 Codigo Postal 4102-A, Edo. Falcon, Venezuela. *Tel:* (069) 45192 *Telex:* 54119. *Cables:* Capipuerto Las Piedras. *Contact:* Captain Osca Ibarra Lavado, Harbour Master.

Operator: Maraven, S.A., Apartado 829, Codigo Postal 1010A, Caracas Venezuela. *Tel:* 908 2111. *Telex:* 23535, 23536. *Cables:* Marave Caracas.

Socialist Republic of Vietnam

GENERAL:

The following ports are open for international trade:

1. Campha	4. Ben Thuy	7. Nha Trang
2. Hon Gay	5. Danang	8. Saigon
3. Haiphong	6. Quy Nhon	9. Vungtau

DOCUMENTS: (All ports).

Arrival Procedure:

(a) Arrival documents to be filled in or signed:

Clearance from Last Port.
2 copies Declaration of Arrival.
2 copies Crew Lists.
8 copies Passenger Lists.
2 copies Health Declaration.
Crew Personal Effects (individual declaration).
Passengers Personal Effects (individual declaration).
5 copies Dangerous Cargo Declaration.
5 copies Cargo Manifest.
5 copies Cargo Plan.
8 copies List of Articles Forbidden to be Used in Port.
Zoological Quarantine Declaration.
Phyto Quarantine Declaration.
Ship's Stores Manifest.
Phyto Sanitary and Fumigation Certificates.
Veterinary Certificate.
Phyto Quarantine Certificate.
Application for Crew Members and Passengers Shore Passes (to be returned before Ship's Departure).

(b) Arrival documents to be submitted to Port Authority:

Ship Nationality Certificate and Navigation Certificates.
International Load Line Certificate.
International Tonnage Certificate.
Safety Radio Telephony Certificate.
Safety Equipment Certificate.
International Certificate of Vaccination for Passengers and Crew.
Ship's Derat (or Exemption) Certificate.
Seamans Passports or Seaman's Books of Crew and Passports of Passengers.
Transit Cargo Manifest.
Zoological and Botanical Transit Cargo Manifest.
Certificates of Competency of Officers and Engineers.
Certificates of Proficiency in Manoeuvring Lifeboats.
Foreign Currency Declaration and Invoices.

Departure Procedure:

1 copy Health Declaration.
6 copies Outward Cargo Manifest.
6 copies Crew Lists and Passenger Lists (if changes).
6 copies Personal Effects Declaration.

RADIO: *Notice of Arrival:* ETA message to be given 48 hours prior to ship's arrival including particulars of vessel and cargo on board. 4 hours prior to arrival send correct time of arrival.

PILOTAGE: Compulsory.

Haiphong, Campha and Hon Gay Port Pilot Station at "Zero Buoy" (position Lat. 20° 42′ 01″ N., Long. 106° 57′ 08″ E.).

Vungtau and Saigon Port Pilot Station at "Zero Buoy" (position Lat. 10° 20′ 40″ N., Long. 107° 03′ E.).

HEALTH: *Sanitary and Quarantine:* Quarantine Documents: See "Documents".

Pratique is free at the second port in Vietnam.

MEDICAL: Assistance available.

RESCUE AND SALVAGE: Rescue and salvage company available with head office in Haiphong and branches in other ports.

REPORT: In June, 1985 the Ministry of Transport and Communications and Ministry of Interior issued a joint Circular concerning foreign vessels trading to Vietnam.

Some of the major points in the Circular are:

Commercial vessels may call at all ports officially declared open if permission from Transport and Communication Minister obtained at least 7 days in advance of arrival. The arrival should be re-confirmed at least 24 hours before entering territorial waters.

Emergency calls are allowed but the Maritime Administration should be notified immediately.

Vessels only allowed to leave the pilot station when all formalities such as Free Pratique, Customs Clearance, etc., have been performed.

Crew members and Officers are not allowed to have contact with other than Officials and Pilot during arrival and sailing formalities.

AUTHORITY: Ministry of Communication and Transport, Maritime Legislation Department, 11 Vo Thi Sau Street, Haiphong, Vietnam. *Tel:* 393. *Contact:* Nguyen Cong Duc, Director.

BEN THUY: 18.39 N. 105.42 E.

PORT LIMITS: The seaward boundaries of Ben Thuy Port are the Lat. 18° 50′ N. in the North, the Lat. 18° 45′ N. in the South and the Long. 105° 49′ E. in the East.

DOCUMENTS: See "General" before first port.

PILOTAGE: Pilot boat arrives at "Zero Buoy" (Lat. 18° 47′ N., Long. 105° 47′ E.) at correct arrival time.

ANCHORAGE: Anchorage Area: "Zero Buoy" and Hon Ngu Island within port limits.

RESTRICTIONS: Maximum draft to enter 4.5 m. (15 ft.). Vessels exceeding 4.5 m. draft discharge cargo into self propelled barges at position: Lat. 18° 49′ N., Long. 105° 45′ E. (N.W. of Hon Ngu Island). Pilot boat may only arrive at "Zero Buoy" in conditions of weather with wind not exceeding Force 5. Pilot boards during daytime only.

MAX. SIZE: At berth, LOA 100 m., max. draft 4.5 m.

HEALTH: See "General" before first port.

RADIO: There is no radio contact with Ben Thuy Port. Notice of Arrival messages sent via Haiphong Radio XVG or Danang Radio XVT.

VHF: Ben Thuy Harbour Master on Channel 16 from 0800 – 1400 hrs. and 1600 – 2000 hrs. local time.

TUGS: 2 tugs, 305 h.p. each available.

BERTHING: One pier of 200 m. length and 3 shorter berths.

CRANES: There are 7 mobile truck cranes, capacity 6 tons each.

BRIDGES: None.

STEVEDORES: Stevedores work 2 shifts. 0600 – 1800 hrs. and 1800 – 0600 hrs. with one meal interval between 1130 – 1230 hrs.

One gang average for day (24 hours).
Grain and Bulk Cargo: 300 tons.
General Cargo: 150 – 200 tons.

DENSITY: 1,000 at low tide.

FRESH WATER/FUEL: Not guaranteed.

SURVEYORS: Cargo Surveyors: Nina Control attend from Hanoi.
Ship Surveyors: Vires, Branch No. 3, Vinh City.

PORT REGULATIONS: To Harbour Master's advice.

SHIPMASTER'S REPORT: July 1982.

Location: 10 miles upstream from the entrance of the Song Ca River. Vessels exceeding 4.5 m. draft discharge cargo at anchor off the entrance to the river into self-propelled barges which transport the cargo to Ben Thuy.

Pilot/Anchorage: Vessels anchor in position: Lat. 18° 47′ N., Long. 105° 47′ E. 1.5 miles S.E. of Hon Niem Island in 14 m., soft grey mud and sand. Pilot and officials board at this position. After Clearance granted, vessel shifts to discharge anchorage in position Lat. 18° 49′ N., Long. 105° 45′ E., 1 mile N.W. of Hon Niem Island in 10 m. This anchorage was approached by rounding Hon Niem Island to the Eastward, not less than 0.5 miles off, there is a dangerous rock awash at LW in position Lat. 18° 50.7′ N., Long. 105° 46′ E. It is prudent to approach the port in daylight due to the large amount of unlit fishing craft in the vicinity.

Documents/Officials

Officials boarding with Pilot on arrival:

3 Security Officers.
2 Customs Officers.
2 Immigration Officers.
2 Quarantine Inspectors.
1 Agricultural Inspector.
1 Agent.
1 Harbour Master.

To be accommodated and victualled during stay of vessel in port:

3 Security Officers.
2 Customs Officers.
1 Agent.

Agent is the only person who speaks/understands a limited amount of English.

Documents required:

6 Crew Lists.
2 Stores Lists (deck, engine and cabin).
1 Health Declaration.
2 Stores Lists (provisions).
2 Crew Customs Declaration Lists.
2 Currency Lists (foreign monies in crew's possession).
2 Bonded Stores Lists.
4 copies Cargo Manifests.
4 copies of Bills of Lading.
2 Cargo Stowage Plans.
3 Forms (supplied) for Sextants, Binoculars, Cameras, etc.
3 Forms (supplied) for Arrival details and times.
1 Form (supplied) Report concerning where water taken during the voyage, drinking and ballast in tons and tank being used at present for drinking water.

Certificates of Registry, Radio, Load Line, Safety Equipment and Derat sighted, also Clearance from last port.

All Passports/Seamen's Identity Cards collected and taken ashore, require to see each crew member and compare with passport photo. Discharge Books were not required. All Vaccination Certificates sighted and returned. Inspection of all crew cabins and each crew member's foreign money counted at the same time.

Restrictions: Main switch for Radio Transmitter/Receiver sealed.

All Cameras sealed. Bond and beer lockers sealed. (Release of bonded stores available at any time from Customs Officers on board).

General: There is no Radio or VHF contact with Ben Thuy. ETA/Health messages, etc, via Haiphong Radio XVG to VOSA Haiphong.

No fresh water or oil fuels are available at the anchorages off Ben Thuy.

Limited quantities of fruit and vegetables are available when in season.

There are no facilities for sending or receiving mail.

Draft survey is carried out at commencement and completion of cargo, 3 surveyors attend from Hanoi, a journey of approximately 10 hours by road.

Bulk cargoes are discharged by ship's gear using shore grabs (which are in poor condition) each grab capacity approximately 1.5 tons (bulk wheat) also burlap savealls, sewn on to cargo nets are used.

Cargo loaded into self propelled barges, each carrying 40/50 tons bulk grain, approximately 20 barges are available when none are under repair, which is quite frequent, journey to discharge wharf takes 3 hours, 6 hours to discharge and 3 hours to return to the ship.

Stevedores work two shifts 0600 – 1800 hrs. and 1800 – 0600 hrs. with one meal interval between 1130 – 1230 hrs.

1 gang's average discharge per day (24 hours) 250/350 tons.

AUTHORITY: Ben Thuy Port Director and Harbour Master.

DANANG: (Tourane): 16.04 N. 108.13 E. (See Plan)

DOCUMENTS: See "General" before first port.
PILOTAGE: Pilot station at position: Lat. 16° 10′ N., Long. 108° 11′ E. Pilot boards from a tug boat during daytime only. Ships arriving at night should anchor in a position close to the pilot station.
ANCHORAGE: In the Bay of Tourane, depths up to 19 m.
RESTRICTIONS: No restrictions in the Bay and anchorage.
MAX. SIZE: See "Berthing".
HEALTH: See "General" before first port.
RADIO/VHF: Danang Radio, call sign XVT. Pilot and Harbour Master on VHF Channel 16.
TUGS: 3 Tugs available. 1×1,200 h.p. and 2×800 h.p.
BERTHING: There is one finger pier of 250 m. at Cang Sau (deep port) location Lat. 16° 07′ 01″ N., Long. 108° 12′ 6″ E.
MAX. SIZE: Permissible LOA 190 m. Beam 26 m. and max. draft 11 m.
CRANES: There are no cranes available. There is one heavy lift floating crane of 100 tons capacity.
STEVEDORES: Ordered by Agent work continuous throughout 24 hours except for meal breaks.
MEDICAL: 6 hours' notice required for medical assistance. There is a hospital in town.
TANKERS: Two submarine hoses of 8 in., all kinds of white spirits discharged through both lines. Maximum back pressure 8 kgs. Average discharging rate 200 tons per hour per line.
FRESH WATER: Available by barges, rate of delivery 50 t.p.h.
FUEL: Fuel oil, diesel oil and lubricating oil available.
REPAIRS: Minor repair facilities. There are no dry docks at this port.
AIRPORT: There is an airport about 7 km. from the town. Air services to Ho Chi Min City, Hanoi and Haiphong City, local flights only.
TIME: GMT plus 7 hours.
HOLIDAYS: There are no special holidays.
POLICE/AMBULANCE/FIRE: Via local Agent.
SERVICES: Shipchandler available at all times.
SHORE LEAVE: Permitted via local Agent.
SURVEYORS: Cargo Surveyors: Vina Control.
Ship Surveyors: Vires, Branch No. 4, 114 Bach Dang Street, Danang City.

SHIPMASTER'S REPORT: 1976.
Documents: On arrival usually dealt with immediately by the Immigration Service, Police Service, Customs Service, Agency and Health Service. Ship's Documents: Certificate of Registry, Radio Certificate, Load Line Certificate, Safety Equipment Certificate, Port Clearance from last port. Cargo Documents: Bill of Lading (8 copies), Cargo Manifest (8 copies), Stowage Plan (5 copies), In Transit Cargo Manifest (if any). Immigration: Crew List (7 copies), Stores List (2 copies), Crew's Effect Declaration (2 copies), Passports of the Crew.
Health: Vaccination List (2 copies), Provisions List (2 copies), International Vaccination Certificates.

All documents to be ready on arrival. Cameras and binoculars to be collected and placed in a locker, to be sealed. Bonded stores not sealed.
Pilotage: Pilot station at a position Lat. 16° 10′ N., Long. 108° 11′ E. Pilot boards from a tugboat and moves the ship to a position about 1 mile West of Phare de l'observatoire. Pilot boarding during daytime only. Ships arriving at night should anchor in a position close to the pilot station. Pilot will board the ship at 0600 hrs. ETA should be given 48 hours and 24 hours prior to arrival at the pilot station.
Restrictions: There are no restrictions for entering the bay.
Health: A 24 hours cable should be sent to the Agent, stating that all crew are fit and healthy. If any sickness on board cable 48 hours in advance.
Radio:

Call sign	Frequency	Working hours GMT
XVT	500 kHz	0001 – 1200 hrs.
XVT 2	417.5 kHz	0001 – 1200 hrs.
XVT 2	8,570 kHz	0130 – 0145 hrs. 0830 – 0845 hrs. 1200 – 1315 hrs.

VHF: There is no VHF station.
Radar: There is no radar post.
Tugs: There are 3 tugboats available, 1×1,200 h.p., 2×800 h.p. each. Tug's lines are used if necessary.
Berthing: There is one finger pier of 250 m. and another under construction. The latter to be ready towards the end of 1976. A tanker berth is situated in position Lat. 16° 04′ N., Long. 108° 15′ E., called My Khe. Tankers proceed to this position, after clearance, with Pilot rounding by the peninsula. (See "Plan"). At the cargo pier all discharging is done by ship's gear.
Cranes: There are no cranes available. There is 1 heavy lift floating crane of 100 tons capacity.
Bulk Handling Facilities: Bulk cargoes are sometimes handled at the port (i.e. maize) but there are no special facilities.
Bridges: No bridges.
Stevedores: Ordered by the Agent. No ETA necessary. Working hours 0001 – 0400 hrs., 0800 – 2400 hrs. Approx. discharging rate general cargo 400 tons/gang.
Medical: Six hours' notice required for medical assistance. There is a hospital in town. Inoculations required for cholera and yellow fever.
Tankers: Two submarine hoses of 8 in., all kinds of white spirits discharged through both lines. Maximum back pressure 8 kg. at ship's manifold. Average discharging rate 200 t.p.h. per line.
Density: Cargo pier brackish depending on the season. At the tanker berth salt.
Fresh Water: Available by barge, rate of delivery 50 t.p.h.
Repairs: Repairs taking longer than 2 hours are not permitted unless permission is granted by the Port Master. Small repair facilities can be carried out ashore. There are no drydocks at this port.
Deck Watchmen: Cargo ships alongside the pier are provided with gangway watch. Tankers discharging at My Khe will have two securi guards on board during the stay in port.
Hatches: Old type hatches opened and closed by shore labour. Speci patent hatches by crew.
Customs Allowances: The bonded stores are not sealed. There are n restrictions for quantity of spirits, cigarettes, beer, etc. It is strict prohibited to supply any bonded stores to shore personnel.
Cargo Gear: There is 1 floating heavy lift crane of 100 tons.
Repatriation: Possible, but takes some time and can be very difficu Haiphong is a better place for crew changes.
Airport: There is an airport about 7 km. from the town. Air services Ho Chi Min City and Haiphong, local flights only, twice a week.
Time: GMT plus 7 hours (no Summertime) is kept along the whole coas
Holidays: There are no special holidays.
Police/Ambulance/Fire: Via local Agent, telephone number 21161.
Services: There are laundry facilities (2 days ashore) with a 24 hou service. Shipchandler available at all times. Good fresh vegetables an fruits, depending on the season. Also good sea food.
Shore Leave: Permitted via local Agent with 6 hours' notice. Person with invalid passport are not allowed to go ashore.
Regulations: It is strictly prohibited to throw any garbage into the ba heavy fines. Garbage collected by barge.
Delays: Remittance has to be granted by Owners or Charterers befor sailing. Without a sufficient remittance the vessel does not receive clearance.

Alongside the pier berthing and unberthing only between sunrise an 1400 hrs. due to strong winds in the afternoon. At any other time whe strong winds are experienced berthing and unberthing not allowed. Th fore mentioned also for the tanker berth at My Khe, here berthing normally carried out during the morning hours, when there are wea winds. During a strong monsoon it is sometimes necessary to sto discharging operations and unberth the ship.
General: Ships calling for the first time at Danang port should give the ETA and call sign, nationality, all other necessary particulars so that th ship can be identified by the Navy. Ships, chartered by the Vietnames Government should state this also and whether time or voyage charte Ships carrying general cargo should also give all particulars about th stowage of the cargo, whether any deck cargo, heavy lifts etc.
Agent: Vietnam Ocean Shipping Agency, 1a Quang Trung, Danang Cable: OSA Danang, telephone 21161.

SHIPMASTERS' REPORT: September 1980.
Documents: See "General".
Pilotage: Compulsory. Pilot boards in position Lat. 16° 10′ N., Long 108° 11′ E. Notice required 24 hours. Daylight only for berthing excep in cases of emergency.
Anchorage: In the Bay of Tourane; depth up to 19.0 m.
Restrictions: No restrictions in the bay and anchorage, depth of wate up to 19.0 m.
Radio: Danang Radio.
VHF: Pilot on Channel 16.
Tugs: Two tugs available; 1 of 1,200 h.p., the other being used for barg work only.
Berthing: Location Lat. 16° 07.1′ N., Long. 108° 12.6′ E. Two pier available. Distance from sea to berth 4 miles. Max. size permissible LOA 190 m., beam 26 m. and deepest draft 11 m. Least depth of wate in channel from sea to berth 13.0 m. Mean tidal range at berth 0.5 m Nature of bottom at berth – mud and sand. Average density 1016.

Cargo Handling Facilities: No bulk handling facilities or quay crane available. There is a quarter ramp for Ro/Ro vessels and a 50 ton floatin crane. Security is good as armed police are on duty throughout th vessel's stay. There is adequate storage space for break bulk an palletised cargoes. No container handling facilities. Stevedore gang are available as required and work throughout 24 hours except for mea breaks.
Barges: There are steel barges of various sizes which are towed b tugs.
Services: The following are available: Fresh water; fresh provisions minor repairs facilities; airport with internal flights only; laundry services bunker fuel oil; diesel oil; lubricating oil; doctor and hospital; grocerie and meats.
General:
Officials Boarding on Arrival with Pilots:
Two armed police who remain aboard during vessel's stay at ancho
Officials Boarding when Vessel Anchored:
Agent and assistant.
1 Customs Officer.
1 Immigration Officer.
1 Agriculture Inspector.
2 Quarantine Inspectors.
2 Security Officers.
Documentation:
8 Crew Lists.
2 Stores Lists – Deck, Engine and Provisions.
2 Crew Customs Declaration Lists.
2 Currency Lists for foreign money in Crew's possession.
2 Bonded Stores Lists.
1 Health Declaration.
2 Crew Vaccination Lists.
All Vaccination Certificates.
4 Copies of Bills of Lading.
7 Copies of Cargo Manifest.
2 Copies of Cargo Manifest – Cargo in Transit.
1 Form (Supplied) for Ship's Sextants, Binoculars, Cameras, etc.
1 Form (Supplied) for Arrival Details and Times.
All Discharge Books (Passports of Officers' wives collected for sa keeping ashore).

Restrictions:

Main and Emergency Transmitters sealed.

Stornos (Walkie Talkies) sealed.

Cameras sealed.

Bond sealed.

Inspection of all cabins on arrival.

General:

Vessel on 4 hours' notice at all times for sailing or shifting berth. Although bond sealed release of spirits available at any time from Customs.

Very strict on cigarettes with issue of only 200 per week per person. Shore passes issued to all personnel. Shore leave very restricted but bus service available to Seaman's Club nightly from 1800 – 2130 hrs. accompanied by a guard.

Maximum of 20 cigarettes per person for shore leave.

Seaman's Club takes Sterling (£5 notes and above only) and U.S. Dollars.

One sight seeing tour was to have been arranged this call but cancelled due to adverse weather conditions. (Limited number of cameras would have been available on this occasion).

Remittances from Owners take at least 1 month before any cash is made available.

One typoon warning received this call when vessel had to vacate berth and proceed to anchorage.

One emergency vacation of berth at 0300 hrs. this call when heavy swell built up alongside pier.

On departure full inspection of cabins and personnel, discharge books (passports of Officers' wives returned). Shore passes collected. No mail received this call due 1 month delivery time. No restriction on bond for coastal passage Danang to Haiphong.

AUTHORITY: Danang Port Director and Harbour Master.

AGENT: Vosa, 1a Qang Trung Street, Danang City.

HAIPHONG: 20.52 N. 106.41 E.

PORT LIMITS: Seaward boundaries of Haiphong port limits within 3 miles of "Zero Buoy" (Lat. 20° 42′ 01″ N., Long. 106° 57′ 08″ E.) toward sea.

DOCUMENTS: See "General" before first port.

PILOTAGE: Pilot boat arrives at "Zero Buoy" at correct arrival time (CTA). Pilot station on VHF Channel 16.

ANCHORAGE: To Pilot's advice.

Ninhtiep Bachdang anchorage areas with max. draft 25 ft. Ha Long Bay with max. depth 10.00 m. (low tide).

RESTRICTIONS: Max. draft to enter 25 ft. on lower tide time. Ships have to operate lighterage at anchorage areas.

MAX. SIZE: At berths, LOA 200 m. Breadth 26 m. Draft 25 ft.

HEALTH: See "General" before first port.

RADIO: Haiphong Radio handles vessel traffic. Call sign XVG frequency 500 kHz and 8364 kHz.

TUGS: Tugs available of 500 h.p. and 600 h.p. A larger tug of 3,200 h.p. is used for rescue, salvage and towage.

BERTHING: Port central area has 12 berths available.

Berth Nos. 1 and 2: Ore and coal cargo.

Berth Nos. 9 and 10: Grain cargo.

Berth No. 11: Refrigerated cargo and general cargo.

Doanxa Area: 2 berths for Ro/Ro and container ships.

ChuaVe Area: 2 berths for passenger ships and cargo ships.

SoDau Area: 1 pier and mooring buoy for tankers.

VatCach Area: 1 quay for barges.

CRANES: Port Central Area and Doanxa Area have shore cranes with capacities of 5 tons, 6 tons, 7 tons, 10 tons, 16 tons, 25 tons and max. 30 tons.

Floating cranes 60 tons to max. 200 tons available.

BRIDGES: None.

STEVEDORES: Ordered by Agent, 4 gangs/24 hours continuously. Loading and discharging rates stipulated by charter party.

Particular advice: see "General" – "Radio" – "Notice of Arrival".

DENSITY: Low tide 1000.

FRESH WATER: Supplied by ship chandler from barges.

FUEL: Not guaranteed.

FIRE PRECAUTIONS: Safety Regulations for tankers and other ships with dangerous cargo.

REPAIRS/DRY DOCKS: Pha Rung ship repair yard. Dry dock available for ship's with max. length 150 m.

SURVEYORS: Cargo surveyors: Vinacontrol. Ship surveyors: Vietnam Register of Shipping (VIRES).

CUSTOMS ALLOWANCES: No restrictions for spirits, cigarettes and beer for crews use, but strictly prohibited for commercial purposes.

REPATRIATION: To Agent's advice.

AIRPORT: Haiphong Airport available only for domestic flights to Danang and Ho Chi Min City International airport.

Noibai situated 130 km. from Haiphong.

TIME: GMT plus 7 hours.

POLICE/AMBULANCE/FIRE: Available.

SERVICES: To Agent's advice.

SHIP SUPPLY SERVICE: If necessary, to Agent's advice.

SHORE LEAVE: No restrictions.

SHIPMASTER'S REPORT: 1976.

Documents:

8 Crew Lists.

2 Ship's Stores Manifests.

2 Crew Personal Effects Declaration (especially: cameras, binoculars, and Foreign Currency).

2 Vaccination Lists: cholera. All International Vaccination Certificates.

All Passports (are taken into custody by Security Officials).

Special Documents: Special forms which are handed to vessel on arrival.

Health Dept:

1 Declaration of Health on arrival.

1 List of Provision Store (incl. vegetables, fruits, fish, shellfish, meats etc. and where taken).

1 Report of water taken on board: (Drinking — or Ballast water, tons, ports where taken) — tank now being used to supply drinking water.

State Security Dept.:

4 Copies List of Articles forbidden to be used in port: ie. radio transmitter/receiver — Numbers and power; radar; VHF; radio direction finder; echo sounder; sextant, signal gun, signal rockets, flare signals, arms, ammunition, cameras, binoculars, tape recorders, band recorders.

Note: The radio transmitter, VHF, radar, binoculars, cameras are sealed.

2 Copies Declaration of Arrival.

Note: Cameras, binoculars of the crew have to be collected and placed in a locker which is sealed. Bond is *not* sealed, and consumption is free.

Pilot: Boards at "Zero Buoy".

Note: There is no VHF radio contact possible and there is no signal station available, ETA should be given as exact as possible.

Restrictions: Max. draft to enter: 25 ft. (HW).

If ship's draft is more than 25 ft. ship has to lighten into lighters. This is done in Baie d'Halong. The procedure is that after embarking the Pilot at "Zero Buoy", the ship is brought to this bay (in daylight hours only) via: Bai de Lan Ha – Entree Profonde – Rade du Crapaud – Chenal du Volta – Chenal de la Cathedrale.

In our case we anchored in Chenal de la Cathedrale; Lat. 20° 52′ N. Long. 107° 03′ 06″ E. and discharged our gas oil cargo into tanker barges varying in size from 125 – 400 long tons. Some coastal tankers (1,500 – 2,000 long tons) are also available for accepting the cargo.

When discharging into lighters ship should provide suitable hoses.

General:

1. Ship was cleared by Authorities at this anchorage. In view of the distance to Haiphong – 5 hours by motorboat – this clearance is only given in daylight hours. Often the ship's Agent stays on board during cargo operations.

2. Because the radio transmitter is sealed, no direct contact with the outside world is possible. All messages for the Agents at Haiphong should be given to the lighters going there.

3. Medical assistance: A doctor and Hospital is available in Hon Gay – on the other side of the Baie d'Halong. The doctor inspects the patient on board before permission to go ashore is given.

4. Outward clearance: Same procedure as Inward Clearance. Authorities come by motorboat from Haiphong (boat leaves there at about 0600 hrs. and arrives in Halong Bay at about 1100 hrs.). Passports are handed back to crew.

5. On inward as well as on outward clearing, crew has to stay in their cabins for inspection by Customs and security officials.

SHIPMASTER'S REPORT: April 1979.

Pilotage: Boarding position: Lat. 20° 41′ N., Long. 106° 58′ E.

The pilot boat is a 25 m. long steel vessel with white hull and superstructure. A Vietnamese flag is printed on the white funnel.

The Pilot boarded without notice, also the Agent (VOSA) did not reply to any cables requesting information. Pilotage carried out during night time only in the Winter.

Two soldiers board with the Pilot and if vessel is to anchor for lightering the Pilot and soldiers remain onboard.

Buoys: The marking of the channel by buoys is good, but for day time only. At night the lights are poor and vessels have to keep a good lookout for them.

Customs: Bond is sealed when the vessel is alongside. Very strict allowance for cigarettes.

SHIPMASTER'S REPORT: October 1980.

Documents: See "Shipmaster's Report" for Danang dated September, 1980.

Pilotage: Compulsory. Pilot boards in position Lat. 20° 41′ N., Long. 106° 58′ E. 24 hours' notice required.

Anchorage: The inner anchorage is between the outer bar and the channel cut, depth at LW 8 m.

Restrictions: It is not advisable to enter or leave during hours of darkness as there are only a limited number of lights and buoys.

Max. Size: Max. LOA 200 m., beam 26 m., draft 7.5 m. Lightening facilities are available at Baie d'Halong for vessels with draft of up to 10 m.

Health: Quarantine Authority require 24 hours' notice of arrival.

Radio: Haiphong Radio handles vessel's traffic.

Tugs: Available. 1×600 h.p., 1×500 h.p.

VHF: The Agency (Vietnam Ocean Shipping Agency – VOSA) on Channels 6 and 16. They will forward messages to the Pilot.

Berthing: Berth situated in position Lat. 20° 52′ N., Long. 106° 43′ E. The berth was built in 1976 and is down river from the town berths. In all there are 12 berths available. Our berth was 18 miles from the entrance. Max. size acceptable at the berth, LOA 200 m., beam 26 m. and deepest draft 7.4 m.

Cargo Facilities: No bulk handling facilities; no cranes at this berth but some were sighted at the town berths; no Ro-Ro facilities visible. There is a floating crane with a capacity of 60 tons (approx.). Security is good as armed guards stay aboard the vessel throughout. No container facilities of any kind sighted. Labour works around the clock in 3 shifts.

Barges: Wood and steel barges available, some have engines.
Consuls: None, nearest are in Hanoi.
Services: The following are available: Fresh water; fresh provisions (depending on time of year); minor repair facilities; airport; laundry service; diesel oil; lubricating oil; doctor and hospital; small amounts of groceries and meats.
General: Any vessel intending to remain at the port for a long period of time should have onboard sufficient stores and fresh water prior to arrival, as if vessel at anchor, stores and fresh water can take up to one week to arrive.

SHIPMASTER'S REPORT: November 1981.
Pilot Station: The Pilot boards the vessel at the anchorage which is about 2 to 3 miles S.S.E. from Zero Buoy. Pilot boat is a metal boat about 20 m. length. The funnel is painted buff with a red stripe and a yellow star.
Restrictions: There are 2 mud banks up river. One after the buoyed channel and one after the ship-canal about 1.5 miles before the berths. River draft depends on the tide which varies from 6.4 m. to 7.2 m. at HW. Haiphong port draft about 6.9 m.
Pilotage: The channel from Zero Buoy to Haiphong has buoys but no lights visible and the buoys are often out of position. The channel is very narrow having only a few centimetres' bottom clearance. Pilots are good.
Anchorage: For deeper draft than 6.9 m., ships are lightened at Halong Anchorage. Pilots, Security Officers and Customs Officer board at Zero Buoy and the vessel proceeds to the anchorage via Passe Henriette. Depths are 18 m. to 21 m. and good holding ground. The place is sheltered from all winds except North.
Documents: 1 more copy of Crew List and Money Declaration necessary than stated in "Shipmaster's Report", September 1980 for Danang.
Also see "General".
Security Police: At Halong Anchorage 2 security policemen remain on board, requesting accommodation and food.
Agency: During the vessel's lightening, Agent's clerk remains continuously on board requesting accommodation and food. Any communication with the Agency at Haiphong is done by telegram. Ship's transmitter is unsealed by Security Officer, message sent, and then resealed. Whilst alongside, Agent visits every day and they are quite efficient.
Stevedores: At Halong Anchorage, a barge with quarters for the stevedores comes alongside the vessel. Chief Stevedore is always available speaking efficient English. Discharging performed by vessel's derricks with shore grabs. Rate about 1,500 metric tons per day. At Haiphong berth discharging performed by shore cranes with a rate of about 1,800 – 2,000 metric tons per day. Haiphong Port has a berth accommodating ten large ships. There are about 25 shore cranes from 10 to 15 tons capacity and we have seen 1 floating crane of about 200 tons.
Ship Chandler: Fresh provisions are poor quality and only small quantities available. Low prices. Also ship chandler takes care of sick crew members for hospital and doctors.
Shore Leave: From Halong Anchorage crew are not allowed to go ashore. At Haiphong berth shore leave allowed from 0700 – 2300 hrs. All foreign currency, rings, watches, must be declared at the gate.
Repatriation: Agent assures Master that repatriation is very easy, however the need of formalities and permissions will take a long time.
Health: Quarantine doctor will revaccinate any crew member with expired certificate.
Communications: VOSA Agency has VHF Channel 16 and it is possible to contact them from Zero Buoy. Communication with Owners is very slow and the cable needs 2 to 3 days to reach the destination. Crew mail requires more than 40 days to reach the vessel.
Density: Halong anchorage 1020. Haiphong port 1000.
General: A lot of people visit the vessel claiming that they are Harbour Officers, Chief Stevedores, Receivers, Surveyors, Stevedores, Customs Officers, Security Officers.
Important: Stevedore's barge which is alongside the vessel at Halong Anchorage is full of rats, which come on board via ladders and other ropes, with result that the vessel becomes infested with rats.
Ships must have on board, from their previous port of call, sufficient quantity of rat poison to kill them after sailing from Vietnam.

DEVELOPMENTS: *1st Phase:* Construction of graving dock (150 m.×25 m.×6.3 m.) and 200 m. length berth with depth 6.5 m.
2nd Phase: Construction of Dry Dock (180 m.×30 m.×7 m.) and small piers length 100 m. and 150 m.
AUTHORITY: Haiphong Port Office, No. 12 HoangDieu Street. Harbour Master's office in port area.

AGENT: Vietnam Ocean Shipping Agency (VOSA), 25 Dien Bien Phu Street, Haiphong City. Telegrams: VOSA Haiphong. VHF: Channels 6 and 16.

HO CHI MIN CITY (Saigon Port): 10.45 N. 106.45 E.

DOCUMENTS: See "General" before first port.
PILOTAGE: Upon arrival at Pilot Station, the pilot service should be informed by cable of the exact position of anchorage, draft of the vessel, and the maximum speed the ship can do in the river.
Every evening from 2000 hrs. to 2200 hrs. (local time) radio watch should be kept with Saigon XVS on the frequency of 500 kHz. In case the vessel is to proceed up the river the next morning the pilot service will cable the Master the exact hour of departure from Cape St. Jacques (Vung Tau).
The pilot service will not send any Pilot to ships that do not give the information as to draft, speed of vessel, and exact position at the anchorage station at Cape St. Jacques (Vung Tau).
Pilot station at Vung Tau, Tel: 6. Pilot station at Saigon Tel: 21222 and 90508. Pilot boards at Vinh Dua (Gulf of Coco Trees).
ANCHORAGE: Vessels anchor in approach of "Zero Buoy" (position Lat. 10° 20′ 40″ N., Long. 107° 03′ E.) with depths of about 30 ft.
RESTRICTIONS: River transits, berthing and unberthing are effected in daylight hours only. Vessels should arrive 2 hours before daylight HW. At least 1 ft. keel clearance required. Least depth in channel, 27 ft. below Chart Datum.
MAX. SIZE: Length 673 ft. Vessels can proceed with draft 27 ft. depending on daily tide.
HEALTH: See "General" before first port.
Port officials board at Vung Tau if vessels call at Vung Tau. Free Pratique will be obtained from local authorities. For vessels calling at Saigon port, port officials will board upon docking alongside at Saigon port. Free Pratique will be granted at Saigon.
RADIO: Saigon Port Radio, call sign XVS.
TUGS: Available up to 2,600 h.p. Tankers usually berth without tug assistance.
BERTHING: Depth at quays 26 ft. to 36 ft.
TANKERS: Discharge at Nha-Be: Ex-Caltex Terminal, narrow pier with mooring buoys, depth in berth 27 ft. Ex-Shell Terminal, "T" jetty with mooring buoys, depth in berth 30 ft. No slop disposal facilities.
DENSITY: About 1005 at berths.
MEDICAL: Doctors and hospital facilities available.
FRESH WATER: Can be supplied by barge subject to advance notice of 24 hours.
FUEL: Diesel oil can be supplied.
REPAIRS: Machine shop facilities only.
AIRPORT: Situated about 5 miles from the port. International services.
DRY DOCK: Available at Basoong shipyard.
SURVEYORS: Cargo surveyors: Vinacontrol.
Ship's surveyors: Vires, Branch No. 6, 22 Nguyen Hue Sreet, Ho Chi Min City.
AUTHORITY: Saigon Port Director and Harbour Master, No. 01 Nguyen Tat Thanh Street, Ho Chi Min City.

NHA TRANG: 12.12 N. 109.13 E.

DOCUMENTS: See "General" before first port.
PILOTAGE: Pilot boards at one of 2 stations.
Southern Pilot Station: Lat. 12° 09′ 33″ N., Long. 109° 16′ 03″ E.
Northern Pilot Station: Lat. 12° 14′ 30″ N., Long. 109° 13′ 40″ E. on correct arrival time.
ANCHORAGE: To Pilot's advice.
Anchorage area for ships carrying dangerous cargo in North, West of Hon Mot. Max. depth 20 m. Other cargo ships anchor within 0.5 miles of port pier, max. depth 15 m.
RESTRICTIONS: Pilots board during daylight only.
HEALTH: See "General" before first port.
RADIO: Nha Trang Radio, call sign XVN.
VHF: Harbour Master on VHF Channel 16.
TUGS: 3 tugs available. 600 h.p., 400 h.p. and 300 h.p. Use ship's lines.
BERTHING: 1 quay with length 100 m. available, also new construction of 80 m. length. Max. size ship at berth LOA 150 m., depth of water 6.0 m.
CRANES: 3 shore cranes available. 1 max. capacity 12 tons, 2 with max. capacities 5 tons. There are no floating cranes.
BRIDGES: None.
STEVEDORES: Stevedores work 3 shifts: 0000 – 0800 hrs., 0800 – 1600 hrs. and 1600 – 0000 hrs.
Load and discharge rates:
At berth: General cargo: 300 tons per day.
Bulk cargo: 400 tons per day.
Lightering: General cargo: 240 tons per day.
Bulk cargo: 300 tons per day.
TANKERS: Submarine pipe-line with max. pumping pressure of 100 p.s.i. (5 kg.) (300 m. distance from shore).
DENSITY: 1020.
FRESH WATER: Available by barges.
FUEL: Supplied by ship chandler, available from self-propelled barge with max. capacity 50 tons.
FIRE PRECAUTIONS: Safety Regulations for tankers and other dangerous cargoes apply.
SURVEYORS: Cargo surveyors: Vinacontrol.
Ship Surveyors: Vires, Branch No. 5, Nha Trang City.
REPAIRS: Contact Agent.
AIRPORT: Nha Trang Airport serves Ho Chi Min City and Hanoi.
TIME: GMT plus 7 hours.
HOLIDAYS: There are no special holidays.
POLICE/AMBULANCE/FIRE: Police post is in inner port. Fire service Tel: 18 or 22135. Ambulance service Tel: 17.
SERVICES: Contact Agent.
SHORE LEAVE: No restrictions.
AUTHORITY: Nha Trang Harbour Master. *Tel:* 22586.

QUANG NINH AREA:

CAMPHA: 21° 01′ 30″ N., 107° 22′ E.

HON GAY: 20° 57′ 18″ N., 107° 03′ 45″ E.

DOCUMENTS: See "General" before first port.
PILOTAGE: Pilot boards at "Zero Buoy" in Haiphong port on correct arrival time.
ANCHORAGE: In Halong Bay, depths 18 m. to 21 m. (low tide) and good holding ground, the places are sheltered from all winds.
RESTRICTION: No restrictions.
MAX. SIZE: At berths LOA 200 m. Breadth no restriction. Draft to Pilot's advice.
HEALTH: See "General" before first port.
RADIO/VHF: Contact Haiphong Radio.
TUGS: 1 tug of 1,200 h.p.
BERTHING: Coal loading only. One quay available at Campha with 500 m. length. Hon Gay, one pier of 250 m. length.
CRANES: Shore cranes available.
TANKERS: One mooring berth located at Lat. 20° 57′ 47″ N., Long. 107° 03′ 30″ E.
BRIDGES: None, but tankers going into and going out of mooring berth must contact Harbour Master to get permission to pass under high voltage electric line at Hon Gay Bai Chay.

SHIP'S OFFICERS REPORT: July 1986.
Pilotage: Compulsory. Pilot will board at pilot station between 0600 hrs. and 1800 hrs. (daylight hours). Pilot will bring vessel to either Quarantine Anchorage or Inner Harbour, via Vung Ha Long Buoyed Channel, for Customs and Immigration clearance.
Pilot Station: Lat. 20° 44.2′ N., Long. 107° 10.5′ E.
Anchorages:
Quarantine Anchorage: Lat. 20° 52.2′ N., Long. 107° 06.2′ E.
Inner Harbour Anchorage: 0.8 miles S.S.W. off Hon Gay.
Restrictions: 1. Transit from Pilot Station to Quarantine Anchorage in daylight hours only.
2. Vung Ha Long Buoyed Channel dredged to 7.0 m. Draft restriction according to tides. Approximate max. draft 10.0 m.
3. Height restriction through Cua Lu to tanker berth 39.0 m. (air draft) at Chart Datum.
Radio/VHF: Hon Gay Pilot and Vosa Hon Gay (Agent) on VHF Channel 16.
Tankers: Tanker berth in position Lat. 20° 58.0′ N., Long. 107° 03.7′ E. Vessel tied up to buoys and discharged via flexible hose of 6 in. Vessel can expect delays. Average discharge rate 180 t.p.h.
Density: Between 1009 and 1017, according to tidal stream.
Agent: Vosa is sole government Agent. Agent acts as interpreter.

SHIPMASTER'S REPORT: September 1988.
Hon Gay: Radio contact direct through Haiphong (XVG) is possible for sending cables, but working hours are unreliable.
Not a single cable was acknowledged by Vosa Agent at Hon Gay. However queries were received from Vosa Haiphong via Haiphong Radio.
VHF contact after arrival was also difficult, due to frequent electricity shutdown in Hon Gay.
No draft restriction from Pilot Station (Lat. 20° 44.12′ N., Long. 107° 10.3′ E.) to Lightering Anchorage (Lat. 20°50.3′ N., Long. 107° 07.7′ E.).
The main channel to reach Hon Gay is marked by 10 unlit buoys and dredged up to 6.3 m. at low water. When crossing the channel with 9.0 m. draft and 3.3 m. of high tide, the echo sounder indicated a clearance of 2.0 m.
All movements in the channel during daytime.
The Sea Berth is just after passing the electricity high tension overhead cables. Air draft required to pass under the high tension cables with high tide of 3.3 m. was 33 m.
Mooring and unmooring during daylight hours and during slack water.
One tug available for mooring and unmooring.
Sea Berth consists of 5 buoys (3 forward and 2 aft). The hoses are rigged on the port side, we were given 2×6 in. hoses for discharging Gas Oil. The rate of discharging was 200 tonnes per line per hour. Shore capacity is around 15,000 tonnes.
Shore start/stop of cargo operations is by flag signals during daytime and by light signals during night time. During rain and blackout at night time, the signal arrangement is inadequate and unreliable.
During the stay at Sea Berth, lightering is allowed.
At all times, 3 policemen reside onboard. Accommodation and meals are to be supplied.
Fresh water is available.
Shipchandler service is minimal. Most essentials out of stock or out of season.
AUTHORITY: Quang Ninh Port Director and Harbour Master.

QUY NHON: 13.46 N. 109.14 E.

DOCUMENTS: See "General" before first port. Additional copies of documents may be required.
PILOTAGE: Pilot boards on correct arrival time at "Zero Buoy" (Lat. 13° 44′ 19″ N., Long. 109° 15′ 16″ E.). During bad weather Harbour Master will advise by VHF the anchorage position where Pilot may board in safety.
RESTRICTIONS: Pilot boards during daylight only.
ANCHORAGE: In "Zero Buoy" area with max. depth 10.00 m. If draft exceeds 9.00 m. vessels anchor in the Southern port limits.
MAX. SIZE: LOA 140 m. Draft 6.0 m.
HEALTH: See "General" before first port.
RADIO: Quy Nhon Port, call sign XVH.
VHF: Harbour Master on watch: 0630 – 1100 hrs. and 1330 – 1730 hrs. on Channel 16.
TUGS: One tug of 800 h.p. available.
BERTHING: One quay with length 140 m., depth 6.50 m. (low tide) available.
CRANES: 5 shore cranes with capacities 15 tons, 12 tons, 10 tons and 2 shore cranes of 8 tons available.
BRIDGES: None.
STEVEDORES: Stevedores work 3 shifts: 0600 – 1400 hrs., 1400 – 2200 hrs and 2200 – 0600 hrs.
TANKERS: One floating pier for tankers with max. draft 9.0 m. Pipes and hoses of diameter 200 mm. and 159 mm. (6 in.).
DENSITY: 1020.
FRESH WATER: Available at berth.
FUEL: Not guaranteed.
FIRE PRECAUTIONS: Tanker regulations apply and fire service available on wharf.
REPAIRS: Machine shop in port. Minor repairs possible.
DRY DOCKS: 500 tons capacity for small ship construction.
SURVEYORS: Cargo surveyors: Vina Control attend from Hanoi.
Ship surveyors: Vires, branch 5, Nha Trang City.
AIRPORT: Pha Chat Airport 35 km. from Quy Nhon city. Flights: Quy Nhon – Hanoi.
HOLIDAYS: There are no special holidays.
AMBULANCE/FIRE: Ambulance, tel. 17 or 2290. Fire, tel. 18 or 2291.
SERVICES: Contact Agent.
AUTHORITY: Quy Nhon Port Director and Harbour Master. *Tel:* 2221.

VUNG TAU: 10.21 N. 107.04 E.

PORT LIMITS: Seaward boundaries of Vung Tau – Port limits within 3 miles of Zero Buoy (Lat. 10° 20′ 40″ N., Long. 107° 03′ E.) toward East and South of Sea and the area within circle of 1.5 miles radius of the floating store.
DOCUMENTS/HEALTH: See "General" before first port.
PILOTAGE: General Pilot Station for Saigon/Vung Tau ports and Mekong River is at Zero Buoy in position Lat. 10° 20′ 40″ N., Long. 107° 03′ E.
Preferential Pilot Station for tankers loading crude at "No Wharf" Crudex Port (but with permission of Vung Tau Harbour Master) is in position Lat. 09° 41′ N., Long. 107° 55′ E.
ANCHORAGE: *Waiting Area:*
1. All ships waiting to enter Saigon Port must fly the signal flag No. 1 at top of foremast.
2. All ships waiting to transit Mekong River must fly the signal flag No. 2 at top of foremast.
3. All ships waiting to enter Saigon Port may be inspected by Vung Tau Harbour Master (if requested by Master).
RADIO/VHF: Contact Saigon Port.
BERTHING: Vung Tau Port comprises three ports.
1. "No Wharf" Crudex (export Crude) port.
2. Petroleum and gas service port in position Lat. 10° 23′ 36″ N., Long. 107° 05′ 56″ E.
3. Cat Lo port in position Lat. 10° 24′ 48″ N., Long. 107° 08′ E.
TANKERS: Petroleum and gas port.
AUTHORITY: Director Legislation Department, Vietnam General Maritime Department, 11 Vo Thi Sau Street, Haiphong, Vietnam. *Tel:* 46719. *Telex:* 45229 Trans Vt.

Virgin Islands

FREDERIKSTED, St. Croix: 17.43 N. 64.53 W.

DOCUMENTS: All forms are standard U.S. Government Forms:

Passenger List (I-418) – 3 copies.
Crew List (I-418) – 3 copies.
Clearance from Last Port.
Inward Customs Manifest (1302) – 4 copies.
Ship's Stores Declaration – Customs Form 1303 – 2 copies.
Crew Effects Declaration – Customs Form 1304 – 1 copy.

(Also see separate headings – "Health" – "Customs" – "Immigration").

PILOTAGE: Services available day or night. Payment for Pilot services is mandatory whether Master uses Pilot or not. (Vessels commissioned by the U.S. or foreign government, yachts and vessels under 100 gross tons are exempt from pilotage fees, except when the services of a Pilot are requested).

ANCHORAGE: Open roadstead on the lee (West) side of St. Croix, providing a good anchorage with no significant tide.

HEALTH: See "Health Regulations" before first U.S.A. Port (Albany).

Garbage should be disposed of beyond the 3-mile limit. On passing the 3-mile limit all garbage disposal units which open to the sea should be closed. All garbage should then be placed in covered cans and retained on board until the ship is again beyond the 3-mile limit.

RADIO: (a) Vessels may communicate with Island via:

Mackay Radio, Amagansett, New York	Call Letters WSL
Chatham Radio, Massachusetts	Call Letters WCC
Lantana Radio, Florida	Call Letters WOE
Barbados Radio, Barbados	Call Letters VPO
Destrellan Radio, Guadeloupe	Call Letters FFO
Fort de France Radio, Martinique	Call Letters FFP

All stations maintaining 24-hour service. These radio stations then relay the messages by cablegram to Frederiksted via either ITT World Communications Inc., Cable and Wireless or Western Union International.

(b) Master of every vessel arriving Frederiksted is required to give at least 24 hours advance notice of arrival to Captain of the Port, U.S. Coast Guard – San Juan, Puerto Rico, by wireless on 500 kHz or by radio telephone 2182 kHz. Call Letters for U.S. Coast Guard, San Juan, Puerto Rico – NMR.

(c) Masters are requested to advise Agent their expected time of arrival as far in advance as is possible, vessels arriving from ports other than U.S. or Caribbean Islands should give at least 7 days' notice, and vessels arriving from U.S. ports should give at least 4 days' notice. In addition, a message should be sent verifying arrival at least 48 hours in advance, with delays reported as necessary. Arrival messages should include information regarding repairs, stores, number of crew and passengers on board. If cash is required, a minimum of 7 days' (prior to date of arrival) notice is mandatory.

(d) While vessels are in Frederiksted the Authorities do not permit the use of the ship's radio transmitters.

(e) Vessels equipped with VHF equipment should commence radio watch on Channel 16 when vessel is 100 miles from St. Croix. Contact with Agents and shore facilities can be made direct or via Virgin Islands Marine Operator – Station WAH – Call Letters WAH.

(f) Masters of vessels arriving at Frederiksted Pier are required to contact V.I. Port Authority through their Agent or by FAX No. (809) 778 1033, 24 hours in advance of arrival.

VHF: Port Authority on Channel 16.

TUGS: None readily available – tugs can be arranged with 48 hours advance notice.

BERTHING: A government-owned pier with a 1,400 ft. long approachway, bridging Maritime Zone to a pier-head 240 ft. long by 60 ft. wide. Vessels 600 ft. and over with a max. forward draft of 25 ft. have been accommodated.

FRESH WATER: Available at dock, arranged by Agent.

TIME: GMT minus 4 hours. Atlantic Standard Time.

HOLIDAYS: The following are legal holidays: Sundays; January 1st (New Year's Day); The third Monday in February (President's Day); March 31st (Transfer Day); Holy Thursday; Good Friday; Easter Monday; Whit Monday; Last Monday in May (Memorial Day); June 22nd (Organic Act Day); July 4th (Independence Day); July 3rd (Emancipation Day); Last Monday in July (Supplication Day); The first Monday in September (Labour Day); The second Monday in October (Columbus Day); The fourth Monday in October (Veterans' Day); The fourth Thursday in November (Thanksgiving Day); December 25th (Christmas Day); December 26th (Christmas Second Day), and such other days as the President or the Government may by proclamation declare as holidays. The port remains open on holidays.

REGULATIONS: The U.S. Coast Guard strictly enforces the Harbour Pollution Act of 1924, prohibiting discharge of refuse and oil in navigable waters of the U.S. Virgin Islands. Local Port Regulations are similar to those applying in U.S. Mainland Ports.

CUSTOMS: Customs Officers will board at anchorage or wharf berths, and will require an accommodation ladder.

Vessels required to enter and clear through Customs House:

Vessels loading or unloading cargo;
Vessels embarking or disembarking passengers;
Vessels remaining in port over 24 hours;
Vessels requesting permission for their passengers to go ashore during the stay of the vessel in port.

Vessels in above categories must present following documents:

Clearance from Last Port;
3 copies of Crew List (Form I-418) or substantially similar form – see note*
3 copies Passenger List (Form I-418) or substantially similar form – see note*
4 copies Inward Foreign Manifest covering all cargo for discharge at St. Croix, V.I., showing weights or measurements (of basis of how cargo is freighted) on all items (Customs Form 1302).
2 copies Stores List (Engine-Deck-Commissary-Narcotics).
1 copy Crew Effects Declaration (Custom's Form 1304).

* List of passengers and crew shall be on Customs and Immigration Form I-418 or on a substantially similar form, except that where no steerage passengers are aboard upon arrival, the listing of the passengers may be in the form of a vessel "Souvenir List" or similar list, in which the names of the passengers are listed alphabetically by class.

Sealing of Stores: Upon arrival of a vessel from a foreign port, or a vessel engaged in foreign trade from a domestic port, sea stores and ship's stores not required for immediate use of consumption on board while vessel is in port and articles acquired abroad by officers and members of crew, for which no permit to land has been issued, shall be placed under seal, unless Customs Officer is of the opinion that circumstances do not require such action. Customs Inspectors in charge of vessel, from time to time, may issue stores from under seal for consumption on board by passengers and crew.

Passengers disembarking must present personal baggage declaration if from foreign.

IMMIGRATION: Recommended that Masters who are unfamiliar with U.S. Immigration Procedure should seek clarification from Agents as far in advance as is possible.

If a vessel arrives direct from a United States mainland port or from Puerto Rico no Immigration inspection will be performed. If a vessel arrives direct from a foreign port the vessel shall undergo Immigration inspection.

Vessels arriving without a visaed crew list, may be able to obtain a waiver from Officer in Charge of U.S. Immigration & Naturalisation Service, by making application on Form I-193. A fee of $10.00 is required to obtain a waiver.

In order to expedite the clearing of the vessel, it is suggested that prior to arrival all passengers subject to inspection should be assembled where the inspection is to be performed.

Stowaways must be reported in ETA Message and listed on a Passenger Manifest (Form I-418) and on Form I-94, and must be reported to the U.S. Immigration Officer as soon as he boards.

All non-resident alien crew members, whether shore leave is required or not, are required to have in their possession valid Passports, Seamen's Book or Identification Card (with photo) and Form I-95 (crewman's Landing Permit) or Form I-184 (Alien Crewman's Permit and Identification Card) on arrival. All resident alien crew members are required to have in their possession Alien Registration Receipt Card (Form I-151) on arrival.

SHORE GANGWAYS: Available.

LAUNCHES/TENDERS: Not available.

AIRPORT: Distant 8.5 miles.

AUTHORITY: Virgin Islands Port Authority, Marine Division, P.O.Box 1134, Christiansted, St. Croix, Virgin Islands, U.S.A. 00820. *Tel:* (809) 778-3131 (St. Croix). *Contact:* Larry Finch, Marine Manager.

LIMETREE BAY, St. Croix: 17.41 N. 64.44 W.

(See Plan)

LOCATION: The facilities of Hess Oil Virgin Islands Corp. (HOVIC) are located in Limetree Bay on the South coast of the island of St. Croix, U.S. Virgin Islands. St. Croix is 32 miles South of St. Thomas and St. John Islands and 50 miles S.E. of the island of Puerto Rico. It is the largest of the U.S. Virgin Islands being 27 miles long and averages 5 miles in width.

The Sea Buoy "No. 2" marking the entrance to Limetree Bay Channel is located in 80 ft. of water on the East side of the channel at Lat.17° 40′ 27″ N., Long. 64° 44′ 18″ W. The Sea Buoy is painted red and is equipped with a quick flashing red light with a visibility of 5 miles.

On approaching the Sea Buoy, Mariners are advised to stay to the South of the 100 fathom curve to avoid fish traps and shoal areas which have not been completely surveyed.

A vessel is considered to be "Arrived" when it is on the Pilot Station, that is South of the Sea Buoy (see "Pilotage").

Charts: Virgin Islands (including Saint Croix) U.S.C. & G.S. Chart No. 905, U.S. Naval Oceanographic Office Chart No. 25246, and British Admiralty Chart No. 485.

DOCUMENTS: Vessels arriving are to have the following documentation:

Last Port Clearance.
Master's Oath (Form 1300) – 1 copy for entry, 1 copy for clearance.
Crew Lists (Form I-418) – 4 copies.
Cargo Declaration (Form 1302) – 2 copies for clearance.
Ship's Stores/Provisions List (Form 1303).
Crew Personal Effects List (Form 1304).
General Declaration (Form 1301) – 1 copy for entry and 2 copies for clearance.

Vessels calling to discharge cargo or having cargo in-transit onboard should advise the Agent of their cargo figures in barrels and long tons and load port and discharge port of each grade in order to prepare the necessary documentation.

PILOTAGE: Service is available 24 hours a day. All vessels entering Limetree Bay must comply with the Navigation Safety Regulations per 33 CFR, Part 164 and an entry denoting this should be made in the vessel's logbook. A HOVIC Pilot is mandatory for all vessels entering, shifting, or leaving the facilities at Limetree Bay. Pilots will assist the Master in the docking and undocking of the vessel; however, the Master of each vessel retains *full* responsibility for the vessel at all times.

The Pilot can be contacted by VHF Channel 11.

Pilot boarding area is 2.5 miles South of the Sea Buoy for vessels up to 125,000 d.w.t. and 3 miles South of the Sea Buoy for vessels over

125,000 d.w.t. Vessels over 100,000 d.w.t. are restricted to daylight dockings. Vessels are to remain in the Pilot boarding area until boarded by the Pilot, unless otherwise instructed. The Pilot will be placed aboard by a Company tug.

Masters shall contact the HOVIC Marine Port Captain on VHF Channel 11, 3 hours and 1 hour prior to arrival at the Pilot Station in order to avoid docking delays.

ANCHORAGE: There is no suitable anchorage for deep draft vessels off the port. Normal practice is to stop engines and wait 6 to 8 miles South of the Sea Buoy if required, when awaiting berthing instructions. In bad weather it is possible to proceed to Frederickstед on the West end of the island and anchor in 30 ft. to 60 ft. of water. Vessels shall have their anchors ready to let go upon entering the channel into Limetree Bay.

APPROACHES: The harbour entrance is marked by a red Sea Buoy "No. 2" equipped with a red quick flashing light with a 5 mile visibility. The channel is 500 ft. in width and 60 ft. in depth at Mean Low Water (MLW). This depth extends into the VLCC Berths No.3 and No. 4. Docks No. 5 and No. 6 have 50 ft. at the face. Docks No. 1, No. 2, No. 8 and No. 9 have 45 ft. at the face of MLW. Dry Cargo Berth has a draft restriction of 34 ft. without fenders and 38 ft. 06 in. with fenders. Draft restriction for Berths No. 3 and No. 4 is 55 ft., for Berths No. 5 and No. 6 is 47 ft. 06 in., and for Berths No.1, No. 2, No. 8 and No. 9 is 42 ft. 06 in. Berth No. 7 is currently out of service. The turning basin opens up Eastward from the channel line and is approximately 1,200 ft. long and 1,000 ft. wide. The West Turning Basin is 1,500 ft. × 1,200 ft. A breakwater extends out from the head of the East Basin to the coral reef which forms the Southern harbour limit.

RESTRICTIONS: Navigation is permitted 24 hours a day, except for vessels over 100,000 d.w.t. Vessels over 100,000 d.w.t. are handled on a daylight basis inbound only. The Port Captain will check and report on each vessel's draft before a Pilot is dispatched.

Ballast draft restrictions are as follows:

Vessel d.w.t.	*Forward* (ft.)	*Aft* (ft.)
Under 30,000	10	16
30,000 – 50,000	12	18
50,000 – 70,000	15	21
70,000 – 100,000	18	24
100,000 – 150,000	28	32
150,000 – 200,000	32	36
Over 200,000	40	40

MAX. SIZE: At Mean Low Water (Salt).

Berth No.	*LOA* (ft.)	*Draft* (ft.)	*Beam* (ft.)	*D.W.T.*
*DC	650	34.0	Unlimited	45,000
		38.5	With fenders	
1	900	42.5	Unlimited	80,000
2	900	42.5	"	80,000
3	1,200	55.0	"	300,000
4	1,200	55.0	"	300,000
5	900	47.5	"	100,000
6	900	47.5	"	100,000
**7	500	40.0	"	35,000
8	900	42.5	"	100,000
9	900	42.5	"	100,000

*Dry Cargo.
**Currently not in Service.

HEALTH: Pratique is granted after the vessel has met on-board inspection regulations of the U.S. Customs Service, Immigration Service and Department of Agriculture. Deratisation Certificates should be valid and can be renewed with advance notice to the vessel's Agent. If there is an illness on board of a suspicious nature, it must be reported together with the symptoms prior to arrival. All trash and refuse kept in drums on deck must be in closed plastic trash bags and the drums must have securely attached lids. No plastic bags laid upon the deck nor open containers on and/or below decks will be acceptable. No garbage collection or disposal service is allowed or available. No trash or refuse will be allowed to be deposited in the harbour. Failure to comply with any of the aforementioned items results in immediate and large fines.

RADIO: Masters must advise HOVIC-MARINE St. Croix (Call Sign KFL-984) and their agents by radio or telex 72 hours, 48 hours and 24 hours in advance of their ETA, giving the vessel's name, date and hour of arrival (Local time) and the name of their last port of call, otherwise delays may result in berthing the vessel. In addition a radio call on VHF Channel 11 to HOVIC MARINE (KFL-984) 3 hours and 1 hour prior to arrival is required. A vessel will be considered as "Arrived" when it reaches the Pilot Station 2.5 miles to 3 miles South of the Sea Buoy.

Telex communication with vessels so equipped is possible by telexing HOVIC MARINE, Telex No. 3473013.

VHF: VHF radio communications in the harbour facilities are as follows:

HOVIC Port Captain – Channel 11.
HOVIC Pilots – Calling Channel 11 and working Channel 65.
Agency – Channels 10 and 11.

For Ship to Shore calls at Sea, Virgin Islands Radio has Marine Operators available and can be contacted on Channel 16.

RADAR: No Port Radar Service or Vessel Traffic Management System exists in the port.

TUGS: Tug assistance in the harbour limits for docking, shifting or undocking is mandatory and is provided by 3 × 3,000 h.p. diesel tugs and 2 × 7,200 h.p. diesel tugs that are stationed in the port to provide this service. All tugs are under the orders of the HOVIC Pilot or the HOVIC Port Captain and are equipped with fire pumps and monitors to assist in fire fighting. Tug lines are used.

MEDICAL: Medical requirements are arranged through the vessel's Agent. Hospital and dental facilities are available; however, the vessel's Agent should be advised of any medical requirements prior to arrival. Standard United States health requirements apply. Inoculations and vaccinations are available.

BERTHING:
HOVIC Terminal (Hess): A shore gangway is provided. For berth limitations due to size see "Maximum Size". All berths are for the handling of petroleum products with the exception of Dry Cargo (DC) Berth which has in addition the capability of loading sulphur pellets in bulk. There are no other facilities for handling any other cargoes beside petroleum at the HOVIC Terminal. No shore steam/power is available.

Port Alucroix: Situated to the West of the HOVIC Terminal. The port is entered via the Krause Lagoon Channel with a controlling depth of 35 ft. at Mean Low Water and a width of 300 ft. At the head of the Lagoon is the Martin Marietta Alumina Terminal which is currently idle. Pilot boards approximately 2.5 miles South of the Krause Lagoon Channel Sea Buoys.

Container Port: Situated close to the West of the HOVIC Terminal. The port is entered via the Krause Lagoon Channel (300 ft. wide and 35 ft. depth) and the Container Port Cross Channel (400 ft. wide and 35 ft. depth). Length of the pier is 1,200 ft. with 35 ft. depth. 1 × 30 ton Paceco container crane is available with a telescopic spreader to handle 20 ft., 35 ft. and 40 ft. containers. Also a berth at the head of the pier can handle Ro/Ro cargoes.

BALLAST: United States laws prohibit the pumping overboard of dirty ballast while a vessel is within U.S. coastal waters. All ballast must be pumped to facilities available ashore. However, if a vessel is especially equipped with clean segregated systems which are reserved for ballast use only, it is permissible to pump the segregated ballast overboard at the dock after first being inspected and approved by the Port Captain.

In pumping dirty ballast ashore, it is received into 2×10 in. hoses connected to 1×16 in. line into another 1×36 in. shore line at a max. discharge pressure of about 100 p.s.i. on the dock. The ballast is pumped into a ballast facility about 1 mile North of the dock. Due to the limited facilities and the possibility of more than one vessel deballasting at a time, it is requested that vessel arrive with a minimum amount of ballast, consistent with Pilot's ballast draft restrictions, and include the amount to be discharged on their ETA advices to their Agents.

The U.S. Oil Pollution Act of 1924 applies to the Pollution of Coastal Waters. Violators are subject to fines and possible imprisonment.

NOTICE OF READINESS: Notice of Readiness to load or discharge is a warranty that the vessel is in all respects ready to load or discharge, and that all of the ship's equipment, including, but not limited to, tanks, pumps, valves and pipelines, are ready and fit to load or discharge petroleum or petrochemical products. Notice of Readiness will not be accepted unless the vessel is in all respects ready to load or discharge as appropriate. Vessel will not be deemed ready to load or discharge and pumping will not commence until the Senior Deck Officer shall have executed and delivered to HOVIC a "Declaration of Inspection Prior to Bulk Cargo Transfer" as required by U.S. Coast Guard Regulations.

LOADING: The Petroleum docks are serviced by the following shore lines: 1×42 in. crude line, 1×36 in. crude line, 1×36 in. No. 6 oil line, 1×36 in. ballast line, 1×30 in. VGO (Catfeed) line, 1×24 in. No. 6 oil line, 1×24 in. VGO (Catfeed) line, 2×20 in. gasoline lines, 1×20 in. Jet/Kerosene line, 1×16 in. gasoline line, 1×12 in. line for each of the following: Paraxylene, Xylenes, Benzene and Toluene, 1×8 in. Caustic Soda line and bunker lines of 1×18 in., 1×12 in. and 1×8 in. All hose connections are 10 in. diameter, there are 4×16 in. loading/discharge arms at Berths No. 3 and No. 4 for crude oil, 2×16 in. arms for No. 6 oil/crude at Berth No. 6, and 2×16 in. arms for VGO (Catfeed)/Crude at Berths No. 8 and No. 9. Chemical grades are handled via 1×10 in. hose with Caustic Soda handled by 1×6 in. and balance grades via 2×10 in. hoses. Facilities are available to handle dirty slops/tank washings.

BRIDGES: There are no bridges that affect harbour movements.

DENSITY: 1025.

FRESH WATER: The Island of St. Croix is dependent almost entirely on rainfall for its supply of fresh water. There are wells but many of them are rather saline in nature. As a result fresh water is scarce and expensive. In conjunction with its refinery operation HOVIC operates a desalination plant and limited quantities of fresh water are available providing at least 48 hours' notice of these requirements is given prior to the ship's arrival. All fresh water is metered aboard ship. Costs are as follows: 1st 50 tons = US$5.00 per ton, between 50 tons and 100 tons = US$10.00 per ton, and over 100 tons = US$15.00 per ton.

FUEL: No. 6 fuel oil (Bunker C), 1500 Redwood, 3500 Redwood and light marine diesel are available by prior arrangement and with 72 hours' notice. Credit must be cleared by Amerada Hess Corporation in Woodbridge, New Jersey, USA. Advice concerning quantities and quality of fuel desired should be given in the ETA advices sent to the vessel's Agent.

FIRE PRECAUTIONS: Standard fire precautions for tanker safety apply, including but not limited to: Smoking is prohibited on the weather decks of tank vessels, on docks, and in the general dock vicinity. All doors and portholes from the quarters facing outside must be kept closed while transferring cargo at the dock. No portable cables connected to an electrical source shall be used while transferring cargo or ballast. When illumination is needed, approved explosion-proof lights are to be used. Boiler cleaning, tank cleaning, gas freeing, welding, burning or hot work is not allowed at the dock. Tank mopping is permitted on an individual basis. Vessel's main engines should not be out of service while the vessel is in port. It is not permitted to shut down both main boilers on a steam vessel or pull the cylinder heads from the main engine of a motor vessel. In the event a stack or engine exhaust emits live sparks, the transfer of cargo must be stopped. The main radio transmitter is not to be used while transferring cargo or ballast. The transfer of cargo and ballast must be stopped during electrical storms, or when lightening appears in close vicinity. A fire towing wire should be led out forward and aft on the offshore side of the vessel and lowered to the water's edge, made fast to the deck and tended to maintain them at the water's edge. In the event of fire on the vessel, dock or waterfront area, the transfer of cargo will be suspended and the vessel made ready for immediate departure if the danger is imminent. Furthermore, should an emergency or accident occur, vessel and terminal personnel must take immediate action in order to protect life and property. Contact the HOVIC

Port Captain on VHF Channel 11 and the terminal dockwatch to inform them of the nature of the emergency.

CONSULS: Denmark and Netherlands.

REPAIRS: In general no repair work is authorised, except for emergencies while the vessel is at the dock.

DRY DOCKS: No dry docks are available in the port.

SURVEYORS: Cargo Inspectors are available at Limetree Bay as follows: SGS Inspectorate, Chas. Martin and Caleb Brett. E. W. Saybolt is available from San Juan, Puerto Rico.

Representatives of the American Bureau of Shipping, Lloyd's Register and other maritime classification societies are available from San Juan, Puerto Rico on 24 hours' notice. The ship's Agent will assist the Master in soliciting their services.

GANGWAY/DECK WATCHMEN: Vessel to provide personnel at manifold and gangway.

CUSTOMS ALLOWANCES: Crew members are permitted to hold out of bond 1,500 cigarettes and 1 litre of alcohol per crew member.

REPATRIATION: Facilities exist for effecting Crew changes and arranging repatriation.

AIRPORT: HOVIC Terminal at Limetree Bay is located 15 minutes via highway from the airport. Daily flights direct to Miami, Fla., New York, N.Y., Newark, N.J. and numerous flights to San Juan, Puerto Rico with worldwide connections are available.

TIME: The U.S. Virgin Islands use Atlantic Standard Time (A.S.T.) which is Greenwich Mean Time minus 4 hours.

HOLIDAYS: The refinery and terminal operates 24 hours per day all year round.

POLICE/AMBULANCE/FIRE: The refinery and terminal have their own ambulance and fire department. Contact the HOVIC Port Captain on VHF Channel 11. Local police may be contacted via the Agent.

TELEPHONES: No arrangements are available for placing telephones aboard ship.

SERVICES: Following services are available: Radio/Radar repair, Ship Chandler, Liferaft Service/repacking, ship classification societies surveyors (from San Juan, P.R.), and charts, publications or Notice to Mariners in very limited supply.

BANKS:

The Bank of Nova Scotia, Christiansted (809-773-1013).
Banco Popular, Christiansted (809-773-0077).
Chase Manhattan Bank, Christiansted (809-773-1200).
First Pennsylvania Bank NA, Christiansted (809-773-0440).

STORING: Vessels can only be stored by truck delivery to the pier. Trucks may approach the vessel no closer than 150 ft., where goods are pushed/pulled alongside using vendor's wheeled carts. A shore crane is capable of lifting light weights to the vessel from the apron. Forklifts are not allowed on the dock. Local riggers are available for assistance provided a minimum of 24 hours' notice is given to the Agent.

SHORE LEAVE: Crew members are granted shore leave consistent with standard U.S.A. requirements and procedures. Crew members desiring shore leave are not permitted to walk through the refinery. Bicycles are not permitted either. Taxi cabs are available as required for transportation through the refinery and to Christiansted and Frederiksted. Crew members should await pickup at the dock approach or walk to the taxi stand located alongside the Marine/Terminal building at the head of the docks.

IDENTIFICATION CARDS: Agency representative will supply Master with Refinery Gate Passes.

TIDES AND CURRENTS: The tides are small and diurnal, the mean range being about 0.5 ft. and the diurnal range less than 1 ft. depending upon wind and weather conditions. Normally there is a drift of 0.5 knots to 1.0 knots moving along the South shore of the island in a Westerly direction. H.O. Sailing Directions and U.S. Coast Pilots No. 5 can provide additional details.

REGULATIONS: Vessel will be held responsible for the cost of labour and material required to clean up any oil spill caused by the vessel in Limetree Bay. Slick booms are available to isolate spills and contingency plans are in force for oil spills. The U.S. Coast Guard will be notified of any oil spills, no matter how minor, also vessel's cargo transfer operations will be suspended pending U.S. Coast Guard investigation.

AIR POLLUTION: It is unlawful to permit emission of smoke darker than No. 2 on the Ringlemann Scale. Violation of this law in Limetree Bay may result in fines to the vessel from local authorities.

SWIMMING: Swimming in the Harbour is not permitted as sharks and barracudas frequent the area.

COMMUNICATIONS:

Communication with U.S. Navy at Frederiksted: Arriving at or departing from Limetree Bay, all vessels passing the Western end of St. Croix are to monitor VHF Channel 16 for radio traffic from the U.S. Navy Weapons Tracking Station at Frederiksted. Vessels may be requested to alter course to avoid interrupting naval activities that are being conducted with aircraft, ships and submarines.

DELAYS: Due to the multiple capabilities of the harbour, infrequent delays are encountered in the transfer of petroleum or petrochemical products.

DEVELOPMENTS: Currently there are no planned revisions to the harbour.

GENERAL:

Liquors: The transportation of alcoholic beverages inside HOVIC's property is strictly prohibited; consequently, no liquor or beer may be removed from vessels, the only exception to the foregoing is in the case of bonded stores ordered by the Master.

Visitors: No visitors are permitted in the dock area. Only persons on official ship's business are permitted on the piers.

Laundry: Only limited facilities are available to handle ship's laundry.

Mail: Official and personal mail will be delivered on board by the ship's Agent when vessels are being cleared inwards. Mail received for vessels while in port will be delivered on board prior to sailing. Outgoing mail is accepted from Master, provided it is accompanied by a mail transmittal slip to support disbursements.

Supplies and Repairs: Limited supplies of provisions and marine hardware are available on the island. There are no facilities for major repairs closer than San Juan, Puerto Rico. Machine shops in Christiansted and Frederiksted can assist in making minor repairs.

Overloading: Masters are advised that the international laws are strictly enforced with regard to overloading and should be guided accordingly. In cases where overloaded cargo has to be discharged, all expenses incurred, including ship delay, will be for the vessel's account.

Weather Conditions: The loading and discharging of all crude petroleum and its products will be stopped during any electrical storm. Ullage screens or ullage plugs must be in place. Loading of gasoline or other similar low flash products will be stopped during periods of calm when the heavy vapours cannot be dispersed quickly enough to prevent hazards from accumulated gas pockets. Ship's Officers are cautioned to be on their guard during such conditions. In the event of abnormal weather conditions in the area, such as a hurricane, vessels will be notified that additional moorings are required. If the situation so demands, Masters will be told to suspend all operations and proceed to sea until normal weather conditions return.

Demurrage: Vessels are required to vacate the berth promptly upon completion of cargo handling operations. Permission to lay alongside at any time the vessel is not engaged in cargo handling operations must be granted in writing by the Marine Manager. The Port Captain will keep vessels advised of other vessels awaiting berth. If any vessel fails to vacate its berth upon completion of cargo handling operations and expiration of free laytime for dock usage as outlined below, the vessel will be responsible for penalties and demurrage as follows:

1) To pay dock demurrage at the rate of US$1,000 per hour or a pro-rata share thereof for a fraction of an hour.
2) To hold HOVIC harmless for any demurrage and consequential damages incurred as a result of any other vessels suffering berthing delays or for any other events resulting from the vessel's failure to properly vacate the berth.

The following rules shall govern the determination of demurrage:

1) 1 hour of free laytime will be allowed after completion of cargo loading operations. This free time will start at the time cargo hoses are disconnected from the ship's manifold on completion of cargo transfer operations.

   Vessels awaiting cargo papers and/or Customs Clearance must vacate the berth within the 1 hour period and move outside to await their papers.
2) 6 hours free Laytime will be allowed for ballasting after discharge operations are completed.
3) Ballasting times for VLCC's will be handled on an individual basis for each ship.
4) Delays caused by the terminal are excepted.

AUTHORITY: Hess Oil Virgin Islands Corporation (HOVIC), P.O.Box 127, Kingshill, St. Croix, U.S. Virgin Islands 00850. *Tel:* 809-778-4000. *Telex:* 3473013. *Contact:* Andrew B. Koski, Port Captain. John H. Frederick, Marine Manager.

Virgin Islands Port Authority, P.O.Box 1707, St. Thomas, Virgin Islands, U.S.A. 00801. *Tel:* (809) 774-2250 (St. Thomas), (809) 778-1180 (St. Croix).

ROAD HARBOUR & PORT PURCELL, Tortola, British Virgin Islands: 18.25 N. 64.37 W.

PORT LIMITS: All the area of water North of an imaginary line drawn from Burt Point to Hog Point (see BA Chart 2020).

DOCUMENTS:

Clearance from last port.
1 Declaration of Health Certificate.
4 Crew Lists.
2 Crew Store Lists.
2 Ship's Stores Lists.
2 Passenger Lists.

PILOTAGE: Only compulsory for vessels of 200 g.r.t. and over, unless a vessel is in possession of a valid Exemption Certificate issued by the Ports Manager. Pilot boards at Port limits after receiving advice from Agents preferably 12 hours prior to arrival. Link calls made through Tortola Radio, Channel 27 in daytime and Channel 16 at night.

Vessels arriving ahead of ETA sound "G" on whistle if unable to advise Agent.

No inward pilotage at night, unless emergency, night Pilotage outwards by special arrangement.

ANCHORAGES: Between Buck Island and Beef Island or immediately South of Port limits, approximately 12 fathoms.

RESTRICTIONS: Anchorage within Port limits prohibited unless authorised by Ports Manager. Max. draft alongside Port Purcell 21 ft.

HEALTH: Customs issue Pratique for vessels with clear bill of health, otherwise request doctor to board on arrival alongside or at anchor.

RADIO: Call sign "Port Purcell" – can be reached by VHF Channel 16. Cable and Wireless maintain a Public Coast Station on Tortola, call sign "Tortola Radio", with an approximate range of 50 miles and provides linked telephone calls between ships and any shore based telephone subscriber. From 0700 hrs. – 1900 hrs. watch is kept on Channel 16, at night for emergencies only.

For distances in excess of 50 miles any other convenient shore station (eg. Barbados, St. Thomas) that will accept messages for onward cabling or telephoning to Tortola.

TUGS: None available.

BERTHING: Port Purcell quay is 800 ft. long, max. draft 21 ft. at any state of tide, salt water. Ships discharge with own gear.

CRANES: Port Purcell has 1 mobile shore crane, max. lift 8 tons. Prior advice required for use.

MEDICAL: Hospital facilities available, no routine inoculations, etc., required unless specially notified.
DENSITY: Entirely salt water within port limits.
FRESH WATER: Available in limited quantities at Port Purcell, approx. delivery 20 t.p.h. and costs US$14.00 per 1,000 gallons.
FUEL: Diesel only for small vessels delivered by road tanker to Port Purcell, 2 hours' notice.
REPAIRS: Minor repairs only.
SURVEYORS: Available.
HATCHES: Opened and closed by crew.
CUSTOMS ALLOWANCES: No sealing of tobacco, wine or spirits.
AIRPORT: Beef Island, 7 miles, regular local flights to St. Thomas, Puerto Rico, Antigua which connect with several main lines to Europe and the Americas.
TIME: GMT minus 4 hours.
HOLIDAYS: Port Purcell closed Christmas Day, Good Friday and 1st Monday in August.
POLICE/AMBULANCE/FIRE: Dial 999 (emergency). Police station 43422.
TELEPHONES: Telephones available for use on board ship.
SHORE LEAVE: No restrictions for crews.
IDENTIFICATION CARDS: None required.
DELAYS: None should be expected. Cargo working is geared to ship's arrival, irrespective of time and 24 hours continuous working if required.
AUTHORITY: Ports Manager and Harbour Master, Road Town, Tortola, Virgin Islands.

ST. THOMAS: 18.20 N. 64.56 W. (See Plan)

Harbour of St. Thomas, U.S.V.I. situated on South side of Island of St. Thomas. It is 1,434 miles from port of New York. Northern side of island borders on Atlantic Ocean, and Southern side on Caribbean Sea. The Harbour is one of the best in the West Indies, being almost landlocked.

WEATHER: The weather is usually mild with little wind. Squalls when they occur, usually come from the N.E.

DOCUMENTS: *Quarantine, Customs and Immigration* – see "Frederiksted".

Agent:

1 Copy Crew List (Form I-418).
1 Copy Passenger List (Form I-418).

PILOTAGE: Compulsory and available day and night. Pilot Boat has letter "P" on deck house and flies International Code flag "P". Pilots will meet vessels 1 to 3 miles outside harbour, boarding via Jacob's ladder.

ANCHORAGE: Outer Harbour Anchorage located beginning at Scorpion Rock Lighted Buoy No. 1 (Lat. 18° 19′ 25.6″ N., Long. 64° 55′ 08″ W.) thence 180° 1,580 yards; thence 263°, 2,490 yards; thence due North 1,255 yards; thence due East to the Southerly tip of Sprat Point, Water Island; thence to Cowell Point, Hassel Island, and thence to point of beginning. This anchorage is considered good and is about 8 fathoms with sand bottom.

RADIO: The St. Thomas Marine Operator will guard the following from 0600 to 2100 hrs.: Channel 26, 16 VHF, 2009 – 2506 and 2182 kHz AM, and the upper side band (2010.4 – 2507.4 kHz) of the same frequency. The Harbour Master's Office maintain a 24 hour watch on VHF Channel 16 (working on Channel 12).

(*b*) Master of every vessel arriving at St. Thomas is required to give at least 24 hours advance notice of arrival to Captain of the Port U.S. Coast Guard – San Juan, Puerto Rico by wireless on 500 kHz or by radio telephone 2182 kHz.

(*c*) Masters are requested to advise Agents their ETA, at least 36 hours in advance. Arrival messages should include cash requirements (local currency U.S. Dollar) and advice regarding repairs, stores, etc. This information is particularly necessary in the cases of vessel arriving on weekends or holidays. For cruise vessels the arrival messages should also include the number of passengers and crew on board.

(*d*) While vessels are in St. Thomas Harbour, the Authorities do not permit the use of the ship's radio transmitters.

(*e*) U.S. Coast Guards: This organisation maintains a small Marine Safety Detachment in St. Thomas to observe, service and effect repairs to navigation aids in vicinity of St. Thomas. An 82 ft. Coast Guard Patrol Boat "Point Whitehorn" (82364) is attached to the station for primary purpose of search and rescue work. Maintains watch on VHF Channel 16. Radio telephone marine information broadcasts, including Notices to Mariners, will be made on 2670 kHz, after first making a preliminary announcement on 2182 kHz. Radio telephone urgent and safety broadcasts or Marine Information will continue to be made on 2182 kHz.

TUGS: Normally not considered necessary for docking, however tugs are available for docking and undocking ships.

BERTHING: Wharf of the West Indian Company Limited, located on Eastern shore of harbour basin. Wharf is bulkhead type, 2,234 ft. long, running N.E./S.W., and is well protected to seaward. Mooring bitts are spaced at intervals of 50 ft. There is a "cut out" in the wharf 950 ft. from N.E. corner, which is 22 ft. wide and approximately 3.5 ft. above low water. This ramp is slanting from 8.3 ft. to 3.5 ft. over a distance of 20 ft. Similar type of ramp located on West Corner of wharf. Safe depth alongside from 27 ft. near N.E. end to 30 ft. on S.W. end. Bulwark is 8.3 ft. above mean tide. Average difference between high and low tide is 11 in.

Dockage dues are payable to the West Indian Company Limited, as per tariff.

In the Crown Bay area (access via East or West Gregerie Channels) the V.I. Port Authority maintains facilities which include a pier extending 800 ft. from shore with 500 ft. of berthing space on South side and 200 ft. on North side, where ships up to 25,000 g.r.t. can moor. Controlling depth presently 38 ft. This pier is used for berthing tourist and tanker vessels only. A curved bulkhead at top of Crown Bay, approximately 900 ft. long, is used for Ro/Ro, container and break bulk cargo. Controlling depth 15 ft. 24-hour arrival notice is required.

Phase II-A of the development at Crown Bay will include a 650 ft. berth for cargo vessels.

CARGO HANDLING: Containers are handled at the West Indian Company and the Crown Bay area (V.I. Port Authority), but no special gantry cranes are available. Ro/Ro cargo handled at these facilities as well. No liquid chemicals facilities exist here but there is a small privately-owned LPG plant limited to 20 ft. draft and 250 ft. length. Shell uses this facility for gasoline and light diesel. The "T"-pier in Crown Bay is used for the V.I. Water and Power Authority for movement of fuel and water, and Texaco has its own pipe-line on the same pier for their products.

STEVEDORES: Discharging and/or loading arranged by the West Indian Company Limited for account and risk of vessels.

Rates of discharging and/or loading dependent on vessel's equipment and stowage. However, following may be considered average:

General Cargo 6 weight tons per gang hour.
Bagged Goods 8/10 weight tons per gang hour.
Lumber 10/12 weight tons per gang hour.

Each stevedore gang normally consists of 12 stevedores (10 on board and 2 ashore), 2 winchmen, 1 signalman, 1 foreman.

FUEL: Bunkers are not available except for small craft.

FRESH WATER: Mostly rain water which when available is supplied by the West Indian Company Limited. This supply is limited and is on an emergency basis only. Water may also be requested from the Government of the Virgin Islands in cases of emergency only. Delivery effected by pipe alongside wharf. Water by barge can be delivered in St. Thomas.

MEDICAL: Local hospital is the Knud-Hansen Memorial Hospital, which is equipped with facilities for operations, etc.

TIME: Official St. Thomas time is Atlantic Standard Time, which is 4 hours behind GMT.

HOLIDAYS: The following are legal holidays in St. Thomas: Sundays; January 1st (New Year's Day); January 15th (Martin Luther King); January 30th (Roosevelt's Birthday); February 12th (Lincoln's Birthday); The third Monday in February (Washington's Birthday); March 31st (Transfer Day); Holy Thursday; Good Friday; Easter Monday; Whit Monday; The last Monday in May (Memorial Day); June 22nd (Organic Act Day); July 4th (Independence Day); July 25th (Supplication Day); The first Monday in September (Labour Day); The second Monday in October (Columbus Day); The fourth Monday in October (Veterans' Day); November 1st (Liberty Day); The fourth Thursday in November (Thanksgiving Day); December 25th (Christmas Day); December 26th (Christmas Second Day), and such other days as the President of the Government may by proclamation declare as holidays.

Whenever any holiday falls upon Sunday, the Monday following is a legal holiday.

REGULATIONS: The U.S. Coast Guard strictly enforces the Harbour Pollution Act of 1924, prohibiting discharge of refuse and oil in navigable waters of the U.S. Virgin Islands.

Local Port Regulations are similar to those applying in U.S. Mainland Ports.

HEALTH, CUSTOMS, IMMIGRATION: Refer to Frederiksted.

CONSULS: Following countries have consular representatives in St. Thomas:

Belgium
Denmark
Dominican Republic
El Salvador
France
Haiti
Netherlands
Norway
Panama
Sweden
United Kingdom

AIRPORT: Distance 2 miles. Connections with International flights from Puerto Rico and direct flights from New York, Dallas/Fort Worth and Miami.

GENERAL: *Gangway:* One aluminium gangway available which is 34 ft. long and 2 ft. 6 in. wide – made with skidding prevention strips only and therefore not recommended for use as a passenger gangway. There is a similar gangway that is owned and used on V.I. Port Authority facilities. Since these are the only gangways; they are made available to vessels on first-come-first-served basis.

Stores: St. Thomas should not be depended upon for large quantities of provisions or deck and engine stores, as practically all commodities are imported making prices higher than United States mainland ports and Puerto Rico. No regular Ship's Chandlers established in St. Thomas, V.I.

Storage Facilities: The West Indian Company Limited undertakes ordinary storage for a limited period of time in 8 transit warehouses, all 14 ft. high with a total floor area of 80,000 sq. ft., plus an additional 9,600 sq. ft. roof covered area. There is also a large uncovered area available for outside storage. Only limited cold storage facilities are available on The West Indian Company's Dock.

Ice: Small quantities may be obtained.

Laundry: Modern laundry service is available.

POLICE/AMBULANCE/FIRE: Police 915; Ambulance 774-1212; Fire 921. Port Authority 774-2250, 774-2333.

AUTHORITY: Virgin Islands Port Authority, Office of the Marine Manager, P.O.Box 2216, St. Thomas, Virgin Islands, U.S.A. 00801. *Tel:* (809) 774-2250. *Contact:* Harry Magras, Marine Manager.

Western Samoa

APIA: 13.50 S. 171.45 W. (See Plan)

PORT LIMITS: The Customs Act defines the port of Apia as follows: The limits of the said port of Apia shall be a circle of 2 miles radius from the Custom House now existing in Apia and the said port shall include all land, river, and sea included within that circle. The Shipping Act defines the limits of the port in similar terms using the Export Wharf as the centre of the 2 mile radius circle. Both of these features are shown on Chart 2211.

DOCUMENTS:

1 Clearance from previous port of call.
3 Crew Lists.
3 Passenger Lists.
2 Health Documents.
1 Manifest.
Bills of Lading.
Ship's Papers (stores and poisons).
List of Dangerous Goods.

PILOTAGE: 72 hours ETA is required, confirm 24 hours before arrival. Pilotage is compulsory for merchant vessels. Pilot boards 1.5 miles outside harbour on line of leading beacons. Pilot boards from harbour tug.

By night, in addition to usual navigation lights, Pilot boat carries standard identification, i.e. a red light on foremast with all-round visibility. Exemption from pilotage may be granted to Masters of vessels trading regularly to Apia, but pilotage dues are still payable.

ANCHORAGES: In 20 fathoms outside a line drawn between the 2 reefs and preferably on line of leading beacons. Bottom is coral.

RESTRICTIONS: No night-time or tide restrictions. Turning basin dredged to 36 ft. in 1972, extending to 1,200 ft. from each end of the wharf. Arrivals preferred during daylight hours.

MAX. SIZE: Shore bollards to take stern and bow lines for vessels up to 800 ft. in length. Max. draft 35 ft.

Buoy mooring for tankers up to 32,000 d.w.t. consists of 3 buoys with black and red vertical stripes, 1 ahead and 2 astern. Vessel also uses starboard anchor.

HEALTH: Doctor boards vessel on arrival alongside.

RADIO: ETAs should be sent 72 hours before arrival, and confirmed 24 hours before. Signals to incoming ships by radio or radio-telephone from Apia radio station 5WA. For radio, ships should call on 500 kHz and operate on 483 kHz. For radio-telephone, ships should call on 2182 and operate on 2162 or other available frequency as may be arranged once contact has been established. Call sign "Apia Radio" repeated.

Apia Radio maintains continuous service, and the Harbour Master can be called on Channel 16 during normal working hours. The tug and pilot launch also operate on Channel 16 .

TUGS: 2 tugs available, *Pualale,* 425 b.h.p. (7 ton pull) and *Savaii,* 175 b.h.p.

BERTHING: Export Wharf – reinforced concrete wharf 604 ft. in length on the East side of inner harbour. Max. depth alongside 36 ft. All loading and discharging is carried out with ship's gear. No wharf cranes available. This wharf and all surrounding areas enclosed by fence is Customs area and all vessels trading to or from places outside Western Samoa must depart from or arrive at this wharf.

New wharf 604 ft. long, vessels up to 800 ft. may be berthed.

There is 250 ft. of berthing alongside the inner face of the Southern arm of the wharf for small ships in deep water.

There are no special Ro/Ro facilities.

Shore equipment: One 15 ton mobile crane. 2×20 ton forklifts. About 10×3 to 5 ton forklifts.

STEVEDORES: Arranged by ship's Agents.

MEDICAL: Advance notice to Agents preferable. Doctors and good general hospital where seamen may be admitted.

There is a private medical clinic and a private dental clinic. Both high standard.

TANKERS: Shell, Mobil, and B.P. operating in Samoa, and have own discharging facilities. Tanker terminal situated on West Reef. Discharge line is 6 in. diameter. Launch service may be provided between ship and shore at a small charge.

DENSITY: 1025 – but may alter considerably during rainy season.

TIDES: Mean high water intervals 6 hours 27 minutes, Spring range 3.8 ft., mean range 2.6 ft. Tidal stream normally slight, but after heavy rain outflow from rivers and streams can cause it to become quite strong.

The current across the harbour entrance about 600 m. off the reef can be variable, but is predominantly Westerly and velocities up to 4 knots have been reported but this is not normal.

FRESH WATER: Available at wharf from shore installation.

FUEL: Only light diesel fuel available.

FIRE PRECAUTIONS: Fire services available on wharf, station is 0.5 miles distant.

GANGWAY/DECK WATCHMEN: Recommended and available.

OPENING/CLOSING HATCHES: Opened and closed by stevedores.

CUSTOMS ALLOWANCES: No enforcements.

IDENTIFICATION CARDS: Not needed.

CONSULS: The New Zealand High Commissioner represents all British subjects; French Consul, Australian High Commissioner, Embassy of the Chinese People's Republic, South Korean Consul, West German Consul, United States of America Consul.

REPAIRS: Minor repairs only.

SURVEYORS: None.

AIRPORT: 25 miles from Apia on Western side of Island. Regular and frequent mail and passenger services. Direct to Auckland or USA via American Samoa.

TIME: GMT minus 11 hours. No alteration to clocks.

HOLIDAYS: No cargo on Sundays between 0300 and 2100 hrs. The recognised holidays are Christmas, New Year, Boxing Day, Good Friday, Easter Monday, Whit Monday, Anzac Day and Independence holidays from 1st June to 3rd June.

TELEPHONES: Police and public telephones near wharf and provisions are available for telephone connection to tourist vessels berthed at the wharf.

POLICE/AMBULANCE/FIRE: Hospital 21.212; Police 22.222; Fire 999 emergency or 20.404.

EMERGENCY CO-ORDINATION CENTRE: U.S Coast Guard, Pago Pago, American Samoa, 80 miles East of Western Samoa.

SHORE LEAVE: No restrictions.

BANKS: Bank of Western Samoa, P.O.Box 189, Apia, Western Samoa. Tel: 22 422. Telex: 258.

Pacific Commercial Bank (Affiliate Bank of New South Wales and Hawaii), P.O.Box 192, Apia, Western Samoa. Tel: 22 781. Telex: PCB 231.

STORING: See "Prelims".

1. Truck only.
2. N/A.
3. Yes.
4. Yes.
5. No regulations.
6. Yes.

SHIP SUPPLY SERVICE: The Marine & Shipping Division of the Ministry of Transport provides tug-boat services which are available for ship-to-shore transport of personnel and/or essential ship stores, sick crew members, etc., on application to the Secretary, Ministry of Transport.

GENERAL: *Supplies:* Provisions available. Deck and engine room supplies can be obtained in limited quantities.

Divers: No divers other than scuba divers are available, and skin divers may be recruited for up to 50 ft. diving.

Oil Pollution: The pumping of bilges, etc., within harbour limits is not permitted and *heavy penalties will be imposed for any breach.*

Garbage Disposal: The dumping of refuse of any kind within harbour limits is strictly prohibited. Properly covered receptacles will be made available and rubbish disposal vans will clear them as necessary. A small charge will be made for this service.

Charts: BA 1730 – Samoa or Navigation Islands.
BA 1339 – Plans in Samoa.
BA 2211 – Apia Harbour.

AUTHORITY: Government of Western Samoa, Ministry of Transport, P.O.Box 1607, Apia, Western Samoa. *Tel:* 23 700, 23 701 and 23 702. *VHF:* Channel 16. *Telex:* 21 Malo Sx. *Cables:* Mot Sam Govt. *Contact:* The Secretary, Ministry of Transport. N. Vaaelua, Assistant Secretary Marine and Shipping, and Acting Harbour Master.

NOTES

Please also advise Shipping Guides Ltd.

Yemen Arab Republic

GENERAL:

CIRCULAR: Extract from the Circular dated 21st June, 1975 from the Hodeidah Port General Corporation, Hodeidah, Y.A.R.

Information and General Condition:

1. *Payment of Tolls and Dues:*

All charges imposed herein are payable in cash, in advance except in the circumstances in which the General Manager of the Hodeidah Port General Corporation exceptionally agrees otherwise.

2. *Definition to Certain Terms:*

(a) "Vessels" shall deem to refer in the Regulations to every floating craft made to sail on water by its or without its own means, whether or not fit for navigation.

(b) "Working Day": Commences at 0600 hrs. and ends at 1800 hrs. Night: Commences 1800 hrs. ends 0600 hrs. following day. Weekend: Commences Thursday 1200 hrs. and ends Saturday 0600 hrs.

3. *Public Holidays:*

The following occasions are observed as Public Holidays, which commence from 1200 hrs. on the preceding day and end at 0600 hrs. following the holiday:–

1. Weekly Holiday: Friday.
2. Al-Hijra (Moslem New Year): *1st Muharram.
3. Maulid-El-Nabi (Prophet's Birthday): *12th Rabia Awal.
4. Al-Meiraj (Prophet's Ascension Night): *27th Rajab.
5. Al-Shaabania: *15th Shaaban.
6. Idd-El-Fitr (4 days): *1st to 4th Shawal.
7. Idd-El-Adha (5 days): *9th to 13th Dulhijja.
8. Revolution Anniversary: 26th September.
9. 13th June (National Holiday).
10. Labour Day (1st May).
11. Revolution Day (14th October).

*N.B.: For Hijra Calendar dates, the corresponding Georgian Calendar dates will be those proclaimed by the Government of the Yemen Arab Republic.

CIRCULAR: To Owners/Masters.

We quote below text of a Circular dated 21st January, 1979, issued by the General Corporation for Ports and Marine Affairs, Hodeidah, for your information and necessary compliance:

"No vessel, having no workable derricks or winches of her own, shall be received or accepted.

Agents shall be responsible for said obligations and without any liability to the Port General Corporation, in all Yemen Ports.

Due to non-availability of discharging means of floating cranes at anchorage and non-guarantee of available shore cranes, advisable you ensure that all ships calling under your Agency should be fully equipped as required."

PILOTAGE: Pilotage is compulsory on all vessels irrespective of their size, on entry and departure.

FINES:

1. A minimum fine of Rials 500/– and not exceeding Rials 2,000/– for failing to hoist the flag of the Yemen Arab Republic on the highest mast of the vessel.

2. Rials 160/– for arrival at outer harbour without prior notification (at least 24 hours' prior notice is required).

3. Vessels attempting to enter the Inner Harbour without prior permit and without Pilot will bear all responsibilities against that in addition to a fine of between Rials 5,000/– and 10,000/–. This is also applicable on sailing.

4. Rials 500/– to 1,000/– for draining water onto the quays in addition to the responsibility for whatever may be caused against that.

5. Rials 500/– to 1,000/– for throwing garbage overboard.

6. Rials 500/– to 1,000/– for immobilising/repairing engines without prior permission from the Authorities.

7. In case a Pilot is called to take the vessel out but she fails to sail for reasons of her own or her Agents, the following expenses will be charged in addition to Pilotage fees:

(a) Pilot detention.
(b) Tugs' assistance.
(c) Unmooring fees.
(d) Any other expenses.

8. The Corporation also reserves the right to impose any fine considered for violating its Rules and Regulations.

HODEIDAH: 14.48 N. 42.55 E. (See Plan)

Also see "General" before first port.

FLAG: It is essential that from the time they enter Yemen territorial waters all vessels fly the Yemen Arab Republic flag and this should be flown continuously until they leave these waters on sailing. Failure to observe this courtesy may result in a heavy penalty. The design of the flag is red, white and black horizontal stripes of equal size with green star in centre of white stripe.

DOCUMENTS: On arrival 16 copies of Manifests of cargo for discharge are required and each must be endorsed with the word *Correct* by the *Customs Authorities* at the Port of Loading. It is imperative that at least 2 of the 16 copies of Manifests on board the ship should be freighted copies, otherwise 2 additional copies, showing freight details should be airmailed to Hodeidah separately to arrive in advance of the vessel. The Master should also be in possession of 1 copy of each Bill of Lading and certificate to show vessel is not blacklisted.

PILOTAGE: Pilotage is compulsory and as the entrance of the Channel giving access to the Port cannot be observed from the port area itself it is essential that accurate ETAs be given to the Agent in order to avoid delays waiting for a Pilot.

Vessels will be piloted down a dredged channel of about 8 miles in length. The channel, which is buoyed with black starboard and red port buoys, is 7.5 m. deep and 100 m. wide.

Pilot boarding position: Lat. 14° 56′ N., Long. 42° 54′ E.

ANCHORAGE: Masters are also recommended to ensure that on arrival they anchor off the entrance to the new port to await the Pilot and do not anchor off the old port opposite the town some 5 miles to the South and which is still shown as being the Port of Hodeidah on some charts. Vessels anchoring in the wrong area may suffer some delay before they can be contacted and asked to proceed to the correct area. Masters should be advised to anchor at the outer anchorage in the following position: Lat. 14° 55′ N., Long. 42° 54′ E. Also see "Shipmaster's Report – May 1982".

RESTRICTIONS: The approach channel is dredged to 9.5 m.

MAX. SIZE: Max. draft 30 ft. Also see "Shipmaster's Report", dated May 1982.

Shipmaster's Report: January 1985.

Entrance channel is buoyed differently to that shown on B.A. Chart (See "Plan"). Pilot suggests that max. draft at LW is approximately 8.0 m., especially if there is a swell at the entrance.

HEALTH: All members of the crew must be vaccinated against yellow fever and cholera, otherwise permission will not be given to disembark.

RADIO: Masters should also ensure that a radio watch is kept to receive calls from the Port Authorities. The Hodeidah Radio station is operative between 0600 and 1800 hrs. daily, the call sign is: 4WD or 4WD3 (short).

TUGS: 6 tugs, 375 h.p. – 1,800 h.p. Pilot launch 250 h.p. also available to assist.

BERTHING: The quay is 540 m. in length with 4 berths, the first 70 m. long, depth 6 m., the second, third and fourth are of 150 m. length and 8.5 m. depth. *Officially, ships berthing are restricted in length to 180 m. and to a max. draft of 26 ft.*

The quay is of concrete construction and is well founded, vessels being secured to bollards in the normal manner. Use of rat-guards is recommended. The quay is equipped with 7 electric cranes having a max. capacity of 5 tons and one crane having a max. capacity of 10 tons. Floating crane of 75 tons capacity available.

There is also a dolphin berth for discharging of petroleum products, which is connected by submarine pipes to storage tanks near the port area. The depth alongside is 6 m.

Also see "Report" and "Developments".

STEVEDORES: All labour is provided by Agent's representative including winchmen and tally clerks, but winchmen are provided entirely at ship's risk.

Rates of discharge vary but are quite satisfactory and with bagged cargo the average obtained is 30 tons per hatch per hour. Night work is possible.

Vessels are expected to supply food on board to cargo supervisors, foreman, and tally clerks. It may be left to Master's discretion whether this is supplied, but if not the Agency will have to supply same and the cost will be debited to the vessels.

Working Hours: Normally from 0600 hrs. to 1100 hrs. and again from 1300 hrs. to midnight. Additional work outside these hours, including after midnight can usually be arranged if necessary, although this cannot be guaranteed. Any work after midnight is overtime.

MEDICAL: Hospitals at Hodeidah and Sanaa-Taiz.

FRESH WATER: Available; pumping rate 10 t.p.h.– 15 t.p.h.

FUEL: Small quantities of diesel oil available from Yemen Petroleum.

CONSULS: (and Embassies):

Algeria
China
Egypt
~~Germany D.R.~~
Germany F.R.
Ethiopia
France

Italy
Iraq
Korea
Kuwait
Lebanon
Libya

Saudi Arabia
Syria
U.S.S.R.
United Kingdom
U.S.A.
Yugoslavia

REPAIRS: Light repairs can be carried out.

SURVEYORS: Lloyd's Agency available.

AIRPORT: Flights to Sanaa. Also flights from the new Hodeidah International Airport.

TIME: GMT plus 3 hours.

HOLIDAYS: Friday is the weekly day of rest, Sunday being a normal working day. There are also a number of Moslem holidays. Work is usually possible on such days but cannot be guaranteed. Holidays for special occasions are also liable to be declared at short notice. Friday if worked 50% and public holidays 100% surcharge. During the Moslem fast period of Ramadhan lasting about twenty nine days, which again varies from year to year, work is slower.

Also see "General" before first port.

SHORE LEAVE: Allowed. The Master should prepare a list of persons wishing to go ashore as Agent has to issue I.D. cards.

REGULATIONS: It is strictly forbidden for crew and passengers on board to take photographs while a vessel is in the harbour approaches or secured to the jetty in harbour.

Any vessel which permits oil and/or water to be discharged into the harbour will be liable to a minimum penalty of US $500.

DEVELOPMENTS: A second container berth with length 300 m. and depth 11.0 m. and 1×40 ton container gantry crane has been completed.

Vacuators to be installed for grain handling, giving average daily discharge rate of 5,000 tonnes – 6,000 tonnes.

Also see "Report" below.

REPORT: August 1979 (Updated 1986).

Hodeidah Port is situated 5 km. away from the old town, built in 1961, the population of which is about 200,000. It was built on the Red Sea Coast, S.E. of Khour Ras Alkatheeb, 4 km. away from the town of Hodeidah.

Hodeidah port is built at a location safe from storms and strong winds. The port is under the administration of the Ministry of Public Works, managed by the Hodeidah Port General Corporation. It has a direct connection with the capital city of Yemen, Sana'a, by a modern highway and another connecting the twin capital Taiz.

The official characteristics of the port are given as an external pool, 10 m. in depth, where ships can anchor. A channel, minimum 45 m. wide, about one km. long and 7.9 m. to 8.3 m. deep, enters into the inner pool. Maximum draft allowed is 25 ft. at HW. Buoy markings and signals for safe entry and departure are available The dimension of the inner pool is irregular, about 500 m.×400 m. Overall depth is 7.6 m. at LLW, except for 100 m. wide strip along the 300 m. berth where the depth is 8.5 m.

The port consists of a quay for loading and discharging and one special jetty for tankers. The total length of the quay is 570 m. forming 4 berths of 120 m., 150 m., 150 m. and 150 m. respectively. The quay can receive vessels up to 180 m. in length with a draft of 25 ft. at HW. The quay is equipped with 4 electric shore cranes of 5 tons maximum lifting capacity each and two mobile cranes each of 30 tons capacity.

Discharging speed for bagged cargo is between 250 tons and 300 tons per hatch per day. For general cargo the discharging speed is about 150 tons per hatch per day.

At present, there are 21,660 sq.m. of cargo storage floor space:

Shed No. 1	45 m.×60 m.	2,700 sq.m.
2	96 m.×60 m.	5,760 sq.m.
3	50 m.×60 m.	3,000 sq.m.
4	50 m.×60 m.	3,000 sq.m.
5	25 m.×60 m.	1,500 sq.m.
6	45 m.×60 m.	2,700 sq.m.
7	50 m.×60 m.	3,000 sq.m.

and several open storage yards for heavy machinery and equipment. There are fuel tanks with a storage capacity of 16,000 cu.m. connected to the oil jetty by means of a pipe-line system. A wireless station for communications, from ship to shore and vice versa, is also available.

Future Development: The development of Hodeidah Port includes:

1. Dredging:
   a. Deepening of the approach channel to 9.0 m. below MLW (Mean Low Water) with the provisions of a passing bay and deepening of the port basin to 9.0 m. below MLW. (Completed 1980).
   b. Deepening to a depth of 9.5 m. MLW alongside Berth No. 2 and No. 6 (completed).
   c. An area to the West of Berth No. 1 to a depth of 4.0 m. MLW.

Hodeidah Port has the following:

Berth No. 1, length 110 m.,	dredged to 8.0 m.
Berth No. 2, length 150 m.,	dredged to 9.5 m.
Berth No. 3, length 150 m.,	dredged to 9.5 m.
Berth No. 4, length 166 m.,	dredged to 10.0 m.
Berth No. 5, length 195 m.,	dredged to 10.0 m.
Berth No. 6, length 195 m.,	dredged to 10.0 m.

Oil berth for 15,000 d.w.t tankers dredged to 10 m.

2. Berth No. 6: 195 m. long berth with a 40 m. wide apron. (Completed 1982). Berth No. 6 is designed for container ships of: 22,500 d.w.t., length 204.0 m., breadth 31.0 m., draft 9.2 m., container capacity 1,522 units.

One container crane of 30.5 tons capacity is installed on Berth No. 6 and is able to load and unload between 30/40 containers per hour.

3. Slipway (completed 1981): 500 ton slipway next to the mechanical workshop. Slipway able to handle vessels 32 m. in length, 10 m. wide and 3.2 m. draft.

4. Paved Storage Areas (completed/available 1981): The concrete paving of open storage areas behind the 40 m. wide apron has approximately 80,000 sq. m.

5. Buildings and Other Services (completed/available 1981): Construction of service buildings include offices of the Port Corporation, Customs, Labour, First-aid with canteens, wash places and toilets.

6. Oil Terminal (completed/available 1981): 2 new breasting dolphins and 2 mooring buoys for handling tankers up to 15,000 d.w.t.

7. Floating Craft (completed/available 1981): A new 75 ton self-propelled floating crane has been provided.

8. Cargo Handling Equipment (completed/available 1981): 4 high level boom cranes, 1 port type mobile crane, 10 forklifts, 10 tonne trailers with tractors, 3 Ro/Ro tractors with goosenecks and Ro/Ro trailers.

9. Grain Silo Complex: The project under construction in Hodeidah port consists of a 20,000 ton Silo and a 14 stall bagging plant which has a bagging capacity of 200 per hour. The whole installation has a through put of 160,000 tons per year.

10. Water Mains (completed 1982): Extended to Berth No. 6 and fire mains will be from sea water and maintained with a 70 m. head by hydraulic accumulator.

Special Uses:

Berth No. 4 – grain unloading (40% berth occupancy).

Berth No. 6 – containers (with 30.5 ton container crane).

Container capacity will exceed 300,000 tons per year but will depend on the capability to empty containers and create an equivalent to that of the shipping.

Cargo must be carried by ships with a draft less than 9.2 m.

Arrival at Hodeidah/Ras Alkatheeb Ports:

Vessels arriving at Hodeidah Roads should anchor in the following positions inside Buoy No. 2.

Lat. 14° 55′ 58″ N., Long. 42° 53′ 53″ E.

Masters should radio or cable Agent the following information at least 24 hours in advance:

(i) Exact ETA.
(ii) Draft – fore and aft.
(iii) Quantity of cargo on board and distribution.
(iv) GRT, NRT and LOA (When vessel is calling for the first time).

Through Hodeidah Radio Station, Calling Sign: 4WD 500 kHz. (Frequency from 0500 hrs. up to 1700 hrs. GMT). 72 and 48 hours prior notice of arrival can also be given through Aden Radio.

Pilotage on entry and departure is compulsory. Normally, no pilotage is allowed after 1630 hrs., or before 0600 hrs. Hence vessels arriving in Hodeidah Roads after 1630 hrs. may not be piloted in until 0700 hrs. the following morning. Likewise, vessels which do not sail before 1630 hrs. may not be piloted out until 0600 hrs. the following day.

Supply of fresh water and shipchandlering is available.

Documents:

4 copies of Cargo Manifest.
2 copies of Freight Manifest.
1 copy of Bill of Lading.
(These should be airmailed to Agent after departure of vessel from port of loading.)
11 copies of Cargo Manifest.
1 copy of Freight Manifest.
(To be handed over to Agent by Master on arrival of vessel.)

Port Formalities:

1. Doctor.
2. Immigration.
3. Customs.

FOLLOWING TO BE STRONGLY OBSERVED BY ALL MASTER/CREWS OF VESSELS CALLING AT HODEIDAH:

1. Sale of wines and spirits prohibited.
2. Discharging water onto quay and dismantling ships' engines at berth not allowed.

In addition to above, Masters/Crews should be advised to take serious note of all prohibitions stipulated in the Port Tariff, see "General" before first port – "Fines".

SHIPMASTER'S REPORT: May 1982.

I came in and berthed at No. 6 Berth at 8.5 m. draft and discharged via vacuvators direct into lorries and managing a rate of 3,000 t.p.d. Pilot reckoned 29 ft. maximum can be taken in.

Other points in "Guide" seem accurate, but with the Chart B.A. 3050 being too small I cannot see many Masters bringing a large ship into the recommended anchorage position. I anchored 3 cables N.N.E. of the No. 2 Buoy in better water.

PURSER'S REPORT: August 1982.

Requirements:

1 Maritime Declaration of Health. (Any country's (preferably Arab) is accepted suitably amended).
1 Vaccination List (ship's form).
10 Crew Lists (ship's form).
2 Bonded Stores Lists (ship's form).
1 Crew Effects List (ship's form).

Sundry Customs and Agent's forms were brought aboard on arrival. These required the usual information regarding draft, fuel, water, and tonnages, etc.

Customs and Port Authorities were very particular that cargo tonnages were accurate as per Manifest when completing forms.

Customs sealed both bond and beer rooms, but placed no restriction on quantities in bars and cabins with the proviso that alcohol was not sold or given to locals. An additional quantity of bonded items was allowed to be removed before sailing.

Courtesy Ensign: Supplied in the U.S.A. and not marked to show which was top. It should be flown with the red stripe uppermost.

Mail: The Agent advised that mail both in and out of the country was slow and unreliable.

Laundry and Chandlery: Both services available but not used.

Navigation: The Master advises that navigational marks could well change due to berth extensions and port improvements. A container crane is at present under construction.

SHIPMASTER'S REPORT: April 1984.

Pilotage: Ships can enter or sail out of harbour at anytime, if Agent makes strong request. All the buoys in the channel as well as the approaches including the Sea Buoy are lit.

Berthing: Observed a ship entering with 30 ft. draft and Pilot confirmed that vessels can enter up to 30 ft. draft.

Stevedores: Bagged cargo discharging rate increased to up to 30 t.p.h. provided that receivers are able to supply sufficient trucks in time.

The stevedores no longer request drinking water from the ship, as they drink bottled water supplied from shore.

AUTHORITY: Ports and Marine Affairs Corporation, P.O.Box 3183, Hodeidah, Yemen Arab Republic. *Telex:* 5565 Mawani Ye. *Contact:* Captain Ali H. Elhabory, Chairman, Captain Ali H. Sharaf, Director-General, Captain Abdullah A. Rajab, Harbour Master.

AGENT: The Hodeidah Shipping & Transport Co. Ltd., P.O.Box 3337, Hodeidah, Yemen Arab Republic. Tel: 2403/4/5. Cables: "Hodship". Telex: 5510 (Hodeidah) and 2218 (Sana'a). Answerback: "Hodship". Branches at Mocha, Saleef, Taiz and Sana'a.

MOCKA: 13.17 N. 43.10 E.

Mocka New Port opened in June 1979, with equipment for loading and unloading.

TUGS: 2 available.

BERTHING: 350 m. of quay for vessels of up to 26 ft. draft (Depth 27 ft). Vessels may berth simultaneously. Cargo is discharged direct onto trucks or onto open area. New sheds are under construction.

CRANES: 1×18 ton mobile crane.

FUEL: Not available.

TIME: GMT plus 3 hrs.

REPORT: August 1979 (Updated 1986).

The project of constructing Mocka Port has been in execution since April 1978. The construction was completed during April 1979 and the port was officially opened to International traffic in June 1979.

Location: Mocka is connected to Hodeidah by a road of 240 km. out of which 45 km. is asphalt surfaced. Mocka is also connected to the twin capital of the Republic, Taiz, by a road of 110 km.

Jetty: The port consists of a jetty of 150 m. in length and 35 m. wide with a draft of 8.5 m. during low tide. This jetty can accommodate 2 vessels at a time, each of 150 m. length, on both sides and a Ro/Ro vessel at the head. A protecting jetty for breakwaters is also constructed for controlling the force of strong waves. It is 750 m. in length and 15 m. wide with various depths from 5 m. to 3.5 m. This jetty is constructed for the purpose of protecting the main jetty and can receive coasters and lighters of aforesaid drafts.

Anchorage: The dimension of the manoeuvring area, for vessels securing at berth and departing from the main jetty, is 420 m. The length of the channel leading to the manoeuvring area is 2,000 m. with a draft of 28 ft. 5 in. during low tide, whereas the draft during high tide is about 30 ft. Vessels calling at Mocka should anchor at the following position: Lat. 13° 20′ 01″ N., Long. 43° 13′ 02″ E.

Storage of Cargo: The reclaimed area for storage of discharged goods consists of 300,000 sq.m. 4 storage sheds (60 m.×50 m.).

Future Developments: There are plans for building other jetties together with protecting jetties in the near future.

Bunkers: Bunkers, at present, are not available at this port. Any vessel calling at this port is required to supply fresh water for drinking purposes to all labourers during stevedoring operations.

Radio: Vessels calling at Mocka are advised to contact Agent through Hodeidah Radio Station, call sign, 4WD, 500 kHz (frequency from 0500 hrs. up to 1700 hrs. GMT), as, at present, this port is not equipped with a wireless station. It is proposed to establish one during 1979.

SHIPMASTER'S REPORT: August 1980.

Vessel: 6,000 d.w.t., 104.0 m. LOA. Discharged 2,000 tons of RBD palm oil.

Port Limits: None defined, however vessel is in port limits and 'arrived' once anchored within the anchorage marked on BA Chart 1955.

Documents: 1 copy Personal Effects Declaration, 1 copy Stores List, 1 copy Inoculations and Vaccinations and at least 10 copies of Cargo Manifests, 3 copies of Crew List.

Anchorages: Vessel anchored safely in a position with the North Fort Barge 103° True −1.74 miles. Vessel's max. draft was 20 ft. and there was 30 ft. of water below the keel at 1 hour before low water. It is inadvisable to proceed further South, especially at night due to the placing of unlit channel marking buoys by the port.

Pilotage: There are presently two berths, one on either side of a finger wharf. The Pilot boards at the anchorage and brings the ship alongside one of these berths. There are 3 Pilots in Hodeidah and 1 in Mocka.

Max. Size and Restrictions: Max. permissible draft is 26 ft. salt water and max. LOA permissible is 500 ft.

Radio: None. The port operates VHF on Channels 16 and 14. There are no fixed hours and the port radio is in operation only when the port wishes to communicate with the vessels.

Radar: None.

Tugs: 2 tugs assist vessels for berthing and unberthing. We were assisted by the 'Markaron' (2,000 h.p.).

Cranes: None. There are mobile cranes available with the prior arrangements of the ship's Agents. Otherwise ship's gear is mainly used.

Stevedores: None in the strictest sense. Labour is recruited by the Agents and made available on board.

Tankers: There is no facility for discharging petroleum cargo.

Density: 1025.

Fresh Water: Not available.

Fuel: Not available.

Fire Precautions: None.

Consuls: None.

Repairs: Not available.

Dry Docks: None.

Surveyors: None.

Watchmen: None.

Customs Allowances: Bonded stores are not sealed. Master is verbally informed not to make any issue from the bonded stores without the Customs permission. All officers and crew who declared their quota were allowed to keep same.

Repatriation: Possible, but local Agent has no knowledge of how to effect it.

Airport: None.

Time: GMT plus 3 hours.

Shore Leave: Allowed. The town is situated about 4 km. from the jetty. There is no entertainment that seamen can find in this town and it is not advisable to be ashore after dusk.

ID Cards: None are issued but ship's personnel going ashore have to carry their Seaman's Book or passport.

AUTHORITY: Ports and Marine Affairs Corporation, Hodeidah, Yemen Arab Republic. *Contact:* Abdelkader Abyadh, Manager of Mocka Port.

AGENT: See "Hodeidah".

RAS ALKATHEEB: 14.55 N. 42.53 E.

The Port of Ras Alkatheeb is situated 14 km. from the main city of Hodeidah and connected by a gravel road which is in the process of being resurfaced and broadened with two traffic lanes on the same alignment, thus providing a first class road transport link between Hodeidah and Ras Alkatheeb. Also see "Hodeidah".

BERTHING: The port has a berth 270 m. in length and 27 m. wide, pontoon type, with ships berthing on either side. This port can receive vessels with a max. draft of 26 ft. at high tide. Vessels can be secured to barges and coasters with a draft of 14 ft. which can be connected to the shore, thus enabling ships to discharge directly onto waiting trucks. Said pontoon is mainly used for bagged cargo on direct delivery basis.

Presently, this port does not have shore crane facilities and all unloading is done with ship's own gear.

Storage and Delivery: Due to lack of storage facilities at this port, delivery at present, is given directly under the hook.

GENERAL: The port is not a commercial port.

SHIPMASTER'S REPORT: November 1980.

1. Port does not accept Vessel's Registration until vessel is anchored between Buoy No. 1 and No. 2. This as per the Port Radio VHF station.
2. Buoy No. 2 is placed about 6 cables N.N.W. of charted position.
3. Do not attempt entry at night since buoys are unlit and there are many uncharted stranded wrecks visible only during daytime.
4. Tugs available: 4×700 b.h.p. and 3×1,800 b.h.p. Pilotage only during daytime.
5. Vessel berthed at Ras Khatib pontoon. Max. draft 8.0 m., total effective length of pontoon 270 m.
6. Port issues a directive to Agents giving estimated time to discharge. If not completed, port charges at the rate of 4 Rials/per metre/per hour of stay extended.
7. Distance from Ras Khatib berth to town 15 km. Only 10 to 15 shore leave passes given to vessel, regardless of number of crew.
8. No chipping and scraping permitted but painting is allowed.
9. Fresh water inside port is $4/– per ton, at Ras Khatib $20/– per ton by barge.
10. Provisions available but expensive.
11. Repatriation possible but very difficult due to having to obtain permission from Saana (Capital).
12. Cargo work is fast, 260 tonnes of cement per gang per day. Normal shift 0730 – 1200 hrs. and 1500 – 2330 hrs.
13. As per "Pilot", there will be dredging carried out soon and also lighted buoys will be placed.
14. Ras Khatib light Fl. 3 sec. of very low power.
15. Yellow fever inoculation not compulsory unless coming from infected area.

SALEEF (Salif): 15.18 N. 42.41 E.

Saleef Port is a natural port on the Red Sea, approximately 80 km. North of Hodeidah Port. Two routes, one round the North end of Kamaran Island and the other around the South end provide suitable access to the harbour.

As prevailing winds are generally Southerly or Northerly, vessels are able to approach the berth from downwind. This is important as vessels will probably have to berth without tug asistance. Initially, mooring facilities are designed for 50,000 d.w.t. vessels and consists of a wharf head 20 m. wide, 93 m. long with two dolphins. A 10 m. wide trestle connects the wharf head to the shore. Facilities are designed to absorb the berthing impact of a ship approaching with a velocity component of 15 cm. per second perpendicular to the berth face and for a 50 tons mooring line pull.

Future developments: A French consulting firm has been awarded the contract to submit a report on future developments of this port.

SHIPMASTER'S REPORT: December 1979.

Acknowledgements: Most of the information has been gleaned from local Agency representatives and Capt. A. Saeed, Harbour Master.

Reference has been made to Red Sea Pilot and various BA Charts. Local written information is unavailable for the area concerned.

General: Salif lies some 60 km. North of Hodeidah, it is a natural deepwater harbour sheltered by Kamaran Island.

Since 1976 the port has enjoyed moderate expansion and can now boast a modern jetty capable of berthing ocean going vessels; other pontoon type berths are available, these being linked to the shore by small stone jetties. At present the port can accommodate two vessels of up to 200 m. length with a draft of 12 m.

Salif is geared for the export of bulk salt and the import of grain and some general cargo. In the near future a further pontoon type berth is due to come into operation to be used solely for the import of bulk cement. A bagging plant and silo have been constructed to handle the additional cargo.

This report is mainly directed to the facilities associated with the import of grain, however where possible relevant information has been included which could prove useful to other vessels trading in the area.

Documents:

6 Crew Lists with passport numbers.
2 Bonded Stores Lists.
2 Personal Manifests.
2 Vaccination Lists.
3 copies Cargo Manifest.
Local inward forms made out on arrival.

Approaches: (BA Charts: 543 and 548). Recommend approaching around the North end of Kamaran Island, as mentioned in Red Sea and Gulf of Aden Pilot, page 390.

The lighthouses stand out well, but at night they are not lit (December 1979). The only difficulty in making Salif, in daylight, is passing to the South of N.W. shoal light, the channel at this point being about one mile wide. At night the lighthouses prove quite good radar targets, and the various islands etc. show up quite well. Once around the top of Kamaran Island course can be set down Kamaran Passage to the anchorage area off Ras el Salif. Charterers frequently advise that passage is possible South of Kamaran Island, however this is not advisable; the leads mentioned on the chart are very difficult to see and there is no room for error.

Anchorage: No specific area designated but anywhere in the vicinity of Salif Jetty. For vessels waiting for the wheat berth it is best to anchor about 0.75 miles West of Ras el Salif. Good holding ground in about 14 fathoms of water. For vessels with poor radar it would be best to anchor outside Kamaran Island until daylight, when passage can be made in safety.

Weather: See "Red Sea Pilot" for information. At Salif the wind usually picks up during the day and this can delay berthing if the strength is above Force 4.

Pilotage: Pilot boards in anchorage area from medium sized launch. Yemenese Pilot with limited English.

Daylight pilotage only.

Berthing: Vessels berth, at the bagging plant pontoon, head to wind. The pontoon consists of a flat topped barge made fast to a small stone jetty; it is well fendered with car tyres. The offshore anchor is used whilst coming alongside and a launch runs various ropes ashore to posts set on the land. Five ropes are required either end and it is necessary to join the first few together as considerable lengths are initially run. The bagging pontoon can only accommodate one vessel at a time. See "Shipmaster's Report – May 1982".

The general cargo and salt exporting jetty lies some distance to the South of the bagging plant. This pier can take one vessel of up to 200 m. in length. Facilities at this berth are an improvement over the pontoon, however for the import of grain type cargoes, it is not so efficient, it being necessary to bag the cargo by hand. Both berths can take vessels with up to 39 ft. draft.

Buoys are at present being laid to the North of the bagging pontoon and these could prove an obstacle for vessels berthing. The moorings are being laid to assist vessels making fast to the new cement pontoon (see "Projects").

Quarantine/Health Regulations: Doctor boards on arrival, either at anchorage or alongside. No health forms as such. Certificates not required unless vessel from infected area when Yellow Fever and Cholera certificates are needed. No derat facilities.

Customs: Usual Islamic laws in force. Bond not sealed and apparently no objection for crew to consume spirits/beer on board. On no account must alcohol be given/sold to local Yemenese.

Immigration: Passports are inspected on arrival. (Harbour Master acts as translator for Immigration Authorities.) Shore leave granted with passes for Salif area only. Special permission has to be given to proceed outside local area, i.e. Hodeidah.

For crew repatriation, passports are taken to Sanaa by Agent for necessary visas to be arranged.

Medical Facilities: One doctor resides in Salif, Yemenese and speaks English. He will attend the ship rather than the patient visiting him. The nearest hospital is in Hodeidah.

Port Operations (Bagging Plant): Foremen and workers are hard working. The foremen reside in caravans close to the bagging plant whilst most of the stevedores come from Salif.

The method of discharge is to load a number of diesel driven evacuators on deck and by various pipelines, these are connected to a storage hopper situated on the pontoon/barge. The hopper is connected to a small bagging plant and by means of conveyors the sacks are loaded onto road transport.

Discharge rates per 24 hours worked between 1,600 tonnes and 1,850 tonnes. Charter Party rate indicated about 750 tonnes per day. The takeaway rate from the hopper appears to be adequate with plenty of road trucks available. The grain is shipped immediately to different parts of the Yemen.

It is usual to carry sufficient bags to enable the complete discharge of the grain to go unhindered. The bags are baled and discharged onto the pontoon at regular intervals.

Ship's gear is required at each hold to sling the pipes that lead from the evacuators into the hatch. It is also required for discharging the gunnies and for loading the evacuators (1.5 tonnes). The evacuators appear reliable but spillage of diesel results during re-filling etc.

Fresh Water: Available but expensive. Supplied by road tanker at 15 tonnes a time, it is necessary to use ship's pump for pumping the water aboard. Agents require ample notice prior to supplying water.

Fuel: Heavy oil and diesel oil not available unless barged from Hodeidah.

Stores: Not readily available; fresh stores difficult to obtain.

Agency: The main Agency lies some 60 km. away by track, and the ship is attended by a runner who commutes between Hodeidah and Salif. Considerable delays result before ship's business can be completed and it is necessary for everything to be in writing; repatriation, in particular, is difficult for the organiser as well as the traveller.

Communications between Salif and Hodeidah are non-existent, a telephone line exists, but this is out of order. It is however possible to communicate directly through Portishead Radio and sometimes the only way to get messages out.

Local currency and American Dollars are obtainable from the Agents. It is difficult to obtain the money from the Agents and generally it is best to arrive with sufficient cash on board to cover any expenditure.

To arrange repatriation it is necessary to allow at least 6 days. Visas have to be obtained from Sanaa and tickets arranged. If pre-paid tickets have been sent from U.K., then they must arrive in ample time. The airport at Hodeidah has regular connections with Sanaa which in turn is linked into most air routes via Paris. Transportation from the ship to Hodeidah is by Land Rover or similar four wheel drive vehicle.

Port Regulations: Nothing in writing. The Harbour Master is the person to approach if anything required. Apparently Salif is designated a military zone and this is the reason no written information is available.

Gangway: The vessel only lies alongside for a distance of about 80 ft. amidships and consequently a pilot ladder is used instead of a gangway or brow. If this causes any difficulty, ship's lifeboat can be used as a ferry between gangway and shore.

Watchmen: Supplied by local Police/Army. They remain aboard during vessel's stay and keep pilferage to a minimum. They also keep close watch on any alcohol that may be obtained by local Yemenese.

Shore Leave: See "Immigration".

Garbage: No facilities for taking garbage away from the ship; best to dump waste food etc., whilst retaining cardboard boxes, and plastic containers.

Repairs: Possible to immobilise main engines, as once on the berth it is unlikely to shift. No repair facilities ashore.

Time: GMT plus 3 hours (no change).

Flag: Yemen Arab Republic Flag must be flown at all times. Red, white, black horizontal stripes with a black star in the white section.

Consuls: Situated in Hodeidah or Sanaa. Harbour Master available for Noting Protest, etc.

Tugs: None available for berthing though frequently tugs operate in the area towing barges, pontoons, etc.

VHF: Situated in port office but hours of working very flexible. The Harbour Master normally calls any vessel up shortly after anchoring.

Fire/Ambulance: None available.

Projects: A new pontoon berth, similar to the grain berth, is being constructed about 0.25 miles to the North. Silos have been erected close to the shore and are capable of storing 9,000 tonnes of finished cement. A bagging plant has also been constructed next to the silos. It is intended that cement be shipped, in bulk, and with evacuators discharged into the silos.

SHIPMASTER'S REPORT: May 1982.

I was in Saleef recently with 39,127 tonnes wheat – ship 182.08 m. long. The following are changes to information in the Guide.

The barge – pontoon berth with bagging plant no longer exists and apart from cement boats all ships now berth at jetty by Salt terminal.

Minimum water I found there in 18 days' stay was 18.5 m.

Ship's gear must be used and grain is dumped on wharf and bagged in situ, being taken away by lorries. Rate erratic, between 900 t.p.d. and 2,000 t.p.d.

Vessel has to vacate berth for car carriers and salt loaders.

No shore leave permitted.

Bond is now sealed. No restrictions on what is kept out.

NOTES

Please also advise Shipping Guides Ltd.

People's Democratic Republic of Yemen

ADEN, (including Little Aden): 12.48 N. 44.54 E.

DOCUMENTS:
5 Crew Lists for Ship's Agent, Police and Immigration.
5 Passenger Lists for Ship's Agent, Police and Immigration.
2 Lists of Bonded Stores.
1 Health Form to be shown to Pilot on boarding and handed to Ship's Agent.
Manifests, Bills of Lading if landing cargo only.
Ship's Register to be sighted by Pilot.
Arrival Declaration to be filled in by Ship's Agent after arrival.
Dangerous Material Declaration to be handed to Pilot on boarding.

PILOTAGE: Compulsory for all vessels proceeding to and from Inner Harbour and Oil Harbour at Little Aden which exceed 200 g.r.t. To call Pilot fly International Code Flag "G" or red/white/red lights at night. Call "Harbour Control" on VHF Channel 16, or R/T 2182 kHz. 48 hours' notice of ETA with draft to Harbour Office.

Pilot boat will meet ship at the Fairway Buoy in all weathers. Pilot boat is 50 ft. launch painted red, flying Pilot flag by day or white/red lights at night. Pilot will board on lee side of ship by pilot ladder only. Vessels waiting Pilot can anchor anywhere in Outer Harbour except in a Prohibited Area of 2,000 ft. around the Fairway Buoy. All Pilots are Yemenies with foreign-going Master's certificates.

ANCHORAGES: Ample anchorage area available with in Outer Harbour depths from 18 ft. to 54 ft.

(a) Anywhere North of Fairway Buoy clear of Main and Little Aden Channels and clear of Prohibited Area mentioned above.

(b) Deep water anchorage anywhere to S.W. of Fairway Buoy clear of Little Aden Channel and Prohibited Area mentioned above.

MAX. SIZE:

Aden:

(a) Max. length 900 ft., breadth no restriction, depth 38 ft. at datum for vessels taking bunkers from A.B.C. (Aden Bunkering Co.).

(b) Vessels taking bunkers from Y.K.T.C. (Yemen-Kuwait Terminal Co.), max. length restricted to tankers of 750 ft., breadth no restriction, depth 39 ft. at datum.

(c) Larger vessels can be considered on application to the Port Officer. Longest vessel to enter 940 ft.

Little Aden Refinery:

Max. length 760 ft., breadth no restriction, depth 40 ft. at datum and max. deadweight 65,000 tons.

A new jetty 45 m. in length has been constructed on the North side of the oil harbour by Agip Oil Company for use by oil rig supply tugs. Vessels up to 90 m. LOA and 6.1 m. draft can berth on the jetty.

Note: In both harbours vessels manoeuvring require 2 ft. water under keel, and vessels of draft 37 ft. and above require 4 ft. water under keel.

Ballast Draft for Tankers: All tankers when manoeuvring within the port shall be ballasted properly to a mean ballast draft which shall not be less than half the Summer draft and the trim by the stern not exceeding 6 ft. These figures are the minimum for normal conditions and may be increased when conditions necessitate at the discretion of the Pilot.

HEALTH: Vessels requiring Pratique fly International Code Signals or 3 red lights at night. This signal to be exhibited until Pratique has been granted by the Pilot or Port Health Officer.

Control of quarantinable and infectious diseases is direct responsibility of Port Health Officer. All passengers from infected local areas except children under age of one year are required to have valid international certificate of vaccination or revaccination against yellow fever and cholera.

RADIO: All ships landing passengers are boarded by Assistant Port Health Officer unless Radio Pratique has been given. Pratique may be obtained by radio to Port Health Authorities no earlier than 12 hours and no later than 4 hours before arrival, in accordance with international procedure. All landing passengers medically inspected and vaccination certificates checked on board before Free Pratique granted. Ships having infectious diseases on board are also boarded; after examining the case and taking any necessary precautions the Assistant Port Health Officer grants Restricted Pratique. Ships also inspected for issuing derat exemption certificates. Deratting carried out when necessary and derat certificate issued.

Yemen Telecommunications Company: Mercury House, Ras Boradi (Tel. 22223/5).

Wireless telegraphy:

	GMT	kHz
Medium wave		
Working frequency		476
24 hour watch on international calling and distress frequency		500
High frequency	0500 – 0700	
	1100 – 1200	
	1630 – 1800	
	1830 – 1930	8710
	2130 – 2200	
	0900 – 1100	
	1300 – 1500	13060.5
	0700 – 0800	17175.2
Radio telephone (including spoken telegrams)		
Working frequencies		2595 & 3628
24 hour watch on international calling and distress frequency		2182
Radio telephone circuits set up on request at times shown	0400 – 0500	
	1000 – 1100	
	1600 – 1700	8805.6 & 4409.4

VHF: 24-hour watch on VHF Channel 16 (working Channel 13) and duplex working on Channel 26.

TUGS: Tugs for both harbours normally join just outside Breakwater. Ships' ropes always used in Aden Harbour, tugs' wires in Little Aden.

6 tugs available in Aden Harbour, maximum 2,000 h.p. In Oil Harbour at Little Aden 2 Voith Schneider tugs of 3,200 h.p. each are available.

BERTHING: (Also see "Tankers"). 24-hour service at all berths.

Berth		*Type*	*Normal maximum length of ship* (ft.)	*Datum depth in* (ft.)
1 (a)		2 buoys	350	30
1 (b)		2 buoys	350	30
1 In		Anchors & buoy	275	30
2 Out		Anchors & buoy	550	38
2 In		2 buoys	600	38
3 In		Anchors & buoy	700	38
4 Out	A	Anchor & 3 buoys (oil)	650	36
4 In	B	Anchor & 3 buoys (oil)	750	40
5 Out	R	Anchor & 3 buoys (oil)	630	37
7 Out	S	Anchor & 3 buoys (oil)	630	38
8 Out	E	Anchor & 3 buoys (oil)	580	36
8 In	F	Anchor & 3 buoys (oil)	600	36
9 Out		Anchors & buoy	900	41
9 In		Anchors & buoy	550	36
10 Out	U	Anchor & 3 buoys (oil)	600	36
10 In	V	Anchor & 3 buoys (oil)	600	36
11 Out	G	Anchor & 3 buoys (oil)	600	30
11 In	H	Anchor & 3 buoys (oil)	530	28
13 Out		Anchors & buoy	550	28
13 In		Anchors & buoy	450	30
14 Out		Anchors & buoy	350	18
14 In		Anchors & buoy	350	18
15 Out		Anchors & buoy	350	18
15 In		Anchors & buoy	350	18
Dolphin Berths				
6 Out	C	Dolphin & breast buoys (oil)	900	39
6 In		Dolphin & breast buoys (oil)	800	38
7 In	T	Dolphin & breast buoys (oil)	750	39

The capital letters in column two denote alternative designation of mooring buoys/dolphins.

Home Trade Quay (H.T.Q.): 800 ft. long with depth of 18 ft. Max. size of ships that can berth there are restricted to 122 m. LOA and max. draft 5.5 m.

Free zone. Initial Stage 525,420 sq. ft. open space and 162,000 sq. ft. covered space. Import and export industrial facilities. No restrictions, no taxes. Transhipment storage free for unlimited period.

STEVEDORES: ETA advice to Ship's Agents at least 48 hours before arrival.

MEDICAL: Advance notice for medical attention not normally required except for serious cases requiring doctor's attendance on board, or ambulance cases. Vaccination certificate required for landing. Hospital facilities available.

TANKERS: Tankers carrying dangerous petroleum (flash point below 73° F) and those not gas free or carrying more than 3 tons of category one cargo (explosives) cannot enter Aden Harbour during hours of darkness. They can enter Little Aden day or night. Slop (residue) discharge facilities available at Little Aden. 4 tanker berths for discharge/loading at Little Aden with max. datum depth of 40 ft.

Berthing at Oil Harbour: Functions of Oil Harbour Little Aden to receive crude oil in bulk for oil refinery and to export refined petroleum products. Vessels carrying cargo for refinery, other than oil, discharge at Inner Harbour.

Oil harbour has finger jetty and 2 T-head jetties which provide berths for 4 tankers. Tankers of up to 65,000 tons Summer deadweight with 55,000 tons of cargo can be accommodated.

Berth	*Type*	*Normal maximum length of ship* (ft.)	*Datum depth in* (ft.)
1	Dolphin & mooring dolphins	750	40
2	Dolphin & mooring dolphins	750	40
3	Dolphin & mooring dolphins	750	40
4	Dolphin & mooring dolphins	750	40

Also see "Developments".

BALLAST: Notice: Port Authority require vessels arriving or sailiing in ballast to have mean draft 50% of Summer draft and maximum trim of 6 ft. by stern. However, should the vessel have segregated ballast tanks then ballast condition must comply with regulation 13 of International Convention for Prevention of Pollution 1973, Protocol 1978. Total deballasting time allowed being 6 hours only. Vessels should have maximum possible ballast clean and capable of being pumped overboard. Dirty ballast and slops can be received ashore at maximum rate of 500 t.p.h.

Signed: Marine Superintendent.
Aden Refinery Company.

DENSITY: Salt water at all times.

FRESH WATER: Ample available, delivered by barge in Aden at about 50 t.p.h. Ordinary water in Little Aden supplied by pipe-line at about 40 t.p.h. and condensate at about 2 t.p.h.

FUEL:

(a) A.B.C. (4 berths).
Marine fuel 2500 sec., 1000 sec., 600 sec., 200 sec.
Diesel oil and gas oil.

(b) Yemen-Kuwait Terminal Co.
Marine fuel – all grades below 3,500 sec.
Diesel oil and gas oil.
All supplies done on a Nomination basis through the Company's Head Offices, with the vessel giving at least 48 hours' notice to Aden.

FIRE PRECAUTIONS: As per the Refinery regulations (International Standard). Tug wires to be rigged and check list to be furnished.

GANGWAY/DECK WATCHMEN: It is recommended watchmen are employed; they can be supplied by Ship's Agent. Safety net to be rigged.

OPENING/CLOSING HATCHES: Normally carried out by stevedores, derrick-topping by ship's crew. Vessels not to move in harbour with beams off.

CUSTOMS ALLOWANCES: Tobacco/Wine, Spirit allowance. No restriction at the moment. Bonded stores not allowed to be supplied more than 1 hour before ship sails.

IDENTIFICATION CARDS: Shore pass to be carried at all times when ashore.

CONSULS:

Algeria
Belgium
Bulgaria
China (P.R.C.)
Cuba
Czechoslovakia
Denmark
Ethiopia
France
Germany (D.R.)
Greece
India
Iran
Iraq
Italy
Japan
Korea (P.D.R.)
Kuwait
Libya
Netherlands
Norway
Oman
Pakistan
Portugal
Saudi Arabia
Somalia
Spain
Sweden
Syria
U.A.E.
U.S.S.R.
U.K.
Vietnam
Yugoslavia

REPAIRS: Workshops are equipped to carry out: Boiler repairs; Plating and sheet metal work; Galvanising work/moulding work; Welding and blacksmith's work; Main and auxiliary machinery repairs; Carpentry and joinery work; Electrical and plumbing work; Refrigeration repairs; painting, cleaning and chipping. Repairs afloat to vessels up to 80,000 tons are undertaken; repairs to the largest vessels carried out mostly in Outer Harbour.

Radio engineering section with fully qualified personnel giving round-the-clock service of repairs and maintenance to radar and radio equipment.

During repairs, maintenance and painting – no rubbish to be thrown overboard, precautions to prevent pollution to be taken. No painting overside to be carried out without written permission from Port Authority. Chipping and/or scrapping overside strictly not permitted.

DRY DOCK: 1 sideways slipway taking 1,500 tons and floating dock lifting capacity 4,500 tons. Length 137 m., breadth 31 m. Max. draft 6.0 m.

REPATRIATION: Arranged through Ship's Agent and Immigration.

AIRPORT: About 5 miles from port. Flights to U.K. via Beirut (Middle East Airlines), Air France, Kuwait Airways, Air India, Ethiopian Airlines, Saudi Air and Alyemda also call.

TIME: GMT plus 3 hours. No alteration of clocks.

HOLIDAYS: Most holidays are religious which have movable dates. National holidays are 14th October and 30th November. Cargo work usually carried out during all holidays. Friday is a public weekend holiday.

POLICE/AMBULANCE/FIRE: Ambulance at Crater 53232; Harbour Police 22851; Port Health 22626/7; Fire 22222.

TELEPHONES: No connection to ships but link calls can be made on VHF through Yemen Communications using Channel 16 to call and working on Channel 26. Some Agents have private VHF Channels.

GENERAL: Outer harbour contains ample anchorage area for vessels requiring datum depths up to 54 ft. Inner harbour approached by 2.7 mile dog-leg channel, dredged to 38 ft., from Fairway Buoy in Outer Harbour where Pilots board. Inner harbour protected by breakwater at Steamer Point and by rubble mound. It provides 24 buoy or anchor-and-buoy berths, including 13 with oil bunkering facilities. Majority of these berths have a datum depth of 30 ft. or 38 ft., with max. length of ship ranging from 275 ft. to 750 ft. In addition 3 dolphin berths, with bunkering facilities, of 39 ft. datum depth and normally accommodating ships of 750 ft. – 900 ft. max. length; vessels of greater length can be accommodated with the approval of the Port Officer. Quays and wharves cater for shallower-draft vessels and lighters.

Oil harbour, serving refinery at Little Aden, reached by 38 ft. channel from Fairway Buoy, provides facilities for tankers of up to 750 ft. All berths and anchorages are under the jurisdiction of the Port Officer. In order to facilitate berthing arrangements for ships calling at Aden, Masters are requested to furnish the Port Authority with the necessary information, such as, LOA, max. draft, g.r.t., type of ship, object of call, dangerous cargoes on board and IMO Classes, ETA and any other information Master thinks may be useful.

SHORE LEAVE: Regulations: In accordance with Art. 8 of the Immigration Rule No. 28 of the year 1969, all crew members coming ashore will be excused from obtaining visa provided they surrender their passports to the Immigration Officer-in-Charge. These passports will be given back to the holders before they return to their particular vessels. Any crew member unable to comply with these instructions will not be permitted to visit the town.

Ships' crew are not allowed to stay ashore after 0000 hrs.

SHIP SUPPLY SERVICE: There are no firms specialised in this field in Democratic Yemen. However, the Yemen Ports Authority has a large fleet of tugs and launches at Aden, and will, in 1985, have 2 Voith Schneider propelled tugs, 1 fast pilot launch and 2 mooring launches at the newly constructed port of Mukalla-Khalf. These craft are available at all times for rendering assistance to sick persons on board ships in the vicinity of the ports and are also available for crew changes, mail and spare parts delivery.

As to helicopter services, the Democratic Yemen Army and Air Force make their helicopters available for rescue at sea whenever possible.

REGULATIONS: Vessels must fly the National flag of P.D.R.Y. at foremast. No movement of "dangerous petroleum" at night. Vessels must vacate oil berths on completion of bunkering. Main engines must not be immobilised in an oil berth. Sufficient crew must remain aboard vessel at all times to move her.

Ships carrying dangerous cargoes calling at Democratic Yemen Ports must inform the Port Authority concerned not less than 48 hours prior arrival. IMO Class I dangerous cargo to discharge at Outer Harbour Anchorage, if IMO Class I in transit vessel will manoeuvre during day time only.

Immobilisation of main engines should not be executed at any berth before obtaining written permission from Port Authority, through ship's Agent. Same procedure applies for overside hull painting. Application to be through ship's Agent in duplicate. Main engine immobilisation in oil berths and Home Trade Quay not allowed.

DEVELOPMENTS: The oil harbour is being deepened and widened in order that Berth No. 4 can accept vessels of 100,000 d.w.t. Completion expected late 1988.

New quay, length 750 m., for container vessels, and 150 m. for Ro/Ro vessels under construction. Depth at container quay 11.0 m. and at Ro/Ro quay 7.62 m. 1×40 ton gantry crane and 6×6 ton semi-portal cranes will be available. Also available 1×60,000 ton grain silo. Completion 1988/89.

SHIPMASTER'S REPORT: 1976

Documents:

Pilot: Sights Ship's Register to check tonnages.
Customs: 2 Crew Lists; 1 Bond List.
Immigration: 2 Crew Lists.
Doctor: 1 Health Form; 1 Vaccination List.

Note: Crew List should have consecutive numbers as well as Agreement numbers.

Agents: 2 Crew Lists; Arrival information sheet; Statement of Owners full address also Cable address; 2 Arrival Declaration for Yemen Ports Authority; 2 Aden Port Log; Charges sheet for Mail; 1 Sailing information sheet; 1 Currency refund sheet.

Agent brings these Forms on board and will assist with filling in the information.

Communications: It was found impossible to make Radio Contact with Aden prior to 5 days before arrival. Best time seems to be after Aden sends its Traffic List. VHF contact was made at 12 miles as the hills around Aden appear to blanket signals when further away. Channels 16, 13, 8 or 6.

Approach: This is straightforward. The BA Charts appear to be well up-to-date. The Fairway Buoy is easily seen at 8 miles. Pilot boards here. Pilot ladder required. Authorities will not allow the accommodation ladder to be used.

Mooring: There was a trainee Pilot with both the inward and outward Pilot.

Ship was swung using starboard anchor and 1 tug aft. Berthed at No. 4 Berth. Forward: 3 ropes to buoy on inside plus starboard anchor 5 shackles. Aft: 1 rope from port quarter and 1 from starboard quarter taken to outside buoy, then 2 ropes, 1 from each quarter taken to inside buoy. Ship then hove to be centred between the 2 after mooring buoys. When ship in position oil pipe-line, on floats is towed alongside.

Visit: Agent boarded with Doctor. At first Doctor was insisting all had to have Cholera vaccinations but is not really necessary. Immigration and Customs boarded. All pleasant and helpful. Bond was sealed.

Port Facilities: 2 fairly powerful tugs. Numerous mooring boats, 1 floating crane seen but as to lift capacity this was not ascertained. Port is run by The Yemen Ports Corporation. Like the Agency it is State owned.

Watchmen: Agents automatically provide 2 watchmen. Seemed to be alert.

Regulations: Masters are requested to assist the Port Authority by not allowing Bumboatmen or fishermen to board without written permission. The Port Authority advises Masters to be most careful if they do issue written permission. There were no bumboats about and no one seeked permission to come aboard to do business.

One half hour prior to sailing the Pilot signal red-white-red in a vertical line or "G" to be hoisted also call Port Control on VHF 16.

Use of ship's whistles or sirens is very controlled.

Bunkering: Ship's crane used to hoist pipe-line aboard. The bunkering operation went smoothly and the Oil people seemed co-operative.

Walport Film Exchange: Agents were cabled but it is necessary for an Officer to go with the Agent to make the exchange.

Mail: Mail posted in London on 22nd March or 23rd March was stamped as having arrived Aden 28th or 29th March.

General: It would seem that the Port Authority, State, etc., are very keen to build up a thriving Port. It would also seem that they endeavour to give a good efficient service. I gather there is a special duty free shop ashore for the purchase of souvenirs, goods, etc.

SHIPMASTER'S REPORT: March 1985.

Documents: See "Fuel".

Pilotage: Harbour Control was called on VHF Channel 16 two hours before arrival and again 4 miles off the Fairway Buoy. Information given from the Harbour Control regarding Pilot and berthing gave the impression of a well organised port. Night signal for a ship requiring Pilot is following: vertical lights, red-white-red.

Radio: From one week before arrival, radio messages were sent via Aden Radio (7OA) to Aden and Ethiopia. Radio Officer told me that Aden Radio proved to be easy and efficient to work with.

Fuel: Bunkering commenced immediately on arrival even before ship cleared by the Authorities. Authorities came on board just before departure to collect Crew Lists and Stores Lists. Crew's cabins were not searched and stores not sealed.

2 men from the Agents were on board to handle ship's matters.

Repatriation: 7 crew members were repatriated to Denmark, and 7 new crew members joined. Tickets for those to be repatriated were brought from Denmark with the joining crew. Crew change went smoothly.

Notices: Yemen Ports Authority – Port of Aden:

Masters are requested to assist the Port Authorities in controlling bumboat traffic as follows:

Bumboatmen and fishermen selling fish *may not* board ships without the written permission of the Master. Disregard of this rule renders the men liable to police action *after* the ship has left when evidence cannot be obtained from the ship. Masters can greatly assist the Authorities if they will ensure that they give written approval to bumboatmen and fishermen whom they have allowed to board the ship.
Port Officer, Aden.

To: All Masters of Vessels in Aden Port – From National Shipping Agency.

The undermentioned information is for your kind attention and guidance:

Immobilisation of Ship's Engines:

Please note that it is an offence to immobilise ship's engines WITHOUT written permission being obtained from the Yemen Ports Authority. To avoid heavy penalty, Masters are advised to forward their requests to us in duplicate, as ship's Agents, and should NOT immobilise ship's engines unless they are in possession of the written permission of the Yemen Ports Authority for the period approved.

Garbage Collections:

Appended below are extracts from Circular No. G/3/128 dated 25th January, 1984, of the Port Officer and Director of Marine Affairs, Yemen Ports Authority, Aden:

(a) Collection and removal of garbage from vessels is entrusted to persons authorised and licensed by the Yemen Ports Authority, Aden, and who work on a rota system.

(b) It is compulsory for a vessel staying in the harbour for a period exceeding 24 hours to avail itself of this service and fees will be collected per day **whether garbage has been collected or NOT.**

(c) Similarly it is compulsory for garbage collectors to call on vessels allocated to them daily unless other arrangements have been agreed with the Master of a ship. Any garbage collector who does not call on vessel allocated to him daily without prior agreement of the Master will not receive his fee that day if reported.

Note: Masters requiring special service for collection of extra garbage, i.e., refuse/wastes, etc., emanating from the cargo holds/engine room, etc., must put their written request in duplicate to us, as Agents, to arrange for the garbage collector to call on their vessel. The Master should also notify us in writing the charges agreed upon for the extra garbage with the Collector. This does not apply to U.S.S.R. vessels who are required to comply with the procedures below.

For Masters of U.S.S.R. Ships: Before applying for the collection of extra garbage, please first submit your written request in *4 copies* through the Agent for *approval* of the Resident Representative for U.S.S.R. ships. Please *do NOT* employ collection of the extra garbage before receiving this approval.

Scraping, Chipping and Painting in the Port:

Please note that as per instructions from Yemen Ports Authority, scraping, chipping and/or painting are *NOT ALLOWED* during vessel's stay in the port, unless prior permission is obtained from the Port Officer through us, as Agents. Any requests for the above must be forwarded to us in duplicate.

Shore Leave – Immigration Regulations:

All shore leave expires at 2300 hrs. and, therefore, all Masters, Ship's Officers, crew and passengers should be on board by this time. Overnight stay ashore is *not permitted.* Infringement of the above will be subjected to penalty and also delay to the ship.

Cash Advance to Master in Yemeni Dinars:

Cash advances required by Masters for payment to their crew in order to enable the crew to avail themselves of purchases from *Tax Free Shop,* require the following procedures to be complied with:

(a) Masters are required to render their requisitions in duplicate to the Agents during working hours together with 2 copies of Crew List.

(b) Either the Master or Chief Officer or Purser in person should have the requisition attested, stamped and signed by the Customs Officer before handing them to National Shipping Co. (the Agents).

(c) Together with the cash to Master the Agents will issue Purchase Certificates on Tax Free Shop.

(d) After completion of the purchases and 24 hours before vessel is due to sail, the Master should obtain *Purchase Clearance Certificate* from Tax Free Shop and hand it over to the Agents. This is most essential as against these Certificates only and after reconciling with the actual cash advanced, the Agents can accept the balance cash refund from Master.

Under the Exchange Control Regulations, it is an offence *not* to return the *UNUSED* Yemeni Dinars prior to sailing. Masters of vessels who received Cash Advance in Yemeni Dinars are advised to return *ALL* Yemeni Dinars remaining in their possession, to our representative who boards to clear the vessel, and ensure to obtain from him *on the spot* an official receipt of the National Shipping Company for the amount refunded, prior to departure of the vessel.

Victualling Allowance:

Free meals to Stevedores' Personnel/Watchmen.

Free meals are normally given by vessels by mutual arrangements between Masters and the Stevedores, to save time of the following persons who otherwise would have to go ashore for their meals:

One Tally Clerk per hatch working.
One Foreman.
One Cargo Supervisor.

It is left entirely to your discretion to supply free meals to the above mentioned personnel and the watchman or not. Kindly, therefore, note that we do *NOT* countersign or vouch expenditures.

Contacts on VHF: Masters of vessels can contact Agents on VHF (Channel 16) at any time during the *DAY* or *NIGHT* for any inquiries or services required. The Harbour Control also can be contacted on the same Channel.

Authorities: All in all the Port Organisation, Pilots, tugs and the Authorities gave us a good impression of the port.

AUTHORITY: Yemen Ports Authority, P.O. Box 1316, Tawahi, Aden, People's Democratic Republic of Yemen. *Tel:* 22666. *Telex:* 2278 Mawany Ad. *Cables:* Mawany. *Contact:* Director General.

MUKALLA (Khalf): 14.31 N. 49.09 E. (See Plan)

SHIPMASTER'S REPORT: August 1984. (Updated 1989).

PORT LIMITS: See "Gulf of Aden Pilot" (No. 64).

DOCUMENTS: See "Aden".

PILOTAGE: Compulsory for all vessels proceeding to and from the Port of Khalf. Call Pilot on VHF Channel 16. Vessels to display international signals day and night.

ANCHORAGES: Pilot Book as mentioned above gives sufficient information. A good practice during July each year (when S.W. monsoon is at its strongest) is to drop a second anchor in the morning and to heave it home again at about 1900 hrs. To keep second anchor out during the whole time of port stay is inadvisable as direction of turning on wind/tide is unpredictable and thus might end up with chains fouled.

APPROACHES: The lighthouse is visible at 18 miles.

RESTRICTIONS: Entering/leaving:

Anchorage: None.

New Port: Daytime only. During S.W. monsoon only between 0600 hrs. and 1100 hrs. and max. LOA 75 m.

MAX. SIZE: Ship's normally accommodated at Khalf Port up to 145 m., drawing max. draft of 8.5 m. Larger ships could be accepted if permission granted in advance by the Port Authority.

HEALTH: As ship arrived from Aden, no formalities whatsoever.

RADIO: All communication before arrival/after departure Aden and Mukalla via Aden Radio (70A). This radio station is working satisfactorily.

Once in port (either at anchorage or alongside) it is forbidden to use ship's radio and/or telex.

Sending cables/telexes via the Agency is time-consuming.

TUGS: At least 1 tug, and probably 2 when port is open for shipping.

BERTHING: 2 alongside berths for up to 10,000 Summer d.w.t. 3 alongside berths for coasters, depth up to 5.0 m.

CRANES: 14 mobile cranes, 3 – 10 tons capacity.

STEVEDORES: Work throughout 24 hours.

MEDICAL: Local hospital available but only a few facilities.

DENSITY: 1026.

FRESH WATER: Will be available in 1989.

FUEL: Will be available in 1989.

STORES: Not available.

REPAIRS: Not available.

CONSULS: None.

SURVEYORS: Available.

FRESH PROVISIONS: Not available.

GANGWAY/DECK WATCHMEN: Not required, no reports of pilferage of cargo and/or ship's stores.

HATCHES: Once open, not necessary to close again except for sailing. Climate: Warm/humid but no rainfall.

CUSTOMS ALLOWANCES: Bonded stores were sealed on arrival, no specific rules, no search parties of Customs.

On departure: No check of seals.

AIRPORT: Located at Rayan, 29 km. East of Mukalla.

REPATRIATION: *Crew Change:*

Out-going: Via Mukalla Airport to Aden (6 times a week except Fridays) then either via Jeddah or Dubai/Kuwait to ultimate destination.

In-coming: Very difficult as visa required and not easy to obtain.

Note: Flights Mukalla-Aden and vice-versa may differ from printed timetables.

BANKS: National Bank of Yemen. Local currency: Dinar.

On presentation of passport-receipt, US$ (and only this currency) can be exchanged for Dinars (approximately US$3 for 1 Dinar).

It is very difficult to obtain US dollars in exchange for Dinars.

SHORE LEAVE: In Mukalla (as well as in Aden) when passing Customs Gate, passport is exchanged for receipt by the Immigration Officer on duty. When returning from shore leave this receipt is again exchanged for passport.

Note: It is difficult to make Officials understand that crew members and/or visitors from abroad are not in possession of a receipt, which makes a crew change extra time consuming (Charterer had to wait 3 hours before he was allowed to proceed to the ship).

SHIP SUPPLY SERVICE: See "Aden".

DELAYS: At present congestion may occur during the S.W. Monsoon period.

In future congestion may occur as infrastructure of the new port leaves much to be desired (Roads to/in/from the port, direct delivery etc.).

GENERAL: *Transit Time Airmail Post:*

Mukalla-Europe: Minimum 2 weeks, maximum 3 weeks.

Europe-Mukalla: Minimum 2 weeks, maximum 3 weeks.

Agency: National Shipping Co., P.O.Box 8039, Mukalla, People's Democratic Republic of South Yemen. Cables: "Natship Mukalla" (via Aden Radio).

Importer: National Company for Home Trade, 5th Government Branch, Mukalla.

SHIPMASTER'S REPORT: April 1985.

PORT LIMITS: The port limits extend in a 270° direction from Ras Marbat for 2.5 miles, thence 000° along Long. 49° 07′ E. to the coast.

PILOTAGE: Pilot boards from launch, off the breakwater.

ANCHORAGE: For vessels over 10,000 d.w.t. all cargo is handled at the anchorage which may be closed from May to October due to its exposure to the S.W. Monsoon. Holding ground is reported to be variable. Reasonable anchorage obtained in 27 fathoms in position Lat. 14° 30.8′ N., Long. 49° 08.3′ E. approximately 5 cables due South of rocky projection on which part of town is built. Requests will be made to anchor closer to the shore to reduce barge transit time.

APPROACHES: Charts B.A. 3784 and 10.

Prominent terrain affords reasonable radar positions. Careful consideration should be given to night-time arrival if without radar due to the total absence of navigational aids at both the port and adjacent coastlines. The white house at Point Ras Marbat and the 4 tower ruins above the town are charted and conspicuous from seaward.

RESTRICTIONS: Berthing during daylight hours only.
MAX. SIZE: Max. size 10,000 d.w.t. Max. draft 8.5 m.
VHF: Channel 16 for Port Authority, call sign "Mukalla Harbour Master".
Agent can be contacted by calling Mukalla Harbour Office on Channel 16.
TUGS: One Voith Schneider tug of 2,000 h.p. Reportedly to be replaced by 2×1,000 b.h.p. tugs shortly.
BERTHING:

Berth	*Length* (m.)	*Depth* (m.)
No. 1	177.25	9.15
No. 2	184.00	9.15
Fisheries	160.00	4.50

Turning Basin: Width 250 m. Depth 10 m.
Harbour Entrance: Approx. width 200 m. Depth 11 m.
Lighters: 4×200 tonnes, 4×60 tonnes and 2×400 tonnes, all plus or minus 10% subject to swell conditions. Lighters are discharged either at Khalf Harbour or at town quay located on West side of town, rocky projection in position Lat. 14° 31.5′ N., Long. 49° 08.2′ E. Town quay is restricted in size and served by mobile cranes.
Stevedores: Labour is available 6 days a week, Saturday to Thursday inclusive.
Morning shift: 0700 – 1230 hrs. Afternoon Shift: 1300 until lighters are full.
The afternoon shift is unpredictable and subject to lighters being available.
Medical: Local hospital affords basic medical requirements.
Fresh Water: Not available.
Fuel: Not available.
Shore Leave: Restricted by curfew to between 0800 – 1200 hrs. and 1600 – 1900 hrs. All persons going ashore are required to exchange passport for local pass at Immigration.
GENERAL:
Harbour: Khalf Harbour, recently completed and as yet uncharted (see "Plan") provides 2 commercial jetties and a fisheries jetty.
Swell: Reportedly maximum 20 cm. in S.W. Monsoon.
Provisions: None available with the exception of individual purchases of fruit or poor quality vegetables available from market stalls ashore. Fishing good from ship's rail and crayfish, etc. obtainable from local fishing boats.
Launch: By prior arrangement with Agent only. Special dispensation can be obtained from Harbour Master to utilise ship's lifeboat. Barges can be used if other arrangements do not materialise.
Communications: By cable only. Telephone system is reported to be unreliable.
Port Officials: Immigration and Customs Officials board on arrival. Passports or Seaman's Cards are sighted. Bond Locker and Beer Room sealed but sufficient released for shipboard consumption.
Usual port papers required.
Agency: The National Shipping Co., Mukalla, Yemen. Cables: "Natship, Mukalla". Telex: None, but reported to be planned.

NISHTUN: 15.50 N. 52.12 E. (See Plan)

DOCUMENTS: See "Aden".
PILOTAGE: Compulsory. Manoeuvring during day time only. There is a lighthouse, range 28 miles, flashing 10 sec. in position Lat. 15° 49.0′ N., Long. 52° 12′ E. Also the breakwater tower has a flashing green light.
ANCHORAGES: Ships waiting for berthing normally anchor 4 – 5 cables S.E. of the breakwater tower and clear of the harbour entrance.
MAX. SIZE: Maximum size of ship that can be accommodated is up to 3,000 d.w.t., 90 m. LOA and 5.0 m. draft. For ships over such size special permission should be obtained from Port Officer and Director of Marine Affairs.
VHF: Vessels approaching Port of Nishtun can communicate with Port Authority by using Channel 16 for calling during official working hours 0700 – 1400 hrs. (local time) .
BERTHING: Length of quay 220 m.
CRANES: 2×3 tons – 17.5 tons mobile cranes.
MEDICAL: Limited facilities available.
FRESH WATER: Available in small quantities.
FUEL: Not available.
AIRPORT: Located at Al-Gaidah, 40 km. to the East of Nishtun.
WEATHER: *Monsoon:* During S.W. Monsoon waves may break over breakwater. Swell is created in basin so extra precautions by ships' Masters regarding mooring and securing the ship against the quay are required and extra ropes or wires are necessary.
AUTHORITY: See "Aden".

NOTES

Please also advise Shipping Guides Ltd.

Yugoslavia

BAR: 42.05 N. 19.03 E. (See Plan)

PORT LIMITS: Seaward limits of the port defines a line drawn between "Voluica" Light and Ratac Point.

DOCUMENTS:

On Arrival:

2 copies Health Declaration.
1 copy General Declaration.
5 copies Crew List.
5 copies Passenger List.
5 copies Crew Personal Effects.
3 copies Stores List.
1 copy Animal Pets Aboard.
1 copy Certificate of Financial Insurance on Civil Liability for Oil Pollution – only foreign ships carrying more than 2,000 tons of oil.
3 copies List of Hazardous Cargoes loaded on board and Cargo Plan for Hazardous Cargo (1 copy).

On departure:

5 copies Crew List, if any change.
List of Hazardous Cargoes, if loaded and Certificate of Stowage.

PILOTAGE: Advance notice 24 hours through ship's Agent. Pilot boat blue hull, white deck house, with letter "P" on each side. Pilot boards off West Breakwater. Use international signals to call Pilot. Pilot may be contacted on VHF Channel 16, working on Channel 6.

ANCHORAGE: Safe anchorage West and N.W. off West Breakwater. Anchoring not allowed nearer then 0.5 mile off Breakwater.

RESTRICTIONS: Vessels enter/leave port by day and night. Tankers allowed only during daylight. Depth entrance 14 m.

No restriction on LOA and beam. Foreign nuclear ships enter only with special permission. Leaving or entering port for foreign tankers not allowed if not having said Certificate.

MAX. SIZE: Fully loaded vessels up to 12.5 m. draft.

RADIO: Bar Radio, call sign YUW, 500 kHz and 447 kHz. Radio telephony on 2182 kHz on 2 metre band and on Channel 16.

Agents can be contacted through Bar-Radio on VHF.

TUGS: 2 tugs with twin 594 kW engine.

BERTHING: Berth assigned at Agent's request or Receiver's/Shipper's, both for liners or tramps, at the daily meeting of the Harbour Board.

3,500 m. of berthing space and able to accommodate up to 20 oceangoing vessels.

STEVEDORES: The Port Enterprise "Luka Bar" is the sole stevedoring company. Work is done in 2 shifts: first 0600 – 1400 hrs., second 1400 – 2200 hrs. Third shift can be ordered at daily meeting, paid as overtime.

MEDICAL: Medical care available at Medical Centre at Bar.

TANKERS: New oil berth can accommodate tankers up to 80,000 d.w.t., draft limit 12.5 m. Bunkers from local bunker station. Tank cleaning, pumping of slops and gas freeing not permitted in port.

Tankers must be ready to leave port at 30 minutes' notice, at any time and at request of Port Authorities.

CARGO HANDLING FACILITIES: Available for all kinds of general cargo, containers, pallets, Ro/Ro, bulk, fuel oil and chemical cargoes. Regular passenger service to Italy and from May – October to Greece.

Grain silos with 30,000 tons capacity with covered Vacuvator.

DENSITY: Sea water.

FRESH WATER: Available from hydrants on quay.

FUEL: Can be obtained from local bunker station. All grades available. A fuel barge may be available in the near future.

GANGWAY/DECK WATCHMEN: Available at Master's request.

OPENING/CLOSING HATCHES: Normally performed by crew, or as per Charter Party.

CARGO GEAR: Mobile Shore Cranes: 6×5 – 6 tons, 3×3 tons, 3×8 tons, 2×20 – 30 tons, 1×40 tons. Fork-lifts capable of handling containers, Vacuvators, 3 cranes for bulk cargoes. 1×40 ton container crane. If not agreed in C/P, loading and discharging is by shore cranes.

CUSTOMS ALLOWANCES: Yugoslav Customs Regulations apply.

IDENTIFICATION CARDS: Shore passes issued by local Police.

CONSULS: Same as "Rijeka".

REPAIRS/DRY DOCKS: Dry Docks at Shipyard "Veljko Vlahovic", Bijela, 36 miles from Port of Bar, capacity of about 130,000 d.w.t. and 35,000 d.w.t., available for all types of deck and engine repairs. Minor damage can be repaired while loading/discharging.

SURVEYORS: Representative of Yugoslav Register of Shipping at Tivat (80 km.). Bureau Veritas at Dubrovnik and Lloyd's Register at Split.

REPATRIATION: From Bar by bus, train (International Lines), and ship. From Airports Tivat, Titograd and Dubrovnik by plane.

TIME: Central European Time, GMT plus 1 hour. Summer time kept from March to October (date fixed annually).

SERVICES: Compass adjuster at Bijela (100 km.), RDF adjuster at Dubrovnik. Other electronics repairs via Split.

HOLIDAYS: January 1st and 2nd, May 1st and 2nd, July 4th and 13th, November 29th and 30th. Work can be arranged on Sundays and 2nd day of two-day holiday.

POLICE/AMBULANCE/FIRE: Police Tel. 92; Ambulance Tel. 94; Fire Tel. 93.

SHORE LEAVE: Allowed.

STORING: See "Prelims".

1. By truck.
2. Yugoslav Federal Regulations apply.
3. Yes.
4. Yes.
5. Yugoslav Customs Regulations apply.
6. Yes.

DEVELOPMENTS: See "Plan".

AUTHORITY: Lucka Kapetanija Bar, Obala 13, Jula 8, SRC Gora, 85000 Bar, Yugoslavia. *Tel:* (085) 27-384, (085) 27-733. *Telex:* 63188.

AGENT: Jadroagent – Bar. Obala 13, Jula 6, P.O.Box 10, 85000 Bar. Cable: Jadroagent Bar. Tel: (085) 22-195, 28-194. Telex: 63141 Yu Jadrag.

DUBROVNIK (Gruz Harbour): 42.38 N. 18.07 E. (See Plan)

DOCUMENTS/HEALTH/HOLIDAYS: Same as "Rijeka".

PILOTAGE: Compulsory. Pilot boards at a point situated approximately in centre of triangle formed by Kolocep Island, Daksa Island and Grebeni Rocks. Pilot boat is painted blue with large while "P" on hull, Length of boat about 13.0 m. Pilot boat may be contacted on VHF Channel 16.

ANCHORAGE: In about 22 fathoms in channel between Daksa Island and mainland. This anchorage is exposed to strong N.N.E. winds in Winter time.

RESTRICTIONS: Only port of Gruz is open to commercial traffic, the old port of Dubrovnik (within the city walls) can accommodate only yachts and small craft drawing under 9 ft.

MAX. SIZE: Max. length 230 m., max. draft 32 ft., no limits on beam.

RADIO: Dubrovnik Radio: *Telegraphy:* call sign YUX, working on 500 kHz and 447 kHz, (working 24 hours). Traffic list 0030, 0430, 0830, 1230, 1630, 2030 hrs.

Telephony: Working on 2182 kHz and 2615 kHz, (working 24 hours). Traffic list every odd hour + 20 minutes.

VHF: Listening Channel 16 throughout 24 hours and working on all Channels. Duplex Channel 23 with connection to national and international telephone network. All times are GMT.

TUGS: No permanently stationed tug boats, but can be ordered when necessary from other ports.

BERTHING:

Berth No.	*Length* (m.)	*Depth* (m.)
7	100	3.50
8	100	7.00
9	100	7.20
10	100	7.50
11	100	6.50
12	90	6.80
13	95	7.00
14	110	7.00
15	119	7.50
16	180	11.00
17	54	4.50

CARGO HANDLING FACILITIES: The port handles some bulk cargoes (grain and bauxite) occasionally and in small quantities but is not specially equipped for handling these and other cargoes. 6 cranes with capacity 1.5 tons-25 tons.

STEVEDORES: The port enterprise "Luka Dubrovnik" is the sole stevedoring company. Work is done in 2 shifts: first 0600 – 1300 hrs., second 1400 – 2100 hrs.

MEDICAL: General hospital and medical facilities available.

FRESH WATER: Available from hydrants on quay, rate 20 t.p.h. Order through Agent.

FUEL: Not available. Only oil for diesel engines in limited quantities. Heavy fuel can be delivered by coastal tankers from Split.

GANGWAY/DECK WATCHMEN: Available.

OPENING/CLOSING HATCHES: Performed by crew.

CUSTOMS ALLOWANCES: About 40 cigarettes and limited amount wine/spirits per man per day.

CARGO GEAR: Operations are usually performed with ship's gear. Shore cranes with 25 tons SWL are available at Quay No. 16 only.

IDENTIFICATION CARDS: Issued by local police.

CONSULS: Sweden: Konzulat Kraljevine Svedske, Zeljarica 7, Dubrovnik. Tel: 23144. Cables: Svensk.

Netherlands (Vice-Consul): Vicekonsulat Kraljevine Holandije, Gruska Obala 46, Dubrovnik. Tel: 24947.

REPAIRS: Small repairs only.

SURVEYORS: Bureau Veritas, Rijeka. Tel: 051-39324.

At Dubrovnik Ing. Lasic Srdan. Tel: 25723.

Lloyd's Register Surveyor available from Split. Tel: 058-42773.

AIRPORT: Airport "Cilipi" 25 km. from the Gruz Port. Served by regular airlines.

TIME: GMT plus 1 hour. Summertime. GMT plus 2 hours.

POLICE/AMBULANCE/FIRE: Dial 985 for all emergency matters.

TELEPHONES: Can be placed onboard. 72 hours' notice required.

SHORE LEAVE: Allowed.

DEVELOPMENTS: A new berth is to be constructed on the site of Berth No. 17. The new berth will have a 25 ton multi-purpose crane and a depth of 15.0 m.

AUTHORITY: Lucka Kapetanija Dubrovnik, (Harbour Master's Office), Gruska Obala 38, 50000 Dubrovnik. *Tel:* 23386. *Telex:* 27623 Yu Luckap.

Ro "Luka" Dubrovnik. *Tel:* 23350 (Manager), 23351 (Operations Department). *Teiex:* 27567.

AGENT: Jadroagent – Dubrovnik. Gruska Obala 63, 50000 Dubrovnik. Cable: Jadroagent Dubrovnik. Tel. 23464 and 24464. Telex: 27514 Yu Jadrag. Fax: 28595.

KARDELJEVO (Formerly Ploce): 43.03 N. 17.26 E.

(See Plan)

DOCUMENTS/HEALTH/HOLIDAYS: Same as "Rijeka".
PILOTAGE: Compulsory for vessels over 500 g.r.t. Pilot boards vessel at entrance of the channel within a circle of 3 miles radius from Point Visnjica. Pilot station on VHF. Channel 16.
ANCHORAGES: Vessels are allowed to anchor West of the line which connects Kunova Cove on peninsula Peljesac with point Lat. 43° 03′ N., Long. 17° 24′ E. on land coast. Depth over 25 m.
RESTRICTIONS: Ship entering channel between Visnjica Point and embankment of right hand bank must keep in middle, leaving buoys to starboard. Recommended speed 5 – 8 knots. Also see "Tankers".
MAX. SIZE: Draft limited to max. 34 ft. 6 in. Length limited to 220 m.
RADIO: Nearest Radio Station Split Radio YUS – 2182 kHz and 2574 kHz. Radio station Dubrovnik Radio YUS – 2182 kHz and 2615 kHz.
VHF: Channel 14 and 16.
RADAR: No Port Radar service.
TUGS: One tug of 850 h.p., and one of 1,200 h.p.
BERTHING: Bosanska Obala (Berth Nos. 7 and 8): Length 227 m., drafts up to 31 ft. – no shore cranes.

Biokovska Obala No. 1 and 2 (Berth Nos. 4, 5 and 6): Length 368 m., drafts up to 32 ft., 7×5 ton cranes.

Gat Oslobodenja: North Side No. 3 (Berth Nos. 1, 2 and 3): Length 410 m., drafts up to 32 ft., 1×7 ton crane and 3×5 ton cranes. Head: Length 250 m. South Side No. 5 (Berth Nos. 20, 21 and 22): Length 507 m., drafts up to 34.5 ft., 5×10 ton cranes.

One floating crane up to 100 tons capacity.
BULK CARGO FACILITIES: Grain, ores and minerals by shore cranes equipped for grab discharge at Quay Nos. 3 and 5. Grain through feeders to railcars. Alumina silo (capacity 20,000 tons) at Quay No. 1 – length 140 m., draft 30 ft., with loading facilities. Coal handled by 5×10 ton travelling cranes, average discharge rate 250 tonnes p.h.
SPECIALISED CARGO HANDLING FACILITIES: No berth specially equipped for handling containers, only by floating crane.
BRIDGES: No bridges to pass through.
STEVEDORES: Port Enterprise "Luka Ploce" Kardeljevo, is the sole stevedoring company. Work in 2 shifts: 0600 – 1400 hrs. and 1400 – 2100 hrs. Overtime possible.
MEDICAL: Medical service available. Nearest hospital at Mostar (64 km.), Dubrovnik (110 km.) and Split (110 km.).
TANKERS: Oil Terminal – Channel Vlaska: one berth: vessel's length – no restriction, max. vessel's beam – 27 m., max. draft – 9.20 m. No slop/deballast facilities. When wind blowing over 10 knots direction North-South, and over 14 knots East-West, vessels are not allowed to sail through Channel Vlaska to oil terminal. Navigation through Channel Vlaska is allowed only during daylight with assistance of 2 tug boats. It is not allowed to berth or anchor vessels less than 41 m. out of marked line, while other vessels sailing through the channel.
Storage:

- 6 tanks × 10,000 tons each for crude oil and heavy fuel oil,
- 3 tanks × 5,000 tons each for natrium hydroxide,
- 1 tank for special chemical products,
- 2 tanks × 2,500 tons each and 2 tanks × 1,300 tons each for petrol.

DENSITY: 1010 – 1030.
FRESH WATER: Available from quay. Rate 15 t.p.h. – 20 t.p.h.
FUEL: Gas oil only. Delivery by tank trucks. Advance notice required.
GANGWAY/DECK WATCHMEN: Available but not compulsory.
OPENING/CLOSING HATCHES: May be done by crew, otherwise by stevedores with extra payment.
CUSTOMS ALLOWANCES: About 40 cigarettes and reasonable amount wine/spirits per man per day.
IDENTIFICATION CARDS: Shore pass issued by local Immigration Office.
REPAIRS: Only small repairs.
DRY DOCKS: None.
SURVEYORS: Lloyd's, A.B.S., B.V. and Yugoregister at Split (110 km. from Kardeljevo).
CARGO GEAR: Although the port is equipped with shore cranes and a floating crane of 100 tons capacity, ships must have efficient cargo gear and relative certificates.
REPATRIATION: Possible by train or bus. By plane from nearest airports, Split (110 km.), Dubrovnik (110 km.) and Mostar (64 km.).
TIME: GMT plus 1 hour. Summertime (from last Sunday in March till last Sunday in September) GMT plus 2 hours.
POLICE/AMBULANCE/FIRE: Police, Tel: 058/79006; Ambulance, 058/79702; Fire, 058/79143.
TELEPHONES: Not possible to place telephones onboard.
SHORE LEAVE: Allowed.
DELAYS: Only occasionally for bulk carriers.
DEVELOPMENTS: Terminal for grain cargoes with capacity of 40,000 tons to be completed by 1989 at Berth No. 5. Average rate 400 t.p.h., bagging capacity of 1,000 bags per hour, with possibility of automatic weighing.
GENERAL: Lloyd's sub-Agents: Jadroagent Kardeljevo.
AUTHORITY: Lucka Kapetanija Kardeljevo, Lucka Kapetanija, 58340 Kardeljevo, Yugoslavia. *Tel:* 058/79008. *Cables:* Lucka Kapetanija Kardeljevo. *Contact:* Captain Busurelo Aleksandar, Harbour Master.
AGENT: Jadroagent – Kardeljevo, Trg Marsala Tita BB, P.O.Box 111, 58340 Kardeljevo. Cable: Jadroagent Kardeljevo. Telex: 26239 Yu Jadrag. Tel: 058/79964 or 058/79255.

KOPER: 45.31 N. 13.44 E.

(See Plan)

PORT LIMITS: The seaward boundaries of the port are between "Debeli Rtic" (Punta Grossa) and Rt. Vilizan.
DOCUMENTS:

- 5 Crew Lists.
- 5 Passenger Lists.
- 8 Cargo Manifests.
- 2 Freighted Manifests.
- 2 Bills of Lading.
- 2 Store Lists.
- 1 Crew Effects List.
- 1 Cargo Gear Certificate.
- 1 Derat Declaration.
- 1 Health Certificate.

PILOTAGE: Pilot station may be contacted on VHF Channels 16 and 20 throughout 24 hours. Pilot boards 1 mile from entrance in roads or at anchorage. Definite notice to be sent by telex 24 hours before vessel's arrival in port area through its Agent in Koper. In case of bad weather, ship must wait for a Pilot at anchorage.
ANCHORAGES: Port area, depth 17 m., sandy bottom. Safe anchorages in case of S.E. wind near Rt. Vilizan and in case of N.E. wind near Debeli Rt. (Punta Grossa).
RESTRICTIONS: Vessels enter port by day and night, tankers can also enter during daylight hours and at night.
MAX. SIZE: General cargo and container vessels drawing up to 32 ft. and tankers with 40 ft. draft. No length restrictions.
HEALTH: Ship must have Health Declaration and in this case Pratique is automatic. In the event of any suspected disease or fever on board, Master must advise Harbour Master or Agent by VHF Channel 16 or by telegraph. Harbour Master's Office on VHF Channel 16 continuously.
RADIO: Communication on MW and SW through Rijeka Radio.
VHF: Communication on Koper Roads on Channel 16, 20 and 12. On Channel 20 it is possible to telephone outside the country.
RADAR: No service available.
TUGS: In area of old port, 2 available, 750 h.p. and 1,500 h.p. equipped for fire fighting.
BERTHING:
Terminal for General Cargo: Quays 833 m., depth from 7 m. to 12 m. Number of Berths 6. Roofed warehouses 140,000 sq.m., of which: air-conditioned warehouses, with a possibility of moisture and temperature regulation from 0°C to 20°C, 7,500 sq.m. Refrigerated rooms (freezing to −20°C) 23,502 cu.m. Special warehouses for cotton and hides 12,500 sq.m. 2 shore cranes, 1×20 ton mobile crane, 1×30 ton mobile crane, 1×40 ton mobile crane, 170 forklifts. Terminal capacity 750,000 tons annually.
Terminal for Timber: Quays 250 m., depth 6 m.–12 m. Number of Berths 2. Terminal area 25 ha., sheltered storage area 36,120 sq.m., 1 shore crane, 1 bridge crane, 22 forklifts, 21 towing units.
Terminal for Container and Roll-on/Roll-off Traffic: Quays 480 m., depth 12 m. Two berths for container vessels, 3 Ro/Ro ramps. Terminal area 20 ha. Closed warehouses 10,800 sq.m. Railway tracks 2×562 m. 178 electric connections for reefer containers. 3 container cranes (450kN). 5 straddle carriers. 4 transtainers. 11 forklifts. 21 towing units. Terminal capacity 135,000 TEU annually.
BULK HANDLING FACILITIES:
Terminal for bulk and liquids:

Cargoes handled:
Ores, coal and coke
Cereals and oilseeds
Liquid cargo (wine, edible oils, molasses, latex, phosphoric acid, oil and oil derivatives)

Capacities for ores, coal and coke: (Max. granulate size 150 mm.) Length of quay 200 m., depth at the quay 17 m. Number of berths 1, open storage 300,000 tons, 2×20 tons capacity shore cranes (at outreach 36 m.). Yearly throughput of the terminal 1.5 million tons. Unloading capacity on the quay 1,000 t.p.h. Loading capacity from the ship or from depot 5,000 tons/day. Possibility of berthing vessels up to 130,000 d.w.t. Daily despatch per railway 5,000 tons.
Capacities for phosphates, fertilisers, borates and bauxite: Length of quay 273 m., depth at the quay 14 m. Number of berths – 1, sheltered warehouse (ground floor) 30,000 tons, 2×20 tons capacity shore cranes (15 tons at 24.0 m.). Silo for borates 1,100 tons and silo for bauxite 20,000 tons. The quay is equipped with moving belts and connected to the warehouse with a closed conveyor system.
Capacities for cereals, oilseeds and oilseeds after industrial output/silo: Length of quay 183 m., depth at the quay 14 m. Number of berths – 1, storage capacity (24×2,250 tons and 11×580 tons) 60,000 tons. Discharging/loading capacity for vessels 500 t.p.h., discharging/loading capacity for vehicles 500 t.p.h. The grain silo is a technological closed system with its own quay, rails, wagon loading/discharging station and the corresponding road connections.
Capacities for other bulk cargoes: Depth at the quay 7.0 m.-14.0 m. Number of Berths 3, open storage area 12,000 tons (2×6,000 tons). In addition to the special quay equipment with conveyor systems the Port of Koper has 3 additional berths for dispatching of bulk cargoes direct.
Capacities for liquid cargoes: Wine 2,492 cu.m., edible oil and molasses 24,500 cu.m., chemicals 12,350 cu.m., phosphoric acid 7,500 cu.m., latex 1,320 cu.m., oil and oil derivates 114,900 cu.m.
BRIDGES: None.
STEVEDORES: Gangs ordered from "Luka Koper" who are stevedores by Agents and forwarding Agents in Koper.
MEDICAL: Medical assistance and hospital available.
TANKERS: Tanker berth for crude oil with max. draft 40 ft., equipped with 3×8 in. arms.
FRESH WATER: Available from any pier. Rate of delivery about 15 t.p.h.
NOT
FUEL: None available.
FIRE PRECAUTIONS: Usual precautions.
CONSULS: Italy.

REPAIRS: Small repairs can be carried out at Koper. In Izola, 2 miles from Koper, is wharf "2nd October". The repair service for containers is in the Port.
DRY DOCKS: In Izola for vessels up to 16,000 d.w.t.
SURVEYORS: In Koper – Jugoregister. In Rijeka or Trieste all representatives.
GANGWAY/DECK WATCHMEN: Available at ship's request.
OPENING/CLOSING HATCHES: If not performed by crew, then by stevedores.
CUSTOMS ALLOWANCES: 200 cigarettes for each member of crew and 1 bottle of spirits per week and reasonable quantity of wine per man per day.
REPATRIATION: By bus, by railway from Koper or by air from the airports.
AIRPORT: Ljubljana (Brnik) – 120 km. Rijeka – 100 km. Pula – 100 km. Ronchi (Italy) – 80 km.
TIME: GMT plus 1 hour. Summertime kept.
HOLIDAYS: New Year's Days (1st, 2nd January), 27th April, May Days (1st and 2nd May), 4th July, 1st November, Republic Days (29th, 30th November).
POLICE/AMBULANCE/FIRE: Police No. 92, Ambulance No. 94, Fire No. 93.
TELEPHONES: From anchorage it is possible to telephone through VHF Channel 20. Telephones can be installed onboard at Berth Nos. 1a, 1, 2, 3, 4 and 5.
SHORE LEAVE: Allowed after clearing inwards (Free Pratique).
IDENTIFICATION CARDS: Shore pass issued by local police (without photograph).
REGULATIONS: None.
DEVELOPMENTS: *Bulk Terminal:* (2nd stage) Extension of the quay by additional 200 m., depth of the whole basin 18.0 m., 2 unloading bridges, capacity 2×1,200 t.p.h. Enlargement of depot also to be undertaken.

SHIPMASTER'S REPORT: October 1979.
Stevedores: Port works 5 days a week in 2 shifts; 1st shift 0600 hrs. to 1300 hrs.; 2nd shift 1400 hrs. to 2100 hrs.; a third shift may be worked from 2200 hrs. to 0530 hrs. Also possible to work 1st, 2nd and 3rd shifts on Saturdays and Sundays.
Pilotage: Pilot station contacted on VHF Channel 16 from 0600 hrs. to 2200 hrs. Vessels berthed alongside during these times. Pilots board about 1 mile from the entrance to the port or at the anchorage. Pilot vessel painted blue in colour and displaying large white 'P' on the bow. Pilots speak very good English.
General: The use of cameras is prohibited within the port area.

SHIPMASTER'S REPORT: June 1981.

According to Pilot they do not have VHF in their office but use the set in the Harbour Master's Office. We found we could not contact the Pilots until after anchoring and when the Pilot boarded he said it was only because he happened to be in the Harbour Master's Office at the time.

Tankers always berth port side to and do not normally sail after dark as they have to move out of the channel stern first and then swing.

Moorings usually 4 head ropes and 1 backspring with similar aft. After ropes go to 2 buoys and require lashings. After backspring and forward moorings go to bollards ashore.

There is a telephone, for local calls, in the office on the jetty.

Use tug's lines berthing and ship's lines sailing.

Vessel is inspected by Harbour Master and they are very particular about ship's documents especially the Certificate of Insurance or other financial security in respect of civil liability for oil pollution damage.

If wishing to visit Consul it is apparently easy to cross the border to Trieste but best to allow boarding Immigration Officer to examine your passport. A long gangway is required (no shore gangway) as jetty is low.

AUTHORITY: Luka Koper, Vojkovo nabrezje 38, Yu-66000 Koper. *Tel:* (3866) 34–141. *Telex:* 34-110 and 34-168 Yu Luka. *Contact:* Commercial Department.

AGENT: Jadroagent – Koper. Cesta JLA 27, P.O. Box 70, 66000 Koper. Tel: 23–262, 22–884. Cable: Jadroagent Koper. Telex: 34234, 34228 Yu Jadrag.

PULA: 44.52 N. 13.50 E.

DOCUMENTS/HEALTH/HOLIDAYS: Same as Rijeka.
PILOTAGE: 48 and 24 hours' notice of ETA must be given to Agent. Pilot boards vessel off the breakwater. Merchant vessels bound for Pula must signal their name and port of departure to the signal station at Muzil.
ANCHORAGES: Vessels waiting for berth or Free Pratique can anchor in the outer harbour at about 0.4 miles West of the island S. Andrija.
RADIO: Coastal station Rijeka-Radio (call sign "YUR").
VHF: Communications with Agents and Port Authority through VHF on Channel 16.
TUGS: Up to 600 h.p. available from shipyard "Uljanik", otherwise from Rijeka.
BERTHING:

Gat Rijeka: North side length: 138 m., depth 20 ft.
South side length: 150 m., depth 17 ft.
Obala Ugljen: Length 140 m., depth 26 ft.
Gat Ugljen: East side length: 160 m., depth 31 ft.
West side length: 140 m., depth 28 ft.
Obala Tv.Cementa: Length 146 m., depth 20 ft.
Obala Uljanik: Length 160 m., depth 22 ft., used only for discharge of steel plates.

CRANES: No shore cranes except one of 5 tons at Obala Tv.Cementa and one of 75 tons at Obala Uljanik.

A floating crane of 45 tons at shipyard "Uljanik".

Two mobile cranes of 17 tons and 20 tons respectively.

STEVEDORES: Port Enterprise "Luka" is the sole stevedoring company. Working 2 shifts: from 0700 to 1500 hrs. and 1500 to 2300 hrs. Saturdays, Sundays and holidays may be worked on overtime.
MEDICAL: Hospital and all kinds of medical assistance available.
FRESH WATER: Available from quay.
FUEL: Available by barge from Rijeka – advance notice required.
REPAIRS: Available from local shipyard "Uljanik" and "Crvena Zvijezda".
SURVEYORS: Lloyd's Register, Jugoregister, Norske Veritas.
GANGWAY/DECK WATCHMAN: Service available.
OPENING/CLOSING HATCHES: May be carried out by crew otherwise by stevedores on extra payment.
CUSTOMS ALLOWANCES: About 40 cigarettes and reasonable amount of wine/spirits per man per day.
CARGO GEAR: Loading/discharging by ship's own gear.
REPATRIATION: Possible by train, bus and air.
AIRPORT: At Pula.
TIME: GMT plus 1 hour. Summertime kept.
POLICE/AMBULANCE/FIRE: Police tel. 92; Ambulance tel. 94; Fire tel. 93.
IDENTIFICATION CARDS: Shore passes issued.
REGULATIONS: Speed limit: Within a line joining Prostina Point (Point Kristo) and Kumpar Point vessels must proceed at a speed not exceeding 8 knots and within a line joining Andrija Island and Sv. Petar Peninsula at a speed not exceeding 5 knots.
GENERAL: Lloyd's Agents: Jadroagent-Rijeka.
AUTHORITY: Lucka Kapetanija-Pula, Obala Marsala. Tita 18, 52000 Pula. *Tel:* 220-37, 276-46. *Telex:* 25251. *Cables:* Luckap Pula. *Contact:* The Harbour Master.

AGENT: Jadroagent – Pula, Obala Marsala Tita 14, 52000 Pula. Cable: Jadroagent Pula. Telex: 25210 Yu Jadrag.

RIJEKA (including Bakar, Omisalj, Urinj, Sepen and Rasa): 45.19 N. 14.26 E. **(See Plan)**

PORT LIMITS: Outer line of Anchorage area.
DOCUMENTS:

- 5 Crew Lists
- 5 Passenger Lists
- 3 Manifest of Dangerous Cargo (send cable before arrival with description)
- 3 Store Lists
- 2 Private Declaration
- 2 Narcotics Lists
- 9 Cargo Manifests
- 3 Freight Manifests
- 2 Transit Manifests
- 2 Cargo Plans
- 2 Copies of Bill of Lading

Cargo and Freight Manifests and Cargo Plan with Hatch List if possible should be mailed to Agent from loading port.

PILOTAGE: Compulsory for vessels over 500 g.r.t. Pilot boards in the roads within anchorage area limit. Pilot on VHF Channels 8, 12 and 16.

For oil terminal at Omisalj, Pilot boards 5 miles south of Rijeka Main Light. On request, Pilot will board tankers over 200,000 d.w.t. in the Northern part of Kvarner at Lat. 45° 02′ N., Long. 14° 14′ E. approx.

Pilot available 24 hours. ETA to be sent 72 hours, 48 hours and 24 hours prior to arrival

ANCHORAGES: All vessels with exception of those loaded with dangerous or hazardous cargoes, must anchor in the zone enclosed by the following points:

a) Lat. 45° 20.0′ N., Long. 14° 22.7′ E.
c) Lat. 45° 15.1′ N., Long. 14° 27.1′ E.
b) Lat. 45° 17.5′ N., Long. 14° 20.0′ E.
d) Lat. 45° 18.4′ N., Long. 14° 28.5′ E.

Tankers and vessels with dangerous cargoes must anchor in the following zone:

a) Lat. 45° 17.8′ N., Long. 14° 28.0′ E.
c) Lat. 45° 14.1′ N., Long. 14° 29.4′ E.
b) Lat. 45° 15.1′ N., Long. 14° 27.1′ E.
d) Lat. 45° 16.1′ N., Long. 14° 31.8′ E.

APPROACHES: The access entrance to the Rijeka Port Basin is 270 m. wide and that of the Susak Port Basin is 45 m. wide.
HEALTH: To obtain Free Pratique 24 hours before arrival advise following details: number of crew and passengers, health conditions and possible infectious diseases. No person allowed to leave vessel until Free Pratique obtained.
RADIO: Rijeka Radio, call sign YUR 500 kHz, Radio telephone on 2 metre band covering area of North Adriatic or by VHF Channel 16.
VHF: Port Authority on Channels 16 and 20. Tugs on Channels 16 and 8. Pilot on Channels 16, 8 and 12.
TUGS: 1,400 h.p. to 3,000 h.p. available.
BERTHING: General Cargo Facilities:
Rijeka Basin:
Gat Otokar Kersovani (The Otokar Kersovani Pier):

East:	Length 150 m.
	Depth alongside 7.30 m.
Head:	Length 80 m.
	Depth alongside 6 m.
West:	Length 135 m.
	Depth alongside 6.30 m.

The 32 ton crane has been installed for loading/unloading heavy lifts with the possibility of using grab for loading/unloading smaller quantities of bulk cargo in direct operation.

Equipment: 1×32 ton "Ganz" crane (east side)
1× 3 ton "Ganz" crane (west side)
for handling small lots of general cargo.

Ljubljanska Obala (The Ljubljana Quay):
Length 246 m.
Depth alongside 9.60 m. (31 ft. 6 in.)

By fitting appropriate quay fendering, this quay can accommodate vessels with maximum length of 200 m. and maximum draft 32 ft. 10 in. It is mainly used for direct or indirect loading/discharge operations of larger lots of general or bulk cargo.

Equipment: 7 × 3 ton dockside cranes.

Gat Vladimir Nazor (The Vladimir Nazor Pier):
East: Length 195 m.
Depth alongside 8.50 m.

This quay is mainly used for direct or indirect loading/discharge operations of larger lots of bulk or general cargo.

By fitting appropriate fendering vessels of max. length 195 m. and max. draft 31 ft. 6 in. can be accommodated.

Equipment: 3×5 ton dockside cranes.

Pier Head: Length 84 m.
Depth alongside 7.5 m.
West: Length 169 m.
Depth alongside 8 m.

This quay is mainly used for direct or indirect loading/discharge operations of general cargo or smaller lots of bulk cargo by means of ship's cargo gear.

Gat Vladimir Gortan (The Vladimir Gortan Pier):
East: Length 120 m.
Depth alongside 7.30 m.
Head: Length 79 m.
Depth alongside 7.20 m.
West: Length 120 m.
Depth alongside 7.30 m.

The Pier is mainly used for direct or indirect loading/discharge operations of smaller lots of general or bulk cargo.

Equipment: 6 × 1.5 ton dockside cranes (three cranes on the East quay and three on the West quay).

Zagrebacka Obala (The Zagreb Quay):
East: Length 161 m.
Depth alongside 7.30 m.

This quay is mainly used for direct or indirect operations of general or bulk cargo lots.

West: Length 200 m.
Depth alongside 7.50 m.

This quay is normally used for loading/discharge of larger lots of general or small lots of bulk cargo by grabs (2×6 ton cranes). By fitting appropriate fendering a ship with max. length 180 m. and max. draft 31 ft. 6 in. can be accommodated.

Equipment: 4×3 ton and 2×6 ton "Ganz" dockside cranes.

Splitska Obala (The Split Quay):
Length 158 m.
Depth alongside 6.25 m.

This quay is mainly used for direct or indirect/discharge operations of smaller lots of general or bulk cargo.

Gat "1 Maj" and Gat "29 Novembar" (The "1 May" Pier and the "29 November" Pier): These two piers within the Rijeka Port Basin, with the total quay length 450 m. and max. depth about 6 m., are used for the accommodation of passenger ships, car-ferries, fishing vessels and other smaller craft.

Trscanska Obala (The Trieste Quay):
Length 189 m.
Depth alongside 6.50 m.

This quay is mainly used for loading/unloading smaller volumes of general cargo, and is used occasionally for berthing and handling smaller Roll-on/Roll-off vessels.

Lukobran Rijeka (The Rijeka Breakwater):
Length 1,768 m.
Depth alongside 5.50 m. – 7.20 m.

A 10,000 d.w.t. floating dock is berthed along the breakwater quay. On the quay there is a port control centre with pilot station. The operational part of the quay is 700 m. long and is used for loading/unloading smaller lots of general cargo and for direct operations with bulk cargo and timber. A part of the quay is used for ship derat and for occasional minor repairs on ships.

Equipment: 4 × 5 ton dockside cranes.

Note: Almost all the quays and breakwaters are rail and road connected.

Susak Basin:

Obala 10.Rujna (The 10 Rujan Quay):
Length 240 m.
Depth alongside 6.50 m.

This quay is mainly used for direct or indirect operations of general cargo and timber.

Equipment: 7 × 3 ton dockside cranes.

Supilova Obala (The Supilo Quay):
Length 132 m.
Depth alongside 7.50 m.

Mainly used for loading timber by means of the ship's own cargo gear.

Gat Barcic (The Barcic Pier):
North: Length 106 m.
Depth alongside 8 m.
South: Length 106 m.
Depth alongside 7.80 m.

This pier is mainly used for the loading/discharge of smaller lots of general cargo or timber and for unloading smaller volumes of liquid cargo (wine, latex, etc.).

CRANES: Shore cranes with lifting capacities from 1.5 to 5 tons available at respective berths except at Gat V. Nazor – West side, Splitska Obala, Trscanska Obala, Supilova Obala and Gat Barcic where vessel's own gear must be used. Floating cranes of 30 and 100 tons. At shipyard "3.Maj" berth (20 ft.) 1 bridge crane of 300 tons.

CONTAINER FACILITIES: *Kontejnerski Terminal "Brajdica" (The Brajdica Container Terminal):* The Brajdica Container Terminal is located in the Eastern part of the Susak Port Basin at the mouth of the river Rjecina. It includes a quay with 2 berths (244 m. and 163 m.) with depth alongside 12 m. and 10 m. respectively and a 60 m. wide Ro-Ro ramp. Max. draft 11.0 m.

Equipment: 2×40 ton container cranes, straddle carrier, side loader, trailers, tugmasters, fork lift trucks, etc.

The terminal has about 100,000 sq.m. stacking area and a special container repair workshop.

Total annual capacity of the terminal is 100,000 TEUs. The terminal area is being constantly extended.

Ro/Ro vessels handled at Bakar (see below).

BULK CARGO FACILITIES:

Rijeka Basin:

Beogradska Obala (The Beograd Quay):
East: Length 110 m.
Depth alongside 7.8 m.

The quay is mainly used for working vessels carrying general or bulk cargo.

West: Length 257 m.
Depth alongside 12.95 m.
Max. draft 42 ft. 6 in. (even keel).

The silo located on this quay has a 57,000 tons storage capacity for grain and oleiferous seeds and is equipped with 2 ship loaders/unloaders with a total capacity of 600 t.p.h.

Vessels of maximum length of 250 m. can be accommodated, provided that the ship lies 8 m.–10 m. distant from the quay, berthed by dropping port bow anchor, stern line being moored to the buoy.

Gat Lole Ribara (The Lola Ribar Pier):
Length 160 m.
Depth alongside 7.90 m.

This pier includes a covered storage for fertilisers, single storage capacity 15,000 tons, and is equipped with the handling and bagging facilities for all types of fertilisers.

By fitting appropriate fendering vessels with max. length 180 m. and max. draft 32 ft. can be accommodated.

Susak Basin:

Lukobran Susak (The Susak Breakwater):
Length 320 m.
Depth alongside 6.50 m.

The breakwater quay is mainly used for loading/discharge of dry bulk cargoes and ships with max. length 180 m. and max. draft 31 ft. 6 in. can be accommodated. The ship must be berthed at a distance of 5 m. – 6 m. from the quay by dropping the port anchor with stern line moored to the breakwater.

Equipment: 6 × 5 ton dockside cranes.

Bakar:

Obala Podbok (The Podbok Quay):
Length 400 m.
Depth alongside 18.50 m.

Vessels with max. length 300 m. and max. draft 17.50 m. can be accommodated (170,000 d.w.t.). The quay is used for loading/discharging bulk cargoes such as iron ore, bauxite, coal, etc., rate up to 2,000 t.p.h.

Equipment: 3 ship unloaders (1 × 45 ton and 2 × 16 ton capacity). The stockyard storage capacity is 400,000 tons. An additional area for 200,000 tons has been reclaimed from the sea. A special conveyor system connects the bulk cargo terminal with the nearby Coke Plant on the West coast of the Bay of Bakar for unloading and delivery of coal to the Coke Plant.

Obala Goranin (The Goranin Quay):
Length 84 m.
Depth alongside 9 m.

This quay is used for loading coke into smaller vessels and for loading/unloading operations with general cargo stored in the Back-up Storage Facility "Skrljevo".

Ships of 160 m. length and max. draft 29 ft. 9 in. can be accommodated. To the West of the quay a new Roll-on/Roll-off berth is being constructed.

Equipment: 2 × 5 ton dockside cranes.

Also see "Shipmaster's Report" dated November 1979.

SPECIALISED CARGO HANDLING FACILITIES:

Sepen:

New terminal for gas and liquid chemicals carriers at Sepen-Krk Island (about 8 nautical miles S.S.E.'ly from Rijeka port) operated by Dina-Petrokemija. It consists of three berths: 2 "T" concrete jetties and one concrete multi-purpose berth. Jetty "A" is for gas carriers up to 15,000 cu.m., max. draft 10.5 m. Jetty "B" is for chemical tankers up to 60,000 d.w.t., max. draft 15 m. Length of multi-purpose quay is 90 m., max. draft 6 m., no shore cranes. Loading arms (8 in.) for ethylene liquid, ethylene vapour, VCM liquid and VCM vapour are on Berth "A". Loading arms (8 in.) for fuel oil, caustic soda solution and EDC liquid (plus EDC vapour 3 in.) are on Berth "B".

Srsica: Near Urinj tanker terminal. At Srsica there is a berth for loading LPG. Length of berth 68 m., depth alongside 10.0 m. Max. size 4,500 d.w.t. Discharge rate 200 t.p.h. through 1×6 in. flexible hose.

Rasa:

Bazen Rasa (The Rasa Port Basin): The Rasa Port Basin is located some 30 nautical miles S.W. of Rijeka in the naturally protected bay of Rasa which is 5 km. long, with the navigable channel about 40 m. deep.

The port facilities in the Bay include:

165 m. long quay, with 11 m. depth alongside, used mainly for loading unloading sawn timber. The quay area includes about 150,000 sq.m. of open space and 40,000 sq.m. of covered storage space for timber.

Equipment: 3 × 5 ton dockside cranes.

Separate pier with a berth, 25 m. long and 7 m. deep enabling the accommodation of ships up to 100 m. in length; it is exclusively used for loading livestock. The livestock terminal also includes a stable for the acceptance of about 1,400 head of cattle at a time.

STEVEDORES: Port Enterprise "Luka" Rijeka is the sole stevedoring company. Working 2 shifts: 1st from 0630 to 1430 hrs., 2nd shift from 1430 to 2230 hrs. Saturdays, Sundays and holidays may be worked on overtime. Unloading of bulk cargo at the basin of Bakar during the first shift on Saturday is considered to be an ordinary working shift. Timber operations normally performed during first shift only.

MEDICAL: Three hospitals and all kinds of medical assistance.

TANKERS: At Bakar Basin, berths for tankers up to 80,000 d.w.t. stern to shore and up to 40,000 d.w.t. alongside quay (draft 32 ft.) loading refined oil products.

At Urinj – 5 miles East of Rijeka – 1 berth for tankers up to 200,000 d.w.t. discharging crude oil. Also used for loading of virgin naphtha shipments. Tankers moor stern to quay using both anchors. Depths of 17 m. marked by 2 buoys. Cargo hoses: 1 flexible floating hose of 20 in. with 2 ends of 12 in. each. For connecting hoses on ship's manifold a derrick or crane of minimum 5 tons S.W.L. required. Also see "Shipmaster's Report" dated February 1980.

At Omisalj (Krk Island) (Lat. 45° 13.4′ N., Long. 14° 32.2′ E.) – 7 miles S.E. of Rijeka – new oil terminal for tankers up to 350,000 d.w.t. (minimum size 40,000 d.w.t.) and with draft up to 27 m. Two "T" shape piers (steel platforms) for alongside berthing. Each berth is equipped with four unloading arms of 16 in. for crude oil discharge and 2 arms of 12 in. for bunker delivery. Fresh water available, rate 25 t.p.h.

DENSITY: 1020 to 1025 depending on place, season and weather.

FRESH WATER: Available from quay in any quantity.

FUEL: All grades of bunker available by barge – advance notice required.

FIRE PRECAUTIONS: If 2 tankers moored side by side in Bakar, tug required to stand-by. Tankers moored stern to quay must have towing line ready.

CONSULS: Netherlands, Sweden and Denmark. Others at Zagreb and Belgrade.

REPAIRS: All kinds available.

DRY DOCKS: 3 Floating Docks: 5,600 tons, 12,000 tons and 25,000 tons lifting capacities.

SURVEYORS: Lloyd's Register, Bureau Veritas, American Bureau, Jugoregister.

GANGWAY/DECK WATCHMEN: Service available.

OPENING/CLOSING HATCHES: May be carried out by crew, otherwise by stevedores for extra payment.

CUSTOMS ALLOWANCES: About 40 cigarettes and 0.5 litre wine and a reasonable amount of spirits daily per man.

CARGO GEAR: Although operations usually by shore cranes, ship must have efficient cargo gear and relative certificates.

REPATRIATION: Possible by train, bus and air.

AIRPORT: At Krk Island (28 km. from Rijeka).

TIME: GMT plus 1 hour. Summertime is GMT plus 2 hours.

HOLIDAYS: January 1st and 2nd, May 1st and 2nd, July 4th and 27th, November 29th and 30th. Work can usually be arranged on Saturday, Sundays, January 2nd, May 2nd and November 30th from 0700 to 1400 hrs. on extra payment. If a holiday falls on Sunday the next working day becomes a holiday.

TELEPHONES: Connection possible upon special request.

SERVICES: Facilities for discharge of tank-washings at Bakar, compass adjusting.

IDENTIFICATION CARDS: Shore passes issued.

GENERAL: Lloyd's Agents, Jadroagent – Rijeka.

DELAYS: Waiting for some specialised berth occasionally experienced.

SHIPMASTER'S REPORT: Bakar: November 1979.

Approaches: Entry to Rijeka Bay is made between mainland (Istra) and the island of Otok Cres. A small ferry runs between the two from a landing stage just North of Rt. Prestenice and another connects with Rijeka. A very conspicuous, red and white horizontal striped 700 ft. high chimney is situated about 1.5 miles West of Bakarski Zaliv and makes a good steering guide for the run across as the actual entrance is difficult to pick out being very narrow and blending in with the hills behind.

Anchorage: Initially we were ordered, by Port Authorities, to anchor 1 mile S.W. of the chimney but later requested to move closer to Rijeka for convenience in servicing vessel. Second anchorage 1.5 miles South of main breakwater. Depth of water both places 32 fathoms and we used 10 shackles cable on port anchor. Bottom is glutinous mud and despite Force 8, gusting 9 winds we held our position although many cargo ships dragged quite alarmingly. The normal winds for this time of the year (November) are the "bora", a cold strong N.E. wind which funnels down the mountains and can develop suddenly to gale force. We had unusually strong and prevalent S.E. winds during 10 days at anchor.

Communications: Pilot station listens on VHF Channel 16 and works Channel 8. Rijeka Radio was very easily contacted on VHF and proved of great help in connecting with Agents, Owners and Charterers. Rijeka Radio not quite as good for contact on W/T as does not seem to follow the times for listening as laid down. R/T proved difficult as well, due to his frequencies being same as other main radio stations.

Port Officials: Agent and boarding party boarded morning after arrival and cleared ship with very little difficulty, only normal representation required. Shore passes, made out by Agent, sent on board later same day. Permission to immobilise engines and lower lifeboats given by Harbour Master on arrival although this later cancelled due to approach of storm after 24 hours.

Shore Leave: It is possible to arrange for shore launches while at anchor to give shore leave but the service can be curtailed due to bad weather and in Winter could result in crew being stranded ashore. Last boat from the port being 2200 hrs. At the berth, no restriction on shore leave exists and there is an excellent bus service into Rijeka from the village of Bakar. Prices are comparable with UK and quality of goods similar. In Bakar itself is an excellent restaurant, family owned, which serves first class food in very nice surroundings. The Owner speaks perfect English.

Fresh Water: At anchor, limited water is available by tug but very expensive. On the berth, good quality water is readily available in any quantity required.

Bunkers: Both intermediate and diesel oil is available by barge, price unknown but thought to be above average. Normally ships taking large quantities of bunkers would bunker at Augusta, Sicily.

Stores: Storing poses a problem due to several points. The access to the ship on the berth is difficult for large lorries as the extension to the wharf carried out over the past 3 years has wrecked the approach road to the face of the wharf and also the lorries if they make it to the wharf cannot get close alongside due to the conveyor belt and rails.

Storing at the anchorage also poses problems as there are no barges suitable for carrying large amounts and launches were used to bring the stores out to the ship but these can only carry a small quantity at a time. We had to load some large and heavy pieces of engine spares which had been sent from UK by lorry and these were transferred to a pontoon barge for delivery to the ship.

Crew Changes: Personnel were routed through Zagreb* mainly and this entailed a 4 hour drive from the airport to the ship, although it is possible to send people via Trieste which is a bit nearer. On arrival at Rijeka they have to see Immigration and are issued with shore passes. Wives and children should be entered on a passenger list and not included on the crew list as they get a special pass for 90 day entry.

*Whether this is normal routeing or was Company's choice is not known.

Cargo Handling: Berth has been extended and depth alongside increased to allow vessels drawing 17.5 m. to safely lie alongside although the 48 ft. 6 in. rock which was found previously at the Eastern end of the berth is still there according to the Pilot. (Approximate position of rock about 50 ft. off wharf and about 250 ft. from Eastern end). Berth is left in a very broken down looking state and lacks decent mooring posts at the Western end. Cargo is handled by 3 grabs (although only 2 were in use this call) 1 very large and the other 2 much smaller. Discharge rate on this call was averaging 30,000 t.p.d. with the major share being done by the larger grab which is at the Western end of the wharf. Cargo is either taken directly away by ore trains (if iron ore) or dumped onto back of wharf, or, if coke is taken direct to a coking factory on the other side of the bay by a covered conveyor belt. Storage or dumping facilities are very limited and this has a controlling effect on the discharge. When discharging iron ore, if insufficient trucks arrive and the stockpile is full, then discharge is on a stop/go basis and slow and also fully dependent on the trucks arriving regularly. This ship discharged 149,320 tonnes in 6 days as against a previous call experienced when 118,100 tonnes were discharged in 6.7 days. Maximum airdraft 16.5 m. on berth.

Stevedores were good and co-operation was good. Any damage caused was repaired before departure without causing any delay to the ship and the standard of repair was good.

Repairs: Besides the "3 MAJ" shipyard, there are quite a few smaller yards and workshops where repair work can be arranged.

Medical: There is a special clinic for seamen which opens at 1200 hrs. In attendance at that time is a general doctor who refers patients to the different specialists and usually entailed a visit next day to see those people.

Customs Allowances: On arrival, each man allowed 200 cigarettes and 0.5 litre wine/spirits during stay. Customs would allow an issue every 5 days of 200 cigarettes per man and 8 bottles of spirits for the ship.

SHIPMASTER'S REPORT: Urinj: February, 1980.

INA Petroleum Co. Berth: See "Plan".

Office: The Port of Urinj, telephone 761.011 ext. 250. Can be contacted via Rijeka Radio at any time.

Berth: The petroleum berth of Urinj (Lat. 45° 17′ N., Long. 14° 31.7′ E.) is situated 5 miles E.S.E. from the Port of Rijeka. Its position is marked by a buoy whose characteristic is Fl.W. 3 sec. It is open 24 hours a day for commercial activities. The depth of water at this berth varies from 45 m. to 20 m. below the level of mean tides. The bottom is mud. Because of this it can accept tankers up to 200,000 d.w.t.

Documents on Arrival: The following documents are required on arrival:

5 Copies of a Crew List (full personal data, including birth place, date of birth, etc., are necessary).
5 Copies of Passenger List – if any
2 Copies of List of Ship's Stores
2 Copies of Manifest of Dangerous Goods – if any
2 Copies of Customs Declaration List
2 Copies of Transit Cargo Manifest
1 Cargo Manifest with extra copy for Customs.

Notice of Arrival: Vessels should give notice of arrival to their Agents via Rijeka Radio 48 hours and 24 hours in advance.

Approaching Directions: After passing Cape Jablanac a course of 060° leads safely to the tanker anchorage. The Pilot will board at anchorage area from a tug if the vessel is to proceed to the berth immediately.

VHF: Vessels equipped with VHF radio telephone should contact "Rijeka Pilot" on Channel 8 or "Rijeka Radio" on Channel 16 for berthing instructions.

Tugs: For berthing of a vessel the use of tugs is obligatory.

Gangway: Vessels should use their own port side gangway.

Manoeuvring: When the Pilot boards the vessel and forward tug is secured, both anchors (with one shackle in the water) should be ready for use. The stern mooring lines are carried toward the shore by a mooring boat. Usually 9 to 10 lines are used (6 from the vessel, and 4 from shore).

Connecting Hoses: After mooring operations have been completed, the connecting hoses will be brought alongside the starboard side of the vessel by a workboat. There are 2×12 in. hoses available, one for crude oil and one for products. Connecting and disconnecting of the hoses will be done by INA personnel, supervised by the Port Captain. The assistance of the ship's crew in operating windlasses, winches, etc. is required.

Note:

a) A minimum S.W.L. of 5 tons is required for the 12 in. hoses.

b) The vessel is responsible for good condition and effectiveness of the equipment.

c) Vessels are required to keep main engine on stand-by all the time during their stay in berth, therefore no repairs to the main engine of the vessel may be undertaken during berthing. Power must be kept on for possible adjustments of mooring lines, anchors, and derricks.

Discharging: When the connecting of the hoses is completed, and the ullage report completed, Chief Officer will report the readiness of the vessel for discharging operations. The vessel is required to discharge the cargo as quickly as possible. Max. discharging rate is about 6,000 t.p.h.

Sailing: After the discharging operation is completed, the vessel should leave the berth as soon as possible. The Master should keep in touch with the Port Captain who will despatch a Pilot and Authorities on time.

Deballasting: After arrival at anchorage or berth and Free Pratique has been granted, the Loading Master will take samples of the ballast water for quality checks. Permission to discharge ballast water overboard will be granted by the Port Captain only. If laboratory analysis is not accepted by the Port Captain, vessel must shift to the slop-discharging installation at Bakar. The "not accepted ballast water" must be discharged there through stern discharge line only. After tank cleaning and line-flushing, vessel will be returned to Urinj with or without ballast at Master's option.

Loading: INA Refinery produces several kinds of products.

Cargo Loaded: Clean unleaded virgin naphtha.

Density at 15° Centigrade −0.74.

Loading rate – average 1,500 cu.m.p.h.

Documents on Sailing: The following documents are required on sailing:

4 Copies of Crew List.
4 Copies of Passenger List.
2 Copies of List of Ship's Stores.

Free Pratique: To obtain Free Pratique by radio, vessels should send the following information to their Agent 48 hours in advance via Rijeka Radio:

The number of crew and passengers,
Health conditions and possible infectious diseases.

Note: No one is allowed to leave the vessel until Free Pratique is granted.

Medical: There are 3 well equipped hospitals in Rijeka whose medical staff is capable of giving full medical protection.

Fresh Water: There is an unlimited supply of fresh water available. It is supplied by a floating pipe-line attached to the Eastern signal buoy.

Fuel: All grades of bunker are available. Order must be placed 48 hours in advance.

Laundry: Laundry service has to be ordered immediately after arrival in order to ensure delivery of the clean laundry in time.

General: All kinds of repairs available by shipyard "Viktor Lenac".

There is a floating crane capacity up to 100 tons.

Dry docks accepting ships up to 60,000 d.w.t. also available.

Ship Supplies: In order to ensure timely supply of food and groceries vessel should place an order through the authorised stores (ship chandlers) immediately after or before arrival by radio.

Shore Passes: Shore passes are required for personal identification and serve as an entry permit to the terminal. Shore passes must be returned to the Immigration Office before sailing.

Transportation: During the time at the berth transportation of the crew and passengers from the vessel to the terminal is arranged by a shore launch from 0800 – 2400 hrs.

Lights: Manifold and poop mooring areas should be adequately lit to enable night mooring and discharging operations to be carried out with safety. Sea area around the ship also has to be properly illuminated.

Deck Watch: Deck watch must be maintained at all times while the vessel is in berth. In addition to its normal duties, the watch must inspect the hose connections and area around the ship against oil spillage, pollution, and to prevent unauthorised persons from boarding the vessel.

Action in Case of Emergency: In the event of a fire, oil spillage, or other emergency on the vessel, the emergency signal is 3 or more blasts of not less than 10 seconds duration each on whistle or siren supplemented by a continuous ringing of the general alarm bells.

SHIPMASTER'S REPORT: Rasa: October 1984.

Location: Lat. 45° 01.6′ N., Long. 14° 03.2′ E.

Documents: Same as Rijeka.

Pilotage: 48 and 24 hours' notice of ETA must be given to Agent. Pilot boards vessel off Traget Point (Lat. 45° 01′ N., Long. 14° 03.5′ E.). Sometimes Pilot boards off Ubas Point (Lat. 44° 56′ N., Long. 14° 04′ E.) by special arrangement. Pilot on VHF Channel 16.

Approaches: For obtaining Pilot off Traget Point, necessary to navigate through Zaliv Rasa Strait. This passage is easy during daytime, using the middle of the channel.

Anchorages: Off Traget Point with good sandy bottom and depths from 10 m. to 12 m.

Tugs: Not available.

Berthing: For berthing Pilot uses the starboard anchor for turning the vessel. There are 2 berths, 1 for loading livestock and 1 for loading general cargoes and special lumber from Austria. This berth is about 200 m. long with a depth of 10 m.

Cranes: 3 shore cranes of 5 tons and other equipment is available.

Stevedores: Port Enterprise "LUKA" is the sole stevedoring company. Working 2 shifts from 0730 – 1400 hrs. and 1500 – 1900 hrs. Saturdays, Sundays may be worked on overtime. Loading rate 2,500 cu.m. of lumber per day. (approx.)

Fresh Water: Available from quay.

Cargo Gear: Stevedores use shore cranes and ship's gear together.

Repatriation: Possible by bus to Rijeka or Pula and then by air or train.

Airport: Nearest airport at Pula.

Time: GMT plus 1 hour.

Identification Cards: Shore passes issued.

Telephones: Near to the berth through telephone centre.

SHIPMASTER'S REPORT: Sepen: August 1987.

Port: Omisalj Products Terminal, Port Dina, Sepen Bay.

Chart: BA. Chart No. 2719.

Location: The Terminal is located at Pt Zaglau in Sepen Bay on Krk Island (near Rijeka).

Documents:

6 copies Crew List.
2 copies Crew Declaration.
2 copies Manifest.
1 copy Health Declaration.
1 copy Arms and Ammunition List.
1 copy Drugs and Narcotics List.
1 copy Passenger List.
3 copies Cargo Manifest.
All passports.

Shore passes are issued and have to be returned before departure. The Stores Declaration is required on departure showing stores used during vessels stay in port. The bond is sealed.

Anchorage: Vessel anchored in the pilot boarding area in a depth of 20 fathoms.

Pilotage: Pilotage is compulsory and available throughout 24 hours. Pilotage outward is optional but has to be paid for even if not used. Terminal personnel advised us that pilotage is rarely used outward as vessel has to wait a long time.

Pilot boards from a mooring boat in approximate position Lat. 45° 12.4′ N., Long. 14° 31.6′ E. Pilot may be contacted on VHF Channel 8.

Approaches: Two red buoys mark the shallow water to the South of Omisalj Peninsular.

Two green buoys are positioned about 3 cables to the South of the red buoy marking a 13.0 m. shoal.

Approach is made between the 2 sets of buoys. Departure can be made between the berths and the green buoys.

Tugs: Tugs available from Rijeka, but not normally used.

Berthing: There are 2 product berths. Berth A handles gases, maximum draft 11.5 m. (12.5 m. CD) and Berth B handles products, maximum draft 15.0 m. This berth being the most Southerly.

There is also 1 general cargo berth with a depth of 6.0 m. Length of quay 90.0 m.

Berth A has a total flat face length of 60.0 m., being made up 45.0 m. of pier face and 1 dolphin. The pier is of concrete construction and has good fendering. The mooring arrangements are good with dolphins each side of the pier. Moorings consisted of 2 head lines/stern lines and 2 springs each end. Mooring boats are used to run the lines. The pier is some 10.0 m. above the water level so the gangway is steep.

Vessel always berths port side to at both berths. Ship's gangway used.

There is a shore hydraulic crane with 2 tonnes capacity which is available for handling stores, etc.

Berth A is about 2 years old and is an extension of Omisalj Tanker Terminal and can handle vessels up to 20,000 d.w.t. and a length of 110 m.

The berth is very exposed to Northerly winds.

Cargo: Vinyl Chloride Monomer (VCM) is exported. Two arms (most Northerly) are available (8 in. 300 ASA) for liquid and vapour. Arms are nitrogen purged on completion. Storage consists of 3 tanks with a total capacity of 10,000 tonnes. 2 pumps are available to load at a rate of 120 tonnes per hour.

VCM is produced on site in a new plant. Ethylene is mixed with chloride to produce ethylene dichloride, this is then used to produce VCM. Production is about 450 tonnes per day.

Ethylene is imported. The 2 arms for vapour and liquid (8 in. 300 ASA) are located to the South of the VCM arms. Arms are nitrogen purged on completion. Storage capacity is 16,000 tonnes in 2 tanks. The plant requires 1,000 tonnes every 2 days. Most ethylene comes from Porto Maguerra.

Vapour recovery is by 2 old compressors.

At present they require discharge temperature of −101° C. Vapour is also returned to the vessel for recovery on board.

Two new compressors are being installed which will enable plant to handle at around −98° C to −99° C.

First foot samples taken when loading VCM. Samples take at least 3 hours to analyse.

On completion of loading VCM it is normal to allow 5 hours before sailing.

Fresh Water: Fresh water is available at both piers. They can supply at 9 Bar pressure if required.

Stores: The State ship chandler in Rijeka has a good range of stores at moderate prices.

General: The airport at Rijeka is about 5 miles away. The village of Omisalj is about 30 minutes walk from the Terminal main gate (transport is compulsory to the gate from the pier). There is a bank in the village which is open late in the Summer. European currencies and dollars may be exchanged.

AUTHORITY: Lucka Kapetanija (Harbour Master's Office), Obala 10. Rujna 3, 51000 Rijeka. *Tel:* 37-917. *FAX:* (051) 38189 *Cables:* Kapetanija Rijeka. *Contact:* Mr. Ivica Simic, Operations Security Chief. *Tel:* 39-415.

Luka Rijeka (Port of Rijeka), Obala Jug. Mornarice 1, P.O.Box 146, 51000 Rijeka. *Tel:* (051) 33555 (Central), 23508 (Director General), 28886 (Commercial Director). *Telex:* 24165 Yu L R. *Cables:* Luka Rijeka. *Contact:* Zelimar Tomasic, Deputy Director General. Boris Pricard, Publicity Adviser.

AGENT: Jadroagent – Rijeka, Obala J.R. Mornarice 16, 51000 Rijeka. Cable: Jadroagent Rijeka, Telex: 24100Yu Jadrag, 24268 Yu Jadrag.

SIBENIK: 43.44 N. 15.53 E.

DOCUMENTS/HEALTH/HOLIDAYS: Same as "Rijeka".

PILOTAGE: Compulsory for vessels over 500 g.r.t. Pilot boards vessel at the entrance of St. Ante Channel, within a circle of 3 miles radius from Jadrija Lighthouse.

ANCHORAGE: Vessels waiting Pilot must anchor between Prvic Island and the shore if coming from the West, or between the South point of Zlarin and the shore if coming from the East, all in depths of 22 m.

In the Bay of Sibenik, vessels may anchor (in an emergency and with Harbour Master's permission) on the N.W. side of St. Ante Channel in depths of 30 m. – 40 m.

RESTRICTIONS: All vessels over 50 g.r.t. must apply for permission to enter St. Ante Channel by using International Code Signal "Z" by flag during daylight hours and a white light above a red light visible 2 miles all round or a sound signal (letter "Z" of morse code) during night hours. Vessels may enter channel only when authorised by a signal, 2 black balls vertically disposed by day or 2 green lights vertically displayed by night, made by the signalling station at Jadrija.

MAX. SIZE: Only draft limited. 33 ft. alongside in deepest berth.

VHF: Pilot has VHF available and maintains listening watch on Channel 14.

RADIO: None. Vessel may call Agent through Rijeka Radio and Split Radio.

TUGS: 1 of 750 h.p.

BERTHING:

Obala JRM: Length 274 m., draft up to 7 m. – no shore cranes.

Gat Vrulje: East side length 132 m., head 114 m., West side length 101 m., draft up to 9 m. – no shore crane. Equipped with conveyor belt for loading bulk fertilisers.

Obala Dobrika: Phosphate terminal, length 225 m., depth 10 m.

Obala Rogac: Length 432 m., depth 10 m. Cranes: 2×7 tons, 3×5 tons.

Obala Sipad: Length 294 m., draft up to 7 m. – no shore cranes.

Obala Crnica: Length 120 m., draft 7.5 m. – 1 shore crane – 8 tons.

Also see "Developments".

BULK CARGO FACILITIES: Ores and minerals (phosphate) at quays Rogac and Dobrika.

Obala Dobrika: Phosphate handling, capacity 400 t.p.h., storage capacity 1,000,000 tons.

STEVEDORES: Port Enterprise: "Luka" – Sibenik and timber stevedoring company "Sipad".

Port works in two shifts: 0700 – 1500 hrs. and 1500 – 2300 hrs. Overtime possible 2300 – 0700 hrs.

Timber operations normally performed during first shift only.

MEDICAL: Medical service available including hospitalisation.

DENSITY: 1010 – 1025, depending on place, season and weather.

FRESH WATER: Available from quay.

FUEL: Diesel and Gas oil in small quantities.

GANGWAY/DECK WATCHMEN: Available.

OPENING/CLOSING HATCHES: If not performed by crew, can be done by stevedores at additional charge.

CUSTOMS ALLOWANCES: About 40 cigarettes and 0.5 litre of wine/spirits per man per day.

CARGO GEAR: General cargo and timber are handled using ship's gear. Ore and minerals by shore cranes fitted with grabs.

IDENTIFICATION CARDS: Shore passes given by local police.

REPAIRS: Small repairs only.

REPATRIATION: By train or bus and by air from Split Airport nearby, or from Zagreb or Zadar.

TIME: GMT plus 1 hour. Summertime – GMT plus 2 hours (March-September).

POLICE/AMBULANCE/FIRE: Police, 92; Ambulance, 94; Fire, 93.

TELEPHONES: No facilities for placing telephone on board.

GENERAL: Lloyd's Sub-Agents – Jadroagent Sibenik.

SHIPMASTER'S REPORT: July 1986.

Pilotage is compulsory and available day and night. Pilot boards the vessel in the vicinity of red pillar light buoy (RF. 12s. 4M.) in approximate position Lat. 43° 42.8′ N., Long. 15° 51.1′ E. Pilots operate on VHF Channels 16 and 14.

The best anchorage is inside the South part of Sibenski Canal. We anchored in approximate position Lat. 43° 40.7′ N., Long. 15° 53.1′ E. The bottom is gravel, sand and algae.

There is a phosphate pier with silos on the quay (only one pipe available at present, plans to build another pipe during the next year) whose capacity is 6,500 tonnes per day. Maximum permissible draft for this pier is 32 ft. but it is especially important for Master and Chief Officer to know that on this pier, owing to insufficient depth, a vessel even with a draft of 30 ft., cannot be berthed alongside. Vessel normally 2.0 m. – 3.0 m. from the quay. Berthed vessel is partly aground so draft survey will show signifiantly less cargo than that actually loaded. It is therefore recommended that draft is checked before Pilot boards and thereby check the actual quantity of cargo on board. Also Masters and Chief Officers must bear in mind that water is very brackish and density varies, so during draft survey density must be checked at various depths (recommended to check the density at depths 2.0 m., 6.0 m. and 9.0 m.) and at different locations.

Draft survey is made by official control house (Jugoinspekt or Jugokontrola or Zik) on arrival and on departure and is very rigorous.

Fresh water is available at the pier.

AUTHORITY: Lucka Kapetanija Sibenik, Obala Oslobodjenja 8, 59000 Sibenik. *Tel:* 059-24261, 22071, 22088. *FAX:* 27378. *Cables:* Kapetanija Sibenik. *Contact:* Captain Janes Lakos, Harbour Master.

AGENT: Jadroagent – Sibenik, Obala Oslobodjenja 9, 59000 Sibenik. Cable: Jadroagent Sibenik. Telex: 27323 Yu Jadrag. Tel: 22-570, 22-571 (After hours) 25-544.

SPLIT: 43.31 N. 16.26 E. (See Plan)

DOCUMENTS:

5 Crew Lists.
5 Passenger Lists.
2 Store Lists.
3 Personal Effects Lists.
3 Cargo Manifests.
3 Bills of Lading.
1 Health Declaration.

PILOTAGE: Compulsory for vessels over 500 g.r.t. If vessel bound for Split, Dugi Rat or Trogir, Pilot will normally meet vessel 0.5 miles off the City Port Entrance, day or night, but on request Pilot will board a vessel S.W. of Razanj Lighthouse (Lat. 43° 19′ N., Long. 16° 25′ E.).

A vessel bound for Trogir may also take a Pilot 0.5 miles off Galera Light (Lat. 43° 28.4′ N., Long. 16° 11.5′ E.).

It is advisable to contact pilot station on VHF Channel 12, or via Split Radio on Channel 16, prior to arrival.

A vessel awaiting a Pilot can anchor South of City Port Breakwater.

ANCHORAGES: Vessels can anchor S.E. of City Port Entrance, 0.5 miles off the breakwater, in 40 m. depth, muddy bottom.

In case of very strong S.E. wind it is recommended to anchor in Southern part of Luka Milna (Lat. 43° 20′ N., Long. 16° 26′ E.) in 25 m. to 30 m. depth, sandy bottom.

RESTRICTIONS: Large tankers are handled in and out of the harbour during day time only. LPG carriers also enter port in day time only.

MAX. SIZE: No restrictions except draft. Maximum permitted draft for passenger ships in City Port (Southern Basin) 8.8 m.; in Northern Port for general/bulk cargoes 10.6 m. but for grain (Silo Quay) 11.3 m. and for oil tankers 11.9 m.

HEALTH: To obtain Pratique, Health Declaration required. In event of any disease or fever contact Agents.

RADIO: All messages to Agent via Rijeka Radio (on HF), or via other Yugoslavian Coast Stations on MF radio telephony or MF radio telegraphy and VHF.

Answers to messages via Rijeka Radio only.

VHF: Split Radio on Channel 16 (permanent watch). Pilot station on Channel 12 (listening watch from 0700 hrs. to 2000 hrs. local time), Port Authority on Channel 10, tugboats on Channel 14.

TUGS: Only low power tugs available (500 KW declared by owner). Normally ship's lines used. If tug's lines used 10% extra is charged.

BERTHING:

Northern Basin:

Northern Port: Continuous quay of total length 870 m. divided into 5 berths with the following permissible ship drafts: Berth No. 1, 8.5 m., Berth No. 2, 9.7 m., Berth No. 3, 7.3 m., Berth Nos. 4 and 5, 10.3 m., where general and bulk cargoes handled, mostly by shore equipment.

Cement factory "Partizan", Kastel Sucurac, length of quay 222 m., draft 9.7 m., cement in bulk mostly loaded.

Cement factory "Prvoborac" Sv. Kajo, quay length 274 m., draft 8.2 m., cement in bags only loaded.

"Jugovinil" factory Kastel Sucurac, quay length (dolphins) 80 m., draft 9.7 m., for LPG carriers only.

Silo Quay, Vranjic, length 110 m., draft 11.3 m., discharging/loading grain by multiport.

A. Vucicic factory, Vranjic, quay length 262 m., draft 7.3 m., where discharging asbestos and loading asbestos products. Shore crane and ship's gear used.

Southern Basin (City Port):

Breakwater Quay, length 230 m., draft up to 8.3 m. Ro–Ro ramp available.

Gat Spanjolskih Boraca (ex-Sv. Duje), total quay length 465 m., draft up to 7.9 m.

Gat Proleterskih Brigada, total quay length 350 m., drafts from 3.9 m. to 7.0 m.

City Port serves passenger ships and car ferries only.

CRANES: *Northern Port:* 2×7 tonne bridge cranes and 4×5 tonne gantry cranes. Floating crane of 60 tonne lifting capacity also available.

BULK CARGO FACILITIES: One quay (Silo Quay, Vranjic), length 110 m., draft 11.3 m. Max. height of discharging gear above sea level is 8.0 m. Max. loading/discharging rates 3,000 – 5,000 tonnes.

SPECIALISED CARGO HANDLING FACILITIES: One berth for LPG carriers (Jugovinil Factory Berth).

STEVEDORES: "Lucki prekrcaj i skladista" is the sole stevedoring company. Work in two shifts from 0600 – 1300 hrs. and from 1300 – 2000 hrs.

MEDICAL: No advance notice except in case of serious illness to be included in arrival cable. Hospital facilities available.

TANKERS: Two discharging berths alongside the quay. Discharge lines 6 in., 8 in. and 10 in.

Berth for small tankers, length 80 m., draft up to 7.0 m.

The other quay, length 150 m. (dolphins) and permitted draft 11.9 m.

Depending on type of cargo, average load/discharge rate is from 300 – 600 tonnes per hour.

DENSITY: Average density 1025.

FRESH WATER: Available at all berths. Order through Agent.

FUEL: Obtainable. Advance notice required.

CONSULS: Denmark, Finland, Italy, Netherlands and United Kingdom.

REPAIRS: All types of deck and engine repairs possible.

DRY DOCKS: One floating dock at Trogir, length 180 m. and one at Northern Basin, length 116 m.

SURVEYORS: Jugokontrola, Jugoinspekt, Jadroinspekt (Cargo Inspectors).

Lloyd's Register, American Bureau, Bureau Veritas and Jugoregister representing DNV, NKK and GL, Panama, etc.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: Normally by ship's crew.

CUSTOMS ALLOWANCES: About 40 cigarettes and reasonable amount of wine/spirits for each crew member daily.

CARGO GEAR: Load/discharge mostly effected by shore gear.
REPATRIATION: All facilities available for crew changes.
AIRPORT: City centre to airport 23 km. 5 flights daily to Zagreb and 3 to Belgrade. Also direct flights to Rome, Paris, London, Munich, Hamburg and Zurich.
TIME: GMT plus 1 hour. Last Sunday in March clocks advanced 1 hour. Last Sunday in September clocks retarded 1 hour.
HOLIDAYS: January 1st, 2nd; May 1st, 2nd; July 4th and 27th; November 29th, 30th.
POLICE/AMBULANCE/FIRE: Police, 92; Ambulance, 94; Fire, 93.
SERVICES: Compass adjusting, radio/radar services and calibration of DF, divers for surveys/repairs, Lloyd's Sub-Agents (Jadroagent-Split), ship's laundries.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Shore passes issued.
AUTHORITY: Lucka Kapetanija, Obala Lazareta 1, 58000 Split. *Tel:* Spilt 48-062. *Telex:* 26496 (Yu Kap St).

"Luka Split", Gat Spanjolskih Boraca, 58000 Split, Yugoslavia. *Tel:* Split 589-299.

ZADAR: 44.07 N. 15.14 E. (See Plan)

DOCUMENTS/HEALTH/HOLIDAYS: Same as "Rijeka".
PILOTAGE: 48 and 24 hours' notice of ETA must be given to Agent. According these notices Agent arranges for Pilot to board on arrival. Pilot boat blue motor launch with large "P" on bow and "H" flag. Pilot contacted on VHF Channel 12 or 16.
ANCHORAGES: About 0.5 mile, 245° from green port light, (Fl. G. 2 sec.) on the North part of Zadar Peninsular. Average depth about 40 m.
MAX. SIZE: Zadar, old passenger port, permissible draft 6.25 m. (20.5 ft.) Zadar-Gazenica, port for dry cargo, max. draft forward 6.60 m. (21.7 ft.) Aft 11.0 m. (36 ft.). Also see "Tankers" and "Berthing".
RADIO: Rijeka Radio, "YUR" or Split Radio "YUS".
VHF: Zadar Radio listens on Channel 7, Port Captain on Channel 10 and Pilot on Channels 12 or 16.
TUGS: 1 tug 1,200 h.p. Large vessels use 2 tugs, with the additional tug coming from Split. Tugs normally join 200 m. – 300 m. from breakwater, vessel's lines usually used.
BERTHING: *Zadar Old Passenger Port:* Mainly used by coastal passenger traffic and cruise ships.

Zadar – Gazenica Cargo Port: Berth No. 1: Length 160 m. Draft from 6.6 m. fore to 11.0 m. aft.

Berth No. 2: Length 145 m. Draft 8.5 m.

Soya Bean Berth: Length 140 m. Draft 12.0 m. 1 berth for discharge of soya beans and grain, rate 400 t.p.h.
CRANES: Heavy lift shore crane, capacity 100 tons.
STEVEDORES: Number of gangs required to be stated in usual notice of ETA.
MEDICAL: Advance notice not necessary, hospital facilities available.
TANKERS: Gazenica Port: 1 tanker berth max. draft 10.35 m. (34.1 ft.) forward, 15.0 m. (49.2 ft.) aft. Length of the ship is not restricted.

Floating barriers/booms compulsory for vessels loading/discharging mineral oils.
DENSITY: Average density in the port – 1026.
FRESH WATER: Connections on piers, rate of delivery 8 – 15 t.p.h.
FUEL: Fuel available for coasters only.
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: Normally, but not compulsorily, carried out by stevedores.
CUSTOMS ALLOWANCES: 200 cigarettes per person. Tobacco and liquor sealed in bond.
IDENTIFICATION CARDS: Needed. Issued by police.
CONSULS: None.
REPAIRS: Deck and engine repairs possible.
REPATRIATION: Facilities exist for effecting crew changes and arranging necessary repatriations.
AIRPORT: Zadar Airport served by regular daily flight for Zagreb with connection on all international flights.
DRY DOCK: 2 floating docks, 8,500 and 2,000 tonnes lifting capacity on Ugljan Island.
TIME: GMT plus 1 hour. Summertime kept.
POLICE/AMBULANCE/FIRE: Police, 92; Ambulance, 94; Fire, 93.
TELEPHONES: No facilities for placing telephones on board.

SHIPMASTER'S REPORT: September 1987.
Port: Gazenica
Charts: BA. Charts No. 2775 and 2771.
Documents:

6 copies Crew List.
2 copies Crew Declaration.
2 copies Manifest.
1 copy Health Declaration.
3 copies Cargo Manifest.

Shore passes are issued and have to be returned before departure.

A Stores Declaration is required prior to departure showing stores used whilst in port.

Approaches: Approaches are through deep water down Zadar Kanal.

Most of the island passages are well charted and the navigation aids are good. The depths are as shown on the chart.

There is a shallow bank off the North Breakwater Buoy off Zadar/Gazenica cargo port.

Anchorage: Vessels bound for the industrial port of Gazenica (2 miles South of Zadar City) normally anchor and wait for clearance or berth off the old city as per anchorage indicated on BA. Chart No. 2775 (position Lat. 44° 0.6′ N., Long.15° 12.6′ E.) in about 20 fathoms with mud bottom.

An alternative anchorage is off Gazenica in position Lat. 44° 05.2′ N., Long. 15° 15′ E.

Pilotage: Berthing is carried out in daylight hours only. Unberthing takes place between 0600 hrs. and 2400 hrs., depending on wind. Berthing does not take place if there is a southerly wind in excess of Force 5 blowing.

Pilot normally boards off the town from a launch. Pilot may be contacted on Channels 16 and 12, however VHF is not continously monitored.

Rimini in Italy also use VHF Channel 12 so some confusion can arise.

Tugs: Normally 1 tug is used for berthing using a ship's line from the stern. One tug comes from Japlenicki Shipyard on Ugljanisl Island. Additional tugs if required come from Split. Pilot advises that use of tugs is costly.

No tugs used on departure.

Berthing: Vessel berthed on No. 3 Berth in Gazenica which is on the South side of the harbour. Oil and VCM handled at the berth.

Vessel berths stern first with the aid of a tug. Occasionally anchor is required when berthing port side to. If it is very windy the starboard anchor is dredged along the bottom.

Berth No. 2, the most northern berth in the port, is for grain handling. The hulk indicated on BA. Chart No. 2775 is for storing soya bean oil. The products berth, Berth No. 3, and a small berth for oil rig supply vessels, Berth No. 4, are both on the South side.

Berth No. 3 (for VCM) has a flat face of 60 m. The fendering is fair but widely spaced. Maximum draft permitted if berthing head out, which is normal, is 38 ft. or 42 ft. if berthing head in. It is normal to berth port side to. The water depth shoals to 29 ft. on Berth No. 4. Moorings at No. 3 Berth consist of 2 head/stern lines, 2 breast lines and 2 springs forward and aft. The pilot boat assists with running of moorings.

Berth No. 3 is very exposed to southerly winds but pilot reports that the berth is fairly sheltered from Northerly winds (Bora).

Cargo: Vinyl Chloride Monomer (VCM): No discharge takes place between 2200 hrs. and 0500 hrs. due to Port Fire Regulations.

3 × 4 in. rubber hoses are used from the shore manifold to the "pig" bolted on to the ship's manifold. Rate of discharge about 250 tonnes per hour to 300 tonnes per hour. Generally speaking, the shore authorities do not allow the vessel to "hot gas" to shore upon completion of cargo.

There are 2 shore tanks numbered R301 with capacity of 4,038 cu.m. and R302 of 5,225 cu.m. The tank working pressure is −10° C to +50° C at 2 to 3 kg/sq.cm. Maximum pressure 4.9 kg./sq.cm.

Samples take 45 minutes per sample to analyse.

Shore personnel connect and disconnect hoses.

Fresh Water: Fresh water available from shore hydrant at a rate of about 30 t.p.h. Shore hose and meter are used. Cost of water is US$ 1.7 per tonne. The water man is ordered by the shore watchman and he attends quite quickly. Quality of water is good.

Ship Chandlers: The national chandler "Sour Brodokomerc" was used and prices were reasonable. Both the quality and attention given were good. Rijeka Telex No. 24365.

General: Gazenica is a picturesque tourist town. All commercial ships except ferries use this port.

There is a daily ferry service in the Summer to Ancona and a twice weekly service to Rimini and Trieste. In Winter there is a twice weekly service to Ancona and a weekly service to Rimini and Trieste.

The airport which is about 7 km. to the East of the town provides regular flights to Zagreb and Belgrade.

There is a new berth/basin at Gazenica for timber and oil rig vessels (position Lat. 44° 05.4′ N., Long. 15° 16′ E.). There is a new yacht/fishing harbour at Uvala Kalovare (position Lat. 44° 05.8′ N., Long. 15° 15′ E.).

The red buoy near Rt. Vitrenjak has been moved to position Lat. 44° 07.48′ N.,Long. 15° 12.69′ E.

AUTHORITY: Lucka Kapetanija – Zadar. Radnicka Obala 8, 57000 Zadar, P.P.182. *Tel:* 223-44, 433-778, 433-758. *Telex:* 27163 Yu Kap Zd. *FAX:* 437-825. *Cables:* Lucka Kapetanija Zadar.

AGENT: Jadroagent, N. Nodila b.b., 57000 Zadar. Tel. 23210, 23215. Telex: 27129 Yu Jadrag. Telegrams: Jadroagent Zadar. FAX: 430-464.

ZELENIKA: 42.27 N. 18.35 E.

DOCUMENTS/HEALTH: Same as "Rijeka".
PILOTAGE: Pilot boards at entrance of the Bay of Kotor, near point Punta Ostro. In bad weather Pilot boards at anchorage.
ANCHORAGE: Good ground for anchorage S.W. of Zelenika, about 0.25 miles off port light in about 27 fathoms.
MAX. SIZE: Port of Zelenika damaged by earthquake and temporarily closed, vessels berth at the passenger quay at Herceg-Novi.
HEALTH: Radio Agent requesting Free Pratique, 24 hours before arrival. For vessels over 500 g.r.t. Pratique is given at the anchorage. For small ships and yachts, Pratique is given at Herceg-Novi.
TUGS: None. In cases of necessity can be ordered from shipyard at Bijela.
BERTHING: The berth is assigned through the Agents giving notice 24 or 48 hours in advance. At present there is berthing for small ships only at the passenger port at Herceg-Novi.
STEVEDORES: State stevedoring company.
MEDICAL: Nearest hospital at nearby town of Herceg-Novi.
FRESH WATER: Available from hydrant on the passenger quay at Herceg-Novi.
FUEL: Nearest bunker station is at Bar.

OPENING/CLOSING HATCHES: If not performed by crew, can be done by stevedores.

CUSTOMS ALLOWANCES: About 40 cigarettes and 0.5 litres wine/spirits per man per day.

CARGO GEAR: Loading, unloading performed with ship's gear.

IDENTIFICATION CARDS: Shore passes issued by local police.

CONSULS: None.

REPAIRS: Any kind of repairs including dry docking at nearby shipyard at Bijela.

DRY DOCKS: Floating dock lifting capacity 10,000 tons, LOA 184 m., length over keel blocks 165.6 m., inside free breadth 25.5 m.

Floating dock lifting capacity 33,000 tons. LOA 252 m., length over keel blocks 235 m., inside free breadth 44 m.

The yard is about 4 miles East of Zelenika. The yard has 1,300 m. of fitting pier.

REPATRIATION: By bus to Dubrovnik, and from there bus, plane or ship to main cities in Yugoslavia.

TIME: Central European Time. GMT plus 1 hour. Summertime kept.

HOLIDAYS: January 1st and 2nd; May 1st and 2nd; July 4th and 13th; November 29th and 30th. Work can be arranged on Sundays and on 2nd day of two-day holidays.

POLICE/AMBULANCE/FIRE: No direct connection, in case of necessity call Agency, Tel. (082) 81-456 Jadroagent or (082) 81-261 Jugoagent.

SHORE LEAVE: Allowed.

AUTHORITY: Lucka Ispostava Zelenika.

AGENT: Jadroagent, Medunarodna pomorska i saobracajna agencija, Poslovna jedinica, Bijela. Tel: (082) 81-456. Telegraphic address: Jadroagent Bijela.

NOTES

Please also advise Shipping Guides Ltd.

Zaire Republic

GENERAL:

ETA: It is essential that any change of vessel's ETA should be transmitted sufficiently in advance in order to avoid short shipments of cargo.

Matadi is only a transit port where cargo is not stored in order to avoid congestion.

Imported cargo is immediately re-forwarded to the interior while export cargo is only brought to Matadi a few days before the ETA of the vessel for which it has been booked.

Therefore, in order to make the cargo available at Matadi, shippers need a notice varying according to the cargo concerned, but which cannot be less than 2 weeks as is the case for coffee.

Agents at Matadi and Boma have been instructed to inform Port Authorities latest 4 days before berthing of inward cargo tonnages.

Non compliance with this provision may result in berthing delay.

PILOTAGE: Vessel should cable ETA 24 hours before arrival to the Harbour Master. Cable address: "Maritime Banana" via Banana Radio.

Pilotage compulsory for all vessels over 500 g.r.t. bound for Boma and Matadi.

Ships bound for Matadi and/or Boma must take a Pilot at the pilot station at Banana (at the mouth of the Zaire River). Pilot station at Banana can be contacted directly by radio (VHF).

In order to increase the safety and to facilitate the navigation on the river the Regie des Voies Maritimes have decided that in case a vessel is not equipped with a VHF installation the Pilot will bring one on board, for which a charge is made.

The following rules must be observed at the request of the Regie des Voies Maritimes for embarking and dis-embarking of Pilots.

If gangway is rigged astern on the port side it is compulsory to use the pilot ladder.

If gangway rigged amidships on port side it is recommended that the pilot ladder is used in combination with the gangway.

Pilots requesting only the gangway do so at their own risk.

Theoretically sailing from Matadi/Boma is only authorised if vessel can reach Banana by 1800 hrs. at latest since navigation on the Zaire river is normally limited to daylight hours.

With regard to the trim the pilotage services ask Masters to comply with following rules:

Maximum draft 13 ft. aft; 4 ft. forward.

DOCUMENTS: *Ship's Documents required on arrival:*

- Clearance from last port.
- 7 Crew Lists.
- 3 Lists of Arms and Ammunition.
- 7 Passenger Lists.
- 1 List of stowaways.
- 2 Crew Declarations.
- 3 Lists of Ports of Call.
- 2 Stores Lists.
- 1 International Tonnage Certificate.
- 1 International Load Line Certificate.
- 1 Derat Exemption Certificate.
- 1 Cargo Ship Safety Equipment Certificate.
- 1 Certificate of Registry.
- 1 Radiotelegraphy Certificate.
- 1 Construction Certificate.
- 1 Certificate Form on Board.
- Free Pratique.

Documents required for disembarking passengers and discharging cargo:

A. To be received by mail at least 8 days before ship's arrival:
  (1) Cargo:
    3 Freight Manifests
    8 Cargo Manifests
    5 Copies of Bills of Lading
    6 Copies of Stowage Plans.
  (2) Passengers:
    1 Accountancy
    3 Passenger Lists, for passengers for the port/or in transit.
B. To be received by ship's bag at ship's arrival at quay:
  (1) Cargo:
    1 Freight Manifest
    4 Cargo Manifests
    3 Copies of Bills of Lading.
  (2) Passengers:
    1 Freight Manifest
    4 Passenger Lists for passengers for the port and/or in transit.

It is most important that stowage plans be available before vessel's arrival. Vessel's operations are indeed delayed to the next shift if same are only remitted upon arrival.

DRAFTS AND CURRENTS: Drafts on River Zaire are presently as follows (January 1989):

Inwards: High Water: 18 ft. 00 in.
Outwards: High Water: 19 ft. 00 in.

The authorised drafts are notified regularly by the Port Authorities.

The currents of the river and from berth to berth as well as in Matadi and Boma vary and depend upon the high and low levels of the water sometimes with adverse currents and still waters.

For proceeding to Matadi and according to the season vessels must have a speed of at least 10.5 to 11 knots, especially to pass the "Devil's Cauldron" about 3 miles before Matadi. 12-13 knots or greater sometimes requested for a 10-15 minute period.

HEALTH: Ship's crew must have an International Certificate of Vaccination against yellow fever and cholera.

RADIO: Banana Radio 9PA.

Telegraphy – medium wave: 0430 – 2030 UTC.
500 kHz.
Working frequency: 489 kHz.
Listening frequency: 480 kHz.

512 kHz.
Traffic list each hour + 00 of each hour during service hours.

Telegraphy short waves: 0500 – 2000 UTC.

Traffic list at:

0500/0700/0900/1100/1600/1900	: 8445.0 kHz
0600/0800/1200/1400/1700	: 12660.0 kHz
1000/1300/1800	: 22431.0 kHz
1500	: 17184.8 kHz

Reserve frequency for medium wave: 6491.5 kHz

Remarks: This frequency is used for traffic when QRN appears on 489 kHz.

Reserve frequency: 8546 kHz.

Listening on 8, 12 and 16 MHz, Channels 5, 6 and 15. On 22 MHz, Channels 3, 4 and 9.

Each Channel is monitored during 1 minute in a scanning system and this, during 15 minutes following traffic list (same frequency band as traffic list) after 15 minutes, the receiver is blocked on Channel 6 (4 on 22 MHz) until next traffic list.

Telex on Request

Paired frequencies:

Code 34646 (This is not definite since it must be allocated by UIT).

9PA:	8714 kHz	Ship:	8353 kHz
	13078.5 kHz		12498.5 kHz

Telephony: 0430 – 2030 UTC

Listening:	2182 kHz	2182 kHz
	4125 kHz	4125 kHz
	6215.5 kHz	6521.9 kHz
	8257 kHz	8780.9 kHz
	12392 kHz	13162.8 kHz

Telephony Short Wave: 0430 – 2030 UTC.

Traffic list at:

0430/0630	on 6521.9 kHz	– listening 6215.5 kHz.
0530/0830/1030/1530	on 8753 kHz	– listening 8257 kHz.
0730/0930/1430/1930	on 4419.4 kHz	– listening 4825 kHz.
1130/1630	on 13162.8 kHz	– listening 12392 kHz.
1230/1730	on 17294.9 kHz	– listening 16522 kHz.
1330/1830	on 22658 kHz	– listening 22062 kHz.

Telephony VHF: 0430 – 2030 UTC.

Channel 16. Simplex Channels. Duplex Channels.

Remarks:

1. Telephone connections are possible and Agent accepts telegrams in telephony.

2. Other available frequencies for telephony:

Banana Radio/9PA	*Ship*
4357.4 kHz	4063.0 kHz
4382.2 kHz	4087.8 kHz
8777.8 kHz	
8762.3 kHz	8238.4 kHz
13181.4 kHz	12410.6 kHz
17350.7 kHz	16577.8 kHz

3. Radio beacon continuous.
Frequency: 315 kHz.
Call Sign: BAN.
Position: Lat. 05° 53′ 24″ S., Long. 12° 17′ 48″ E.
Power: 1kW.
Antenna: Omni-directional.
Range: 30 miles (daylight).

BRIDGES: *Bridge on River Zaire:* The Port Authorities and Bridge Constructors request vessels to whistle 3 times:

(a) when proceeding to Matadi at about 300 m. before passing the bridge.
(b) when sailing from Matadi at about 200 m. before passing the bridge.

This will enable constructors to stop work to avoid the falling of any kind of object on vessels when passing the bridge.

FUEL: Must be ordered from Petrozaire at least 48 hours before required. Normally supply of gasoil, light and heavy fuel is effected at Banana between buoys 12 and 14 ex-barges with: minimum quantity – 250 tons; maximum quantity – 800 tons (total barge quantity).

Smaller quantities can also be supplied in Matadi or Ango Ango.

STEVEDORES: The ONATRA (Office National des Transports) – public institution, has the monopoly of the handling, stevedoring and transit operations at the ports of Matadi and Boma.

At each berth the responsible "Pier Master" remains in constant contact with the Chief Officer during the whole operation.

Working shifts are as follows: 1st. shift: 0630 – 1430 hrs.; 2nd shift: 1430 – 2230 hrs. overtime; 3rd shift: 2230 – 0630 hrs. overtime.

Work must be ordered the day before vessel's arrival. However, if gangs are available, work can still be ordered the day of vessel's arrival but latest at 0930 hrs. during week days.

In principle no work is done on Sundays, holidays and during the night. If required same has to be ordered by writing 1 working day in advance before 1000 hrs. Port Authorities will then decide according to the situation at that time.

According to the situation of the Port, the Authorities can also order labour 24 hours per day Sundays and holidays included.

At Boma there is no third shift – however on special request, work can eventually be granted until 2400 hrs.

At Matadi work during third shift will only be ordered upon special request from vessel.

For all stevedoring operations the use of shore cranes/dock labourers is compulsory. It is only in particular cases such as handling of containers/"heavy lifts" or prolonged (electrical) breakdowns that Port Operators can authorise use of vessel's equipment.

GENERAL: *Quay Practices:*

The Zaire courtesy flag must be hoisted by foreign ships during daytime.

In view of the proximity of the town, the use of whistles, sirens and similar signals is forbidden.

Safety nets must be put between ship and quay at each of the working hatches and beneath the gangway.

No rubbish whatsoever may be thrown overboard.

Official Language:

The official language used by the Port Authorities and Administration is French.

Cargo plans:

According to ONATRA's instructions, stowage plans of ships calling at Matadi/Boma must be issued in such a way that they show clearly where all goods loaded for Matadi/Boma in several ports are located. This enables ONATRA to have, at once, a clear view of each vessel and to study, before ship's arrival, the discharging/loading possibilities.

Those stowage plans must reach Agent before ship's arrival.

Vessel's loading/discharging operations will only start during the next shift if stowage plans are remitted upon vessel's arrival. A request can be made to shift the vessel to a more convenient berth depending upon the cargo concerned.

With regard to cargo loaded, ONATRA does not issue stowage plans and Masters should consequently be instructed to draw up stowage plans themselves for transmission to corresponding discharging ports.

It is customary not to moor ships at Matadi/Boma between 2200 hrs. and 0600 hrs. They remain at anchor.

Important Notices:

In connection with manifests for Matadi/Boma cargo:

1. Liner Terms Cargo:

According to the General Rules and Tariffs stowing, unstowing, loading, discharging rates are applied on weight/measurement, whichever is the highest irrespective of the freight unit.

The Port Authority ONATRA instructs therefore that:

a) The Freighted Manifest remitted to them must show three columns detailing respectively weight and volume and freight unit (freight tons) of each cargo/bill of lading.

b) At the bottom of each page a summing up of tonnage/weight, tonnage/volume and freight units (freight tons) should be mentioned.

c) The last page of the manifest shall contain a separate recapitulation of weight tons, volumes and freight units (freight tons) showing thus the respective totals of each item.

Corrections or additionals added by the Agent at Matadi/Boma by hand or with typewriter are not accepted by ONATRA.

ONATRA is fully implementing the regulations and, for vessels whose manifests are incomplete or incorrect, a penalty, which may reach 1,000% of the stevedoring costs (or 10 times) is charged.

2. F.I.O. Cargo:

The same information is to be supplied as for Liner Cargo but, in addition, the manifest and B/L must clearly mention that cargo is carried on free out terms.

BANANA: 06.01 S. 12.25 E.

DOCUMENTS: See "General" before first port.

APPROACHES: In view of the strong current, and in view of the fact that the lights of the navigation buoys on the river do not always work properly, night navigation is practically impossible. Tankers, therefore, arriving at night, or in times of congestion, are recommended to anchor approx. 5 miles West of Moita Seca Light in approx. 10 fathoms, about 12 miles from Stella Buoy.

PILOTAGE: River can be entered direct from sea in deep water. Pilot (Not compulsory) will board vessel from 0600 hrs. with Authorities off Stella Buoy (Outer Navigation Buoy No. 2) located in position:

Lat. 6° 02′ 00″ S.
Long. 12° 22′ 30″ E.

The position of the flare of the SOCIR Refinery at Moanda is:

Lat. 5° 57′ 51″ S.
Long. 12° 25′ 07″ E.

The flare is visible during day and night and may be a good bearing for vessels approaching river.

Sailing from "Stella Buoy" at 0600 hrs. vessels with a speed of up to 14 knots must pass Bulabemba before 1400 hrs. and vessels with speed in excess of 14 knots by 1500 hrs.

MAX. SIZE: Tankers up to 35 ft. draft may discharge at buoy moorings. Also see "Berthing – Commercial Port".

HEALTH: Quarantine Officer boards at sea buoy. Free Pratique usually granted as soon as Maritime Health Declaration completed. Valid cholera and yellow fever inoculations required for all crew members.

RADIO: *Tankers:* At least 3 days' notice required to Agent (ETA and draft only) and to Harbour Master, "Maritime Banana" (ETA only). It is necessary to transmit these notices via another shore station (e.g. Cape Town Radio, Libreville Radio, etc.), as the Banana Radio Station can only be reached 2 days prior arrival. Close advice on changes in ETA necessary to prevent delays in waiting for Pilot and lighters.

Radio Banana (9PA) – see "General" before first port for details.

BERTHING:

Commercial Port:

The commercial port consists of a landing space of approximately 2,000 sq.m. in front of a warehouse with approximately 2,500 sq.m. storing room.

ONATRA, the Port Authority, has no cranes and the port equipment is extremely limited. Any discharging and/or loading must therefore be done by ships' gear.

With a draft of more than 17 ft. (indicative) cargo operations to be performed at anchor between Buoys No. 12 and No. 14. Barges and gangs are then supplied on request.

With a draft of less than 17 ft. (indicative) vessel can berth at ONATRA wharf inside Banana Bay.

Length of the wharf: 75 m.

DENSITY: Brackish to salt.

FRESH WATER: Not available.

FUEL: Must be ordered 48 hours in advance from Petro-Zaire. Bunkering takes place between Buoys Nos. 12 and 14. Gasoil, light and heavy fuel oil available. Barge capacity 800 tons, minimum order 250 tons.

MEDICAL: Doctor available for emergency only. No dental or hospital facilities.

TANKERS: Tankers remain at anchor between Buoys Nos. 12 and 16 on the river, anchorage being agreed upon by the Master and the local suppliers' representative who will have received the advice of the Pilot. Since there is no mooring buoy and in view of the strong currents it is recommended to use both anchors while main engine to remain on standby.

Cargo Operations: Tankers discharge into/load from cargo barges moored alongside either side. These barges (three in total) have a capacity of 1,650 long tons or 2,050 cu.m. and can receive the cargo at a rate up to 400 t.p.h. Under normal conditions the refinery will handle these barges per shift of 12 hours. Cargo operations are effected continuously day and night during Sunday and holidays, in shifts from 0600 – 1800 hrs. and from 1800 – 0600 hrs.

Sailing: Tankers sail without Pilot and may leave any time.

Moanda Terminal: To notify his arrival, Master to call M.V. "Afran Zenith" by radio. Vessel will then proceed to single buoy mooring berth with following particulars:

Depth: 57 ft.
Position: Lat. 5° 57′ 50″ S.
Long. 12° 08′ 19″ E.

where loading will take place.

The storage tanker is moored in position:

Lat: 05° 57′ 30″ S.
Long: 12° 06′ 00″ E.

No tank-cleaning facilities. Barge available for dirty ballast reception limited to 2,000 cu.m. per trip which occasionally and on special request can be put at disposal by the refinery.

Also see "Shipmaster's Report".

REPAIRS: No facilities.

HOLIDAYS: See "Matadi".

GENERAL: During stay of tankers at anchorage the discharge and/or loading operations are constantly supervised by representatives of the refinery, who are to be accommodated on board and to be provided with meals.

SHORE LEAVE: Shore leave is presently not allowed due to lack of communications; only in urgent cases a crew member may join one of the refinery tugs. There is no entertainment whatsoever ashore.

SHIPMASTER'S REPORT: September 1985.

Location: Moanda Oil Terminal is operated by the Zaire Gulf Oil Company. It is located about 10 miles offshore from Zaire. It consists of a SPM in position Lat. 5° 57′ 50″ S., Long. 12° 08′ 19″ E. in about 75 ft. of water. Crude oil is transferred to the export tanker at the SPM from the storage tanker "Afran Zenith" of 95,185 d.w.t.

Wind and Swell: Wind and swell are mostly from a Southwesterly direction with a heavy swell from March to September. The tidal range in the vicinity of the berth is 6.9 ft. The current in the area is a composite of the effect of the general Northwesterly drift and the outflow of the Zaire River. This results in a current of 3 – 4 knots or more in a Northerly at Westerly direction. In view of the foregoing, Masters of vessels calling at the terminal are advised that under no circumstances are engine repairs permitted within terminal limits.

Communications: Vessels bound for Zaire are required to advise their ETA:

(a) Via COMSAT to Master m.v. "Afran Zenith" GZOL 1242403; or

(b) Via telex or radiogram to the main office of the vessel's Agent in Kinshasa who will pass over the information to Zaire Gulf Oil Company (ZAGOC) and to their local office at Moanda.

ETA messages to be sent 72, 48 and 24 hours before arrival at the terminal and should contain the following information:

(a) Name of vessel.
(b) ETA in GMT (Zaire time is GMT plus 1 hour).
(c) Name of Master.
(d) Estimated arrival draft, fore and aft and displacement.
(e) Time for discharging clean ballast, if any.
(f) If vessel proceeding to any port(s) prior to Moanda and if so delays anticipated.

A 24 hour watch is maintained on VHF Channel 16 on "Afran Zenith" and contact is usually possible at a distance of 20 – 30 miles.

Dirty Ballast: No facilities exist for receiving dirty ballast and all tankers must arrive with clean ballast.

Cargo Information: Oil loaded at the Moanda Terminal is Zaire composite crude with an average API of 31.5. The loading temperature will vary from 80°F – 85°F and is fairly steady throughout the year. The loading rate is about 30,000 bbls.p.h.

Approach to Anchorage/Mooring Master Boarding Area: If vessel is required to anchor, the recommended tanker anchorage is within a circle 0.5 miles in diameter and its centre is located in a position 5 miles due West of the SPM. Owing to the presence of oil wells and submarine pipe-lines vessels should not enter into the area bounded by lines joining the following positions:

(a) Lat. 05° 46.5′ S., Long. 12° 12.5 E.
(b) Lat. 05° 49.5′ S., Long. 12° 09.0 E.
(c) Lat. 06° 00.0′ S., Long. 12° 09.0 E.
(d) Lat. 06° 00.0′ S., Long. 12° 18.0 E.
(e) Lat. 05° 53.5′ S., Long. 12° 18.0 E.

The ZAGOC Mooring Master Boarding Area is 3 miles due West (Lat. 05° 57.30′ S., Long. 12° 06′ E.) of the storage tanker "Afran Zenith" or boarding will be at the anchorage as appropriate.

Accommodation: During vessel's stay at the terminal the Mooring Master, Loading Master, Agent, Surveyor and 4 men for the hose gang will stay on board.

Mooring Arrangements: Mooring operations are only undertaken by day under normal weather conditions. Unmooring operations can be undertaken at any time. The following preparations are required on the export tanker:

(a) 4 mooring ropes, minimum length 220 m. and size 9 in., buoyant lines if possible e.g. polypropylene, in good condition.
(b) 2 suitable heaving lines of appropriate length.
(c) 2 mooring lines aft for securing a tug to realign the vessel to the buoy if necessary.

Hose Connections: 1×16 in. hose is connected to the ship's manifold.

Bunkers: Not available.

Fresh Water: Not available.

SHIPMASTER'S REPORT: April 1987.

Vessel discharged at Banana and Ango-Ango.

Approaches: Wide open with very deep water approach. Vessels can anchor at either side of the river mouth in 20 fathoms. Pirates do not appear to be a problem. The very small amount of traffic using the Congo indicates that there will be no problems with regard to crowded anchorage.

Pilotage: River passage is during daylight hours only. The Pilot boards off the Banana Creek Channel, and the lightening anchorage is between Buoys No. 12 and 14, however No. 12 Buoy is missing. A secondary anchorage is between Buoys No. 16 and 18, abeam of Crique Ariel Beacon. Both anchors with about 7 or 8 shackles will be used in either anchorage. The current is always out-flowing, so there is no fear of a fouled hawse on this visit. This vessel tried to anchor in the first anchorage, (vessels normally try the first anchorage, so as to be that much nearer to Banana for the lighters). Vessel started dragging anchors, so we hove up and moved into the second anchorage.

Officials: 14 officials boarded the vessel.

Documents:

8 copies Crew List.
6 copies Passenger and Mail List.
6 copies Stowaway List.
4 copies Cargo Manifest.
4 copies Ullage Report from Last Port.
6 copies Kroo Boy List.
6 copies Arms and Ammunition List.
6 copies Narcotics List.
6 copies List of Ports Visited.

Discharge: Lightering only at Banana.

The amount of lightering depends on the water available in the dredged sections further upstream, (all the cargo lightened has eventually to be taken up to Ango-Ango by the lighters).

On this occasion, we had to off-load into 5 lighters, to come up to 23 ft. draft (max. permissible draft up-river at this time). Only 1 tug was available so this meant 3 trips. No unloading took place between midnight and 0800 hrs. the next morning.

One pump was used, discharging to 1 barge each side simultaneously. The tug takes 2 barges at a time back to banana.

Passage to Banana and Ango-Ango: The passage to Banana takes 6 to 7 hours, and if vessel cannot arrive at Ango-Ango before 1700 hrs., then vessel will anchor at Boma. All passages take place during daylight hours.

The continuous outgoing river current can vary from 3 knots up to 6 – 7 knots, depending on rainy or dry season.

From Banana to Buoy No. 24, there is plenty of water and room to manoeuvre, etc. although it should be emphasised that here are very few aids to navigation which can be relied upon. The buoys throughout the river passage are very doubtful as to their position (they may have been moved as the channel moves, but no Notice to Mariners issued). The strength of the river current must make the mooring of these buoys very difficult, also many of them consist of oil drums fastened together.

There is a narrow channel section (dredged in parts) from Buoy position No. 46 to Buoy No. 78. Part of the new channel veers away from the dotted line on the chart, and goes off to the West of "Archipel des Tortues", up what appears on the chart to be a narrow creek. From here on there is no visual chart indication of where you are going. In the narrow parts there may be 2 buoys (oil drums) to go between, but even so there are quite a few severe turns. so there are quite a few severe turns.

From Buoy No. 86, you are back in soundings and there is plenty of water up to Boma. The Pilot changes at Boma.

We anchored overnight at Boma. The anchorage is opposite Boma town and is in a quiet stretch of water out of the current. Only one anchor is used (4 shackles), and as the current flow is always in the same direction, there is no reverse of heading, so although you are close to the South side of the river, the only problem will be if there is a sudden change of wind during one of the passing tropical downpours.

The passage from Boma to Ango-Ango is all in deep water, and is comparatively wide, although there is the occasional whirlpool, and navigation aids are sparse with a rocky shoreline.

Ango-Ango Berth Approaches: The approach is straightforward, although there are no mooring launches or tugs. The berth itself is in slack water. Normally, the vessel is put slightly ahead and off the berth, and the port anchor is dropped, with 3 shackles. The bow is then manoeuvred into the berth using engines and anchor, then head lines are sent ashore via shore messengers (the headlines may look like breast lines, and the breast lines like half springs), but be sure to get the correct lines as per plan (see "Plan"), they appear to have set messengers for each shore bollard, no springs are allowed on to the pontoon. The after lines are also sent via messengers, so be sure to organise with the Pilot as to which sequence is required, especially the springs being sent from aft, and the breast lines from the main deck.

Documents at Ango-Ango: The same number of documents as required at Banana are again required in Ango-Ango.

Discharge: The discharge is made via 2 sets of 2 × 6 in. lines connected via shore supplied "Y" pieces connected to ship's 8 in. manifolds. Both jet fuel and MOGAS were discharged simultaneously.

The departure is fairly straightforward, heaving off on the anchor, and there is plenty of room to swing vessel round in, especially with the bow being out in the current, and the stern in comparatively slack water.

The passage down river is, of course, much quicker with all the current with you.

AUTHORITY: Office National des Transports, ONATRA.

AGENT: See "Matadi".

BOMA: 05.51 S. 13.03 E.

DOCUMENTS: See "General" before first port.

PILOTAGE: Port is situated on the right bank of river, about 44 miles above pilot station at Banana.

Radio "Maritime Banana" 24 hours prior arrival giving ETA at Banana and requesting Pilot. Sailing for Banana from 0600 hrs. till 1500 hrs. Sailing for Matadi from 0500 hrs. till 1600 hrs.

RESTRICTIONS: Depth at bar 30 ft. Permissible draft for navigating river varies between 20 ft. to 27 ft. according to local conditions and should be checked with Port Authority in advance.

HEALTH: Quarantine Officer boards on arrival. All crew members require valid cholera vaccinations and yellow fever inoculation certificates.

TUGS: 2 tugs of 200 and 300 h.p. available to assist berthing.

BERTHING: Total quay length 450 m. with 3 berths alongside. Depth of water at the quay, 8 m. at low water. Maximum current at the berths is 3 knots.

STEVEDORES: See "General" before first port.

Port Equipment:

6 electric cranes on rails, capacity 3 – 6 tons.
2 steam cranes on rails, capacity 7.5 ton at 6 m. (5.0 ton at 10 m.).
5 banana conveyors.
1 electric crane, capacity 6 tons.
8 forklifts.
5 tractors and 40 trailers and carts.
1 Palm kernel elevator.
1 Automatic grab.
2 Hyster carry cranes.
7 barges, capacity 100 tons.
1 pontoon, capacity 75 tons.

FRESH WATER: Available from quays, not suitable for drinking.

FUEL: See "General" before first port.

MEDICAL: Doctors and hospital facilities available.

REPAIRS: No facilities.

HOLIDAYS: See "Matadi".

GENERAL:

Exports: Logs and timber, plywood, veneerwood, coffee, cocoa, rubber, bananas, palm kernels, oils, cakes, about 8.8% of the total exports of the Zaire.

Imports: Various. About 2.5% of the total tonnage imported into Zaire.

Current at Quays: The currents of the river vary from berth to berth and depend upon the low and high level of the water with sometimes adverse currents and still waters.

Maximum speed at high level: 3 knots.
Minimum depth at the lowest level: 8 m.

AUTHORITY: Office National des Transport – ONATRA.

MATADI, (including Ango-Ango): 05.49 S. 13.27 E. (See Plan)

DOCUMENTS: 7 days before arrival of vessel the following must be in the hands of the Agent:

4 Manifests (detailing explosives, general cargo, heavy lifts).
3 Stowage Plans.
6 Copies of Bills of Lading.
1 Freighted Manifest.

On arrival:

Maritime Declaration.
Ship's Register.
3 Crew Personal Effects Lists.
2 Stowage Plans.
1 Freighted Manifest.
3 Lists of Ports of Call.
7 Passengers Landed.
7 Passengers in Transit.
5 Crew Lists.
5 Kroo Boys Lists.
2 Provisions Lists.
4 Individual Manifests.

PILOTAGE: Compulsory for vessels over 500 g.r.t. Radio "Maritime Banana" 24 hours prior arrival giving ETA at Banana and requesting Pilot. Pilot boards at Banana Pilot station. Distance from Banana to Matadi about 75 miles. Sailing for Banana from 0600 – 1200 hrs. Sailing for Boma from 0500 – 1600 hrs.

RESTRICTIONS: Depth at bar 30 ft. Permissible draft for navigating Zaire River varies between 20 ft. and 27 ft. according to local conditions and should be checked with the Port Authority 3 days in advance. Berthing at Ango-Ango up till 1800 hrs. only.

MAX. SIZE: Controlled by draft in river. Max. draft Berth No. 1 is 23 ft. – 24 ft.

HEALTH: Quarantine Officer boards on arrival. All crew members require valid cholera and yellow fever inoculation certificates.

TUGS: "Inga" 850 h.p., "Boma" 250 h.p., "Banana" 600 h.p. and "Soyo" 220 h.p.

BERTHING: At Matadi. Total length 1,728 m.

Pier 1 – 149 m.
Pier 2 – 161 m.
Pier 3 – 155 m.
Pier 4 – 158 m.
Pier 5 – 156 m.
Pier 6 – 176 m.
Pier 7 – 188 m. For full container vessels
Pier 8 – 149 m.
Pier 9 – 167 m.
Pier 10 – 143 m.

Minimum depth at Piers 8 and 10 is 10 m.

In addition there is a berth length 400 m. for barges.

At Ango-Ango: Length of pier 150 m. Presently used for discharging and loading flammable goods and explosives.

UNLOADING RATE: 800 tons to 1,000 tons of general cargo per day of 3 shifts.

CRANES:

44 Cranes (Electric and hydraulic) on rails	3 – 6 tons
1 Derrick Fixed	*50 tons (Pier 4)
1 Bridge Crane	5 tons
6 Electric Cranes	3 – 6 tons
2 Electric Cranes	10 tons
3 Electric Cranes	6 tons
1 Floating Crane	14 tons

*Actual capacity 34 tons.

BULK HANDLING FACILITIES: Palm oil is stocked by 4 companies in Matadi, 3 of which have pipe-lines to a main quay. The palm oil installations of CCP are at Ango-Ango where ships must berth at Sep Zaire pier. Vessels handling Sep Zaire cargoes are given priority at this pier and in case of unavailability of berth, palm oil would be loaded by barge of 260 tons capacity at Matadi.

Palm kernel oil is also loaded at Berth Nos. 2 – 9 and Palm Oil at Berth Nos. 2 – 8 in Matadi.

P.L.Z. (Plantations Lever au Zaire) capacity	13,450 tons
AMATO-Freres	3,700 tons
MADAIL	2,340 tons
C.C.P.	3,627 tons

Cereals discharged by suction at No. 9 Berth. Rate 1,000 t.p.h.

BARGES/EQUIPMENT:

Barges:

2 Pontoons N.T. 41 tons each
8 Pontoons N.T. 75 tons each
1 Lighter N.T. 91 tons
2 Lighters N.T. 99 tons each
1 Tankbarge N.T. 279 tons
19 Lighters N.T. 339 tons each
1 Lighter N.T. 438 tons
11 Lighters N.T. 487 tons each
1 Lighter N.T. 514 tons
1 Lighter N.T. 522 tons
10 Lighters N.T. 557 tons each
2 Landing craft 875 tons each

Equipment:

28 Tractors and 242 trailers and carts
71 Forklifts with a maximum capacity of 2,500 kilos
2 Roller bridges 30 tons
3 Fork conveyors
34 Platforms × 20 ft.
6 Platforms × 40 ft. (Unilock)
1 Pushwagon tractor
Grain Elevators (Midema)

DENSITY: Fresh water.

STEVEDORES: See "General" before first port.

TANKERS: Discharge at Sep Zaire pier at Ango-Ango or Matadi. If lightening necessary before berthing, this can be effected at Ramler Buoy, 17 miles above Banana. No tank-cleaning facilities. No fresh water.

FRESH WATER: Delivery aboard the ship through valves and at each pier. Maximum daily capacity 200 tons. Delivery takes place according to the quantity asked for and usually during night.

Delivery cannot be done at the loading berth of Sep Zaire at Ango Ango.

Suppliers need 48 hours' notice. It is therefore highly recommended that Masters cable their needs well in advance to Agent and/or through Owners.

FUEL: See "General" before first port.

MEDICAL: Doctors and hospital facilities available.

GANGWAY/DECK WATCHMEN: Recommended.

Piracy: Acts of piracy have taken place in the port.

REPAIRS: Small repairs possible at railway workshop.

HOLIDAYS: *Legal Holidays in Zaire – 1986:*

1st January	New Year's Day
4th January	Memorial Day
1st May	Labour Day
20th May	Anniversary of the M.P.R.
24th June	Money Day
30th June	Independence Day
1st August	Relatives' Day
14th October	Zaire Youth Day
27th October	Zaire Day
17th November	Army Day
24th November	Revolution Day
25th December	Christmas

GENERAL: *Currents at the quays:*

The currents of the river vary from berth to berth and depend upon the high and low levels of the water with sometimes adverse currents and still waters. Difference between high and low level of the river is approximately 5.50 m.

Maximum speed at high level: 6 knots.

Minimum depth at lowest level: Minimum 8 m. at low water and minimum 10 m. at low water at the new Kala Kala quays.

Exports: Logs and timber (plywood, veneerwood), coffee, cocoa, rubber, copal, bananas, manioc, groundnuts, palm kernels, oils, cakes, fibres, cotton and copper.

Port Equipment and Accommodation: Matadi is the only Zaire port handling the despatch of export products originating from the interior and the import of products destined to Zaire (excluding Boma which is of minor importance and only serves the Mayumbe area).

About 90% of the tonnage in – and outward goes through Matadi at the head of the S.N.C.Z. railroad from Matadi to Kinshasa. The latter locality being a handling and concentration centre of the goods directed to or coming from Matadi.

SHIPMASTER'S REPORT: January 1981.

Documents and papers required on arrival Matadi:

7 Crew Lists.
2 Maritime Declarations of Health.
4 Passenger Lists (even if nil).
4 Ports of Call Lists.
4 Arms and Ammunitions Lists (even if nil).
4 Narcotic Lists.
3 Stores Lists.
2 Crew Customs Declarations.
1 Vaccination List (Cholera/Yellow Fever).
1 Animal List. (even if nil).

Following documents have to be shown to the Port Authorities:

Classification Certificate.
Ship's Register.
Derat Certificate.
Certificate of Tonnage Measurement.
Cargo Ship Safety Construction Certificate.
Cargo Ship Safety Radio-telegraphy Certificate.
Cargo Ship Safety Equipment Certificate.
International Load Line Certificate.
The official Log Book of the vessel and the Articles.

The number of crew written in the Crew Lists will be checked with the entries in the Articles.

Shore Leave: Each crew member receives a shore pass without particulars, which has to be returned before departure of the vessel. Fines will be imposed if shore leave pass is lost.

SHIPMASTER'S REPORT: August 1982.

As far as I could ascertain the only point in the Congo River where one can expect currents of 12 knots is in the "Devil's Cauldron" between Matadi and Ango-Ango. The rainy season is Jan./Feb. and the dry season June/July. The average current in the rainy season is 4 knots and in the dry 3 knots.

Tankers and other vessels who clear at Banana generally must go through the same procedure again at Ango-Ango or Matadi. A complete set of papers is expected as though it is the first entry into the country.

AUTHORITY: Office National des Transports – ONATRA, Port of Matadi. *Telex:* 21017 Onatra ZR. *Contact:* Port Director.

AGENT: Socopao Zaire, Avenue de la Fontaine 50, B.P. 338, Matadi, Zaire. Tel: 2109, 2111. Telex: 20361 Freight ZR. Cables: Freight Matadi.

Socopao Zaire, Avenue des Macons 1089, B.P. 5259, Kinshasa 10, Zaire. Tel: 77869, 77931, 78566. Telex: 20026 Freight ZR. Cables: "Freight Kinshasa".

NOTES

Please also advise Shipping Guides Ltd.

20'12
1'027
985

£6

1.723
P1464
741
TITLE 2

(89/90)
9'85
(91/92)
TEXT 1042
57
DIFF

$985 = 100$

$57 = \frac{100 \times 57}{985} = 5.78\%$ INCREASE

1048

48
76
32

21'35
1093
1042

1048
1024
24

32 × 32 = 1024

1041
7
1048

32 × 32 −
1 × 16
1 × 8

21'35
20'12
123

TEXT INDEX

A

Aabenraa 420
Aaheim, see Late Reports
Aaiun, see El Aaiun 1096
Aalborg 421
Aarhus 421
Aasiaat 634
Abadan 767
Abbot Point 59
Aberdeen 1662
Abidjan 853
Abo, see Turku 528
Abonnema, see Degema 1180
Aboshi, see Himeji 874
Abu Al Bu Khoosh 1615
Abu Dhabi, see Mina Zayed 1649
Abu Flus, see Basrah 790
Abulog, see Aparri 1269
Aburakawa, see Aomori 866
Acajutla 500
Acapulco 1074
Achladi 615
Acton Grange, see Manchester, U.K. 1719
Adabiya, see Suez Canal 473
Adamas, see Milos Island 624
Adelaide 60
Aden 1995
Adzhalykskiy Bay, see Yuzhnyy 1610
Aeroskobing 422
Agadir 1095
Aghios Georgios, see Piraeus 626
Aghios Kosmos, see Piraeus 626
Aghios Nikolaos 615
Agia Marina 615
Agia Trias, see Megara 623
Agioi Theodoroi 615
Agotnes 1193
Aguadilla 1311
Aguadulce 1230
Aguilas 1435
Aguirre, see Jobos 1312
Ahlstrom Oy, see Saimaa Canal 526
Ahus 1477
Ain Sukhna 458
Aioi 864
Aitape 1248
Ajaccio 532
Ajman 1617
Ajos, see Kemi 518
Akantias, see Rhodes 629
Akita 865
Akonniemi, see Saimaa Canal 526
Akureyri 669
Aladja, see Warri 1190
Alameda, see San Francisco 1894
Alanya 1558
Alba Terminal, see Sitra 150
Albakr Terminal 789
Albania 1
Albany, W.A., Australia 60
Albany, N.Y., U.S.A. 1770
Albatross Bay, see Weipa 132
Alemoa Terminal, see Santos 222
Alesund 1193
Alexandria, Egypt 461
Alexandria, U.S.A. 1772
Alexandroupoulis 616
Algeciras 1435
Algeria 2
Algiers, also see Late Reports 2
Algoa Bay, see Port Elizabeth 1427
Alholmen, see Jakobstad 517
Aliaga 1558
Alicante 1437
Aliveri Bay, see Milaki 623
Al Khobar 1346
Al-Khuraibah, see Saudi Arabia (General) 1343
Al-Laith, see Saudi Arabia (General) 1343
Alleppey 673
Almeria 1438
Almirante 1230
Almirante Barrosso Terminal, see Sao Sebastiao 231
Almirante Soares Dutra Terminal, see Tramandai 235
Alotau 1249
Al Qadimah 1346
Al Qahmah, see Saudi Arabia (General) 1343
Al Qunfudah, see Saudi Arabia (General) 1343
Alsancak, see Izmir 1570
Altona, see Hamburg 597
Al Ugayr, see Saudi Arabia (General) 1343
Alumar 181
Alvik 1194
Al Wajh, see Saudi Arabia (General) 1343
Ama, see New Orleans 1850
Amagasaki 865
Amapala 657
Ambarli, see Istanbul 1569
Ambes, see Bordeaux 533
Ambon 707
American Samoa 11
Ameriport, see Philadelphia 1867
Amesville, see New Orleans 1850
Amherstburg 260
Amherst Harbour 260
Amlwch 1663
Amoy, see Xiamen 355
 and China (General) 336
Ampenan 736
Amsterdam 1110
Amuay Bay 1938
Anacortes 1772
Anahuac, see Tampico 1089
Anan 866
Anchorage 1772
Ancona 807
Andres, see Boca Chica 446
Anewa Bay 1249
Angle Bay, see Milford Haven 1724
Ango-Ango, see Matadi 2011
Angola 12
Angra dos Reis 182
Anic Terminal, see Gela 822
Annaba 3
Antalya 1559
Antan Terminal 1172
Antibes 532
Antifer, see Le Havre 548
Antigua 22
Antilla 385
Antimonan 1268
Antofagasta, also see Late Reports 321
Antonina 185
Antsiranana 1028
Antwerp 165
Aomori 866
Apapa, see Lagos 1183
Aparri 1269
Apia 1990
Apra Harbour, see Guam 640
Aqaba, also see Late Reports 950
Aracaju 185
Aratu 186
Arawak Cay, see Nassau 142
Arbatax 811
Arbroath 1663
Archangel 1582
Ardalstangen 1194
Ardjuna 707
Ardrossan, Australia 61
Ardrossan, U.K. 1663
Areia Branca 189
Arendal 1194
Argentina 23
Argostoli 616
Arguineguin 312
Arhus, see Aarhus 421
Arica, also see Late Reports 321
Arkiko, see Massawa 506
Arnos Vale, see Kingstown 1341
Arrecife 312
Arthur Kill, see New York 1855
Art Island, see Noumea 1146
Aruba, see Netherland Antilles 1134
Arun Terminal, see Lhokseumawe 739
Arzannah Island 1617
Arzew 3
Arzew El Djedid, see Arzew 3
Arziw, see Arzew 3
Ascension Island 53
Ashdod 803
Ashkelon, see Ashdod 803
Ashtabula 1773
Ashtart 1551
Asnaes 422
Aspropyrgos 616
Asry Dry Dock, see Mina Sulman 149
Assab 505
Assens 423
Astillero, see Santander 1461
Astoria 1773
Asturias, see Cebu 1277
Atico 1258
Atsumi 866
Attaka, see Santan Terminal 755
Atucha 36
Au, see Basle 1509
Auckland 1150
Aughinish Island Alumina Plant, see Shannon Estuary 800
Augusta 811
Ausrep 54
Australia 54
Avarua, see Avatiu 377
Avatiu 377
Aveiro 1303
Avernakke, see Nyborg 435
Aviles 1438
Avondale, see New Orleans 1850
Avonmouth, see Bristol 1672
Axelsvik, see Karlsborgsverken 1487
Ayr 1664
Azhikkal, see Calicut 682
Azores 138
Azovstal, see Zhdanov 1613
Azua 446
Azzawiya 1005

B

Babitonga Bay, see Sao Francisco do Sul 227
Babouillat 1146
Backviken, see Landskrona 1490
Bacong, see Dumaguete 1282
Baddeck 260
Bado, see Uddevalla 1504
Baejarbryggjan, see Siglufjord 671
Bagfas, see Bandirma 1559
Bagnoli 815
Bagotville, see Port Alfred 283
Bahamas 140
Bahia, see Salvador 217
Bahia Blanca 45
Bahia de Charco Azul, see Puerto Armuelles 1243
Bahia Gregorio, see Punta Arenas 329
Bahia Honda, see Mariel 401
Bahia Las Minas 1231
Bahrain 149
Bahregan Oil Centre, see Ras Bahregan 784
Baia da Ilha Grande, see Angra dos Reis 182
Baie Comeau 261
Baie de la Possession, see Pointe des Galets 1328
Baie des Dames, see Noumea 1146

TEXT INDEX

Baie des Flamands, see Fort de France 1066
Baie Ugue, see Noumea 1146
Baithkol, see Karwar 689
Baj Baj, see Calcutta 679
Bajo Grande 1953
Bakar, see Rijeka 2001
Balao Terminal 452
Balboa 1231
Balikpapan 712
Baliwasan, see Zamboanga 1298
Ballah, see Suez Canal 473
Ballast Head 61
Ballast Point, see Sydney, N.S.W., Australia 122
Balls Head, see Sydney, N.S.W., Australia 122
Ballybricken Point, see Cork 793
Ballylumford, see Larne 1705
Balmain, see Sydney, N.S.W., Australia 122
Balongan 712
Baltimore 1774
Banaba 956
Banana 2009
Bandar Abbas, also see Late Reports 767
Bandar Imam Khomeini 769
Bandar Mahshahr 770
Bandar Seri Begawan 243
Bandholm 423
Bandirma 1559
Banes 388
Bangkok 1529
Bangladesh 158
Bangor, Northern Ireland, U.K. 1664
Bangor, Maine, U.S.A. 1776
Banias 1510
Banjarmasin 713
Banjul 581
Bantry Bay 793
Banyu, see Bunyu 720
Banyuwangi 713
Banyuwangi (Port Meneng) 713
Bar 1999
Baracoa 389
Barahona 446
Baram, see Miri 1044
Barao de Tefe, see Antonina 185
Barbados 162
Barber's Point, see Honolulu 1811
Barbours Cut, see Houston 1817
Barcadera 1134
Barcelona 1440
Bari 815
Barima Bar, see Orinoco River 1968
Barney Point, see Gladstone 86
Barquito, ~~also see Late Reports~~ SEE CHANARAL 322
Barra do Riacho 190
Barranquilla 360
Barreiro, see Lisbon 1305
Barrosso Terminal, see Sao Sebastiao 231
Barrow-in-Furness 1665
Barrow Island, also see Late Reports 62
Barry 1665
Bartica, see Essequibo River 651
Barton, see Manchester, U.K. 1719
Basle 1509
Basrah 790
Bassens, see Bordeaux 533
Basseterre, St. Kitts 1334
Basse Terre, Guadeloupe 639
Bastia 532
Basuo, see Late Reports
Bata 503
Bataan 1269
Batangas 1274
Batang Lupar, see Sejingkat 1057
Bathurst, see Banjul 581
Baton Rouge, also see Late Reports 1777
Batsfjord 1194
Batu Ampar 714
Batumi 1583
Bauan, see Batangas 1274
Bay des Dames, see Noumea 1146
Bay N'Go, see Noumea 1146
Bay of Fundy, see Saint John, N.B., Canada 295
Bay of Plenty, see Tauranga 1160
Bayonne, France 533
Bayonne, N.J., see New York 1855
Bayou Cosotte, see Pascagoula 1865
Bayport, see Houston 1817
Bay Roberts 261
Bayside, see St. Andrews 294
Baytown 1778
Beaumont 1779
Beauty Point, see Launceston 94
Becancour 262
Bec d'Ambes, see Bordeaux 533
Bedi Bunder 674
Beilun, see Ningbo 348
Beira 1103
Beirut 991
Bejaia 6
Belawan 714
Belekeri 674
Belem 190
Belfast 1666
Belgium 165
Belgorod-Dnestrovsky 1584
Belitung, see Tanjung Pandan 763
Belize 173
Belize 173
Bell Bay, see Launceston 94
Belledune 262
Bellingham 1780
Belwaarde, see Paramaribo 1474
Bengkalis Strait, see Dumai 727
Benghazi 1006
Bengkulu 715
Beni Enzar, see Port Nador 1100
Benicia 1780
Benin, Peoples' Republic of 174
Benoa 715
Ben Thuy 1981
Berbera 1416
Berbice, see New Amsterdam 652
Berdyansk 1585
Bergen 1195
Bergs Harbour, see Stockholm 1500
Bermuda 176
Berner's Bay, see Juneau 1824
Berre, see Marseilles 554
Berrys Bay, see Sydney, N.S.W., Australia 122
Betio, see Tarawa 956
Beypore, see Calicut 682
Beyrouth, see Beirut 991
Bhavnagar 674
Biak 715
Bilbao 1442
Billingham, see Tees River 1756
Bima 715
Bima Marine Terminal 716
Bin Qasim, see Port Muhammed Bin Qasim 1227
Bintangor, see Sibu 1057
Biocobian, see Aparri 1269
Bintulu, see Late Reports
Bintulu Terminal 1031
Biringkasi 719
Birkenhead, see Liverpool 1707
Birsfelden, see Basle 1509
Bislig 1276
Bissau, also see Late Reports 650
Bitung 719
Bizerte 1551
Bjorno, see Kristinestad 520
Black Cape, see New Richmond 280
Blang Lancang, see Lhokseumawe 739
Blaye, see Bordeaux 533
Bloors Wharf, see Medway Ports 1720
Blount Is., see Jacksonville 1822
Bluff 1151
Blyth 1666
Boca Chica 446
Boca Grande, Cuba, see Jucaro 399
Boca Grande, Florida, U.S.A. 1780
Bocas del Toro, see Almirante 1230
Bodo 1195
Bohavan, see Sandakan 1055
Bokfjord, see Kirkenes 1203
Bolivia 179
Boma 2010
Bombay 675
Bonaberi, see Douala 253
Bonaire, see **Netherlands Antilles** 1134
Bonaire Terminal 1134
Bone, see Annaba 2
Bonny 1175
Bonsu, see Saltpond 611
Bontang 720
Boom, see Brussels 167
Boqueron, see Guantanamo 394
Bora Bora 1411
Borburata, see Puerto Cabello 1975
Bordeaux 533
Borj Islam 1512
Borssele, see Flushing 1115
Borstahusen, see Landskrona 1490
Borusan 1559
Bosporus, see Istanbul, 1569
also see Turkey (General) 1557
Boston, U.K. 1667
Boston, U.S.A. 1780
Botany Bay 64
Botas, see Golovasi 1563
Botlek, see Rotterdam 1117
Botnaneset, see Floro 1198
Botwood 263
Bouc, see Marseilles 554
Bougie, see Bejaia 5
Boulogne sur Mer 536
Bourail, see Noumea 1146
Bourgas 248
Bouri, see Late Reports
Bouzas, see Vigo 1468
Bow Creek, see London 1710
Bowen 64
Bowling, see Clyde Port 1677
Braakman, see Terneuzen 1128
Braefoot Bay 1667
Brahestad, see Raahe 525
Braintree, see Boston, U.S.A. 1780
Brake 586
Brasil, see Bonaire Terminal 1134
Brass Terminal 1177
Braviken, see Norrkoping 1492
Brazil 180
Brazos, see Freeport, Texas, U.S.A. 1803
Brega, see Marsa el Brega 1010
Bremen 586
Bremerhaven 588
Brest 537
Brevik 1196
Brewer, see Bangor, Maine 1776
Bridgeport 1786
Bridgetown 162
Bridgewater, N.S., Canada 263
Bridlington 1672
Brighton, Trinidad 1540
Brindisi 817
Brisbane 65
Bristol 1672
Brixham 1673
Brofjorden 1477
Bronnoysund 1196
Brooklyn, see New York 1855
Broome 67
Brownsville 1786
Bruges, see Zeebrugge 170
Brugge, see Zeebrugge 170
Brunei 243
Brunsbuttel 589
Brunswick 1787
Brussels 167
Buatan 720
Buchanan 1000
Buckie 1674
Buckner Bay, see Nishihara 916
Bucksport, see Bangor, Maine, U.S.A. 1776
Bude 1674
Budge Budge, see Calcutta 679
Buenaventura 360
Buenos Aires 36
Bufadero, see Nuevitas 403
Buffalo 1788
Buffington, see Chicago 1791
Bugas, see Belgorod-Dnestrovsky 1584
Buka 1250
Bukpyung 963
Bulgaria 248
Bullen Bay 1136
Bulwer Is., see Brisbane 65
Bunbury 67
Bundaberg 67
Bunyu 720
Burea, see Skelleftehamn 1496
Burela 1444
Burma 250

Burnaby, see Vancouver, B.C., Canada 306
Burnie 68
Burns Harbour 1788
Burnside 1789
Burntisland 1674
Buru Island, see Wamsasi 766
Burutu 1179
Busan, also see Late Reports 964
Bushire 771
Busselton 69
Butcher Island, see Bombay 675
Butterworth, see Penang 1049
Butuan, see Nasipit 1291
Butzfleth 592
Buyukdere, see Istanbul 1569
also see Turkey (General) 1557

C

Cabanas, see Mariel 401
Cabedelo 191
Cabinda, also see Late Reports 12
Cabo Negro, see Punta Arenas 329
Cabo Rojo 447
Cabo Ruivo, see Lisbon 1305
Cadiz 1444
Caen 537
Cagayan de Oro 1277
Cagliari 817
Caibarien 390
Cairns 69
Cajimaya, see Antilla 385
Calabar 1179
Cala Figuera, see Mahon 1456
Calais 538
Calcutta 679
Caldera, Chile, also see Late Reports 323
Caldera, Costa Rica 378
Calderilla, also see Late Reports 323
Caledonian Canal 1674
Caleta Clarencia, see Punta Arenas 329
Caleta Cordova,
see Comodoro Rivadavia 49
Caleta Oliveres,
see Comodoro Rivadavia 49
Caleta Olivia,
see Comodoro Rivadavia 49
Caleta Ossa, see Taital 333
Calicut 682
Callao, also see Late Reports 1258
Calumet, see Chicago 1791
Calvi 539
Cambodia,see **Kampuchea** 952
Camden, see Philadelphia 1867
Cameroon, United Republic of 253
Campana 40
Campbeltown 1675
Campden Park Bay,
see Kingstown 1341
Campha, see
Quang Ninh Area 1985
Camp Lloyd,
see Kangerlussuaq 635
Camp Overton, see Iligan 1282
Canada 259
Canakkale,
also see Turkey (General) 1560
1557
Canal Chacao, see Puerto Montt 328
Canaport 263
Canary Islands 312
Cancale 539
Cannes 539
Canso Causeway, see Port Hawkesbury
and Strait of Canso 289
Canton, see Baltimore 1774
Canvey, see London 1710
Cape Cod Canal 1789
Cape Cuvier, see Carnarvon 70
Cape Flattery 69
Cape Lambert, see Port Walcott 119
Cape Limboh, see Limbe 253
Cape Lopez 573
Cape Town 1421
Cape St. Jacques,
see Ho Chi Min City 1984
Cape Verde, Republic of 315
Cap Haitien 654

Caracas Bay 1137
Caraquet Harbour 300
Carboneras 1446
Cardenas 391
Cardiff 1675
Cardon, see Punta Cardon 1978
Caripito 1941
Carlisle Bay, see Bridgetown 162
Carmopolis 191
Carnarvon, Australia 70
Caronte, see Marseilles 554
Carrickfergus 1676
Cartagena, Colombia 362
Cartagena, Spain 1446
Carteret, see New York 1855
Casablanca 1095
Casilda, see Cienfuegos 391
Castellon de la Plana 1448
Castle Island, Alaska 1790
Castle Island, Mass
see Boston, U.S.A. 1780
Castletown, I.o.M., UK 1676
Castletownbere 793
Castries 1336
Castro-Urdiales 1450
Catania 818
Catbalogan, see Tacloban 1296
Cavalla, see Kavalla 622
Cayenne 653
Cay Frances, see Caibarien 390
Cayman Brac 317
Cayman Islands 317
Cayo Arcas 1074
Cayo Diana, see Cardenas 391
Cayo Juan Claro,
see Puerto Padre 407
Cayos Arcas, see Cayo Arcas 1074
Ceara, see Fortaleza 193
Cebu 1277
Cedros Island, see Morro Redondo 1083
Ceiba Hueca, see Manzanillo 400
Cephalonia, see Argostoli 616
Ceuta 1451
Ceyhan, see Golovasi 1563
Ceylon,see **Sri Lanka** 1470
Chacabuco, also see Late Reports 323
Chaguaramas 1540
Chah-Bahar 772
Chake Chake 1524
Chalkis 617
Chalmette, see New Orleans 1850
Chalna, see Mongla 158
Champerico 642
Chanaral, also see Late Reports 323
Chancay 1259
Chandler 264
Changhang, see Kunsan 968
Char Bahar, see Chah-Bahar 772
Charleston 1790
Charlestown, Mass.,
see Boston, U.S.A. 1780
Charlotte-Amalie,
see St. Thomas, Virgin Islands 1989
Charlottetown 264
Chatham, N.B., Canada 265
Chatham, U.K., see Medway Ports 1720
Chatham Dockyard,
see Medway Ports 1720
Chekaa 993
Chelsea, Mass., see Boston, U.S.A. 1780
Chelsea, N.Y., see New York 1855
Chemainus 265
Cherbourg 539
Cheribon, see Cirebon 726
Cherry Point, see Bellingham 1780
Chesapeake and Delaware Ship Canal,
see Baltimore 1774
Chiba 867
Chicago 1791
Chicoutimi 265
Chile, also see Late Reports 319
Chimbote 1259
Chim Wan, see Kin Wan 891
China, People's Republic of 336
Chinhai 965
Chin Huangtao, see Qinhuangdao 350
Chinnampo, see Nampo 959
Chinwangtao, see Qinhuangdao 350
also see China (General) 336
Chioggia 819
Chiriqui Grande 1232

Chisimaio 1417
Chittagong 158
Chiungchow Straits
see China (General) 336
Chiwan 342
Chowder Bay,
see Sydney, N.S.W., Australia 122
Christchurch, see Lyttelton 1152
Christiansted, see Limetree Bay 1986
Christmas Island 357
Chuk Samet Port, see Sattahip 1532
Chungjin 957
Churchill 266
Cienfuegos 391
Cigading 721
Cilacap 722
Cinta Terminal 724
Cirebon 726
Ciro Marina 819
Ciudad Bolivar,
see Orinoco River 1968
Ciudad Trujillo,
see Santo Domingo 449
Civitavecchia 820
Clarence Cove, see Punta Arenas 329
Clarenville 266
Claveria, see Aparri 1269
Cleveland 1792
Cliffe, see London 1710
Clifton Point, see Nassau 142
Clifton Ridge, see Lake Charles 1825
Clydebank, see Clyde Port 1677
Clyde Port 1677
Coatzacoalcos 1076
Cobh, see Cork 793
Cochin 682
Cockatoo Island, see Sydney, N.S.W. 122
Cockatoo Island, W.A.,
see Yampi Sound 136
Cockburn Sound, see Fremantle 82
Coco Solo, see Colon 1236
Coffs Harbour 73
Colchester 1678
Coleraine 1679
Colombia 359
Colombo 1470
Colon 1236
Colonia 1930
Come by Chance 267
Commodore Point, see Jacksonville 1822
Comodoro Rivadavia 49
Comoros, Republic of 373
Conakry 647
Concarneau 541
Concepcion Bay, Chile,
see Talcahuano 332
Concepcion del Uruguay 40
Conchan 1260
Congo, Peoples' Republic of 374
Constable Hook, see New York 1855
Constantza 1330
Contrecoeur 268
Convent, see Burnside 1789
Coode Island, see Melbourne 99
Cook Islands 377
Coolkeeragh, see Londonderry 1717
Coondapur 684
Coos Bay 1795
Copenhagen 423
Coquimbo, also see Late Reports 324
Cordova 1795
Corfu 617
Corinth, see Isthmia 620
Corinth Canal, see Isthmia 620
Corinto 1167
Cork 793
Corkbeg, see Cork 793
Corner Brook 269
Corniquel, see Quimper-Corniquel 564
Corojal, see Antilla 385
Coronel, also see Late Reports 324
Corpach, see Caledonian Canal 1674
Corpus Christi 1795
Corunna 1452
Coryton, see London 1710
Cossack, see Port Walcott 119
Costa Rica 378
Cotabato City, see Polloc 1292
Cotonou 174
Courtenay Bay,
see Saint John, N.B., Canada 295

TEXT INDEX

Covenas 365
Cowes 1679
Cowichan Bay 270
Crib Point, see Western Port 132
Cristobal 1236
Crofton 265
Cromarty Firth Port 1680
Cronstadt Island 1540
Cuba 382
Cuddalore 684
Cul de Sac Bay 1337
Cumana, see Puerto Sucre 1978
Curacao, see **Netherlands Antilles** 1134
Curacao Oil Terminal, see Bullen Bay 1136
Curtis Bay, see Baltimore 1774
Cutuco, see La Union 501
Cuxhaven 593
Cuyahoga, see Cleveland 1792
Cyprus 412
Cyrus Terminal 773

D

Dadiangas 1279
Daepo, see Daipori 966
Dagenham, see London 1710
Dahej 685
Dahomey, see **Benin** 174
Daipori 966
Dairen, see Dalian 342
Dakar 1388
Dakhla, see Villa Cisneros 1102
Dalaguete, see Cebu 1277
Dalhousie 270
Dalian 342
Dalmine, see Campana 40
Dalrymple Bay, see Hay Point 89
Damietta 463
Dammam 1346
Dampier 73
Danang 1982
Danao, see Cebu 1277
Dandong 344
Danzig, see Gdansk 1299
Dardanelles, see Turkey (General) 1557
Dar-es-Salaam 1524
Darin, see Saudi Arabia (General) 1343
Darius Terminal, see Kharg Island 774
Darling Harbour, see Sydney, N.S.W., Australia 122
Dartford Creek, see London 1710
Dartmouth 1681
Daru 1250
Darwin 77
Da San Shan Channel, see Dairen 342
Das Island 1619
Datu, see Sabah (Minor Ports) 1055
Datuk Sim Kheng Hong, see Kuching 1039
Davant, see Myrtle Grove 1847
Davao 1280
Davao del Sur, see Davao 1280
Davis Point, see San Francisco 1894
Deauville, see Trouville-Deauville 572
Deer Park, see Houston 1817
Degema 1180
Degrad-des-Cannes 653
Delair, see Philadelphia 1867
Delaware River, see Philadelphia 1867
Delfzijl 1113
Dellys 6
Demerara, see Georgetown, Guyana 651
Denmark 417
Denofa, see Fredrikstad 1199
Derby 79
Derince 1560
Derna 1006
Dernish, see Limerick 798
Destrehan 1798
Detroit 1798
Devonport, Tasmania, Australia 79
Dhekelia 'B' 412
Dhuba, see Saudi Arabia (General) 1343
Diamante 40
Diamond Harbour, see Calcutta 679
Dicido, see Castro-Urdiales 1450
Diego Suarez, see Antsiranana 1028
Dieppe 541
Digby 271
Diliskelesi 1561
Dilli 727
Dina, see Rijeka 2001
Dingle, see Liverpool 1707
Dinish Island, see Castletownbere 793
Discovery Bay, see Port Rhoades 861
Divilacan, see Aparri 1269
Dixon Island, see Port Walcott 119
Djakarta, see Jakarta 732
Djeno Terminal 374
Djibouti, Republic of 442
Djibouti 442
Djuron, see Norrkoping 1492
Doha 1320
Dominica 444
Dominican Republic 446
Donaldsonville 1799
Donges, see Nantes 560
Dorchester Terminal, see Portsmouth, New Hampshire, U.S.A. 1881
Dordrecht 1114
Dortyol Terminal, see Golovasi 1563
Dos Bocas 1078
Douala 253
Douro River, see Leixoes 1304
Douglas, I.o.M., U.K. 1681
Dover 1682
Drammen 1196
Drapetzona, see Piraeus 626
Dreines, see Trangisvaag 509
Drujba, see Varna 249
Dubai 1622
Dublin 795
Dubrovnik 1999
Duisburg-Ruhrort 594
Duluth-Superior 1799
Duke Point, see Nanaimo 279
Dumaguete 1282
Dumai 727
Dunbar 1684
Dundalk, see Baltimore 1774
Dundee 1684
Dunedin, see Otago 1156
Dunkerque, see Dunkirk 542
Dunkirk, also see Late Reports 542
Dun Laoghaire 796
Dunmore East 796
Dunoon 1685
Durano, see Cebu 1277
Durazzo, see Durres 1
Durban 1423
Durres 1
Dutch Harbour, see Unalaska 1909
Dzaoudzi, see Port Dzaoudzi 373

E

Eagle Point, see Philadelphia 1867
East Boston, see Boston, U.S.A. 1780
Easter Island 324
Eastham, see Manchester 1719
East intercourse Island, see Dampier 73
East Johore Strait, see Pusir Gudang 1047
East London 1426
East Zeit Terminal 464
Eccles, see Manchester, U.K. 1719
Eckernforde 594
Economia Avan - Port, see Archangel 1582
Ecopetrol, see Cartagena 362
Ecuador, also see Late Reports 451
Eden 80
Edgewater, see New York 1855
Edinburgh, Tristan de Cunha 1550
Edincik 1561
Eemshaven 1115
Egedesminde, see Aasiaat 634
Ege Gubre, se Nemrut Bay 1572
Egersund 1197
Egypt, Arab Republic of 458
Eilat 803
Einswarden, see Bremen 586
Eiosvik, see Reykjavik 670
Eire,see**Ireland, Republic of** 793
Ekenas 514
El Aaiun 1096
El Alamein, see Marsa al Hamra 468
Elath, see Eilat 803
Elbehafen, see Brunsbuttel 589
Elbe Terminal, see Brunsbuttel 589
El Botado, see Puerto Duarte 448
El Chaure 1942
El Dekheila, see Alexandria 461
El Dajazair, see Algiers 2
El Djedid, see Arzew 3
Elefsinos, see Itea 621
Elefsis, see Eleusis 618
Eleusis 618
El Guamache 1943
Elizabeth, see New York 1855
El Jadida 1096
Ellesmere Port, see Manchester, U.K. 1719
Ellington, see Suva 512
Ellinoperamaton, see Iraklion 619
El Palito 1944
El Salvador 500
El Segundo 1800
Elsfleth 594
Elsinore, see Helsingor 429
El Tablazo 1964
Emden 595
Emmastad, see Willemstad/Emmasted 1143
Emu Bay, see Burnie 68
Enfeh Terminal, see Chekaa 993
English Bay, see Georgetown, Ascension Island 53
English Bay, see Vancouver 306
Ensenada, Mexico 1079
Ensenada de Mora, see Manzanillo 400
Ensted 424
Enstedvaertkets, see Aabenraa 420
Equatorial Guinea 503
Eregli 1561
Erie 1801
Esbjerg 425
Escombreras, see Cartagena, Spain 1446
Escravos 1180
Esmeraldas, 454
also see Balao Terminal 452
Esperance 80
Espoir 855
Esquimalt, see Victoria, B.C.,Canada 309
Essequibo River 651
Es Sider 1006
Essvik, see Sundsvall 1503
Estaque, see Marseilles 554
Etajima 868
Etang de Berre, see Marseilles 554
Eten 1260
Ethiopia 505
Eureka 1801
European Economic Community (EEC) 507
Tanker Check List 507
Europoort, see Rotterdam 1117
Everett, Mass.,see Boston, U.S.A. 1780
Everett, Washington 1802
Everton, see New Amsterdam 652
Evripos Strait, see Chalkis 617
Exmouth, W.A., Australia 81

F

Faeringehavn 634
Fagerstrand, see Oslo 1211
Faial, see Horta 138
Fairview Cove, see Halifax 272
Falconara, see Ancona 807
Falkland Islands 508
Fall River 1803
Falmouth 1685
Famagusta 412
Fangcheng 345
Fao 791
Farasan, see Saudi Arabia (General) 1343
Farge, see Bremen 586

Faroe Islands 509
Faslane, see Clyde Port 1677
Fateh Terminal 1623
Faversham, see Medway Ports 1720
Fawley, see Southampton 1740
Fayal, see Horta 138
Fecamp 545
Felixstowe 1686
Felton, see Antilla 385
Fener, see Istanbul 1569
Fenit 797
Ferndale 1803
Ferrol 1452
Fertrin Terminal, see Point Lisas 1546
Fiborgtangen 1198
Figueira da Foz 1303
Fiji Islands 511
Finike 1562
Finland 514
Finnart, see Clyde Port 1677
Fisher Island, see Miami 1843
Fisherman Islands, see Brisbane 65
Fishguard 1687
Fiumicino 820
Flaxenvik, see Stockholm 1500
Fleetwood 1688
Flensburg 597
Floro 1198
Flotta, see Scapa Flow 1736
Flushing 1115
Flying Fish Cove, see Christmas Island 357
Foca, see Nemrut Bay 1572
Fonds Mombin, see Port-au-Prince 654
Foochow, see Fuzhou 345
  also see China (General) 336
Forcados 1181
Forno 193
Fortaleza 193
Fort Dauphin 1028
Fort de France, also see Late Reports 1066
Fort Denison,
  see Sydney, N.S.W., Australia 122
Fort Lauderdale,
  see Port Everglades 1875
Fort Mifflin, see Philadelphia 1867
Fort Pierce 1803
Fort William, Ontario,
  see Thunder Bay 303
Fos, see Marseilles 554
Fosdyke Bridge 1688
Fowey 1688
Foynes Harbour, see Shannon Estuary 800
Foynes Island, see Shannon Estuary 800
Frafjord 1199
France 531
Fraser Port 271
Fray Bentos 1930
Fredericia 425
Frederikshab, see Paamiut 637
Frederikshavn 426
Frederiksted 1986
Fredriksskans, see Gavle 1478
Fredrikstad 1199
Freeman's Point, see Portsmouth,
  New Hampshire, U.S.A. 1881
Freeport, Bahamas 140
Freeport, Bermuda, see Hamilton 176
Freeport, Texas, U.S.A. 1803
Freetown 1392
Fremantle 82
French Guyana, see **Guyane** 653
Frenchman's Bay,
  see Albany, W.A., Australia 60
Friendly Islands, see **Tonga** 1539
Frobisher Bay 271
Froland, see Uddevalla 1504
Frontignan, see Sete 568
Fuikbay 1137
Fujairah 1625
Fukuyama 869
Fulham, see London 1710
Funafuti 1578
Funchal 1027
Funivie, see Savona 843
Fushiki 870
Fuzhou 345

G

Gabes 1552
Gabon 573
Gaeta 821
Galata, see Istanbul 1569
Galena Park, see Houston 1817
Galeota Point 1540
Galle 1471
Galvan, see Bahia Blanca 45
Galveston 1804
Galway 797
Gamba 574
Gambia 581
Gandia 1453
Garitsa Bay, see Corfu 617
Garrucha 1453
Garston 1689
Garyville, see Gramercy 1806
Gashaga, see Stockholm 1500
Gaspe 271
Gastgivarehagen, see Norrkoping 1492
Gastria Bay, see Kalecik 413
Gateshead, see Tyne District 1758
Gatun Lake, see Panama Canal 1237
Gavilan Point, see Zamboanga 1298
Gavle 1478
Gazenica, see Zadar 2006
Gdansk 1299
Gdynia 1300
Gebe Island 731
Gedser 427
Geelong 84
Gefle, see Gavle 1478
Geismar 1805
Geisum Marine Terminal 465
Gela 822
Gellibrand, see Melbourne 99
Gemikonagi 413
Gemlik 1562
General San Martin 1260
General Santos City,
  see Dadiangas 1279
Genoa 822
Geographe Bay, see Busselton 69
Georgetown, Ascension Island 53
Georgetown, Cayman Islands 318
Georgetown, Guyana,
  also see Late Reports 651
Georgetown, S.C., U.S.A. 1805
Geraldton 85
Geras Bay, see Mitilene 625
German Democratic Republic 582
Germany, Federal Republic of 584
Gerona, Cuba, see Nueva Gerona 403
Gerona, Spain,
  see Sant Feliu de Guixols 1463
Ghana, also see Late Reports 611
Ghannouche, see Gabes 1552
Ghazaouet 7
Ghazawet, see Ghazaouet 7
Ghent 168
Gibara, see Vita 411
Gibraltar 614
Gijon 1453
Gillingham, see Medway Ports 1720
Gingoog 1282
Girard Point, see Philadelphia 1867
Giresun 1562
Girvan 1689
Gisborne 1152
Gismeroya, see Mandal 1206
Gizan 1349
Gizo 1413
Gladstone 86
Glasgow, see Clyde Port 1677
Glebe Is.,
  see Sydney, N.S.W., Australia 122
Glensanda 1690
Glomfjord 1200
Gloucester, U.K. 1739
Gloucester, U.S.A., see Philadelphia 1867
Gluckstadt 597
Godhavn, see Qeqertarsuaq 637
Godthab, see Nuuk 636
Golfito 379
Golluk 1563
Golovasi, also see Late Reports 1563
Good Hope 1806
Goole 1691
Goose Bay 272
Gorda, see Baracoa 389
Gore Bay,
  see Sydney, N.S.W., Australia 122
Gosport, see Portsmouth, U.K. 1732
Goteborg, see Gothenburg 1479
Gothenburg 1479
Gotland Is., see Slite 1497
Gove 87
Grafarvogur, see Reykjavik 670
Gramercy 1806
Gran Canaria, see Las Palmas 312
Grand Bank 272
Grand Mal, see St. George's, Grenada 638
Gran Dock, see La Plata 39
Grand Turk 1577
Grangemouth 1692
Granton 1692
Granudden, see Gavle 1478
Granville 546
Grays, see London 1710
Grays Harbor 1806
Great Bitter Lakes, see Suez Canal 473
Great Yarmouth 1693
Greece 615
Green Bay 1807
Greenhithe, see London 1710
Greenland 634
Greenock, see Clyde Port 1677
Greenville 1001
Greenwich Point, see Philadelphia 1867
Gregorio, see Punta Arenas 329
Grenaa 427
Grenada 638
Gresik 731
Gretna, see New Orleans 1850
Grigorevsky, see Yuzhnyy 1610
Grimsby 1693
Groningen 1117
Groote Eylandt 88
Groton, see New London 1849
Gruz Harbour, see Dubrovnik 1999
Guacolda, see Huasco 325
Guadeloupe 639
Guaiba Island,
  see Sepetiba Bay 233
Guam 640
Guanabara Bay, see Rio de Janeiro 209
Guangzhou 345
Guanica 1311
Guanta 1945
Guantanamo 394
Guaranao 1947
Guatemala 642
Guatemala, see Antilla 385
Guayabal, see Santa Cruz del Sur 408
Guayacan, also see Late Reports 325
Guayama, see Las Mareas 1312
Guayanilla 1311
Guayaquil 455
Guayas River, see Guayaquil 455
Guaymas 1080
Guimaras, see Iloilo 1283
Guinea, Republic of 647
Guinea Bissau, Republic of 650
Guiria, see Caripito 1941
Gulfhavn 428
Gulf of Morresquillo, see Covenas 365
Gulfport, Mississippi 1807
Gulfport, N.J., see New York 1855
Guyana 651
Guyane 653

H

Hachinoe, see Hachinohe 870
Hachinohe 870
Hadera 804
Haderslev 429
Haeju 958
Hafnagardur, see Siglufjord 671
Hafnarfjordur 669
Hagu, see Lhokseumawe 739
Haifa 805
Haijuube, see Haeju 958
Haikou, see Late Reports

TEXT INDEX

Haines 1807
Haiphong 1983
Haiti 654
Hakata 872
Hakodate 873
Halat al Mubarras, see Mubarras Island 1651
Halden 1200
Haldia 685
Halifax 272
Halkis, see Chalkis 617
Halling, see Medway Ports 1720
Hallstavik 1482
Halmstad 1482
Halul Island 1321
Hamble, see Southampton 1740
Hamburg, also see Late Reports 597
Hamilton, Australia, see Brisbane 65
Hamilton, Bermuda 176
Hamilton, Ontario, Canada 274
Hamina 514
Hammerfest 1200
Hampton Roads District 1808
Hamra, see Marsa al Hamra 468
Hamrawein, also see Late Reports 468
Hamriya, see Dubai 1622
Hamriyah 1626
Hamriyah LPG Terminal 1630
Hangzhou 346
Hanko 514
Hannan Port, see Sakai 923
Hantsport 275
Haraholmen, see Pitea 1496
Haramidere, see Istanbul 1569
Harbour Grace 275
Harbour Head, see Kingston 857
Harburg, see Hamburg 597
Hargshamn 1483
Harnosand 1483
Harstad 1200
Hartlepool 1694
Harvey, see New Orleans 1850
Harwich 1694
Hastings, N.Y., see New York 1855
Haugesund 1201
Haulbowline Island, see Cork 793
Havana 395
Havden, see Stenungsund 1499
Havre St. Pierre 275
Hawkins Point, see Baltimore 1774
Haydarpasa, see Istanbul 1569
Hay Point 89
Heianza Is., see Kin Wan 891
Heimaey, see Vestmannaeyjar 672
Helmi, see Raahe 525
Helsingborg 1483
Helsingor 429
Helsinki 515
Hemixem, see Antwerp 165
Henecan, see San Lorenzo, Honduras 659
Hepokari, see Uusikaupunki 529
Heraklion, see Iraklion 619
Herceg-Novi, see Zelenika 2006
Hercules, see San Francisco 1894
Hereke 1566
Hernosand, see Harnosand 1483
Heroya, also see Late Reports 1201
Herradura Bay, see Guayacan 325
Herttoniemi Harbour, see Helsinki 515
Heungnam 959
Heysham 1696
Hibikinada 873
Higashi, see Niigata 914
Hikoshima, see Shimonoseki 929
Hillwood, see Launceston 94
Hilo 1810
Himeji 874
H.I.R.I. Sea Berth, see Honolulu 1811
Hirohata, see Himeji 874
Hiroshima 875
Hitachi 876
Hobart 91
Hoboken, see New York 1855
Hochfeld, see Duisburg-Ruhrort 594
Ho Chi Min City, also see Late Reports 1984
Hodeidah 1991
Hoganas 1485
Hog Island, see Philadelphia 1867
Holbaek 429
Holden Oil Dock, see Melbourne 99
Holehaven, see London 1710
Holmsgarth, see Lerwick 1707
Holmsund, see Umea 1505
Holsteinsborg, see Sisimiut 637
Holtenau 600
Holyhead 1696
Holyrood, see St. John's, Newfoundland, Canada 296
Homer 1810
Honavar 686
Hondagua 1282
Honduras 657
Honduras Oil Terminal, see Santa Cruz de Tenerife 314
Honfleur 546
Hong Kong, also see Late Reports 662
Honiara 1413
Honolulu 1811
Hooker Point, see Tampa 1904
Hopa 1567
Hope Island, see Kakinada 686
Horie, see Matsuyama 903
Hormoze Terminal 774
Hornefors 1485
Hornillo 1435
Horsens 429
Horta 138
Horten 1202
Hososhima 876
Hound Point 1697
Houston 1817
Hovic, see Limetree Bay 1986
Howdon, see Tyne District 1758
Howland Hook, see New York 1855
Howth 797
Hoyanger 1202
Hsingkang, see Xiang Jang, also see China (General) and Taku Bar 355 336 354
Huacho 1260
Hualien 1516
Huangpu, see Guangzhou 345
Huarmey 1261
Huasco, also see Late Reports 325
Hudiksvall 1486
Hudson River, see New York 1855
Huelva 1455
Hueneme 1820
Hulaylah Terminal 1632
Hull 1697
Humbermouth, see Corner Brook 269
Humboldt Bay, see Eureka 1801
Humbug Point, see Weipa 132
Hunters Point, see San Francisco 1894
Hunterston, see Clyde Port 1677
Huntington Beach, U.S.A. 1821
Huron 1821
Husnes 1202
Hussey Sound, see Portland, Maine, U.S.A. 1877
Husum 1486

I

Ibicuy 41
Ibiza 1456
Iceland 669
Igarka 1585
Iggesund, see Hudiksvall 1486
Iho 876
Ijmuiden, see Ymuiden 1131
Ilang, see Davao 1280
Ile Mayotte, see Port Dzaoudzi 373
Ile Rousse 546
Ilha Barnabe, see Santos 222
Ilha Grande, see Angra dos Reis 182
Ilha Madeira, see Sepetiba Bay 233
Ilha Redonda, see Rio de Janeiro 209
Ilheus 194
Ilichevsk 1586
Iligan 1282
Ilo 1261
Iloilo 1283
Ilulissat 635
Imabari 877
Imahuru, see Imabari 877
Imari 878
Imazu, see Matsuyama 903
Imbituba 194
Immingham 1700
Ince, see Manchester, U.K. 1719
Inchon 966
India 673
Indiana Harbour, see Burns Harbour 1788
Indonesia 705
Ingeniero, see La Plata 39
Ingeniero Rocca, see La Plata 39
Ingeniero White, see Bahia Blanca 45
Inkoo 517
Innoshima 879
Innuit Head, see Frobisher Bay 271
Inokuchi, see Omishima 919
Inspection Head, see Launceston 94
Intersection, see River Plate 28
Invergordon, see Cromarty Firth Port 1680
Inverness 1701
Ioshima, see Nagasaki 910
Ipswich 1710
Iquique, also see Late Reports 326
Iraklion 619
Iran 767
Iraq 789
Ireland, Republic of 793
Ireland Is., see Hamilton, Bermuda 176
Iriam, see Manchester, U.K. 1719
Irwell Park, see Manchester, U.K. 1719
Isabel 1285
Isabela de Sagua 398
Isafjord 669
Isdemir 1567
Ise Bay, see Nagoya 910
Ishinomaki 879
Iskenderun 1568
Isla d'Agua, see Rio de Janeiro 209
Isla de Pinos, see Nueva Gerona 403
Isle of Boulay, see Abidjan 853
Isle of Grain, see Medway Ports 1720
Isle of Pines, see Noumea 1146
Isle of Sheppey, see Medway Ports 1720
Israel 803
Isrecognosceringsstation, see Narssarssuaq 636
Istanbul 1569
Isthmia 620
Istinye, see Istanbul 1569
Itajai 195
Italy 807
Itaqui, see Sao Luis 230
Itea 621
Itozaki, see Onomichi-Itozaki 920
Itzehoe 600
Ivigtut 635
Ivory Coast 853
Iwaki, see Onahama 919
Iwakuni 879
Izmail 1587
Izmir 1570
Izmit 1571

J

Jabiru 92
Jacintoport, see Houston 1817
Jacksonville 1822
Jakarta 732
Jakhau 686
Jakobshavn, see Ilulissat 635
Jakobstad 517
Jamaica 857
Jambi 733
Jamestown, St. Helena 1333
Japan 863
Jarrow, see Tyne District 1758
Jayapura 733
Jazttzarakku Island, see Zirku Island 1656
Jebel Ali 1633
Jebel Dhanna – Ruwais 1637
Jeddah 1350
Jersey City, see New York 1855
Jesselton, see Kota Kinabalu 1035

Jibouti, see Djibouti 442
Jijel 8
Jinhae, see Chinhai 965
Jizan, see Gizan 1349
Joao Pessoa, see Cabedelo 191
Jobos 1312
Joensuu, see Saimaa Canal 526
Johannedal, see Sundsvall 1503
Johore Port, see Pasir Gudang 1047
Jolo 1286
Jordan 950
Jorf Lasfar 1096
Jose Ignacio 1931
Jose Panganiban 1286
Jose Terminal 1947
Joutseno, see Saimaa Canal 526
Ju'aymah 1355
Jubail 1357
Jucaro 399
Julianehab, see Qaqortoq 637
Juneau 1824
Jurong, see Singapore 1395

K

Kaarstoe, see Karsto 1203
Kabrit Loop, see Suez Canal 473
Kage, see Skelleftehamn 1496
Kagoshima 880
Kahului 1824
Kainan, see Shimotsu 930
Kaiser, see New Orleans 1850
Kakande, see Port Kamsar 647
Kakinada 686
Kakogawa 881
Kalajoki, see Raahe 525
Kalamaki 621
Kalamata 621
Kalaranta, see Uusikaupunki 529
Kalecik 413
Kalifoka, see Corfu 617
Kalilimenes, see Kali Limenes 622
Kali Limenes 622
Kalix Haparanda, see Karlsborgsverken 1487
Kalkis, see Chalkis 617
Kalmar 1487
Kalundborg 430
Kamaishi 882
Kampuchea 952
Kamsar, see Port Kamsar 647
Kanaba, see Milos Island 624
Kanda 882
Kandla 687
Kanematsu-Goshi, see Kokura 898
Kangaroo Is., see Ballast Head 61
Kangerlussuaq 635
Kankesanturai 1471
Kanmon Harbour, see Kanmon-Ko 883
Kanmon-Ko 883
Kanokawa 883
Kantang 1531
Kantvik, see Porkkala 523
Kaohsiung 1517
Kaolack 1389
Kappeln 601
Karachi 1226
Karadeniz Eregli, see Eregli 1561
Karavostassi, see Gemikonagi 413
Kardeljevo 2000
Karembe, see Noumea 1146
Karimunting, see Sandakan 1055
Karlsborgsverken 1487
Karlshamn 1487
Karlskrona 1488
Karlstad 1488
Karrebaeksminde, see Naestved 435
Karskar, see Gavle 1478
Karsto 1203
Karwar 689
Kasaoka, see Fukuyama 869
Kashima 883
Kasim Marine Terminal 733
Kaskinen 518
Kasko, see Kaskinen 518
Kaskoy, see Istanbul 1569
Kastrades, see Corfu 617
Katakolon 622
Katsini Bay, see Aghios Nikolaos 615
Katsunan, see Chiba 867
Kaukas, see Saimaa Canal 526
Kaukopaa, see Saimaa Canal 526
Kaur, see Banjul 581
Kavalla 622
Kavieng 1250
Kawaihae, see Hilo 1810
Kawasaki 885
Keelung 1518
Kefalomandouko, see Corfu 617
Keflavik, see Keflavik-Njarovik 669
Keflavik-Njarovik 669
Keinin, see Tokyo 934
Kelang, see Port Kelang 1052
Kelloniemi, see Saimaa Canal 526
Kemi 518
Kenai, see Nikiski 1860
Kenitra 1099
Kenya 953
Keppel Harbour, see Singapore 1395
Kerain, see Norrkoping 1492
Kerasunda, see Giresun 1562
Keratsini, see Piraeus 626
Kerkyra, see Corfu 617
Kerteh Terminal 1032
Ketchikan 1824
Khalf, see Mukalla 1997
Khalkis, see Chalkis 617
Khanom 1531
Kharg Island, also see Late Reports 774
Kharg Terminal, see Kharg Island 774
Khemco Terminal, see Kharg Island 774
Kherson 1587
Kholmsk 1588
Khor-al-Amaya 792
Khor Dubai, see Dubai 1622
Khor Fakkan 1647
Khor Musa, see Bandar Mahshahr 770
Khorramshahr 780
Khrysokhou Bay, see Latchi 415
Khulna, see Mongla 160
Kiel 601
Kiel Canal 602
Kieta 1251
Kiire 888
Kijang 735
Kikuma 889
Kilia 1589
Kilindini, see Mombasa 953
Killingholme, see Immingham 1700
Kill Van Kull, see New York 1855
Killybegs 798
Kimbe 1251
Kimitsu, see Kisarazu 893
King Abdul Aziz Port, see Dammam 1346
King Fahd Industrial Port, Jubail, see Jubail 1357
King Fahd Port, Madinat Yanbu-Al-Sinaiyah, see Yanbu 1376
Kings Bay 1825
King's Lynn 1704
Kingsnorth, see Medway Ports 1720
Kingston, Ontario 275
Kingston, Jamaica 857
Kingstown 1341
Kinsale 798
Kinuura 890
Kin Wan 891
Kipevu, see Mombasa 953
Kiribati 956
Kirkcaldy 1704
Kirkenes 1203
Kirkwall 1705
Kirton Point, see Port Lincoln 116
Kisarazu 893
Kishon, see Haifa 805
Kismayu, see Chisimao 1417
Kissy Oil Terminal, see Freetown 1392
Kitakyushu, see Moji 907
Kitimat 275
Klaipeda 1589
Klakksvik 509
Klang, see Port Kelang 1052
Kleinhuningen, see Basle 1509
Kleppsvik, see Reykjavik 670
Kleven, see Mandal 1206
Klintehamn 1488
Klongtoi, see Bangkok 1529
Klubbdjupshammen, see Oskarshamn 1495
Klybeck, see Basle 1509
Kobe 894
Kodiak 1825
Koge 433
Kohani, see Mkoani 1526
Kohsichang 1529
Kokkola 518
Koko 1183
Kokura 898
Kolding 433
Kole 254
Kollafjordur, see Reykjavik 670
Kolo Harbour, see Karlshamn 1487
Komatsushima 899
Kompongsom 952
Koolan Island, see Yampi Sound 136
Koper 2000
Kopervik 1204
Koping 1489
Korea, Dem. People's Republic of 957
Korea, Republic of 963
Korsor 433
Korsoer, see Korsor 433
Kosulanniemi, see Saimaa Canal 526
Kota Kinabalu 1035
Kotka 519
Kouaoua, see Noumea 1146
Kourou 653
Koverhar 519
Kowloon, see Hong Kong 662
Kpeme 1536
Krabi, also see Late Reports 1531
Kragero 1204
Kralendijk 1138
Kribi 253
Kristiansand S. 1204
Kristiansund N. 1205
Kristinehamn 1489
Kristinestad 520
Krk Island, see Rijeka 2001
Kroksvik, see Kristinehamn 1489
Kruena Geukueh, see Lhokseumawe 739
Krueng Raya 736
Kuala Beukah 736
Kuala Rompin, see Rompin 1054
Kuala Tanjung 736
Kuantan 1037
Kubikenborg, see Sundsvall 1503
Kuching 1039
Kudamatsu 900
Kudat, see Sabah (Minor Ports) 1055
Kumpusaari, see Saimaa Canal 526
Kunak 1040
Kunsan 968
Kuntaur, see Banjul 581
Kuopio, see Saimaa Canal 526
Kurashiki, see Imabari 877
Kure 900
Kurihama, see Yokosuka 949
Kurnell, see Botany Bay 64
Kushiro 901
Kusulanniemi, see Saimaa Canal 526
Kuto Wharf, see Noumea 1146
Kutubidia, see Chittagong 158
Kuwait 979
Kuwait Harbour, see Shuwaikh 987
Kvarnholmen, see Stockholm 1500
Kwangchow, see Guangzhou 345
Kwangyang, see Yosu 975
Kwinana, see Fremantle 82
Kymassi 622
Kyndby 434
Kyrenia 413

L

Laajasalo Harbour, see Helsinki 515
Laayoune, see El Aaiun 1096
Labasa 511
Labuan 1040
Labuantring Bay 736
La Ceiba, Honduras 657

TEXT INDEX

La Ceiba, Venezuela 1968
La Chimba Cove, see Antofagasta 321
La Chiva, see Antilla 385
La Ciotat 547
Lacustre, see La Salina 1961
Lae 1251
Laem Chabang~~, see Bangkok~~ 1533
Laen Klusi, see Phuket 1532
La Estacada 1960
Laffiteau, see Port-au-Prince 654
Lagos 1183
La Goulette 1553
La Guaira 1948
Laguna 196
Lahad Datu, see Sabah (Minor Ports) 1055
Lake Charles 1825
Lakehead Harbour, see Thunder Bay 303
La Libertad, Ecuador 456
La Libertad, El Salvador 501
La Mede, see Marseilles 554
Lambert Point, see Hampton Roads District 1808
Lampung, see Panjang 747
Landskrona 1490
Langror, see Soderhamn 1497
La Nouvelle 547
L'Anse a l'Eau, see Tadoussac 302
Lao Tie Shan Channel, see China (General) 336
Lapaluoto, see Raahe 525
La Pallice 547
La Pampilla 1261
La Plata 39
Lappeenranta, see Saimaa Canal 526
Larnaca 414
Larne 1705
La Rochelle 547
La Romana 447
Larvik 1205
La Salina 1961
La Salinetas 312
La Seyne-Bregaillon, see Toulon 572
Las Flores, see Barranquilla 360
La Skhira, see La Skhirra 1554
La Skhirra 1554
Las Mareas 1312
Las Minas, see Bahia Las Minas 1231
Las Palmas 312
Las Salinas Terminal, see Valparaiso 334
La Spezia, also see Late Reports 826
Las Piedras Paraguana, see Amuay Bay 1938
Las Ventanas, see Quintero 330
Latchford, see Manchester, U.K. 1719
Latchi 415
La Teja, see Montevideo 1931
Lattakia 1512
Launceston 94
La Union 501
Laurium, see Lavrion 623
Lauterbourg, see Strasbourg 570
Lautoka 511
Lavan Island, also see Late Reports 782
Lavera, see Marseilles 554
Lavrion 623
Lawi Lawi 737
Lazaret, see Toulon 572
Lazareta, see Syros 630
Lazaro Cardenas 1080
Lebanon 991
Le Chateau d'Oleron 548
Leerort, see Papenburg 603
Legazpi 1286
Leghorn, see Livorno 827
Le Havre, also see Late Reports 548
Lehigh, see New York 1855
Leith 1705
Leixoes 1304
Le Larivot 653
Lembar, see Labuantring Bay 736
Lenadura, see Punta Arenas 329
Lengua de Pajaro, see Antilla 385
Leningrad 1590
Lerwick 1707
Les Escoumins 276
Les Sables d'Olonne 553
Levisa Bay, see Antilla 385
Levuka 511
Lhoknga 739
Lhokseumawe, also see Late Reports 739
Liau-Ti-Shan, see China (General) 336
Liberia 1000
Libourne 553
Libreville 575
Libya, see **Socialist People's Libyan Arab Jamahiriya** 1004
Lidkoping 1490
Liege 169
Lienyunkang, see China (General) 336
Lifou Island, see Noumea 1146
Lilleborg, see Fredrikstad 1199
Lillesand 1206
Limassol, also see Late Reports 415
Limay, see Bataan 1269
Limbang 1043
Limbe 253
Lime Island, see Sault St Marie 297
Limerick 798
Limetree Bay 1986
Limhamn, see Malmo 1491
Limni Mines, see Latchi 415
Linden, Guyana 652
Linden, U.S.A., see New York 1855
Lindoe, see Odense 436
Lindsey, see Immingham 1700
Lingga, see Sejingkat 1057
Lirquen 327
Lisbon 1305
Liscomb 276
Little Aden, see Aden 1995
Little Cayman, see Cayman Brac 317
Liverpool 1707
Livorno 827
Lobito 15
Lochmaddy 1710
Locust Point, see Baltimore 1774
Loktuan, see Bontang 720
Lombrum Naval Base, see Lorengau 1252
Lome 1537
London and Thames District 1710
Londonderry 1717
Londunarbryggja, see Siglufjord 671
Long Beach 1827
Long Island Point, see Western Port 132
Longkou 346
Long Reach, see Launceston 94
Longview 1832
L.O.O.P. Terminal 1833
Lorengau 1252
Lorient 553
Los Angeles 1839
Lota, also see Late Reports 328
Loudden, see Stockholm 1500
Louholmen, see Pitea 1496
Louisbourg 276
Louisiana Offshore Oil Port, see L.O.O.P. Terminal 1833
Lovisa 520
Lowestoft 1718
Luanda 16
Lubeck 602
Lucero Terminal, see Bilbao 1442
Lucina Marine Terminal 575
Lucinda 97
Luderitz 1107
Ludo, see Cebu 1277
Lulea 1490
Lumut, Brunei State 243
Lumut, Malaysia 1043
Lutong, see Miri 1044
Lydney 1719
Lysekil 1491
Lyttelton 1152
Lytton, see Brisbane 65

M

Maaloy 1206
Maasin, see Tacloban 1296
Maasvlakte, see Rotterdam 1117
Macapa, see Santana 220
Macassar 742
Maceio 196
Mackay 98
Mackenzie, see Linden 652
Maconacon, see Aparri 1269
Macoris, see San Pedro de Macoris 449
Macquarie Point, see Hobart 91
Mactan, see Cebu 1277
Madagascar, see **Malagasy Republic** 1028
Madan, see Cebu 1277
Madang 1252
Madaum, see Davao 1280
Madeira 1027
Madinat Yanbu Al-Sinaiyah, see Yanbu 1376
Madras 689
Madre de Deus, see Salvador 217
Madryn, see Puerto Madryn 50
Madura 742
Magallanes Bay, see Nasipit 1291
Magazine Point, see Mobile 1846
Magellan Straits, see Punta Arenas 329
Magnisi, see Augusta 811
Mahajunga 1029
Mahe, see Port Victoria 1390
Mahon 1456
Mainaga, see Batangas 1274
Maizuru 902
Majunga, see Mahajunga 1029
Makassar, see Macassar 742
Malabo, see Rey Malabo 503
Malacca 1044
Malaga 1456
Malagasy Republic 1028
Malahayati, see Krueng Raya 736
Malamocco, see Venice 851
Malaysia 1031
Maldives 1062
Male 1062
Malhado, see Ilheus 194
Malili 743
Malmo 1491
Malongo, see Cabinda 12
Maloy, see Maaloy 1206
Malpe 692
Malta 1063
Malus Is., see Dampier 73
Mamonal, see Cartagena, Colombia 362
Manati, see Puerto Padre 407
Manaus 197
Manchester, U.K. 1719
Manchester, U.S.A., see Houston 1817
Mandal 1206
Mandaue, see Cebu 1277
Mandji, see Port Gentil 580
Mandoukion, see Corfu 617
Mandvi 692
Manfredonia 829
Mangalore, see New Mangalore 696
Mangalore (Minor Port) 692
Mangkasa 743
Mangla, see Mongla 160
Manguinhos, see Rio de Janeiro 209
Manhattan, see New York 1855
Maniitsoq 635
Manila 1287
Manitowoc 1843
Manopla, see Santa Cruz del Sur 408
Manta 456
Mantua Creek, see Philadelphia 1867
Mantyluoto, see Pori 523
Manukau Harbour, see Onehunga 1155
Manzanillo, Cuba 400
Manzanillo, Dominican Republic 447
Manzanillo, Mexico 1081
Maputo 1103
Maqal, see Basrah 790
Maracaibo 1963
Maracaibo Lake 1949
Maranhao, see Sao Luis 230
Marans 553
Marckolsheim, see Strasbourg 570
Marcus Hook, see Philadelphia 1867
Mar del Plata 49
Mare Island, see Noumea 1146
Margarita Island, see El Guamache 1943
Marghera, see Venice 851
Mariana Islands, Commonwealth of the Northern, 1065
Maribyrnong River, see Melbourne 99
Mariehamn 520
Mariel 401
Marin 1457

Marino Point, see Cork 793
Mariveles, see Manila 1287
Marmagoa, see Mormugao 693
Marmorilik 635
Marrero, see New Orleans 1850
Marsa al Hamra 468
Marsa al Hariga 1009
Marsa Badr, see Suez Canal 473
Marsa el Brega 1010
Marsaxlokk, see Valletta 1063
Marsden Point, see Whangarei 1165
Marseilles, also see Late Reports 554
Martin Garcia, see River Plate 28
Martinez, see San Francisco 1894
Martinique 1066
Maryborough 98
Masan 968
Masao, see Nasipit 1291
Masbate 1290
Masinloc 1291
Masnedoevaerket 434
Masnedsund, see Vordingborg 441
Massawa 506
Matadi 2011
Matane 277
Matanzas, Cuba 402
Matanzas, Venezuela 1971
Matarani 1262
Mategata, see Imabari 877
Matias de Galvez, see Santo Tomas de Castilla 645
Matsunaga, see Onomichi 920
Matsushima 902
Matsuyama 903
Maturin Bar, see Caripito 1941
Mauritania 1067
Mauritius 1072
Mayaguez 1314
Maydown, see Londonderry 1717
Mazagan, see El Jadida 1096
Mazaruni, see Georgetown, Guyana 651
Mazatlan 1081
Medan, see Belawan 714
Mede, see Marseilles 554
Media Luna, see Manzanillo 400
Medway, see Medway Ports 1720
Medway Ports 1720
Mega, see Himeji 874
Megara 623
Mejillones 328
Melbourne, also see Late Reports 99
Melilla, 1458
also see Port Nador 1100
Melilli, see Augusta 811
Melville Bay, see Gove 87
Mena Abdulla, see Mina Abdulla 979
Meneng, see Banyuwangi 713
Menstad, see Skien 1212
Menzel Bourguiba, see Bizerte 1551
Mersin 1572
Messina 830
Mestaghanem, see Mostaganem 7
Metas, see Nemrut Bay 1572
Methil 1724
Metlakatla 1843
Mexico 1074
Mezen 1591
Miami 1843
Micronesia, Federated States of 1093
Middelfart 434
Middlesbrough, see Tees River 1756
Mihara, see Onomichi 920
Miike 904
Milaki 623
Milazzo 831
Milford Haven 1724
Milhaud, see Toulon 572
Milner Bay, see Groote Eylandt 88
Milos Island 624
Milwaukee 1845
Mina Abdulla 979
Mina al-Ahmadi 981
Mina al Bakir, see Albakr Terminal 789
Mina-al-Fahal 1220
Mina Al Zoor, see Mina Saud 984
Mina Jebel Ali, see Jebel Ali 1633
Mina Khalid, see Sharjah 1654
Minamata 904
Mina Qaboos, see Port Qaboos 1221
Mina Raysut, see Port Raysut 1223
Mina Saqr 1648
Mina Saud 984
Mina Sulman 149
Minatitlan 1082
Mina Zayed 1649
Miragoane 654
Miramar, Brazil, see Belem 190
Miramar, New Zealand, see Wellington 1162
Miri 1044
Mispec Point, see Saint John, N.B., Canada 295
Mission, see Aparri 1269
Mississippi Lightening Area, see New Orleans 1850
Mistaken Island, see Dampier 73
Mistley 1726
Misumi 904
Misurata 1014
Mitkof Island, see Petersburg 1867
Mitre Canal, see River Plate 28
Mitilene 625
Miyako 905
Mizushima 906
Mjimwema Terminal 1525
Mkoani 1526
Moa, see Baracoa 389
Moanda, see Banana 2009
Mobile 1846
Mocamedes 16
Mocka 1992
Modewheel, see Manchester, U.K. 1719
Moerdijk, see Rotterdam 1117
Moengo 1474
Mogadiscio 1418
Mohammedia, also see Late Reports 1099
Moin Bay, see Puerto Moin 381
Mo-I-Rana 1207
Moji 907
Mokpo 969
Molde 1207
Mollendo, see Matarani 1262
Mombasa 953
Monaco 1094
Moneo, see Noumea 1146
Money Point Generating Station, see Shannon Estuary 800
Monfalcone 831
Mongla 160
Mongstad 1207
Moni 416
Monrovia 1002
Montecatini, see Venice 851
Montego Bay 858
Montevideo 1931
Montijo, see Lisbon 1305
Mont-Louis 277
Montoir, see Nantes 560
Montreal 277
Montrose 1726
Mora, see Bombay 675
Morehead City 1847
Moreton Bay, see Brisbane 65
Mori Port, see Tanabe 931
Mormugao 693
Morocco 1095
Moron 1968
Morphou Bay, see Gemikonagi 413
Morro Redondo 1083
Mort Bay, see Sydney, N.S.W., Australia 122
Mosjoen 1208
Mossel Bay 1426
Mostaganem 8
Mo'ta, see Aqaba 950
Motril 1458
Moudi Marine Terminal 256
Mount Newman, see Port Hedland 108
Mount Maunganui, see Tauranga 1160
Mourilyan 103
Moville, see Londonderry 1717
Mozambique 1103
Mozambique, Port of 1105
Mtwara 1526
Muara Port 244
Mubarek Terminal 1650
Mubarras Island 1651
Mucuripe, see Fortaleza 193
Muftiyah, see Basrah 790
Muggia Bay, see Trieste 847
Muhammed Bin Qasim, see Port Muhammed Bin Qasim 1227
Muirton, see Caledonian Canal 1674
Mukalla 1997
Mukho 969
Multedo, see Genoa 822
Mundra 694
Mungaroo Point, see Eden 80
Munkedal, see Lysekil 1491
Muntok 744
Murmansk 1591
Muroran 909
Musel, see Gijon 1453
Musi Bar, see Palembang 744
Mustola Harbour, see Saimaa Canal 526
Mutrah, see Port Qaboos 1221
Mutsure, see Shimonoseki 929
Muuga, see Tallinn 1601
My Khe, see Danang 1982
Mykonos 625
Myrtle Grove 1847

N

Naadendaal, see Turku 528
Naantali 521
Nacala 1105
Nadendal, see Naantali 521
Naestved 435
Nagapattinam 694
Nagasaki 910
Nagoya 910
Nagaura, see Yokosuka 949
Naha, Okinawa 912
Naikorokoro, see Suva 512
Nakagusuku Bay, see Nishihara 916
Nakanoseki, see Late Reports
Nakety, see Noumea 1146
Nakhodka 1592
Nakskov 435
Namibe, see Mocamedes 16
Namibia 1107
Namikata 912
Nampo 959
Namsos 1208
Nanaimo 279
Nanchital 1083
Nanisivik 280
Nanjing 346
Nantes 560
Nantong 347
Naoetsu 913
Naoshima 913
Napier 1153
Naples 832
Narovik, see Keflavik-Njarovik 669
Narragansett Bay, see Providence, Rhode Island 1884
Narssarssuaq 636
Narvik 1208
Naryan-Mar 1593
Nasipit 1291
Nassau 142
Natal 197
Nauru 1109
Nauru 1109
Navarino Bay, see Pylos 628
Navlakhi 694
Nawiliwili 1847
Necochea, see Quequen 51
Nederland, see Smith's Bluff 1902
Neendakara 695
Needham's Point, see Bridgetown 162
Negishi, see Yokohama 945
Neiafu, Tonga, see Nuku'alofa 1539
Nelson 1154
Nemours, see Ghazaouet 7
Nemrut Bay 1572
Nepoui, see Noumea 1146
Neskaupstadur 670
Netherlands 1110
Netherlands Antilles 1134
Nevelsk 1594
New Amsterdam 652
Newark, see New York 1855
New Bedford 1848
New Caledonia 1146
Newcastle, N.S.W., Australia 104

Newcastle, N.B., Canada 265
Newcastle-on-Tyne, see Tyne District 1758
New Guinea, see **Papua New Guinea** 1248
Newhaven, U.K. 1727
New Haven, Conn., U.S.A., also see Late Reports 1848
New Holland, see Late Reports
New Hythe, see Medway Ports 1720
Newington, see Portsmouth, New Hampshire, U.S.A. 1881
New Jersey, see New York 1855
New London 1849
New Mangalore 696
New Nickerie 1474
New Orleans 1850
New Plymouth 1154
Newport East, see Kingston, Jamaica 857
Newport, I.o.W., U.K., see Cowes 1679
Newport, Gwent, U.K. 1727
Newport News, see Hampton Roads District 1808
Newport West, see Kingston, Jamaica 857
New Richmond 280
New Ross 799
New Westminster, see Fraser Port 271
New York 1855
New Zealand 1150
N'Goye, see Noumea 1146
Nha-Be, see Ho Chi Min City 1984
Nha Trang 1984
Nhava, see Bombay 675
Niah, see Sarawak Coastal Ports, 1057
also see Miri 1044
Nicaragua 1167
Nicaro, see Antilla 385
Nice 562
Niedersachsenbrucke, see Wilhelmshaven 604
Nieuwpoort 170
Nigeria 1172
Nigg Oil Terminal, see Cromarty Firth Port 1680
Niigata 914
Niihama 914
Nikiski 1860
Ningbo 348
Ningpo, see Ningbo 348
Nipe Bay, see Antilla 385
Niquero, see Manzanillo 400
Nishihara, Okinawa 916
Nishtun 1998
Nissyros, see Yali Island 632
Niteroi 198
Njarovik, see Keflavik-Njarovik 669
Norco, see Good Hope 1806
Nordenham 603
Nordfjordur, see Neskaupstadur 670
Norfolk, see Hampton Roads District 1808
Norrkoping 1492
Norrsundet 1493
Northern Ireland, see United Kingdom 1661
Northfleet, see London 1710
Northport 1860
North Shields, see Tyne District 1758
North Star Bugt 636
North Sydney, N.S., Canada 281
Northville, see Riverhead, N.Y. 1890
North Weymouth, see Boston, U.S.A. 1780
Norway 1191
Nouadhibou 1067
Nouadhibou Harbour, see Nouadhibou 1067
Nouakchott 1069
Noumea 1146
Nouttasaari, see Oulu 521
Novitsky Bay, see Nakhodka 1592
Novorossiysk 1594
Norwuz Terminal, see Ras Bahregan 784
Nueva Gerona 403
Nueva Palmira 1934
Nuevitas 403
Nuku'alofa 1539
Nunukan 744
Nuottasaari, see Oulu 521
Nuuk 636
Nyborg 435
Nyhamn, see Gavle 1478
Nykobing (Falster) 435
Nykobing (Mors) 436
Nykoping 1494
Nynashamn 1494

O

Oakham Ness, see Medway Ports 1720
Oakland 1861
Obbala, see Umea 1505
Obidos 198
Obras Bocas de Ceniza, see Barranquilla 360
Ocean Falls 281
Ocean Island, see Banaba 956
Ocho Rios 859
Odense 436
Odessa 1596
Ofunato 916
Ogdensburg 1861
Ogorode, see Sapele 1189
Oguendjo Terminal 576
Ohama, see Amagasaki 865
Ohgimachi, see Amagasaki 865
Ohita, see Oita 917
Ohmishima, see Omishima 919
Oita 917
Okha 697
Okrika, see Port Harcourt 1186
Okubo, see Moji 907
Olbia 833
Old Kilpatrick, see Clyde Port 1677
Oljysatama, see Turku 528
Olympia 1862
Oman, Sultanate of 1220
Omisalj, see Rijeka 2001
Omishima 919
Onahama 919
Onega 1597
Onehunga 1155
Onomichi-Itozaki 920
Onton, see Castro-Urdiales 1450
Oporto 1304
Opua 1156
Oran 8
Orange 1862
Oranjestad 1139
Orcanera Tip, see Santander 1461
Orehoved 437
Orinoco River, also see Late Reports 1968
Oristano 833
Oritkari, see Oulu 521
Ornskoldsvik 1494
Oro Bay 1253
Orrington, see Bangor, Maine 1776
Orrskar, see Soderhamn 1497
Ortviken, see Sundsvall 1503
Orviken, see Skelleftehamn 1496
Osaka 920
Oshawa 281
Oskarshamn 1495
Oslo 1211
Ostend 170
Ostermoor, see Brunsbuttel 589
Ostrand, see Sundsvall 1503
Ostrica 1863
Oswego 1863
Otago 1156
Otaru 922
Otterbacken 1495
Otterham Quay, see Medway Ports 1720
Ouinne, see Noumea 1146
Ouistreham, see Caen 537
Oulu 521
Ouvea Island, see Noumea 1146
Ovendo, also see Late Reports 579
Owase 922
Oxelosund 1495
Oxhaga, see Karlshamn 1487
Oxnard, see Hueneme 1820
Ozol, see San Francisco 1894

P

Paagoumene, see Noumea 1146
Paamiut 637
Pacasmayo 1262
Pachi 625
Padang, see Teluk Bayur 764
Padstow 1728
Pahang, see Rompin 1054
Paita 1263
Pajaritos, see Coatzacoalcos 1076
Pakistan 1226
Pakoi, see China (General) 336
Palamos 1458
Palanca 17
Palembang 744
Palenque 448
Palermo 834
Palm Beach 1863
Palma, Majorca 1459
Palmeira Bay 315
Palo Alto, see Jucaro 399
Paloh River, see Sibu 1057
Palua 1971
Pamatacualito, see Pertigalete 1975
Pamfyllon, see Mitilene 625
Pampushamnen, see Norrkoping 1492
Panabo, see Davao 1280
Panacan, see Davao 1280
Panama, Republic of 1230
Panama Canal 1237
Panama City, U.S.A. 1864
Panambur, see New Mangalore 696
Panarukan 745
Panay, see Iloilo 1283
Pangai, see Nuku'alofa 1539
Pangkalan Susu 745
Pangkalbalam 746
Panjang 747
Pantalan of Asesa, see Tarragona 1463
Papeete 1411
Papenburg 603
Papua New Guinea 1248
Papupandan, see Iloilo 1283
Para, see Belem 190
Paradip 697
Paraguay 1256
Paramaribo 1474
Paramonga, see Supe 1267
Paranagua 199
Paranam 1475
Parana River, see River Plate 28
Parang, see Polloc 1292
Pargas 522
Paris 563
Parker Point, see Dampier 73
Parkeston Quay, see Harwich 1694
Parnassos, see Itea 621
Partington, see Manchester, U.K. 1719
Pasadena 1865
Pasajes 1459
Pascagoula 1865
Pasir Gudang 1047
Pasir Panjang, see Singapore 1395
Paspebiac 282
Pastelillo, see Nuevitas 403
Pasuo, see China (General) 336
Pateniemi 522
Patillos Cove, see Iquique 326
Patras 626
Patreksfjordur 670
Pauillac, see Bordeaux 533
a Pauline, see Gramercy 1806
Paulsboro, see Philadelphia 1867
Pavitt Point, see Sandakan 1055
Payardi, see Bahia Las Minas 1231
Paysandu 1935
Peanut Is., see Palm Beach 1863
Pearl Harbour, see Honolulu 1811
Pedregal 1242
Peel, I.o.M. 1728
Pelabuhan Blang Lancang, see Lhokseumawe 739
Pelabuhan Datuk Sim Kheng Hong, see Kuching 1039
Pelotas 202
Pemba, Mozambique 1106
Pemba, see Wete, Tanzania 1527
Pembroke, see Milford Haven 1724

Penang 1049
Penarth, see Cardiff 1675
Penco, see Talcahuano 332
Pending Point, see Kuching 1039
Pennington Offshore Terminal 1185
Pennsauken, see Philadelphia 1867
Pensacola 1867
Penzance 1728
Pepel 1393
Perama, see Piraeus 626
Pernambuco, see Recife 208
Pernis, see Rotterdam 1117
Perth, U.K. 1729
Perth Amboy, see New York 1855
Pertigalete 1975
Peru, also see Late Reports 1257
Peterhead Bay 1729
Petersburg 1867
Petit Couronne, see Rouen 564
Philadelphia 1867
Philipsburg 1139
Philippeville, see Skikda 8
Philippines 1268
Phuket 1532
Pichindi, see Turbo 371
Picton 1158
Pictou 282
Pietarsaari, see Jakobstad 517
Pilon, see Manzanillo 400
Pilottown, see New Orleans 1850
Pimentel 1263
Pinder's Point, see Freeport, Bahamas 140
Piney Point 1871
Pinkenba, see Brisbane 65
Pinos Island, see Nueva Gerona 403
Piombino 835
Piraeus 626
Pir Pau, see Bombay 675
Pisco, see General San Martin 1260
Pitch Point, see Sobo 1549
Pitea 1496
Pitsundet, see Pitea 1496
Plaju 748
Playa Misericordia, see Malaga 1456
Ploce, see Kardeljevo 2000
Plymouth 1729
Pohang 970
Point Breeze, see Philadelphia 1867
Point Central, see Nouadhibou 1067
Point Comfort,
  see Port Lavaca/Port Comfort 1879
Point Cruz, see Honiara 1413
Pointe-a-Pierre 1543
Pointe-a-Pitre 639
Pointe-aux-Basques,
  see Sept Iles 298
Pointe Clairette, see Cape Lopez 573
Pointe des Galets 1328
Pointe du Depart,
  see Kompongsom 952
Pointe Noire 375
Pointe Seraphin, see Castries 1336
Point Fortin 1546
Point Howard, see Wellington 1162
Point Lisas 1546
Point Samson, see Port Walcott 119
Point Tupper, see Port Hawkesbury
  and Strait of Canso 289
Poland 1299
Polaroil, see Faeringehavn 634
Poleng 749
Polloc 1292
Polynesie Francaise,
  see **Society Islands** 1411
Pomalaa 749
Ponce 1314
Pondicherry 698
Ponnani, see Calicut 682
Ponta da Madeira 202
Ponta Delgada 138
Pontianak 750
Poole 1730
Porbandar 698
Pori 523
Porkkala 523
Porpoise Harbour,
  see Prince Rupert 290
Poro, see Noumea 1146
Porsgrunn, see Heroya 1201
Port Adams 1872
Port Adelaide, see Adelaide 60
Port Alberni 282
Port Alfred 283
Port Alice 284
Port Allen, Hawaii, see Nawiliwili 1847
Port Allen, La., see Baton Rouge 1777
Port Alma, see Rockhampton 120
Port Alucroix, see Limetree Bay 1986
Port Angeles 1872
Port Antonio 859
Port Arecibo 1314
Port Arthur, Ontario,
  see Thunder Bay 303
Port Arthur, Texas 1872
Port Askaig 1731
Port Augusta 106
Port-au-Prince 654
Port Balchik, see Varna 249
Port Bin Qasim,
  see Port Muhammed Bin Qasim 1227
Port Bonython, 106
Port Bouet, see Abidjan 853
Port Canaveral 1874
Port Cartier 284
Port Chalmers, see Otago 1156
Port Colborne 288
Port Covington, see Baltimore 1774
Port Dalhousie 288
Port de Berre, see Marseilles 554
Port de Bouc, see Marseilles 554
Port de la Corbiere, see Marseilles 554
Port de la Croix, see Concarneau 541
Port de la Mede, see Marseilles 554
Port de Lave, see Marseilles 554
Port de Lavera, see Marseilles 554
Port de l'Estaque, see Marseilles 554
Port Dickson 1050
Port Dzaoudzi 373
Port Elizabeth 1427
Port Ellen 1731
Port Esquivel 859
Port Etienne, see Nouadhibou 1067
Port Everglades 1875
Port Fajardo 1314
Port Gentil 580
Port Giles 107
Port Harcourt 1186
Port Hawkesbury and Strait of Canso 289
Port Hedland 108
Port Hope 289
Port Huon 112
Port Huron, Michigan 1876
Port Ingleside,
  see Corpus Christi 1795
Port Irene, see Aparri 1269
Portishead, see Bristol 1672
Port Jackson,
  see Sydney, N.S.W., Australia 122
Port Jefferson 1876
Port Jerome, see Rouen 564
Port Kaiser 860
Port Kamsar 647
Port Kelang 1052
Port Kembla 112
Port Kennedy, see Thursday Island 127
Portland, Vic., Australia 114
Portland, U.K. 1731
Portland, Maine, U.S.A. 1877
Portland, Oregon, U.S.A. 1878
Port Latta 115
Port Lavaca,
  see Port Lavaca/Point Comfort 1879
Port Lavaca/Point Comfort 1879
Port Lincoln 116
Port Longview, see Longview 1832
Port Louis 1072
Port Manati, see Puerto Padre 407
Port Melbourne, see Melbourne 99
Port Meneng, see Banyuwangi 713
Port Moody, see Vancouver 306
Port Moresby 1253
Port Muhammed Bin Qasim,
  also see Late Reports 1227
Port Nador 1100
Port Natal, see Durban 1423
Port Neches 1880
Port Nelson, see Nelson 1154
Port Nessebar, see Bourgas 248
Port Newark, see New York 1855
Port Newport, see Melbourne 99
Port Nolloth 1428
Porto ABC Norte 204
Porto Alegre 205
Porto Branolao, see Lisbon 1305
Porto Corsini Roads,
  see Ravenna 841
Portocel, see Barra do Riacho 190
Porto dos Buchos, see Lisbon 1305
Porto Empedocle 836
Porto Foxi, see Cagliari 817
Port of Spain 1548
Porto Grande, see St Vincent 315
Porto Marghera, see Venice 851
Porto Saco, see Mocamedes 16
Porto Torres 837
Porto Trombetas 205
Porto Varna-West, see Varna 249
Porto Vesme 837
Port Percy, see Punta Arenas 329
Port Phillip, see Melbourne 99
  and Geelong 84
Porto Pi, see Palma, Majorca 1459
Port Pirie 116
Port Purcell, see Road Harbour &
  Port Purcell 1988
Port Qaboos, also see Late Reports 1221
Port Qasim,
  see Port Muhammed Bin Qasim 1227
Port Rashid 1653
Port Raysut 1223
Port Redi 699
Portree 1731
Port Rhoades 861
Port Richmond, see Philadelphia 1867
Port Royal, see Kingston 857
Port Said, see Suez Canal 473
Port St. Joe 1880
Port St. Mary 1731
Port San Luis 1880
Portsmouth, Dominica 444
Portsmouth, U.K. 1732
Portsmouth, New Hampshire, U.S.A. 1881
Portsmouth, Va., U.S.A.,
  see Hampton Roads District 1808
Port Socony, see New York 1855
Port Stanley 508
Port Stanvac 117
Port Stockton, see Stockton 1902
Port Sudan 1473
Port Sulphur 1883
Port Sutton, see Tampa 1904
Port Swettenham, see Port Kelang 1052
Port Talbot 1732
Port Tampa, see Tampa 1904
Port Taranaki, see New Plymouth 1154
Port Topolly, see Varna 249
Port Trinidad, see Cienfuegos 391
Port Tudy, see Lorient 553
Portugal 1303
Port Vendres 563
Port Victoria 1390
Port Vila 1936
Port Walcott 119
Port Weller 290
Port Wentworth 1883
Port Whangarei, see Whangarei 1165
Porvoo 524
Poti 1598
Poum, see Noumea 1146
Powell River 290
Poya, see Noumea 1146
Pozos Colorados Terminal 366
Prai, see Penang 1049
Praia Formosa, see Funchal 1027
Praia Mole, see Tubarao 237
Prescott 290
Preston, see Antilla 385
Prince Rupert 290
Prince's Bay, see Cape Lopez 573
Princess Royal Harbour,
  see Albany 60
Prinos 627
Priolo, see Augusta 811
Progreso 1084
Proper Bay, see Port Lincoln 116
Propriano 563
Propulsora, see La Plata 39
Proti Island 628
Provestens, see Copenhagen 423
Providence, Rhode Island 1884
Puerto Acevedo,
  see Villa Constitucion 45
Puerto Aisen, see Chacabuco 323

Puerto Armuelles 1243
Puerto Barrios 642
Puerto Bayovar 1263
Puerto Belgrano, see Bahia Blanca 45
Puerto Bolivar, Colombia 367
Puerto Bolivar, Ecuador 457
Puerto Borghi, see San Lorenzo, Argentina 42
Puerto Buitagro, see San Nicolas, Argentina 43
Puerto Cabello 1975
Puerto Cabezas 1169
Puerto Carupano, see Puerto Padre 407
Puerto Castilla, Honduras 657
Puerto Chicama 1264
Puerto Cortes 658
Puerto Deseado 50
Puerto de Hierro 1976
Puerto de la Luz, see Las Palmas 312
Puerto de las Mareas, see Las Mareas 1312
Puerto de Raos, see Santander 1461
Puerto de Soller, see Soller 1463
Puerto Duarte 448
Puerto Galvan, see Bahia Blanca 45
Puerto Granaderos, see San Lorenzo 42
Puerto Honduras, see Santa Cruz de Tenerife 314
Puerto La Cruz 1976
Puerto Las Minas, see Bahia Las Minas 1231
Puerto Limon 380
Puerto Local, see Gijon 1453
Puerto Macias 503
Puerto Madero, Argentina, see Buenos Aires 36
Puerto Madero, Mexico 1084
Puerto Madryn 50
Puerto Maritime, see Guayaquil 455
Puerto Miranda 1964
Puerto Moin 381
Puerto Montt, also see Late Reports 328
Puerto Nuevo, Argentina, see San Nicolas 43
Puerto Nuevo, Equatorial Guinea, see Puerto Macias 503
Puerto Nuevo, Puerto Rico, see San Juan 1315
Puerto Ordaz 1972
Puerto Ordaz Terminal, see Punta Cuchillo 1973
Puerto Padre 407
Puerto Percy, see Punta Arenas 329
Puerto Plata 448
Puerto Princesa 1292
Puerto Prodeco, see Santa Marta 370
Puerto Quetzal, Guatemala 643
Puerto Rico 1311
Puerto Rosales, see Bahia Blanca 45
Puerto San Martin, see San Lorenzo, Argentina 42
Puerto Sandino 1169
Puerto Somoza, see Puerto Sandino 1169
Puerto Sucre 1978
Puerto Tarafa, see Nuevitas 403
Puerto Viejo, see Azua 446
Puhos, see Saimaa Canal 526
Pula 2001
Pulau Ayer Chawan, see Singapore 1395
Pulau Baai, see Bengkulu 715
Pulau Bukom, see Singapore 1395
Pulau Lumut, see Port Kelang 1052
Pulau Merlimau, see Singapore 1395
Pulau Pesek, see Singapore 1395
Pulau Sambu 750
Pulau Samulun, see Singapore 1395
Pulau Sebarok, see Singapore 1395
Pulmoddai, see Trincomalee 1472
Pulpit Point, see Sydney, N.S.W., Australia 122
Pulupandan 1293
Punta Alice, see Ciro Marina 819
Punta Ancla, see Bahia Blanca 45
Punta Arenas, Chile, also see Late Reports 329
Punta Bustamente, see Rio Gallegos 52
Punta Cardon 1978
Punta Chavez, see Puerto Cabello 1975
Punta Ciguena, see Bahia Blanca 45
Punta Colorada 51
Punta Cuchillo 1973
Punta de Palmas 1965
Punta el Gancho, see Rio Gallegos 52
Punta Gorda, Cuba, see Baracoa 389
Punta Gorda, Venezuela, see Caripito 1941
Punta Grossa, see Koper 2000
Punta Loyola, see Rio Gallegos 52
Punta Mapam, see Topolobampo 1090
Punta Marieta, see Caripito 1941
Punta Medanos 51
Punta Molino, see Gaeta 821
Punta Palenque, see Palenque 448
Punta Quilla 51
Puntarenas, Costa Rica 381
Punta Salinas, see Antilla 385
Punta Tablones, see Ilo 1261
Punto Fijo, see Amuay Bay 1938
Purfleet, see London 1710
Pusri, see Palembang 744
Pusan, see Busan 964
Pyarnu 1598
Pylos 628
Pyrmont, see Sydney, N.S.W., Ausrralia 122

Q

Qaqortoq 637
Qasr Ahmed, see Misurata 1014
Qatar 1320
Qatif, see Saudi Arabia (General) 1343
Qeqertarsuaq 637
Qingdao 350
Qinhuangdao 350
Qua Iboe 1188
Quang Ninh Area 1985
Quebec 292
Queenborough, see Medway Ports 1720
Queens Park Terminal, see St. George's, Grenada 638
Quequen 51
Quiliano Terminal 839
Quimper-Corniquel 564
Quinalong Cove, see Iligan 1282
Quincy, see Boston, U.S.A. 1780
Quinfuquena, also see Late Reports 19
Quintero, also see Late Reports 330
Quiriquina Island, see Talcahuano 332
Quy Nhon 1985

R

Raa, see Helsingborg 1483
Raahe 525
Rabaul 1254
Rabigh, also see Late Reports 1361
Rabochaya, see Odessa 1596
Rabon Grande 1085
Rada Vinapu, see Easter Island 324
Rainham Creek, see Medway Ports 1720
Rairi, see Port Redi 699
Rajang River, see Sibu 1057
Ramallo 41
Ramba 752
Ramsburg, see Georgetown, Guyana 651
Ramsey, I.o.M. 1733
Ramsgate 1734
Ramshall, see Norrkoping 1492
Randers 437
Rangoon 250
Rapasaari, see Saimaa Canal 526
Rapid Bay 120
Raratonga, see Avatiu 377
Rasa, see Rijeka 2001
Ras Alkatheeb 1993
Ras-al-Khafji 1361
Ras al-Khaimah 1654
Ras al Mishab 1366
Ras Bahregan 784
Ras Budran 468
Ras Es Sider, see Es Sider 1006
Ras Gharib 469
Ras Isa Marine Terminal, see Late Reports
Ras Lanuf 1016
Ras Selaata 993
Ras Shukheir 470
Ras Sif, see Mogadiscio 1418
Rasta, see Stockholm 1500
Ras Tanura 1366
Rathmullen 799
Rauma 526
Rautaruukki, see Raahe 525
Ravenna 841
Ravensbourne, see Otago 1156
Recalada, see River Plate 28
Recife 208
Redcar, see Tees River 1756
Redi, see Port Redi 699
Redwood City 1885
Refineria Gibraltar, see Algeciras 1435
Regencia 209
Rejang River, see Tanjong Manis 1058
Remire, see Guyane 653
Rendsberg 604
Reni 1599
Reposaari, see Pori 523
Reunion Island 1328
Revere, see Boston, U.S.A. 1780
Reykjavik 670
Rey Malabo 503
Rhodes 629
Riachuelo, see Buenos Aires 36
Ribadeo 1460
Rice Point, see Duluth-Superior 1799
Richards Bay 1428
Richmond, California 1886
Richmond, Virginia 1889
Ridham Dock, see Medway Ports 1720
Ridley Island, see Prince Rupert 290
Riga 1599
Rijeka 2001
Rijnpoort, see Rotterdam 1117
Rimouski 294
Ringaskiddy, see Cork 793
Rio, see Patras 626
Rio de Janeiro 209
Rio Gallegos 52
Rio Grande, Brazil 214
Rio Grande do Sul, see Tramandai 235
Rio Haina 449
Rio Leon, see Turbo 371
Rio Nunez, see Port Kamsar 647
Rio Santiago, see La Plata 39
Rio Trombetas, see Porto Trombetas 205
Risdon, see Hobart 91
Risor 1211
Ristiina, see Saimaa Canal 526
River Elbe (General Information) 584
Riverhead, N.Y. 1890
River Jade, see Wilhelmshaven 604
River Plate 28
Road Harbour & Port Purcell 1988
Roberts Bank, see Vancouver, B.C., Canada 306
Rochefort sur Mer 564
Rochester, U.K., see Medway Ports 1720
Rochester, New York, U.S.A. 1892
Rockhampton 120
Rockport, see Tampa 1904
Rodby 437
Rodman Naval Station, see Balboa 1231
Rodos, see Rhodes 629
Rokko Island, see Kobe 894
Romania 1330
Rome, see Georgetown, Guyana 651
Rompin 1054
Ronne 437
Ronneby 1496
Ronnskarsverken, see Skelleftehamn 1496
Rosario, Argentina 41
Rosario, Philippines, see Manila 1287
Rosarito 1086
Rosas 1460
Roscoff 564
Roseau 444
Rosslare 799
Rostock 582
Rosyth, see Braefoot Bay 1667
Rota, see Bilbao 1444
Rotterdam, also see Late Reports 1117

Rouen 564
Rowhedge, see Colchester 1678
Roytta, see Tornio 528
Rozelle Bay, see Sydney, N.S.W., Australia 122
Rozi, see Bedi Bunder 674
Ruhrort, see Duisburg-Ruhrort 594
Rumoi 923
Runcorn, see Manchester, U.K. 1719
Rupat Strait, see Dumai 727
Ruwais, see Jebel Dhanna Ruwais 1637
Rya Harbour, see Gothenburg 1479
Rye 1735

S

Sabah (Minor Ports) 1055
Sabang 752
Sabine-Neches Waterway, see Port Arthur, Texas 1872
Sacavem, see Lisbon 1305
Sacramento 1892
Saetia, see Antilla 385
Safaga 471
Safi 1100
Sagunto 1461
Saida, see Sidon 993
Saigon, see Ho Chi Min City 1984
Saimaa Canal and ports in Lake Area of Saimaa 526
St. Andrews, N.B., Canada 294
St. Andrew's Bay, see Panama City 1864
St. Catharines 294
St. Croix, see **Virgin Islands** 1986
St. Estephe, see Bordeaux 533
St. Eustatius 1140
St. George's, Bermuda 177
St. Georges, Grenada 638
St. Helena 1333
St. James, see Burnside 1789
St. Johann, see Basle 1509
Saint John, N.B., Canada 295
St. John's, Antigua 22
St. John's, Newfoundland, Canada 296
St. John, Switzerland, see Basle 1509
St. Kitts 1334
Saint Laurent-du-Maroni 653
St. Lawrence Seaway 1335
St. Louis du Rhone 567
St. Lucia 1336
St. Maarten, see Philipsburg 1139
St. Malo 567
St. Michael's Bay, see Sint Michielsbay 1143
St. Nazaire 560
St. Nicholas, see Aghios Nikolaos 615
St. Nikolo, see Aghios Nikolaos 615
St. Pierre 1340
St. Pierre and Miquelon 1340
St. Rose, see New Orleans 1850
St. Thomas, Virgin Islands 1989
St. Vincent, Republic of Cape Verde 315
St. Vincent 1341
Saipan 1065
Sakai 923
Sakaide 925
Sakata 926
Salalah, see Port Raysut 1223
Salaverry 1264
Salawati 752
Saldanha Bay 1431
Saleef 1993
Salem 1893
Salerno, also see Late Reports 843
Salgema Terminal, see Maceio 196
Salif, see Saleef 1993
Salina, Bonaire, see Kralendijk 1138
Salina Cruz 1086
Salinas, Ecuador, see La Libertad, Ecuador 456
Salinas, Venezuela, see Guaranao 1947
Salineiro Terminal, see Areia Branca 189
Salipazari, see Istanbul 1569
Sal Island, see Palmeira Bay 315
Salonica, see Thessaloniki 631
Saltacaballo, see Castro Urdiales 1450
Salt End, see Hull 1697
Saltpond 611
Salt River 862
Salvador 217
Samarai 1254
Samarinda 755
Samcheog Han 972
Samcheon Po 972
Sam Chuck, see Samcheog Han 972
Samoa, see **Western Samoa** 1990
Sampit 755
Samson Point, see Port Walcott 119
Samsun 1574
San Antonio 331
San Antonio Este 52
San Carlos 1088
San Ciprian 1461
Sandakan 1055
Sandarne, see Soderhamn 1497
Sandaunhafen, see Hamburg 597
San Diego 1893
Sandwich Oil Terminal, see Cape Cod Canal 1789
San Fernando 1294
San Francisco 1894
Sangatta 755
Sangi 1295
San Jose, Guatemala 644
San Jose, Philippines, see Tacloban 1296
San Juan, Puerto Rico 1315
San Juan de la Costa 1089
San Juan del Sur 1170
San Julian, Argentina 52
San Lorenzo, Argentina 42
San Lorenzo, Honduras 659
San Lorenzo, Venezuela 1968
San Luis, see Port San Luis 1880
San Martin, see San Lorenzo, Argentina 42
San Martin, see Arica, Chile 321
San Miguel, see Ponta Delgada 138
San Nicolas, Argentina 43
San Nicolas, Aruba, Netherlands Antilles 1141
San Nicolas, Peru 1265
San Pedrito, see Manzanillo, Mexico 1081
San Pedro, Argentina 43
San Pedro, Ivory Coast 856
San Pedro, Cal., U.S.A., see Los Angeles 1839
San Pedro de Macoris 449
Sans Souci, see Santo Domingo 449
Santa Ana, see Davao 1280
Santa Barbara, see Huasco 325
Santa Cruz, Argentina, see Punta Quilla 51
Santa Cruz del Sur 408
Santa Cruz de Tenerife 314
Santa Elena Bay, see La Libertad, Ecuador 456
Santa Fe 44
Santa Iria, see Lisbon 1305
Santa Isabel, see Rey Malabo 503
Santa Lucia, see Mariel 401
Santa Lucia Oriente, see Vita 411
Santa Maria, see Jucaro, Cuba 399
Santa Maria, see Bilbao, Spain 1444
Santa Marta 370
Santana 220
Santander 1461
Santan Terminal 755
Santarem 221
Sant Carles De La Rapita 1462
Sant Feliu de Guixols 1463
Santiago de Cuba 409
Santo 1936
Santo Domingo 449
Santos 222
Santo Tomas de Castilla 645
Santurce, see Bilbao 1442
San Vicente, Chile, also see Late Reports 332
San Vicente, Philippines, see Aparri 1269
San Vitale, see Ravenna 841
Sanya, see Late Reports
Sao Francisco do Sul 227
Sao Luis 230
Sao Sebastiao 231
Sao Tome, also see Late Reports 1342
Sao Tome and Principe, Republic of 1342
Sapangar Bay, see Kota Kinabalu 1035
Sapele 1189
Saqr, see Mina Saqr 1648
Sarande 1
Sarawak Coastal Ports 1057
Sarikei, see Sibu 1057
Sariseki, see Iskenderun 1568
Sarnia 297
Sarpsborg 1212
Sarroch, see Cagliari 817
Sasa, see Davao 1280
Sasebo 926
Sassari, see Porto Torres 837
Sattahip 1532
Sauda 1212
Saudi Arabia 1343
Sault Ste. Marie 297
Saunasilta, see Uusikaupunki 529
Sauoya, see Halden 1200
Savannah 1896
Savanna la Mar 862
Savona 843
Savonlinna, see Saimaa Canal 526
Savu Savu, see Suva (Outports) 512
Scalloway 1735
Scapa Flow 1736
Scheerhafen, see Kiel 601
Scheveningen 1127
Schiedam, 1127
also see Rotterdam 1117
Schillig Roads, see Wilhelmshaven 604
Schmidt Harbour, see Zhdanov 1613
Schottegat Bay, see Willemstad/Emmastad 1143
Scotland, see **United Kingdom** 1661
Scrabster 1738
Seaforth, see Liverpool 1707
Seaham 1738
Sears Island, see Searsport 1898
Searsport 1898
Seattle 1899
Sejingkat 1057
Sekupang 758
Selat Lalang 758
Selfs Point, see Hobart 91
Sella Ness, see Sullom Voe 1746
Semangka Bay, see Teluk Semangka 765
Semarang 758
Sembawang, see Singapore 1395
Semporna, see Sabah (Minor Ports) 1055
Senboku, see Sakai 923
Senbong 962
Sendai, see Shiogama 930
Senegal 1388
Senipah Terminal 759
Sepen, see Rijeka 2001
Sepetiba Bay 233
Sepinggan, see Lawi Lawi 737
Sept Iles 298
Seria 245
Serrano Island, see Iquique 326
Sete, also see Late Reports 568
Setubal 1306
Seven Islands, see Sept Iles 298
Seville 1463
Seward 1901
Sewaren, see New York 1855
Sewell's Point, see Hampton Roads District 1808
Seychelles 1390
Sfaktiria, see Pylos 628
Sfax 1554
Shahid Rejaie Port, see Bandar Abbas 767
Sha Lun, see Keelung 1518
Shanghai, 351
also see China (General) 336
Shannon Estuary 800
Sharjah 1654
Shark Bay, see Carnarvon 70
Sharpness 1739
Sheerness, see Medway Ports 1720
Sheet Harbour 299
Shellhaven, see London 1710
Shen Ao, see Keelung 1518
Shengjin 1
Sherbro River, see Freetown 1392
Sherm Rabegh, see Rabigh 1361
Sheskharis, see Novorossiysk 1594
Sheva, see Bombay 675
Shikama, see Himeji 874
Shimanzi, see Mombasa 953

TEXT INDEX

Shimizu 927
Shimonoseki 929
Shimotsu 930
Shinminato, see Toyama Shinko 938
Shinmoji, see Moji 907
Shiogama 930
Ship Harbour 300
Shippegan Harbour 300
Shoreham 1739
Shortland Harbour 1413
Shuaiba 985
Shuwaikh 987
Siape Peldar, see Barranquilla 360
Sibenik 2005
Sibolga 761
Sibu 1057
Sibuti, see Sarawak Coastal Ports 1057
Sidi Kerir 472
Sidon 993
Sierra Leone 1392
Siglufjord 671
Siilinjarvi, see Saimaa Canal 526
Sikea 1496
Sikka 700
Silloth 1740
Simonette, see Port-au-Prince 654
Sim's Bayou, see Houston 1817
Sines 1307
Sinop 1574
Singapore, also see Late Reports 1395
Singapore 1395
Sint Michielsbay 1143
Sinucane Is., see Port Hedland 108
SIOT Terminal, see Trieste 847
Sipitang 1058
Siporex, see Skelleftehamn 1496
Sirri Island, also see Late Reports 786
Sirtica, see Ras Lanuf 1016
Sisimiut 637
Sitka 1901
Sitra 150
Sjursoeya, see Oslo 1211
Skaelskor 438
Skaerbaek 438
Skagastrond 671
Skagen 438
Skagway 1901
Skandia Harbour, see Gothenburg 1479
Skaramanga. see Eleusis 618
Skarvik Harbour, see Gothenburg 1479
Skelleftehamn 1496
Skeppsviken, see Uddevalla 1504
Skien 1212
Skikda 8
Skogby, see Ekenas 514
Skogn, see Fiborgtangen 1198
Skoldvik, see Porvoo 524
Skredsvik 1497
Skudeneshavn 1204
Skuthhamn, see Pitea 1496
Slagen 1213
Sligo 801
Slite 1497
Smalkalden 1475
Smiths Bluff 1902
Snails Bay,
see Sydney, N.S.W., Australia 122
Snodland, see Medway Ports 1720
Sobo 1549
Sochi 1600
Socialist People's Libyan Arab Jamahiriya 1004
Society Islands 1411
Soderhamn 1497
Sodertalje 1498
Soervaag 509
Sola 1214
Soller 1463
Solomon Islands 1413
Solvesborg 1498
Somali Democratic Republic 1416
Sonderborg 439
Sondre Stromfjord, see Kanderlussuaq 635
Soraker, see Sundsvall 1503
Sorel 300
Sornainen Harbour, see Helsinki 515
Sor-Stangnes, see Harstad 1200
Sorong, see Kasim Marine Terminal 761
Sourabaja 761
Sousakion, see Isthmia 620
Soussa, see Sousse 1555
Sousse 1555
South Africa 1421
Southampton 1740
South Boston, see Boston, U.S.A. 1780
South Brewer, see Bangor, Maine 1776
South Riding Point 143
South Shields, see Tyne District 1758
Soyo, see Quinfuquena 19
Spain 1435
Spanish Guinea,
see **Equatorial Guinea** 503
Sparrows Point, see Baltimore 1774
Spezia, see La Spezia 826
Split 2005
Spring Bay 121
Springdale 300
Squamish 301
Sri Lanka 1470
Sriracha 1533
Stade, see Butzfleth 592
Stadersand 604
Stanley 121
Stanlow, see Manchester 1719
Stapleton, see New York 1855
Staten Is., see New York 1855
Stavanger 1216
Stege 439
Steno Straits, see Chalkis 617
Stenungsund, also see Late Reports 1499
Stephenville 301
Sterno, see Karlshamn 1487
Stettin, see Szczecin 1301
Stignaesvaerkets 439
Stilleryd, see Karlshamn 1487
Stocka, see Hudiksvall 1486
Stockholm 1500
Stockton 1902
Stockvik, see Sundsvall 1503
Stora Hoggarn, see Stockholm 1500
Stornoway 1746
Storugns 1502
Strahan 121
Strait of Canso 289
Stralsund 582
Stranraer 1746
Strasbourg 570
Strathcona Sound, see Nanisivik 280
Straumsvik 671
Stromskar, see Umea 1505
Stromstad 1503
Strood, see Medway Ports 1720
Studstrup 440
Stugsund, see Soderhamn 1497
Sture, see Late Reports
Sturgeon Bay, see Los Angeles 1839
Stylis 629
Suai, see Sarawak Coastal Ports, 1057
also see Miri 1044
Suao 1520
Suda Bay 629
Sudan 1473
Sue-Side, see Navlakhi 694
Suez, see Suez Canal 473
Suez Canal, also see Late Reports 473
Sukhumi 1601
Sukkertoppen, see Maniitsoq 635
Sulina 1331
Sullom Voe 1746
Summerside 301
Sundahofn, see Reykjavik 670
Sunderland 1754
Sundsvall 1503
Sungai Gerong, see Plaju 748
Sungai Pakning 762
Sungei Merah, see Sibu 1057
Sungei Sarawak, see Sejingkat 1057
Sunndalsora 1216
Sunshine, see Geismar 1805
Supe 1267
Superior, see Duluth-Superior 1799
Suriname 1474
Sutudden, see Karlshamn 1487
Suva 512
Susak, see Rijeka 2001
Suza, see Sousse 1555
Svartvik, see Sundsvall 1503
Svendborg 440
Svolvaer 1217
Swansea 1755
Swatow, see China (General) 336
Sweden 1477
Swinoujscie, see Szczecin 1301
Switzerland 1509
Sydney, N.S.W., Australia,
also see Late Reports 122
Sydney, N.S., Canada 301
Syd-Port, see Sydney, N.S., Canada 301
Syrian Arab Republic 1510
Syros 630
Szczecin 1301

T

Tabaco 1295
Tabangao, see Batangas 1274
Table Bay, see Cape Town 1421
Tachibana, see Anan 866
Tacloban 1296
Tacoma 1903
Tadine Wharf, see Noumea 1146
Tadoussac 302
Tagbilaran, see Cebu 1277
Tagonoura 931
Taharoa 1158
Tahkoluoto, see Pori 523
Taichung 1521
Taipale, see Saimaa Canal 526
Taiwan 1516
Takoradi 611
Taku Bar, 354
also see China (General) 336
Takula Terminal, see Cabinda 12
Talara 1267
Talcahuano, also see Late Reports 332
Ta-Lien, see Dairen 342
also see China (General) 336
Tallaboa Bay, see Guayanilla 1311
Tallbacken, see Norrkoping 1492
Talleyrand, see Jacksonville 1822
Tallinn 1601
Taltal 333
Tamano, see Uno 940
Tamatave, see Toamasina 1029
Tammisaari 514
Tampa 1904
Tampico 1089
Tanabe 931
Tanah Puteh, see Kuching 1039
Tanamo 410
Tananger, see Sola 1214
Tanauan 1297
Tandjong Perak, see Sourabaja 761
Tandjong Priok, see Jakarta 732
Tandjung Lepee, see Pomalaa 749
Tandjung Uban 763
Tanga 1527
Tangier 1101
Tangku, see Taku Bar, 354
also see China (General) 336
Tanjong Berlayer, see Singapore 1395
Tanjong Gul, see Singapore 1395
Tanjong Kling, see Singapore 1395
Tanjong Manis 1058
Tanjong Pagar, see Singapore 1395
Tanjong Pendam, see Sibu 1057
Tanjong Penjuru, see Singapore 1395
Tanjong Po, see Kuching 1039
Tanjong Salirong 246
Tanjung Bruas, see Malacca 1044
Tanjung Lepee, see Pomalaa 749
Tanjung Pandan 763
Tanjung Priok, see Jakarta 732
Tanoura, see Moji 907
Tan-Tan 1101
Tanzania 1524
Tarahan, see Panjang 747
Tarakan 763
Taranaki, see New Plymouth 1154
Taranto, also see Late Reports 845
Tarawa 956
Tarbert Is. Oil Terminal,
see Shannon Estuary 800
Tarragona 1463
Tartous 1513
Tauranga 1160
Tawau 1059

Tazerka 1555
Tebar Terminal, see Sao Sebastiao 231
Tebig Terminal, see Angra dos Reis 182
Tecarmo, see Carmopolis 191
Tedut Terminal, see Tramandai 235
Tees River 1756
Teesport, see Tees River 1756
Tefran, see Sao Francisco do Sul 227
Tegal 764
Tela 660
Telegraf Berget, see Stockholm 1500
Telok Ayer, Indonesia 764
Telok Ayer, Singapore, see Singapore 1395
Telok Ewa 1060
Teluk Bayur 764
Teluk Betung, see Panjang 747
Teluk Semangka 765
Tema 612
Temadre Terminal, see Salvador 217
Tembladora 1549
Temse, see Brussels 167
Tenerife, see Santa Cruz de Tenerife 314
Ternate 766
Terneuzen 1128
Tetney Marine Terminal 1758
Texas City 1907
Thailand 1529
Thames District, see London 1710
Thamshamn, see Thamshavn 1217
Thamshavn 1217
Thessaloniki 631
Thevenard 126
Thio, see Noumea 1146
Thorndon, see Wellington 1162
Thorold 303
Three Rivers, see Trois Rivieres 305
Thule, see North Star Bugt 636
Thunder Bay 303
Thursday Island 127
Tianjin 354
Tientsin 354
  also see China (General) 336
Tiko 253
Tilbury, see London 1710
Timaru 1161
Timsah By-Pass, see Suez Canal 473
Tina-an Naga, see Cebu 1277
Tin Can Island, see Lagos 1183
Tioga Terminal, see Philadelphia 1867
Titchfield Peninsular, see Port Antonio 859
Tjilatjap, see Cilacap 722
Tjirebon, see Cirebon 726
Toamasina 1029
Tobata 932
Tobruk 1019
Tocopilla 333
Togo Republic 1536
Tokuyama 933
Tokyo 934
Toledo, Philippines, see Cebu 1277
Toledo, U.S.A. 1908
Tolkis, see Tolkkinen 528
Tolkkinen 528
Tolo Harbour, see Hong Kong 662
Tomakomai 936
Tomil Harbour 1093
Tonda, see Tokuyama 933
Tonga 1539
Tongue Point, see Astoria 1773
Tonnay-Charente 571
Tonsberg 1217
Topolobampo 1090
Toppila, see Oulu 521
Tore, see Karlsborgsverken 1487
Torgua, see Rio de Janeiro 209
Tornio 528
Toronto 305
Toros Gubre, see Golovasi 1563
Torre Annunziata 846
Torre del Sale, see Piombino 835
Torres Strait 128
Torrevieja 1466
Tors Harbour, see Gothenburg 1479
Torshavn 509
Tortola, see **Virgin Islands** 1986
Toryu, see Imabari 877
Totnes, see Dartmouth 1681
Touho Bay, see Noumea 1146
Toulon 572
Tourane, see Danang 1982
Townsville 128
Toyama 937
Toyama Shinko 938
Trabzon 1574
Trafaria, see Lisbon 1305
Tramandai 235
Trangisvaag 509
Tranmere, see Liverpool 1707
Travemunde, see Lubeck 602
Traweek, see Houston 1817
Trelleborg 1504
Trial Bay 130
Trieste 847
Trincomalee 1472
Trinidad 1540
Tripoli, Lebanon 996
Tripoli, Libya 1019
Triso, see Sejingkat 1057
Tristan da Cunha 1550
Tristan Island 1550
Trogir, see Split 2005
Trois Rivieres 305
Tromso 1218
Trondheim 1218
Troon, see Ayr 1664
Trouville, see Trouville-Deauville 572
Trouville-Deauville 572
Tsamkong, see Zhanjiang 356
  and China (General) 336
Tsingtao, see Qingdao 350
  also see China (General) 336
Tsing Yi, see Hong Kong 662
Tsuen Wan, see Hong Kong 662
Tsukumi 939
Tsuruga 939
Tsurumi, see Kawasaki 885
  and Yokohama 945
Tsurusaki, see Oita 917
Tuapse 1602
Tubarao 237
Tuborg Havn 440
Tumaco 371
Tunadalshamnen, see Sundsvall 1503
Tunas de Zaza, see Cienfuegos 391
Tungprong Port, see Sattahip 1532
Tunis, see La Goulette 1553
Tunisia 1551
Turbo 371
Turkey 1557
Turks and Caicos Islands 1577
Turku 528
Tuticorin 700
Tutuncifilik 1575
Tuvalu 1578
Tuxpan 1090
Tvoroyri, see Trangisvaag 509
Twillingate 306
Twofold Bay, see Eden 80
Tyne District 1758
Tynemouth, see Tyne District 1758

U

Ube 940
Ubu 238
Udang Natuna 766
Uddevalla 1504
Ujang Pandang, see Macassar 742
Uleaborg, see Oulu 521
Ulsan 973
Umaiso, see Matsuyama 903
Umea 1505
Umm Al Nar 1655
Umm al Qaiwain 1656
Umm al Quwain, see Umm al Qaiwan 1656
Umm Lajj, see Saudi Arabia (General) 1343
Umm Qasr, see Basrah 790
Umm Said 1323
Unalaska 1909
Union of Soviet Socialist Republics 1579
United Arab Emirates 1614
United Kingdom 1661
United States of America 1763
Uno 940
Upnor, see Medway Ports 1720
Urangan, see Maryborough 98
Urangel, see Nakhodka 1592
Urdiales, see Castro-Urdiales 1450
Urinj, see Rijeka 2001
Uruguay 1918
Useless Loop, see Carnarvon 70
Ushuaia 52
Ust-Dunaysk 1603
Ustj-Dunaysk, see Ust-Dunaysk 1603
Usunkum, see Eregli 1561
Uusikaupunki 529

V

Vaasa 529
Vacamonte 1246
Vadinar 701
Vado Ligure, see Savona 843
Vadso 1218
Vaitape, see Bora Bora 1411
Val de Caes, see Belem 190
Valdez 1910
Valdez Marine Terminal 1910
Valencia 1466
Valfajr Two, see Hormoze Terminal 774
Valkom, see Lovisa 520
Valletta 1063
Vallvik 1505
Valparaiso, also see Late Reports 334
Vancouver, B.C., Canada 306
Vancouver, Washington, U.S.A. 1915
Vanimo 1254
Vanuatu, Republic of 1936
Varanus Island Terminal 130
Varberg 1506
Varkaus, see Saimaa Canal 526
Varna 249
Varna-West, see Varna 249
Vartan, see Stockholm 1500
Vasklot, see Vaasa 529
Vassiliko Bay 416
Vasteras 1506
Vastervik 1507
Vatia Point, see Suva 512
Veitsiluoto 530
Vejle 441
Venalum Terminal 1974
Venezuela 1938
Venice 851
Ventspils 1604
Vera Cruz 1091
Veraval 701
Verdon, see Bordeaux 533
Vestmannaeyjar 672
Viana do Castelo 1310
Victoria, Cameroon, see Limbe 253
Victoria, B.C., Canada 309
Victoria Harbour, Hong Kong, see Hong Kong 662
Victoria Harbour, Malaysia, see Labuan 1040
Victoria Oil Terminal, see Moudi Marine Terminal 256
Vietnam, Socialist Republic of 1981
Vieux Fort, see Castries 1336
Vigo 1468
Vihreasaari, see Oulu 521
Vila do Conde 240
Vilanova I La Geltru 1468
Vila Real de Santo Antonio 1310
Villa Cisneros 1102
Villa Constitucion 45
Villagarcia de Arosa 1469
Villanueva, also see Late Reports 1297
Vinapu Roads, see Easter Island 324
Vioeyjarsund, see Reykjavik 670
Virgin Islands 1986
Visakhapatnam 702
Visby 1507
Vita 411
Vitoria 240
Vivstavarv, see Sundsvall 1503
Vlaardingen, 1131
  also see Rotterdam 1117
Vlissingen, see Flushing 1115

Vollsfjorden, see Skien 1212
Volos 632
Voltri, see Genoa 822
Voorbaai, see Mossel Bay 1426
Vordingborg 441
Vostochny 1606
Voudia Bay, see Milos Island 624
Vuda Point, see Lautoka 511
Vung-Tau, also see Late Reports 1985
Vuoksi, see Saimaa Canal 526
Vyborg 1609
Vysotsk, see Vyborg 1609

W

Wadi Firan 496
Wadrilla Wharf, see Noumea 1146
Wageningen, see New Nickerie 1474
Wagner's Point, see Baltimore 1774
Wahran, see Oran 7
Waitemata Harbour, see Auckland 1150
Wakamatsu 941
Wakayama 942
Wala Wharf, see Noumea 1146
Wales, see **United Kingdom** 1661
Walkom, see Lovisa 520
Wallaroo 131
Wallhamn 1507
Wallsend, see Tyne District 1758
Walsh Bay, see Sydney, N.S.W., Australia 122
Walvis Bay 1107
Wamsasi 766
Wanganui 1161
Warnemunde, see Rostock 582
Warrenpoint 1760
Warri 1190
Warrington, see Manchester, U.K. 1719
Watchet 1760
Waterford 801
Weehawken, see New York 1855
Weipa 132
Welland 310
Welland Canal, see St. Lawrence Seaway 1335
Wellington 1162
Wenchow, see China (General) 336
Western Port 132
Western Samoa 1990
West Hartlepool, see Hartlepool 1694
Westport 1164
Westview, see Powell River 290
Westville, see Philadelphia 1867
Westwego, see New Orleans 1850
Wete 1527
Wewak 1254
We Wharf, see Noumea 1146
Weymouth, U.K. 1761
Weymouth, Mass., U.S.A., see Boston 1780
Weymouth, N.S., Canada 310
Whampoa, see Guangzhou, 345
also see China (General) 336
Whangarei 1165
Whiddy Island, see Bantry Bay 793
White Bay, see Sydney, N.S.W., Australia 122
Whitegate, see Cork 793
Whitehaven 1761
Whitstable 1761
Whittier 1916
Whyalla 134
Wicklow 802
Wilhelmsburg, see Hamburg 597
Wilhelmshaven 604
Willemstad/Emmastad 1143
Williamstown, see Melbourne 99
Wilmington, Delaware 1916
Wilmington, N.C. 1916
Windsor 310
Wintam, see Brussels 167
Wismar 583
Wivenhoe, see Colchester 1678
Wolloomooloo, see Sydney, N.S.W., Australia 122
Woodbridge Bay, see Roseau 444
Woodfibre 311
Workington 1762
Wrangell 1917
Wright Point, see Port Hawkesbury and Strait of Canso 289
Wulsan, see Ulsan 973
Wyndham 135

X

Xeros, see Gemikonagi 413
Xiamen 355
Xiang Jiang 355

Y

Yabucoa 1317
Yahata, see Chiba 867
Yakacik, see Isdemir 1567
Yali Island 632
Yalta 1609
Yamaguche Bay, see Iwakuni 879
Yamba 136
Yampi Sound 136
Yanbu 1376
Yandina 1414
Yantai 355
Yap, see Tomil Harbour 1093
Yarimca 1575
Yarmouk, see Aqaba 950
Yarraville, see Melbourne 99
Yatsushiro 942
Yawata 943
Yemen Arab Republic 1991
Yemen, People's Democratic Republic of 1995
Yenbo, see Yanbu 1376
Yentai, see Yantai 355
Yingkou, see Late Reports
Ymuiden 1131
Yokkaichi 944
Yokohama 945
Yokosuka 949
Yorktown 1917
Yosu 975
Ystad 1507
Yugoslavia 1999
Yura, see Shimotsu 930
Yuzhnyy 1610
Yxpila, see Kokkola 518

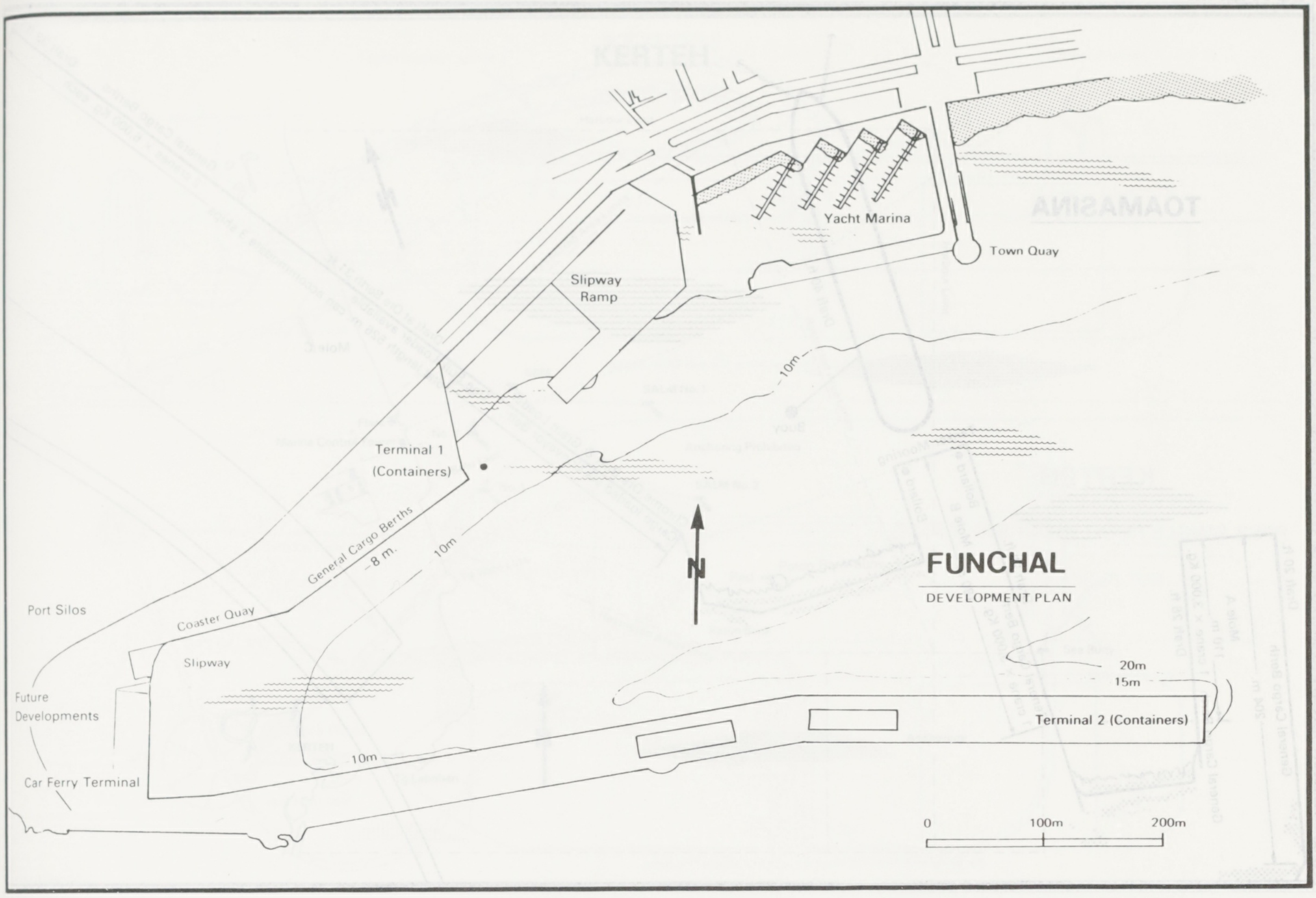
Z

Zaandam 1132
Zaanstad, see Zaandam 1132
Zadar 2006
Zahrani Terminal, see Sidon 993
Zaire Republic 2008
Zamboanga 1298
Zanzibar 1527
Zaoudzi, see Port Dzaoudzi 373
Zarate 45
Zeebrugge 170
Zeit Bay 497
Zelenika 2006
Zhangjiagang 356
Zhanjiang 356
Zhdanov 1613
Zirku Island 1656
Zonguldak 1576
Zorroza, see Bilbao 1442
Zuara 1020
Zuetina, see Zueitina 1020
Zueitina 1020
Zulayfayn, see Ju'aymah 1355
Zuluf Terminal 1387

PLAN SECTION

NATIONS

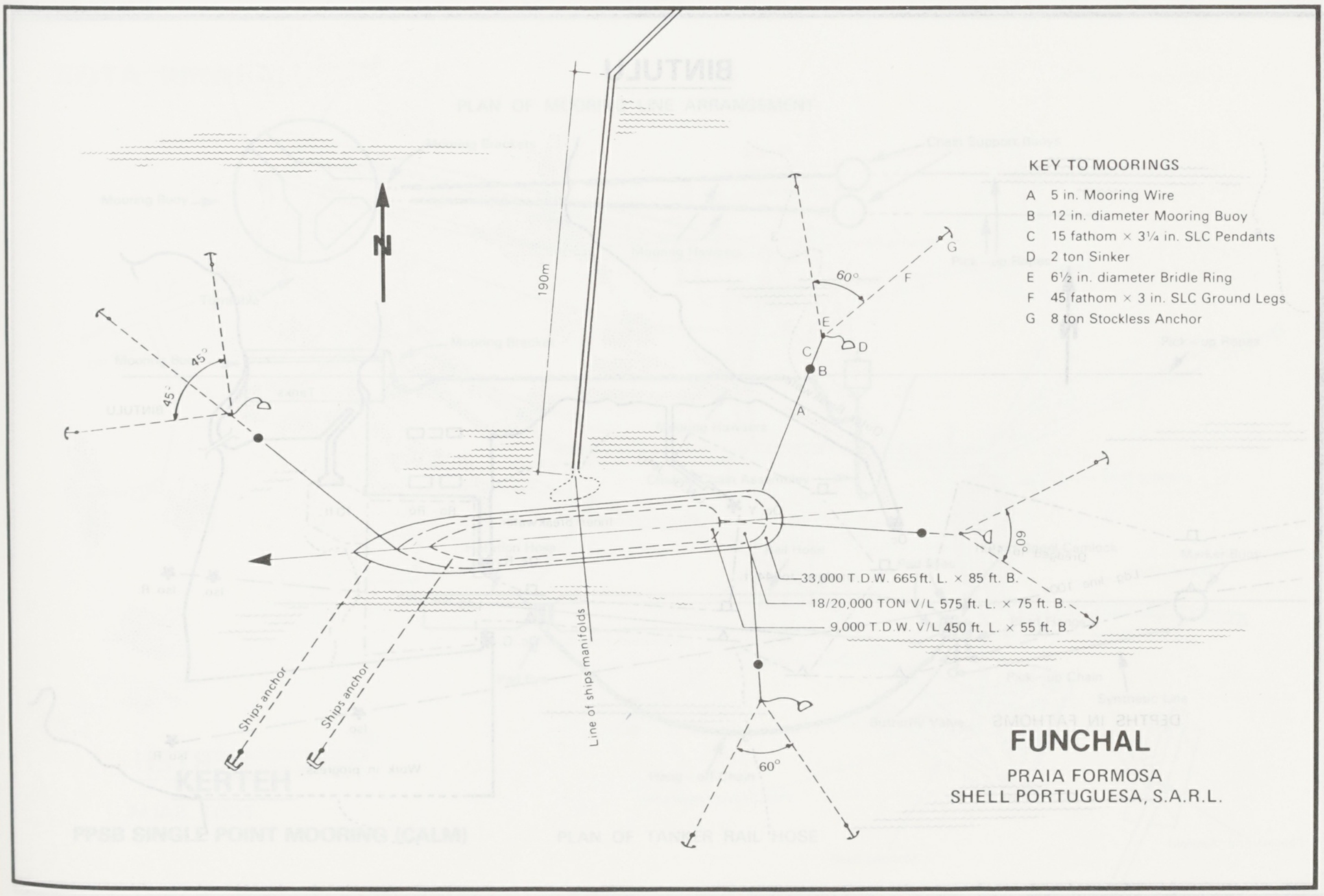
M – Z



FUNCHAL

DEVELOPMENT PLAN

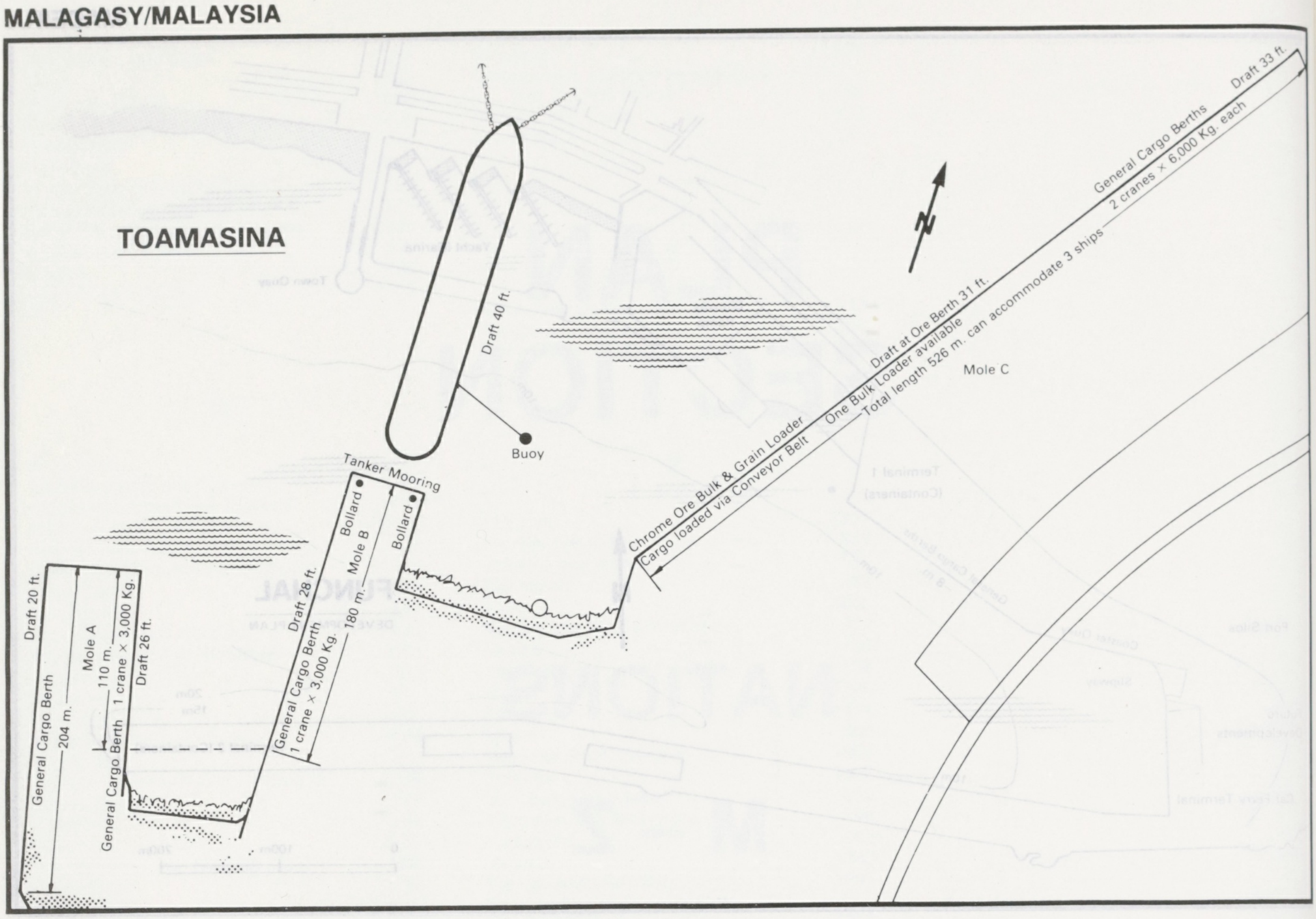
Yacht Marina
Town Quay
Slipway
Ramp
Terminal 1
(Containers)
10m
General Cargo Berths
-8 m.
Port Silos
Coaster Quay
Slipway
Future
Developments
Car Ferry Terminal
N
20m
15m
Terminal 2 (Containers)
0
100m
200m

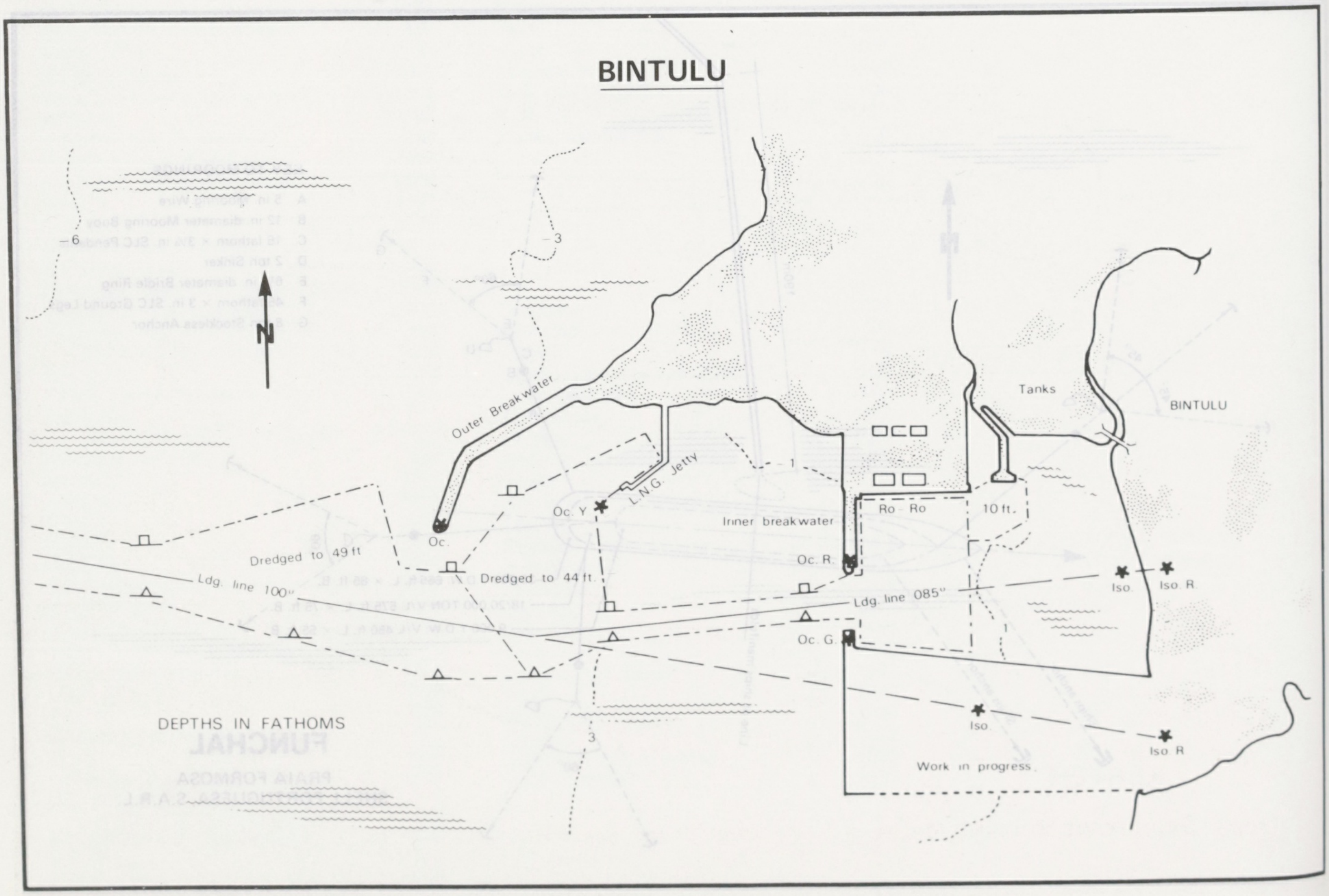


FUNCHAL

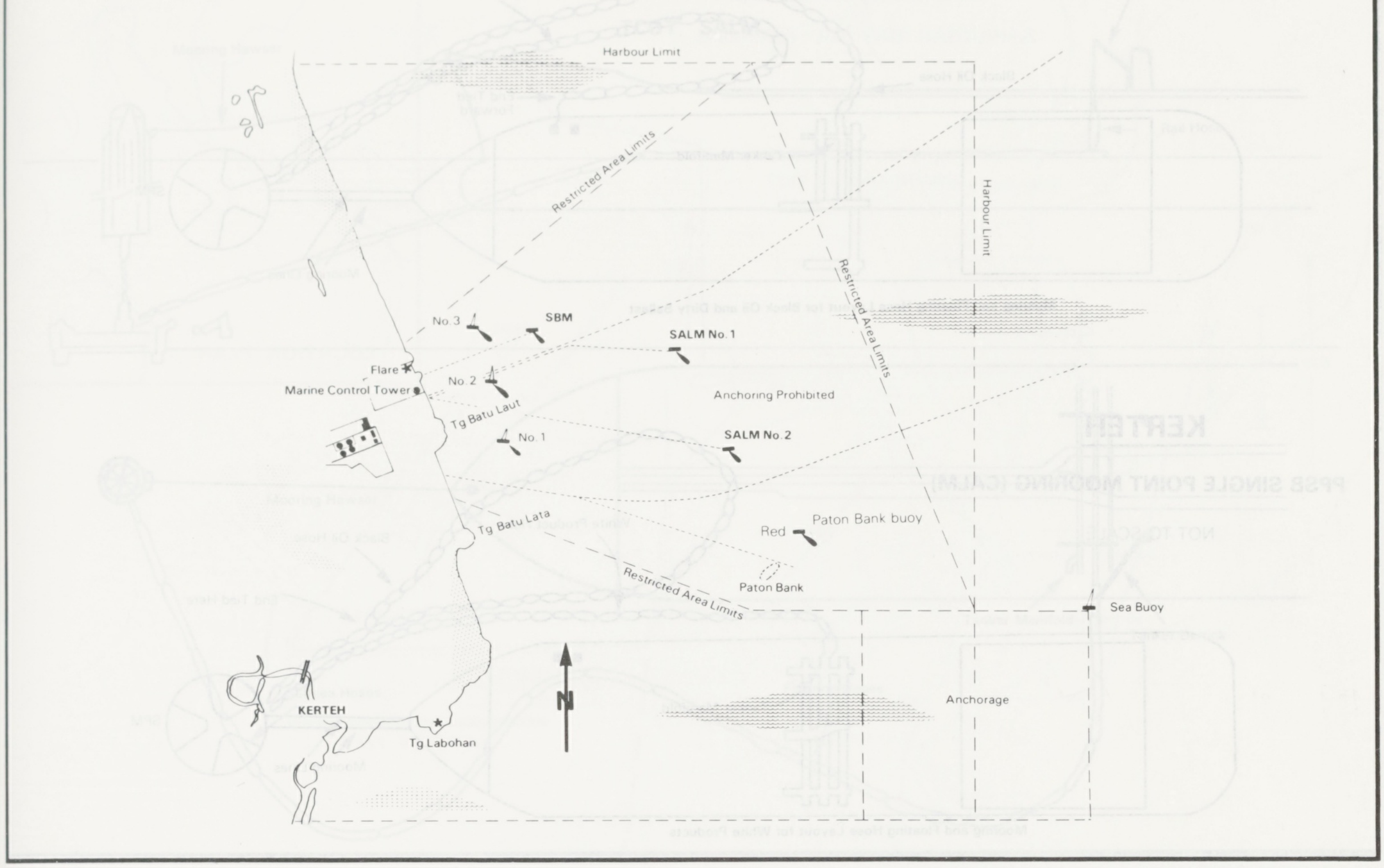
PRAIA FORMOSA
SHELL PORTUGUESA, S.A.R.L.

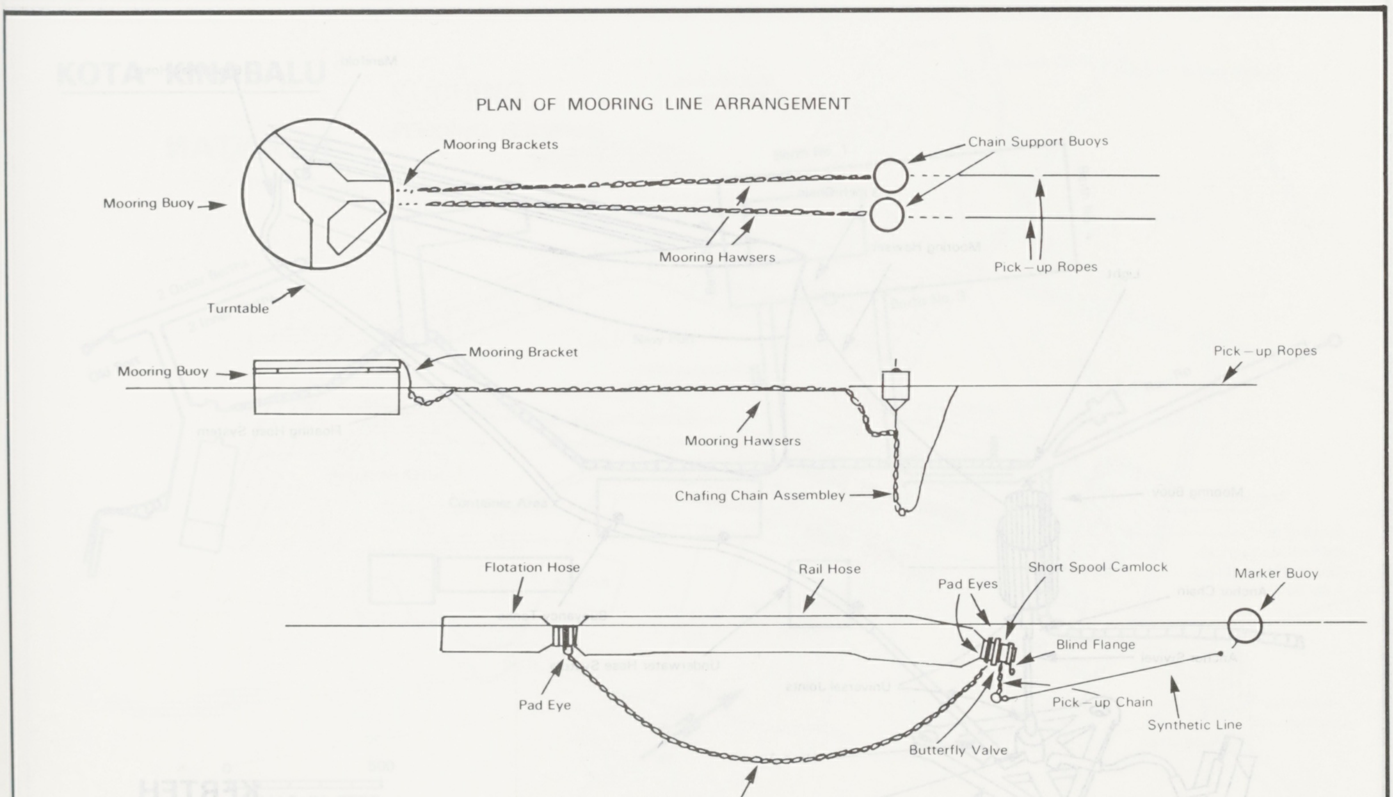
KEY TO MOORINGS
A 5 in. Mooring Wire
B 12 in. diameter Mooring Buoy
C 15 fathom × 3¼ in. SLC Pendants
D 2 ton Sinker
E 6½ in. diameter Bridle Ring
F 45 fathom × 3 in. SLC Ground Legs
G 8 ton Stockless Anchor
N
190m
45°
45°
60°
60°
60°
A
B
C
D
E
F
G
33,000 T.D.W. 665 ft. L. × 85 ft. B.
18/20,000 TON V/L 575 ft. L. × 75 ft. B.
9,000 T.D.W. V/L 450 ft. L. × 55 ft. B
Ships anchor
Ships anchor
Line of ships manifolds


TOAMASINA
N
Draft 40 ft.
Buoy
Tanker Mooring
Bollard
Mole B
180 m.
Bollard
Draft 28 ft.
General Cargo Berth
1 crane × 3,000 Kg.
Draft 20 ft.
Mole A
110 m.
1 crane × 3,000 Kg.
Draft 26 ft.
General Cargo Berth
204 m.
General Cargo Berth
Chrome Ore Bulk & Grain Loader
Cargo loaded via Conveyor Belt
Draft at Ore Berth 31 ft.
One Bulk Loader available
Total length 526 m. can accommodate 3 ships
General Cargo Berths
2 cranes × 6,000 Kg. each
Draft 33 ft.
Mole C


BINTULU
N
3
6
Outer Breakwater
L.N.G. Jetty
1
Tanks
BINTULU
Oc. Y
Oc.
Dredged to 49 ft
Dredged to 44 ft
Ldg. line 100°
Inner breakwater
Ro-Ro
10 ft.
Oc. R.
Oc. G.
Ldg. line 085°
Iso
Iso R
Iso
Iso R
Work in progress
DEPTHS IN FATHOMS
3

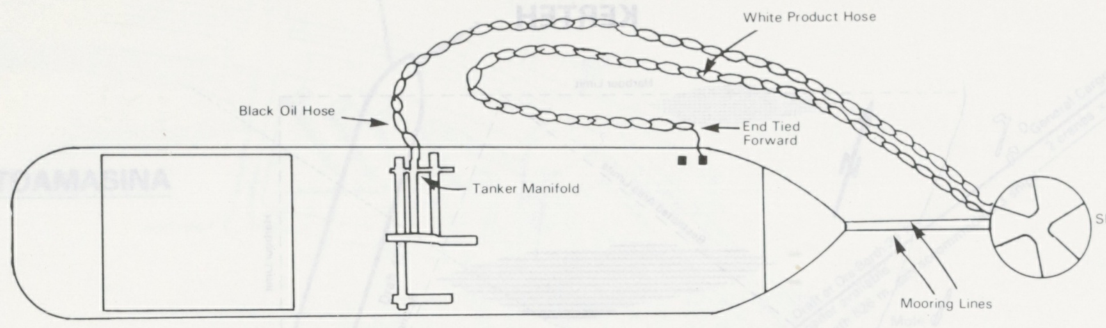
KERTEH


Harbour Limit
Restricted Area Limits
Harbour Limit
Restricted Area Limits
No.3
SBM
SALM No.1
Flare
Marine Control Tower
No.2
Tg Batu Laut
Anchoring Prohibited
No.1
SALM No.2
Paton Bank buoy
Red
Tg Batu Lata
Restricted Area Limits
Paton Bank
Sea Buoy
N
Anchorage
KERTEH
Tg Labohan


PLAN OF MOORING LINE ARRANGEMENT
Mooring Brackets
Chain Support Buoys
Mooring Buoy
Mooring Hawsers
Pick – up Ropes
Turntable
Mooring Buoy
Mooring Bracket
Pick – up Ropes
Mooring Hawsers
Chafing Chain Assembley
Flotation Hose
Rail Hose
Short Spool Camlock
Pad Eyes
Marker Buoy
Blind Flange
Pad Eye
Pick – up Chain
Synthetic Line
Butterfly Valve
Hang – off Chain
PLAN OF TANKER RAIL HOSE

KERTEH

PPSB SINGLE POINT MOORING (CALM)

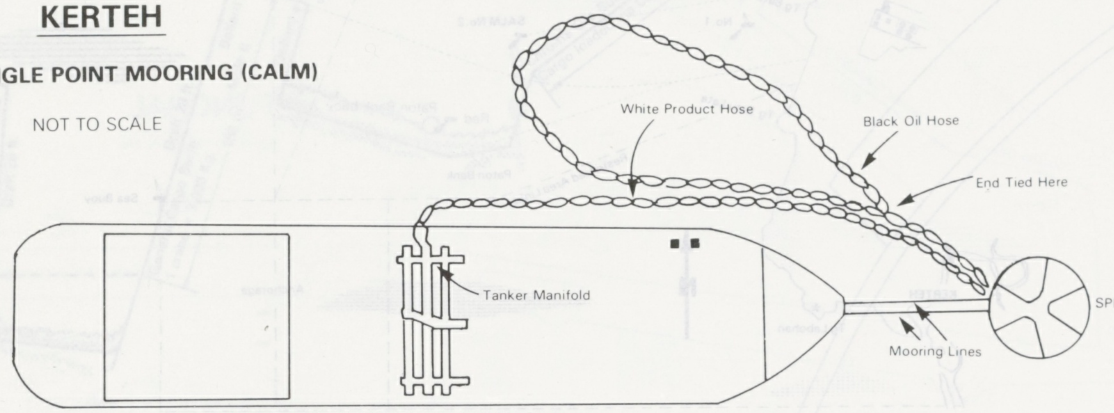

White Product Hose
Black Oil Hose
End Tied Forward
Tanker Manifold
SPM
Mooring Lines

Mooring and Floating Hose Layout for Black Oil and Dirty Ballast

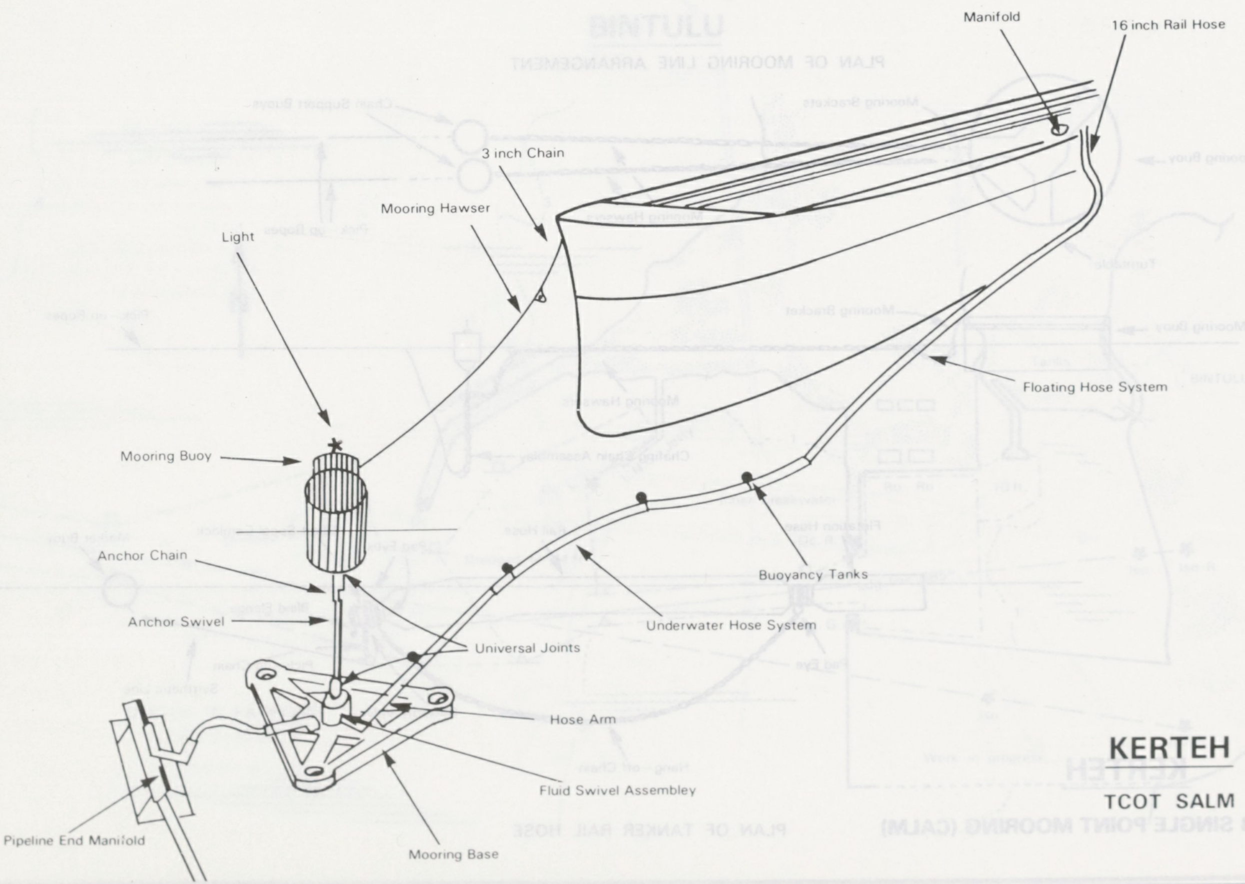
KERTEH

PPSB SINGLE POINT MOORING (CALM)

NOT TO SCALE


White Product Hose
Black Oil Hose
End Tied Here
Tanker Manifold
SPM
Mooring Lines

Mooring and Floating Hose Layout for White Products

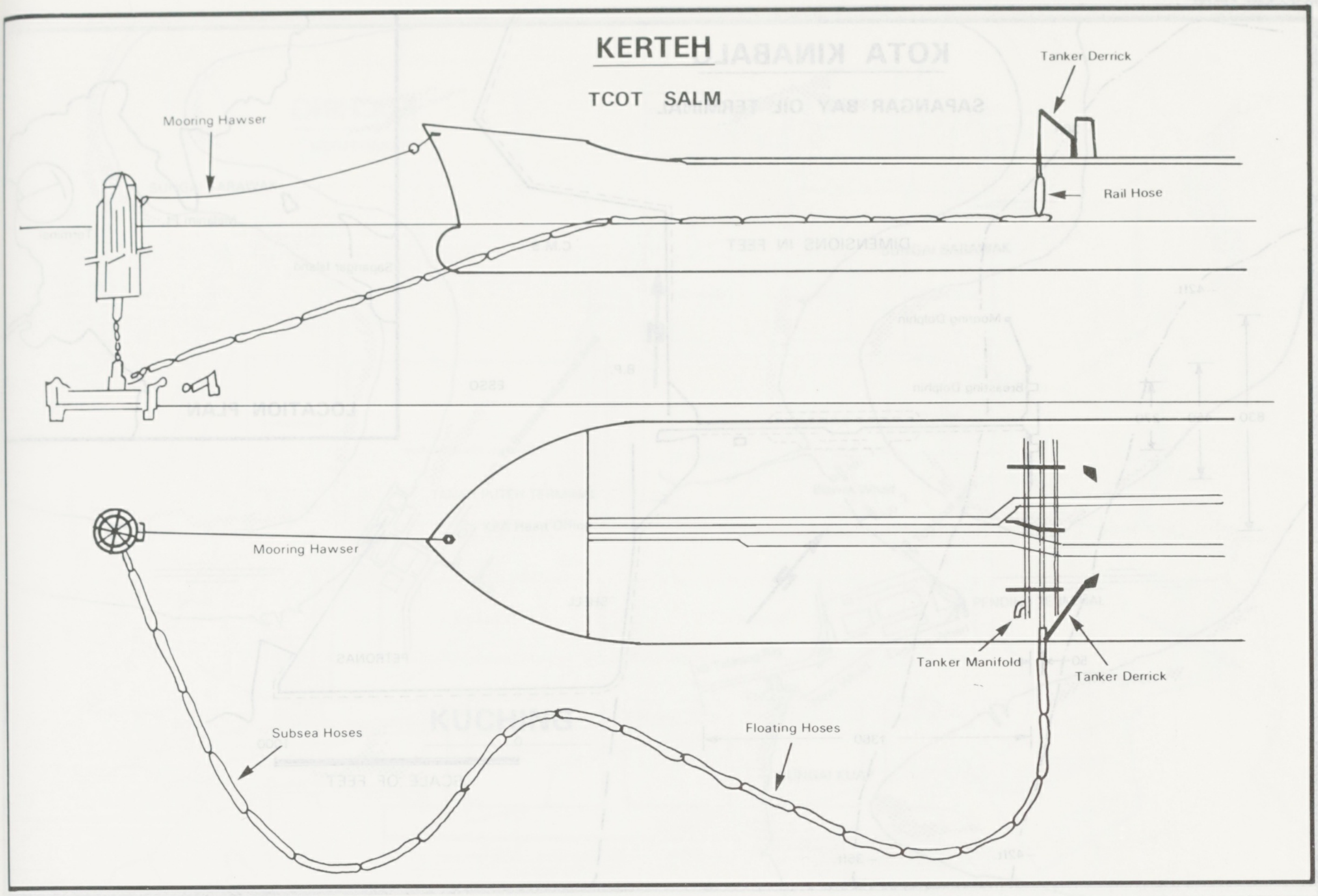

Manifold
16 inch Rail Hose
3 inch Chain
Mooring Hawser
Light
Floating Hose System
Mooring Buoy
Buoyancy Tanks
Anchor Chain
Underwater Hose System
Anchor Swivel
Universal Joints
Hose Arm
Fluid Swivel Assembley
Pipeline End Manifold
Mooring Base

KERTEH

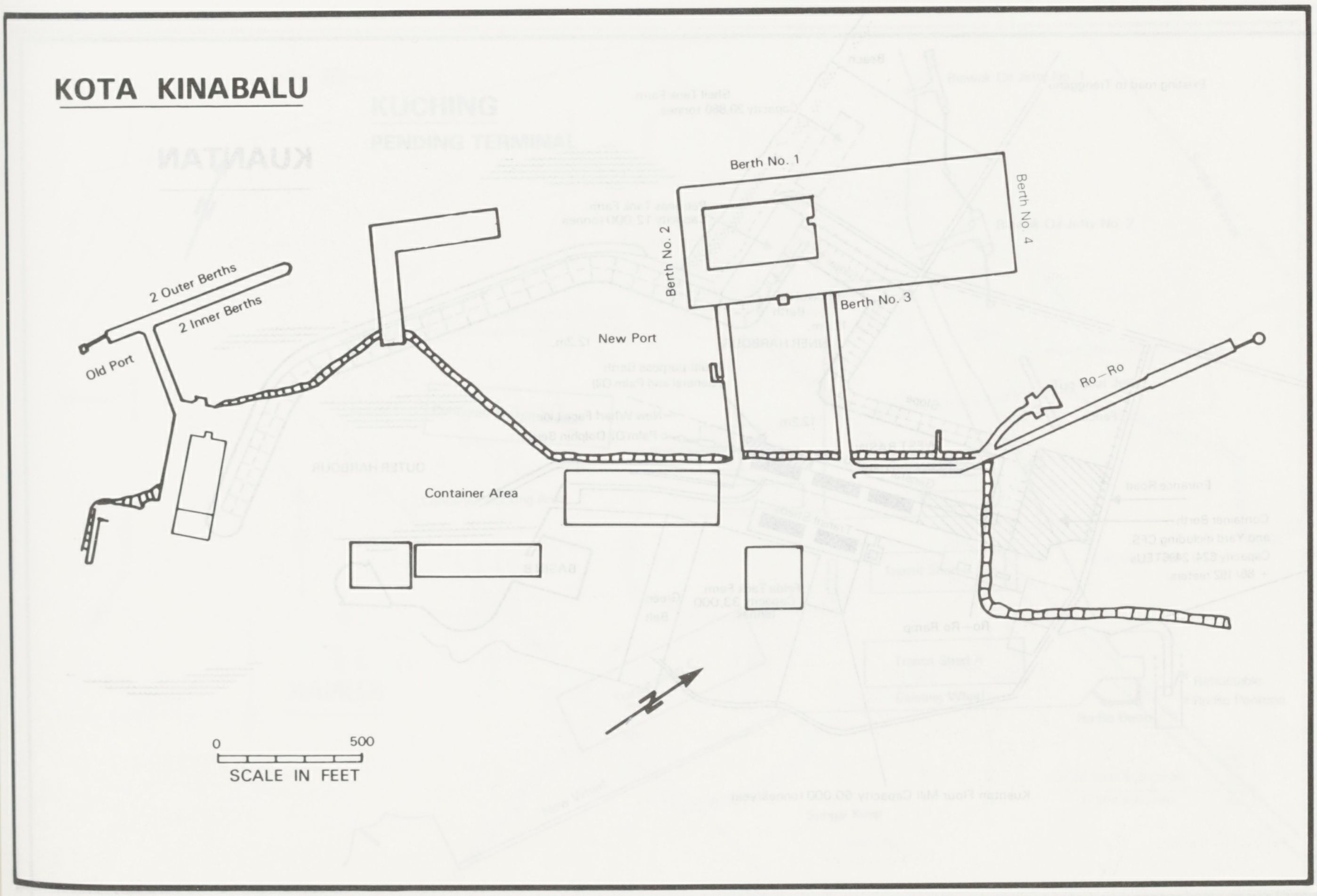
TCOT SALM

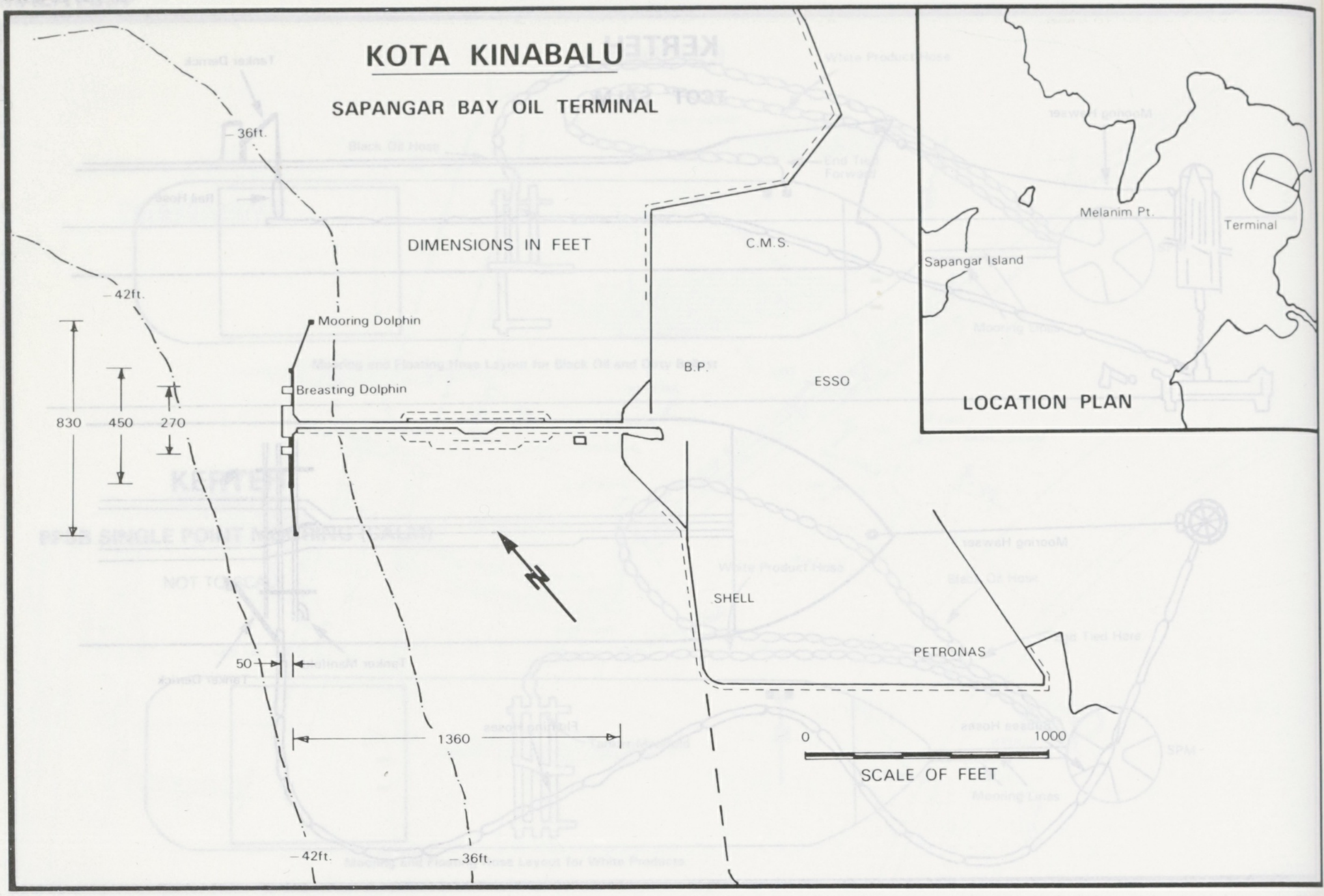
KERTEH

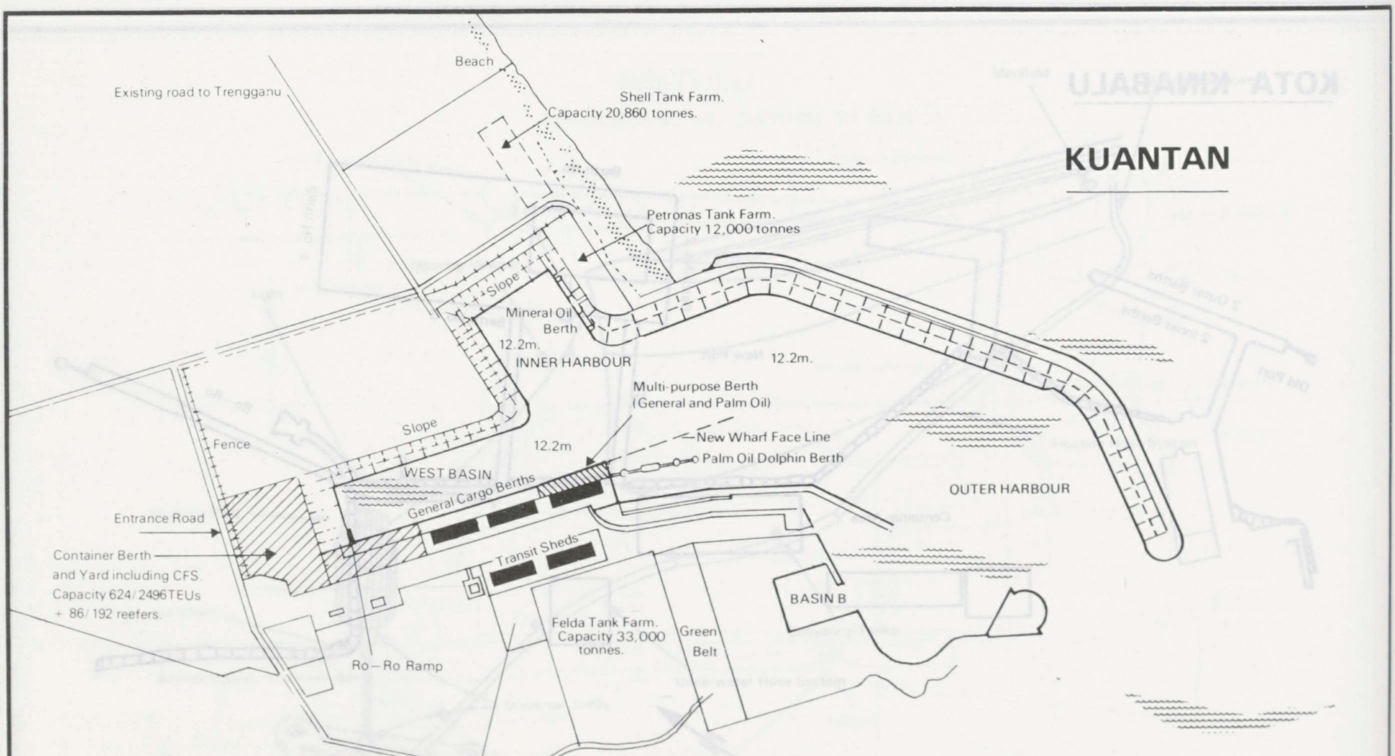
TCOT SALM

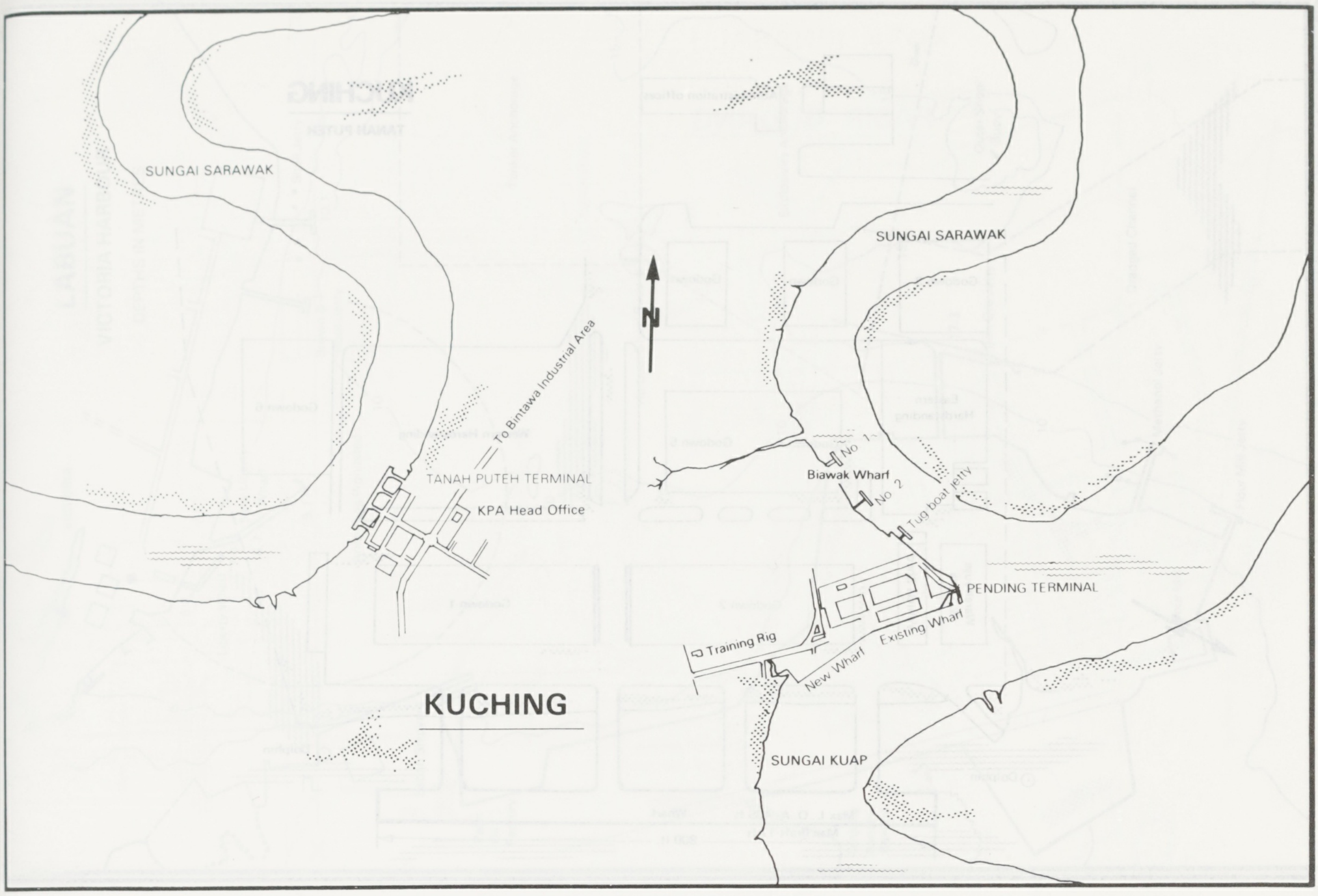

Tanker Derrick
Mooring Hawser
Rail Hose
Mooring Hawser
Tanker Manifold
Tanker Derrick
Subsea Hoses
Floating Hoses

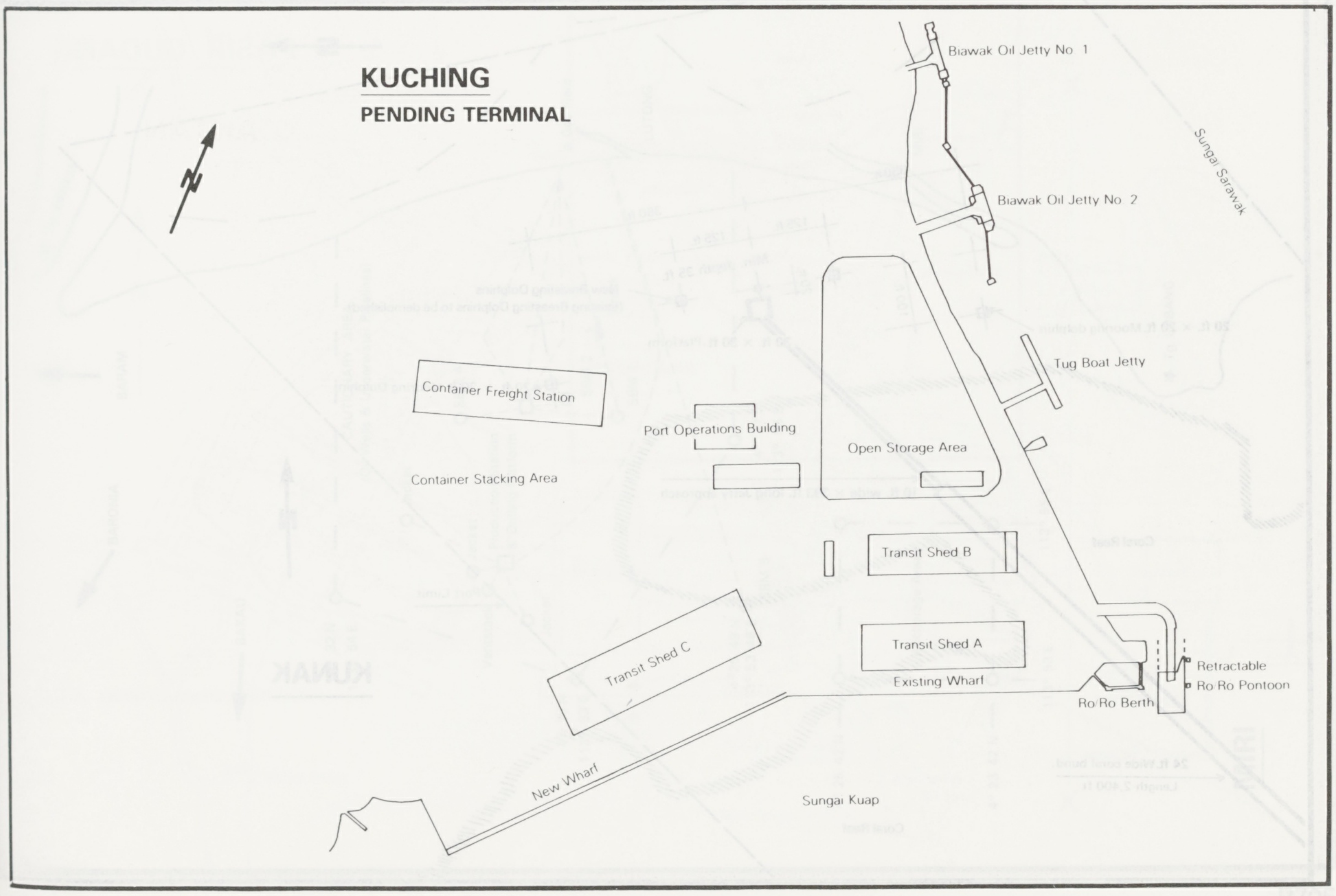
KOTA KINABALU

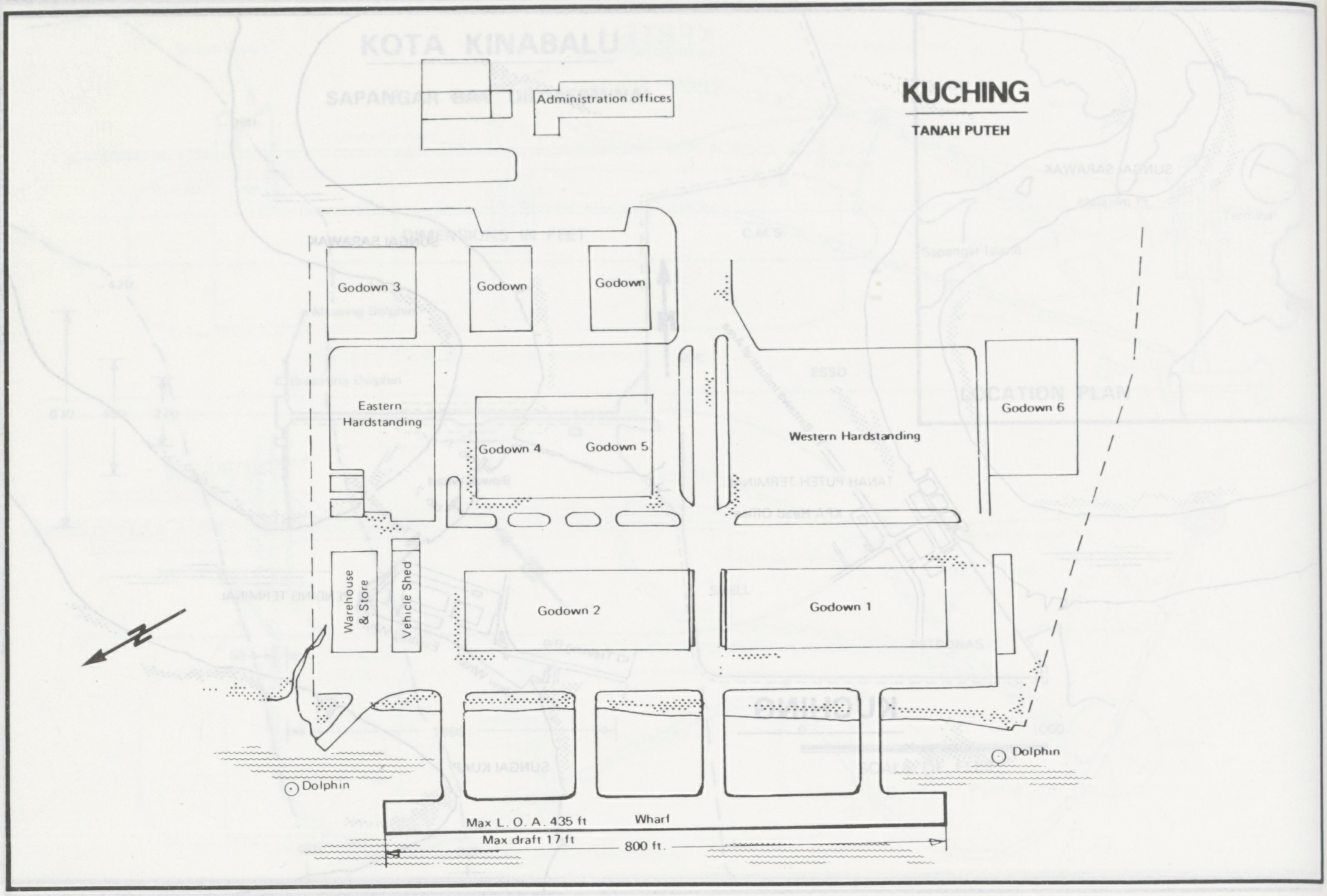

Berth No. 1
Berth No 4
Berth No. 2
Berth No. 3
2 Outer Berths
2 Inner Berths
Old Port
New Port
Ro—Ro
Container Area
0
500
SCALE IN FEET

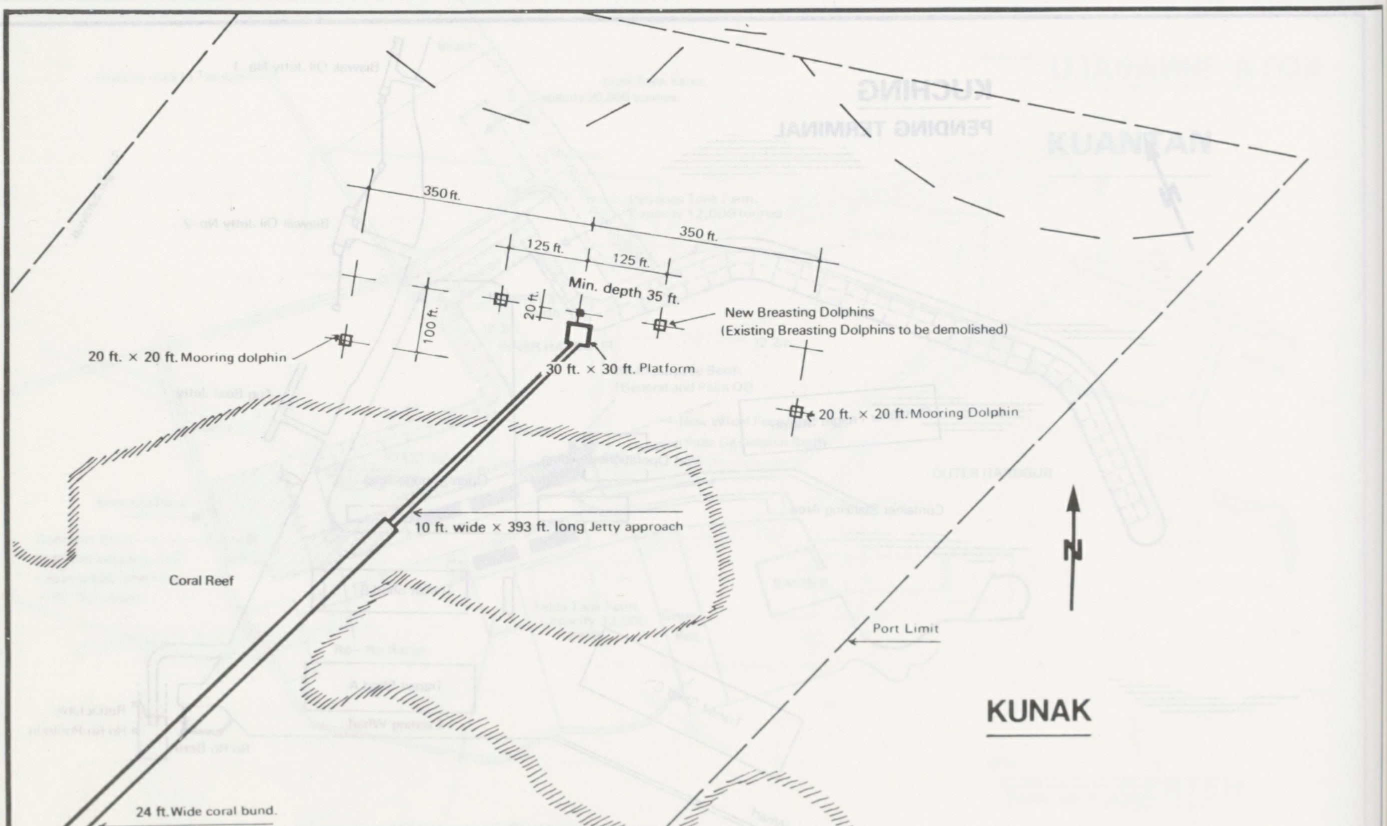

KOTA KINABALU
SAPANGAR BAY OIL TERMINAL
DIMENSIONS IN FEET
36ft.
42ft.
Mooring Dolphin
Breasting Dolphin
830
450
270
50
1360
42ft.
36ft.
C.M.S.
B.P.
ESSO
SHELL
PETRONAS
0
1000
SCALE OF FEET
Melanim Pt.
Terminal
Sapangar Island
LOCATION PLAN


KUANTAN
Beach
Existing road to Trengganu
Shell Tank Farm. Capacity 20,860 tonnes.
Petronas Tank Farm. Capacity 12,000 tonnes
Slope
Mineral Oil Berth
12.2m.
INNER HARBOUR
12.2m.
Multi-purpose Berth (General and Palm Oil)
New Wharf Face Line
Palm Oil Dolphin Berth
Slope
12.2m
Fence
WEST BASIN
General Cargo Berths
OUTER HARBOUR
Entrance Road
Container Berth and Yard including CFS. Capacity 624/2496TEUs + 86/192 reefers.
Transit Sheds
BASIN B
Felda Tank Farm. Capacity 33,000 tonnes.
Green Belt
Ro—Ro Ramp
Kuantan Flour Mill Capacity 60,000 tonnes/year

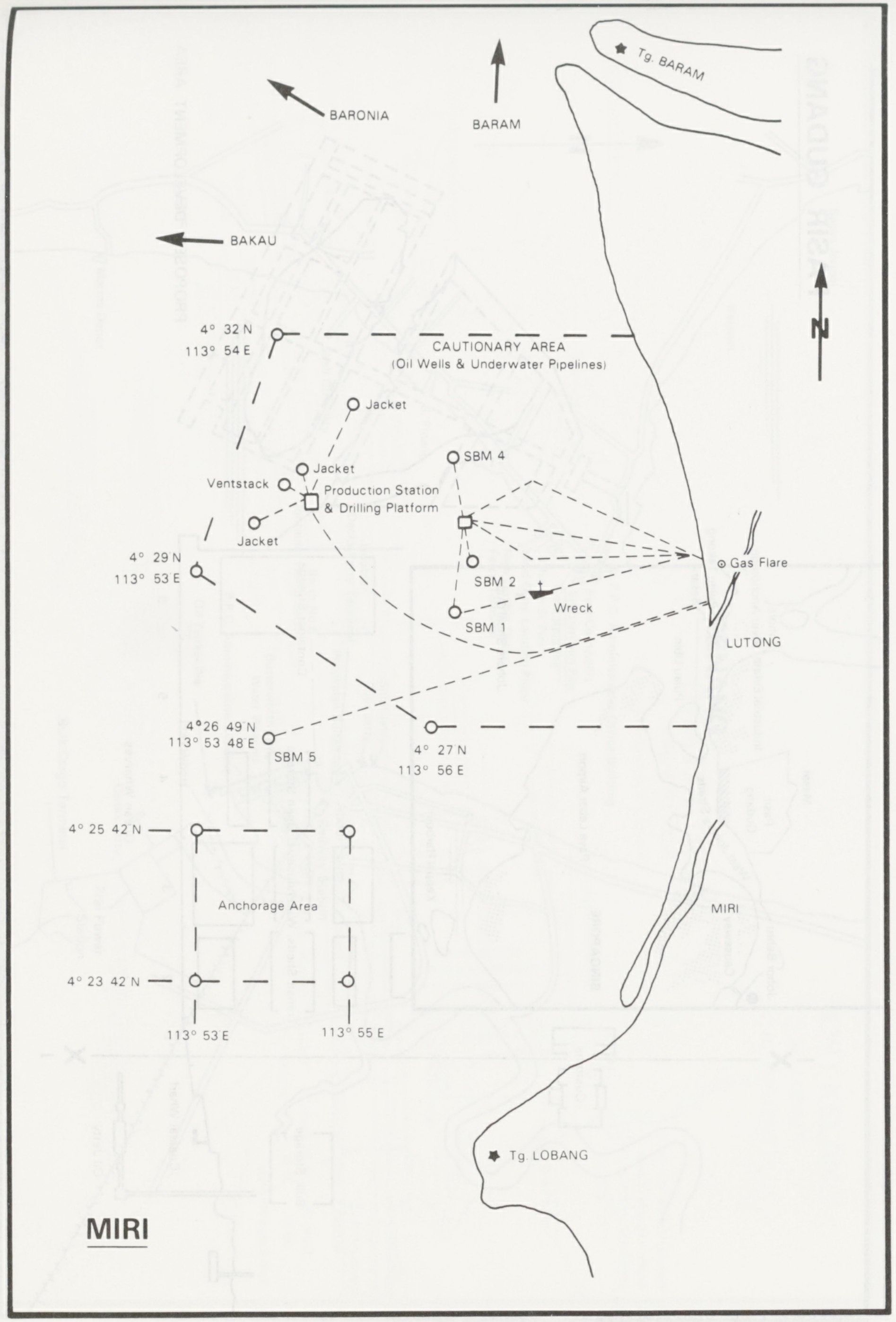

KUCHING
SUNGAI SARAWAK
SUNGAI SARAWAK
N
To Bintawa Industrial Area
TANAH PUTEH TERMINAL
KPA Head Office
No 1
Biawak Wharf
No 2
Tug boat jetty
PENDING TERMINAL
Training Rig
Existing Wharf
New Wharf
SUNGAI KUAP


KUCHING
PENDING TERMINAL
N
Biawak Oil Jetty No 1
Biawak Oil Jetty No 2
Sungai Sarawak
Tug Boat Jetty
Container Freight Station
Port Operations Building
Open Storage Area
Container Stacking Area
Transit Shed B
Transit Shed A
Transit Shed C
Existing Wharf
Retractable
Ro/Ro Pontoon
Ro/Ro Berth
New Wharf
Sungai Kuap


KUCHING
TANAH PUTEH
Administration offices
Godown 3
Godown
Godown
Eastern Hardstanding
Godown 4
Godown 5
Western Hardstanding
Godown 6
Warehouse & Store
Vehicle Shed
Godown 2
Godown 1
Dolphin
Dolphin
Max L. O. A. 435 ft
Wharf
Max draft 17 ft
800 ft.


350 ft.
350 ft.
125 ft.
125 ft.
Min. depth 35 ft.
20 ft.
100 ft.
New Breasting Dolphins
(Existing Breasting Dolphins to be demolished)
20 ft. × 20 ft. Mooring dolphin
30 ft. × 30 ft. Platform
20 ft. × 20 ft. Mooring Dolphin
10 ft. wide × 393 ft. long Jetty approach
Coral Reef
N
Port Limit
KUNAK
24 ft. Wide coral bund.
Length 2,400 ft
Coral Reef

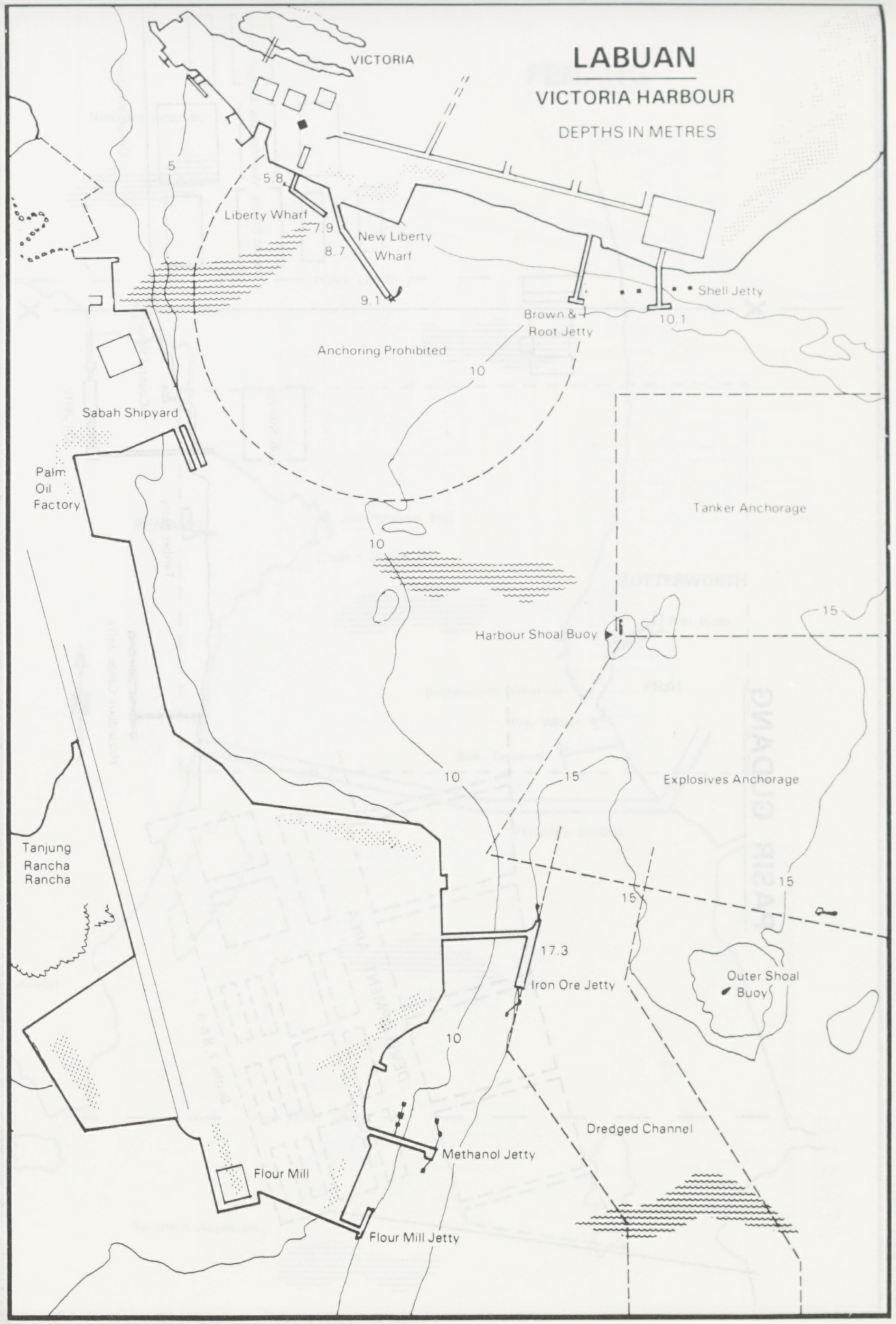
MIRI

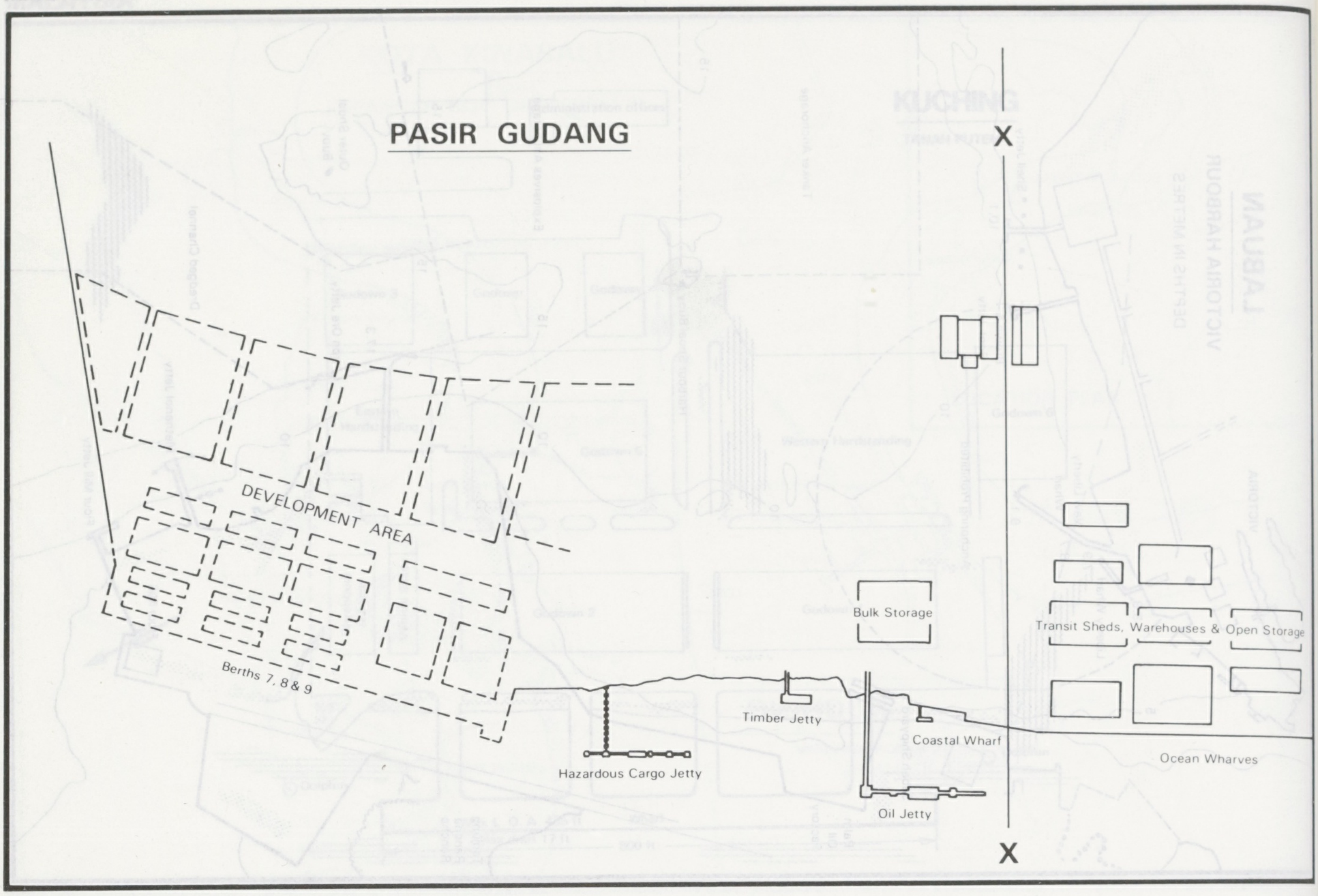

Tg. BARAM
BARONIA
BARAM
BAKAU
N
4° 32 N
113° 54 E
CAUTIONARY AREA
(Oil Wells & Underwater Pipelines)
Jacket
Jacket
Ventstack
Production Station
& Drilling Platform
Jacket
SBM 4
Gas Flare
4° 29 N
113° 53 E
SBM 2
Wreck
SBM 1
LUTONG
4°26 49 N
113° 53 48 E
SBM 5
4° 27 N
113° 56 E
4° 25 42 N
Anchorage Area
MIRI
4° 23 42 N
113° 53 E
113° 55 E
Tg. LOBANG

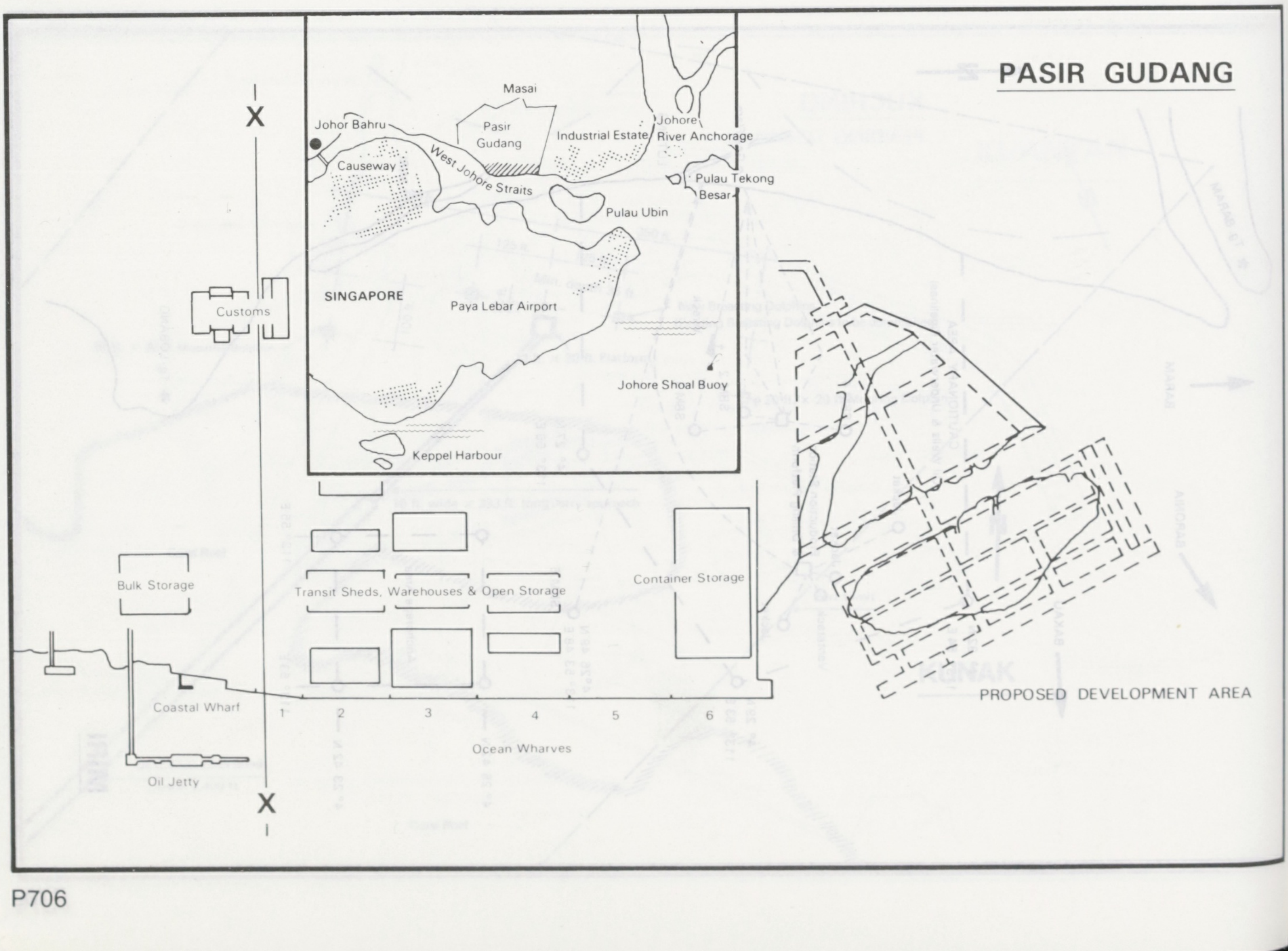
LABUAN

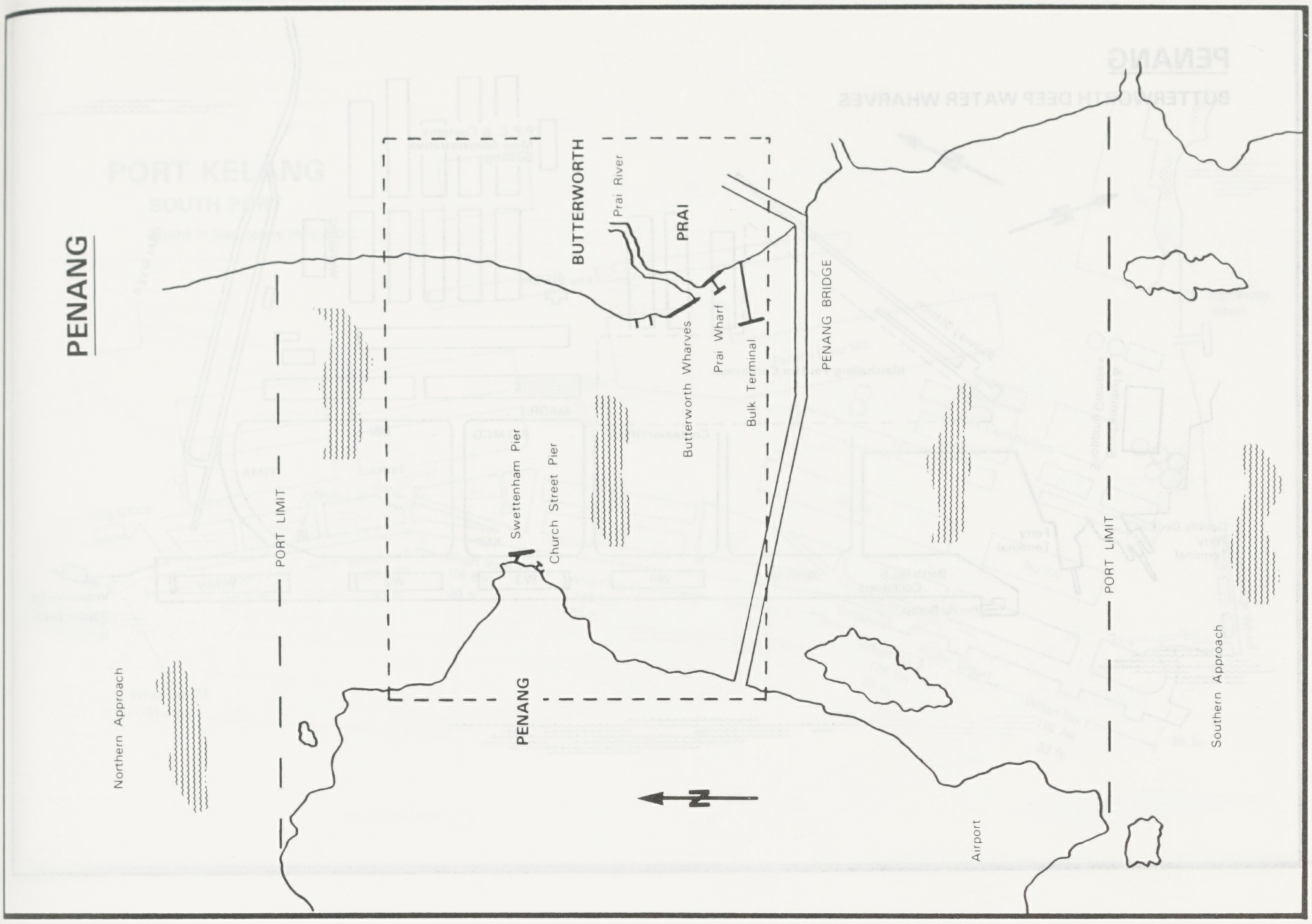
VICTORIA HARBOUR

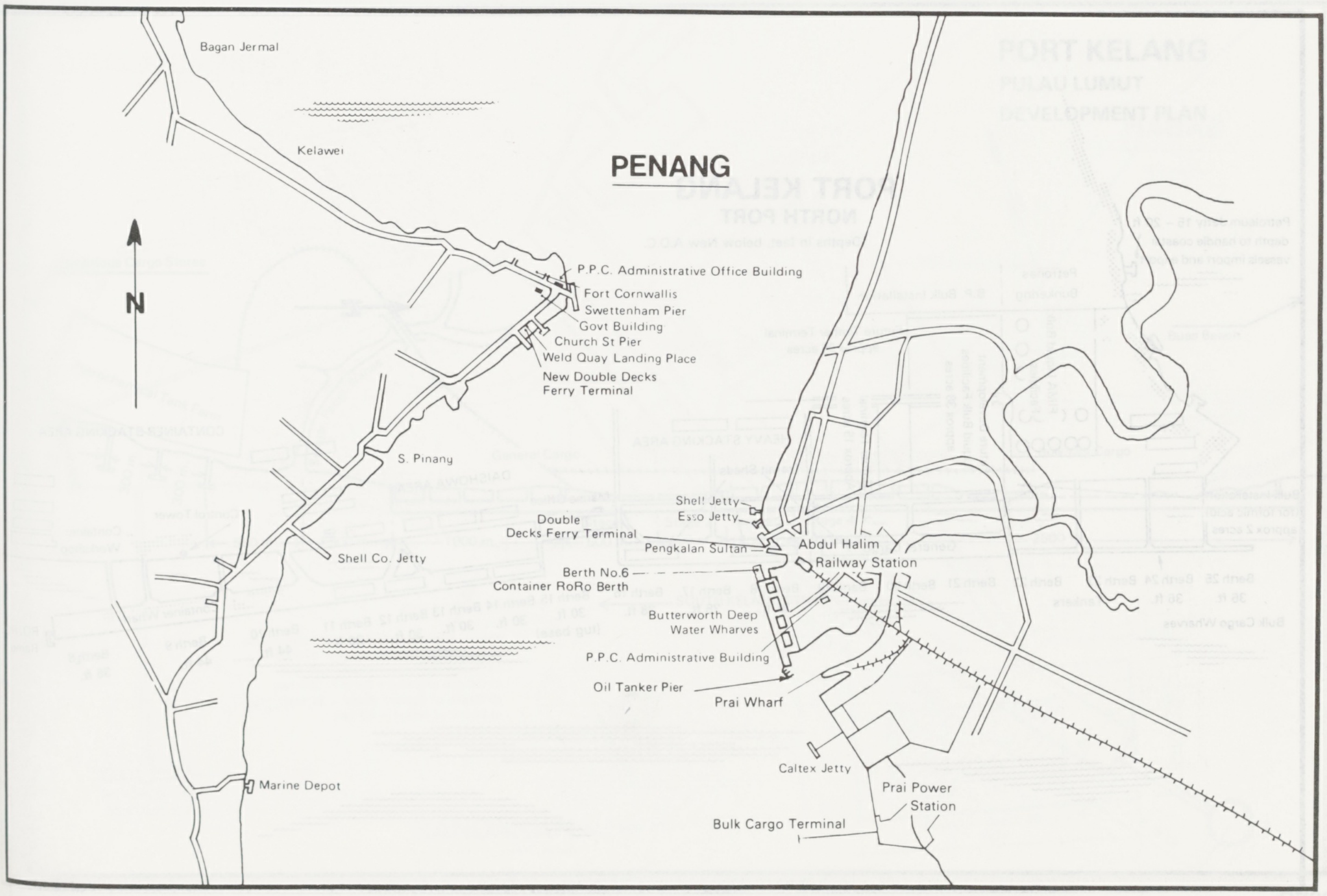
DEPTHS IN METRES

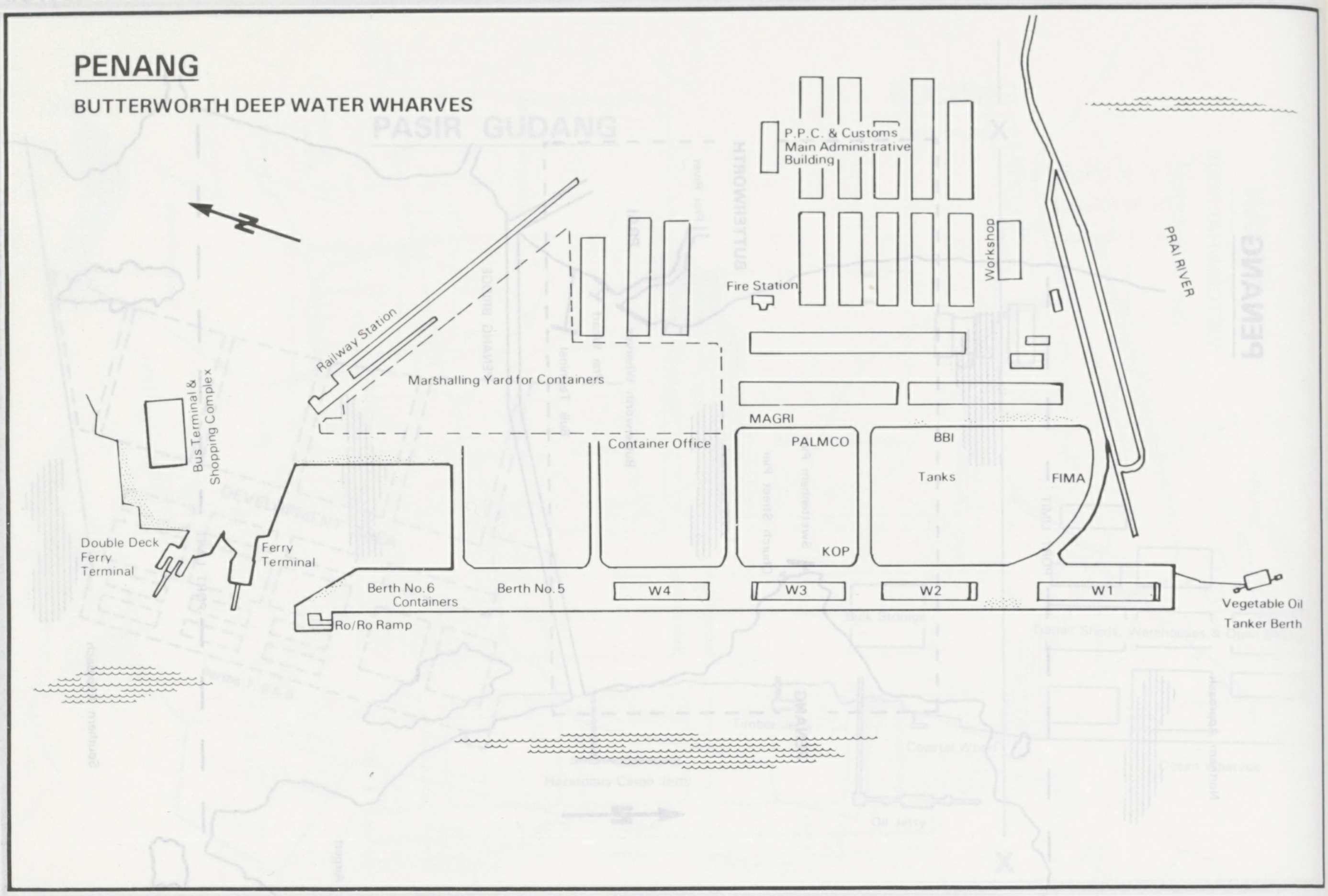

VICTORIA
5
5.8
Liberty Wharf
7.9
New Liberty
Wharf
8.7
9.1
Shell Jetty
Brown &
Root Jetty
10.1
Anchoring Prohibited
10
Sabah Shipyard
Palm
Oil
Factory
Tanker Anchorage
10
15
Harbour Shoal Buoy
10
15
Explosives Anchorage
Tanjung
Rancha
Rancha
15
15
17.3
Iron Ore Jetty
Outer Shoal
Buoy
10
Dredged Channel
Methanol Jetty
Flour Mill
Flour Mill Jetty


PASIR GUDANG
X
DEVELOPMENT AREA
Berths 7, 8 & 9
Bulk Storage
Transit Sheds, Warehouses & Open Storage
Timber Jetty
Coastal Wharf
Hazardous Cargo Jetty
Ocean Wharves
Oil Jetty
X


PASIR GUDANG
X
Masai
Johor Bahru
Pasir Gudang
Industrial Estate
Johore River Anchorage
Causeway
West Johore Straits
Pulau Tekong Besar
Pulau Ubin
Customs
SINGAPORE
Paya Lebar Airport
Johore Shoal Buoy
Keppel Harbour
Container Storage
Bulk Storage
Transit Sheds, Warehouses & Open Storage
Coastal Wharf
1
2
3
4
5
6
Ocean Wharves
Oil Jetty
X
PROPOSED DEVELOPMENT AREA


PENANG
BUTTERWORTH
Prai River
PRAI
Prai Wharf
Bulk Terminal
Butterworth Wharves
PENANG BRIDGE
Swettenham Pier
Church Street Pier
PORT LIMIT
PORT LIMIT
Northern Approach
Southern Approach
PENANG
N
Airport

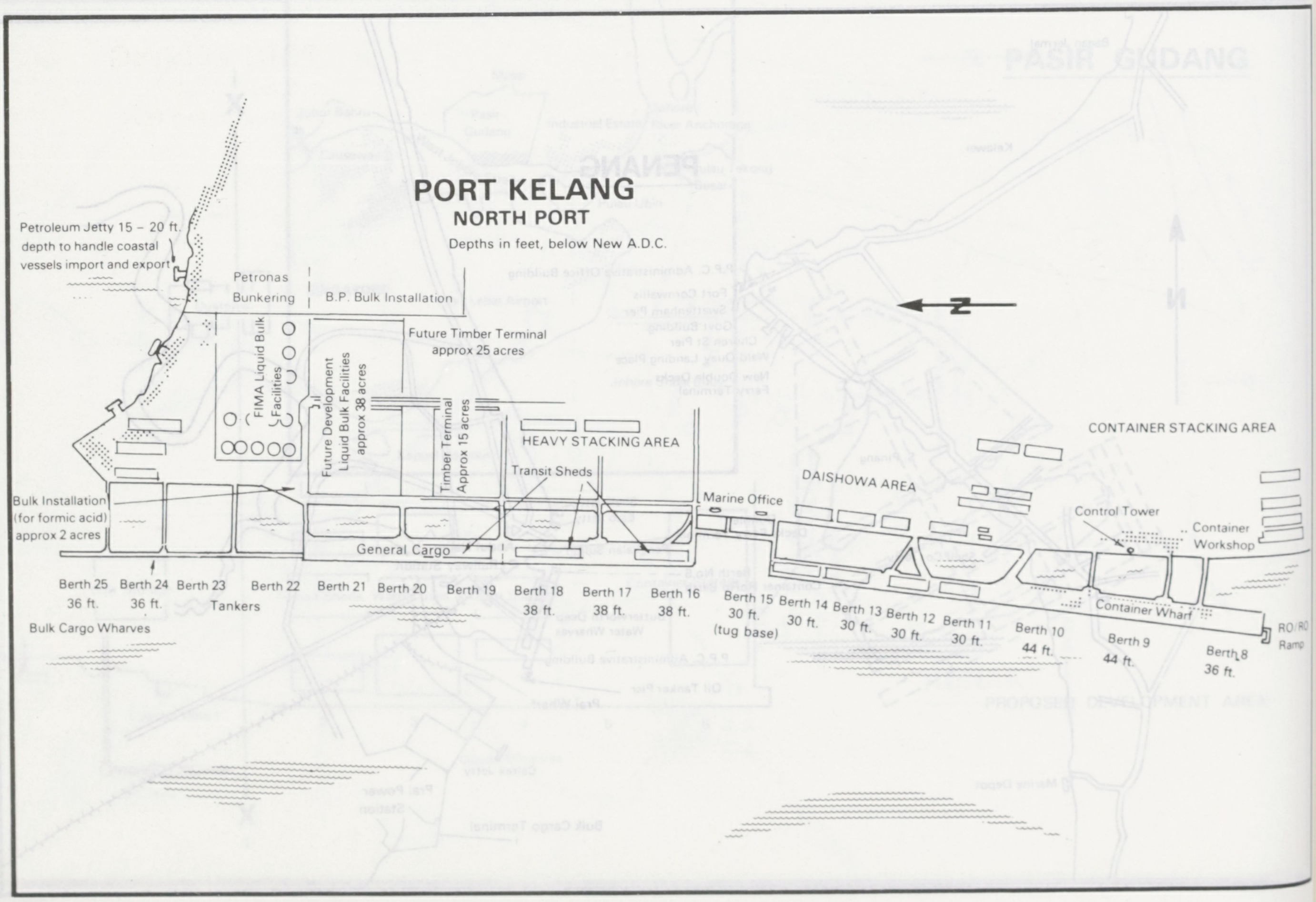

Bagan Jermal
Kelawei
PENANG
N
P.P.C. Administrative Office Building
Fort Cornwallis
Swettenham Pier
Govt Building
Church St Pier
Weld Quay Landing Place
New Double Decks
Ferry Terminal
S. Pinang
Shell Co. Jetty
Shell Jetty
Esso Jetty
Double
Decks Ferry Terminal
Pengkalan Sultan
Abdul Halim
Railway Station
Berth No.6
Container RoRo Berth
Butterworth Deep
Water Wharves
P.P.C. Administrative Building
Oil Tanker Pier
Prai Wharf
Caltex Jetty
Prai Power
Station
Bulk Cargo Terminal
Marine Depot



PENANG

BUTTERWORTH DEEP WATER WHARVES

P.P.C. & Customs Main Administrative Building
Fire Station
Workshop
PRAI RIVER
Railway Station
Marshalling Yard for Containers
Bus Terminal & Shopping Complex
MAGRI
PALMCO
BBI
Tanks
FIMA
Container Office
KOP
Double Deck Ferry Terminal
Ferry Terminal
Berth No.6 Containers
Berth No.5
W4
W3
W2
W1
Ro/Ro Ramp
Vegetable Oil Tanker Berth

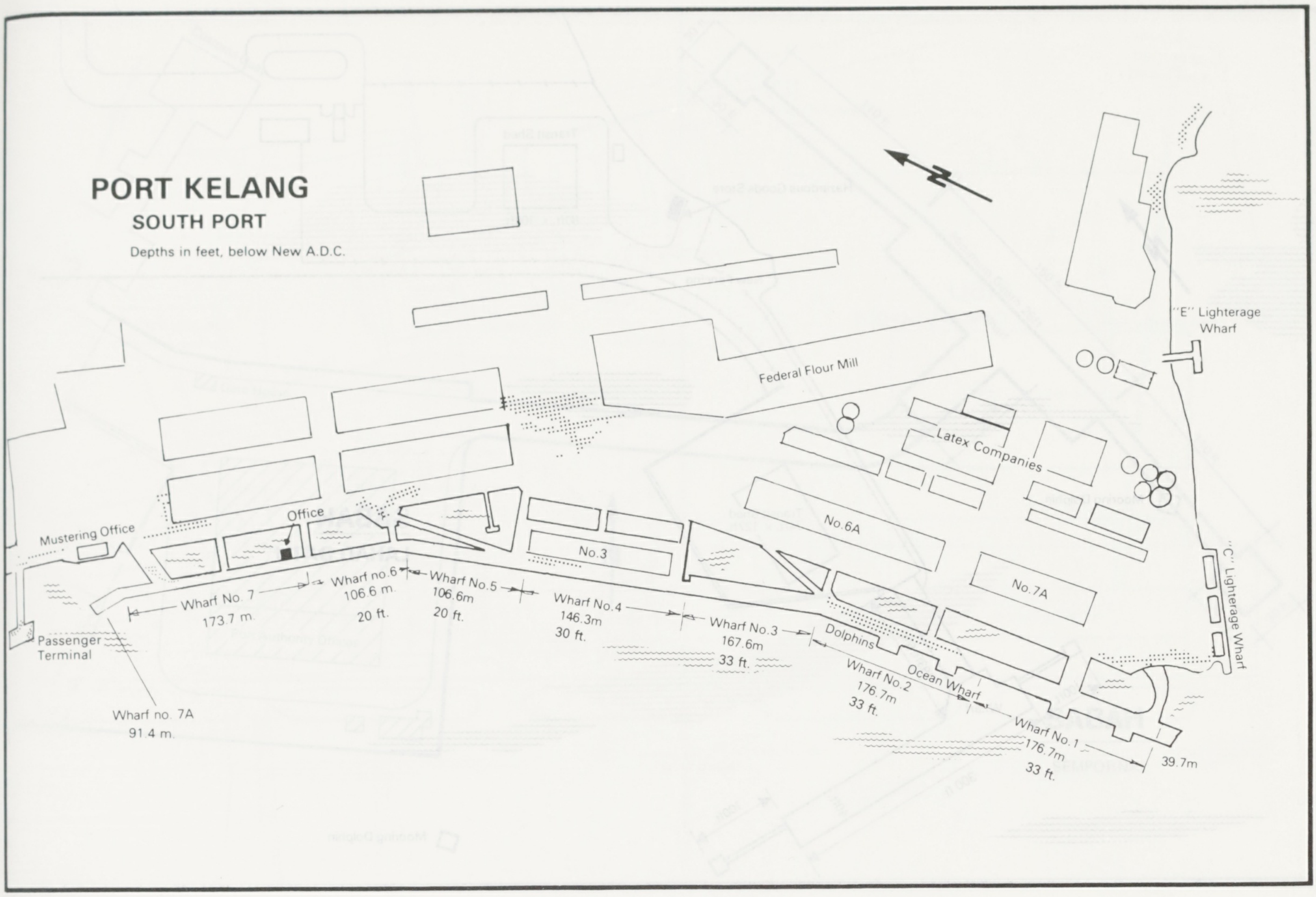


PORT KELANG

NORTH PORT

Depths in feet, below New A.D.C.

Petroleum Jetty 15 – 20 ft. depth to handle coastal vessels import and export
Petronas Bunkering
B.P. Bulk Installation
Future Timber Terminal approx 25 acres
FIMA Liquid Bulk Facilities
Future Development Liquid Bulk Facilities approx 38 acres
Timber Terminal Approx 15 acres
HEAVY STACKING AREA
Transit Sheds
Bulk Installation (for formic acid) approx 2 acres
General Cargo
Marine Office
DAISHOWA AREA
CONTAINER STACKING AREA
Control Tower
Container Workshop
Container Wharf
RO/RO Ramp
Berth 25 36 ft.
Berth 24 36 ft.
Berth 23
Tankers
Berth 22
Berth 21
Berth 20
Berth 19
Berth 18 38 ft.
Berth 17 38 ft.
Berth 16 38 ft.
Berth 15 30 ft. (tug base)
Berth 14 30 ft.
Berth 13 30 ft.
Berth 12 30 ft.
Berth 11 30 ft.
Berth 10 44 ft.
Berth 9 44 ft.
Berth 8 36 ft.
Bulk Cargo Wharves

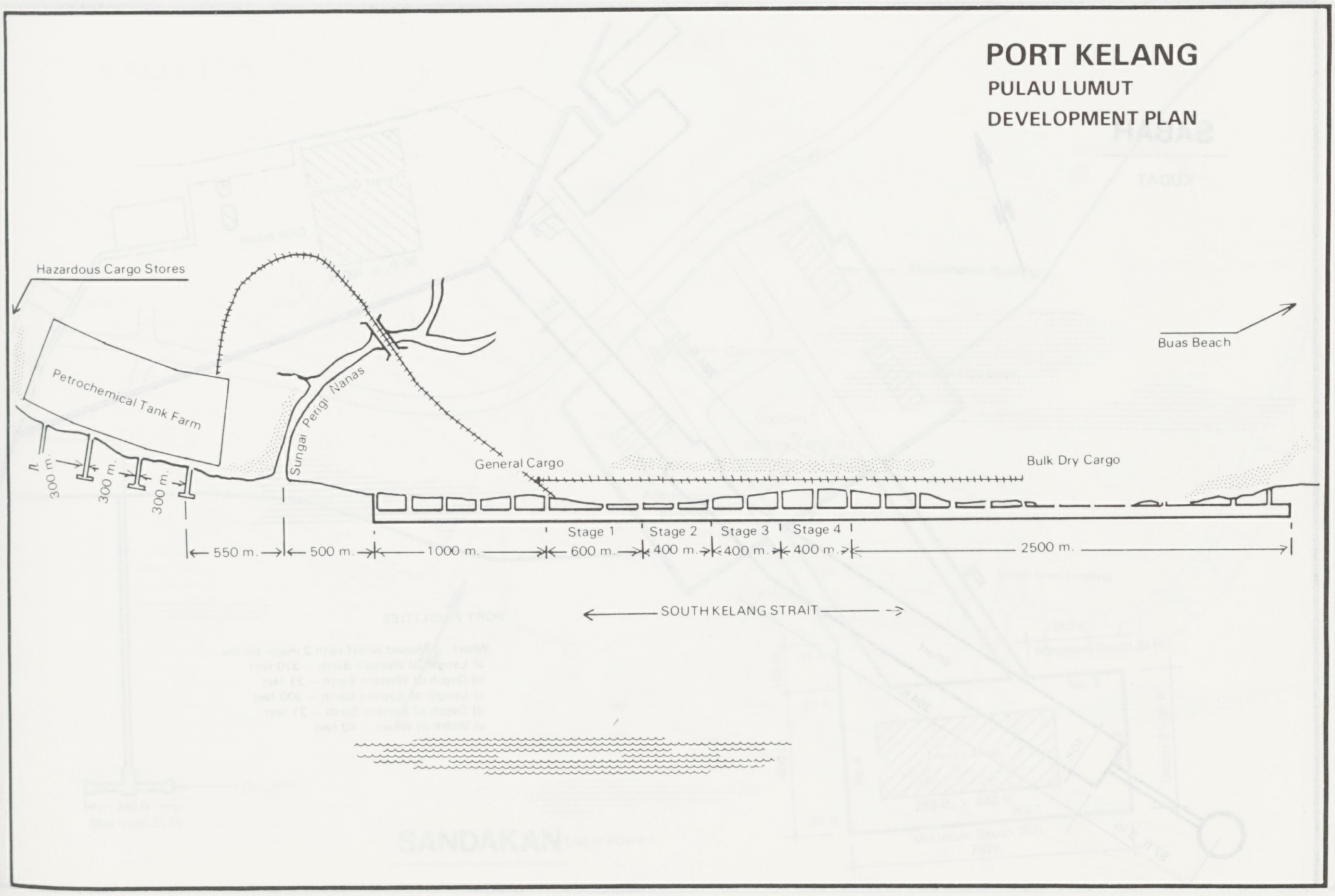


PORT KELANG

SOUTH PORT

Depths in feet, below New A.D.C.

Federal Flour Mill
"E" Lighterage Wharf
Latex Companies
No.6A
No.7A
No.3
"C" Lighterage Wharf
Office
Mustering Office
Passenger Terminal
Wharf No. 7 173.7 m.
Wharf no.6 106.6 m. 20 ft.
Wharf No.5 106.6m 20 ft.
Wharf No.4 146.3m 30 ft.
Wharf No.3 167.6m 33 ft.
Dolphins
Ocean Wharf
Wharf No.2 176.7m 33 ft.
Wharf No.1 176.7m 33 ft.
39.7m
Wharf no. 7A 91.4 m.

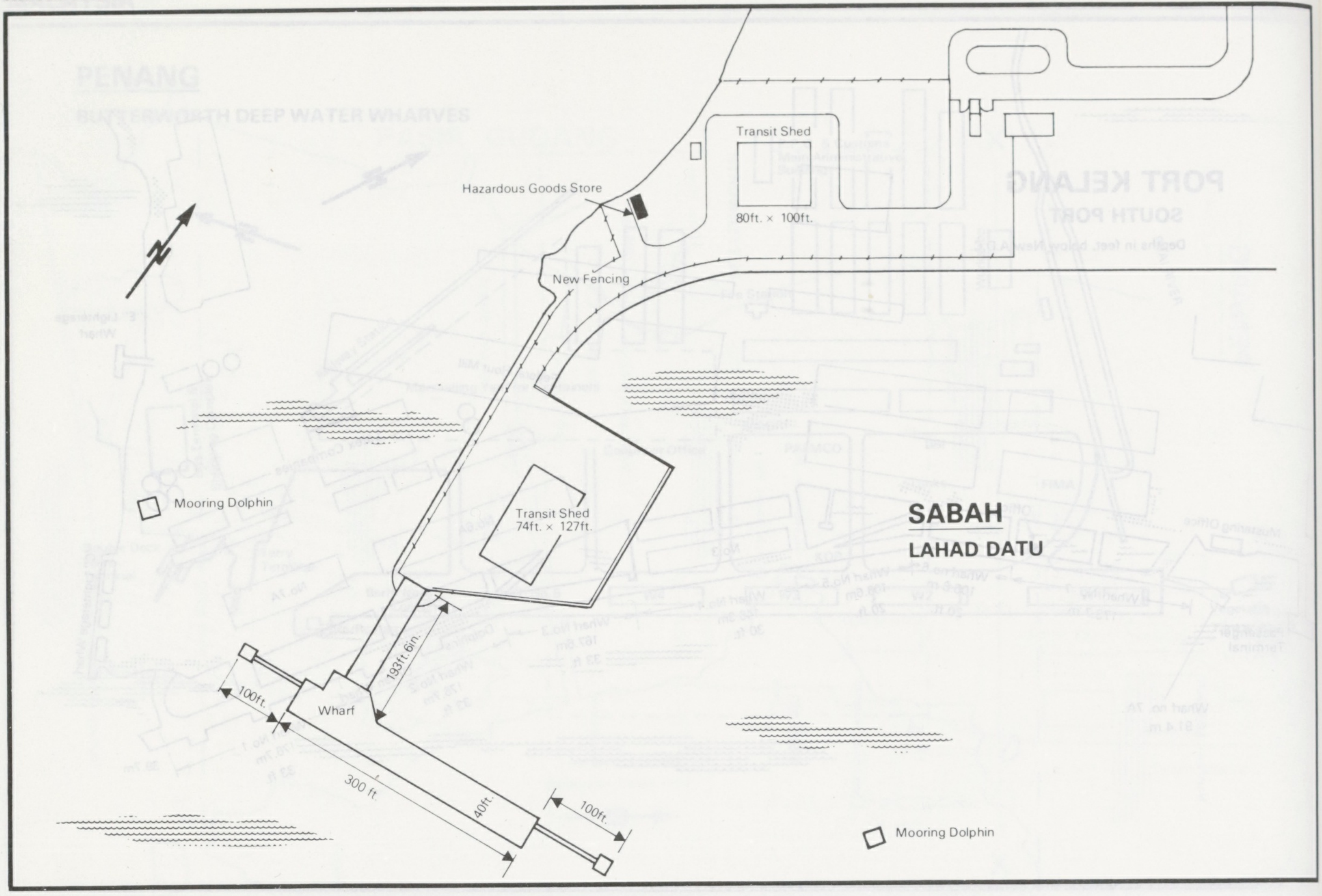


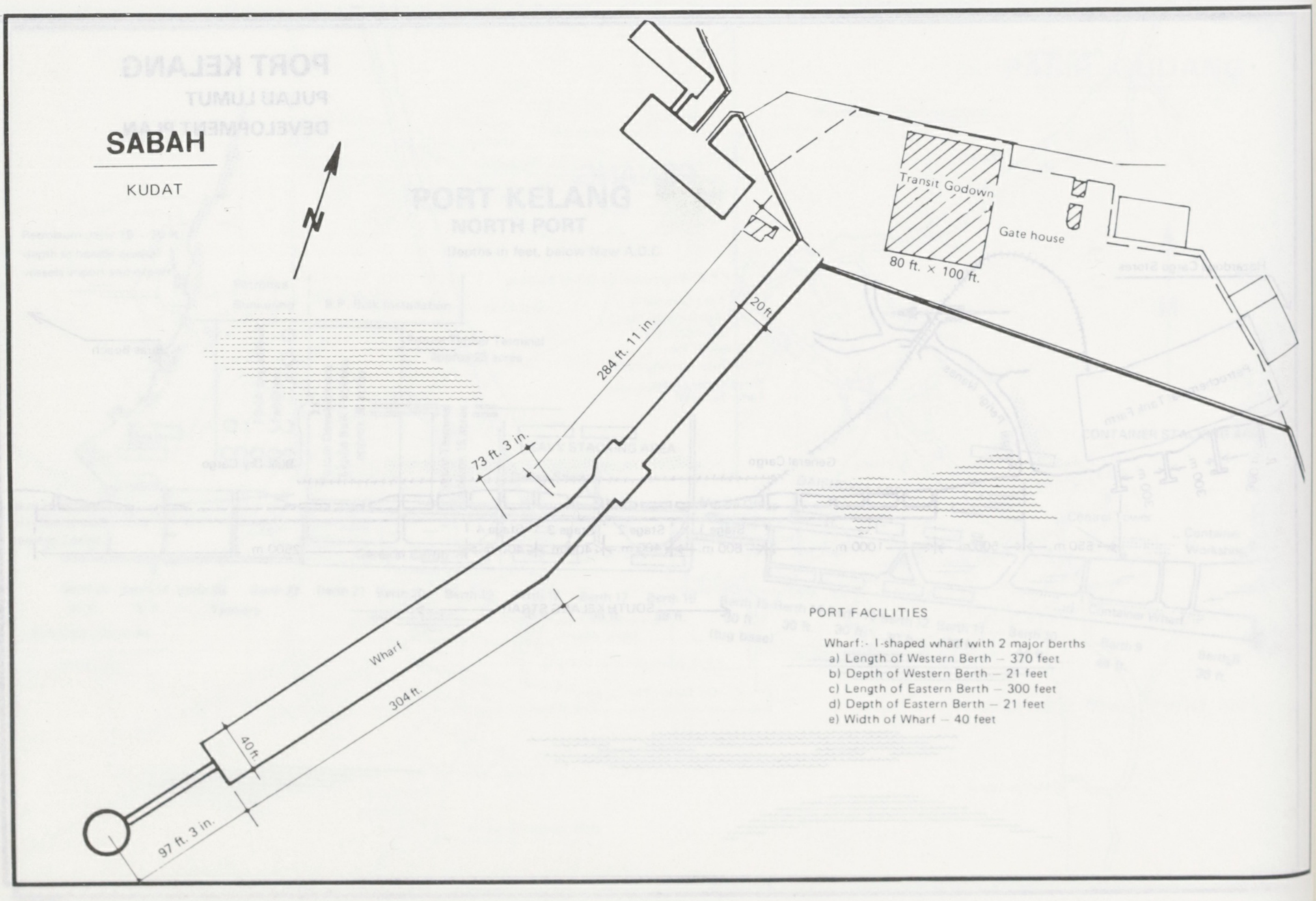
PORT KELANG

PULAU LUMUT

DEVELOPMENT PLAN

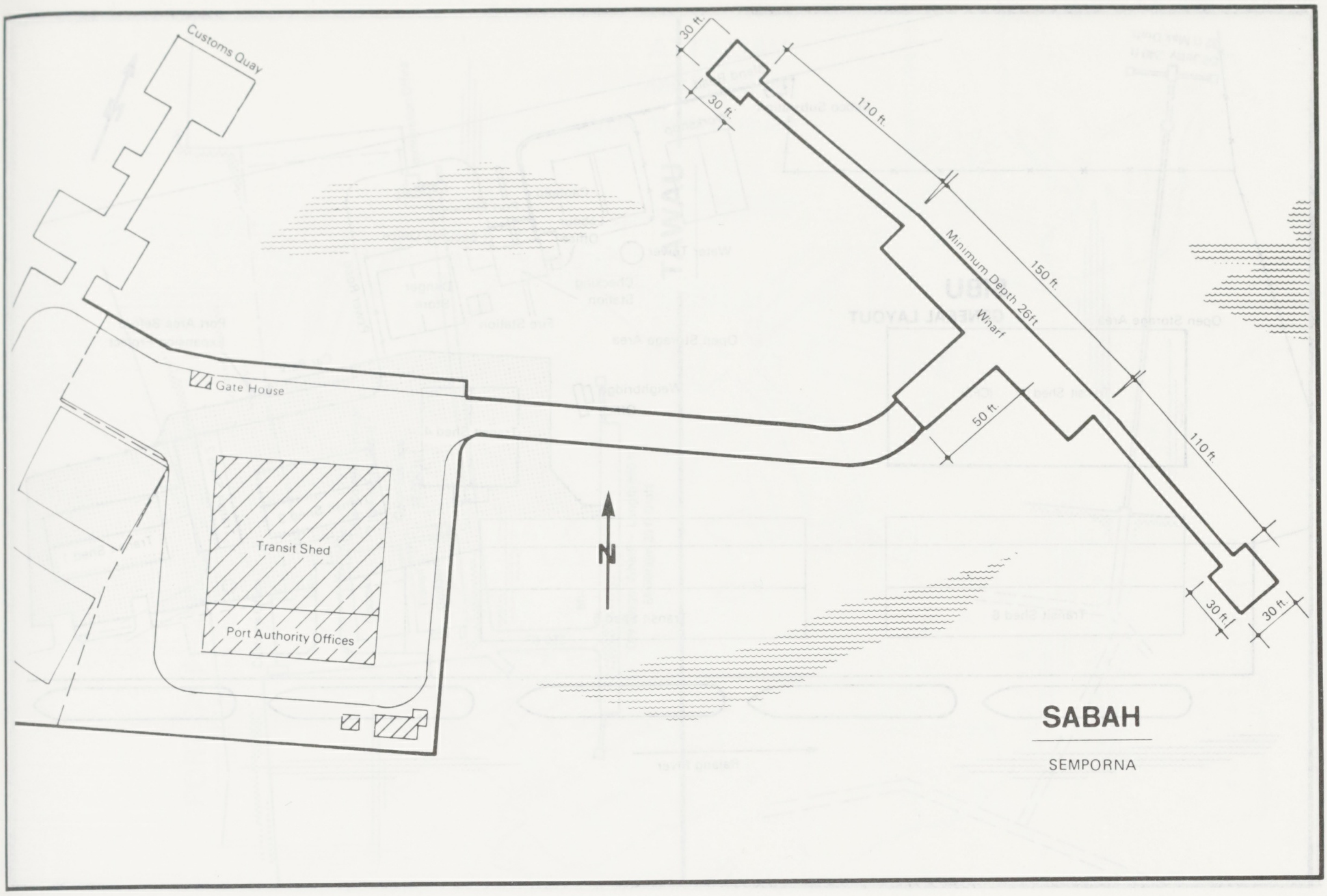
Hazardous Cargo Stores
Petrochemical Tank Farm
Sungai Pengi Nanas
General Cargo
Bulk Dry Cargo
Buas Beach
300 m.
300 m.
300 m.
Stage 1
Stage 2
Stage 3
Stage 4
550 m.
500 m.
1000 m.
600 m.
400 m.
400 m.
400 m.
2500 m.
SOUTH KELANG STRAIT

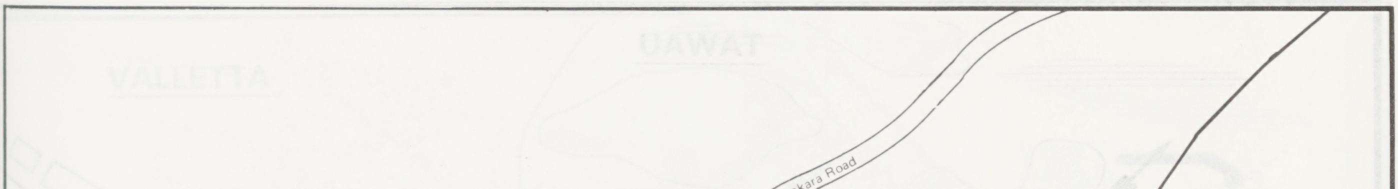

SABAH
LAHAD DATU
Transit Shed
80ft. × 100ft.
Hazardous Goods Store
New Fencing
Transit Shed
74ft. × 127ft.
Mooring Dolphin
193ft. 6in.
100ft.
Wharf
300 ft.
40ft.
100ft.
Mooring Dolphin

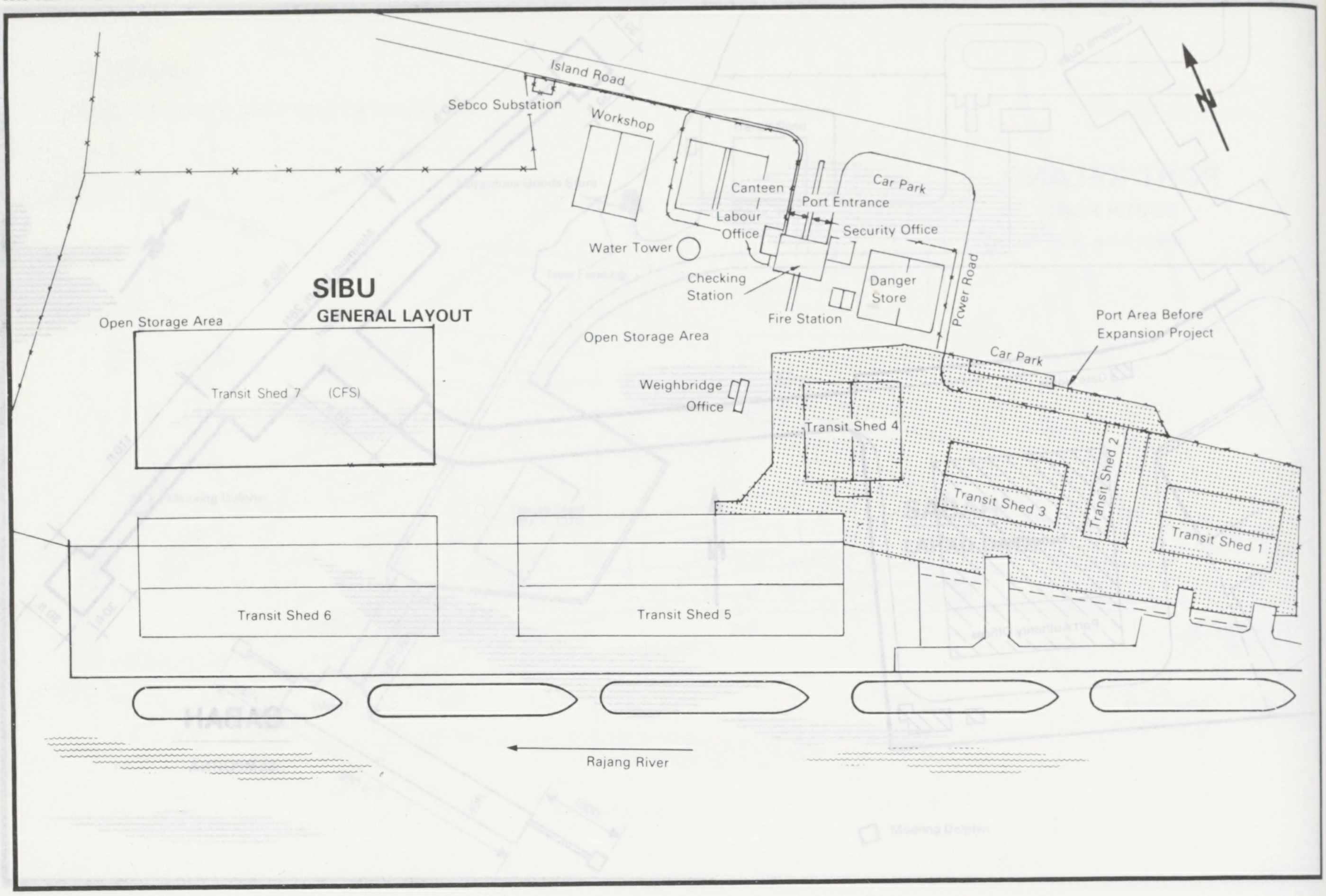

SABAH
KUDAT
Transit Godown
80 ft. × 100 ft.
Gate house
20 ft.
284 ft. 11 in.
73 ft. 3 in.
Wharf
304 ft.
40 ft.
97 ft. 3 in.

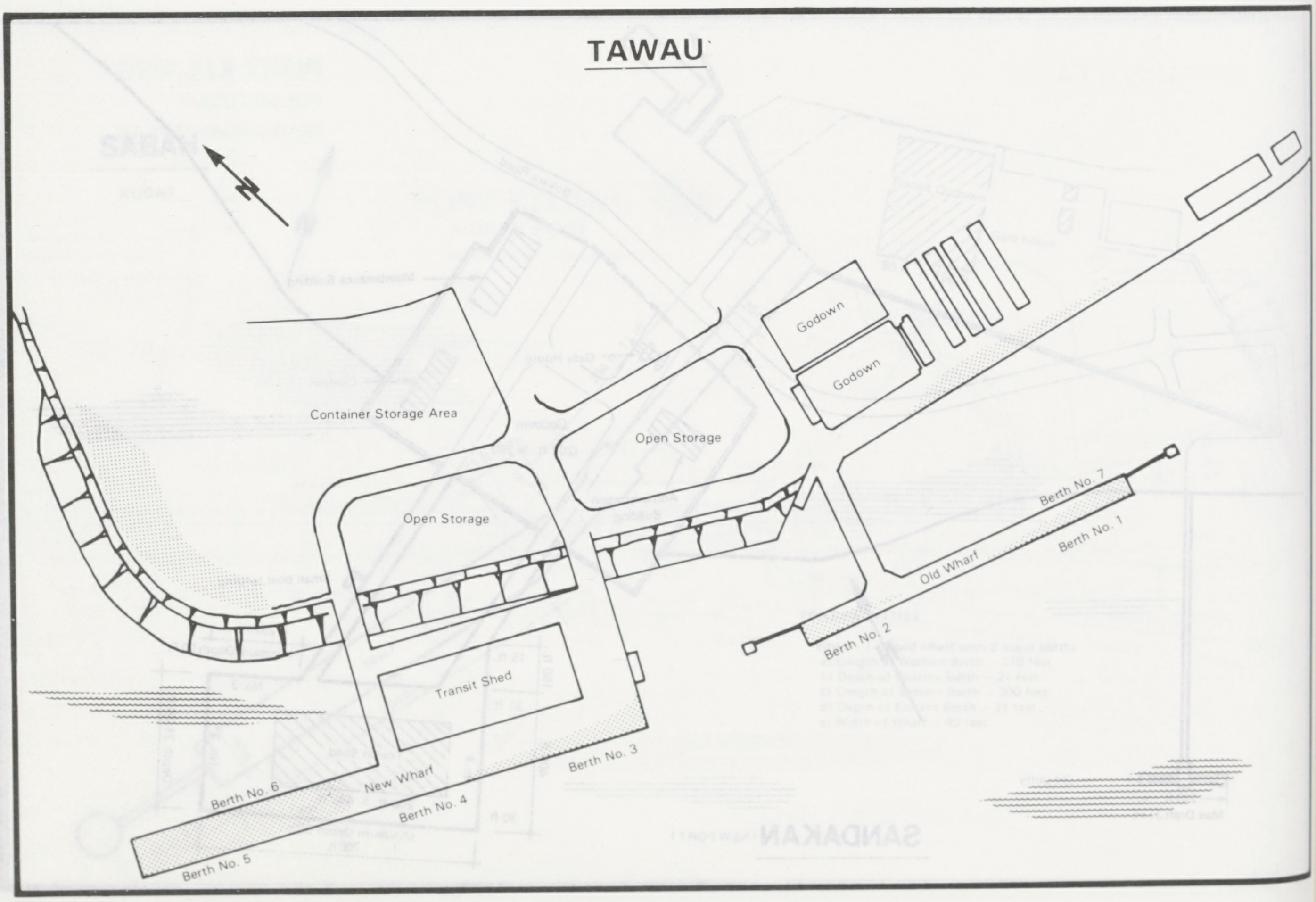
PORT FACILITIES

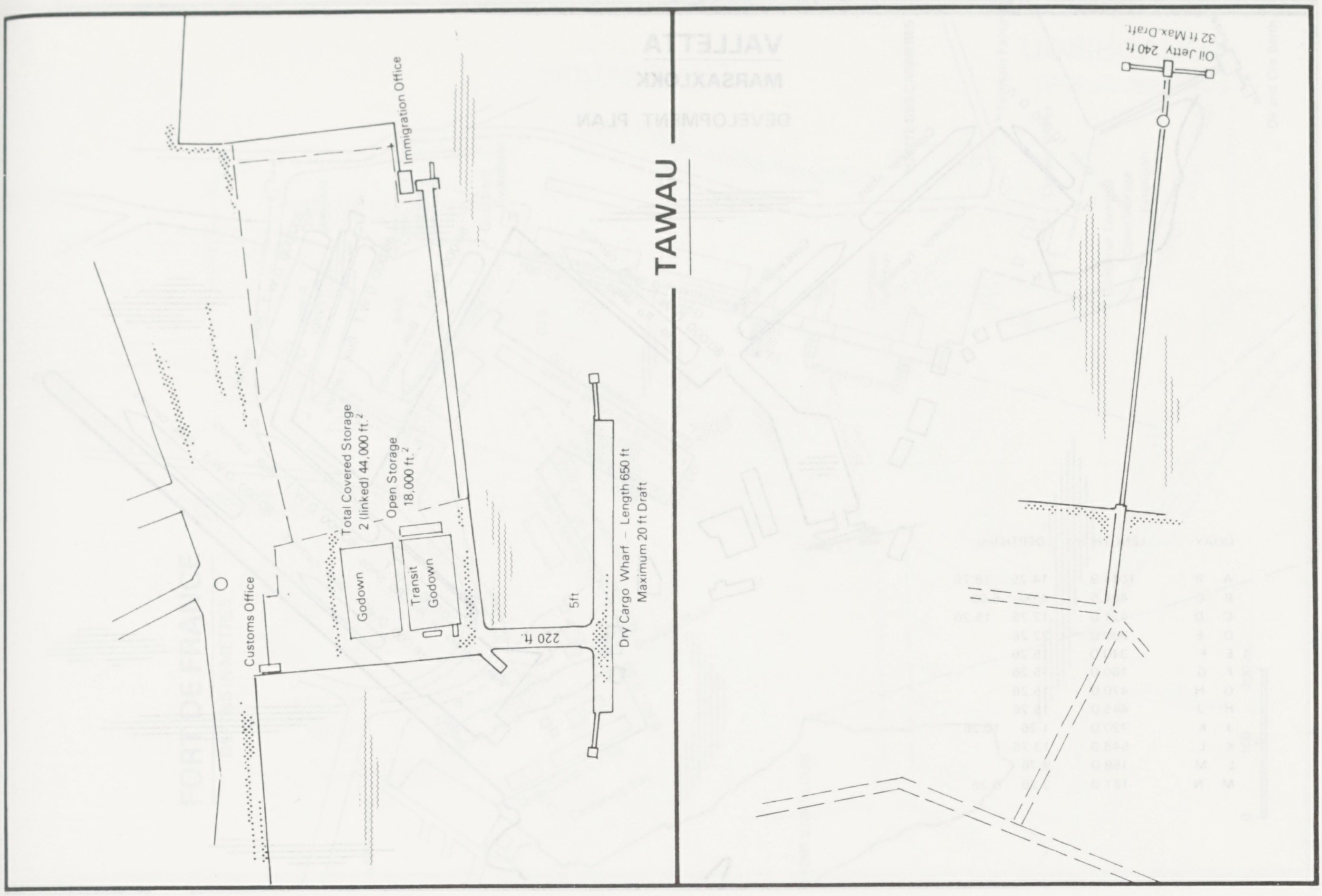
Wharf:- I-shaped wharf with 2 major berths
- a) Length of Western Berth – 370 feet
- b) Depth of Western Berth – 21 feet
- c) Length of Eastern Berth – 300 feet
- d) Depth of Eastern Berth – 21 feet
- e) Width of Wharf – 40 feet


Customs Quay
Gate House
Transit Shed
Port Authority Offices
N
30 ft.
30 ft.
110 ft.
150 ft.
Minimum Depth 26ft
Wharf
50 ft.
110 ft.
30 ft.
30 ft.
SABAH
SEMPORNA

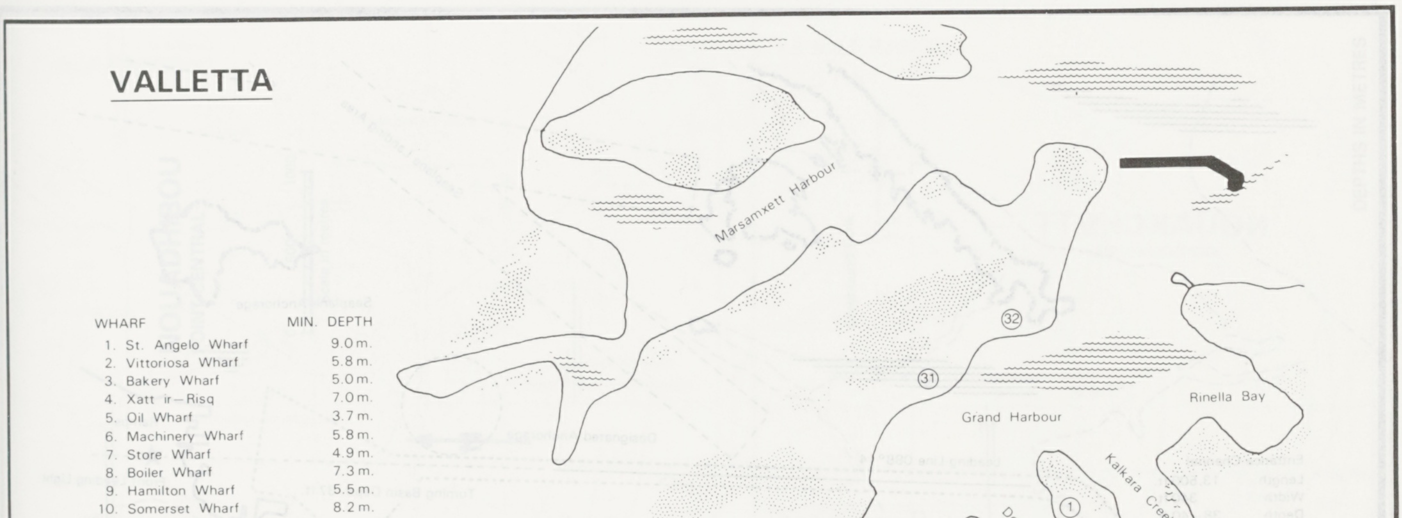

Bokara Road
Maintenance Building
Gate House
Canteen
Godown
(202 ft. × 260 ft.)
Administration Building
Small boat landing
250 ft.
Minimum Depth 20 Ft.
15 ft.
150 ft.
21 ft.
No. 3
Transit Shed
200 ft. × 440 ft.
No. 4
No. 2
No. 1
Depth 21-30 Ft.
400 ft.
30 ft.
Minimum Depth 30ft.
700 ft.
Oil Jetty
240 ft
Max Draft 31 Ft
SANDAKAN (NEW PORT)


SIBU
GENERAL LAYOUT
Island Road
Sebco Substation
Workshop
Canteen
Labour Office
Port Entrance
Car Park
Security Office
Water Tower
Checking Station
Fire Station
Danger Store
Power Road
Port Area Before Expansion Project
Open Storage Area
Open Storage Area
Car Park
Weighbridge Office
Transit Shed 7 (CFS)
Transit Shed 4
Transit Shed 3
Transit Shed 2
Transit Shed 1
Transit Shed 6
Transit Shed 5
Rajang River
N

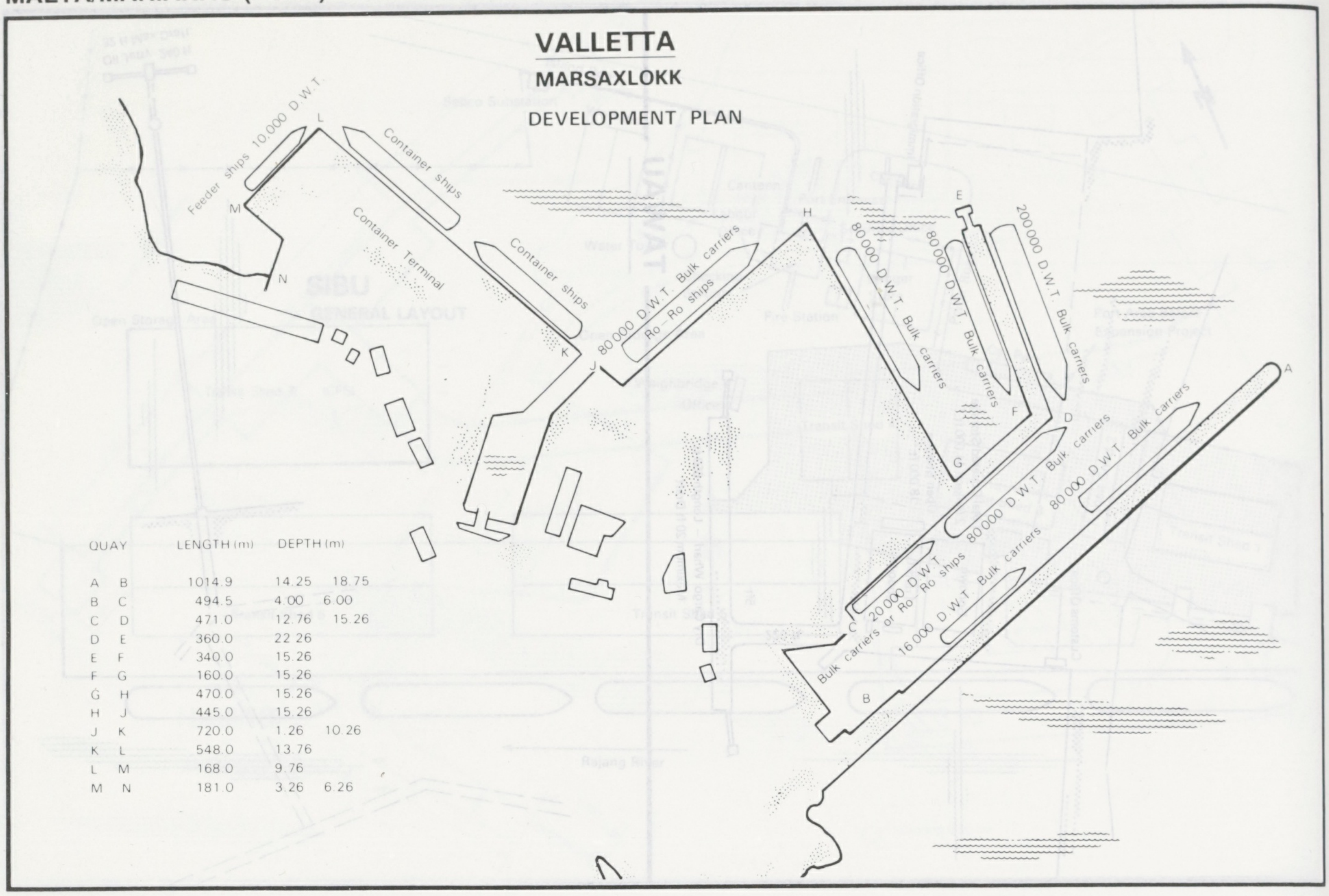

TAWAU
N
Godown
Godown
Container Storage Area
Open Storage
Open Storage
Transit Shed
Berth No. 7
Berth No. 1
Old Wharf
Berth No. 2
Berth No. 3
New Wharf
Berth No. 6
Berth No. 4
Berth No. 5


TAWAU
Immigration Office
Total Covered Storage
2 (linked) 44,000 ft.²
Open Storage
18,000 ft.²
Godown
Transit
Godown
Customs Office
220 ft.
5ft
Dry Cargo Wharf – Length 650 ft
Maximum 20 ft Draft
Oil Jetty 240 ft
32 ft Max. Draft.

VALLETTA


Marsamxett Harbour
Grand Harbour
Rinella Bay
Kalkara Creek
Dockyard Creek
French Creek
Malta Dry Docks
N
32
31
1
30
2
8
3
4
29
28
27
9
16
5
24
20
17
15
25
26
19
10
7
6
23
18
11
22
14
21
13
12

WHARF	MIN. DEPTH
1. St. Angelo Wharf	9.0 m.
2. Vittoriosa Wharf	5.8 m.
3. Bakery Wharf	5.0 m.
4. Xatt ir–Risq	7.0 m.
5. Oil Wharf	3.7 m.
6. Machinery Wharf	5.8 m.
7. Store Wharf	4.9 m.
8. Boiler Wharf	7.3 m.
9. Hamilton Wharf	5.5 m.
10. Somerset Wharf	8.2 m.
11. Burmola Wharf	9.6 m.
12. Saw Mill Wharf	7.9 m.
13. Factory Wharf	9.8 m.
14. Boat House Wharf	9.2 m.
15. Canteen Wharf	10.5 m.
16. Parlatorio Wharf	10.5 m.
17. Magazine Wharf	13.7 m.
18. Laboratory Wharf	12.2 m.
19. Ras Hanzir No. 1	7.6 m.
20. Ras Hanzir No. 2	7.8 m.
21. Coal Wharf	4.5 m.
22. Il–Moll tal–Braken	1.2 m.
23. Il–Moll tal–Injam	4.5 m.
24. New Flagstone Wharf	13.7 m.
25. New Quay No. 5	4.5 m.
26. New Quay	8.5 m.
27. Deep Water Wharf	9.8 m.
28. Wine Wharf	
29. Gun Wharf	4.5 m.
30. Crucifix Wharf	–
31. Lascaris Wharf	–
32. Barriera Wharf	–



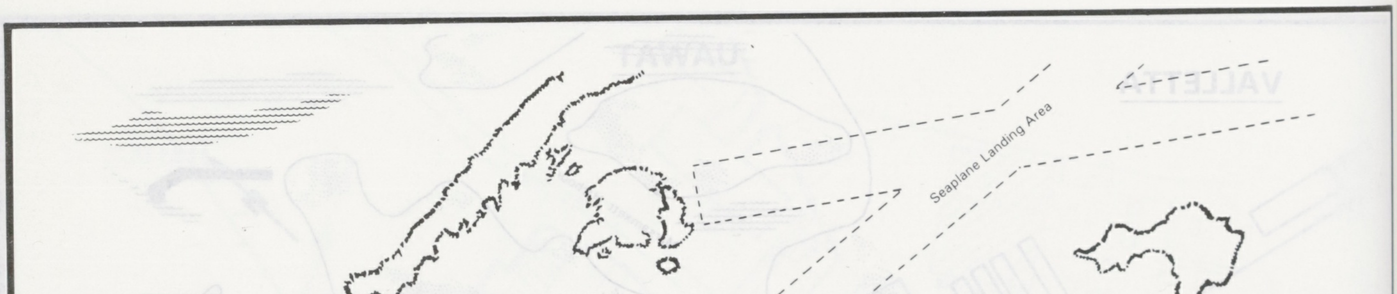
VALLETTA

MARSAXLOKK

DEVELOPMENT PLAN

Feeder ships 10,000 D.W.T.
Container ships
Container Terminal
Container ships
80,000 D.W.T. Bulk carriers
Ro–Ro ships
80,000 D.W.T. Bulk carriers
80,000 D.W.T. Bulk carriers
200,000 D.W.T. Bulk carriers
80,000 D.W.T. Bulk carriers
80,000 D.W.T. Bulk carriers
20,000 D.W.T. Bulk carriers or Ro–Ro ships
16,000 D.W.T. Bulk carriers
A
B
C
D
E
F
G
H
J
K
L
M
N

QUAY		LENGTH (m)	DEPTH (m)	
A	B	1014.9	14.25	18.75
B	C	494.5	4.00	6.00
C	D	471.0	12.76	15.26
D	E	360.0	22.26	
E	F	340.0	15.26	
F	G	160.0	15.26	
G	H	470.0	15.26	
H	J	445.0	15.26	
J	K	720.0	1.26	10.26
K	L	548.0	13.76	
L	M	168.0	9.76	
M	N	181.0	3.26	6.26



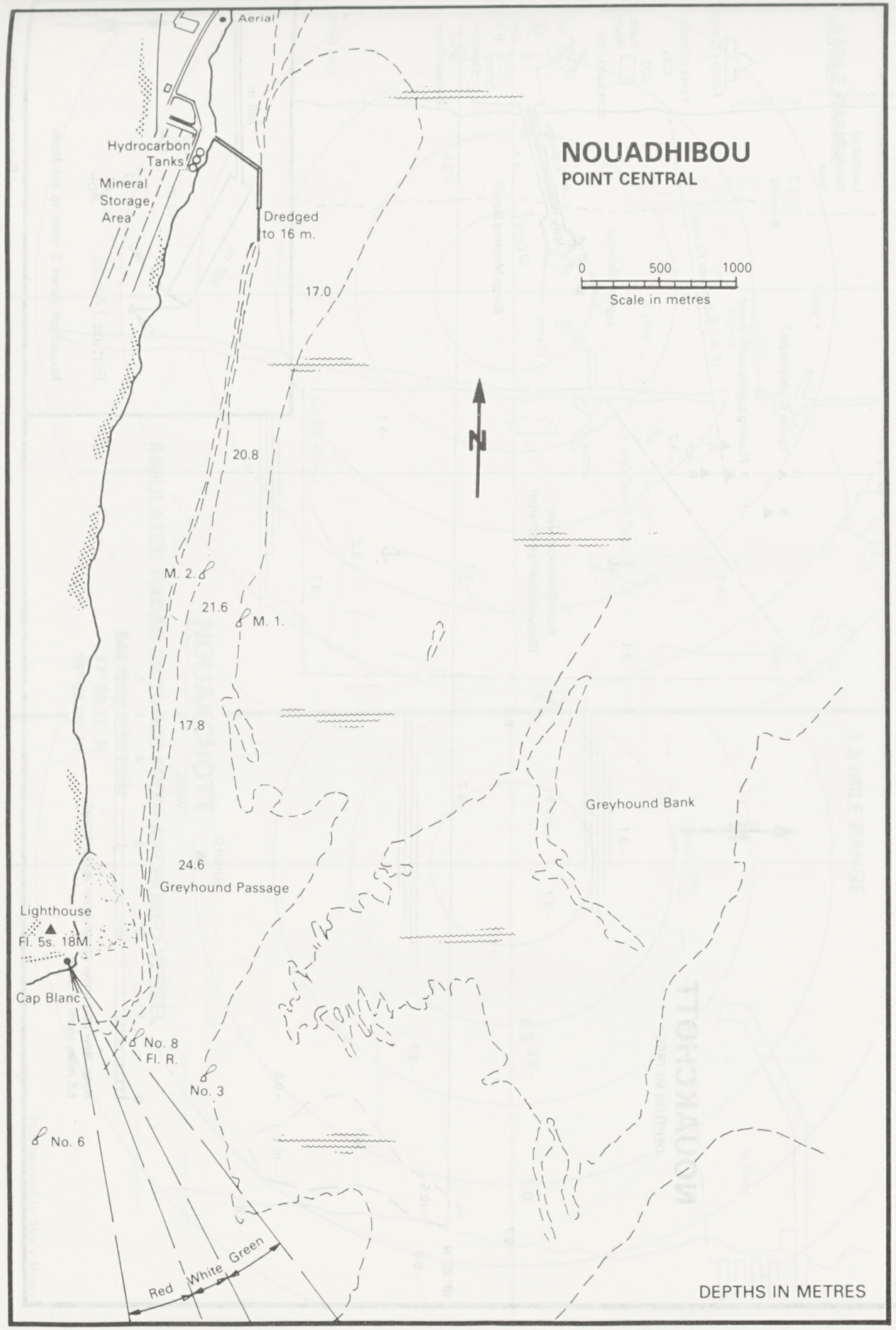
Seaplane Landing Area
Seaplane Anchorage
Ramps
Front Leading Light
Designated Anchorage
Leading Line 088°14'
Turning Basin Depth 37 ft.
Pier (C)
Pier (B)
Pier (A)
Tanks
0
5000
SCALE IN FEET

Entrance Channel

Length	13,500 ft.
Width	340 ft.
Depth	38–40 ft.

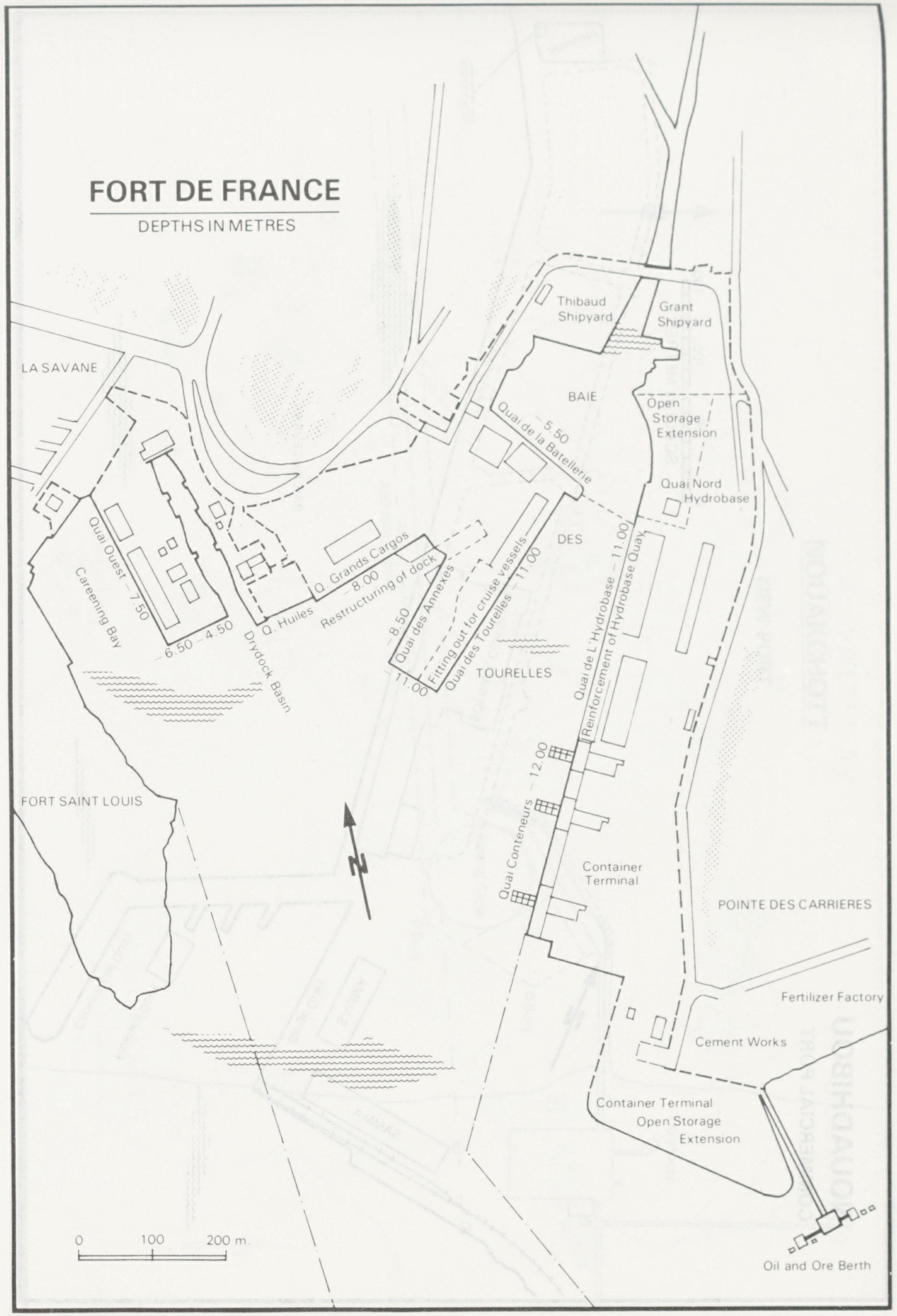
SAIPAN

PROPOSED GENERAL NAVIGATION IMPROVEMENTS



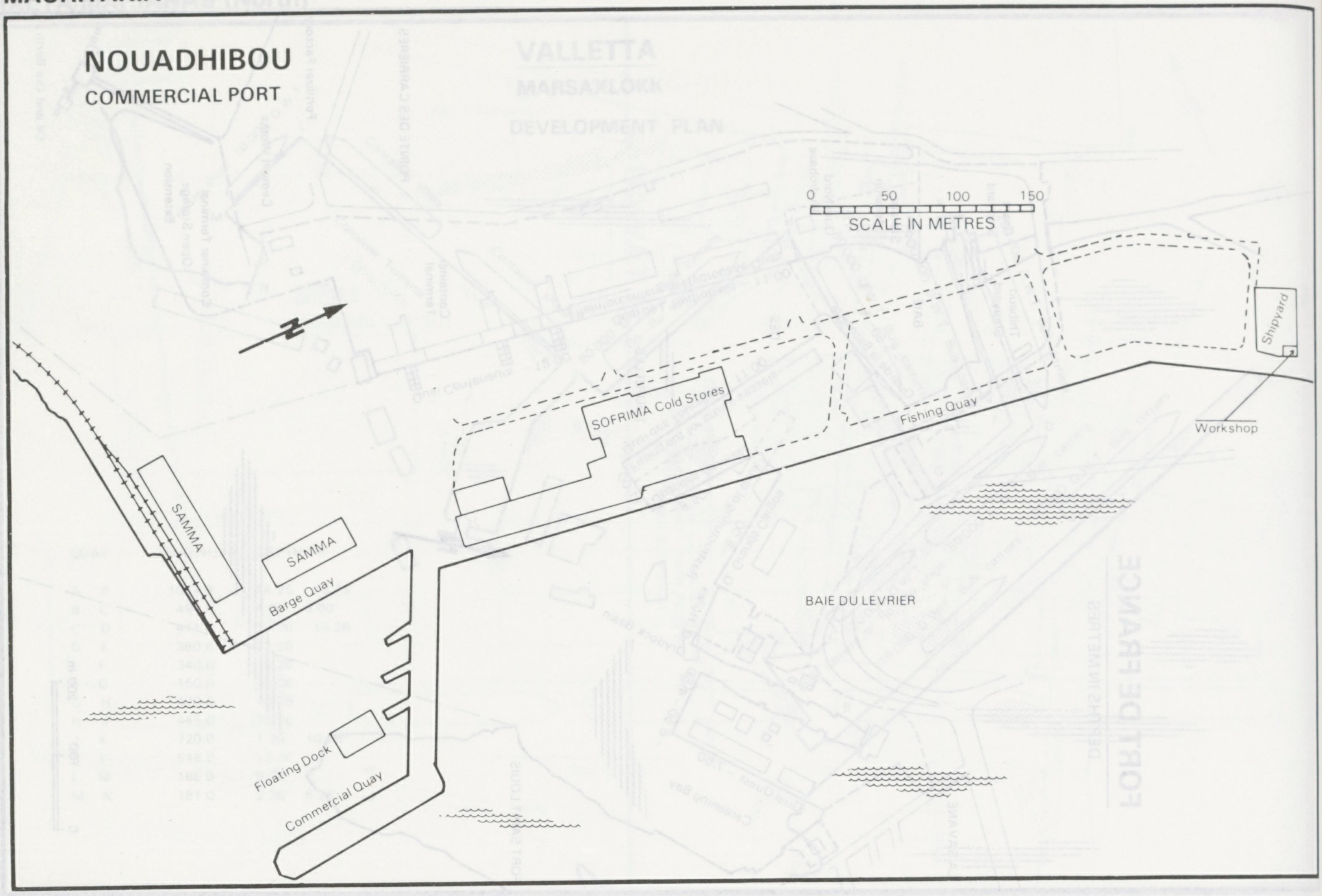
NOUADHIBOU
POINT CENTRAL

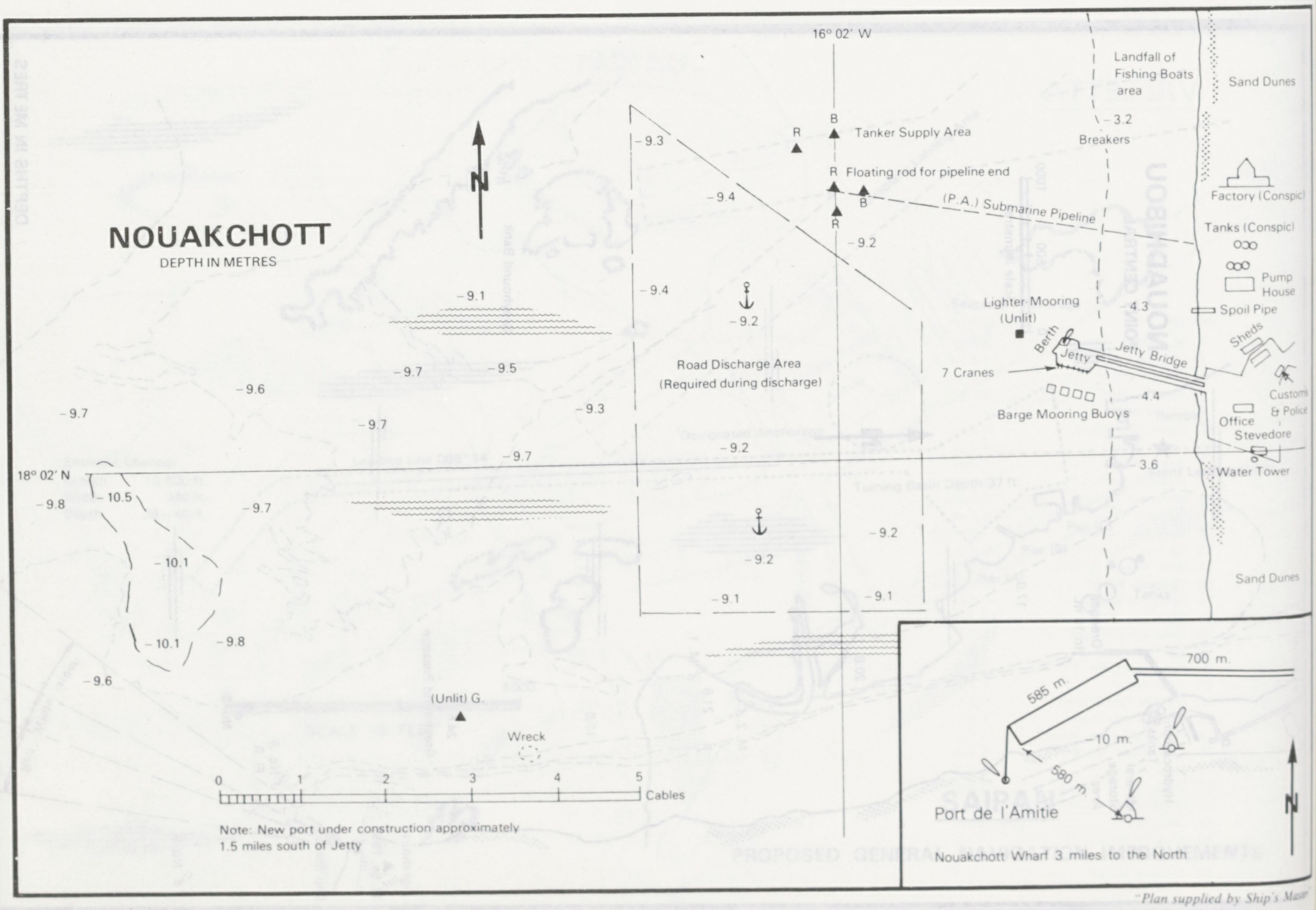
Aerial
Hydrocarbon Tanks
Mineral Storage Area
Dredged to 16 m.
0 500 1000
Scale in metres
17.0
N
20.8
M. 2.
21.6
M. 1.
17.8
Greyhound Bank
24.6
Greyhound Passage
Lighthouse
Fl. 5s. 18M.
Cap Blanc
No. 8
Fl. R.
No. 3
No. 6
Red
White
Green
DEPTHS IN METRES



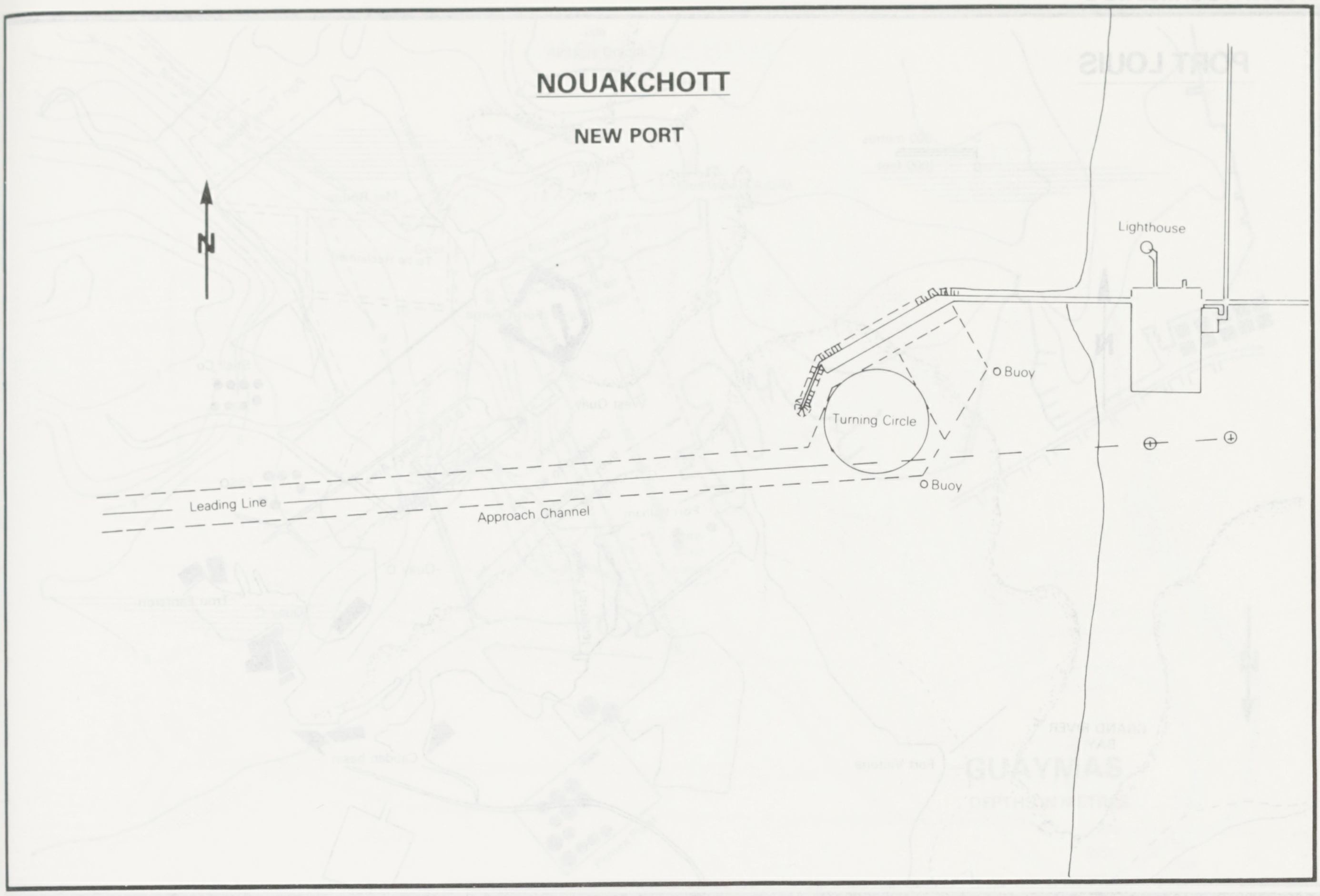
FORT DE FRANCE
DEPTHS IN METRES

Thibaud Shipyard
Grant Shipyard
LA SAVANE
BAIE
Open Storage Extension
5.50
Quai de la Batellerie
Quai Nord Hydrobase
DES
Quai Ouest 7.50
Careening Bay
6.50 4.50
Q. Huiles
Drydock Basin
Q. Grands Cargos
8.00
Restructuring of dock
8.50
Quai des Annexes
11.00
Fitting out for cruise vessels
Quai des Tourelles 11.00
TOURELLES
11.00
Quai de L'Hydrobase
Reinforcement of Hydrobase Quay
12.00
Quai Conteneurs
FORT SAINT LOUIS
N
Container Terminal
POINTE DES CARRIERES
Fertilizer Factory
Cement Works
Container Terminal Open Storage Extension
0 100 200 m.
Oil and Ore Berth


NOUADHIBOU
COMMERCIAL PORT
0 50 100 150
SCALE IN METRES
N
Shipyard
Workshop
SOFRIMA Cold Stores
Fishing Quay
SAMMA
SAMMA
Barge Quay
BAIE DU LEVRIER
Floating Dock
Commercial Quay


16° 02' W
NOUAKCHOTT
DEPTH IN METRES
N
Landfall of Fishing Boats area
Sand Dunes
-3.2
Breakers
R
B
Tanker Supply Area
R Floating rod for pipeline end
B
R
(P.A.) Submarine Pipeline
Factory (Conspic)
Tanks (Conspic)
Pump House
Spoil Pipe
Sheds
Customs & Police
Office
Stevedore
Water Tower
Sand Dunes
-9.3
-9.4
-9.2
-9.4
-9.2
-9.1
-9.7
-9.5
-9.6
-9.7
-9.3
-9.7
-9.7
-9.2
18° 02' N
-10.5
-9.8
-9.7
-10.1
-10.1
-9.8
-9.6
-9.2
-9.2
-9.1
-9.1
Road Discharge Area (Required during discharge)
Lighter Mooring (Unlit)
Berth
Jetty
Jetty Bridge
7 Cranes
4.3
4.4
Barge Mooring Buoys
3.6
(Unlit) G.
Wreck
0 1 2 3 4 5 Cables
Note: New port under construction approximately 1.5 miles south of Jetty
700 m.
585 m.
-10 m.
580 m.
Port de l'Amitie
Nouakchott Wharf 3 miles to the North
N

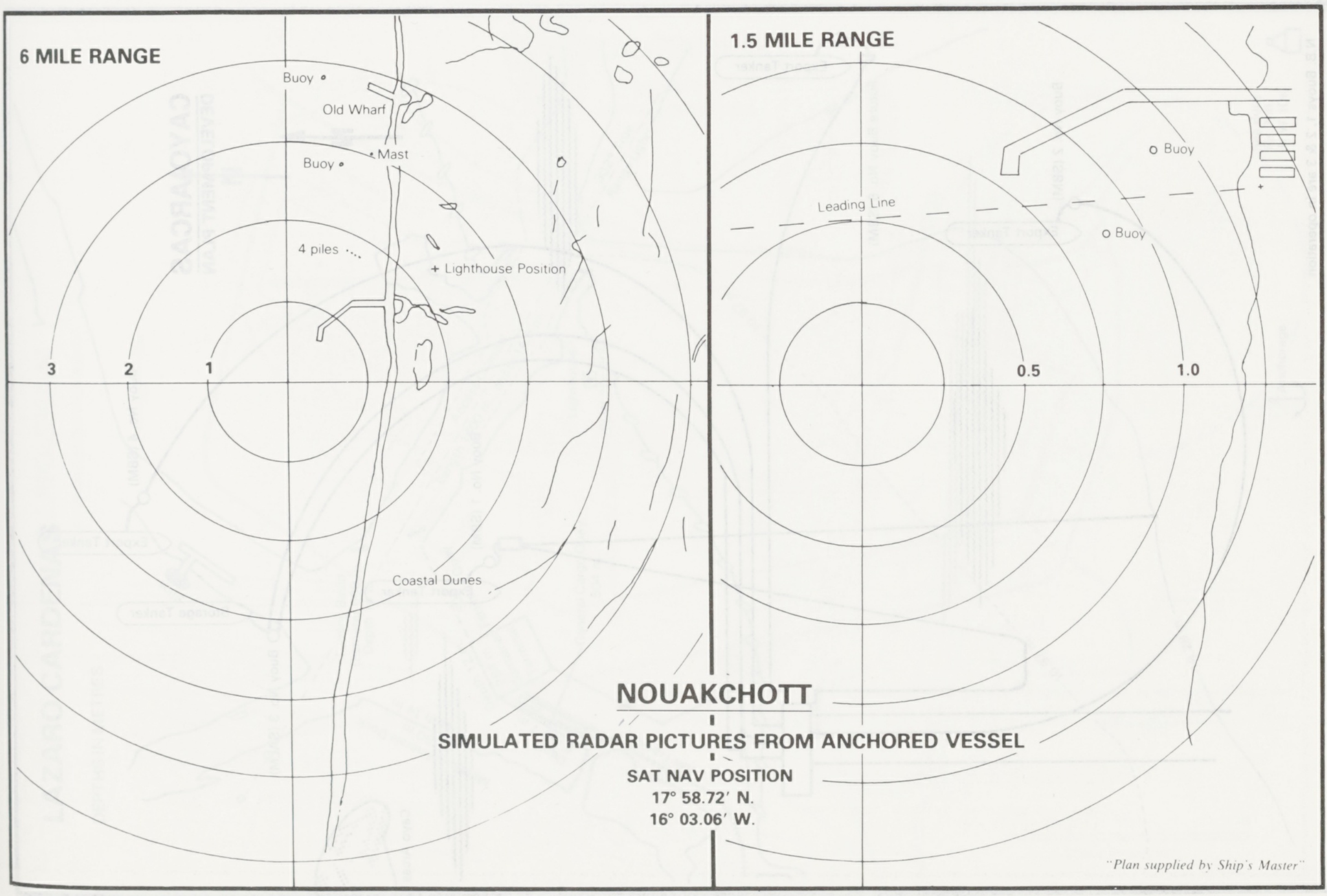
"Plan supplied by Ship's Maste



NOUAKCHOTT

NEW PORT

N
Lighthouse
Buoy
Turning Circle
Buoy
Leading Line
Approach Channel



6 MILE RANGE
Buoy
Old Wharf
Mast
Buoy
4 piles
Lighthouse Position
3
2
1
Coastal Dunes
1.5 MILE RANGE
Buoy
Leading Line
Buoy
0.5
1.0

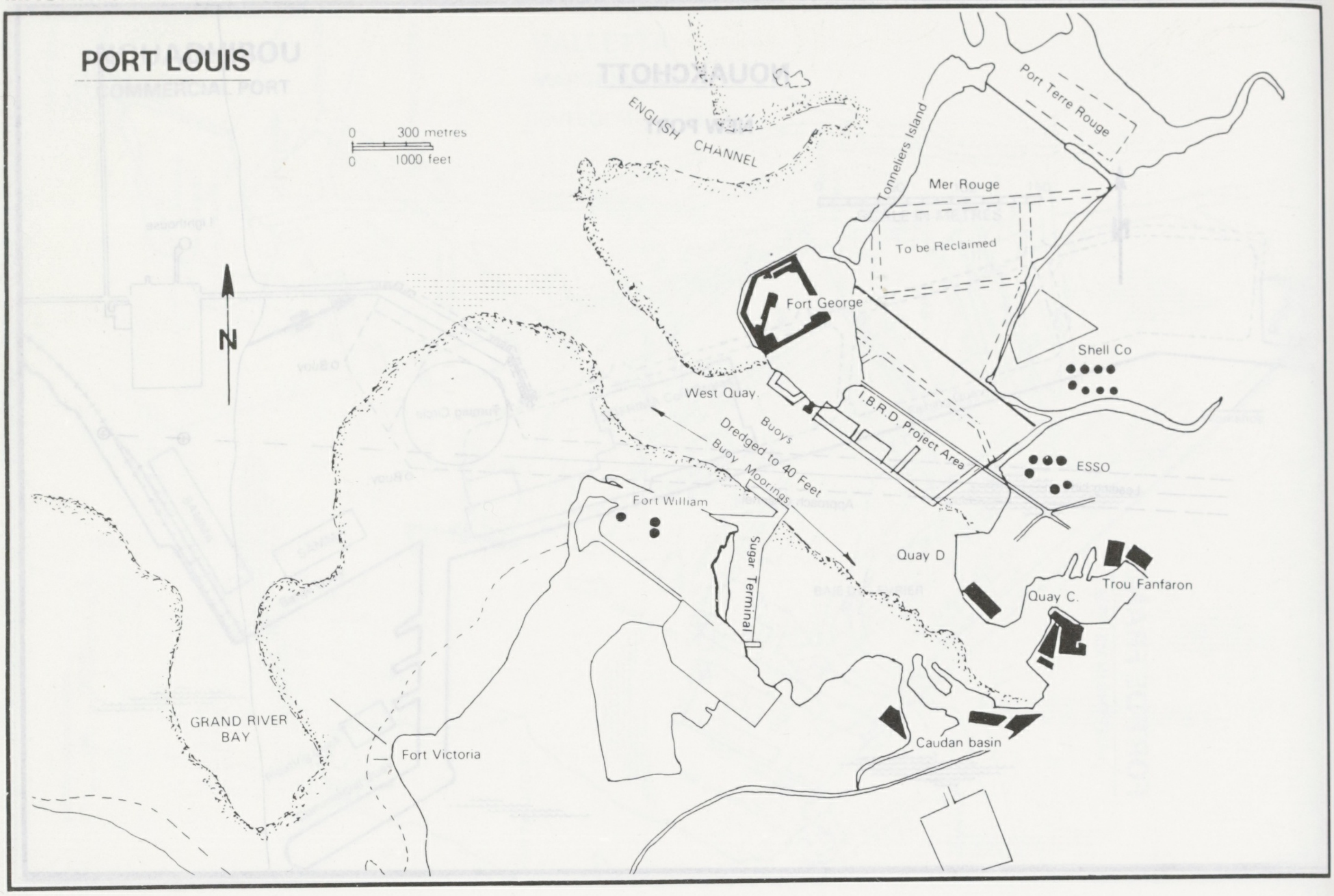
NOUAKCHOTT

SIMULATED RADAR PICTURES FROM ANCHORED VESSEL

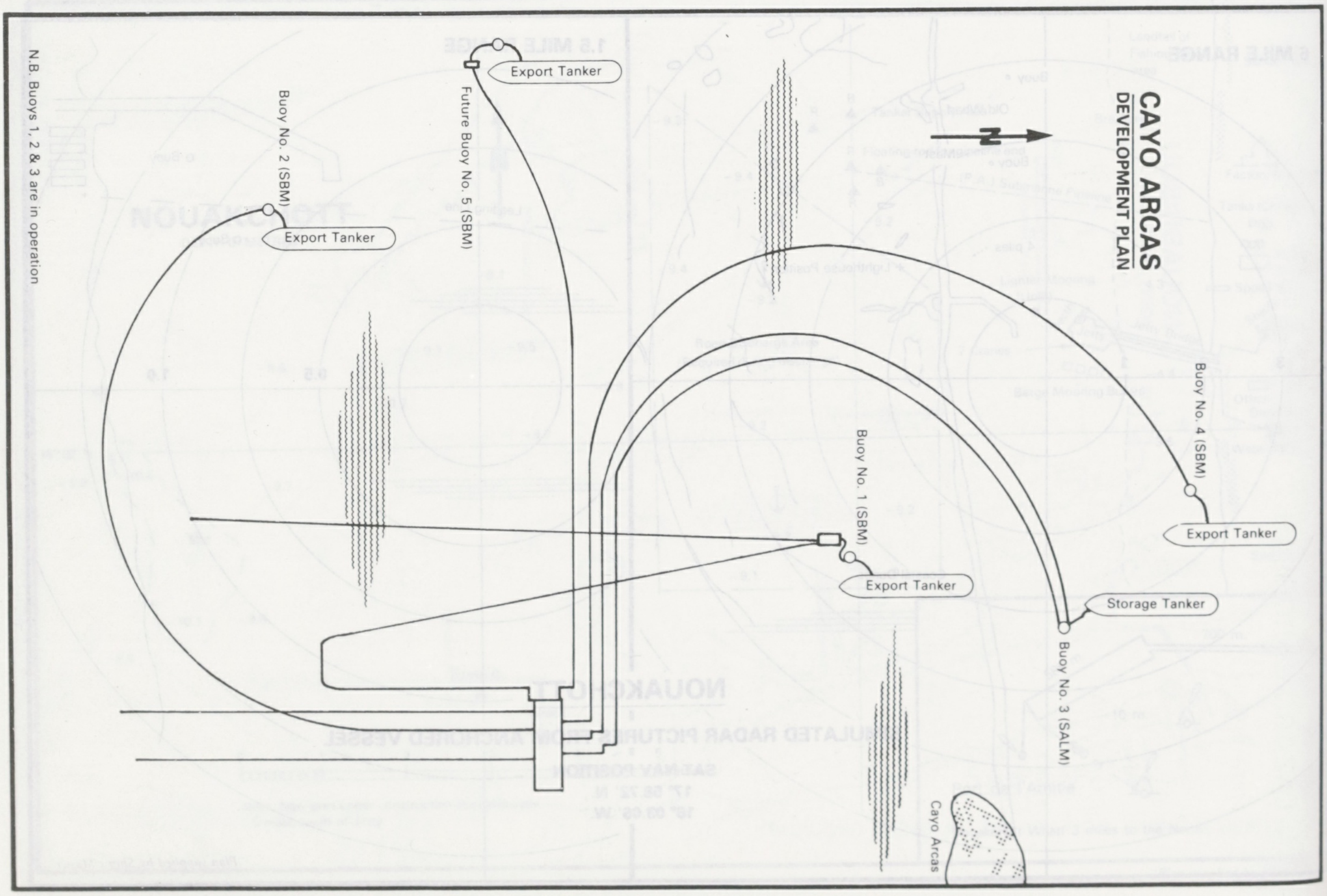
SAT NAV POSITION
17° 58.72′ N.
16° 03.06′ W.

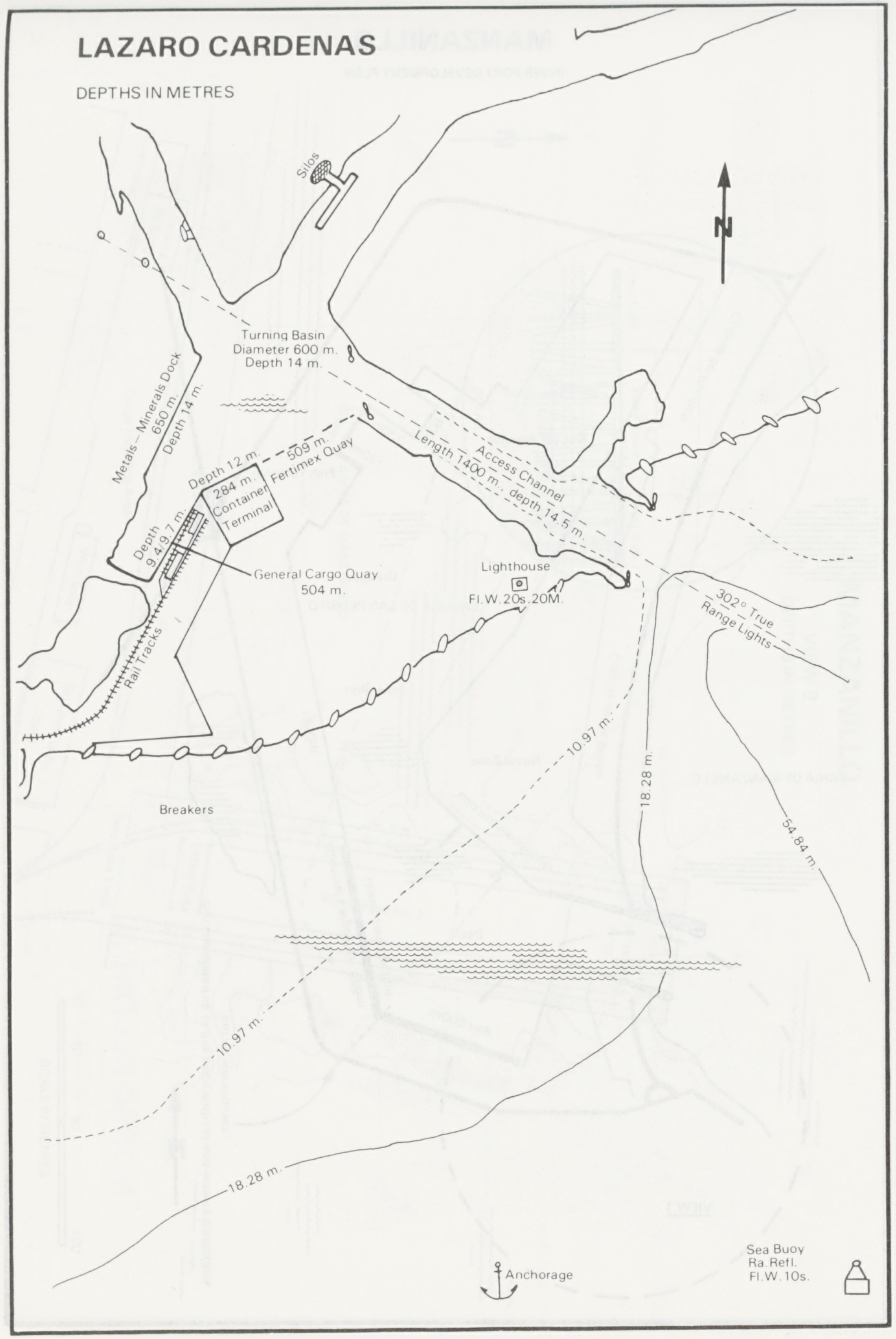
"Plan supplied by Ship's Master"

PORT LOUIS


0 300 metres
0 1000 feet
N
ENGLISH CHANNEL
Tonneliers Island
Port Terre Rouge
Mer Rouge
To be Reclaimed
Fort George
Shell Co
West Quay
Buoys
Dredged to 40 Feet
Buoy Moorings
I.B.R.D. Project Area
ESSO
Fort William
Sugar Terminal
Quay D
Trou Fanfaron
Quay C.
GRAND RIVER BAY
Fort Victoria
Caudan basin

CAYO ARCAS
DEVELOPMENT PLAN

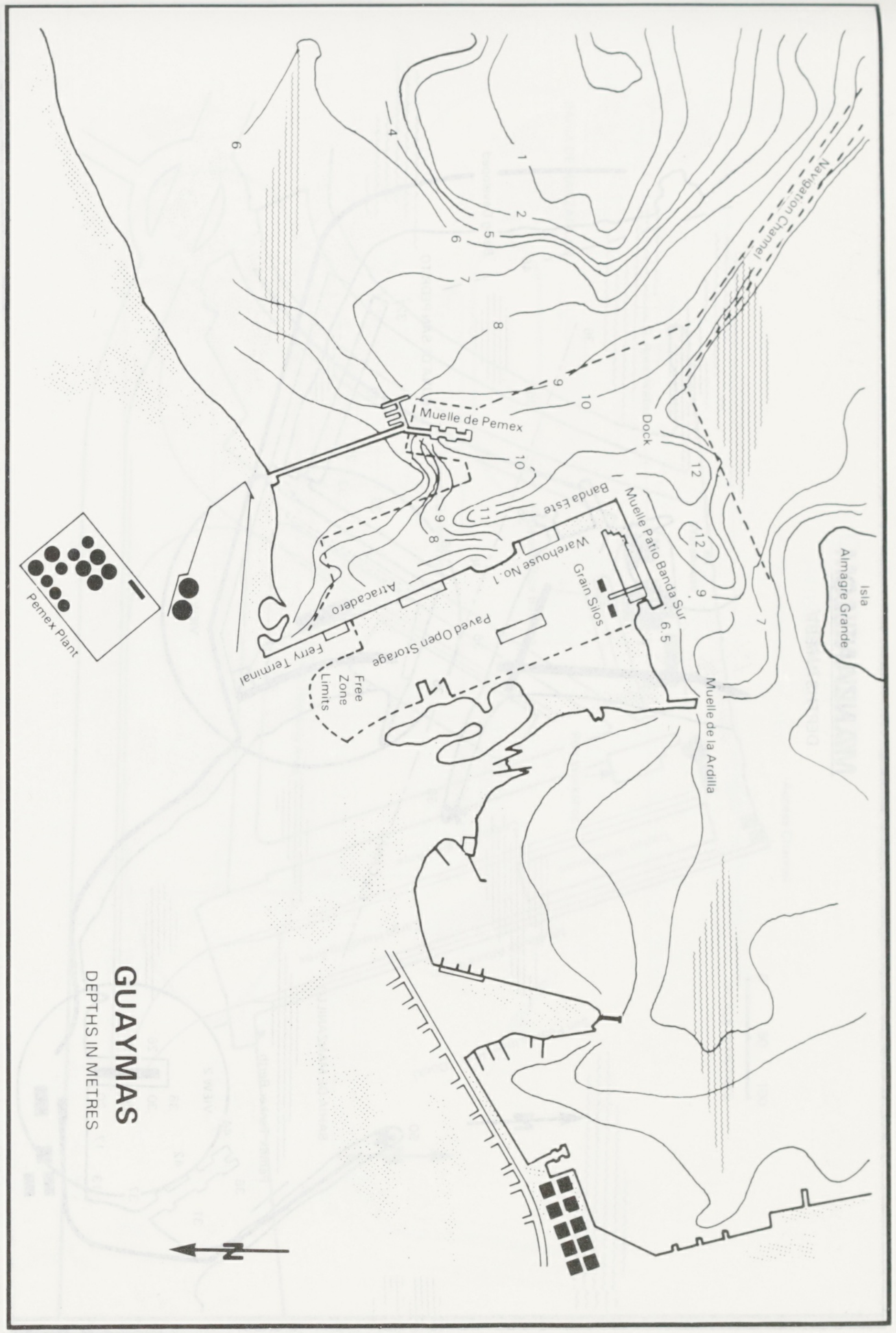

N
N.B. Buoys 1, 2 & 3 are in operation
Buoy No. 2 (SBM)
Export Tanker
Future Buoy No. 5 (SBM)
Export Tanker
Buoy No. 1 (SBM)
Export Tanker
Buoy No. 4 (SBM)
Export Tanker
Storage Tanker
Buoy No. 3 (SALM)
Cayo Arcas



LAZARO CARDENAS

DEPTHS IN METRES

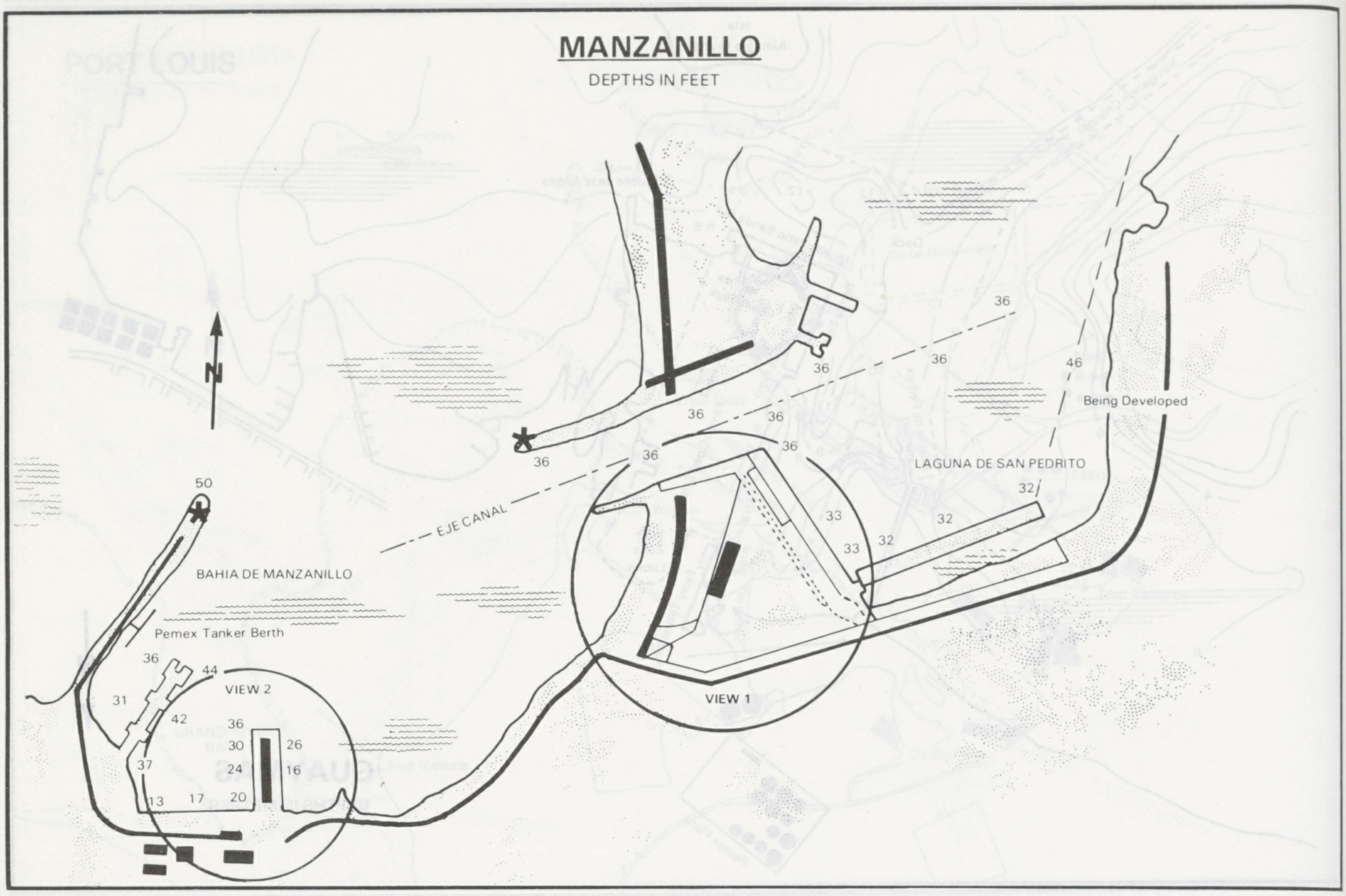
N
Silos
Turning Basin
Diameter 600 m.
Depth 14 m.
Metals – Minerals Dock
650 m.
Depth 14 m.
Depth 12 m.
509 m.
Fertimex Quay
284 m.
Container
Terminal
Depth
9.4/9.7 m.
General Cargo Quay
504 m.
Rail Tracks
Access Channel
Length 1400 m., depth 14.5 m.
Lighthouse
Fl.W.20s.20M.
302° True
Range Lights
10.97 m.
18.28 m.
54.84 m.
Breakers
10.97 m.
18.28 m.
Anchorage
Sea Buoy
Ra.Refl.
Fl.W.10s.

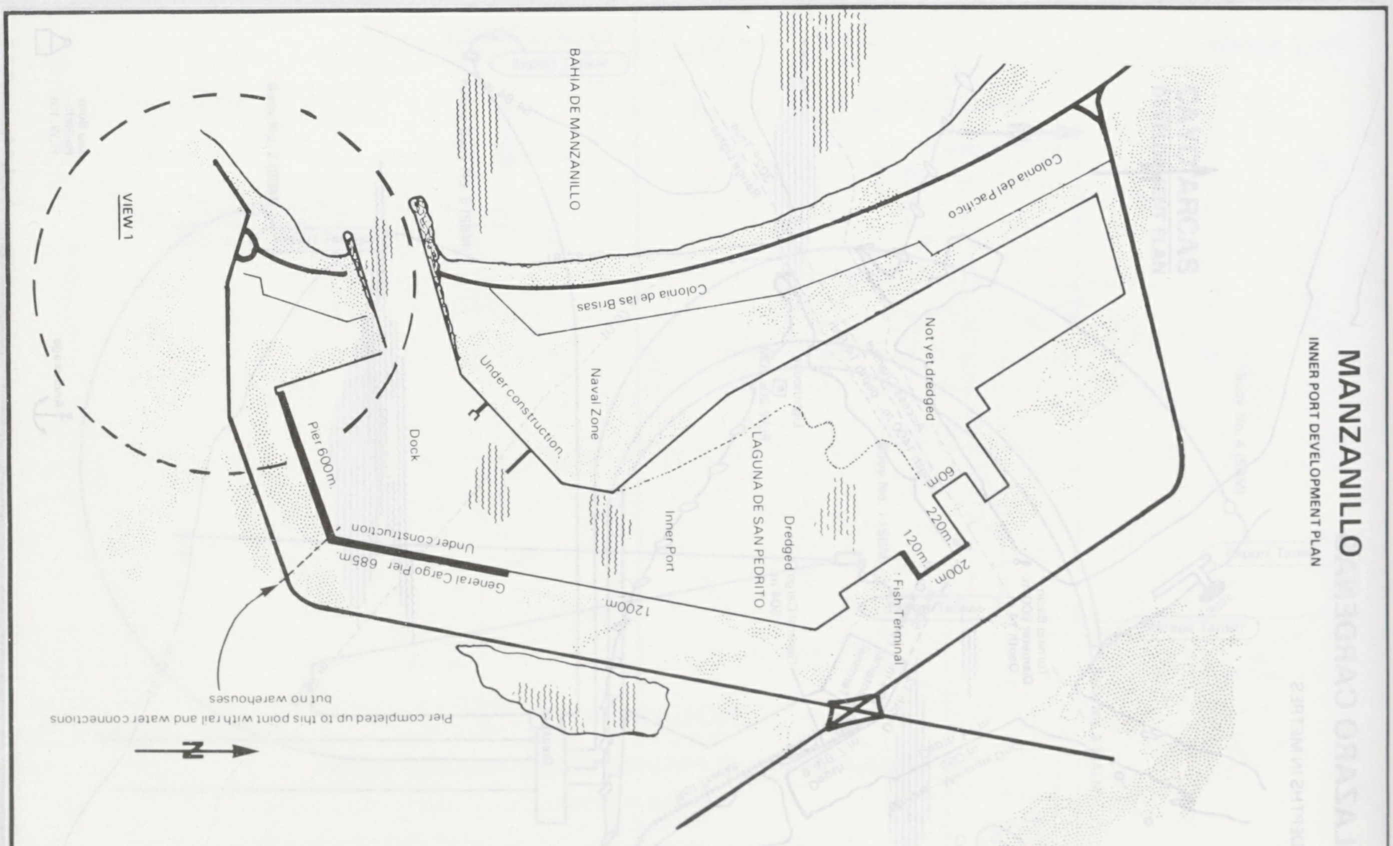


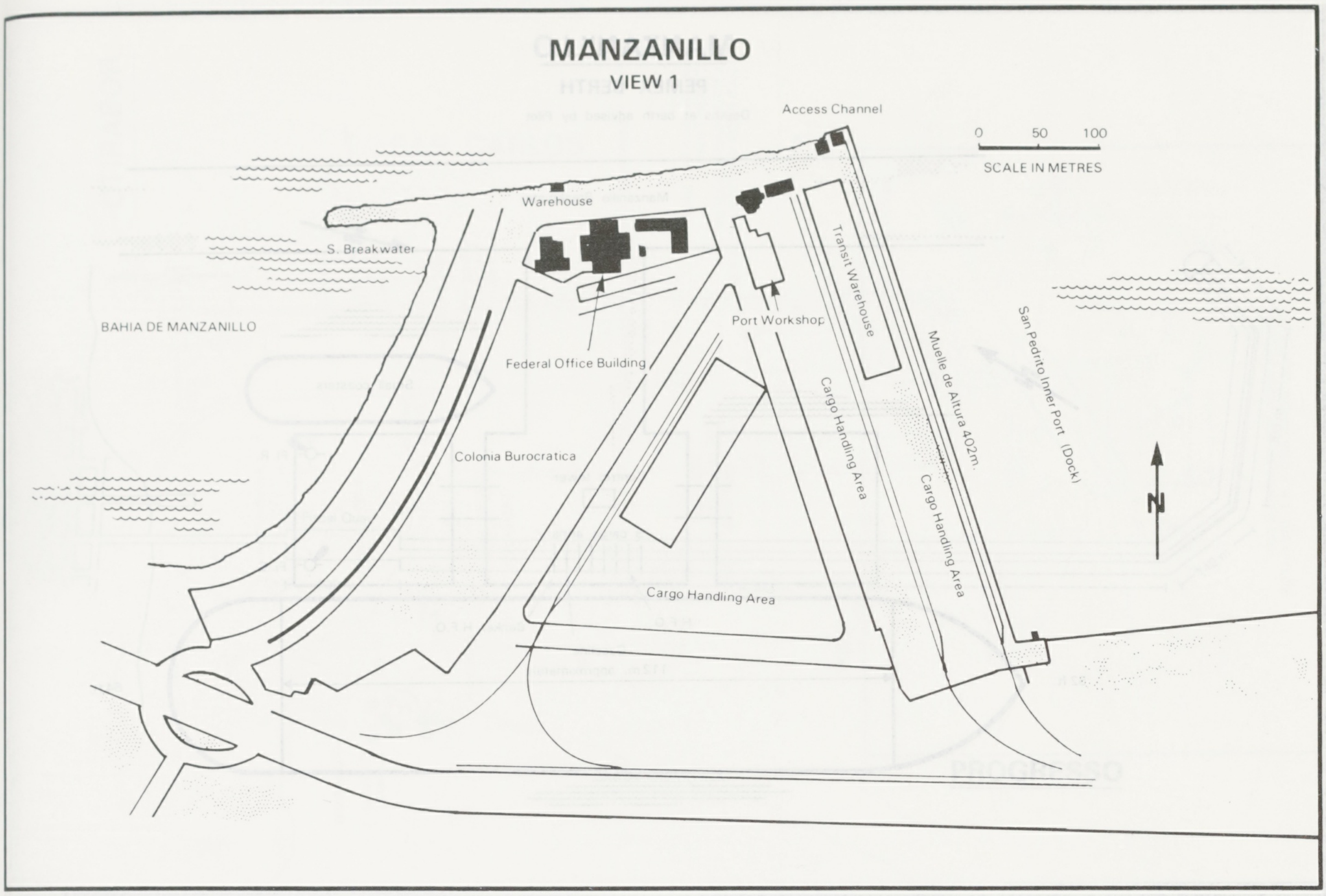
GUAYMAS

DEPTHS IN METRES

N
Navigation Channel
Muelle de Pemex
Dock
Banda Este
Muelle Patio Banda Sur
Warehouse No.1
Grain Silos
Atracadero
Paved Open Storage
Ferry Terminal
Free
Zone
Limits
Muelle de la Ardilla
Isla
Almagre Grande
Pemex Plant
1
2
4
5
6
6
7
7
8
8
9
9
9
10
10
11
12
12
6.5
9

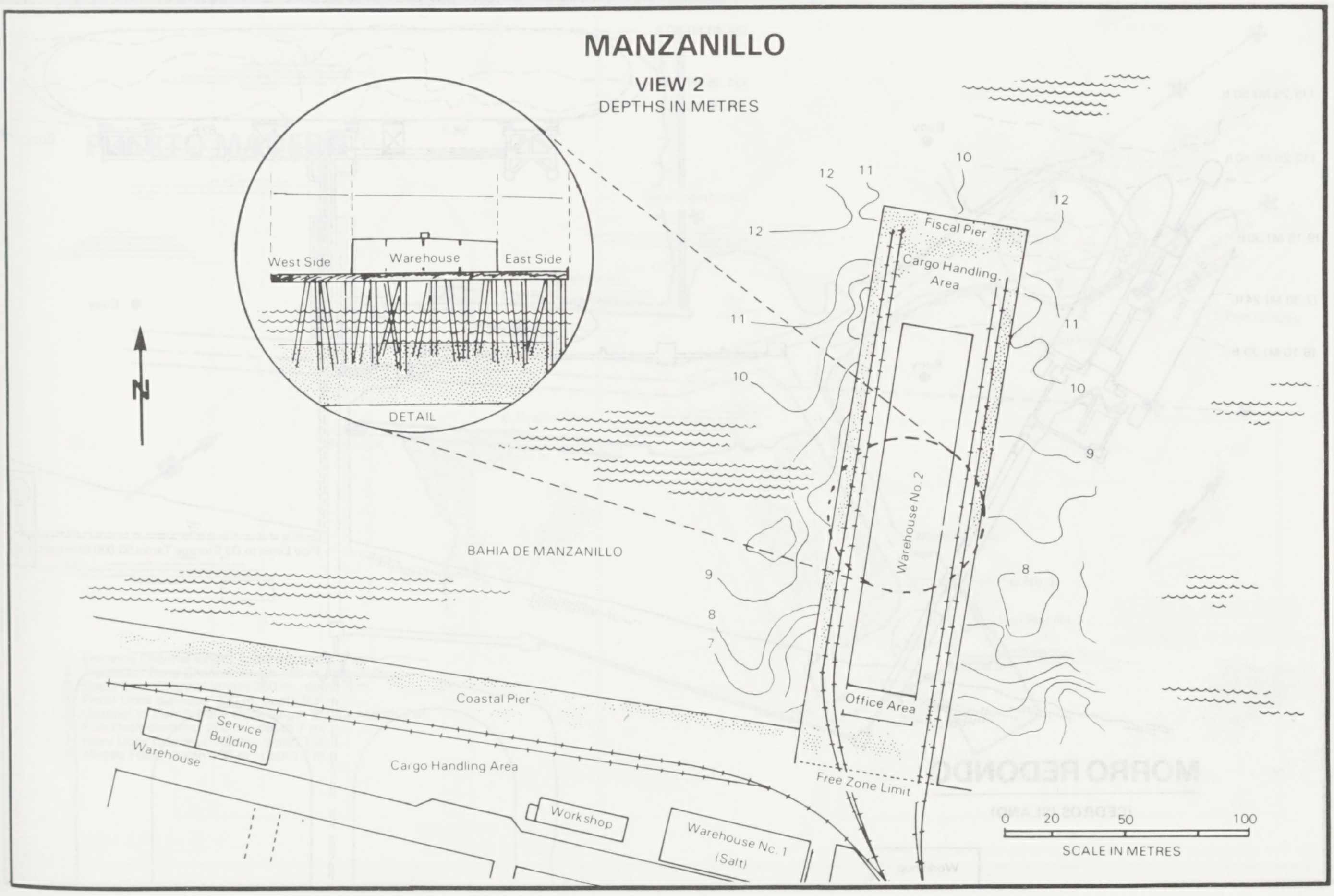

MANZANILLO
DEPTHS IN FEET
N
50
BAHIA DE MANZANILLO
Pemex Tanker Berth
EJE CANAL
36
44
31
42
VIEW 2
36
30
24
37
13
17
20
26
16
36
36
36
36
36
36
36
46
Being Developed
LAGUNA DE SAN PEDRITO
32
33
33
32
32
VIEW 1


MANZANILLO
INNER PORT DEVELOPMENT PLAN
BAHIA DE MANZANILLO
VIEW 1
Colonia del Pacifico
Colonia de las Brisas
Not yet dredged
Under construction
Naval Zone
Dock
Pier 600m.
Under construction
General Cargo Pier 685m.
1200m
Inner Port
Dredged
LAGUNA DE SAN PEDRITO
60m
220m
120m
200m
Fish Terminal
Pier completed up to this point with rail and water connections but no warehouses
N



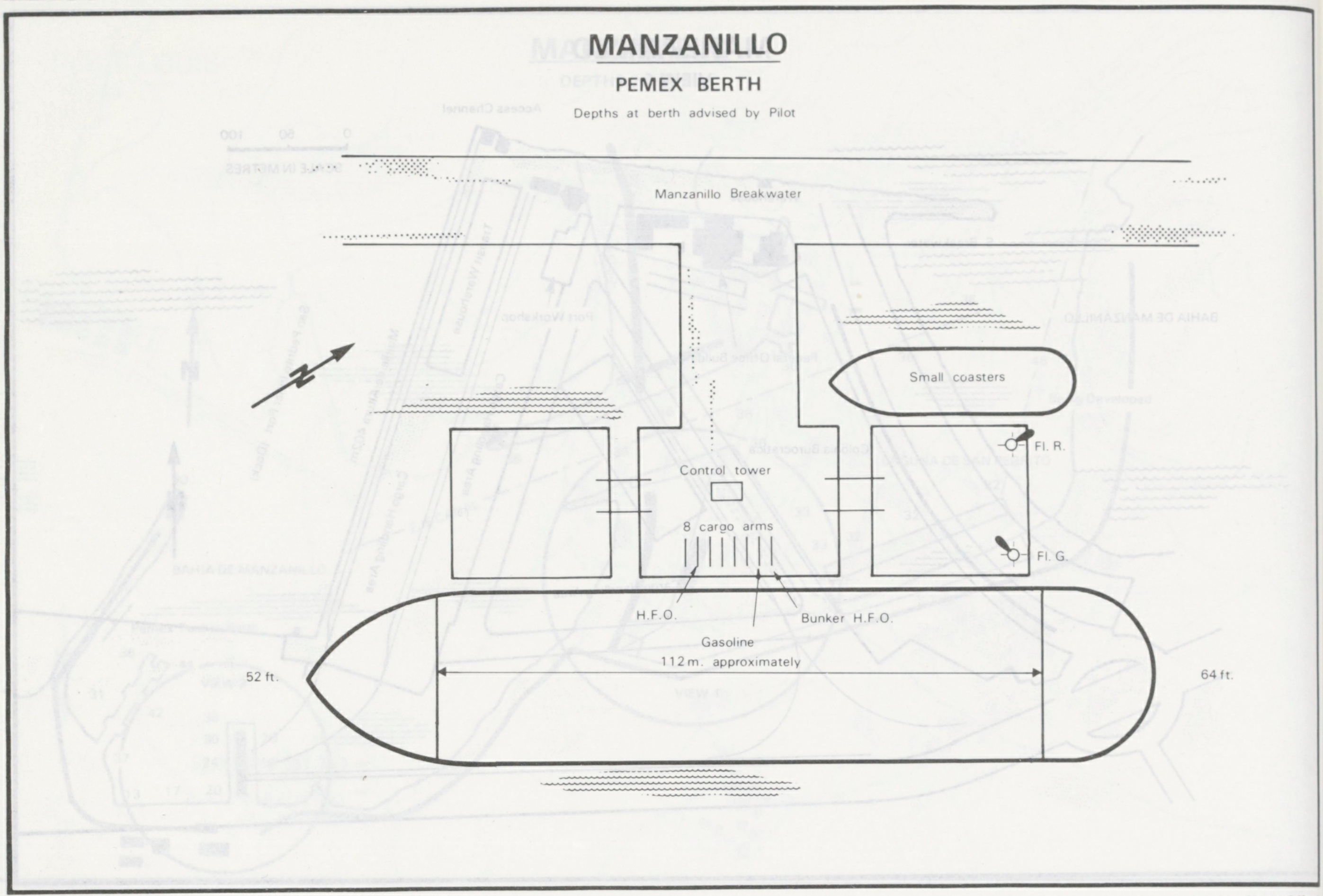
MANZANILLO
VIEW 1

Access Channel
0 50 100
SCALE IN METRES
Warehouse
S. Breakwater
BAHIA DE MANZANILLO
Federal Office Building
Port Workshop
Transit Warehouse
Muelle de Altura 402m.
San Pedrito Inner Port (Dock)
Colonia Burocratica
Cargo Handling Area
Cargo Handling Area
Cargo Handling Area
N

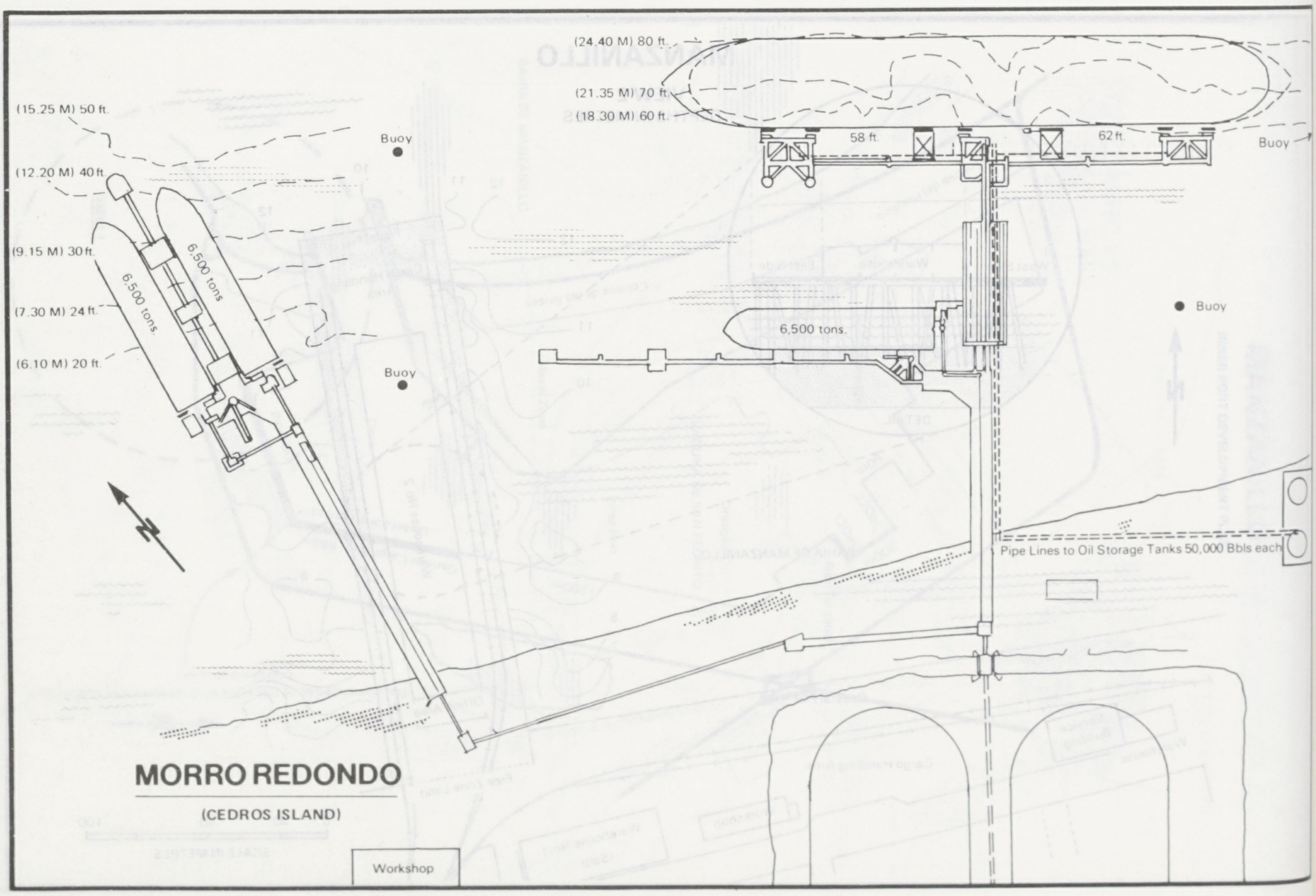


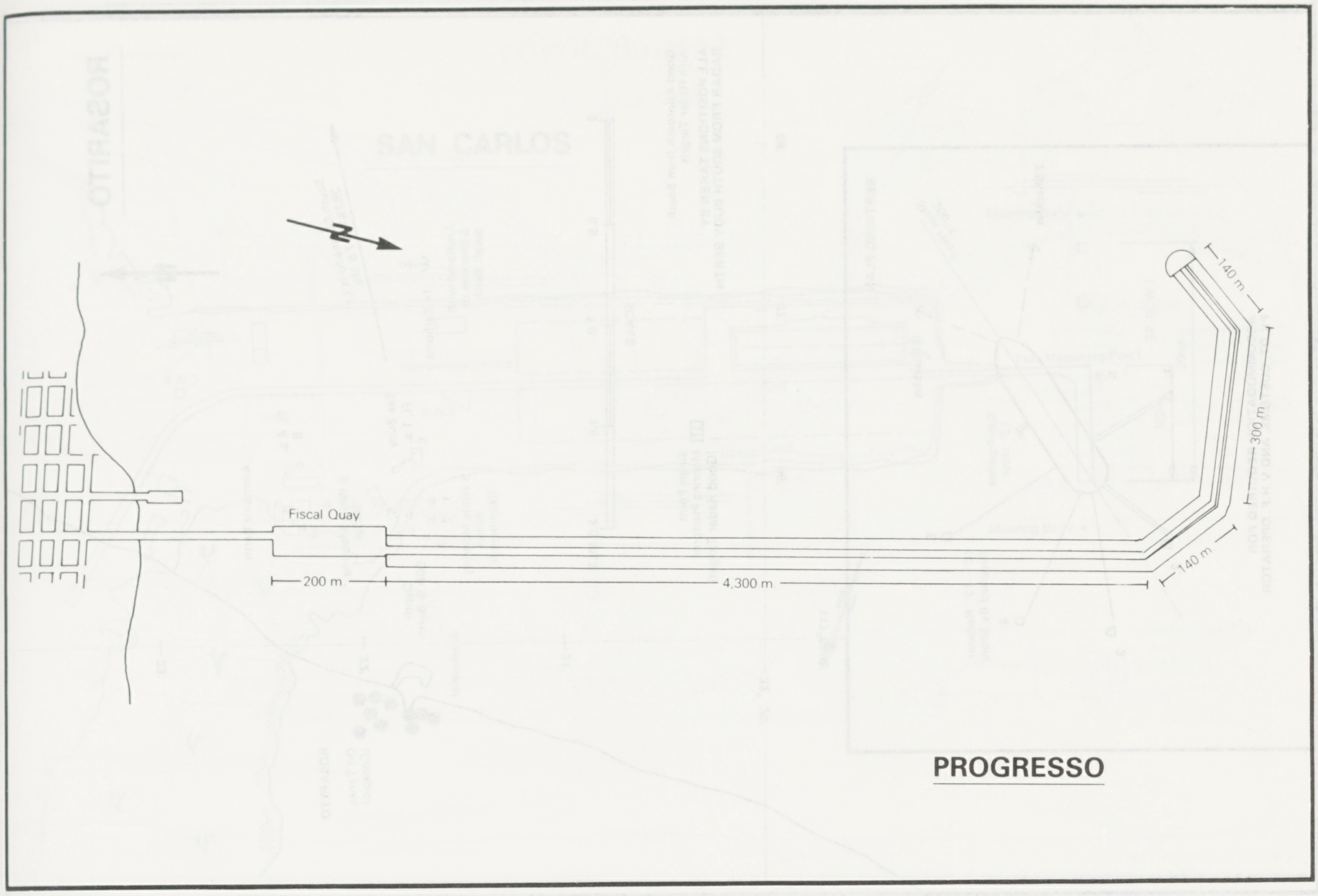
MANZANILLO
VIEW 2
DEPTHS IN METRES

West Side
Warehouse
East Side
DETAIL
N
12
11
10
12
12
Fiscal Pier
Cargo Handling Area
11
11
10
10
9
Warehouse No. 2
BAHIA DE MANZANILLO
9
8
8
7
Coastal Pier
Office Area
Service Building
Warehouse
Cargo Handling Area
Free Zone Limit
Workshop
Warehouse No. 1 (Salt)
0 20 50 100
SCALE IN METRES


MANZANILLO
PEMEX BERTH
Depths at berth advised by Pilot
Manzanillo Breakwater
Small coasters
Fl. R.
Fl. G.
Control tower
8 cargo arms
H.F.O.
Bunker H.F.O.
Gasoline
112 m. approximately
52 ft.
64 ft.

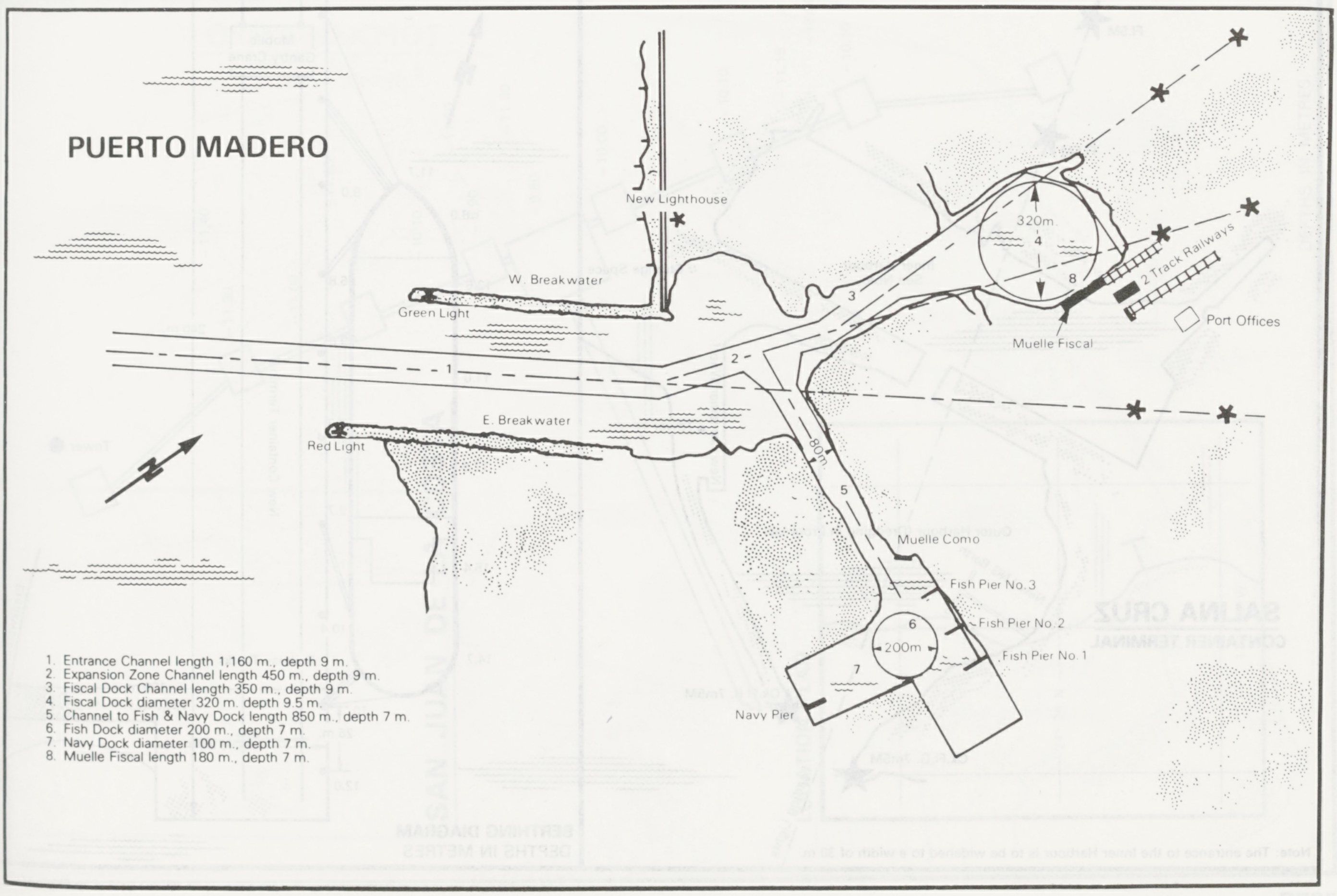
"Plan supplied by Ship's Officer"


(24.40 M) 80 ft.
(21.35 M) 70 ft.
(18.30 M) 60 ft.
(15.25 M) 50 ft.
(12.20 M) 40 ft.
(9.15 M) 30 ft.
(7.30 M) 24 ft.
(6.10 M) 20 ft.
Buoy
Buoy
Buoy
Buoy
58 ft.
62 ft.
6,500 tons
6,500 tons.
6,500 tons.
Pipe Lines to Oil Storage Tanks 50,000 Bbls each
MORRO REDONDO
(CEDROS ISLAND)
Workshop


Fiscal Quay
200 m
4,300 m
140 m
300 m
140 m

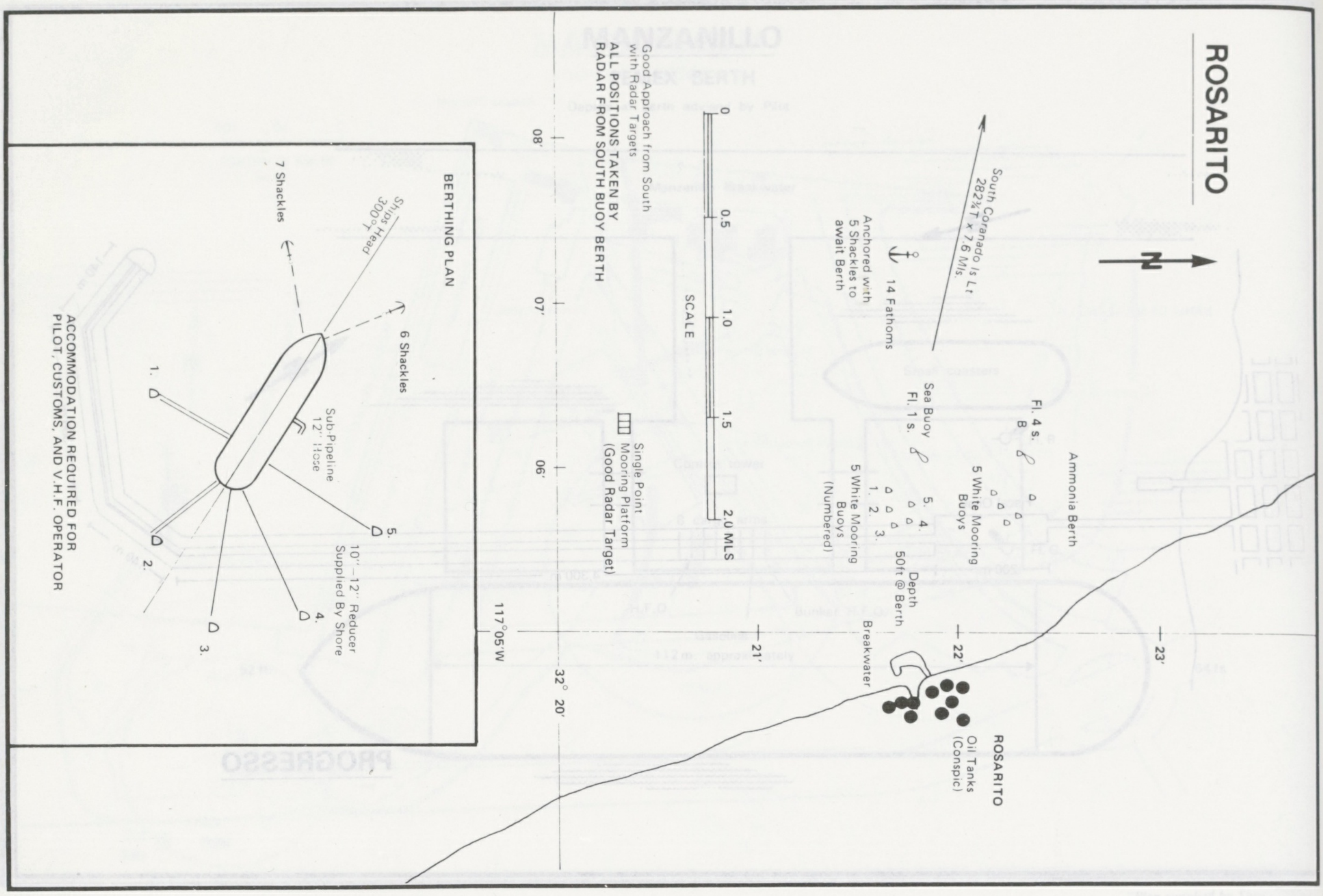
PROGRESSO

PUERTO MADERO


New Lighthouse
W. Breakwater
Green Light
E. Breakwater
Red Light
1
2
3
4
320m
8
2 Track Railways
Port Offices
Muelle Fiscal
80m
5
Muelle Como
Fish Pier No.3
6
200m
Fish Pier No.2
Fish Pier No.1
7
Navy Pier

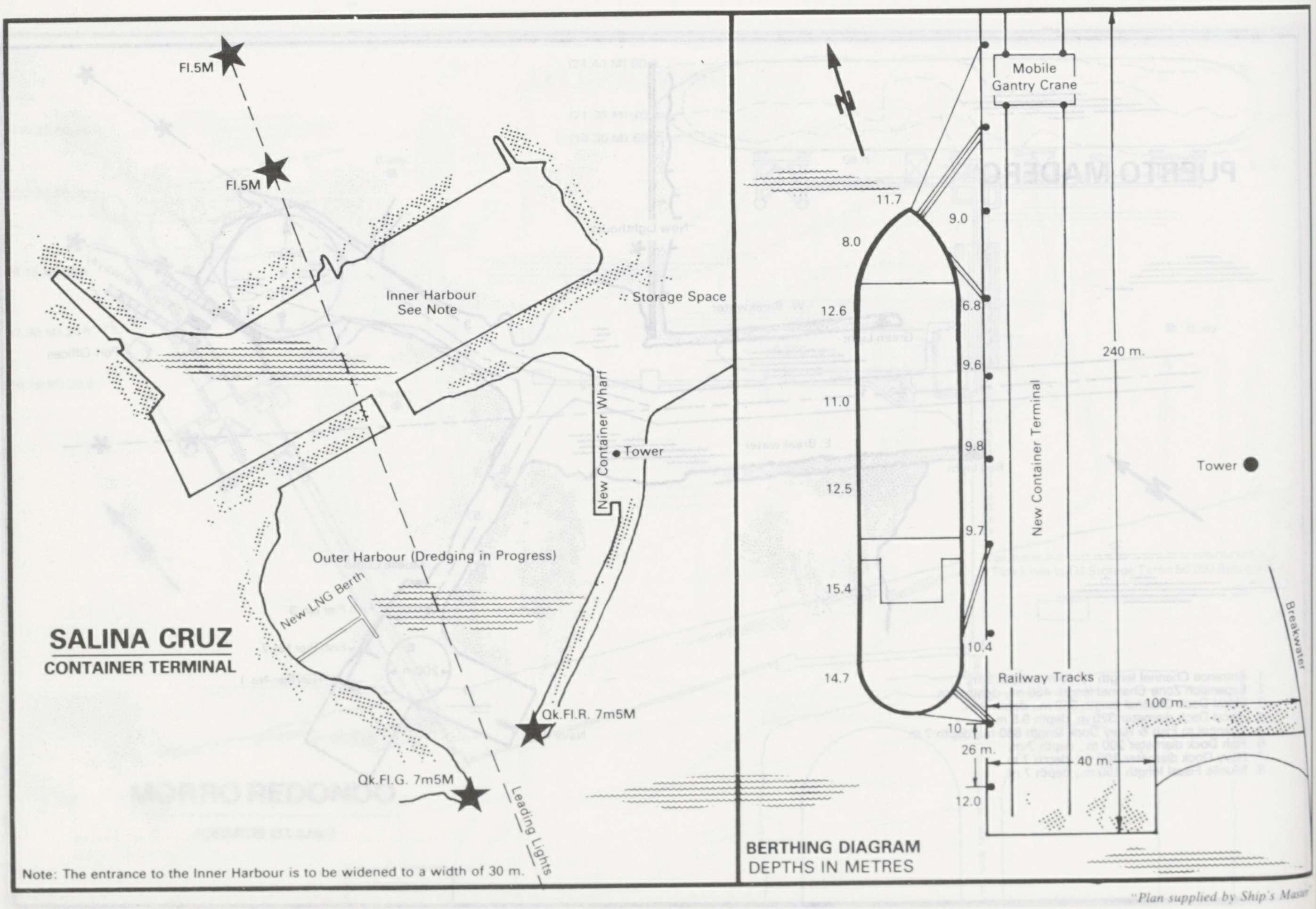
1. Entrance Channel length 1,160 m., depth 9 m.
2. Expansion Zone Channel length 450 m., depth 9 m.
3. Fiscal Dock Channel length 350 m., depth 9 m.
4. Fiscal Dock diameter 320 m. depth 9.5 m.
5. Channel to Fish & Navy Dock length 850 m., depth 7 m.
6. Fish Dock diameter 200 m., depth 7 m.
7. Navy Dock diameter 100 m., depth 7 m.
8. Muelle Fiscal length 180 m., depth 7 m.

ROSARITO


N
South Coranado Is Lt.
282¾° x 7.6 Mls.
Anchored with
5 Shackles to
await Berth
14 Fathoms
Ammonia Berth
Fl. 4 s.
B
5 White Mooring
Buoys
Sea Buoy
Fl. 1 s.
5. 4.
1. 2. 3.
5 White Mooring
Buoys
(Numbered)
Depth
50ft @ Berth
Breakwater
ROSARITO
Oil Tanks
(Conspic)
21'
22'
23'
Single Point
Mooring Platform
(Good Radar Target)
SCALE
0
0.5
1.0
1.5
2.0 MLS
Good Approach from South
with Radar Targets
ALL POSITIONS TAKEN BY
RADAR FROM SOUTH BUOY BERTH
08'
07'
06'
117°05'W
32° 20'
BERTHING PLAN
Ship's Head
300°T
7 Shackles
6 Shackles
Sub-Pipeline
12" Hose
10"–12" Reducer
Supplied By Shore
1.
2.
3.
4.
5.
ACCOMMODATION REQUIRED FOR
PILOT, CUSTOMS, AND V.H.F. OPERATOR

"Plan supplied by Ship's Master"

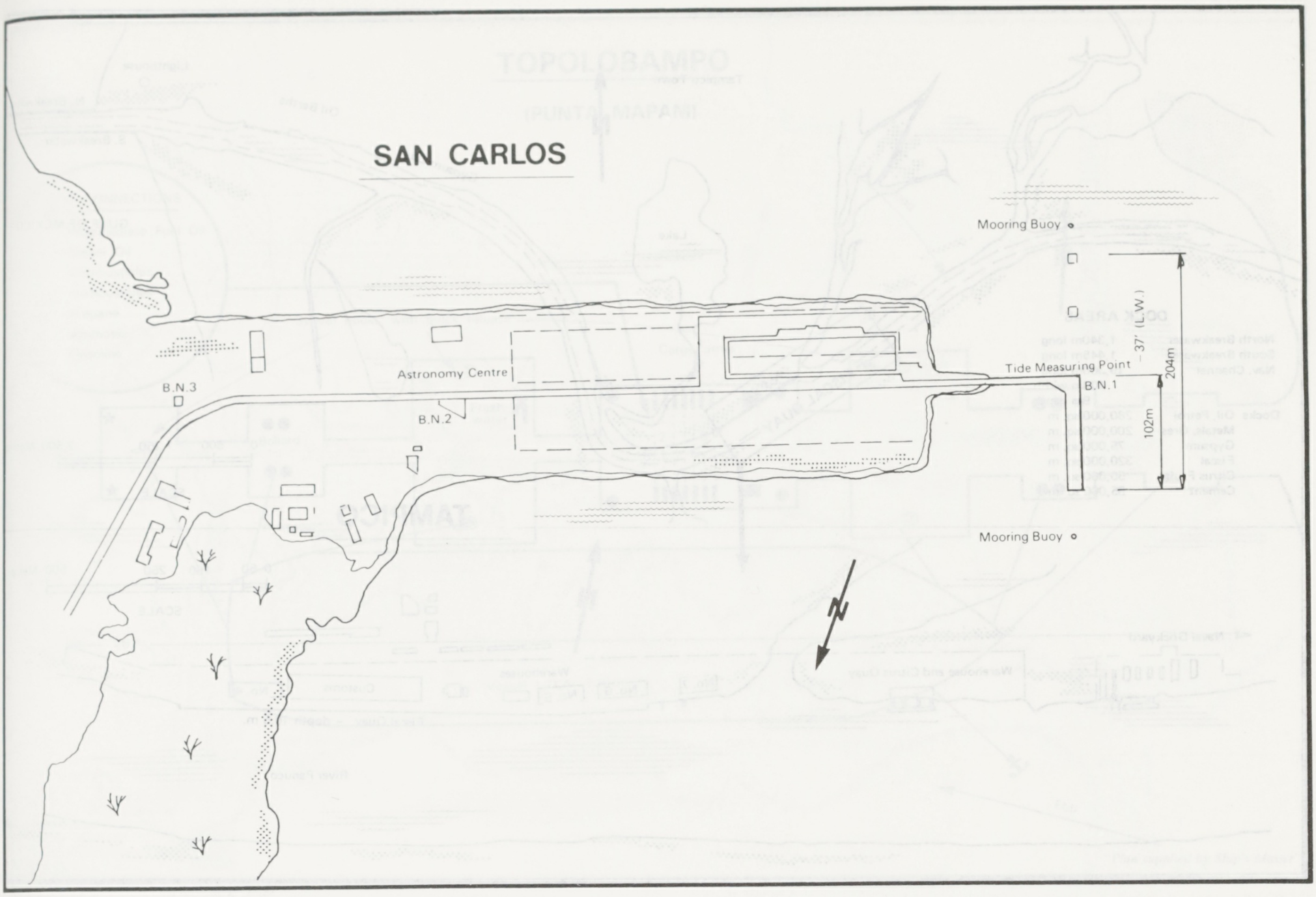
SALINA CRUZ
CONTAINER TERMINAL

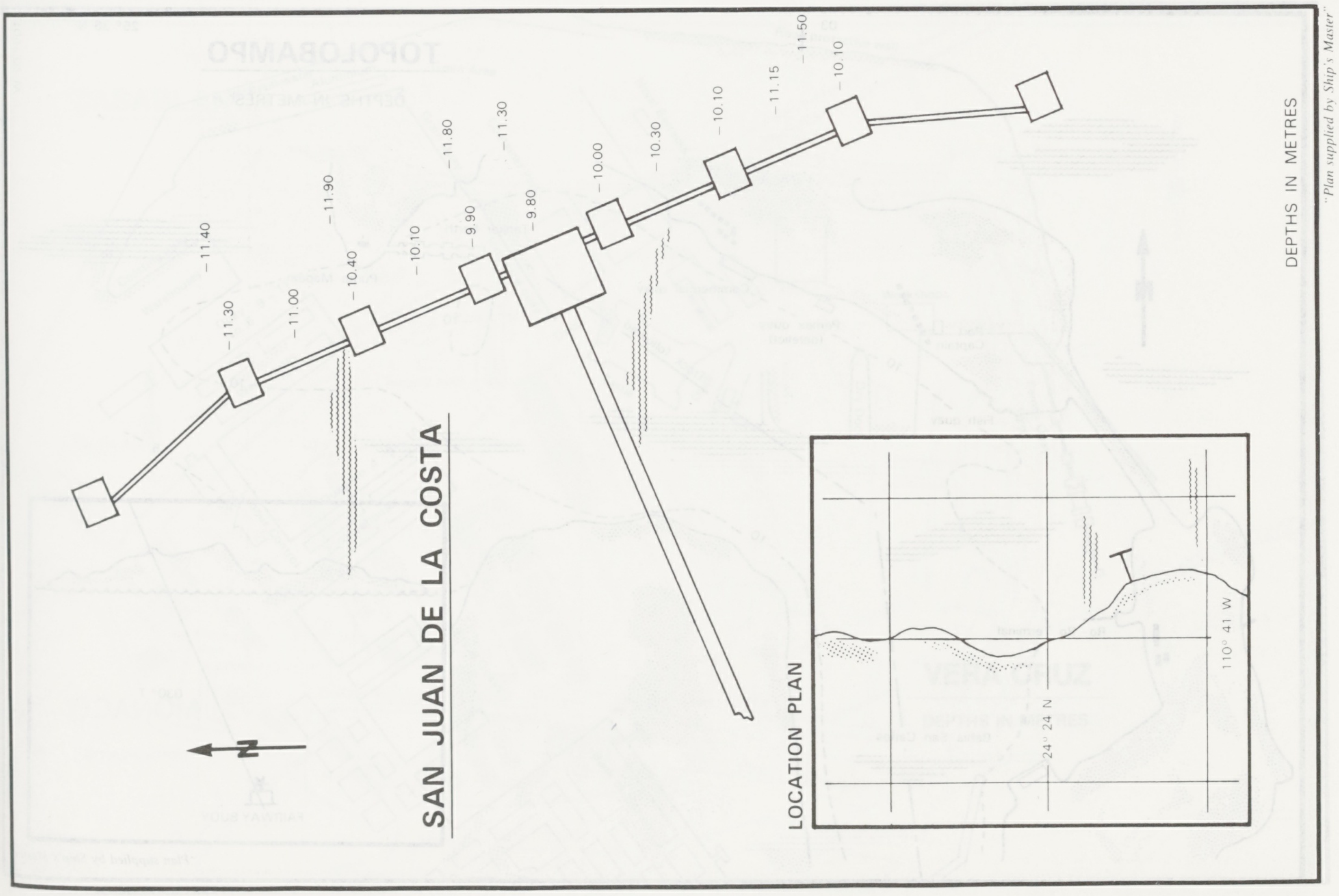

Fl.5M
Fl.5M
Inner Harbour
See Note
Storage Space
New Container Wharf
Tower
Outer Harbour (Dredging in Progress)
New LNG Berth
Qk.Fl.R. 7m5M
Qk.Fl.G. 7m5M
Leading Lights
N
Mobile
Gantry Crane
11.7
9.0
8.0
6.8
12.6
9.6
11.0
240 m.
9.8
12.5
New Container Terminal
Tower
9.7
15.4
10.4
14.7
Railway Tracks
Breakwater
100 m.
10
26 m.
40 m.
12.0

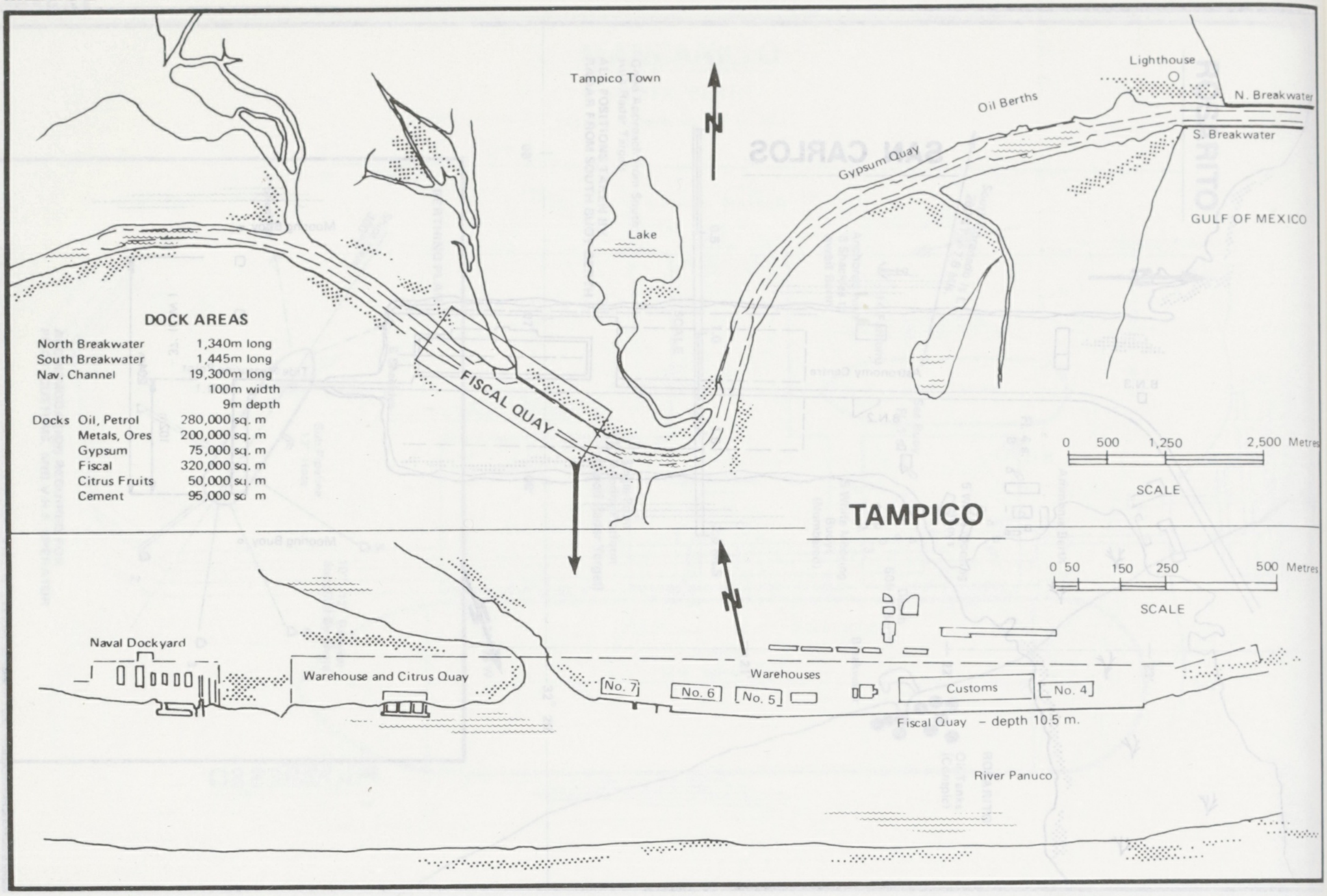
Note: The entrance to the Inner Harbour is to be widened to a width of 30 m.

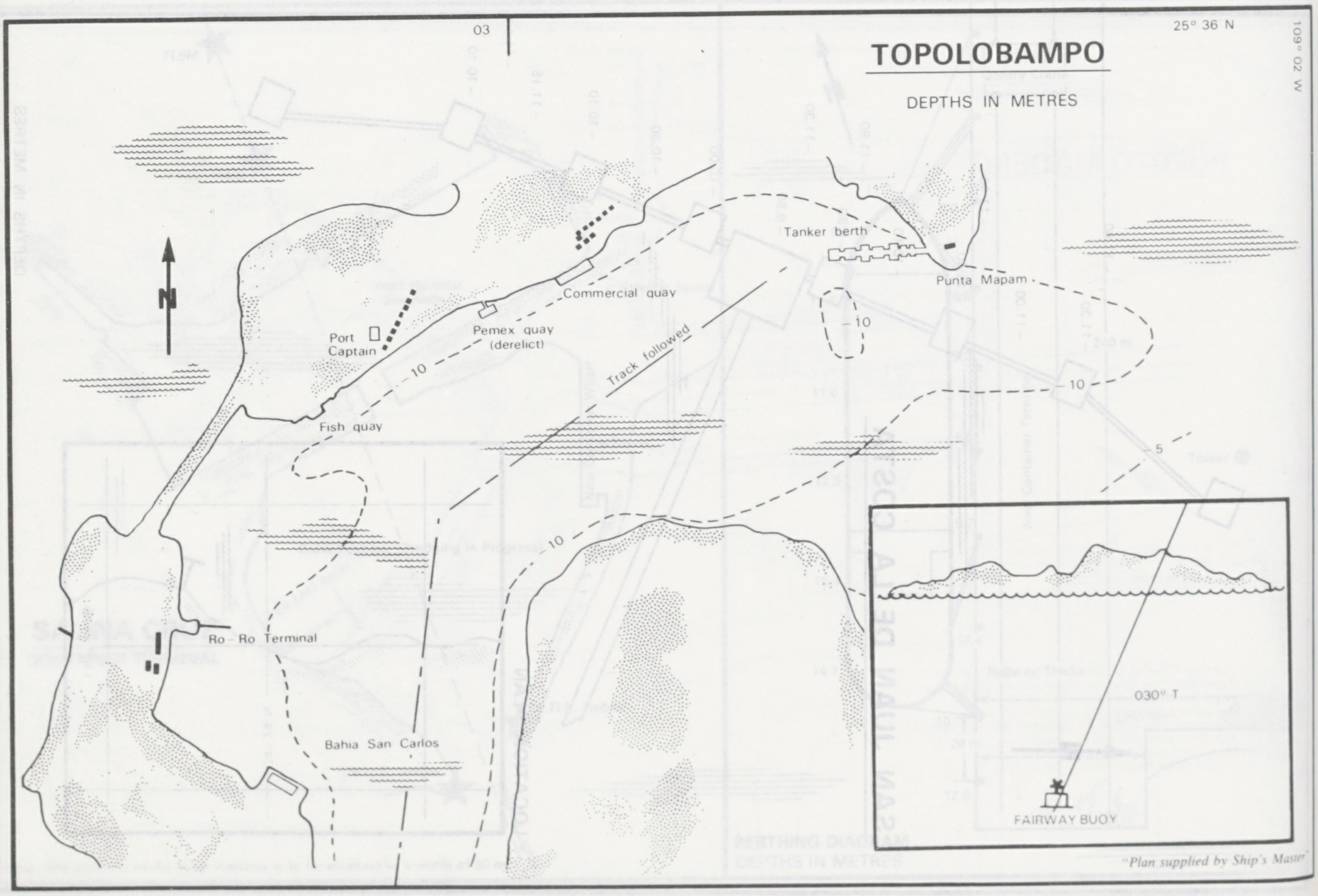
BERTHING DIAGRAM
DEPTHS IN METRES

"Plan supplied by Ship's Master"

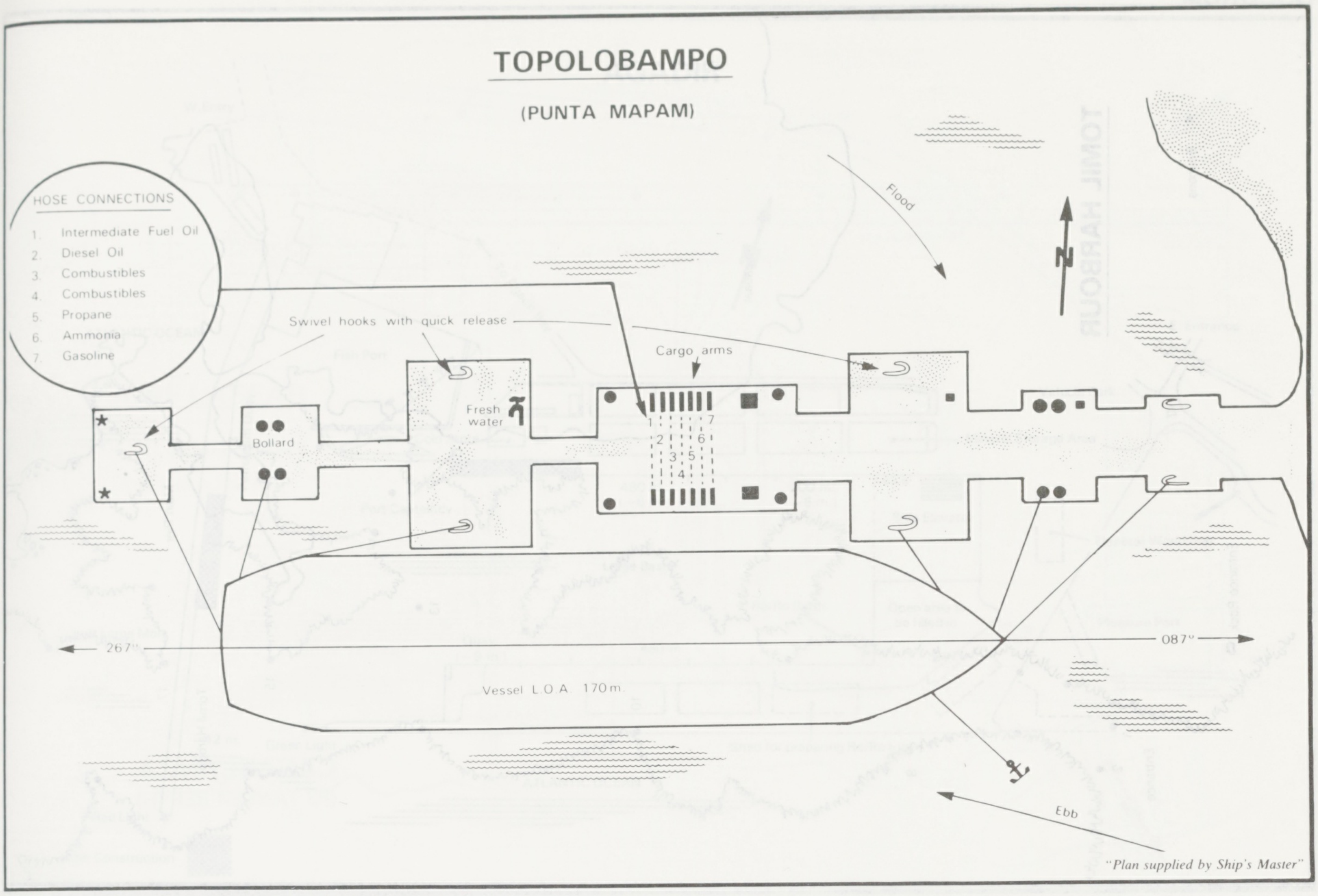

SAN CARLOS
Mooring Buoy
– 37' (L.W.)
204m
Tide Measuring Point
B.N.1
102m
Mooring Buoy
B.N.3
Astronomy Centre
B.N.2
N

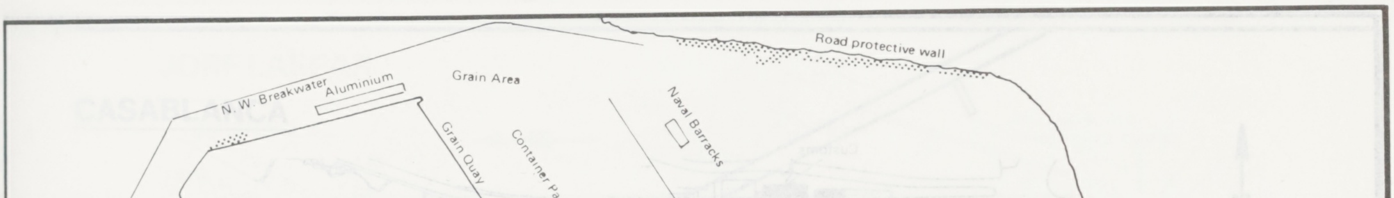

SAN JUAN DE LA COSTA
–11.40
–11.30
–11.00
–11.90
–10.40
–10.10
–11.80
–9.90
–11.30
–9.80
–10.00
–10.30
–10.10
–11.15
–11.50
–10.10
N
LOCATION PLAN
24° 24 N
110° 41 W
DEPTHS IN METRES
"Plan supplied by Ship's Master"

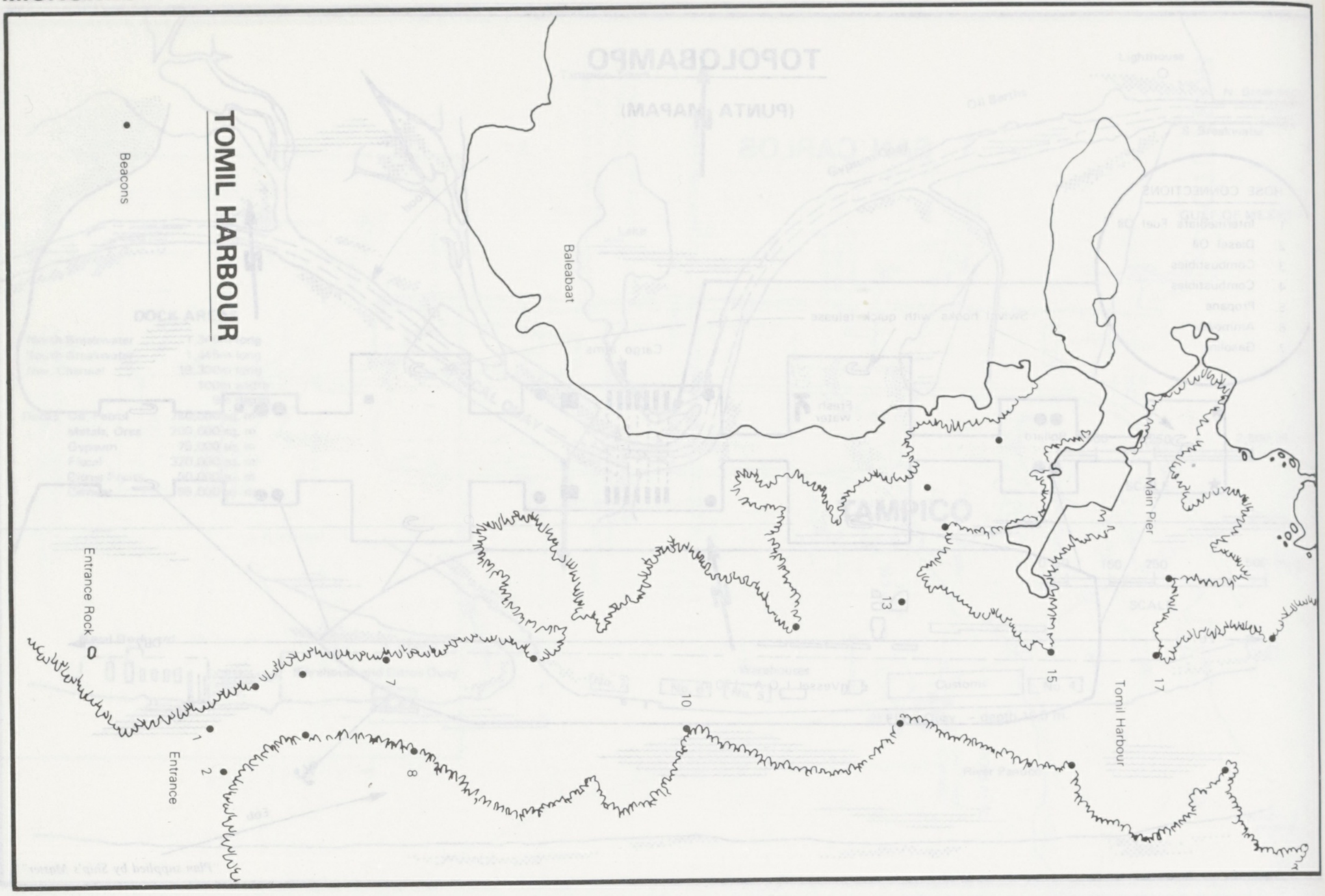

Tampico Town
Lake
Lighthouse
N. Breakwater
S. Breakwater
Oil Berths
Gypsum Quay
GULF OF MEXICO
FISCAL QUAY
DOCK AREAS
North Breakwater 1,340m long
South Breakwater 1,445m long
Nav. Channel 19,300m long
100m width
9m depth
Docks Oil, Petrol 280,000 sq. m
Metals, Ores 200,000 sq. m
Gypsum 75,000 sq. m
Fiscal 320,000 sq. m
Citrus Fruits 50,000 sq. m
Cement 95,000 sq. m
0 500 1,250 2,500 Metres
SCALE
TAMPICO
0 50 150 250 500 Metres
SCALE
N
Naval Dockyard
Warehouse and Citrus Quay
Warehouses
No. 7
No. 6
No. 5
Customs
No. 4
Fiscal Quay - depth 10.5 m.
River Panuco

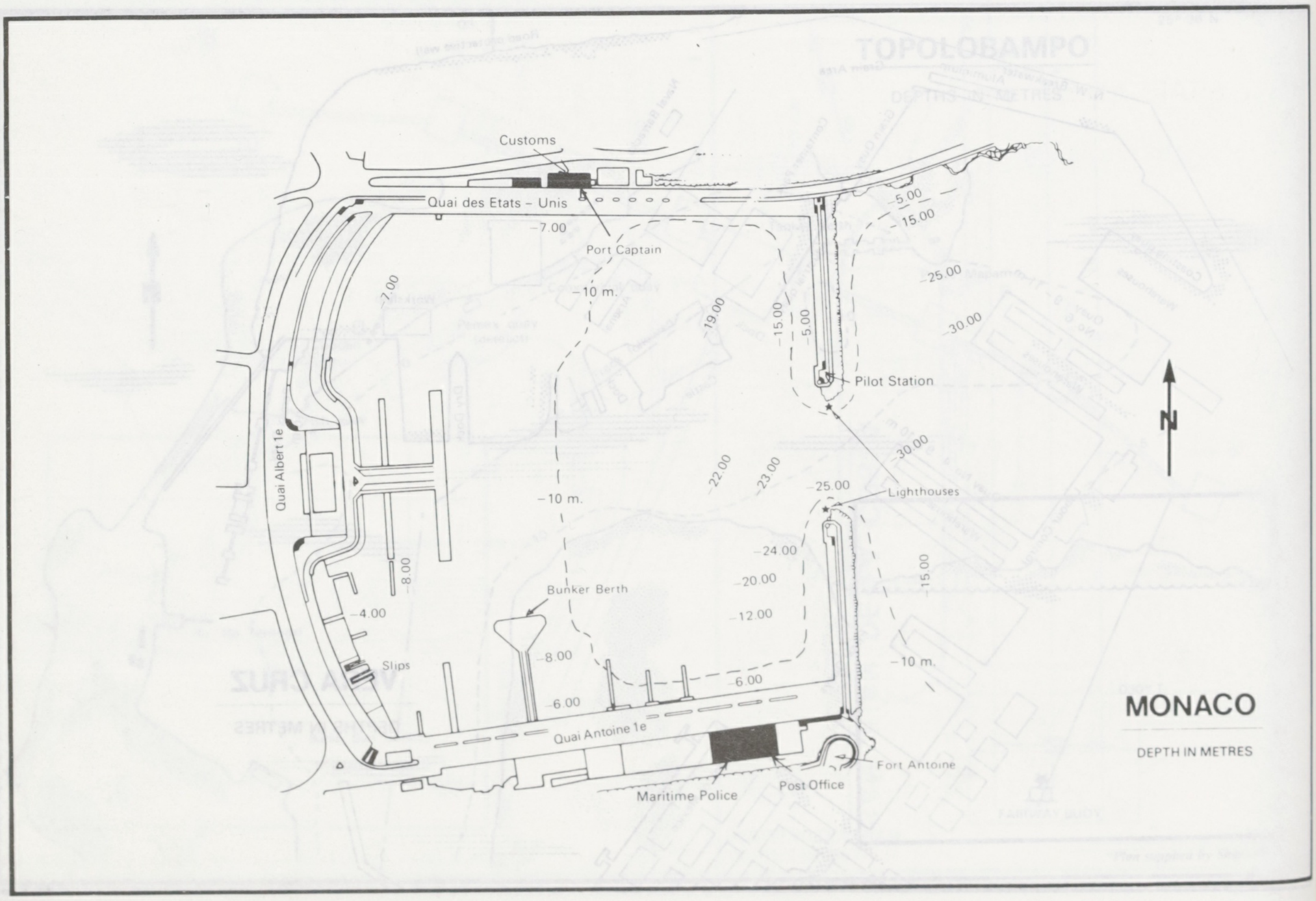

03
25° 36' N
109° 02' W
TOPOLOBAMPO
DEPTHS IN METRES
N
Tanker berth
Punta Mapam
Commercial quay
Pemex quay (derelict)
Port Captain
10
Track followed
Fish quay
10
10
5
10
Ro-Ro Terminal
Bahia San Carlos
030° T
FAIRWAY BUOY

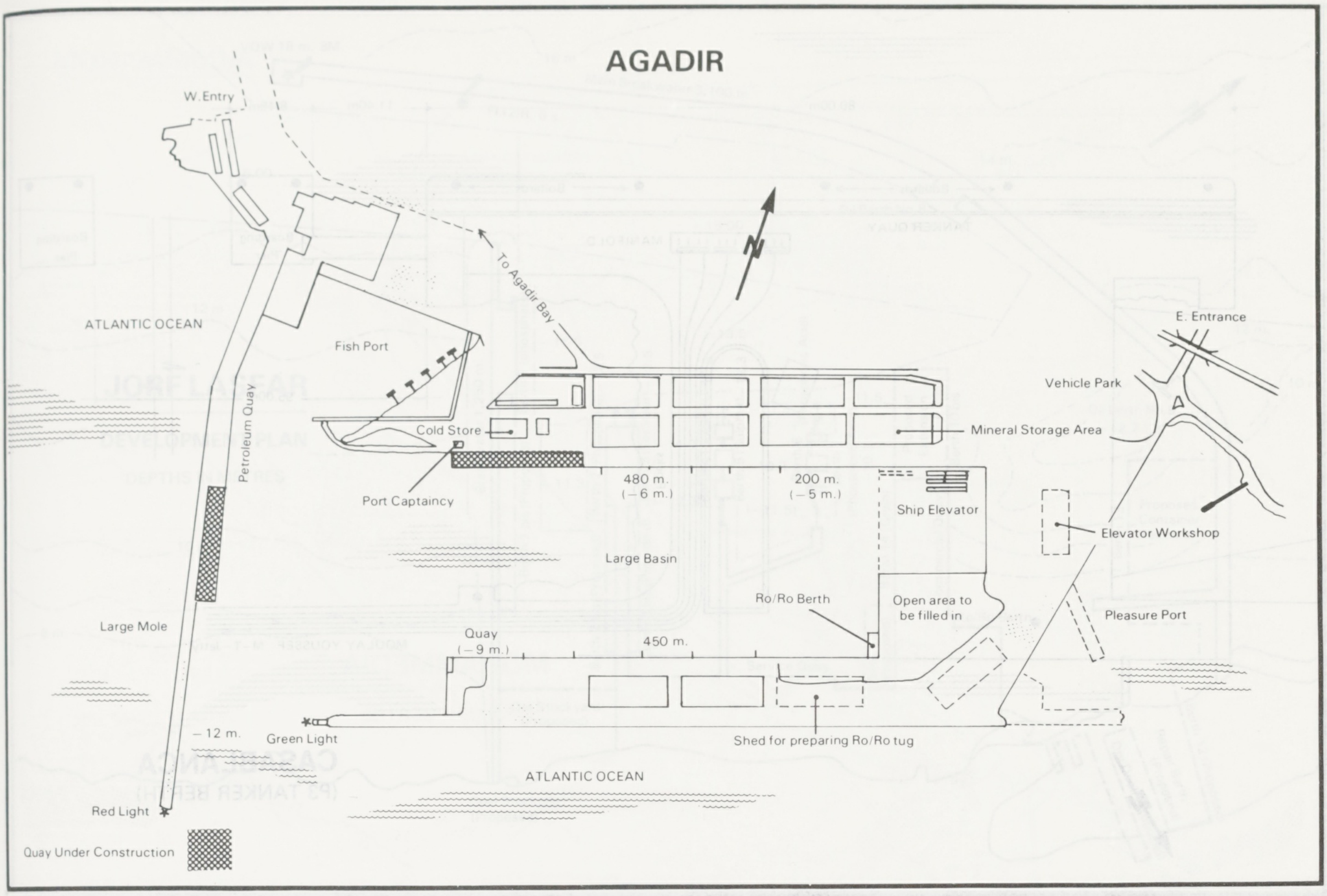
"Plan supplied by Ship's Master"

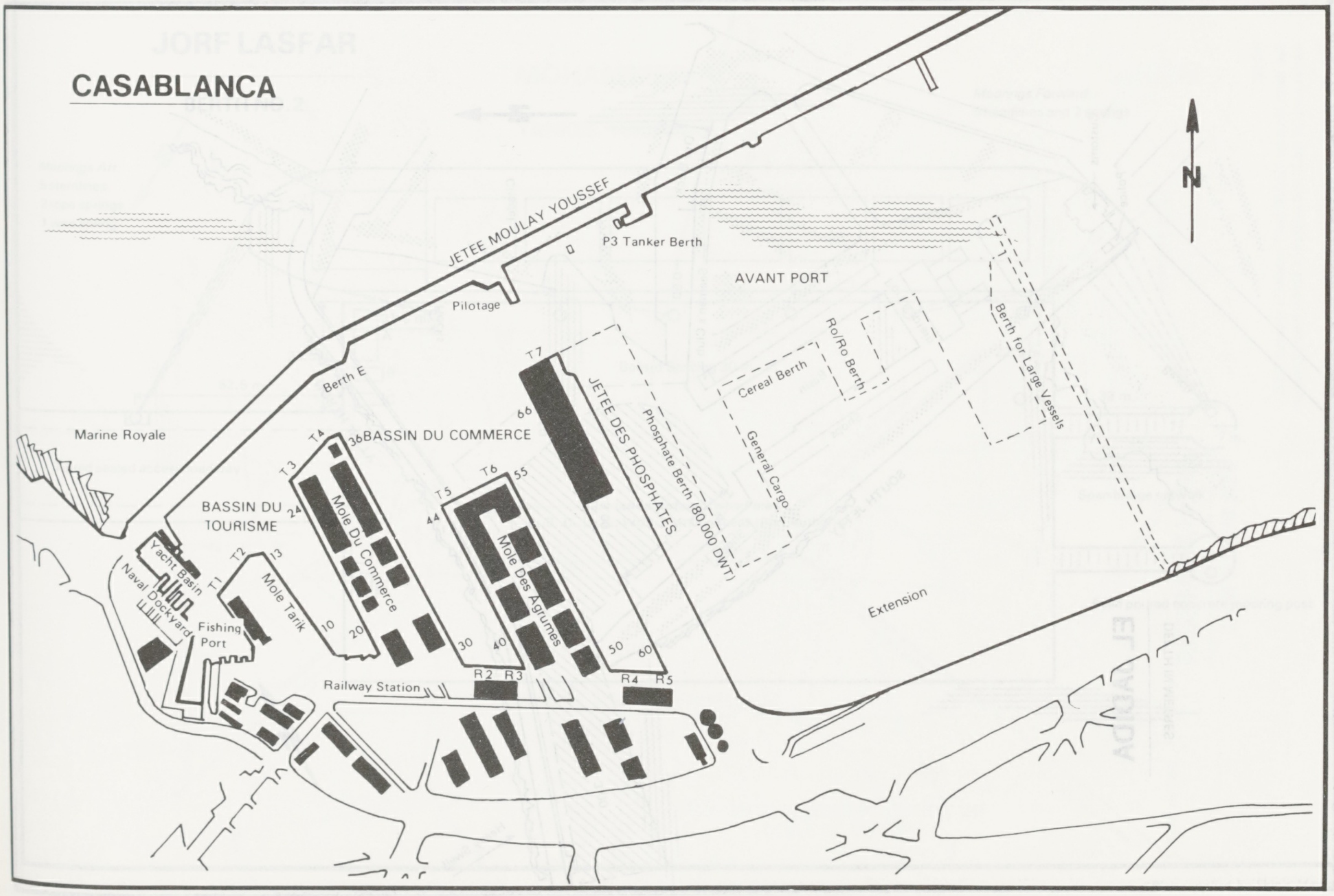

TOPOLOBAMPO
(PUNTA MAPAM)
HOSE CONNECTIONS
1. Intermediate Fuel Oil
2. Diesel Oil
3. Combustibles
4. Combustibles
5. Propane
6. Ammonia
7. Gasoline
Swivel hooks with quick release
Cargo arms
Fresh water
Bollard
1 2 3 4 5 6 7
Flood
N
267°
087°
Vessel L.O.A. 170 m.
Ebb
"Plan supplied by Ship's Master"

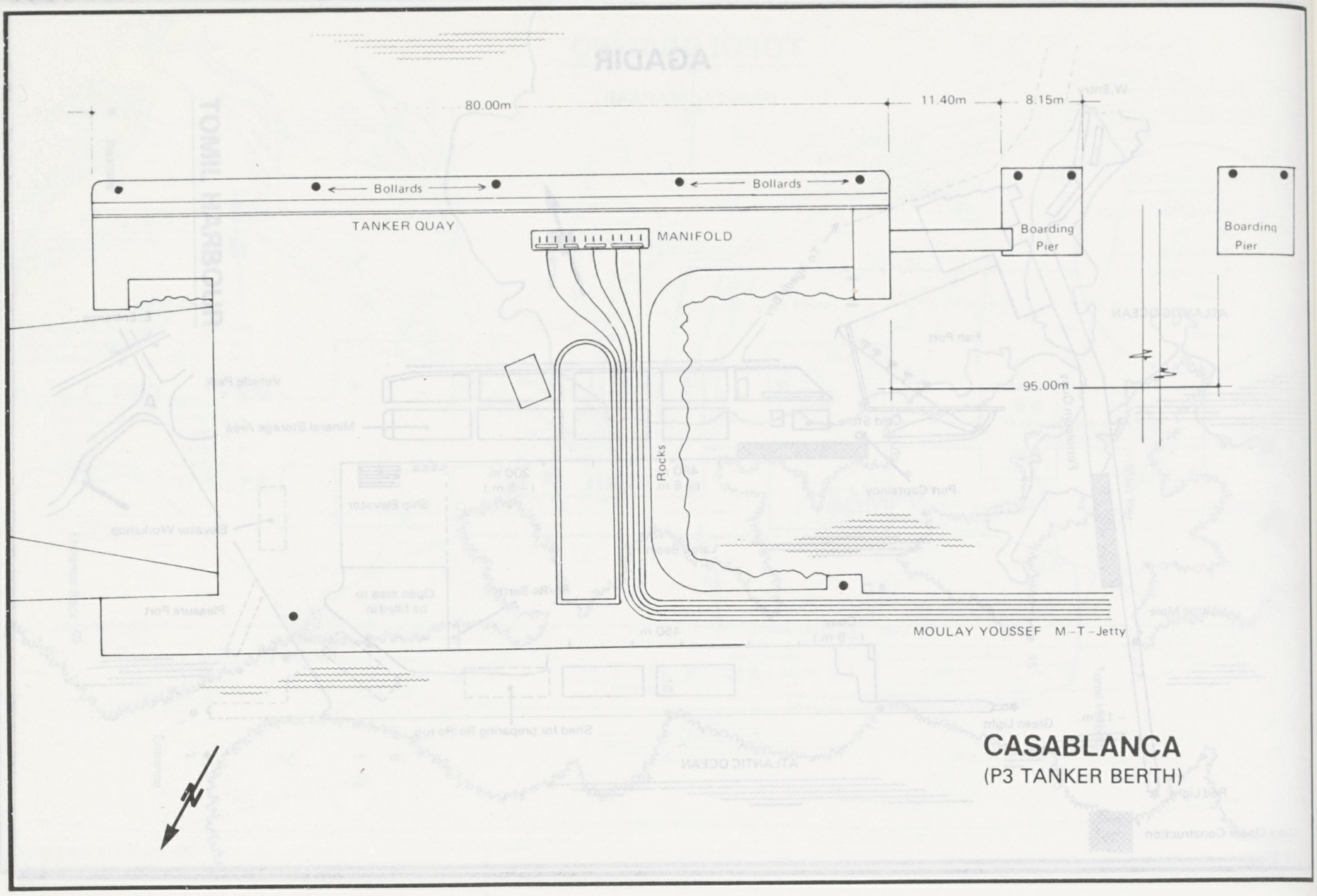

Road protective wall
N. W. Breakwater
Aluminium
Grain Area
Grain Quay
Container Park
Naval Barracks
Coasting quay
Warehouses
Industrial quay
Quay No. 6 9 - 11 m.
Warehouses
Dock
Arsenal
Castle
Dock
Workshop
Dry Dock
Pemex Quay 10 m.
Quay No. 4 9 - 10 m.
Warehouses
Labour Control
Fiscal Quays
Bank of Mexico
Customs
VERA CRUZ
DEPTHS IN METRES


TOMIL HARBOUR
Beacons
Baleabaat
Main Pier
Entrance Rock
Entrance
Tomil Harbour
1
2
7
8
10
13
15
17

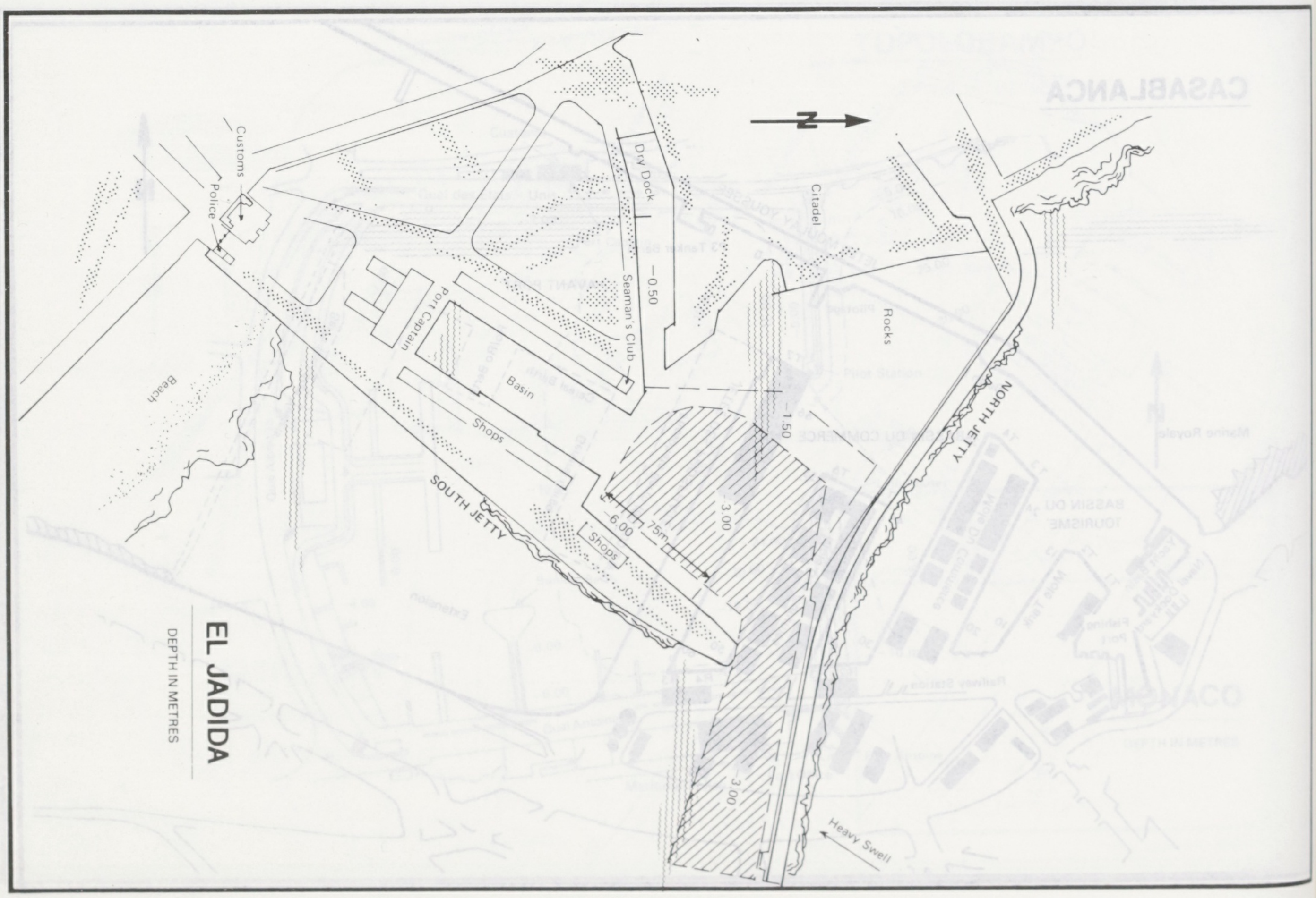

Customs
Quai des Etats - Unis
Port Captain
-7.00
-10 m.
-19.00
-15.00
-5.00
-5.00
-15.00
-25.00
-30.00
Pilot Station
-30.00
Lighthouses
-25.00
-22.00
-23.00
-10 m.
-24.00
-20.00
-12.00
-15.00
-10 m.
-7.00
-8.00
-4.00
Quai Albert 1e
Bunker Berth
Slips
-8.00
-6.00
-6.00
Quai Antoine 1e
Fort Antoine
Post Office
Maritime Police
N
MONACO
DEPTH IN METRES


AGADIR
W. Entry
To Agadir Bay
N
ATLANTIC OCEAN
Fish Port
E. Entrance
Vehicle Park
Cold Store
Mineral Storage Area
Petroleum Quay
480 m.
(–6 m.)
200 m.
(–5 m.)
Port Captaincy
Ship Elevator
Elevator Workshop
Large Basin
Ro/Ro Berth
Open area to be filled in
Pleasure Port
Large Mole
Quay
(–9 m.)
450 m.
–12 m.
Green Light
Shed for preparing Ro/Ro tug
ATLANTIC OCEAN
Red Light
Quay Under Construction

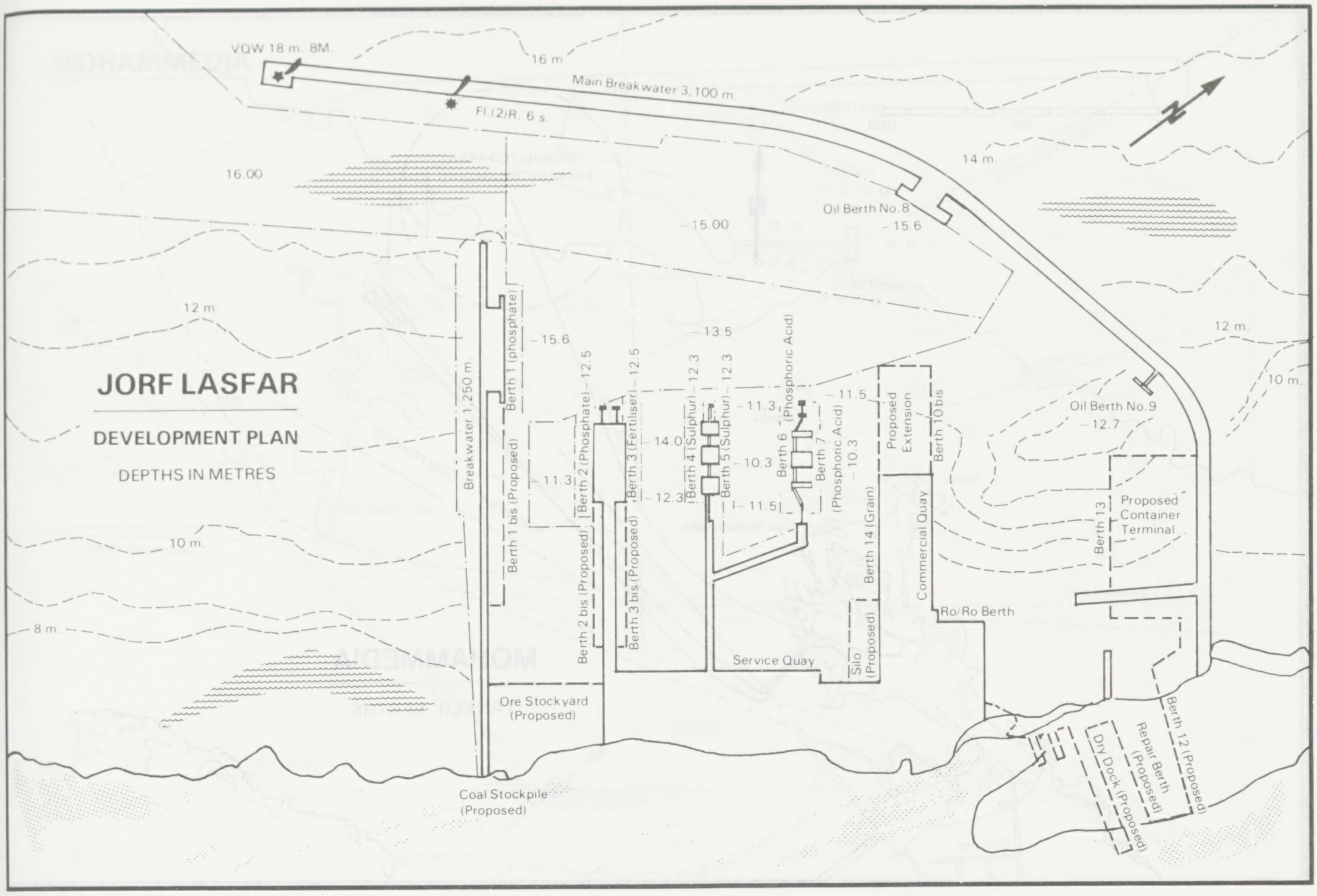

CASABLANCA
N
JETEE MOULAY YOUSSEF
P3 Tanker Berth
AVANT PORT
Pilotage
Berth E
T7
66
JETEE DES PHOSPHATES
Phosphate Berth (80,000 DWT)
Ro/Ro Berth
Cereal Berth
General Cargo
Berth for Large Vessels
Marine Royale
T4
36
BASSIN DU COMMERCE
T3
24
BASSIN DU TOURISME
T5
44
T6
55
Mole Du Commerce
Mole Des Agrumes
T2
13
Mole Tarik
T1
Yacht Basin
Naval Dockyard
Fishing Port
10
20
30
40
50
60
Extension
Railway Station
R2
R3
R4
R5

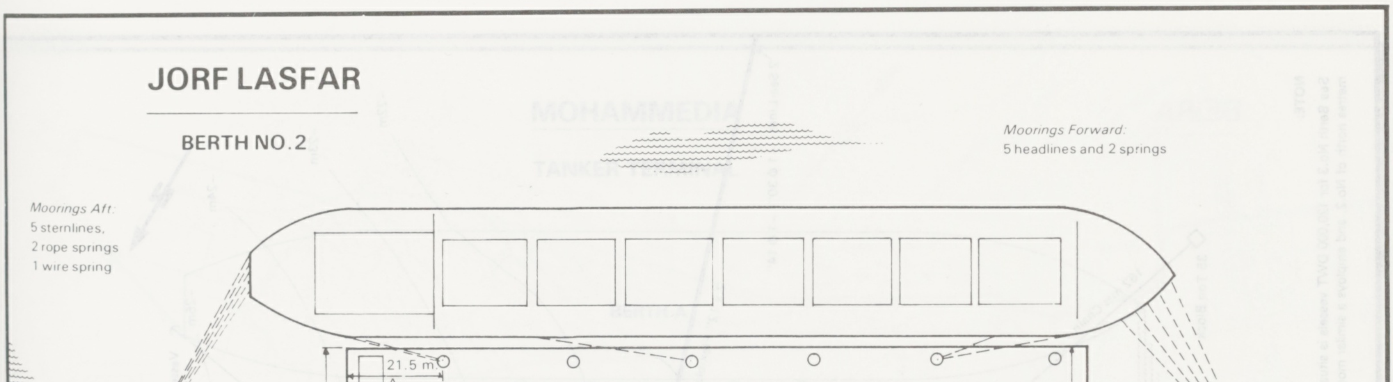

80.00m
11.40m
8.15m
Bollards
Bollards
TANKER QUAY
MANIFOLD
Boarding Pier
Boarding Pier
95.00m
Rocks
MOULAY YOUSSEF M-T-Jetty

CASABLANCA
(P3 TANKER BERTH)

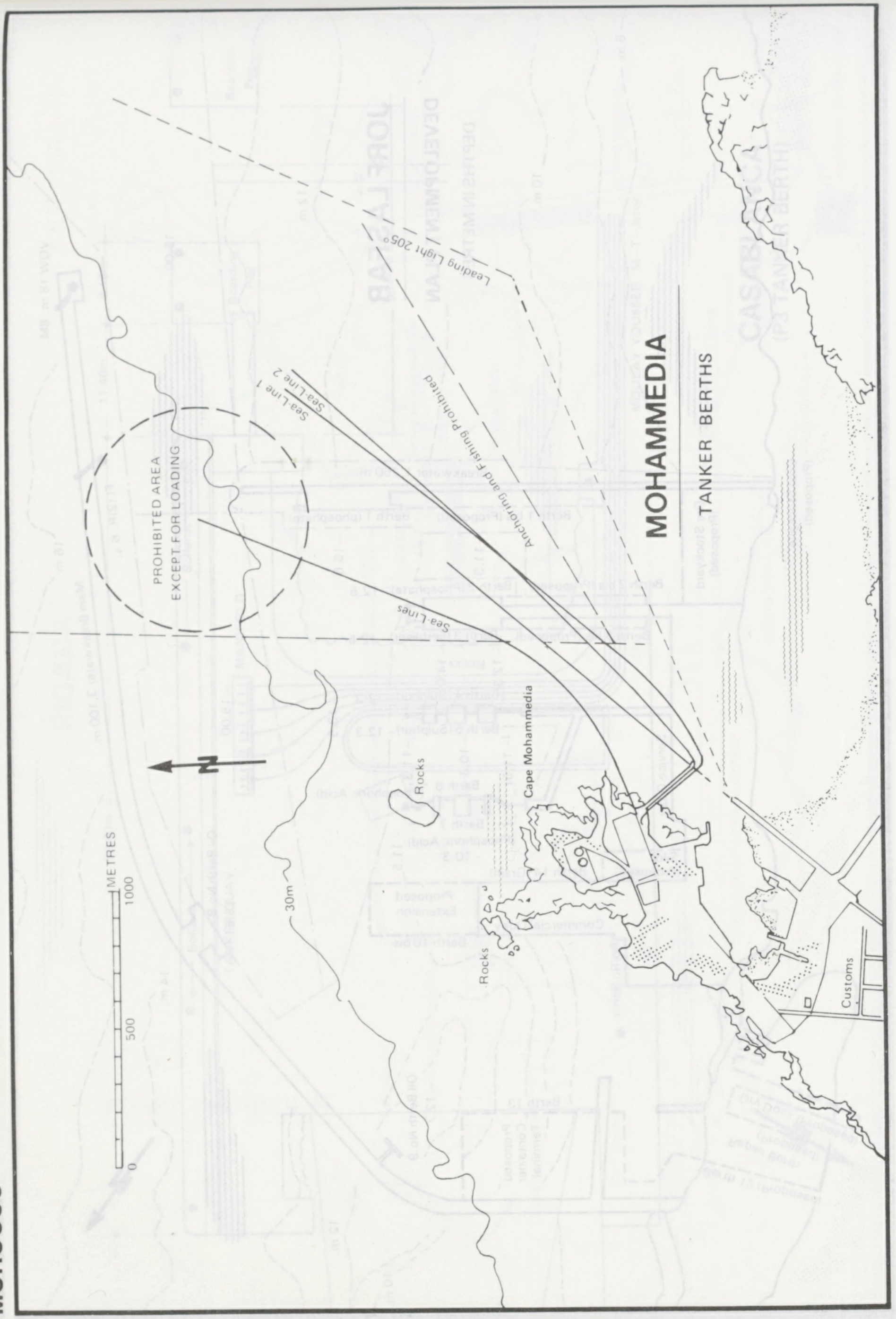

N
Customs
Police
Dry Dock
Citadel
Seaman's Club
–0.50
Port Captain
Basin
Shops
Rocks
NORTH JETTY
1.50
SOUTH JETTY
6.00
75m
3.00
Shops
Beach
3.00
Heavy Swell

EL JADIDA
DEPTH IN METRES


JORF LASFAR
DEVELOPMENT PLAN
DEPTHS IN METRES
VQW 18 m. 8M.
16 m
Main Breakwater 3,100 m.
Fl.(2)R. 6 s.
16.00
14 m.
Oil Berth No.8
–15.6
–15.00
12 m
Breakwater 1,250 m.
Berth 1 (phosphate)
–15.6
Berth 1 bis (Proposed)
–11.3
Berth 2 (Phosphate) –12.5
Berth 2 bis (Proposed)
Berth 3 (Fertiliser) –12.5
Berth 3 bis (Proposed)
–14.0
–12.3
–13.5
Berth 4 (Sulphur) –12.3
Berth 5 (Sulphur) –12.3
–11.3
–10.3
–11.5
Berth 6 (Phosphoric Acid)
Berth 7 (Phosphoric Acid) –10.3
–11.5
Proposed Extension
Berth 10 bis
Berth 14 (Grain)
Commercial Quay
Silo (Proposed)
Service Quay
Ro/Ro Berth
Oil Berth No.9
–12.7
12 m.
10 m.
Berth 13
Proposed Container Terminal
10 m.
8 m.
Ore Stockyard (Proposed)
Coal Stockpile (Proposed)
Berth 12 (Proposed)
Repair Berth (Proposed)
Dry Dock (Proposed)
N

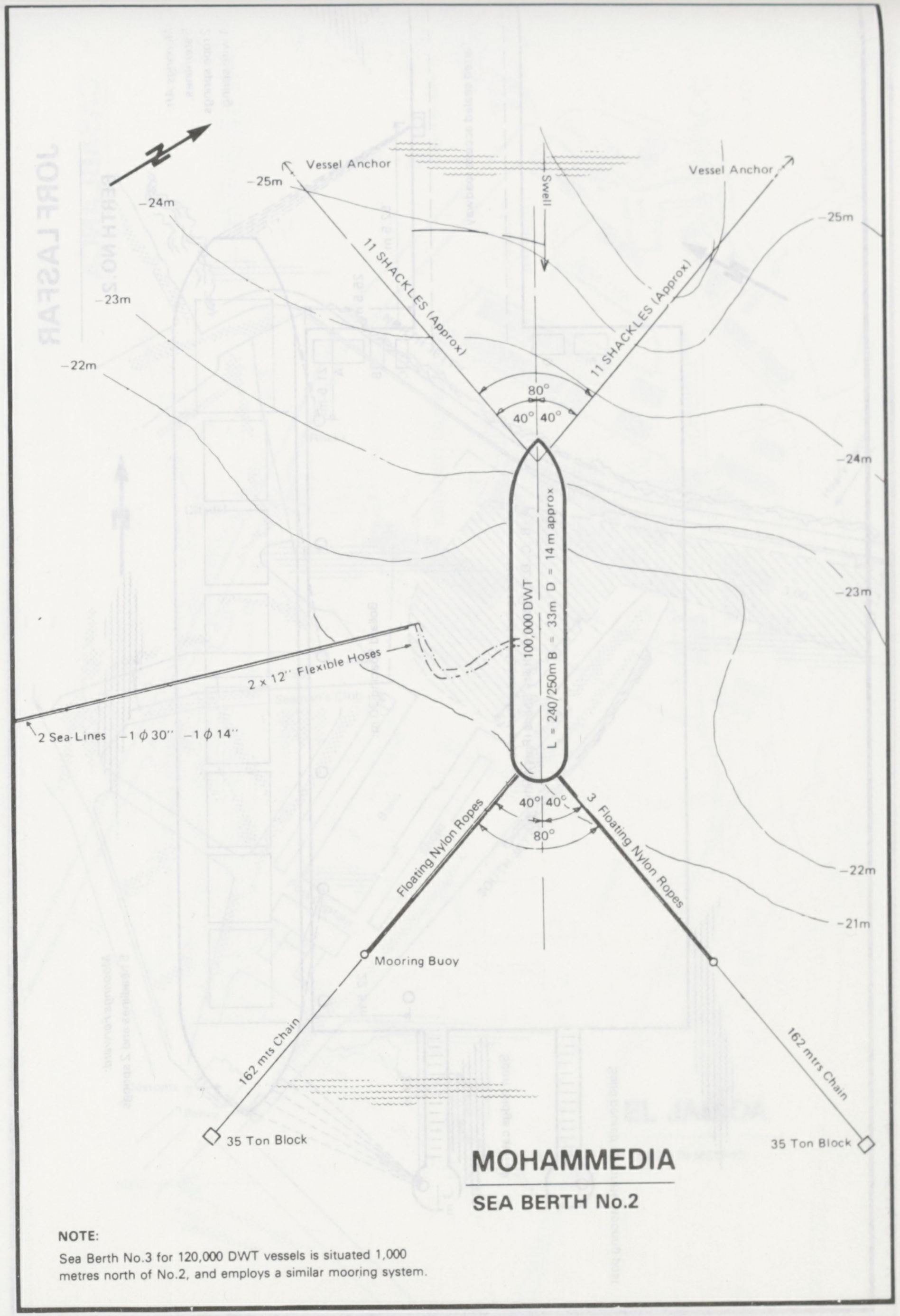

JORF LASFAR
BERTH NO.2
Moorings Forward:
5 headlines and 2 springs
Moorings Aft:
5 sternlines,
2 rope springs
1 wire spring
21.5 m.
A
25.5 m.
B
C
52.5 m
Bollard Spacing 30 m.
22.5 m.
39 m.
7 m.
Tarred sealed access roadway
Hard tarred surfaced wharf area
A..B..C..D..E.. Work & Utility Sheds (Port Authority)
Span bridge catwalk
D
E
Solid poured concrete mooring post
N

"Plan supplied by Ship's Master"


Leading Light 205°
Anchoring and Fishing Prohibited
Sea-Line 2
Sea-Line 1
PROHIBITED AREA EXCEPT FOR LOADING
Sea-Lines
Cape Mohammedia
Rocks
Rocks
Customs
30m
N
METRES
0
500
1000

MOHAMMEDIA

TANKER BERTHS


N
Vessel Anchor
Vessel Anchor
-25m
-24m
-23m
-22m
Swell
11 SHACKLES (Approx)
11 SHACKLES (Approx)
80°
40°
40°
-25m
-24m
-23m
-22m
-21m
100,000 DWT
L = 240/250m B = 33m D = 14 m approx
2 × 12" Flexible Hoses
2 Sea-Lines -1 ϕ 30" -1 ϕ 14"
40°
40°
80°
Floating Nylon Ropes
3 Floating Nylon Ropes
Mooring Buoy
162 mts Chain
162 mtrs Chain
35 Ton Block
35 Ton Block

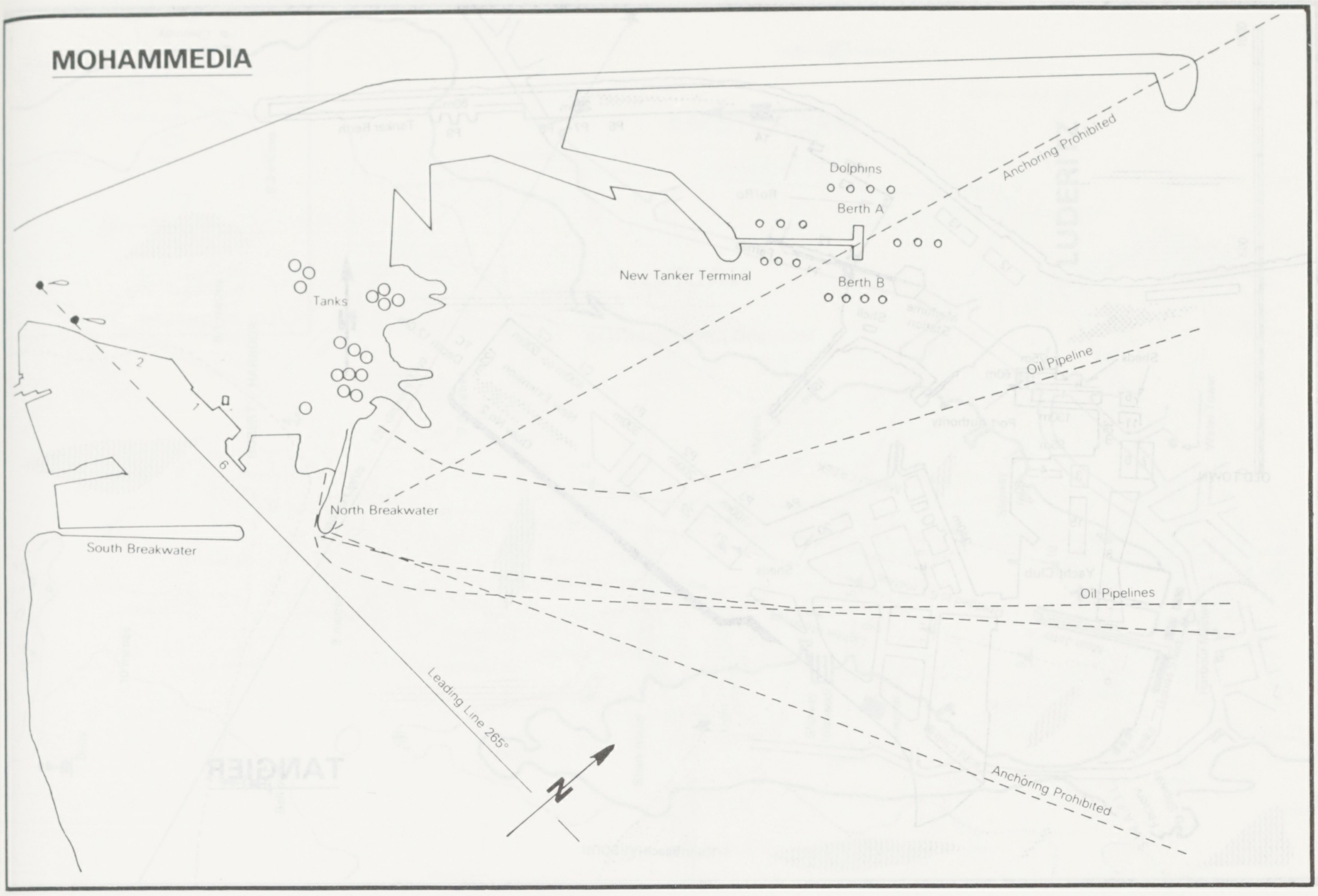
MOHAMMEDIA

SEA BERTH No.2

NOTE:

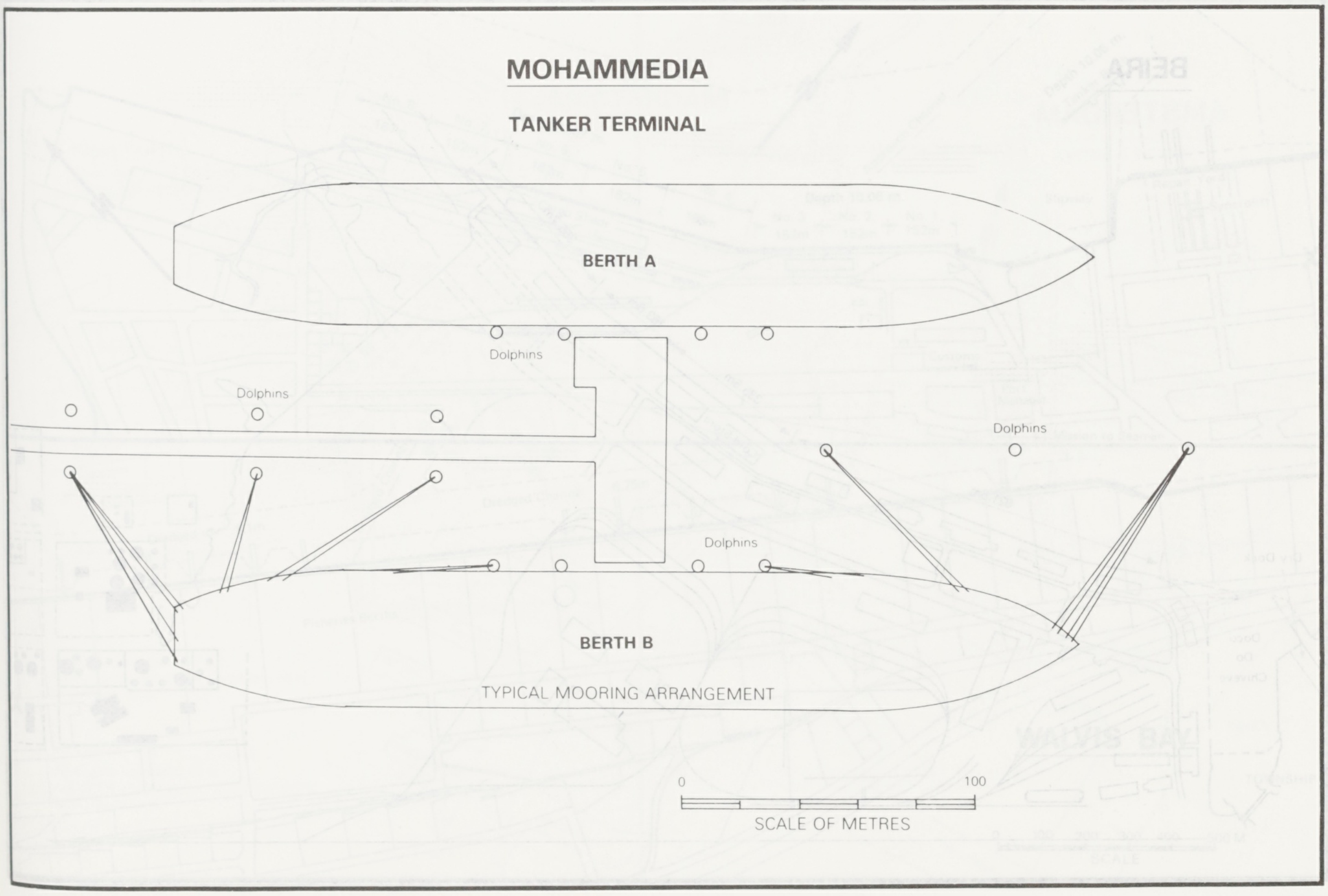
Sea Berth No.3 for 120,000 DWT vessels is situated 1,000 metres north of No.2, and employs a similar mooring system.

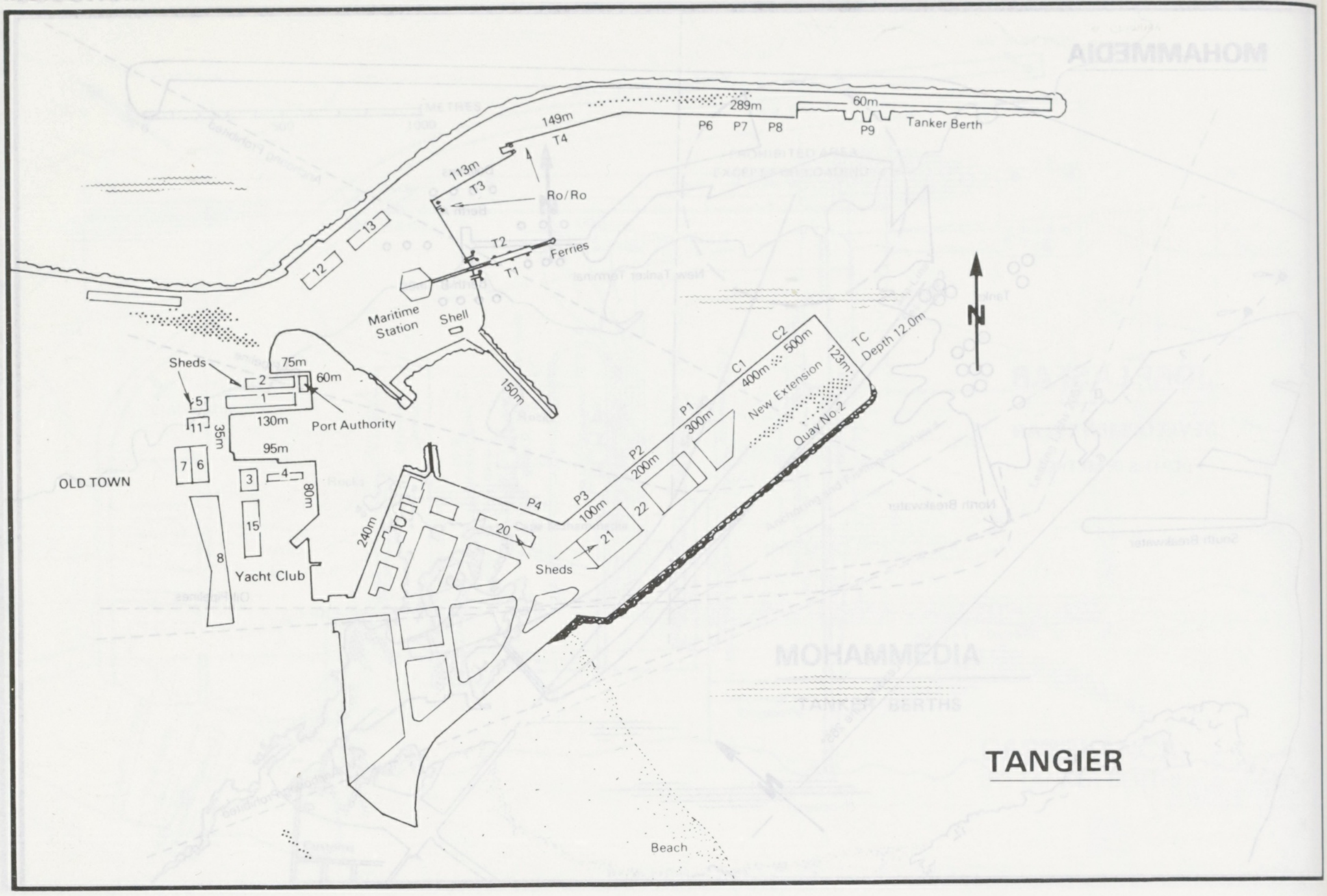
MOHAMMEDIA

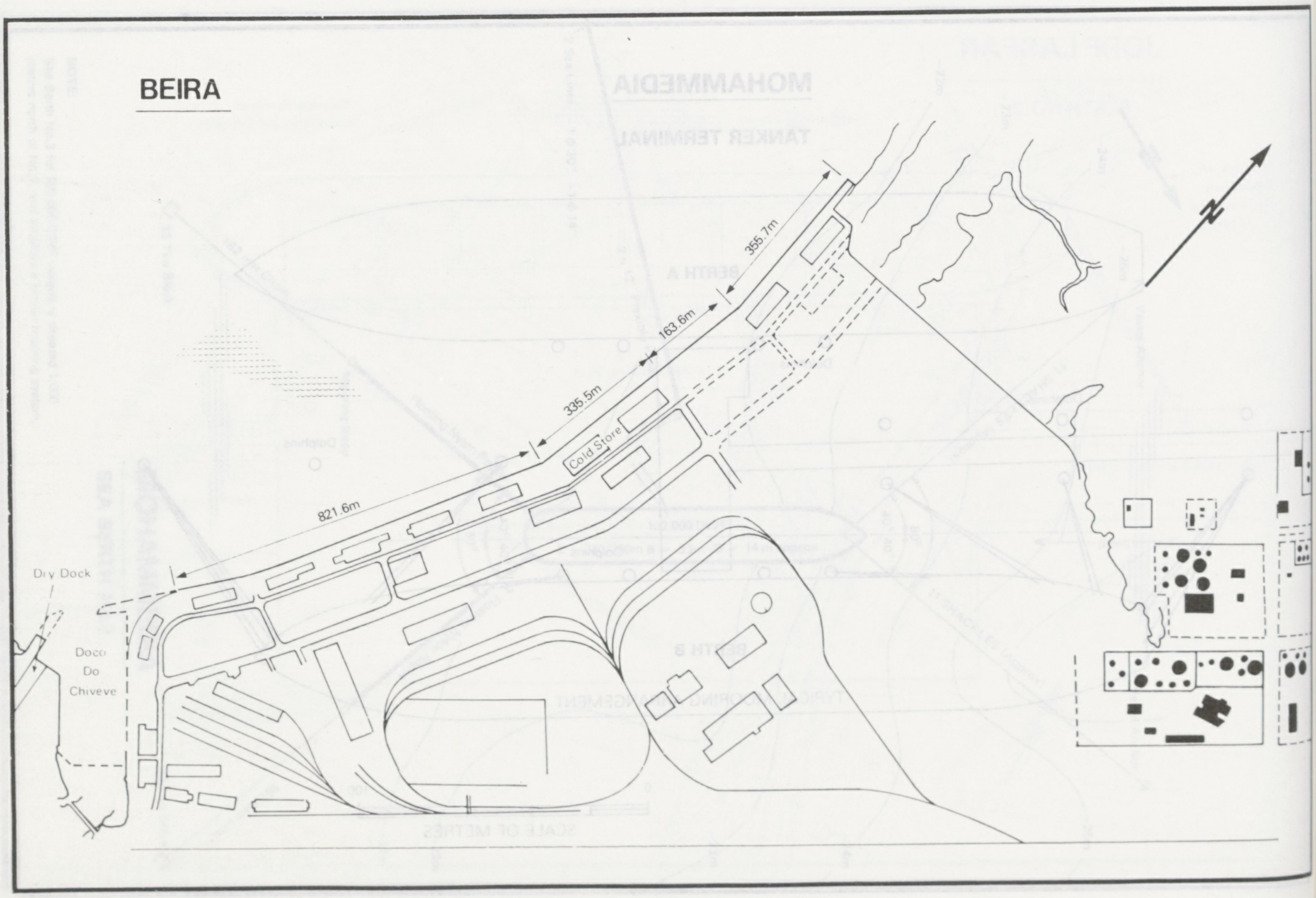

Dolphins
Berth A
New Tanker Terminal
Berth B
Anchoring Prohibited
Tanks
Oil Pipeline
2
1
6
North Breakwater
South Breakwater
Oil Pipelines
Leading Line 265°
N
Anchoring Prohibited

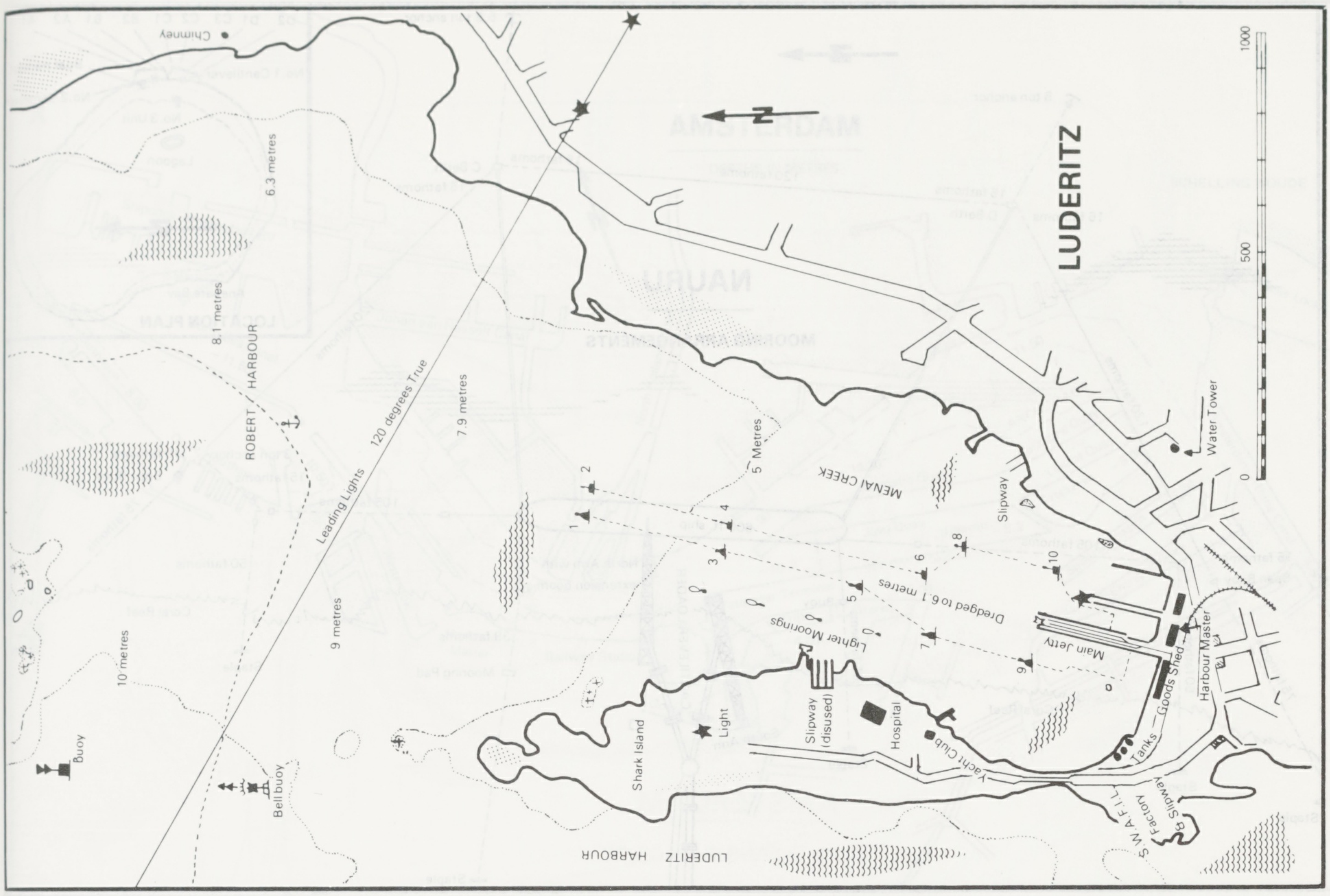
MOHAMMEDIA

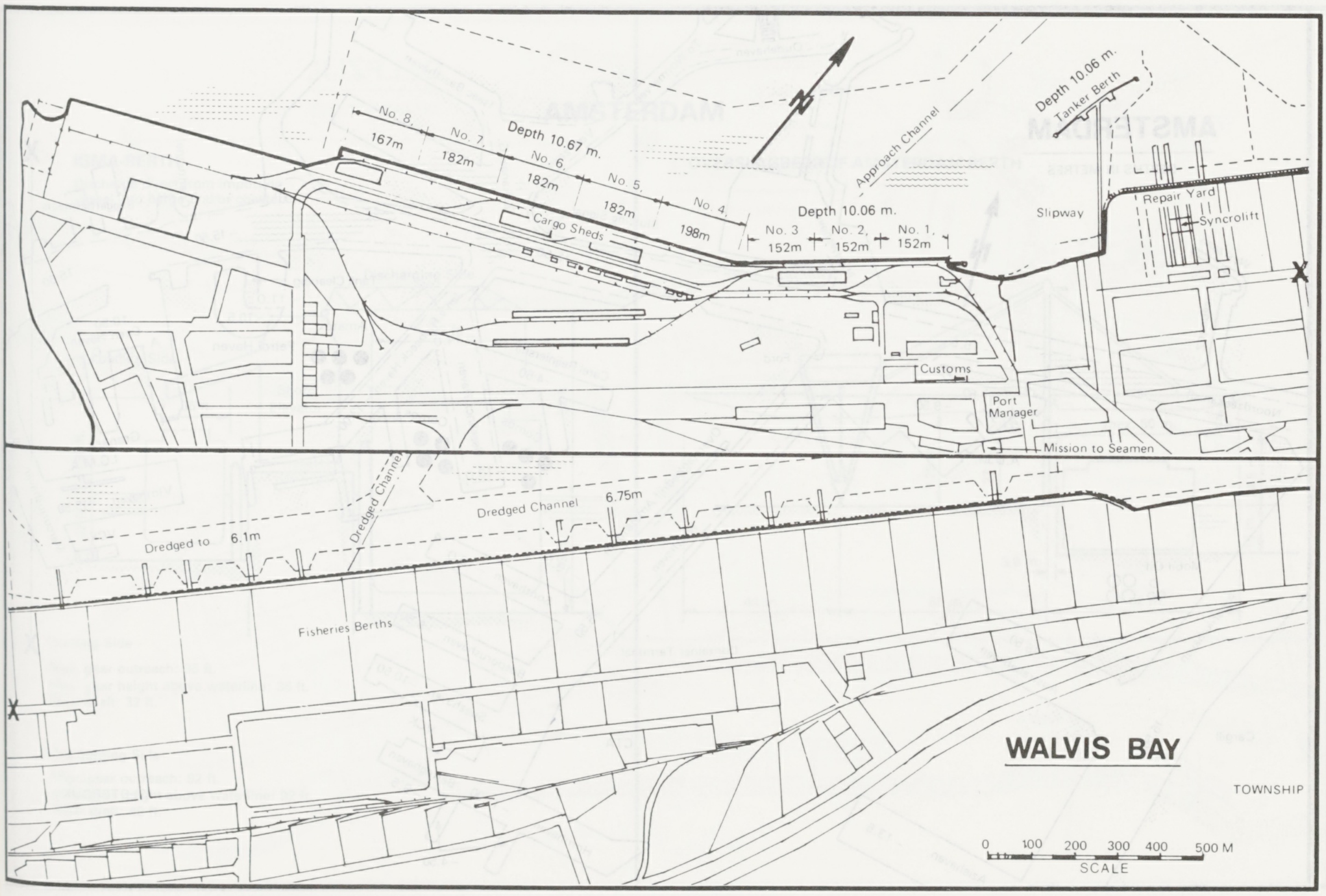
TANKER TERMINAL

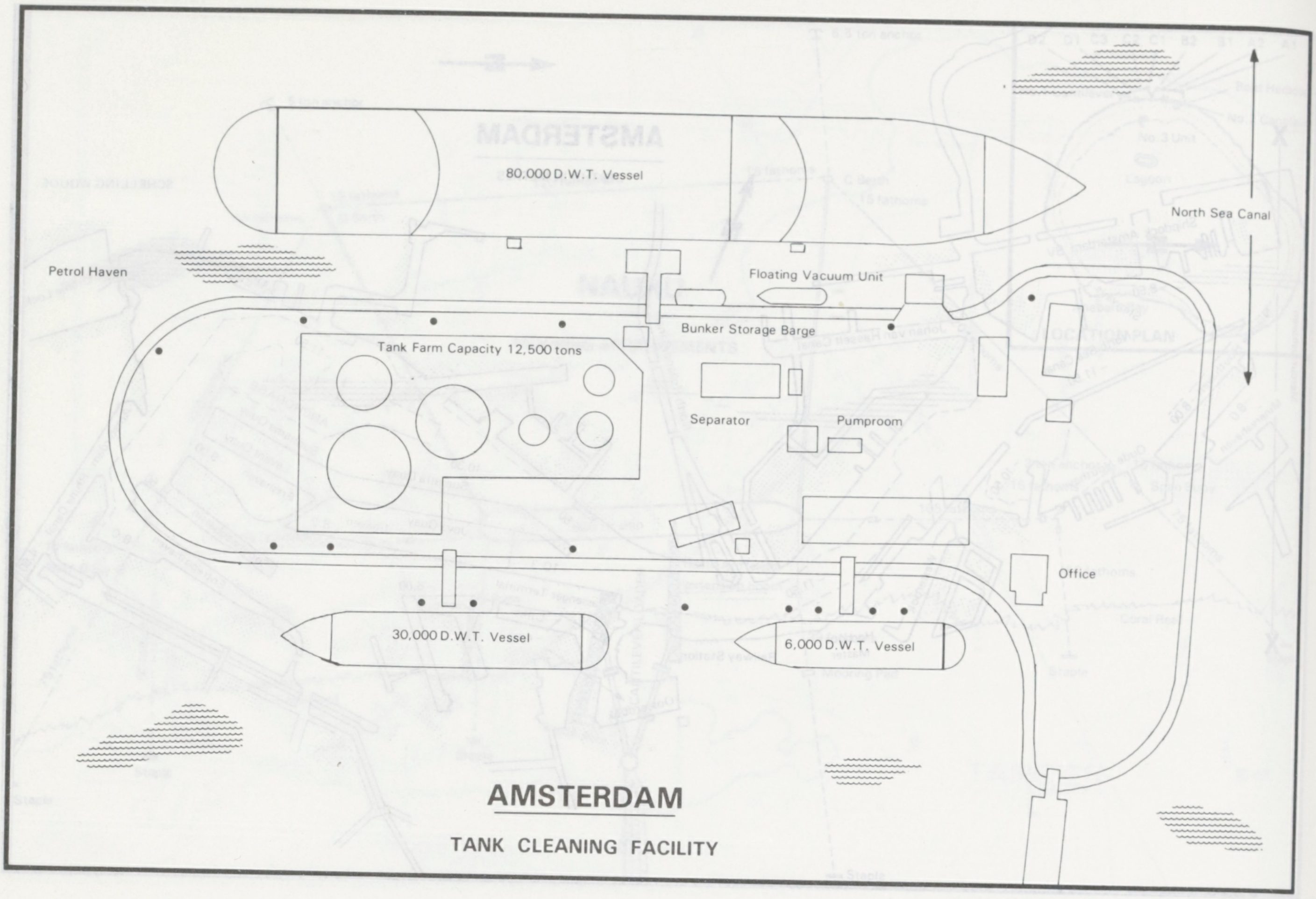

BERTH A
Dolphins
Dolphins
Dolphins
Dolphins
BERTH B
TYPICAL MOORING ARRANGEMENT
0
100
SCALE OF METRES

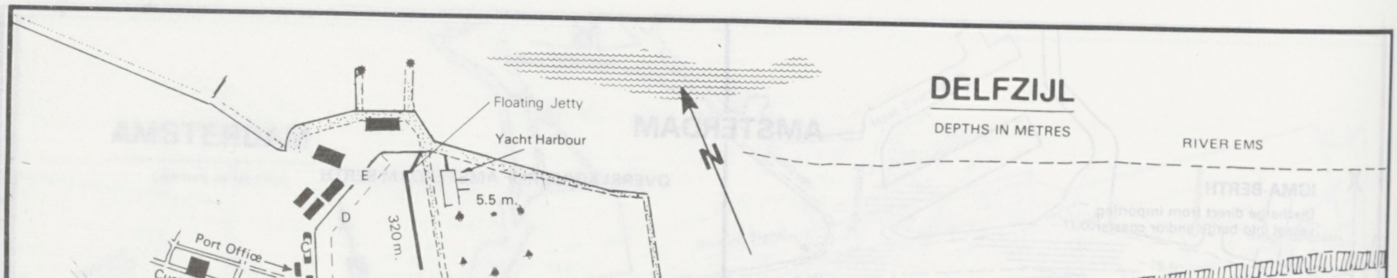

TANGIER
149m
T4
289m
P6
P7
P8
60m
P9
Tanker Berth
113m
T3
Ro/Ro
T2
Ferries
T1
13
12
Maritime Station
Shell
C2
500m
C1
400m
TC
Depth 12.0m
123m
New Extension
Quay No.2
P1
300m
150m
75m
60m
2
1
Sheds
5
11
130m
Port Authority
35m
95m
7
6
3
4
80m
OLD TOWN
P2
200m
P3
100m
22
21
P4
20
240m
15
8
Yacht Club
Sheds
Beach

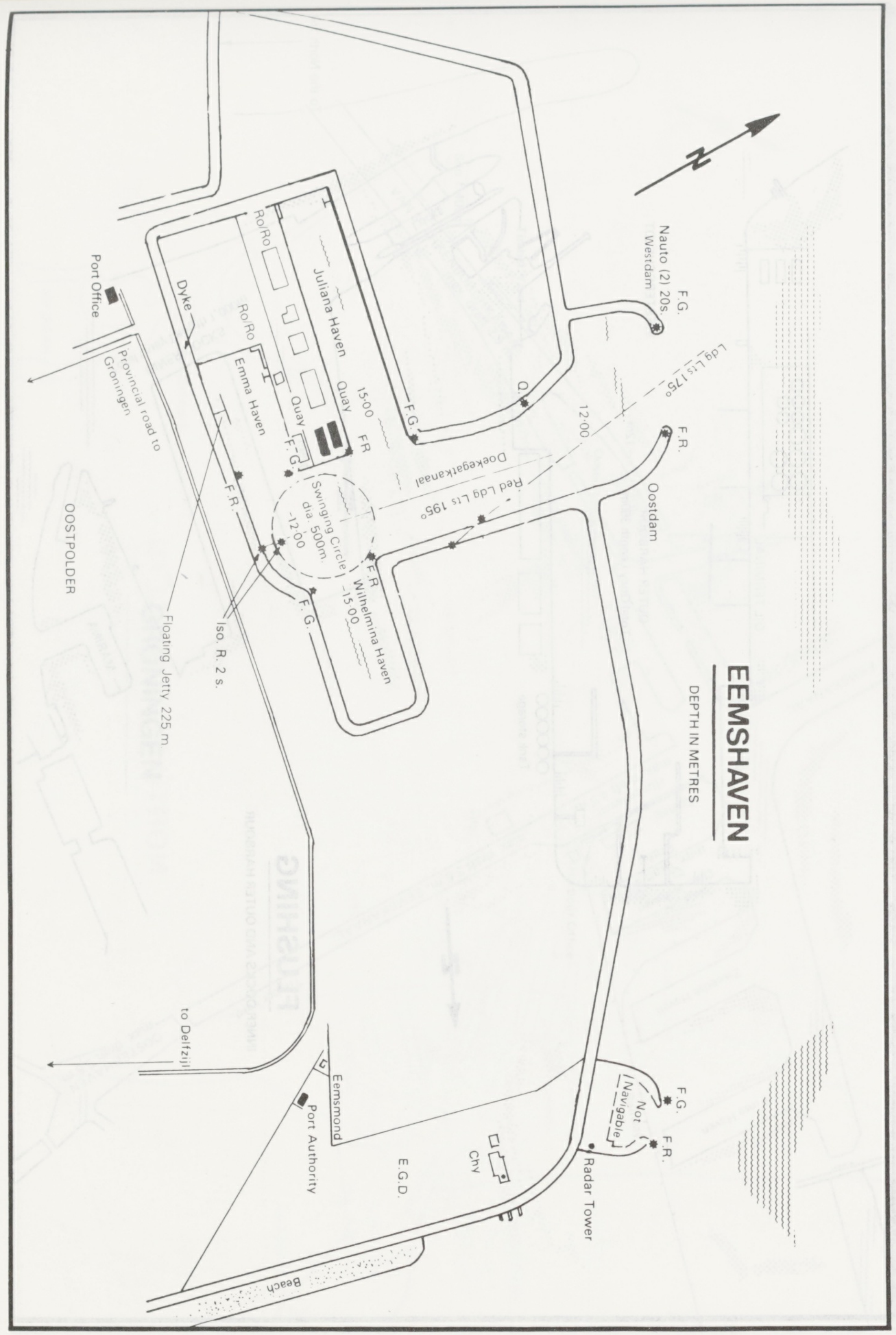

BEIRA
355.7m
163.6m
335.5m
Cold Store
821.6m
Dry Dock
Doco
Do
Chiveve

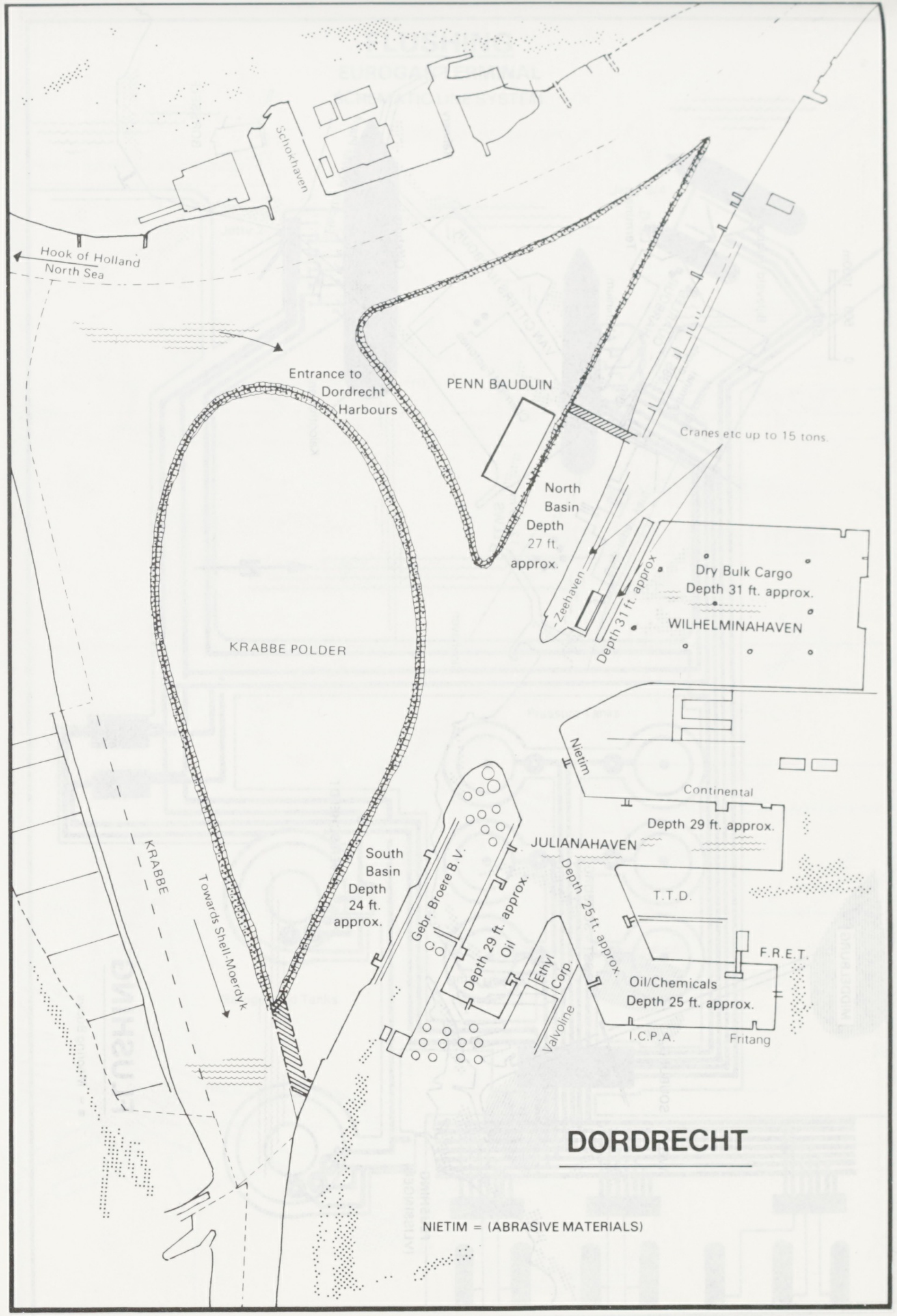

LUDERITZ
N
1000
500
0
Chimney
6.3 metres
8.1 metres
ROBERT HARBOUR
Leading Lights
120 degrees True
7.9 metres
5 Metres
MENAI CREEK
Slipway
Water Tower
10 metres
9 metres
1
2
3
4
5
6
7
8
9
10
Dredged to 6.1 metres
Lighter Moorings
Main Jetty
Harbour Master
Goods Shed
Tanks
Slipway
Factory
S.W.A.F.I.
Yacht Club
Hospital
Slipway (disused)
Light
Shark Island
LUDERITZ HARBOUR
Buoy
Bell buoy

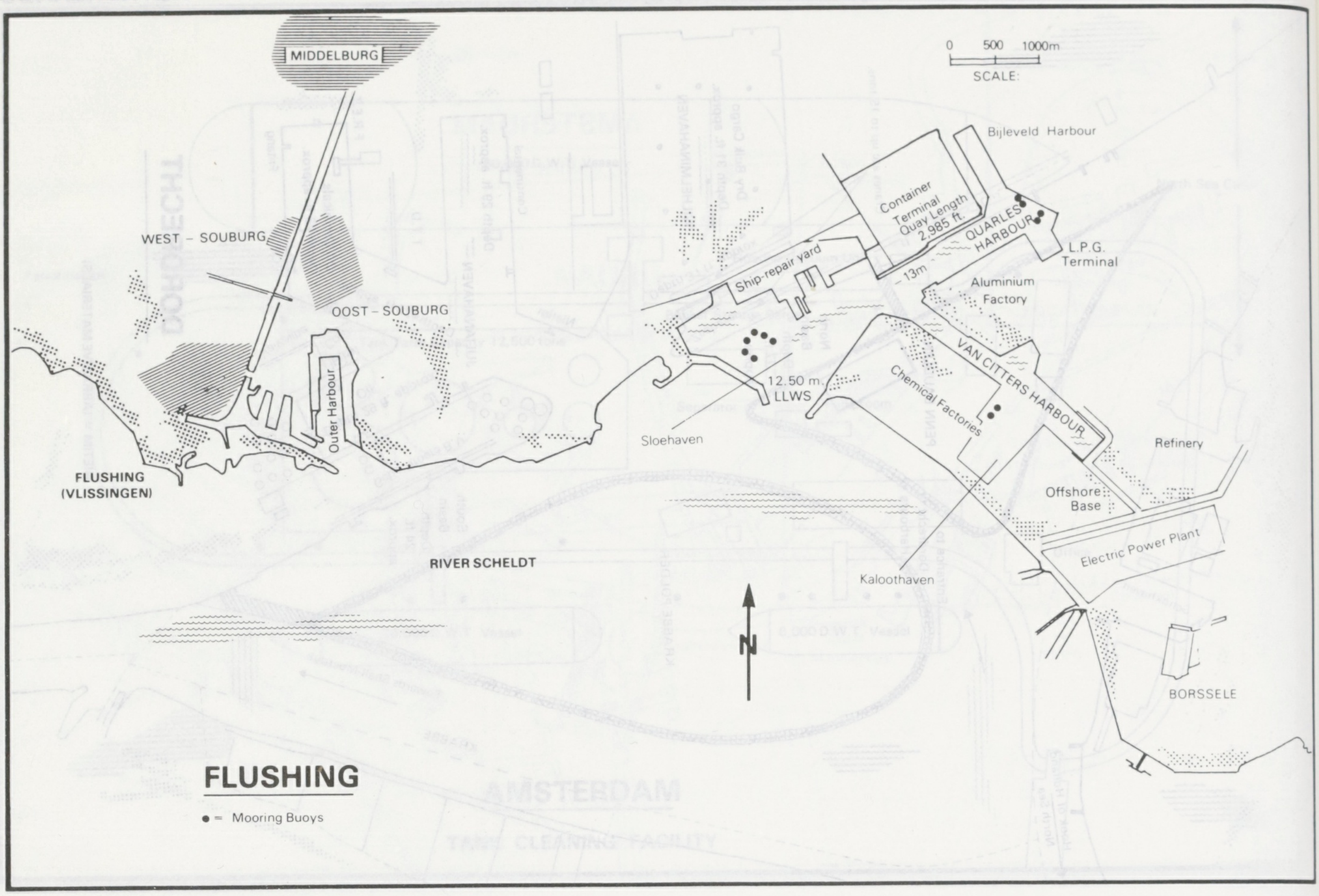

No. 8
167m
No. 7
182m
No. 6
182m
No. 5
182m
No. 4
198m
Depth 10.67 m.
Cargo Sheds
Approach Channel
Depth 10.06 m.
No. 3
152m
No. 2
152m
No. 1
152m
Depth 10.06 m.
Tanker Berth
Slipway
Repair Yard
Syncrolift
Customs
Port Manager
Mission to Seamen
Dredged Channel
Dredged Channel
6.75m
Dredged to
6.1m
Fisheries Berths
WALVIS BAY
TOWNSHIP
0
100
200
300
400
500 M
SCALE

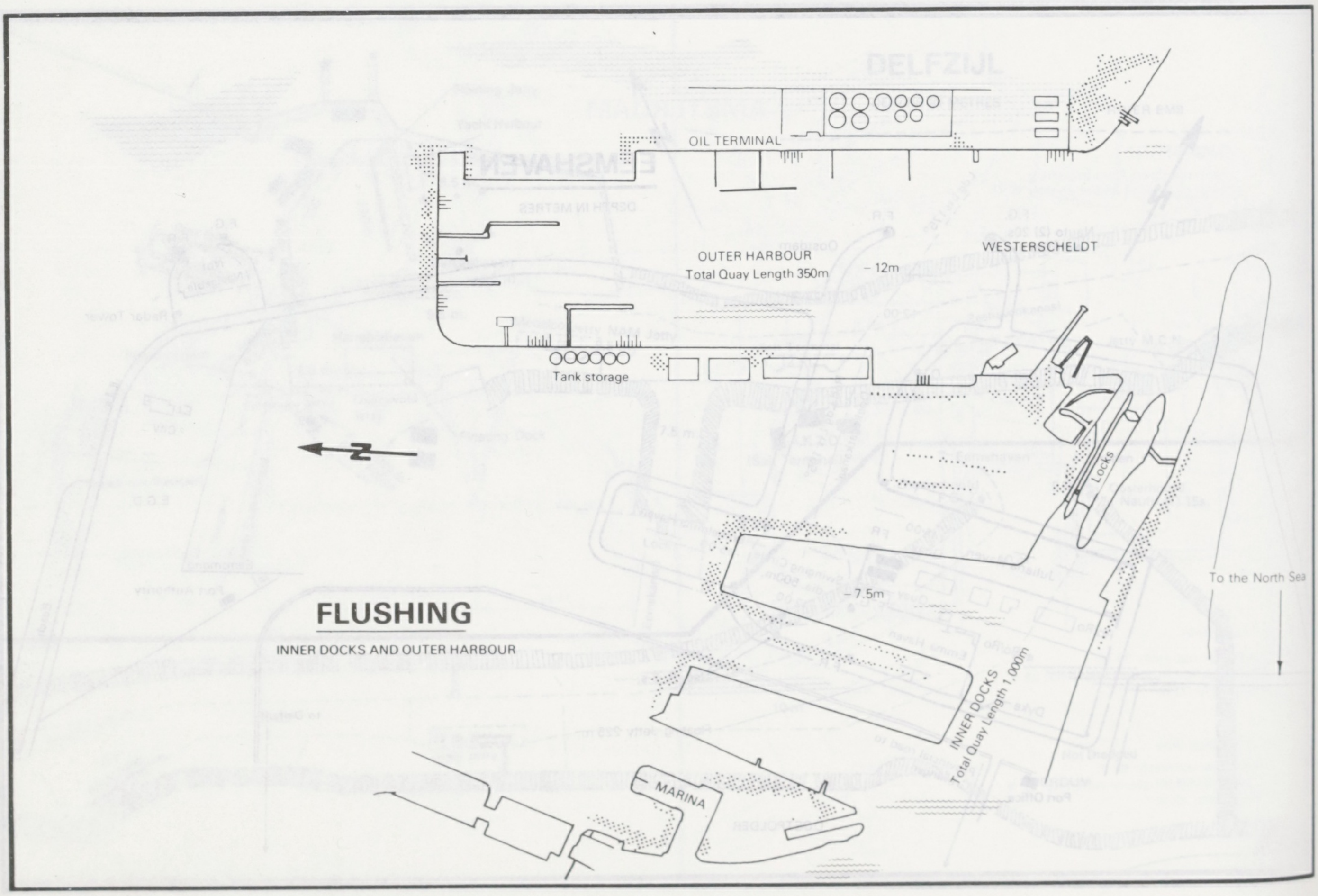

80,000 D.W.T. Vessel
North Sea Canal
Petrol Haven
Floating Vacuum Unit
Bunker Storage Barge
Tank Farm Capacity 12,500 tons
Separator
Pumproom
Office
30,000 D.W.T. Vessel
6,000 D.W.T. Vessel
AMSTERDAM
TANK CLEANING FACILITY

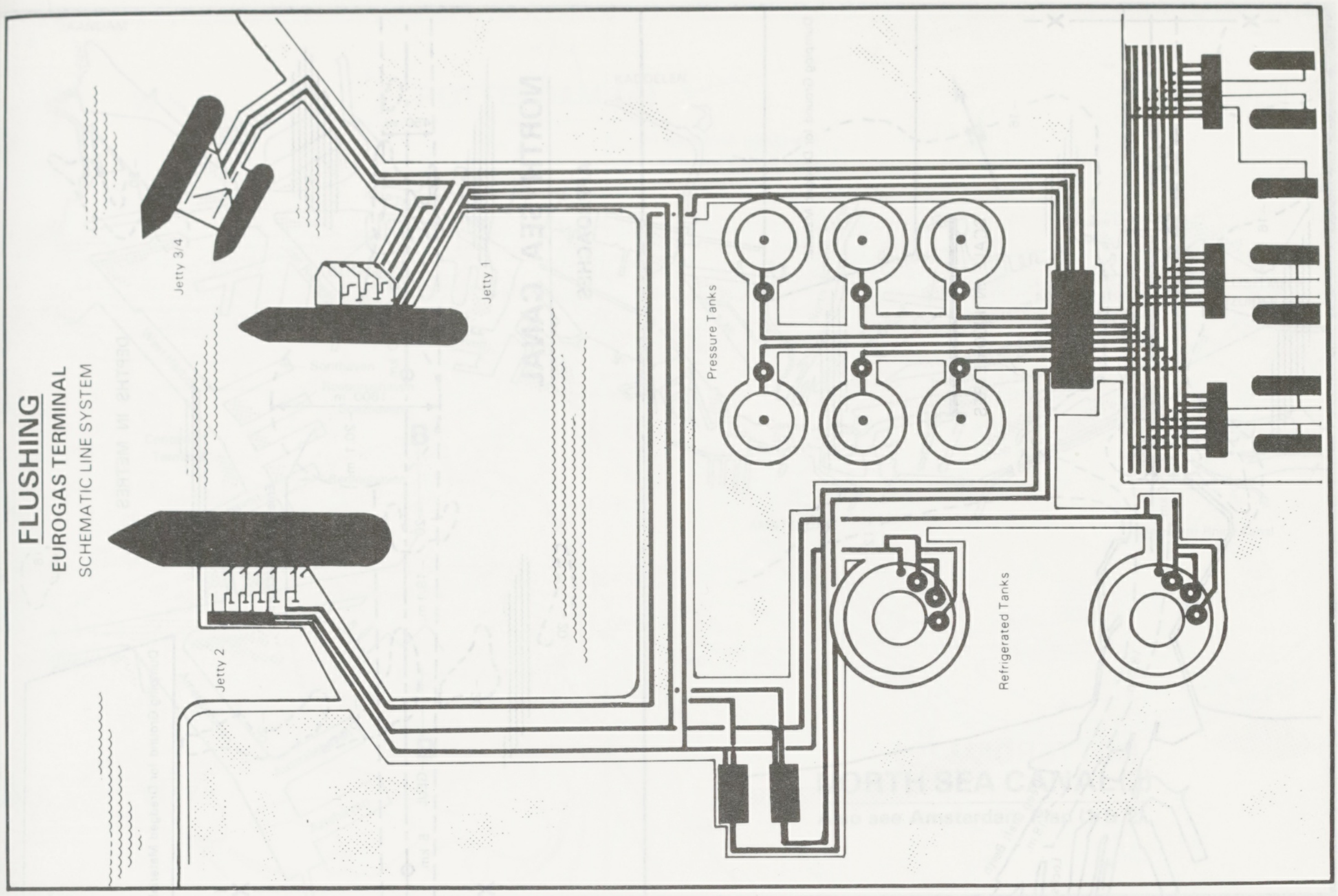

DELFZIJL
DEPTHS IN METRES
Floating Jetty
Yacht Harbour
N
RIVER EMS
5.5 m.
320 m.
E
D
C
B
A
11.0 m.
Port Office
Custom House
Balkenhaven
8.5 m.
9.5 m.
Handelshaven
Damsterhaven
6.5 m.
6.5 m.
Medalco Jetty
12 m.
NAM Jetty
9.5 m.
Zeehavenkanaal
Z
Jetty M.C.N.
Salt Terminal
12 m.
Farmsum Jetty
Duurswold Jetty
Floating Dock
7.5 m.
A.K.Z.O.
(Salt Terminal)
Eemshaven
Emden
Westerhoofd
F.G.
F.R.
Oosterhoofd
Nauto (1) 15s.
Pilots Office
River Police
Lock not Navigable
Niestern
Oude Eemskanaal
Locks
Eemskanaal
10 m.
10 m.
10 m.
Z
10 m.
MCN Jetty
12 m.
Aldel Jetty
10 m.
Not Dredged
OTERDUM


EEMSHAVEN
DEPTH IN METRES
N
F.G.
Nauto (2) 20s.
Westdam
Ldg Lts 175°
Q.
F.G.
15.00
12.00
F.R.
Julianna Haven
Quay
Ro/Ro
Ro/Ro
Emma Haven
Quay
F.R.
F.G.
Doekegatkanaal
Red Ldg Lts 195°
Swinging Circle dia. 500m. -12.00
F.R.
Wilhelmina Haven -15.00
F.G.
F.R.
Oostdam
Port Office
Dyke
Provincial road to Groningen
OOSTPOLDER
Iso. R. 2 s.
Floating Jetty 225 m
to Delfzijl
Eemsmond
Port Authority
E.G.D.
Chy
Radar Tower
Not Navigable
F.G.
F.R.
Beach


Schiehaven
Hook of Holland
North Sea
Entrance to Dordrecht Harbours
PENN BAUDUIN
Cranes etc up to 15 tons
North Basin Depth 27 ft. approx.
Zeehaven
Depth 31 ft. approx
Dry Bulk Cargo Depth 31 ft. approx.
WILHELMINAHAVEN
KRABBE POLDER
Nietim
Continental
Depth 29 ft. approx.
JULIANAHAVEN
T.T.D.
South Basin Depth 24 ft. approx.
Gebr. Broere B.V.
Depth 29 ft. approx. Oil
Ethyl Corp.
Depth 25 ft. approx.
F.R.E.T.
Oil/Chemicals Depth 25 ft. approx.
Valvoline
I.C.P.A.
Fritang
KRABBE
Towards Shell-Moerdyk
DORDRECHT
NIETIM = (ABRASIVE MATERIALS)

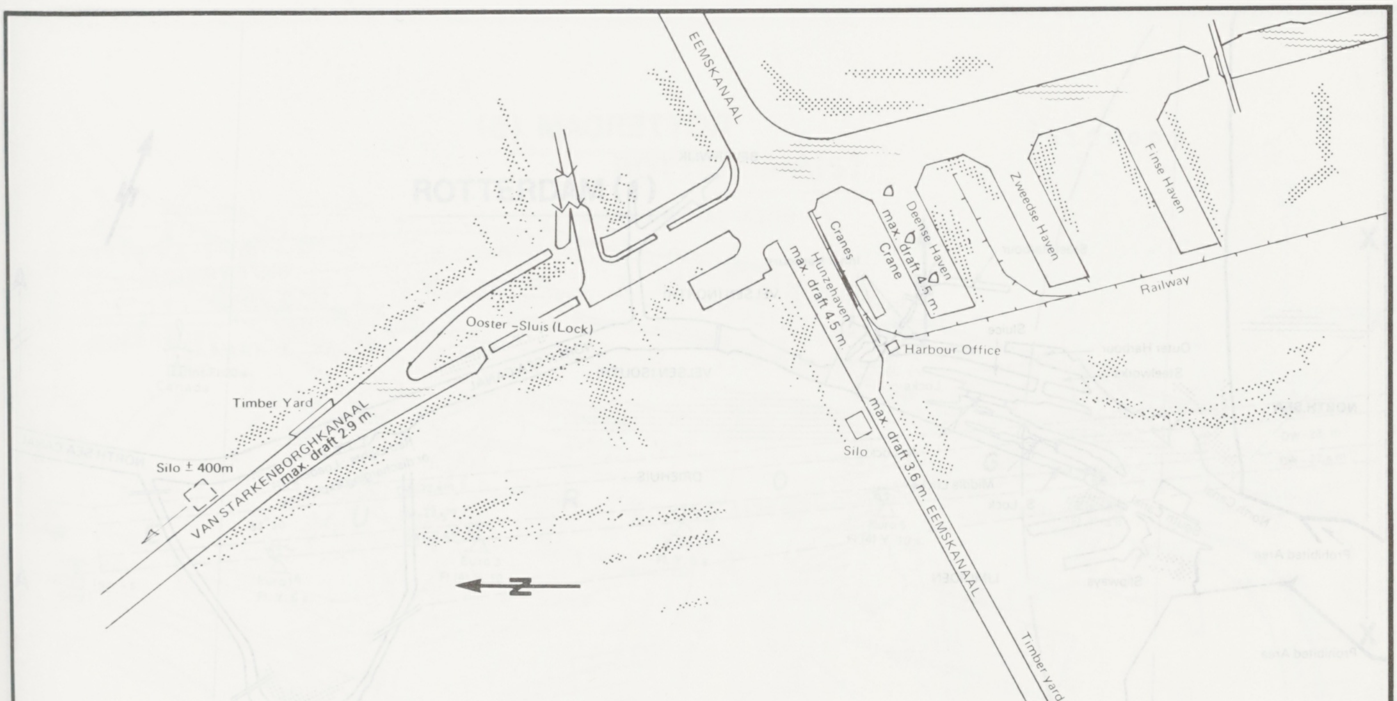

MIDDELBURG
0 500 1000m
SCALE:
Bijleveld Harbour
Container Terminal Quay Length 2,985 ft.
QUARLES HARBOUR
L.P.G. Terminal
WEST – SOUBURG
Ship-repair yard
– 13m
Aluminium Factory
OOST – SOUBURG
VAN CITTERS HARBOUR
Chemical Factories
12.50 m. LLWS
Outer Harbour
Sloehaven
Refinery
FLUSHING (VLISSINGEN)
Offshore Base
Electric Power Plant
RIVER SCHELDT
Kaloothaven
N
BORSSELE
FLUSHING
● = Mooring Buoys


OIL TERMINAL
OUTER HARBOUR
Total Quay Length 350m
– 12m
WESTERSCHELDT
Tank storage
N
Locks
To the North Sea
– 7.5m
FLUSHING
INNER DOCKS AND OUTER HARBOUR
INNER DOCKS
Total Quay Length 1,000m
MARINA



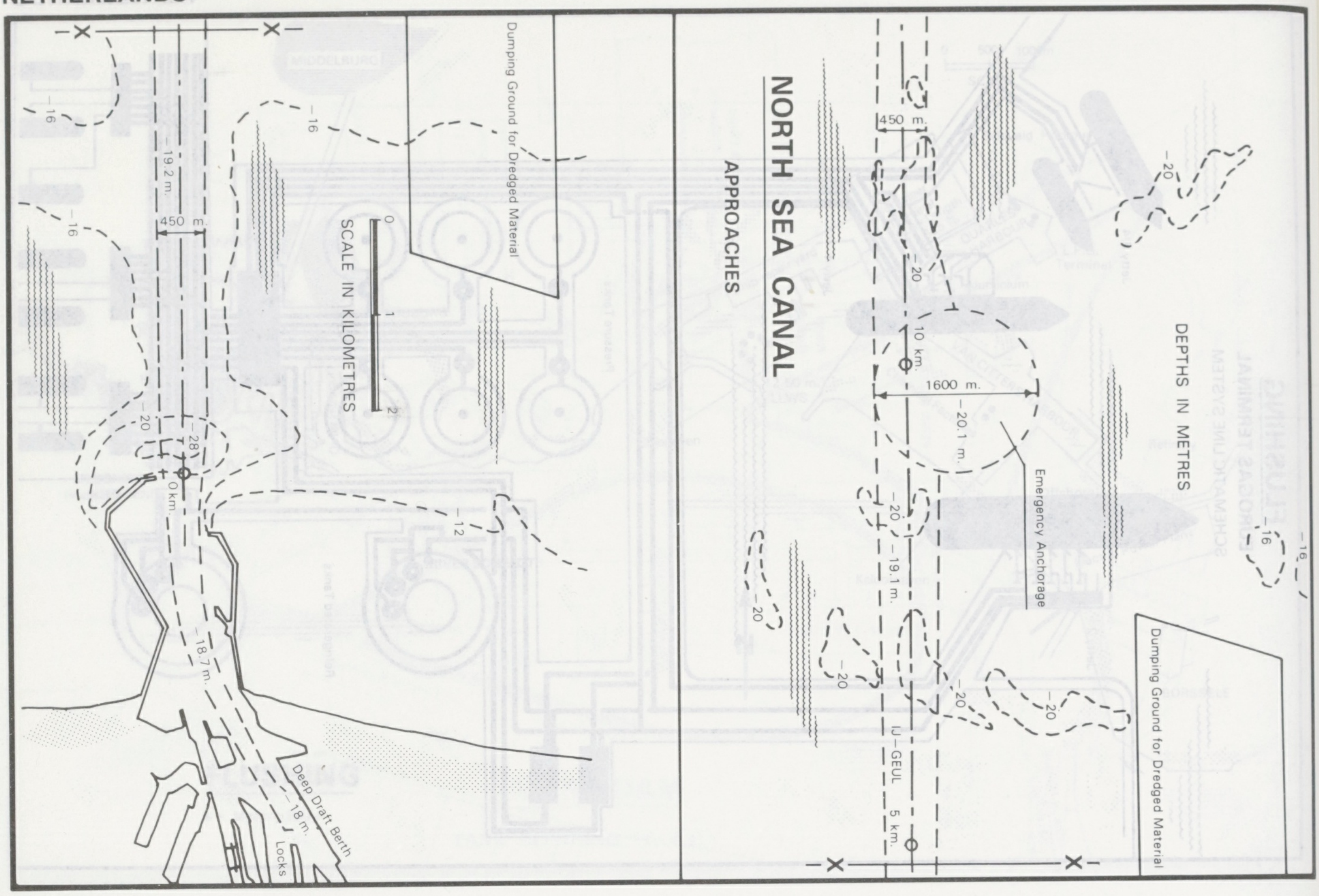
FLUSHING
EUROGAS TERMINAL
SCHEMATIC LINE SYSTEM

Jetty 3/4
Jetty 1
Jetty 2
Pressure Tanks
Refrigerated Tanks

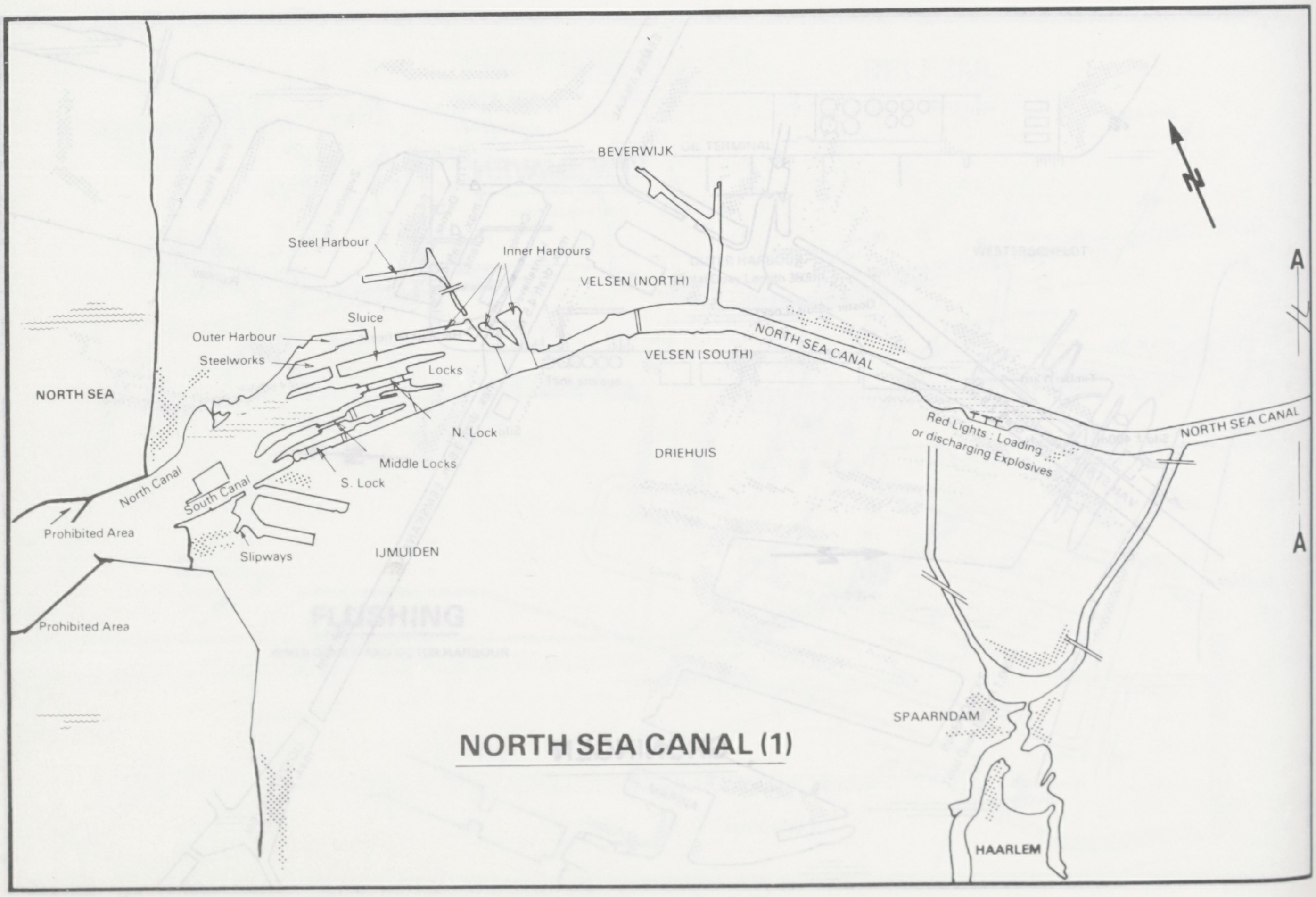


GRONINGEN

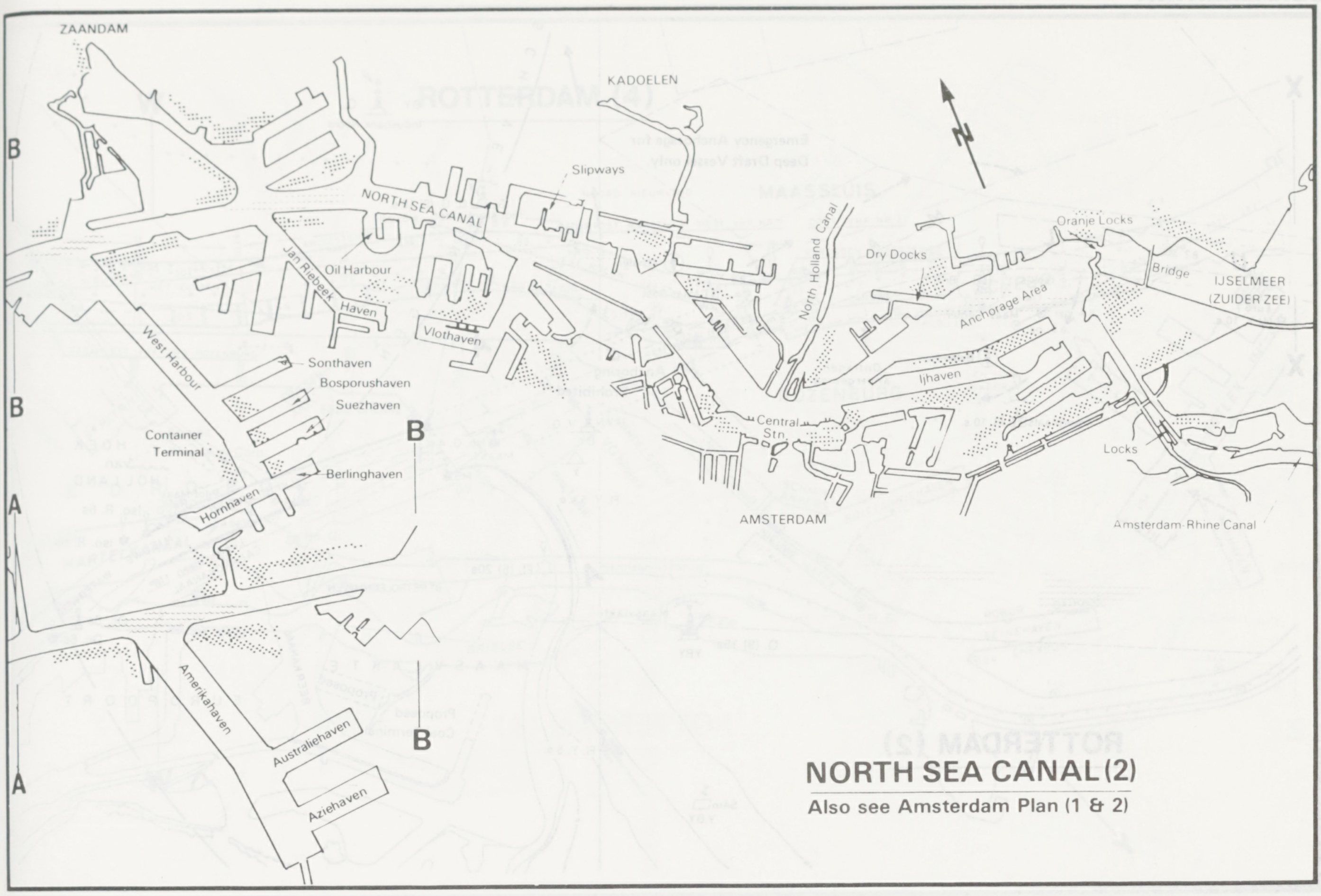
EEMSKANAAL
Ooster-Sluis (Lock)
Timber Yard
Silo ± 400m
VAN STARKENBORGHKANAAL
max. draft 2.9 m.
Cranes
Hunzehaven
max. draft 4.5 m
Deense Haven
max. draft 4.5 m
Crane
Zweedse Haven
Finse Haven
Railway
Harbour Office
Silo
max. draft 3.6 m. EEMSKANAAL
Timber yard
OOSTERHAVEN
max. draft 3.6 m.
N


DEPTHS IN METRES
Dumping Ground for Dredged Material
SCALE IN KILOMETRES
0
1
2
450 m.
19.2 m.
–16
–20
28
0 km.
–12
–18.7 m.
Deep Draft Berth
–18 m.
Locks
450 m.
10 km.
1600 m.
–20.1 m.
Emergency Anchorage
–19.1 m.
IJ–GEUL
5 km.
Dumping Ground for Dredged Material

NORTH SEA CANAL APPROACHES


BEVERWIJK
Steel Harbour
Inner Harbours
VELSEN (NORTH)
Sluice
Outer Harbour
Steelworks
Locks
VELSEN (SOUTH)
NORTH SEA CANAL
NORTH SEA
N. Lock
Middle Locks
S. Lock
North Canal
South Canal
Prohibited Area
Slipways
IJMUIDEN
DRIEHUIS
Red Lights Loading or discharging Explosives
NORTH SEA CANAL
SPAARNDAM
HAARLEM
Prohibited Area
A
A
N

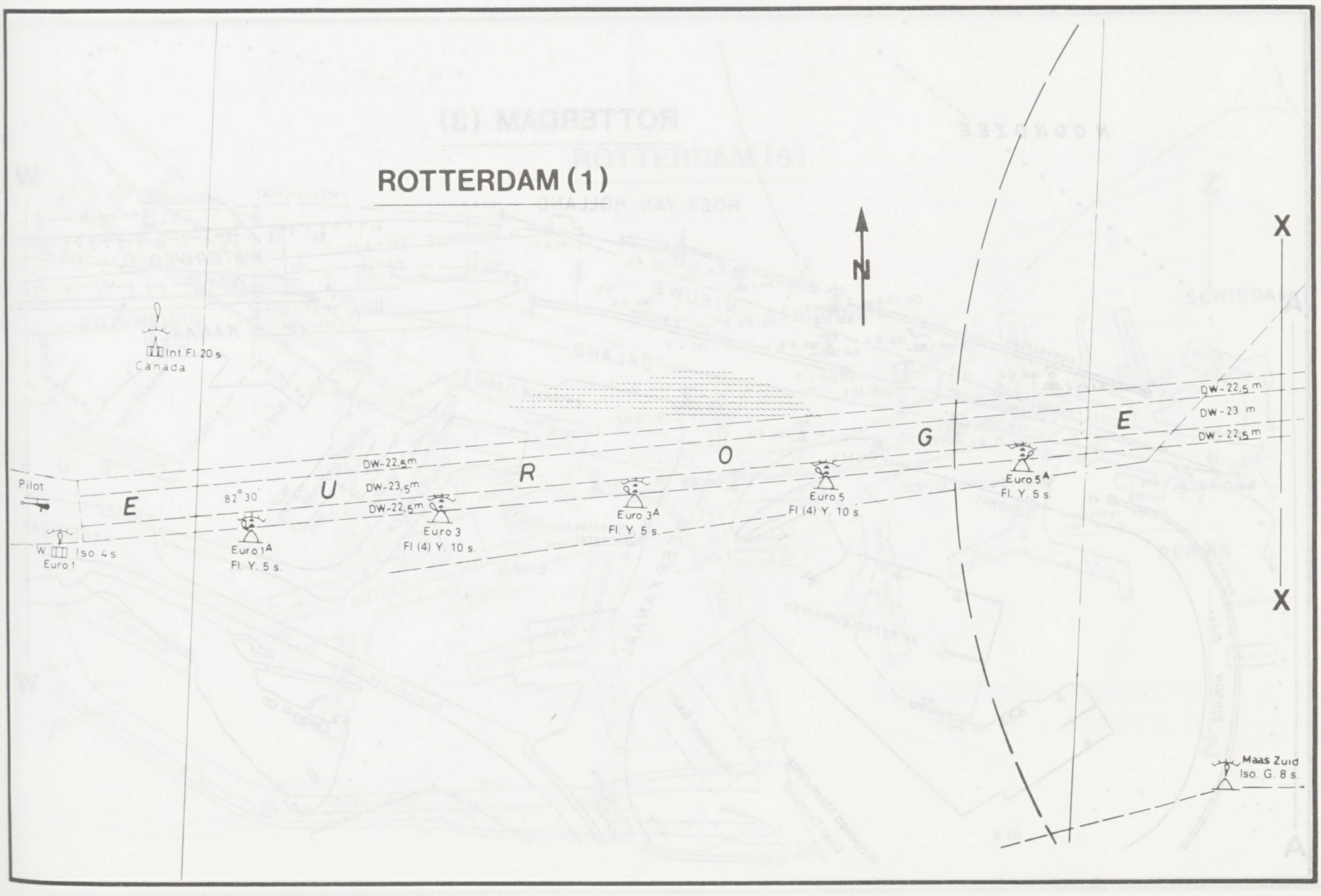
NORTH SEA CANAL (1)

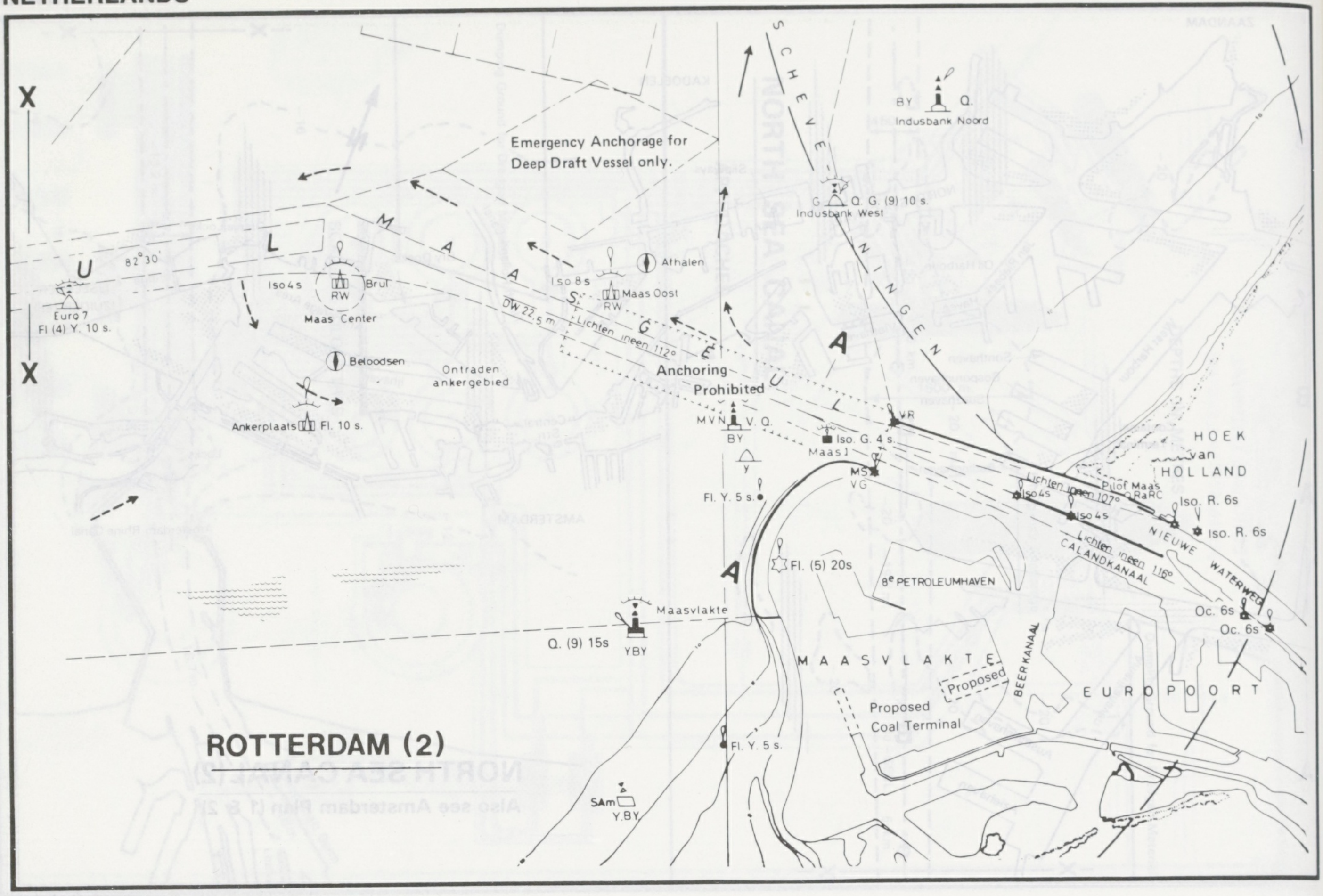

ZAANDAM
KADOELEN
N
B
B
A
A
B
B
Slipways
NORTH SEA CANAL
Oil Harbour
Jan Riebeek Haven
Vlothaven
West Harbour
Sonthaven
Bosporushaven
Suezhaven
Container Terminal
Berlinghaven
Hornhaven
Amerikahaven
Australiehaven
Aziehaven
North Holland Canal
Dry Docks
Anchorage Area
Oranje Locks
Bridge
IJSELMEER (ZUIDER ZEE)
Ijhaven
Central Stn.
Locks
AMSTERDAM
Amsterdam-Rhine Canal

NORTH SEA CANAL (2)

Also see Amsterdam Plan (1 & 2)

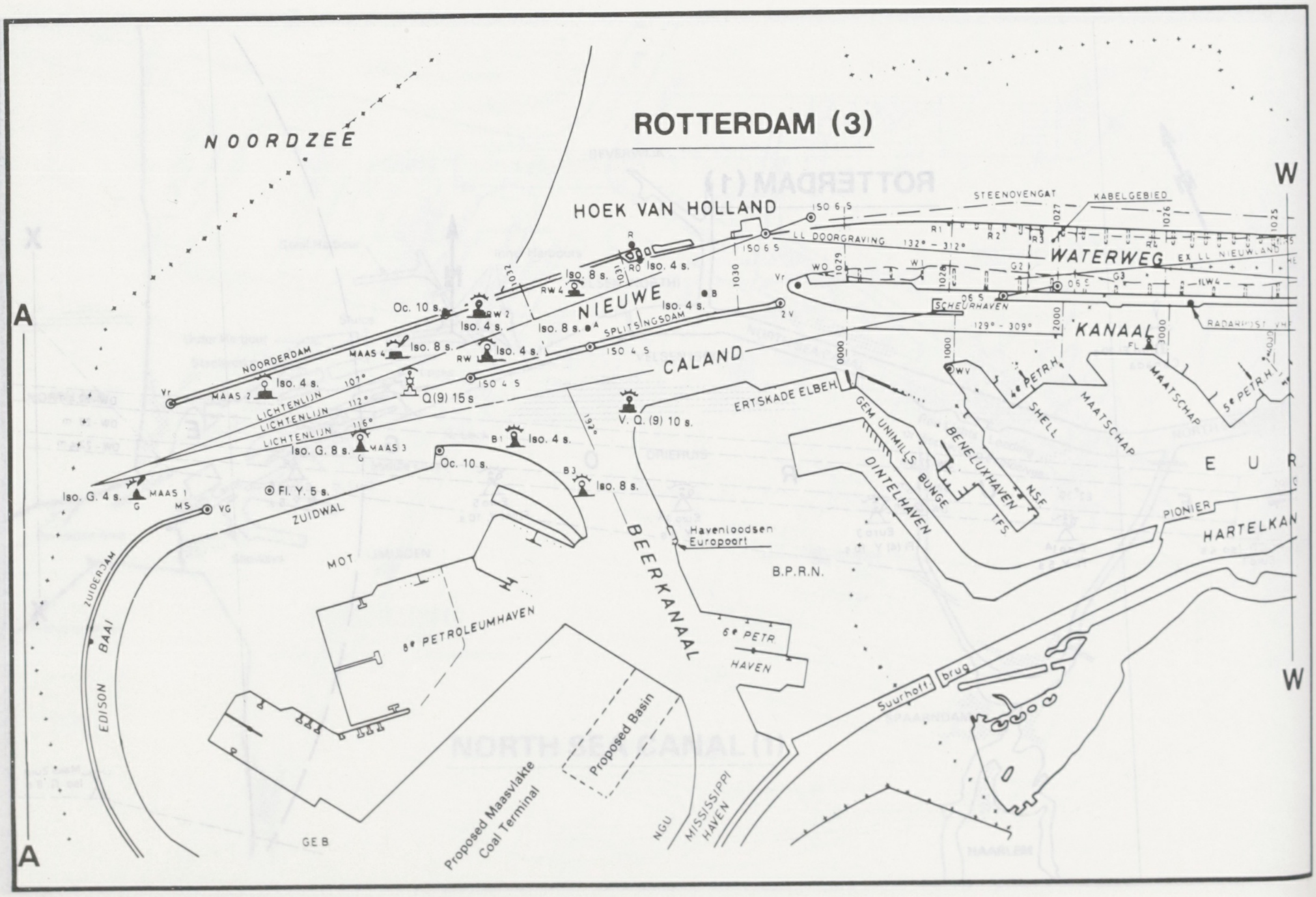
ROTTERDAM (1)


N
X
X
Int Fl. 20 s.
Canada
Pilot
W Iso 4 s
Euro 1
82° 30'
Euro 1A
Fl. Y. 5 s.
DW-22,5 m
DW-23,5 m
DW-22,5 m
Euro 3
Fl (4) Y. 10 s.
Euro 3A
Fl. Y. 5 s.
Euro 5
Fl (4) Y. 10 s.
Euro 5A
Fl. Y. 5 s.
E U R O G E
DW-22,5 m
DW-23 m
DW-22,5 m
Maas Zuid
Iso. G. 8 s.



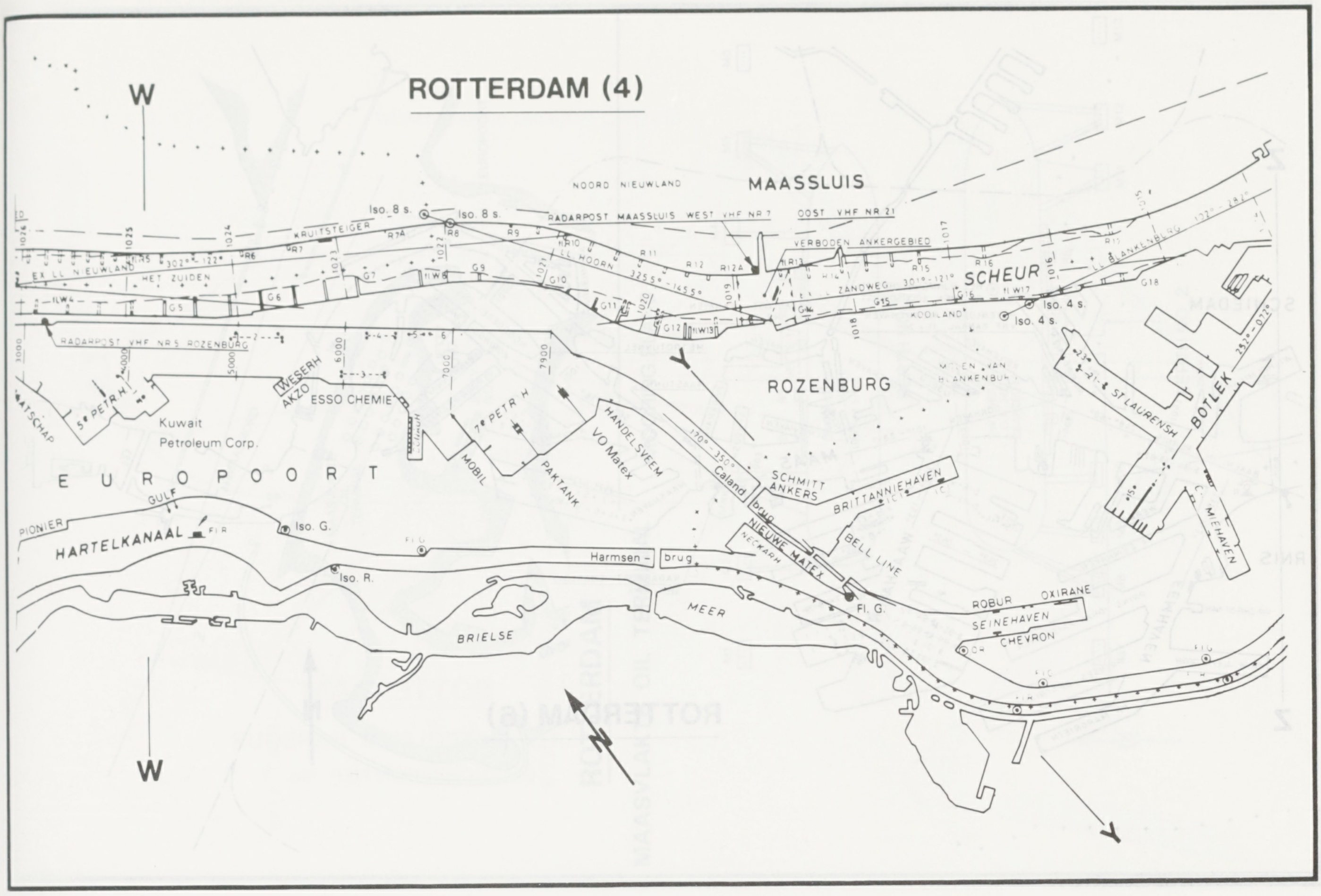
ROTTERDAM (2)

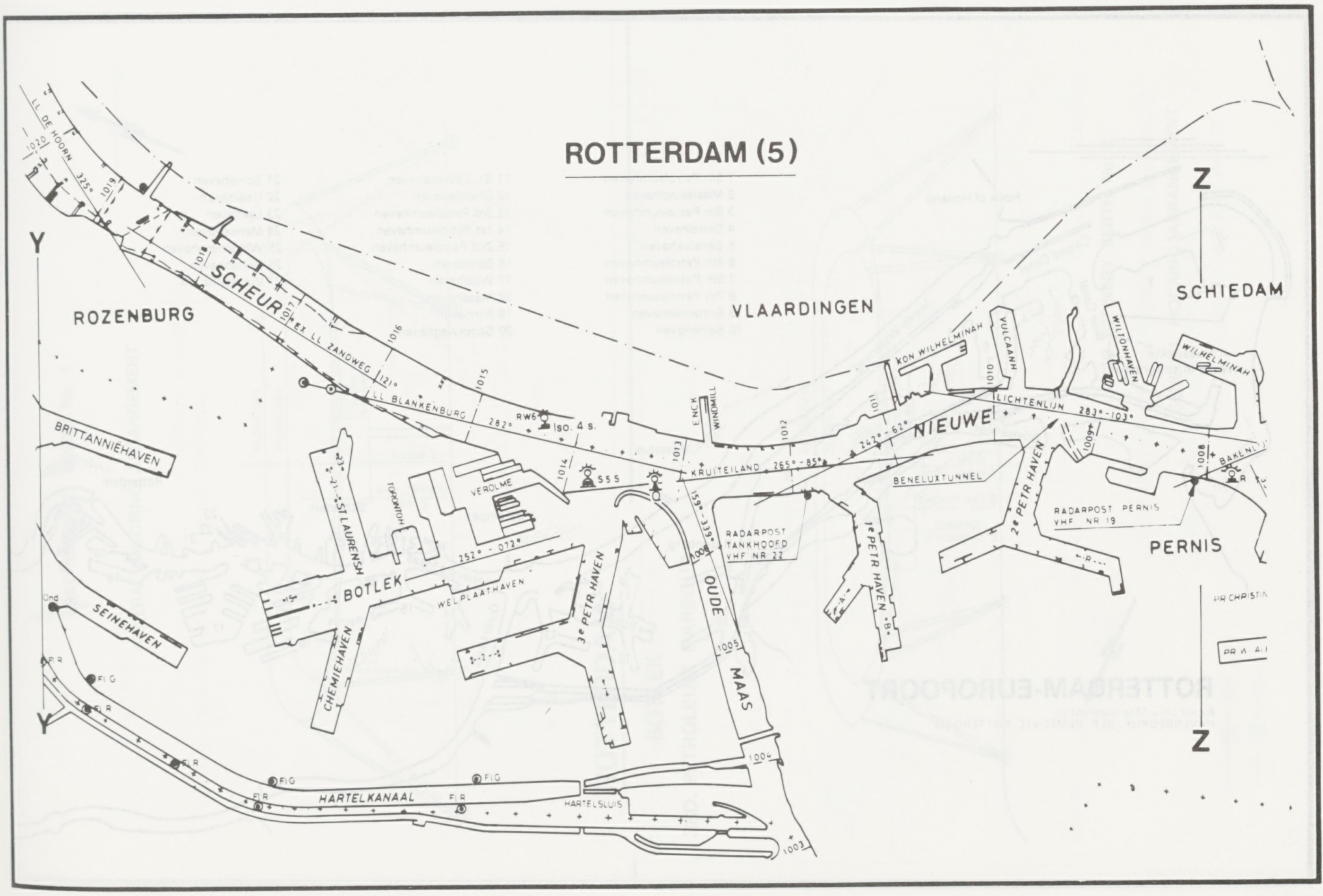
X
X
Emergency Anchorage for Deep Draft Vessel only.
U L M A A S G E U L
82° 30'
Euro 7
Fl (4) Y. 10 s.
Iso 4 s
RW
Brul
Maas Center
Iso 8 s
Maas Oost
RW
Afhalen
DW 22.5 m
Lichten ineen 112°
Beloodsen
Ontraden ankergebied
Ankerplaats Fl. 10 s.
Anchoring Prohibited
S C H E V E N I N G E N
NORTH SEA CANAL
BY Q.
Indusbank Noord
G Q. G. (9) 10 s.
Indusbank West
A
VR
MVN V. Q.
BY
y
Iso. G. 4 s.
Maas 1
MS
VG
Fl. Y. 5 s.
Fl. (5) 20s
8e PETROLEUMHAVEN
HOEK van HOLLAND
Lichten ineen 107°
Pilot Maas
RaRC
Iso 4s
Iso 4s
Iso. R. 6s
Iso. R. 6s
NIEUWE WATERWEG
Lichten ineen 116°
CALANDKANAAL
Oc. 6s
Oc. 6s
A
Maasvlakte
Q. (9) 15s
YBY
MAASVLAKTE
Proposed
BEERKANAAL
EUROPOORT
Proposed Coal Terminal
Fl. Y. 5 s.
SAm
Y.BY

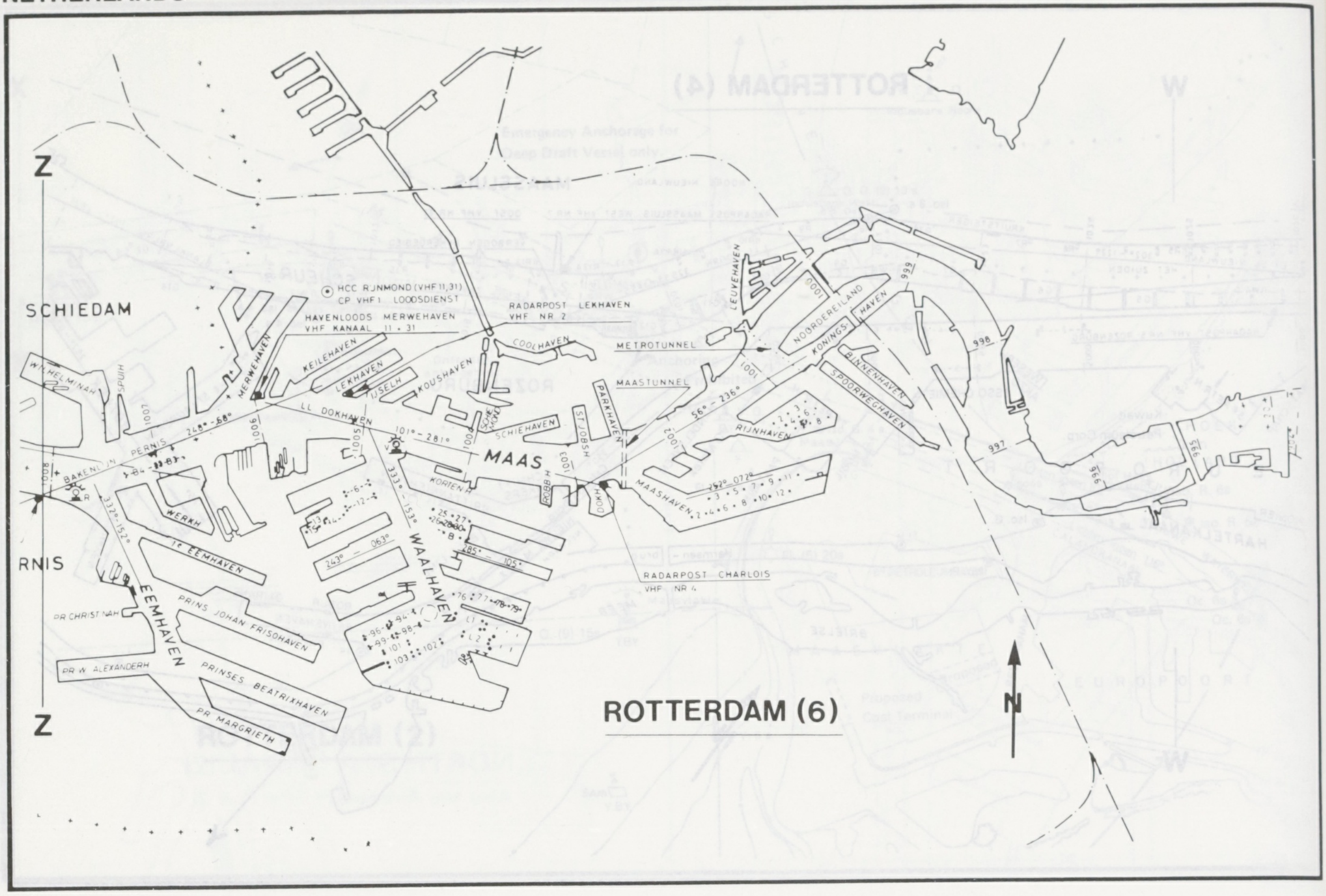


ROTTERDAM (3)

NOORDZEE
HOEK VAN HOLLAND
W
W
A
A
ISO 6 S
STEENOVENGAT
KABELGEBIED
LL DOORGRAVING
132° – 312°
ISO 6 S
R1
R2
R3
WATERWEG
EX LL NIEUWLAND
1027
1026
1025
1029
1028
1030
1031
W0
W1
G2
G3
LW4
06 S
Vr
SCHEURHAVEN
129° – 309°
KANAAL
RADARPOST
R
R0
Iso. 4 s.
Iso. 8 s.
RW 4
Oc. 10 s.
RW 2
Iso. 4 s.
Iso. 8 s.
Iso. 4 s.
B
NIEUWE
SPLITSINGSDAM
2V
ISO 4 S
CALAND
NOORDERDAM
MAAS 4
Iso. 8 s.
RW
Iso. 4 s.
Vr
MAAS 2
Iso. 4 s.
LICHTENLIJN 107°
LICHTENLIJN 112°
LICHTENLIJN 116°
Q(9) 15 s
ISO 4 S
Iso. G. 8 s.
MAAS 3
G
B1
Iso. 4 s.
132°
V. Q. (9) 10 s.
Oc. 10 s.
B3
Iso. 8 s.
Iso. G. 4 s.
MAAS 1
G
Fl. Y. 5 s.
MS
VG
ZUIDWAL
ZUIDERDAM
EDISON BAAI
MOT
8e PETROLEUMHAVEN
BEERKANAAL
Havenloodsen Europoort
ERTSKADE ELBEH
GEM UNIMILLS
DINTELHAVEN
BUNGE
BENELUXHAVEN
NSF
TFS
WV
4e PETRH
SHELL
MAATSCHAP
MAATSCHAP
5e PETR H
1000
2000
0000
1000
E U R
PIONIER
HARTELKAN
B.P.R.N.
6e PETR HAVEN
Suurhoff brug
Proposed Basin
Proposed Maasvlakte Coal Terminal
GEB
NGU
MISSISSIPPI HAVEN

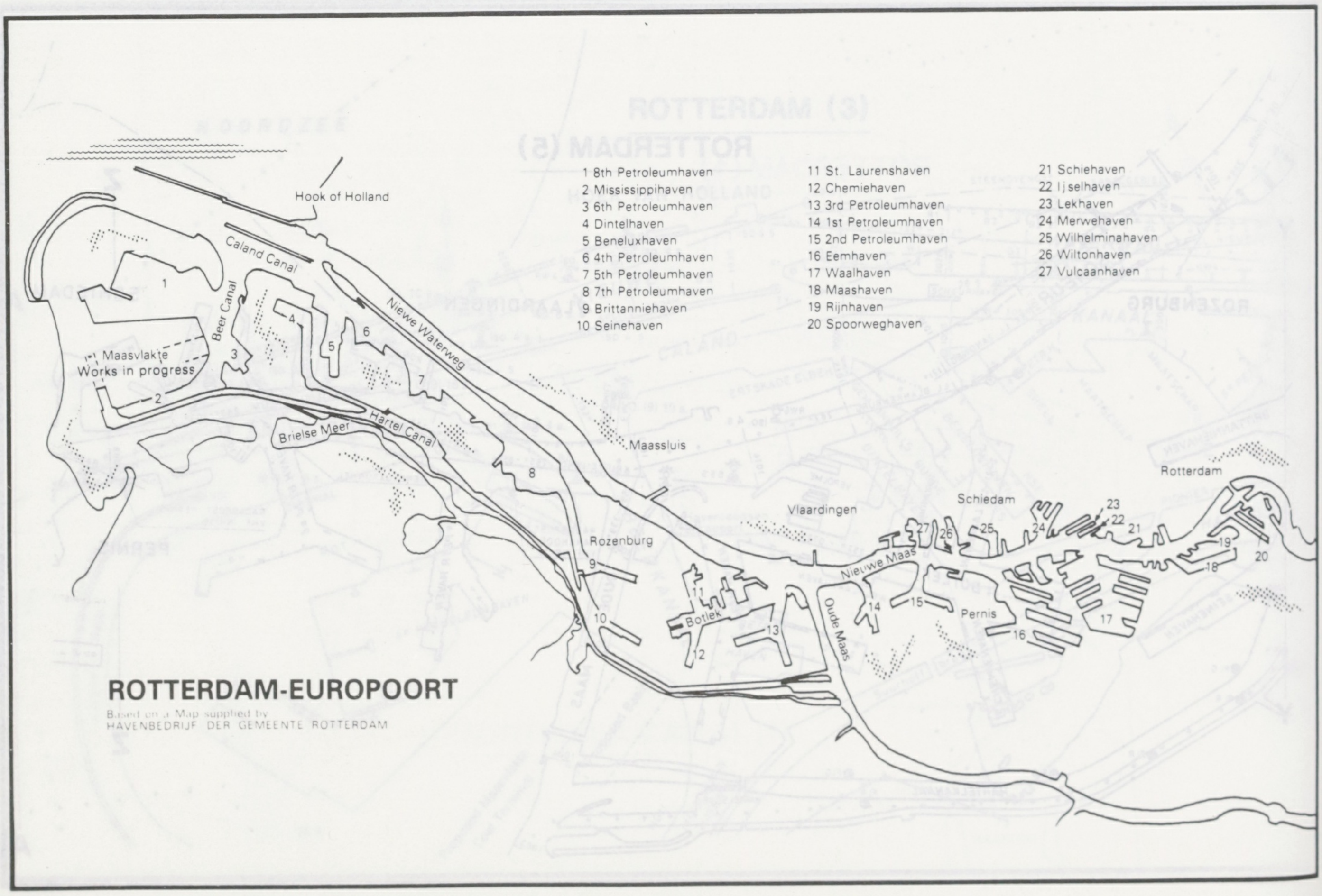

ROTTERDAM (4)
W
MAASSLUIS
NOORD NIEUWLAND
RADARPOST MAASSLUIS WEST VHF NR 7
OOST VHF NR 21
VERBODEN ANKERGEBIED
Iso. 8 s.
Iso. 8 s.
KRUITSTEIGER
EX LL NIEUWLAND
HET ZUIDEN
LL HOORN
ZANDWEG
SCHEUR
ROOILAND
Iso. 4 s.
Iso. 4 s.
LL BLANKENBURG
RADARPOST VHF NR 5 ROZENBURG
ROZENBURG
MOLEN VAN BLANKENBURG
5e PETR H
WESERH
AKZO
ESSO CHEMIE
Kuwait Petroleum Corp.
7e PETR H
MOBIL
PAKTANK
HANDELSVEEM
VO Matex
Caland
brug
SCHMITT ANKERS
BRITTANNIEHAVEN
NIEUWE MATEX
NECKARH
BELL LINE
ST LAURENSH
BOTLEK
CHEMIEHAVEN
E U R O P O O R T
GULF
PIONIER
HARTELKANAAL
Iso. G.
Iso. R.
Harmsen - brug
BRIELSE
MEER
Fl. G.
ROBUR
OXIRANE
SEINEHAVEN
CHEVRON
Y
Y
W


ROTTERDAM (5)
Y
Y
Z
Z
LL DE HOORN 325°
ROZENBURG
SCHEUR
EX LL ZANDWEG 121°
LL BLANKENBURG 282°
Iso. 4 s.
VLAARDINGEN
SCHIEDAM
KON WILHELMINAH
VULCAANH
WILTONHAVEN
WILHELMINAH
LICHTENLIJN 283° - 103°
NIEUWE
KRUITEILAND 265° - 85°
242° - 62°
BENELUXTUNNEL
BRITTANNIEHAVEN
ST LAURENSH
TORONTOH
VEROLME
BOTLEK
252° - 072°
WELPLAATHAVEN
CHEMIEHAVEN
SEINEHAVEN
3e PETR HAVEN
RADARPOST TANKHOOFD VHF NR 22
OUDE MAAS
1e PETR HAVEN
2e PETR HAVEN
RADARPOST PERNIS VHF NR 19
PERNIS
HARTELKANAAL
HARTELSLUIS



ROTTERDAM (6)

SCHIEDAM
RNIS
Z
Z
N
HCC RIJNMOND (VHF 11, 31)
CP VHF 1 LOODSDIENST
HAVENLOODS MERWEHAVEN
VHF KANAAL 11 • 31
RADARPOST LEKHAVEN
VHF NR 2
RADARPOST CHARLOIS
VHF NR 4
METROTUNNEL
MAASTUNNEL
MAAS
WILHELMINAH
MERWEHAVEN
KEILEHAVEN
LEKHAVEN
IJSELH
KOUSHAVEN
COOLHAVEN
LL DOKHAVEN
SCHIEHAVEN
ST JOBSH
PARKHAVEN
LEUVEHAVEN
NOORDEREILAND
KONINGSHAVEN
BINNENHAVEN
SPOORWEGHAVEN
RIJNHAVEN
MAASHAVEN
WAALHAVEN
EEMHAVEN
1e EEMHAVEN
WERKH
PRINS JOHAN FRISOHAVEN
PRINSES BEATRIXHAVEN
PR MARGRIETH
PR CHRISTINAH
PR W. ALEXANDERH
BAKENL IN PERNIS
248° – 68°
101° – 281°
333° – 153°
56° – 236°
252° – 072°
243° – 063°
285° – 105°
332° – 152°
999
998
997
996
1000
1001
1002
1003
1005
1006
1007



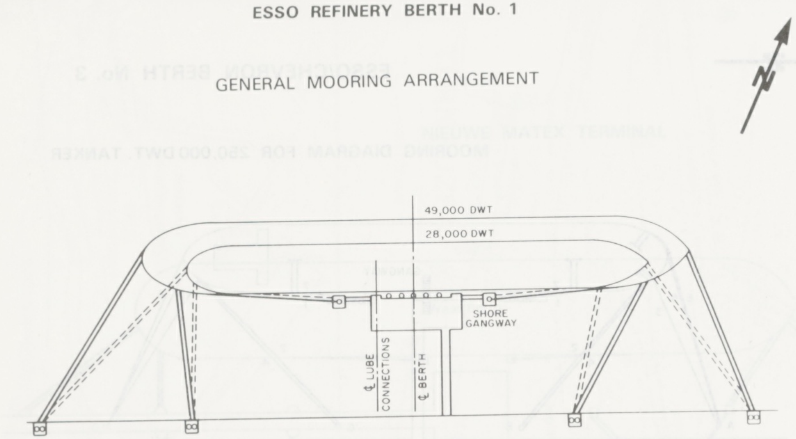
ROTTERDAM-EUROPOORT

Based on a Map supplied by
HAVENBEDRIJF DER GEMEENTE ROTTERDAM

1 8th Petroleumhaven
2 Mississippihaven
3 6th Petroleumhaven
4 Dintelhaven
5 Beneluxhaven
6 4th Petroleumhaven
7 5th Petroleumhaven
8 7th Petroleumhaven
9 Brittanniehaven
10 Seinehaven
11 St. Laurenshaven
12 Chemiehaven
13 3rd Petroleumhaven
14 1st Petroleumhaven
15 2nd Petroleumhaven
16 Eemhaven
17 Waalhaven
18 Maashaven
19 Rijnhaven
20 Spoorweghaven
21 Schiehaven
22 Ijselhaven
23 Lekhaven
24 Merwehaven
25 Wilhelminahaven
26 Wiltonhaven
27 Vulcaanhaven
Hook of Holland
Caland Canal
Beer Canal
Niewe Waterweg
Maasvlakte
Works in progress
Brielse Meer
Hartel Canal
Maassluis
Rozenburg
Botlek
Vlaardingen
Schiedam
Nieuwe Maas
Oude Maas
Pernis
Rotterdam

ESSO REFINERY BERTH No. 1

GENERAL MOORING ARRANGEMENT

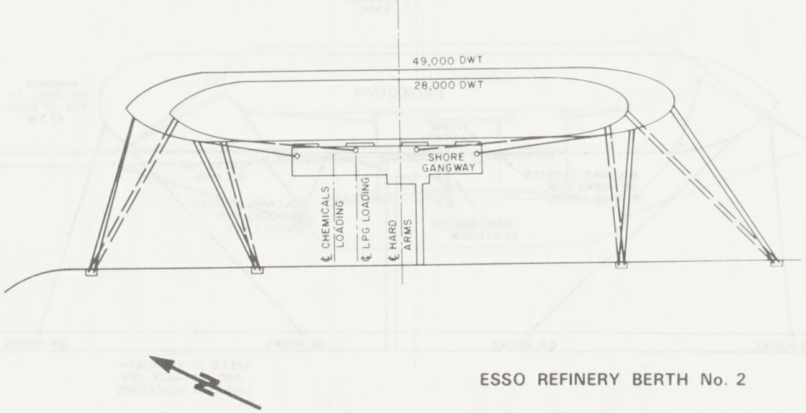


49,000 DWT
28,000 DWT
SHORE GANGWAY
℄ LUBE CONNECTIONS
℄ BERTH

ROTTERDAM

BOTLEK

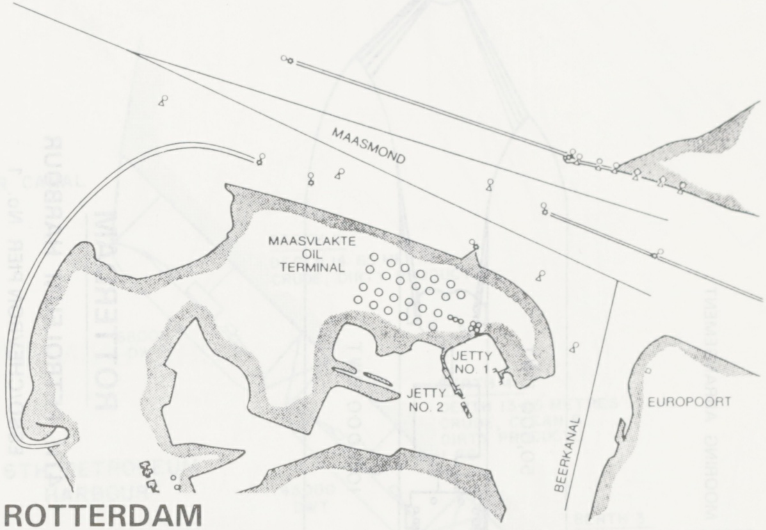
3RD. PETROLEUM HARBOUR



49,000 DWT
28,000 DWT
SHORE GANGWAY
℄ CHEMICALS LOADING
℄ LPG LOADING
℄ HARD ARMS

ESSO REFINERY BERTH No. 2

GENERAL MOORING ARRANGEMENT

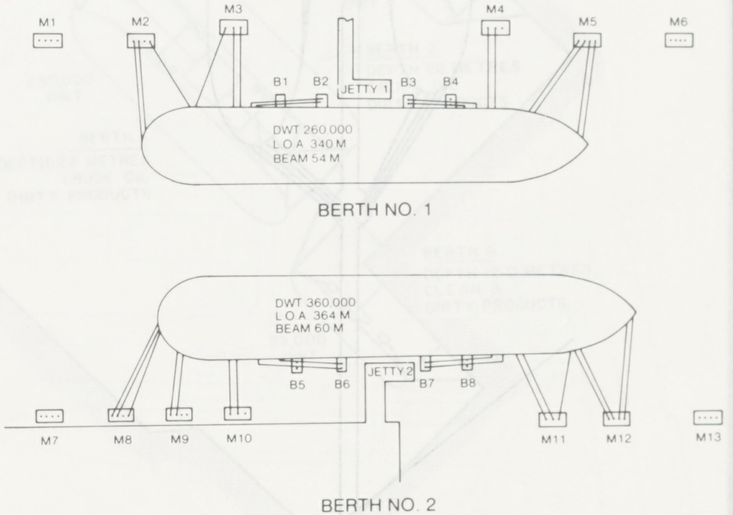


MAASMOND
MAASVLAKTE OIL TERMINAL
JETTY NO. 1
JETTY NO. 2
BEERKANAL
EUROPOORT

ROTTERDAM

MAASVLAKTE OIL TERMINAL

MOORING PLANS



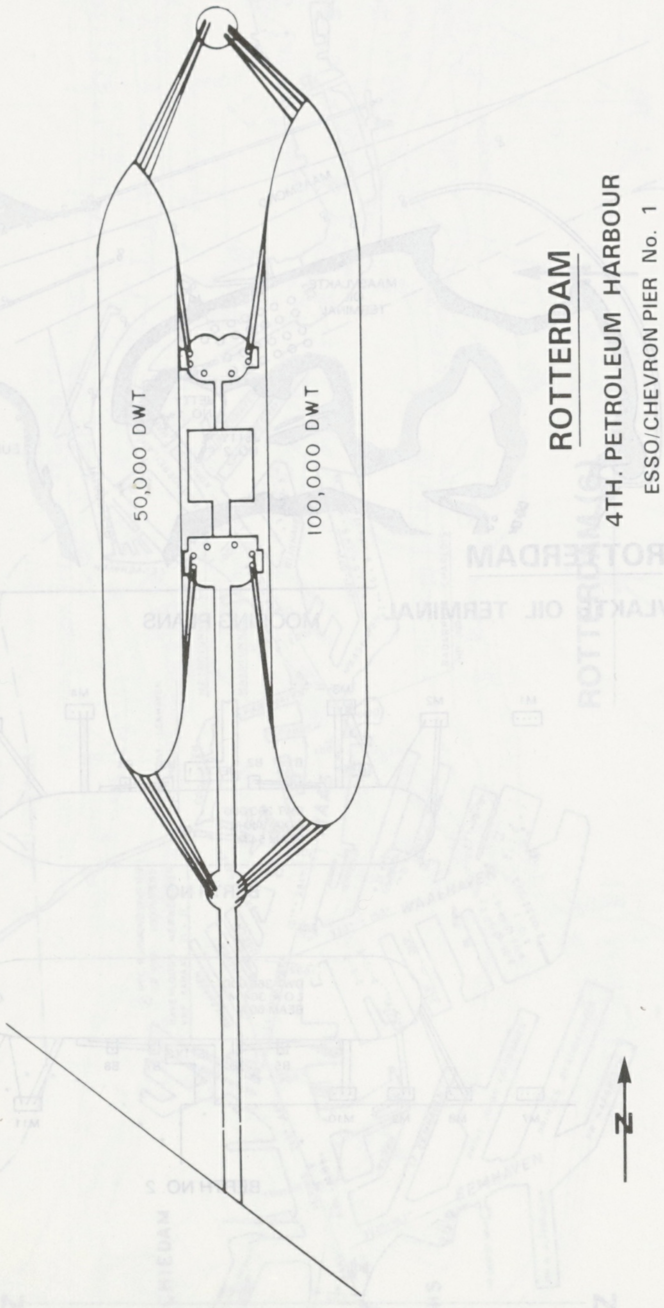
M1
M2
M3
M4
M5
M6
B1
B2
JETTY 1
B3
B4
DWT 260,000
L.O.A. 340 M
BEAM 54 M
BERTH NO. 1
DWT 360,000
L.O.A. 364 M
BEAM 60 M
JETTY 2
B5
B6
B7
B8
N
M7
M8
M9
M10
M11
M12
M13
BERTH NO. 2

ROTTERDAM

4TH. PETROLEUM HARBOUR

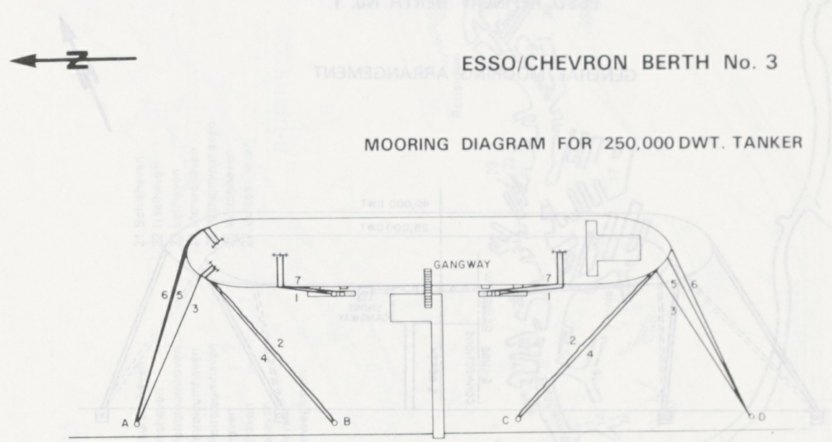
ESSO/CHEVRON PIER No. 1

GENERAL MOORING ARRANGEMENT

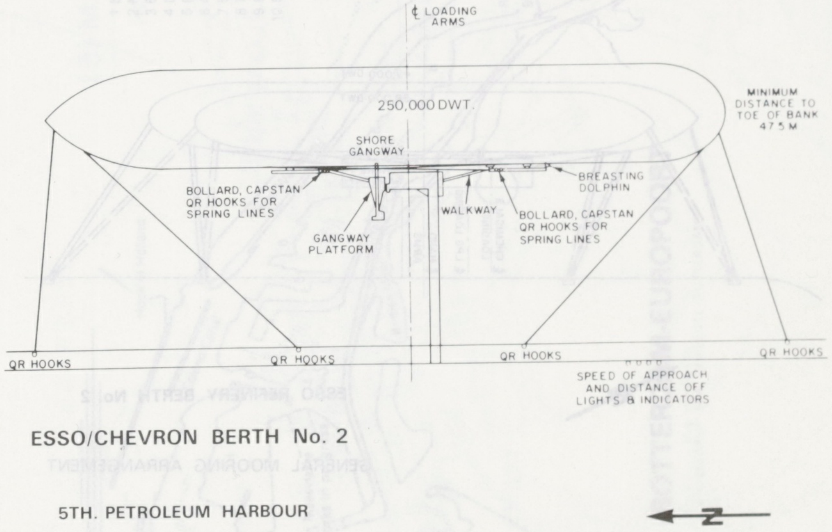

50,000 DWT
100,000 DWT
N

ESSO/CHEVRON BERTH No. 3

MOORING DIAGRAM FOR 250,000 DWT. TANKER


N
GANGWAY
7
1
6
5
3
2
4
A
B
C
D

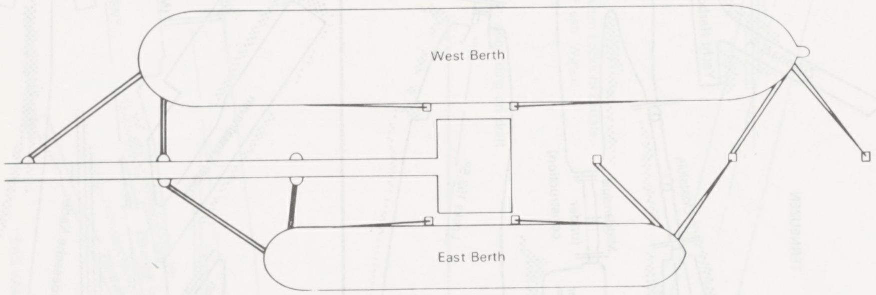
ROTTERDAM


℄ LOADING ARMS
250,000 DWT.
MINIMUM DISTANCE TO TOE OF BANK 47.5 M
SHORE GANGWAY
BOLLARD, CAPSTAN QR HOOKS FOR SPRING LINES
BREASTING DOLPHIN
WALKWAY
BOLLARD, CAPSTAN QR HOOKS FOR SPRING LINES
GANGWAY PLATFORM
QR HOOKS
QR HOOKS
QR HOOKS
QR HOOKS
SPEED OF APPROACH AND DISTANCE OFF LIGHTS & INDICATORS
N

ESSO/CHEVRON BERTH No. 2

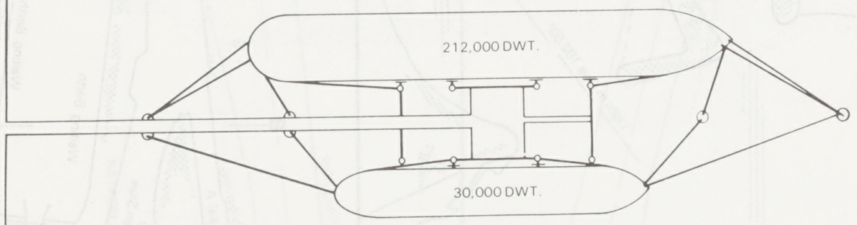
5TH. PETROLEUM HARBOUR

NIEUWE MATEX TERMINAL


West Berth
East Berth

ROTTERDAM

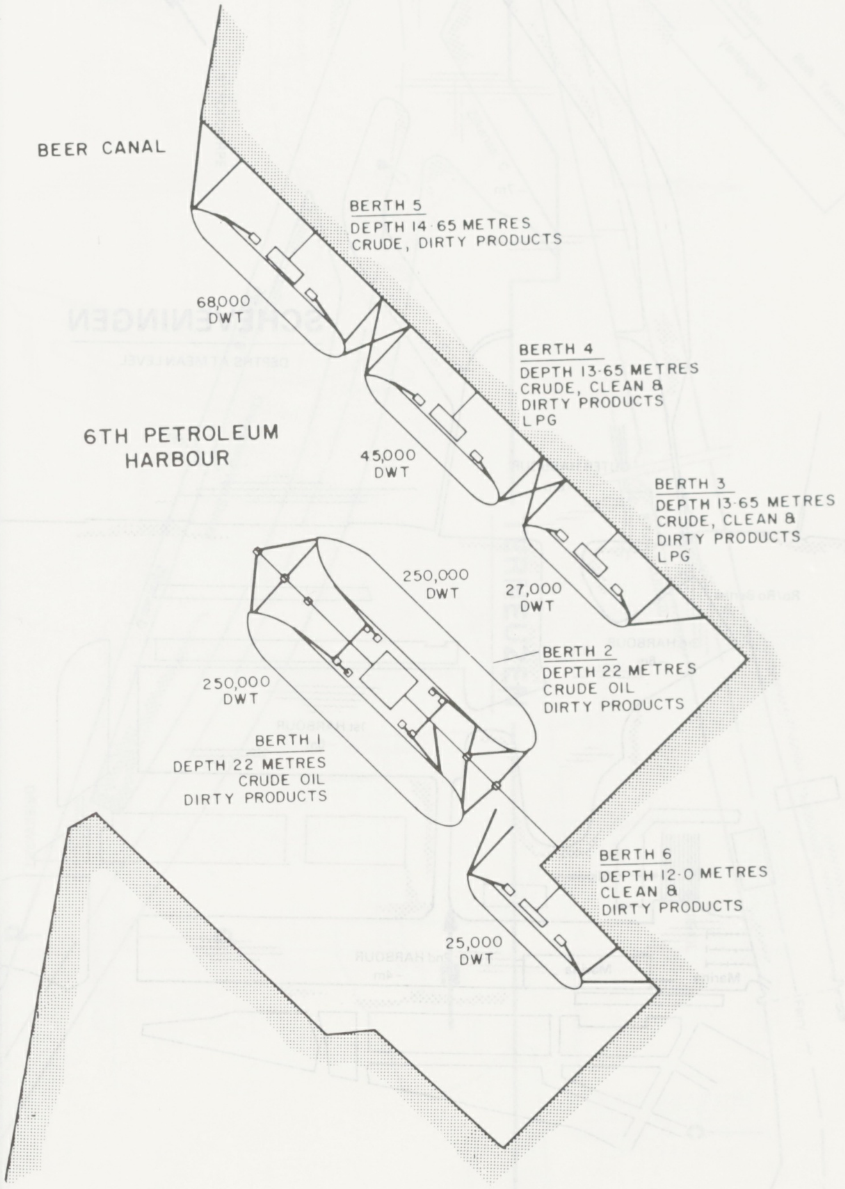
7TH. PETROLEUM HARBOUR

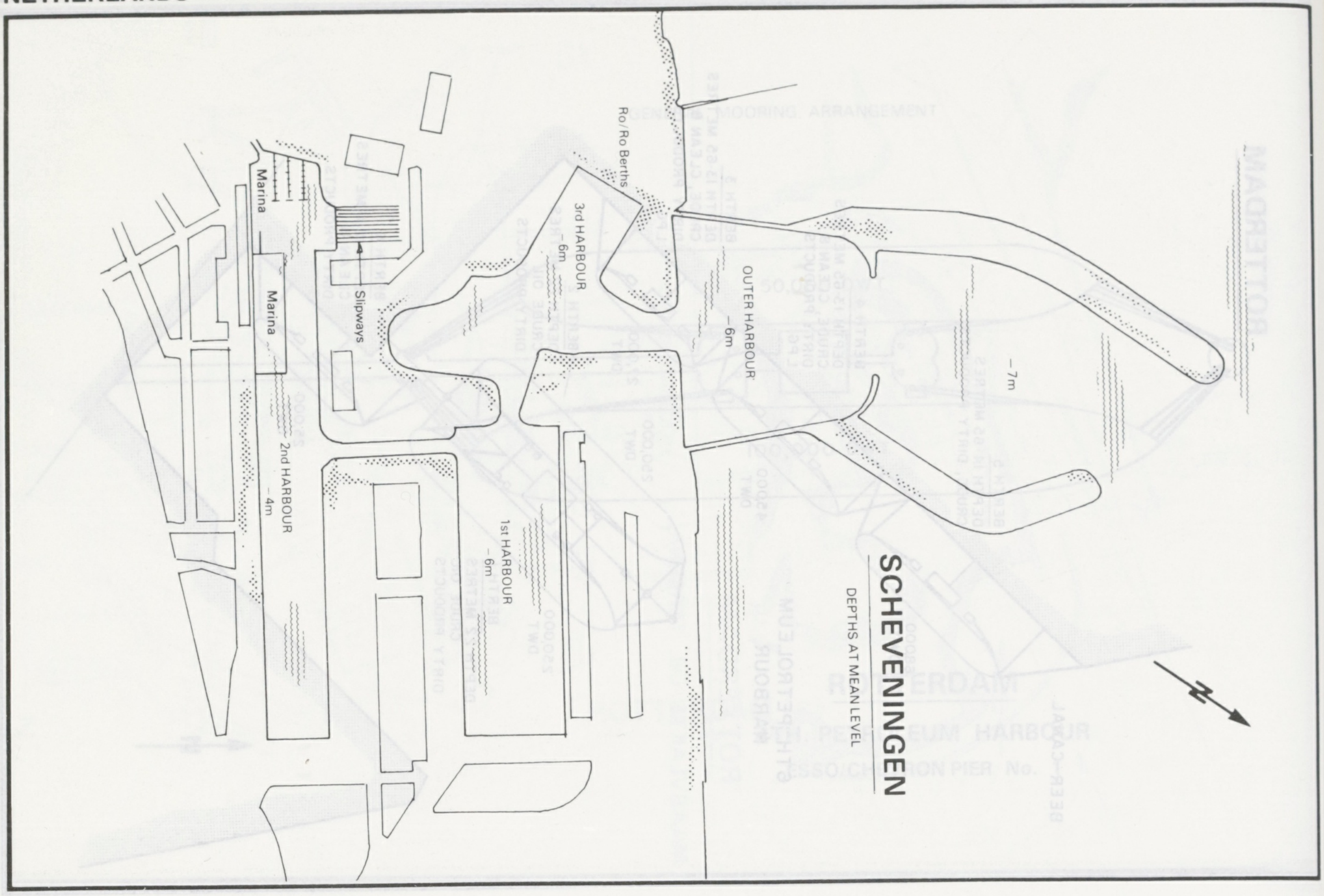

212,000 DWT.
30,000 DWT.

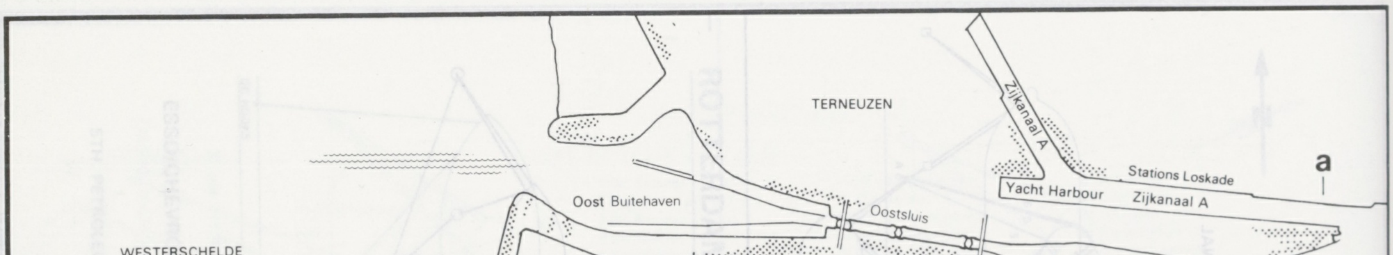
MOBIL/FINA/GELSENBERG TERMINAL

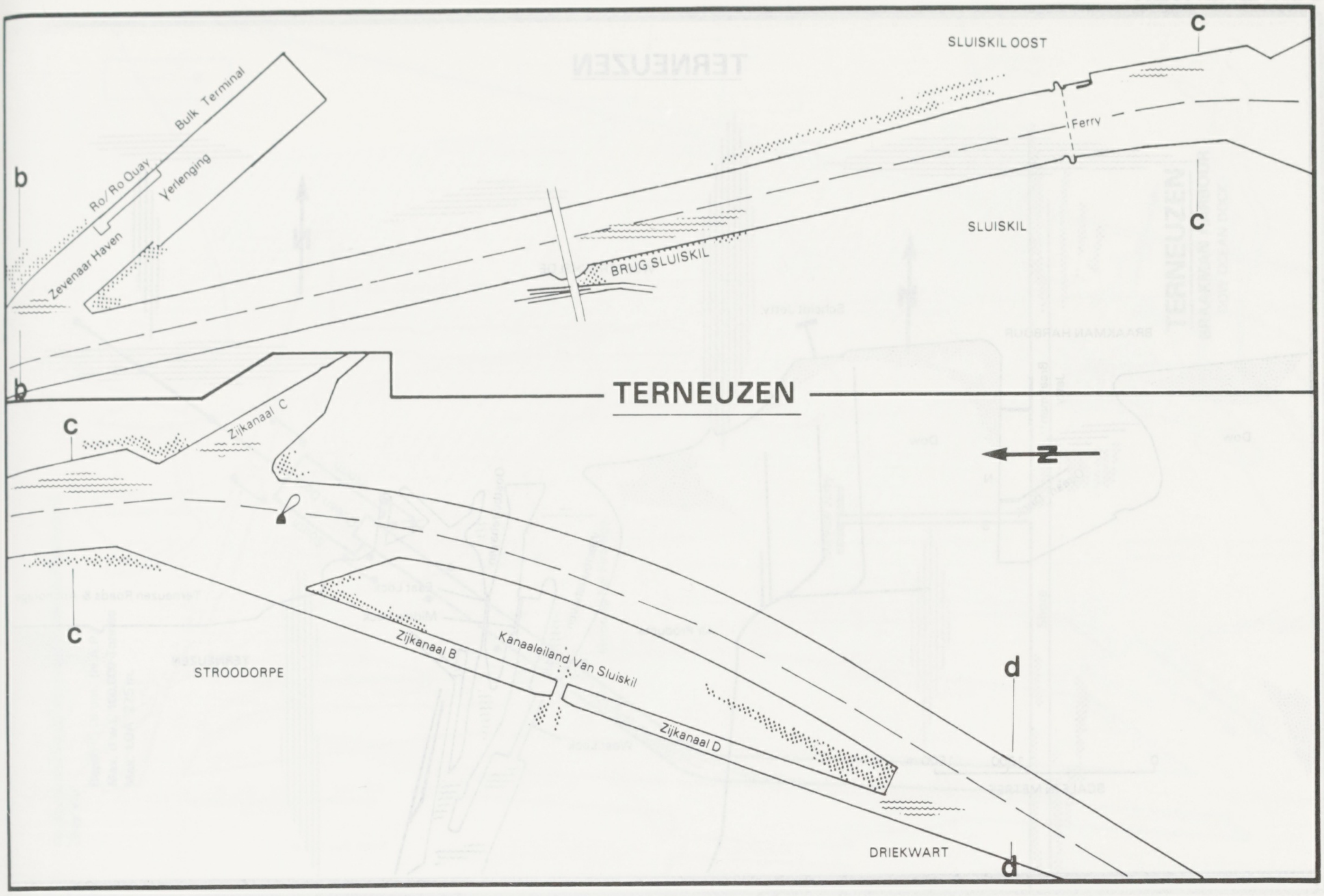
GENERAL MOORING ARRANGEMENTS

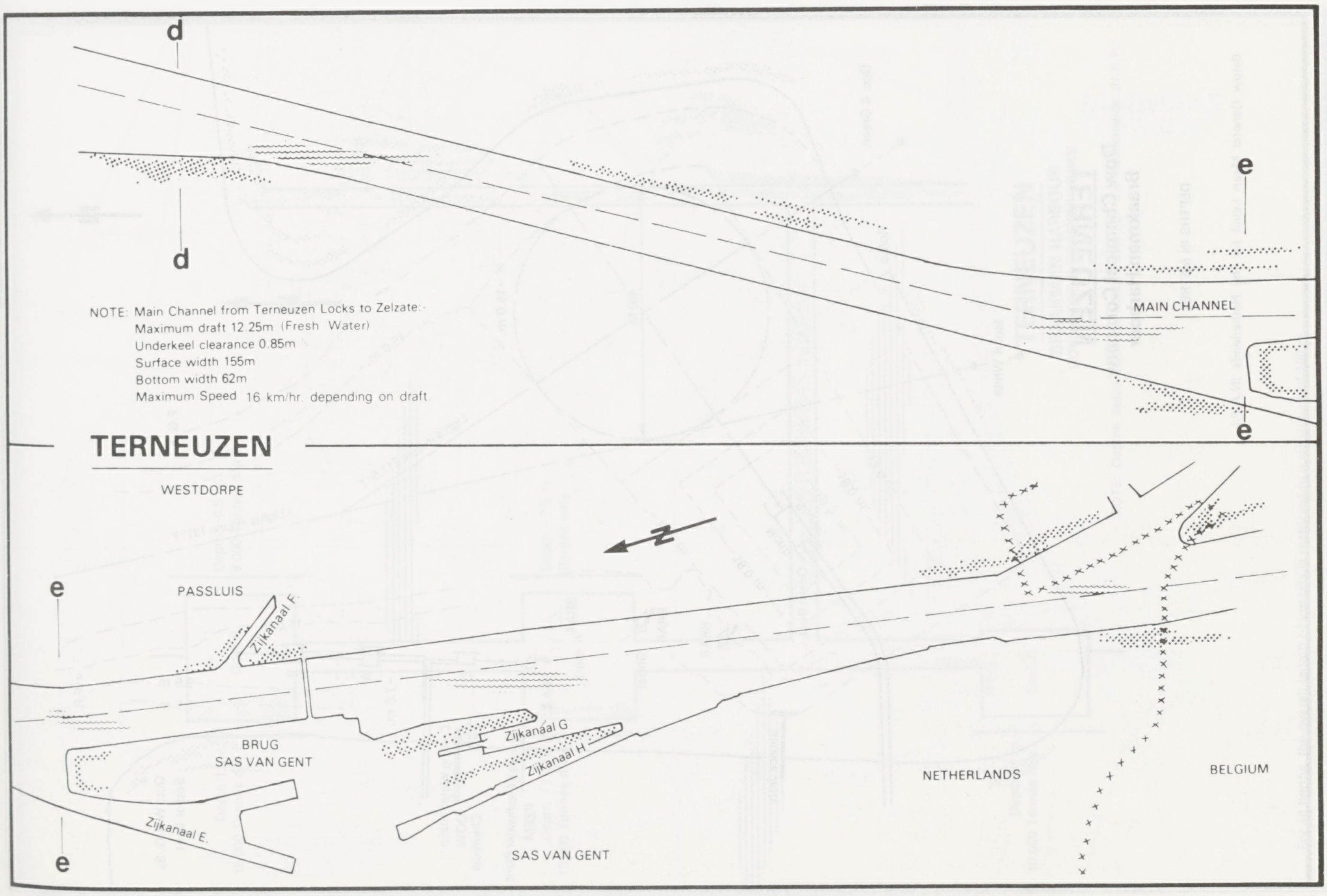
ROTTERDAM


BEER CANAL
6TH PETROLEUM HARBOUR
BERTH 5
DEPTH 14·65 METRES
CRUDE, DIRTY PRODUCTS
68,000 DWT
BERTH 4
DEPTH 13·65 METRES
CRUDE, CLEAN &
DIRTY PRODUCTS
LPG
45,000 DWT
BERTH 3
DEPTH 13·65 METRES
CRUDE, CLEAN &
DIRTY PRODUCTS
LPG
250,000 DWT
27,000 DWT
BERTH 2
DEPTH 22 METRES
CRUDE OIL
DIRTY PRODUCTS
250,000 DWT
BERTH 1
DEPTH 22 METRES
CRUDE OIL
DIRTY PRODUCTS
BERTH 6
DEPTH 12·0 METRES
CLEAN &
DIRTY PRODUCTS
25,000 DWT

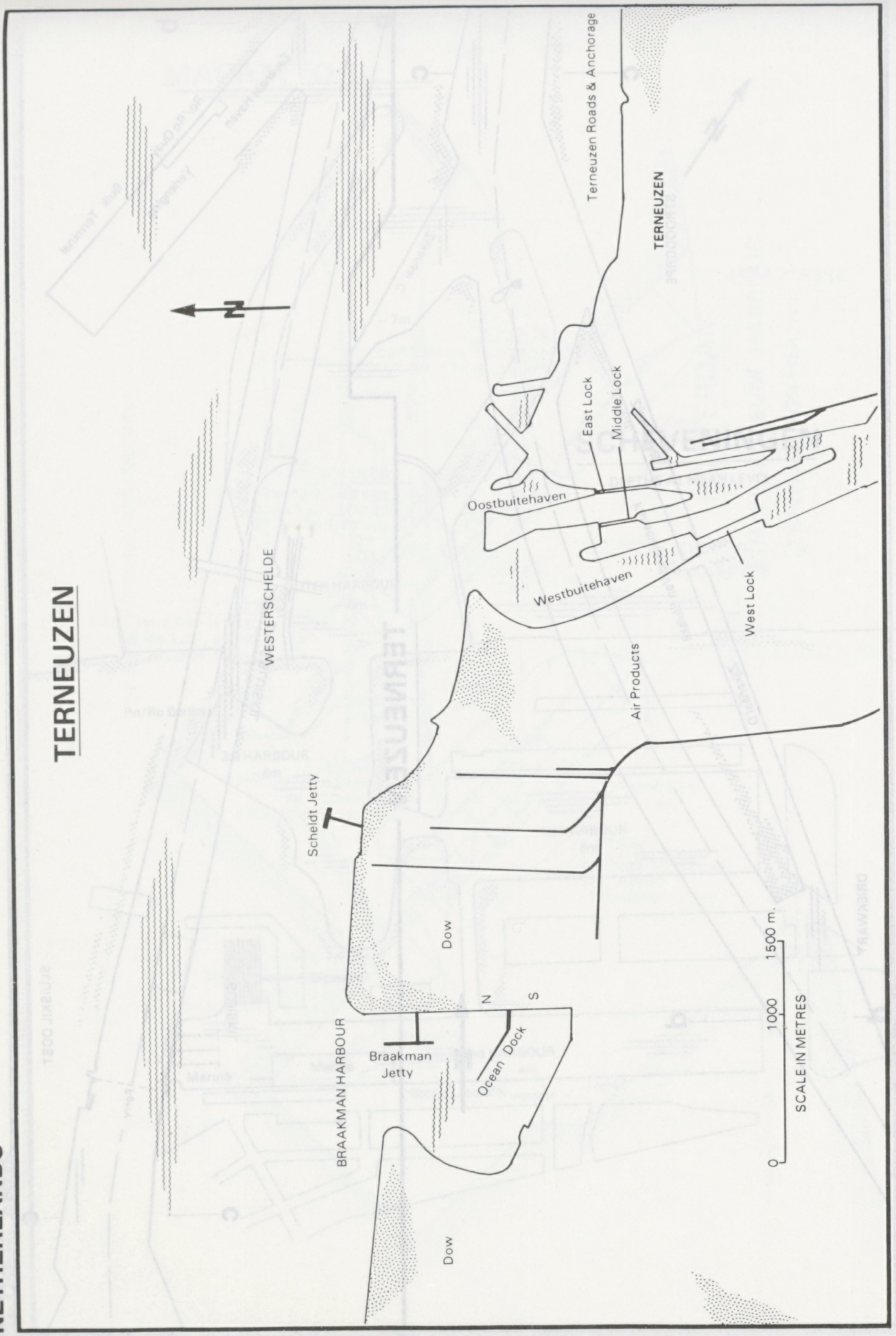

SCHEVENINGEN
DEPTHS AT MEAN LEVEL
Ro/Ro Berths
3rd HARBOUR
6m
OUTER HARBOUR
–6m
–7m
1st HARBOUR
–6m
2nd HARBOUR
–4m
Marina
Marina
Slipways

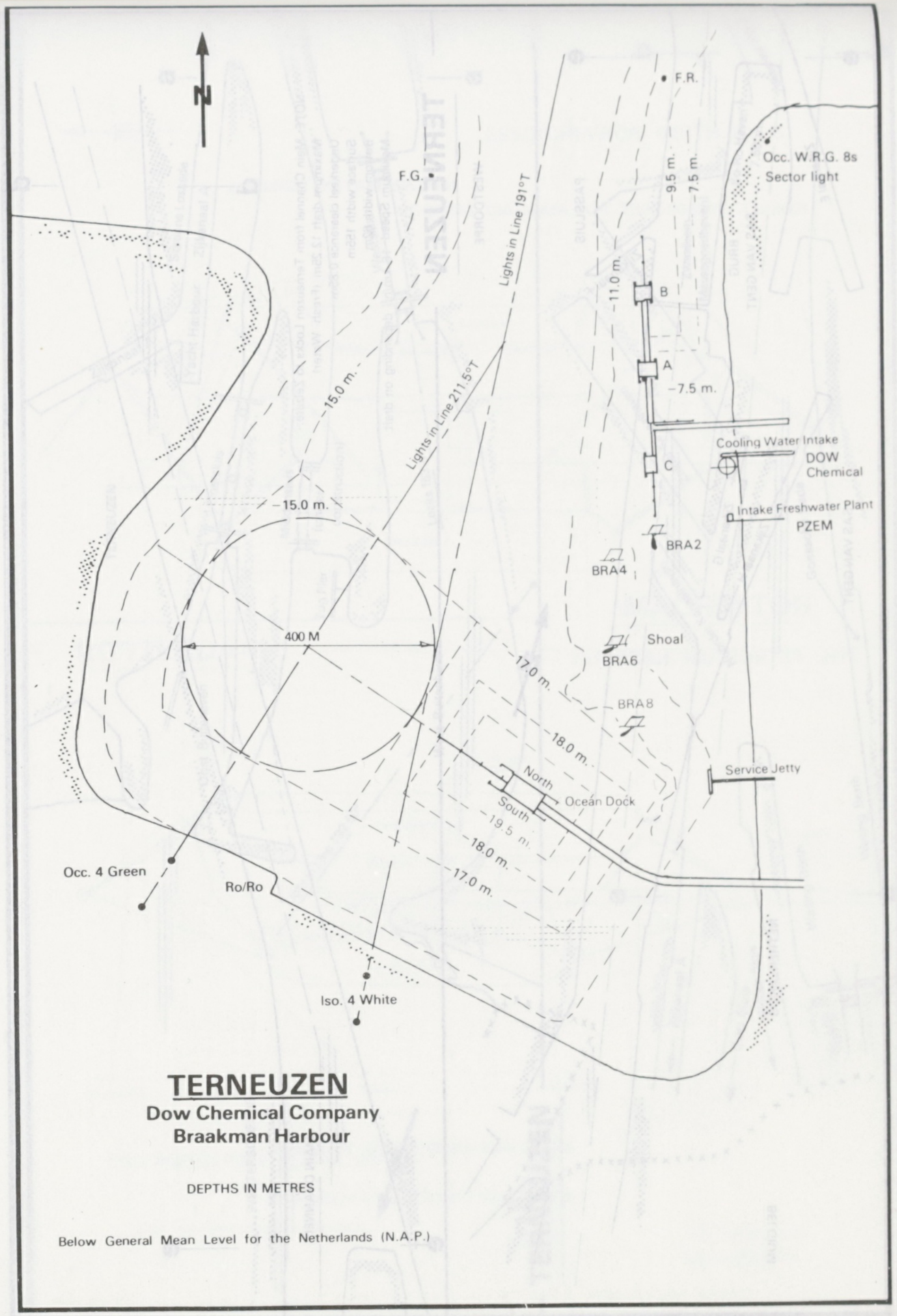

TERNEUZEN
TERNEUZEN
WESTERSCHELDE
Zijkanaal A
Stations Loskade
Yacht Harbour
Zijkanaal A
a
a
Oost Buitehaven
Oostsluis
Middensluis
(under construction)
Tug Pier
Light In Line 192.50°
Westsluis
Locks 153.5°
West Buitenhaven
a
a
b
b
Zijkanaal A
Oost Sluis
Midden Sluis
Noorder Kanaalhaven
Zuider Kanaalhaven
Zwaaikom
(Massagoedhaven)
Ro-Ro Haven
7.50 m.
Zevenaar Haven
Waiting Berth
Goessche Kade
Waiting Berth


c
SLUISKIL OOST
Ferry
b
Bulk Terminal
Ro/Ro Quay
Verlenging
Zevenaar Haven
BRUG SLUISKIL
SLUISKIL
c
b
TERNEUZEN
c
Zijkanaal C
N
c
STROODORPE
Zijkanaal B
Kanaaleiland Van Sluiskil
Zijkanaal D
d
DRIEKWART
d


d
d
e
MAIN CHANNEL
e
TERNEUZEN
WESTDORPE
N
e
PASSLUIS
Zijkanaal F
BRUG
SAS VAN GENT
Zijkanaal G
Zijkanaal H
Zijkanaal E
e
SAS VAN GENT
NETHERLANDS
BELGIUM

NOTE: Main Channel from Terneuzen Locks to Zelzate:-
Maximum draft 12.25m (Fresh Water)
Underkeel clearance 0.85m
Surface width 155m
Bottom width 62m
Maximum Speed 16 km/hr. depending on draft.

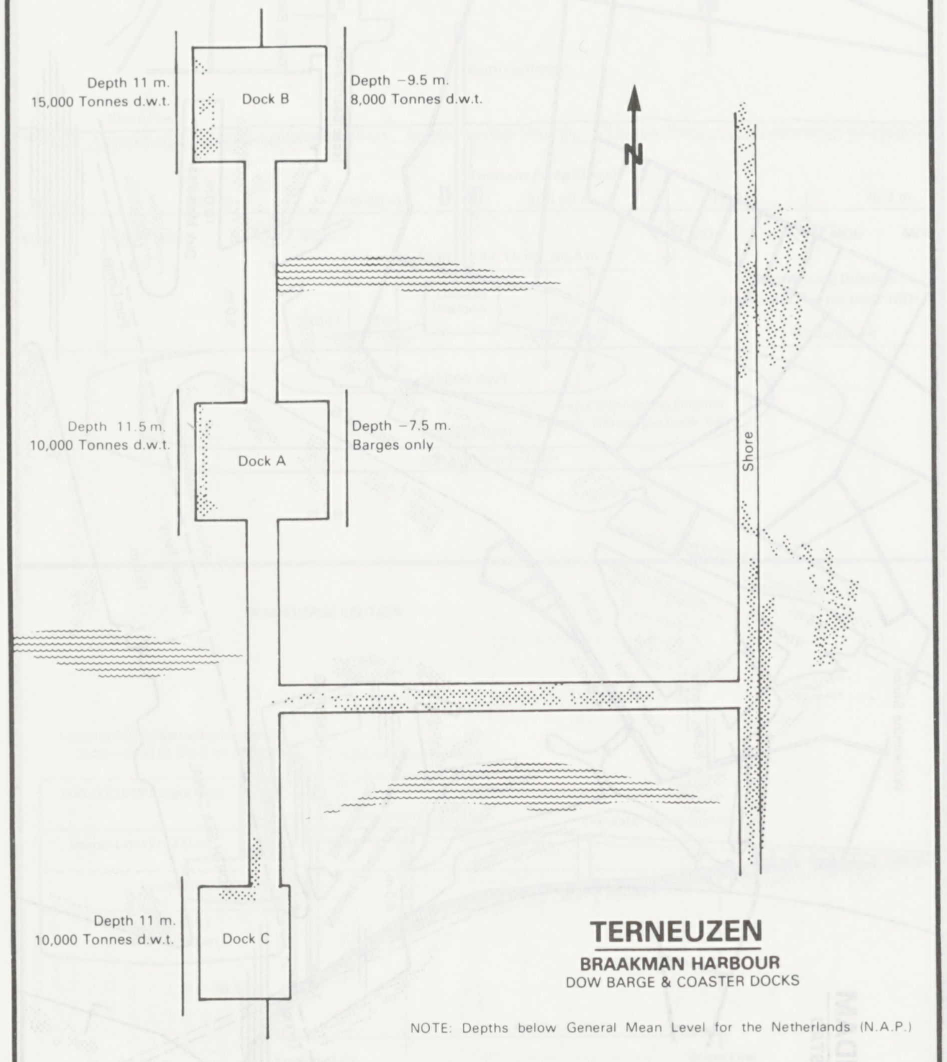

TERNEUZEN
Terneuzen Roads & Anchorage
TERNEUZEN
N
East Lock
Middle Lock
Oostbuitehaven
Westbuitehaven
West Lock
WESTERSCHELDE
Air Products
Scheldt Jetty
Dow
N
S
Ocean Dock
Braakman Jetty
BRAAKMAN HARBOUR
Dow
0
1000
1500 m.
SCALE IN METRES


N
F.R.
Occ. W.R.G. 8s
Sector light
F.G.
-9.5 m.
-7.5 m.
Lights in Line 191°T
-11.0 m.
B
A
-7.5 m.
C
Cooling Water Intake
DOW
Chemical
Intake Freshwater Plant
PZEM
BRA2
BRA4
-15.0 m.
Lights in Line 211.5°T
-15.0 m.
400 M
Shoal
BRA6
BRA8
17.0 m.
18.0 m.
North
Ocean Dock
South
19.5 m.
18.0 m.
17.0 m.
Service Jetty
Occ. 4 Green
Ro/Ro
Iso. 4 White

TERNEUZEN
Dow Chemical Company
Braakman Harbour

DEPTHS IN METRES

Below General Mean Level for the Netherlands (N.A.P.)


Depth 11 m.
15,000 Tonnes d.w.t.
Dock B
Depth −9.5 m.
8,000 Tonnes d.w.t.
N
Shore
Depth 11.5 m.
10,000 Tonnes d.w.t.
Dock A
Depth −7.5 m.
Barges only
Depth 11 m.
10,000 Tonnes d.w.t.
Dock C

TERNEUZEN

BRAAKMAN HARBOUR

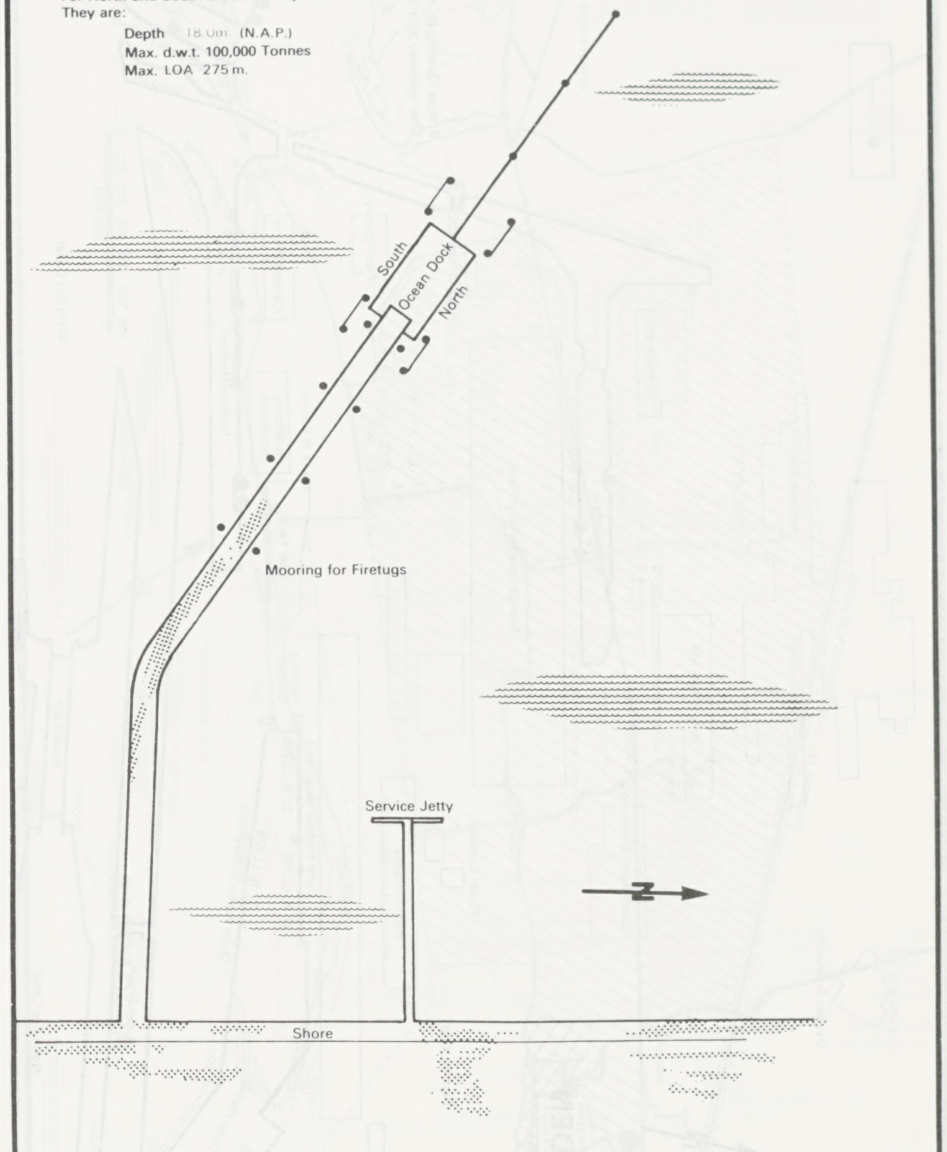
DOW BARGE & COASTER DOCKS

NOTE: Depths below General Mean Level for the Netherlands (N.A.P.)

For all berths, the overall length of vessels is restricted to a maximum of 140 m.

For North and South the same depths and restrictions.
They are:

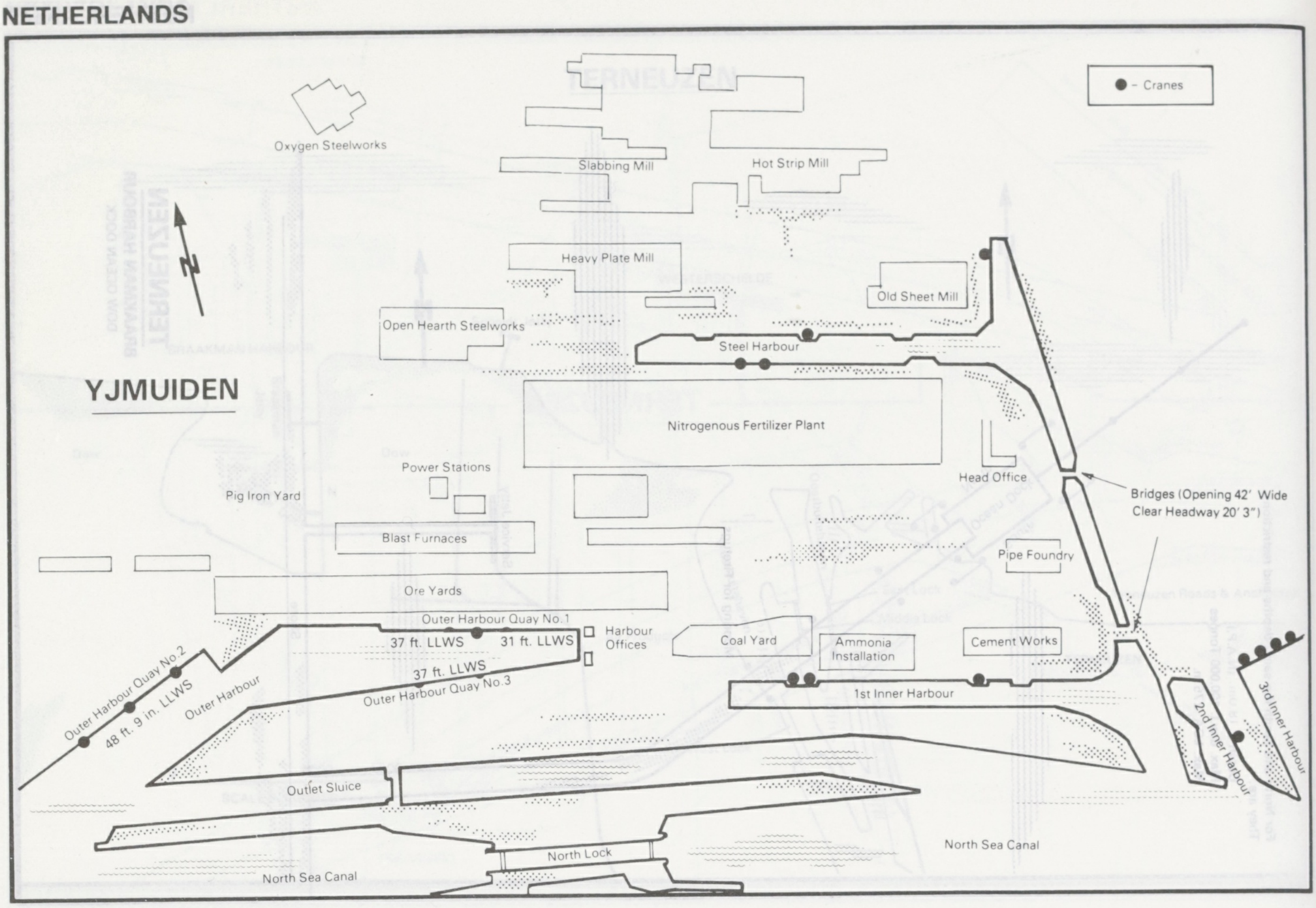
Depth 18.0m. (N.A.P.)
Max. d.w.t. 100,000 Tonnes
Max. LOA 275 m.

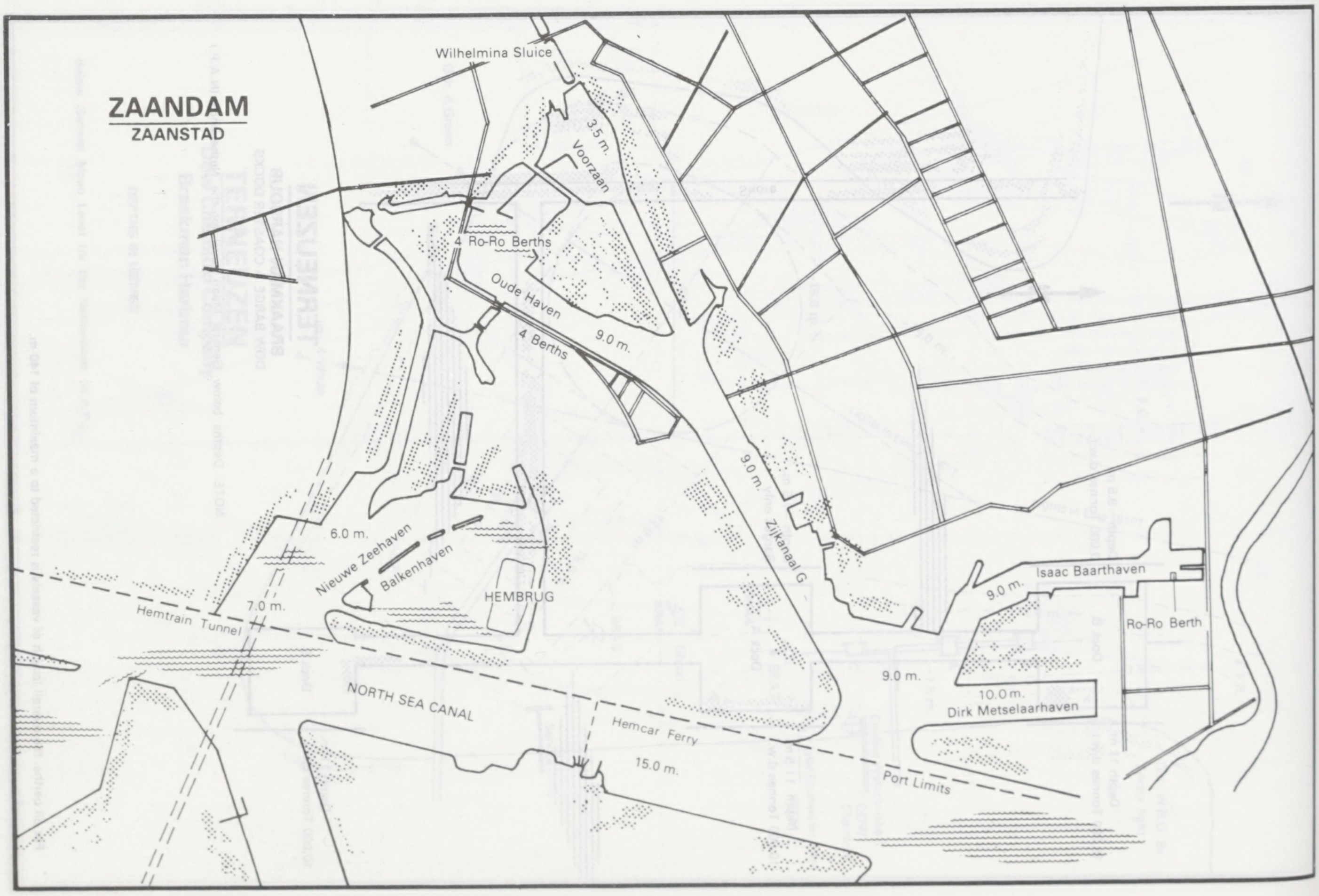

South
Ocean Dock
North
Mooring for Firetugs
Service Jetty
N
Shore

TERNEUZEN

BRAAKMAN HARBOUR

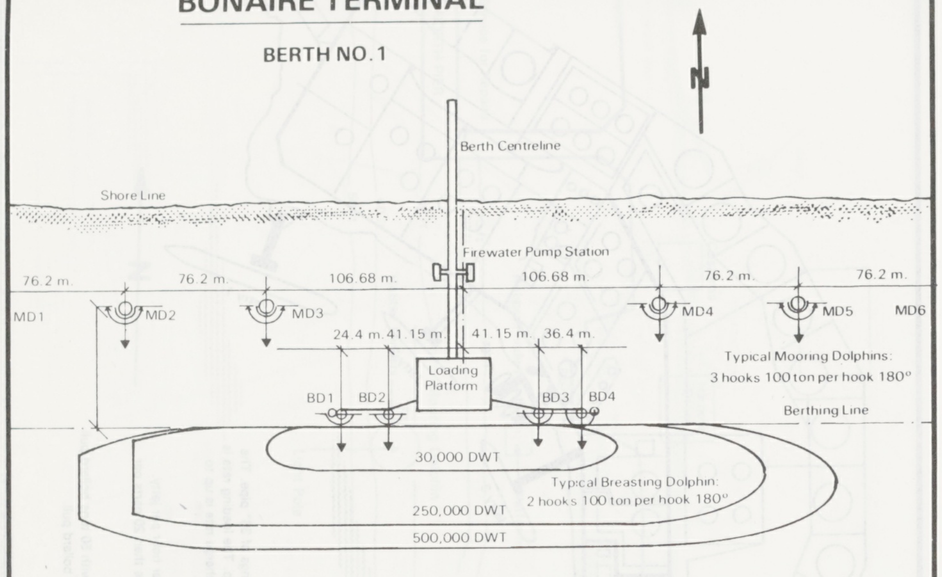
DOW OCEAN DOCK


● - Cranes
Oxygen Steelworks
Slabbing Mill
Hot Strip Mill
N
Heavy Plate Mill
Old Sheet Mill
Open Hearth Steelworks
Steel Harbour
YJMUIDEN
Nitrogenous Fertilizer Plant
Power Stations
Head Office
Pig Iron Yard
Bridges (Opening 42' Wide Clear Headway 20' 3")
Blast Furnaces
Pipe Foundry
Ore Yards
Outer Harbour Quay No.1
Harbour Offices
37 ft. LLWS
31 ft. LLWS
Coal Yard
Ammonia Installation
Cement Works
Outer Harbour Quay No.2
48 ft. 9 in. LLWS
Outer Harbour
37 ft. LLWS
Outer Harbour Quay No.3
1st Inner Harbour
2nd Inner Harbour
3rd Inner Harbour
Outlet Sluice
North Lock
North Sea Canal
North Sea Canal


Wilhelmina Sluice
ZAANDAM
ZAANSTAD
3.5 m.
Voorzaan
4 Ro-Ro Berths
Oude Haven
4 Berths
9.0 m.
9.0 m.
Zijkanaal G
6.0 m.
Nieuwe Zeehaven
Balkenhaven
HEMBRUG
7.0 m.
Hemtrain Tunnel
Isaac Baarthaven
9.0 m.
Ro-Ro Berth
9.0 m.
10.0 m.
Dirk Metselaarhaven
NORTH SEA CANAL
Hemcar Ferry
15.0 m.
Port Limits

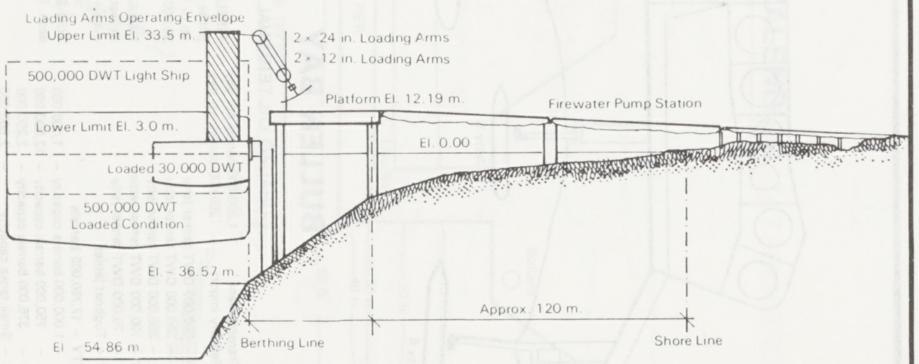
BONAIRE TERMINAL

BERTH NO.1

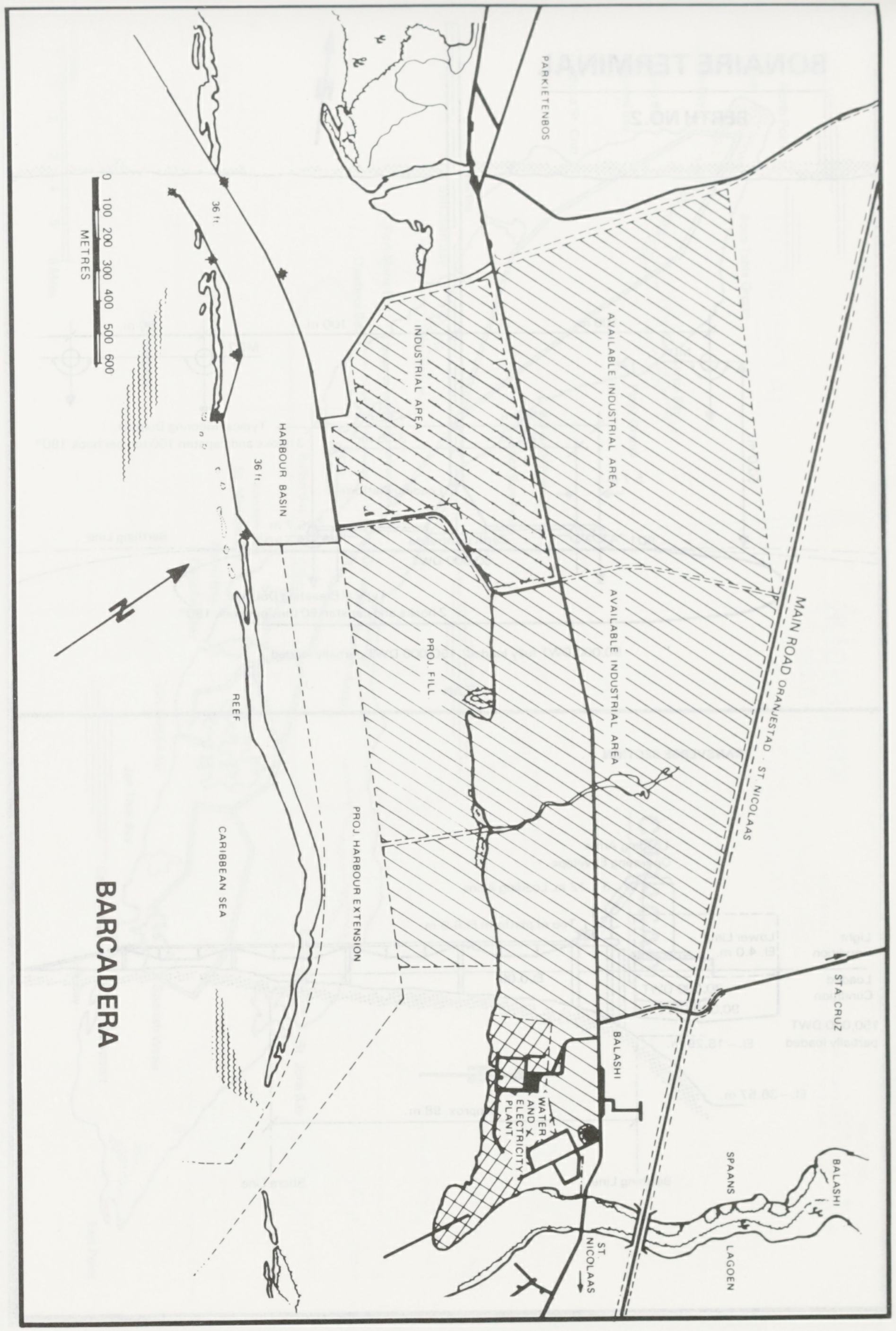

N
Berth Centreline
Shore Line
Firewater Pump Station
76.2 m.
76.2 m.
106.68 m.
106.68 m.
76.2 m.
76.2 m.
MD1
MD2
MD3
MD4
MD5
MD6
24.4 m.
41.15 m.
41.15 m.
36.4 m.
Loading Platform
Typical Mooring Dolphins:
3 hooks 100 ton per hook 180°
BD1
BD2
BD3
BD4
Berthing Line
30,000 DWT
Typical Breasting Dolphin:
2 hooks 100 ton per hook 180°
250,000 DWT
500,000 DWT

PLAN

TRANSVERSE SECTION

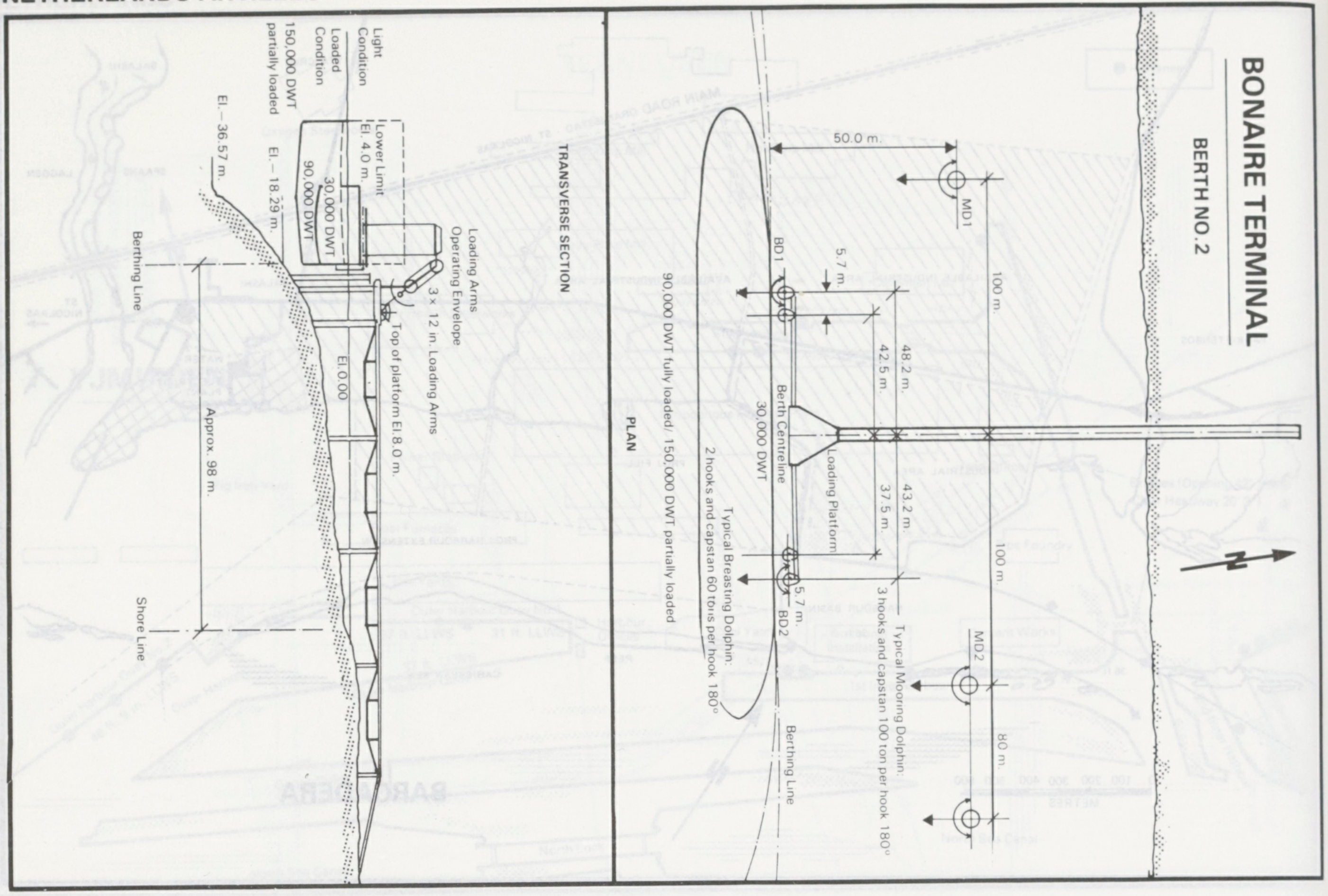

Loading Arms Operating Envelope
Upper Limit El. 33.5 m.
2 × 24 in. Loading Arms
2 × 12 in. Loading Arms
500,000 DWT Light Ship
Platform El. 12.19 m.
Firewater Pump Station
Lower Limit El. 3.0 m.
El. 0.00
Loaded 30,000 DWT
500,000 DWT
Loaded Condition
El. – 36.57 m.
Approx. 120 m.
El. – 54.86 m.
Berthing Line
Shore Line

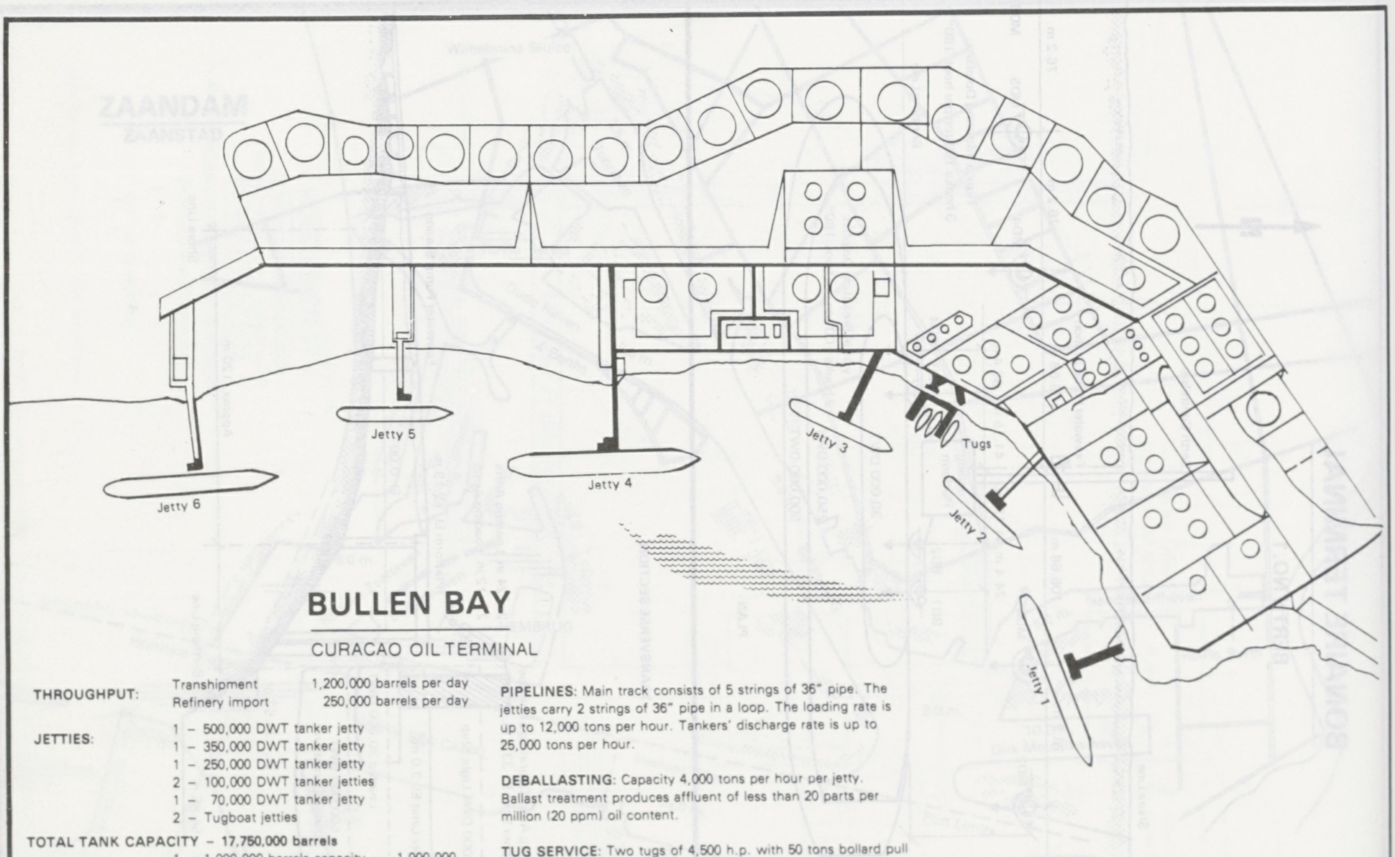
BARCADERA


PARKIETENBOS
0 100 200 300 400 500 600
METRES
36 ft
HARBOUR BASIN
36 ft
N
INDUSTRIAL AREA
AVAILABLE INDUSTRIAL AREA
AVAILABLE INDUSTRIAL AREA
PROJ. FILL
REEF
CARIBBEAN SEA
PROJ. HARBOUR EXTENSION
MAIN ROAD ORANJESTAD - ST. NICOLAAS
STA CRUZ
BALASHI
WATER AND ELECTRICITY PLANT
SPANS
LAGOEN
BALASHI
ST. NICOLAAS

BONAIRE TERMINAL

BERTH NO.2


N
100 m.
100 m.
80 m.
MD1
MD2
50.0 m.
48.2 m.
43.2 m.
42.5 m.
37.5 m.
Typical Mooring Dolphin:
3 hooks and capstan 100 ton per hook 180°
5.7 m.
Loading Platform
5.7 m.
BD1
Berth Centreline
BD2
Berthing Line
30,000 DWT
Typical Breasting Dolphin:
2 hooks and capstan 60 tons per hook 180°
90,000 DWT fully loaded/ 150,000 DWT partially loaded
PLAN
TRANSVERSE SECTION
Loading Arms
Operating Envelope
3× 12 in. Loading Arms
Top of platform El.8.0 m.
Light
Condition
Lower Limit
El. 4.0 m.
Loaded
Condition
El.0.00
30,000 DWT
90,000 DWT
150,000 DWT
partially loaded
El.– 18.29 m.
El.– 36.57 m.
Approx. 98 m.
Berthing Line
Shore Line


Jetty 1
Jetty 2
Tugs
Jetty 3
Jetty 4
Jetty 5
Jetty 6

BULLEN BAY

CURACAO OIL TERMINAL

THROUGHPUT:	Transhipment	1,200,000 barrels per day
	Refinery import	250,000 barrels per day

JETTIES:
- 1 – 500,000 DWT tanker jetty
- 1 – 350,000 DWT tanker jetty
- 1 – 250,000 DWT tanker jetty
- 2 – 100,000 DWT tanker jetties
- 1 – 70,000 DWT tanker jetty
- 2 – Tugboat jetties

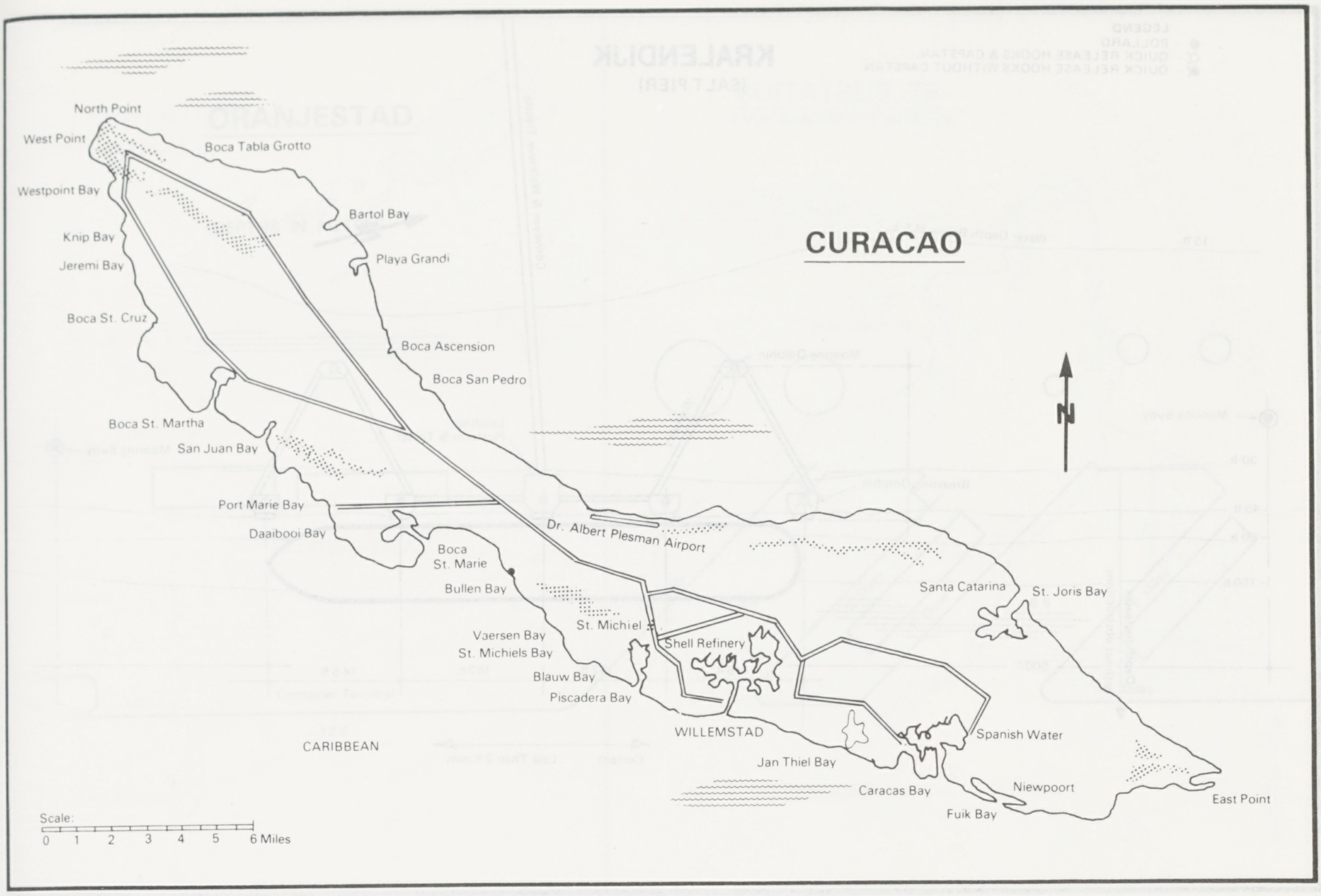
TOTAL TANK CAPACITY – 17,750,000 barrels

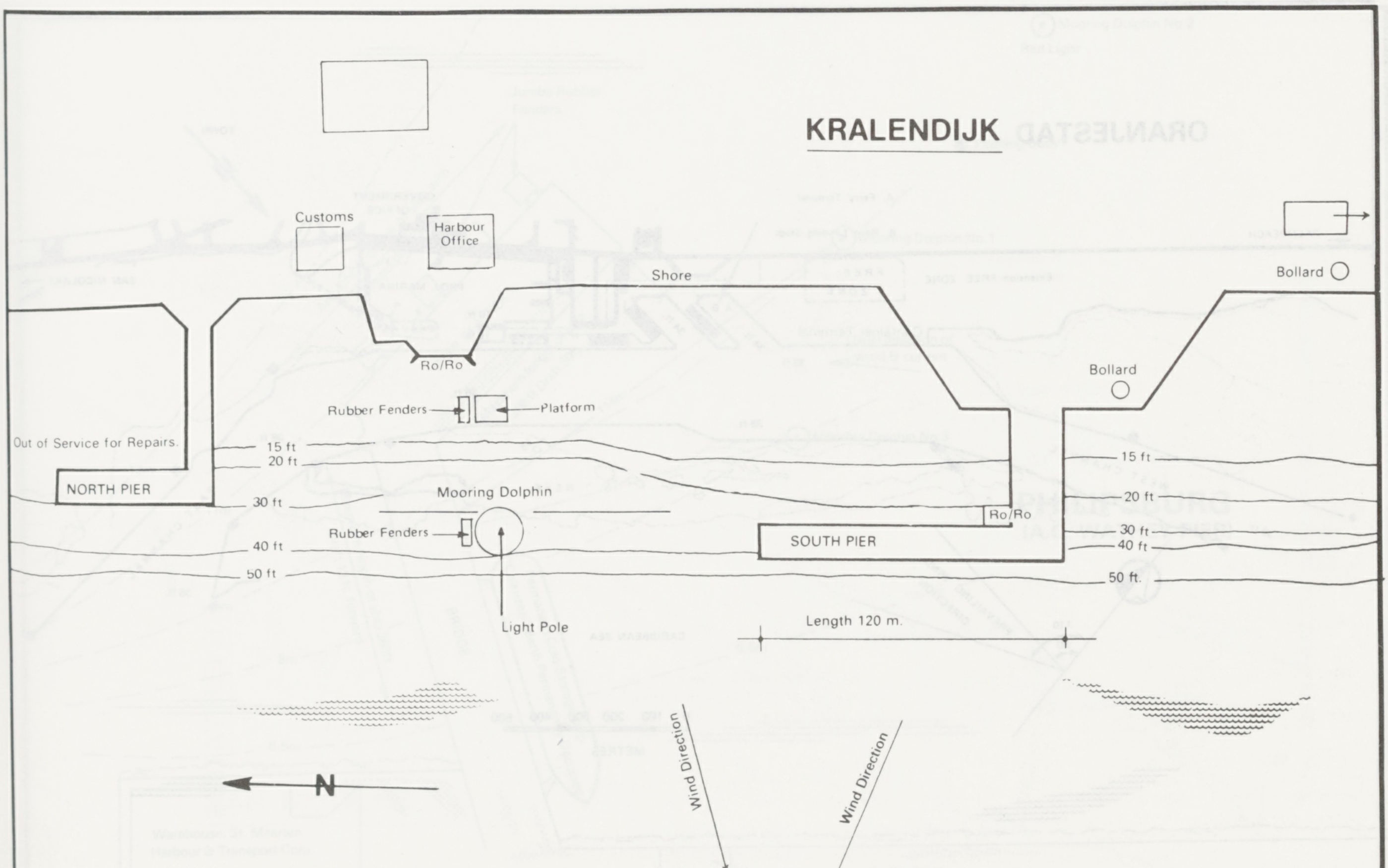
1 –	1,000,000 barrels capacity –	1,000,000
16 –	750,000 barrels capacity –	12,000,000
6 –	375,000 barrels capacity –	2,250,000
38 –	Small tanks capacity –	2,500,000

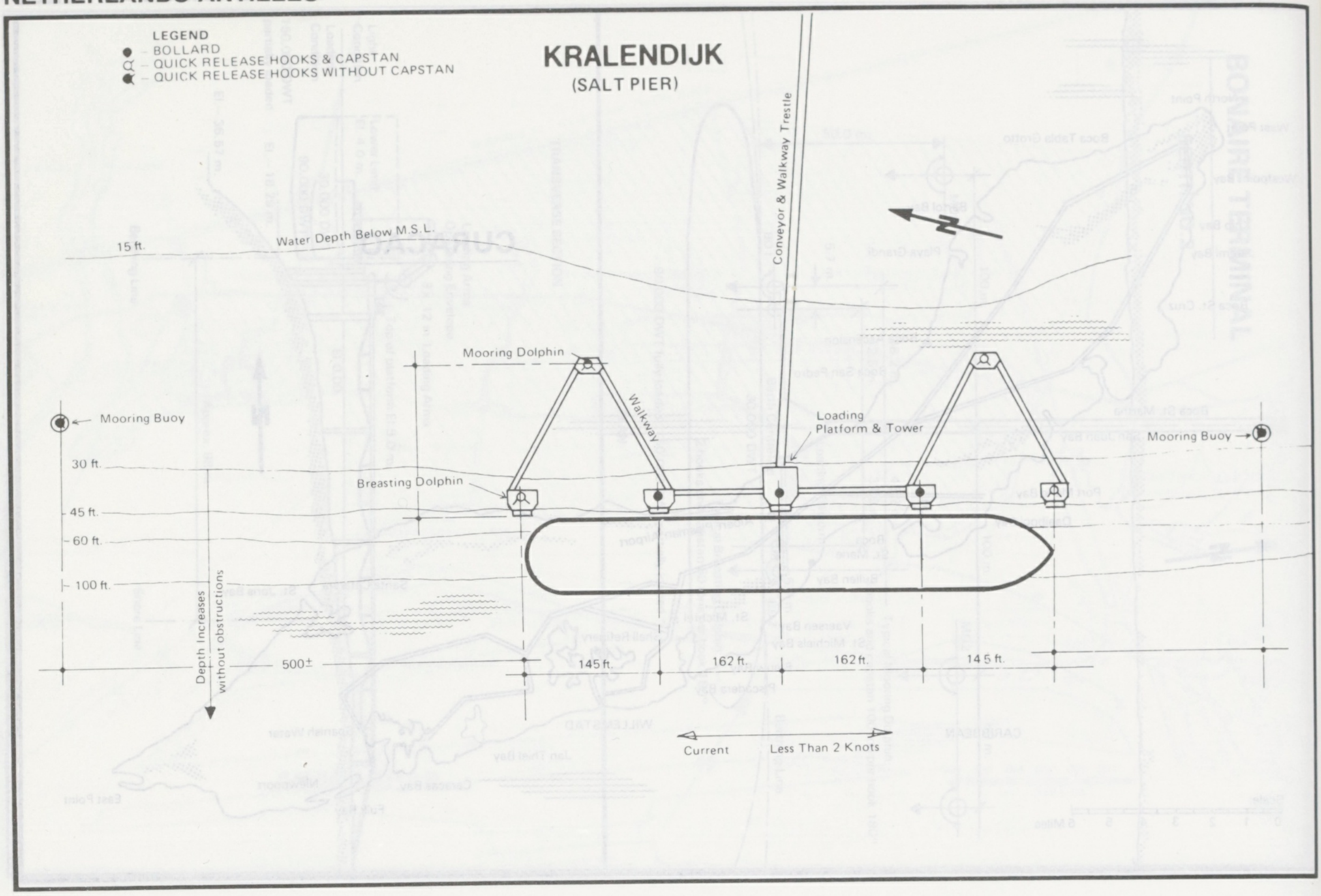
PIPELINES: Main track consists of 5 strings of 36" pipe. The jetties carry 2 strings of 36" pipe in a loop. The loading rate is up to 12,000 tons per hour. Tankers' discharge rate is up to 25,000 tons per hour.

DEBALLASTING: Capacity 4,000 tons per hour per jetty. Ballast treatment produces affluent of less than 20 parts per million (20 ppm) oil content.

TUG SERVICE: Two tugs of 4,500 h.p. with 50 tons bollard pull each. One tug of 2,500 h.p. with 35 tons bollard pull.


CURACAO
North Point
West Point
Boca Tabla Grotto
Westpoint Bay
Bartol Bay
Knip Bay
Playa Grandi
Jeremi Bay
Boca St. Cruz
Boca Ascension
Boca San Pedro
Boca St. Martha
San Juan Bay
N
Port Marie Bay
Daaibooi Bay
Dr. Albert Plesman Airport
Boca St. Marie
Bullen Bay
Santa Catarina
St. Joris Bay
St. Michiel
Vaersen Bay
St. Michiels Bay
Shell Refinery
Blauw Bay
Piscadera Bay
WILLEMSTAD
Spanish Water
CARIBBEAN
Jan Thiel Bay
Caracas Bay
Niewpoort
Fuik Bay
East Point
Scale:
0
1
2
3
4
5
6 Miles

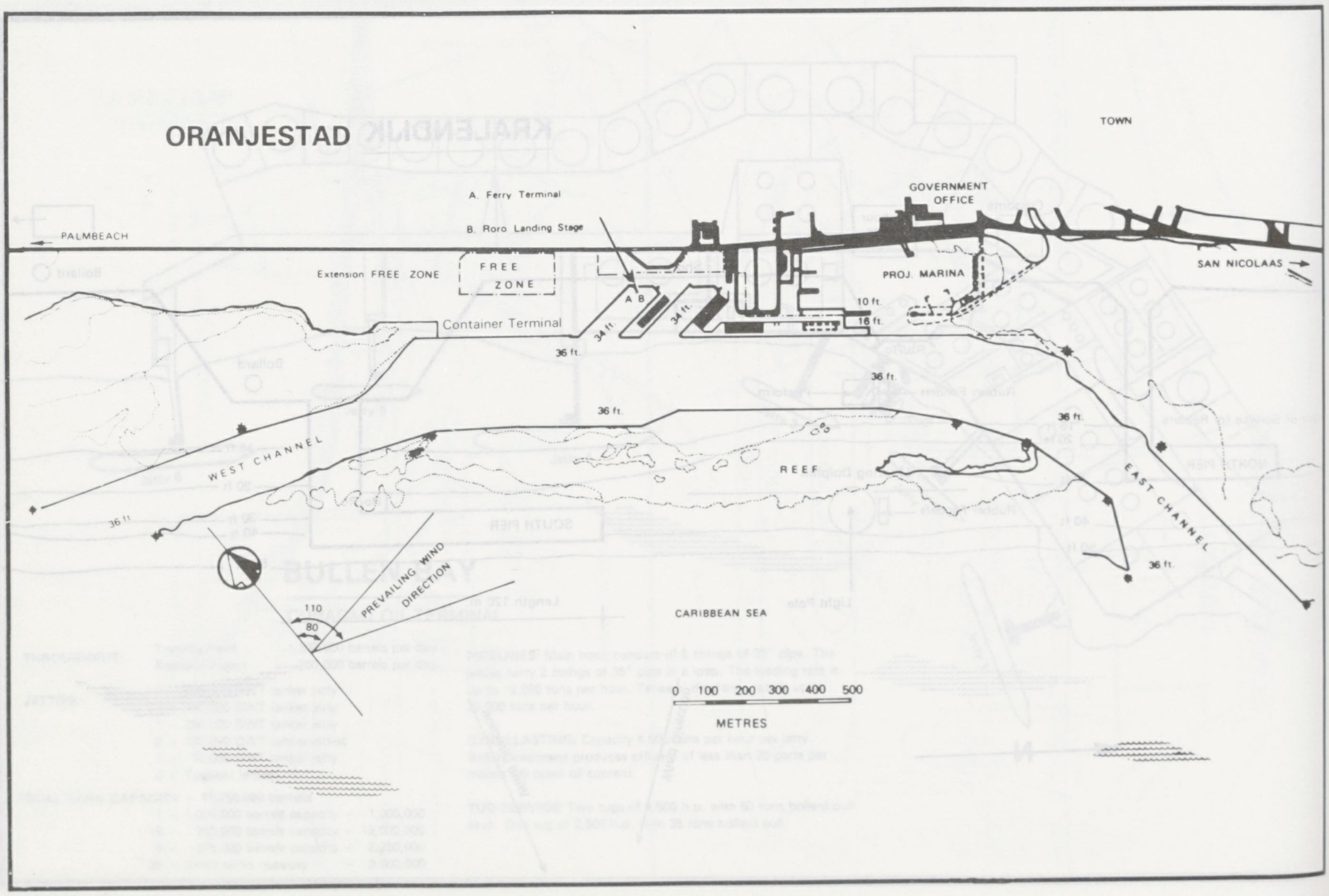

KRALENDIJK
Customs
Harbour Office
Shore
Bollard
Bollard
Ro/Ro
Rubber Fenders
Platform
Out of Service for Repairs.
15 ft
20 ft
NORTH PIER
Mooring Dolphin
30 ft
Rubber Fenders
40 ft
50 ft
15 ft
20 ft
Ro/Ro
SOUTH PIER
30 ft
40 ft
50 ft.
Light Pole
Length 120 m.
N
Wind Direction
Wind Direction



KRALENDIJK

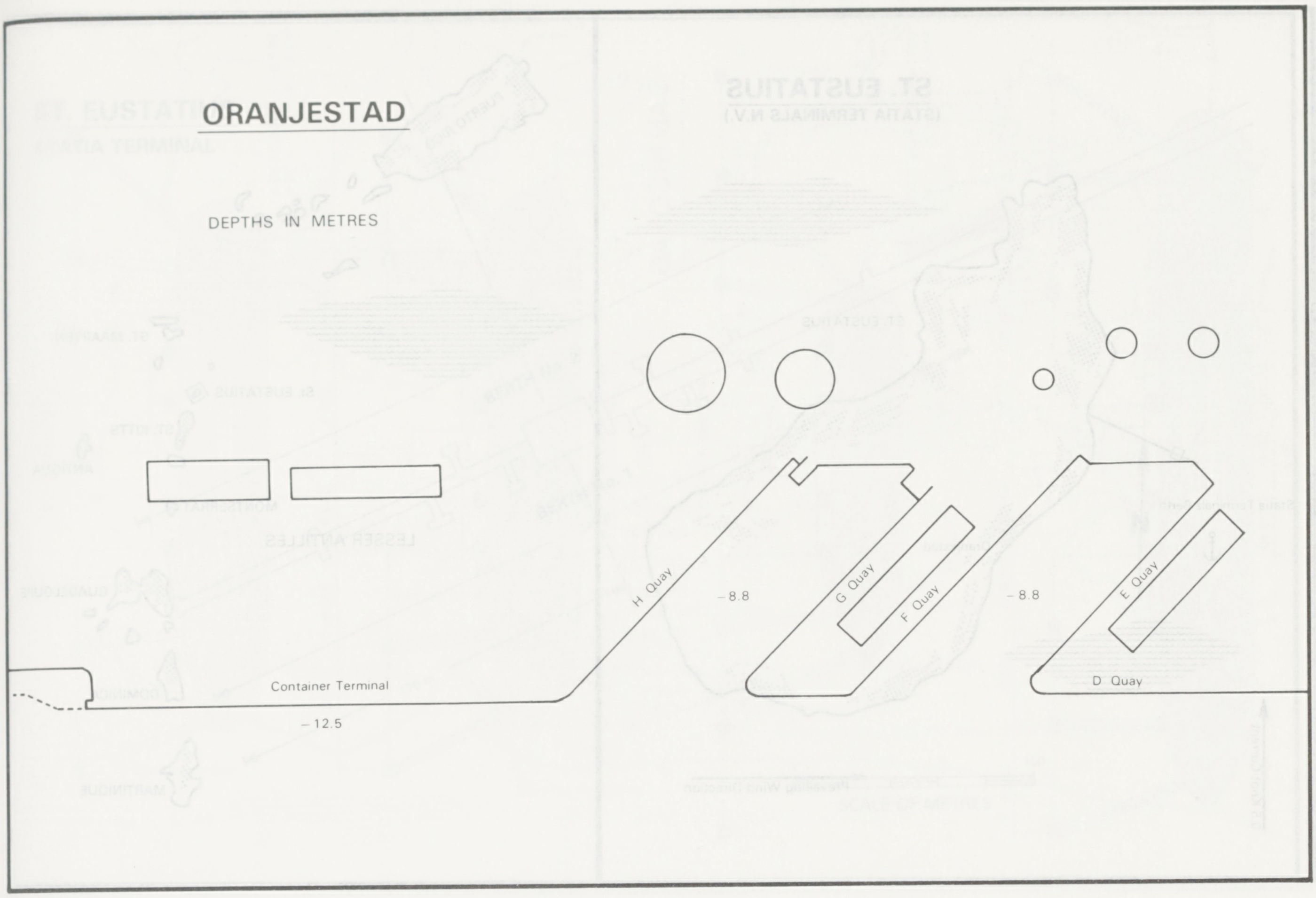
(SALT PIER)

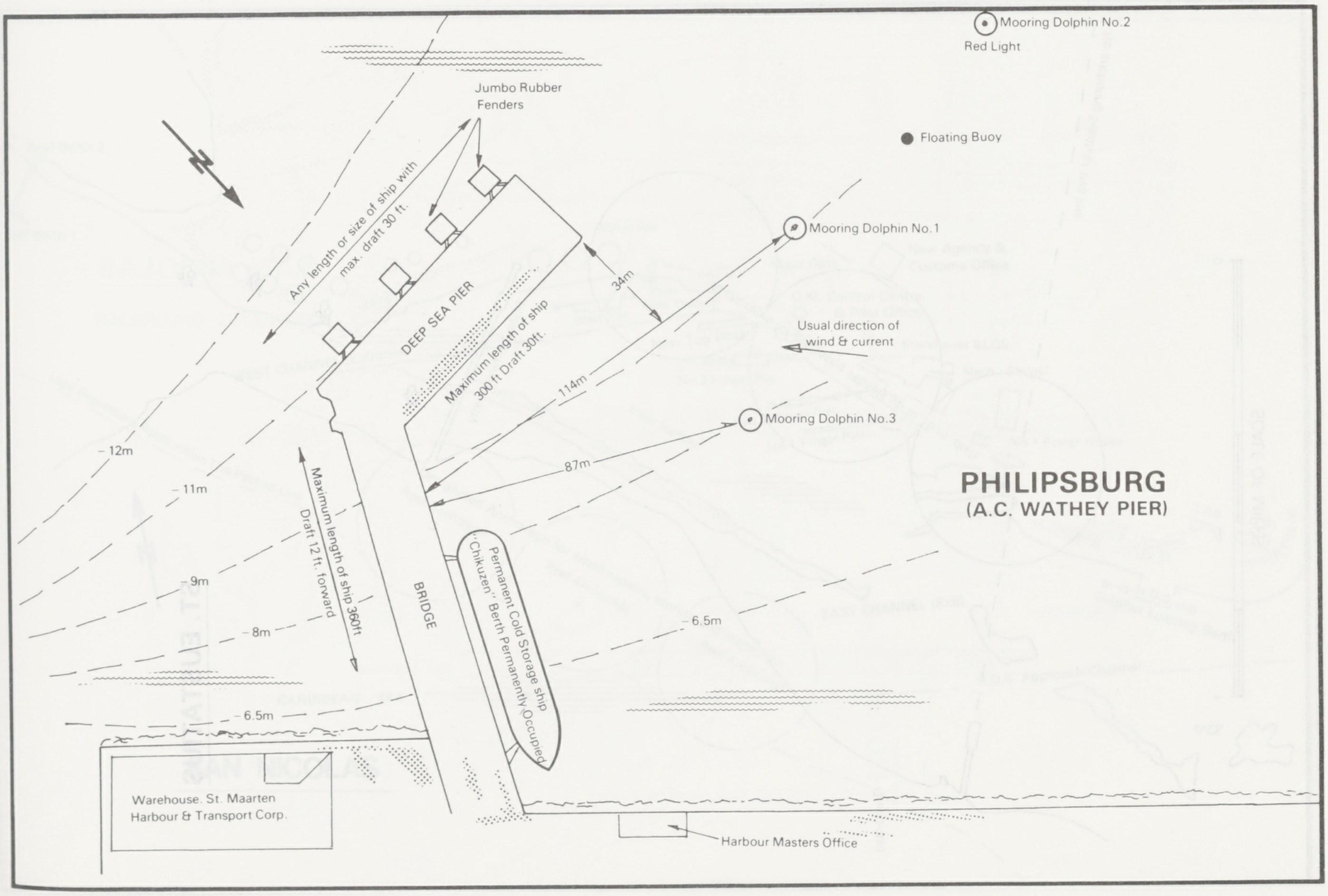
LEGEND
● – BOLLARD
– QUICK RELEASE HOOKS & CAPSTAN
– QUICK RELEASE HOOKS WITHOUT CAPSTAN
Conveyor & Walkway Trestle
Water Depth Below M.S.L.
15 ft.
Mooring Dolphin
Walkway
Loading Platform & Tower
Mooring Buoy
Mooring Buoy
30 ft.
Breasting Dolphin
45 ft.
60 ft.
100 ft.
Depth Increases without obstructions
500±
145 ft.
162 ft.
162 ft.
14 5 ft.
Current
Less Than 2 Knots

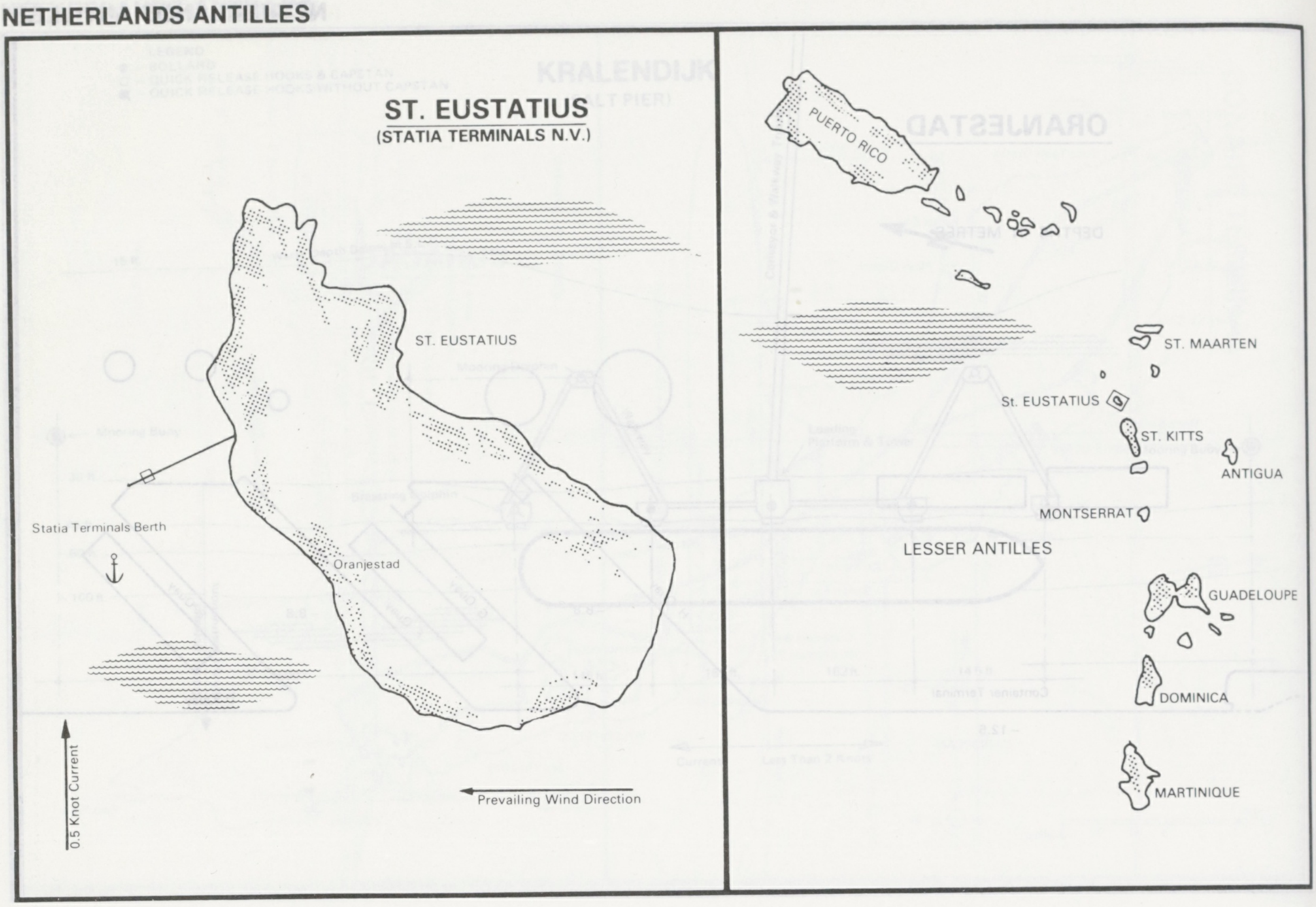


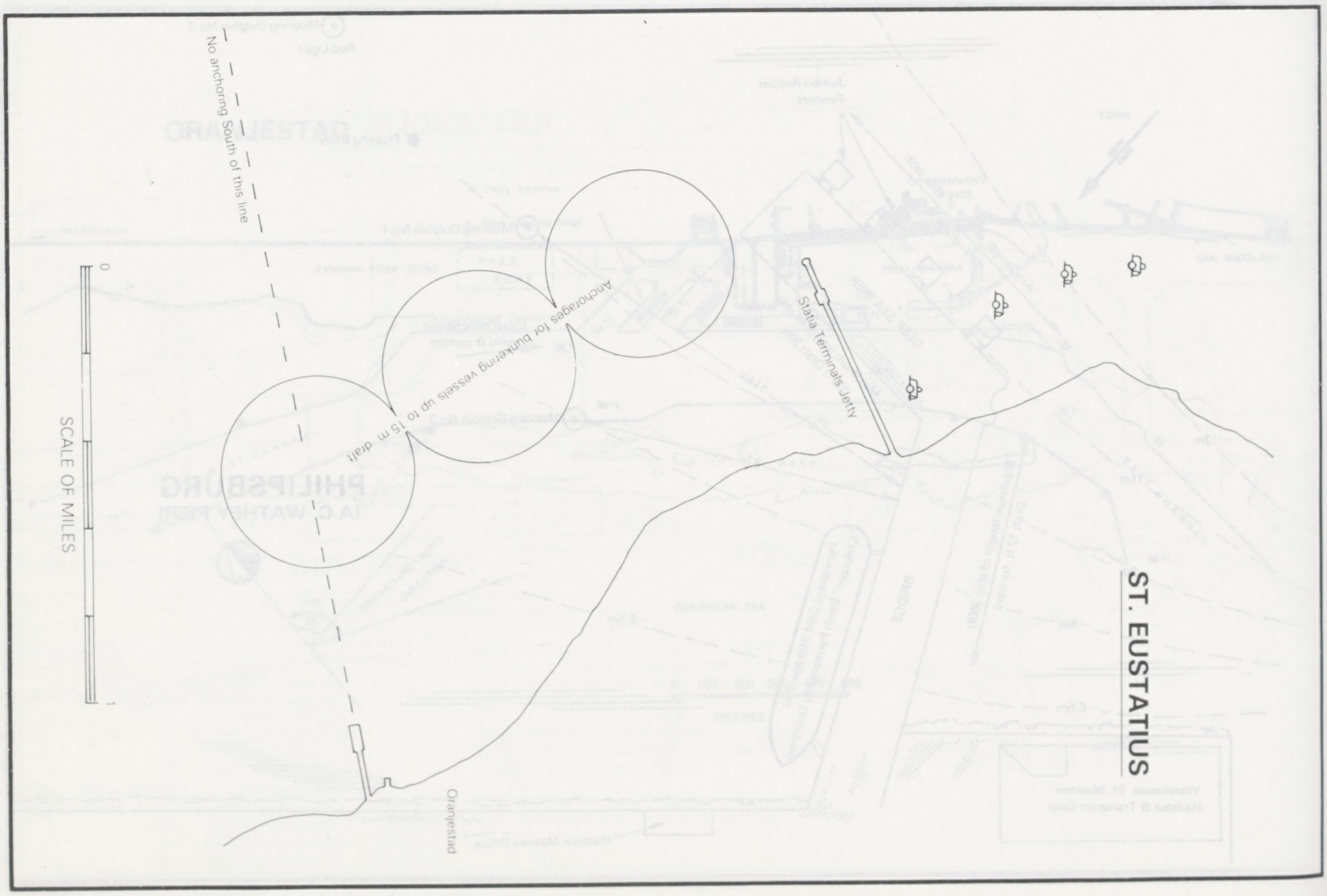
ORANJESTAD

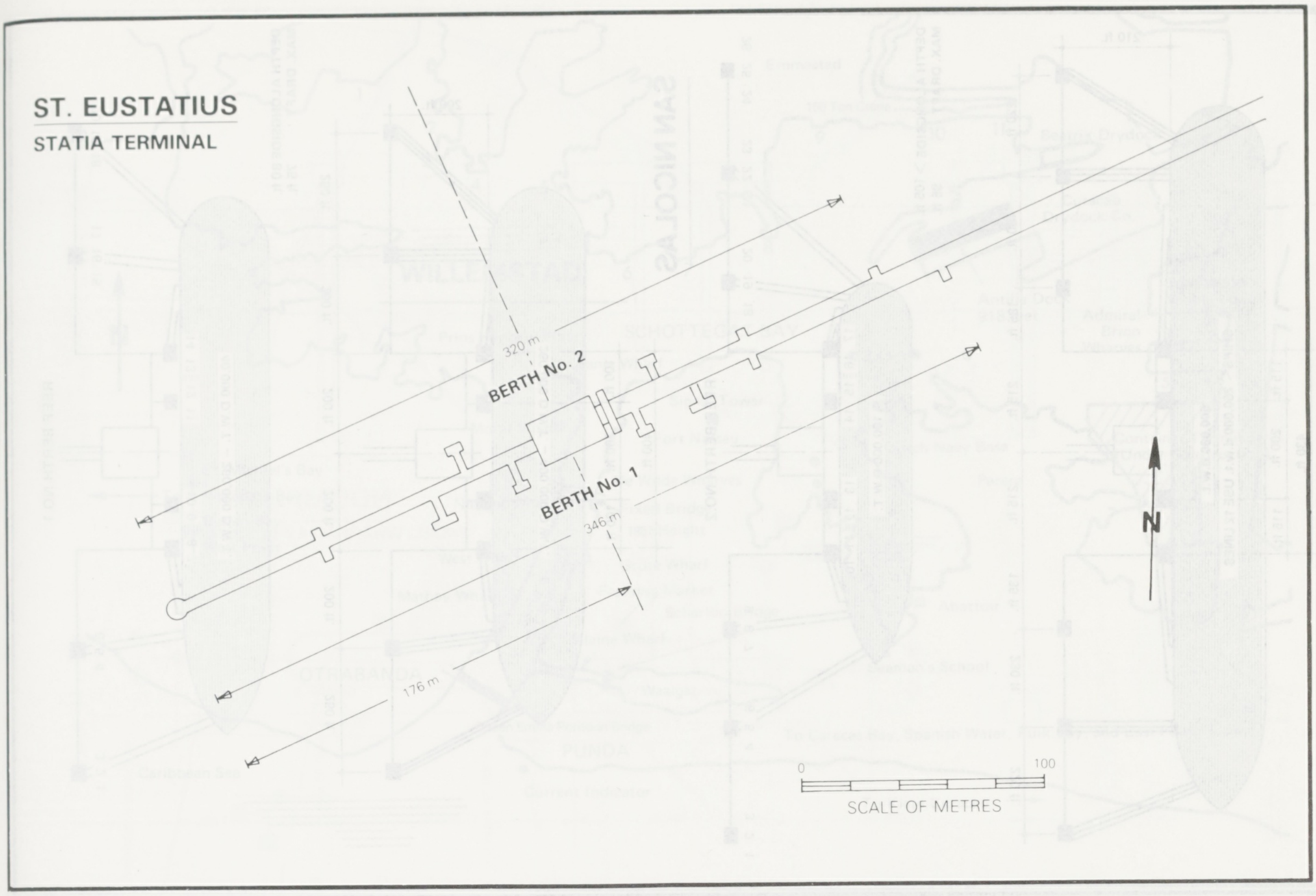
TOWN
GOVERNMENT OFFICE
A. Ferry Terminal
B. Roro Landing Stage
PALMBEACH
Extension FREE ZONE
FREE ZONE
A B
34 ft.
34 ft.
PROJ. MARINA
10 ft.
16 ft.
SAN NICOLAAS
Container Terminal
36 ft.
36 ft.
36 ft.
36 ft.
WEST CHANNEL
REEF
EAST CHANNEL
36 ft.
36 ft
36 ft.
PREVAILING WIND DIRECTION
110
80
CARIBBEAN SEA
0 100 200 300 400 500
METRES


ORANJESTAD
DEPTHS IN METRES
H Quay
–8.8
G Quay
F Quay
–8.8
E Quay
D Quay
Container Terminal
–12.5


Mooring Dolphin No.2
Red Light
Jumbo Rubber Fenders
Floating Buoy
N
Any length or size of ship with max. draft 30 ft.
Mooring Dolphin No.1
DEEP SEA PIER
34m
Usual direction of wind & current
Maximum length of ship 300 ft Draft 30ft.
114m
Mooring Dolphin No.3
–12m
87m
–11m
PHILIPSBURG
(A.C. WATHEY PIER)
Maximum length of ship 360ft Draft 12 ft. forward
BRIDGE
Permanent Cold Storage ship "Chikuzen" Berth Permanently Occupied
–9m
–8m
–6.5m
–6.5m
Warehouse. St. Maarten Harbour & Transport Corp.
Harbour Masters Office


ST. EUSTATIUS
(STATIA TERMINALS N.V.)
ST. EUSTATIUS
Statia Terminals Berth
Oranjestad
0.5 Knot Current
Prevailing Wind Direction
PUERTO RICO
ST. MAARTEN
St. EUSTATIUS
ST. KITTS
ANTIGUA
MONTSERRAT
LESSER ANTILLES
GUADELOUPE
DOMINICA
MARTINIQUE

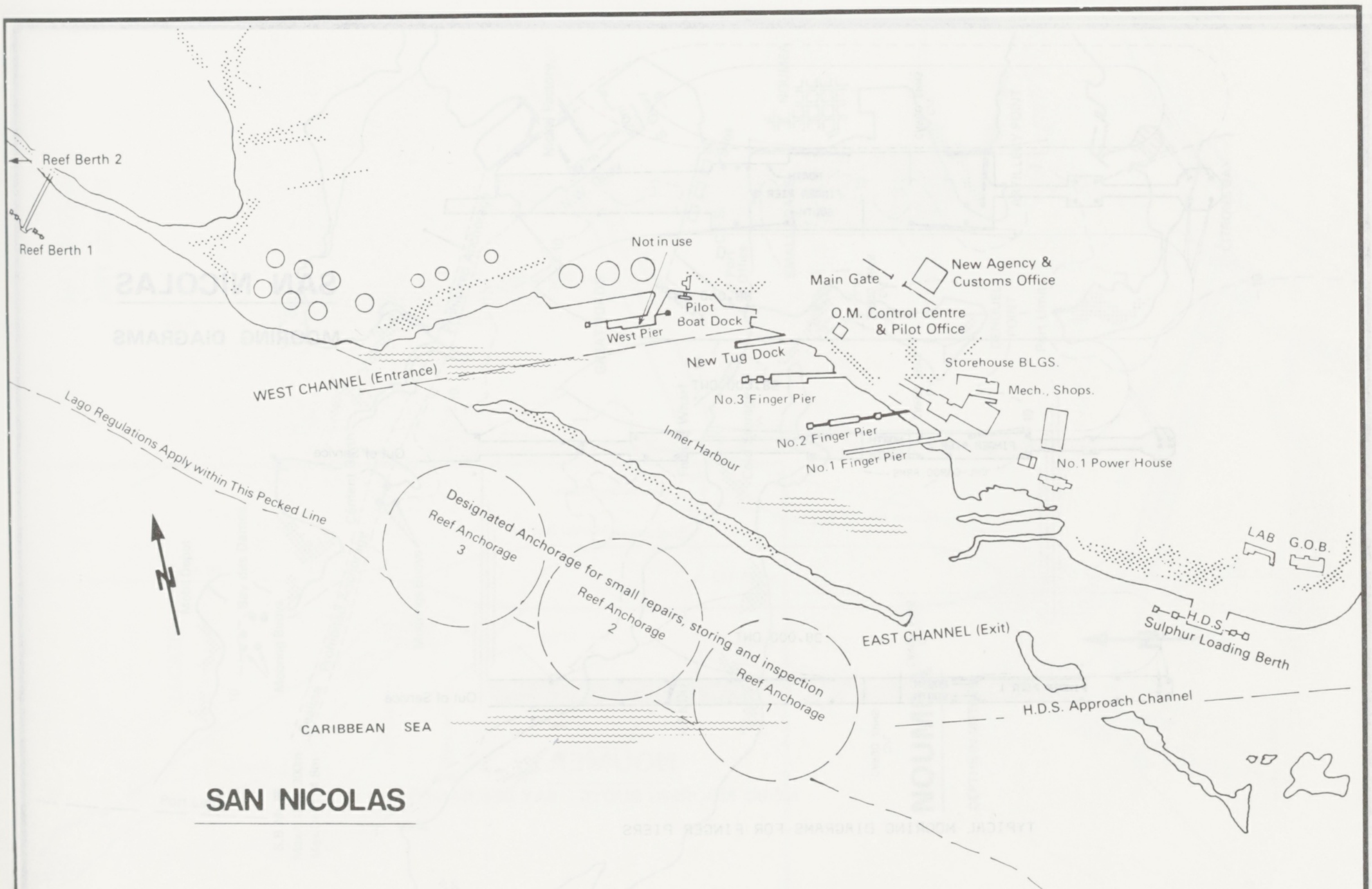

No anchoring South of this line
Anchorages for bunkering vessels up to 15 m draft
Statia Terminals Jetty
SCALE OF MILES
0
1
Oranjestad
ST. EUSTATIUS



ST. EUSTATIUS

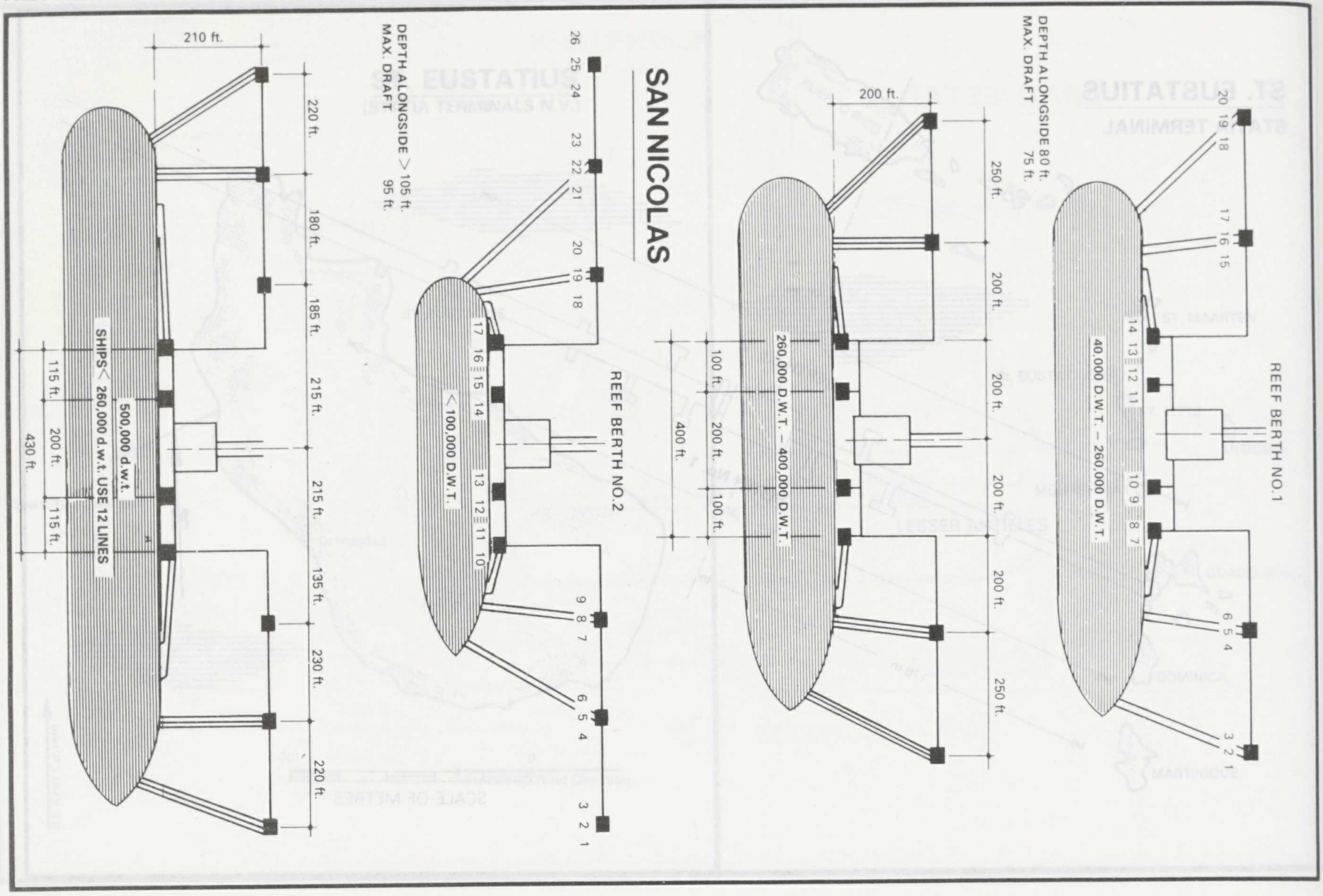
STATIA TERMINAL

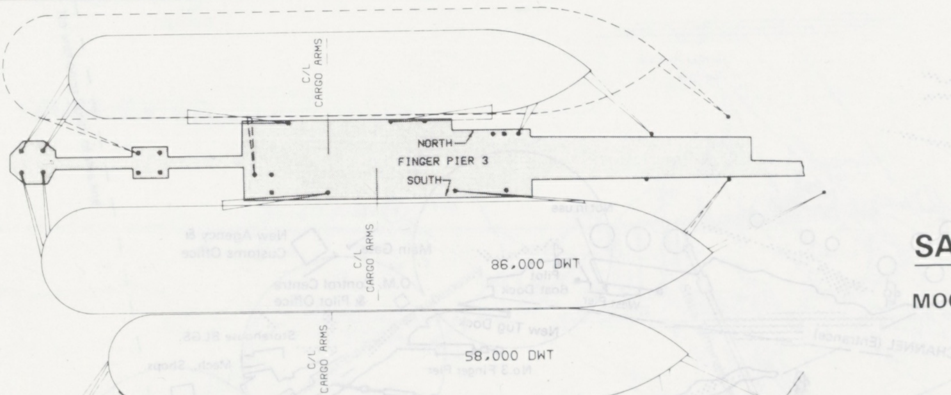
320 m
BERTH No. 2
BERTH No. 1
346 m
176 m
N
0
100
SCALE OF METRES



SAN NICOLAS

Reef Berth 2
Reef Berth 1
Not in use
Pilot Boat Dock
West Pier
Main Gate
New Agency & Customs Office
O.M. Control Centre & Pilot Office
New Tug Dock
Storehouse BLGS.
Mech., Shops.
WEST CHANNEL (Entrance)
No.3 Finger Pier
No.2 Finger Pier
No.1 Finger Pier
No.1 Power House
Inner Harbour
Lago Regulations Apply within This Pecked Line
Designated Anchorage for small repairs, storing and inspection
Reef Anchorage 3
Reef Anchorage 2
Reef Anchorage 1
N
LAB
G.O.B.
H.D.S.
Sulphur Loading Berth
EAST CHANNEL (Exit)
H.D.S. Approach Channel
CARIBBEAN SEA

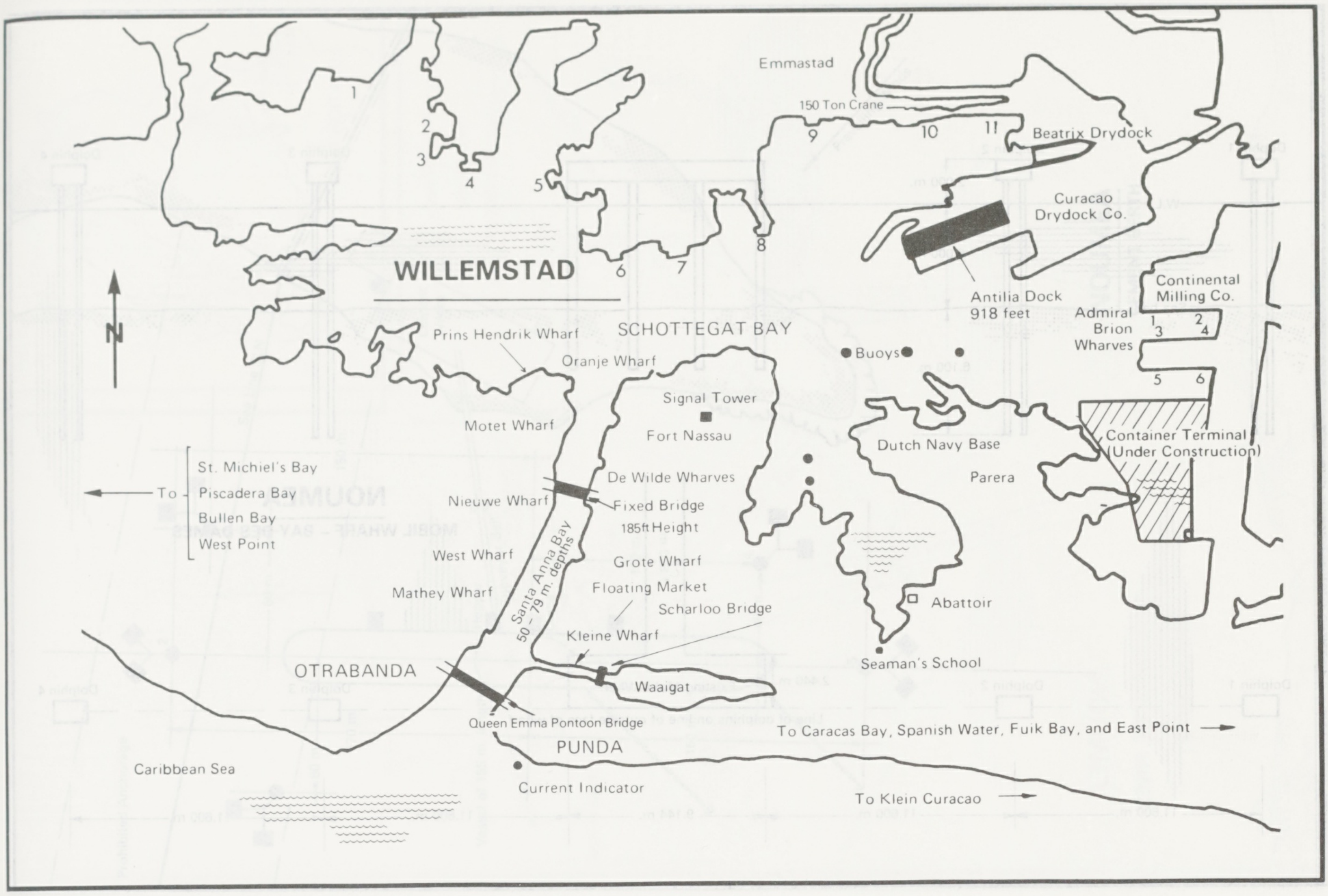

SAN NICOLAS
REEF BERTH NO.1
DEPTH ALONGSIDE 80 ft.
MAX. DRAFT 75 ft.
40,000 D.W.T. – 260,000 D.W.T.
200 ft.
250 ft.
200 ft.
200 ft.
200 ft.
200 ft.
250 ft.
20 19 18
17 16 15
14 13 12 11
10 9 8 7
6 5 4
3 2 1
260,000 D.W.T. – 400,000 D.W.T.
100 ft.
200 ft.
100 ft.
400 ft.
REEF BERTH NO.2
DEPTH ALONGSIDE > 105 ft.
MAX. DRAFT 95 ft.
< 100,000 D.W.T.
26 25 24
23 22 21
20 19 18
17 16 15 14
13 12 11 10
9 8 7
6 5 4
3 2 1
210 ft.
220 ft.
180 ft.
185 ft.
215 ft.
215 ft.
135 ft.
230 ft.
220 ft.
500,000 d.w.t.
SHIPS < 260,000 d.w.t. USE 12 LINES
115 ft.
200 ft.
115 ft.
430 ft.

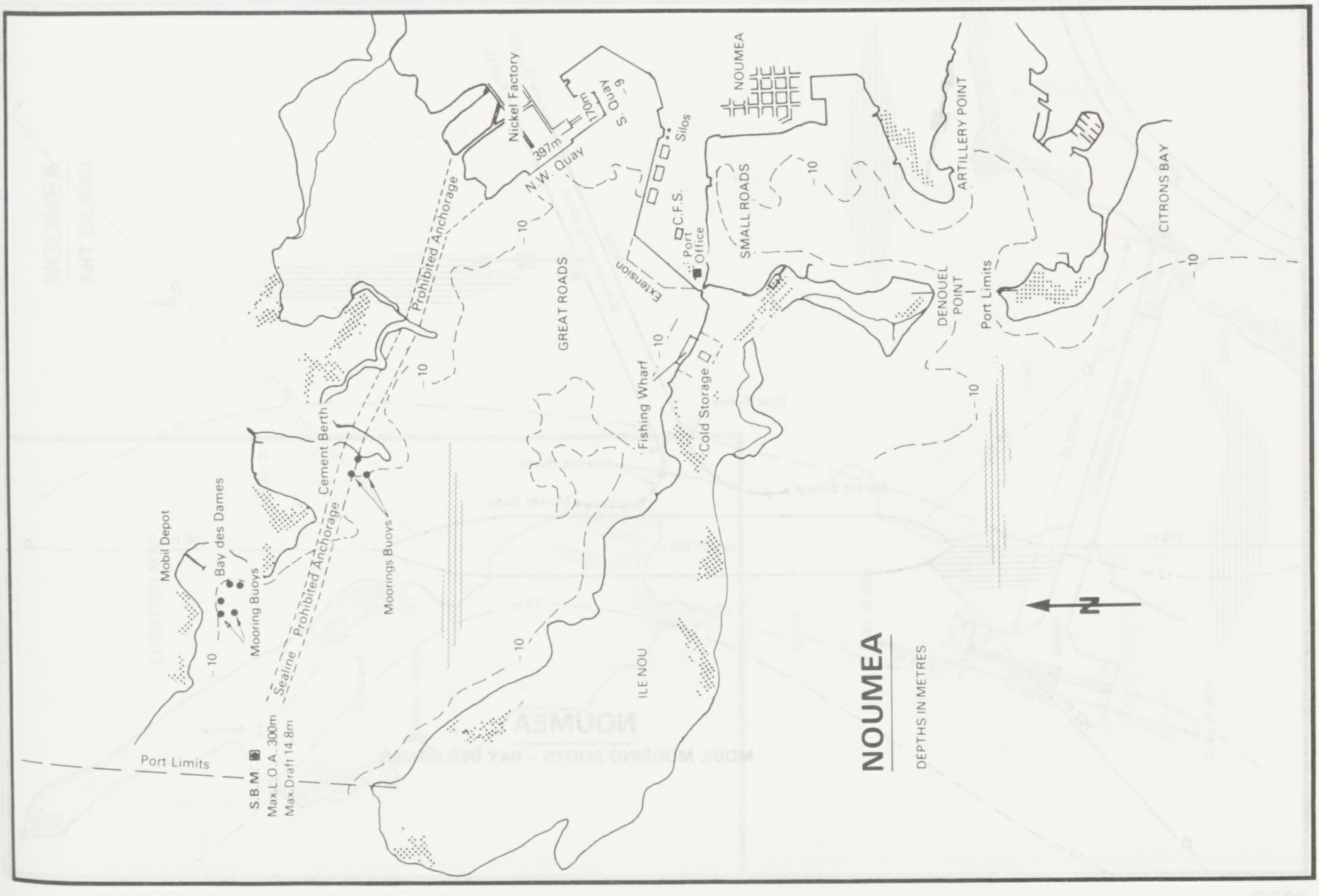

C/L CARGO ARMS
NORTH
FINGER PIER 3
SOUTH
C/L CARGO ARMS
86,000 DWT
C/L CARGO ARMS
58,000 DWT
FINGER PIER 2
NORTH
SOUTH
C/L CARGO ARMS
Out of Service
C/L CARGO ARMS
38,000 DWT
FINGER PIER 1
NORTH
SOUTH
C/L CARGO ARMS
Out of Service

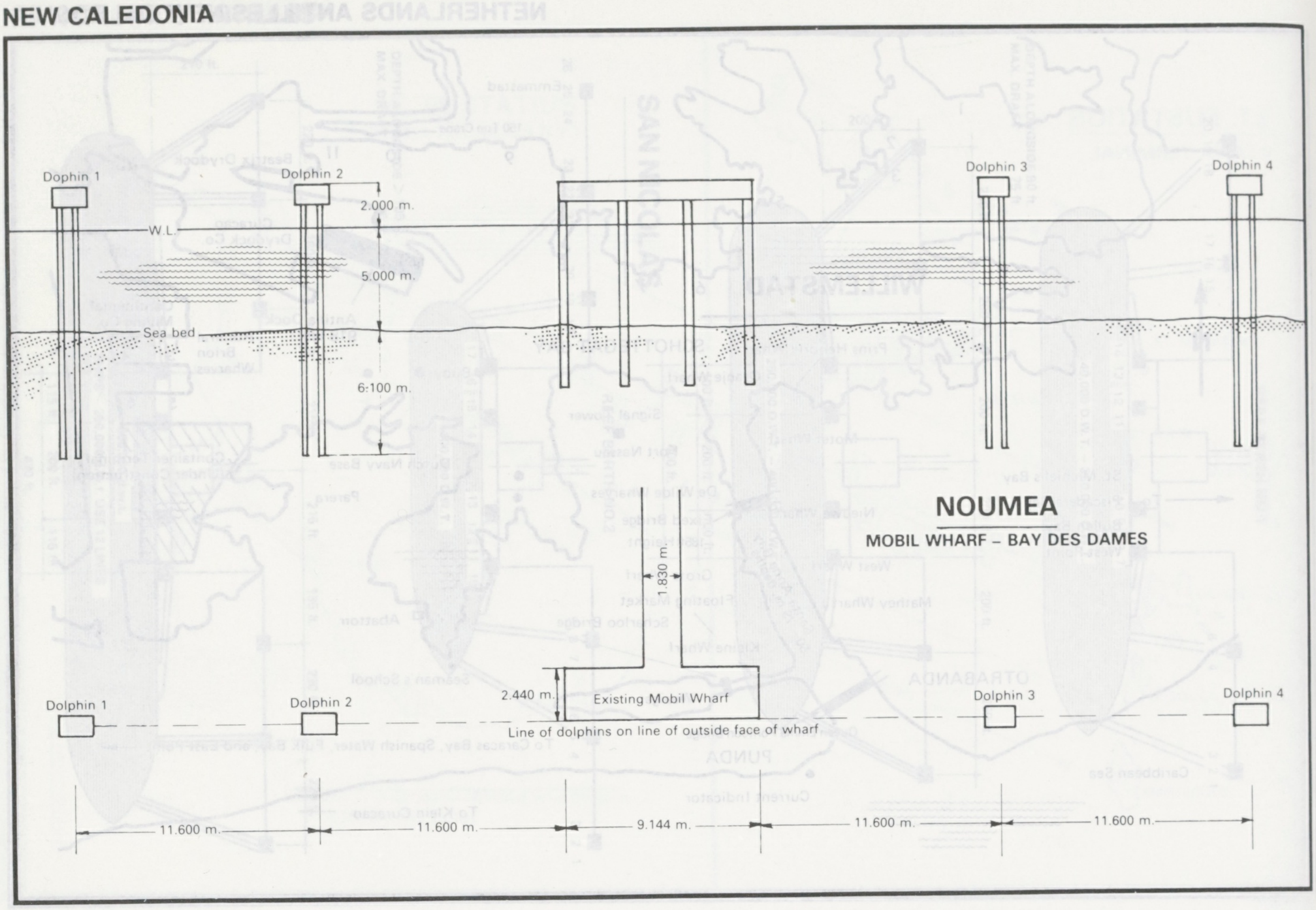
SAN NICOLAS

MOORING DIAGRAMS

TYPICAL MOORING DIAGRAMS FOR FINGER PIERS

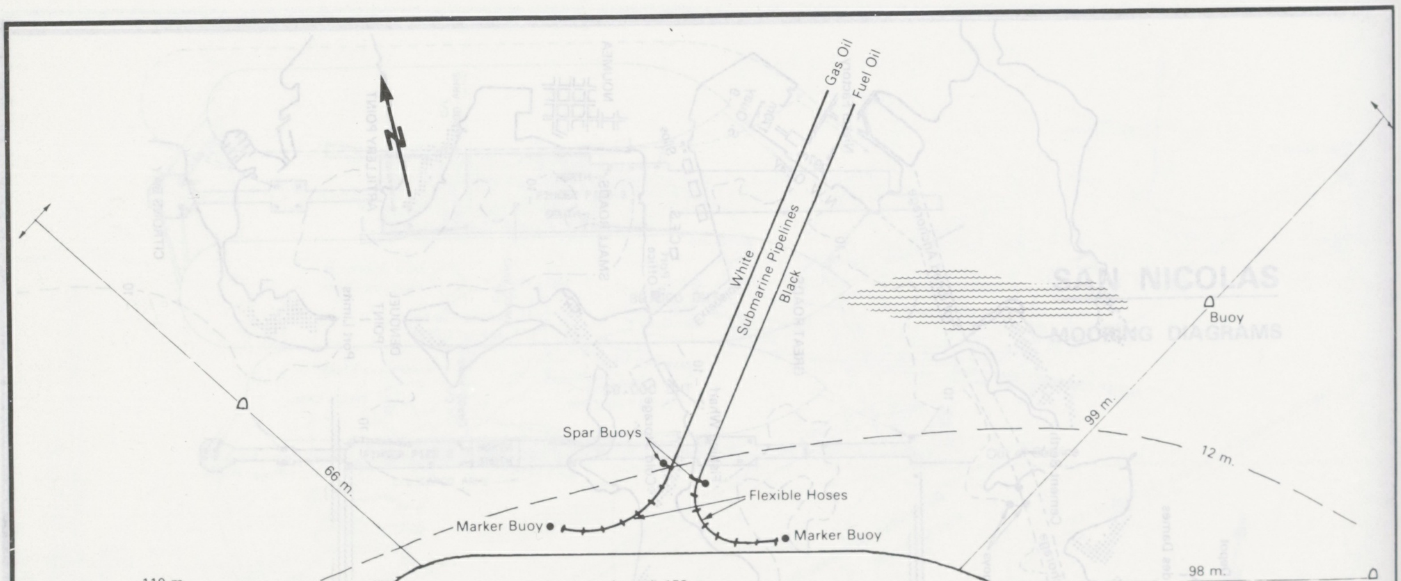

Emmastad
150 Ton Crane
1
2
3
4
5
6
7
8
9
10
11
Beatrix Drydock
Curacao Drydock Co.
WILLEMSTAD
N
Antilia Dock 918 feet
Continental Milling Co.
Admiral Brion Wharves
1 2 3 4
5 6
SCHOTTEGAT BAY
Prins Hendrik Wharf
Oranje Wharf
Buoys
Signal Tower
Fort Nassau
Motet Wharf
Dutch Navy Base
Container Terminal (Under Construction)
Parera
To
St. Michiel's Bay
Piscadera Bay
Bullen Bay
West Point
De Wilde Wharves
Nieuwe Wharf
Fixed Bridge 185ft Height
West Wharf
Santa Anna Bay 50 - 79 m. depths
Grote Wharf
Floating Market
Mathey Wharf
Scharloo Bridge
Abattoir
Kleine Wharf
OTRABANDA
Seaman's School
Waaigat
Queen Emma Pontoon Bridge
To Caracas Bay, Spanish Water, Fuik Bay, and East Point
PUNDA
Caribbean Sea
Current Indicator
To Klein Curacao


NOUMEA
Nickel Factory
170m
S. Quay
6-9
397m
N.W. Quay
Silos
ARTILLERY POINT
CITRONS BAY
-10
C.F.S.
Port Office
SMALL ROADS
Extension
Prohibited Anchorage
GREAT ROADS
DENOUEL POINT
Port Limits
Fishing Wharf
Cold Storage
Cement Berth
Moorings Buoys
Mobil Depot
Bay des Dames
Mooring Buoys
Sealine
ILE NOU
N
NOUMEA
DEPTHS IN METRES
Port Limits
S.B.M.
Max.L.O.A. 300m
Max.Draft 14.8m


Dolphin 1
Dolphin 2
2.000 m.
W.L.
5.000 m.
Sea bed
6:100 m.
Dolphin 3
Dolphin 4
1.830 m.
2.440 m.
Existing Mobil Wharf
Dolphin 1
Dolphin 2
Dolphin 3
Dolphin 4
Line of dolphins on line of outside face of wharf
11.600 m.
11.600 m.
9.144 m.
11.600 m.
11.600 m.

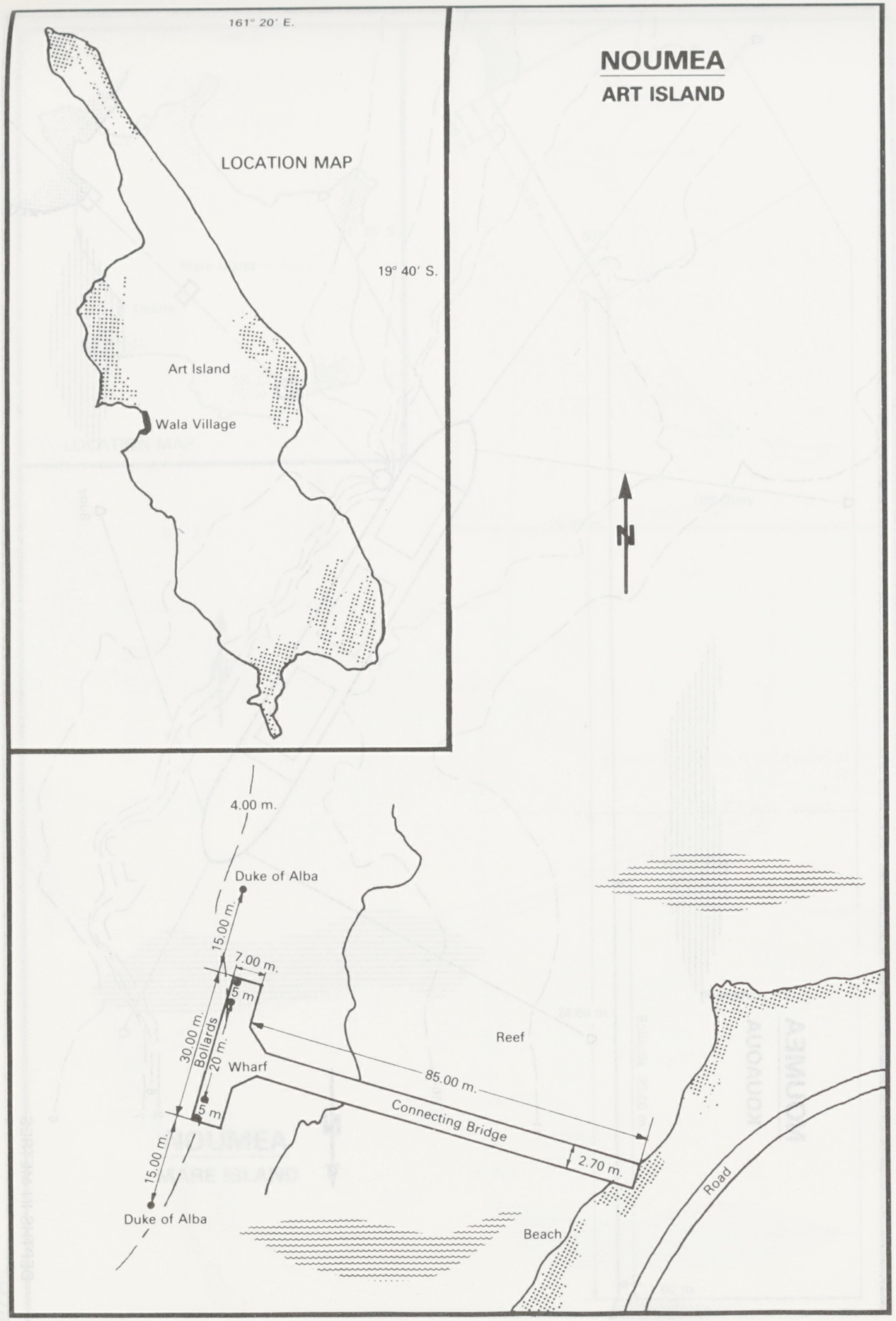
NOUMEA

MOBIL WHARF – BAY DES DAMES


N
Gas Oil
Fuel Oil
White
Submarine Pipelines
Black
Buoy
Spar Buoys
99 m.
12 m.
66 m.
Flexible Hoses
Marker Buoy
Marker Buoy
110 m.
Length 153 m.
98 m.
12 m.
13 m.
102 m.
13 m.
Anchor

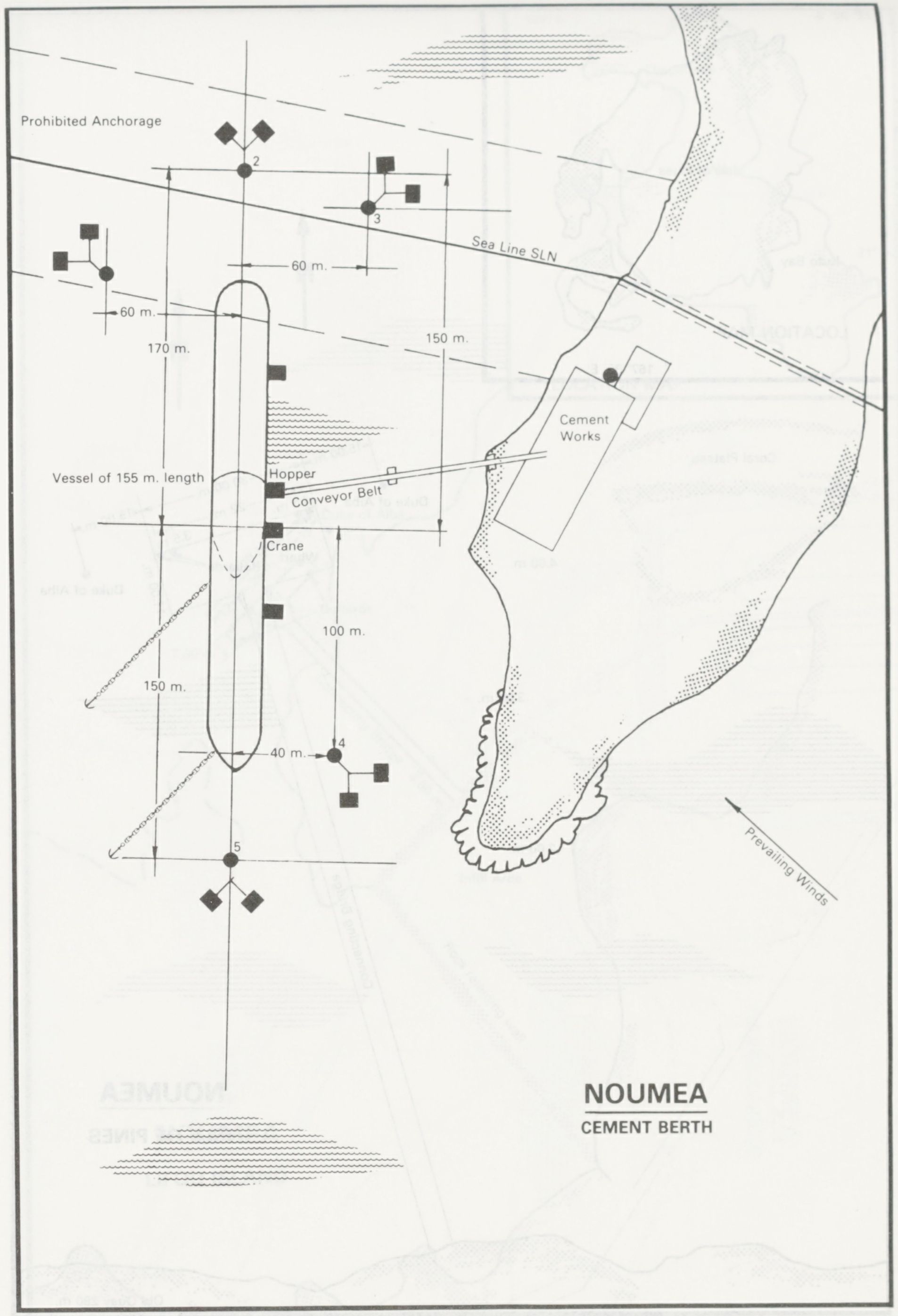
NOUMEA

MOBIL MOORING BUOYS – BAY DES DAMES



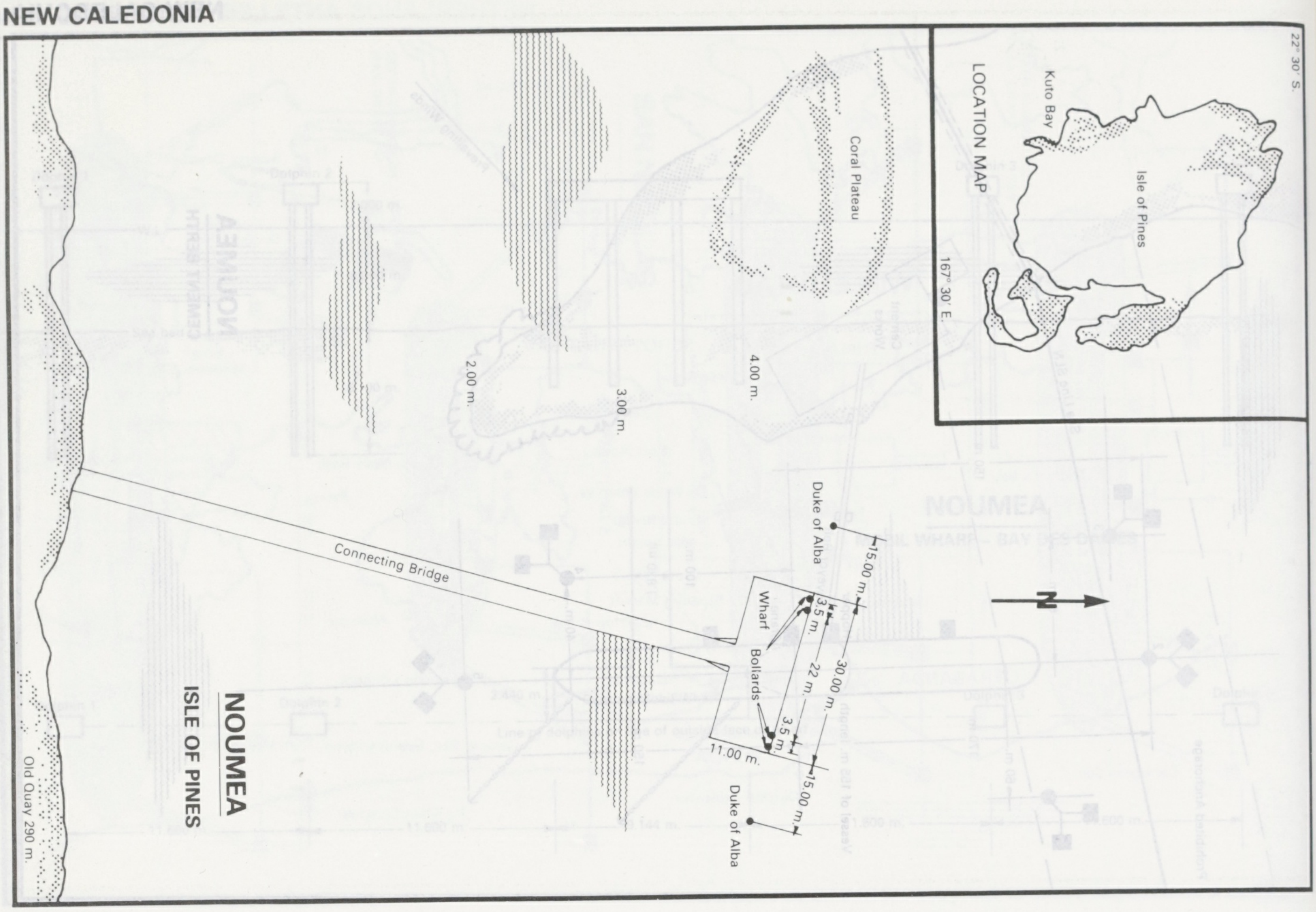
NOUMEA
ART ISLAND

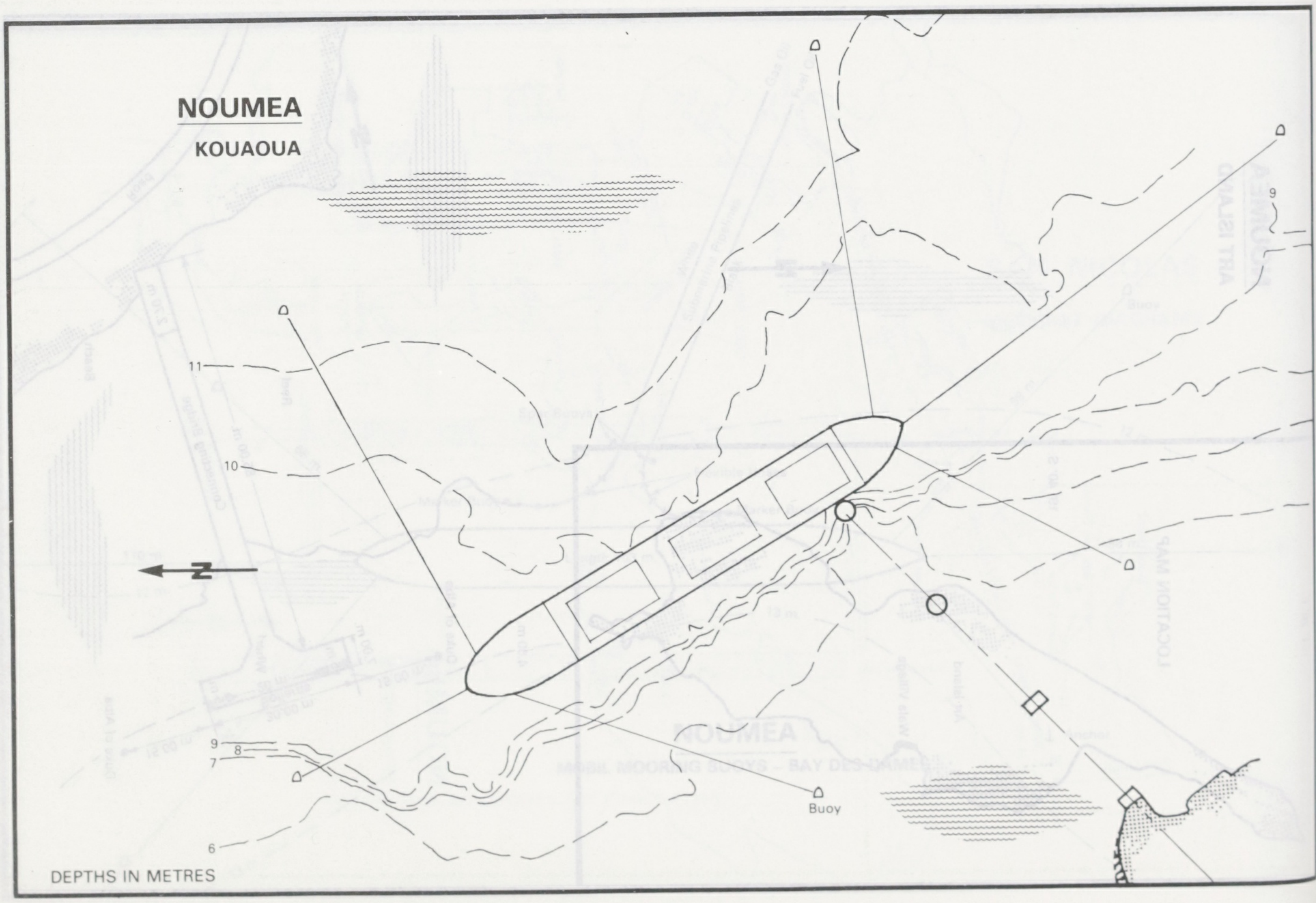
LOCATION MAP
161° 20′ E.
19° 40′ S.
Art Island
Wala Village
N
4.00 m.
Duke of Alba
15.00 m.
7.00 m.
5 m
30.00 m.
Bollards
20 m.
Wharf
5 m
85.00 m.
Connecting Bridge
2.70 m.
Reef
15.00 m.
Duke of Alba
Beach
Road

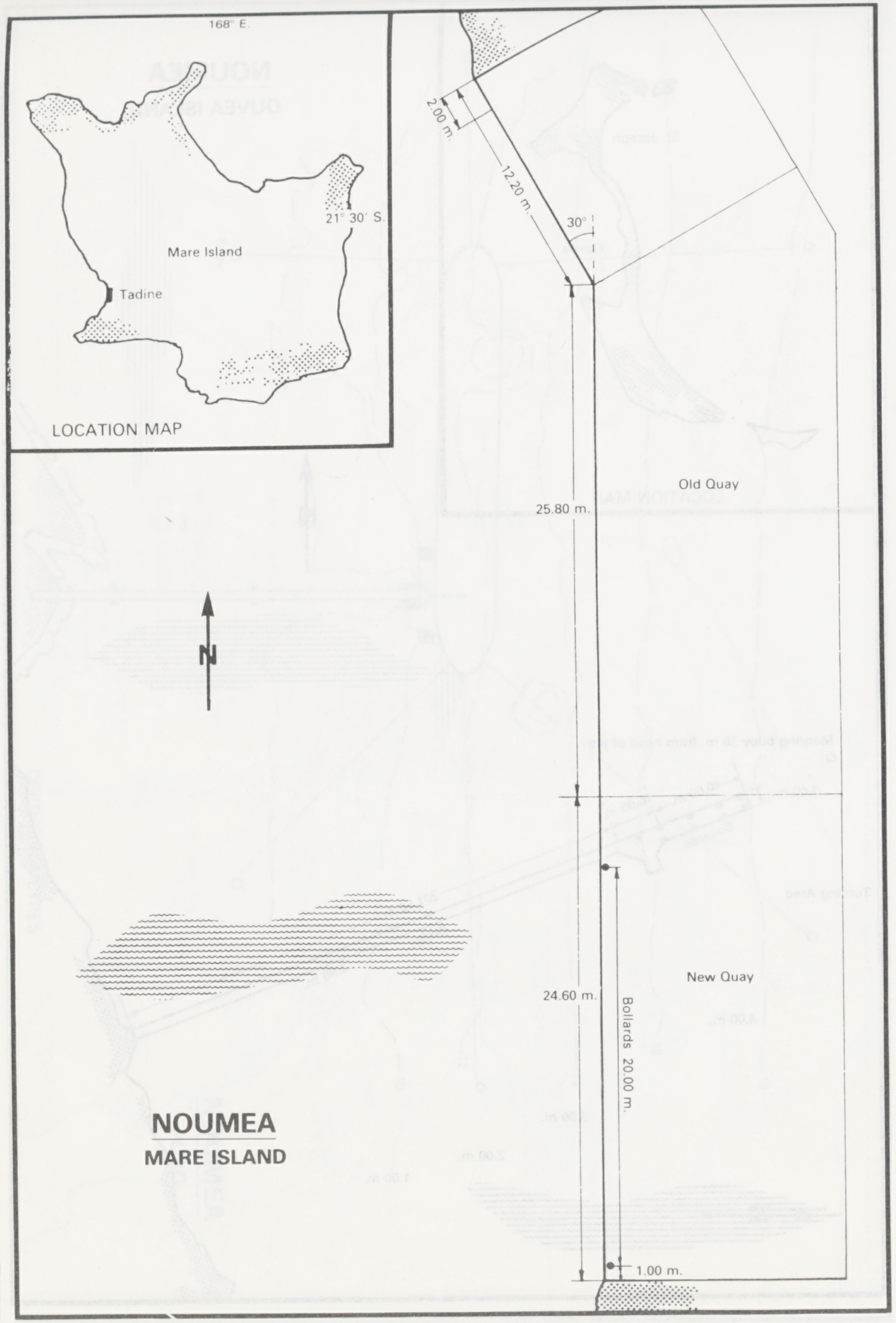


NOUMEA
CEMENT BERTH

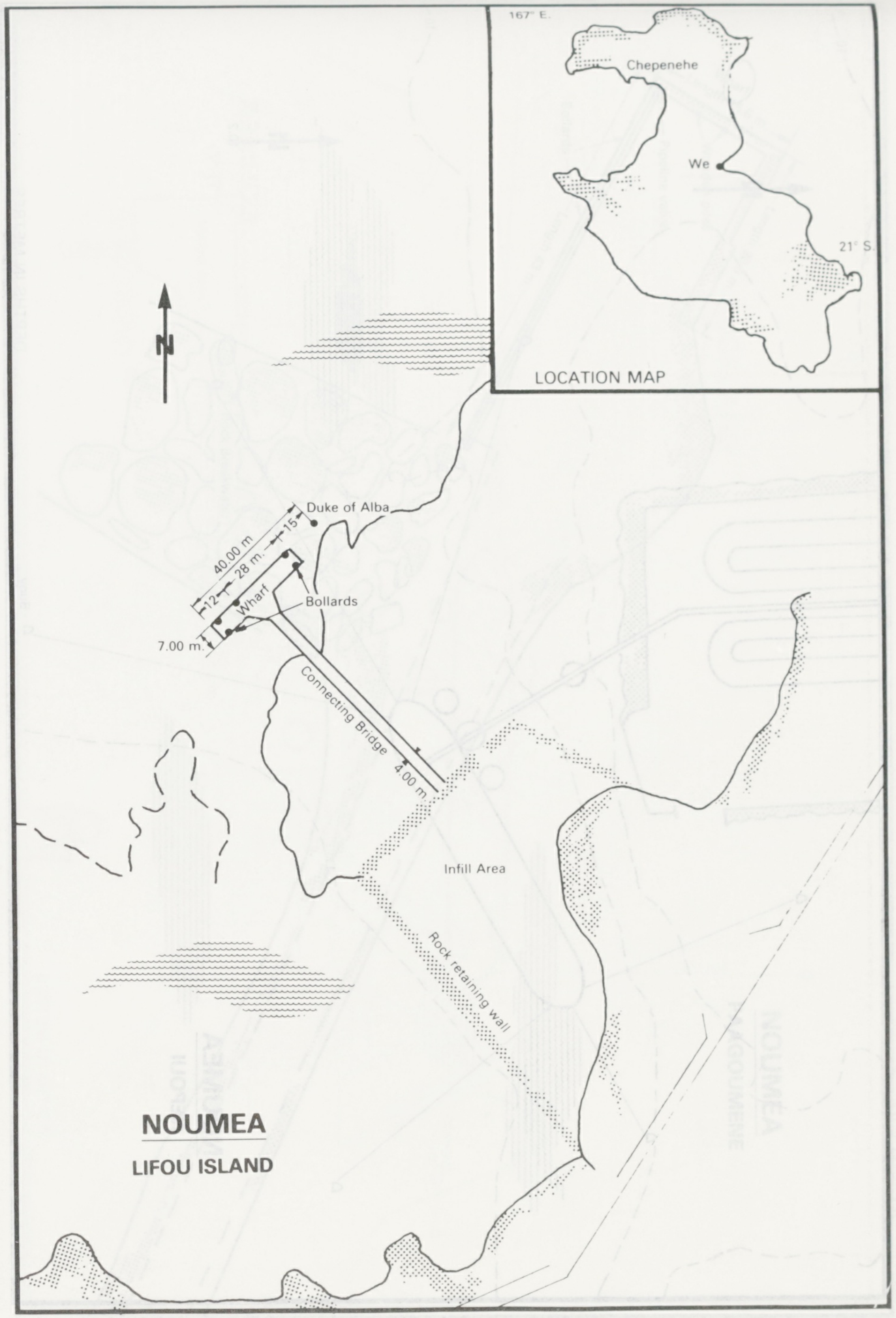
Prohibited Anchorage
2
3
Sea Line SLN
60 m.
60 m.
170 m.
150 m.
Cement Works
Vessel of 155 m. length
Hopper
Conveyor Belt
Crane
100 m.
150 m.
40 m.
4
5
Prevailing Winds


NOUMEA
ISLE OF PINES
LOCATION MAP
Kuto Bay
Isle of Pines
22° 30' S.
167° 30' E.
Coral Plateau
4.00 m.
3.00 m.
2.00 m.
Connecting Bridge
Duke of Alba
15.00 m.
3.5 m.
Wharf
30.00 m.
22 m.
Bollards
3.5 m.
11.00 m.
15.00 m.
Duke of Alba
N
Old Quay 290 m.

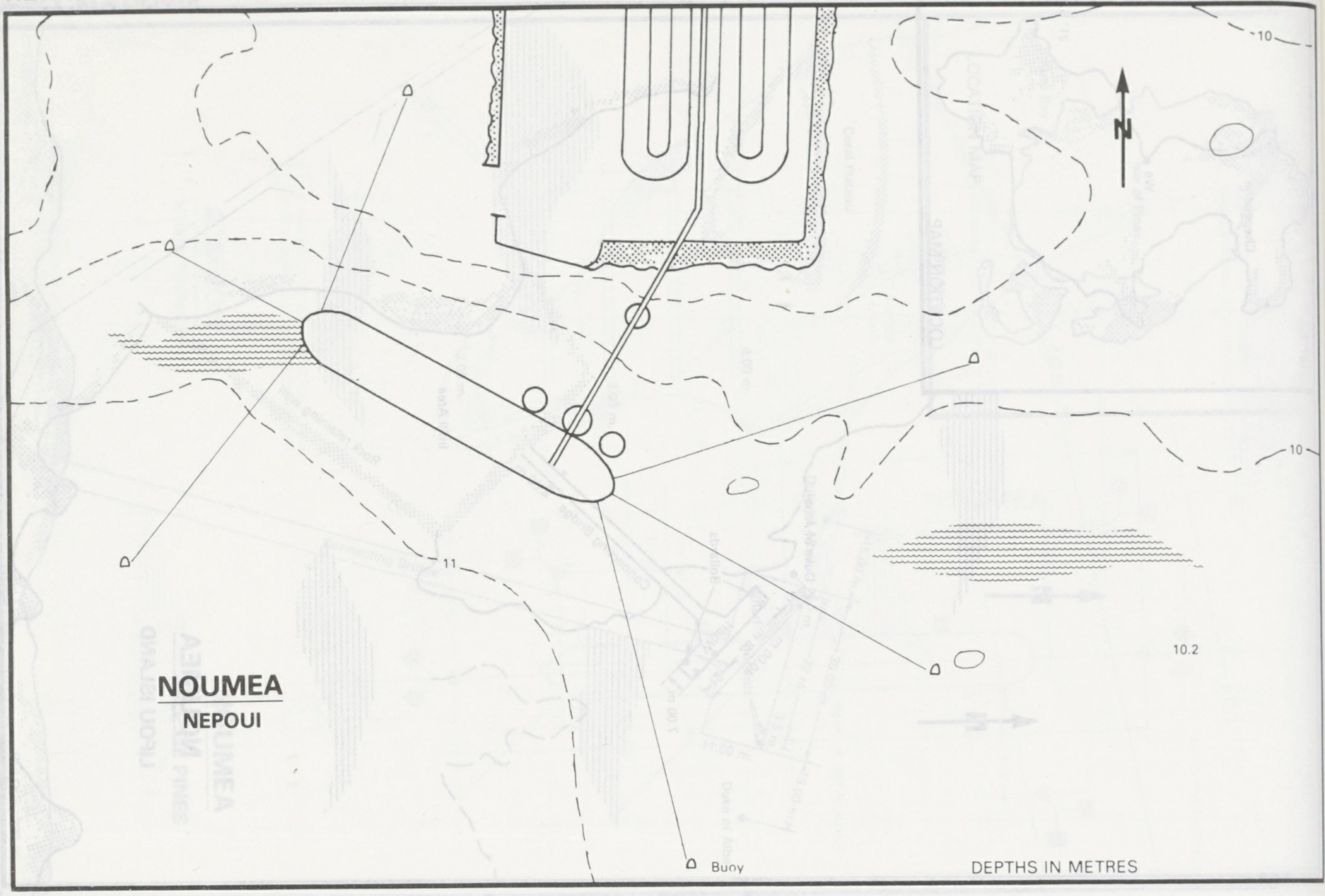

NOUMEA
KOUAOUA
N
11
10
9
8
7
6
9
Buoy
DEPTHS IN METRES


168° E.
21° 30′ S.
Mare Island
Tadine
LOCATION MAP
2.00 m.
12.20 m.
30°
N
Old Quay
25.80 m.
24.60 m.
Bollards 20.00 m.
New Quay
1.00 m.

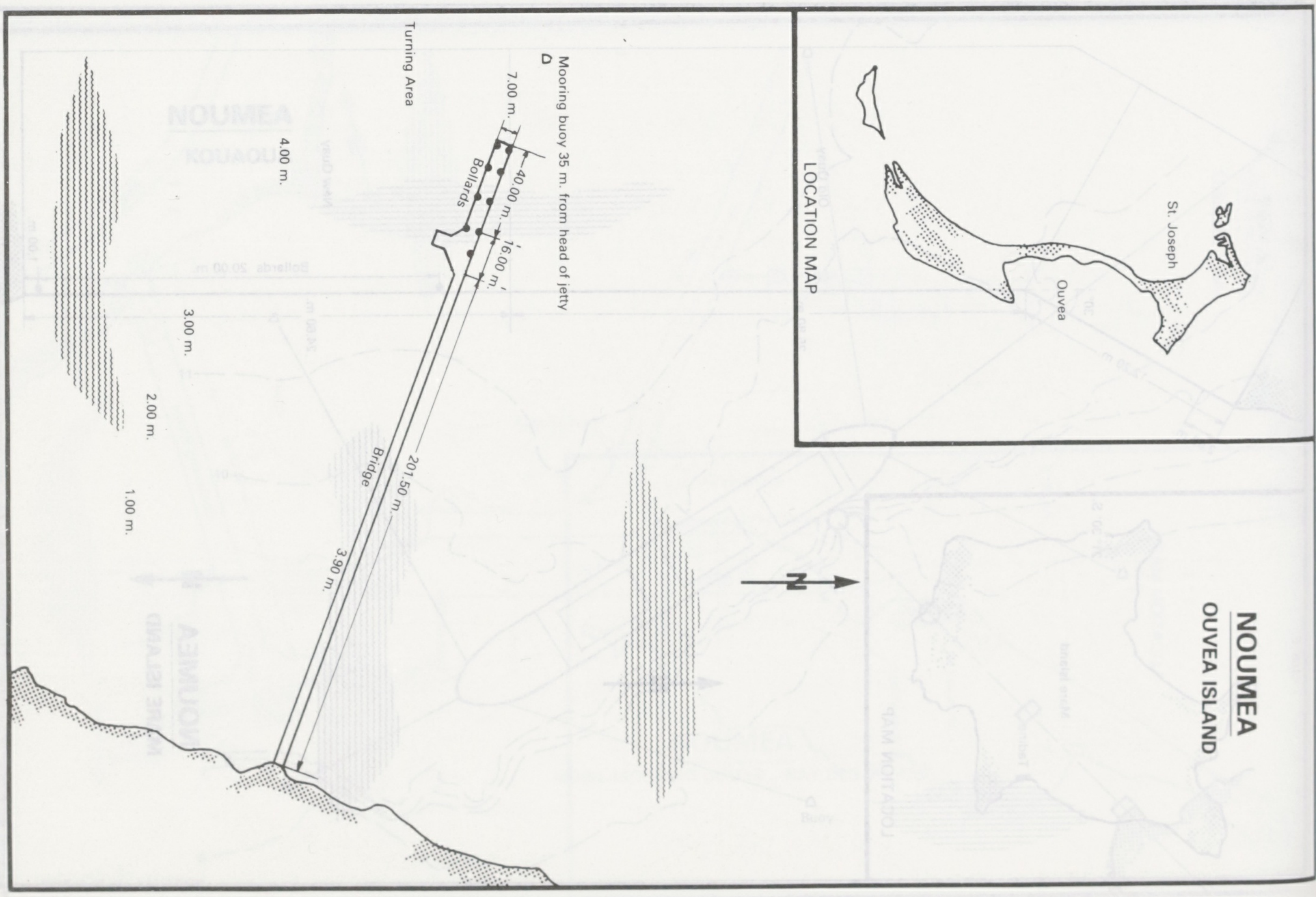
NOUMEA
MARE ISLAND


167° E.
Chepenehe
We
21° S.
LOCATION MAP
N
Duke of Alba
40.00 m.
15
28 m.
12
Wharf
Bollards
7.00 m.
Connecting Bridge
4.00 m.
Infill Area
Rock retaining wall

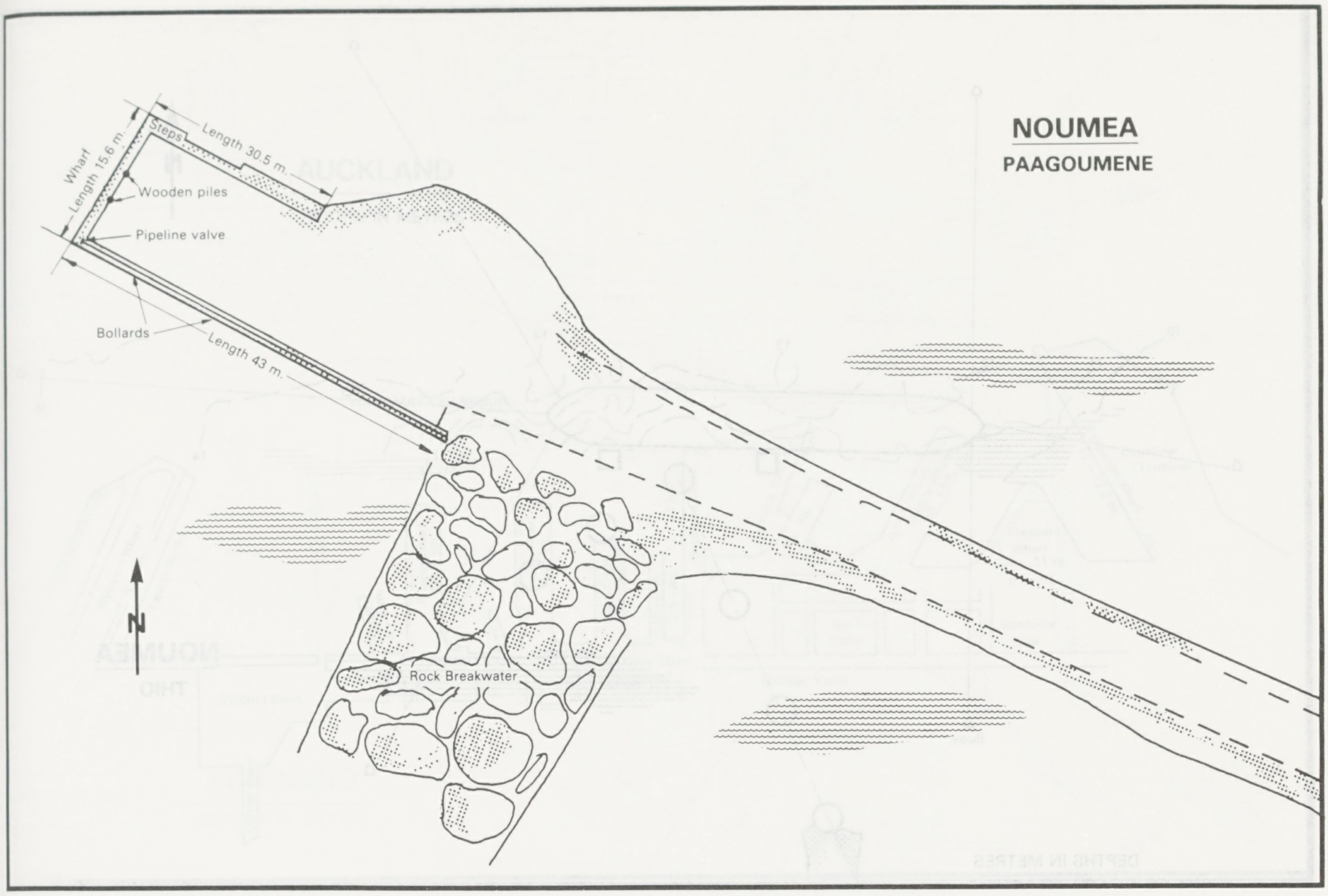
NOUMEA
LIFOU ISLAND

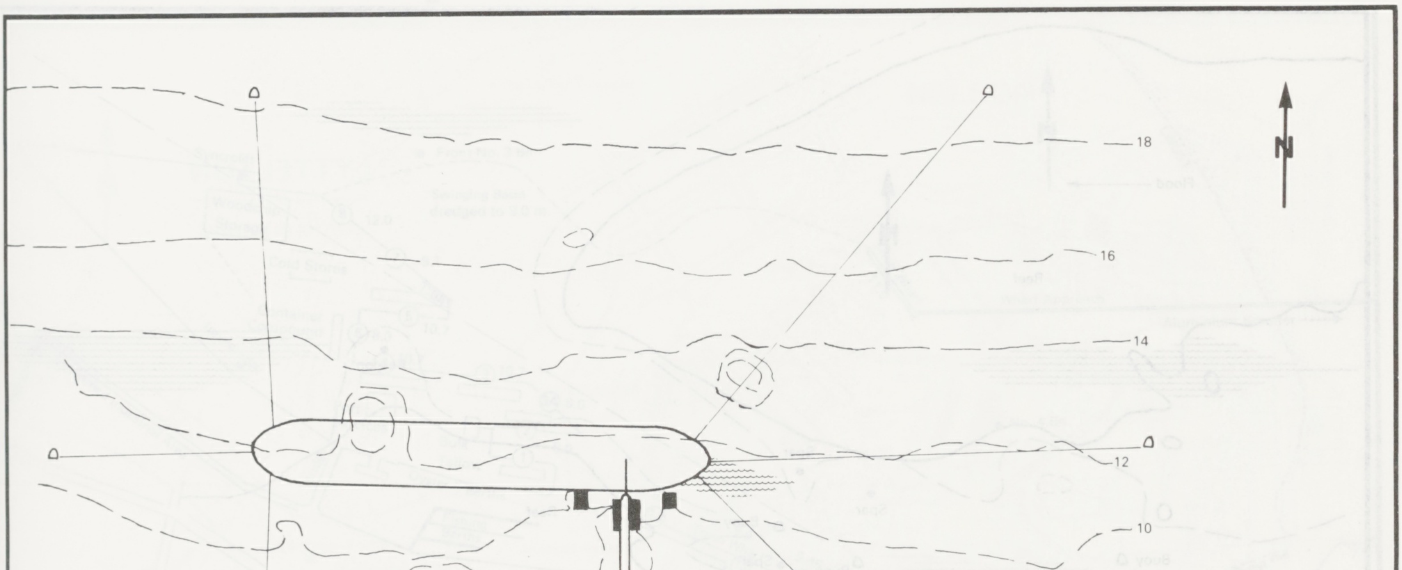

10
10
11
10.2
N
Buoy
DEPTHS IN METRES

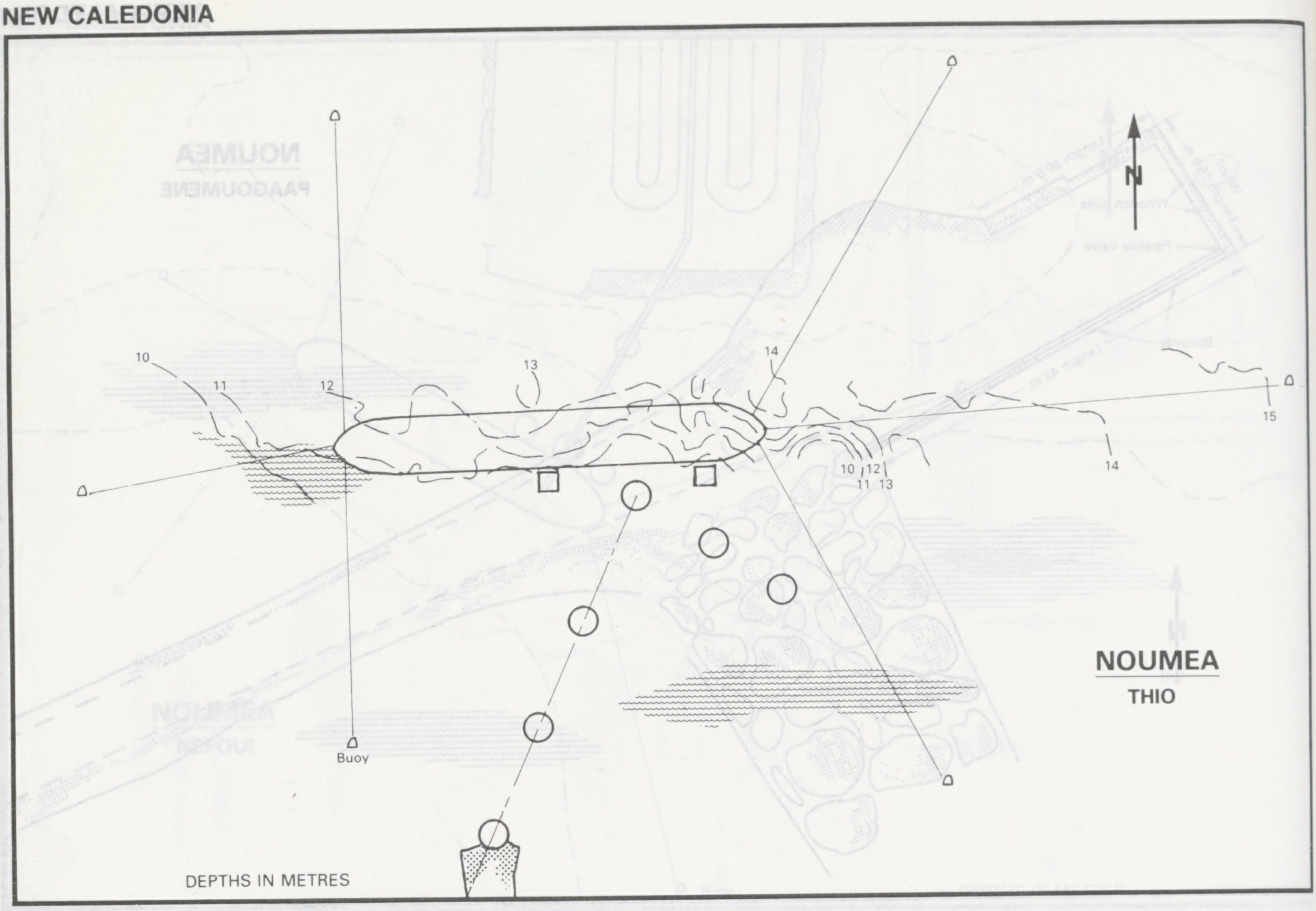
NOUMEA
NEPOUI

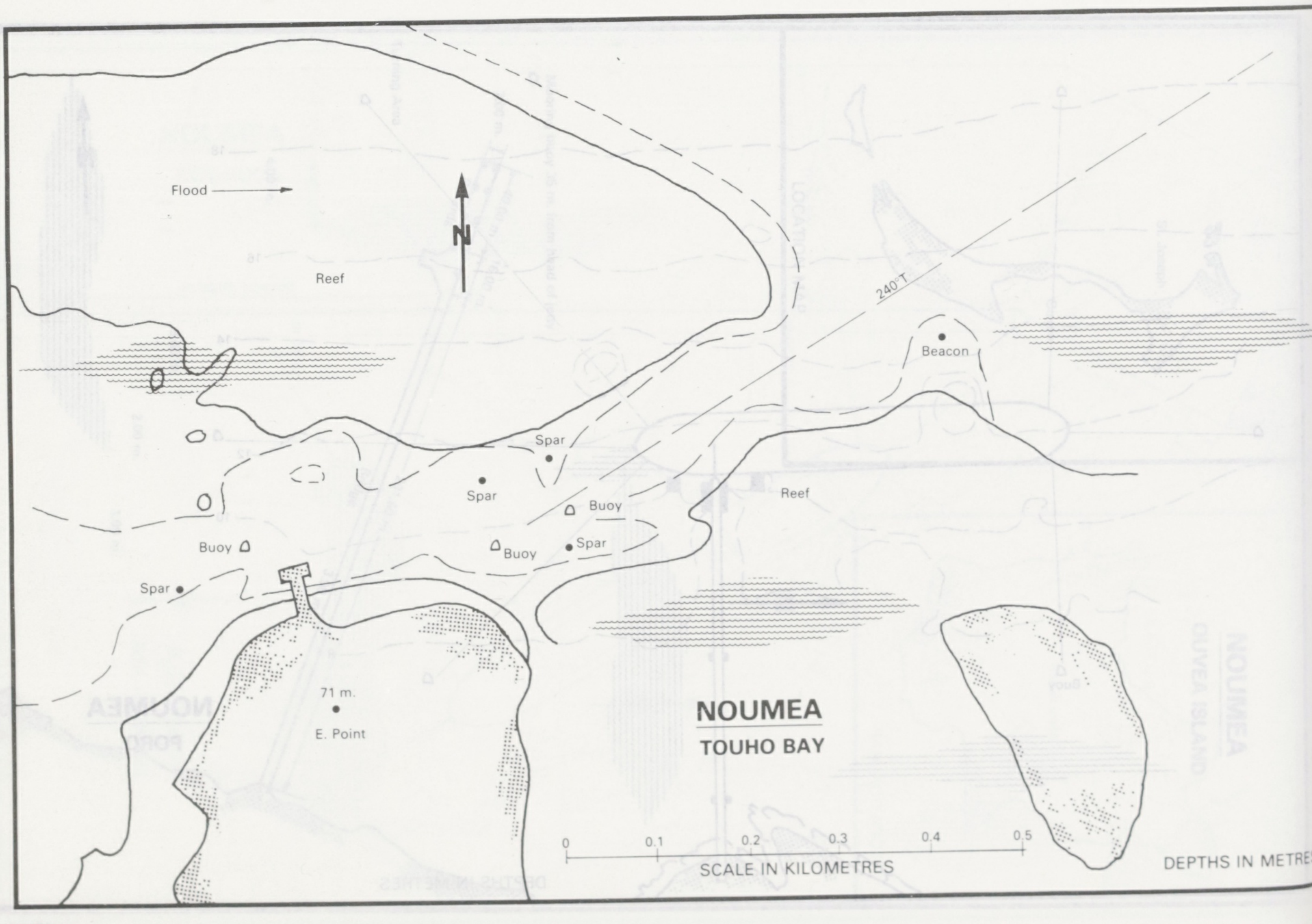

LOCATION MAP
St. Joseph
Ouvea
Mooring buoy 35 m. from head of jetty
7.00 m.
40.00 m.
Bollards
16.00 m.
Turning Area
4.00 m.
3.00 m.
2.00 m.
1.00 m.
201.50 m.
Bridge
3.90 m.
N

NOUMEA
OUVEA ISLAND


NOUMEA
PAAGOUMENE
Wharf
Length 15.6 m.
Steps
Length 30.5 m.
Wooden piles
Pipeline valve
Bollards
Length 43 m.
Rock Breakwater
N

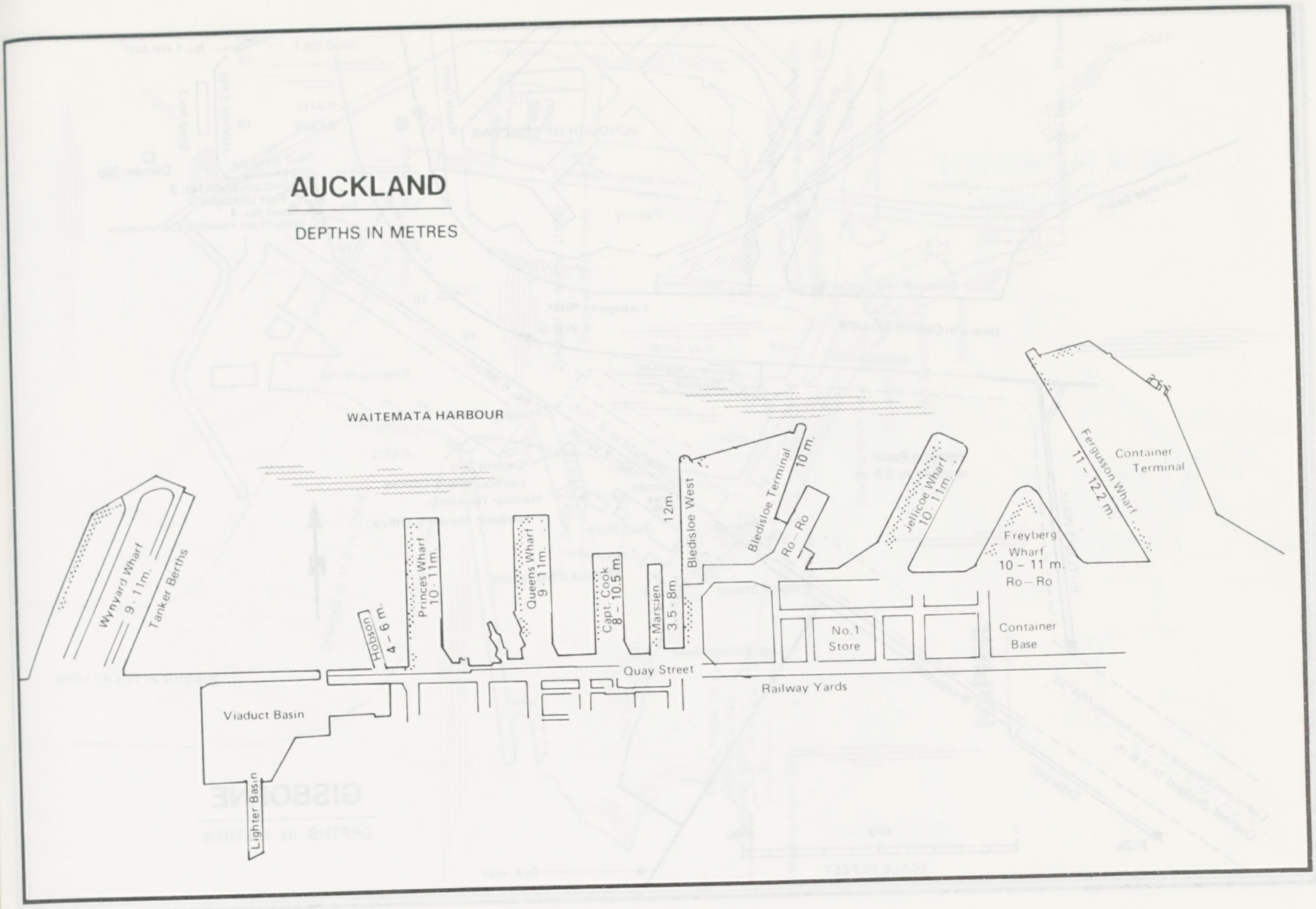

N
18
16
14
12
10
8
Buoy
NOUMEA
PORO
DEPTHS IN METRES


N
10
11
12
13
14
10
12
11
13
14
15
Buoy
DEPTHS IN METRES
NOUMEA
THIO


Flood
Reef
N
240°T
Beacon
Spar
Spar
Buoy
Reef
Buoy
Buoy
Spar
Spar
71 m.
E. Point
NOUMEA
TOUHO BAY
0
0.1
0.2
0.3
0.4
0.5
SCALE IN KILOMETRES
DEPTHS IN METRE

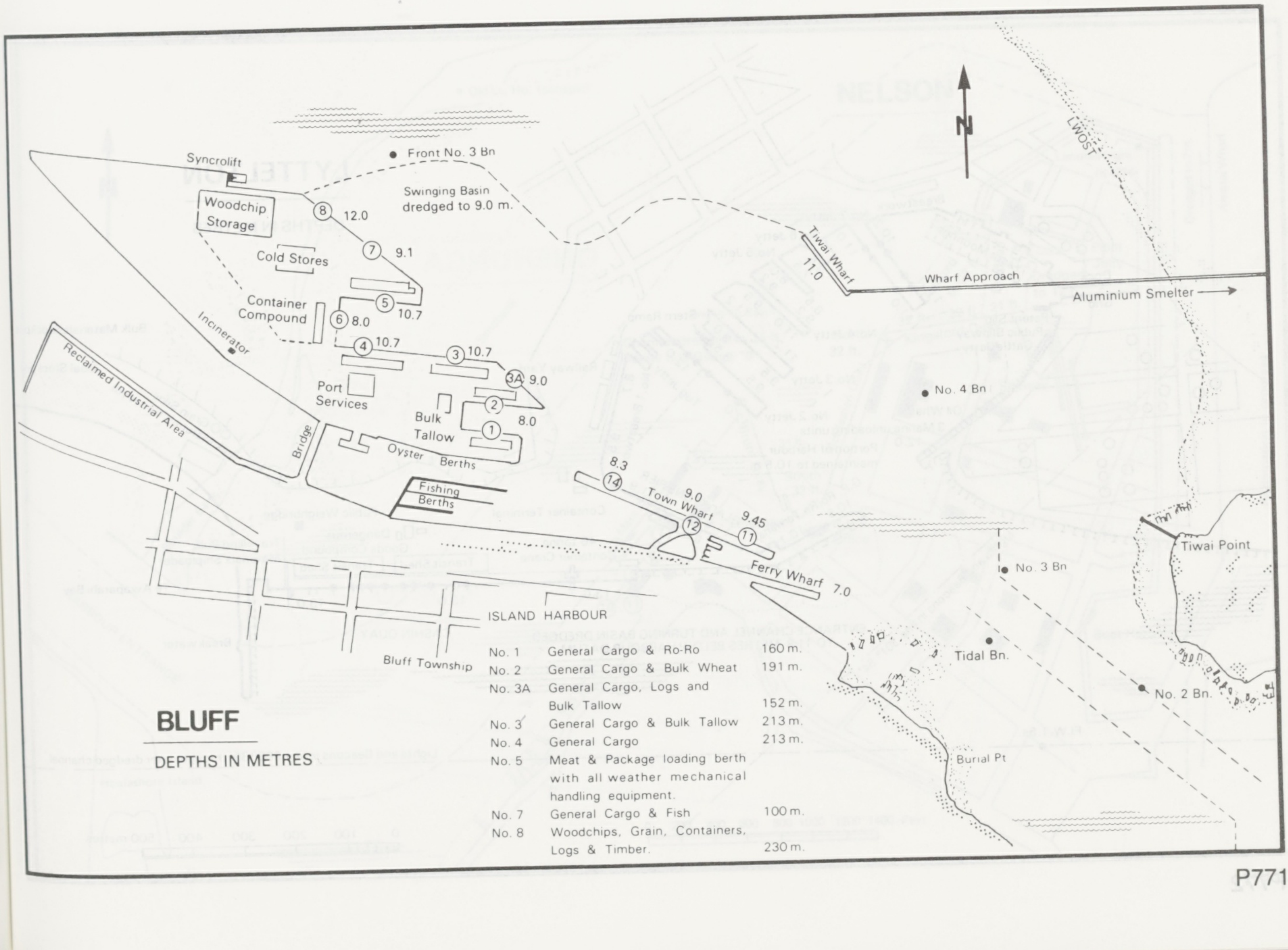
AUCKLAND

DEPTHS IN METRES

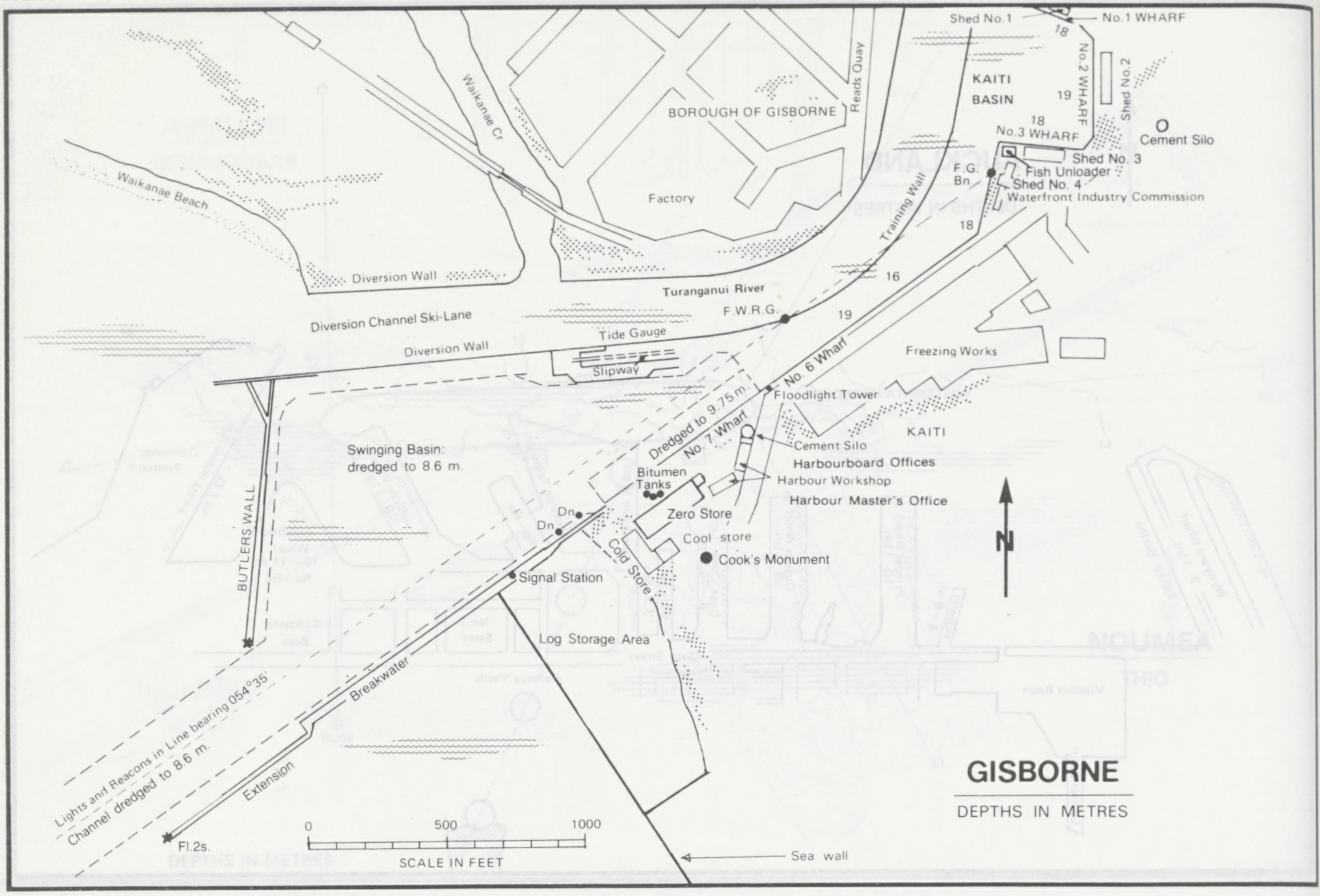

WAITEMATA HARBOUR
Wynyard Wharf 9 - 11m.
Tanker Berths
Hobson 4 - 6 m.
Princes Wharf 10 - 11m.
Queens Wharf 9 - 11m.
Capt. Cook 8 - 10.5 m
Marsden 3.5 - 8m.
12m.
Bledisloe West
Bledisloe Terminal
10 m.
Ro - Ro
Jellicoe Wharf 10 - 11m.
Fergusson Wharf 11 - 12.2 m.
Container Terminal
Freyberg Wharf 10 - 11 m. Ro - Ro
No.1 Store
Container Base
Quay Street
Railway Yards
Viaduct Basin
Lighter Basin

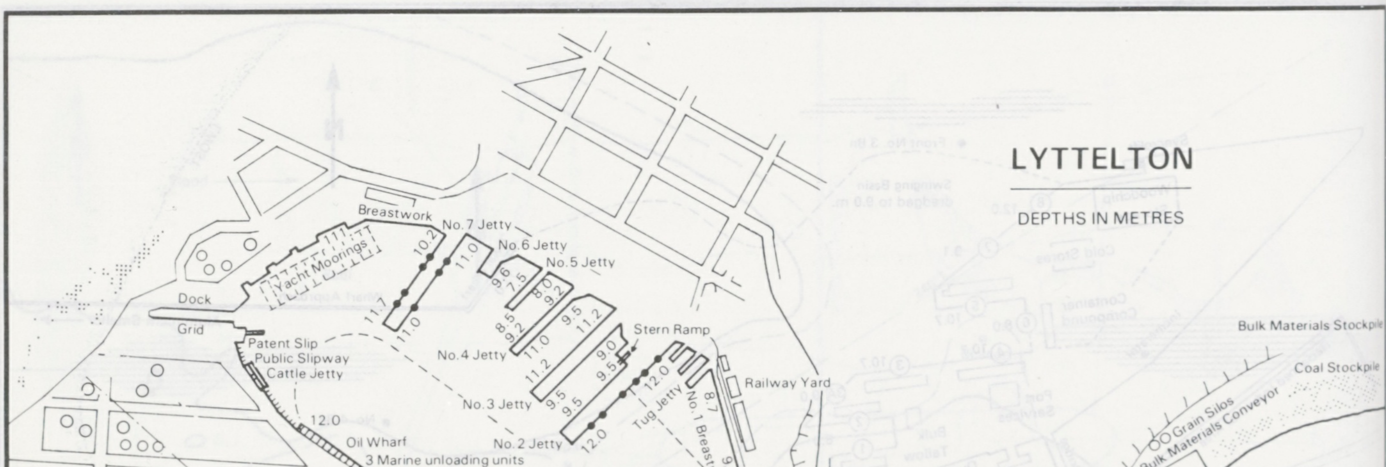
BLUFF

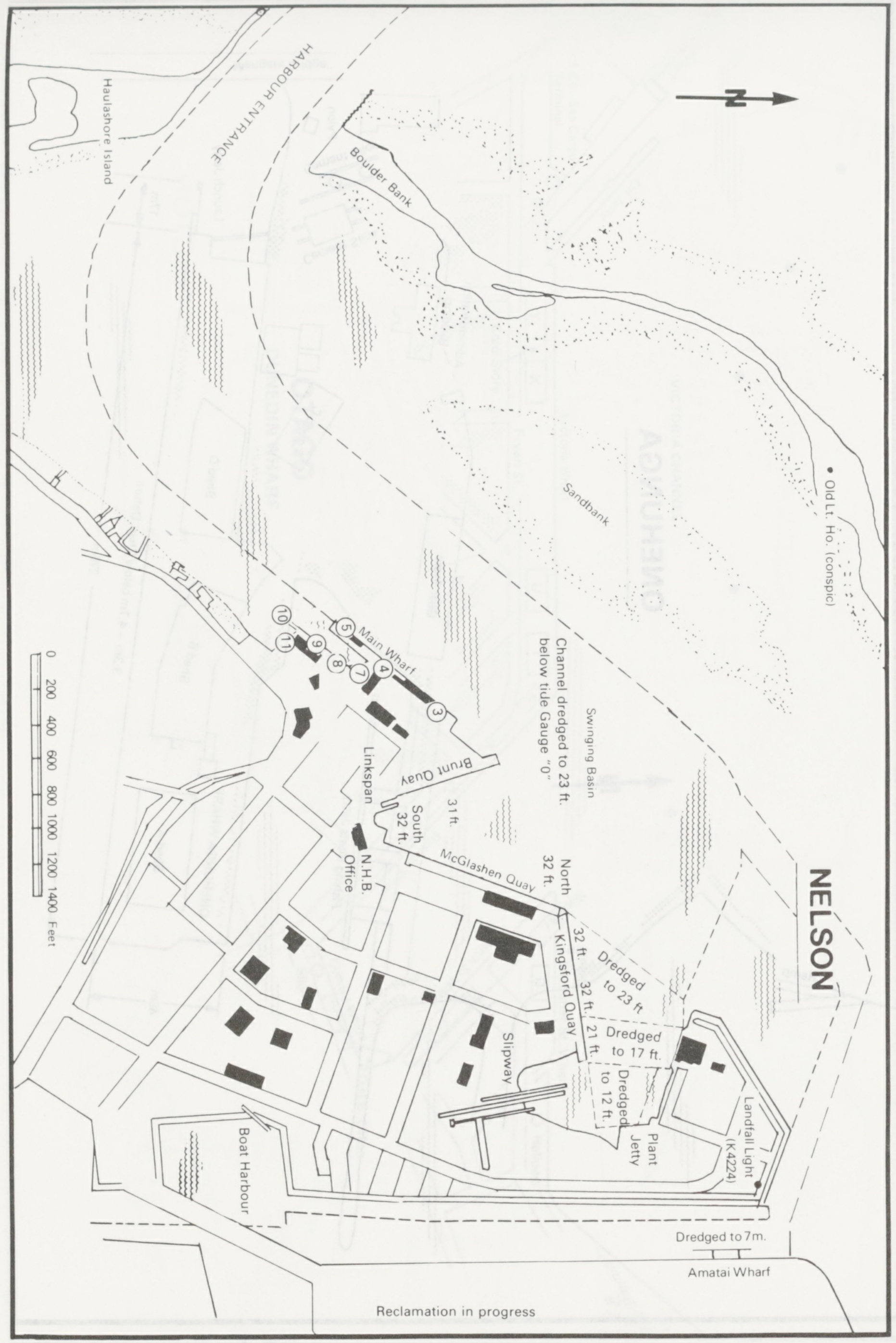
DEPTHS IN METRES

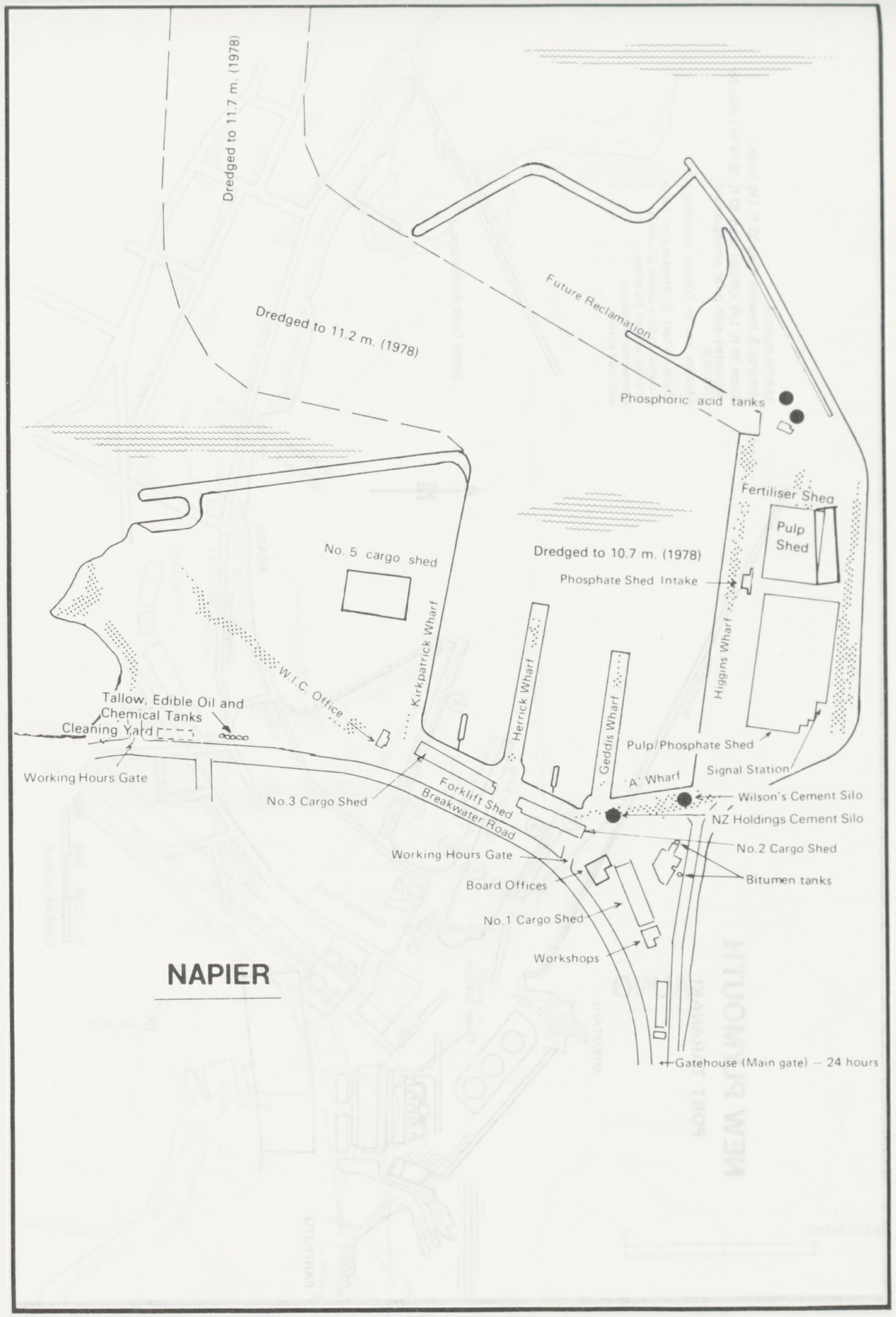

Syncrolift
Woodchip Storage
Front No. 3 Bn
Swinging Basin dredged to 9.0 m.
⑧ 12.0
⑦ 9.1
Cold Stores
Container Compound
⑤ 10.7
⑥ 8.0
④ 10.7
③ 10.7
3A 9.0
Incinerator
Reclaimed Industrial Area
Port Services
Bulk Tallow
② 8.0
①
Bridge
Oyster Berths
Fishing Berths
8.3 ⑭
9.0 Town Wharf
⑫
9.45 ⑪
Ferry Wharf 7.0
Tiwai Wharf 11.0
Wharf Approach
Aluminium Smelter →
LWOST
N
No. 4 Bn
Tiwai Point
No. 3 Bn
Tidal Bn.
No. 2 Bn.
Burial Pt
ISLAND HARBOUR
Bluff Township

No. 1	General Cargo & Ro-Ro	160 m.
No. 2	General Cargo & Bulk Wheat	191 m.
No. 3A	General Cargo, Logs and Bulk Tallow	152 m.
No. 3	General Cargo & Bulk Tallow	213 m.
No. 4	General Cargo	213 m.
No. 5	Meat & Package loading berth with all weather mechanical handling equipment.	
No. 7	General Cargo & Fish	100 m.
No. 8	Woodchips, Grain, Containers, Logs & Timber.	230 m.


GISBORNE
DEPTHS IN METRES
Shed No.1
No.1 WHARF
No.2 WHARF
Shed No.2
KAITI BASIN
No.3 WHARF
Cement Silo
Shed No. 3
Fish Unloader
Shed No. 4
Waterfront Industry Commission
F.G. Bn.
18
19
18
18
16
19
BOROUGH OF GISBORNE
Reads Quay
Waikanae Cr
Waikanae Beach
Factory
Training Wall
Diversion Wall
Turanganui River
F.W.R.G.
Diversion Channel Ski-Lane
Tide Gauge
Diversion Wall
Slipway
No. 6 Wharf
Freezing Works
Floodlight Tower
Dredged to 9.75 m.
No. 7 Wharf
Cement Silo
KAITI
Harbourboard Offices
Harbour Workshop
Harbour Master's Office
Swinging Basin: dredged to 8.6 m.
Bitumen Tanks
Zero Store
Dn
Dn
Cool store
Cold Store
Cook's Monument
Signal Station
BUTLERS WALL
Log Storage Area
N
Breakwater
Lights and Reacons in Line bearing 054°35'
Channel dredged to 8.6 m.
Extension
Fl.2s.
0
500
1000
SCALE IN FEET
Sea wall

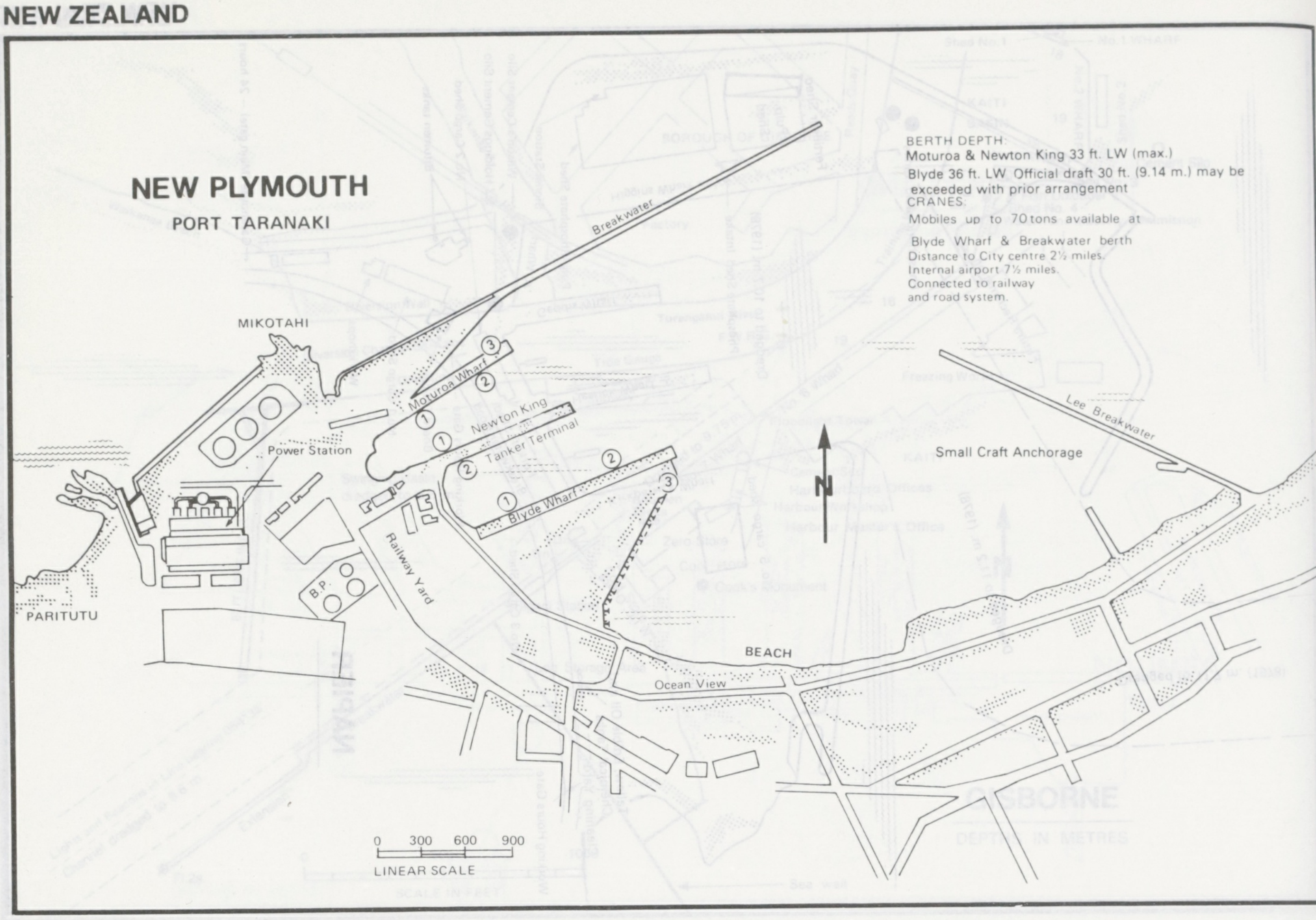

LYTTELTON
DEPTHS IN METRES
Breastwork
No.7 Jetty
No.6 Jetty
No.5 Jetty
Yacht Moorings
Dock
Grid
Patent Slip
Public Slipway
Cattle Jetty
10.2
11.0
11.0
11.0
9.6
7.5
8.0
9.2
8.5
9.2
9.5
11.2
11.0
11.2
Stern Ramp
No.4 Jetty
9.0
9.5
12.0
No.3 Jetty
9.5
9.5
Tug Jetty
No.1 Breastwork
8.7
9.5
Railway Yard
No.2 Jetty
12.0
12.0
Oil Wharf
3 Marine unloading units
12.0
Portion of Harbour maintained to 10.5 m.
G.P. Ro/Ro Terminal
10.5
10.1
GLADSTONE PIER
11.9
11.9
Container Terminal
46 tonne Container Crane
13.0
13.0
13.0
Public Weighbridge
Dangerous Goods Compound
Transit Shed
Transit Shed
Travelling Bulk Materials Shiploader
CASHIN QUAY
Breakwater
Te Awaparahi Bay
Bulk Materials Stockpile
Coal Stockpile
Grain Silos
Bulk Materials Conveyor
Lights and Beacons in line 301° 54'
ENTRANCE CHANNEL AND TURNING BASIN DREDGED TO 11.8 METRES BELOW HARBOUR DATUM
Fl.W.1.5s.
Lights and Beacons in line 260° 39' through outer dredged channel
0
100
200
300
400
500 metres


NELSON
N
Haulashore Island
HARBOUR ENTRANCE
Boulder Bank
Sandbank
Old Lt. Ho. (conspic)
Main Wharf
3
4
5
7
8
9
10
11
Swinging Basin
Channel dredged to 23 ft. below tide Gauge "0"
Brunt Quay
Linkspan
31 ft.
South 32 ft.
N.H.B. Office
McGlashen Quay
North 32 ft.
Kingsford Quay
32 ft.
Dredged to 23 ft
32 ft.
21 ft.
Dredged to 17 ft.
Dredged to 12 ft.
Slipway
Plant Jetty
Landfall Light (K4224)
Boat Harbour
Dredged to 7m.
Amatai Wharf
Reclamation in progress
0
200
400
600
800
1000
1200
1400
Feet


NAPIER
Dredged to 11.7 m. (1978)
Dredged to 11.2 m. (1978)
Future Reclamation
Phosphoric acid tanks
Fertiliser Shed
Pulp Shed
No. 5 cargo shed
Dredged to 10.7 m. (1978)
Phosphate Shed Intake
Kirkpatrick Wharf
Herrick Wharf
Geddis Wharf
Higgins Wharf
W.I.C. Office
Tallow, Edible Oil and Chemical Tanks
Cleaning Yard
Working Hours Gate
No.3 Cargo Shed
Forklift Shed
Breakwater Road
'A' Wharf
Pulp/Phosphate Shed
Signal Station
Wilson's Cement Silo
NZ Holdings Cement Silo
No.2 Cargo Shed
Working Hours Gate
Board Offices
Bitumen tanks
No.1 Cargo Shed
Workshops
Gatehouse (Main gate) – 24 hours

NEW PLYMOUTH

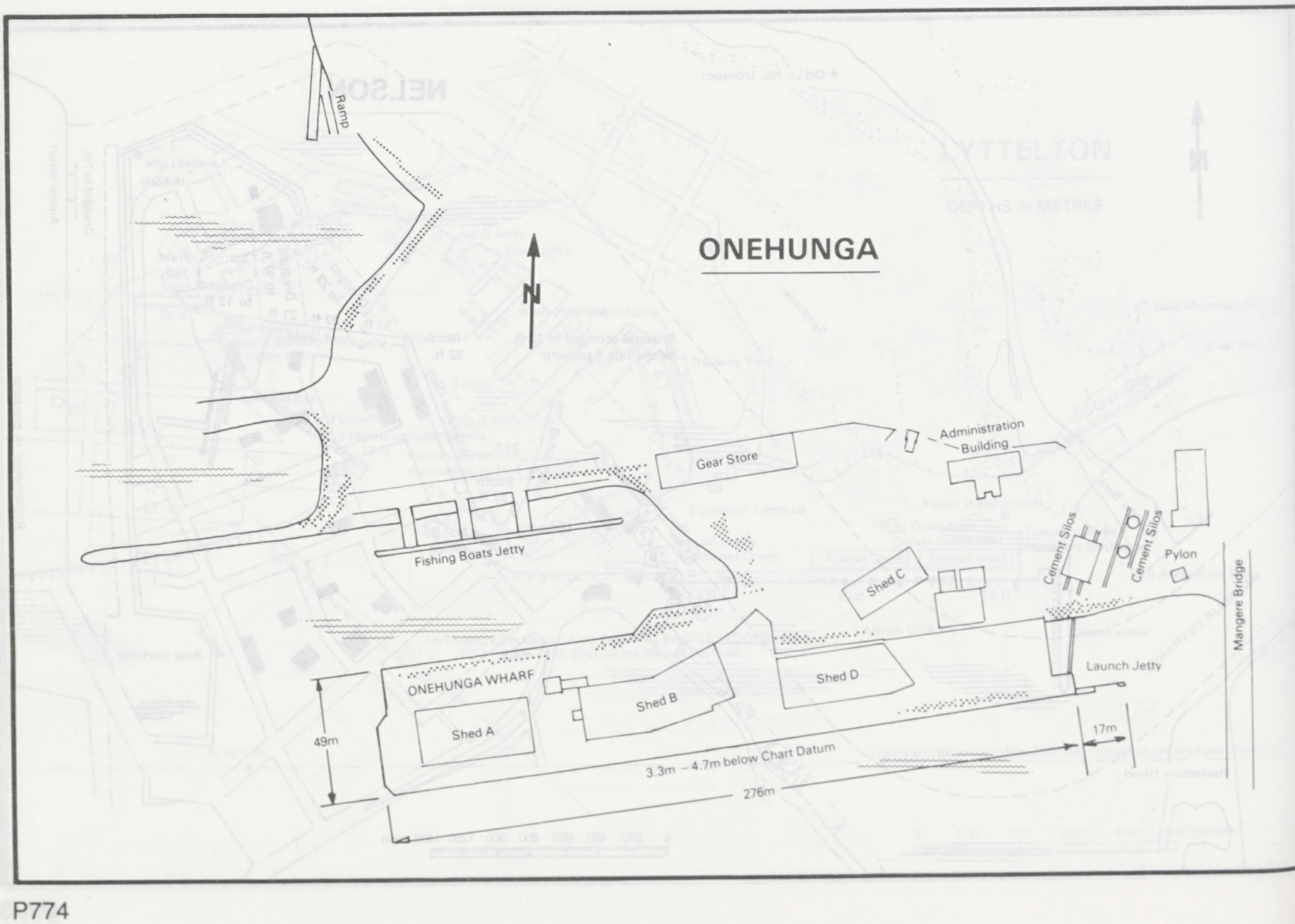
PORT TARANAKI



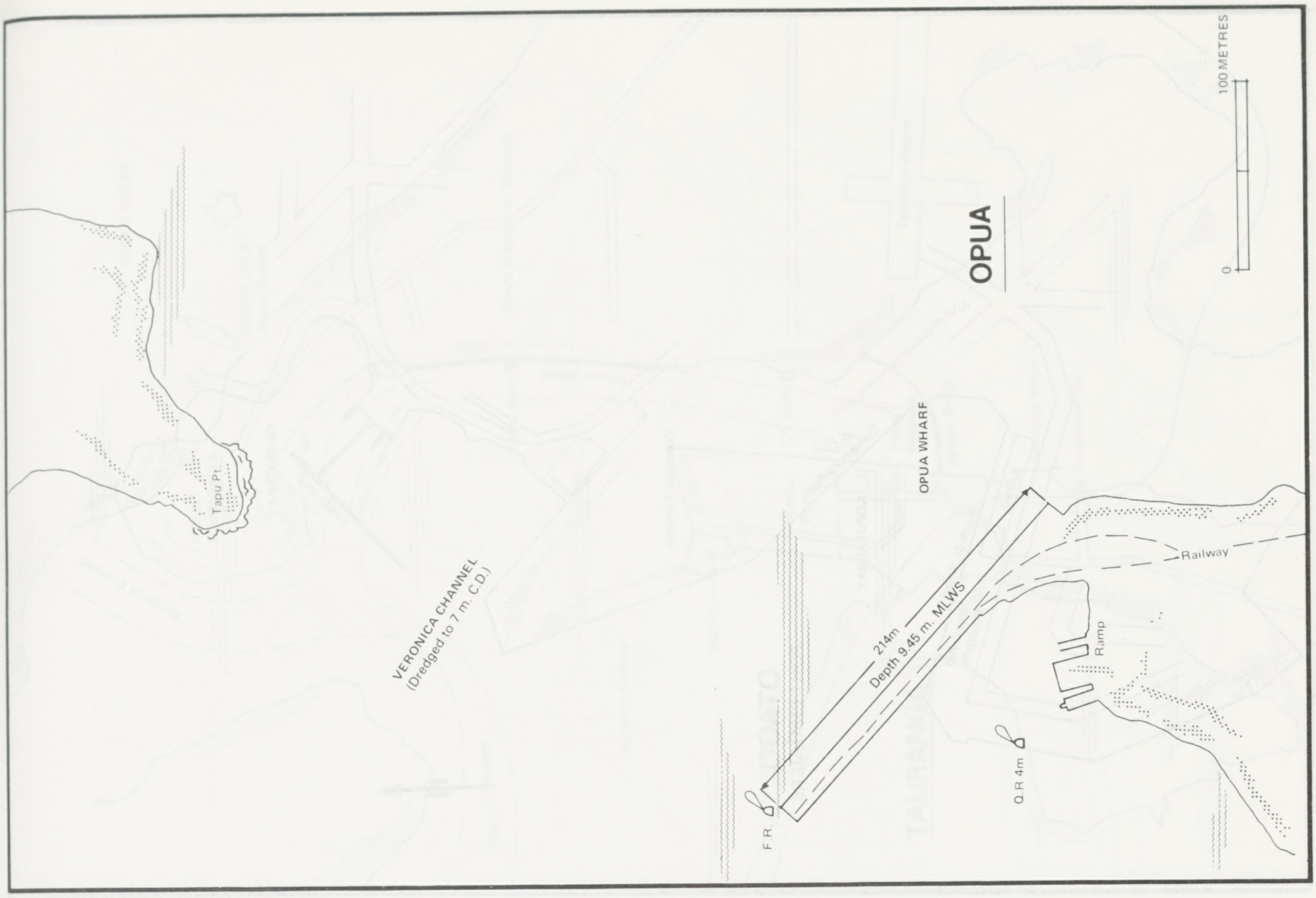
BERTH DEPTH:
Moturoa & Newton King 33 ft. LW (max.)
Blyde 36 ft. LW Official draft 30 ft. (9.14 m.) may be exceeded with prior arrangement
CRANES.
Mobiles up to 70 tons available at Blyde Wharf & Breakwater berth
Distance to City centre 2½ miles.
Internal airport 7½ miles.
Connected to railway and road system.

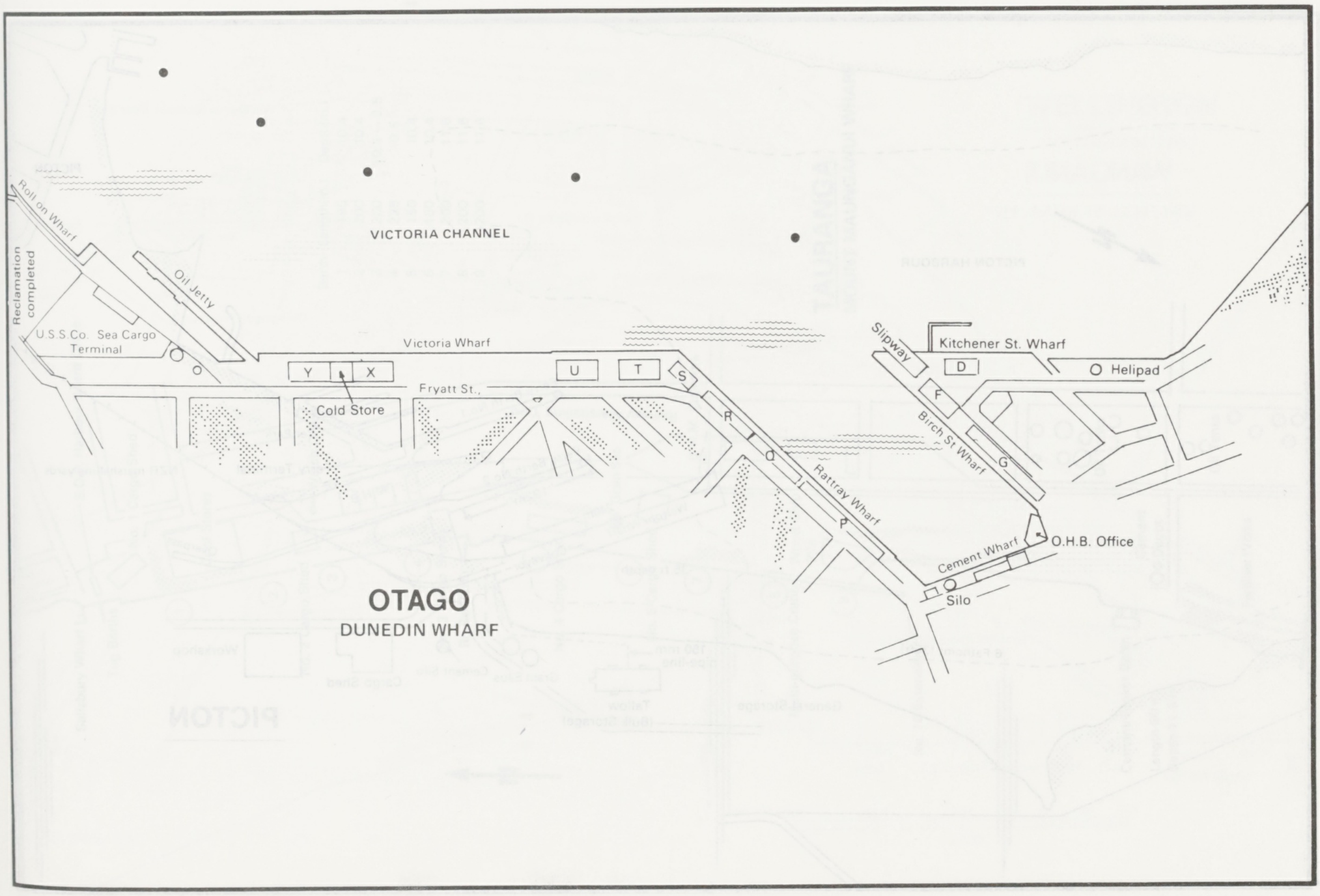
MIKOTAHI
Breakwater
Moturoa Wharf
③
②
①
Newton King
①
Tanker Terminal
②
②
③
①
Blyde Wharf
Power Station
Railway Yard
B.P.
PARITUTU
N
Lee Breakwater
Small Craft Anchorage
BEACH
Ocean View
0
300
600
900
LINEAR SCALE

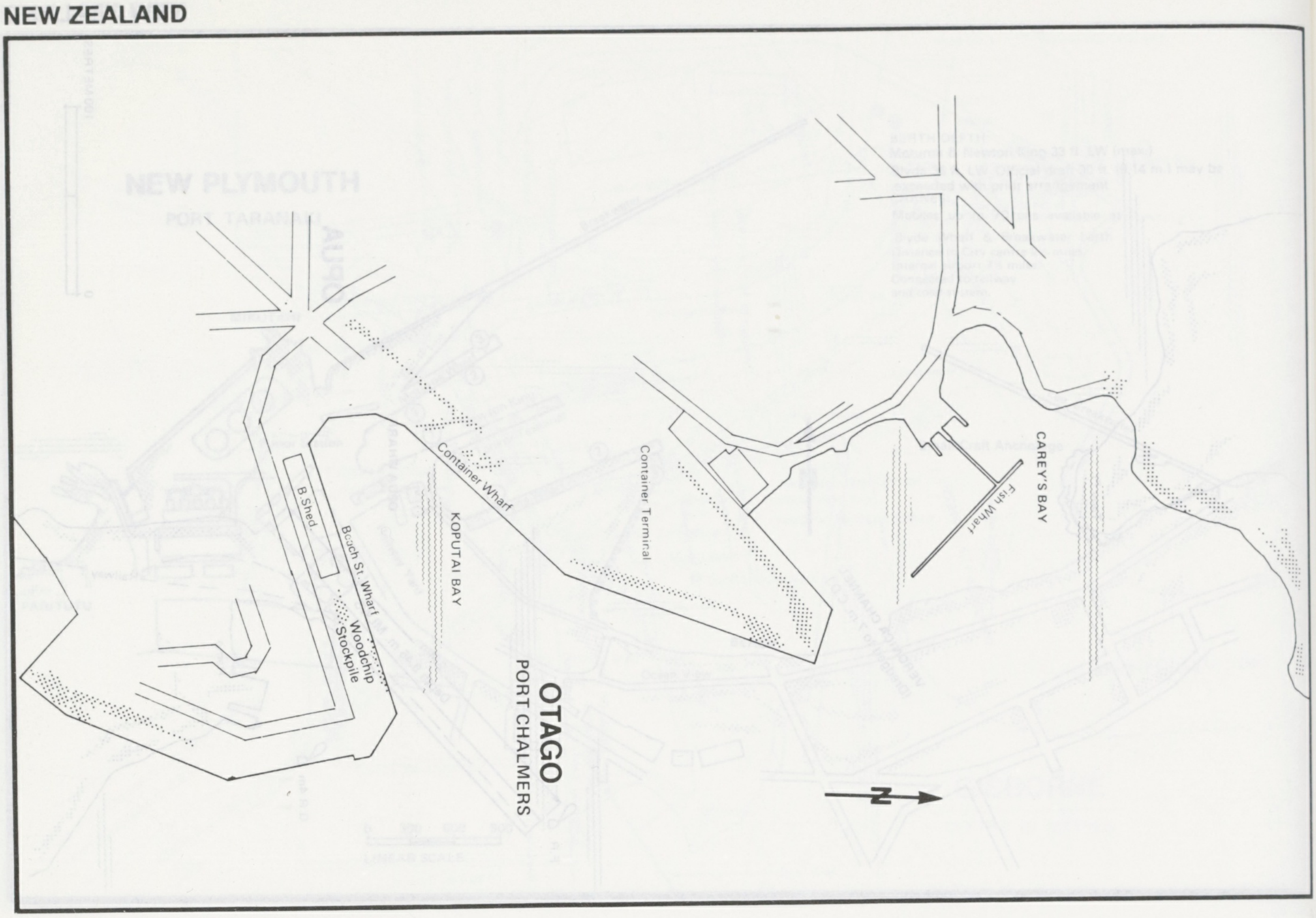
ONEHUNGA



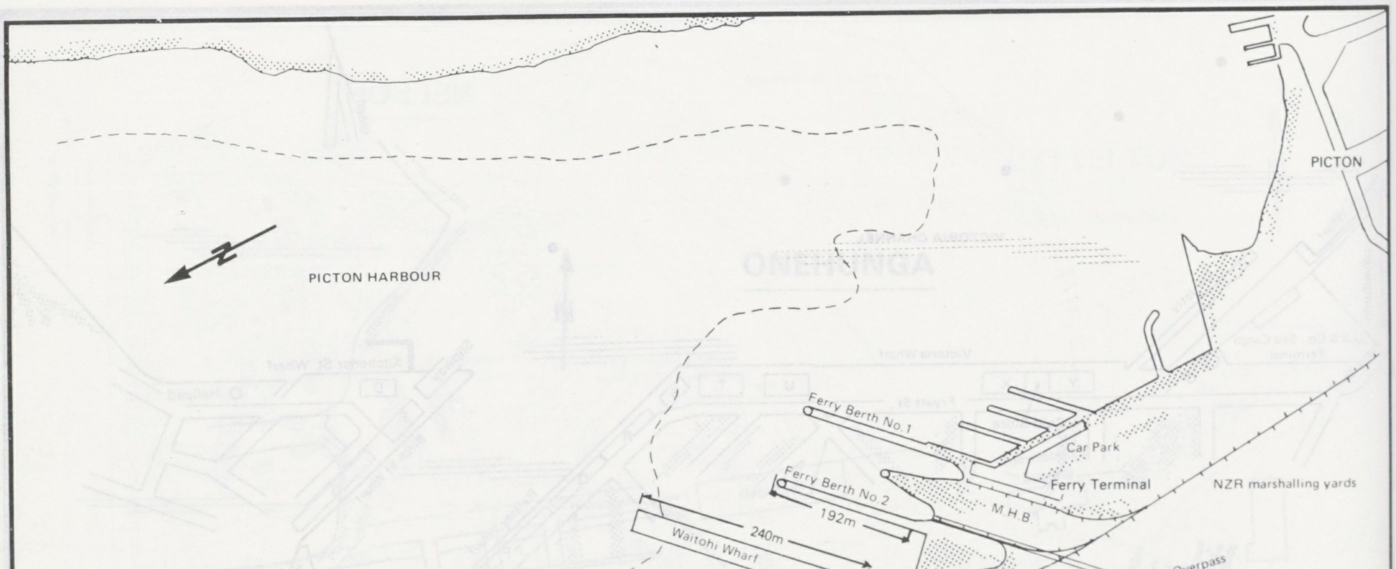
Ramp
N
Administration Building
Gear Store
Fishing Boats Jetty
Shed C
Cement Silos
Cement Silos
Pylon
Mangere Bridge
ONEHUNGA WHARF
Shed A
Shed B
Shed D
Launch Jetty
49m
17m
3.3m – 4.7m below Chart Datum
276m


OPUA
100 METRES
0
Tapu Pt
VERONICA CHANNEL
(Dredged to 7 m. C.D.)
OPUA WHARF
214m
Depth 9.45 m. MLWS
F.R
Q.R 4m
Ramp
Railway

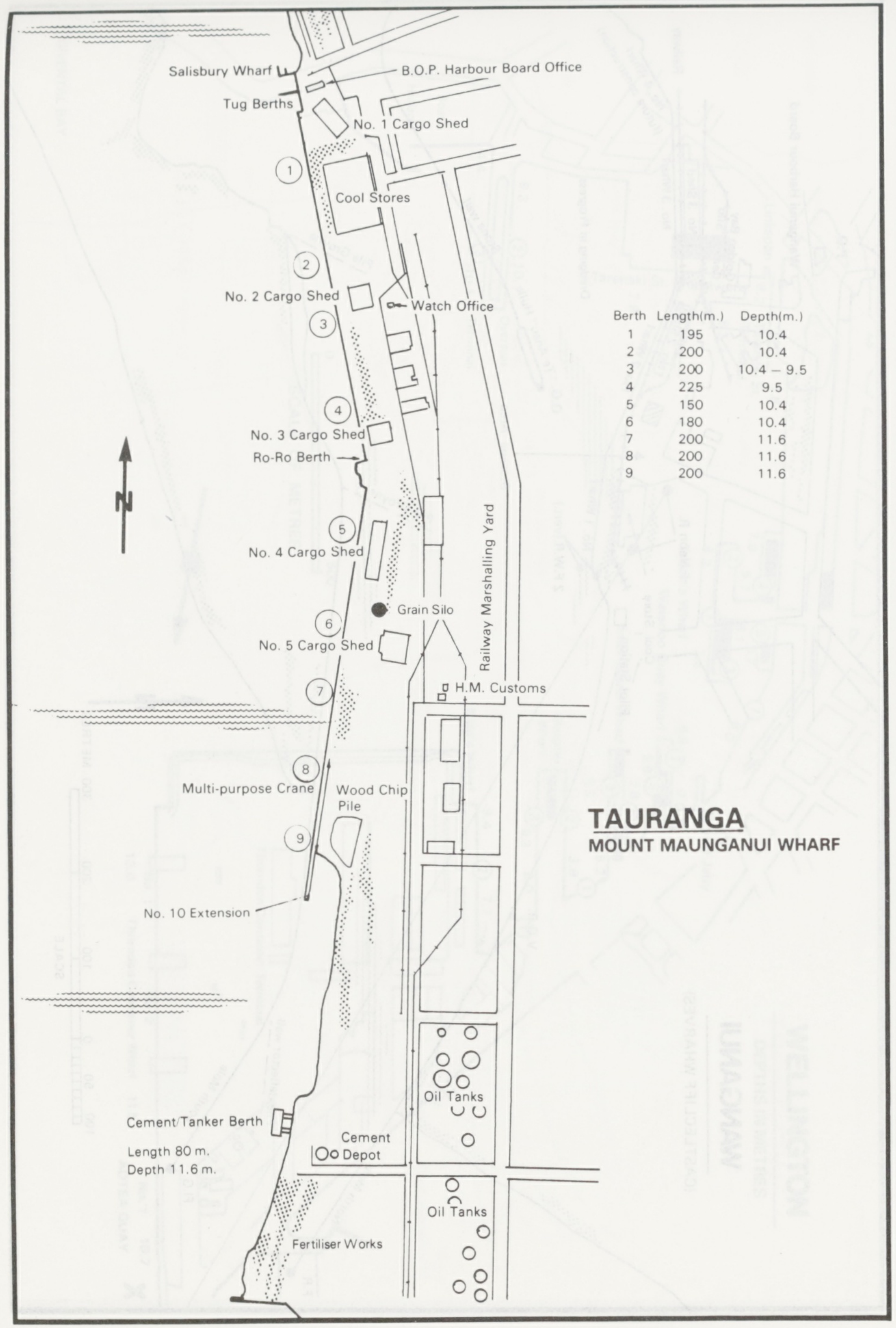

OTAGO
DUNEDIN WHARF
VICTORIA CHANNEL
Roll on Wharf
Reclamation completed
Oil Jetty
U.S.S.Co. Sea Cargo Terminal
Victoria Wharf
Y
X
Cold Store
Fryatt St.,
U
T
S
R
Q
P
Rattray Wharf
Slipway
Kitchener St. Wharf
D
Helipad
F
Birch St Wharf
G
Cement Wharf
O.H.B. Office
Silo


B.Shed
Beach St. Wharf
Woodchip Stockpile
Container Wharf
KOPUTAI BAY
Container Terminal
Fish Wharf
CAREY'S BAY
N

OTAGO
PORT CHALMERS

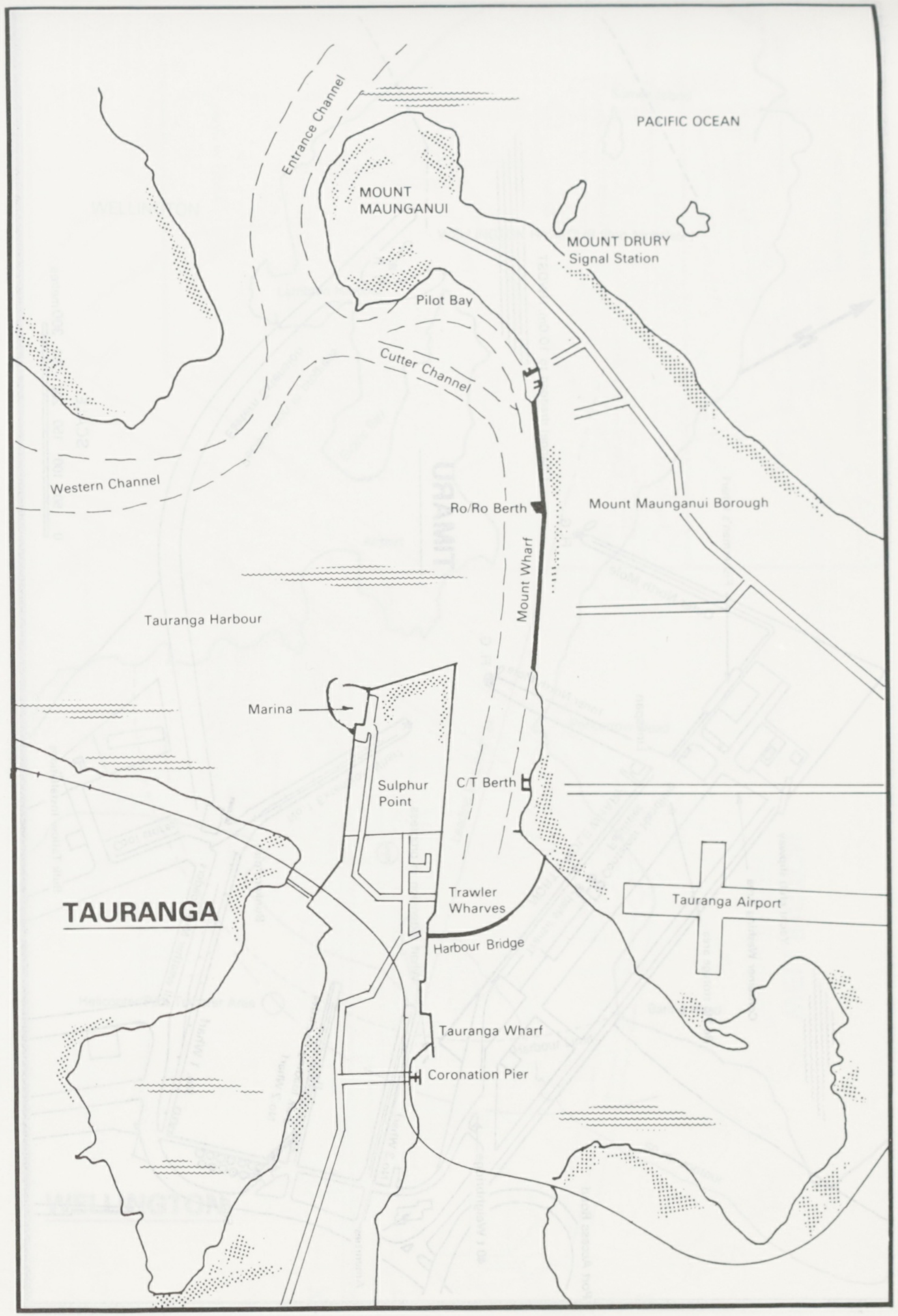

PICTON HARBOUR
N
PICTON
Ferry Berth No.1
Car Park
Ferry Berth No.2
Ferry Terminal
NZR marshalling yards
M.H.B.
192m
240m
Waitohi Wharf
Conveyor
Overpass
35 ft depth
6 Fathoms (36ft)
150 mm pipe-line
Grain Silos
Cement Silo
Cargo Shed
Workshop
General Storage
Tallow (Bulk Storage)

PICTON

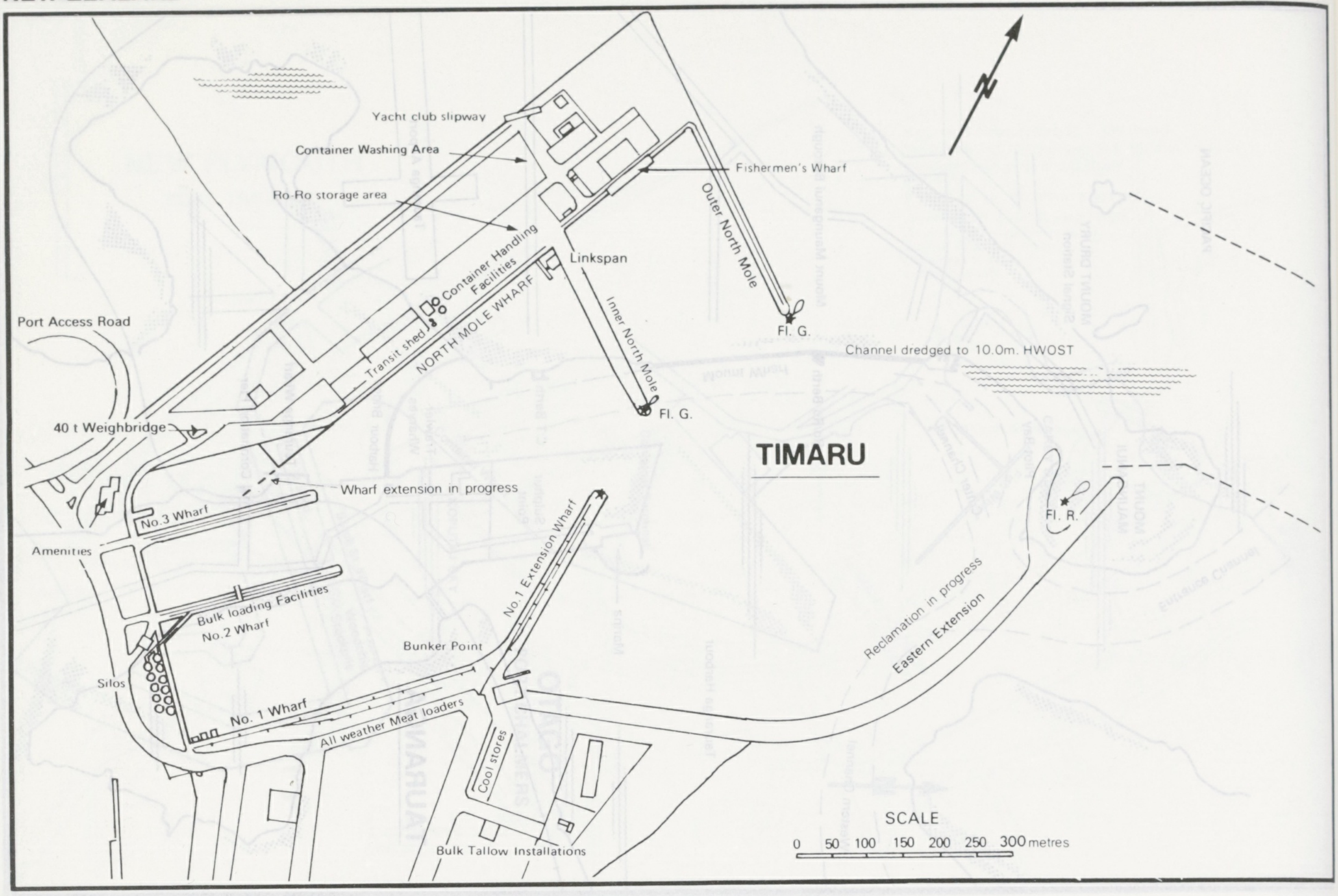

Salisbury Wharf
B.O.P. Harbour Board Office
Tug Berths
No. 1 Cargo Shed
1
Cool Stores
2
No. 2 Cargo Shed
Watch Office
3
4
No. 3 Cargo Shed
Ro-Ro Berth
N
5
No. 4 Cargo Shed
Railway Marshalling Yard
Grain Silo
6
No. 5 Cargo Shed
H.M. Customs
7
8
Multi-purpose Crane
Wood Chip Pile
9
No. 10 Extension
Oil Tanks
Cement/Tanker Berth
Length 80 m.
Depth 11.6 m.
Cement Depot
Oil Tanks
Fertiliser Works

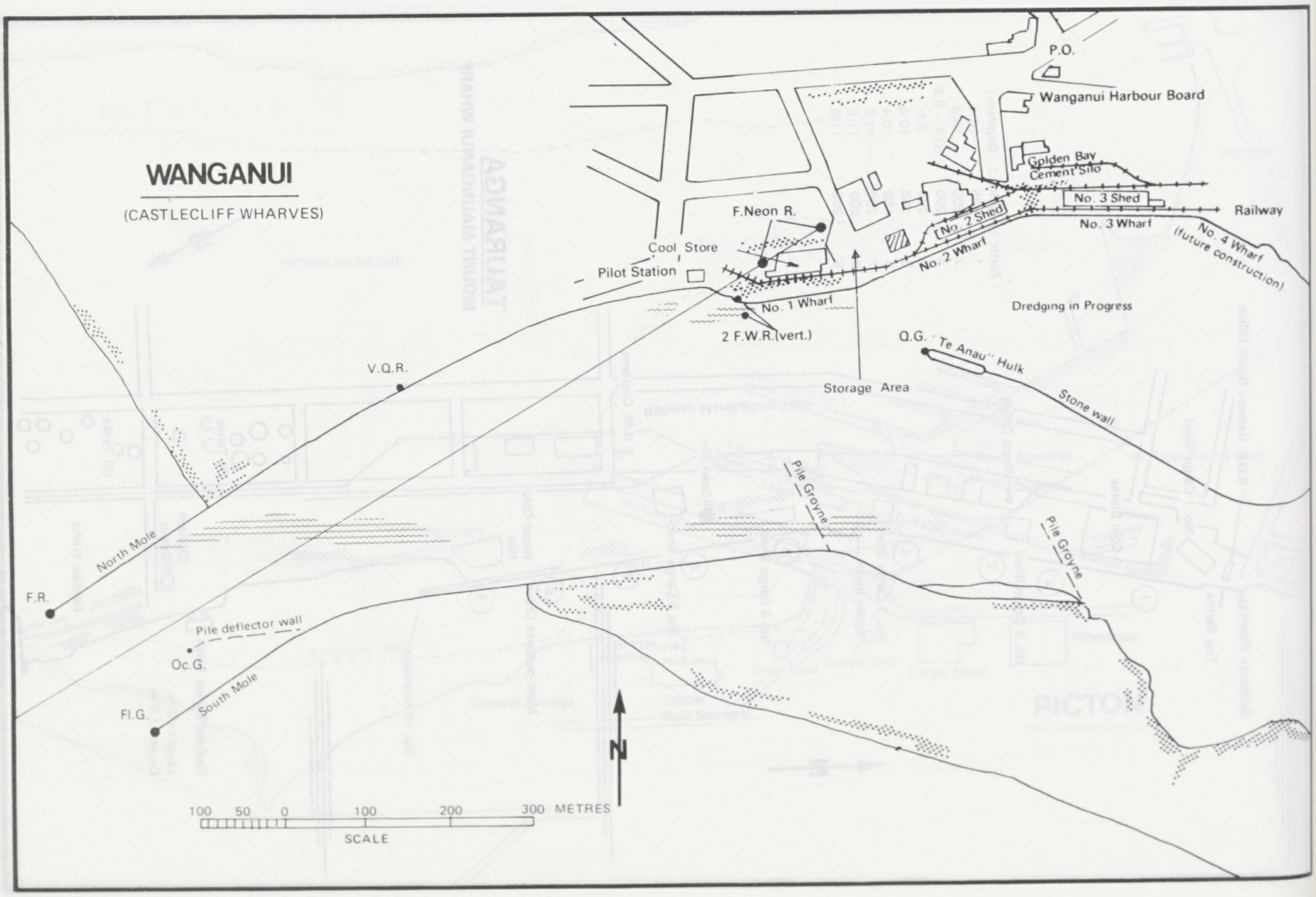
Berth	Length(m.)	Depth(m.)
1	195	10.4
2	200	10.4
3	200	10.4 – 9.5
4	225	9.5
5	150	10.4
6	180	10.4
7	200	11.6
8	200	11.6
9	200	11.6

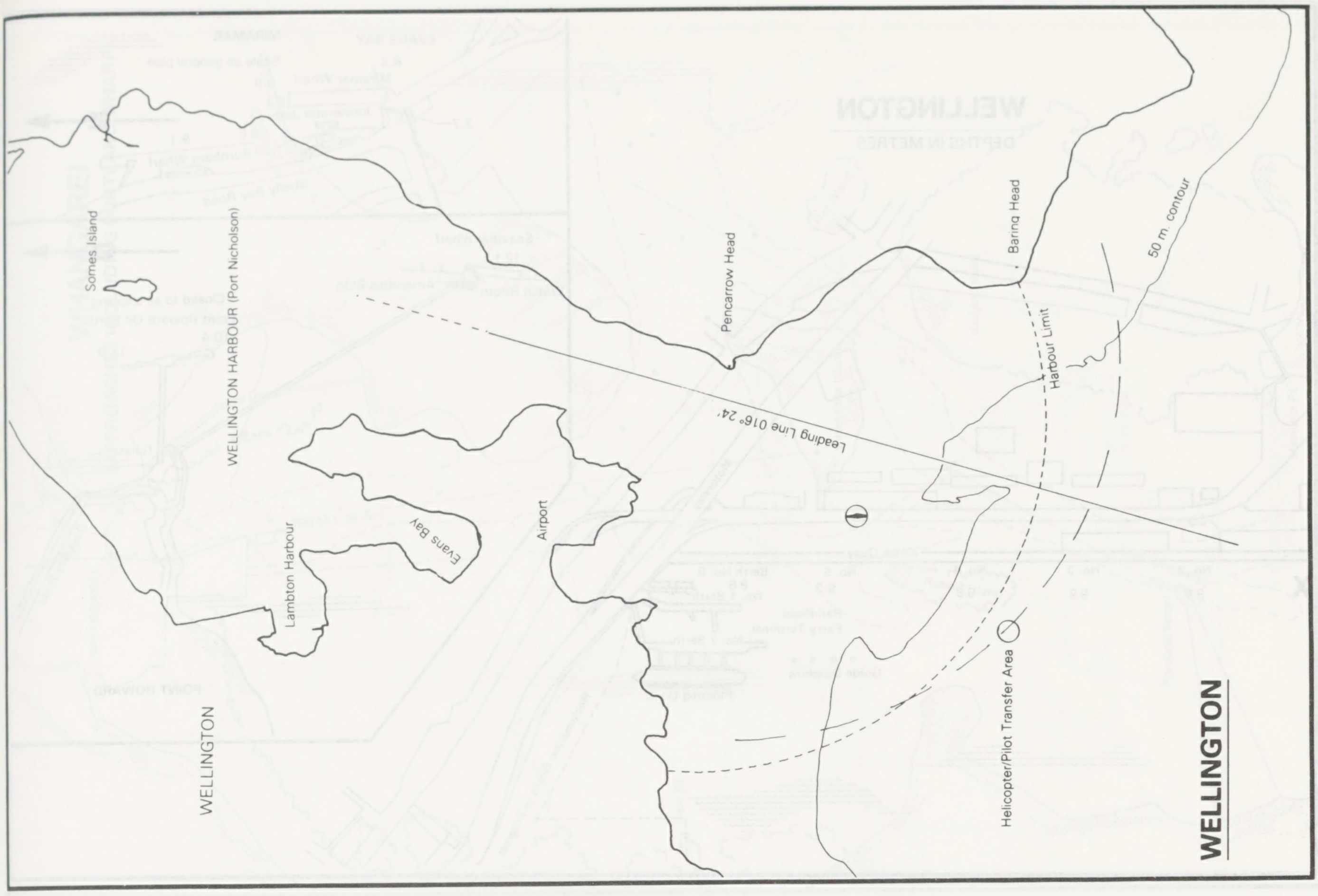
TAURANGA
MOUNT MAUNGANUI WHARF

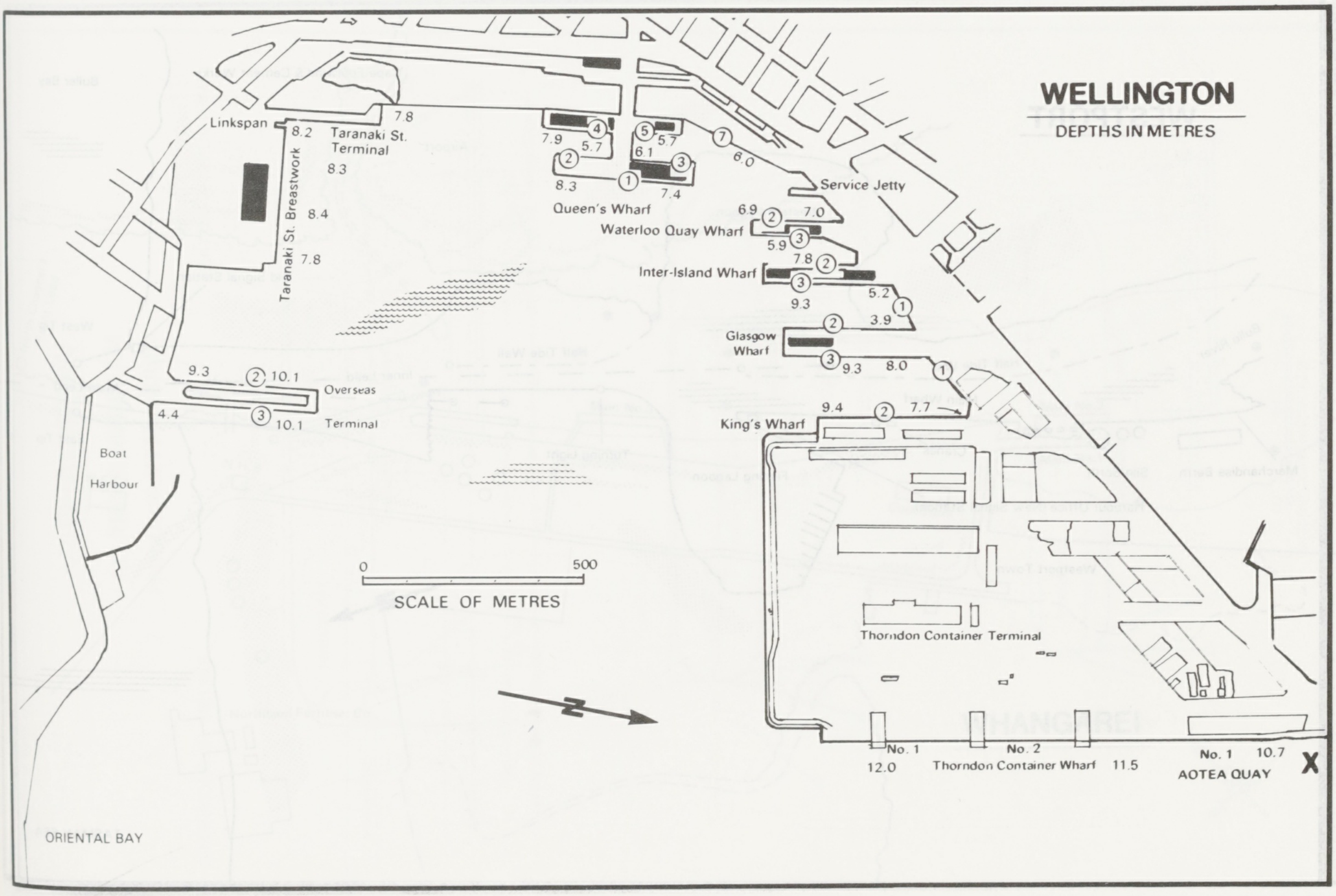

Entrance Channel
PACIFIC OCEAN
MOUNT MAUNGANUI
MOUNT DRURY Signal Station
Pilot Bay
Cutter Channel
Western Channel
Ro/Ro Berth
Mount Maunganui Borough
Mount Wharf
Tauranga Harbour
Marina
Sulphur Point
C/T Berth
Trawler Wharves
Tauranga Airport
Harbour Bridge
Tauranga Wharf
Coronation Pier

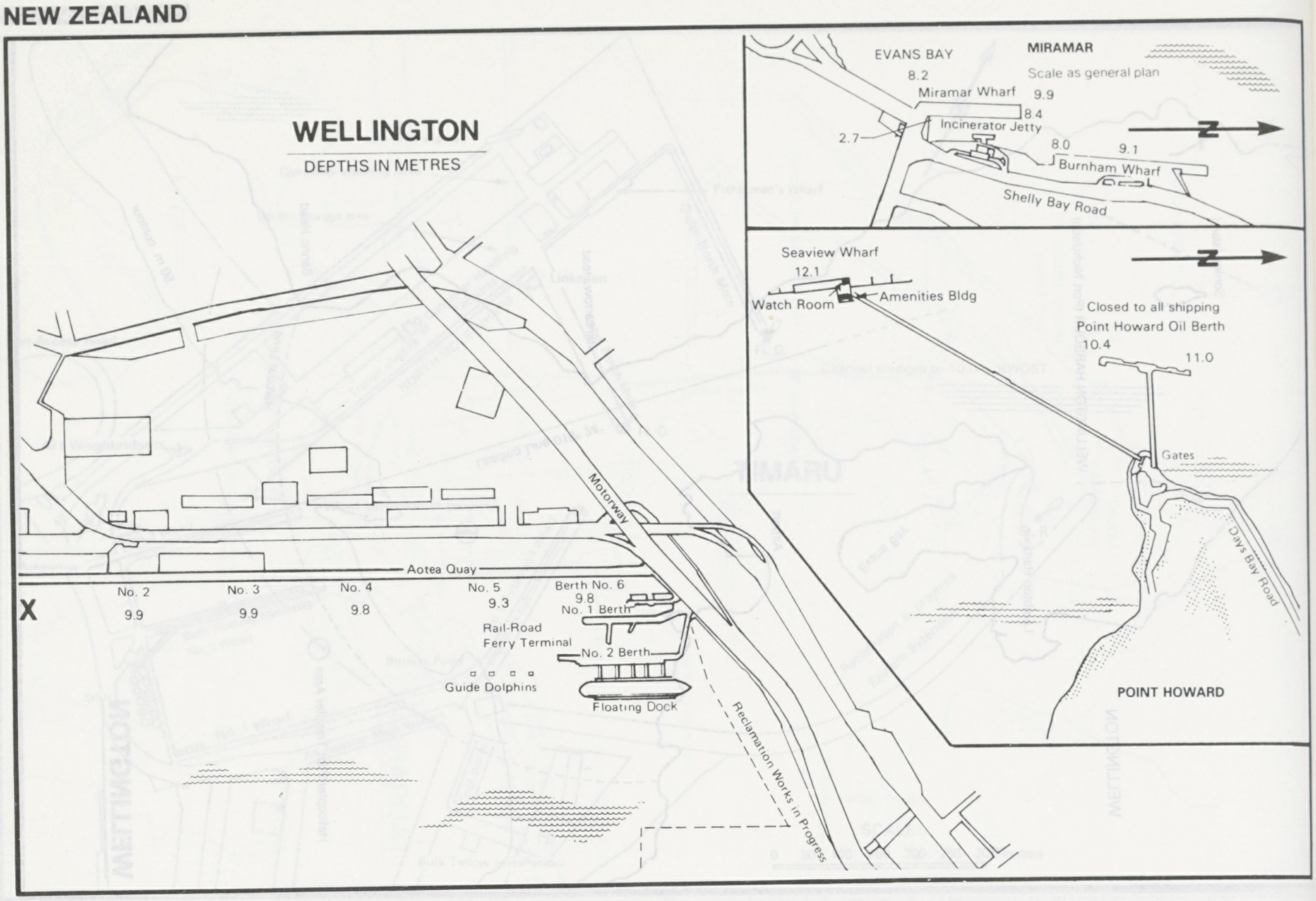
TAURANGA

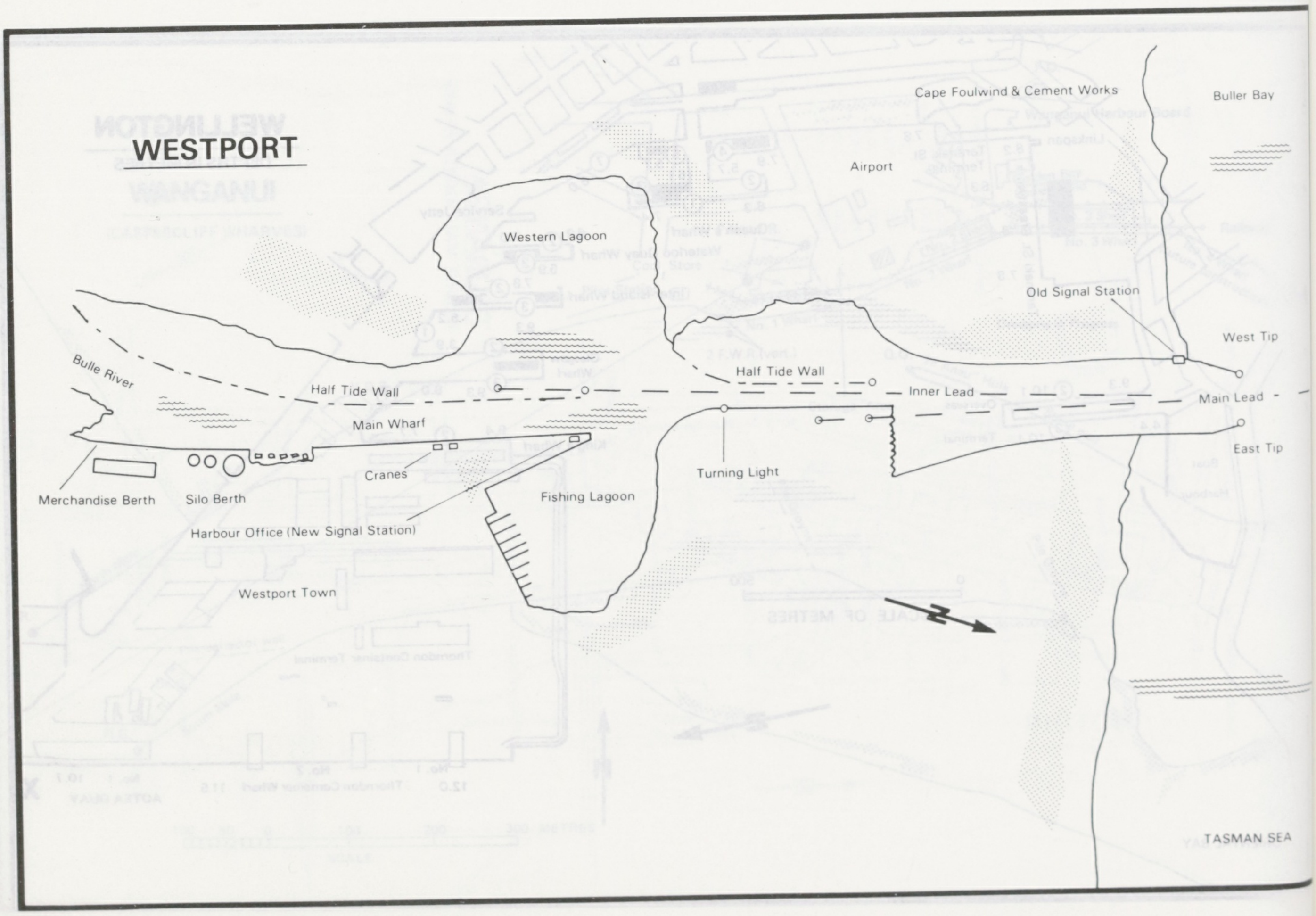

TIMARU
Yacht club slipway
Container Washing Area
Ro-Ro storage area
Fishermen's Wharf
Outer North Mole
Linkspan
Container Handling Facilities
NORTH MOLE WHARF
Transit shed
Inner North Mole
Port Access Road
Fl. G.
Fl. G.
Channel dredged to 10.0m. HWOST
40 t Weighbridge
Wharf extension in progress
No.3 Wharf
Amenities
Bulk loading Facilities
No.2 Wharf
No.1 Extension Wharf
Fl. R.
Reclamation in progress
Eastern Extension
Bunker Point
Silos
No. 1 Wharf
All weather Meat loaders
Cool stores
Bulk Tallow Installations
SCALE
0 50 100 150 200 250 300 metres
N

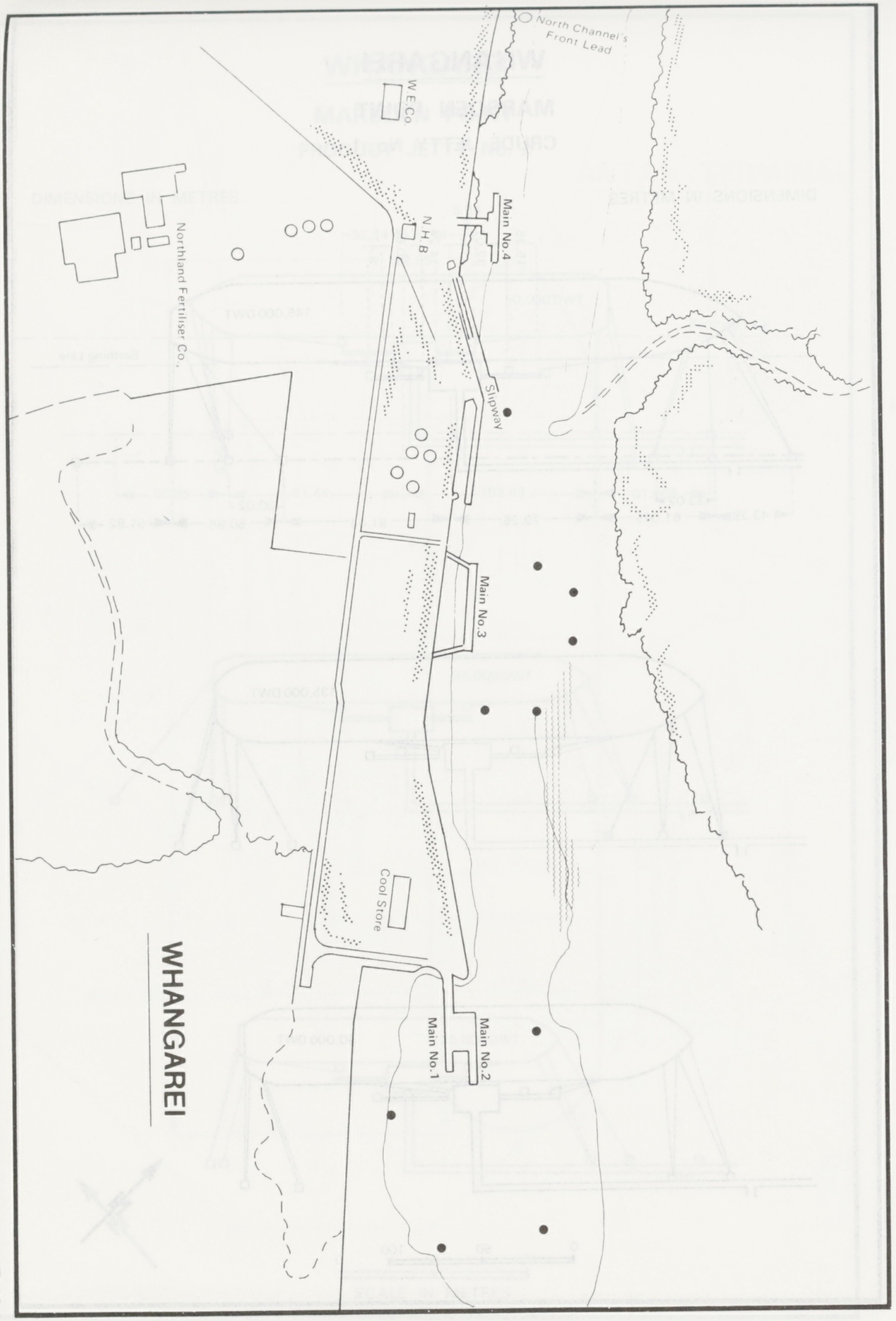

WANGANUI
(CASTLECLIFF WHARVES)
P.O.
Wanganui Harbour Board
Golden Bay Cement Silo
No. 3 Shed
Railway
F.Neon R.
No. 2 Shed
No. 3 Wharf
Cool Store
No. 4 Wharf (future construction)
Pilot Station
No. 2 Wharf
No. 1 Wharf
Dredging in Progress
2 F.W.R.(vert.)
Q.G. "Te Anau" Hulk
V.Q.R.
Storage Area
Stone wall
Pile Groyne
Pile Groyne
North Mole
F.R.
Pile deflector wall
Oc.G.
Fl.G.
South Mole
N
100 50 0 100 200 300 METRES
SCALE


WELLINGTON
Somes Island
WELLINGTON HARBOUR (Port Nicholson)
Pencarrow Head
Baring Head
50 m. contour
Harbour Limit
Leading Line 016° 24'
Evans Bay
Airport
Lambton Harbour
WELLINGTON
Helicopter/Pilot Transfer Area


WELLINGTON
DEPTHS IN METRES
Linkspan
8.2
Taranaki St.
Terminal
7.8
8.3
8.4
7.8
Taranaki St. Breastwork
7.9
4
5.7
2
8.3
5
5.7
6.1
3
1
7.4
7
6.0
Queen's Wharf
Service Jetty
6.9
2
7.0
Waterloo Quay Wharf
5.9
3
7.8
2
Inter-Island Wharf
3
9.3
5.2
1
2
3.9
Glasgow
Wharf
3
9.3
8.0
1
9.3
2
10.1
Overseas
4.4
3
10.1
Terminal
9.4
2
7.7
King's Wharf
Boat
Harbour
0
500
SCALE OF METRES
N
Thorndon Container Terminal
No. 1
12.0
No. 2
Thorndon Container Wharf
11.5
No. 1
10.7
AOTEA QUAY
X
ORIENTAL BAY

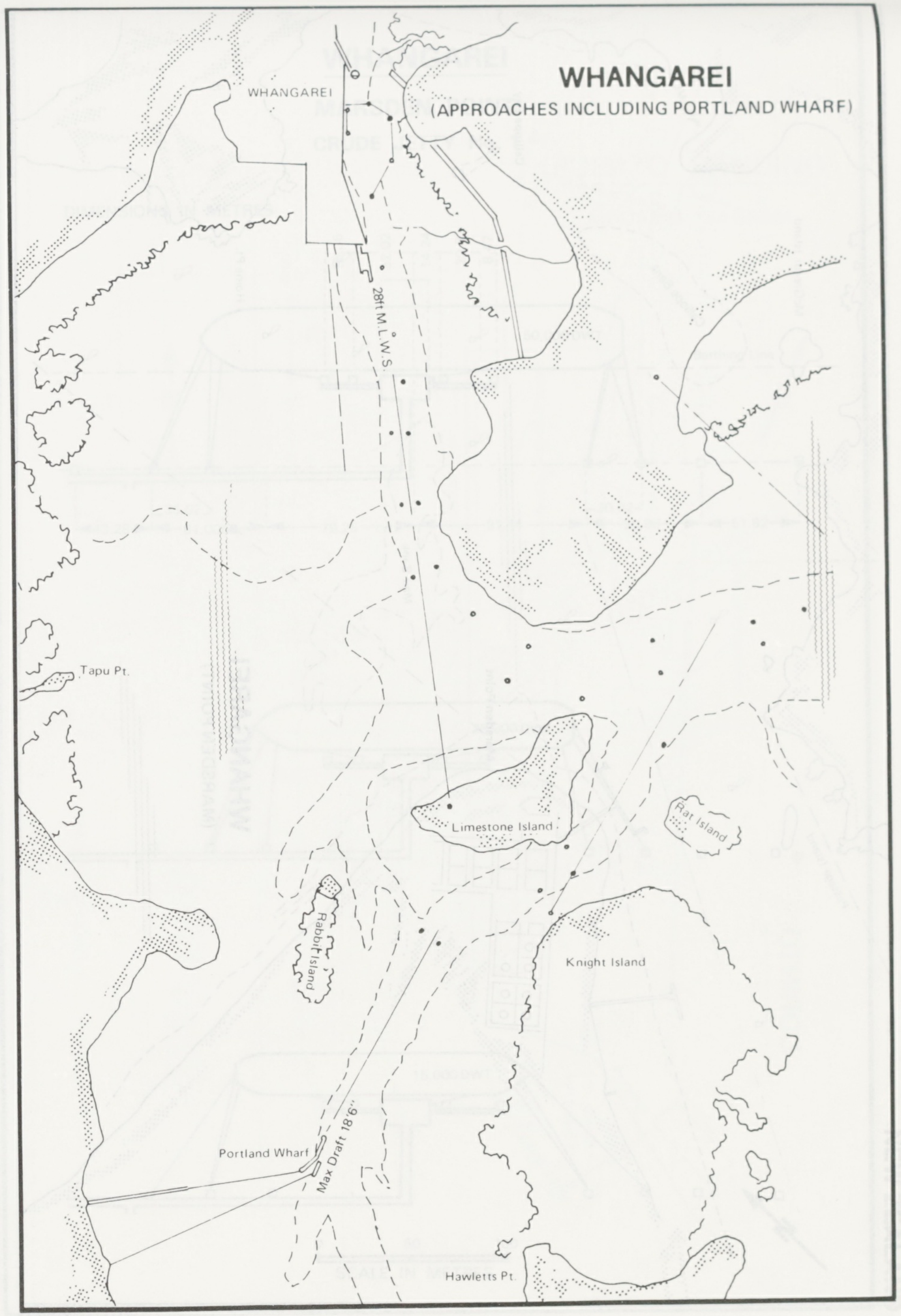

WELLINGTON
DEPTHS IN METRES
Motorway
Aotea Quay
No. 2
9.9
No. 3
9.9
No. 4
9.8
No. 5
9.3
Berth No. 6
9.8
No. 1 Berth
Rail-Road
Ferry Terminal
No. 2 Berth
Guide Dolphins
Floating Dock
Reclamation Works in Progress
X
EVANS BAY
8.2
MIRAMAR
Scale as general plan
Miramar Wharf
9.9
8.4
2.7
Incinerator Jetty
8.0
9.1
Burnham Wharf
Shelly Bay Road
N
Seaview Wharf
12.1
Watch Room
Amenities Bldg
N
Closed to all shipping
Point Howard Oil Berth
10.4
11.0
Gates
Days Bay Road
POINT HOWARD


WESTPORT
Cape Foulwind & Cement Works
Buller Bay
Airport
Western Lagoon
Old Signal Station
West Tip
Bulle River
Half Tide Wall
Half Tide Wall
Inner Lead
Main Lead
Main Wharf
East Tip
Cranes
Turning Light
Fishing Lagoon
Merchandise Berth
Silo Berth
Harbour Office (New Signal Station)
Westport Town
N
TASMAN SEA



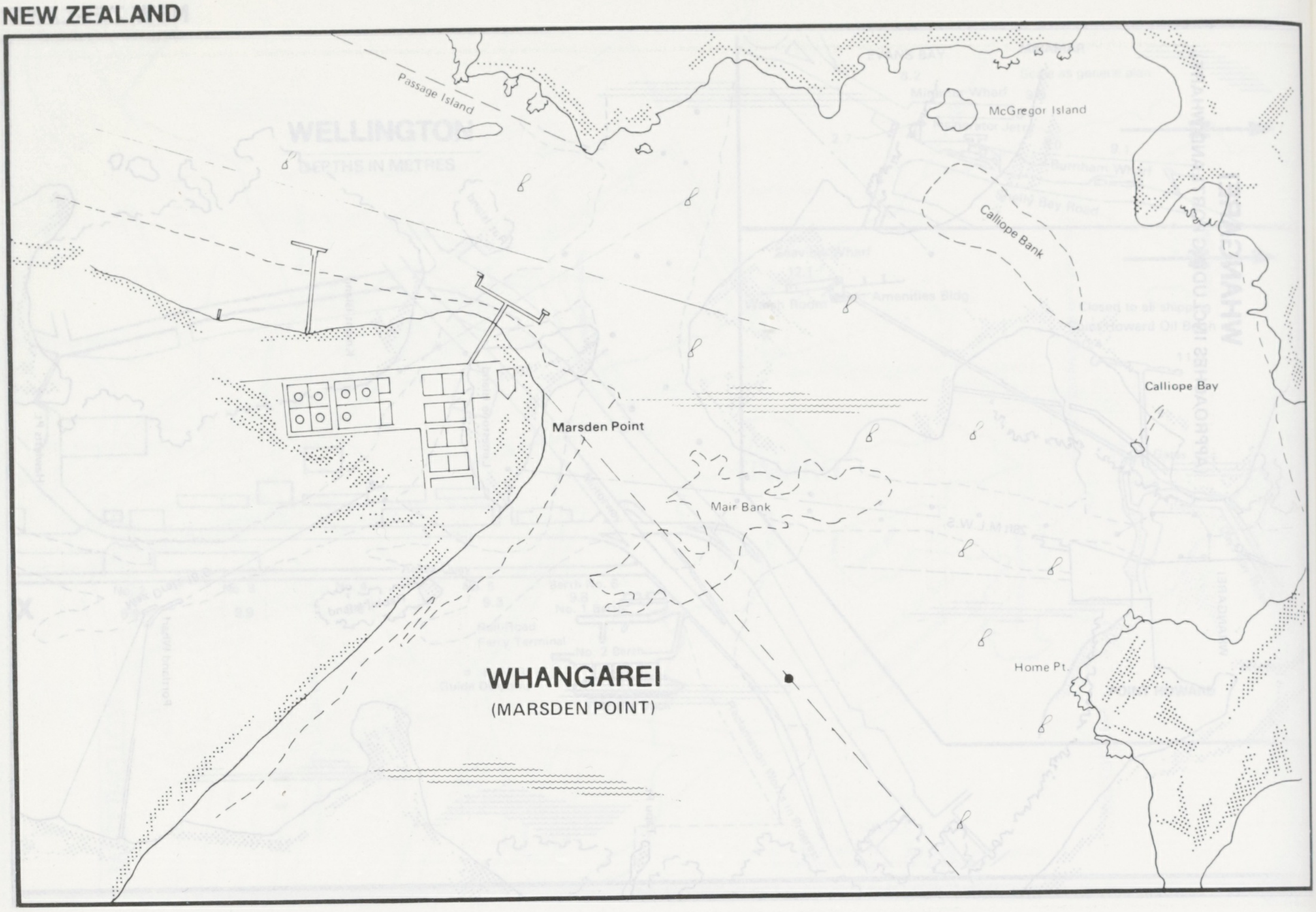
WHANGAREI

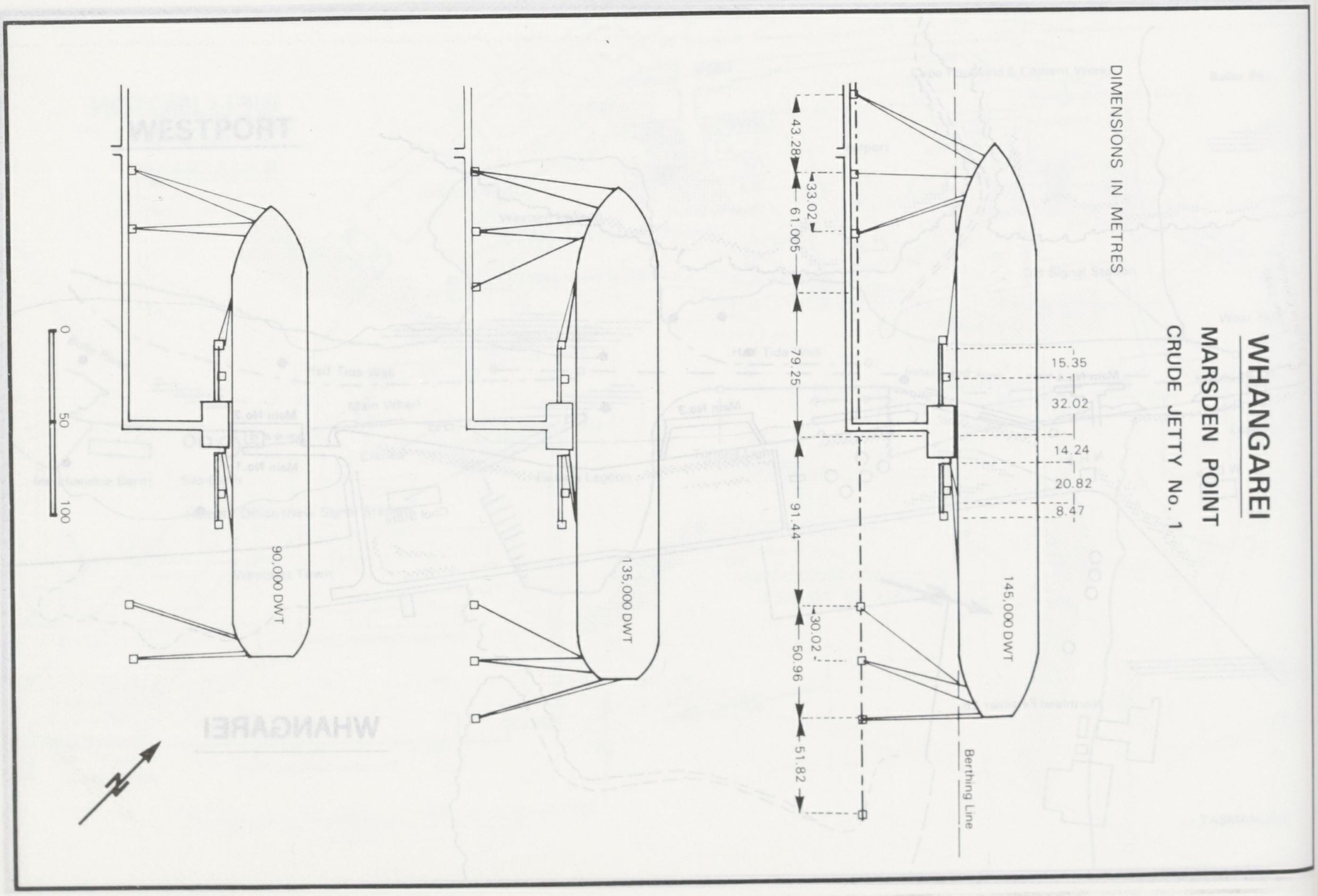
North Channel's Front Lead
W.E.Co.
N H B
Main No.4
Northland Fertiliser Co.
Slipway
Main No.3
Cool Store
Main No.2
Main No.1



WHANGAREI
(APPROACHES INCLUDING PORTLAND WHARF)

WHANGAREI
28ft M.L.W.S.
Tapu Pt.
Limestone Island
Rat Island
Rabbit Island
Knight Island
Portland Wharf
Max Draft 18'6"
Hawletts Pt.


Passage Island
McGregor Island
Calliope Bank
Calliope Bay
Marsden Point
Mair Bank
Home Pt.
WHANGAREI
(MARSDEN POINT)

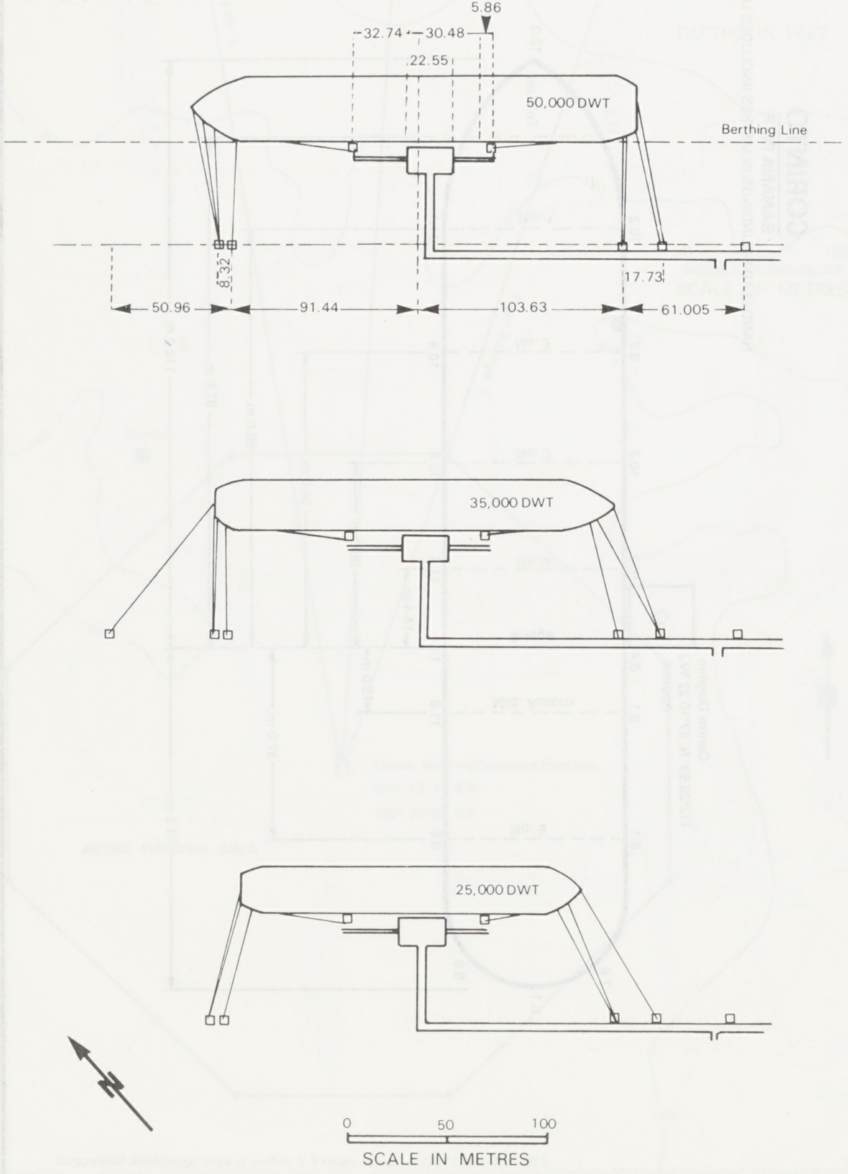

WHANGAREI
MARSDEN POINT
CRUDE JETTY No. 1
DIMENSIONS IN METRES
43.28
33.02
61.005
79.25
91.44
30.02
50.96
51.82
15.35
32.02
14.24
20.82
8.47
145,000 DWT
Berthing Line
135,000 DWT
90,000 DWT
0
50
100
N

WHANGAREI

MARSDEN POINT

PRODUCT JETTY No. 2

DIMENSIONS IN METRES

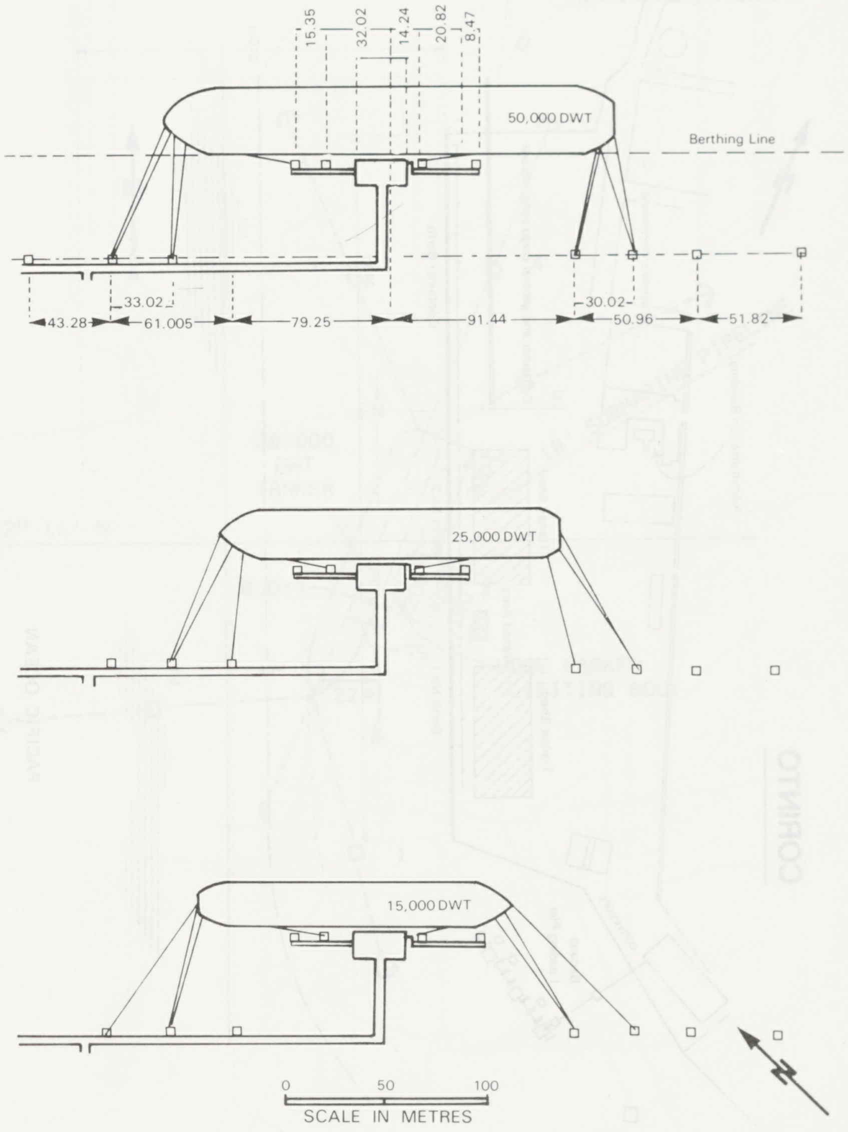

5.86
32.74
30.48
22.55
50,000 DWT
Berthing Line
8.32
17.73
50.96
91.44
103.63
61.005
35,000 DWT
25,000 DWT
0
50
100
SCALE IN METRES

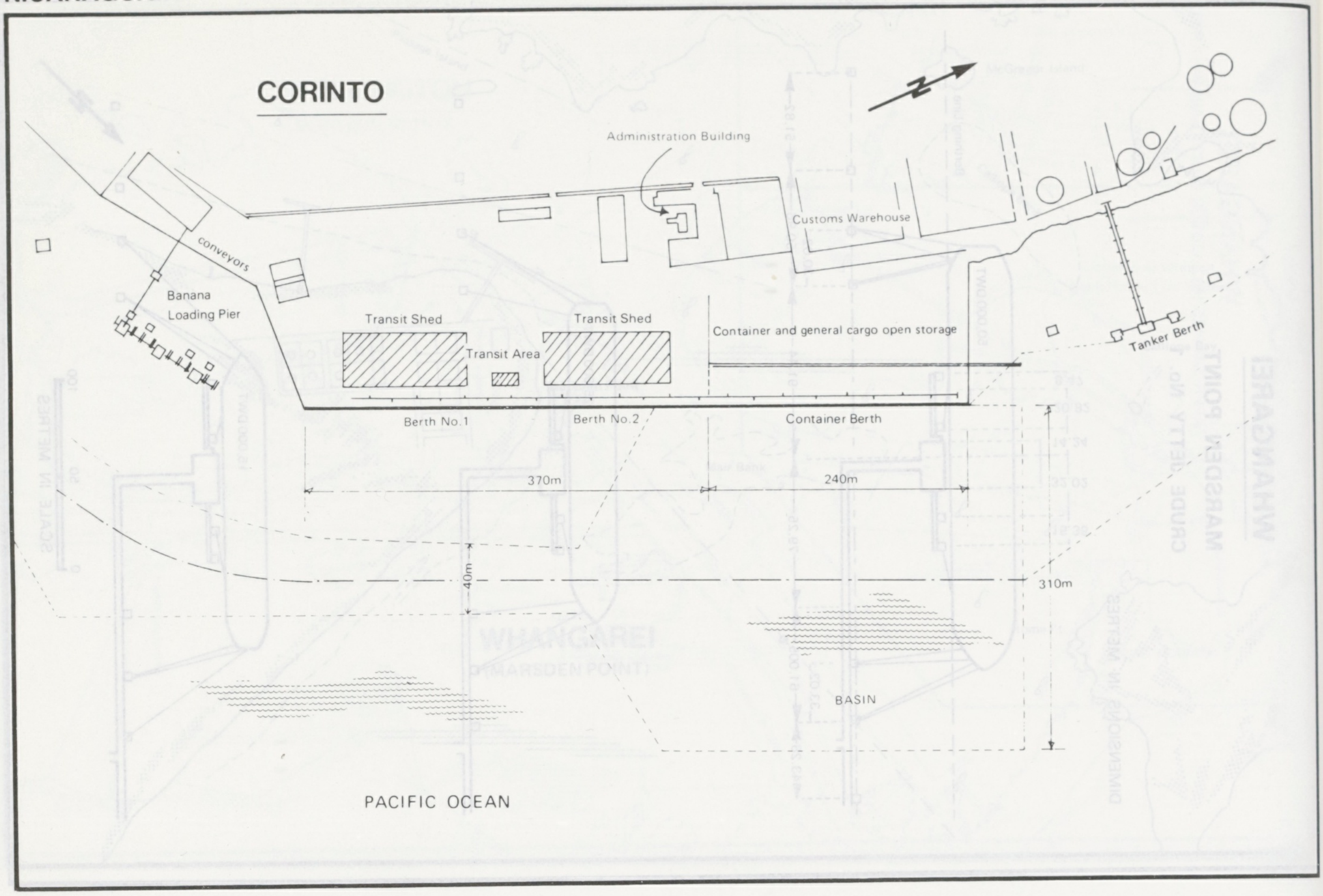
WHANGAREI

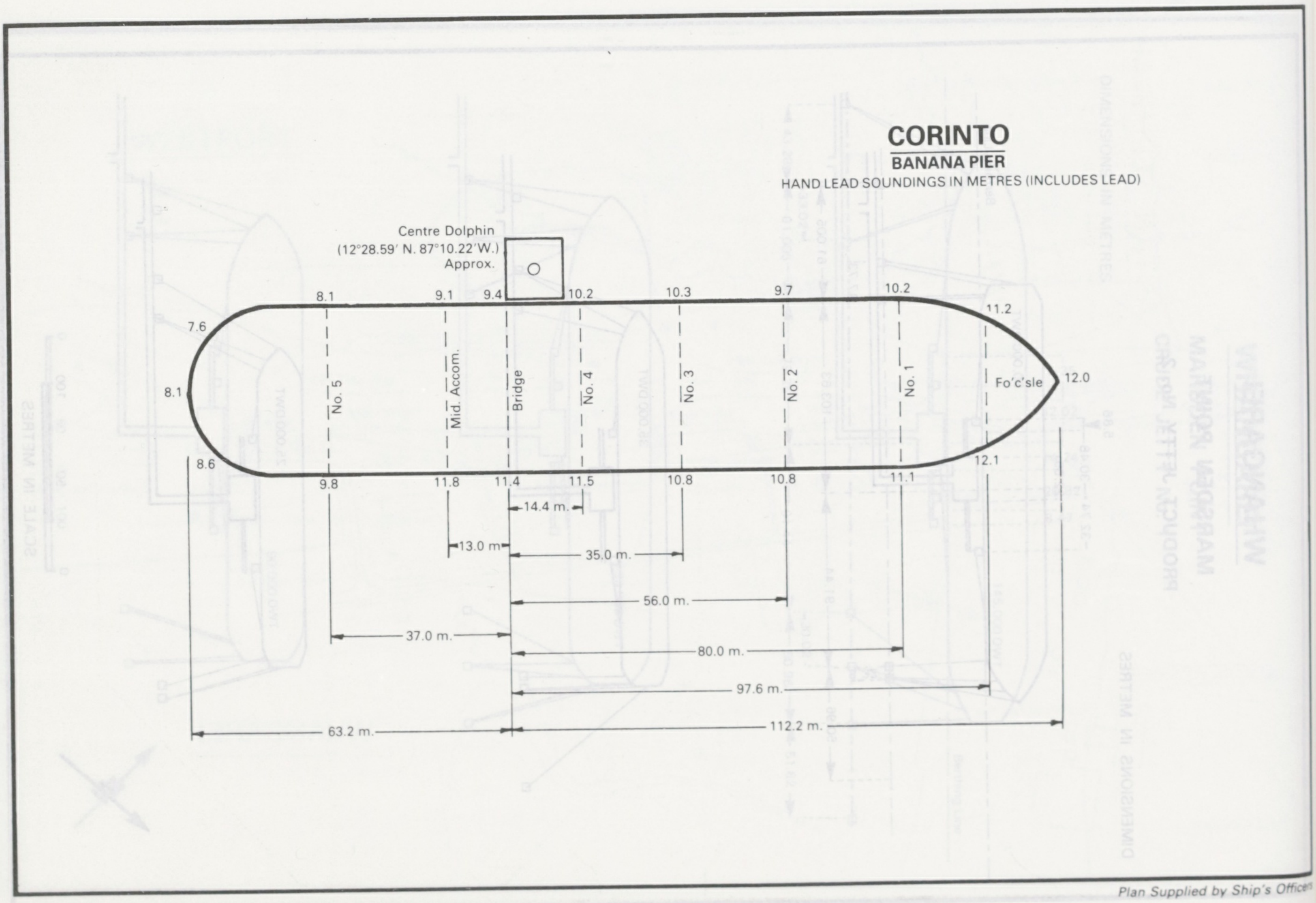
MARSDEN POINT

CRUDE JETTY No. 1

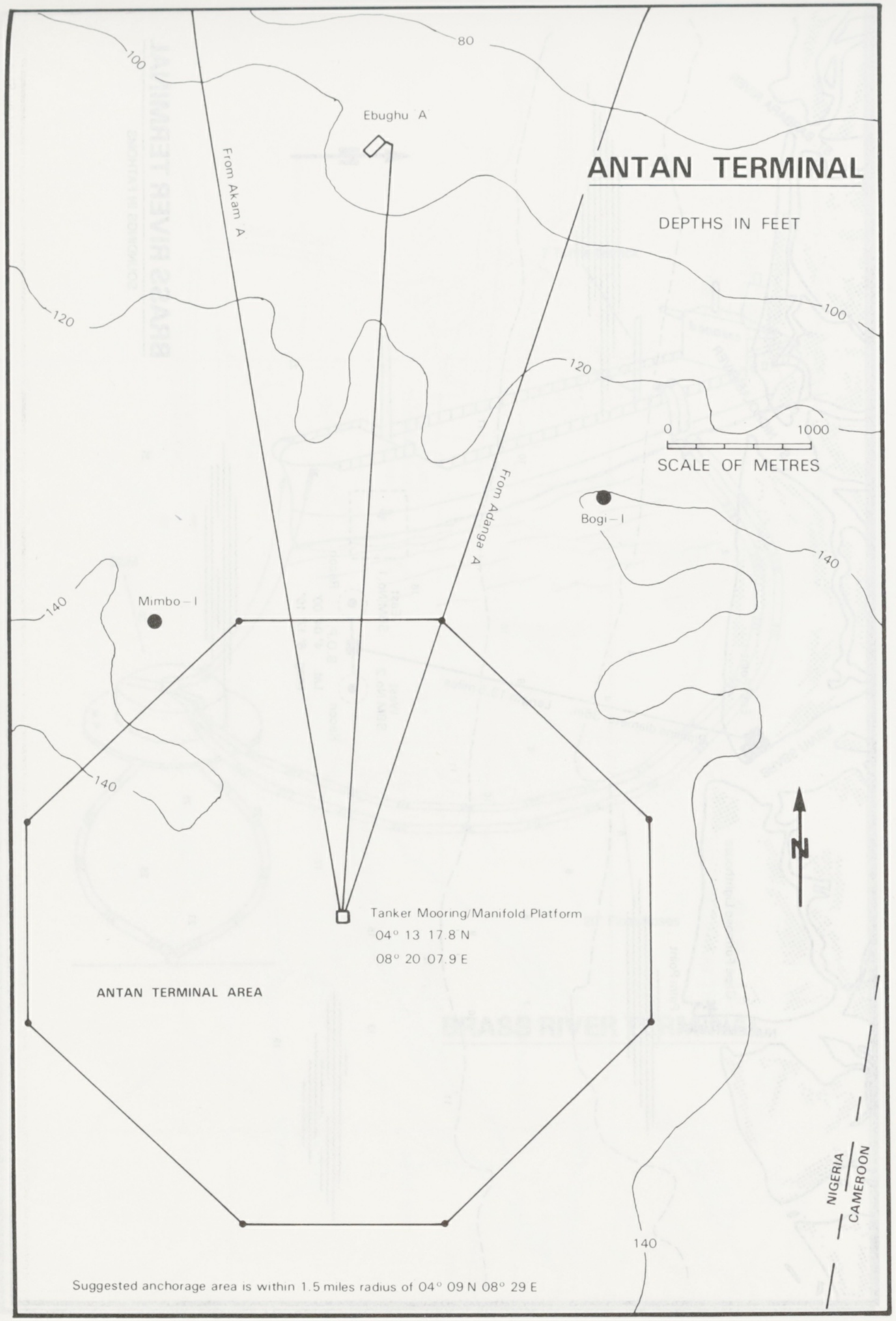
DIMENSIONS IN METRES


15.35
32.02
14.24
20.82
8.47
50,000 DWT
Berthing Line
33.02
30.02
43.28
61.005
79.25
91.44
50.96
51.82
25,000 DWT
15,000 DWT
0
50
100
SCALE IN METRES

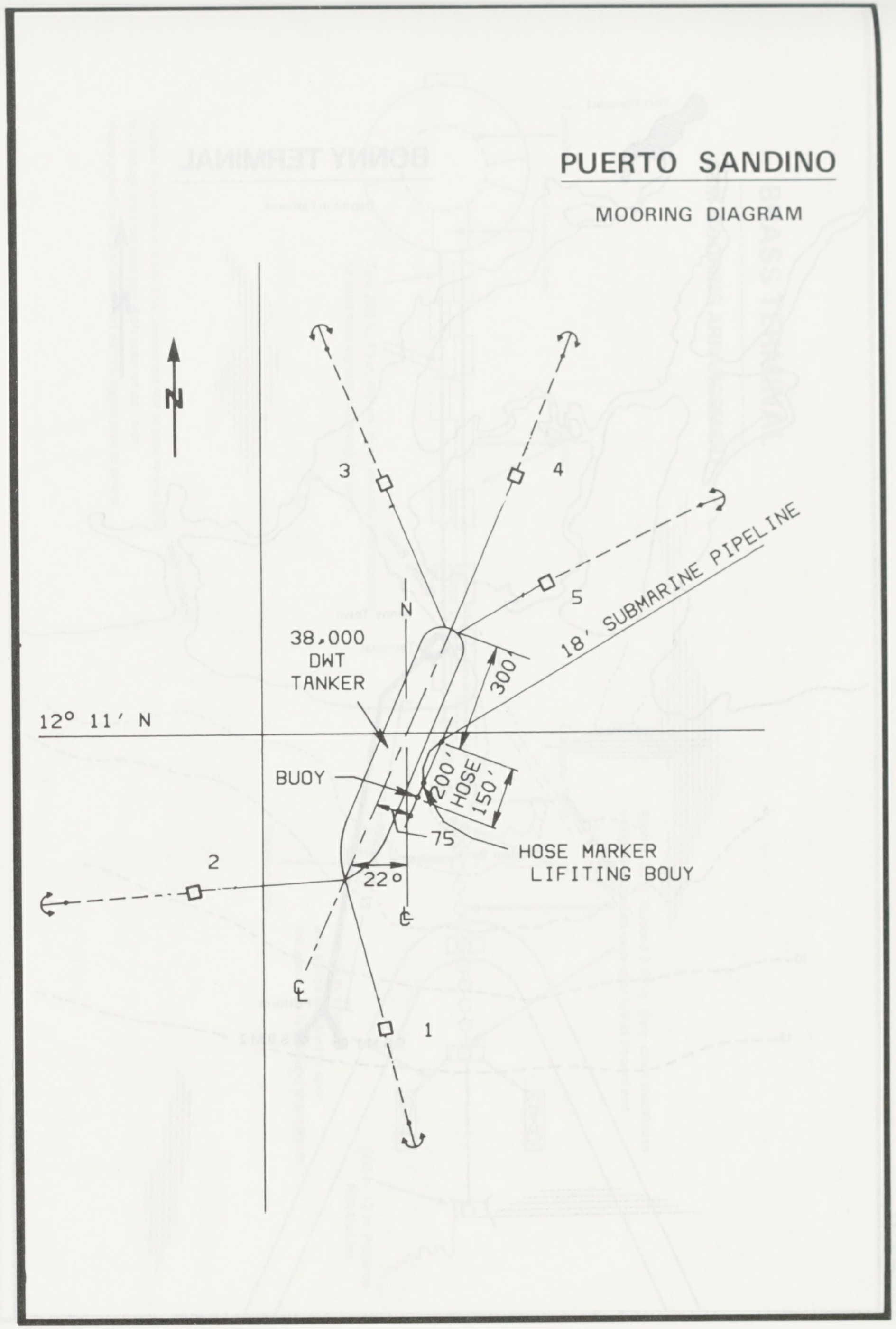

CORINTO
Administration Building
Customs Warehouse
conveyors
Banana Loading Pier
Transit Shed
Transit Area
Transit Shed
Container and general cargo open storage
Tanker Berth
Berth No.1
Berth No.2
Container Berth
370m
240m
40m
310m
BASIN
PACIFIC OCEAN

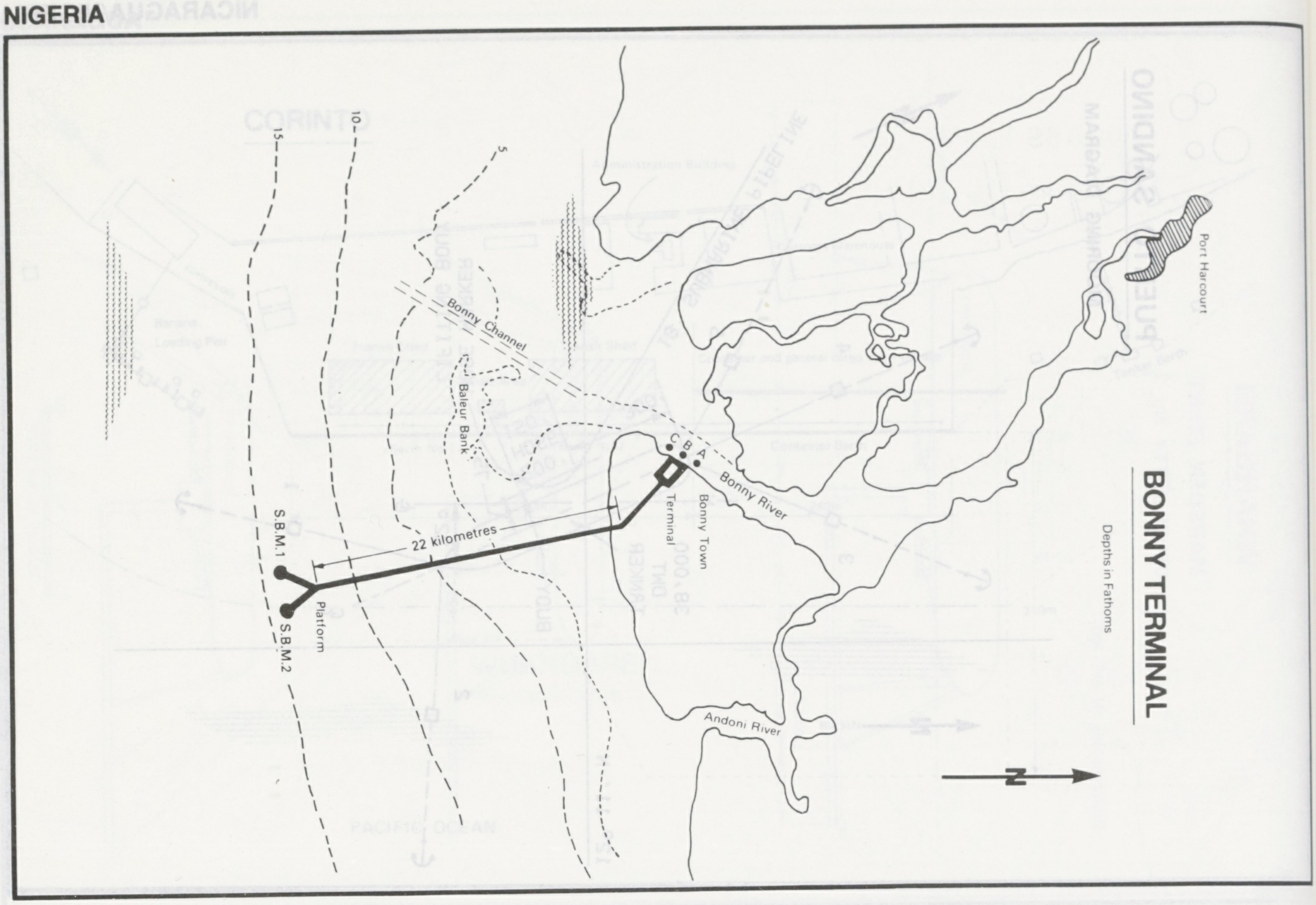

CORINTO
BANANA PIER
HAND LEAD SOUNDINGS IN METRES (INCLUDES LEAD)
Centre Dolphin
(12°28.59′ N. 87°10.22′W.)
Approx.
8.1
9.1
9.4
10.2
10.3
9.7
10.2
11.2
7.6
8.1
12.0
8.6
9.8
11.8
11.4
11.5
10.8
10.8
11.1
12.1
No. 5
Mid. Accom.
Bridge
No. 4
No. 3
No. 2
No. 1
Fo'c'sle
14.4 m.
13.0 m
35.0 m.
56.0 m.
37.0 m.
80.0 m.
97.6 m.
63.2 m.
112.2 m.

Plan Supplied by Ship's Officers


ANTAN TERMINAL
DEPTHS IN FEET
0
1000
SCALE OF METRES
80
100
100
120
120
140
140
140
140
140
Ebughu A
From Akam A
From Adanga A
Bogi-I
Mimbo-I
Tanker Mooring/Manifold Platform
04° 13 17.8 N
08° 20 07.9 E
ANTAN TERMINAL AREA
N
NIGERIA
CAMEROON

Suggested anchorage area is within 1.5 miles radius of 04° 09 N 08° 29 E

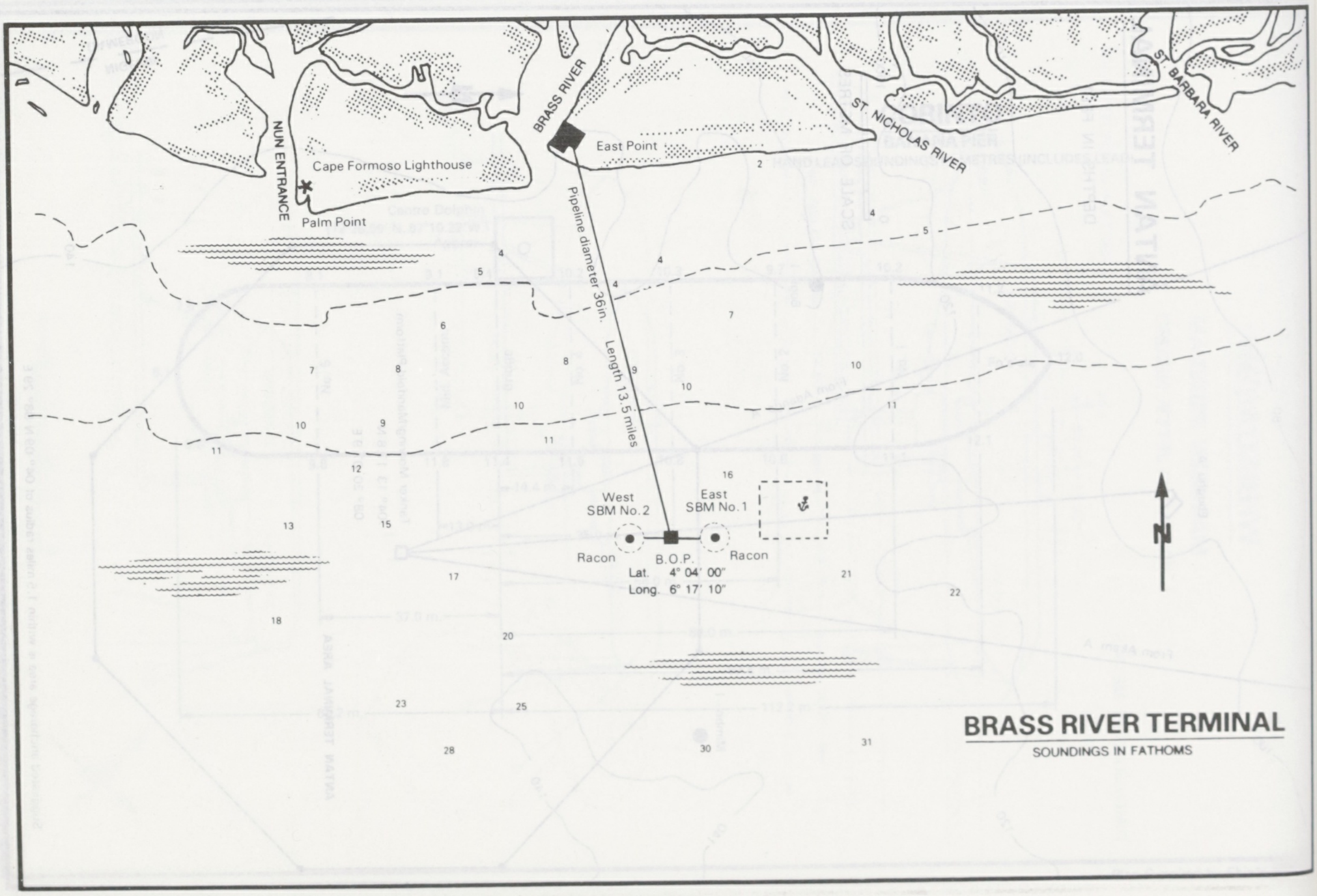

PUERTO SANDINO
MOORING DIAGRAM
N
N
3
4
5
18' SUBMARINE PIPELINE
38,000 DWT TANKER
300
12° 11' N
BUOY
200'
HOSE 150'
75
HOSE MARKER LIFITING BOUY
2
22°
℄
℄
1



Port Harcourt
Bonny Channel
Baleur Bank
C B A
Terminal
Bonny Town
Bonny River
22 kilometres
S.B.M.1
S.B.M.2
Platform
Andoni River
15
10
5
5
N

BONNY TERMINAL

Depths in Fathoms



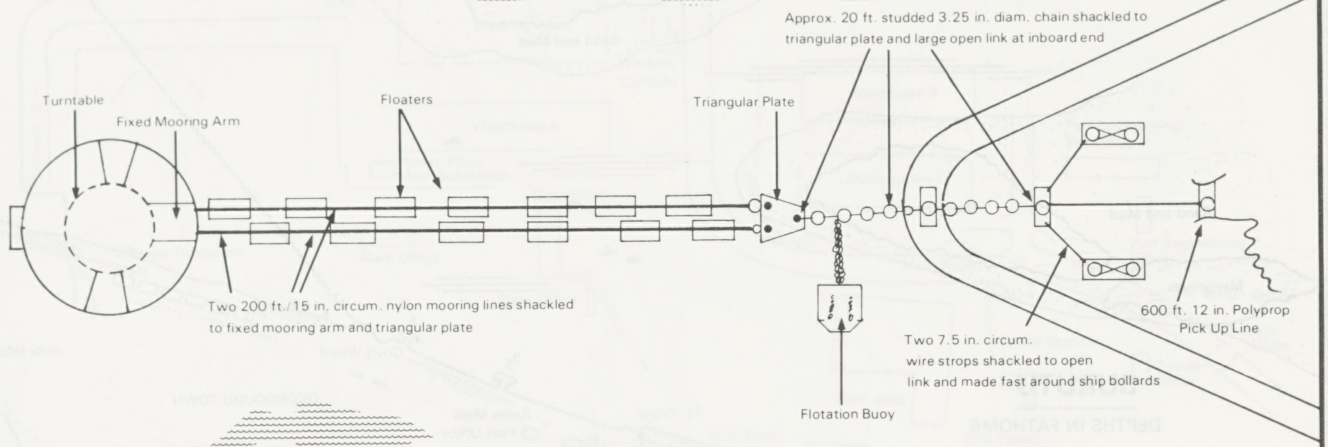
NUN ENTRANCE
Cape Formoso Lighthouse
Palm Point
BRASS RIVER
East Point
ST. NICHOLAS RIVER
ST. BARBARA RIVER
Pipeline diameter 36in.
Length 13.5 miles
West
SBM No.2
East
SBM No.1
Racon
B.O.P.
Racon
Lat. 4° 04' 00"
Long. 6° 17' 10"
N
2
4
5
4
5
4
4
6
7
7
8
8
9
10
10
10
11
9
10
11
11
12
13
15
16
17
21
22
18
20
23
25
28
30
31

BRASS RIVER TERMINAL

SOUNDINGS IN FATHOMS

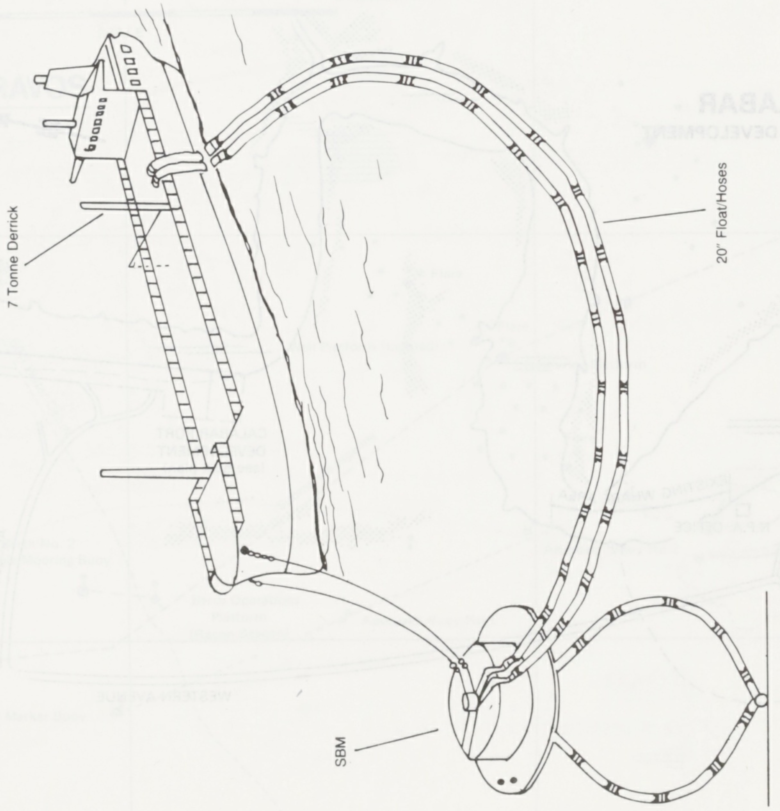
BRASS TERMINAL

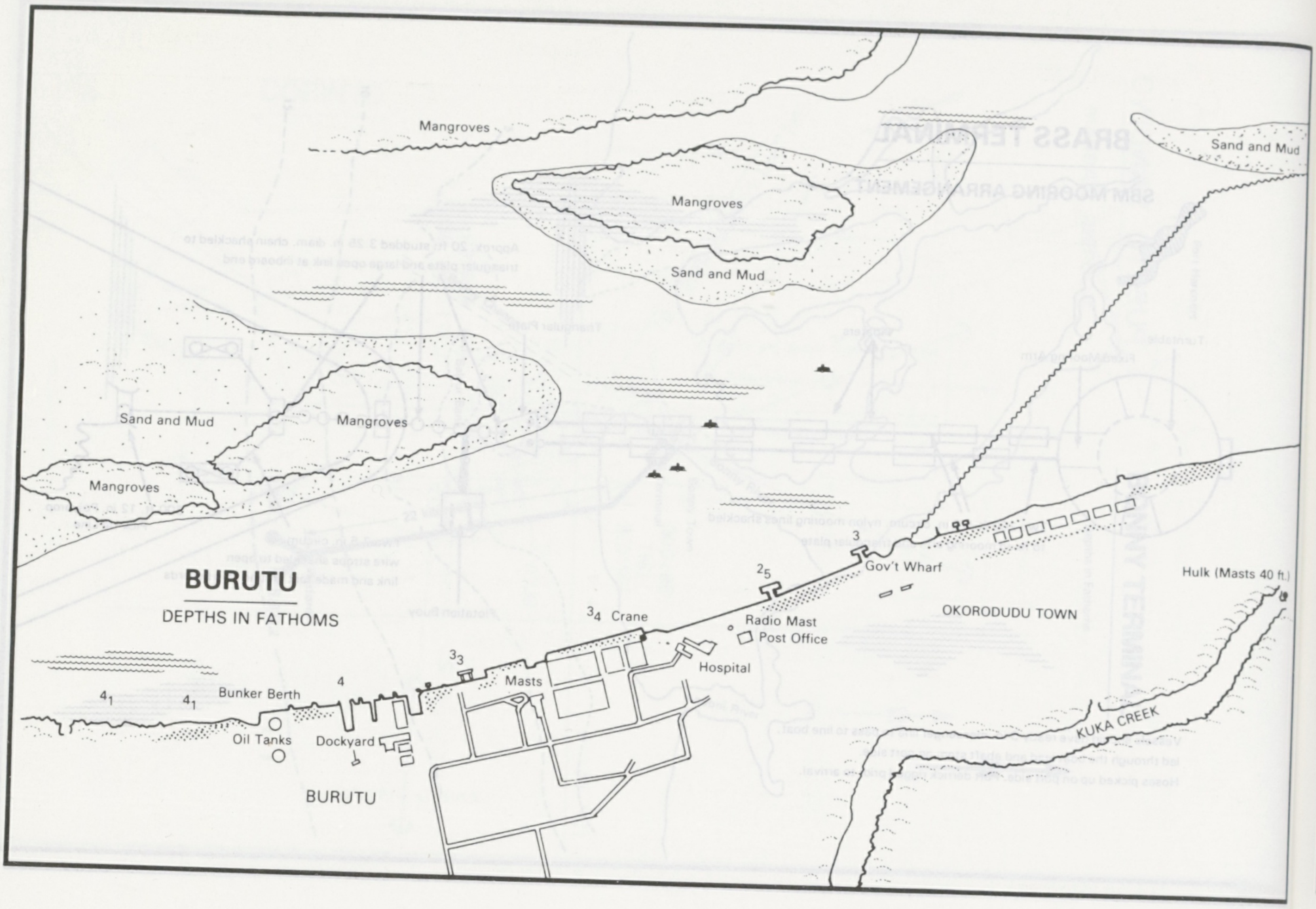
SBM MOORING ARRANGEMENT


Approx. 20 ft. studded 3.25 in. diam. chain shackled to
triangular plate and large open link at inboard end
Turntable
Fixed Mooring Arm
Floaters
Triangular Plate
Two 200 ft./15 in. circum. nylon mooring lines shackled
to fixed mooring arm and triangular plate
600 ft. 12 in. Polyprop
Pick Up Line
Two 7.5 in. circum.
wire strops shackled to open
link and made fast around ship bollards
Flotation Buoy

Vessels should have ready 3 in. messenger line to pass to line boat, led through the boat lead and abaft stem on port side.
Hoses picked up on port side. Port derrick rigged prior to arrival.

BRASS RIVER TERMINAL

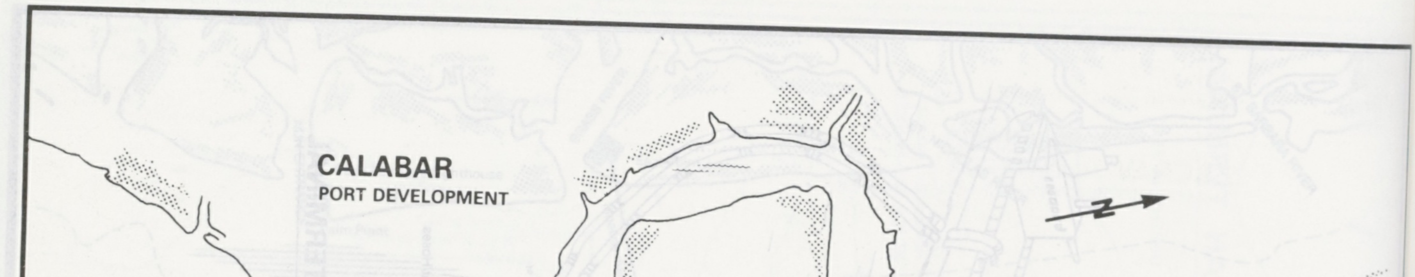

7 Tonne Derrick
20" Float/Hoses
SBM



BURUTU

DEPTHS IN FATHOMS

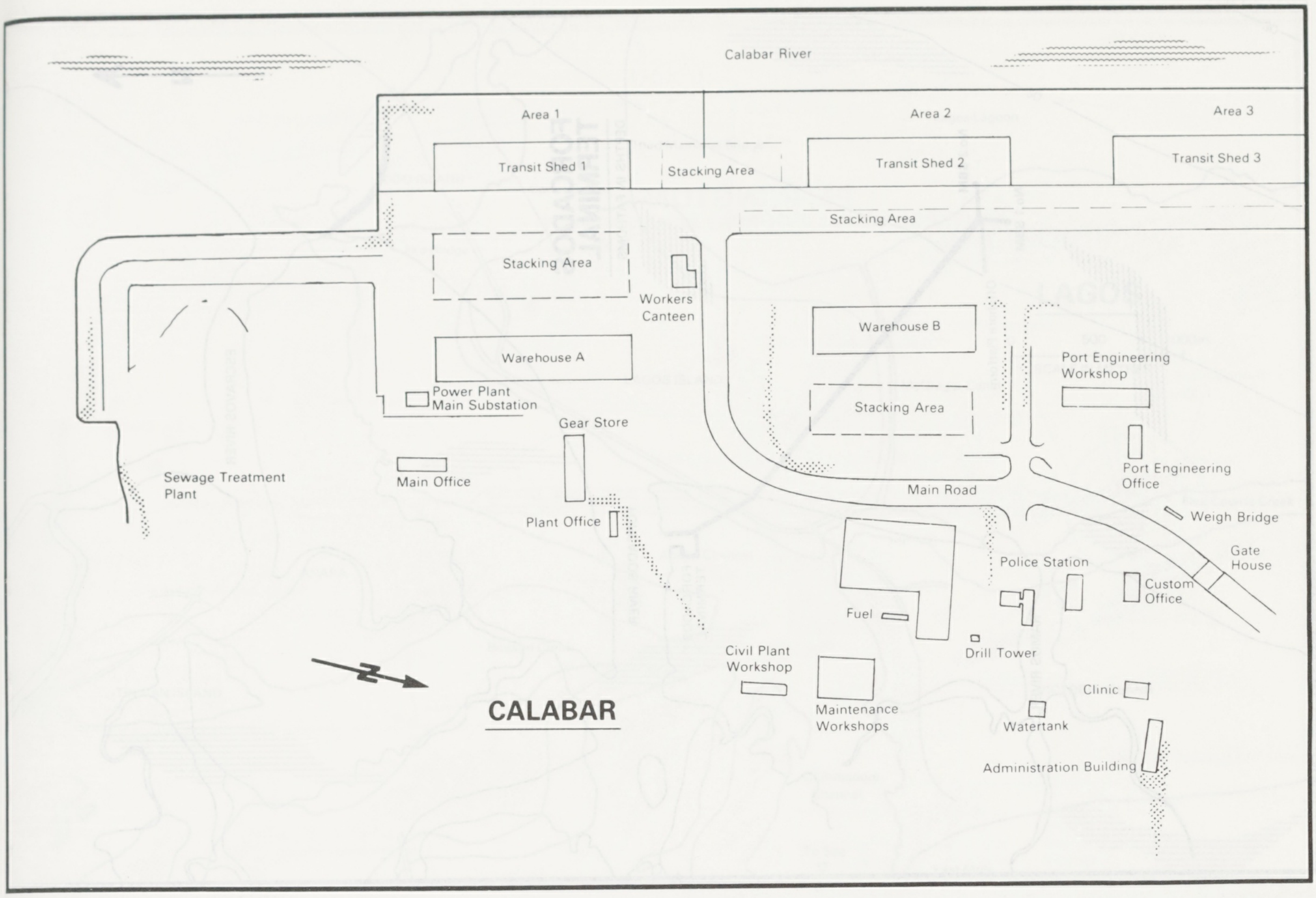
Mangroves
Sand and Mud
Mangroves
Sand and Mud
Sand and Mud
Mangroves
Mangroves
3
Gov't Wharf
2_5
Hulk (Masts 40 ft.)
3_4 Crane
Radio Mast
Post Office
OKORODUDU TOWN
3_3
Hospital
4_1
4_1
Bunker Berth
4
Masts
KUKA CREEK
Oil Tanks
Dockyard
BURUTU

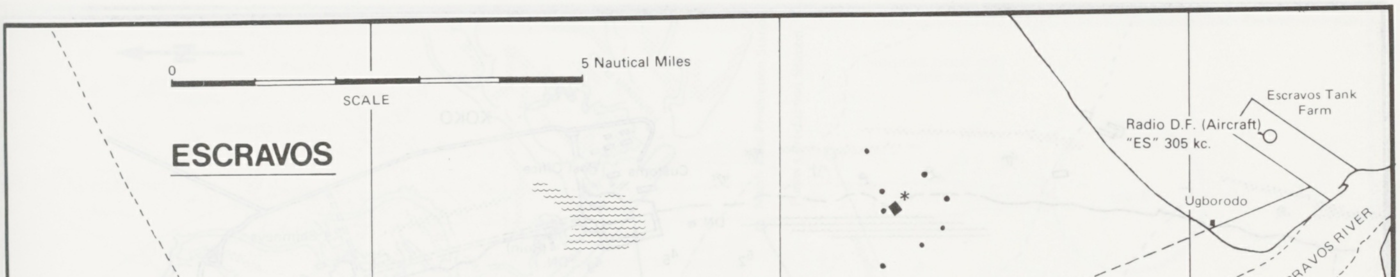


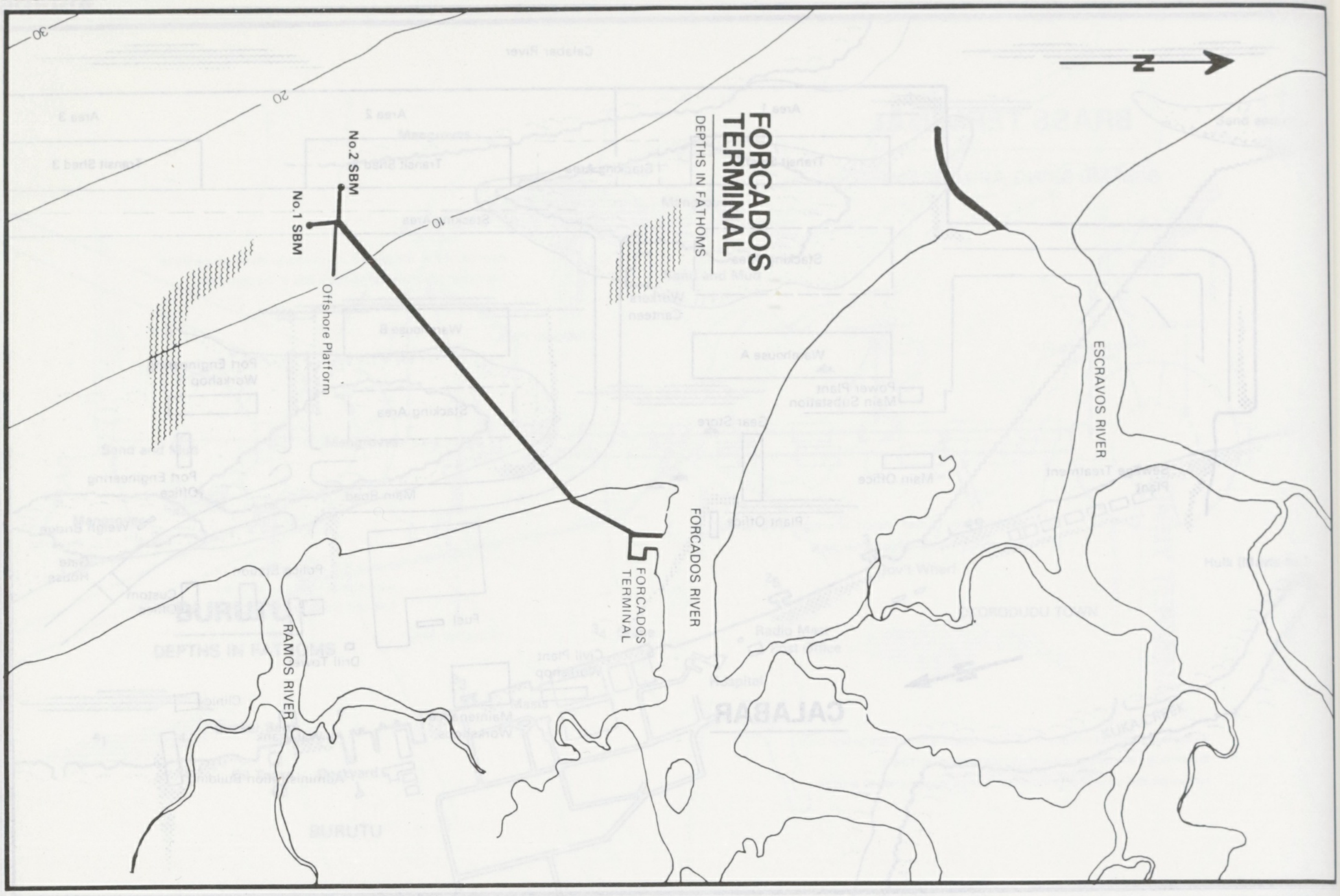
CALABAR

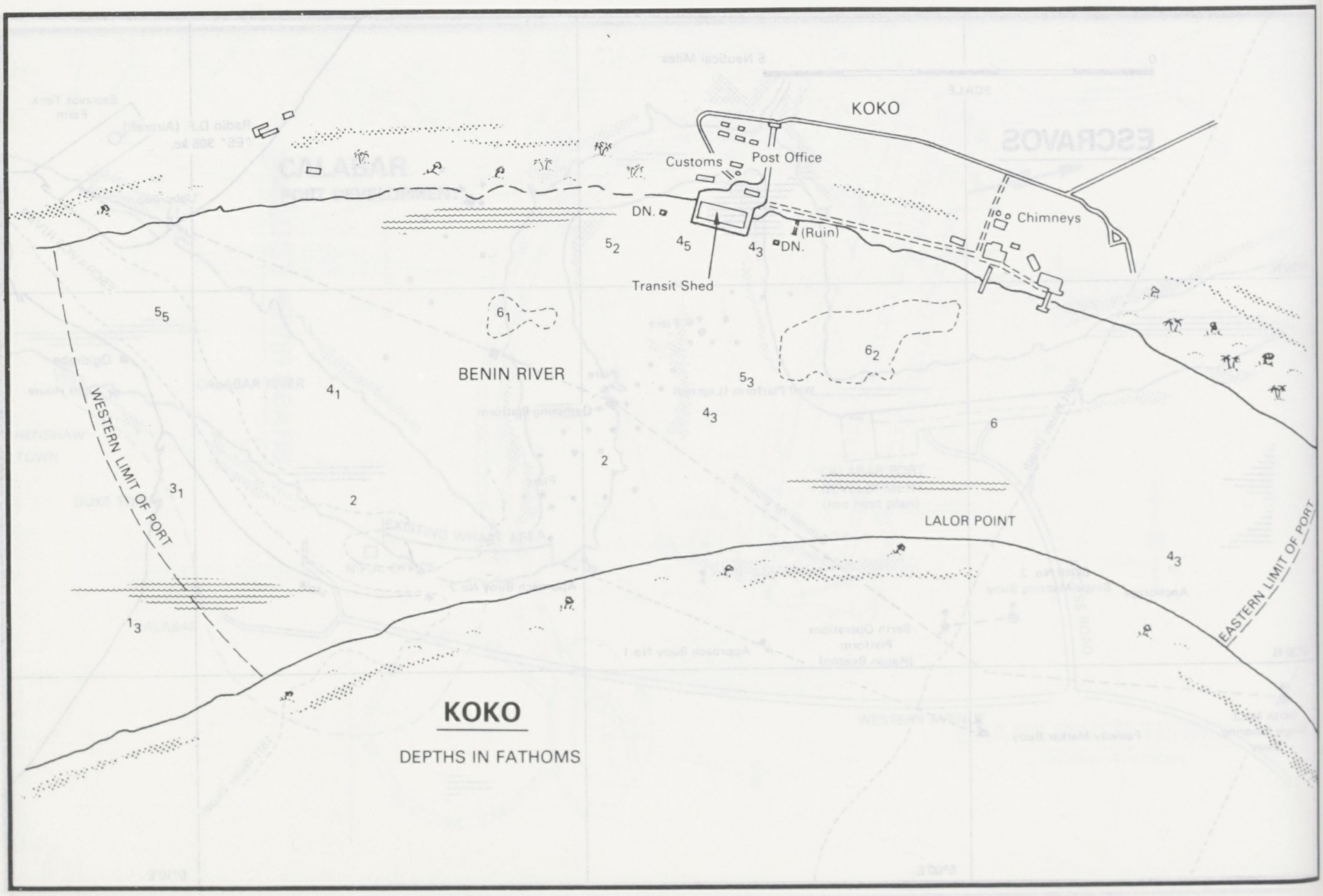
PORT DEVELOPMENT

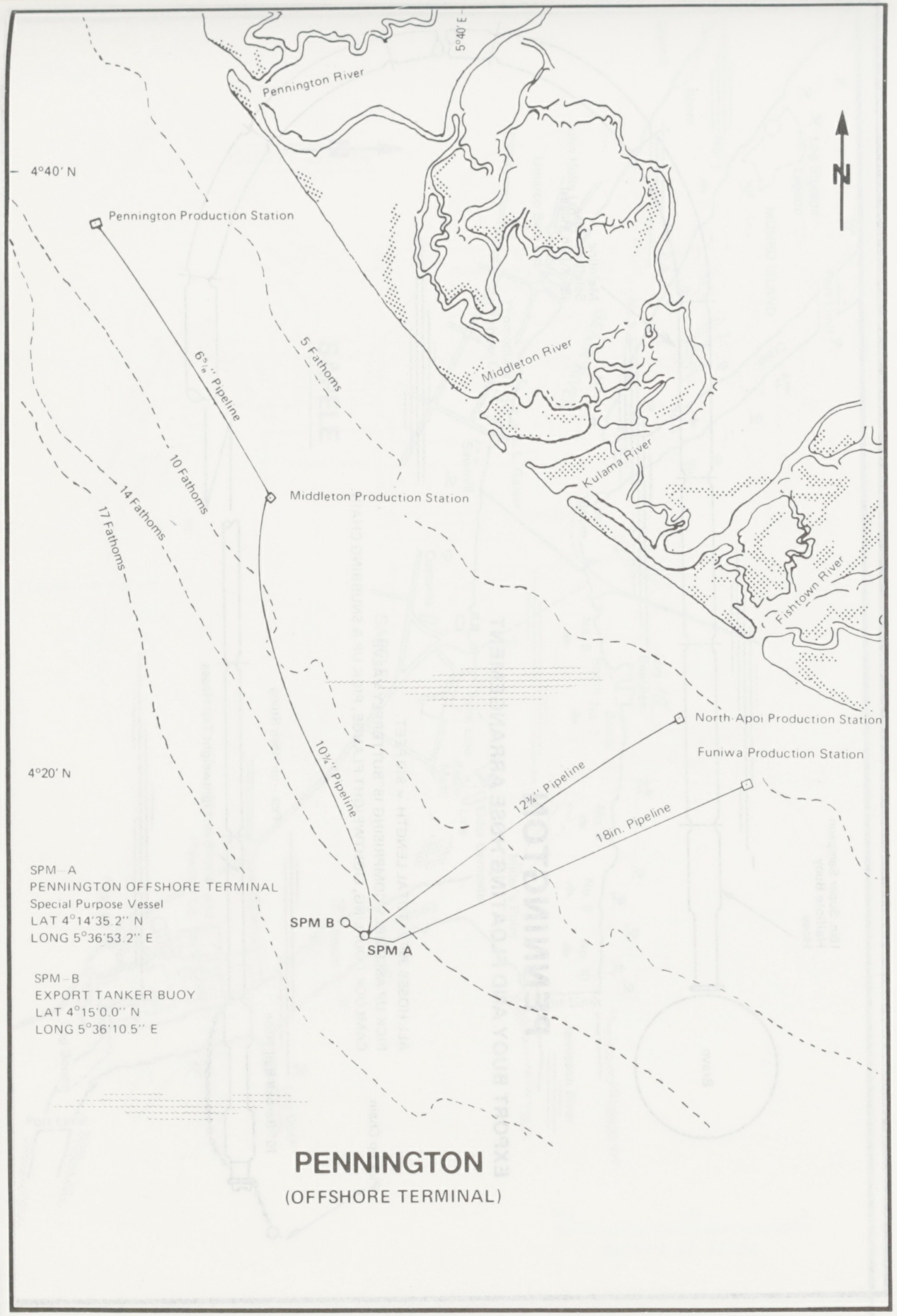
CALABAR RIVER
HENSHAW TOWN
DUKE TOWN
EXISTING WHARF AREA
N.P.A. OFFICE
CALABAR
CALABAR PORT DEVELOPMENT (see next plan)
ACCESS ROAD
WESTERN AVENUE


Calabar River
Area 1
Area 2
Area 3
Transit Shed 1
Stacking Area
Transit Shed 2
Transit Shed 3
Stacking Area
Stacking Area
Workers Canteen
Warehouse A
Warehouse B
Power Plant Main Substation
Stacking Area
Port Engineering Workshop
Gear Store
Sewage Treatment Plant
Main Office
Main Road
Port Engineering Office
Plant Office
Weigh Bridge
Gate House
Police Station
Custom Office
Fuel
Drill Tower
Civil Plant Workshop
Clinic
CALABAR
Maintenance Workshops
Watertank
Administration Building


0
5 Nautical Miles
SCALE
ESCRAVOS
Escravos Tank Farm
Radio D.F. (Aircraft) "ES" 305 kc.
Ugborodo
ESCRAVOS RIVER
5°35'N
Flare
Ogidigbe
Light House
Flare
Well Platform (Lighted)
Gathering Platform
60ft Water Depth
Submarine pipeline
Flare
Berth No. 2 Single Mooring Buoy
Anchorage
Approach Buoy No.2
Mole
Berth Operations Platform (Racon Beacon)
Approach Buoy No.1
5°30'N
Berth No.3 Single Mooring Buoy
Fairway Marker Buoy
15ft Water Depth
5°00'E
5°10'E


FORCADOS TERMINAL
DEPTHS IN FATHOMS
N
30
20
10
No.2 SBM
No.1 SBM
Offshore Platform
FORCADOS TERMINAL
FORCADOS RIVER
RAMOS RIVER
ESCRAVOS RIVER

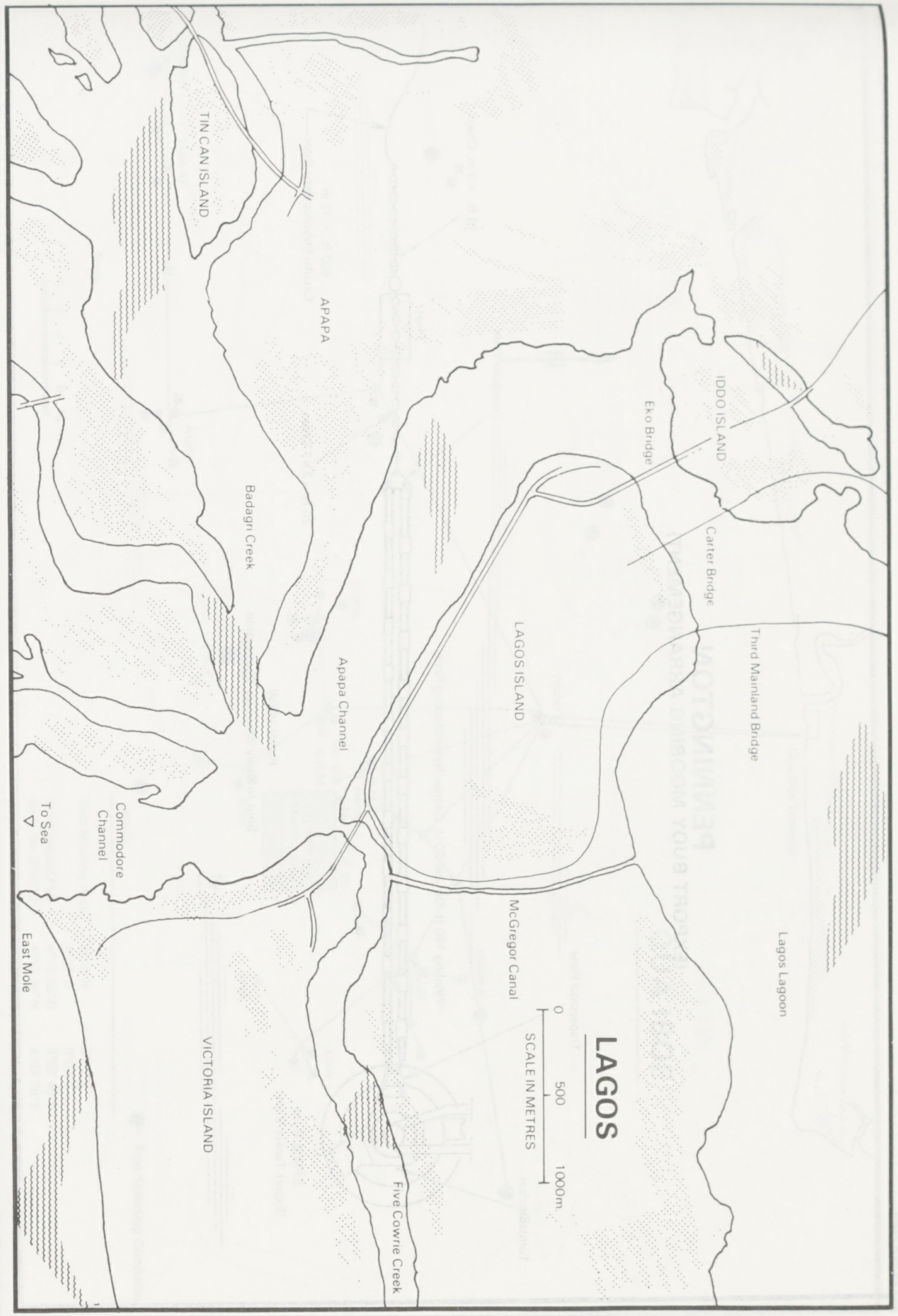

KOKO
Customs
Post Office
Chimneys
DN.
5_2
4_5
4_3
(Ruin)
DN.
Transit Shed
5_5
6_1
6_2
BENIN RIVER
5_3
4_1
4_3
6
2
3_1
2
LALOR POINT
4_3
1_3
WESTERN LIMIT OF PORT
EASTERN LIMIT OF PORT
KOKO
DEPTHS IN FATHOMS


5°40' E
Pennington River
N
4°40' N
Pennington Production Station
6⅝" Pipeline
5 Fathoms
Middleton River
Kulama River
10 Fathoms
14 Fathoms
17 Fathoms
Middleton Production Station
Fishtown River
North Apoi Production Station
Funiwa Production Station
4°20' N
10¾" Pipeline
12¾" Pipeline
18in. Pipeline
SPM B
SPM A

SPM – A
PENNINGTON OFFSHORE TERMINAL
Special Purpose Vessel
LAT 4°14'35.2" N
LONG 5°36'53.2" E

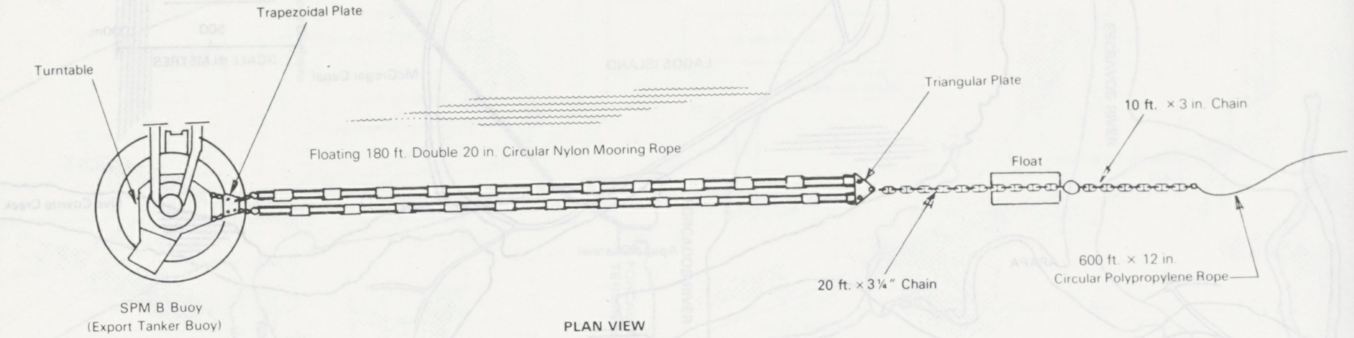
SPM – B
EXPORT TANKER BUOY
LAT 4°15'0.0" N
LONG 5°36'10.5" E

PENNINGTON
(OFFSHORE TERMINAL)


TIN CAN ISLAND
APAPA
Badagri Creek
Apapa Channel
Commodore Channel
To Sea
East Mole
VICTORIA ISLAND
LAGOS ISLAND
McGregor Canal
Five Cowrie Creek
IDDO ISLAND
Eko Bridge
Carter Bridge
Third Mainland Bridge
Lagos Lagoon
0
500
1000m.
SCALE IN METRES

LAGOS

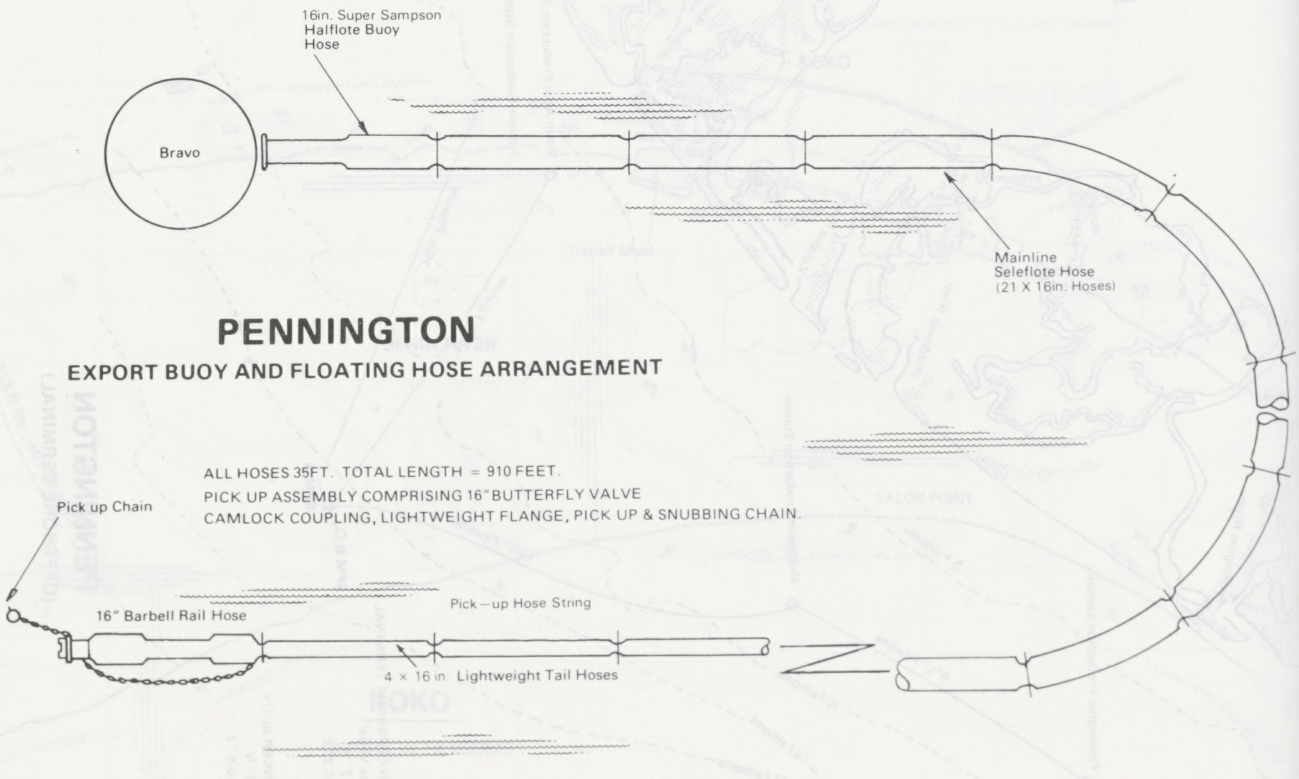
PENNINGTON
(EXPORT BUOY MOORING ARRANGEMENT)

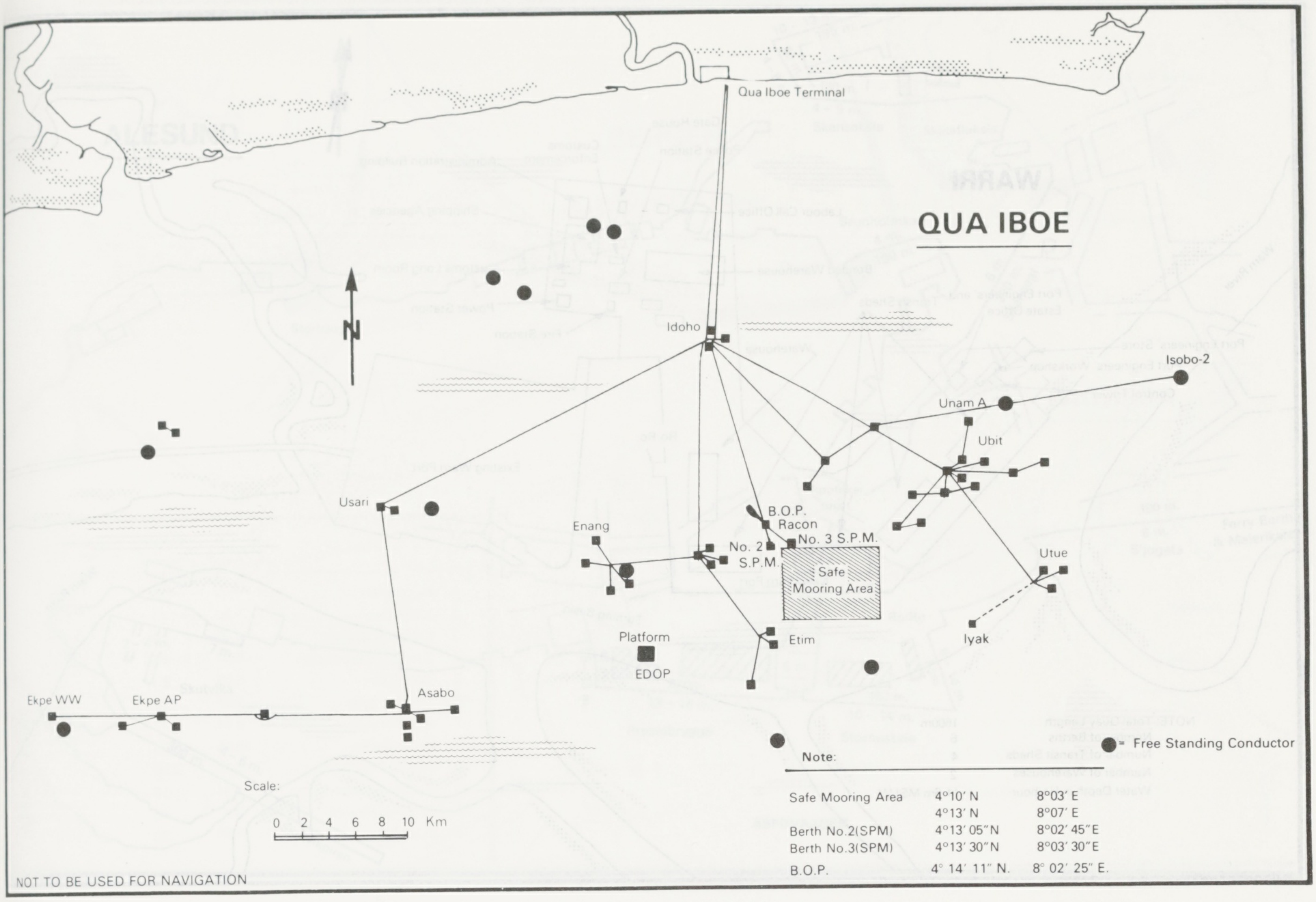

Trapezoidal Plate
Turntable
Triangular Plate
10 ft. × 3 in. Chain
Float
Floating 180 ft. Double 20 in. Circular Nylon Mooring Rope
600 ft. × 12 in. Circular Polypropylene Rope
20 ft. × 3¼" Chain
SPM B Buoy (Export Tanker Buoy)

PLAN VIEW
Ship to Buoy Mooring Connection

PENNINGTON
EXPORT BUOY AND FLOATING HOSE ARRANGEMENT

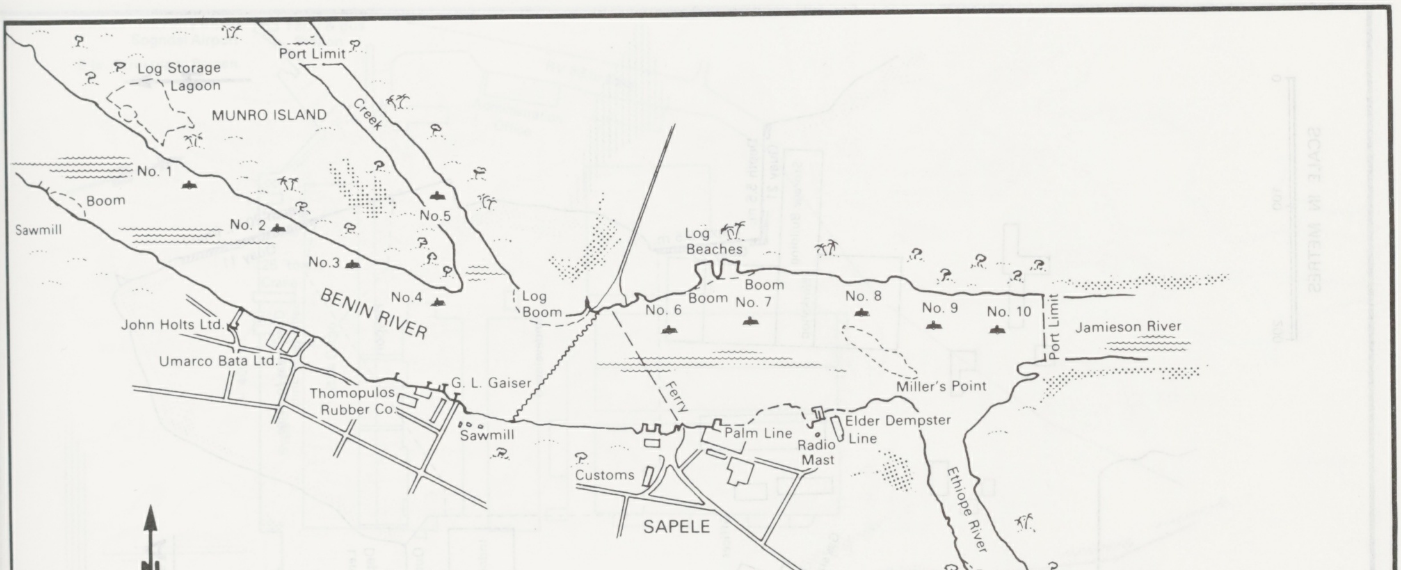
ALL HOSES 35FT. TOTAL LENGTH = 910 FEET.
PICK UP ASSEMBLY COMPRISING 16" BUTTERFLY VALVE
CAMLOCK COUPLING, LIGHTWEIGHT FLANGE, PICK UP & SNUBBING CHAIN.

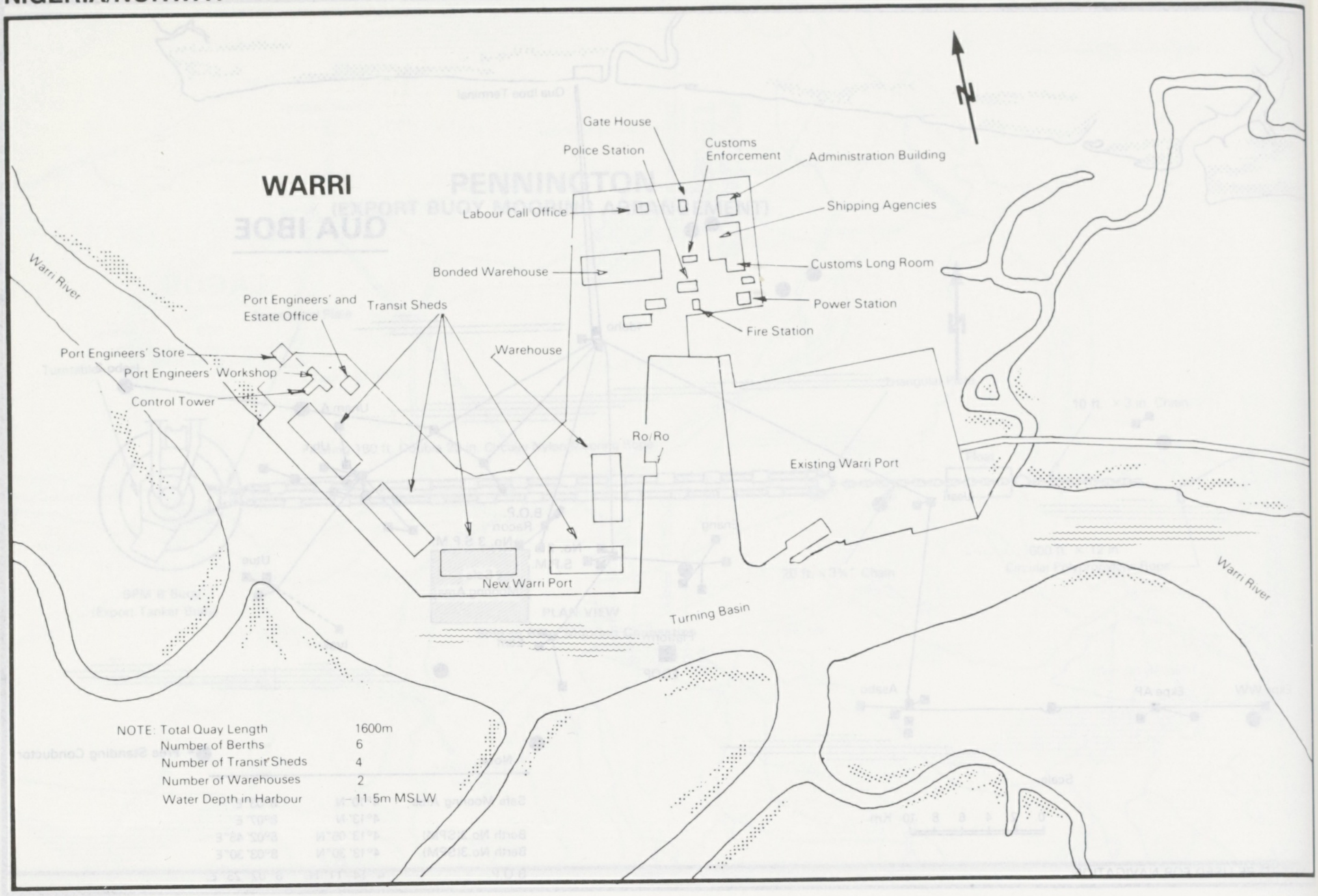

16in. Super Sampson Halflote Buoy Hose
Bravo
Mainline Seleflote Hose (21 X 16in. Hoses)
Pick up Chain
16" Barbell Rail Hose
Pick – up Hose String
4 × 16 in Lightweight Tail Hoses


Qua Iboe Terminal
QUA IBOE
Idoho
Isobo-2
Unam A
Ubit
Usari
B.O.P.
Racon
No. 3 S.P.M.
Enang
No. 2
S.P.M.
Safe
Mooring Area
Utue
Iyak
Platform
EDOP
Etim
Ekpe WW
Ekpe AP
Asabo
● = Free Standing Conductor
Scale:
0 2 4 6 8 10 Km
NOT TO BE USED FOR NAVIGATION

Note:

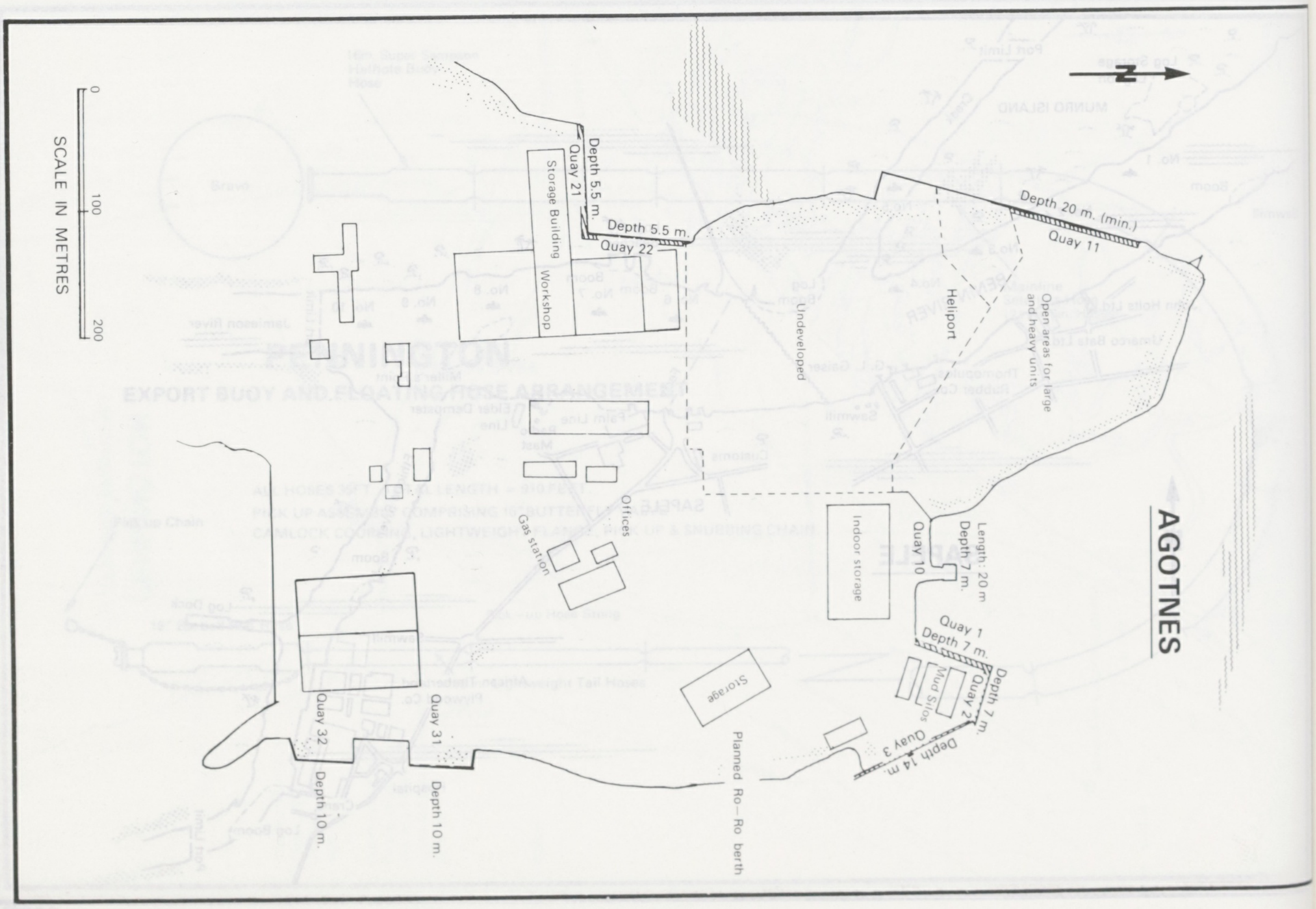
Safe Mooring Area	4°10′ N	8°03′ E
	4°13′ N	8°07′ E
Berth No.2(SPM)	4°13′ 05″N	8°02′ 45″E
Berth No.3(SPM)	4°13′ 30″N	8°03′ 30″E
B.O.P.	4° 14′ 11″ N.	8° 02′ 25″ E.


Port Limit
Log Storage
Lagoon
MUNRO ISLAND
Creek
No. 1
Boom
Sawmill
No. 2
No. 5
No.3
No.4
BENIN RIVER
Log
Boom
Log
Beaches
Boom
Boom
No. 7
No. 6
No. 8
No. 9
No. 10
Port Limit
Jamieson River
John Holts Ltd.
Umarco Bata Ltd.
Thomopulos
Rubber Co.
G. L. Gaiser
Ferry
Sawmill
Palm Line
Radio
Mast
Elder Dempster
Line
Miller's Point
Customs
SAPELE
Ethiope River
SAPELE
Boom
Log Dock
Sawmill
African Timber and
Plywood Co.
Hospital
Crane
Log Boom
Port Limit

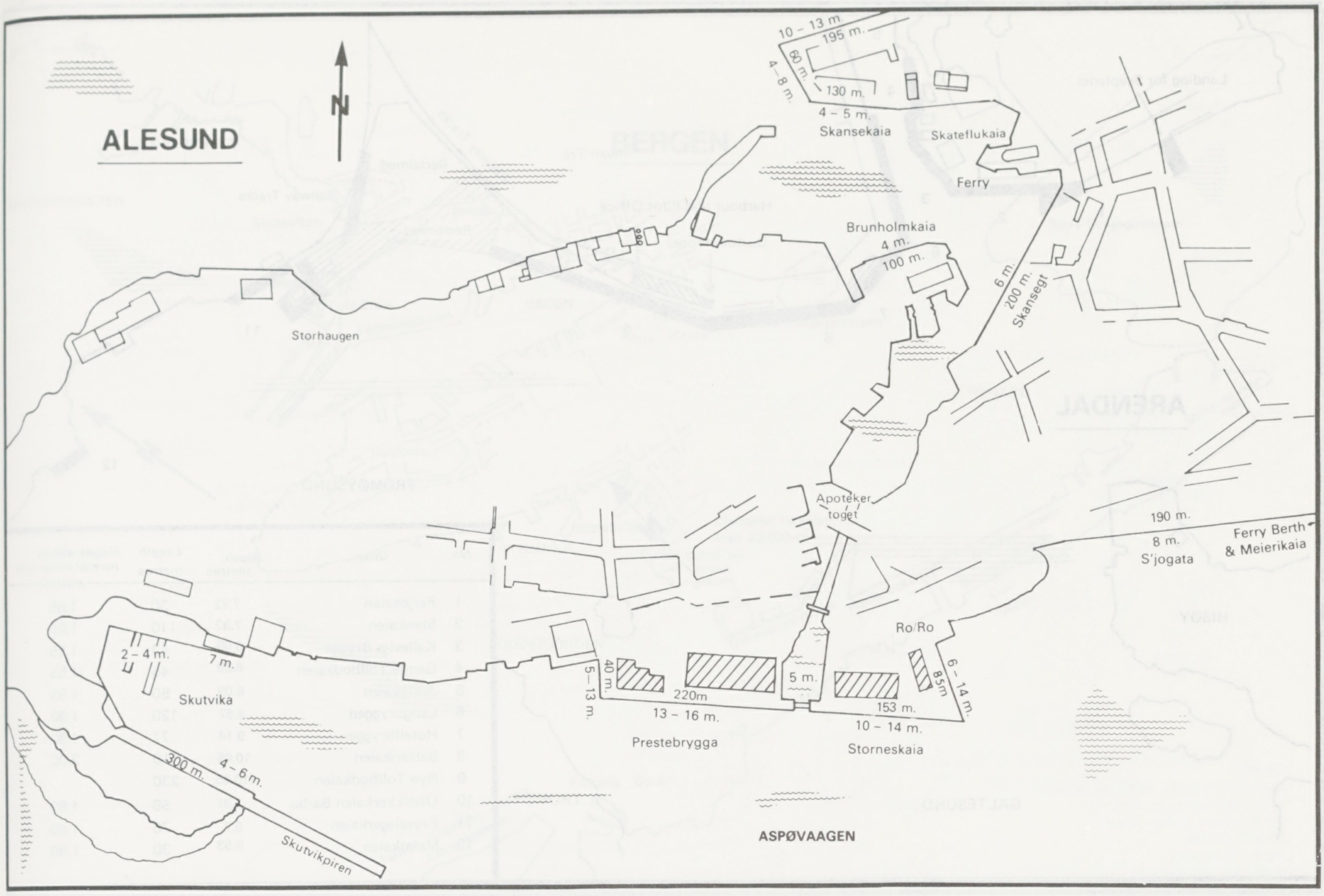

N
Gate House
Police Station
Customs Enforcement
Administration Building
Labour Call Office
Shipping Agencies
Bonded Warehouse
Customs Long Room
Port Engineers' and Estate Office
Transit Sheds
Power Station
Fire Station
Port Engineers' Store
Warehouse
Port Engineers' Workshop
Control Tower
Warri River
Ro/Ro
Existing Warri Port
New Warri Port
Turning Basin
Warri River

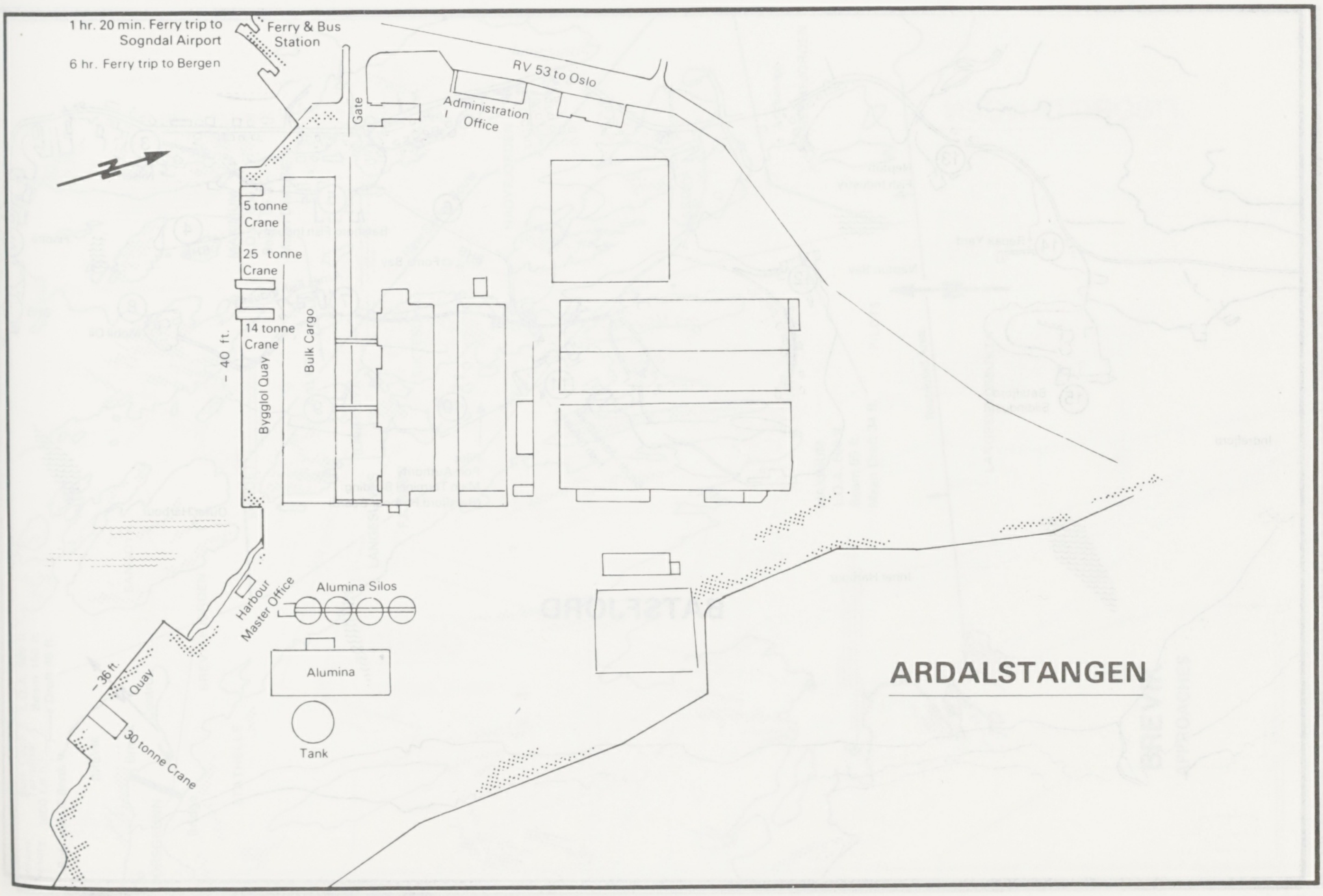
WARRI

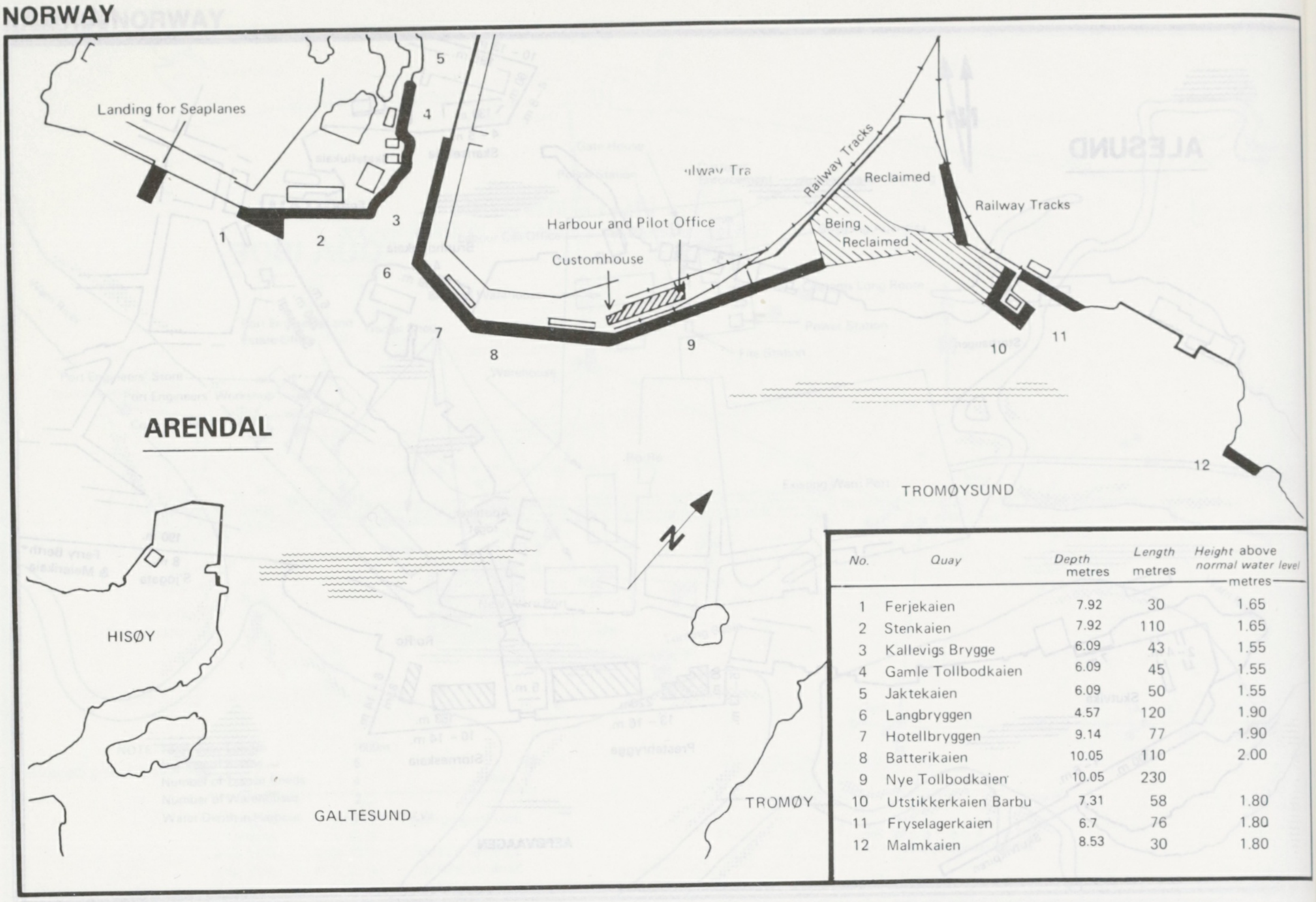
NOTE:	
Total Quay Length	1600m
Number of Berths	6
Number of Transit Sheds	4
Number of Warehouses	2
Water Depth in Harbour	11.5m MSLW


SCALE IN METRES
0
100
200
N
Depth 5.5 m.
Quay 21
Storage Building
Depth 5.5 m.
Quay 22
Workshop
Depth 20 m. (min.)
Quay 11
Undeveloped
Heliport
Open areas for large and heavy units
Offices
Gas station
Indoor storage
Quay 10
Depth 7 m.
Length: 20 m
Quay 1
Depth 7 m.
Mud Silos
Quay 2
Depth 7 m.
Storage
Quay 3
Depth 14 m.
Planned Ro– Ro berth
Quay 32
Depth 10 m.
Quay 31
Depth 10 m.

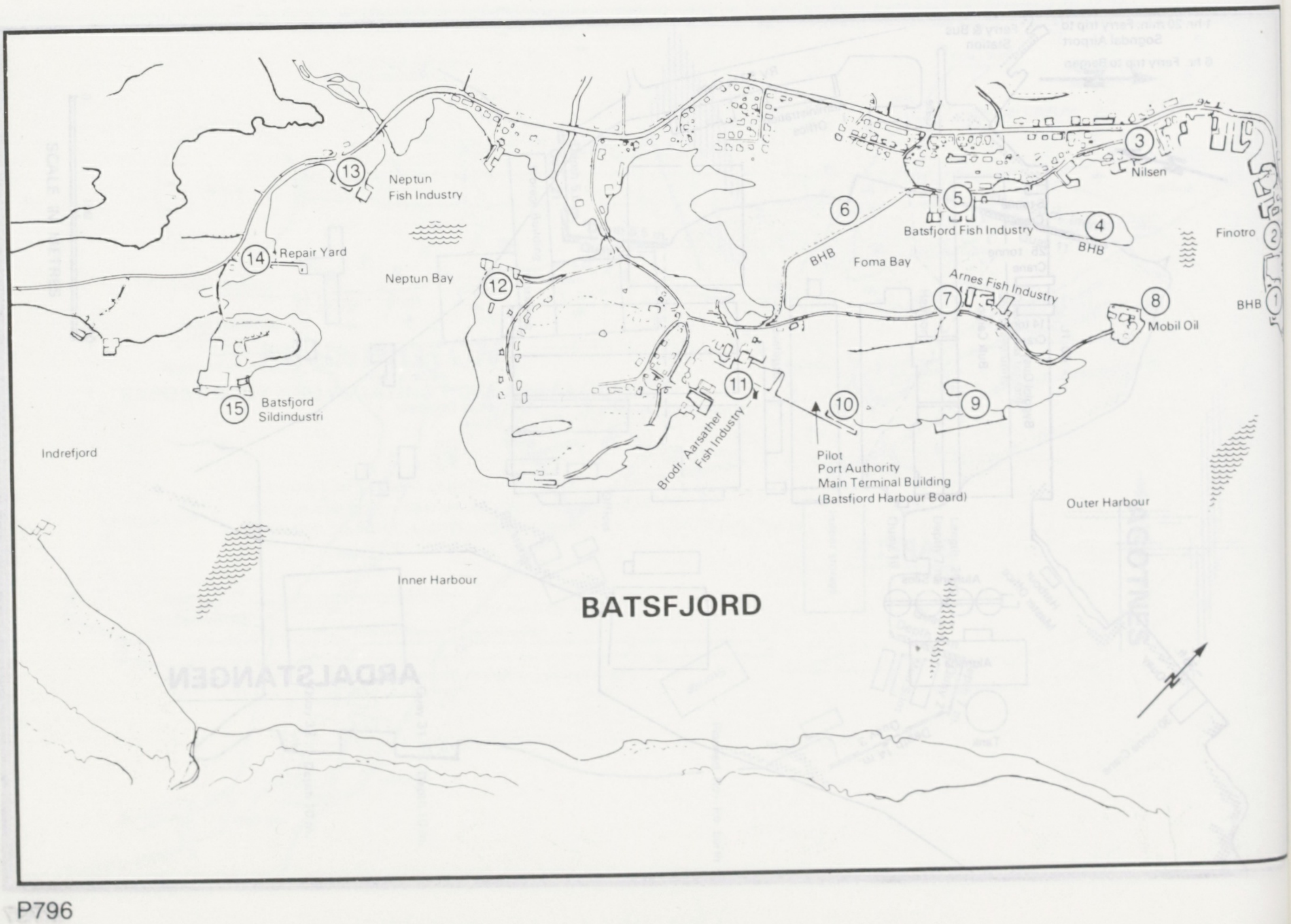
AGOTNES

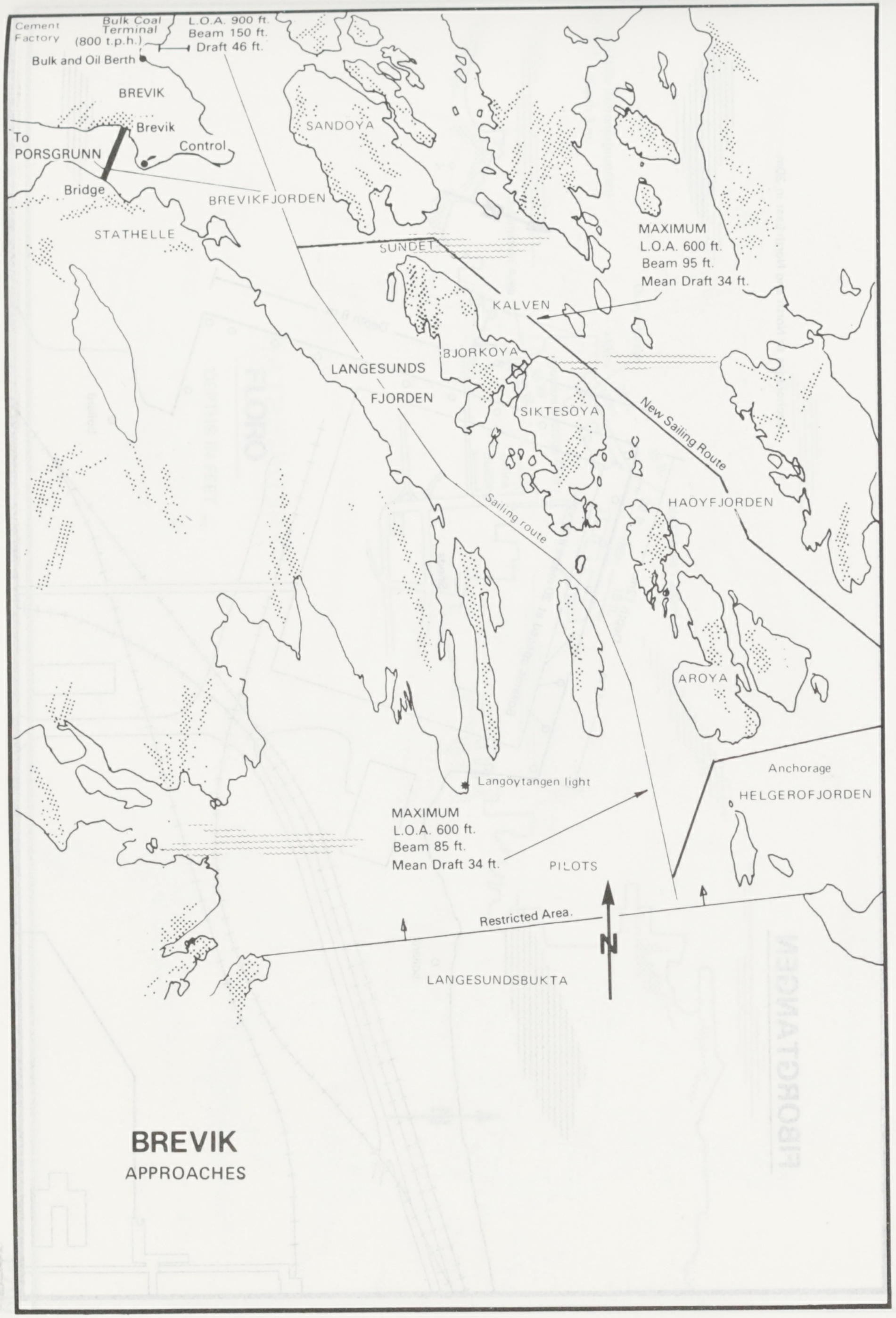

ALESUND
N
10 – 13 m.
195 m.
60 m.
4 – 8 m.
130 m.
4 – 5 m.
Skansekaia
Skateflukaia
Ferry
Brunholmkaia
4 m.
100 m.
6 m.
200 m.
Skansegt
Storhaugen
Apoteker toget
190 m.
8 m.
S'jogata
Ferry Berth & Meierikaia
Ro/Ro
6 – 14 m.
85m
153 m.
10 – 14 m.
Storneskaia
5 m.
220m
13 – 16 m.
Prestebrygga
40 m.
5 – 13 m.
2 – 4 m.
7 m.
Skutvika
300 m.
4 – 6 m.
Skutvikpiren
ASPØVAAGEN

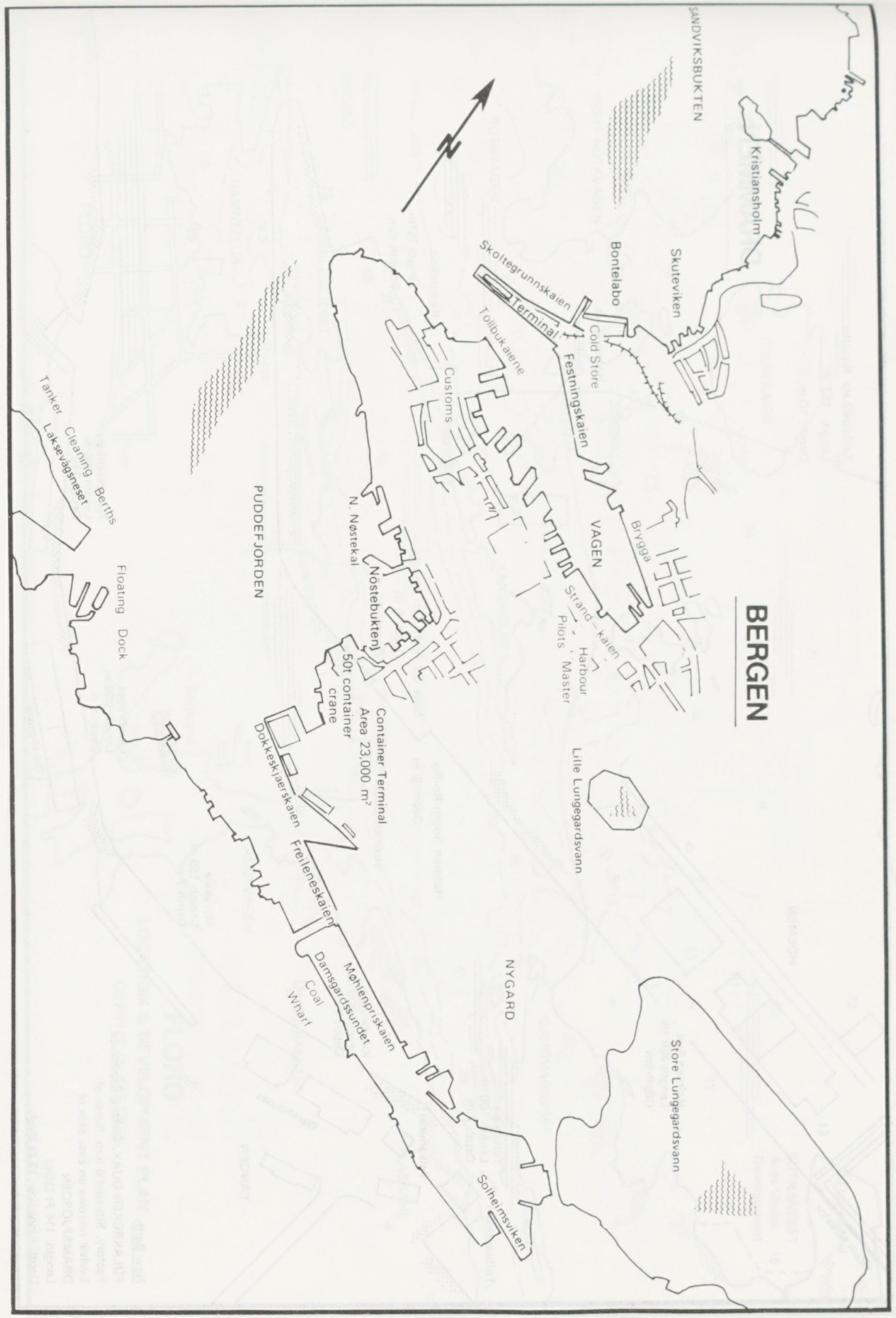

1 hr. 20 min. Ferry trip to Sogndal Airport
6 hr. Ferry trip to Bergen
Ferry & Bus Station
Gate
RV 53 to Oslo
Administration Office
N
5 tonne Crane
25 tonne Crane
14 tonne Crane
– 40 ft.
Bygglol Quay
Bulk Cargo
Harbour Master Office
Alumina Silos
Alumina
Tank
– 36 ft.
Quay
30 tonne Crane
ARDALSTANGEN

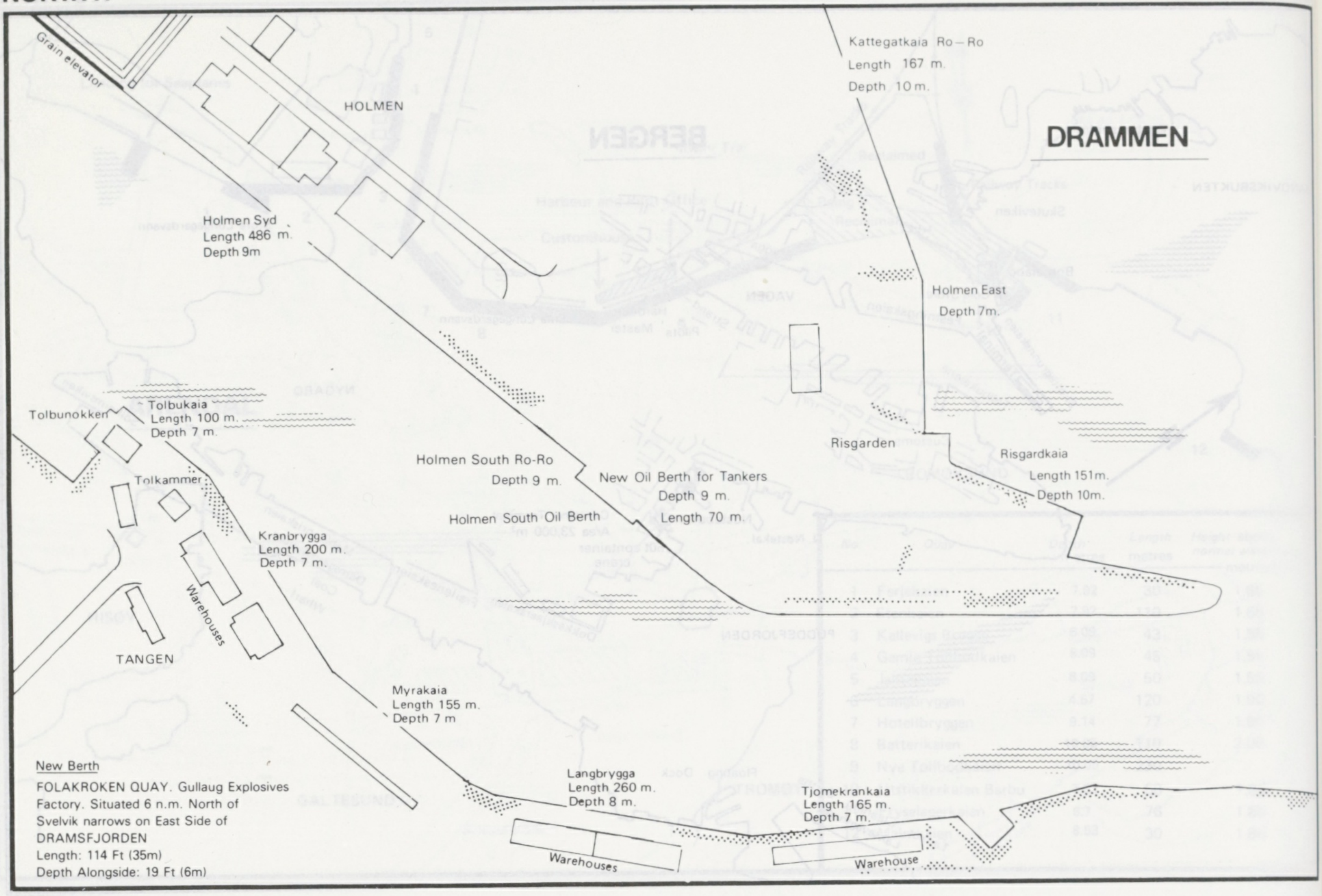

Landing for Seaplanes
1
2
3
4
5
6
7
8
9
10
11
12
ilway Tra
Railway Tracks
Reclaimed
Being Reclaimed
Railway Tracks
Harbour and Pilot Office
Customhouse
ARENDAL
N
TROMØYSUND
HISØY
GALTESUND
TROMØY

No.	Quay	Depth metres	Length metres	Height above normal water level metres
1	Ferjekaien	7.92	30	1.65
2	Stenkaien	7.92	110	1.65
3	Kallevigs Brygge	6.09	43	1.55
4	Gamle Tollbodkaien	6.09	45	1.55
5	Jaktekaien	6.09	50	1.55
6	Langbryggen	4.57	120	1.90
7	Hotellbryggen	9.14	77	1.90
8	Batterikaien	10.05	110	2.00
9	Nye Tollbodkaien	10.05	230	
10	Utstikkerkaien Barbu	7.31	58	1.80
11	Fryselagerkaien	6.7	76	1.80
12	Malmkaien	8.53	30	1.80


③ Nilsen
⑬ Neptun Fish Industry
⑭ Repair Yard
Neptun Bay
⑫
⑥
⑤ Batsfjord Fish Industry
④ BHB
Finotro ②
BHB ①
BHB
Foma Bay
Arnes Fish Industry ⑦
⑧ Mobil Oil
⑮ Batsfjord Sildindustri
⑪
Brodr. Aarsæther Fish Industry
⑩
⑨
Pilot
Port Authority
Main Terminal Building
(Batsfjord Harbour Board)
Indrefjord
Outer Harbour
Inner Harbour
BATSFJORD
N


Cement Factory
Bulk Coal Terminal (800 t.p.h.)
L.O.A. 900 ft. Beam 150 ft. Draft 46 ft.
Bulk and Oil Berth
BREVIK
Brevik
Control
To PORSGRUNN
Bridge
BREVIKFJORDEN
STATHELLE
SANDOYA
SUNDET
MAXIMUM L.O.A. 600 ft. Beam 95 ft. Mean Draft 34 ft.
KALVEN
BJORKOYA
LANGESUNDS FJORDEN
SIKTESOYA
New Sailing Route
Sailing route
HAOYFJORDEN
AROYA
Langoytangen light
Anchorage
HELGEROFJORDEN
MAXIMUM L.O.A. 600 ft. Beam 85 ft. Mean Draft 34 ft.
PILOTS
Restricted Area.
N
LANGESUNDSBUKTA
BREVIK
APPROACHES


BERGEN
SANDVIKSBUKTEN
Kristiansholm
Skuteviken
Bontelabo
Skoltegrunnskaien
Terminal
Cold Store
Tollbukaiene
Festningskaien
Customs
Bryggen
VAGEN
Strand-kaien
Harbour Master
Pilots
Lille Lungegardsvann
N. Nøstekai
Nøstebukten
50t container crane
Container Terminal Area 23,000 m²
PUDDEFJORDEN
Tanker Cleaning Berths
Laksevågsneset
Floating Dock
Dokkeskjaerskaien
Freilenneskaien
Møhlenprirskaien
Damsgardssundet
Coal Wharf
NYGARD
Store Lungegardsvann
Solheimsviken

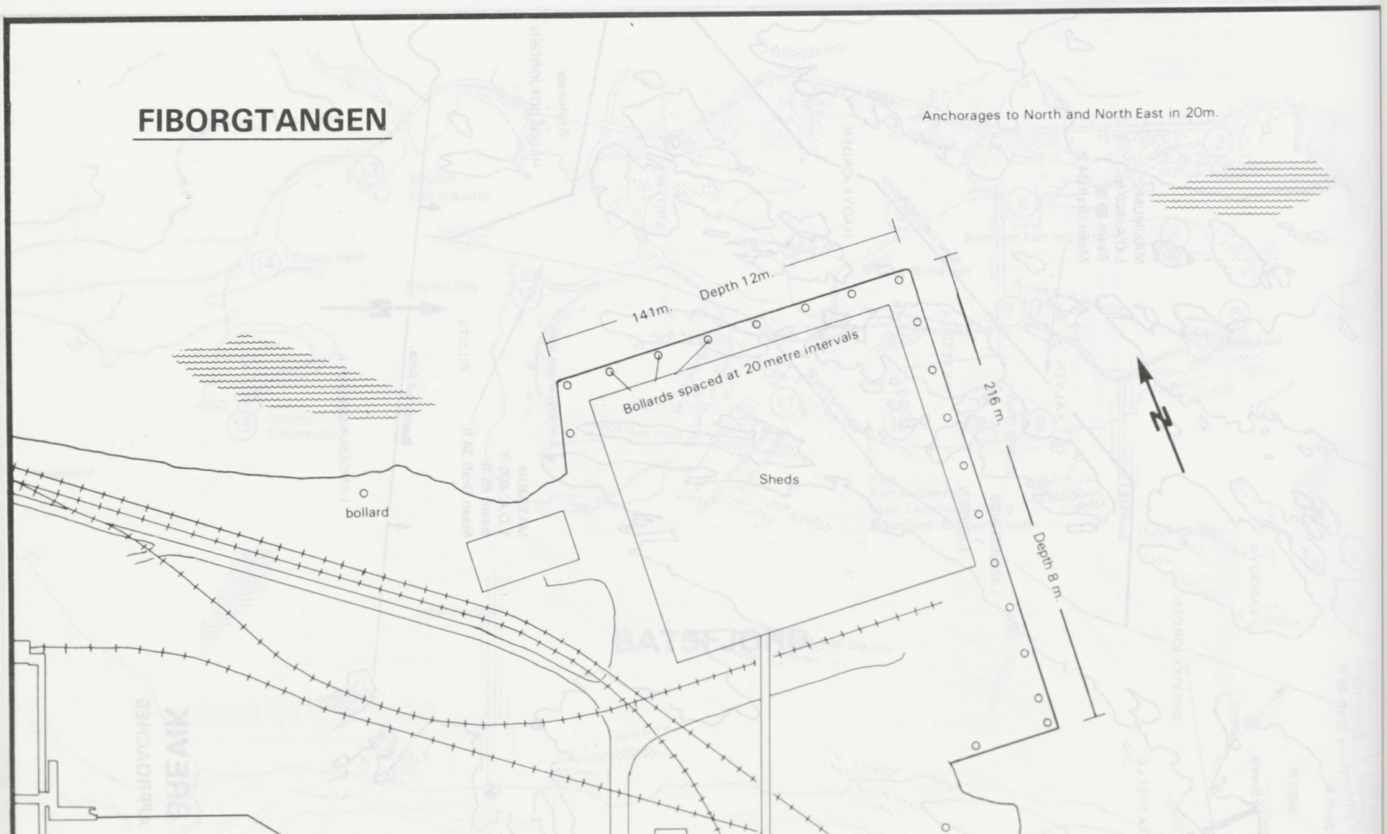

DRAMMEN
Grain elevator
HOLMEN
Holmen Syd
Length 486 m.
Depth 9m
Kattegatkaia Ro – Ro
Length 167 m.
Depth 10 m.
Holmen East
Depth 7m.
Risgarden
Risgardkaia
Length 151m.
Depth 10m.
Tolbunokken
Tolbukaia
Length 100 m.
Depth 7 m.
Tolkammer
Kranbrygga
Length 200 m.
Depth 7 m.
Warehouses
TANGEN
Holmen South Ro-Ro
Depth 9 m.
New Oil Berth for Tankers
Depth 9 m.
Length 70 m.
Holmen South Oil Berth
Myrakaia
Length 155 m.
Depth 7 m
Langbrygga
Length 260 m.
Depth 8 m.
Tjomekrankaia
Length 165 m.
Depth 7 m.
Warehouses
Warehouse

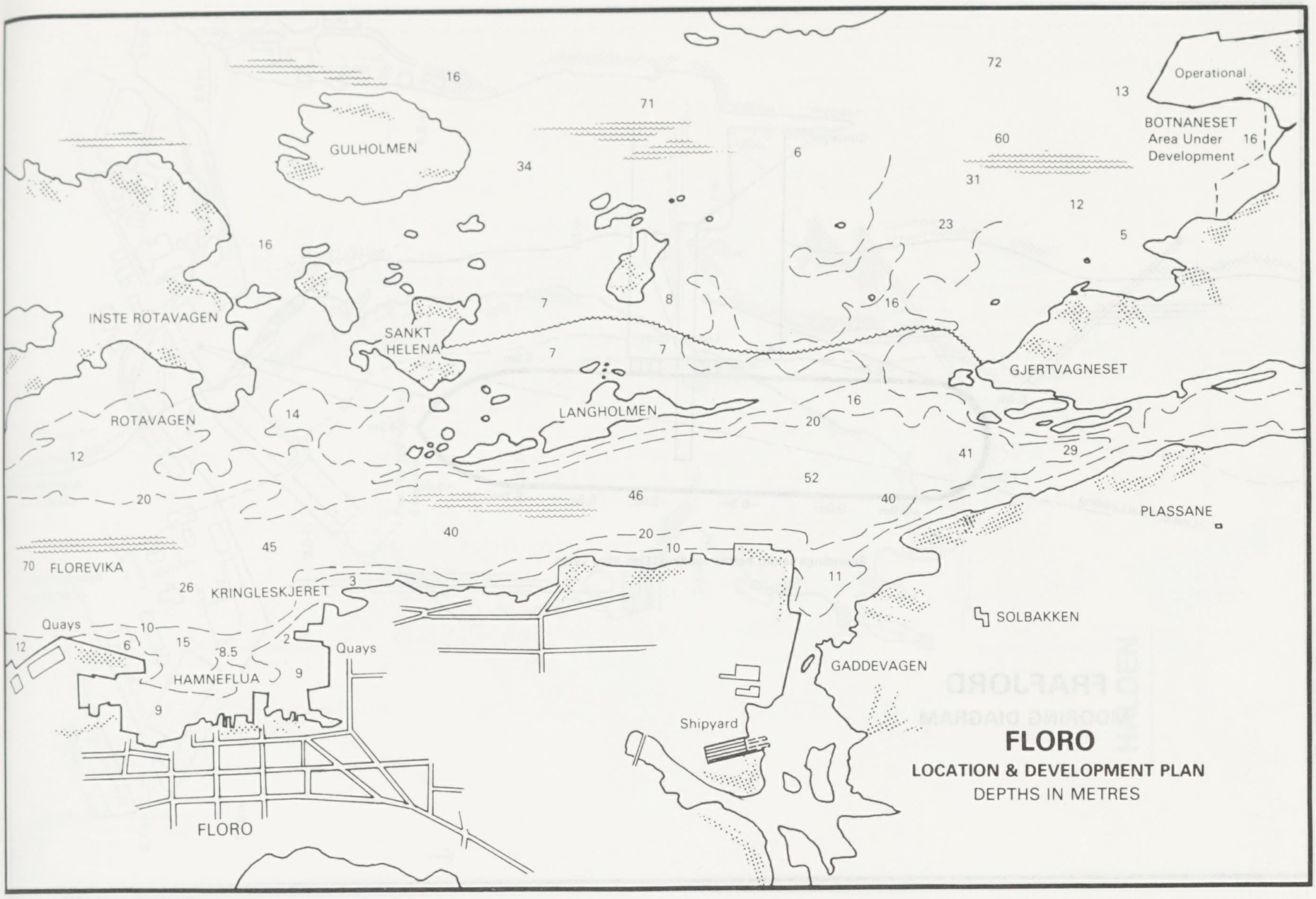
New Berth

FOLAKROKEN QUAY. Gullaug Explosives Factory. Situated 6 n.m. North of Svelvik narrows on East Side of DRAMSFJORDEN

Length: 114 Ft (35m)

Depth Alongside: 19 Ft (6m)

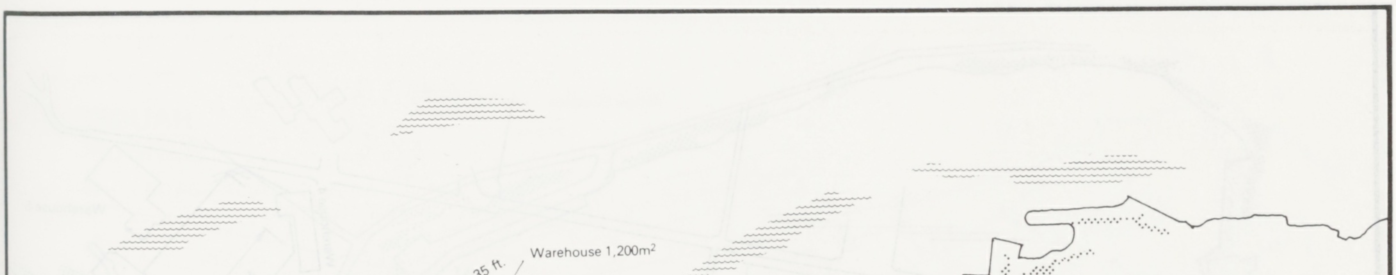

FIBORGTANGEN
Anchorages to North and North East in 20m.
141m.
Depth 12m.
Bollards spaced at 20 metre intervals
216 m.
Depth 8 m.
N
Sheds
bollard
bollard


72
Operational
13
BOTNANESET
Area Under
Development
16
16
71
GULHOLMEN
34
6
60
31
12
23
5
16
INSTE ROTAVAGEN
SANKT
HELENA
7
8
7
7
16
GJERTVAGNESET
ROTAVAGEN
14
LANGHOLMEN
20
16
12
41
29
20
52
46
40
PLASSANE
40
20
10
45
70
FLOREVIKA
26
KRINGLESKJERET
3
11
SOLBAKKEN
Quays
10
12
6
15
8.5
2
Quays
HAMNEFLUA
9
GADDEVAGEN
9
Shipyard
FLORO

FLORO

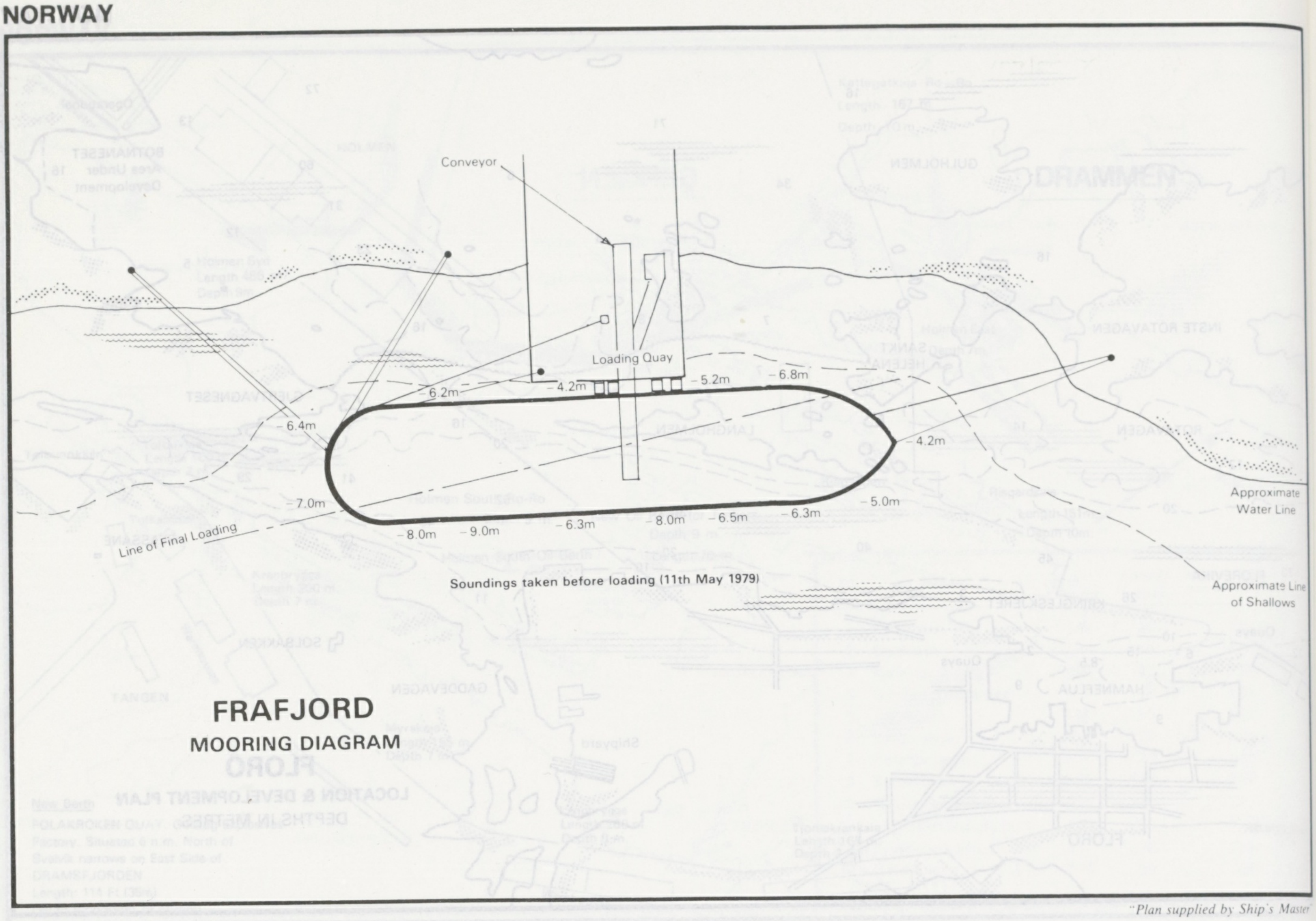
LOCATION & DEVELOPMENT PLAN

DEPTHS IN METRES

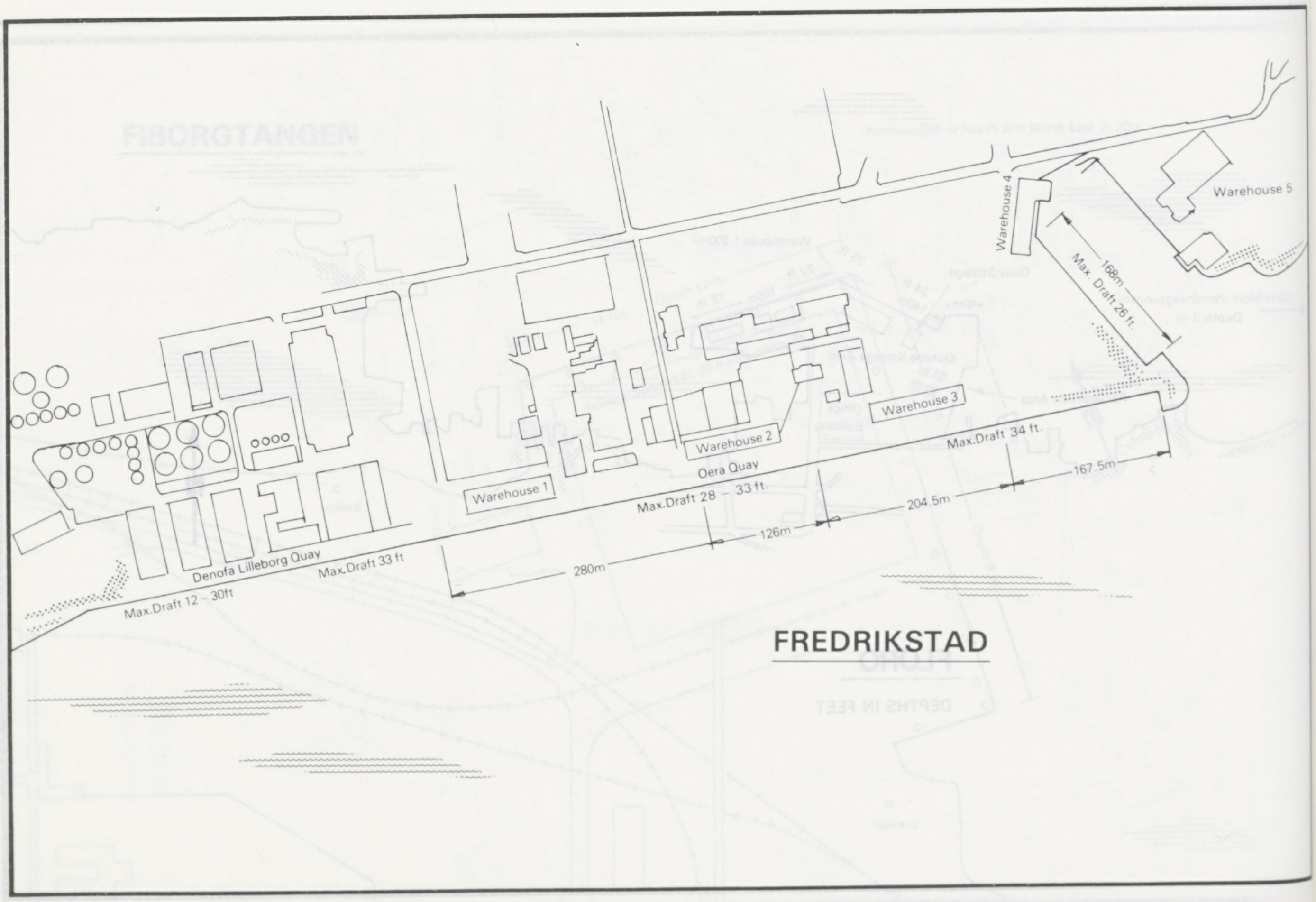

Warehouse 1,200m²
35 ft.
Quay Storage
22 ft.
34 ft.
185m
18 ft.
40m
140m
New Mole (Nordnesgrunnen)
Depth 3 m.
Outside Storage Area
Reclamation Area
Office
Building
N

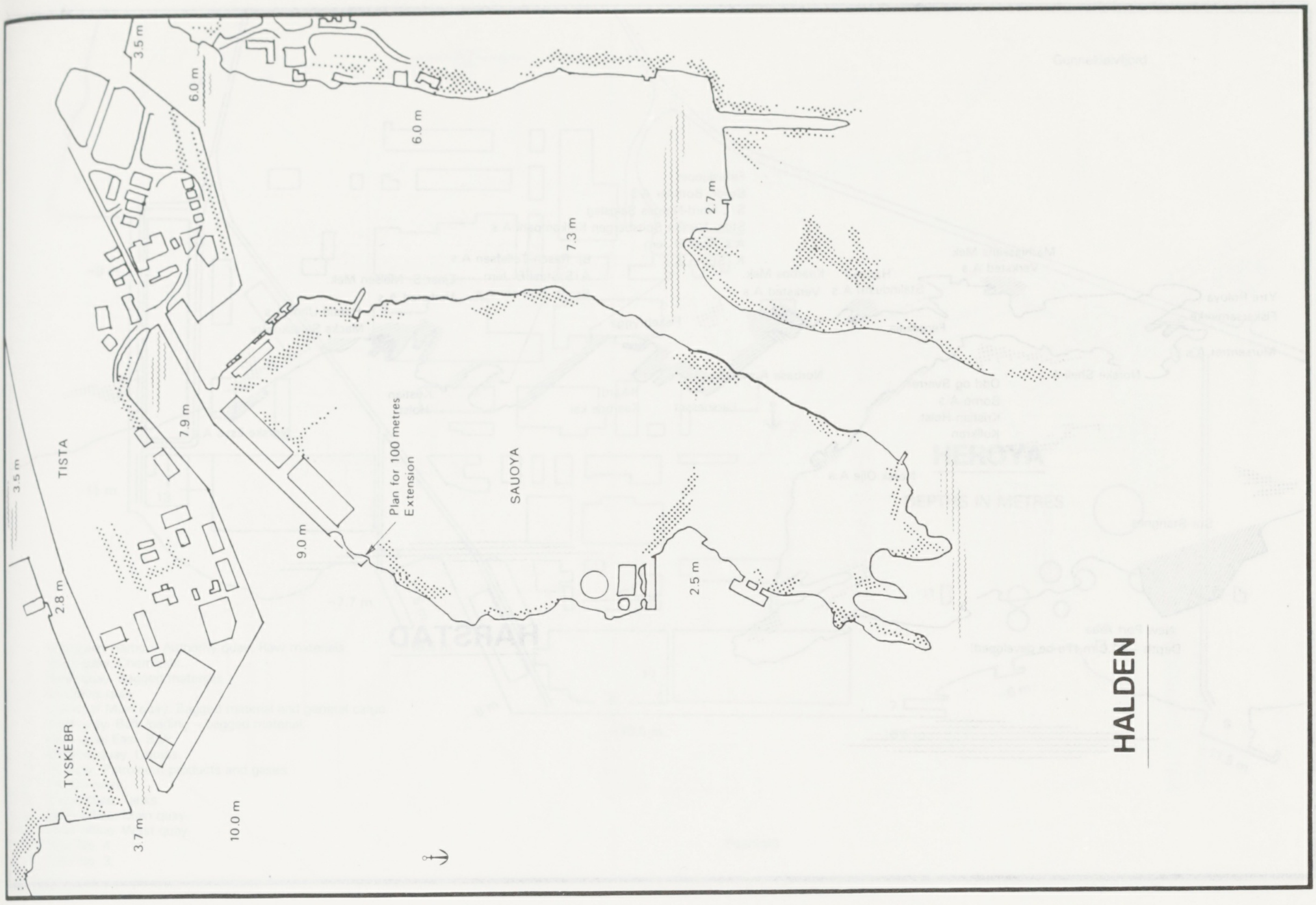
FLORO

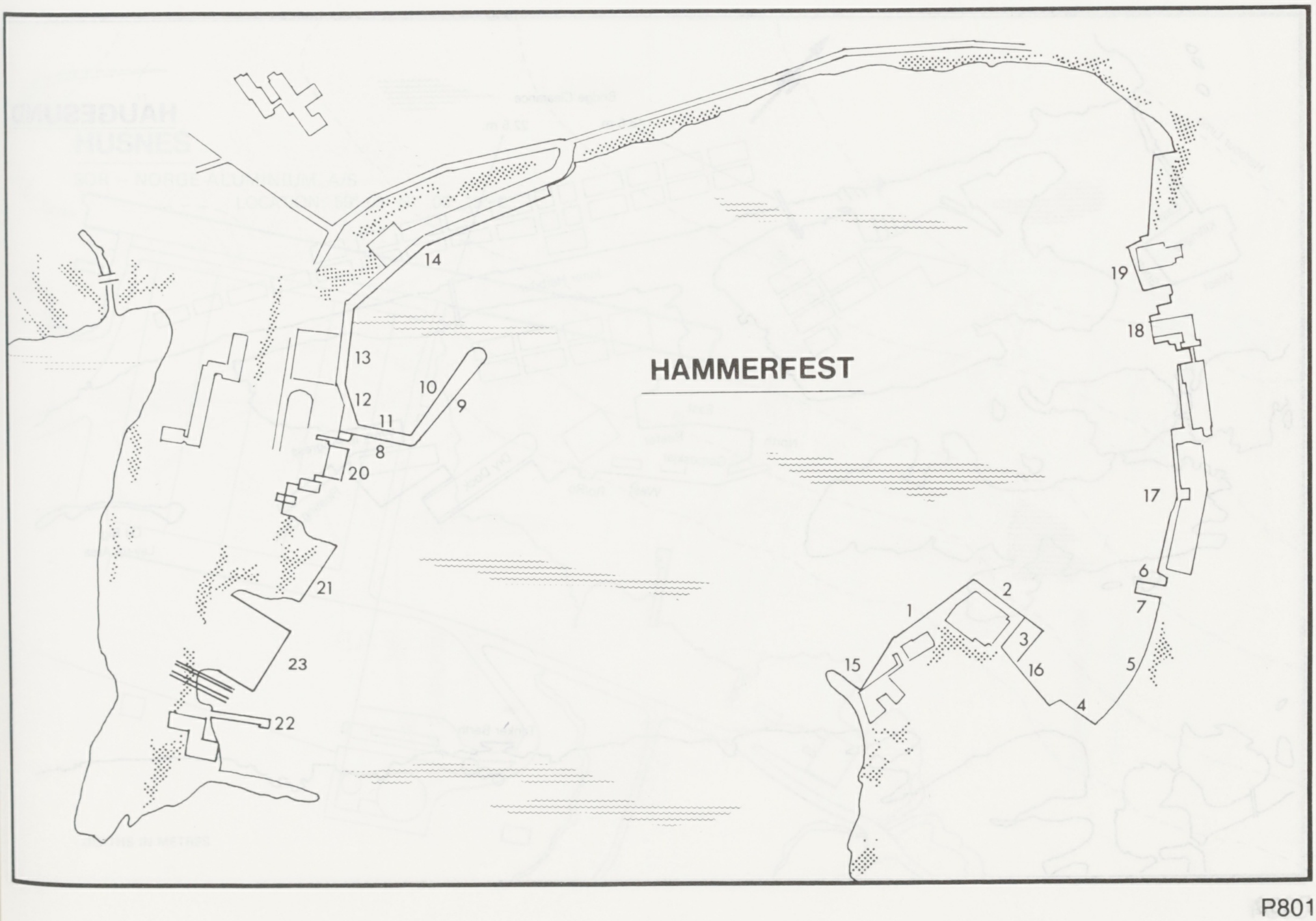
DEPTHS IN FEET

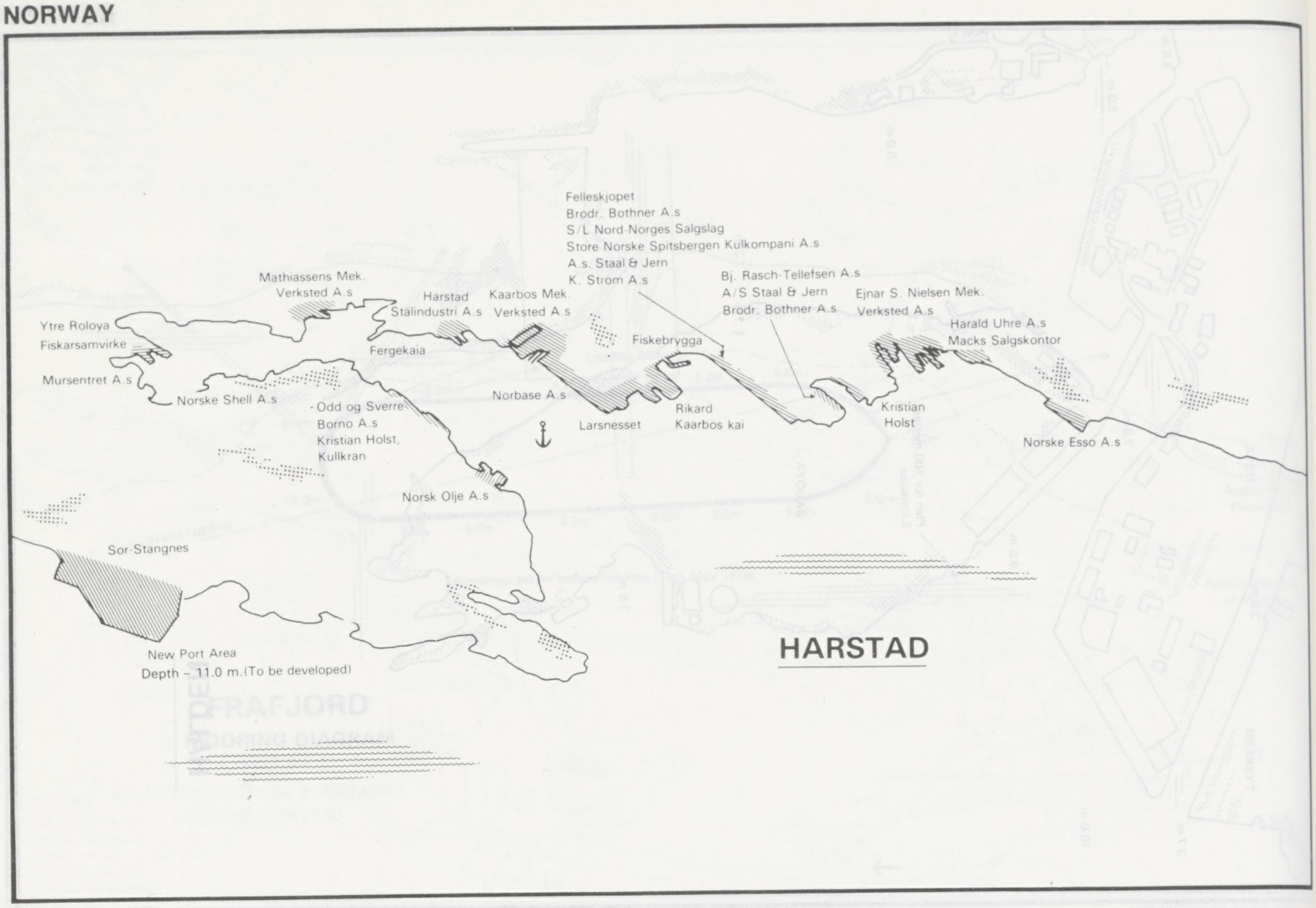

Conveyor
Loading Quay
– 4.2m
– 5.2m
– 6.8m
– 6.2m
– 6.4m
– 4.2m
– 7.0m
– 5.0m
– 8.0m
– 9.0m
– 6.3m
– 8.0m
– 6.5m
– 6.3m
Line of Final Loading
Approximate Water Line
Approximate Line of Shallows
Soundings taken before loading (11th May 1979)
FRAFJORD
MOORING DIAGRAM

"Plan supplied by Ship's Master


Warehouse 4
Warehouse 5
168m
Max. Draft 26 ft.
Warehouse 3
Warehouse 2
Max.Draft 34 ft.
Oera Quay
Warehouse 1
Max.Draft 28 – 33 ft.
204.5m
167.5m
126m
280m
Denofa Lilleborg Quay
Max.Draft 33 ft
Max.Draft 12 – 30ft
FREDRIKSTAD

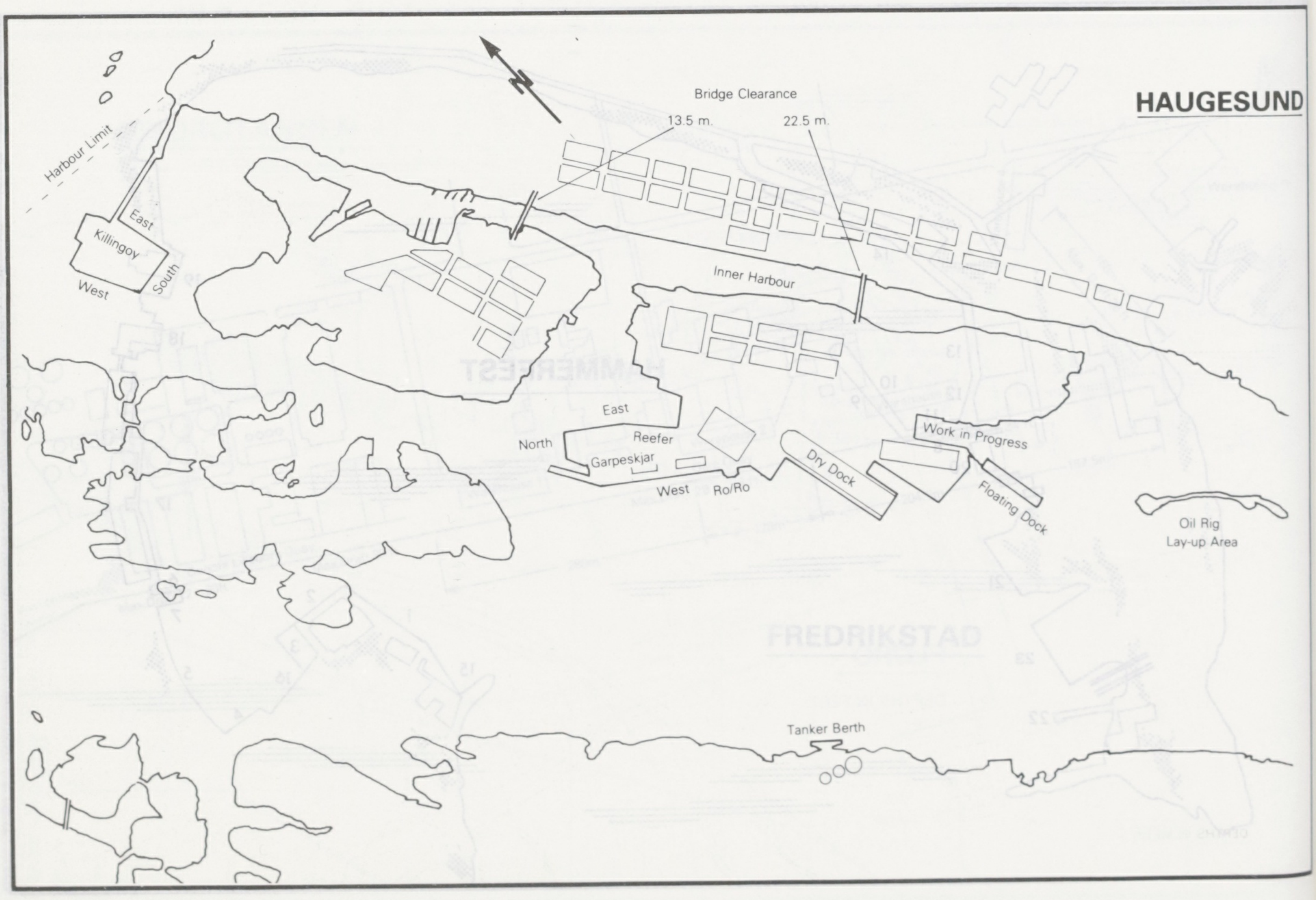

HALDEN
3.5 m
6.0 m
6.0 m
2.7 m
7.3 m
TISTA
3.5 m
7.9 m
Plan for 100 metres Extension
SAUOYA
9.0 m
2.5 m
2.8 m
TYSKEBR
3.7 m
10.0 m
3.5 m


HAMMERFEST
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23



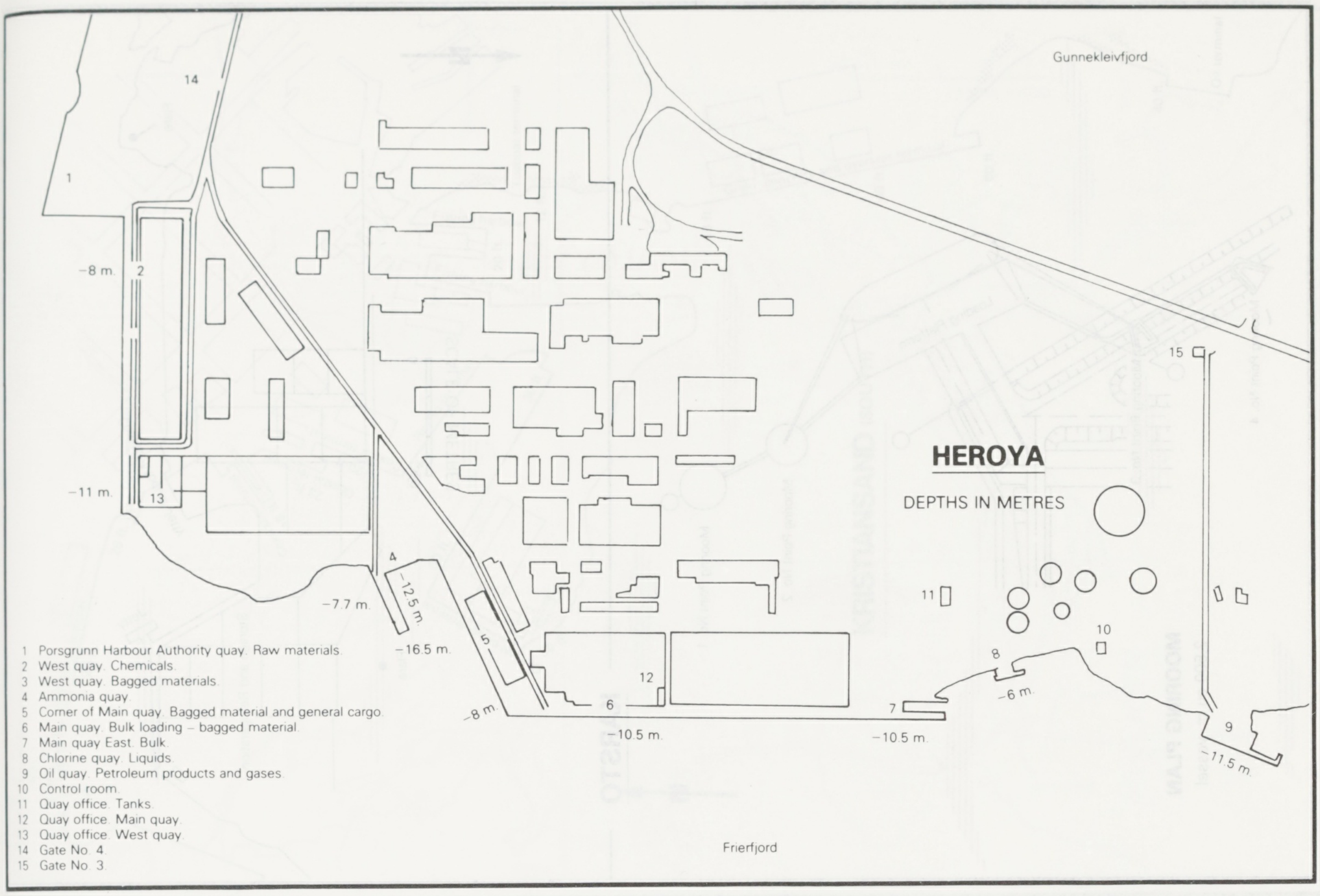
HARSTAD

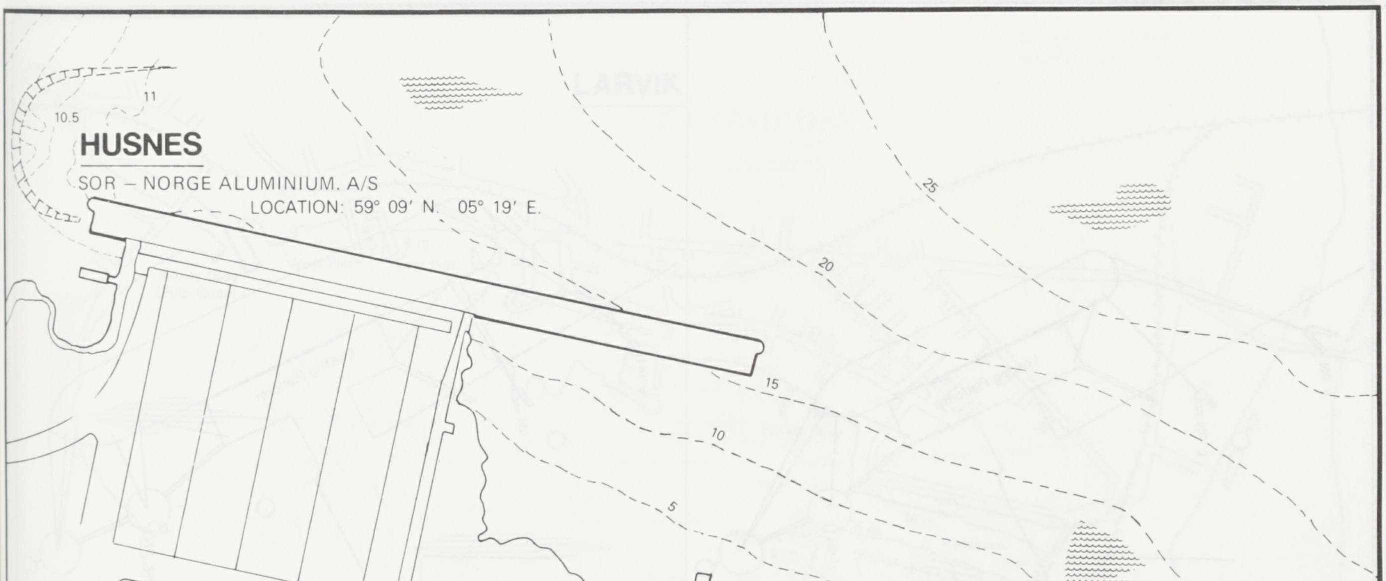
Felleskjopet
Brodr. Bothner A.s
S/L Nord-Norges Salgslag
Store Norske Spitsbergen Kulkompani A.s
A.s. Staal & Jern
K. Strom A.s
Mathiassens Mek. Verksted A.s
Harstad Stälindustri A.s
Kaarbos Mek. Verksted A.s
Bj. Rasch-Tellefsen A.s
A/S Staal & Jern
Brodr. Bothner A.s
Ejnar S. Nielsen Mek. Verksted A.s
Harald Uhre A.s
Macks Salgskontor
Ytre Roloya
Fiskarsamvirke
Fergekaia
Fiskebrygga
Mursentret A.s
Norske Shell A.s
Odd og Sverre Borno A.s
Kristian Holst, Kullkran
Norbase A.s
Larsnesset
Rikard Kaarbos kai
Kristian Holst
Norske Esso A.s
Norsk Olje A.s
Sor-Stangnes
New Port Area
Depth - 11.0 m.(To be developed)

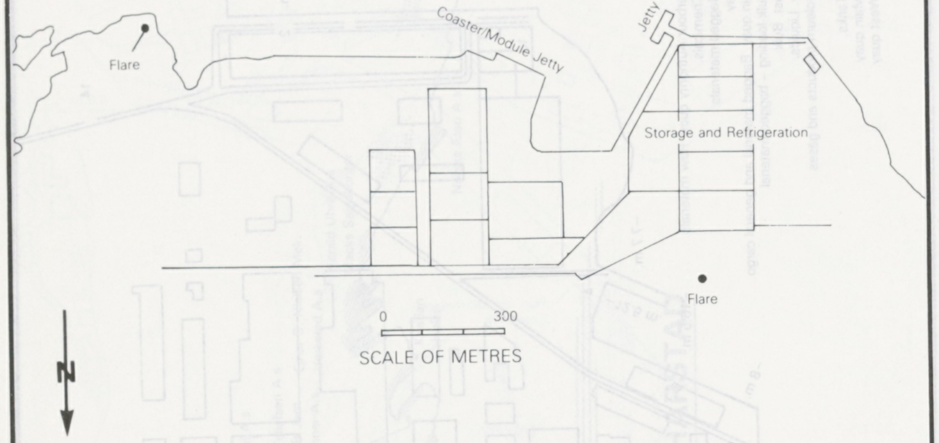


HAUGESUND

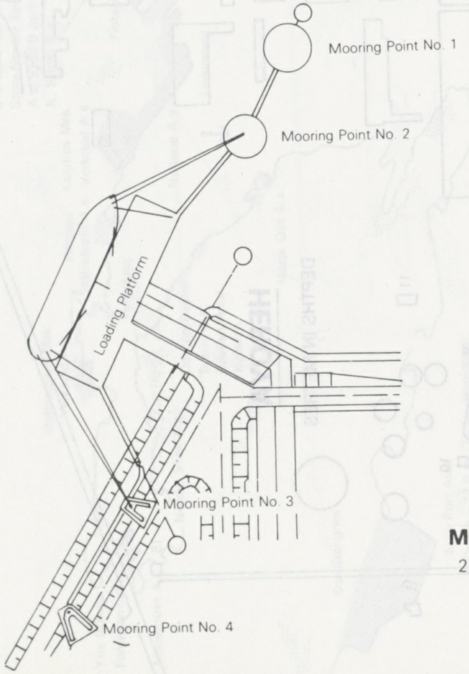
N
Bridge Clearance
13.5 m.
22.5 m.
Harbour Limit
East
Killingoy
South
West
Inner Harbour
East
Reefer
North
Garpeskjar
West
Ro/Ro
Dry Dock
Work in Progress
Floating Dock
Oil Rig Lay-up Area
Tanker Berth


Gunnekleivfjord
HEROYA
DEPTHS IN METRES
14
1
−8 m.
2
−11 m.
13
4
−12.5 m.
−7.7 m.
−16.5 m.
5
−8 m.
6
12
−10.5 m.
7
−10.5 m.
8
−6 m.
10
11
15
9
−11.5 m.
Frierfjord
1 Porsgrunn Harbour Authority quay. Raw materials.
2 West quay. Chemicals.
3 West quay. Bagged materials.
4 Ammonia quay.
5 Corner of Main quay. Bagged material and general cargo.
6 Main quay. Bulk loading – bagged material.
7 Main quay East. Bulk.
8 Chlorine quay. Liquids.
9 Oil quay. Petroleum products and gases.
10 Control room.
11 Quay office. Tanks.
12 Quay office. Main quay.
13 Quay office. West quay.
14 Gate No. 4.
15 Gate No. 3.


HUSNES
SOR – NORGE ALUMINIUM. A/S
LOCATION: 59° 09′ N. 05° 19′ E.
10.5
11
25
20
15
10
5
DEPTHS IN METRES

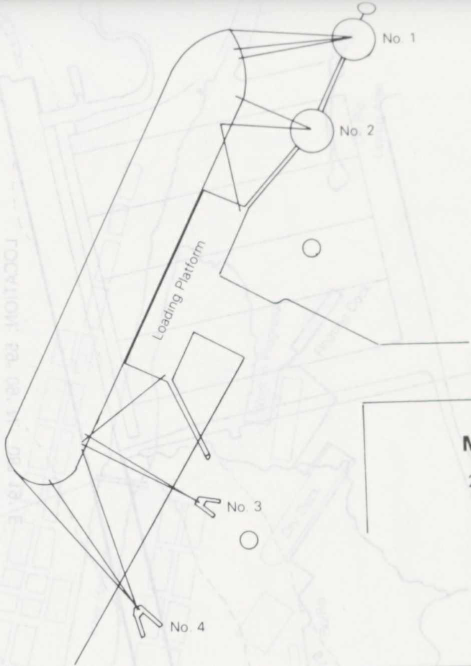

Flare
Coaster/Module Jetty
Jetty
Storage and Refrigeration
Flare
0
300
SCALE OF METRES
N

KARSTO


Mooring Point No. 1
Mooring Point No. 2
Loading Platform
Mooring Point No. 3
Mooring Point No. 4

MOORING PLAN

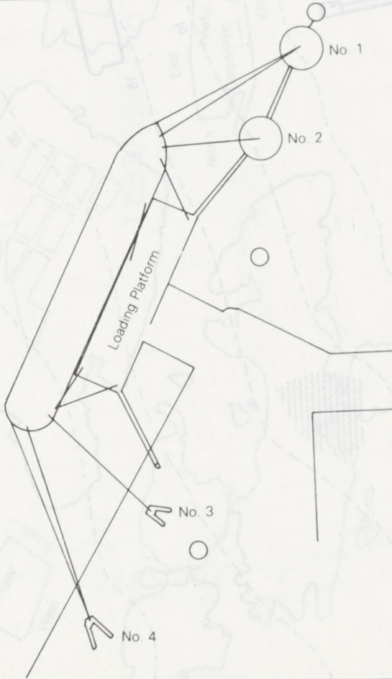
2,500 cu.m. vessel


No. 1
No. 2
Loading Platform
No. 3
No. 4

MOORING PLAN

25,000 cu.m. vessel

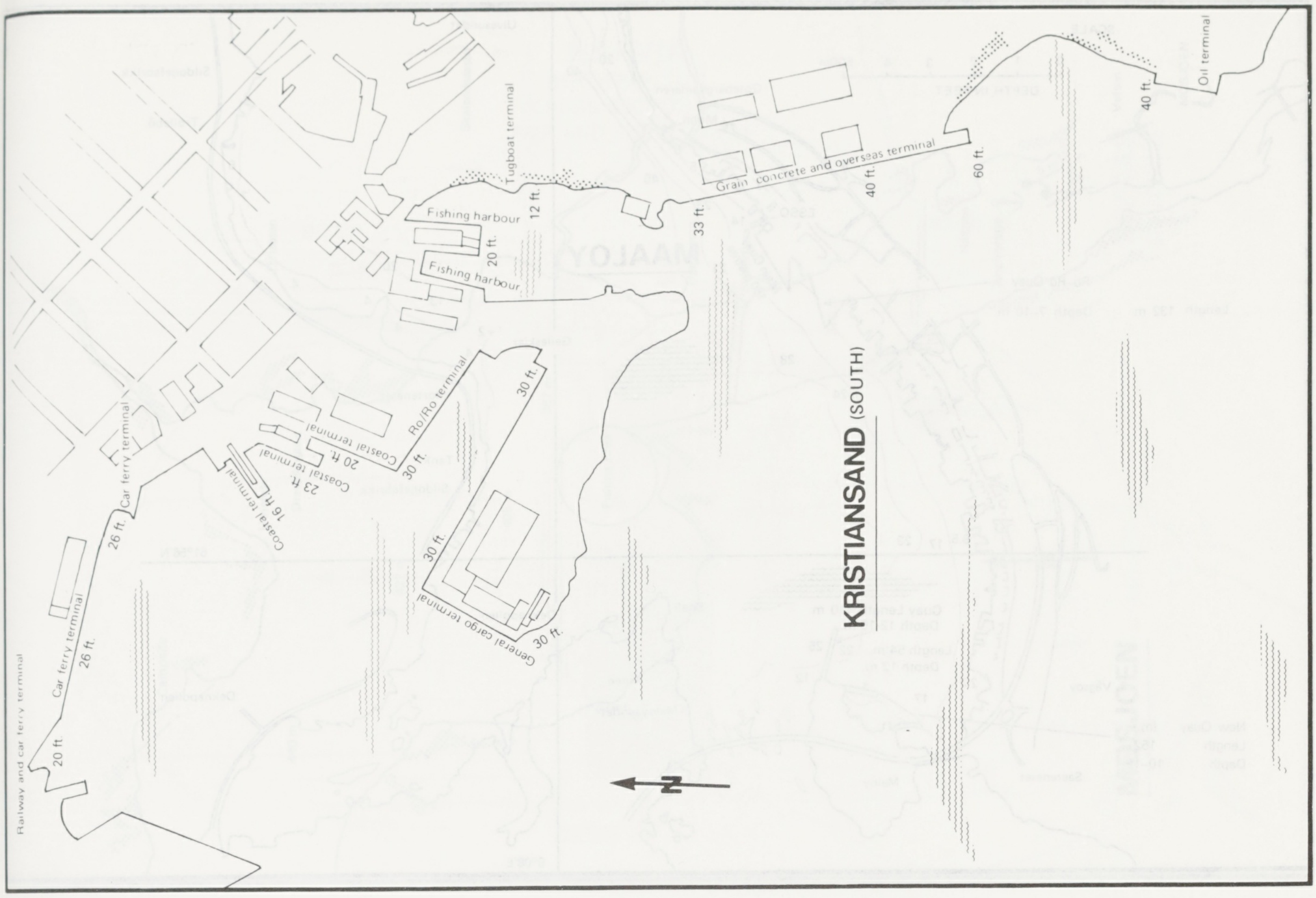
KARSTO


No. 1
No. 2
Loading Platform
No. 3
No. 4

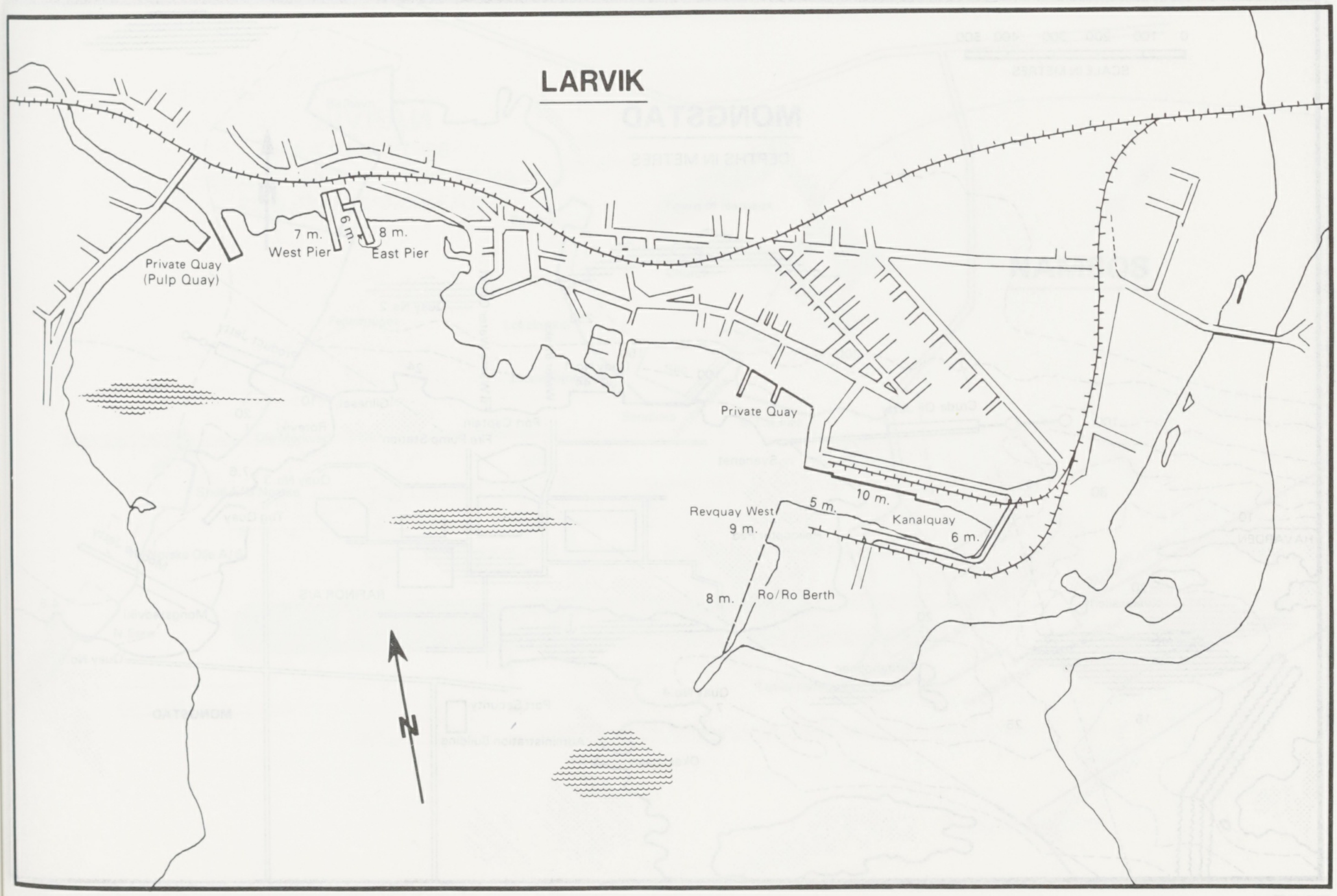
MOORING PLAN

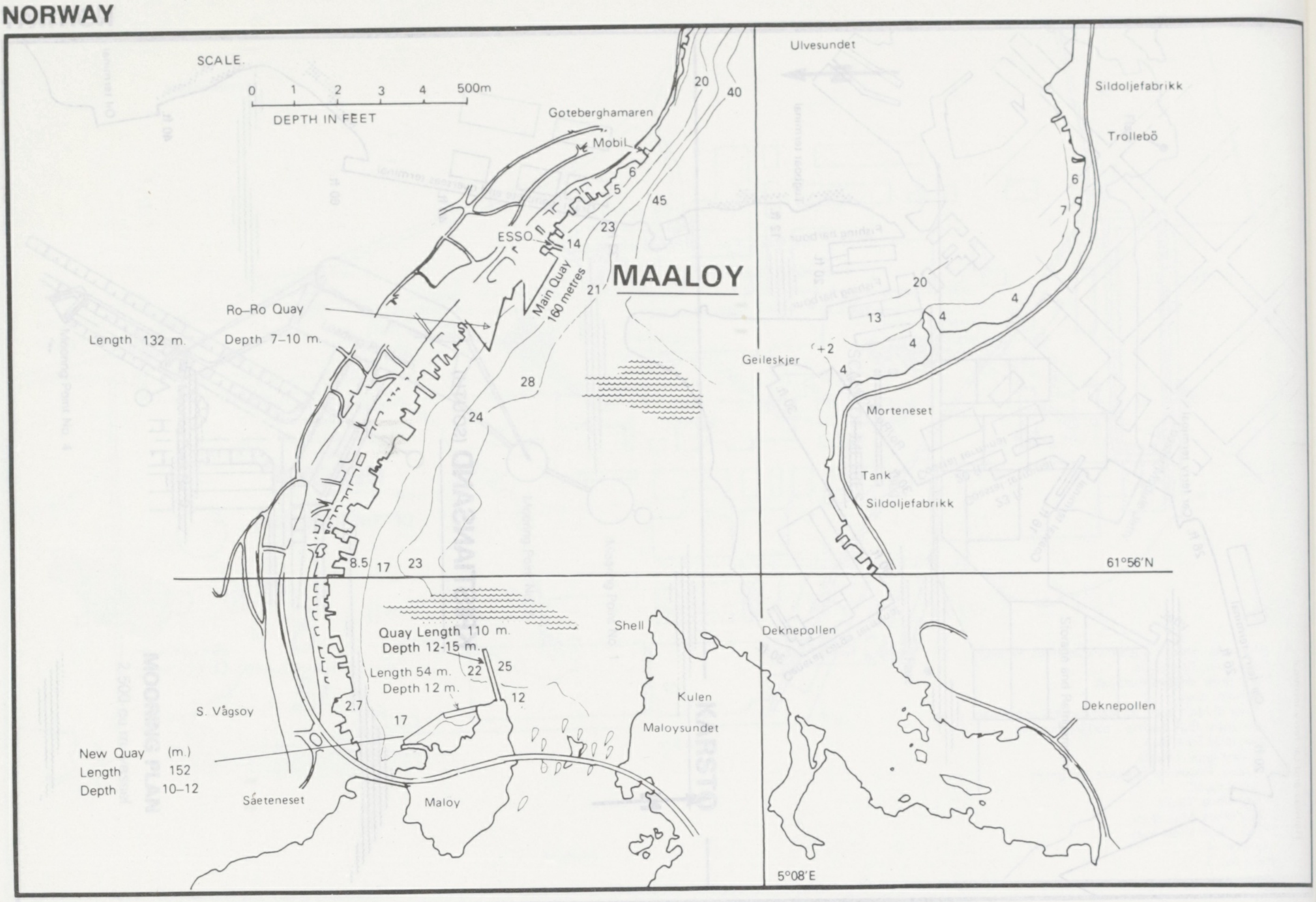
12,000 cu.m. vessel

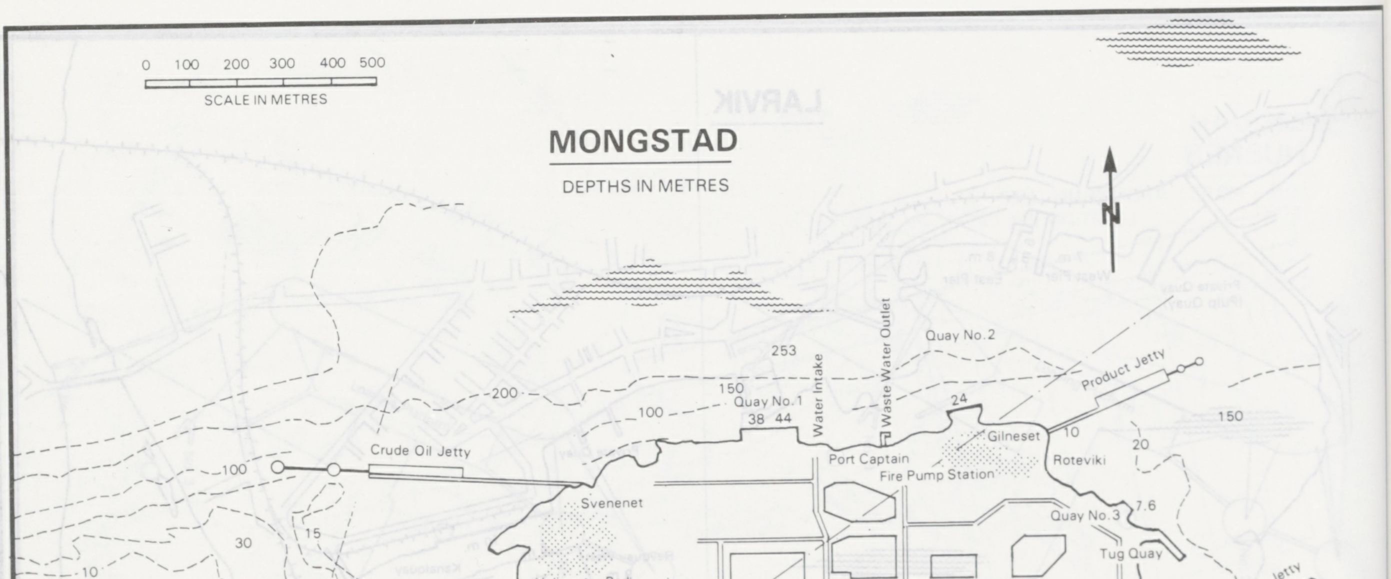
KRISTIANSAND (SOUTH)

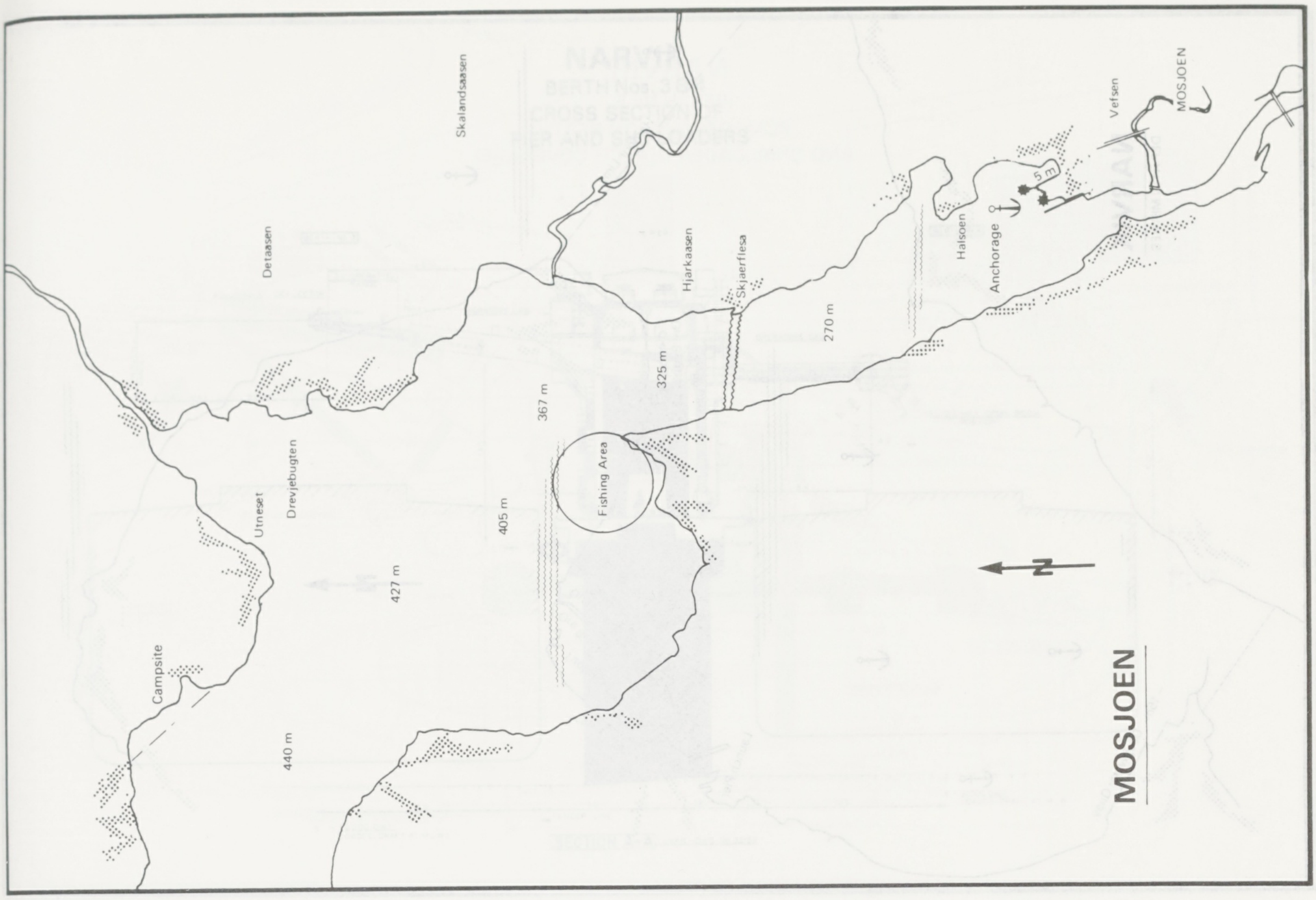

Railway and car ferry terminal
20 ft.
Car ferry terminal
26 ft.
26 ft.
Car ferry terminal
26 ft.
Coastal terminal
16 ft.
23 ft.
Coastal terminal
20 ft.
Coastal terminal
30 ft.
Ro/Ro terminal
30 ft.
30 ft.
General cargo terminal
30 ft.
Fishing harbour
20 ft.
Fishing harbour
12 ft.
Tugboat terminal
33 ft.
Grain concrete and overseas terminal
40 ft.
60 ft.
40 ft.
Oil terminal
N

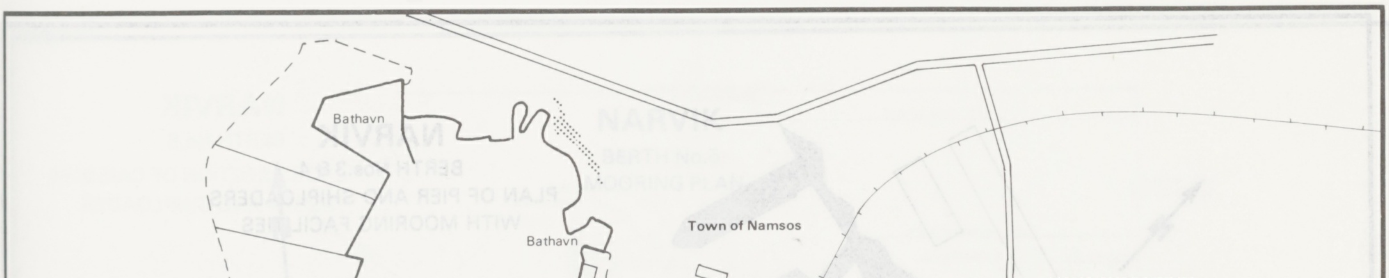
LARVIK

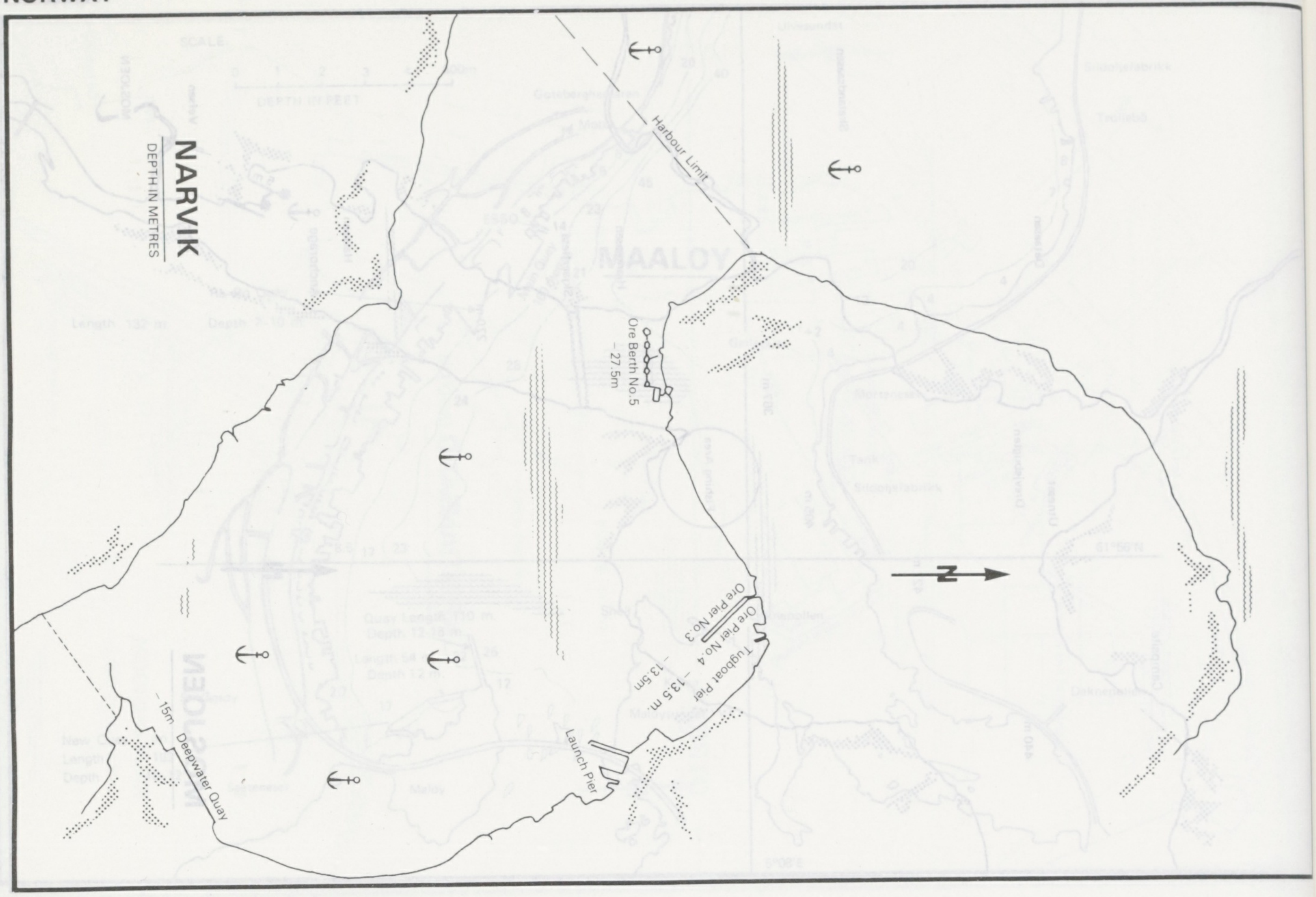

Private Quay
(Pulp Quay)
7 m.
West Pier
6 m.
8 m.
East Pier
Private Quay
10 m.
5 m.
Revquay West
9 m.
Kanalquay
6 m.
8 m.
Ro/Ro Berth
N

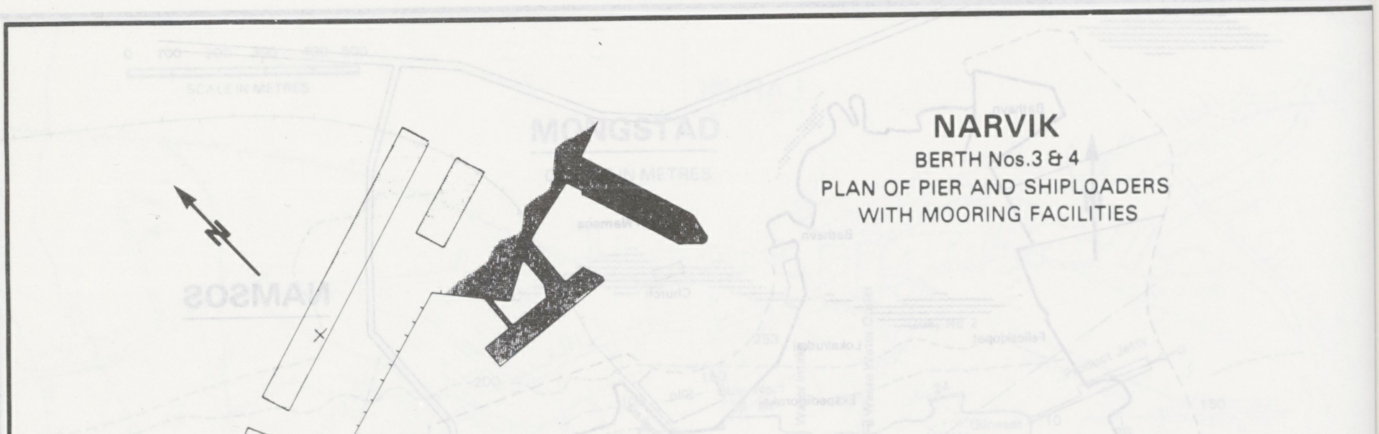

SCALE.
0 1 2 3 4 500m
DEPTH IN FEET
MAALOY
Goteberghamaren
Mobil
ESSO
20
40
6
5
45
23
14
21
Main Quay 160 metres
Ro–Ro Quay
Length 132 m.
Depth 7–10 m.
28
24
8.5
17
23
Quay Length 110 m.
Depth 12-15 m.
Length 54 m.
Depth 12 m.
22
25
12
2.7
17
S. Vågsoy
New Quay (m.)
Length 152
Depth 10–12
Såeteneset
Maloy
Shell
Kulen
Maloysundet
Ulvesundet
Sildoljefabrikk
Trollebö
6
7
20
4
13
4
4
Geileskjer
+2
4
Morteneset
Tank
Sildoljefabrikk
61°56'N
Deknepollen
Deknepollen
5°08'E


0 100 200 300 400 500
SCALE IN METRES
MONGSTAD
DEPTHS IN METRES
N
253
Quay No.2
Water Intake
Waste Water Outlet
Product Jetty
150
Quay No.1
38 44
24
200
100
150
Crude Oil Jetty
100
Port Captain
Fire Pump Station
Gilneset
10
Roteviki
20
150
Svenenet
30
15
Quay No.3
7.6
Tug Quay
10
HAVARDEN
Helicopter Pad
Module Jetty
20
Kvalskallen
RAFINOR A/S
4.6
Mongstadviki
20
Quay No.5
Terneholmen
Quay No.4
7
Port Security
MONGSTAD
15
25
Administration Building
Oksebasen


Skalandsaasen
Detaasen
Hjarkaasen
Skjaerflesa
270 m
325 m
367 m
Fishing Area
405 m
427 m
440 m
Utneset
Drevjebugten
Campsite
Halsoen
Anchorage
5 m
Vefsen
MOSJOEN
N
MOSJOEN


Bathavn
Bathavn
Town of Namsos
Church
NAMSOS
Felleskjopet
Lokalrutkai
Silo
Ekspedisjonskai
Sandkaia
Jernbanekaia
S.T.K.kaia
Ole Morkved
Shell A/S Norske
Norske Olje A/S
N.Esso
Grong Gruber A/S
Tiendeholmen kai
Norske Skogindustrier A/S kai

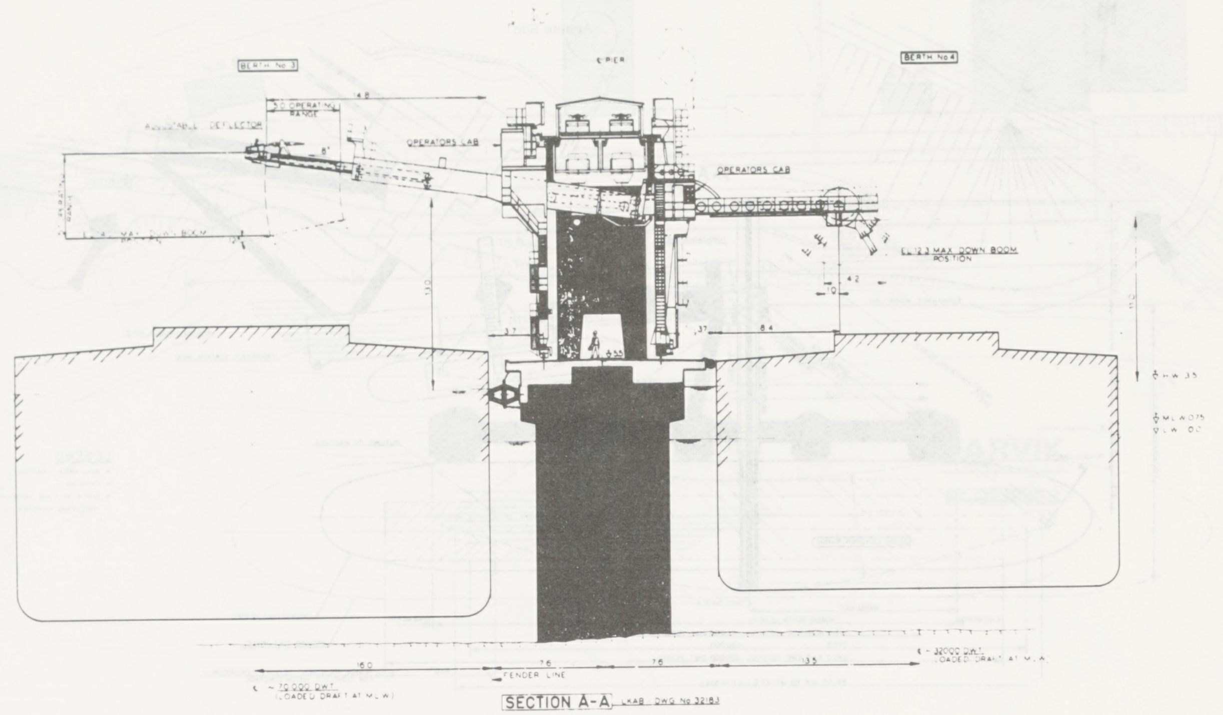

NARVIK
DEPTH IN METRES
Harbour Limit
Ore Berth No.5
-27.5m
Ore Pier No.3
Ore Pier No.4
-13.5 m
Tugboat Pier
-13.5m
Launch Pier
-15m
Deepwater Quay
N



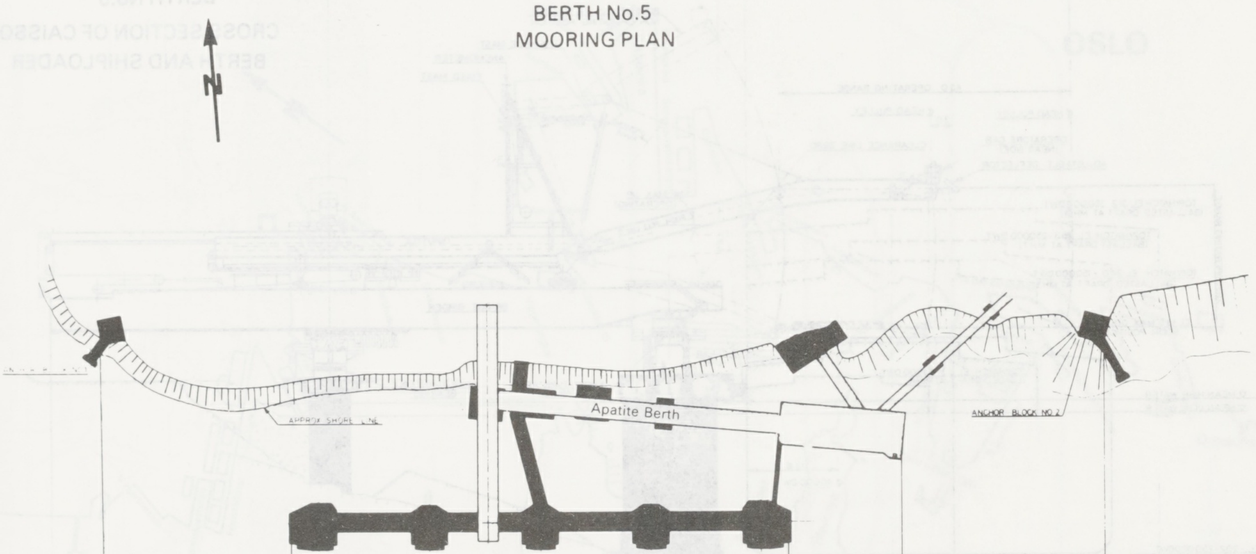
NARVIK
BERTH Nos.3 & 4
PLAN OF PIER AND SHIPLOADERS WITH MOORING FACILITIES

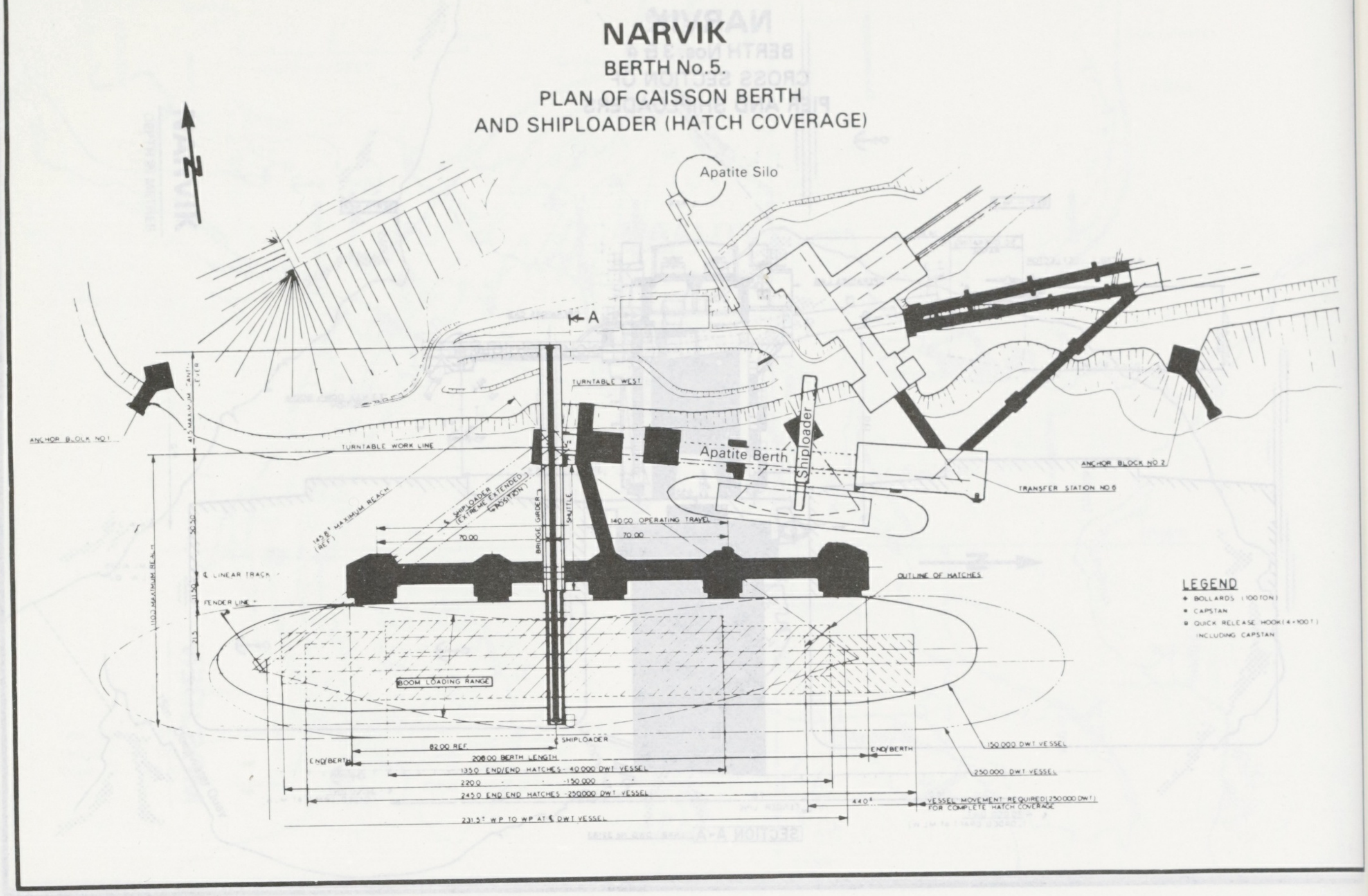
N
APPROX LIMIT OF DREDGED AREA
DREDGED AREA
BOW BULB
MAX LENGTH TO AFTERMOST LOADPOINT 170.00
BERTH LENGTH 214.00
9.00
LONGITUDINAL TRAVELLING DISTANCE OF SHIPLOADER 152.00
POLE
BERTH NO 4
BERTH NO 3
SHIPLOADER
CAPSTAN
BOLLARDS
POLE
MAX LENGTH TO AFTERMOST LOADPOINT 200.00
9.00
BOW BULB
APPROX SHORE LINE

NARVIK
BERTH Nos. 3 & 4
CROSS SECTION OF
PIER AND SHIPLOADERS


BERTH No 3
BERTH No 4
℄ PIER
14.8
5.0 OPERATING RANGE
ADJUSTABLE DEFLECTOR
8°
OPERATORS CAB
OPERATORS CAB
MAX DOWN BOOM POSITION
EL 12.3 MAX DOWN BOOM POSITION
13.0
11.0
4.2
1.0
3.7
3.7
8.4
5.5
HW 3.5
MLW 0.75
LW 0.0
16.0
7.6
7.6
13.5
FENDER LINE
℄ ~ 70 000 DWT (LOADED DRAFT AT MLW)
℄ ~ 32000 DWT LOADED DRAFT AT MLW
SECTION A-A
LKAB DWG No 32183

NARVIK
BERTH No.5
MOORING PLAN


N
ANCHOR BLOCK NO 1
APPROX SHORE LINE
Apatite Berth
ANCHOR BLOCK NO 2
78.50
DOLPHIN BERTH LENGTH 208.00
47.50
85.00
OVERALL LENGTH 419.00

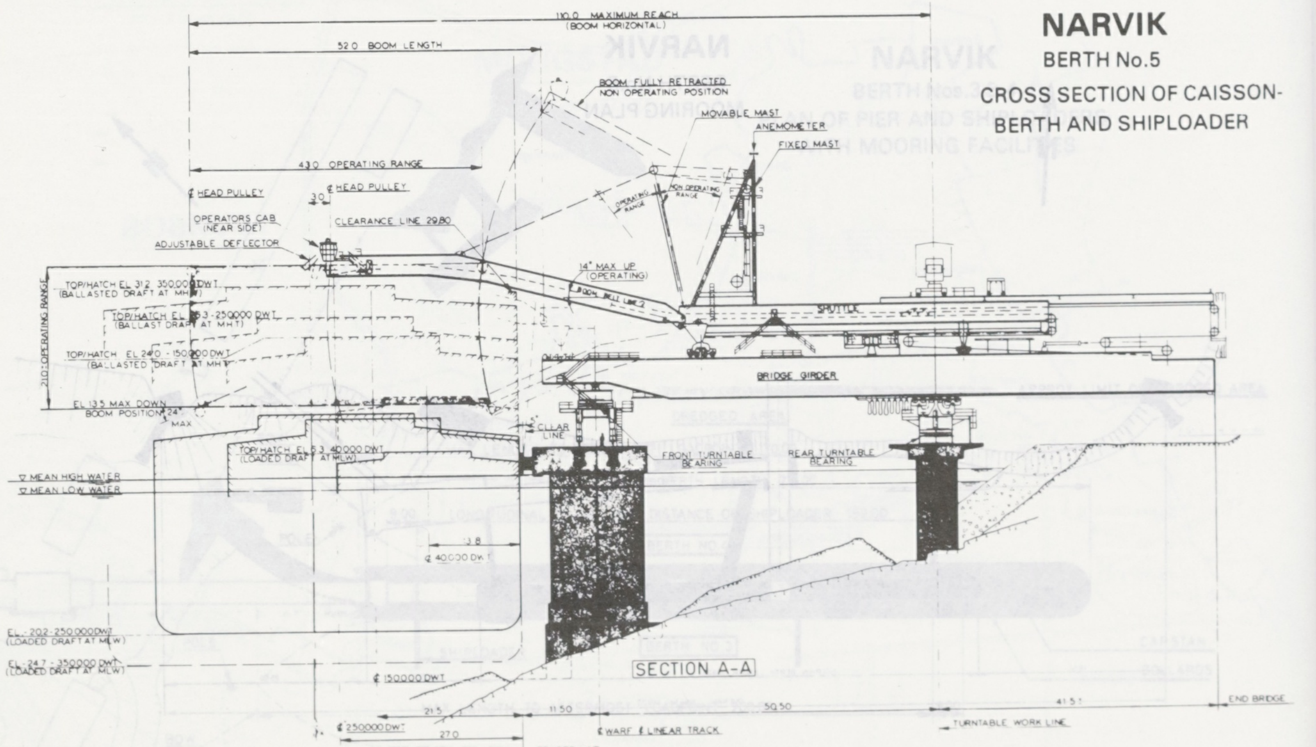


NARVIK

BERTH No.5.

PLAN OF CAISSON BERTH AND SHIPLOADER (HATCH COVERAGE)

N
Apatite Silo
A
TURNTABLE WEST
ANCHOR BLOCK NO 1
TURNTABLE WORK LINE
Apatite Berth
Shiploader
ANCHOR BLOCK NO 2
TRANSFER STATION NO 6
145.8 MAXIMUM REACH (REF)
℄ SHIPLOADER (EXTREME EXTENDED POSITION)
BRIDGE GIRDER
SHUTTLE
140.00 OPERATING TRAVEL
70.00
70.00
110.0 MAXIMUM REACH
50.50
℄ LINEAR TRACK
11.50
FENDER LINE
21.5
OUTLINE OF HATCHES
LEGEND
✦ BOLLARDS (100 TON)
■ CAPSTAN
▣ QUICK RELEASE HOOK (4×100 T) INCLUDING CAPSTAN
BOOM LOADING RANGE
℄ SHIPLOADER
82.00 REF
END/BERTH
208.00 BERTH LENGTH
135.0 END/END HATCHES - 40.000 DWT VESSEL
220.0 - 150.000
245.0 END END HATCHES - 250.000 DWT VESSEL
231.5 W.P. TO W.P. AT ℄ DWT VESSEL
END/BERTH
150.000 DWT VESSEL
250.000 DWT VESSEL
44.0
VESSEL MOVEMENT REQUIRED (250.000 DWT) FOR COMPLETE HATCH COVERAGE



NARVIK

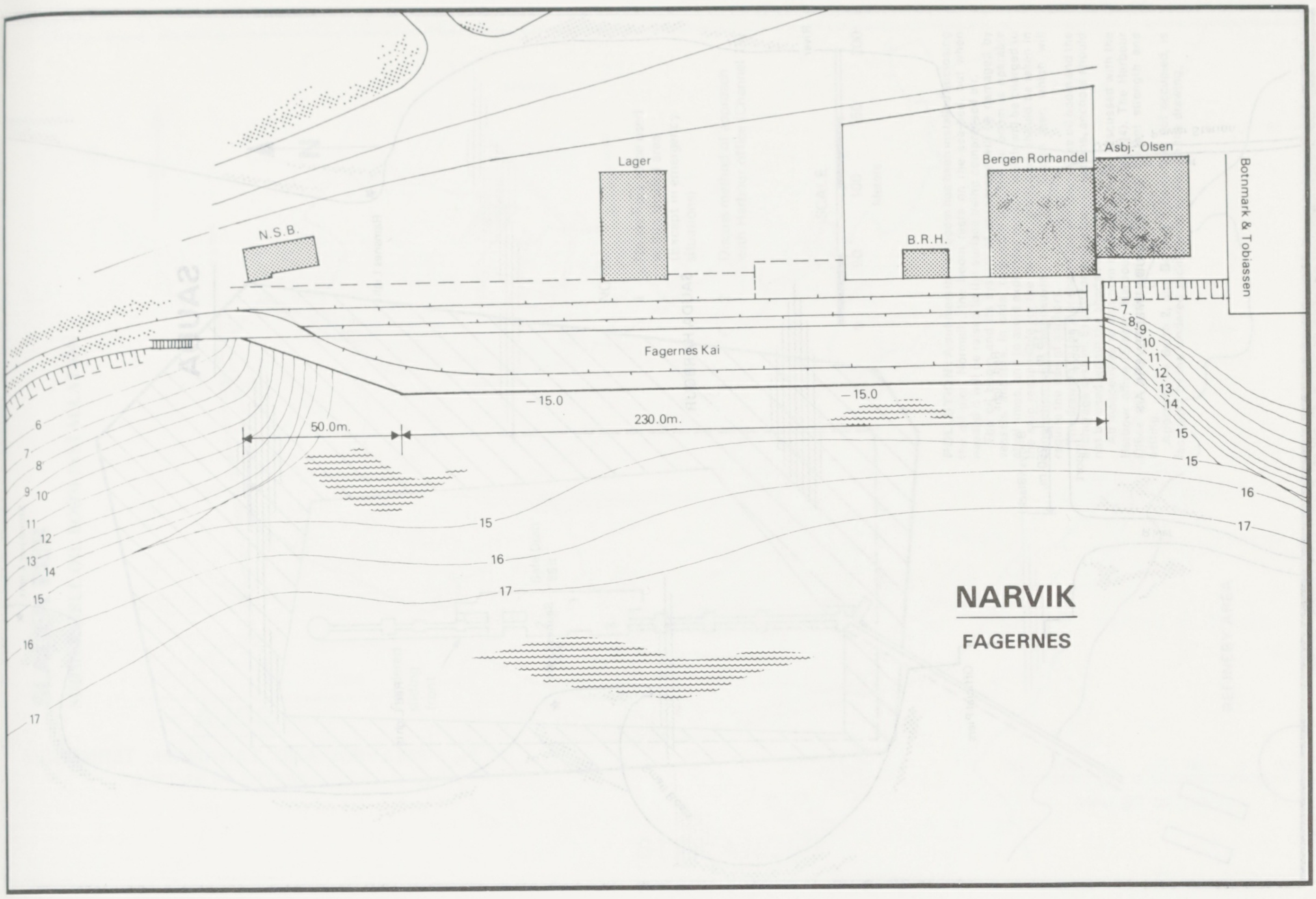
BERTH No.5

CROSS SECTION OF CAISSON-BERTH AND SHIPLOADER

110.0 MAXIMUM REACH (BOOM HORIZONTAL)
52.0 BOOM LENGTH
BOOM FULLY RETRACTED NON OPERATING POSITION
MOVABLE MAST
ANEMOMETER
FIXED MAST
43.0 OPERATING RANGE
℄ HEAD PULLEY
3.0
℄ HEAD PULLEY
OPERATING RANGE
NON OPERATING RANGE
OPERATORS CAB (NEAR SIDE)
CLEARANCE LINE 29.80
ADJUSTABLE DEFLECTOR
14° MAX UP (OPERATING)
BOOM BELT LINE 2
SHUTTLE
TOP/HATCH EL 31.2 350.000 DWT (BALLASTED DRAFT AT MHW)
TOP/HATCH EL 25.3 - 250.000 DWT (BALLAST DRAFT AT MHT)
TOP/HATCH EL 24.0 - 150.000 DWT (BALLASTED DRAFT AT MHT)
21.0: OPERATING RANGE
BRIDGE GIRDER
EL 13.5 MAX DOWN BOOM POSITION 24° MAX
1.5° CLEAR LINE
TOP/HATCH EL 5.3 40.000 DWT (LOADED DRAFT AT MLW)
FRONT TURNTABLE BEARING
REAR TURNTABLE BEARING
▽ MEAN HIGH WATER
▽ MEAN LOW WATER
3.8
℄ 40.000 DWT
EL -20.2 - 250.000 DWT (LOADED DRAFT AT MLW)
EL -24.7 - 350.000 DWT (LOADED DRAFT AT MLW)
SECTION A-A
℄ 150.000 DWT
21.5
11.50
50.50
41.5
END BRIDGE
℄ 250.000 DWT
27.0
℄ WARF ℄ LINEAR TRACK
TURNTABLE WORK LINE
30.5
FENDER LINE
℄ 350.000 DWT (FUTURE)

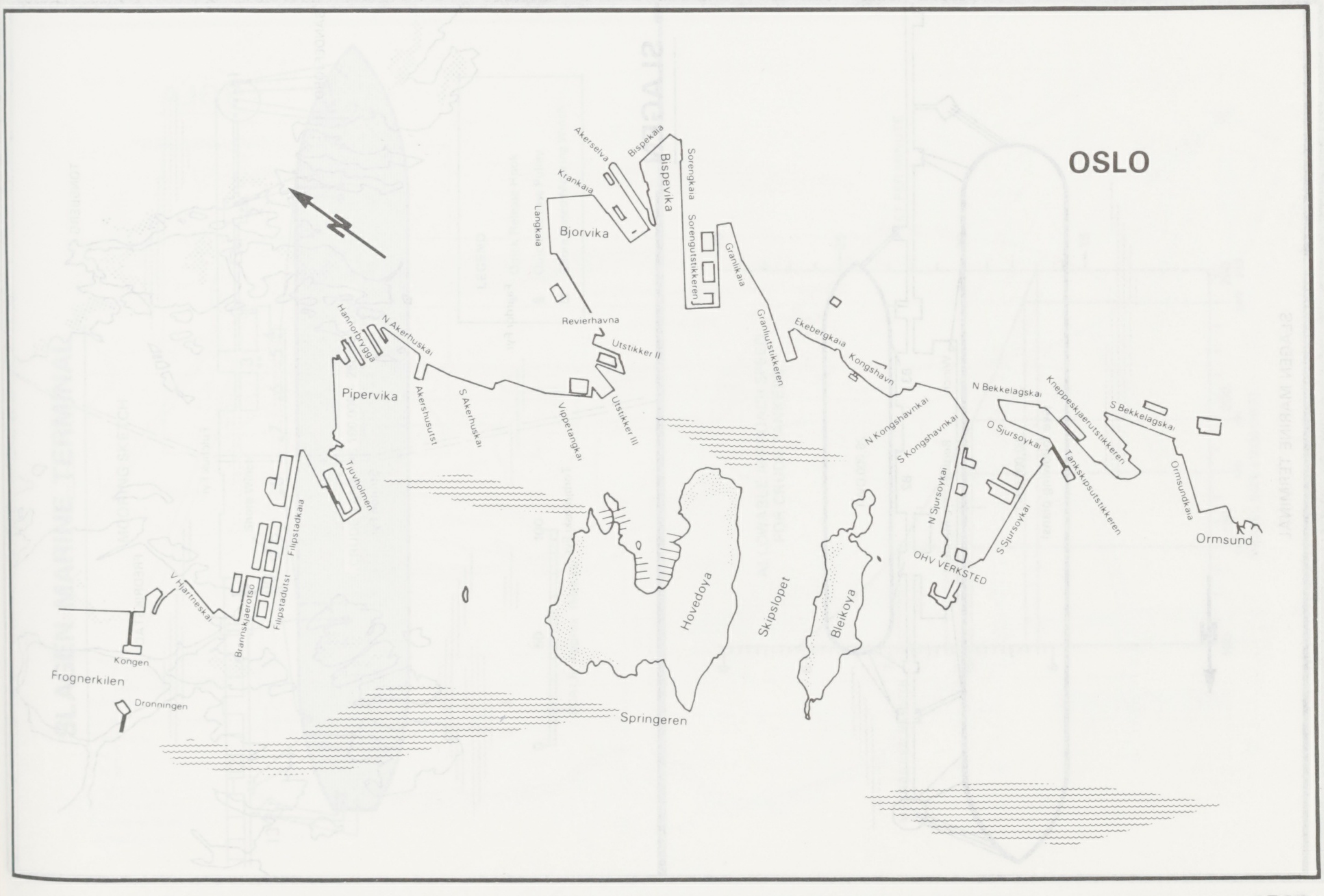
NOTE SHIPLOADER BRIDGE AT EXTREME RETRACTED POSITION (PERPENDICULAR TO BERTH)
SHUTTLE AT AN INTERMEDIATE POSITION TO CLEAR A 350.000 DWT VESSEL AT BALLASTED DRAFT

NOTES
2. ALL ELEVATIONS BASED ON NARVIK DATUM 0.00-L.L.W.
3. TOP OF HATCH ELEVATIONS BASED ON-40% BALLASTED DRAFT


Lager
Bergen Rorhandel
Asbj. Olsen
Botnmark & Tobiassen
N.S.B.
B.R.H.
Fagernes Kai
−15.0
−15.0
50.0m.
230.0m.
6
7
8
9
10
11
12
13
14
15
16
17
7
8
9
10
11
12
13
14
15
15
16
17
15
16
17

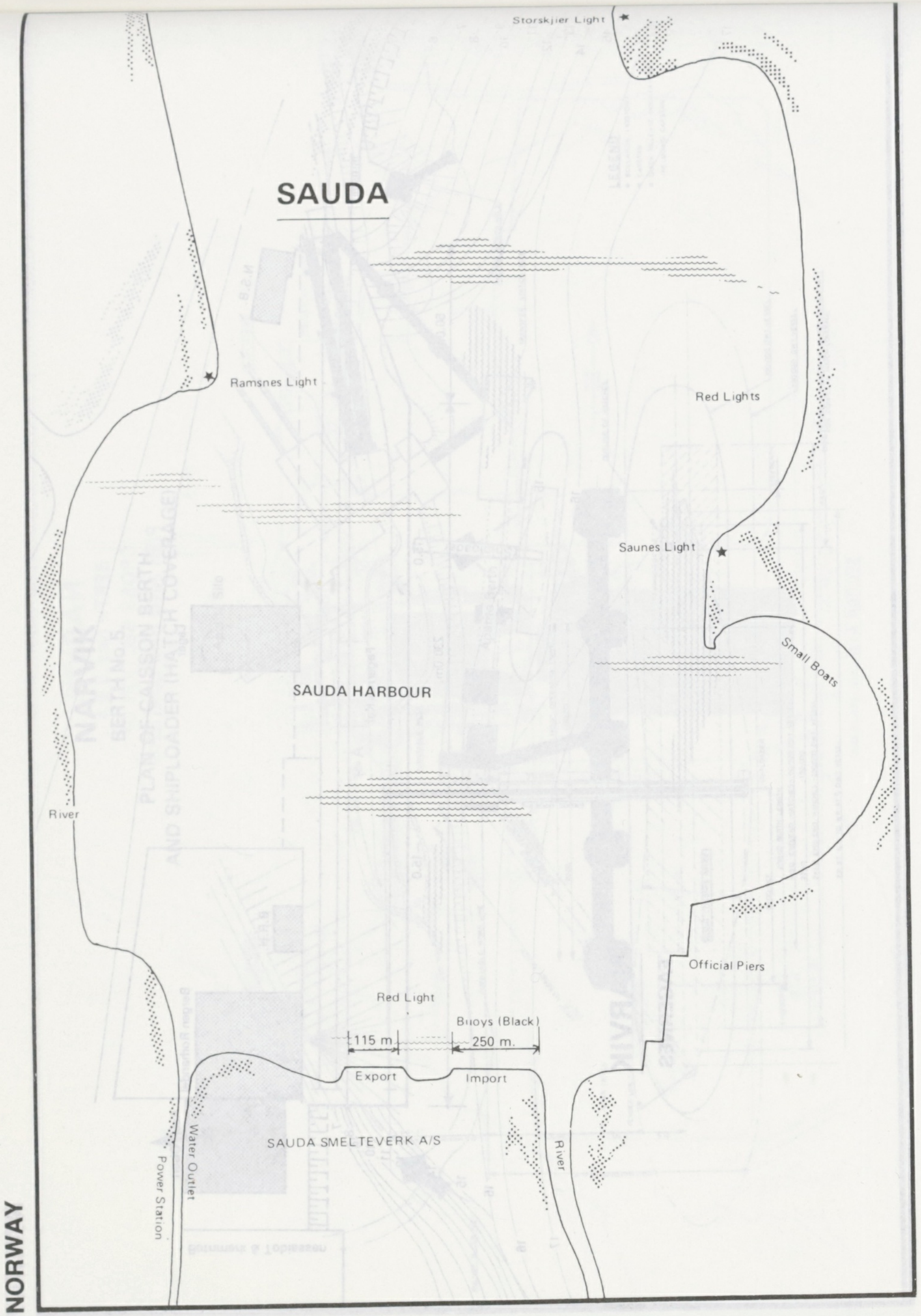
NARVIK

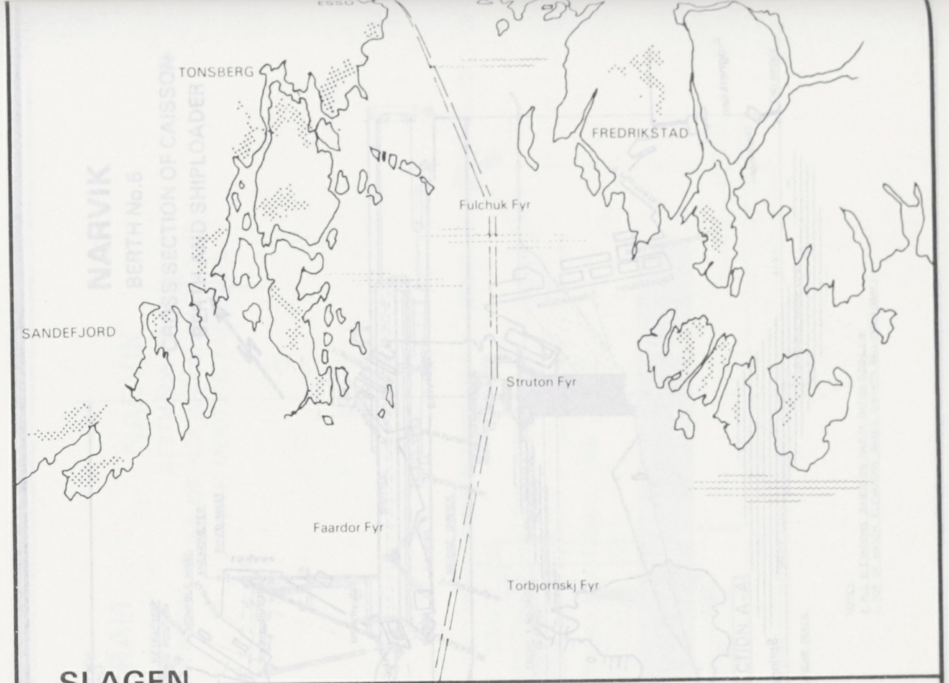
FAGERNES


N
Akerselva
Bispekaia
Bispevika
Sorengkaia
Sorengutstikkeren
Krankaia
Langkaia
Bjorvika
Granlikaia
Granlutstikkeren
Revierhavna
Utstikker II
Utstikker III
Vippetangkai
Hannorbrygga
N Akerhuskai
Akershusutst
S Akerhuskai
Pipervika
Tjuvholmen
Filipstadkaia
Filipstadutst
Brannskjaerotso
V Hjartneskai
Kongen
Frognerkilen
Dronningen
Ekebergkaia
Kongshavn
N Kongshavnkai
S Kongshavnkai
N Sjursoykai
OHV VERKSTED
S Sjursoykai
O Sjursoykai
N Bekkelagskai
Kneppeskjaerutstikkeren
Tankskipsutstikkeren
S Bekkelagskai
Ormsundkaia
Ormsund
Hovedoya
Skipslopet
Bleikoya
Springeren

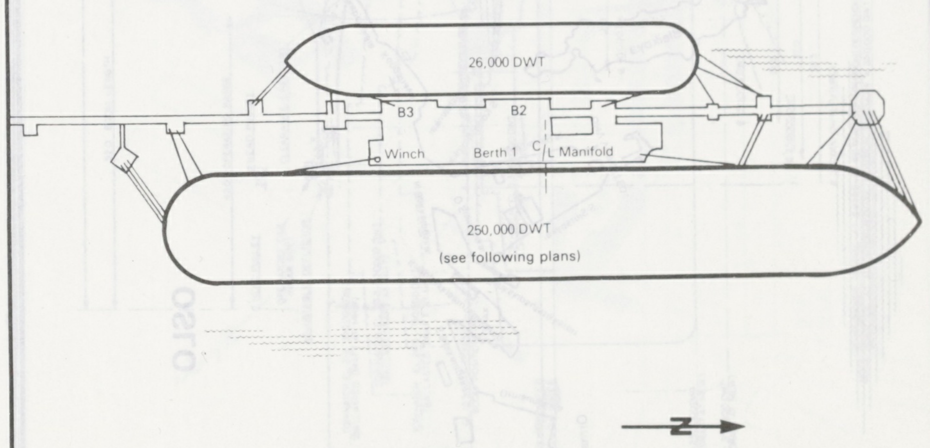
OSLO

SAUDA


Storskjier Light
Ramsnes Light
Red Lights
Saunes Light
Small Boats
SAUDA HARBOUR
River
Official Piers
Red Light
Buoys (Black)
115 m
250 m.
Export
Import
SAUDA SMELTEVERK A/S
Water Outlet
Power Station
River

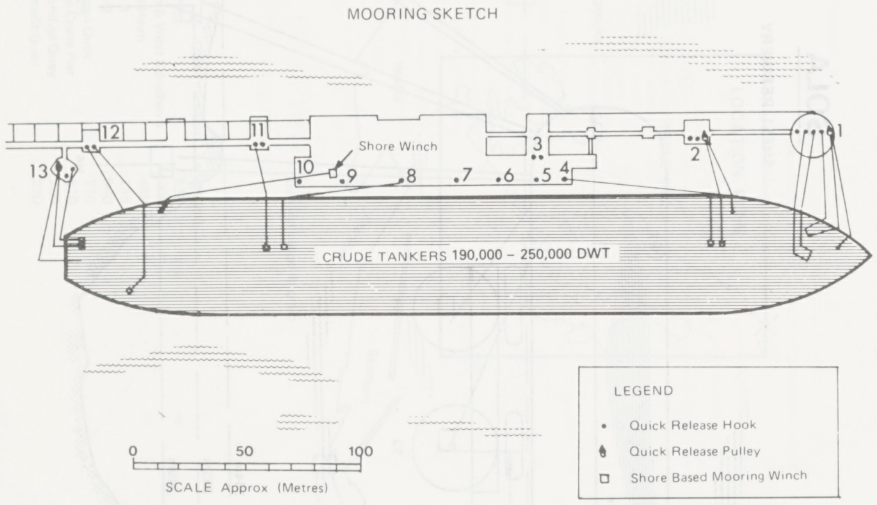

TONSBERG
FREDRIKSTAD
Fulchuk Fyr
SANDEFJORD
Struton Fyr
Faardor Fyr
Torbjornskj Fyr

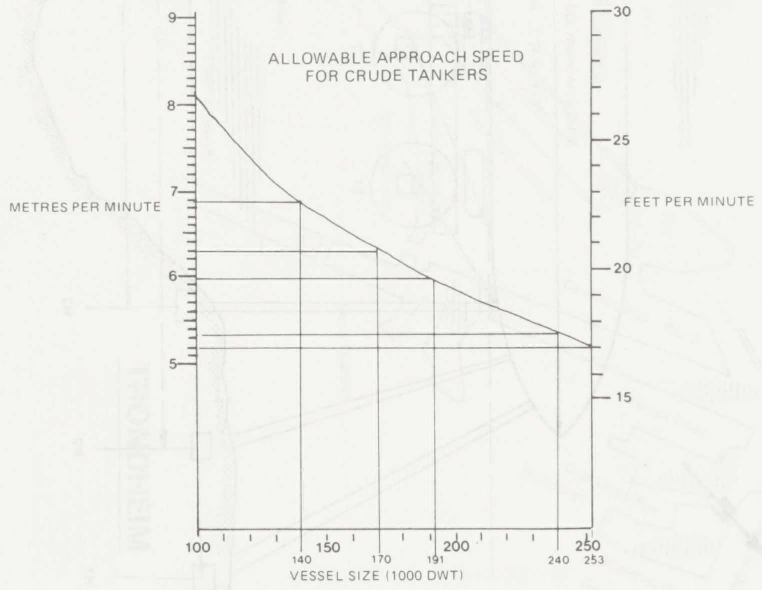
SLAGEN


26,000 DWT
B3
B2
Winch
Berth 1
C
L Manifold
250,000 DWT
(see following plans)
N

SLAGEN MARINE TERMINAL

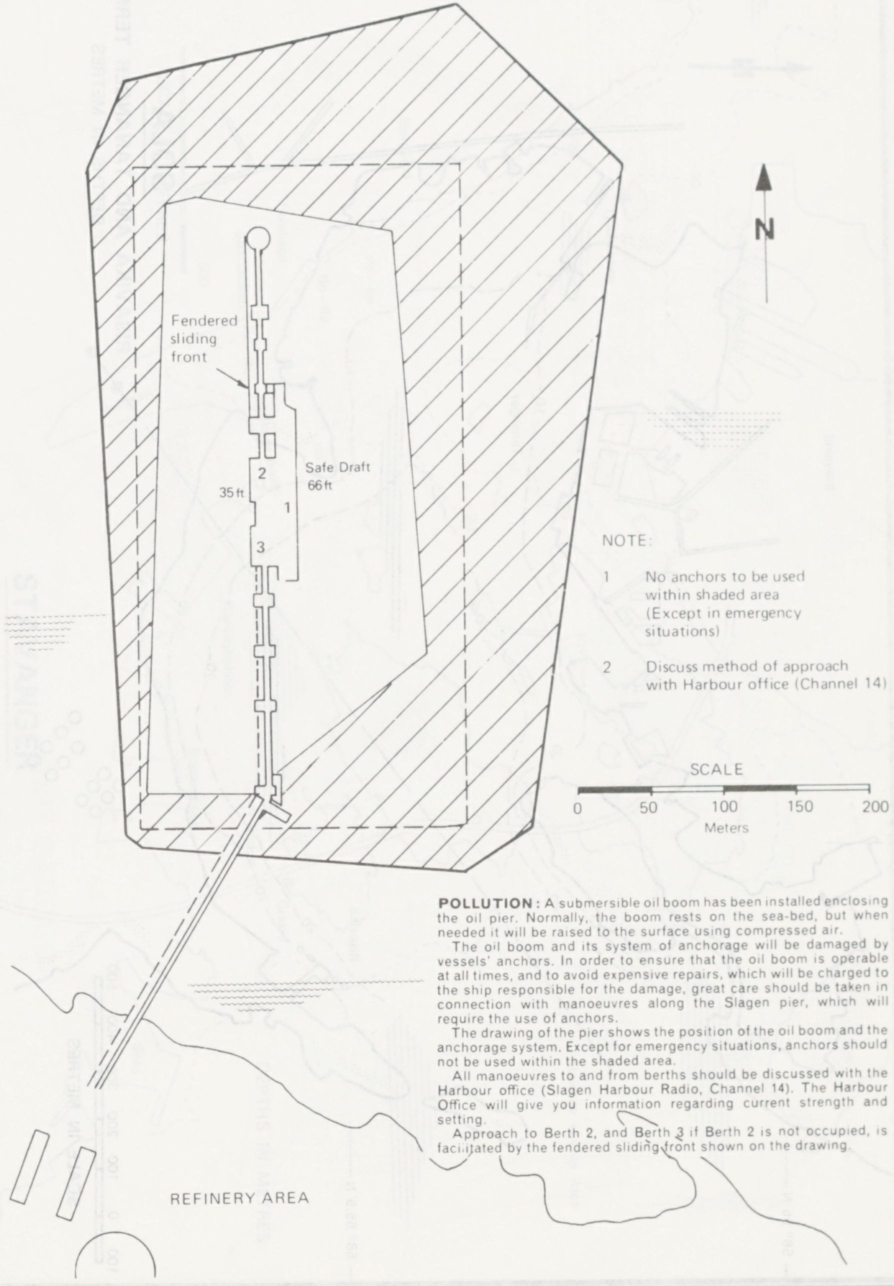
SLAGEN MARINE TERMINAL


MOORING SKETCH
1
2
3
4
5
6
7
8
9
10
11
12
13
Shore Winch
CRUDE TANKERS 190,000 – 250,000 DWT
0
50
100
SCALE Approx (Metres)
LEGEND
• Quick Release Hook
Quick Release Pulley
☐ Shore Based Mooring Winch



SLAGEN PIER

SUBMERSIBLE OIL BOOM INSTALLATION


N
Fendered sliding front
2
1
3
35 ft
Safe Draft 66 ft
SCALE
0
50
100
150
200
Meters
REFINERY AREA

NOTE:

1 No anchors to be used within shaded area (Except in emergency situations)

2 Discuss method of approach with Harbour office (Channel 14)

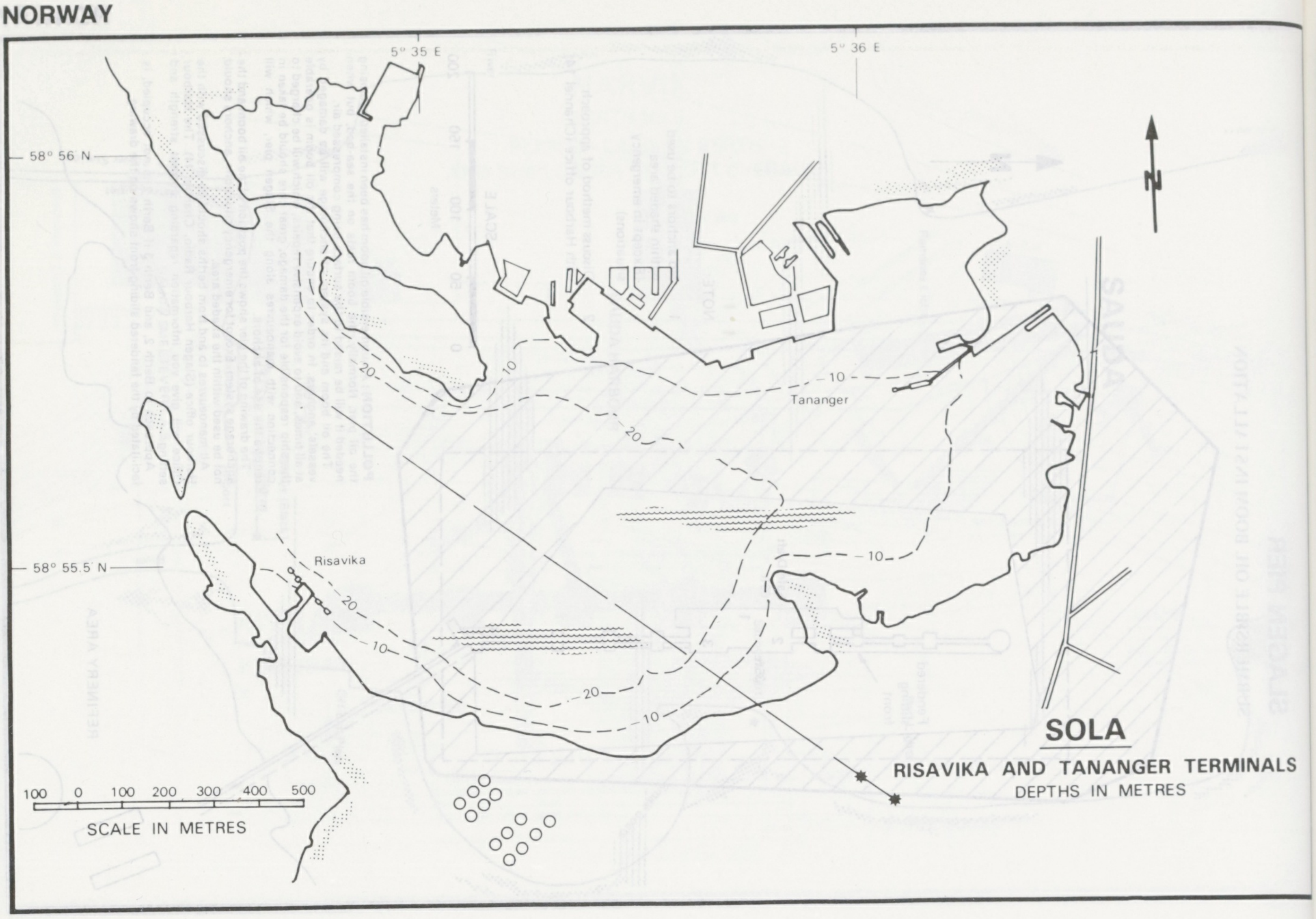
POLLUTION: A submersible oil boom has been installed enclosing the oil pier. Normally, the boom rests on the sea-bed, but when needed it will be raised to the surface using compressed air.

The oil boom and its system of anchorage will be damaged by vessels' anchors. In order to ensure that the oil boom is operable at all times, and to avoid expensive repairs, which will be charged to the ship responsible for the damage, great care should be taken in connection with manoeuvres along the Slagen pier, which will require the use of anchors.

The drawing of the pier shows the position of the oil boom and the anchorage system. Except for emergency situations, anchors should not be used within the shaded area.

All manoeuvres to and from berths should be discussed with the Harbour office (Slagen Harbour Radio, Channel 14). The Harbour Office will give you information regarding current strength and setting.

Approach to Berth 2, and Berth 3 if Berth 2 is not occupied, is facilitated by the fendered sliding front shown on the drawing.

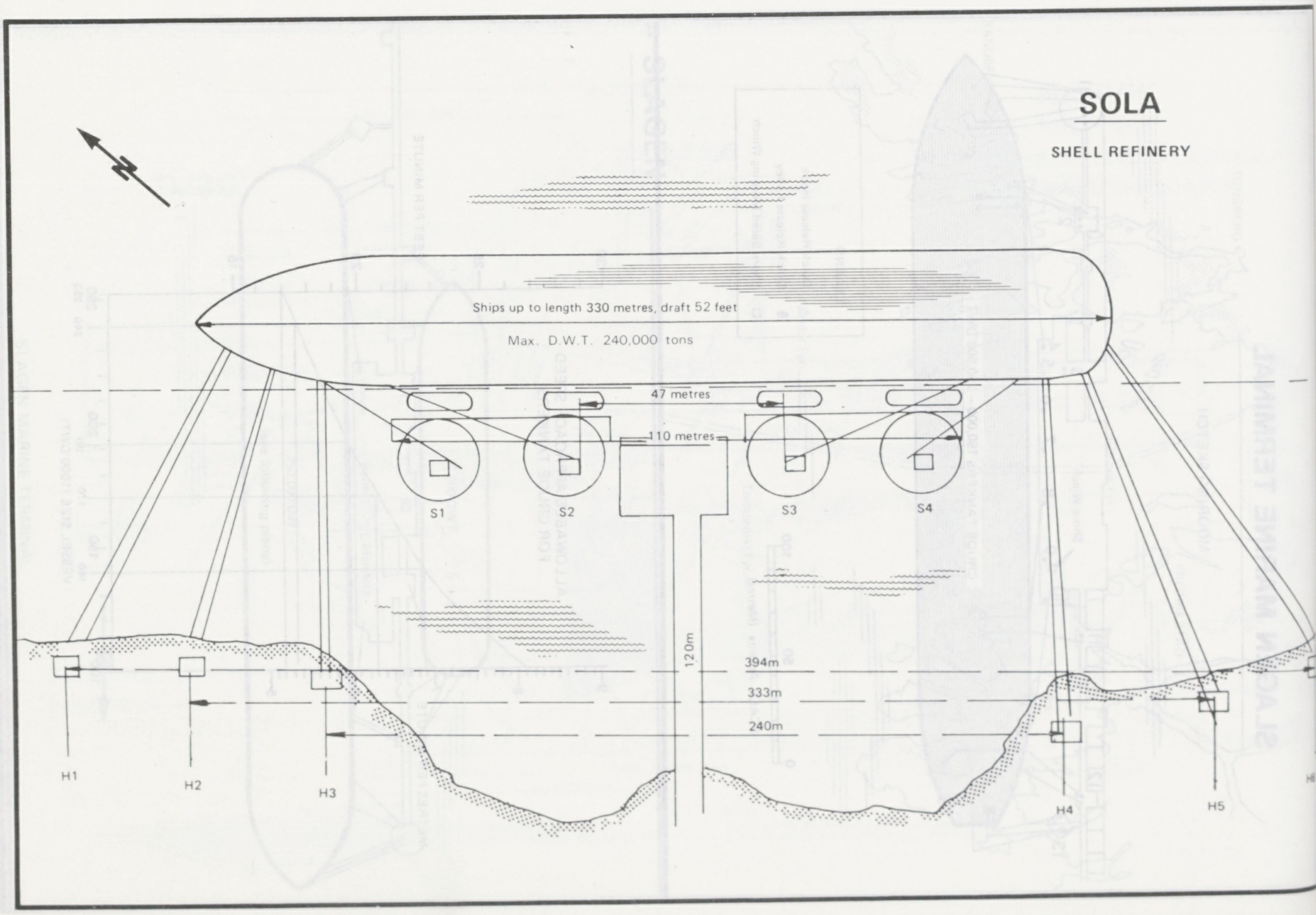


SOLA

RISAVIKA AND TANANGER TERMINALS

DEPTHS IN METRES

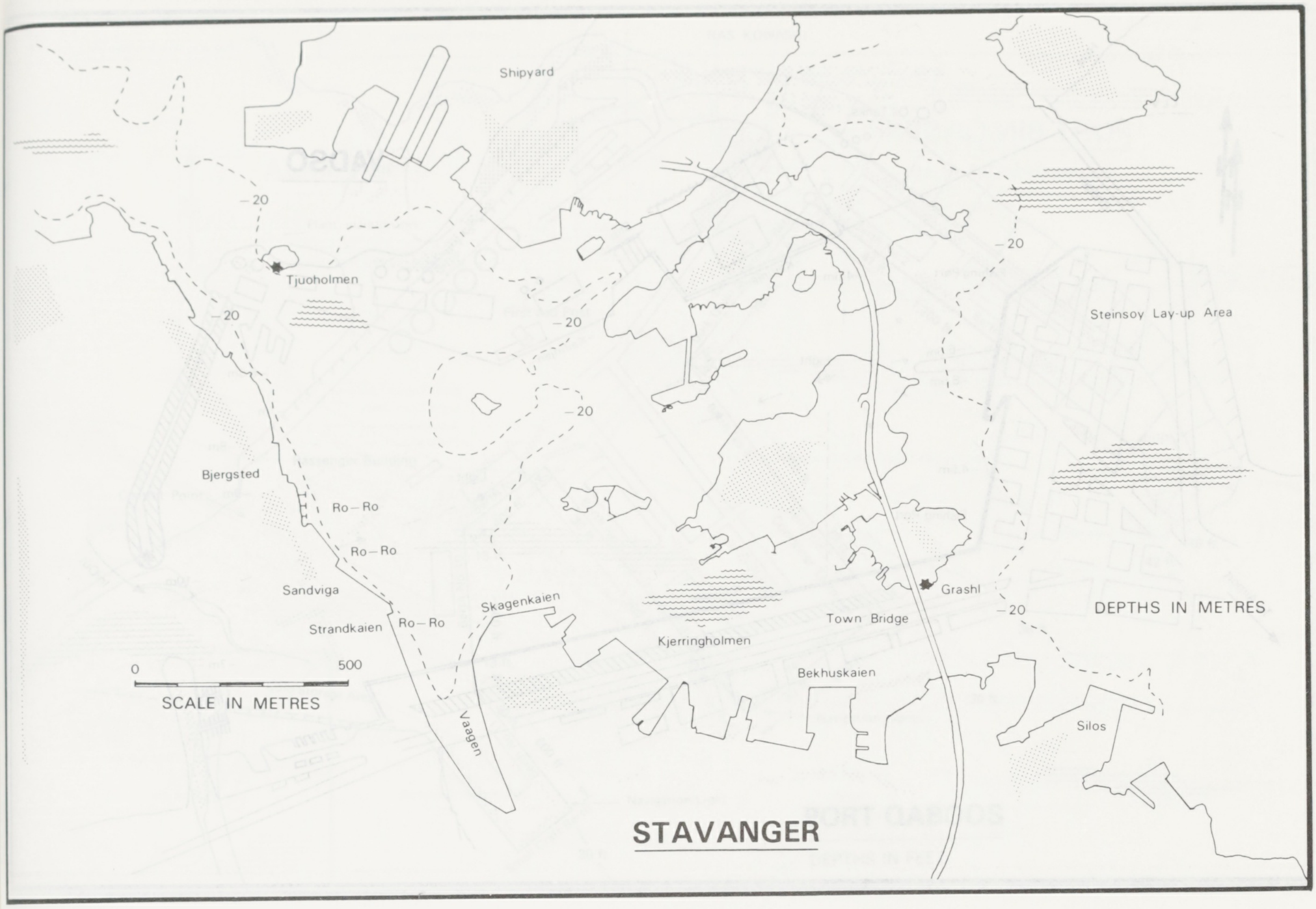
5° 35 E
5° 36 E
58° 56 N
58° 55.5 N
N
Tananger
Risavika
10
20
100 0 100 200 300 400 500
SCALE IN METRES



SOLA

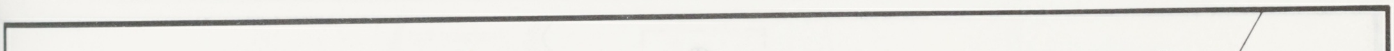
SHELL REFINERY

N
Ships up to length 330 metres, draft 52 feet
Max. D.W.T. 240,000 tons
47 metres
110 metres
S1
S2
S3
S4
120m
394m
333m
240m
H1
H2
H3
H4
H5



STAVANGER

Shipyard
−20
Tjuoholmen
−20
−20
−20
−20
Steinsoy Lay-up Area
Bjergsted
Ro−Ro
Ro−Ro
Sandviga
Strandkaien
Ro−Ro
Skagenkaien
Kjerringholmen
Town Bridge
Grashl
−20
DEPTHS IN METRES
0
500
SCALE IN METRES
Vaagen
Bekhuskaien
Silos

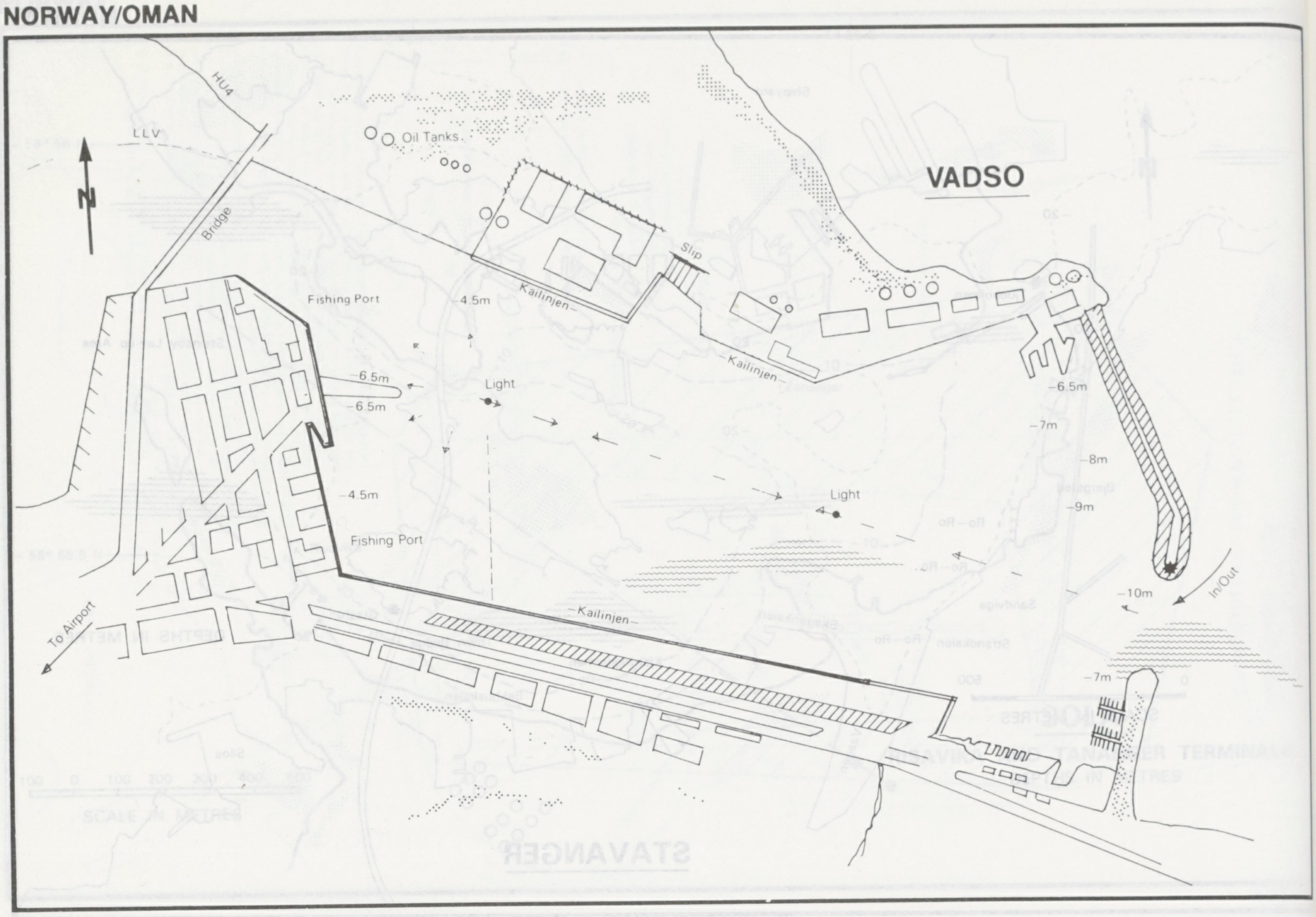


TRONDHEIM

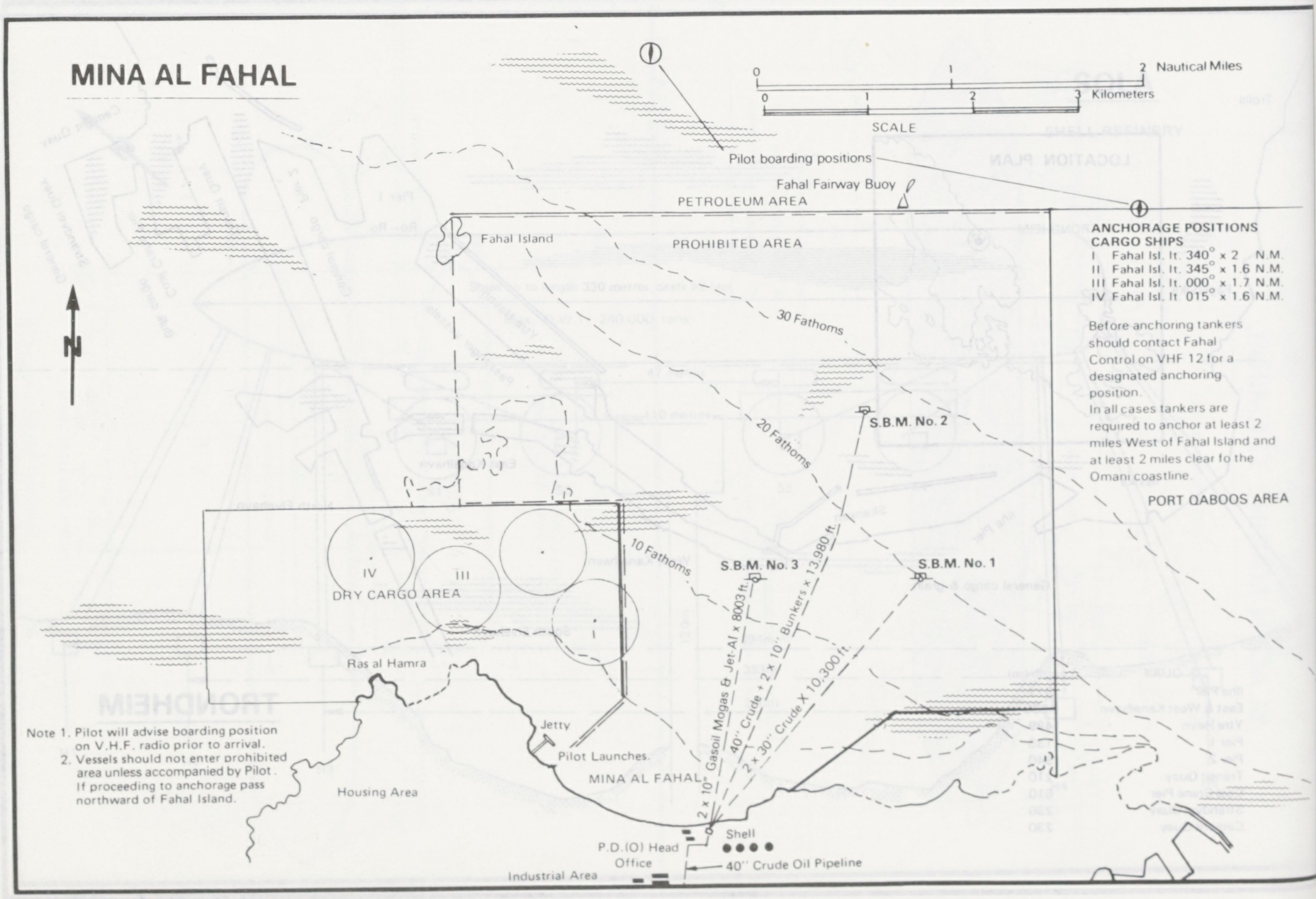
Trolla
LOCATION PLAN
TRONDHEIM
Fagervika
Ilsvika
Ilha Pier
General cargo & grain
Skansen
West Kanalhavn
East Kanalhavn
Ytre Havn
Passenger vessels
Pier 1
Ro−Ro
General cargo
Pier 2
Transit Quay
Coal Crane Pier
Bulk cargo
Strandvei Quay
General cargo
Cement Quay
North Elvehavn
South Elvehavn

QUAY	Length (m)
Ilha Pier	877
East & West Kanalhavn	1335
Ytre Havn	489
Pier 1	135
Pier 2	940
Transit Quay	210
Coal Crane Pier	610
Strandvei Quay	230
Cement Quay	230

VADSO


N
HU4
LLV
Bridge
Oil Tanks
Slip
Fishing Port
−4.5m
Kailinjen
Kailinjen
−6.5m
−6.5m
Light
−4.5m
Fishing Port
Light
To Airport
Kailinjen
−6.5m
−7m
−8m
−9m
−10m
In/Out
−7m

MINA AL FAHAL


N
0
1
2 Nautical Miles
0
1
2
3 Kilometers
SCALE
Pilot boarding positions
Fahal Fairway Buoy
PETROLEUM AREA
Fahal Island
PROHIBITED AREA
30 Fathoms
20 Fathoms
S.B.M. No. 2
10 Fathoms
IV
III
DRY CARGO AREA
S.B.M. No. 3
S.B.M. No. 1
2 x 10'' Gasoil Mogas & Jet-Al x 8003 ft.
40'' Crude • 2 x 10'' Bunkers x 13,980 ft.
2 x 30'' Crude X 10,300 ft.
Ras al Hamra
Jetty
Pilot Launches
MINA AL FAHAL
Housing Area
Shell
P.D.(O) Head Office
40'' Crude Oil Pipeline
Industrial Area
PORT QABOOS AREA

ANCHORAGE POSITIONS CARGO SHIPS

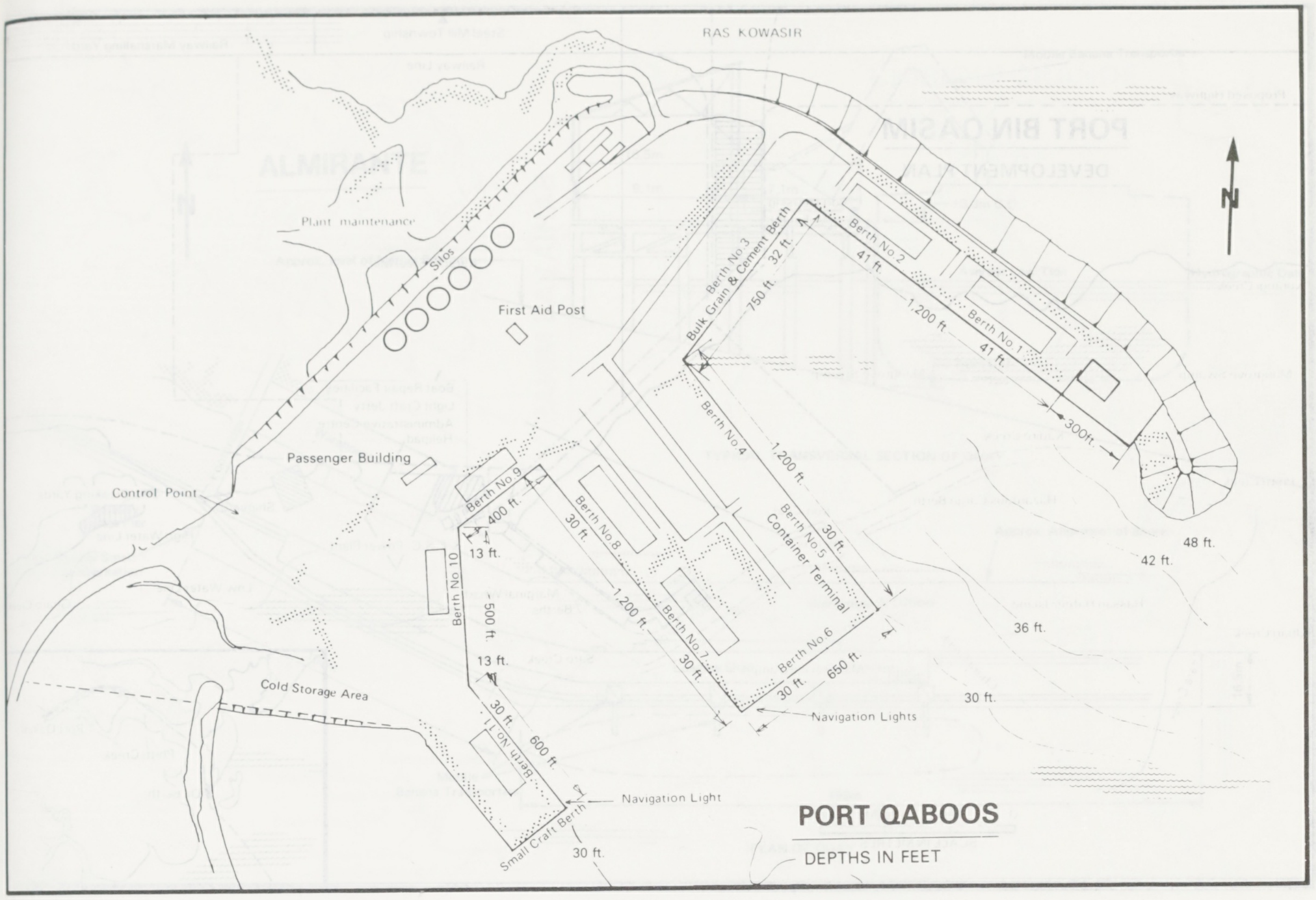
I	Fahal Isl. lt. 340° x 2 N.M.
II	Fahal Isl. lt. 345° x 1.6 N.M.
III	Fahal Isl. lt. 000° x 1.7 N.M.
IV	Fahal Isl. lt 015° x 1.6 N.M.

Before anchoring tankers should contact Fahal Control on VHF 12 for a designated anchoring position.

In all cases tankers are required to anchor at least 2 miles West of Fahal Island and at least 2 miles clear fo the Omani coastline.

Note 1. Pilot will advise boarding position on V.H.F. radio prior to arrival.

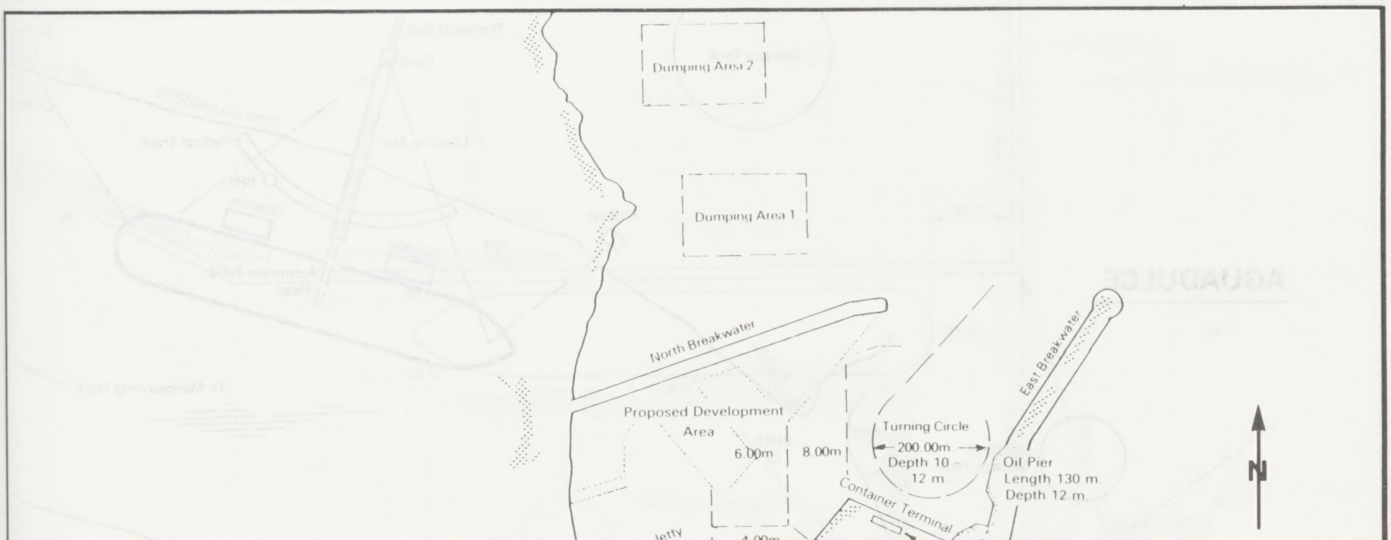
2. Vessels should not enter prohibited area unless accompanied by Pilot. If proceeding to anchorage pass northward of Fahal Island.



PORT QABOOS

DEPTHS IN FEET

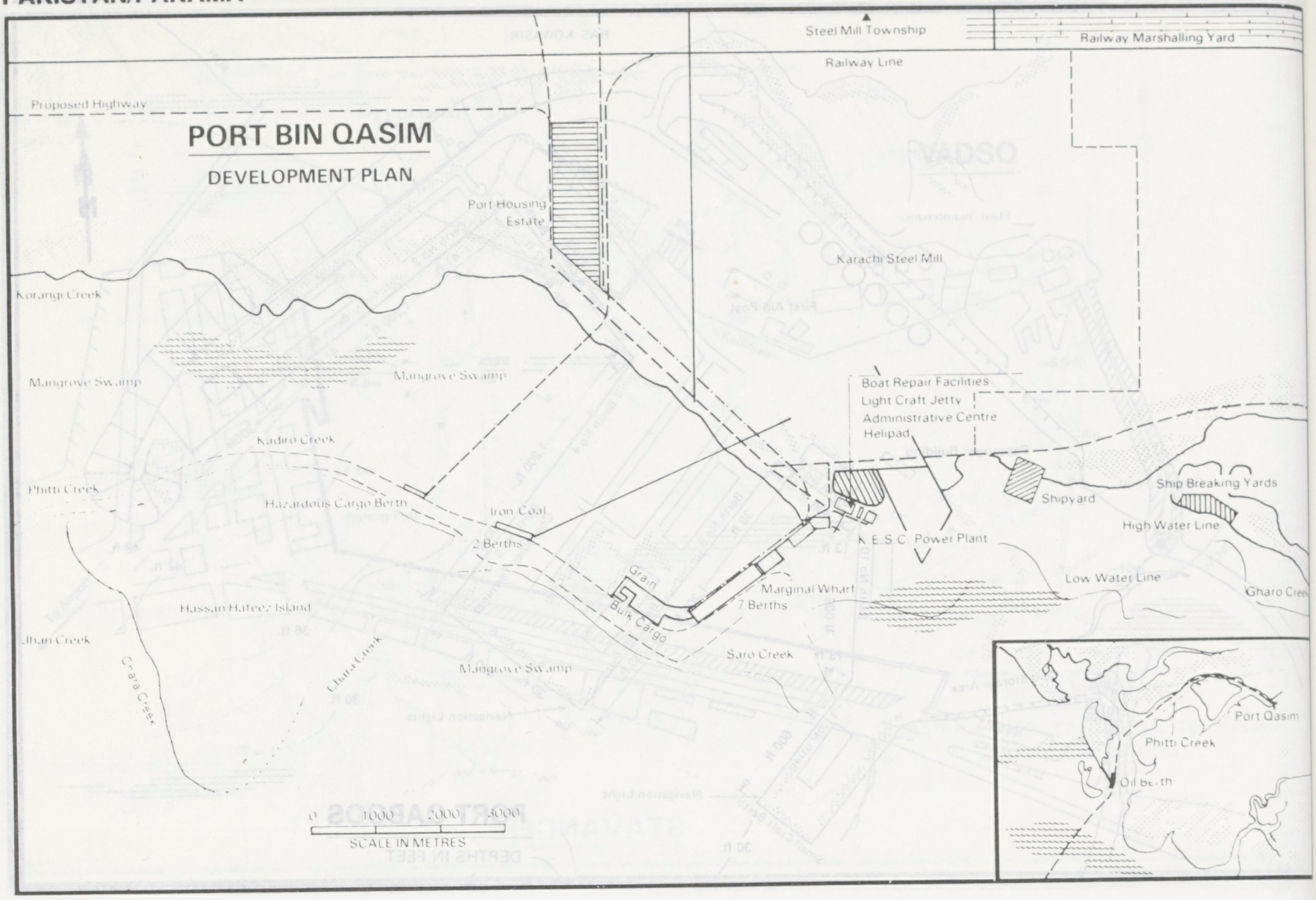
RAS KOWASIR
Plant maintenance
Silos
First Aid Post
Passenger Building
Control Point
Cold Storage Area
Bulk Grain & Cement Berth
Berth No 3
32 ft.
750 ft.
Berth No 2
41 ft.
1,200 ft
Berth No 1
41 ft.
300ft.
48 ft.
42 ft.
36 ft.
30 ft.
Berth No 4
1,200 ft.
Berth No 5
Container Terminal
30 ft.
Berth No 6
650 ft.
30 ft.
Navigation Lights
Berth No 9
400 ft.
13 ft.
Berth No 8
30 ft.
Berth No 7
1,200 ft.
30 ft.
Berth No 10
500 ft.
13 ft.
30 ft
Berth No 11
600 ft.
Navigation Light
Small Craft Berth
30 ft.

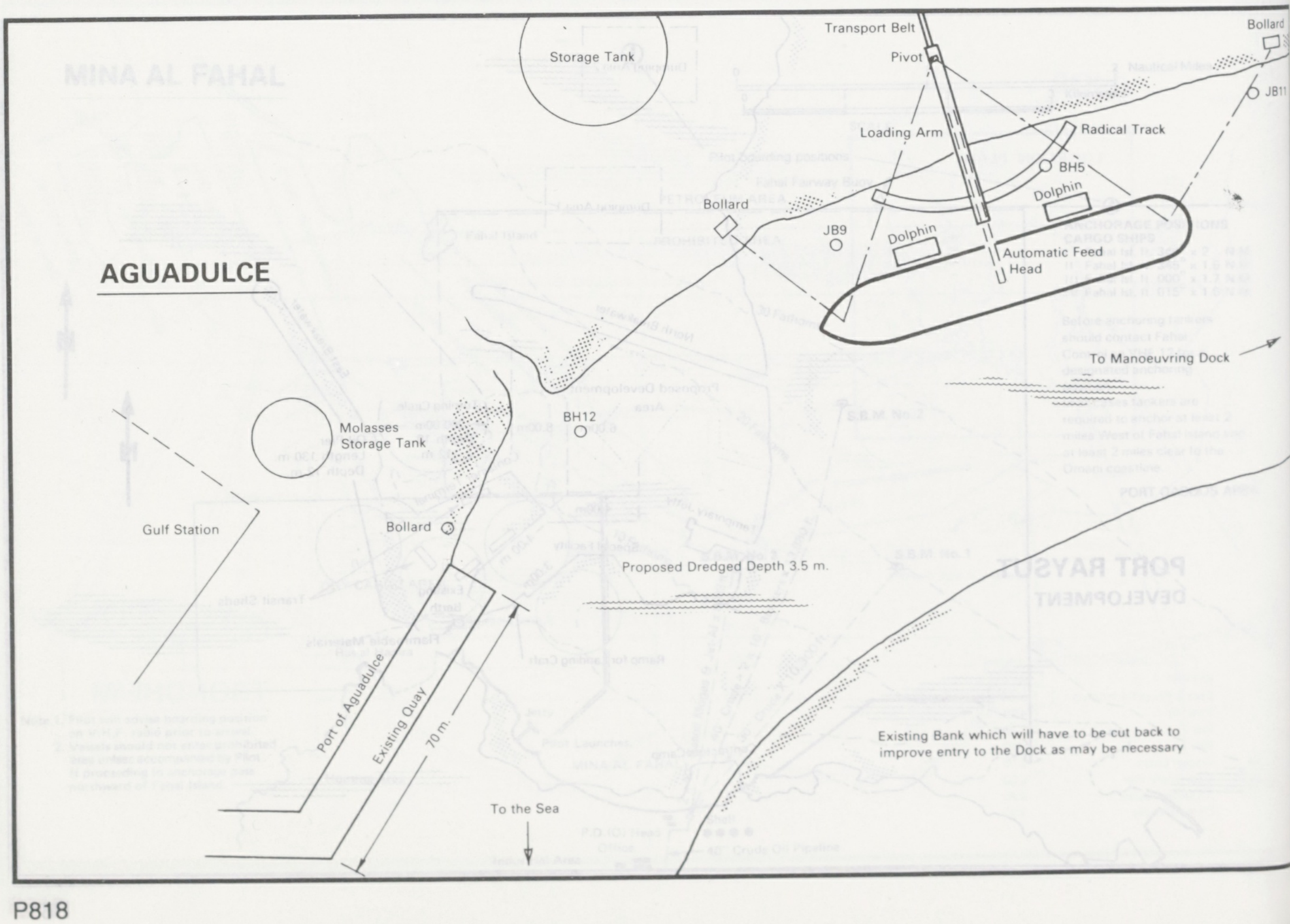


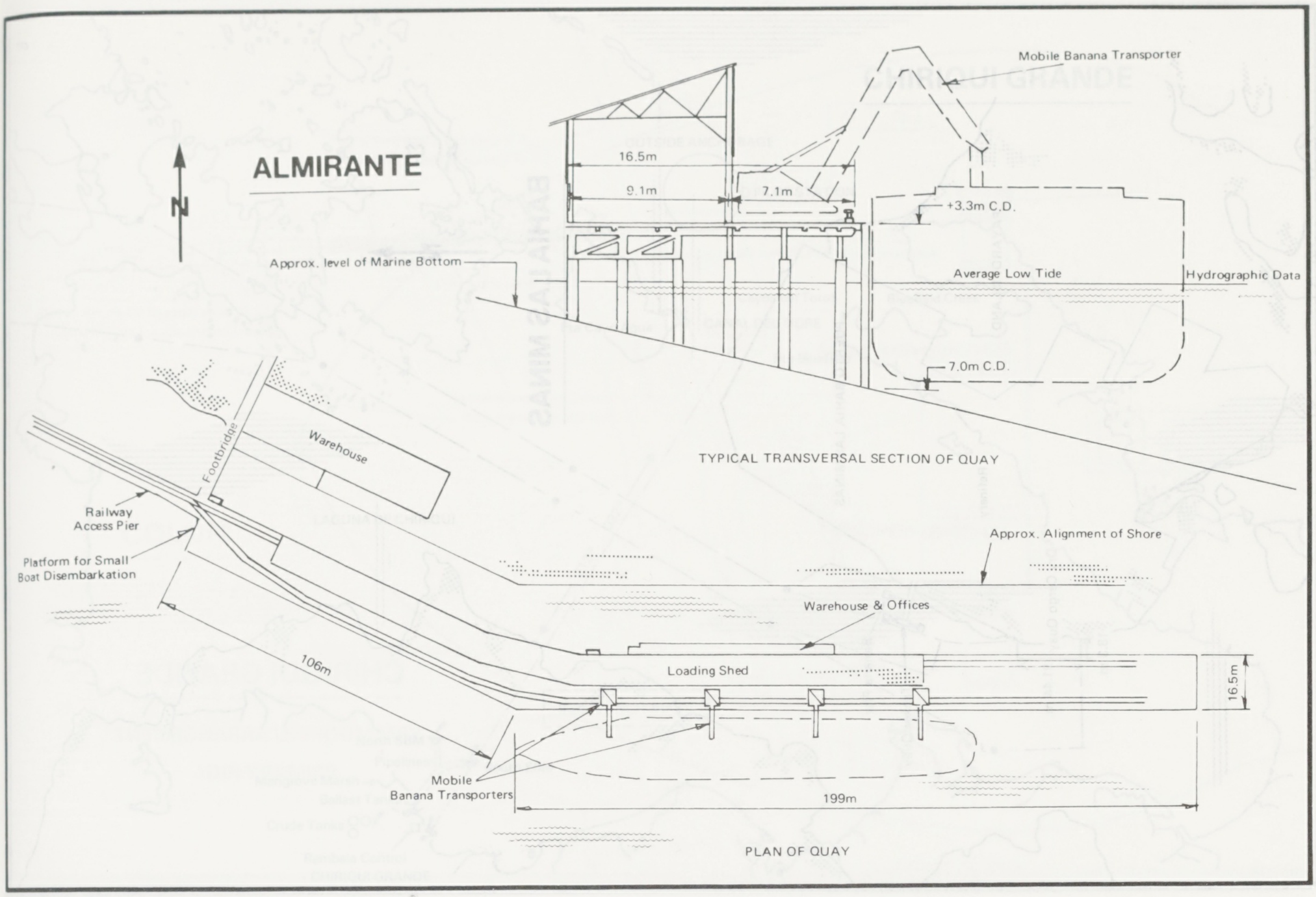
PORT RAYSUT

DEVELOPMENT

Dumping Area 2
Dumping Area 1
North Breakwater
East Breakwater
Proposed Development Area
6.00m
8.00m
Turning Circle
200.00m
Depth 10 - 12 m.
Oil Pier
Length 130 m.
Depth 12 m.
Container Terminal
4.00m
Temporary Jetty
Special Facility
4.00 m.
3.00m
Existing Berth
Transit Sheds
Flammable Materials
Ramp for Landing Craft
Contractors Camp

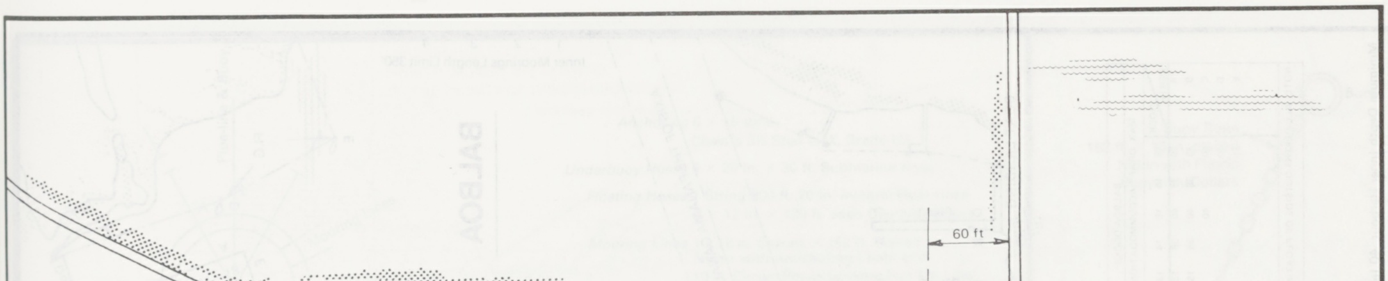

PORT BIN QASIM
DEVELOPMENT PLAN
Steel Mill Township
Railway Marshalling Yard
Railway Line
Proposed Highway
Port Housing Estate
Karachi Steel Mill
Korangi Creek
Mangrove Swamp
Mangrove Swamp
Kadiro Creek
Phitti Creek
Hazardous Cargo Berth
Iron Coal
2 Berths
Grain
Bulk Cargo
Marginal Wharf
7 Berths
Boat Repair Facilities
Light Craft Jetty
Administrative Centre
Helipad
Shipyard
Ship Breaking Yards
High Water Line
K.E.S.C. Power Plant
Low Water Line
Gharo Cre
Hassan Hafeez Island
Jhari Creek
Crara Creek
Chara Creek
Saro Creek
Mangrove Swamp
0 1000 2000 3000
SCALE IN METRES
Port Qasim
Phitti Creek
Oil berth


AGUADULCE
Storage Tank
Transport Belt
Pivot
Bollard
JB11
Loading Arm
Radical Track
BH5
Dolphin
Bollard
JB9
Dolphin
Automatic Feed Head
To Manoeuvring Dock
Molasses Storage Tank
BH12
Gulf Station
Bollard
Proposed Dredged Depth 3.5 m.
Port of Aguadulce
Existing Quay
70 m.
To the Sea
Existing Bank which will have to be cut back to improve entry to the Dock as may be necessary



ALMIRANTE

N
Mobile Banana Transporter
16.5m
9.1m
7.1m
+3.3m C.D.
Approx. level of Marine Bottom
Average Low Tide
Hydrographic Data
7.0m C.D.
TYPICAL TRANSVERSAL SECTION OF QUAY
Foortbridge
Warehouse
Railway Access Pier
Platform for Small Boat Disembarkation
Approx. Alignment of Shore
Warehouse & Offices
106m
Loading Shed
16.5m
Mobile Banana Transporters
199m
PLAN OF QUAY

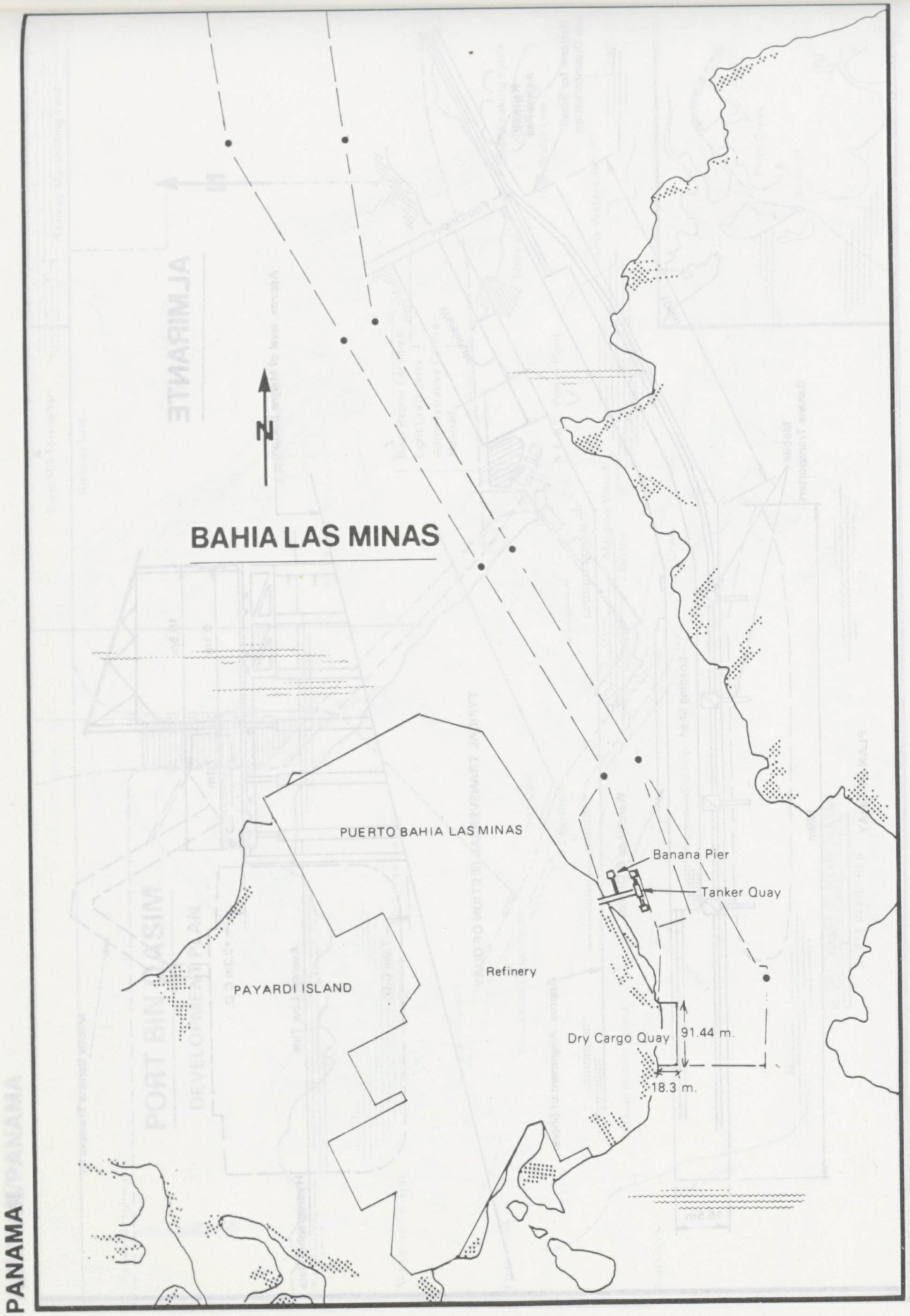


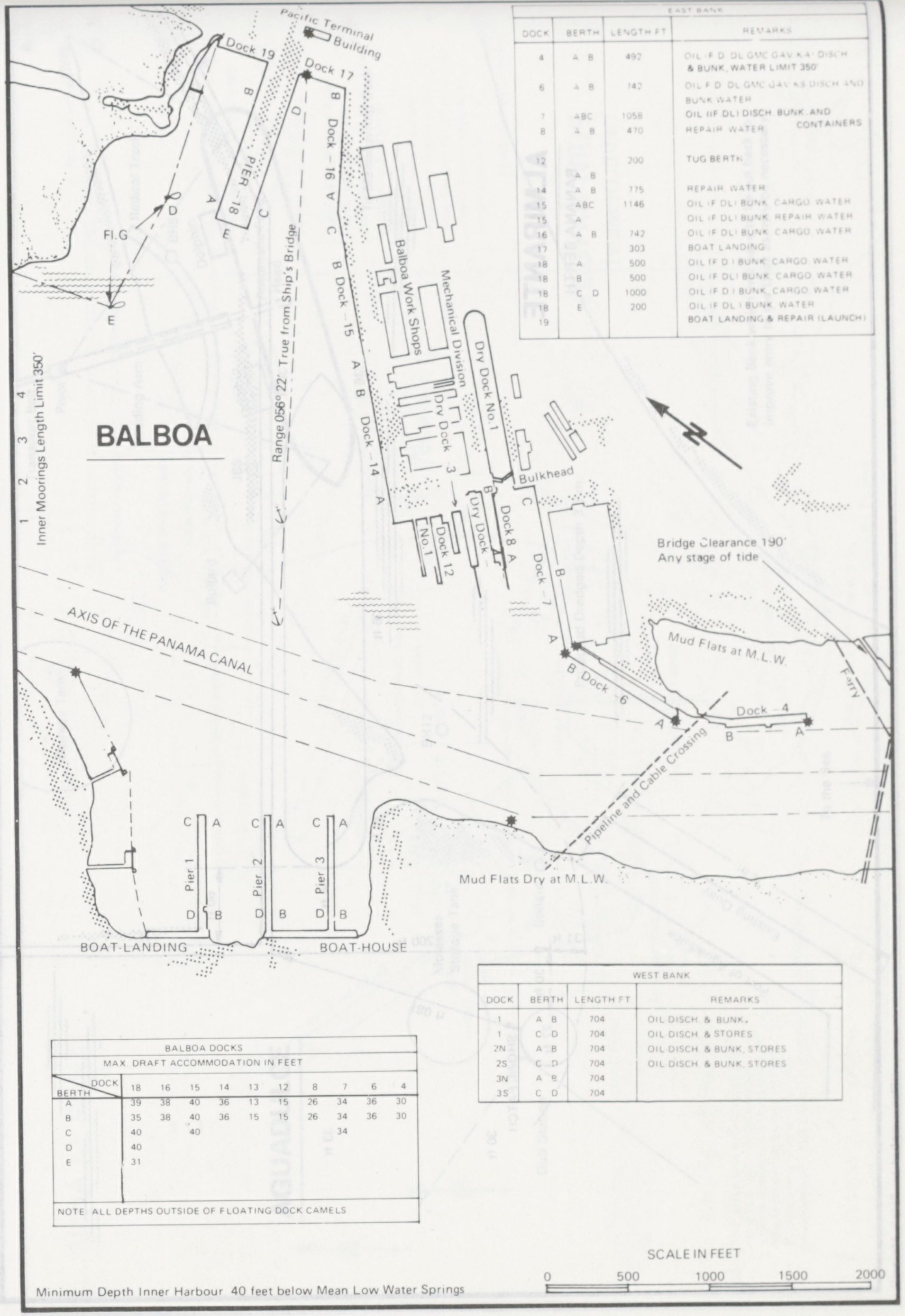
ALMIRANTE

BANANA BERTH

60 ft
30 ft
34 ft
33 ft
36 ft
36 ft
39 ft
200 ft
180 ft
30 ft
SHOAL PATCH
30 ft
27 ft
31 ft

"Plan supplied by Ship's Master"


N
BAHIA LAS MINAS
PUERTO BAHIA LAS MINAS
Banana Pier
Tanker Quay
Refinery
PAYARDI ISLAND
Dry Cargo Quay
91.44 m.
18.3 m.


Pacific Terminal Building
Dock 19
Dock 17
PIER 18
Fl.G
Inner Moorings Length Limit 350'
1 2 3 4
1 2 3 4
Range 056° 22' True from Ship's Bridge
Dock 16
Dock 15
Dock 14
Balboa Work Shops
Mechanical Division
Dry Dock No.1
Dry Dock 3
Dry Dock
No.1
Dock 12
Dock 8
Dock 7
Bulkhead
BALBOA
N
Bridge Clearance 190'
Any stage of tide
AXIS OF THE PANAMA CANAL
Mud Flats at M.L.W.
Dock 6
Dock 4
Ferry
Pipeline and Cable Crossing
Mud Flats Dry at M.L.W.
Pier 1
Pier 2
Pier 3
BOAT LANDING
BOAT HOUSE
SCALE IN FEET
0
500
1000
1500
2000
Minimum Depth Inner Harbour 40 feet below Mean Low Water Springs

EAST BANK

DOCK	BERTH	LENGTH FT	REMARKS
4	A B	492	OIL (F D DL GMC GAV KA) DISCH & BUNK, WATER LIMIT 350'
6	A B	742	OIL F D DL GMC GAV KS DISCH AND BUNK WATER
7	ABC	1058	OIL (IF DL) DISCH BUNK AND CONTAINERS
8	A B	470	REPAIR WATER
12		200	TUG BERTH
	A B		
14	A B	775	REPAIR WATER
15	ABC	1146	OIL (F DL) BUNK CARGO WATER
15	A		OIL (F DL) BUNK REPAIR WATER
16	A B	742	OIL (F DL) BUNK CARGO WATER
17		303	BOAT LANDING
18	A	500	OIL (F D) BUNK CARGO WATER
18	B	500	OIL (F DL) BUNK CARGO WATER
18	C D	1000	OIL (F D) BUNK CARGO WATER
18	E	200	OIL (F DL) BUNK WATER
19			BOAT LANDING & REPAIR (LAUNCH)

WEST BANK

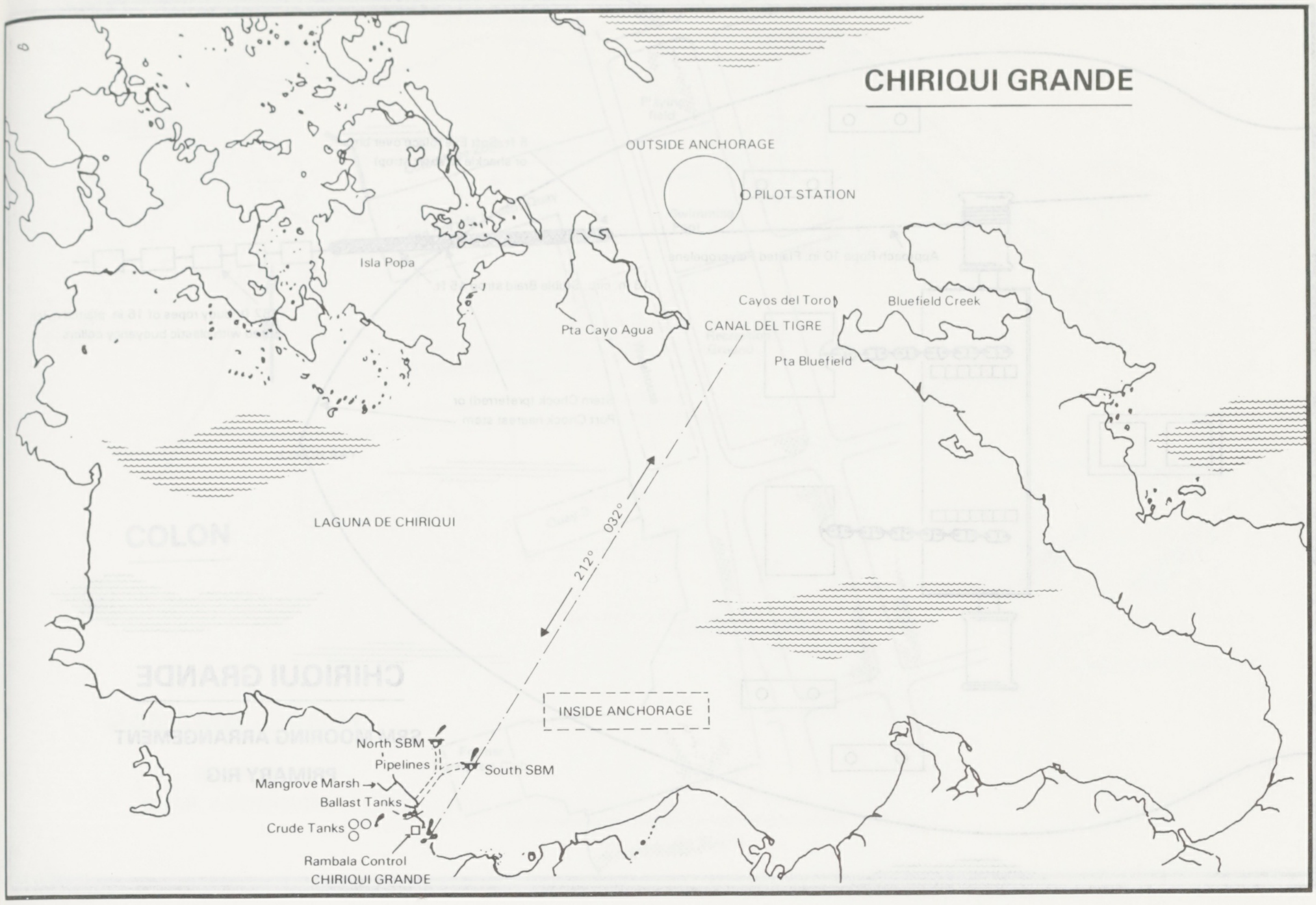
DOCK	BERTH	LENGTH FT	REMARKS
1	A B	704	OIL DISCH & BUNK.
1	C D	704	OIL DISCH & STORES
2N	A B	704	OIL DISCH & BUNK, STORES
2S	C D	704	OIL DISCH & BUNK, STORES
3N	A B	704	
3S	C D	704	

BALBOA DOCKS

MAX. DRAFT ACCOMMODATION IN FEET

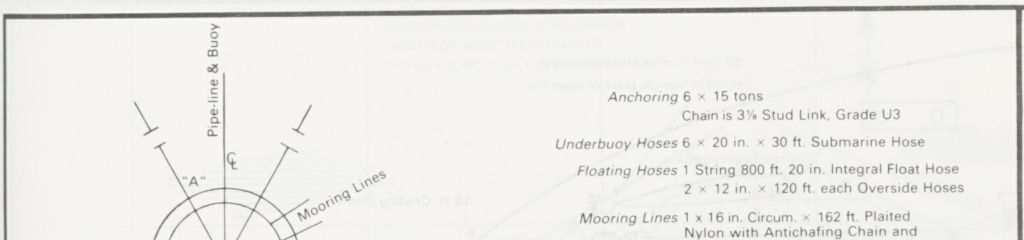
BERTH \ DOCK	18	16	15	14	13	12	8	7	6	4
A	39	38	40	36	13	15	26	34	36	30
B	35	38	40	36	15	15	26	34	36	30
C	40		40					34		
D	40									
E	31									

NOTE ALL DEPTHS OUTSIDE OF FLOATING DOCK CAMELS



CHIRIQUI GRANDE

OUTSIDE ANCHORAGE
PILOT STATION
Isla Popa
Cayos del Toro
Bluefield Creek
Pta Cayo Agua
CANAL DEL TIGRE
Pta Bluefield
LAGUNA DE CHIRIQUI
032°
212°
INSIDE ANCHORAGE
North SBM
Pipelines
South SBM
Mangrove Marsh
Ballast Tanks
Crude Tanks
Rambala Control
CHIRIQUI GRANDE



CHIRIQUI GRANDE

SINGLE BUOY MOORING SYSTEM

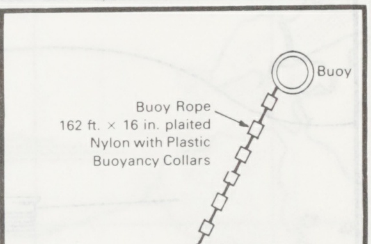
Anchoring 6 × 15 tons
Chain is 3⅛ Stud Link, Grade U3

Underbuoy Hoses 6 × 20 in. × 30 ft. Submarine Hose

Floating Hoses 1 String 800 ft. 20 in. Integral Float Hose
2 × 12 in. × 120 ft. each Overside Hoses

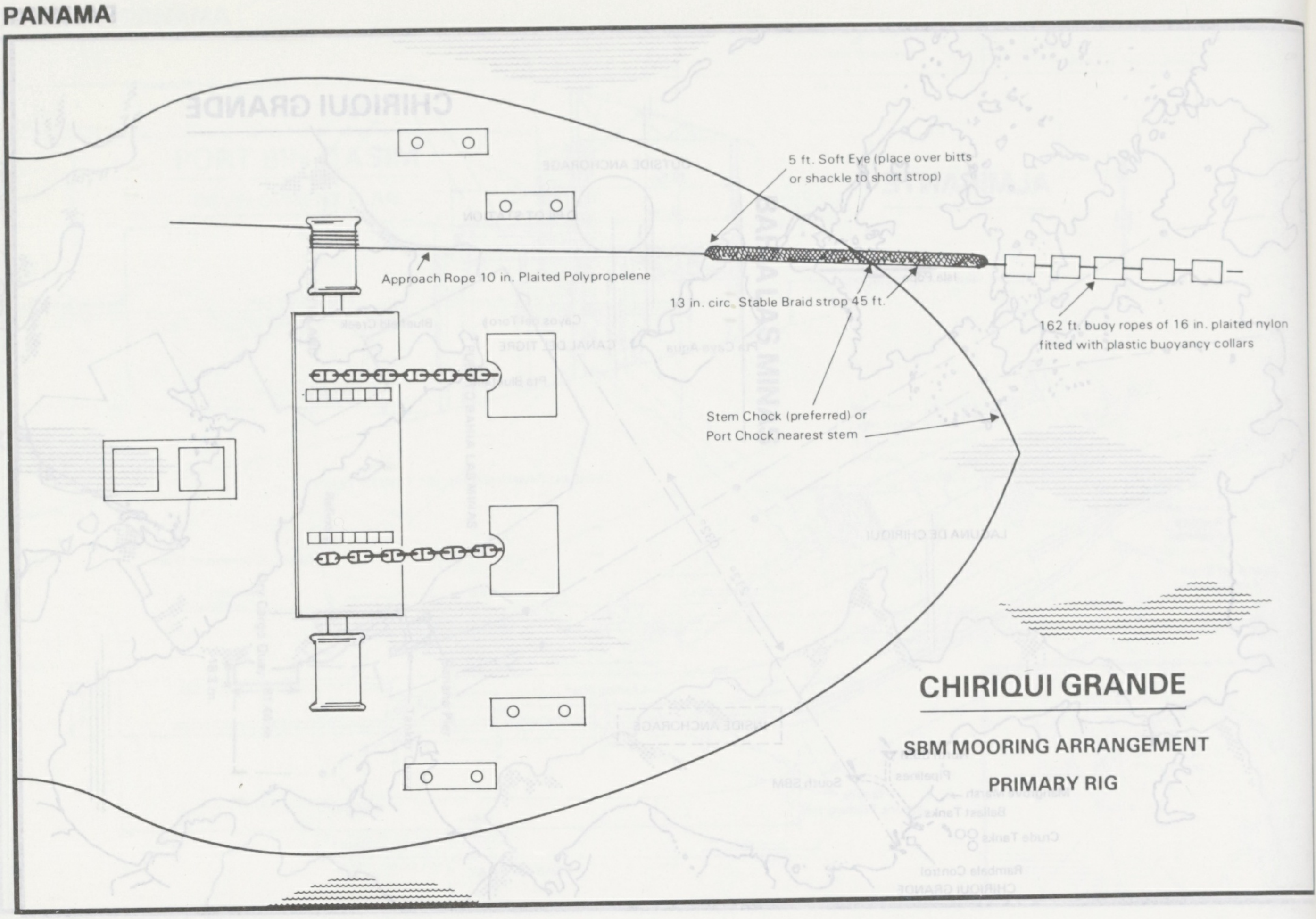
Mooring Lines 1 × 16 in. Circum. × 162 ft. Plaited
Nylon with Antichafing Chain and
10 in. Circum Polypropylene Pick Up Line

Pipe-line & Buoy
℄
"A"
Mooring Lines
Anchor
Overboard Piping
Product Lines
Submarine Hose
Manifold File
Pipe End Manifold
"A"
Plan
Rope or Chain
Export Tanker
Nylon Mooring Line with Floats
Chain
M.L.W.
Integral Floating Hoses
Anchor Leg
Submarine Hose
Manifold
Mud Line
Anchor
(not to scale)



Buoy
Buoy Rope
162 ft. × 16 in. plaited
Nylon with Plastic
Buoyancy Collars
18 ft. Chafing Chain
Triangle Plate or
Open Link
Port Approach Rope
480 ft. 10 in. Plaited Polypropylene
Launch Connecting Messenger to
Approach Rope
Ship's Mooring Rope
(Port Bow or Centre)
Tanker

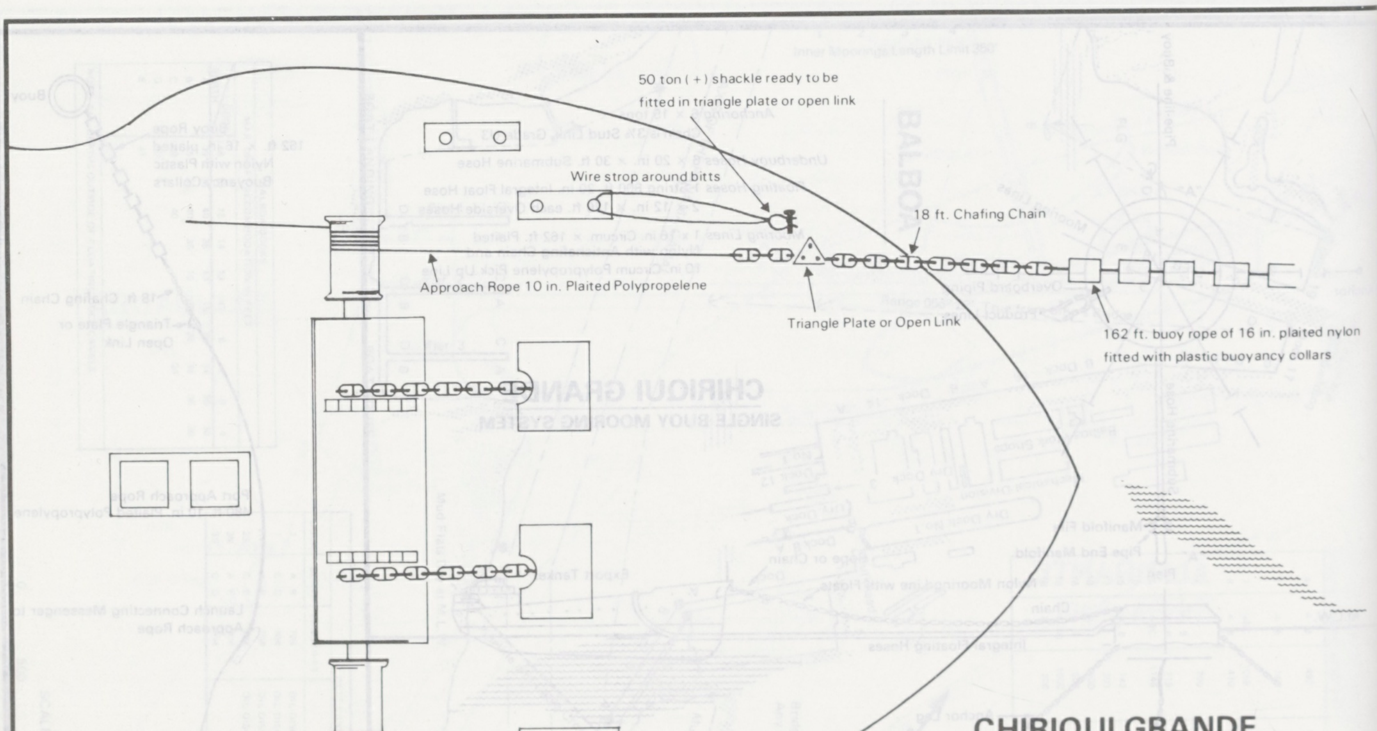
SINGLE BUOY MOORING – APPROACHING THE BUOY


5 ft. Soft Eye (place over bitts or shackle to short strop)
Approach Rope 10 in. Plaited Polypropelene
13 in. circ. Stable Braid strop 45 ft.
162 ft. buoy ropes of 16 in. plaited nylon fitted with plastic buoyancy collars
Stem Chock (preferred) or Port Chock nearest stem

CHIRIQUI GRANDE

SBM MOORING ARRANGEMENT

PRIMARY RIG

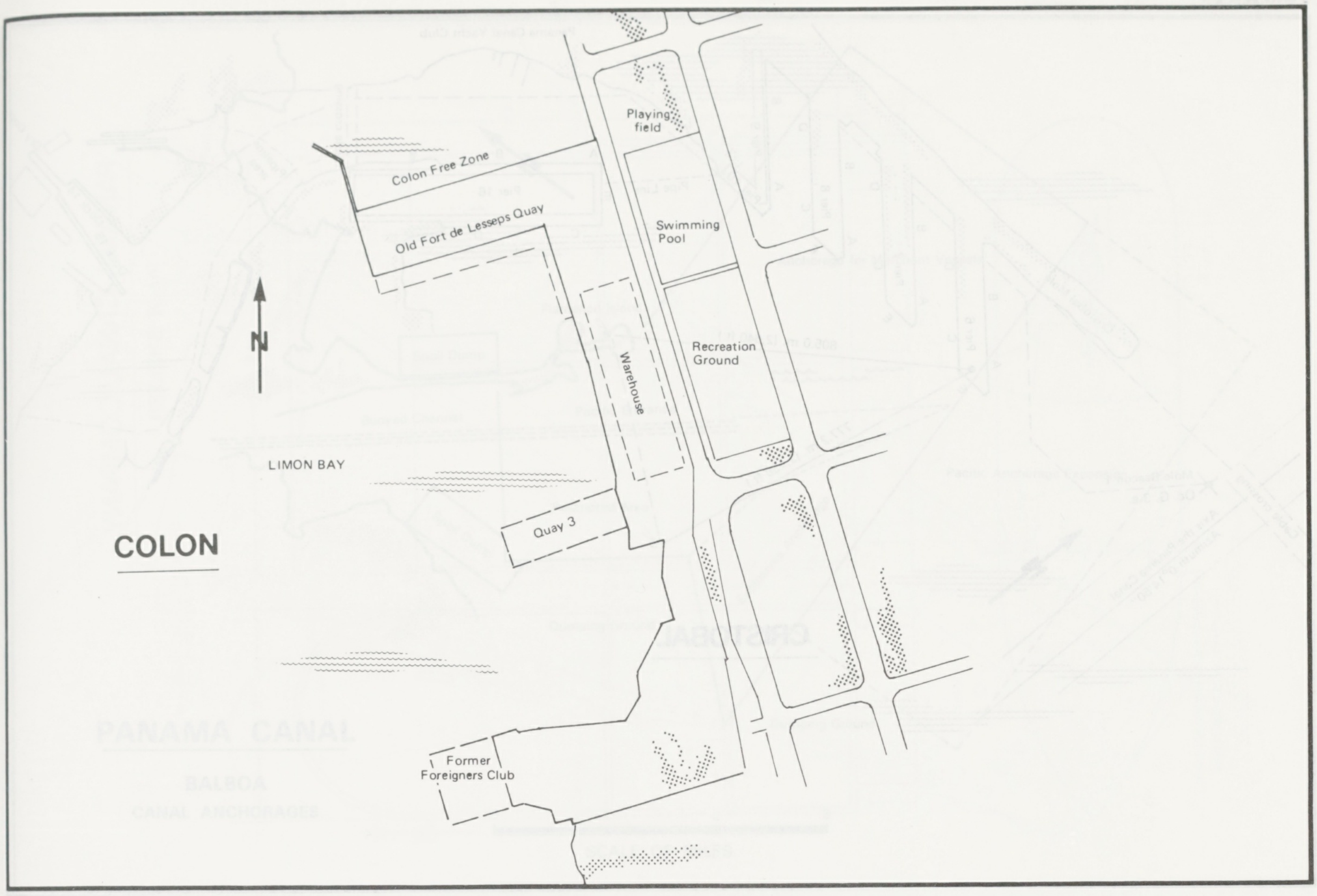

50 ton (+) shackle ready to be fitted in triangle plate or open link
Wire strop around bitts
18 ft. Chafing Chain
Approach Rope 10 in. Plaited Polypropelene
Triangle Plate or Open Link
162 ft. buoy rope of 16 in. plaited nylon fitted with plastic buoyancy collars

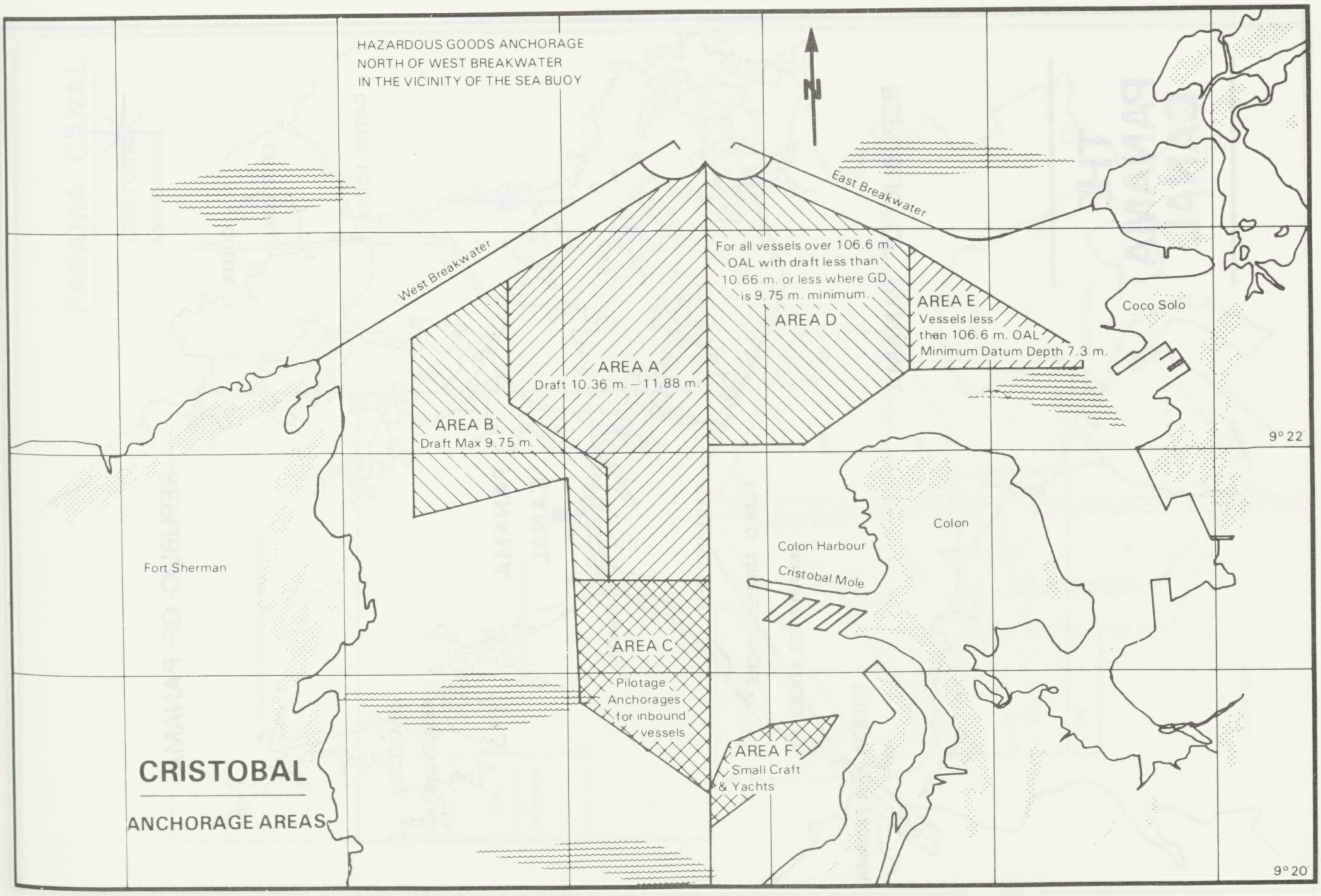
CHIRIQUI GRANDE

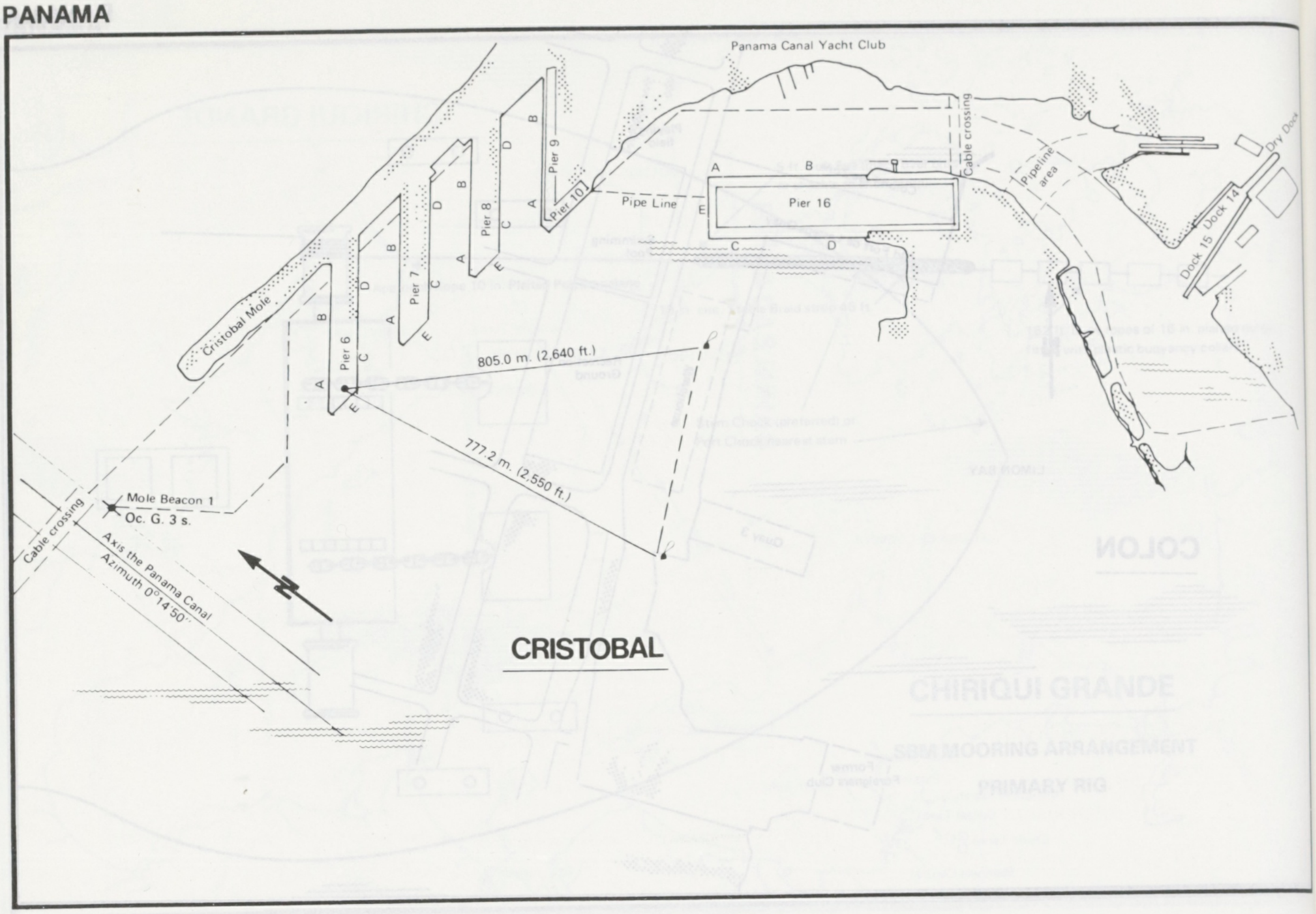
SBM MOORING ARRANGEMENT

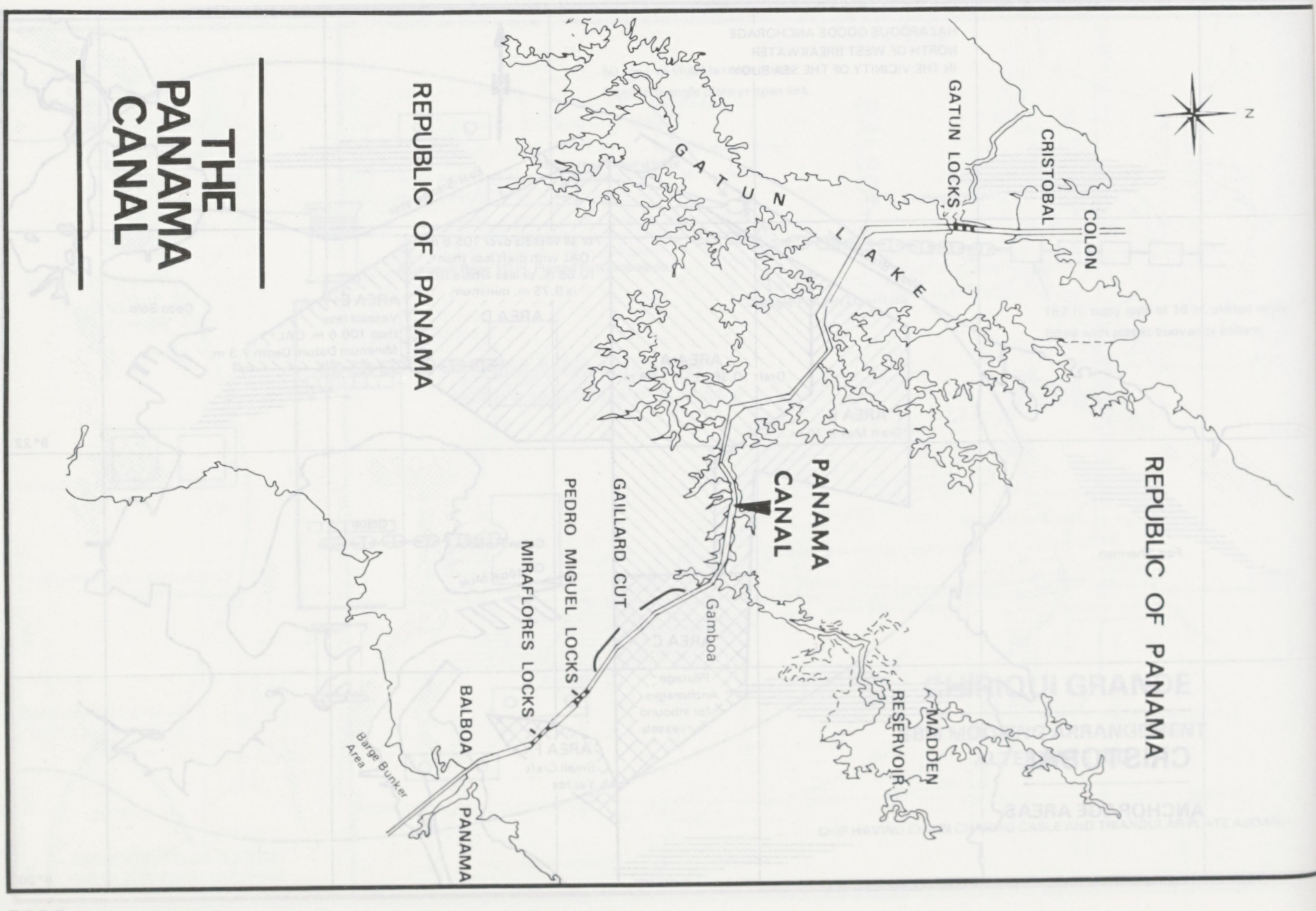
ALTERNATE RIG

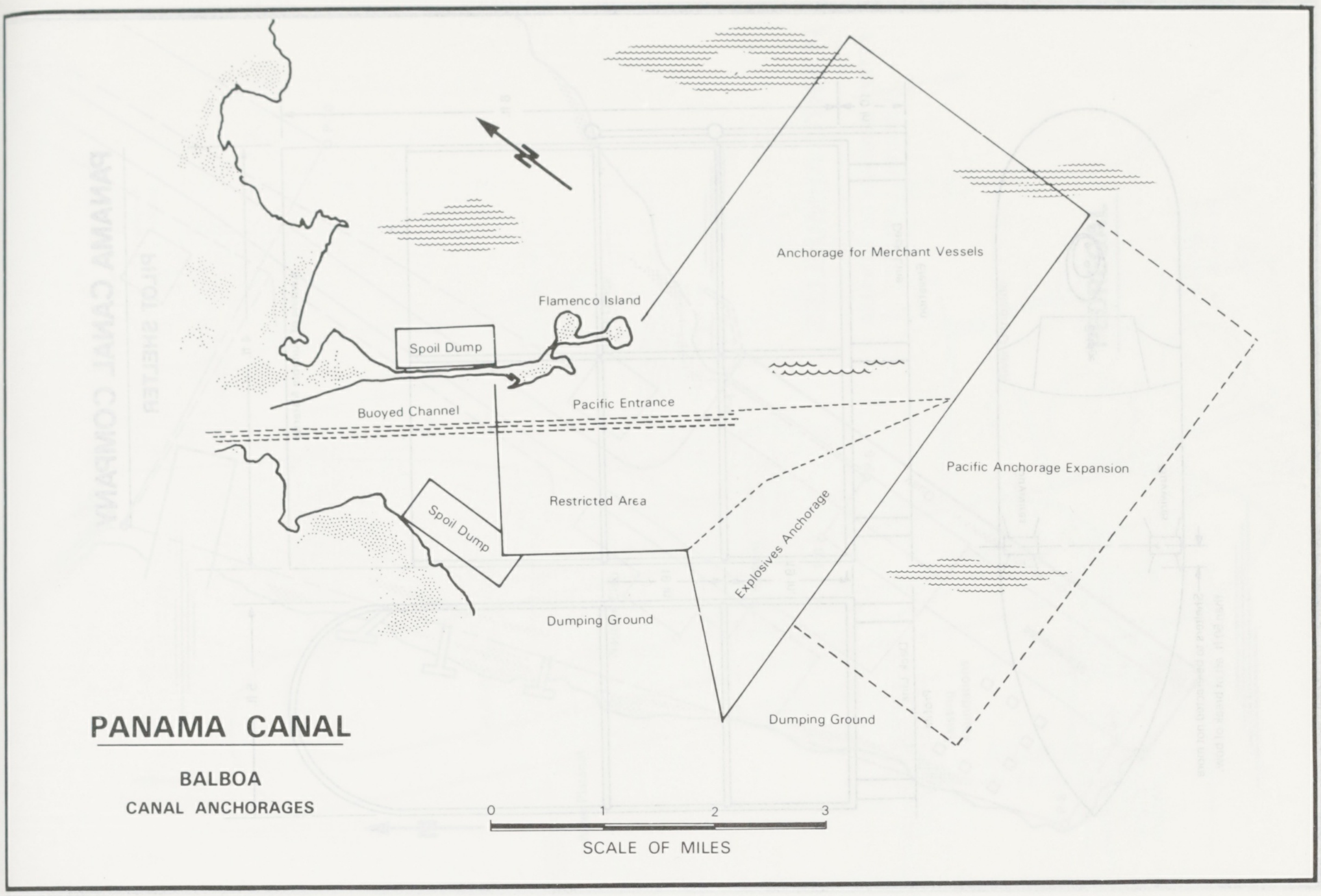
SHIP HAVING CHAIN CHAFING CABLE AND TRIANGULAR PLATE ABOARD

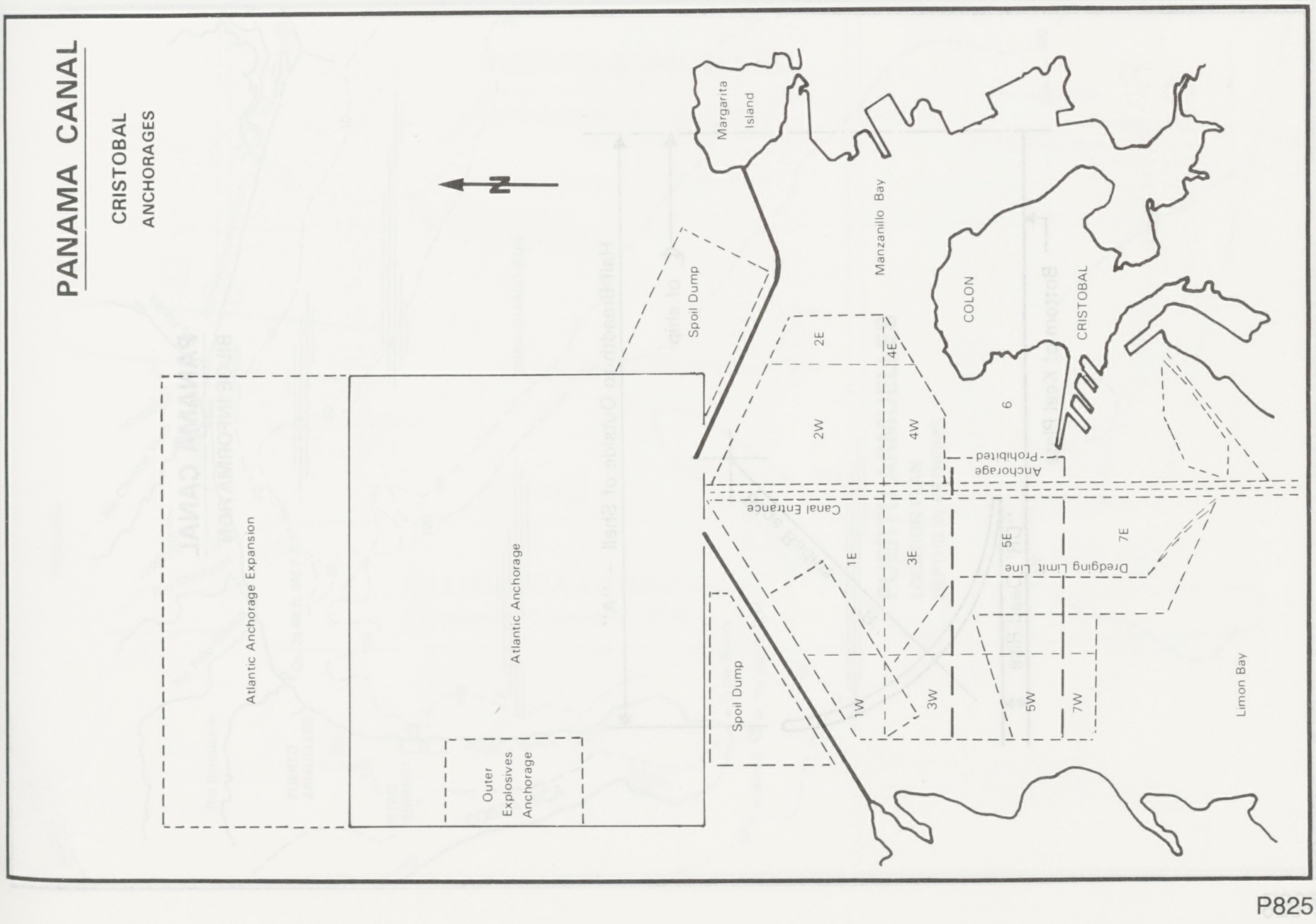

COLON
LIMON BAY
N
Colon Free Zone
Old Fort de Lesseps Quay
Playing field
Swimming Pool
Recreation Ground
Warehouse
Quay 3
Former Foreigners Club


HAZARDOUS GOODS ANCHORAGE
NORTH OF WEST BREAKWATER
IN THE VICINITY OF THE SEA BUOY
N
East Breakwater
West Breakwater
For all vessels over 106.6 m. OAL with draft less than 10.66 m. or less where GD is 9.75 m. minimum.
AREA D
AREA E
Vessels less then 106.6 m. OAL
Minimum Datum Depth 7.3 m.
Coco Solo
AREA A
Draft 10.36 m. – 11.88 m.
AREA B
Draft Max 9.75 m.
9° 22'
Colon
Colon Harbour
Cristobal Mole
Fort Sherman
AREA C
Pilotage Anchorages for inbound vessels
AREA F
Small Craft & Yachts
CRISTOBAL
ANCHORAGE AREAS
9° 20'


Panama Canal Yacht Club
Cable crossing
Pipeline area
Dry Dock
Dock 15
Dock 14
A
B
Pier 16
E
C
D
Pipe Line
Pier 10
Pier 9
Pier 8
Pier 7
Pier 6
Cristobal Mole
805.0 m. (2,640 ft.)
777.2 m. (2,550 ft.)
Mole Beacon 1
Oc. G. 3 s.
Cable crossing
Axis the Panama Canal
Azimuth 0°14'50"
N
CRISTOBAL

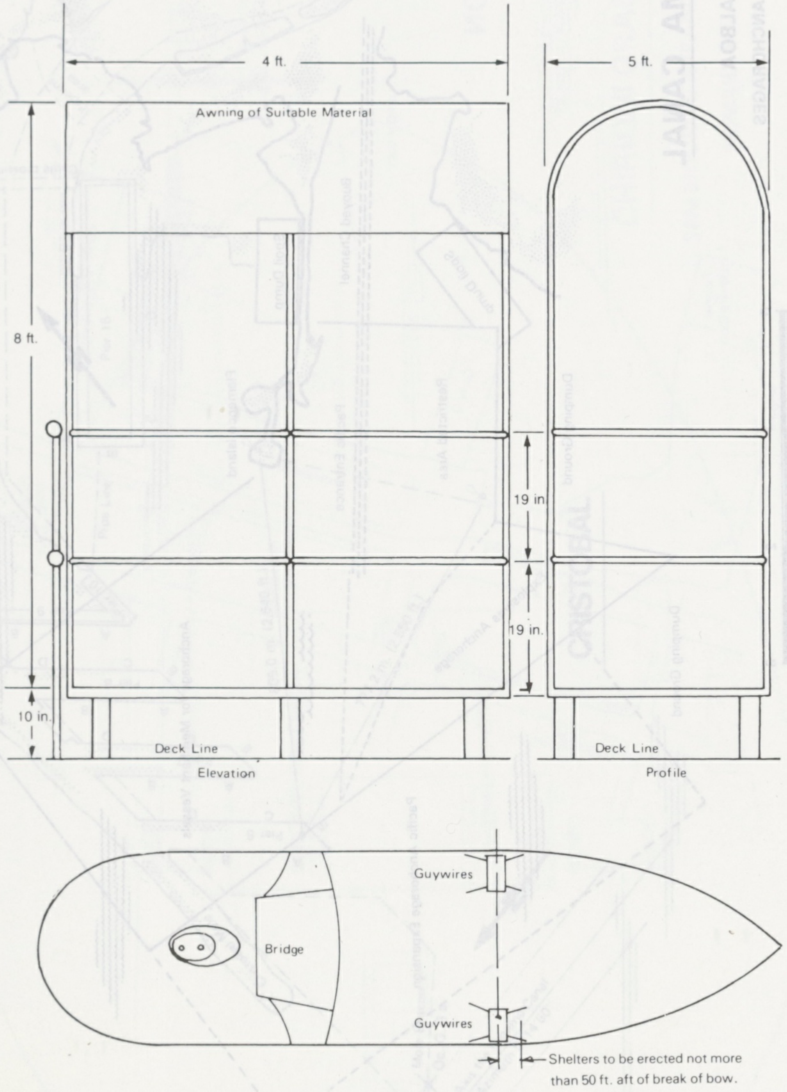

THE PANAMA CANAL
REPUBLIC OF PANAMA
GATUN LAKE
GATUN LOCKS
CRISTOBAL
COLON
N
REPUBLIC OF PANAMA
PANAMA CANAL
MADDEN RESERVOIR
Gamboa
GAILLARD CUT
PEDRO MIGUEL LOCKS
MIRAFLORES LOCKS
BALBOA
Barge Bunker Area
PANAMA


PANAMA CANAL
BALBOA
CANAL ANCHORAGES
Anchorage for Merchant Vessels
Flamenco Island
Spoil Dump
Buoyed Channel
Pacific Entrance
Pacific Anchorage Expansion
Restricted Area
Spoil Dump
Explosives Anchorage
Dumping Ground
Dumping Ground
0
1
2
3
SCALE OF MILES
N


PANAMA CANAL
CRISTOBAL
ANCHORAGES
N
Margarita Island
Manzanillo Bay
Spoil Dump
COLON
CRISTOBAL
2E
4E
2W
4W
6
Anchorage Prohibited
Canal Entrance
1E
3E
5E
7E
Dredging Limit Line
Atlantic Anchorage Expansion
Atlantic Anchorage
Outer Explosives Anchorage
Spoil Dump
1W
3W
5W
7W
Limon Bay

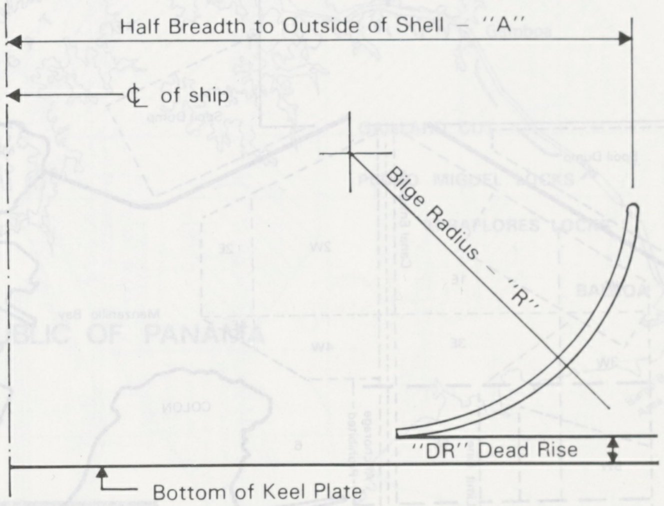
PANAMA CANAL COMPANY

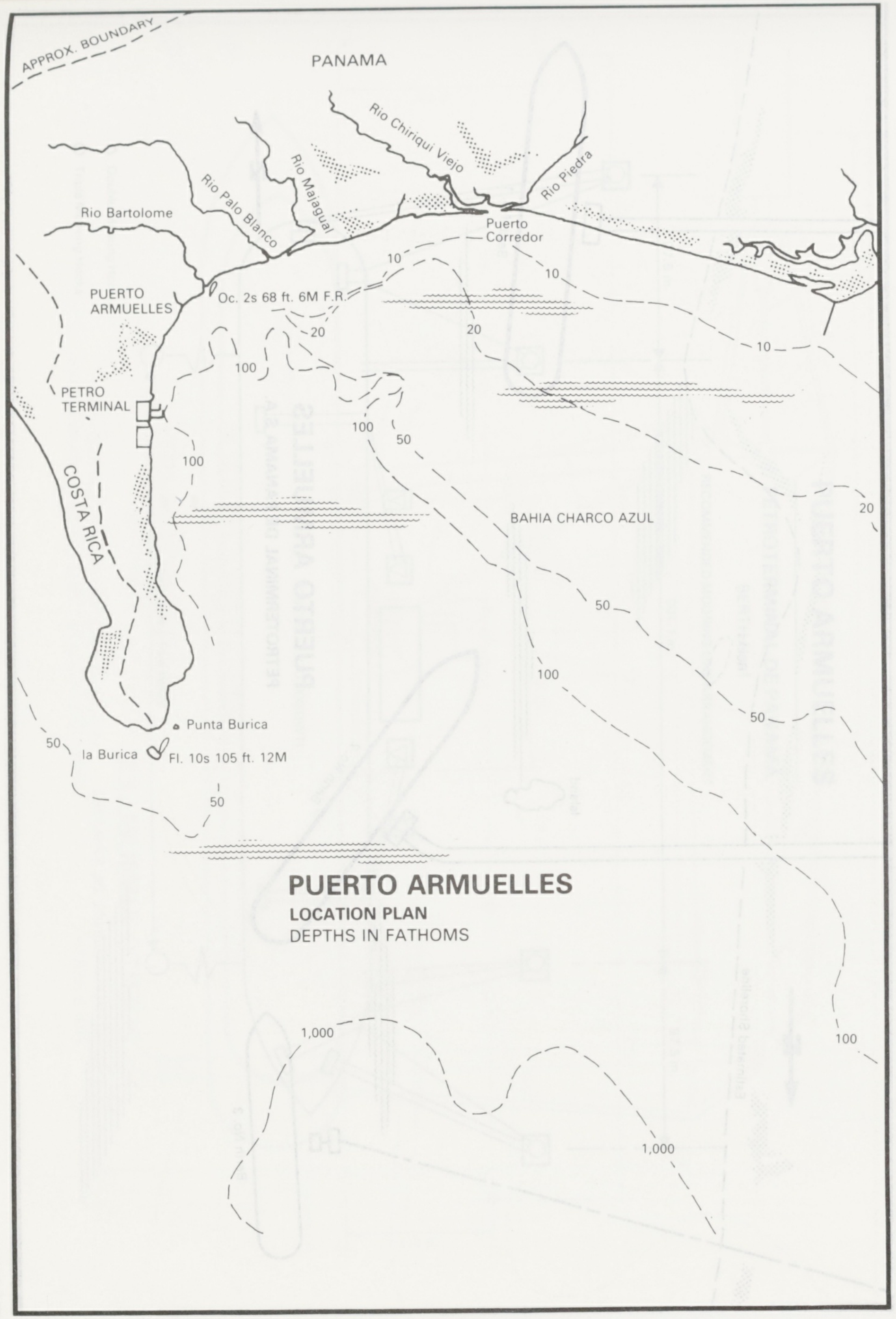
PILOT SHELTER


4 ft.
5 ft.
Awning of Suitable Material
8 ft.
19 in.
19 in.
10 in.
Deck Line
Elevation
Deck Line
Profile
Guywires
Bridge
Guywires
Shelters to be erected not more than 50 ft. aft of break of bow.

PANAMA CANAL

BILGE INFORMATION

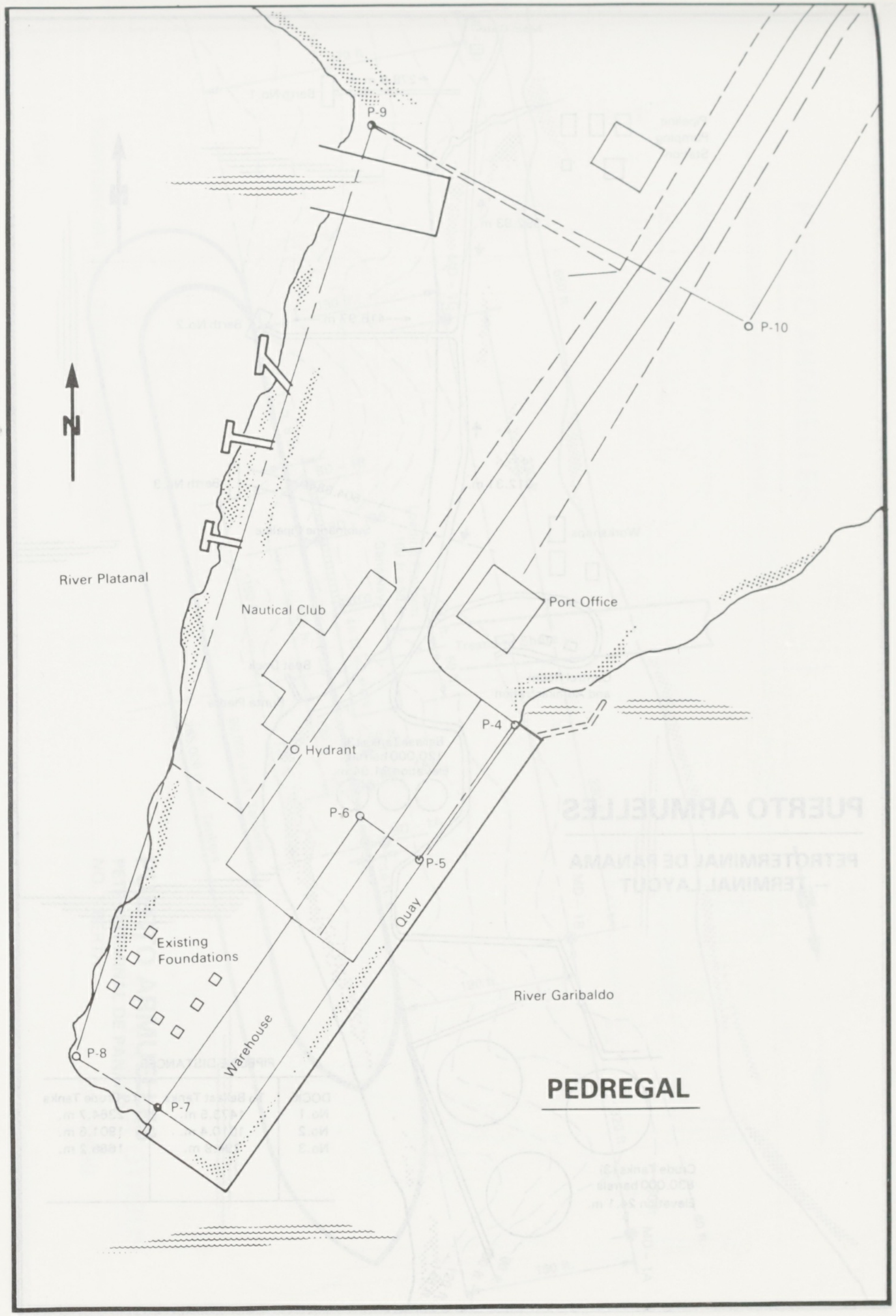

Half Breadth to Outside of Shell – "A"
℄ of ship
Bilge Radius – "R"
"DR" Dead Rise
Bottom of Keel Plate


APPROX. BOUNDARY
PANAMA
Rio Chiriqui Viejo
Rio Piedra
Rio Majagual
Rio Palo Blanco
Rio Bartolome
Puerto Corredor
10
10
PUERTO ARMUELLES
Oc. 2s 68 ft. 6M F.R.
20
20
10
100
PETRO TERMINAL
100
50
100
COSTA RICA
BAHIA CHARCO AZUL
20
50
100
50
Punta Burica
50
la Burica
Fl. 10s 105 ft. 12M
50
1,000
1,000
100

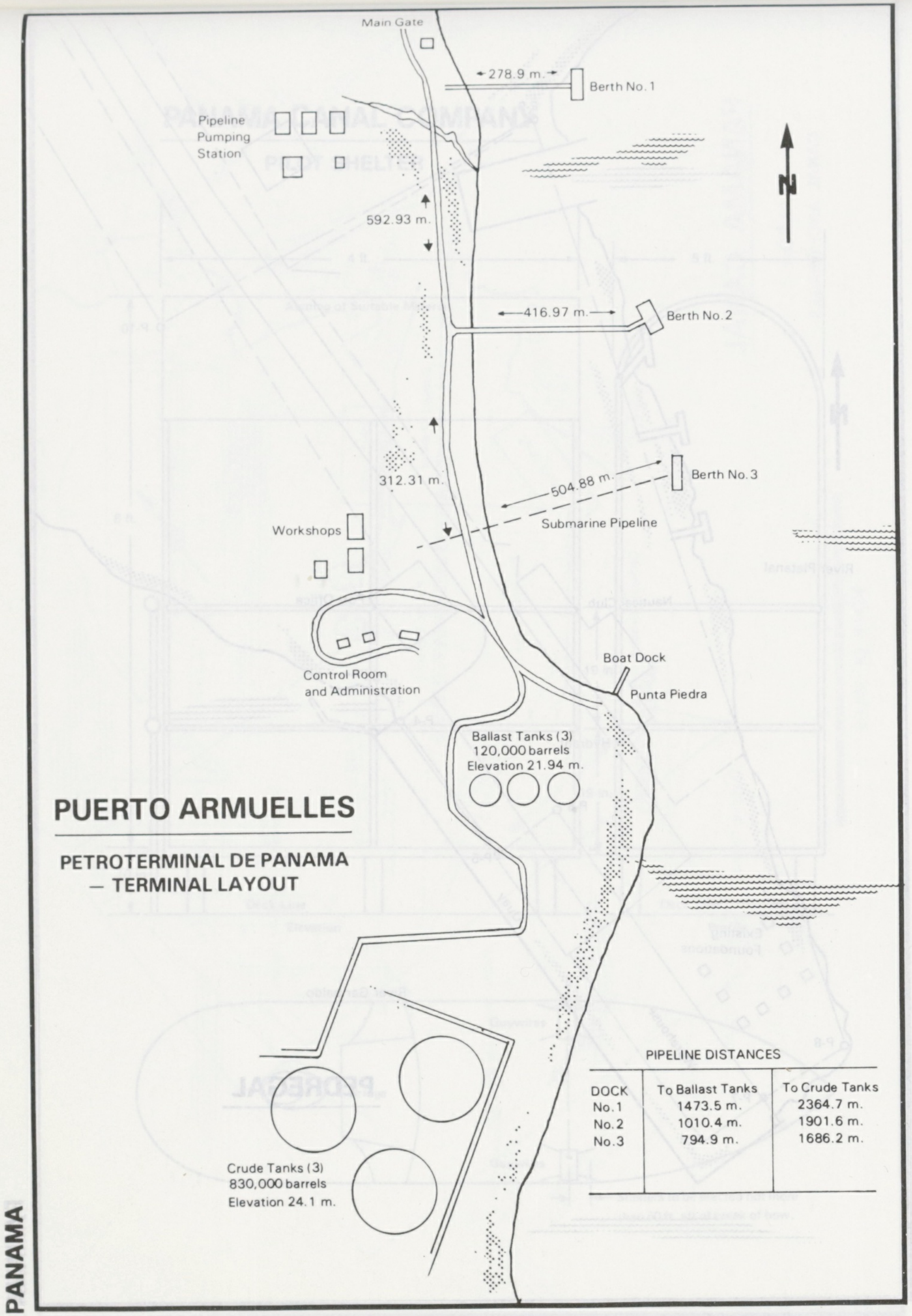
PUERTO ARMUELLES

LOCATION PLAN

DEPTHS IN FATHOMS


P-9
P-10
River Platanal
Nautical Club
Port Office
P-4
Hydrant
P-6
P-5
Quay
Existing Foundations
River Garibaldo
P-8
P-7
Warehouse

PEDREGAL

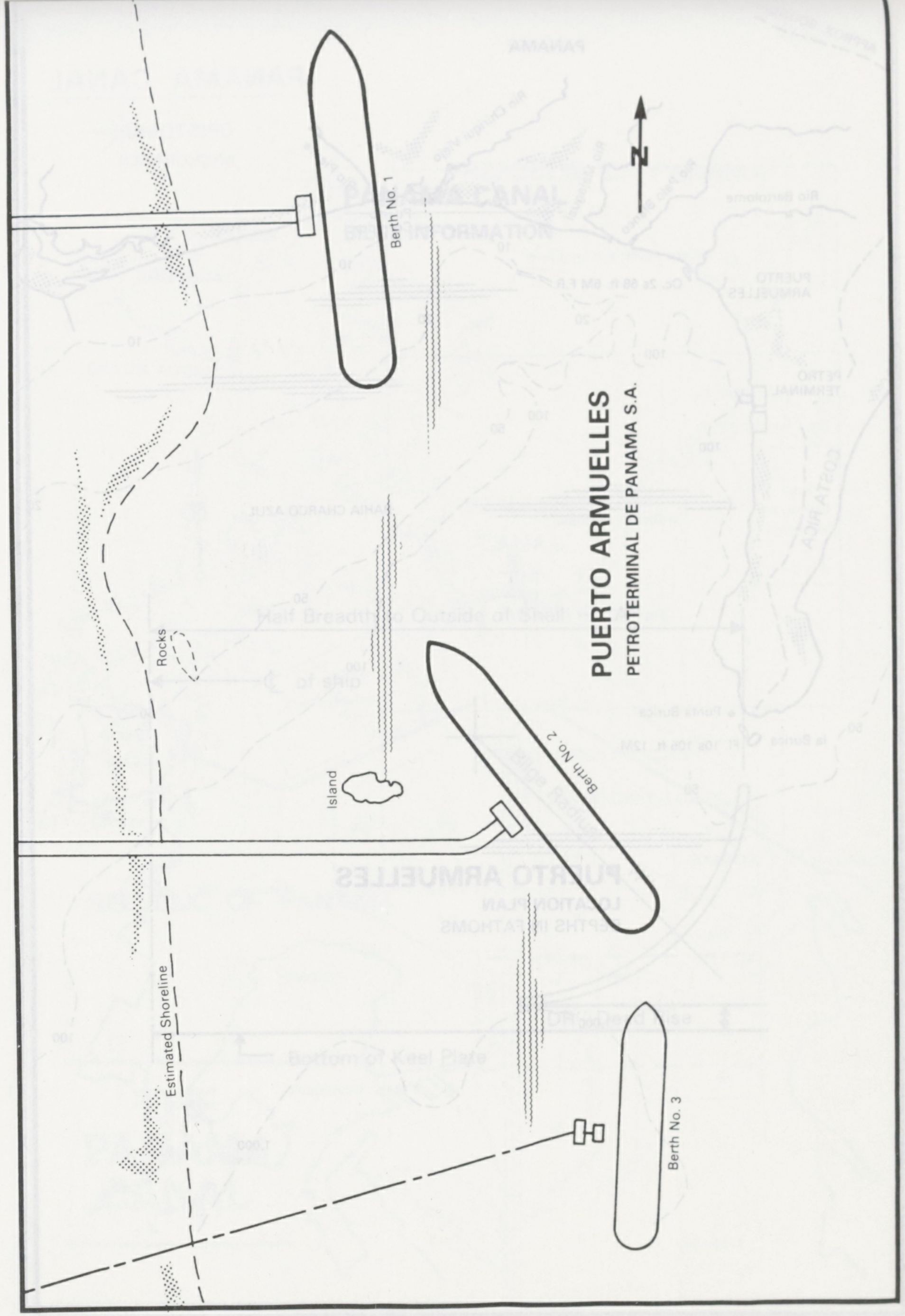

Main Gate
278.9 m.
Berth No. 1
Pipeline Pumping Station
592.93 m.
416.97 m.
Berth No. 2
312.31 m.
504.88 m.
Berth No. 3
Submarine Pipeline
Workshops
Control Room and Administration
Boat Dock
Punta Piedra
Ballast Tanks (3) 120,000 barrels Elevation 21.94 m.
Crude Tanks (3) 830,000 barrels Elevation 24.1 m.
N

PUERTO ARMUELLES

PETROTERMINAL DE PANAMA — TERMINAL LAYOUT

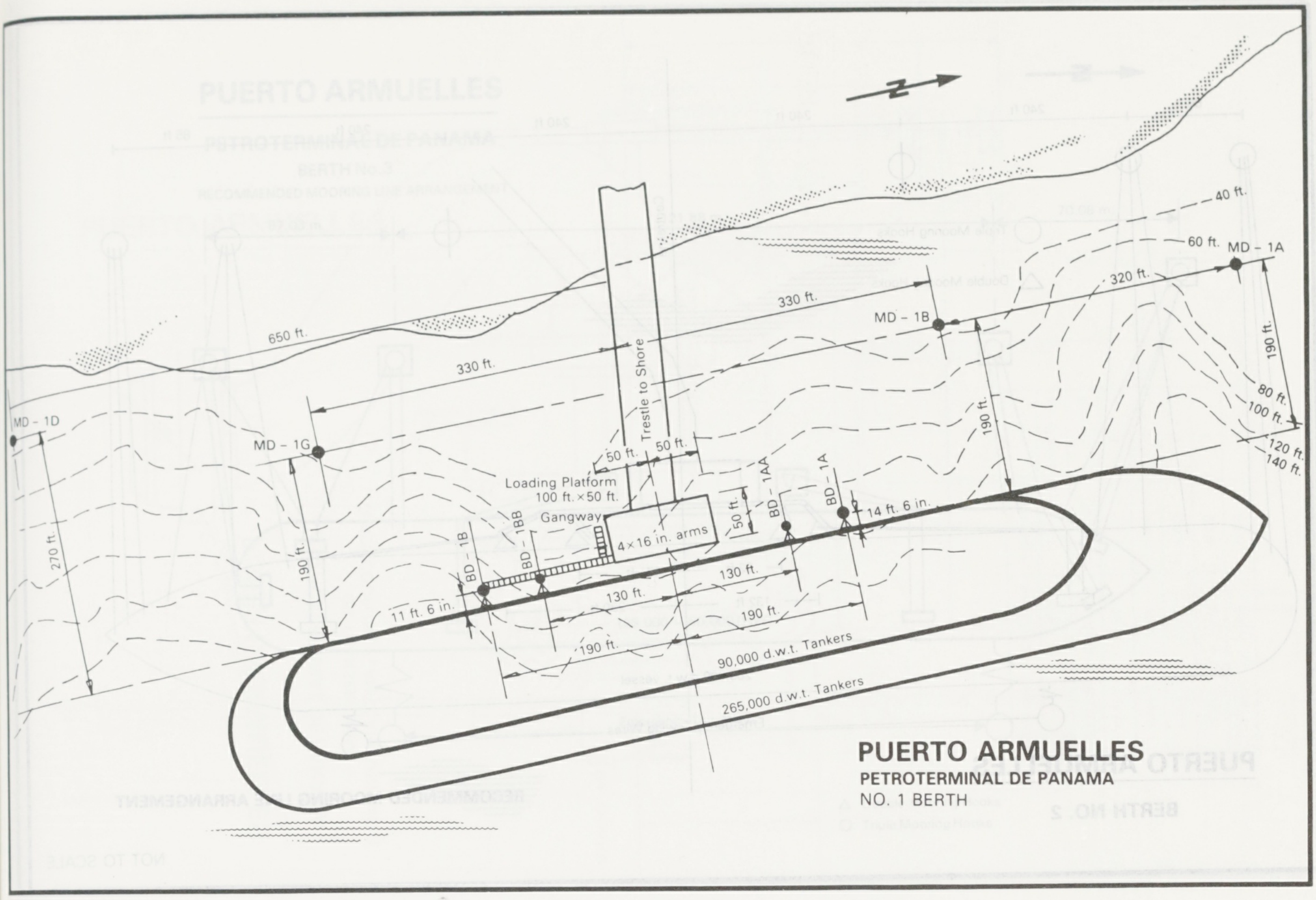
PIPELINE DISTANCES

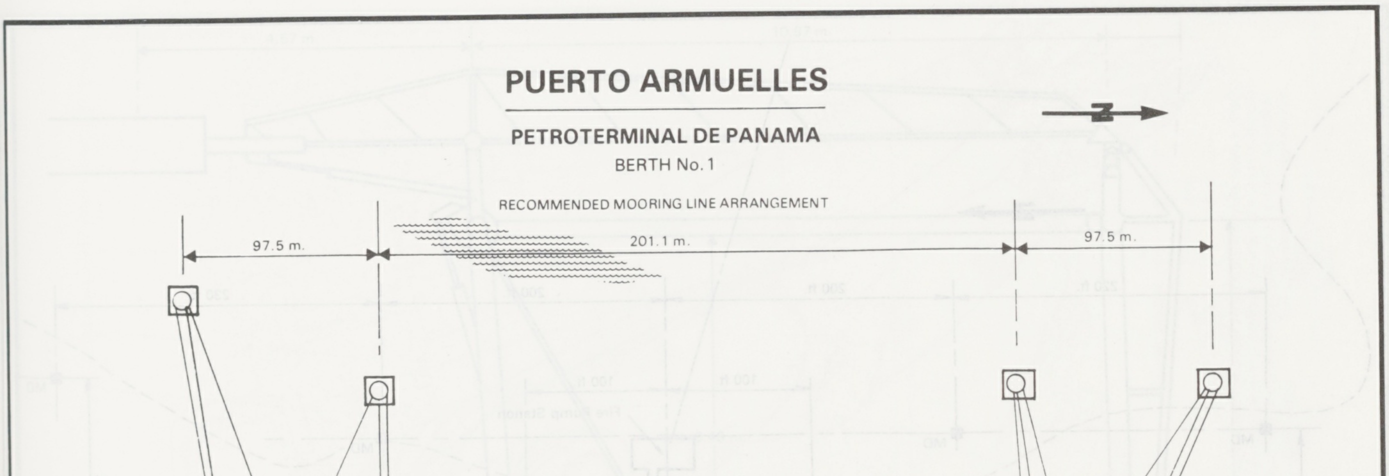
DOCK	To Ballast Tanks	To Crude Tanks
No. 1	1473.5 m.	2364.7 m.
No. 2	1010.4 m.	1901.6 m.
No. 3	794.9 m.	1686.2 m.

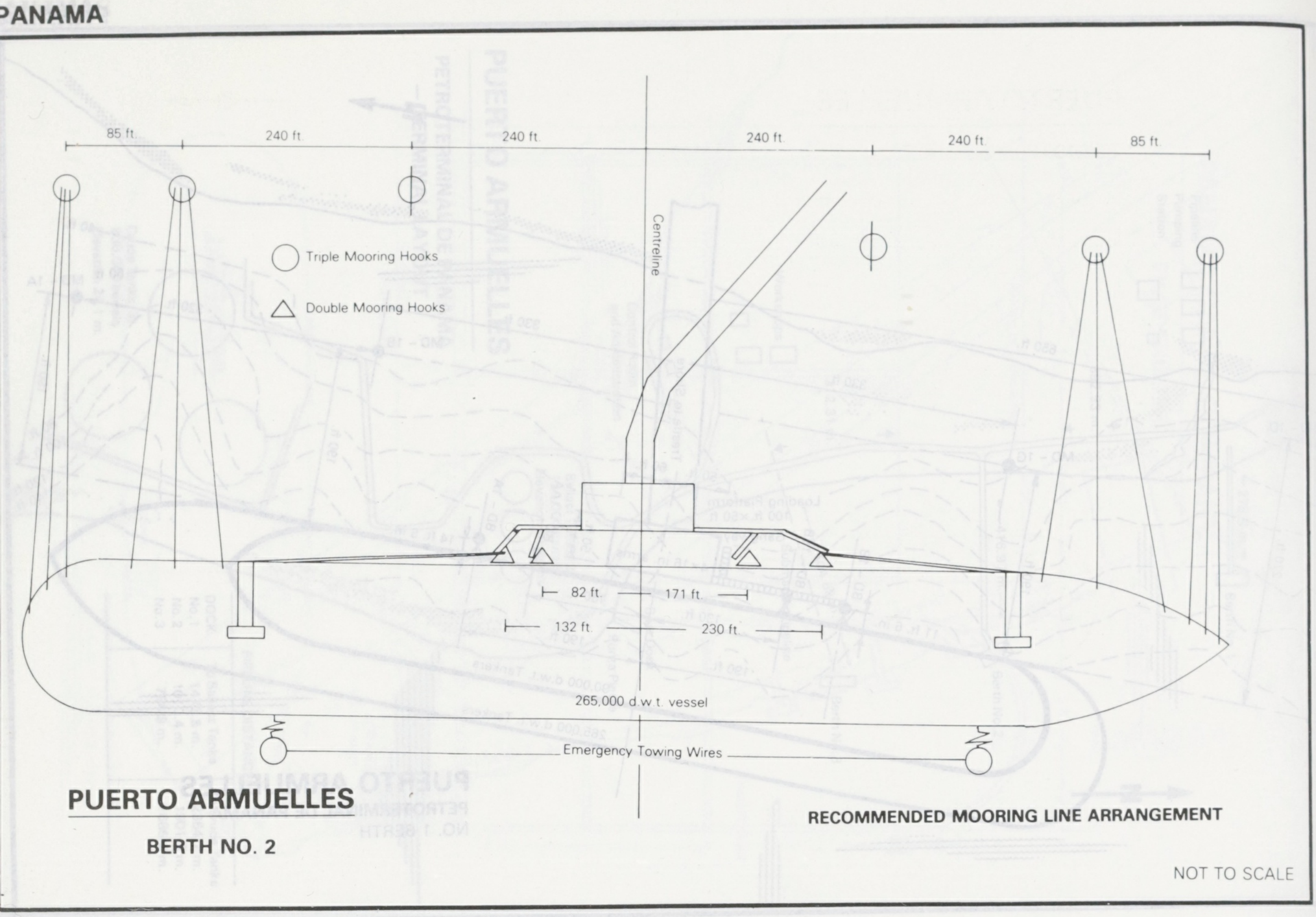

Berth No. 1
N
Rocks
Island
Berth No. 2
Estimated Shoreline
Berth No. 3

PUERTO ARMUELLES

PETROTERMINAL DE PANAMA S.A.


MD – 1D
650 ft.
330 ft.
330 ft.
320 ft.
40 ft.
60 ft.
MD – 1A
MD – 1B
190 ft.
80 ft.
100 ft.
120 ft.
140 ft.
MD – 1G
270 ft.
190 ft.
190 ft.
Trestle to Shore
50 ft.
50 ft.
Loading Platform
100 ft. × 50 ft.
Gangway
4 × 16 in. arms
50 ft.
BD – 1AA
BD – 1A
14 ft. 6 in.
BD – 1B
BD – 1BB
11 ft. 6 in.
130 ft.
130 ft.
190 ft.
190 ft.
90,000 d.w.t. Tankers
265,000 d.w.t. Tankers
PUERTO ARMUELLES
PETROTERMINAL DE PANAMA
NO. 1 BERTH

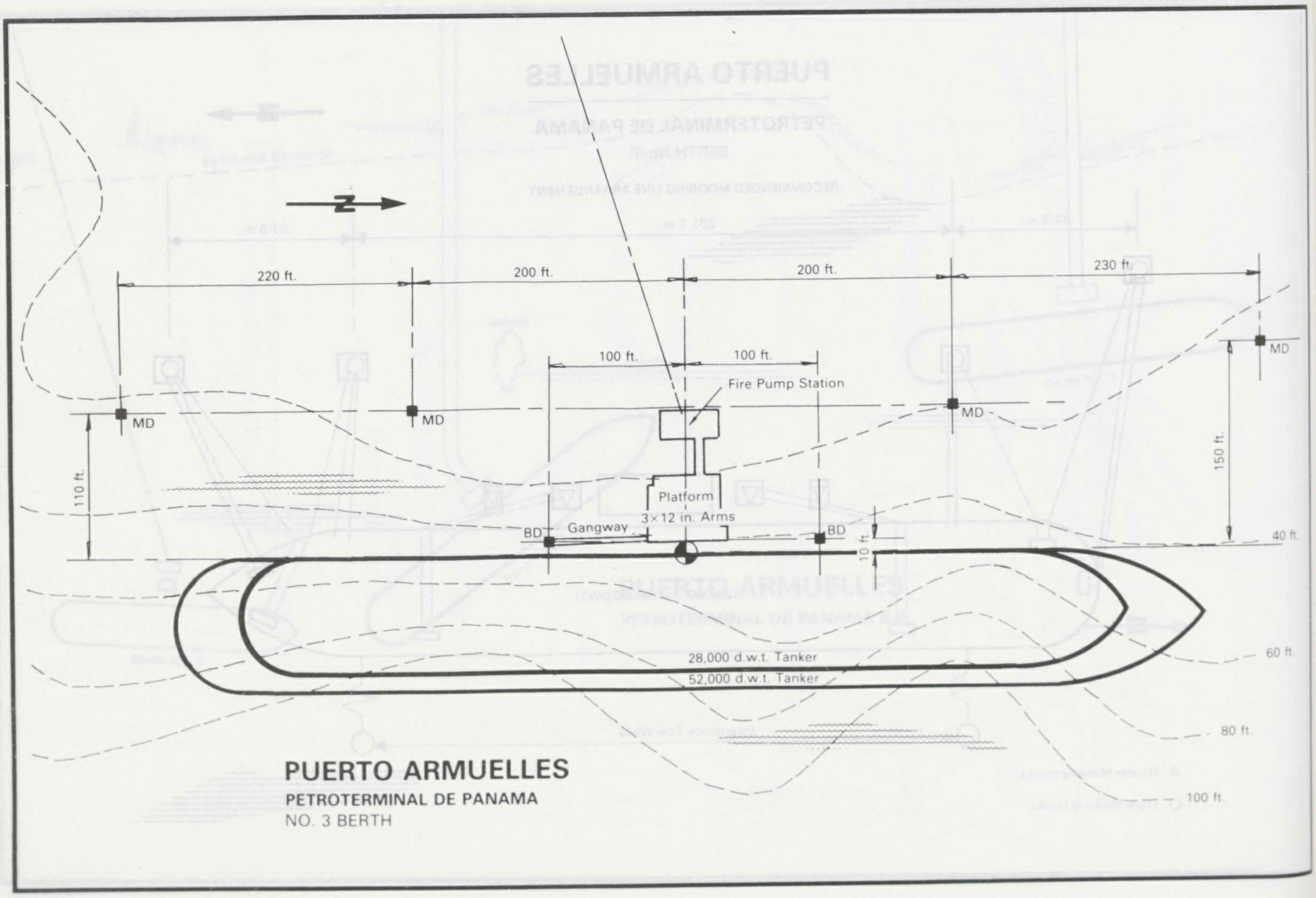

PUERTO ARMUELLES
PETROTERMINAL DE PANAMA
BERTH No. 1
RECOMMENDED MOORING LINE ARRANGEMENT
97.5 m.
201.1 m.
97.5 m.
(28,000 – 270,000 DWT)
Emergency Tow Wires
△ Double Mooring Hooks
○ Triple Mooring Hooks


85 ft.
240 ft.
240 ft.
240 ft.
240 ft.
85 ft.
Triple Mooring Hooks
Double Mooring Hooks
Centreline
82 ft.
171 ft.
132 ft.
230 ft.
265,000 d.w.t. vessel
Emergency Towing Wires
NOT TO SCALE

PUERTO ARMUELLES

BERTH NO. 2

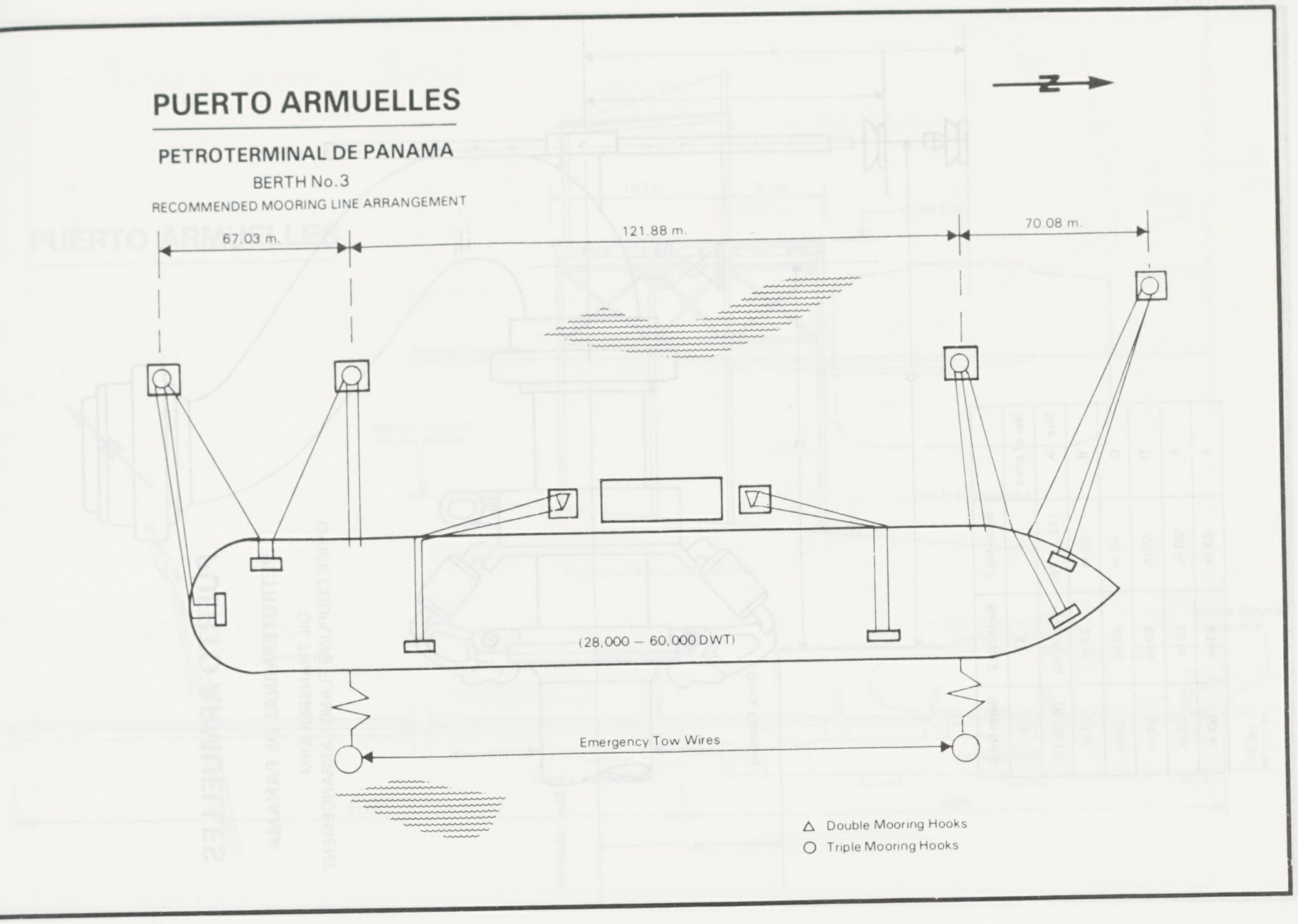
RECOMMENDED MOORING LINE ARRANGEMENT


N
220 ft.
200 ft.
200 ft.
230 ft.
100 ft.
100 ft.
Fire Pump Station
MD
MD
MD
MD
110 ft.
150 ft.
Platform
3×12 in. Arms
Gangway
BD
BD
10 ft.
40 ft.
60 ft.
80 ft.
100 ft.
28,000 d.w.t. Tanker
52,000 d.w.t. Tanker

PUERTO ARMUELLES

PETROTERMINAL DE PANAMA

NO. 3 BERTH



PUERTO ARMUELLES

PETROTERMINAL DE PANAMA

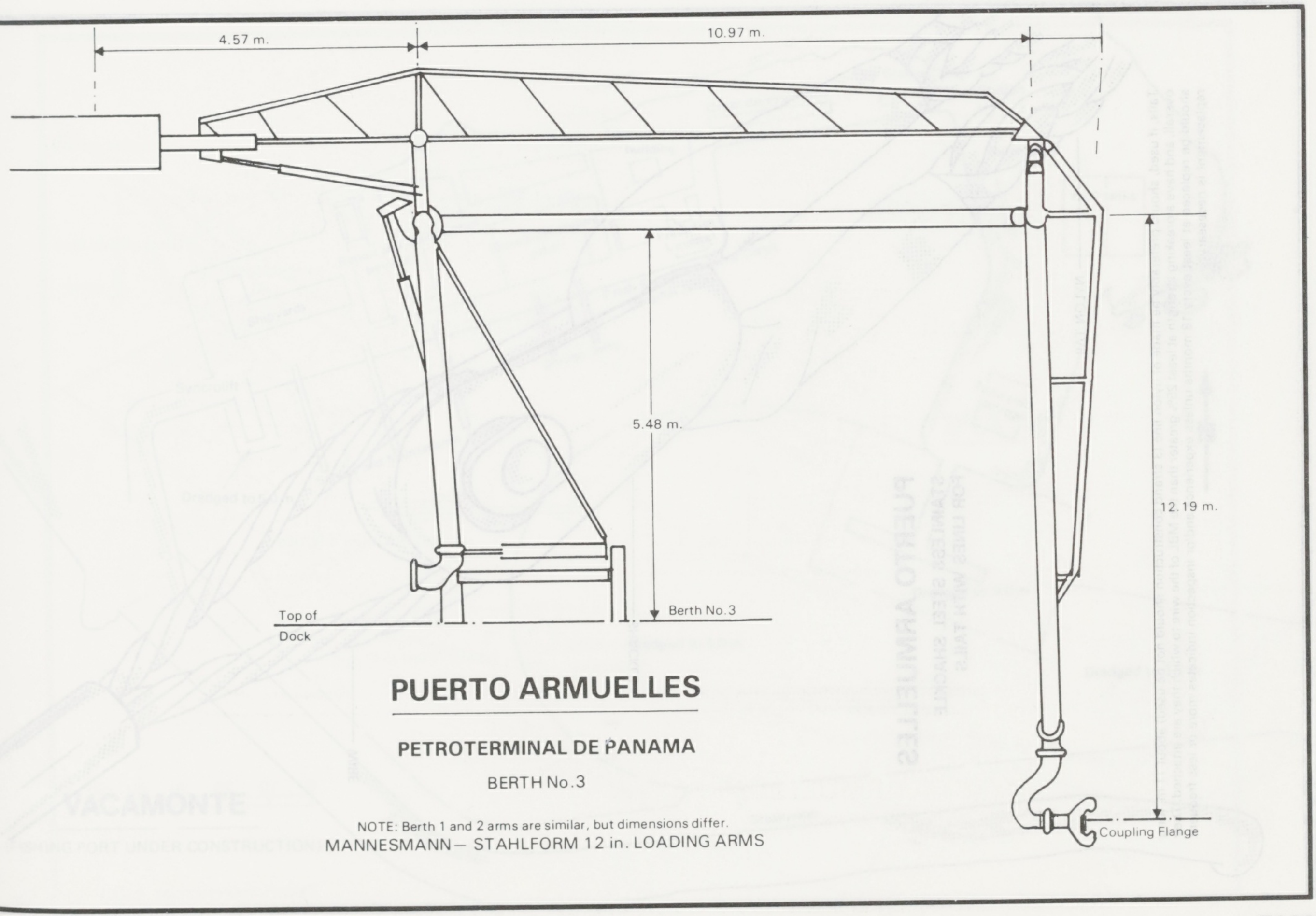
BERTH No.3

RECOMMENDED MOORING LINE ARRANGEMENT

N
67.03 m.
121.88 m.
70.08 m.
(28,000 – 60,000 DWT)
Emergency Tow Wires

△ Double Mooring Hooks

○ Triple Mooring Hooks



4.57 m.
10.97 m.
5.48 m.
12.19 m.
Top of Dock
Berth No.3
Coupling Flange

PUERTO ARMUELLES

PETROTERMINAL DE PANAMA

BERTH No.3

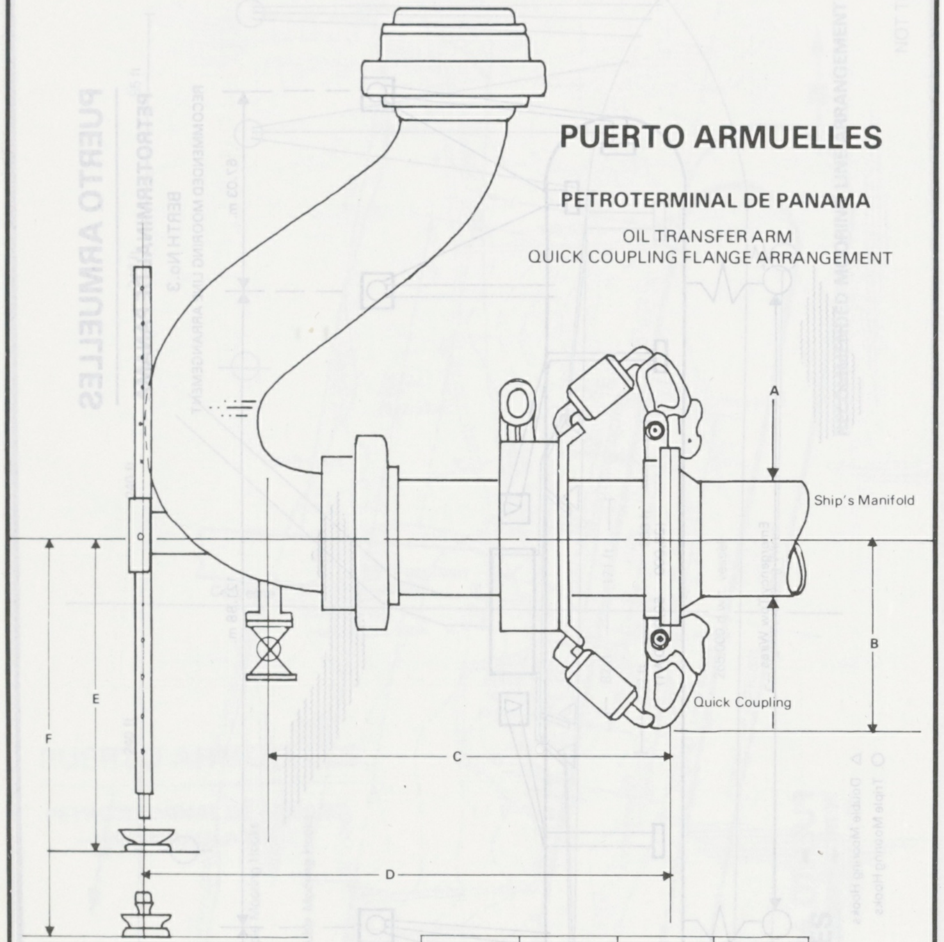
NOTE: Berth 1 and 2 arms are similar, but dimensions differ.

MANNESMANN– STAHLFORM 12 in. LOADING ARMS

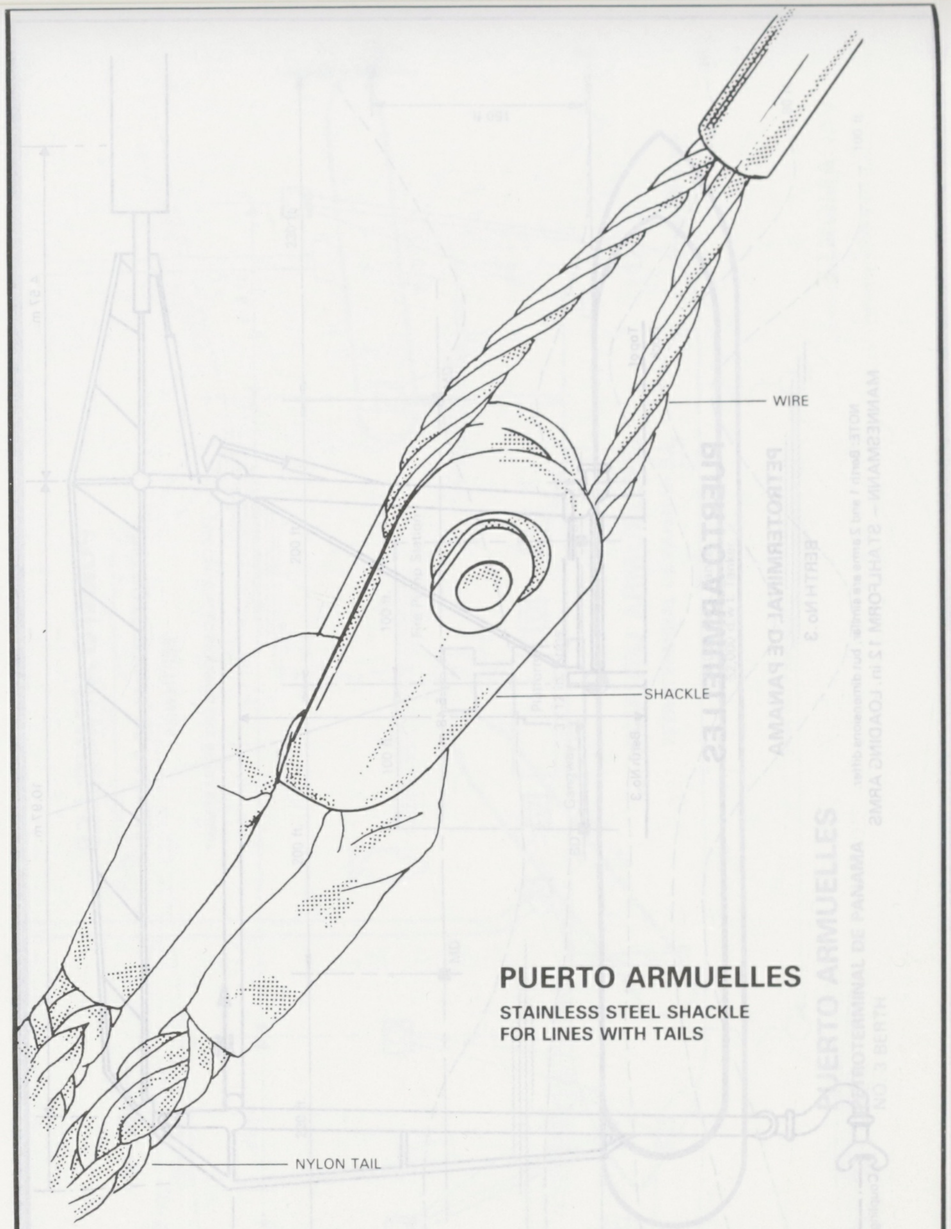
PUERTO ARMUELLES

PETROTERMINAL DE PANAMA

OIL TRANSFER ARM
QUICK COUPLING FLANGE ARRANGEMENT



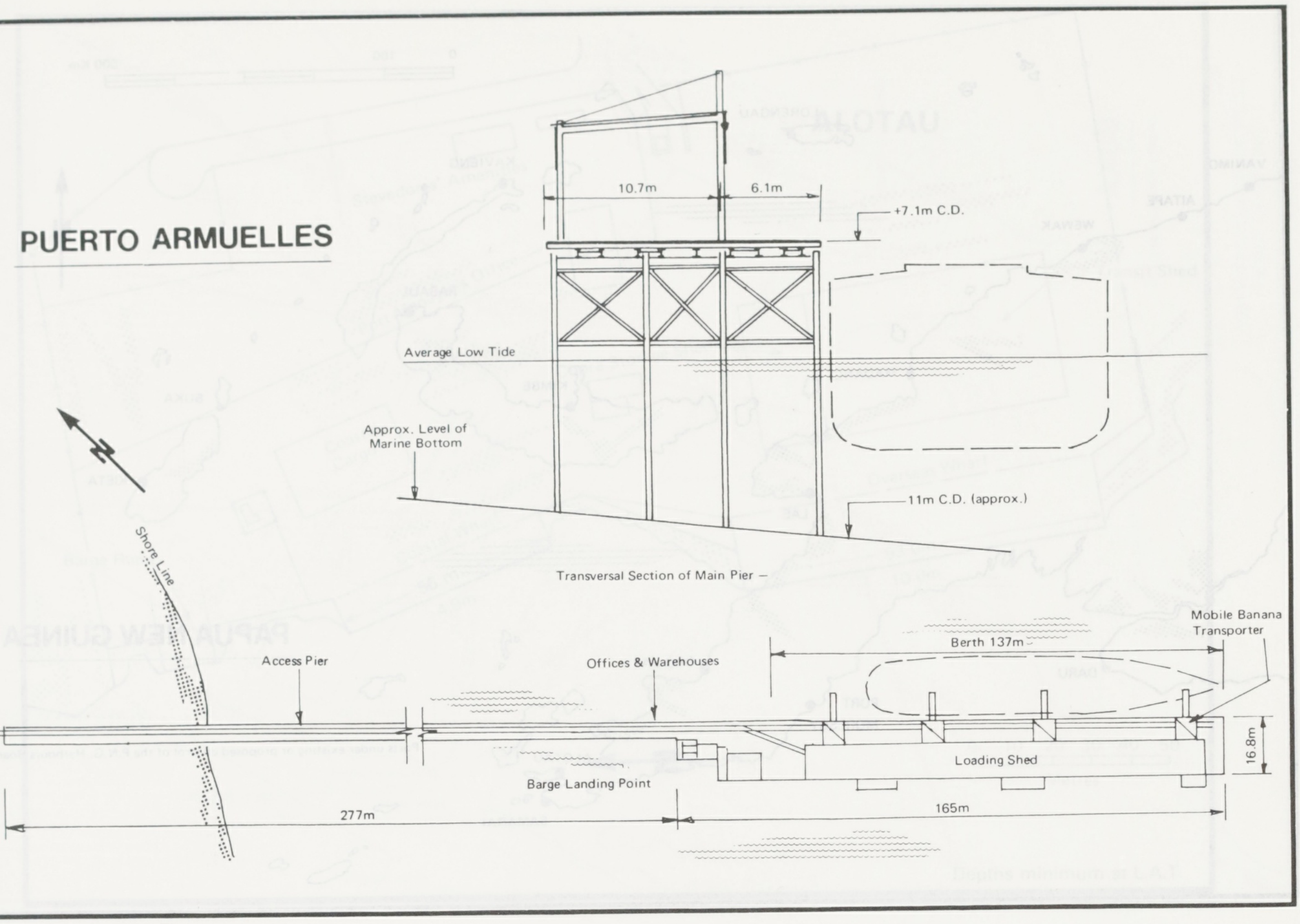
	Berth No. 1	Berth No. 2	Berth No. 3
No. of arms	4	3	3
Size A	(12, 14, 16)	(12, 14, 16)	(8, 10, 12)
B	22 in.	22 in.	21 in.
C	40 in.	40 in.	39 in.
D	60 in.	60 in.	54 in.
E	20 in.	20 in.	26 in.
F	63 in.	63 in.	60 in.

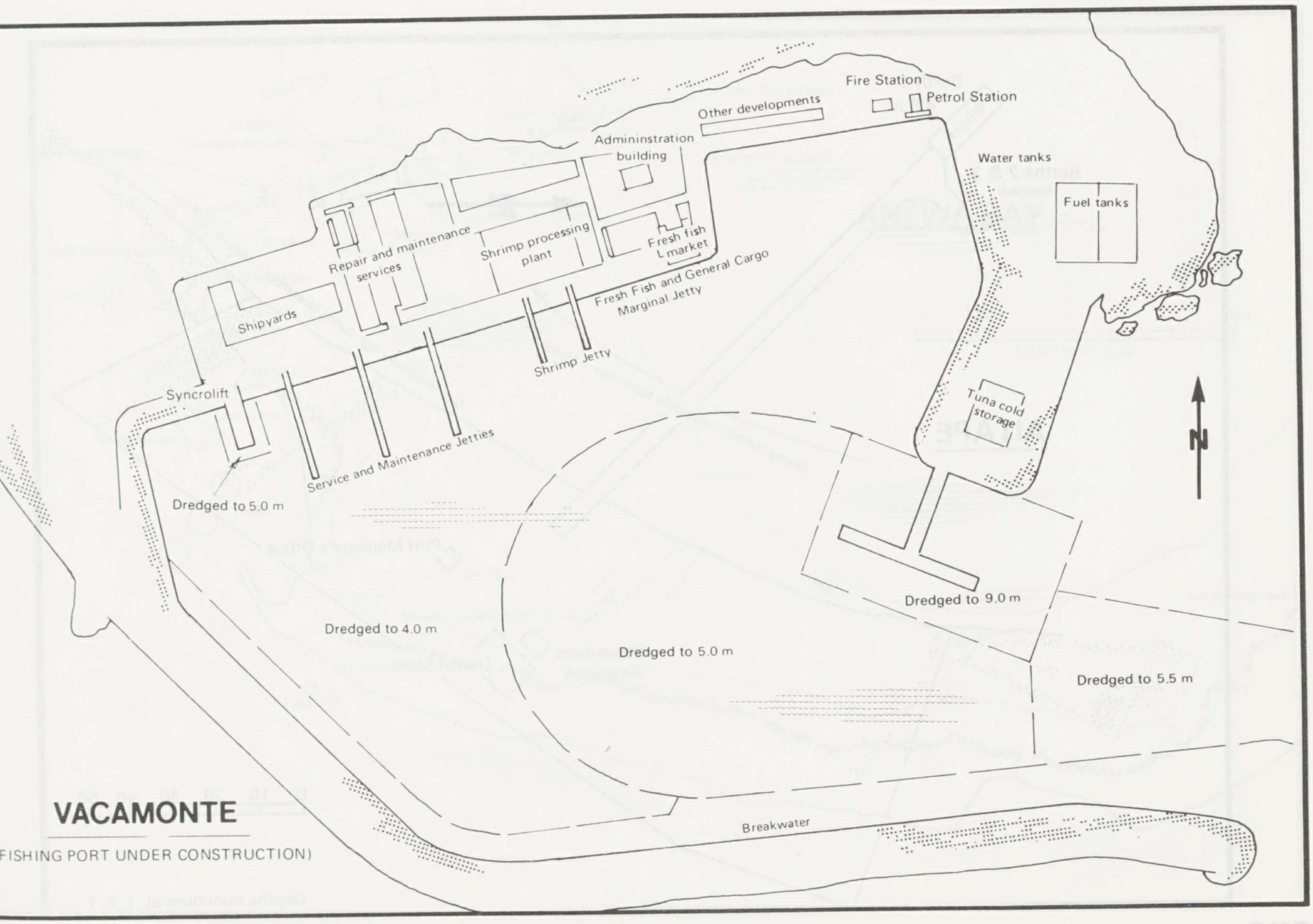


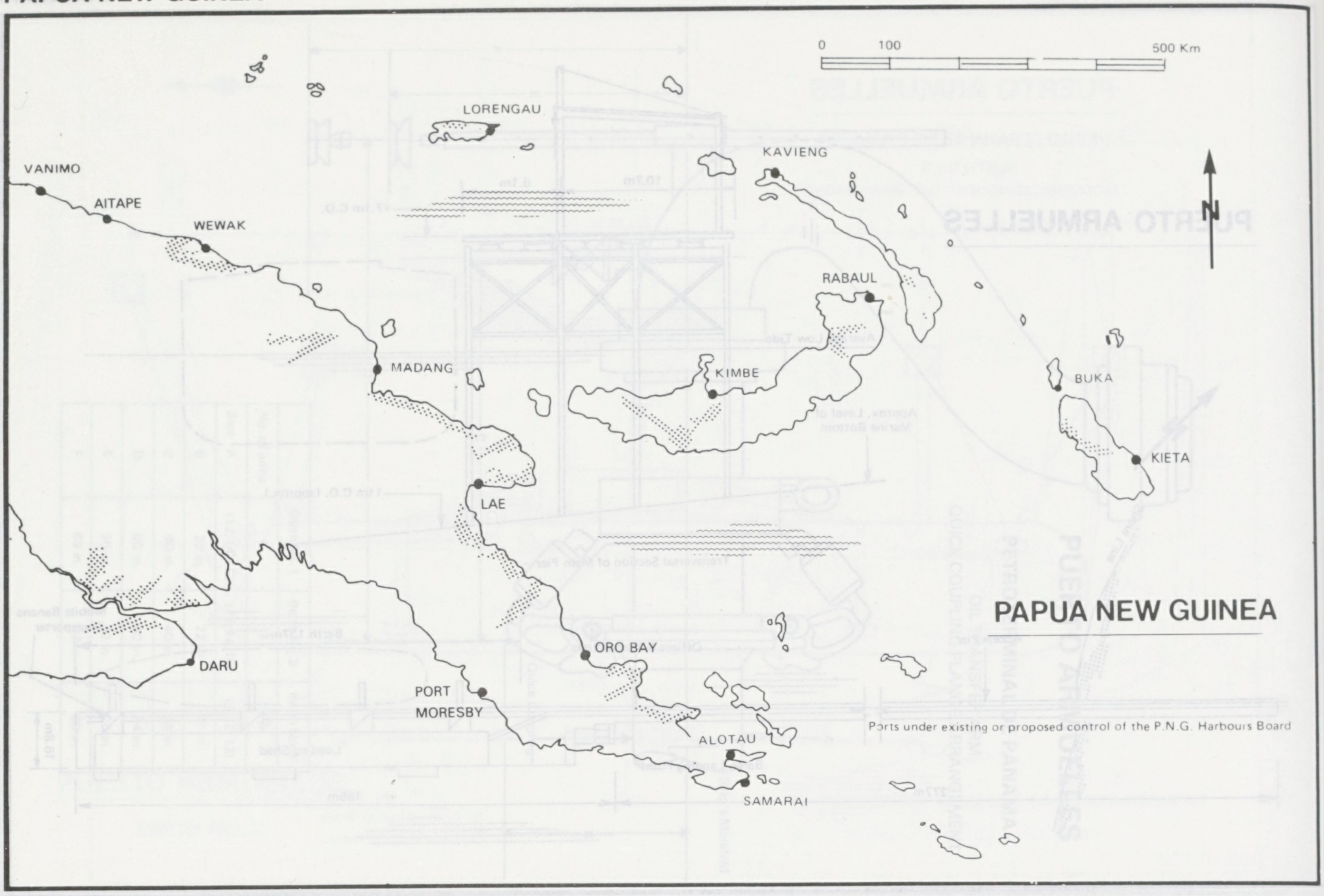
PUERTO ARMUELLES

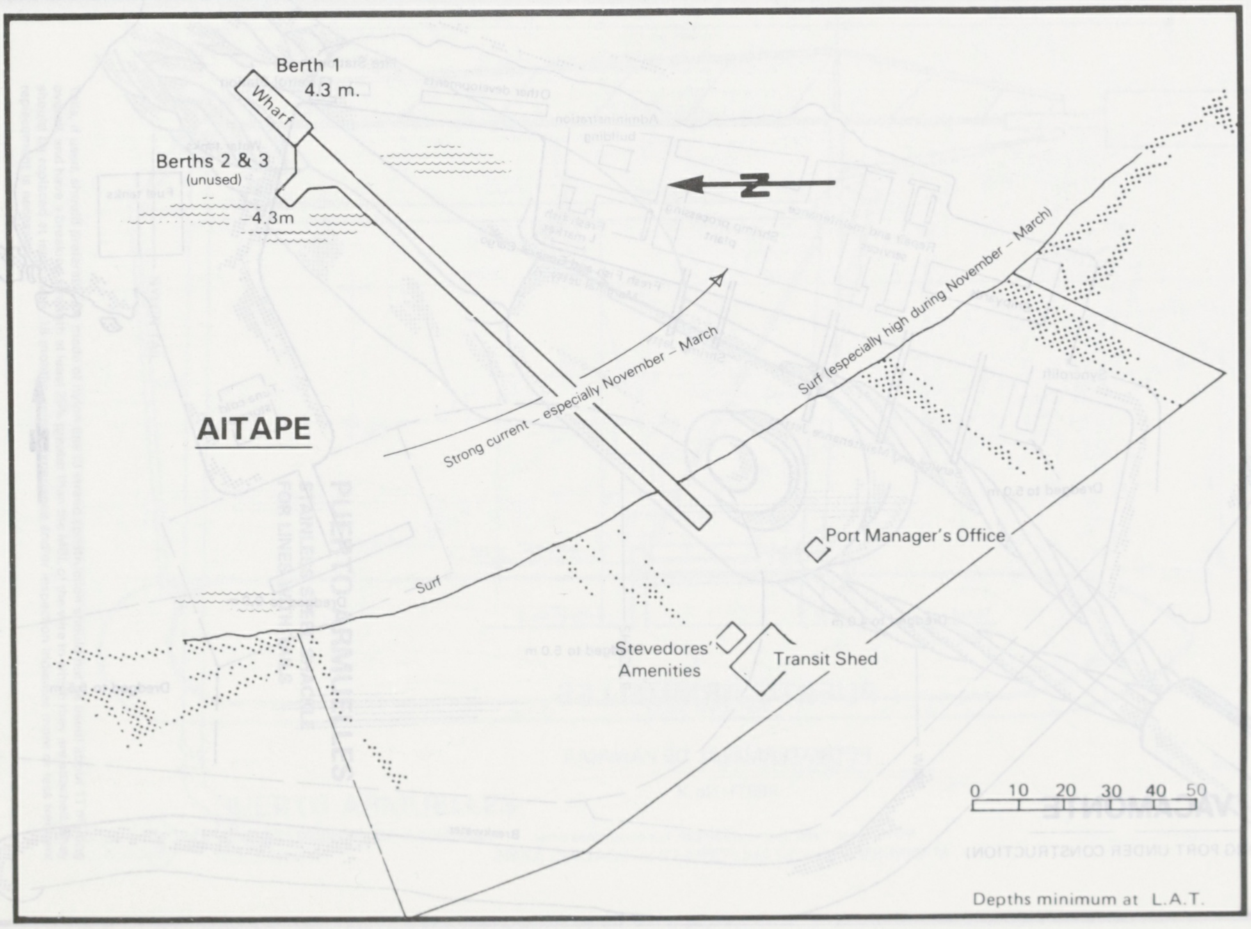
STAINLESS STEEL SHACKLE FOR LINES WITH TAILS

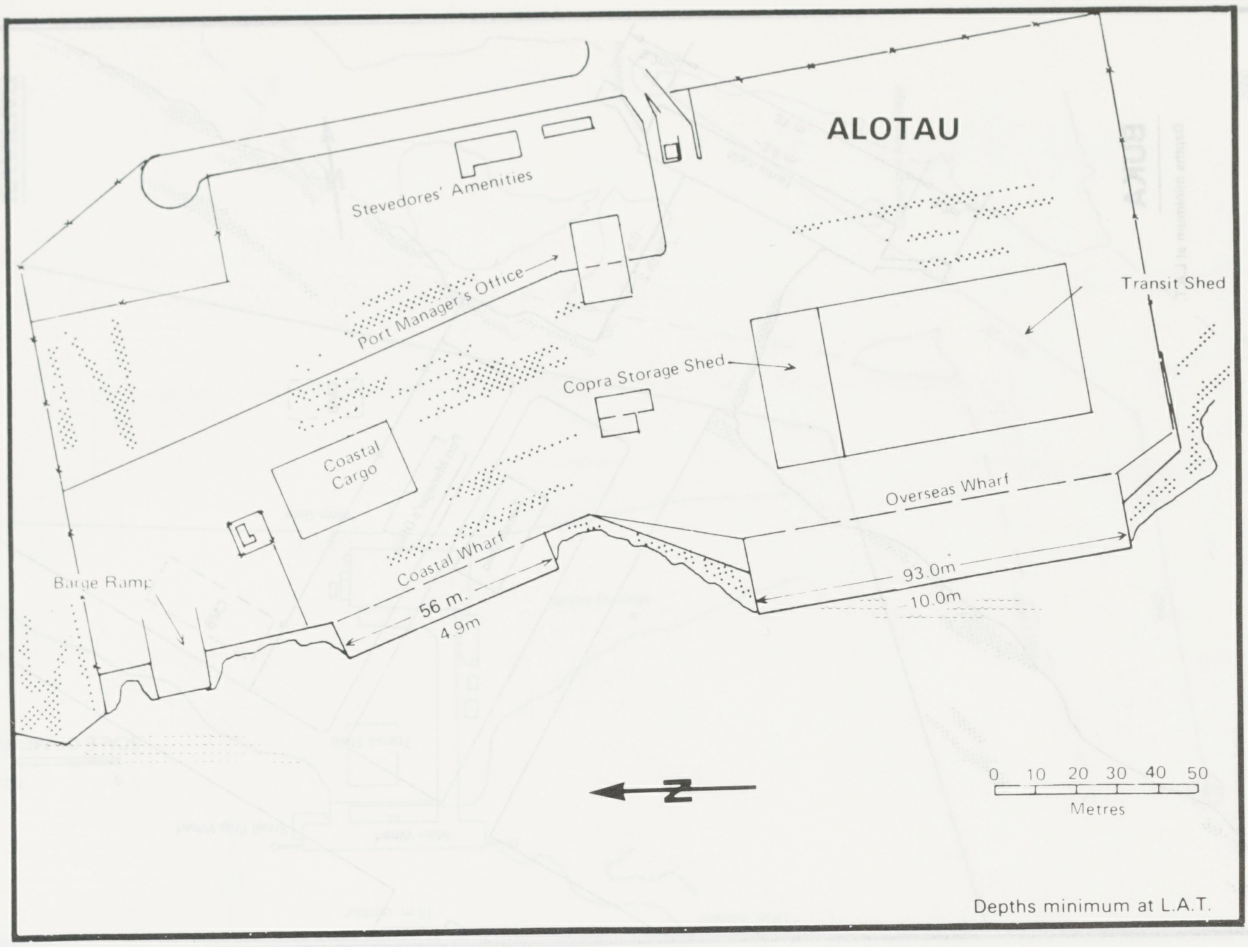
Tails, if used, should preferably be made of nylon line (3 strand construction should not be used) about 11 m. long overall, and have a breaking strength at least 25% greater than the MBL of the wire to which they are attached. They should be replaced at least every 18 months unless experience and/or inspection indicates more or less frequent replacement is necessary.

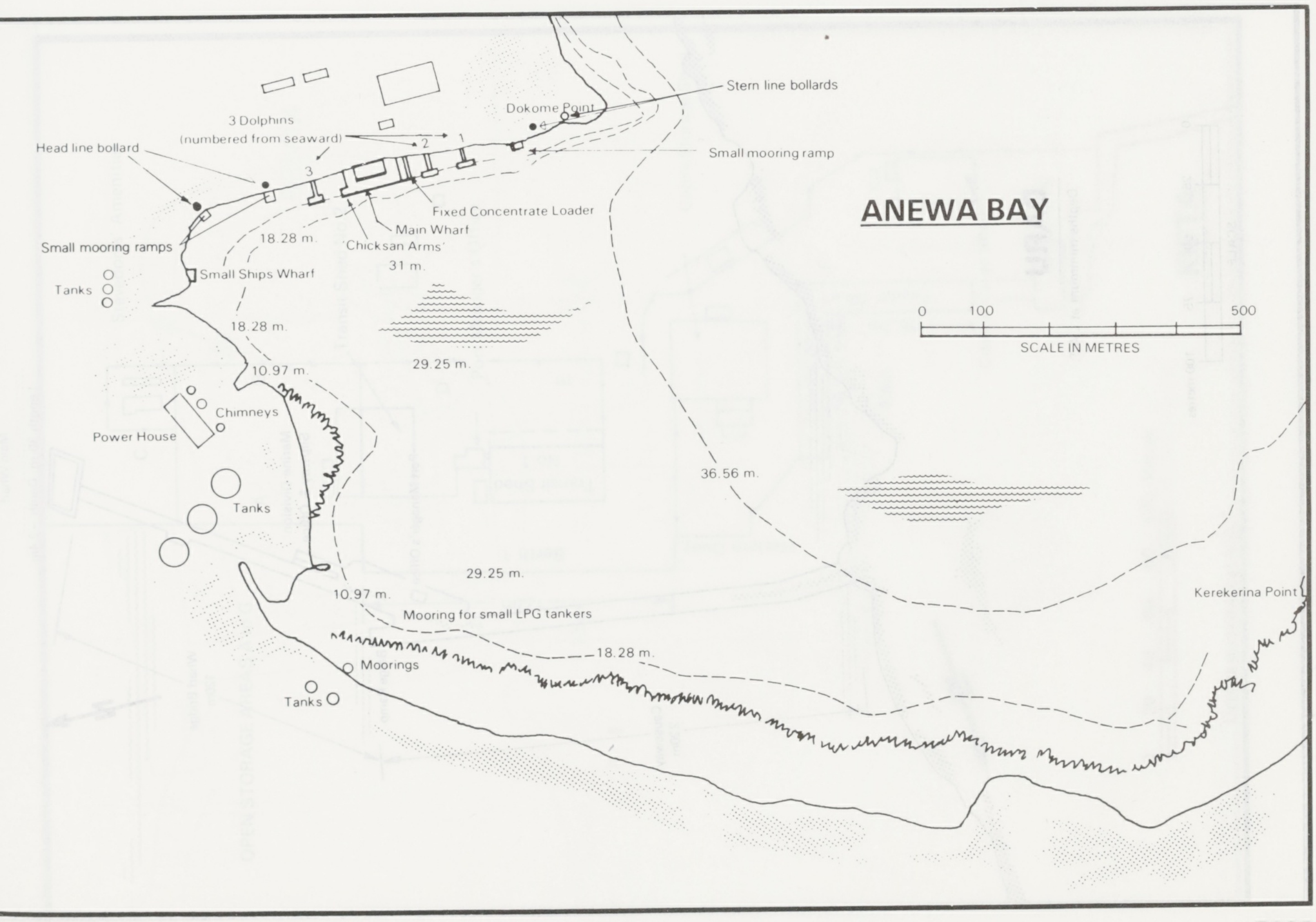

PUERTO ARMUELLES
10.7m
6.1m
+7.1m C.D.
Average Low Tide
Approx. Level of Marine Bottom
11m C.D. (approx.)
Transversal Section of Main Pier
Shore Line
Access Pier
Offices & Warehouses
Berth 137m
Mobile Banana Transporter
Loading Shed
16.8m
Barge Landing Point
277m
165m

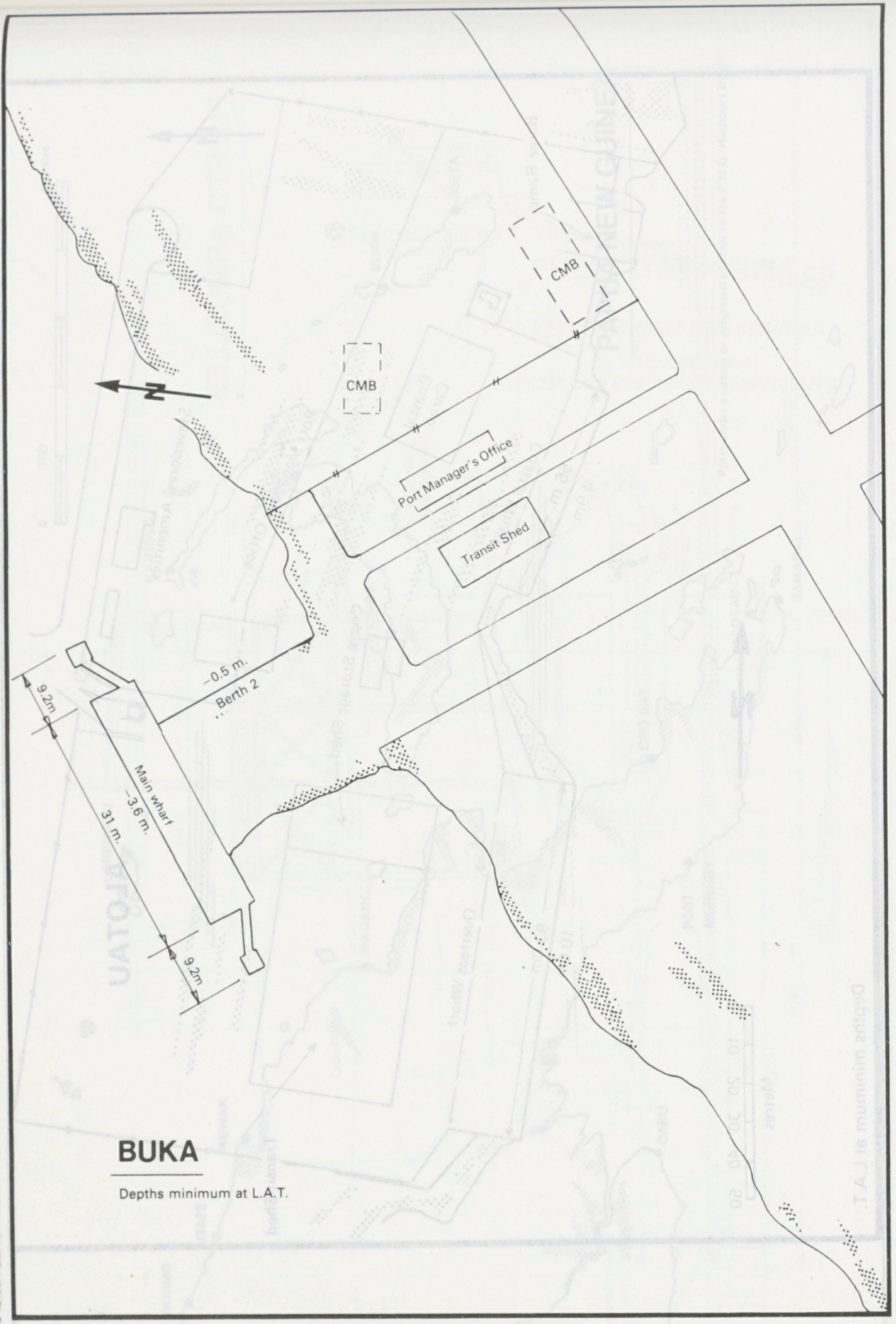

Fire Station
Petrol Station
Other developments
Admininstration building
Water tanks
Fuel tanks
Repair and maintenance services
Shrimp processing plant
Fresh fish market
Fresh Fish and General Cargo Marginal Jetty
Shipyards
Shrimp Jetty
Syncrolift
Tuna cold storage
Service and Maintenance Jetties
Dredged to 5.0 m
Dredged to 9.0 m
Dredged to 4.0 m
Dredged to 5.0 m
Dredged to 5.5 m
N
Breakwater
VACAMONTE
(FISHING PORT UNDER CONSTRUCTION)


0
100
500 Km
N
LORENGAU
KAVIENG
VANIMO
AITAPE
WEWAK
RABAUL
MADANG
KIMBE
BUKA
KIETA
LAE
PAPUA NEW GUINEA
ORO BAY
DARU
PORT
MORESBY
ALOTAU
SAMARAI
Ports under existing or proposed control of the P.N.G. Harbours Board


Berth 1
4.3 m.
Wharf
Berths 2 & 3
(unused)
-4.3m
N
Strong current – especially November – March
Surf (especially high during November – March)
AITAPE
Port Manager's Office
Surf
Stevedores'
Amenities
Transit Shed
0 10 20 30 40 50
Depths minimum at L.A.T.

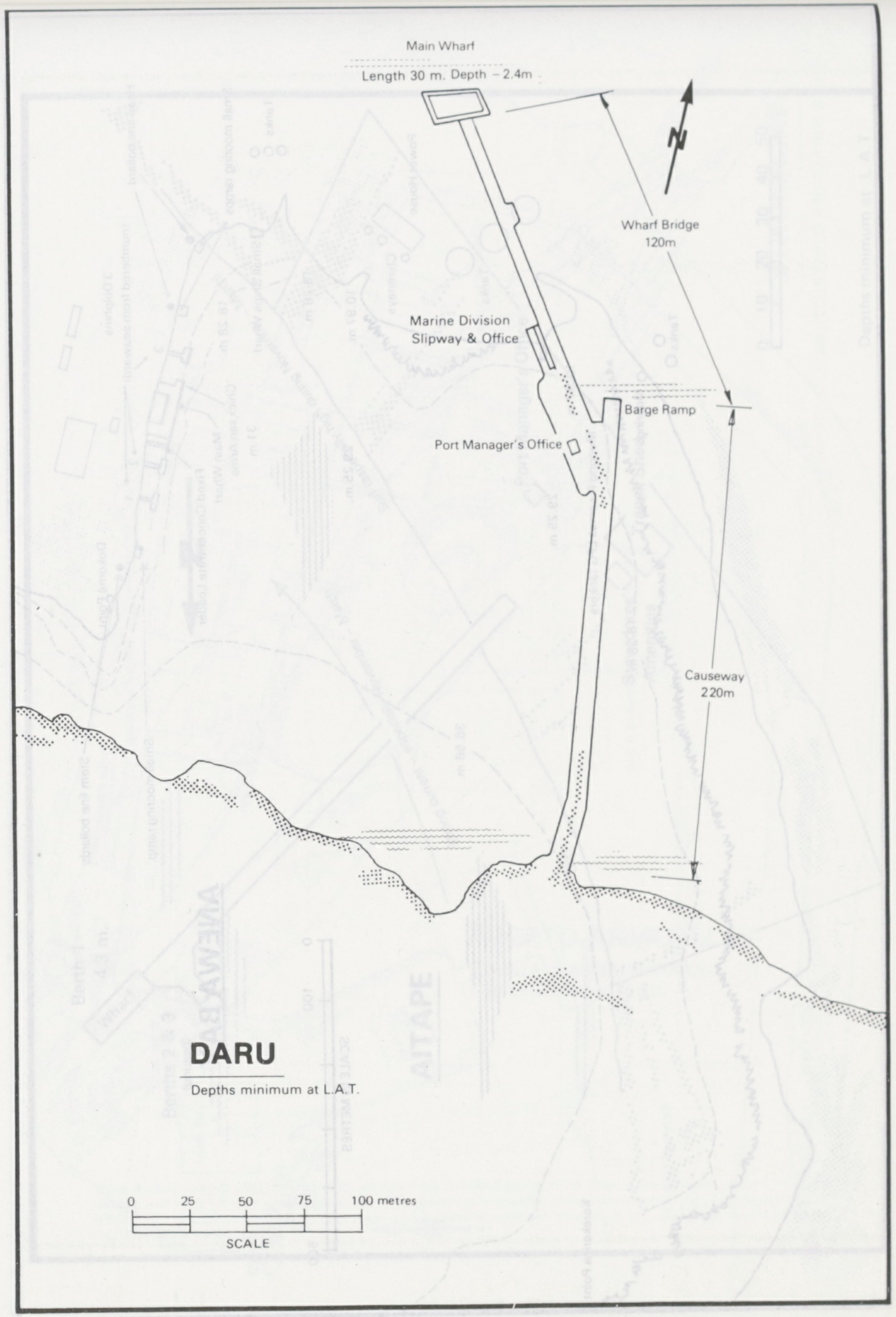

ALOTAU
Stevedores' Amenities
Port Manager's Office
Transit Shed
Copra Storage Shed
Coastal Cargo
Overseas Wharf
Coastal Wharf
Barge Ramp
56 m.
4.9m
93.0m
10.0m
0 10 20 30 40 50
Metres
N
Depths minimum at L.A.T.


ANEWA BAY
Stern line bollards
Dokome Point
Small mooring ramp
3 Dolphins
(numbered from seaward)
1
2
3
Head line bollard
Fixed Concentrate Loader
Main Wharf
'Chicksan Arms'
Small mooring ramps
Small Ships Wharf
Tanks
18.28 m.
31 m.
18.28 m.
29.25 m.
10.97 m.
Chimneys
Power House
Tanks
36.56 m.
29.25 m.
10.97 m.
Mooring for small LPG tankers
18.28 m.
Moorings
Tanks
Kerekerina Point
0 100 500
SCALE IN METRES


N
CMB
CMB
Port Manager's Office
Transit Shed
-0.5 m.
Berth 2
9.2m
Main wharf
-3.6 m.
31 m.
9.2m

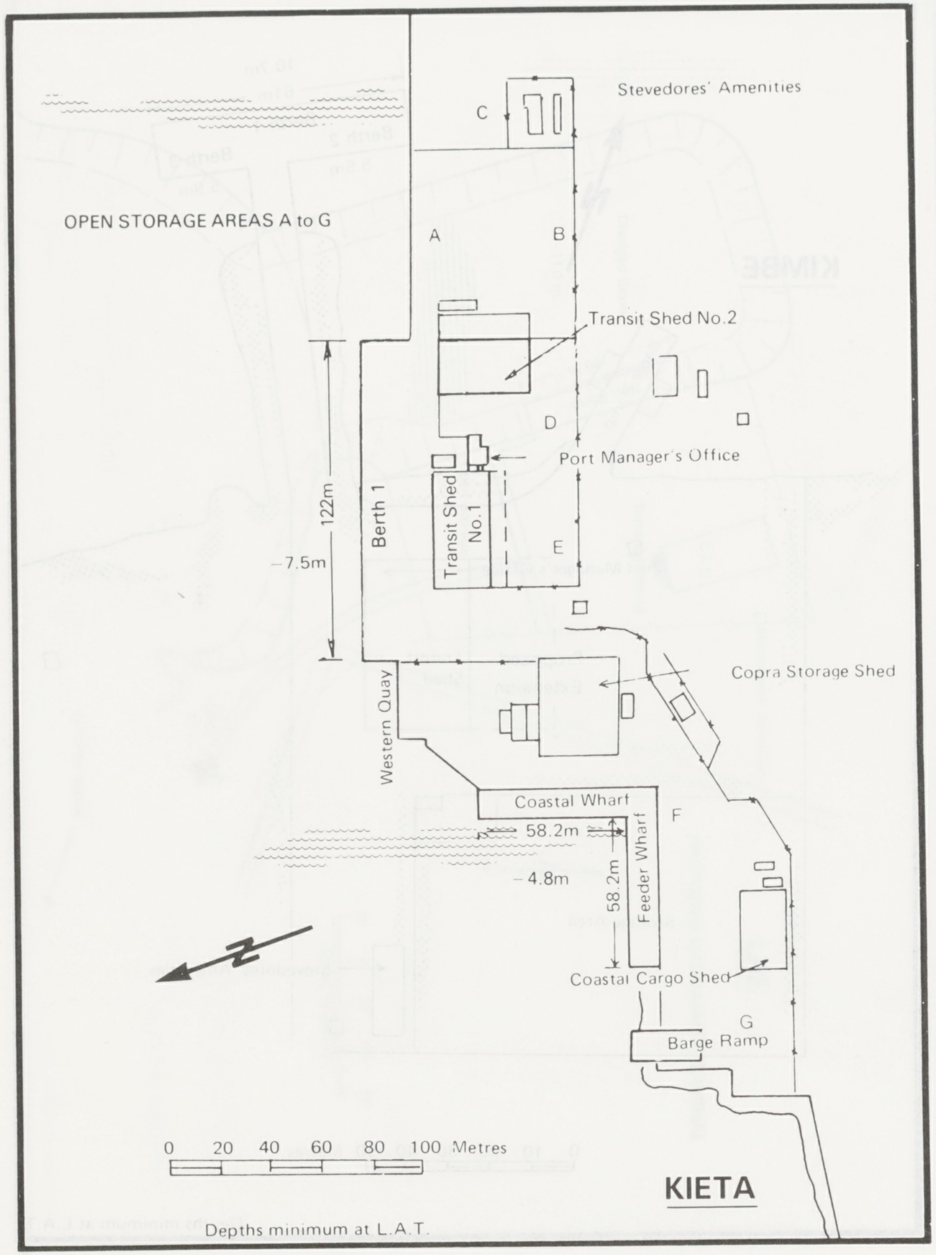
BUKA

Depths minimum at L.A.T.

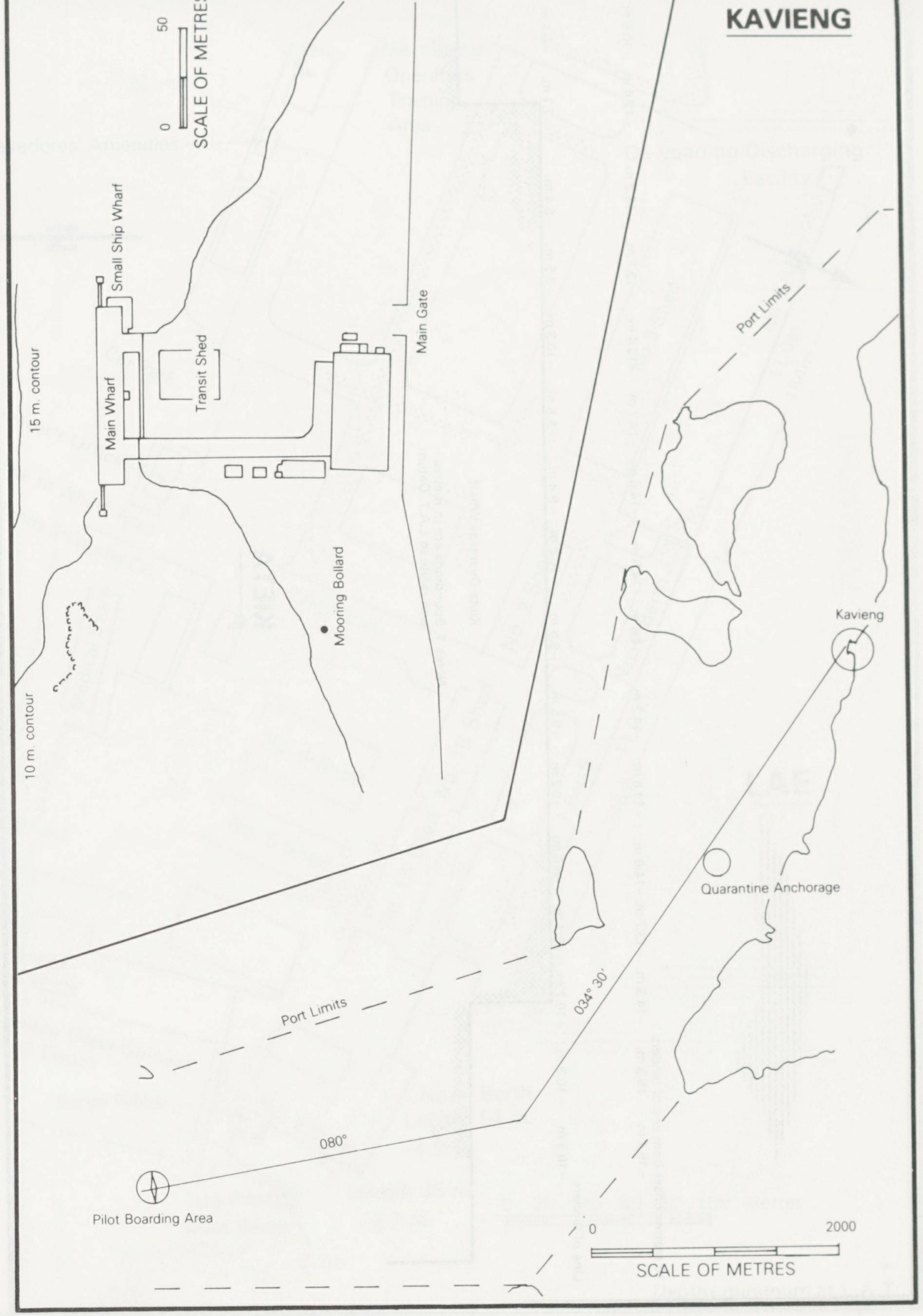

Main Wharf
Length 30 m. Depth - 2.4m
N
Wharf Bridge
120m
Marine Division
Slipway & Office
Barge Ramp
Port Manager's Office
Causeway
220m
0
25
50
75
100 metres
SCALE

DARU

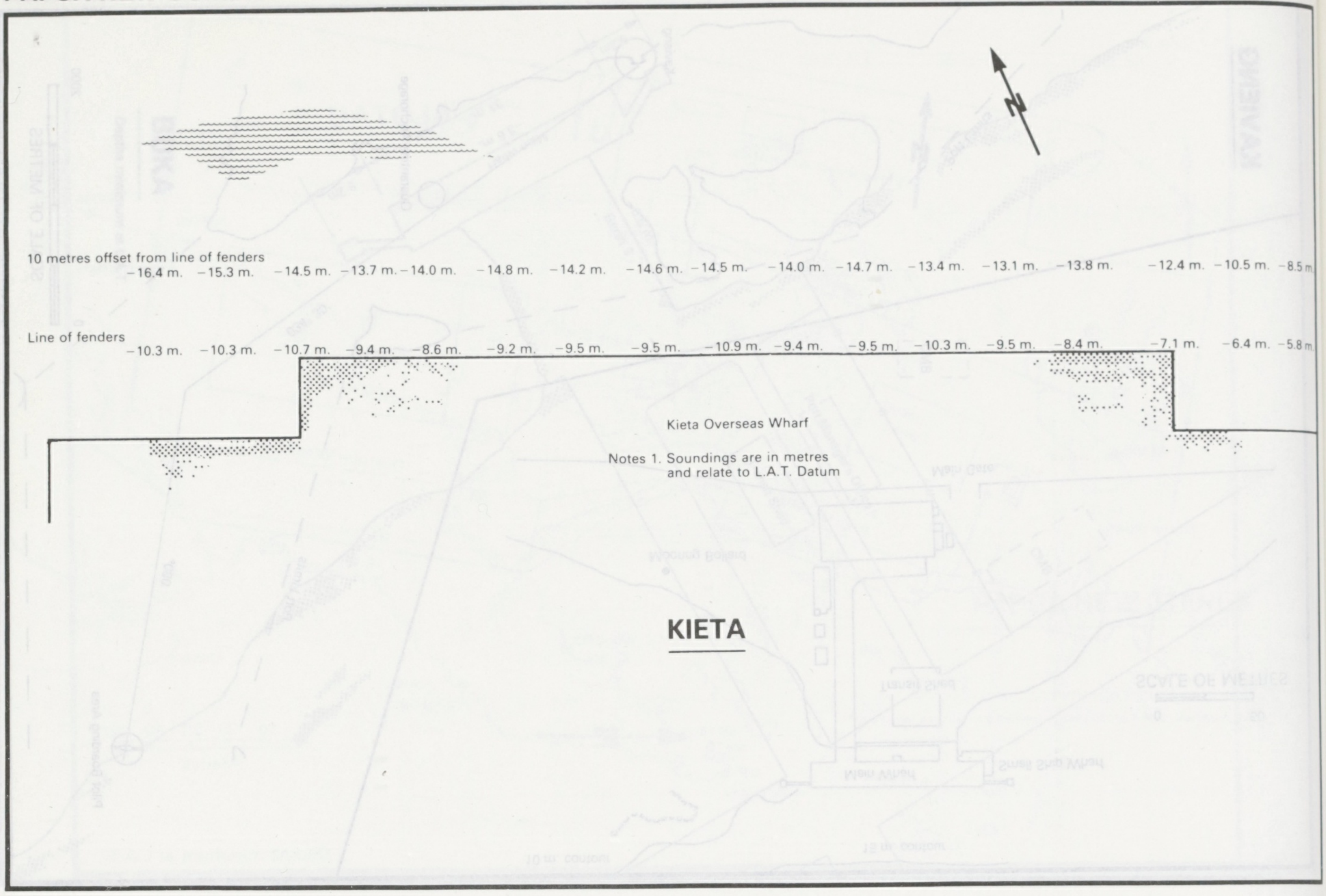
Depths minimum at L.A.T.

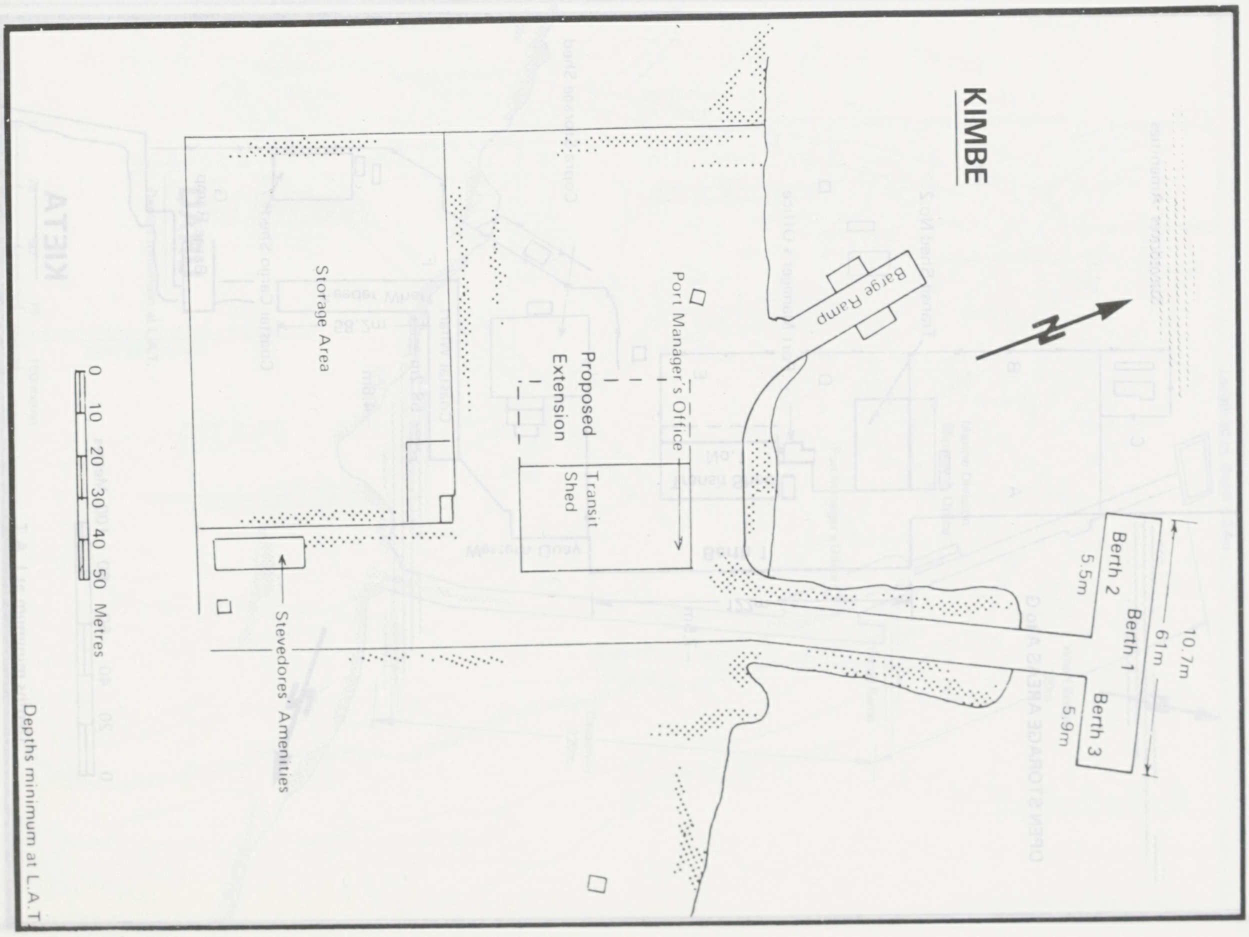


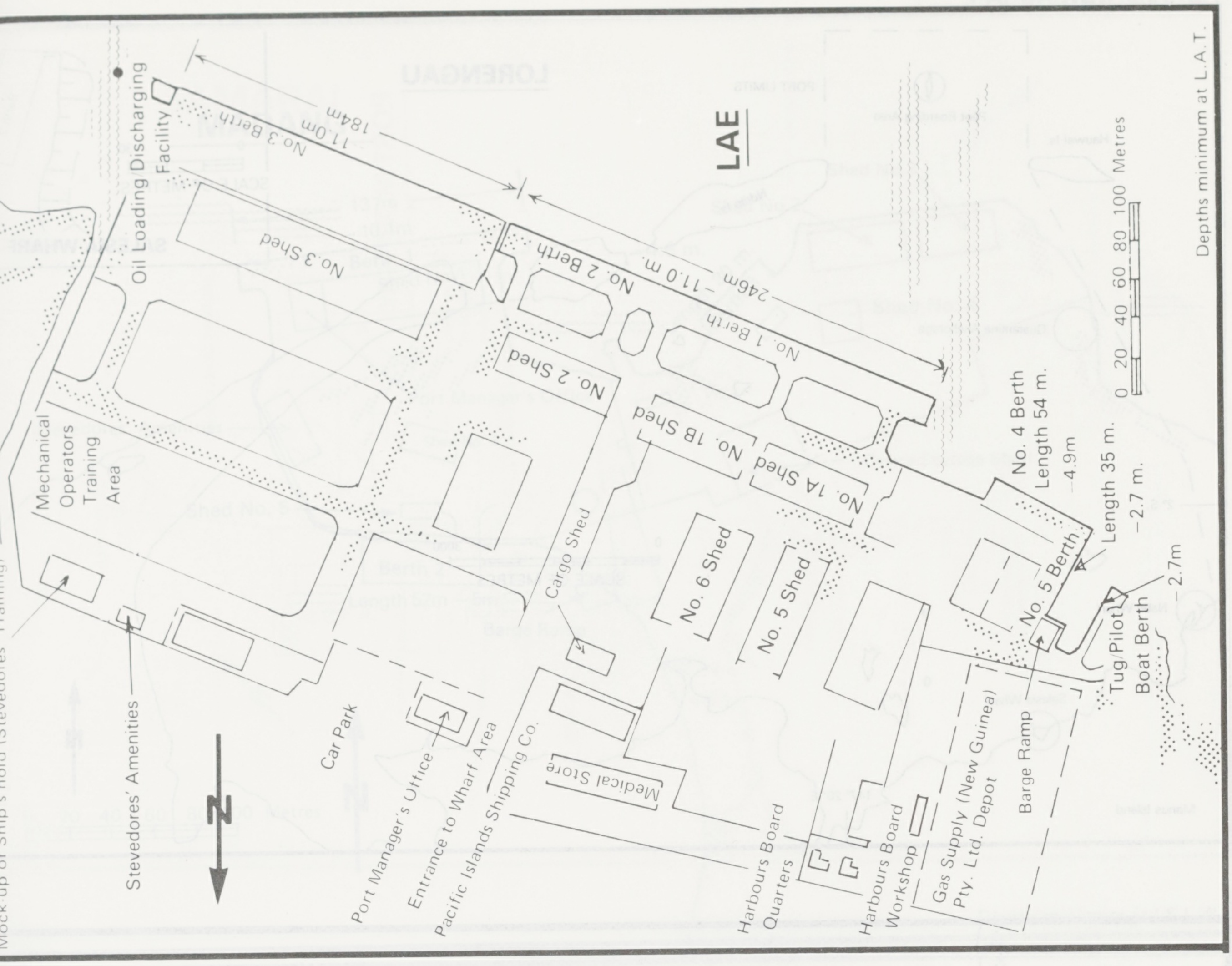
KIETA
OPEN STORAGE AREAS A to G
Stevedores' Amenities
C
A
B
Transit Shed No.2
D
Port Manager's Office
E
Berth 1
122m
–7.5m
Transit Shed No.1
Copra Storage Shed
Western Quay
Coastal Wharf
F
58.2m
– 4.8m
58.2m
Feeder Wharf
Coastal Cargo Shed
G
Barge Ramp
0 20 40 60 80 100 Metres
Depths minimum at L.A.T.

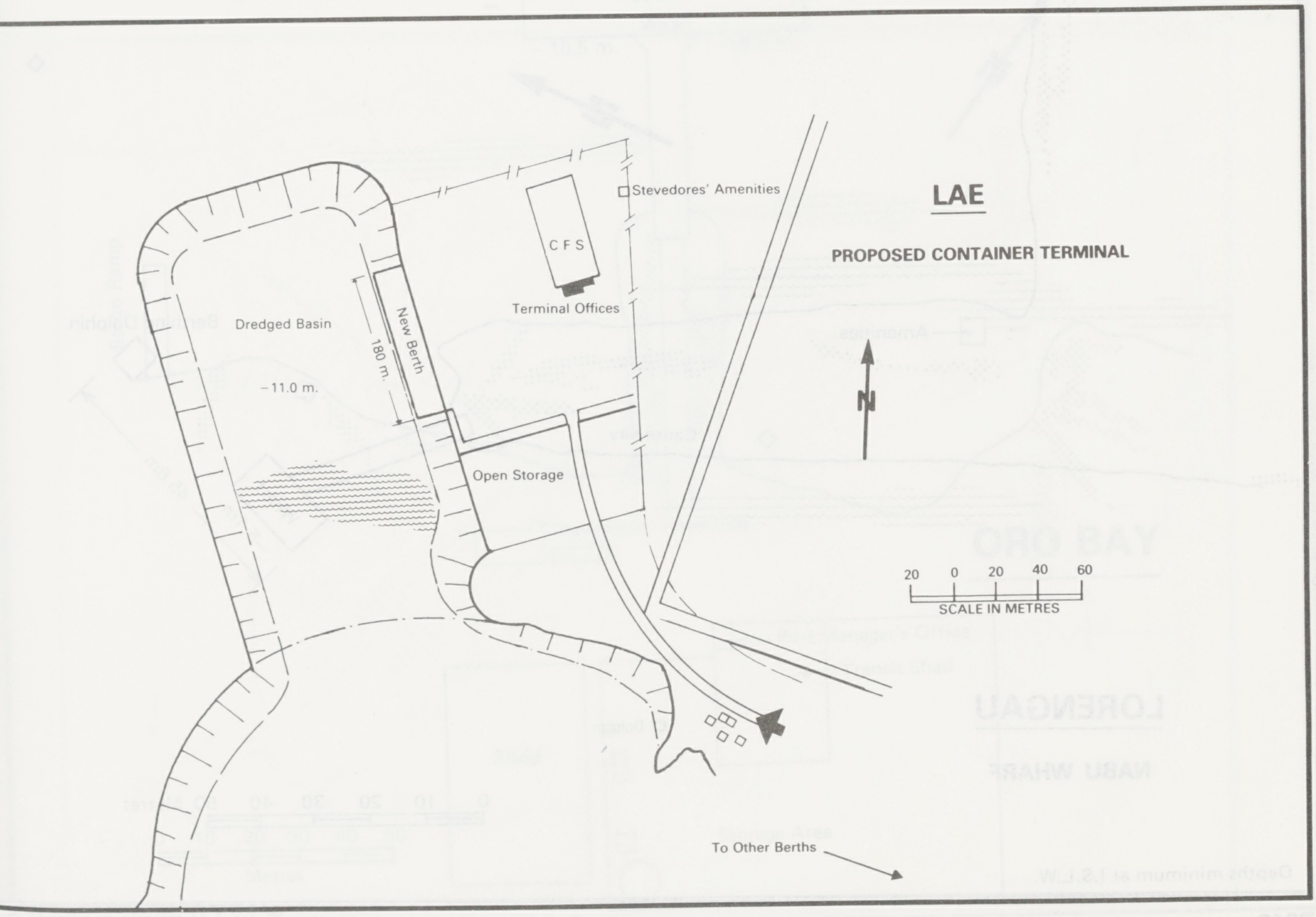


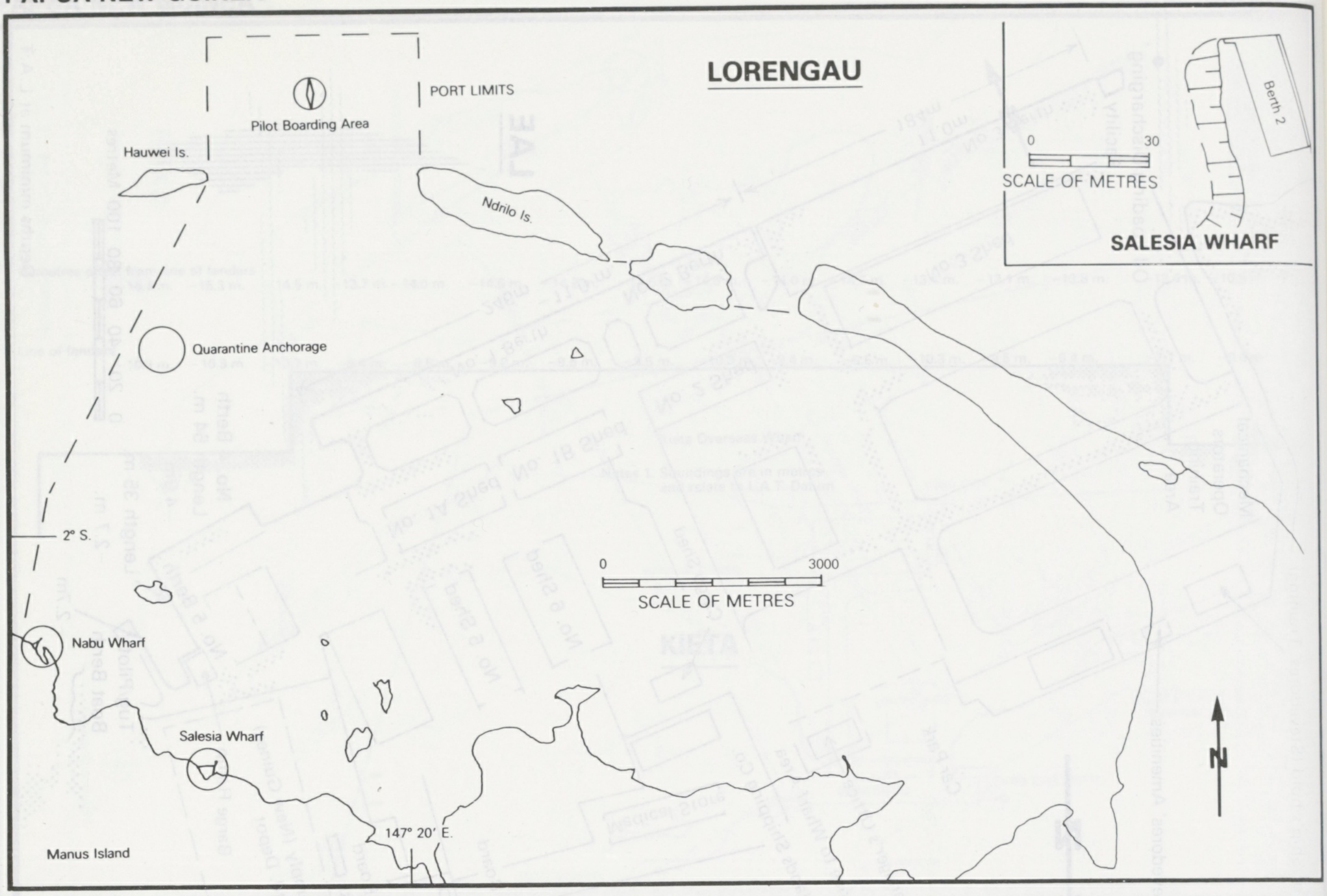
KAVIENG
0 50 SCALE OF METRES
Small Ship Wharf
Main Wharf
Transit Shed
Main Gate
15 m. contour
10 m. contour
Mooring Bollard
Port Limits
Port Limits
Kavieng
Quarantine Anchorage
034° 30'
080°
Pilot Boarding Area
0 2000
SCALE OF METRES


10 metres offset from line of fenders
−16.4 m. −15.3 m. −14.5 m. −13.7 m. −14.0 m. −14.8 m. −14.2 m. −14.6 m. −14.5 m. −14.0 m. −14.7 m. −13.4 m. −13.1 m. −13.8 m. −12.4 m. −10.5 m. −8.5 m.
Line of fenders
−10.3 m. −10.3 m. −10.7 m. −9.4 m. −8.6 m. −9.2 m. −9.5 m. −9.5 m. −10.9 m. −9.4 m. −9.5 m. −10.3 m. −9.5 m. −8.4 m. −7.1 m. −6.4 m. −5.8 m.
Kieta Overseas Wharf
Notes 1. Soundings are in metres and relate to L.A.T. Datum
N
KIETA


KIMBE
N
Barge Ramp
Port Manager's Office
Proposed Extension
Transit Shed
Storage Area
Stevedores' Amenities
Berth 2
5.5m
Berth 1
Berth 3
5.9m
10.7m
61m
0 10 20 30 40 50 Metres
Depths minimum at L.A.T.


LAE
Depths minimum at L.A.T.
0 20 40 60 80 100 Metres
No. 3 Berth
11.0m
184m
Oil Loading Discharging Facility
No. 2 Berth
246m –11.0 m.
No. 1 Berth
No. 3 Shed
No. 2 Shed
No. 1B Shed
No. 1A Shed
No. 4 Berth
Length 54 m.
–4.9m
No. 5 Berth
Length 35 m.
–2.7 m.
Tug/Pilot Boat Berth
–2.7m
Mechanical Operators Training Area
Cargo Shed
No. 6 Shed
No. 5 Shed
Barge Ramp
Gas Supply (New Guinea) Pty. Ltd. Depot
Harbours Board Workshop
Harbours Board Quarters
Medical Store
Pacific Islands Shipping Co.
Entrance to Wharf Area
Port Manager's Office
Car Park
Stevedores' Amenities
N
Mock up of Ship's hold (Stevedores' Training)

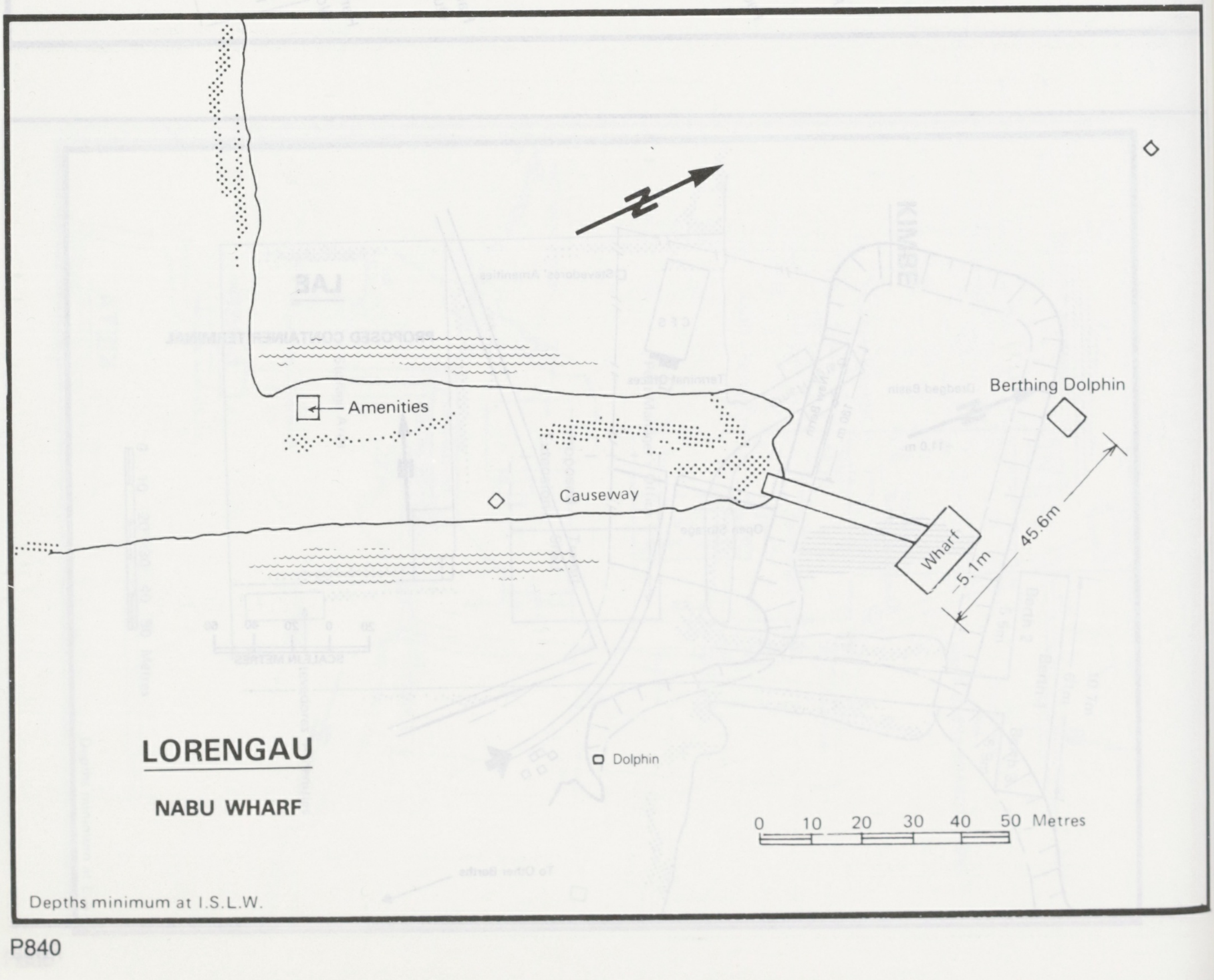

LAE
PROPOSED CONTAINER TERMINAL
Stevedores' Amenities
C F S
Terminal Offices
Dredged Basin
–11.0 m.
New Berth
180 m.
Open Storage
N
20 0 20 40 60
SCALE IN METRES
To Other Berths



LORENGAU

SALESIA WHARF

PORT LIMITS
Pilot Boarding Area
Hauwei Is.
Ndrilo Is.
Quarantine Anchorage
2° S.
Nabu Wharf
Salesia Wharf
147° 20' E.
Manus Island
0
3000
SCALE OF METRES
N
Berth 2
0
30
SCALE OF METRES



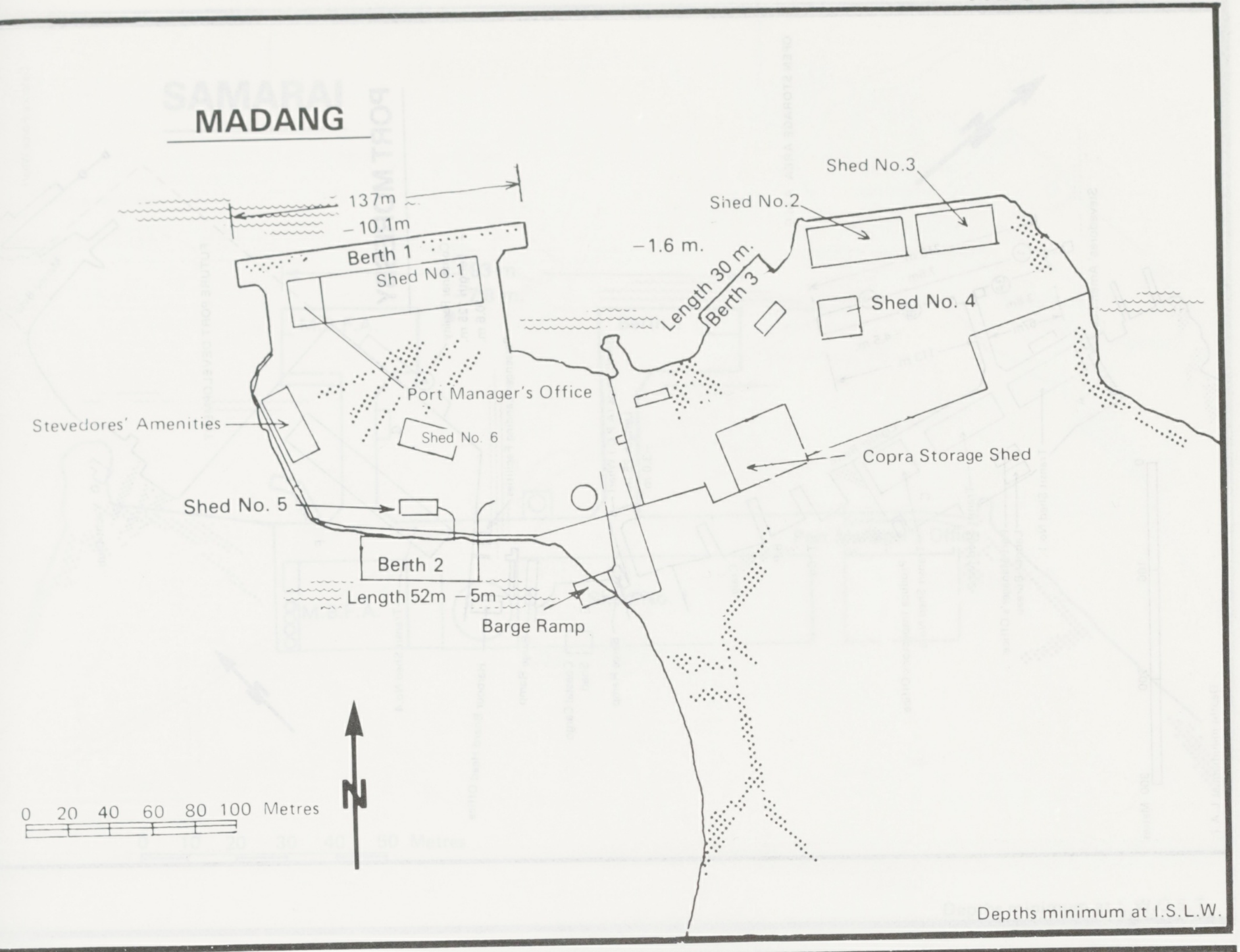
LORENGAU

NABU WHARF

Depths minimum at I.S.L.W.

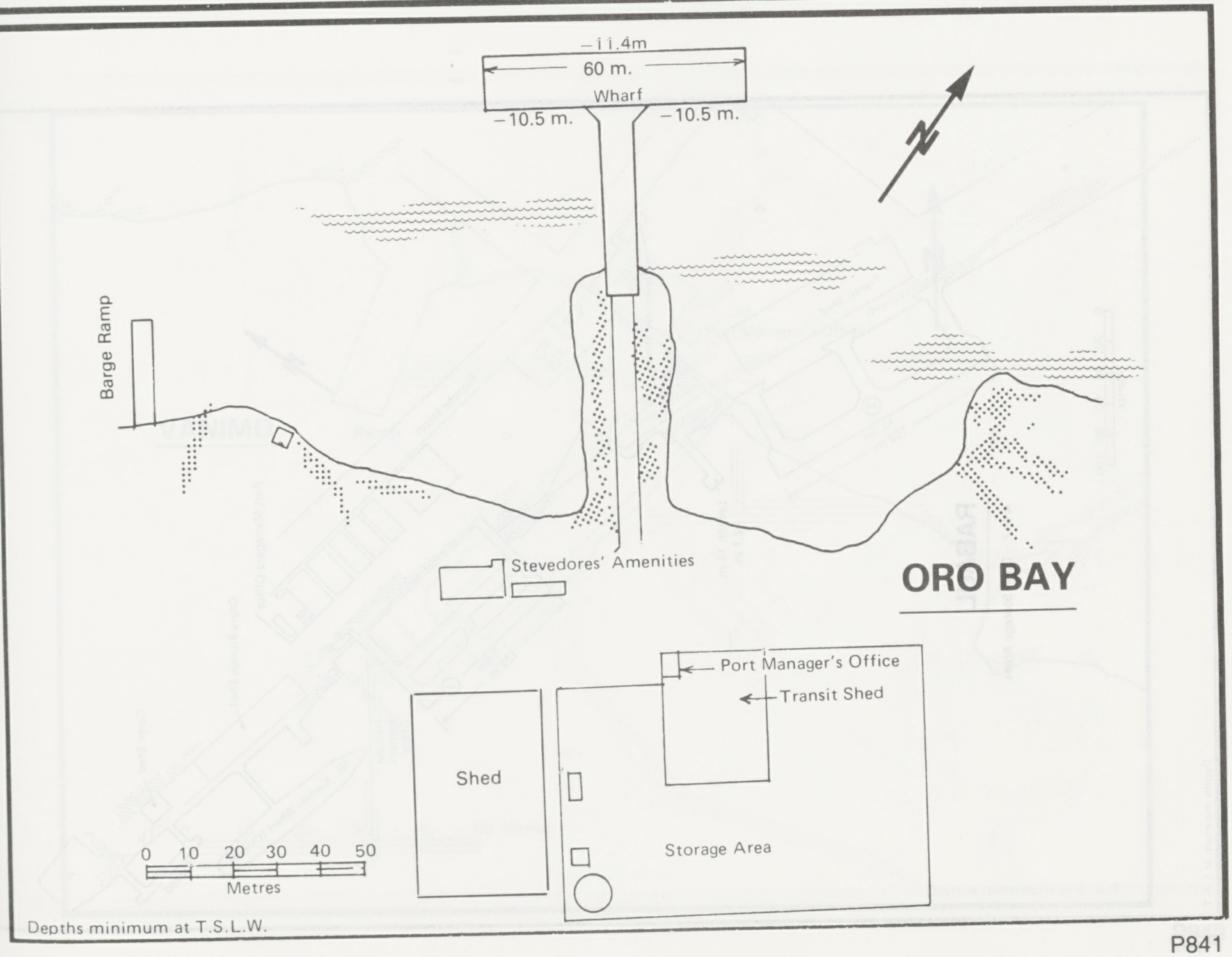
N
Amenities
Berthing Dolphin
Causeway
Wharf
5.1m
45.6m
Dolphin
0
10
20
30
40
50
Metres

MADANG

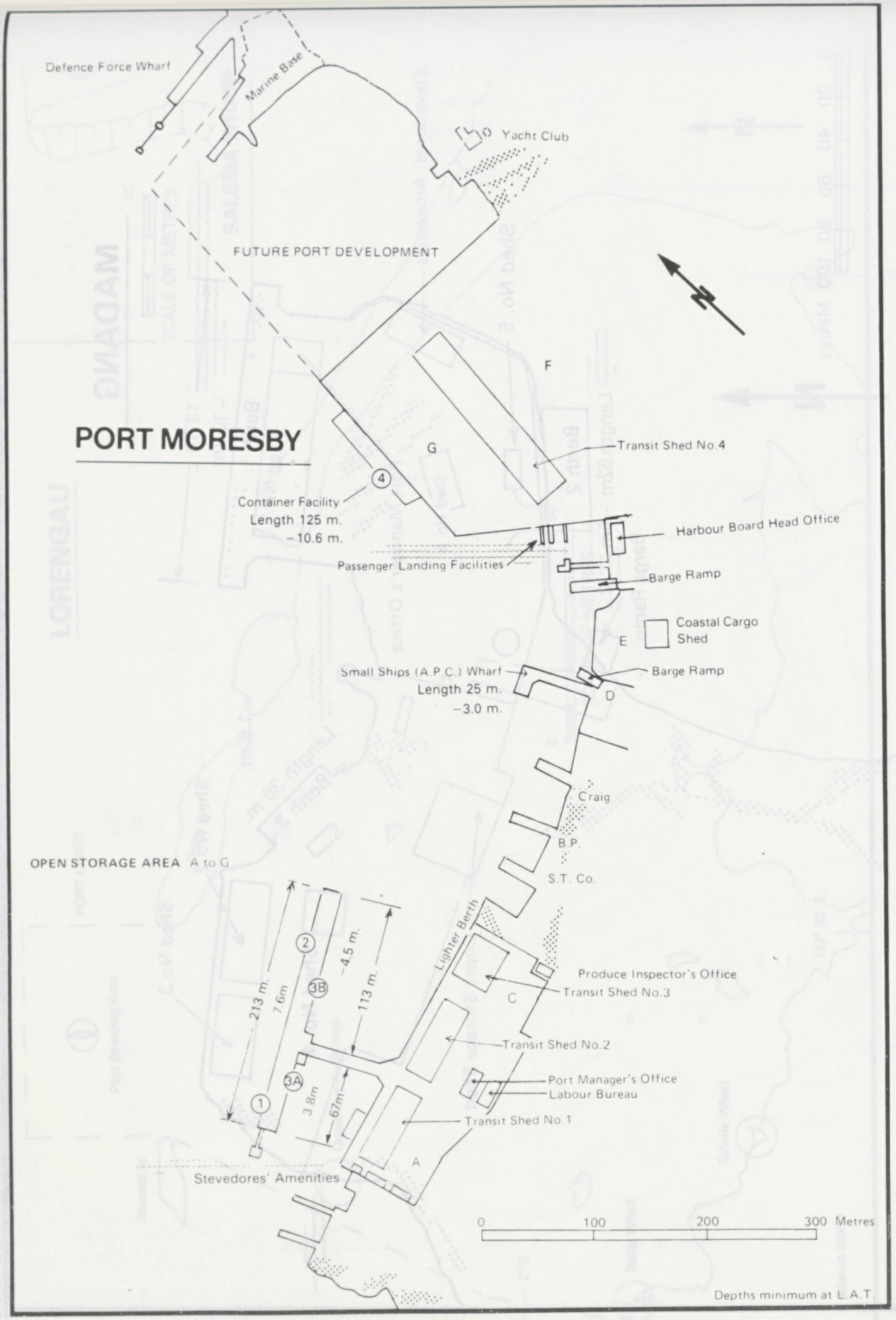

137m
–10.1m
Berth 1
Shed No.1
–1.6 m.
Length 30 m.
Berth 3
Shed No.2
Shed No.3
Shed No. 4
Port Manager's Office
Stevedores' Amenities
Shed No. 6
Copra Storage Shed
Shed No. 5
Berth 2
Length 52m –5m
Barge Ramp
N
0 20 40 60 80 100 Metres

Depths minimum at I.S.L.W.

ORO BAY

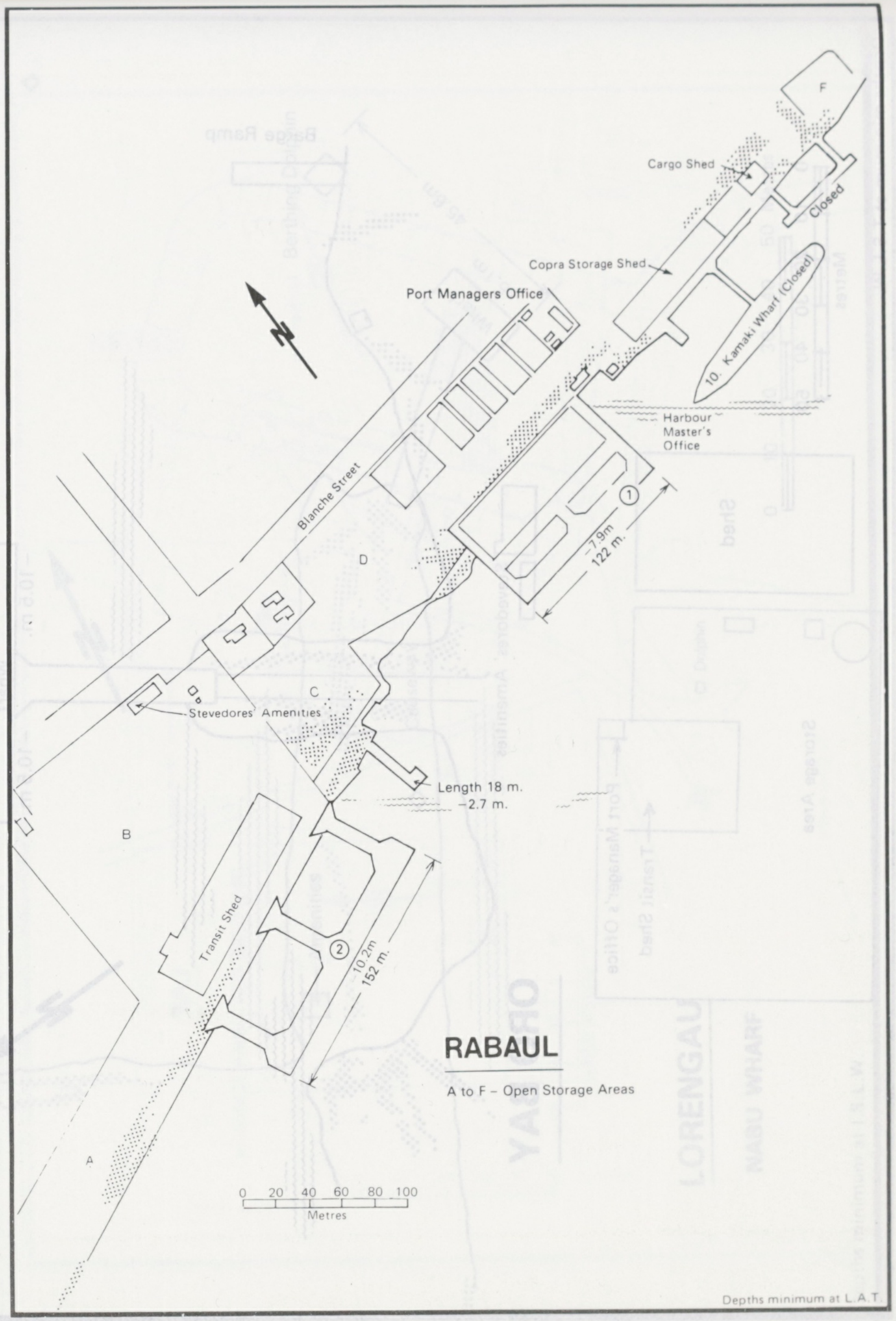

–11.4m
60 m.
Wharf
–10.5 m.
–10.5 m.
N
Barge Ramp
Stevedores' Amenities
Port Manager's Office
Transit Shed
Shed
Storage Area
0 10 20 30 40 50
Metres

Depths minimum at T.S.L.W.



PORT MORESBY

Defence Force Wharf
Marine Base
Yacht Club
FUTURE PORT DEVELOPMENT
N
F
G
Transit Shed No.4
④
Container Facility
Length 125 m.
−10.6 m.
Harbour Board Head Office
Passenger Landing Facilities
Barge Ramp
Coastal Cargo Shed
E
Small Ships (A.P.C.) Wharf
Length 25 m.
−3.0 m.
Barge Ramp
D
Craig
B.P.
S.T. Co.
OPEN STORAGE AREA A to G
Lighter Berth
Produce Inspector's Office
Transit Shed No.3
C
②
③B
213 m.
7.6m
−4.5 m.
113 m.
Transit Shed No.2
③A
①
3.8m
67m
Port Manager's Office
Labour Bureau
Transit Shed No.1
A
Stevedores' Amenities
0
100
200
300 Metres
Depths minimum at L.A.T.

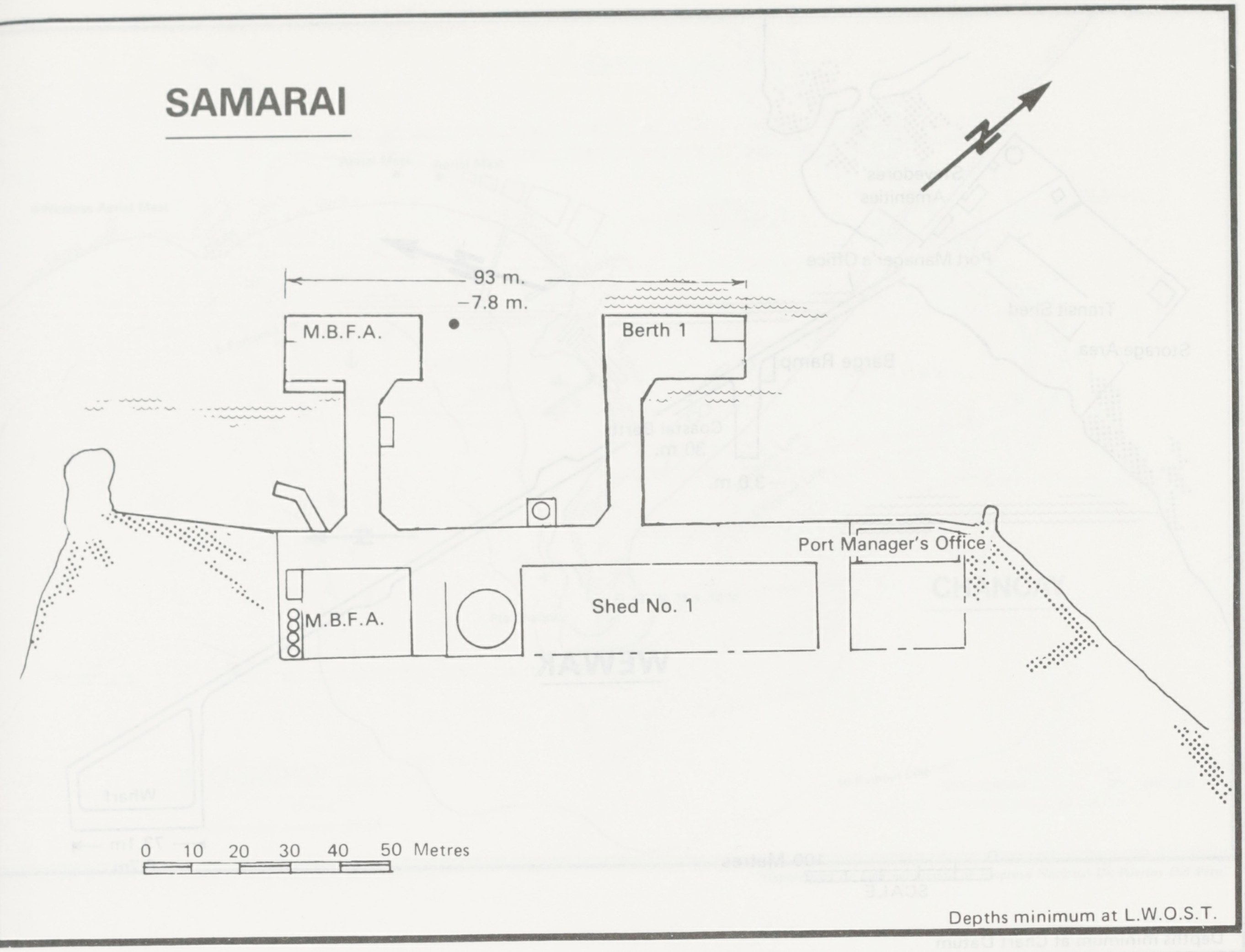


RABAUL

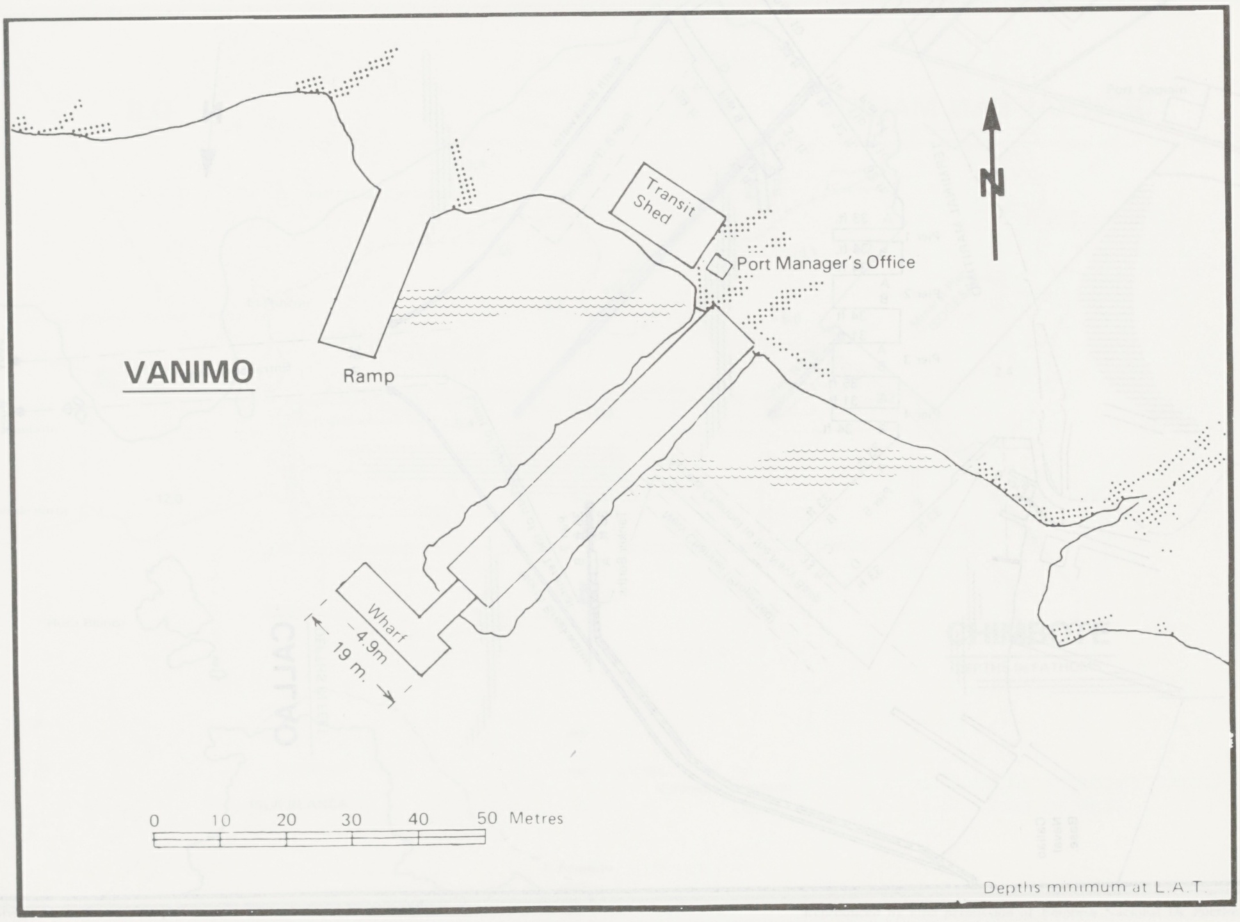
A to F – Open Storage Areas

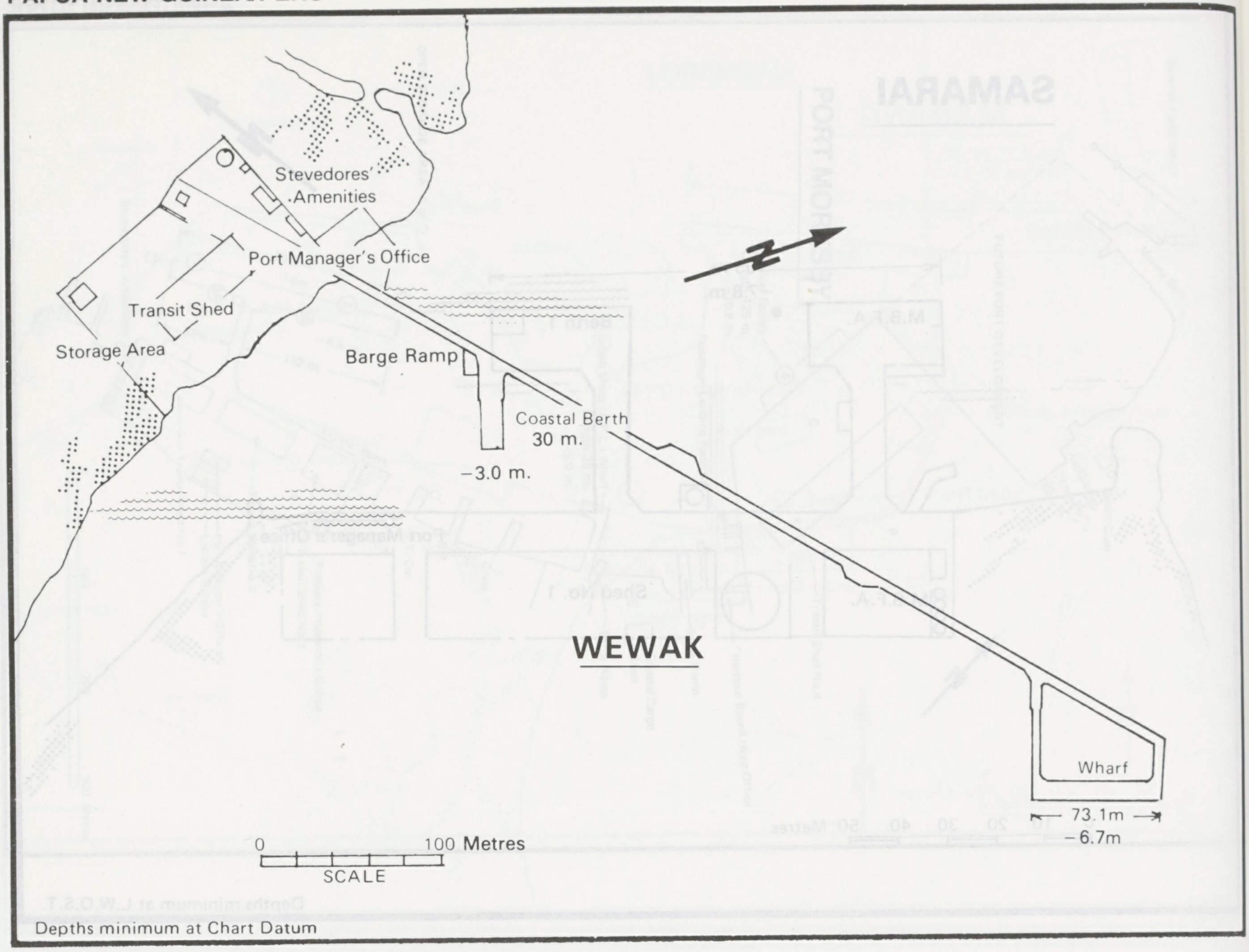
F
Cargo Shed
Closed
Copra Storage Shed
10. Kamaki Wharf (Closed)
Port Managers Office
N
Harbour Master's Office
Blanche Street
①
−7.9m
122 m.
D
C
Stevedores' Amenities
Length 18 m.
−2.7 m.
B
Transit Shed
②
−10.2m
152 m.
A
0
20
40
60
80
100
Metres
Depths minimum at L.A.T.

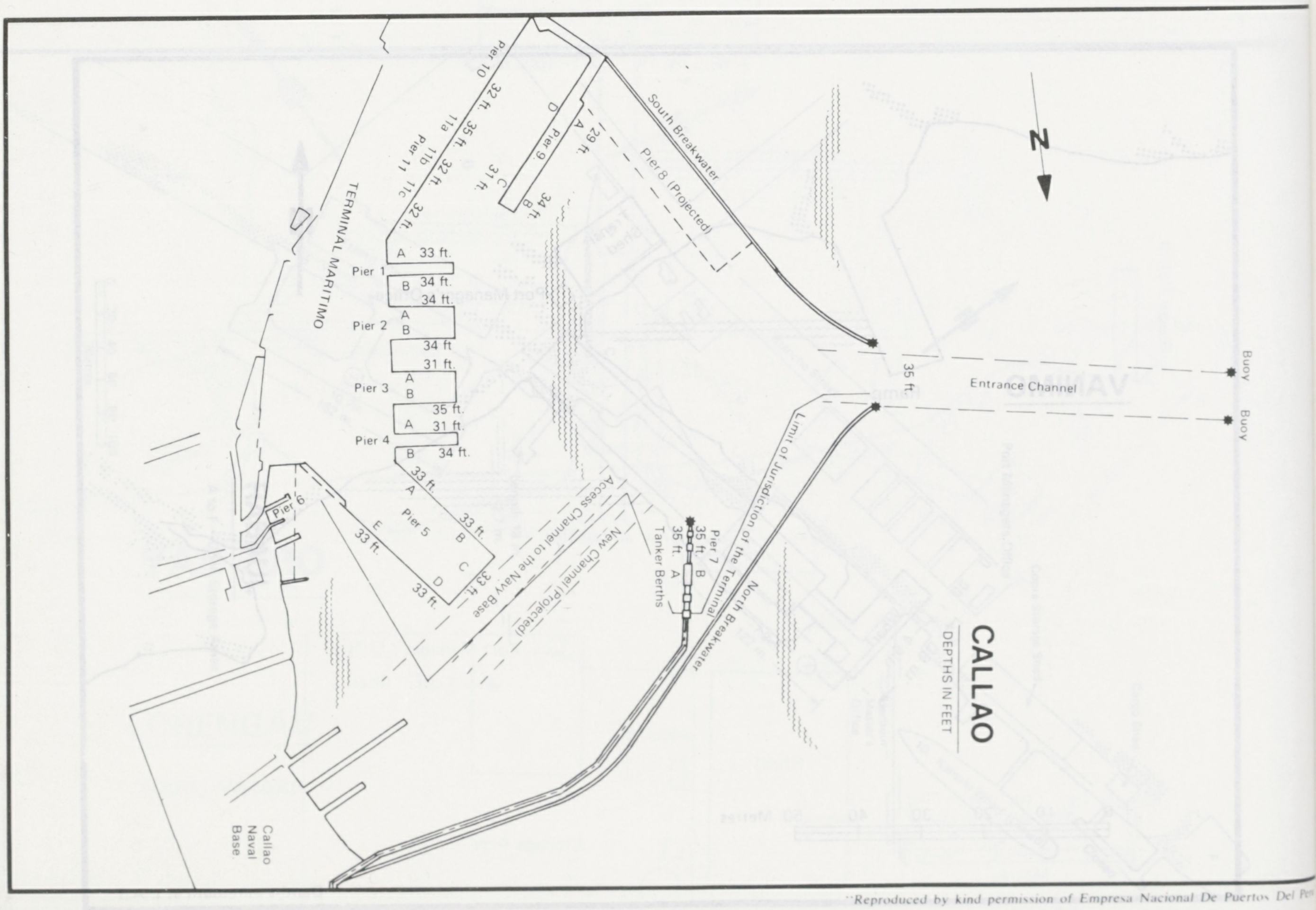
SAMARAI


93 m.
−7.8 m.
M.B.F.A.
Berth 1
Port Manager's Office
M.B.F.A.
Shed No. 1
N
0 10 20 30 40 50 Metres
Depths minimum at L.W.O.S.T.

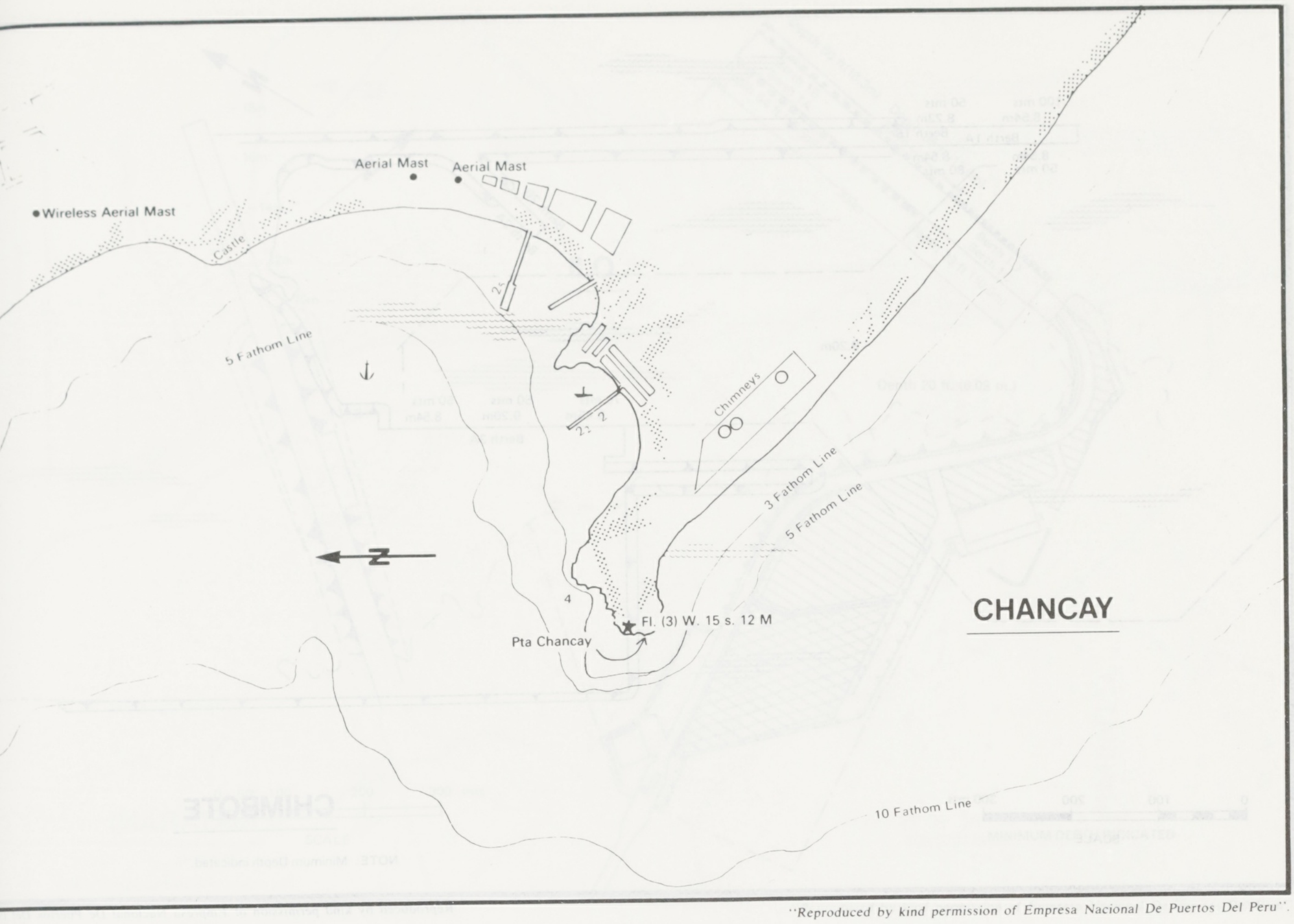
VANIMO


Transit Shed
Port Manager's Office
N
Ramp
Wharf
−4.9m
19 m.
0 10 20 30 40 50 Metres
Depths minimum at L.A.T.

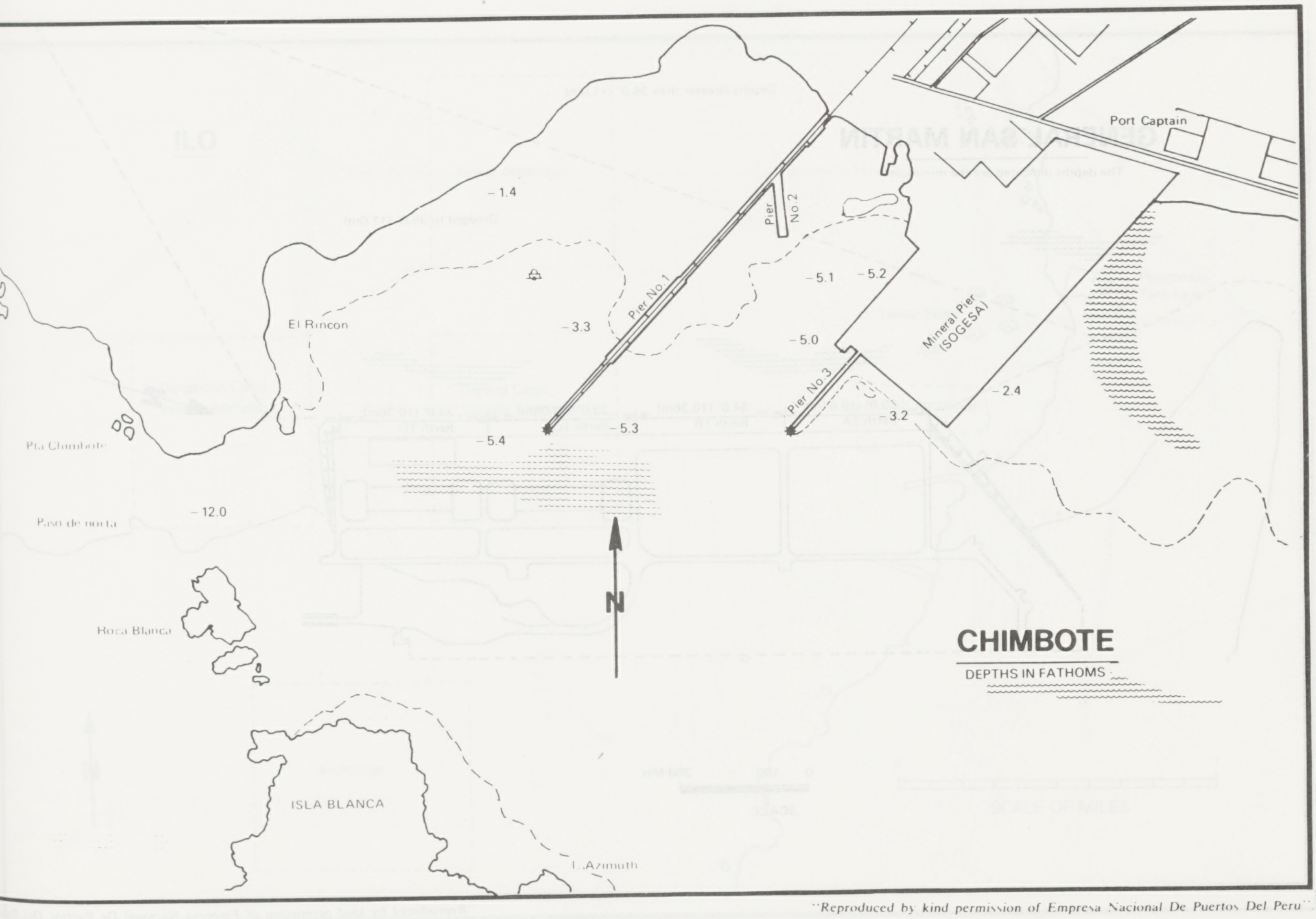

Stevedores' Amenities
Port Manager's Office
Transit Shed
Storage Area
Barge Ramp
Coastal Berth
30 m.
−3.0 m.
N
WEWAK
Wharf
73.1m
−6.7m
0
100 Metres
SCALE
Depths minimum at Chart Datum


Pier 10
32 ft.
35 ft.
32 ft.
11a
11b
11c
Pier 11
32 ft.
D
A
Pier 9
129 ft.
C
31 ft.
B
34 ft.
South Breakwater
Pier 8 (Projected)
N
TERMINAL MARITIMO
A 33 ft.
Pier 1
B 34 ft.
34 ft.
A
Pier 2
B
34 ft
31 ft.
A
Pier 3
B
35 ft.
A 31 ft.
Pier 4
B 34 ft.
33 ft.
A
Pier 5
33 ft.
B
C
E
33 ft.
D
33 ft.
31 ft.
Pier 6
Access Channel to the Navy Base
New Channel (Projected)
Pier 7
35 ft.
35 ft.
B
A
Tanker Berths
North Breakwater
Limit of Jurisdiction of the Terminal
35 ft.
Entrance Channel
Buoy
Buoy
CALLAO
DEPTHS IN FEET
Callao Naval Base

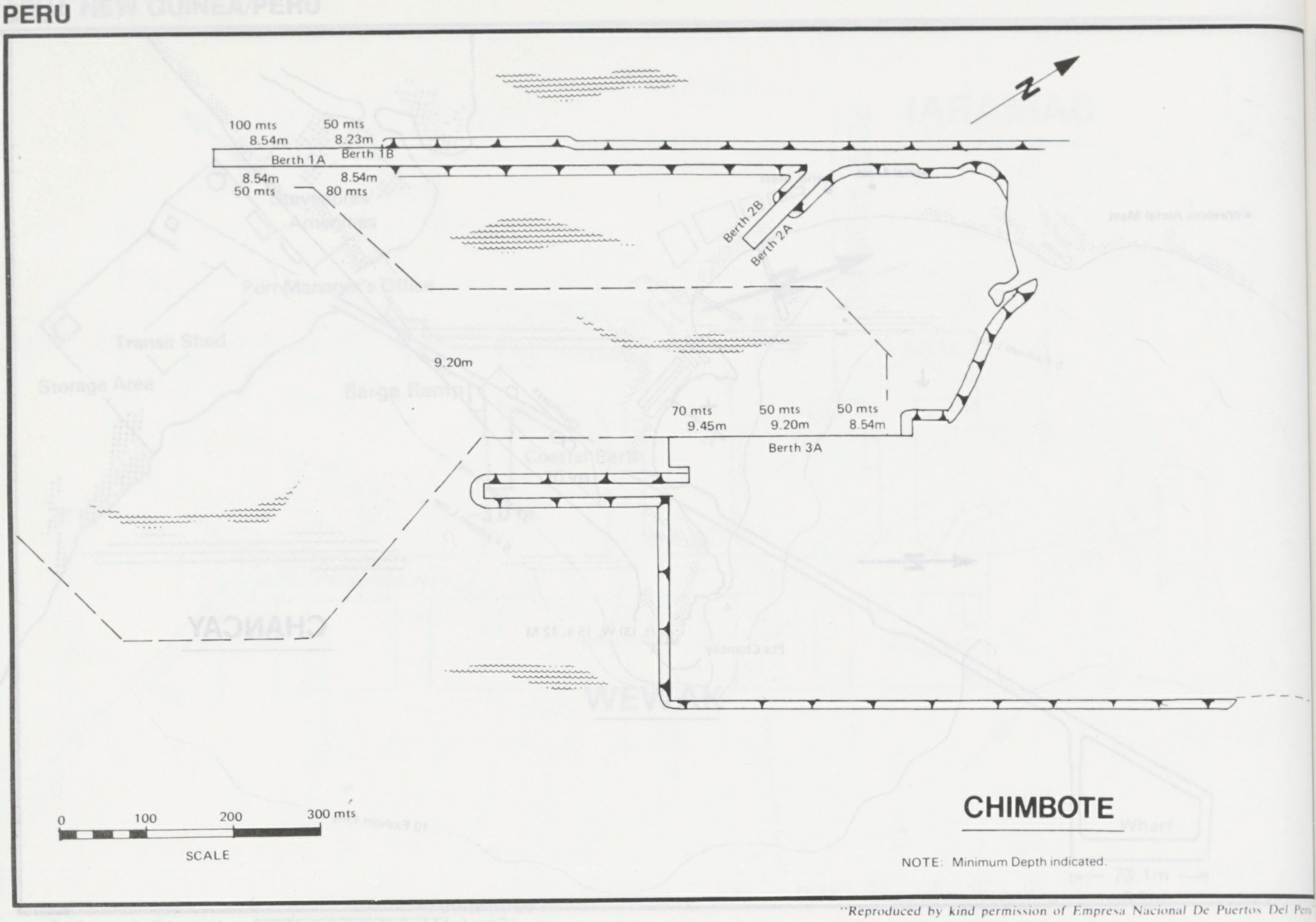
"Reproduced by kind permission of Empresa Nacional De Puertos Del Pe


Aerial Mast
Aerial Mast
Wireless Aerial Mast
Castle
24
5 Fathom Line
22
2
Chimneys
3 Fathom Line
5 Fathom Line
N
4
Fl. (3) W. 15 s. 12 M
Pta Chancay
10 Fathom Line
CHANCAY

"Reproduced by kind permission of Empresa Nacional De Puertos Del Peru".


Port Captain
Pier No 2
−1.4
−5.1
−5.2
El Rincon
−3.3
Pier No 1
−5.0
Mineral Pier (SOGESA)
Pier No 3
−2.4
−3.2
−5.3
−5.4
Pta Chimbote
Paso de norta
−12.0
N
Roca Blanca
CHIMBOTE
DEPTHS IN FATHOMS
ISLA BLANCA
T. Azimuth

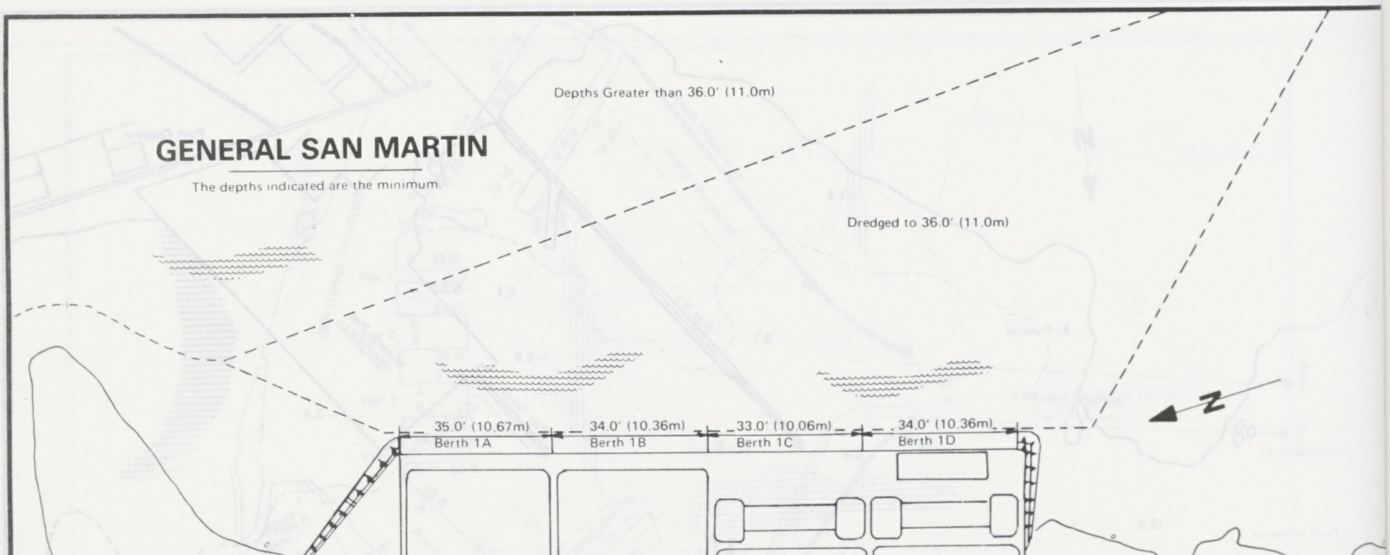
"Reproduced by kind permission of Empresa Nacional De Puertos Del Peru".


N
100 mts
8.54m
50 mts
8.23m
Berth 1A
Berth 1B
8.54m
50 mts
8.54m
80 mts
Berth 2B
Berth 2A
9.20m
70 mts
9.45m
50 mts
9.20m
50 mts
8.54m
Berth 3A
0
100
200
300 mts
SCALE

CHIMBOTE

NOTE: Minimum Depth indicated.

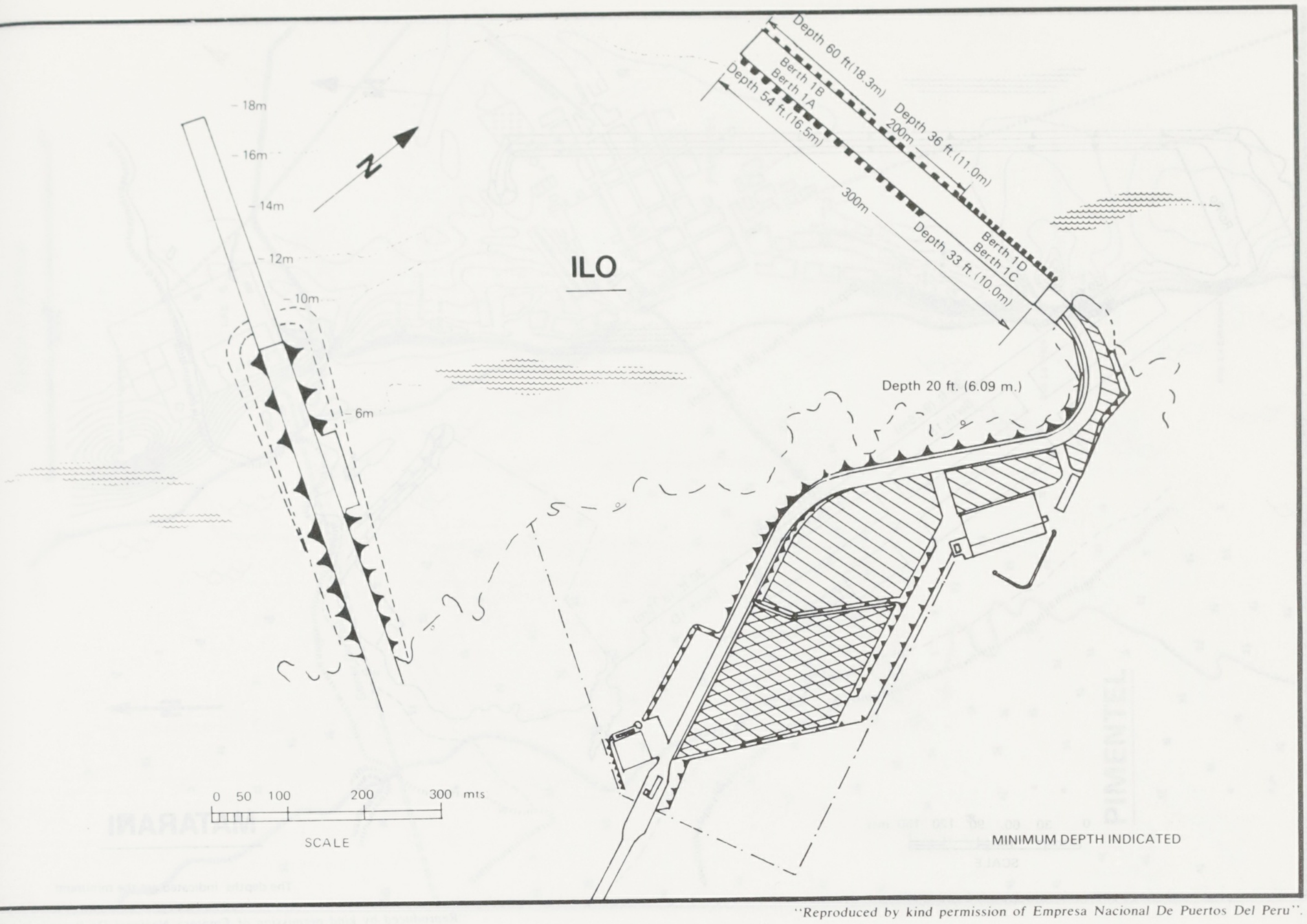
"Reproduced by kind permission of Empresa Nacional De Puertos Del Per


Depths Greater than 36.0' (11.0m)
Dredged to 36.0' (11.0m)
N
35.0' (10.67m)
Berth 1A
34.0' (10.36m)
Berth 1B
33.0' (10.06m)
Berth 1C
34.0' (10.36m)
Berth 1D
0
100
200 Mts
SCALE

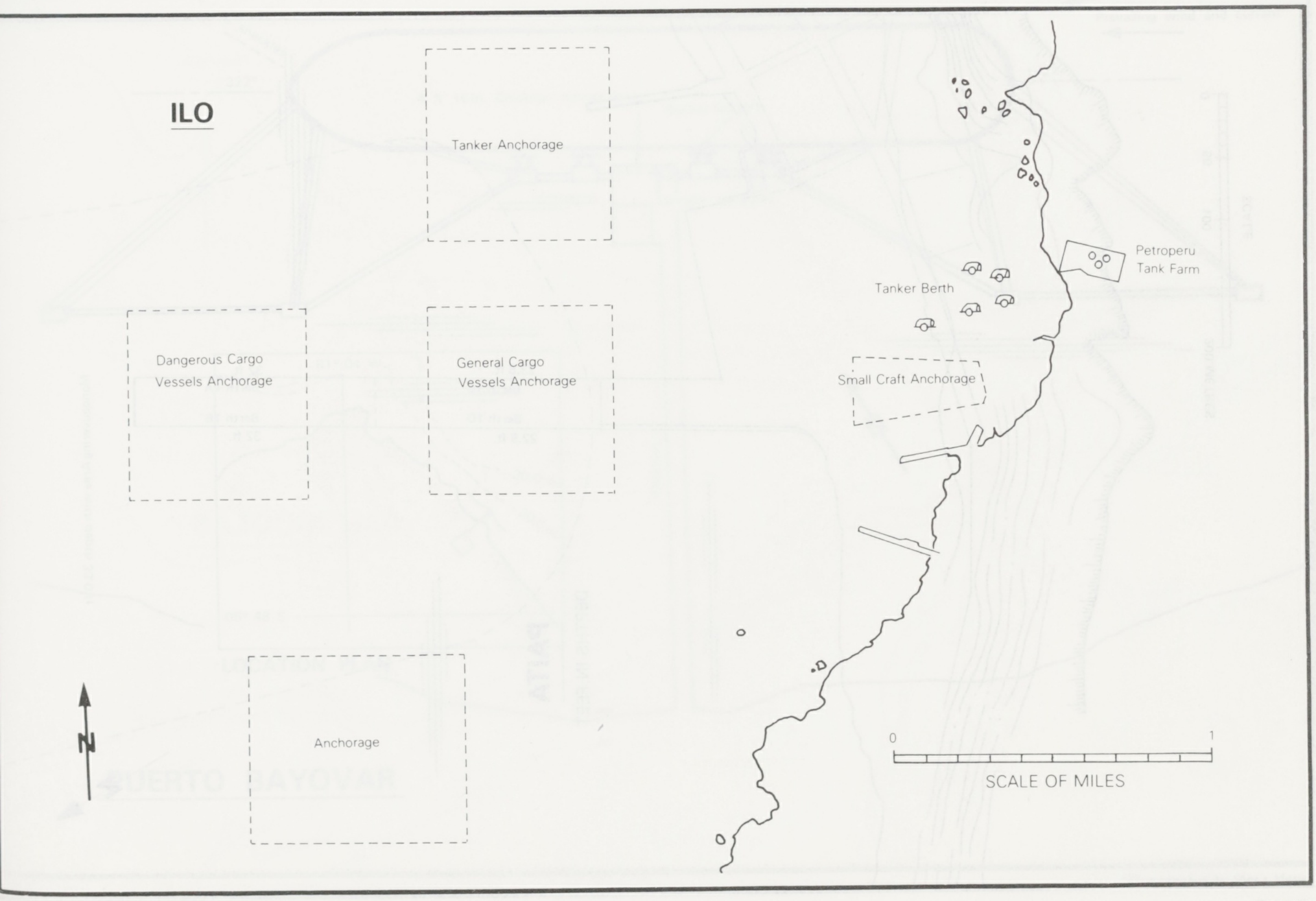
GENERAL SAN MARTIN

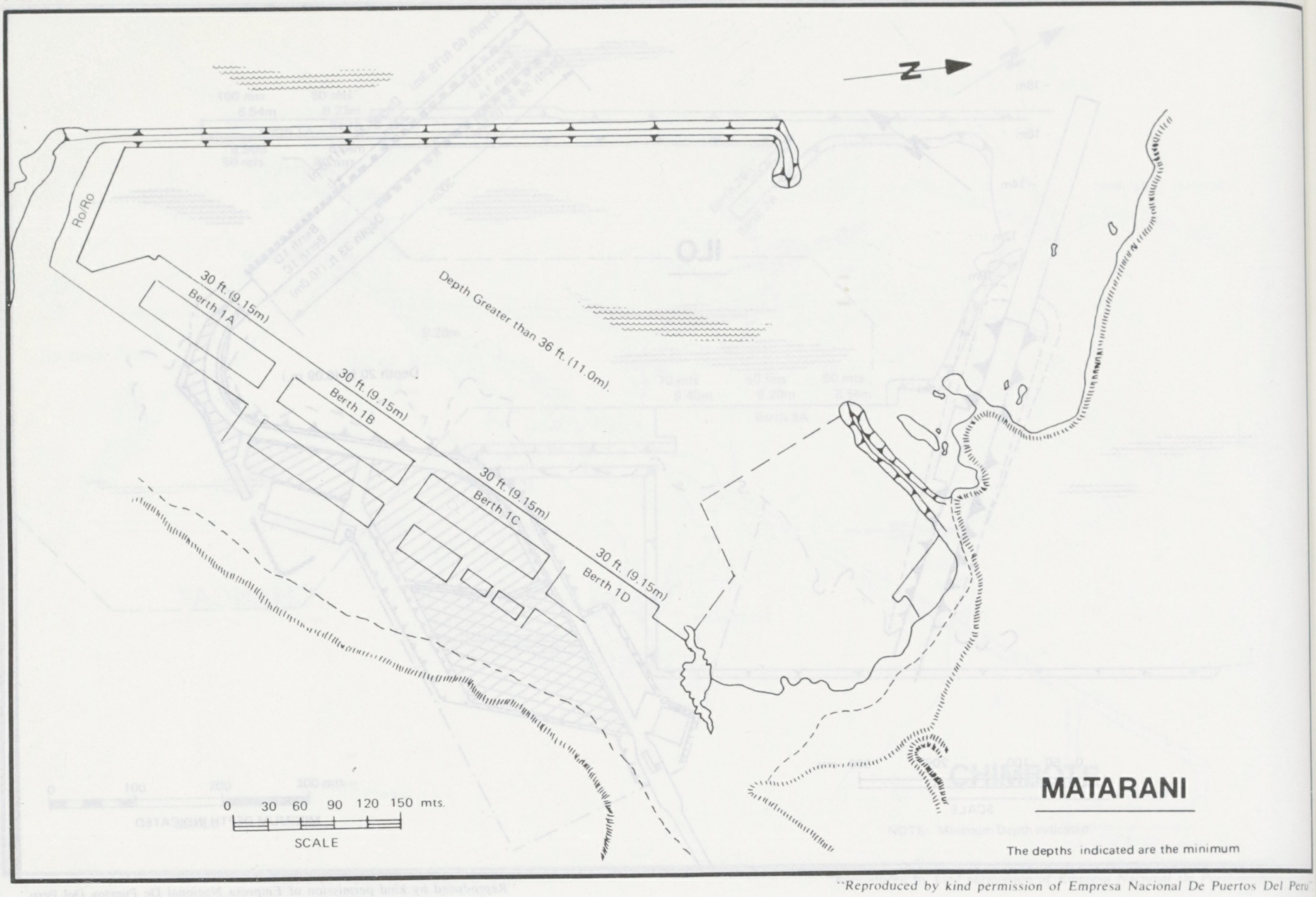
The depths indicated are the minimum.

"Reproduced by kind permission of Empresa Nacional De Puertos Del Per

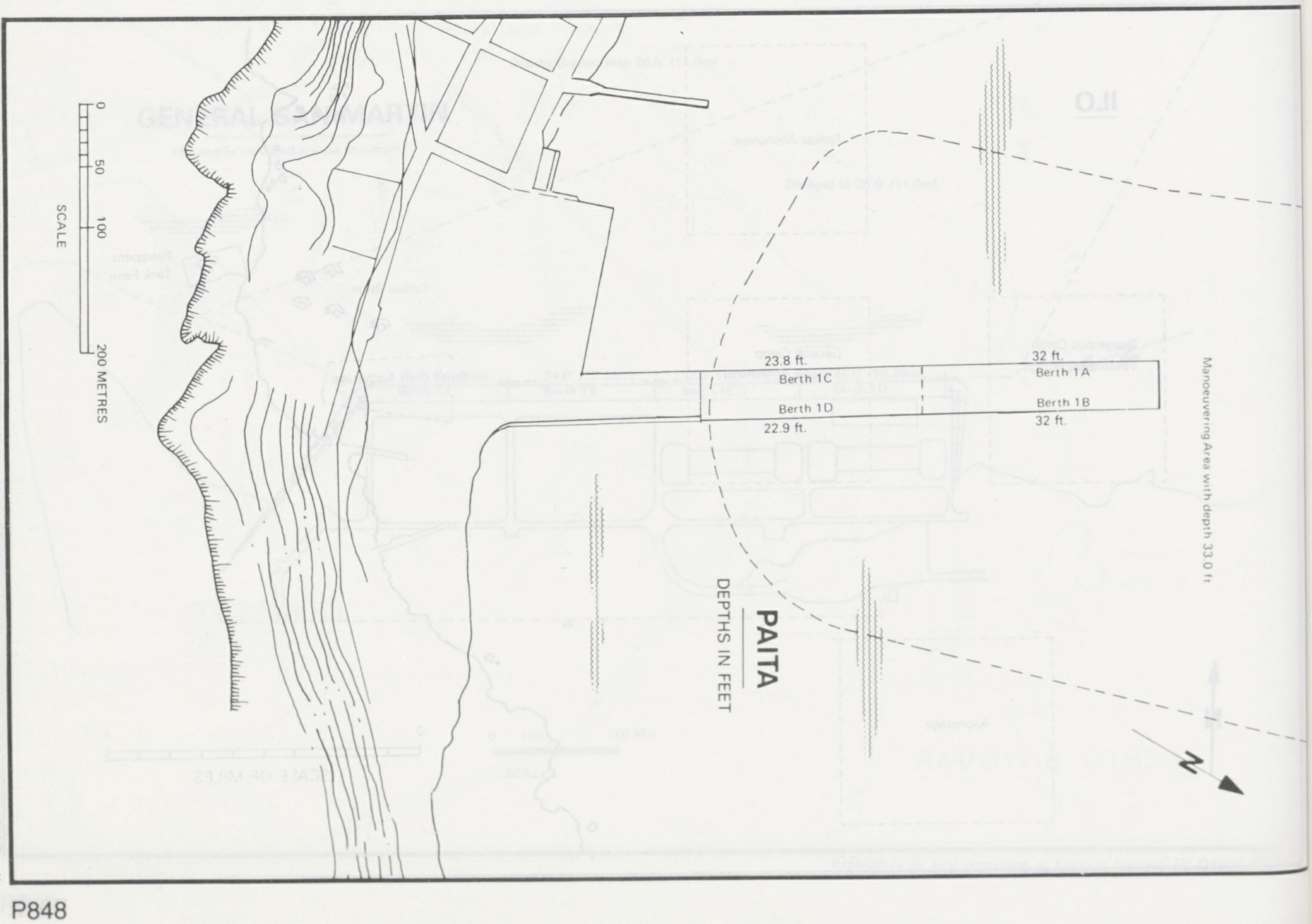

Depth 60 ft (18.3m)
Berth 1B
Berth 1A
Depth 54 ft (16.5m)
Depth 36 ft (11.0m)
200m
300m
Berth 1D
Berth 1C
Depth 33 ft (10.0m)
ILO
18m
16m
14m
12m
10m
6m
N
Depth 20 ft. (6.09 m.)
0 50 100 200 300 mts
SCALE
MINIMUM DEPTH INDICATED

"Reproduced by kind permission of Empresa Nacional De Puertos Del Peru".

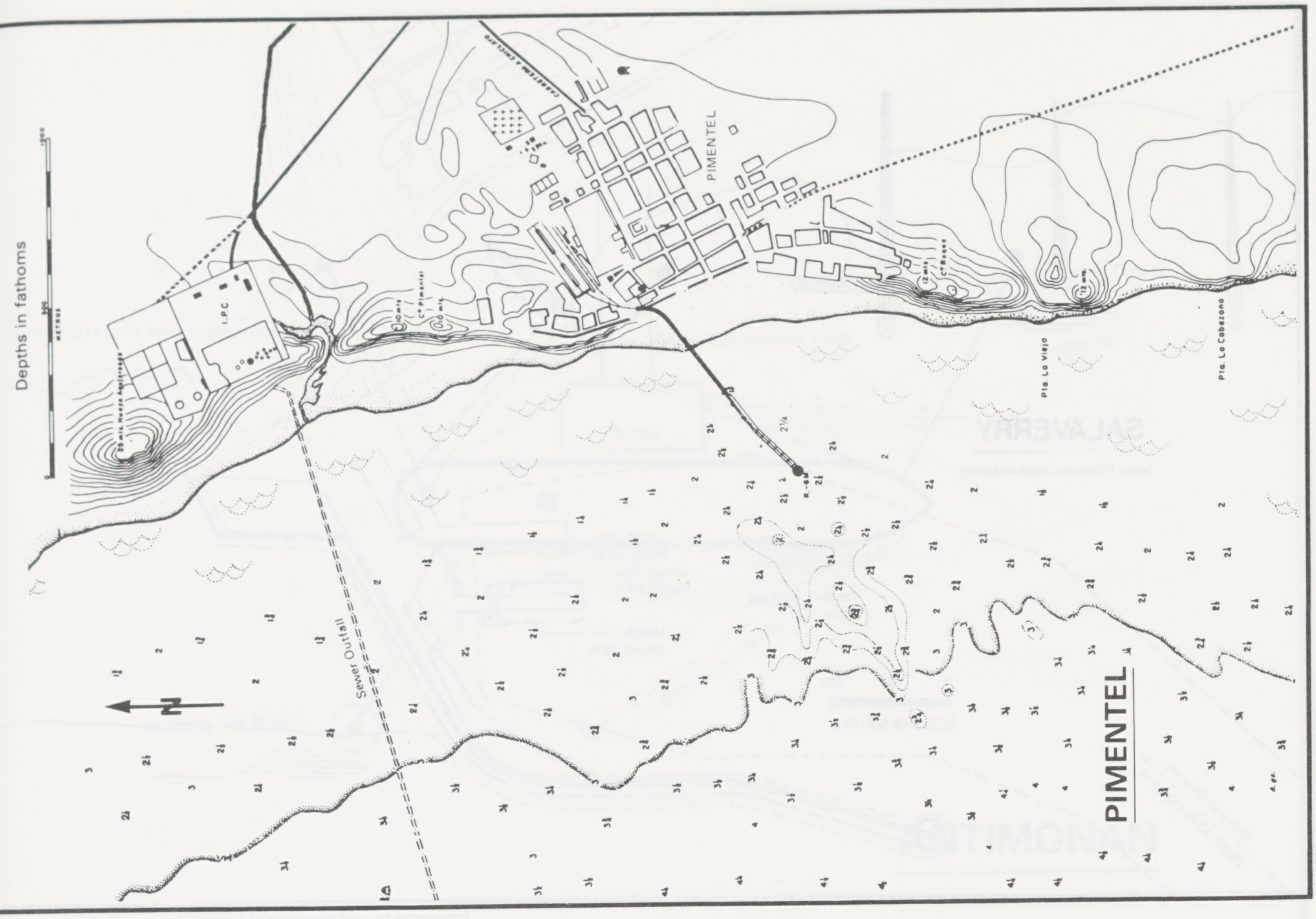

ILO
Tanker Anchorage
Dangerous Cargo Vessels Anchorage
General Cargo Vessels Anchorage
Petroperu Tank Farm
Tanker Berth
Small Craft Anchorage
Anchorage
N
0
1
SCALE OF MILES


N
Ro/Ro
30 ft. (9.15m)
Berth 1A
30 ft. (9.15m)
Berth 1B
30 ft. (9.15m)
Berth 1C
30 ft. (9.15m)
Berth 1D
Depth Greater than 36 ft. (11.0m)
0 30 60 90 120 150 mts.
SCALE
MATARANI
The depths indicated are the minimum

"Reproduced by kind permission of Empresa Nacional De Puertos Del Peru"

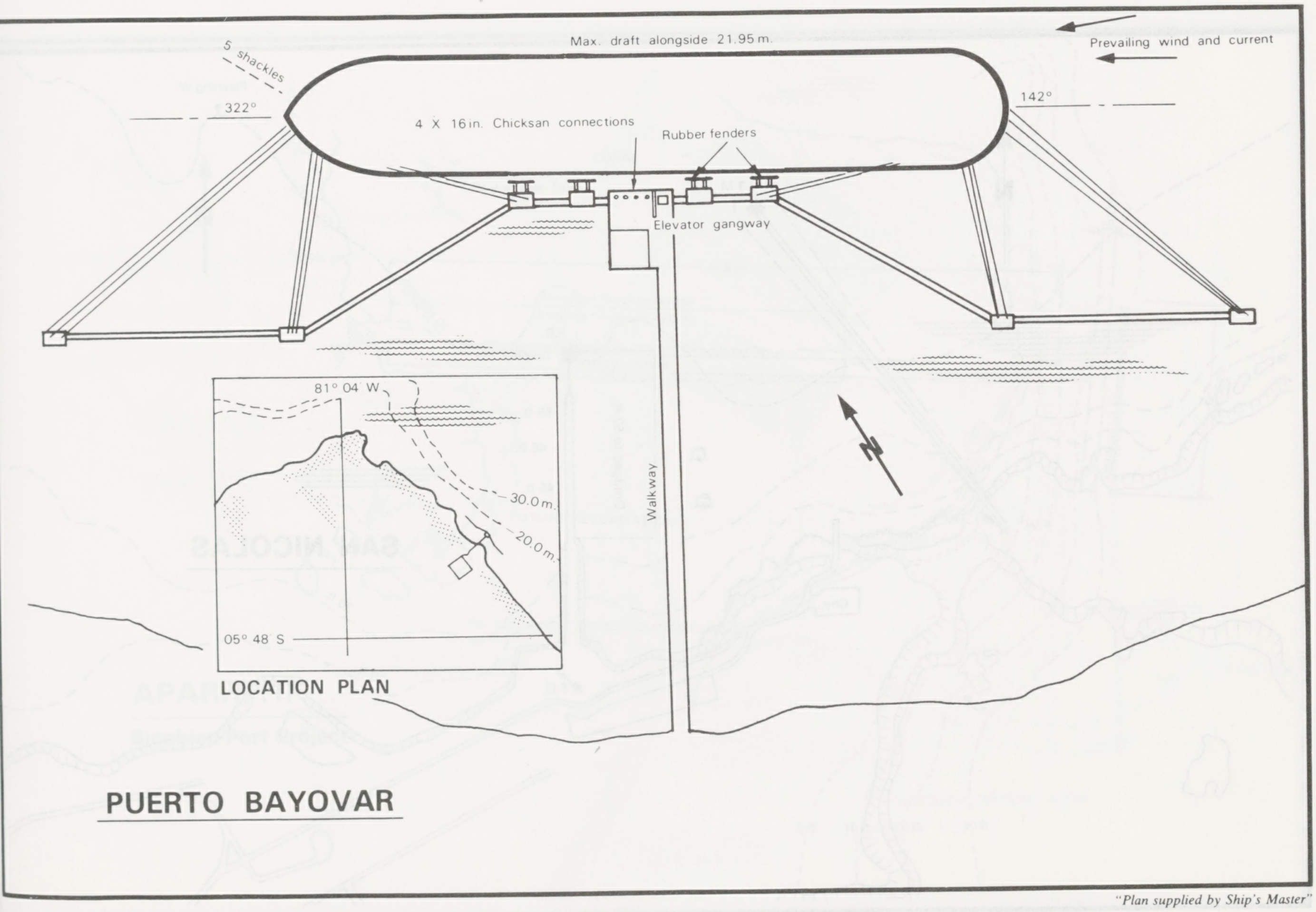

0
50
100
200 METRES
SCALE
23.8 ft.
Berth 1C
Berth 1D
22.9 ft.
32 ft.
Berth 1A
Berth 1B
32 ft.
Manoeuvering Area with depth 33.0 ft
PAITA
DEPTHS IN FEET
N

"Reproduced by kind permission of Empresa Nacional De Puertos Del Peru".


Depths in fathoms
Metros
I.P.C
Sewer Outfall
PIMENTEL
Pta La Vieja
Pta La Cabezona
N

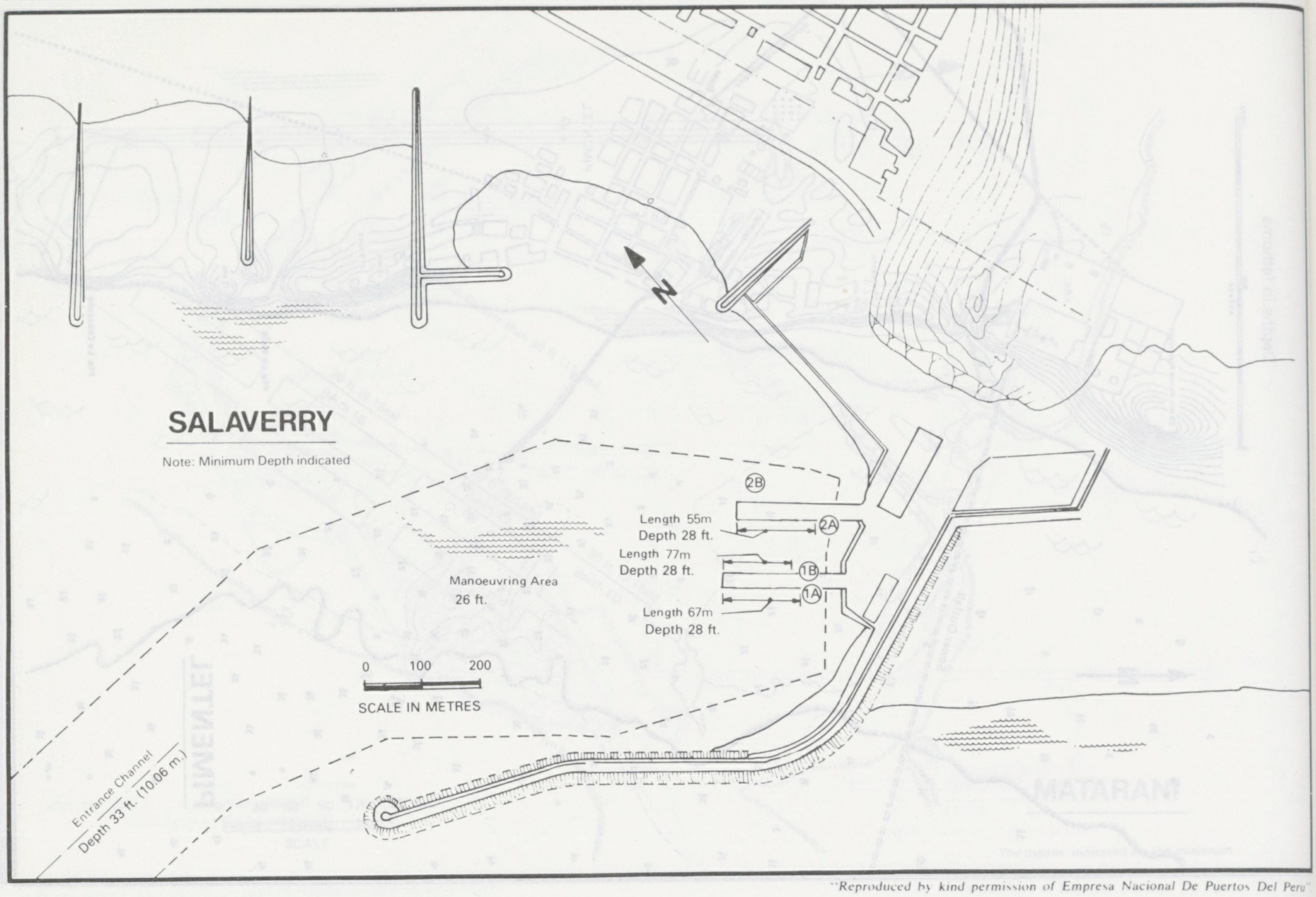
PIMENTEL

"Reproduced by kind permission of Empresa Nacional De Puertos Del Peru".

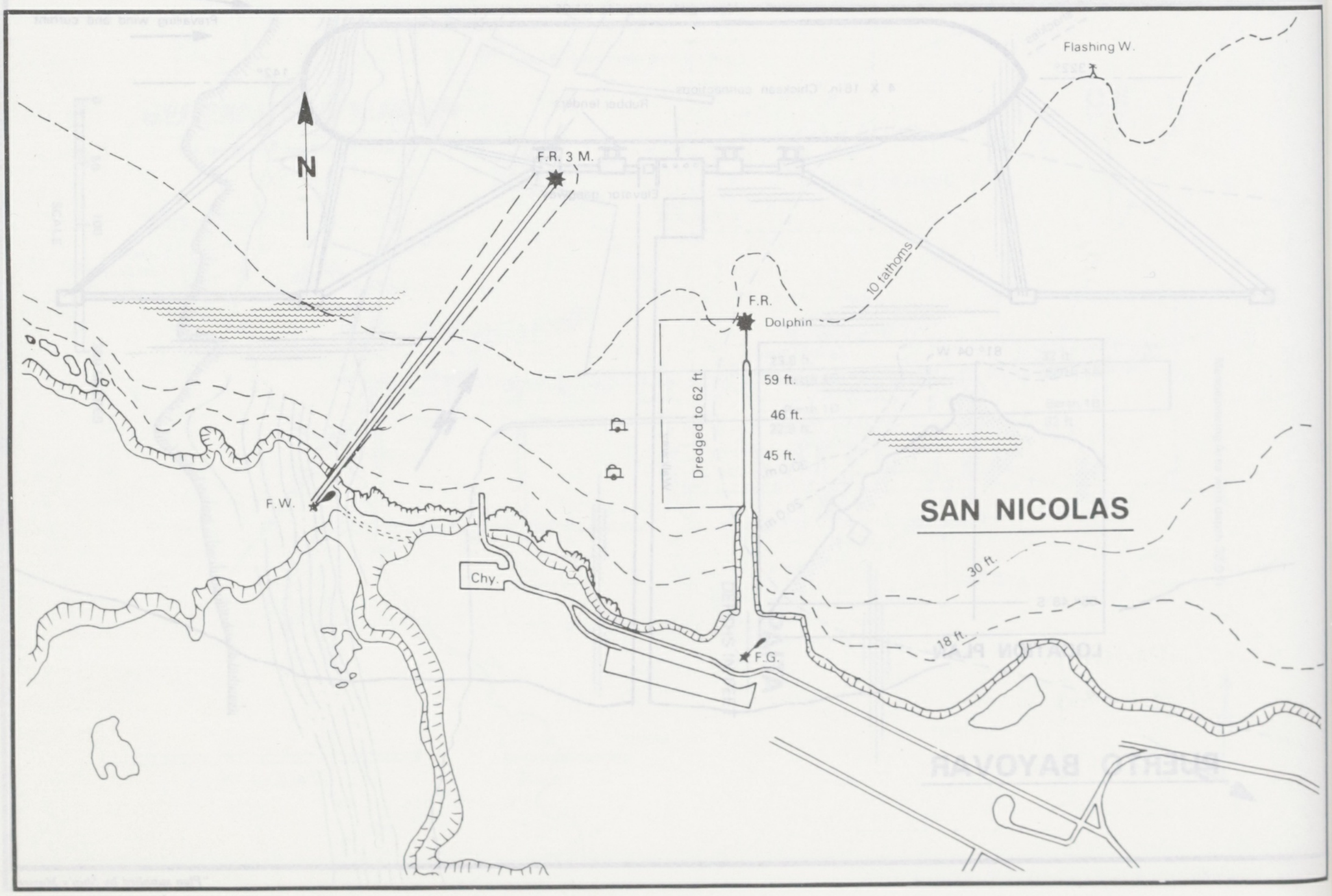

Max. draft alongside 21.95 m.
Prevailing wind and current
5 shackles
322°
142°
4 X 16 in. Chicksan connections
Rubber fenders
Elevator gangway
Walkway
N
81° 04 W
30.0 m.
20.0 m.
05° 48 S
LOCATION PLAN

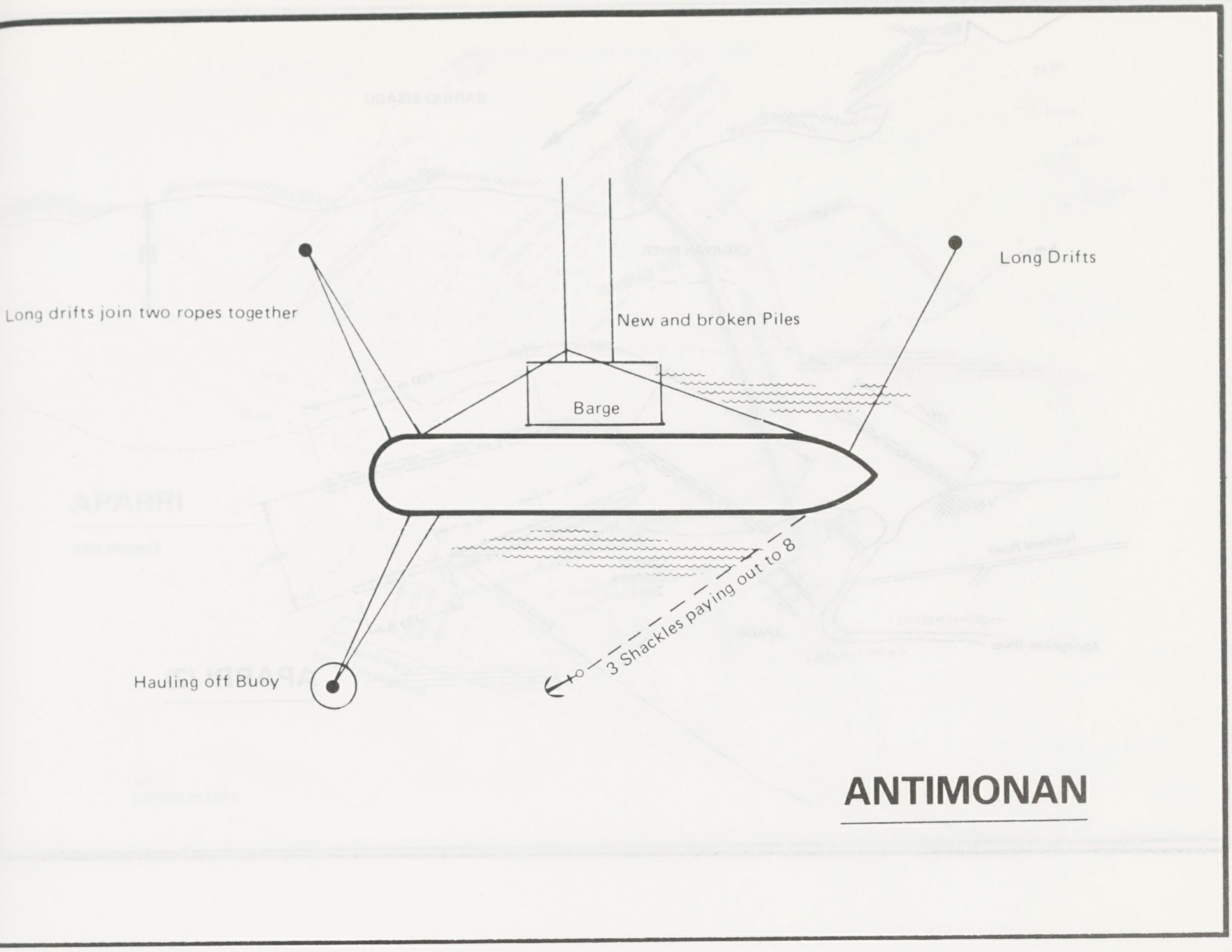
PUERTO BAYOVAR

"Plan supplied by Ship's Master"


SALAVERRY
Note: Minimum Depth indicated
N
2B
2A
1B
1A
Length 55m
Depth 28 ft.
Length 77m
Depth 28 ft.
Length 67m
Depth 28 ft.
Manoeuvring Area
26 ft.
0
100
200
SCALE IN METRES
Entrance Channel
Depth 33 ft. (10.06 m.)

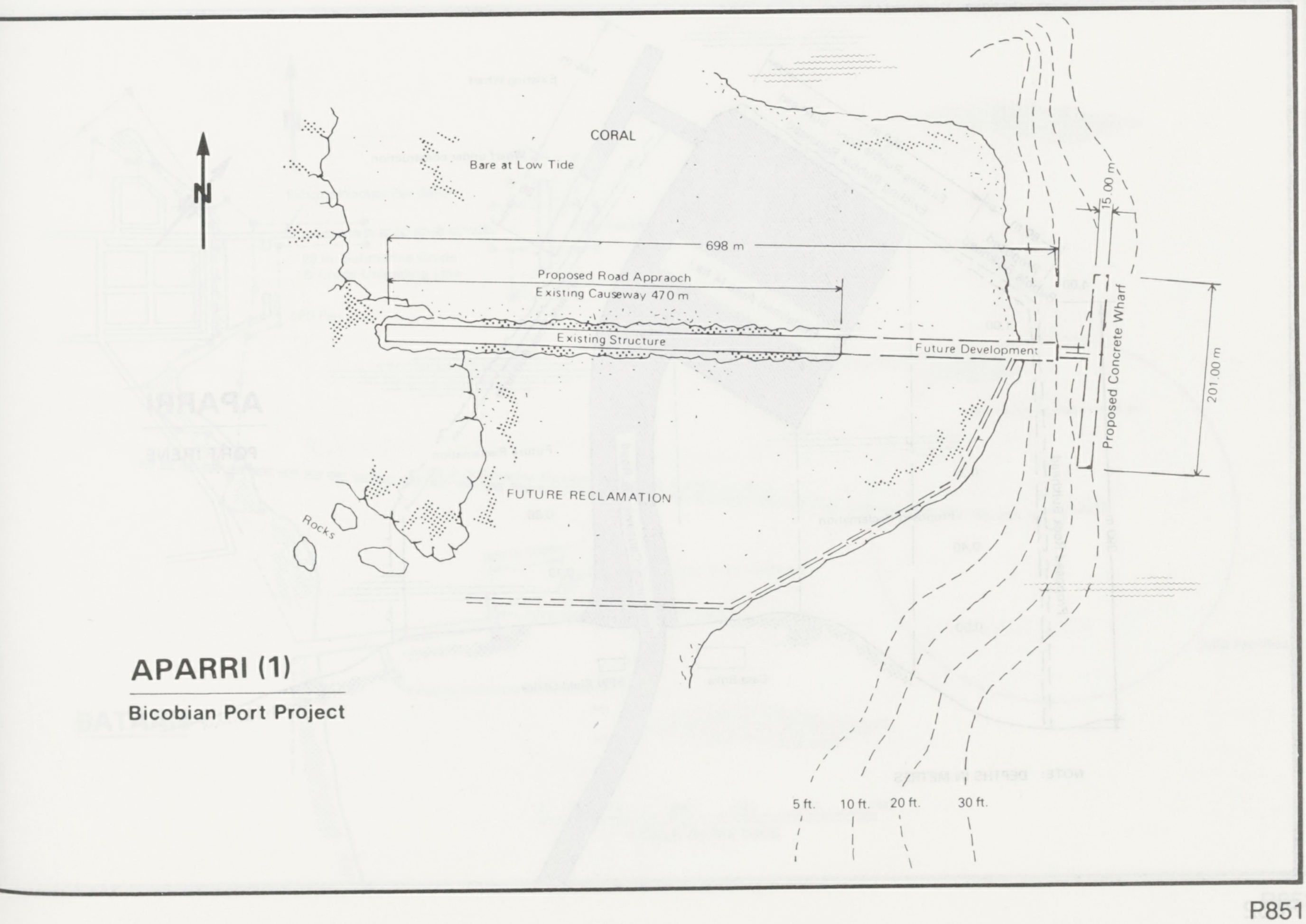
"Reproduced by kind permission of Empresa Nacional De Puertos Del Peru"


N
F.R. 3 M.
Flashing W.
10 fathoms
F.R.
Dolphin
Dredged to 62 ft.
59 ft.
46 ft.
45 ft.
F.W.
Chy.
F.G.
18 ft.
30 ft.
SAN NICOLAS


Long drifts join two ropes together
New and broken Piles
Long Drifts
Barge
3 Shackles paying out to 8
Hauling off Buoy

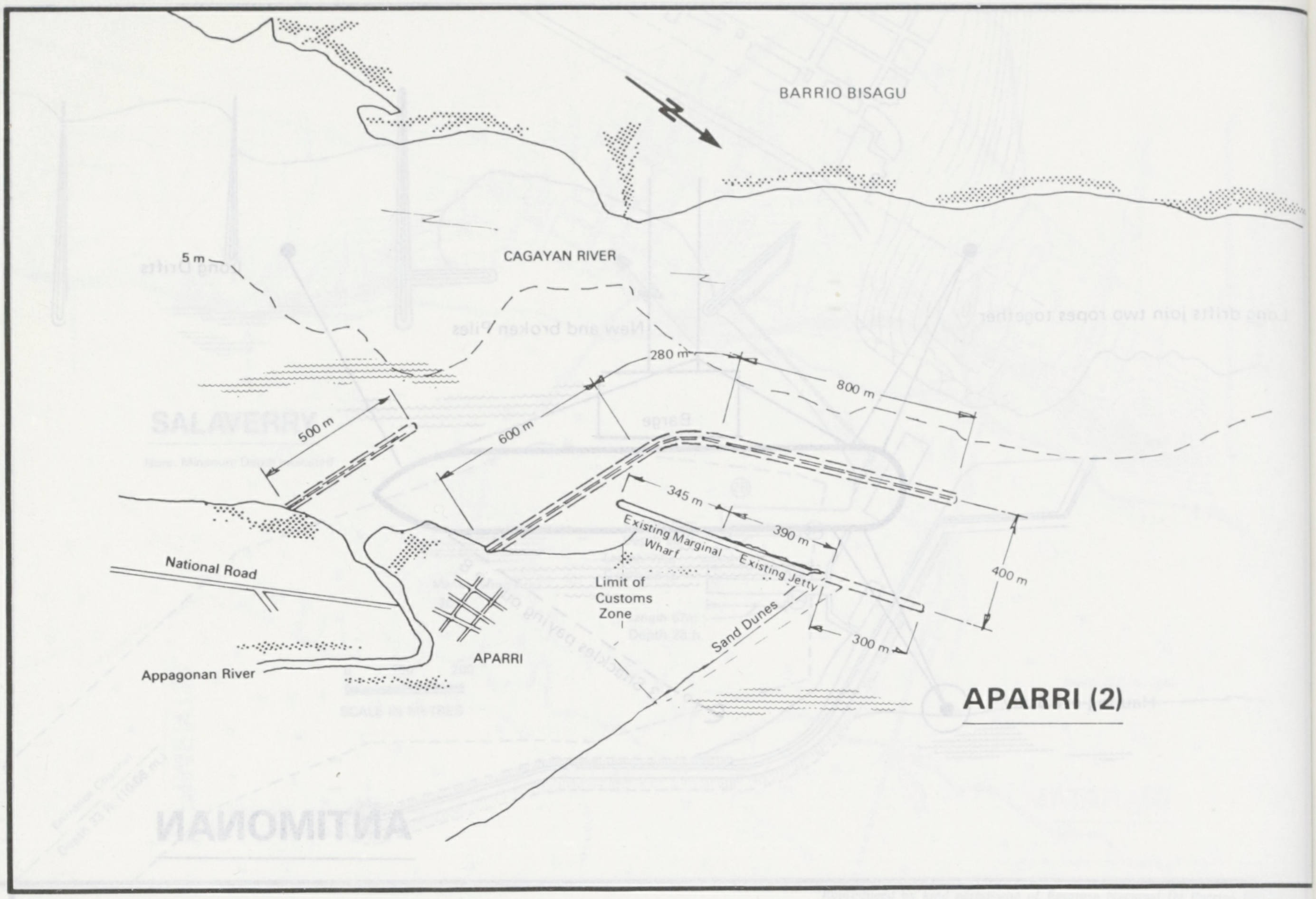
ANTIMONAN

"Plan supplied by Ship's Master"


N
CORAL
Bare at Low Tide
698 m
Proposed Road Appraoch
Existing Causeway 470 m
Existing Structure
Future Development
15.00 m
Proposed Concrete Wharf
201.00 m
FUTURE RECLAMATION
Rocks
5 ft.
10 ft.
20 ft.
30 ft.

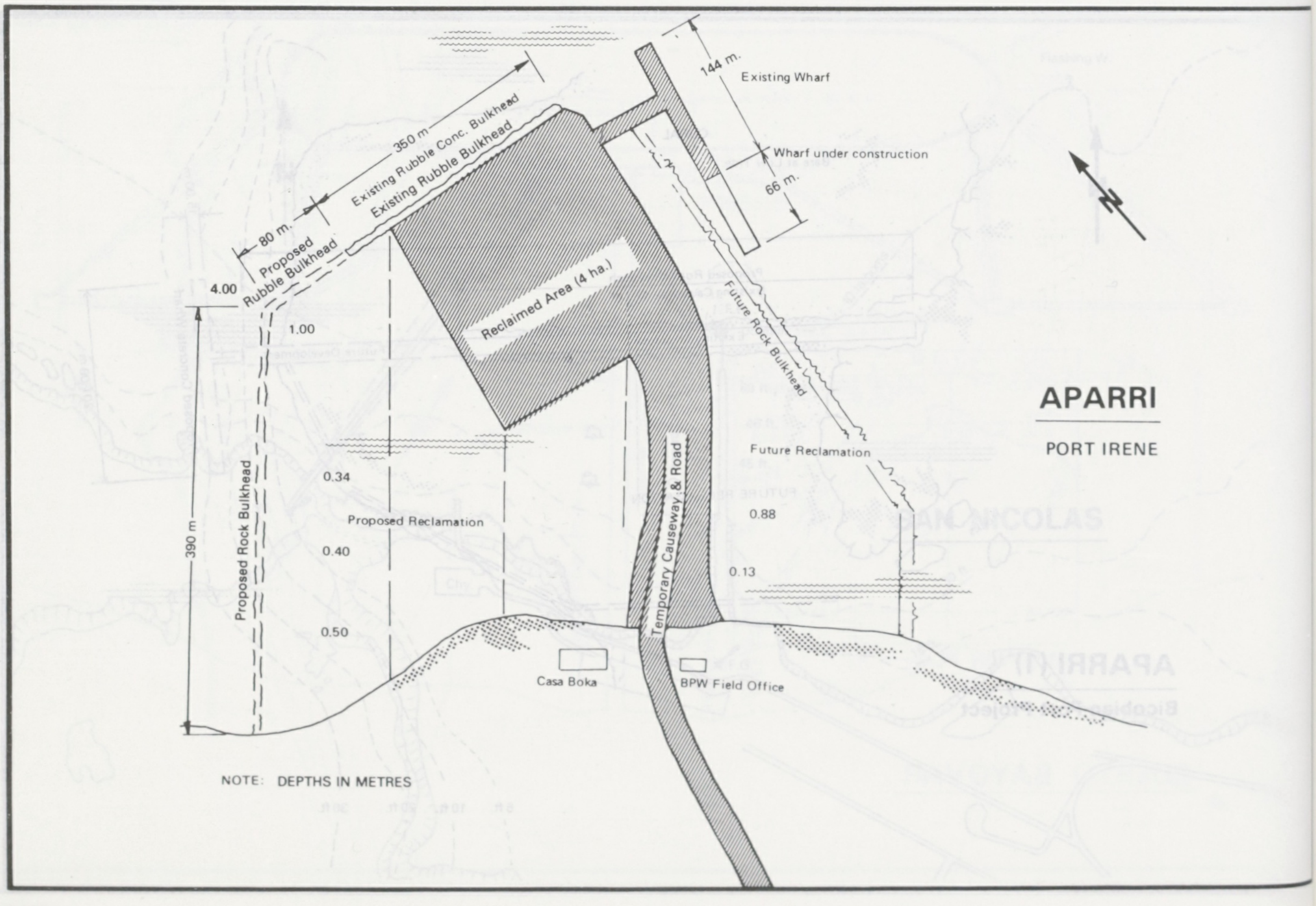
APARRI (1)

Bicobian Port Project



APARRI (2)

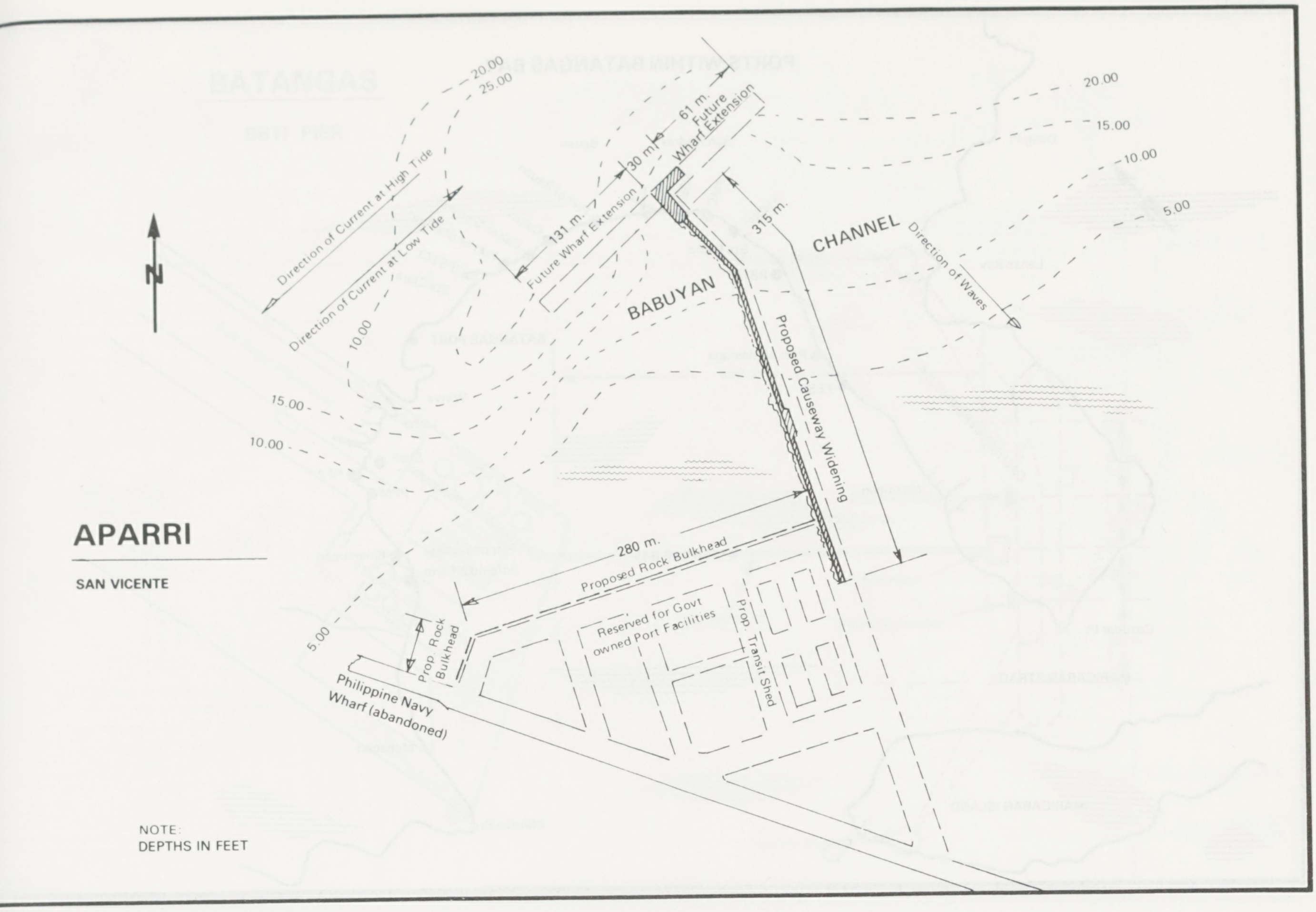
BARRIO BISAGU
CAGAYAN RIVER
5 m
280 m
800 m
500 m
600 m
345 m
390 m
400 m
300 m
Existing Marginal Wharf
Existing Jetty
Limit of Customs Zone
Sand Dunes
National Road
Appagonan River
APARRI

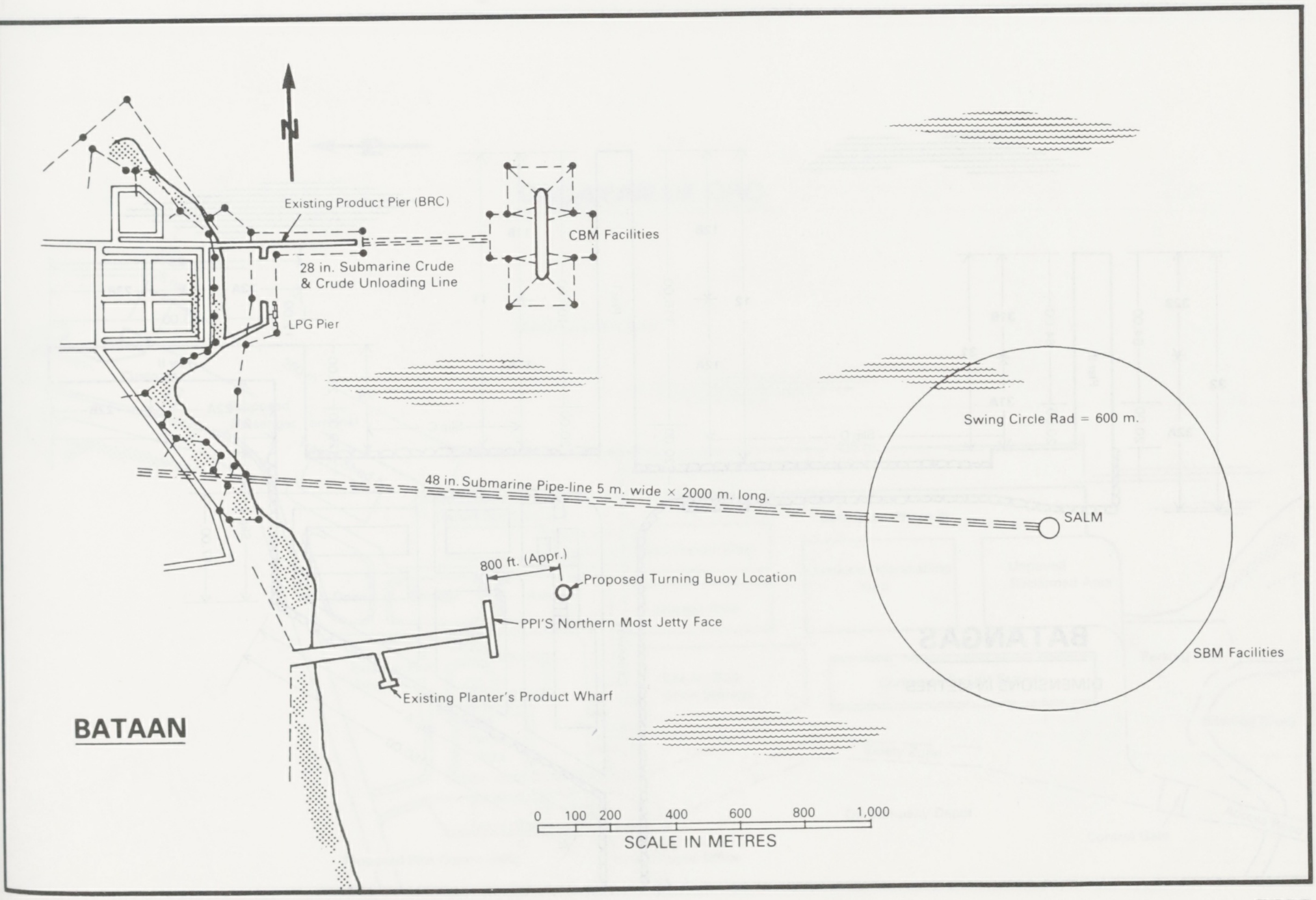


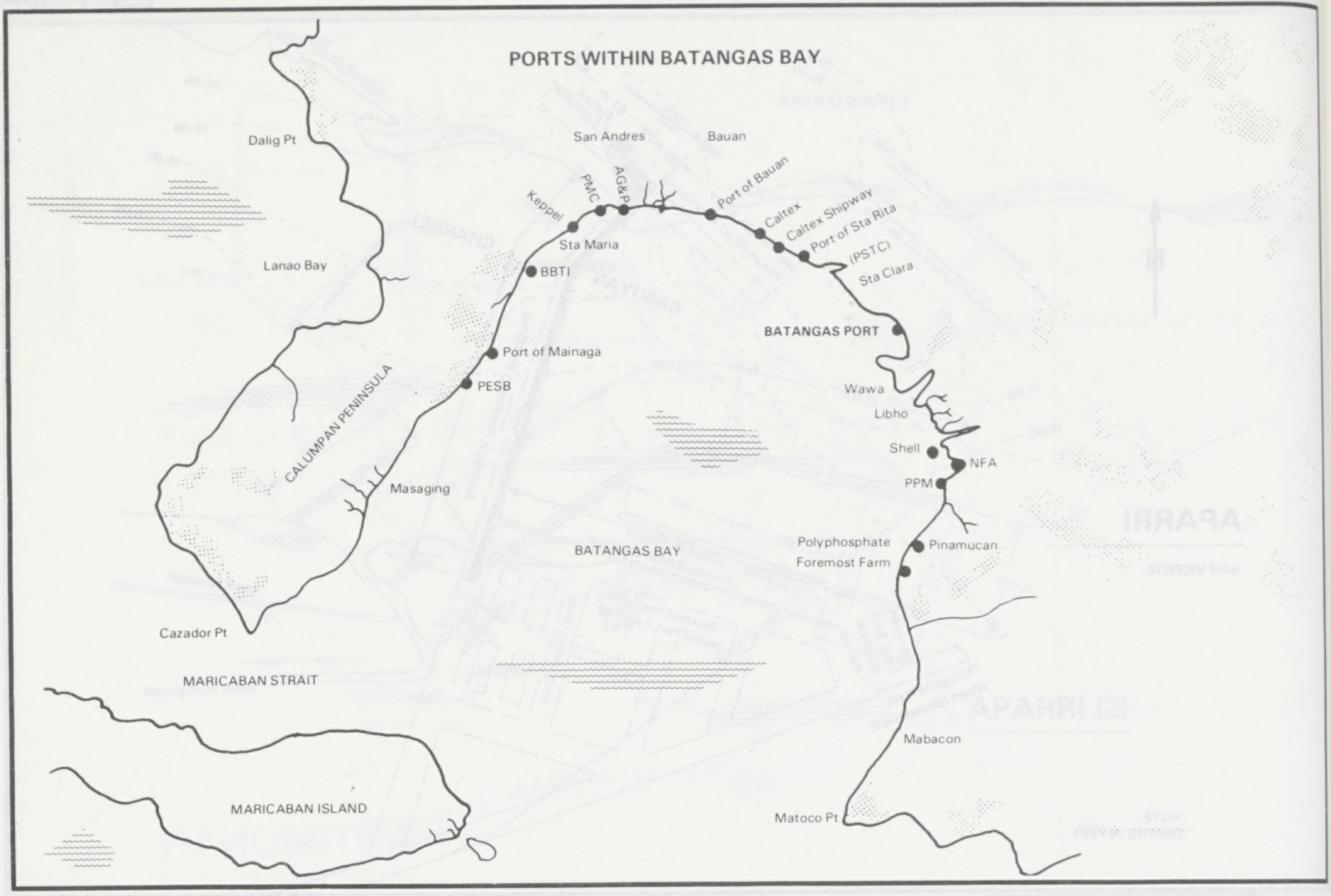
APARRI

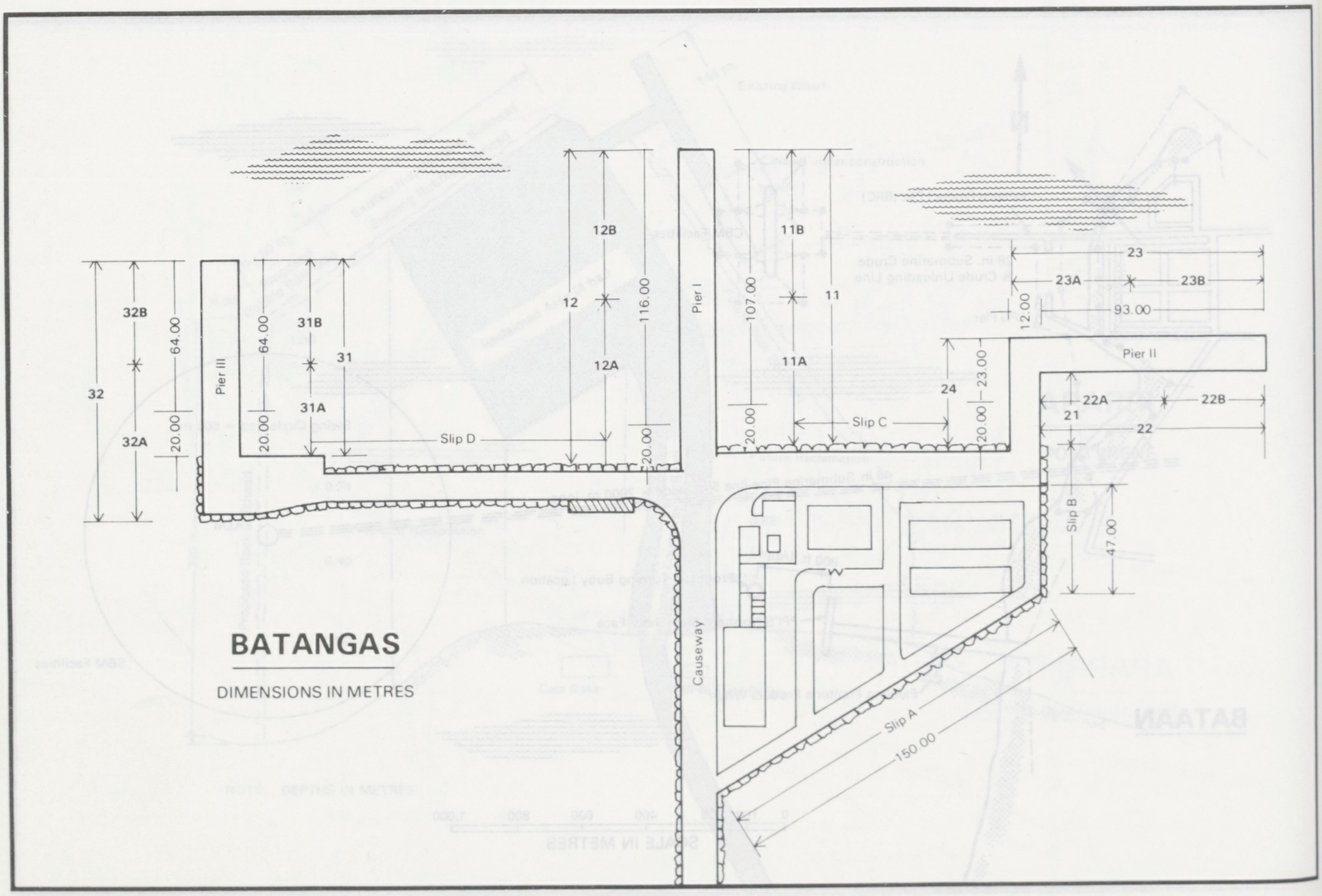
PORT IRENE

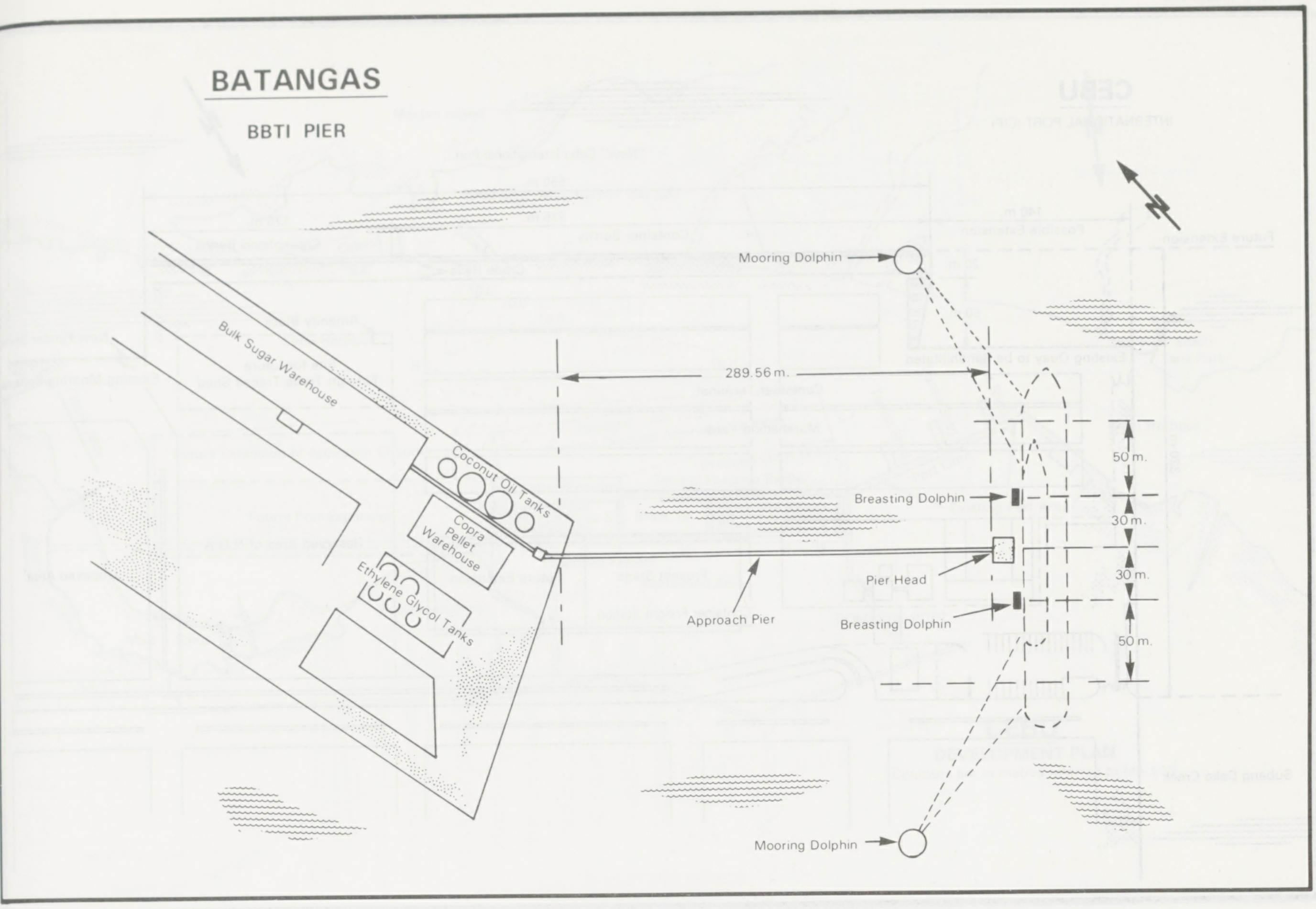
144 m.
Existing Wharf
Wharf under construction
66 m.
350 m
Existing Rubble Conc. Bulkhead
Existing Rubble Bulkhead
80 m.
Proposed Rubble Bulkhead
4.00
1.00
Reclaimed Area (4 ha.)
Future Rock Bulkhead
Future Reclamation
0.34
Proposed Reclamation
0.40
0.50
0.88
0.13
390 m
Proposed Rock Bulkhead
Temporary Causeway & Road
Casa Boka
BPW Field Office
NOTE: DEPTHS IN METRES

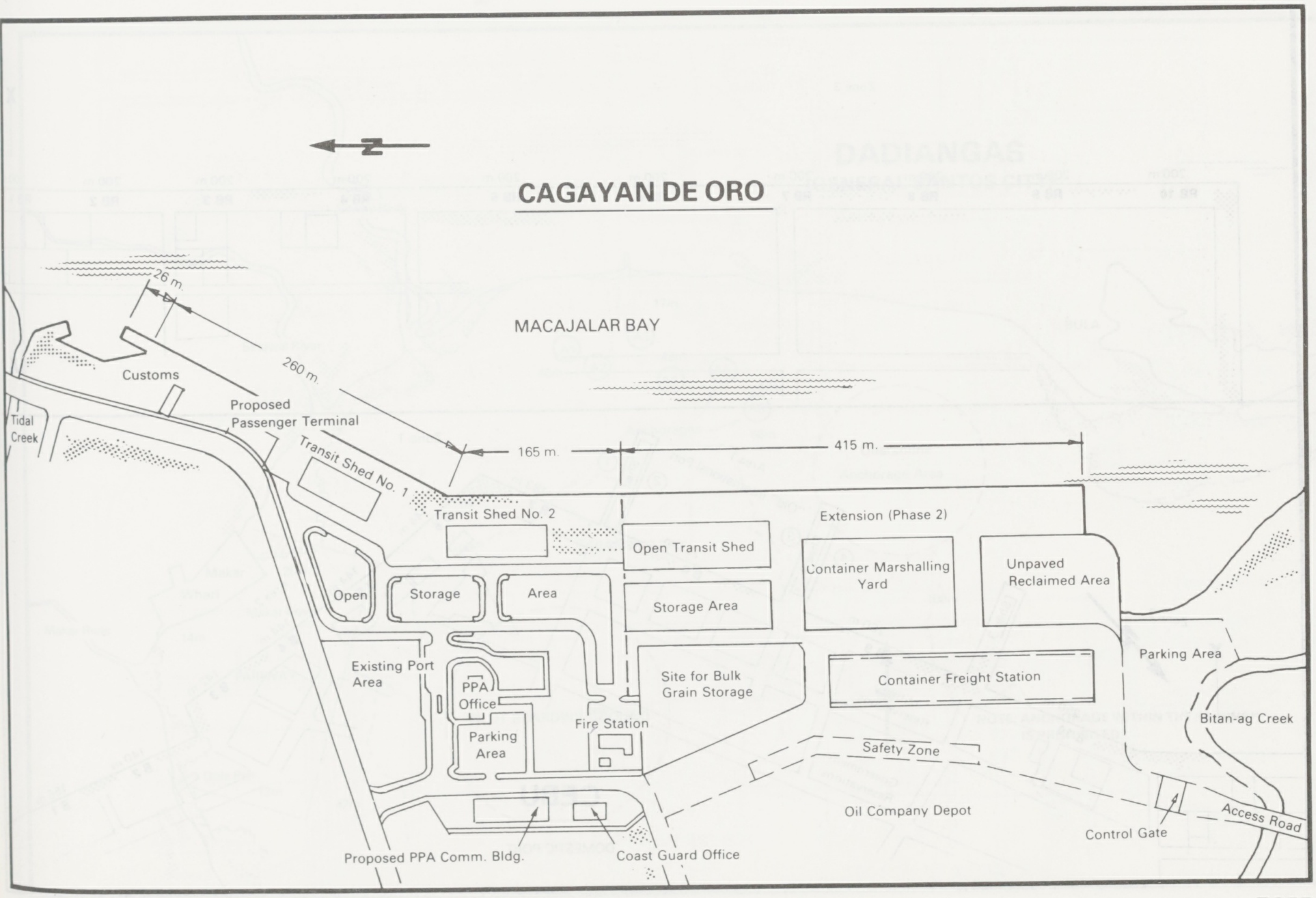

APARRI
SAN VICENTE
NOTE:
DEPTHS IN FEET
N
Direction of Current at High Tide
Direction of Current at Low Tide
20.00
25.00
15.00
10.00
5.00
61 m.
Future Wharf Extension
30 m.
131 m.
Future Wharf Extension
315 m.
CHANNEL
BABUYAN
Direction of Waves
Proposed Causeway Widening
280 m.
Proposed Rock Bulkhead
Reserved for Govt owned Port Facilities
Prop. Transit Shed
Prop. Rock Bulkhead
Philippine Navy Wharf (abandoned)

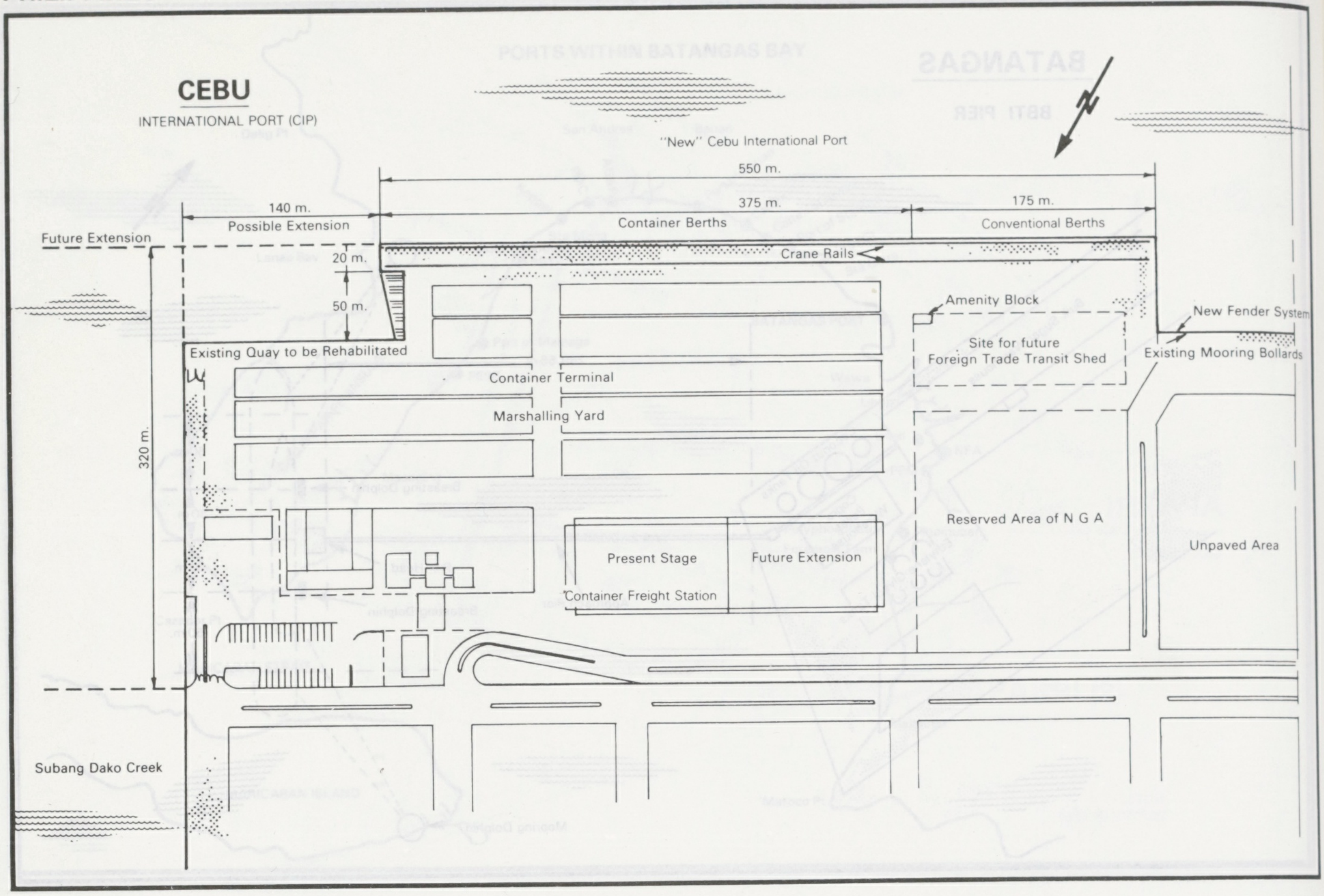

N
Existing Product Pier (BRC)
CBM Facilities
28 in. Submarine Crude & Crude Unloading Line
LPG Pier
Swing Circle Rad = 600 m.
48 in. Submarine Pipe-line 5 m. wide × 2000 m. long.
SALM
800 ft. (Appr.)
Proposed Turning Buoy Location
PPI'S Northern Most Jetty Face
SBM Facilities
Existing Planter's Product Wharf
BATAAN
0
100
200
400
600
800
1,000
SCALE IN METRES

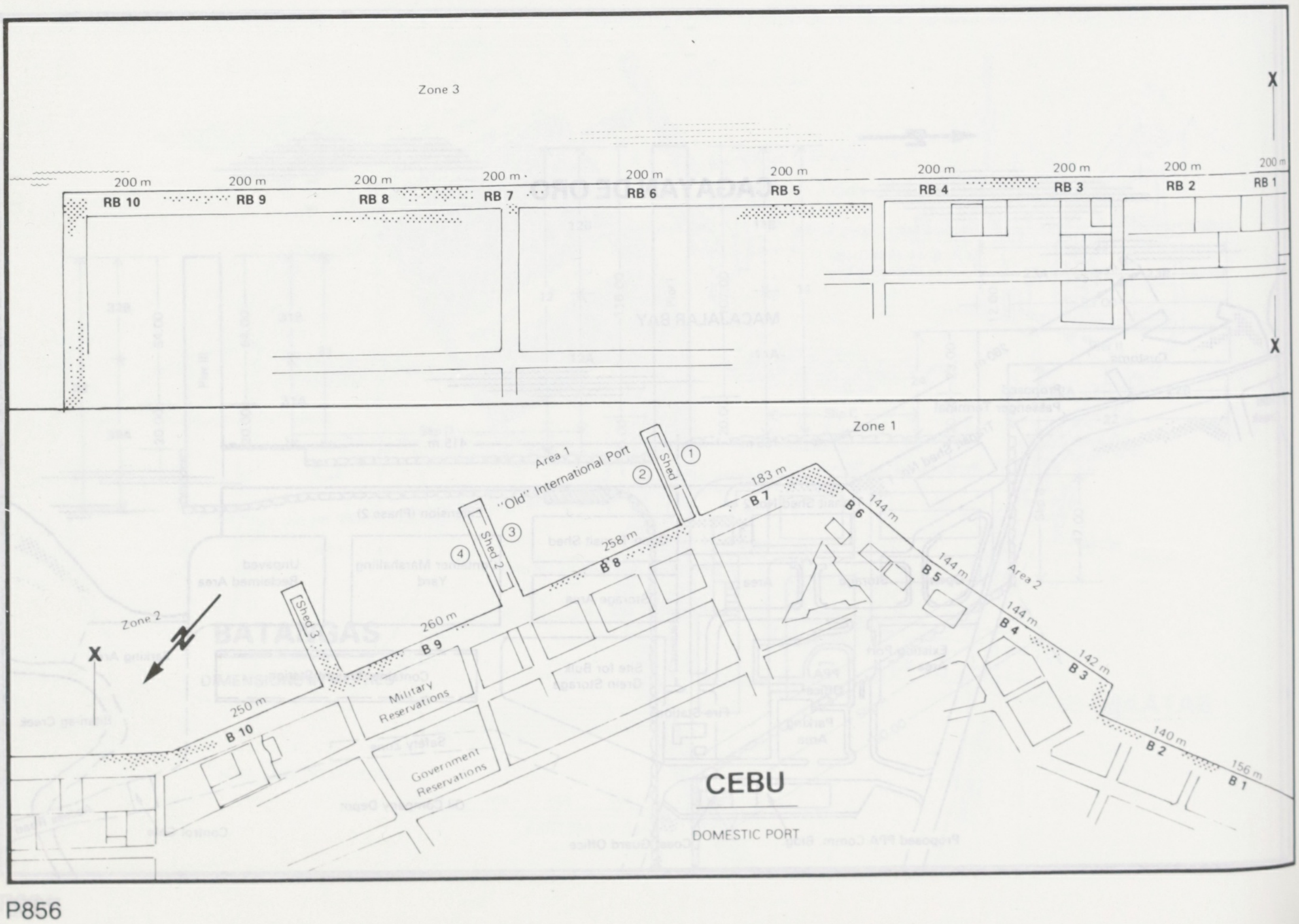

PORTS WITHIN BATANGAS BAY
Dalig Pt
San Andres
Bauan
Keppel
PMC
AG&P
Port of Bauan
Caltex
Caltex Shipway
Port of Sta Rita
(PSTC)
Sta Clara
Sta Maria
Lanao Bay
BBTI
BATANGAS PORT
Port of Mainaga
PESB
Wawa
Libho
CALUMPAN PENINSULA
Shell
NFA
PPM
Masaging
BATANGAS BAY
Polyphosphate
Pinamucan
Foremost Farm
Cazador Pt
MARICABAN STRAIT
Mabacon
MARICABAN ISLAND
Matoco Pt

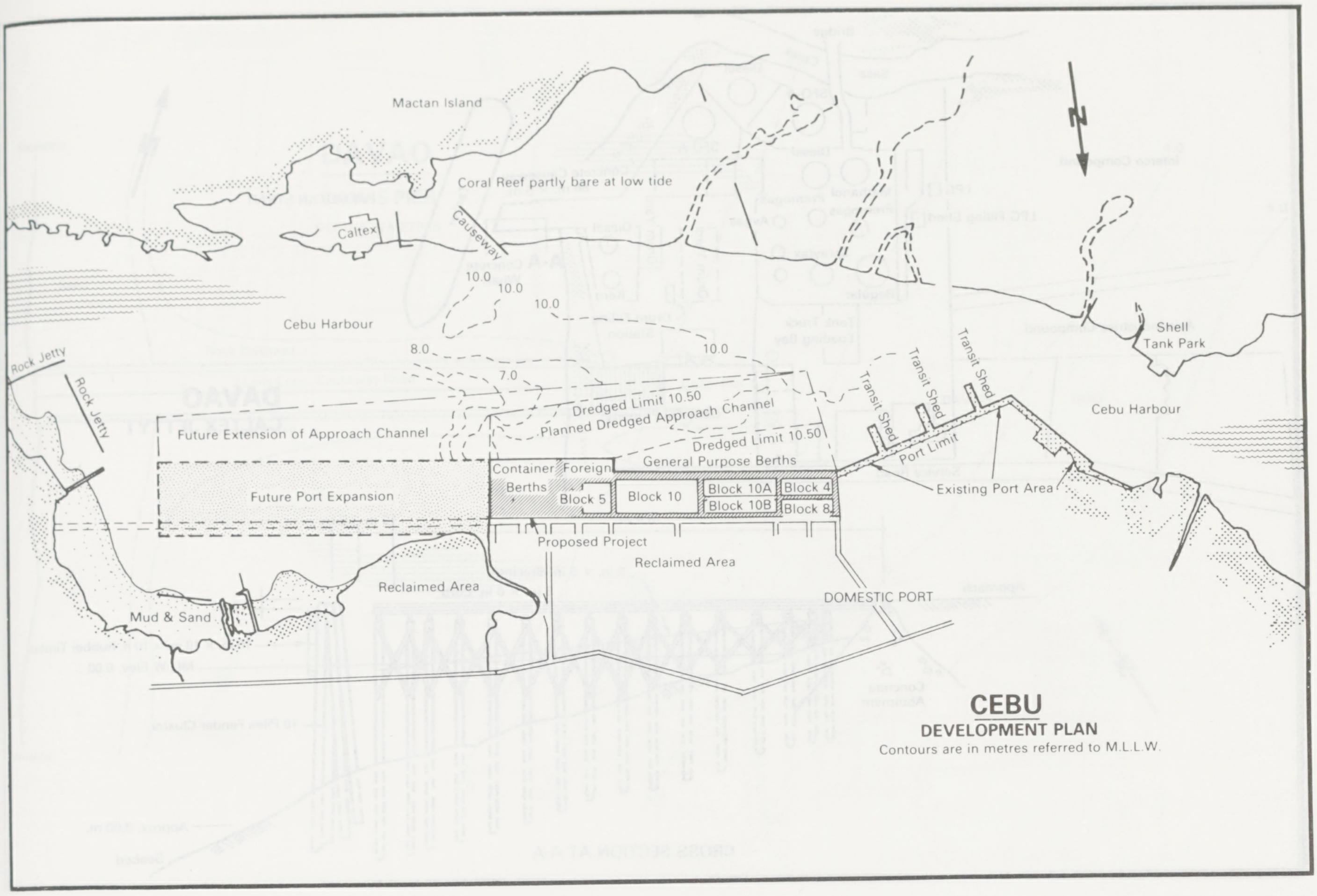

BATANGAS
DIMENSIONS IN METRES
32
32B
32A
64.00
20.00
Pier III
64.00
20.00
31B
31
31A
Slip D
12B
12
12A
116.00
20.00
Pier I
107.00
20.00
11B
11
11A
Slip C
24
23.00
20.00
12.00
23
23A
23B
93.00
Pier II
22A
22B
21
22
Slip B
47.00
Causeway
Slip A
150.00


BATANGAS
BBTI PIER
N
Bulk Sugar Warehouse
Coconut Oil Tanks
Copra Pellet Warehouse
Ethylene Glycol Tanks
Mooring Dolphin
289.56 m.
Breasting Dolphin
Pier Head
Breasting Dolphin
Approach Pier
Mooring Dolphin
50 m.
30 m.
30 m.
50 m.


N
CAGAYAN DE ORO
MACAJALAR BAY
26 m.
260 m.
165 m.
415 m.
Customs
Tidal Creek
Proposed Passenger Terminal
Transit Shed No. 1
Transit Shed No. 2
Open Transit Shed
Extension (Phase 2)
Container Marshalling Yard
Unpaved Reclaimed Area
Open
Storage
Area
Storage Area
Existing Port Area
PPA Office
Parking Area
Fire Station
Site for Bulk Grain Storage
Container Freight Station
Parking Area
Bitan-ag Creek
Safety Zone
Oil Company Depot
Control Gate
Access Road
Proposed PPA Comm. Bldg.
Coast Guard Office


CEBU
INTERNATIONAL PORT (CIP)
"New" Cebu International Port
550 m.
140 m.
375 m.
175 m.
Possible Extension
Container Berths
Conventional Berths
Future Extension
Crane Rails
20 m.
50 m.
Amenity Block
New Fender System
Existing Quay to be Rehabilitated
Site for future
Foreign Trade Transit Shed
Existing Mooring Bollards
Container Terminal
Marshalling Yard
320 m.
Reserved Area of N G A
Present Stage
Future Extension
Unpaved Area
Container Freight Station
Subang Dako Creek


Zone 3
X
200 m
RB 10
200 m
RB 9
200 m
RB 8
200 m
RB 7
200 m
RB 6
200 m
RB 5
200 m
RB 4
200 m
RB 3
200 m
RB 2
200 m
RB 1
X
Zone 1
Area 1
"Old" International Port
① Shed 1
②
③ Shed 2
④
Shed 3
183 m
B 7
144 m
B 6
144 m
B 5
Area 2
144 m
B 4
142 m
B 3
258 m
B 8
260 m
B 9
Zone 2
X
250 m
B 10
Military Reservations
Government Reservations
140 m
B 2
156 m
B 1
CEBU
DOMESTIC PORT

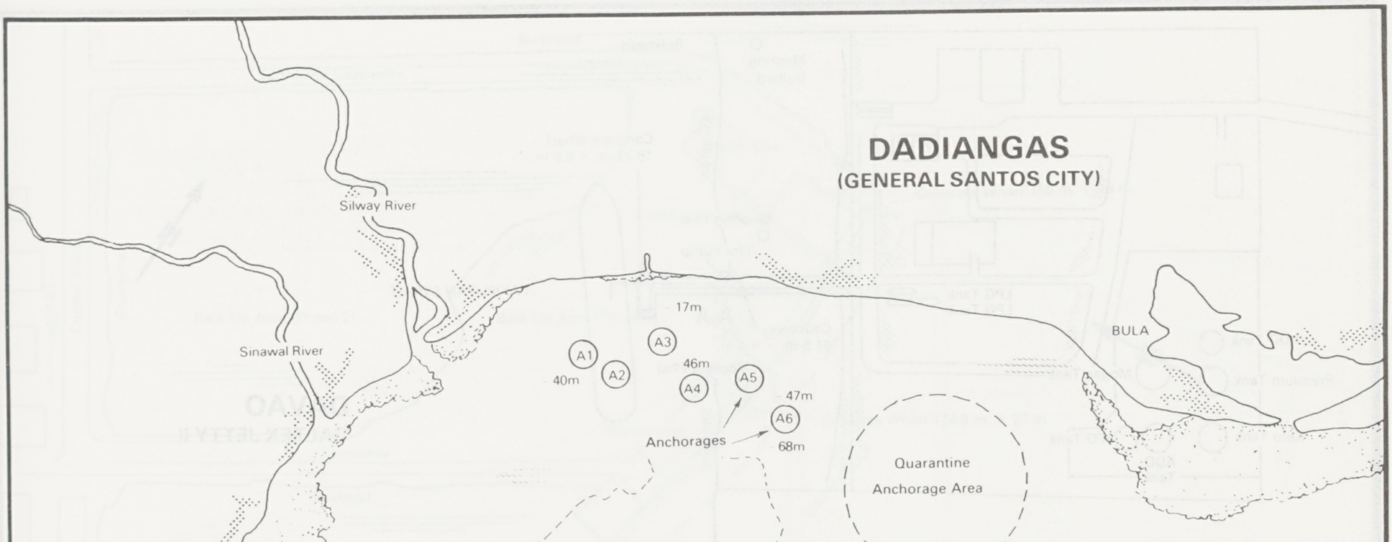


Mactan Island
Coral Reef partly bare at low tide
Caltex
Causeway
10.0
10.0
10.0
Cebu Harbour
8.0
7.0
10.0
Shell
Tank Park
Rock Jetty
Rock Jetty
Future Extension of Approach Channel
Dredged Limit 10.50
Planned Dredged Approach Channel
Dredged Limit 10.50
Transit Shed
Transit Shed
Transit Shed
Cebu Harbour
Port Limit
General Purpose Berths
Container Berths
Foreign
Future Port Expansion
Block 5
Block 10
Block 10A
Block 10B
Block 4
Block 8
Existing Port Area
Proposed Project
Reclaimed Area
Reclaimed Area
Mud & Sand
DOMESTIC PORT
N

CEBU

DEVELOPMENT PLAN

Contours are in metres referred to M.L.L.W.

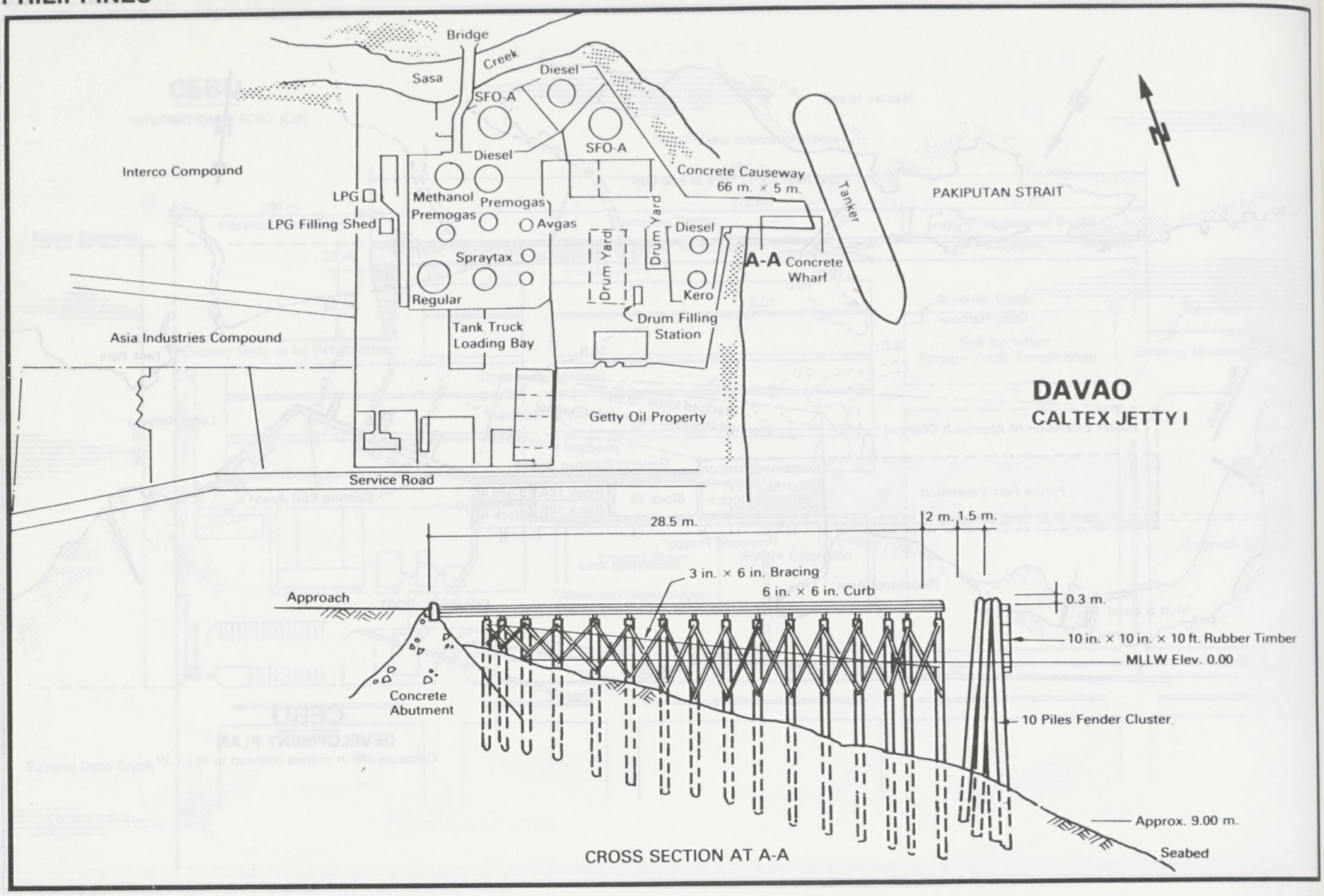


DADIANGAS

(GENERAL SANTOS CITY)

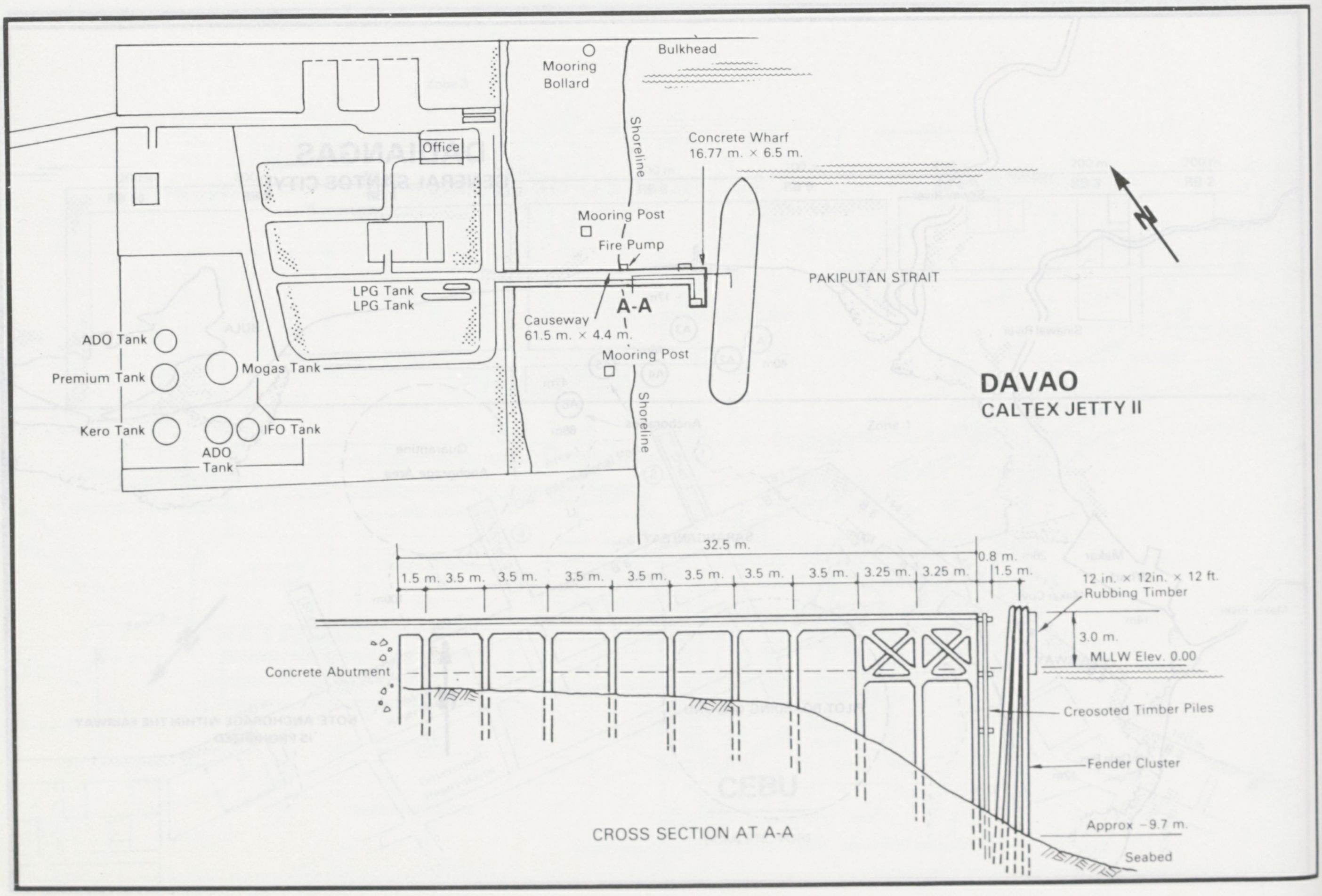
Silway River
Sinawal River
17m
A1
A2
A3
46m
A4
A5
47m
40m
A6
68m
Anchorages
BULA
Quarantine
Anchorage Area
100m
SARANGANI BAY
100m
Makar
Wharf
26m
Makar Cove
Makar River
14m
FAIRWAY
PILOT BOARDING GROUND
N
Dole Pier
12m
42m

NOTE: ANCHORAGE WITHIN THE FAIRWAY IS PROHIBITED



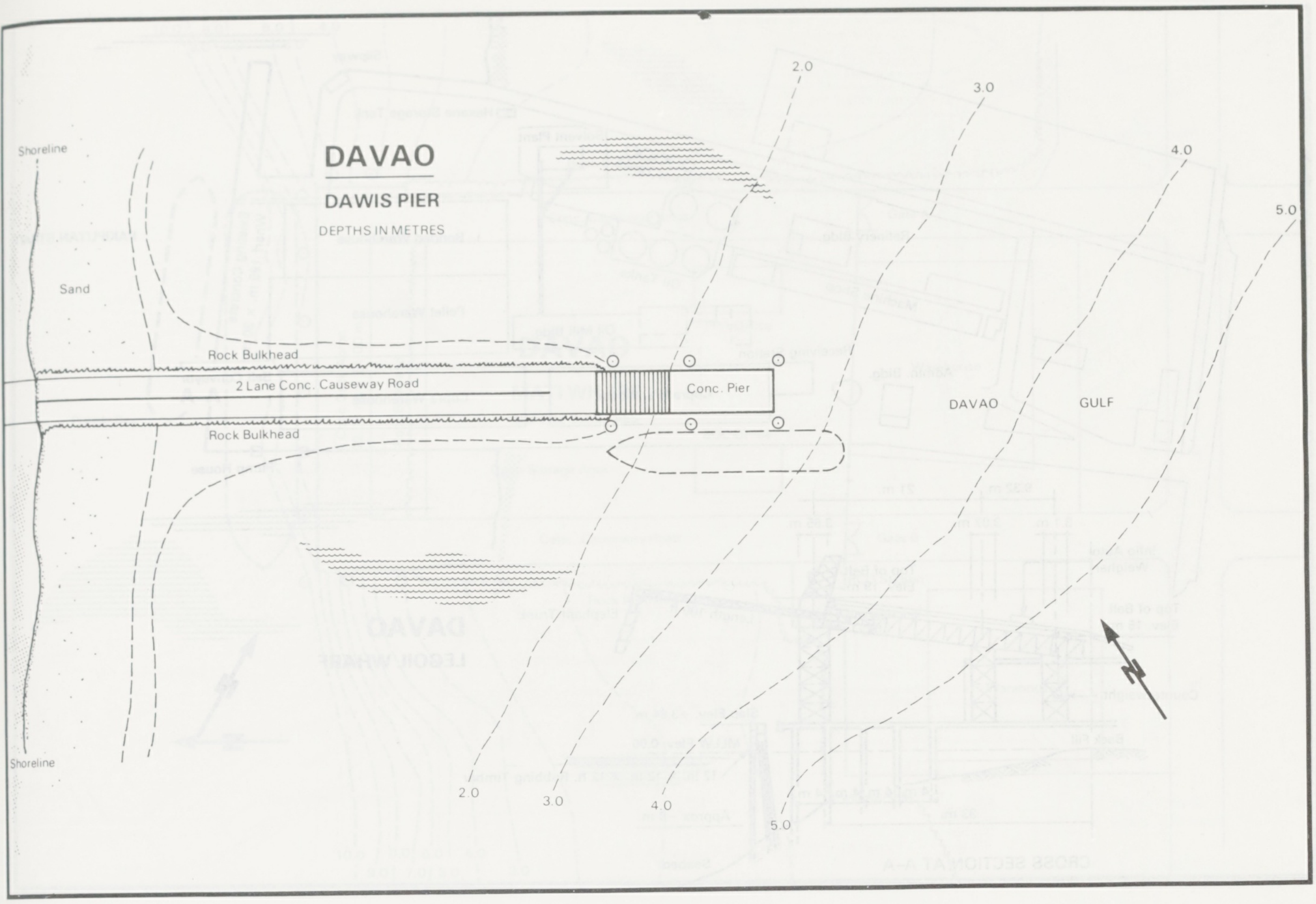
DAVAO
CALTEX JETTY I

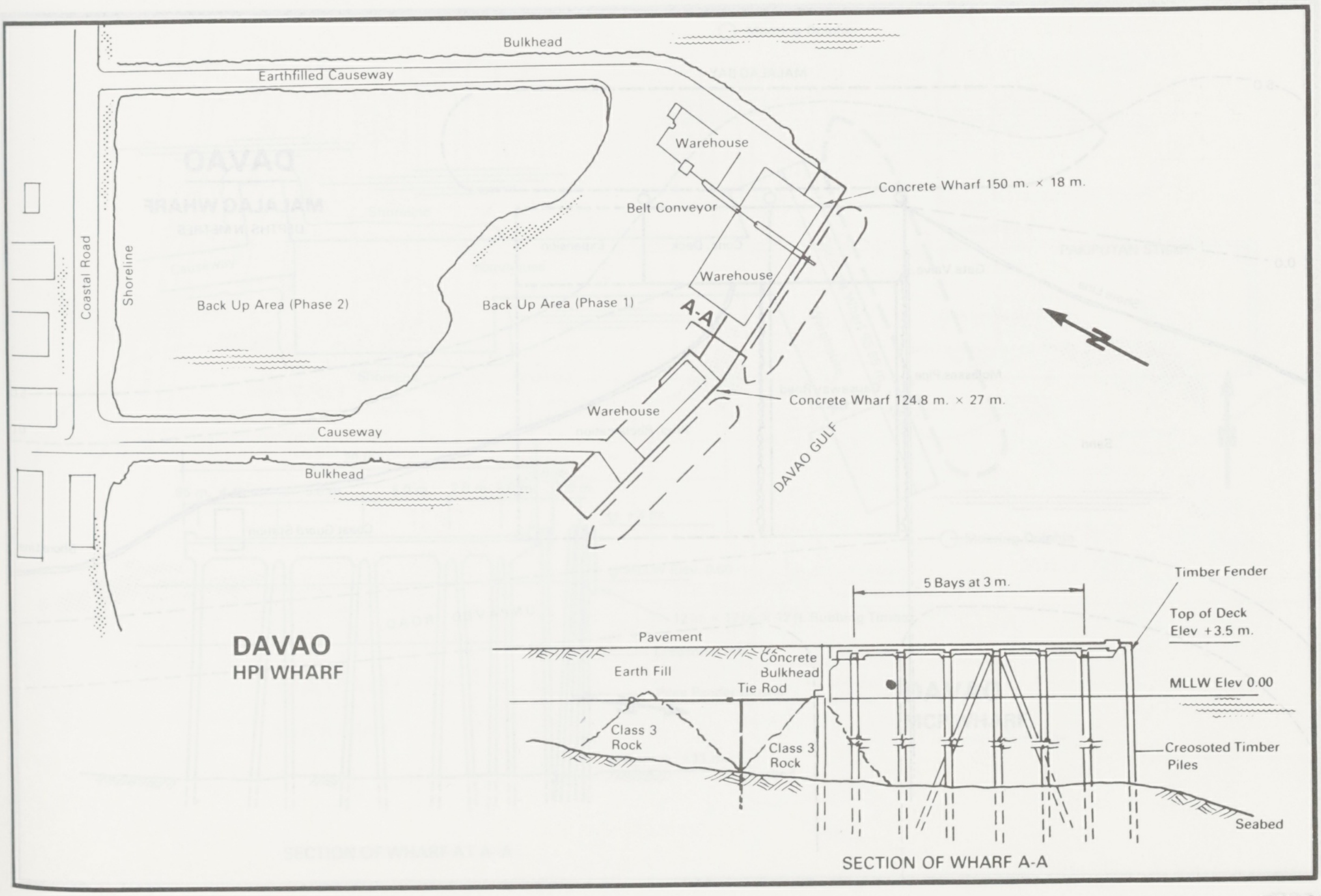
Bridge
Creek
Sasa
Diesel
SFO-A
SFO-A
Diesel
Interco Compound
LPG
LPG Filling Shed
Methanol
Premogas
Premogas
Avgas
Spraytax
Regular
Concrete Causeway
66 m. × 5 m.
Tanker
PAKIPUTAN STRAIT
Drum Yard
Drum Yard
Diesel
Kero
A-A
Concrete
Wharf
Drum Filling
Station
Tank Truck
Loading Bay
Asia Industries Compound
Getty Oil Property
Service Road
28.5 m.
2 m. 1.5 m.
3 in. × 6 in. Bracing
6 in. × 6 in. Curb
Approach
0.3 m.
10 in. × 10 in. × 10 ft. Rubber Timber
MLLW Elev. 0.00
Concrete
Abutment
10 Piles Fender Cluster
Approx. 9.00 m.
Seabed
N
CROSS SECTION AT A-A

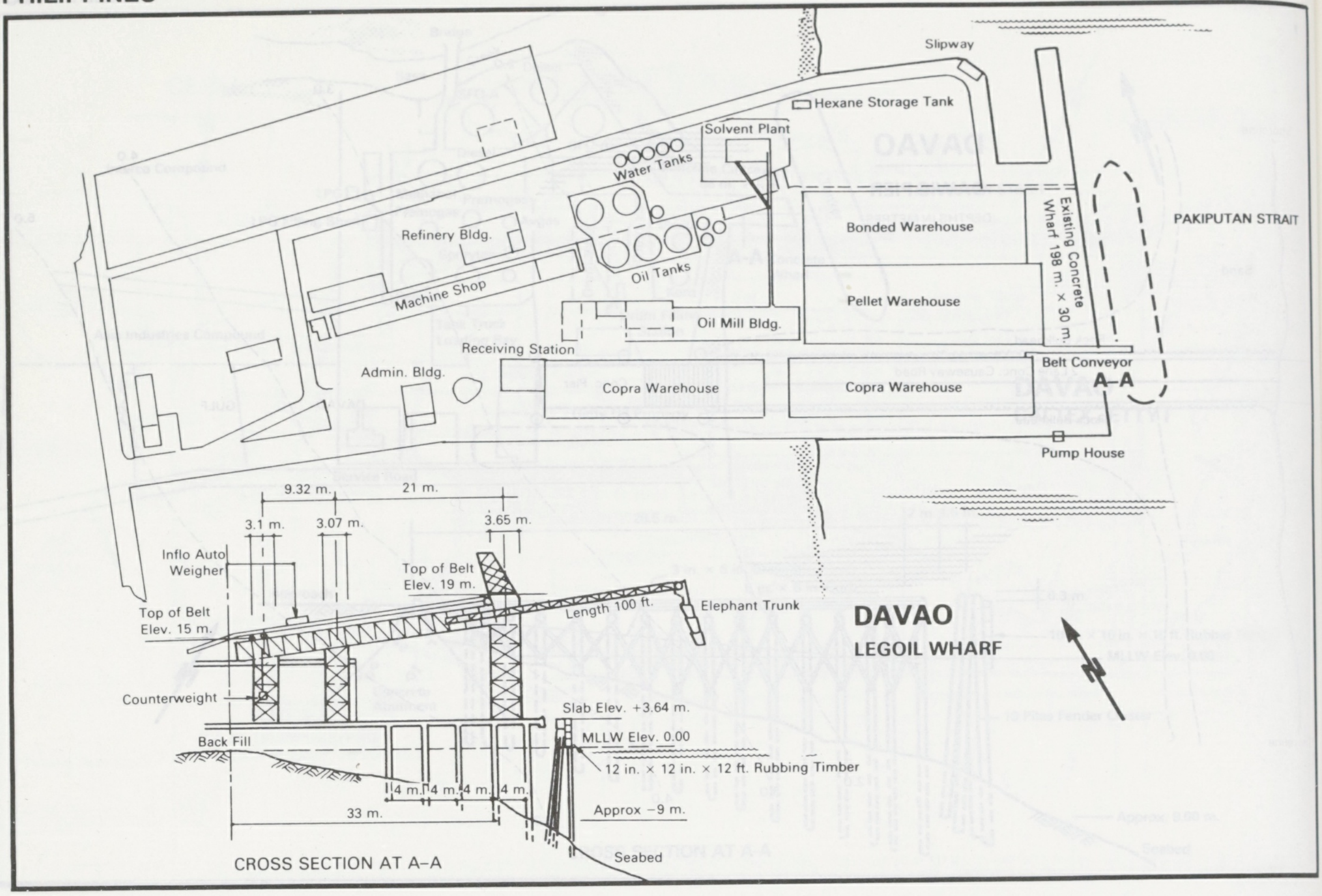


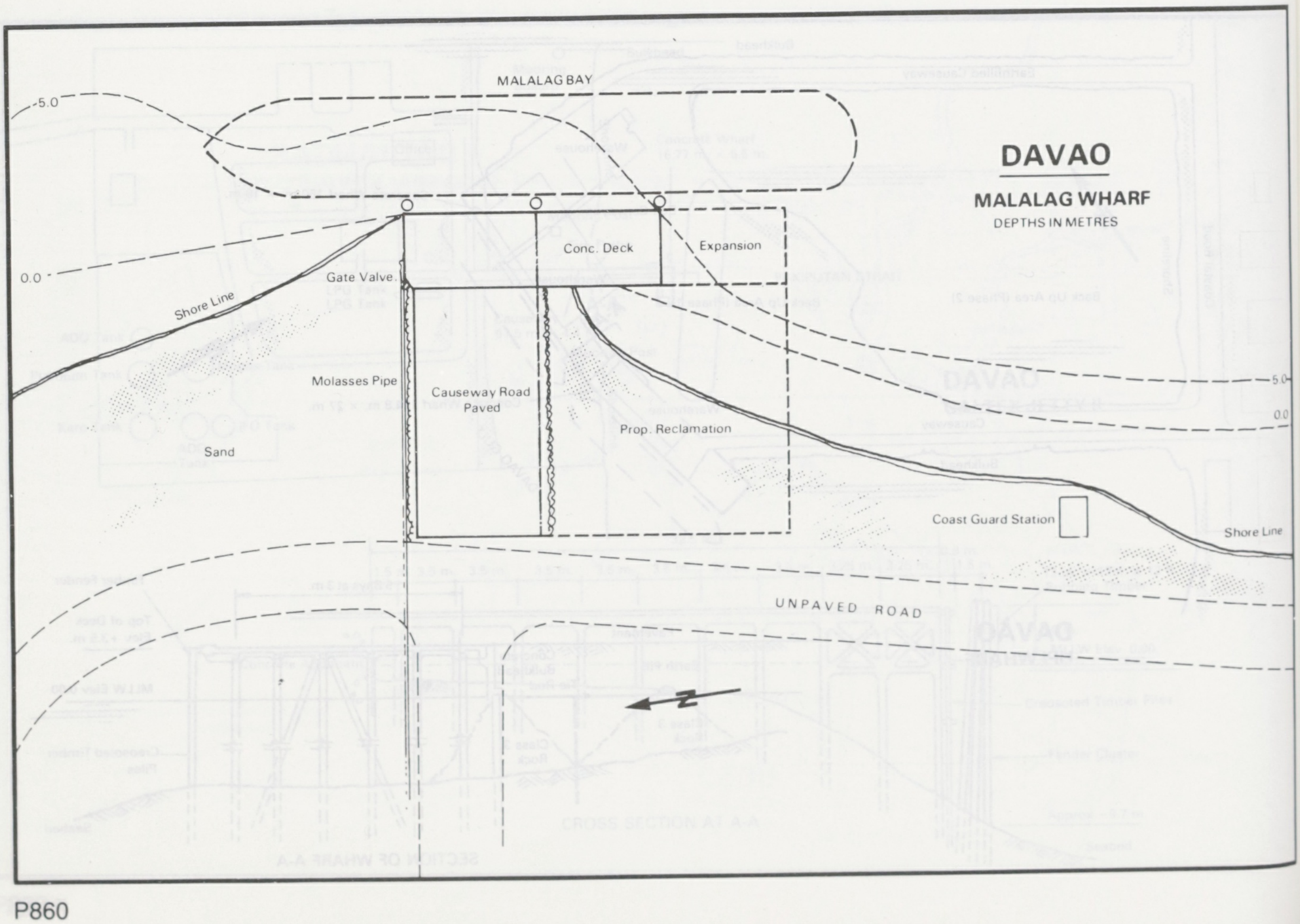
DAVAO
CALTEX JETTY II

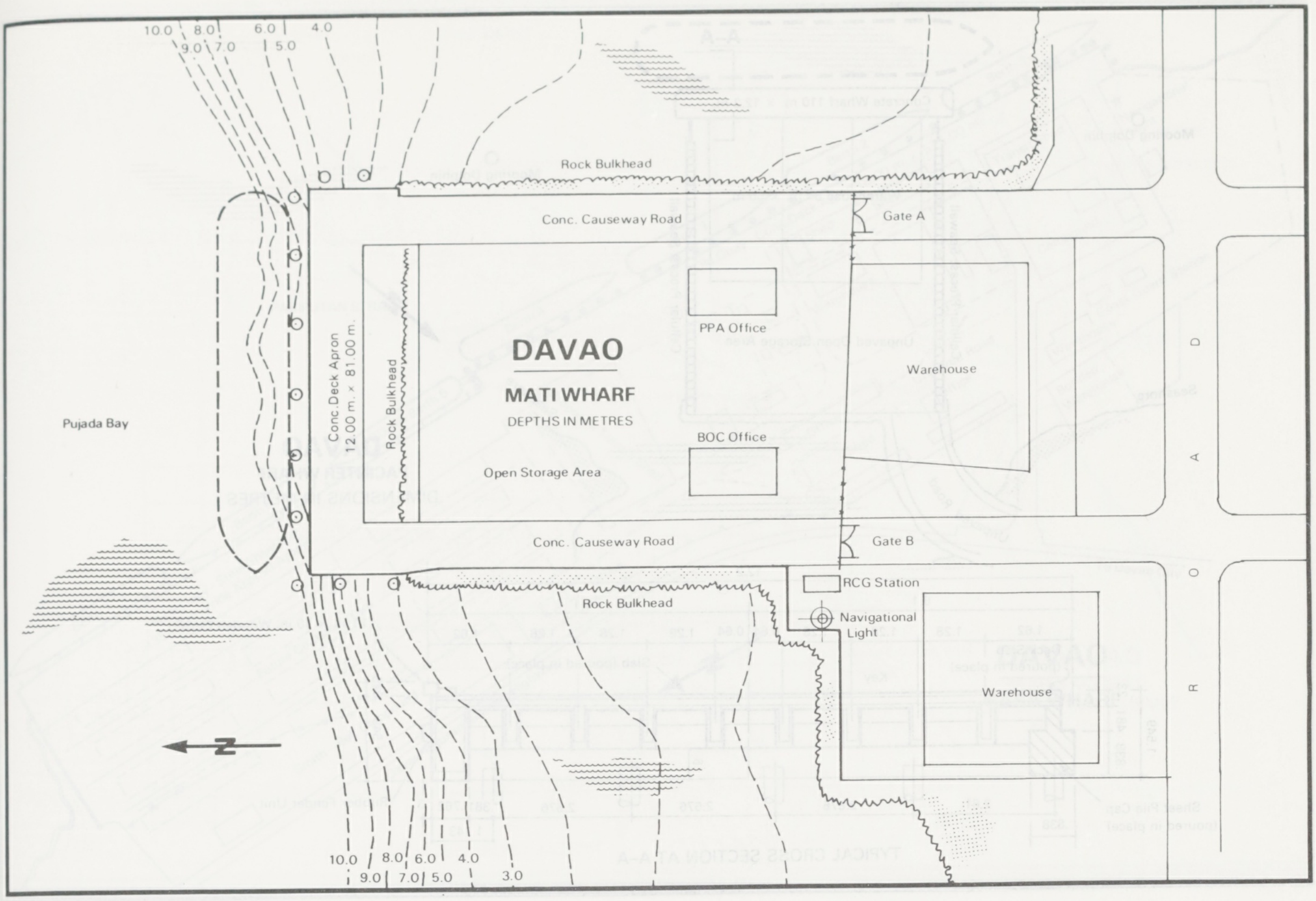
Mooring
Bollard
Bulkhead
Shoreline
Office
Concrete Wharf
16.77 m. × 6.5 m.
Mooring Post
Fire Pump
LPG Tank
LPG Tank
A-A
Causeway
61.5 m. × 4.4 m.
PAKIPUTAN STRAIT
Mooring Post
Shoreline
ADO Tank
Premium Tank
Mogas Tank
Kero Tank
ADO
Tank
IFO Tank
N
32.5 m.
0.8 m.
1.5 m. 3.5 m. 3.5 m. 3.5 m. 3.5 m. 3.5 m. 3.5 m. 3.5 m. 3.25 m. 3.25 m. 1.5 m.
12 in. × 12in. × 12 ft.
Rubbing Timber
3.0 m.
MLLW Elev. 0.00
Concrete Abutment
Creosoted Timber Piles
Fender Cluster
Approx −9.7 m.
Seabed
CROSS SECTION AT A-A

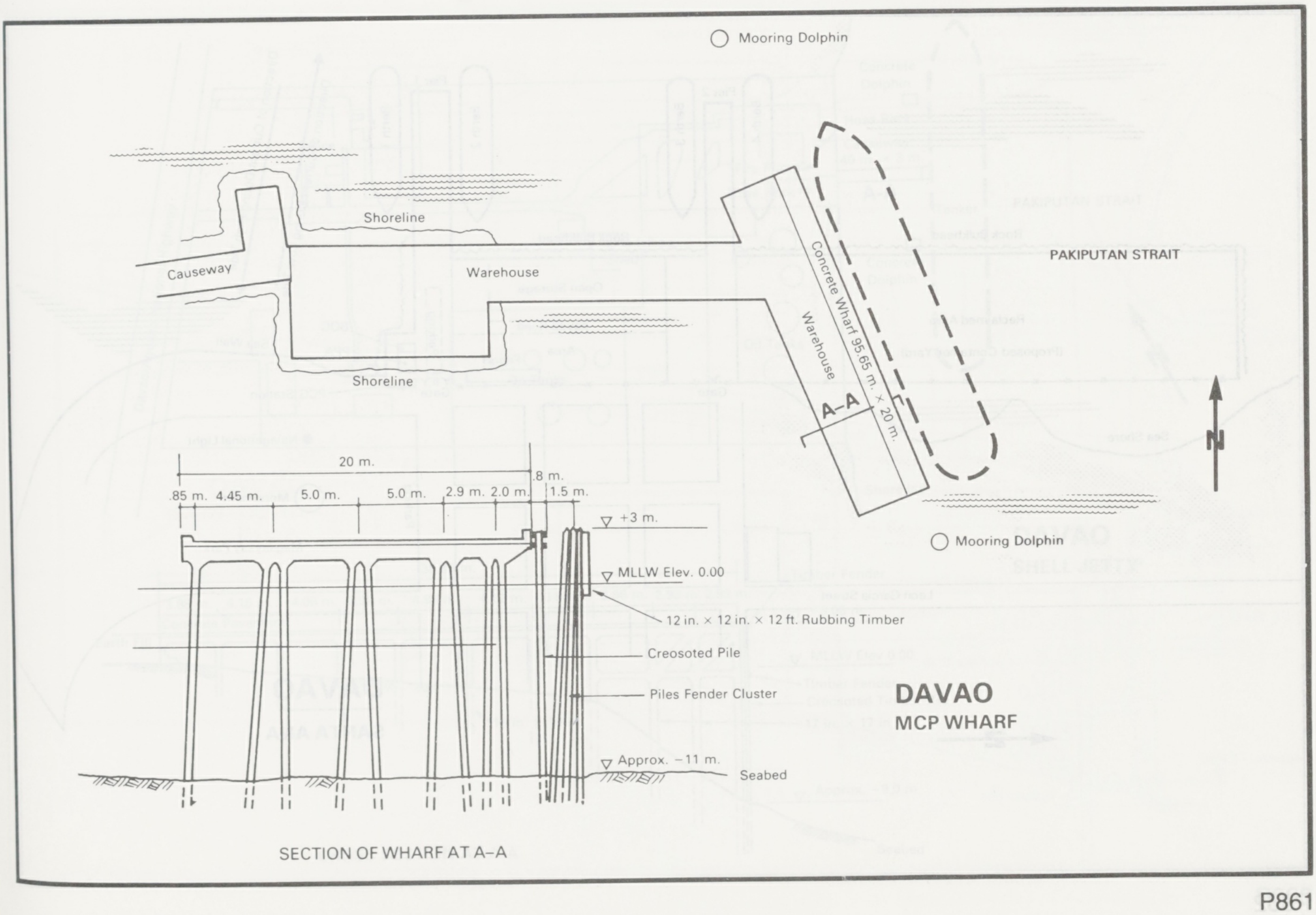

DAVAO
DAWIS PIER
DEPTHS IN METRES
Shoreline
Sand
Rock Bulkhead
2 Lane Conc. Causeway Road
Conc. Pier
Rock Bulkhead
Shoreline
DAVAO
GULF
2.0
3.0
4.0
5.0
2.0
3.0
4.0
5.0

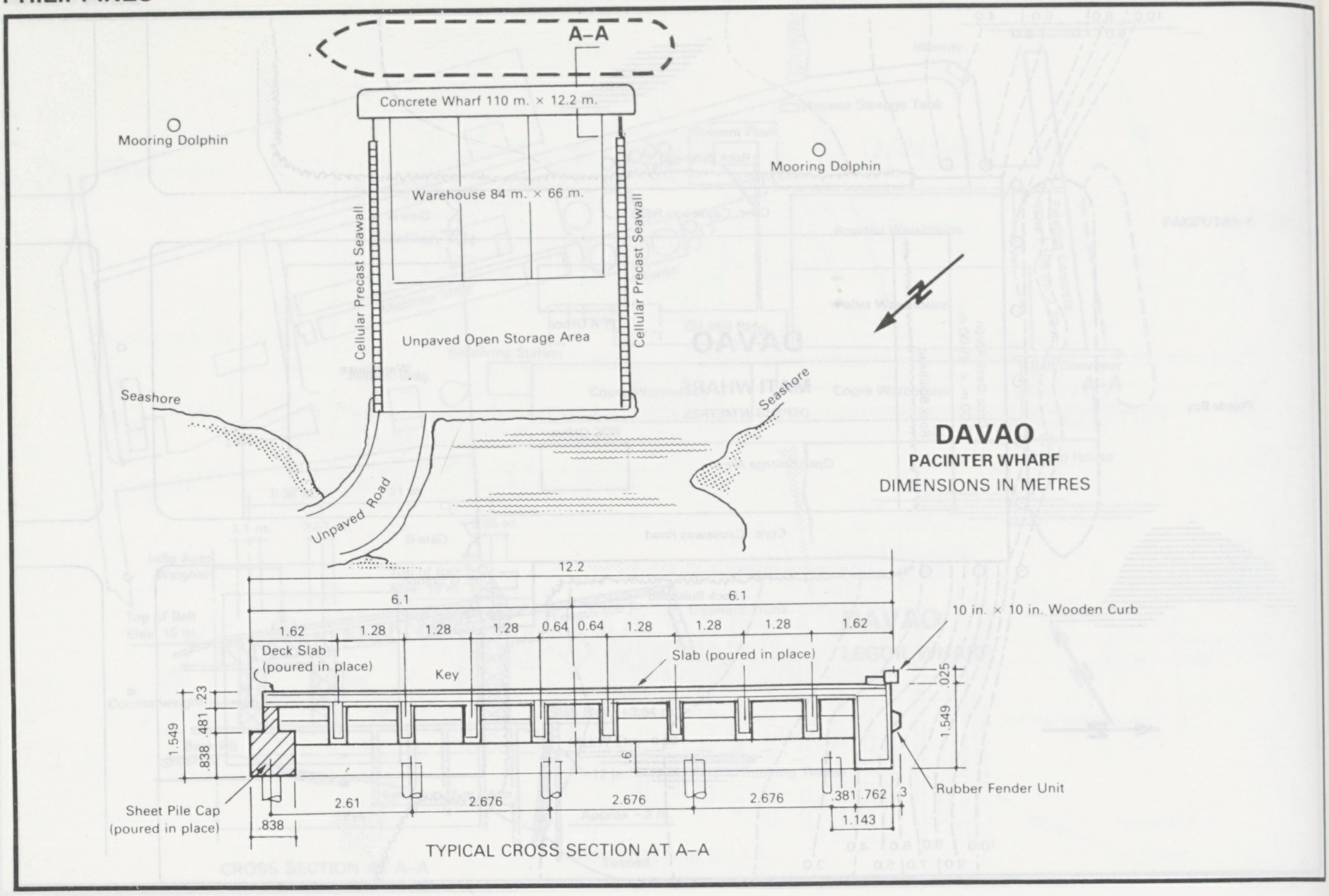

Bulkhead
Earthfilled Causeway
Warehouse
Concrete Wharf 150 m. × 18 m.
Belt Conveyor
Coastal Road
Shoreline
Back Up Area (Phase 2)
Back Up Area (Phase 1)
Warehouse
A-A
Warehouse
Concrete Wharf 124.8 m. × 27 m.
Causeway
Bulkhead
DAVAO GULF
DAVAO
HPI WHARF
5 Bays at 3 m.
Timber Fender
Top of Deck Elev +3.5 m.
Pavement
Earth Fill
Concrete Bulkhead
Tie Rod
MLLW Elev 0.00
Class 3 Rock
Class 3 Rock
Creosoted Timber Piles
Seabed
SECTION OF WHARF A-A

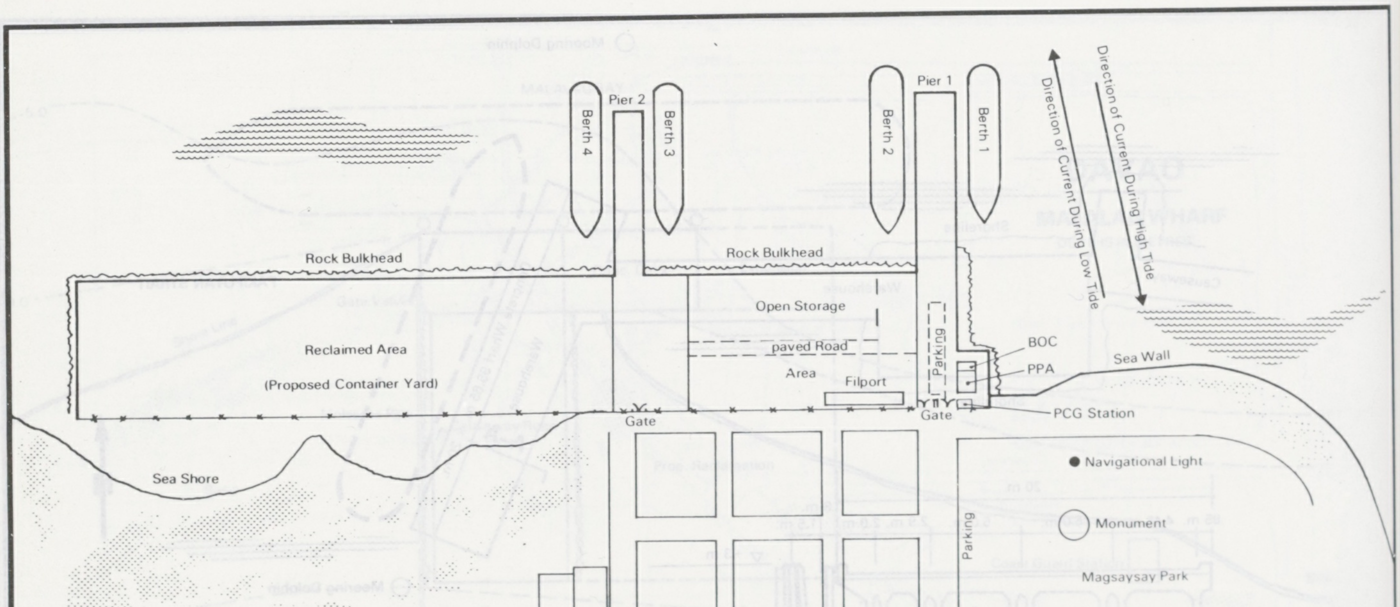

Slipway
Hexane Storage Tank
Solvent Plant
Water Tanks
Refinery Bldg.
Machine Shop
Oil Tanks
Bonded Warehouse
Existing Concrete Wharf 198 m. × 30 m
PAKIPUTAN STRAIT
Pellet Warehouse
Oil Mill Bldg.
Receiving Station
Admin. Bldg.
Copra Warehouse
Copra Warehouse
Belt Conveyor
A–A
Pump House
9.32 m.
21 m.
3.1 m.
3.07 m.
3.65 m.
Inflo Auto Weigher
Top of Belt Elev. 19 m.
Top of Belt Elev. 15 m.
Length 100 ft.
Elephant Trunk
DAVAO
LEGOIL WHARF
N
Counterweight
Slab Elev. +3.64 m.
Back Fill
MLLW Elev. 0.00
12 in. × 12 in. × 12 ft. Rubbing Timber
4 m.
4 m.
4 m.
4 m.
33 m.
Approx −9 m.
CROSS SECTION AT A–A
Seabed

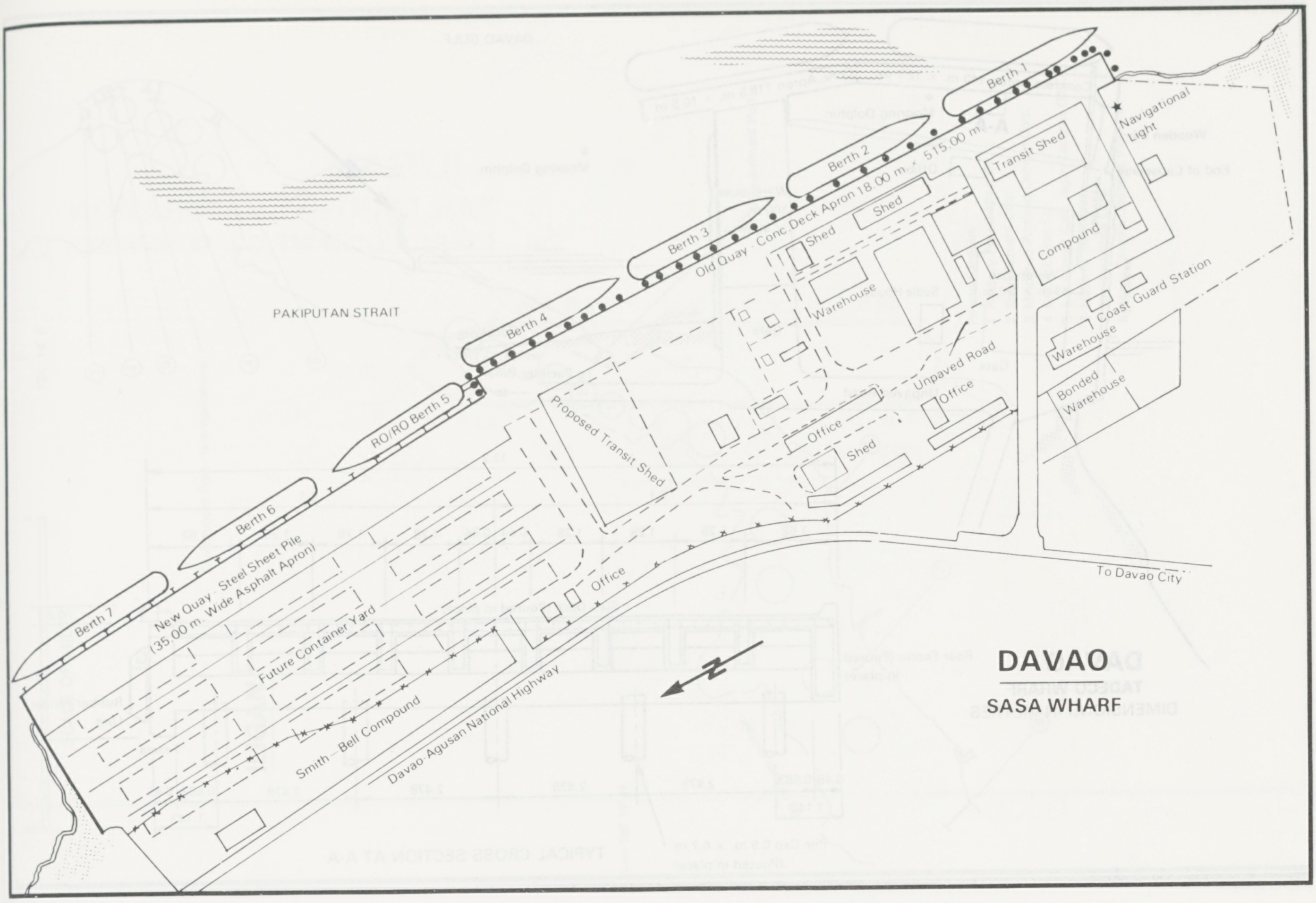

MALALAG BAY
-5.0
0.0
DAVAO
MALALAG WHARF
DEPTHS IN METRES
Conc. Deck
Expansion
Gate Valve
Shore Line
Molasses Pipe
Causeway Road Paved
Prop. Reclamation
Sand
5.0
0.0
Coast Guard Station
Shore Line
UNPAVED ROAD
N


DAVAO
MATI WHARF
DEPTHS IN METRES
10.0
8.0
9.0
7.0
6.0
5.0
4.0
3.0
Rock Bulkhead
Conc. Causeway Road
Gate A
PPA Office
Warehouse
Pujada Bay
Conc. Deck Apron 12.00 m. × 81.00 m.
Rock Bulkhead
BOC Office
Open Storage Area
Gate B
RCG Station
Navigational Light
Warehouse
ROAD
N


DAVAO
MCP WHARF
Mooring Dolphin
Shoreline
Causeway
Warehouse
Shoreline
Concrete Wharf 95.65 m. × 20 m.
Warehouse
A–A
PAKIPUTAN STRAIT
Mooring Dolphin
N
20 m.
.8 m.
.85 m.
4.45 m.
5.0 m.
5.0 m.
2.9 m.
2.0 m.
1.5 m.
+3 m.
MLLW Elev. 0.00
12 in. × 12 in. × 12 ft. Rubbing Timber
Creosoted Pile
Piles Fender Cluster
Approx. −11 m.
Seabed
SECTION OF WHARF AT A–A


A–A
Concrete Wharf 110 m. × 12.2 m.
Mooring Dolphin
Mooring Dolphin
Warehouse 84 m. × 66 m.
Cellular Precast Seawall
Cellular Precast Seawall
Unpaved Open Storage Area
Seashore
Seashore
Unpaved Road
DAVAO
PACINTER WHARF
DIMENSIONS IN METRES
12.2
6.1
6.1
1.62
1.28
1.28
1.28
0.64
0.64
1.28
1.28
1.28
1.62
10 in. × 10 in. Wooden Curb
Deck Slab (poured in place)
Key
Slab (poured in place)
.23
.481
.838
1.549
.025
1.549
.6
2.61
2.676
2.676
2.676
.381
.762
.3
1.143
.838
Sheet Pile Cap (poured in place)
Rubber Fender Unit
TYPICAL CROSS SECTION AT A–A

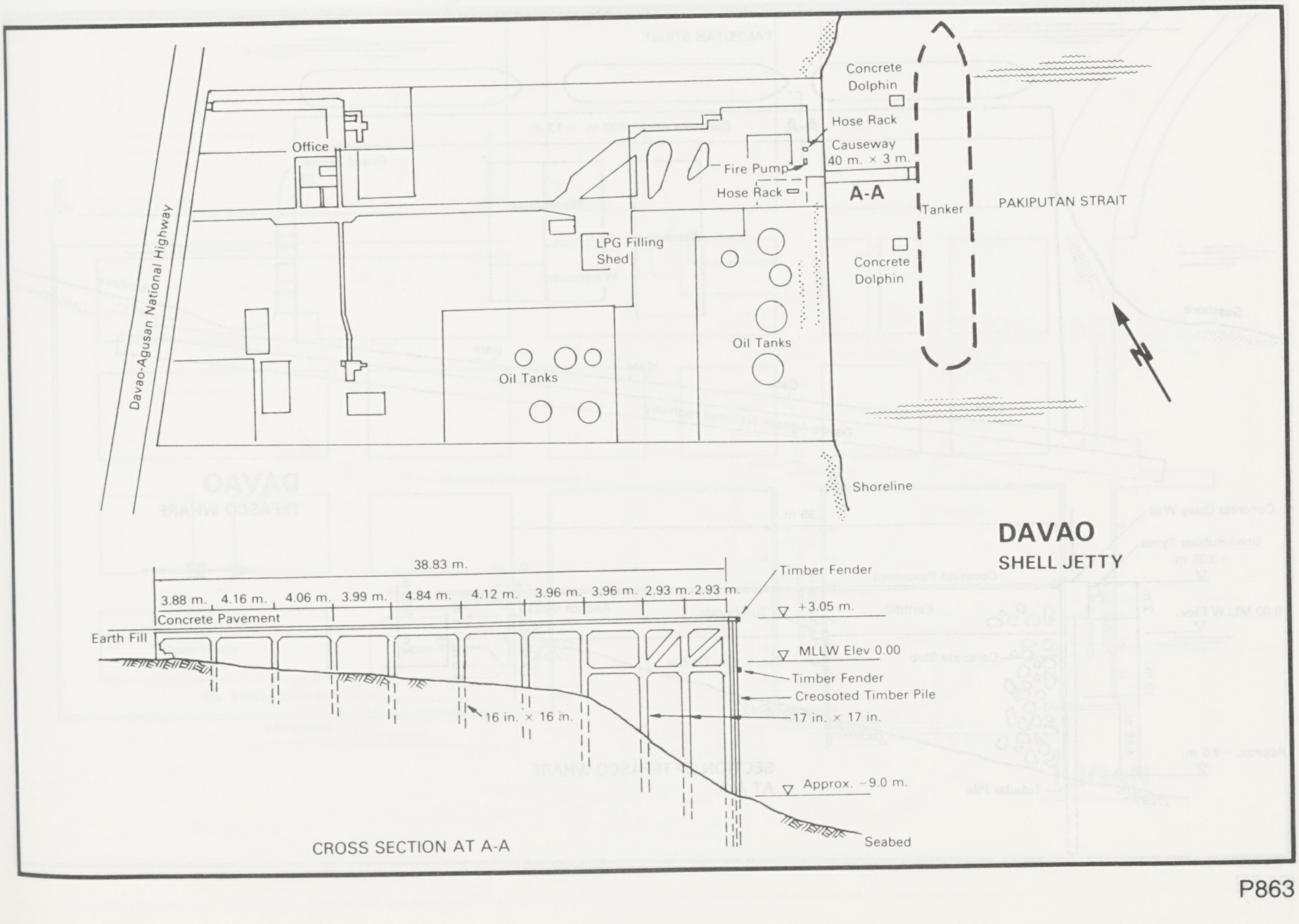

Pier 2
Berth 4
Berth 3
Pier 1
Berth 2
Berth 1
Direction of Current During Low Tide
Direction of Current During High Tide
Rock Bulkhead
Rock Bulkhead
Open Storage
paved Road
Area
Reclaimed Area
(Proposed Container Yard)
Parking
BOC
PPA
Filport
Sea Wall
Gate
Gate
PCG Station
Sea Shore
Navigational Light
Monument
Parking
Magsaysay Park
Leon Garcia Street
DAVAO
SANTA ANA



DAVAO

SASA WHARF

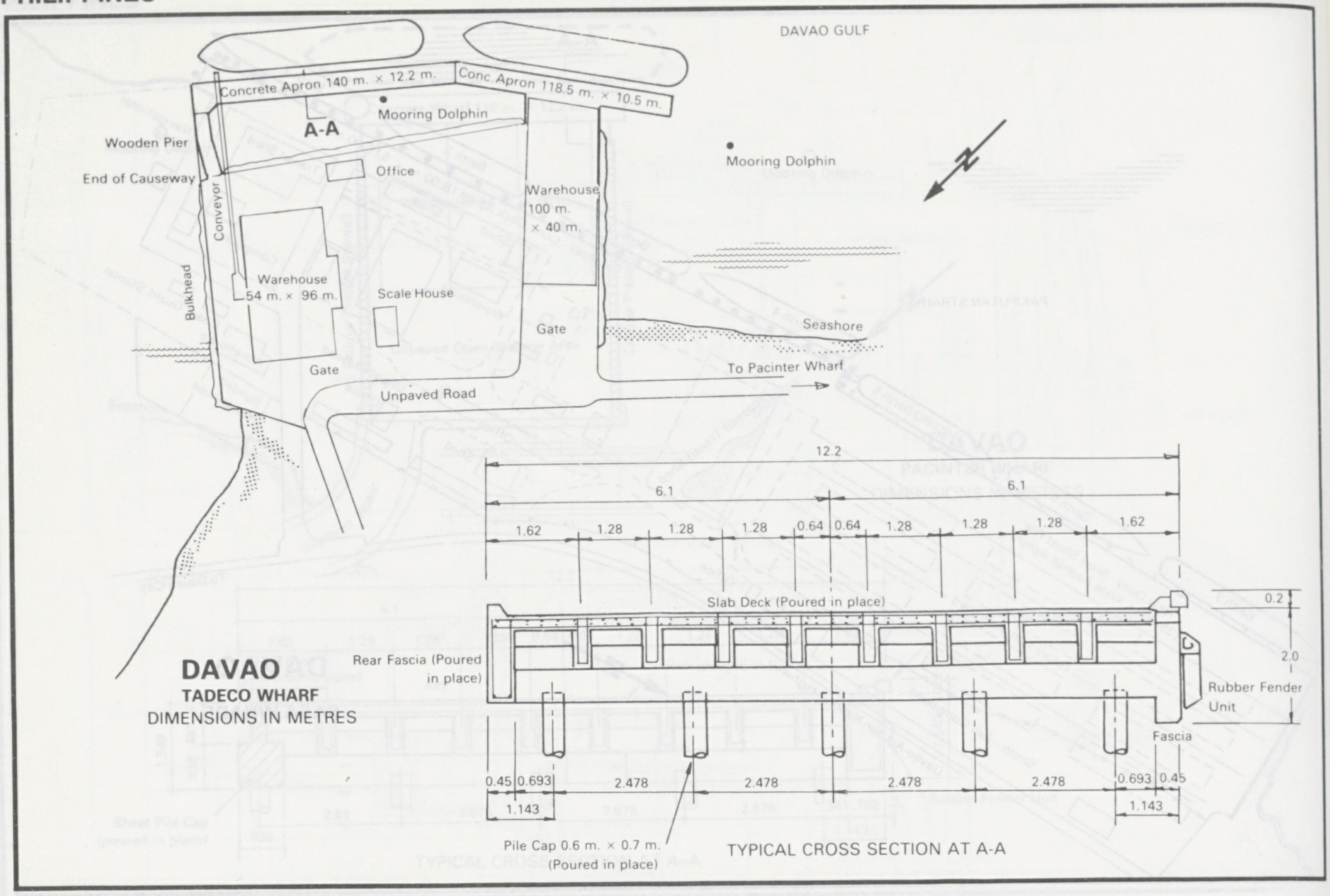
Berth 1
Navigational Light
Berth 2
Old Quay - Conc Deck Apron 18.00 m. 515.00 m.
Transit Shed
Compound
Berth 3
Shed
Shed
Warehouse
Coast Guard Station
Warehouse
Berth 4
PAKIPUTAN STRAIT
Unpaved Road
Office
Bonded Warehouse
RO/RO Berth 5
Proposed Transit Shed
Office
Shed
Berth 6
To Davao City
New Quay - Steel Sheet Pile (35.00 m. Wide Asphalt Apron)
Future Container Yard
Office
Berth 7
Smith - Bell Compound
Davao Agusan National Highway
N

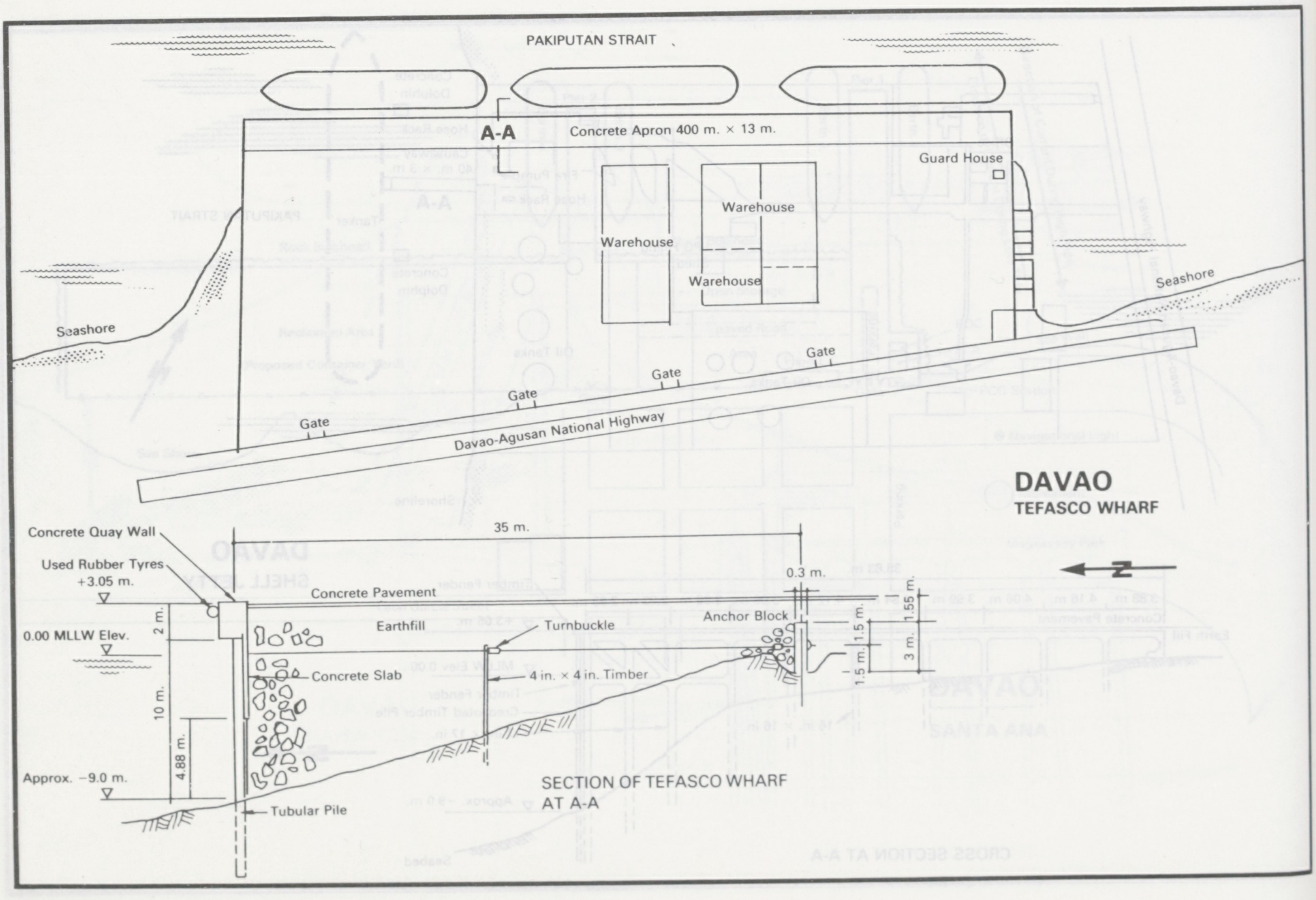


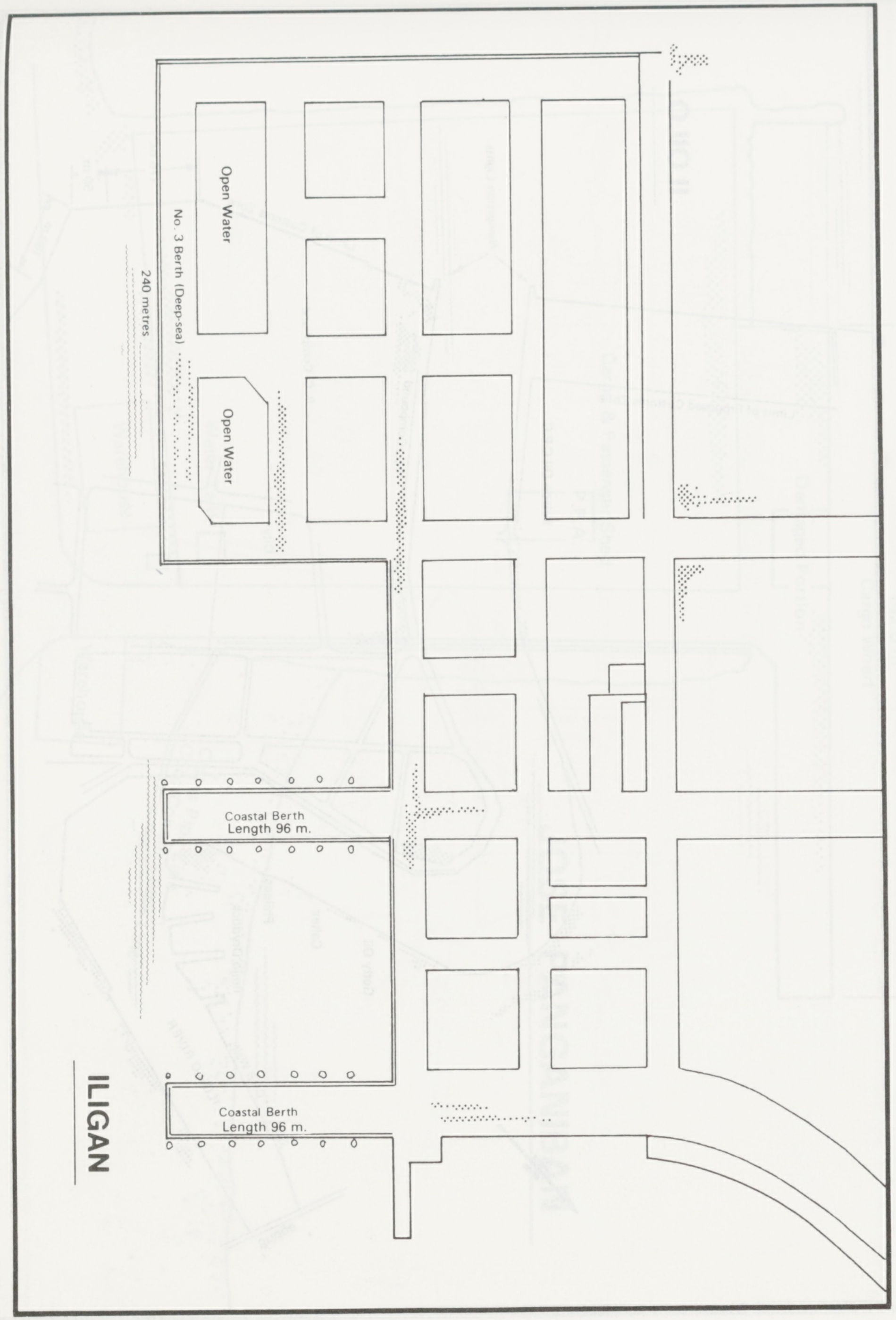
DAVAO

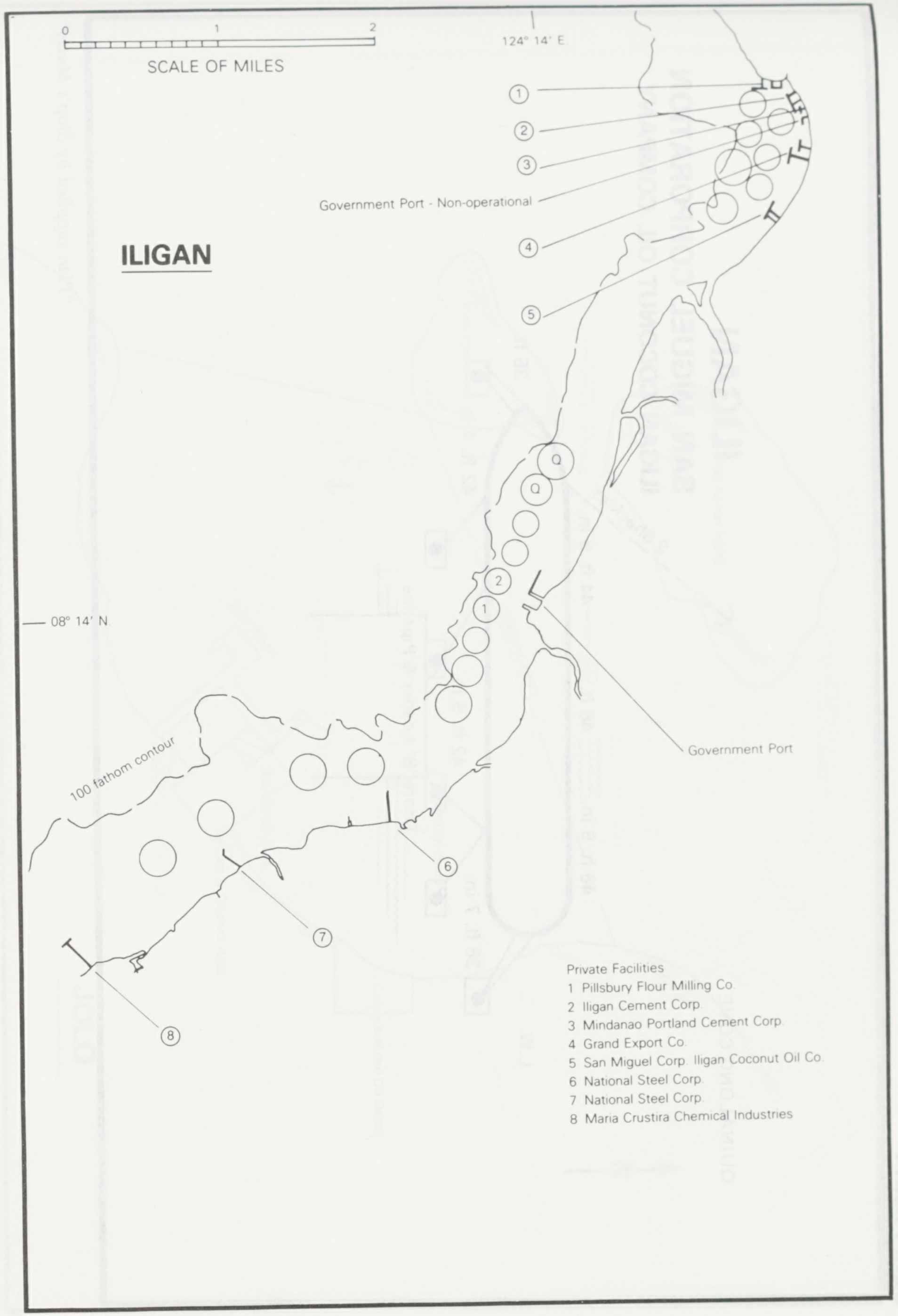
SHELL JETTY

Concrete Dolphin
Hose Rack
Causeway 40 m. × 3 m.
Office
Fire Pump
Hose Rack
A-A
Tanker
PAKIPUTAN STRAIT
LPG Filling Shed
Concrete Dolphin
Davao-Agusan National Highway
Oil Tanks
Oil Tanks
N
Shoreline
38.83 m.
3.88 m.
4.16 m.
4.06 m.
3.99 m.
4.84 m.
4.12 m.
3.96 m.
3.96 m.
2.93 m.
2.93 m.
Timber Fender
Concrete Pavement
+3.05 m.
Earth Fill
MLLW Elev 0.00
Timber Fender
Creosoted Timber Pile
16 in. × 16 in.
17 in. × 17 in.
Approx. -9.0 m.
Seabed
CROSS SECTION AT A-A

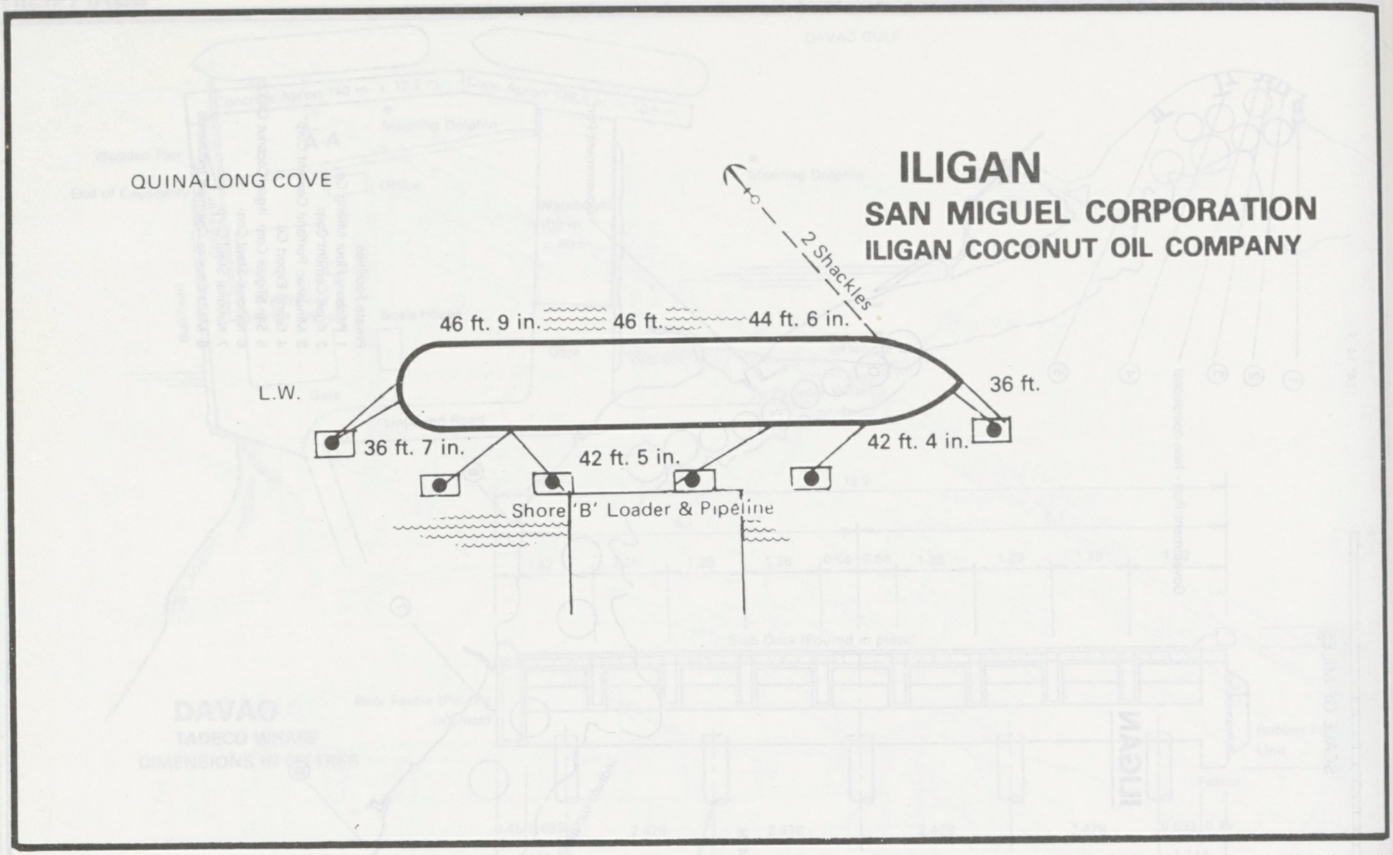

DAVAO GULF
Concrete Apron 140 m. × 12.2 m.
Conc. Apron 118.5 m. × 10.5 m.
Mooring Dolphin
A-A
Wooden Pier
End of Causeway
Office
Conveyor
Warehouse 100 m. × 40 m.
Mooring Dolphin
Bulkhead
Warehouse 54 m. × 96 m.
Scale House
Gate
Seashore
Gate
To Pacinter Wharf
Unpaved Road
DAVAO
TADECO WHARF
DIMENSIONS IN METRES
12.2
6.1
6.1
1.62
1.28
1.28
1.28
0.64
0.64
1.28
1.28
1.28
1.62
Slab Deck (Poured in place)
0.2
2.0
Rear Fascia (Poured in place)
Rubber Fender Unit
Fascia
0.45
0.693
2.478
2.478
2.478
2.478
0.693
0.45
1.143
1.143
Pile Cap 0.6 m. × 0.7 m. (Poured in place)
TYPICAL CROSS SECTION AT A-A


PAKIPUTAN STRAIT
A-A
Concrete Apron 400 m. × 13 m.
Guard House
Warehouse
Warehouse
Warehouse
Seashore
Seashore
Gate
Gate
Gate
Gate
Davao-Agusan National Highway
DAVAO
TEFASCO WHARF
Concrete Quay Wall
Used Rubber Tyres
+3.05 m.
0.00 MLLW Elev.
Approx. −9.0 m.
2 m.
10 m.
4.88 m.
35 m.
0.3 m.
Concrete Pavement
Earthfill
Turnbuckle
Concrete Slab
4 in. × 4 in. Timber
Anchor Block
1.5 m.
1.55 m.
1.5 m.
3 m.
1.5 m.
Tubular Pile
SECTION OF TEFASCO WHARF AT A-A

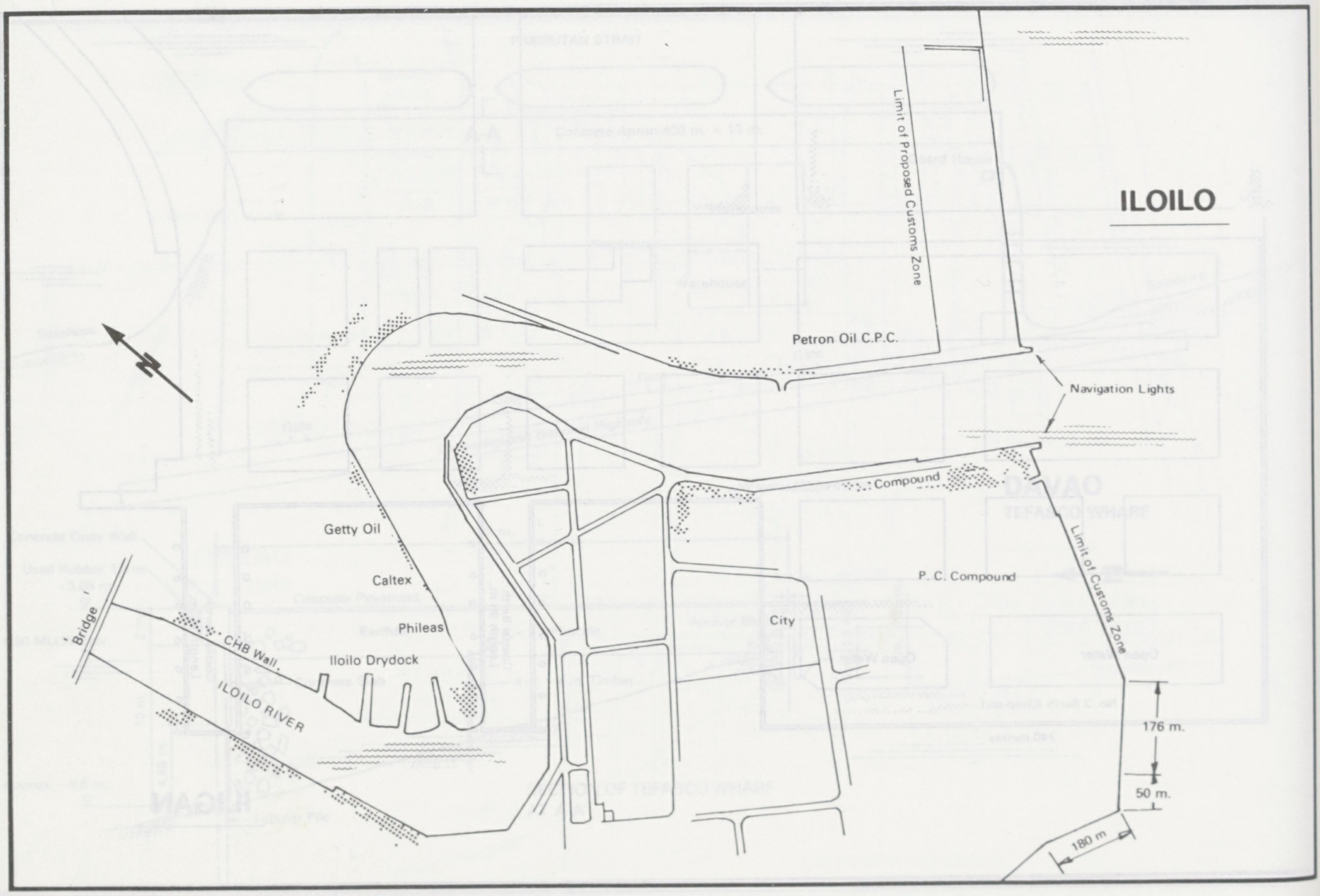

ILIGAN
Open Water
No. 3 Berth (Deep-sea)
240 metres
Open Water
Coastal Berth
Length 96 m.
Coastal Berth
Length 96 m.

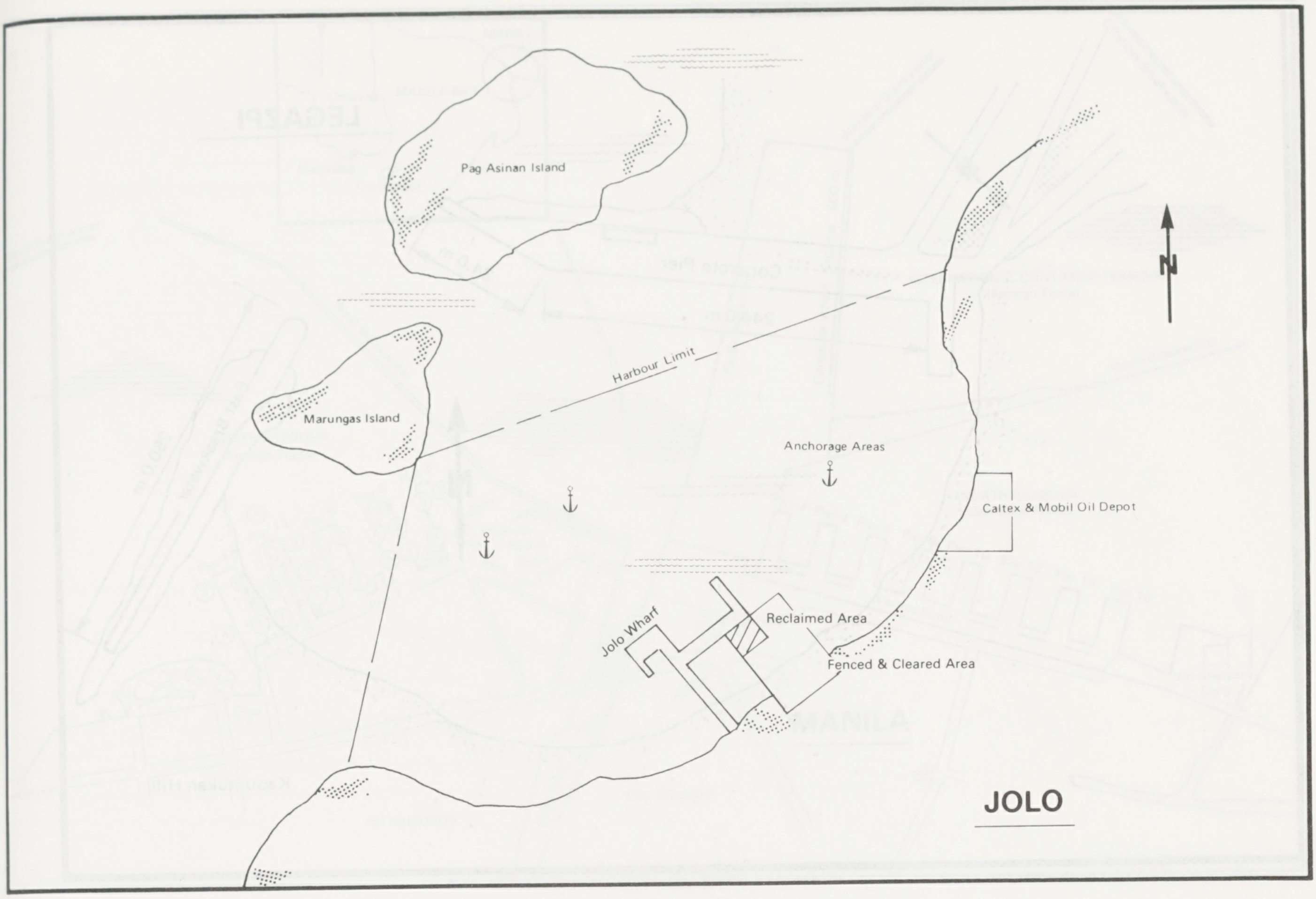

0
1
2
SCALE OF MILES
124° 14' E
ILIGAN
①
②
③
Government Port - Non-operational
④
⑤
Q
Q
②
①
08° 14' N
Government Port
100 fathom contour
⑥
⑦
⑧

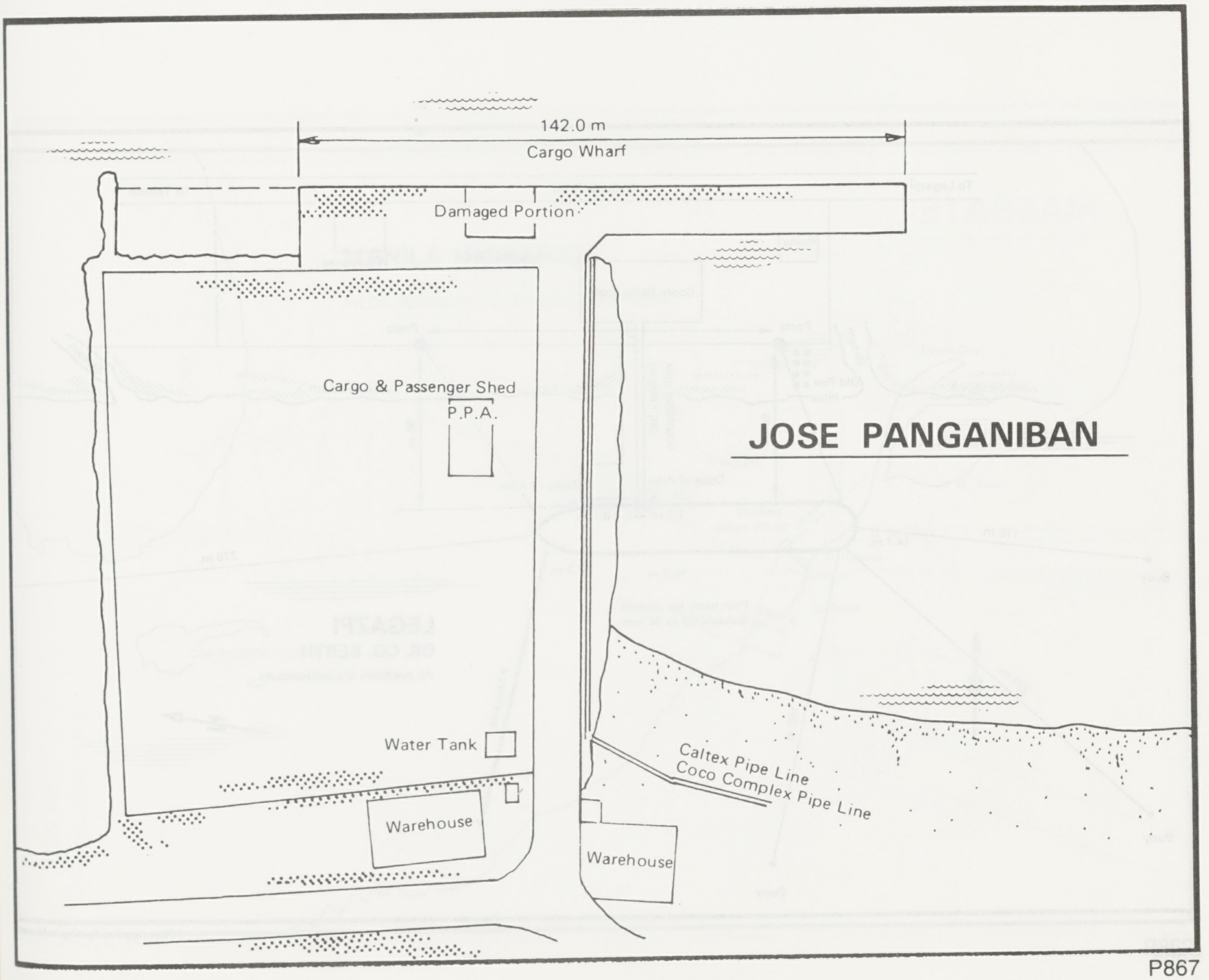
Private Facilities
1 Pillsbury Flour Milling Co.
2 Iligan Cement Corp.
3 Mindanao Portland Cement Corp.
4 Grand Export Co.
5 San Miguel Corp. Iligan Coconut Oil Co.
6 National Steel Corp.
7 National Steel Corp.
8 Maria Crustira Chemical Industries

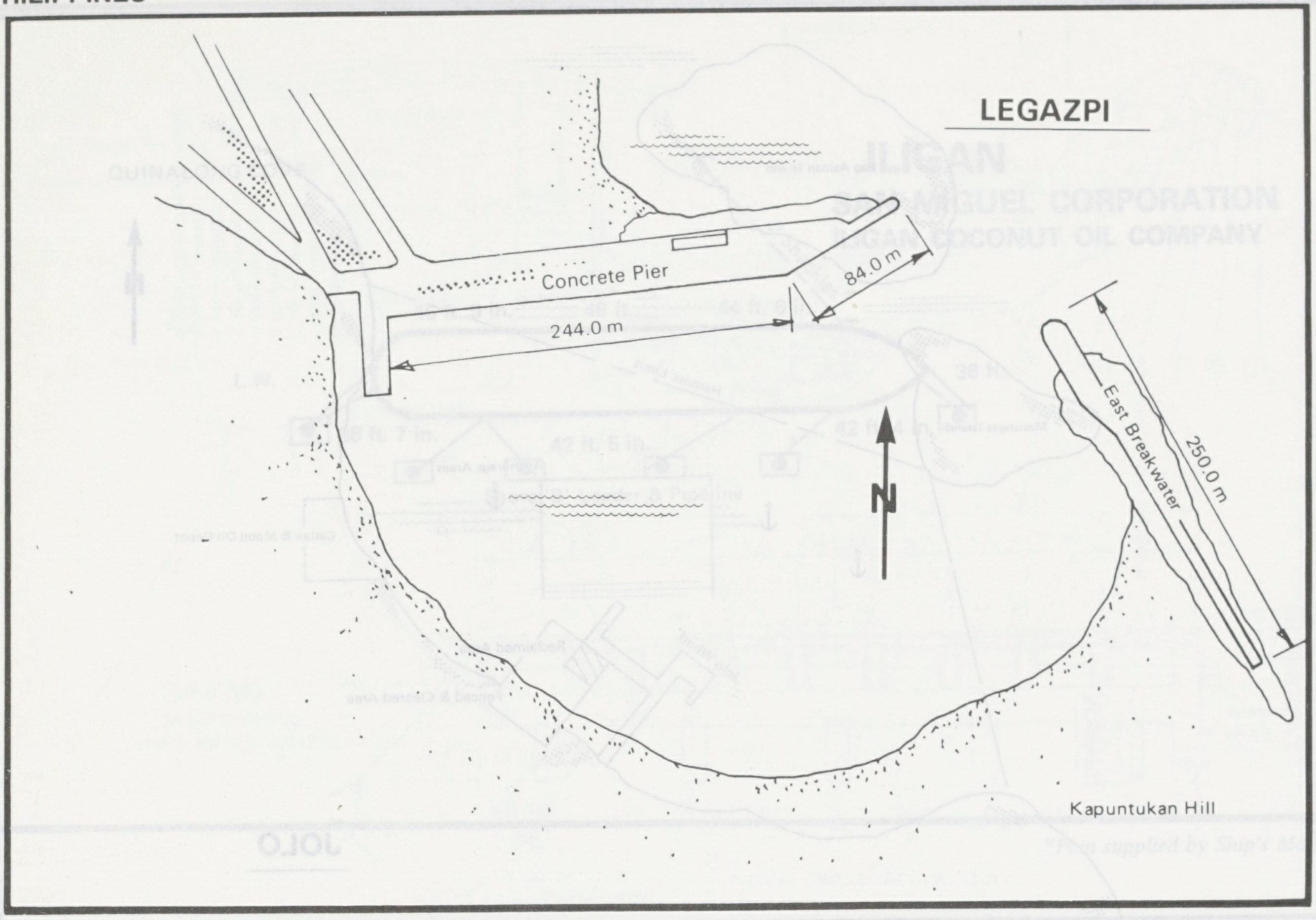

ILIGAN
SAN MIGUEL CORPORATION
ILIGAN COCONUT OIL COMPANY
QUINALONG COVE
2 Shackles
46 ft. 9 in.
46 ft.
44 ft. 6 in.
L.W.
36 ft.
36 ft. 7 in.
42 ft. 5 in.
42 ft. 4 in.
Shore 'B' Loader & Pipeline

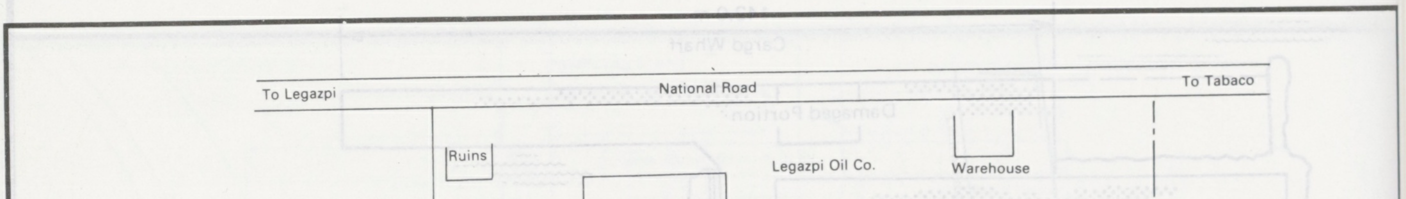
"Plan supplied by Ship's Master"


ILOILO
N
Limit of Proposed Customs Zone
Petron Oil C.P.C.
Navigation Lights
Compound
Getty Oil
Caltex
Phileas
Iloilo Drydock
Bridge
CHB Wall
ILOILO RIVER
City
P. C. Compound
Limit of Customs Zone
176 m.
50 m.
180 m

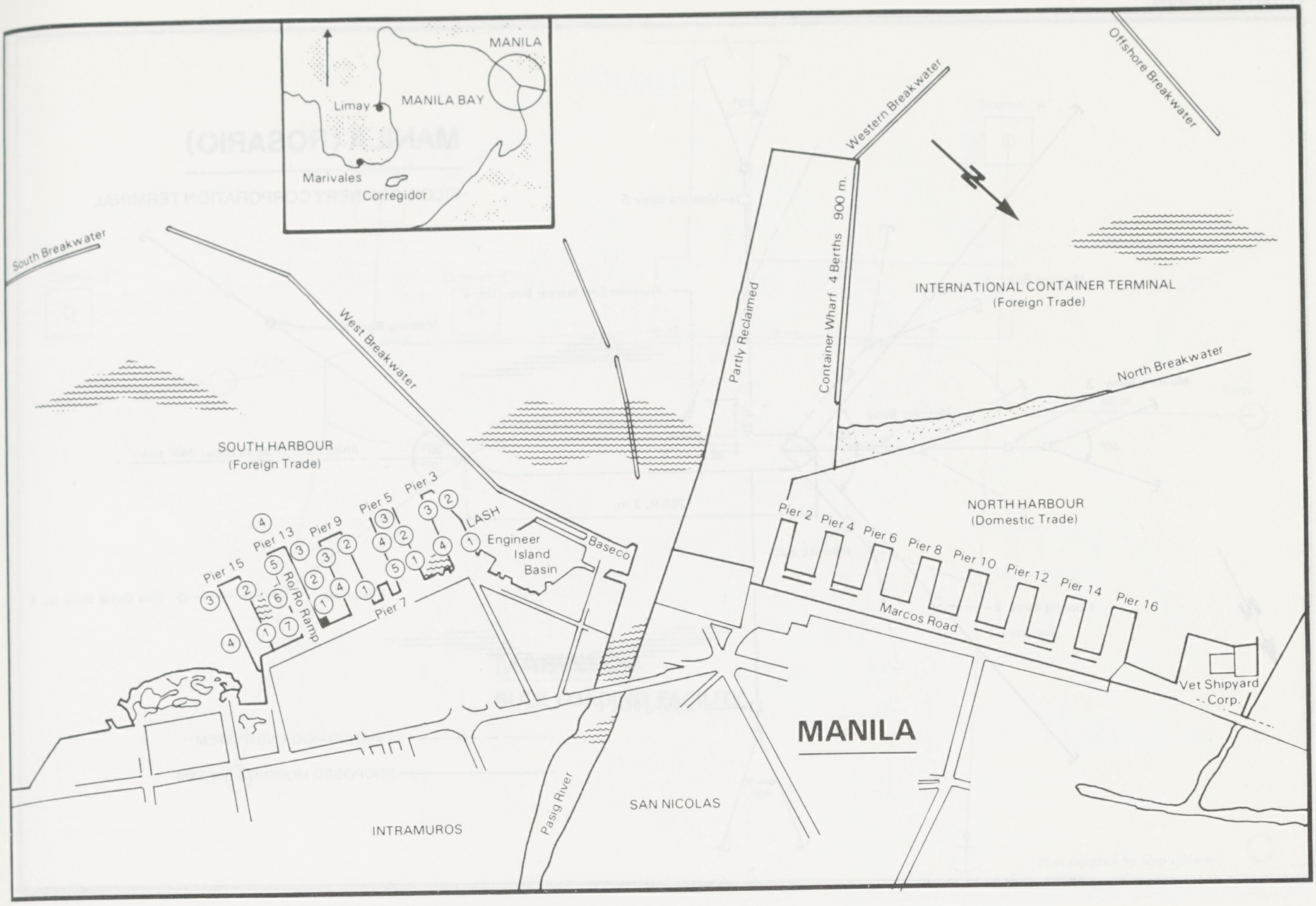

Pag Asinan Island
Marungas Island
Harbour Limit
N
Anchorage Areas
Caltex & Mobil Oil Depot
Reclaimed Area
Jolo Wharf
Fenced & Cleared Area
JOLO

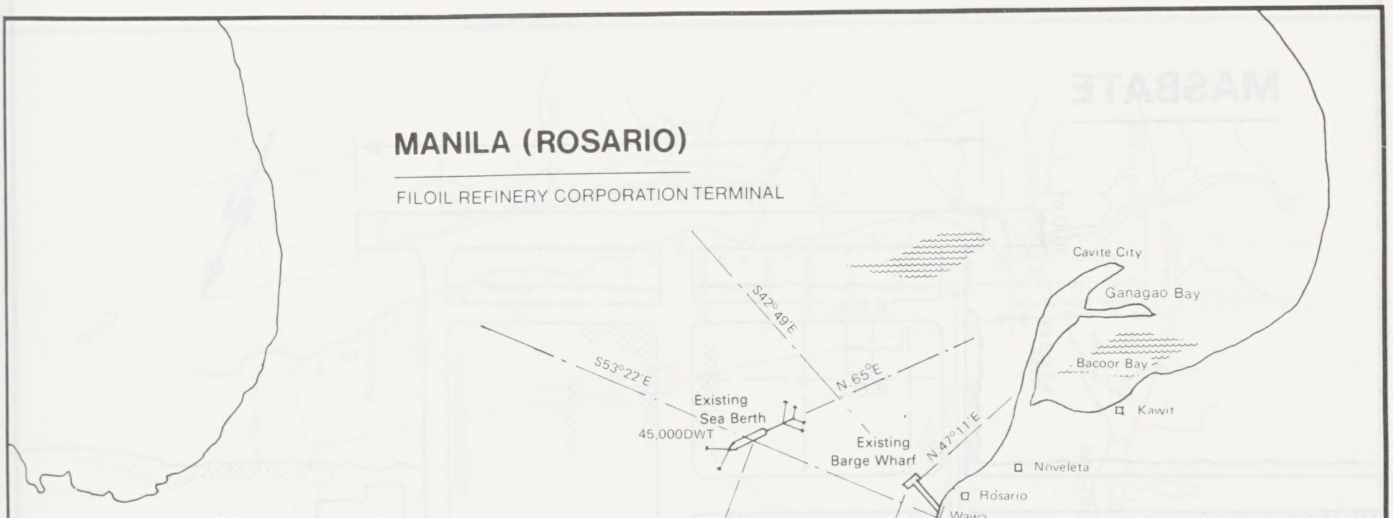

142.0 m
Cargo Wharf
Damaged Portion
Cargo & Passenger Shed
P.P.A.
JOSE PANGANIBAN
Water Tank
Warehouse
Warehouse
Caltex Pipe Line
Coco Complex Pipe Line


LEGAZPI
Concrete Pier
244.0 m
84.0 m
N
East Breakwater
250.0 m
Kapuntukan Hill


To Legazpi
National Road
To Tabaco
Ruins
Legazpi Oil Co.
Warehouse
Copra Pellet Store
Posts
Posts
Stream
Stream
Old Pier
Piles
Beach
Delivery belt
with projection
90 m.
90 m.
Duke of Alba
Duke of Alba
7.7 m.
8.7 m.
170 m.
14.7 m.
270 m.
18.7 m.
18.2 m.
Buoy
Pilot berth for vessels
Suitable up to 32 feet
LEGAZPI
OIL CO. BERTH
All positions are approximate
9 Shackles
220 m.
160 m.
N
Buoy
Buoy

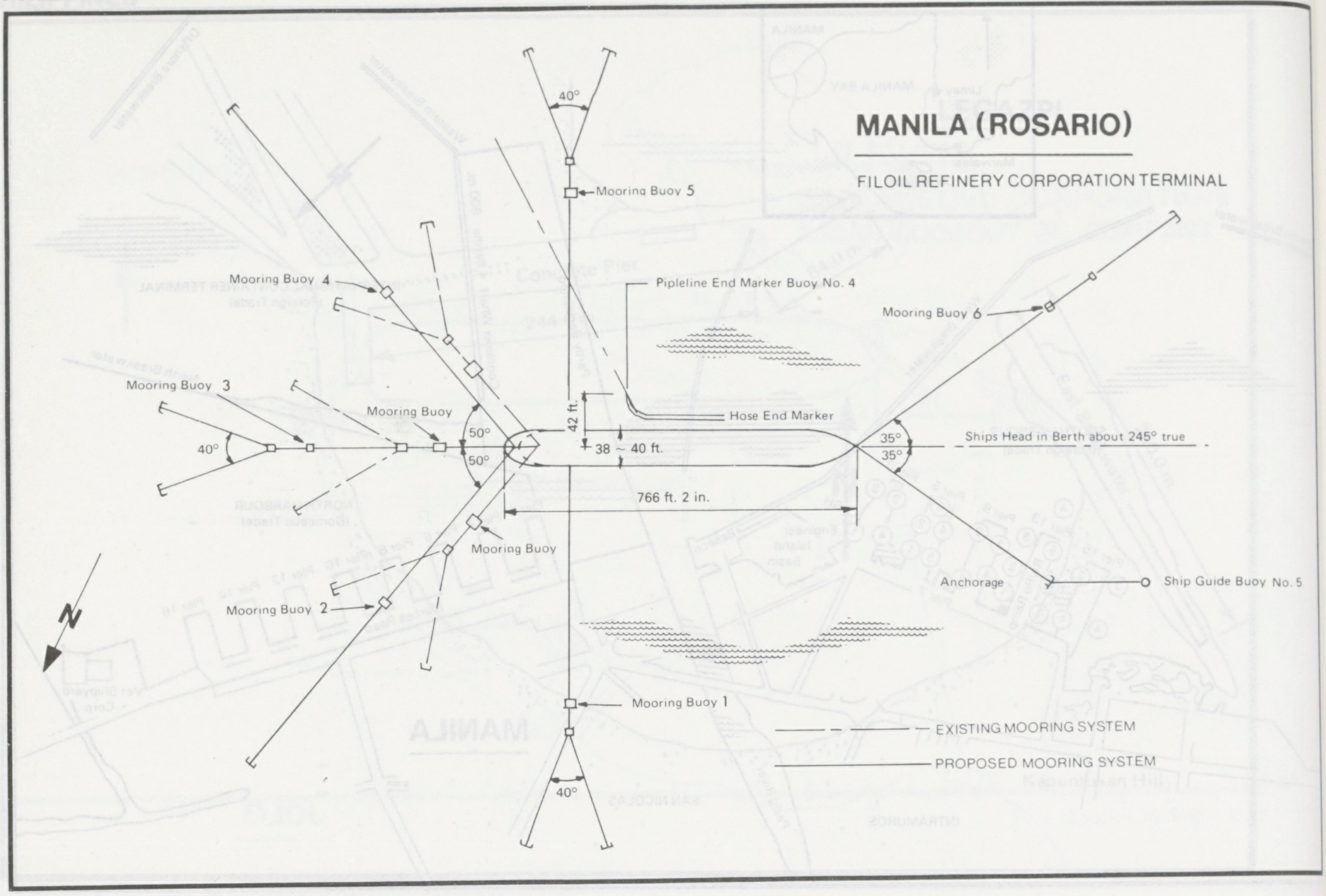
"Plan supplied by Ship's Maste


MANILA
MANILA
MANILA BAY
Limay
Marivales
Corregidor
South Breakwater
West Breakwater
Western Breakwater
Offshore Breakwater
North Breakwater
Partly Reclaimed
Container Wharf 4 Berths 900 m.
INTERNATIONAL CONTAINER TERMINAL
(Foreign Trade)
SOUTH HARBOUR
(Foreign Trade)
NORTH HARBOUR
(Domestic Trade)
Pier 15
Pier 13
Pier 9
Pier 5
Pier 3
Pier 7
Ro/Ro Ramp
LASH
Engineer Island Basin
Baseco
Pier 2
Pier 4
Pier 6
Pier 8
Pier 10
Pier 12
Pier 14
Pier 16
Marcos Road
Vet Shipyard Corp.
Pasig River
SAN NICOLAS
INTRAMUROS
N

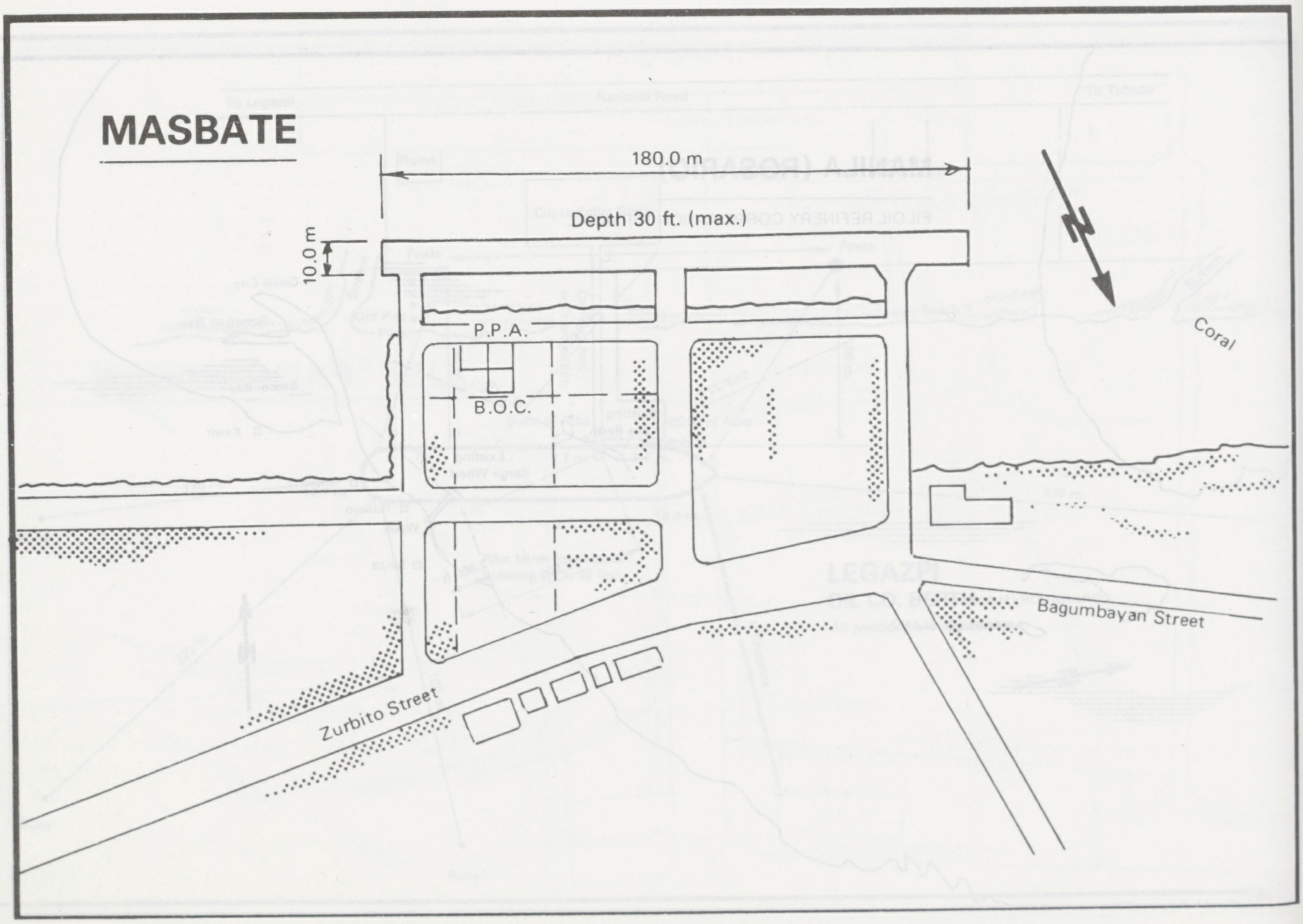

MANILA (ROSARIO)
FILOIL REFINERY CORPORATION TERMINAL
S42°49'E
S53°22'E
N.65°E
N.47°11'E
Existing Sea Berth
45,000DWT
Existing Barge Wharf
13,500 ft.
2,960 ft.
Wawa
Rosario
Noveleta
Tanza
Kawit
Cavite City
Ganagao Bay
Bacoor Bay
CORRIGIDOR ISLAND
CABALLO ISLAND
N

MANILA (ROSARIO)

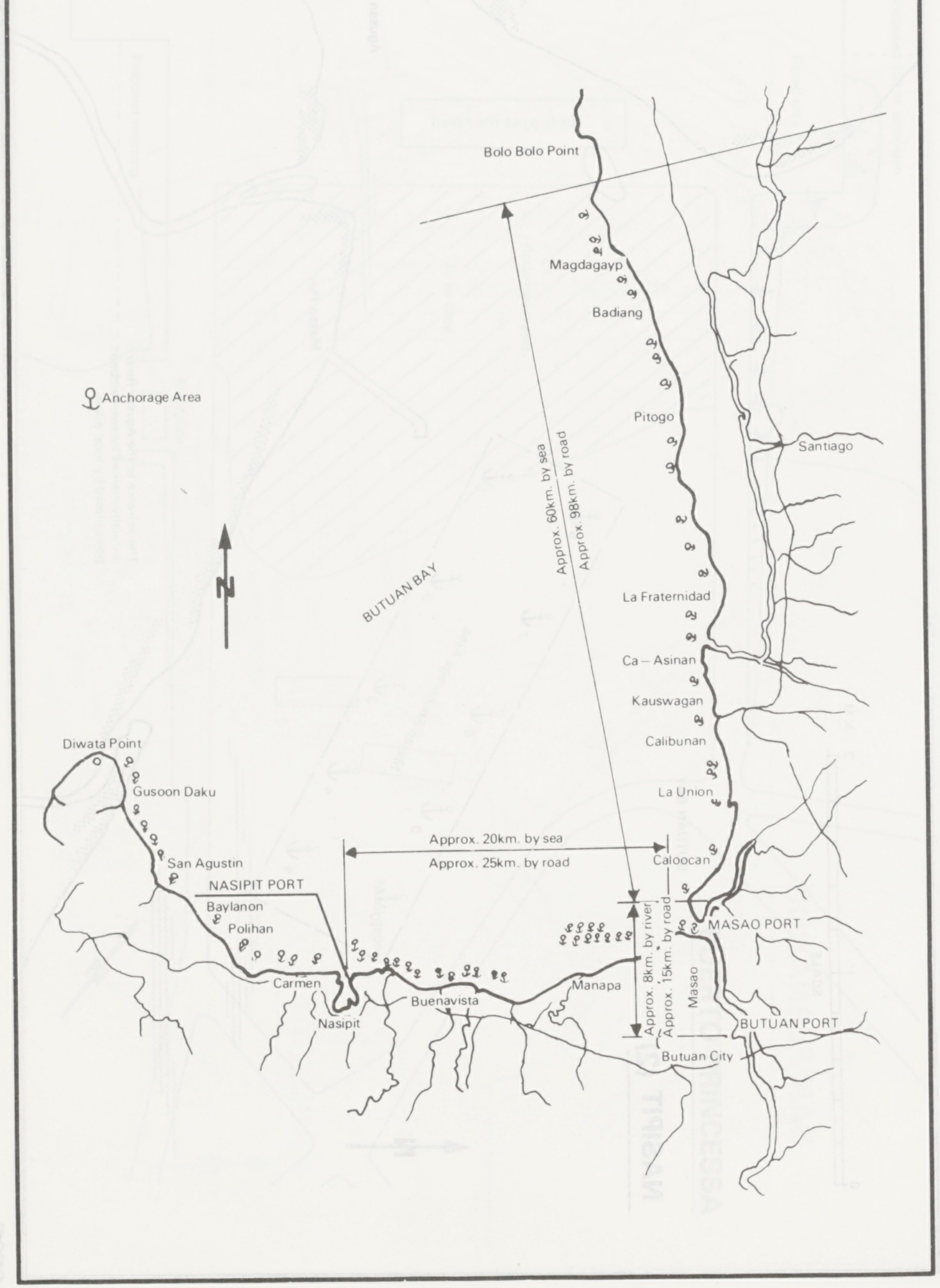
FILOIL REFINERY CORPORATION TERMINAL


40°
Mooring Buoy 5
Mooring Buoy 4
Pipleline End Marker Buoy No. 4
Mooring Buoy 6
Mooring Buoy 3
Mooring Buoy
42 ft.
Hose End Marker
40°
50°
50°
38 ~ 40 ft.
35°
35°
Ships Head in Berth about 245° true
766 ft. 2 in.
Mooring Buoy
Anchorage
Ship Guide Buoy No. 5
N
Mooring Buoy 2
Mooring Buoy 1
EXISTING MOORING SYSTEM
PROPOSED MOORING SYSTEM
40°

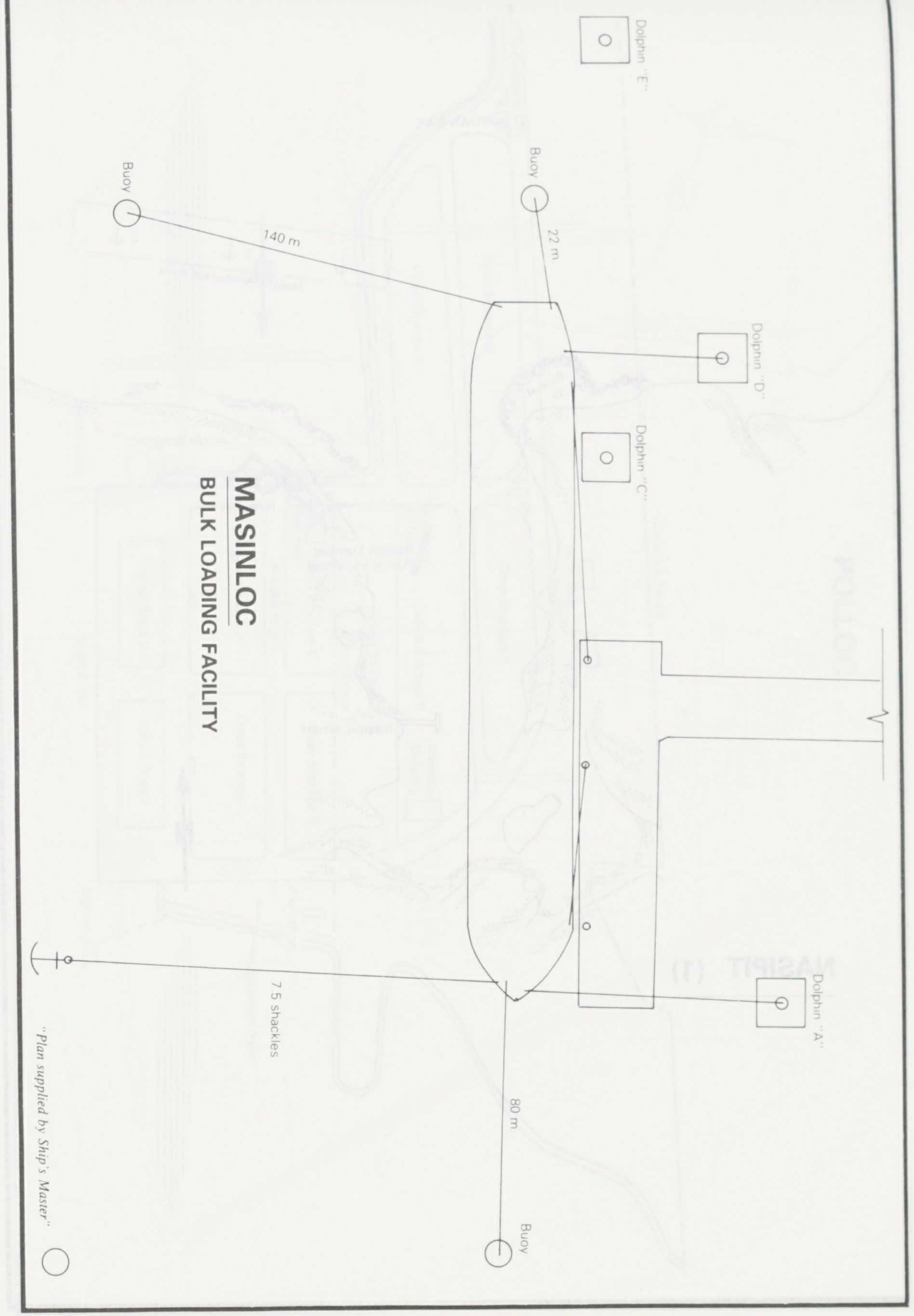
MASBATE


180.0 m
Depth 30 ft. (max.)
10.0 m
N
Coral
P.P.A.
B.O.C.
Bagumbayan Street
Zurbito Street

NASIPIT
LOCATION PLAN

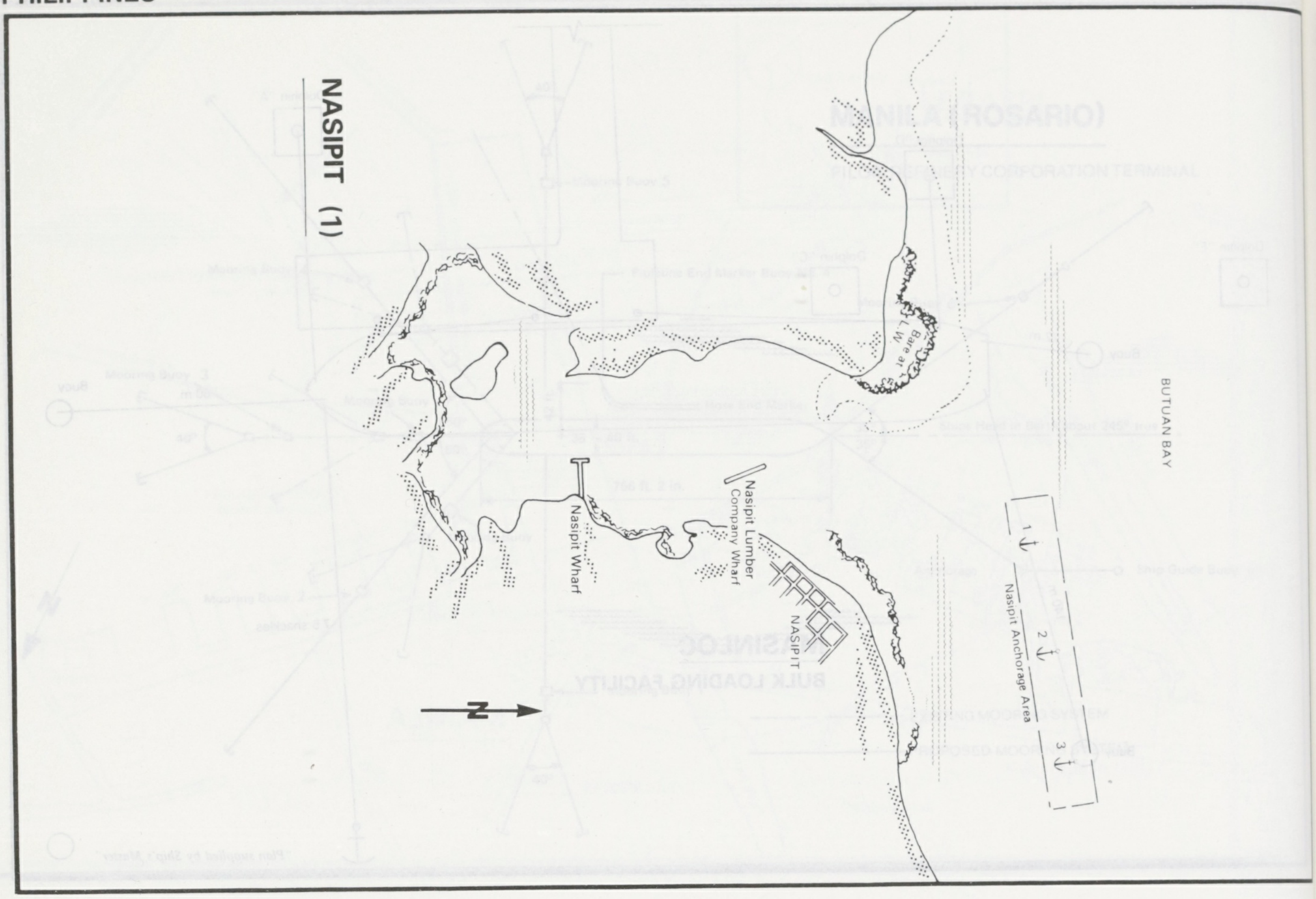

Bolo Bolo Point
Magdagayp
Badiang
Pitogo
Santiago
Anchorage Area
Approx. 60km. by sea
Approx. 98km. by road
BUTUAN BAY
N
La Fraternidad
Ca – Asinan
Kauswagan
Calibunan
La Union
Diwata Point
Gusoon Daku
San Agustin
NASIPIT PORT
Baylanon
Polihan
Approx. 20km. by sea
Approx. 25km. by road
Caloocan
MASAO PORT
Approx. 8km. by river
Approx. 15km. by road
Masao
Carmen
Nasipit
Buenavista
Manapa
BUTUAN PORT
Butuan City

MASINLOC
BULK LOADING FACILITY

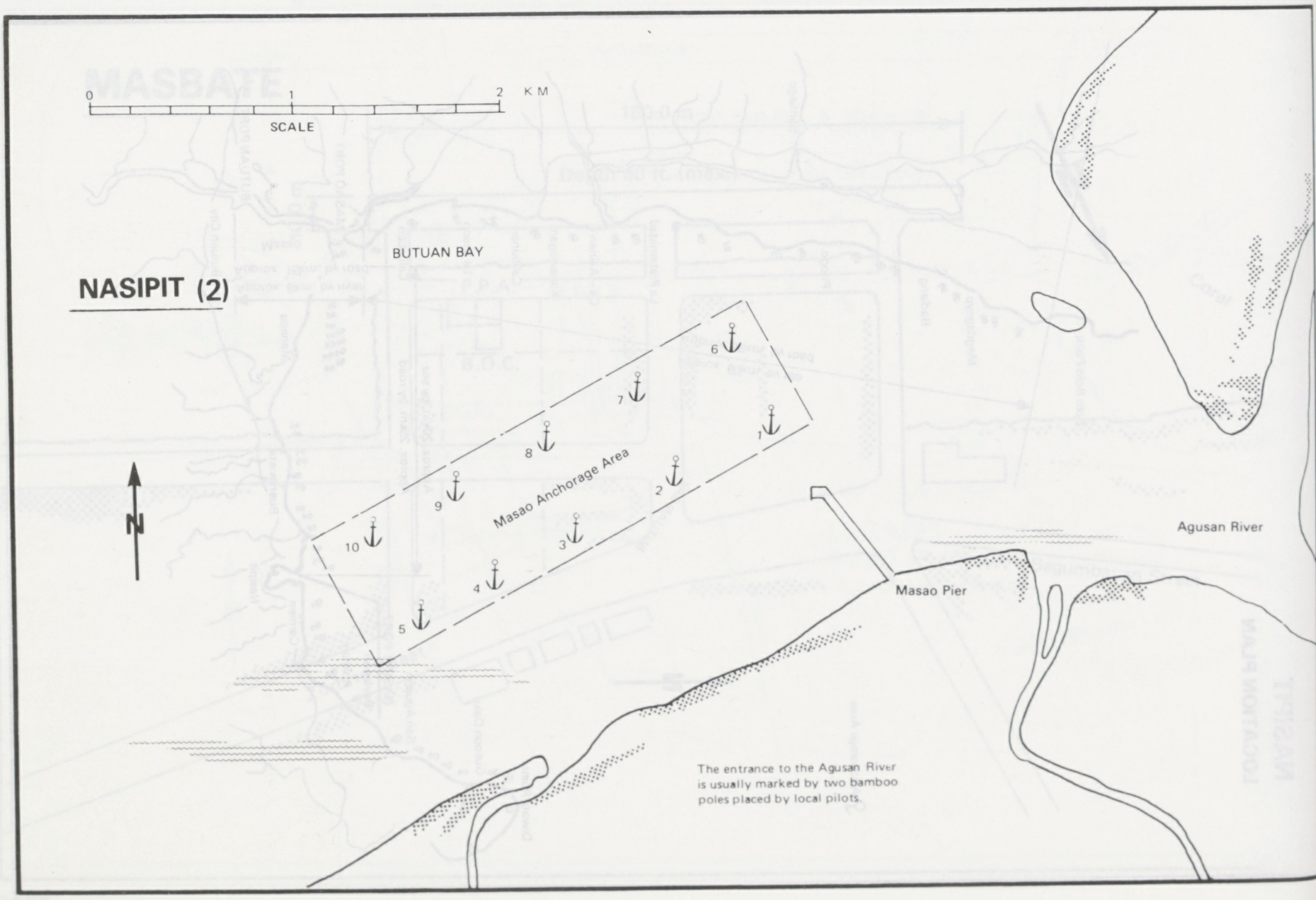

Dolphin "E"
Buoy
Buoy
140 m
22 m
Dolphin "D"
Dolphin "C"
7.5 shackles
80 m
Dolphin "A"
Buoy

"Plan supplied by Ship's Master"

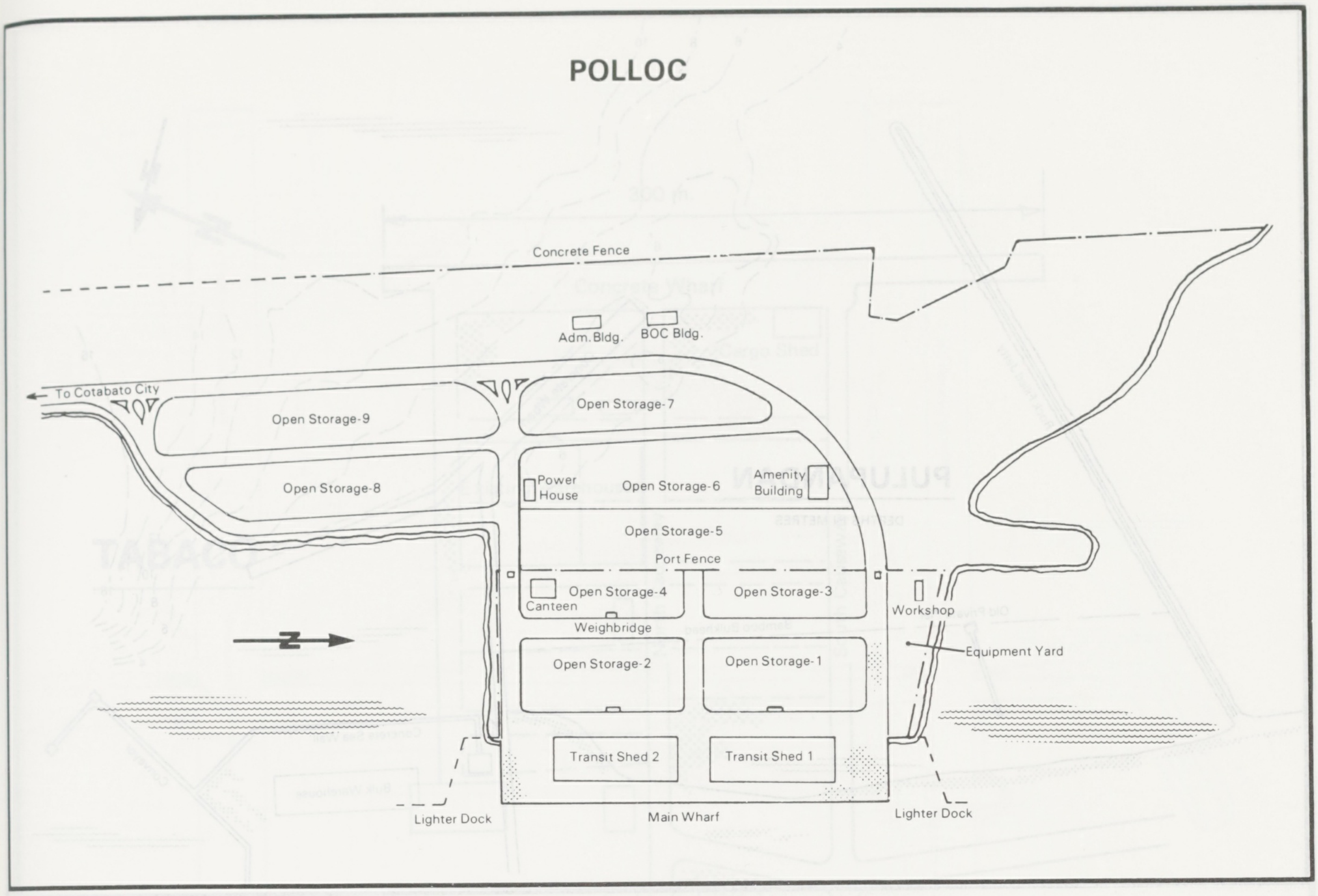
NASIPIT (1)

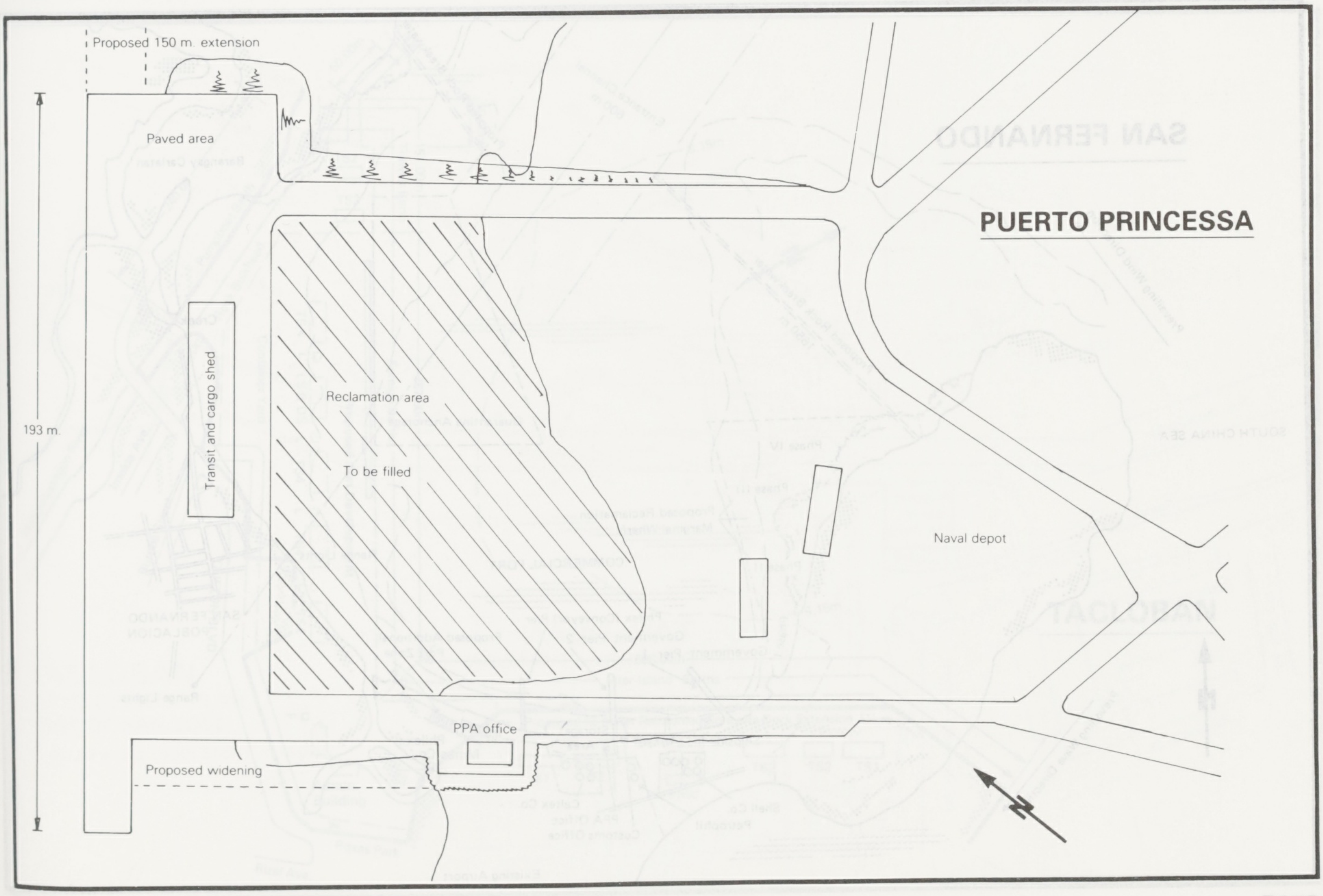

BUTUAN BAY
Bare at L.W.
Nasipit Lumber Company Wharf
Nasipit Wharf
NASIPIT
Nasipit Anchorage Area
1
2
3
N

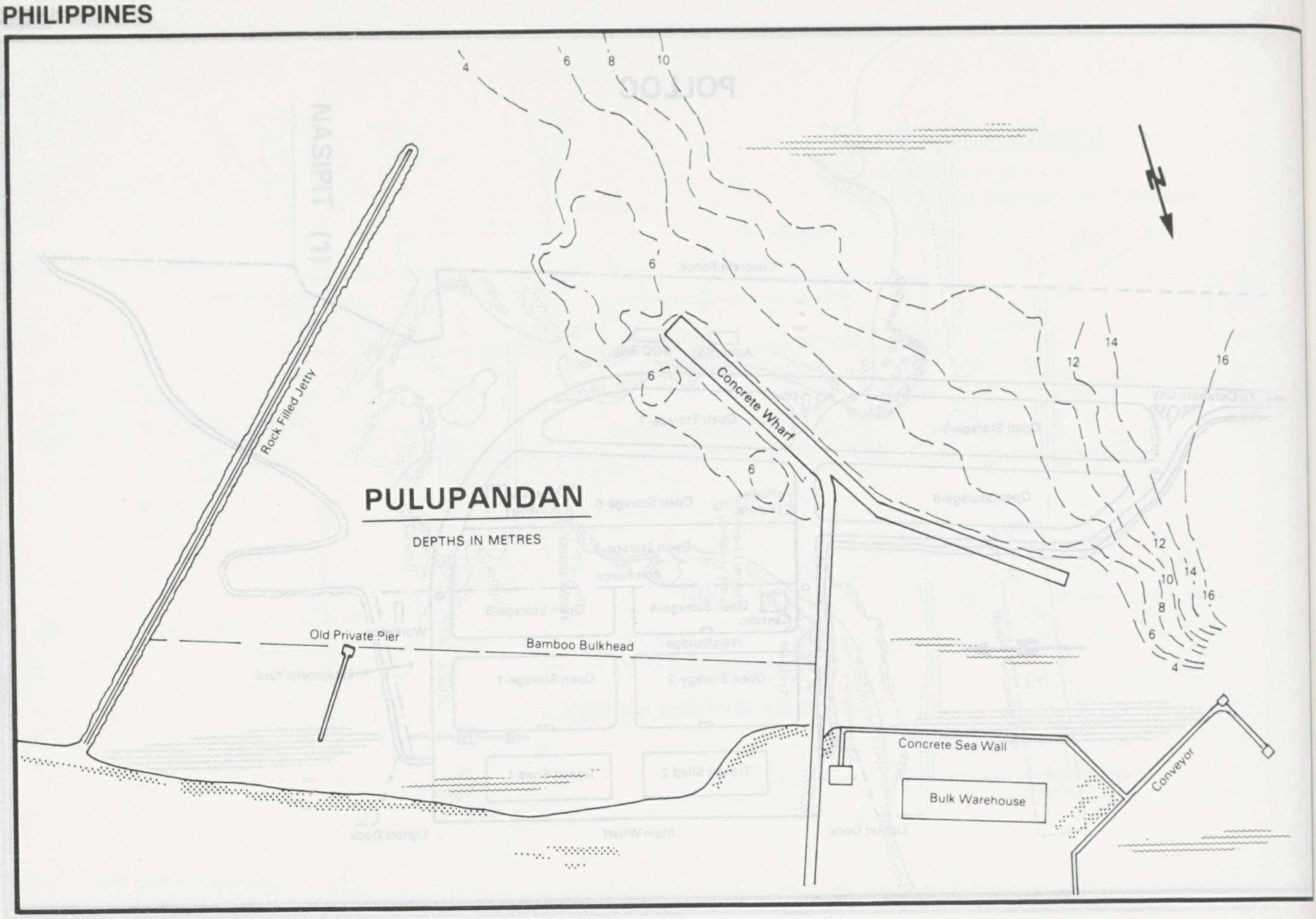
NASIPIT (2)


0
1
2
KM
SCALE
BUTUAN BAY
Masao Anchorage Area
1
2
3
4
5
6
7
8
9
10
Masao Pier
Agusan River
N

The entrance to the Agusan River is usually marked by two bamboo poles placed by local pilots.


POLLOC
Concrete Fence
Adm. Bldg.
BOC Bldg.
To Cotabato City
Open Storage-9
Open Storage-7
Open Storage-8
Power House
Open Storage-6
Amenity Building
Open Storage-5
Port Fence
Open Storage-4
Open Storage-3
Canteen
Weighbridge
Workshop
N
Equipment Yard
Open Storage-2
Open Storage-1
Transit Shed 2
Transit Shed 1
Lighter Dock
Main Wharf
Lighter Dock

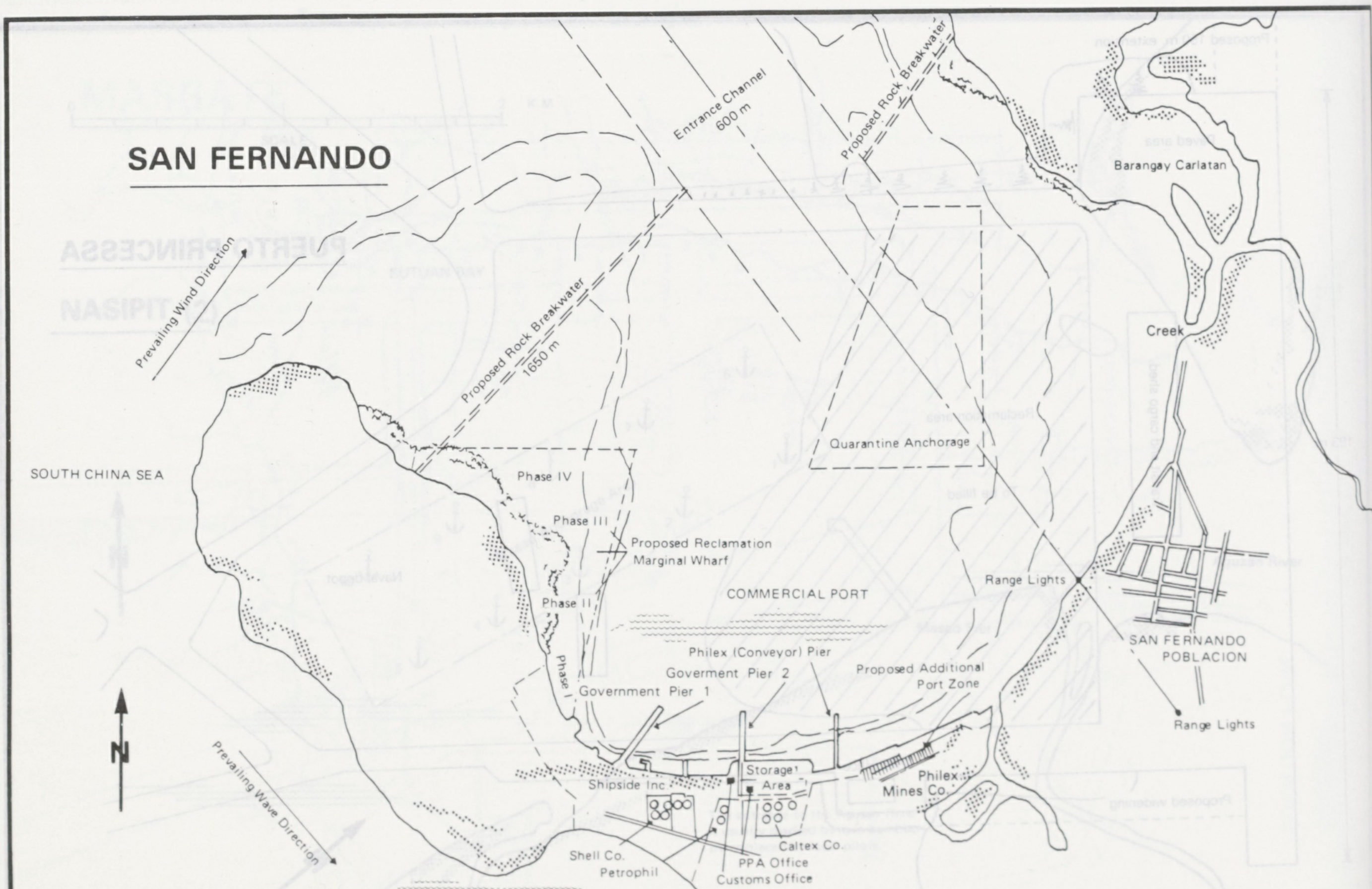

Proposed 150 m. extension
Paved area
PUERTO PRINCESSA
Transit and cargo shed
Reclamation area
To be filled
193 m.
Naval depot
PPA office
Proposed widening
N



PULUPANDAN

DEPTHS IN METRES

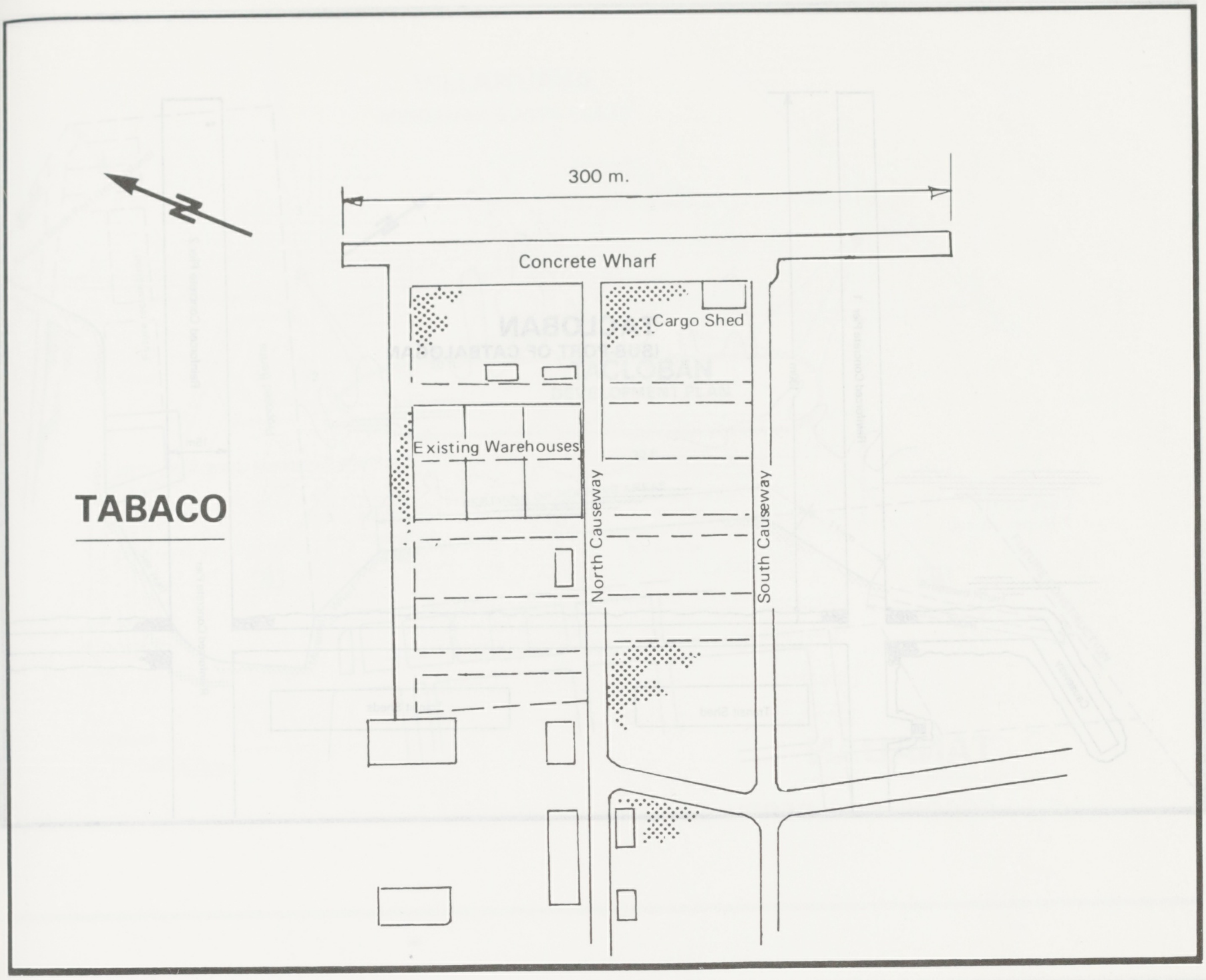
4
6
8
10
6
6
6
12
14
16
12
10
14
16
8
6
4
Rock Filled Jetty
Concrete Wharf
Old Private Pier
Bamboo Bulkhead
Concrete Sea Wall
Bulk Warehouse
Conveyor
N



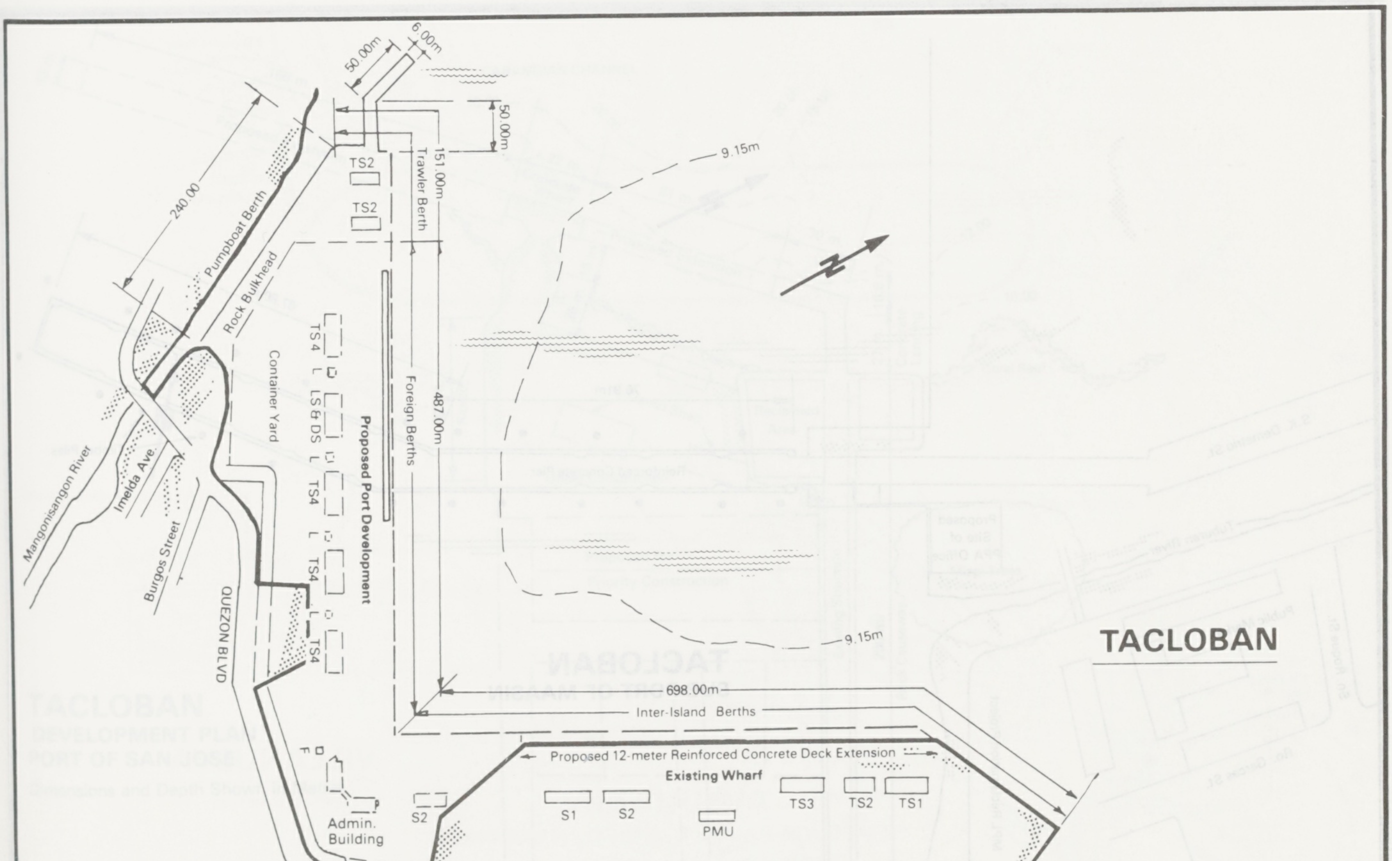
SAN FERNANDO

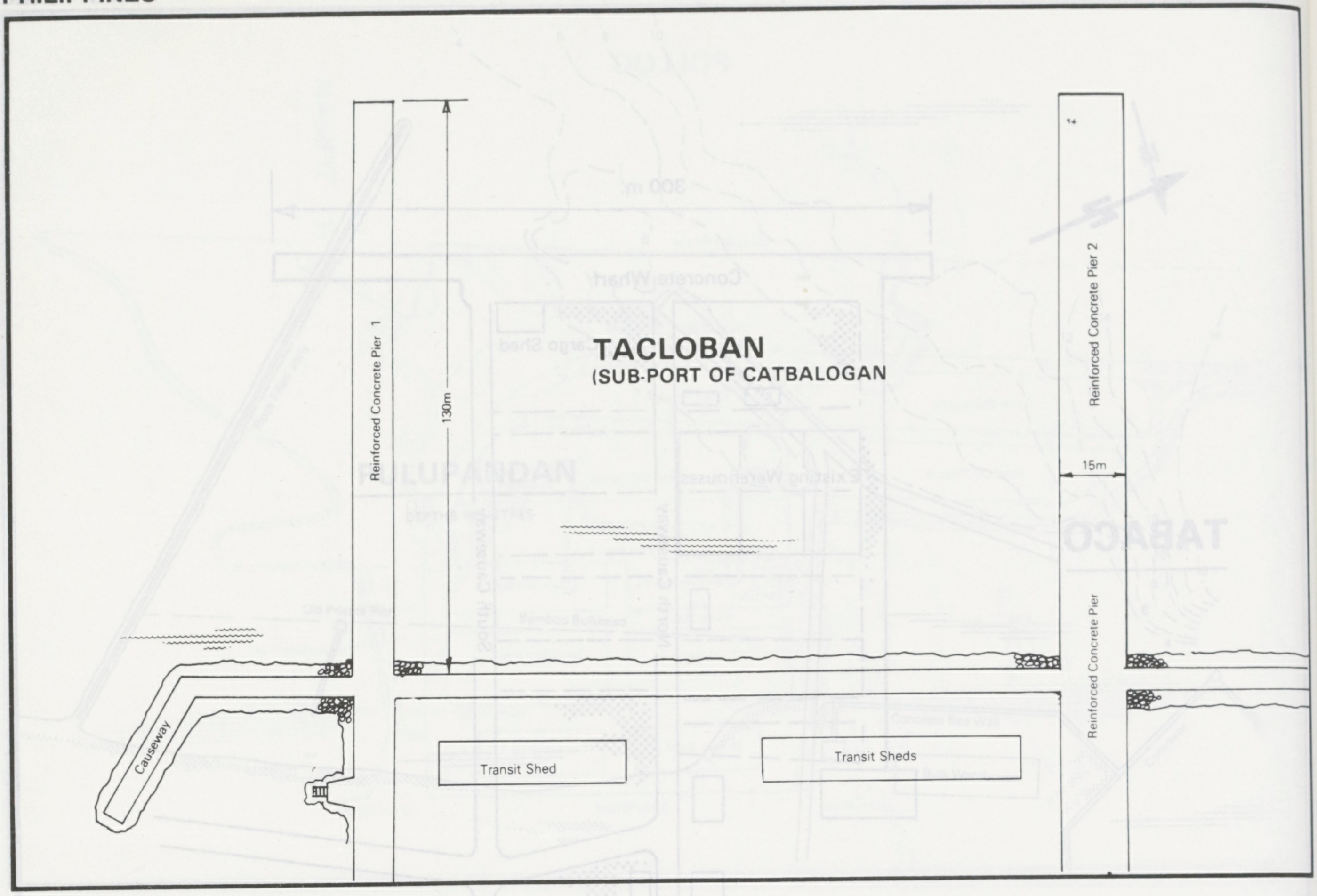
Proposed Rock Breakwater
Entrance Channel 600 m
Barangay Carlatan
Prevailing Wind Direction
Proposed Rock Breakwater 1650 m
Creek
Quarantine Anchorage
SOUTH CHINA SEA
Phase IV
Phase III
Proposed Reclamation Marginal Wharf
COMMERCIAL PORT
Range Lights
Phase II
Phase I
SAN FERNANDO POBLACION
Philex (Conveyor) Pier
Goverment Pier 2
Proposed Additional Port Zone
Government Pier 1
Range Lights
N
Prevailing Wave Direction
Storage Area
Shipside Inc
Philex Mines Co.
Shell Co.
Caltex Co.
Petrophil
PPA Office
Customs Office
Existing Airport

TABACO


300 m.
Concrete Wharf
Cargo Shed
Existing Warehouses
North Causeway
South Causeway

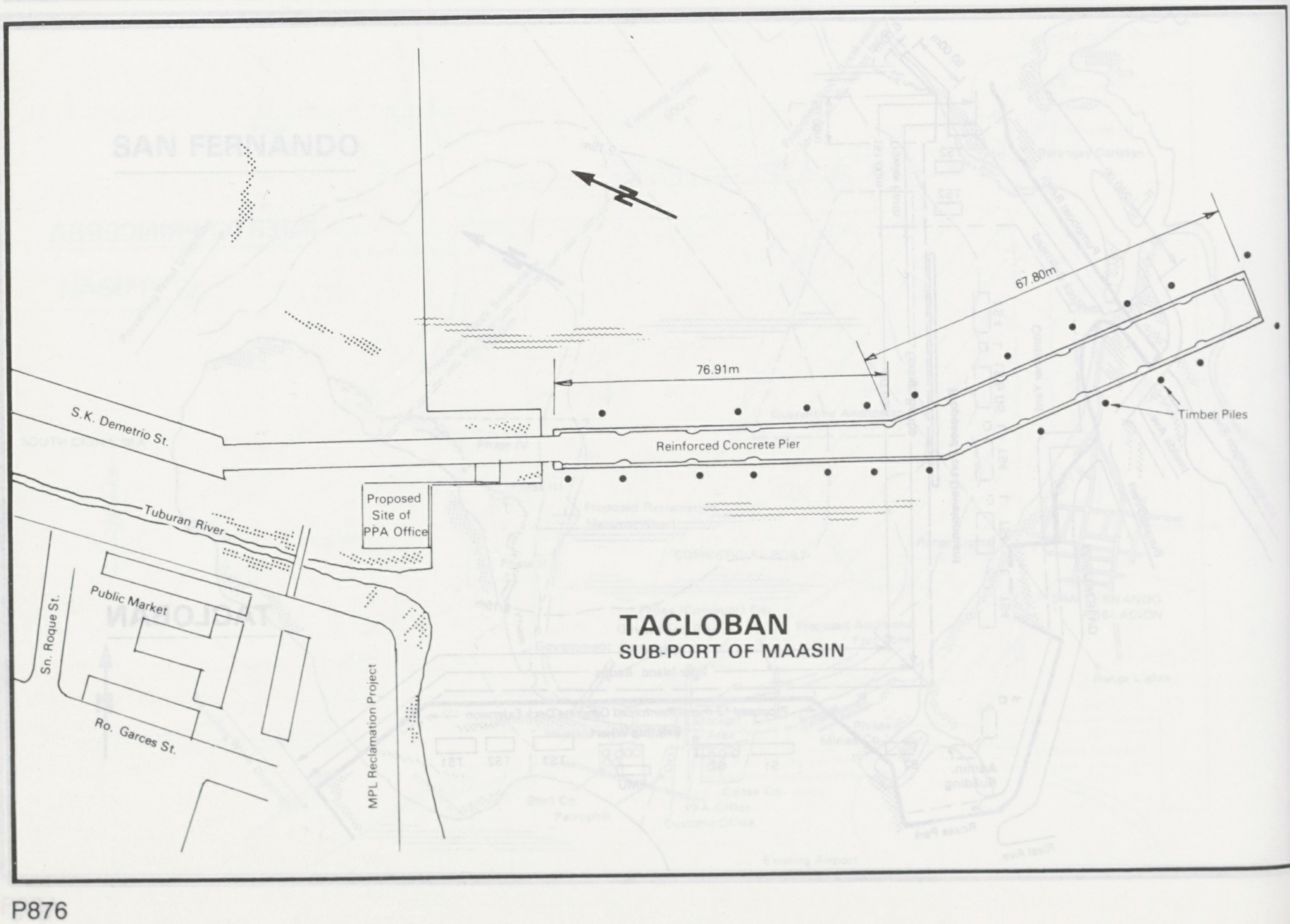
TACLOBAN


6.00m
50.00m
50.00m
240.00
151.00m
Trawler Berth
9.15m
Pumpboat Berth
Rock Bulkhead
TS2
TS2
TS4
L
LS & DS
L
TS4
L
TS4
L
TS4
Container Yard
Proposed Port Development
Foreign Berths
487.00m
Mangonisangon River
Imelda Ave.
Burgos Street
QUEZON BLVD
9.15m
698.00m
Inter-Island Berths
Proposed 12-meter Reinforced Concrete Deck Extension
Existing Wharf
S1
S2
PMU
TS3
TS2
TS1
S2
Admin. Building
Roxas Park
Rizal Ave.



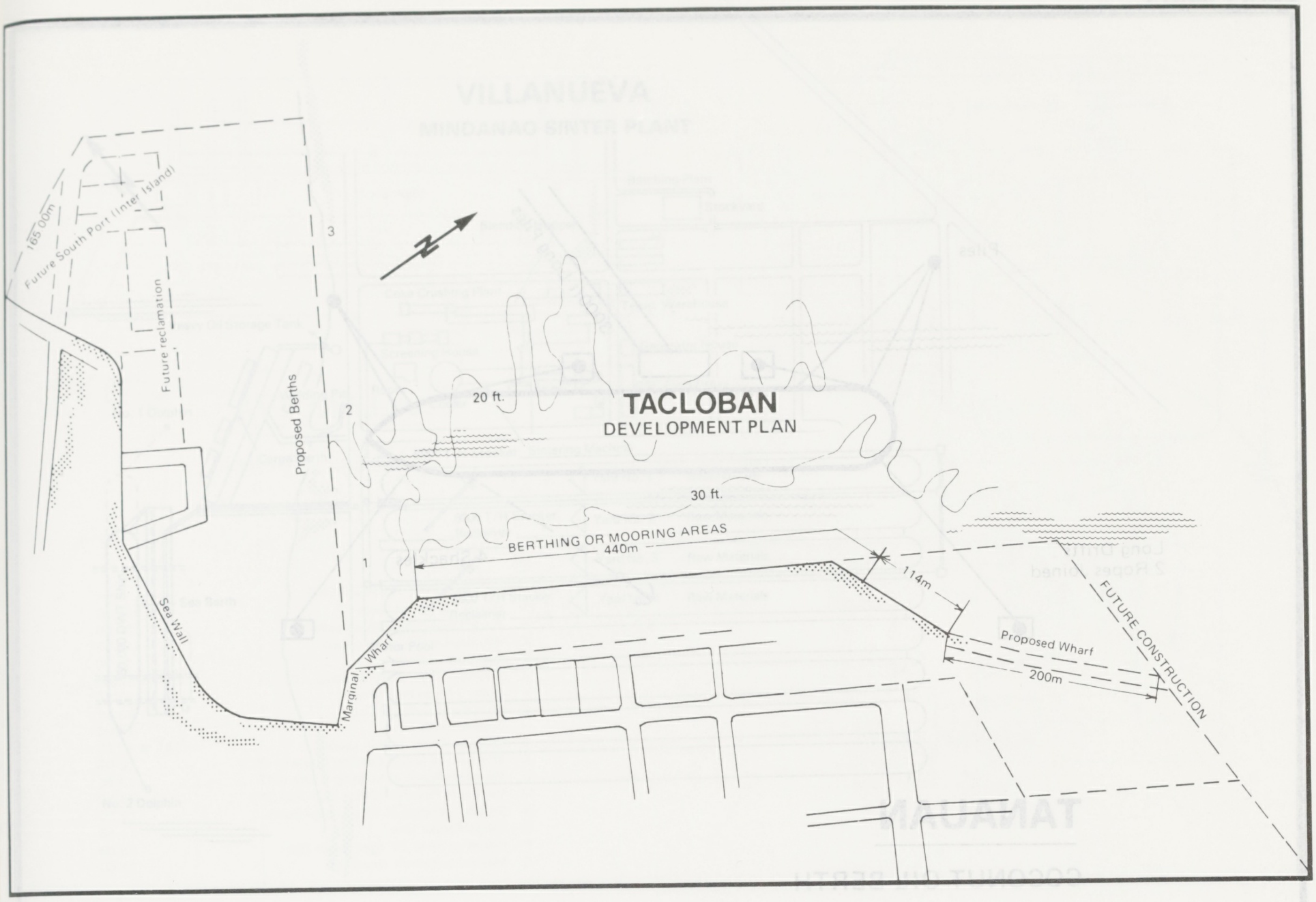
TACLOBAN
(SUB-PORT OF CATBALOGAN

Reinforced Concrete Pier 1
130m
Reinforced Concrete Pier 2
15m
Reinforced Concrete Pier
Causeway
Transit Shed
Transit Sheds



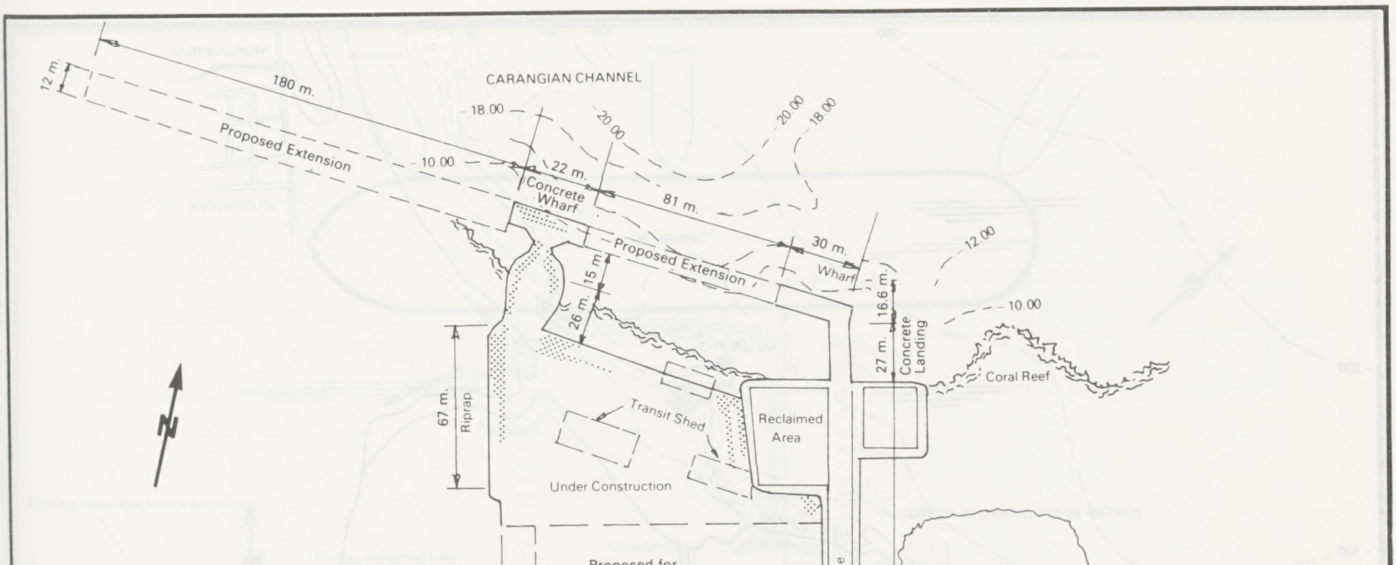
TACLOBAN
SUB-PORT OF MAASIN

67.80m
76.91m
S.K. Demetrio St.
Reinforced Concrete Pier
Timber Piles
Proposed
Site of
PPA Office
Tuburan River
Public Market
Sn. Roque St.
Ro. Garces St.
MPL Reclamation Project



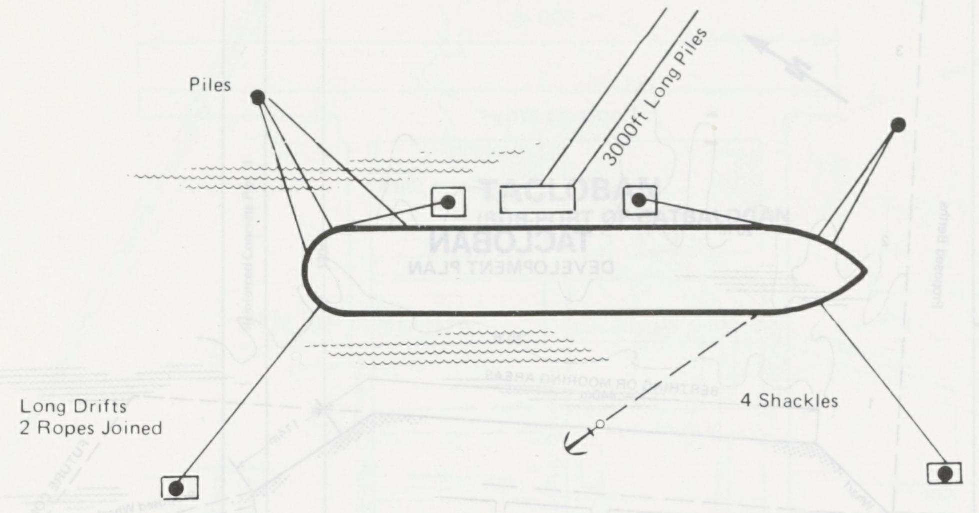
TACLOBAN
DEVELOPMENT PLAN

165.00m
Future South Port (Inter Island)
Future reclamation
Proposed Berths
3
2
1
20 ft.
30 ft.
BERTHING OR MOORING AREAS
440m
114m
Proposed Wharf
200m
FUTURE CONSTRUCTION
Seawall
Marginal Wharf



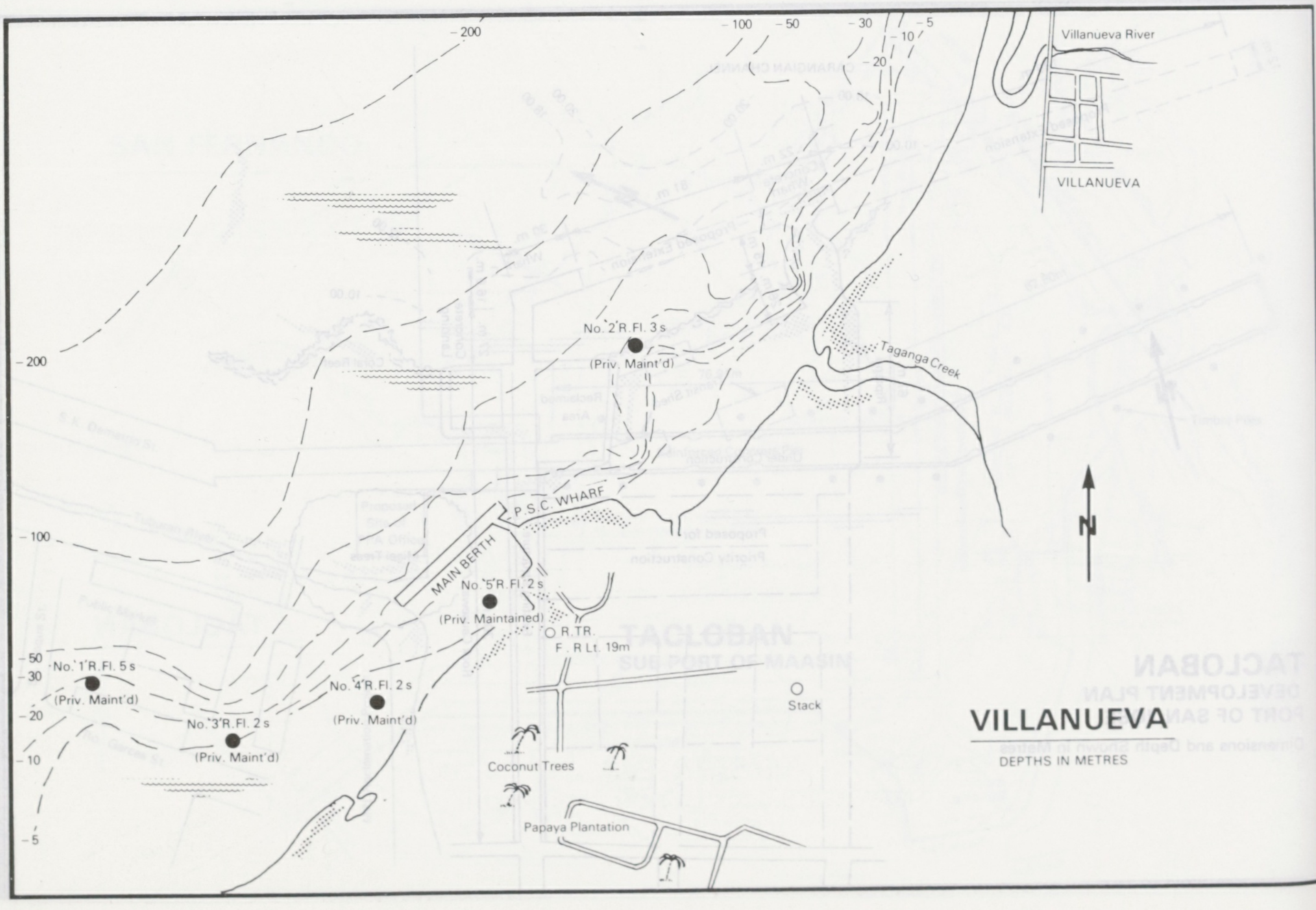
TACLOBAN
DEVELOPMENT PLAN
PORT OF SAN JOSE
Dimensions and Depth Shown in Metres

CARANGIAN CHANNEL
12 m.
180 m.
Proposed Extension
18.00
20.00
20.00
18.00
10.00
22 m.
Concrete Wharf
81 m.
30 m.
Wharf
12.00
Proposed Extension
15 m.
26 m.
16.6 m.
10.00
27 m.
Concrete Landing
Coral Reef
67 m.
Riprap
Transit Shed
Reclaimed Area
Under Construction
Proposed for Priority Construction
Existing Structure
200 m.
Rock Causeway
Miapi Trees


Piles
3000ft Long Piles
Long Drifts
2 Ropes Joined
4 Shackles

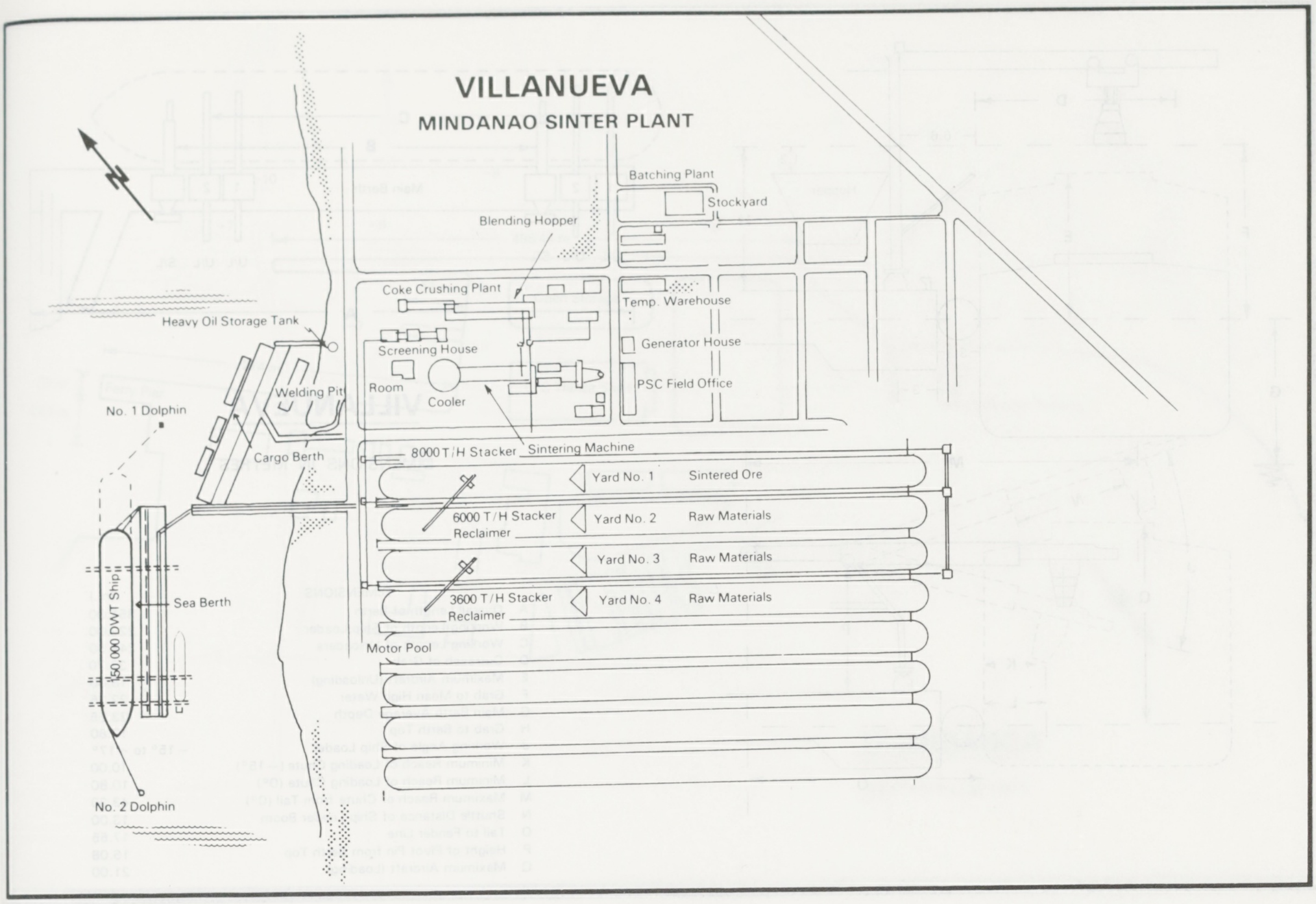
TANAUAN

COCONUT OIL BERTH


- 200
- 100
- 50
- 30
- 20
- 10
- 5
Villanueva River
VILLANUEVA
Taganga Creek
No. 2 R.Fl. 3 s
(Priv. Maint'd)
P.S.C. WHARF
MAIN BERTH
No. 5 R.Fl. 2 s
(Priv. Maintained)
R.TR.
F. R Lt. 19m
No. 1 R.Fl. 5 s
(Priv. Maint'd)
No. 4 R.Fl. 2 s
(Priv. Maint'd)
No. 3 R.Fl. 2 s
(Priv. Maint'd)
Stack
Coconut Trees
Papaya Plantation
N

VILLANUEVA

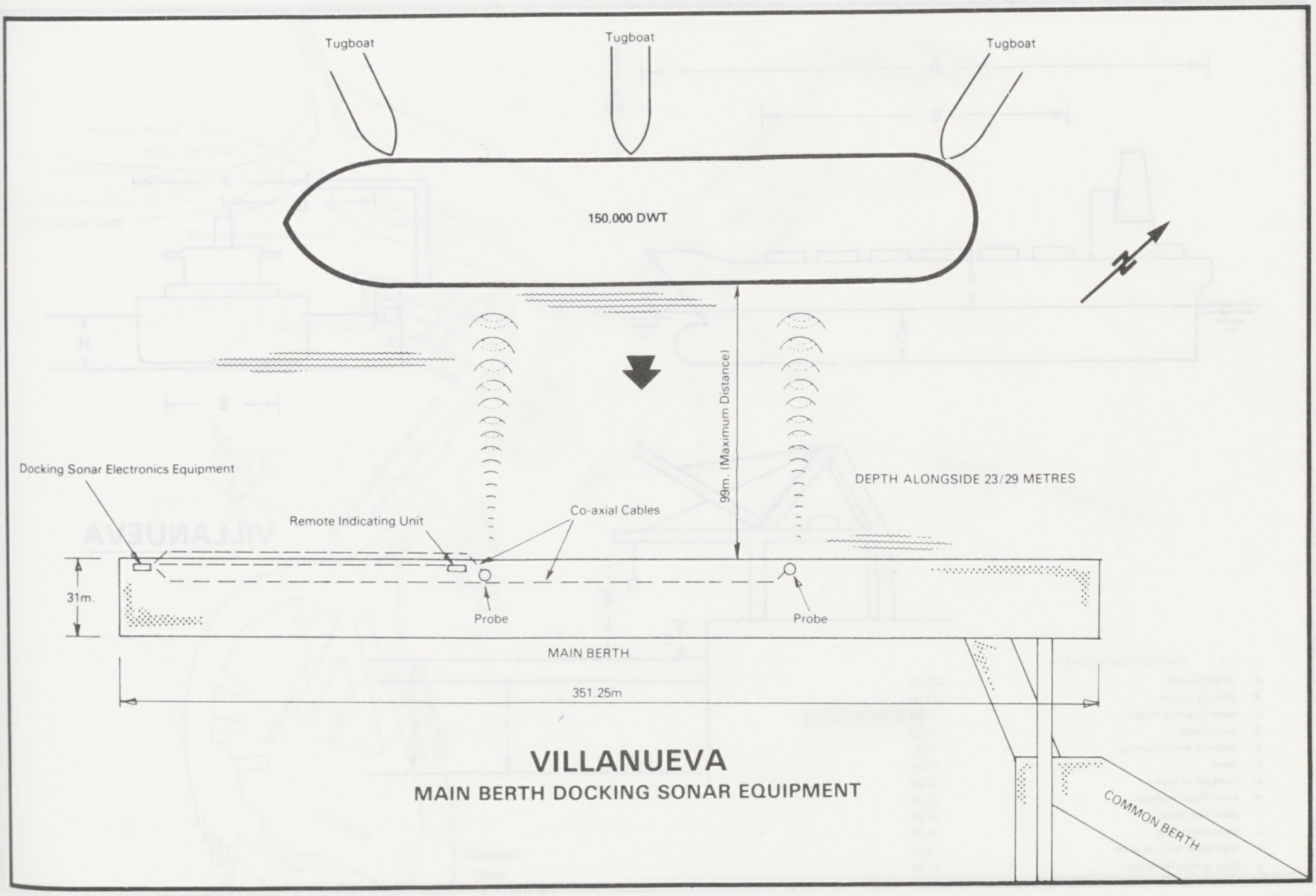
DEPTHS IN METRES



VILLANUEVA

MINDANAO SINTER PLANT

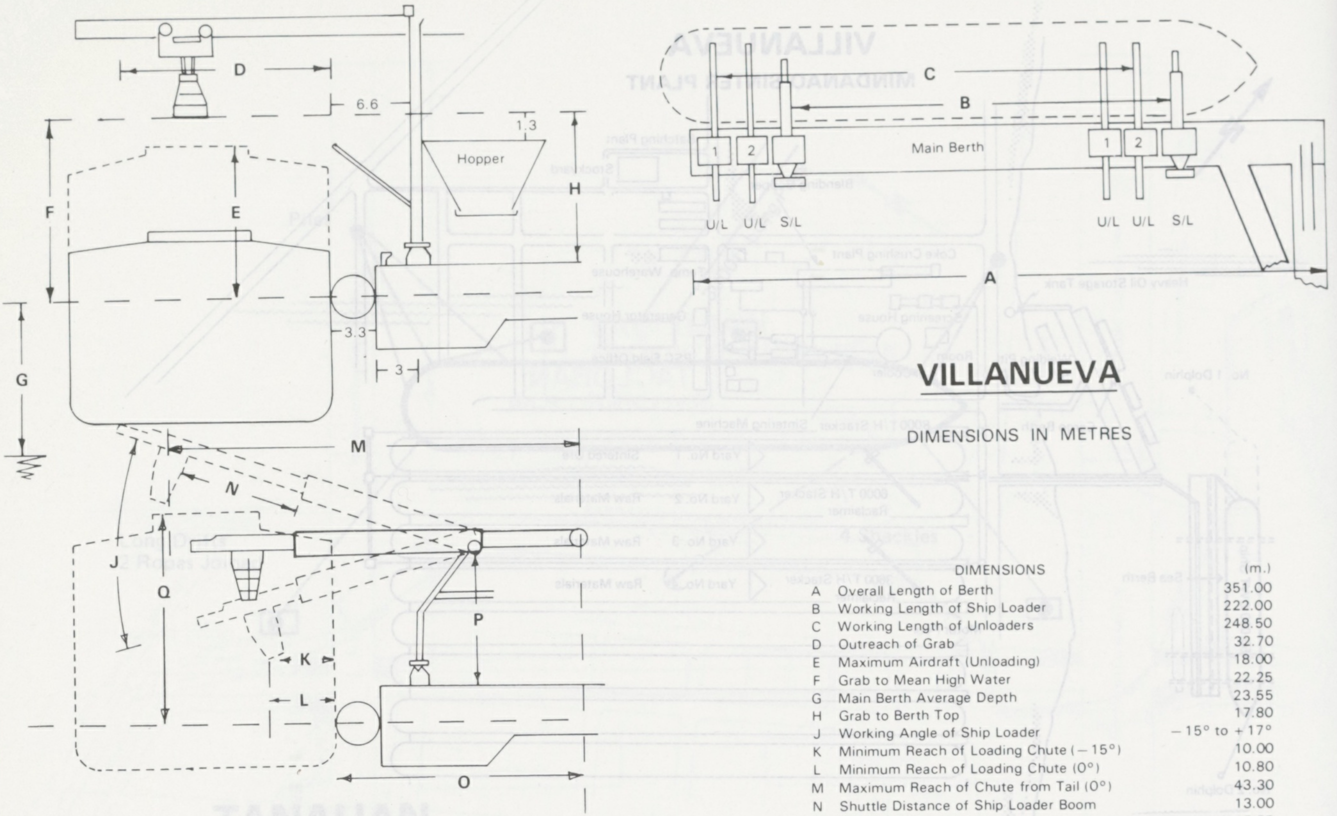
N
Batching Plant
Stockyard
Blending Hopper
Coke Crushing Plant
Temp. Warehouse
Heavy Oil Storage Tank
Generator House
Screening House
PSC Field Office
Welding Pit
Room
Cooler
No. 1 Dolphin
Cargo Berth
8000 T/H Stacker
Sintering Machine
Yard No. 1
Sintered Ore
6000 T/H Stacker Reclaimer
Yard No. 2
Raw Materials
Yard No. 3
Raw Materials
150,000 DWT Ship
Sea Berth
3600 T/H Stacker Reclaimer
Yard No. 4
Raw Materials
Motor Pool
No. 2 Dolphin



VILLANUEVA

MAIN BERTH DOCKING SONAR EQUIPMENT

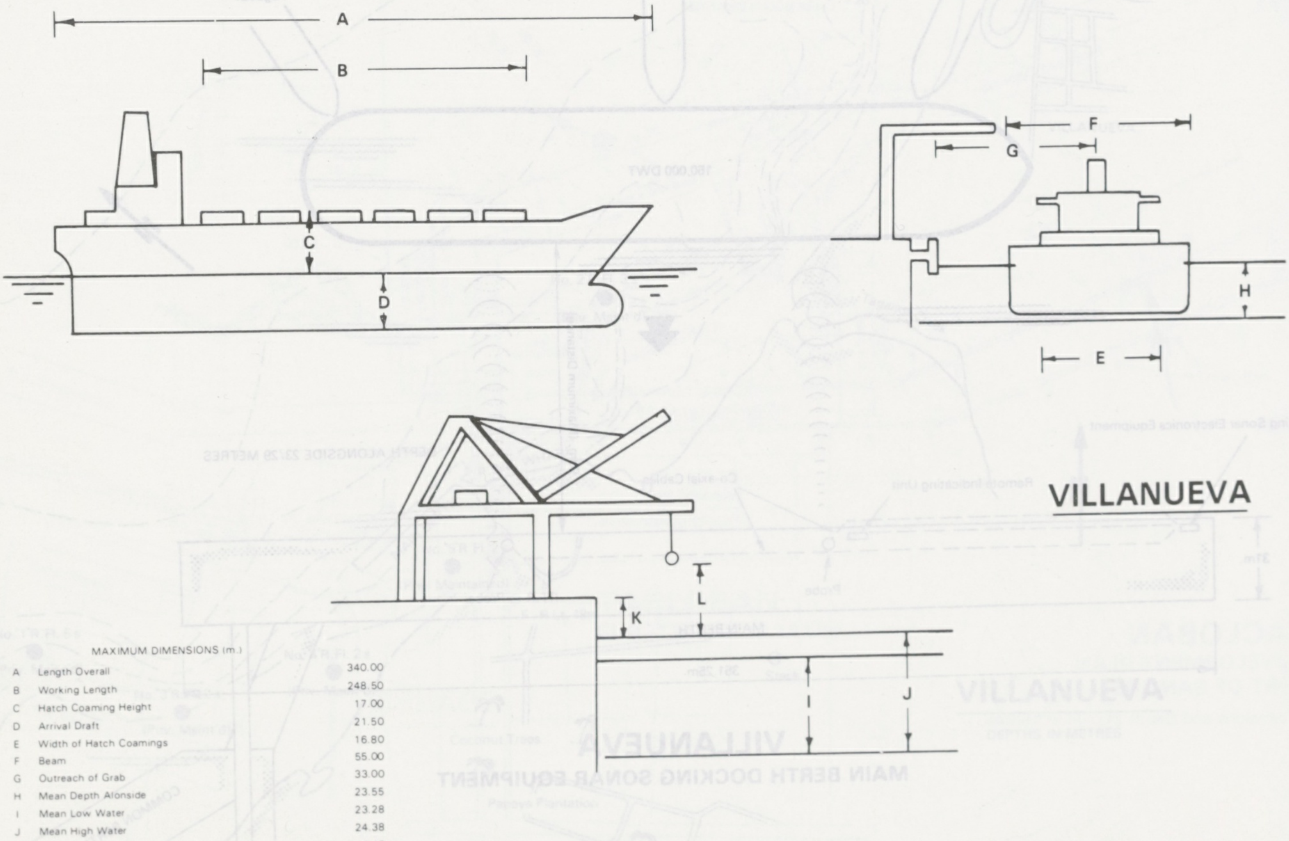
Tugboat
Tugboat
Tugboat
150,000 DWT
N
99m. (Maximum Distance)
DEPTH ALONGSIDE 23/29 METRES
Docking Sonar Electronics Equipment
Remote Indicating Unit
Co-axial Cables
31m.
Probe
Probe
MAIN BERTH
351.25m
COMMON BERTH



VILLANUEVA

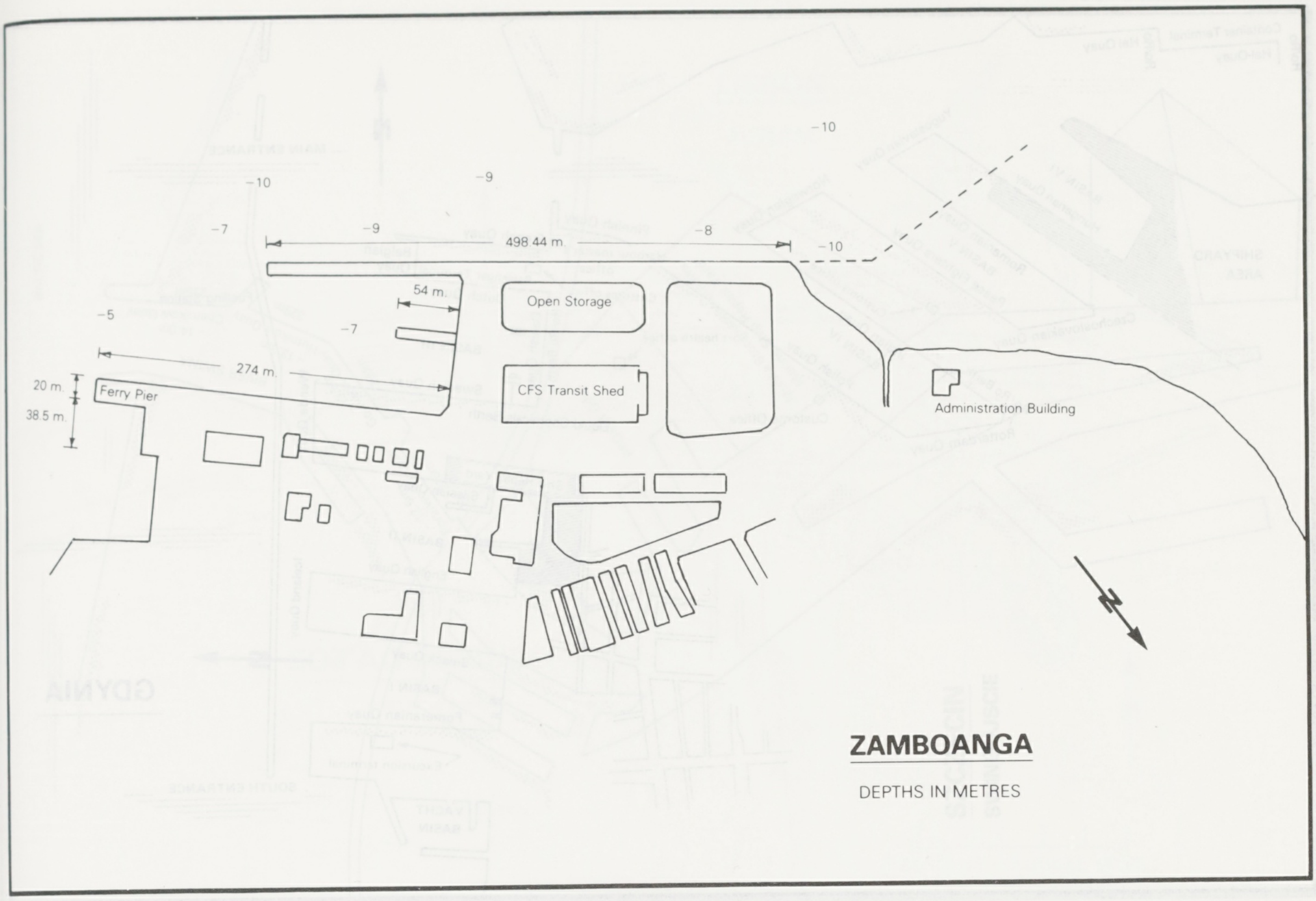
DIMENSIONS IN METRES

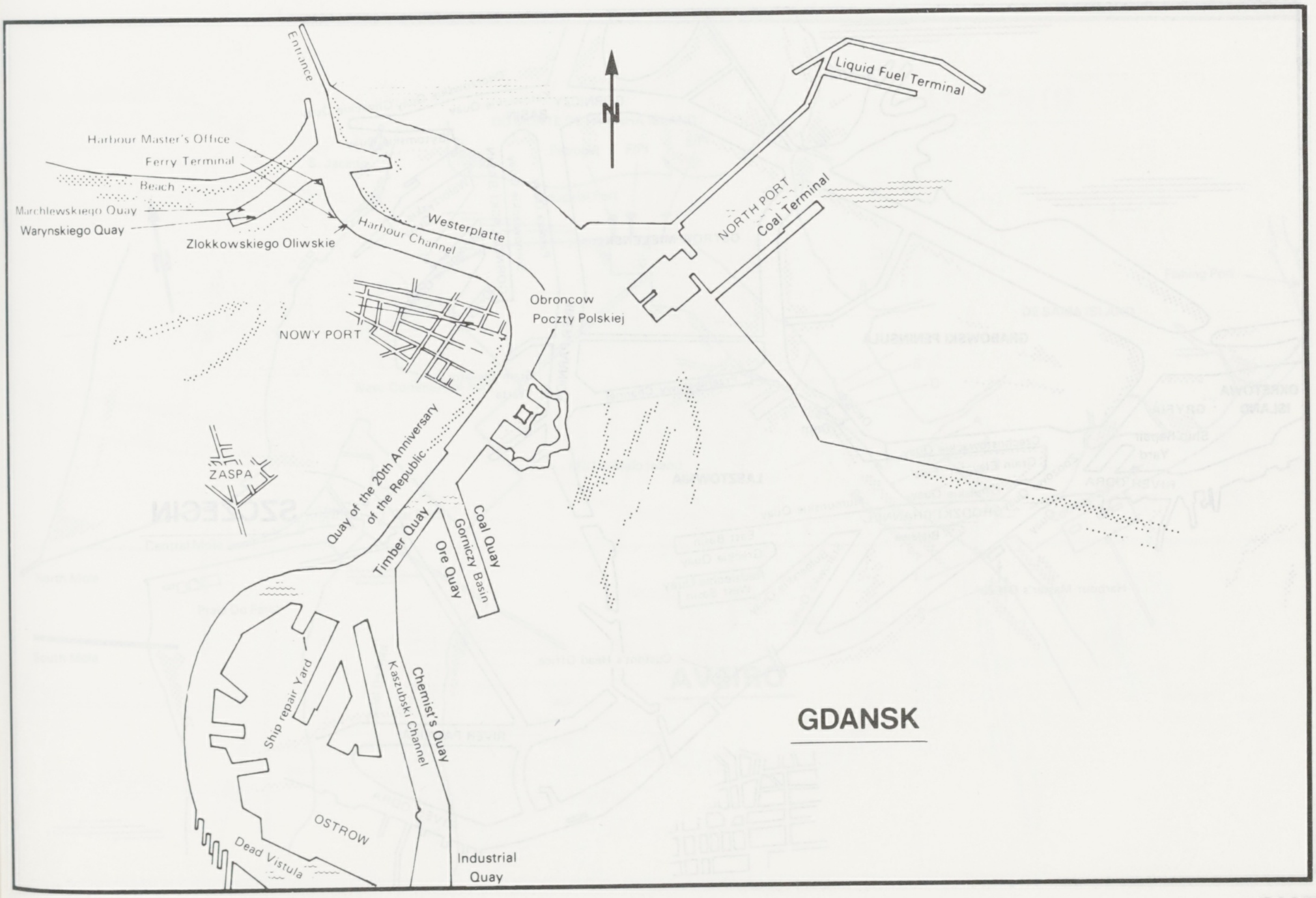
	DIMENSIONS	(m.)
A	Overall Length of Berth	351.00
B	Working Length of Ship Loader	222.00
C	Working Length of Unloaders	248.50
D	Outreach of Grab	32.70
E	Maximum Airdraft (Unloading)	18.00
F	Grab to Mean High Water	22.25
G	Main Berth Average Depth	23.55
H	Grab to Berth Top	17.80
J	Working Angle of Ship Loader	−15° to +17°
K	Minimum Reach of Loading Chute (−15°)	10.00
L	Minimum Reach of Loading Chute (0°)	10.80
M	Maximum Reach of Chute from Tail (0°)	43.30
N	Shuttle Distance of Ship Loader Boom	13.00
O	Tail to Fender Line	17.55
P	Height of Pivot Pin from Berth Top	15.08
Q	Maximum Airdraft (Loading)	21.00

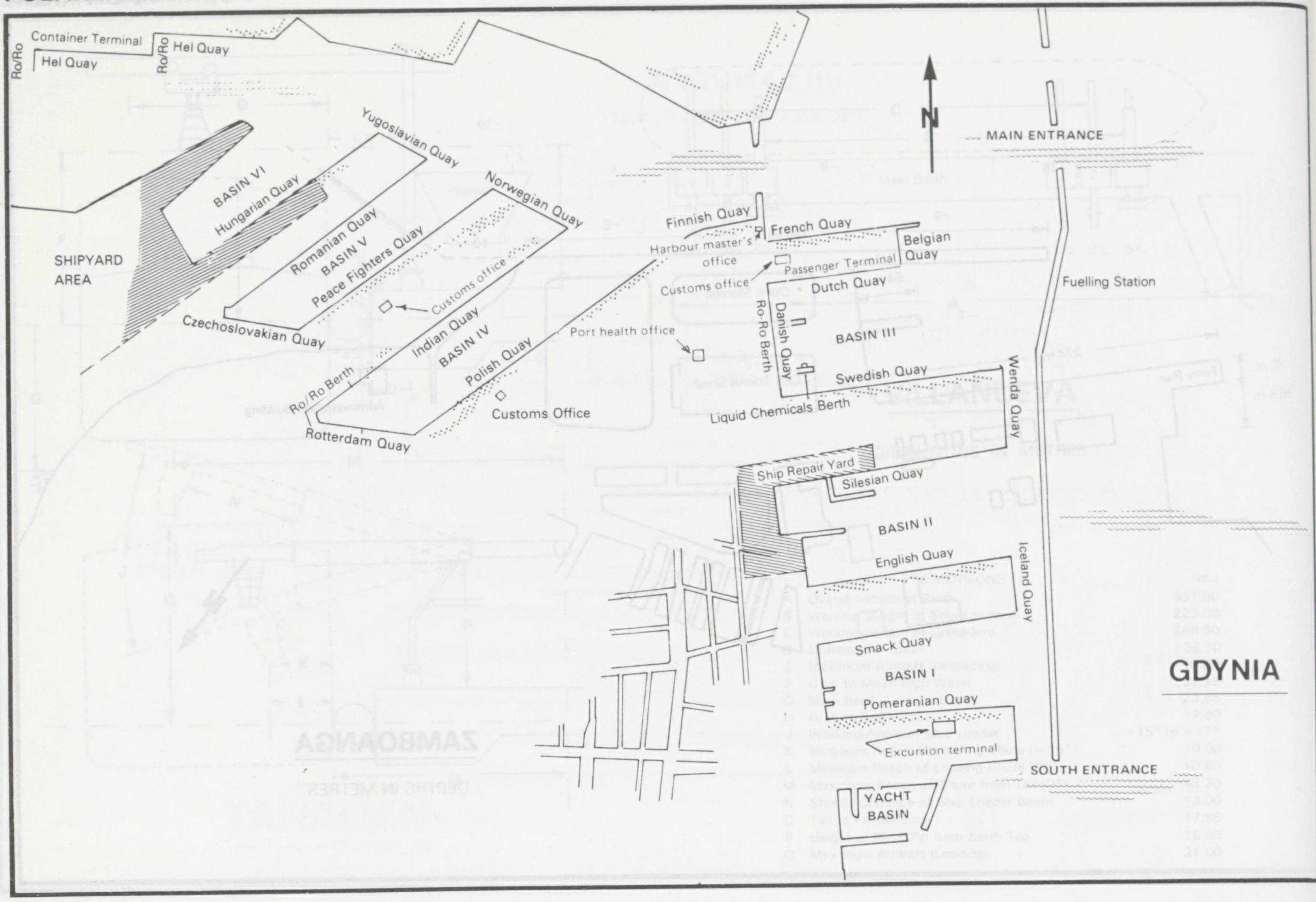


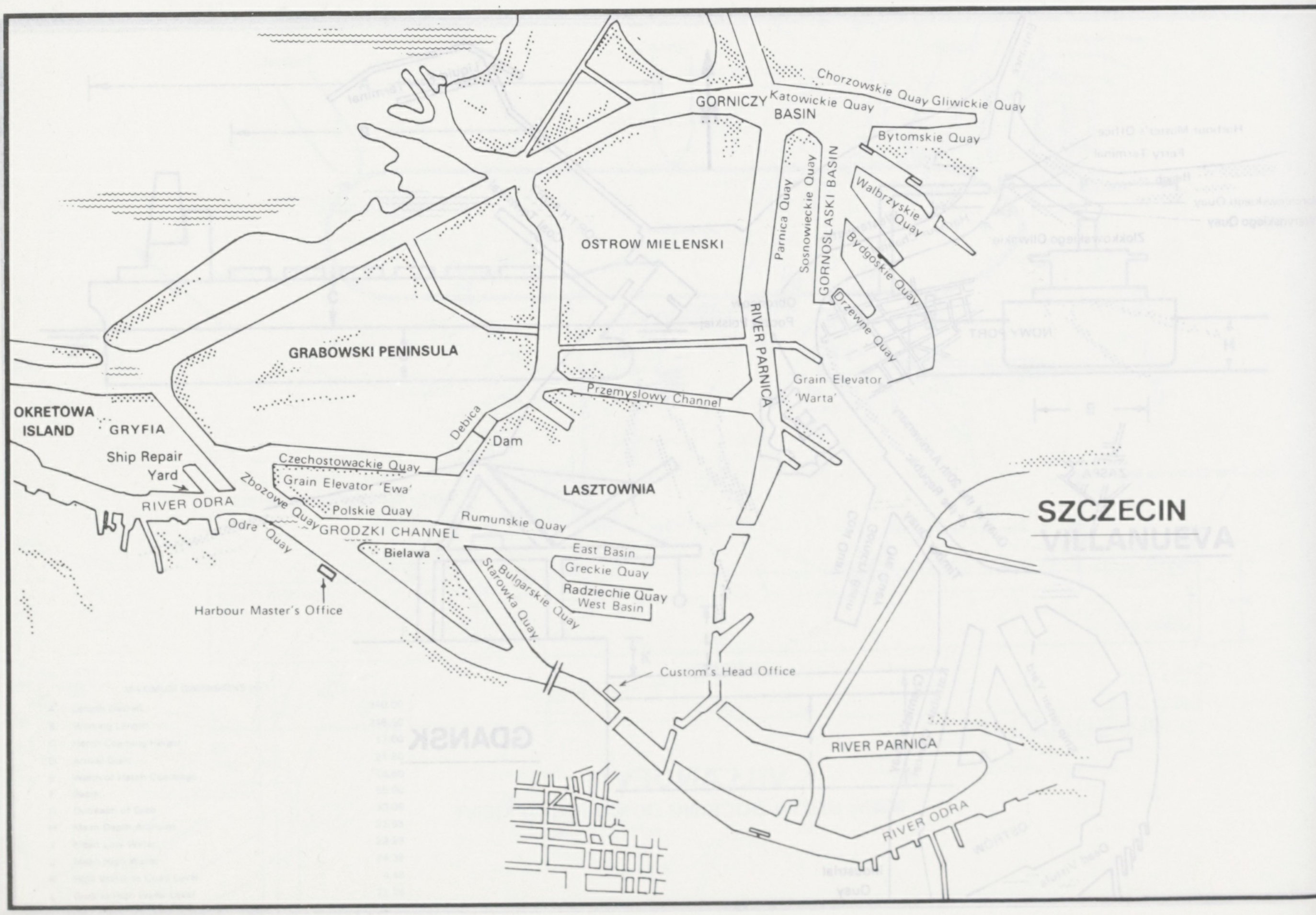
VILLANUEVA

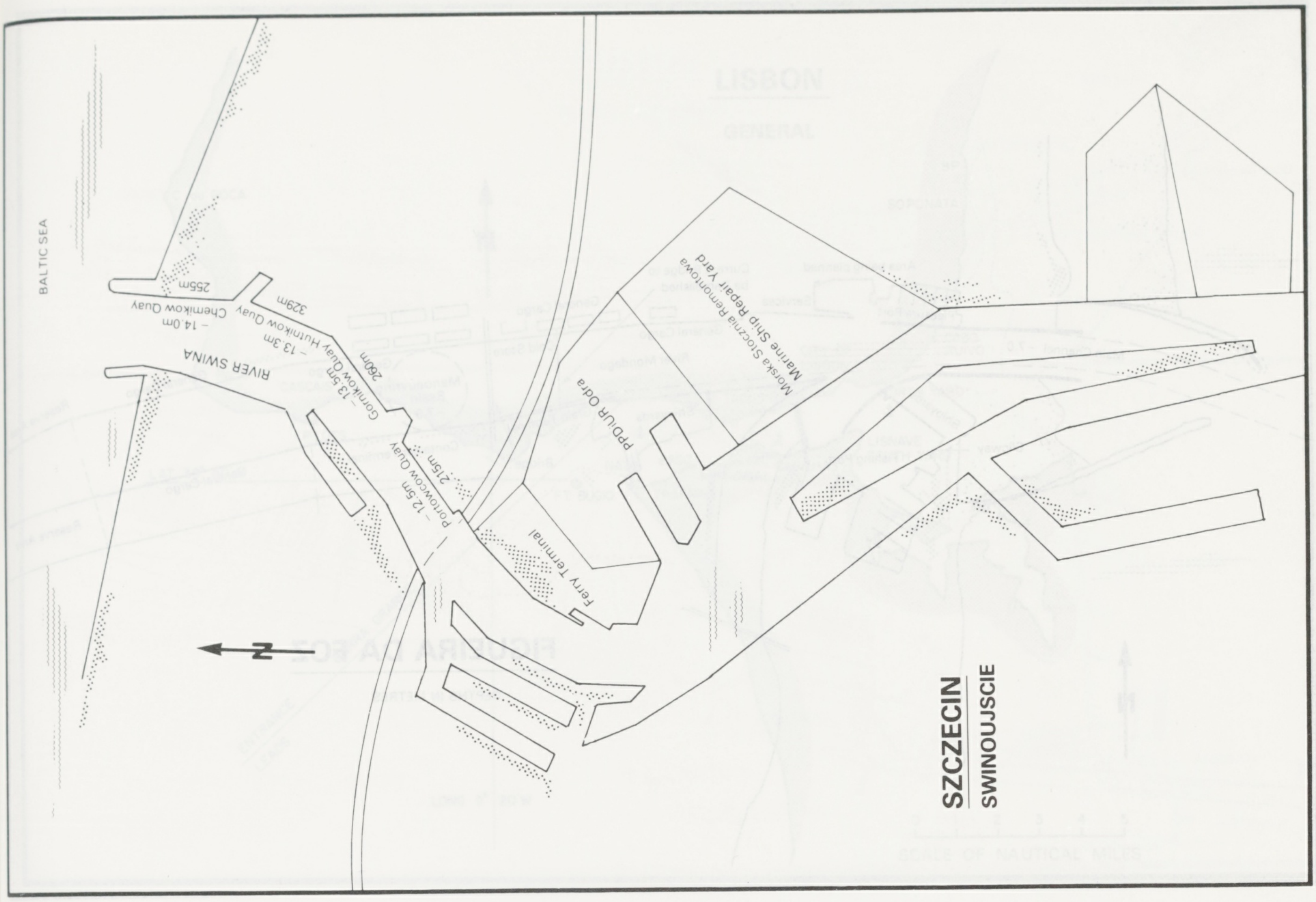
	MAXIMUM DIMENSIONS (m.)	
A	Length Overall	340.00
B	Working Length	248.50
C	Hatch Coaming Height	17.00
D	Arrival Draft	21.50
E	Width of Hatch Coamings	16.80
F	Beam	55.00
G	Outreach of Grab	33.00
H	Mean Depth Alonside	23.55
I	Mean Low Water	23.28
J	Mean High Water	24.38
K	High Water to Quay Level	4.45
L	Grab to High Water Level	22.25


ZAMBOANGA
DEPTHS IN METRES
−10
−9
−10
−7
−9
498.44 m.
−8
−10
54 m.
Open Storage
−5
−7
274 m.
20 m.
38.5 m.
Ferry Pier
CFS Transit Shed
Administration Building
N


GDANSK
N
Entrance
Liquid Fuel Terminal
Harbour Master's Office
Ferry Terminal
Beach
Marchlewskiego Quay
Warynskiego Quay
Zlokkowskiego Oliwskie
Harbour Channel
Westerplatte
NORTH PORT
Coal Terminal
Obroncow Poczty Polskiej
NOWY PORT
ZASPA
Quay of the 20th Anniversary of the Republic
Timber Quay
Coal Quay
Gorniczy Basin
Ore Quay
Ship repair Yard
Chemist's Quay
Kaszubski Channel
OSTROW
Dead Vistula
Industrial Quay


GDYNIA
Ro/Ro
Container Terminal
Hel Quay
Ro/Ro
Hel Quay
MAIN ENTRANCE
N
SHIPYARD AREA
BASIN VI
Hungarian Quay
Yugoslavian Quay
Romanian Quay
BASIN V
Peace Fighters Quay
Norwegian Quay
Czechoslovakian Quay
Customs office
Finnish Quay
Harbour master's office
Customs office
French Quay
Belgian Quay
Passenger Terminal
Dutch Quay
Fuelling Station
Ro-Ro Berth
Danish Quay
BASIN III
Indian Quay
BASIN IV
Polish Quay
Port health office
Ro/Ro Berth
Rotterdam Quay
Customs Office
Swedish Quay
Liquid Chemicals Berth
Wenda Quay
Ship Repair Yard
Silesian Quay
BASIN II
English Quay
Iceland Quay
Smack Quay
BASIN I
Pomeranian Quay
Excursion terminal
SOUTH ENTRANCE
YACHT BASIN

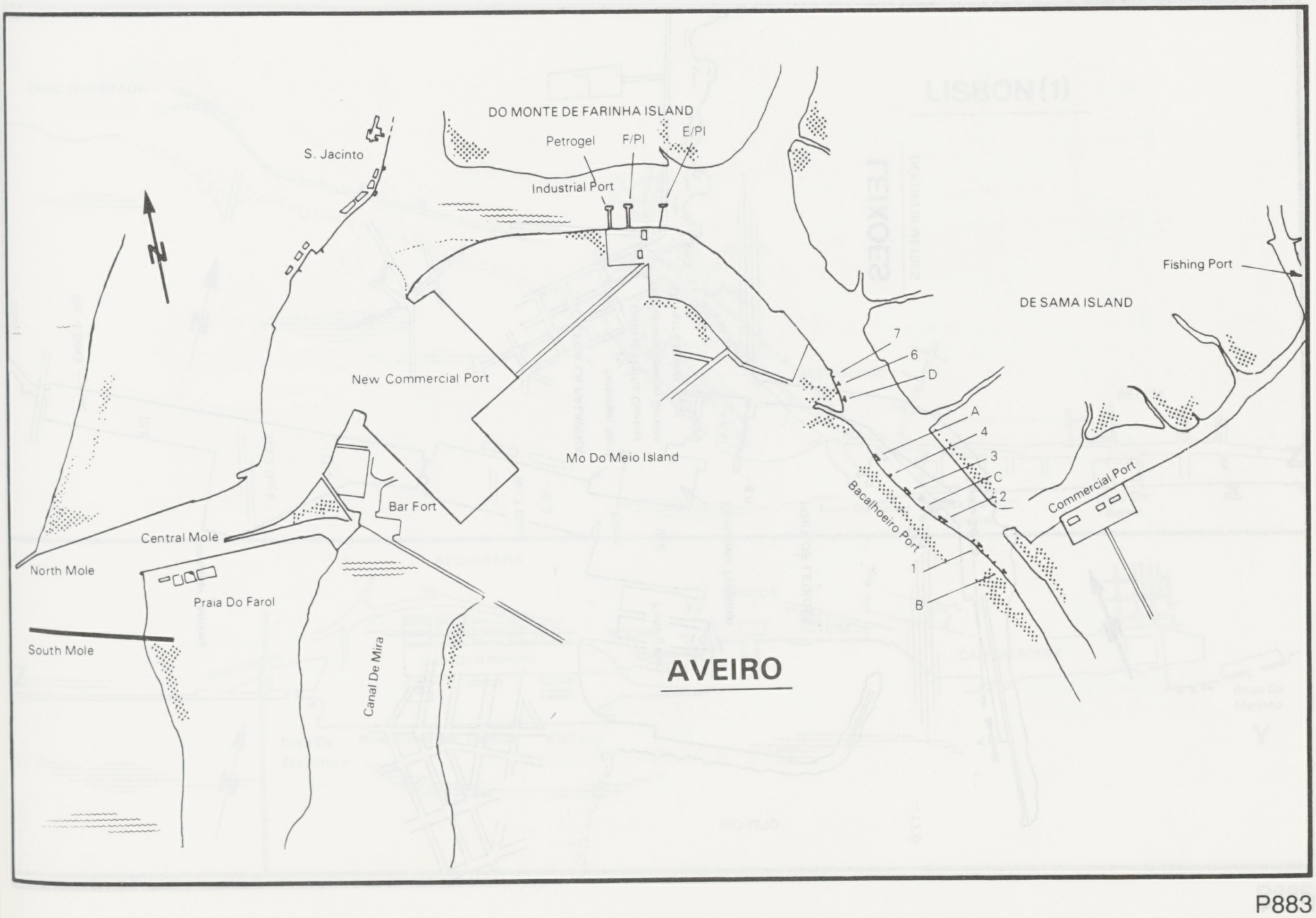

SZCZECIN
Chorzowskie Quay
Gliwickie Quay
GORNICZY BASIN
Katowickie Quay
Bytomskie Quay
Parnica Quay
Sosnowieckie Quay
GORNOSLASKI BASIN
Walbrzyskie Quay
Bydgoskie Quay
Drzewne Quay
OSTROW MIELENSKI
RIVER PARNICA
Grain Elevator 'Warta'
GRABOWSKI PENINSULA
Przemyslowy Channel
OKRETOWA ISLAND
GRYFIA
Ship Repair Yard
Debica
Dam
Czechostowackie Quay
Grain Elevator 'Ewa'
LASZTOWNIA
RIVER ODRA
Zbozowe Quay
Polskie Quay
Odra Quay
GRODZKI CHANNEL
Rumunskie Quay
Bielawa
East Basin
Greckie Quay
Radziechie Quay
West Basin
Bulgarskie Quay
Starowka Quay
Harbour Master's Office
Custom's Head Office
RIVER PARNICA
RIVER ODRA



SZCZECIN

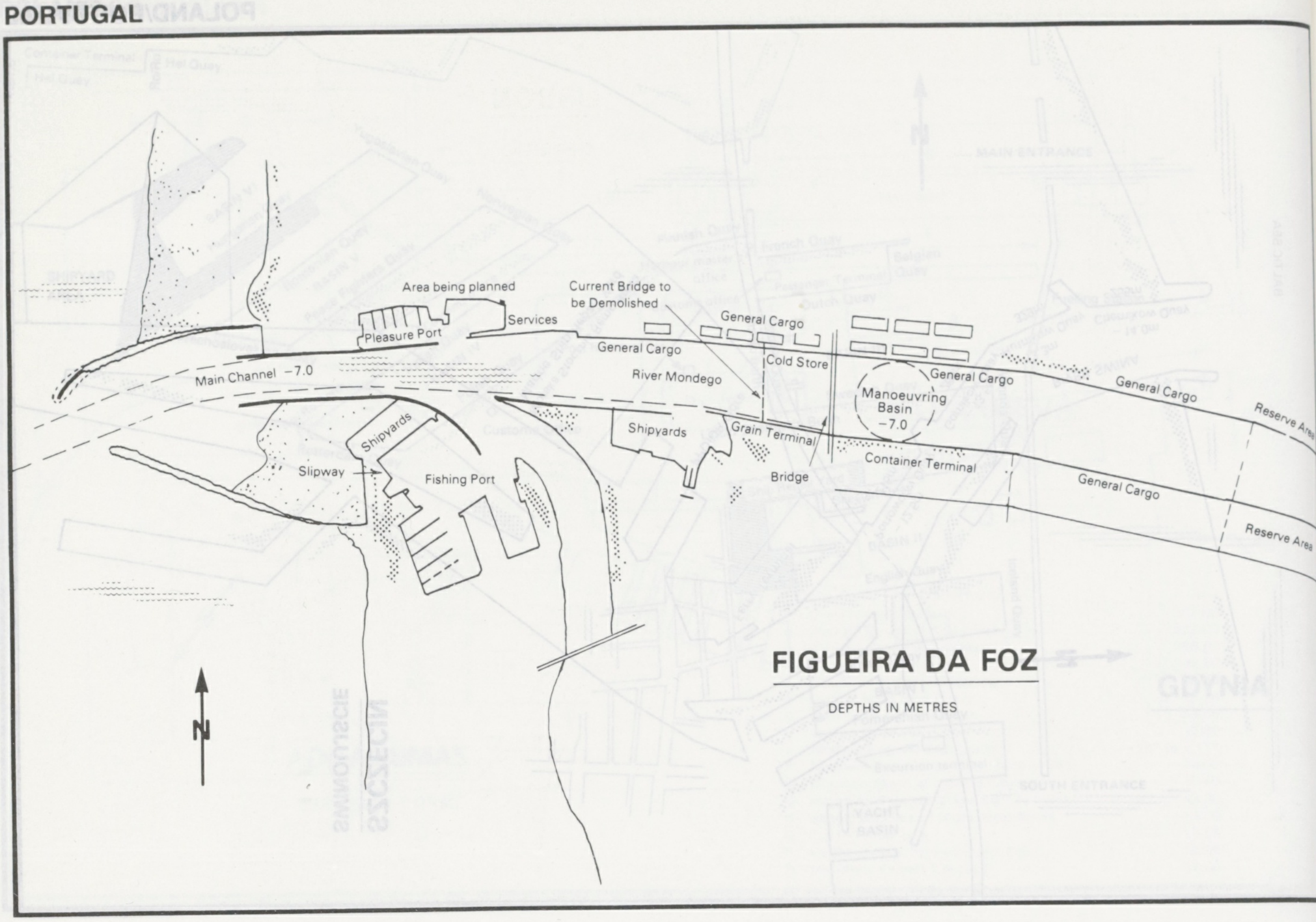
SWINOUJSCIE

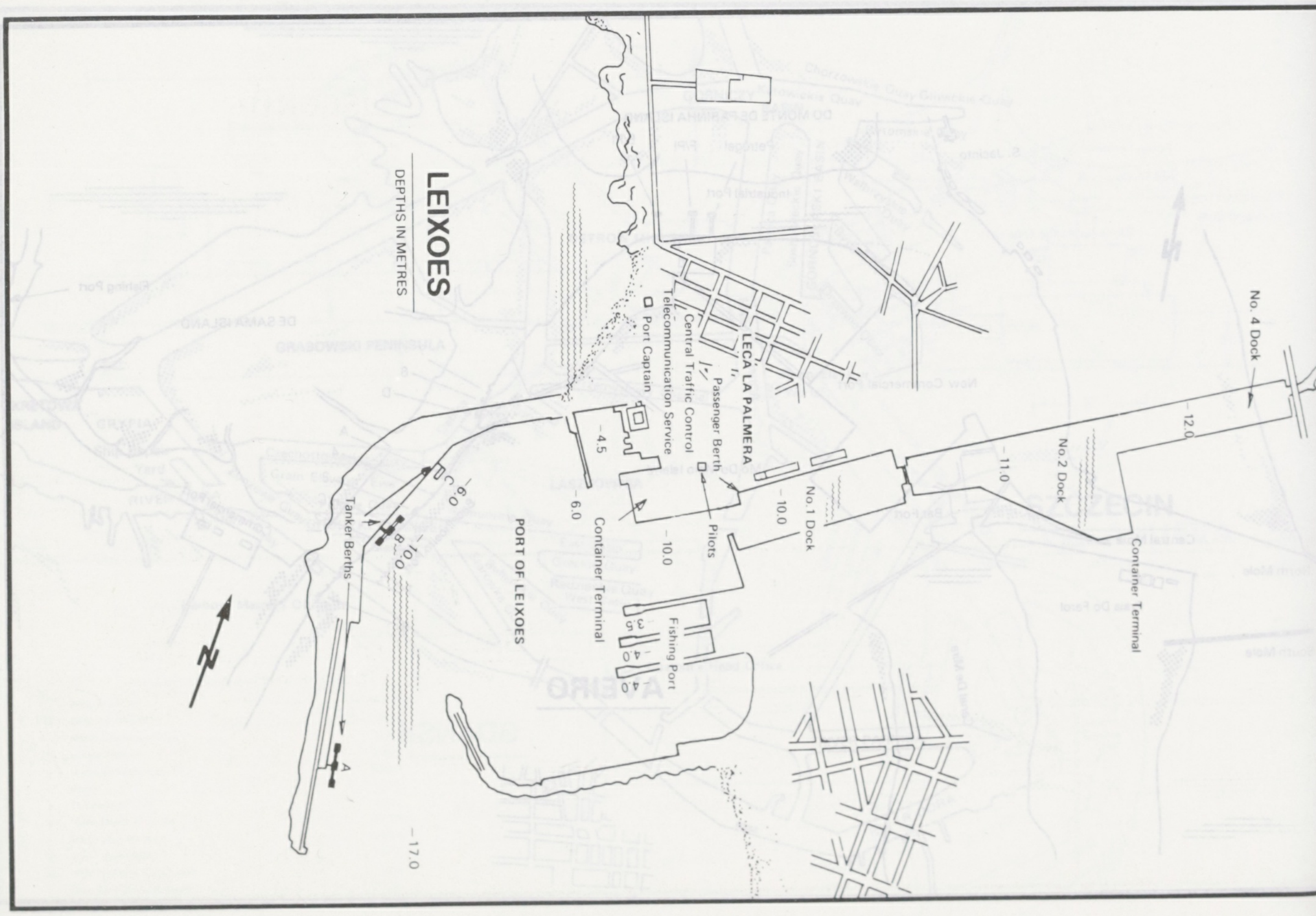
BALTIC SEA
RIVER SWINA
255m
Chemikow Quay
– 14.0m
329m
Hutnikow Quay
– 13.3m
260m
Gornikow Quay
– 13.5m
215m
Portowcow Quay
– 12.5m
PPD/UR Odra
Ferry Terminal
Morska Stocznia Remontowa
Marine Ship Repair Yard
N

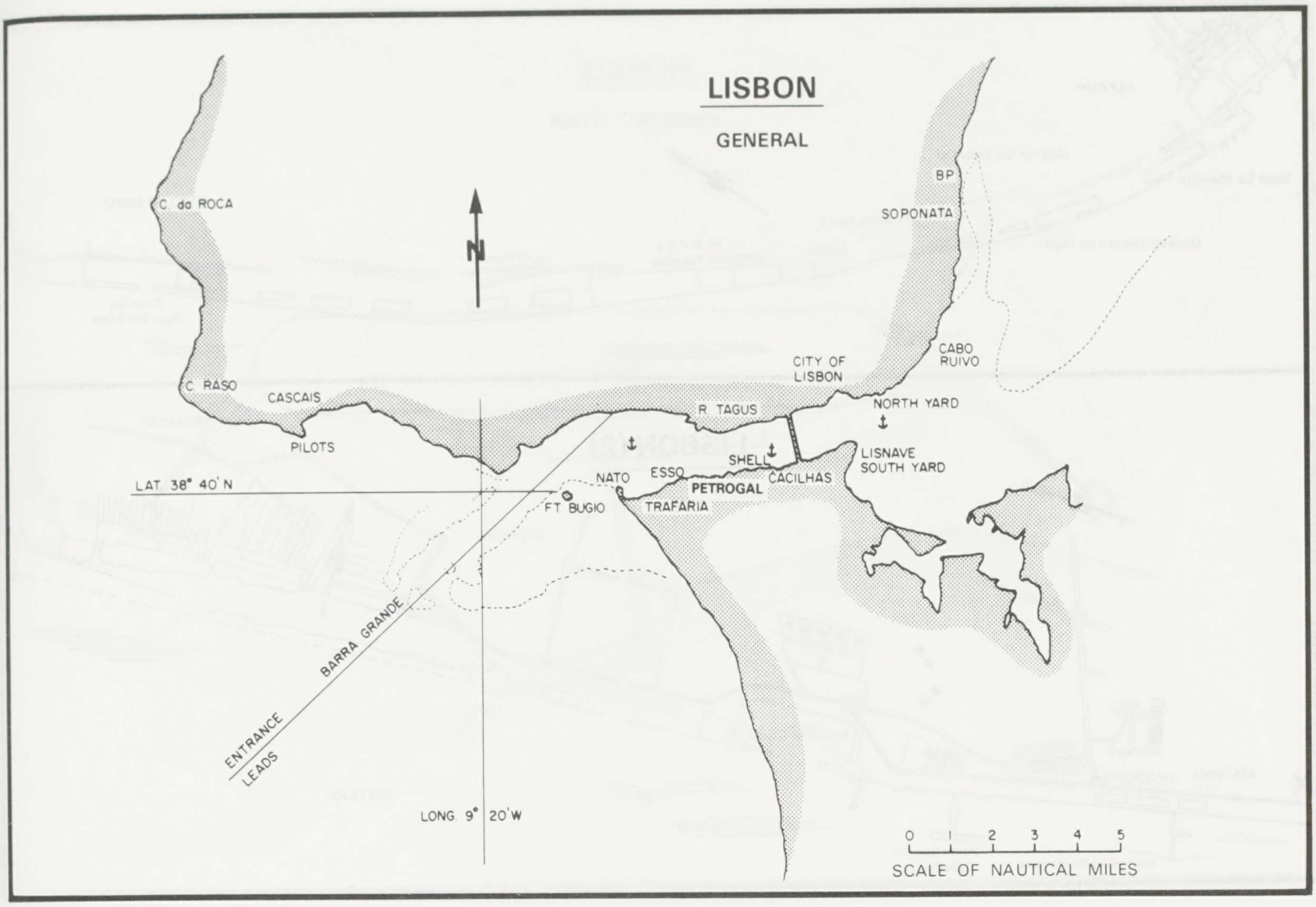


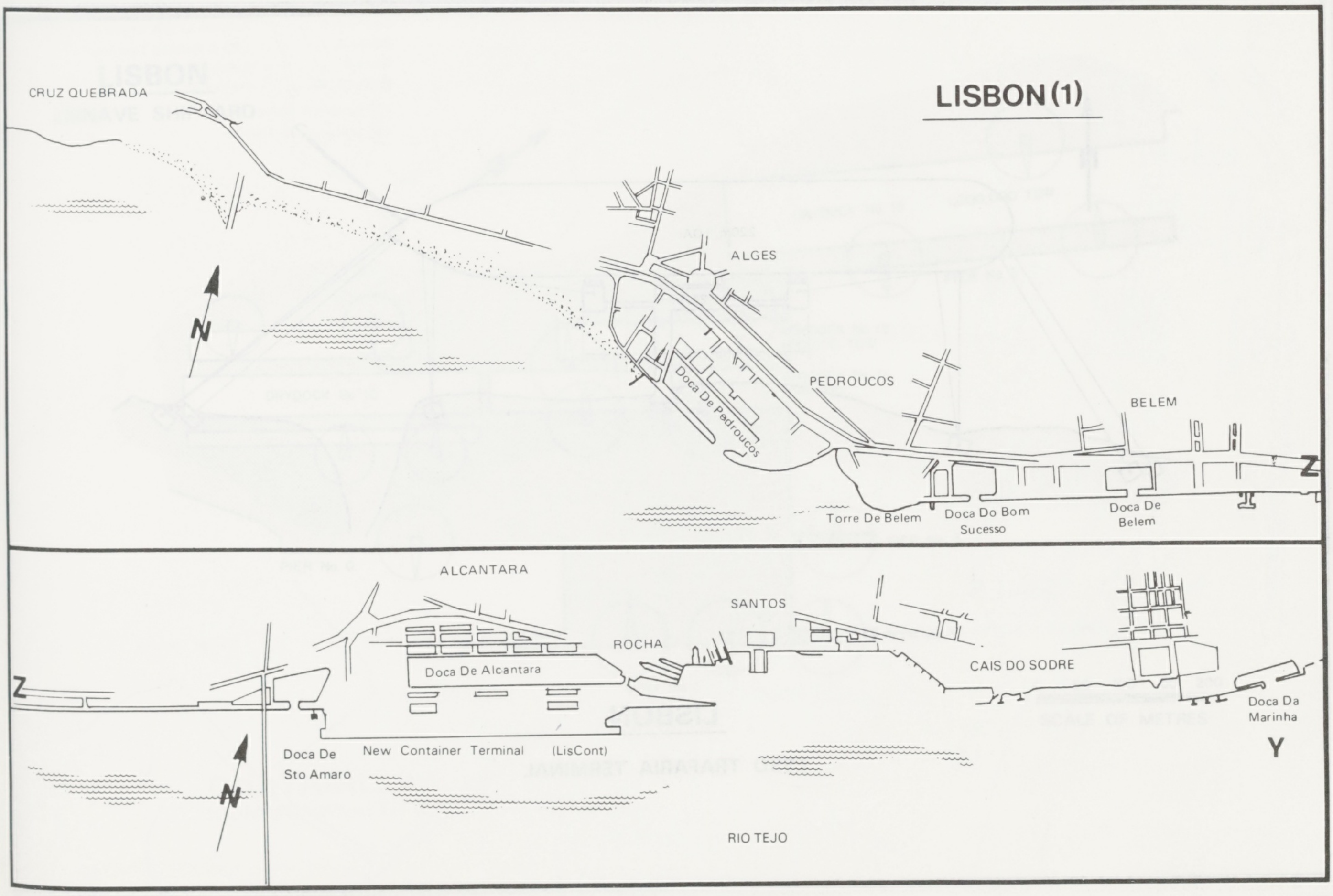
AVEIRO

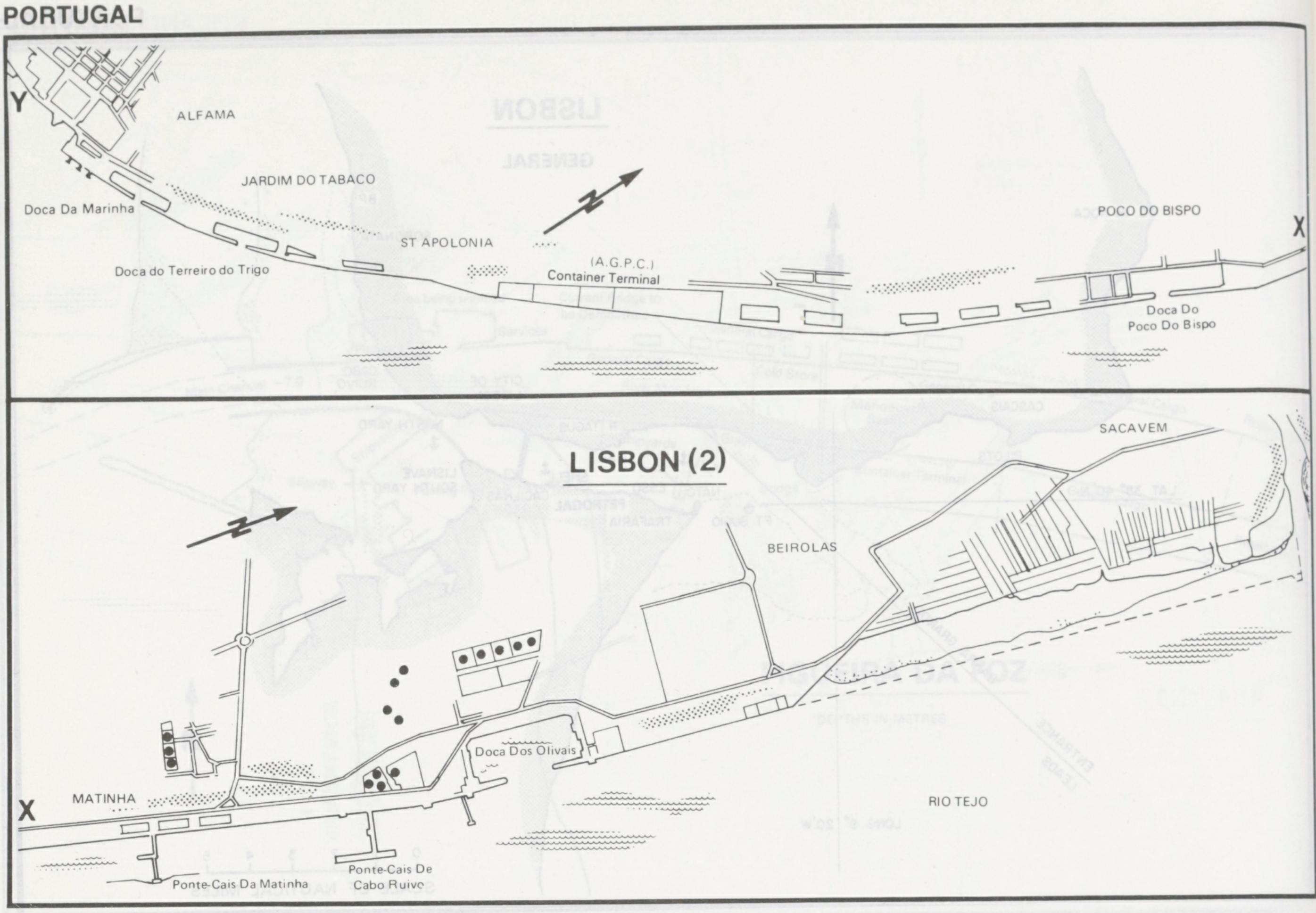
DO MONTE DE FARINHA ISLAND
Petrogel
F/Pl
E/Pl
Industrial Port
S. Jacinto
N
New Commercial Port
Mo Do Meio Island
Bar Fort
Central Mole
North Mole
Praia Do Farol
South Mole
Canal De Mira
DE SAMA ISLAND
Fishing Port
7
6
D
A
4
3
C
2
1
B
Bacalhoeiro Port
Commercial Port


FIGUEIRA DA FOZ
DEPTHS IN METRES
Area being planned
Current Bridge to be Demolished
Pleasure Port
Services
General Cargo
General Cargo
Cold Store
General Cargo
General Cargo
Reserve Area
Main Channel −7.0
River Mondego
Manoeuvring Basin −7.0
Shipyards
Shipyards
Grain Terminal
Container Terminal
Slipway
Fishing Port
Bridge
General Cargo
Reserve Area
N

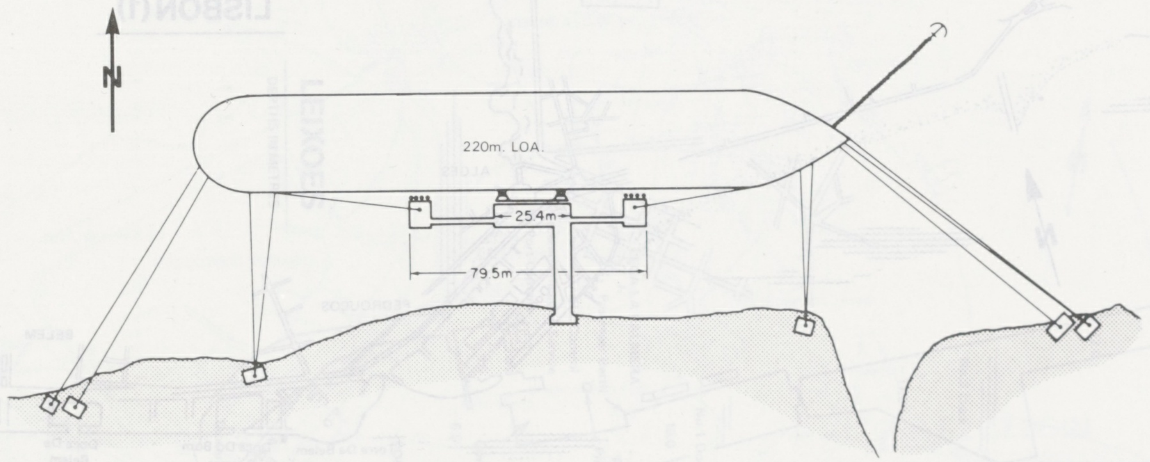

LEIXOES
DEPTHS IN METRES
LEÇA LA PALMERA
Port Captain
Central Traffic Control
Telecommunication Service
Passenger Berth
Pilots
−4.5
6.0
−10.0
No.1 Dock
−10.0
−11.0
No.2 Dock
−12.0
No. 4 Dock
Container Terminal
Container Terminal
PORT OF LEIXOES
Fishing Port
3.5
4.0
4.0
Tanker Berths
C
−6.0
B
−10.0
A
−17.0
N


LISBON
GENERAL
N
C. da ROCA
C. RASO
CASCAIS
PILOTS
LAT. 38° 40' N
FT. BUGIO
NATO
ESSO
PETROGAL
TRAFARIA
SHELL
CACILHAS
R. TAGUS
CITY OF LISBON
BP
SOPONATA
CABO RUIVO
NORTH YARD
LISNAVE SOUTH YARD
ENTRANCE
BARRA GRANDE
LEADS
LONG. 9° 20' W
0 1 2 3 4 5
SCALE OF NAUTICAL MILES


LISBON (1)
CRUZ QUEBRADA
N
ALGES
Doca De Pedroucos
PEDROUCOS
BELEM
Torre De Belem
Doca Do Bom Sucesso
Doca De Belem
Z
ALCANTARA
Doca De Alcantara
ROCHA
SANTOS
CAIS DO SODRE
Z
Doca De Sto Amaro
New Container Terminal (LisCont)
Doca Da Marinha
Y
N
RIO TEJO

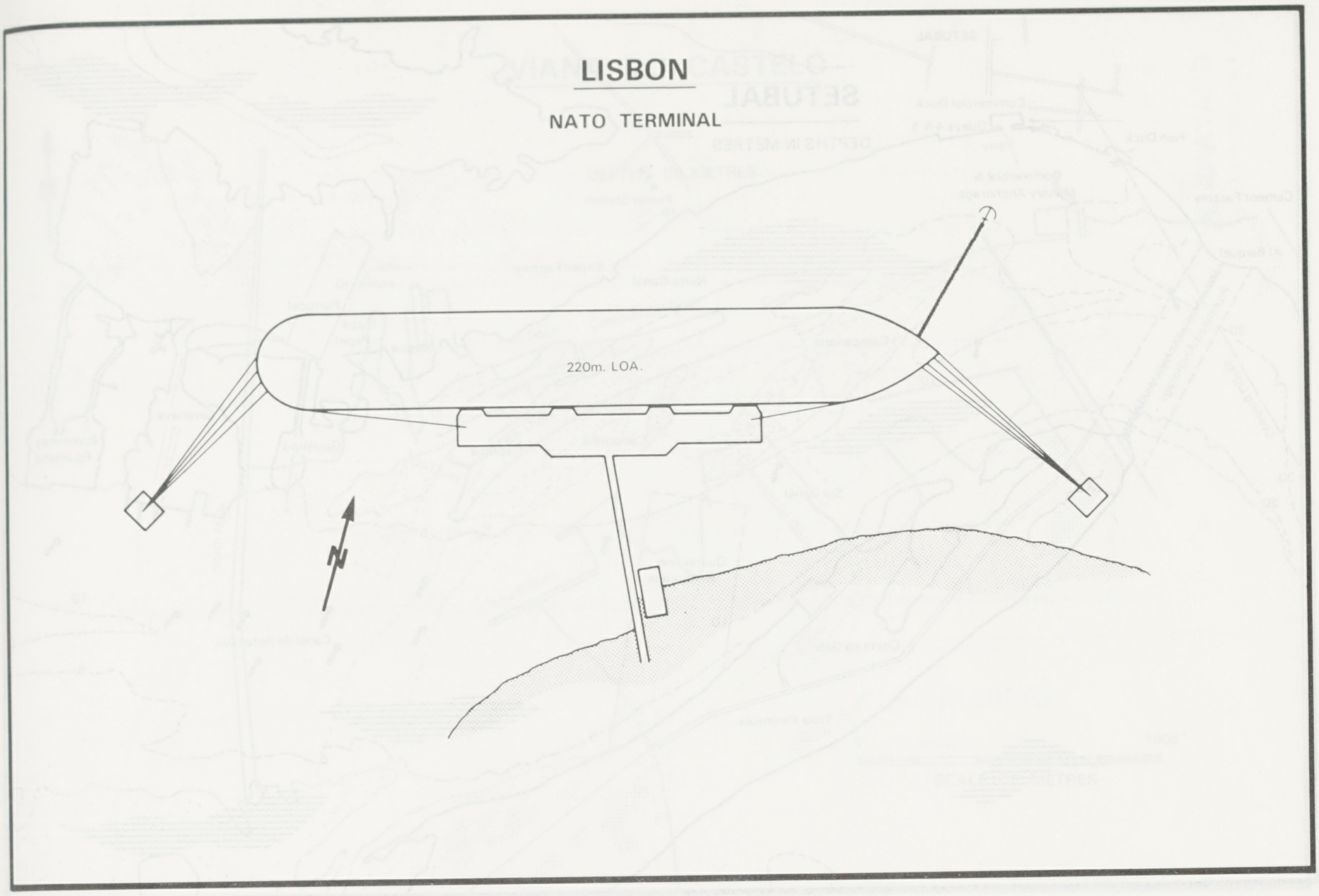

Y
ALFAMA
JARDIM DO TABACO
Doca Da Marinha
ST APOLONIA
Doca do Terreiro do Trigo
(A.G.P.C.)
Container Terminal
N
POCO DO BISPO
X
Doca Do
Poco Do Bispo
SACAVEM
N
BEIROLAS
Doca Dos Olivais
X
MATINHA
RIO TEJO
Ponte-Cais Da Matinha
Ponte-Cais De
Cabo Ruivo

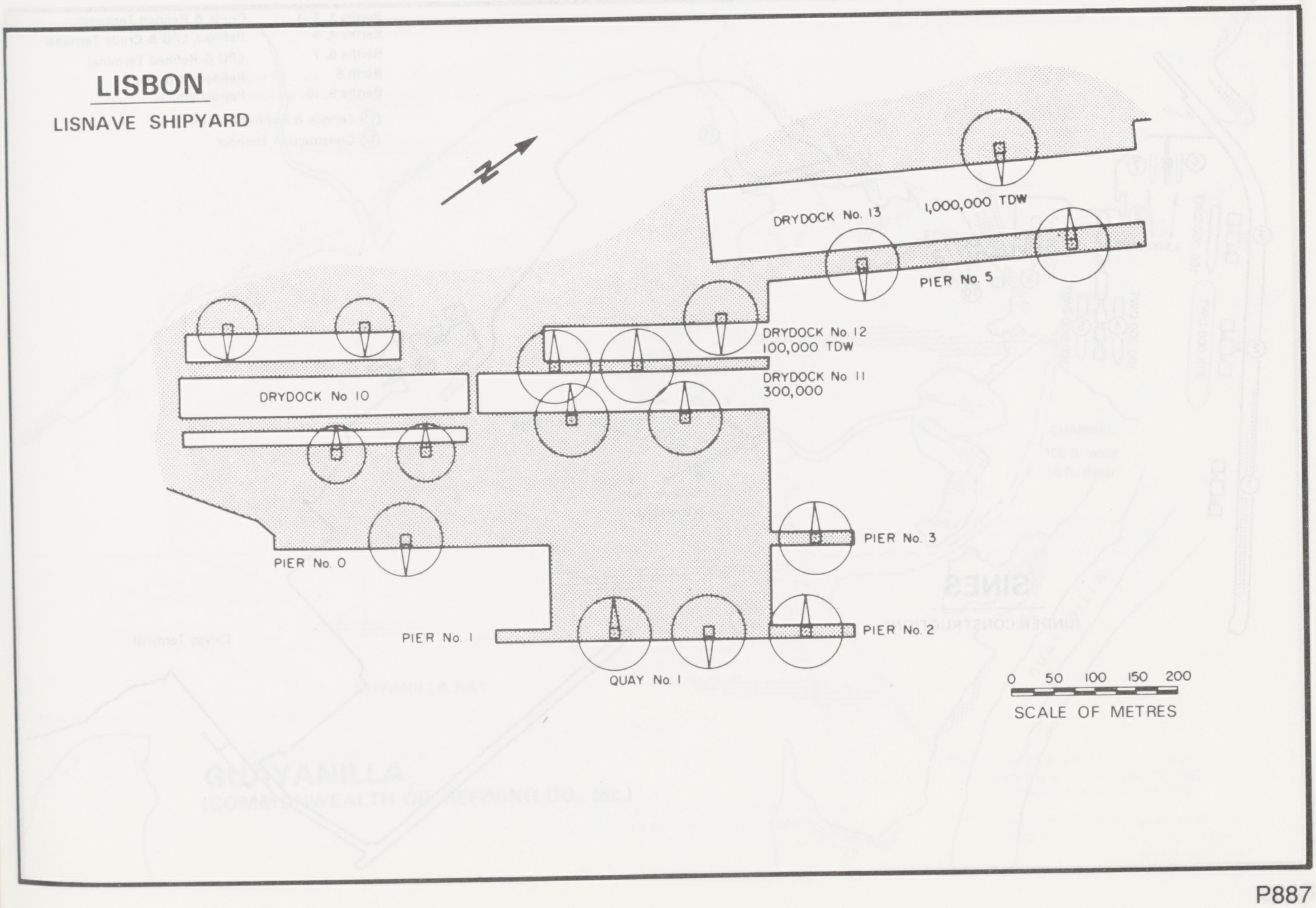
LISBON (2)

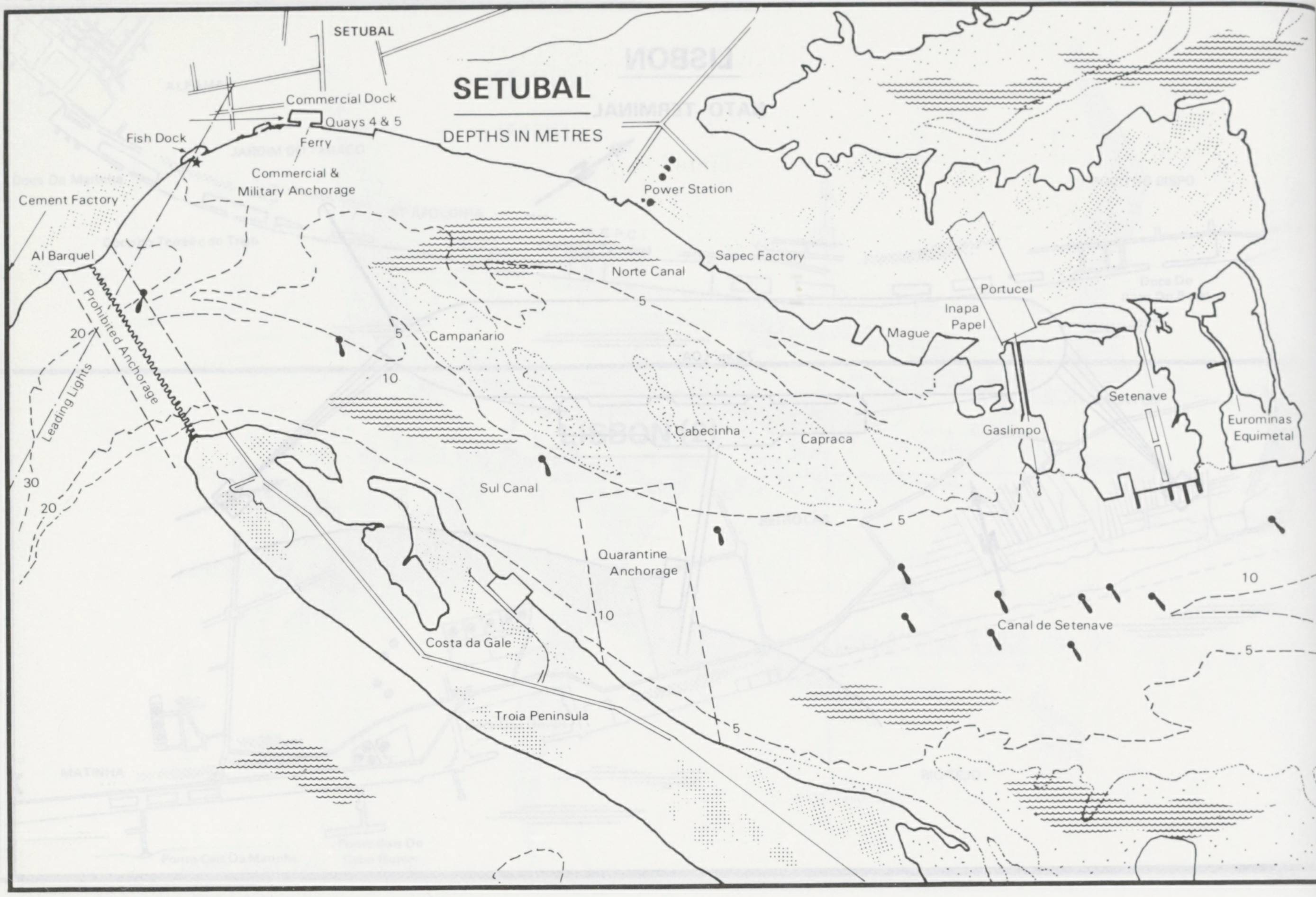

N
220m. LOA.
25.4m
79.5m

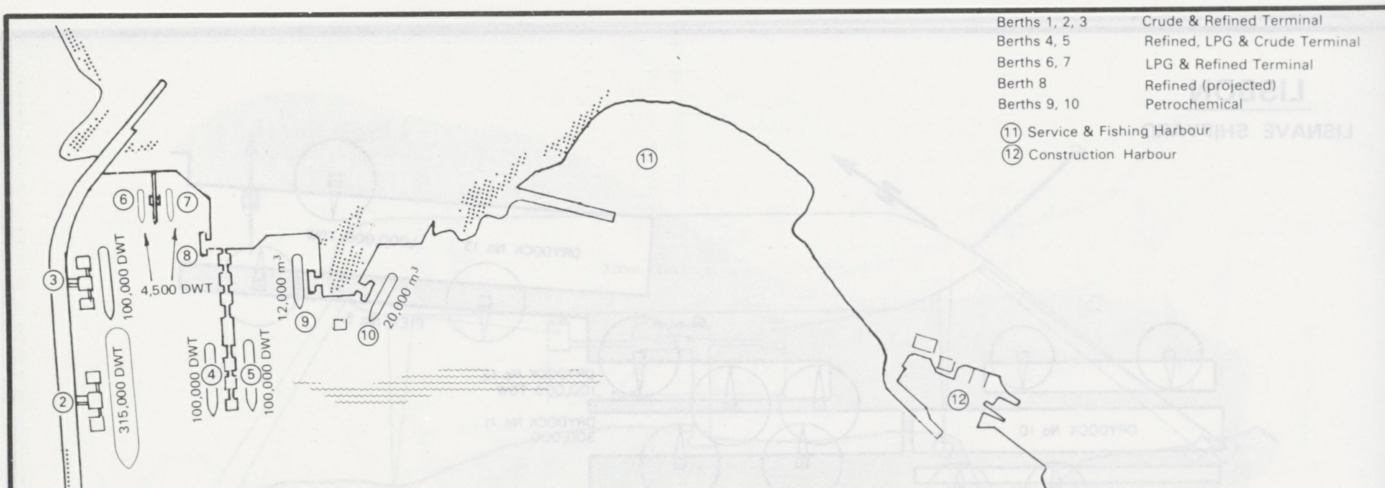
LISBON

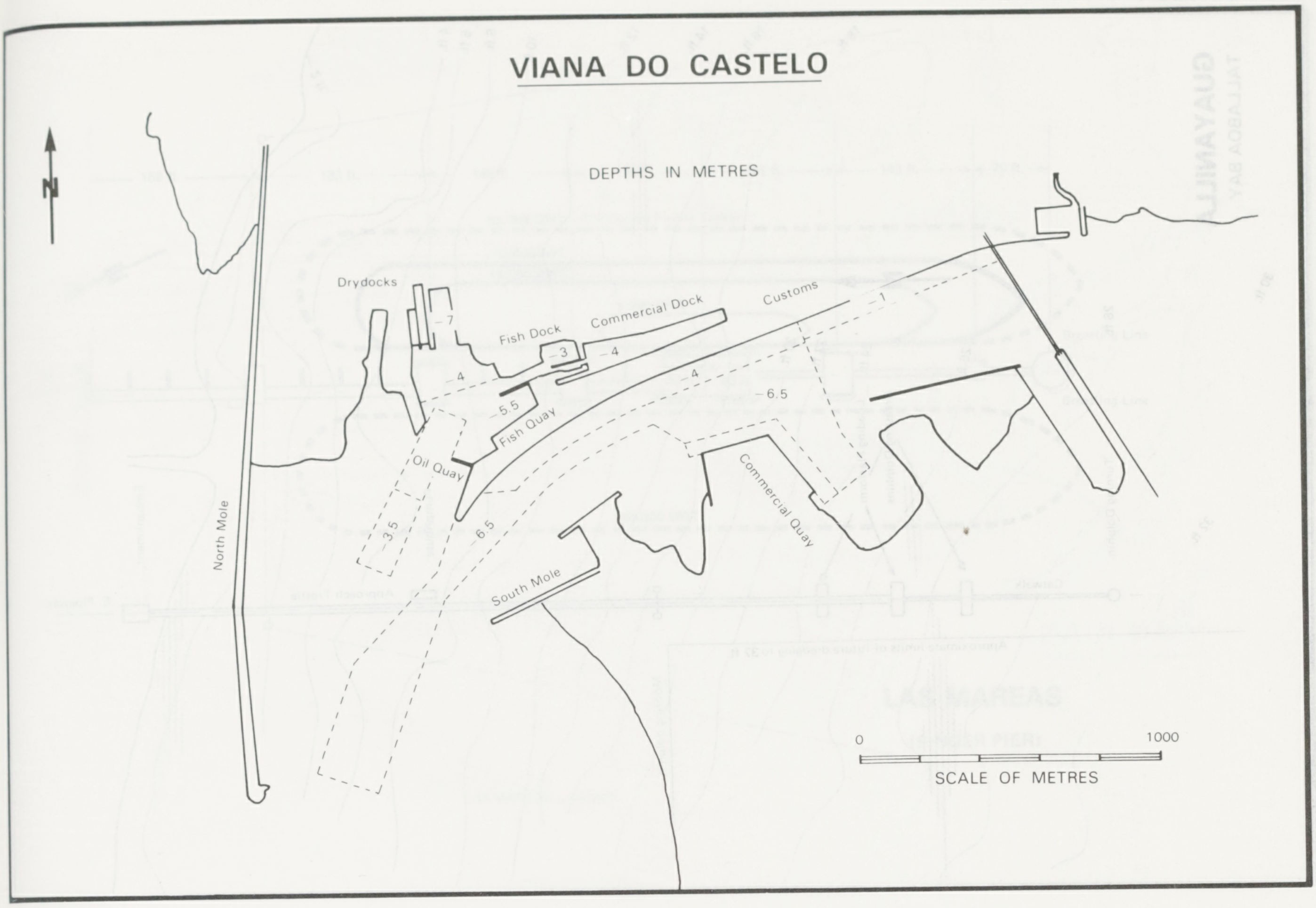
ESSO TRAFARIA TERMINAL

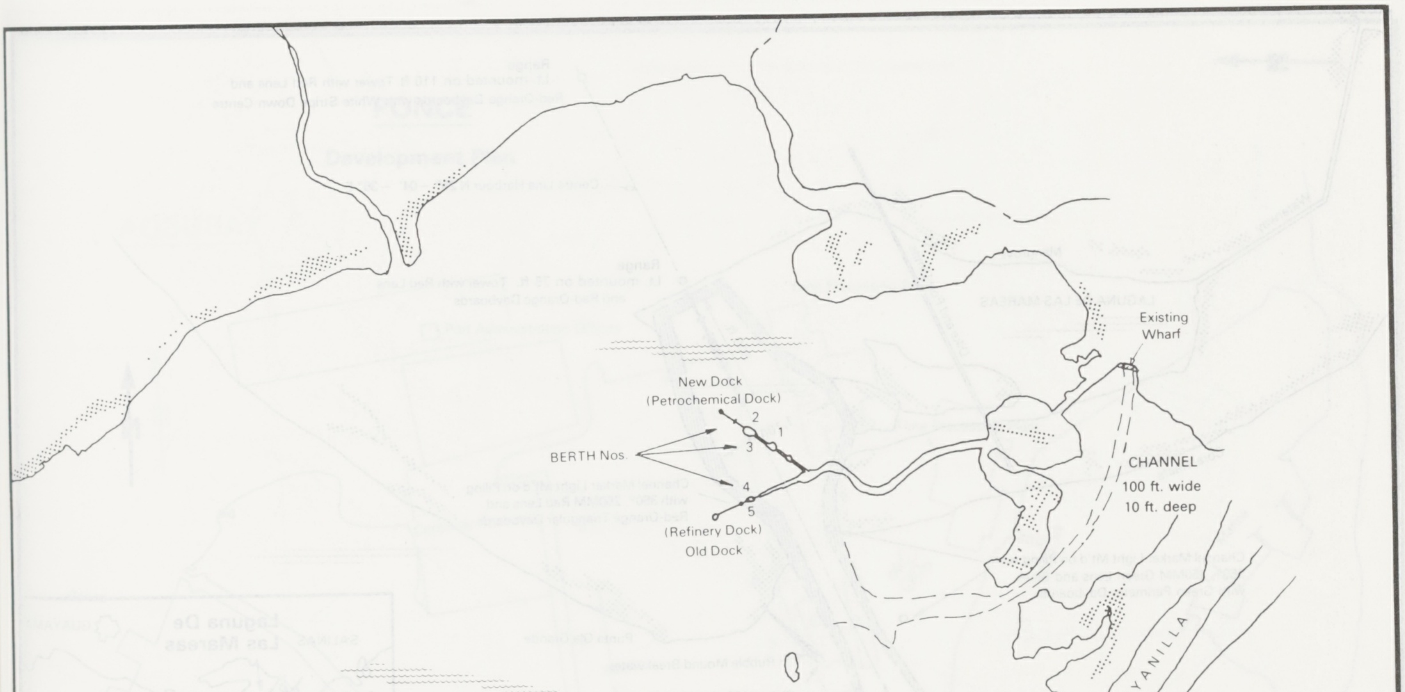

LISBON
NATO TERMINAL
220m. LOA.

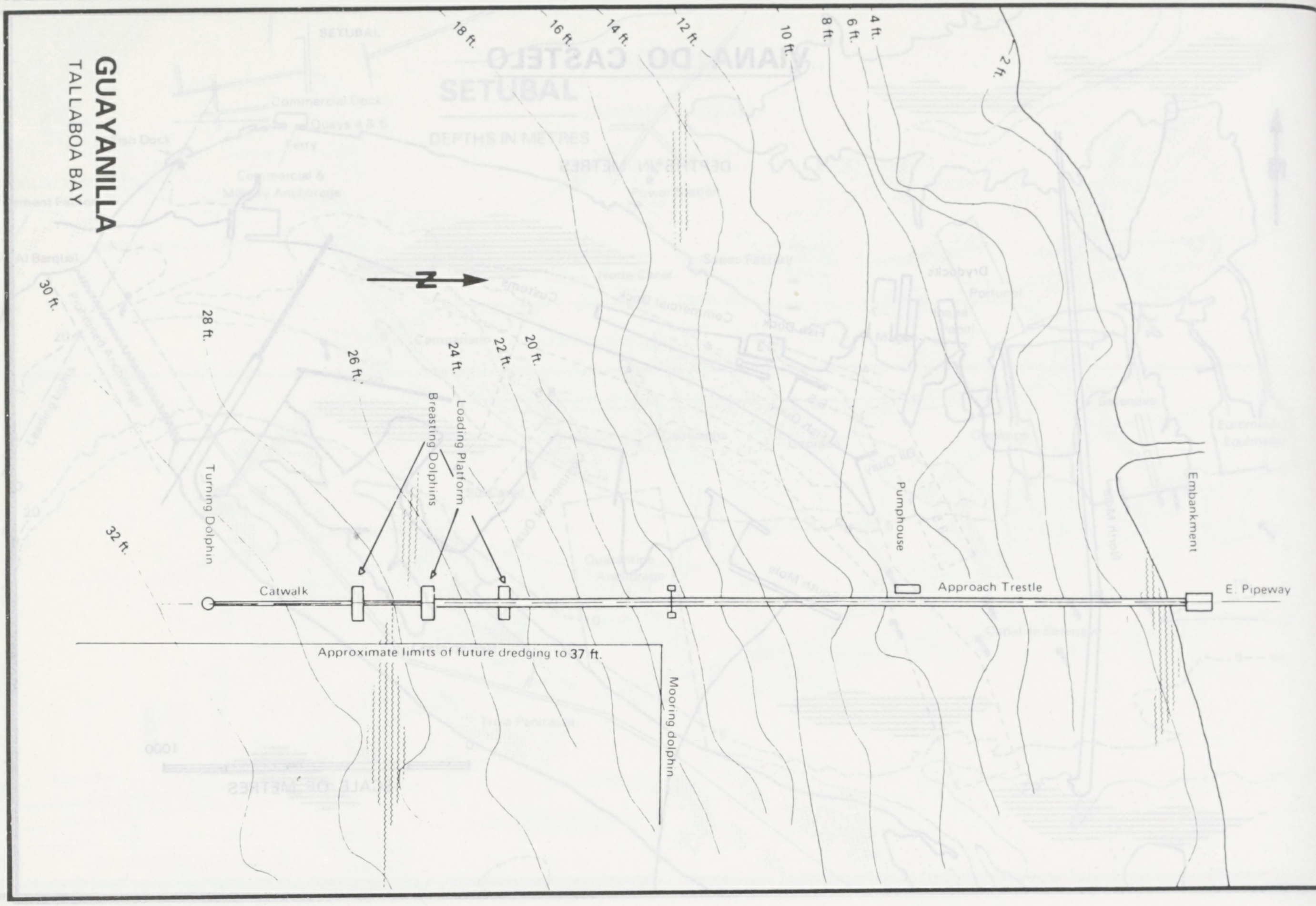

LISBON
LISNAVE SHIPYARD
DRYDOCK No. 13
1,000,000 TDW
PIER No. 5
DRYDOCK No. 12
100,000 TDW
DRYDOCK No 11
300,000
DRYDOCK No 10
PIER No. 3
PIER No. 0
PIER No. 1
PIER No. 2
QUAY No. 1
0 50 100 150 200
SCALE OF METRES


SETUBAL
DEPTHS IN METRES
SETUBAL
Commercial Dock
Quays 4 & 5
Ferry
Fish Dock
Commercial &
Military Anchorage
Cement Factory
Al Barquel
Prohibited Anchorage
Leading Lights
Power Station
Sapec Factory
Norte Canal
Campanario
Portucel
Inapa
Papel
Mague
Setenave
Eurominas
Equimetal
Gaslimpo
Cabecinha
Capraca
Sul Canal
Quarantine
Anchorage
Costa da Gale
Troia Peninsula
Canal de Setenave
5
10
20
30


SINES
(UNDER CONSTRUCTION)
Berths 1, 2, 3 Crude & Refined Terminal
Berths 4, 5 Refined, LPG & Crude Terminal
Berths 6, 7 LPG & Refined Terminal
Berth 8 Refined (projected)
Berths 9, 10 Petrochemical
⑪ Service & Fishing Harbour
⑫ Construction Harbour
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫
100,000 DWT
315,000 DWT
4,500 DWT
100,000 DWT
100,000 DWT
12,000 m³
20,000 m³
Carvao Terminal


VIANA DO CASTELO
DEPTHS IN METRES
N
Drydocks
–7
Fish Dock
–3
–4
Commercial Dock
Customs
–1
–4
–5.5
Fish Quay
–4
–6.5
Oil Quay
Commercial Quay
–3.5
–6.5
South Mole
North Mole
0
1000
SCALE OF METRES

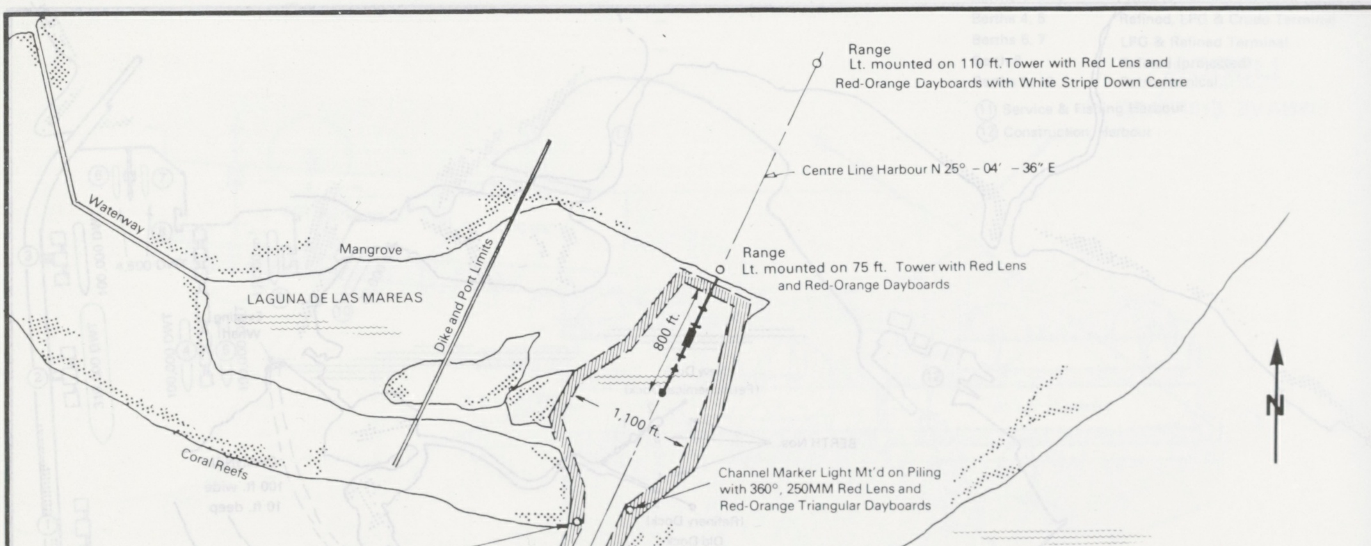

GUAYANILLA
(COMMONWEALTH OIL REFINING CO., Inc.)
Existing Wharf
New Dock (Petrochemical Dock)
2
1
3
BERTH Nos.
4
5
(Refinery Dock)
Old Dock
CHANNEL
100 ft. wide
10 ft. deep
GUAYANILLA
GUYANILLA BAY



GUAYANILLA

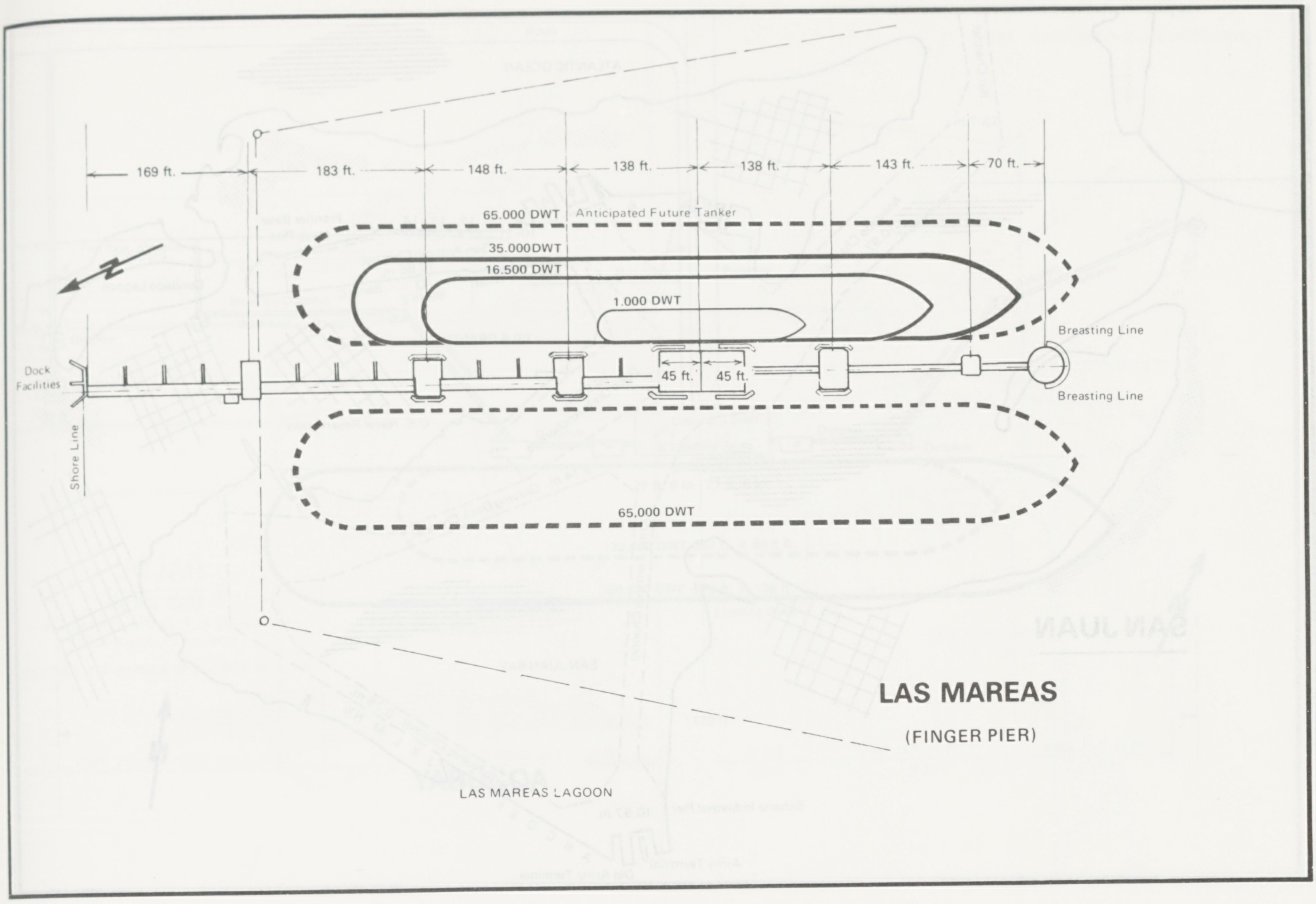
TALLABOA BAY

18 ft.
16 ft.
14 ft.
12 ft.
10 ft.
8 ft.
6 ft.
4 ft.
2 ft.
30 ft.
28 ft.
26 ft.
24 ft.
22 ft.
20 ft.
32 ft.
N
Turning Dolphin
Breasting Dolphins
Loading Platform
Catwalk
Pumphouse
Embankment
Approach Trestle
E. Pipeway
Approximate limits of future dredging to 37 ft.
Mooring dolphin



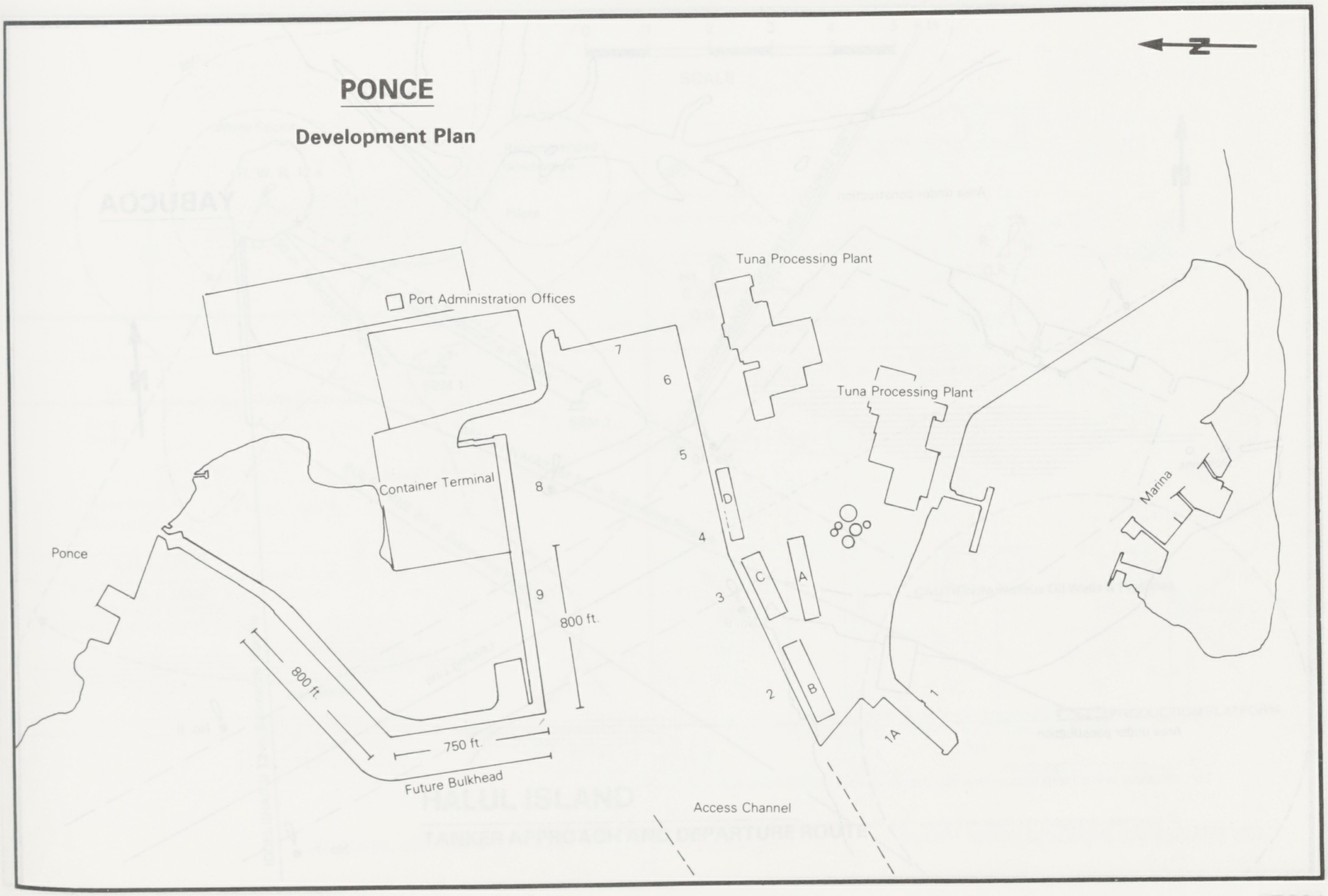
LAS MAREAS

Range
Lt. mounted on 110 ft. Tower with Red Lens and
Red-Orange Dayboards with White Stripe Down Centre
Centre Line Harbour N 25° – 04′ – 36″ E
Range
Lt. mounted on 75 ft. Tower with Red Lens
and Red-Orange Dayboards
Waterway
Mangrove
LAGUNA DE LAS MAREAS
Dike and Port Limits
800 ft.
1,100 ft.
Coral Reefs
Channel Marker Light Mt'd on Piling
with 360°, 250MM Red Lens and
Red-Orange Triangular Dayboards
Channel Marker Light Mt'd on Piling with
360°, 250MM Green Lens and Black
with Green Perimeter Dayboards
N
Punta Ola Grande
Rubble Mound Breakwater
Channel Marker Light Mt'd on
Tower with 360°, 250MM Red Lens
and Red Triangular Dayboards
CARIBBEAN SEA
Lighted Channel Marker Buoy with
360°, 250MM Green Lens and Black
with Green Perimeter Dayboards
Light Sea Buoy with 360°, 250MM Clear
Lens with Black and White Vertical Strips
and Radar Screen
Lighted Channel Marker Buoy with
360°, 250MM Red Lens and Red
Triangular Dayboards
SALINAS
Laguna De
Las Mareas
GUAYA
CORE HARBOUR
VICINITY MAP


169 ft.
183 ft.
148 ft.
138 ft.
138 ft.
143 ft.
70 ft.
65.000 DWT
Anticipated Future Tanker
35.000DWT
16.500 DWT
1.000 DWT
Breasting Line
Dock Facilities
45 ft.
45 ft.
Breasting Line
Shore Line
65,000 DWT
LAS MAREAS LAGOON

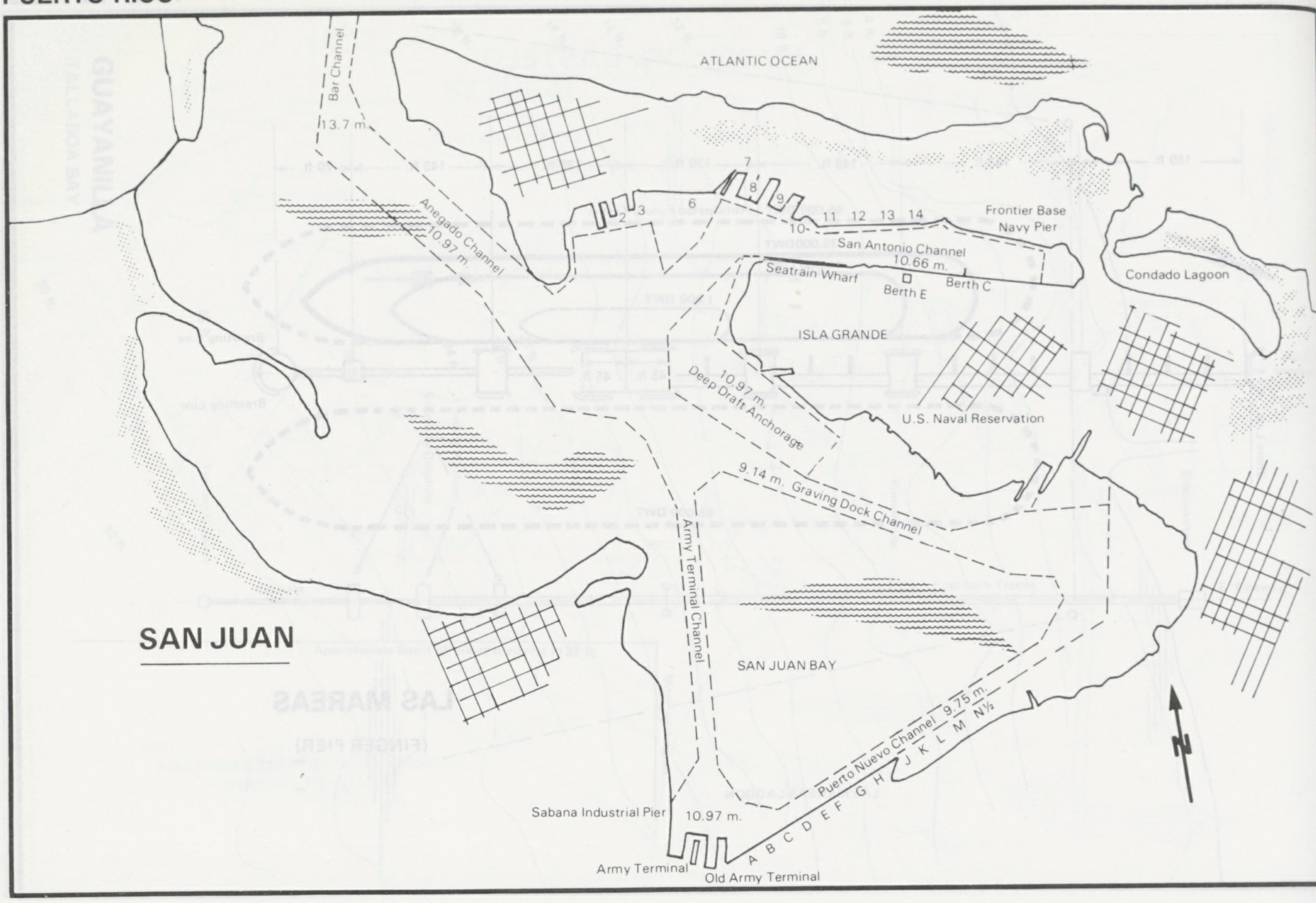
LAS MAREAS

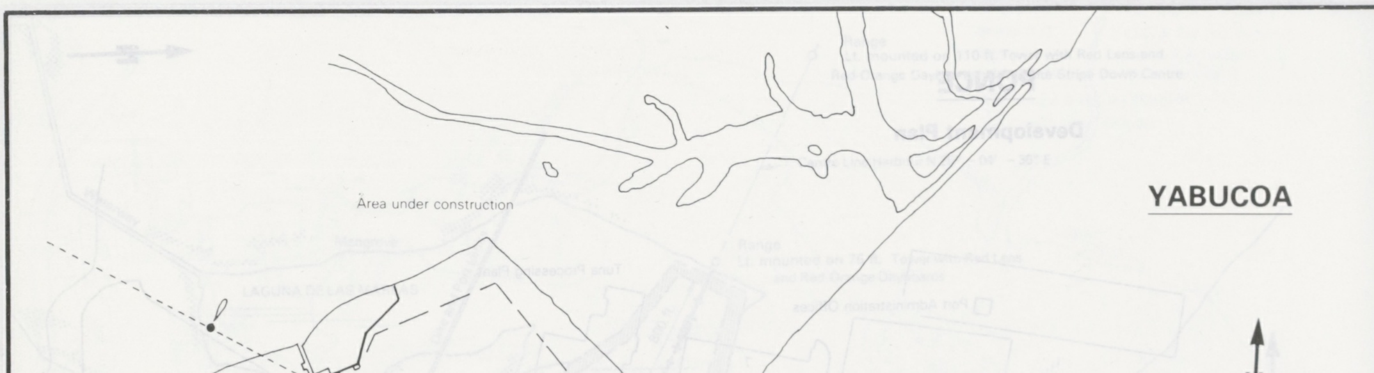
(FINGER PIER)

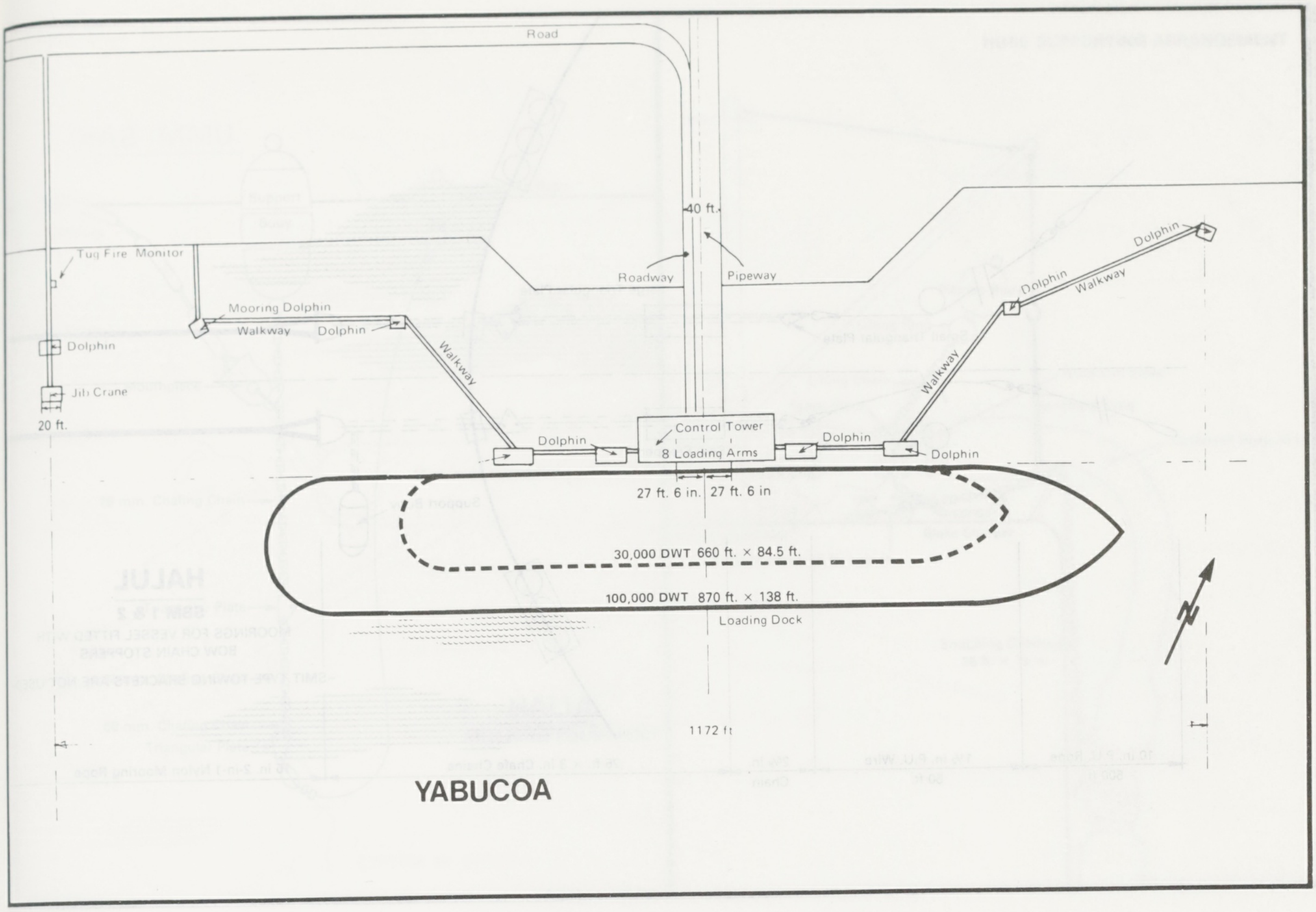

Port Administration Offices
Tuna Processing Plant
7
6
Tuna Processing Plant
5
Container Terminal
8
D
4
Ponce
C
A
9
3
800 ft.
800 ft.
B
2
1
1A
750 ft.
Future Bulkhead
Access Channel
Marina

PONCE

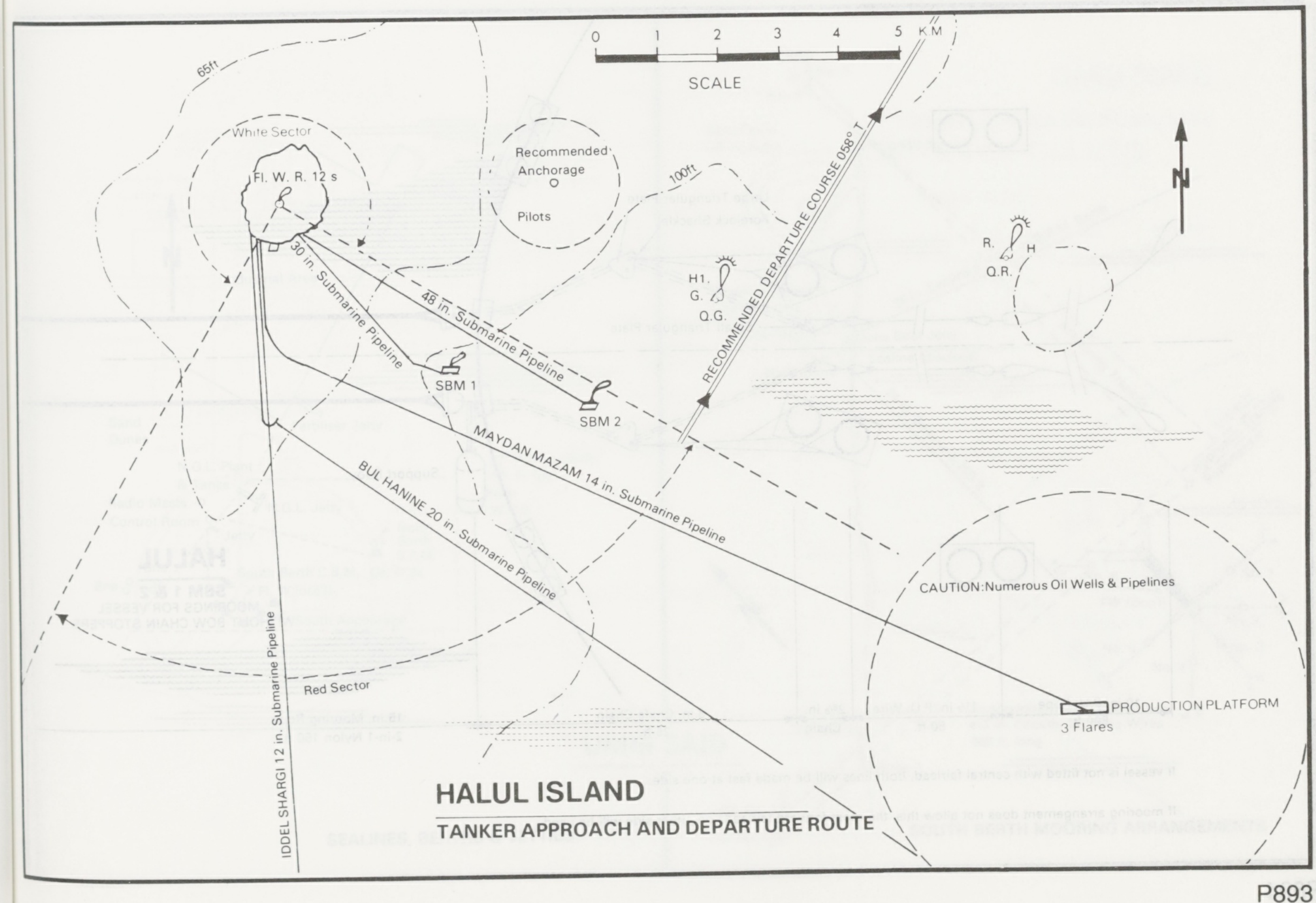
Development Plan


ATLANTIC OCEAN
Bar Channel
13.7 m.
Anegado Channel
10.97 m.
2
3
6
7
8
9
10
11
12
13
14
Frontier Base
Navy Pier
San Antonio Channel
10.66 m.
Seatrain Wharf
Berth E
Berth C
Condado Lagoon
ISLA GRANDE
10.97 m.
Deep Draft Anchorage
U.S. Naval Reservation
9.14 m. Graving Dock Channel
Army Terminal Channel
SAN JUAN
SAN JUAN BAY
Puerto Nuevo Channel 9.75 m.
J K L M N½
A B C D E F G H
Sabana Industrial Pier
10.97 m.
Army Terminal
Old Army Terminal
N


Area under construction
YABUCOA
N
No. 10
Dolphins
No. 9
Leading Line
No. 8
Area under construction
No. 7

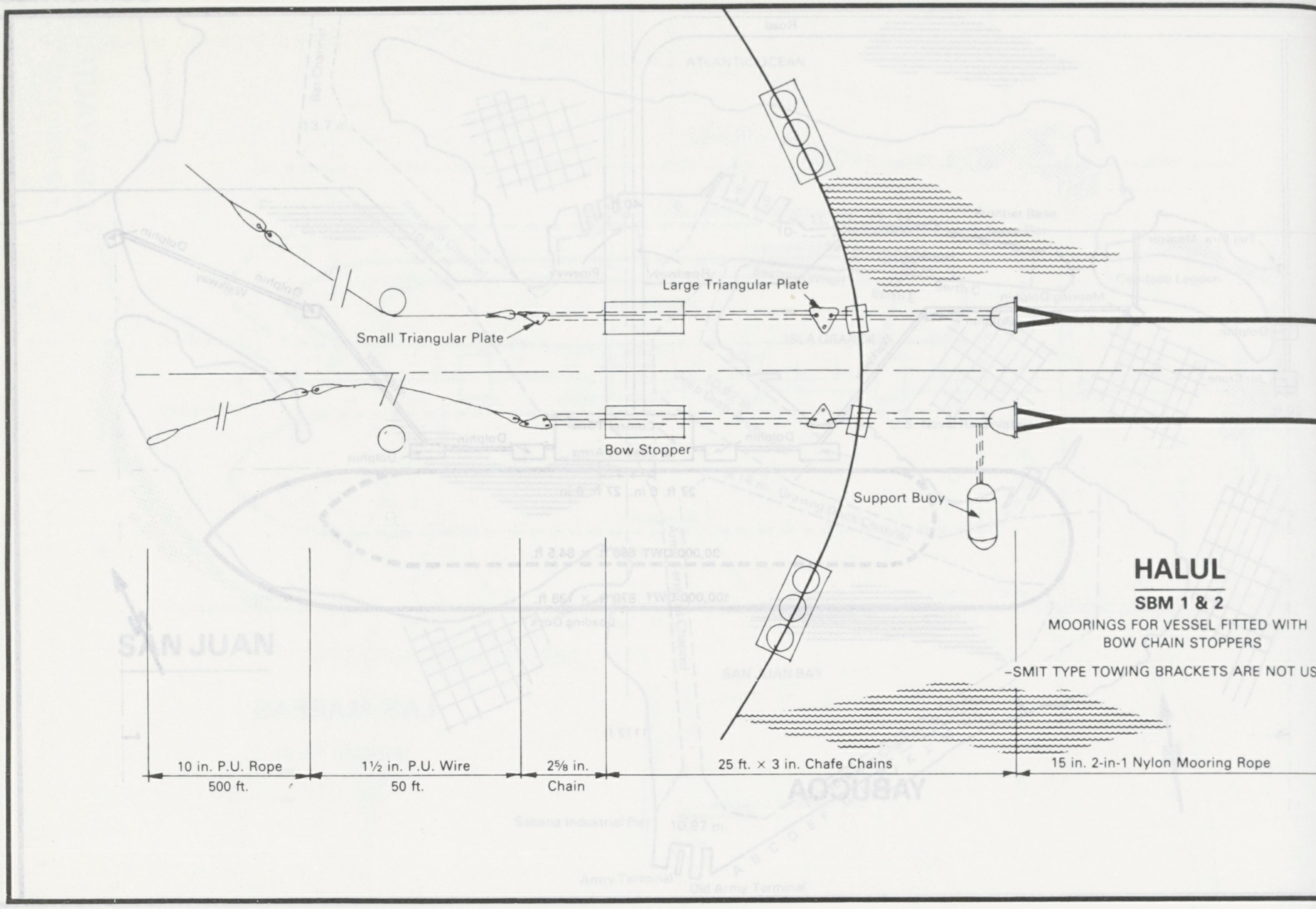

Road
40 ft.
Tug Fire Monitor
Roadway
Pipeway
Mooring Dolphin
Walkway
Dolphin
Dolphin
Jib Crane
20 ft.
Walkway
Dolphin
Walkway
Dolphin
Walkway
Control Tower
8 Loading Arms
Dolphin
Dolphin
Dolphin
Dolphin
27 ft. 6 in.
27 ft. 6 in
30,000 DWT 660 ft. × 84.5 ft.
100,000 DWT 870 ft. × 138 ft.
Loading Dock
1172 ft
N

YABUCOA


0
1
2
3
4
5
KM
SCALE
65ft
White Sector
Fl. W. R. 12 s
Recommended
Anchorage
Pilots
100ft
RECOMMENDED DEPARTURE COURSE 058° T
N
R.
H
Q.R.
H1.
G.
Q.G.
30 in. Submarine Pipeline
48 in. Submarine Pipeline
SBM 1
SBM 2
MAYDAN MAZAM 14 in. Submarine Pipeline
BUL HANINE 20 in. Submarine Pipeline
CAUTION: Numerous Oil Wells & Pipelines
PRODUCTION PLATFORM
3 Flares
Red Sector
IDDEL SHARGI 12 in. Submarine Pipeline

HALUL ISLAND

TANKER APPROACH AND DEPARTURE ROUTE

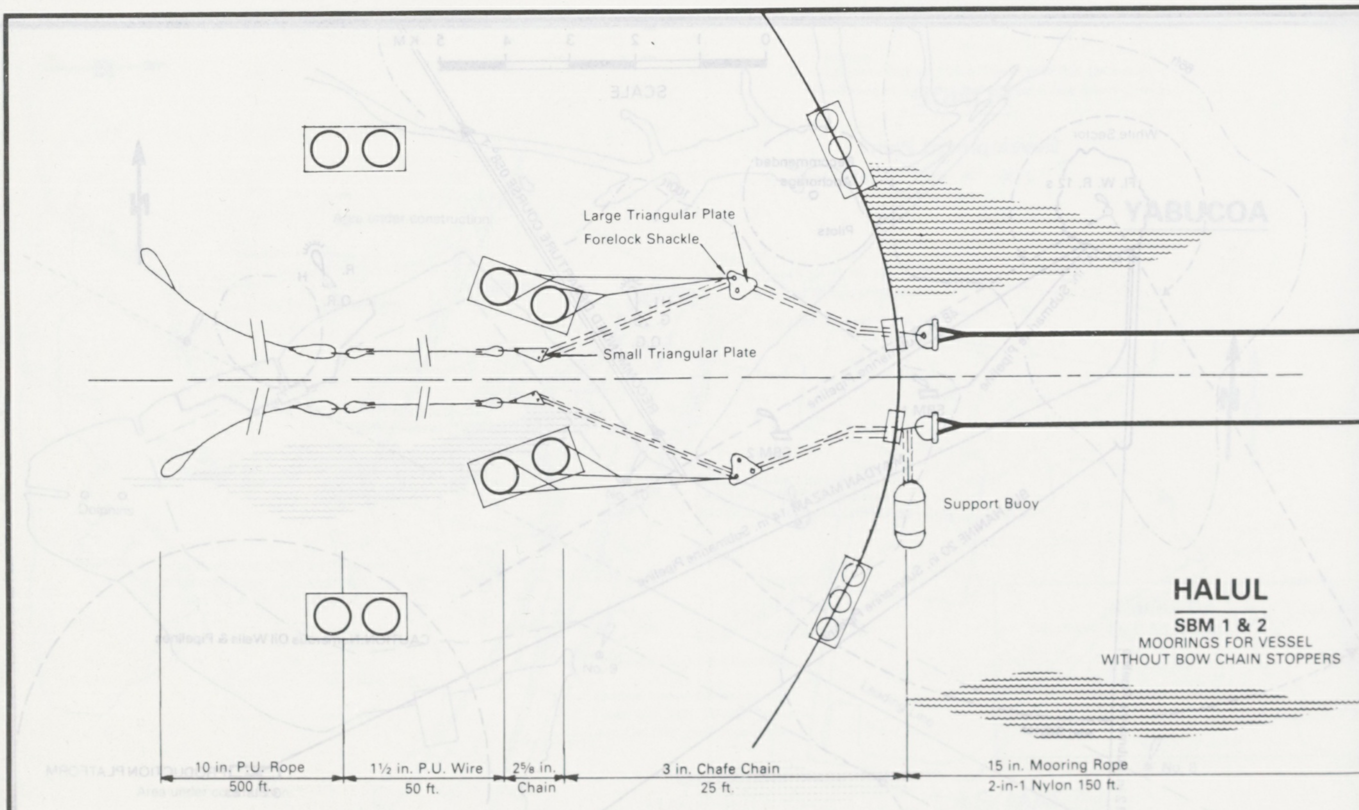

Large Triangular Plate
Small Triangular Plate
Bow Stopper
Support Buoy
10 in. P.U. Rope
500 ft.
1½ in. P.U. Wire
50 ft.
2⅝ in.
Chain
25 ft. × 3 in. Chafe Chains
15 in. 2-in-1 Nylon Mooring Rope

HALUL

SBM 1 & 2

MOORINGS FOR VESSEL FITTED WITH
BOW CHAIN STOPPERS

-SMIT TYPE TOWING BRACKETS ARE NOT US


Large Triangular Plate
Forelock Shackle
Small Triangular Plate
Support Buoy
10 in. P.U. Rope
500 ft.
1½ in. P.U. Wire
50 ft.
2⅝ in.
Chain
3 in. Chafe Chain
25 ft.
15 in. Mooring Rope
2-in-1 Nylon 150 ft.

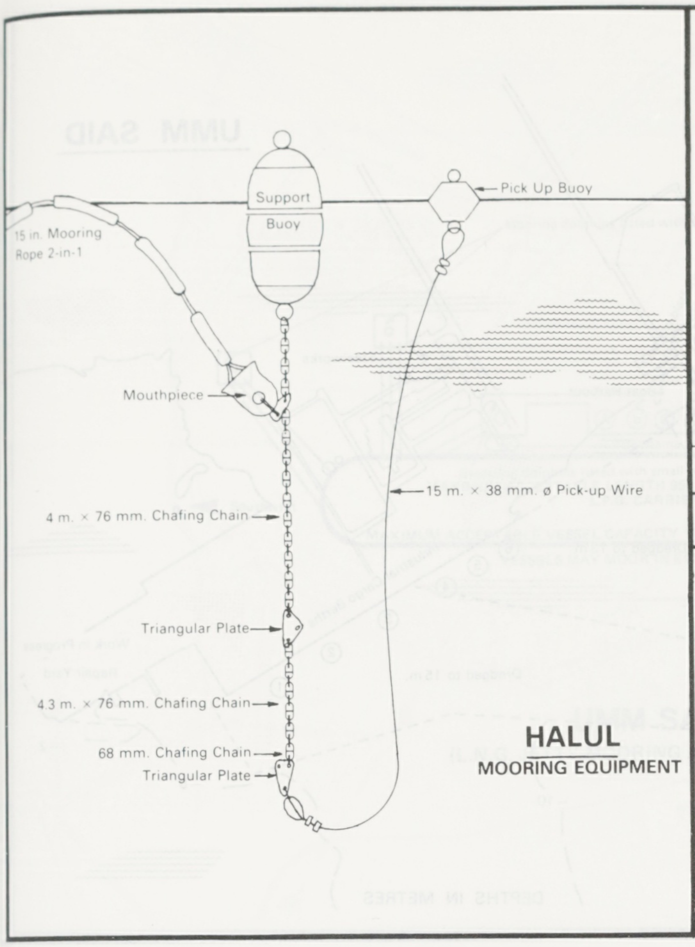
HALUL

SBM 1 & 2

MOORINGS FOR VESSEL
WITHOUT BOW CHAIN STOPPERS

If vessel is not fitted with central fairlead, both lines will be made fast at one side:

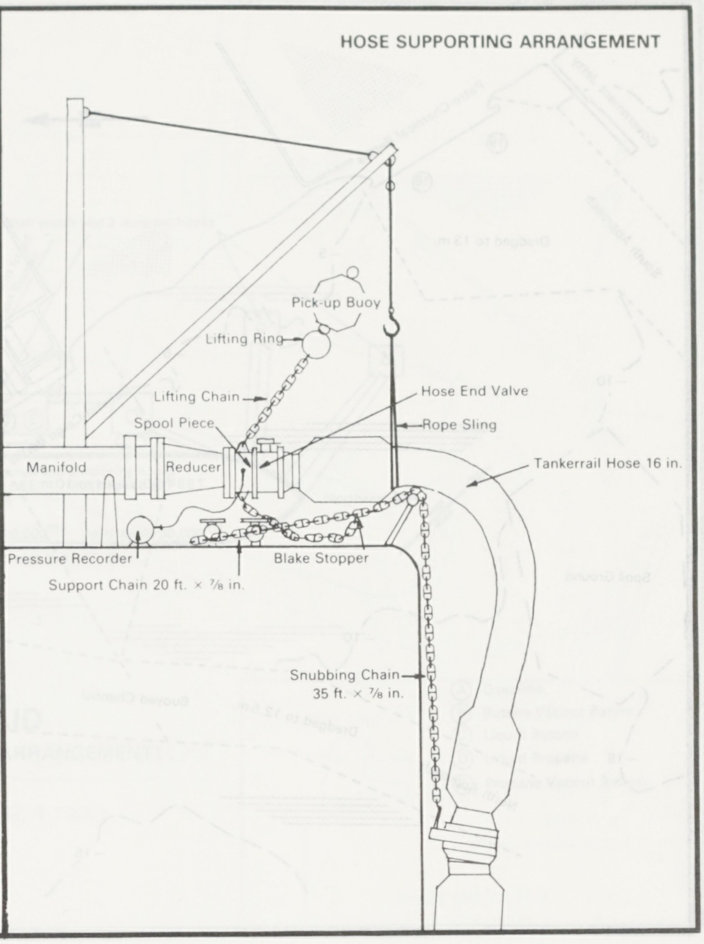
If mooring arrangement does not allow this, the most forward fairleads on either side will be used.

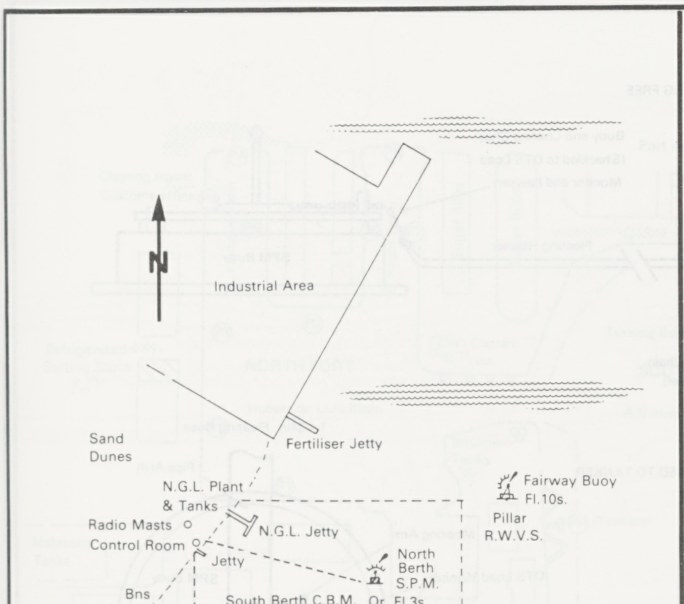

Support
Buoy
Pick Up Buoy
15 in. Mooring
Rope 2-in-1
Mouthpiece
15 m. × 38 mm. ø Pick-up Wire
4 m. × 76 mm. Chafing Chain
Triangular Plate
4.3 m. × 76 mm. Chafing Chain
68 mm. Chafing Chain
Triangular Plate

HALUL

MOORING EQUIPMENT

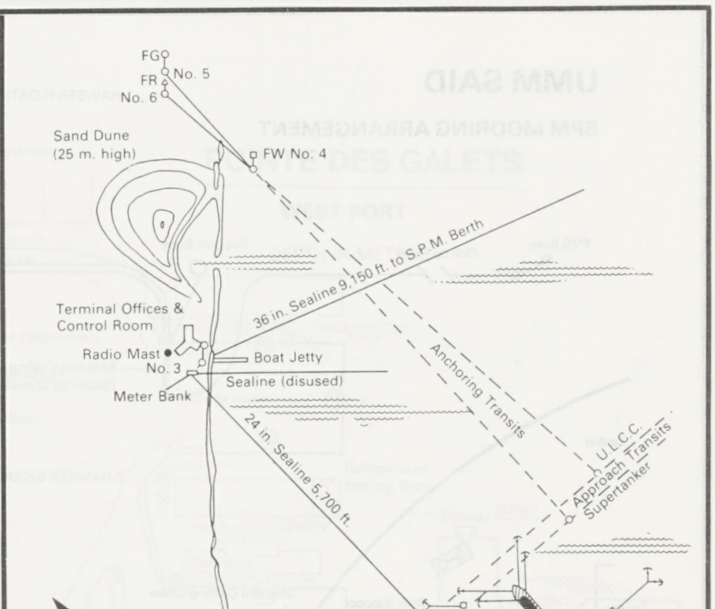
HOSE SUPPORTING ARRANGEMENT


Pick-up Buoy
Lifting Ring
Lifting Chain
Hose End Valve
Spool Piece
Rope Sling
Manifold
Reducer
Tankerrail Hose 16 in.
Pressure Recorder
Blake Stopper
Support Chain 20 ft. × ⅞ in.
Snubbing Chain
35 ft. × ⅞ in.


N
Industrial Area
Sand
Dunes
Fertiliser Jetty
N.G.L. Plant
& Tanks
Radio Masts
Control Room
N.G.L. Jetty
Jetty
Fairway Buoy
Fl.10s.
Pillar
R.W.V.S.
North
Berth
S.P.M.
Or. Fl.3s.
Bns
Bns
South Berth C.B.M.
Fl. W.(occ'l)
South Anchorage

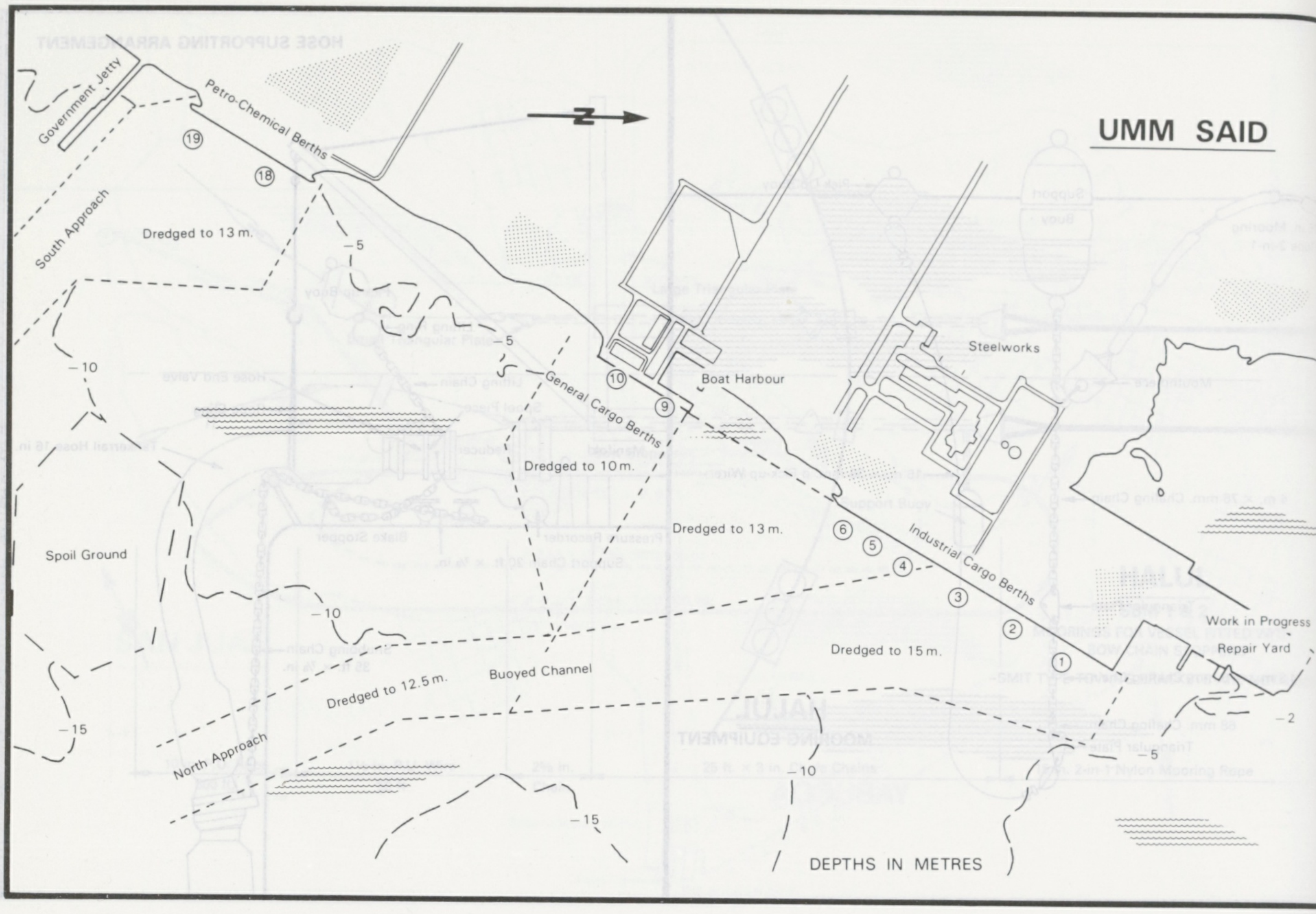
SEALINES, BERTHS & JETTIES

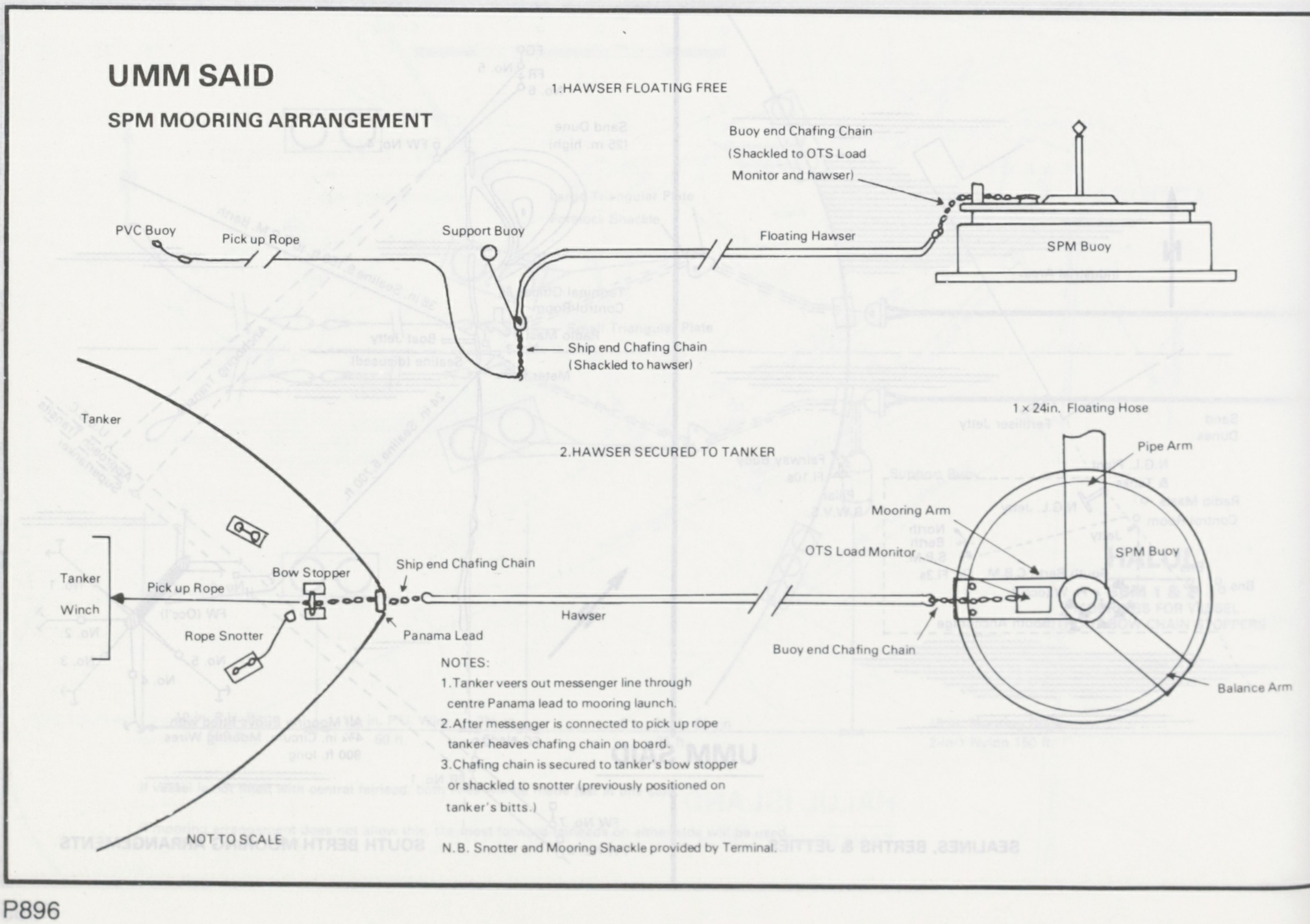
UMM SAID


FG
FR
No. 5
No. 6
Sand Dune
(25 m. high)
FW No. 4
36 in. Sealine 9,150 ft. to S.P.M. Berth
Terminal Offices &
Control Room
Radio Mast
No. 3
Boat Jetty
Meter Bank
Sealine (disused)
Anchoring Transits
24 in. Sealine 5,700 ft.
U.L.C.C.
Approach Transits
Supertanker
No. 6
No. 1
FW (Occ'l)
No. 2
No. 5
No. 3
No. 4
FG No. 2
FR No. 1
FW No. 7
FW No. 8

All Mooring Buoys fitted with 4¾ in. Circum. Mooring Wires 900 ft. long

SOUTH BERTH MOORING ARRANGEMENTS


UMM SAID
Government Jetty
Petro-Chemical Berths
⑲
⑱
South Approach
Dredged to 13 m.
−5
−5
−10
Spoil Ground
−10
−15
⑩
⑨
General Cargo Berths
Boat Harbour
Dredged to 10 m.
Dredged to 13 m.
Steelworks
⑥
⑤
④
③
②
①
Industrial Cargo Berths
Work in Progress
Repair Yard
Dredged to 15 m.
Dredged to 12.5 m.
Buoyed Channel
North Approach
−10
−15
−5
−2
DEPTHS IN METRES


1.HAWSER FLOATING FREE
PVC Buoy
Pick up Rope
Support Buoy
Floating Hawser
Buoy end Chafing Chain (Shackled to OTS Load Monitor and hawser)
SPM Buoy
Ship end Chafing Chain (Shackled to hawser)
2.HAWSER SECURED TO TANKER
Tanker
Tanker Winch
Pick up Rope
Bow Stopper
Rope Snotter
Ship end Chafing Chain
Panama Lead
Hawser
OTS Load Monitor
Buoy end Chafing Chain
Mooring Arm
1 × 24in. Floating Hose
Pipe Arm
SPM Buoy
Balance Arm
NOT TO SCALE

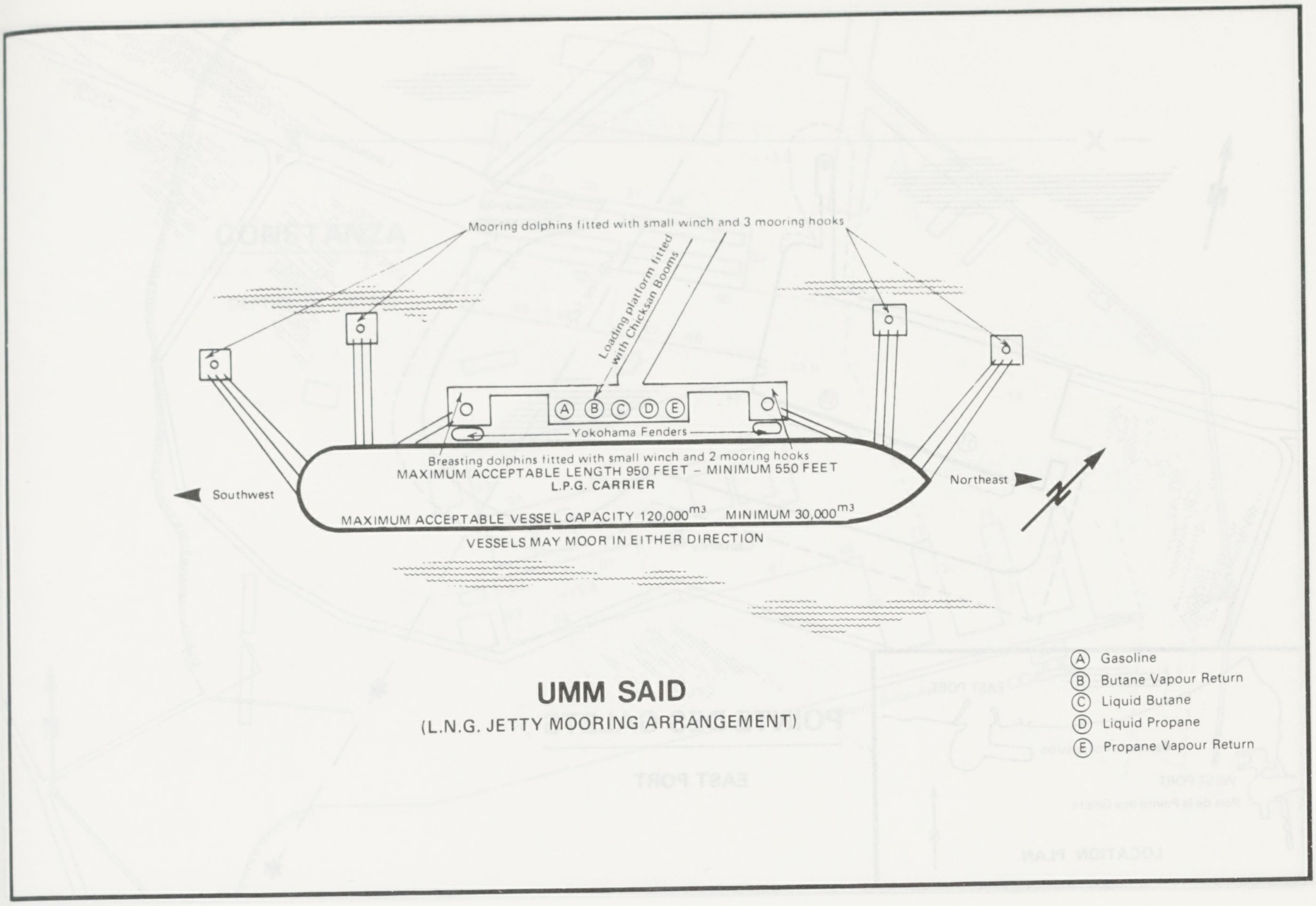
UMM SAID

SPM MOORING ARRANGEMENT

NOTES:

1. Tanker veers out messenger line through centre Panama lead to mooring launch.
2. After messenger is connected to pick up rope tanker heaves chafing chain on board.
3. Chafing chain is secured to tanker's bow stopper or shackled to snotter (previously positioned on tanker's bitts.)

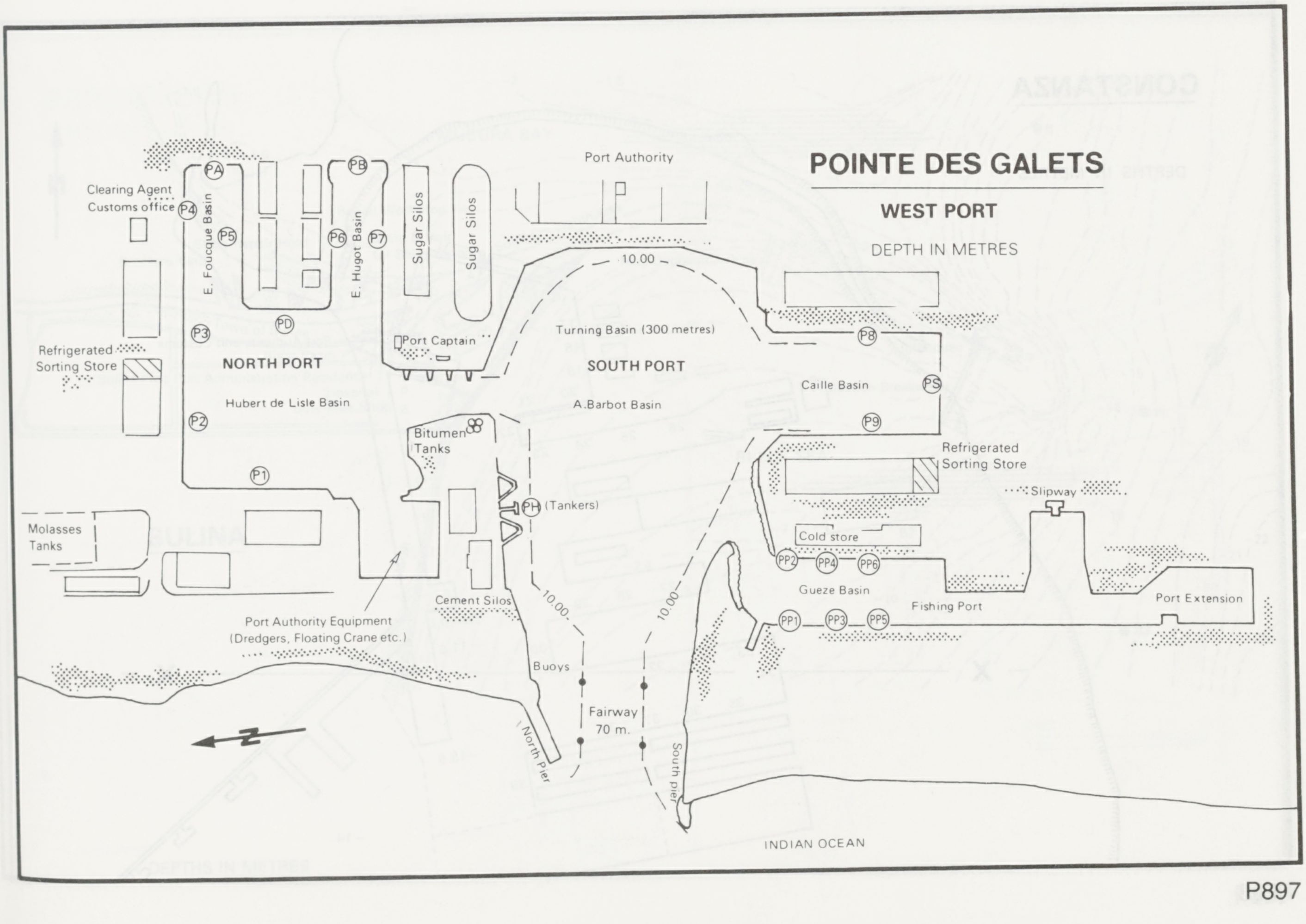
N.B. Snotter and Mooring Shackle provided by Terminal.



UMM SAID

(L.N.G. JETTY MOORING ARRANGEMENT)

Mooring dolphins fitted with small winch and 3 mooring hooks
Loading platform fitted with Chicksan Booms
Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ
Yokohama Fenders
Breasting dolphins fitted with small winch and 2 mooring hooks
MAXIMUM ACCEPTABLE LENGTH 950 FEET – MINIMUM 550 FEET
L.P.G. CARRIER
Southwest
Northeast
N
MAXIMUM ACCEPTABLE VESSEL CAPACITY 120,000m3 MINIMUM 30,000m3
VESSELS MAY MOOR IN EITHER DIRECTION
Ⓐ Gasoline
Ⓑ Butane Vapour Return
Ⓒ Liquid Butane
Ⓓ Liquid Propane
Ⓔ Propane Vapour Return

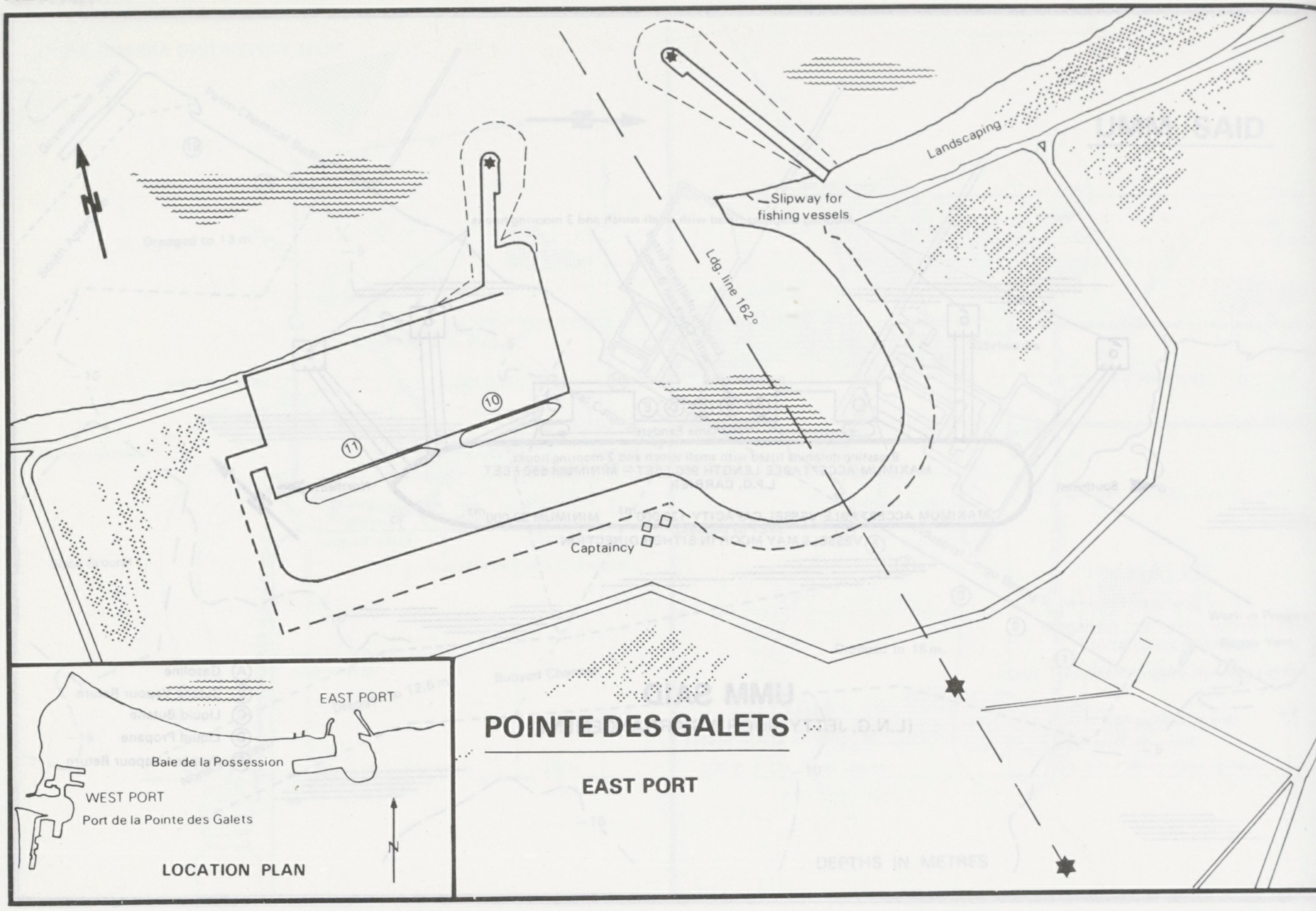


POINTE DES GALETS

WEST PORT

DEPTH IN METRES

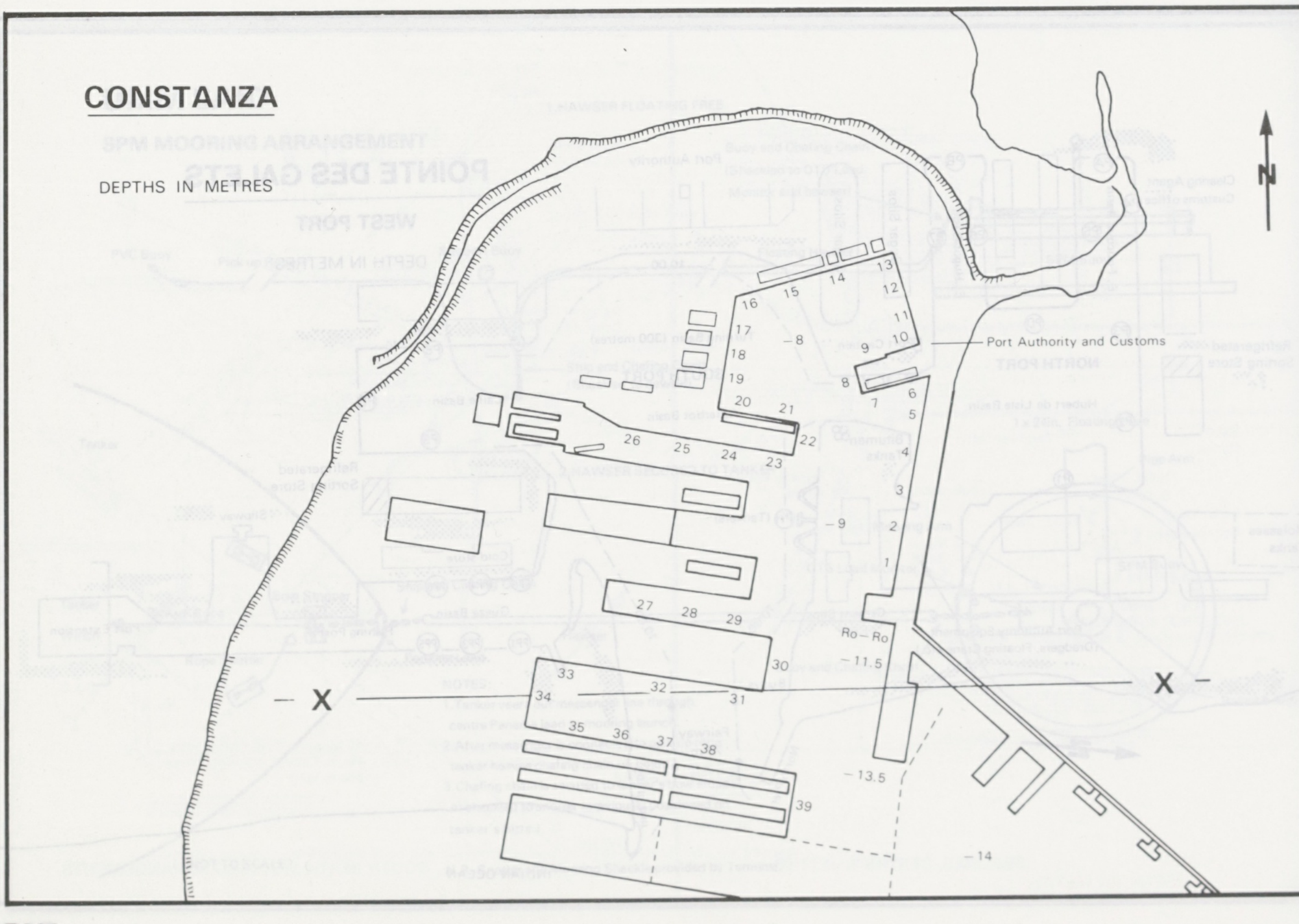
Port Authority
Clearing Agent
Customs office
PA
P4
P5
E. Fouque Basin
PB
P6
P7
E. Hugot Basin
Sugar Silos
Sugar Silos
10.00
PD
P3
Port Captain
Turning Basin (300 metres)
P8
Refrigerated Sorting Store
NORTH PORT
SOUTH PORT
Caille Basin
PS
Hubert de Lisle Basin
A.Barbot Basin
P2
P9
Bitumen Tanks
Refrigerated Sorting Store
P1
Slipway
PH (Tankers)
Molasses Tanks
Cold store
PP2
PP4
PP6
Gueze Basin
Fishing Port
Port Extension
Cement Silos
10.00
10.00
PP1
PP3
PP5
Port Authority Equipment (Dredgers, Floating Crane etc.)
Buoys
Fairway 70 m.
N
North Pier
South pier
INDIAN OCEAN



POINTE DES GALETS

EAST PORT

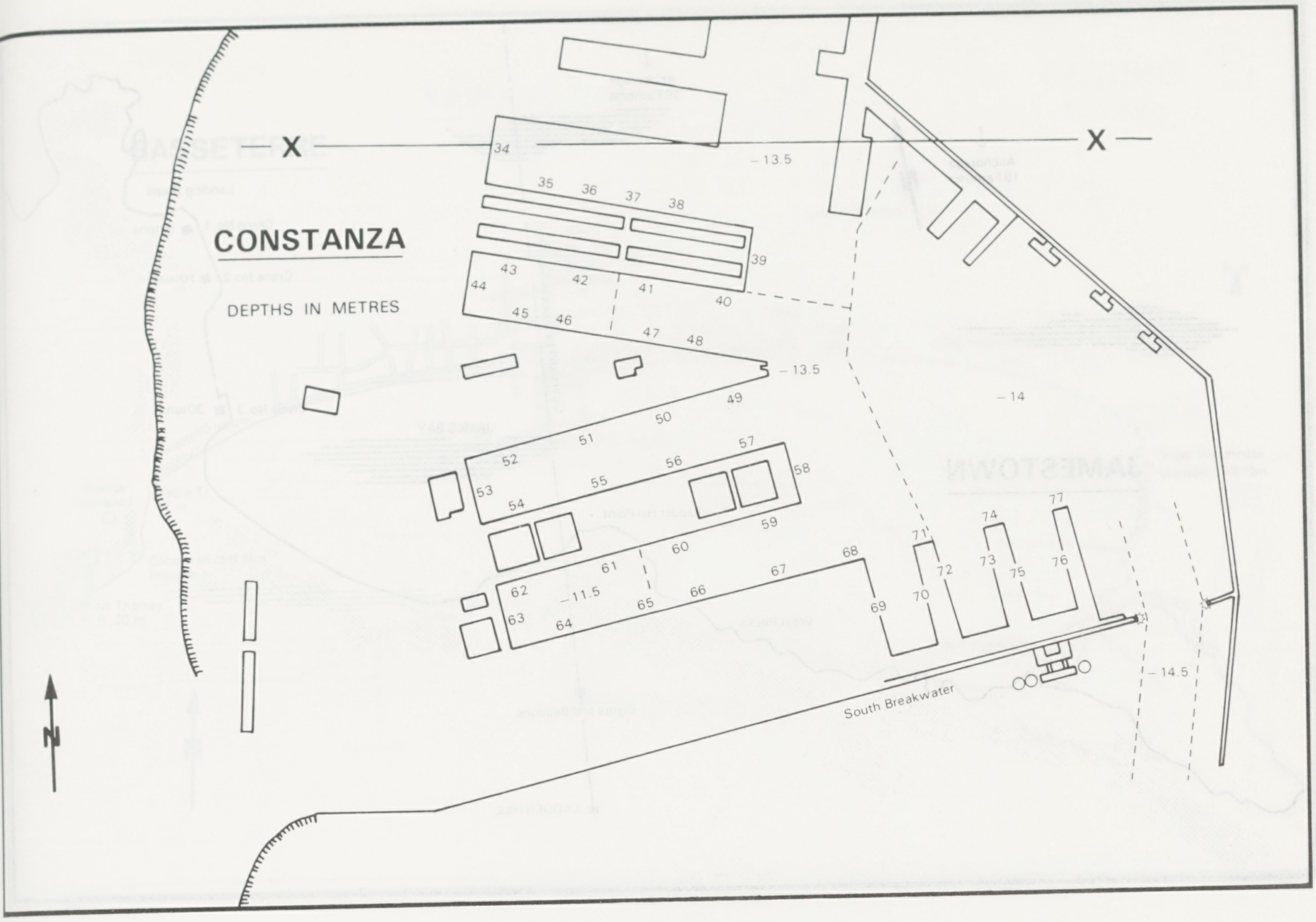
N
Slipway for fishing vessels
Landscaping
Ldg. line 162°
10
11
Captaincy
EAST PORT
Baie de la Possession
WEST PORT
Port de la Pointe des Galets
LOCATION PLAN
N

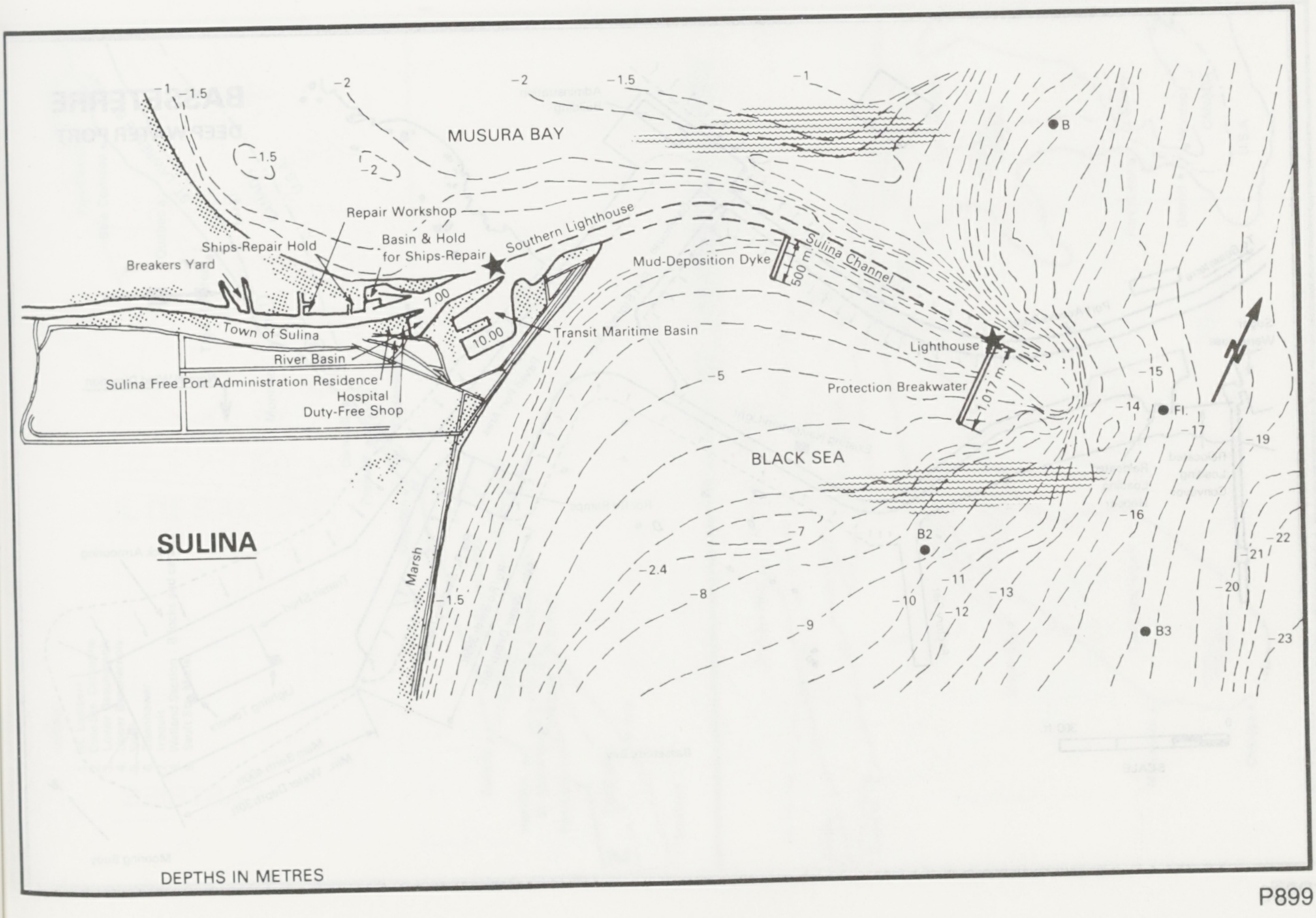


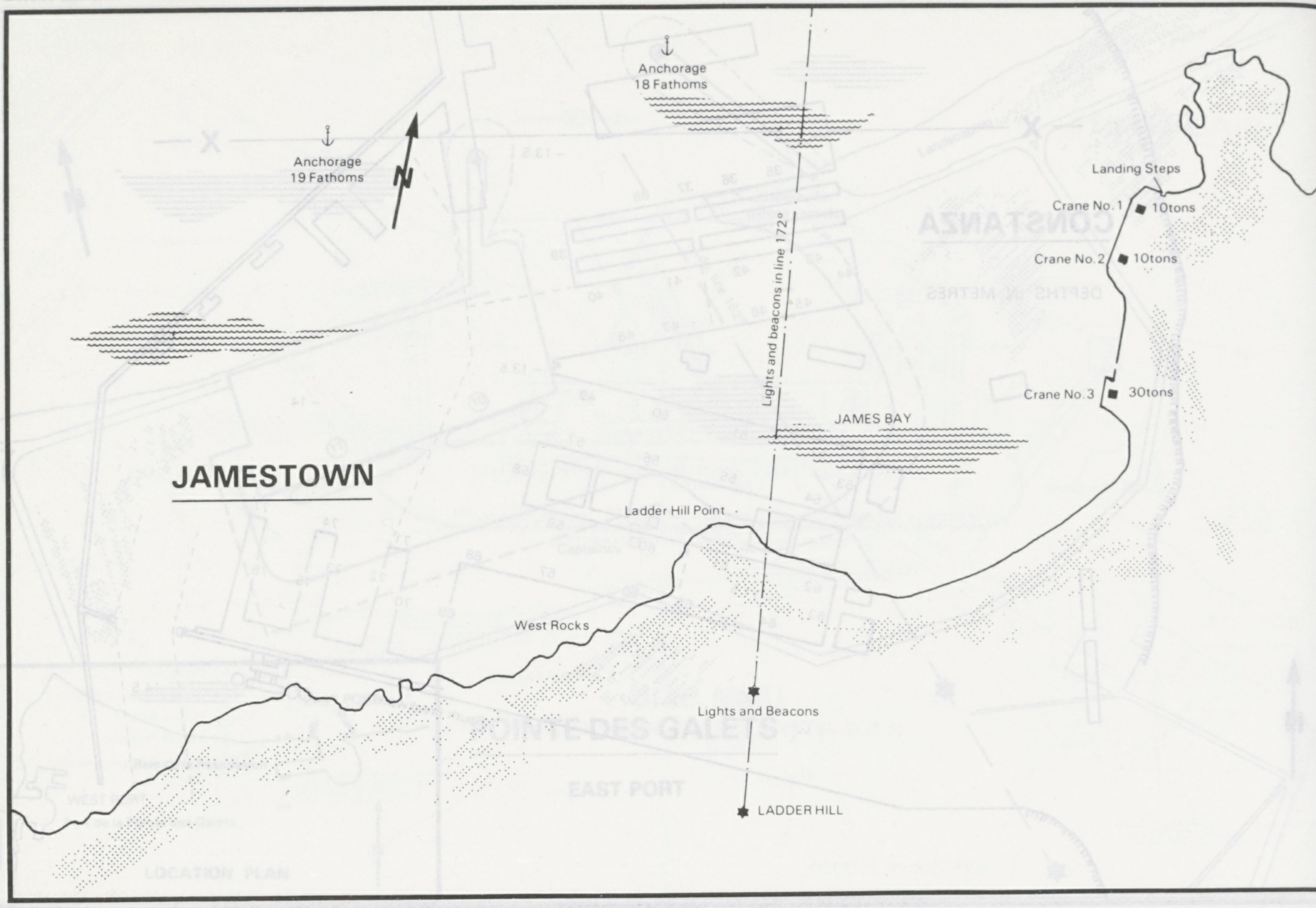
CONSTANZA

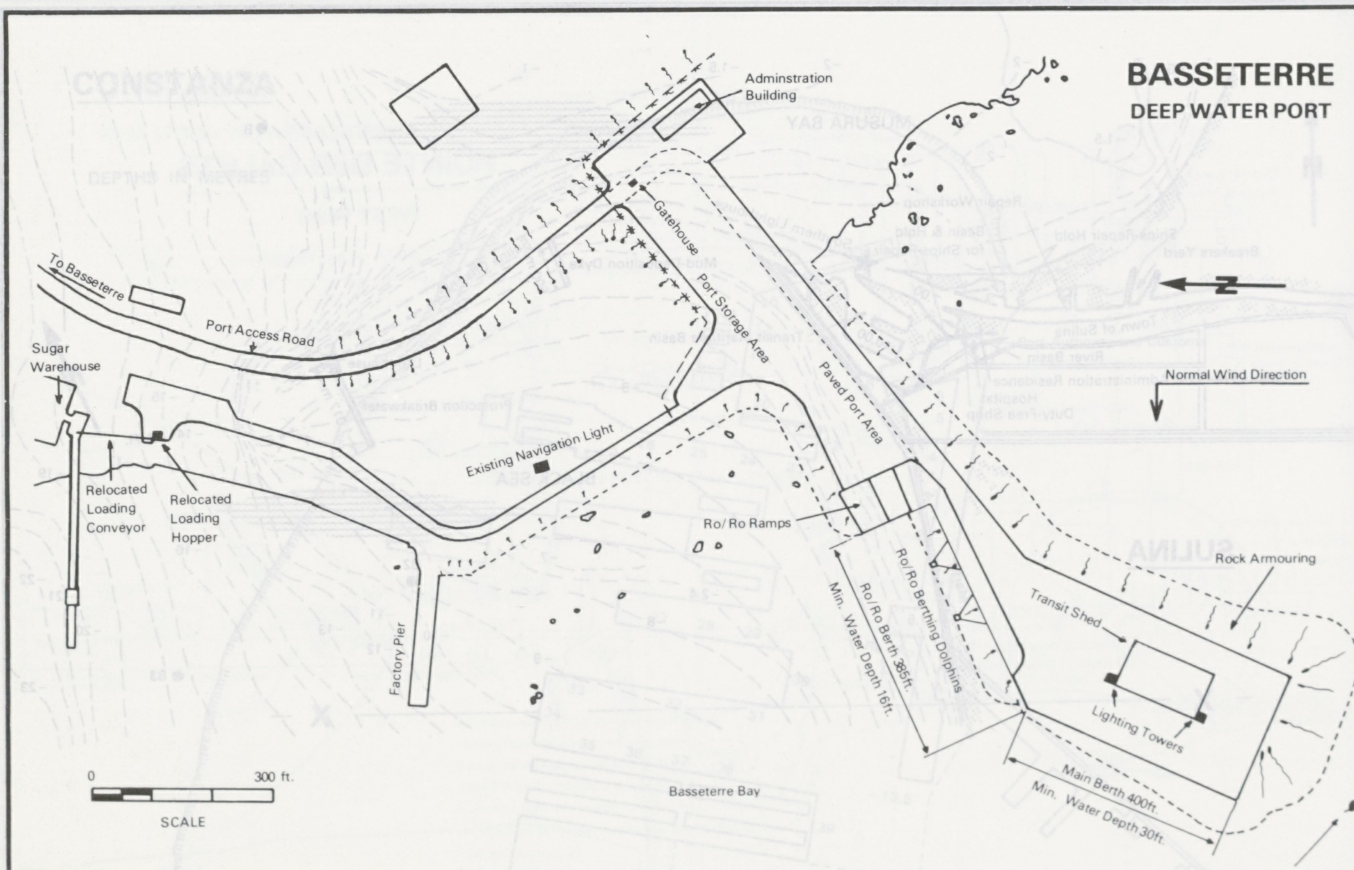
DEPTHS IN METRES

N
Port Authority and Customs
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
Ro – Ro
– 8
– 9
– 11.5
– 13.5
– 14
– X
X –

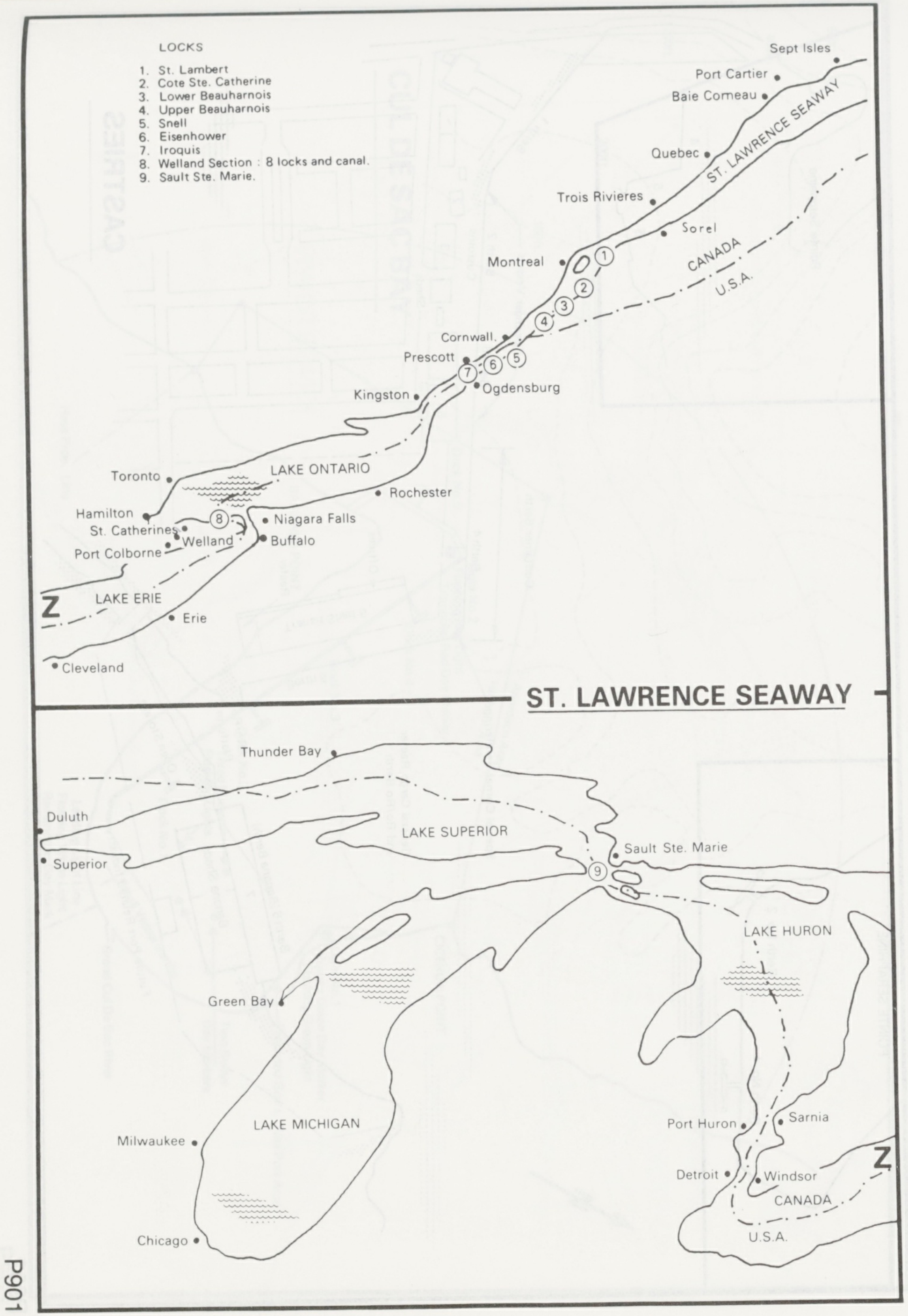

CONSTANZA
DEPTHS IN METRES
X
X
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
–13.5
–13.5
–14
–11.5
–14.5
South Breakwater
N


–1
–1.5
–2
–2
–1.5
–1
MUSURA BAY
–1.5
–2
B
Repair Workshop
Ships-Repair Hold
Basin & Hold for Ships-Repair
Breakers Yard
Southern Lighthouse
Mud-Deposition Dyke
500 m
Sulina Channel
7.00
10.00
Town of Sulina
River Basin
Sulina Free Port Administration Residence
Hospital
Duty-Free Shop
Transit Maritime Basin
Lighthouse
Protection Breakwater
1,017 m
–5
–15
–14
Fl.
–17
–19
BLACK SEA
–16
SULINA
–7
B2
–22
–21
Marsh
–2.4
–11
–13
–20
–1.5
–8
–10
–12
–9
B3
–23
DEPTHS IN METRES


Anchorage
18 Fathoms
Anchorage
19 Fathoms
N
Lights and beacons in line 172°
Landing Steps
Crane No. 1 10tons
Crane No. 2 10tons
Crane No. 3 30tons
JAMES BAY
JAMESTOWN
Ladder Hill Point
West Rocks
Lights and Beacons
LADDER HILL

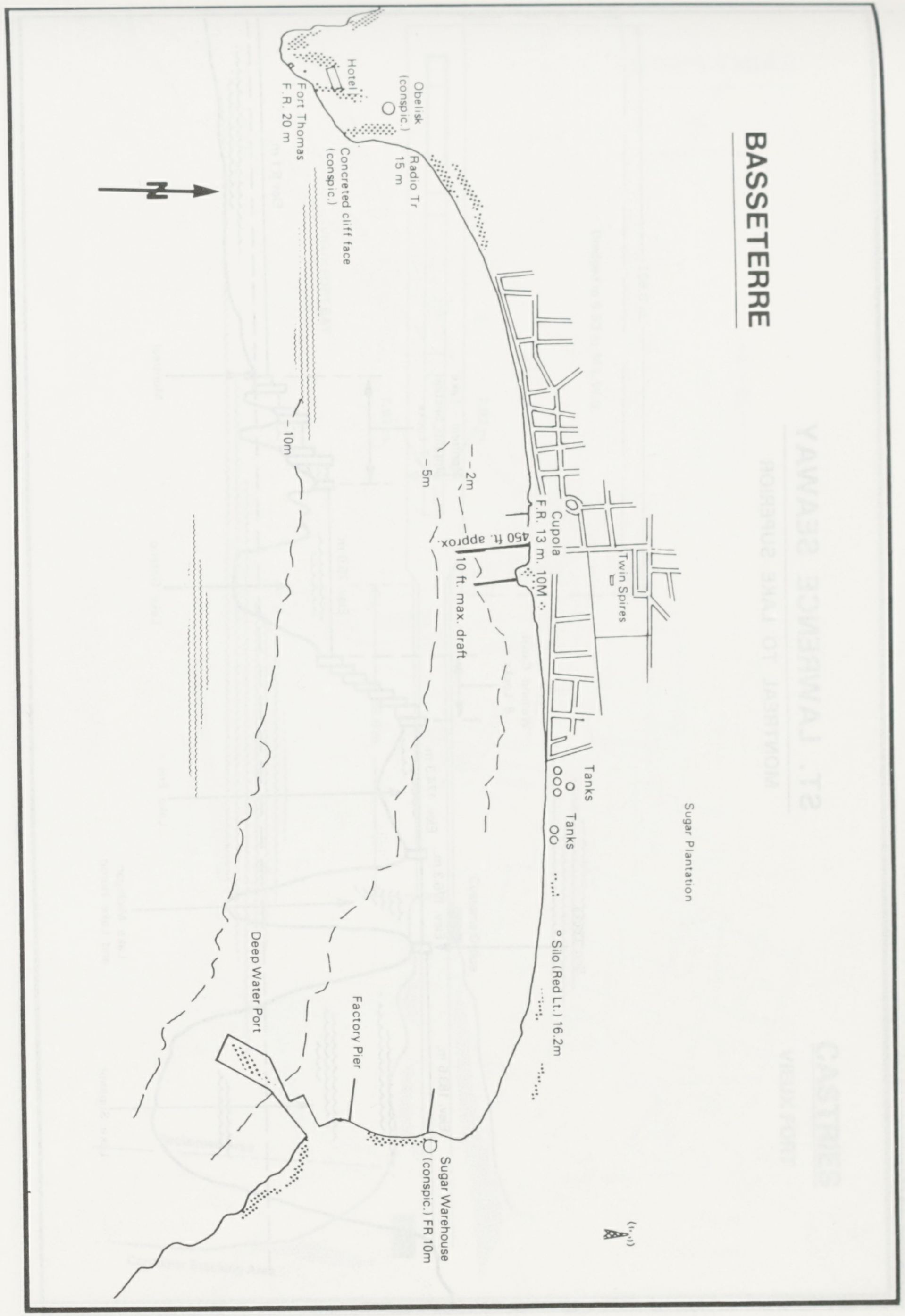

BASSETERRE
DEEP WATER PORT
Adminstration
Building
Gatehouse
Port Storage Area
Paved Port Area
To Basseterre
Port Access Road
Sugar
Warehouse
Relocated
Loading
Conveyor
Relocated
Loading
Hopper
Existing Navigation Light
Ro/ Ro Ramps
Factory Pier
Ro/ Ro Berthing Dolphins
Ro/Ro Berth 385ft.
Min. Water Depth 16ft.
N
Normal Wind Direction
Rock Armouring
Transit Shed
Lighting Towers
Main Berth 400ft.
Min. Water Depth 30ft.
Mooring Buoy
Basseterre Bay
0
300 ft.
SCALE

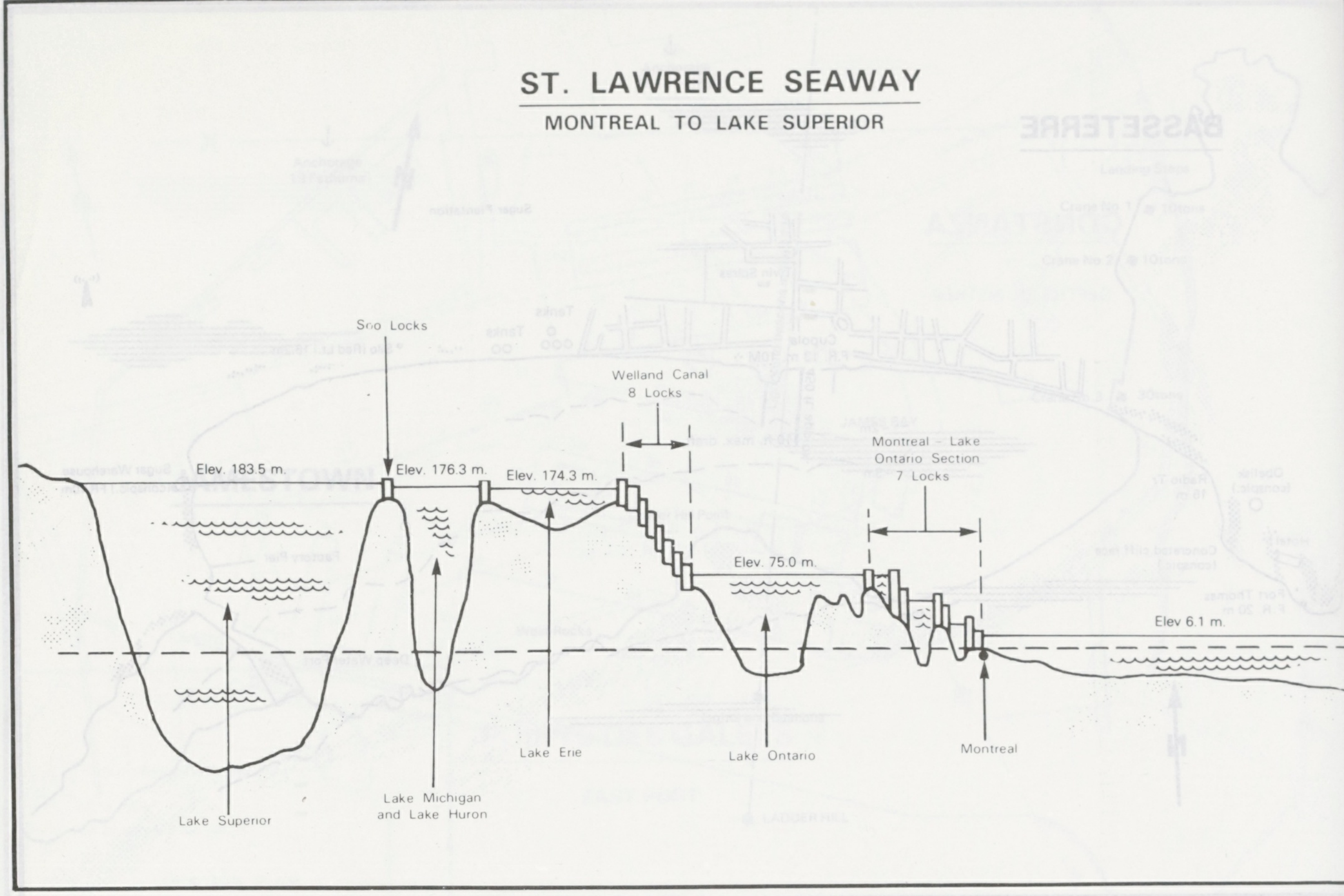
ST. LAWRENCE SEAWAY

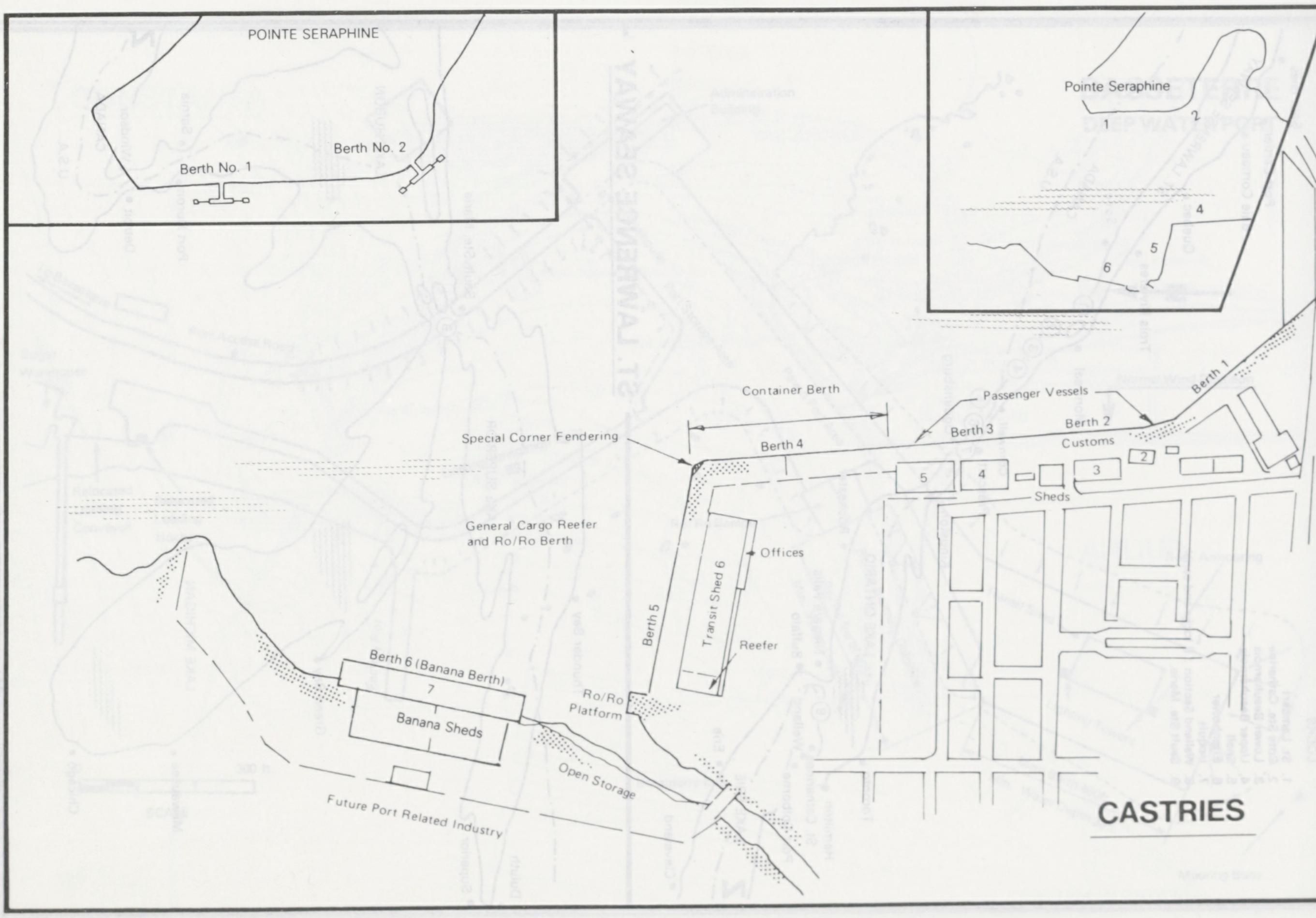

LOCKS
1. St. Lambert
2. Cote Ste. Catherine
3. Lower Beauharnois
4. Upper Beauharnois
5. Snell
6. Eisenhower
7. Iroquis
8. Welland Section : 8 locks and canal.
9. Sault Ste. Marie.
Sept Isles
Port Cartier
Baie Comeau
ST. LAWRENCE SEAWAY
Quebec
Trois Rivieres
Sorel
Montreal
CANADA
U.S.A.
①
②
③
④
⑤
⑥
⑦
Cornwall
Prescott
Ogdensburg
Kingston
LAKE ONTARIO
Toronto
Rochester
Hamilton
St. Catherines
⑧
Niagara Falls
Welland
Buffalo
Port Colborne
LAKE ERIE
Z
Erie
Cleveland
Thunder Bay
Duluth
LAKE SUPERIOR
Sault Ste. Marie
⑨
Superior
LAKE HURON
Green Bay
LAKE MICHIGAN
Port Huron
Sarnia
Milwaukee
Detroit
Windsor
CANADA
U.S.A.
Z
Chicago

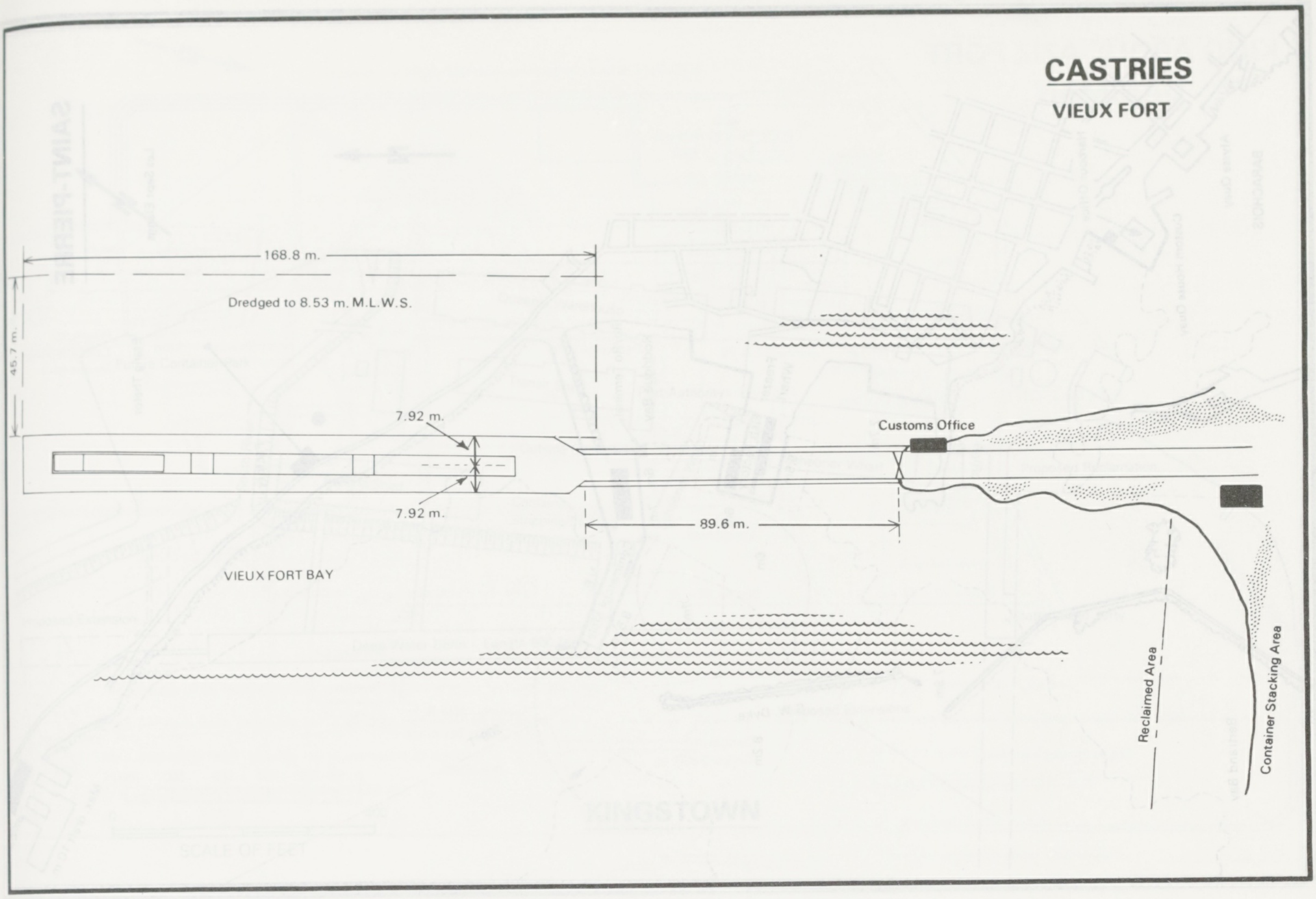
Based on map supplied by St. Lawrence Seaway Authority.

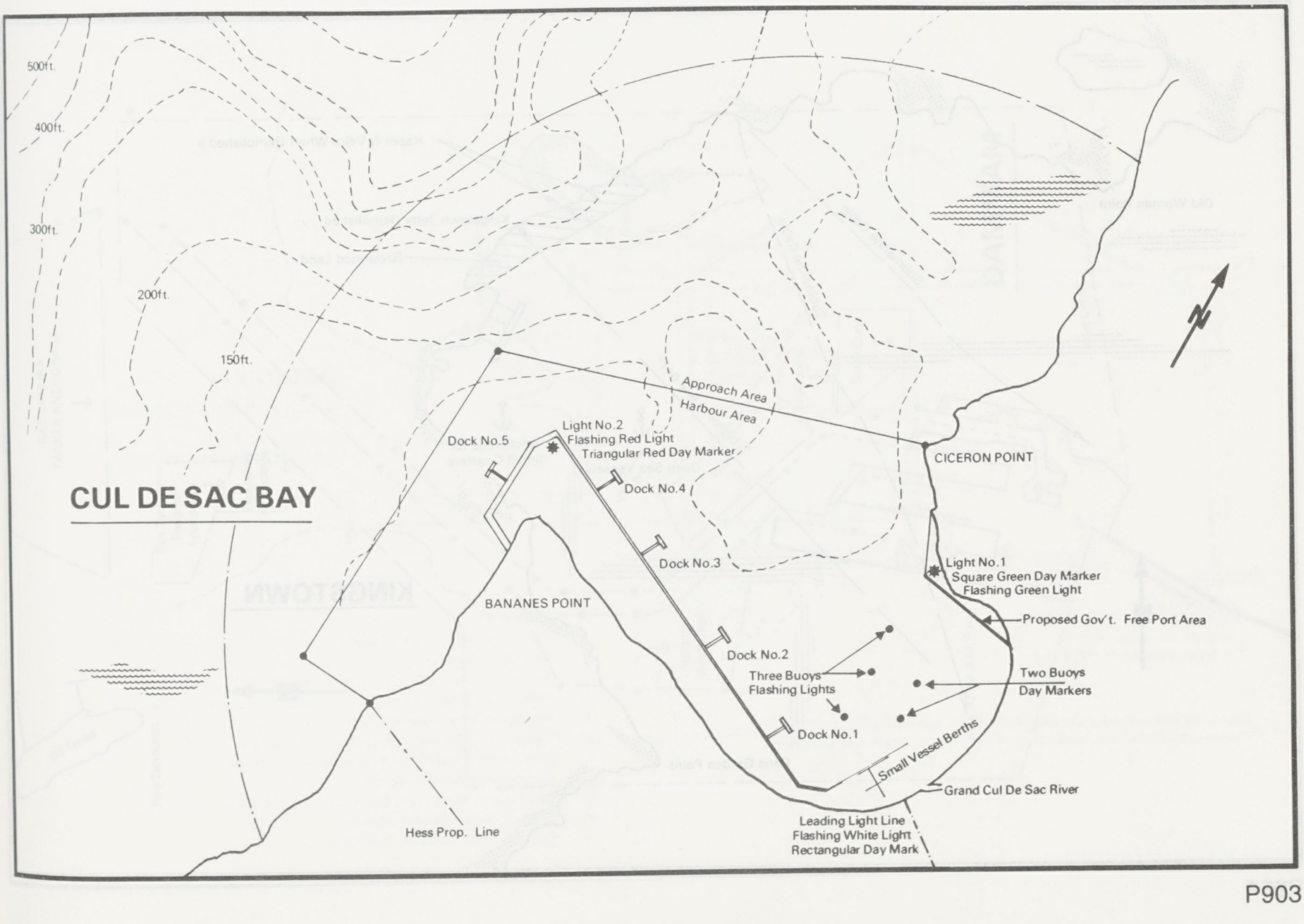
BASSETERRE

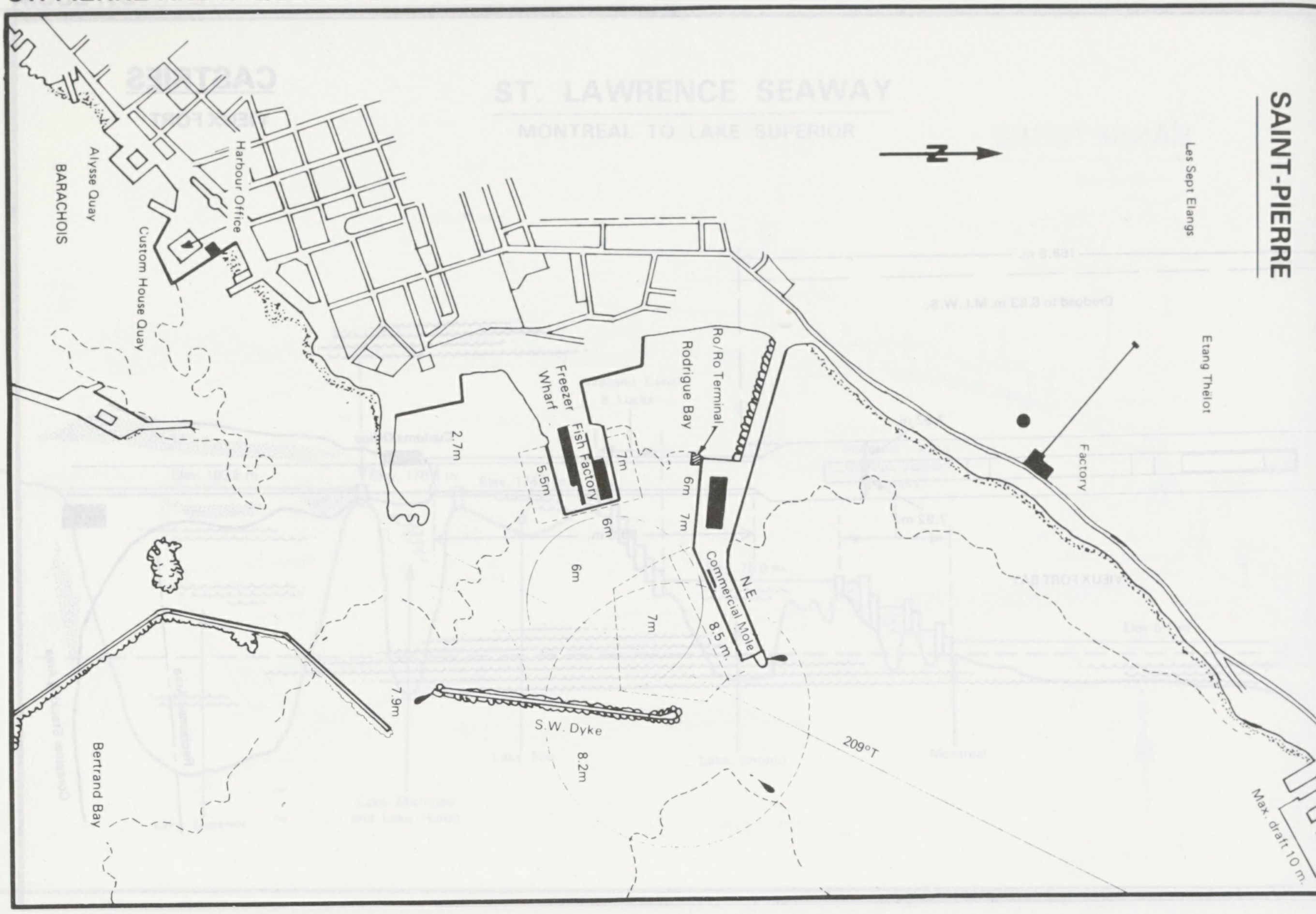

N
Hotel
Obelisk (conspic.)
Radio Tr 15 m
Fort Thomas F.R. 20 m
Concreted cliff face (conspic.)
-10m
-5m
-2m
Cupola F.R. 13 m. 10M
450 ft. approx.
10 ft. max. draft
Twin Spires
Tanks
Tanks
Sugar Plantation
Silo (Red Lt.) 16.2m
Deep Water Port
Factory Pier
Sugar Warehouse (conspic.) FR 10m

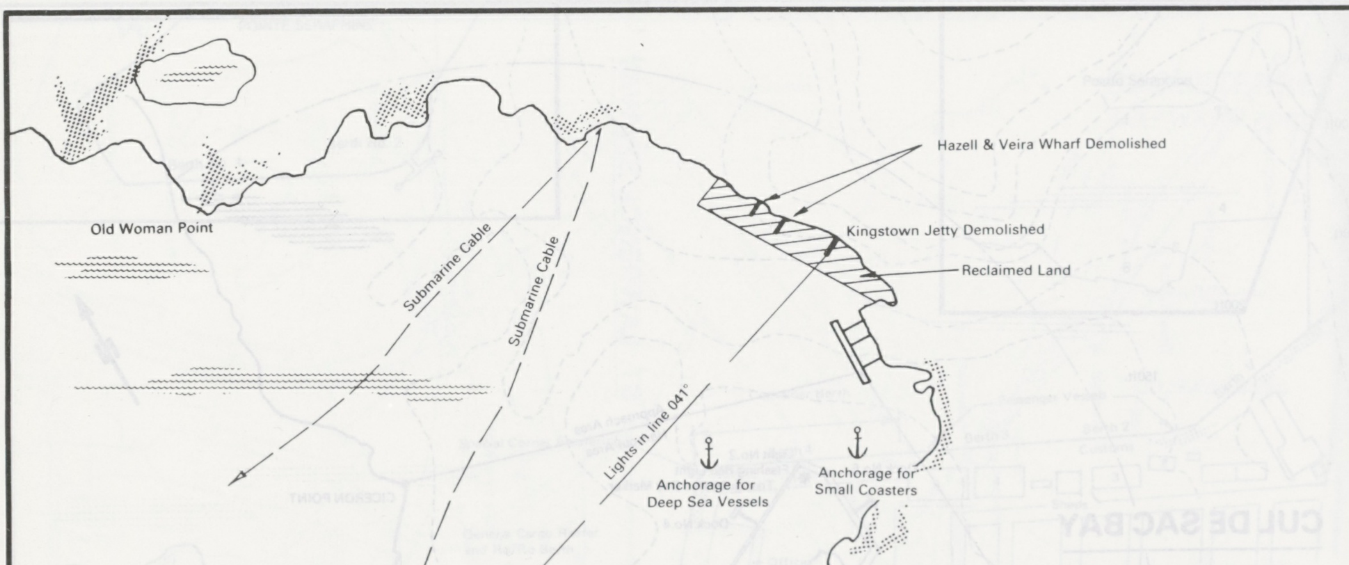

ST. LAWRENCE SEAWAY
MONTREAL TO LAKE SUPERIOR
Soo Locks
Welland Canal
8 Locks
Montreal - Lake Ontario Section
7 Locks
Elev. 183.5 m.
Elev. 176.3 m.
Elev. 174.3 m.
Elev. 75.0 m.
Elev 6.1 m.
Lake Superior
Lake Michigan and Lake Huron
Lake Erie
Lake Ontario
Montreal

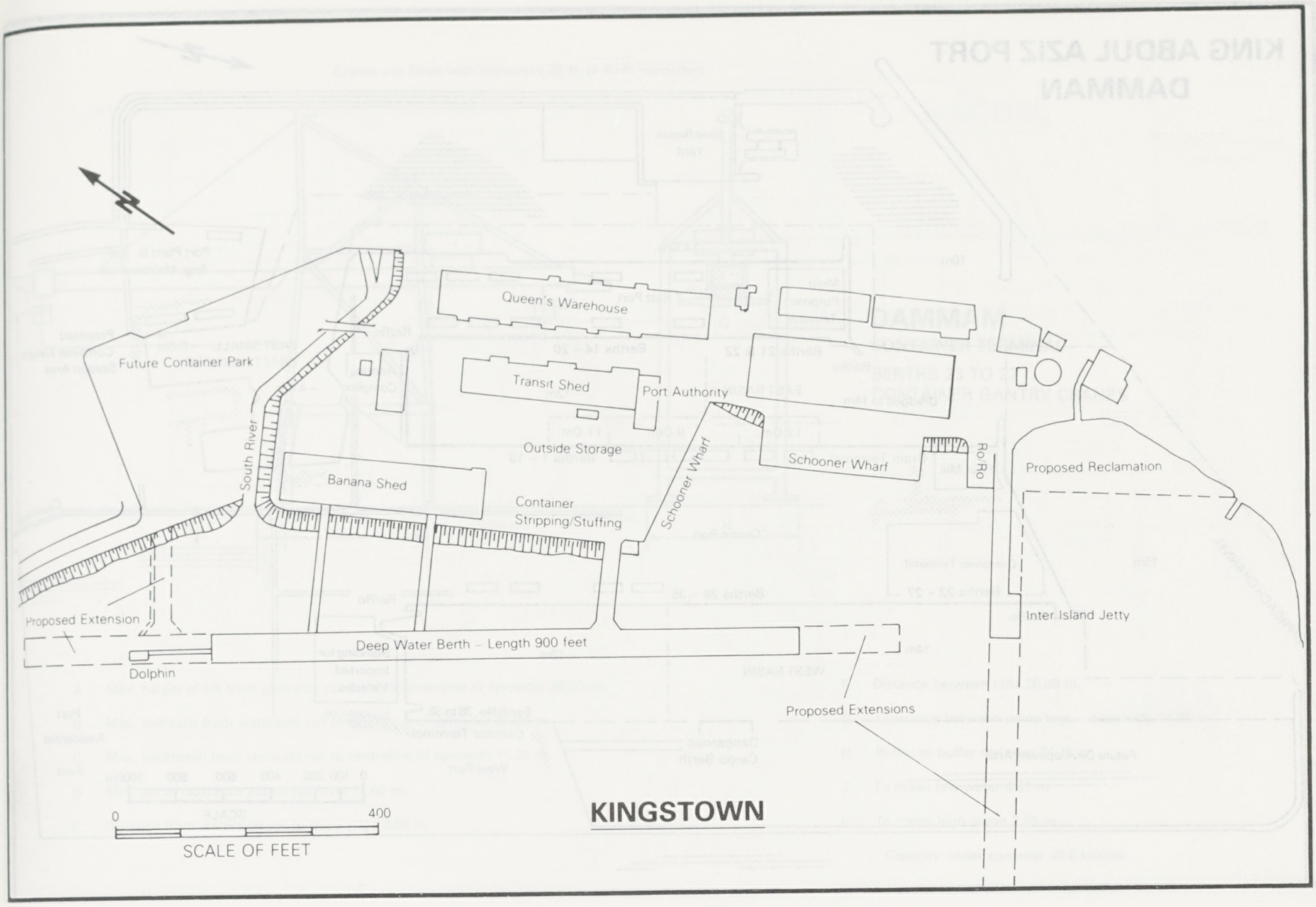

POINTE SERAPHINE
Berth No. 1
Berth No. 2
Pointe Seraphine
1
2
4
5
6
Container Berth
Passenger Vessels
Berth 1
Berth 2
Berth 3
Berth 4
Customs
Special Corner Fendering
5
4
3
2
Sheds
General Cargo Reefer and Ro/Ro Berth
Offices
Transit Shed 6
Berth 5
Reefer
Berth 6 (Banana Berth)
7
Banana Sheds
Ro/Ro Platform
Open Storage
Future Port Related Industry
CASTRIES

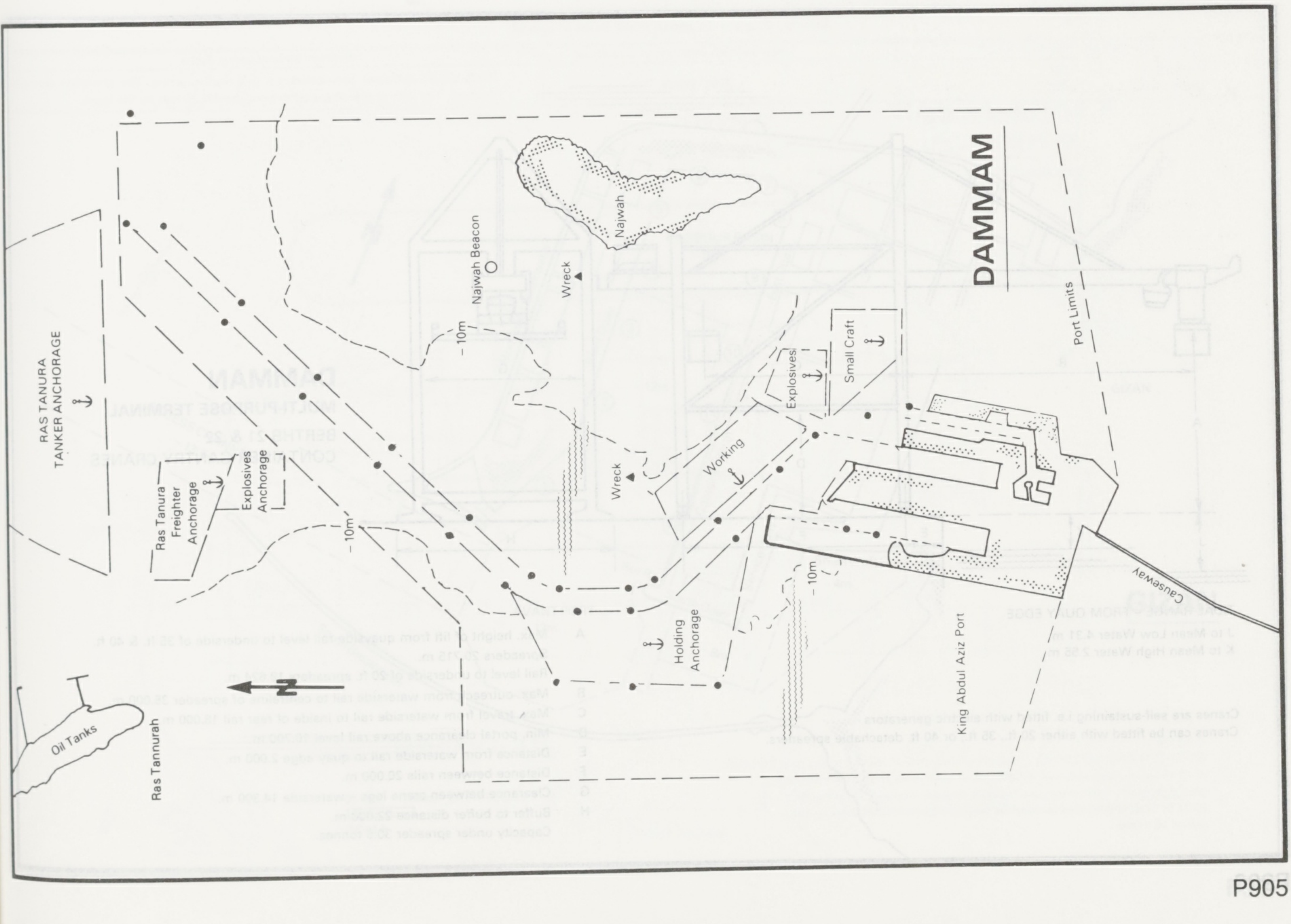

CASTRIES
VIEUX FORT
168.8 m.
Dredged to 8.53 m. M.L.W.S.
45.7 m.
7.92 m.
7.92 m.
89.6 m.
Customs Office
VIEUX FORT BAY
Reclaimed Area
Container Stacking Area


500ft.
400ft.
300ft.
200ft.
150ft.
CUL DE SAC BAY
Approach Area
Harbour Area
Light No.2
Flashing Red Light
Triangular Red Day Marker
Dock No.5
Dock No.4
Dock No.3
Dock No.2
Dock No.1
CICERON POINT
Light No.1
Square Green Day Marker
Flashing Green Light
Proposed Gov't. Free Port Area
BANANES POINT
Three Buoys
Flashing Lights
Two Buoys
Day Markers
Small Vessel Berths
Grand Cul De Sac River
Leading Light Line
Flashing White Light
Rectangular Day Mark
Hess Prop. Line

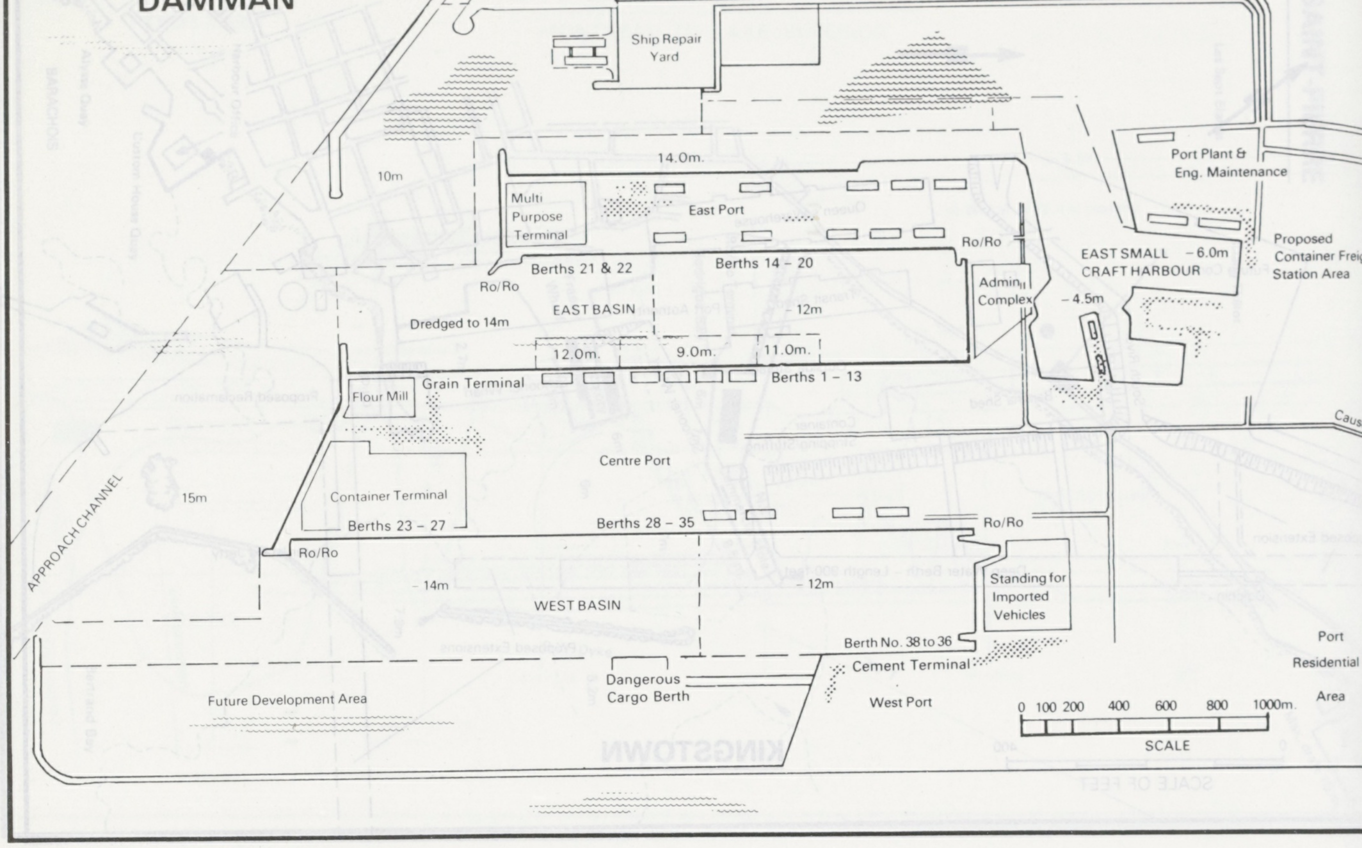

SAINT-PIERRE
N
Les Sept Elangs
Etang Thelot
Factory
Harbour Office
Alysse Quay
BARACHOIS
Custom House Quay
Freezer Wharf
Fish Factory
Ro/Ro Terminal
Rodrigue Bay
2.7m
5.5m
7m
6m
6m
7m
6m
N.E. Commercial Mole
8.5 m
7m
7.9m
S.W. Dyke
8.2m
209°T
Bertrand Bay
Max. draft 10 m.

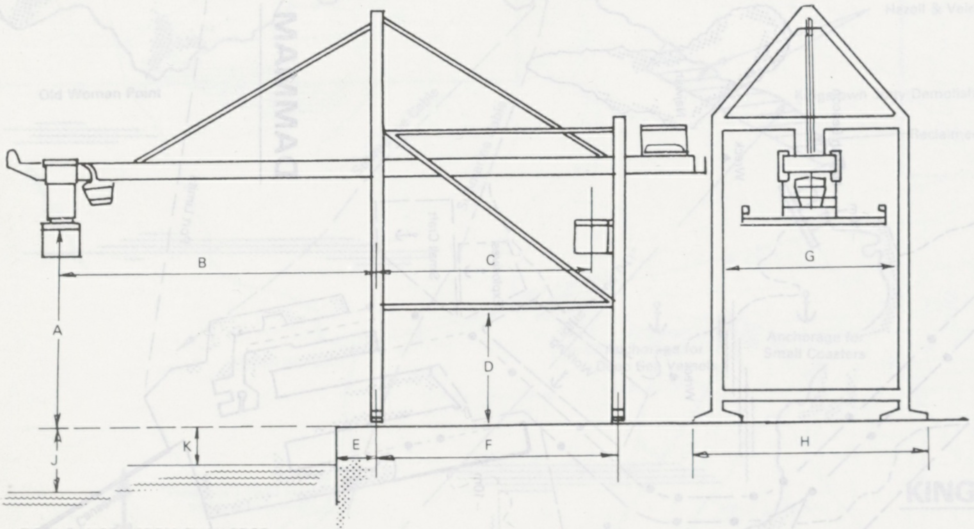

Hazell & Veira Wharf Demolished
Kingstown Jetty Demolished
Reclaimed Land
Old Woman Point
Submarine Cable
Submarine Cable
Lights in line 041°
Anchorage for Deep Sea Vessels
Anchorage for Small Coasters
KINGSTOWN
N
Cane Garden Point


N
Queen's Warehouse
Future Container Park
Transit Shed
Port Authority
Outside Storage
South River
Banana Shed
Container Stripping/Stuffing
Schooner Wharf
Schooner Wharf
Ro Ro
Proposed Reclamation
Inter Island Jetty
Proposed Extension
Deep Water Berth – Length 900 feet
Dolphin
Proposed Extensions
0
400
SCALE OF FEET
KINGSTOWN


DAMMAM
Najwah
Najwah Beacon
Wreck
– 10m
Port Limits
Small Craft
Explosives
RAS TANURA TANKER ANCHORAGE
Ras Tanura Freighter Anchorage
Explosives Anchorage
Working
Wreck
– 10m
– 10m
Causeway
Holding Anchorage
King Abdul Aziz Port
N
Oil Tanks
Ras Tannurah

KING ABDUL AZIZ PORT DAMMAN


Ship Repair Yard
14.0m.
10m
Multi Purpose Terminal
East Port
Ro/Ro
Port Plant & Eng. Maintenance
Proposed Container Freig
Station Area
EAST SMALL CRAFT HARBOUR
- 6.0m
- 4.5m
Admin Complex
Berths 21 & 22
Berths 14 - 20
Ro/Ro
EAST BASIN
- 12m
Dredged to 14m
12.0m.
9.0m.
11.0m.
Flour Mill
Grain Terminal
Berths 1 - 13
Caus
Centre Port
APPROACH CHANNEL
15m
Container Terminal
Berths 23 - 27
Berths 28 - 35
Ro/Ro
Ro/Ro
- 14m
WEST BASIN
- 12m
Standing for Imported Vehicles
Berth No. 38 to 36
Cement Terminal
Port Residential Area
Future Development Area
Dangerous Cargo Berth
West Port
0 100 200 400 600 800 1000m.
SCALE


B
C
A
D
G
K
J
E
F
H

DAMMAN

MULTI-PURPOSE TERMINAL

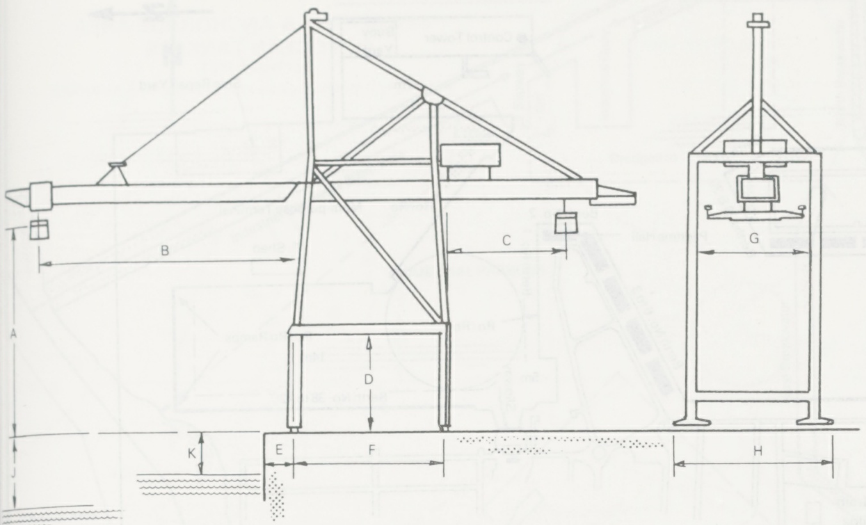
BERTHS 21 & 22
CONTAINER GANTRY CRANES

TIDAL RANGE – FROM QUAY EDGE
J to Mean Low Water 4.31 m.
K to Mean High Water 2.55 m.

Cranes are self-sustaining i.e. fitted with electric generators
Cranes can be fitted with either 20 ft., 35 ft., or 40 ft. detachable spreaders.

A	Max. height of lift from quayside rail level to underside of 35 ft. & 40 ft. Spreaders 20.715 m. Rail level to underside of 20 ft. spreaders 19.624 m.
B	Max. outreach from waterside rail to centreline of spreader 35.000 m.
C	Max. travel from waterside rail to inside of rear rail 18.000 m.
D	Min. portal clearance above rail level 10.700 m.
E	Distance from waterside rail to quay edge 2.000 m.
F	Distance between rails 20.000 m.
G	Clearance between crane legs – waterside 14.300 m.
H	Buffer to buffer distance 22.000 m. Capacity under spreader 30.5 tonnes.

Cranes are fitted with telescopic 20 ft. to 40 ft. spreaders

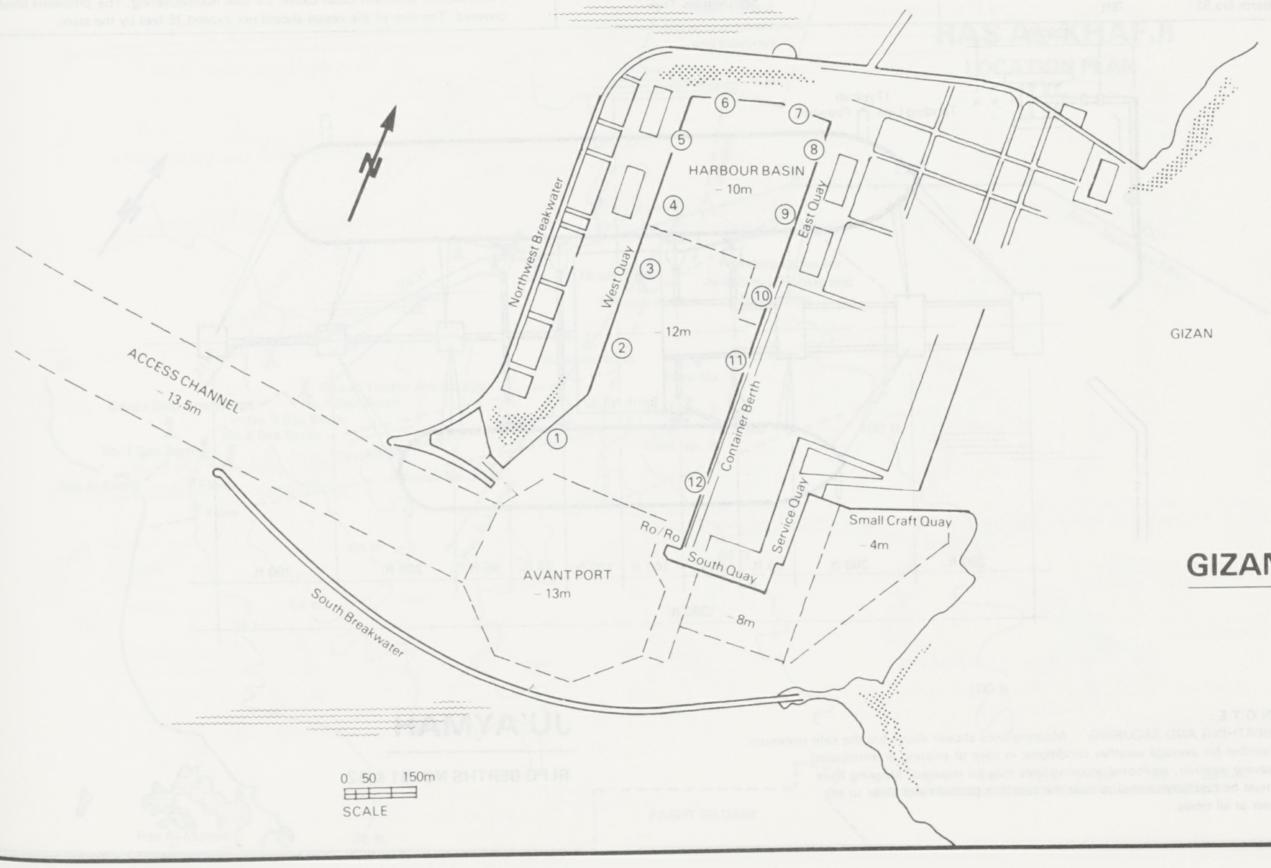

A
B
C
D
E
F
G
H
J
K

DAMMAM
CONTAINER TERMINAL

BERTHS 23 TO 27
CONTAINER GANTRY CRANES

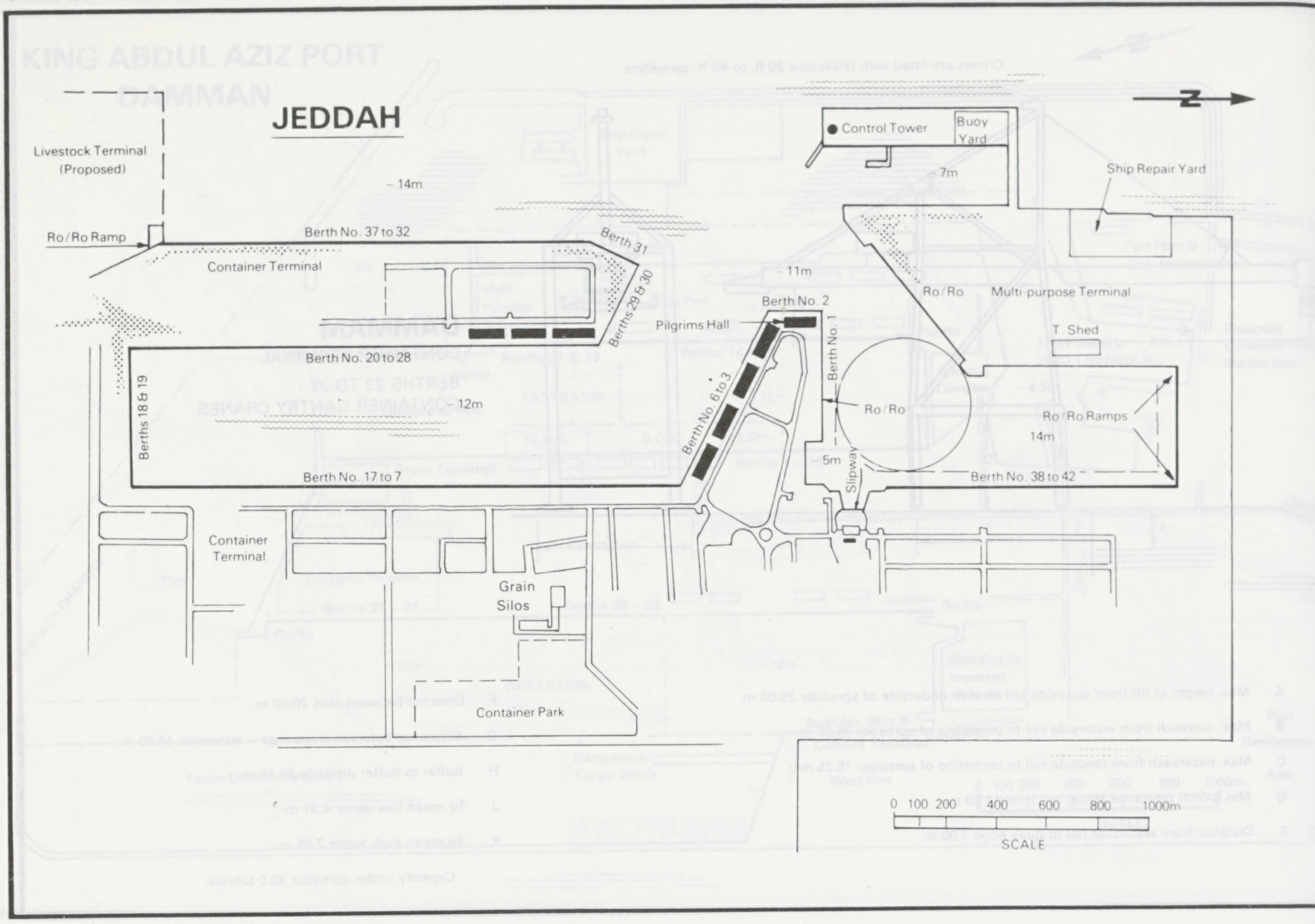
- A Max. height of lift from quayside rail level to underside of spreader 26.00 m.
- B Max. outreach from waterside rail to centreline of spreader 35.00 m.
- C Max. backreach from landside rail to centreline of spreader 15.25 m.
- D Min. portal clearance above rail level 12.00 m.
- E Distance from waterside rail to quay edge 3.00 m.
- F Distance between rails 20.00 m.
- G Clearance between crane legs – waterside 14.95 m.
- H Buffer to buffer distance 24.15 m.
- J To mean low water 4.31 m.
- K To mean high water 2.55 m.

Capacity under spreader 40.0 tonnes.


N
HARBOUR BASIN
– 10m
Northwest Breakwater
West Quay
East Quay
– 12m
ACCESS CHANNEL
– 13.5m
Container Berth
Service Quay
Small Craft Quay
– 4m
Ro/Ro
South Quay
AVANT PORT
– 13m
– 8m
South Breakwater
GIZAN
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
0 50 150m
SCALE

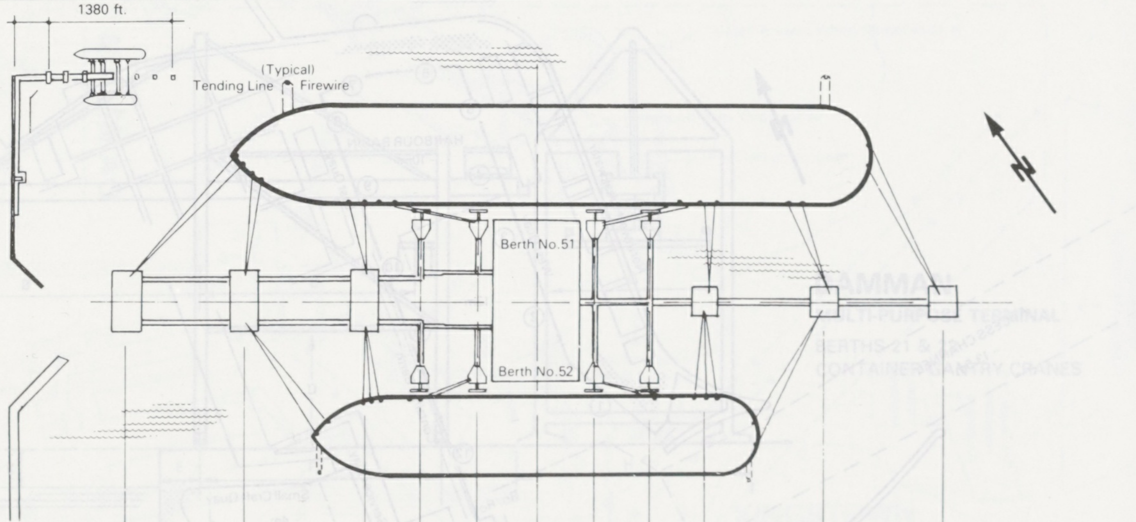
GIZAN

JEDDAH


JEDDAH
Livestock Terminal (Proposed)
Ro/Ro Ramp
Container Terminal
Berth No. 37 to 32
– 14m
Berth 31
Berths 29 & 30
Pilgrims Hall
Berth No. 20 to 28
12m
Berths 18 & 19
Berth No. 17 to 7
Container Terminal
Grain Silos
Container Park
Control Tower
Buoy Yard
– 7m
Ship Repair Yard
– 11m
Berth No. 2
Berth No. 1
Berth No 6 to 3
Ro/Ro
Multi-purpose Terminal
T. Shed
Ro/Ro
Ro/Ro Ramps
14m
– 5m
Slipway
Berth No. 38 to 42
N
0 100 200 400 600 800 1000m
SCALE

Mooring Diagram Ju'aymah RLPG Berth 51 and 52

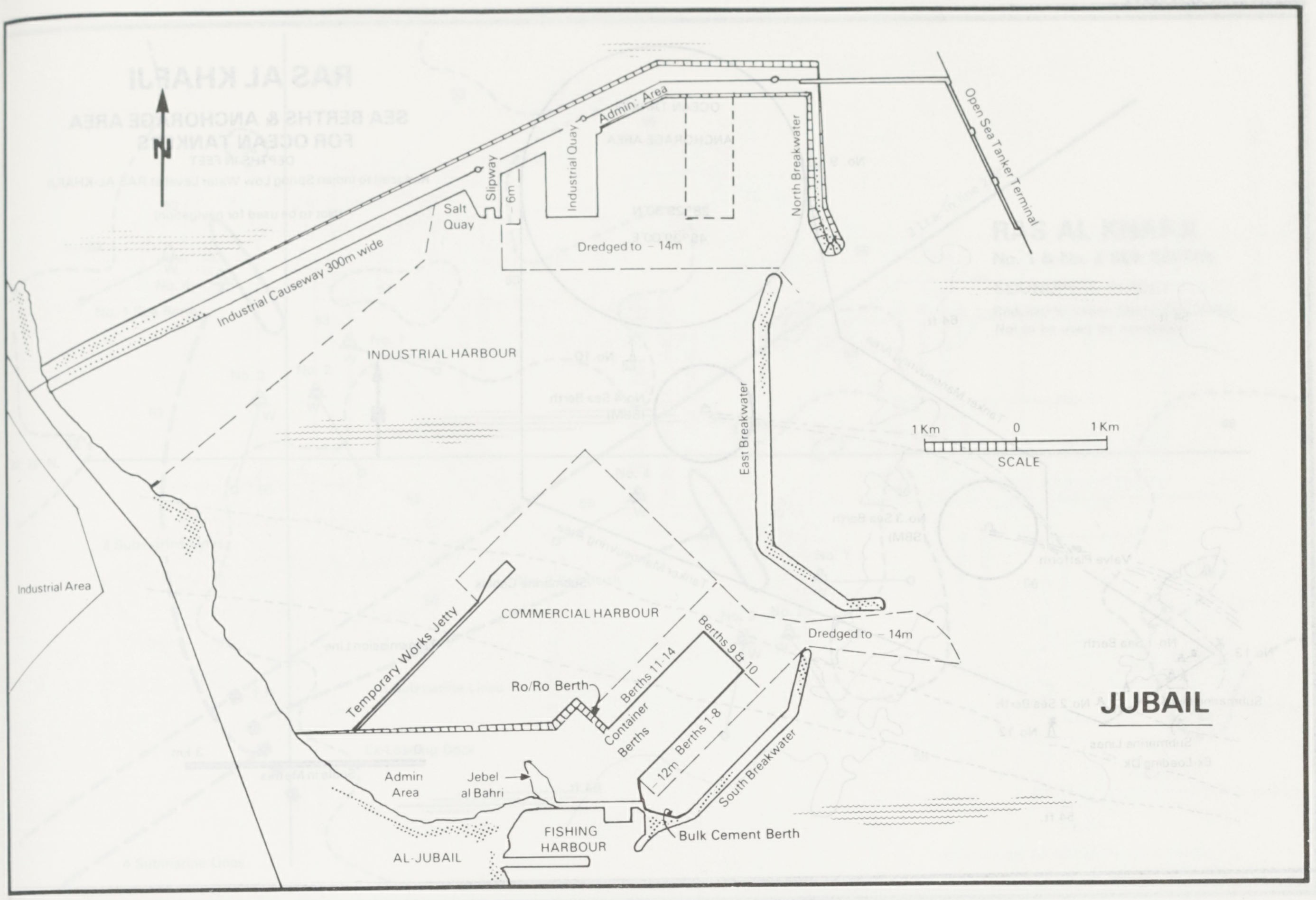
Approx. Min Depths at Berths I.S.L.W.		Approximate Direction of Sea Island	Minimum Manoeuvering Drafts
Berth No.51	78ft	335 Degrees True	Pilots require sufficient clean ballast for safe manoeuvering. The propellers sh
Berth No.52	78ft		covered. The trim of the vessel should not exceed 15 feet by the stern.

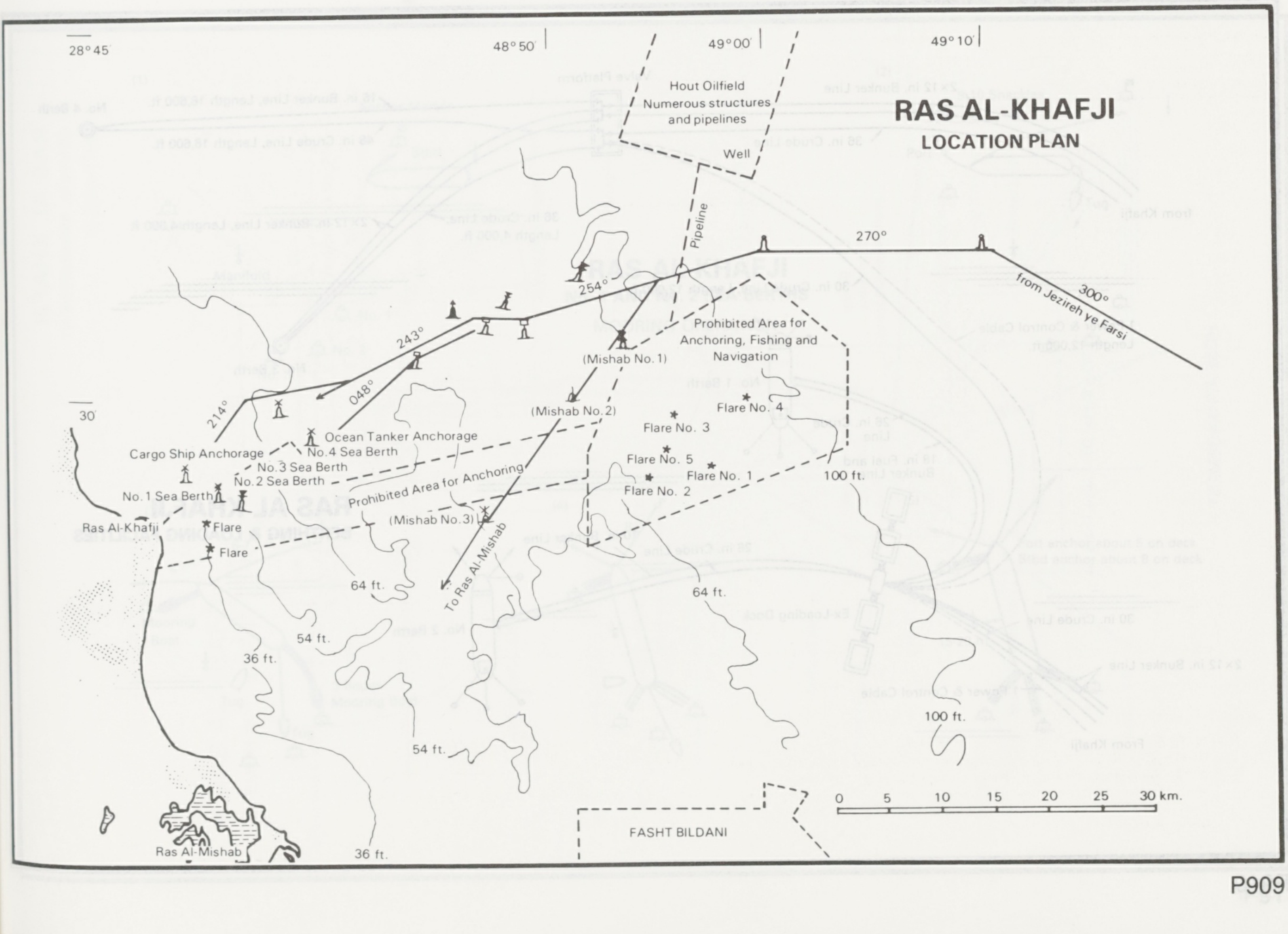

1380 ft.
(Typical)
Tending Line
Firewire
N
Berth No.51
Berth No.52
200 ft.
200 ft.
95 ft.
95 ft.
100 ft
100 ft.
95 ft.
95 ft.
200 ft.
200 ft.
1380 ft.

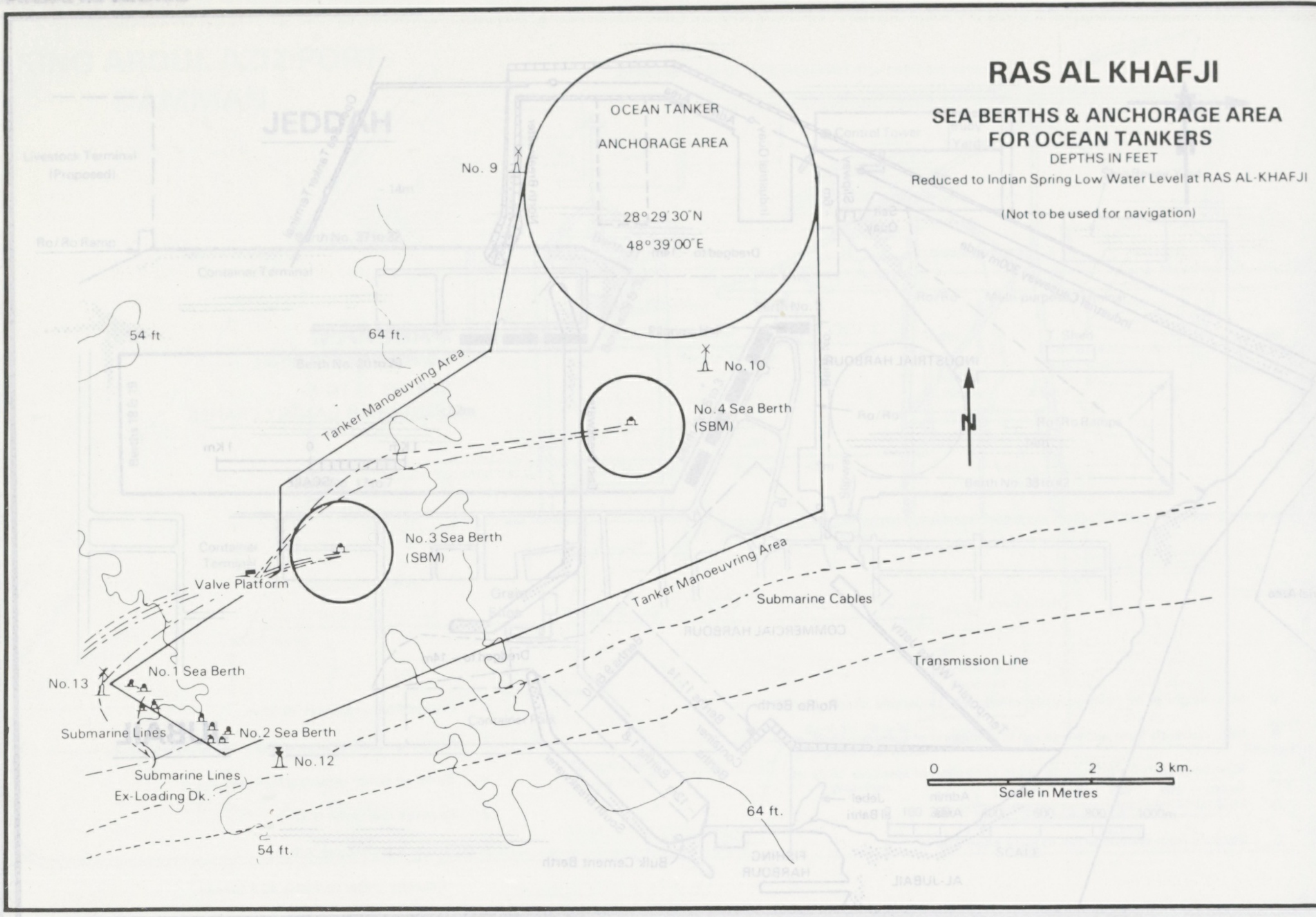
JU'AYMAH

RLPG BERTHS NO. 51 & 52

NOTE:
BERTHING AND SECURING – Mooring lines shown above are the safe minimum number for average weather conditions; in case of existing or anticipated severe weather, additional mooring lines may be required. Mooring lines must be carefully tended to hold the vessel in position and close to the pier at all times.


N
JUBAIL
Open Sea Tanker Terminal
Admin. Area
Industrial Quay
Slipway
6m
Salt Quay
North Breakwater
Dredged to – 14m
Industrial Causeway 300m wide
INDUSTRIAL HARBOUR
East Breakwater
1 Km
0
1 Km
SCALE
Industrial Area
COMMERCIAL HARBOUR
Temporary Works Jetty
Berths 9 & 10
Dredged to – 14m
Ro/Ro Berth
Berths 11-14
Container Berths
Berths 1-8
12m
South Breakwater
Admin Area
Jebel al Bahri
FISHING HARBOUR
AL-JUBAIL
Bulk Cement Berth


RAS AL-KHAFJI
LOCATION PLAN
28°45'
48°50'
49°00'
49°10'
Hout Oilfield
Numerous structures and pipelines
Well
Pipeline
270°
300°
from Jezireh ye Farsi
254°
243°
214°
048°
Prohibited Area for Anchoring, Fishing and Navigation
(Mishab No. 1)
(Mishab No. 2)
(Mishab No. 3)
Flare No. 4
Flare No. 3
Flare No. 5
Flare No. 1
Flare No. 2
100 ft.
30'
Ocean Tanker Anchorage
Cargo Ship Anchorage
No.4 Sea Berth
No.3 Sea Berth
No.2 Sea Berth
No.1 Sea Berth
Prohibited Area for Anchoring
Ras Al-Khafji
Flare
Flare
To Ras Al-Mishab
64 ft.
64 ft.
54 ft.
36 ft.
54 ft.
100 ft.
0
5
10
15
20
25
30 km.
FASHT BILDANI
Ras Al-Mishab
36 ft.



RAS AL KHAFJI

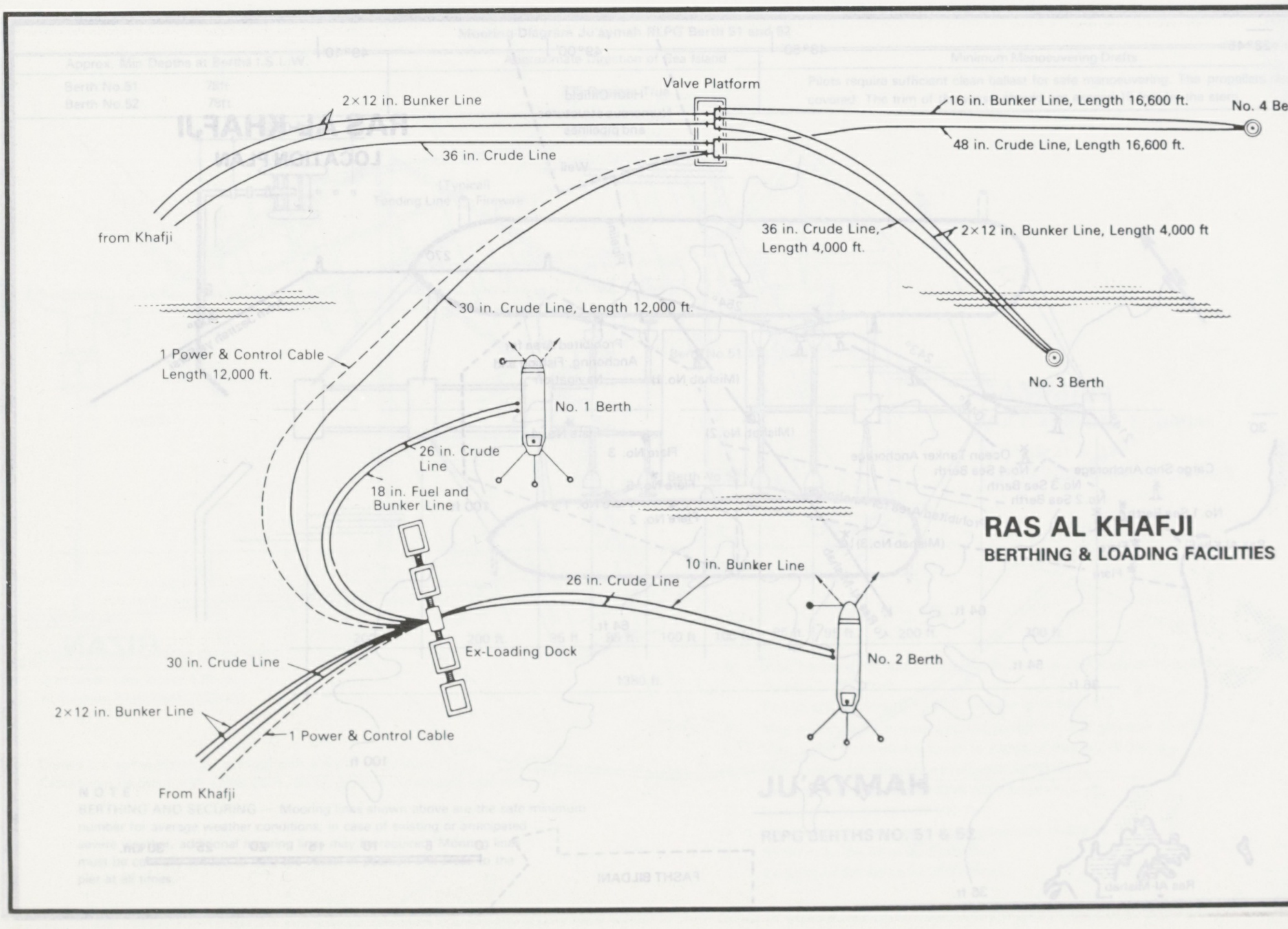
SEA BERTHS & ANCHORAGE AREA FOR OCEAN TANKERS

DEPTHS IN FEET

Reduced to Indian Spring Low Water Level at RAS AL-KHAFJI

(Not to be used for navigation)

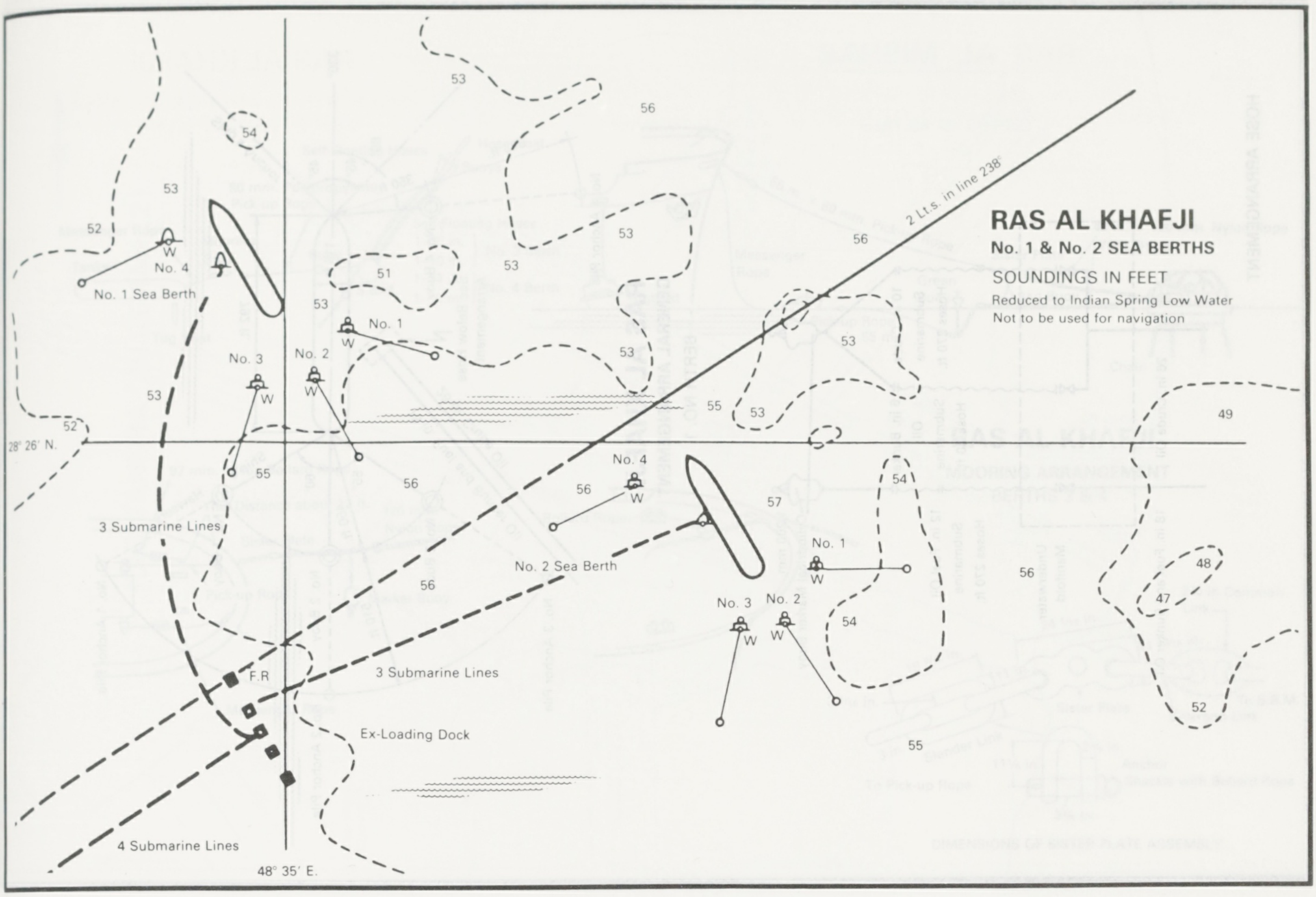
OCEAN TANKER
ANCHORAGE AREA
28°29'30"N
48°39'00"E
No. 9
No. 10
54 ft.
64 ft.
Tanker Manoeuvring Area
No. 4 Sea Berth
(SBM)
No. 3 Sea Berth
(SBM)
Valve Platform
Tanker Manoeuvring Area
Submarine Cables
Transmission Line
No. 13
No. 1 Sea Berth
Submarine Lines
No. 2 Sea Berth
No. 12
Submarine Lines
Ex-Loading Dk.
54 ft.
64 ft.
0
2
3 km.
Scale in Metres



RAS AL KHAFJI

BERTHING & LOADING FACILITIES

Valve Platform
2×12 in. Bunker Line
16 in. Bunker Line, Length 16,600 ft.
No. 4 Be
36 in. Crude Line
48 in. Crude Line, Length 16,600 ft.
from Khafji
36 in. Crude Line,
Length 4,000 ft.
2×12 in. Bunker Line, Length 4,000 ft
30 in. Crude Line, Length 12,000 ft.
1 Power & Control Cable
Length 12,000 ft.
No. 3 Berth
No. 1 Berth
26 in. Crude
Line
18 in. Fuel and
Bunker Line
10 in. Bunker Line
26 in. Crude Line
Ex-Loading Dock
30 in. Crude Line
No. 2 Berth
2×12 in. Bunker Line
1 Power & Control Cable
From Khafji

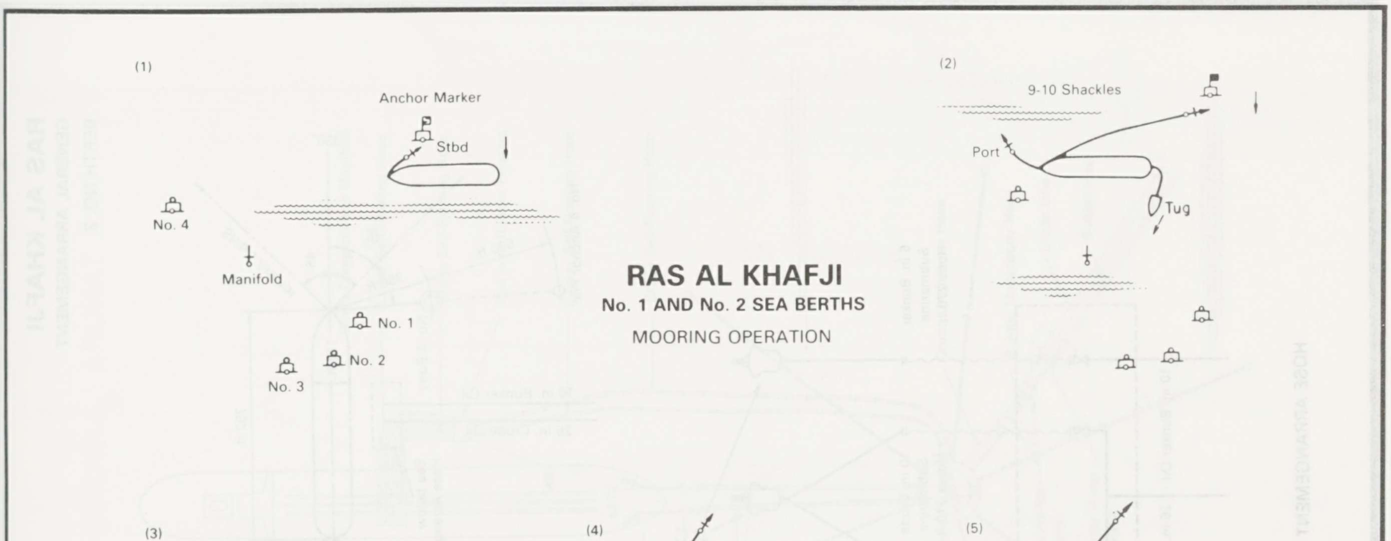


RAS AL KHAFJI
No. 1 & No. 2 SEA BERTHS

SOUNDINGS IN FEET

Reduced to Indian Spring Low Water
Not to be used for navigation

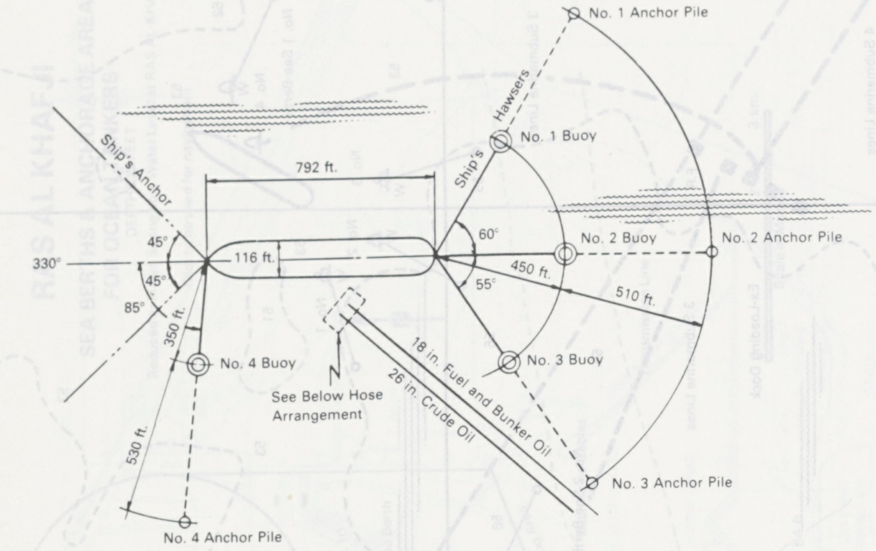
2 Lts. in line 238°
No. 1 Sea Berth
No. 4
No. 3
No. 2
No. 1
W
28° 26′ N.
48° 35′ E.
3 Submarine Lines
3 Submarine Lines
4 Submarine Lines
F.R
Ex-Loading Dock
No. 2 Sea Berth
53
54
52
51
56
55
57
49
48
47



RAS AL KHAFJI
No. 1 AND No. 2 SEA BERTHS

MOORING OPERATION

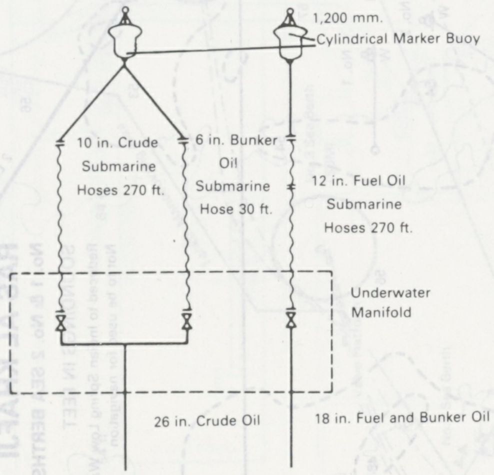
(1)
Anchor Marker
Stbd
No. 4
Manifold
No. 1
No. 2
No. 3
(2)
9-10 Shackles
Port
Tug
(3)
4
6-7
Mooring Boat
Tug
Tug
3 Ropes Mooring Boat
(4)
5
8
(5)
Port anchor about 5 on deck
Stbd anchor about 8 on deck
15-20 m.


No. 1 Anchor Pile
Ship's Hawsers
No. 1 Buoy
Ship's Anchor
792 ft.
45°
330°
116 ft.
45°
85°
60°
No. 2 Buoy
No. 2 Anchor Pile
450 ft.
55°
510 ft.
350 ft.
No. 4 Buoy
No. 3 Buoy
See Below Hose Arrangement
18 in. Fuel and Bunker Oil
26 in. Crude Oil
530 ft.
No. 3 Anchor Pile
No. 4 Anchor Pile

RAS AL KHAFJI

GENERAL ARRANGEMENT

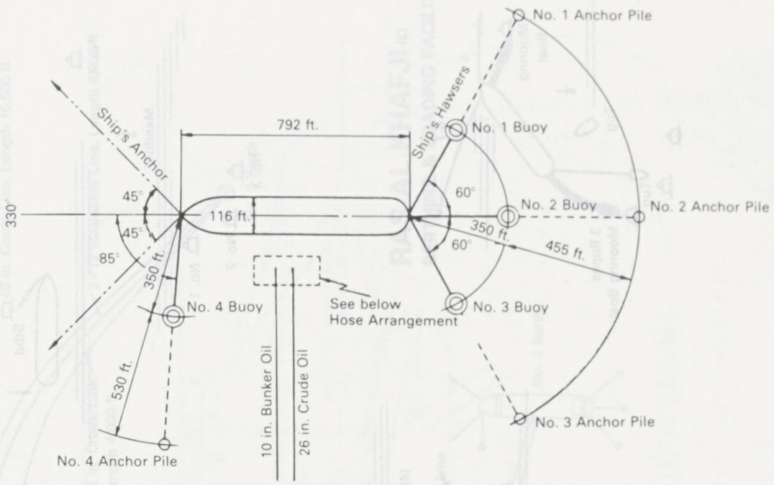
BERTH NO. 1

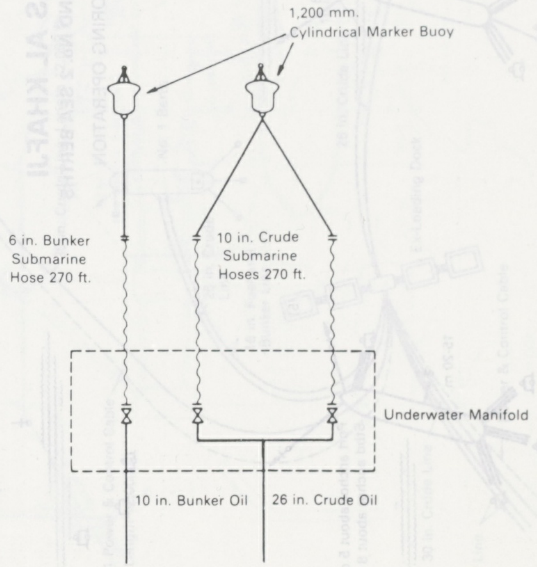

1,200 mm.
Cylindrical Marker Buoy
10 in. Crude Submarine Hoses 270 ft.
6 in. Bunker Oil Submarine Hose 30 ft.
12 in. Fuel Oil Submarine Hoses 270 ft.
Underwater Manifold
26 in. Crude Oil
18 in. Fuel and Bunker Oil

HOSE ARRANGEMENT

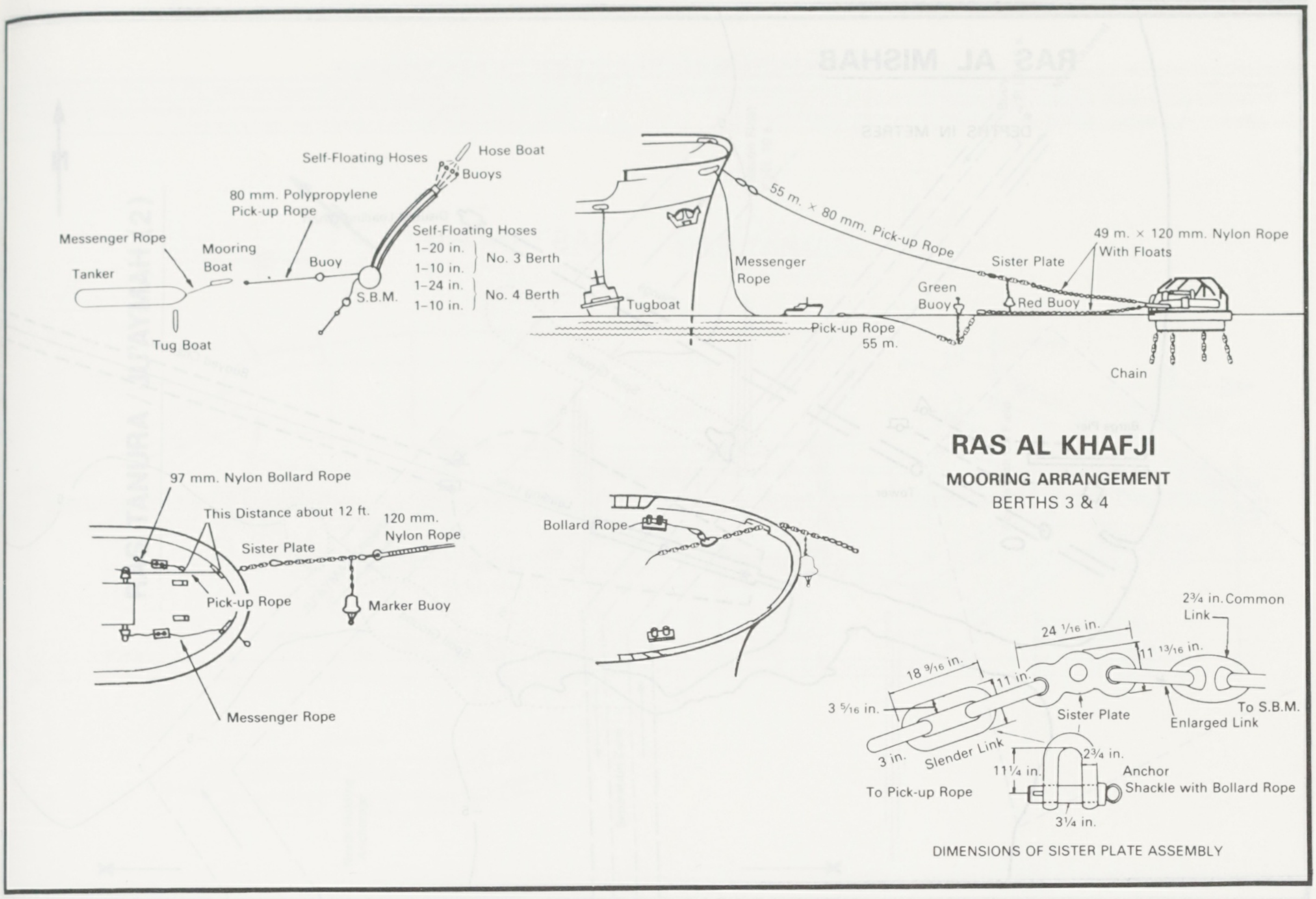
GENERAL ARRANGEMENT

BERTH NO. 2


No. 1 Anchor Pile
Ship's Hawsers
No. 1 Buoy
Ship's Anchor
792 ft.
45°
330
116 ft.
45°
85°
60°
No. 2 Buoy
No. 2 Anchor Pile
350 ft.
455 ft.
60°
350 ft.
No. 4 Buoy
See below Hose Arrangement
No. 3 Buoy
10 in. Bunker Oil
26 in. Crude Oil
530 ft.
No. 4 Anchor Pile
No. 3 Anchor Pile


1,200 mm.
Cylindrical Marker Buoy
6 in. Bunker Submarine Hose 270 ft.
10 in. Crude Submarine Hoses 270 ft.
Underwater Manifold
10 in. Bunker Oil
26 in. Crude Oil

HOSE ARRANGEMENT

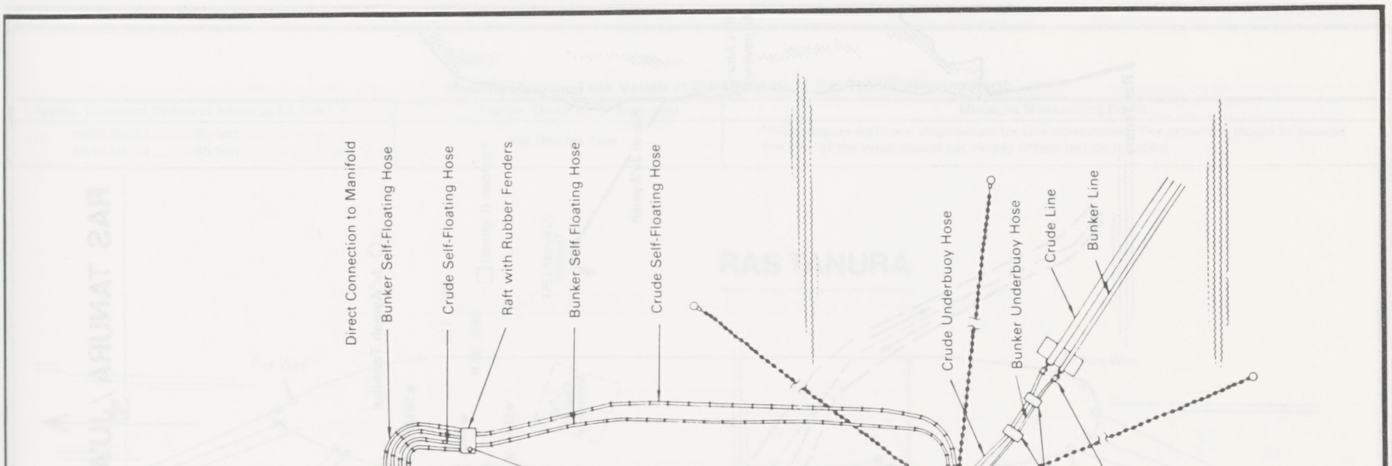

Self-Floating Hoses
Hose Boat
Buoys
80 mm. Polypropylene Pick-up Rope
Messenger Rope
Mooring Boat
Tanker
Buoy
S.B.M.
Tug Boat
Self-Floating Hoses
1–20 in.
1–10 in.
No. 3 Berth
1–24 in.
1–10 in.
No. 4 Berth
55 m. × 80 mm. Pick-up Rope
Messenger Rope
Tugboat
Pick-up Rope 55 m.
Green Buoy
Sister Plate
Red Buoy
49 m. × 120 mm. Nylon Rope With Floats
Chain
97 mm. Nylon Bollard Rope
This Distance about 12 ft.
120 mm. Nylon Rope
Sister Plate
Pick-up Rope
Marker Buoy
Messenger Rope
Bollard Rope
2¾ in. Common Link
24 1/16 in.
11 13/16 in.
18 9/16 in.
11 in.
3 5/16 in.
Sister Plate
To S.B.M.
Enlarged Link
3 in.
Slender Link
2¾ in.
11¼ in.
Anchor Shackle with Bollard Rope
To Pick-up Rope
3¼ in.

RAS AL KHAFJI

MOORING ARRANGEMENT

BERTHS 3 & 4

DIMENSIONS OF SISTER PLATE ASSEMBLY

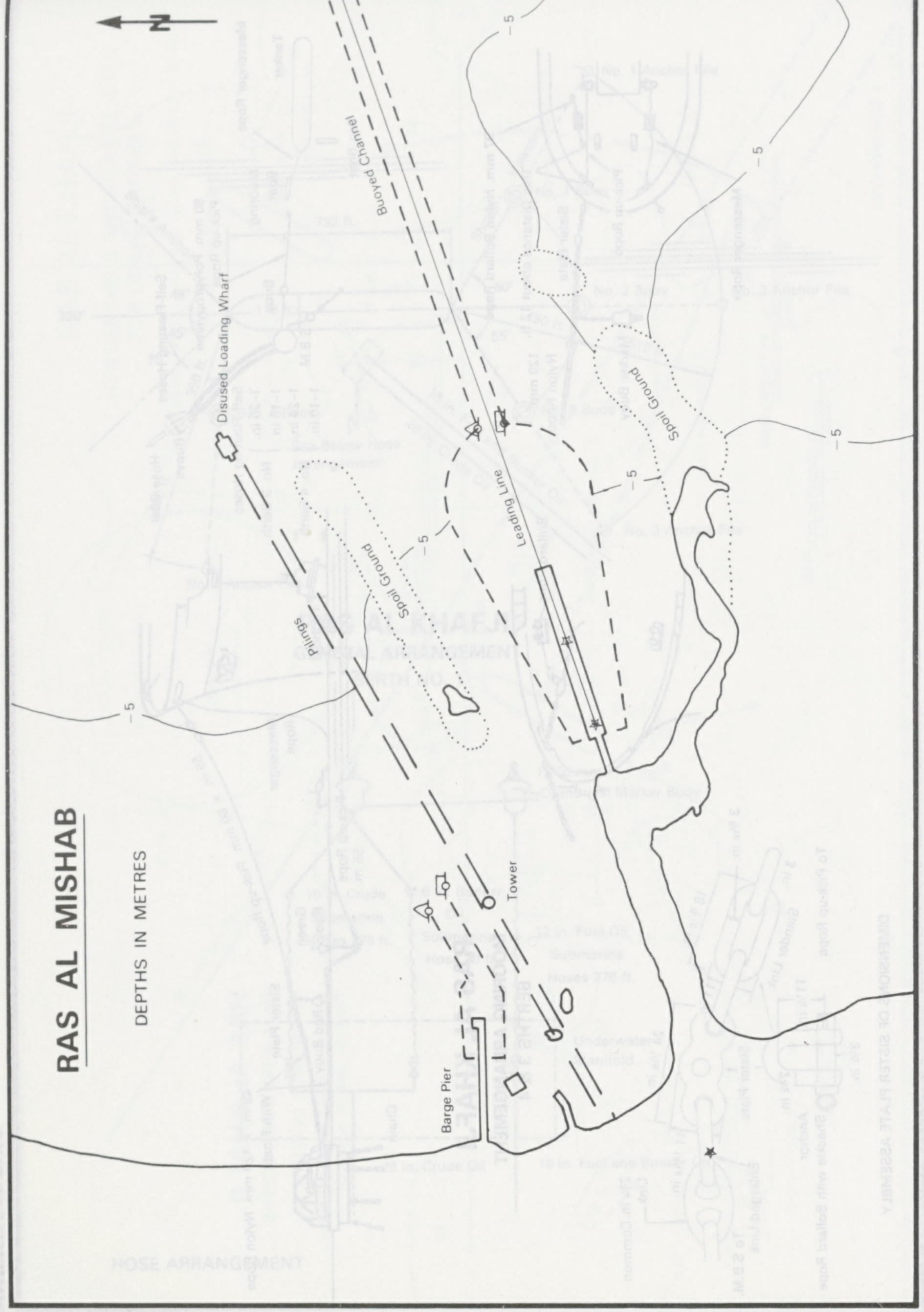

Direct Connection to Manifold
Bunker Self-Floating Hose
Crude Self-Floating Hose
Raft with Rubber Fenders
Bunker Self Floating Hose
Crude Self-Floating Hose
Crude Underbuoy Hose
Bunker Underbuoy Hose
Crude Line
Bunker Line
Buoyancy Tanks
Under Water Valves
Ocean Tanker
Tag Buoy
Double Nylon Rope with Floaters
Anchor Chain
Mooring Buoy
Anchor Pile

RAS AL KHAFJI

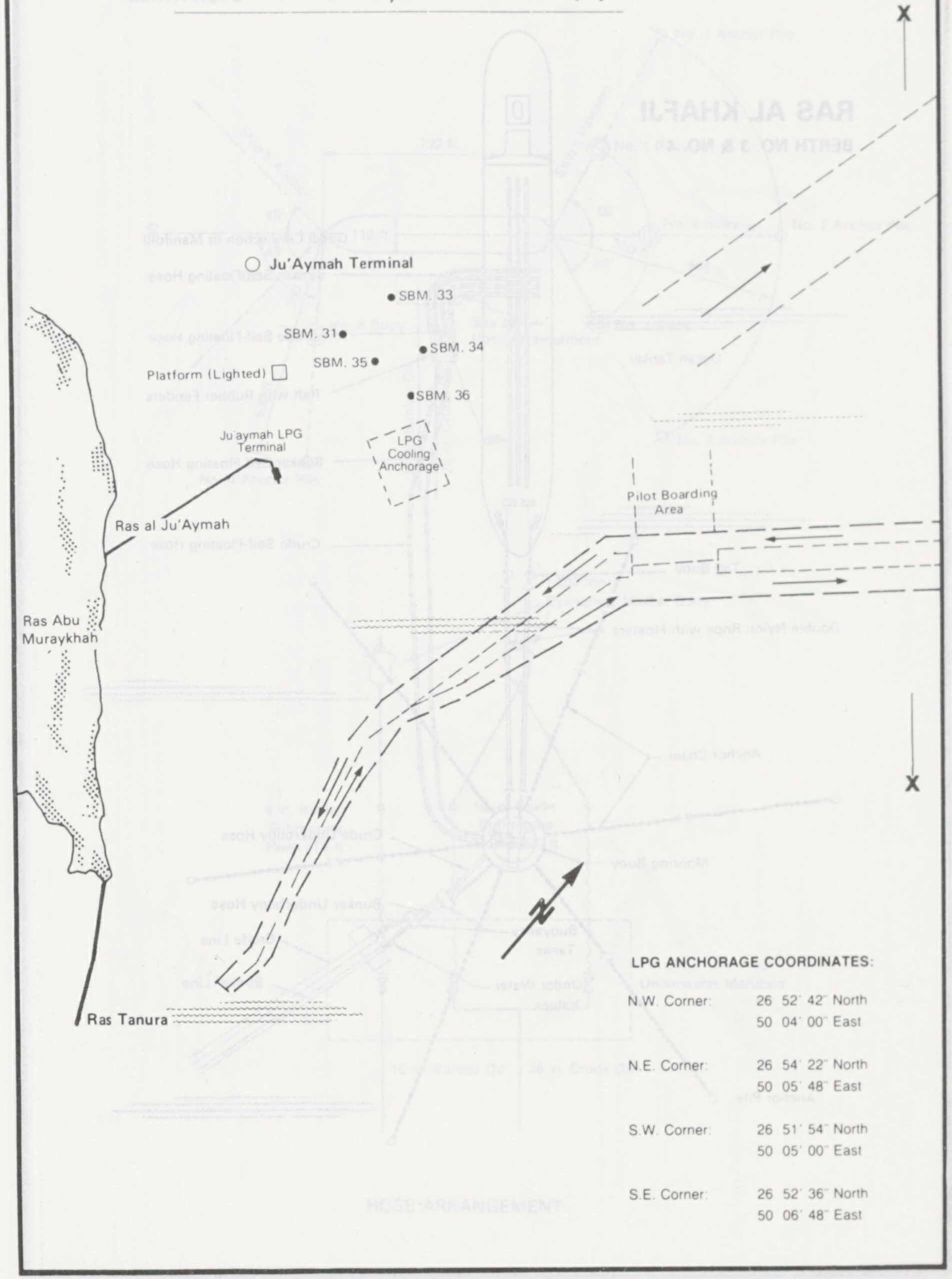
BERTH NO. 3 & NO. 4

RAS AL MISHAB

DEPTHS IN METRES

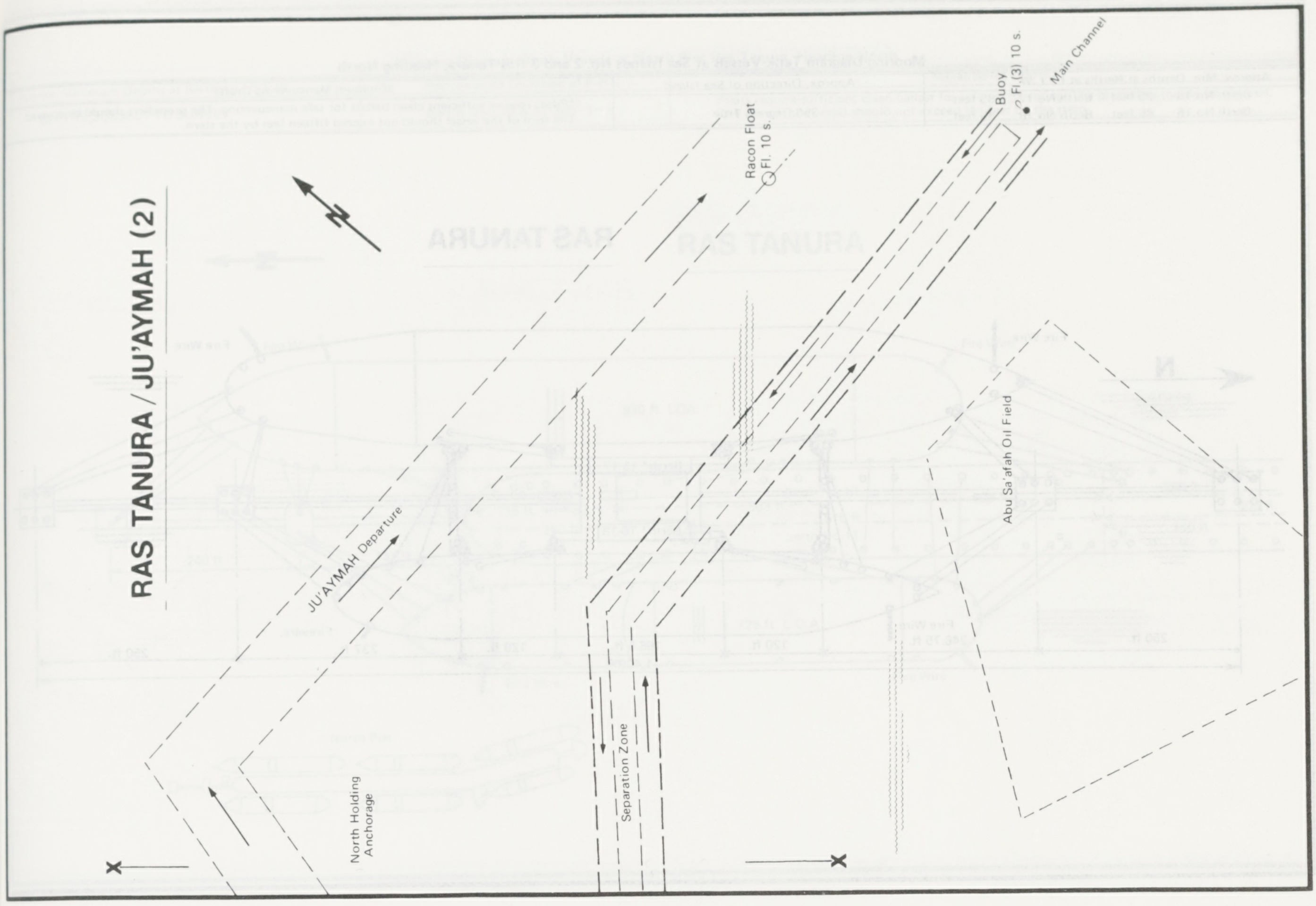

N
Buoyed Channel
Disused Loading Wharf
Leading Line
Spoil Ground
Spoil Ground
Pilings
Tower
Barge Pier
–5
–5
–5
–5
–5
–5

RAS TANURA / JU'AYMAH (1)


X
Ju'Aymah Terminal
SBM. 33
SBM. 31
SBM. 35
SBM. 34
SBM. 36
Platform (Lighted)
Ju'aymah LPG Terminal
LPG Cooling Anchorage
Pilot Boarding Area
Ras al Ju'Aymah
Ras Abu Muraykhah
Ras Tanura
X

LPG ANCHORAGE COORDINATES:

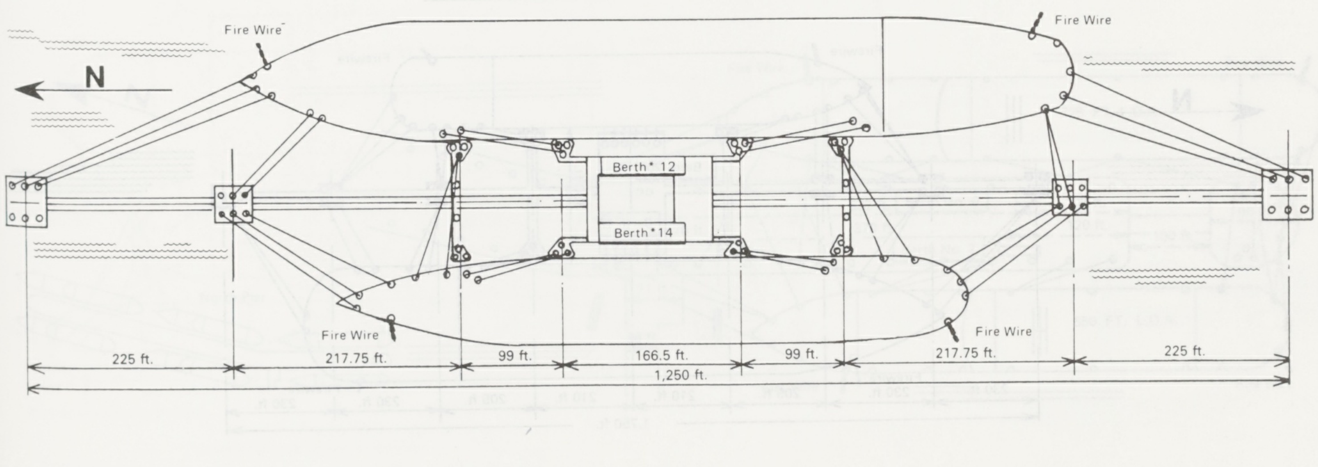
N.W. Corner:	26 52' 42" North 50 04' 00" East
N.E. Corner:	26 54' 22" North 50 05' 48" East
S.W. Corner:	26 51' 54" North 50 05' 00" East
S.E. Corner:	26 52' 36" North 50 06' 48" East


RAS TANURA / JU'AYMAH (2)
N
Racon Float
Fl. 10 s.
Buoy
Fl (3) 10 s.
Main Channel
Abu Sa'afah Oil Field
JU'AYMAH Departure
North Holding
Anchorage
Separation Zone

Mooring-Diagram Tank-Vessels at Sea Island No. 1 Ras Tanura, Heading North.

Approx. Minimum Depths at Berths at I.S.L.W.	Approx. Direction of Sea Island	Minimum Maneuvering Drafts
Berth No.12 .... 85 feet Berth No.14 .... 85 feet	356 Degrees True	*Pilots require sufficient clean ballast for safe maneuvering. The propellers should be covered. The trim of the vessel should not exceed fifteen feet by the stern.

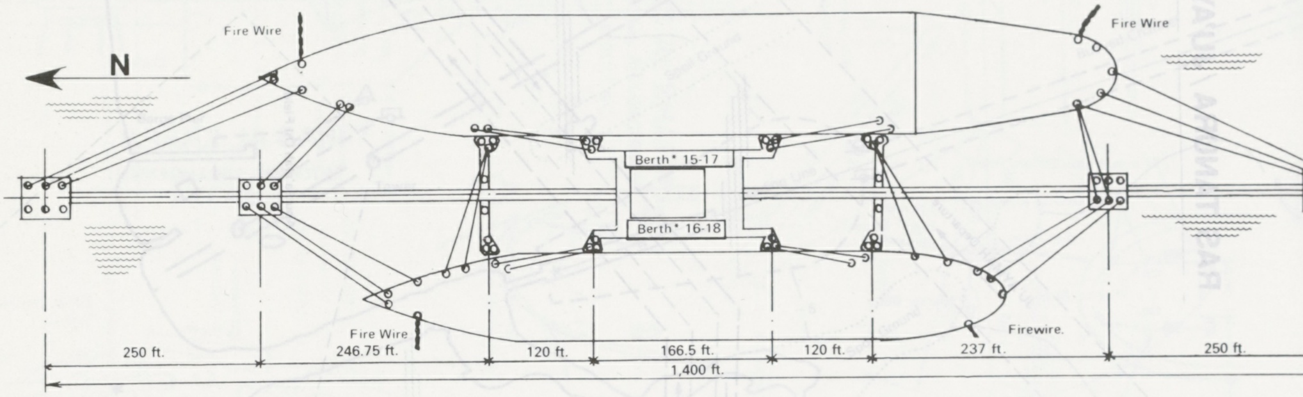
RAS TANURA


N
Fire Wire
Fire Wire
Berth* 12
Berth*14
Fire Wire
Fire Wire
225 ft.
217.75 ft.
99 ft.
166.5 ft.
99 ft.
217.75 ft.
225 ft.
1,250 ft.

Mooring-Diagram Tank-Vessels at Sea Islands No. 2 and 3 Ras Tanura, Heading North

Approx. Min. Depths at Berths at I.S.L.W.	Approx. Direction of Sea Island	Minimum Maneuvering Drafts
Berth No.15 .... 85 feet Berth No.17 .... 85 feet Berth No.16 .... 85 feet Berth No.18 .... 85 feet	356 Degrees True	*Pilots require sufficient clean ballast for safe maneuvering. The propellers should be cov The trim of the vessel should not exceed fifteen feet by the stern.

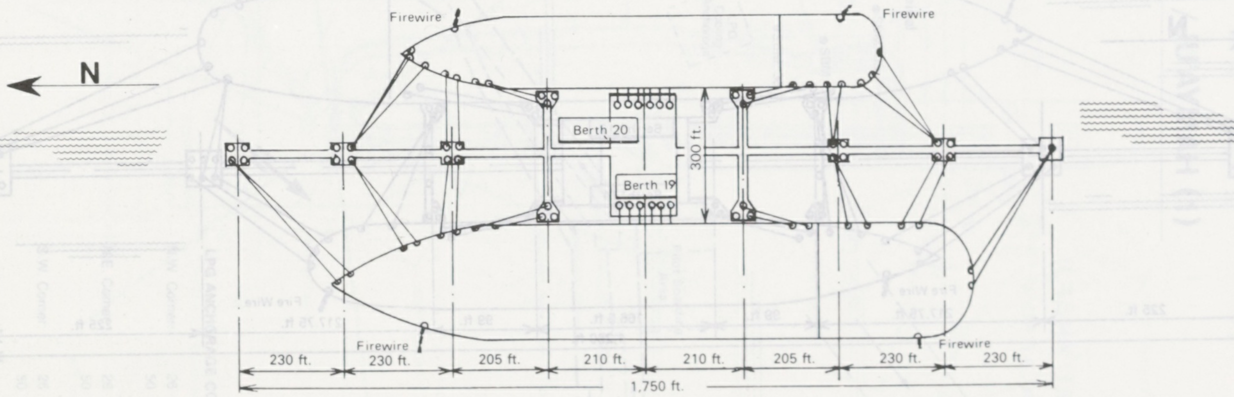
RAS TANURA


Fire Wire
N
Fire Wire
Berth* 15-17
Berth* 16-18
Fire Wire
Firewire.
250 ft.
246.75 ft.
120 ft.
166.5 ft.
120 ft.
237 ft.
250 ft.
1,400 ft.

Mooring-Diagram Tank-Vessels at Sea Island No. 4 Ras Tanura Heading North

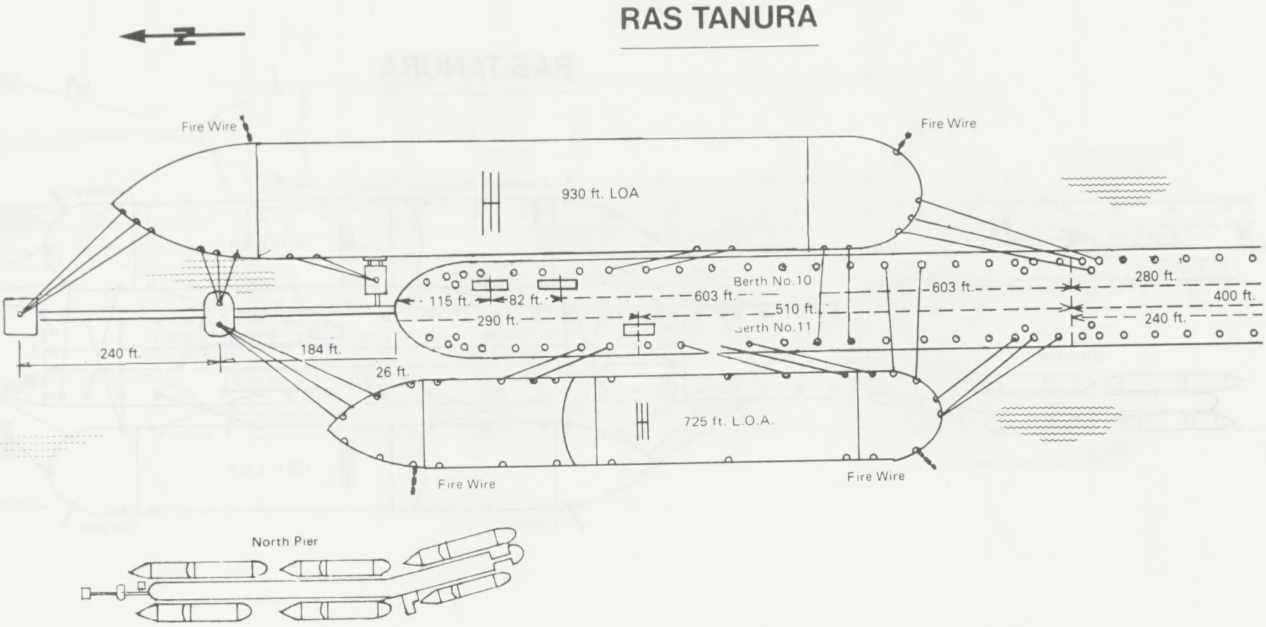
Approx. Min. Depths at Berths at I.S.L.W.	Approx. Direction of Sea Island	Minimum Maneuvering Drafts
Berth No.19 .... 85 feet Berth No.20 .... 85 feet	356 Degrees True	*Pilots require sufficient clean ballast for safe maneuvering. The propellers should not b The trim of the vessel should not exceed fifteen (15) feet by the stern.

RAS TANURA


Firewire
Firewire
N
Berth 20
300 ft.
Berth 19
Firewire
Firewire
230 ft.
230 ft.
205 ft.
210 ft.
210 ft.
205 ft.
230 ft.
230 ft.
1,750 ft.

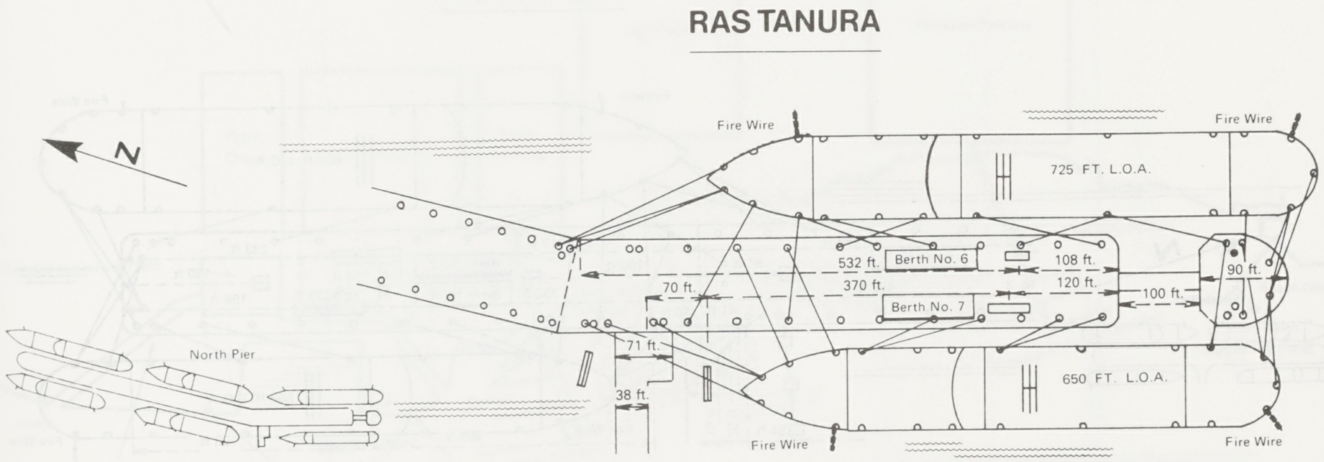
Mooring-Diagram Tank-Vessels at North Pier Ras Tanura, Heading North

Approx. Minimum Depths at Berths at I.S.L.W.	Approximate Direction of Pier	Maneuvering Drafts
DEPTHS SUBJECT TO SURVEY	Berths Nos. 10 & 11-360° True	Pilots require sufficient clean ballast for safe maneuvering. The propellers should be covered. The trim of the vessel should not exceed ten feet by the stern.


RAS TANURA
N
Fire Wire
Fire Wire
930 ft. LOA
Berth No.10
603 ft.
603 ft.
280 ft.
400 ft.
115 ft.
82 ft.
290 ft.
510 ft.
Berth No.11
240 ft.
240 ft.
184 ft.
26 ft.
725 ft. L.O.A.
Fire Wire
Fire Wire
North Pier

Mooring-Diagram Tank-Vessels at North Pier Ras Tanura, Heading North

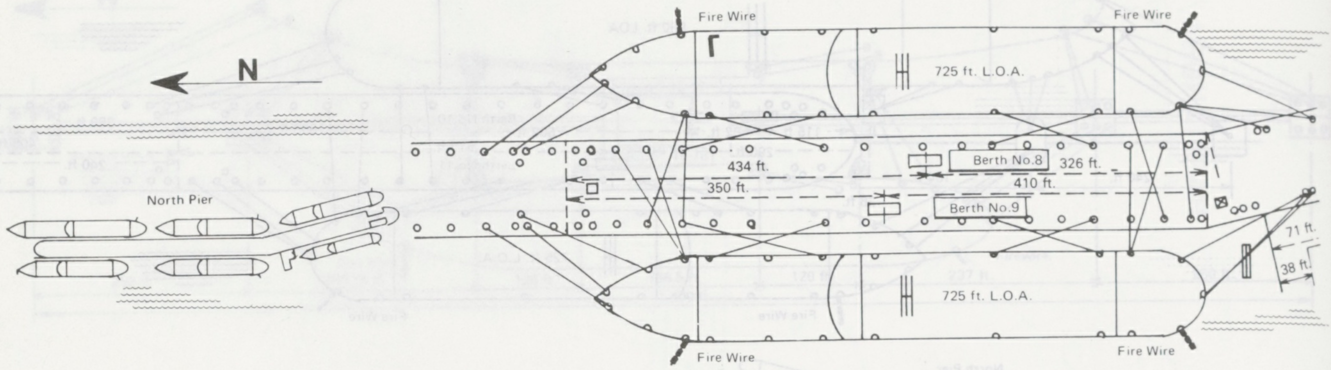
Approx. Minimum Depths at Berths at I.S.L.W.	Approximate Direction of Pier	Maneuvering Drafts
DEPTHS SUBJECT TO SURVEY	Berths Nos. 6 & 7 –346° True	Pilots require sufficient clean ballast for safe maneuvering. The propellers should be covered. The trim of the vessel should not exceed ten feet by the stern.


RAS TANURA
N
Fire Wire
Fire Wire
725 FT. L.O.A.
532 ft.
Berth No. 6
108 ft.
90 ft.
370 ft.
120 ft.
70 ft.
100 ft.
Berth No. 7
71 ft.
38 ft.
North Pier
650 FT. L.O.A.
Fire Wire
Fire Wire

Mooring-Diagram Tank-Vessels at North Pier Ras Tanura, Heading North

Approx. Minimum Depths at Berths at I.S.L.W.	Approximate Direction of Pier	Maneuvering Drafts
DEPTHS SUBJECT TO SURVEY	Berths Nos. 8, 9 – 360° True	Pilots require sufficient clean ballast for safe maneuvering. The propellers should be covered. The trim of the vessel should not exceed ten feet by the stern.

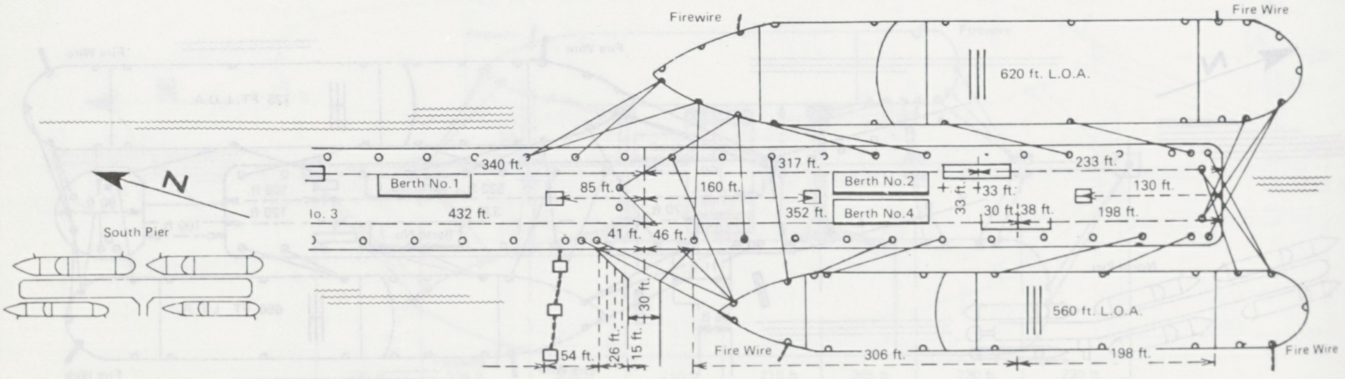
RAS TANURA


Fire Wire
Fire Wire
N
725 ft. L.O.A.
North Pier
434 ft.
350 ft.
Berth No.8
326 ft.
410 ft.
Berth No.9
71 ft.
38 ft.
725 ft. L.O.A.
Fire Wire
Fire Wire

Mooring-Diagram Tank-Vessels at South Pier Ras Tanura, Heading North.

Approx. Minimum Depths at Berths at I.S.L.W.	Approximate Direction of Pier	Maneuvering Drafts
DEPTHS SUBJECT TO SURVEY	346 Degrees True	Pilots require sufficient clean ballast for safe maneuvering. The propellers should be covered. The trim of the vessel should not exceed ten feet by the stern.

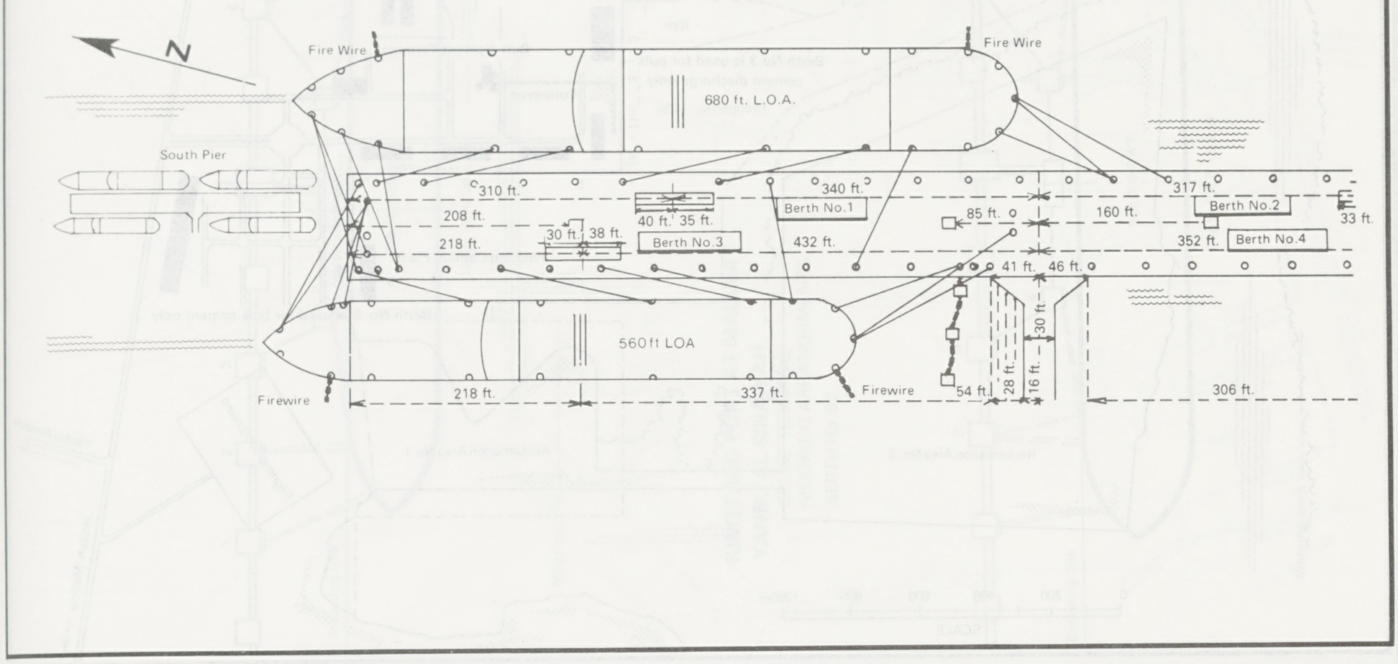
RAS TANURA


Firewire
Fire Wire
620 ft. L.O.A.
N
340 ft.
317 ft.
233 ft.
Berth No.1
85 ft.
160 ft.
Berth No.2
33 ft.
33 ft.
130 ft.
lo. 3
432 ft.
352 ft.
Berth No.4
30 ft.
38 ft.
198 ft.
South Pier
41 ft.
46 ft.
30 ft.
560 ft. L.O.A.
54 ft.
26 ft.
15 ft.
Fire Wire
306 ft.
198 ft.
Fire Wire

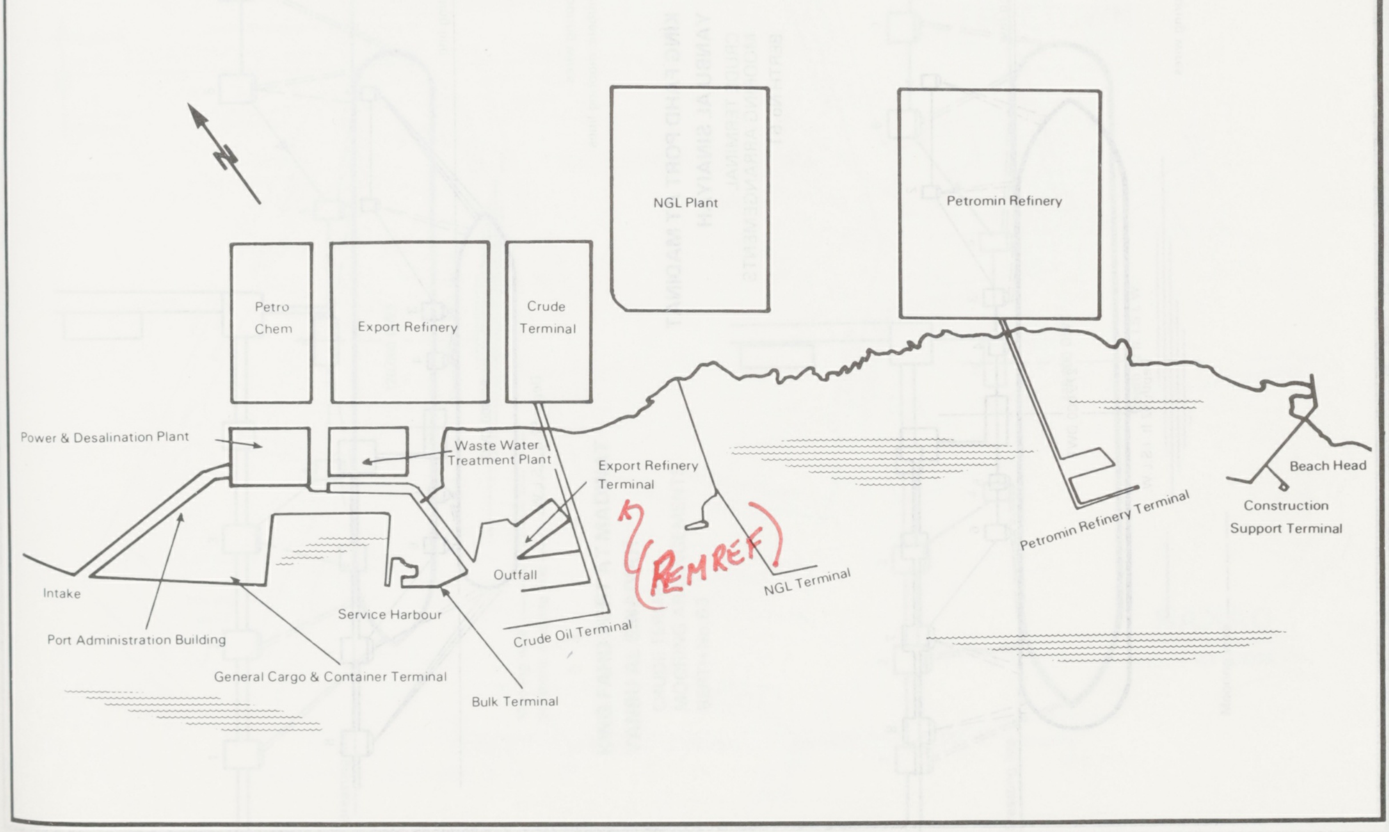
Mooring-Diagram Tank-Vessels at South Pier Ras Tanura, Heading North.

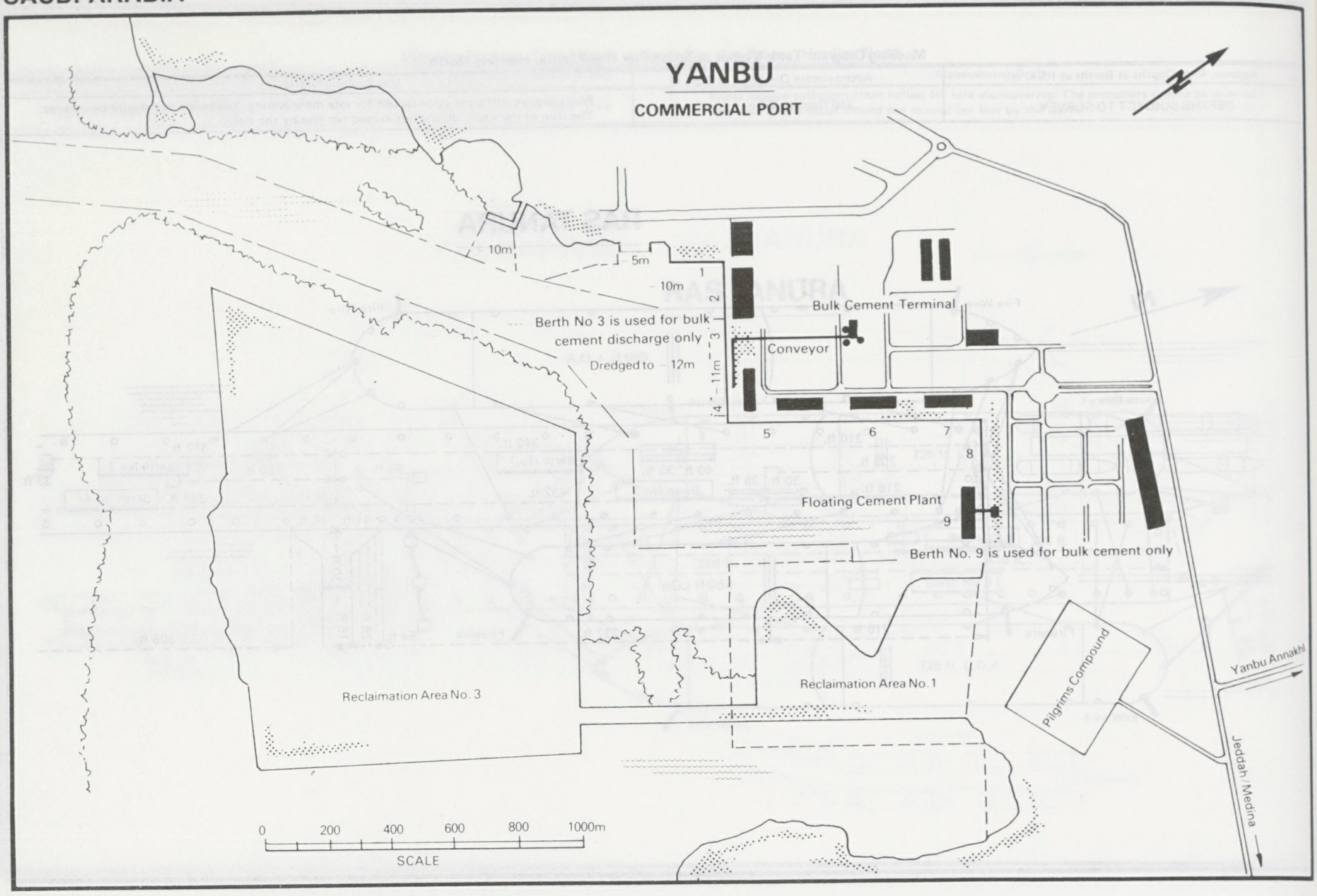
Approx. Min. Depths at Berths at I.S.L.W.	Approximate Direction of Pier	Maneuvering Drafts
DEPTHS SUBJECT TO SURVEY	346 Degrees True	Pilots require sufficient clean ballast for safe maneuvering. The propellers should be covered. The trim of the vessel should not exceed ten feet by the stern.

RAS TANURA


N
Fire Wire
Fire Wire
680 ft. L.O.A.
South Pier
310 ft.
340 ft.
317 ft.
208 ft.
40 ft.
35 ft.
Berth No.1
85 ft.
160 ft.
Berth No.2
33 ft.
218 ft.
30 ft.
38 ft.
Berth No.3
432 ft.
352 ft.
Berth No.4
41 ft.
46 ft.
560 ft LOA
30 ft.
28 ft.
16 ft.
Firewire
Firewire
218 ft.
337 ft.
54 ft.
306 ft.

KING FAHD PORT AT MADINAT YANBU AL SINAIYAH

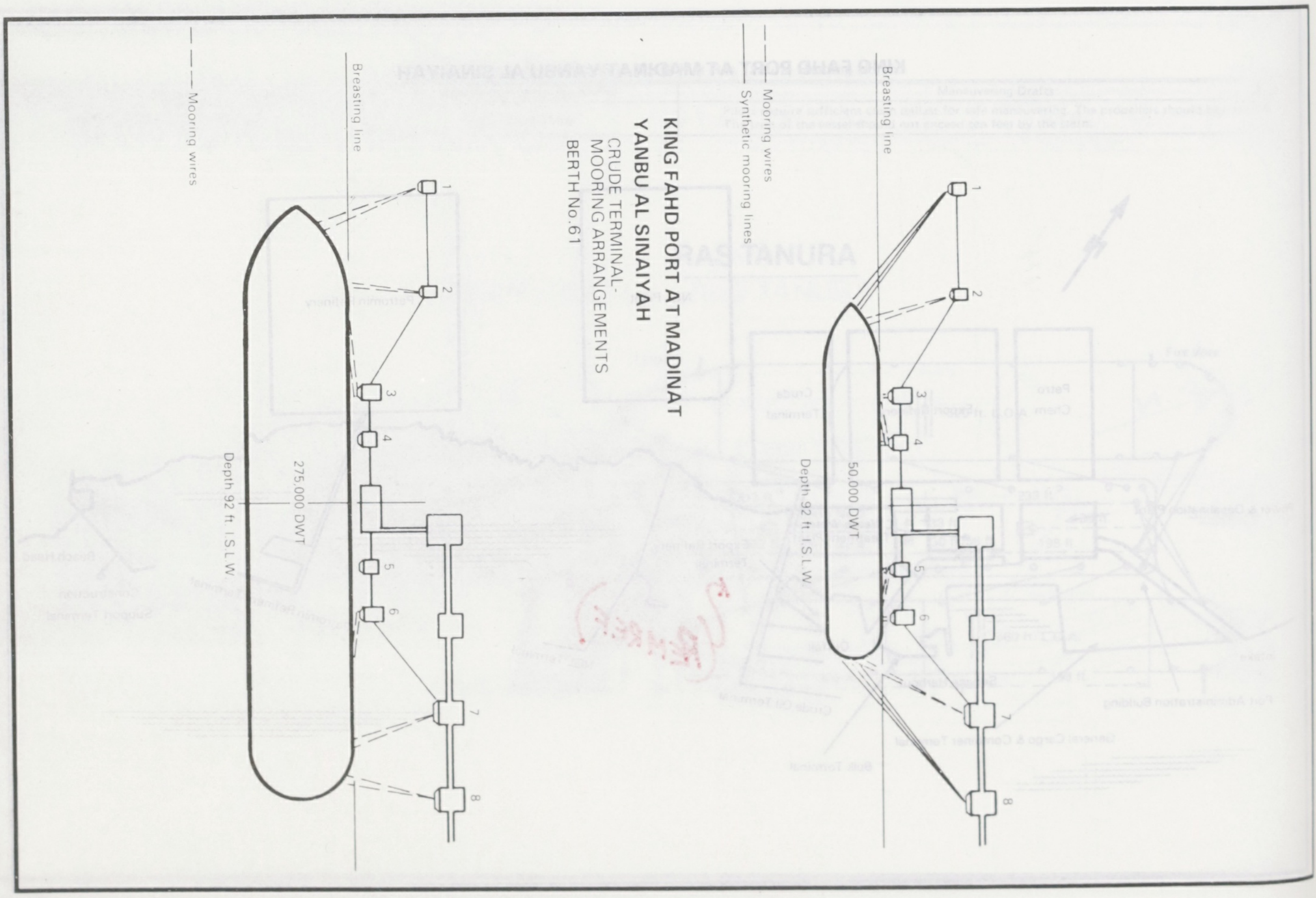

N
NGL Plant
Petromin Refinery
Petro Chem
Export Refinery
Crude Terminal
Power & Desalination Plant
Waste Water Treatment Plant
Export Refinery Terminal
(REMREF)
Outfall
Intake
Service Harbour
Crude Oil Terminal
NGL Terminal
Petromin Refinery Terminal
Beach Head
Construction Support Terminal
Port Administration Building
General Cargo & Container Terminal
Bulk Terminal



YANBU

COMMERCIAL PORT

– 10m
– 5m
– 10m
1
2
3
4
Berth No 3 is used for bulk cement discharge only
Dredged to – 12m
– 11m
Bulk Cement Terminal
Conveyor
5
6
7
8
9
Floating Cement Plant
Berth No. 9 is used for bulk cement only
Reclaimation Area No. 3
Reclaimation Area No. 1
Pilgrims Compound
Yanbu Annakhl
Jeddah/Medina
0
200
400
600
800
1000m
SCALE

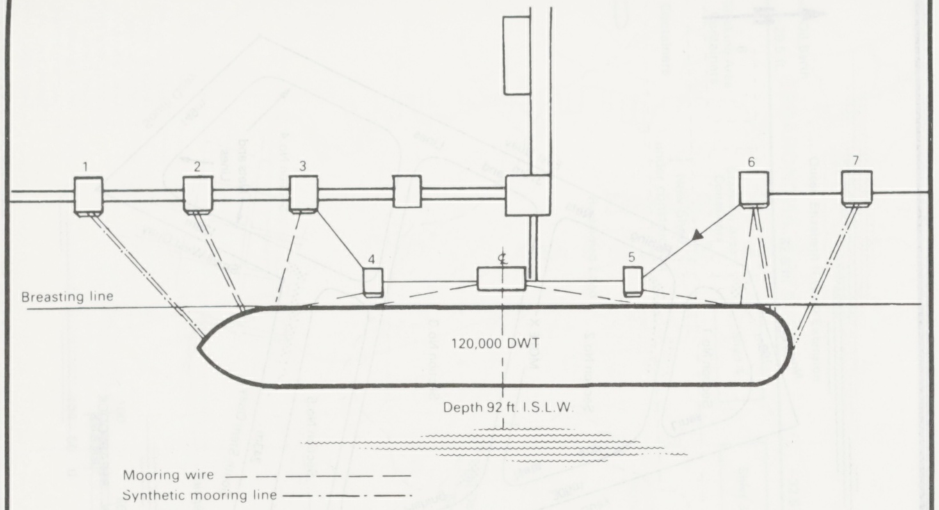


KING FAHD PORT AT MADINAT YANBU AL SINAIYAH

CRUDE TERMINAL-MOORING ARRANGEMENTS

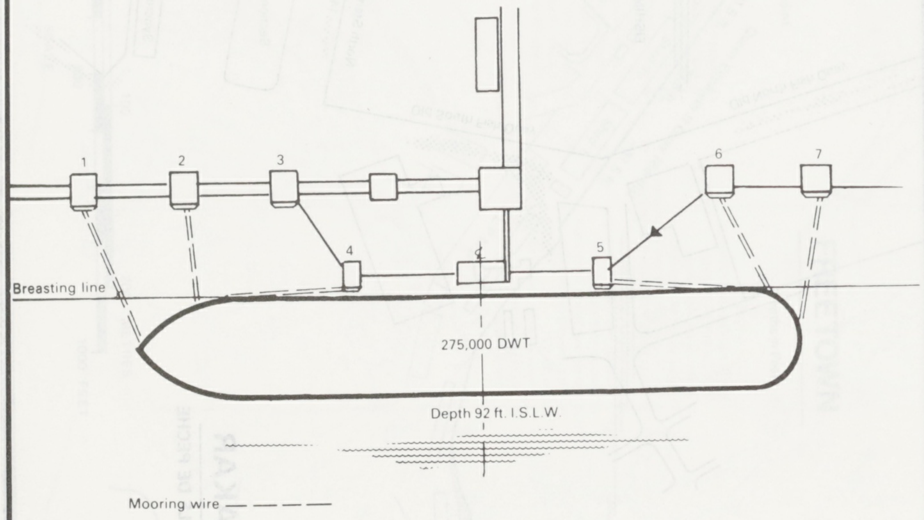
BERTH No. 61

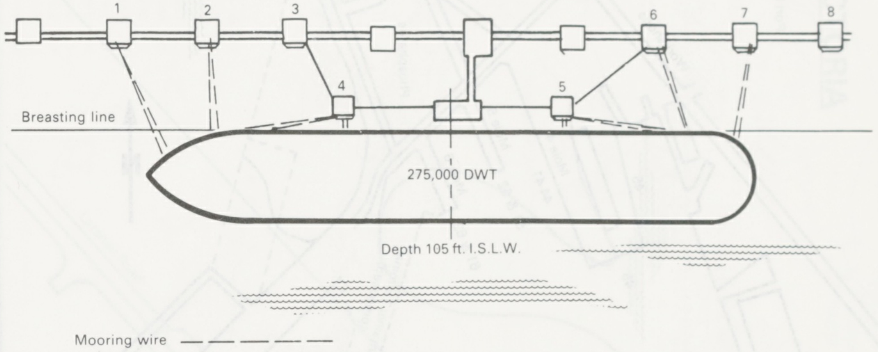
Mooring wires
Breasting line
Mooring wires
Synthetic mooring lines
Breasting line
275,000 DWT
Depth 92 ft I.S.L.W
50,000 DWT
Depth 92 ft I.S.L.W
1
2
3
4
5
6
7
8


1
2
3
6
7
4
5
Breasting line
120,000 DWT
Depth 92 ft. I.S.L.W.
Mooring wire
Synthetic mooring line

KING FAHD PORT AT MADINAT YANBU AL SINAIYAH

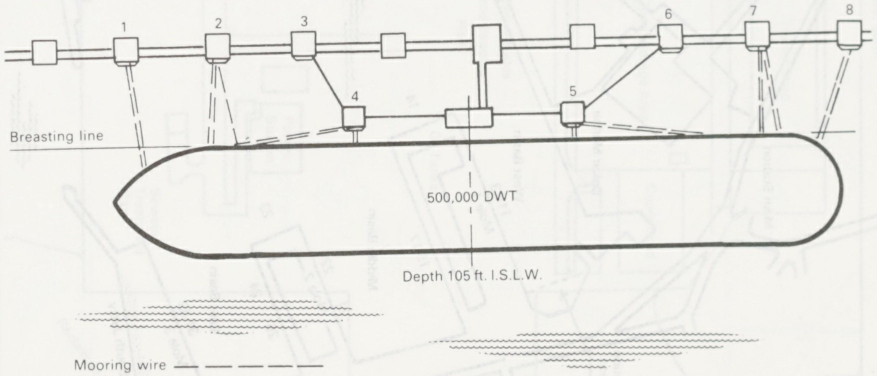
CRUDE TERMINAL-
MOORING ARRANGEMENTS
BERTH No.63

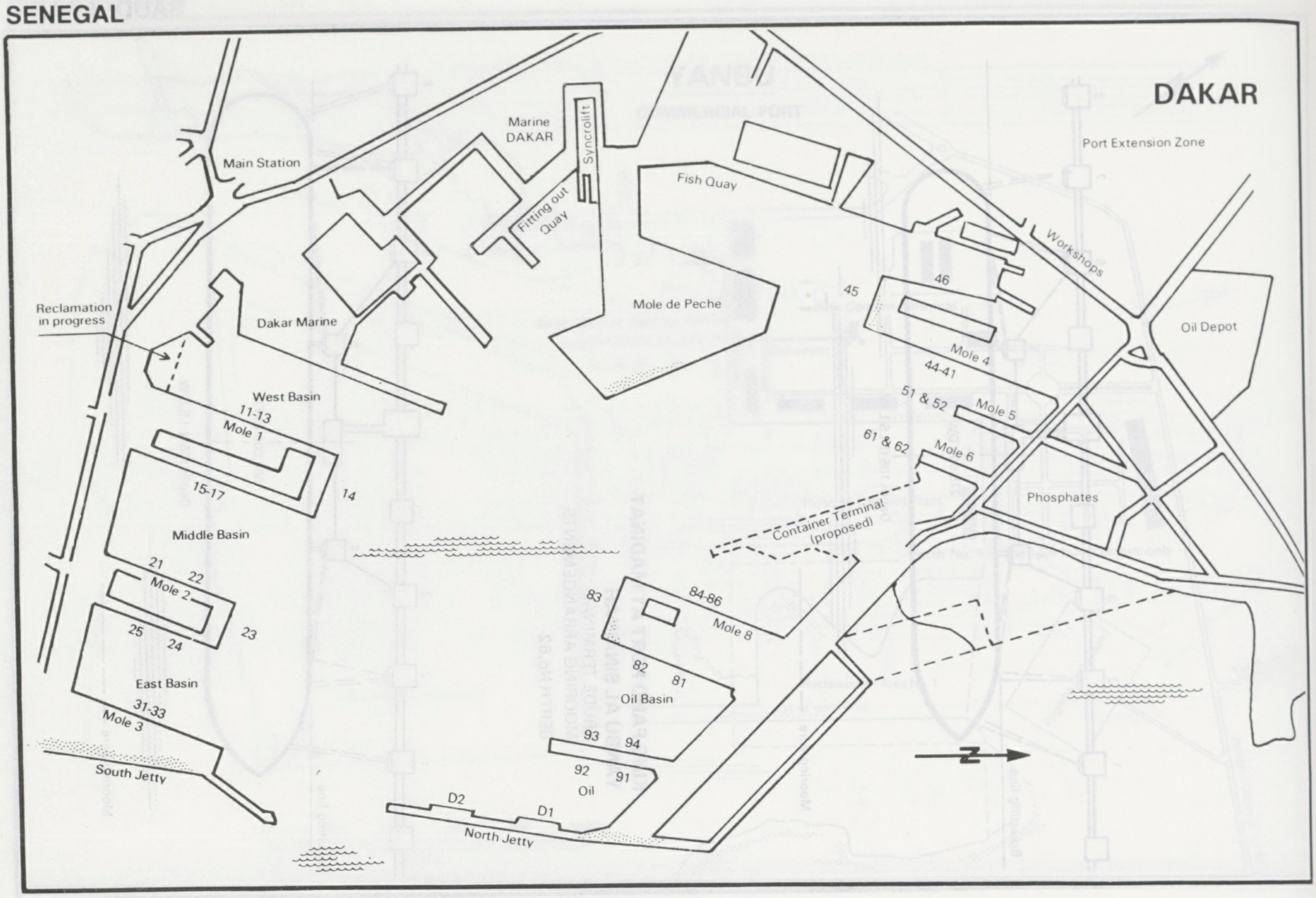

1
2
3
6
7
4
5
Breasting line
275,000 DWT
Depth 92 ft. I.S.L.W.
Mooring wire

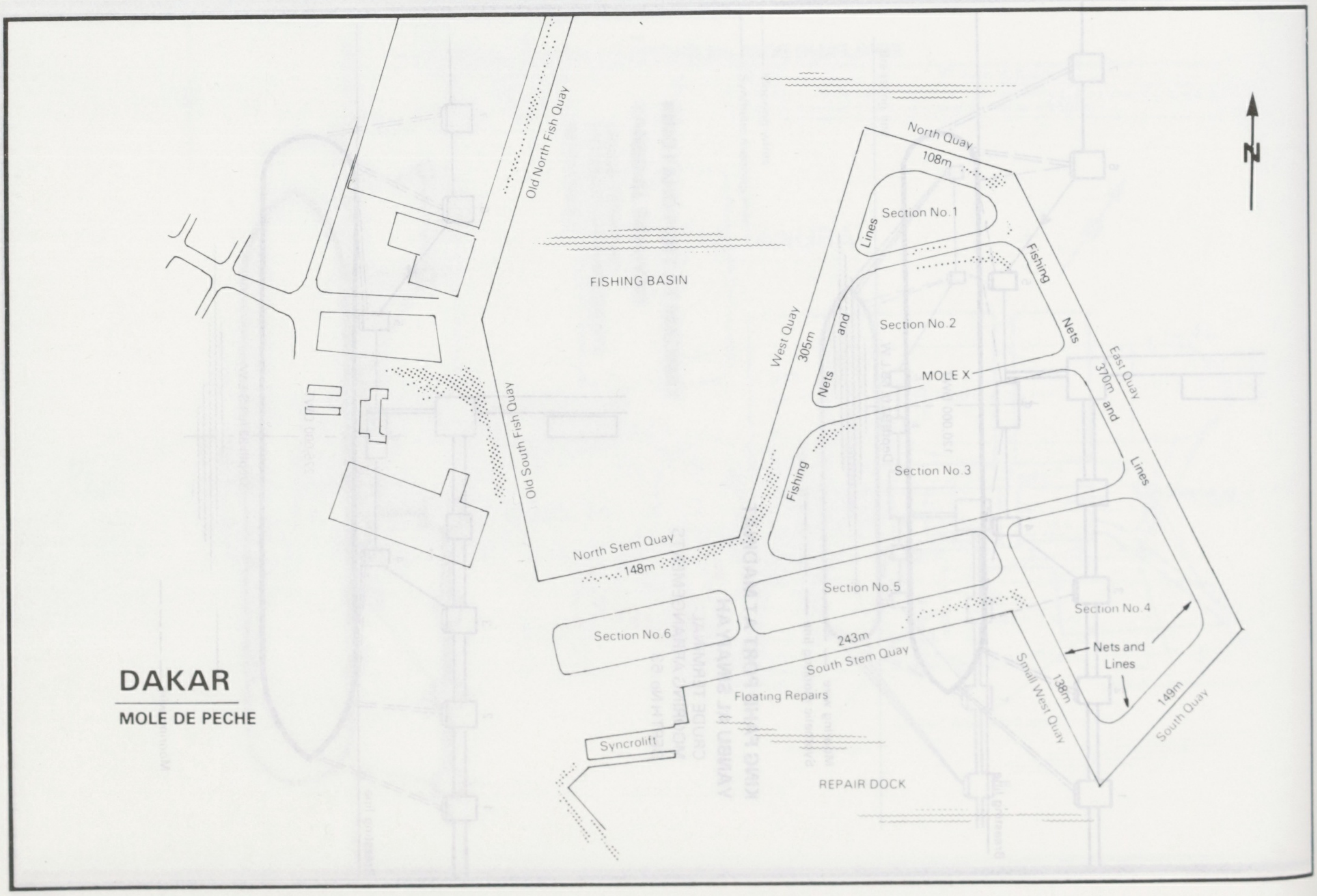

1
2
3
6
7
8
4
5
Breasting line
275,000 DWT
Depth 105 ft. I.S.L.W.
Mooring wire

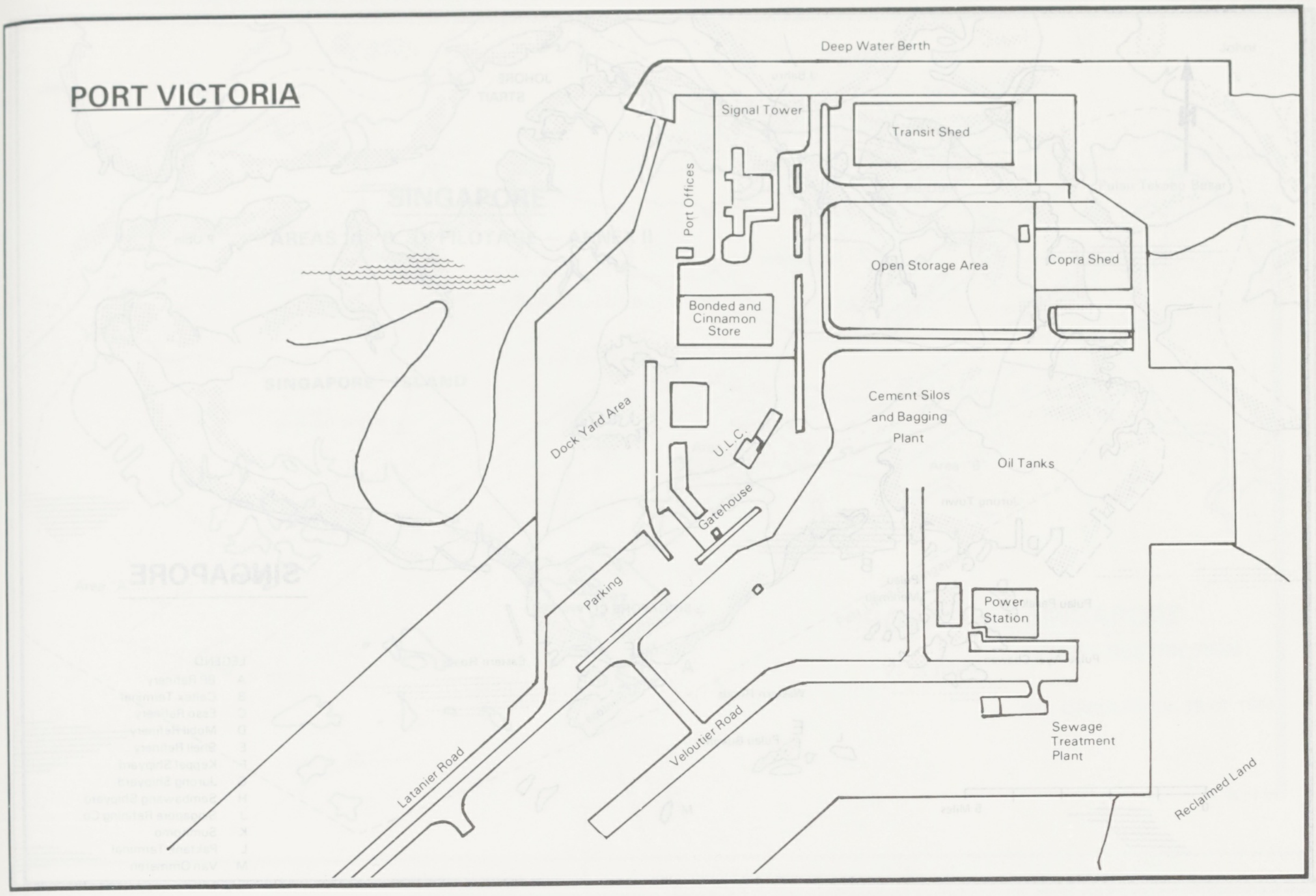
KING FAHD PORT AT MADINAT YANBU AL SINAIYAH

CRUDE TERMINAL-
MOORING ARRANGEMENTS
BERTH No.62


1
2
3
6
7
8
4
5
Breasting line
500,000 DWT
Depth 105 ft. I.S.L.W.
Mooring wire

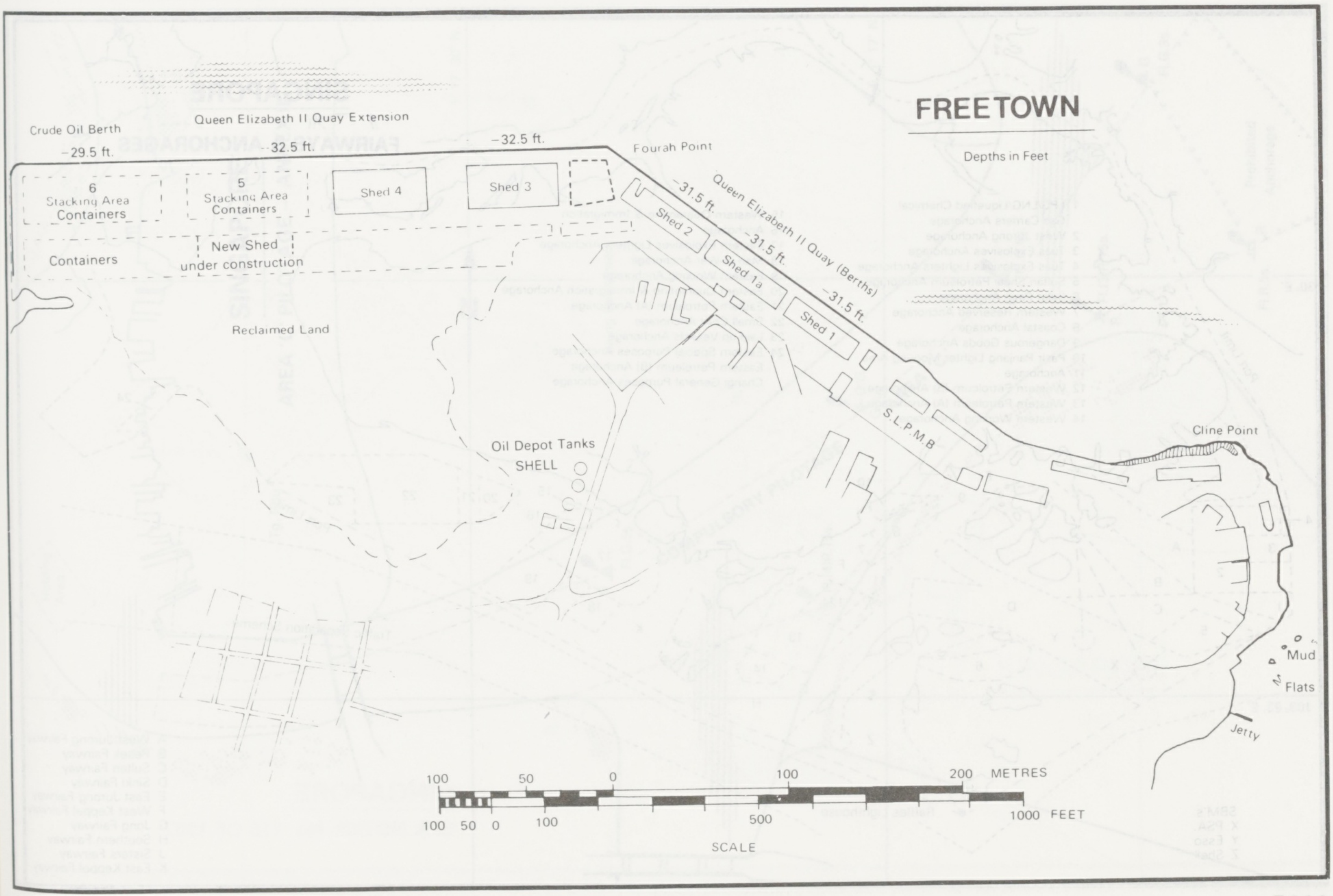

DAKAR
Main Station
Marine
DAKAR
Syncrolift
Fitting out Quay
Fish Quay
Port Extension Zone
Workshops
Oil Depot
Reclamation in progress
Dakar Marine
Mole de Peche
45
46
Mole 4
44-41
51 & 52
Mole 5
61 & 62
Mole 6
West Basin
11-13
Mole 1
15-17
14
Middle Basin
Phosphates
Container Terminal (proposed)
21
22
Mole 2
25
24
23
83
84-86
Mole 8
82
81
Oil Basin
East Basin
31-33
Mole 3
South Jetty
93
94
92
91
Oil
D2
D1
North Jetty
N


DAKAR
MOLE DE PECHE
North Quay
108m
Section No.1
Lines
Fishing
Old North Fish Quay
FISHING BASIN
Section No.2
Nets
and
West Quay
305m
East Quay
370m
and
MOLE X
Old South Fish Quay
Section No.3
Lines
Fishing
North Stem Quay
148m
Section No.5
Section No.4
Section No.6
243m
South Stem Quay
Nets and Lines
138m
Small West Quay
149m
South Quay
Floating Repairs
Syncrolift
REPAIR DOCK
N



PORT VICTORIA

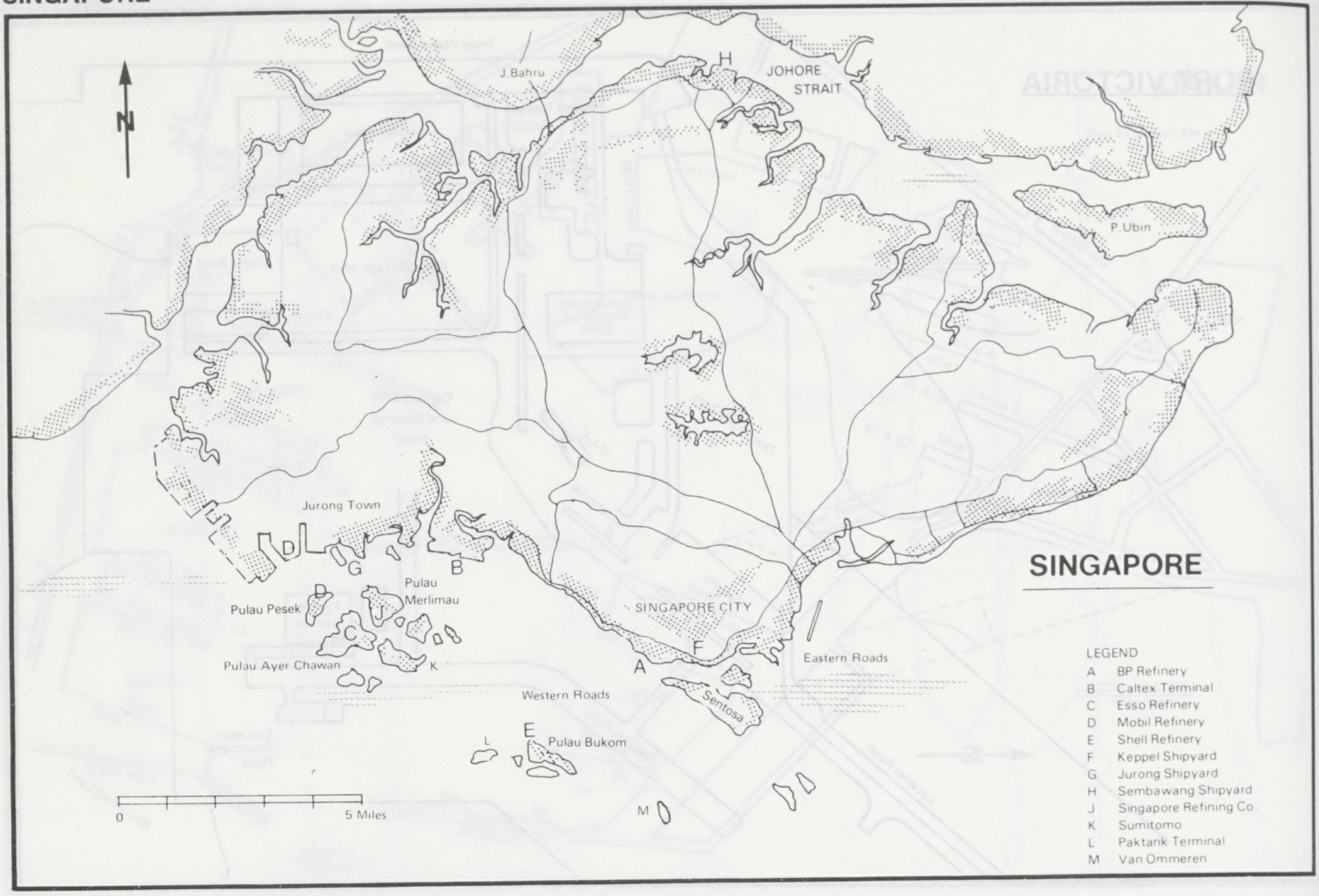
Deep Water Berth
Signal Tower
Transit Shed
Port Offices
Open Storage Area
Copra Shed
Bonded and Cinnamon Store
Cement Silos and Bagging Plant
Dock Yard Area
U.L.C.
Oil Tanks
Gatehouse
Parking
Power Station
Veloutier Road
Sewage Treatment Plant
Latanier Road
Reclaimed Land

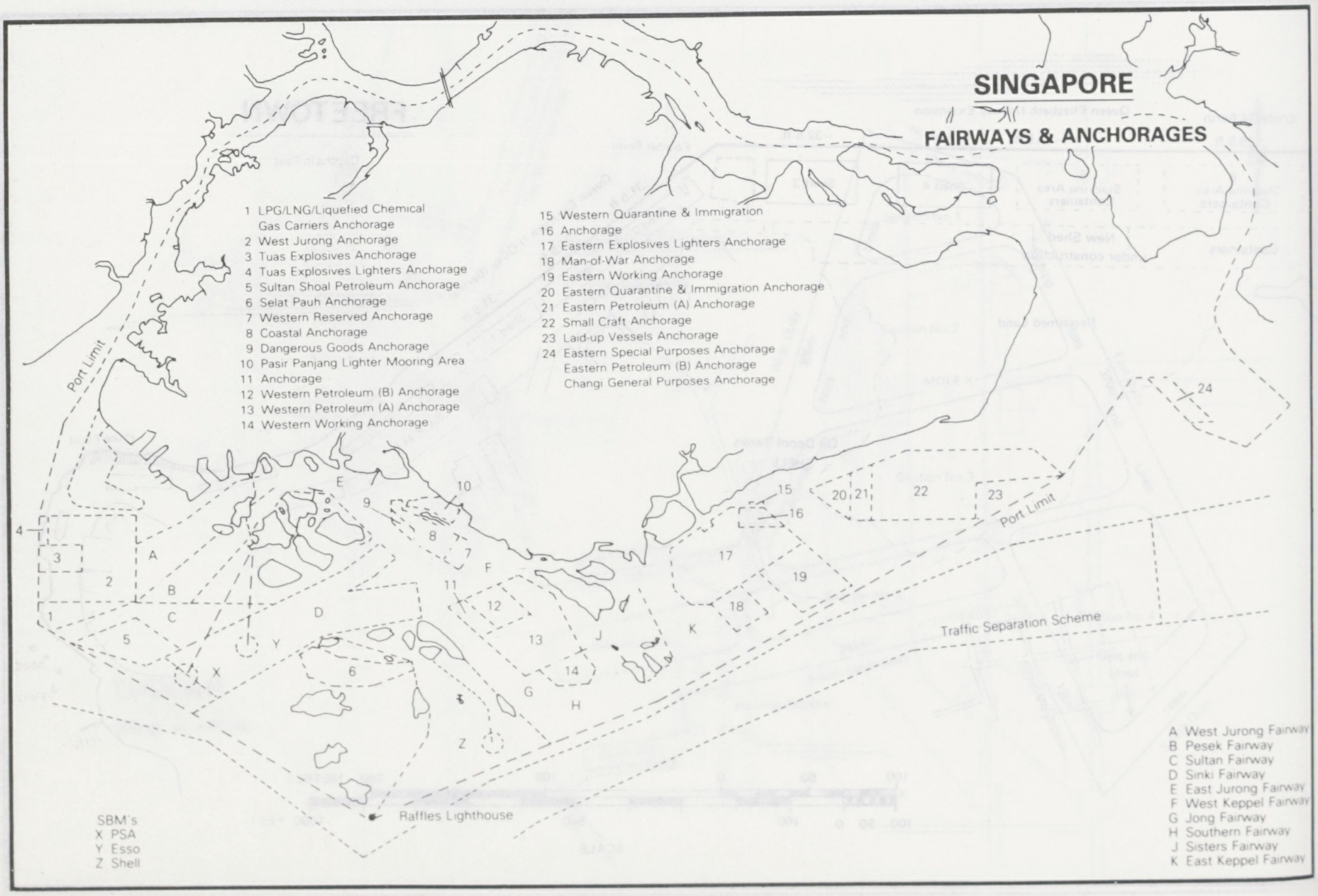


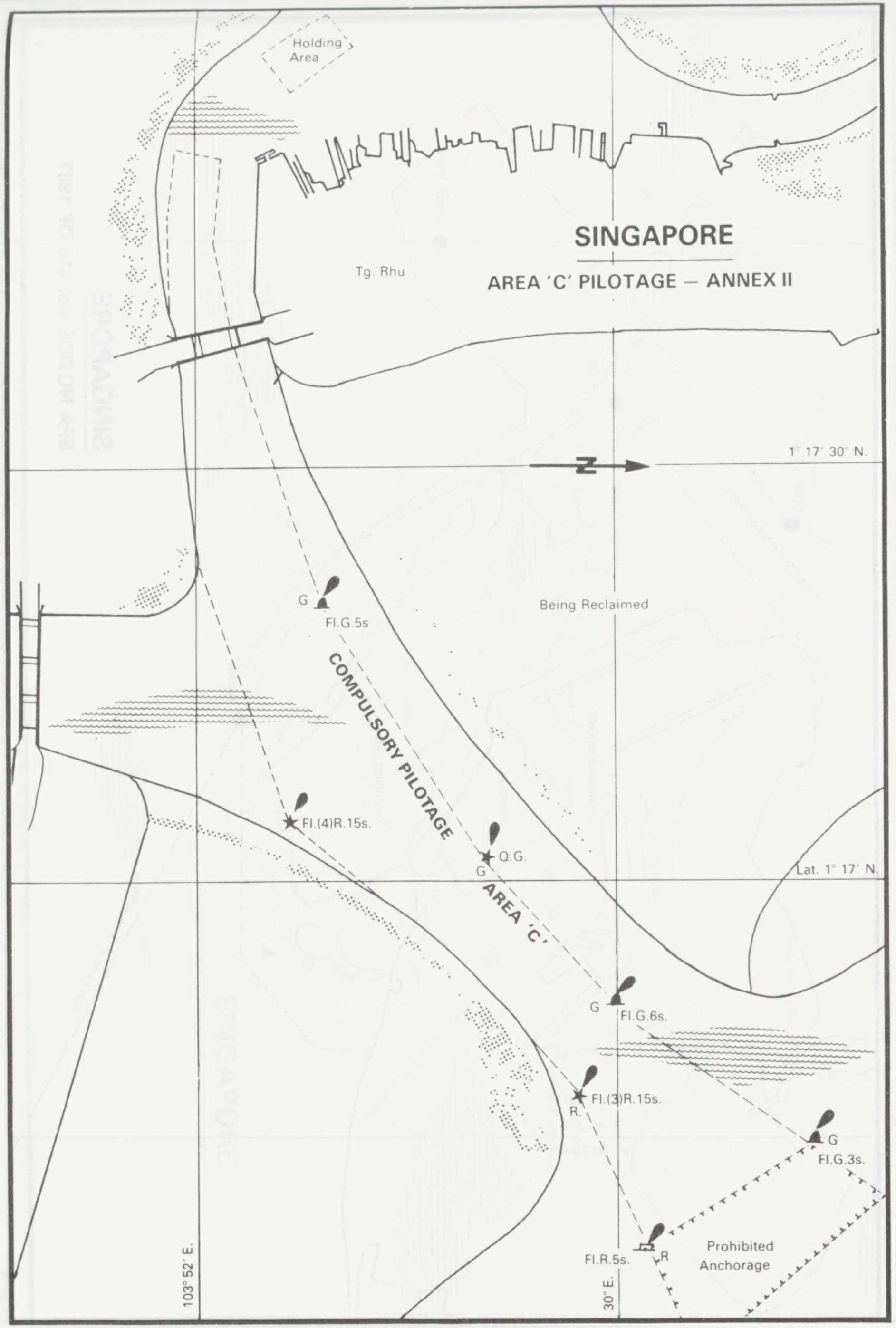
FREETOWN

Depths in Feet

Crude Oil Berth
−29.5 ft.
Queen Elizabeth II Quay Extension
−32.5 ft.
−32.5 ft.
Fourah Point
6 Stacking Area Containers
5 Stacking Area Containers
Shed 4
Shed 3
Containers
New Shed under construction
−31.5 ft.
Shed 2
−31.5 ft.
Shed 1a
Queen Elizabeth II Quay (Berths)
−31.5 ft.
Shed 1
Reclaimed Land
Oil Depot Tanks
SHELL
S.L.P.M.B
Cline Point
Mud
Flats
Jetty
100
50
0
100
200
METRES
100
50
0
100
500
1000
FEET
SCALE


N
J.Bahru
H
JOHORE
STRAIT
P.Ubin
Jurong Town
D
G
B
Pulau
Merlimau
Pulau Pesek
D
J
C
Pulau Ayer Chawan
K
SINGAPORE CITY
A
F
Eastern Roads
Sentosa
Western Roads
L
E
Pulau Bukom
M
0
5 Miles
SINGAPORE
LEGEND
A BP Refinery
B Caltex Terminal
C Esso Refinery
D Mobil Refinery
E Shell Refinery
F Keppel Shipyard
G Jurong Shipyard
H Sembawang Shipyard
J Singapore Refining Co.
K Sumitomo
L Paktank Terminal
M Van Ommeren

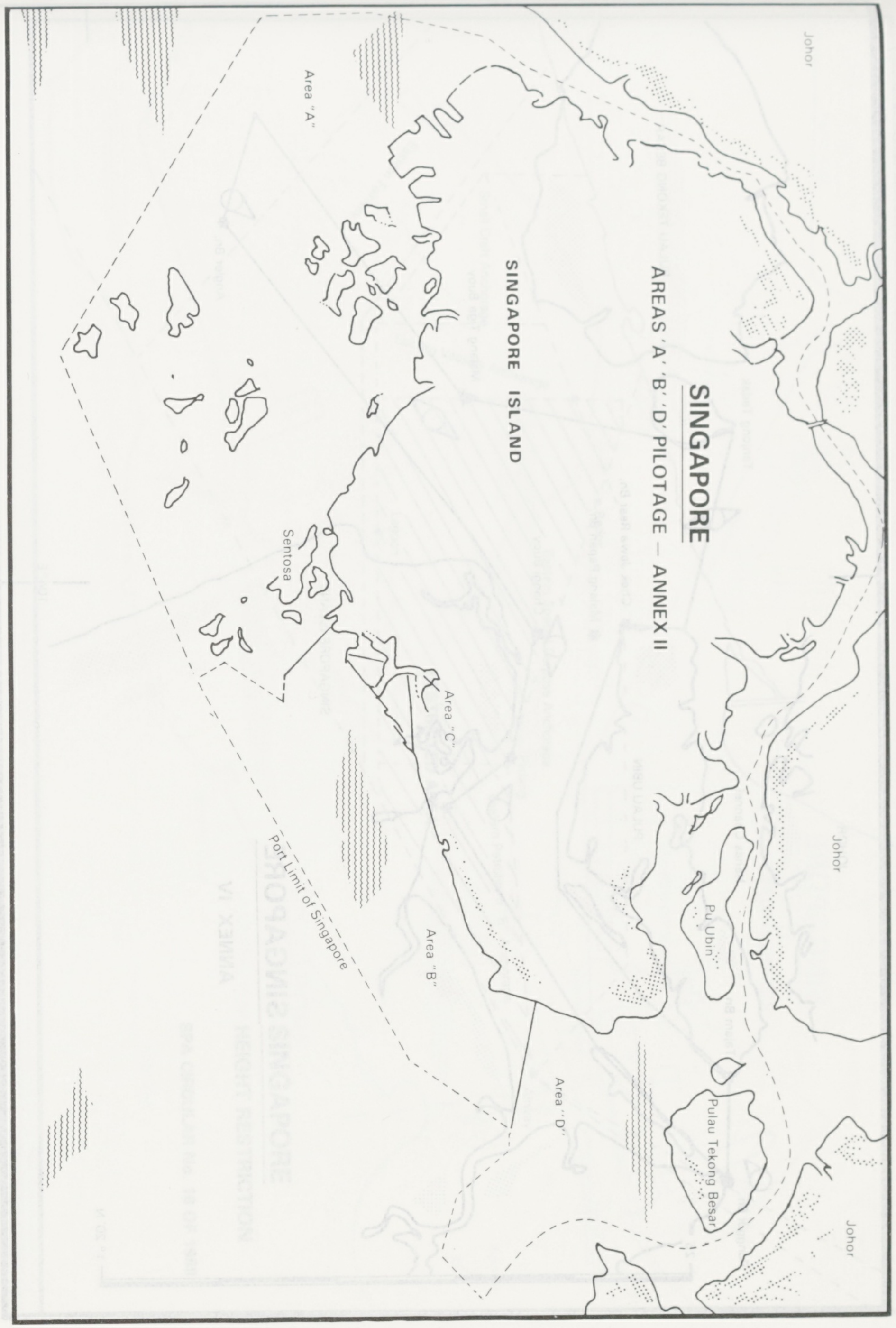

SINGAPORE
FAIRWAYS & ANCHORAGES
1 LPG/LNG/Liquefied Chemical Gas Carriers Anchorage
2 West Jurong Anchorage
3 Tuas Explosives Anchorage
4 Tuas Explosives Lighters Anchorage
5 Sultan Shoal Petroleum Anchorage
6 Selat Pauh Anchorage
7 Western Reserved Anchorage
8 Coastal Anchorage
9 Dangerous Goods Anchorage
10 Pasir Panjang Lighter Mooring Area
11 Anchorage
12 Western Petroleum (B) Anchorage
13 Western Petroleum (A) Anchorage
14 Western Working Anchorage
15 Western Quarantine & Immigration
16 Anchorage
17 Eastern Explosives Lighters Anchorage
18 Man-of-War Anchorage
19 Eastern Working Anchorage
20 Eastern Quarantine & Immigration Anchorage
21 Eastern Petroleum (A) Anchorage
22 Small Craft Anchorage
23 Laid-up Vessels Anchorage
24 Eastern Special Purposes Anchorage
Eastern Petroleum (B) Anchorage
Changi General Purposes Anchorage
Port Limit
Port Limit
Traffic Separation Scheme
Raffles Lighthouse
SBM's
X PSA
Y Esso
Z Shell
A West Jurong Fairway
B Pesek Fairway
C Sultan Fairway
D Sinki Fairway
E East Jurong Fairway
F West Keppel Fairway
G Jong Fairway
H Southern Fairway
J Sisters Fairway
K East Keppel Fairway



SINGAPORE

AREA 'C' PILOTAGE — ANNEX II

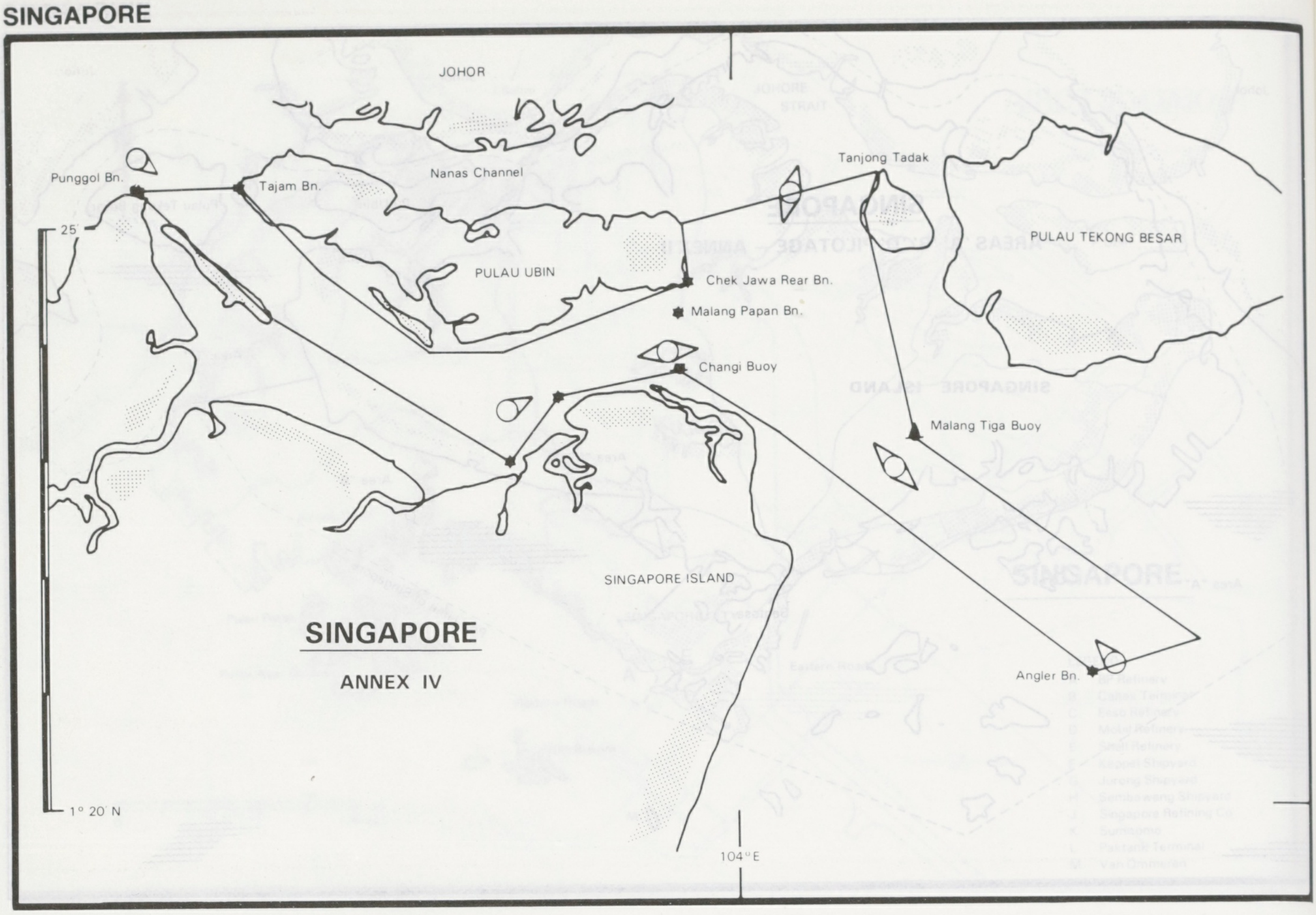
Holding Area
Tg. Rhu
N
1° 17' 30" N.
Being Reclaimed
G
Fl.G.5s
COMPULSORY PILOTAGE
Fl.(4)R.15s.
Q.G.
G
Lat. 1° 17' N.
AREA 'C'
G
Fl.G.6s.
Fl.(3)R.15s.
R.
G
Fl.G.3s.
Prohibited Anchorage
Fl.R.5s.
R
103° 52' E.
30" E.



SINGAPORE

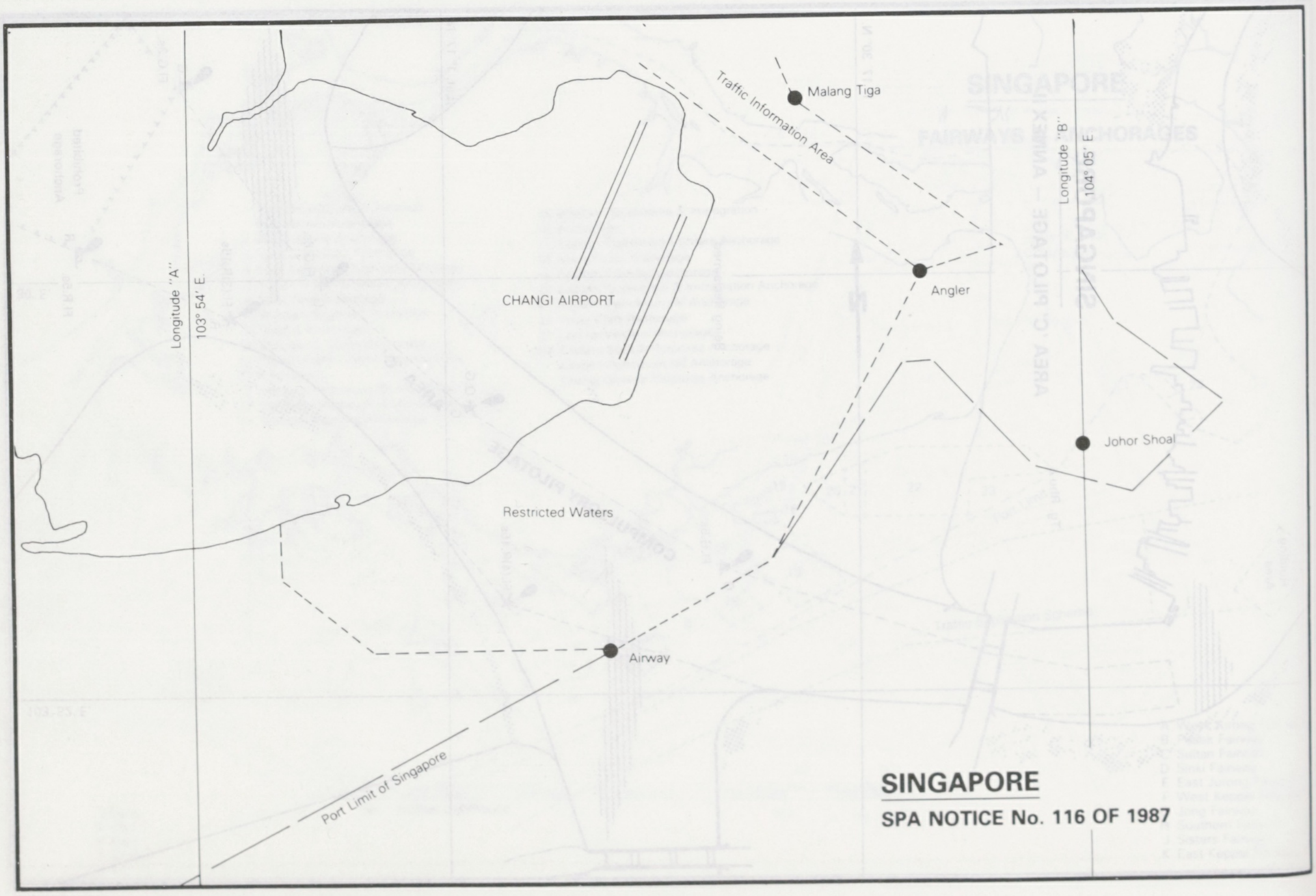
AREAS 'A' 'B' 'D' PILOTAGE — ANNEX II

Johor
Area "A"
SINGAPORE ISLAND
Sentosa
Area "C"
Port Limit of Singapore
Area "B"
Johor
Pu Ubin
Area "D"
Pulau Tekong Besar
Johor


JOHOR
Punggol Bn.
Tajam Bn.
Nanas Channel
Tanjong Tadak
PULAU TEKONG BESAR
25'
PULAU UBIN
Chek Jawa Rear Bn.
Malang Papan Bn.
Changi Buoy
Malang Tiga Buoy
SINGAPORE ISLAND
Angler Bn.
1° 20' N
104° E

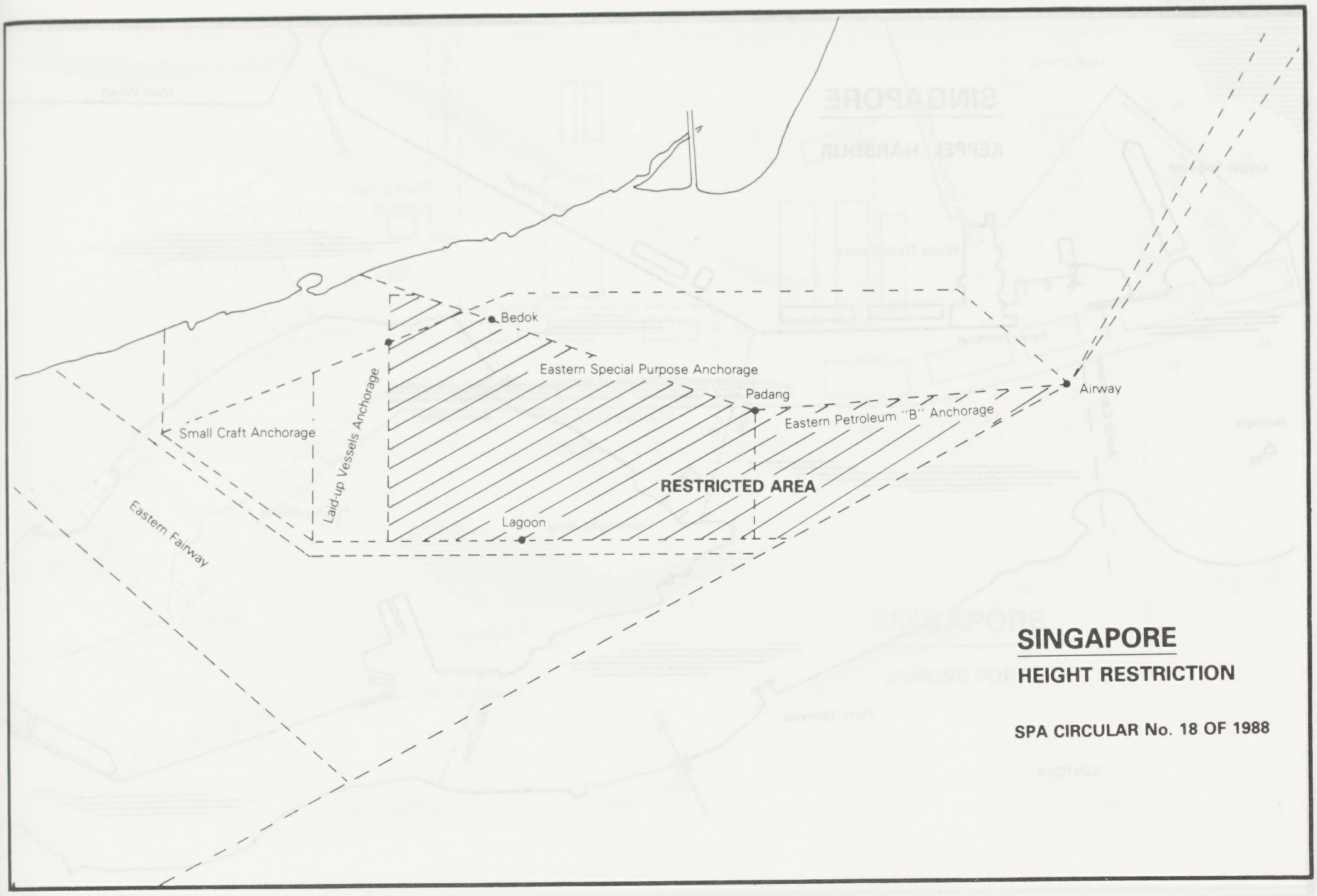
SINGAPORE

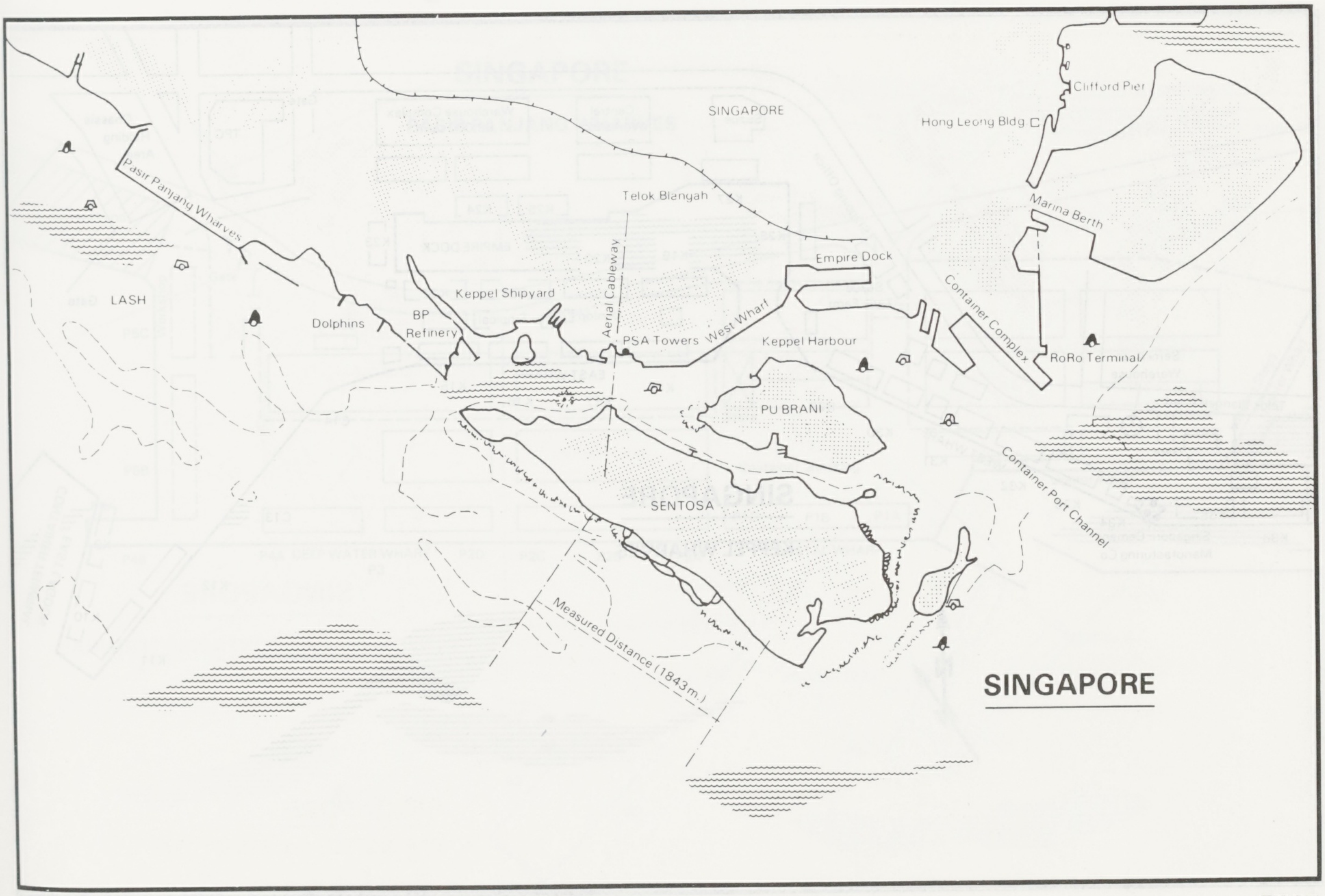
ANNEX IV

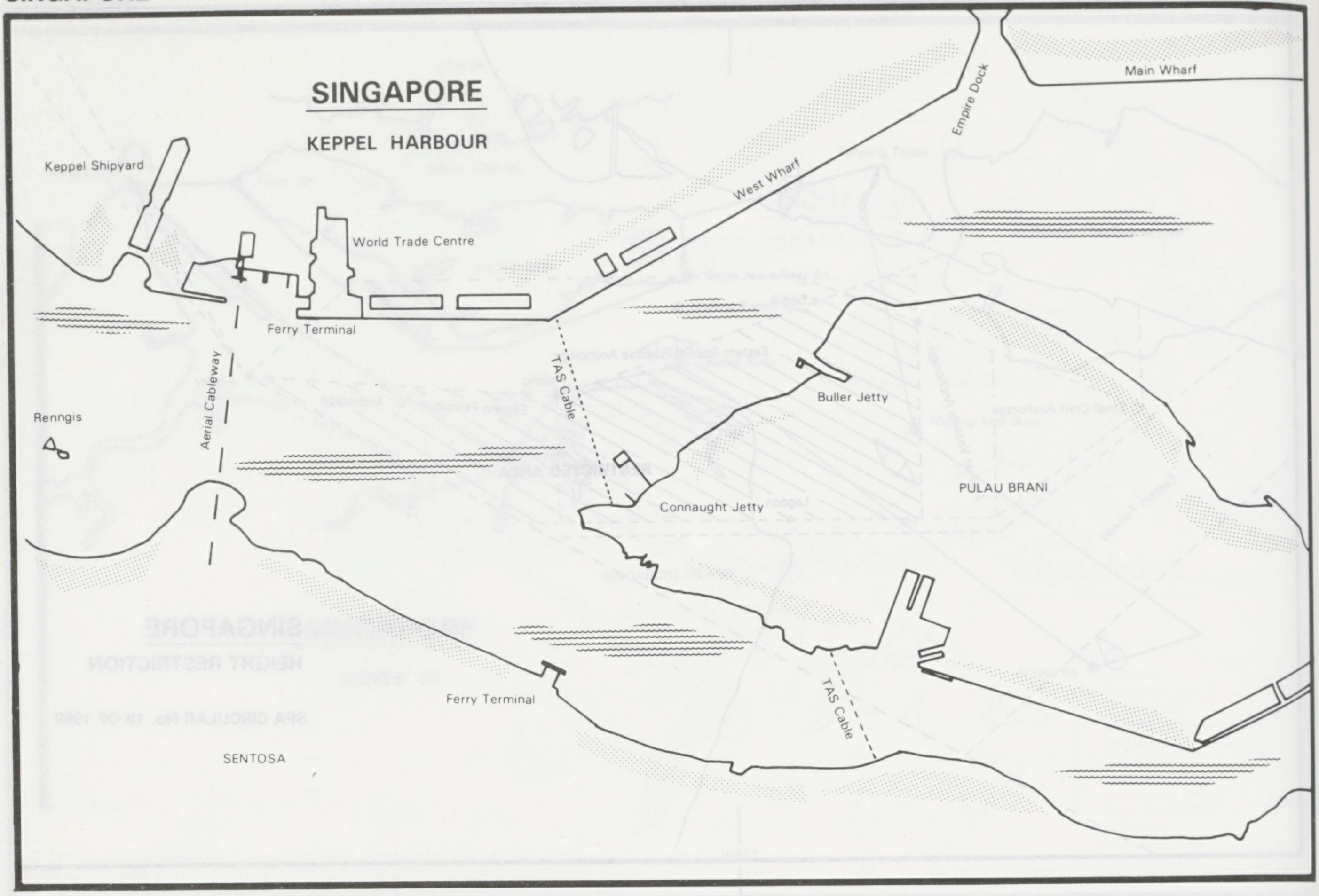

Malang Tiga
Traffic Information Area
Longitude "B"
104° 05' E
Longitude "A"
103° 54' E
CHANGI AIRPORT
Angler
Johor Shoal
Restricted Waters
Airway
Port Limit of Singapore

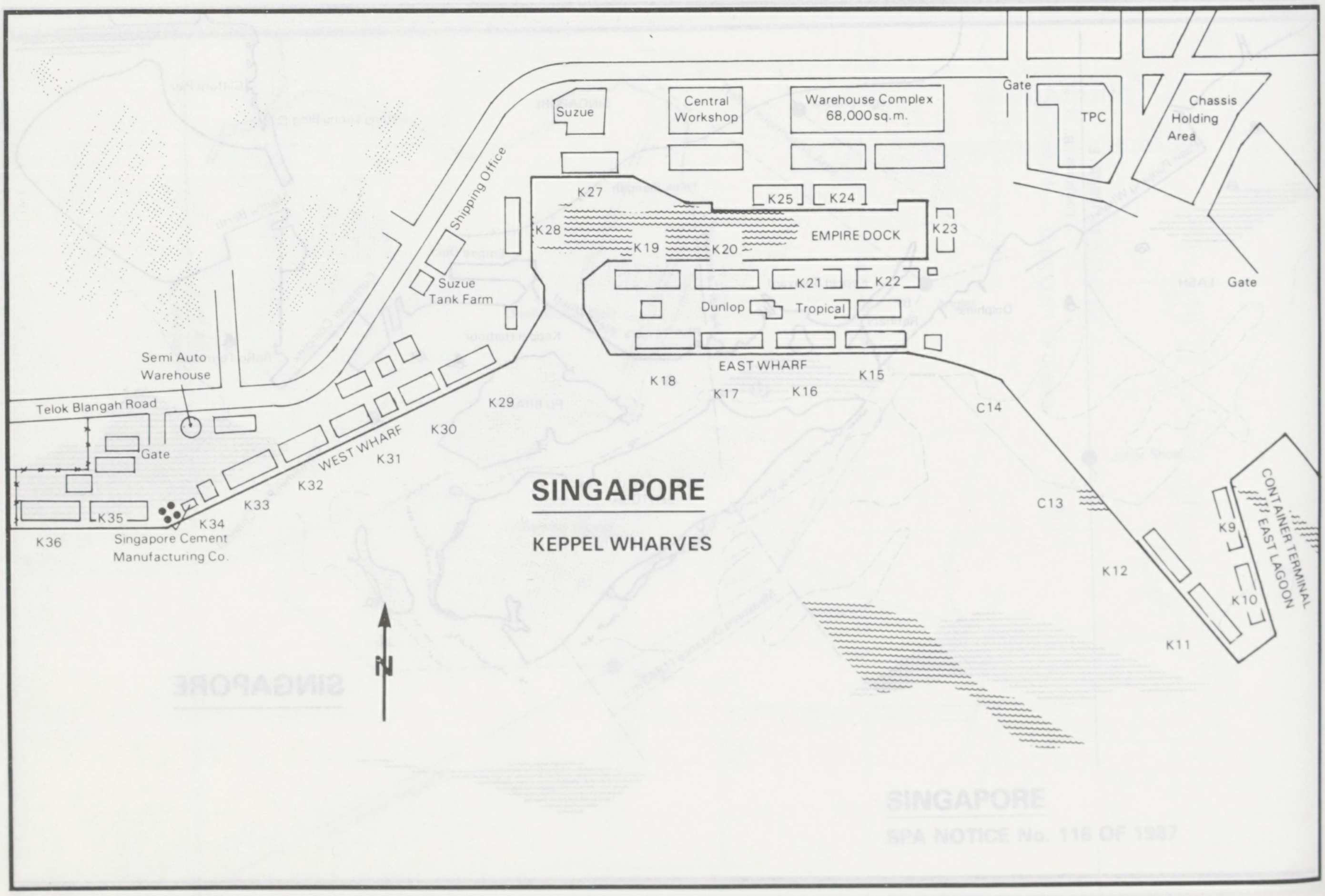
SINGAPORE

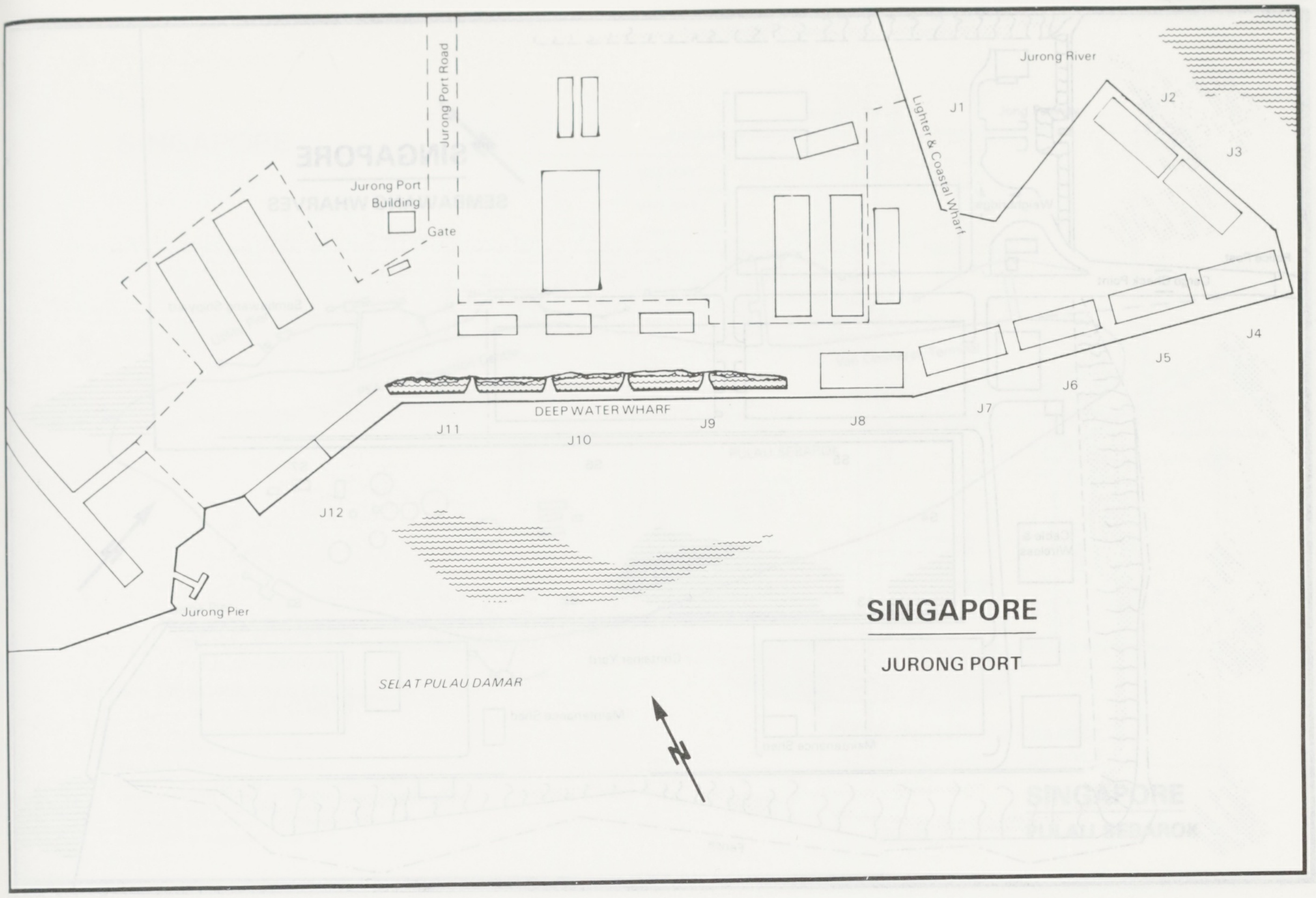
SPA NOTICE No. 116 OF 1987

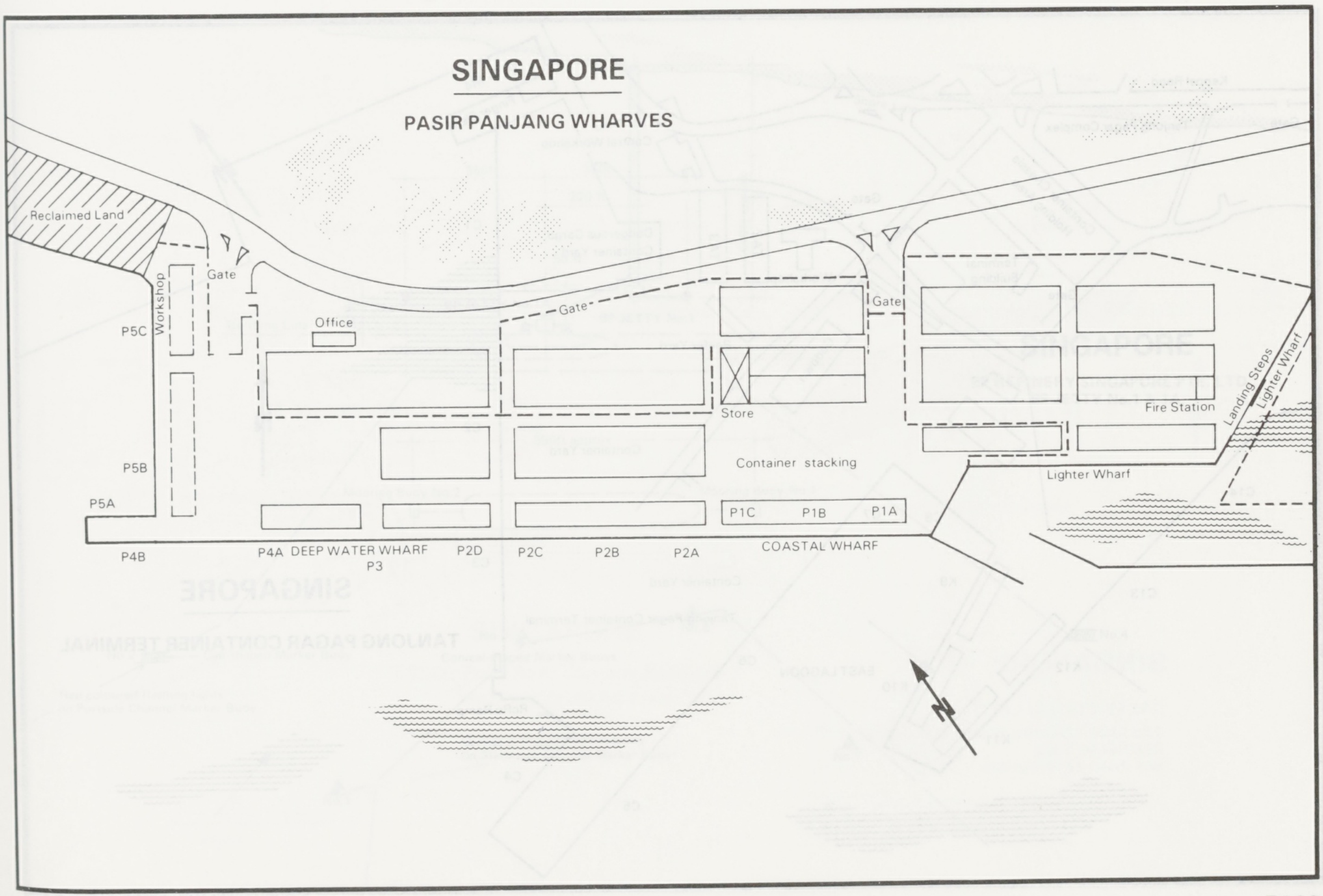

Bedok
Eastern Special Purpose Anchorage
Padang
Airway
Eastern Petroleum "B" Anchorage
Small Craft Anchorage
Laid-up Vessels Anchorage
RESTRICTED AREA
Lagoon
Eastern Fairway
SINGAPORE
HEIGHT RESTRICTION
SPA CIRCULAR No. 18 OF 1988

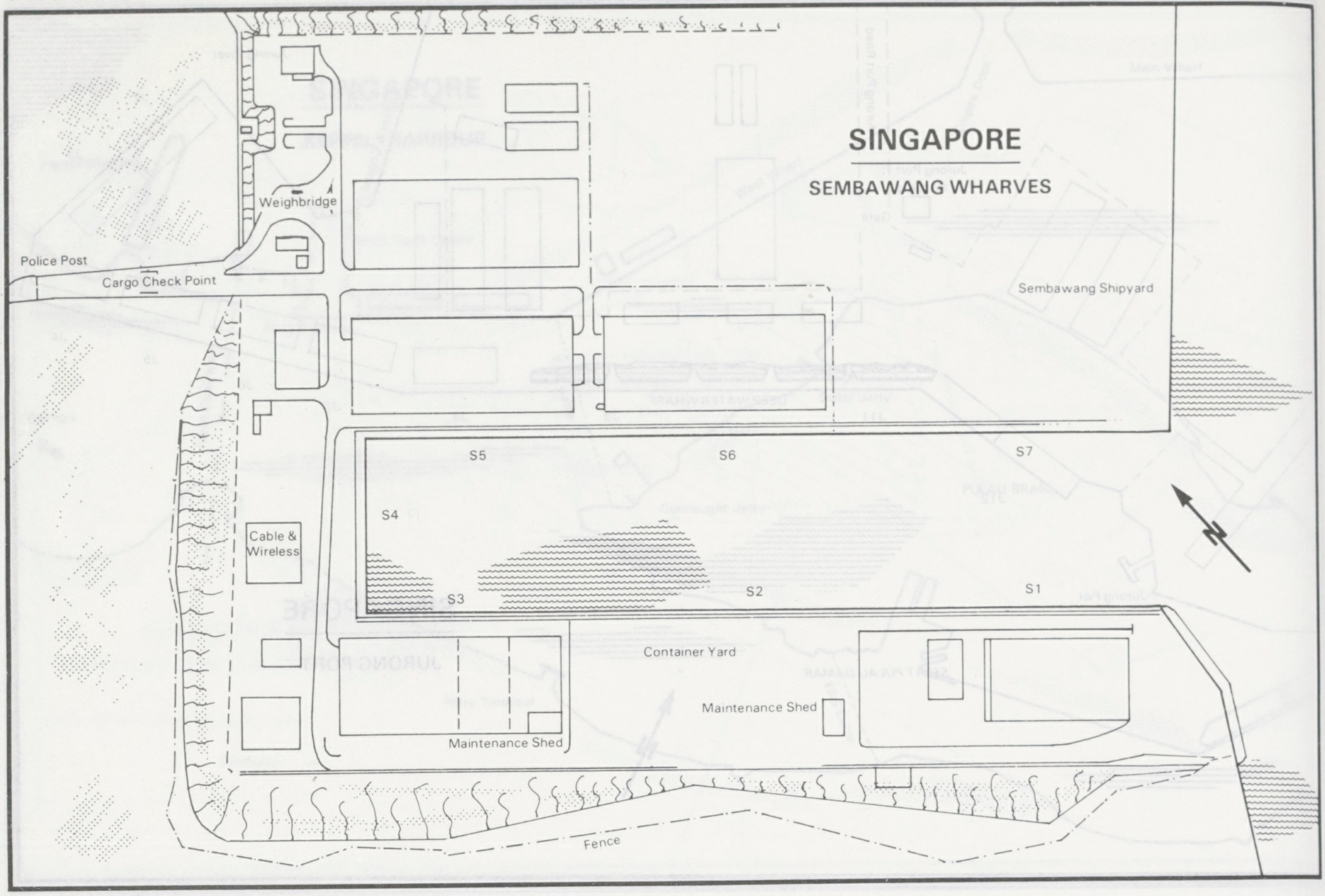

Clifford Pier
SINGAPORE
Hong Leong Bldg
Pasir Panjang Wharves
Telok Blangah
Marina Berth
Empire Dock
Container Complex
LASH
Keppel Shipyard
Dolphins
BP Refinery
Aerial Cableway
PSA Towers
West Wharf
Keppel Harbour
RoRo Terminal
PU BRANI
SENTOSA
Container Port Channel
Measured Distance (1843m.)
SINGAPORE


SINGAPORE
KEPPEL HARBOUR
Keppel Shipyard
World Trade Centre
Ferry Terminal
West Wharf
Empire Dock
Main Wharf
Aerial Cableway
TAS Cable
Renngis
Buller Jetty
Connaught Jetty
PULAU BRANI
Ferry Terminal
TAS Cable
SENTOSA


Suzue
Central Workshop
Warehouse Complex 68,000 sq.m.
Gate
TPC
Chassis Holding Area
Shipping Office
K27
K28
K25
K24
K23
K19
K20
EMPIRE DOCK
K21
K22
Suzue Tank Farm
Dunlop
Tropical
Gate
Semi Auto Warehouse
EAST WHARF
K18
K17
K16
K15
Telok Blangah Road
K29
C14
Gate
K30
WEST WHARF
K31
K32
K33
K34
K35
K36
Singapore Cement Manufacturing Co.
SINGAPORE
KEPPEL WHARVES
C13
K12
K9
K10
K11
CONTAINER TERMINAL EAST LAGOON
N


Jurong Port Road
Jurong River
Lighter & Coastal Wharf
J1
J2
J3
J4
J5
J6
J7
J8
J9
J10
J11
J12
Jurong Port Building
Gate
DEEP WATER WHARF
Jurong Pier
SELAT PULAU DAMAR
N
SINGAPORE
JURONG PORT

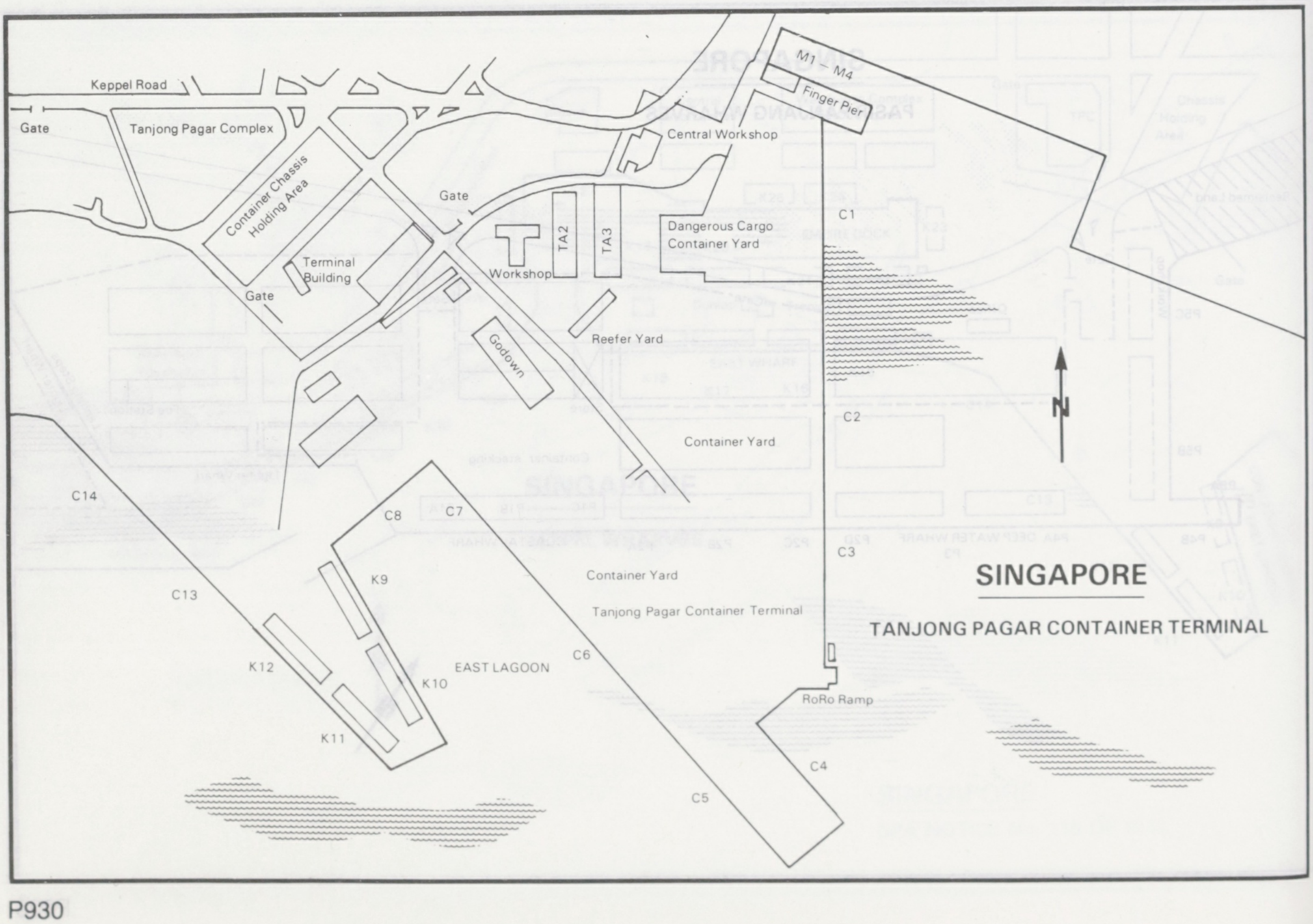

SINGAPORE
PASIR PANJANG WHARVES
Reclaimed Land
Gate
Workshop
Office
Gate
Gate
Store
Container stacking
Fire Station
Landing Steps
Lighter Wharf
Lighter Wharf
P5C
P5B
P5A
P4B
P4A
DEEP WATER WHARF
P3
P2D
P2C
P2B
P2A
P1C
P1B
P1A
COASTAL WHARF
N



SINGAPORE

SEMBAWANG WHARVES

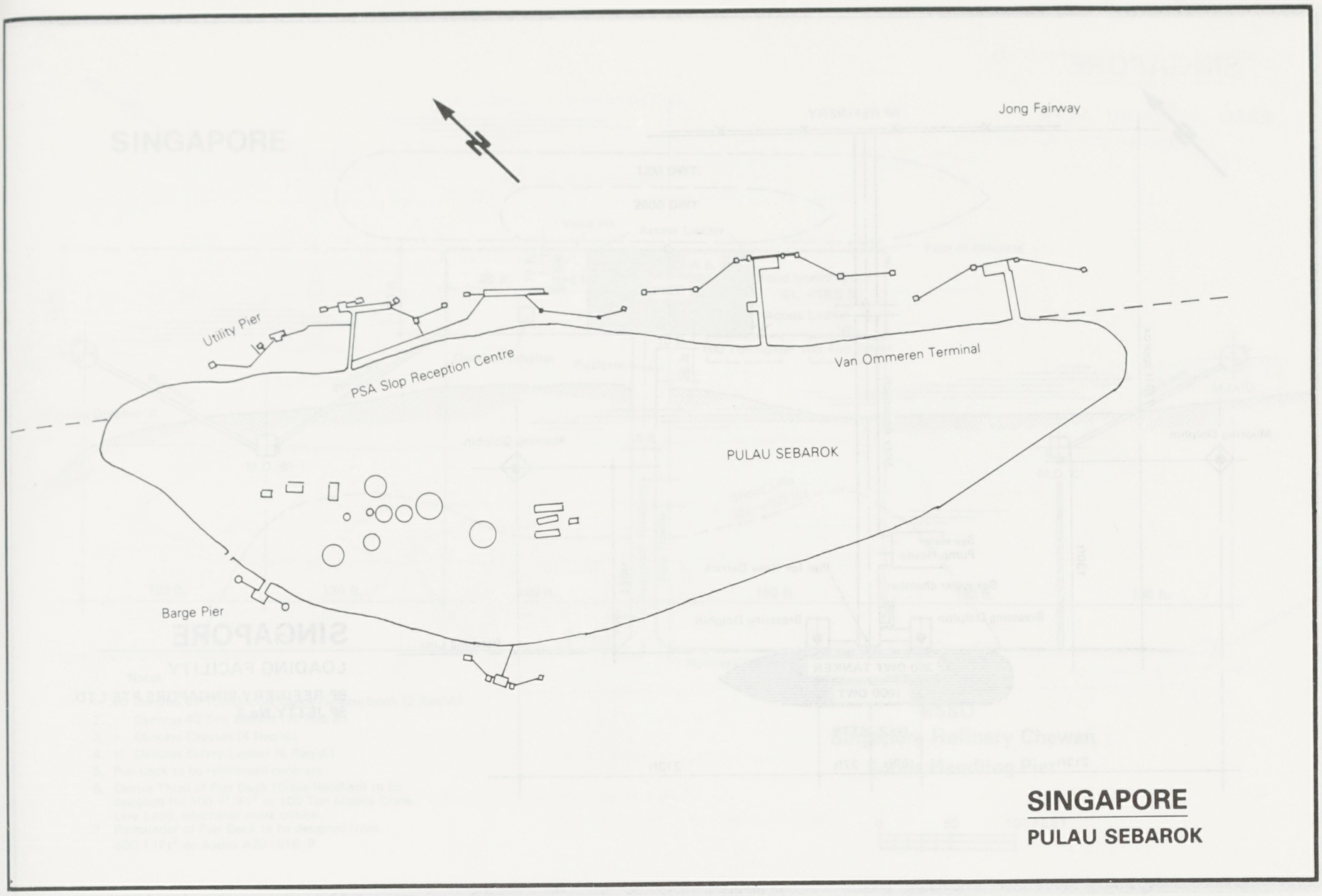
Weighbridge
Police Post
Cargo Check Point
Sembawang Shipyard
S5
S6
S7
S4
Cable & Wireless
S3
S2
S1
Container Yard
Maintenance Shed
Maintenance Shed
Fence



SINGAPORE

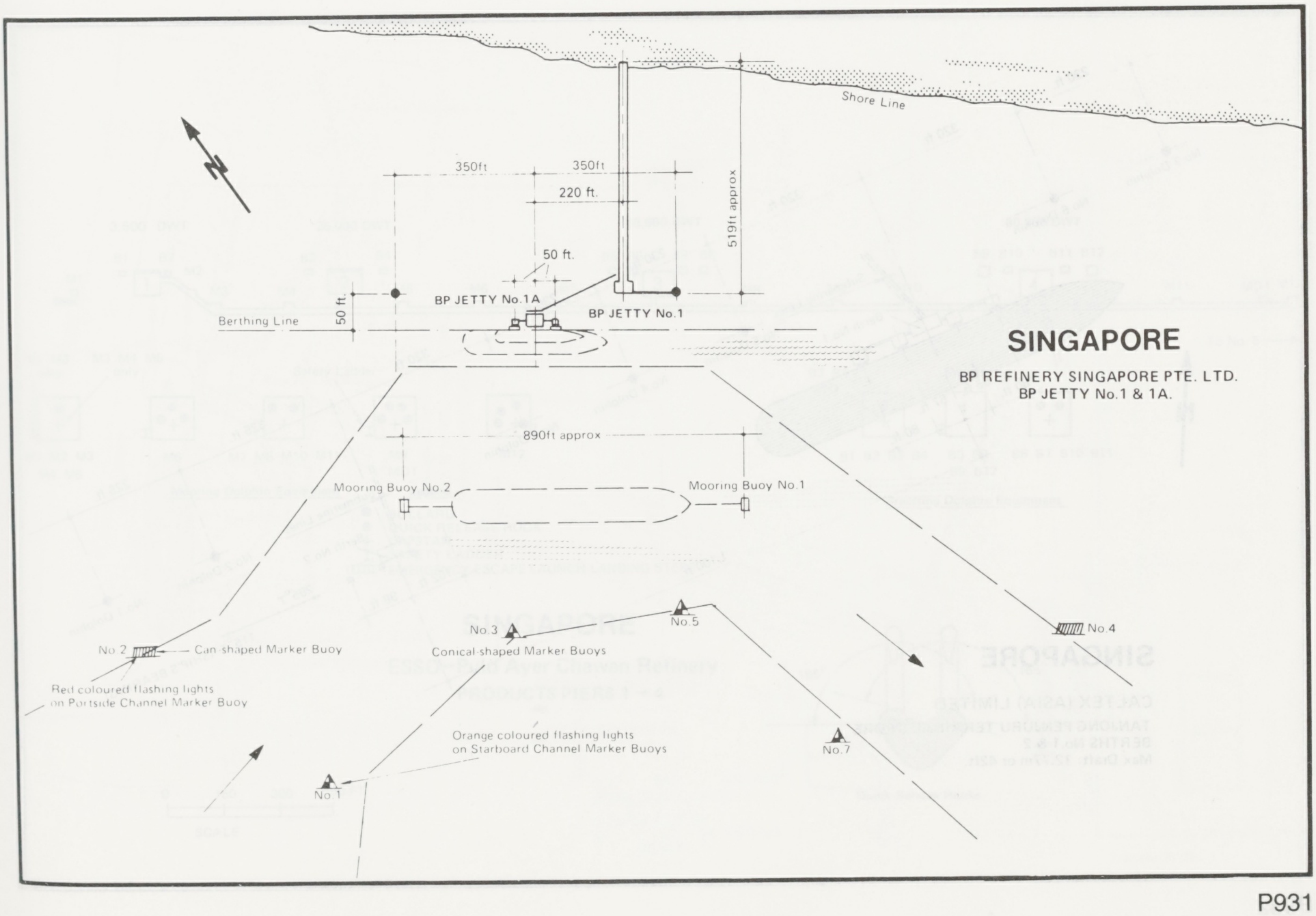
TANJONG PAGAR CONTAINER TERMINAL

M1
M4
Finger Pier
Keppel Road
Gate
Tanjong Pagar Complex
Central Workshop
Container Chassis Holding Area
Gate
TA2
TA3
Dangerous Cargo Container Yard
C1
Terminal Building
Workshop
Gate
Reefer Yard
Godown
C2
Container Yard
C14
C8
C7
C13
K9
Container Yard
Tanjong Pagar Container Terminal
C3
C6
K12
EAST LAGOON
K10
K11
RoRo Ramp
C4
C5


Jong Fairway
Utility Pier
PSA Slop Reception Centre
Van Ommeren Terminal
PULAU SEBAROK
Barge Pier

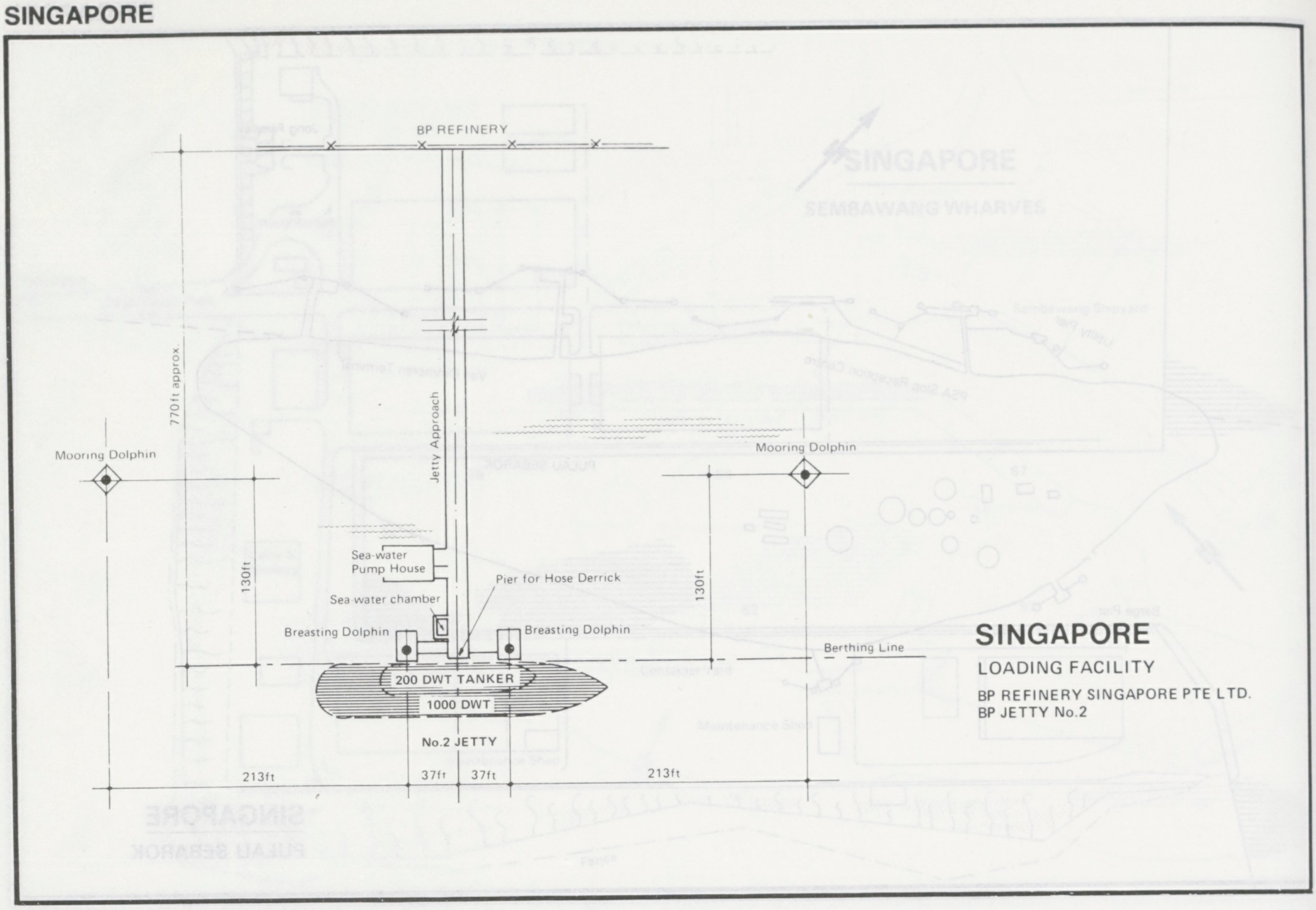
SINGAPORE

PULAU SEBAROK


Shore Line
350ft
350ft
220 ft.
519ft approx
50 ft.
50 ft.
Berthing Line
BP JETTY No.1A
BP JETTY No.1
890ft approx
Mooring Buoy No.2
Mooring Buoy No.1
No.2
Can shaped Marker Buoy
No.3
No.5
Conical-shaped Marker Buoys
No.4
Red coloured flashing lights on Portside Channel Marker Buoy
Orange coloured flashing lights on Starboard Channel Marker Buoys
No.7
No.1

SINGAPORE

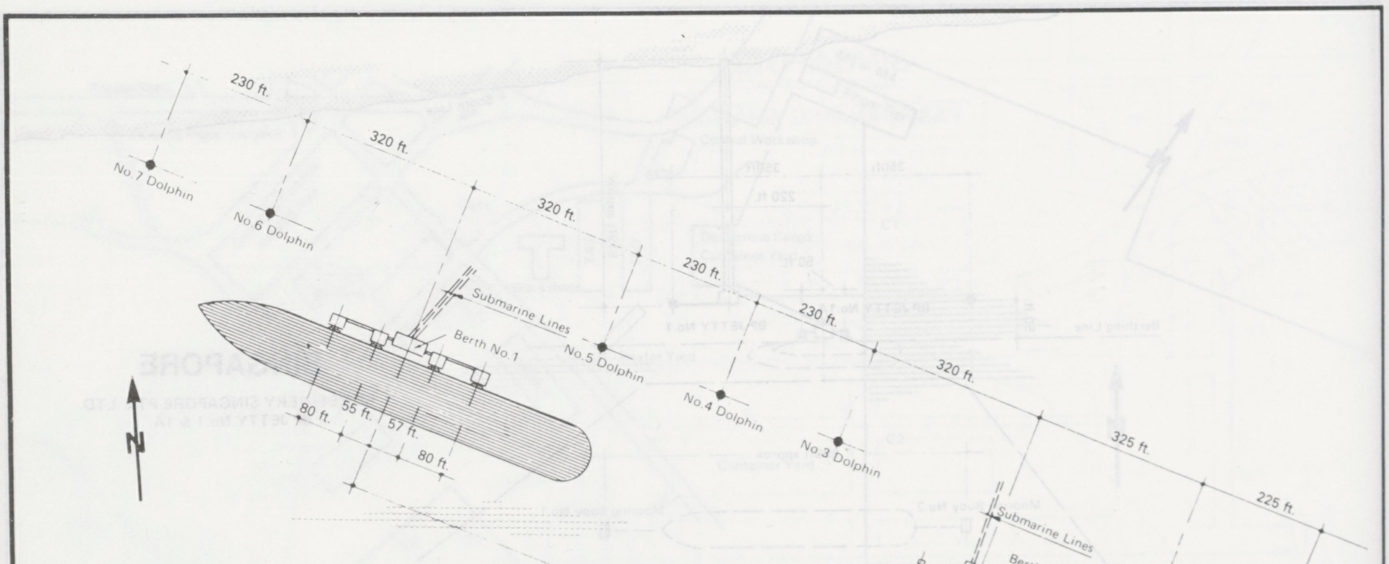
BP REFINERY SINGAPORE PTE. LTD.
BP JETTY No.1 & 1A.


BP REFINERY
770ft approx
Jetty Approach
Mooring Dolphin
Mooring Dolphin
Sea-water Pump House
Pier for Hose Derrick
Sea-water chamber
Breasting Dolphin
Breasting Dolphin
130ft
130ft
Berthing Line
200 DWT TANKER
1000 DWT
No.2 JETTY
213ft
37ft
37ft
213ft

SINGAPORE

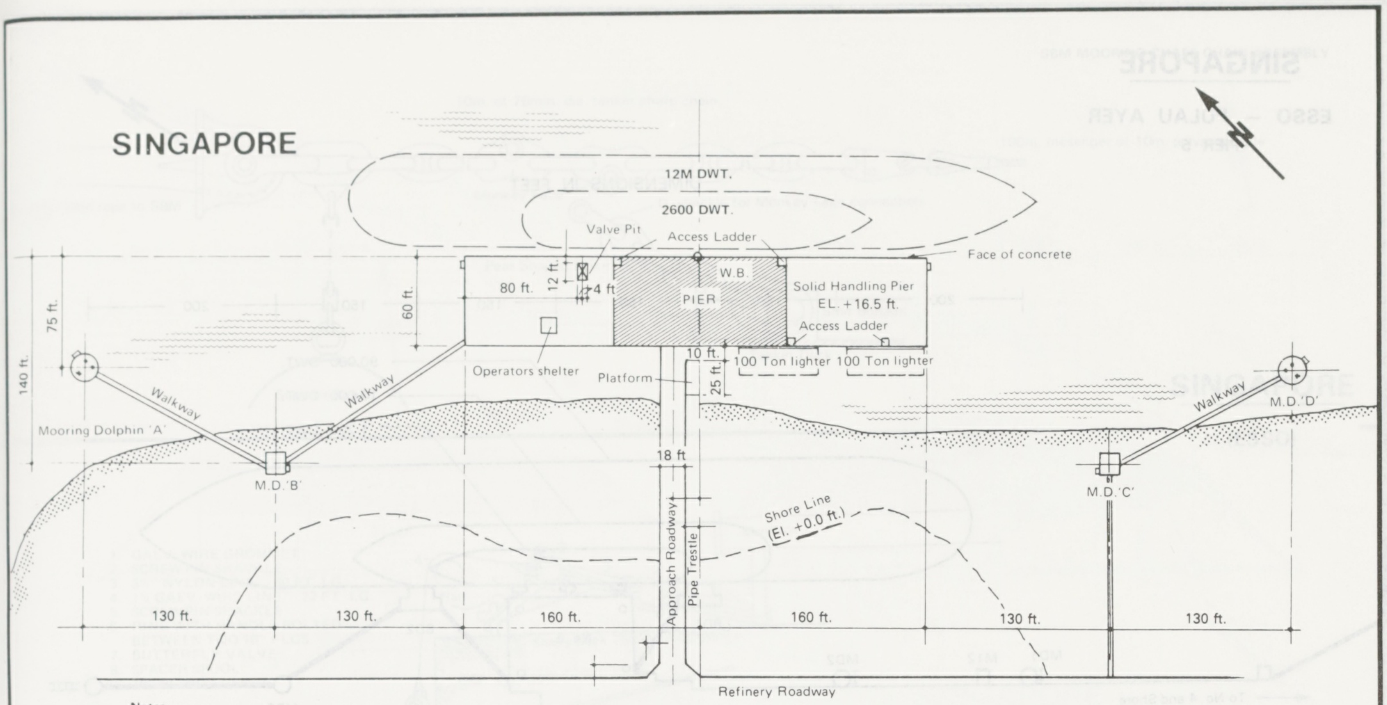
LOADING FACILITY

BP REFINERY SINGAPORE PTE LTD.
BP JETTY No.2


230 ft.
320 ft.
320 ft.
230 ft.
230 ft.
320 ft.
325 ft.
225 ft.
No.7 Dolphin
No.6 Dolphin
Submarine Lines
Berth No.1
No.5 Dolphin
No.4 Dolphin
No.3 Dolphin
N
80 ft.
55 ft.
57 ft.
80 ft.
1,100 ft.
Submarine Lines
Berth No.2
No.2 Dolphin
No.1 Dolphin
102 ft.
98 ft.
295°T
115°T (SHIP'S BEARING)

SINGAPORE

CALTEX (ASIA) LIMITED
TANJONG PENJURU TERMINAL S'PORE
BERTHS No.1 & 2
Max Draft: 12.77m or 42ft.

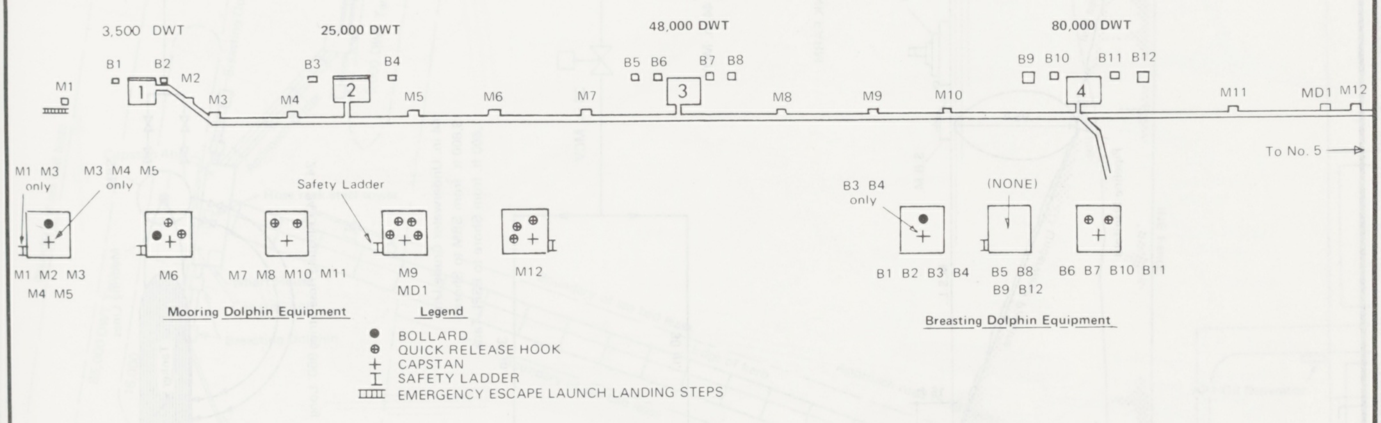

SINGAPORE
12M DWT.
2600 DWT.
Valve Pit
Access Ladder
Face of concrete
80 ft.
12 ft.
4 ft.
W.B.
PIER
Solid Handling Pier
EL. +16.5 ft.
Access Ladder
60 ft.
75 ft.
140 ft.
Operators shelter
Platform
10 ft.
25 ft.
100 Ton lighter
100 Ton lighter
Walkway
Walkway
Walkway
Mooring Dolphin 'A'
M.D.'B'
M.D.'C'
M.D.'D'
18 ft
Approach Roadway
Pipe Trestle
Shore Line
(El. +0.0 ft.)
130 ft.
130 ft.
160 ft.
160 ft.
130 ft.
130 ft.
Refinery Roadway

Notes

1. 00 Denotes 60 Ton Double Quick Release hook (2 Req'd.)
2. · Denotes 60 Ton Bollard (10 Req'd.)
3. + Denotes Capstan (4 Req'd.)
4. H Denotes Safety Ladder (6 Req'd.)
5. Pier deck to be reinforced concrete
6. Centre Thiad of Pier Deck (Cross-Hatched) to be designed for 100 ‡^{1}/Ft^2 or 100 Ton Mobile Crane Live Load, whichever more critical.
7. Remainder of Pier Deck to be designed from 500 ‡ /Ft^2 or Aasho A20–S16 9

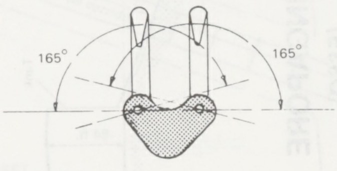
ESSO
Singapore Refinery Chawan
Solids Handling Pier

0 50 100 FEET


3,500 DWT
25,000 DWT
48,000 DWT
80,000 DWT
B1
B2
M1
M2
M3
M4
B3
B4
M5
M6
M7
B5
B6
B7
B8
M8
M9
M10
B9
B10
B11
B12
M11
MD1
M12
1
2
3
4
To No. 5
M1 M3 only
M3 M4 M5 only
Safety Ladder
M1 M2 M3 M4 M5
M6
M7 M8 M10 M11
M9 MD1
M12
Mooring Dolphin Equipment
Legend
● BOLLARD
⊕ QUICK RELEASE HOOK
+ CAPSTAN
I SAFETY LADDER
EMERGENCY ESCAPE LAUNCH LANDING STEPS
B3 B4 only
(NONE)
B1 B2 B3 B4
B5 B8 B9 B12
B6 B7 B10 B11
Breasting Dolphin Equipment

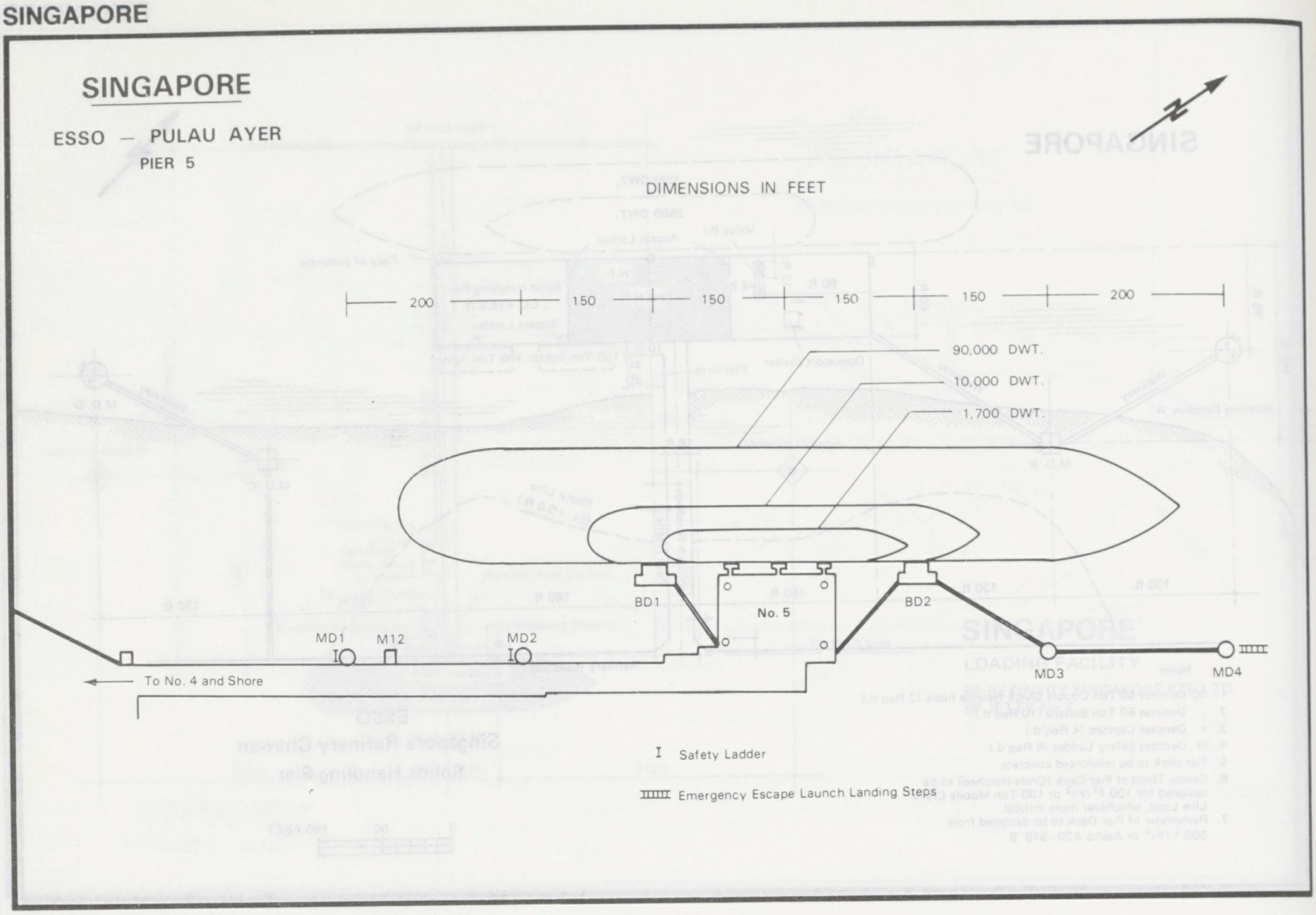
SINGAPORE

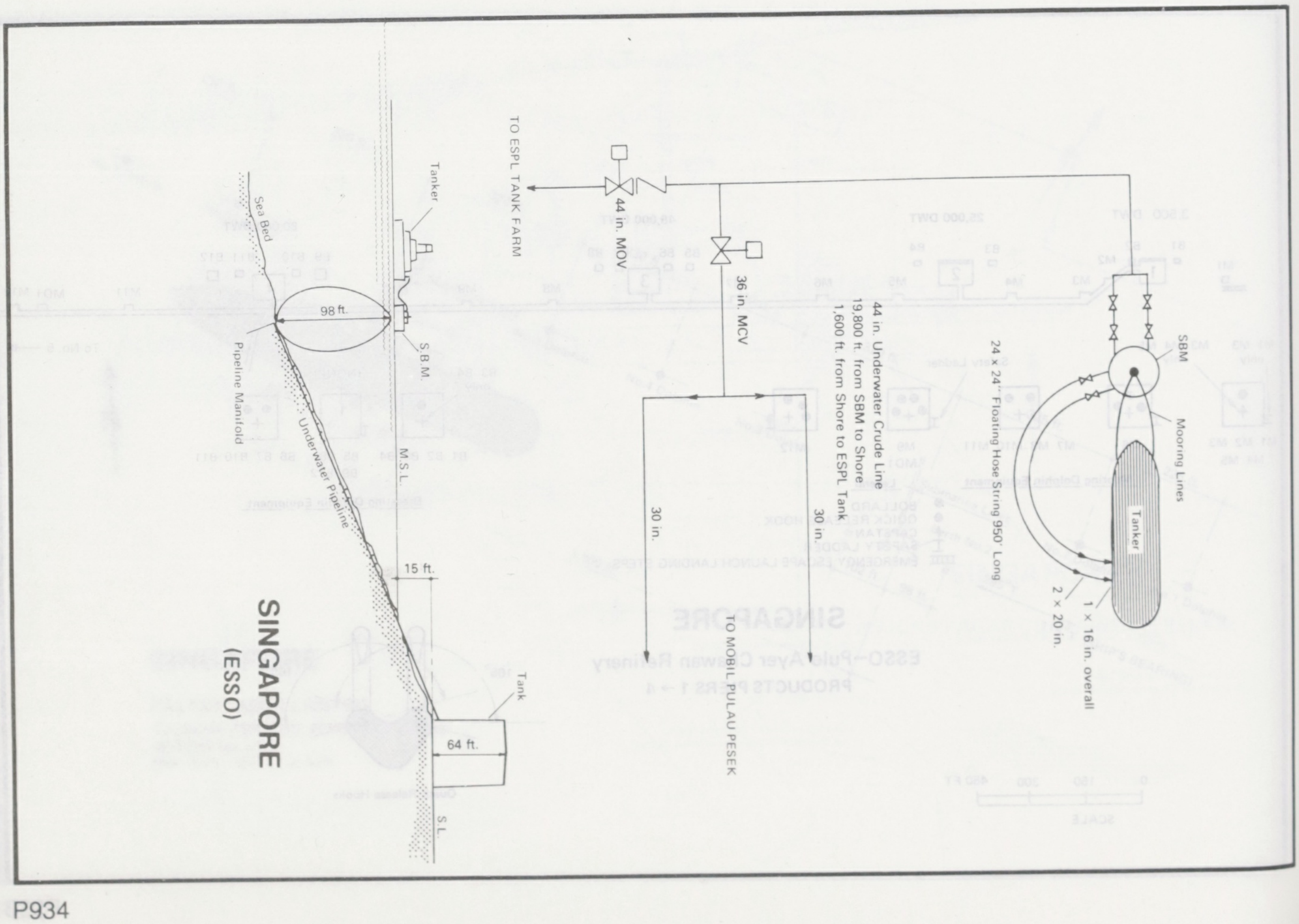
ESSO–Pulo Ayer Chawan Refinery
PRODUCTS PIERS 1 → 4

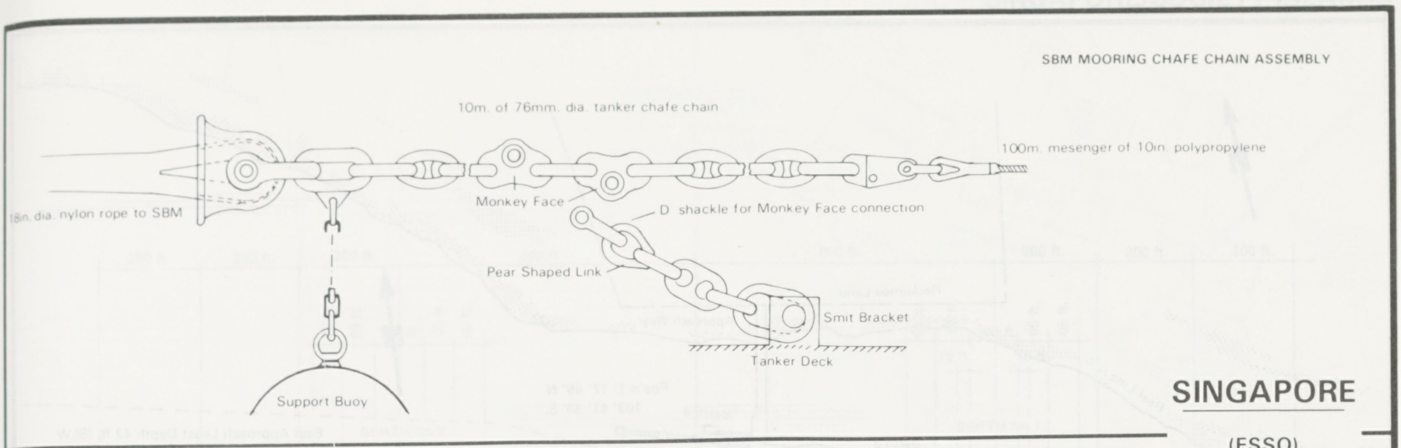


Quick Release Hooks

0 150 300 450 FT
SCALE

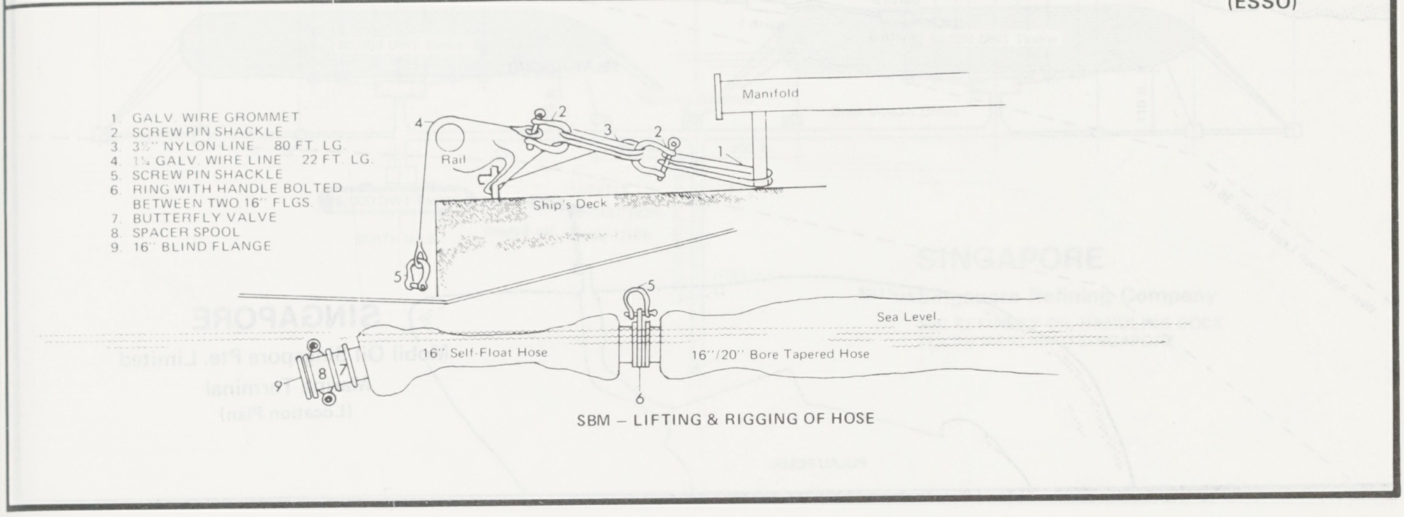

SINGAPORE
ESSO — PULAU AYER
PIER 5
DIMENSIONS IN FEET
200
150
150
150
150
200
90,000 DWT.
10,000 DWT.
1,700 DWT.
BD1
No. 5
BD2
MD1
M12
MD2
MD3
MD4
To No. 4 and Shore
I Safety Ladder
Emergency Escape Launch Landing Steps


SINGAPORE
(ESSO)
TO ESPL TANK FARM
44 in. MOV
36 in. MCV
44 in. Underwater Crude Line
19,800 ft. from SBM to Shore
1,600 ft. from Shore to ESPL Tank
30 in.
30 in.
TO MOBIL PULAU PESEK
24 x 24" Floating Hose String 950' Long
SBM
Mooring Lines
Tanker
1 x 16 in. overall
2 x 20 in.
Tanker
Sea Bed
98 ft.
S.B.M.
Pipeline Manifold
Underwater Pipeline
M.S.L.
15 ft.
Tank
64 ft.
S.L.


SBM MOORING CHAFE CHAIN ASSEMBLY
10m. of 76mm. dia. tanker chafe chain
100m. mesenger of 10in. polypropylene
18in. dia. nylon rope to SBM
Monkey Face
D shackle for Monkey Face connection
Pear Shaped Link
Smit Bracket
Tanker Deck
Support Buoy

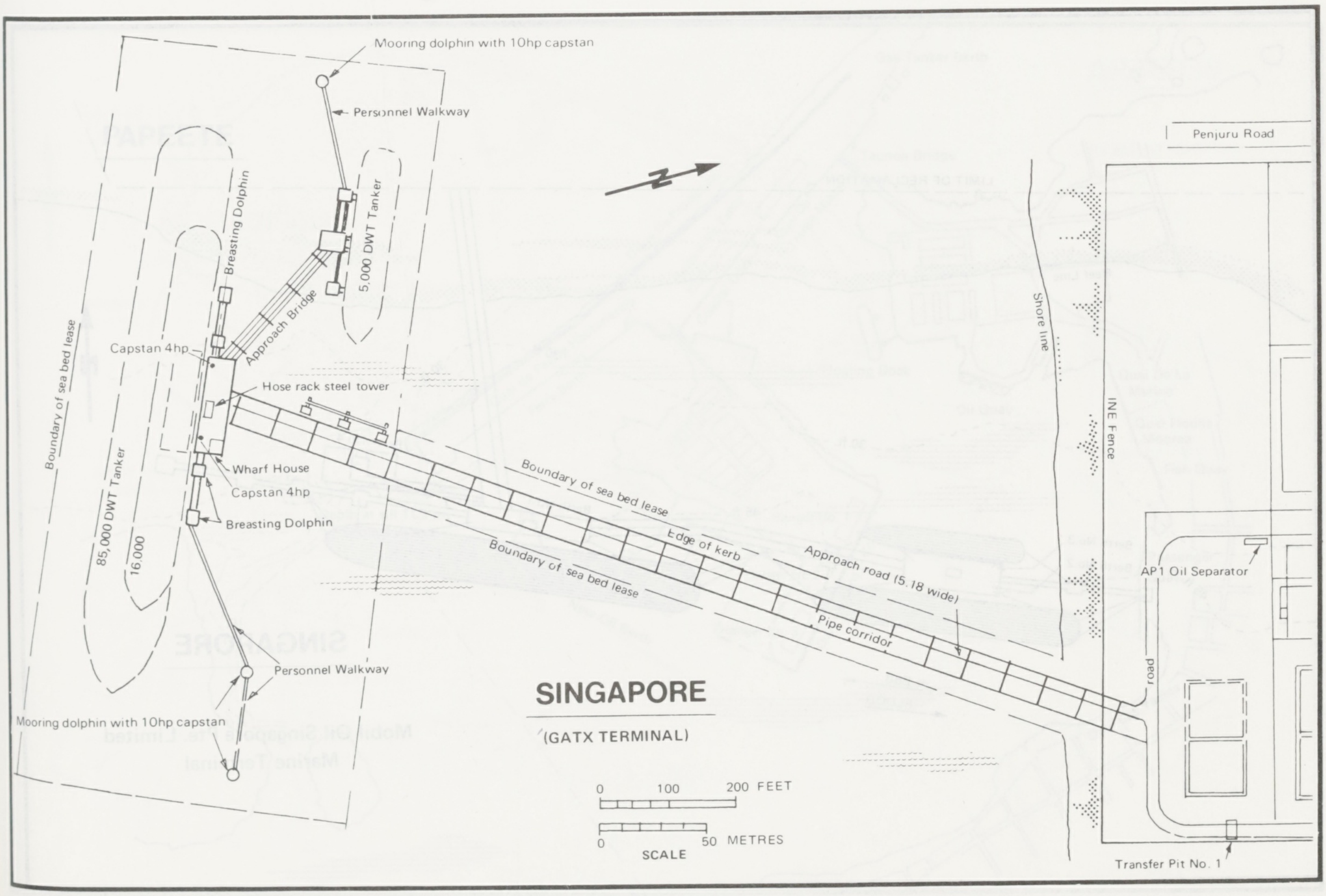
SINGAPORE

(ESSO)


Manifold
Rail
Ship's Deck
Sea Level
16" Self-Float Hose
16"/20" Bore Tapered Hose
1
2
3
4
5
6
8
9

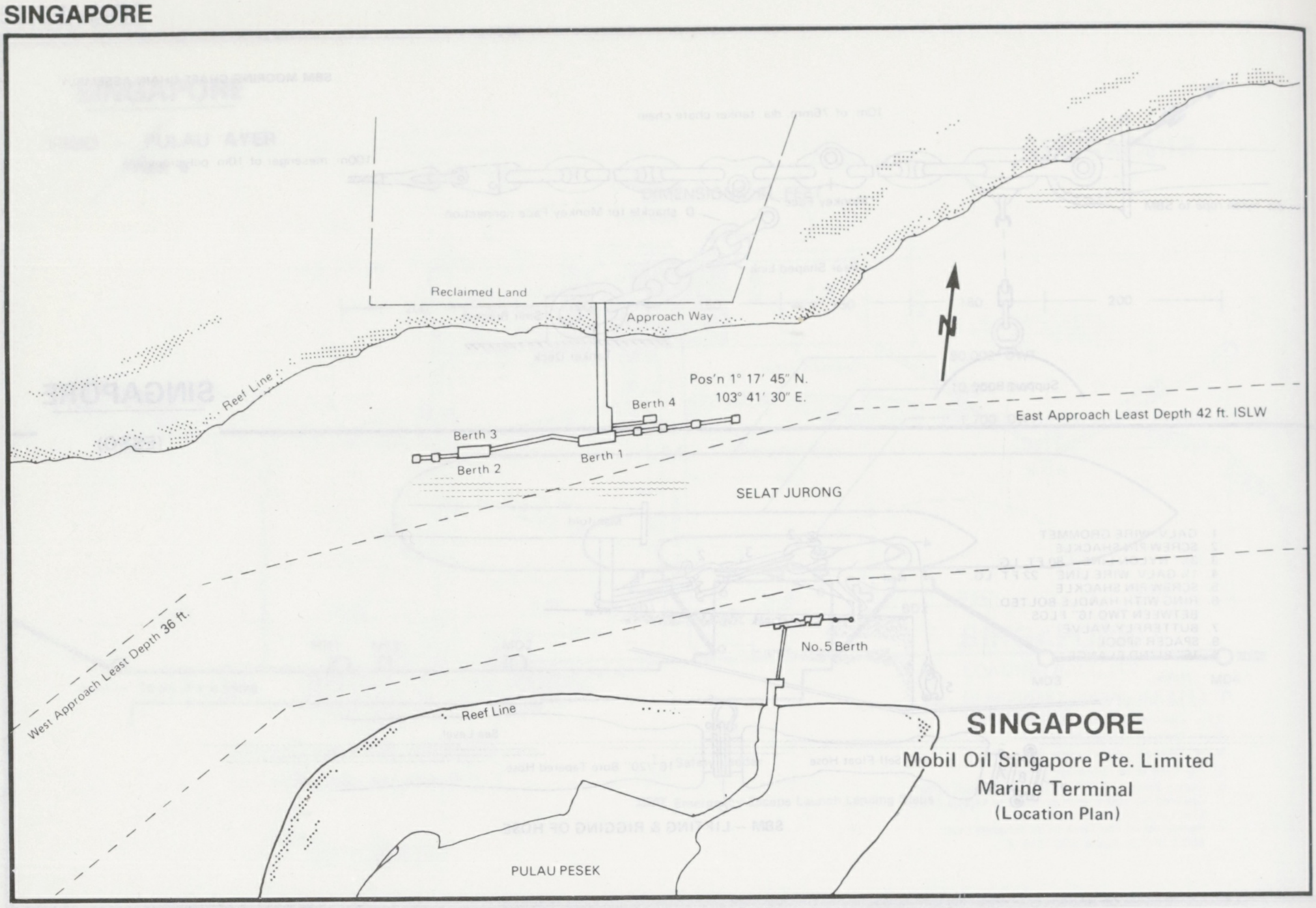
1. GALV. WIRE GROMMET
2. SCREW PIN SHACKLE
3. 3½" NYLON LINE – 80 FT. LG.
4. 1¼ GALV. WIRE LINE – 22 FT. LG.
5. SCREW PIN SHACKLE
6. RING WITH HANDLE BOLTED BETWEEN TWO 16" FLGS.
7. BUTTERFLY VALVE
8. SPACER SPOOL
9. 16" BLIND FLANGE

SBM – LIFTING & RIGGING OF HOSE


Mooring dolphin with 10hp capstan
Personnel Walkway
5,000 DWT Tanker
Breasting Dolphin
Approach Bridge
Capstan 4hp
Hose rack steel tower
Wharf House
Capstan 4hp
Breasting Dolphin
Boundary of sea bed lease
85,000 DWT Tanker
16,000
Boundary of sea bed lease
Edge of kerb
Boundary of sea bed lease
Approach road (5.18 wide)
Pipe corridor
Personnel Walkway
Mooring dolphin with 10hp capstan
N
Penjuru Road
Shore line
INE Fence
AP1 Oil Separator
road
Transfer Pit No. 1
0
100
200 FEET
0
50 METRES
SCALE

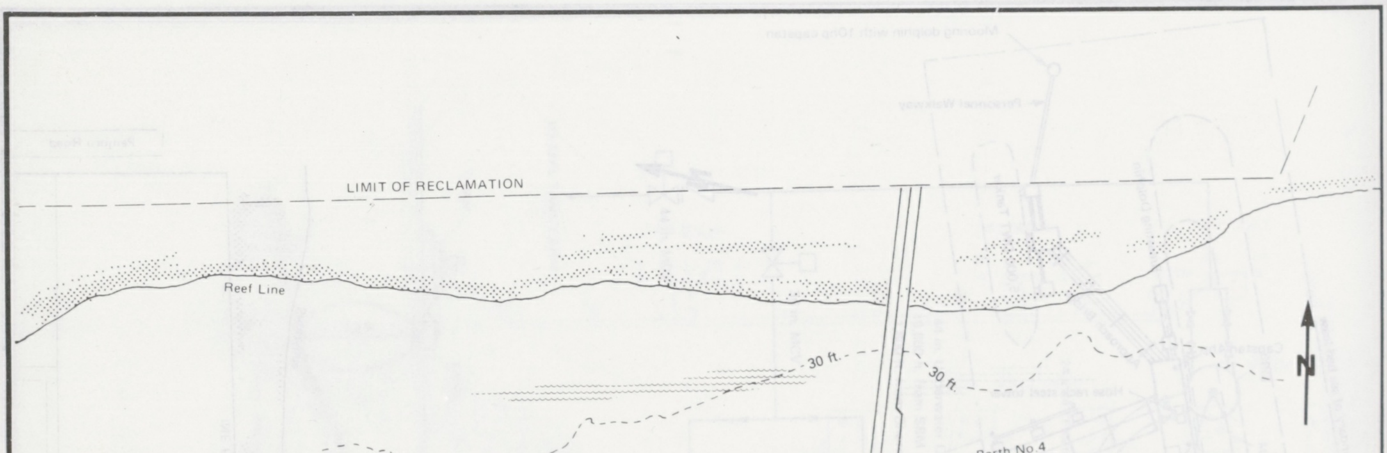
SINGAPORE

(GATX TERMINAL)


Reclaimed Land
Approach Way
Reef Line
Pos'n 1° 17' 45" N.
103° 41' 30" E.
Berth 4
Berth 3
Berth 1
Berth 2
East Approach Least Depth 42 ft. ISLW
SELAT JURONG
West Approach Least Depth 36 ft.
No.5 Berth
Reef Line
PULAU PESEK
N

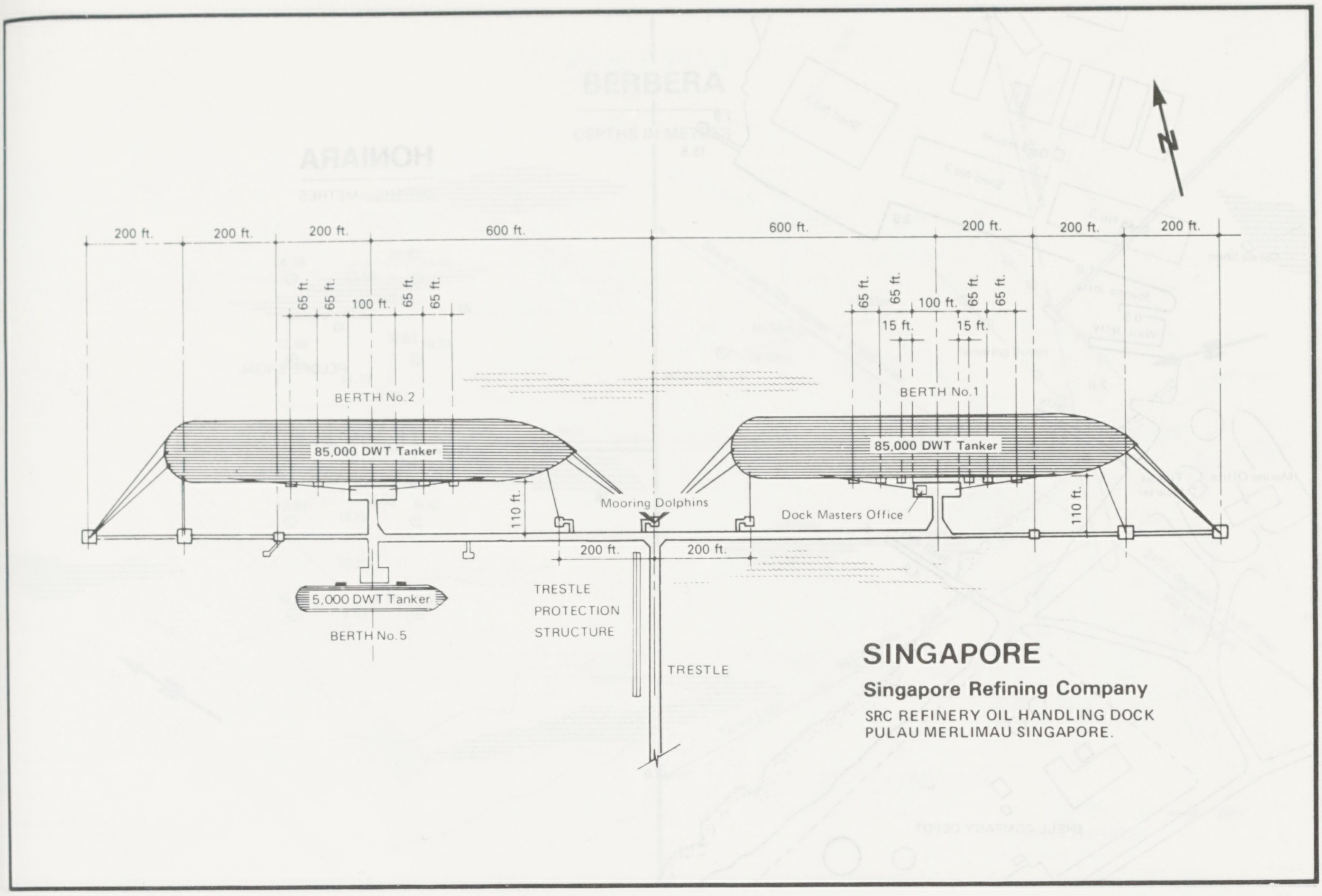
SINGAPORE

Mobil Oil Singapore Pte. Limited
Marine Terminal
(Location Plan)


LIMIT OF RECLAMATION
Reef Line
30 ft.
30 ft.
30 ft.
45 ft.
Berth No.4
Berth No.1
Berth No.3
Berth No.2
45 ft.
EBB
FLOOD
N

SINGAPORE

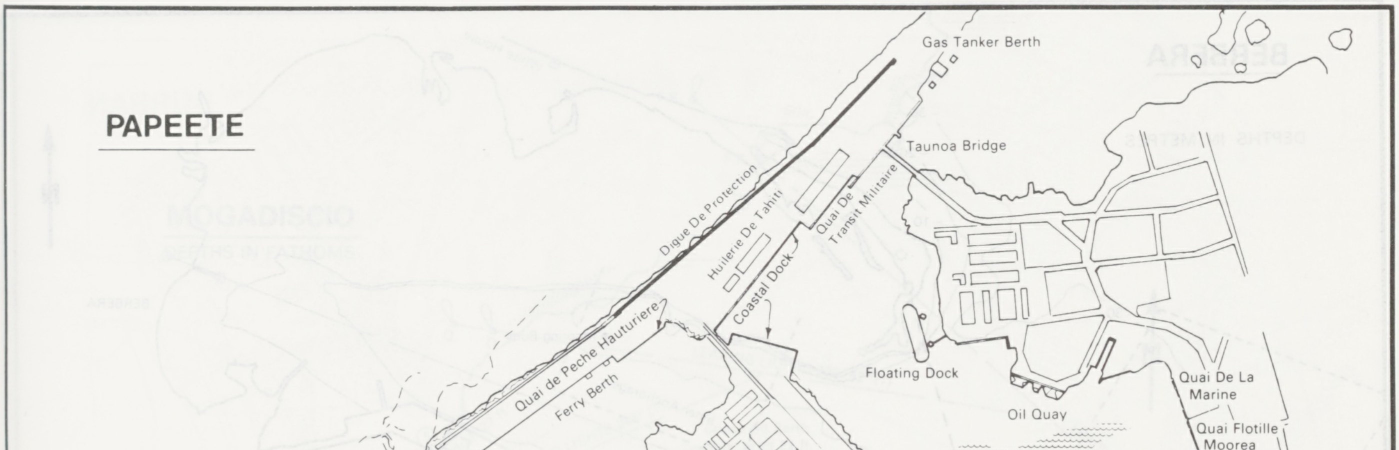
Mobil Oil Singapore Pte. Limited
Marine Terminal

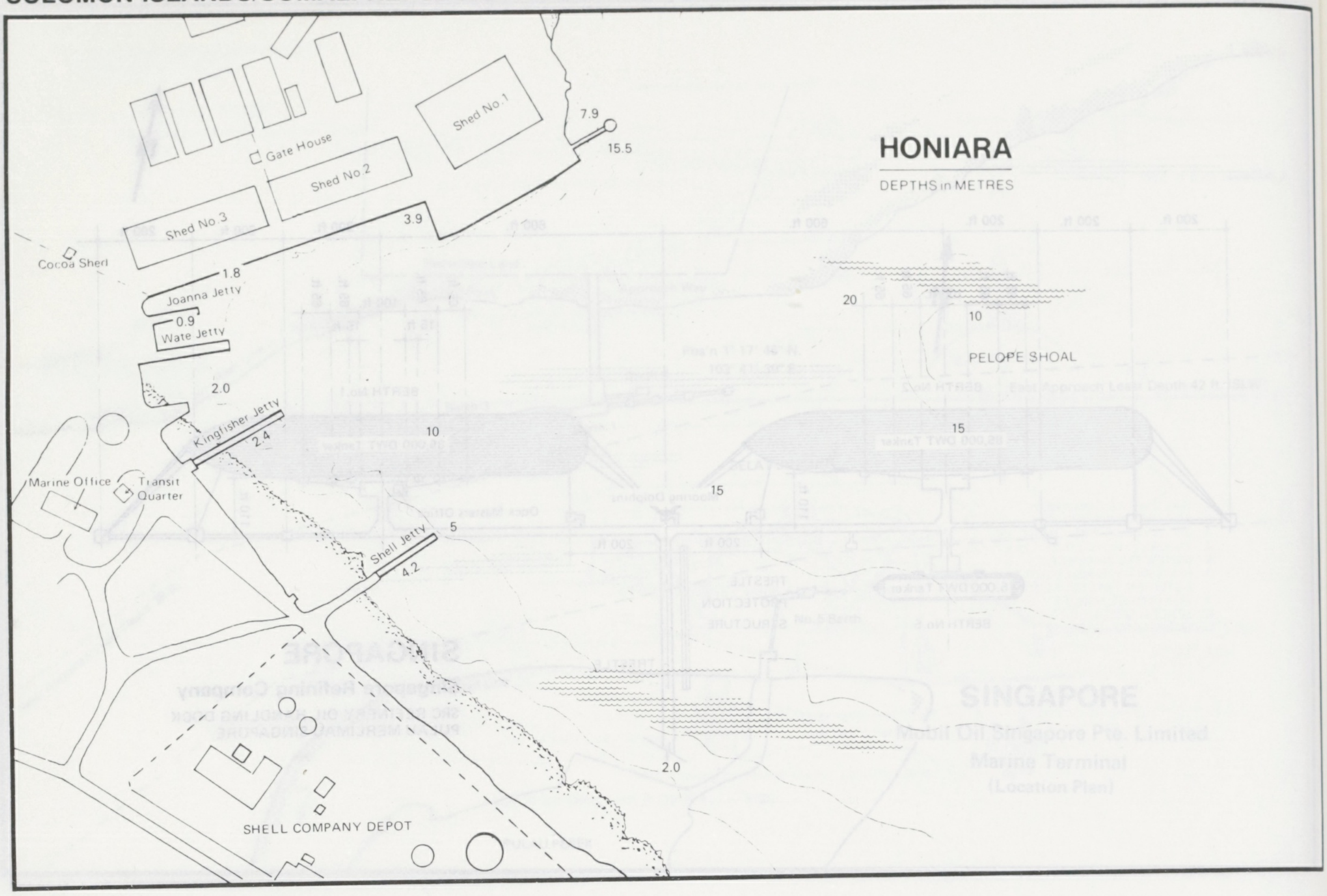

200 ft.
200 ft.
200 ft.
600 ft.
600 ft.
200 ft.
200 ft.
200 ft.
65 ft.
65 ft.
100 ft.
65 ft.
65 ft.
65 ft.
65 ft.
100 ft.
65 ft.
65 ft.
15 ft.
15 ft.
BERTH No.2
85,000 DWT Tanker
BERTH No.1
85,000 DWT Tanker
110 ft.
Mooring Dolphins
Dock Masters Office
110 ft.
200 ft.
200 ft.
5,000 DWT Tanker
BERTH No.5
TRESTLE
PROTECTION
STRUCTURE
TRESTLE

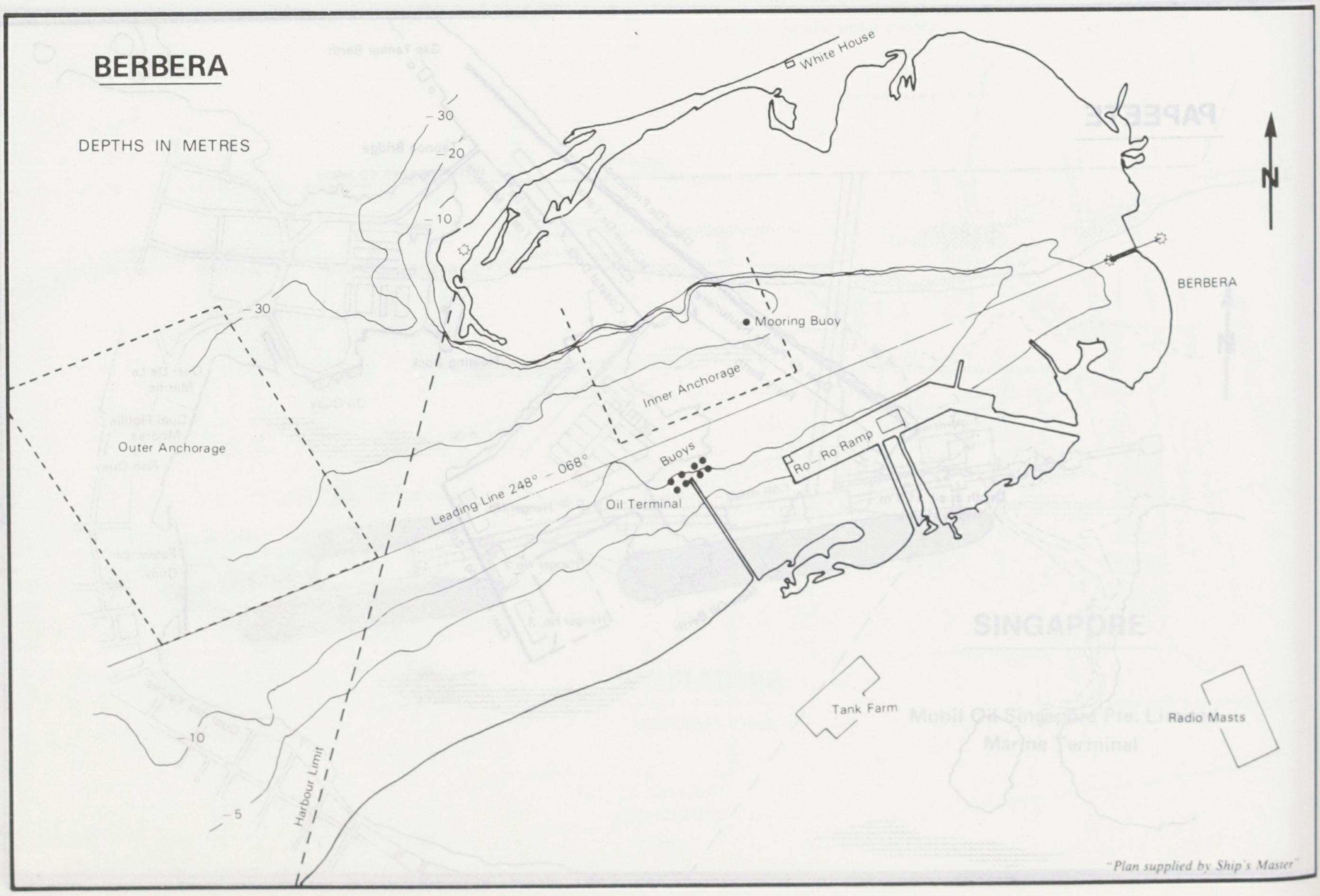
SINGAPORE

Singapore Refining Company

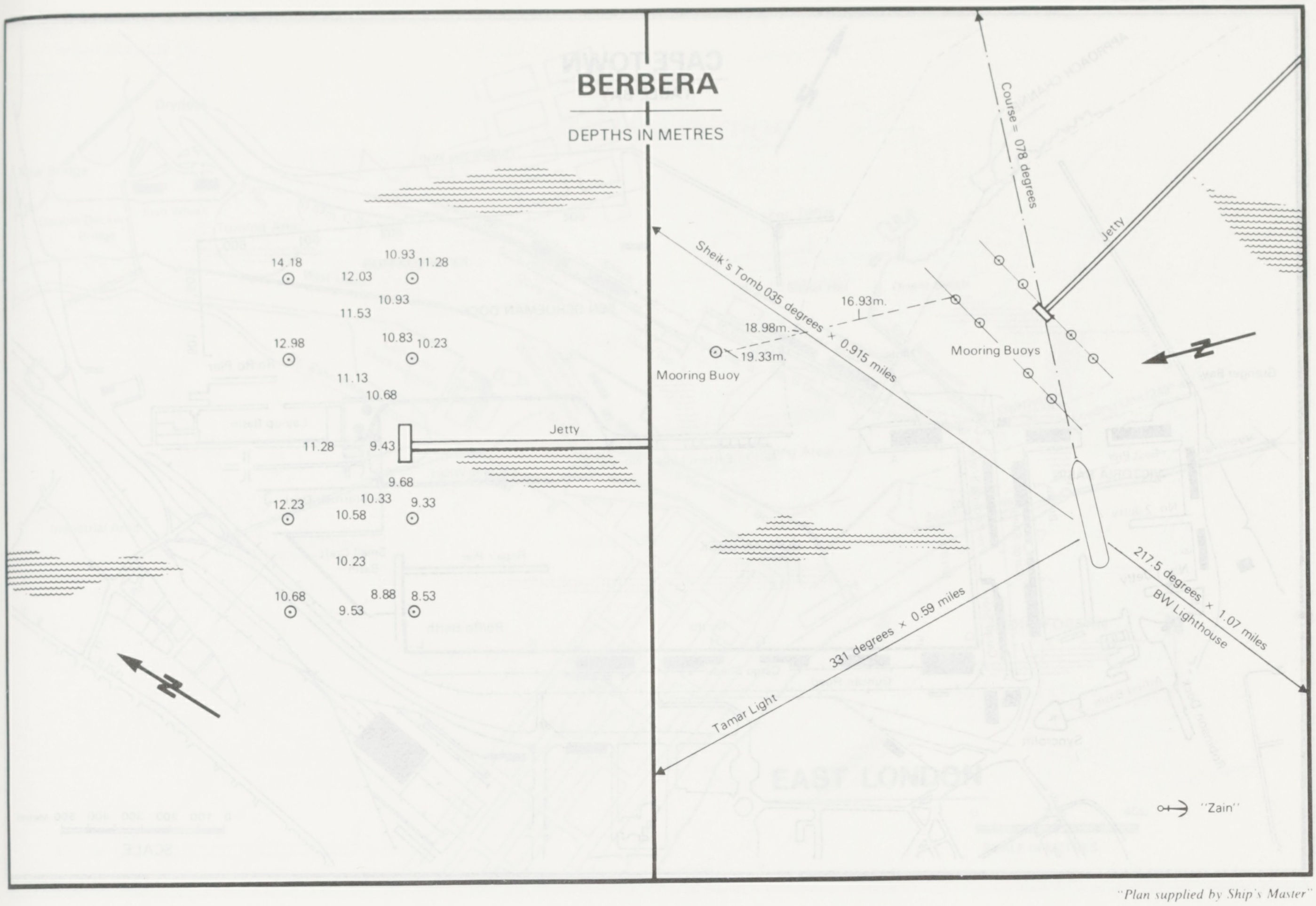
SRC REFINERY OIL HANDLING DOCK
PULAU MERLIMAU SINGAPORE.


PAPEETE
Gas Tanker Berth
Taunoa Bridge
Digue De Protection
Huilerie De Tahiti
Quai De Transit Militaire
Coastal Dock
Quai de Peche Hauturiere
Ferry Berth
Floating Dock
Oil Quay
Quai De La Marine
Quai Flotille Moorea
Fish Quay
Depth at sill 11.3 m. width 110 m.
Hanger No. 1
Hanger No. 2
Hanger No. 3
Quai Au Long – Cours
New Oil Berth
Passenger Quay
Quai des Yachts

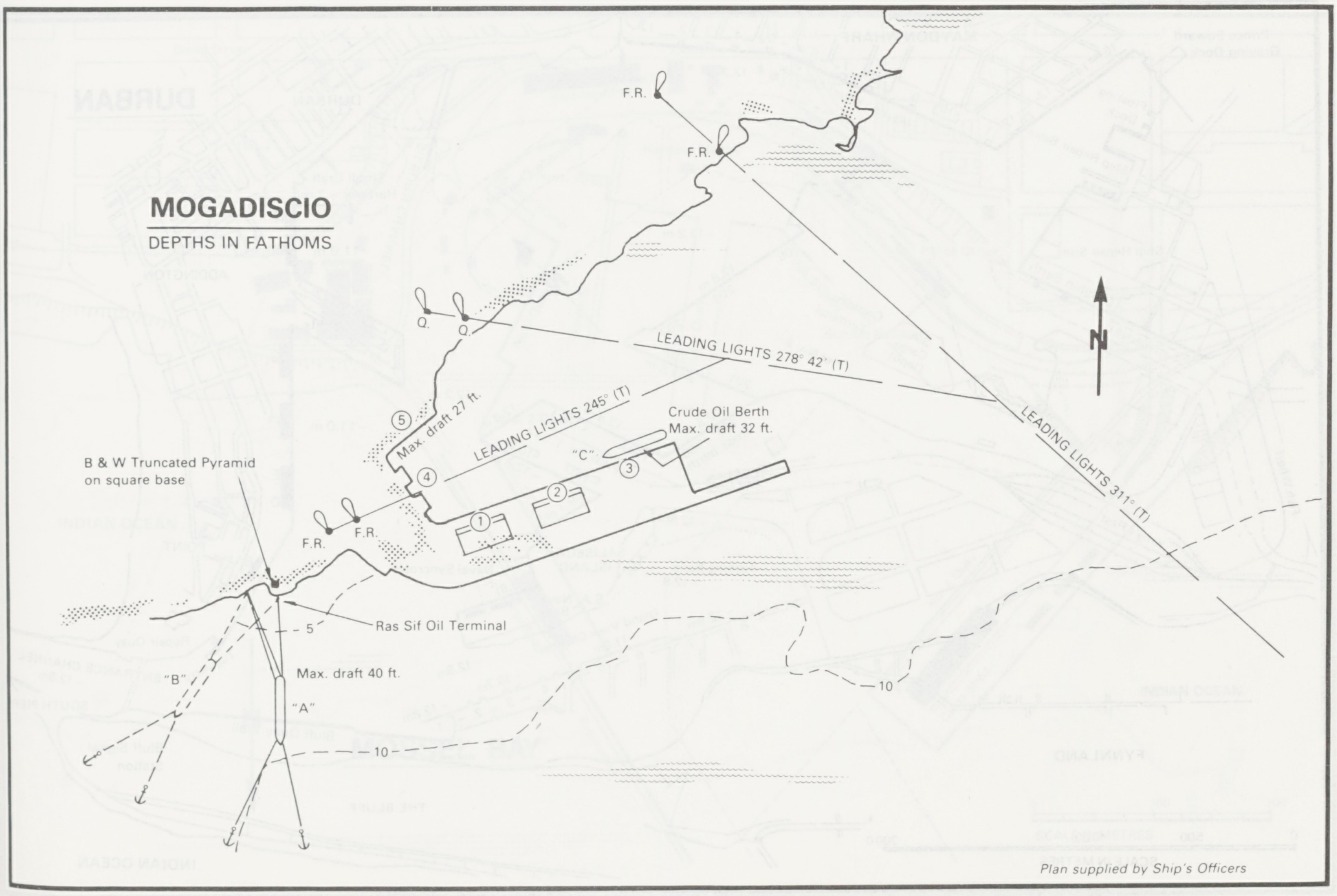

HONIARA
DEPTHS in METRES
Shed No.1
7.9
15.5
Gate House
Shed No.2
Shed No.3
3.9
Cocoa Shed
1.8
Joanna Jetty
0.9
Wate Jetty
2.0
Kingfisher Jetty
2.4
10
Marine Office
Transit Quarter
Shell Jetty
5
4.2
20
10
PELOPE SHOAL
15
15
2.0
SHELL COMPANY DEPOT


BERBERA
DEPTHS IN METRES
White House
30
20
10
30
Mooring Buoy
Inner Anchorage
Outer Anchorage
Buoys
Ro–Ro Ramp
Leading Line 248° – 068°
Oil Terminal
BERBERA
N
Tank Farm
Radio Masts
10
5
Harbour Limit

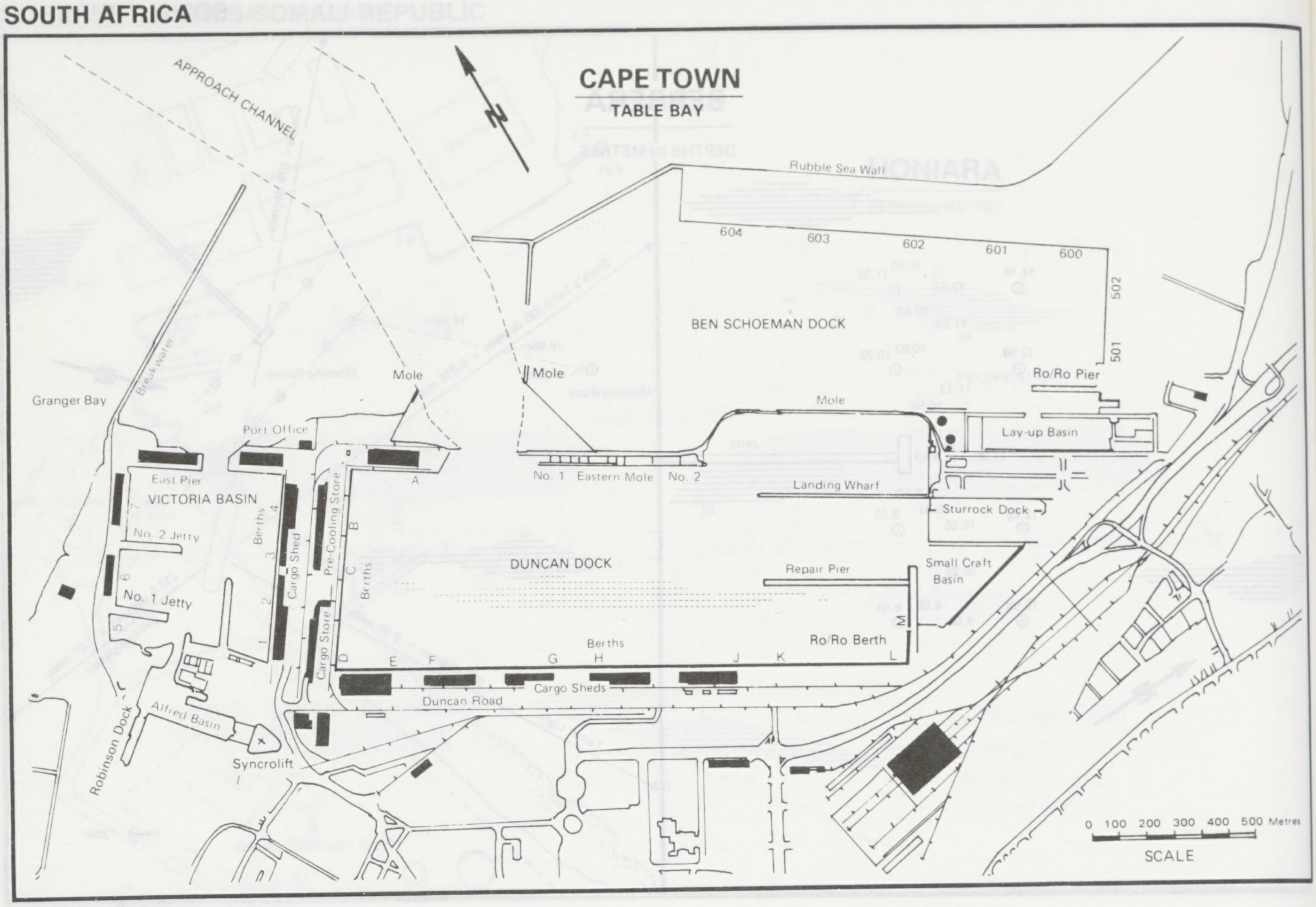
"Plan supplied by Ship's Master"

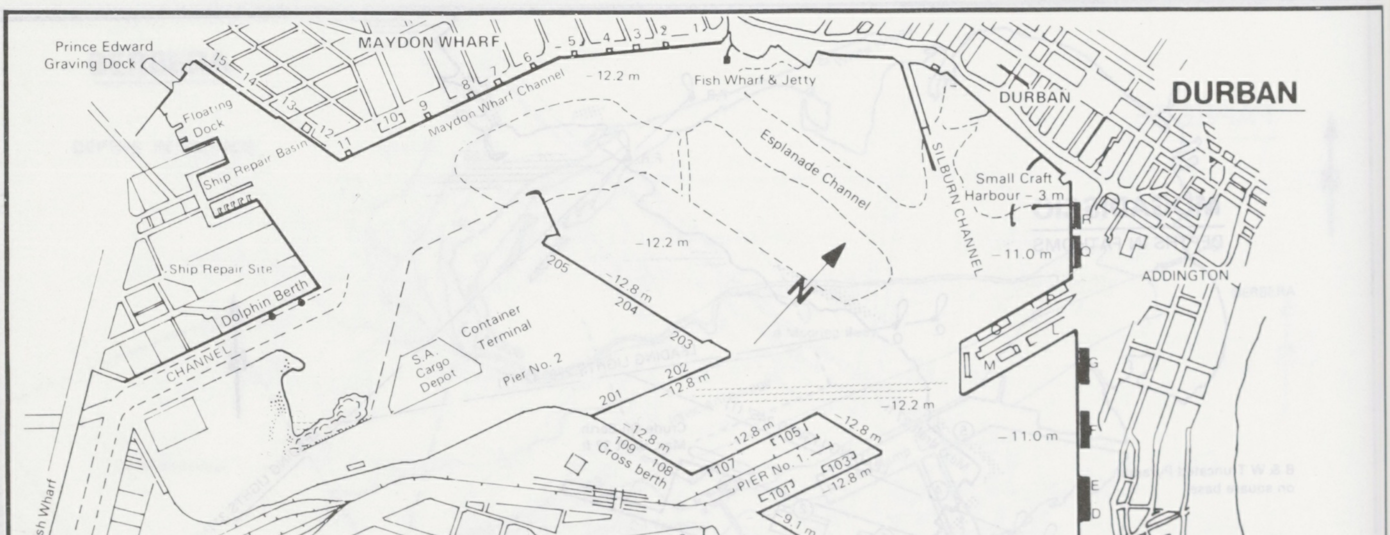

BERBERA
DEPTHS IN METRES
14.18
12.03
10.93
11.28
10.93
11.53
12.98
10.83
10.23
11.13
10.68
11.28
9.43
Jetty
9.68
12.23
10.33
9.33
10.58
10.23
10.68
8.88
8.53
9.53
Sheik's Tomb 035 degrees × 0.915 miles
16.93m.
18.98m.
19.33m.
Mooring Buoy
Course = 078 degrees
Jetty
Mooring Buoys
217.5 degrees × 1.07 miles
BW Lighthouse
331 degrees × 0.59 miles
Tamar Light
"Zain"

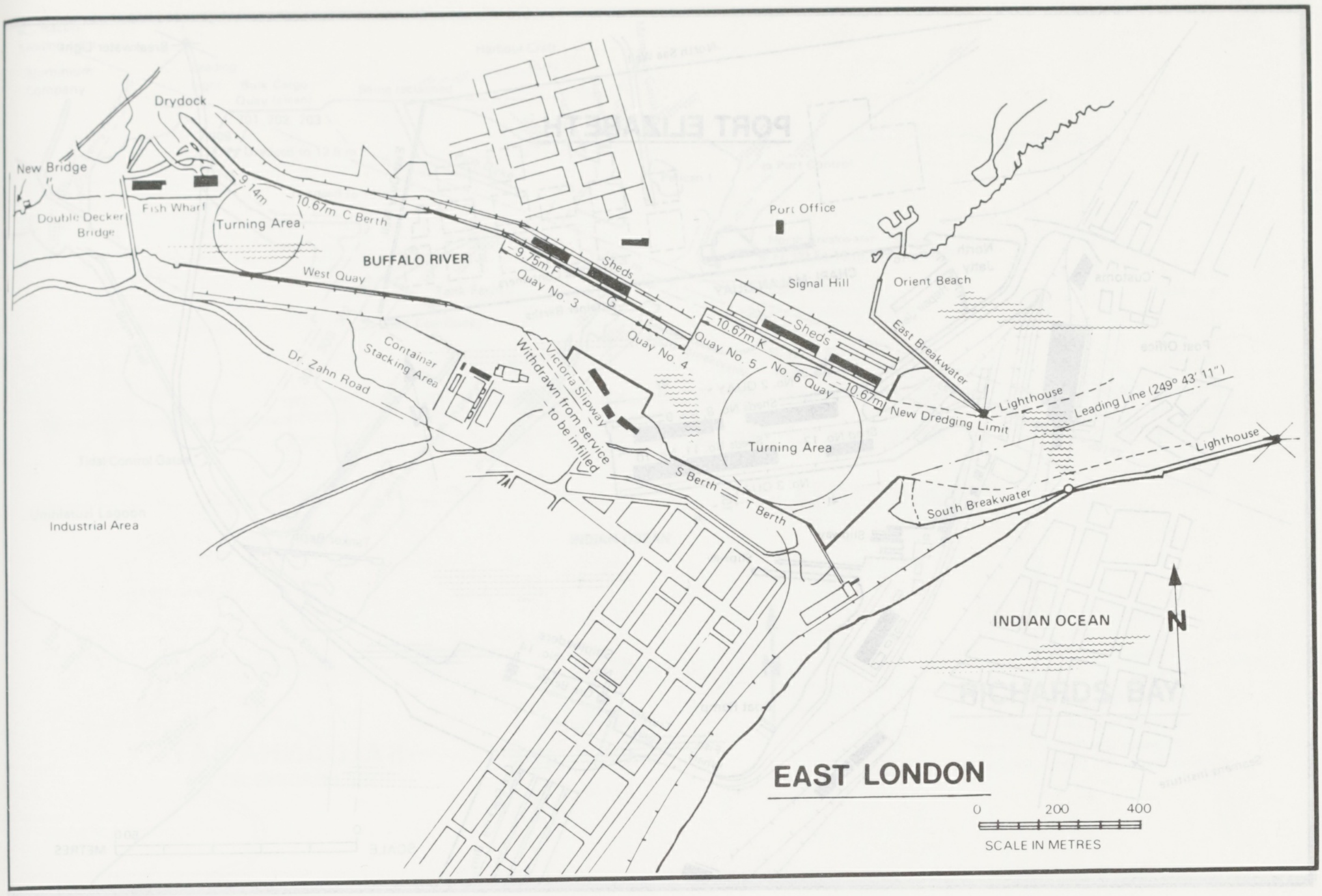
"Plan supplied by Ship's Master"

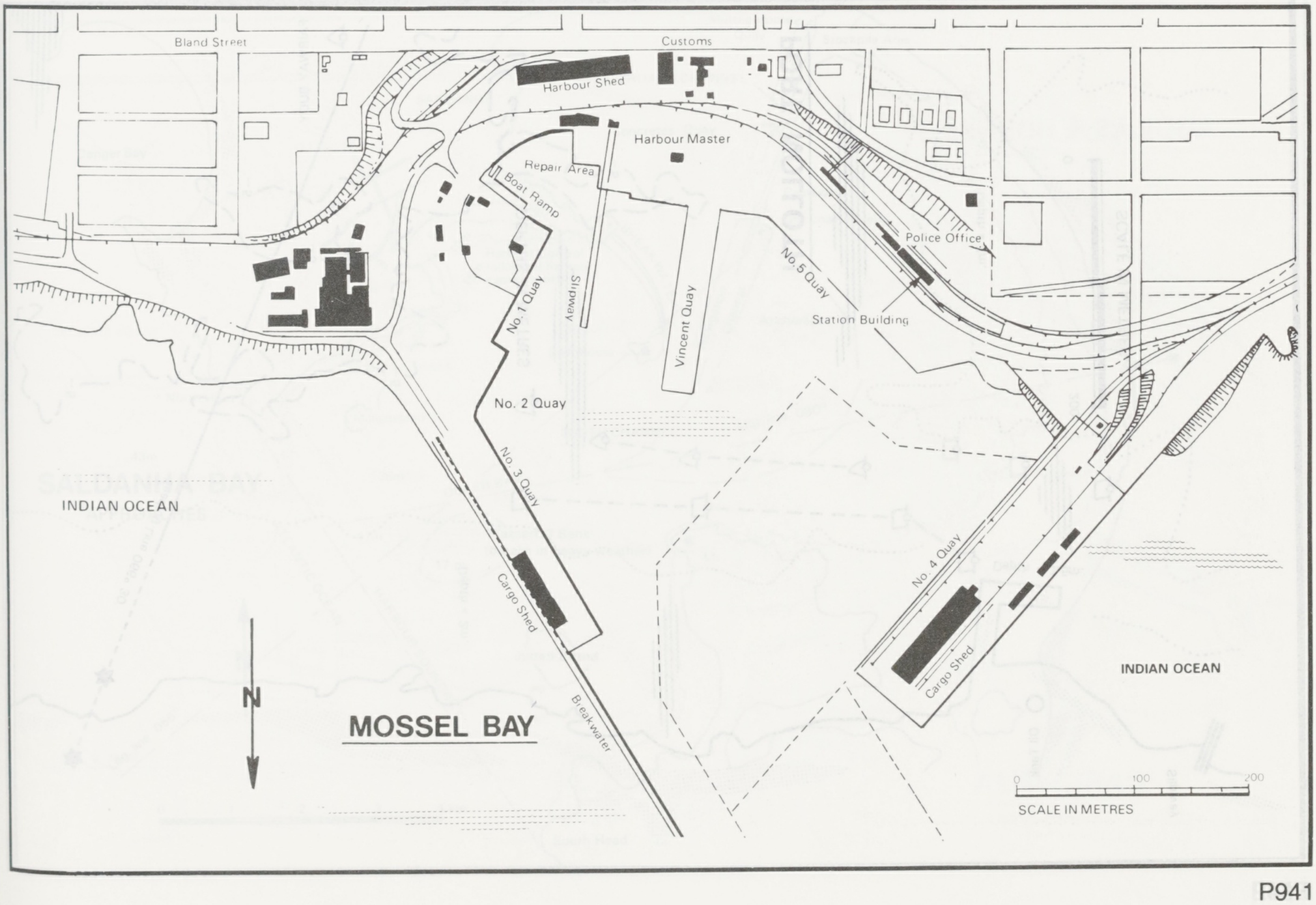

MOGADISCIO
DEPTHS IN FATHOMS
F.R.
F.R.
Q.
Q.
LEADING LIGHTS 278° 42' (T)
LEADING LIGHTS 311° (T)
LEADING LIGHTS 245° (T)
Max. draft 27 ft.
⑤
④
Crude Oil Berth
Max. draft 32 ft.
"C"
③
②
①
B & W Truncated Pyramid
on square base
F.R.
F.R.
Ras Sif Oil Terminal
5
Max. draft 40 ft.
"B"
"A"
10
10

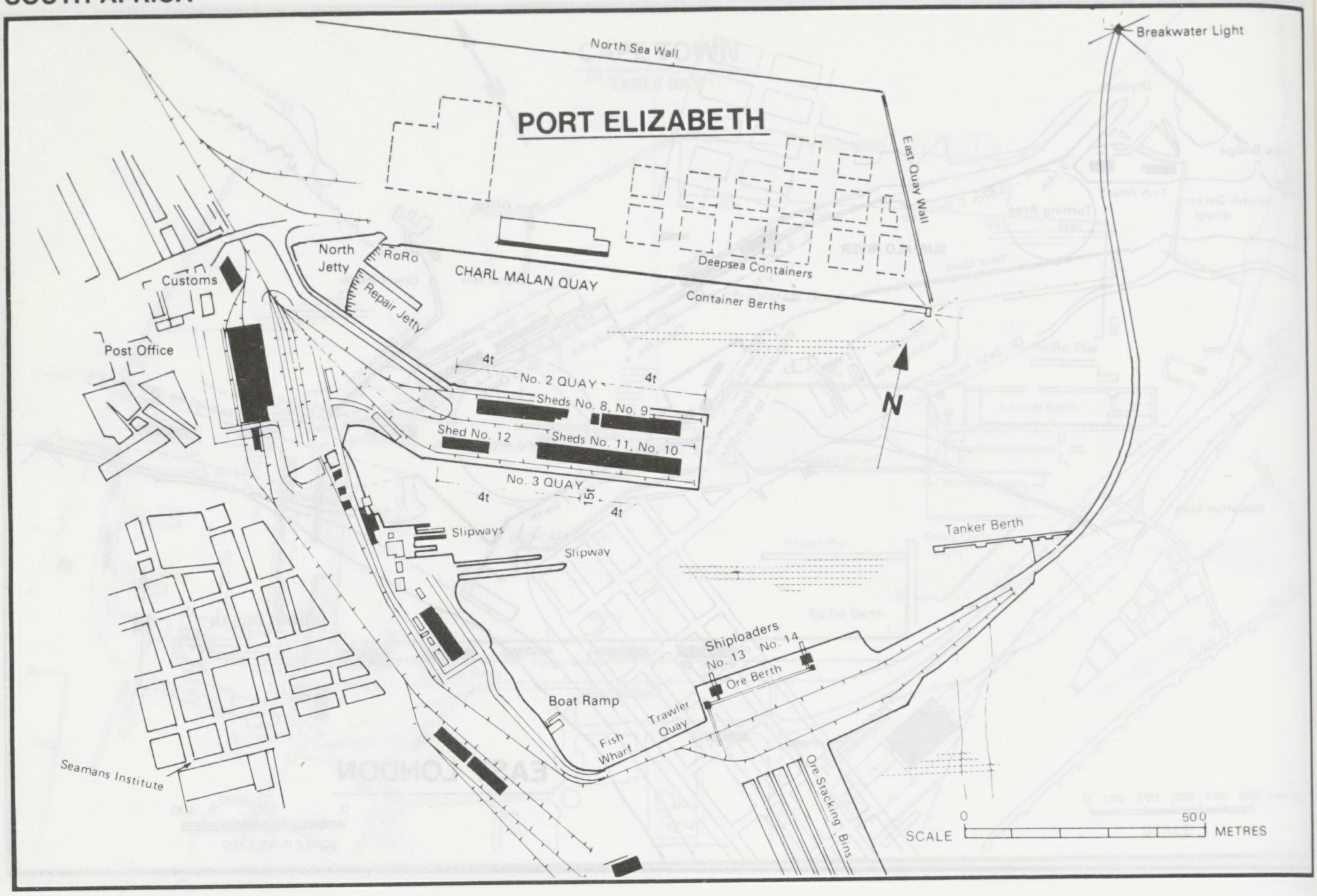
Plan supplied by Ship's Officers

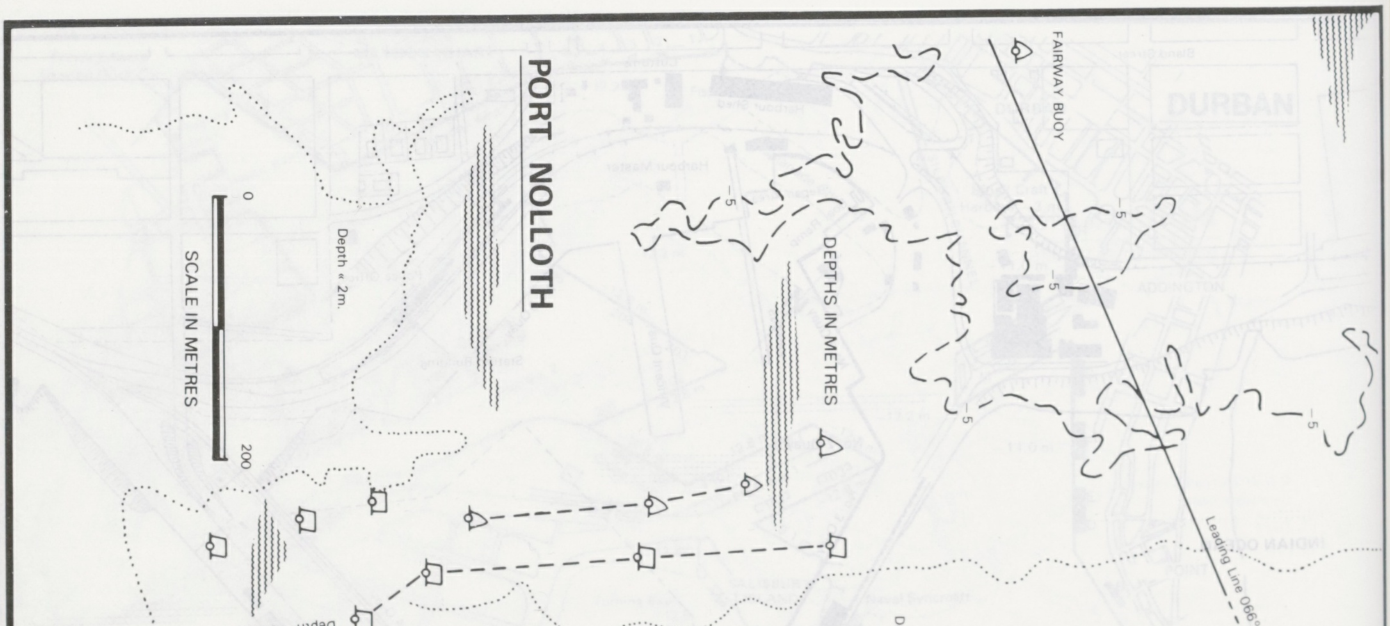

CAPE TOWN
TABLE BAY
N
APPROACH CHANNEL
Rubble Sea Wall
604
603
602
601
600
502
501
BEN SCHOEMAN DOCK
Ro/Ro Pier
Mole
Mole
Mole
Lay-up Basin
Granger Bay
Breakwater
Port Office
East Pier
VICTORIA BASIN
No. 2 Jetty
No. 1 Jetty
Berths
Cargo Shed
Pre-Cooling Store
Cargo Store
Berths
A
B
C
D
E
F
G
H
J
K
L
M
No. 1
Eastern Mole
No. 2
Landing Wharf
Sturrock Dock
DUNCAN DOCK
Repair Pier
Small Craft Basin
Ro/Ro Berth
Berths
Cargo Sheds
Duncan Road
Alfred Basin
Robinson Dock
Syncrolift
0 100 200 300 400 500 Metres
SCALE

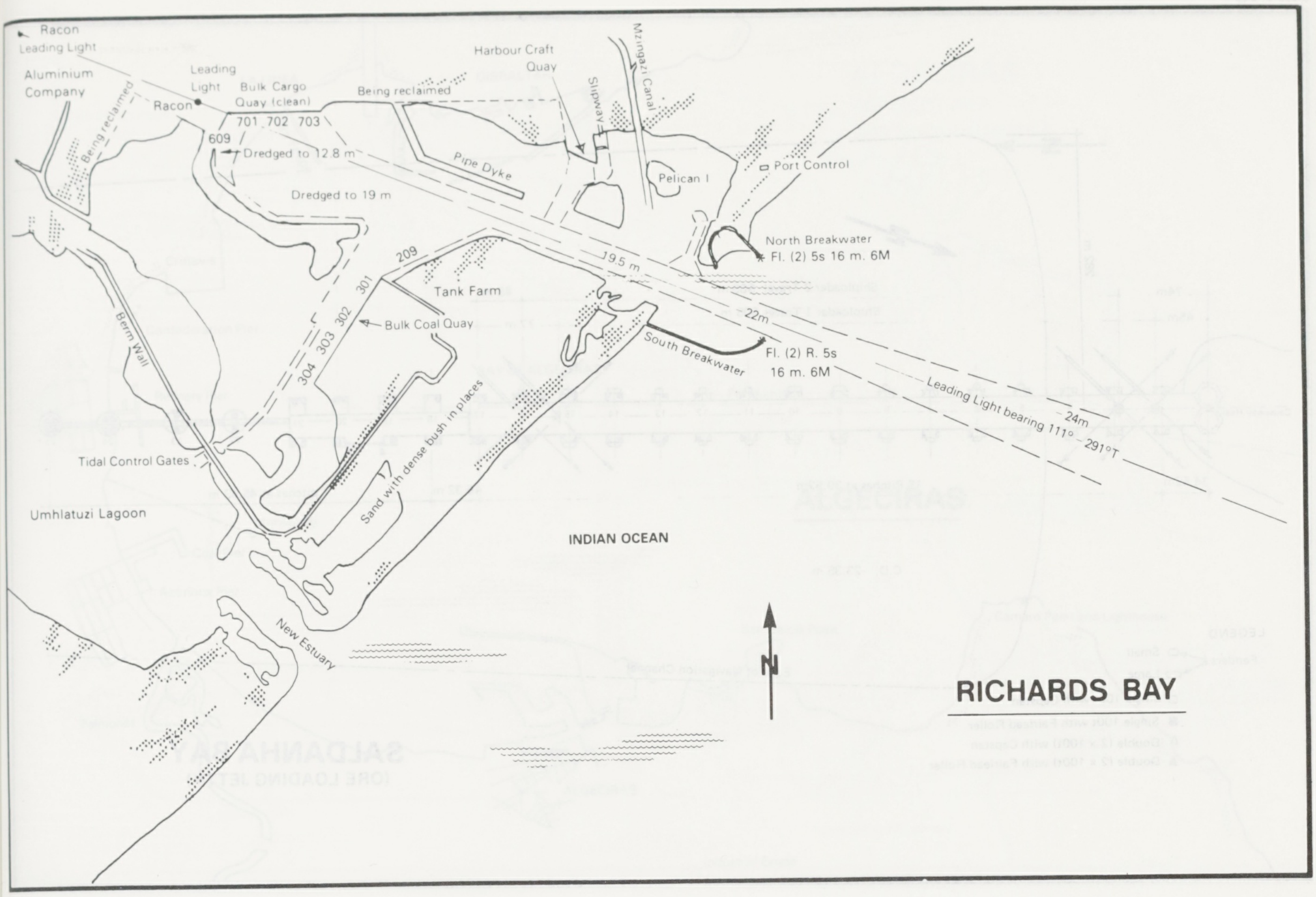

DURBAN
Prince Edward Graving Dock
MAYDON WHARF
Maydon Wharf Channel
−12.2 m
Fish Wharf & Jetty
DURBAN
Floating Dock
Ship Repair Basin
Ship Repair Site
Dolphin Berth
CHANNEL
Esplanade Channel
SILBURN CHANNEL
Small Craft Harbour − 3 m
−11.0 m
ADDINGTON
−12.2 m
−12.8 m
205
204
203
202
201
Container Terminal
S.A. Cargo Depot
Pier No. 2
−12.2 m
−11.0 m
N
M
L
Q
R
G
E
D
B
POINT
109
108
Cross berth
107
105
103
101
PIER No. 1
−9.1 m
12.8 m
−12.8 m
Fish Wharf
King's Rest
SALISBURY ISLAND
Naval Syncrolift
−8.8
S.A. Naval Base
Turning Basin
−12.8
−12.8m
Island View Channel
−11.0m
−10.7m
12.8m
Repair Quay
Tug Jetty
ENTRANCE CHANNEL −12.8m
SOUTH PIER
Bluff Quay Wall
Bluff Signal Station
THE BLUFF
FYNNLAND
INDIAN OCEAN
0 500 1000 2000
SCALE IN METRES

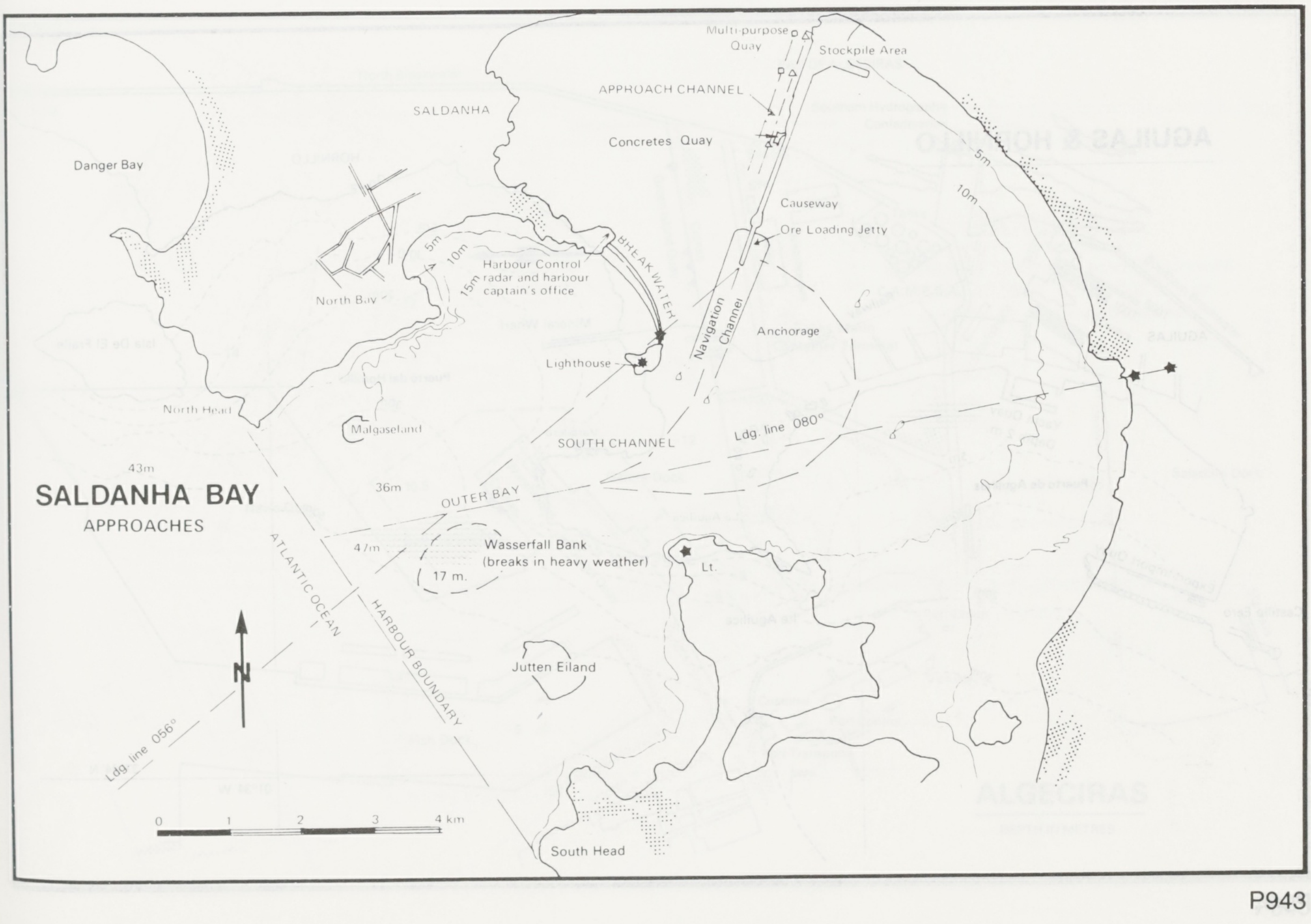

Drydock
New Bridge
Double Decker Bridge
Fish Wharf
9.14m
10.67m C Berth
Turning Area
BUFFALO RIVER
West Quay
9.75m F
Quay No. 3
G
Sheds
Port Office
Signal Hill
Orient Beach
Quay No. 4
Quay No. 5
10.67m K
Sheds
No. 6 Quay
10.67m
East Breakwater
Lighthouse
New Dredging Limit
Leading Line (249° 43' 11")
Container Stacking Area
Dr. Zahn Road
Victoria Slipway
Withdrawn from service to be infilled
Turning Area
S Berth
T Berth
South Breakwater
Lighthouse
Industrial Area
INDIAN OCEAN
N
EAST LONDON
0
200
400
SCALE IN METRES

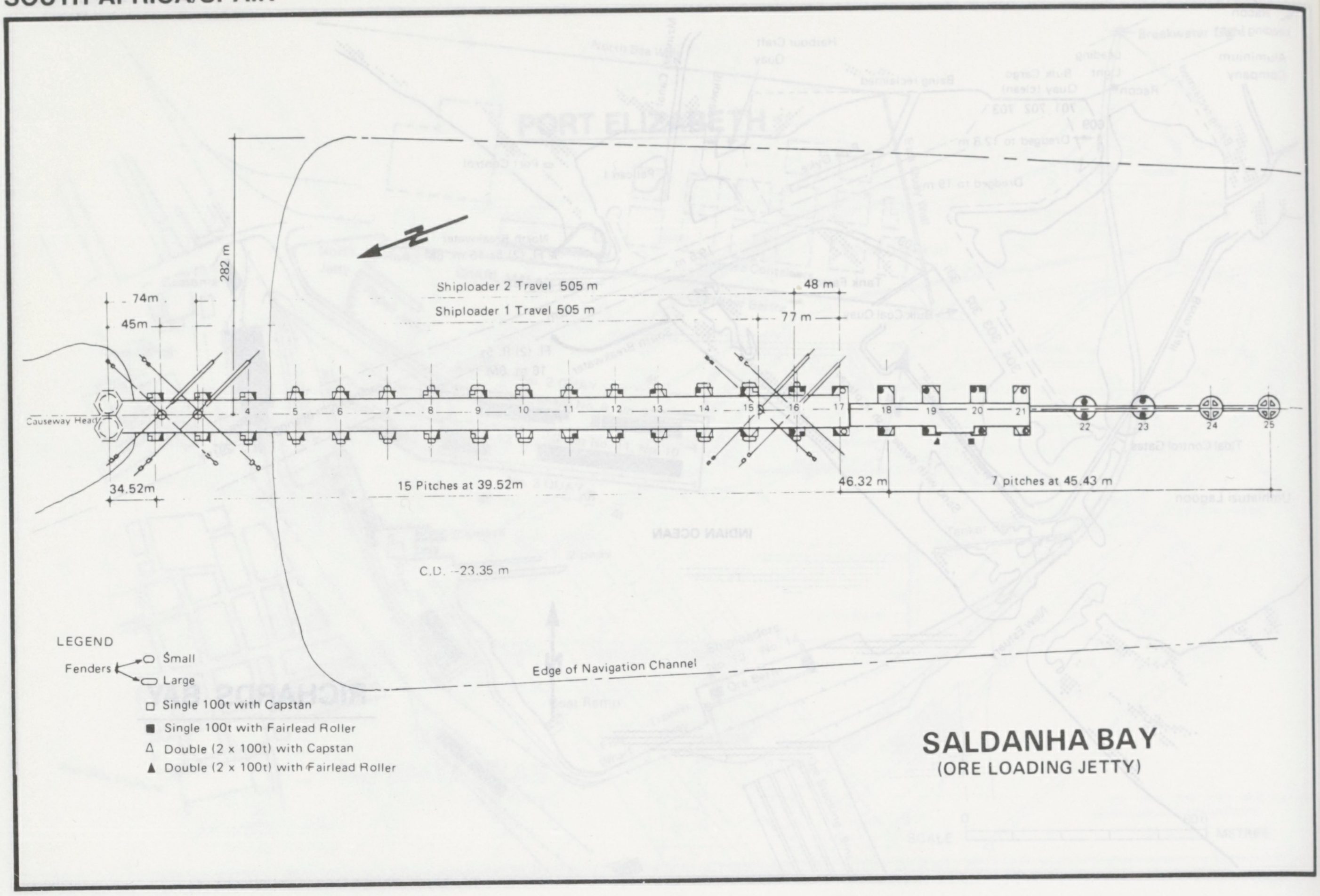

Bland Street
Customs
Harbour Shed
Harbour Master
Repair Area
Boat Ramp
Police Office
No. 5 Quay
Station Building
No. 1 Quay
Slipway
Vincent Quay
No. 2 Quay
No. 3 Quay
Cargo Shed
Breakwater
No. 4 Quay
Cargo Shed
INDIAN OCEAN
INDIAN OCEAN
N
MOSSEL BAY
0
100
200
SCALE IN METRES


PORT ELIZABETH
North Sea Wall
Breakwater Light
East Quay Wall
Deepsea Containers
Container Berths
CHARL MALAN QUAY
North Jetty
RoRo
Repair Jetty
Customs
Post Office
4t
No. 2 QUAY
4t
Sheds No. 8, No. 9
Shed No. 12
Sheds No. 11, No. 10
No. 3 QUAY
4t
15t
4t
N
Slipways
Slipway
Tanker Berth
Shiploaders
No. 13
No. 14
Ore Berth
Boat Ramp
Trawler Quay
Fish Wharf
Ore Stacking Bins
Seamans Institute
SCALE
0
500
METRES


PORT NOLLOTH
FAIRWAY BUOY
DEPTHS IN METRES
−5
−5
−5
−5
−5
Depth ≈ 2m.
SCALE IN METRES
0
200
Depth −3.5m.
Depth ≈ 2m.
Leading Line 066° 30'
Oil Tank
Slipway

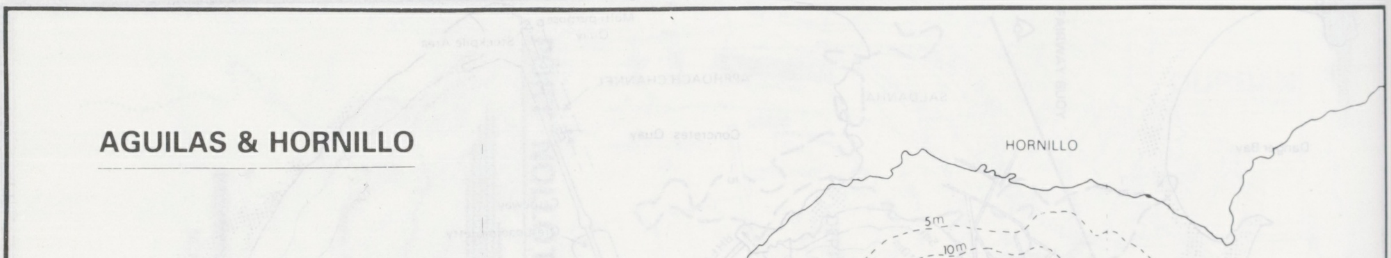

Racon
Leading Light
Aluminium Company
Being reclaimed
Leading Light
Racon
Bulk Cargo Quay (clean)
701 702 703
609
Dredged to 12.8 m
Dredged to 19 m
Being reclaimed
Harbour Craft Quay
Slipway
Mzingazi Canal
Pipe Dyke
Pelican I
Port Control
North Breakwater
Fl. (2) 5s 16 m. 6M
19.5 m
22m
209
301
302
303
304
Tank Farm
Bulk Coal Quay
Berm Wall
South Breakwater
Fl. (2) R. 5s 16 m. 6M
Leading Light bearing 111° - 291°T
24m
Tidal Control Gates
Sand with dense bush in places
Umhlatuzi Lagoon
INDIAN OCEAN
New Estuary
N
RICHARDS BAY


Multi-purpose Quay
Stockpile Area
APPROACH CHANNEL
SALDANHA
Concretes Quay
Danger Bay
5m
10m
Causeway
Ore Loading Jetty
BREAKWATER
5m
10m
15m
Harbour Control radar and harbour captain's office
North Bay
Navigation Channel
Anchorage
Lighthouse
North Head
Malgaseland
SOUTH CHANNEL
Ldg. line 080°
43m
36m
OUTER BAY
SALDANHA BAY
APPROACHES
47m
Wasserfall Bank (breaks in heavy weather)
17 m.
Lt.
ATLANTIC OCEAN
HARBOUR BOUNDARY
N
Jutten Eiland
Ldg. line 056°
0
1
2
3
4 km
South Head



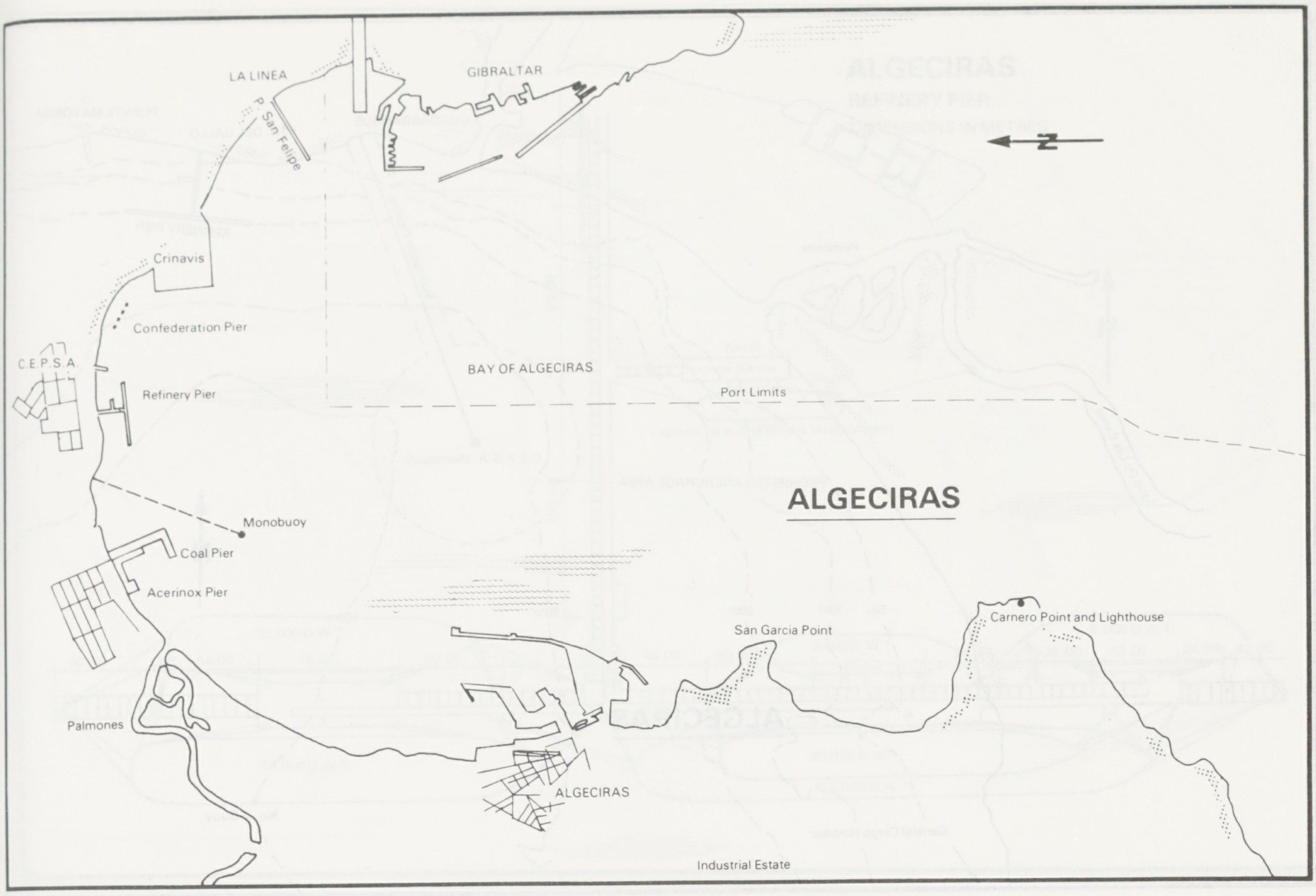
SALDANHA BAY
(ORE LOADING JETTY)

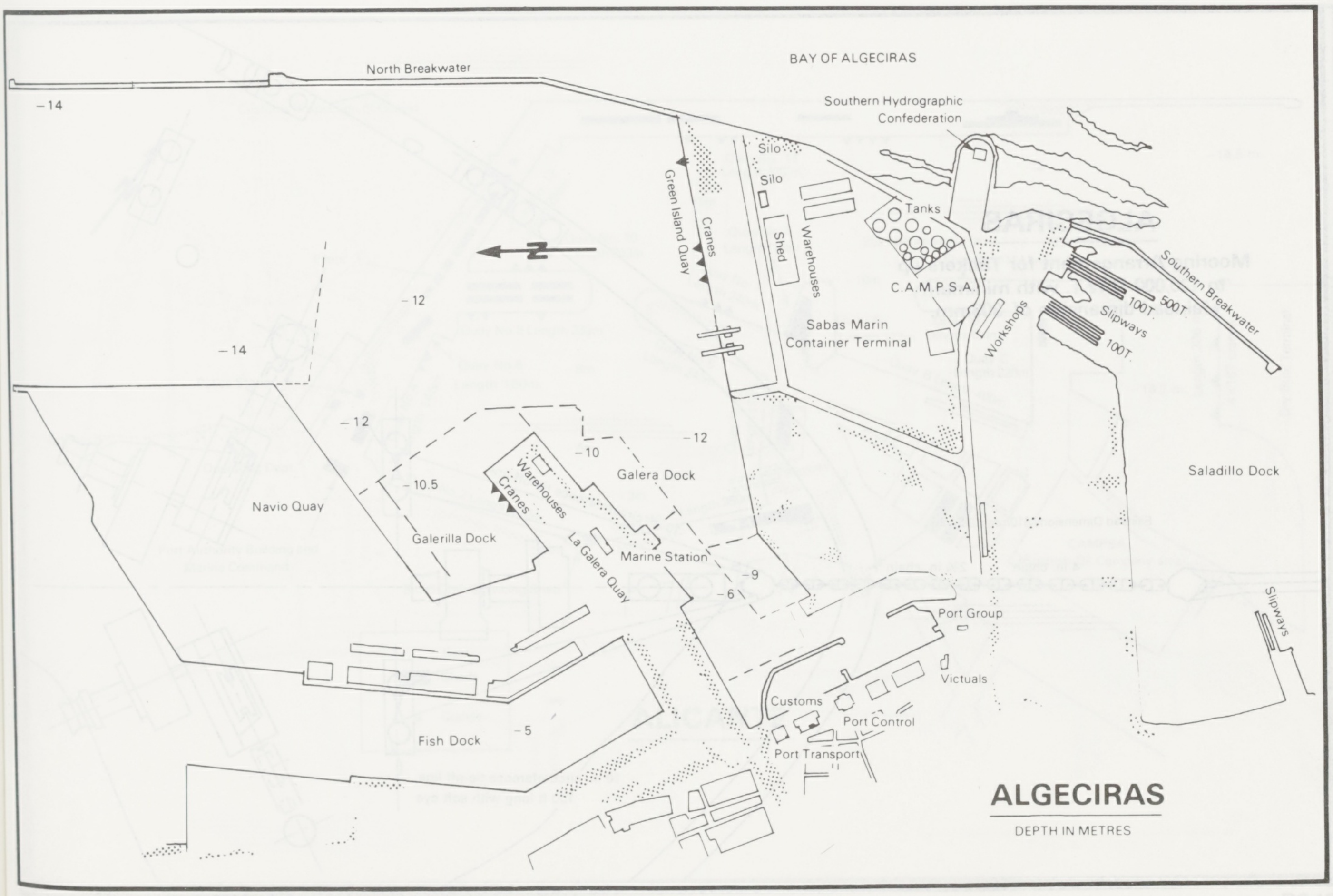
Shiploader 2 Travel 505 m
Shiploader 1 Travel 505 m
282 m
74m
45m
48 m
77 m
Causeway Head
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
34.52m
15 Pitches at 39.52m
46.32 m
7 pitches at 45.43 m
C.D. –23.35 m
Edge of Navigation Channel
LEGEND
Fenders
Small
Large
□ Single 100t with Capstan
■ Single 100t with Fairlead Roller
Δ Double (2 x 100t) with Capstan
▲ Double (2 x 100t) with Fairlead Roller

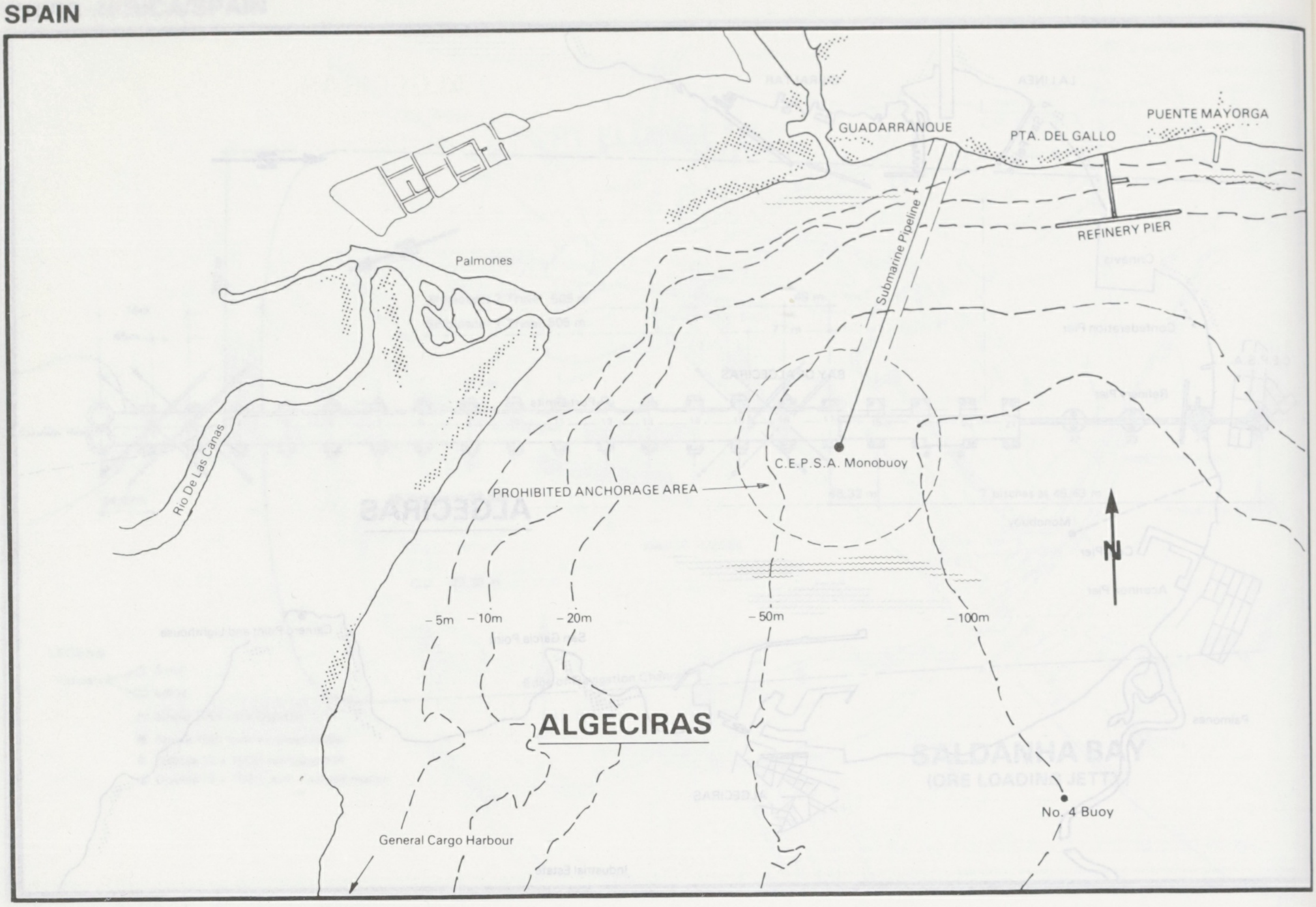


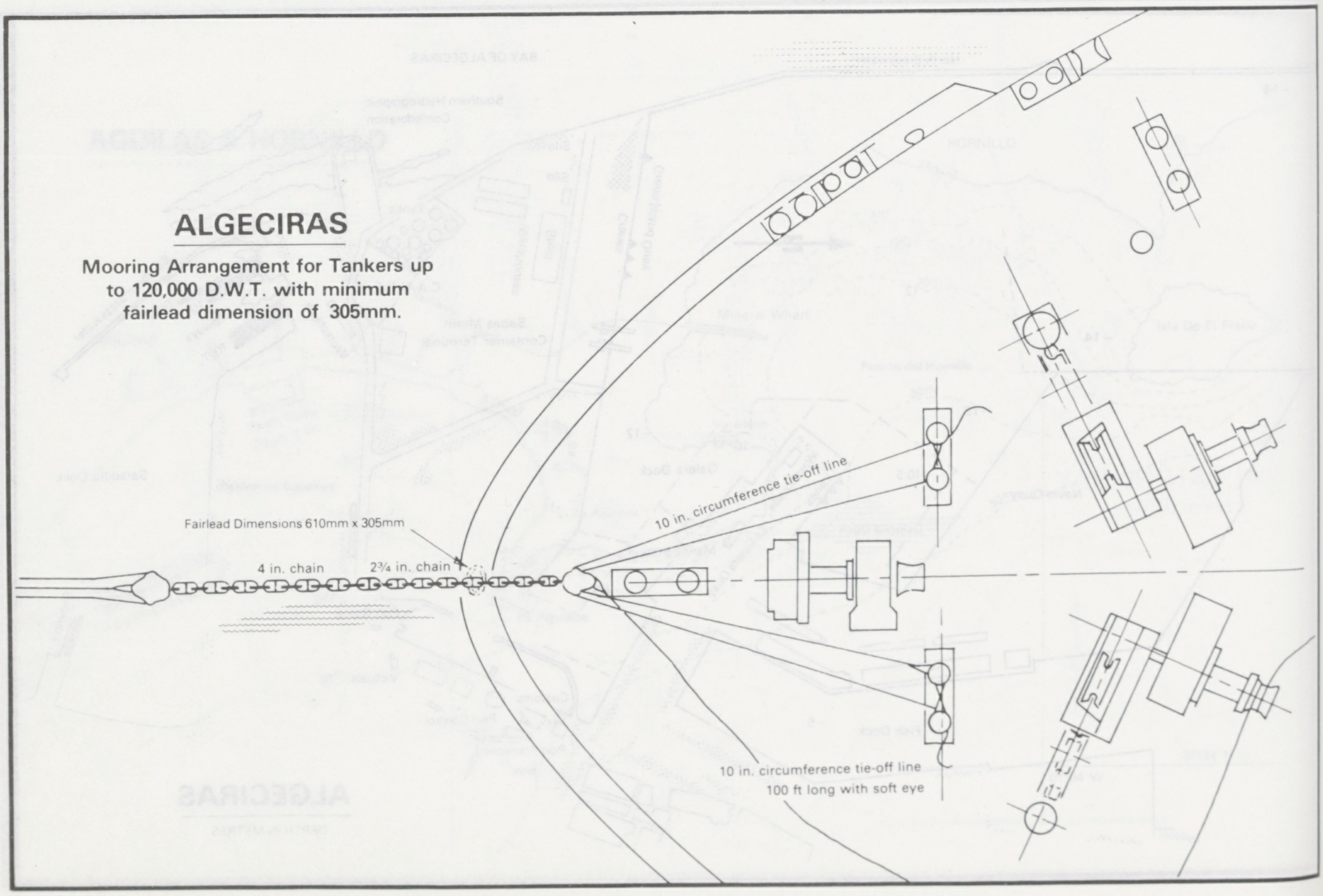
AGUILAS & HORNILLO

HORNILLO
AGUILAS
Railway
Mineral Wharf
Isla De El Fraile
Puerto del Hornillo
Yacht Quay
Depth 2 m.
Varadero
Puerto de Aguilhas
La Aguilica
Export/Import Quay
Castillo Faro
Ite Aguilica
5m
10m
20m
30m
50m
37°24' N
01°34' W


LA LINEA
GIBRALTAR
P. San Felipe
N
Crinavis
Confederation Pier
C.E.P.S.A.
Refinery Pier
BAY OF ALGECIRAS
Port Limits
ALGECIRAS
Monobuoy
Coal Pier
Acerinox Pier
San Garcia Point
Carnero Point and Lighthouse
Palmones
ALGECIRAS
Industrial Estate

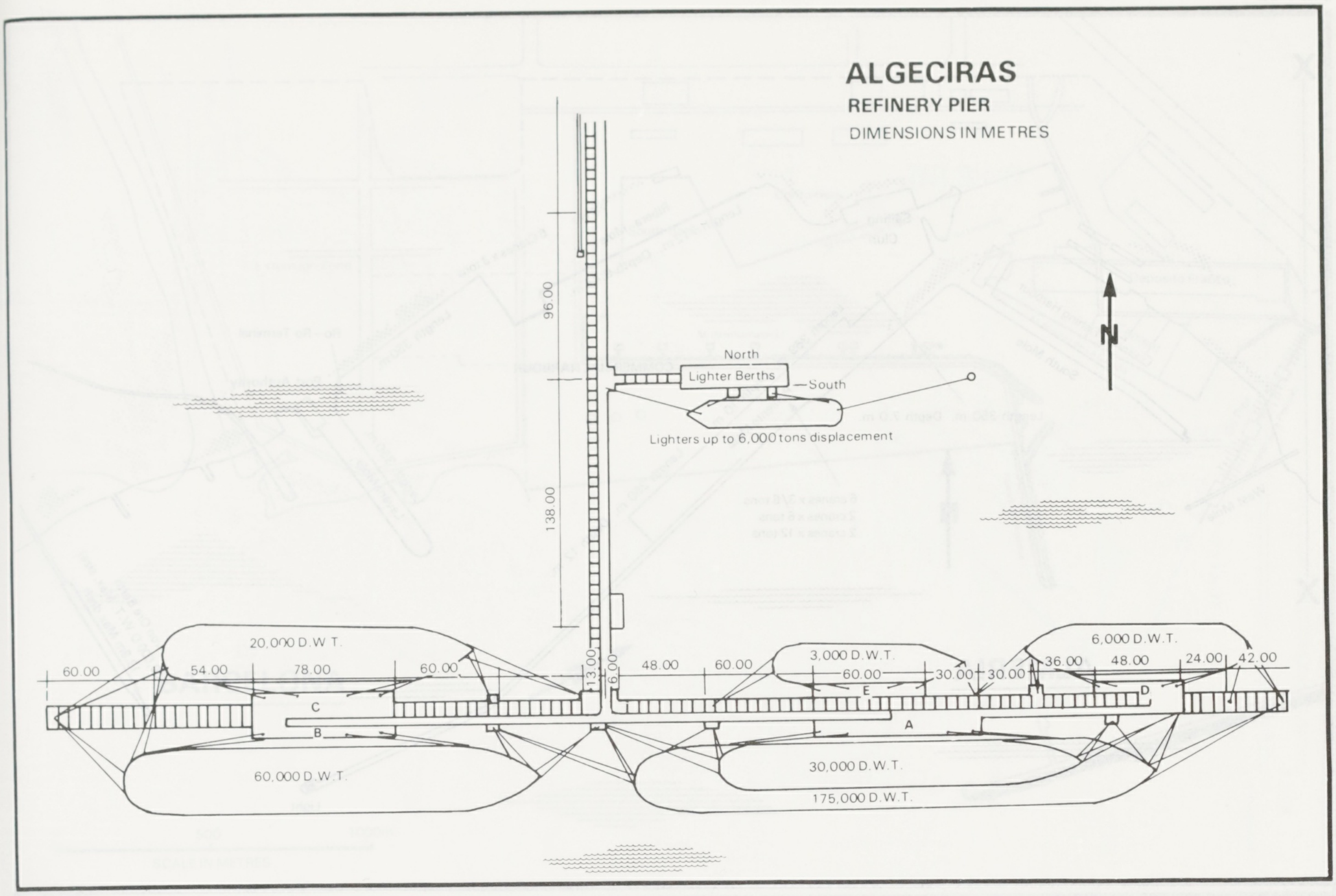

North Breakwater
BAY OF ALGECIRAS
−14
Southern Hydrographic Confederation
Silo
Silo
Green Island Quay
Cranes
Shed
Warehouses
Tanks
N
C.A.M.P.S.A.
Southern Breakwater
500T.
100T.
Slipways
100T.
Workshops
−12
−14
Sabas Marin Container Terminal
−12
−12
−10
Galera Dock
−10.5
Warehouses
Cranes
Navio Quay
Galerilla Dock
La Galera Quay
Marine Station
−9
−6
Saladillo Dock
Port Group
Slipways
Victuals
Customs
Port Control
Fish Dock
−5
Port Transport
ALGECIRAS
DEPTH IN METRES

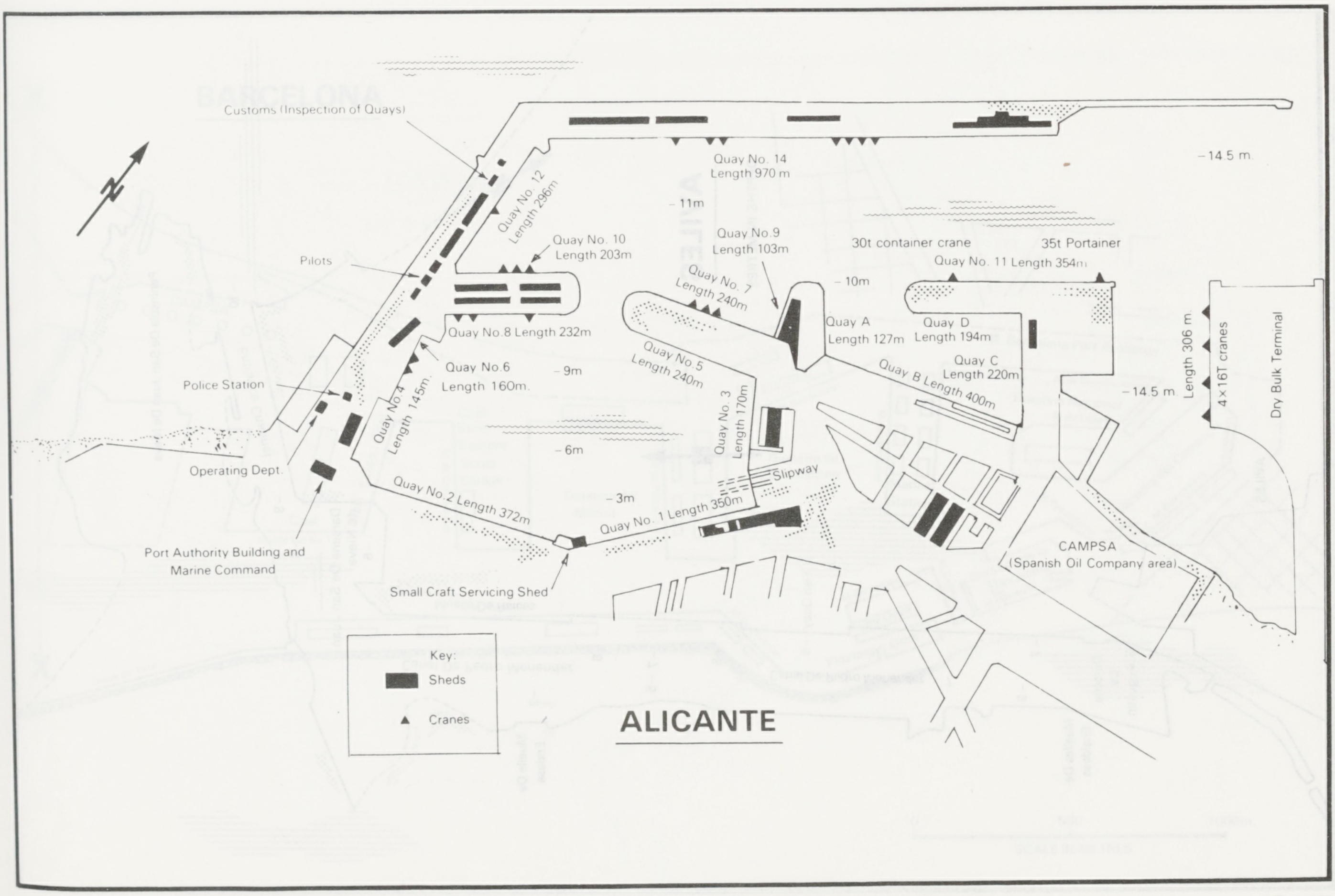

GUADARRANQUE
PTA. DEL GALLO
PUENTE MAYORGA
REFINERY PIER
Submarine Pipeline
Palmones
Rio De Las Canas
C.E.P.S.A. Monobuoy
PROHIBITED ANCHORAGE AREA
N
– 5m
– 10m
– 20m
– 50m
– 100m
ALGECIRAS
General Cargo Harbour
No. 4 Buoy

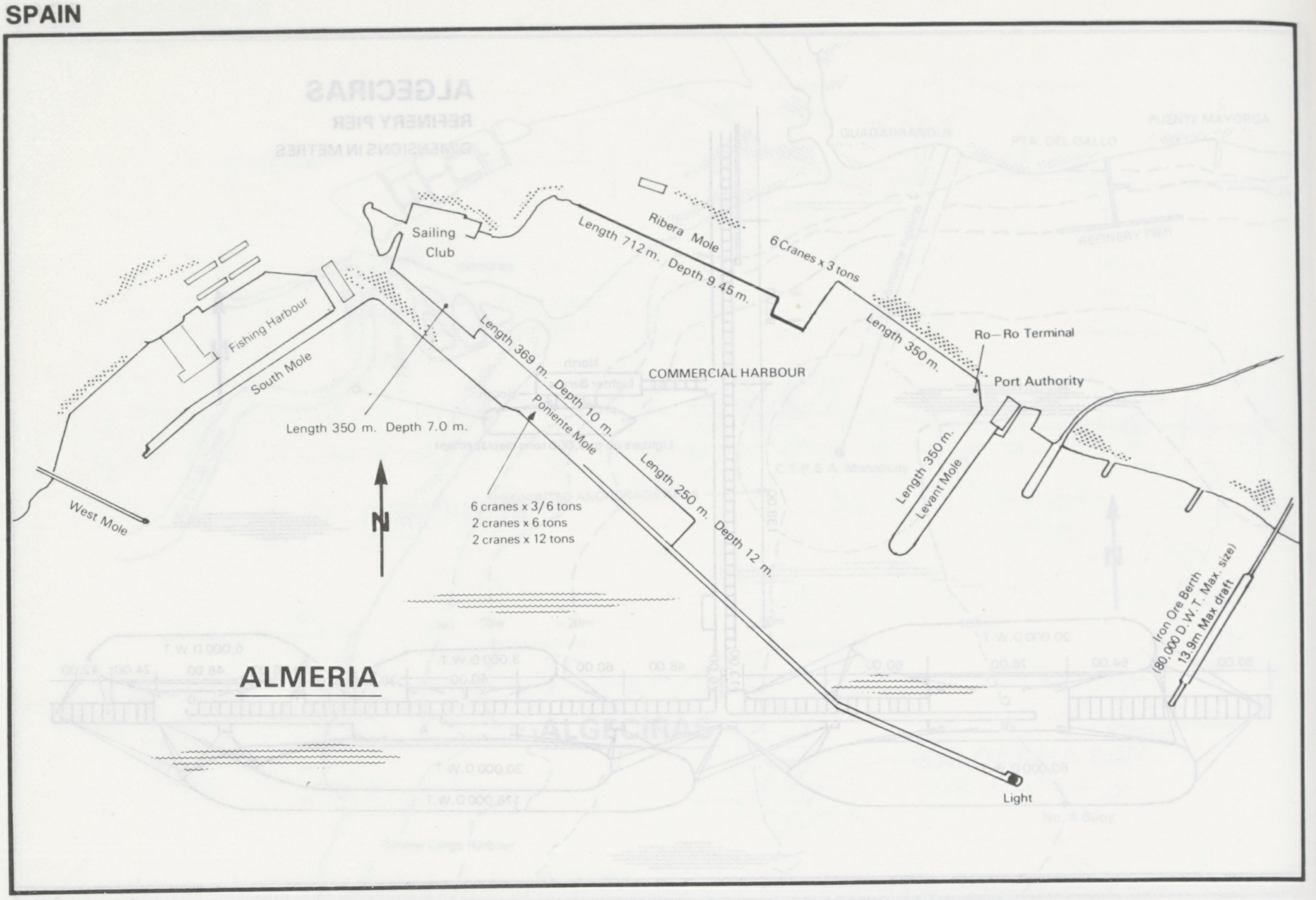

Fairlead Dimensions 610mm x 305mm
4 in. chain
2¾ in. chain
10 in. circumference tie-off line
10 in. circumference tie-off line
100 ft long with soft eye

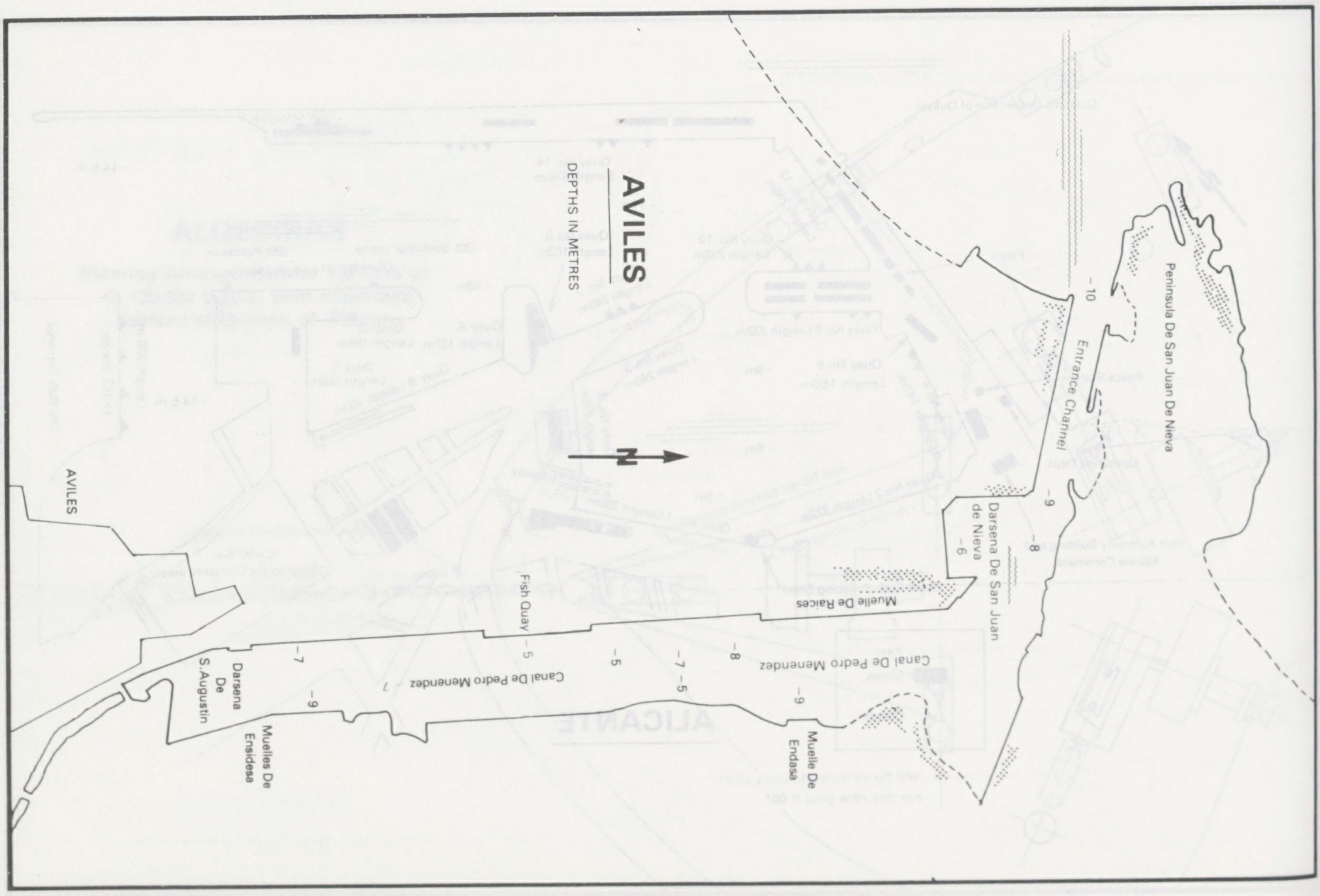
ALGECIRAS

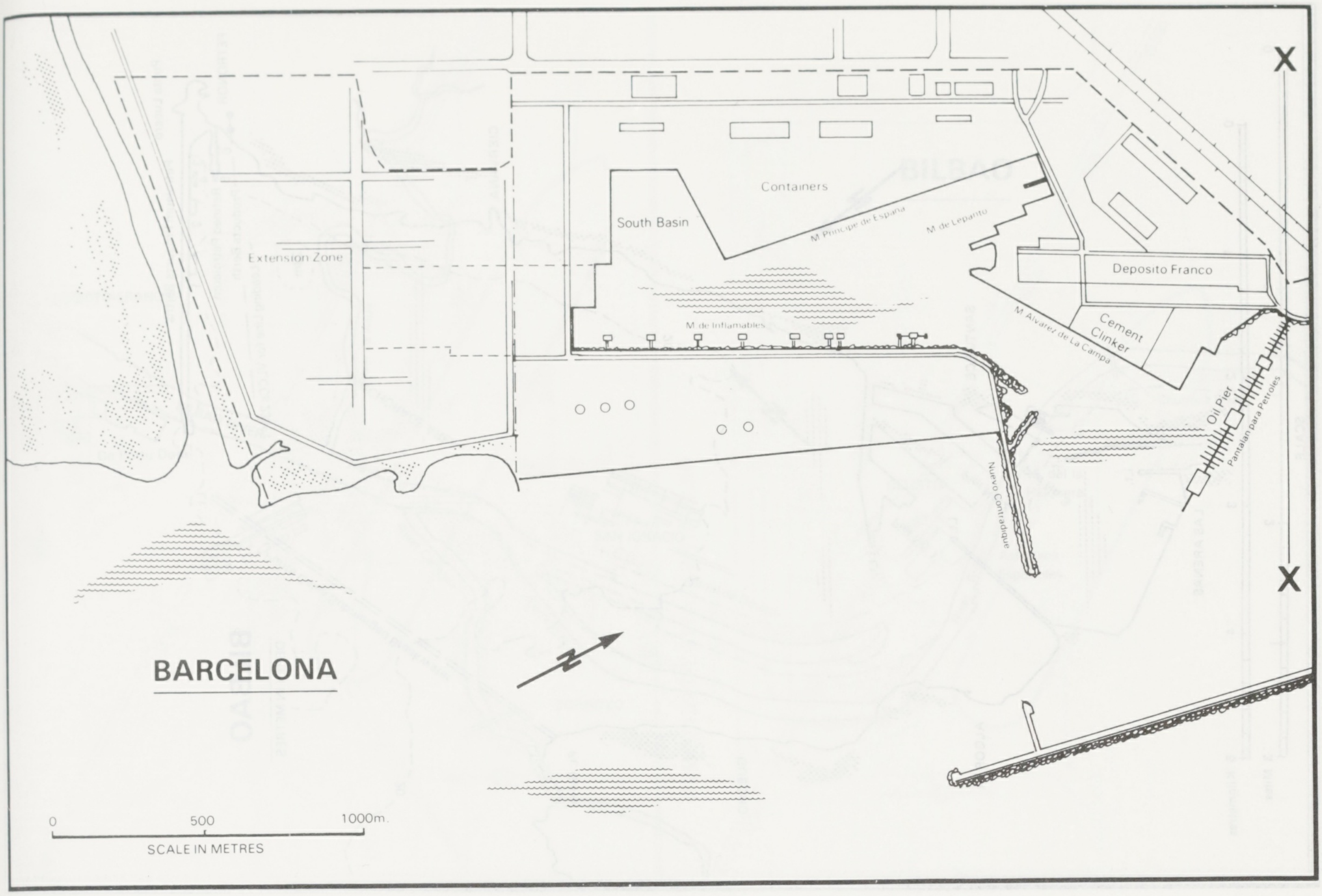
Mooring Arrangement for Tankers up to 120,000 D.W.T. with minimum fairlead dimension of 305mm.

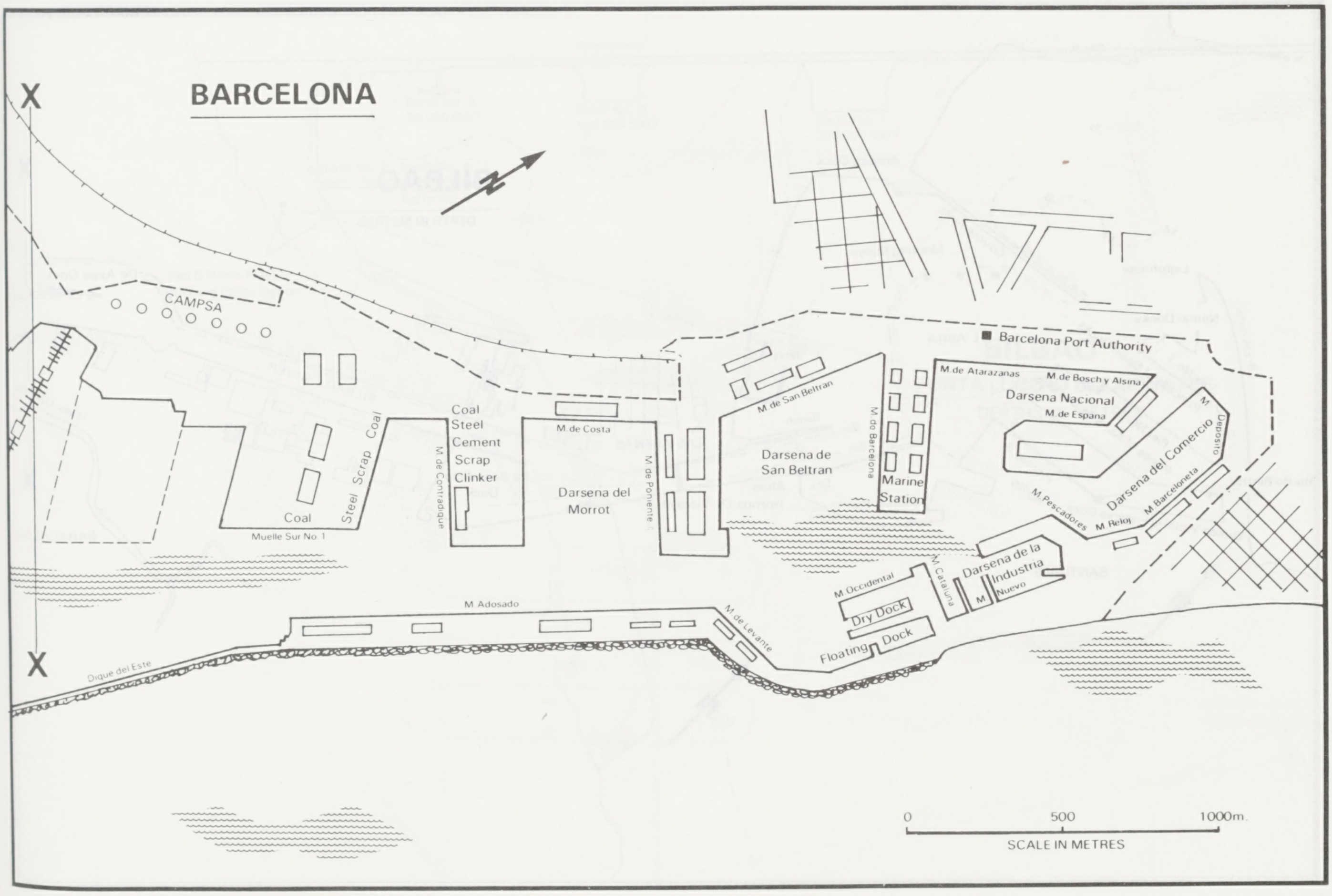

ALGECIRAS
REFINERY PIER
DIMENSIONS IN METRES
N
96.00
138.00
North
Lighter Berths
South
Lighters up to 6,000 tons displacement
20,000 D.W.T.
3,000 D.W.T.
6,000 D.W.T.
60.00
54.00
78.00
60.00
13.00
6.00
48.00
60.00
60.00
30.00
30.00
36.00
48.00
24.00
42.00
C
B
E
A
D
60,000 D.W.T.
30,000 D.W.T.
175,000 D.W.T.

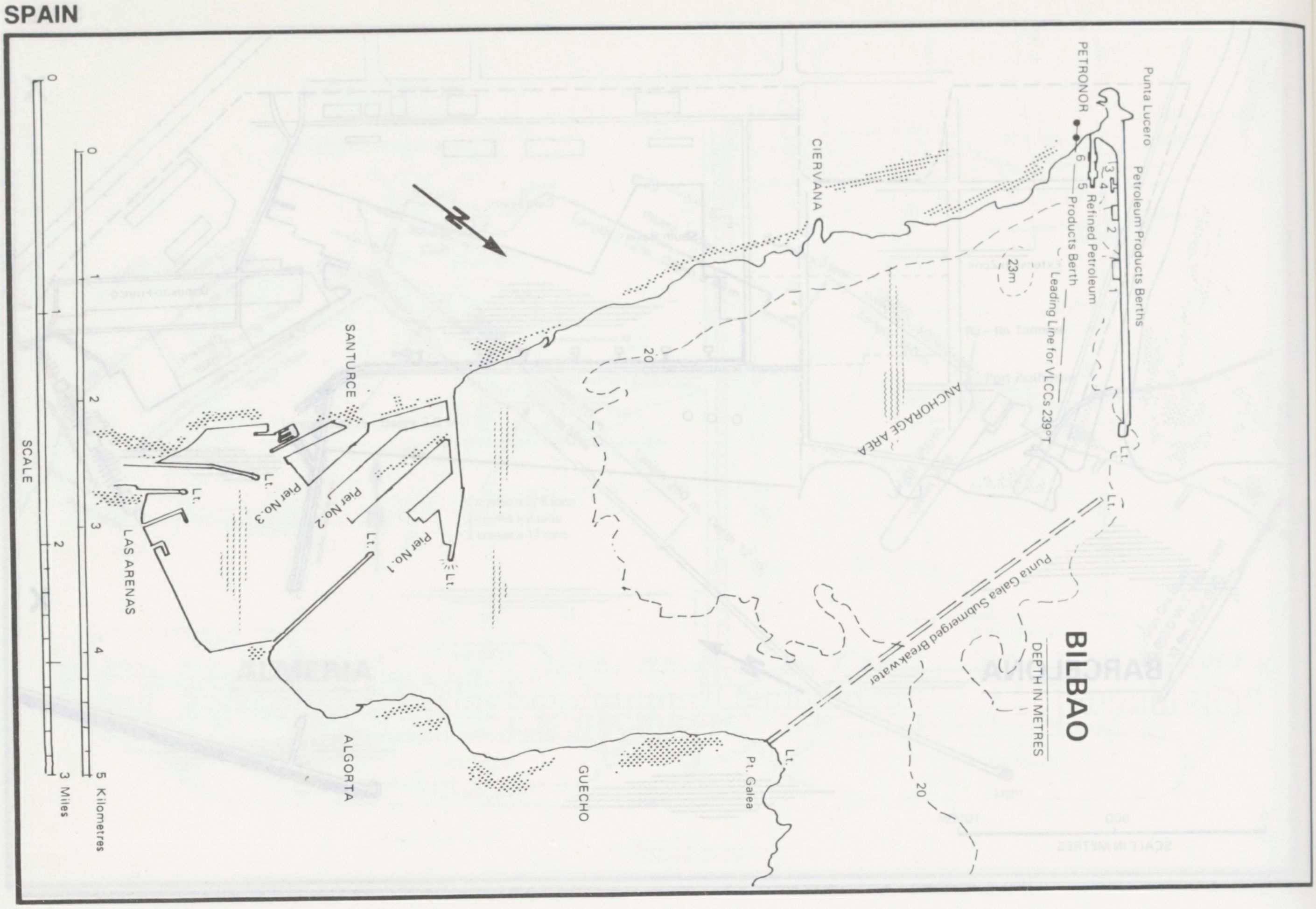

Customs (Inspection of Quays)
Quay No. 14
Length 970 m
−14.5 m
Quay No. 12
Length 296m
−11m
Quay No. 10
Length 203m
Quay No. 9
Length 103m
30t container crane
35t Portainer
Quay No. 11 Length 354m
Pilots
Quay No. 7
Length 240m
−10m
Quay No.8 Length 232m
Quay A
Length 127m
Quay D
Length 194m
Length 306 m
4 × 16T cranes
Dry Bulk Terminal
Quay No.6
Length 160m.
−9m
Quay No 5
Length 240m
Quay C
Length 220m
Quay B Length 400m
−14.5 m
Police Station
Quay No.4
Length 145m
Quay No. 3
Length 170m
−6m
Operating Dept.
Slipway
Quay No.2 Length 372m
−3m
Quay No. 1 Length 350m
Port Authority Building and
Marine Command
CAMPSA
(Spanish Oil Company area)
Small Craft Servicing Shed
Key:
Sheds
Cranes
ALICANTE

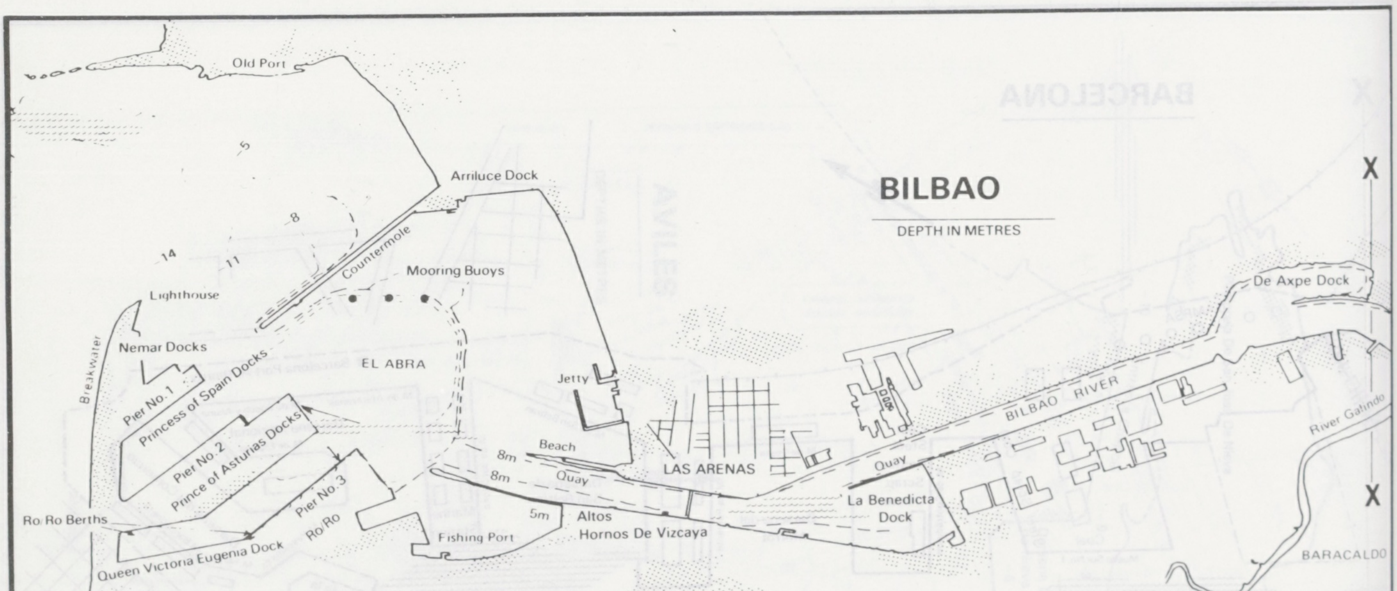

ALMERIA
Sailing Club
Ribera Mole
Length 712 m. Depth 9.45 m.
6 Cranes x 3 tons
Length 350 m.
Ro–Ro Terminal
Port Authority
Fishing Harbour
South Mole
Length 369 m. Depth 10 m.
Poniente Mole
COMMERCIAL HARBOUR
Length 350 m. Depth 7.0 m.
Length 250 m. Depth 12 m.
6 cranes x 3/6 tons
2 cranes x 6 tons
2 cranes x 12 tons
N
Length 350 m.
Levant Mole
West Mole
Iron Ore Berth
(80,000 D.W.T. Max. size)
13.9m Max draft
Light

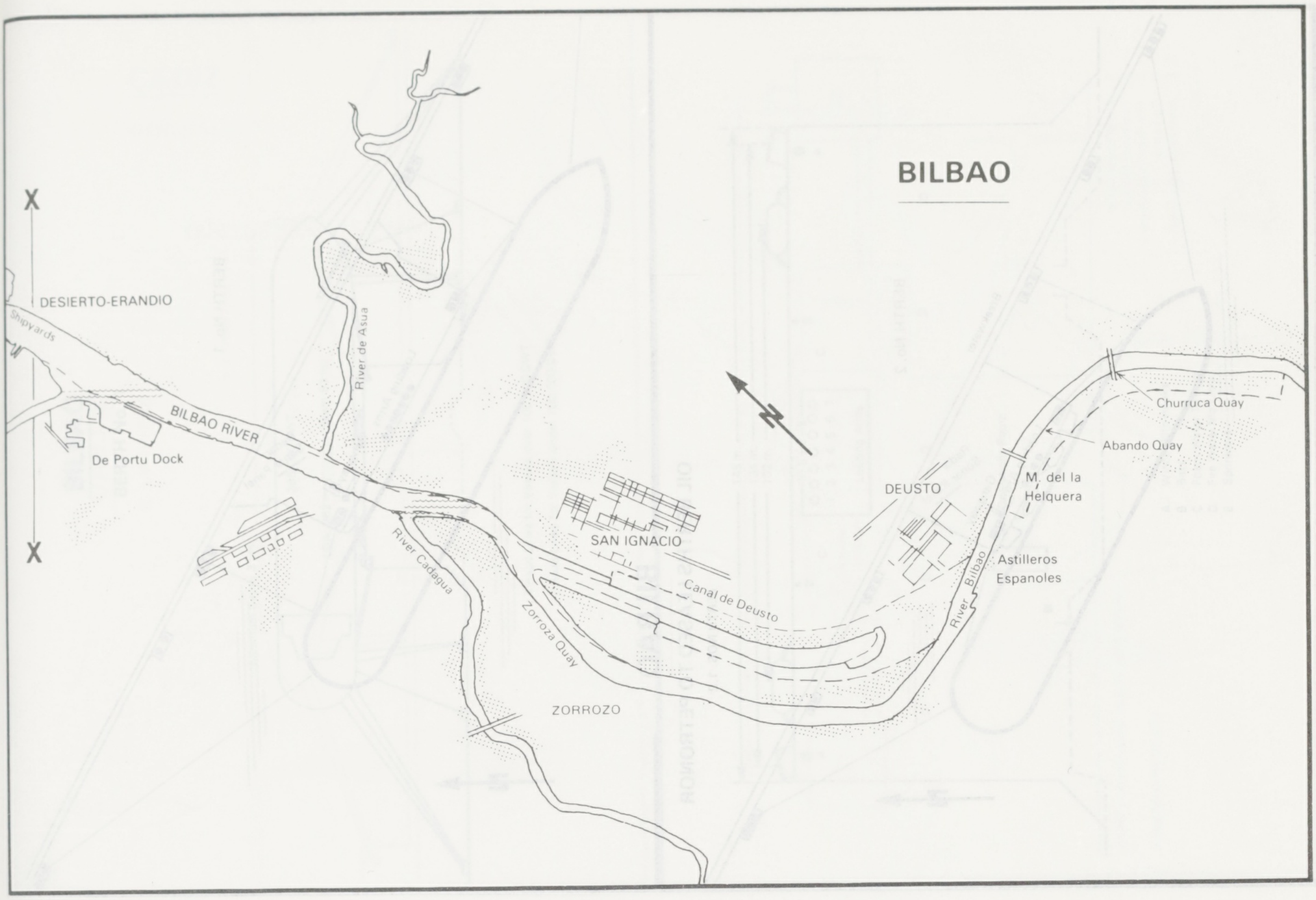

AVILES
DEPTHS IN METRES
N
Peninsula De San Juan De Nieva
−10
Entrance Channel
−9
−8
Darsena De San Juan de Nieva
−6
Muelle De Raices
Canal De Pedro Menendez
−8
−9
Muelle De Endasa
−7
−5
−5
Fish Quay
−5
Canal De Pedro Menendez
−7
−9
−7
Darsena De S.Augustin
Muelles De Ensidesa
AVILES

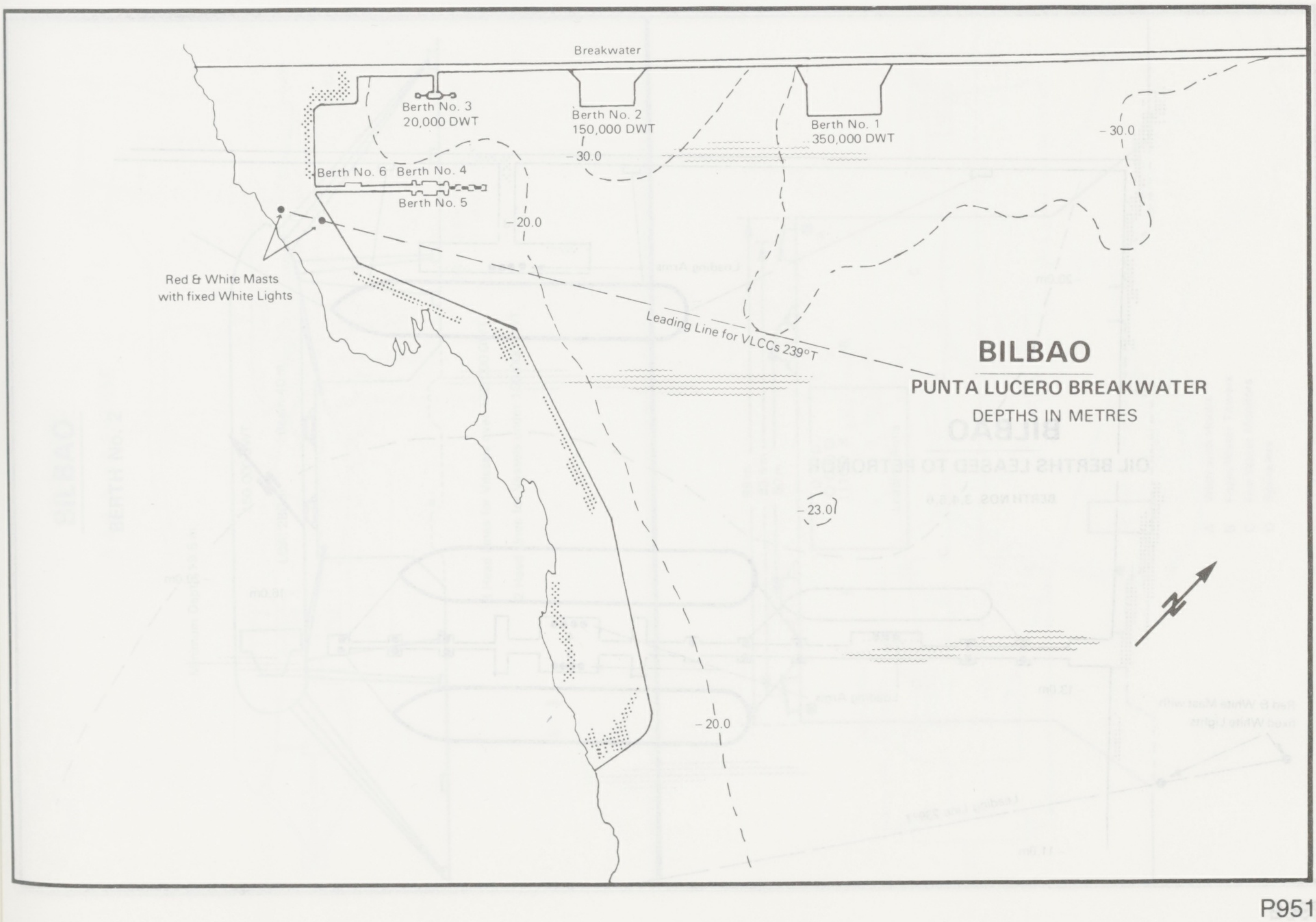

X
X
Containers
South Basin
M. Principe de España
M. de Lepanto
Extension Zone
Deposito Franco
Cement
Clinker
M. Alvarez de La Campa
M. de Inflamables
Oil Pier
Pantalan para Petroles
Nuevo Contradique
BARCELONA
0
500
1000m.
SCALE IN METRES

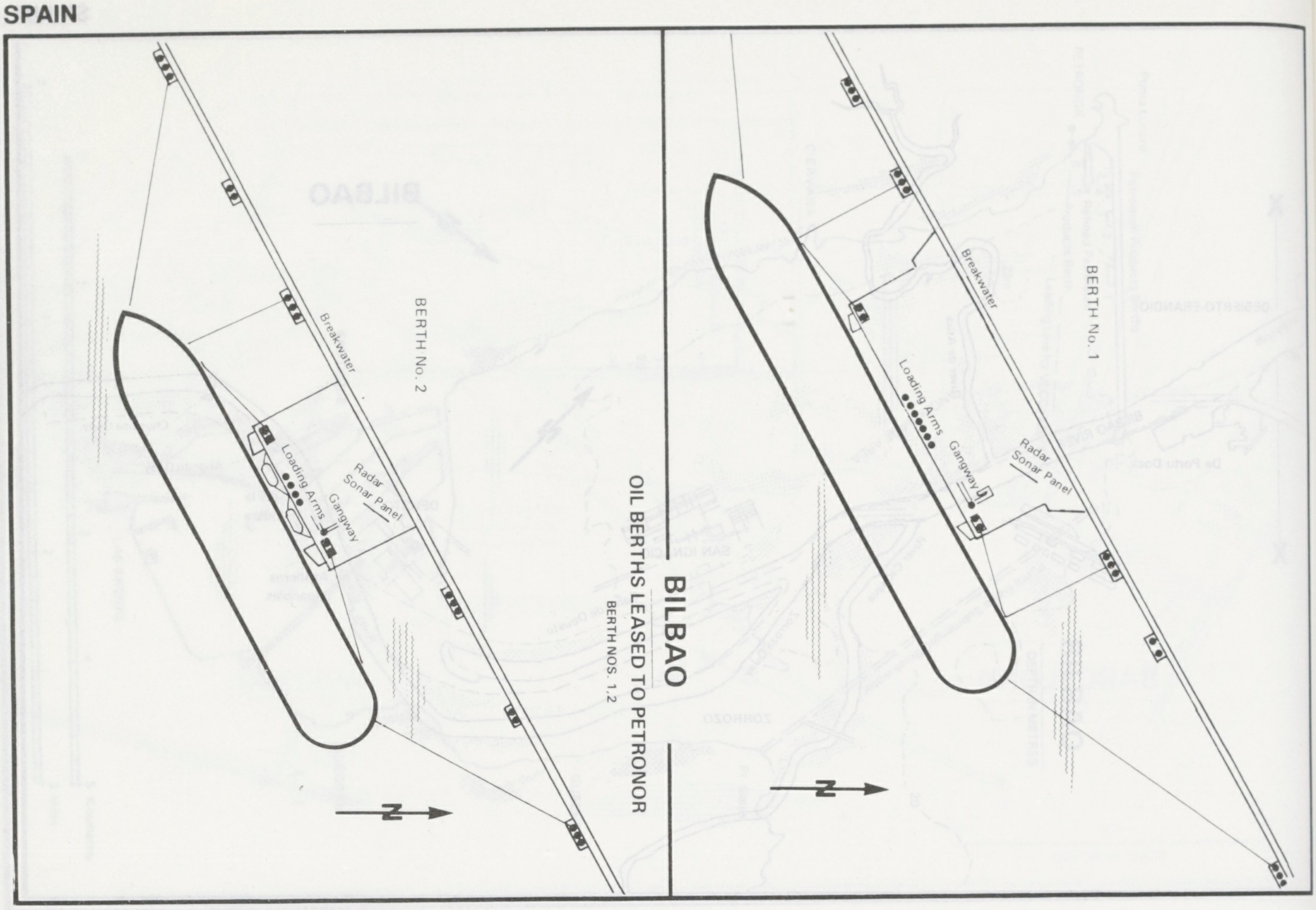

X
BARCELONA
X
CAMPSA
Barcelona Port Authority
M. de Atarazanas
M. de Bosch y Alsina
Darsena Nacional
M. de España
M. de San Beltran
M. de Barcelona
Darsena de San Beltran
Marine Station
Coal
Steel
Cement
Scrap
Clinker
M. de Costa
M. de Contradique
M. de Poniente
Darsena del Morrot
Steel
Scrap
Coal
Coal
Muelle Sur No. 1
Darsena del Comercio
M. Deposito
M. Pescadores
M. Reloj
M. Barceloneta
Darsena de la Industria
Nuevo
M. Cataluña
M
M. Occidental
Dry Dock
Floating Dock
M. Adosado
M. de Levante
Dique del Este
0
500
1000m.
SCALE IN METRES


BILBAO
DEPTH IN METRES
Punta Lucero
Petroleum Products Berths
PETRONOR
1
2
3
4
6
5
Refined Petroleum Products Berth
Leading Line for VLCCs 239°T
23m
ANCHORAGE AREA
CIERVANA
20
SANTURCE
Lt.
Pier No.3
Pier No.2
Pier No.1
LAS ARENAS
ALGORTA
GUECHO
Pt. Galea
Punta Galea Submerged Breakwater
SCALE
0
1
2
3
4
5 Kilometres
0
1
2
3 Miles


Old Port
5
8
14
11
Arriluce Dock
Countermole
Mooring Buoys
Lighthouse
Nemar Docks
Breakwater
EL ABRA
Pier No.1
Princess of Spain Docks
Pier No.2
Prince of Asturias Docks
Pier No.3
Ro Ro
Ro Ro Berths
Queen Victoria Eugenia Dock
SANTURCE
Fishing Port
5m
Altos Hornos De Vizcaya
8m
8m
Quay
Beach
Jetty
LAS ARENAS
Quay
La Benedicta Dock
BILBAO RIVER
De Axpe Dock
River Galindo
BARACALDO
BILBAO
DEPTH IN METRES
X
X

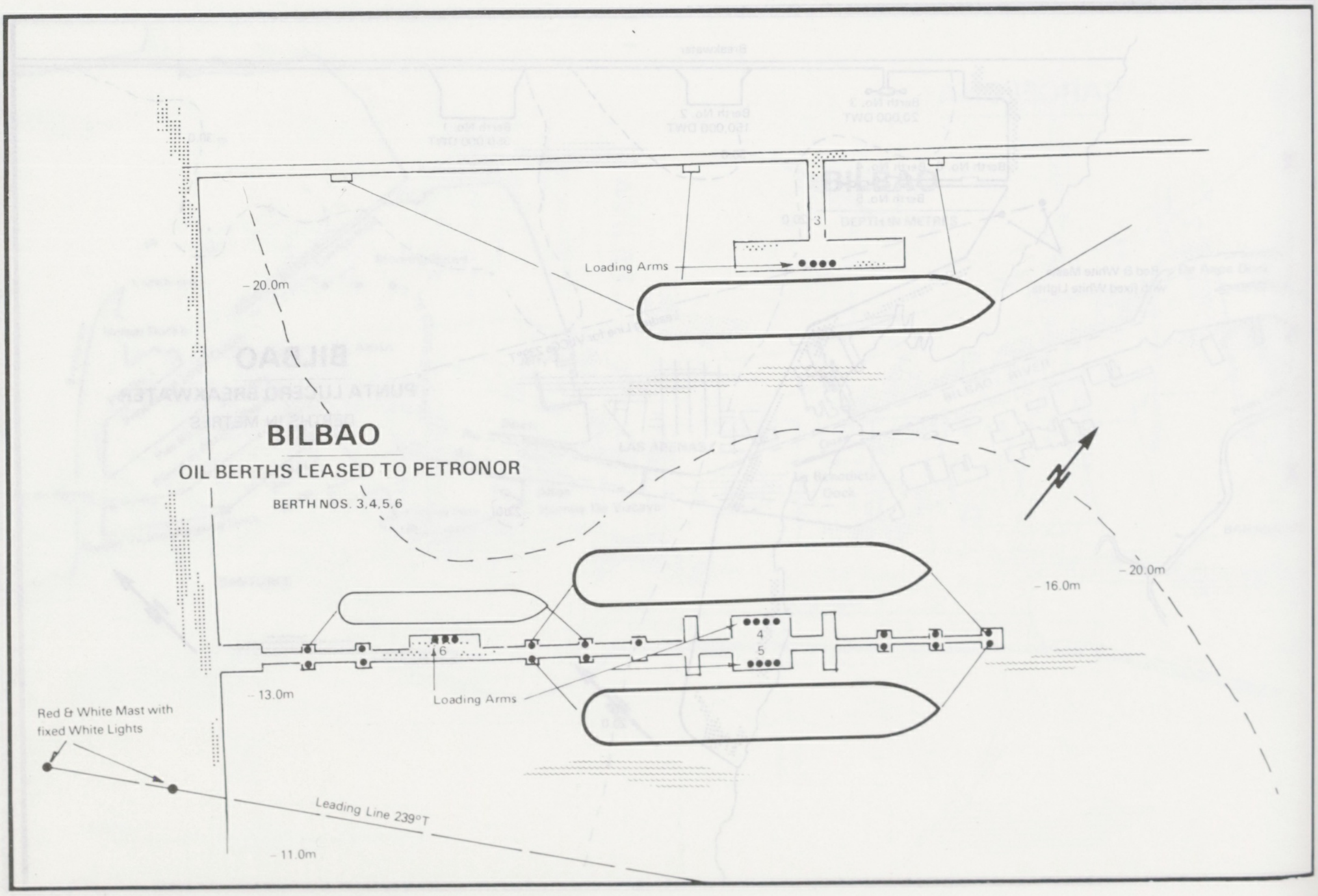

BILBAO
X
X
DESIERTO-ERANDIO
Shipyards
De Portu Dock
BILBAO RIVER
River de Asua
River Cadagua
SAN IGNACIO
Canal de Deusto
Zorroza Quay
ZORROZO
N
DEUSTO
River Bilbao
Astilleros Espanoles
M. del la Helquera
Abando Quay
Churruca Quay


Breakwater
Berth No. 3 20,000 DWT
Berth No. 2 150,000 DWT
Berth No. 1 350,000 DWT
– 30.0
– 30.0
Berth No. 6
Berth No. 4
Berth No. 5
– 20.0
Red & White Masts with fixed White Lights
Leading Line for VLCCs 239°T
BILBAO
PUNTA LUCERO BREAKWATER
DEPTHS IN METRES
– 23.0
N
– 20.0



BILBAO
OIL BERTHS LEASED TO PETRONOR
BERTH NOS. 1, 2

BERTH No. 2
Breakwater
Radar
Sonar Panel
Gangway
Loading Arms
N
BERTH No. 1
Breakwater
Loading Arms
Gangway
Radar
Sonar Panel
N

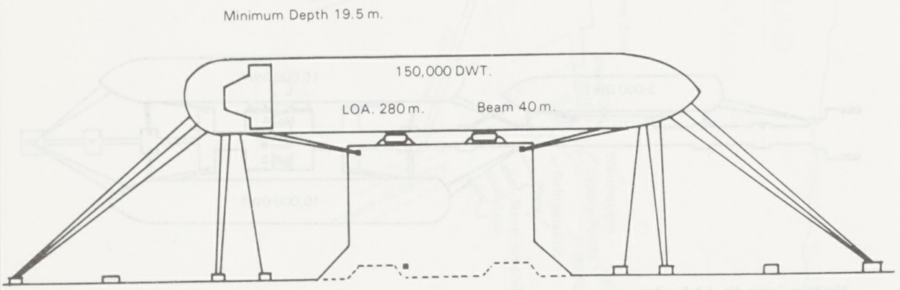


BILBAO
OIL BERTHS LEASED TO PETRONOR
BERTH NOS. 3, 4, 5, 6

3
Loading Arms
– 20.0m
N
– 20.0m
– 16.0m
6
4
5
– 13.0m
Loading Arms
Red & White Mast with
fixed White Lights
Leading Line 239°T
– 11.0m

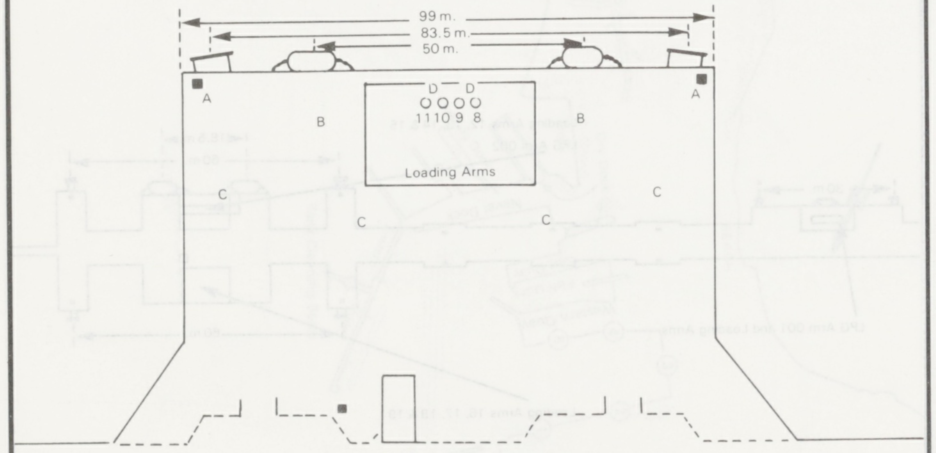
BILBAO

BERTH No. 2


Minimum Depth 19.5 m.
150,000 DWT.
LOA. 280 m.
Beam 40 m.

3 Head Lines for Vessels over 100,000 DWT.

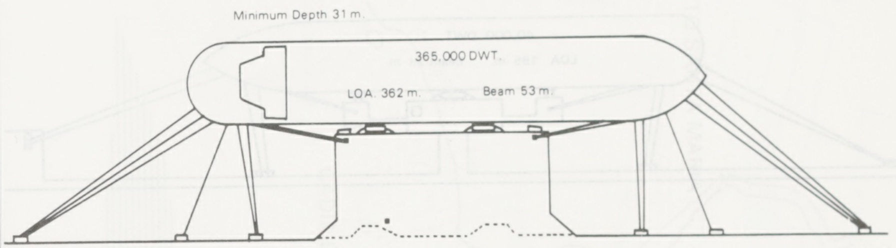
2 Head Lines for Vessels under 100,000 DWT.


99 m.
83.5 m.
50 m.
A
A
B
B
D D
11 10 9 8
Loading Arms
C
C
C
C

A	Wich with Hooks
B	Foam/Water Towers
C	Fire Water Monitors
D	Sprinklers

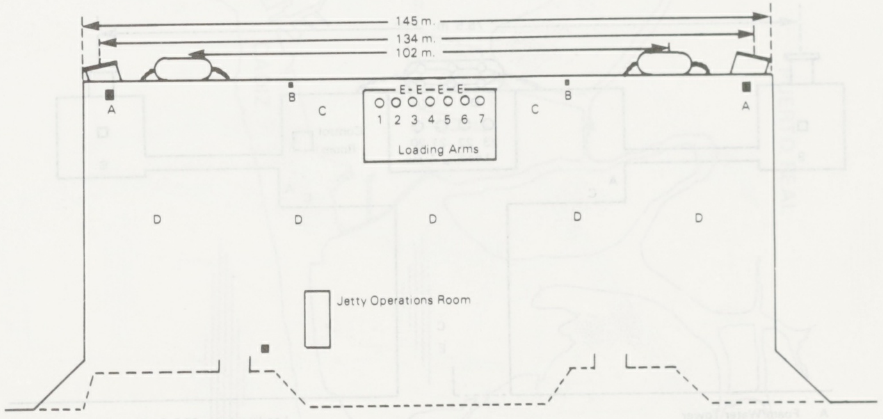
BILBAO

BERTH No. 1


Minimum Depth 31 m.
365,000 DWT.
LOA. 362 m.
Beam 53 m.

3 Head Lines for Vessels over 100,000 DWT.

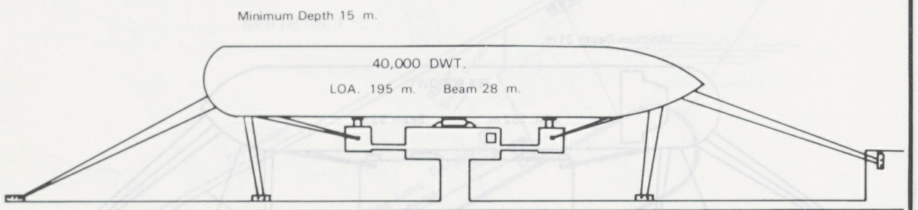
2 Head Lines for Vessels under 100,000 DWT.

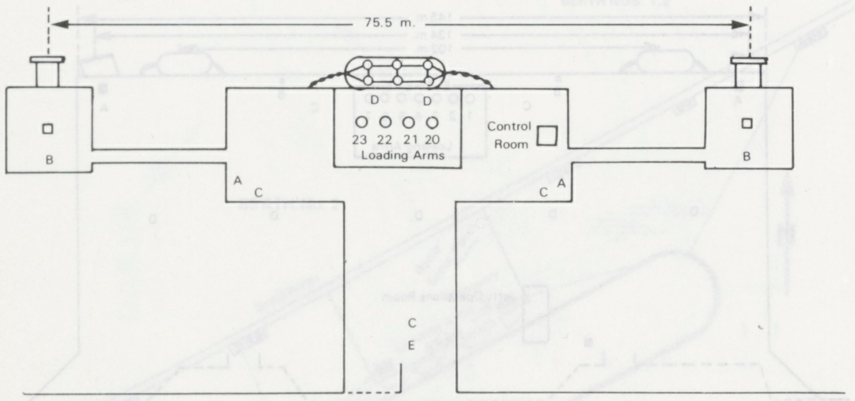

145 m.
134 m.
102 m.
A
A
B
B
C
C
E E E E
1 2 3 4 5 6 7
Loading Arms
D
D
D
D
D
Jetty Operations Room

A	Winch With Hooks
B	Bitts
C	Foam/Water Towers
D	Fire Water Monitors
E	Sprinklers

BILBAO

BERTH No. 3


Minimum Depth 15 m.
40,000 DWT.
LOA. 195 m. Beam 28 m.


75.5 m.
A
B
B
A
C
C
A
D
D
23 22 21 20
Loading Arms
Control Room
C
E

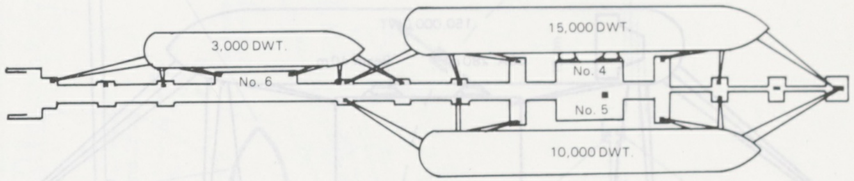
A	Foam/Water Tower
B	Fire Water Monitor
C	Fire Hose Connections
D	Sprinklers
E	Emergency Shut Down

Loading Arms 20 & 21 Black Products/Ballast

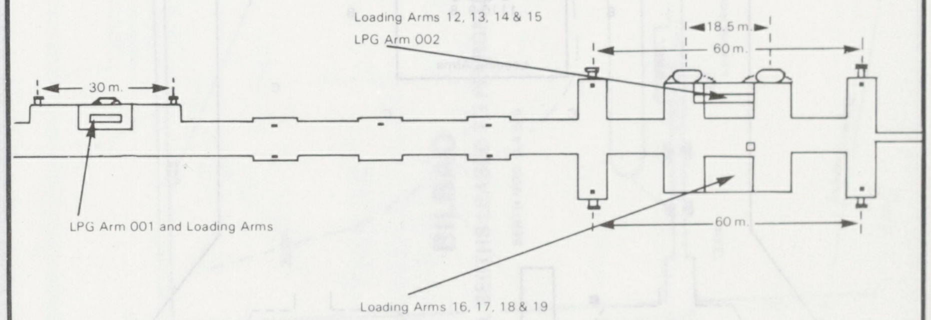
22 & 23 White Products

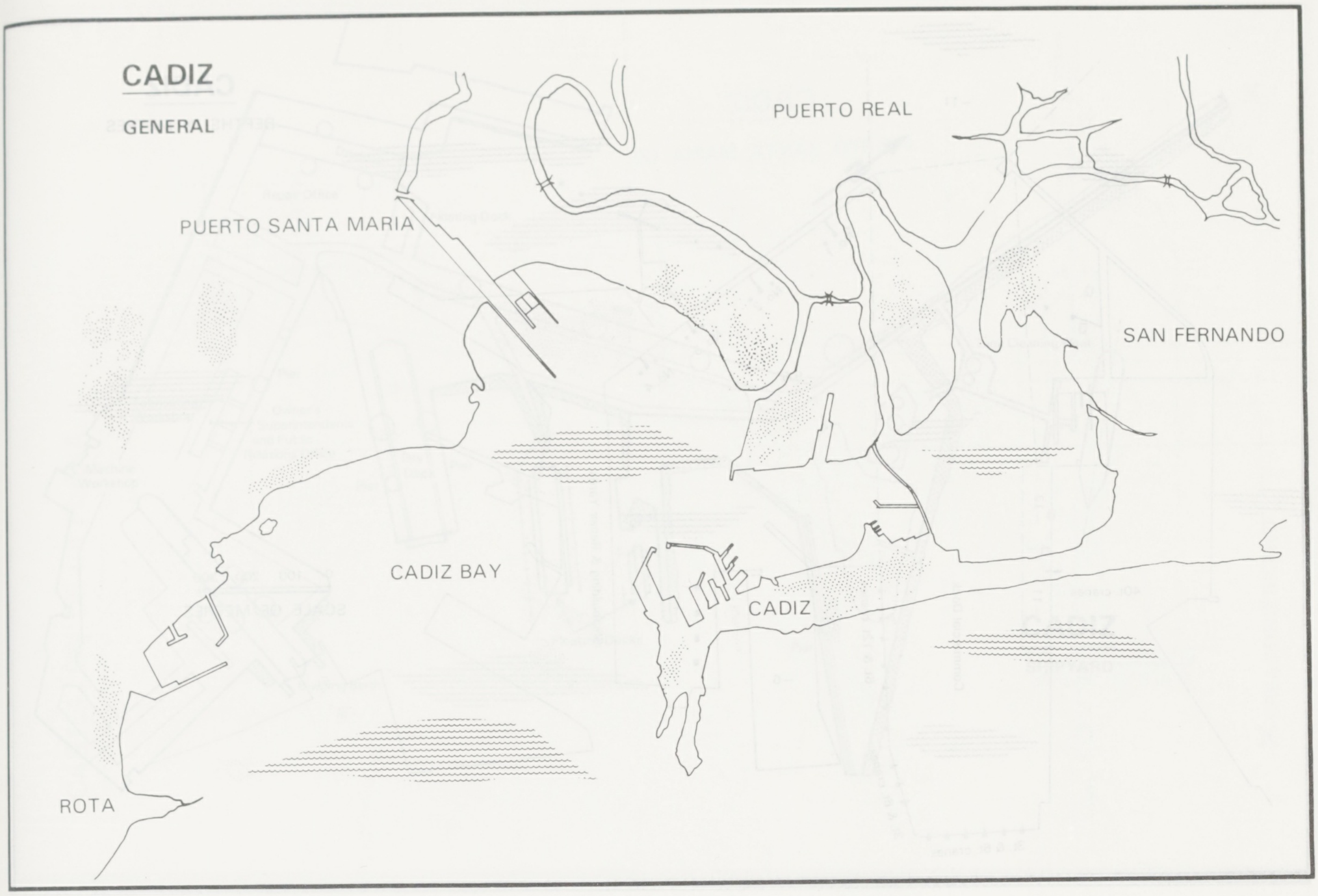
BILBAO

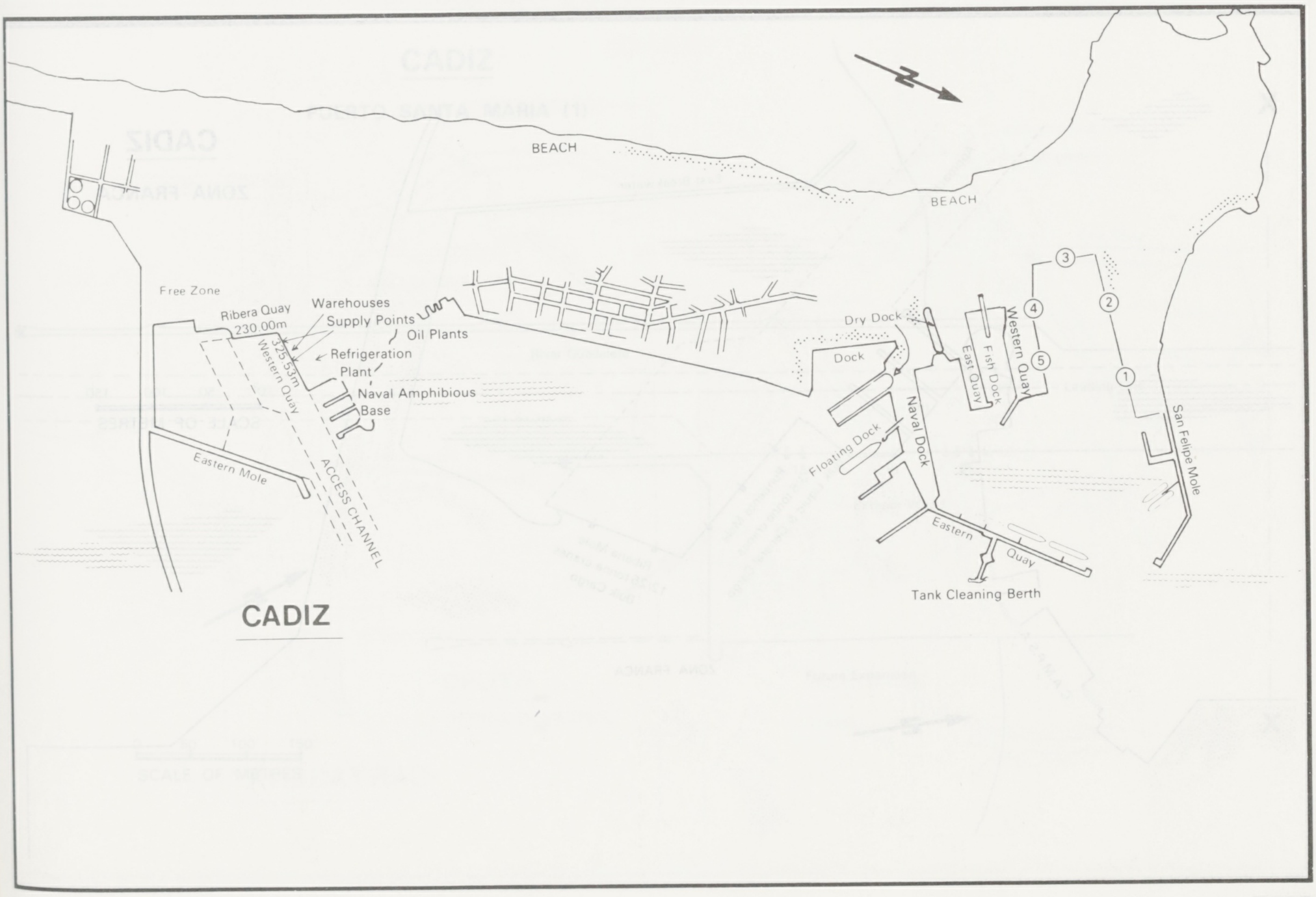
BERTHS No. 4, 5 & 6

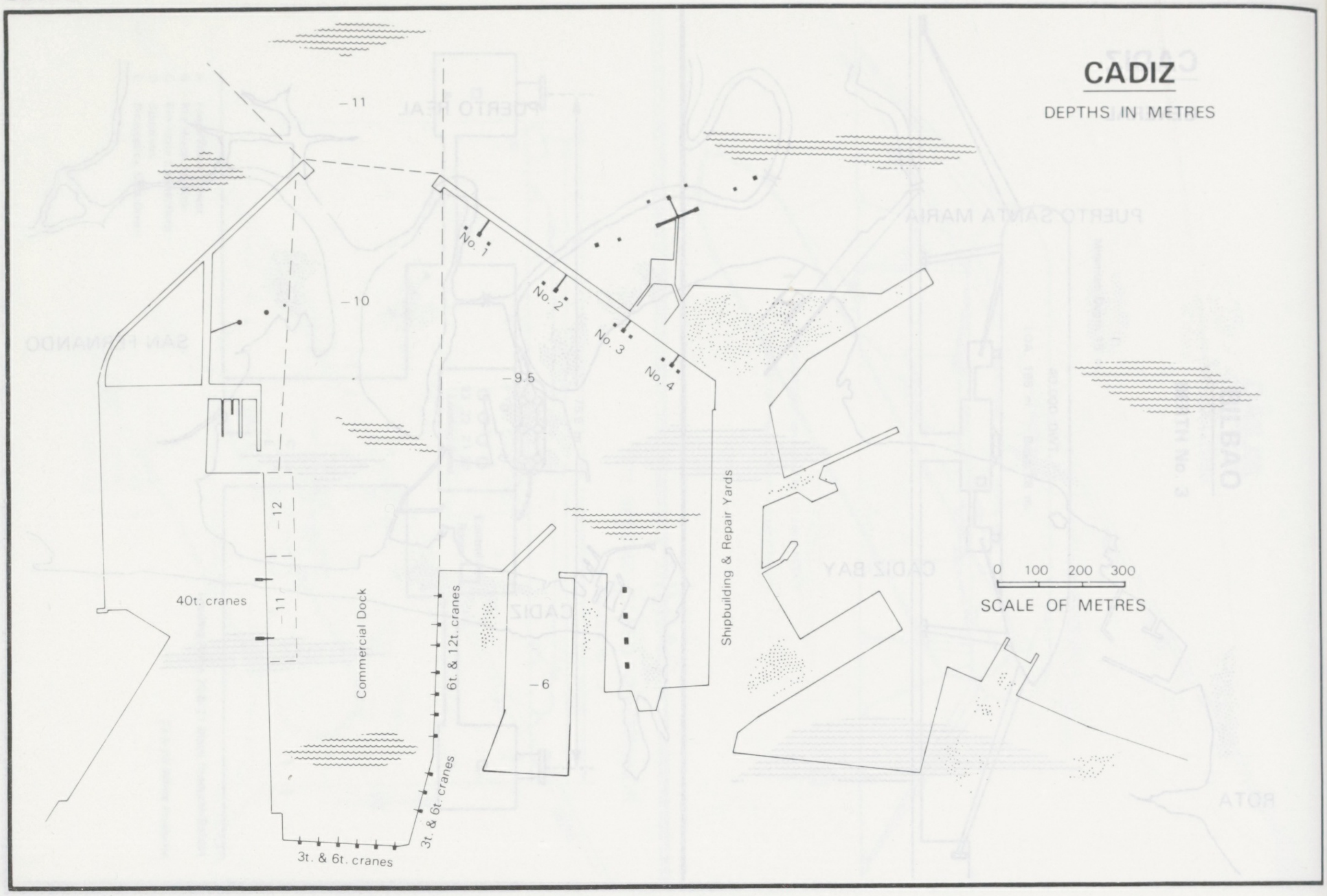

3,000 DWT.
No. 6
15,000 DWT.
No. 4
No. 5
10,000 DWT.

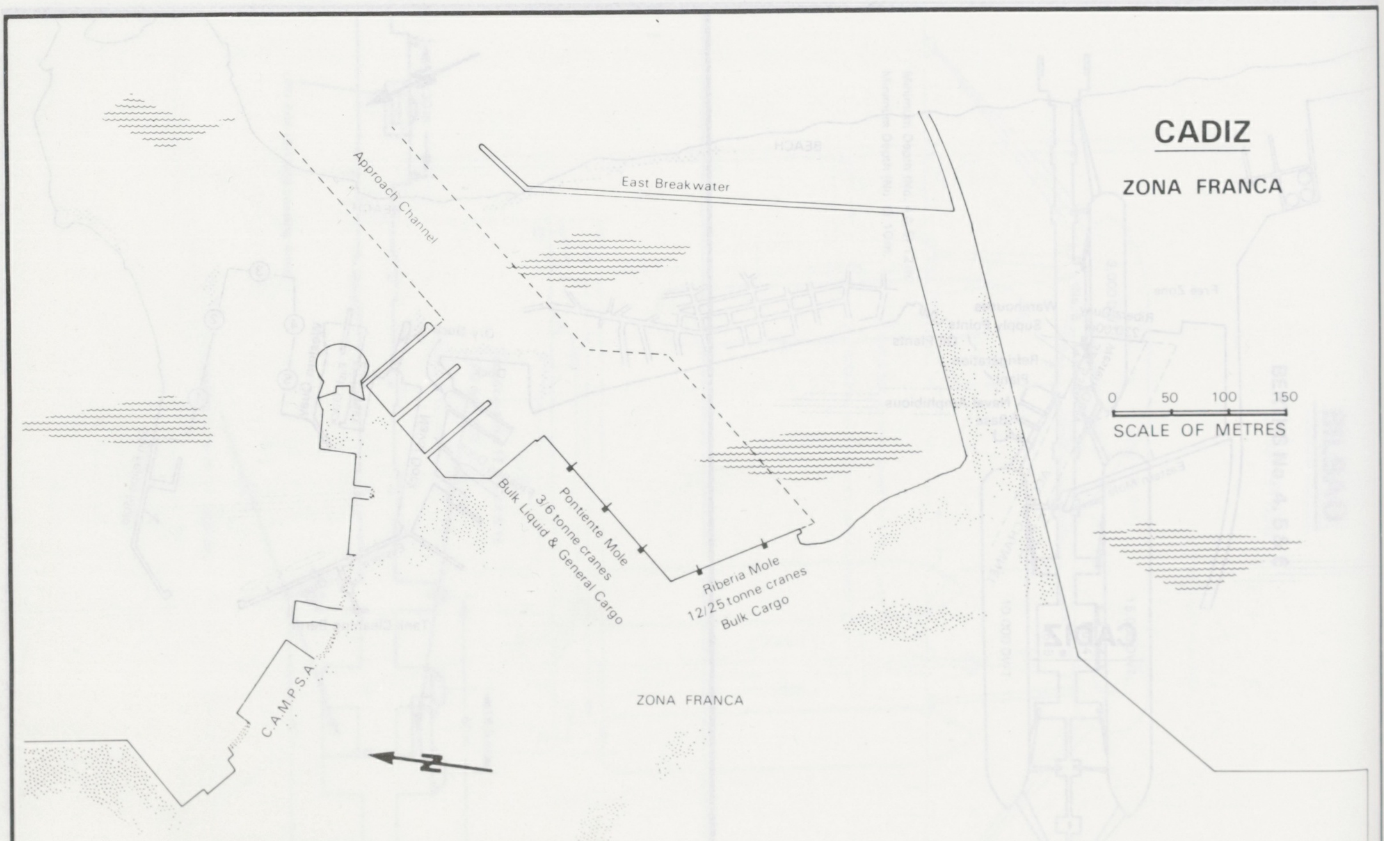
Minimum Depth (No. 4 & 5) 12 m.
Minimum Depth (No. 6) 10 m.

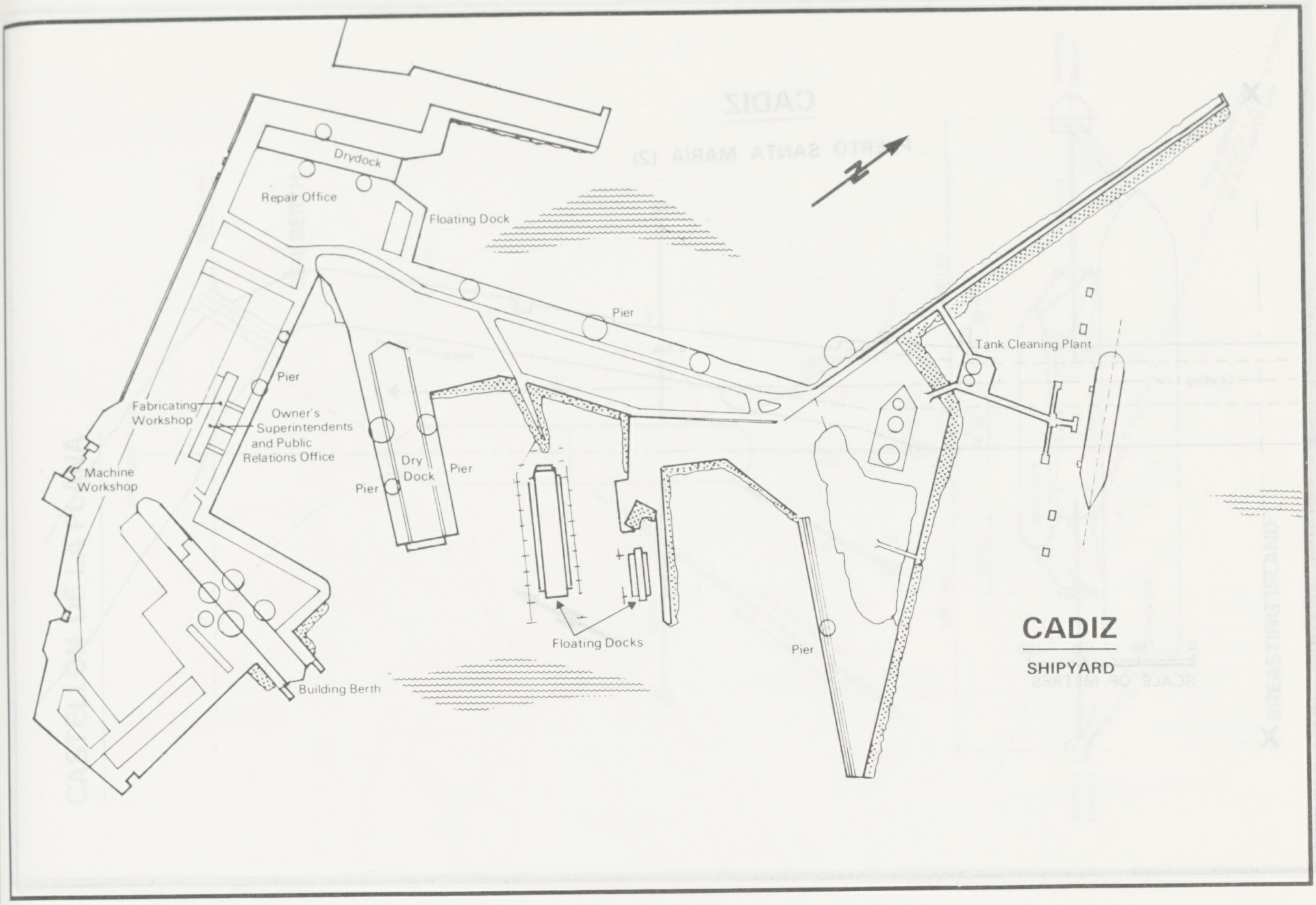

Loading Arms 12, 13, 14 & 15
LPG Arm 002
18.5 m.
60 m.
30 m.
LPG Arm 001 and Loading Arms
60 m.
Loading Arms 16, 17, 18 & 19


CADIZ
GENERAL
PUERTO REAL
PUERTO SANTA MARIA
SAN FERNANDO
CADIZ BAY
CADIZ
ROTA


N
BEACH
BEACH
Free Zone
Ribera Quay
230.00m
Warehouses
Supply Points
Oil Plants
Refrigeration
Plant
325.53m
Western Quay
Naval Amphibious
Base
Eastern Mole
ACCESS CHANNEL
Dry Dock
Dock
Floating Dock
Naval Dock
East Quay
Fish Dock
Western Quay
③
④
⑤
②
①
San Felipe Mole
Eastern
Quay
Tank Cleaning Berth
CADIZ


CADIZ
DEPTHS IN METRES
−11
−10
−9.5
−12
−11
−6
No. 1
No. 2
No. 3
No. 4
40t. cranes
Commercial Dock
6t. & 12t. cranes
3t. & 6t. cranes
3t. & 6t. cranes
Shipbuilding & Repair Yards
0 100 200 300
SCALE OF METRES

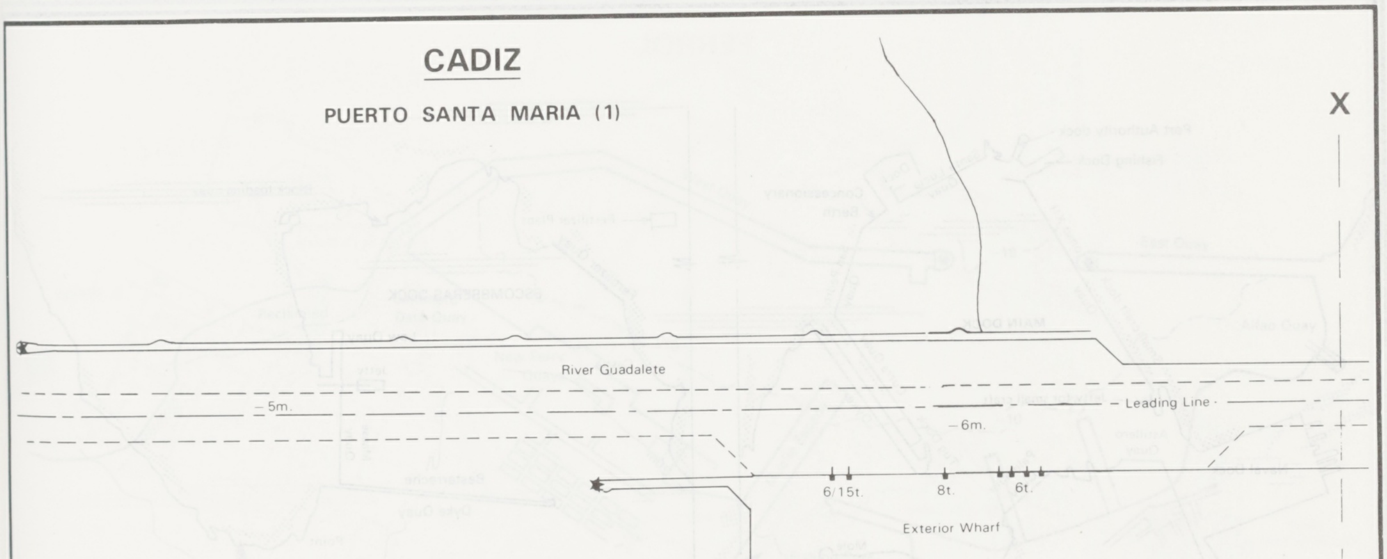

CADIZ
ZONA FRANCA
Approach Channel
East Breakwater
Pontiente Mole
3/6 tonne cranes
Bulk Liquid & General Cargo
Riberia Mole
12/25 tonne cranes
Bulk Cargo
ZONA FRANCA
C.A.M.P.S.A.
N
0 50 100 150
SCALE OF METRES



CADIZ

SHIPYARD

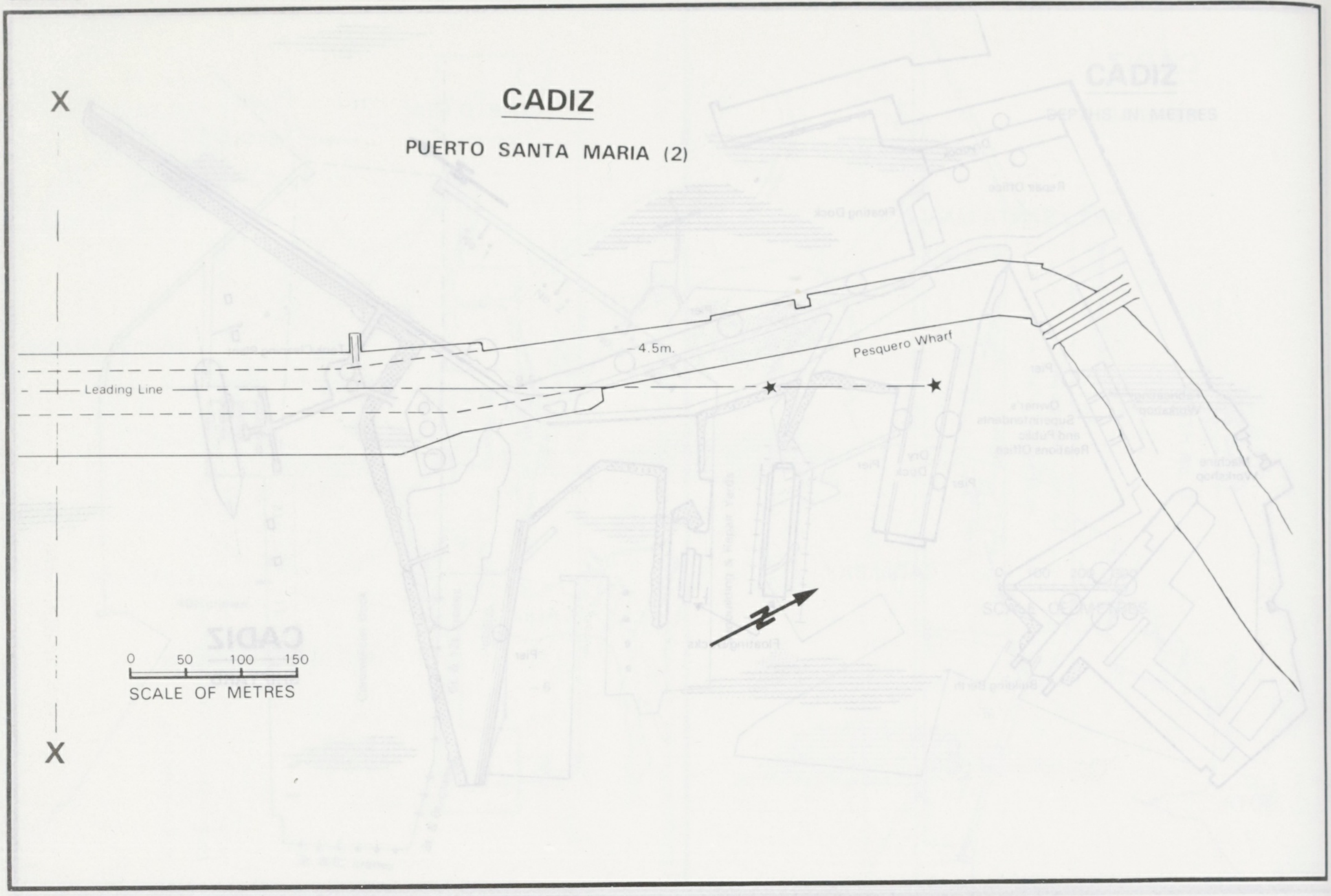
Drydock
Repair Office
Floating Dock
Pier
Pier
Fabricating Workshop
Owner's Superintendents and Public Relations Office
Machine Workshop
Dry Dock
Pier
Pier
Floating Docks
Building Berth
Tank Cleaning Plant
Pier

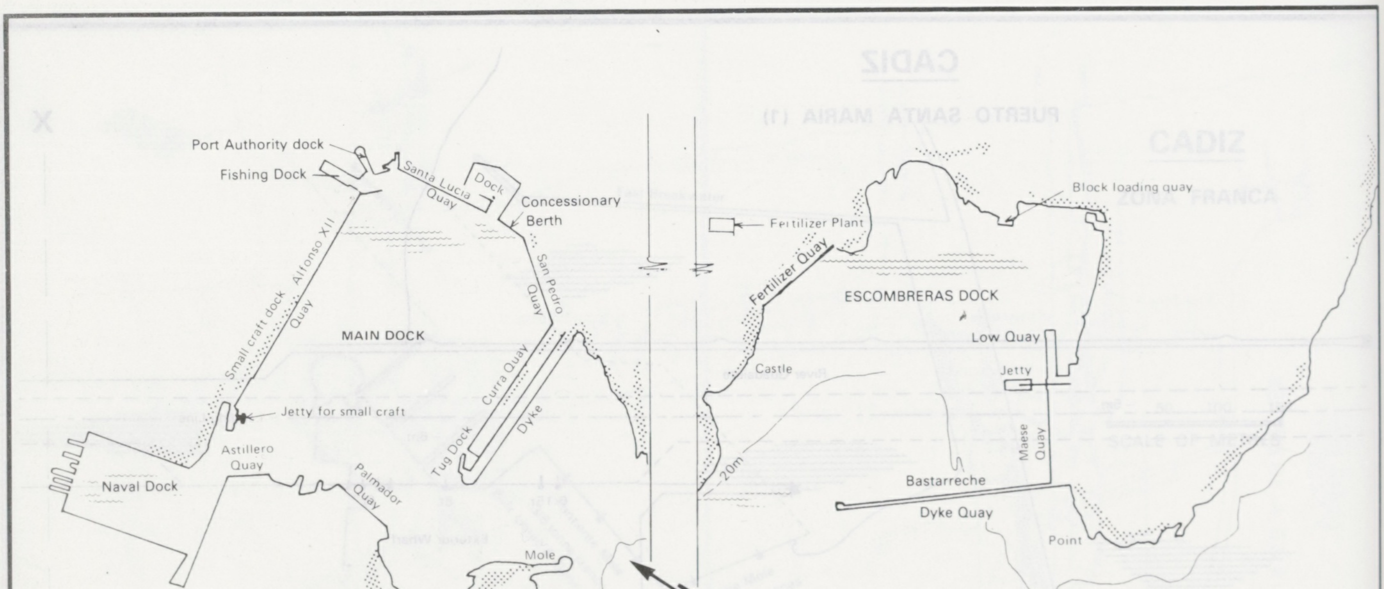


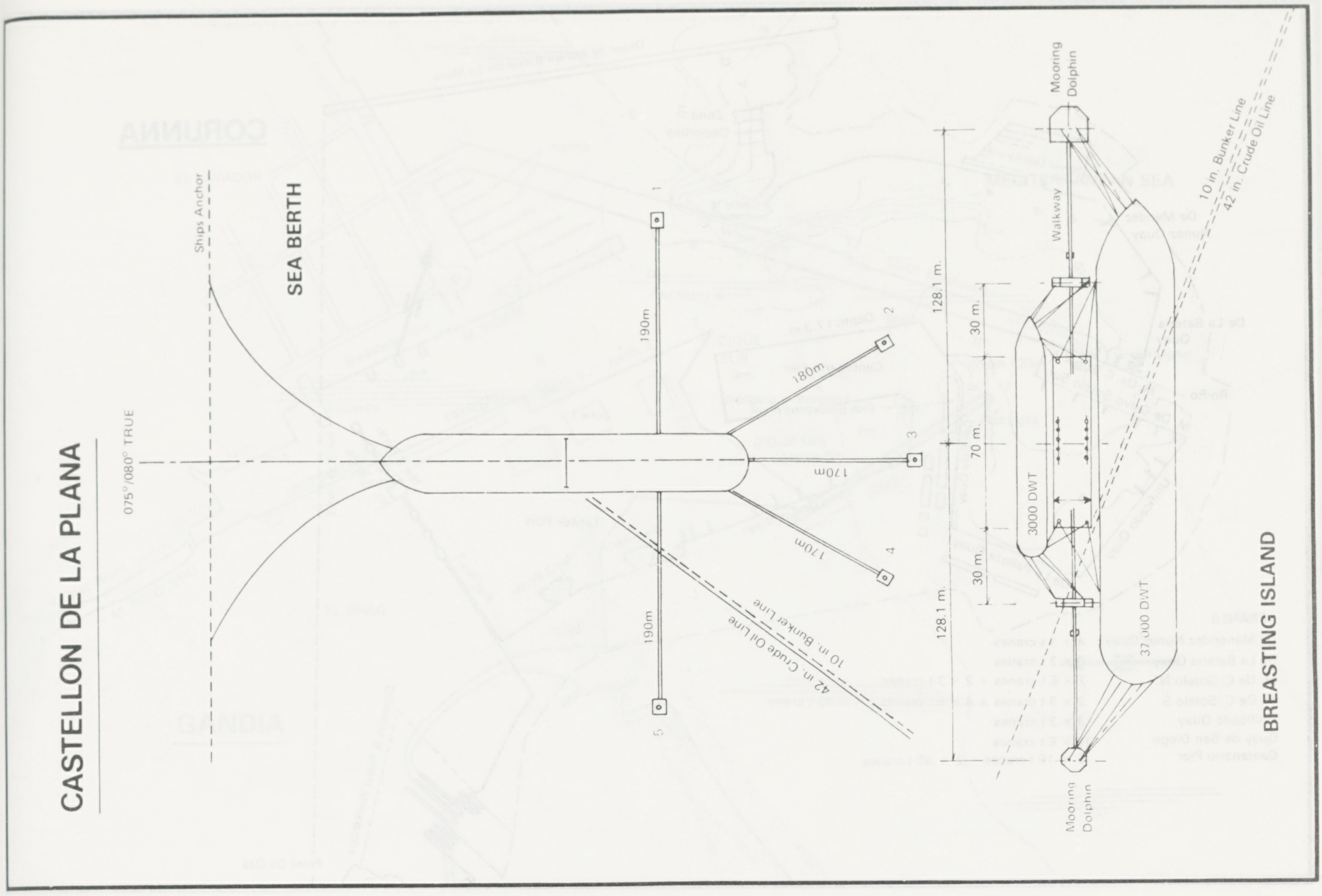
CADIZ

PUERTO SANTA MARIA (1)

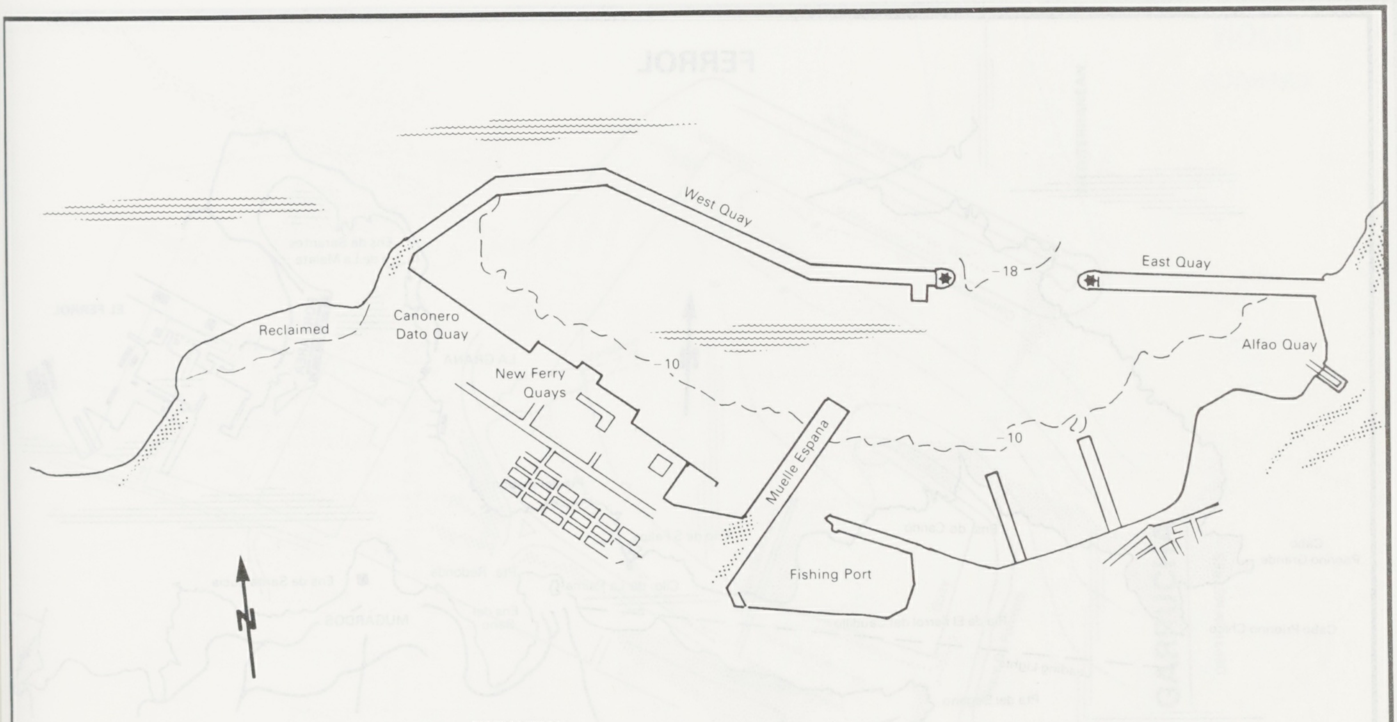
X
River Guadalete
– 5m.
– 6m.
Leading Line
6/15t.
8t.
6t.
Exterior Wharf
Future Expansion
X
0 50 100 150
SCALE OF METRES


CADIZ
PUERTO SANTA MARIA (2)
X
X
4.5m.
Pesquero Wharf
Leading Line
0
50
100
150
SCALE OF METRES


Port Authority dock
Fishing Dock
Santa Lucia Quay
Dock
Concessionary Berth
Alfonso XII Quay
Small craft dock
San Pedro Quay
MAIN DOCK
Curra Quay
Dyke
Tug Dock
Jetty for small craft
Astillero Quay
Naval Dock
Palmador Quay
Mole
Point
Creek
20m
30m
20m
Fertilizer Plant
Fertilizer Quay
Block loading quay
ESCOMBRERAS DOCK
Low Quay
Castle
Jetty
Maese Quay
Bastarreche
Dyke Quay
Point
Island
CARTAGENA

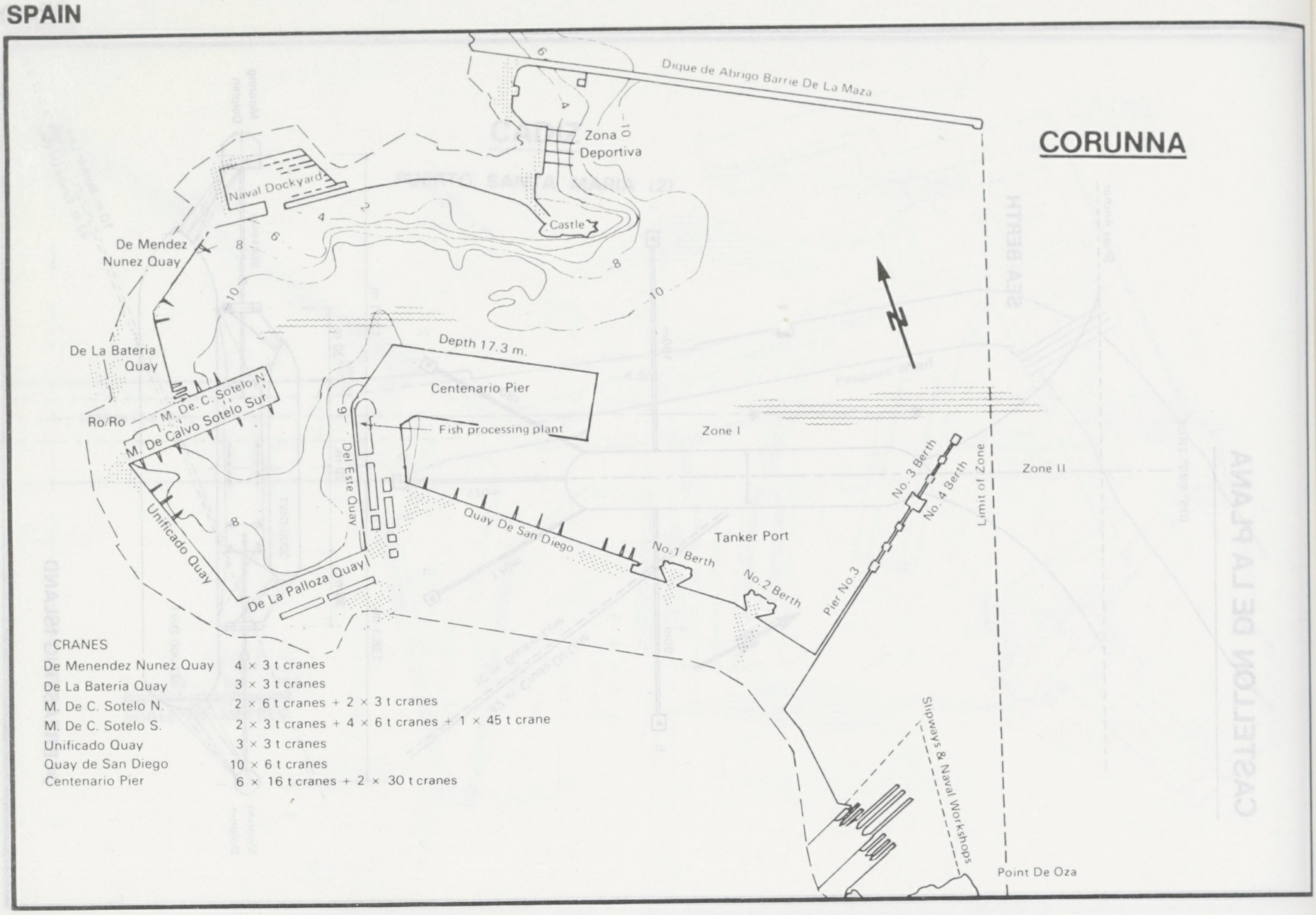

SEA BERTH
Ships Anchor
075°/080° TRUE
1
2
3
4
5
190m
180m
170m
170m
190m
10 in. Bunker Line
42 in. Crude Oil Line
BREASTING ISLAND
Mooring Dolphin
Walkway
128.1 m.
30 m.
70 m.
3000 DWT
37,000 DWT
30 m.
128.1 m.
Mooring Dolphin
10 in. Bunker Line
42 in. Crude Oil Line

CASTELLON DE LA PLANA


West Quay
East Quay
−18
Reclaimed
Canonero Dato Quay
New Ferry Quays
−10
Alfao Quay
Muelle Espana
−10
Fishing Port
N

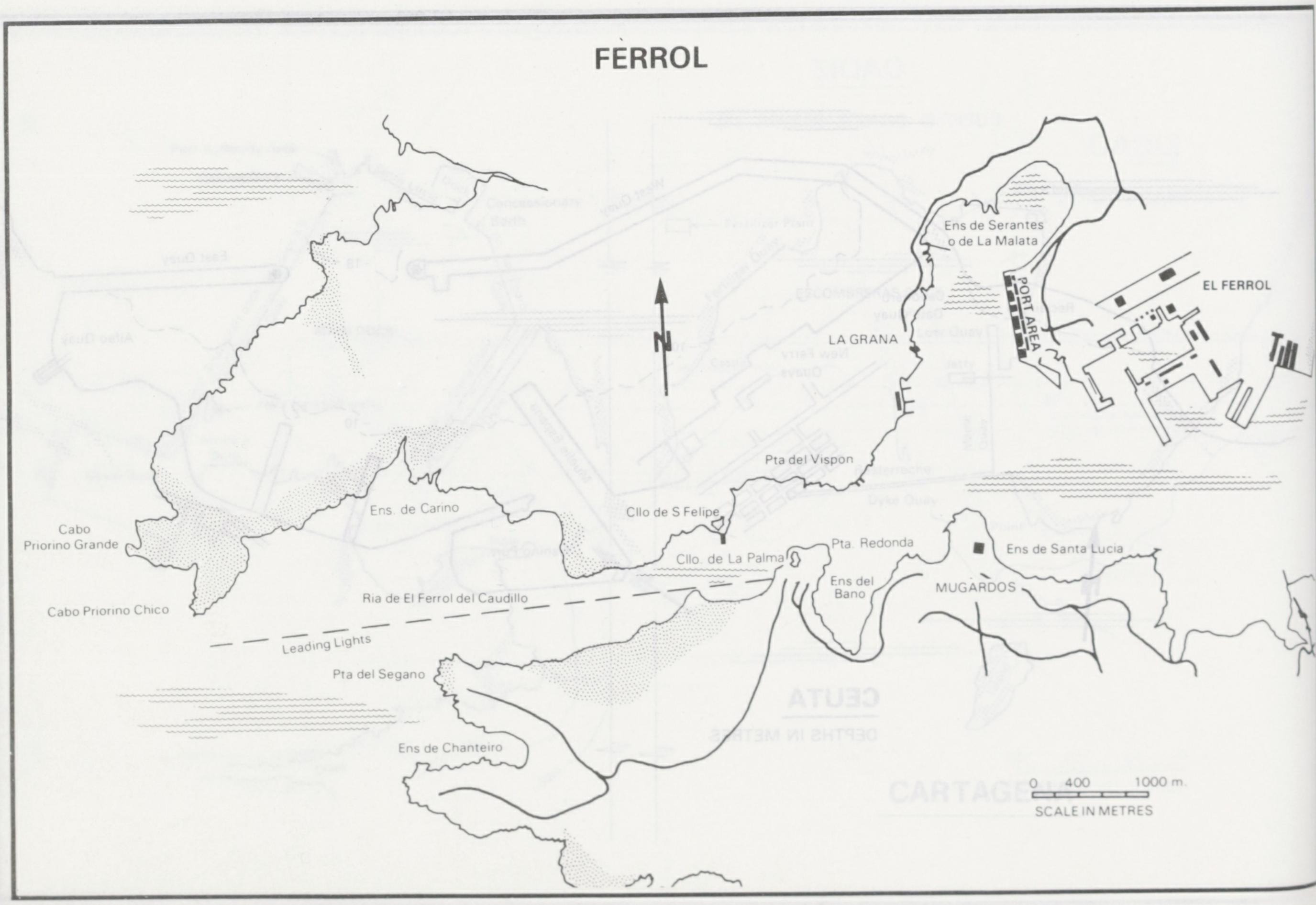
CEUTA

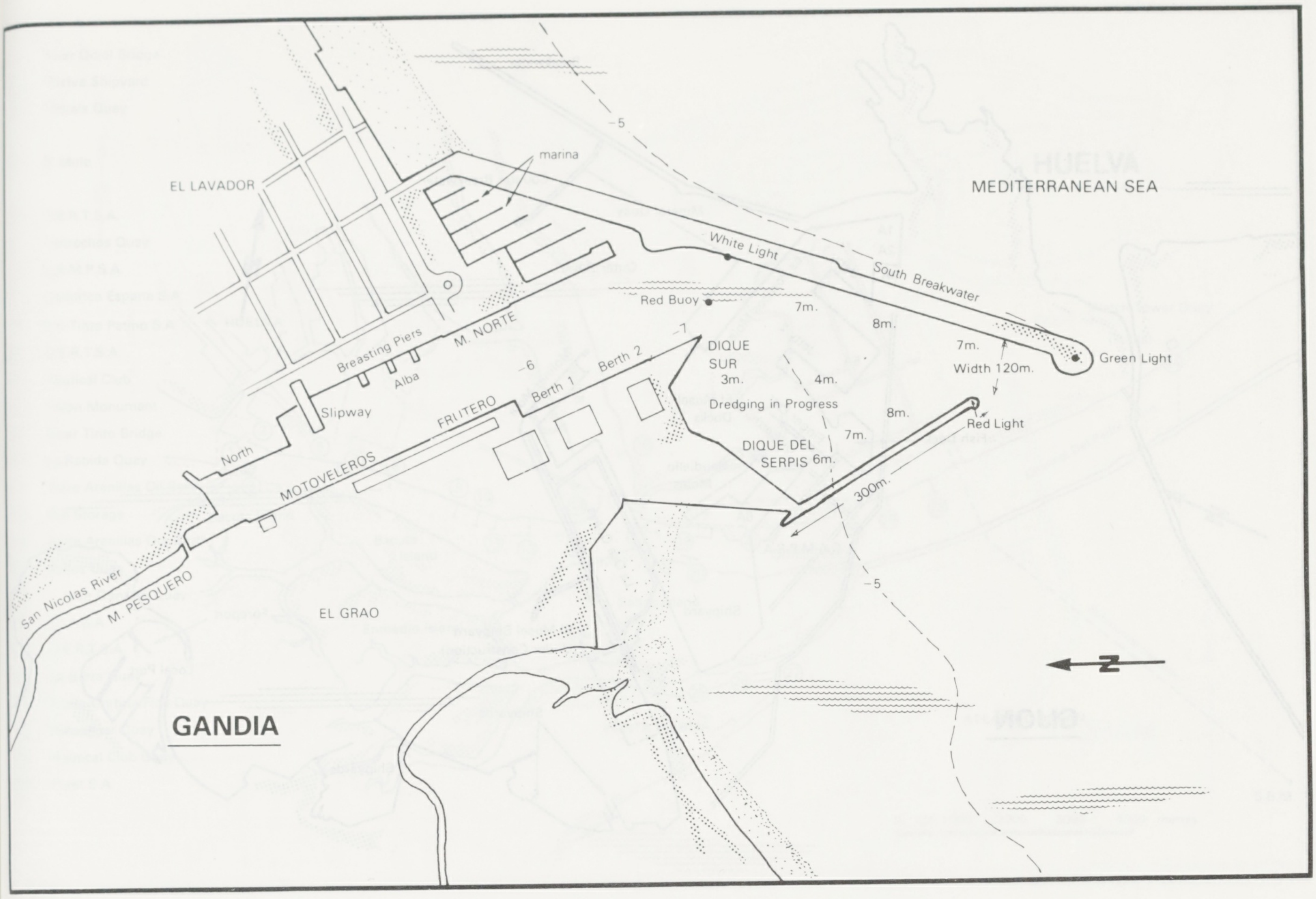
DEPTHS IN METRES

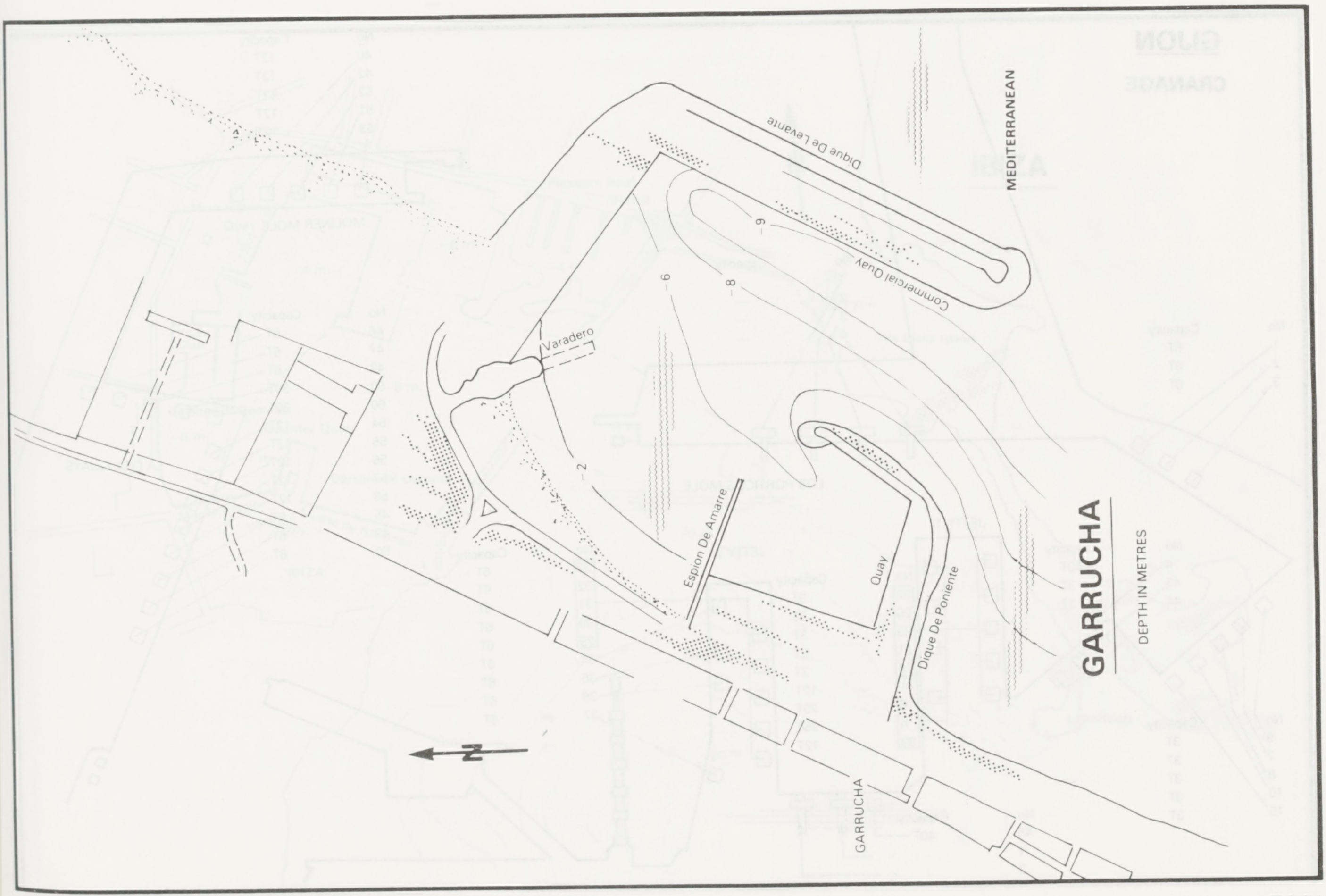

CORUNNA
Dique de Abrigo Barrie De La Maza
Zona Deportiva
Naval Dockyard
Castle
De Mendez Nunez Quay
De La Bateria Quay
Ro/Ro
M. De. C. Sotelo N.
M. De Calvo Sotelo Sur
Unificado Quay
De La Palloza Quay
Del Este Quay
Depth 17.3 m.
Centenario Pier
Fish processing plant
Quay De San Diego
Zone I
Zone II
Tanker Port
No.1 Berth
No.2 Berth
No.3 Berth
No.4 Berth
Pier No.3
Limit of Zone
Slipways & Naval Workshops
Point De Oza
N
2
4
6
8
9
10

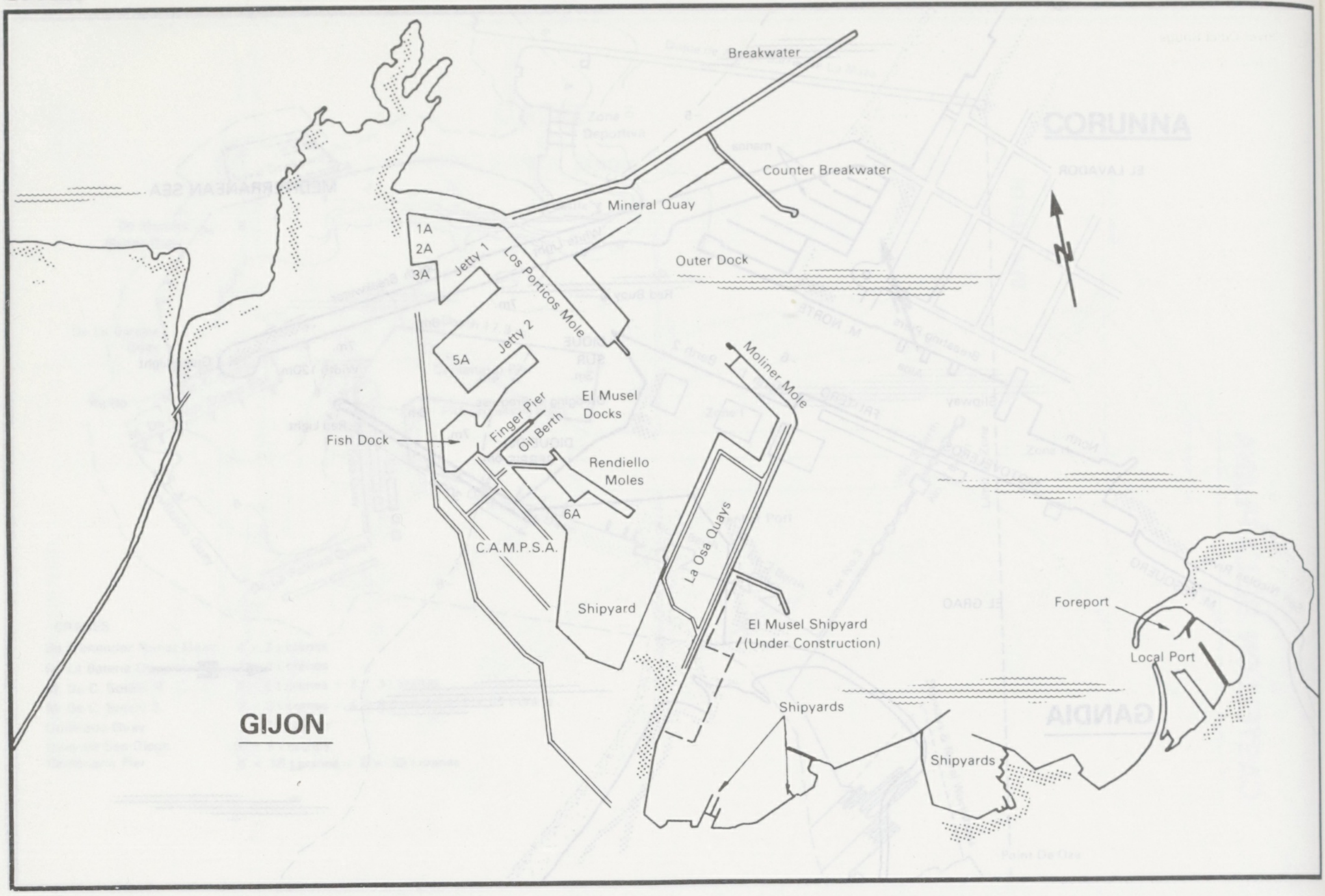
CRANES

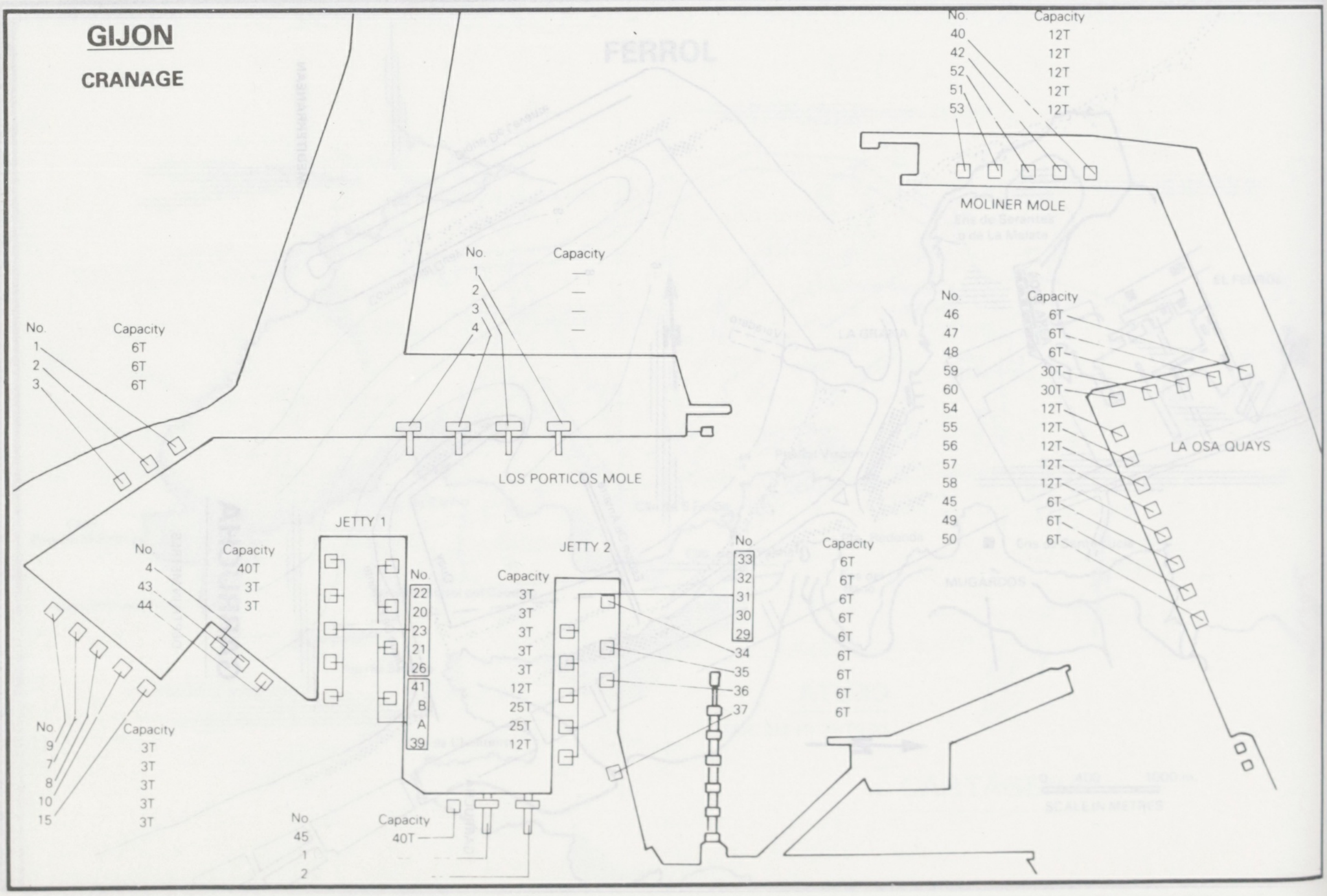
De Menendez Nunez Quay	4 × 3 t cranes
De La Bateria Quay	3 × 3 t cranes
M. De C. Sotelo N.	2 × 6 t cranes + 2 × 3 t cranes
M. De C. Sotelo S.	2 × 3 t cranes + 4 × 6 t cranes + 1 × 45 t crane
Unificado Quay	3 × 3 t cranes
Quay de San Diego	10 × 6 t cranes
Centenario Pier	6 × 16 t cranes + 2 × 30 t cranes

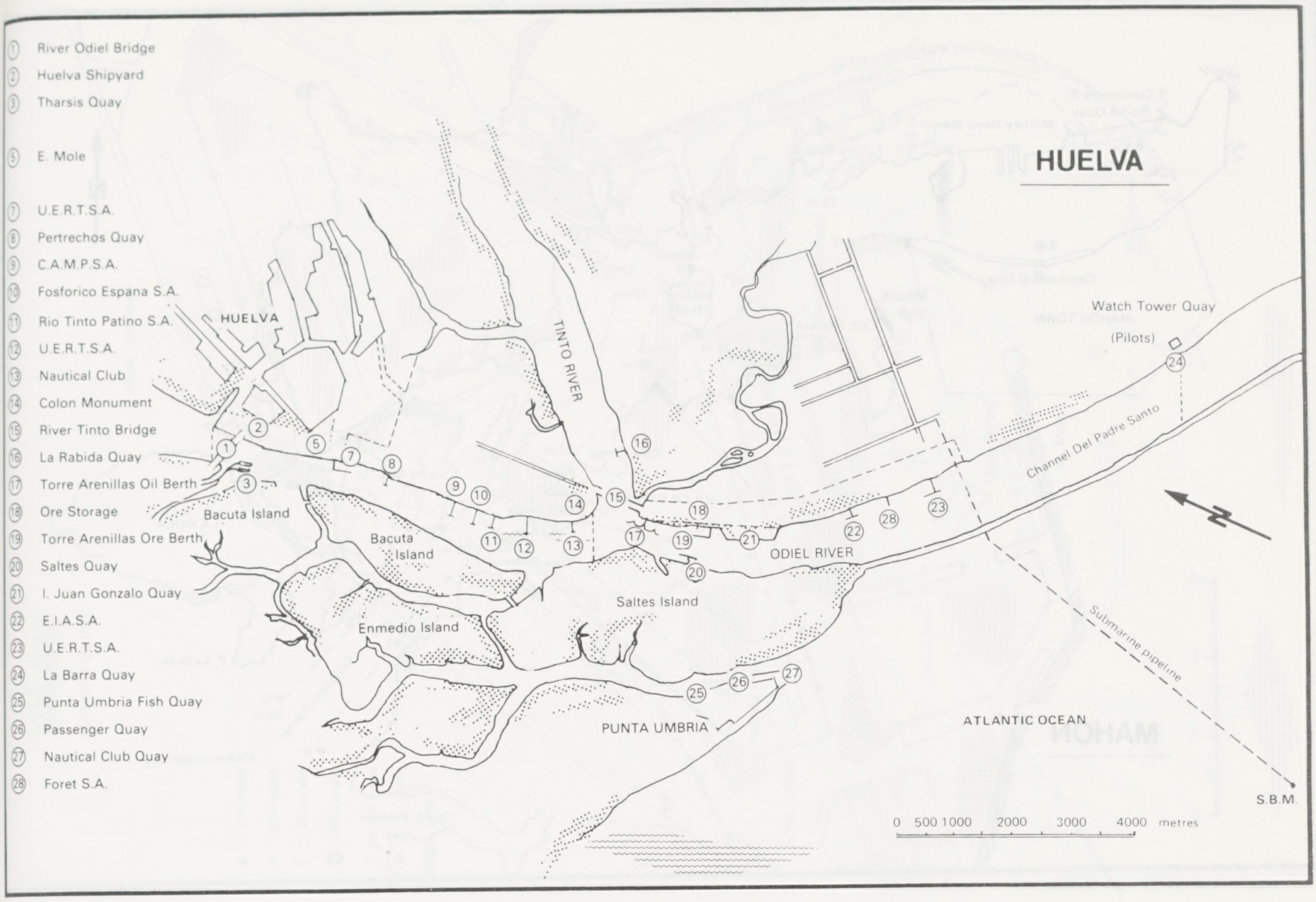

FERROL
Ens de Serantes o de La Malata
PORT AREA
EL FERROL
LA GRANA
N
Pta del Vispon
Ens. de Carino
Cllo de S Felipe
Cabo Priorino Grande
Cllo. de La Palma
Pta. Redonda
Ens de Santa Lucia
Ens del Bano
MUGARDOS
Ria de El Ferrol del Caudillo
Cabo Priorino Chico
Leading Lights
Pta del Segano
Ens de Chanteiro
0 400 1000 m.
SCALE IN METRES

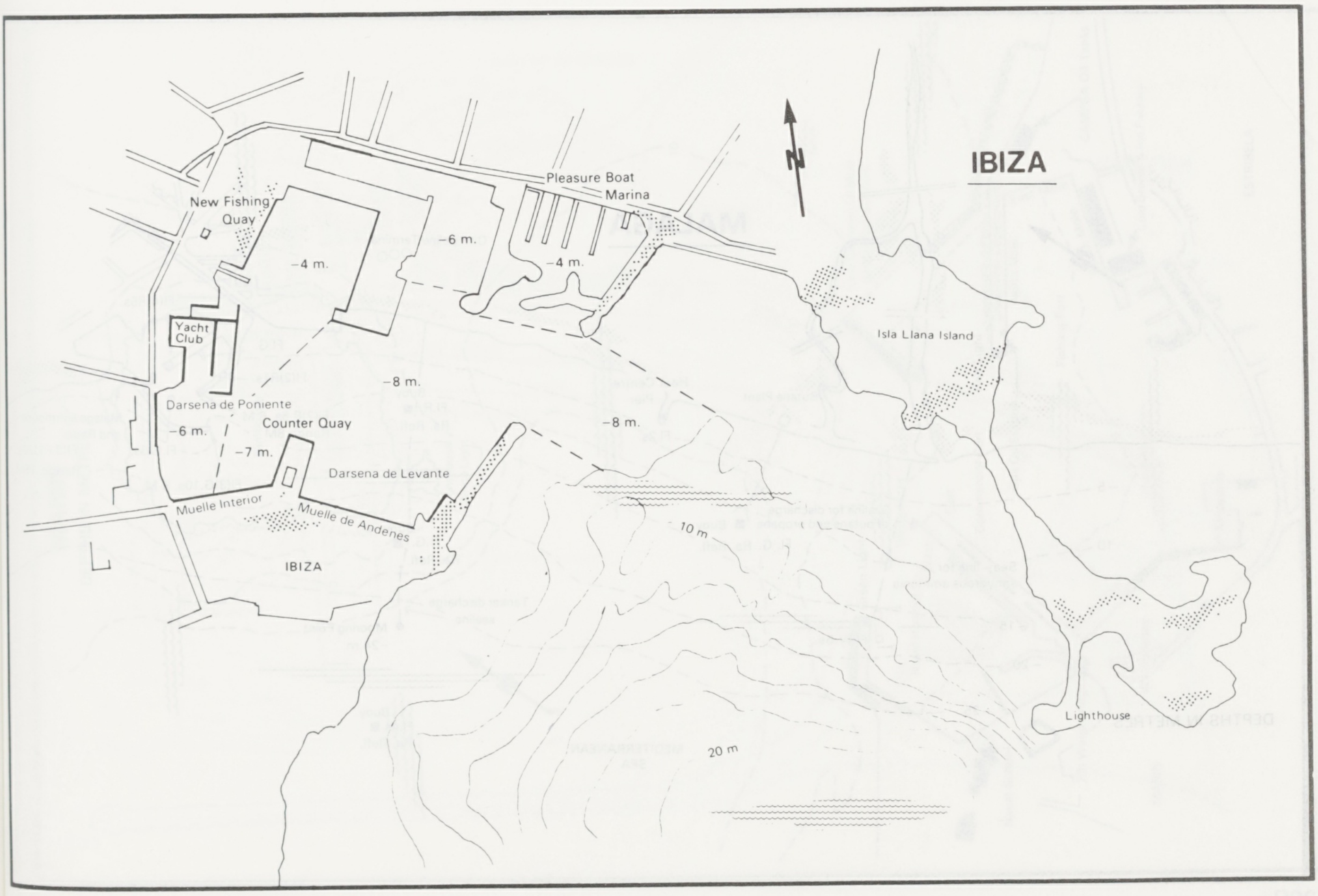

GANDIA
EL LAVADOR
marina
-5
MEDITERRANEAN SEA
White Light
South Breakwater
Red Buoy
7m.
8m.
7m.
Green Light
Width 120m.
-7
DIQUE
SUR
3m.
4m.
Dredging in Progress
8m.
Red Light
7m.
DIQUE DEL
SERPIS 6m.
300m.
-5
M. NORTE
Breasting Piers
Alba
-6
Berth 1
Berth 2
Slipway
FRUTERO
North
MOTOVELEROS
San Nicolas River
M. PESQUERO
EL GRAO
N

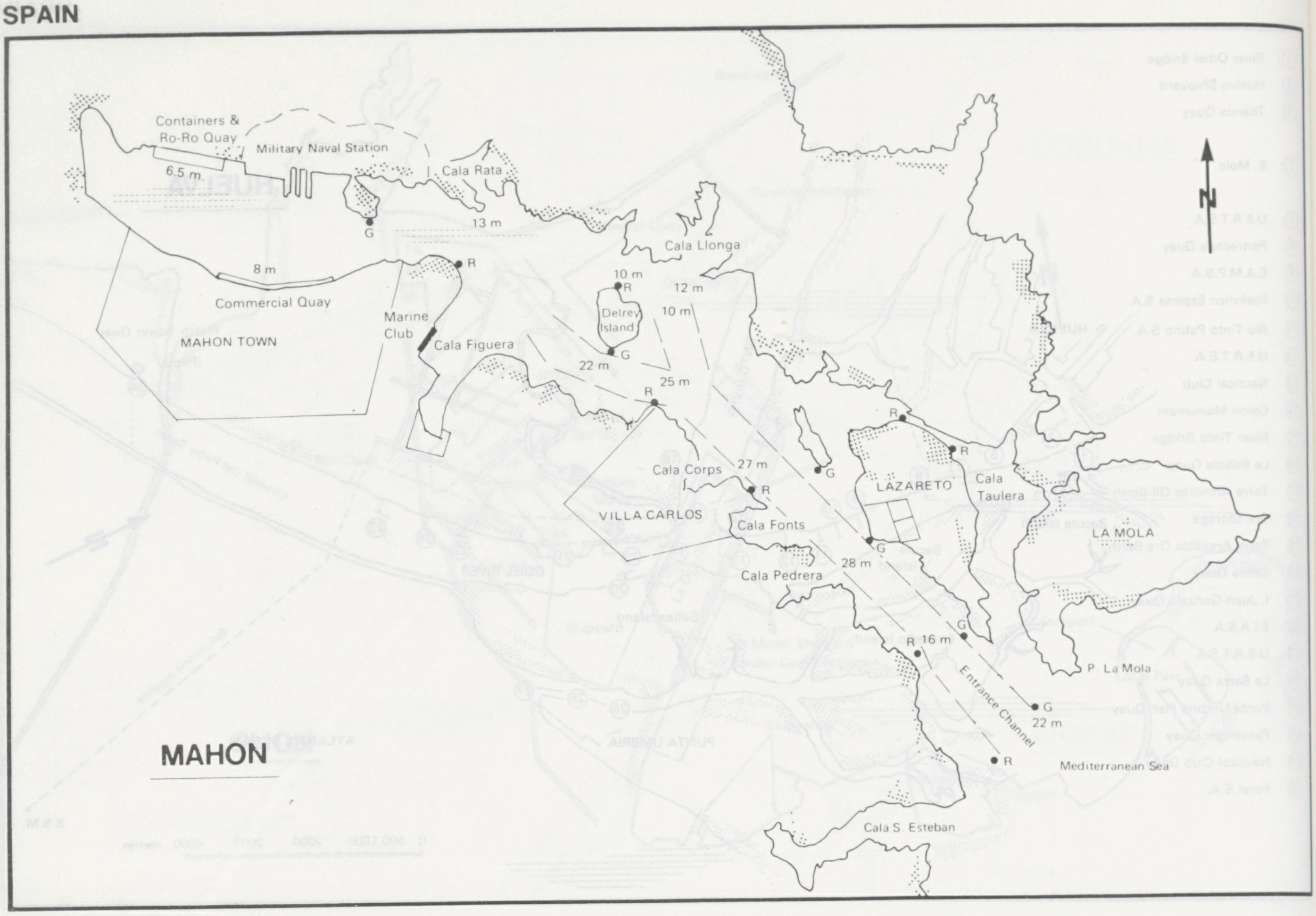

MEDITERRANEAN
Dique De Levante
-9
Commercial Quay
-8
-6
Varadero
-2
Espion De Amarre
Quay
Dique De Poniente
GARRUCHA
DEPTH IN METRES
GARRUCHA
N

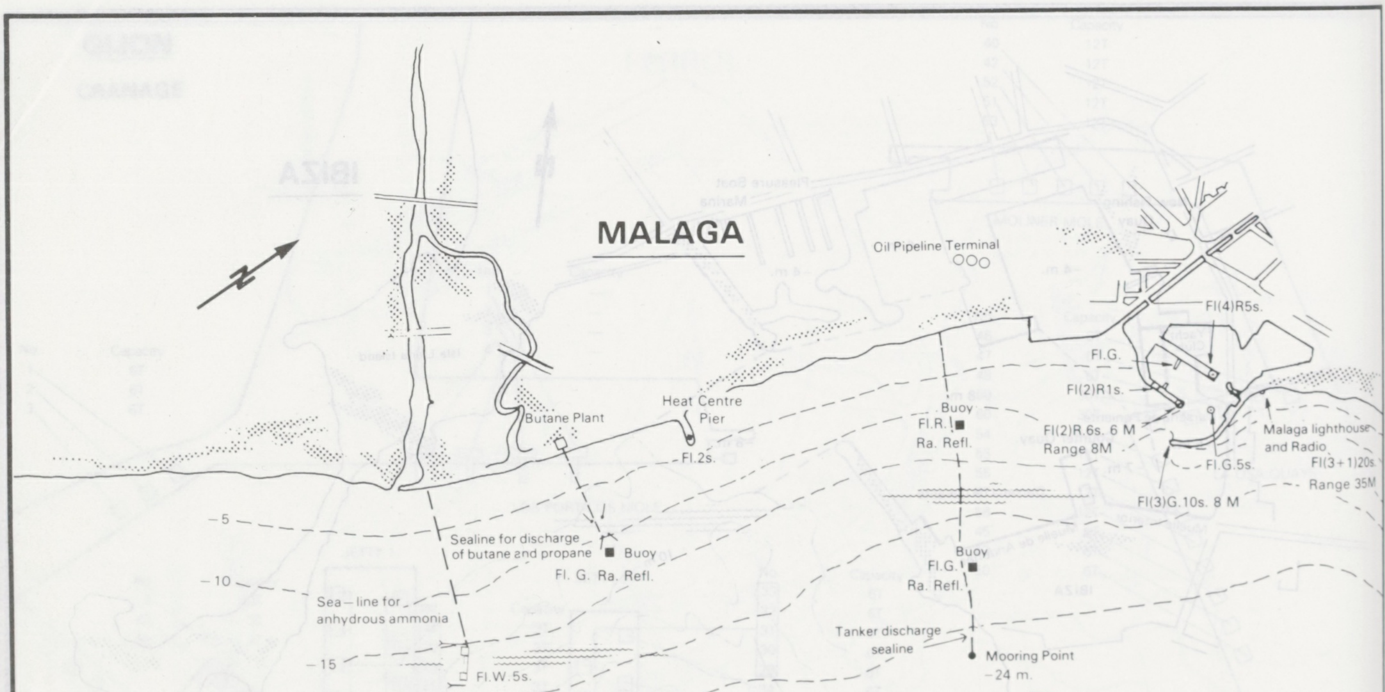

Breakwater
Counter Breakwater
Mineral Quay
Outer Dock
1A
2A
3A
Jetty 1
Los Porticos Mole
Jetty 2
5A
Moliner Mole
El Musel
Docks
Fish Dock
Finger Pier
Oil Berth
Rendiello
Moles
6A
C.A.M.P.S.A.
La Osa Quays
Shipyard
El Musel Shipyard
(Under Construction)
Shipyards
Shipyards
Foreport
Local Port
GIJON


GIJON
CRANAGE
No. Capacity
40 12T
42 12T
52 12T
51 12T
53 12T
MOLINER MOLE
No. Capacity
1 —
2 —
3 —
4 —
No. Capacity
1 6T
2 6T
3 6T
LOS PORTICOS MOLE
No. Capacity
46 6T
47 6T
48 6T
59 30T
60 30T
54 12T
55 12T
56 12T
57 12T
58 12T
45 6T
49 6T
50 6T
LA OSA QUAYS
JETTY 1
No. Capacity
4 40T
43 3T
44 3T
No.
22
20
23
21
26
41
B
A
39
JETTY 2
Capacity
3T
3T
3T
3T
3T
12T
25T
25T
12T
No.
33
32
31
30
29
34
35
36
37
Capacity
6T
6T
6T
6T
6T
6T
6T
6T
6T
No. Capacity
9 3T
7 3T
8 3T
10 3T
15 3T
No.
45
1
2
Capacity
40T


HUELVA
① River Odiel Bridge
② Huelva Shipyard
③ Tharsis Quay
⑤ E. Mole
⑦ U.E.R.T.S.A.
⑧ Pertrechos Quay
⑨ C.A.M.P.S.A.
⑩ Fosforico Espana S.A.
⑪ Rio Tinto Patino S.A.
⑫ U.E.R.T.S.A.
⑬ Nautical Club
⑭ Colon Monument
⑮ River Tinto Bridge
⑯ La Rabida Quay
⑰ Torre Arenillas Oil Berth
⑱ Ore Storage
⑲ Torre Arenillas Ore Berth
⑳ Saltes Quay
㉑ I. Juan Gonzalo Quay
㉒ E.I.A.S.A.
㉓ U.E.R.T.S.A.
㉔ La Barra Quay
㉕ Punta Umbria Fish Quay
㉖ Passenger Quay
㉗ Nautical Club Quay
㉘ Foret S.A.
HUELVA
TINTO RIVER
Bacuta Island
Bacuta Island
Enmedio Island
Saltes Island
ODIEL RIVER
PUNTA UMBRIA
Channel Del Padre Santo
Watch Tower Quay
(Pilots)
Submarine pipeline
ATLANTIC OCEAN
S.B.M.
0 500 1000 2000 3000 4000 metres

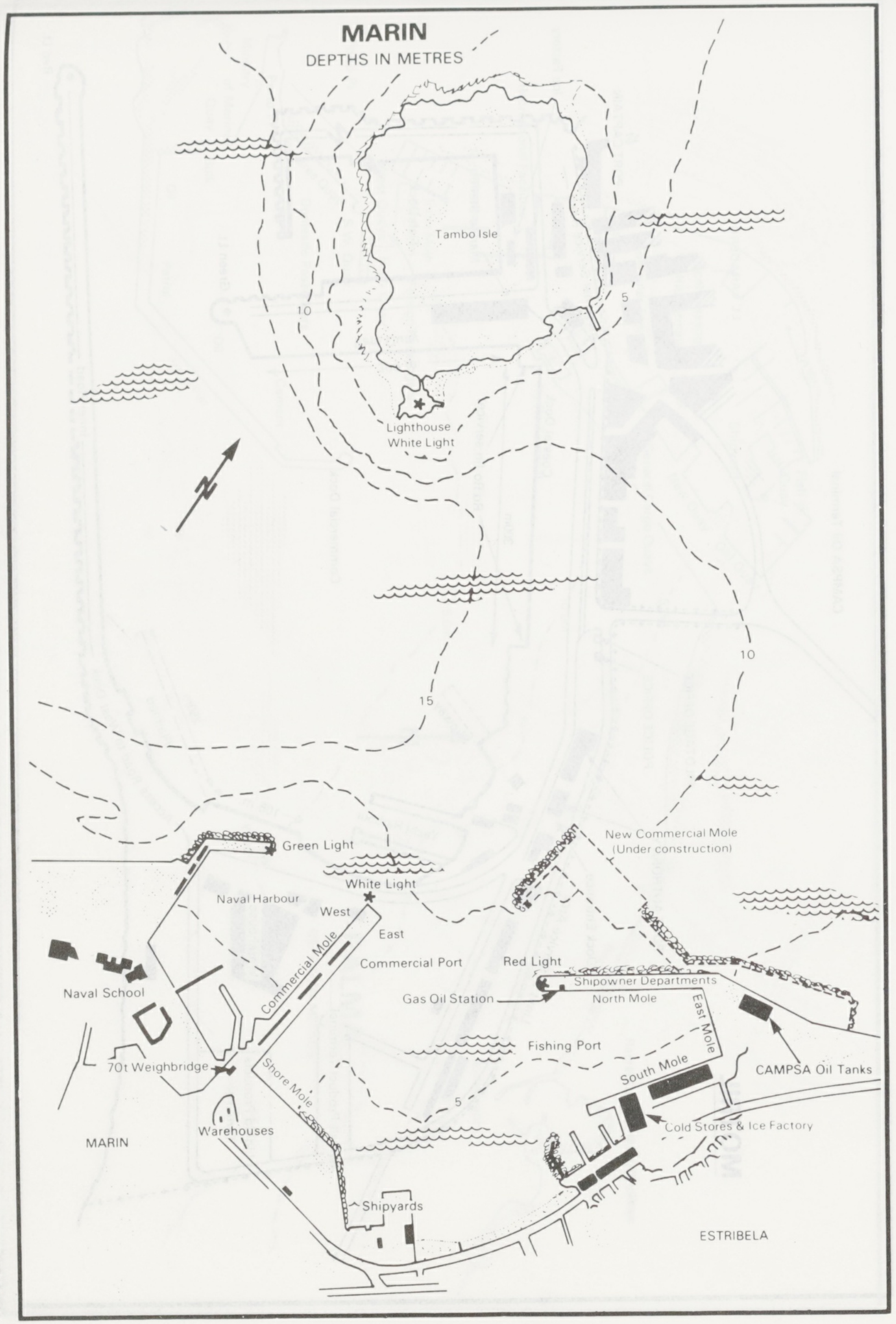

IBIZA
New Fishing Quay
−4 m.
−6 m.
Pleasure Boat Marina
−4 m.
Yacht Club
−8 m.
Darsena de Poniente
−6 m.
Counter Quay
−7 m.
−8 m.
Darsena de Levante
Muelle Interior
Muelle de Andenes
IBIZA
10 m
20 m
Isla Llana Island
Lighthouse
N


Containers & Ro-Ro Quay
Military Naval Station
6.5 m.
Cala Rata
G
13 m
Cala Llonga
8 m
Commercial Quay
R
Marine Club
10 m
R
12 m
Delrey Island
10 m
MAHON TOWN
Cala Figuera
G
22 m
25 m
R
R
R
Cala Corps
27 m
G
LAZARETO
Cala Taulera
R
VILLA CARLOS
Cala Fonts
LA MOLA
G
28 m
Cala Pedrera
G
R
16 m
P. La Mola
Entrance Channel
G
22 m
R
Mediterranean Sea
Cala S. Esteban
MAHON


MALAGA
Oil Pipeline Terminal
Fl(4)R5s.
Fl.G.
Fl(2)R1s.
Heat Centre Pier
Butane Plant
Fl.2s.
Buoy
Fl.R.
Ra. Refl.
Fl(2)R.6s. 6 M
Range 8M
Malaga lighthouse and Radio
Fl(3+1)20s.
Range 35M
Fl.G.5s.
Fl(3)G.10s. 8 M
– 5
Sealine for discharge of butane and propane
Buoy
Fl. G. Ra. Refl.
– 10
Buoy
Fl.G.
Ra. Refl.
Sea-line for anhydrous ammonia
Tanker discharge sealine
– 15
Fl.W.5s.
Mooring Point
–24 m.
– 20
– 25
Buoy
Fl.4s.
Ra. Refl.
DEPTHS IN METRES
MEDITERRANEAN SEA

MARIN

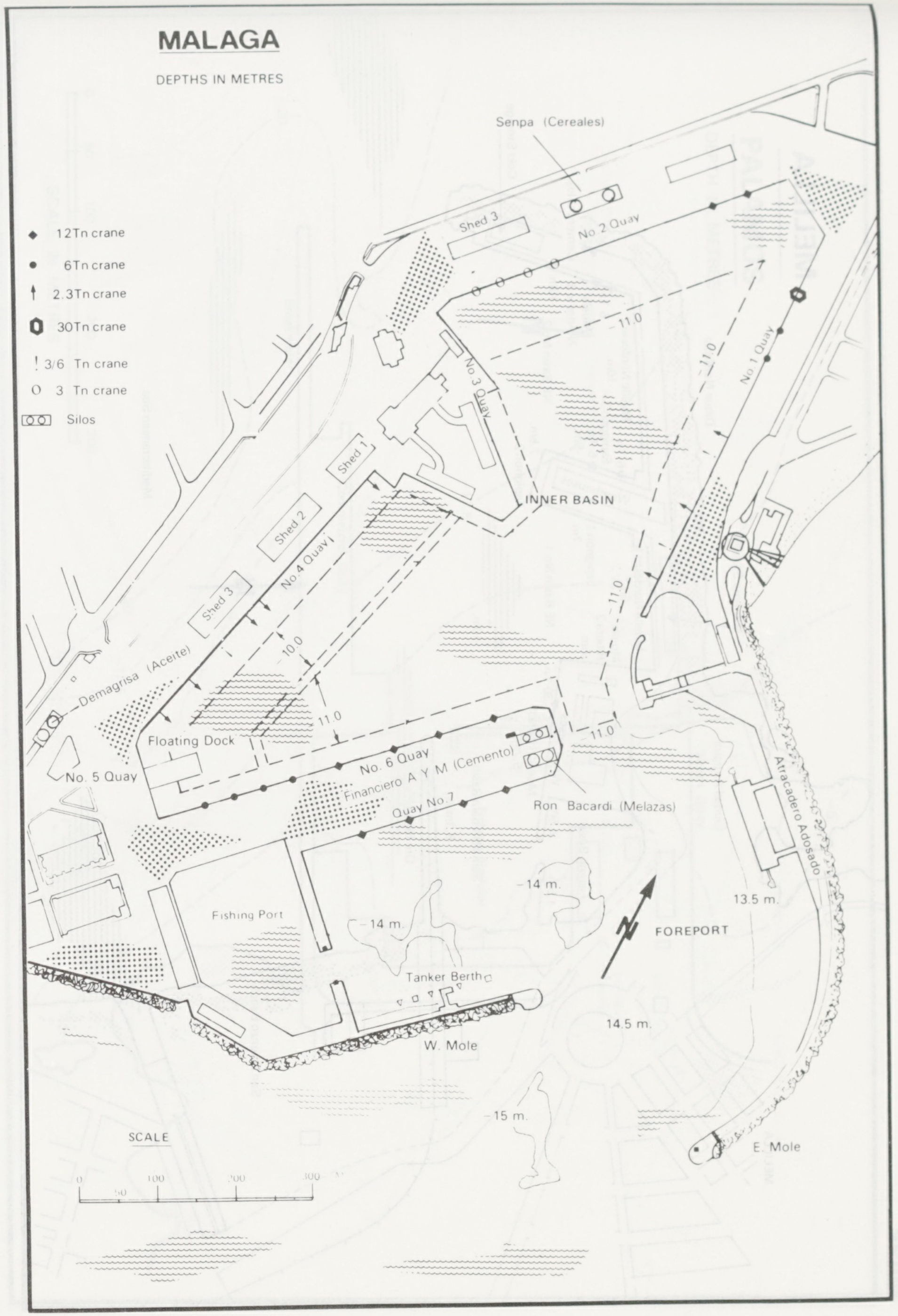
DEPTHS IN METRES



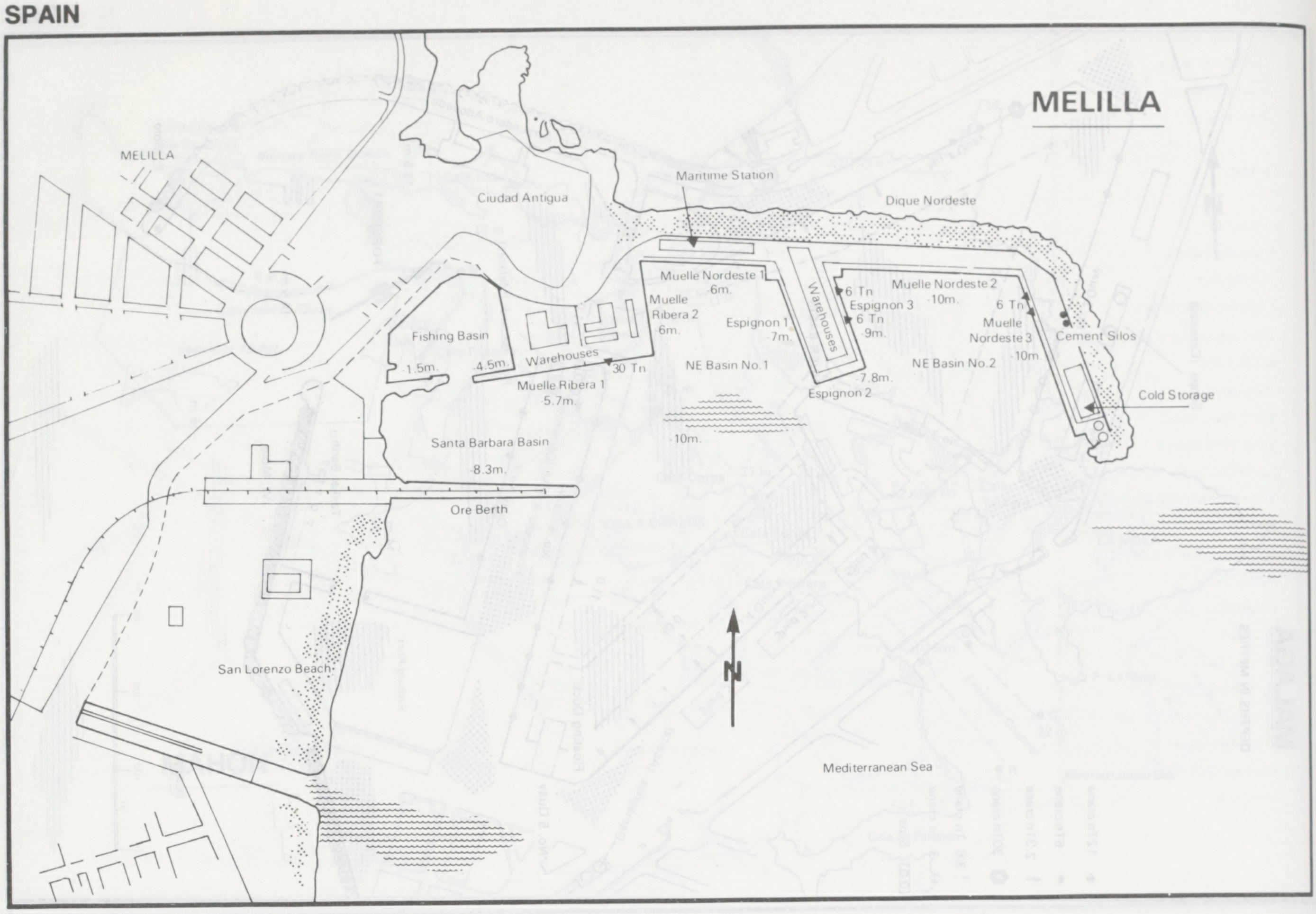
Tambo Isle
10
5
Lighthouse
White Light
10
15
Green Light
Naval Harbour
White Light
West
East
New Commercial Mole
(Under construction)
Commercial Port
Red Light
Shipowner Departments
Naval School
Commercial Mole
Gas Oil Station
North Mole
East Mole
Fishing Port
CAMPSA Oil Tanks
70t Weighbridge
Shore Mole
South Mole
5
Cold Stores & Ice Factory
Warehouses
MARIN
Shipyards
ESTRIBELA

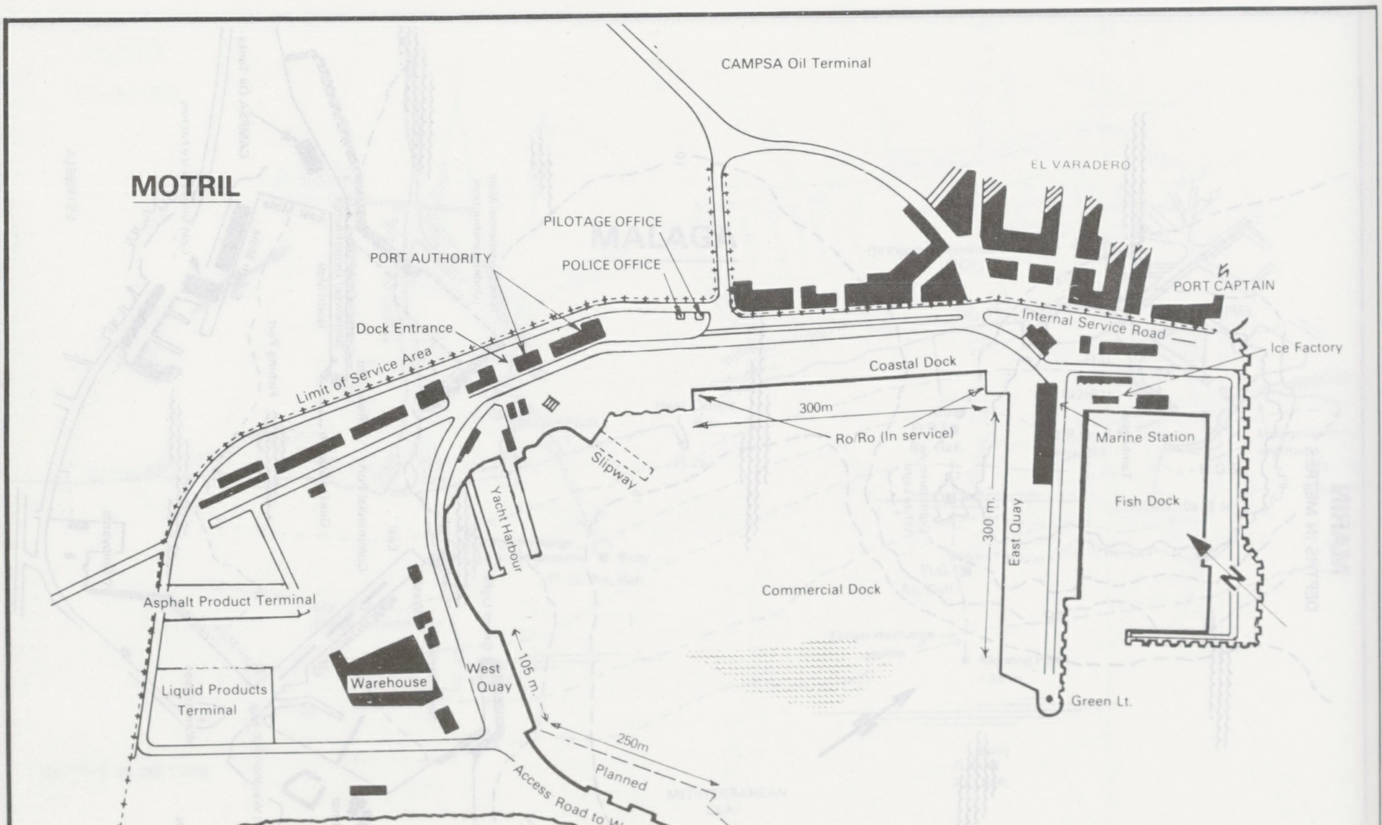
MALAGA

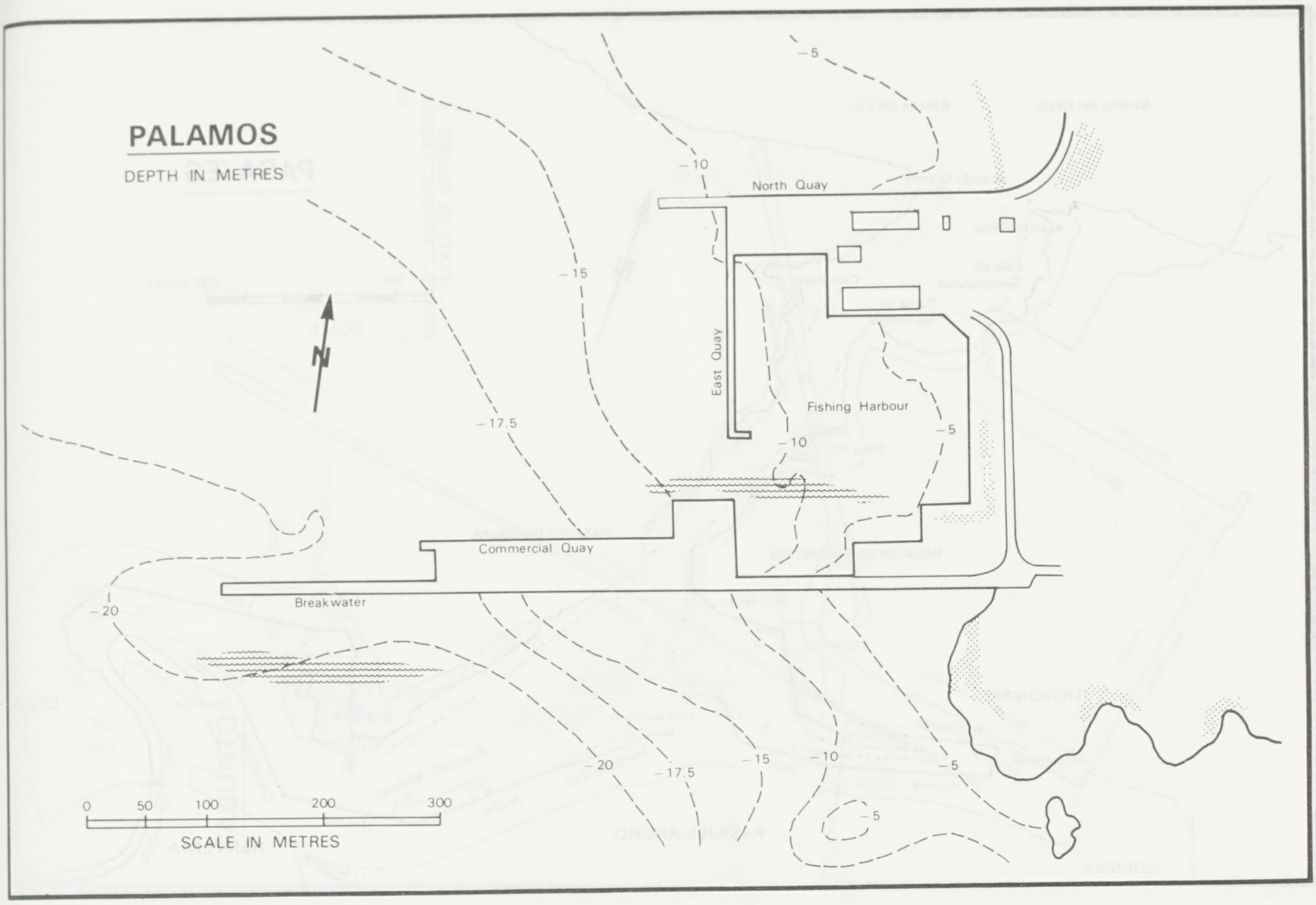
DEPTHS IN METRES

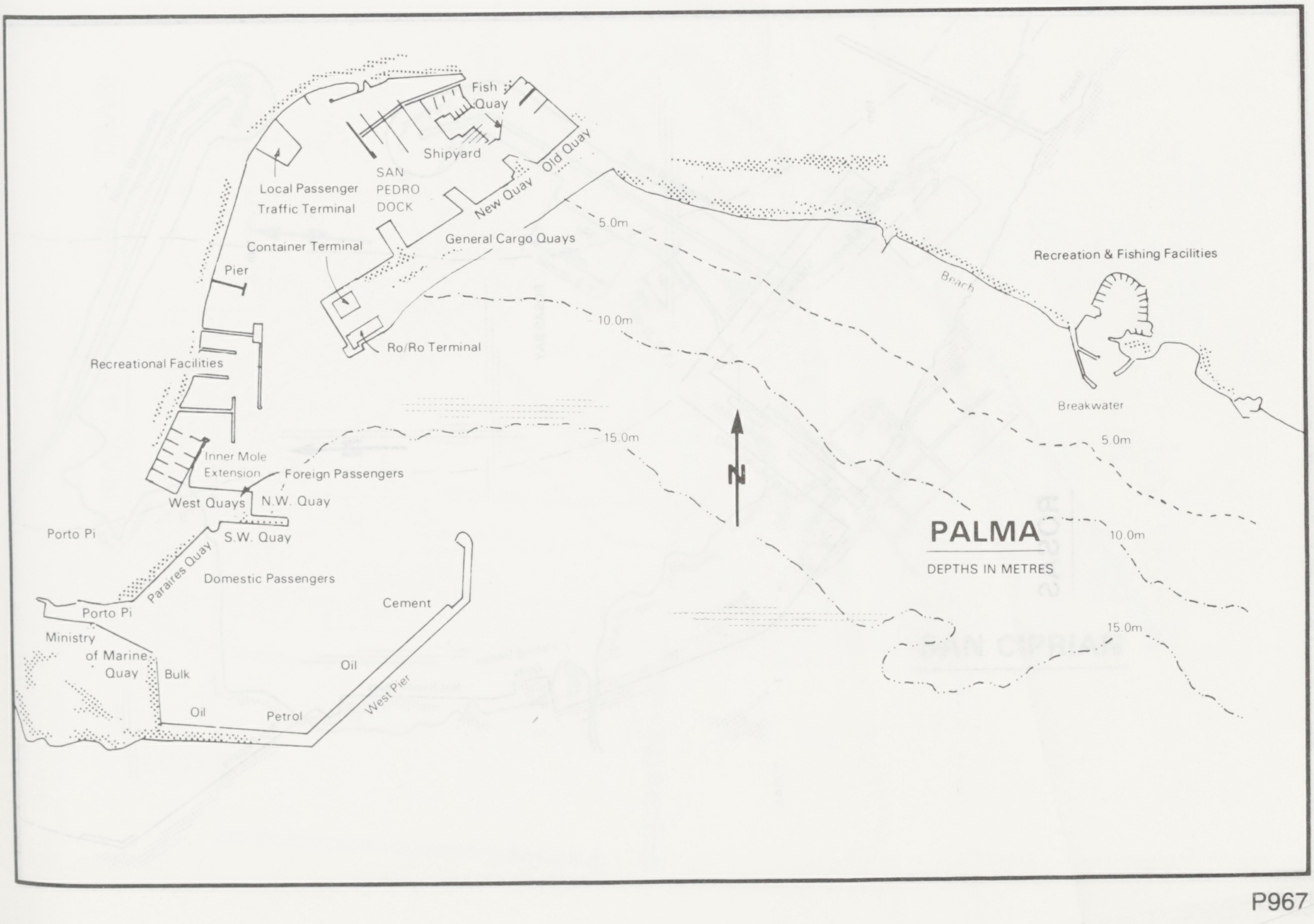


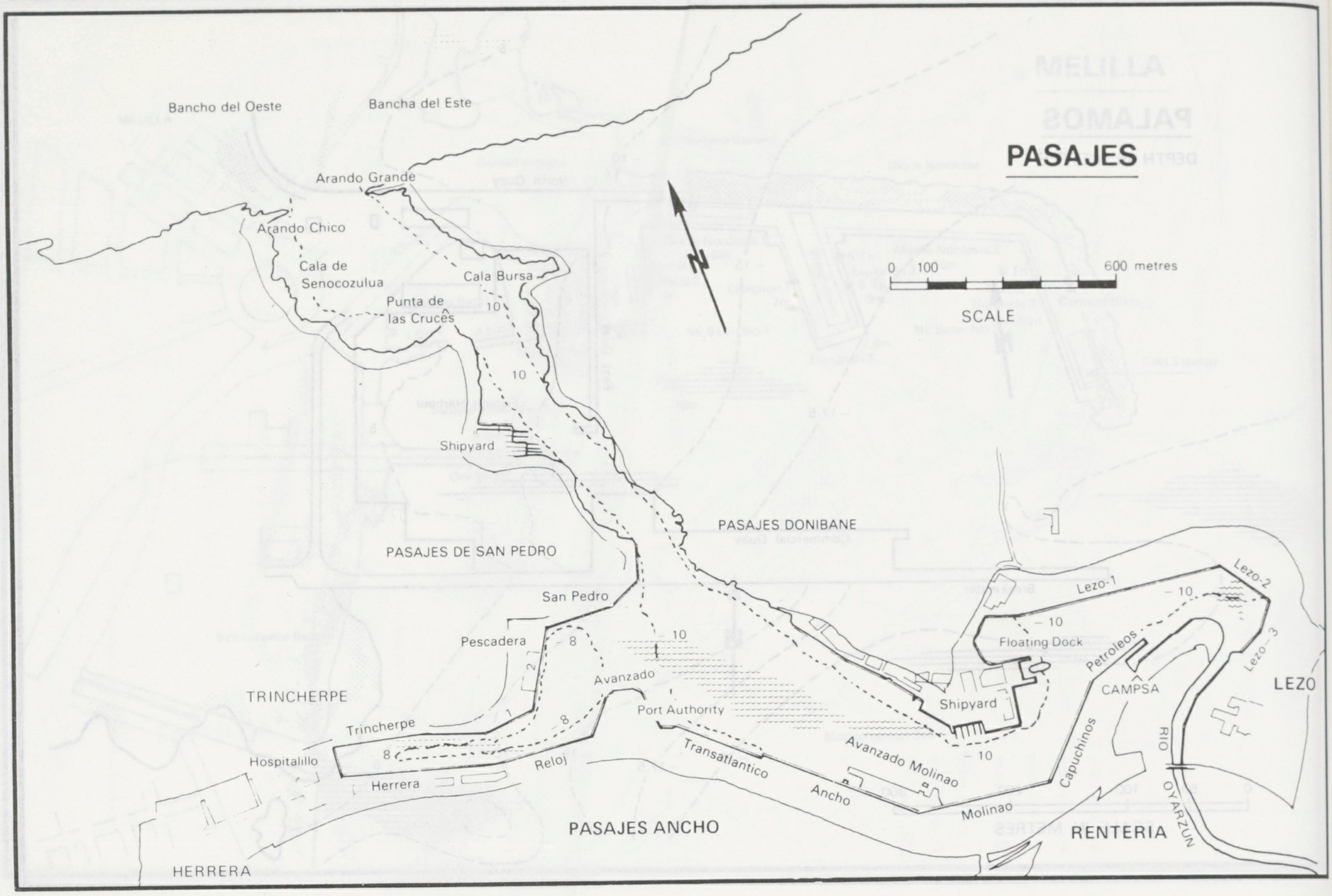
◆ 12Tn crane
● 6Tn crane
↑ 2.3Tn crane
30Tn crane
! 3/6 Tn crane
O 3 Tn crane
Silos
Senpa (Cereales)
Shed 3
No. 2 Quay
11.0
No. 3 Quay
11.0
No. 1 Quay
Shed 1
Shed 2
INNER BASIN
No. 4 Quay
Shed 3
10.0
11.0
Demagrisa (Aceite)
11.0
11.0
Floating Dock
No. 6 Quay
No. 5 Quay
Financiero A Y M (Cemento)
Quay No. 7
Ron Bacardi (Melazas)
Atracadero Adosado
14 m.
13.5 m.
Fishing Port
14 m.
FOREPORT
Tanker Berth
14.5 m.
W. Mole
15 m.
SCALE
0
50
100
200
300
E. Mole

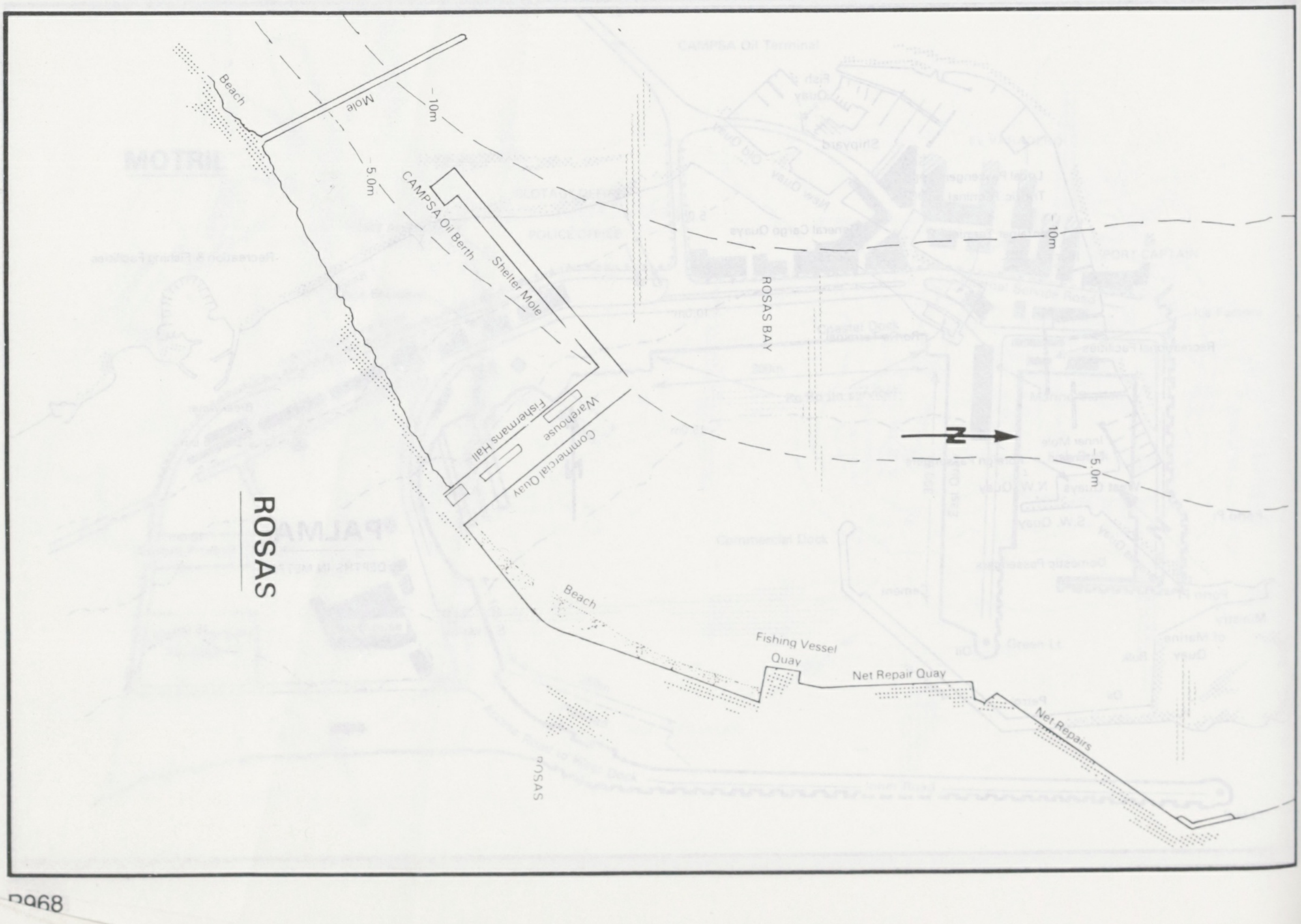

MELILLA
MELILLA
Ciudad Antigua
Maritime Station
Dique Nordeste
Muelle Nordeste 1
6m.
Muelle Ribera 2
6m.
Fishing Basin
1.5m.
4.5m.
Warehouses
30 Tn
Muelle Ribera 1
5.7m.
Espignon 1
7m.
NE Basin No.1
Warehouses
6 Tn
Espignon 3
6 Tn
9m.
Muelle Nordeste 2
10m.
6 Tn
Muelle Nordeste 3
10m.
Cement Silos
NE Basin No.2
7.8m.
Espignon 2
Cold Storage
Santa Barbara Basin
8.3m.
10m.
Ore Berth
N
San Lorenzo Beach
Mediterranean Sea

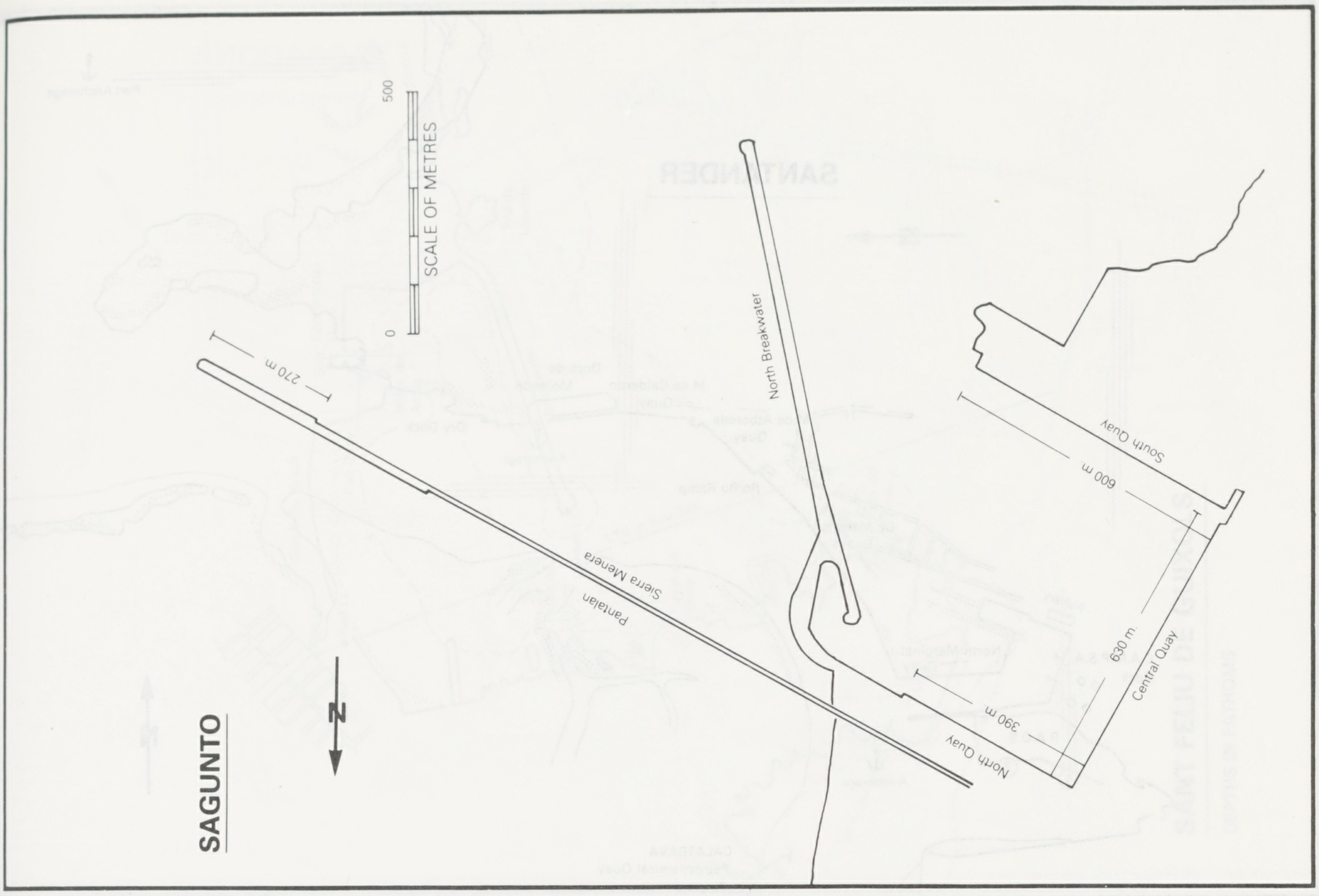

MOTRIL
CAMPSA Oil Terminal
EL VARADERO
PILOTAGE OFFICE
PORT AUTHORITY
POLICE OFFICE
PORT CAPTAIN
Dock Entrance
Internal Service Road
Limit of Service Area
Coastal Dock
Ice Factory
300m
Ro/Ro (In service)
Marine Station
Slipway
Yacht Harbour
Fish Dock
300 m.
East Quay
N
Asphalt Product Terminal
Commercial Dock
Liquid Products Terminal
Warehouse
West Quay
105 m.
Green Lt.
250m
Planned
Access Road to West Dock
Inner Road
Red Lt.


PALAMOS
DEPTH IN METRES
North Quay
East Quay
Fishing Harbour
Commercial Quay
Breakwater
−5
−10
−15
−17.5
−20
0
50
100
200
300
SCALE IN METRES


Fish Quay
Shipyard
Old Quay
New Quay
SAN PEDRO DOCK
Local Passenger Traffic Terminal
Container Terminal
General Cargo Quays
Pier
Ro/Ro Terminal
Recreational Facilities
Inner Mole Extension
Foreign Passengers
West Quays
N.W. Quay
S.W. Quay
Porto Pi
Pararies Quay
Domestic Passengers
Porto Pi
Ministry of Marine Quay
Bulk
Oil
Petrol
Oil
Cement
West Pier
Beach
Recreation & Fishing Facilities
Breakwater
5.0m
10.0m
15.0m
PALMA
DEPTHS IN METRES

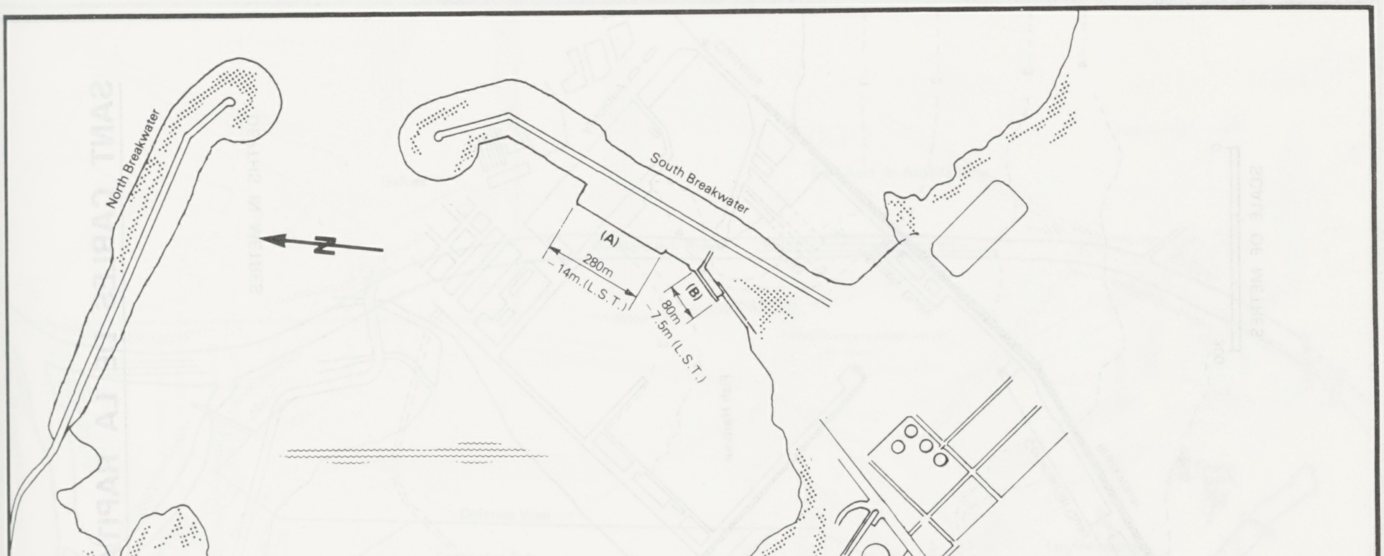

PASAJES
0
100
600 metres
SCALE
N
Bancho del Oeste
Bancha del Este
Arando Grande
Arando Chico
Cala de Senocozulua
Punta de las Cruces
Cala Bursa
10
10
Shipyard
PASAJES DONIBANE
PASAJES DE SAN PEDRO
San Pedro
Pescadera
8
2
1
10
Avanzado
Port Authority
TRINCHERPE
Trincherpe
8
8
Hospitalillo
Herrera
Reloj
Transatlantico
Ancho
PASAJES ANCHO
HERRERA
Lezo-1
Lezo-2
Lezo-3
10
10
Floating Dock
Petroleos
CAMPSA
Shipyard
10
Avanzado Molinao
Molinao
Capuchinos
RIO OYARZUN
RENTERIA
LEZO


ROSAS
Beach
Mole
–10m
5.0m
CAMPSA Oil Berth
Shelter Mole
Warehouse
Fishermans Hall
Commercial Quay
ROSAS BAY
N
–10m
5.0m
Beach
Fishing Vessel Quay
Net Repair Quay
Net Repairs



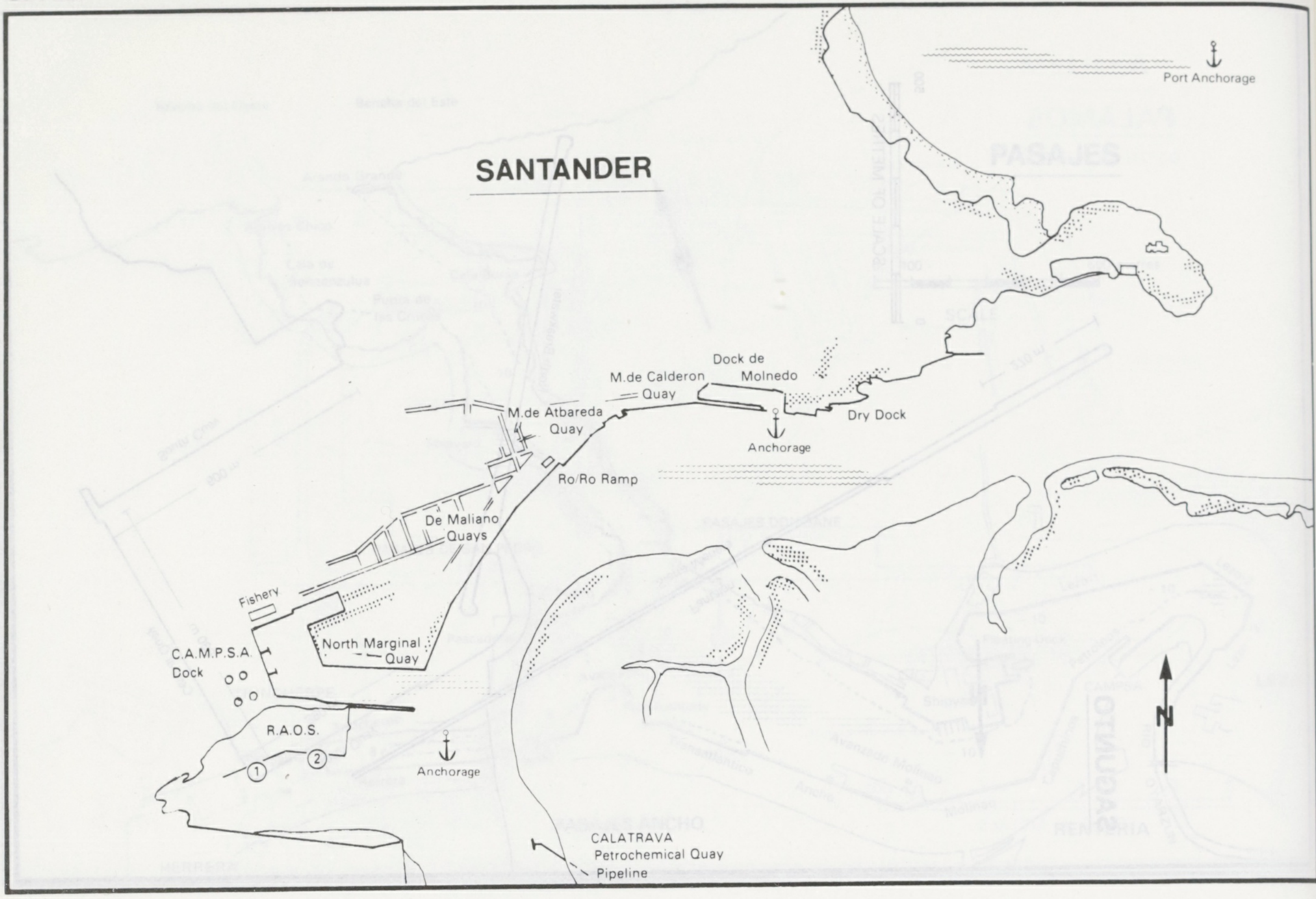
SAGUNTO

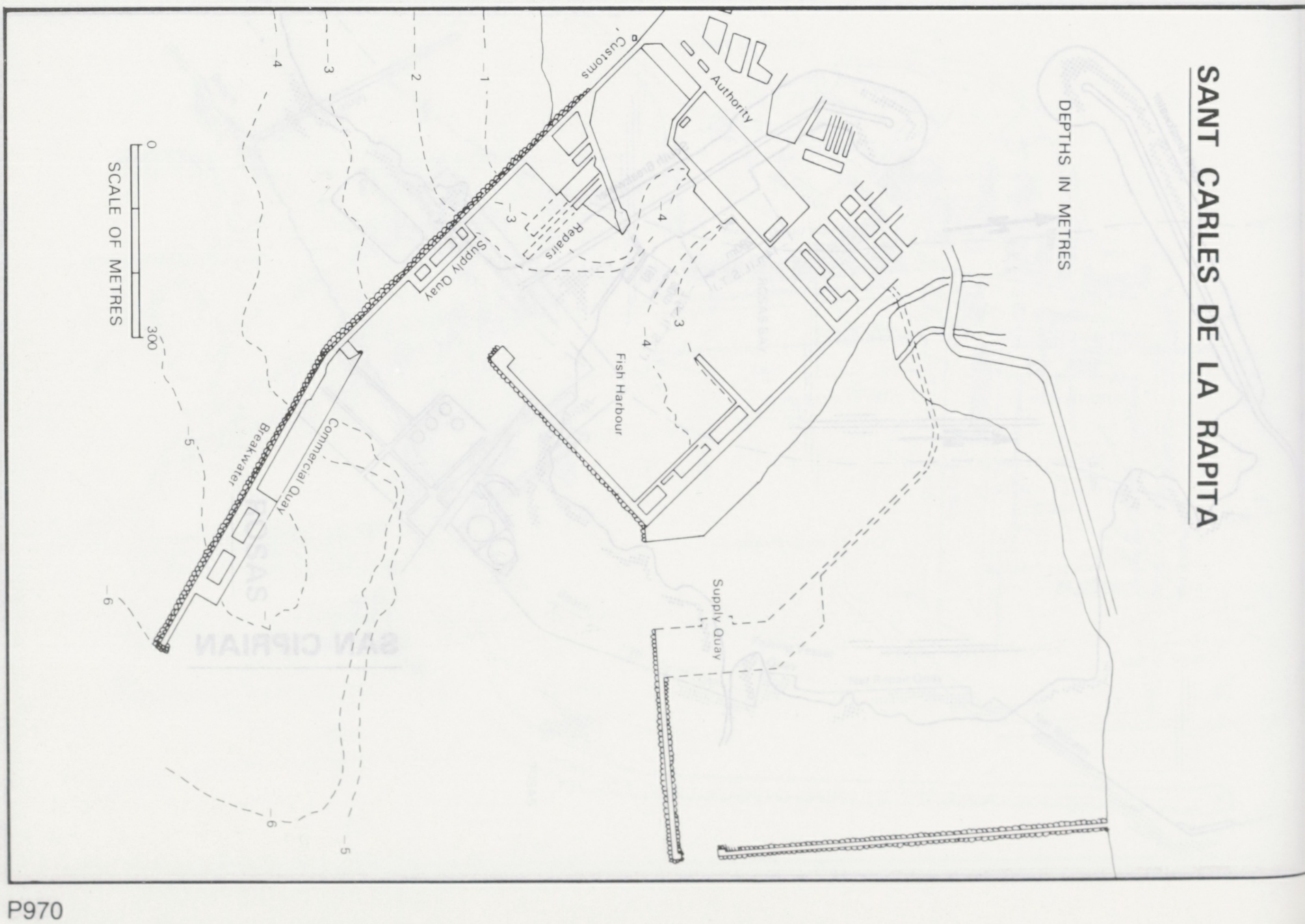
SCALE OF METRES
0
500
270 m
North Breakwater
South Quay
600 m
630 m
Central Quay
390 m
North Quay
Sierra Menera
Pantalan
N

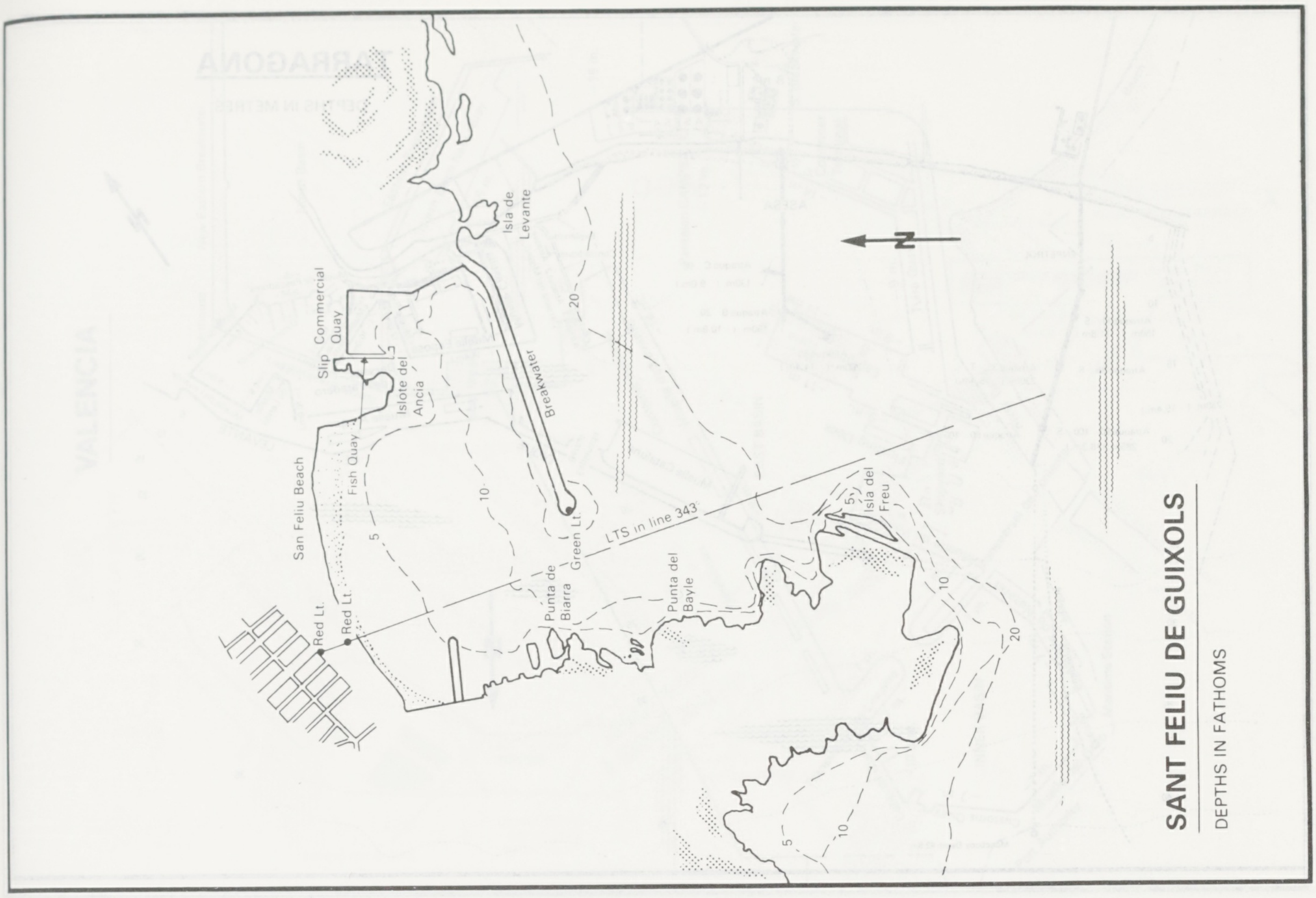


SAN CIPRIAN

North Breakwater
South Breakwater
N
(A)
280m
14m.(L.S.T.)
(B)
80m
7.5m (L.S.T.)

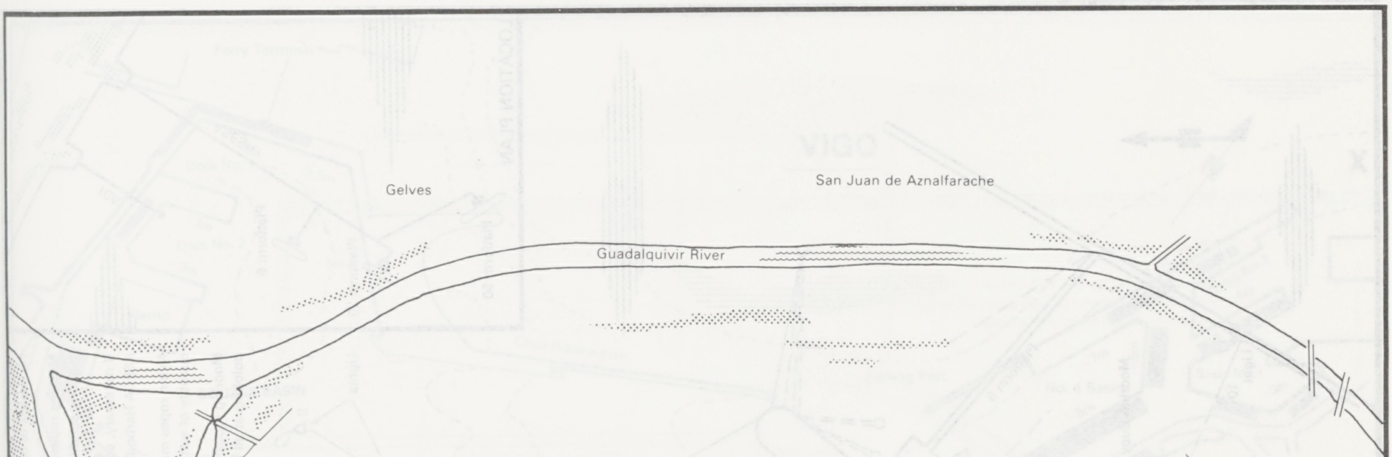

SANTANDER
Port Anchorage
Dock de
Molnedo
M.de Calderon
Quay
Dry Dock
M.de Atbareda
Quay
Anchorage
Ro/Ro Ramp
De Maliano
Quays
Fishery
C.A.M.P.S.A.
Dock
North Marginal
Quay
R.A.O.S.
①
②
Anchorage
CALATRAVA
Petrochemical Quay
Pipeline
N


SANT CARLES DE LA RAPITA
DEPTHS IN METRES
SCALE OF METRES
0
300
Customs
Authority
Repairs
Supply Quay
Fish Harbour
Commercial Quay
Breakwater
Supply Quay
1
2
3
4
3
4
3
4
5
5
6
6
5
7

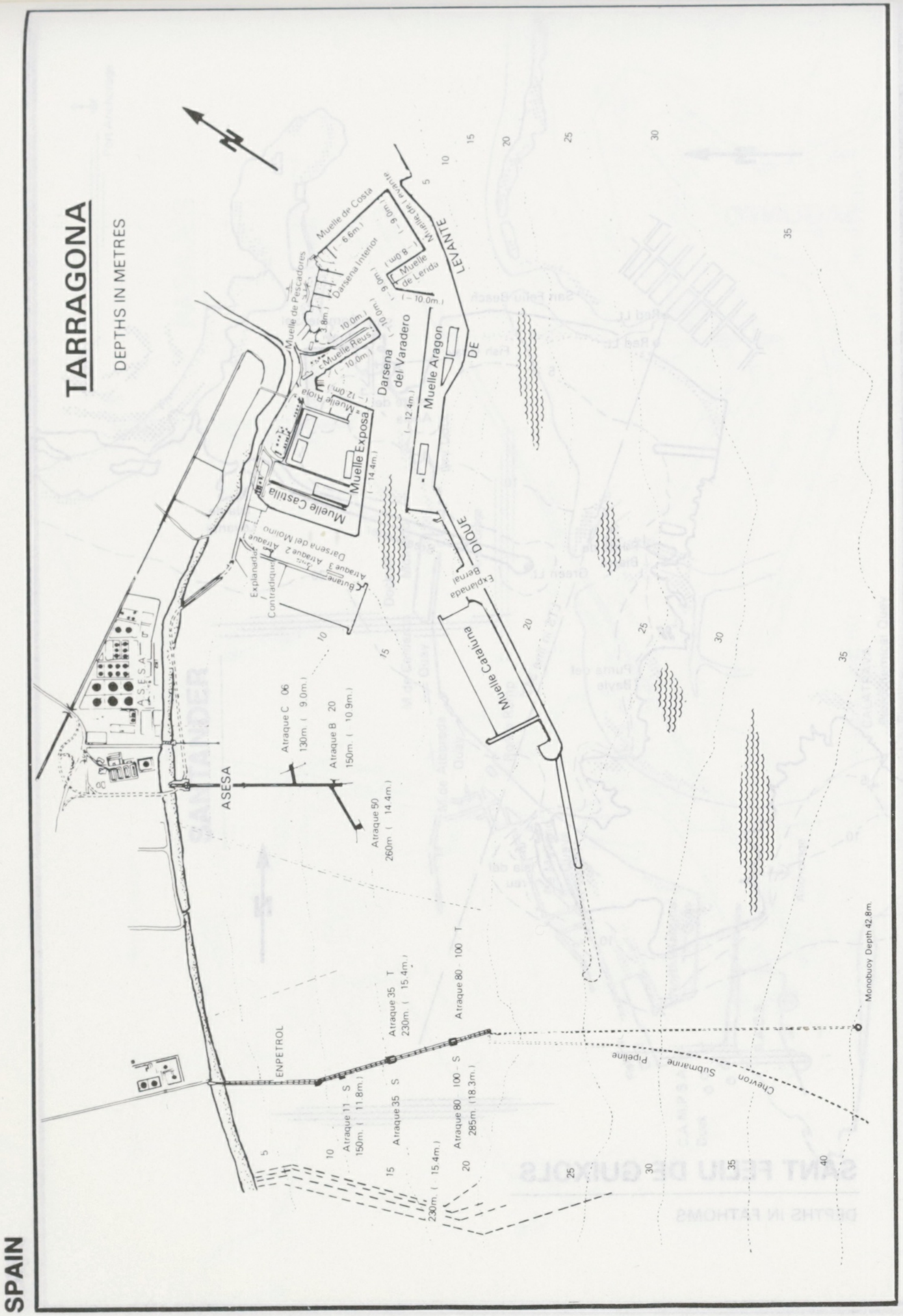

Isla de Levante
20
Commercial Quay
Slip
Islote del Ancia
Breakwater
Fish Quay
San Feliu Beach
10
5
Green Lt.
Punta de Biarra
LTS in line 343
Red Lt.
Red Lt.
Punta del Bayle
Isla del Freu
5
10
20
5
10
N

SANT FELIU DE GUIXOLS

DEPTHS IN FATHOMS


Gelves
San Juan de Aznalfarache
Guadalquivir River
Triana
Defence Wall
Los Remedios
Espanoles S.A. Shipyard
Lock Quay
Muelle de Armamento
Centenario Dock
CAMPSA
PROAS
Nautical Club
Bridge
Canal de Alfonso XIII
C.A.S.A.
Muelle de Tablada
Bridge
Muelle Delicias
Bridge

SEVILLE


TARRAGONA
DEPTHS IN METRES
Muelle de Costa
Muelle de Pescadores
Darsena Interior
Muelle de Lerida
Muelle Reus
Muelle Rioja
Darsena del Varadero
Muelle Aragon
Muelle Exposa
Muelle Castilla
Darsena del Molino
Atraque 1
Atraque 2
Explanada
Contradique
DIQUE DE LEVANTE
Explanada Bernal
Muelle Cataluna
ASESA
Atraque C 06 130m (9.0m)
Atraque B 20 150m (10.9m)
Atraque 50 260m (14.4m)
ENPETROL
Atraque 11 S 150m (11.8m)
Atraque 35 S
Atraque 35 T 230m (15.4m)
Atraque 80 100 T
Atraque 80 100 S 285m (18.3m)
230m (15.4m)
Submarine Pipeline
Chevron
Monobuoy Depth 42.8m
5
10
15
20
25
30
35
40

No repairs to main engines allowed while vessels are alongside the pier.

Mooring ropes shown above are the safe minimum number for average weather conditions.

If necessary, additional mooring ropes may be required by the Pilot of ASESA Harbour Master.

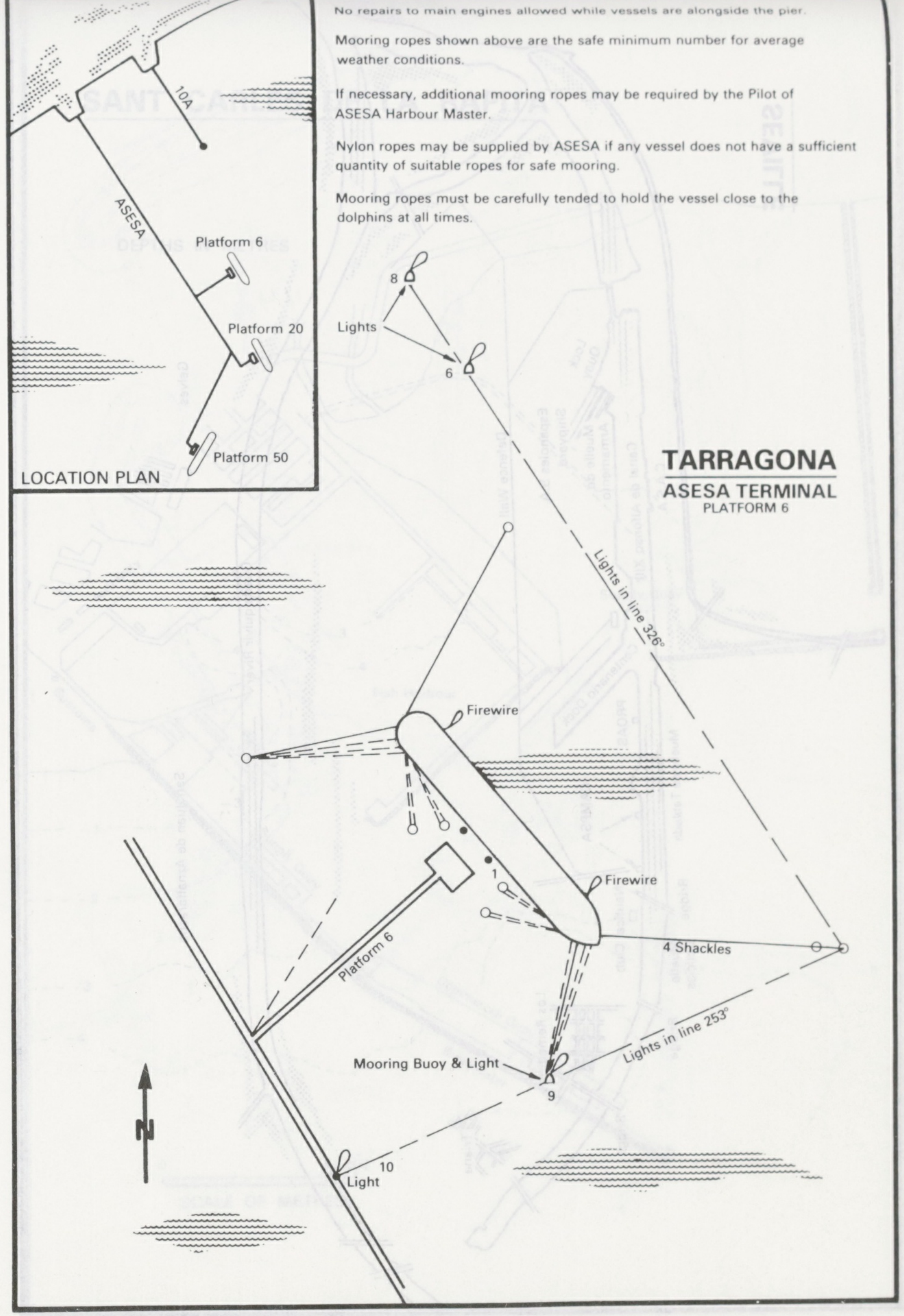
Nylon ropes may be supplied by ASESA if any vessel does not have a sufficient quantity of suitable ropes for safe mooring.

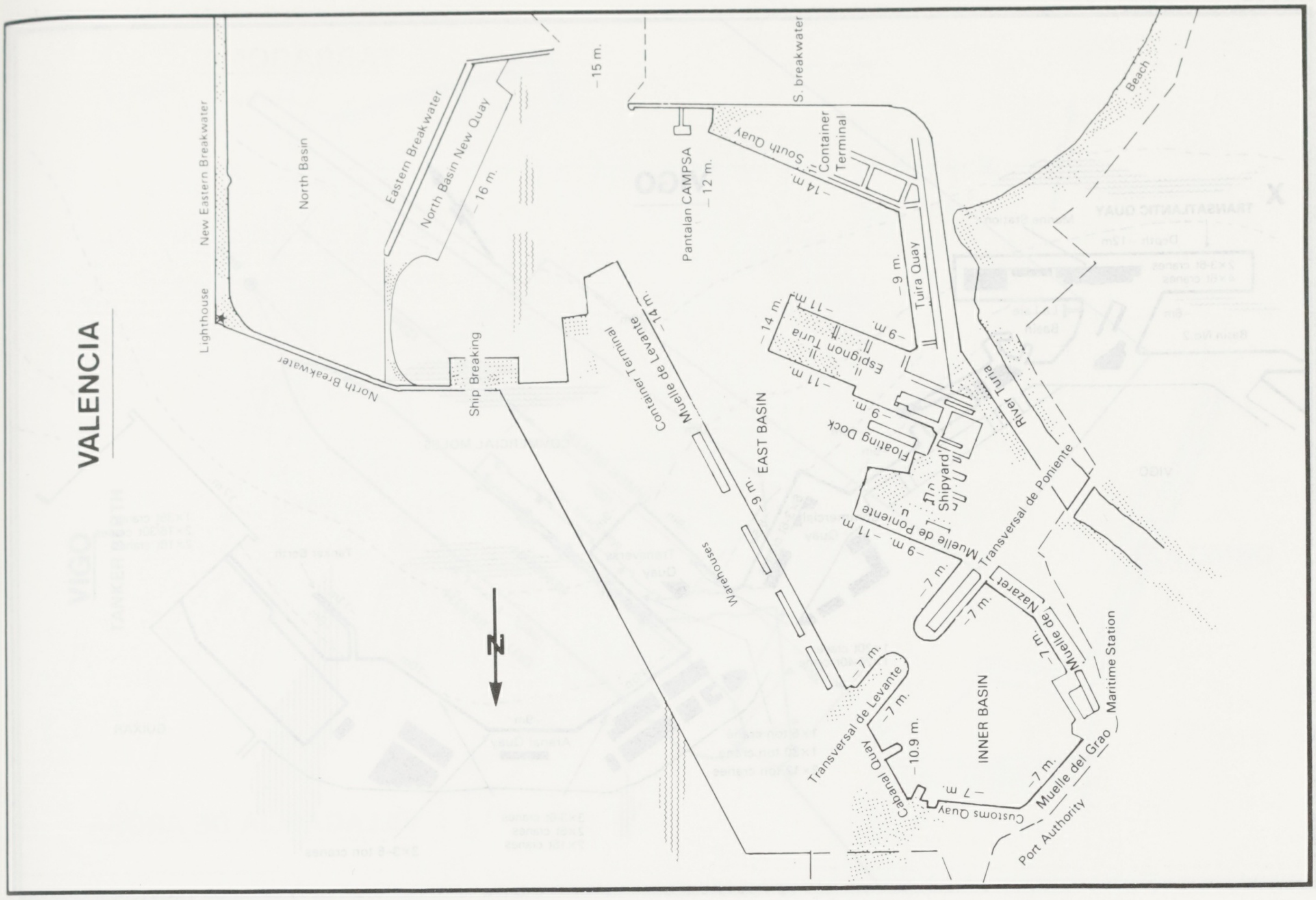
Mooring ropes must be carefully tended to hold the vessel close to the dolphins at all times.

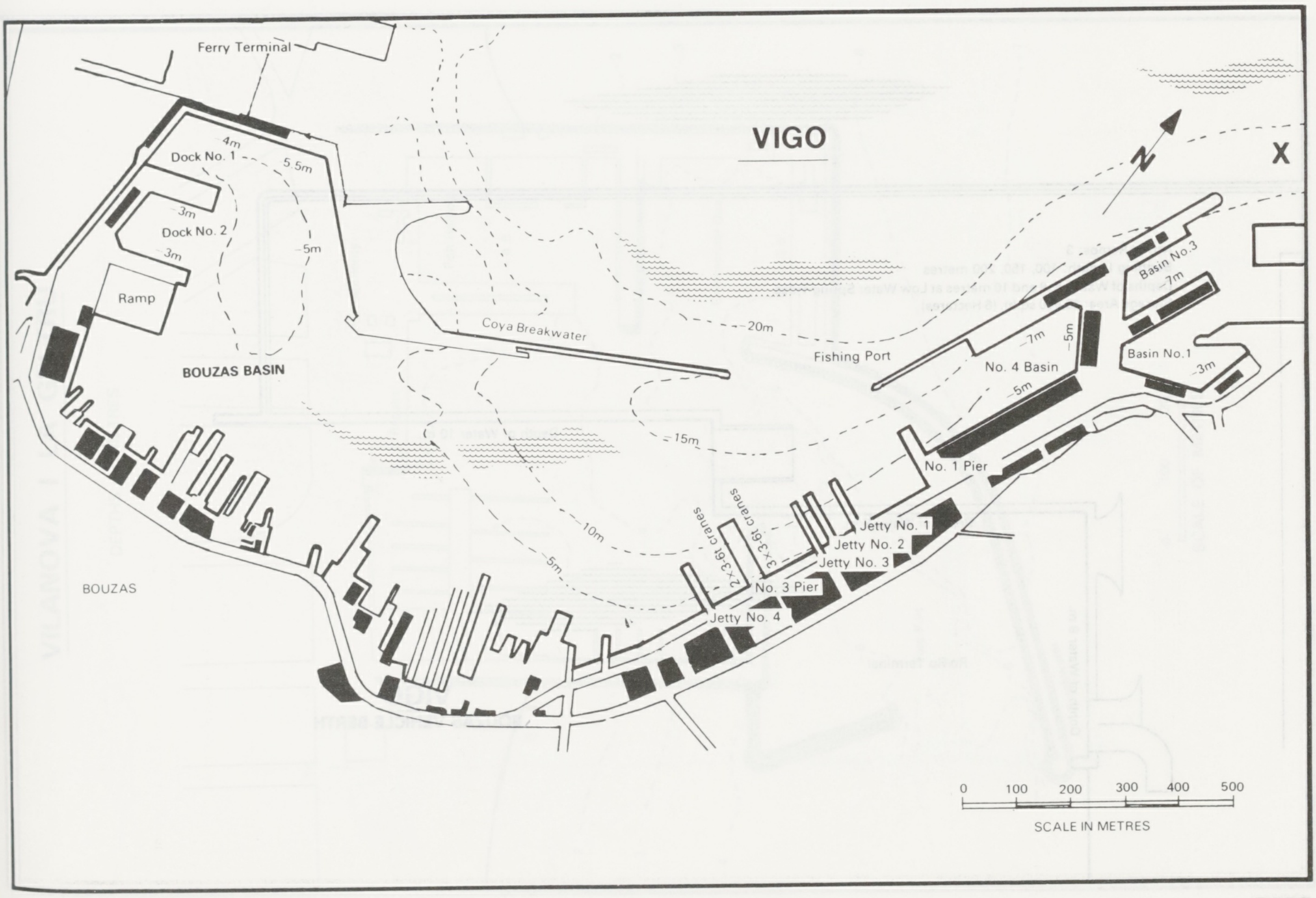
TARRAGONA

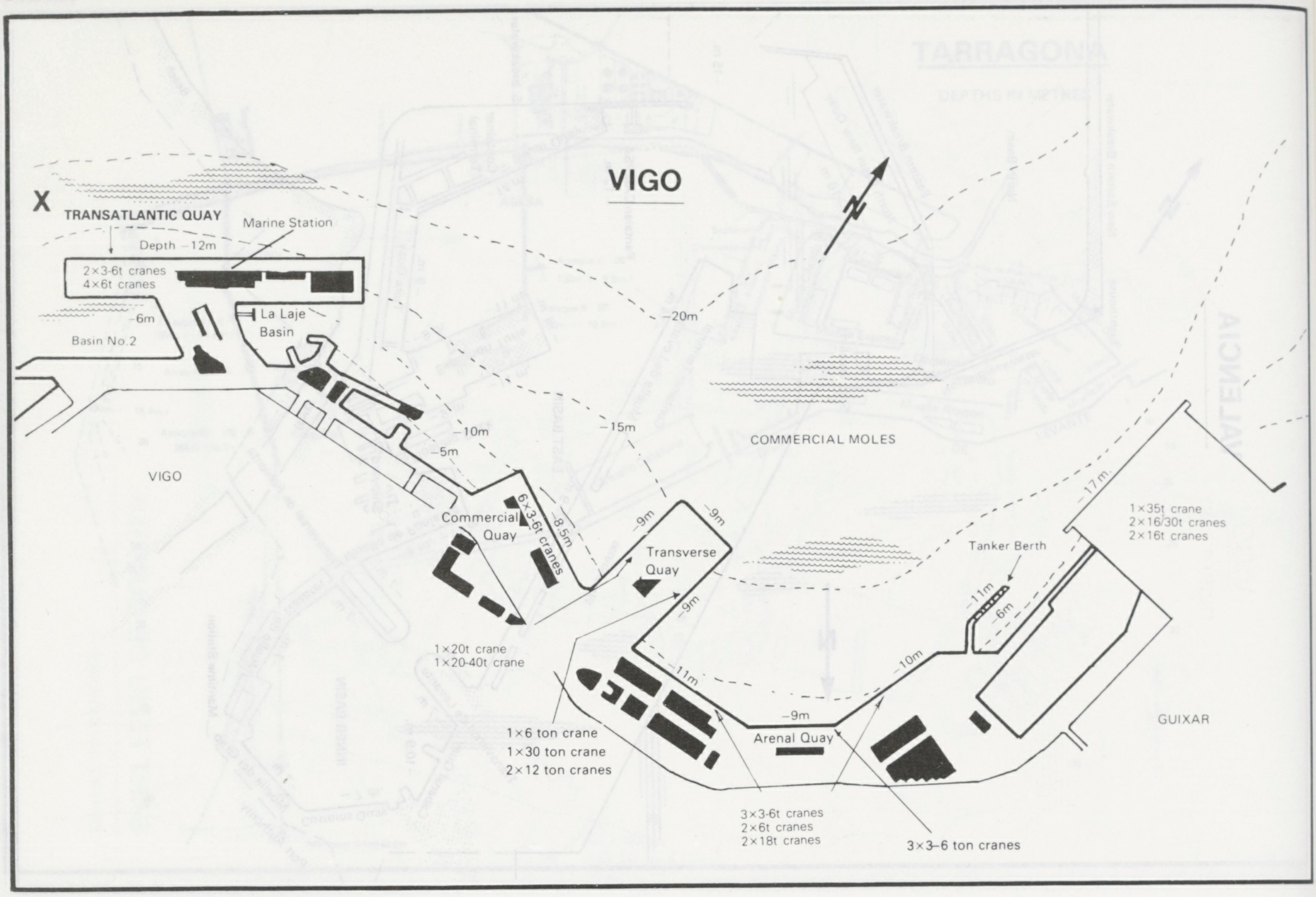
ASESA TERMINAL

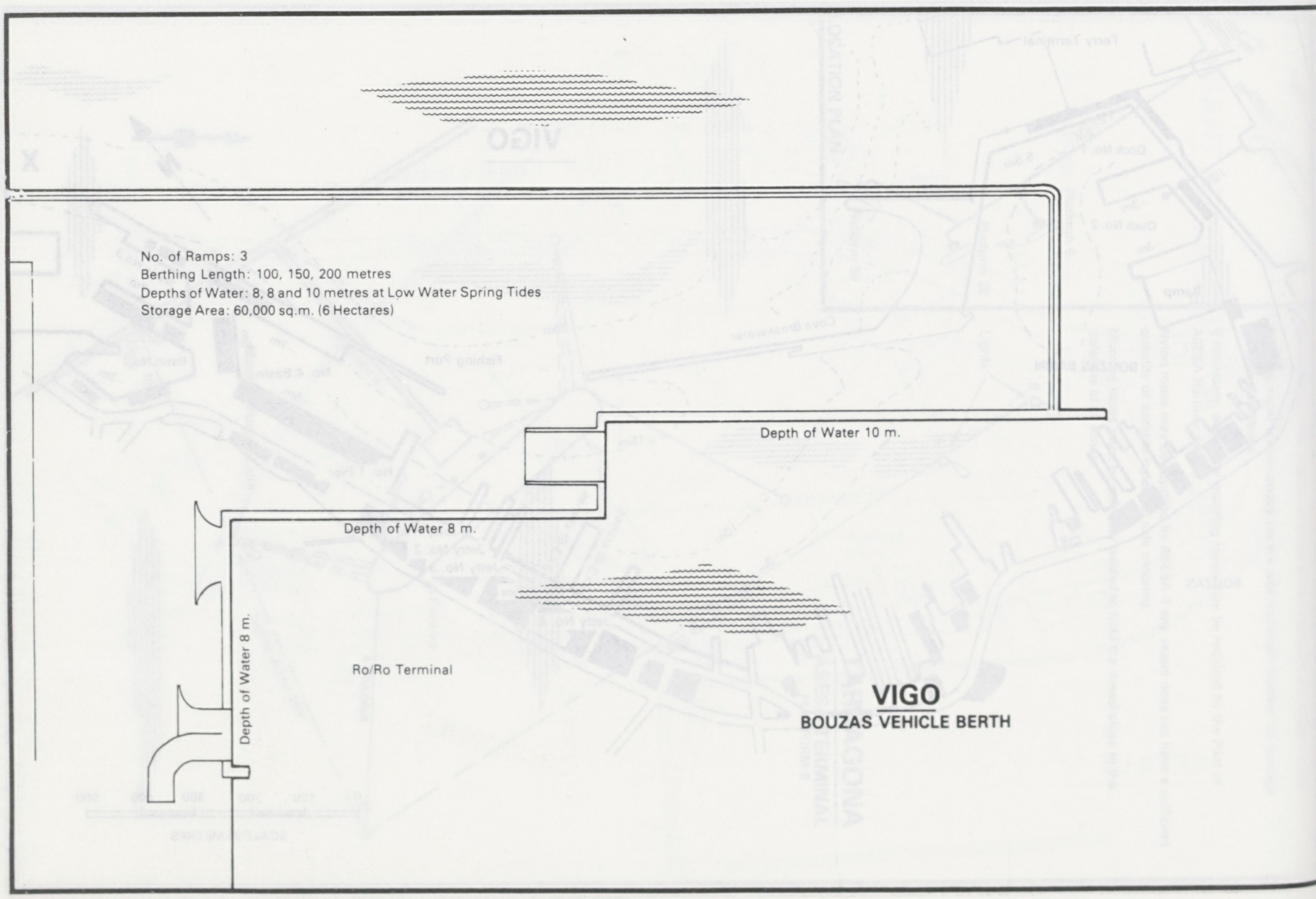
PLATFORM 6


LOCATION PLAN
10A
ASESA
Platform 6
Platform 20
Platform 50
8
6
Lights
Lights in line 326°
Firewire
Firewire
1
Platform 6
4 Shackles
Mooring Buoy & Light
9
Lights in line 253°
Light
10
N


VALENCIA
Lighthouse
New Eastern Breakwater
North Breakwater
North Basin
Eastern Breakwater
North Basin New Quay
–16 m.
Ship Breaking
–15 m.
Pantalan CAMPSA
–12 m.
S. breakwater
South Quay
–14 m.
Container Terminal
Turia Quay
–9 m.
Container Terminal
Muelle de Levante
–14 m.
EAST BASIN
–9 m.
Warehouses
–7 m.
Espigon Turia
–11 m.
–14 m.
–11 m.
–9 m.
–11 m.
–9 m.
Floating Dock
Shipyard
Muelle de Poniente
–11 m.
–9 m.
Transversal de Poniente
River Turia
Beach
–7 m.
Muelle de Nazaret
–7 m.
Muelle de –7 m.
Maritime Station
INNER BASIN
–7 m.
Transversal de Levante
Cabanal Quay
–10.9 m.
–7 m.
Customs Quay
–7 m.
Muelle del Grao
Port Authority
N


VIGO
Ferry Terminal
4m
Dock No. 1
5.5m
–3m
Dock No. 2
–3m
–5m
Ramp
BOUZAS BASIN
Coya Breakwater
–20m
–15m
–10m
–5m
BOUZAS
Fishing Port
No. 4 Basin
–7m
–5m
–5m
Basin No.3
–7m
Basin No.1
–3m
No. 1 Pier
Jetty No. 1
Jetty No. 2
Jetty No. 3
No. 3 Pier
Jetty No. 4
2×3.6t cranes
3×3.6t cranes
N
X
0
100
200
300
400
500
SCALE IN METRES

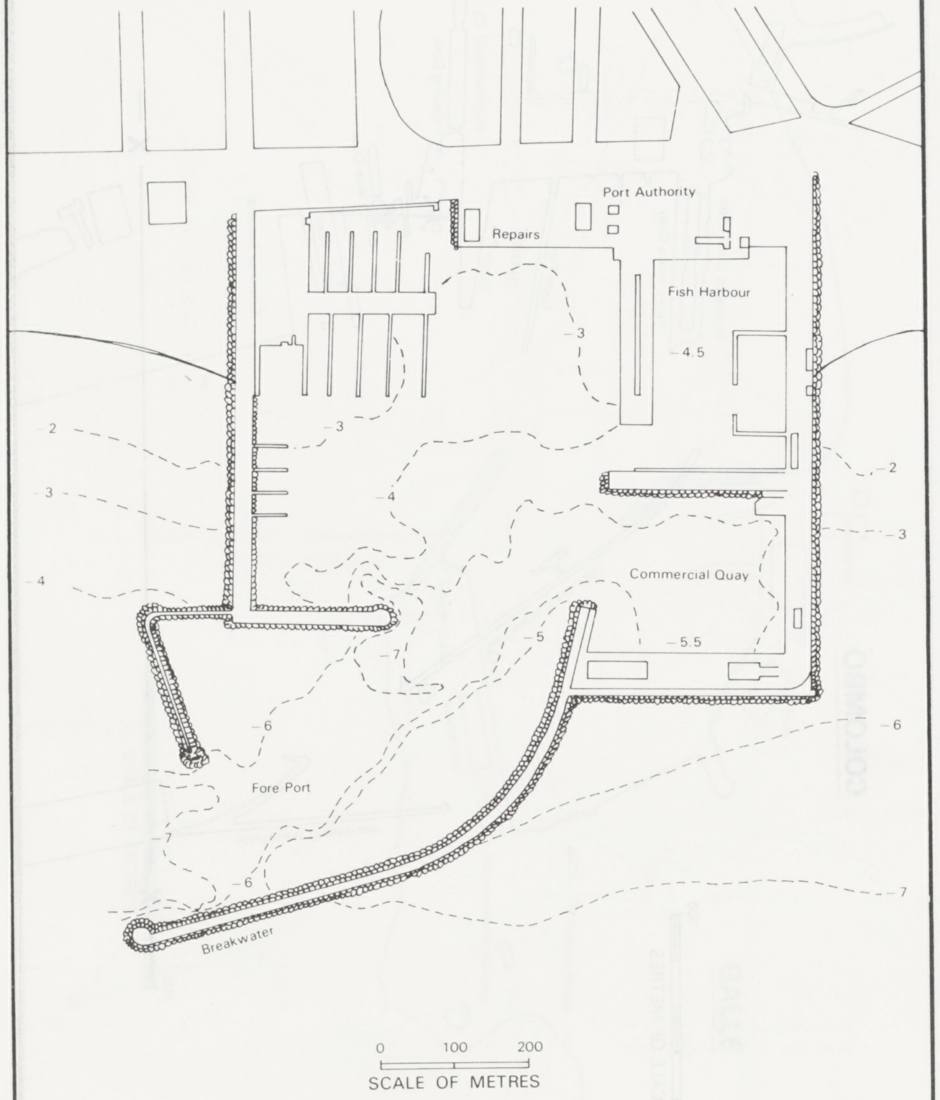

VIGO
X
TRANSATLANTIC QUAY
Marine Station
Depth –12m
2×3-6t cranes
4×6t cranes
–6m
La Laje Basin
Basin No.2
VIGO
–20m
–10m
–5m
–15m
COMMERCIAL MOLES
Commercial Quay
6×3-6t cranes
–8.5m
–9m
–9m
Transverse Quay
–9m
1×20t crane
1×20-40t crane
–11m
1×6 ton crane
1×30 ton crane
2×12 ton cranes
–9m
Arenal Quay
3×3-6t cranes
2×6t cranes
2×18t cranes
3×3–6 ton cranes
–10m
–11m
–6m
Tanker Berth
–17m
1×35t crane
2×16/30t cranes
2×16t cranes
GUIXAR


Depth of Water 10 m.
Depth of Water 8 m.
Depth of Water 8 m.
Ro/Ro Terminal
VIGO
BOUZAS VEHICLE BERTH

No. of Ramps: 3
Berthing Length: 100, 150, 200 metres
Depths of Water: 8, 8 and 10 metres at Low Water Spring Tides
Storage Area: 60,000 sq.m. (6 Hectares)

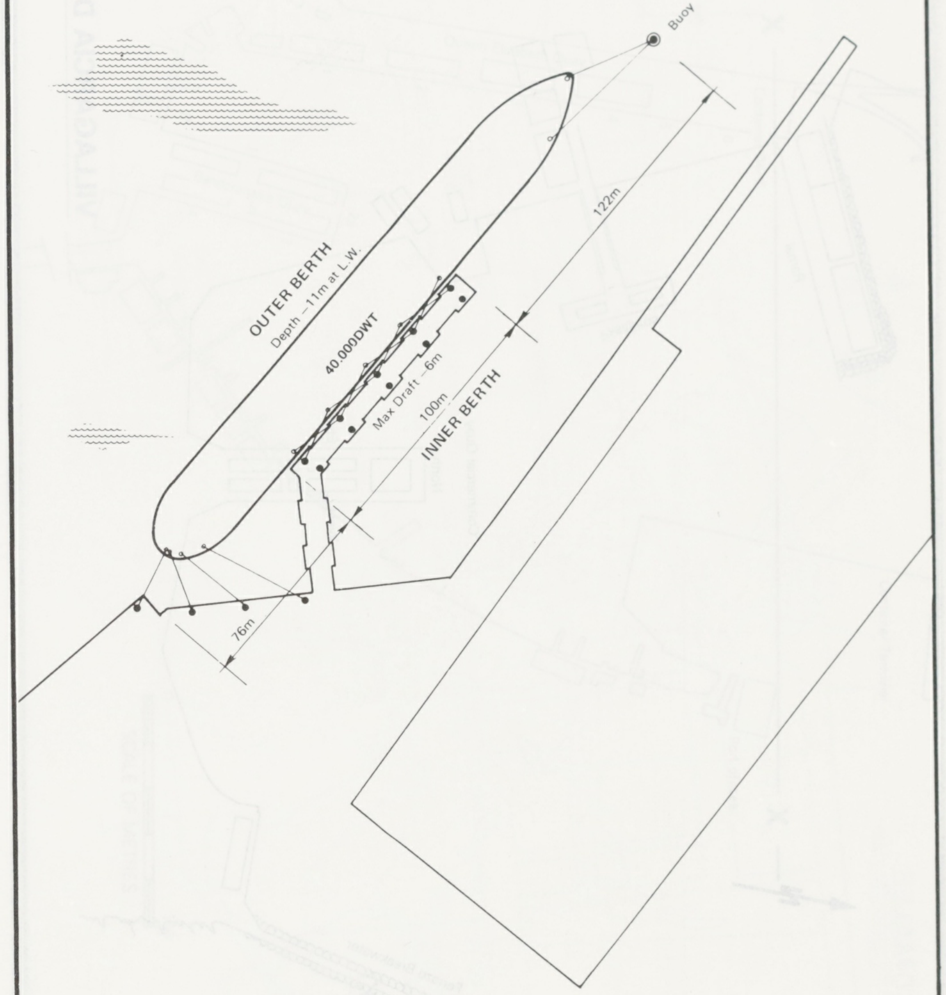
VILANOVA I LA GELTRU

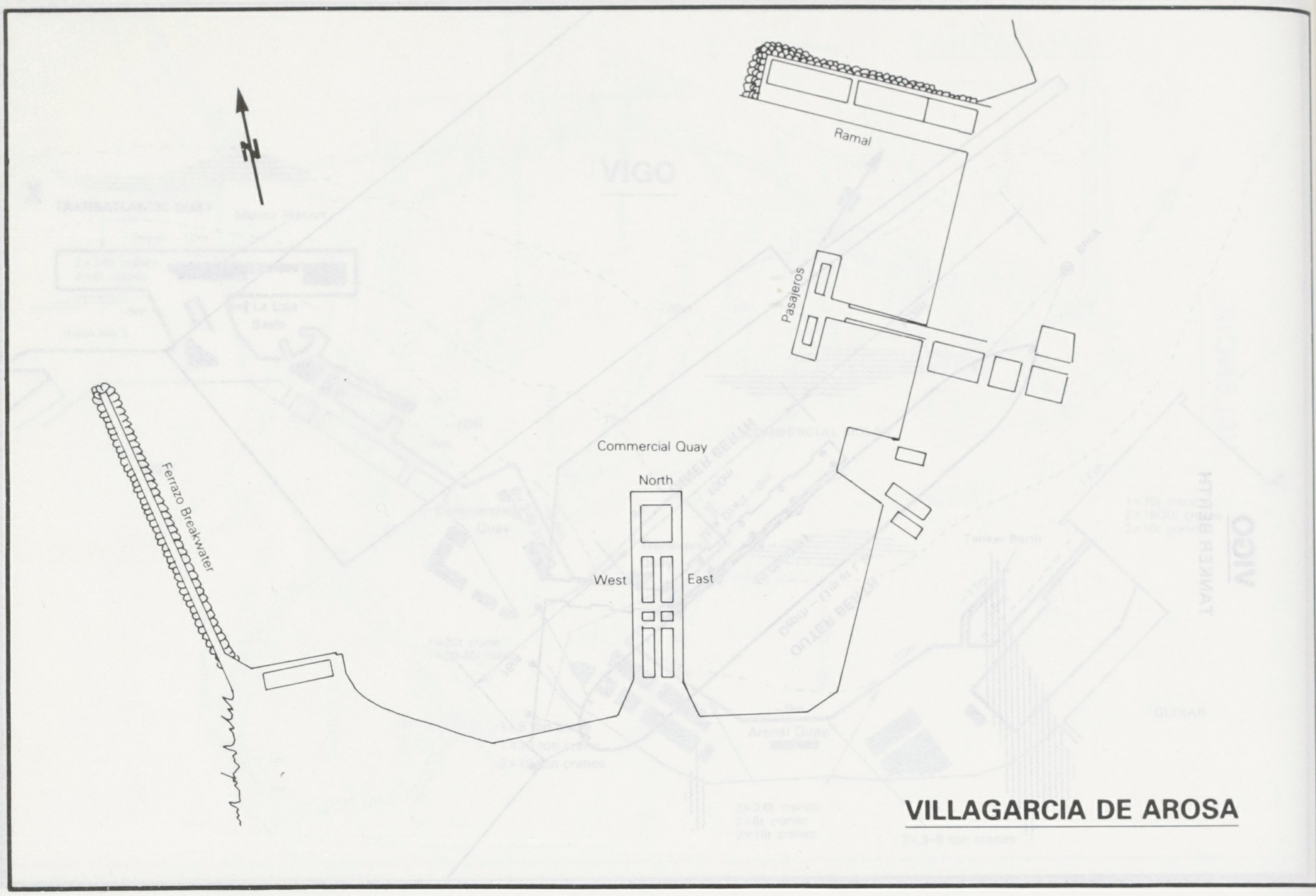
DEPTHS IN METRES


Port Authority
Repairs
Fish Harbour
-3
-4.5
-2
-3
-3
-2
-3
-4
-4
-3
Commercial Quay
-5
-7
-5.5
-6
-6
Fore Port
-7
-6
-7
Breakwater
0
100
200
SCALE OF METRES

VIGO

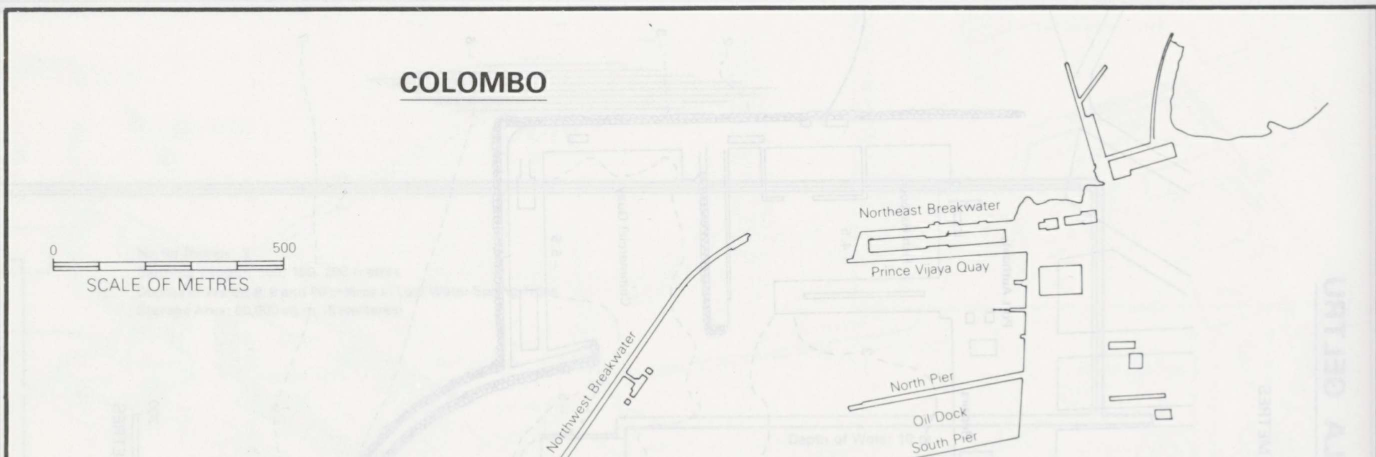
TANKER BERTH


Buoy
122m
OUTER BERTH
Depth -11m at L.W.
40.000DWT
Max Draft -6m
100m
INNER BERTH
76m



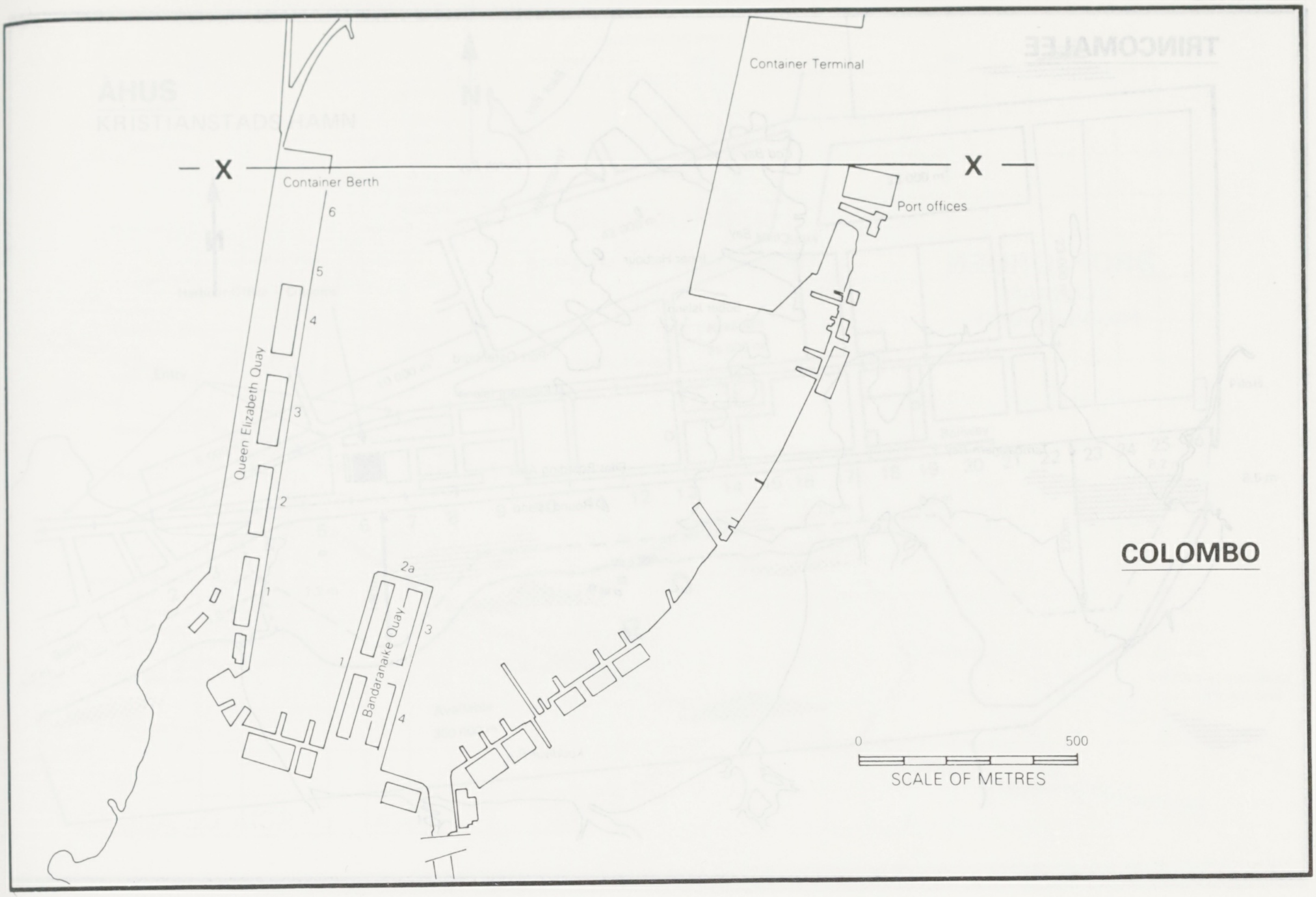
VILLAGARCIA DE AROSA

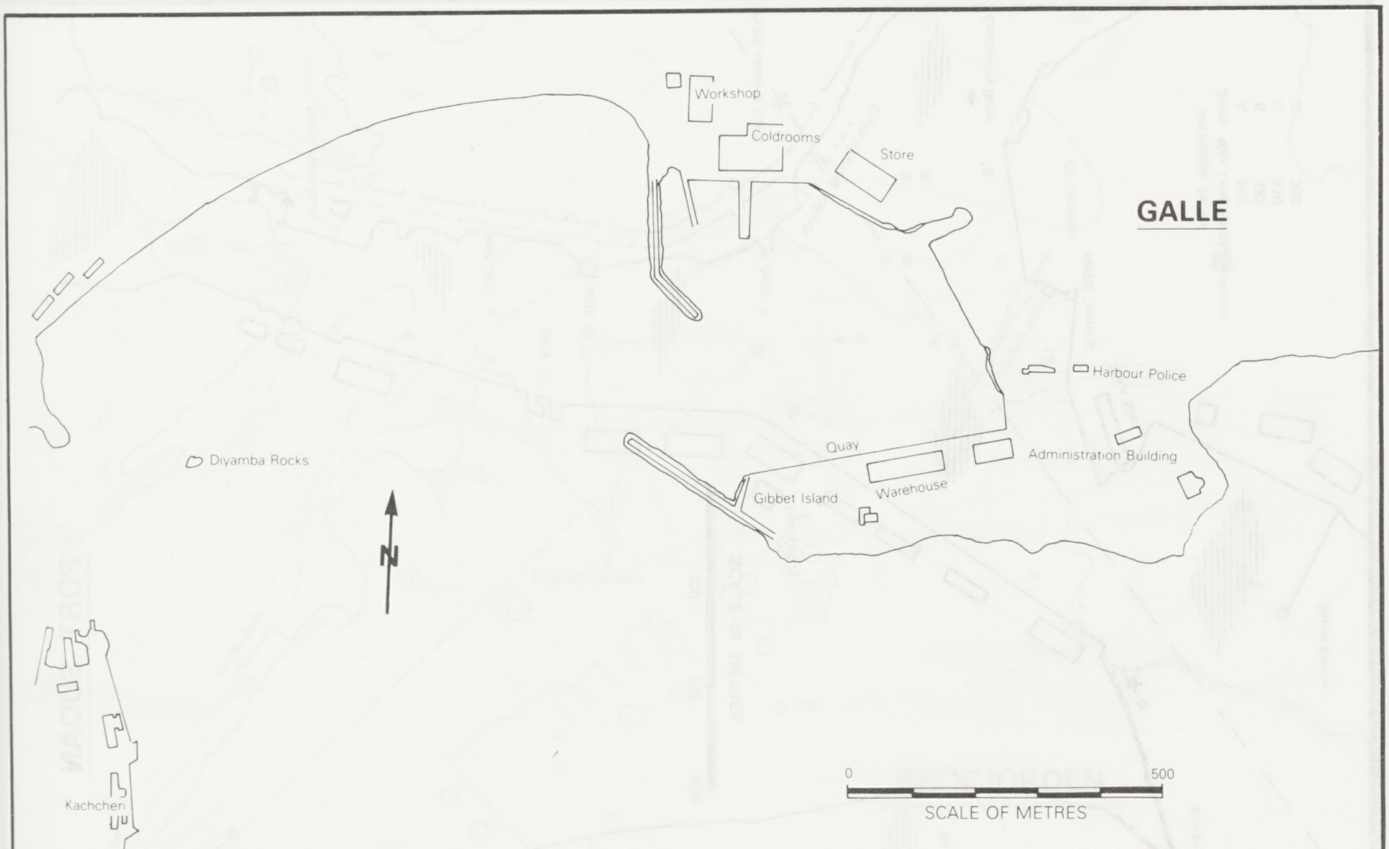
N
Ramal
Pasajeros
Commercial Quay
North
West
East
Ferrazo Breakwater



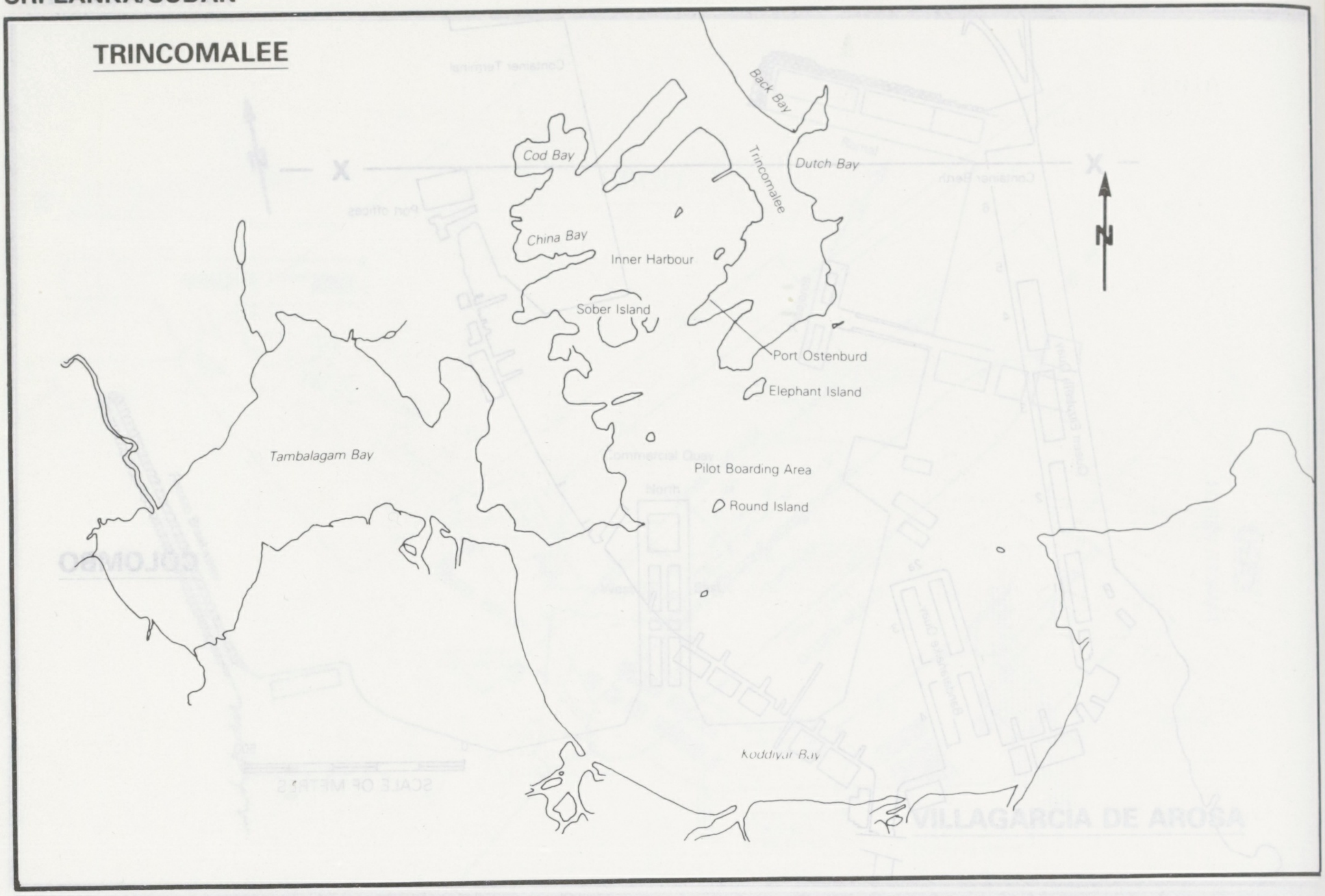
COLOMBO

0
500
SCALE OF METRES
Northeast Breakwater
Prince Vijaya Quay
Northwest Breakwater
North Pier
Oil Dock
South Pier
Dolphins
Graving Dock
New Dock
Dock
Southwest Breakwater
Container Terminal
X
X

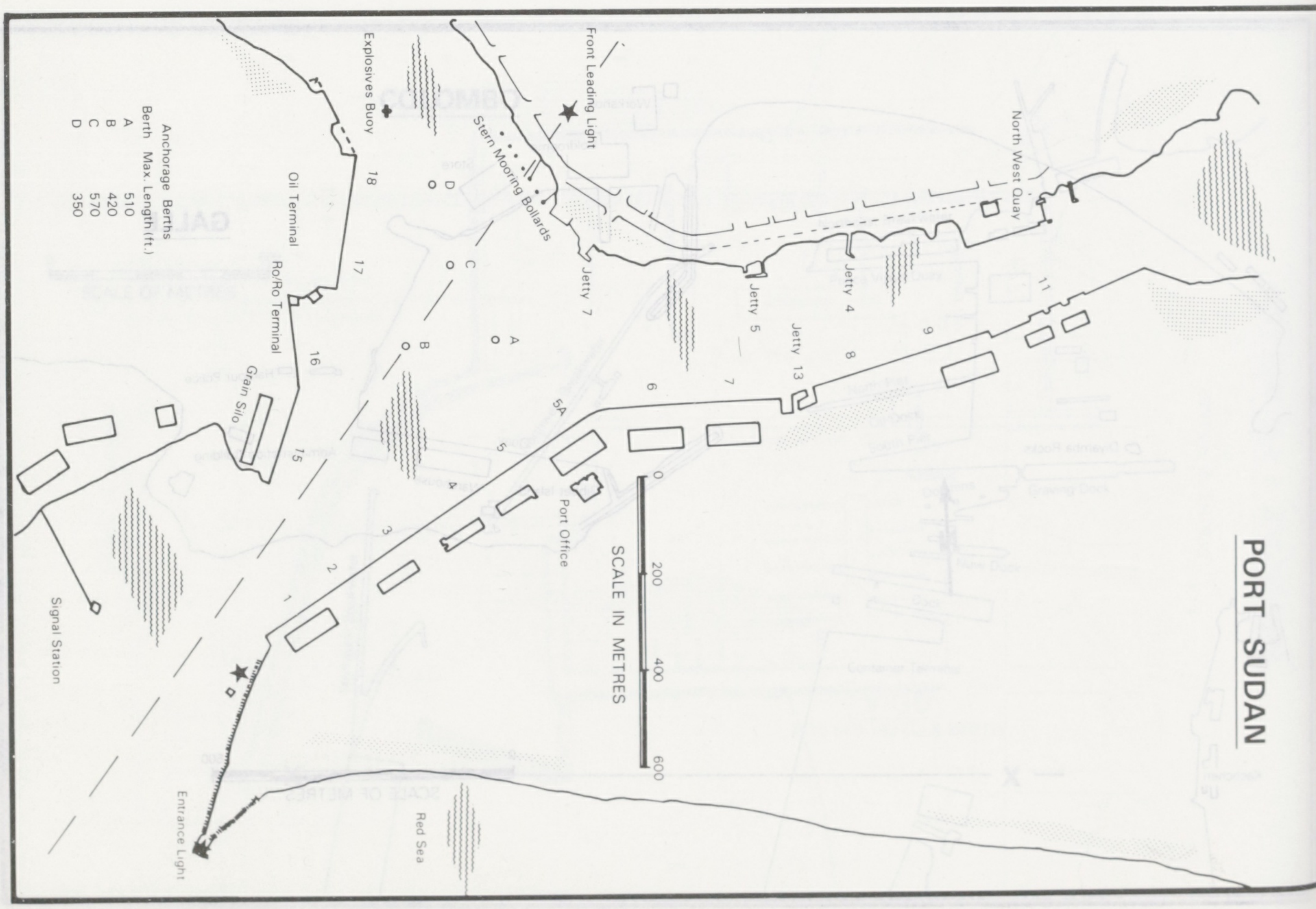

COLOMBO
Container Terminal
X
X
Container Berth
Port offices
6
5
4
3
2
1
Queen Elizabeth Quay
2a
3
1
4
Bandaranaike Quay
0
500
SCALE OF METRES


GALLE
Workshop
Coldrooms
Store
Harbour Police
Quay
Administration Building
Warehouse
Gibbet Island
Diyamba Rocks
N
Kachcheri
0
500
SCALE OF METRES

TRINCOMALEE

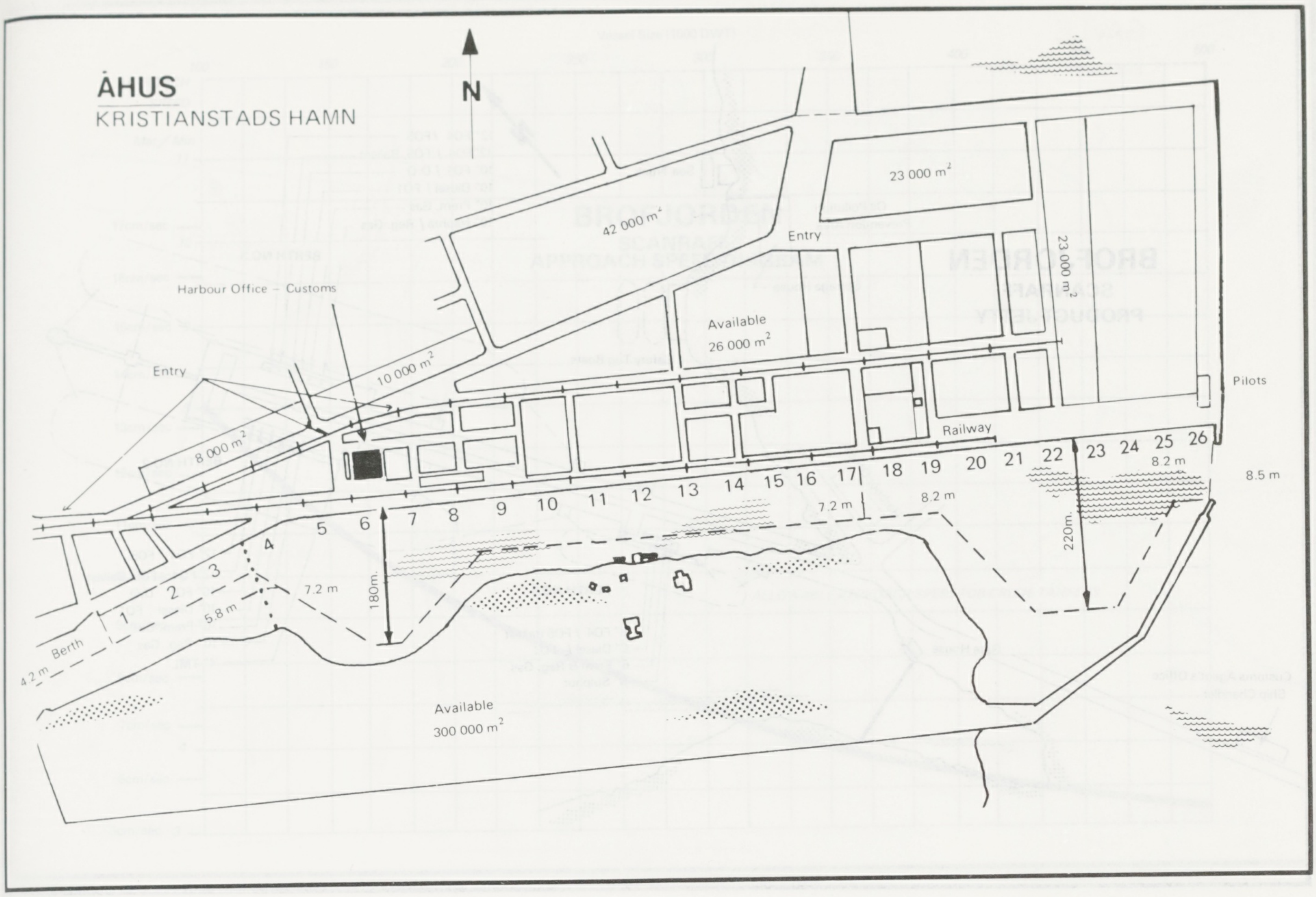

Back Bay
Cod Bay
Dutch Bay
Trincomalee
China Bay
Inner Harbour
Sober Island
Port Ostenburd
Elephant Island
Tambalagam Bay
Pilot Boarding Area
Round Island
Koddiyar Bay
N

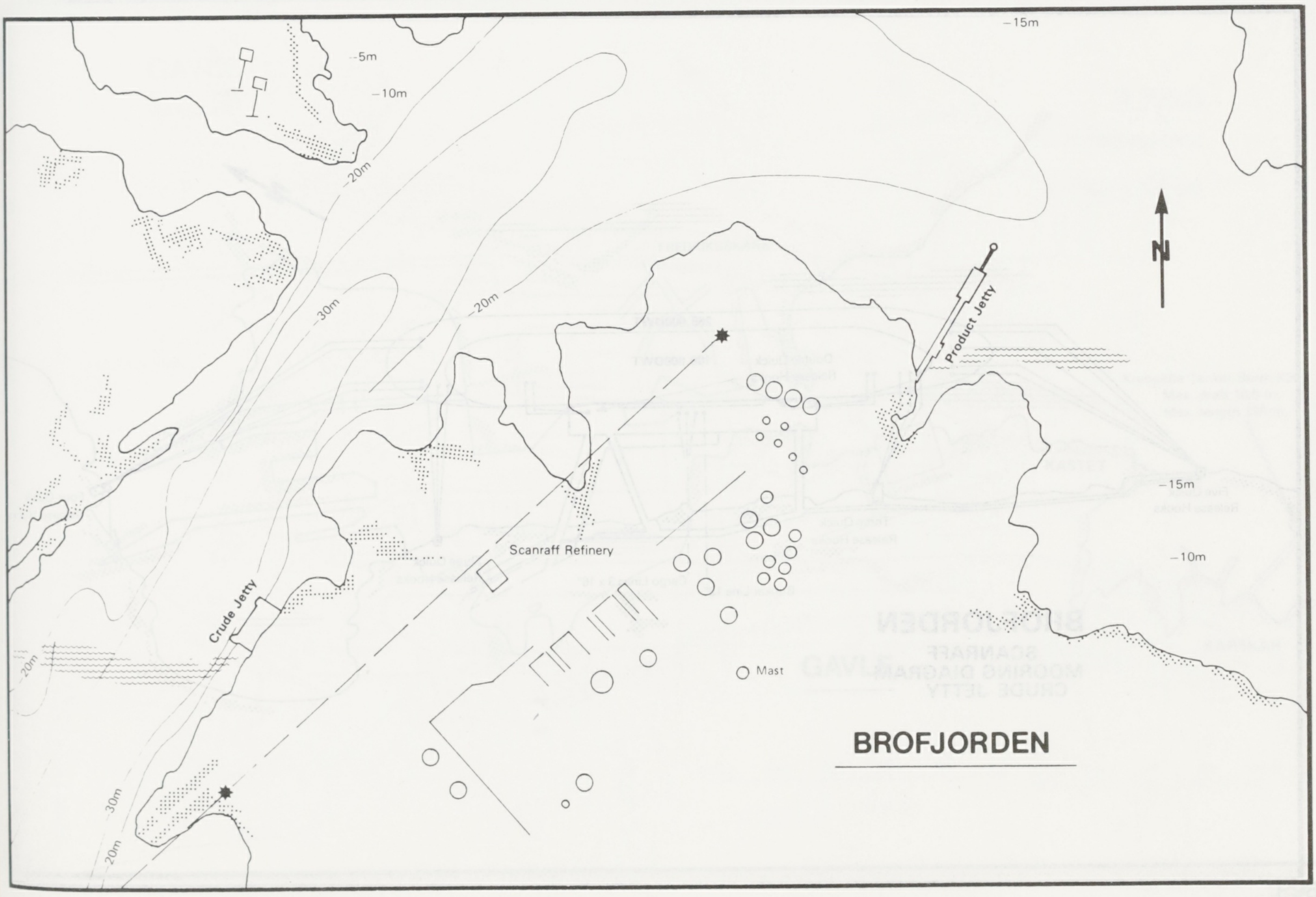
PORT SUDAN

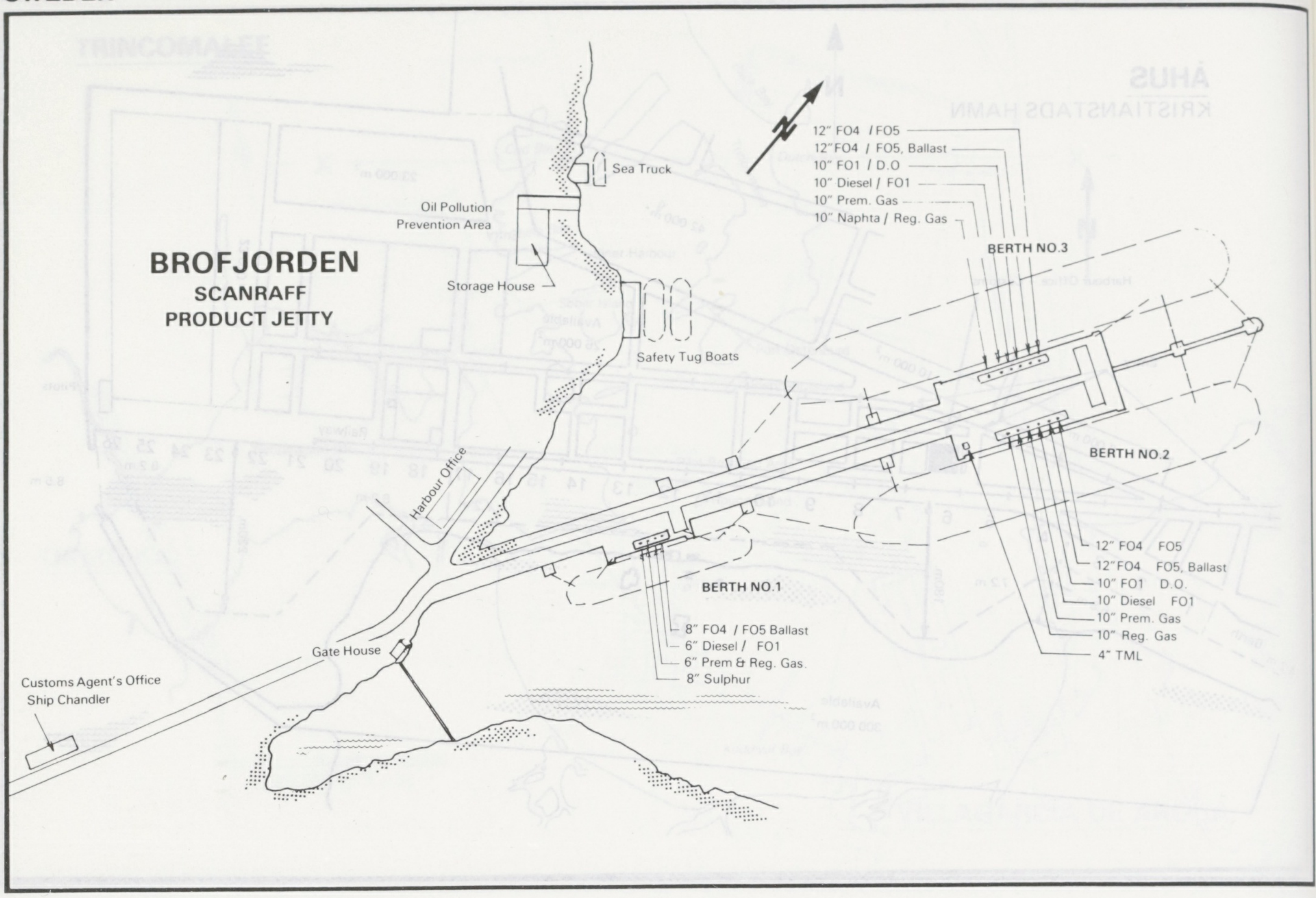

Front Leading Light
Explosives Buoy
Stern Mooring Bollards
North West Quay
Oil Terminal
Ro/Ro Terminal
Grain Silo
Jetty 7
Jetty 5
Jetty 4
Jetty 13
18
17
16
15
11
9
8
7
6
5A
5
4
3
2
1
A
B
C
D
Port Office
SCALE IN METRES
0
200
400
600
Signal Station
Entrance Light
Red Sea

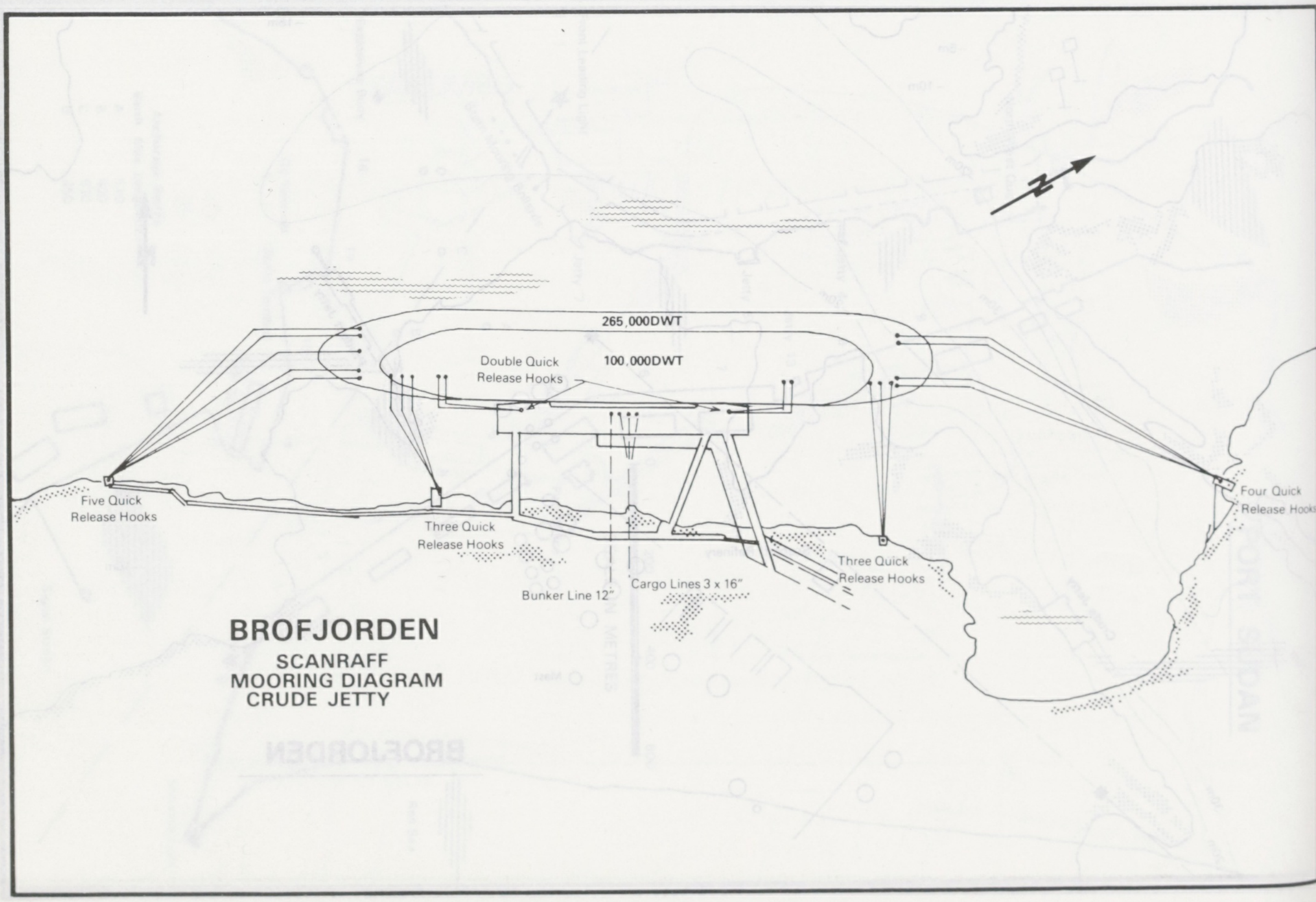
Anchorage Berths

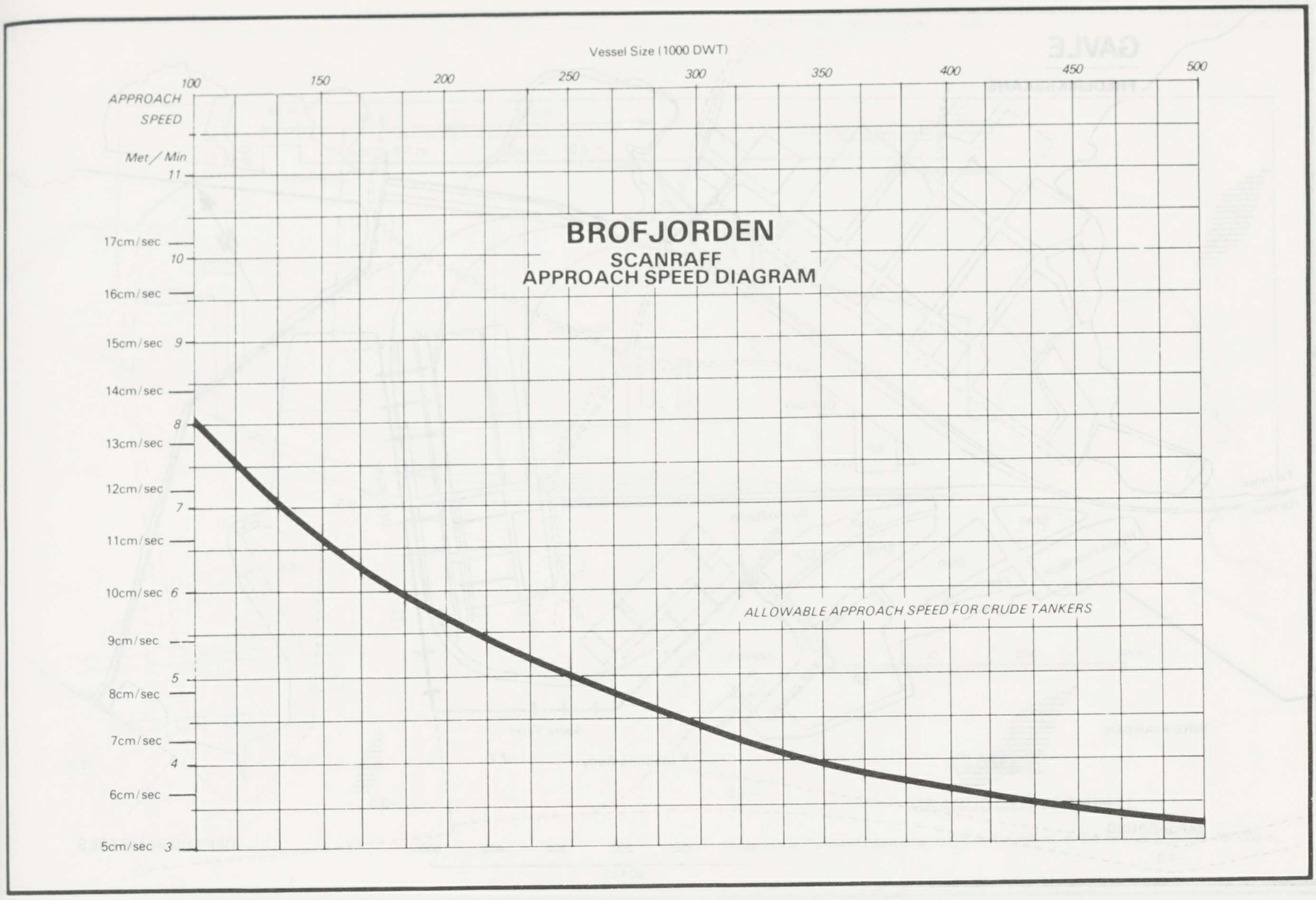
Berth	Max. Length (ft.)
A	510
B	420
C	570
D	350

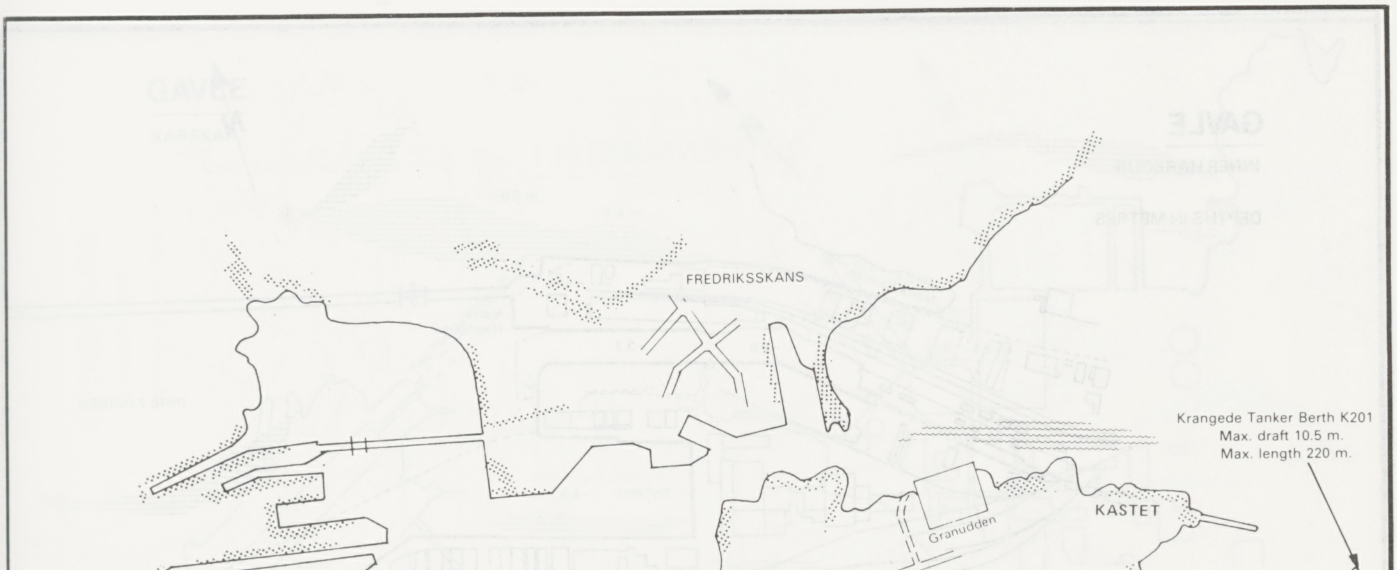

ÅHUS
KRISTIANSTADS HAMN
N
Harbour Office – Customs
Entry
8 000 m²
10 000 m²
42 000 m²
Entry
23 000 m²
23 000 m²
Available
26 000 m²
Pilots
Railway
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
4.2 m Berth
5.8 m
7.2 m
180m.
7.2 m
8.2 m
220m.
8.2 m
8.5 m
Available
300 000 m²

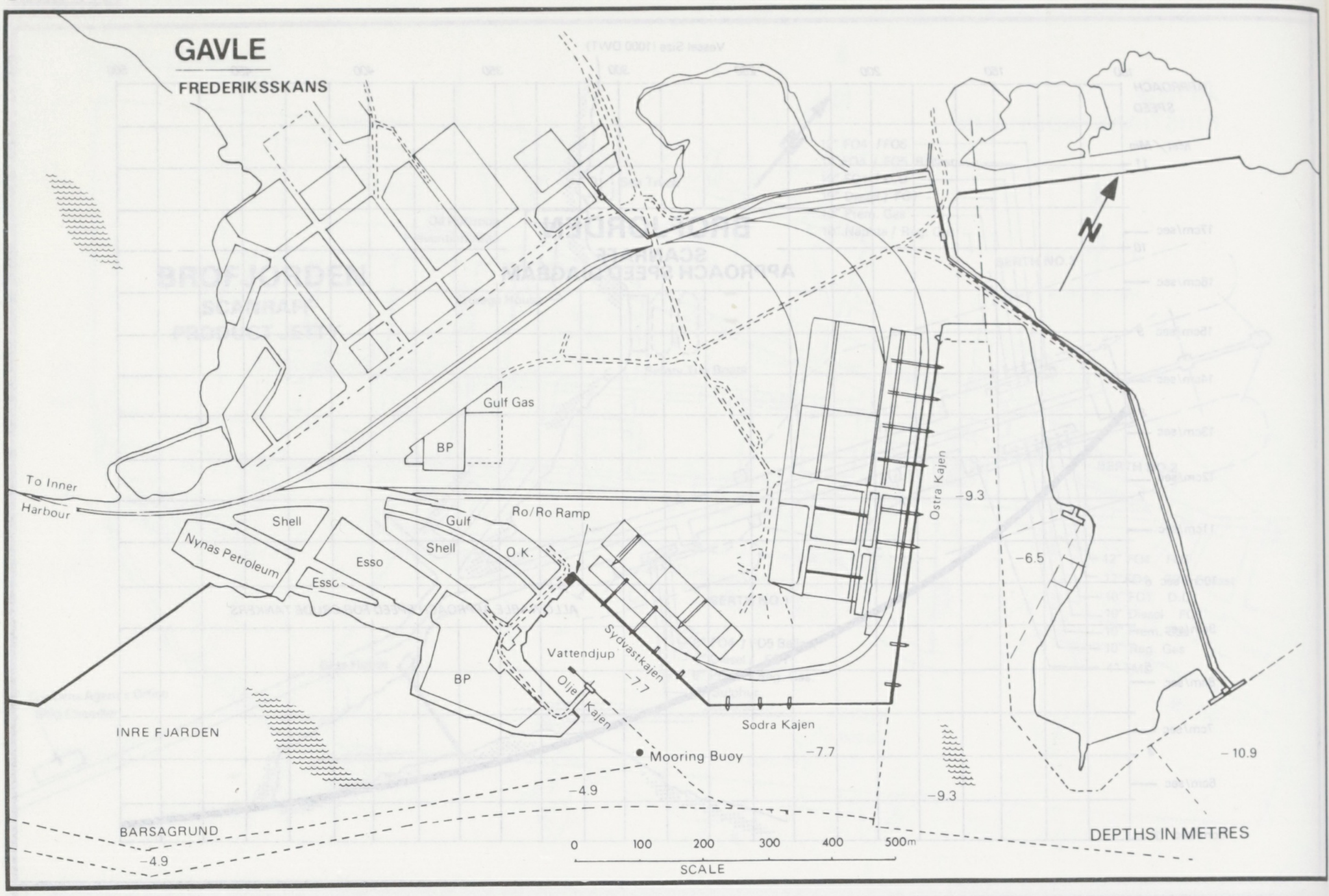

–5m
–10m
–15m
–20m
–20m
–30m
N
Product Jetty
Scanraff Refinery
Crude Jetty
Mast
–15m
–10m
–20m
–30m
–20m
BROFJORDEN

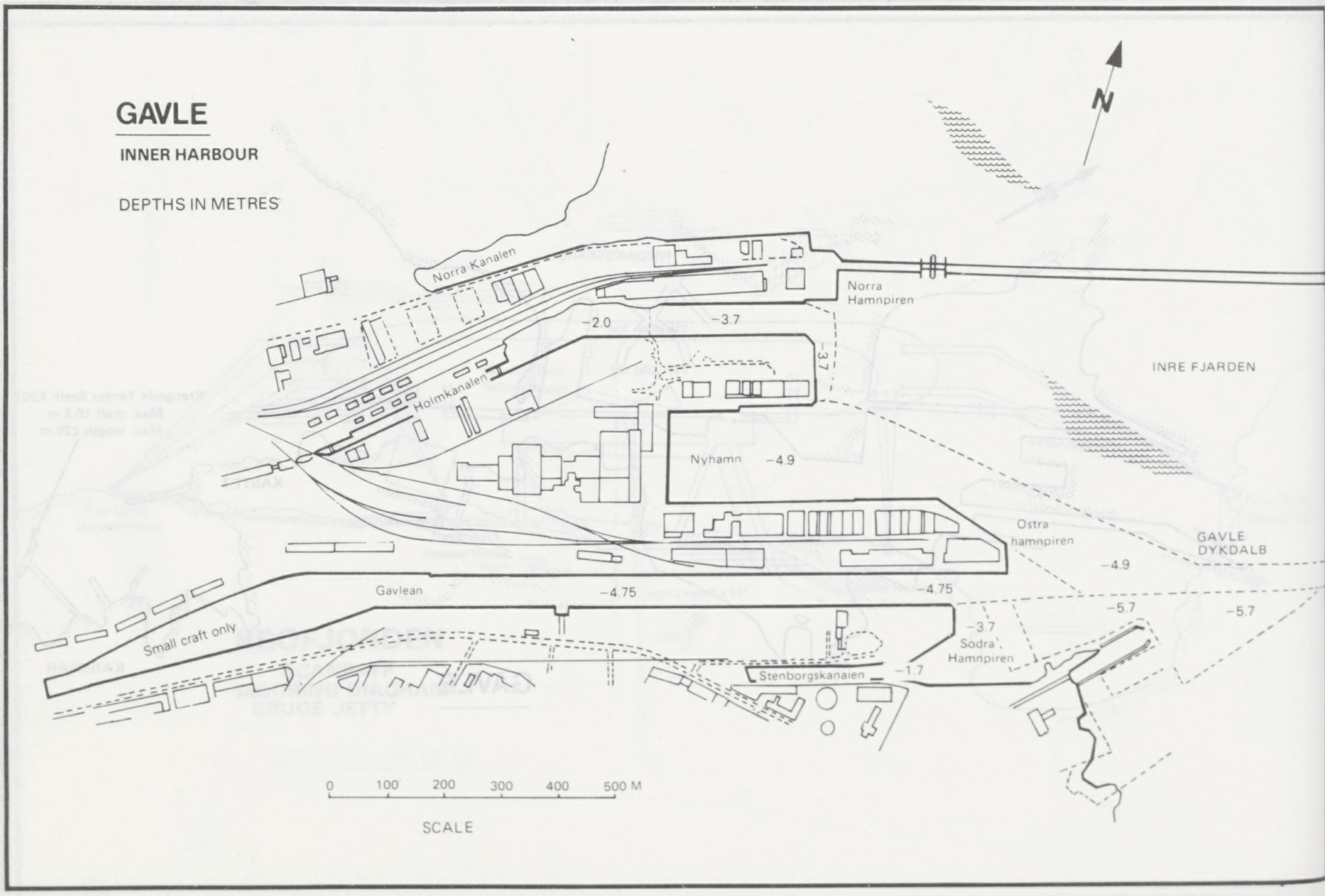

BROFJORDEN
SCANRAFF
PRODUCT JETTY
Sea Truck
Oil Pollution
Prevention Area
Storage House
Safety Tug Boats
Harbour Office
Gate House
Customs Agent's Office
Ship Chandler
12" FO4 / FO5
12"FO4 / FO5, Ballast
10" FO1 / D.O
10" Diesel / FO1
10" Prem. Gas
10" Naphta / Reg. Gas
BERTH NO.3
BERTH NO.2
12" FO4 FO5
12"FO4 FO5, Ballast
10" FO1 D.O.
10" Diesel FO1
10" Prem. Gas
10" Reg. Gas
4" TML
BERTH NO.1
8" FO4 / FO5 Ballast
6" Diesel / FO1
6" Prem & Reg. Gas.
8" Sulphur

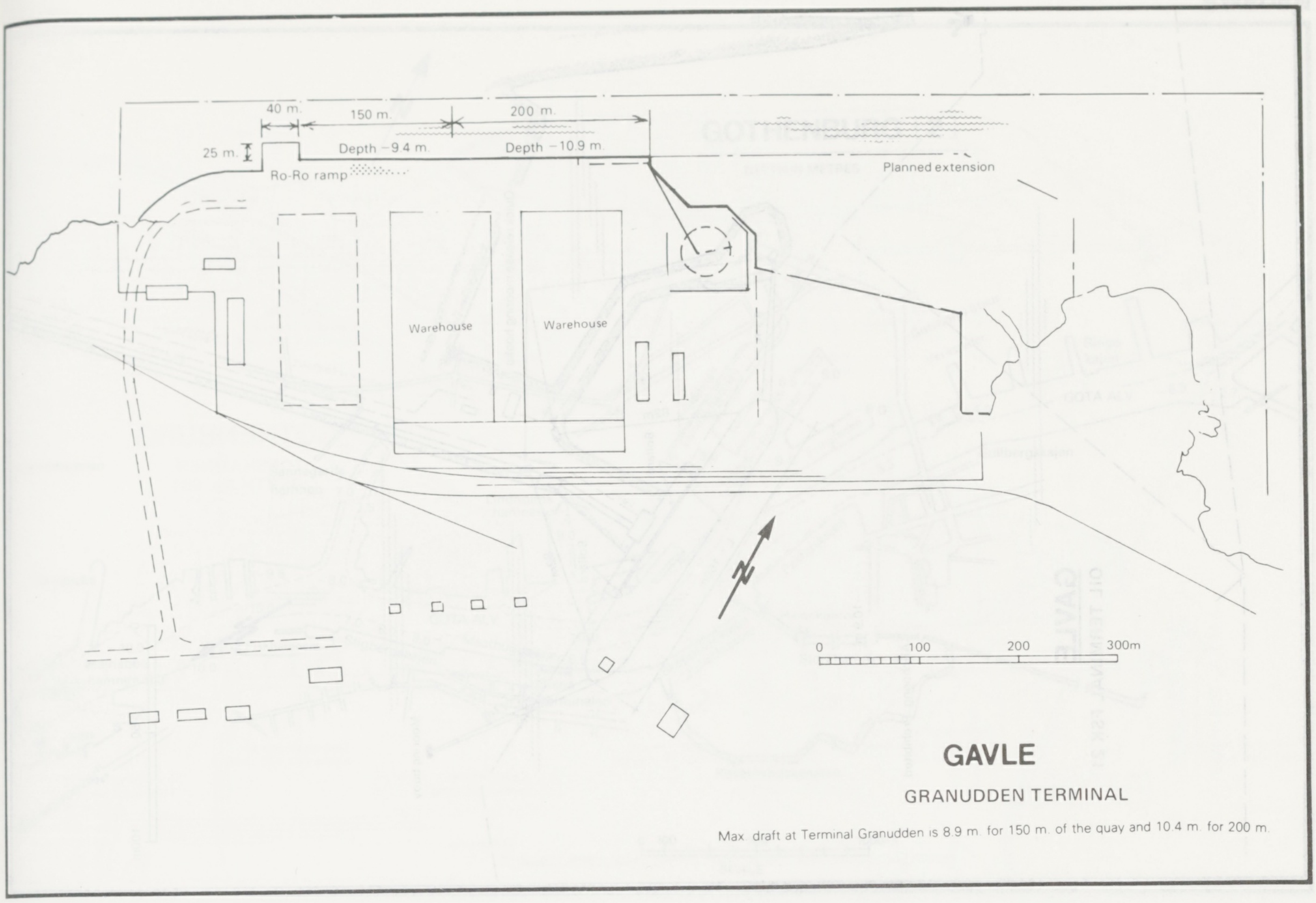

265,000DWT
100,000DWT
Double Quick
Release Hooks
Five Quick
Release Hooks
Three Quick
Release Hooks
Bunker Line 12"
Cargo Lines 3 x 16"
Three Quick
Release Hooks
Four Quick
Release Hooks
BROFJORDEN
SCANRAFF
MOORING DIAGRAM
CRUDE JETTY


Vessel Size (1000 DWT)
100
150
200
250
300
350
400
450
500
APPROACH SPEED
Met / Min
11
17cm/sec
10
16cm/sec
15cm/sec
9
14cm/sec
8
13cm/sec
12cm/sec
7
11cm/sec
10cm/sec
6
9cm/sec
5
8cm/sec
7cm/sec
4
6cm/sec
5cm/sec
3
BROFJORDEN
SCANRAFF
APPROACH SPEED DIAGRAM
ALLOWABLE APPROACH SPEED FOR CRUDE TANKERS


FREDRIKSSKANS
Krangede Tanker Berth K201
Max. draft 10.5 m.
Max. length 220 m.
Granudden
KASTET
Gavlean
KARSKAR
GAVLE


GAVLE
FREDERIKSSKANS
N
Gulf Gas
BP
To Inner Harbour
Shell
Nynas Petroleum
Esso
Esso
Gulf
Shell
O.K.
Ro/Ro Ramp
Vattendjup
BP
Olje Kajen
Sydvastkajen
-7.7
Ostra Kajen
-9.3
-6.5
Sodra Kajen
-7.7
Mooring Buoy
-4.9
-9.3
-10.9
INRE FJARDEN
BARSAGRUND
-4.9
0
100
200
300
400
500m
SCALE
DEPTHS IN METRES


GAVLE
INNER HARBOUR
DEPTHS IN METRES
N
Norra Kanalen
-2.0
-3.7
-3.7
Norra Hamnpiren
Holmkanalen
Nyhamn
-4.9
INRE FJARDEN
Ostra hamnpiren
GAVLE DYKDALB
-4.9
Gavlean
-4.75
-4.75
-5.7
-5.7
-3.7
Sodra Hamnpiren
Small craft only
Stenborgskanaien
-1.7
0
100
200
300
400
500 M
SCALE


40 m.
150 m.
200 m.
25 m.
Depth −9.4 m.
Depth −10.9 m.
Ro-Ro ramp
Planned extension
Warehouse
Warehouse
N
0
100
200
300m

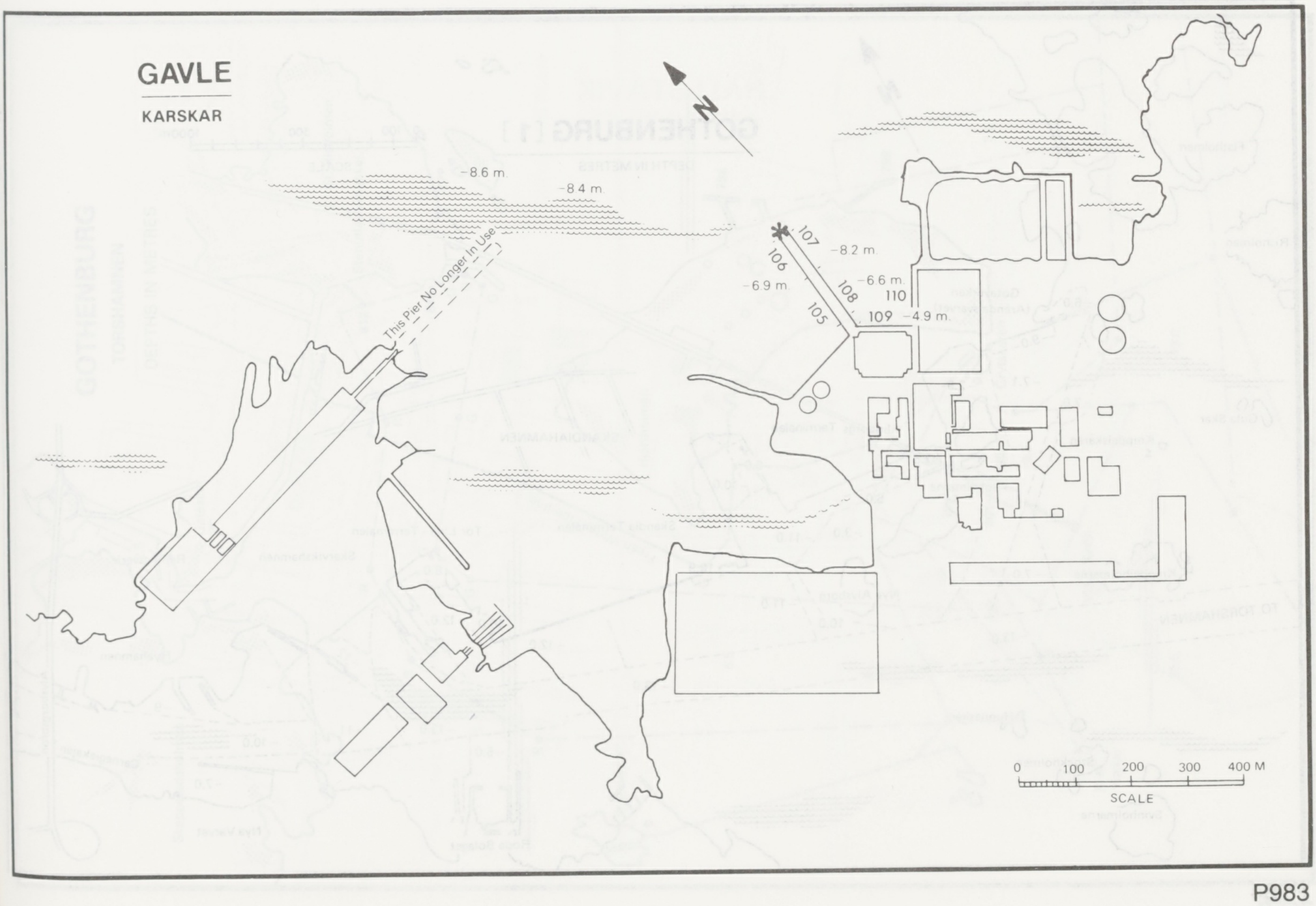
GAVLE

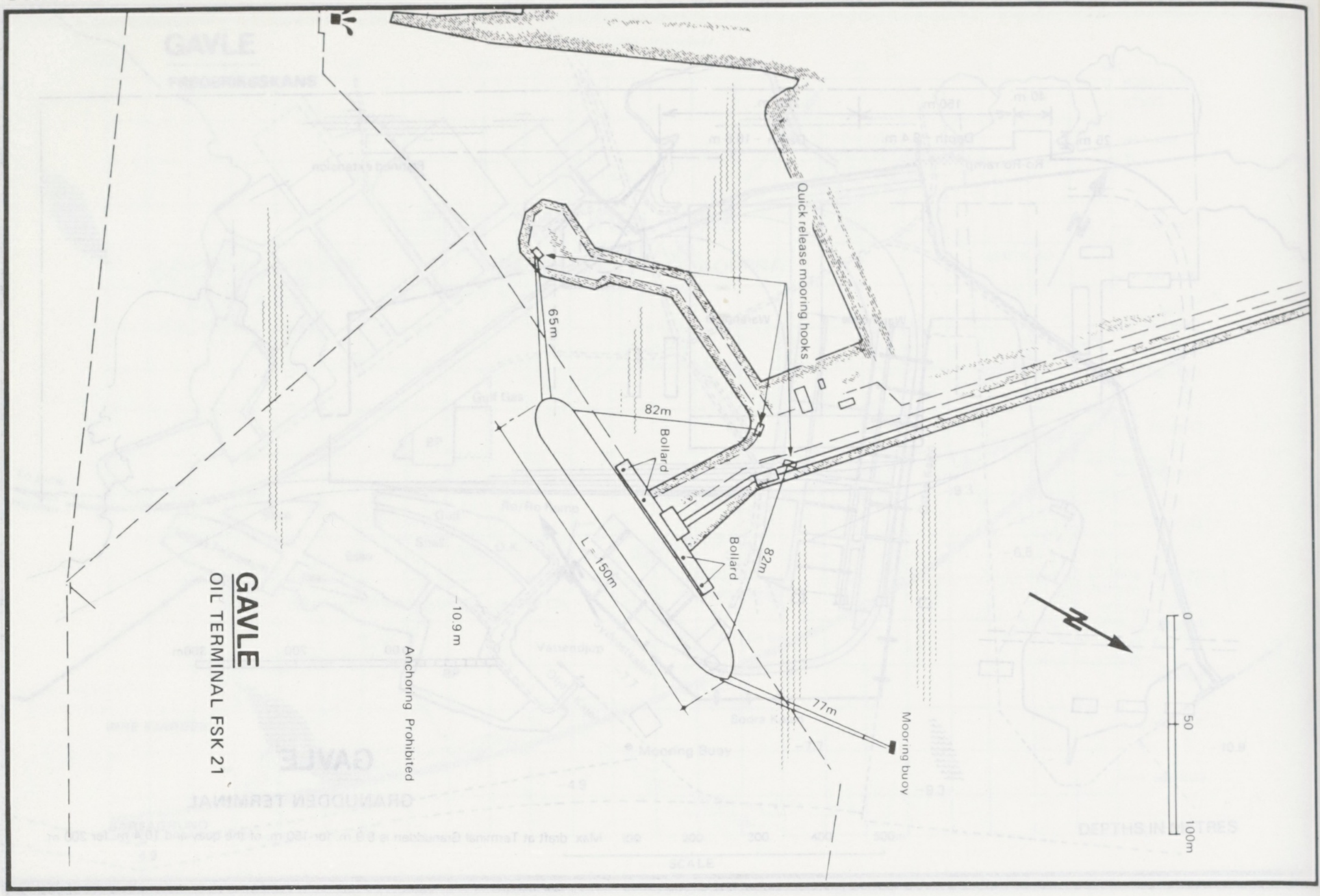
GRANUDDEN TERMINAL

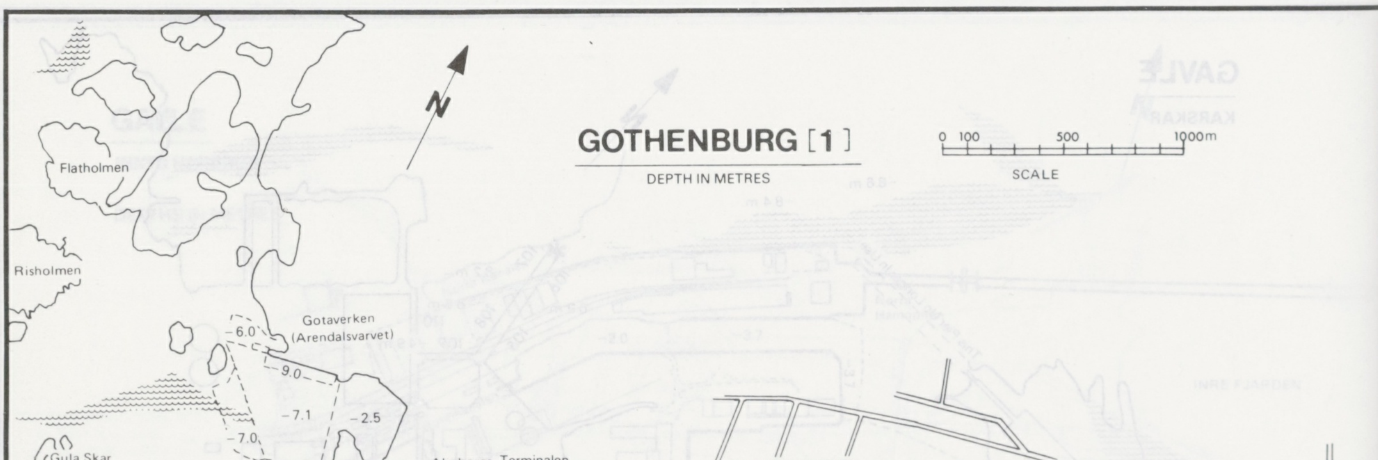
Max. draft at Terminal Granudden is 8.9 m. for 150 m. of the quay and 10.4 m. for 200 m.

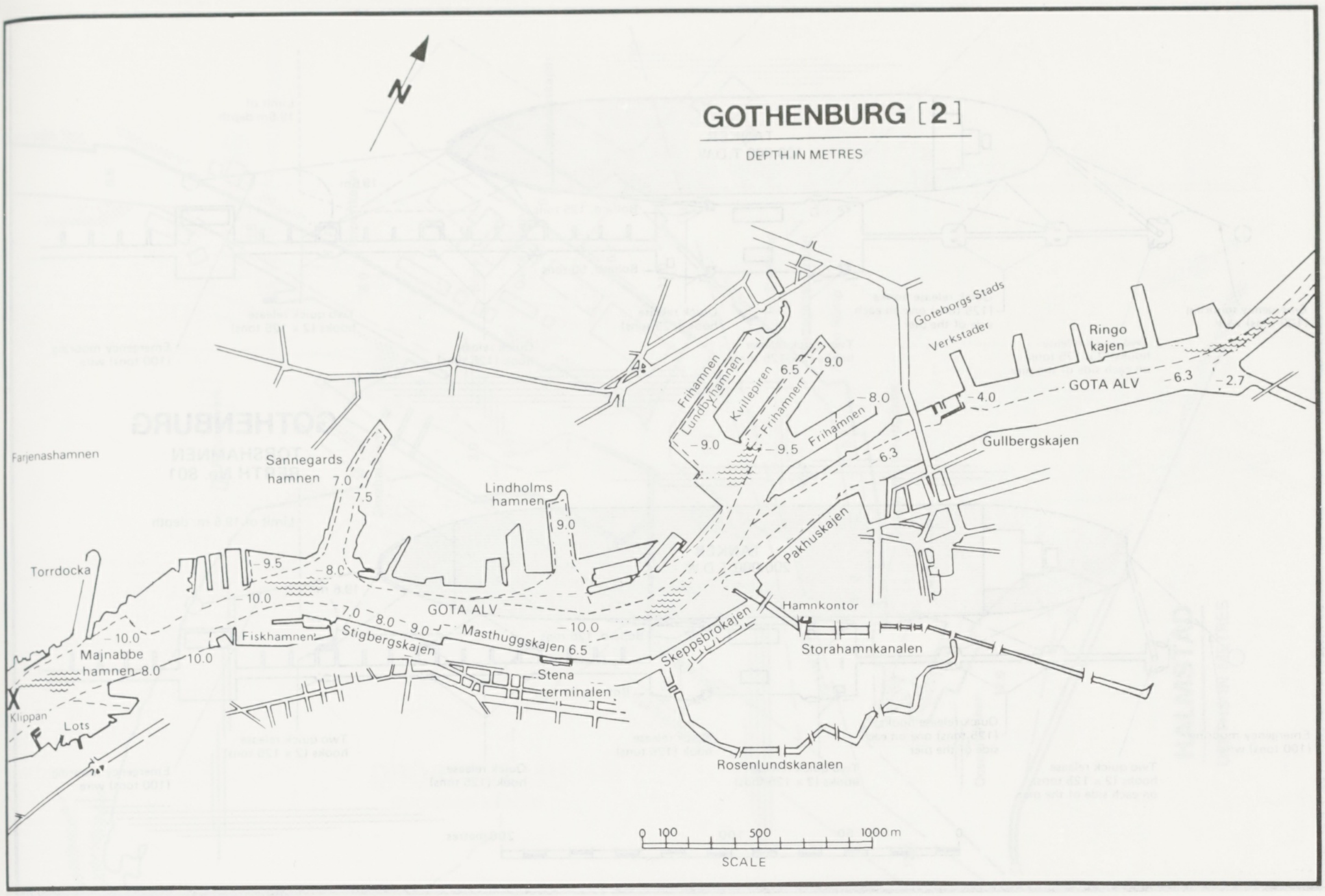
GAVLE

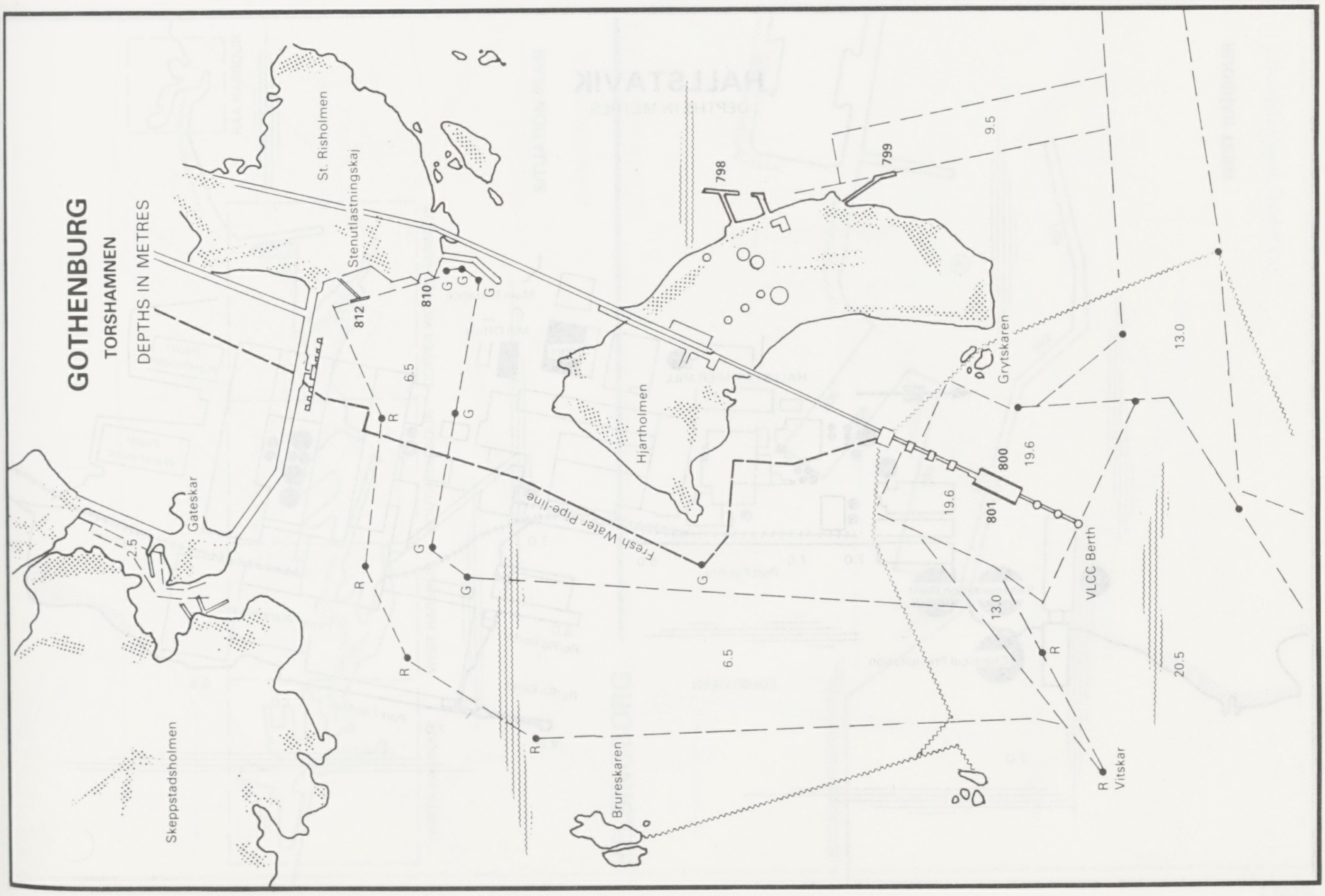
KARSKAR

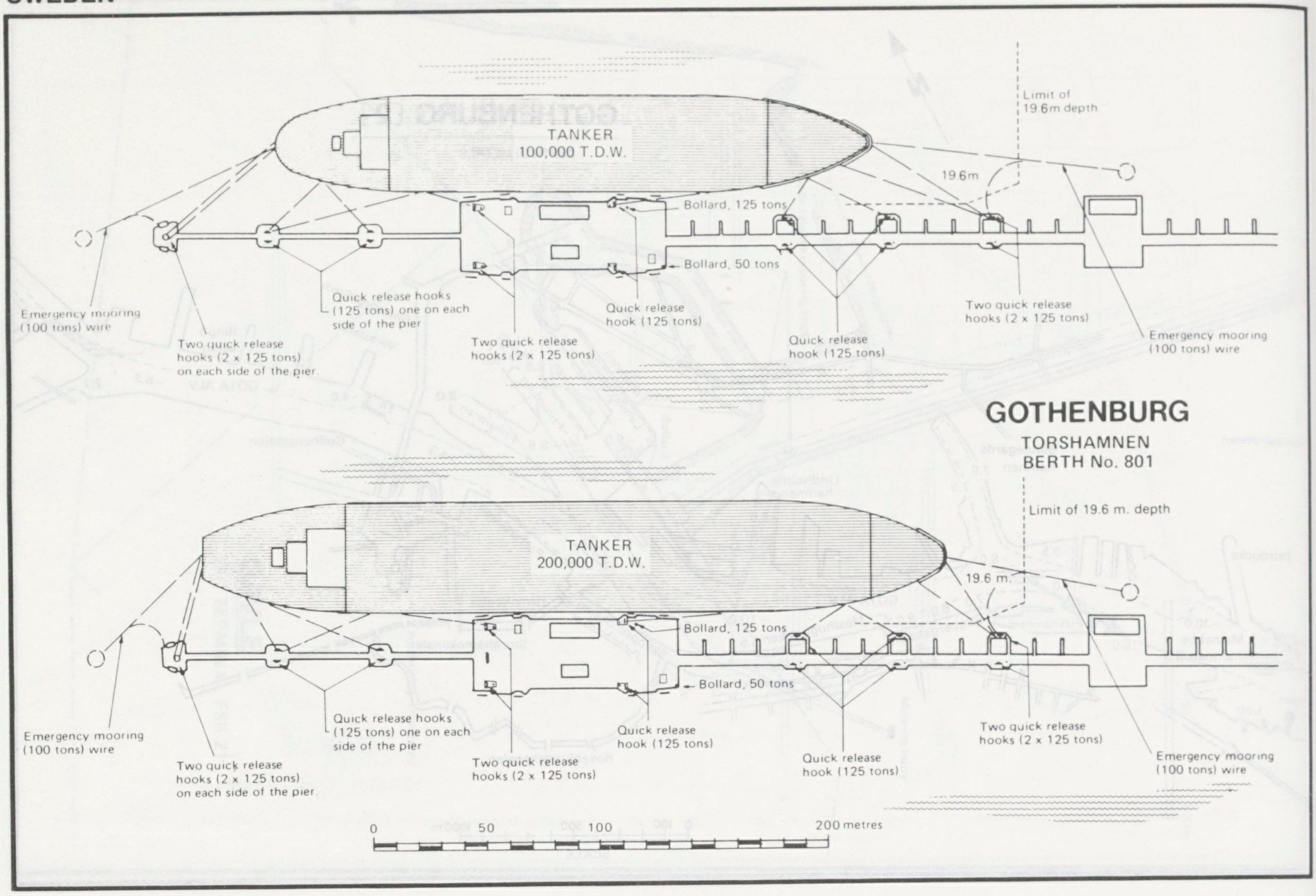

N
−8.6 m.
−8.4 m.
This Pier No Longer In Use
107
−8.2 m.
106
−6.9 m.
108
−6.6 m.
110
105
109
−4.9 m.
0
100
200
300
400 M
SCALE

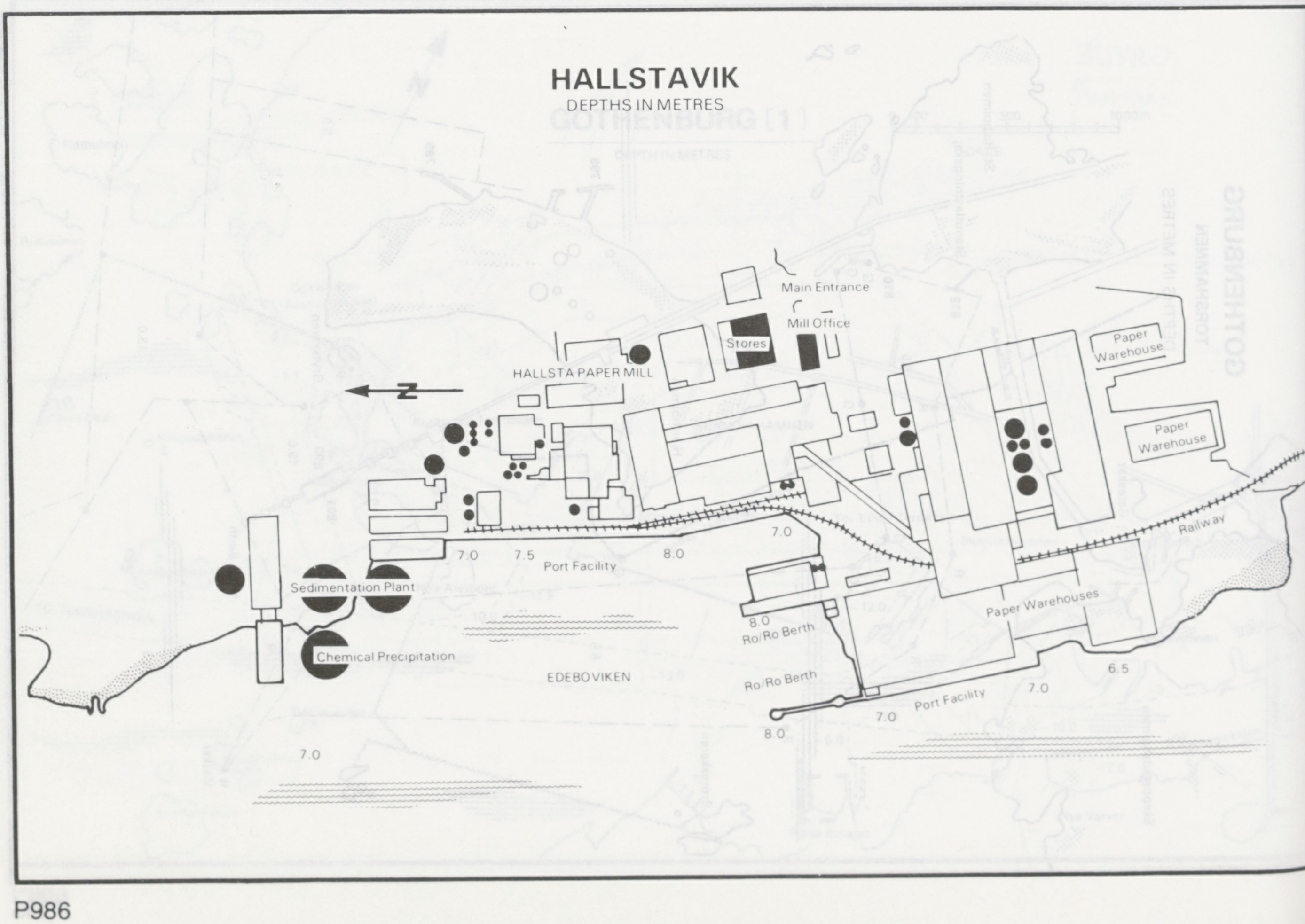

GAVLE
OIL TERMINAL FSK 21
Quick release mooring hooks
65m
82m
Bollard
L = 150m
Bollard
82m
77m
Mooring buoy
-10.9m
Anchoring Prohibited
N
0
50
100m

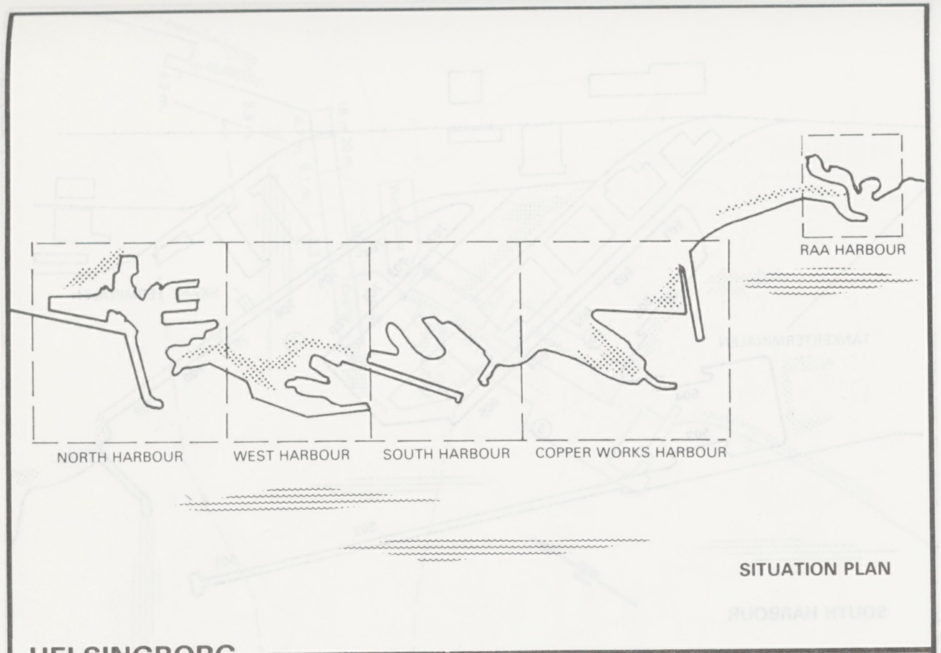

GOTHENBURG [1]
DEPTH IN METRES
0 100 500 1000m
SCALE
N
Flatholmen
Risholmen
Gotaverken (Arendalsvarvet)
6.0
9.0
-7.1
-2.5
-7.0
Gula Skar
Knippelskären
Alvsborgs Terminalen
-7.5
6.0
10.0
Aspholmarna
6.0
-3.0
-11.0
SKANDIAHAMNEN
Skandia Terminalen
Tor Line - Terminalen
Skarvikshamnen
Reningsverk
Knippelholmarna
-7.0
10.9
Nya Alvsborg
-11.0
10.0
8.0
10.0
12.0
TO TORSHAMNEN
-13.0
12.0
12
Ryahamnen
-13.0
-9
-13.0
-11
-10.0
Hunneskar
6.0
Carnegiekajen
Alvsborgsbron
Stockholmen
-7.0
Svinholmarna
Roda Bolaget
Nya Varvet


N
GOTHENBURG [2]
DEPTH IN METRES
Goteborgs Stads Verkstader
Ringo kajen
GOTA ALV
6.3
2.7
4.0
Gullbergskajen
Frihamnen
Lundbyhamnen
Kvillepiren
Frihamnen
Frihamnen
6.5
9.0
8.0
9.0
9.5
6.3
Sannegards hamnen
7.0
7.5
Lindholms hamnen
9.0
Pakhuskajen
Hamnkontor
Storahamnkanalen
Skeppsbrokajen
Rosenlundskanalen
Torrdocka
9.5
8.0
10.0
GOTA ALV
7.0
8.0
9.0
10.0
Fiskhamnen
Stigbergskajen
Masthuggskajen 6.5
Stena terminalen
10.0
Majnabbe hamnen 8.0
10.0
X
Klippan
Lots
Farjenashamnen
0 100 500 1000 m
SCALE


GOTHENBURG
TORSHAMNEN
DEPTHS IN METRES
St. Risholmen
Stenutlastningskaj
812
810
798
799
9.5
6.5
R
G
Hjartholmen
Fresh Water Pipe-line
Grytskaren
13.0
19.6
800
801
19.6
13.0
VLCC Berth
20.5
6.5
R
Vitskar
Brureskaren
Gateskar
2.5
Skeppstadsholmen

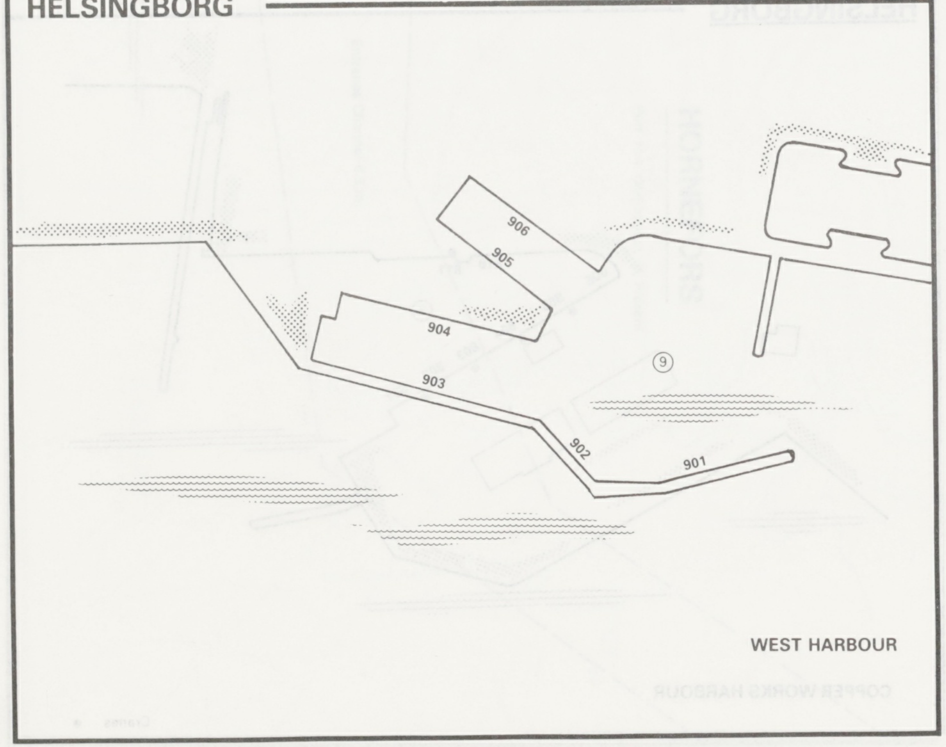

GOTHENBURG
TORSHAMNEN
BERTH No. 801
TANKER
100,000 T.D.W.
Limit of
19.6m depth
19.6m
Bollard, 125 tons
Bollard, 50 tons
Emergency mooring
(100 tons) wire
Two quick release
hooks (2 x 125 tons)
on each side of the pier
Quick release hooks
(125 tons) one on each
side of the pier
Two quick release
hooks (2 x 125 tons)
Quick release
hook (125 tons)
Quick release
hook (125 tons)
Two quick release
hooks (2 x 125 tons)
Emergency mooring
(100 tons) wire
TANKER
200,000 T.D.W.
Limit of 19.6 m. depth
19.6 m.
Bollard, 125 tons
Bollard, 50 tons
Emergency mooring
(100 tons) wire
Two quick release
hooks (2 x 125 tons)
on each side of the pier
Quick release hooks
(125 tons) one on each
side of the pier
Two quick release
hooks (2 x 125 tons)
Quick release
hook (125 tons)
Quick release
hook (125 tons)
Two quick release
hooks (2 x 125 tons)
Emergency mooring
(100 tons) wire
0
50
100
200 metres


HALLSTAVIK
DEPTHS IN METRES
N
Main Entrance
Mill Office
Stores
HALLSTA PAPER MILL
Paper
Warehouse
Paper
Warehouse
Railway
7.0
7.0
7.5
8.0
Port Facility
Sedimentation Plant
Chemical Precipitation
EDEBOVIKEN
8.0
Ro/Ro Berth
Ro/Ro Berth
8.0
7.0
Port Facility
7.0
6.5
Paper Warehouses
7.0

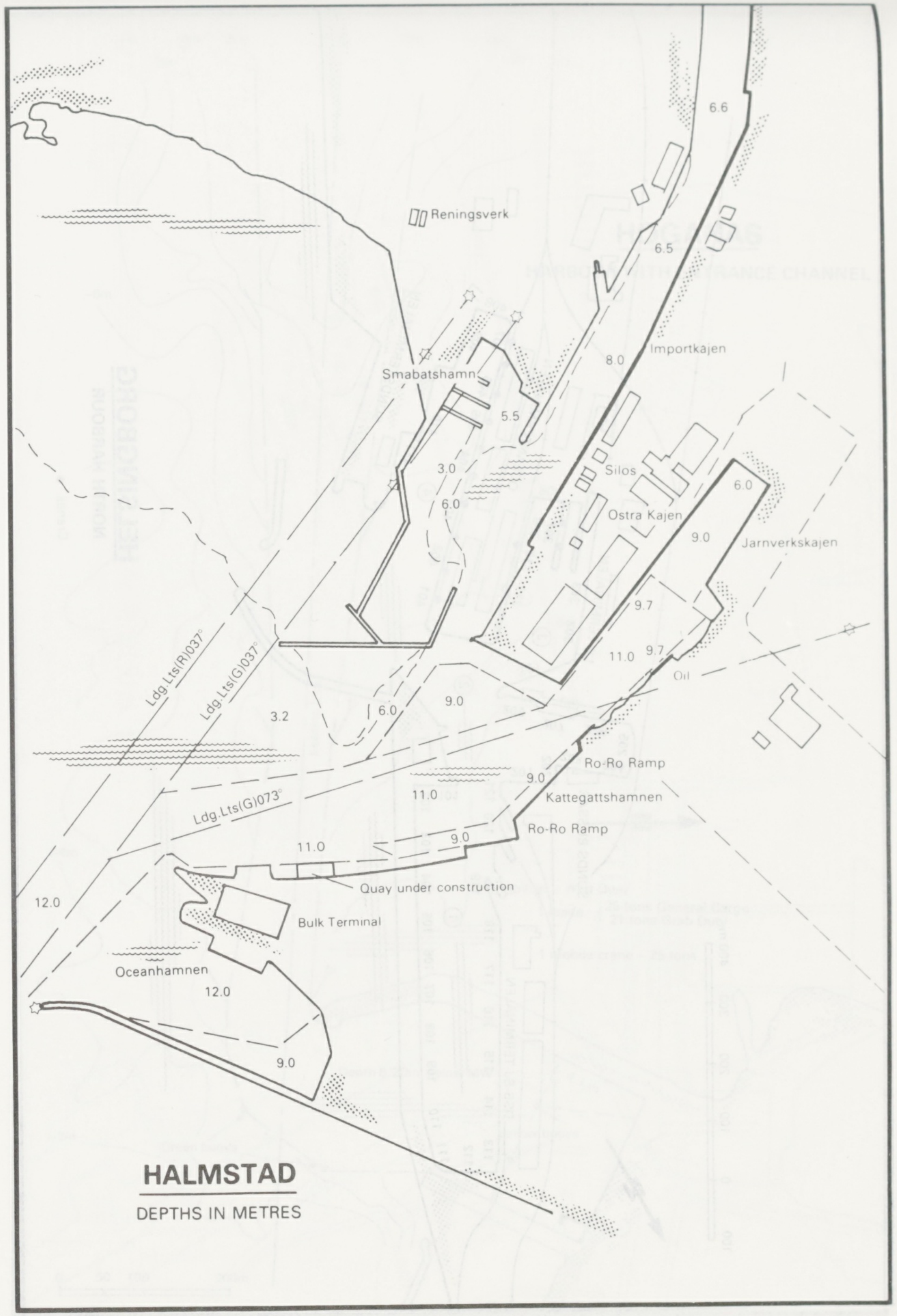

RAA HARBOUR
NORTH HARBOUR
WEST HARBOUR
SOUTH HARBOUR
COPPER WORKS HARBOUR

SITUATION PLAN

HELSINGBORG

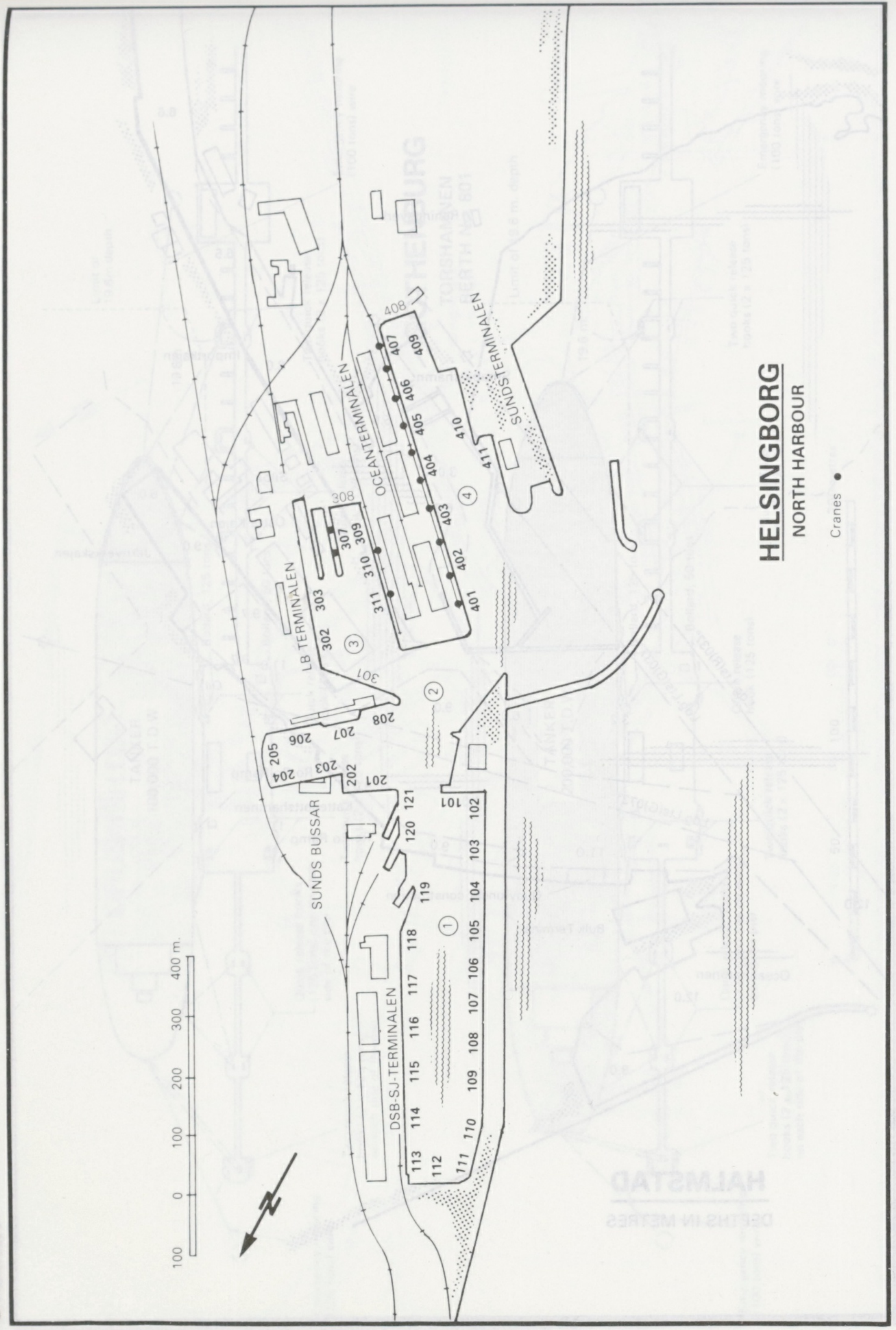

906
905
904
903
902
901
⑨

WEST HARBOUR


6.6
Reningsverk
6.5
8.0
Importkajen
Smabatshamn
5.5
3.0
6.0
Silos
6.0
Ostra Kajen
9.0
Jarnverkskajen
9.7
11.0
9.7
Oil
Ldg.Lts(R)037°
Ldg.Lts(G)037°
3.2
6.0
9.0
Ro-Ro Ramp
9.0
11.0
Kattegattshamnen
Ldg.Lts(G)073°
Ro-Ro Ramp
9.0
11.0
Quay under construction
12.0
Bulk Terminal
Oceanhamnen
12.0
9.0

HALMSTAD

DEPTHS IN METRES

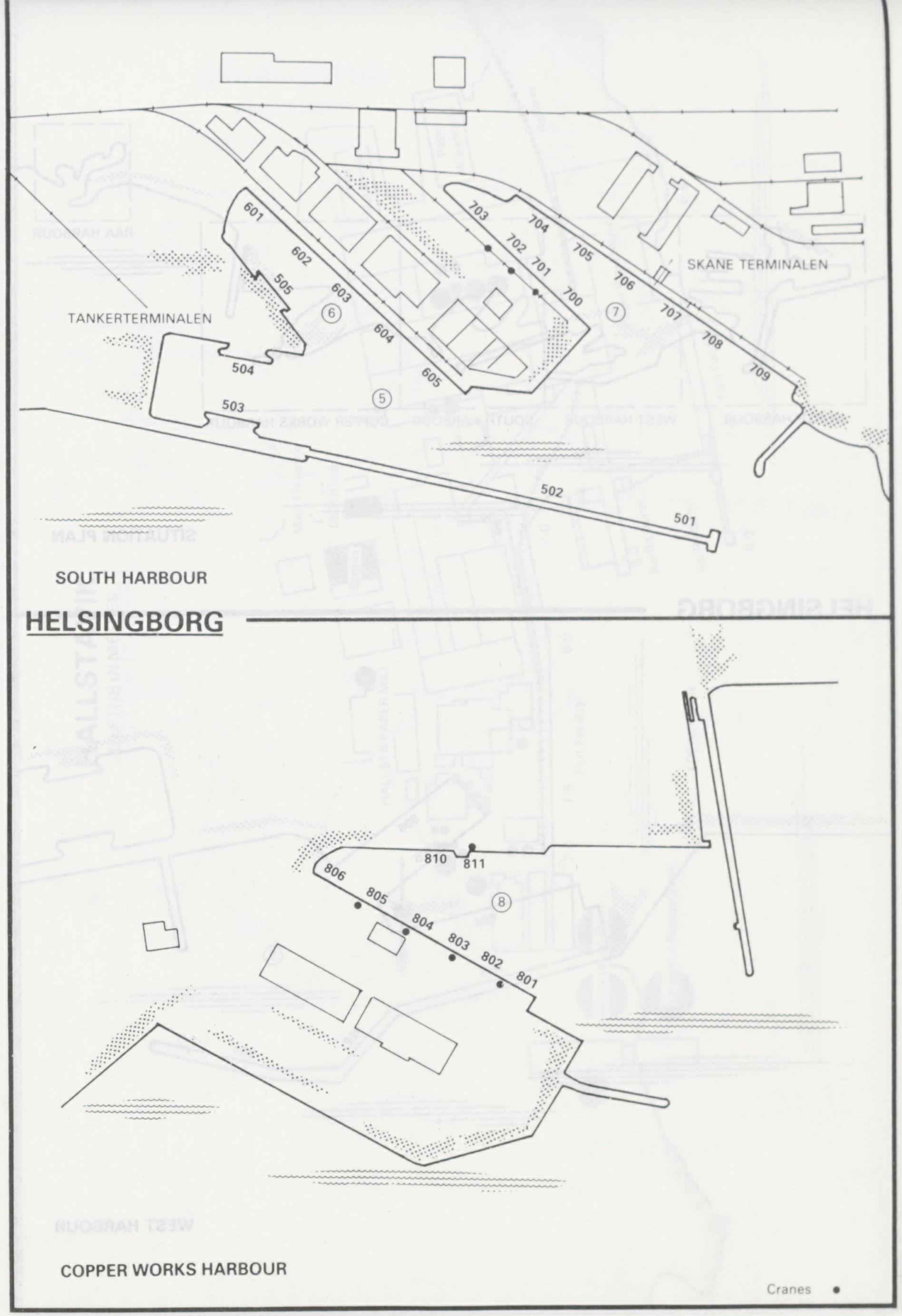


HELSINGBORG

NORTH HARBOUR

Cranes ●

DSB-SJ-TERMINALEN
SUNDS BUSSAR
LB TERMINALEN
OCEANTERMINALEN
SUNDSTERMINALEN
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
201
202
203
204
205
206
207
208
301
302
303
307
308
309
310
311
401
402
403
404
405
406
407
408
409
410
411
①
②
③
④
100
0
100
200
300
400 m
N



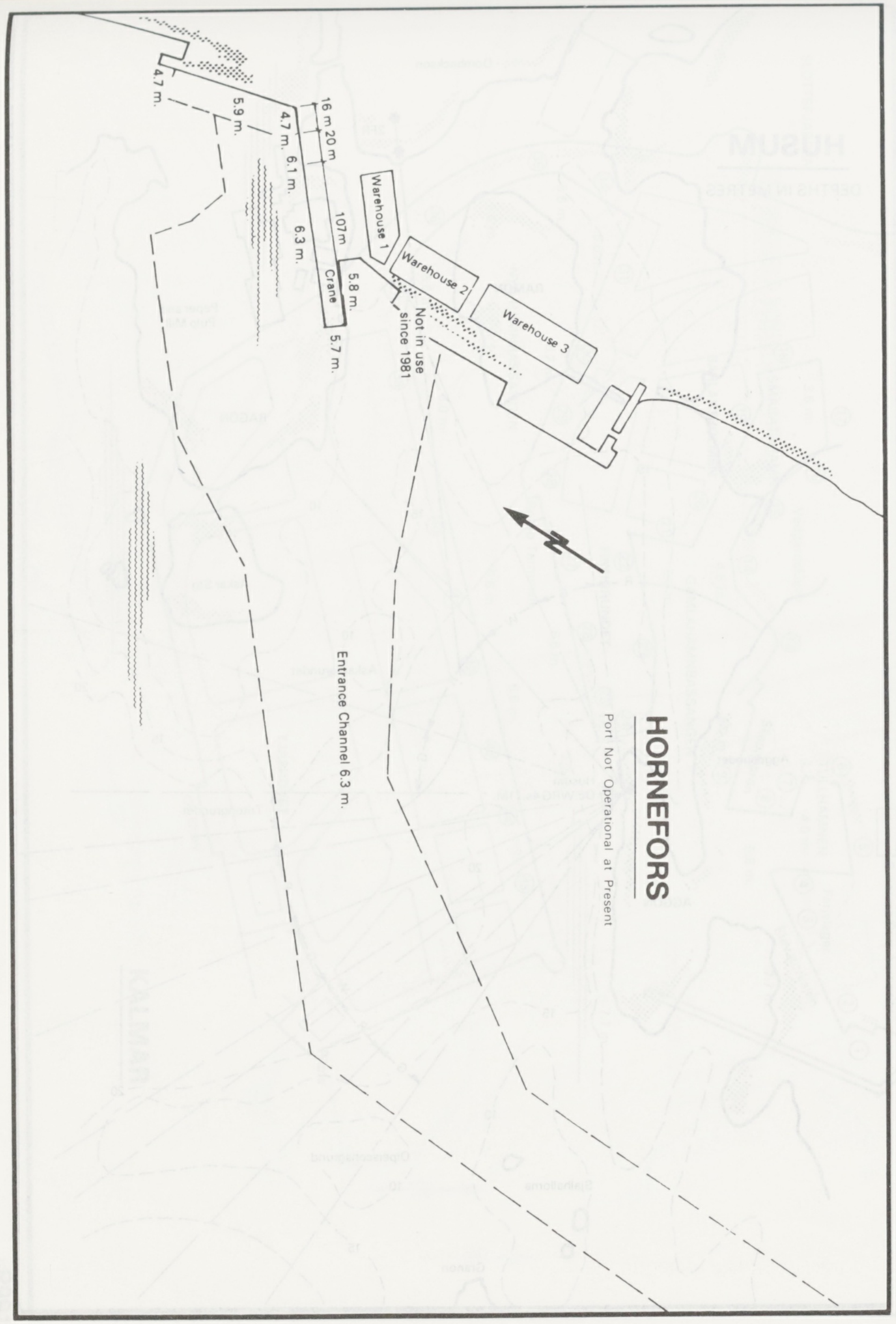
HELSINGBORG

SOUTH HARBOUR

COPPER WORKS HARBOUR

Cranes ●

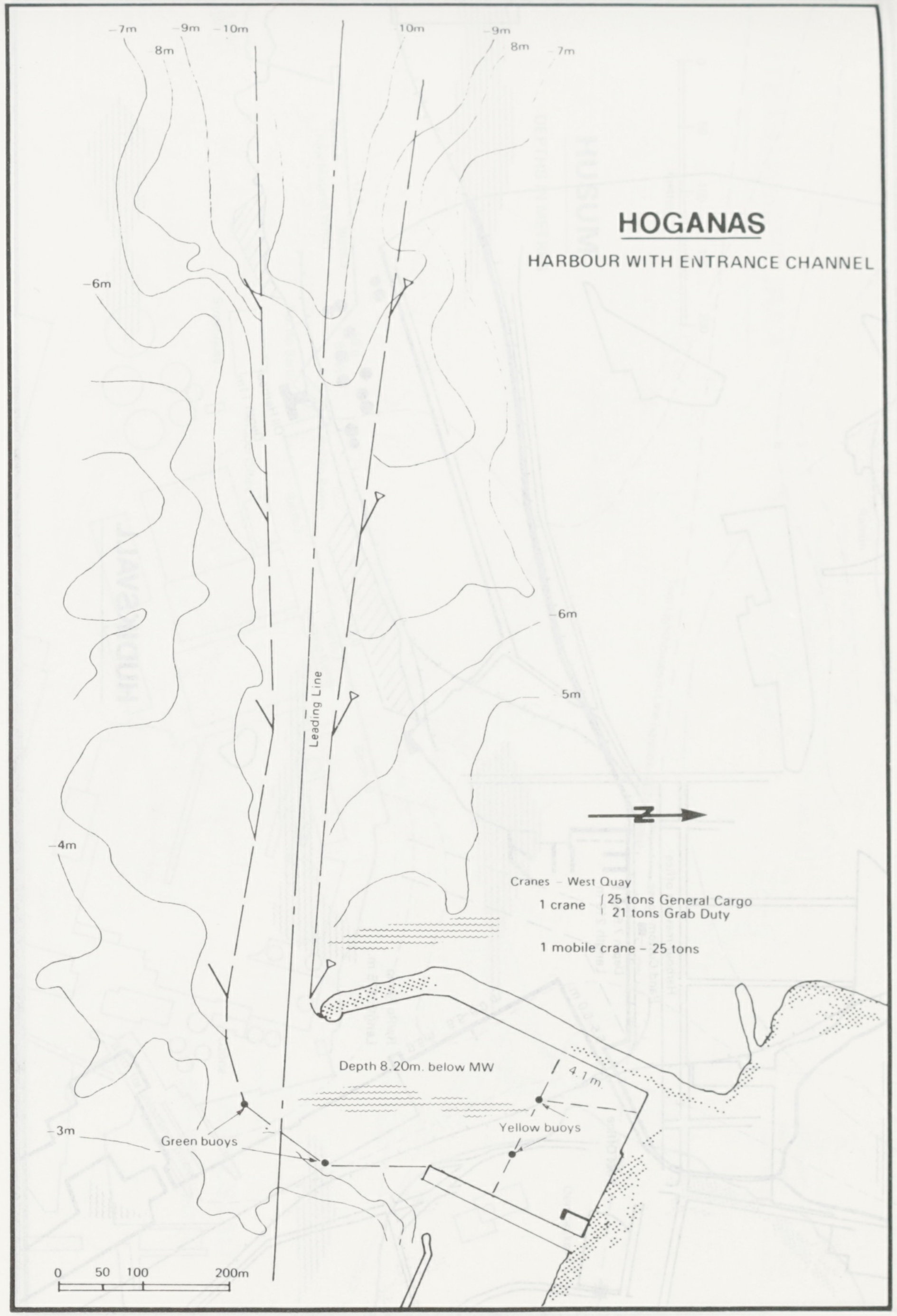
TANKERTERMINALEN
SKANE TERMINALEN
501
502
503
504
505
601
602
603
604
605
700
701
702
703
704
705
706
707
708
709
801
802
803
804
805
806
810
811
⑤
⑥
⑦
⑧



HORNEFORS

Port Not Operational at Present

4.7 m.
5.9 m.
4.7 m.
16 m
20 m
6.1 m.
6.3 m.
107m
Crane
5.8 m.
5.7 m.
Warehouse 1
Warehouse 2
Warehouse 3
Not in use since 1981
N
Entrance Channel 6.3 m.

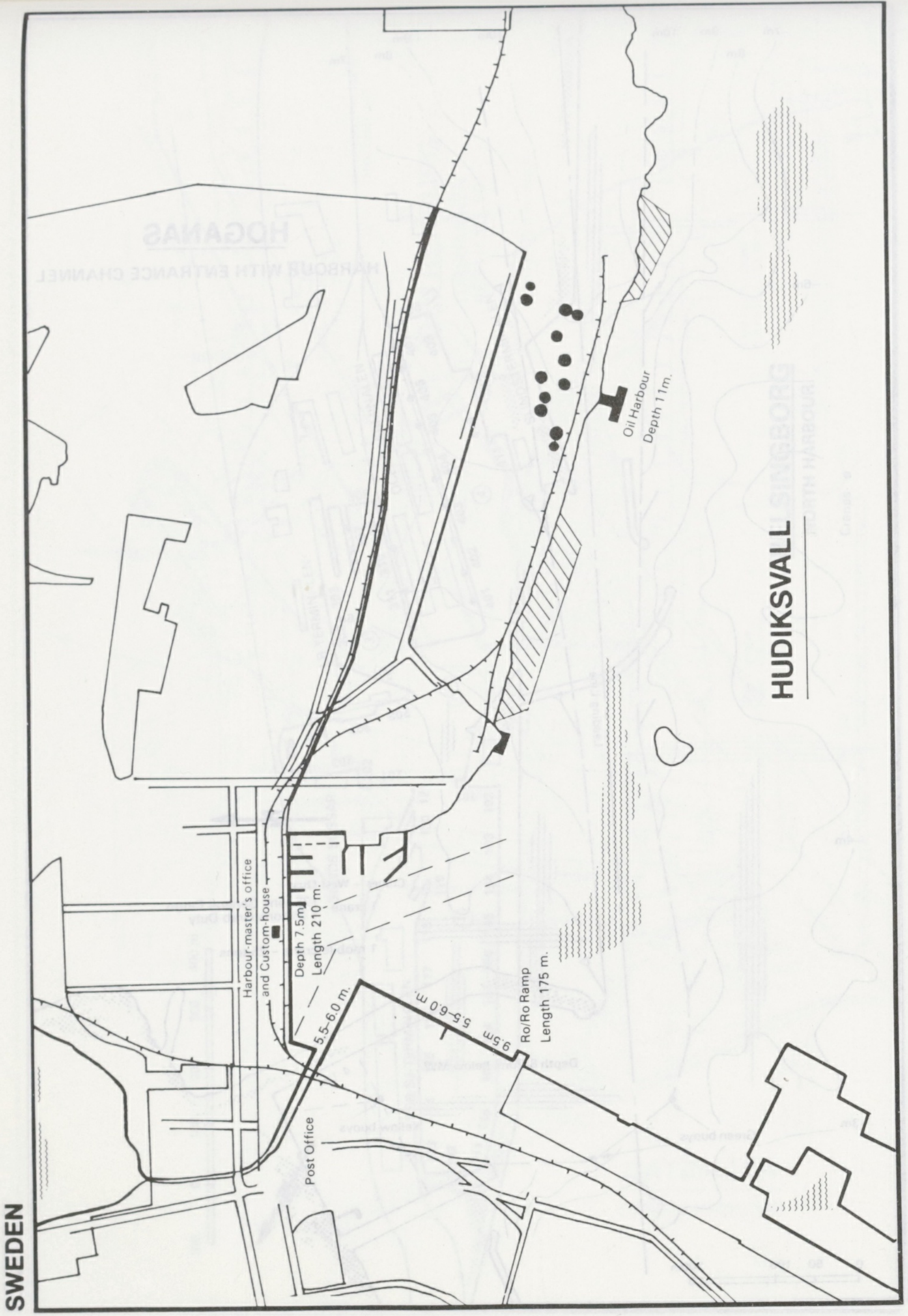


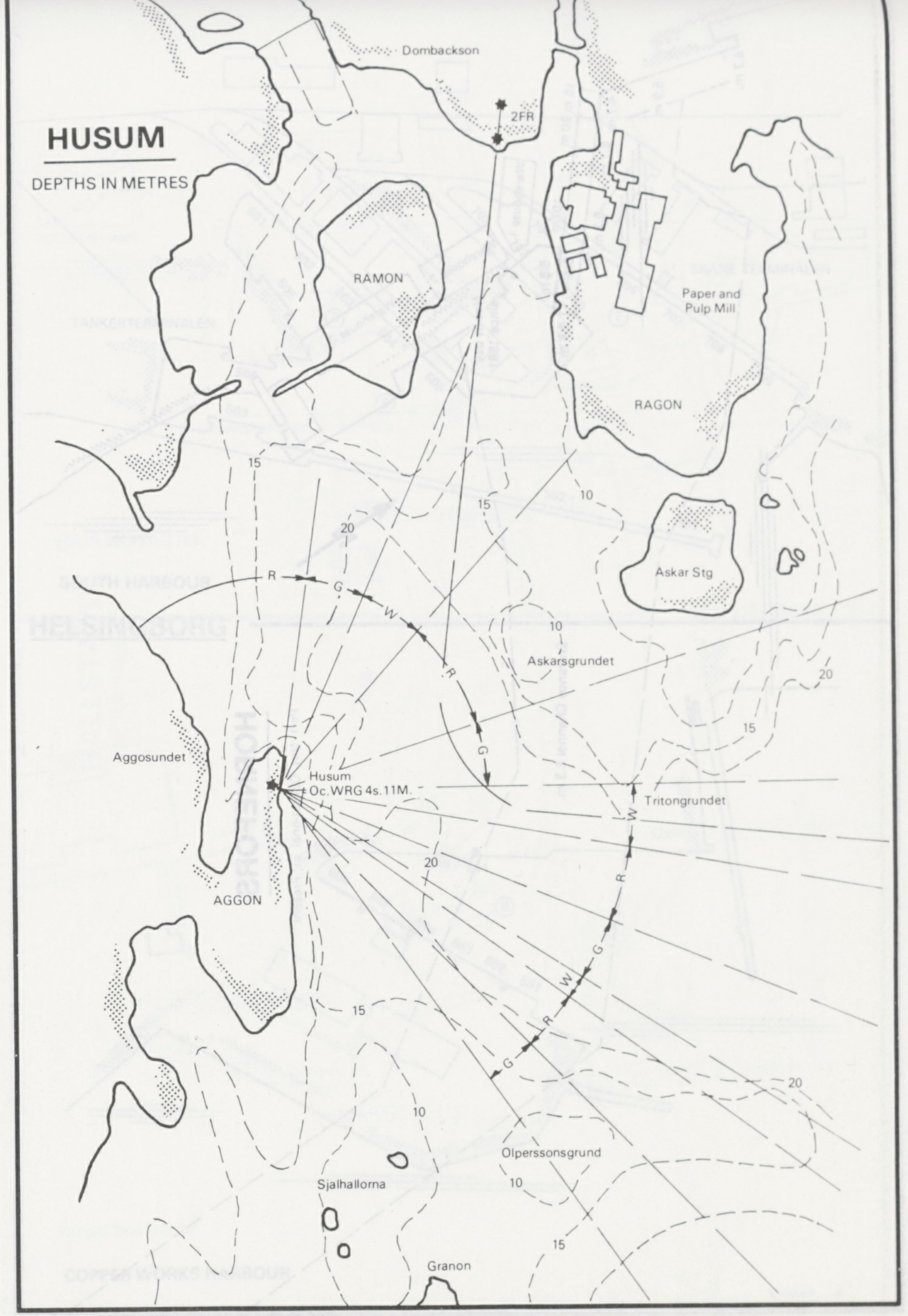
HOGANAS

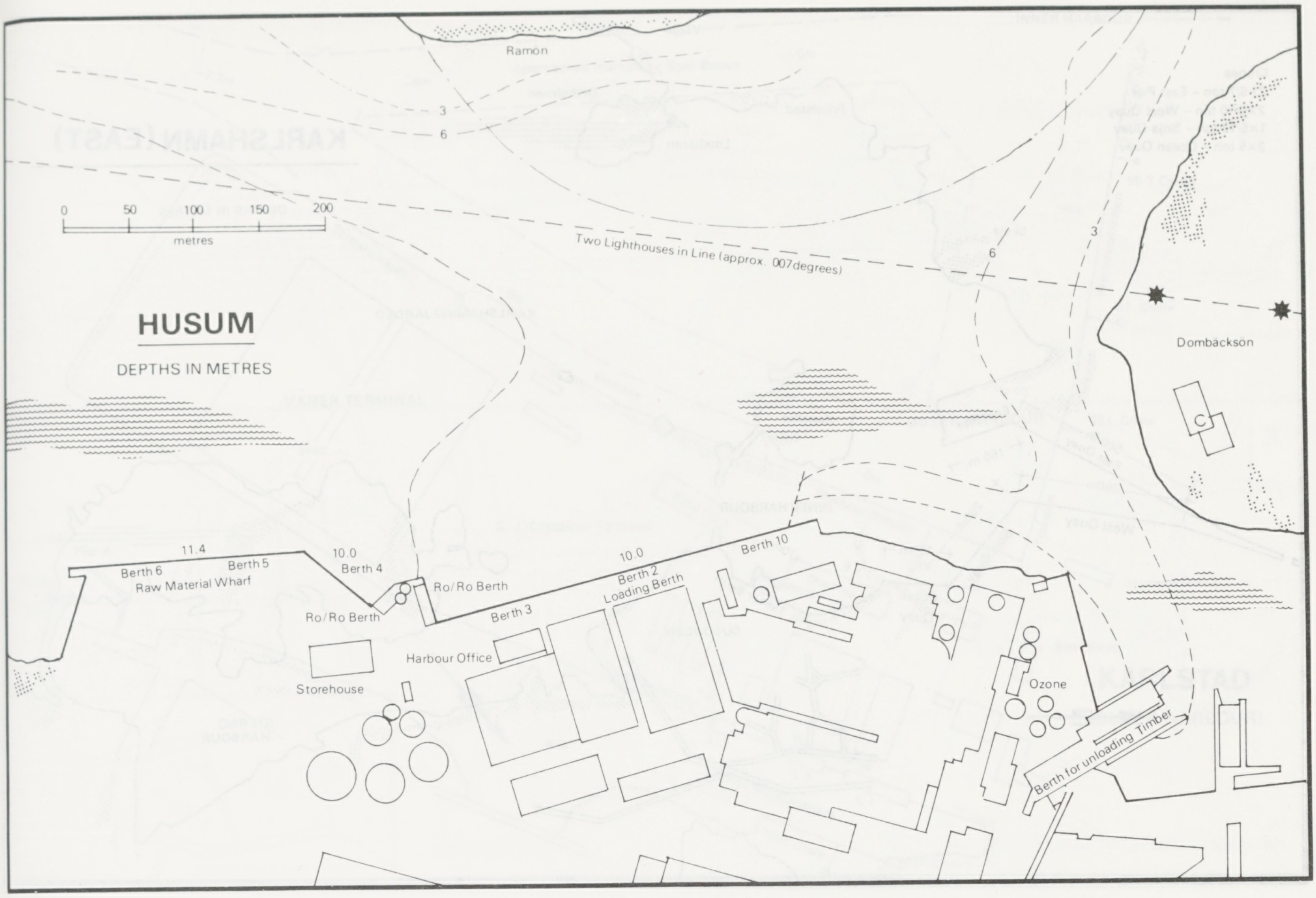
HARBOUR WITH ENTRANCE CHANNEL

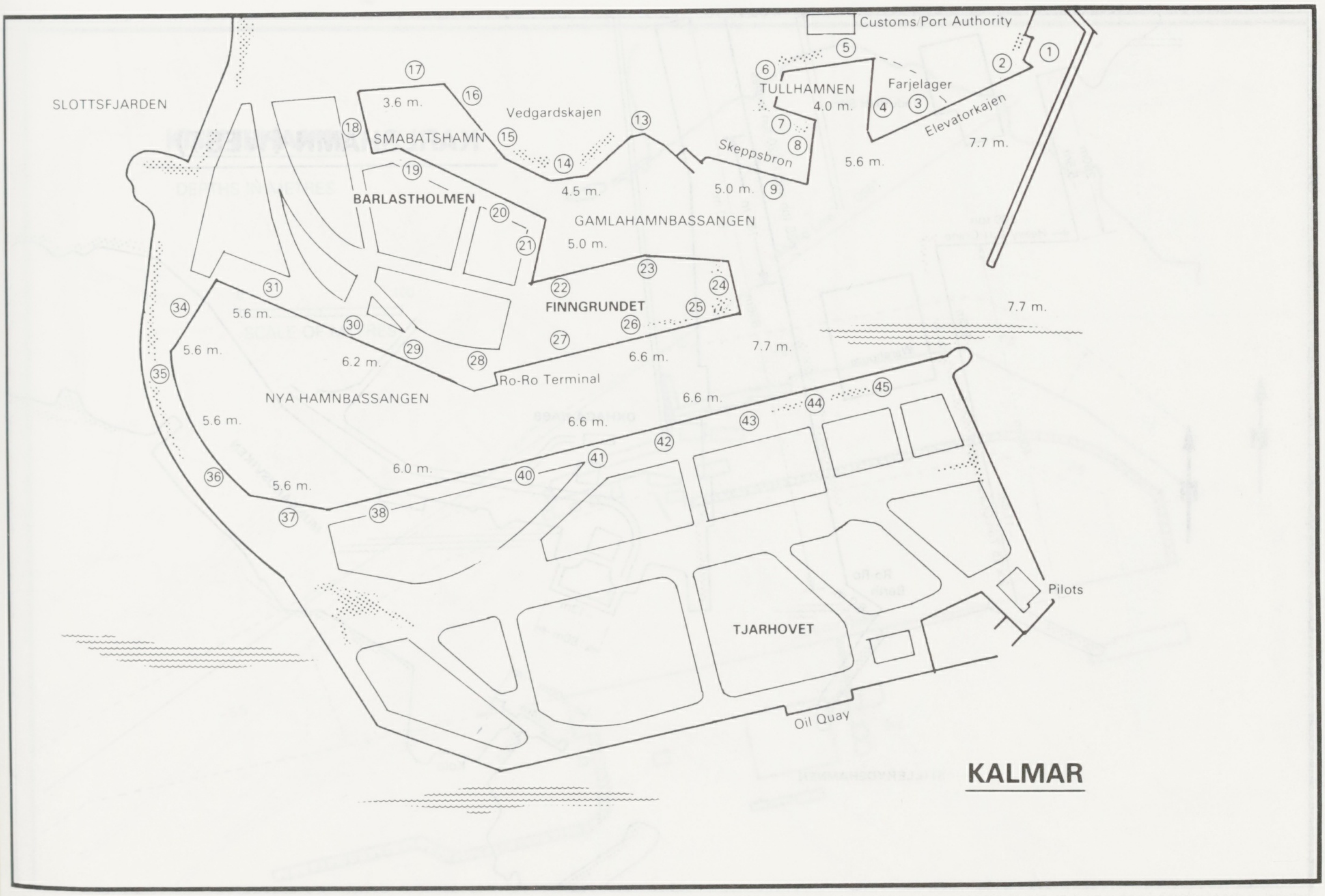
Cranes – West Quay
1 crane { 25 tons General Cargo
21 tons Grab Duty
1 mobile crane – 25 tons

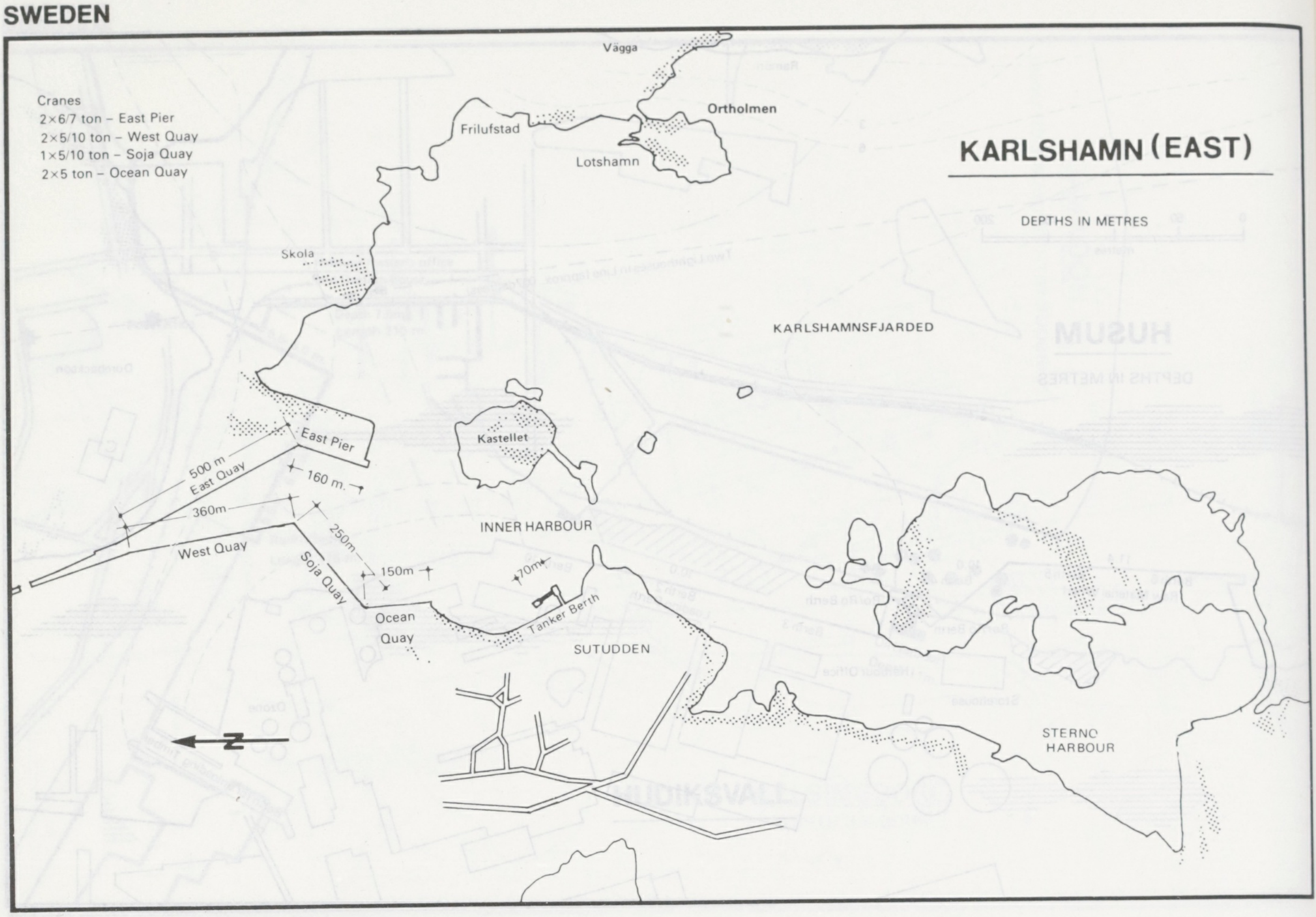
7m
9m
10m
8m
10m
9m
8m
7m
6m
6m
5m
4m
3m
Leading Line
N
Depth 8.20m. below MW
4.1 m
Green buoys
Yellow buoys
0
50
100
200m


HUDIKSVALL
Oil Harbour
Depth 11m.
Harbour-master's office
and Custom-house
Depth 7.5m
Length 210 m.
5.5-6.0 m.
5.5-6.0 m
9.5m
Ro/Ro Ramp
Length 175 m.
Post Office


HUSUM
DEPTHS IN METRES
Dombackson
2FR
RAMON
Paper and
Pulp Mill
RAGON
15
10
15
20
Askar Stg
R
G
W
R
G
10
Askarsgrundet
20
15
Aggosundet
Husum
Oc.WRG 4s.11M.
Tritongrundet
W
R
G
W
R
G
20
AGGON
15
20
10
Olperssonsgrund
10
Sjalhallorna
15
Granon

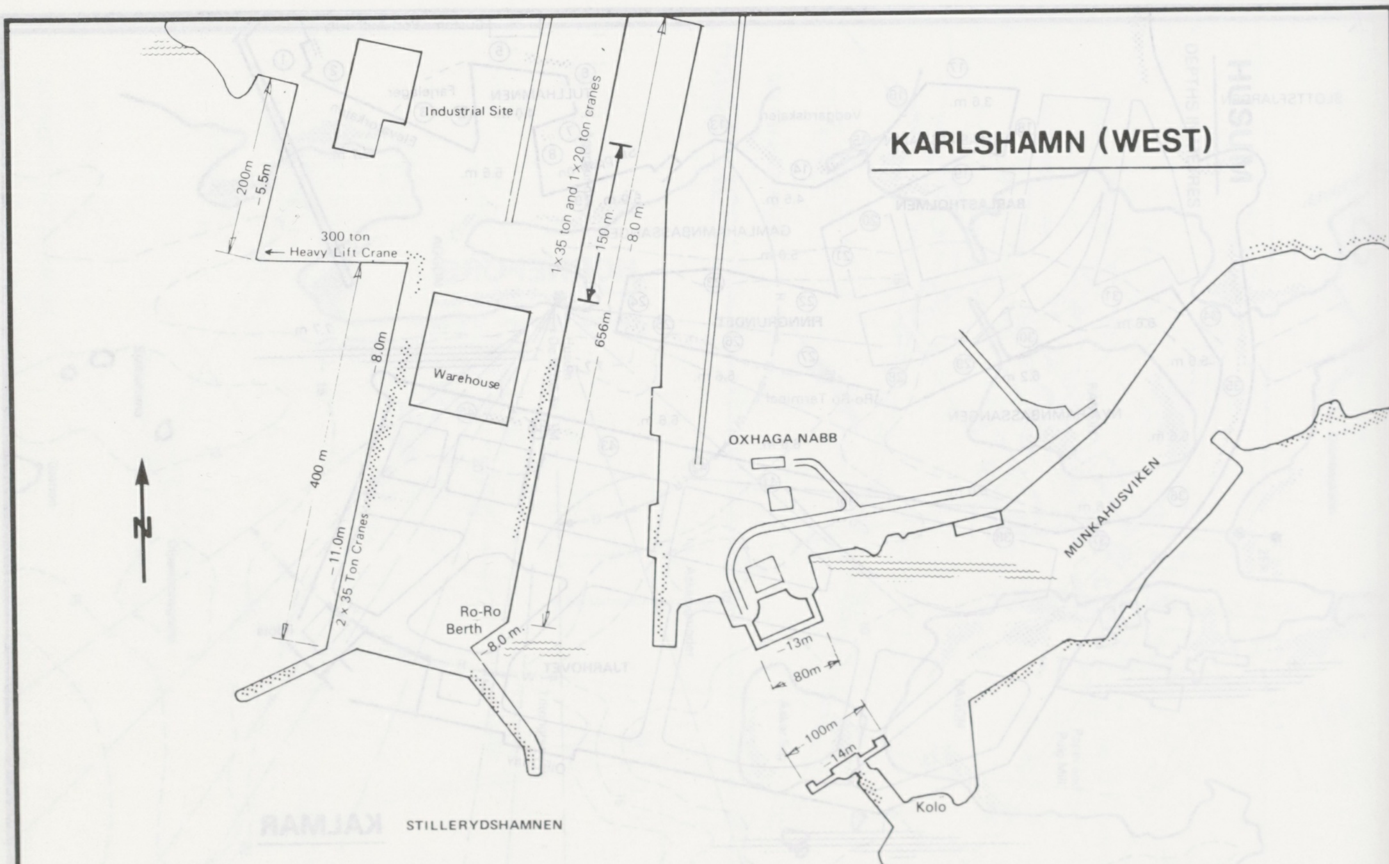

HUSUM
DEPTHS IN METRES
0
50
100
150
200
metres
Ramon
3
6
Two Lighthouses in Line (approx. 007degrees)
6
3
Dombackson
11.4
Berth 6
Raw Material Wharf
Berth 5
10.0
Berth 4
Ro/Ro Berth
Ro/Ro Berth
Berth 3
10.0
Berth 2
Loading Berth
Berth 10
Harbour Office
Storehouse
Ozone
Berth for unloading Timber


Customs Port Authority
⑤
②
①
⑥
TULLHAMNEN
4.0 m.
Farjelager
④
③
Elevatorkajen
7.7 m.
⑦
⑧
Skeppsbron
5.6 m.
5.0 m.
⑨
SLOTTSFJARDEN
⑰
⑯
3.6 m.
Vedgardskajen
⑬
⑱
SMABATSHAMN
⑮
⑭
4.5 m.
⑲
BARLASTHOLMEN
⑳
GAMLAHAMNBASSANGEN
㉑
5.0 m.
㉓
㉔
㉒
FINNGRUNDET
㉕
㉖
7.7 m.
㉛
㉞
5.6 m.
㉚
5.6 m.
㉙
6.2 m.
㉘
㉗
6.6 m.
7.7 m.
Ro-Ro Terminal
㉟
NYA HAMNBASSANGEN
6.6 m.
㊺
㊹
5.6 m.
6.6 m.
㊸
㊷
㊶
㊱
6.0 m.
㊵
5.6 m.
㊲
㊳
Pilots
TJARHOVET
Oil Quay
KALMAR



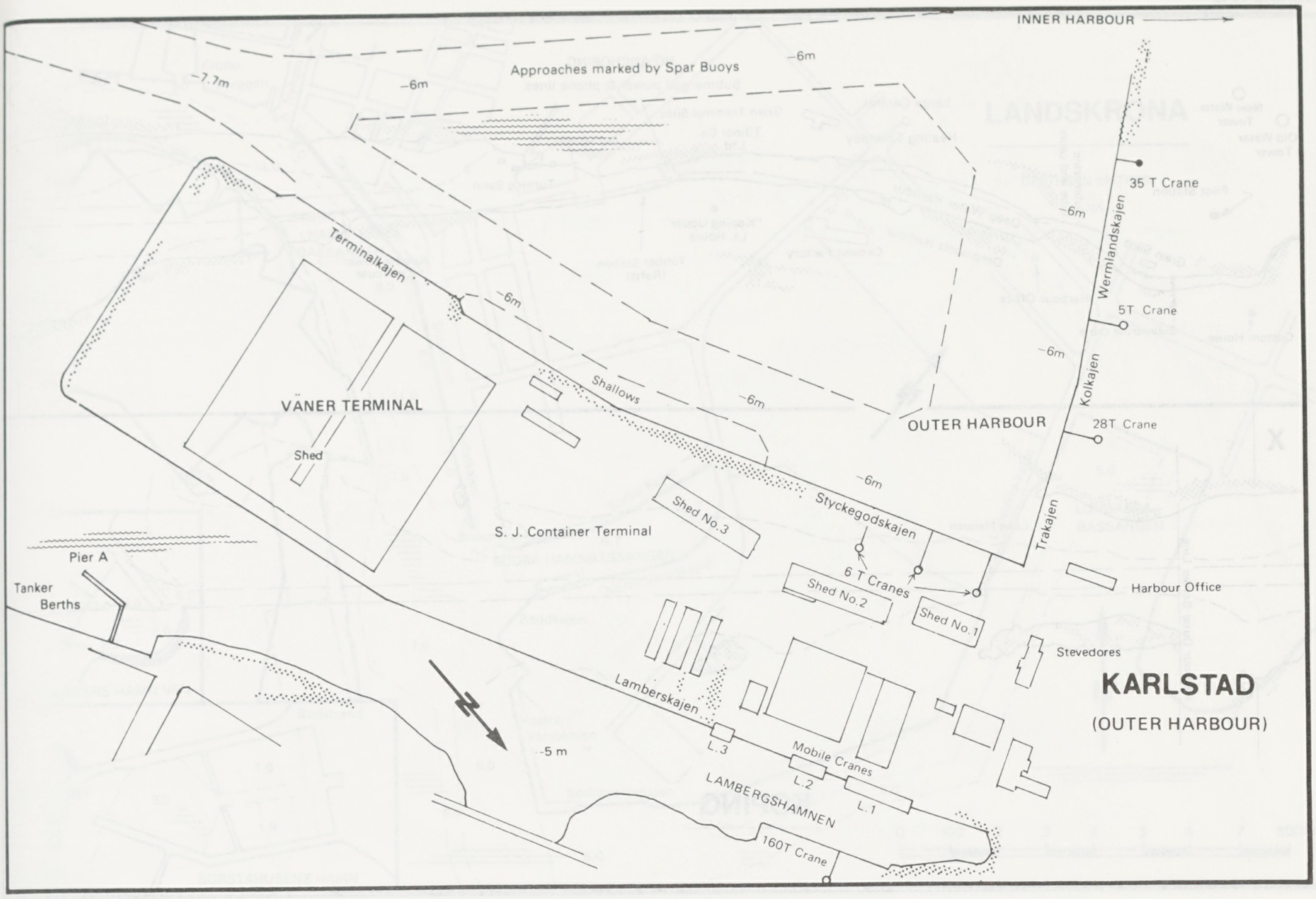
KARLSHAMN (EAST)

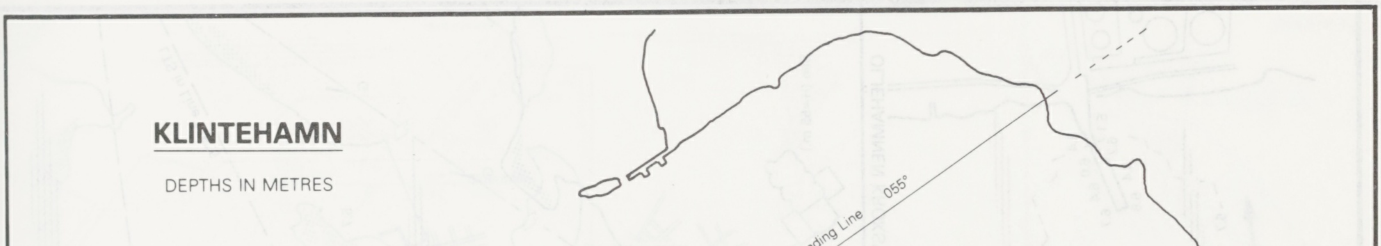
Cranes
2×6/7 ton – East Pier
2×5/10 ton – West Quay
1×5/10 ton – Soja Quay
2×5 ton – Ocean Quay
Vägga
Ortholmen
Frilufstad
Lotshamn
DEPTHS IN METRES
Skola
KARLSHAMNSFJARDED
Kastellet
East Pier
500 m
East Quay
160 m.
360m
West Quay
250m
Soja Quay
150m
Ocean Quay
70m
Tanker Berth
INNER HARBOUR
SUTUDDEN
STERNO HARBOUR
N

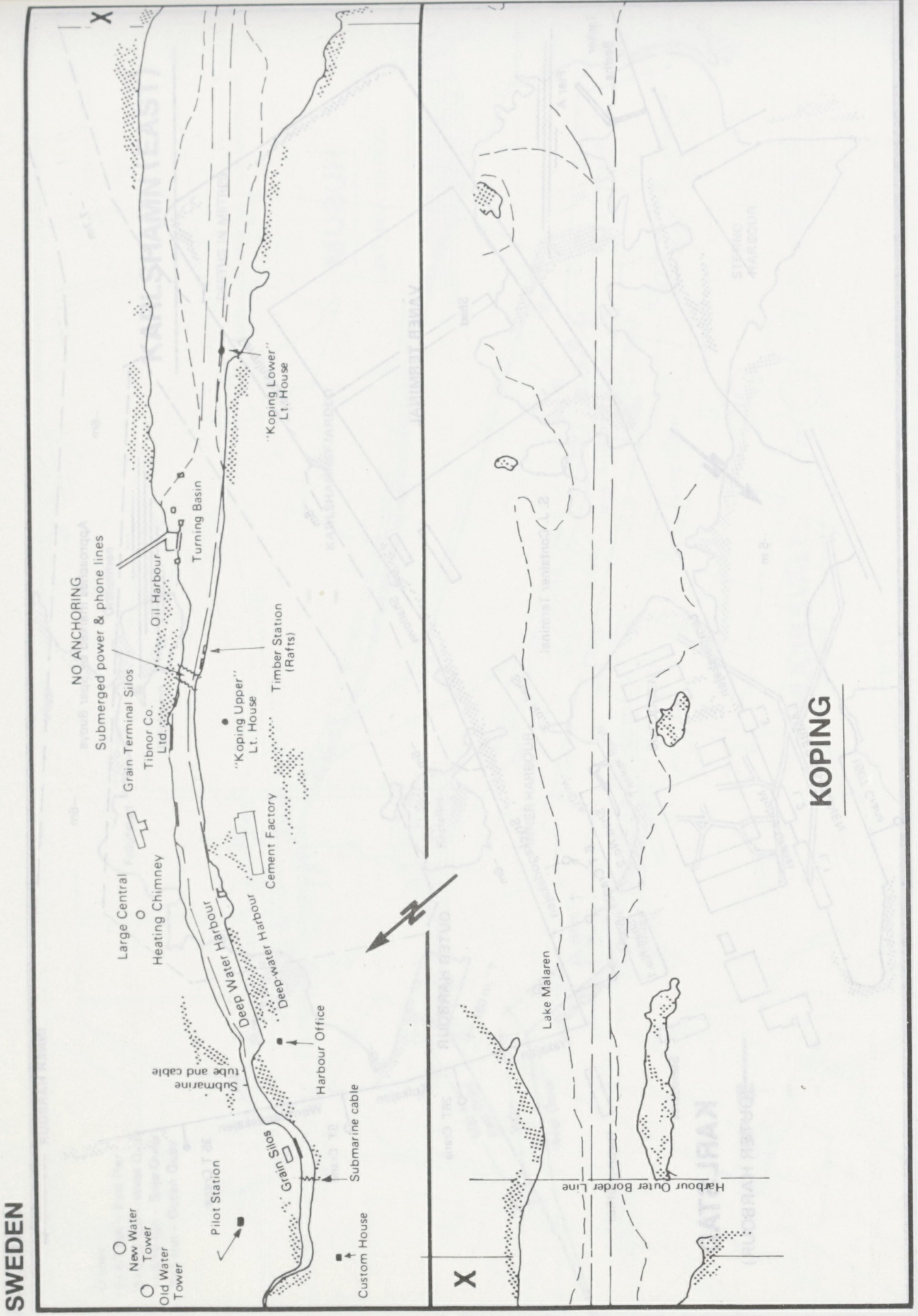


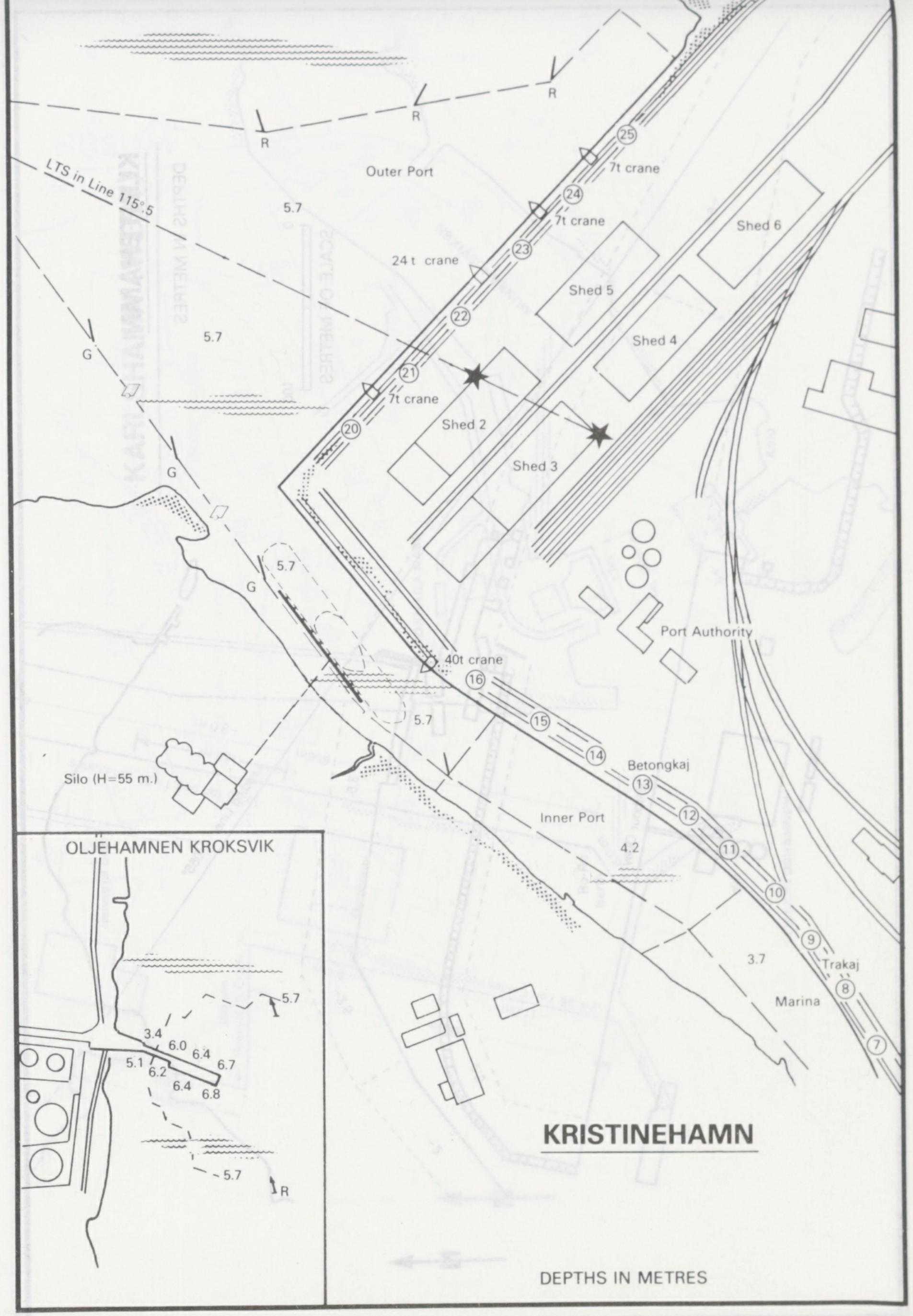
KARLSHAMN (WEST)

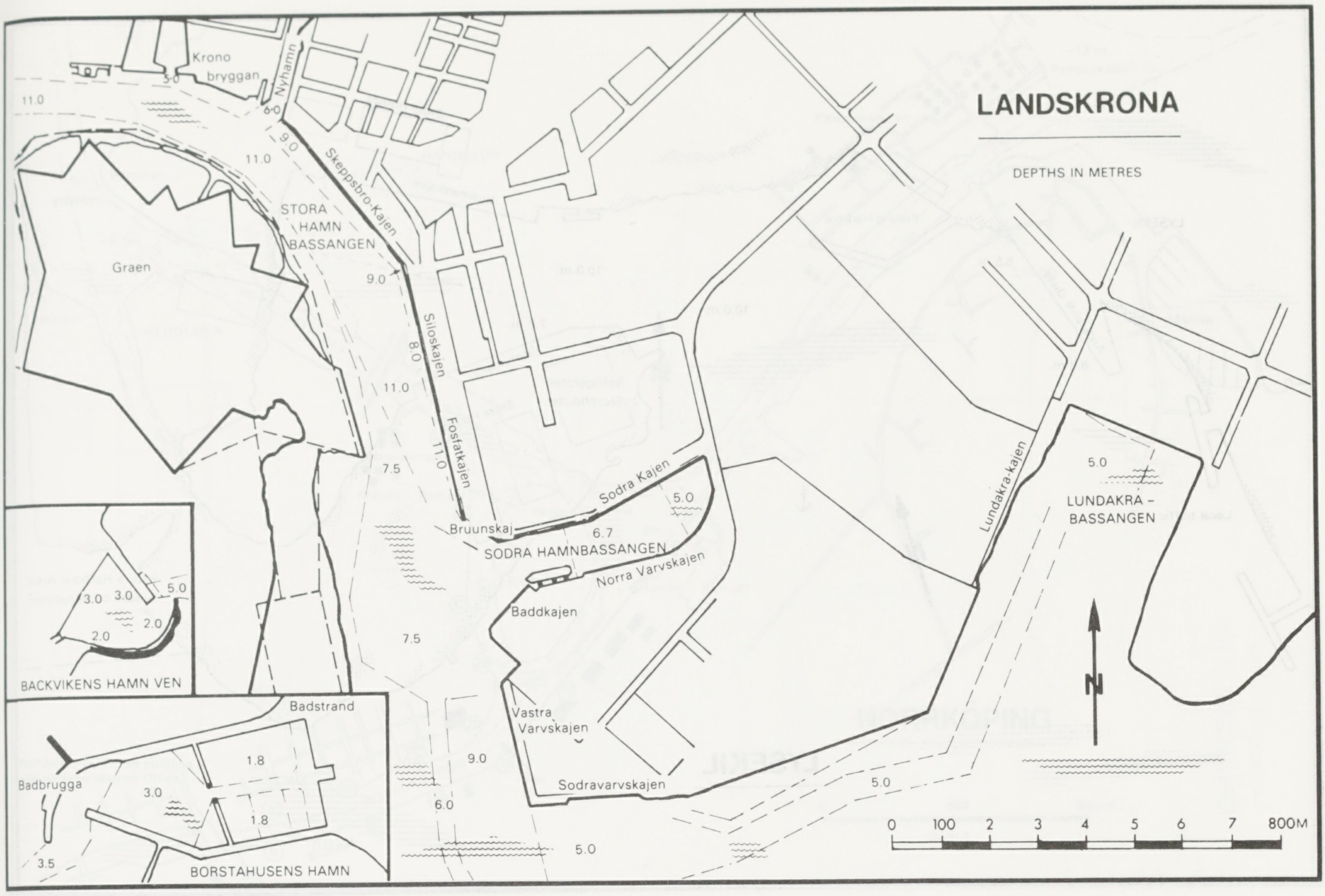
Industrial Site
200m
–5.5m
300 ton
Heavy Lift Crane
Warehouse
8.0m
400 m
–11.0m
2 × 35 Ton Cranes
1×35 ton and 1×20 ton cranes
150 m
656m
–8.0 m
Ro-Ro Berth
–8.0 m.
OXHAGA NABB
MUNKAHUSVIKEN
13m
80m
100m
14m
Kolo
STILLERYDSHAMNEN
N

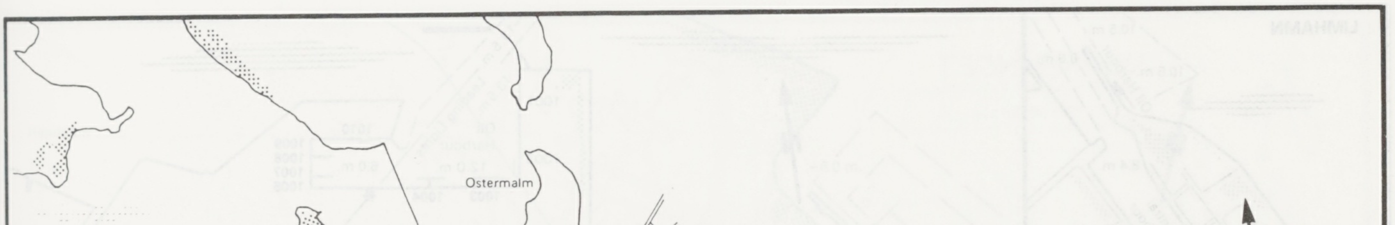

INNER HARBOUR
-7.7m
-6m
Approaches marked by Spar Buoys
-6m
35 T Crane
-6m
Wermlandskajen
Terminalkajen
-6m
5T Crane
-6m
VÄNER TERMINAL
Shallows
-6m
Kolkajen
OUTER HARBOUR
28T Crane
Shed
-6m
Styckegodskajen
Trakajen
Shed No.3
S. J. Container Terminal
Pier A
6 T Cranes
Harbour Office
Tanker
Berths
Shed No.2
Shed No.1
Stevedores
N
KARLSTAD
(OUTER HARBOUR)
Lamberskajen
-5 m
L.3
Mobile Cranes
L.2
LAMBERGSHAMNEN
L.1
160T Crane

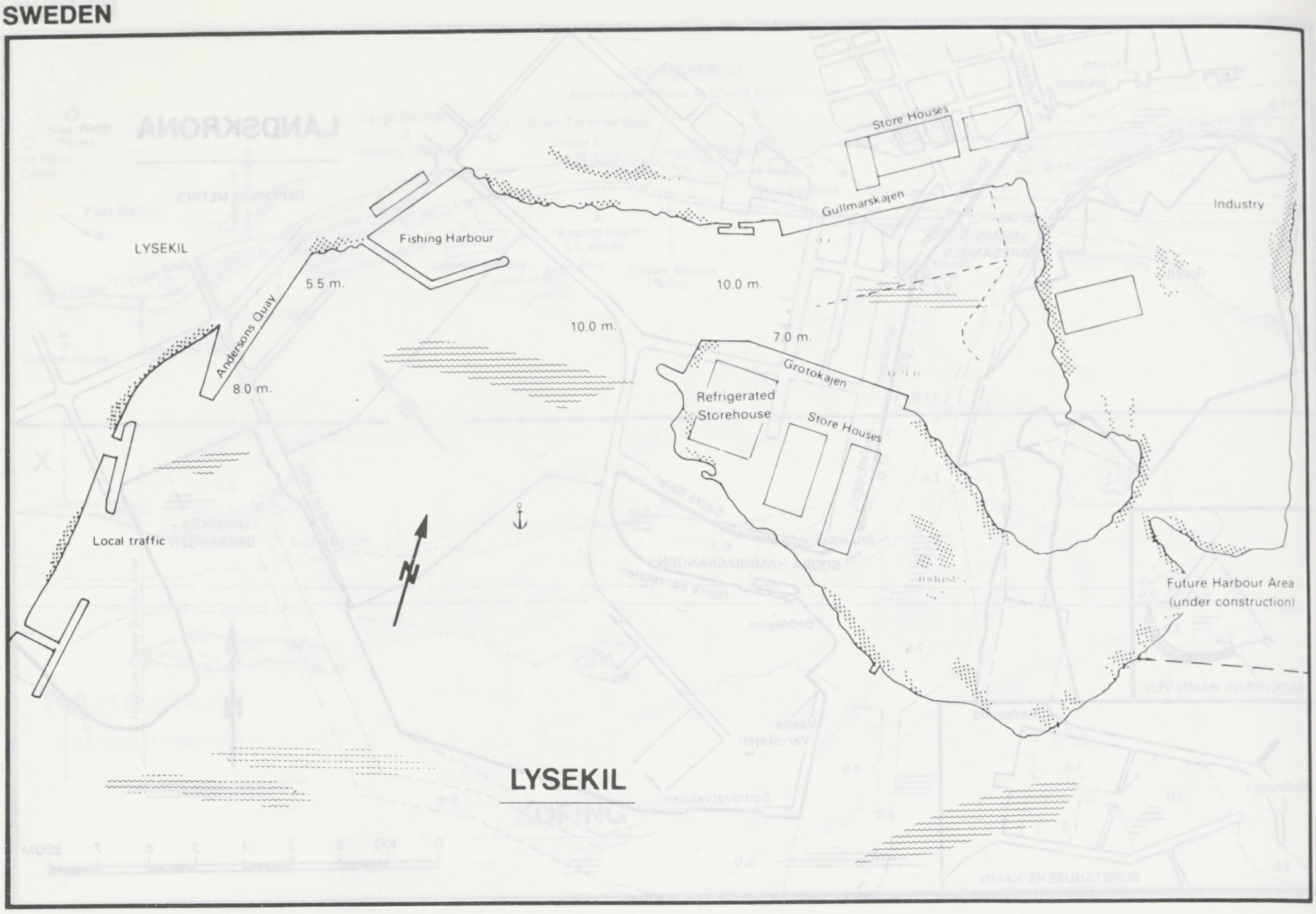

KLINTEHAMN
DEPTHS IN METRES
Leading Line 055°
0
100
SCALE OF METRES
-3.5
-2.5
-2
N
-2.5
-5
Harbour Quay
-5.5
Silo

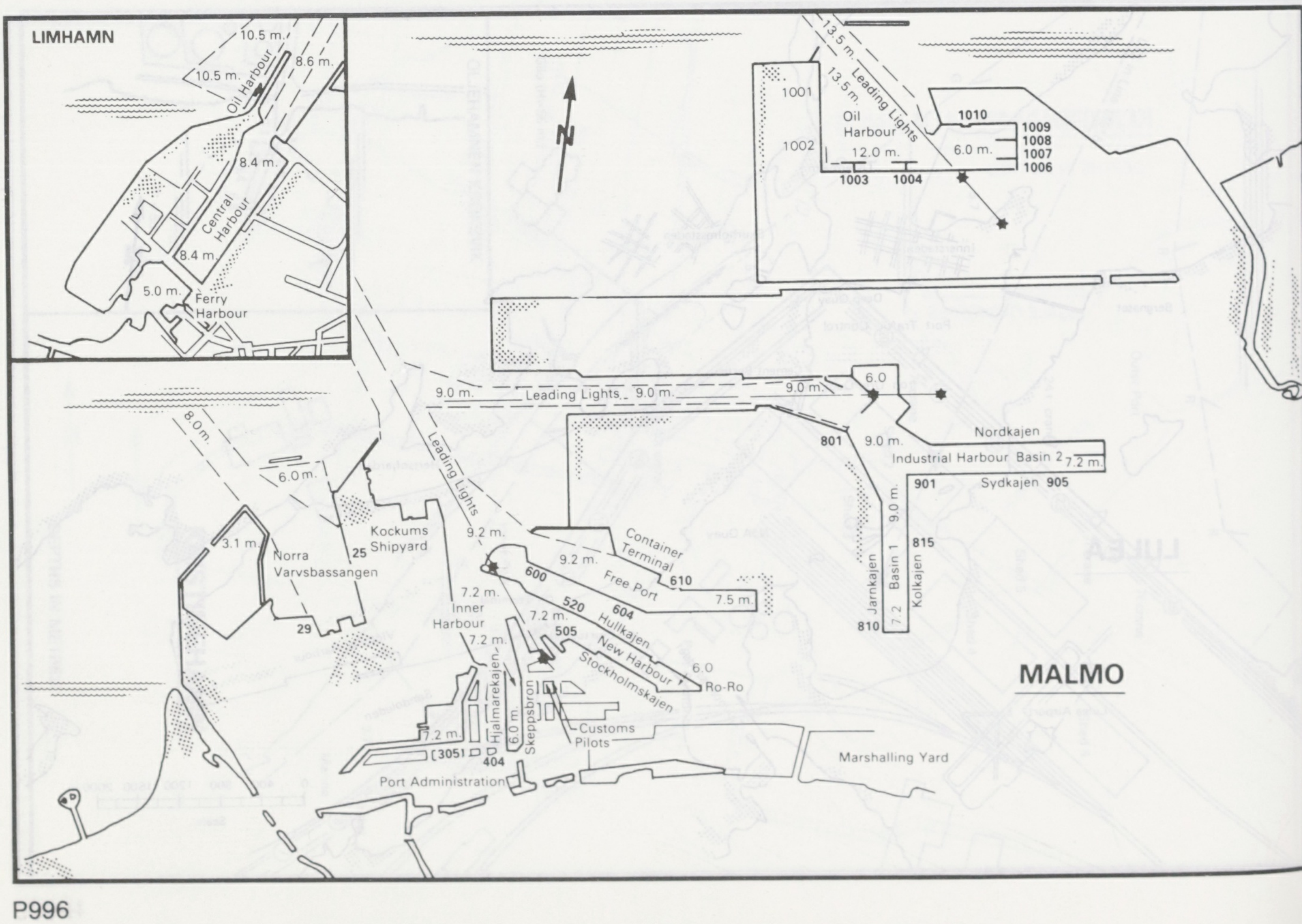

KOPING
X
NO ANCHORING
Submerged power & phone lines
Grain Terminal Silos
Tibnor Co. Ltd.
Oil Harbour
Turning Basin
"Koping Lower" Lt. House
"Koping Upper" Lt. House
Timber Station (Rafts)
Cement Factory
Large Central Heating Chimney
Deep Water Harbour
Deep-water Harbour
Harbour Office
Submarine tube and cable
Submarine cable
Grain Silos
Pilot Station
New Water Tower
Old Water Tower
Custom House
Lake Malaren
Harbour Outer Border Line

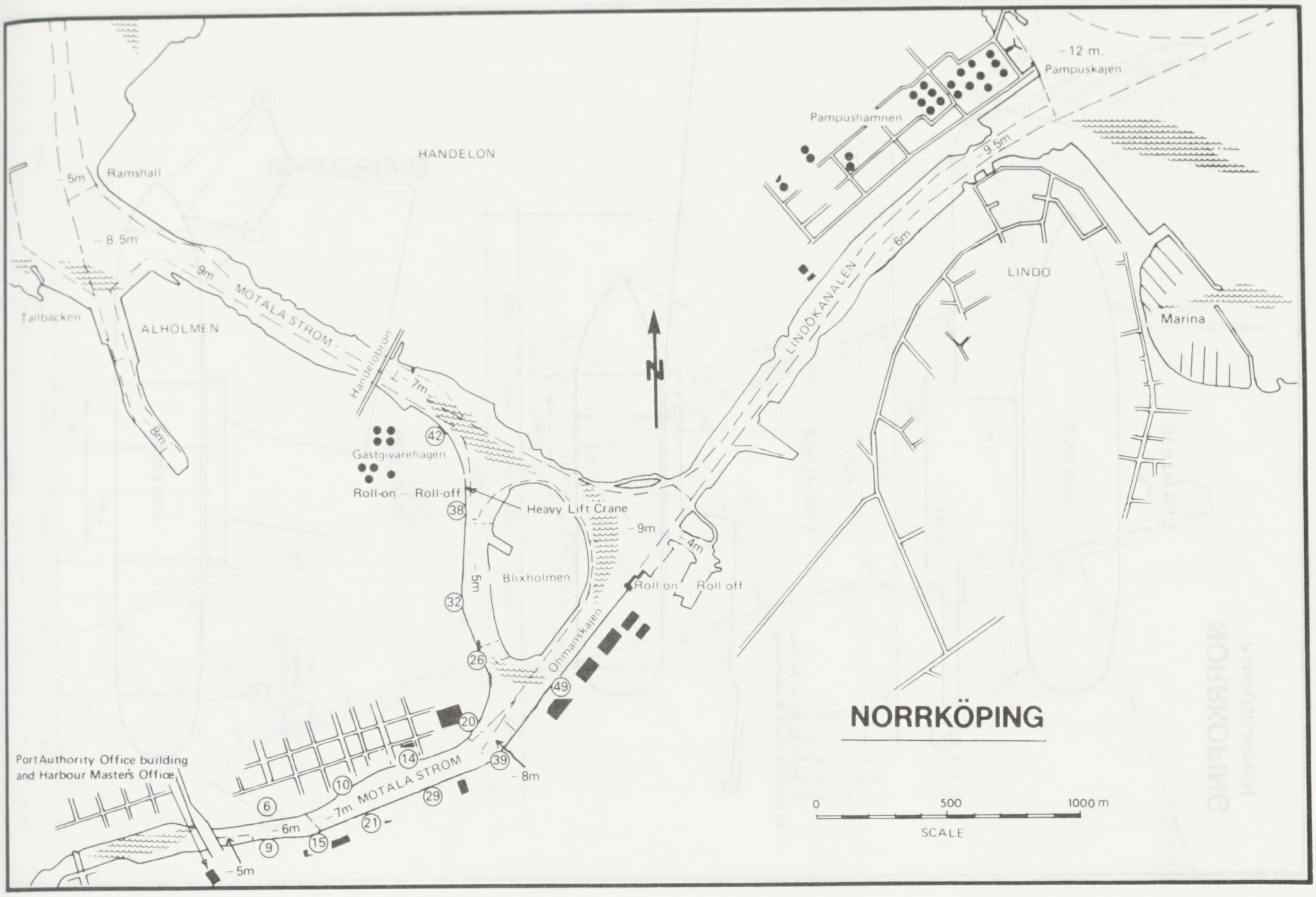

KRISTINEHAMN
Outer Port
LTS in Line 115°.5
R
G
5.7
7t crane
24 t crane
40t crane
Shed 2
Shed 3
Shed 4
Shed 5
Shed 6
Port Authority
Silo (H=55 m.)
Inner Port
Betongkaj
Trakaj
Marina
4.2
3.7
25
24
23
22
21
20
16
15
14
13
12
11
10
9
8
7
OLJEHAMNEN KROKSVIK
3.4
6.0
6.4
6.7
5.1
6.2
6.4
6.8
DEPTHS IN METRES

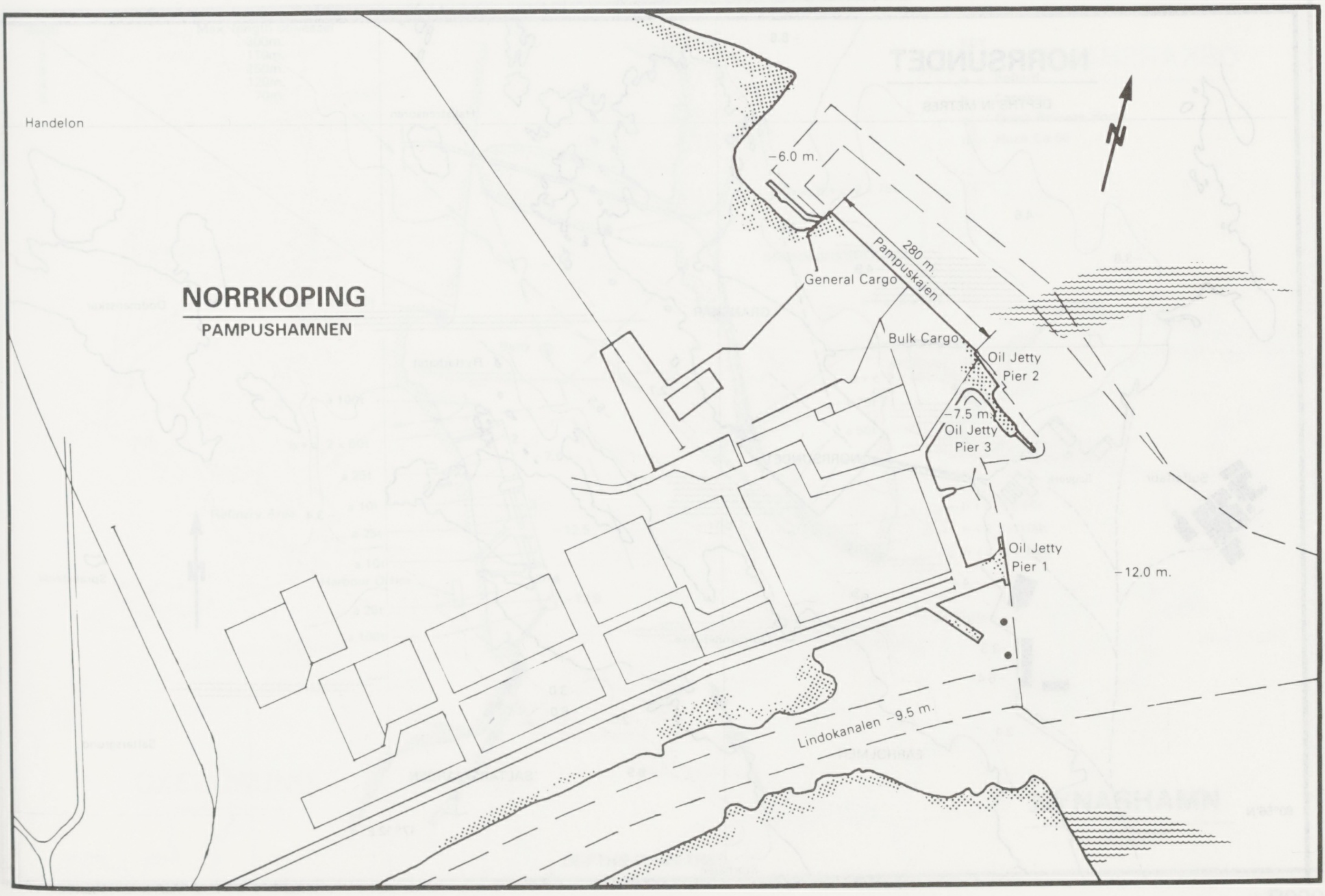

LANDSKRONA
DEPTHS IN METRES
Krono bryggan
5.0
11.0
Nyhamn
6.0
9.0
11.0
Skeppsbro-Kajen
STORA HAMN BASSANGEN
Graen
9.0
Siloskajen
8.0
11.0
Fosfatkajen
11.0
7.5
Sodra Kajen
5.0
Bruunskaj
6.7
SODRA HAMNBASSANGEN
Norra Varvskajen
Baddkajen
7.5
Vastra Varvskajen
9.0
6.0
Sodravarvskajen
5.0
Lundakra-kajen
5.0
LUNDAKRA - BASSANGEN
N
5.0
0 100 2 3 4 5 6 7 800M
3.0
3.0
5.0
2.0
2.0
BACKVIKENS HAMN VEN
Badstrand
Badbrugga
1.8
3.0
1.8
3.5
BORSTAHUSENS HAMN

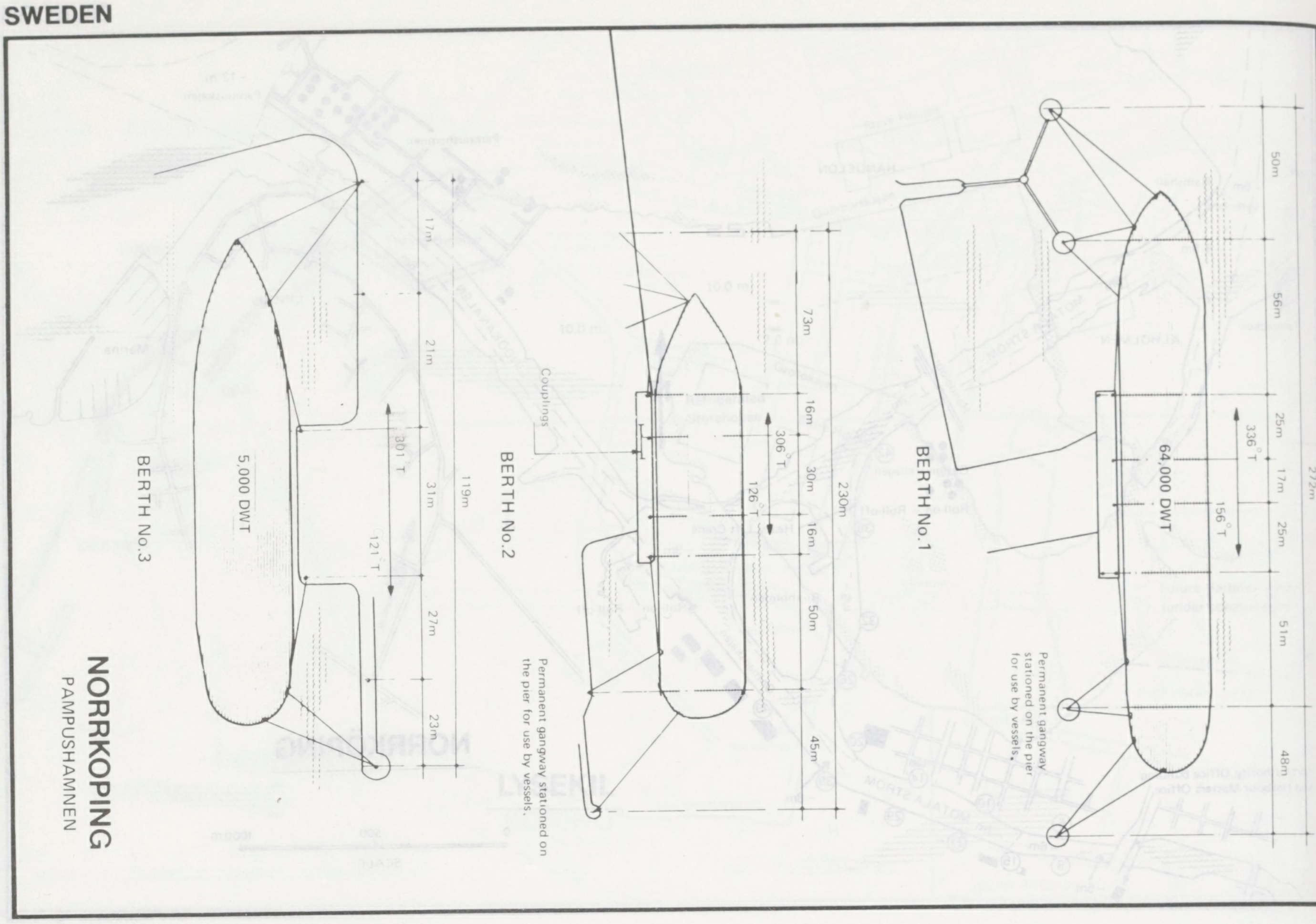

Ostermalm
Innerstaden
Skurholmsstaden
Bergnaset
Deep Quay
Port Traffic Control
Cement Berth
Iron Ore Quay
Hertsofjarden
LULEA
NJA Quay
Oil Terminal
Svartosundet
Victoria Harbour
Sandoleden
Tjuvholmssuddet
Lulea Airport
N
0 400 800 1200 1600 2000 m
Scale

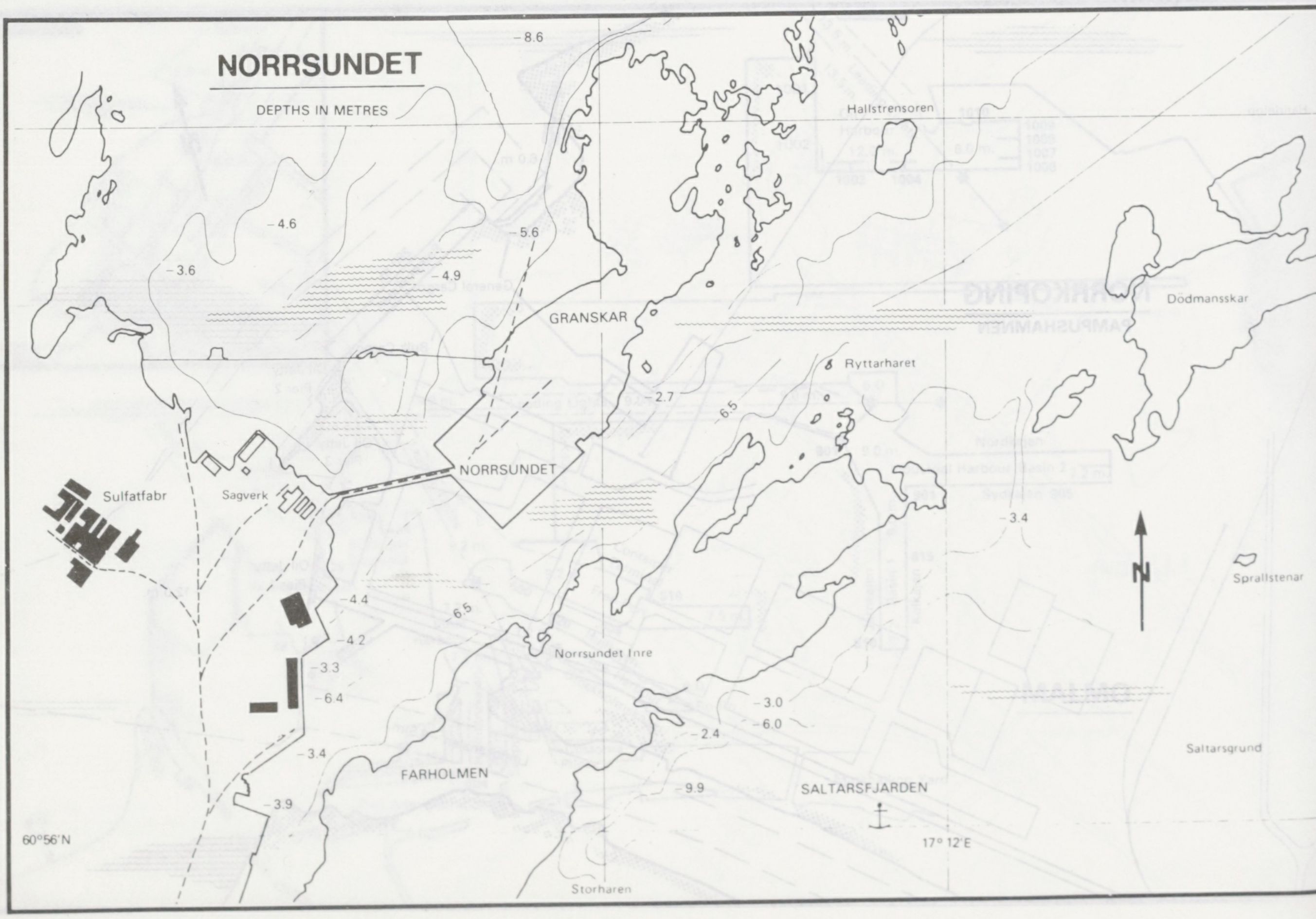

Store Houses
Industry
Gullmarskajen
LYSEKIL
Fishing Harbour
5.5 m.
10.0 m.
10.0 m.
Andersons Quay
8.0 m.
7.0 m.
Grotokajen
Refrigerated Storehouse
Store Houses
Local traffic
Future Harbour Area (under construction)
LYSEKIL

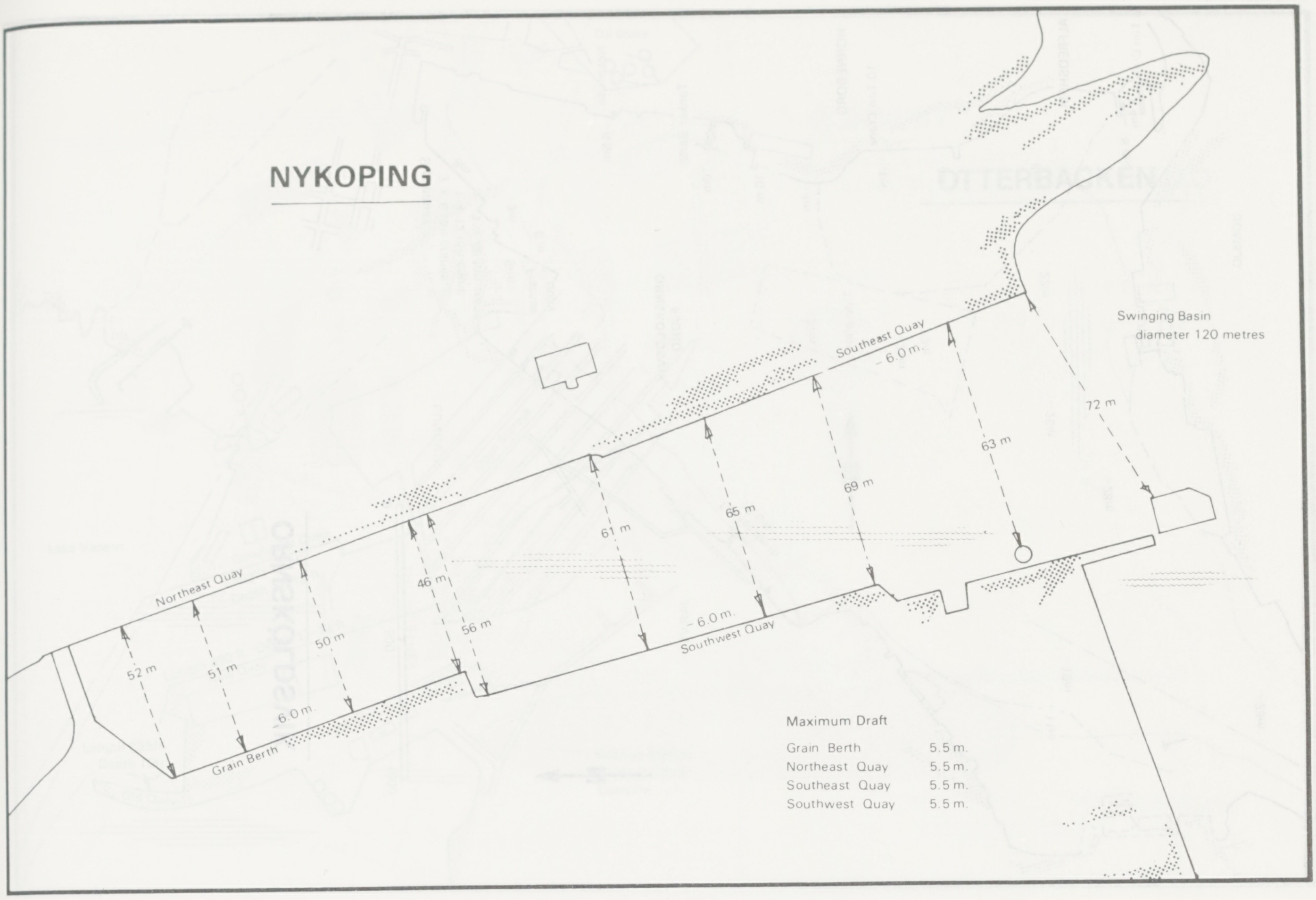

LIMHAMN
10.5 m.
10.5 m.
8.6 m.
Oil Harbour
8.4 m.
Central Harbour
8.4 m.
5.0 m.
Ferry Harbour
13.5 m.
13.5 m.
Leading Lights
1001
Oil Harbour
1002
12.0 m.
1003
1004
1010
6.0 m.
1009
1008
1007
1006
9.0 m.
Leading Lights
9.0 m.
9.0 m.
6.0
8.0 m.
6.0 m.
Leading Lights
801
9.0 m.
Nordkajen
Industrial Harbour Basin 2
7.2 m.
901
Sydkajen
905
3.1 m.
Norra Varvsbassangen
25
Kockums Shipyard
9.2 m.
9.2 m.
Container Terminal
610
Free Port
7.5 m.
600
604
520
Hullkajen
505
New Harbour
Stockholmskajen
6.0
Ro-Ro
29
7.2 m.
Inner Harbour
7.2 m.
7.2 m.
9.0 m.
815
Basin 1
Jarnkajen
Kolkajen
7.2
810
MALMO
Hjalmarekajen
6.0 m.
Skeppsbron
Customs
Pilots
7.2 m.
305
404
Port Administration
Marshalling Yard

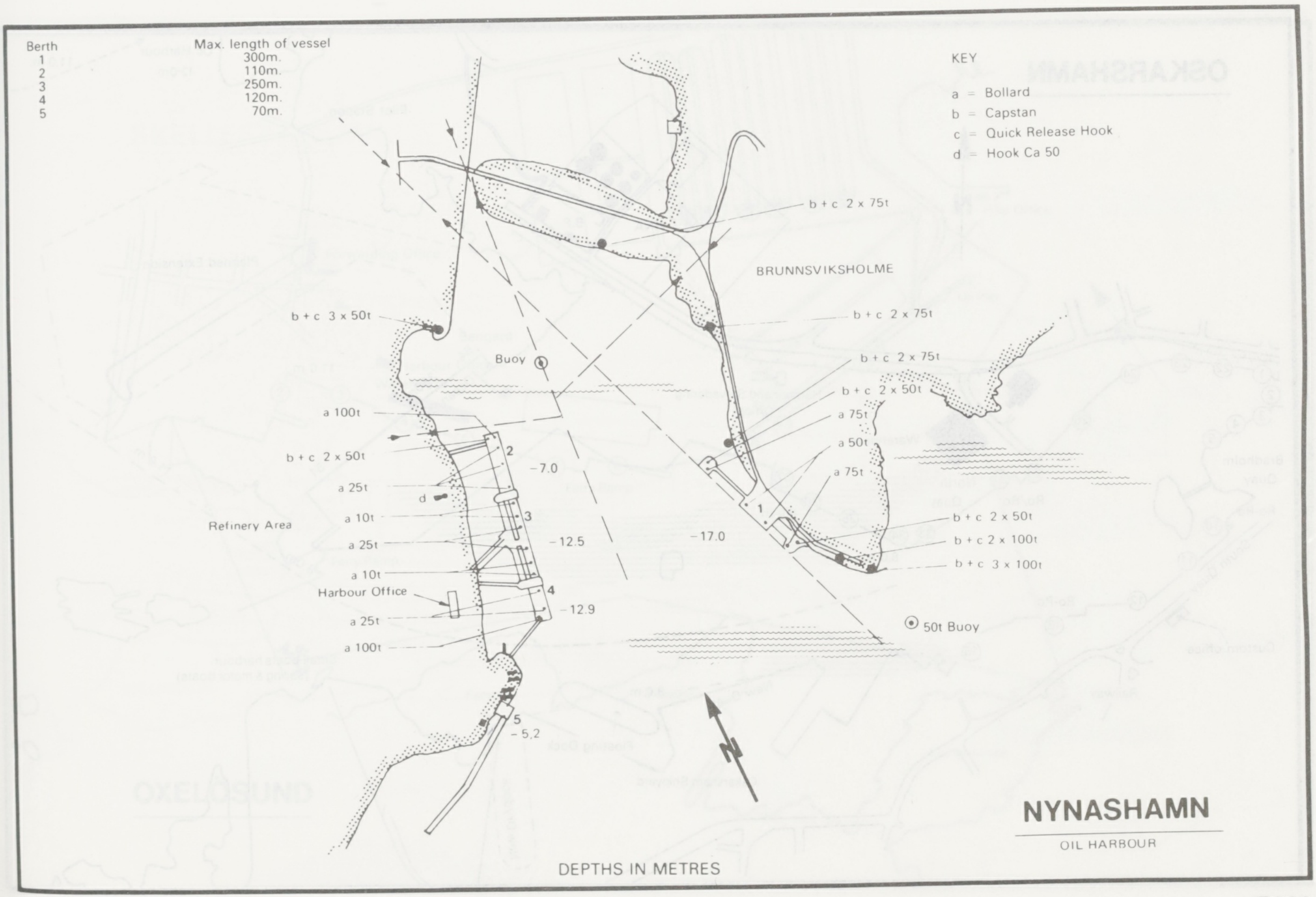

NORRKÖPING
-12 m.
Pampuskajen
Pampushamnen
9.5m
6m
LINDOKANALEN
LINDO
Marina
HANDELON
-5m
Ramshall
-8.5m
9m
MOTALA STROM
Tallbacken
ALHOLMEN
8m
Handelotron
-7m
Gastgivarehagen
Roll-on – Roll-off
Heavy Lift Crane
-9m
4m
Roll on
Roll off
Blixholmen
5m
Ohmanskajen
42
38
32
26
49
20
39
-8m
14
10
6
29
21
15
9
-7m
MOTALA STROM
-6m
-5m
Port Authority Office building and Harbour Master's Office
0
500
1000 m
SCALE


Handelon
NORRKOPING
PAMPUSHAMNEN
-6.0 m.
280 m.
Pampuskajen
General Cargo
Bulk Cargo
Oil Jetty
Pier 2
-7.5 m.
Oil Jetty
Pier 3
Oil Jetty
Pier 1
-12.0 m.
Lindokanalen -9.5 m.

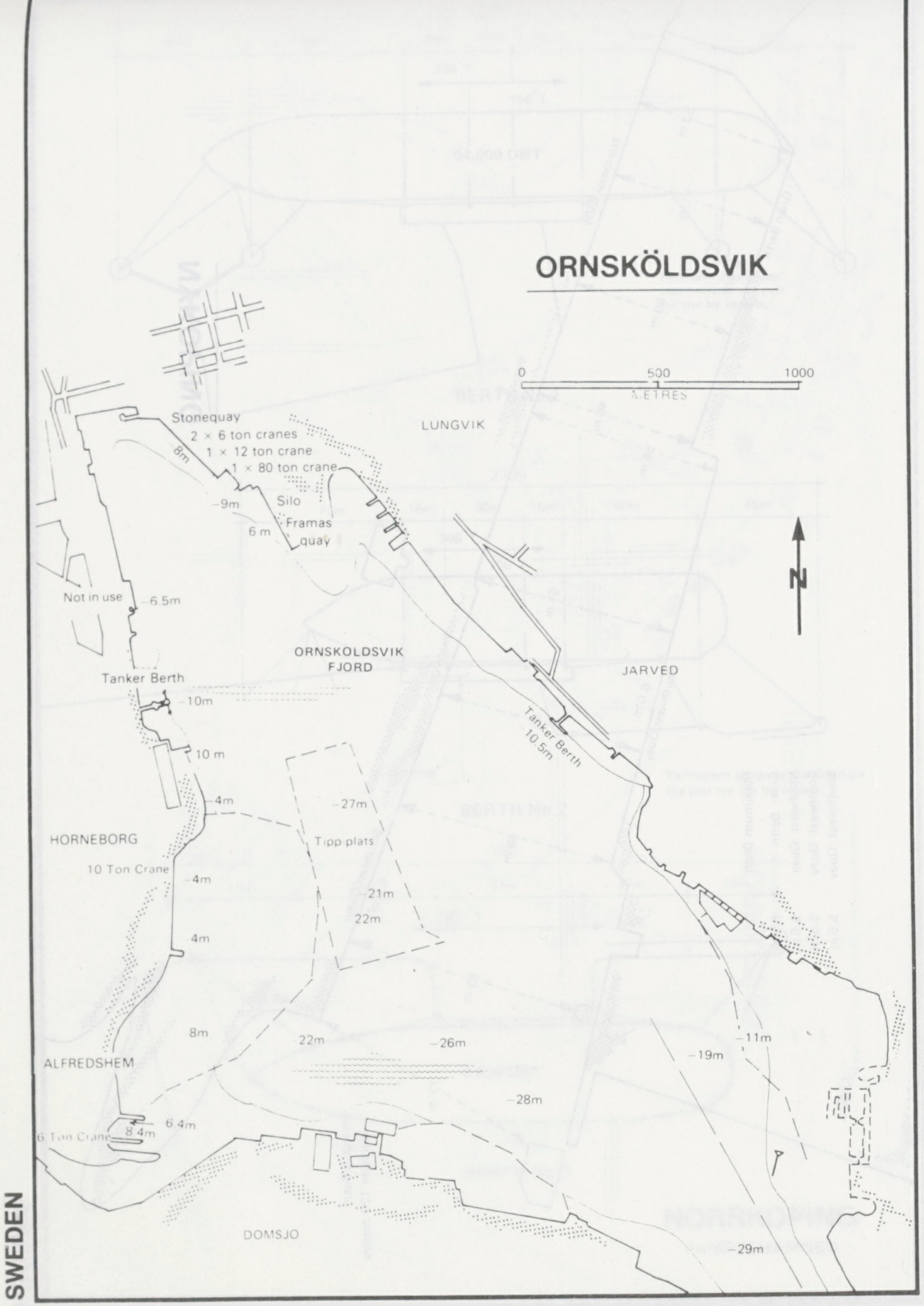

NORRKOPING
PAMPUSHAMNEN
BERTH No.3
5,000 DWT
301 T
121 T
17m
21m
31m
27m
23m
119m
BERTH No.2
Couplings
306 T
126 T
73m
16m
30m
16m
50m
45m
230m
Permanent gangway stationed on the pier for use by vessels.
BERTH No.1
64,000 DWT
336° T
156° T
50m
56m
25m
17m
25m
51m
48m
272m
Permanent gangway stationed on the pier for use by vessels.


NORRSUNDET
DEPTHS IN METRES
-8.6
-4.6
-3.6
-5.6
-4.9
GRANSKAR
Hallstrensoren
Dodmansskar
Ryttarharet
-2.7
-6.5
NORRSUNDET
Sulfatfabr
Sagverk
-3.4
-4.4
-4.2
-3.3
-6.4
-6.5
Norrsundet Inre
-3.0
-6.0
-2.4
-3.4
-3.9
FARHOLMEN
-9.9
SALTARSFJARDEN
Saltarsgrund
Sprallstenar
N
60°56'N
17° 12'E
Storharen

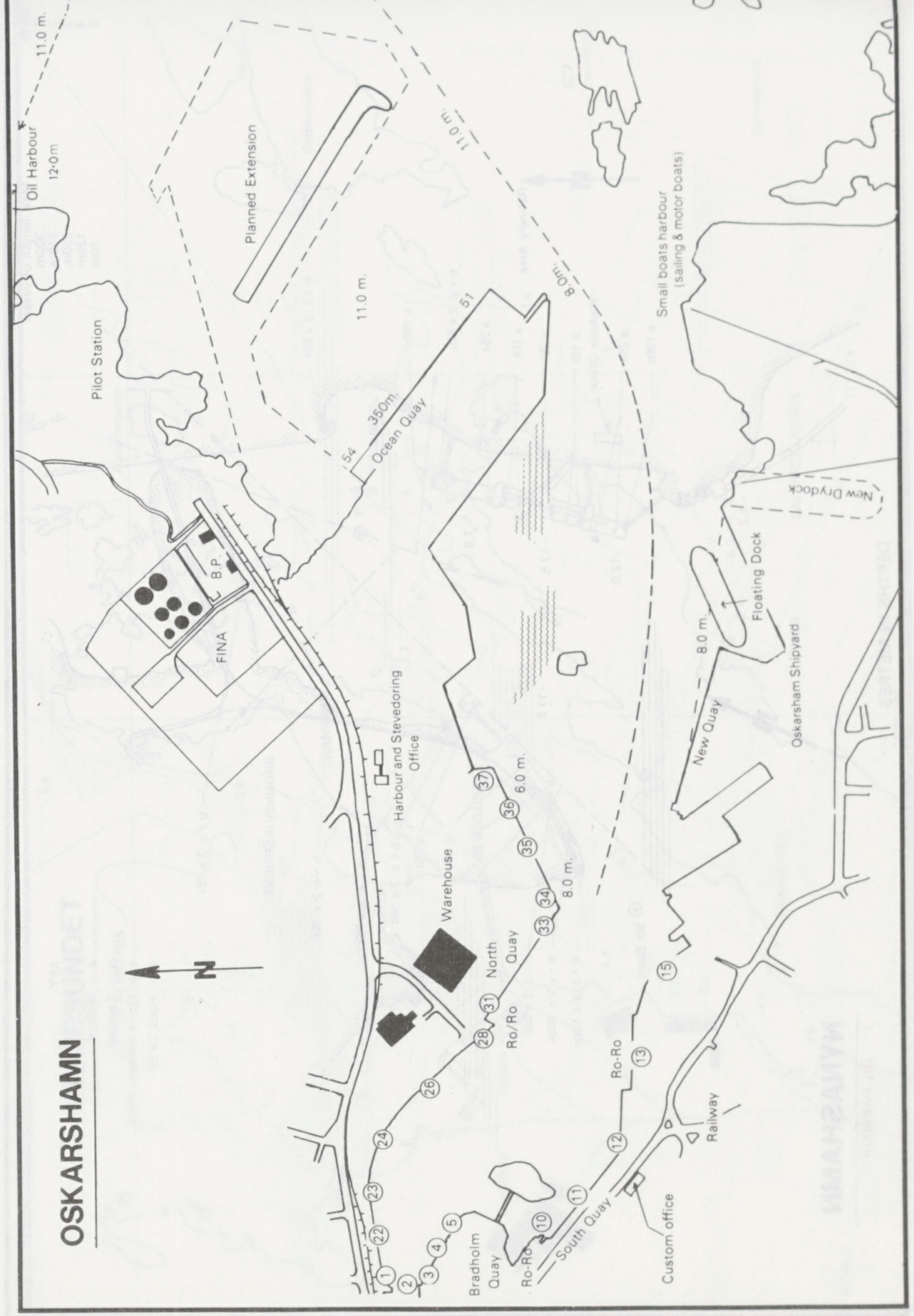

NYKOPING
Swinging Basin
diameter 120 metres
72 m
Southeast Quay
- 6.0 m.
63 m
69 m
65 m
61 m
46 m
56 m
Northeast Quay
50 m
51 m
52 m
- 6.0 m.
Southwest Quay
6.0 m.
Grain Berth
Maximum Draft
Grain Berth 5.5 m.
Northeast Quay 5.5 m.
Southeast Quay 5.5 m.
Southwest Quay 5.5 m.

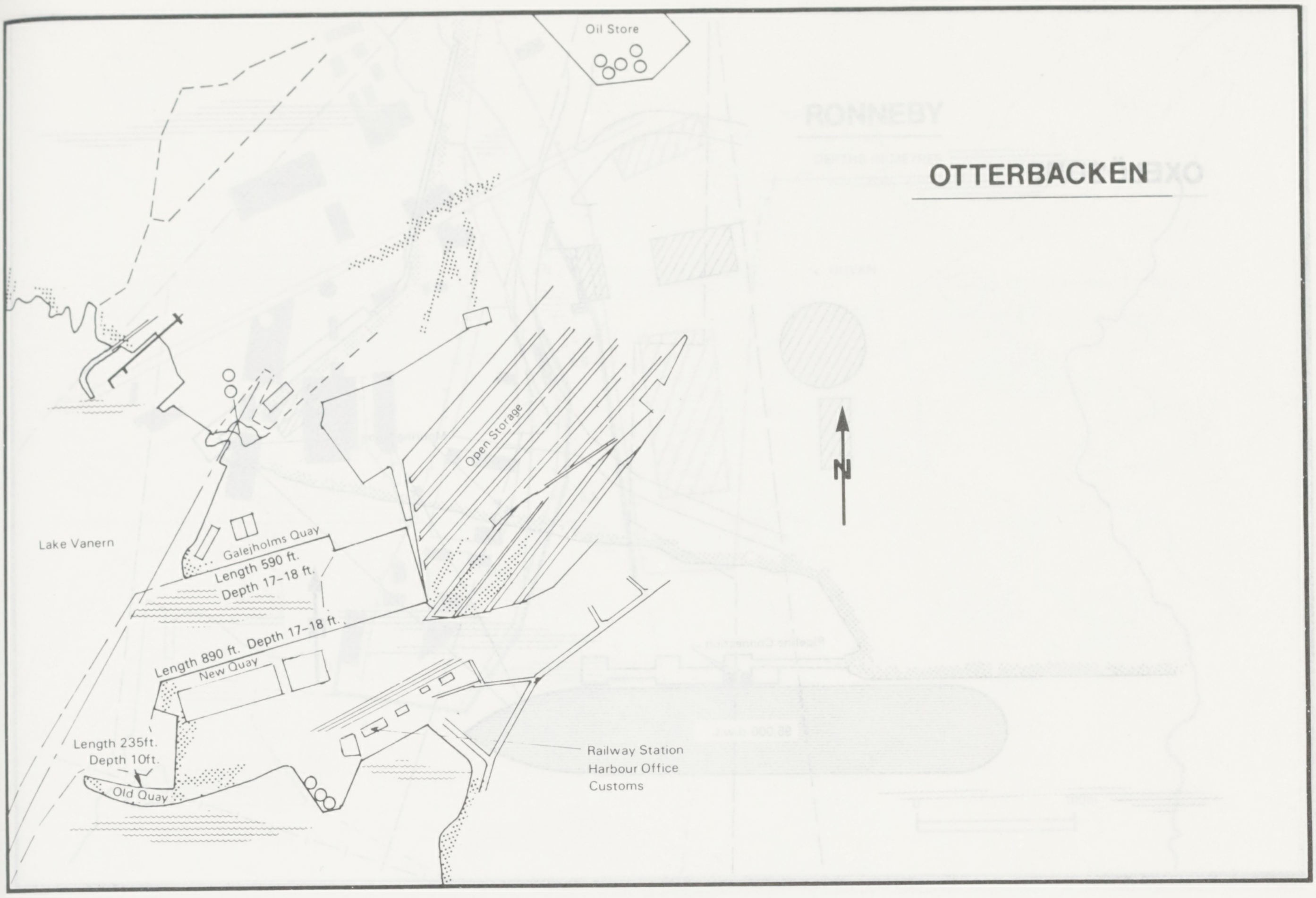

Berth Max. length of vessel
1 300m.
2 110m.
3 250m.
4 120m.
5 70m.
KEY
a = Bollard
b = Capstan
c = Quick Release Hook
d = Hook Ca 50
b + c 2 x 75t
BRUNNSVIKSHOLME
b + c 3 x 50t
b + c 2 x 75t
b + c 2 x 75t
Buoy
b + c 2 x 50t
a 75t
a 100t
a 50t
b + c 2 x 50t
a 75t
2
- 7.0
a 25t
d
3
a 10t
Refinery Area
1
- 12.5
- 17.0
a 25t
b + c 2 x 50t
b + c 2 x 100t
b + c 3 x 100t
a 10t
Harbour Office
4
- 12.9
a 25t
50t Buoy
a 100t
5
- 5,2
N
NYNASHAMN
OIL HARBOUR
DEPTHS IN METRES

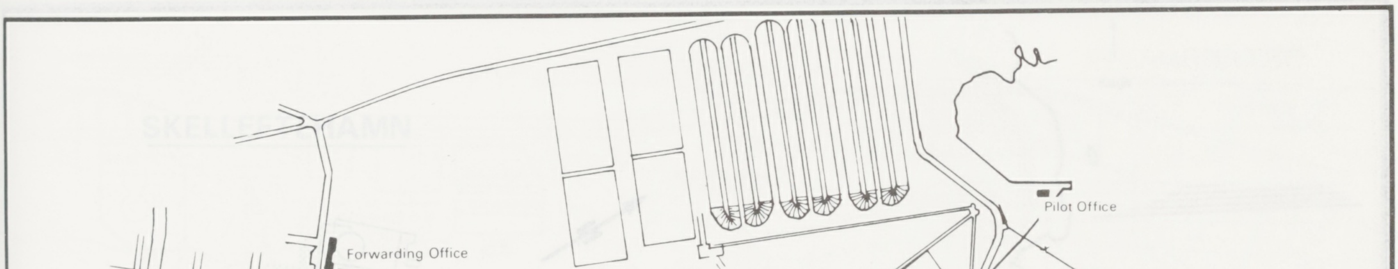
ORNSKÖLDSVIK

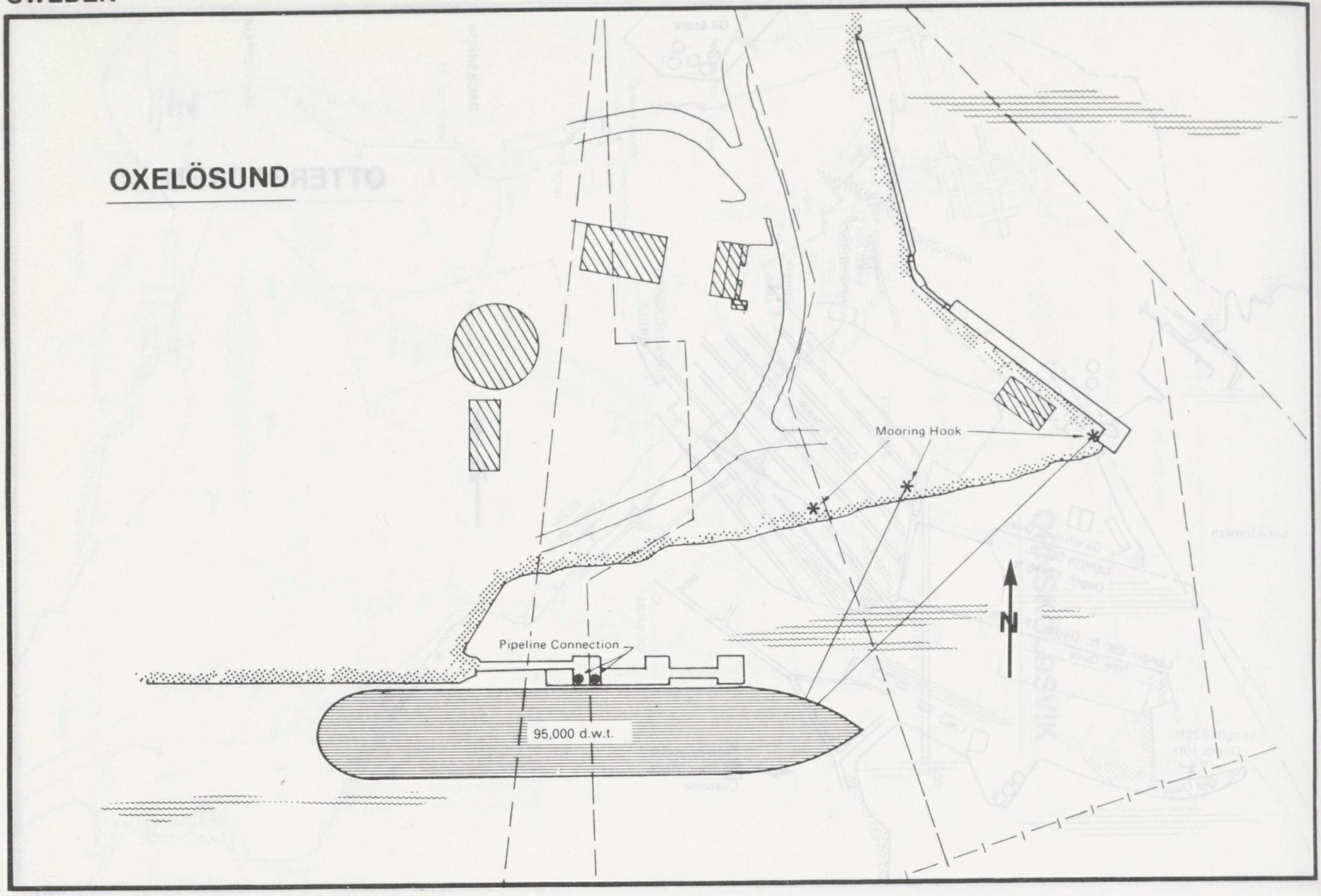

0
500
1000
METRES
N
LUNGVIK
Stonequay
2 × 6 ton cranes
1 × 12 ton crane
1 × 80 ton crane
8m
-9m
Silo
Framas quay
6 m
Not in use
-6.5m
ORNSKOLDSVIK FJORD
JARVED
Tanker Berth
-10m
Tanker Berth 10.5m
10 m
-4m
-27m
Tipp-plats
HORNEBORG
10 Ton Crane
-4m
-21m
22m
4m
8m
22m
-26m
-11m
-19m
ALFREDSHEM
-28m
6.4m
8.4m
6 Ton Crane
DOMSJO
-29m

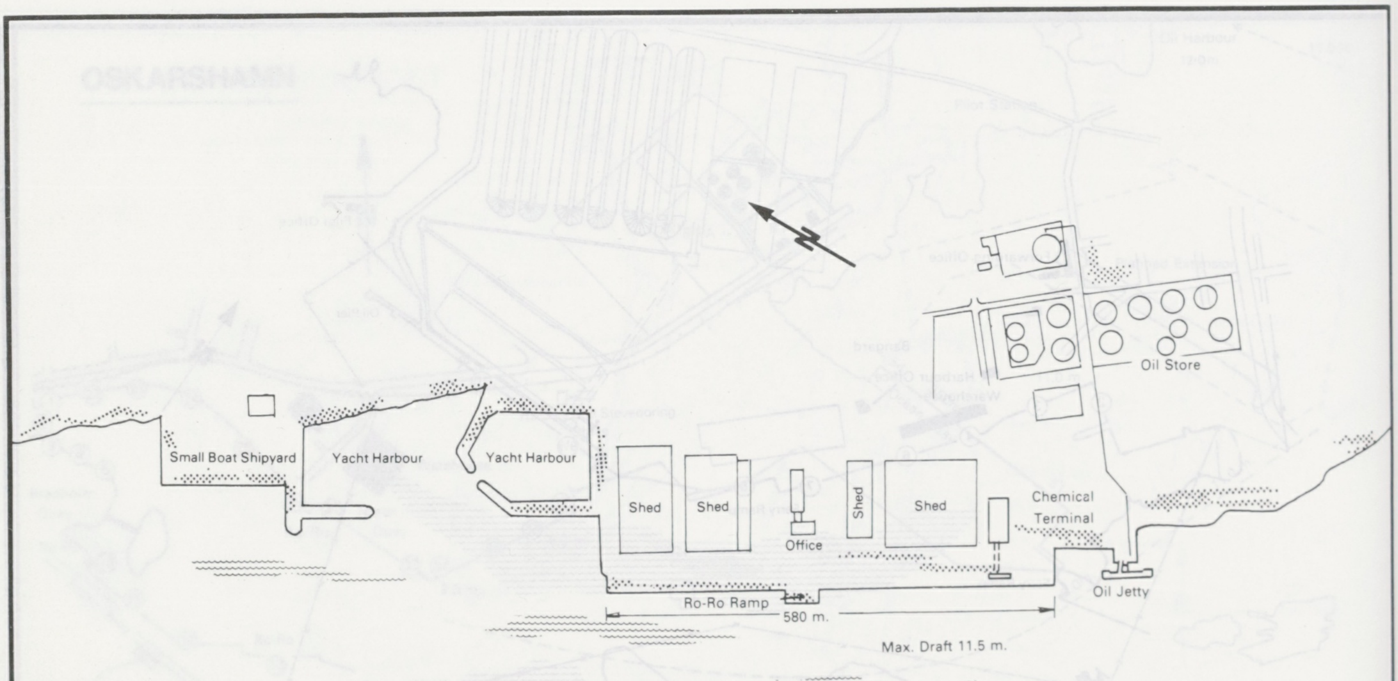
OSKARSHAMN


11.0 m.
Oil Harbour
12·0m
Planned Extension
11.0 m.
11.0 m.
Pilot Station
51
8.0m.
Small boats harbour (sailing & motor boats)
54
350m.
Ocean Quay
B.P.
FINA
New Drydock
Floating Dock
8.0 m.
N
Harbour and Stevedoring Office
37
6.0 m.
36
35
8.0 m.
34
33
New Quay
Oskarsham Shipyard
Warehouse
North Quay
31
Ro/Ro
28
26
15
13
Ro-Ro
24
23
22
12
Railway
1
2
3
4
5
Bradholm Quay
Ro-Ro
10
11
South Quay
Custom office

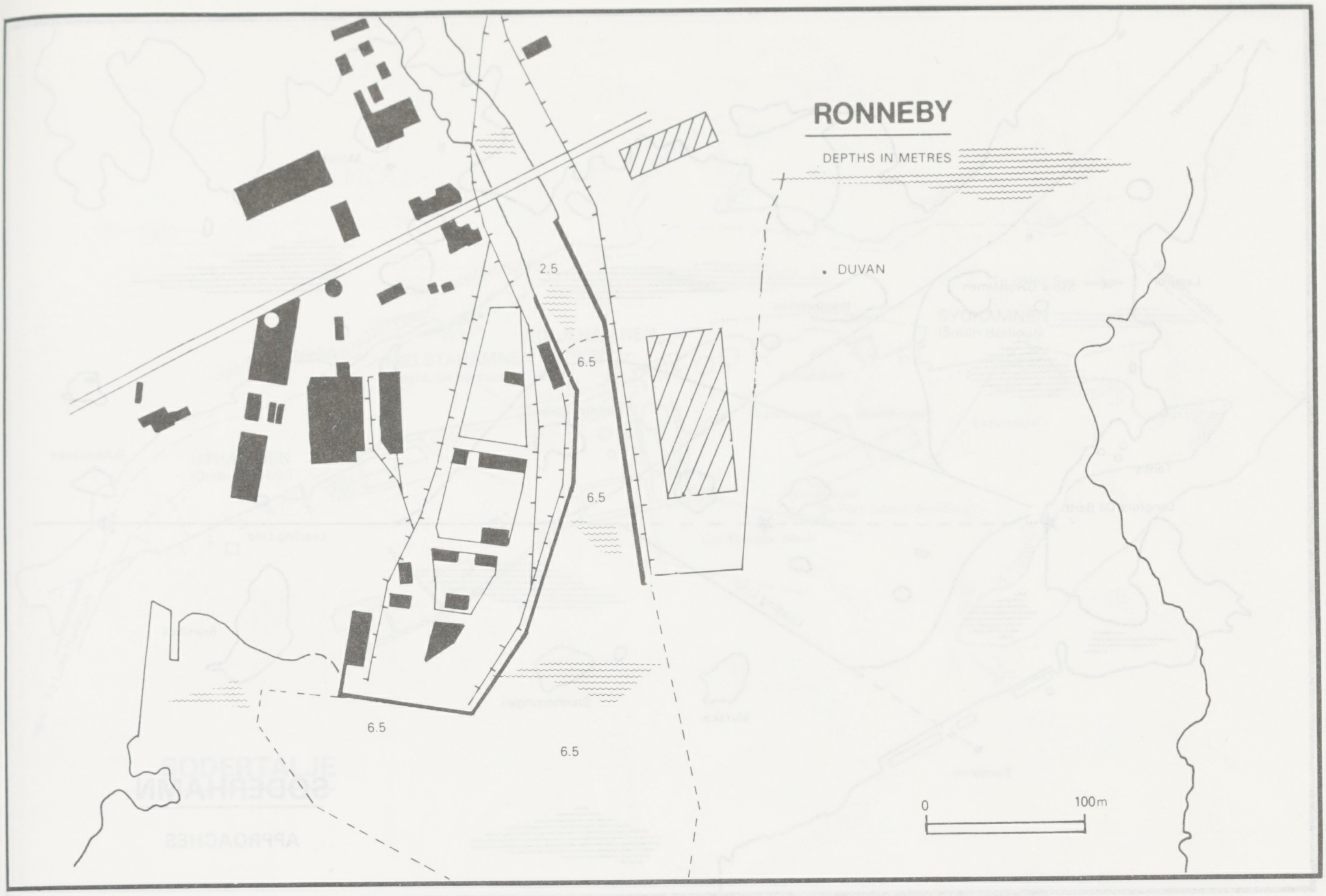

OTTERBACKEN
Oil Store
Open Storage
N
Lake Vanern
Galejholms Quay
Length 590 ft.
Depth 17–18 ft.
Length 890 ft. Depth 17–18 ft.
New Quay
Length 235ft.
Depth 10ft.
Old Quay
Railway Station
Harbour Office
Customs


OXELÖSUND
Forwarding Office
Pilot Office
Oil Pier
N
Bangard
Harbour Office
Warehouse
②
③
④
⑥
⑦
⑧
⑩
9½
Ferry Ramp
Ferry Ramp
Femore
Ekudden
Ljungholmen

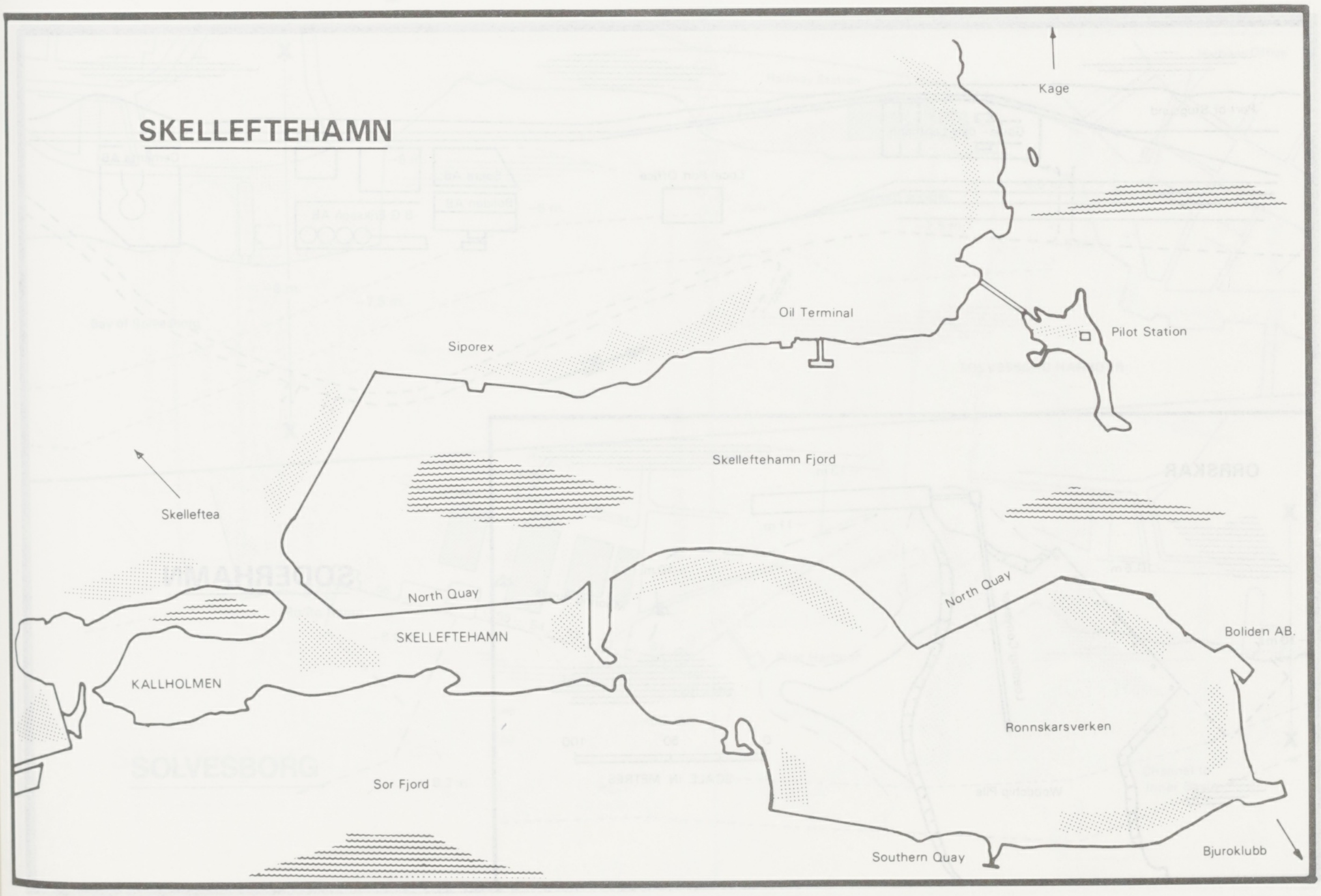

OXELÖSUND
Mooring Hook
Pipeline Connection
95,000 d.w.t.
N

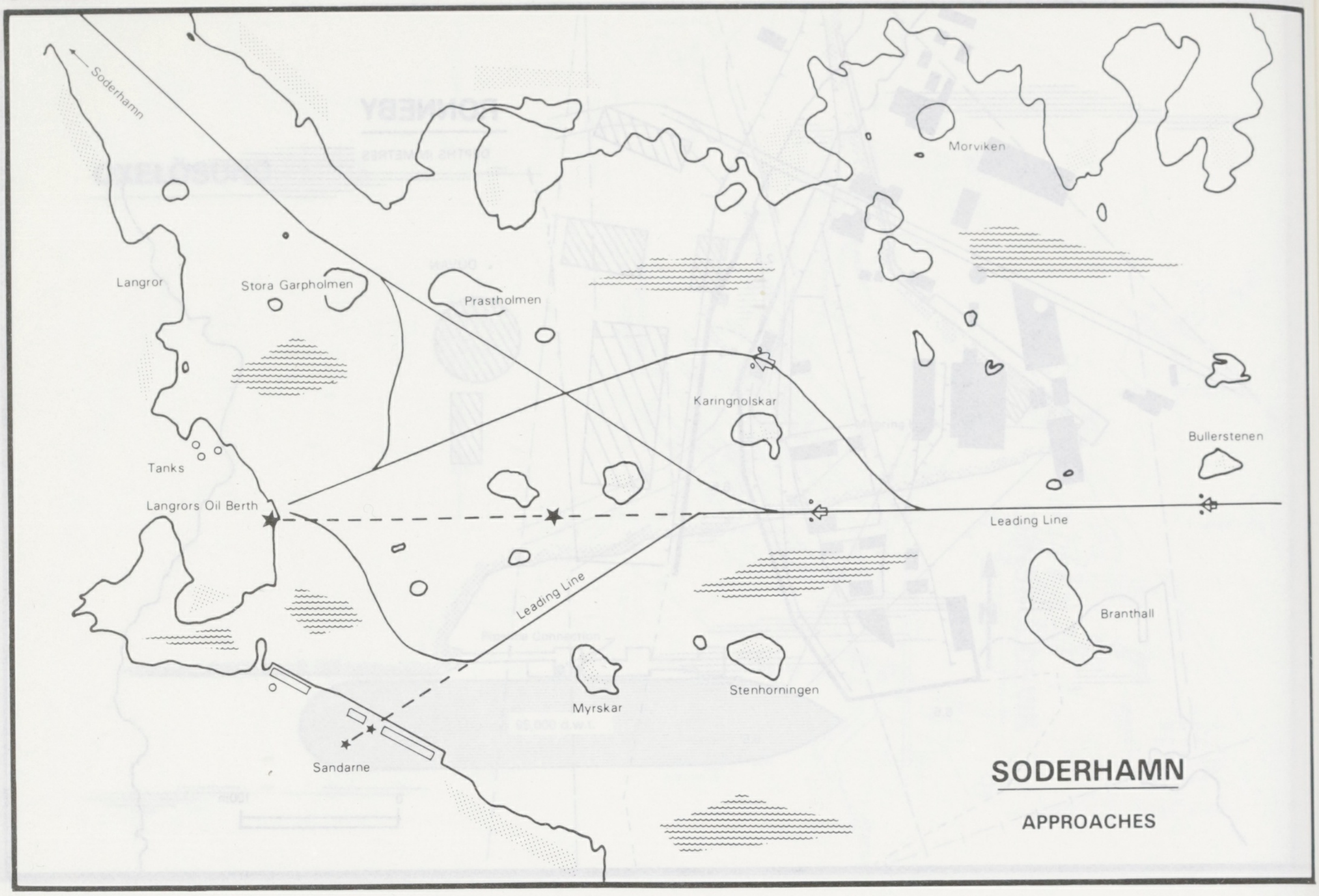

Small Boat Shipyard
Yacht Harbour
Yacht Harbour
Shed
Shed
Office
Shed
Shed
Chemical Terminal
Oil Store
Oil Jetty
Ro-Ro Ramp
580 m.
Max. Draft 11.5 m.
N
PITEA
HARAHOLMEN

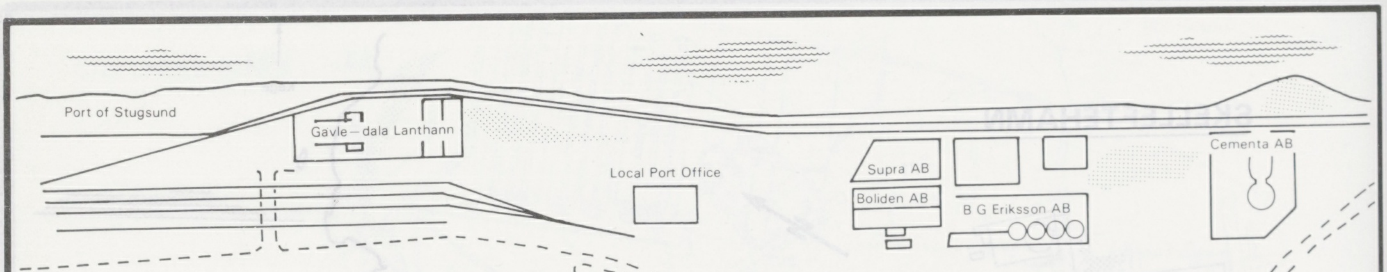
RONNEBY

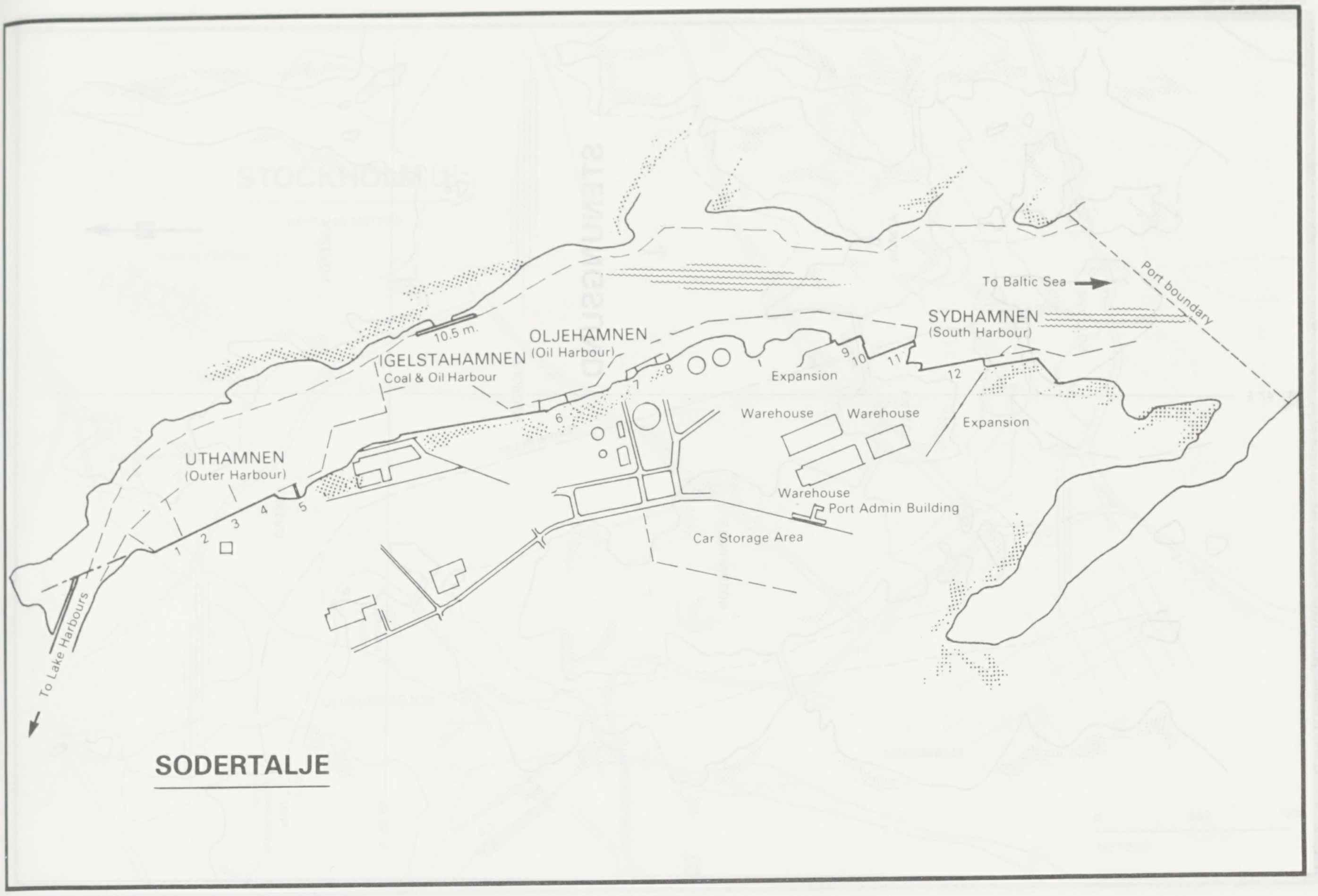

DEPTHS IN METRES
DUVAN
2.5
6.5
6.5
6.5
6.5
0
100m

SKELLEFTEHAMN


Kage
Oil Terminal
Pilot Station
Siporex
Skelleftehamn Fjord
Skelleftea
North Quay
North Quay
SKELLEFTEHAMN
KALLHOLMEN
Boliden AB.
Ronnskarsverken
Sor Fjord
Southern Quay
Bjuroklubb

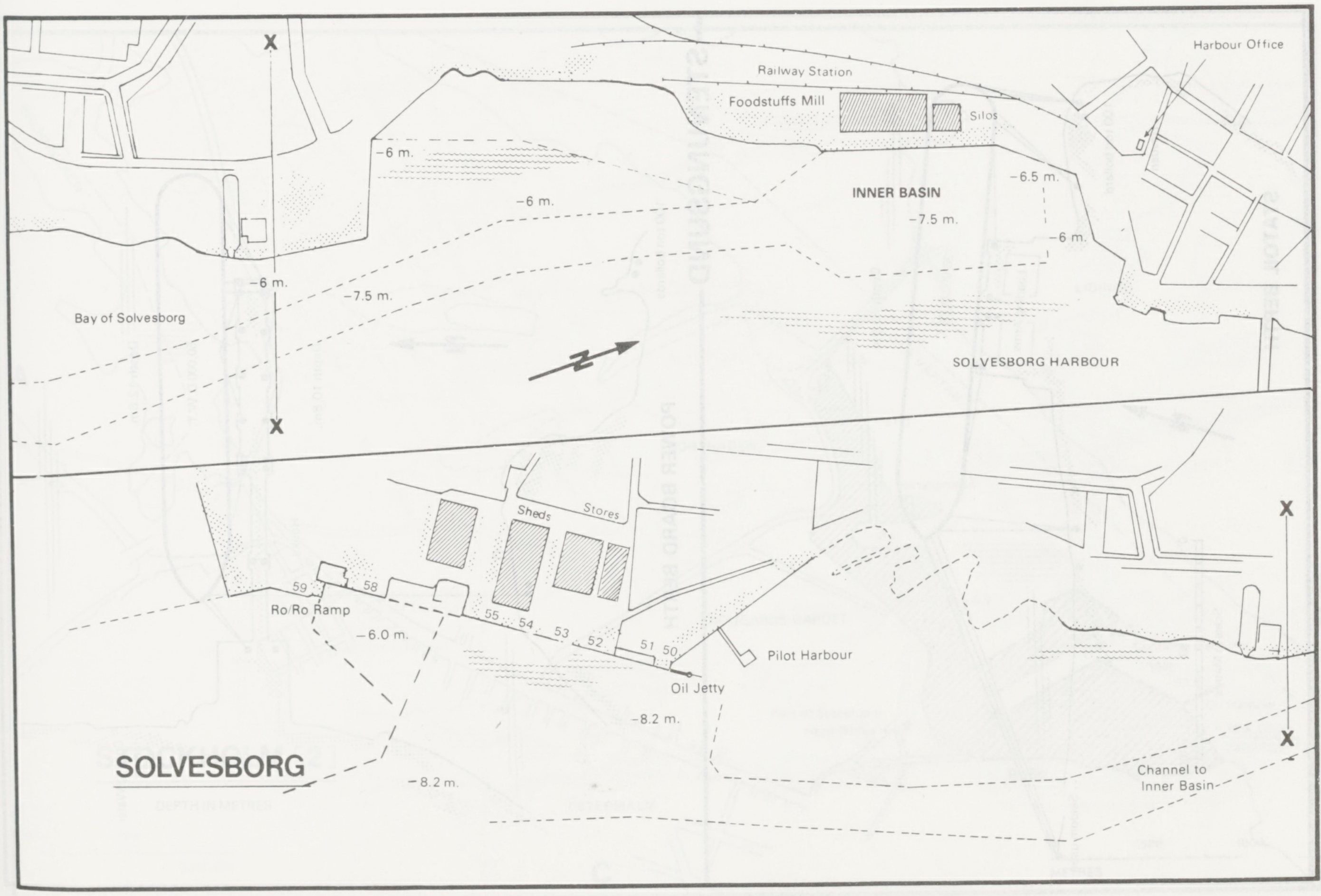

Soderhamn
Langror
Stora Garpholmen
Prastholmen
Morviken
Karingnolskar
Bullerstenen
Tanks
Langrors Oil Berth
Leading Line
Leading Line
Branthall
Myrskar
Stenhorningen
Sandarne
SODERHAMN
APPROACHES


Port of Stugsund
Gavle – dala Lanthann
Local Port Office
Supra AB
Boliden AB
B G Eriksson AB
Cementa AB
SODERHAMN
ORRSKAR
– 13 m.
– 11 m.
– 10.5 m.
– 10 m.
– 10 m.
Mooring Buoys
Loading Conveyor
Woodchip Pile
0
50
100
SCALE IN METRES



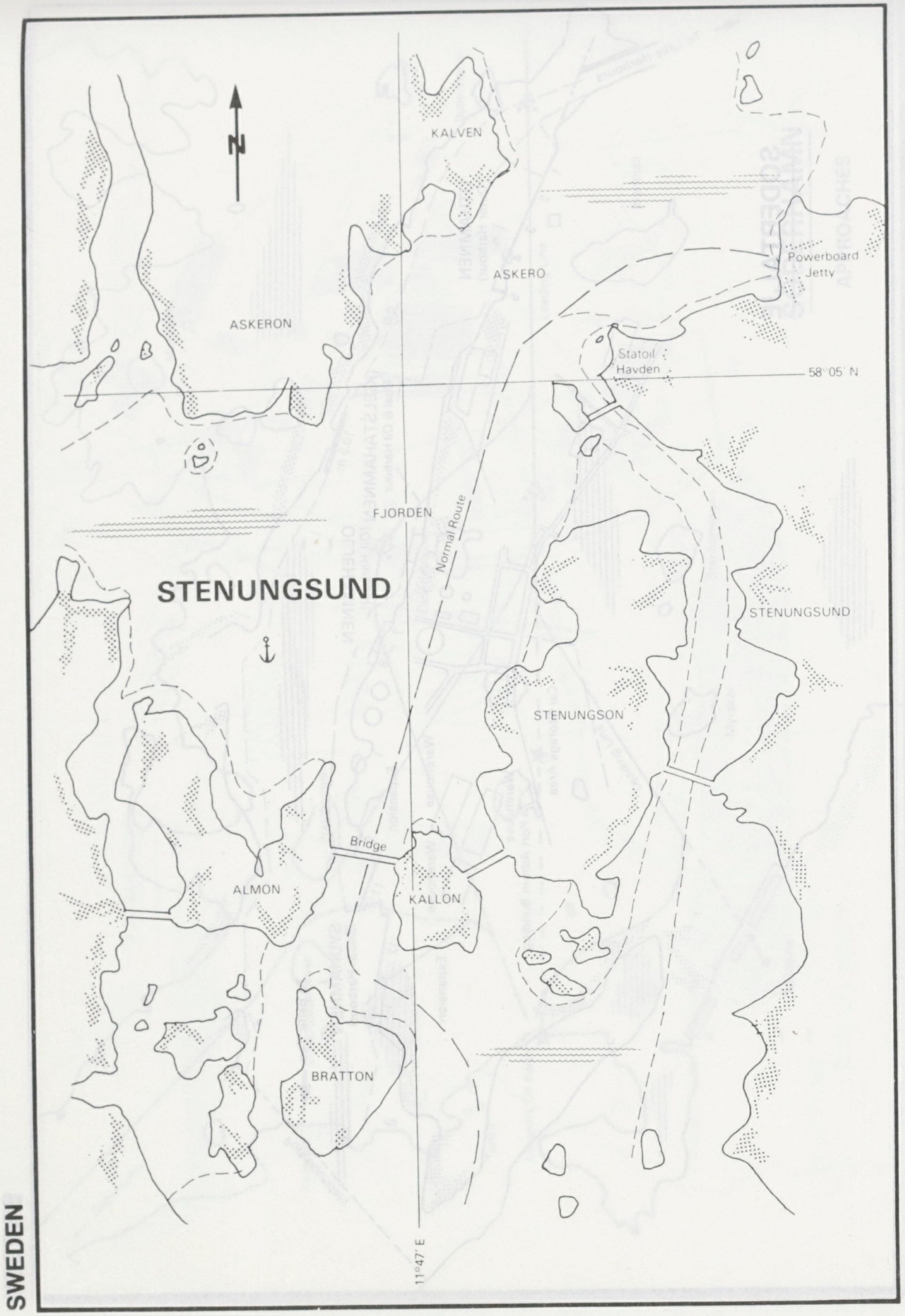
SODERTALJE

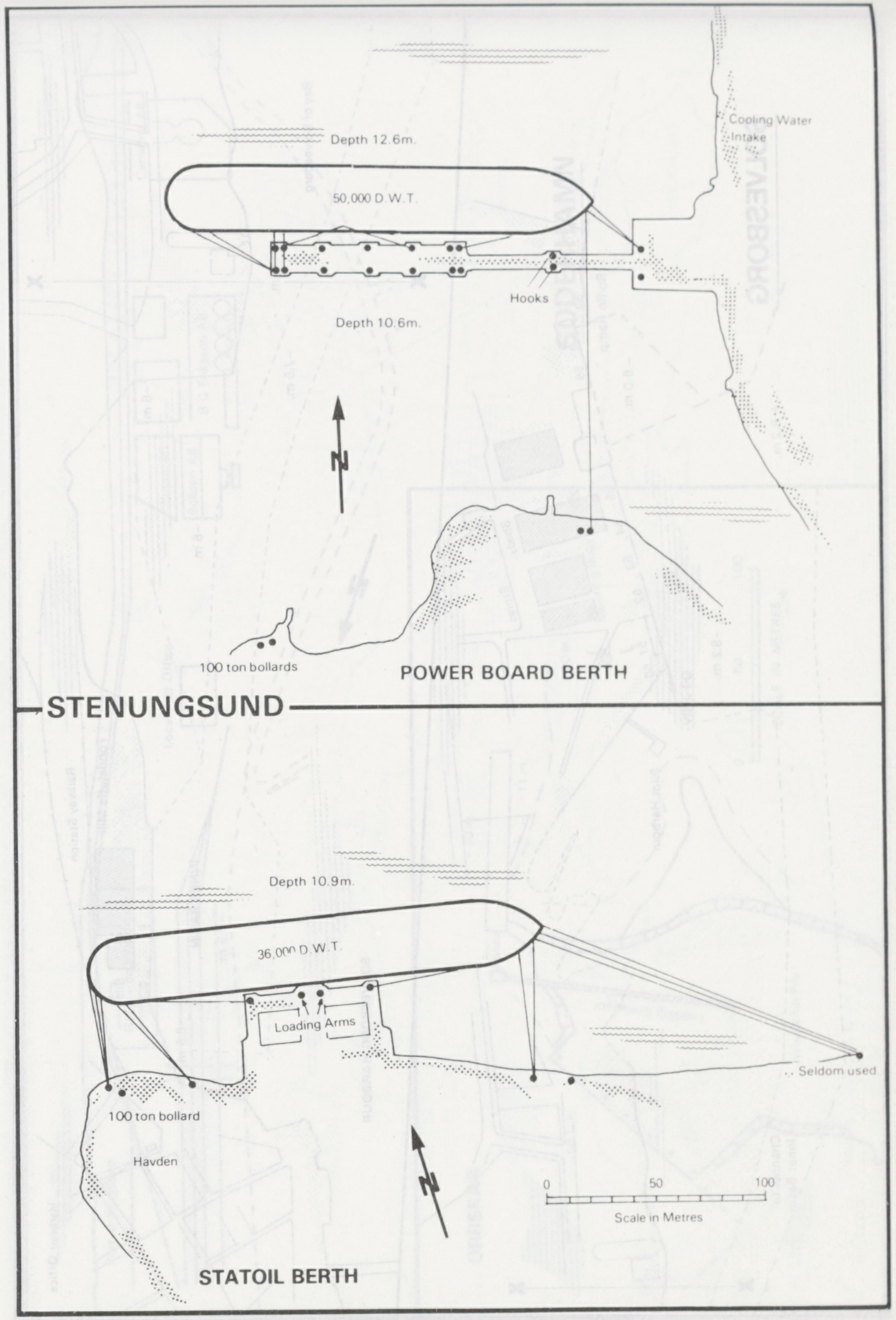
To Baltic Sea
Port boundary
SYDHAMNEN
(South Harbour)
OLJEHAMNEN
(Oil Harbour)
10.5 m.
IGELSTAHAMNEN
Coal & Oil Harbour
UTHAMNEN
(Outer Harbour)
1
2
3
4
5
6
7
8
9
10
11
12
Expansion
Expansion
Warehouse
Warehouse
Warehouse
Port Admin Building
Car Storage Area
To Lake Harbours

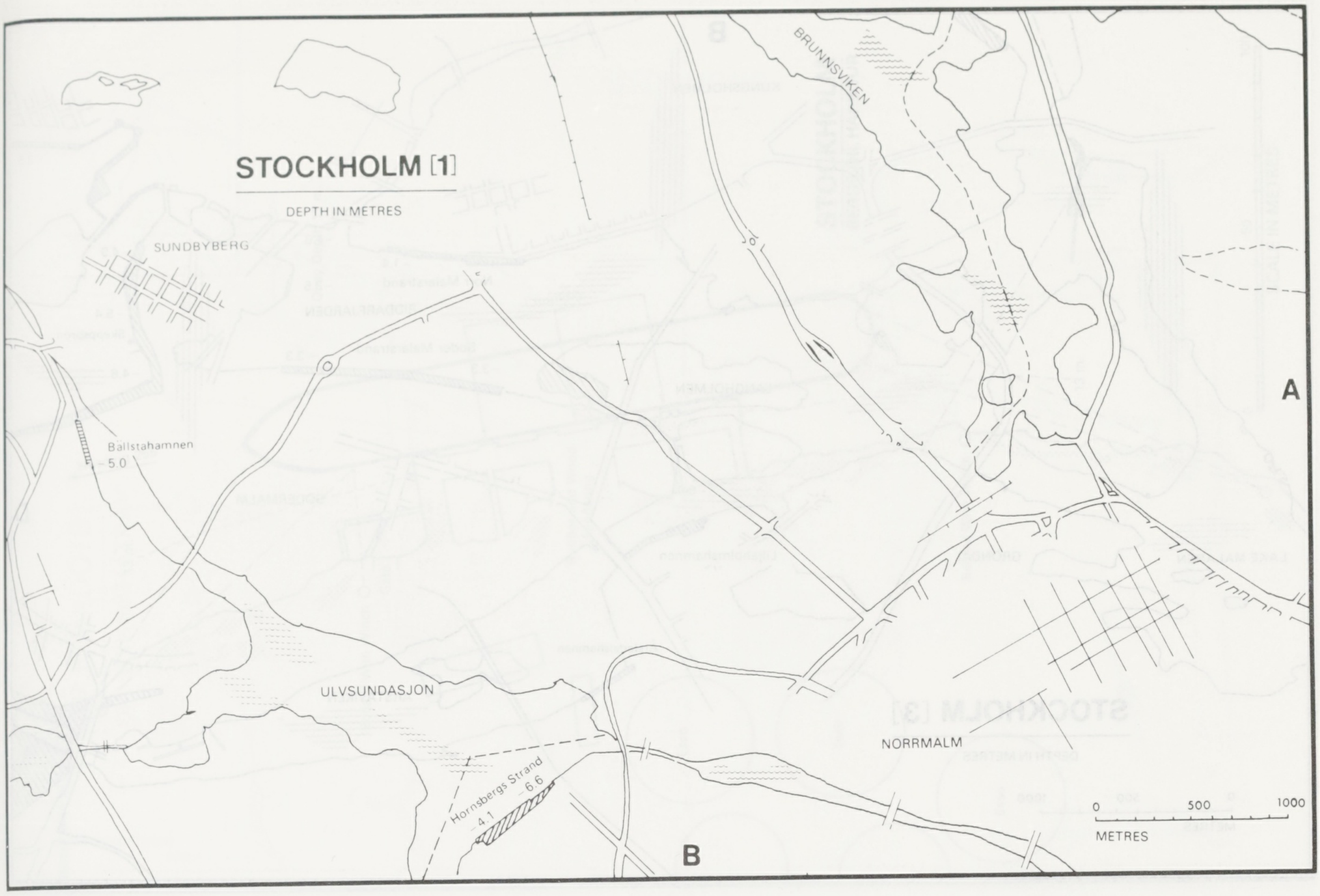


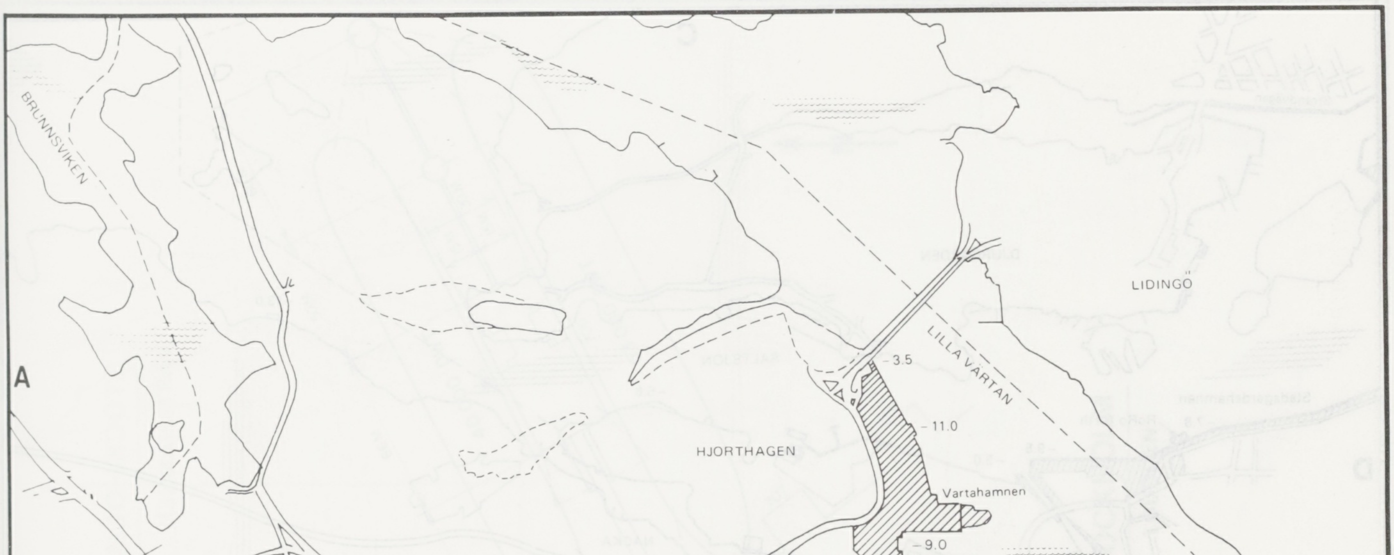
SOLVESBORG

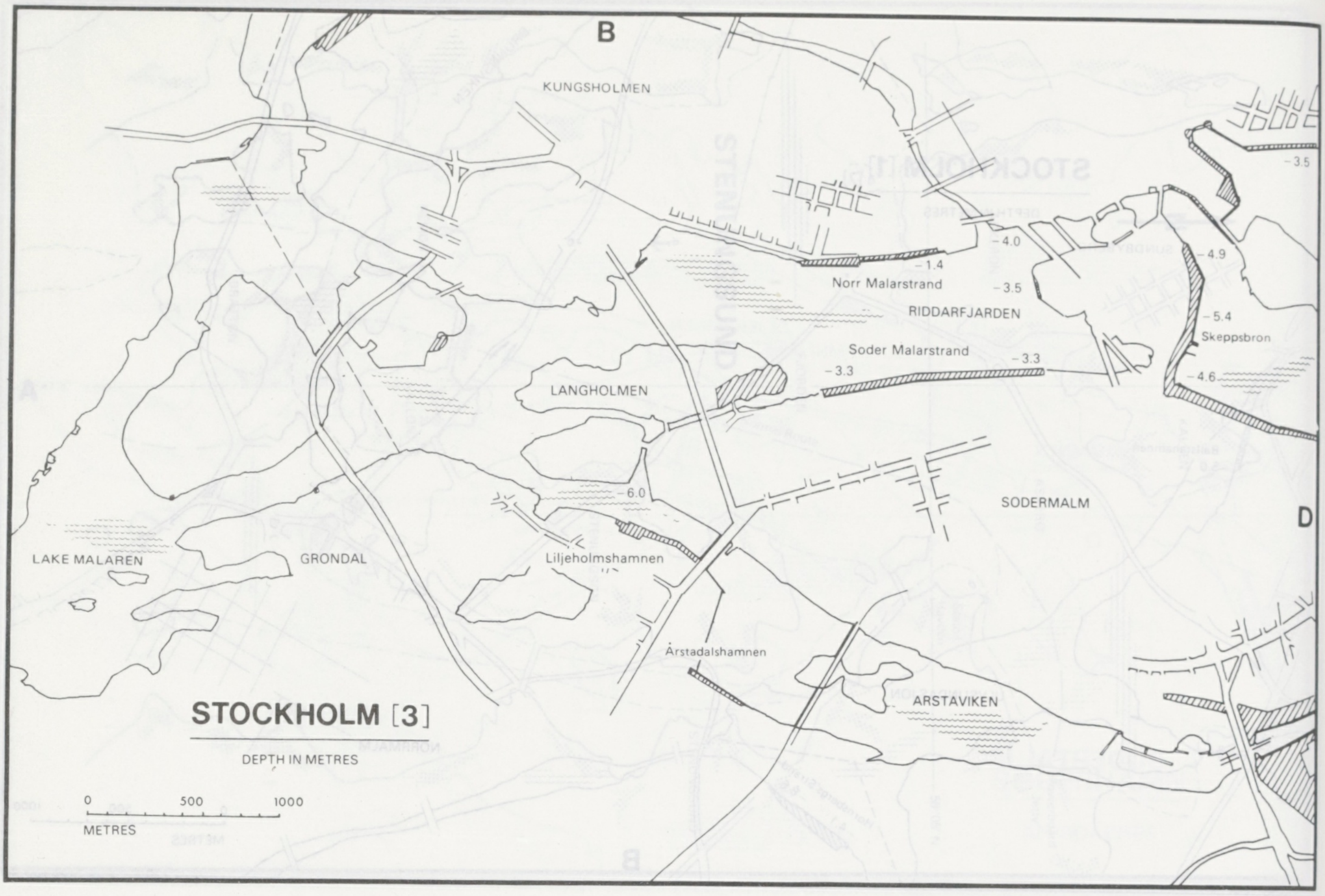
X
X
Harbour Office
Railway Station
Foodstuffs Mill
Silos
-6 m.
-6 m.
INNER BASIN
-6.5 m.
-7.5 m.
-6 m.
-6 m.
-7.5 m.
Bay of Solvesborg
SOLVESBORG HARBOUR
X
X
Sheds
Stores
59
58
Ro/Ro Ramp
-6.0 m.
55
54
53
52
51
50
Pilot Harbour
Oil Jetty
-8.2 m.
-8.2 m.
Channel to Inner Basin

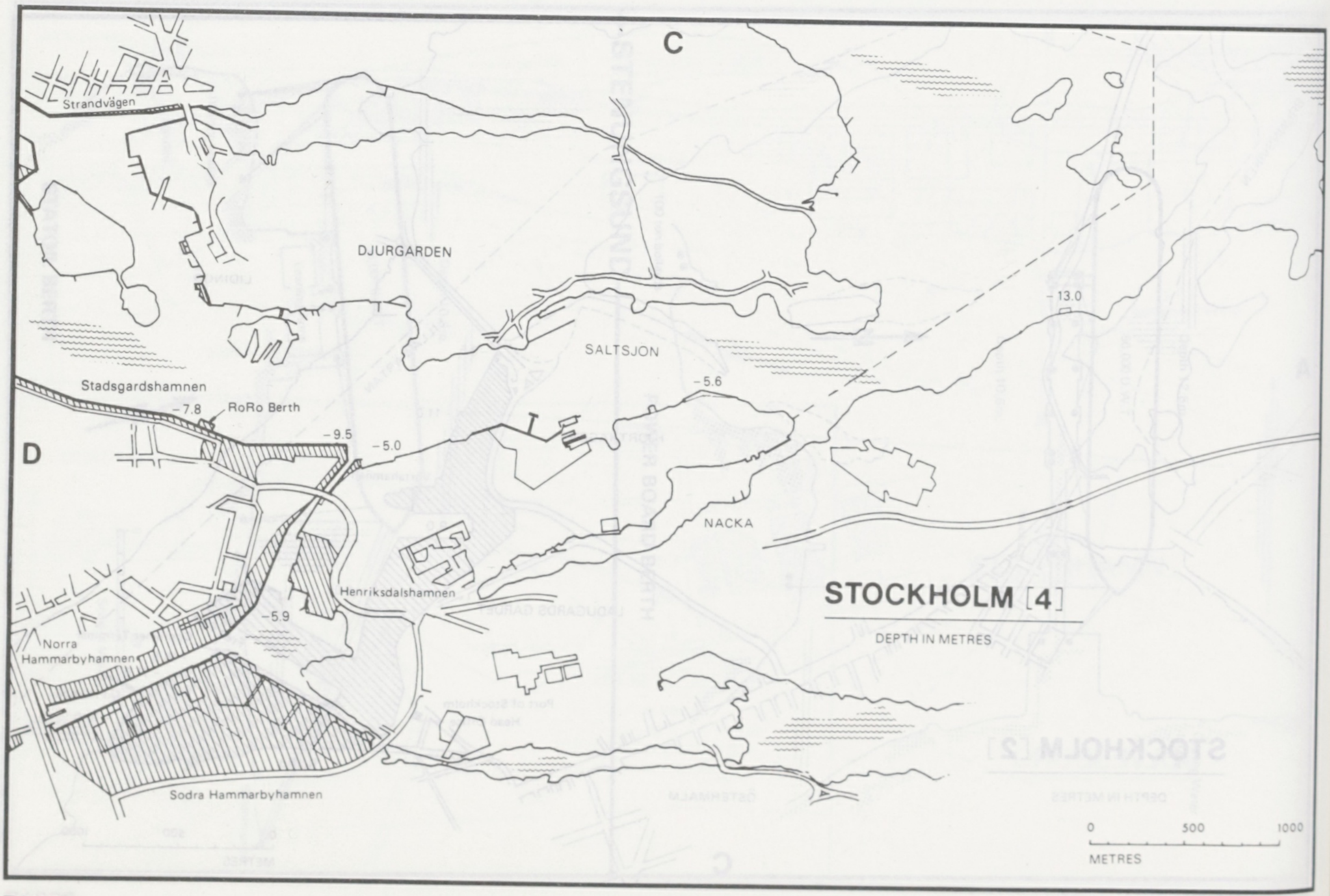

KALVEN
ASKERO
Powerboard Jetty
ASKERON
Statoil Havden
58°05' N
FJORDEN
Normal Route
STENUNGSUND
STENUNGSUND
STENUNGSON
Bridge
ALMON
KALLON
BRATTON
11°47' E

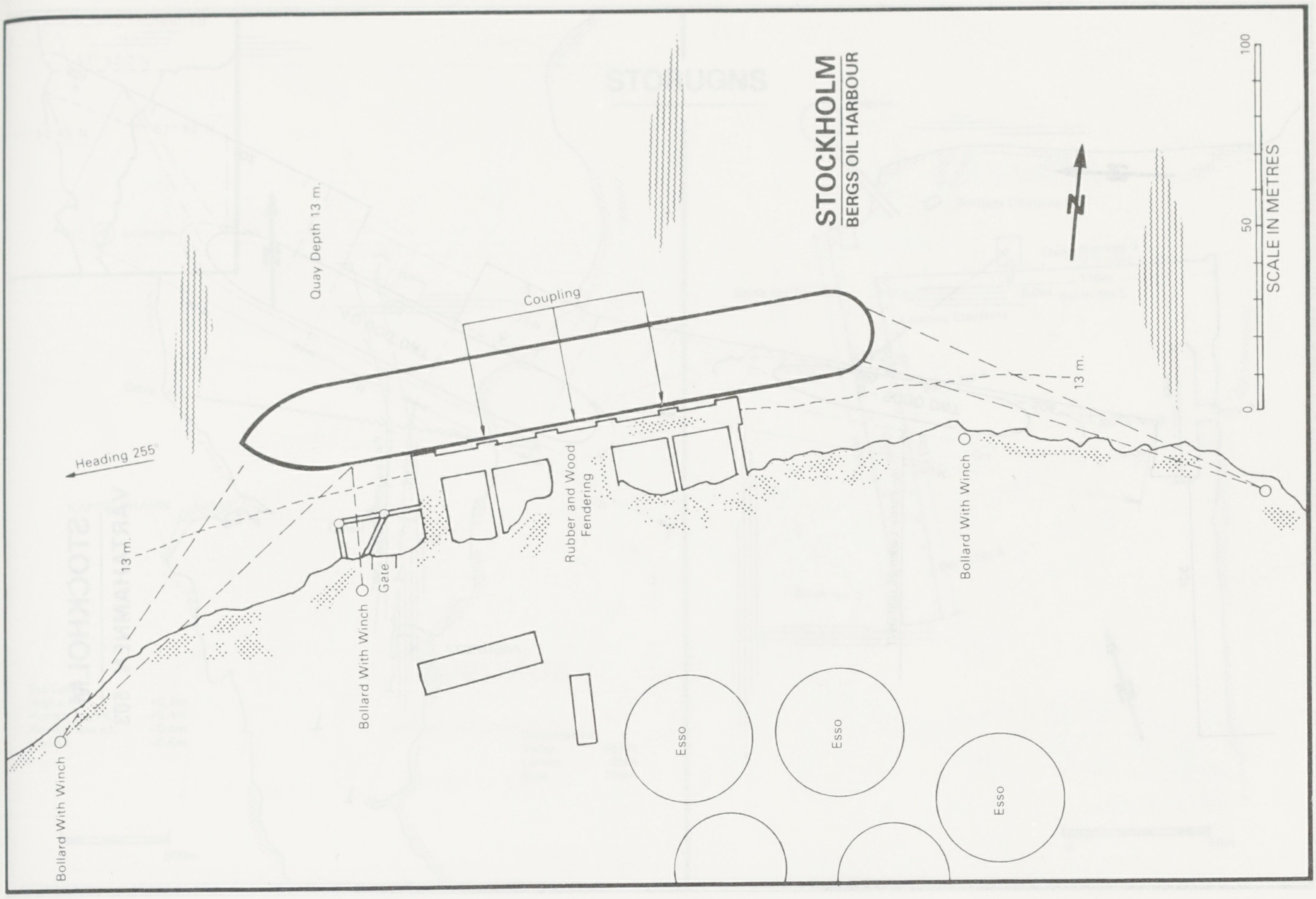

Depth 12.6m.
50,000 D.W.T.
Cooling Water Intake
Hooks
Depth 10.6m.
100 ton bollards
POWER BOARD BERTH
STENUNGSUND
Depth 10.9m.
36,000 D.W.T.
Loading Arms
Seldom used
100 ton bollard
Havden
0
50
100
Scale in Metres
STATOIL BERTH


STOCKHOLM [1]
DEPTH IN METRES
SUNDBYBERG
BRUNNSVIKEN
Ballstahamnen
–5.0
ULVSUNDASJON
Hornsbergs Strand
–6.6
–4.1
NORRMALM
A
B
0
500
1000
METRES


BRUNNSVIKEN
A
LIDINGÖ
–3.5
LILLA VARTAN
–11.0
HJORTHAGEN
Vartahamnen
–9.0
–6.0
LADUGARDS GARDET
Free Port
Container Terminal
–10.9
–11.9
Oil Harbour
–10.9
Port of Stockholm Head Office
Ro/Ro
STOCKHOLM [2]
DEPTH IN METRES
ÖSTERMALM
C
0
500
1000
METRES

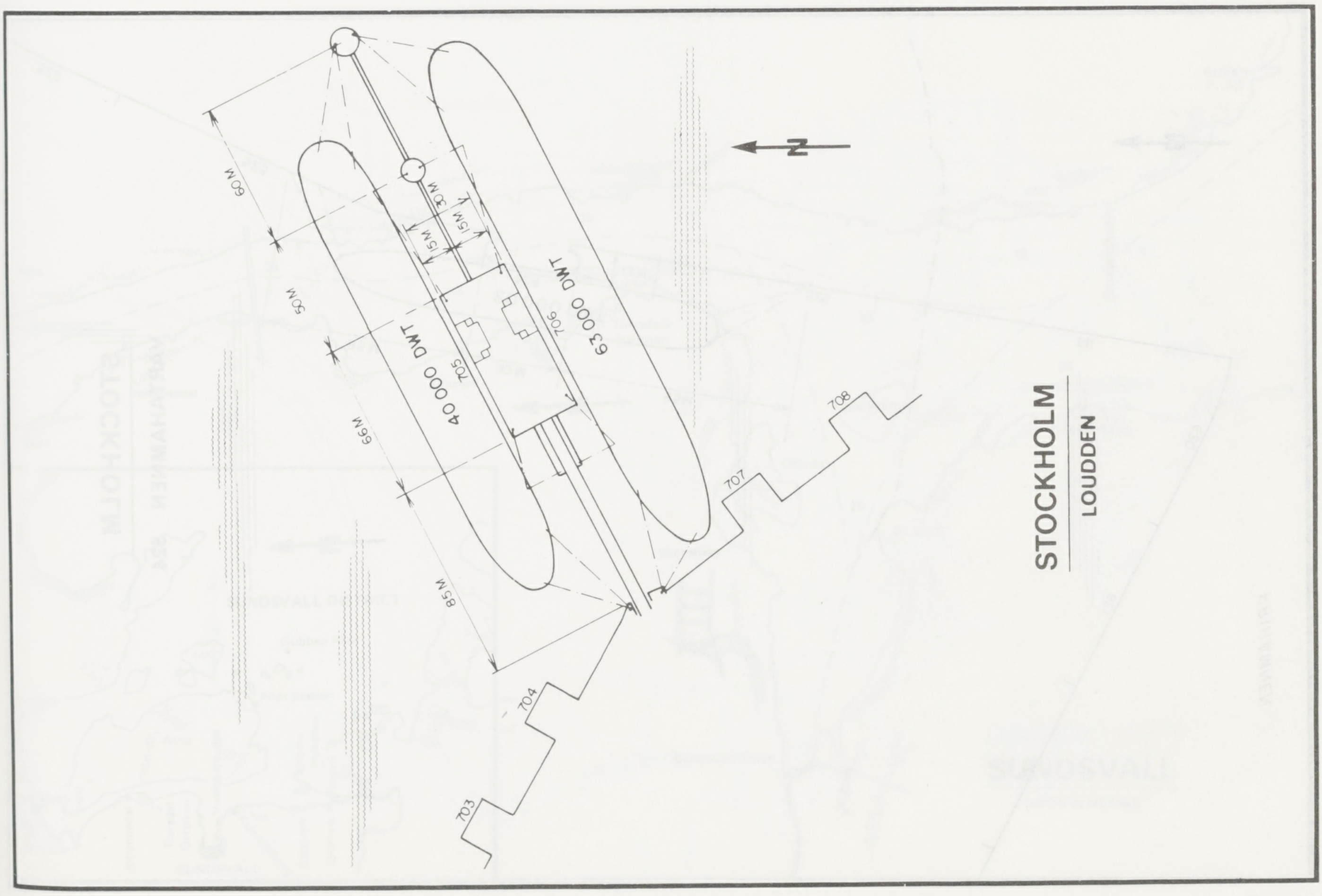

B
KUNGSHOLMEN
–3.5
–4.0
–1.4
Norr Malarstrand
–3.5
RIDDARFJARDEN
–4.9
–5.4
Skeppsbron
–4.6
Soder Malarstrand
–3.3
–3.3
LANGHOLMEN
–6.0
SODERMALM
D
LAKE MALAREN
GRONDAL
Liljeholmshamnen
Årstadalshamnen
ARSTAVIKEN
STOCKHOLM [3]
DEPTH IN METRES
0
500
1000
METRES


C
Strandvägen
DJURGARDEN
SALTSJON
–13.0
Stadsgardshamnen
–7.8
RoRo Berth
–5.6
–9.5
–5.0
D
NACKA
Henriksdalshamnen
–5.9
Norra Hammarbyhamnen
Sodra Hammarbyhamnen
STOCKHOLM [4]
DEPTH IN METRES
0
500
1000
METRES



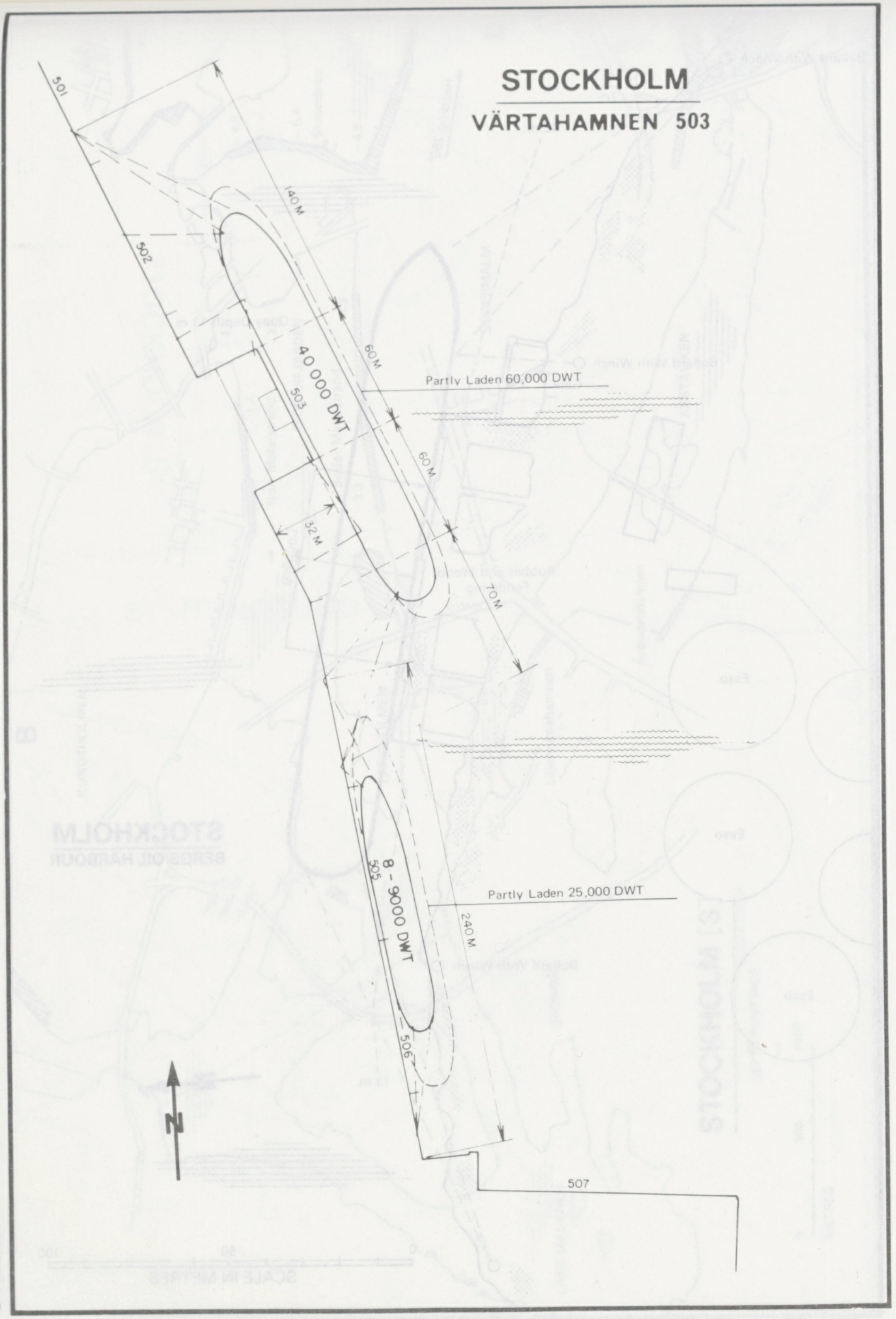
STOCKHOLM
BERGS OIL HARBOUR

Coupling
Quay Depth 13 m.
Heading 255°
13 m.
13 m.
Rubber and Wood Fendering
Bollard With Winch
Bollard With Winch
Bollard With Winch
Gate
Esso
Esso
Esso
N
0
50
100
SCALE IN METRES



STOCKHOLM
LOUDDEN

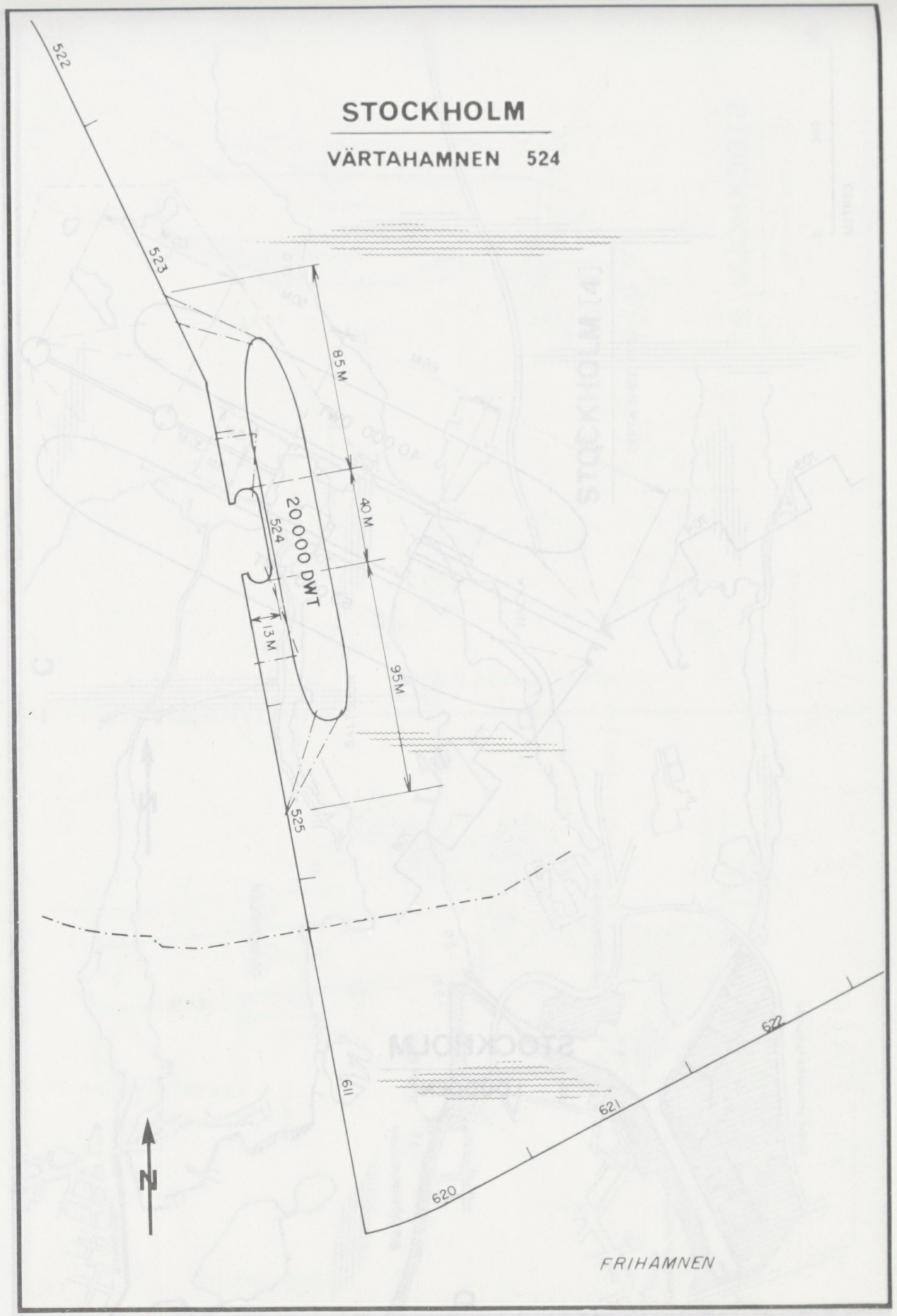
N
60 M
50 M
30 M
15 M
15 M
66 M
85 M
40 000 DWT
63 000 DWT
705
706
703
704
707
708



STOCKHOLM

VÄRTAHAMNEN 503

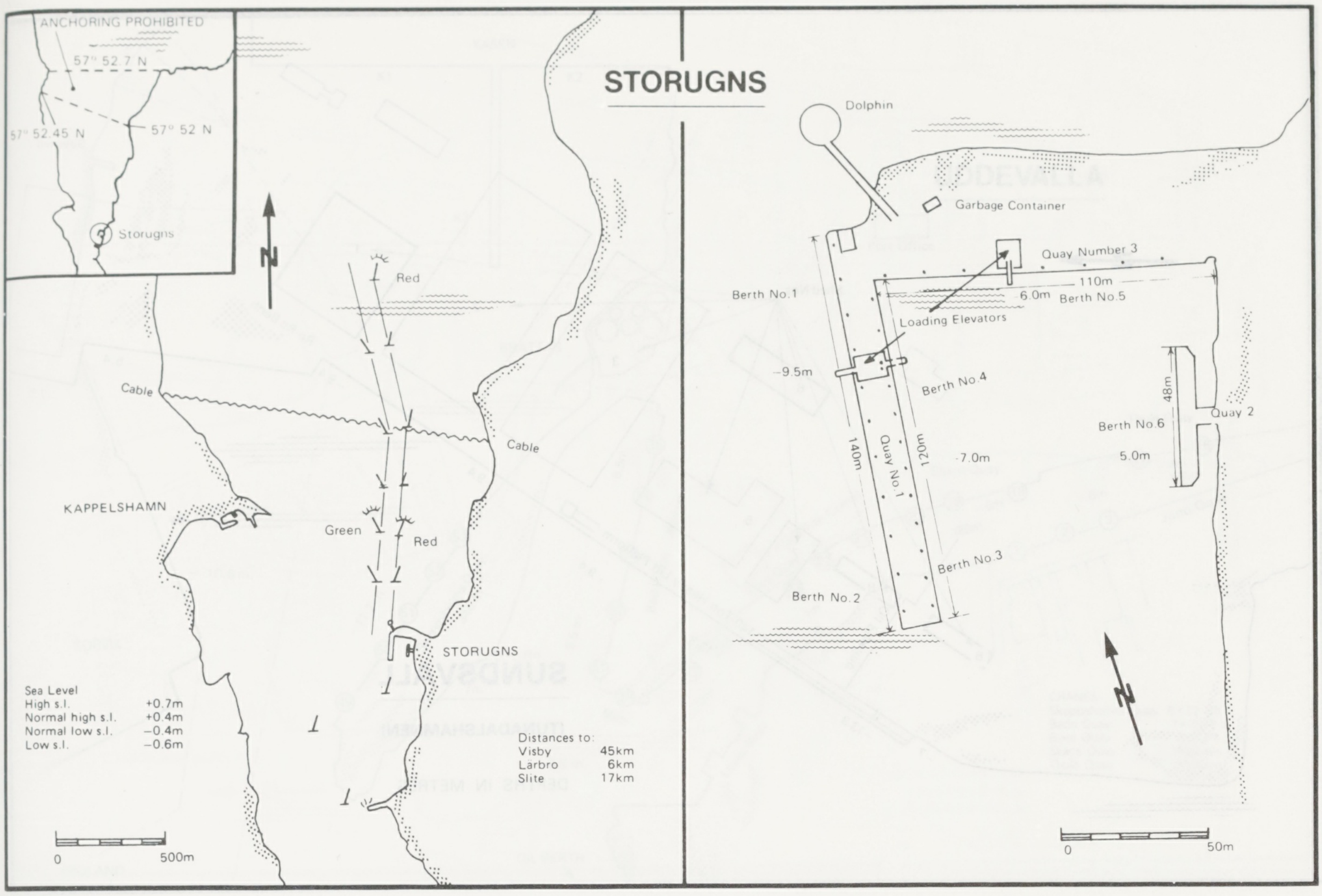
501
502
503
505
506
507
140 M
60 M
60 M
32 M
70 M
240 M
40 000 DWT
8 - 9000 DWT
Partly Laden 60,000 DWT
Partly Laden 25,000 DWT
N

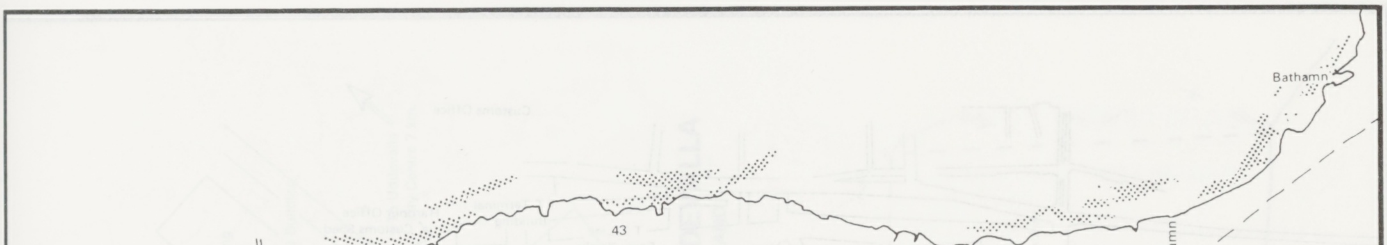


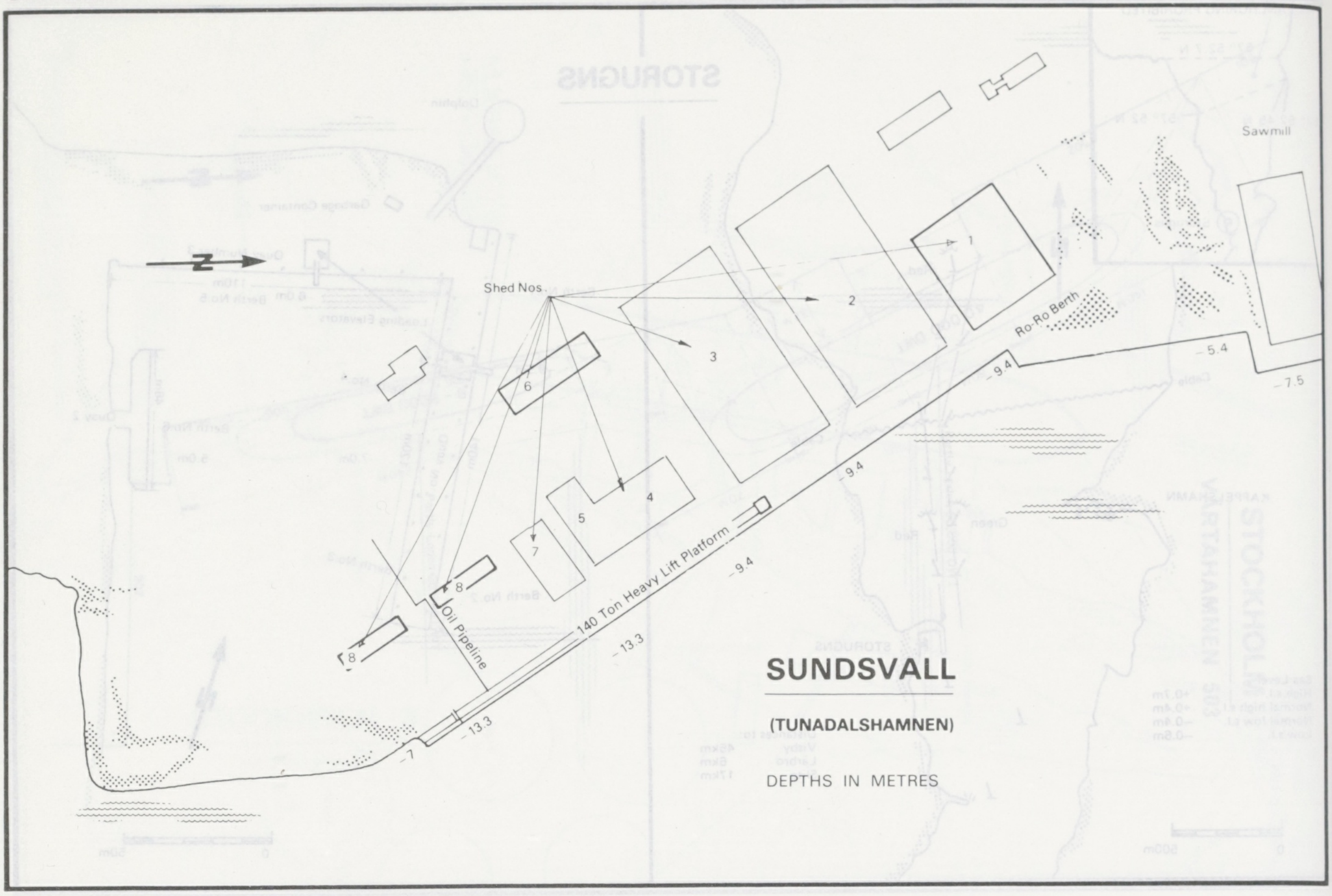
STOCKHOLM

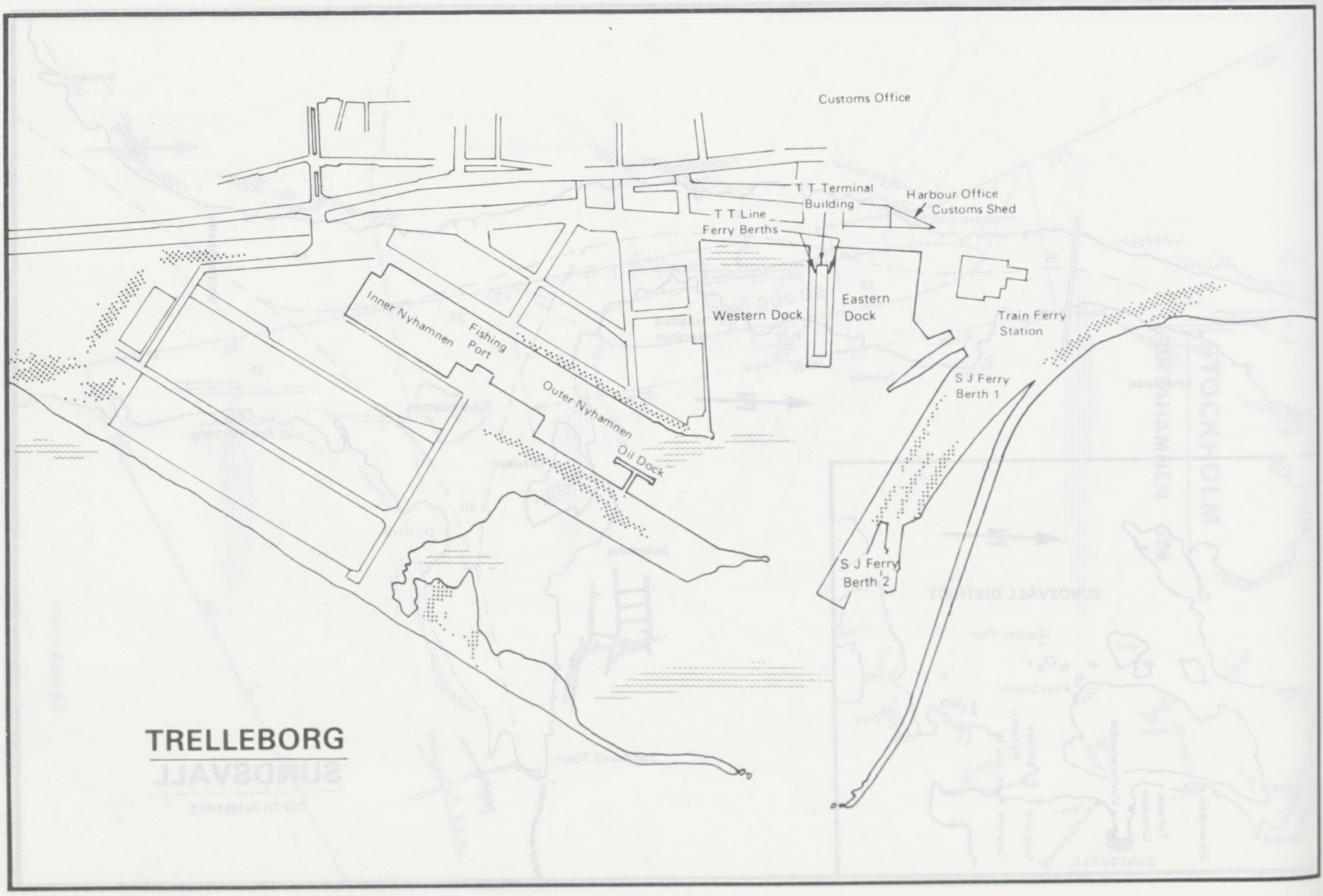
VÄRTAHAMNEN 524

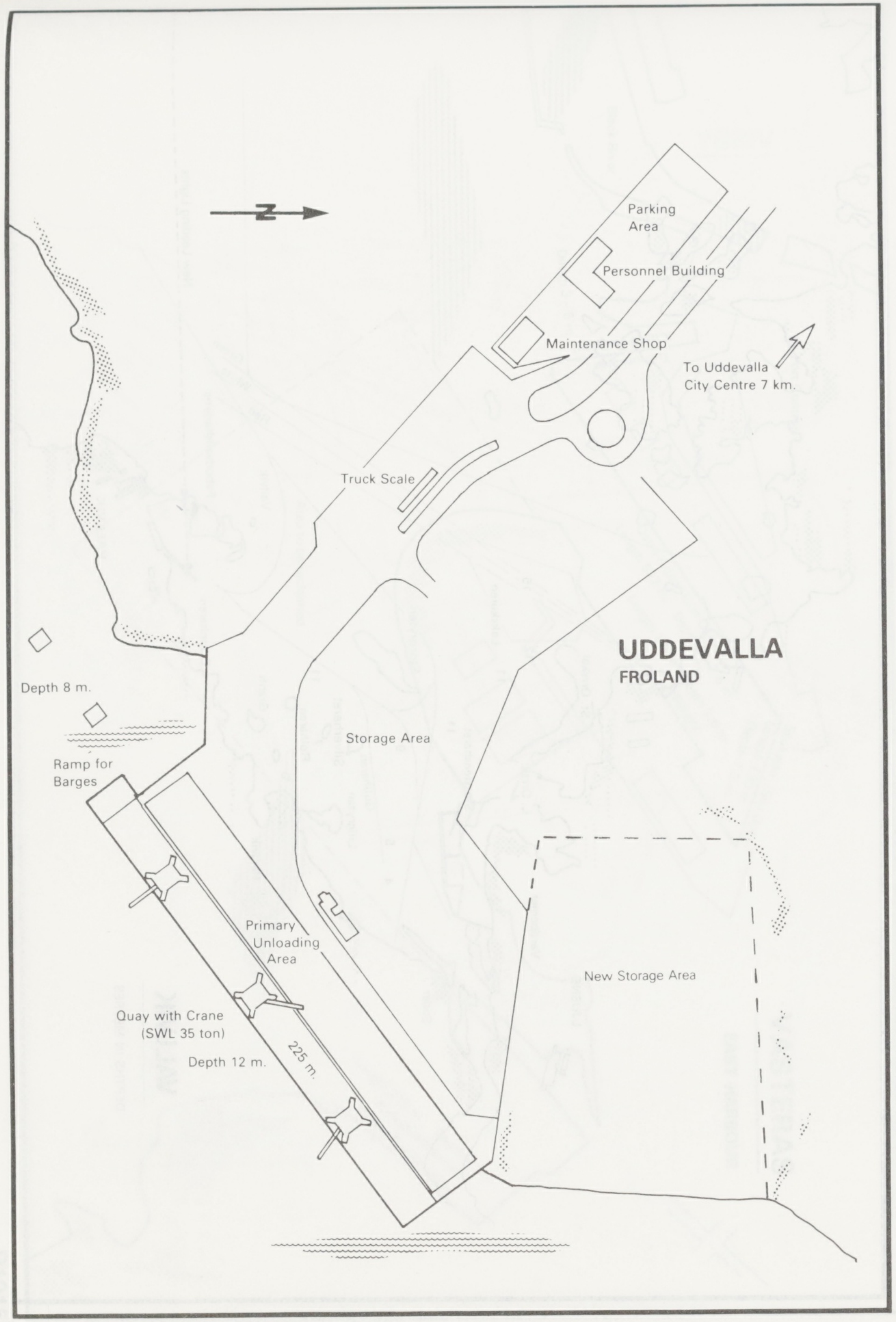
522
523
524
525
611
620
621
622
85 M
40 M
13 M
95 M
20 000 DWT
N
FRIHAMNEN

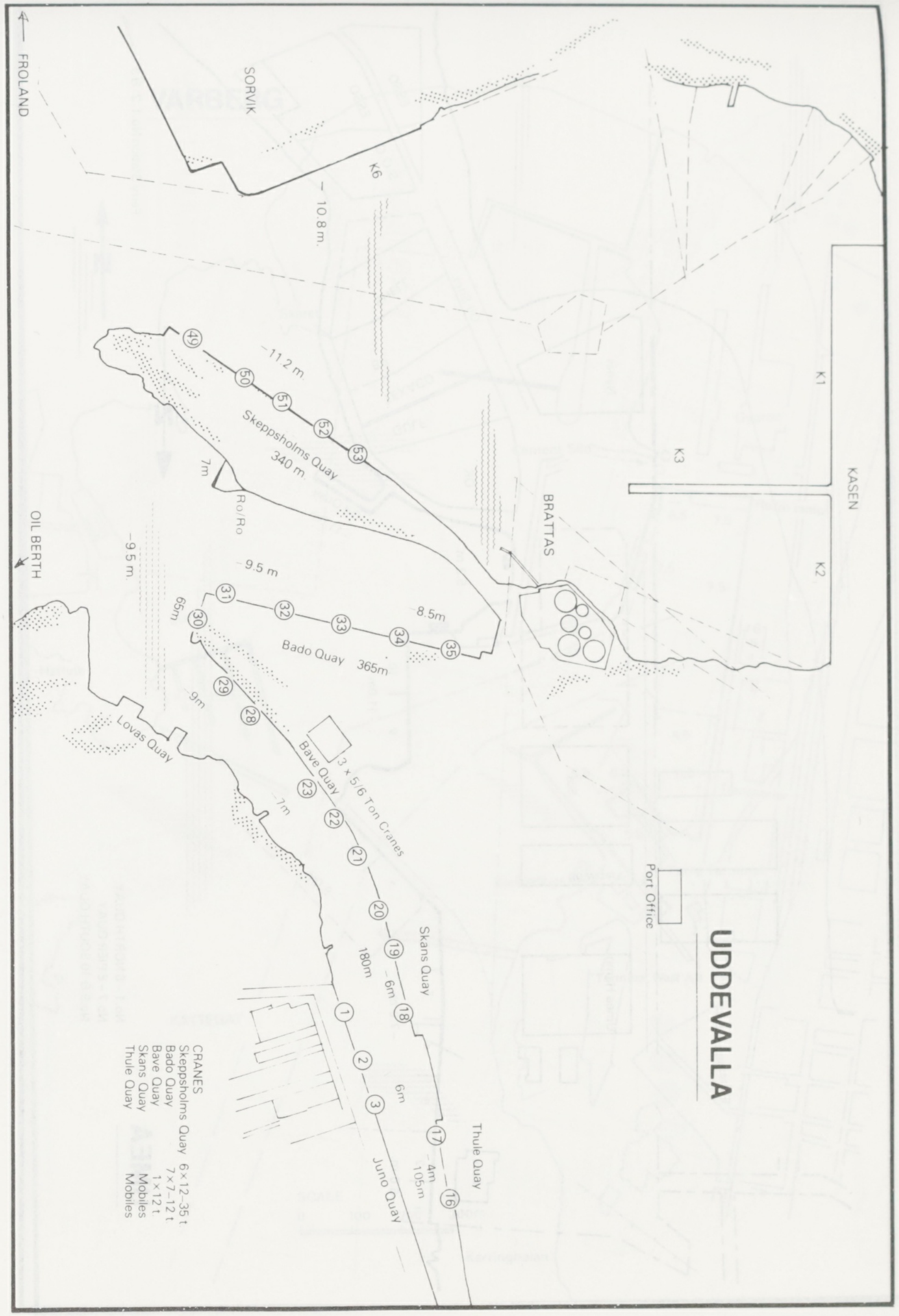

STORUGNS
ANCHORING PROHIBITED
57° 52.7 N
57° 52.45 N
57° 52 N
Storugns
N
Red
Cable
Cable
KAPPELSHAMN
Green
Red
STORUGNS
Sea Level
High s.l. +0.7m
Normal high s.l. +0.4m
Normal low s.l. −0.4m
Low s.l. −0.6m
Distances to:
Visby 45km
Larbro 6km
Slite 17km
0
500m
Dolphin
Garbage Container
Quay Number 3
110m
6.0m
Berth No.5
Berth No.1
Loading Elevators
−9.5m
Berth No.4
48m
Quay 2
Berth No.6
140m
Quay No.1
120m
−7.0m
5.0m
Berth No.3
Berth No.2
N
0
50m

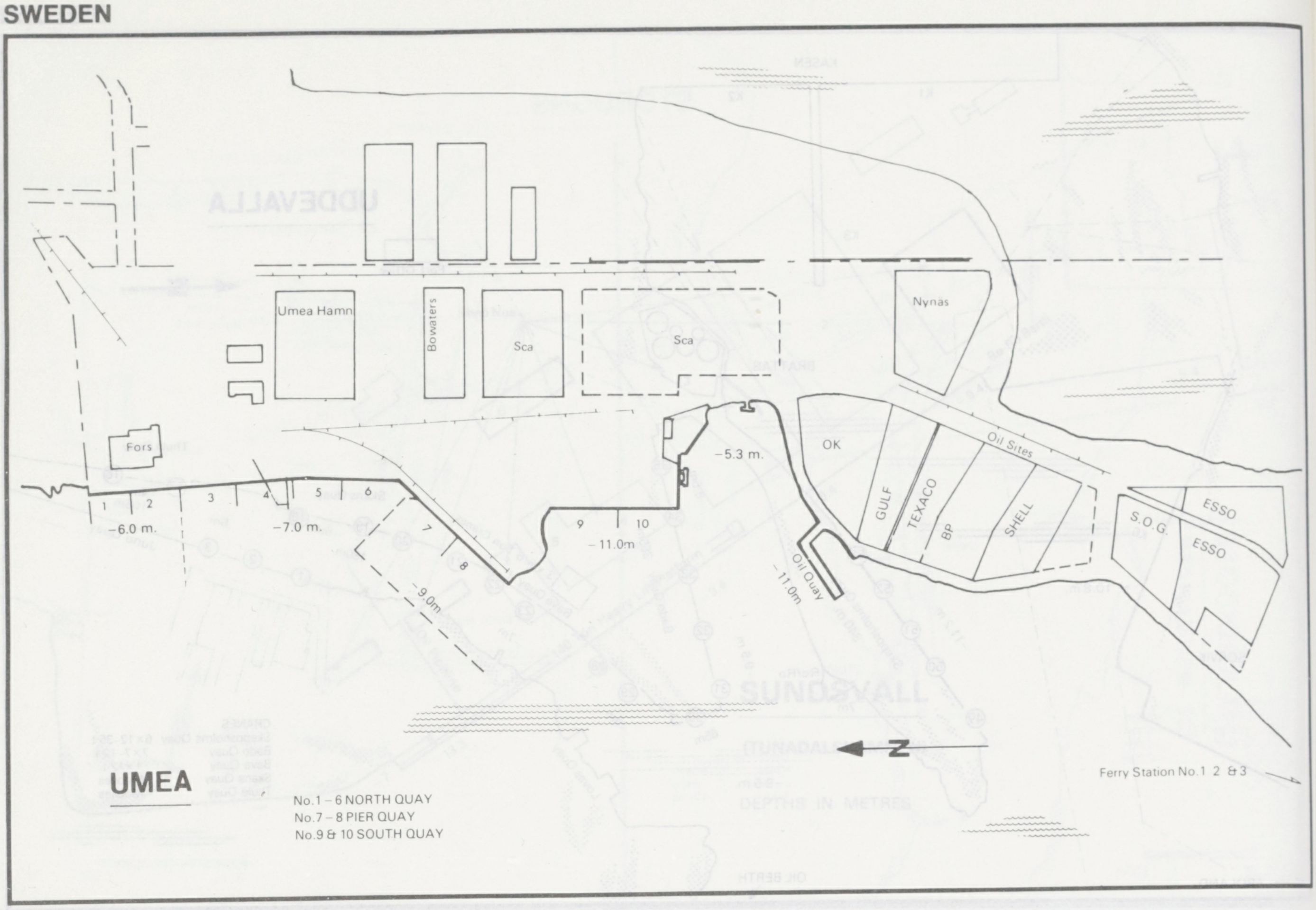

Bathamn
43
Alno
26
13
18
Smabatshamn
Tunadals Hamnen
33
Johannedal
Tunadal
N
25
30
Skon
Tuuv-holmen
Kubikenborg
Ortviken
20
Oil Berth
Skonsberg
Sundsvall Town
SUNDSVALL
DEPTH IN METRES
N
SUNDSVALL DISTRICT
Gubben Pilot
Soraker
Pilot Station
Alno
Vindskarsudde
Norra Nyhamn
Essvik
Vivstavarv
Johannedal
Tunadal
Ortviken
Kubikenborg
Stockvik
Svartvik
Ostrand
SUNDSVALL

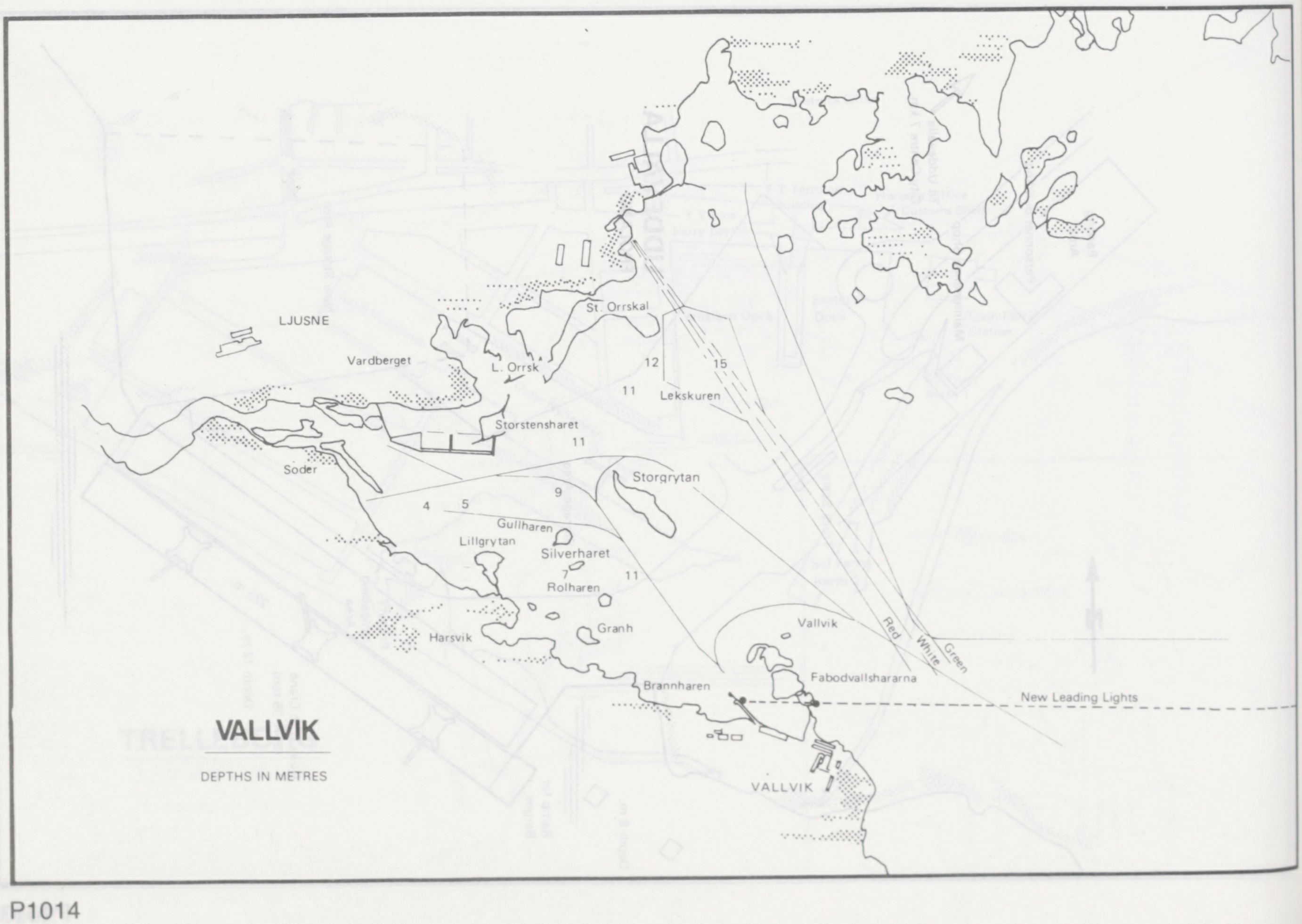

N
Sawmill
Shed Nos
1
2
3
4
5
6
7
8
8
Ro-Ro Berth
-5.4
-7.5
-9.4
-9.4
-9.4
140 Ton Heavy Lift Platform
Oil Pipeline
-13.3
-13.3
-7
SUNDSVALL
(TUNADALSHAMNEN)
DEPTHS IN METRES

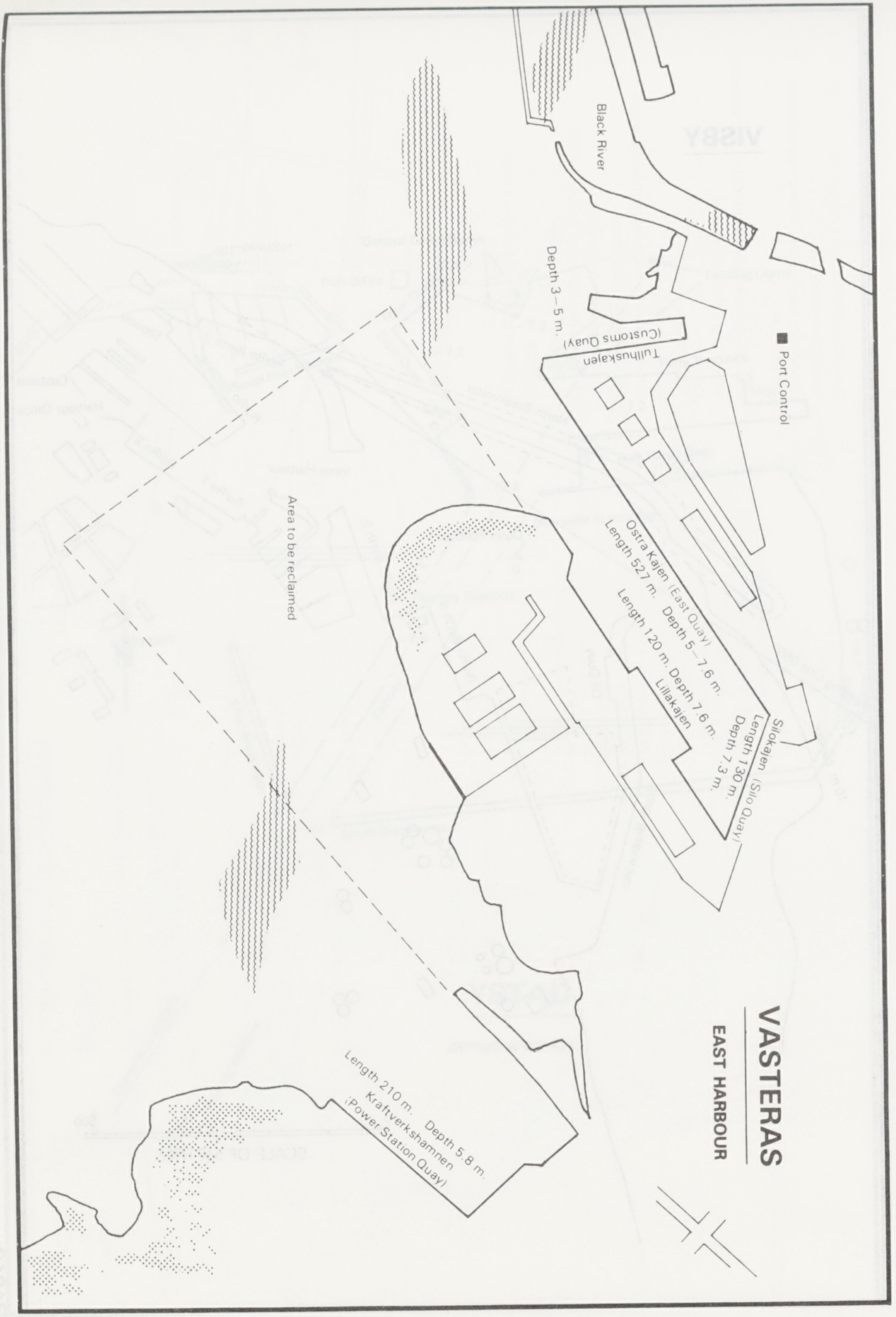

Customs Office
T T Terminal Building
Harbour Office
Customs Shed
T T Line Ferry Berths
Western Dock
Eastern Dock
Train Ferry Station
S J Ferry Berth 1
S J Ferry Berth 2
Inner Nyhamnen
Fishing Port
Outer Nyhamnen
Oil Dock
TRELLEBORG


N
Parking Area
Personnel Building
Maintenance Shop
To Uddevalla City Centre 7 km.
Truck Scale
UDDEVALLA
FROLAND
Depth 8 m.
Storage Area
Ramp for Barges
Primary Unloading Area
New Storage Area
Quay with Crane (SWL 35 ton)
Depth 12 m.
225 m.


FROLAND
SORVIK
K6
10.8 m.
K1
K3
KASEN
K2
BRATTAS
49
50
51
52
53
11.2 m.
Skeppsholms Quay 340 m.
7m
Ro/Ro
OIL BERTH
9.5 m
9.5 m
31
32
33
34
35
8.5m
65m
30
Bado Quay 365m
29
28
9m
Lovas Quay
Bave Quay
3 × 5/6 Ton Cranes
23
22
21
7m
20
19
18
180m
6m
Skans Quay
Port Office
UDDEVALLA
1
2
3
6m
17
16
4m
105m
Thule Quay
Juno Quay
CRANES
Skeppsholms Quay 6×12–35 t
Bado Quay 7×7–12 t
Bave Quay 1×12 t
Skans Quay Mobiles
Thule Quay Mobiles


Umea Hamn
Bowaters
Sca
Sca
Nynäs
Fors
OK
Oil Sites
GULF
TEXACO
BP
SHELL
S.O.G.
ESSO
ESSO
–5.3 m.
1
2
3
4
5
6
–6.0 m.
–7.0 m.
7
8
–9.0m
9
10
–11.0m
Oil Quay
–11.0m
N
Ferry Station No.1 2 & 3
UMEA
No.1 – 6 NORTH QUAY
No.7 – 8 PIER QUAY
No.9 & 10 SOUTH QUAY

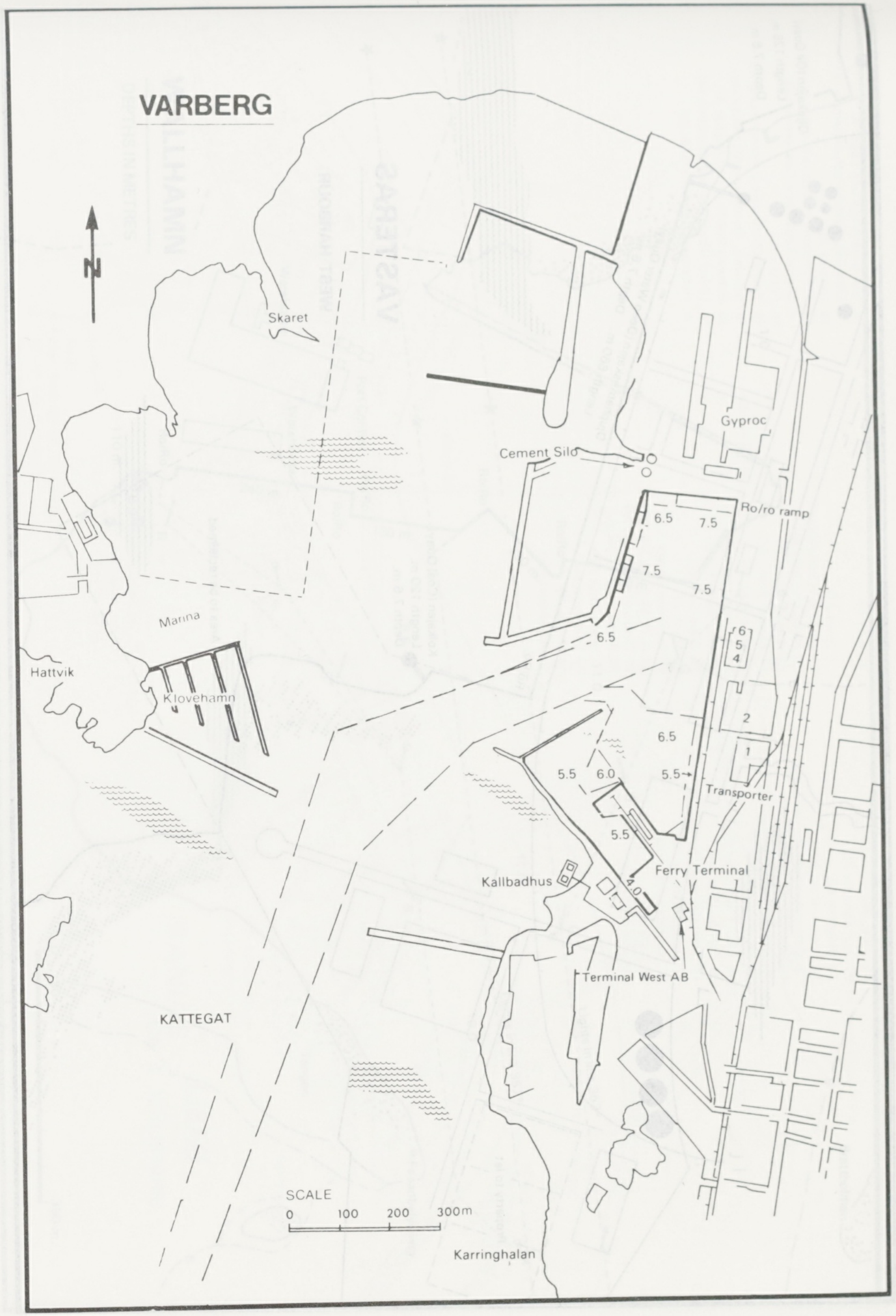

LJUSNE
Vardberget
L. Orrsk
St. Orrskal
12
15
11
Lekskuren
Storstensharet
11
Soder
Storgrytan
9
4
5
Gullharen
Lillgrytan
Silverharet
7
11
Rolharen
Granh
Harsvik
Vallvik
Red
White
Green
Brannharen
Fabodvallshararna
New Leading Lights
VALLVIK
VALLVIK
DEPTHS IN METRES



VASTERAS

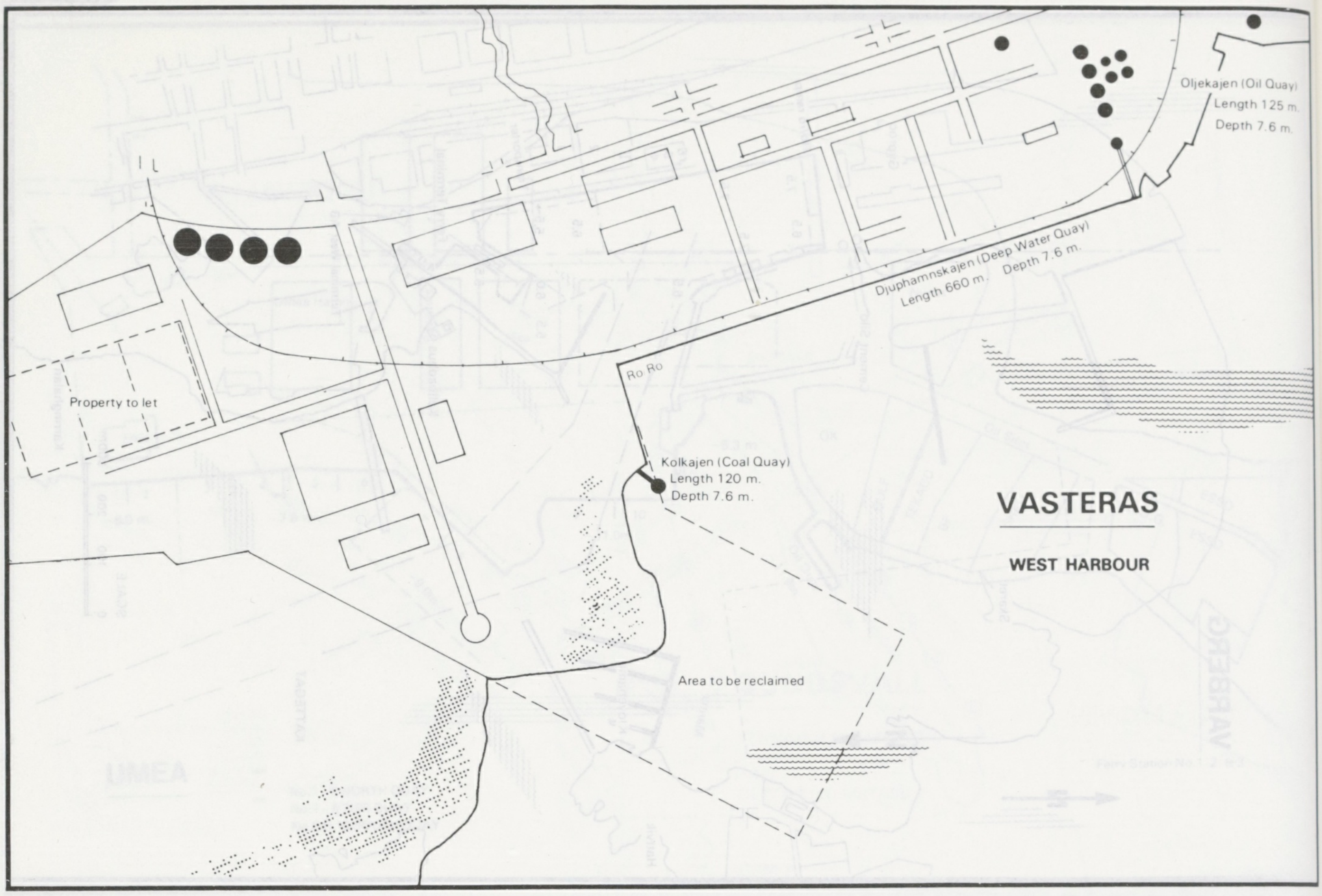
EAST HARBOUR

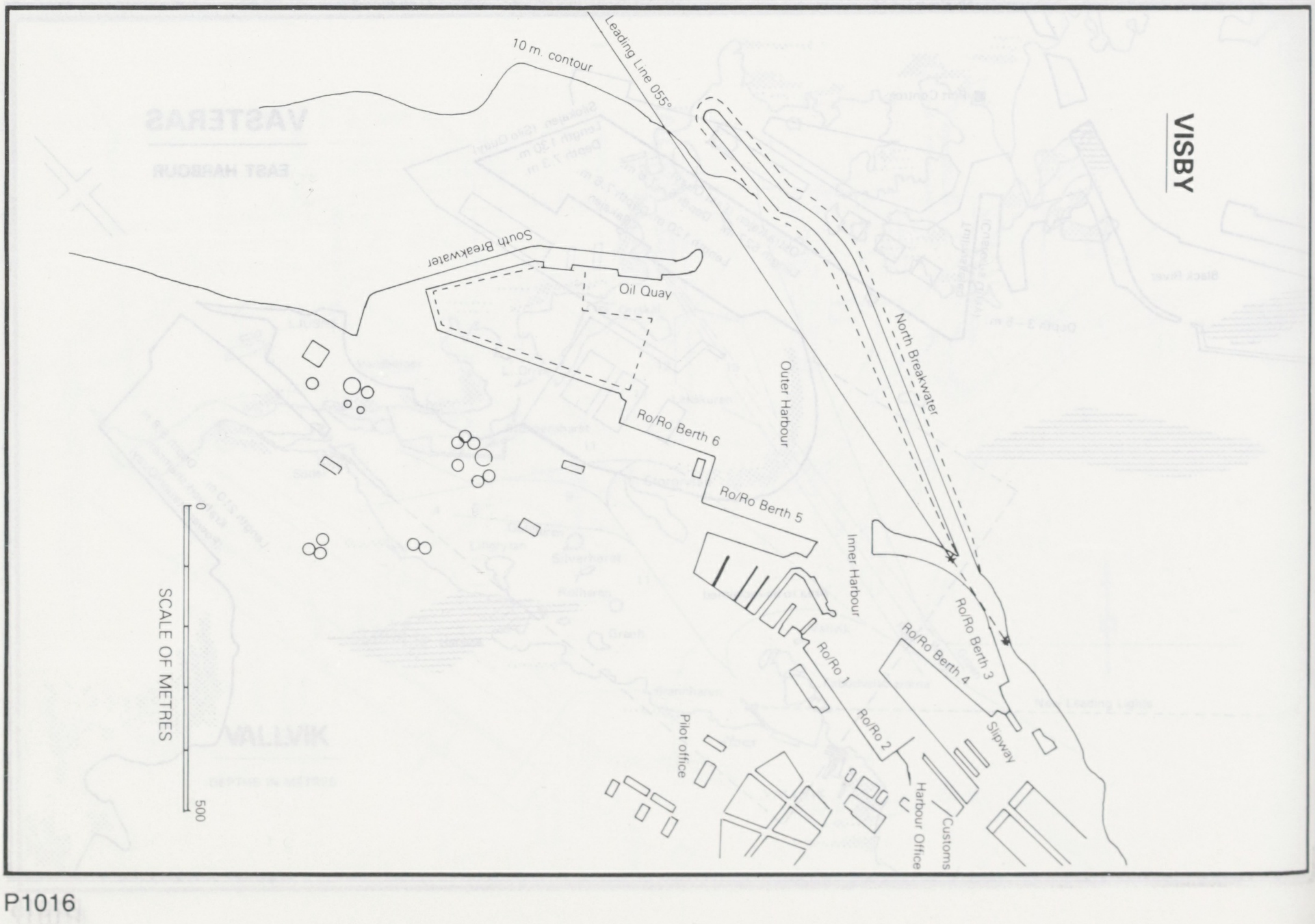
Black River
Port Control
Tullhuskajen (Customs Quay)
Depth 3 – 5 m.
Ostra Kajen (East Quay) Length 527 m. Depth 5 – 7.6 m.
Length 120 m. Depth 7.6 m. Lillakajen
Silokajen (Silo Quay) Length 130 m. Depth 7.3 m.
Area to be reclaimed
Length 210 m. Depth 5.8 m. Kraftverkshamnen (Power Station Quay)

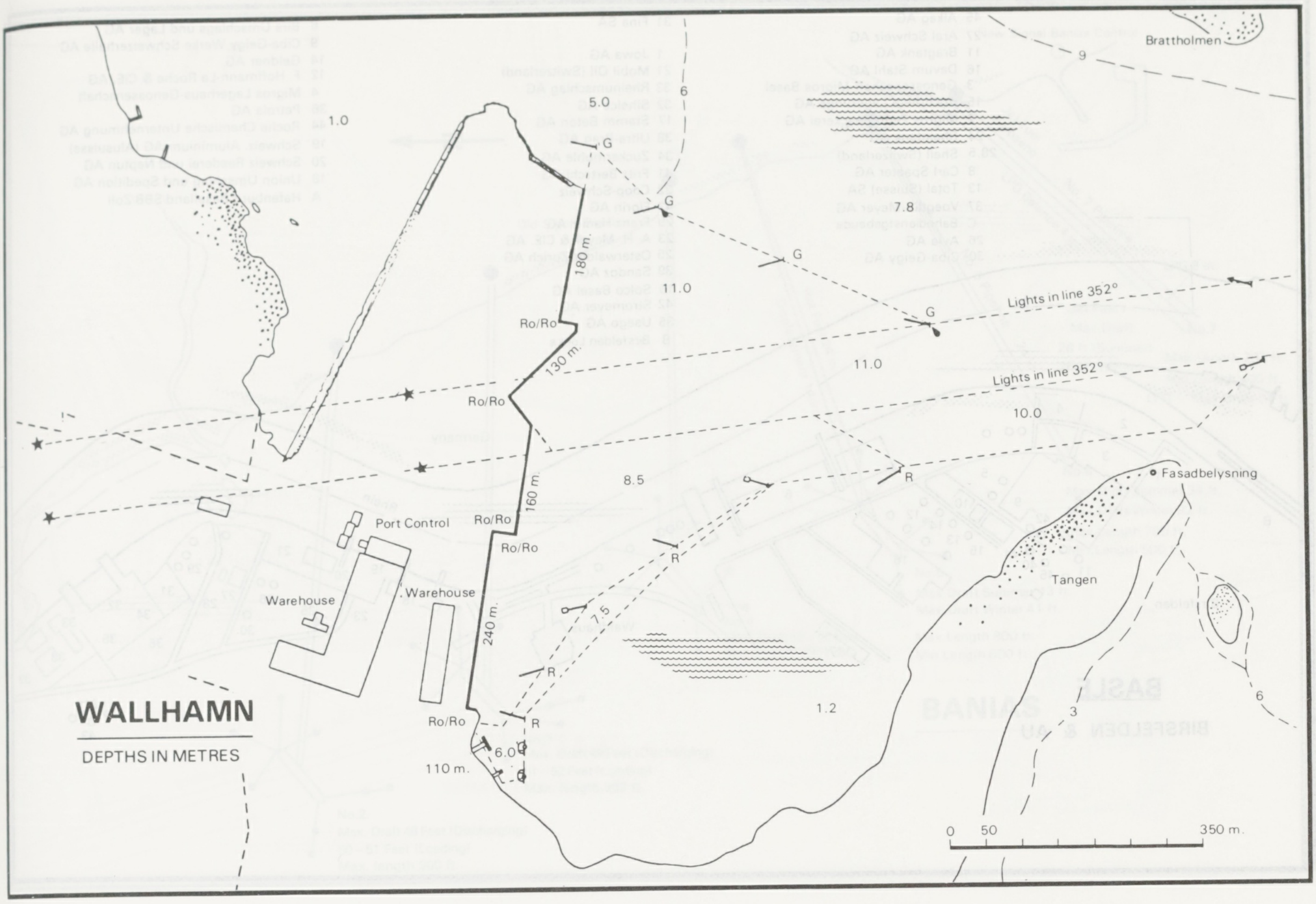


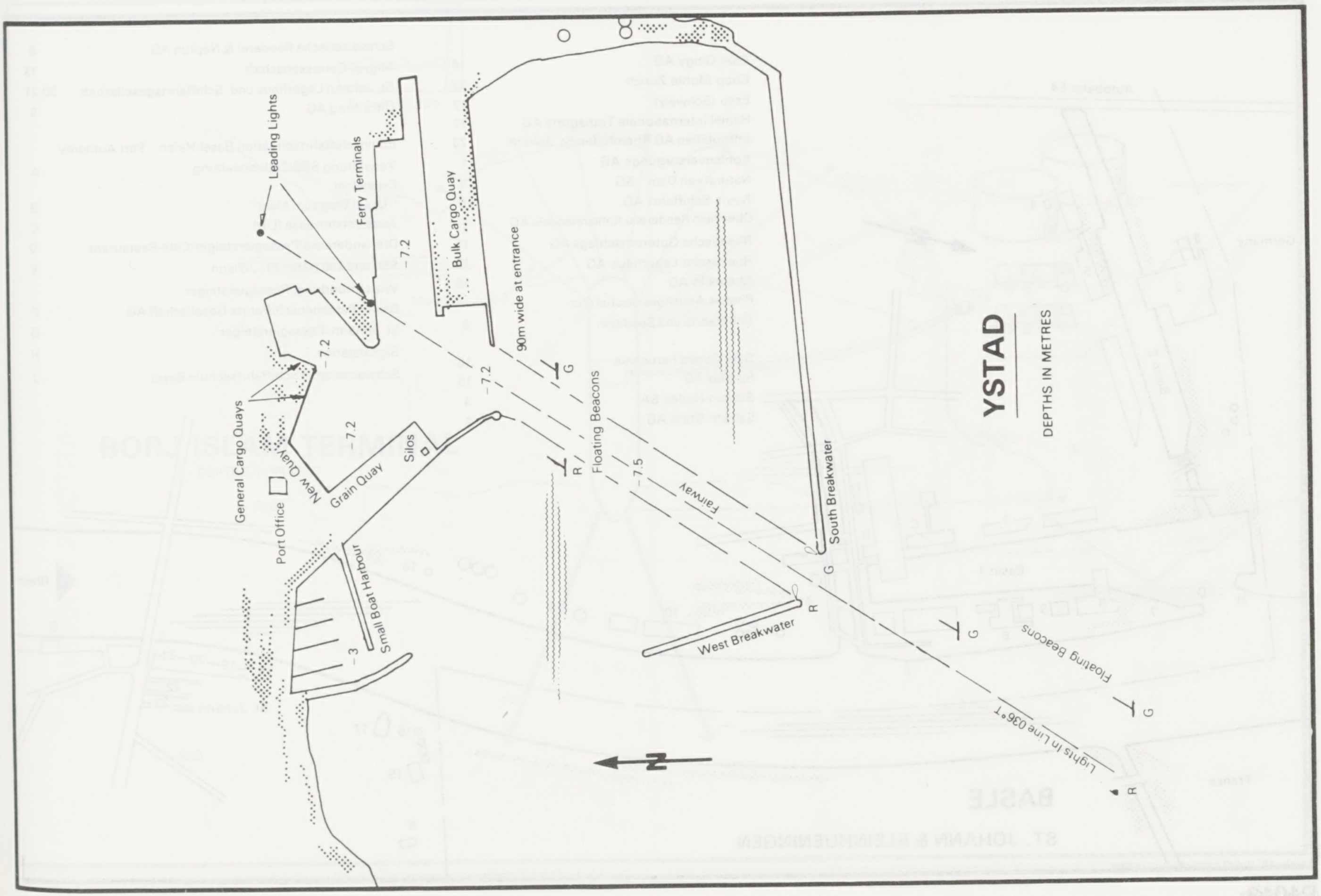
VARBERG

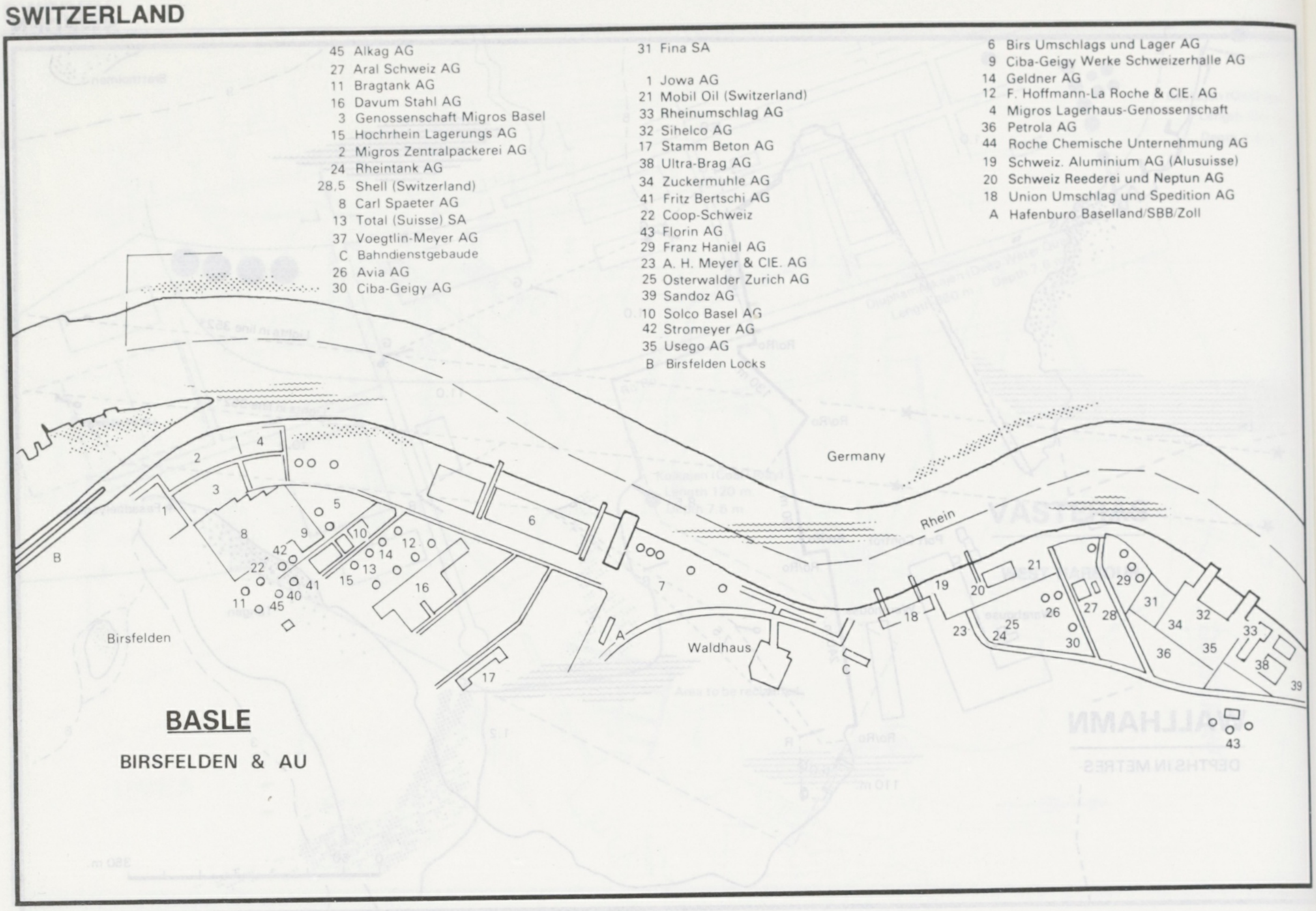
N
Skaret
Marina
Hattvik
Klovehamn
Cement Silo
Gyproc
Ro/ro ramp
6.5
7.5
7.5
7.5
6.5
6
5
4
2
1
6.5
5.5
6.0
5.5
5.5
Transporter
Ferry Terminal
Kallbadhus
4.0
Terminal West AB
KATTEGAT
SCALE
0
100
200
300m
Karringhalan


VASTERAS
WEST HARBOUR
Oljekajen (Oil Quay)
Length 125 m.
Depth 7.6 m.
Djuphamnskajen (Deep Water Quay)
Length 660 m.
Depth 7.6 m.
Ro Ro
Kolkajen (Coal Quay)
Length 120 m.
Depth 7.6 m.
Property to let
Area to be reclaimed


VISBY
10 m. contour
Leading Line 055°
South Breakwater
Oil Quay
North Breakwater
Outer Harbour
Ro/Ro Berth 6
Ro/Ro Berth 5
Inner Harbour
Ro/Ro Berth 3
Ro/Ro Berth 4
Ro/Ro 1
Ro/Ro 2
Slipway
Pilot office
Harbour Office
Customs
SCALE OF METRES
0
500


WALLHAMN
DEPTHS IN METRES
1.0
5.0
6
G
G
7.8
180 m.
G
11.0
G
Ro/Ro
Lights in line 352°
130 m.
11.0
Ro/Ro
Lights in line 352°
10.0
9
Brattholmen
Fasadbelysning
R
8.5
160 m
Port Control
Ro/Ro
Ro/Ro
R
Warehouse
Warehouse
Tangen
7.5
240 m.
R
R
Ro/Ro
6.0
110 m.
1.2
3
6
0
50
350 m.

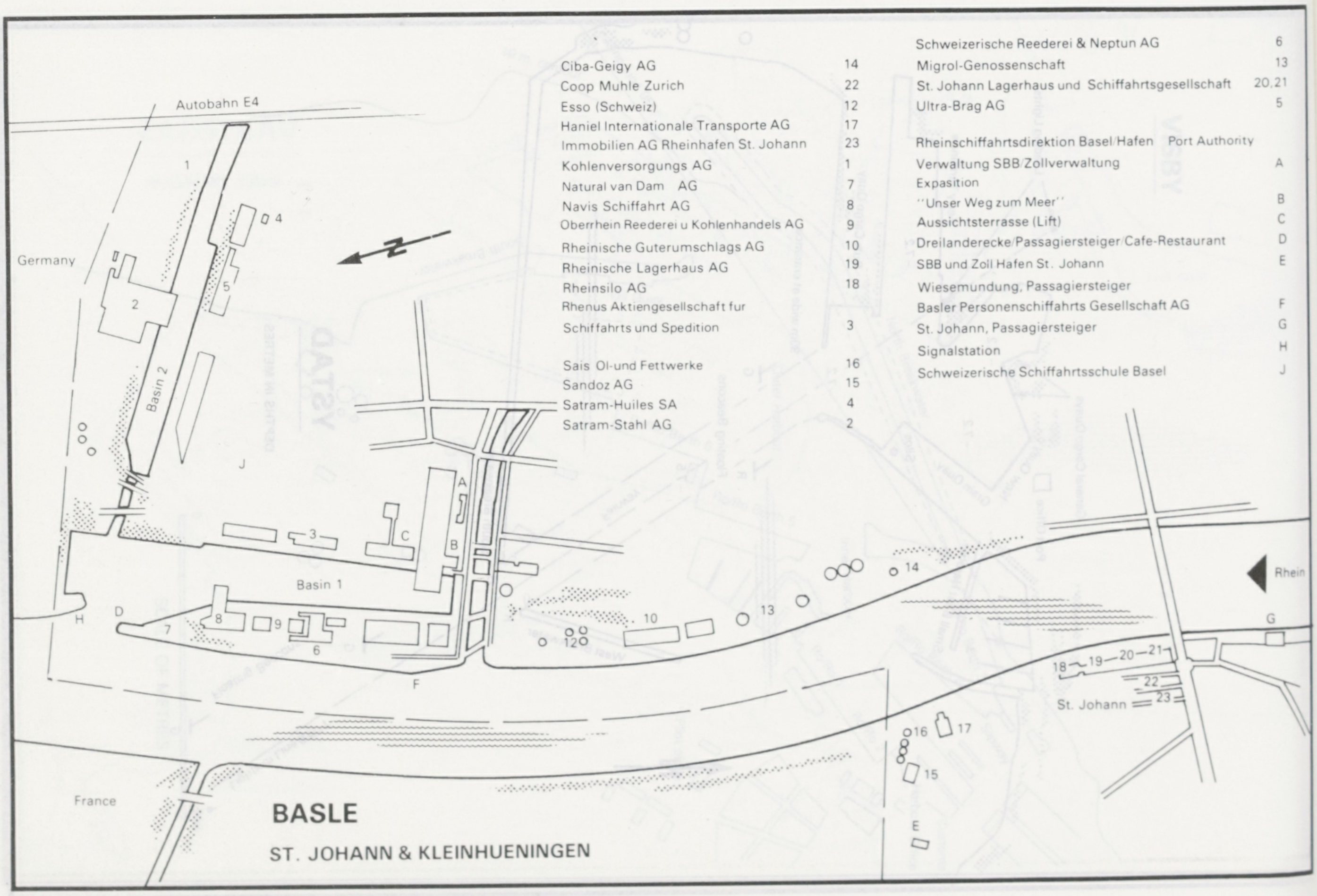

YSTAD
DEPTHS IN METRES
Leading Lights
Ferry Terminals
Bulk Cargo Quay
90m wide at entrance
-7.2
-7.2
-7.2
-7.2
General Cargo Quays
New Quay
Grain Quay
Silos
Port Office
Small Boat Harbour
-3
G
R
Floating Beacons
-7.5
Fairway
South Breakwater
G
R
West Breakwater
G
Floating Beacons
G
Lights in Line 036°T
R
N


Germany
Rhein
Birsfelden
Waldhaus
A
B
C
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
38
39
40
41
42
43
45

BASLE

BIRSFELDEN & AU

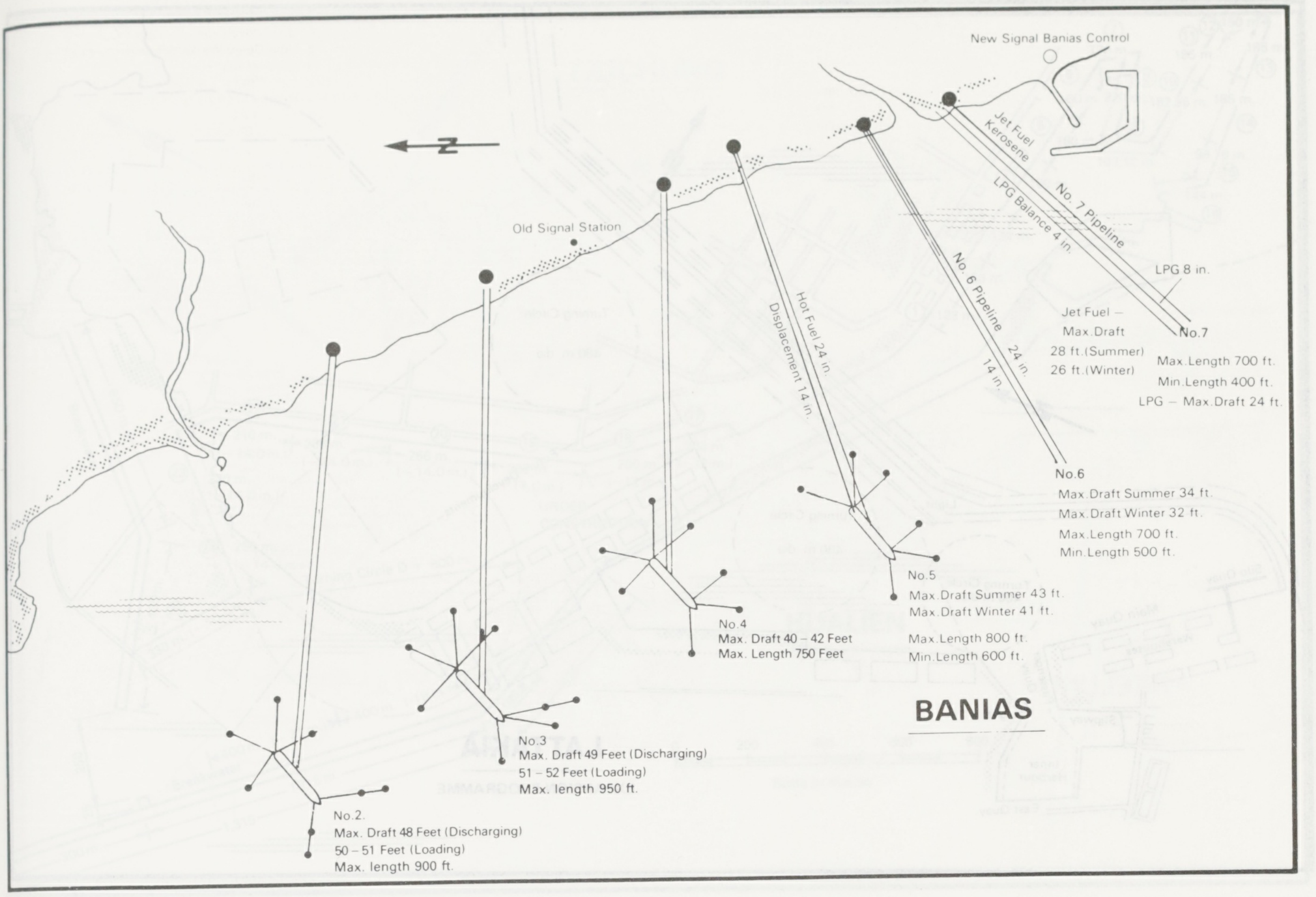
45	Alkag AG
27	Aral Schweiz AG
11	Bragtank AG
16	Davum Stahl AG
3	Genossenschaft Migros Basel
15	Hochrhein Lagerungs AG
2	Migros Zentralpackerei AG
24	Rheintank AG
28,5	Shell (Switzerland)
8	Carl Spaeter AG
13	Total (Suisse) SA
37	Voegtlin-Meyer AG
C	Bahndienstgebaude
26	Avia AG
30	Ciba-Geigy AG
31	Fina SA
1	Jowa AG
21	Mobil Oil (Switzerland)
33	Rheinumschlag AG
32	Sihelco AG
17	Stamm Beton AG
38	Ultra-Brag AG
34	Zuckermuhle AG
41	Fritz Bertschi AG
22	Coop-Schweiz
43	Florin AG
29	Franz Haniel AG
23	A. H. Meyer & CIE. AG
25	Osterwalder Zurich AG
39	Sandoz AG
10	Solco Basel AG
42	Stromeyer AG
35	Usego AG
B	Birsfelden Locks
6	Birs Umschlags und Lager AG
9	Ciba-Geigy Werke Schweizerhalle AG
14	Geldner AG
12	F. Hoffmann-La Roche & CIE. AG
4	Migros Lagerhaus-Genossenschaft
36	Petrola AG
44	Roche Chemische Unternehmung AG
19	Schweiz. Aluminium AG (Alusuisse)
20	Schweiz Reederei und Neptun AG
18	Union Umschlag und Spedition AG
A	Hafenburo Baselland/SBB/Zoll

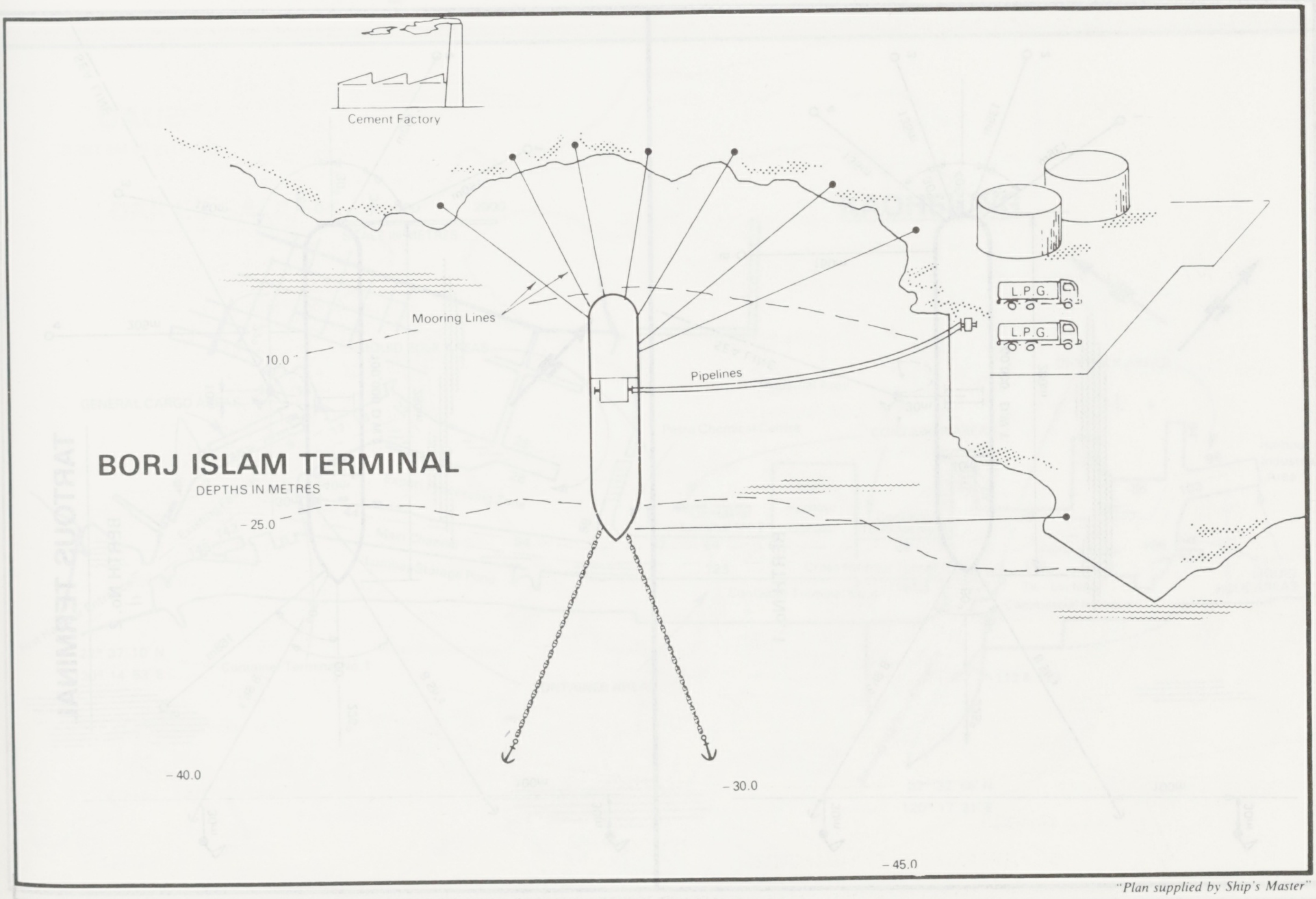

Autobahn E4
Germany
France
Rhein
Basin 1
Basin 2
St. Johann
A
B
C
D
E
F
G
H
J
1
2
3
4
5
6
7
8
9
10
12
13
14
15
16
17
18
19
20
21
22
23

BASLE

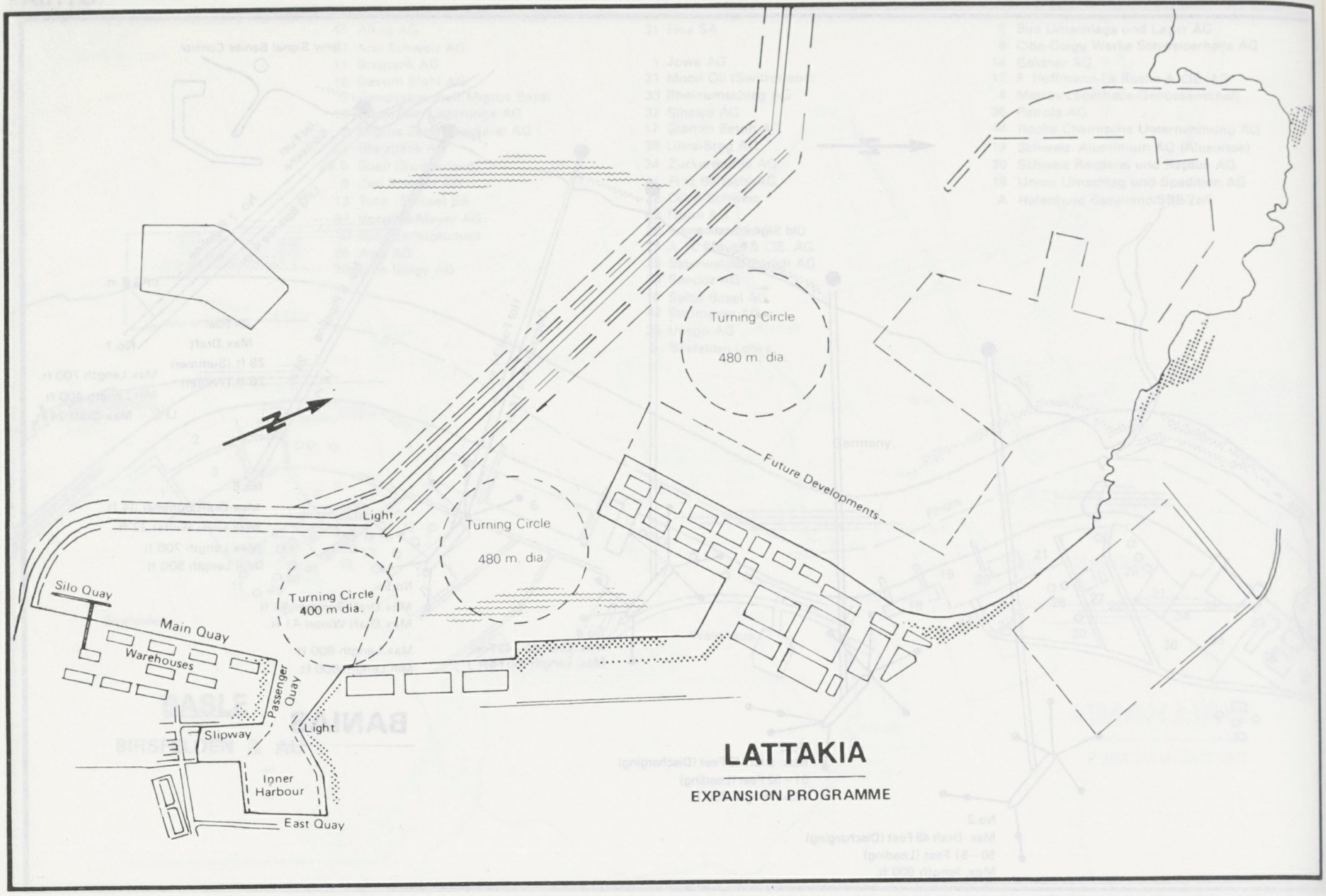
ST. JOHANN & KLEINHUENINGEN

Ciba-Geigy AG	14
Coop Muhle Zurich	22
Esso (Schweiz)	12
Haniel Internationale Transporte AG	17
Immobilien AG Rheinhafen St. Johann	23
Kohlenversorgungs AG	1
Natural van Dam AG	7
Navis Schiffahrt AG	8
Oberrhein Reederei u Kohlenhandels AG	9
Rheinische Guterumschlags AG	10
Rheinische Lagerhaus AG	19
Rheinsilo AG	18
Rhenus Aktiengesellschaft fur Schiffahrts und Spedition	3
Sais Ol-und Fettwerke	16
Sandoz AG	15
Satram-Huiles SA	4
Satram-Stahl AG	2
Schweizerische Reederei & Neptun AG	6
Migrol-Genossenschaft	13
St. Johann Lagerhaus und Schiffahrtsgesellschaft	20,21
Ultra-Brag AG	5
Rheinschiffahrtsdirektion Basel/Hafen Port Authority	
Verwaltung SBB/Zollverwaltung	A
Expasition	
"Unser Weg zum Meer"	B
Aussichtsterrasse (Lift)	C
Dreilanderecke/Passagiersteiger/Cafe-Restaurant	D
SBB und Zoll Hafen St. Johann	E
Wiesemundung, Passagiersteiger	
Basler Personenschiffahrts Gesellschaft AG	F
St. Johann, Passagiersteiger	G
Signalstation	H
Schweizerische Schiffahrtsschule Basel	J


New Signal Banias Control
N
Old Signal Station
Jet Fuel
Kerosene
No. 7 Pipeline
LPG Balance 4 in.
LPG 8 in.
No. 6 Pipeline
24 in.
14 in.
Hot Fuel 24 in.
Displacement 14 in.
Jet Fuel –
Max.Draft
28 ft.(Summer)
26 ft.(Winter)
No.7
Max.Length 700 ft.
Min.Length 400 ft.
LPG – Max.Draft 24 ft.
No.6
Max.Draft Summer 34 ft.
Max.Draft Winter 32 ft.
Max.Length 700 ft.
Min.Length 500 ft.
No.5
Max.Draft Summer 43 ft.
Max.Draft Winter 41 ft.
Max.Length 800 ft.
Min.Length 600 ft.
No.4
Max. Draft 40 – 42 Feet
Max. Length 750 Feet
BANIAS
No.3
Max. Draft 49 Feet (Discharging)
51 – 52 Feet (Loading)
Max. length 950 ft.
No.2.
Max. Draft 48 Feet (Discharging)
50 – 51 Feet (Loading)
Max. length 900 ft.


Cement Factory
Mooring Lines
L.P.G.
L.P.G.
Pipelines
10.0
BORJ ISLAM TERMINAL
DEPTHS IN METRES
– 25.0
– 40.0
– 30.0
– 45.0

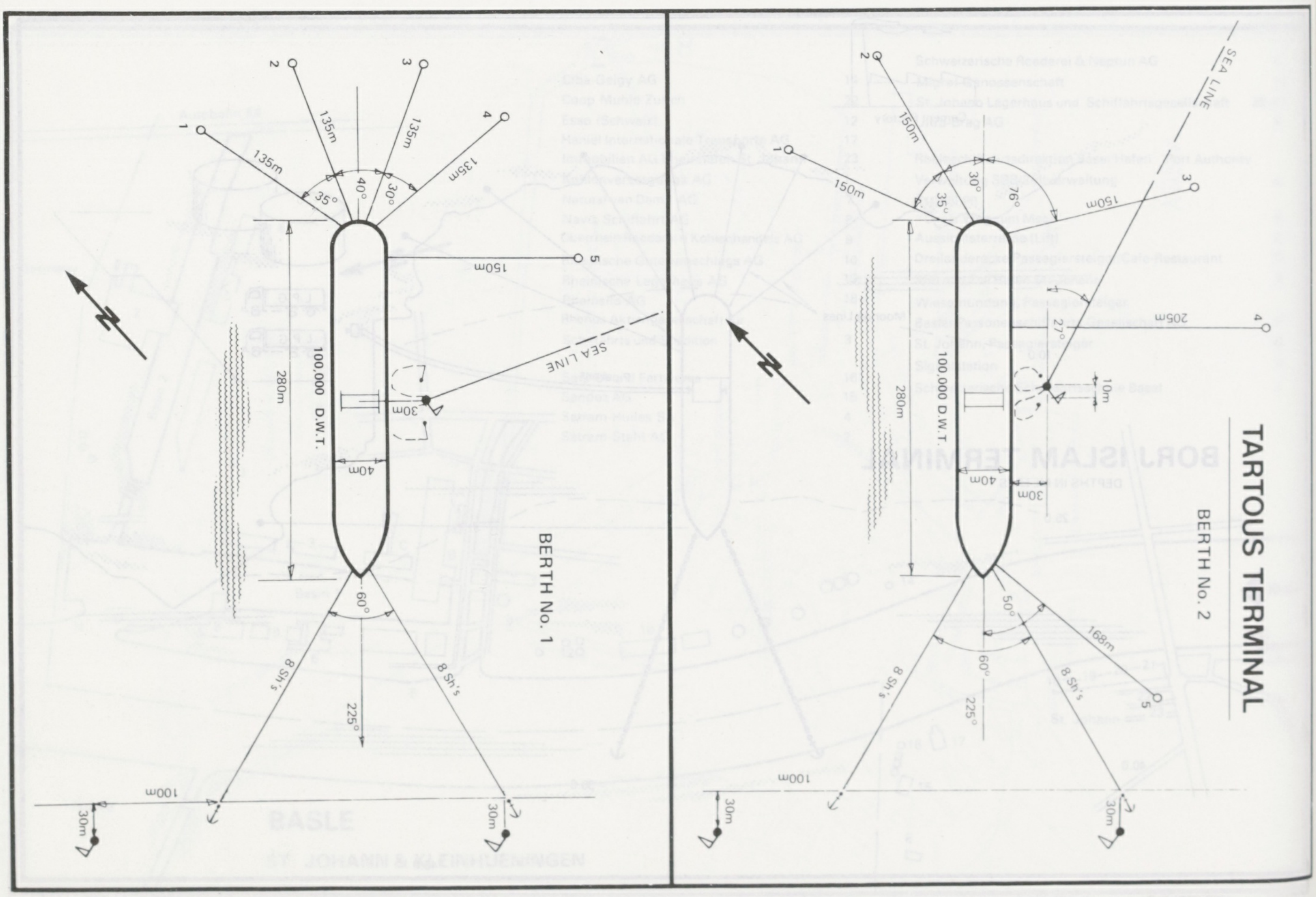
"Plan supplied by Ship's Master"



LATTAKIA

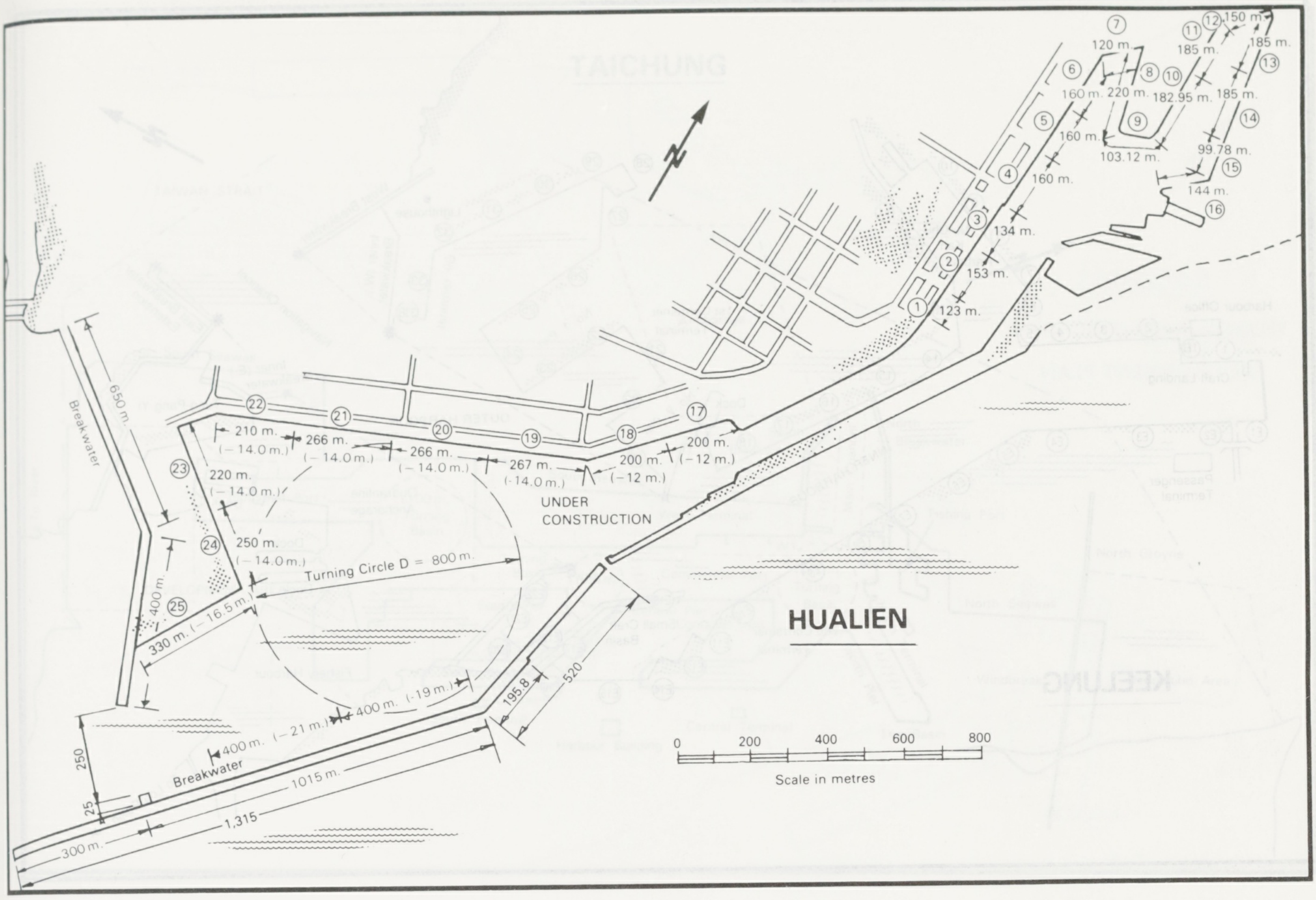
EXPANSION PROGRAMME

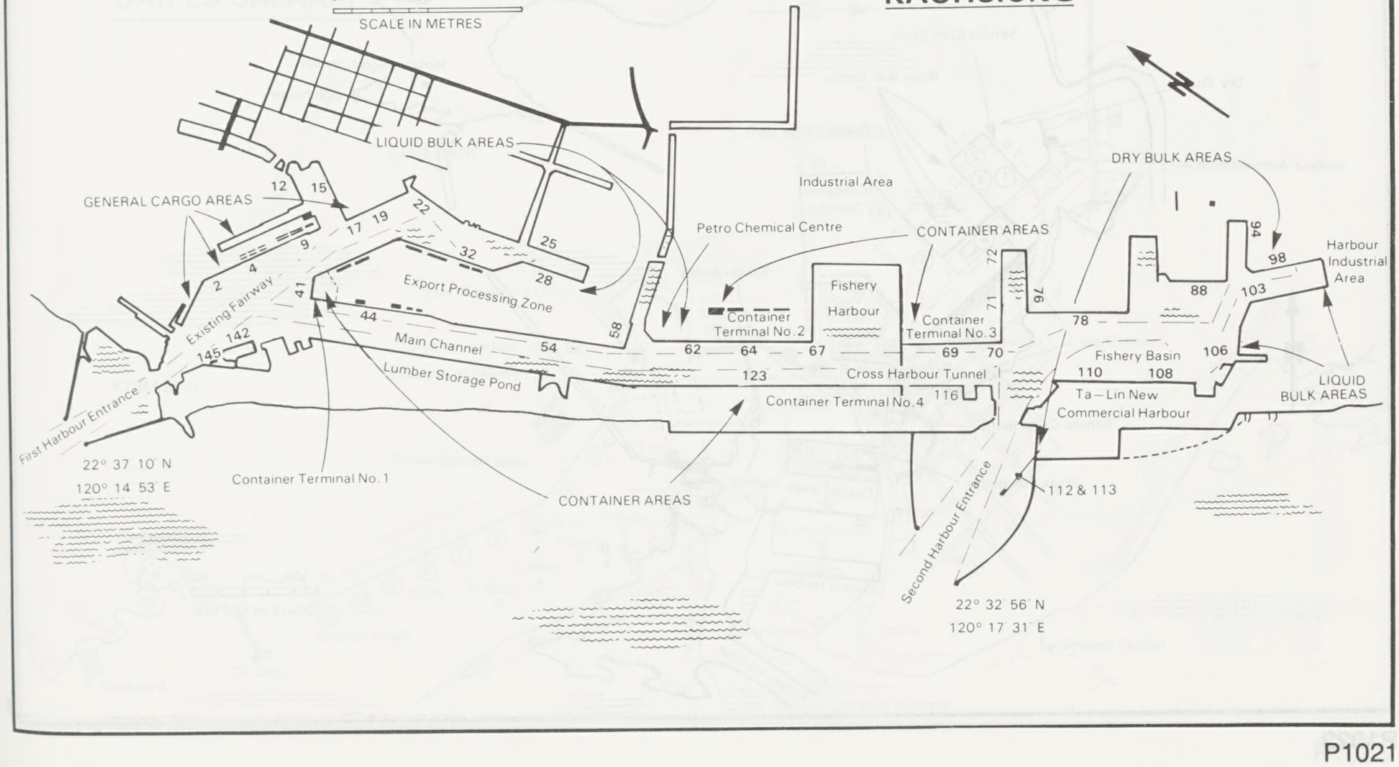
Turning Circle
480 m. dia
Future Developments
Light
Turning Circle
480 m. dia
Turning Circle
400 m dia.
Silo Quay
Main Quay
Warehouses
Passenger Quay
Slipway
Light
Inner Harbour
East Quay

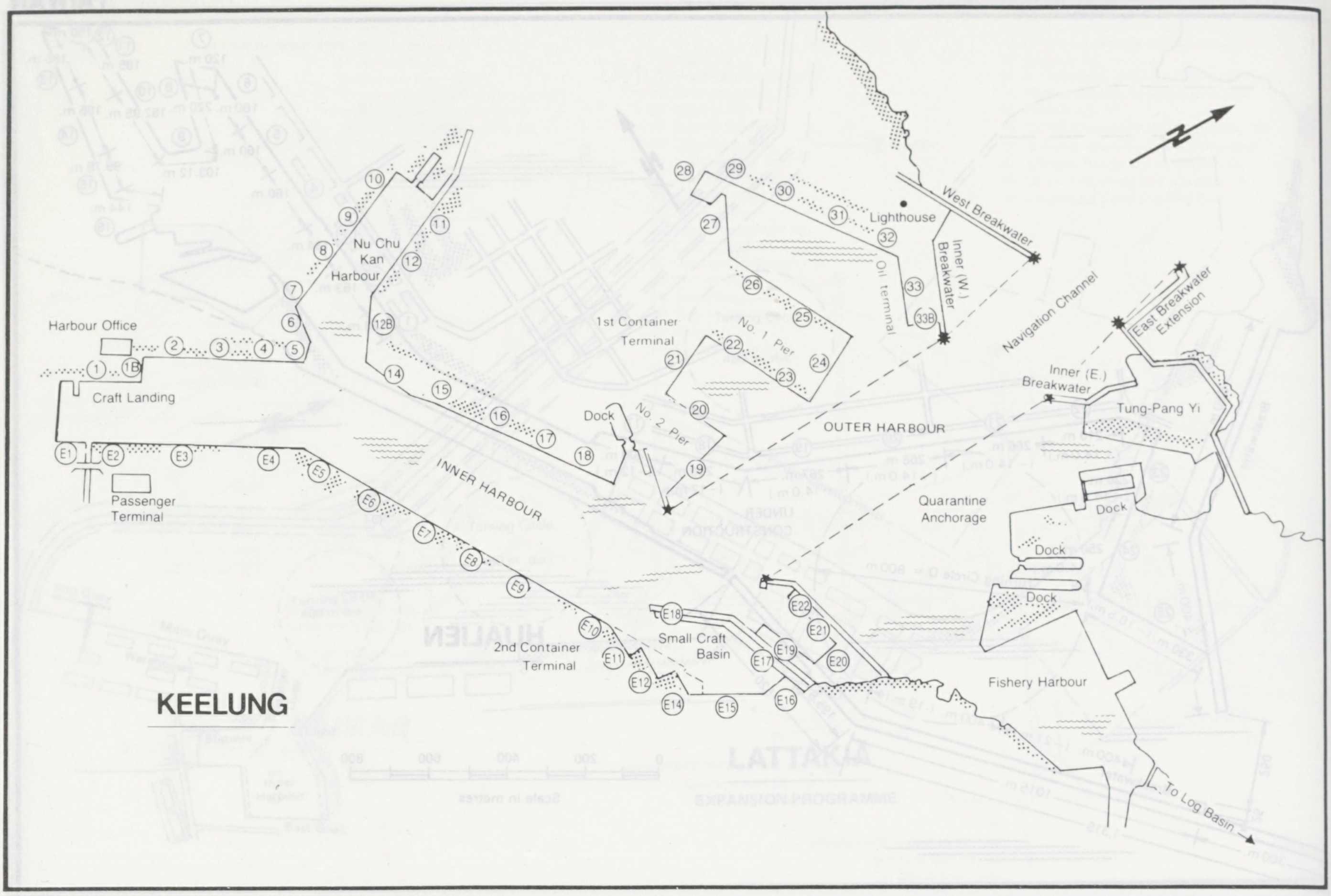


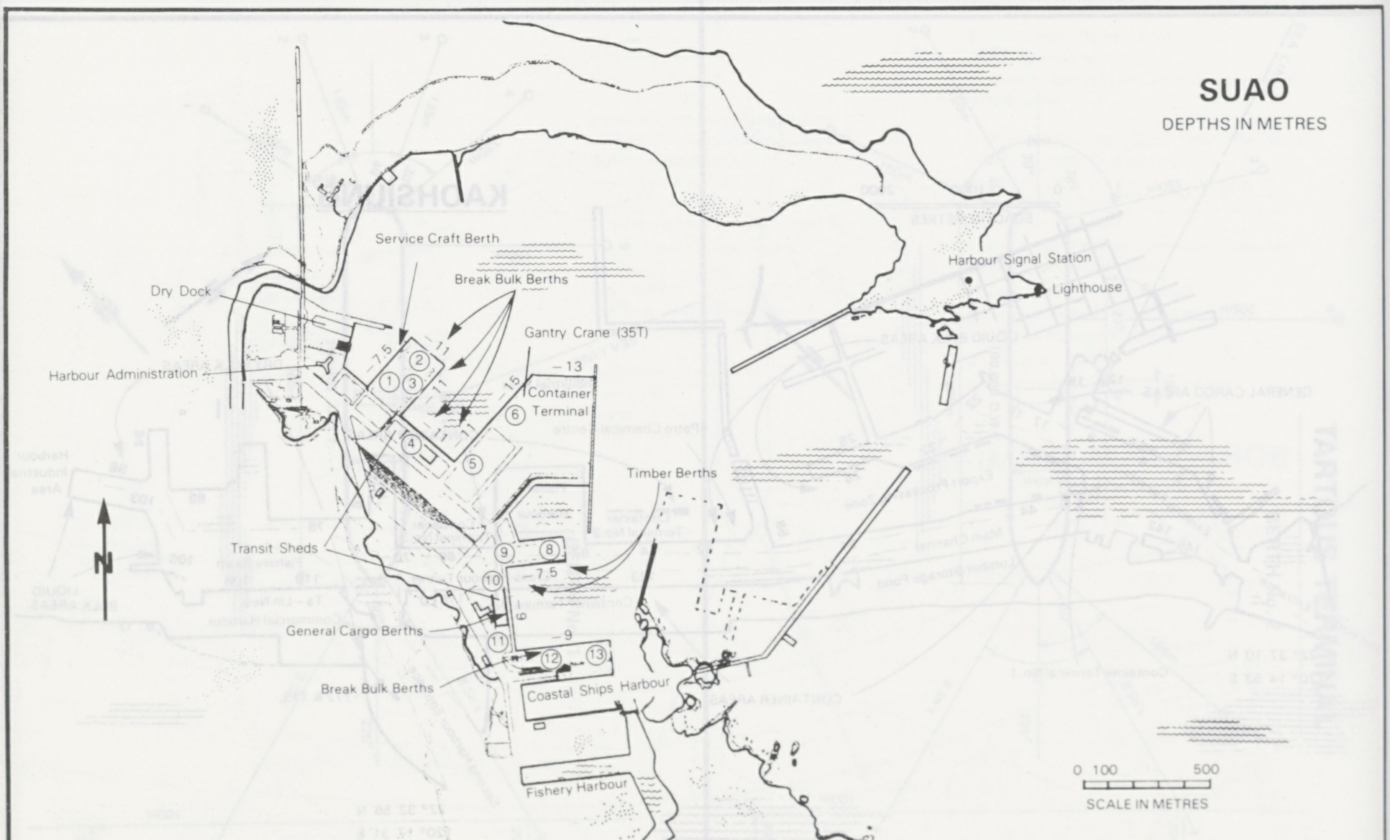
TARTOUS TERMINAL

BERTH No. 1
1
2
3
4
5
135m
135m
135m
135m
150m
35°
40°
30°
100,000 D.W.T.
280m
40m
30m
SEA LINE
60°
225°
8 Sh's
8 Sh's
100m
30m
30m
BERTH No. 2
SEA LINE
1
2
3
4
5
150m
150m
150m
30°
35°
76°
27°
205m
10m
100,000 D.W.T.
280m
40m
30m
50°
60°
168m
225°
8 Sh's
8 Sh's
100m
30m
30m

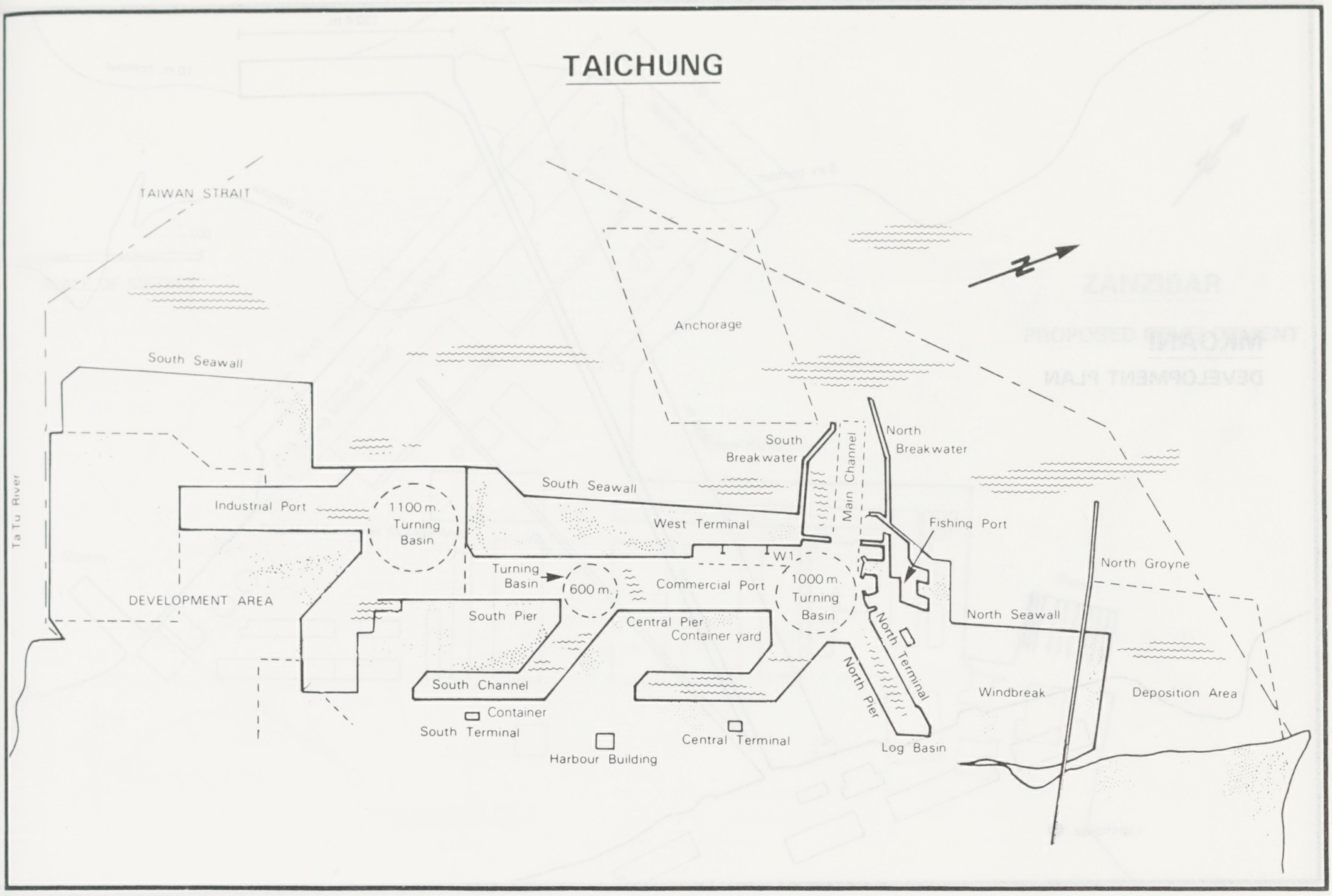

HUALIEN
①
123 m.
②
153 m.
③
134 m.
④
160 m.
⑤
160 m.
⑥
160 m.
⑦
120 m.
220 m.
⑧
⑨
103.12 m.
⑩
182.95 m.
⑪
185 m.
⑫
150 m.
185 m.
⑬
185 m.
⑭
99.78 m.
⑮
144 m.
⑯
⑰
200 m.
(−12 m.)
⑱
200 m.
(−12 m.)
⑲
267 m.
(−14.0 m.)
⑳
266 m.
(−14.0 m.)
㉑
266 m.
(−14.0 m.)
㉒
210 m.
(−14.0 m.)
㉓
220 m.
(−14.0 m.)
㉔
250 m.
(−14.0 m.)
㉕
330 m. (−16.5 m.)
400 m.
UNDER CONSTRUCTION
Turning Circle D = 800 m.
Breakwater
650 m.
400 m. (−19 m.)
400 m. (−21 m.)
195.8
520
Breakwater
250
25
1015 m.
1,315
300 m.
0
200
400
600
800
Scale in metres


KAOHSIUNG
0
1000
2000
SCALE IN METRES
LIQUID BULK AREAS
GENERAL CARGO AREAS
12
15
17
19
22
9
4
2
32
25
28
41
Existing Fairway
Export Processing Zone
44
142
145
Main Channel
54
58
Lumber Storage Pond
First Harbour Entrance
22° 37′ 10″ N
120° 14′ 53″ E
Container Terminal No. 1
CONTAINER AREAS
Industrial Area
Petro Chemical Centre
CONTAINER AREAS
Container Terminal No. 2
62
64
67
Fishery Harbour
Container Terminal No. 3
69
70
71
72
76
123
Cross Harbour Tunnel
Container Terminal No. 4
116
78
DRY BULK AREAS
94
98
88
103
Harbour Industrial Area
Fishery Basin
110
108
106
LIQUID BULK AREAS
Ta-Lin New Commercial Harbour
112 & 113
Second Harbour Entrance
22° 32′ 56″ N
120° 17′ 31″ E

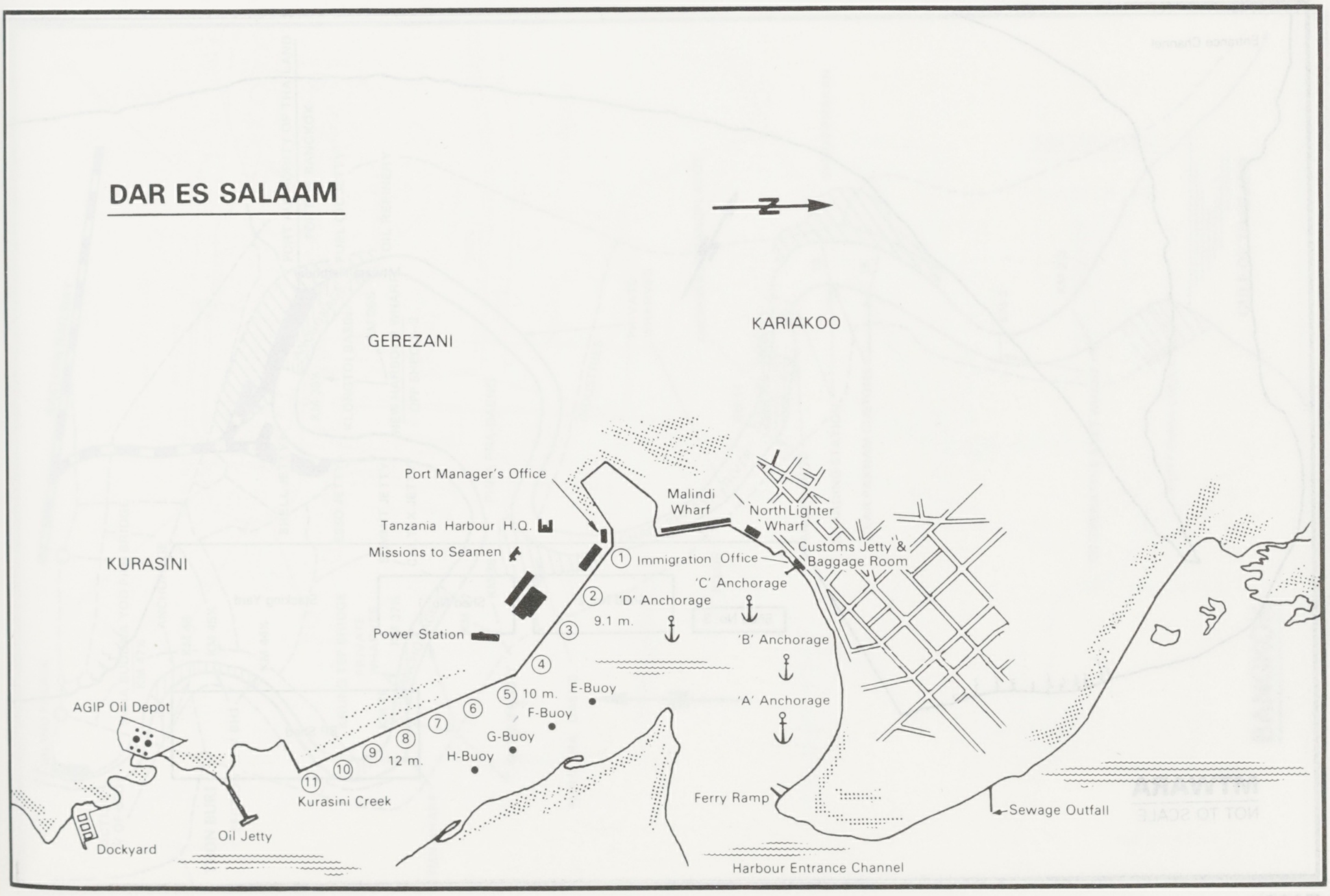

KEELUNG
Harbour Office
Craft Landing
Passenger Terminal
Nu Chu Kan Harbour
INNER HARBOUR
1st Container Terminal
No. 1 Pier
No. 2 Pier
Dock
2nd Container Terminal
Small Craft Basin
OUTER HARBOUR
Lighthouse
West Breakwater
Inner (W.) Breakwater
Oil terminal
Navigation Channel
East Breakwater Extension
Inner (E.) Breakwater
Tung-Pang Yi
Dock
Quarantine Anchorage
Dock
Dock
Fishery Harbour
To Log Basin
1
1B
2
3
4
5
6
7
8
9
10
11
12
12B
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
33B
E1
E2
E3
E4
E5
E6
E7
E8
E9
E10
E11
E12
E14
E15
E16
E17
E18
E19
E20
E21
E22

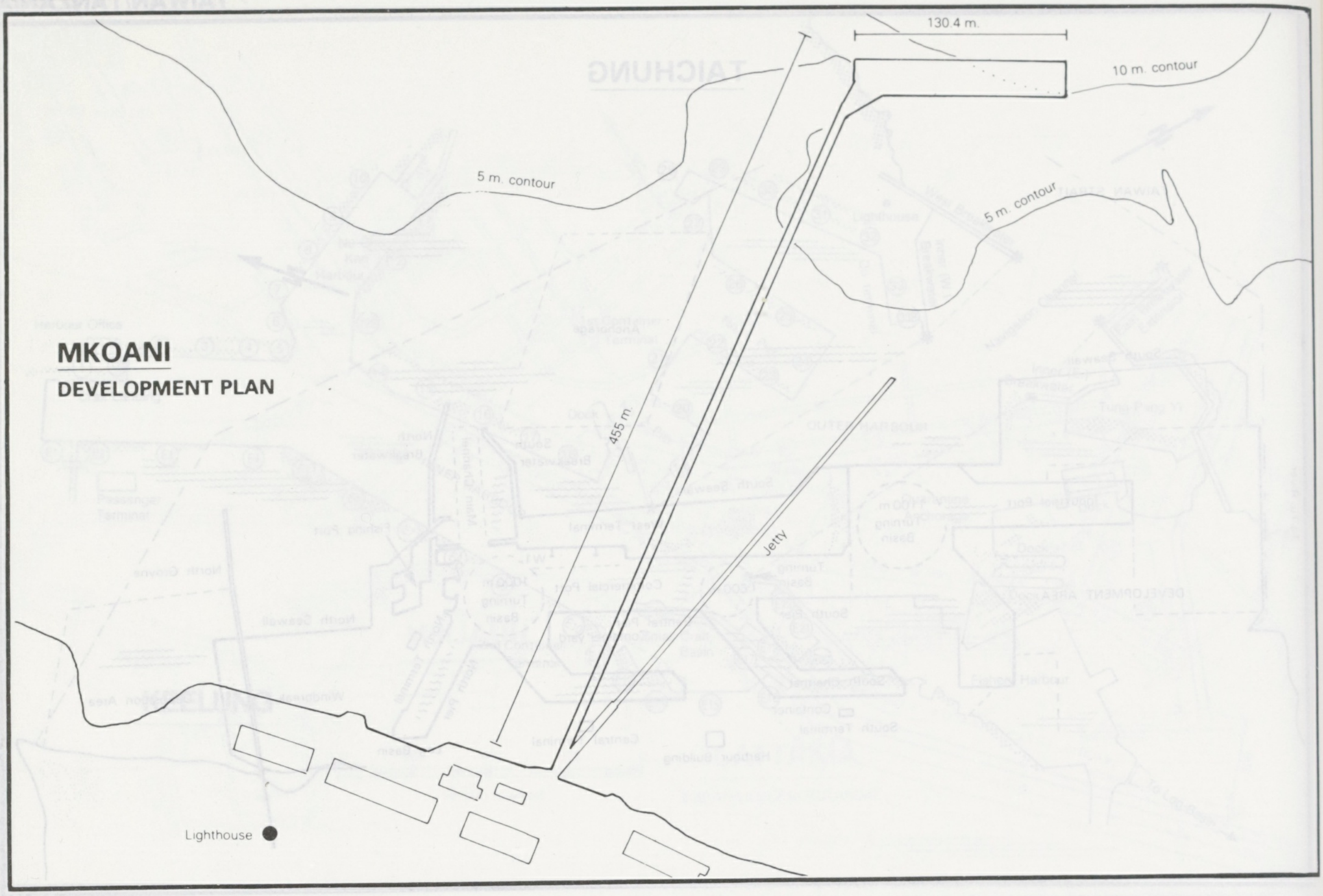

SUAO
DEPTHS IN METRES
Service Craft Berth
Break Bulk Berths
Dry Dock
Gantry Crane (35T)
Harbour Administration
−7.5
−11
−11
−13
−15
Container Terminal
1
2
3
4
5
6
Timber Berths
Transit Sheds
8
9
10
−7.5
9
General Cargo Berths
11
12
13
−9
Break Bulk Berths
Coastal Ships Harbour
Fishery Harbour
Fishery Harbour
Harbour Signal Station
Lighthouse
N
0 100 500
SCALE IN METRES

TAICHUNG


TAIWAN STRAIT
Ta Tu River
South Seawall
Anchorage
N
South Breakwater
Main Channel
North Breakwater
Industrial Port
1100 m. Turning Basin
South Seawall
West Terminal
Fishing Port
W1
Turning Basin
600 m.
Commercial Port
1000 m. Turning Basin
North Groyne
DEVELOPMENT AREA
South Pier
Central Pier
Container yard
North Terminal
North Seawall
South Channel
North Pier
Windbreak
Deposition Area
Container
South Terminal
Central Terminal
Log Basin
Harbour Building

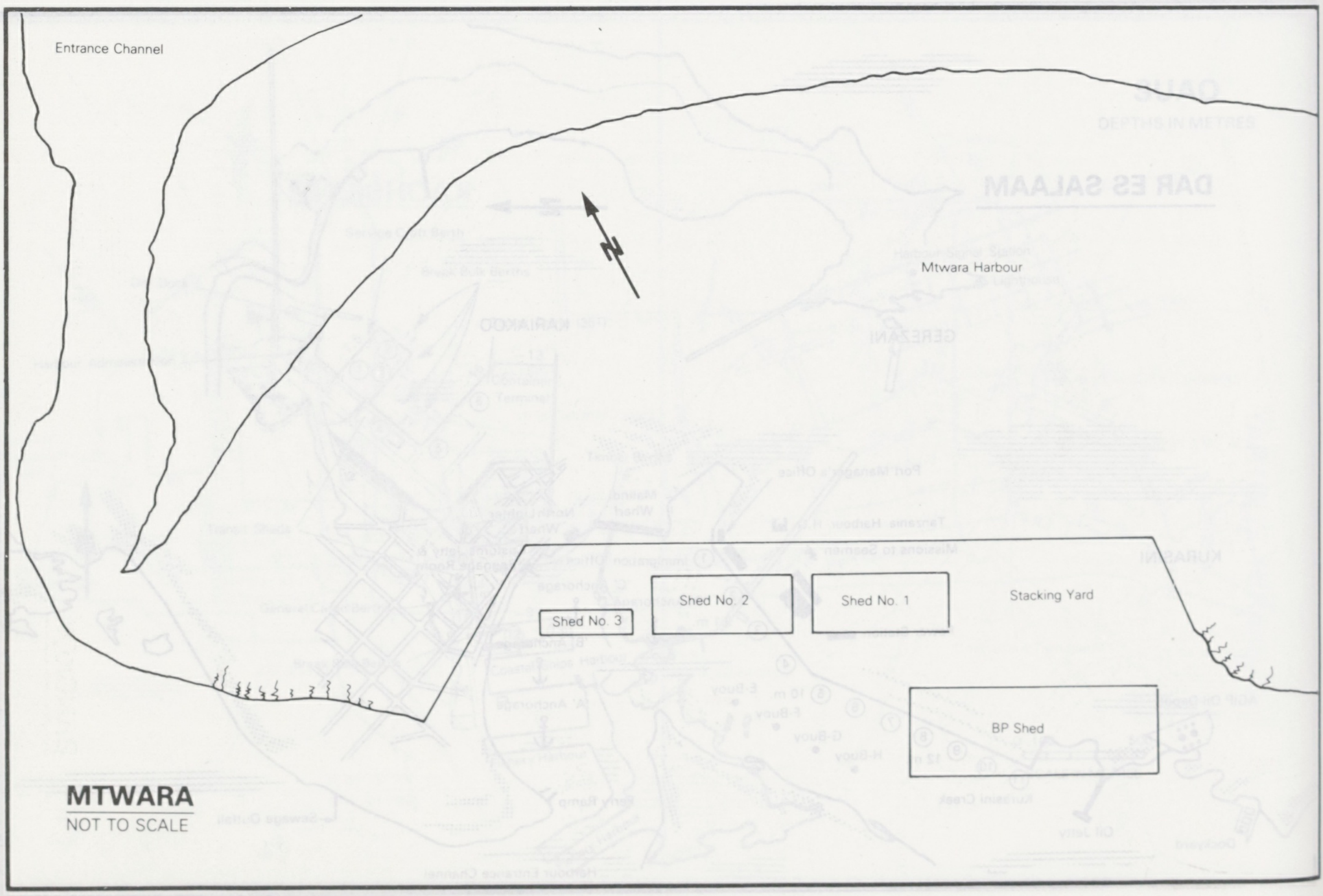
DAR ES SALAAM


N
KARIAKOO
GEREZANI
KURASINI
Port Manager's Office
Malindi Wharf
North Lighter Wharf
Tanzania Harbour H.Q.
Missions to Seamen
① Immigration Office
Customs Jetty & Baggage Room
'C' Anchorage
② 'D' Anchorage
9.1 m.
③
Power Station
'B' Anchorage
④
⑤ 10 m.
E-Buoy
'A' Anchorage
AGIP Oil Depot
⑥
F-Buoy
⑦
G-Buoy
⑧
⑨ 12 m.
H-Buoy
⑩
⑪ Kurasini Creek
Oil Jetty
Dockyard
Ferry Ramp
Sewage Outfall
Harbour Entrance Channel



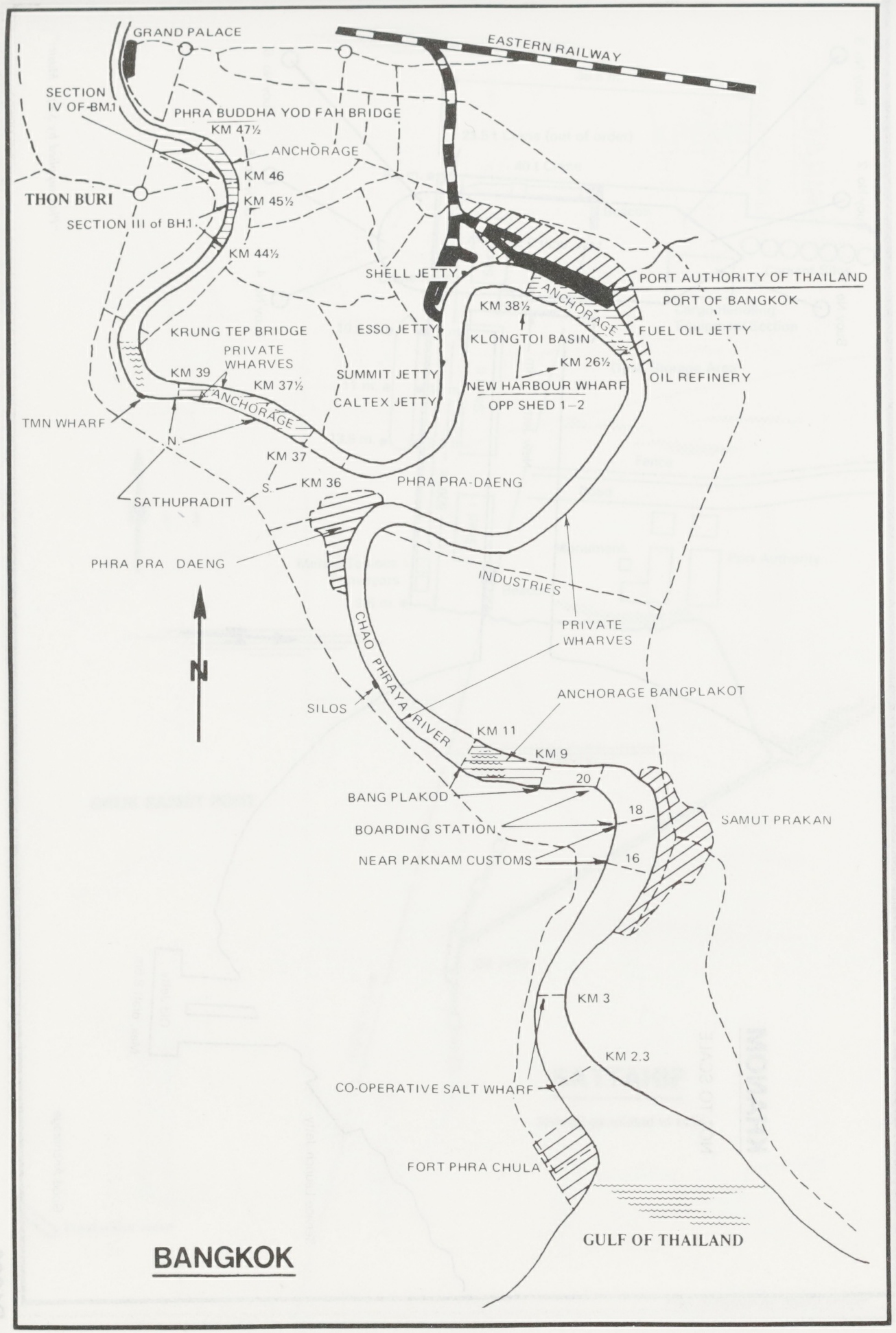
MKOANI
DEVELOPMENT PLAN

130.4 m.
10 m. contour
5 m. contour
5 m. contour
455 m
Jetty
Lighthouse

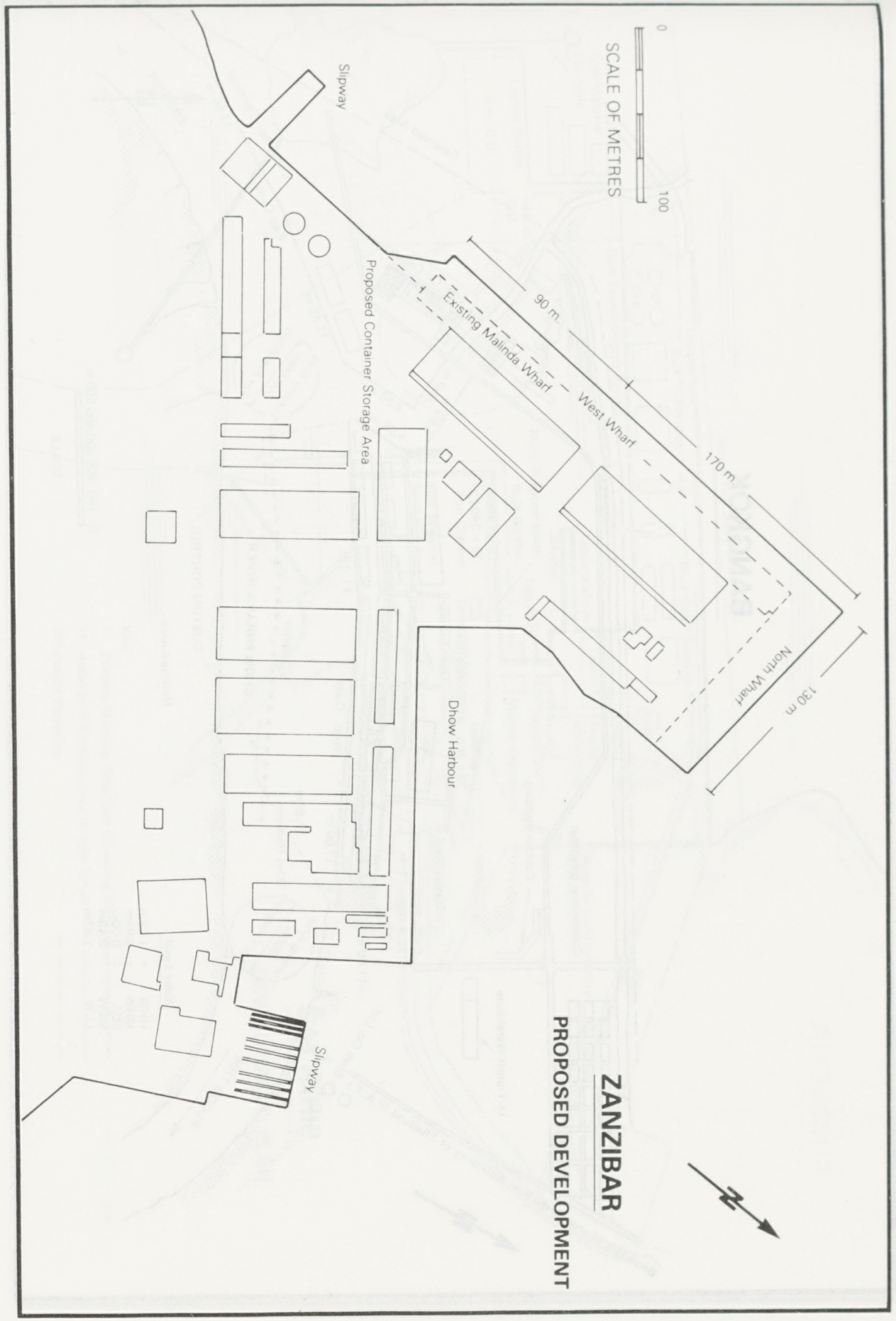


MTWARA
NOT TO SCALE

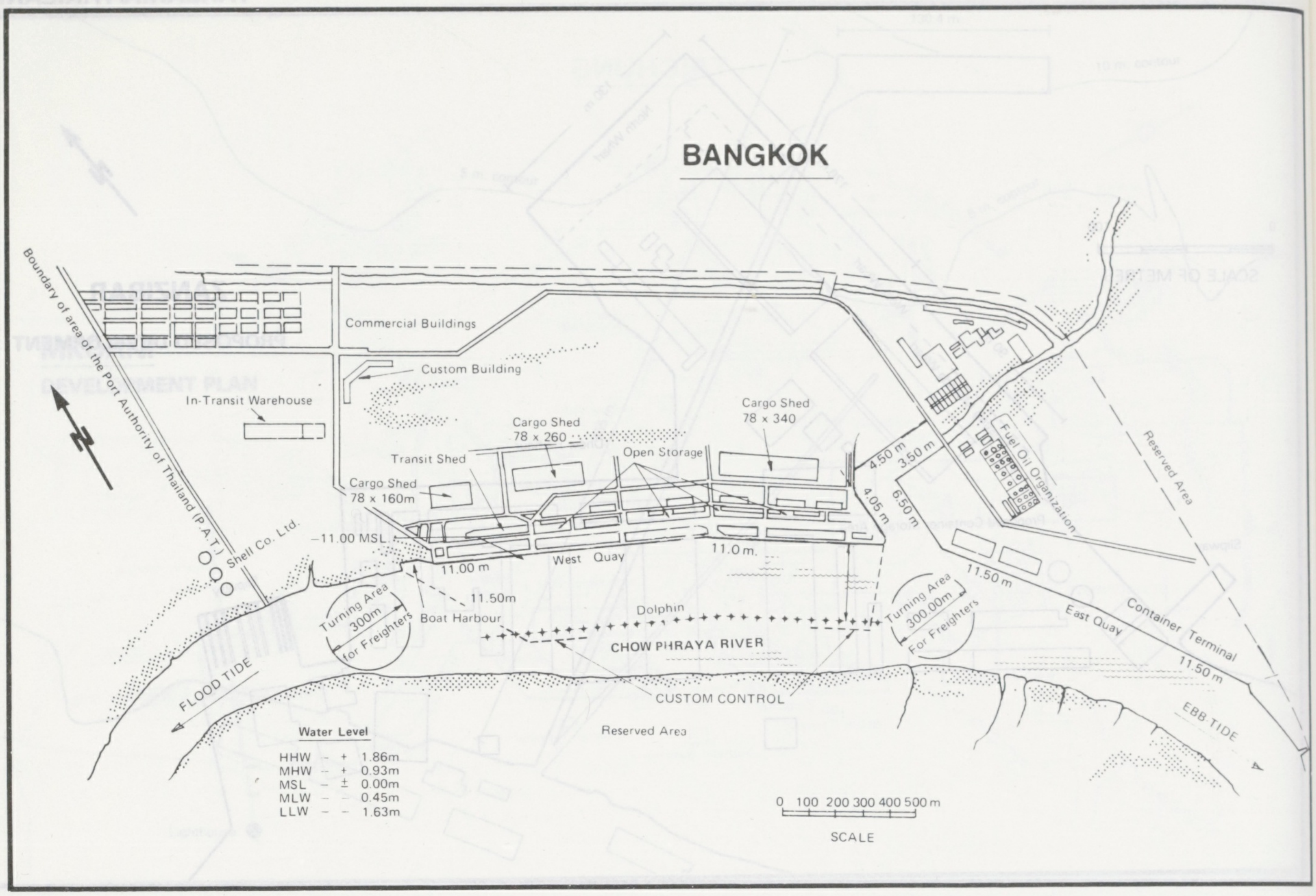
Entrance Channel
N
Mtwara Harbour
Shed No. 3
Shed No. 2
Shed No. 1
Stacking Yard
BP Shed

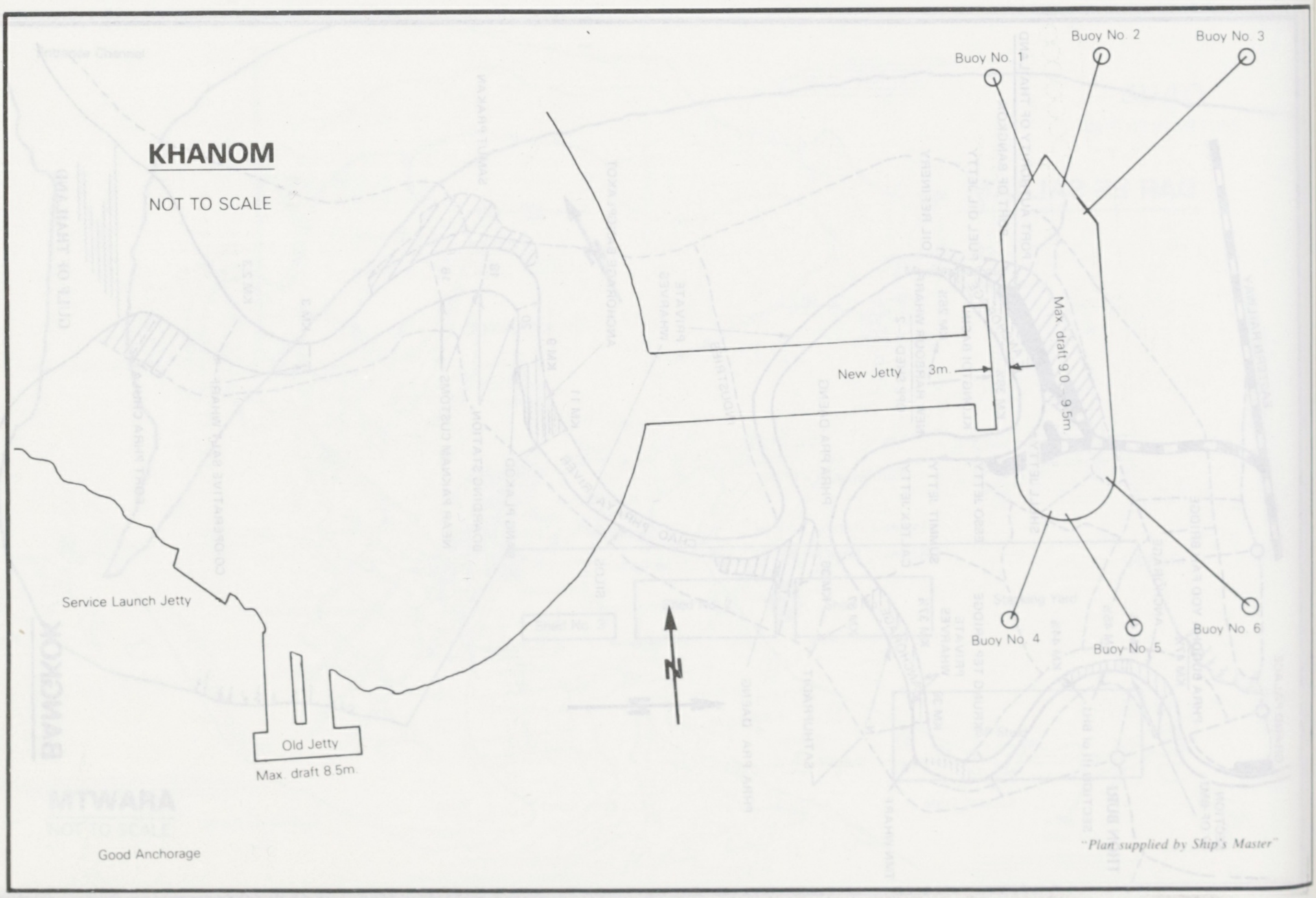

GRAND PALACE
EASTERN RAILWAY
SECTION IV OF BM.1
PHRA BUDDHA YOD FAH BRIDGE
KM 47½
ANCHORAGE
KM 46
THON BURI
KM 45½
SECTION III of BH.1
KM 44½
SHELL JETTY
PORT AUTHORITY OF THAILAND
PORT OF BANGKOK
KM 38⅓
ANCHORAGE
KRUNG TEP BRIDGE
ESSO JETTY
KLONGTOI BASIN
FUEL OIL JETTY
PRIVATE WHARVES
KM 26½
KM 39
KM 37½
SUMMIT JETTY
NEW HARBOUR WHARF
OPP SHED 1–2
OIL REFINERY
CALTEX JETTY
TMN WHARF
ANCHORAGE
N.
KM 37
S.
KM 36
SATHUPRADIT
PHRA PRA-DAENG
PHRA PRA DAENG
INDUSTRIES
N
CHAO PHRAYA RIVER
PRIVATE WHARVES
SILOS
ANCHORAGE BANGPLAKOT
KM 11
KM 9
20
BANG PLAKOD
18
SAMUT PRAKAN
BOARDING STATION
NEAR PAKNAM CUSTOMS
16
KM 3
KM 2.3
CO-OPERATIVE SALT WHARF
FORT PHRA CHULA
GULF OF THAILAND

BANGKOK

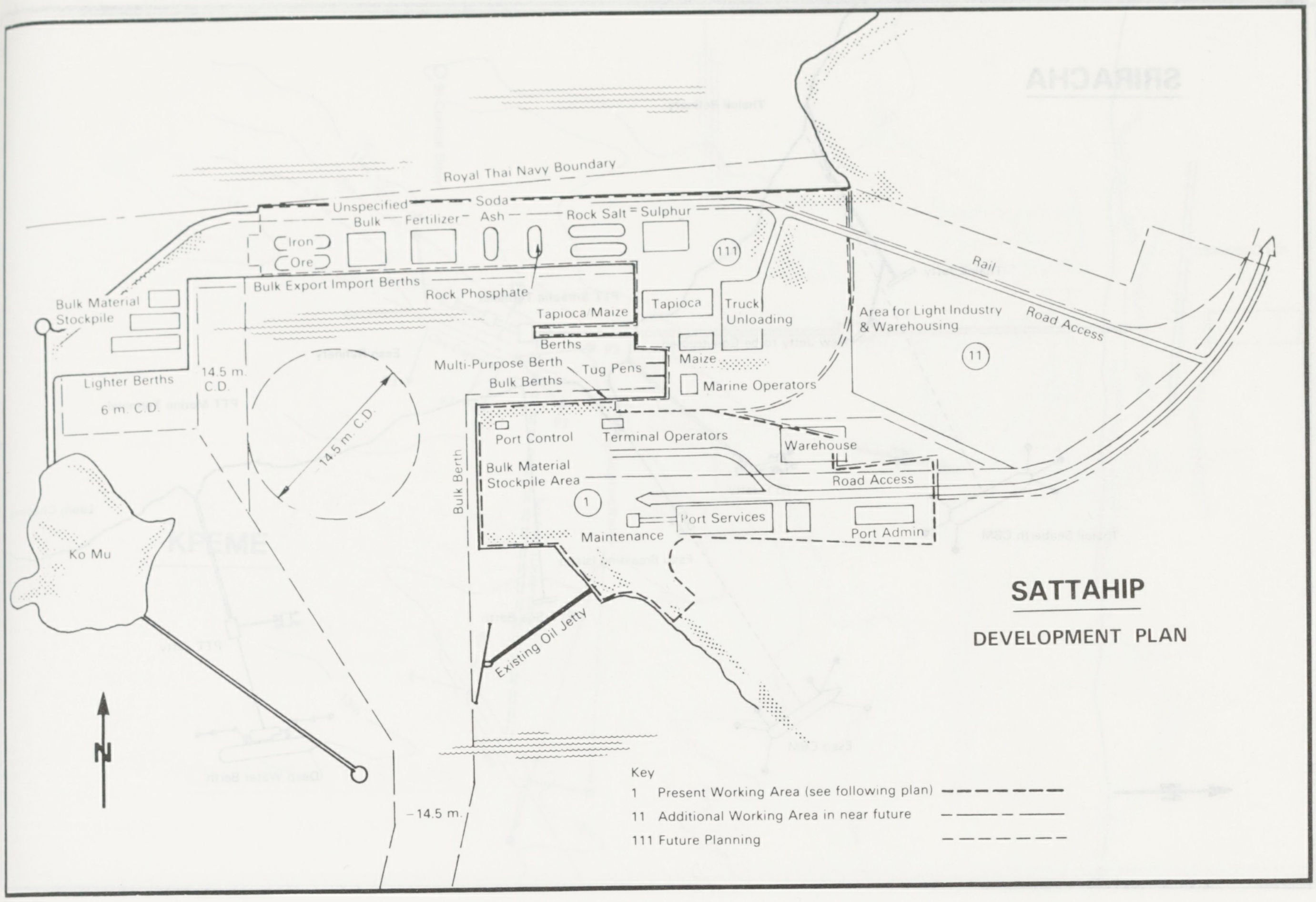

SCALE OF METRES
0
100
Slipway
Proposed Container Storage Area
90 m
Existing Malinda Wharf
West Wharf
170 m
North Wharf
130 m
Dhow Harbour
Slipway
N

ZANZIBAR
PROPOSED DEVELOPMENT


BANGKOK
Boundary of area of the Port Authority of Thailand (P.A.T.)
N
Commercial Buildings
Custom Building
In-Transit Warehouse
Cargo Shed 78 x 260
Cargo Shed 78 x 340
Transit Shed
Open Storage
Cargo Shed 78 x 160m
Shell Co. Ltd.
−11.00 MSL
11.00 m
West Quay
11.0 m.
11.50m
Boat Harbour
Turning Area 300m for Freighters
Dolphin
CHOW PHRAYA RIVER
Turning Area 300.00m For Freighters
4.50 m
3.50 m
4.05 m
6.50 m
Fuel Oil Organization
Reserved Area
11.50 m
East Quay
Container Terminal
11.50 m
EBB TIDE
FLOOD TIDE
CUSTOM CONTROL
Reserved Area
Water Level
HHW − + 1.86m
MHW − + 0.93m
MSL − ± 0.00m
MLW − − 0.45m
LLW − − 1.63m
0 100 200 300 400 500 m
SCALE


KHANOM
NOT TO SCALE
Buoy No. 1
Buoy No. 2
Buoy No. 3
Max. draft 9.0 - 9.5m
New Jetty
3m
Buoy No. 4
Buoy No. 5
Buoy No. 6
N
Service Launch Jetty
Old Jetty
Max. draft 8.5m.
Good Anchorage

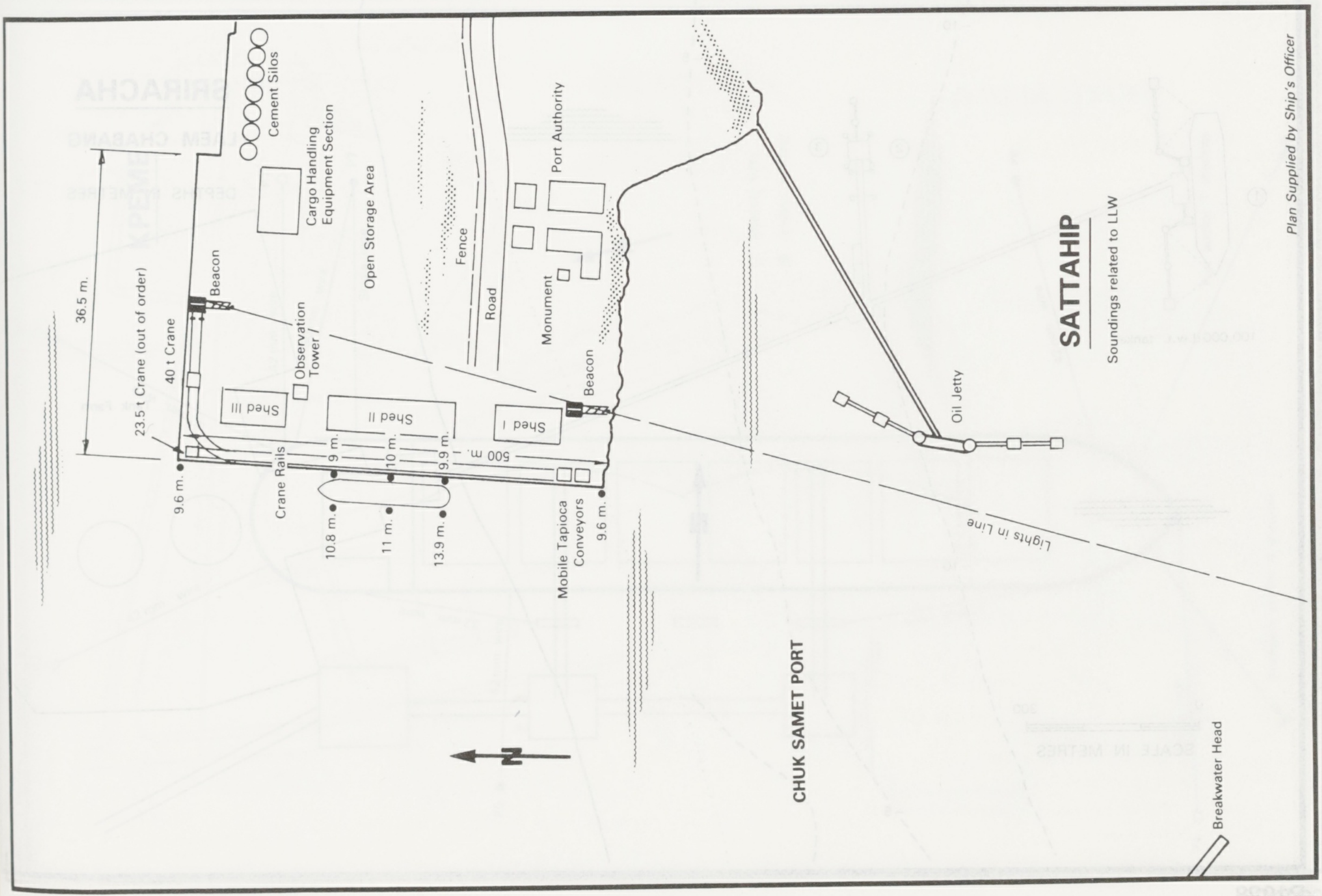
"Plan supplied by Ship's Master"


Royal Thai Navy Boundary
Unspecified Bulk
Fertilizer
Soda Ash
Rock Salt
Sulphur
Iron
Ore
111
Bulk Export Import Berths
Rock Phosphate
Bulk Material Stockpile
Tapioca Maize
Tapioca
Truck Unloading
Area for Light Industry & Warehousing
Rail
Road Access
11
Berths
Multi-Purpose Berth
Tug Pens
Maize
Bulk Berths
Marine Operators
Lighter Berths
6 m. C.D.
14.5 m. C.D.
14.5 m. C.D.
Port Control
Terminal Operators
Warehouse
Bulk Material Stockpile Area
Road Access
1
Bulk Berth
Port Services
Maintenance
Port Admin
Ko Mu
Existing Oil Jetty
N
–14.5 m.

SATTAHIP

DEVELOPMENT PLAN

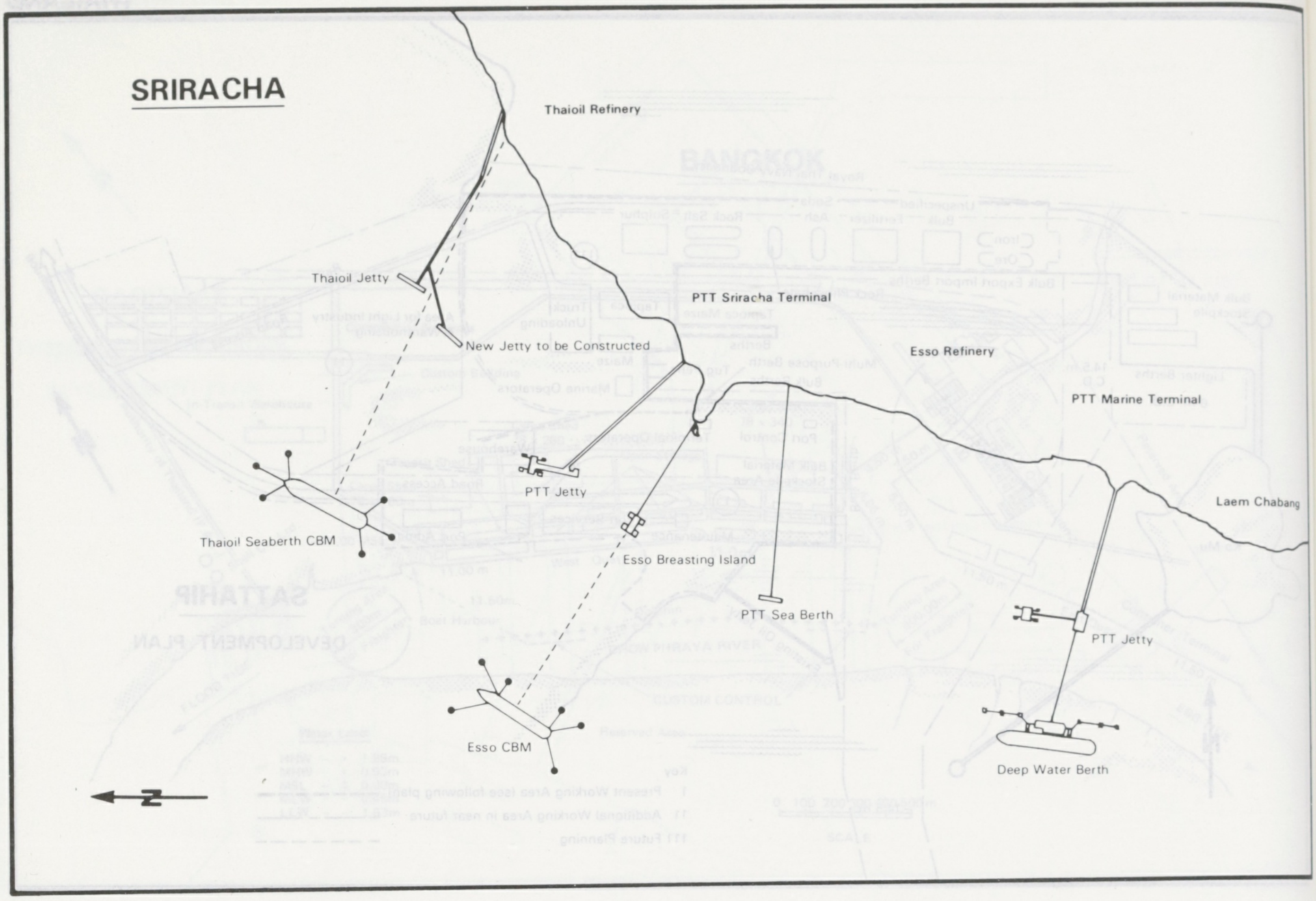
Key
1 Present Working Area (see following plan)
11 Additional Working Area in near future
111 Future Planning

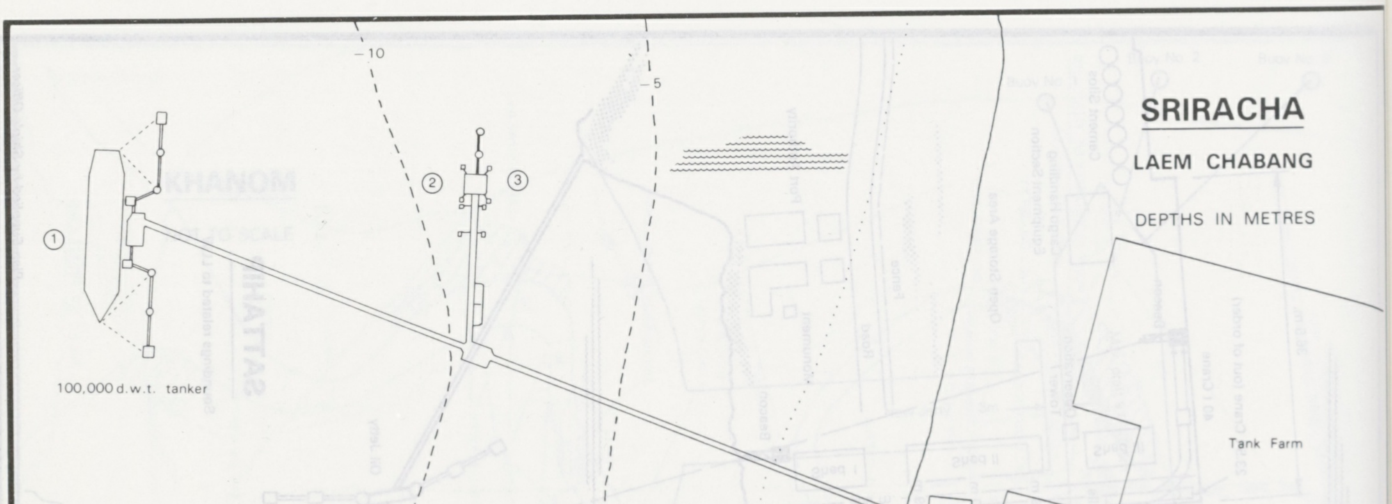

Cement Silos
Cargo Handling Equipment Section
Open Storage Area
Fence
Road
Port Authority
Monument
Beacon
36.5 m.
23.5 t Crane (out of order)
40 t Crane
Observation Tower
Shed III
Shed II
Shed I
Beacon
500 m.
9.6 m.
Crane Rails
9 m.
10 m.
9.9 m.
10.8 m.
11 m.
13.9 m.
Mobile Tapioca Conveyors
9.6 m.
Oil Jetty
Lights in Line
N
CHUK SAMET PORT
Breakwater Head

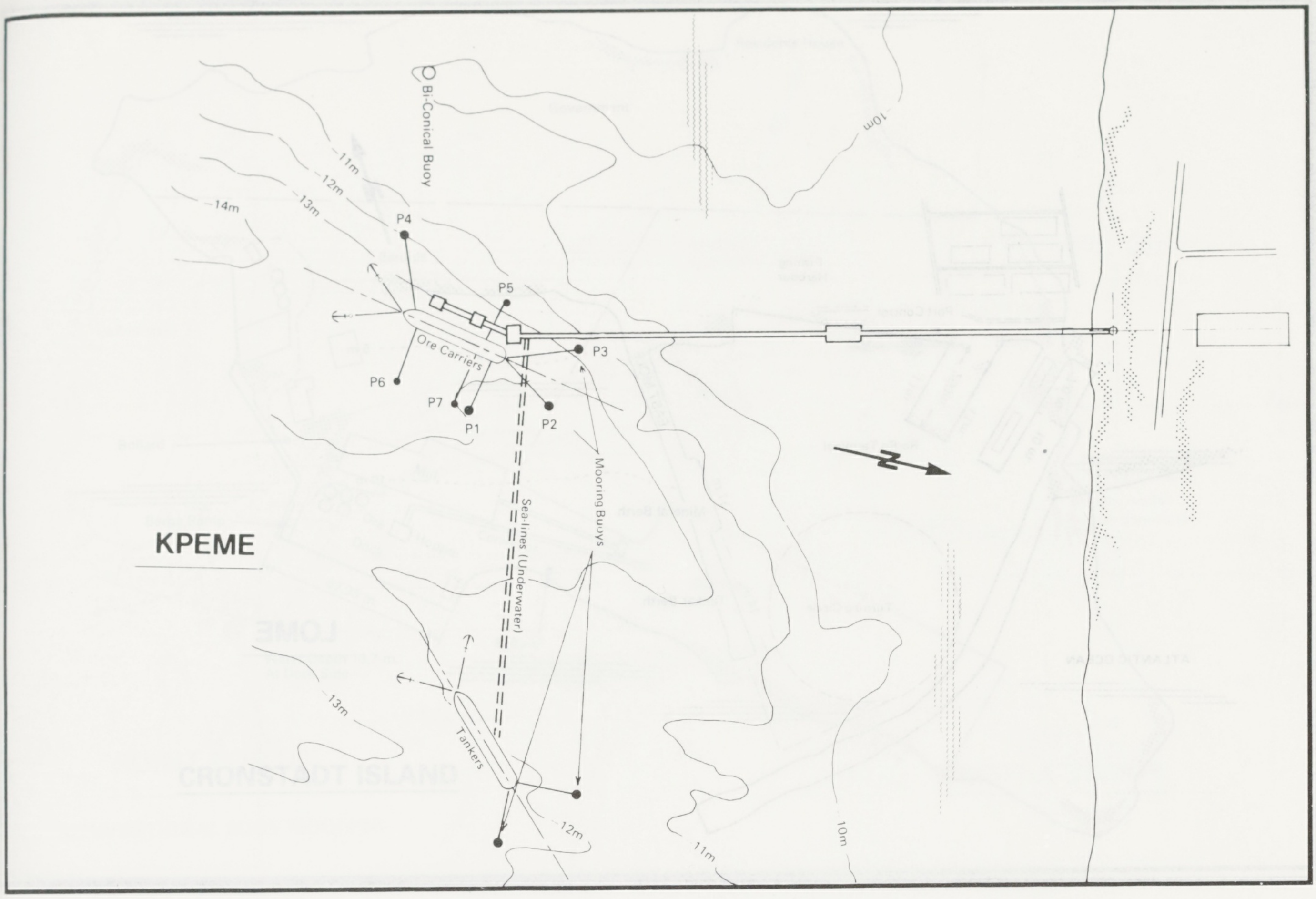
SATTAHIP

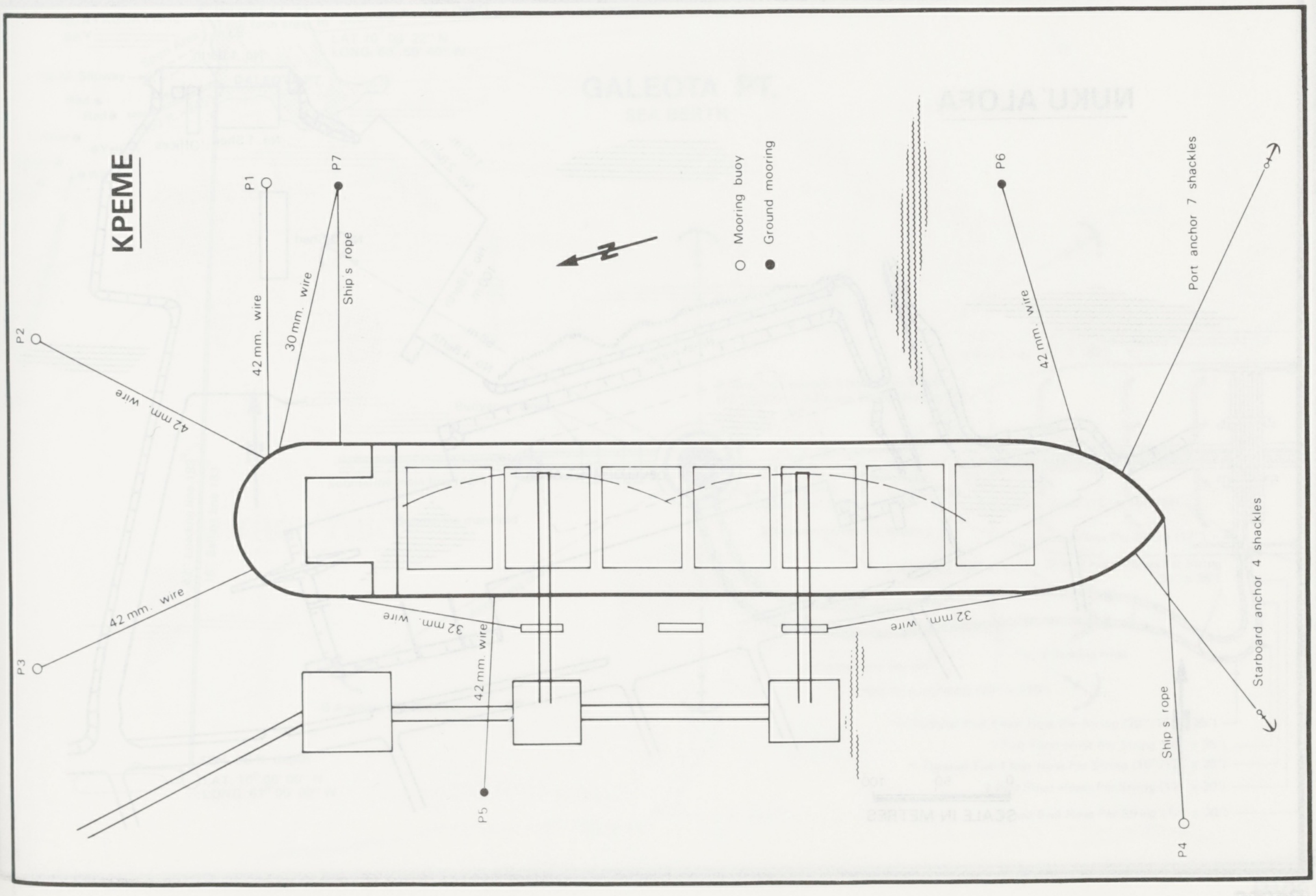
Soundings related to LLW

Plan Supplied by Ship's Officer

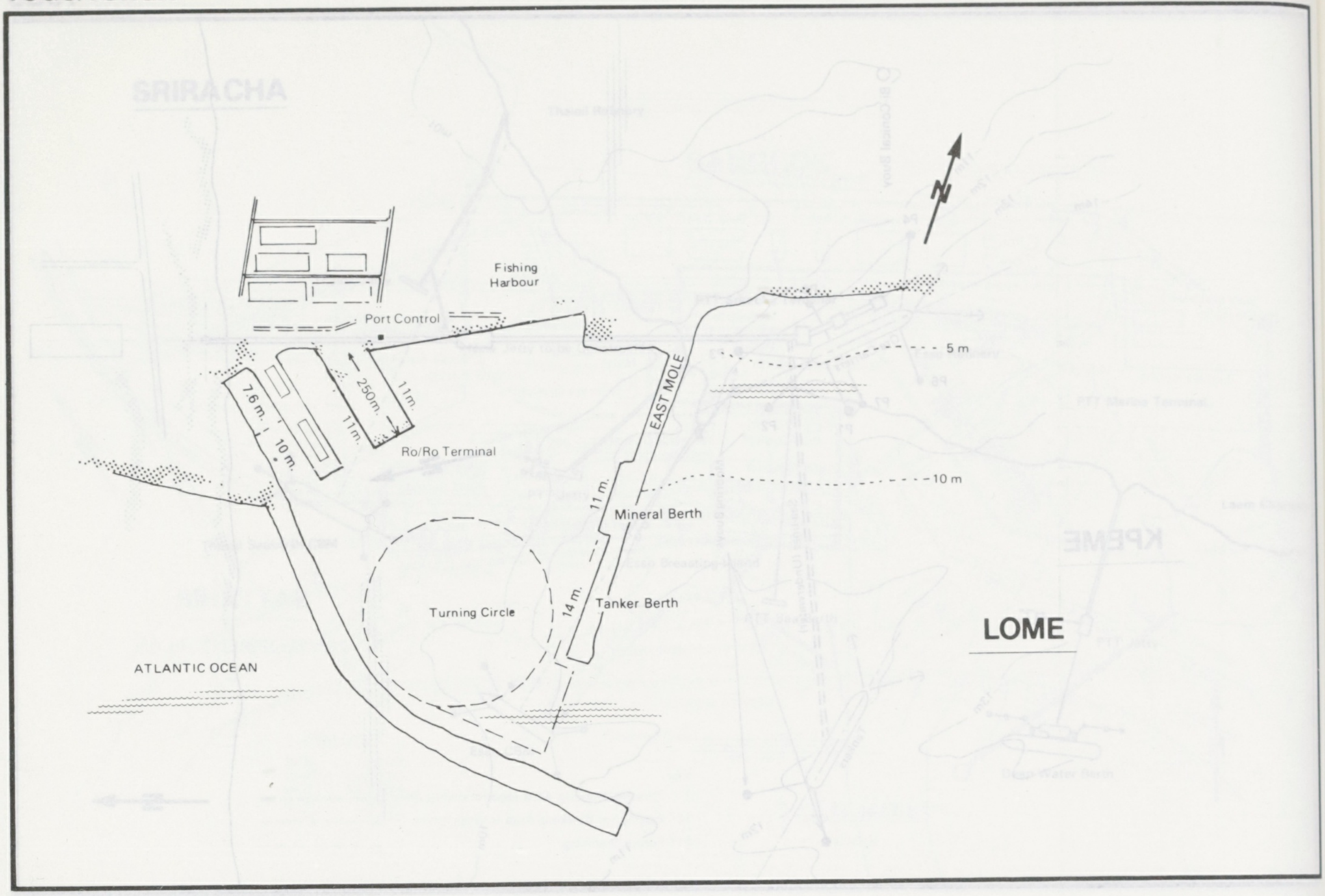

SRIRACHA
Thaioil Refinery
Thaioil Jetty
New Jetty to be Constructed
PTT Sriracha Terminal
Esso Refinery
PTT Marine Terminal
Laem Chabang
PTT Jetty
Thaioil Seaberth CBM
Esso Breasting Island
PTT Sea Berth
PTT Jetty
Esso CBM
Deep Water Berth
N

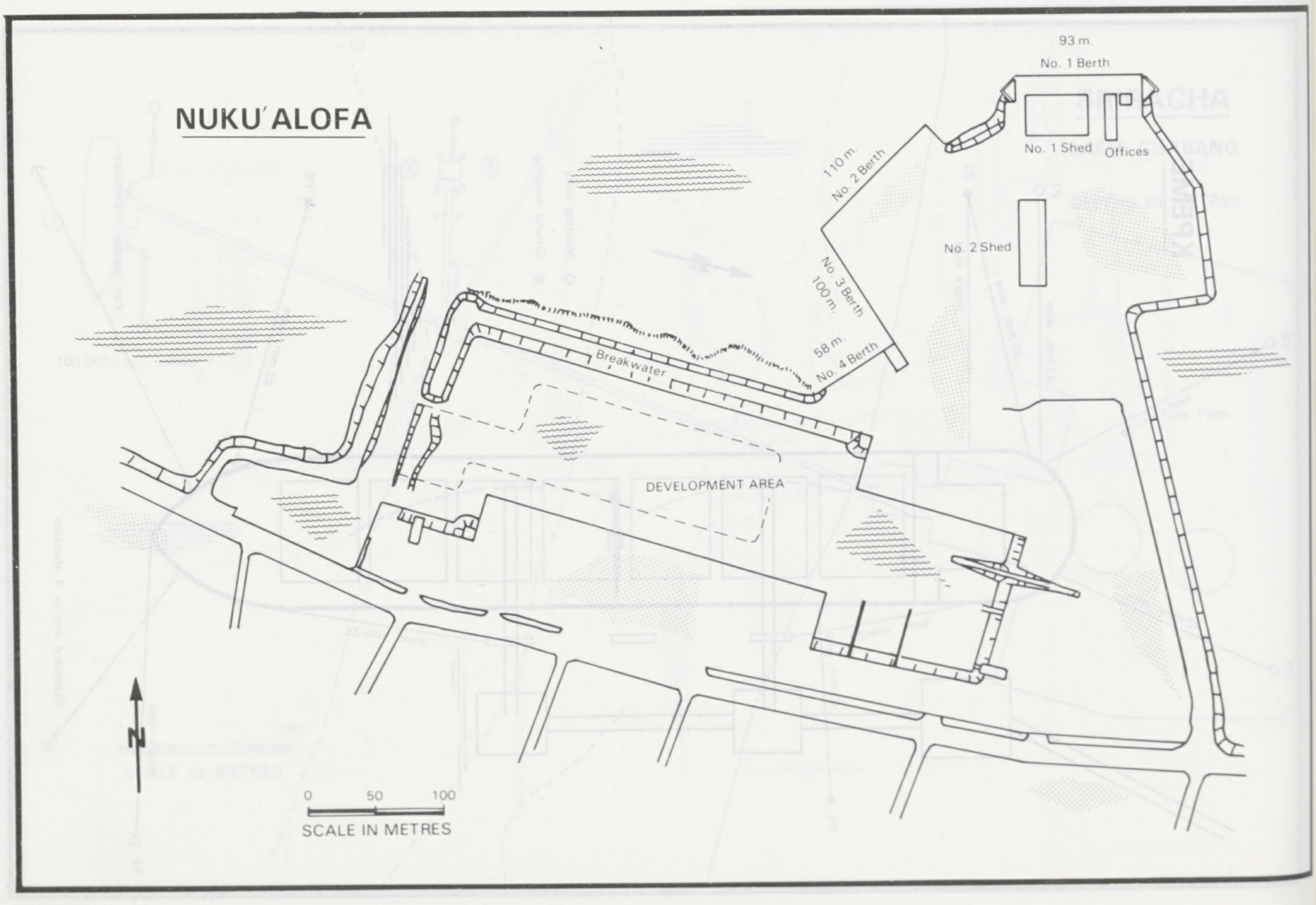

SRIRACHA
LAEM CHABANG
DEPTHS IN METRES
-10
-5
②
③
①
100,000 d.w.t. tanker
Tank Farm
N
-10
0
300
SCALE IN METRES
-5

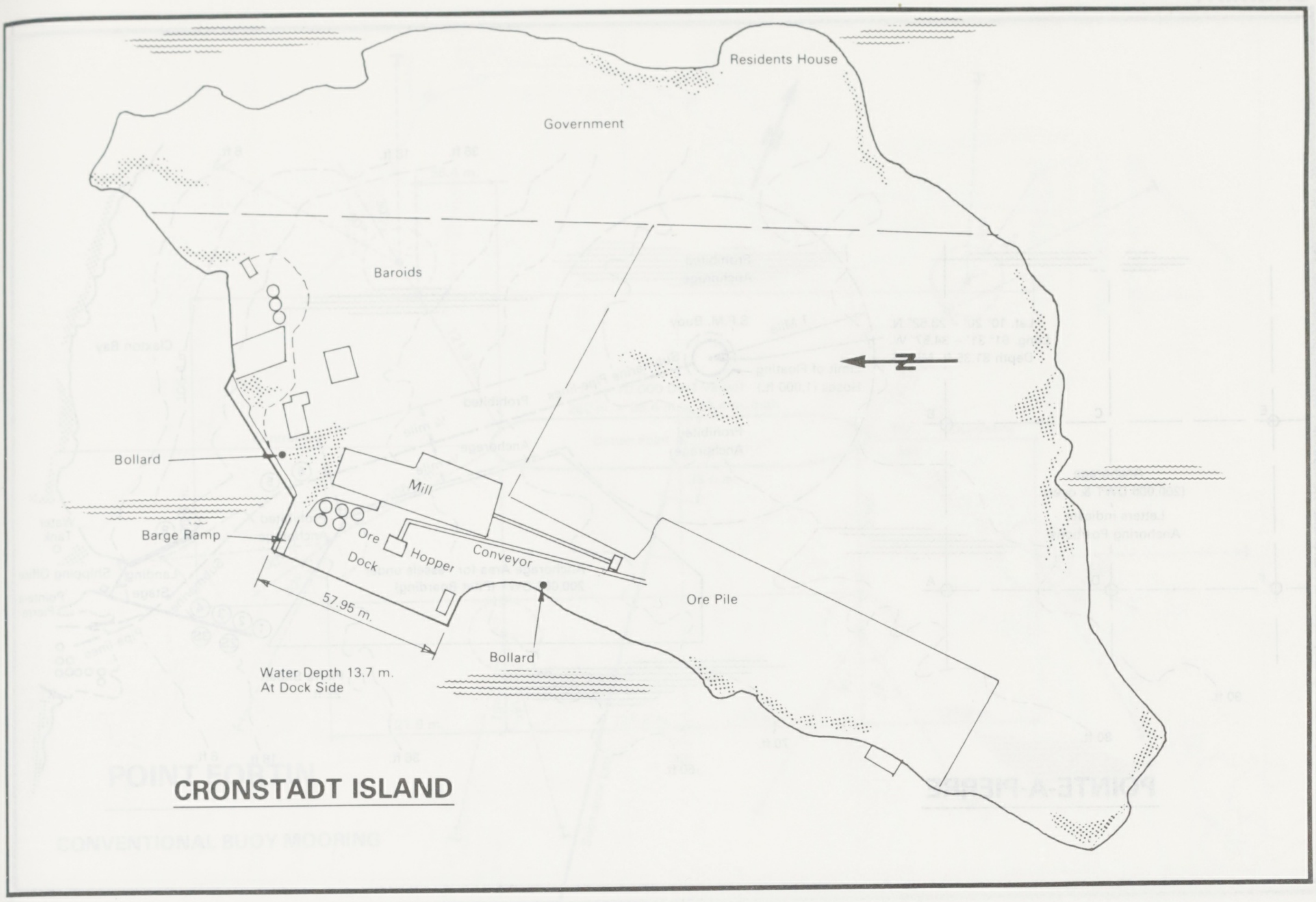

KPEME
Bi-Conical Buoy
11m
12m
13m
14m
P4
P5
P3
P6
P7
P1
P2
Ore Carriers
Mooring Buoys
Sea lines (Underwater)
Tankers
13m
12m
11m
10m
10m


KPEME
P1
P7
Mooring buoy
Ground mooring
P6
Port anchor 7 shackles
P2
42 mm. wire
42 mm. wire
30 mm. wire
Ship s rope
42 mm. wire
42 mm. wire
P3
32 mm. wire
32 mm. wire
42 mm. wire
P5
Ship s rope
P4
Starboard anchor 4 shackles

"Plan supplied by Ship's Master"

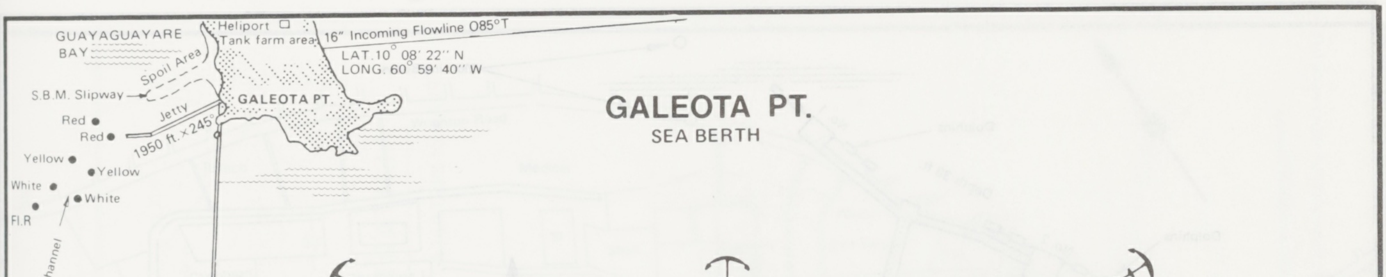

Fishing Harbour
Port Control
250m.
11m.
11m.
7.6 m.
10 m.
Ro/Ro Terminal
EAST MOLE
5 m
10 m
11 m.
Mineral Berth
14 m.
Tanker Berth
Turning Circle
ATLANTIC OCEAN
N
LOME


NUKU'ALOFA
93 m.
No. 1 Berth
No. 1 Shed
Offices
110 m.
No. 2 Berth
No. 2 Shed
No. 3 Berth
100 m.
58 m.
No. 4 Berth
Breakwater
DEVELOPMENT AREA
N
0
50
100
SCALE IN METRES



CRONSTADT ISLAND

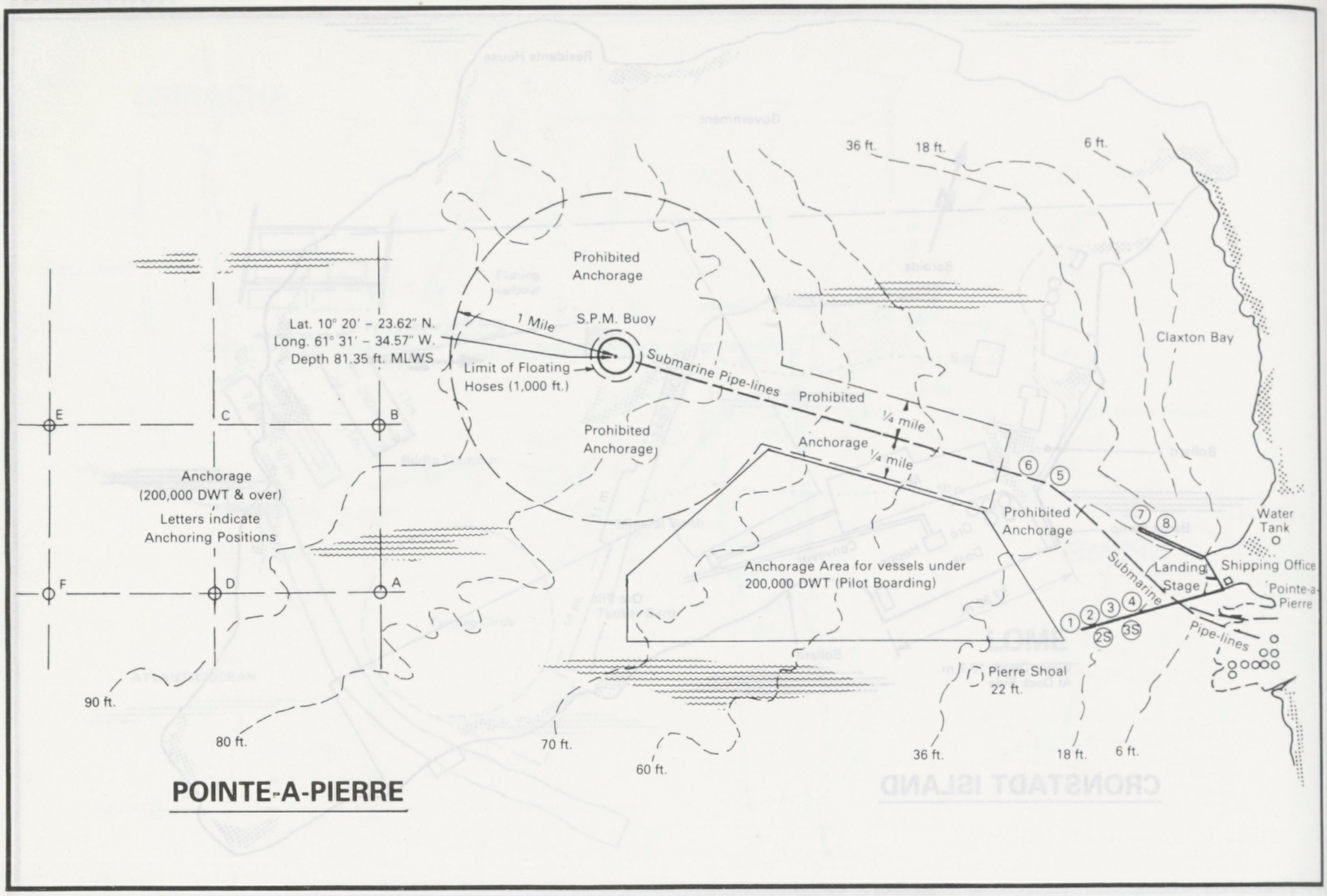
Residents House
Government
Baroids
Bollard
Mill
Barge Ramp
Ore
Hopper
Conveyor
Dock
57.95 m.
Ore Pile
Bollard
Water Depth 13.7 m.
At Dock Side

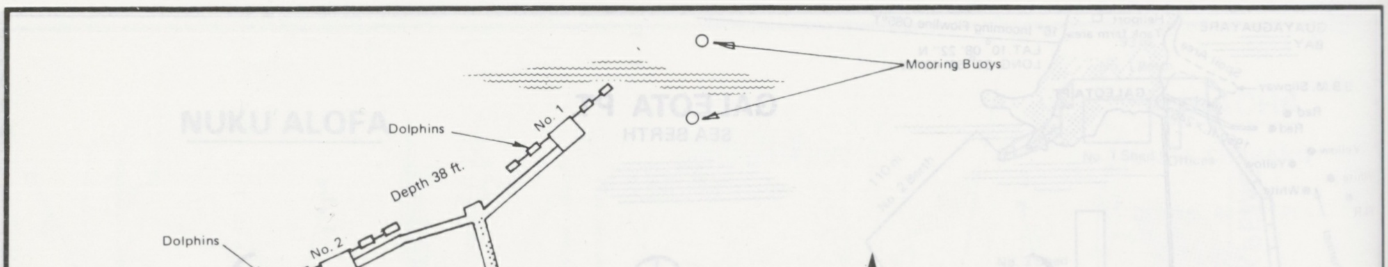


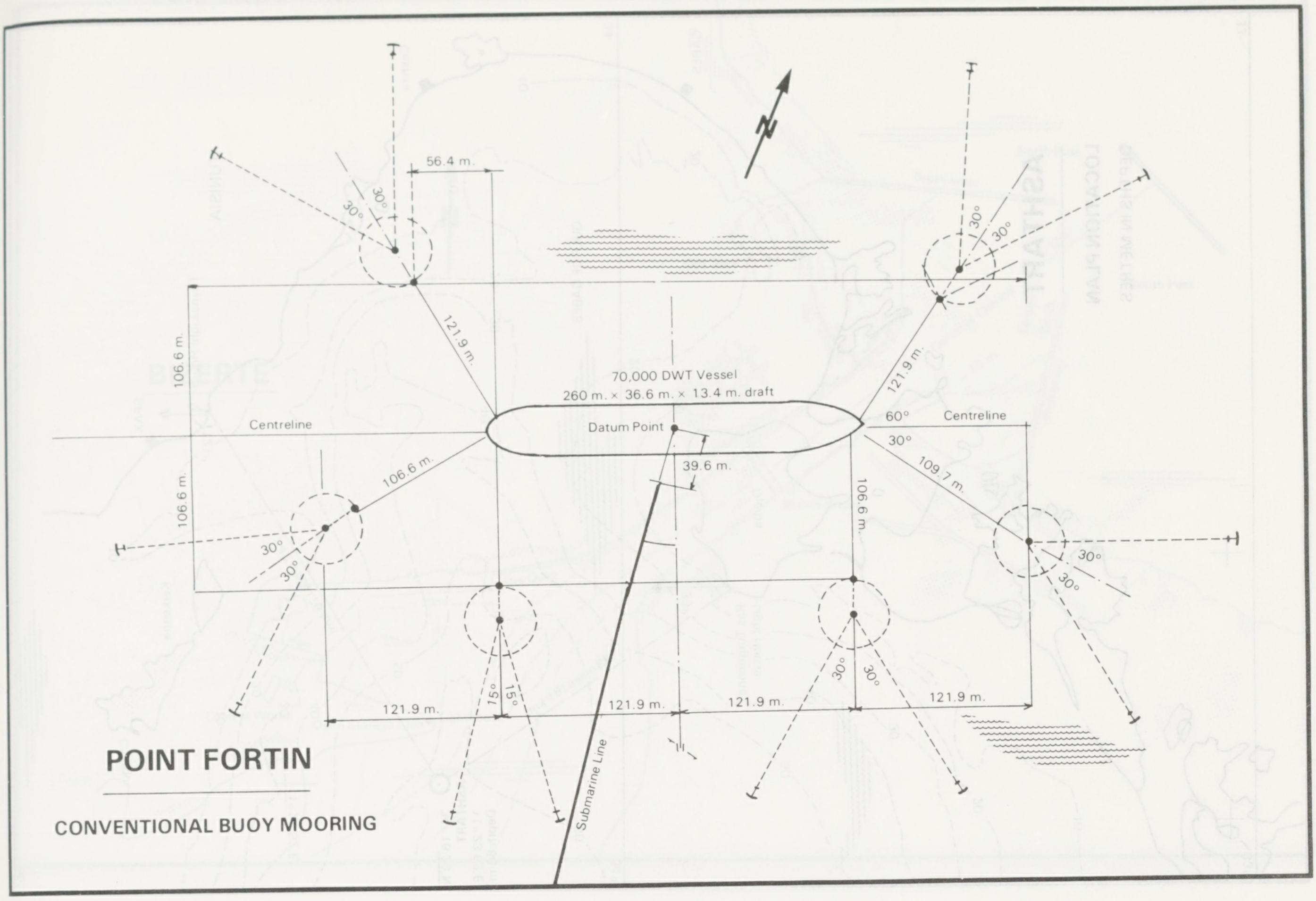
GALEOTA PT.

SEA BERTH

GUAYAGUAYARE
BAY
Heliport
Tank farm area
16" Incoming Flowline 085°T
LAT. 10° 08' 22" N
LONG. 60° 59' 40" W
Spoil Area
S.B.M. Slipway
GALEOTA PT.
Jetty
1950 ft. × 245°
Red
Red
Yellow
Yellow
White
White
Fl.R
Galeota Small Boat Channel
42" Loading line 183°
16" Ballast line 183°
N
Buoyancy tanks
2 Mooring Hawsers Attached to Buoys
(12" x 200' – 8 Strand Plaited Nylon)
2 Bitt Lines (10" x 100')
Submarine main line (42")
Submarine manifold
2 16' Mooring
Chains (2½")
2 Support buoys for hawsers.
1 Butterfly Valve (12" x 150 PSI)
1 Spool Piece Per String (12")
2 Reducers (20" – 12")
15 Full Float Hoses Per String
(20" x 35')
Anchoring chain
3 Connectors (nylon)
2 Towing rings
2 Self floating hoses (20" x 770')
6 Anchors (30,000 lbs)
1 Tapered Full Float Hose Per String (20"/16" x 35')
1 Full Float Hose Per String (16" x 35')
1 Tapered Full Float Hose Per String (16"/12" x 35')
2 Full Float Hoses Per String (12" x 30')
1 Roll End Hose Per String (12" x 30')
SBM. 95 ft. depth
LAT. 10° 05' 00" N
LONG. 61° 00' 00" W


POINTE-A-PIERRE
Prohibited Anchorage
S.P.M. Buoy
1 Mile
Lat. 10° 20' – 23.62" N.
Long. 61° 31' – 34.57" W.
Depth 81.35 ft. MLWS
Limit of Floating Hoses (1,000 ft.)
Submarine Pipe-lines
Prohibited Anchorage
Prohibited Anchorage
¼ mile
¼ mile
Prohibited Anchorage
Anchorage (200,000 DWT & over)
Letters indicate Anchoring Positions
A
B
C
D
E
F
Anchorage Area for vessels under 200,000 DWT (Pilot Boarding)
Pierre Shoal 22 ft.
Claxton Bay
Water Tank
Shipping Office
Pointe-a-Pierre
Landing Stage
Submarine Pipe-lines
1
2
3
4
5
6
7
8
2S
3S
36 ft.
18 ft.
6 ft.
90 ft.
80 ft.
70 ft.
60 ft.
36 ft.
18 ft.
6 ft.

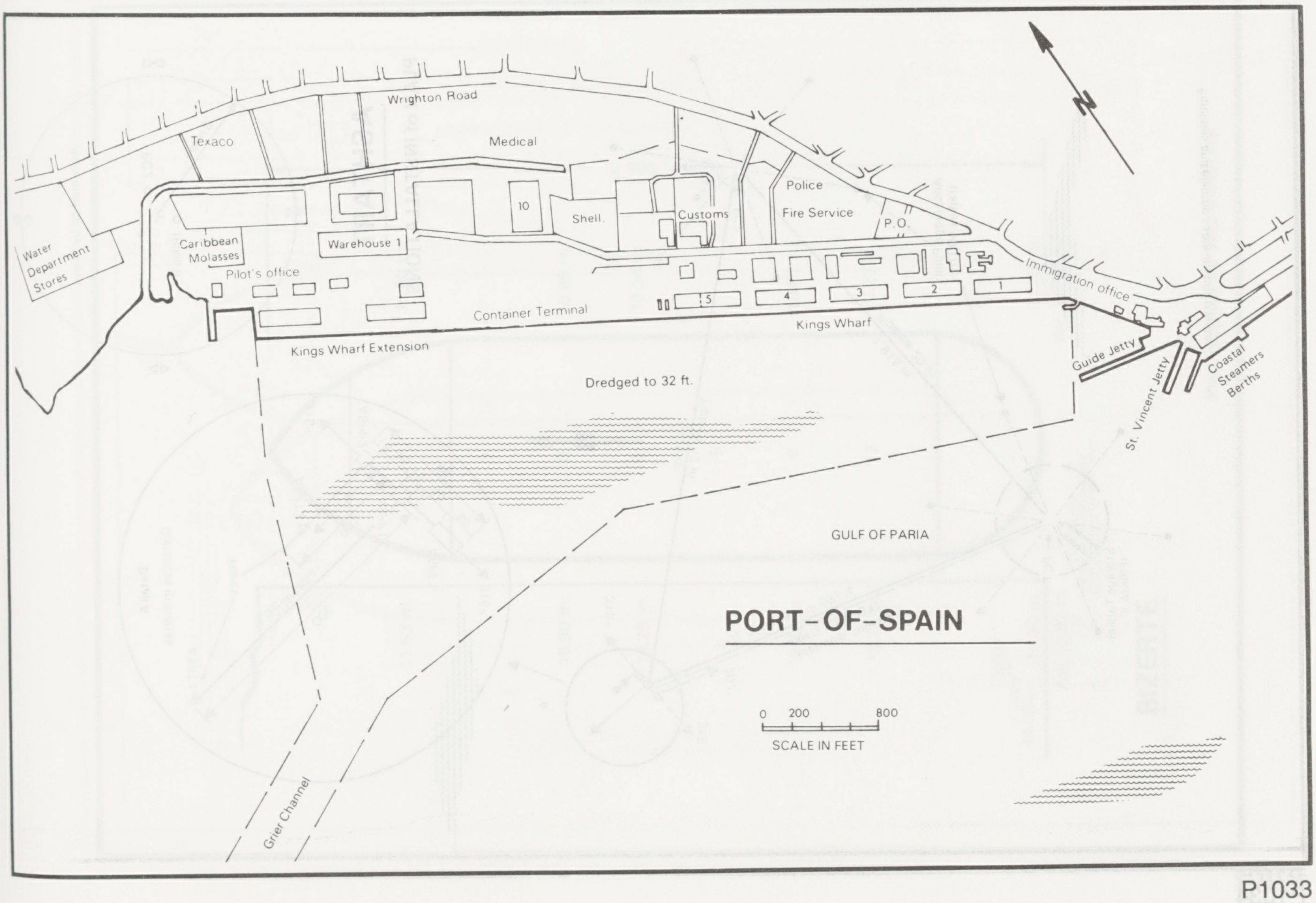

POINT FORTIN
Mooring Buoys
Dolphins
No. 1
Depth 38 ft.
Dolphins
No. 2
No. 3
Depth 35 ft.
N
Mooring Buoys
Jetty Length 2 miles
No.4
Depth 15.5 ft.



POINT FORTIN

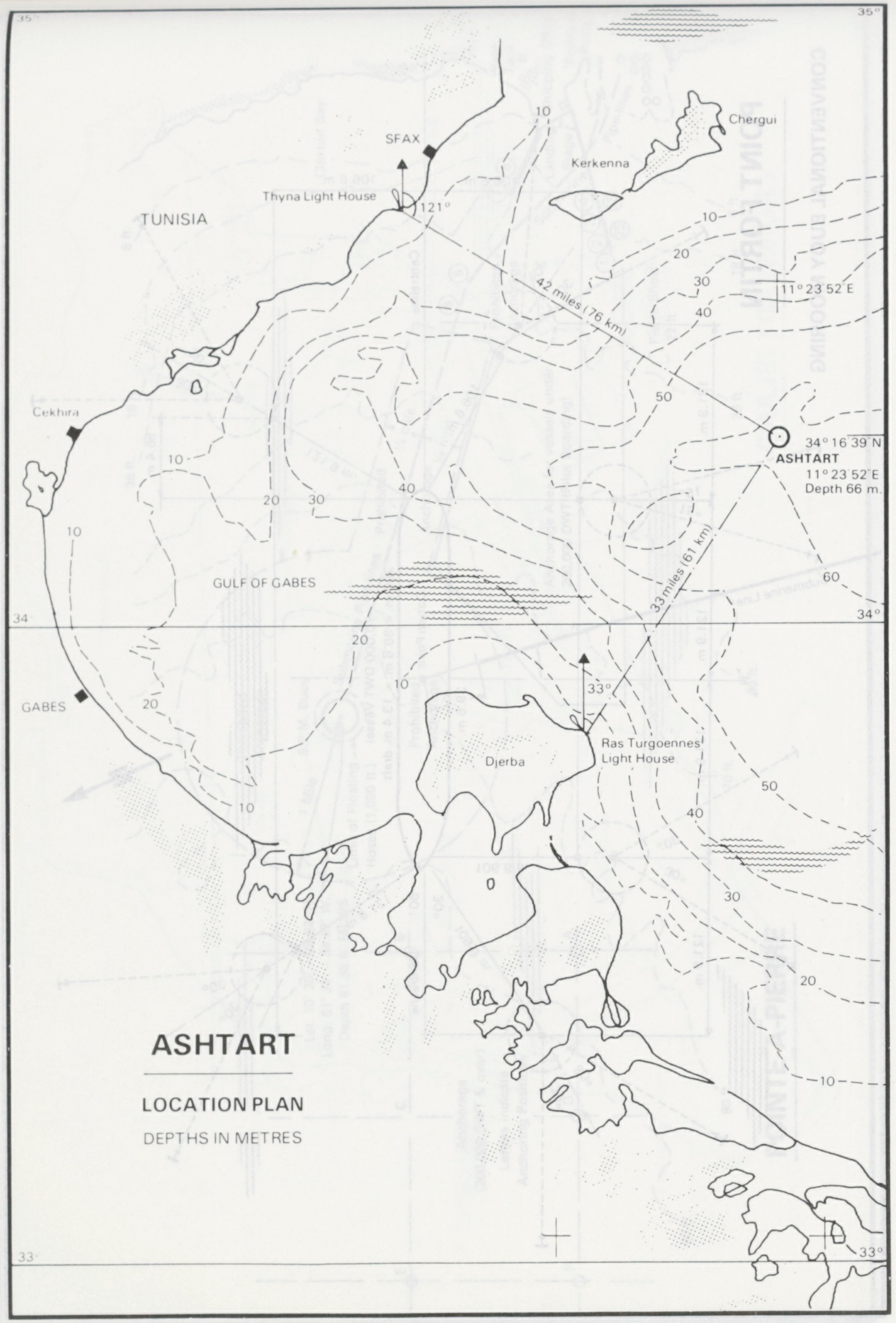
CONVENTIONAL BUOY MOORING

56.4 m.
30°
30°
30°
30°
121.9 m.
106.6 m.
106.6 m.
70,000 DWT Vessel
260 m. × 36.6 m. × 13.4 m. draft
Centreline
Datum Point
60°
Centreline
30°
121.9 m.
106.6 m.
39.6 m.
109.7 m.
106.6 m.
30°
30°
30°
30°
15°
15°
30°
30°
121.9 m.
121.9 m.
121.9 m.
121.9 m.
Submarine Line



PORT-OF-SPAIN

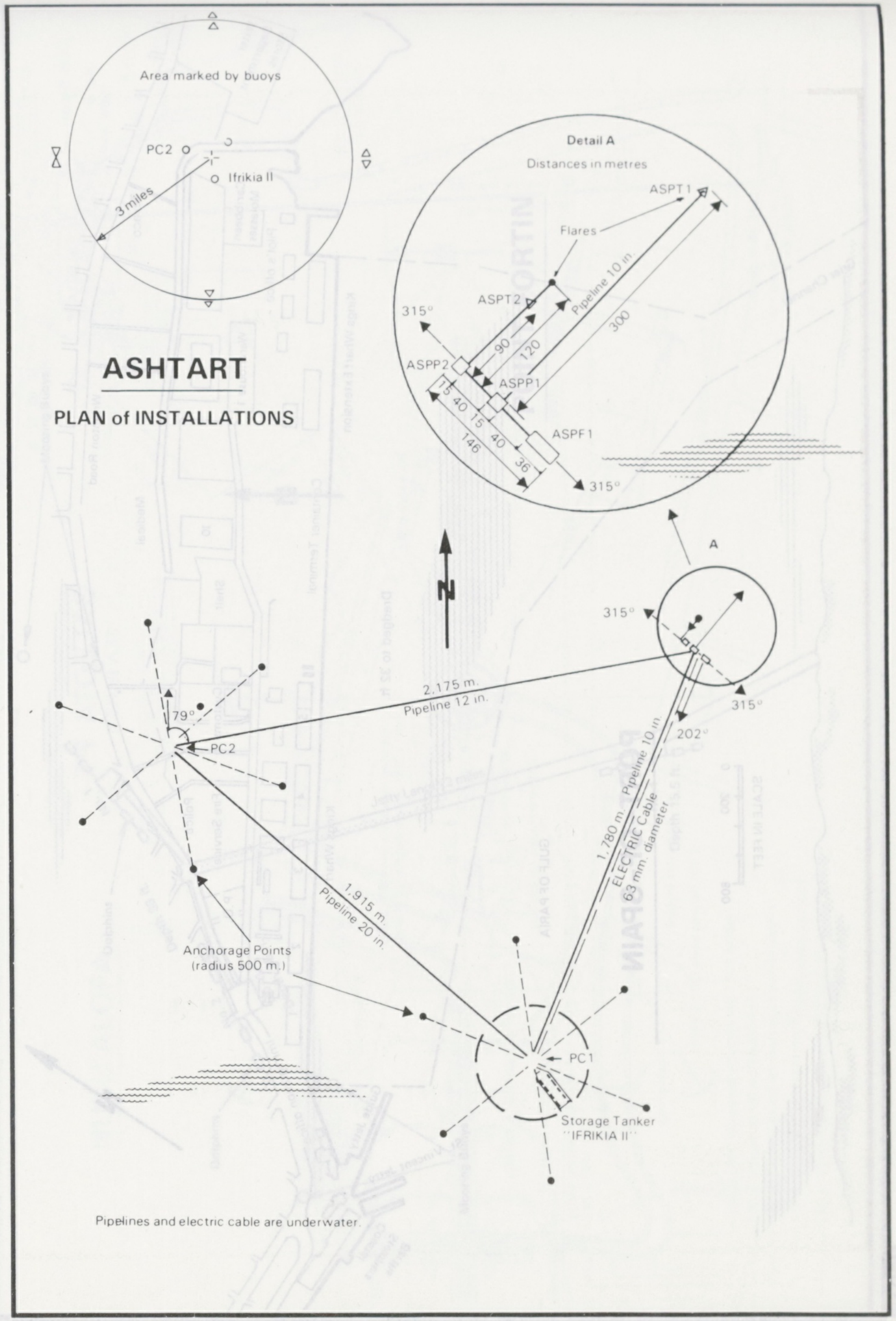
Wrighton Road
Texaco
Medical
Water Department Stores
Caribbean Molasses
Warehouse 1
10
Shell.
Customs
Police
Fire Service
P.O.
Pilot's office
Immigration office
5
4
3
2
1
Container Terminal
Kings Wharf
Kings Wharf Extension
Guide Jetty
St. Vincent Jetty
Coastal Steamers Berths
Dredged to 32 ft.
GULF OF PARIA
0
200
800
SCALE IN FEET
Grier Channel


35°
35°
SFAX
Chergui
Kerkenna
Thyna Light House
121°
TUNISIA
42 miles (76 km)
11° 23 52 E
34° 16 39 N
ASHTART
11° 23 52 E
Depth 66 m.
Cekhira
GULF OF GABES
33 miles (61 km)
34°
34°
GABES
33°
Ras Turgoennes
Light House
Djerba
10
20
30
40
50
60
33°
33°

ASHTART

LOCATION PLAN

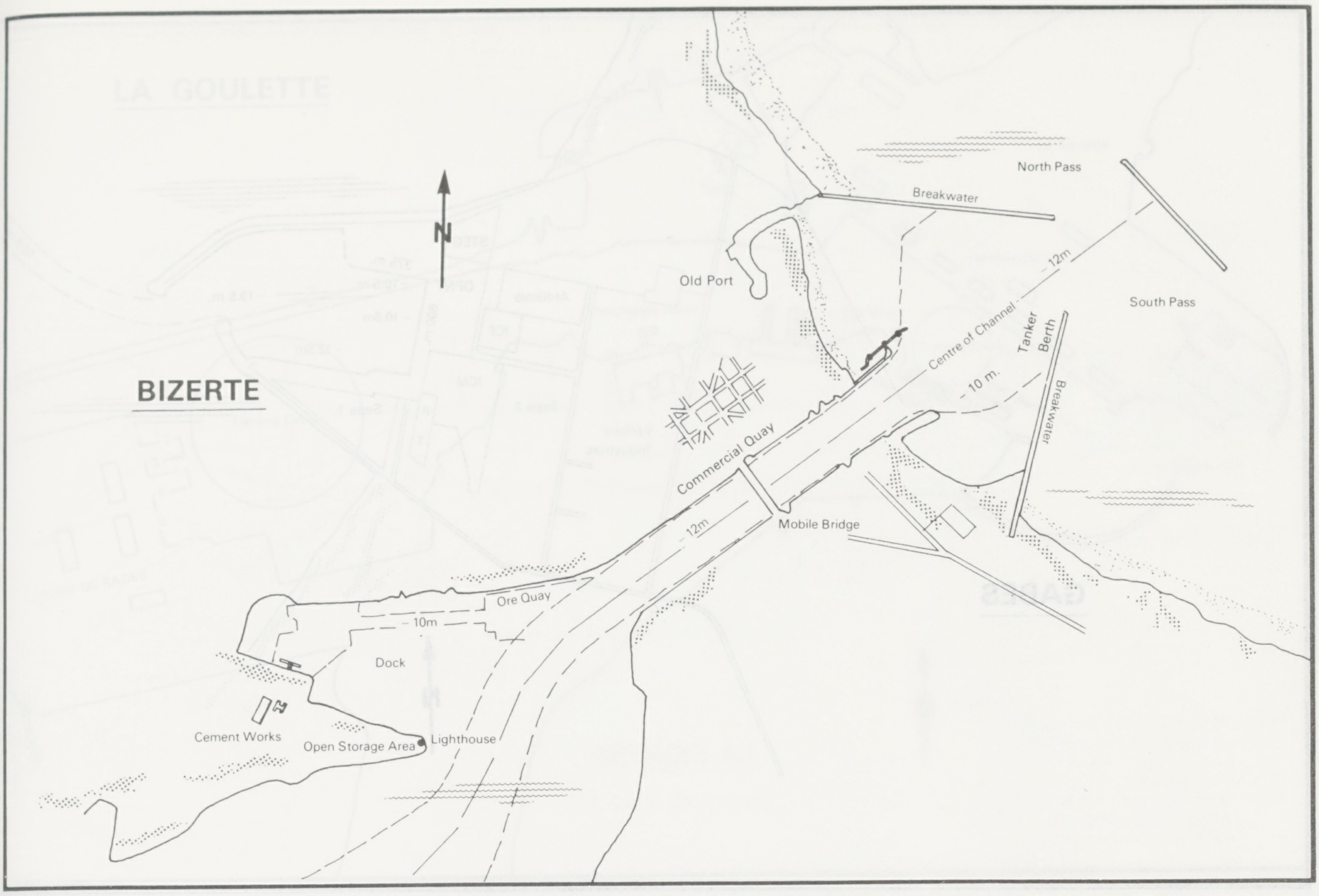
DEPTHS IN METRES

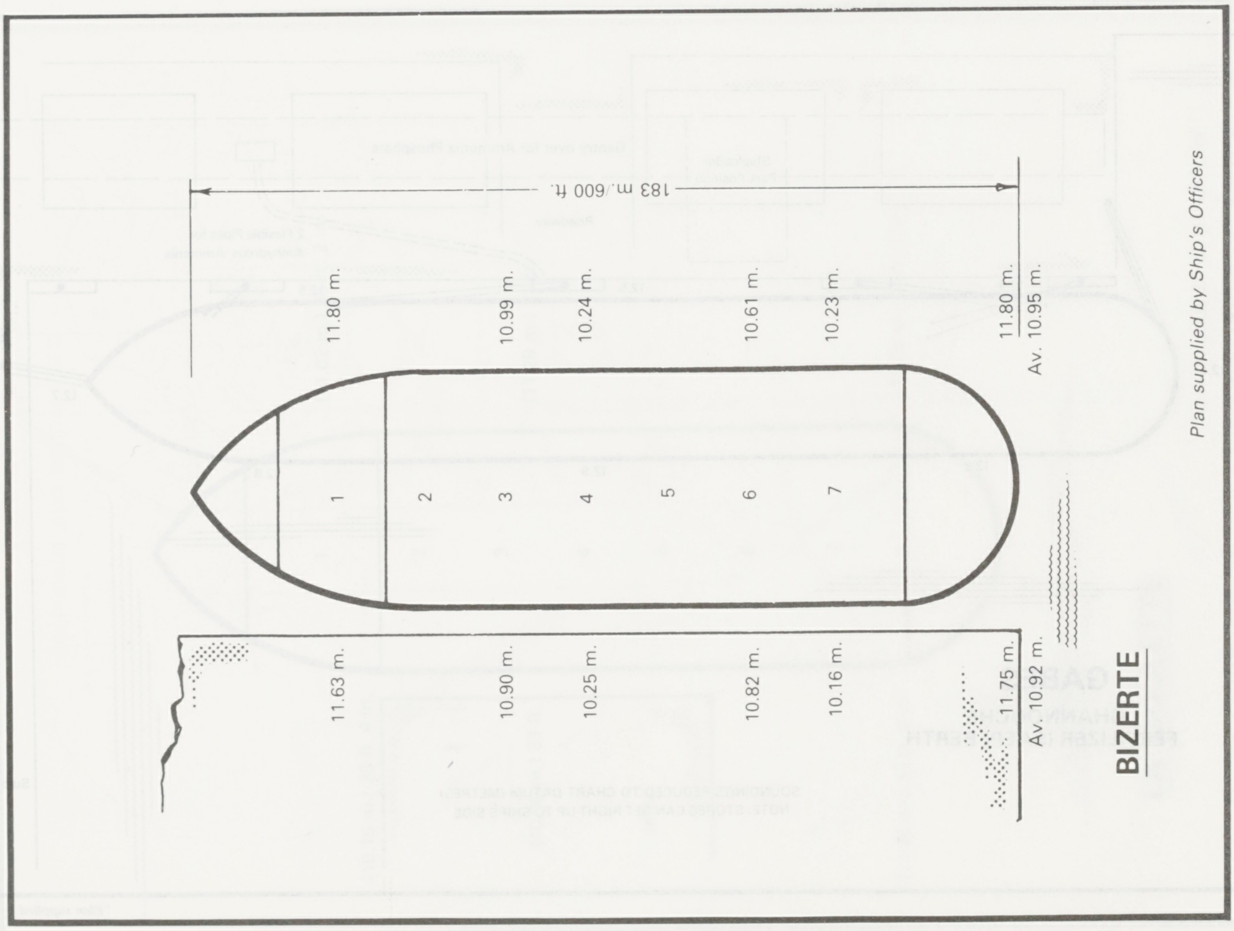

Area marked by buoys
PC2
Ifrikia II
3 miles
Detail A
Distances in metres
ASPT1
Flares
Pipeline 10 in.
ASPT2
315°
90
120
300
ASPP2
ASPP1
15
40
15
40
146
36
ASPF1
315°
N
A
315°
315°
2,175 m.
Pipeline 12 in.
202°
79°
PC2
1,780 m. Pipeline 10 in.
ELECTRIC Cable
63 mm. diameter
1,915 m.
Pipeline 20 in.
Anchorage Points
(radius 500 m.)
PC1
Storage Tanker
"IFRIKIA II"

ASHTART

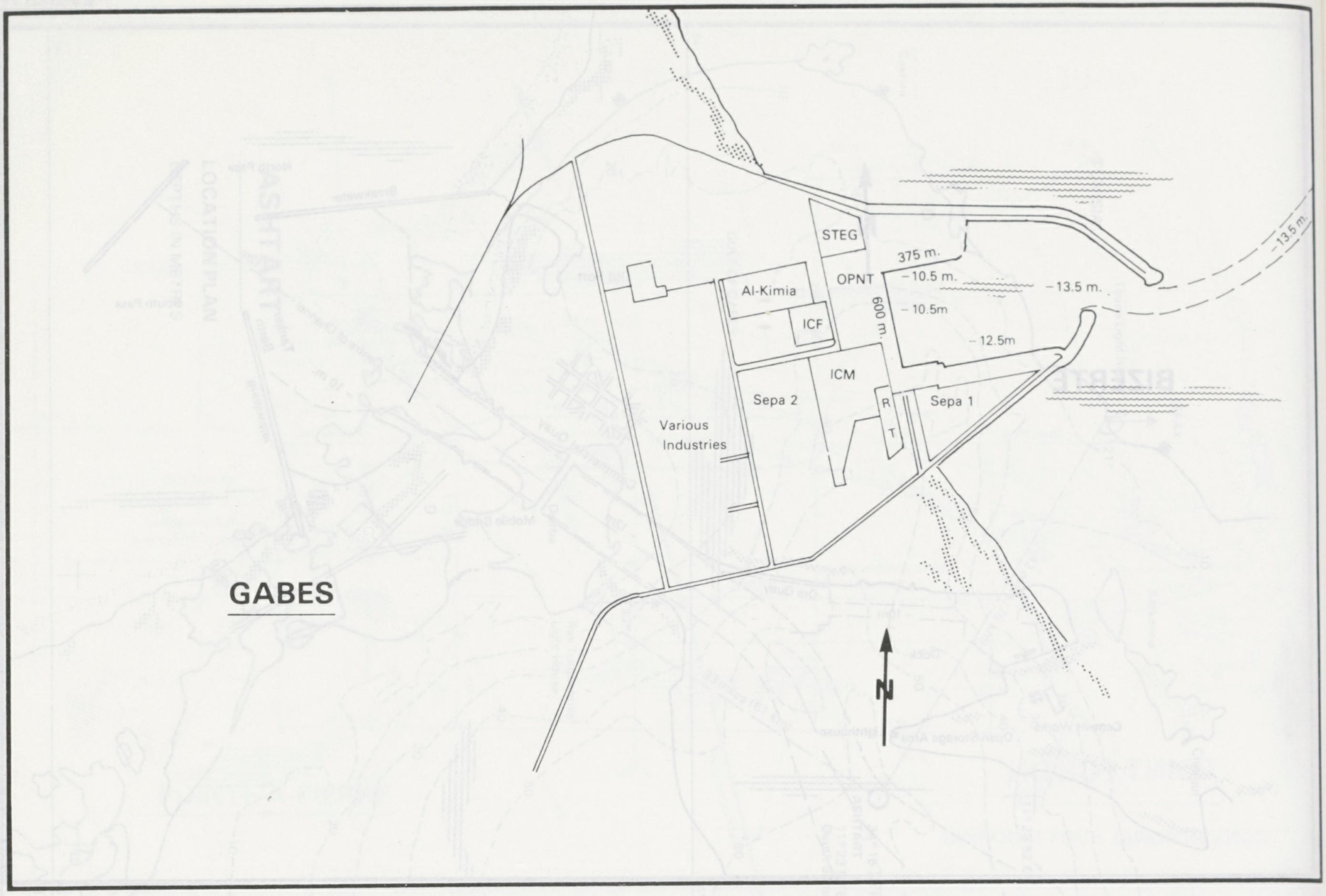
PLAN of INSTALLATIONS

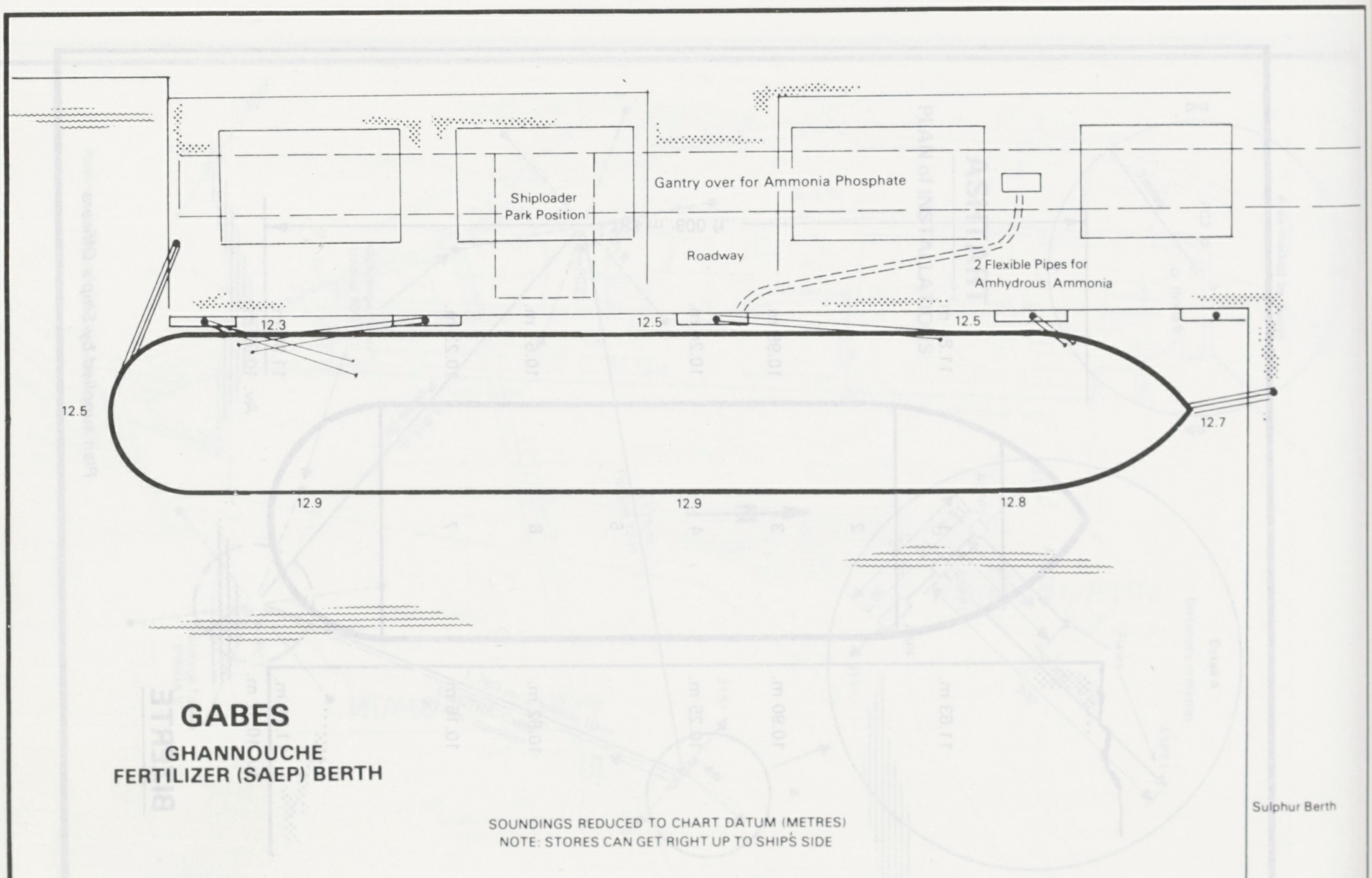
Pipelines and electric cable are underwater.


BIZERTE
N
North Pass
Breakwater
Old Port
South Pass
12m
Centre of Channel
Tanker Berth
10 m.
Breakwater
Commercial Quay
Mobile Bridge
12m
Ore Quay
10m
Dock
Cement Works
Open Storage Area
Lighthouse


BIZERTE
183 m./600 ft.
1
2
3
4
5
6
7
11.80 m.
10.99 m.
10.24 m.
10.61 m.
10.23 m.
11.80 m.
Av. 10.95 m.
11.63 m.
10.90 m.
10.25 m.
10.82 m.
10.16 m.
11.75 m.
Av. 10.92 m.

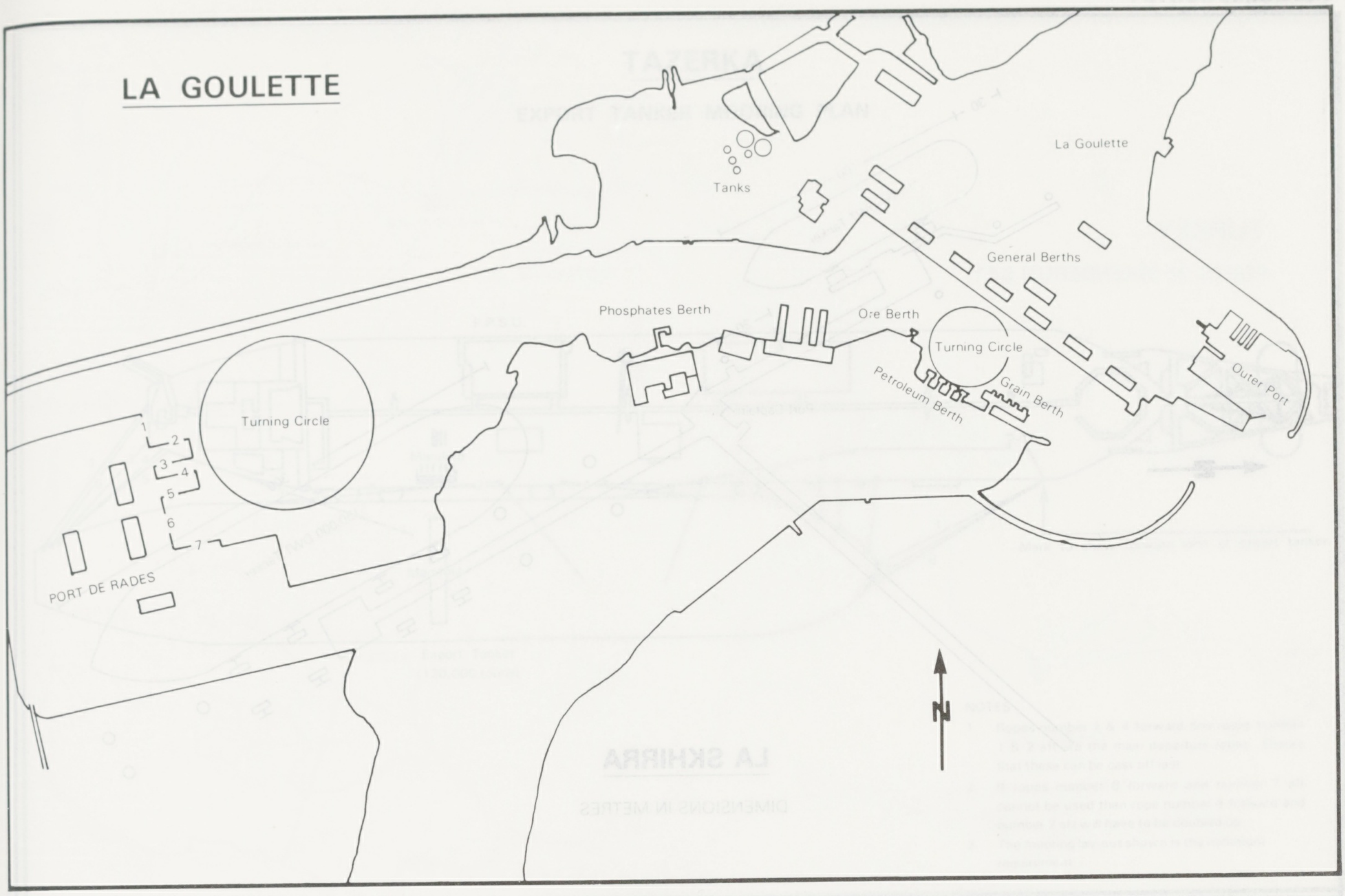
Plan supplied by Ship's Officers

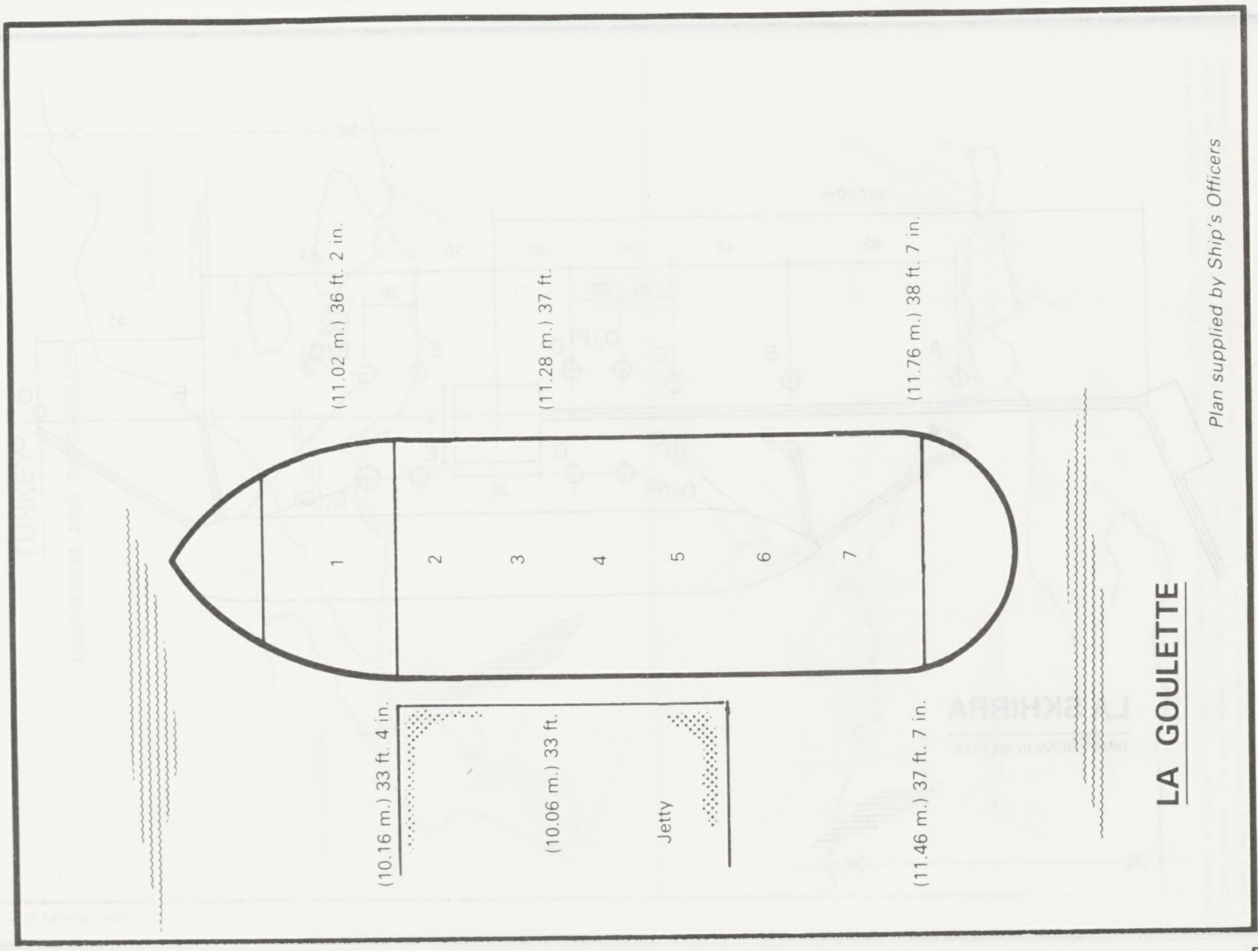

STEG
375 m.
OPNT
-10.5 m.
-13.5 m.
-13.5 m.
Al-Kimia
600 m.
-10.5m
ICF
-12.5m
ICM
Sepa 2
R
T
Sepa 1
Various Industries
N
GABES


Gantry over for Ammonia Phosphate
Shiploader Park Position
Roadway
2 Flexible Pipes for Amhydrous Ammonia
12.3
12.5
12.5
12.5
12.7
12.9
12.9
12.8
Sulphur Berth
GABES
GHANNOUCHE
FERTILIZER (SAEP) BERTH

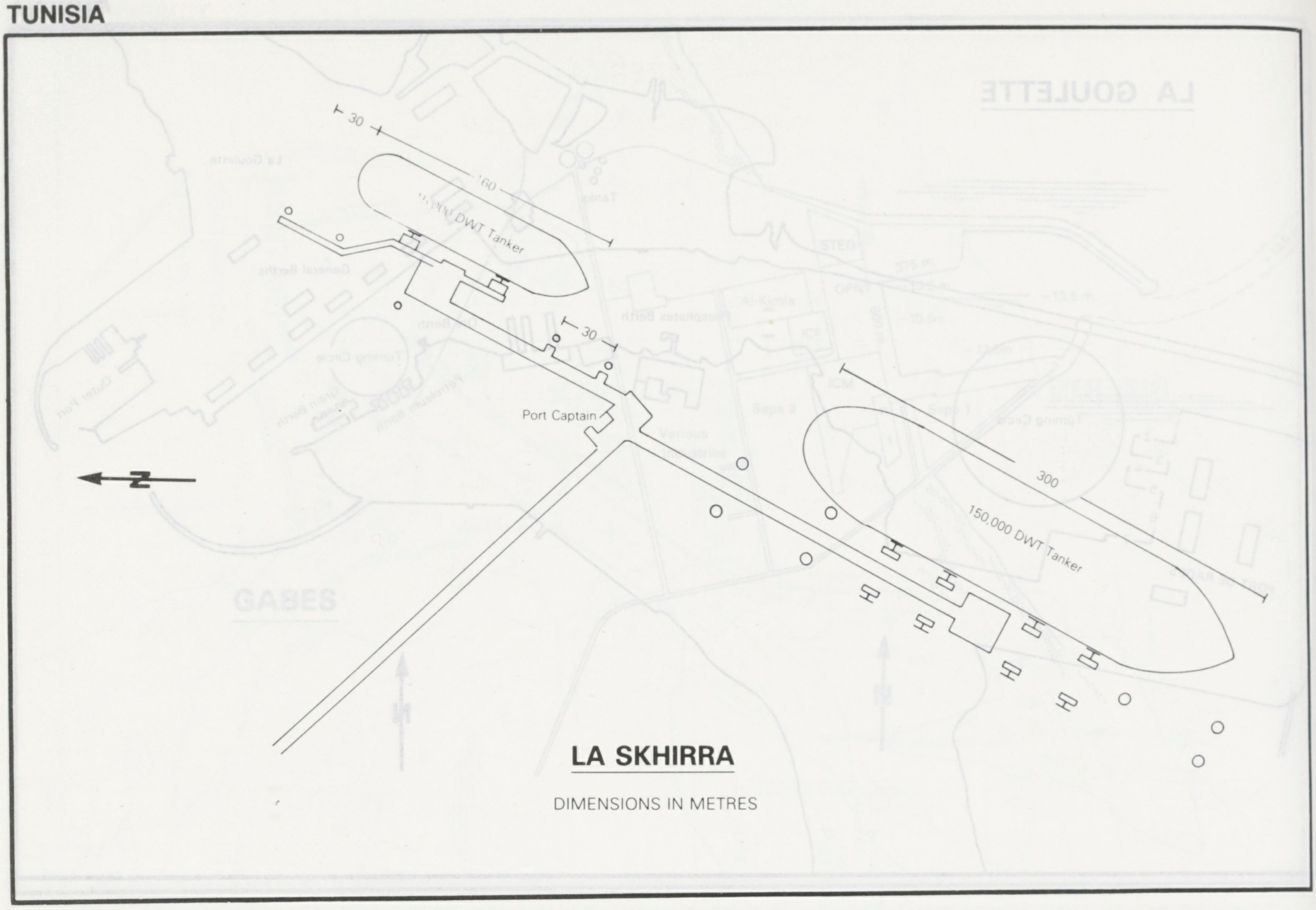
SOUNDINGS REDUCED TO CHART DATUM (METRES)
NOTE: STORES CAN GET RIGHT UP TO SHIPS SIDE

"Plan supplied by Ship's Master"


LA GOULETTE
Tanks
La Goulette
General Berths
Phosphates Berth
Ore Berth
Turning Circle
Grain Berth
Petroleum Berth
Outer Port
Turning Circle
1
2
3
4
5
6
7
PORT DE RADES
N

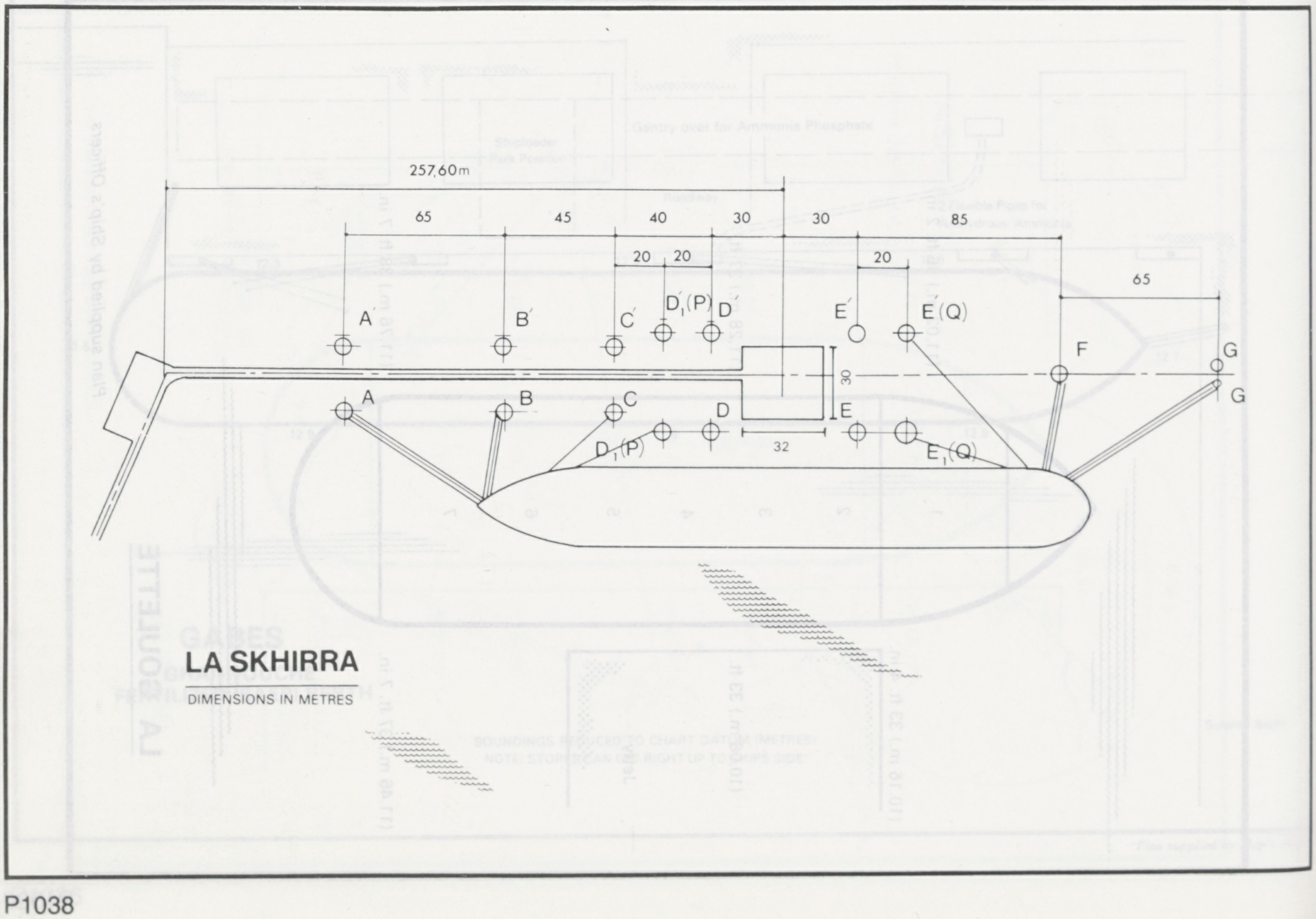

(11.02 m.) 36 ft. 2 in.
(11.28 m.) 37 ft.
(11.76 m.) 38 ft. 7 in.
1
2
3
4
5
6
7
(10.16 m.) 33 ft. 4 in.
(10.06 m.) 33 ft.
Jetty
(11.46 m.) 37 ft. 7 in.
LA GOULETTE

Plan supplied by Ship's Officers


30
160
15,000 DWT Tanker
30
Port Captain
300
150,000 DWT Tanker
N

LA SKHIRRA

DIMENSIONS IN METRES

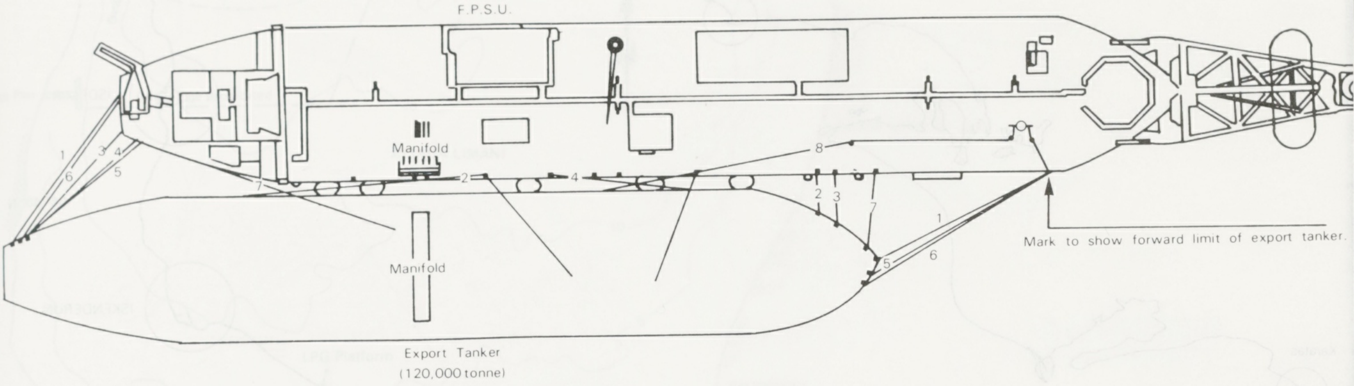

257,60m
65
45
40
30
30
85
20
20
20
65
A′
B′
C′
D′₁(P)
D′
E′
E′(Q)
F
G
G
30
A
B
C
D
E
D₁(P)
32
E₁(Q)

LA SKHIRRA

DIMENSIONS IN METRES

TAZERKA

EXPORT TANKER MOORING PLAN


F.P.S.U.
Manifold
Manifold
Export Tanker
(120,000 tonne)
Mark to show forward limit of export tanker.
1
2
3
4
5
6
7
8

NOTES

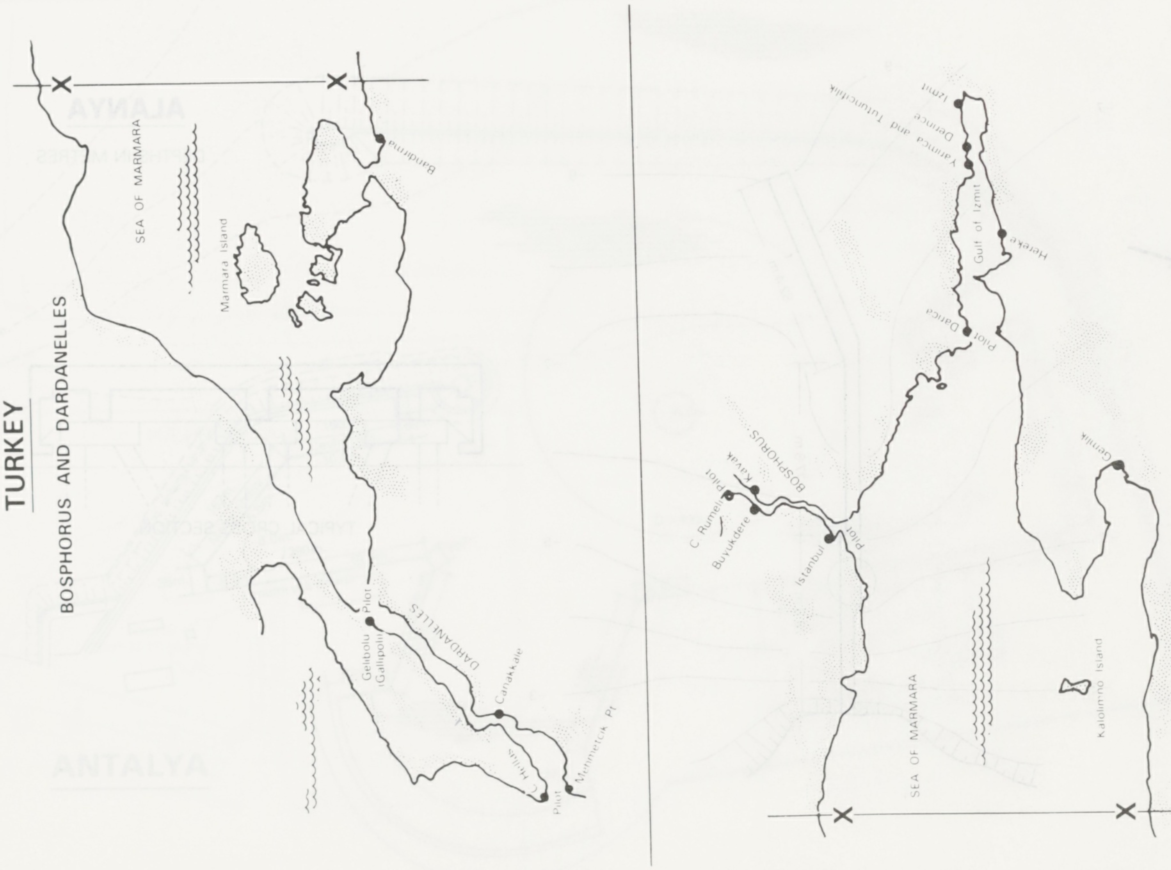
1 Ropes number 1 & 4 forward and ropes number 1 & 2 aft are the main departure ropes. Ensure that these can be cast off last.

2 If ropes number 8 forward and number 7 aft cannot be used then rope number 4 forward and number 2 aft will have to be doubled up.

3 The mooring lay-out shown is the minimum requirement.

TURKEY

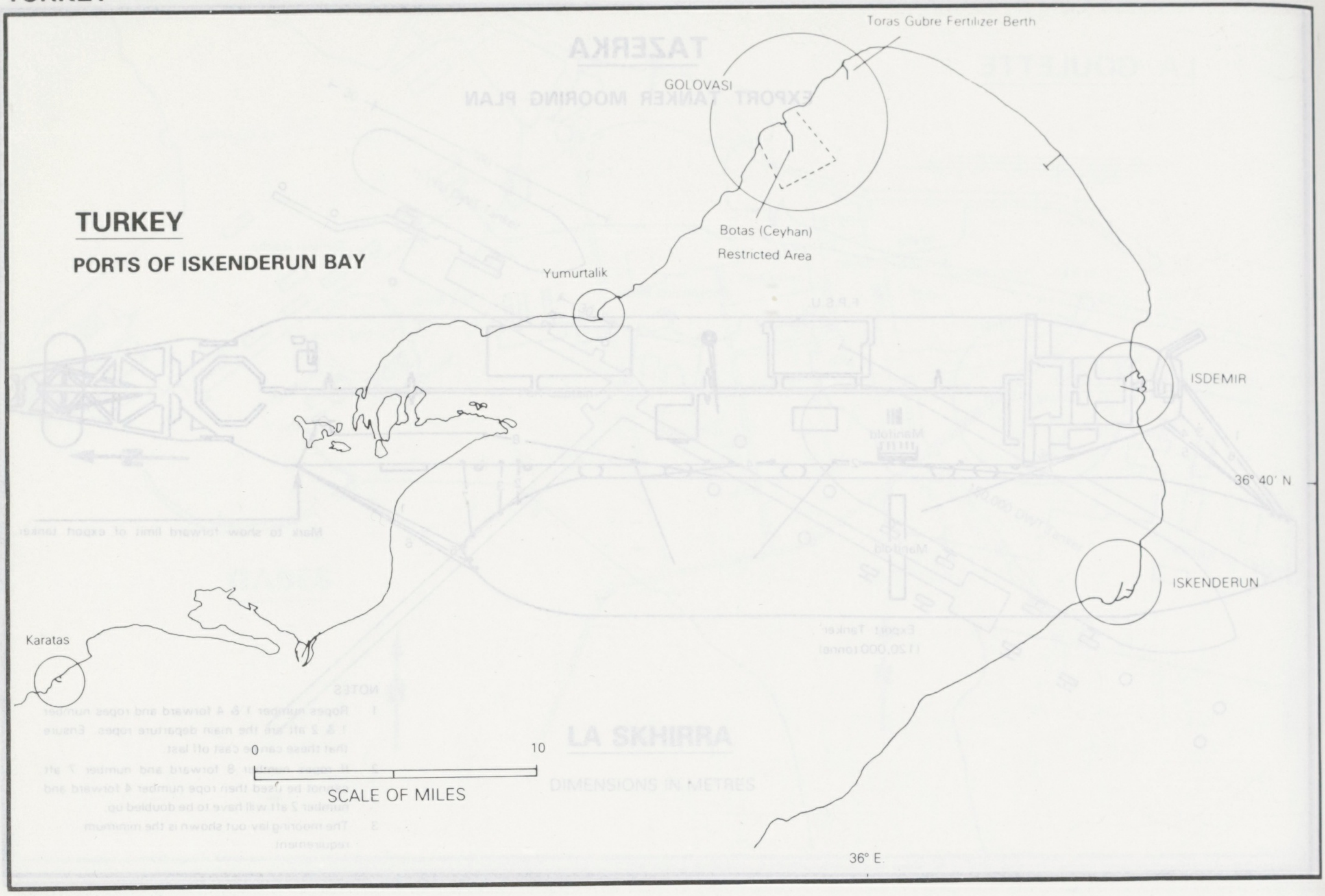
BOSPHORUS AND DARDANELLES

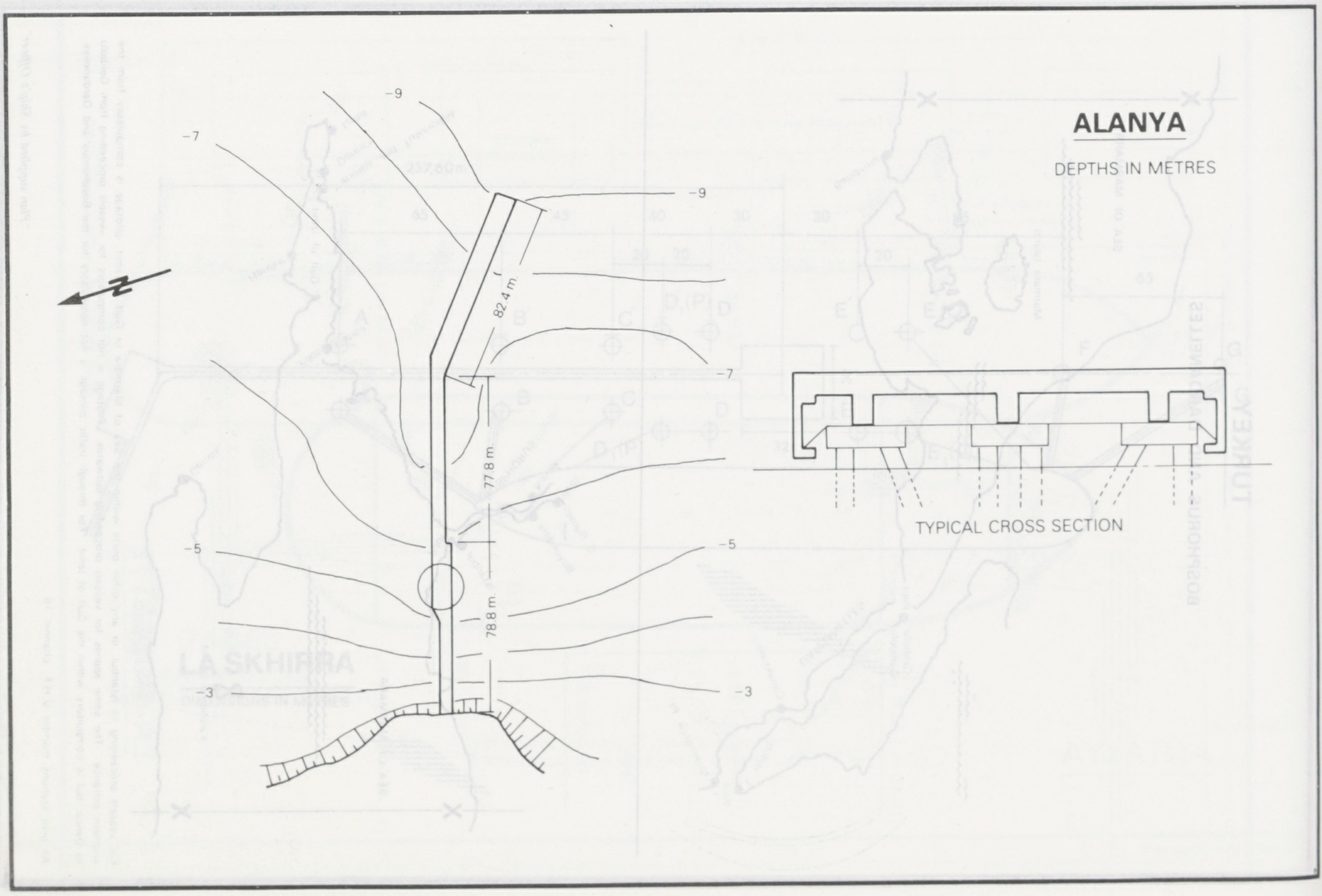

SEA OF MARMARA
Marmara Island
Bandirma
Gelibolu (Gallipoli)
Pilot
DARDANELLES
Canakkale
Helles
Mehmetcik Pt.
Pilot
SEA OF MARMARA
Kalolimno Island
Istanbul
Pilot
BOSPHORUS
Kavak
Buyukdere
C. Rumeli
Pilot
Darica
Pilot
Gulf of Izmit
Hereke
Yarimca and Tutunciftlik
Derince
Izmit
Gemlik

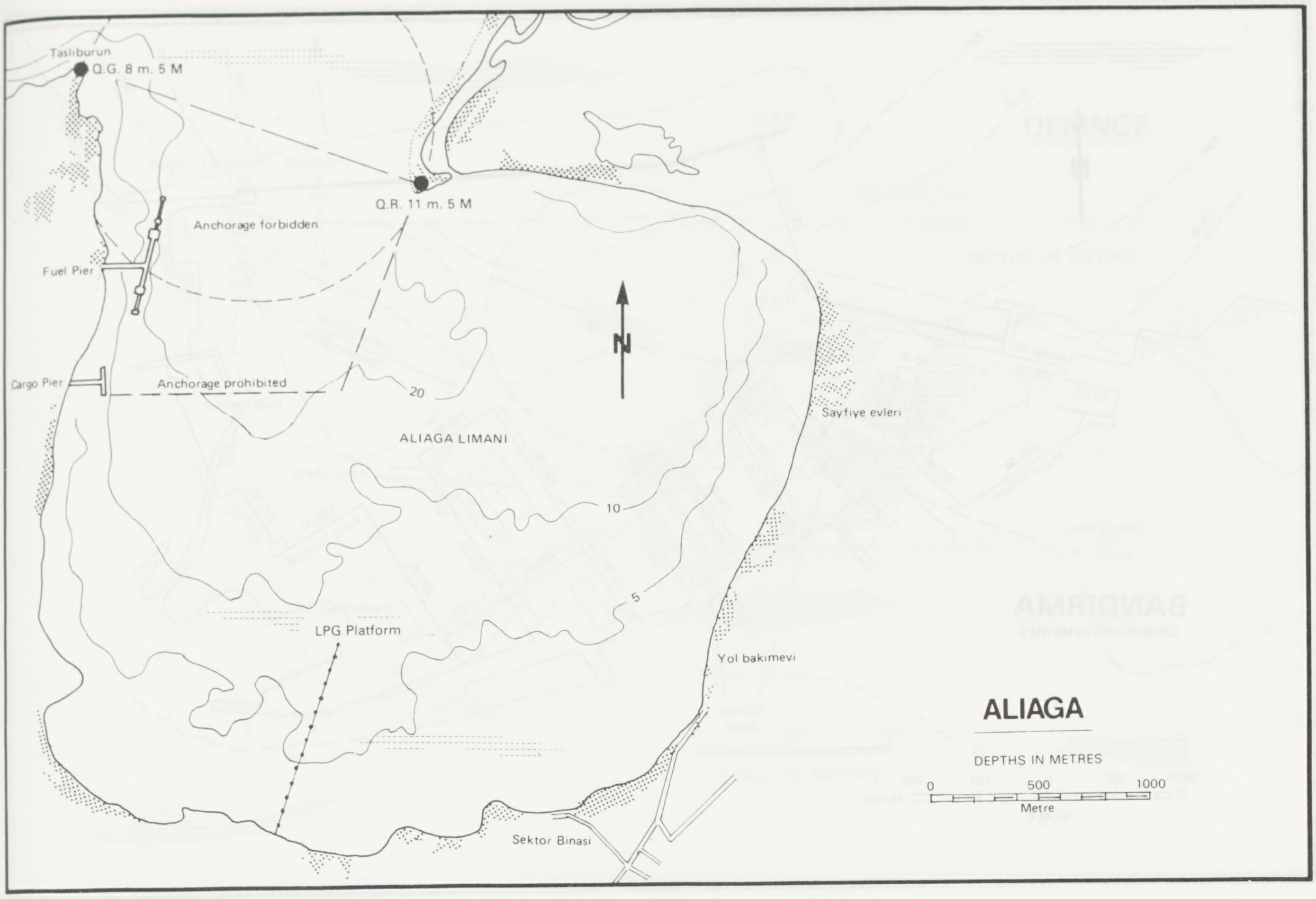
For vessels proceeding to Istanbul, or any other ports within the Sea of Marmara or Gulf of Izmit, pilotage is compulsory from the southern entrance. The same applies for vessels proceeding outwards. Pilotage is not compulsory for vessels proceeding from Gelibolu to Darica but is compulsory within the Gulf of Izmit. For through traffic pilotage is not compulsory for the Bosphorous and Dardanelles.

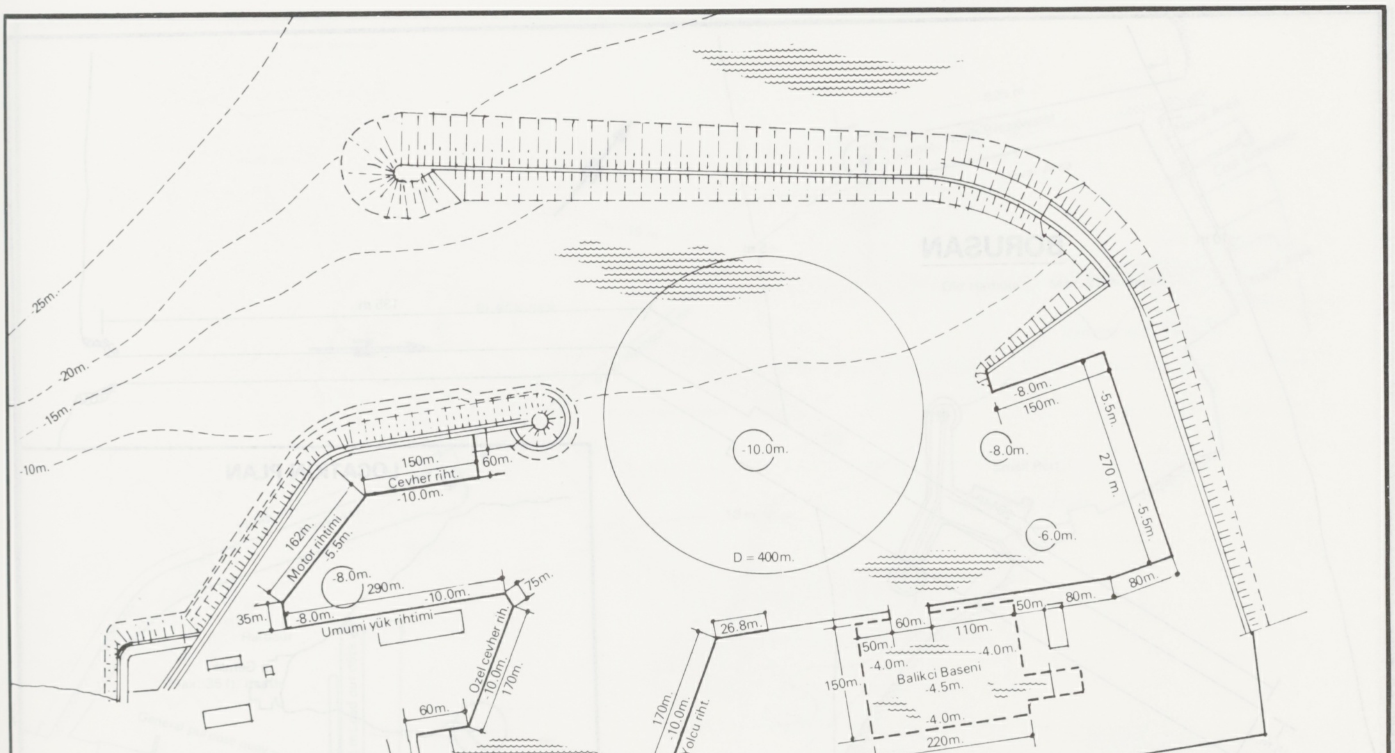
All pilot stations monitor V.H.F. channel 16.

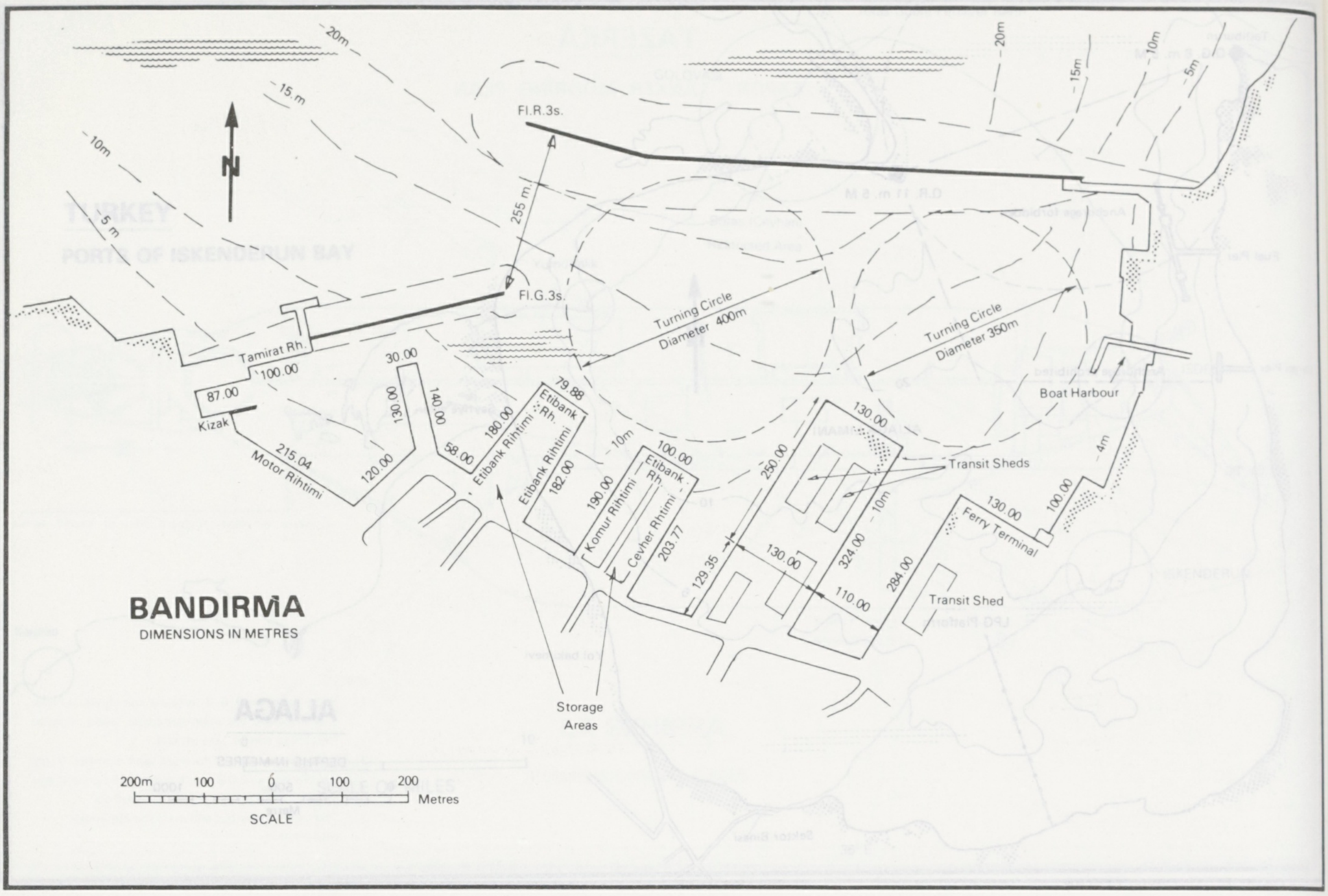
"Plan supplied by Ship's Officer"

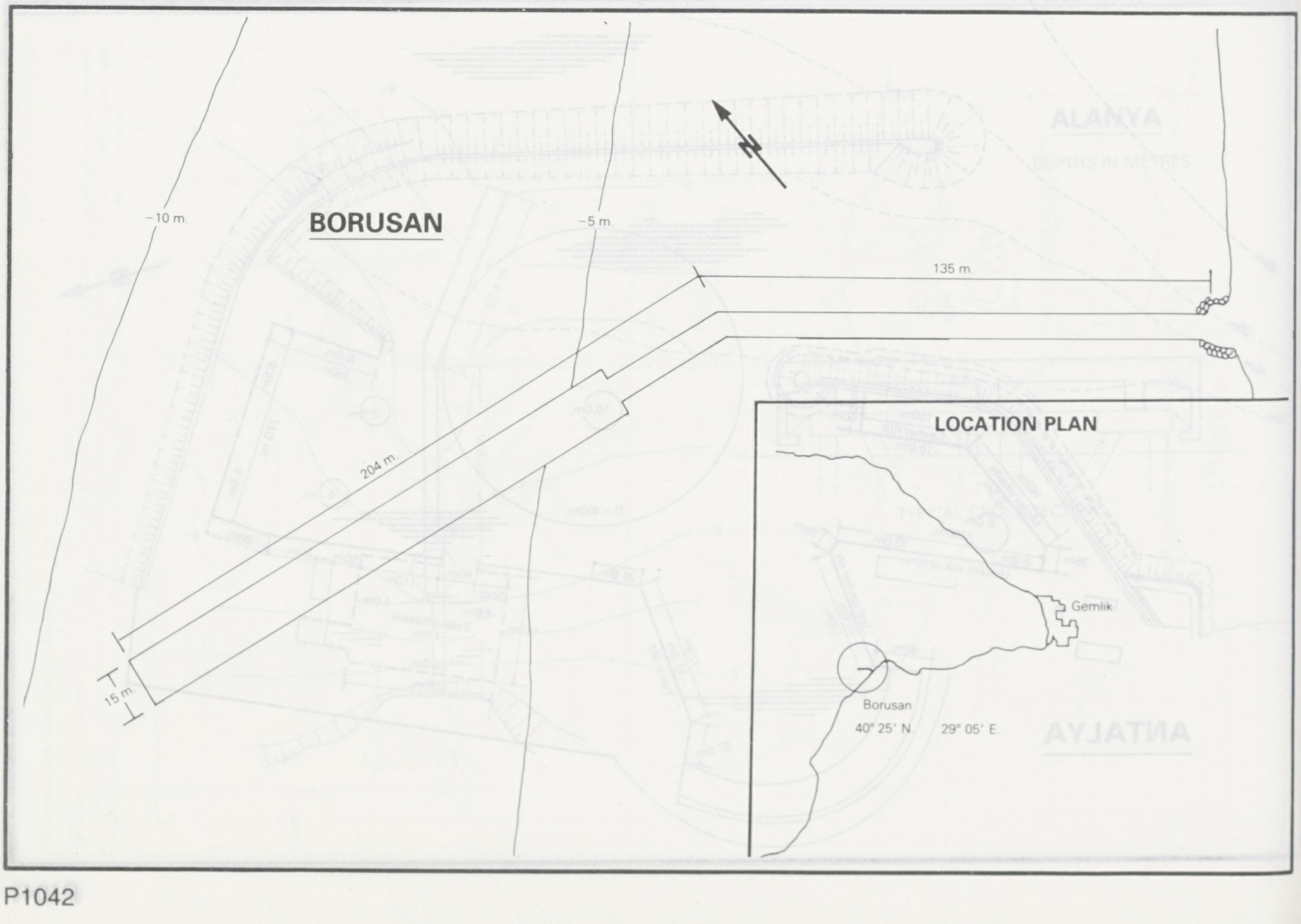

TURKEY
PORTS OF ISKENDERUN BAY
Toras Gubre Fertilizer Berth
GOLOVASI
Botas (Ceyhan)
Restricted Area
Yumurtalik
ISDEMIR
36° 40' N
ISKENDERUN
Karatas
0
10
SCALE OF MILES
36° E

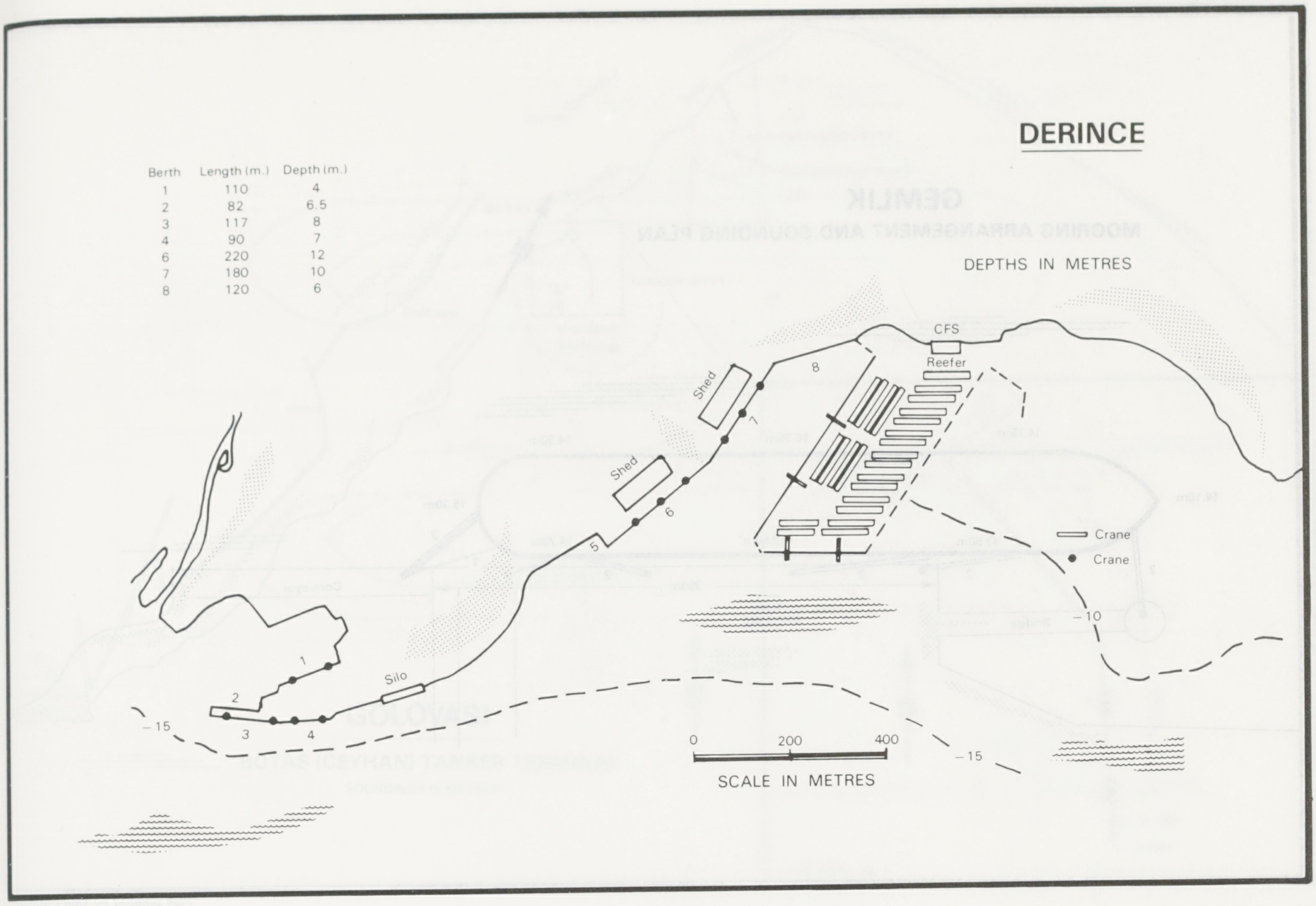

ALANYA
DEPTHS IN METRES
−9
−7
−9
82.4 m
−7
77.8 m
−5
−5
78.8 m
−3
−3
TYPICAL CROSS SECTION


Tasliburun
Q.G. 8 m. 5 M
Q.R. 11 m. 5 M
Anchorage forbidden
Fuel Pier
Cargo Pier
Anchorage prohibited
N
20
ALIAGA LIMANI
10
5
Sayfiye evleri
LPG Platform
Yol bakimevi
Sektor Binasi
ALIAGA
DEPTHS IN METRES
0
500
1000
Metre

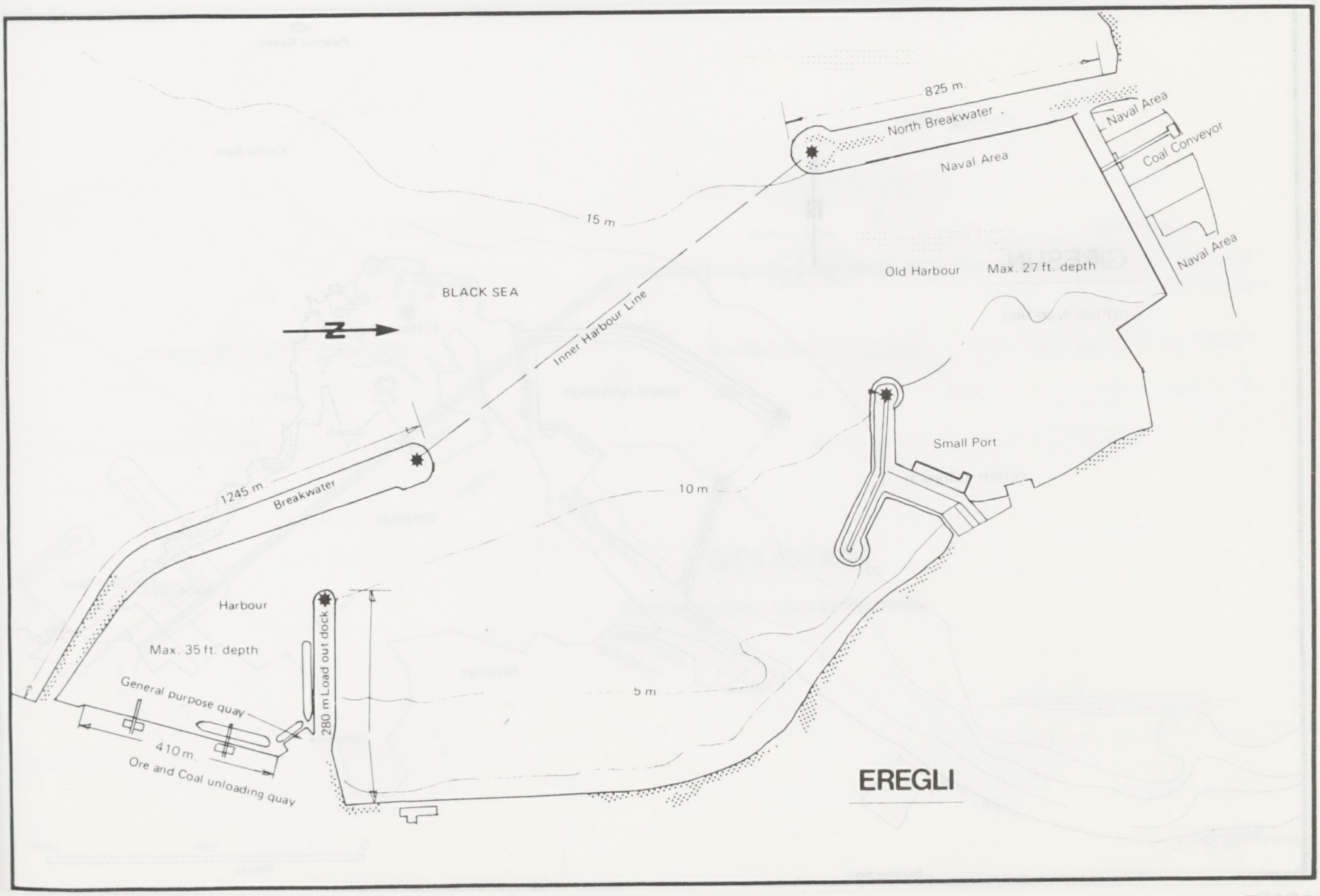

25m.
20m.
15m.
10m.
150m.
60m.
Cevher riht.
-10.0m.
162m.
Motor rihtimi
-5.5m.
-8.0m.
290m.
-10.0m.
75m.
35m.
-8.0m.
Umumi yük rihtimi
Özel cevher rih.
-10.0m.
170m.
60m.
26.8m.
170m.
-10.0m.
Yolcu riht.
57.6m.
-10.0m.
D = 400m.
-8.0m.
150m.
-5.5m.
270 m.
-5.5m.
-8.0m.
-6.0m.
80m.
80m.
50m.
60m.
110m.
50m.
-4.0m.
-4.0m.
Balikci Baseni
-4.5m.
150m.
-4.0m.
220m.
ANTALYA

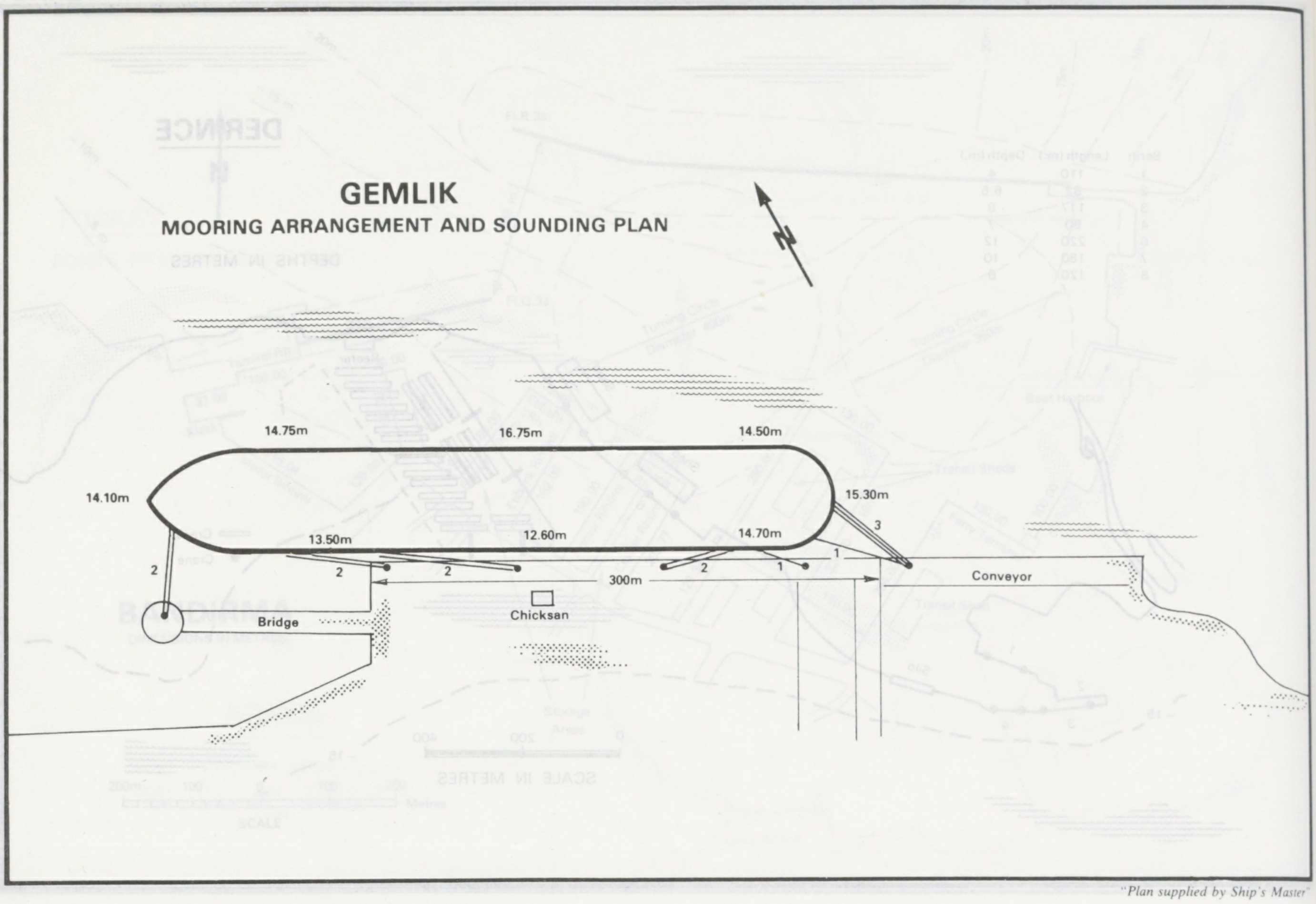

BANDIRMA
DIMENSIONS IN METRES
N
-20m
-15 m
-10m
-5 m
-20m
-15m
-10m
-5m
Fl.R.3s.
255 m.
Fl.G.3s.
Tamirat Rh.
100.00
87.00
Kizak
215.04
Motor Rihtimi
120.00
30.00
130.00
140.00
58.00
180.00
Etibank Rihtimi
79.88
Etibank Rh.
Etibank Rihtimi
182.00
-10m
190.00
Komur Rihtimi
100.00
Etibank Rh.
Cevher Rhtimi
203.77
Turning Circle Diameter 400m
Turning Circle Diameter 350m
250.00
130.00
-10m
Transit Sheds
129.35
130.00
324.00
110.00
284.00
130.00
Ferry Terminal
100.00
-4m
Boat Harbour
Transit Shed
Storage Areas
200m
100
0
100
200
Metres
SCALE


BORUSAN
-10 m.
-5 m.
135 m.
204 m.
15 m.
LOCATION PLAN
Gemlik
Borusan
40° 25′ N
29° 05′ E

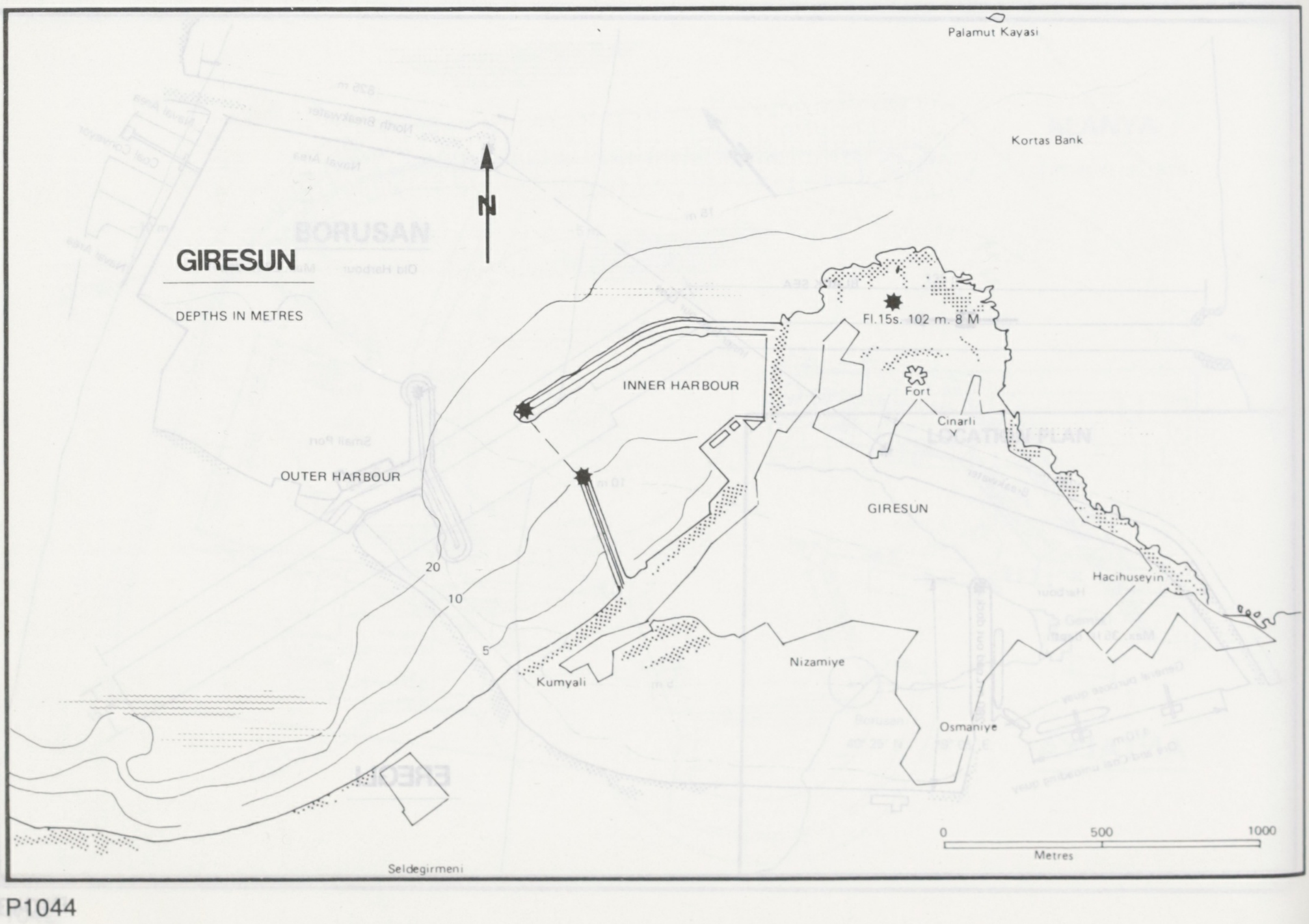

DERINCE
DEPTHS IN METRES
CFS
Reefer
8
Shed
7
Shed
6
5
Silo
1
2
3
4
Crane
Crane
−10
−15
−15
0
200
400
SCALE IN METRES

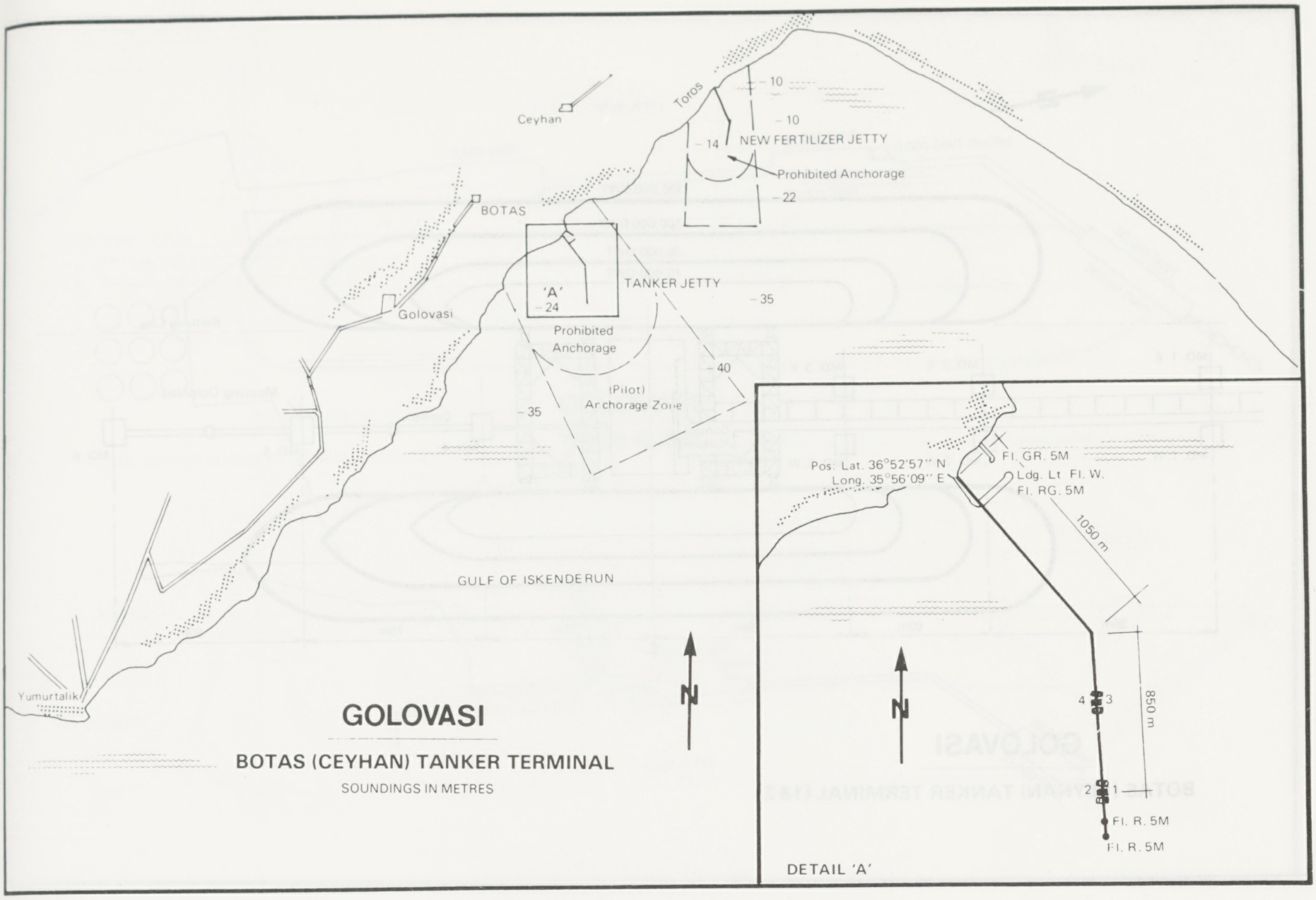
Berth	Length (m.)	Depth (m.)
1	110	4
2	82	6.5
3	117	8
4	90	7
6	220	12
7	180	10
8	120	6


825 m.
North Breakwater
Naval Area
Naval Area
Coal Convevor
Naval Area
15 m
Old Harbour
Max. 27 ft. depth
BLACK SEA
N
Inner Harbour Line
Small Port
1245 m.
Breakwater
10 m
Harbour
Max. 35 ft. depth
280 m Load out dock
General purpose quay
5 m
410 m.
Ore and Coal unloading quay
EREGLI


GEMLIK
MOORING ARRANGEMENT AND SOUNDING PLAN
N
14.75m
16.75m
14.50m
14.10m
15.30m
13.50m
12.60m
14.70m
3
1
2
2
2
2
1
300m
Conveyor
Bridge
Chicksan

"Plan supplied by Ship's Master"

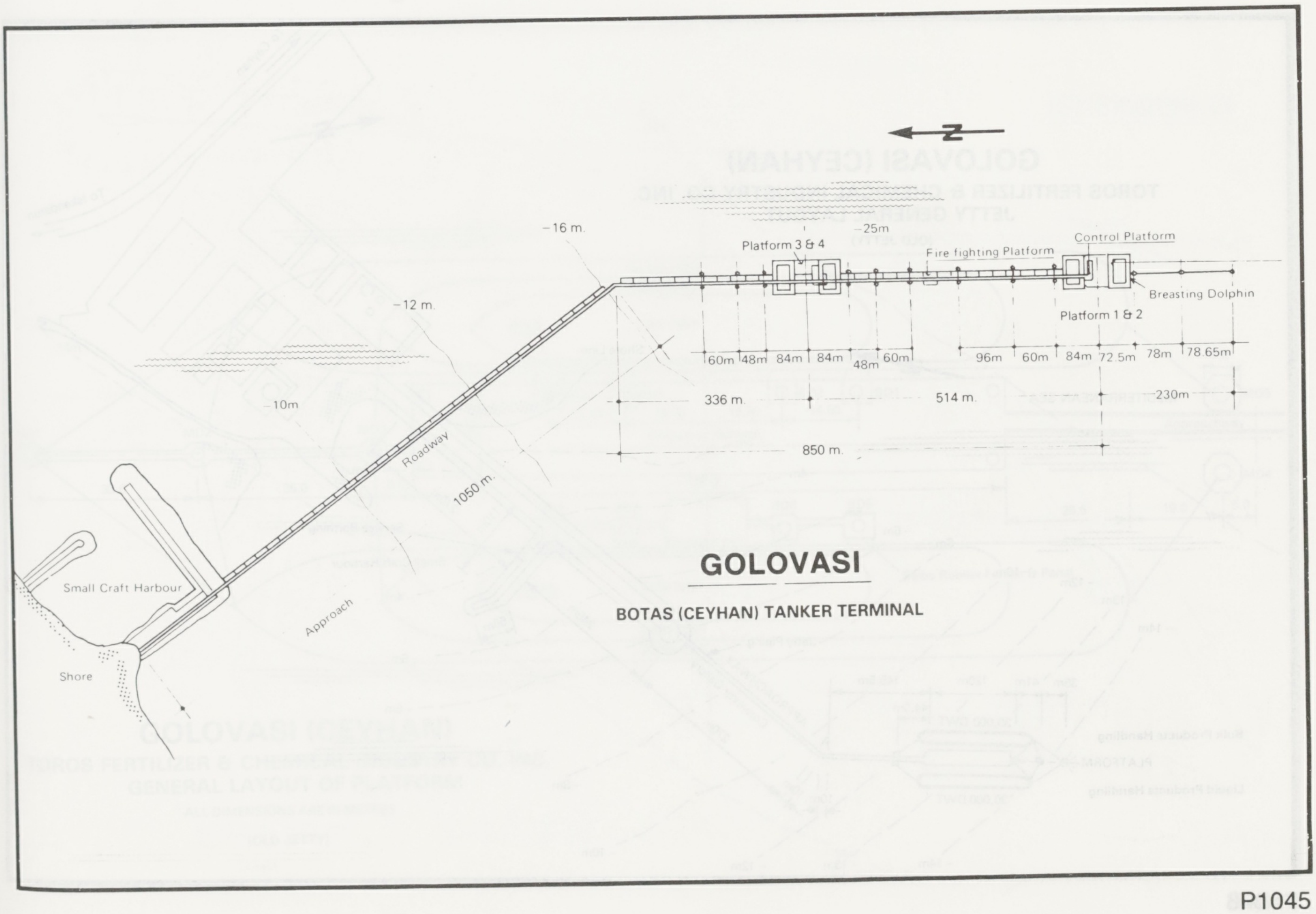

Palamut Kayası
Kortas Bank
N
GIRESUN
DEPTHS IN METRES
Fl.15s. 102 m. 8 M
Fort
INNER HARBOUR
Cinarli
OUTER HARBOUR
GIRESUN
20
10
5
Hacihuseyin
Nizamiye
Kumyali
Osmaniye
Seldegirmeni
0
500
1000
Metres


Ceyhan
Toros
– 10
– 10
– 14
NEW FERTILIZER JETTY
Prohibited Anchorage
– 22
BOTAS
'A'
– 24
TANKER JETTY
– 35
Golovasi
Prohibited Anchorage
(Pilot) Anchorage Zone
– 40
– 35
GULF OF ISKENDERUN
Yumurtalik
N
N
Pos: Lat. 36°52'57'' N
Long. 35°56'09'' E
Fl. GR. 5M
Ldg. Lt Fl. W.
Fl. RG. 5M
1050 m
850 m
4 3
2 1
Fl. R. 5M
Fl. R. 5M
DETAIL 'A'

GOLOVASI

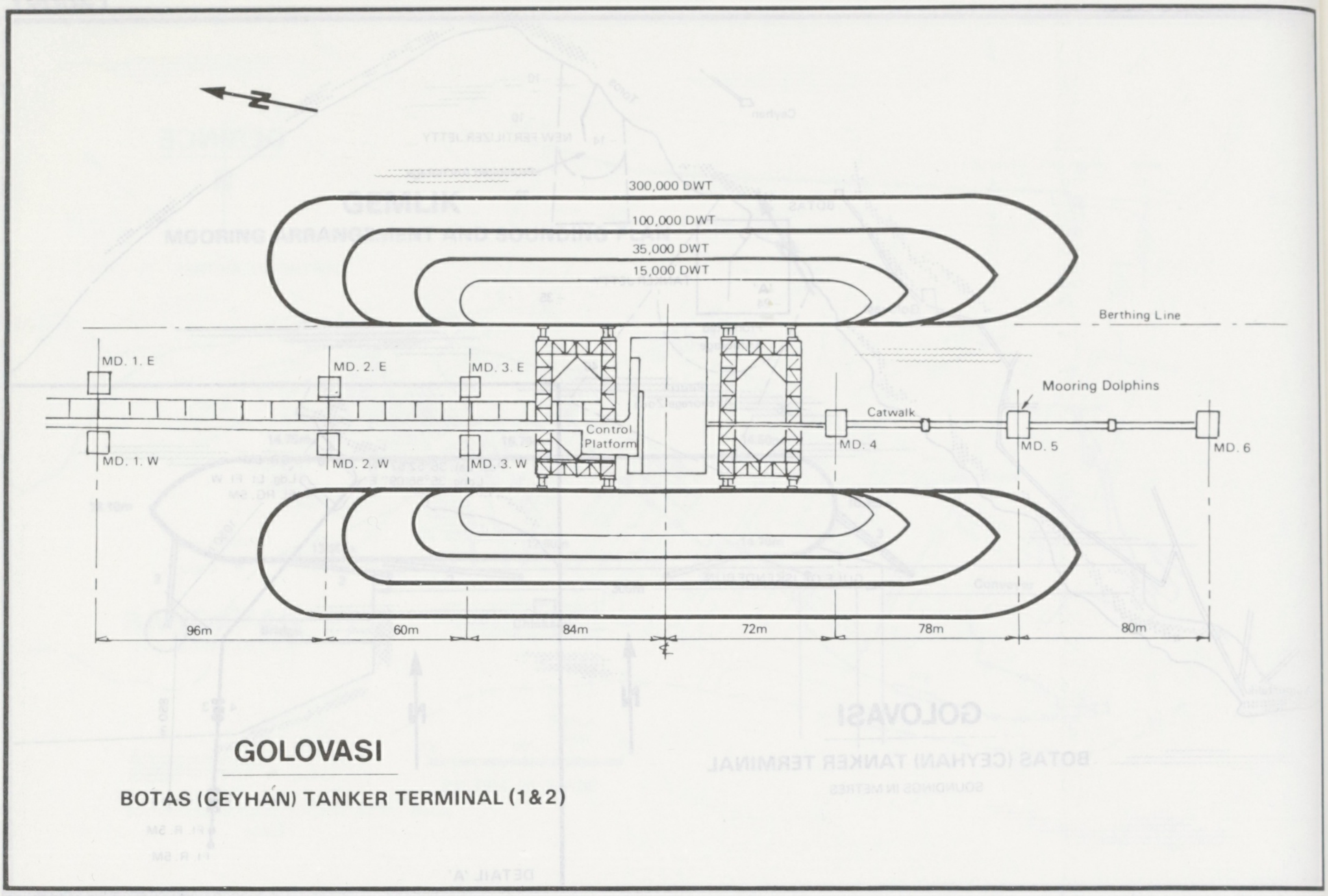
BOTAS (CEYHAN) TANKER TERMINAL

SOUNDINGS IN METRES


N
–16 m.
–12 m.
–10m
Platform 3 & 4
–25m
Fire fighting Platform
Control Platform
Breasting Dolphin
Platform 1 & 2
60m
48m
84m
84m
48m
60m
96m
60m
84m
72.5m
78m
78.65m
336 m.
514 m.
230m
850 m.
Roadway
1050 m.
Small Craft Harbour
Approach
Shore

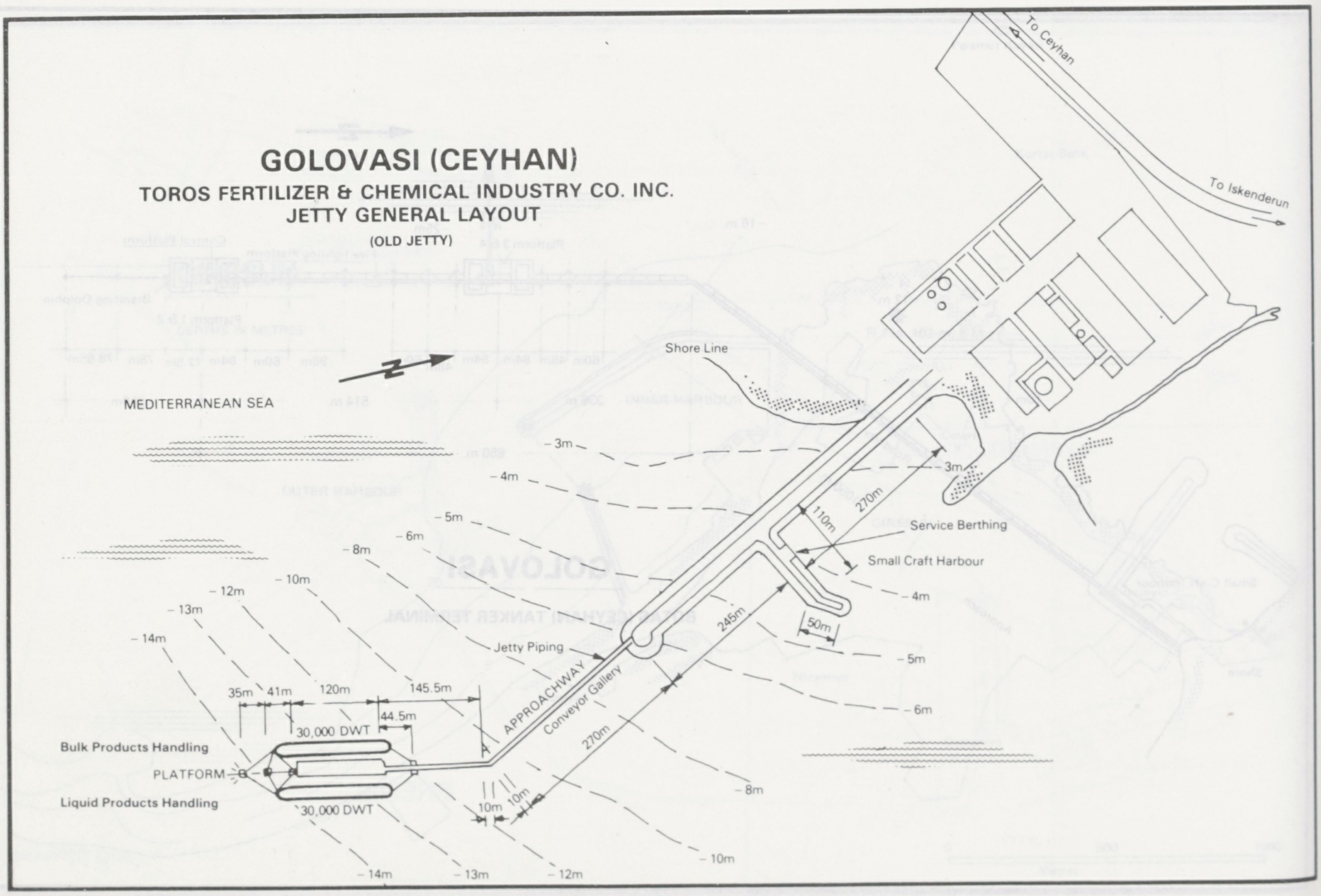
GOLOVASI

BOTAS (CEYHAN) TANKER TERMINAL


300,000 DWT
100,000 DWT
35,000 DWT
15,000 DWT
Berthing Line
MD. 1. E
MD. 2. E
MD. 3. E
MD. 1. W
MD. 2. W
MD. 3. W
Control Platform
Catwalk
Mooring Dolphins
MD. 4
MD. 5
MD. 6
96m
60m
84m
72m
78m
80m

GOLOVASI

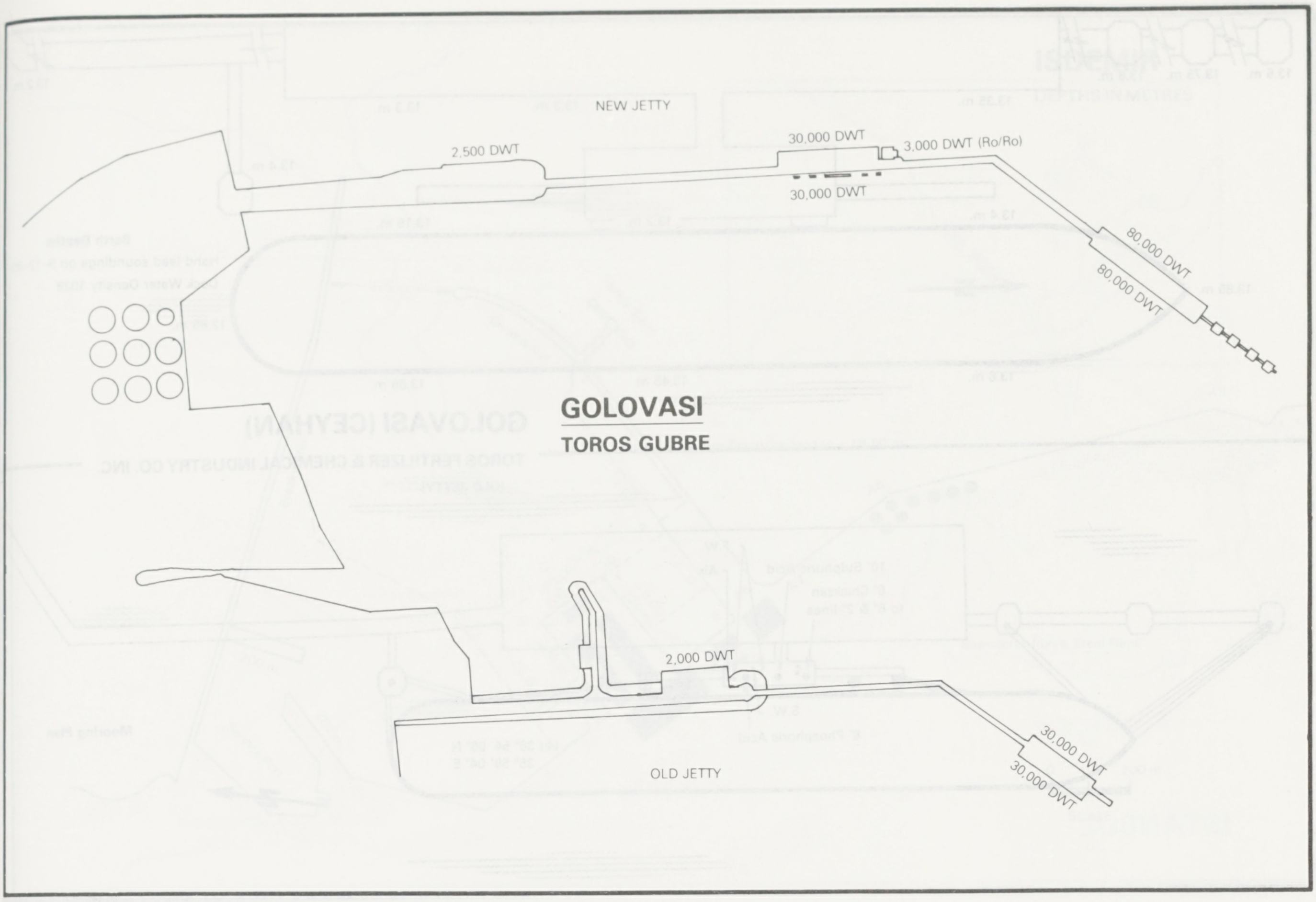
BOTAS (CEYHAN) TANKER TERMINAL (1&2)



GOLOVASI (CEYHAN)

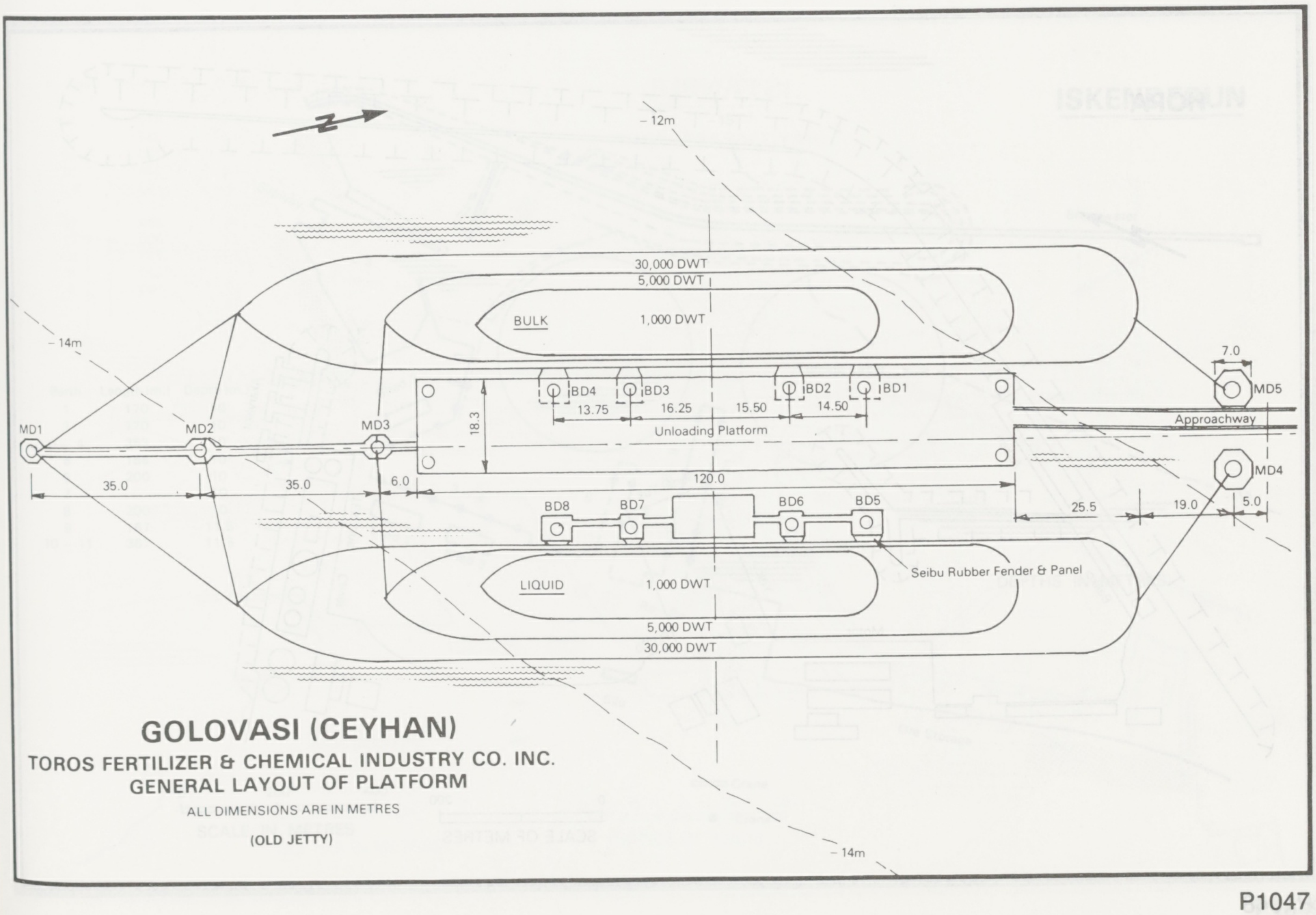
TOROS FERTILIZER & CHEMICAL INDUSTRY CO. INC.
JETTY GENERAL LAYOUT
(OLD JETTY)

To Ceyhan
To Iskenderun
Shore Line
MEDITERRANEAN SEA
– 3m
– 4m
– 5m
– 6m
– 8m
– 10m
– 12m
– 13m
– 14m
– 3m
270m
110m
Service Berthing
Small Craft Harbour
– 4m
50m
– 5m
– 6m
245m
Jetty Piping
APPROACHWAY
Conveyor Gallery
270m
35m
41m
120m
145.5m
44.5m
30,000 DWT
Bulk Products Handling
PLATFORM
Liquid Products Handling
30,000 DWT
10m
10m
– 8m
– 10m
– 14m
– 13m
– 12m


NEW JETTY
2,500 DWT
30,000 DWT
3,000 DWT (Ro/Ro)
30,000 DWT
80,000 DWT
80,000 DWT
2,000 DWT
30,000 DWT
30,000 DWT
OLD JETTY

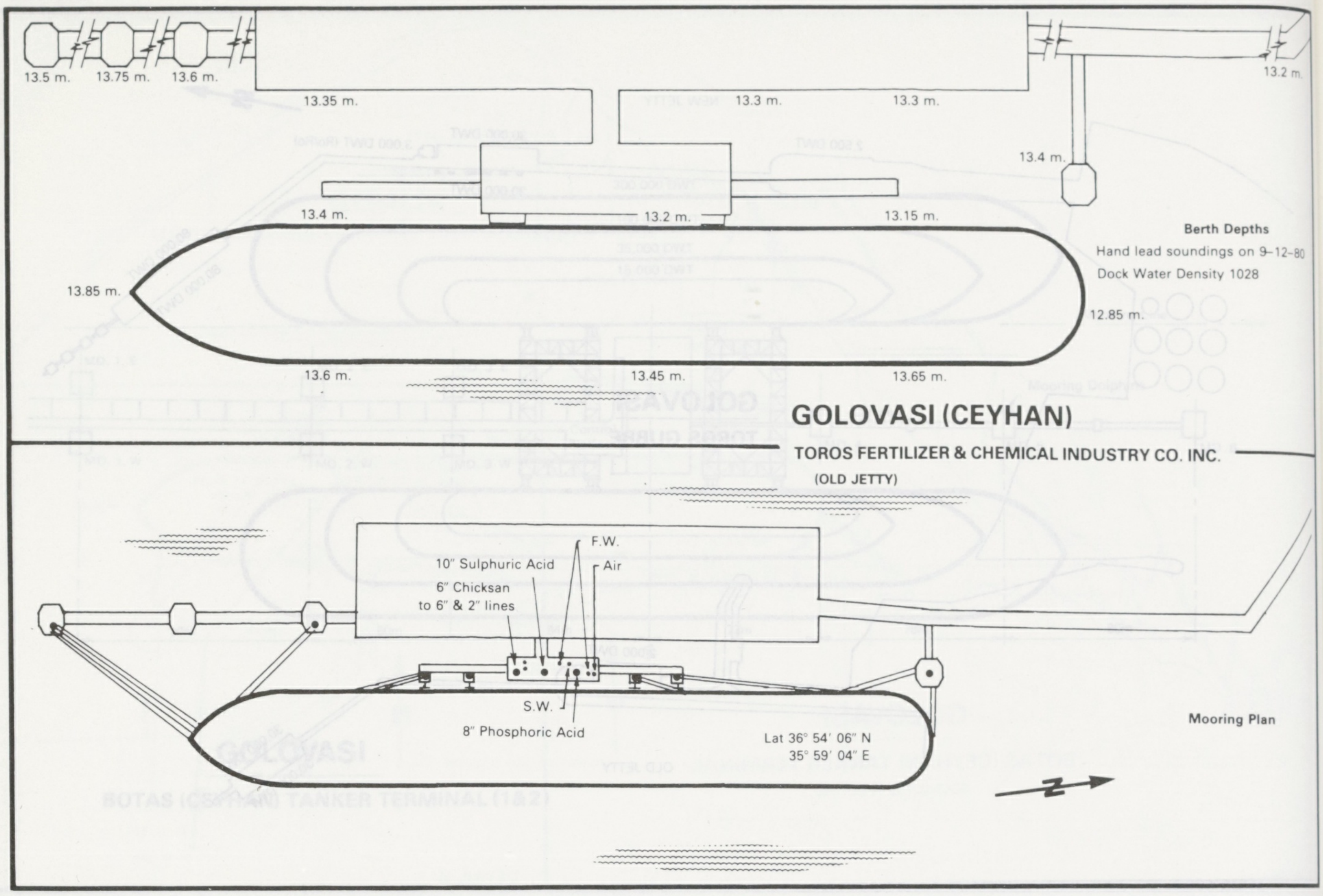
GOLOVASI

TOROS GUBRE


N
– 12m
– 14m
30,000 DWT
5,000 DWT
BULK
1,000 DWT
7.0
MD5
BD4
BD3
BD2
BD1
13.75
16.25
15.50
14.50
18.3
Approachway
Unloading Platform
MD1
MD2
MD3
120.0
MD4
35.0
35.0
6.0
BD8
BD7
BD6
BD5
25.5
19.0
5.0
Seibu Rubber Fender & Panel
LIQUID
1,000 DWT
5,000 DWT
30,000 DWT
– 14m

GOLOVASI (CEYHAN)

TOROS FERTILIZER & CHEMICAL INDUSTRY CO. INC.
GENERAL LAYOUT OF PLATFORM
ALL DIMENSIONS ARE IN METRES
(OLD JETTY)

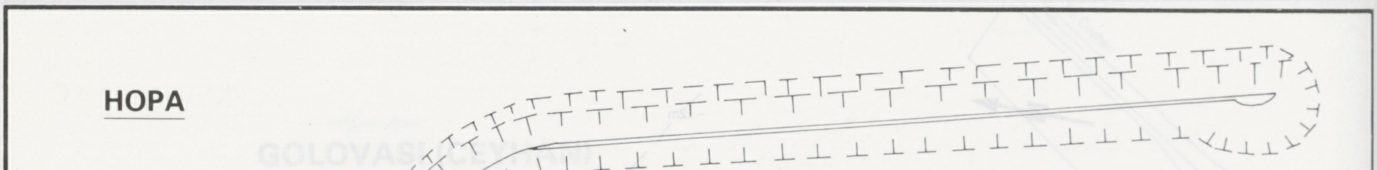


GOLOVASI (CEYHAN)

TOROS FERTILIZER & CHEMICAL INDUSTRY CO. INC.

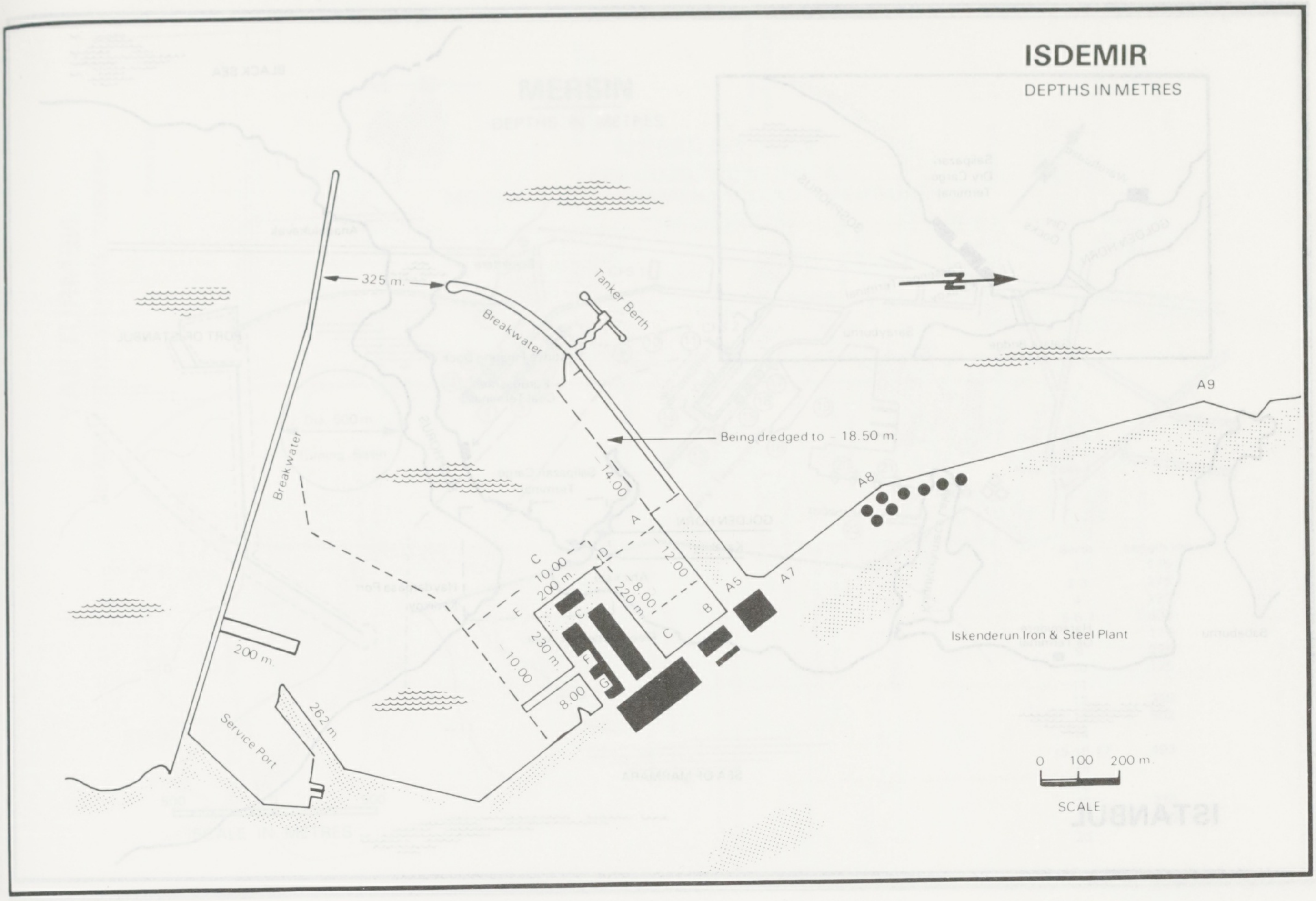
(OLD JETTY)

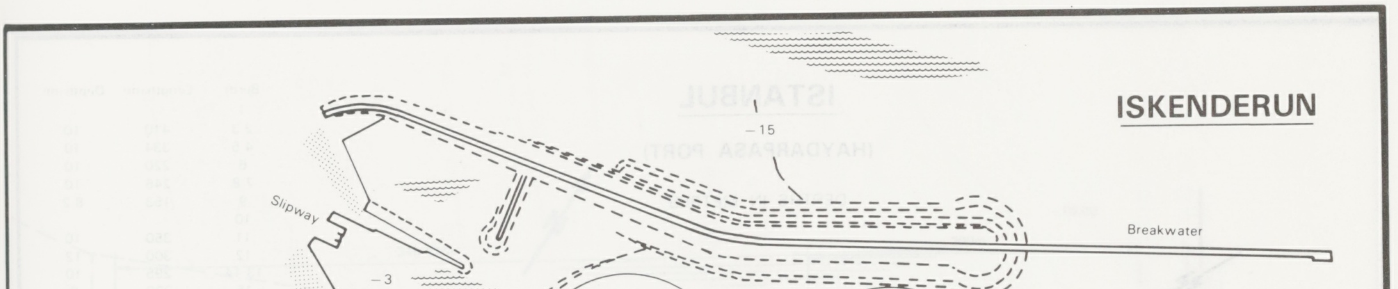
13.5 m.
13.75 m.
13.6 m.
13.35 m.
13.3 m.
13.3 m.
13.2 m.
13.4 m.
13.4 m.
13.2 m.
13.15 m.
Berth Depths
Hand lead soundings on 9–12–80
Dock Water Density 1028
13.85 m.
12.85 m.
13.6 m.
13.45 m.
13.65 m.
F.W.
10" Sulphuric Acid
Air
6" Chicksan
to 6" & 2" lines
S.W.
8" Phosphoric Acid
Lat 36° 54′ 06″ N
35° 59′ 04″ E
Mooring Plan
N



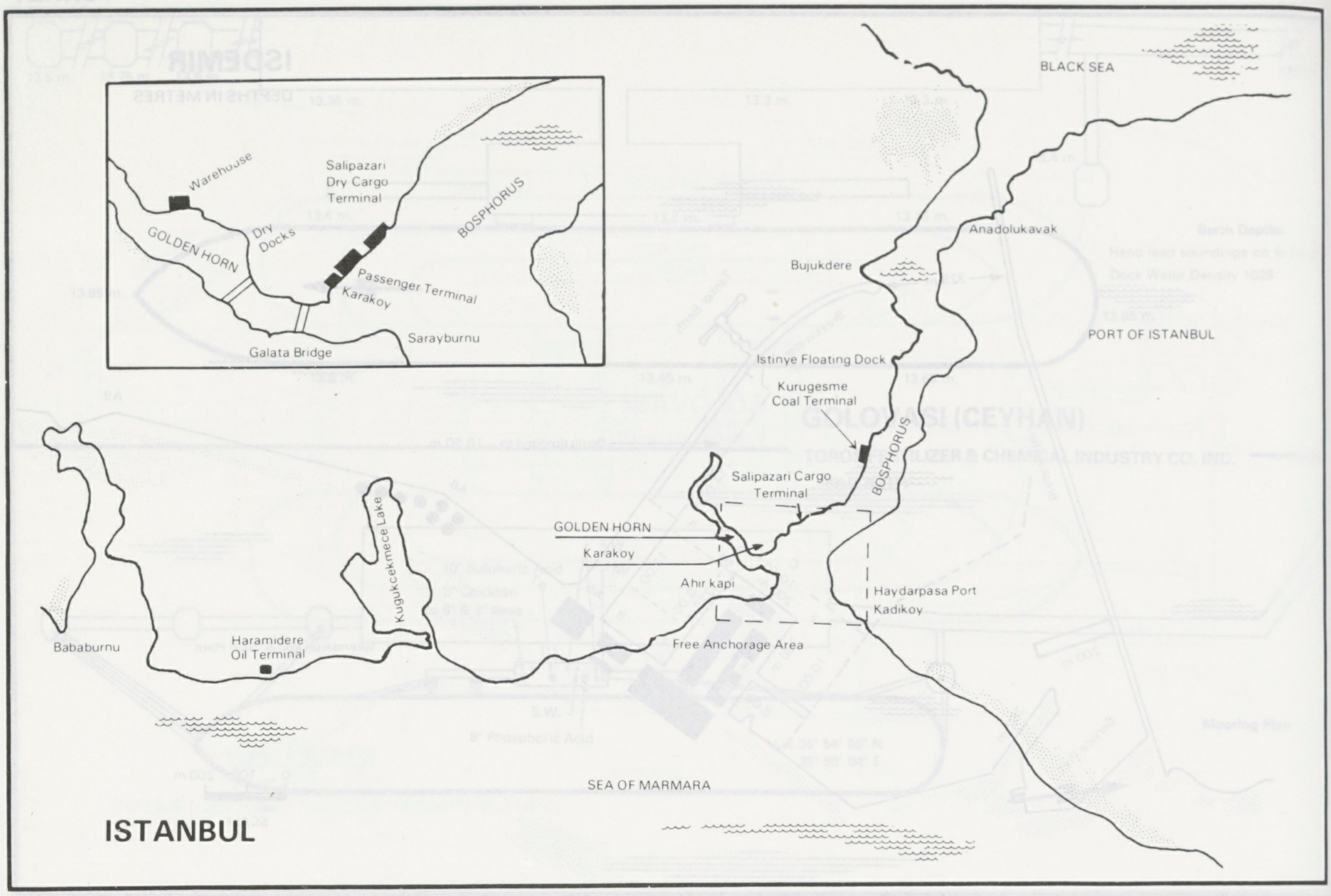
HOPA

N
Asken
Balikci
Genel Yuk
Yolcu
Motor
Ro/Ro
Akaryakit
TEK Line
Cever
0
200
SCALE OF METRES

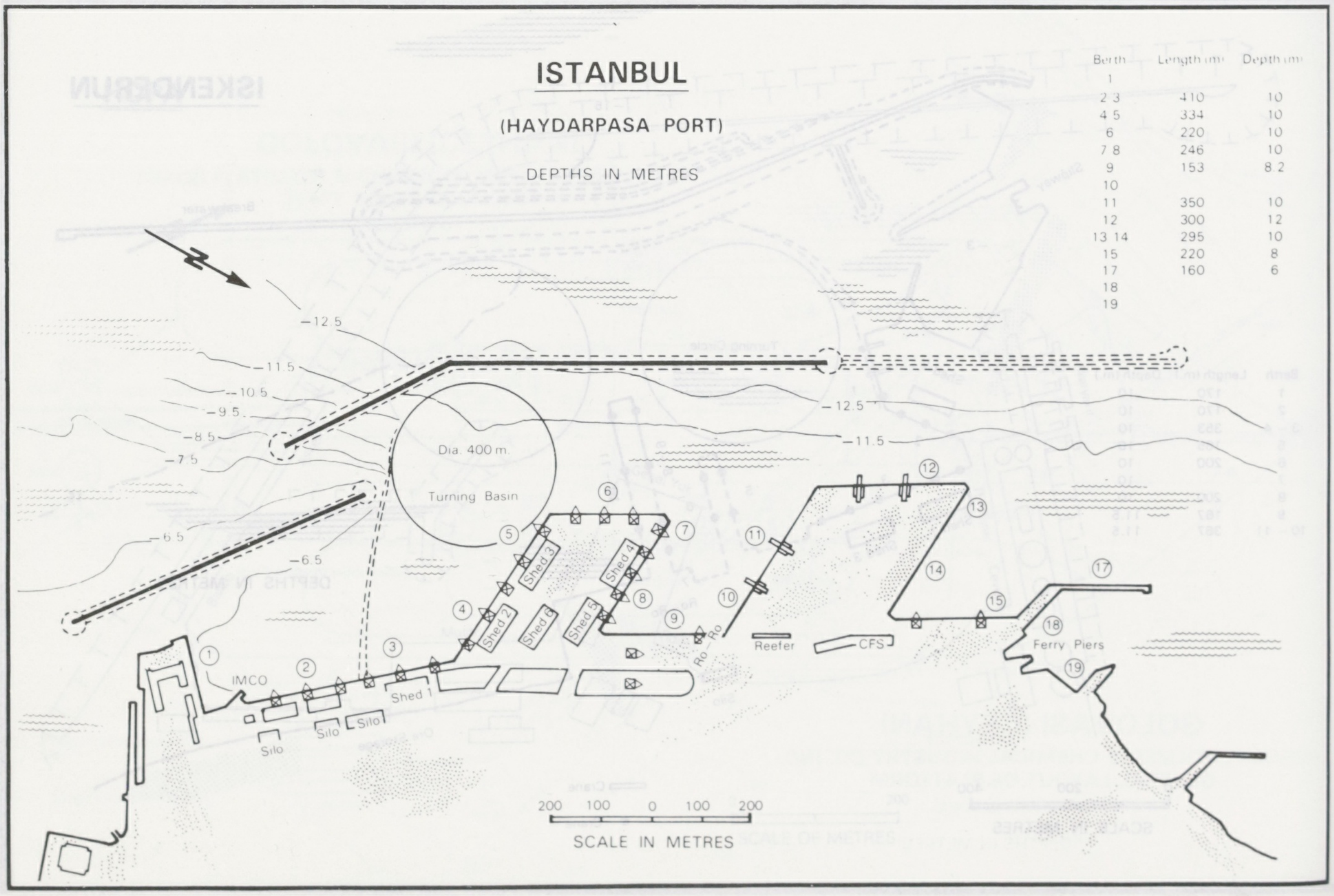

ISDEMIR
DEPTHS IN METRES
325 m.
Tanker Berth
Breakwater
Breakwater
Being dredged to – 18.50 m.
14.00
A
12.00
C
10.00
200 m.
D
8.00
220 m.
B
C
E
C
230 m.
F
G
10.00
8.00
A5
A7
A8
A9
200 m.
262 m.
Service Port
Iskenderun Iron & Steel Plant
0
100
200 m.
SCALE


ISKENDERUN
– 15
Breakwater
Slipway
– 3
4
Turning Circle
Turning Circle
Shed 2
1
2
3 – 4
5
6
8 – 9
10 – 11
– 15
Shed 1
Shed 3
7
Ro – Ro
Silo
Ore Storage
DEPTHS IN METRES
0
200
400
SCALE IN METRES
Crane
● Crane

Berth	Length (m.)	Depth (m.)
1	170	10
2	170	10
3 – 4	353	10
5	185	10
6	200	10
7		10
8	200	10
9	167	11.5
10 – 11	367	11.5


Warehouse
Salipazari Dry Cargo Terminal
BOSPHORUS
Dry Docks
GOLDEN HORN
Passenger Terminal
Karakoy
Sarayburnu
Galata Bridge
BLACK SEA
Anadolukavak
Bujukdere
PORT OF ISTANBUL
Istinye Floating Dock
Kurugesme Coal Terminal
BOSPHORUS
Salipazari Cargo Terminal
GOLDEN HORN
Karakoy
Ahir kapı
Haydarpasa Port
Kadikoy
Kugukcekmece Lake
Bababurnu
Haramidere Oil Terminal
Free Anchorage Area
SEA OF MARMARA

ISTANBUL


N
−12.5
−11.5
−10.5
−9.5
−8.5
−7.5
−6.5
−6.5
−12.5
−11.5
Dia. 400 m.
Turning Basin
1
IMCO
2
3
Shed 1
Silo
Silo
Silo
4
5
Shed 2
Shed 3
Shed 6
6
Shed 5
Shed 4
7
8
9
Ro-Ro
10
11
Reefer
CFS
12
13
14
15
16
17
18
Ferry Piers
19
200
100
0
100
200
SCALE IN METRES

ISTANBUL

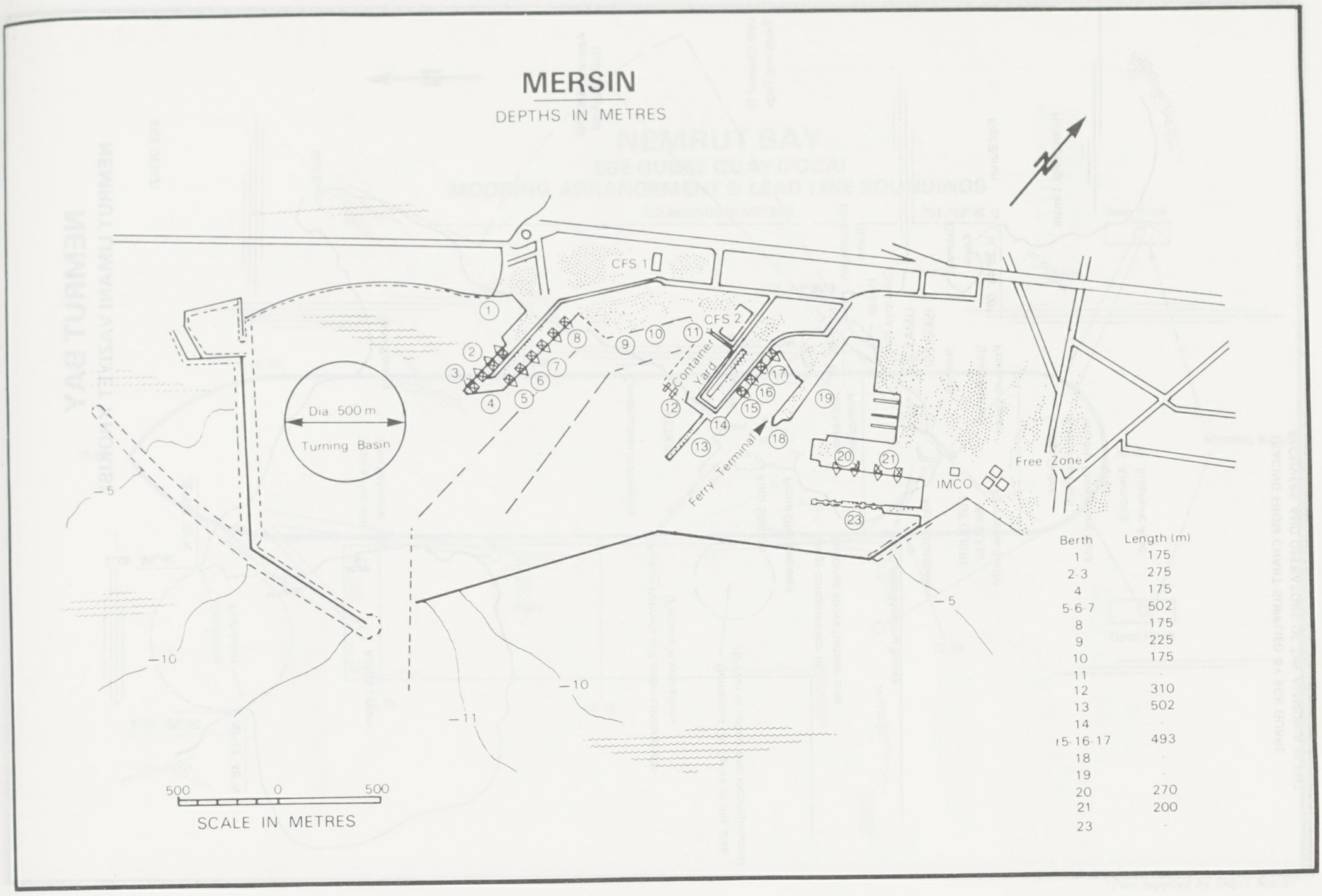
(HAYDARPASA PORT)

DEPTHS IN METRES

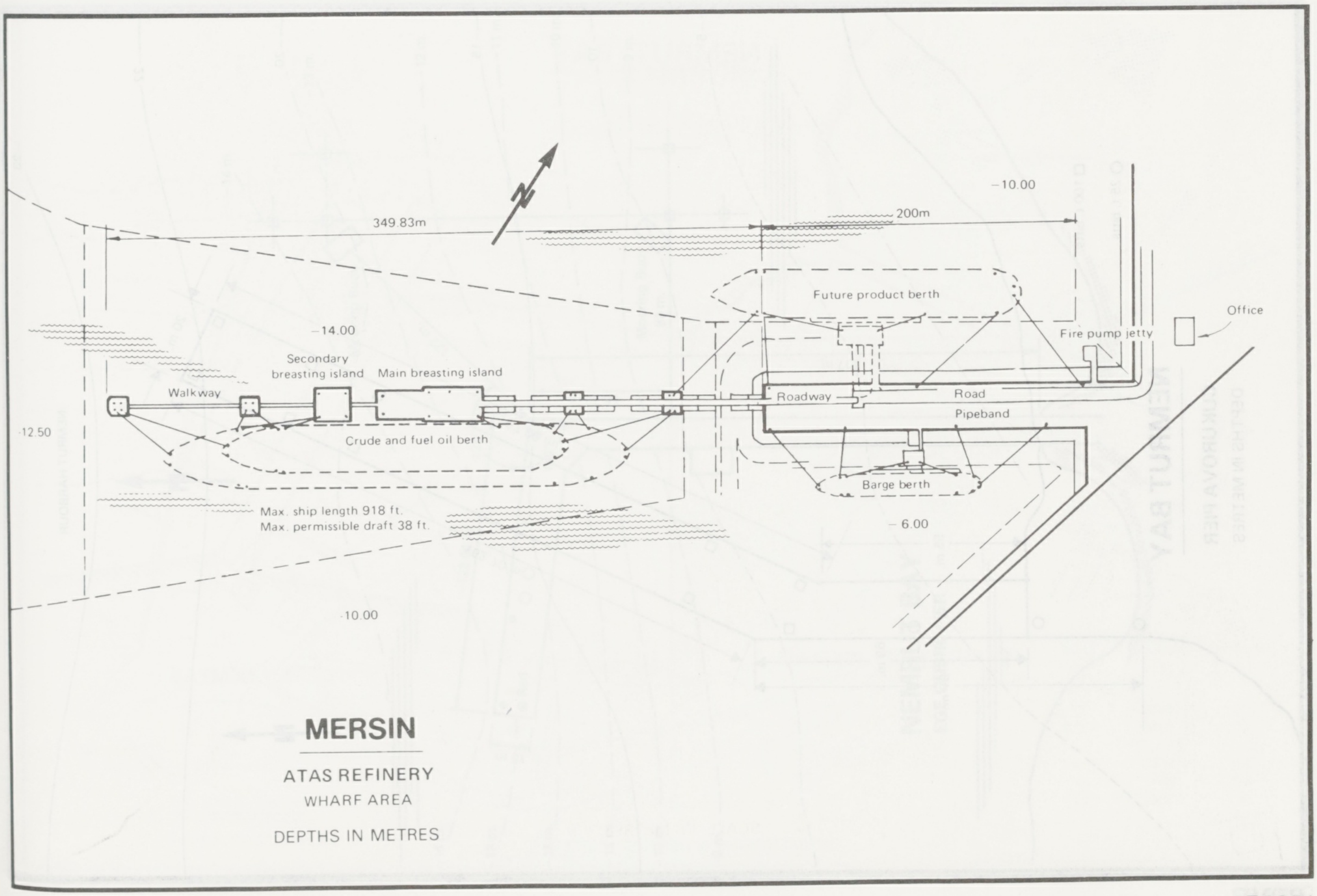
Berth	Length (m)	Depth (m)
1		
2 3	410	10
4 5	334	10
6	220	10
7 8	246	10
9	153	8.2
10		
11	350	10
12	300	12
13 14	295	10
15	220	8
17	160	6
18		
19		

MERSIN

DEPTHS IN METRES


CFS 1
CFS 2
Container Yard
Ferry Terminal
Dia. 500 m
Turning Basin
Free Zone
IMCO
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
23
–5
–10
–11
–10
–5
500
0
500
SCALE IN METRES

Berth	Length (m)
1	175
2-3	275
4	175
5-6-7	502
8	175
9	225
10	175
11	-
12	310
13	502
14	-
15-16-17	493
18	-
19	-
20	270
21	200
23	-

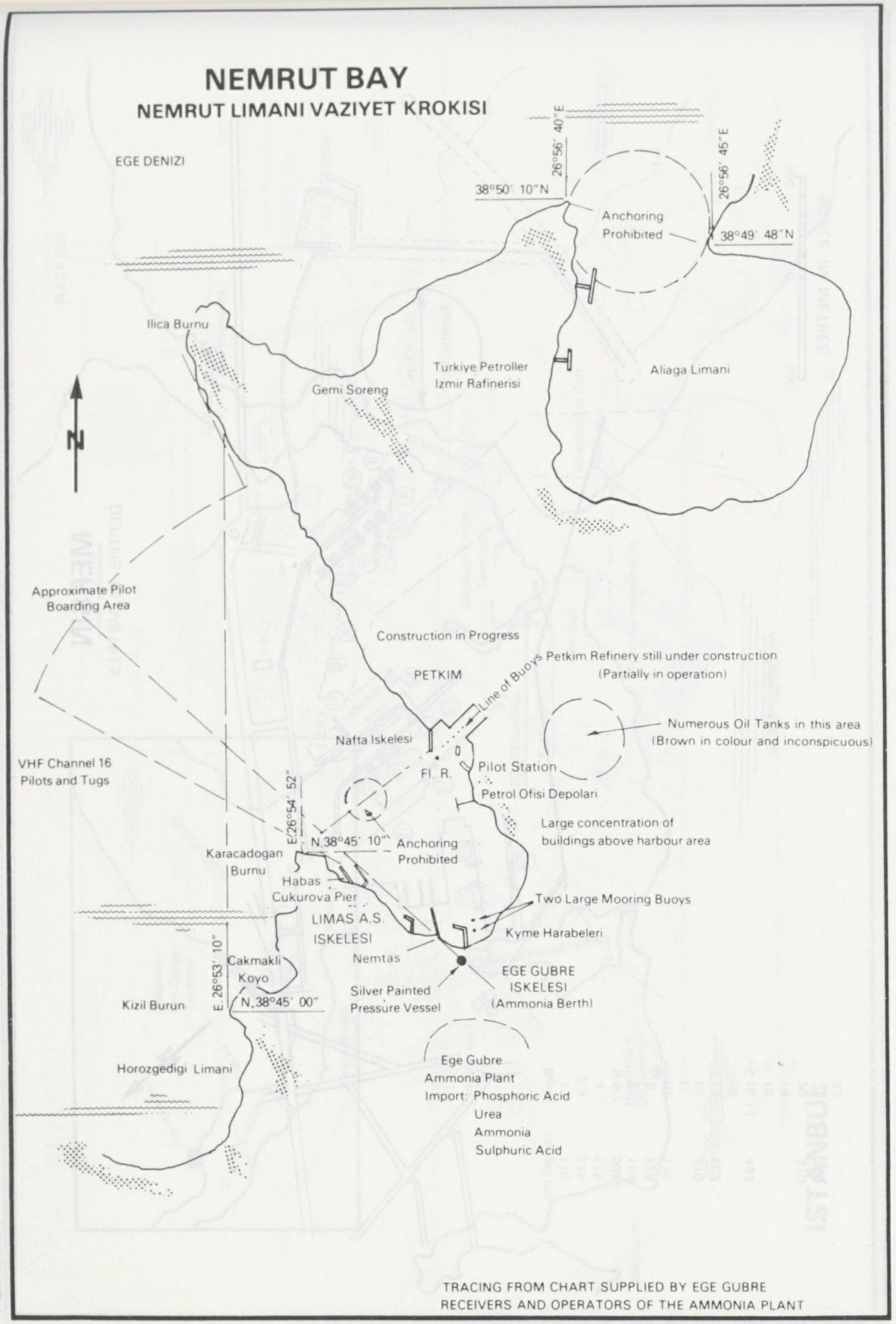

349.83m
200m
–10.00
–14.00
Future product berth
Fire pump jetty
Office
Secondary breasting island
Main breasting island
Walkway
Roadway
Road
Pipeband
Crude and fuel oil berth
Barge berth
–12.50
Max. ship length 918 ft.
Max. permissible draft 38 ft.
– 6.00
–10.00

MERSIN

ATAS REFINERY

WHARF AREA

DEPTHS IN METRES

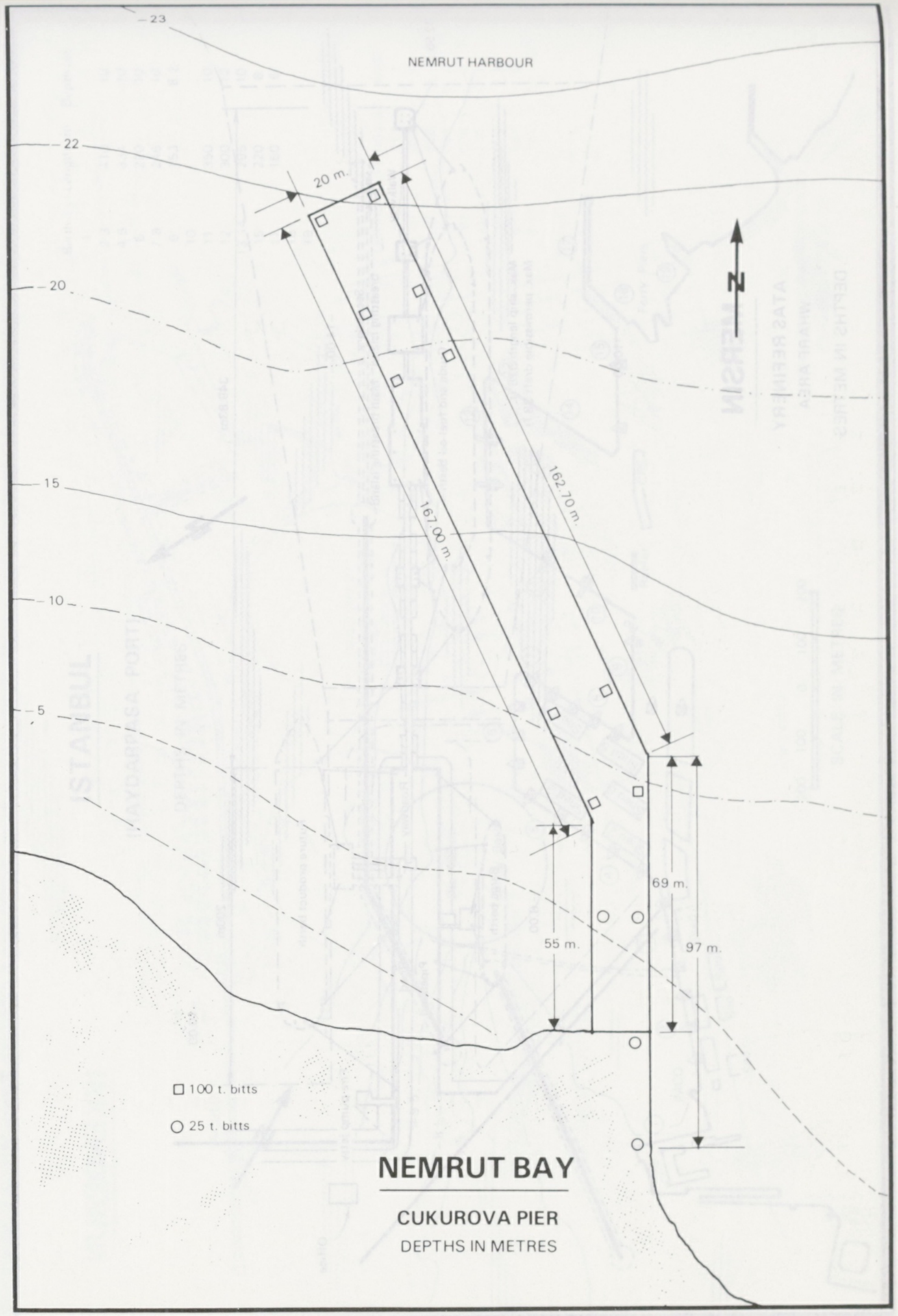


NEMRUT BAY

NEMRUT LIMANI VAZIYET KROKISI

EGE DENIZI
26°56' 40"E
26°56' 45"E
38°50' 10"N
38°49' 48"N
Anchoring Prohibited
Ilica Burnu
Turkiye Petroller Izmir Rafinerisi
Aliaga Limani
Gemi Soreng
N
Approximate Pilot Boarding Area
Construction in Progress
PETKIM
Line of Buoys
Petkim Refinery still under construction (Partially in operation)
Numerous Oil Tanks in this area (Brown in colour and inconspicuous)
Nafta Iskelesi
Pilot Station
Fl. R.
VHF Channel 16 Pilots and Tugs
Petrol Ofisi Depolari
E 26°54' 52"
N 38°45' 10"
Anchoring Prohibited
Large concentration of buildings above harbour area
Karacadogan Burnu
Habas
Cukurova Pier
LIMAS A.S. ISKELESI
Two Large Mooring Buoys
Kyme Harabeleri
Nemtas
Cakmakli Koyo
E 26°53' 10"
N 38°45' 00"
Kizil Burun
Silver Painted Pressure Vessel
EGE GUBRE ISKELESI (Ammonia Berth)
Horozgedigi Limani
Ege Gubre Ammonia Plant
Import: Phosphoric Acid
Urea
Ammonia
Sulphuric Acid

TRACING FROM CHART SUPPLIED BY EGE GUBRE RECEIVERS AND OPERATORS OF THE AMMONIA PLANT

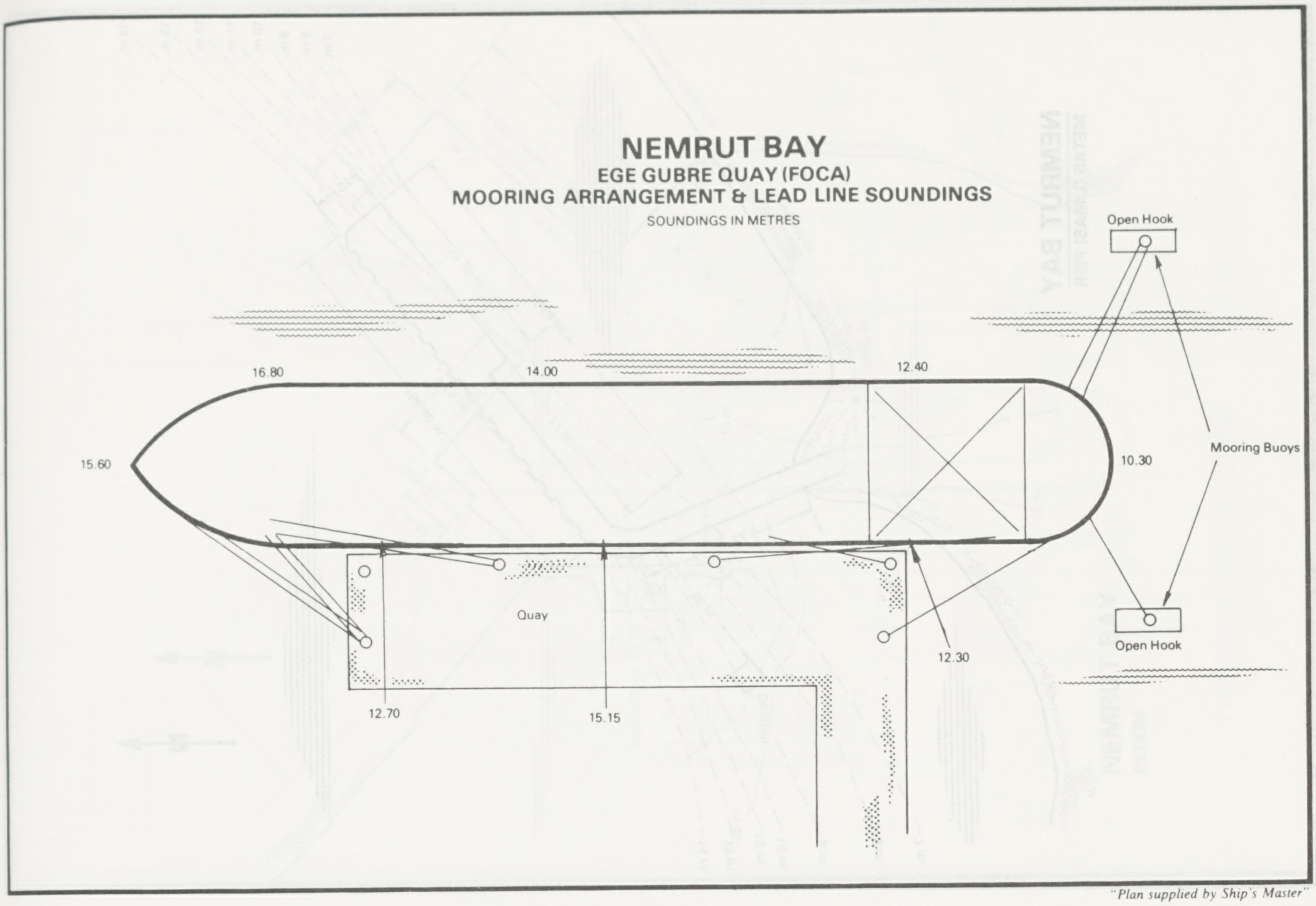


NEMRUT BAY

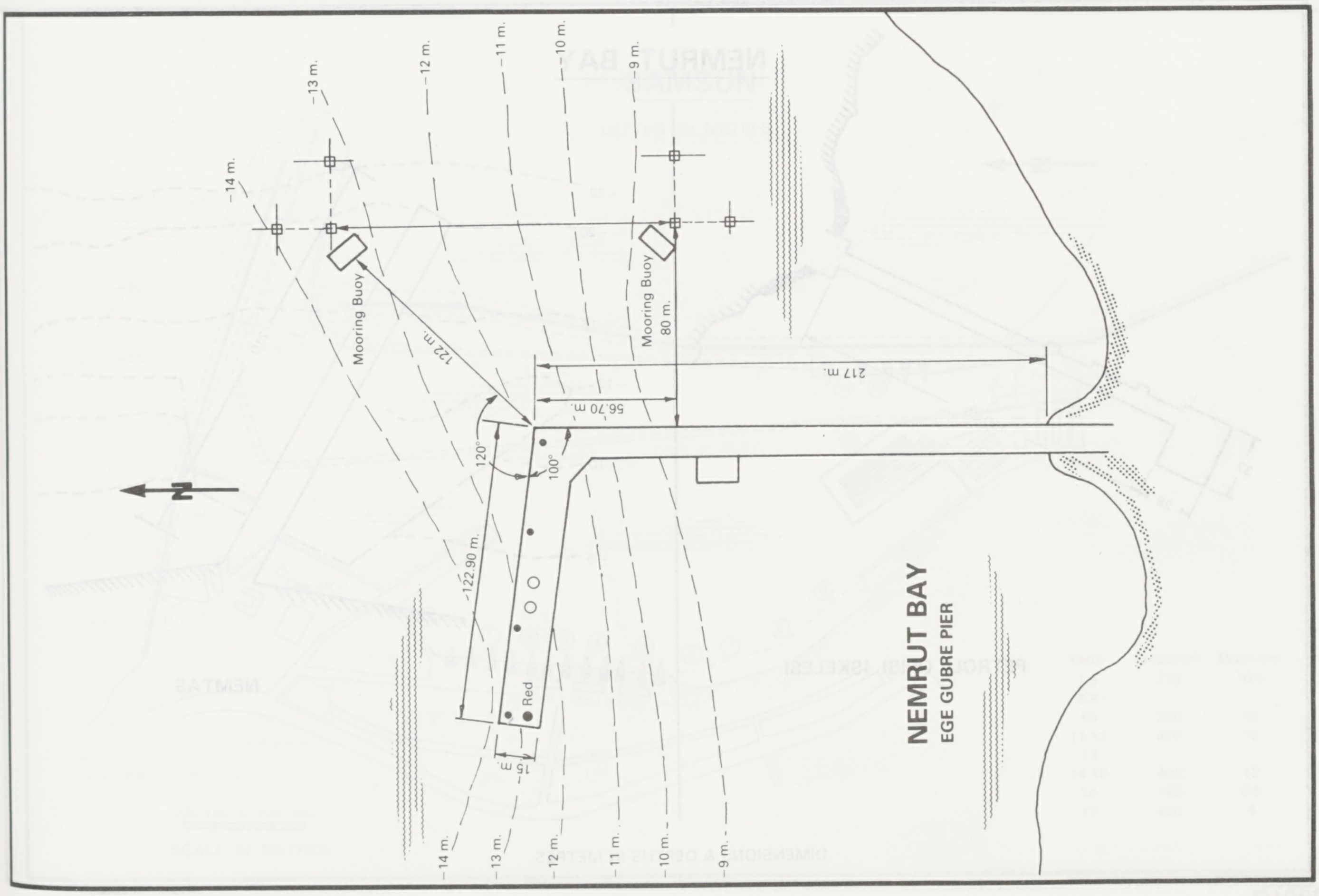
CUKUROVA PIER

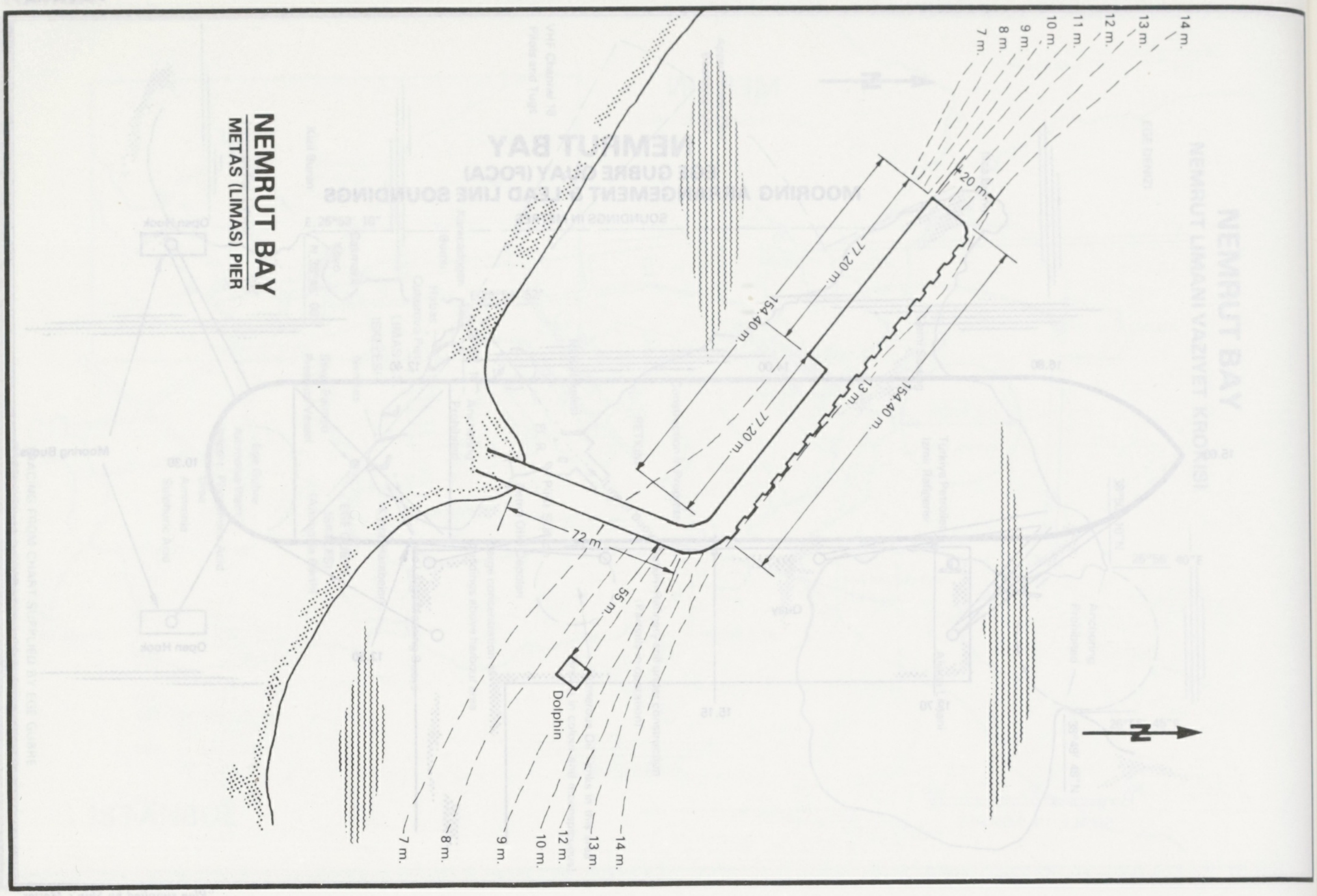
DEPTHS IN METRES

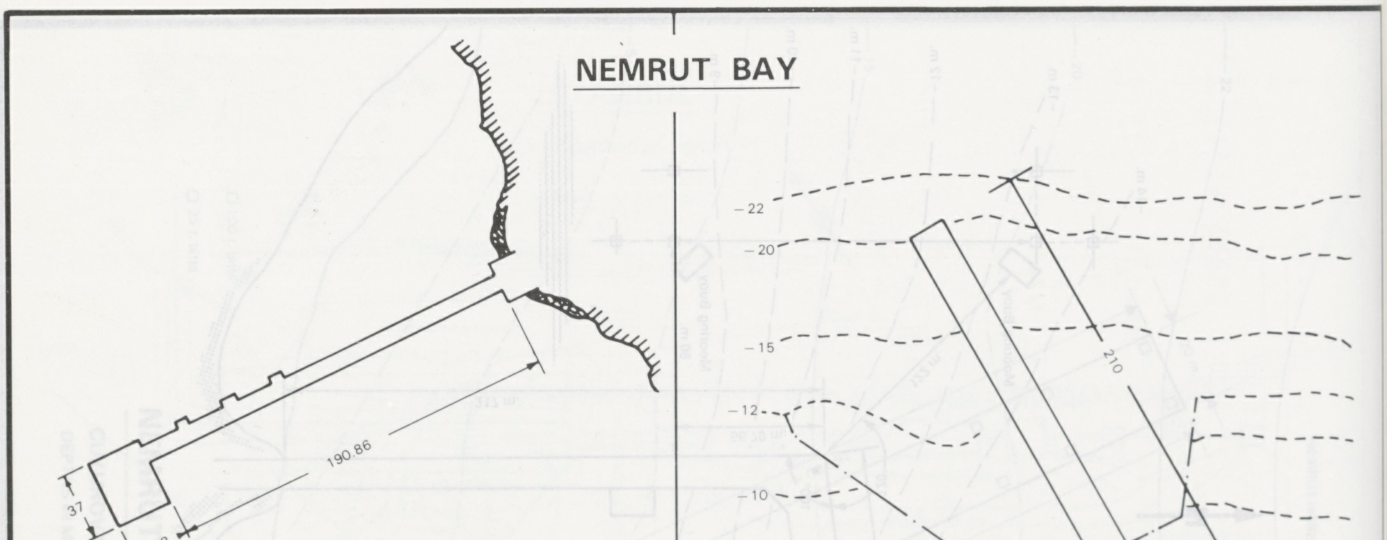
NEMRUT HARBOUR
23
22
20
15
10
5
20 m.
162.70 m.
167.00 m.
N
55 m.
69 m.
97 m.
□ 100 t. bitts
○ 25 t. bitts

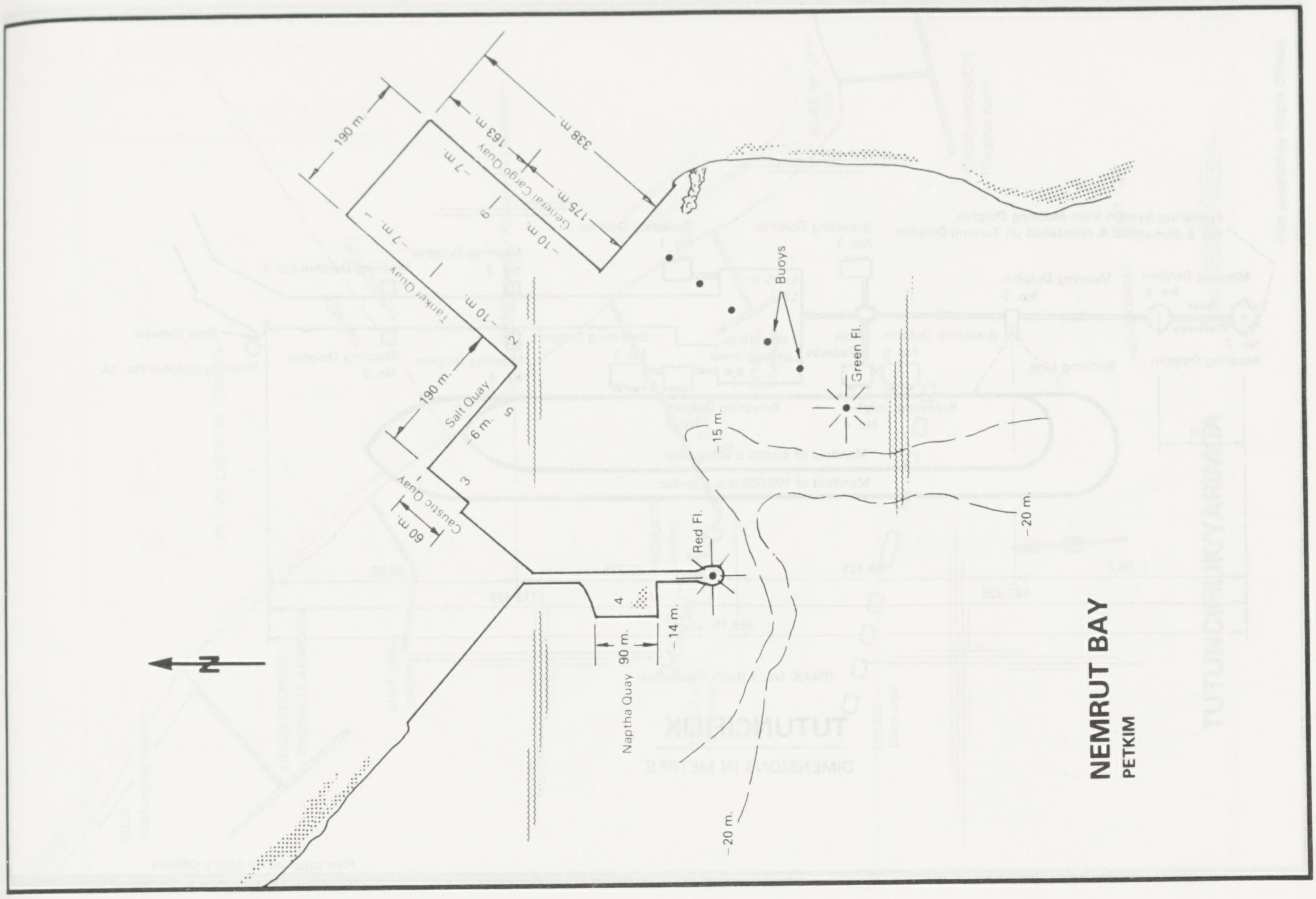

NEMRUT BAY
EGE GUBRE QUAY (FOCA)
MOORING ARRANGEMENT & LEAD LINE SOUNDINGS
SOUNDINGS IN METRES
Open Hook
16.80
14.00
12.40
15.60
10.30
Mooring Buoys
Quay
12.30
Open Hook
12.70
15.15

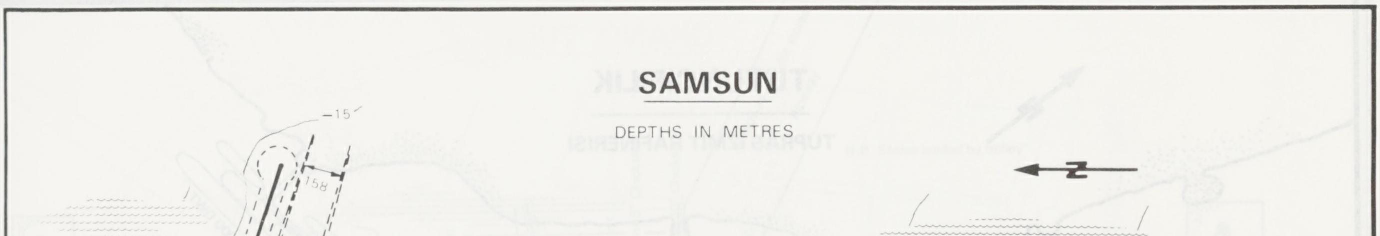
"Plan supplied by Ship's Master"


NEMRUT BAY
EGE GUBRE PIER
-14 m.
-13 m.
-12 m.
-11 m.
-10 m.
-9 m.
Mooring Buoy
122 m.
Mooring Buoy
80 m.
217 m.
56.70 m.
120°
100°
-122.90 m.
Red
15 m.
N
-14 m.
-13 m.
-12 m.
-11 m.
-10 m.
-9 m.

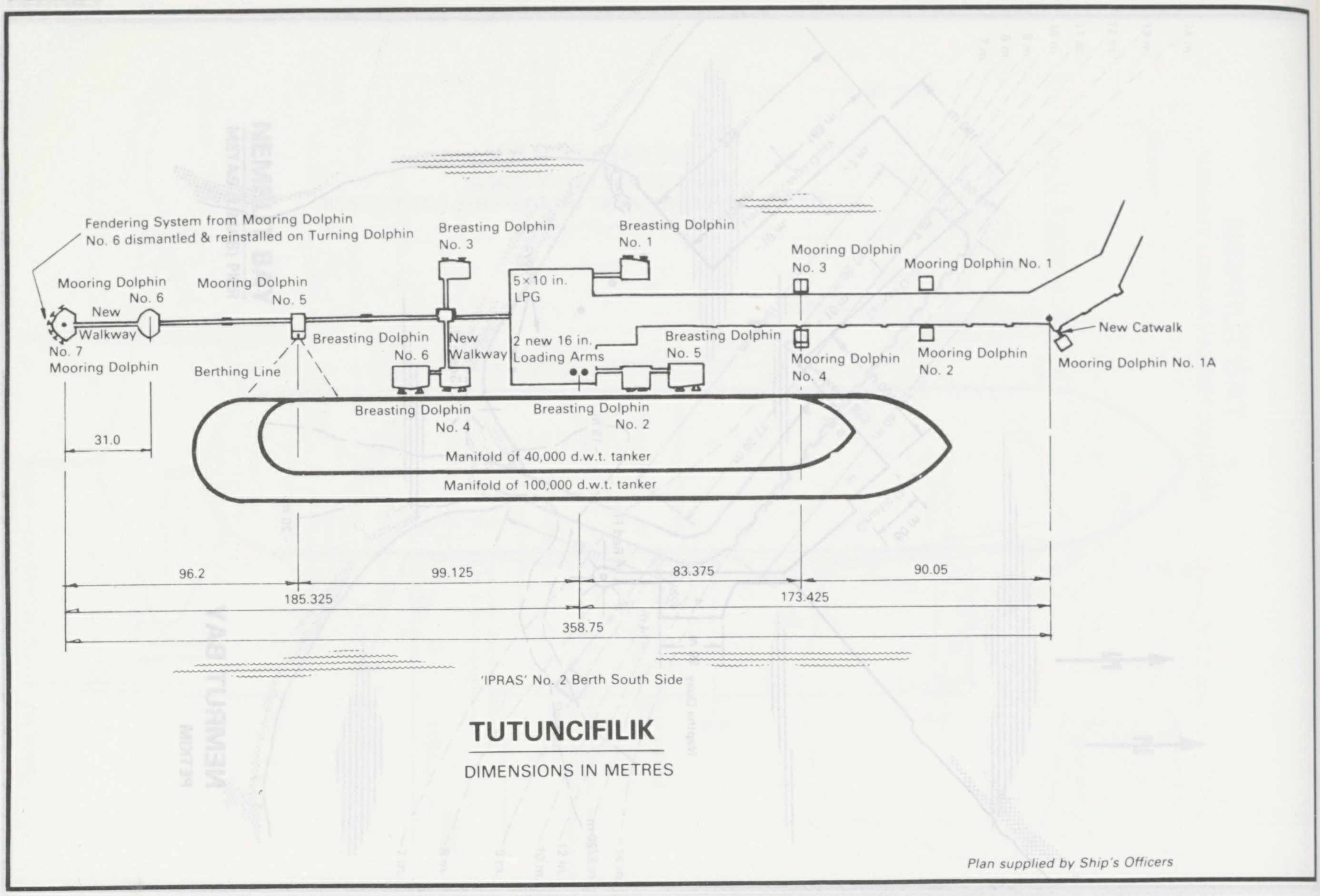

NEMRUT BAY
METAS (LIMAS) PIER
14 m.
13 m.
12 m.
11 m.
10 m.
9 m.
8 m.
7 m.
20 m.
77.20 m.
154.40 m.
13 m.
77.20 m.
154.40 m.
72 m.
55 m.
Dolphin
14 m.
13 m.
12 m.
10 m.
9 m.
8 m.
7 m.
N


NEMRUT BAY
−22
−20
−15
−12
−10
−5
210
190.86
37
28
PETROLI OFISI ISKELESI
NEMTAS
DIMENSIONS & DEPTHS IN METRES


NEMRUT BAY
PETKIM
N
190 m.
338 m.
163 m.
175 m.
General Cargo Quay
–7 m.
–10 m.
6
1
Tanker Quay
–7 m.
–10 m.
2
190 m.
Salt Quay
–6 m.
5
3
Caustic Quay
60 m.
4
90 m.
–14 m.
Naptha Quay
Red Fl.
Buoys
Green Fl.
15 m.
–20 m.
–20 m.


SAMSUN
DEPTHS IN METRES
N
–15
158
–20
–15
225
–10
–5
–10.5
–10
–5
–5
Ferry Terminal
CFS
13
14
15
11
12
10
9
8
7
6
5
4
3
2
1
16
17
Slipway
IMCO
Shed 1
Shed 2
Shed 3
200 100 0 100 200
SCALE IN METRES

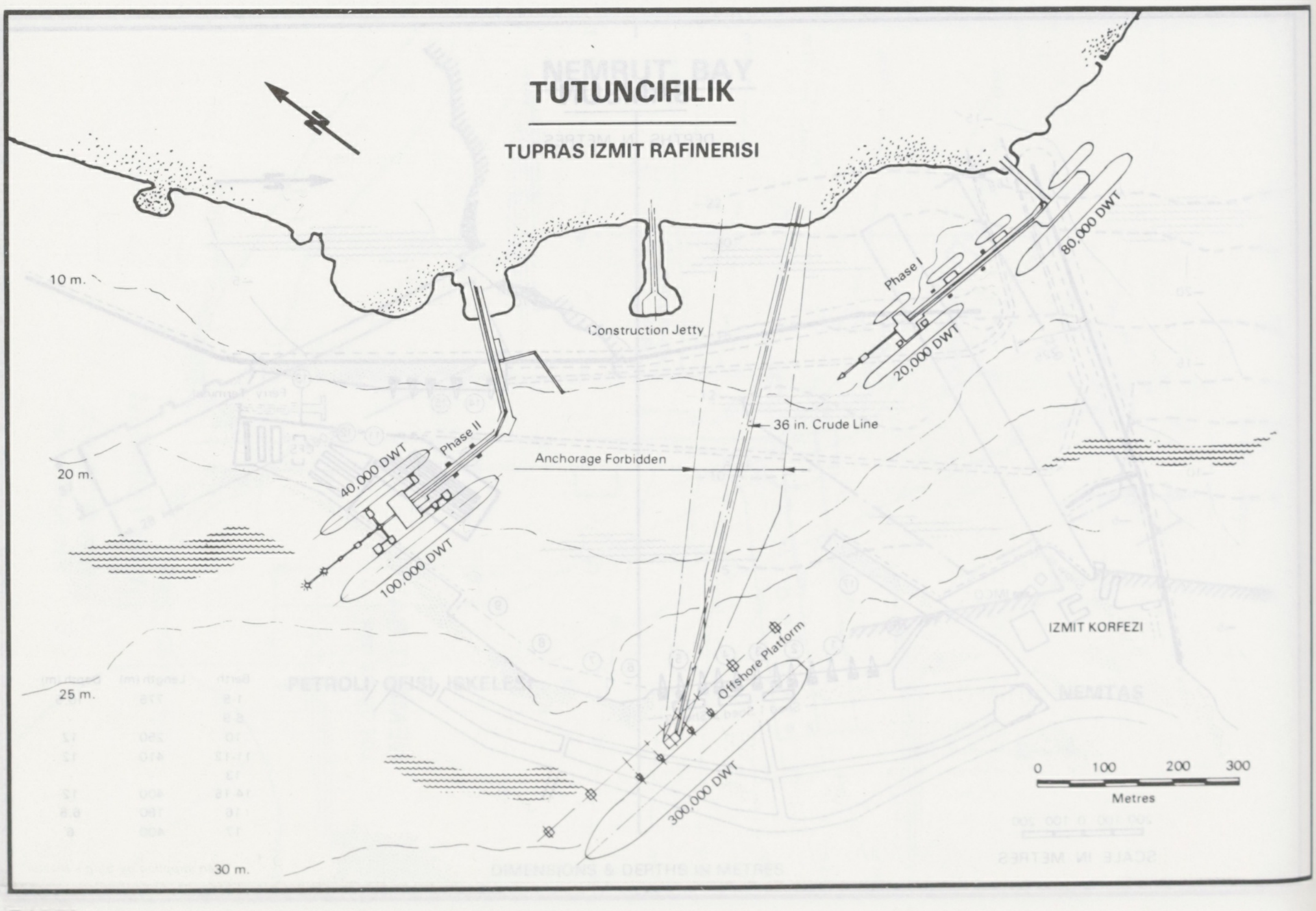
Berth	Length (m)	Depth (m)
1-5	776	10.5
6-9	-	-
10	250	12
11-12	410	12
13	-	-
14-15	400	12
16	180	6.5
17	400	6


Fendering System from Mooring Dolphin
No. 6 dismantled & reinstalled on Turning Dolphin
Breasting Dolphin
No. 3
Breasting Dolphin
No. 1
Mooring Dolphin
No. 3
Mooring Dolphin No. 1
Mooring Dolphin
No. 6
Mooring Dolphin
No. 5
5×10 in.
LPG
New
Walkway
No. 7
Mooring Dolphin
Breasting Dolphin
No. 6
New
Walkway
2 new 16 in.
Loading Arms
Breasting Dolphin
No. 5
Mooring Dolphin
No. 4
Mooring Dolphin
No. 2
New Catwalk
Mooring Dolphin No. 1A
Berthing Line
Breasting Dolphin
No. 4
Breasting Dolphin
No. 2
31.0
Manifold of 40,000 d.w.t. tanker
Manifold of 100,000 d.w.t. tanker
96.2
99.125
83.375
90.05
185.325
173.425
358.75
'IPRAS' No. 2 Berth South Side

TUTUNCIFILIK

DIMENSIONS IN METRES

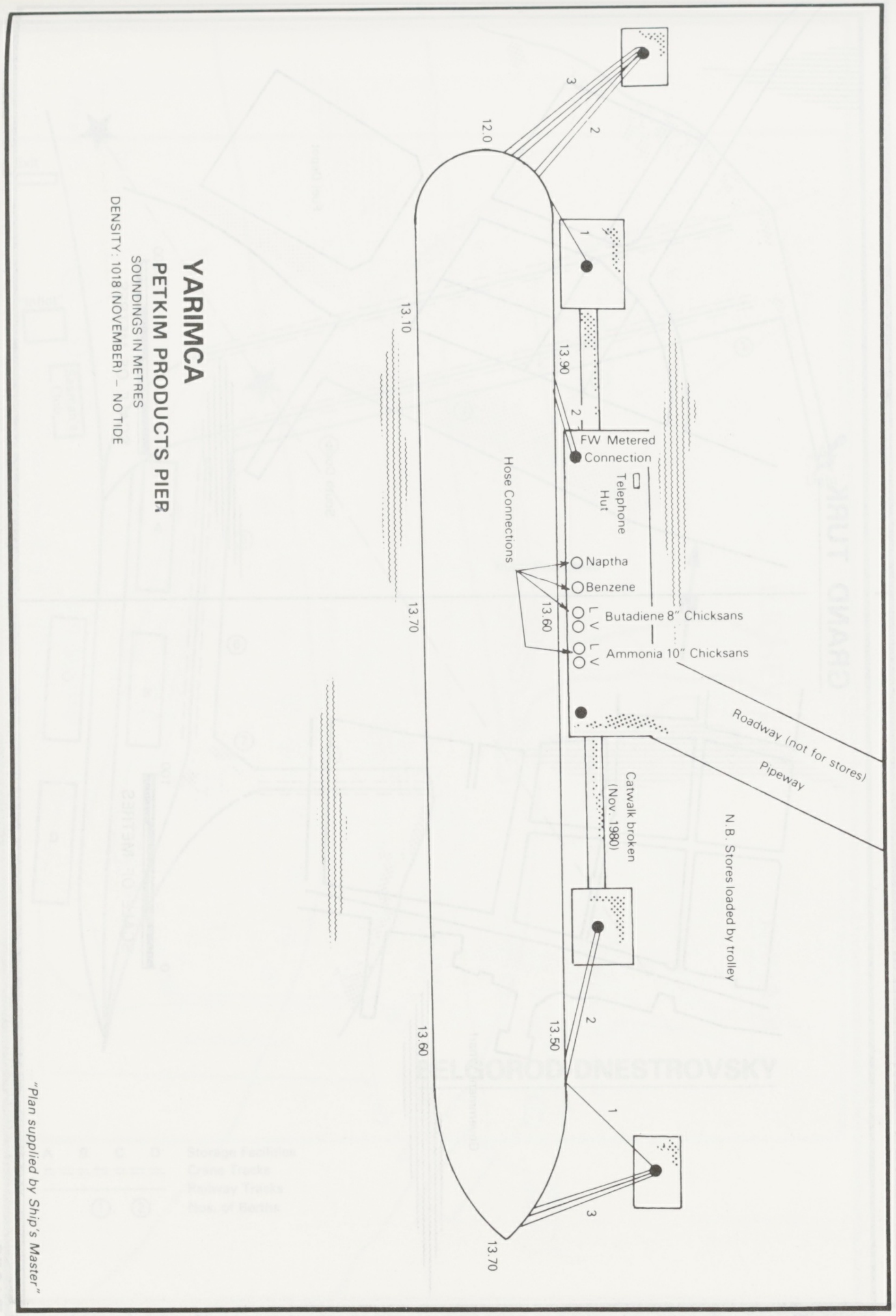
Plan supplied by Ship's Officers



TUTUNCIFILIK

TUPRAS IZMIT RAFINERISI

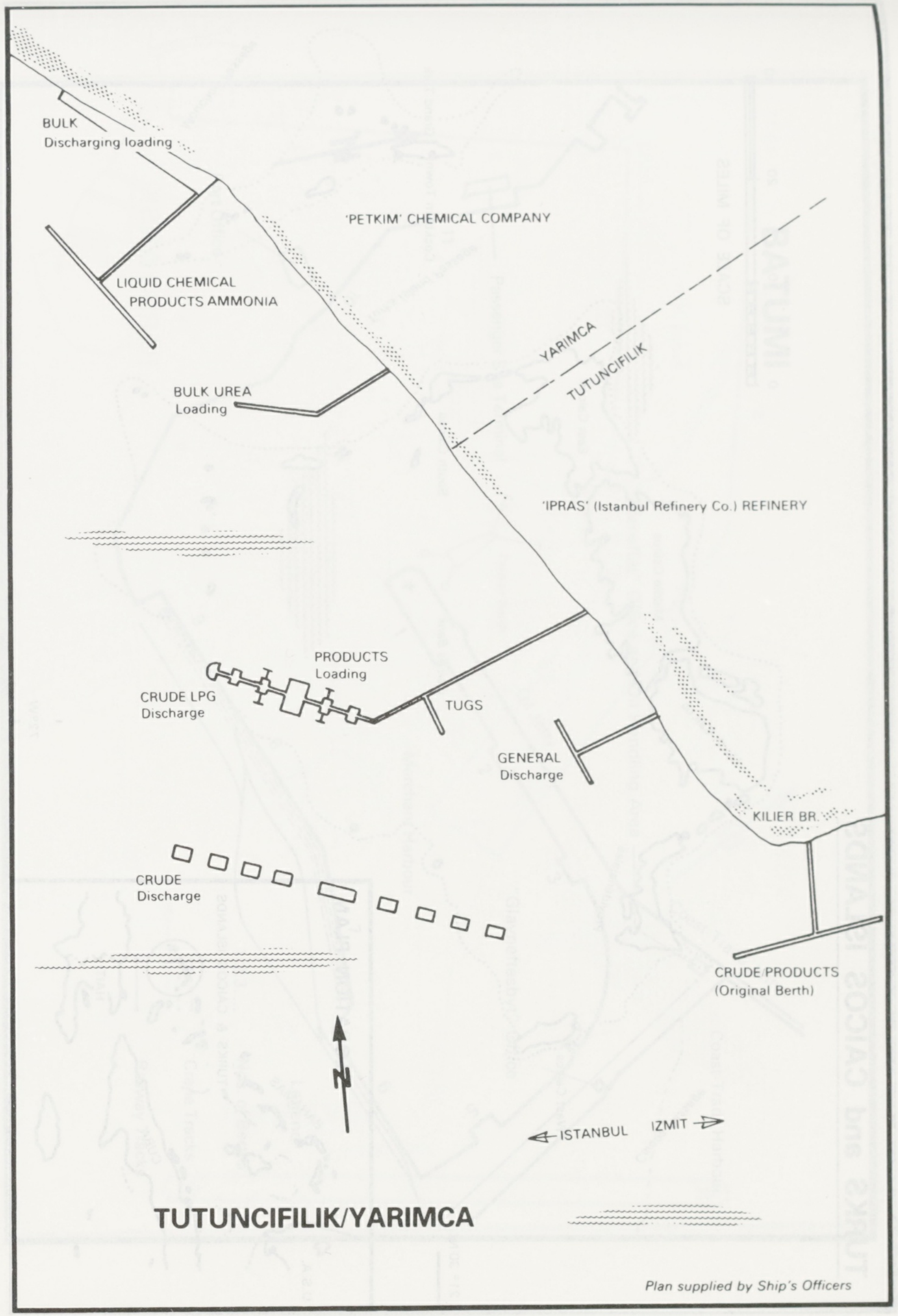
N
10 m.
20 m.
25 m.
30 m.
Construction Jetty
Phase I
80,000 DWT
20,000 DWT
36 in. Crude Line
Anchorage Forbidden
Phase II
40,000 DWT
100,000 DWT
Offshore Platform
300,000 DWT
IZMIT KORFEZI
0
100
200
300
Metres


3
12.0
2
1
13.10
13.90
2
FW Metered Connection
Telephone Hut
Hose Connections
Naptha
Benzene
13.60
L V
L V
Butadiene 8" Chicksans
Ammonia 10" Chicksans
13.70
Roadway (not for stores)
Pipeway
Catwalk broken (Nov. 1980)
N.B. Stores loaded by trolley
2
13.50
13.60
1
3
13.70

YARIMCA
PETKIM PRODUCTS PIER

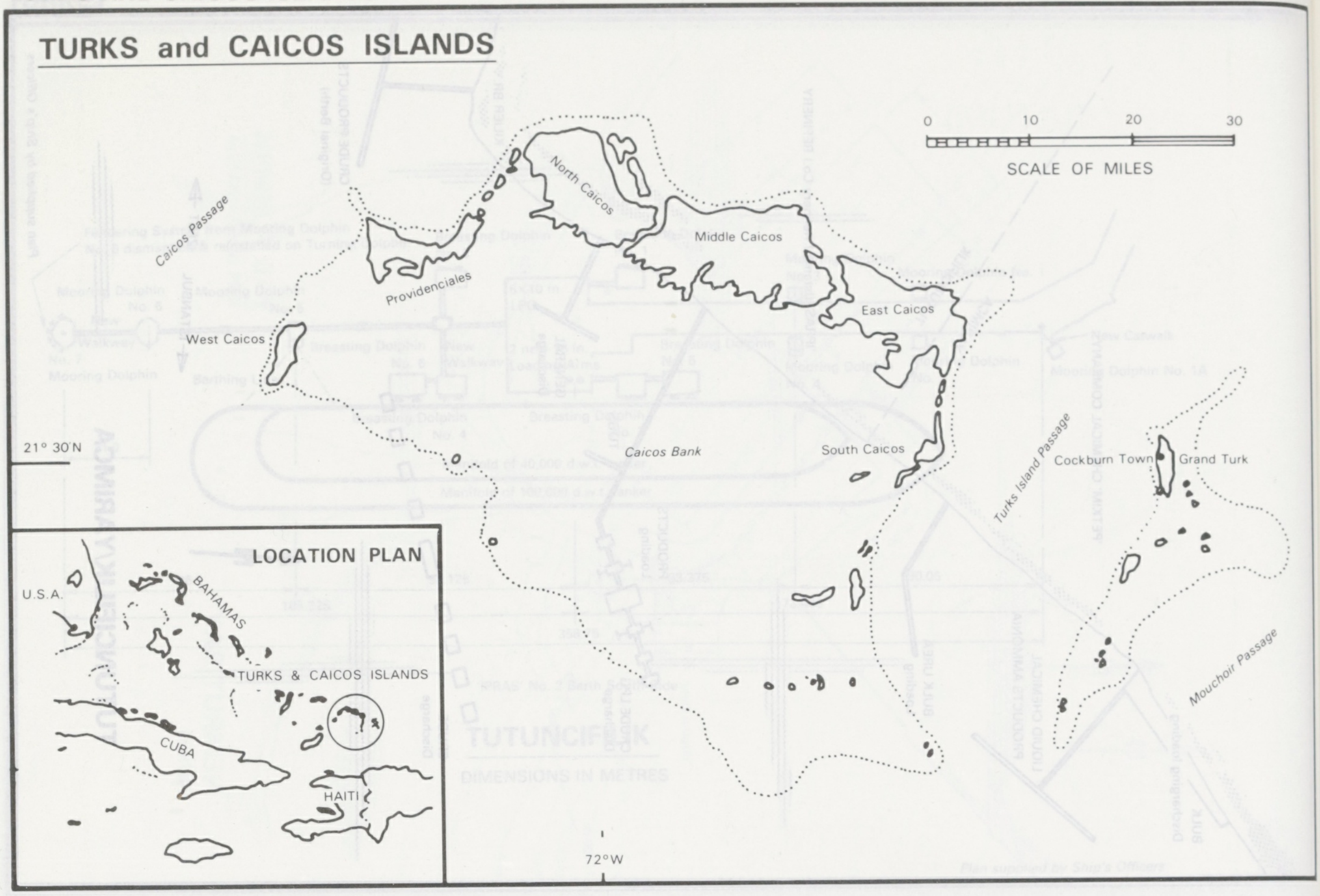
SOUNDINGS IN METRES
DENSITY: 1018 (NOVEMBER) – NO TIDE

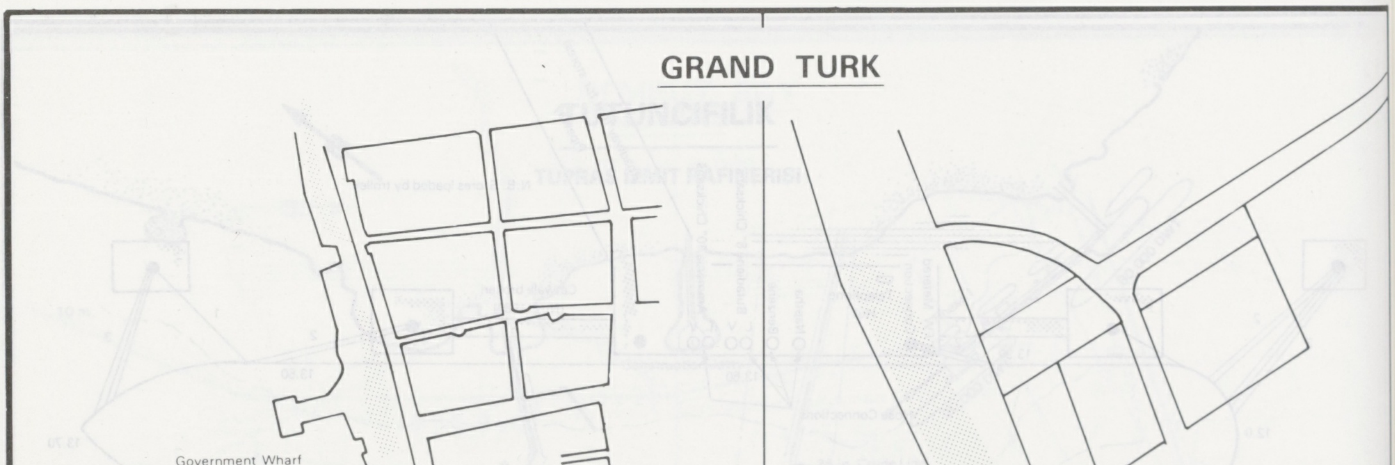
"Plan supplied by Ship's Master"

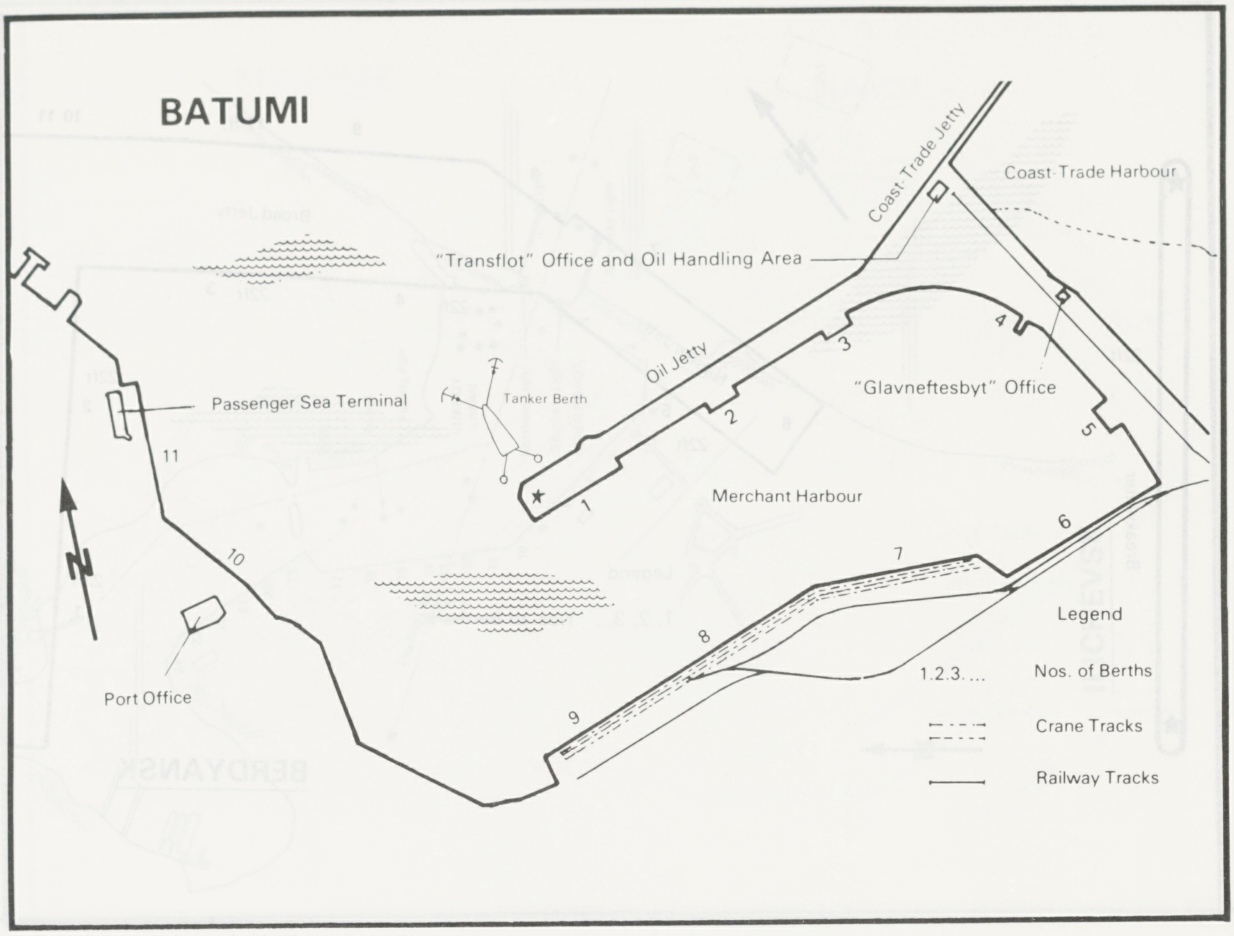

BULK
Discharging loading
'PETKIM' CHEMICAL COMPANY
LIQUID CHEMICAL
PRODUCTS AMMONIA
YARIMCA
TUTUNCIFILIK
BULK UREA
Loading
'IPRAS' (Istanbul Refinery Co.) REFINERY
PRODUCTS
Loading
CRUDE LPG
Discharge
TUGS
GENERAL
Discharge
KILIER BR.
CRUDE
Discharge
CRUDE PRODUCTS
(Original Berth)
N
ISTANBUL
IZMIT

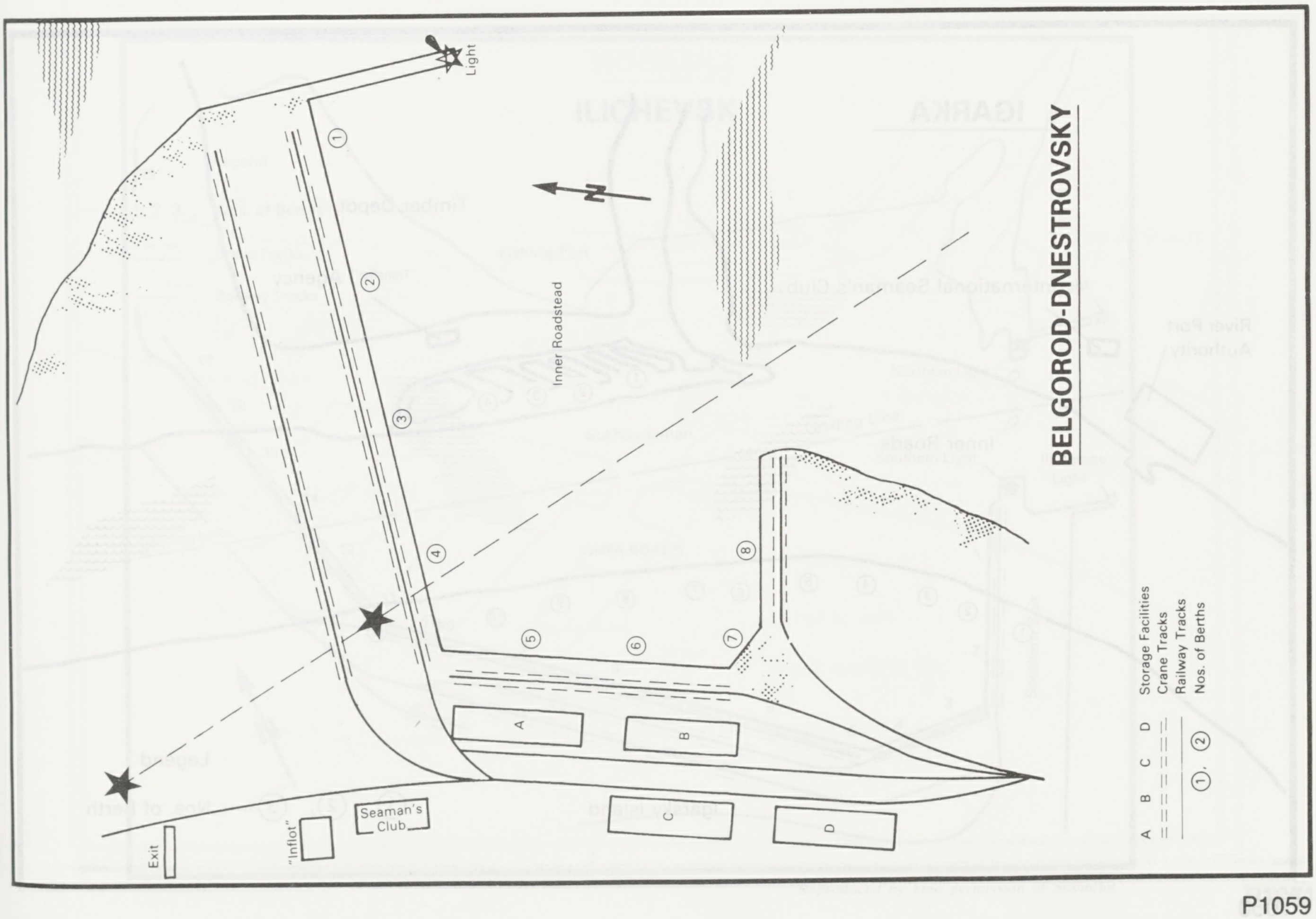
TUTUNCIFILIK/YARIMCA

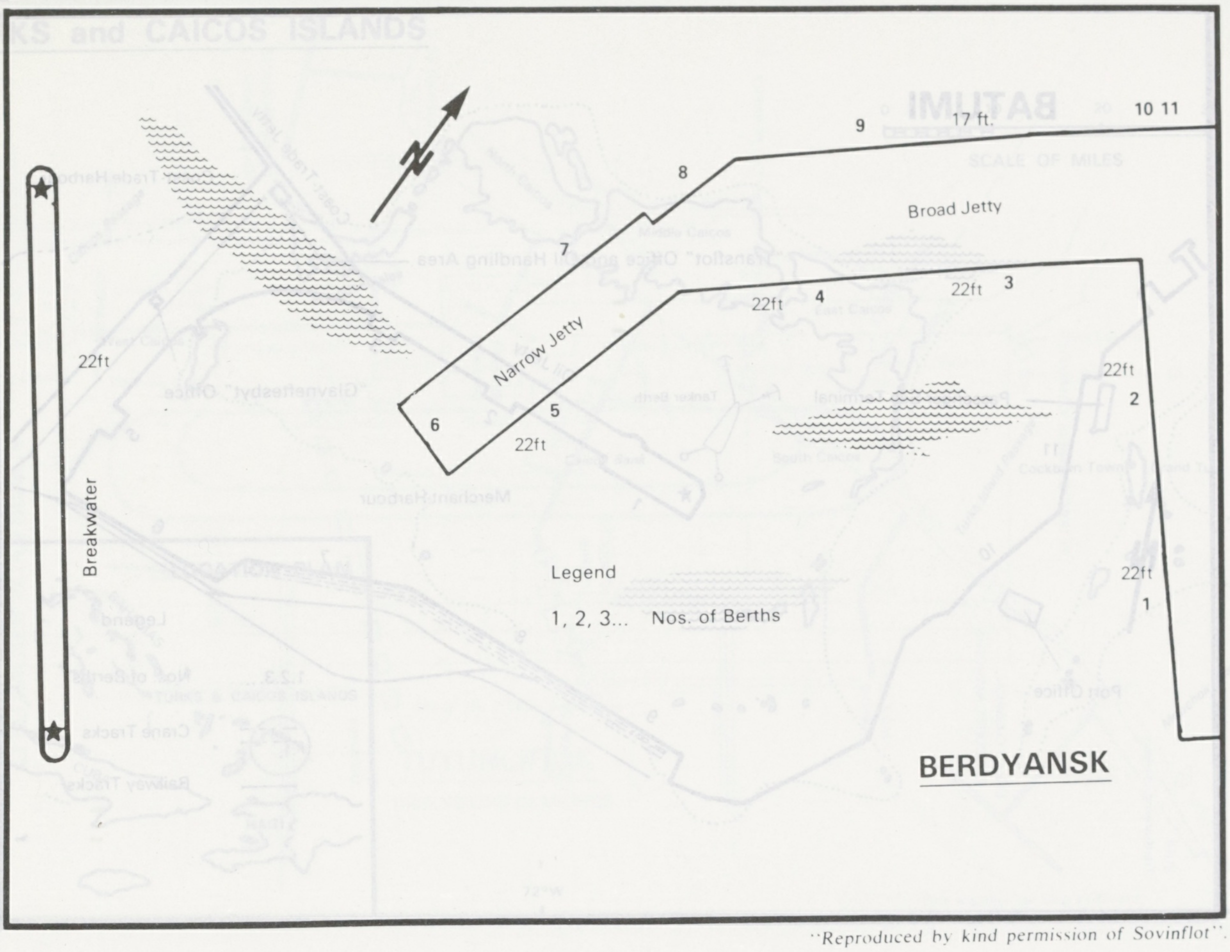
Plan supplied by Ship's Officers


TURKS and CAICOS ISLANDS
0
10
20
30
SCALE OF MILES
Caicos Passage
North Caicos
Middle Caicos
Providenciales
West Caicos
East Caicos
21° 30'N
Caicos Bank
South Caicos
Turks Island Passage
Cockburn Town
Grand Turk
Mouchoir Passage
72°W
LOCATION PLAN
U.S.A.
BAHAMAS
TURKS & CAICOS ISLANDS
CUBA
HAITI

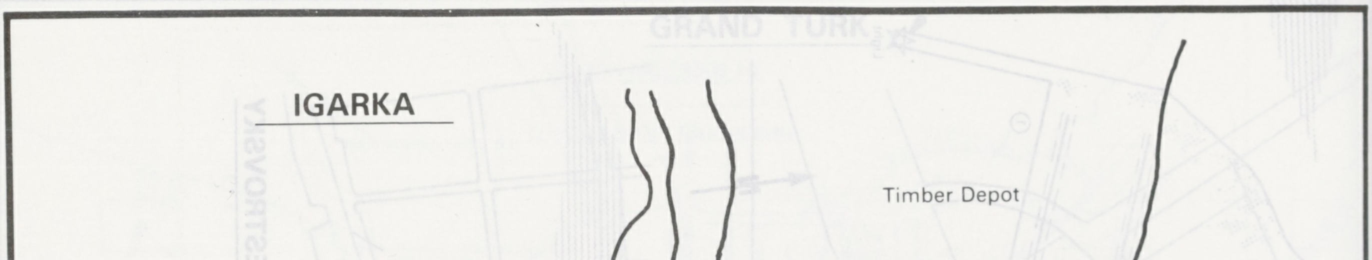

GRAND TURK
Government Wharf
0
100
SCALE OF METRES
South Dock
Fuel Depot
0
100
SCALE OF METRES

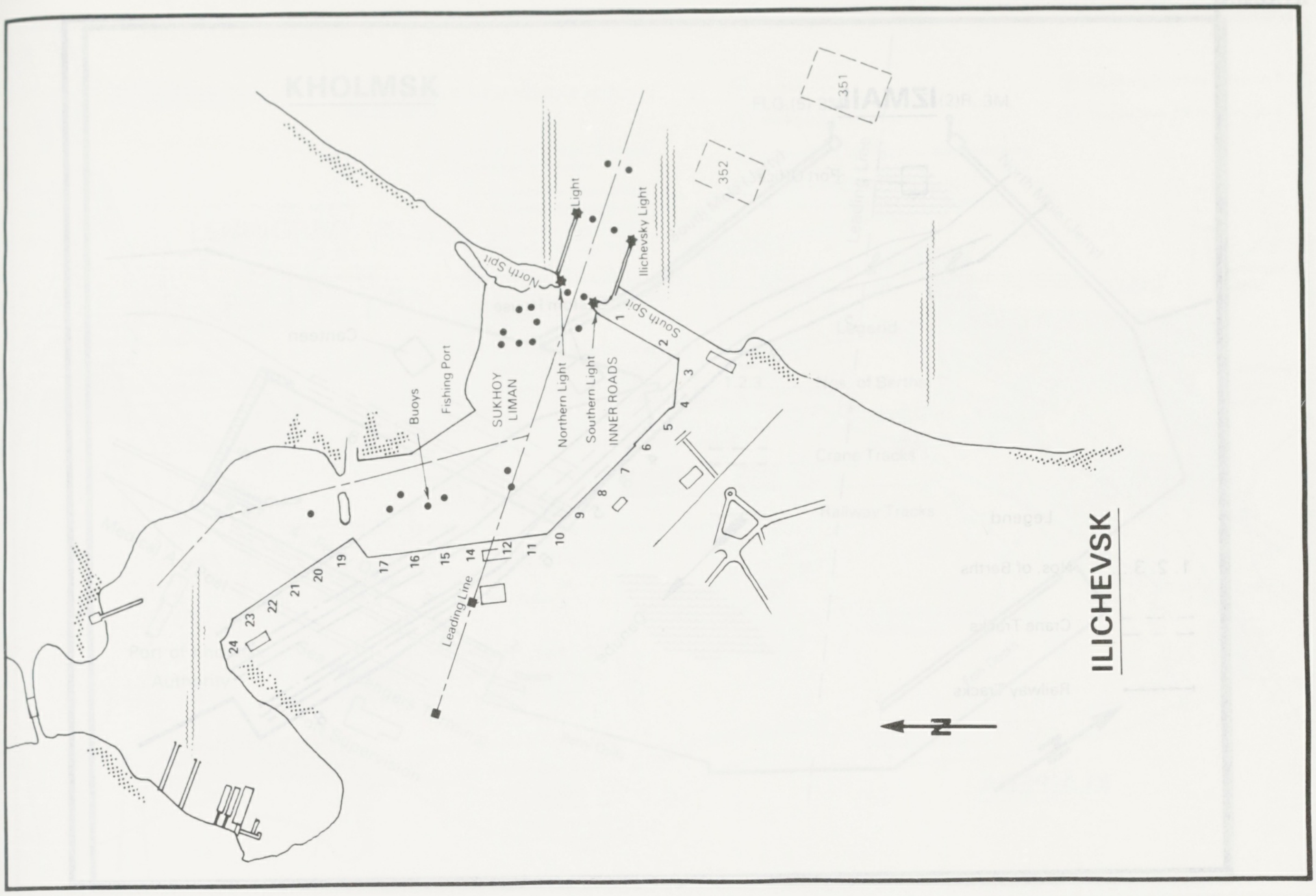

BATUMI
Coast-Trade Jetty
Coast-Trade Harbour
"Transflot" Office and Oil Handling Area
Oil Jetty
"Glavneftesbyt" Office
Passenger Sea Terminal
Tanker Berth
Merchant Harbour
Port Office
N
1
2
3
4
5
6
7
8
9
10
11
Legend
1.2.3. ... Nos. of Berths
Crane Tracks
Railway Tracks

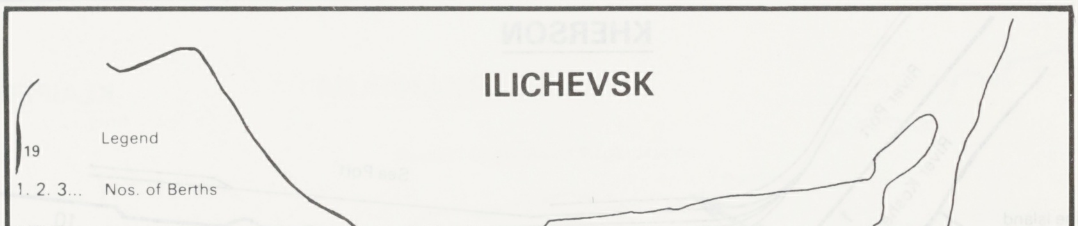

BELGOROD-DNESTROVSKY
Light
N
Inner Roadstead
①
②
③
④
⑤
⑥
⑦
⑧
A
B
C
D
Exit
"Inflot"
Seaman's Club
A B C D Storage Facilities
Crane Tracks
Railway Tracks
①, ② Nos. of Berths


BERDYANSK
Breakwater
22ft
Narrow Jetty
Broad Jetty
17 ft.
9
10 11
8
7
4
3
22ft
22ft
22ft
2
22ft
1
6
5
22ft
Legend
1, 2, 3... Nos. of Berths

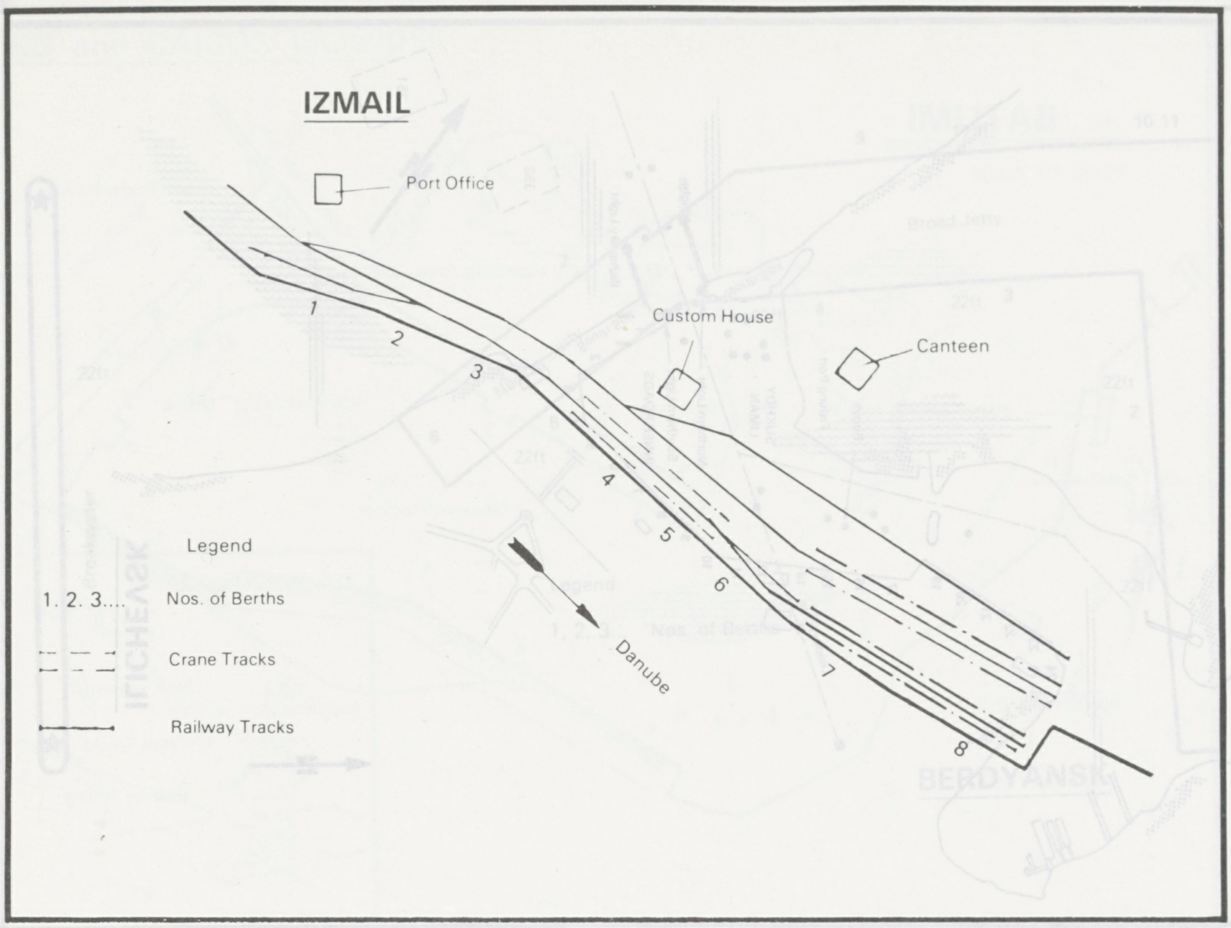
"Reproduced by kind permission of Sovinflot".

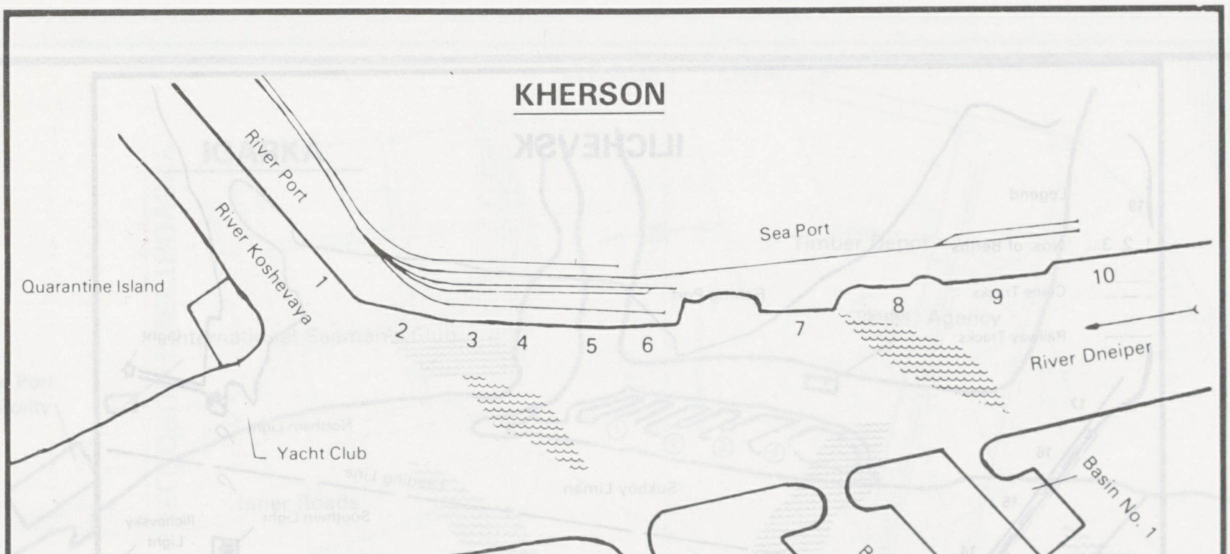

IGARKA
Timber Depot
"Transflot" Agency
International Seaman's Club
River Port Authority
Inner Roads
①
②
③
④
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
Igarsky Island
Legend
①, ②, ③..... Nos. of Berth


ILICHEVSK
Light
Ilichevsky Light
North Spit
South Spit
Buoys
Fishing Port
SUKHOY LIMAN
Northern Light
Southern Light
INNER ROADS
Leading Line
1
2
3
4
5
6
7
8
9
10
11
12
14
15
16
17
19
20
21
22
23
24
N

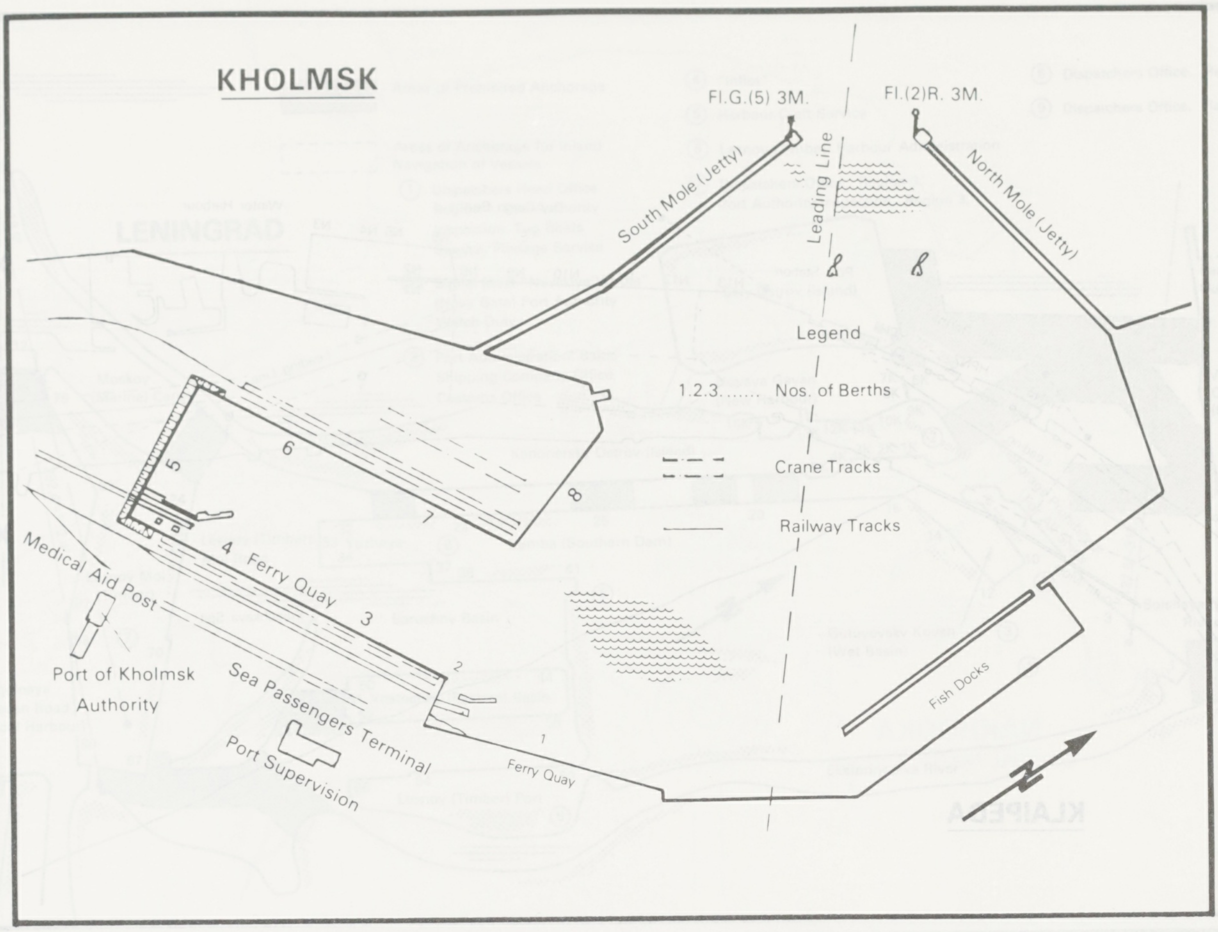

ILICHEVSK
Legend
19
1. 2. 3... Nos. of Berths
Crane Tracks
Railway Tracks
Fishing Port
Light
Northern Light
Sukhoy Liman
Leading Line
Southern Light
Ilichevsky Light
Leading Line
INNER ROADS
Southern Spit
17
16
15
14
12
11
10
9
8
7
6
5
4
3
2
1
N

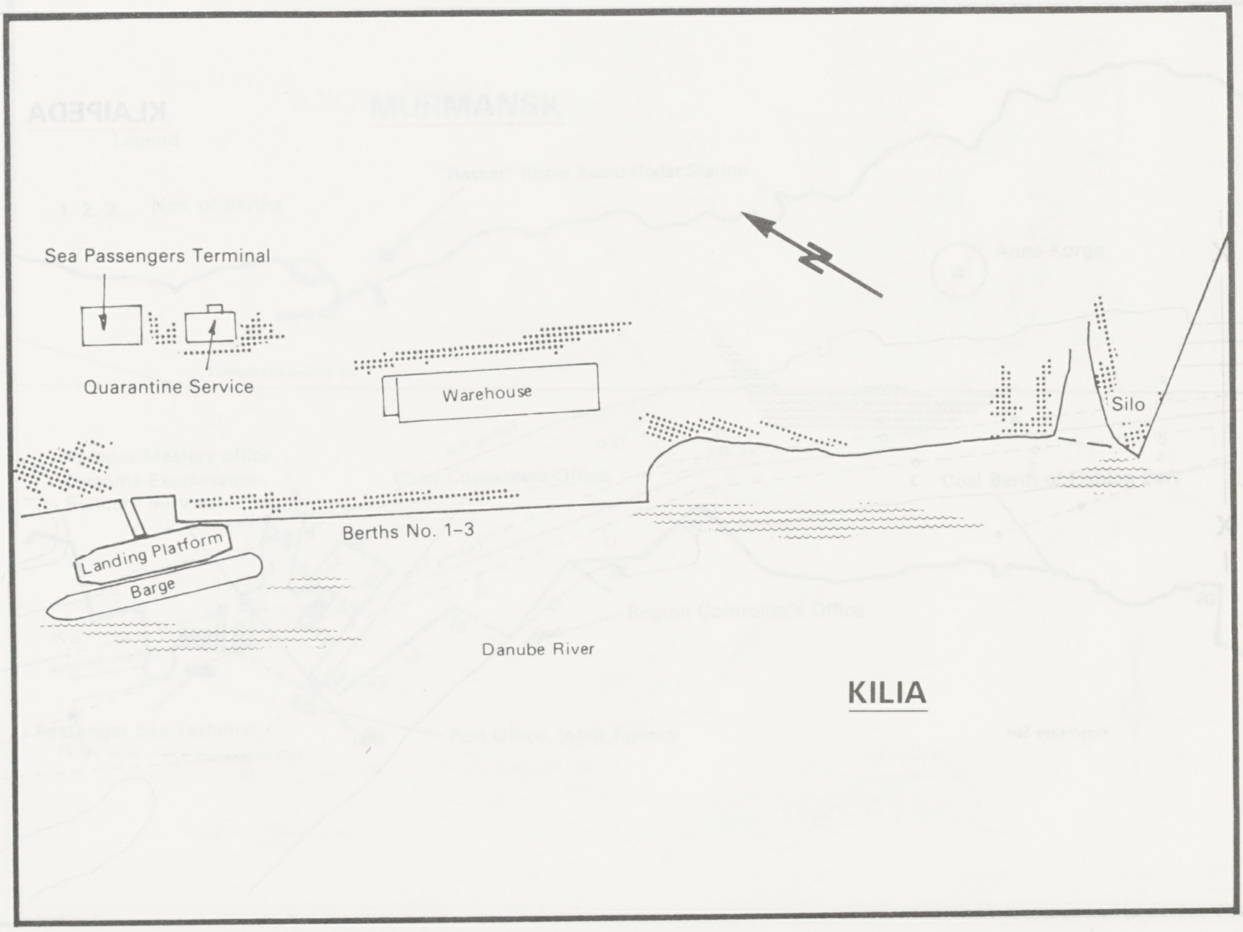
"Reproduced by kind permission of Sovinflot".

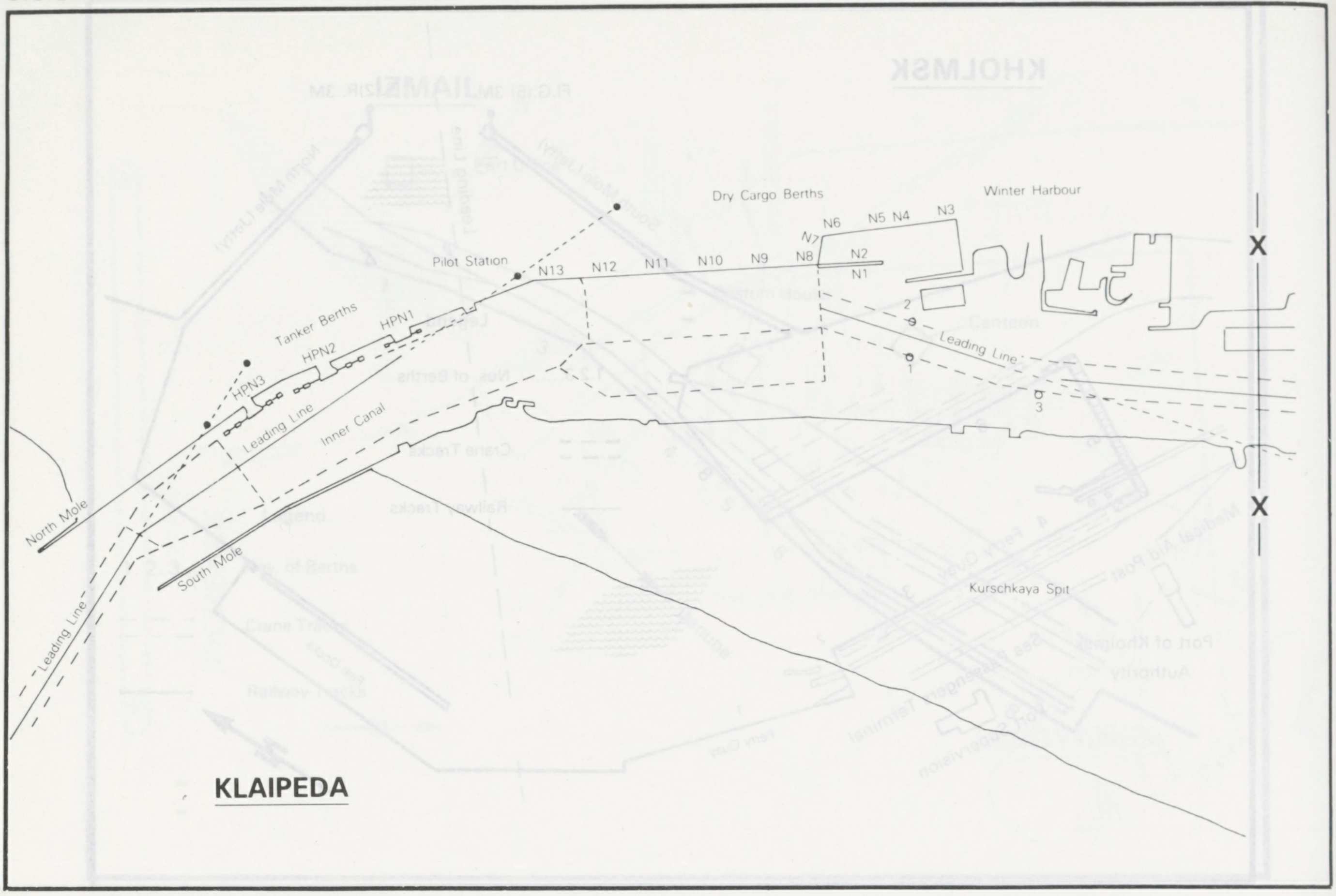

IZMAIL
Port Office
Custom House
Canteen
1
2
3
4
5
6
7
8
Danube
Legend
1. 2. 3.... Nos. of Berths
Crane Tracks
Railway Tracks

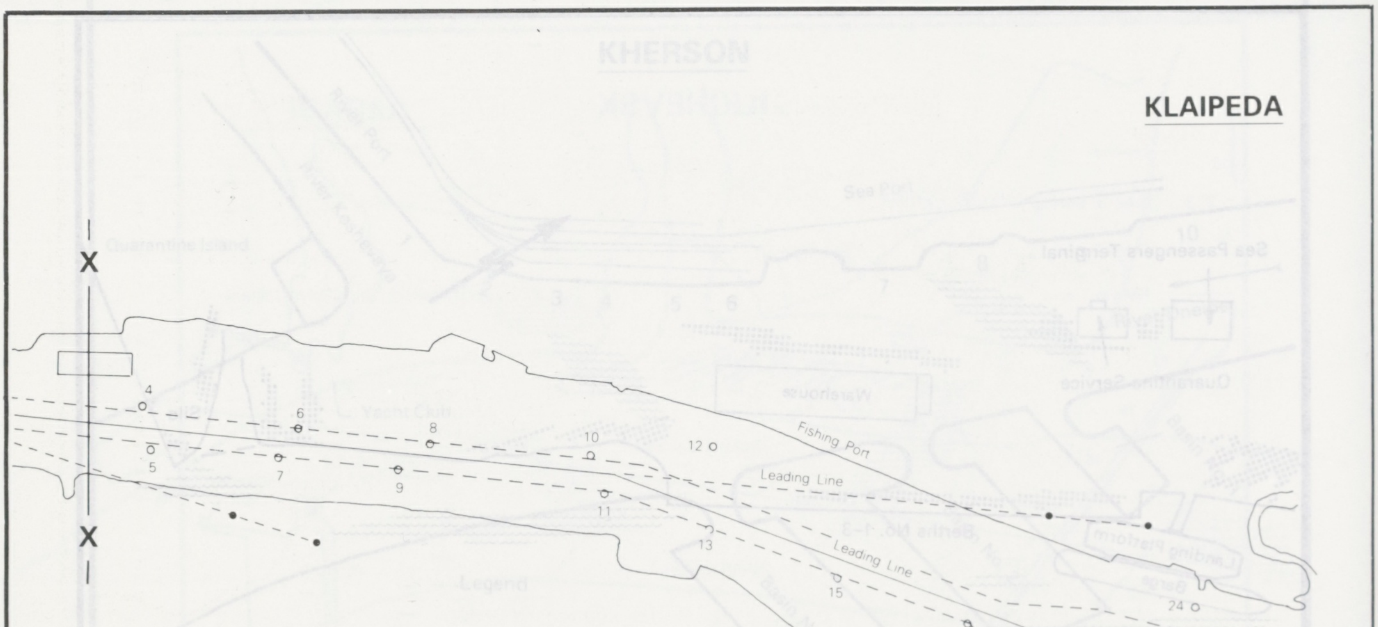

KHERSON
River Port
River Koshevaya
Quarantine Island
Sea Port
1
2
3
4
5
6
7
8
9
10
River Dneiper
Yacht Club
Basin No. 1
Basin No. 2
Basin No. 3
Legend
1.2.3. ..... Nos. of Berths
Railway Tracks

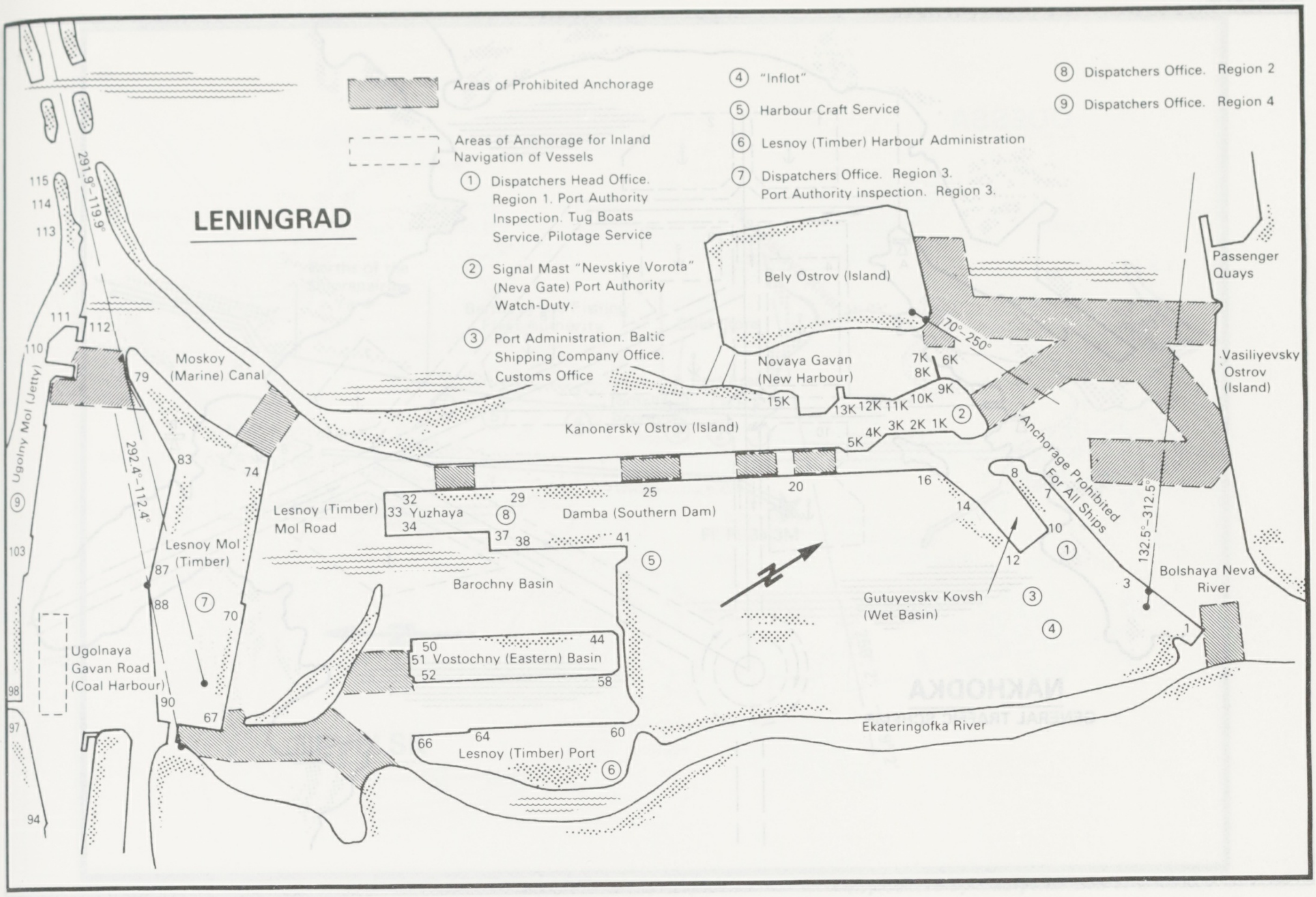
"*Reproduced by kind permission of Sovinflot*".

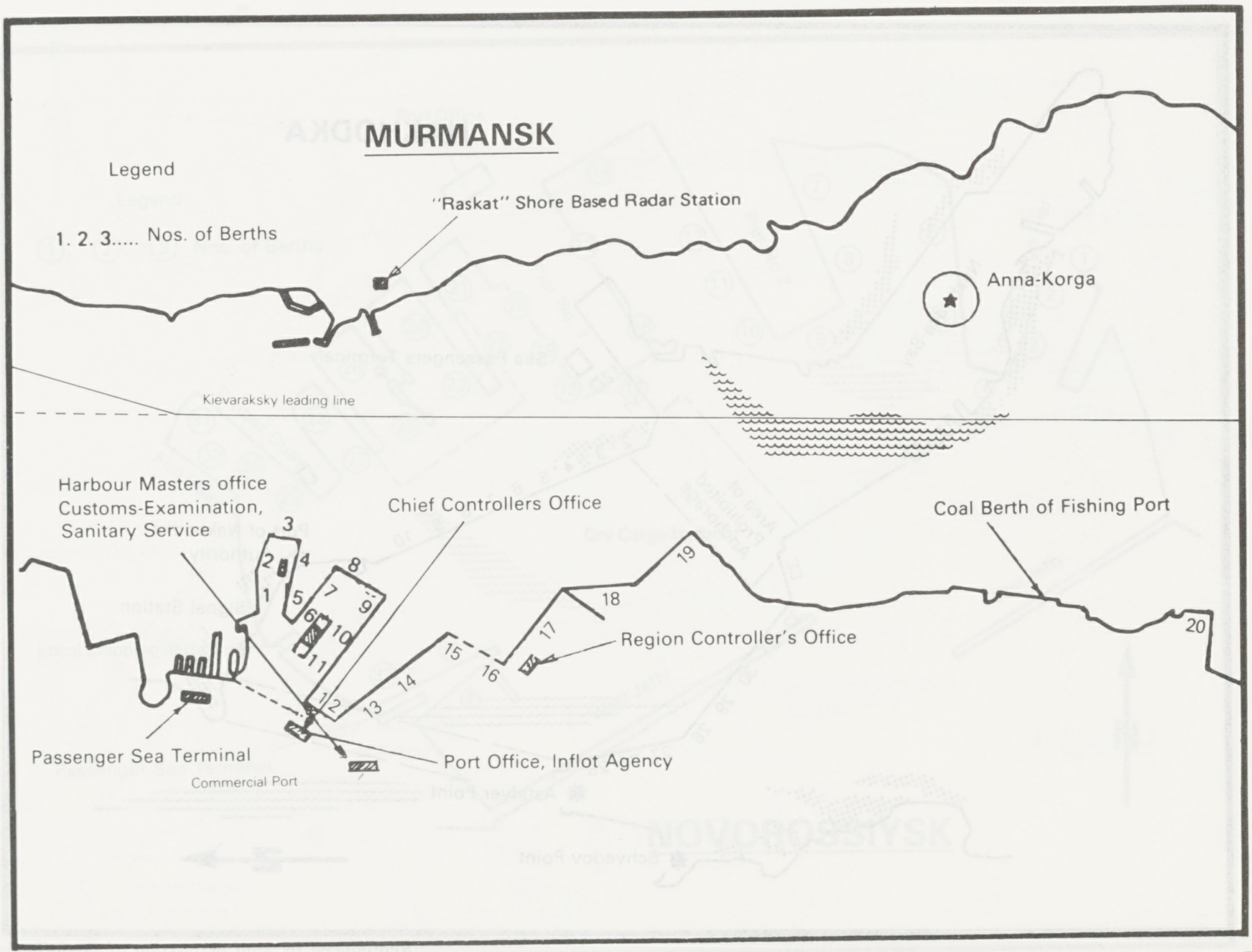

KHOLMSK
Fl.G.(5) 3M.
Fl.(2)R. 3M.
South Mole (Jetty)
North Mole (Jetty)
Leading Line
Legend
1.2.3. ...... Nos. of Berths
Crane Tracks
Railway Tracks
1
2
3
4
5
6
7
8
Ferry Quay
Ferry Quay
Medical Aid Post
Port of Kholmsk Authority
Sea Passengers Terminal
Port Supervision
Fish Docks

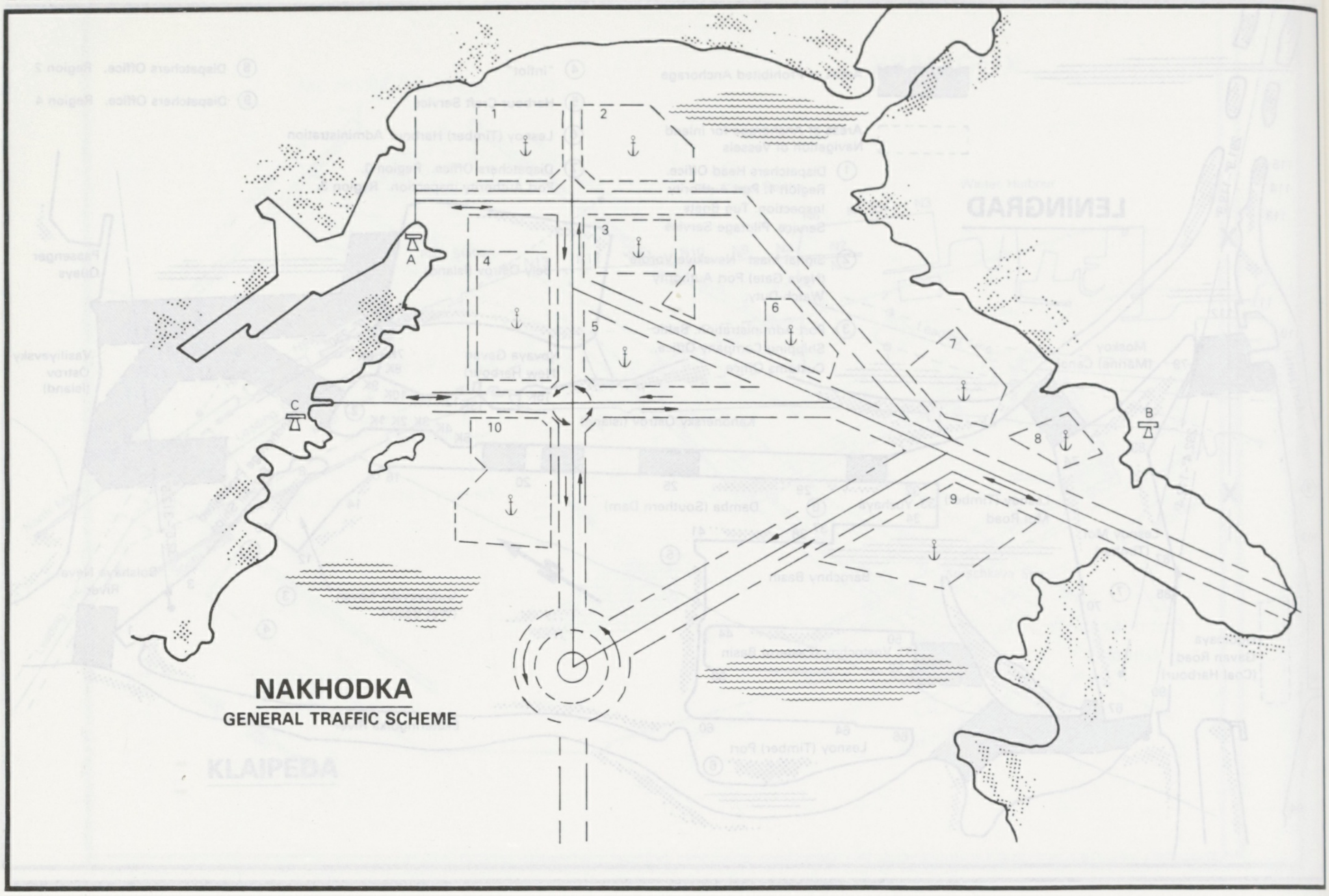

Sea Passengers Terminal
Quarantine Service
Warehouse
Silo
Landing Platform
Barge
Berths No. 1–3
Danube River
KILIA

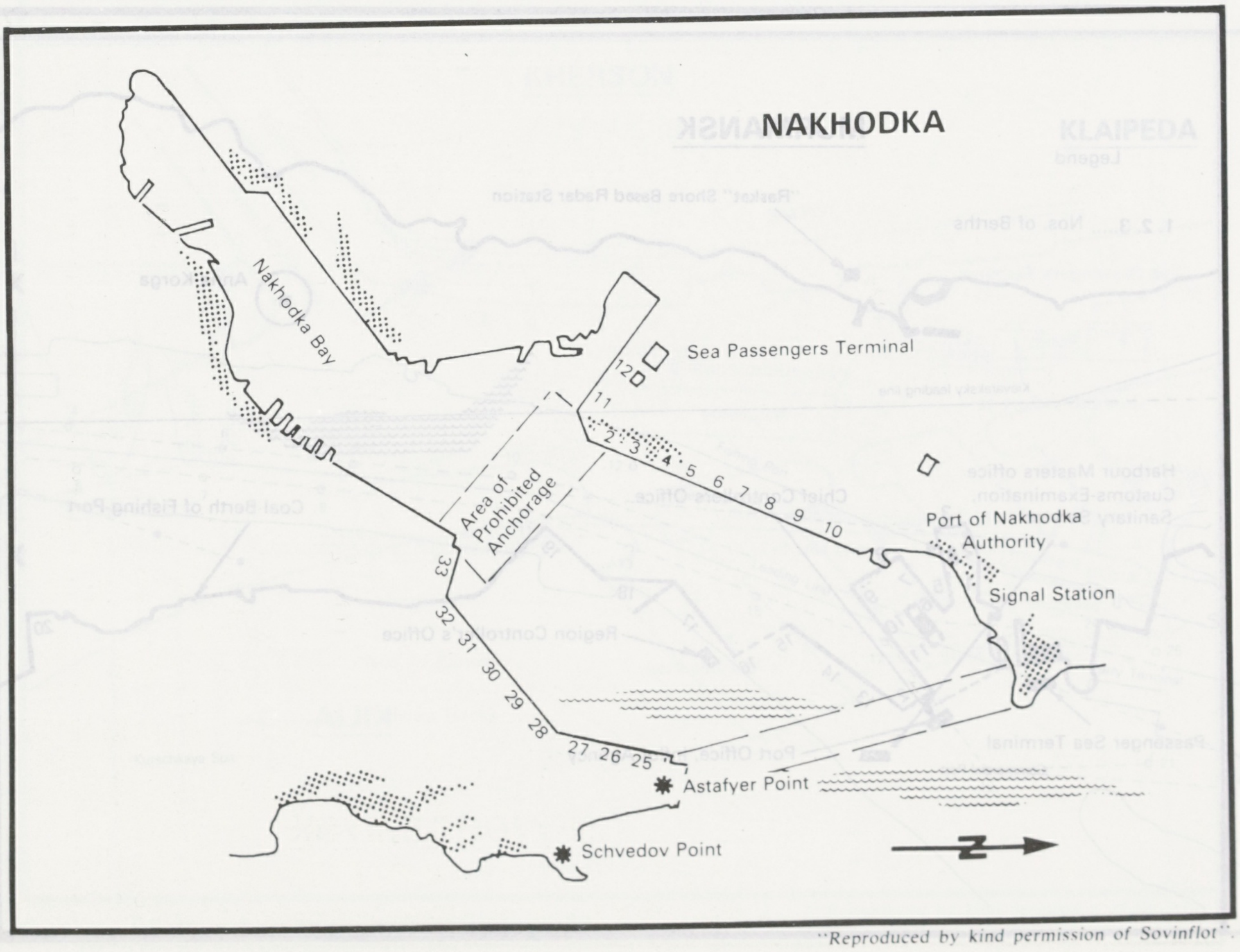

Dry Cargo Berths
Winter Harbour
N6
N5
N4
N3
N7
N2
N1
X
Pilot Station
N13
N12
N11
N10
N9
N8
2
Leading Line
1
Tanker Berths
HPN1
HPN2
HPN3
3
Leading Line
Inner Canal
X
North Mole
South Mole
Kurschkaya Spit
Leading Line
KLAIPEDA


KLAIPEDA
X
4
6
8
10
12
5
7
9
11
Fishing Port
Leading Line
X
13
Leading Line
15
24
17
25
Ferry Terminal
Kurschkaya Spit
21
19

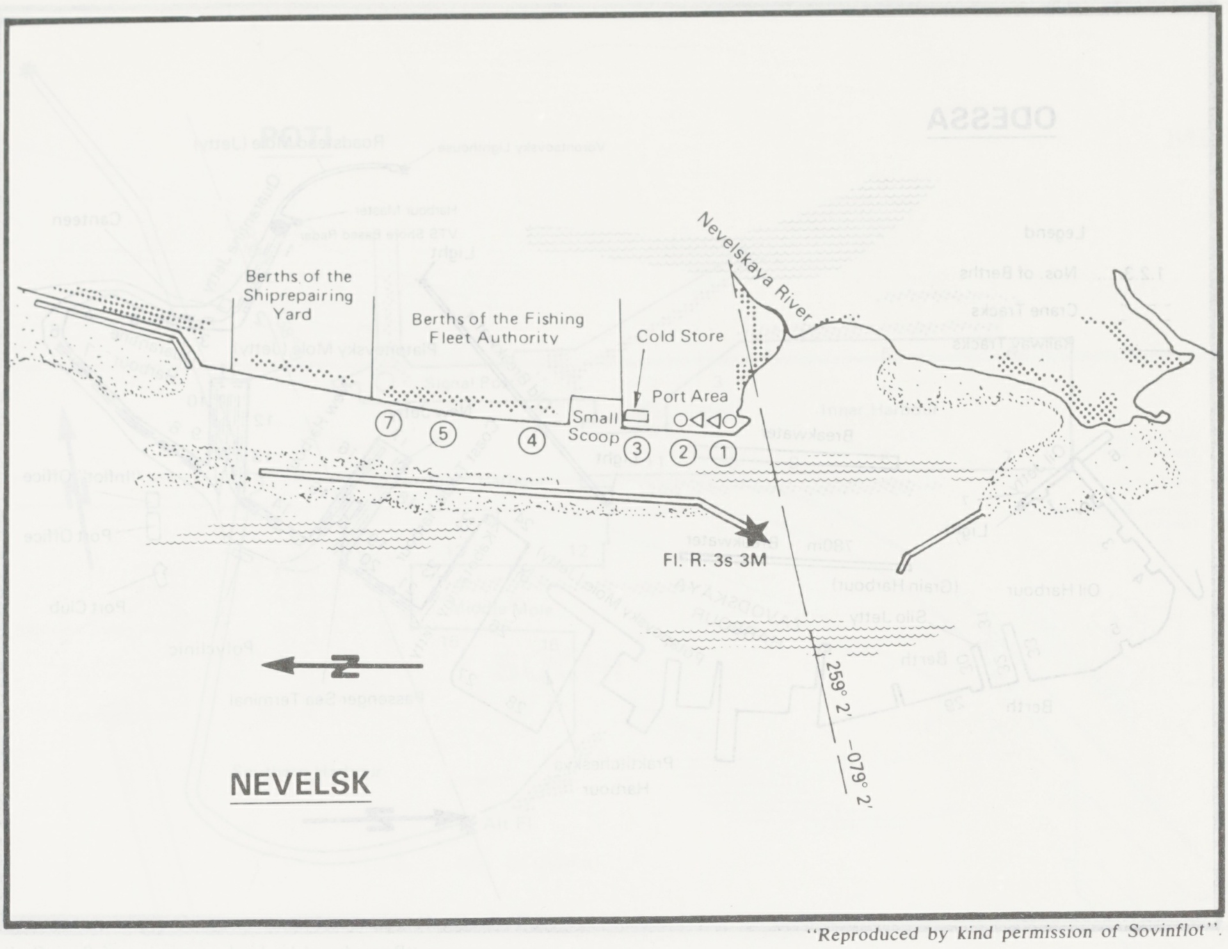

LENINGRAD
Areas of Prohibited Anchorage
Areas of Anchorage for Inland Navigation of Vessels
① Dispatchers Head Office. Region 1. Port Authority Inspection. Tug Boats Service. Pilotage Service
② Signal Mast "Nevskiye Vorota" (Neva Gate) Port Authority Watch-Duty.
③ Port Administration. Baltic Shipping Company Office. Customs Office
④ "Inflot"
⑤ Harbour Craft Service
⑥ Lesnoy (Timber) Harbour Administration
⑦ Dispatchers Office. Region 3. Port Authority inspection. Region 3.
⑧ Dispatchers Office. Region 2
⑨ Dispatchers Office. Region 4
291.9°-111.9°
292.4°-112.4°
70°-250°
132.5°-312.5°
Ugolny Mol (Jetty)
Moskoy (Marine) Canal
Bely Ostrov (Island)
Novaya Gavan (New Harbour)
Kanonersky Ostrov (Island)
Passenger Quays
Vasiliyevsky Ostrov (Island)
Anchorage Prohibited For All Ships
Lesnoy (Timber) Mol Road
Yuzhaya
Damba (Southern Dam)
Lesnoy Mol (Timber)
Barochny Basin
Vostochny (Eastern) Basin
Gutuyevskv Kovsh (Wet Basin)
Bolshaya Neva River
Ugolnaya Gavan Road (Coal Harbour)
Lesnoy (Timber) Port
Ekateringofka River
115
114
113
111
112
110
79
83
74
87
88
70
90
67
103
98
97
94
32
33
34
29
37
38
41
25
20
16
14
8
7
10
12
3
1
50
51
52
44
58
66
64
60
7K
6K
8K
9K
10K
11K
12K
13K
15K
5K
4K
3K
2K
1K


MURMANSK
Legend
1. 2. 3..... Nos. of Berths
"Raskat" Shore Based Radar Station
Anna-Korga
Kievarakský leading line
Harbour Masters office Customs-Examination, Sanitary Service
Chief Controllers Office
Coal Berth of Fishing Port
Region Controller's Office
Passenger Sea Terminal
Commercial Port
Port Office, Inflot Agency
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20

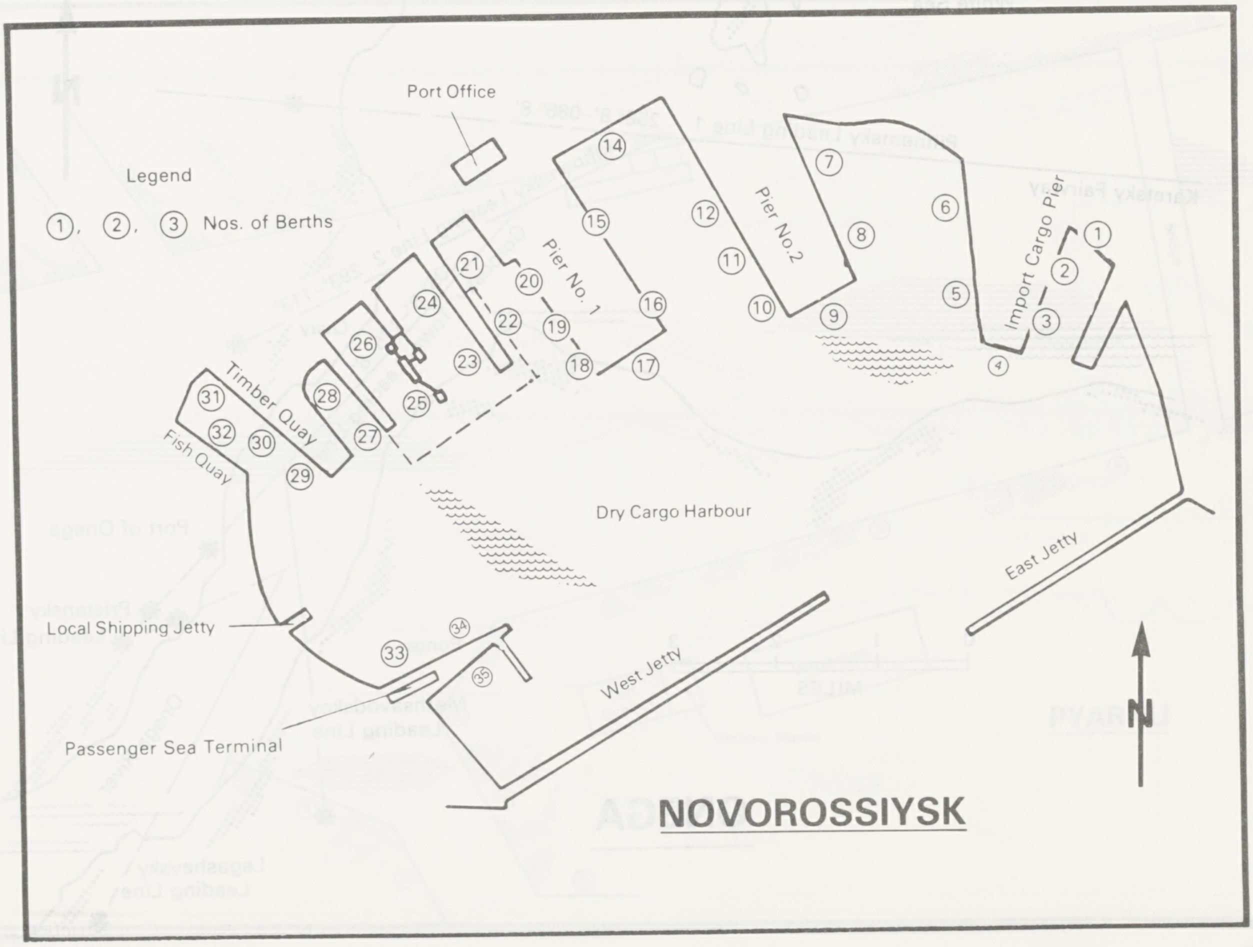

1
2
3
4
5
6
7
8
9
10
A
B
C
NAKHODKA
GENERAL TRAFFIC SCHEME

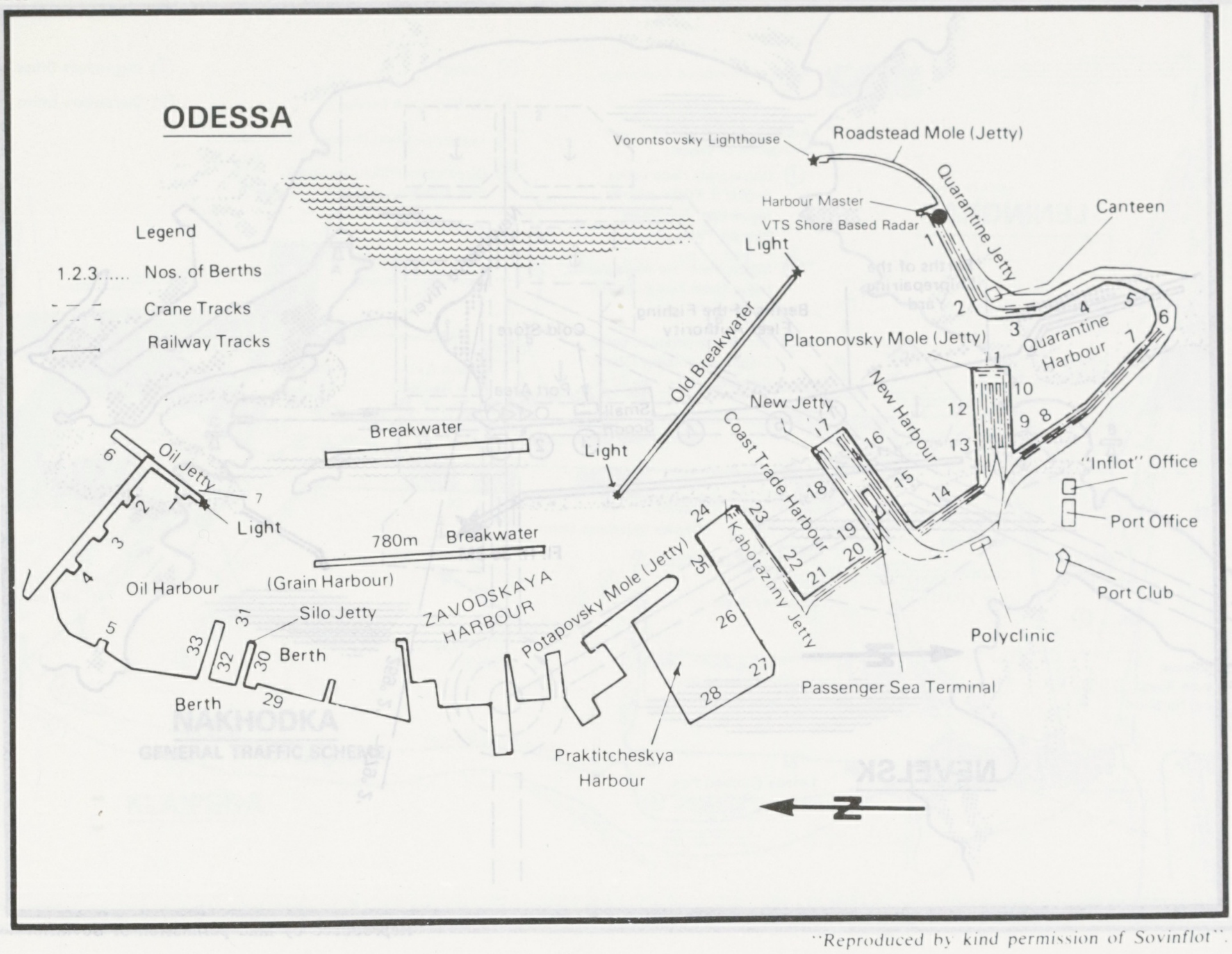

NAKHODKA
Nakhodka Bay
Sea Passengers Terminal
12
11
2
3
4
5
6
7
8
9
10
Area of Prohibited Anchorage
Port of Nakhodka Authority
Signal Station
33
32
31
30
29
28
27
26
25
Astafyer Point
Schvedov Point
N

"Reproduced by kind permission of Sovinflot".

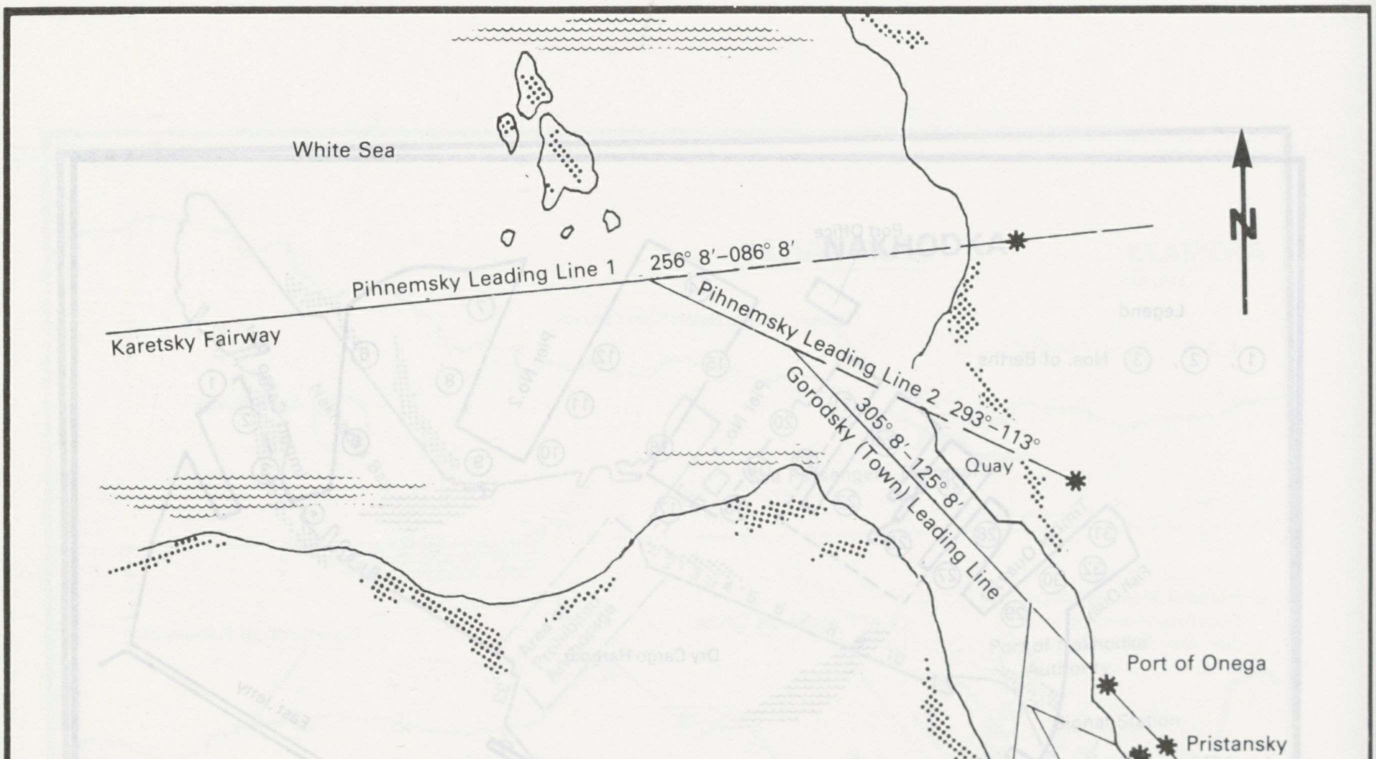

Nevelskaya River
Berths of the Shiprepairing Yard
Berths of the Fishing Fleet Authority
Cold Store
Port Area
Small Scoop
⑦
⑤
④
③
②
①
Fl. R. 3s 3M
259° 2' – 079° 2'
N
NEVELSK

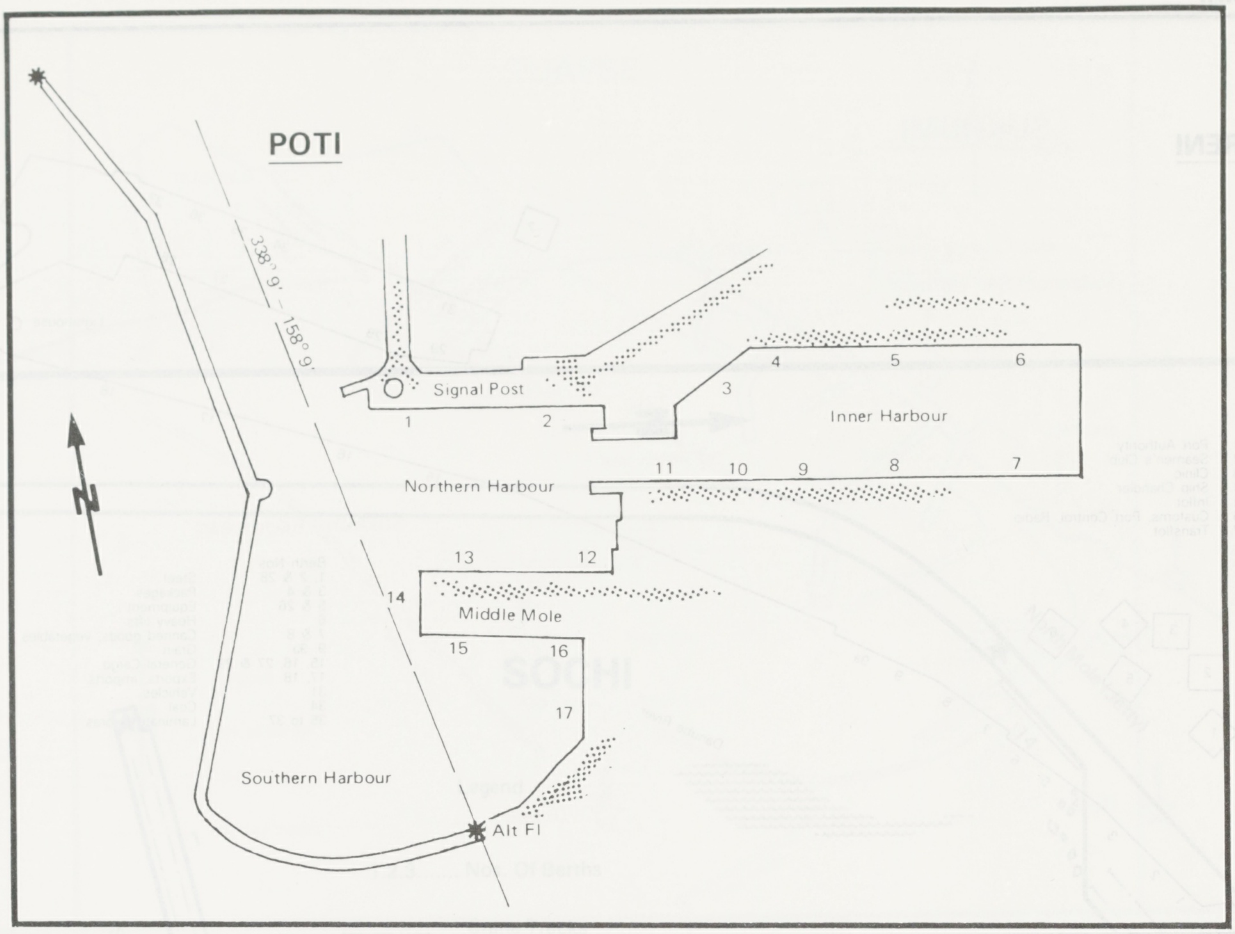
"Reproduced by kind permission of Sovinflot".

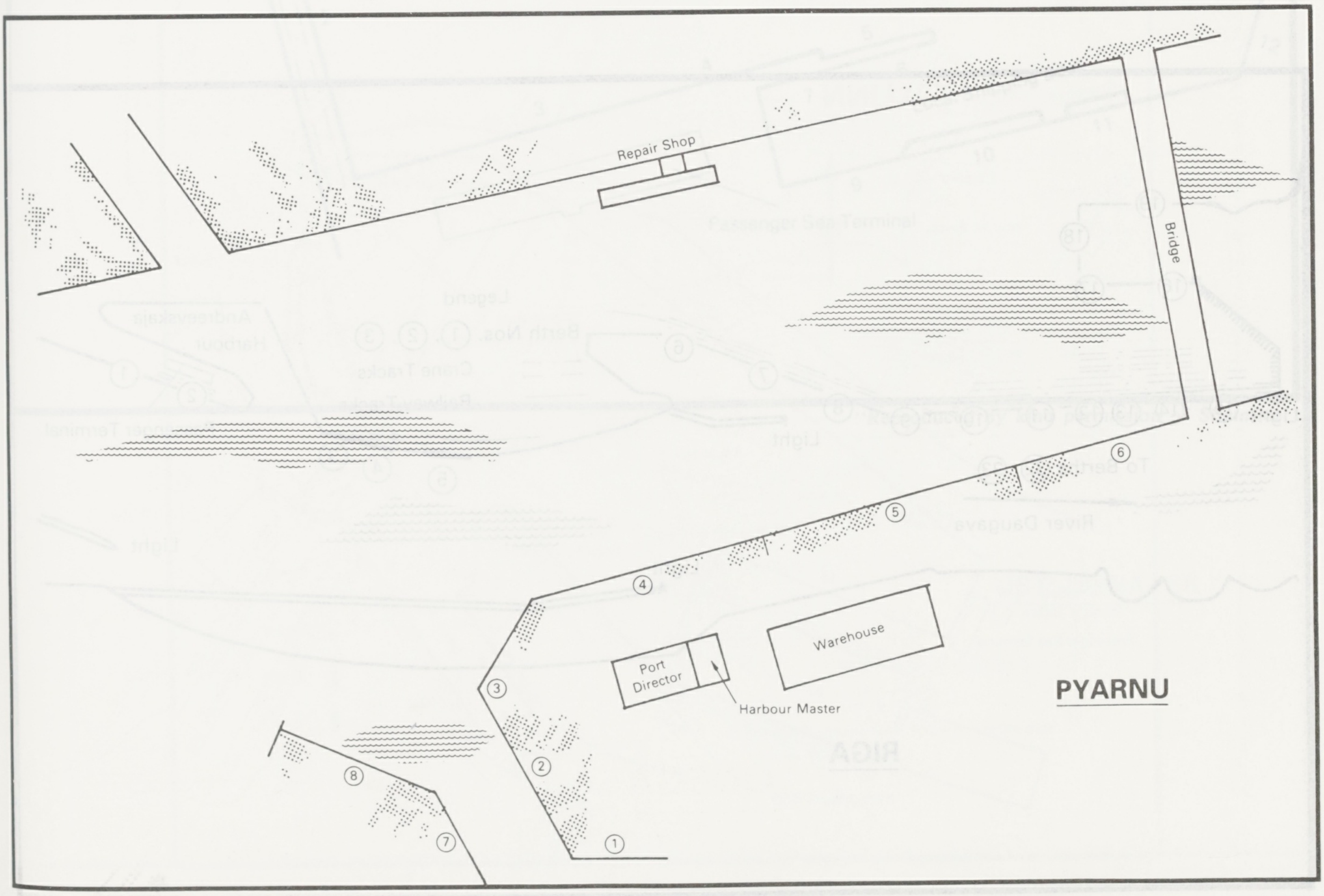

Port Office
Legend
①, ②, ③ Nos. of Berths
Pier No. 1
Pier No. 2
Import Cargo Pier
Timber Quay
Fish Quay
Dry Cargo Harbour
Local Shipping Jetty
Passenger Sea Terminal
West Jetty
East Jetty
N
NOVOROSSIYSK


ODESSA
Legend
1.2.3...... Nos. of Berths
Crane Tracks
Railway Tracks
Vorontsovsky Lighthouse
Roadstead Mole (Jetty)
Harbour Master
VTS Shore Based Radar
Quarantine Jetty
Canteen
Light
Old Breakwater
Platonovsky Mole (Jetty)
Quarantine Harbour
New Jetty
New Harbour
Coast Trade Harbour
Kabotazhny Jetty
''Inflot'' Office
Port Office
Port Club
Polyclinic
Passenger Sea Terminal
Breakwater
780m Breakwater
(Grain Harbour)
Oil Jetty
Light
Oil Harbour
Silo Jetty
Berth
ZAVODSKAYA HARBOUR
Potapovsky Mole (Jetty)
Praktitcheskya Harbour
N
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33

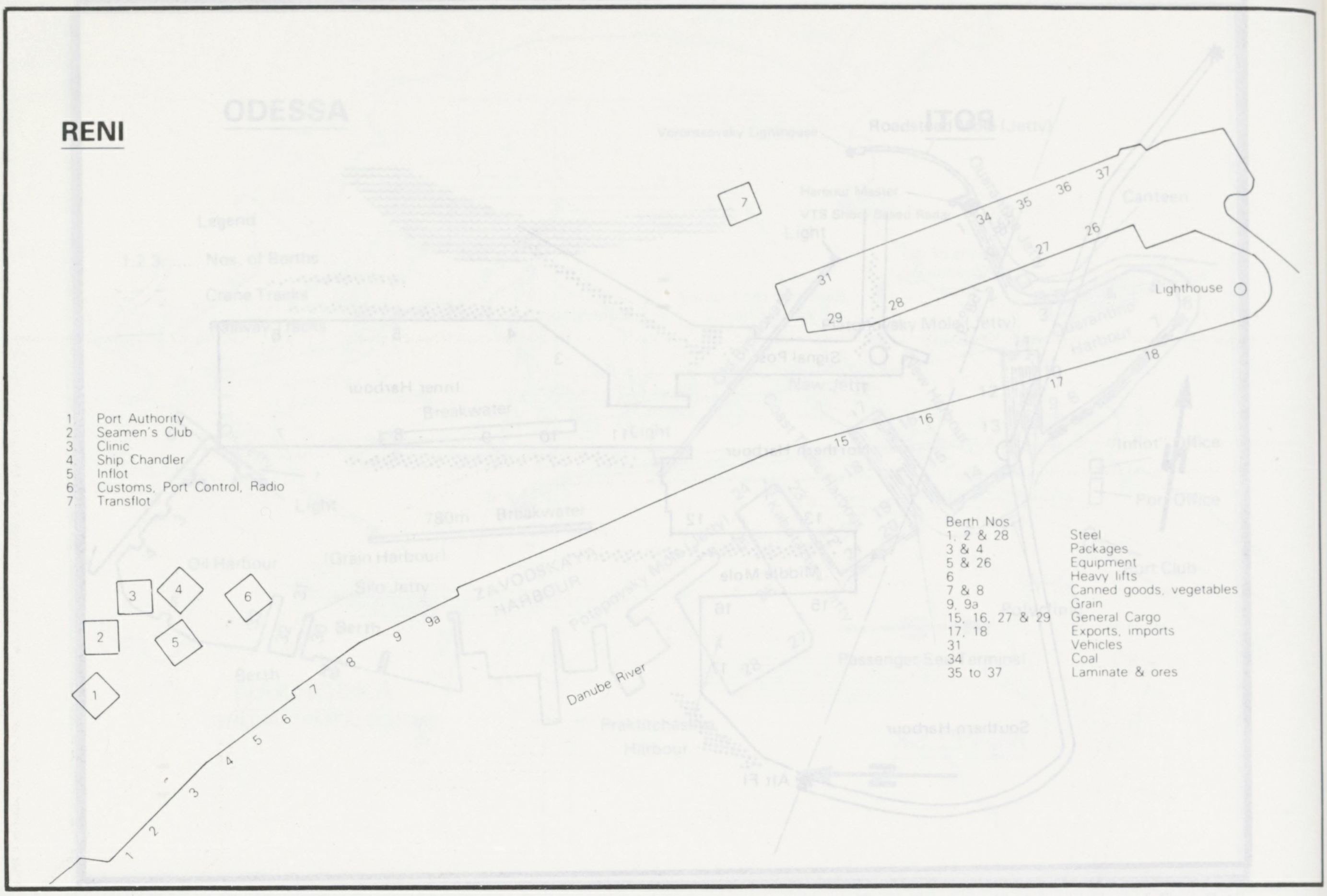
''Reproduced by kind permission of Sovinflot''.


White Sea
N
Pihnemsky Leading Line 1
256° 8'-086° 8'
Karetsky Fairway
Pihnemsky Leading Line 2 293°-113°
Gorodsky (Town) Leading Line
305° 8'-125° 8'
Quay
Port of Onega
Pristansky Leading Line
Ponga
0 1 2 3
MILES
Mezhsavodskoy Leading Line
Onega River
ONEGA
Legashevsky Leading Line


POTI
338° 9' – 158° 9'
Signal Post
1
2
3
4
5
6
Inner Harbour
Northern Harbour
11
10
9
8
7
13
12
14
Middle Mole
15
16
17
Southern Harbour
Alt Fl

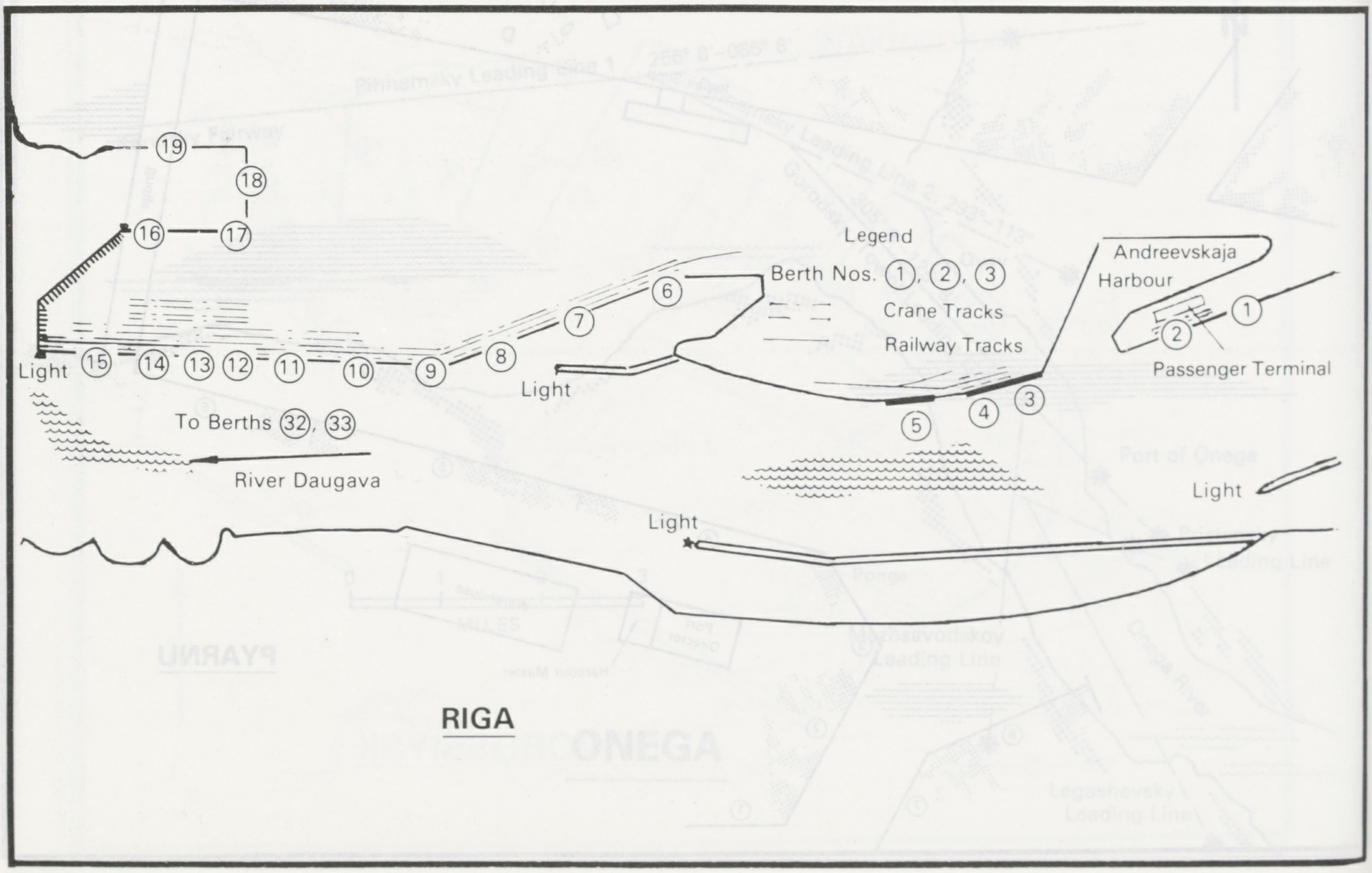

Repair Shop
Bridge
⑥
⑤
④
Warehouse
Port Director
Harbour Master
③
PYARNU
⑧
②
⑦
①

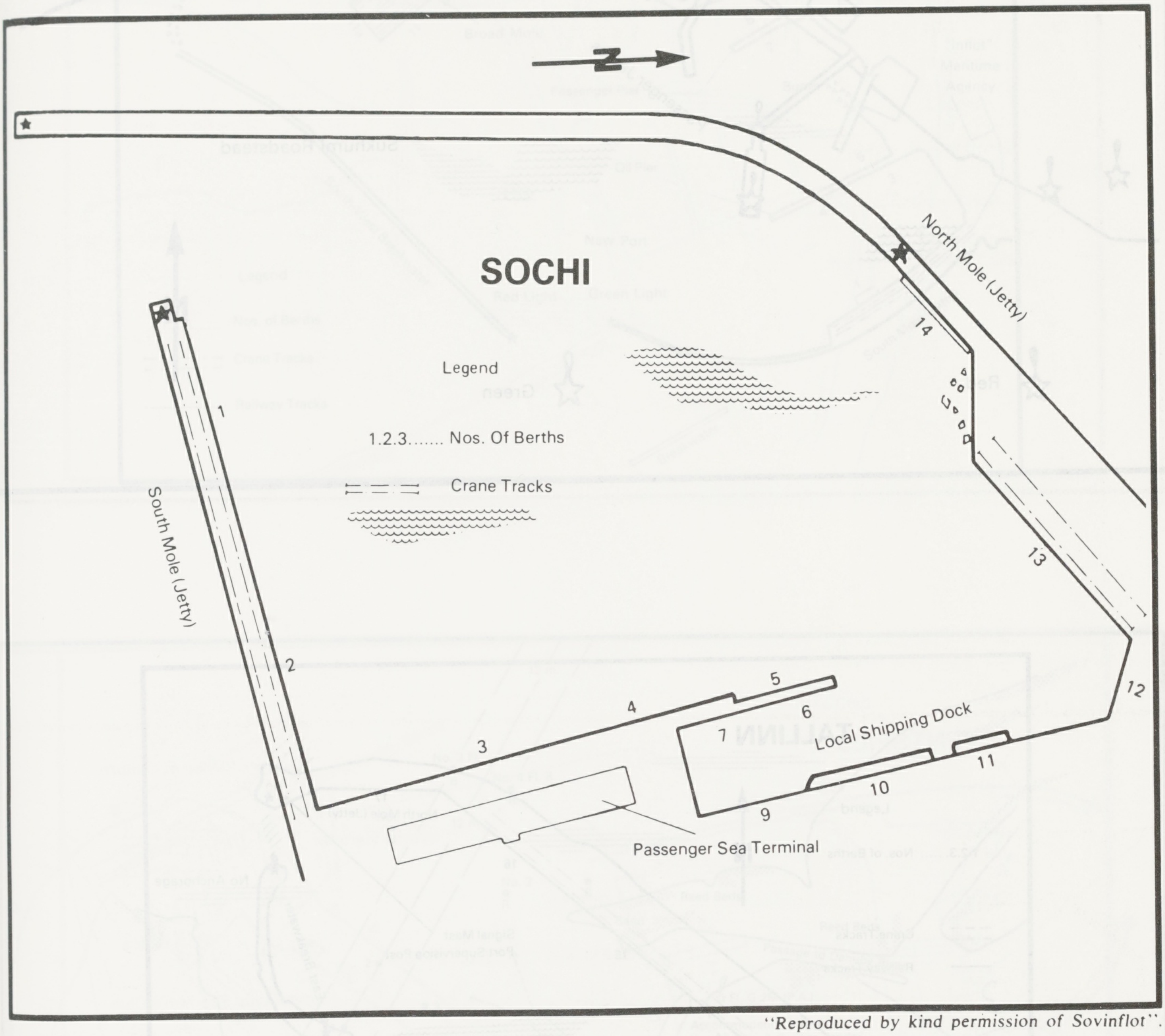
RENI


1 Port Authority
2 Seamen's Club
3 Clinic
4 Ship Chandler
5 Inflot
6 Customs, Port Control, Radio
7 Transflot
1
2
3
4
5
6
7
8
9
9a
15
16
17
18
26
27
28
29
31
34
35
36
37
Lighthouse
Danube River

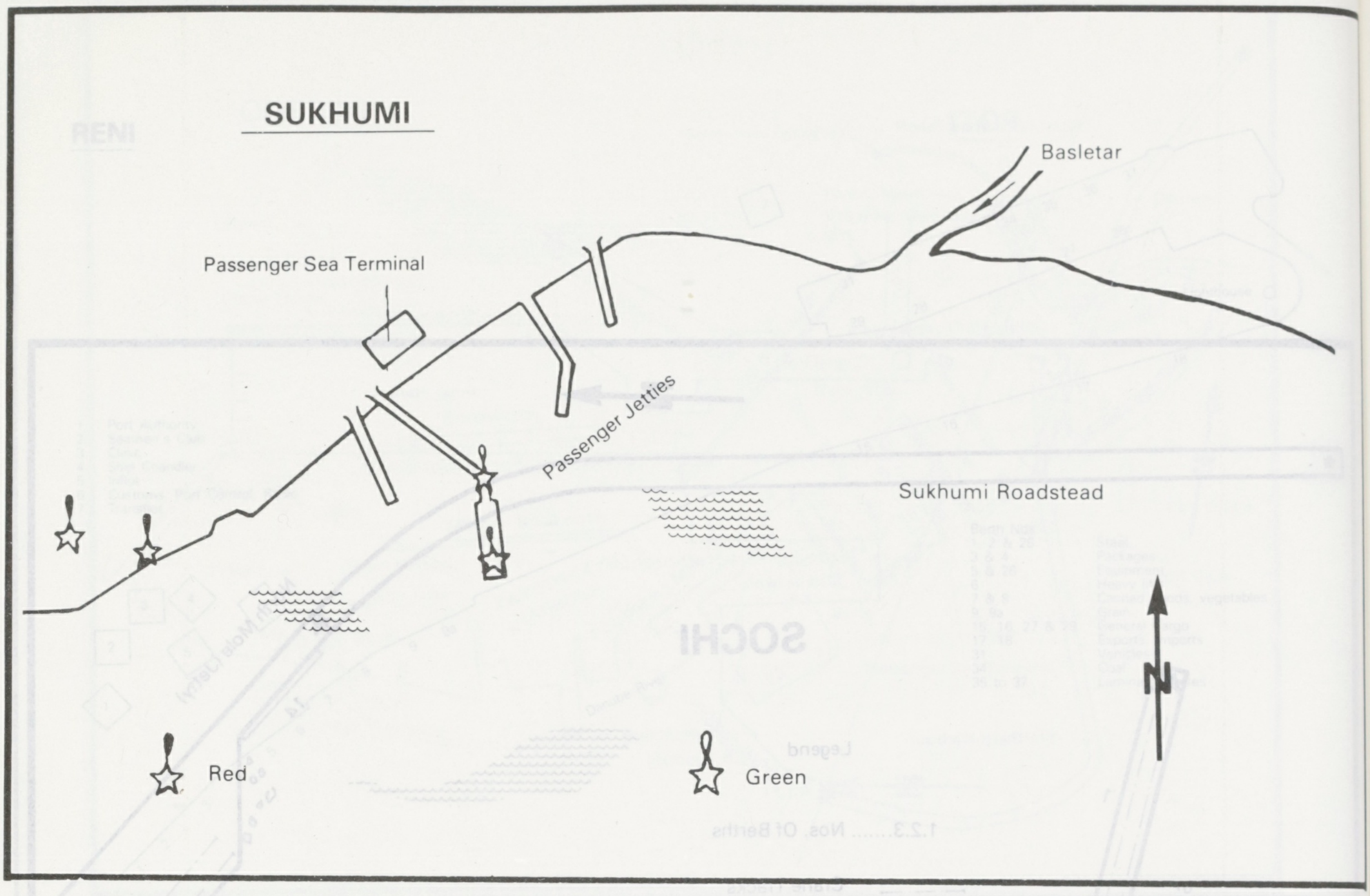
Berth Nos	
1, 2 & 28	Steel
3 & 4	Packages
5 & 26	Equipment
6	Heavy lifts
7 & 8	Canned goods, vegetables
9, 9a	Grain
15, 16, 27 & 29	General Cargo
17, 18	Exports, imports
31	Vehicles
34	Coal
35 to 37	Laminate & ores

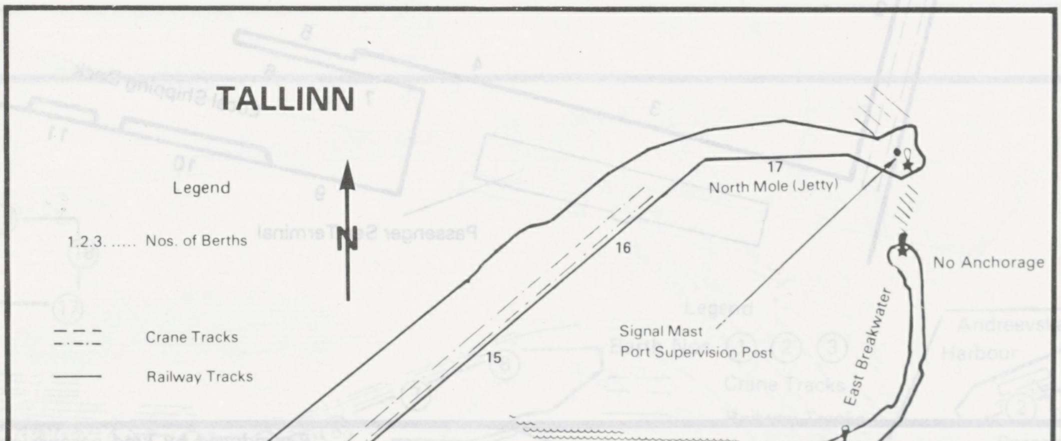
RIGA


Legend
Berth Nos. ①, ②, ③
Crane Tracks
Railway Tracks
Andreevskaja Harbour
Passenger Terminal
⑲
⑱
⑯
⑰
Light
⑮
⑭
⑬
⑫
⑪
⑩
⑨
⑧
⑦
⑥
Light
⑤
④
③
②
①
To Berths ㉜, ㉝
River Daugava
Light
Light

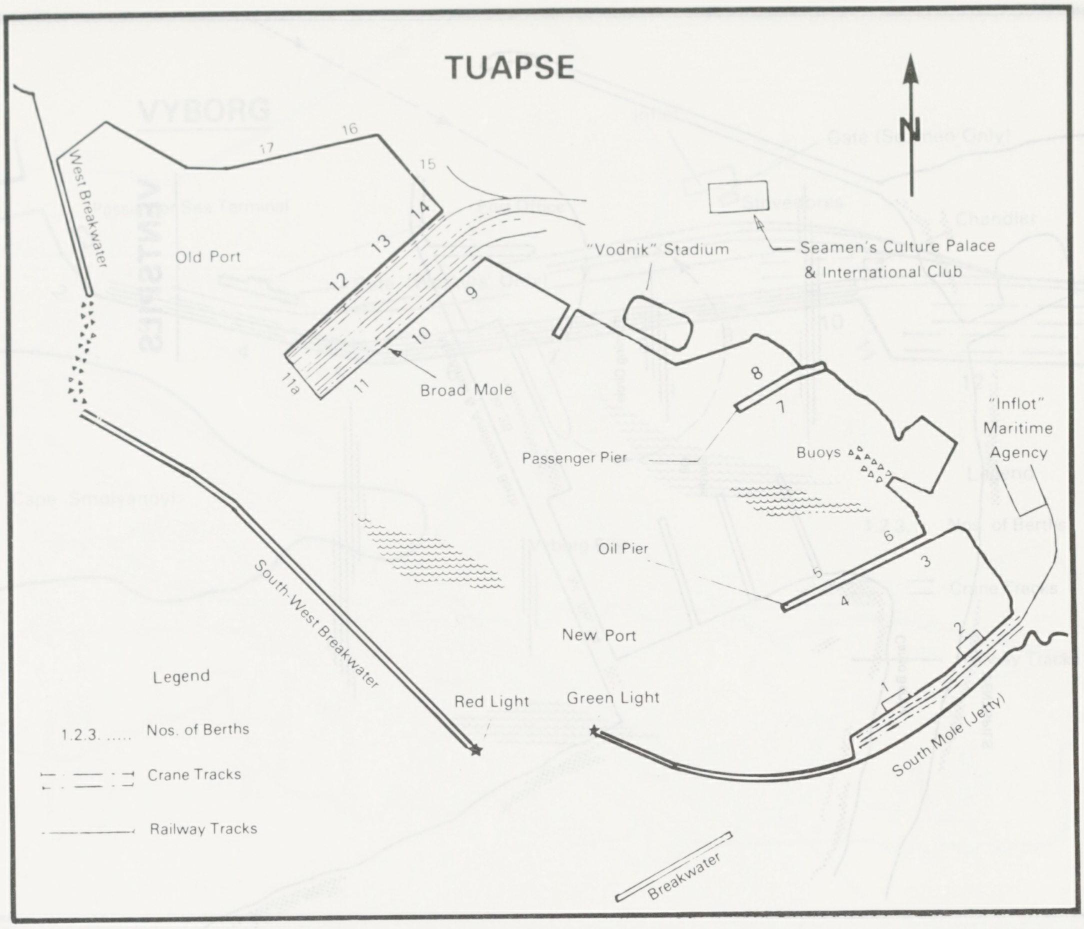

SOCHI
Legend
1.2.3....... Nos. Of Berths
Crane Tracks
North Mole (Jetty)
South Mole (Jetty)
Local Shipping Dock
Passenger Sea Terminal
1
2
3
4
5
6
7
9
10
11
12
13
14

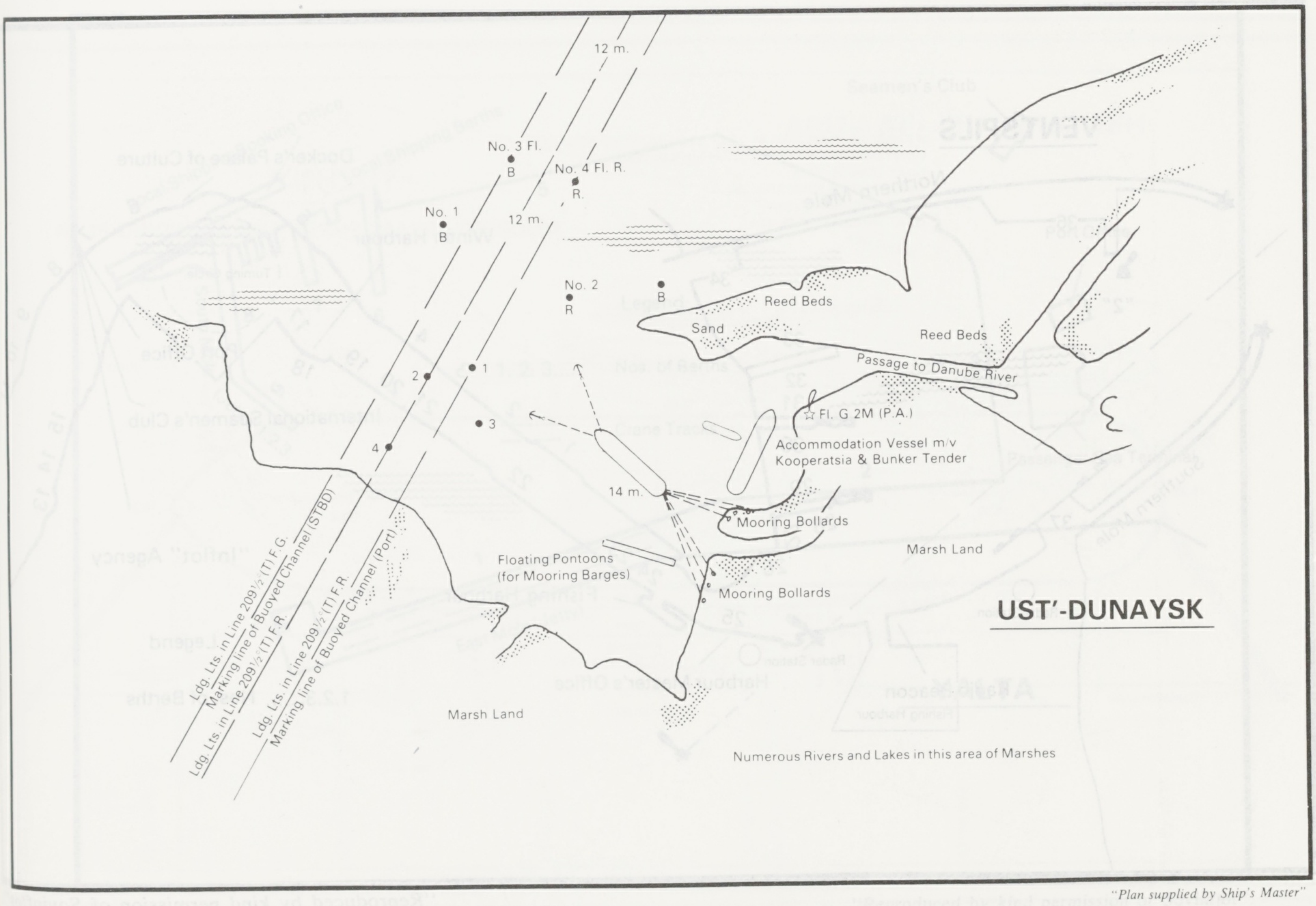
''Reproduced by kind permission of Sovinflot''.


SUKHUMI
Basletar
Passenger Sea Terminal
Passenger Jetties
Sukhumi Roadstead
N
Red
Green

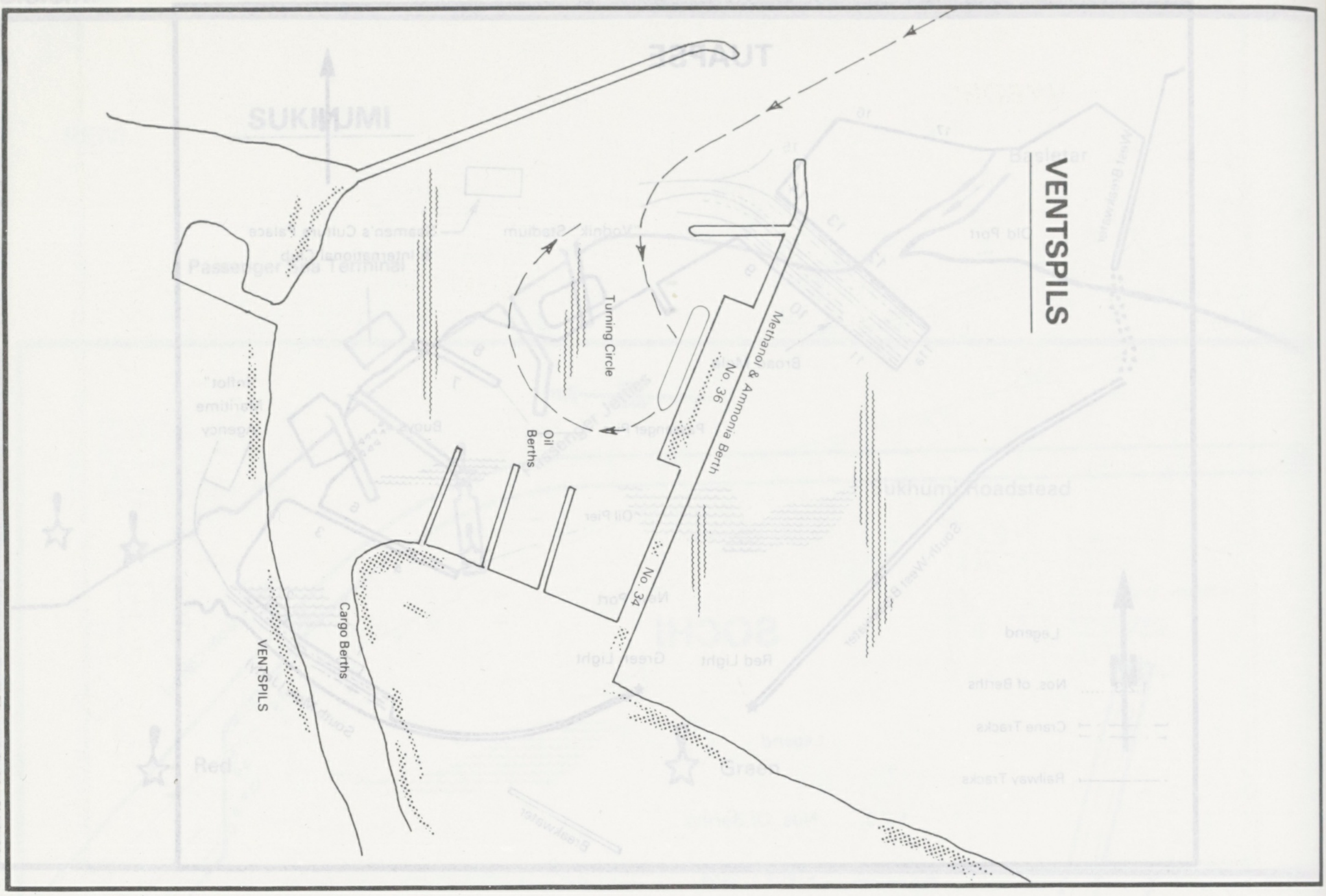

TALLINN
Legend
1.2.3. ..... Nos. of Berths
Crane Tracks
Railway Tracks
N
17
North Mole (Jetty)
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
No Anchorage
East Breakwater
Signal Mast
Port Supervision Post
Basin No. 3
Basin No. 2
Basin No. 1
Harbour Masters' Office
Passenger Sea Terminal
Admiralteisky Dock
Lights
White
Green
Red

"Reproduced by kind permission of Sovinflot".

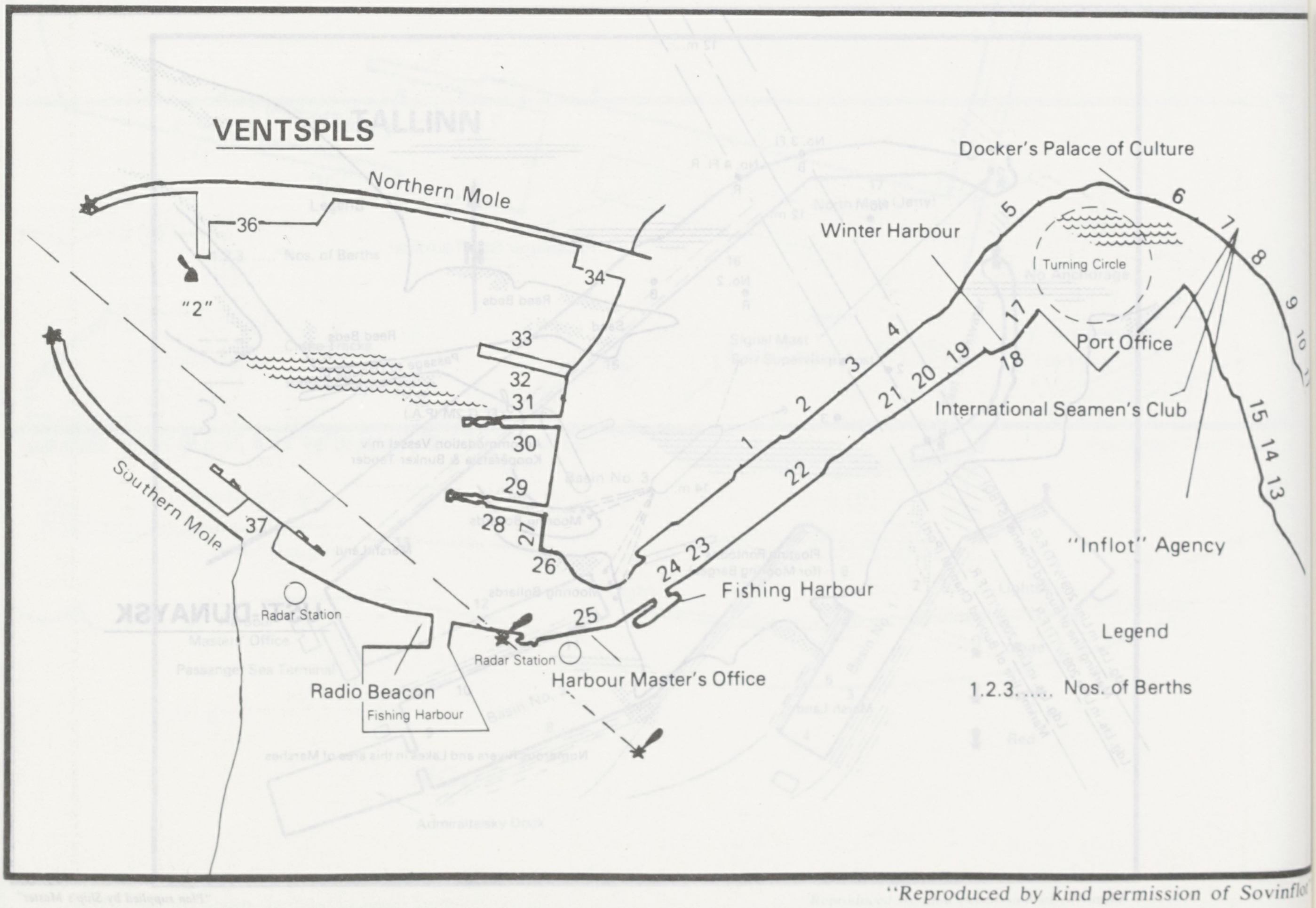

TUAPSE
N
West Breakwater
Old Port
17
16
15
14
13
12
11a
11
10
9
Broad Mole
"Vodnik" Stadium
Seamen's Culture Palace & International Club
8
7
Passenger Pier
Buoys
"Inflot" Maritime Agency
6
5
4
3
2
1
Oil Pier
New Port
South-West Breakwater
Red Light
Green Light
South Mole (Jetty)
Breakwater
Legend
1.2.3. ..... Nos. of Berths
Crane Tracks
Railway Tracks


12 m.
No. 3 Fl.
B
No. 4 Fl. R.
R.
No. 1
B
12 m.
No. 2
R
B
Reed Beds
Sand
Reed Beds
Passage to Danube River
1
2
3
4
Fl. G 2M (P.A.)
Accommodation Vessel m/v Kooperatsia & Bunker Tender
14 m.
Mooring Bollards
Floating Pontoons (for Mooring Barges)
Mooring Bollards
Marsh Land
Ldg. Lts. in Line 209½ (T) F.G.
Marking line of Buoyed Channel (STBD)
Ldg. Lts. in Line 209½ (T) F.R.
Ldg. Lts. in Line 209½ (T) F.R.
Marking line of Buoyed Channel (Port)
Marsh Land
Numerous Rivers and Lakes in this area of Marshes
UST'-DUNAYSK

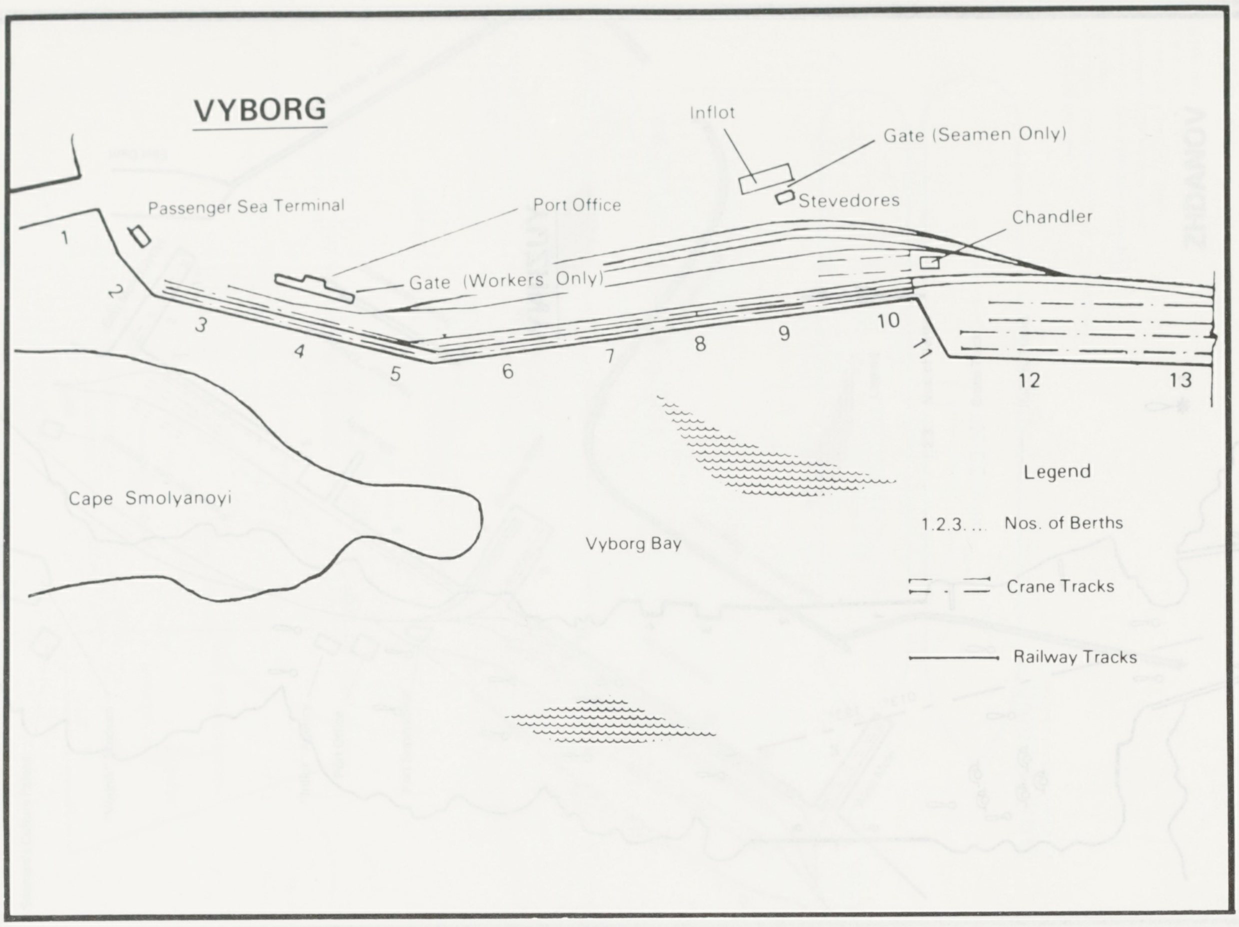
"Plan supplied by Ship's Master"

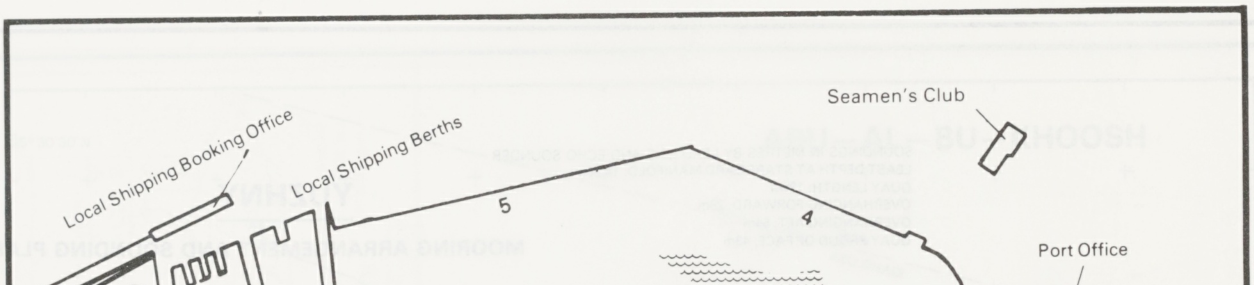

VENTSPILS
Turning Circle
Methanol & Ammonia Berth
No. 36
Oil Berths
No. 34
Cargo Berths
VENTSPILS

"Plan supplied by Ship's Master"

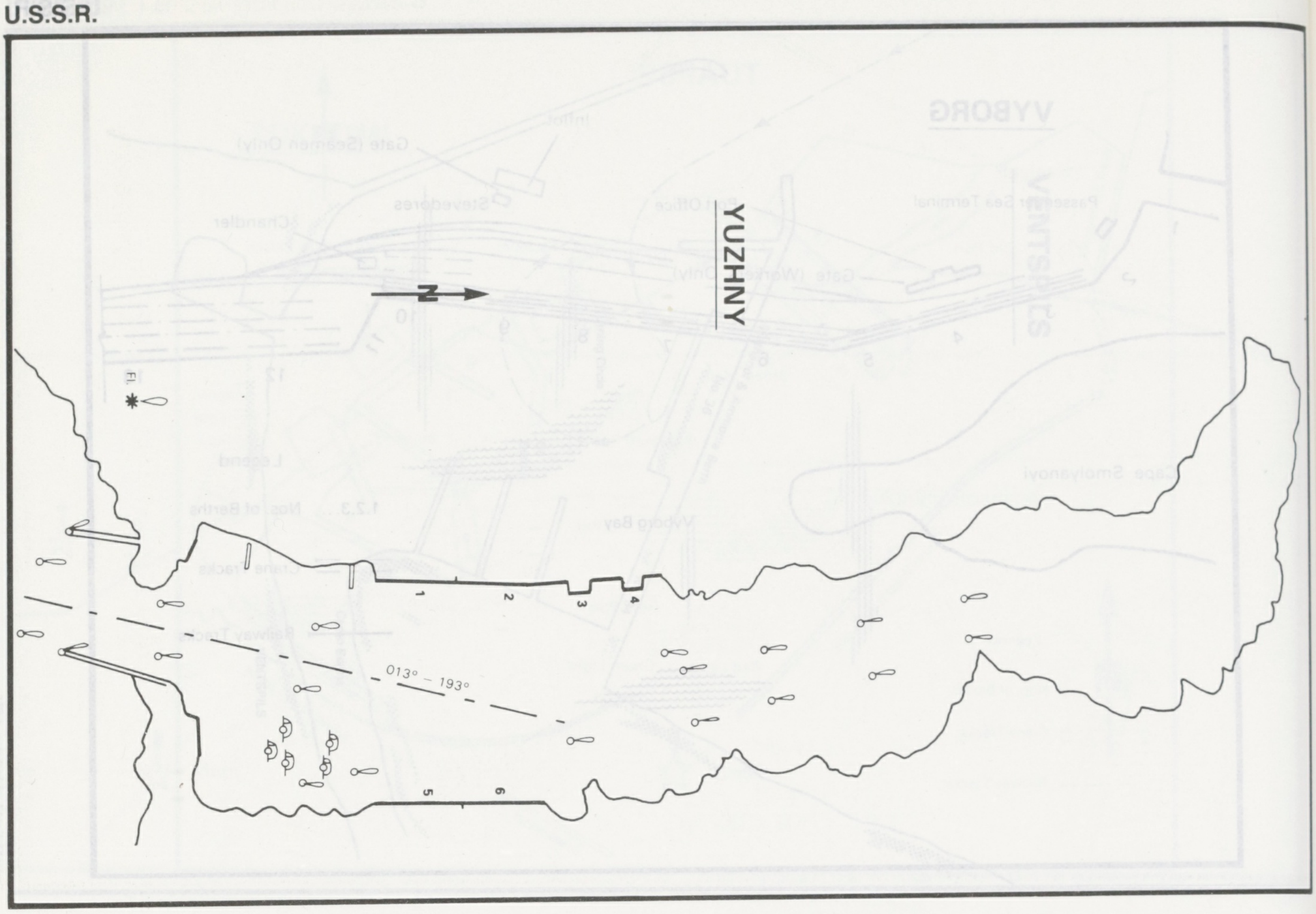

VENTSPILS
Northern Mole
36
"2"
34
33
32
31
30
29
28
27
26
Southern Mole
37
Radar Station
Radio Beacon
Fishing Harbour
Radar Station
Harbour Master's Office
25
24
23
Fishing Harbour
22
1
2
3
4
21
20
19
18
17
Winter Harbour
5
Docker's Palace of Culture
6
7
8
9
10
11
Turning Circle
Port Office
International Seamen's Club
15
14
13
"Inflot" Agency
Legend
1.2.3..... Nos. of Berths

"Reproduced by kind permission of Sovinflot


VYBORG
Inflot
Gate (Seamen Only)
Passenger Sea Terminal
Port Office
Stevedores
Chandler
Gate (Workers Only)
1
2
3
4
5
6
7
8
9
10
11
12
13
Cape Smolyanoyi
Vyborg Bay
Legend
1.2.3.... Nos. of Berths
Crane Tracks
Railway Tracks


Seamen's Club
Local Shipping Booking Office
Local Shipping Berths
5
4
Port Office
South Mole (Jetty) 1.2.3.
8
7
6
9
Legend
1. 2. 3.... Nos. of Berths
Crane Tracks
3
2
Passenger Sea Terminal
1
East Mole (Jetty)
YALTA

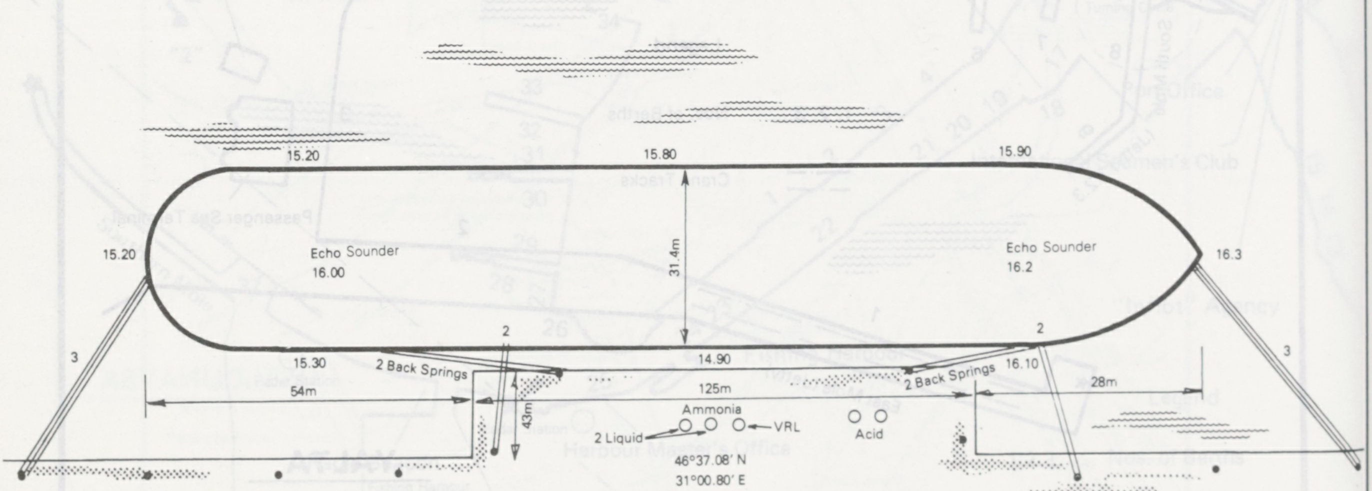
"Reproduced by kind permission of Sovinflot".


YUZHNY
N
Fl.
1
2
3
4
5
6
013° – 193°

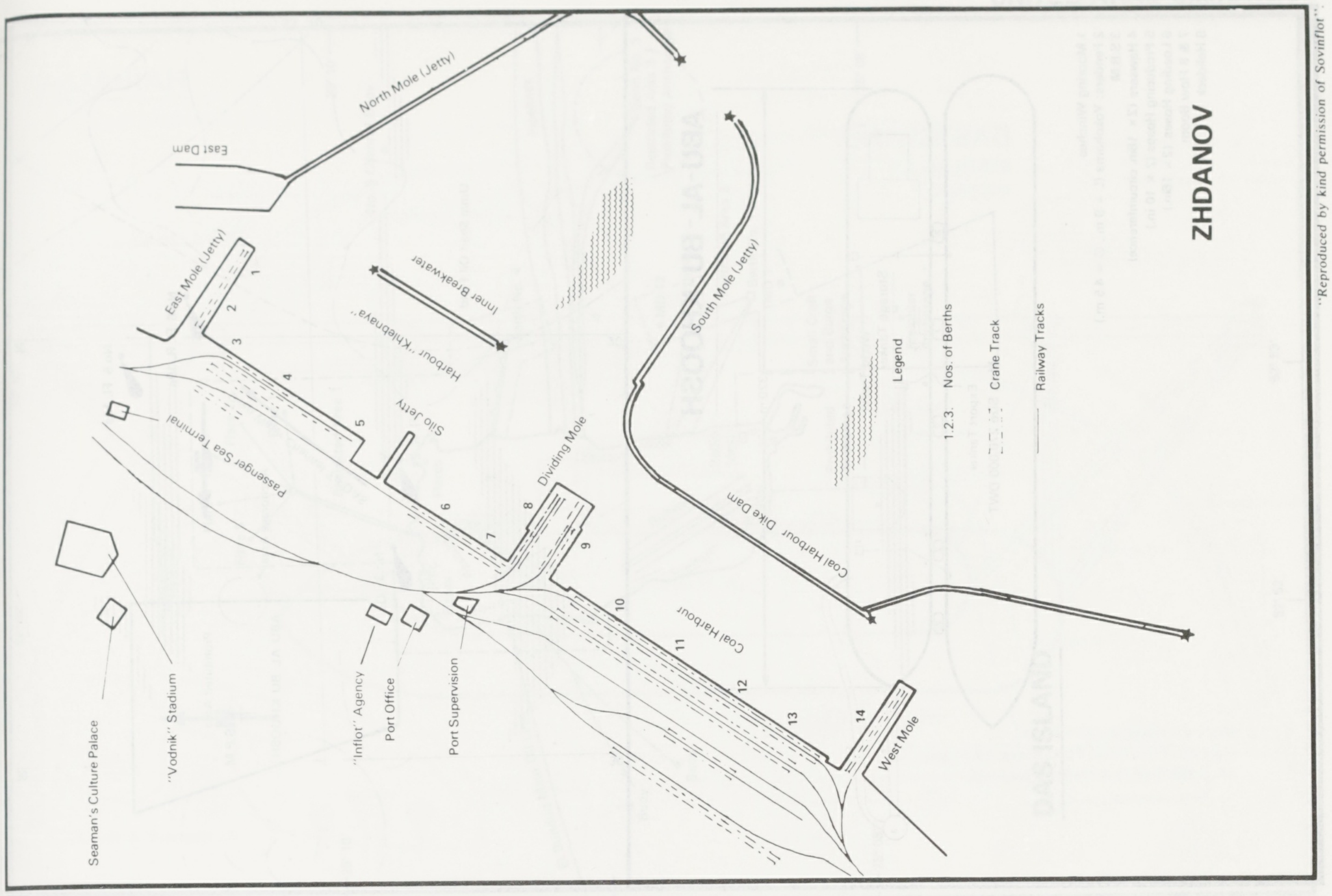
SOUNDINGS IN METRES BY LEAD LINE AND ECHO SOUNDER
LEAST DEPTH AT STARBOARD MANIFOLD: 14.90m
QUAY LENGTH: 125m
OVERHANGING FORWARD: 28m
OVERHANGING AFT: 54m
QUAY PROUD OF FACE: 43m

YUZHNY

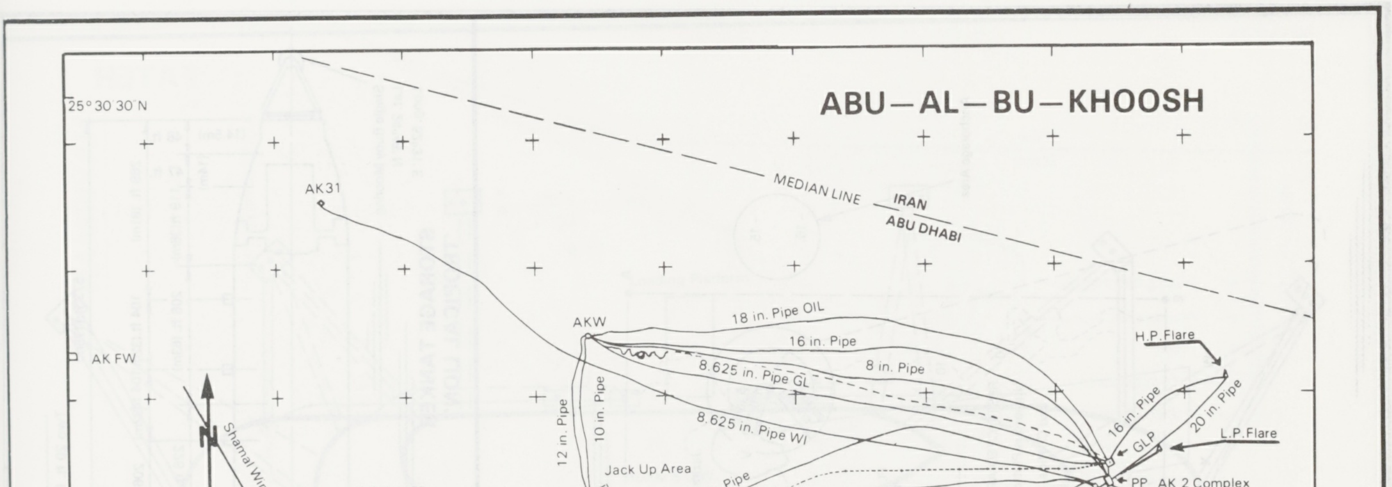
MOORING ARRANGEMENT AND SOUNDING PLAN

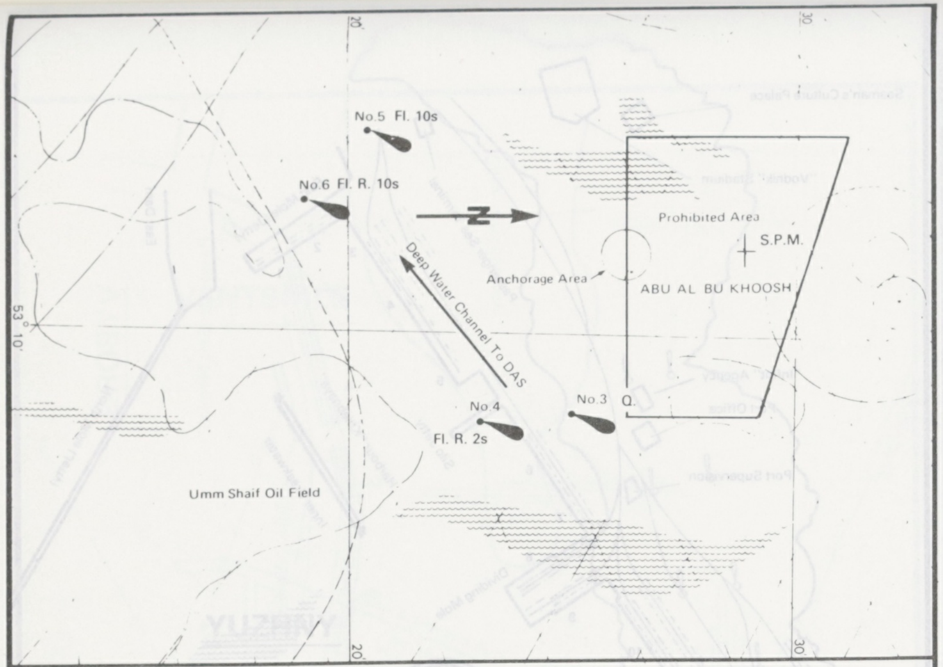

15.20
15.80
15.90
15.20
31.4m
Echo Sounder
16.00
Echo Sounder
16.2
16.3
3
2
2
3
15.30
2 Back Springs
14.90
2 Back Springs
16.10
54m
125m
28m
43m
Ammonia
2 Liquid
VRL
Acid
46°37.08′ N
31°00.80′ E

"Plan supplied by Ship's Master"

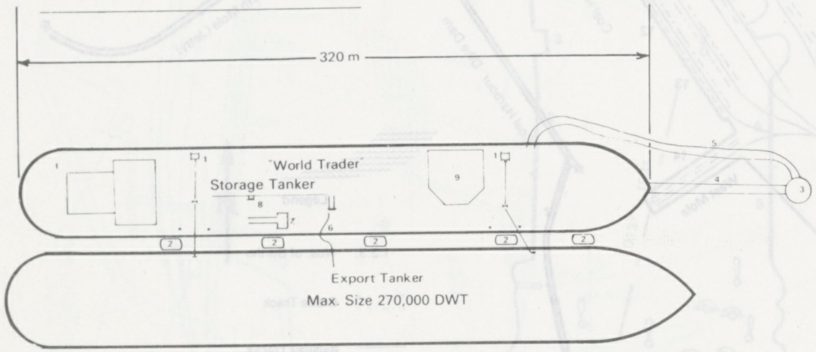

ZHDANOV
East Dam
North Mole (Jetty)
East Mole (Jetty)
1
2
3
4
5
Inner Breakwater
Harbour "Khlebnaya"
Silo Jetty
Passenger Sea Terminal
Dividing Mole
6
7
8
9
South Mole (Jetty)
Coal Harbour Dike Dam
Coal Harbour
10
11
12
13
14
West Mole
Legend
1.2.3. Nos. of Berths
Crane Track
Railway Tracks
Seaman's Culture Palace
"Vodnik" Stadium
"Inflot" Agency
Port Office
Port Supervision

"Reproduced by kind permission of Sovinflot".

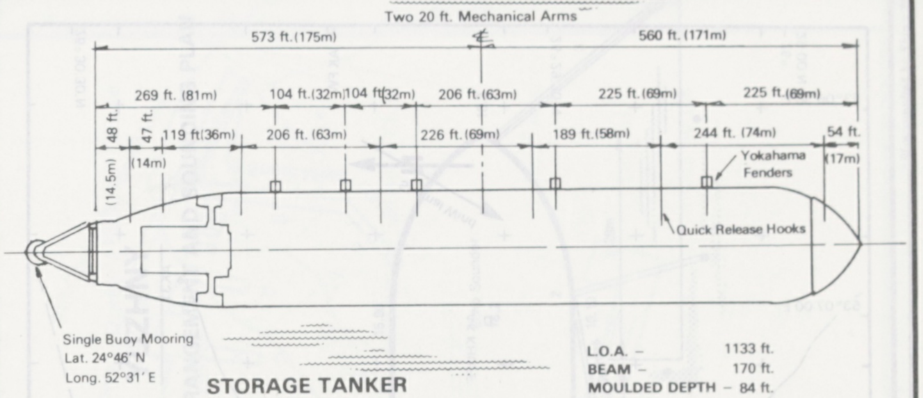

ABU—AL—BU—KHOOSH
25°30 30 N
MEDIAN LINE
IRAN
ABU DHABI
AK31
AK FW
Shamal Wind
AK KHUFF
AKW
18 in. Pipe OIL
16 in. Pipe
8 in. Pipe
8.625 in. Pipe GL
8.625 in. Pipe WI
12 in. Pipe
10 in. Pipe
Jack Up Area
8 in. Pipe
AKS
Electrical Cable
H.P. Flare
16 in. Pipe
20 in. Pipe
GLP
L.P. Flare
PP
AK 2 Complex
AK E
6 in. Pipe
AK1
25°29 30 N
12 in. Pipe
8 in. Pipe
16 in. Pipe
AK51
S.P.M.
8 in. Pipe WI
To AK 41
25° 29 00 N
53°06 30 E
53°07 00 E
53°07 30 E
53°08 00 E
53°08 30 E
53°09 00 E


20'
30'
No.5 Fl. 10s
No.6 Fl. R. 10s
N
Prohibited Area
S.P.M.
Anchorage Area
ABU AL BU KHOOSH
Deep Water Channel To DAS
53° 10'
No.4
Fl. R. 2s
No.3 Q.
Umm Shaif Oil Field
20'
30'

ABU-AL-BU-KHOOSH


320 m
1
'World Trader'
Storage Tanker
9
8
7
6
5
4
3
2
Export Tanker
Max. Size 270,000 DWT

1 Mooring Winches
2 Fenders: Yokohama (L = 9 m., ∅ = 4.5 m.)
3 S.B.M
4 Hawsers (2× 18in. circumference)
5 Producing Hoses (2 × 10 in.)
6 Loading Hoses (2× 16in.)
7 & 8 Flow Boom
9 Helideck


Two 20 ft. Mechanical Arms
573 ft.(175m)
560 ft. (171m)
269 ft. (81m)
104 ft.(32m)
104 ft.(32m)
206 ft.(63m)
225 ft.(69m)
225 ft.(69m)
48 ft.
47 ft.
119 ft(36m)
206 ft. (63m)
226 ft.(69m)
189 ft.(58m)
244 ft. (74m)
54 ft.
(14.5m)
(14m)
(17m)
Yokahama Fenders
Quick Release Hooks
Single Buoy Mooring
Lat. 24°46' N
Long. 52°31' E

STORAGE TANKER 'TROPICAL LION'

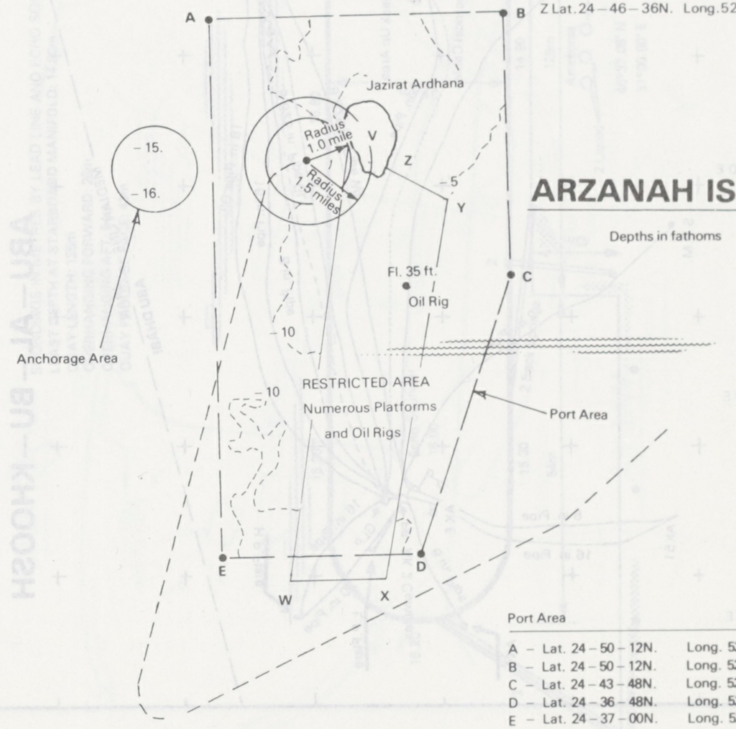
L.O.A. –	1133 ft.
BEAM –	170 ft.
MOULDED DEPTH –	84 ft.

RESTRICTED AREA

V	Lat. 24–46–18N.	Long. 52–33–00E.
W	Lat. 24–35–54N.	Long. 52–31–30E.
X	Lat. 24–35–54N.	Long. 52–34–00E.
Y	Lat. 24–45–24N.	Long. 52–36–30E.
Z	Lat. 24–46–36N.	Long. 52–33–48E.

ARZANAH ISLAND

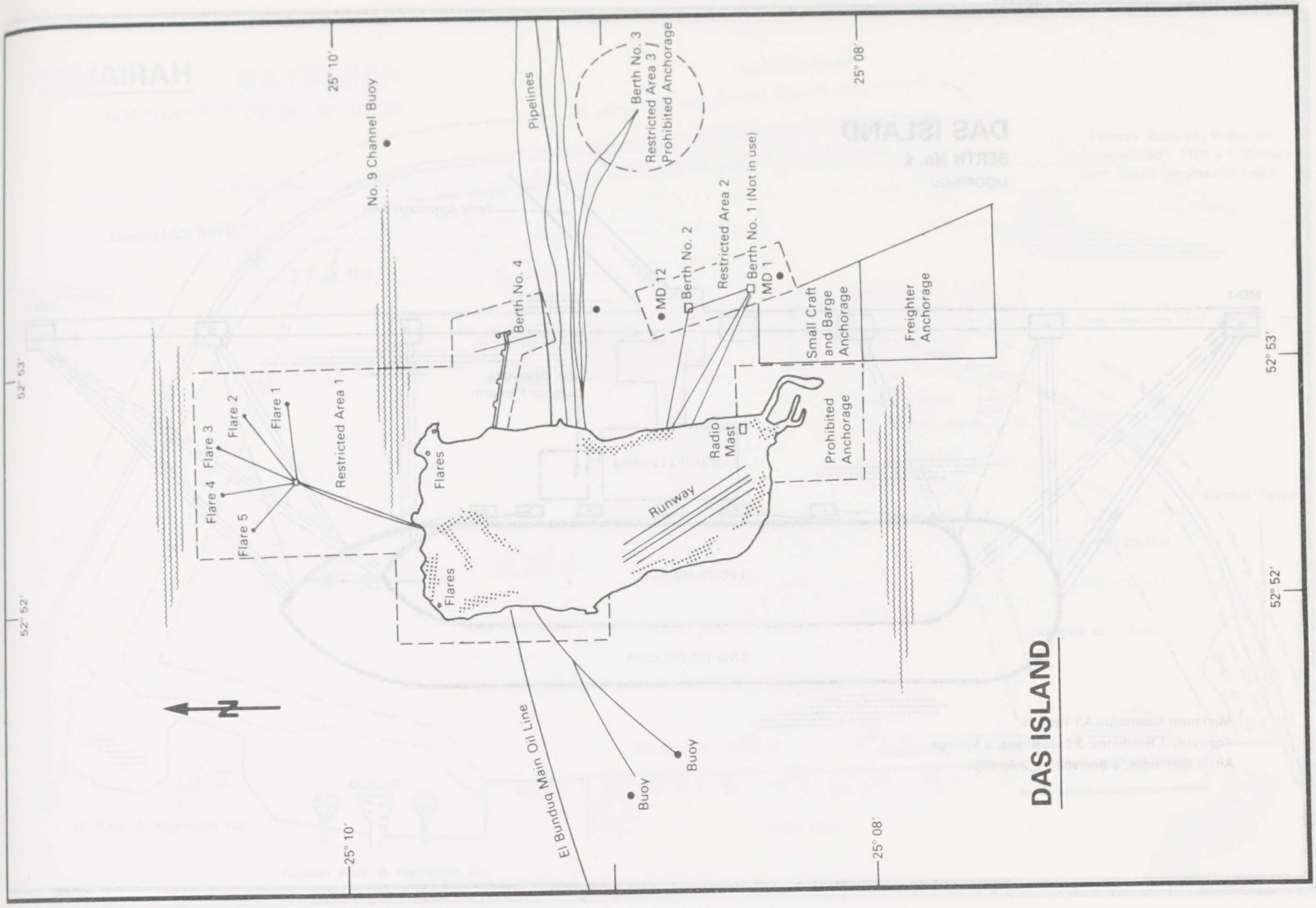
Depths in fathoms

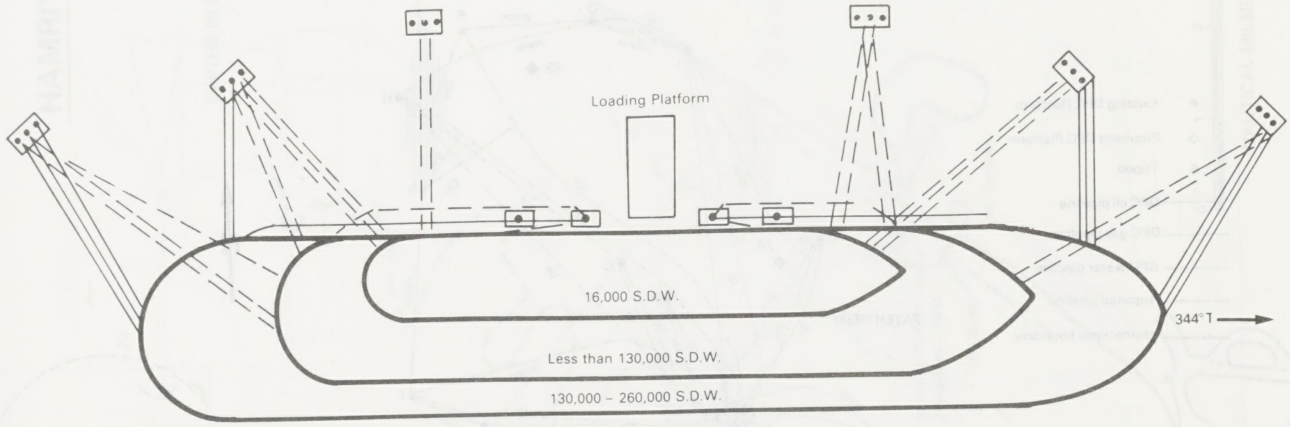

A
B
Jazirat Ardhana
Radius 1.0 mile
V
Radius 1.5 miles
Z
- 5
Y
- 15.
- 16.
Fl. 35 ft.
Oil Rig
C
- 10
Anchorage Area
- 10
RESTRICTED AREA
Numerous Platforms
and Oil Rigs
Port Area
E
D
W
X

Port Area

A –	Lat. 24–50–12N.	Long. 52–29–24E
B –	Lat. 24–50–12N.	Long. 52–37–12E
C –	Lat. 24–43–48N.	Long. 52–37–12E
D –	Lat. 24–36–48N.	Long. 52–34–36E
E –	Lat. 24–37–00N.	Long. 52–29–24E

"Plan supplied by Ship's Master"


DAS ISLAND
25° 10'
25° 08'
52° 53'
52° 52'
N
No. 9 Channel Buoy
Pipelines
Berth No. 3
Restricted Area 3 / Prohibited Anchorage
Restricted Area 2
Berth No. 1 (Not in use)
MD 1
Berth No. 2
MD 12
Berth No. 4
Small Craft and Barge Anchorage
Freighter Anchorage
Prohibited Anchorage
Radio Mast
Runway
Restricted Area 1
Flare 1
Flare 2
Flare 3
Flare 4
Flare 5
Flares
Flares
El Bunduq Main Oil Line
Buoy
Buoy

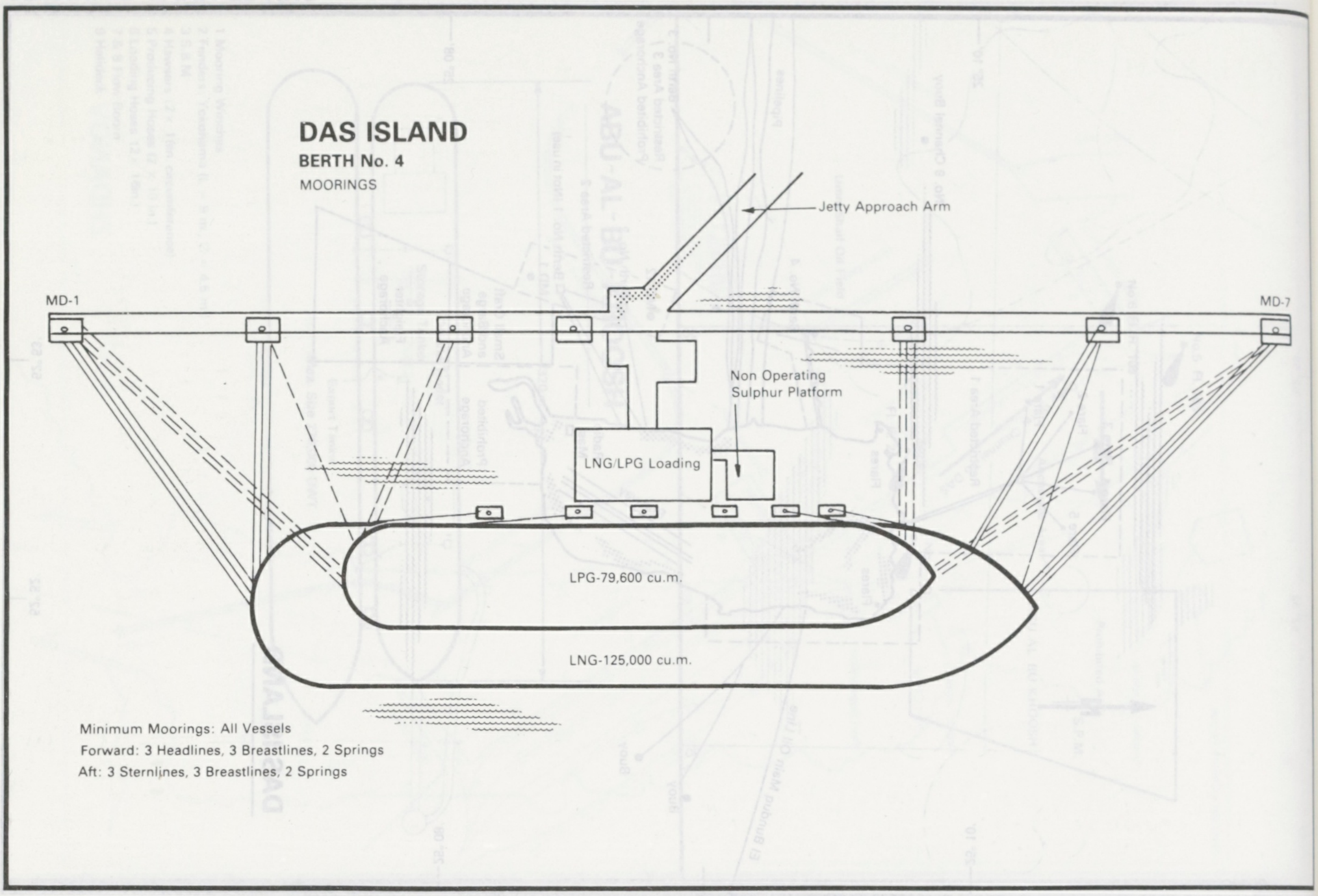

Loading Platform
16,000 S.D.W.
Less than 130,000 S.D.W.
130,000 – 260,000 S.D.W.
344°T

DAS ISLAND

BERTH No. 2
MOORINGS

Vessels 16,000 – 130,000 S.D.W.
Minimum Moorings Required
Forward: 3 Headlines, 3 Breastlines, 1 Spring
Aft: 3 Sternlines, 2 Breastlines, 1 Spring

Vessels 130,000 – 260,000 S.D.W.
Minimum Moorings Required
Forward: 3 Headlines, 3 Breastlines, 1 Spring
Aft: 3 Sternlines, 2 Breastlines, 2 Springs



DAS ISLAND

BERTH No. 4

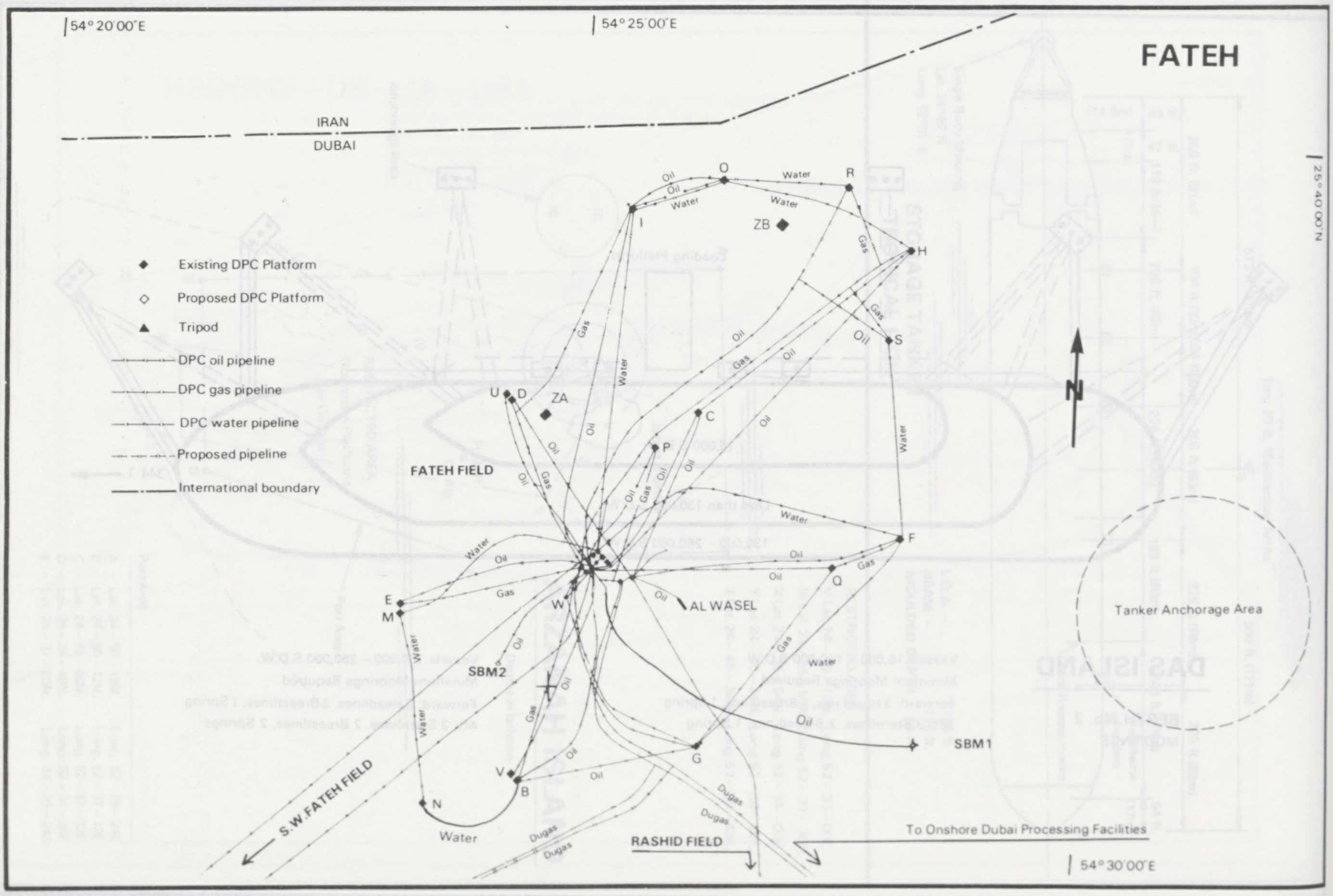
MOORINGS

Jetty Approach Arm
MD-1
MD-7
Non Operating
Sulphur Platform
LNG/LPG Loading
LPG-79,600 cu.m.
LNG-125,000 cu.m.

Minimum Moorings: All Vessels

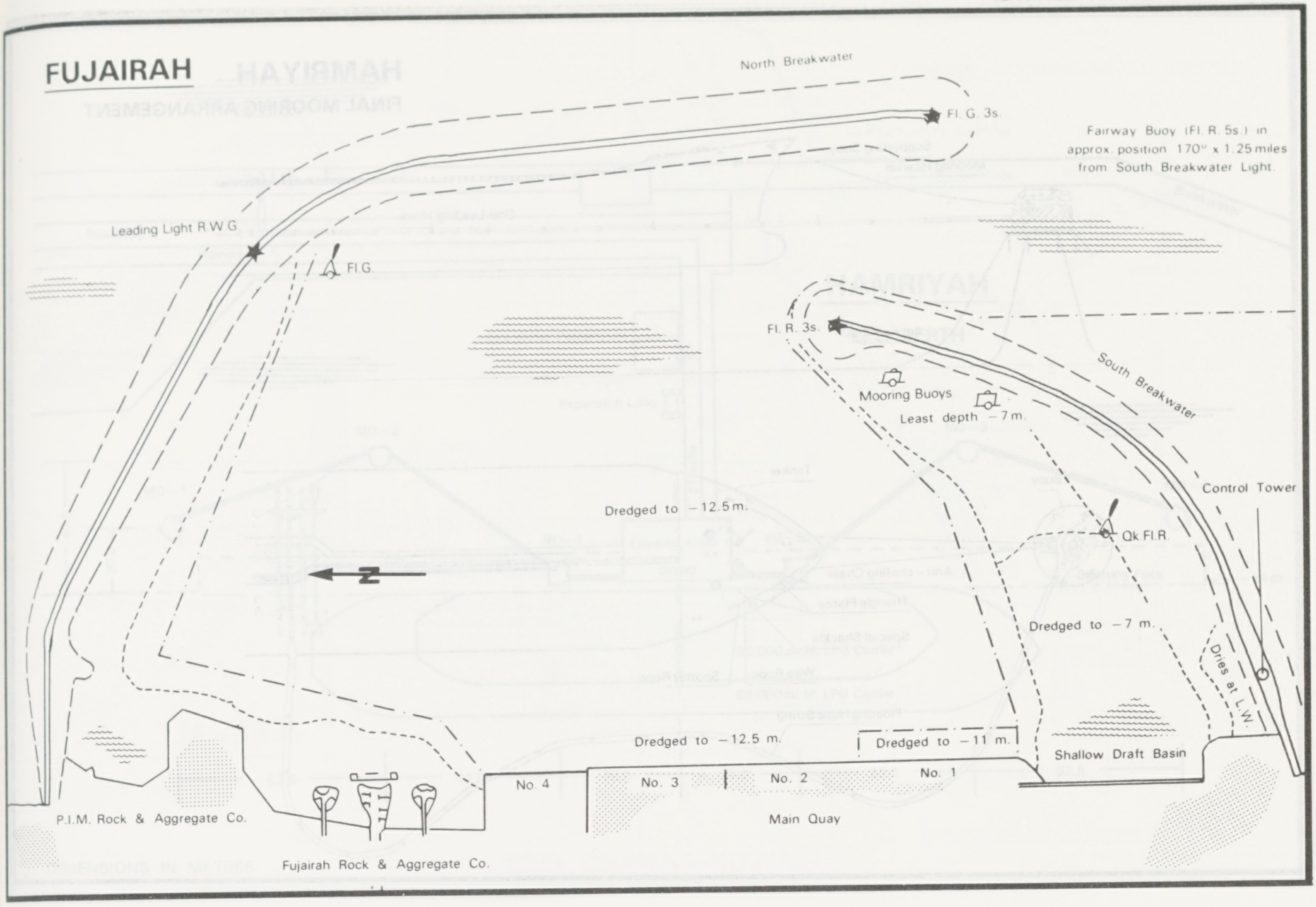
Forward: 3 Headlines, 3 Breastlines, 2 Springs

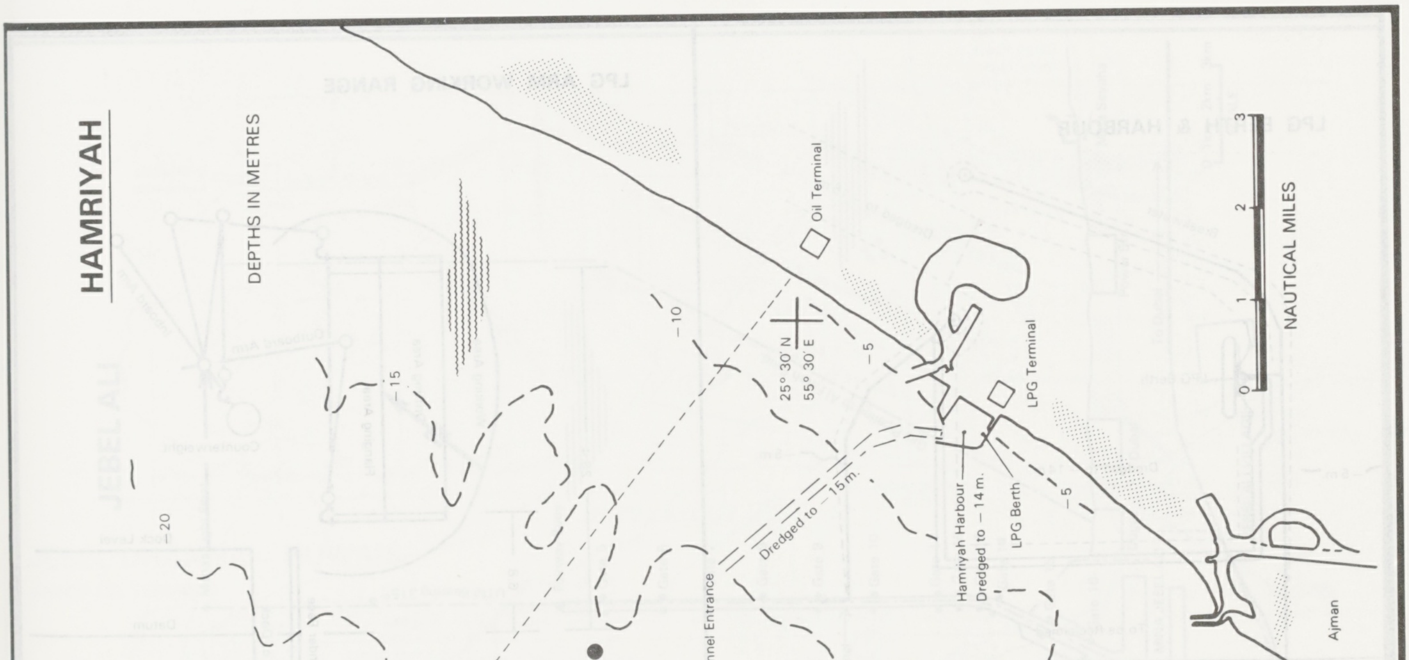
Aft: 3 Sternlines, 3 Breastlines, 2 Springs



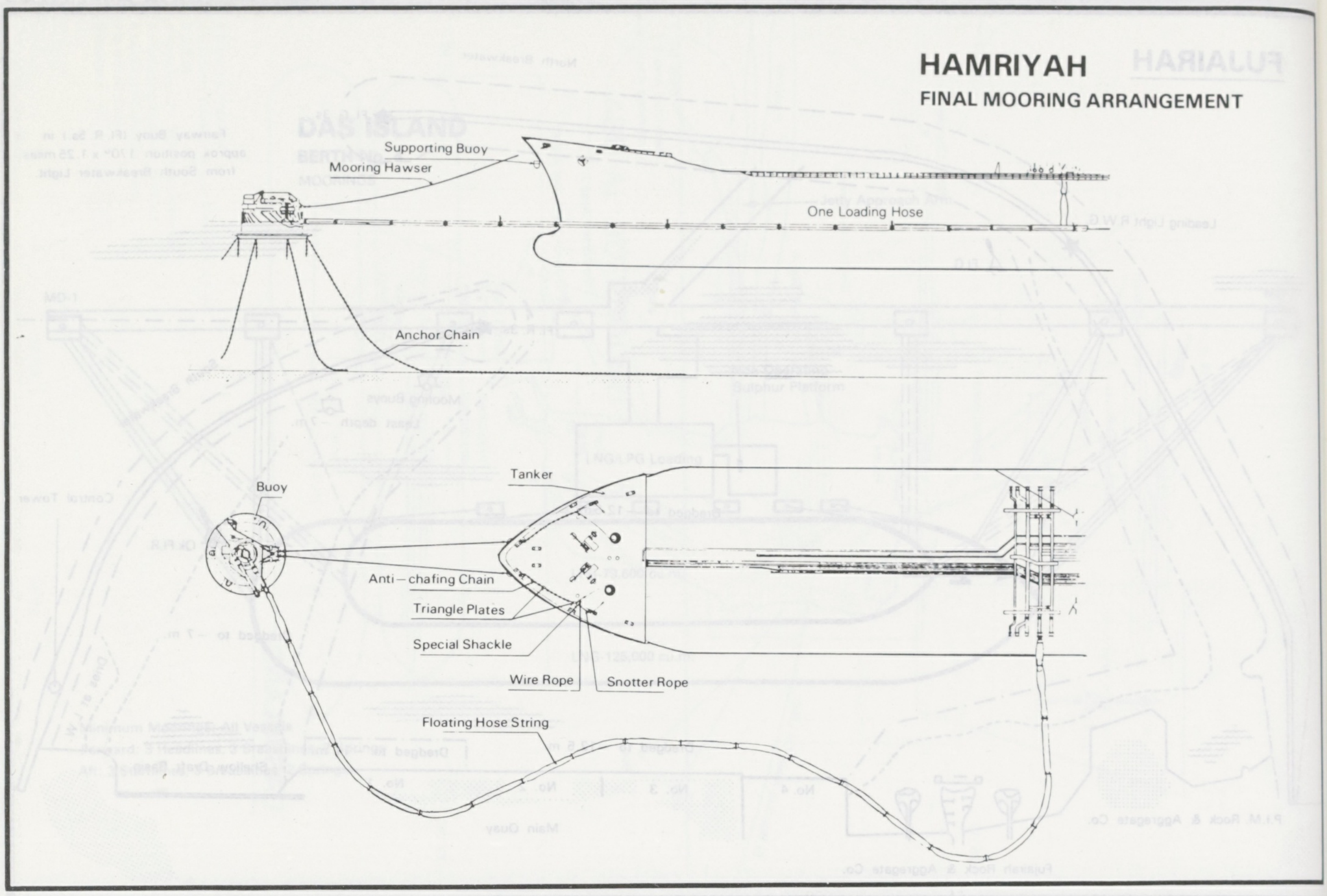
FATEH

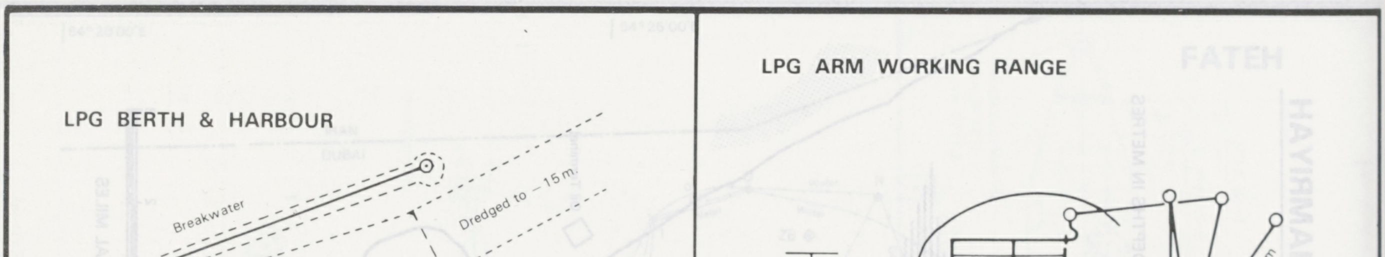
54° 20'00"E
54° 25'00"E
54° 30'00"E
25° 40'00"N
IRAN
DUBAI
◆ Existing DPC Platform
◇ Proposed DPC Platform
▲ Tripod
DPC oil pipeline
DPC gas pipeline
DPC water pipeline
Proposed pipeline
International boundary
FATEH FIELD
AL WASEL
SBM2
SBM1
S.W. FATEH FIELD
RASHID FIELD
To Onshore Dubai Processing Facilities
Tanker Anchorage Area
N
O
R
I
ZB
H
S
U
D
ZA
C
P
F
Q
E
M
W
G
V
B
N
Oil
Gas
Water
Dugas


FUJAIRAH
North Breakwater
Fl. G. 3s.
Fairway Buoy (Fl. R. 5s.) in approx. position 170° x 1.25 miles from South Breakwater Light.
Leading Light R.W.G.
Fl.G.
Fl. R. 3s.
Mooring Buoys
Least depth −7 m.
South Breakwater
Control Tower
Dredged to −12.5 m.
Qk.Fl.R.
N
Dredged to −7 m.
Dries at L.W.
Dredged to −12.5 m.
Dredged to −11 m.
Shallow Draft Basin
No. 4
No. 3
No. 2
No. 1
Main Quay
P.I.M. Rock & Aggregate Co.
Fujairah Rock & Aggregate Co.


HAMRIYAH
DEPTHS IN METRES
Oil Terminal
25° 30' N
55° 30' E
−10
−5
LPG Terminal
NAUTICAL MILES
0
1
2
3
−15
−20
Hamriyah Harbour
Dredged to −14 m.
LPG Berth
−5
Dredged to −15 m.
Channel Entrance
Fairway Buoy
Ajman
Oil Anchorage
Hamriyah Oil SBM
LPG Anchorage
20
−15
−10

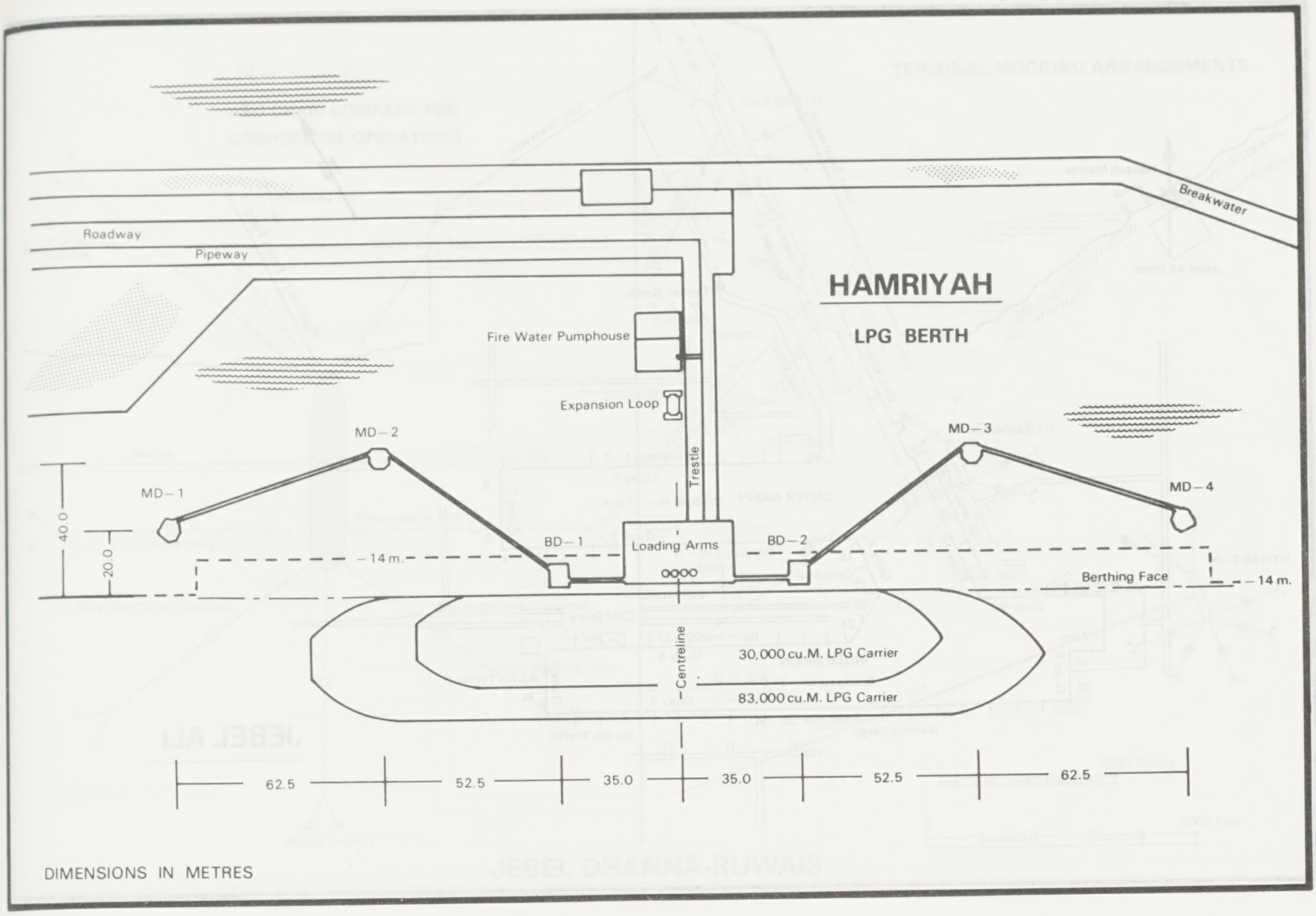
HAMRIYAH
FINAL MOORING ARRANGEMENT

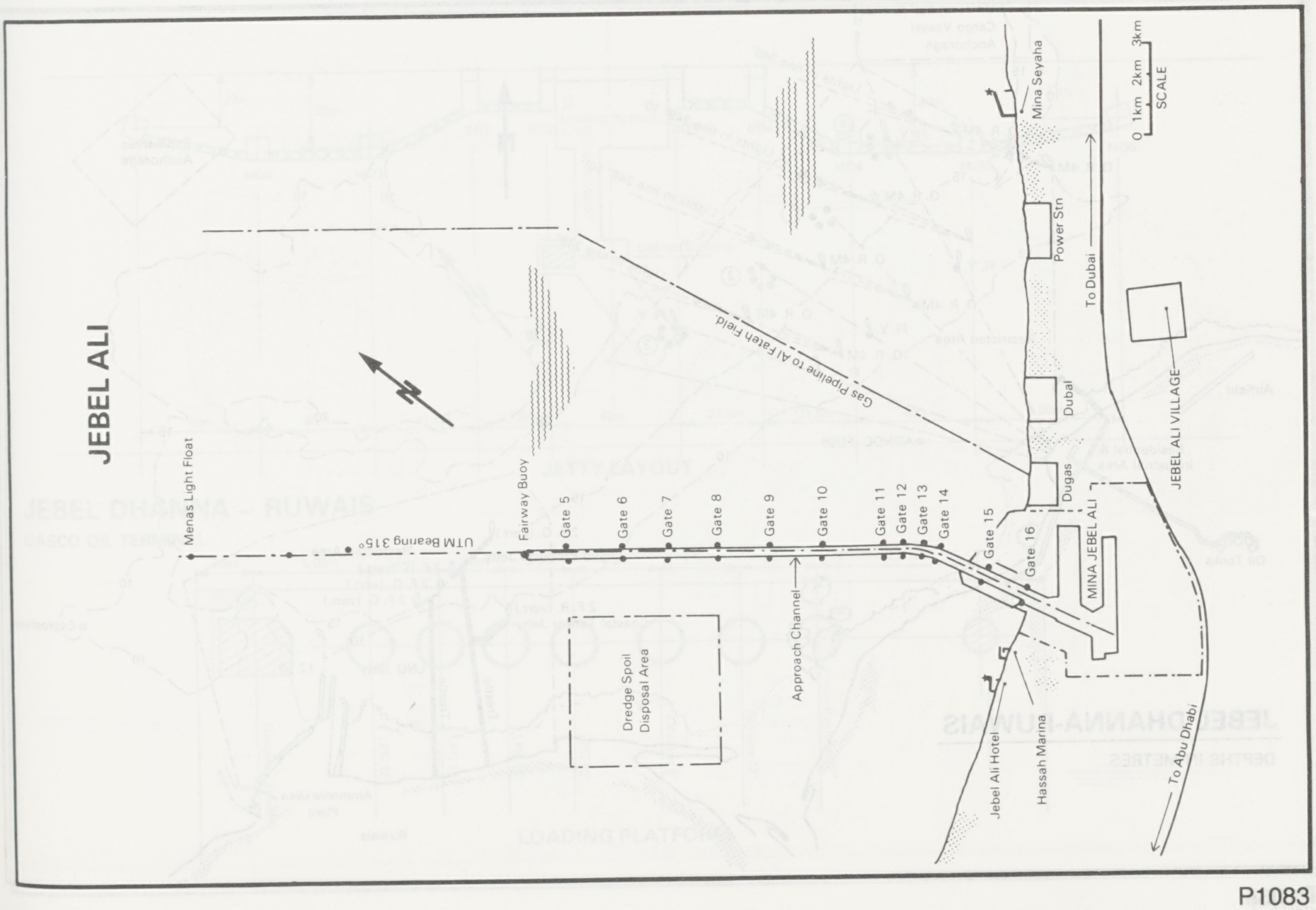

Supporting Buoy
Mooring Hawser
One Loading Hose
Anchor Chain
Tanker
Buoy
Anti-chafing Chain
Triangle Plates
Special Shackle
Wire Rope
Snotter Rope
Floating Hose String

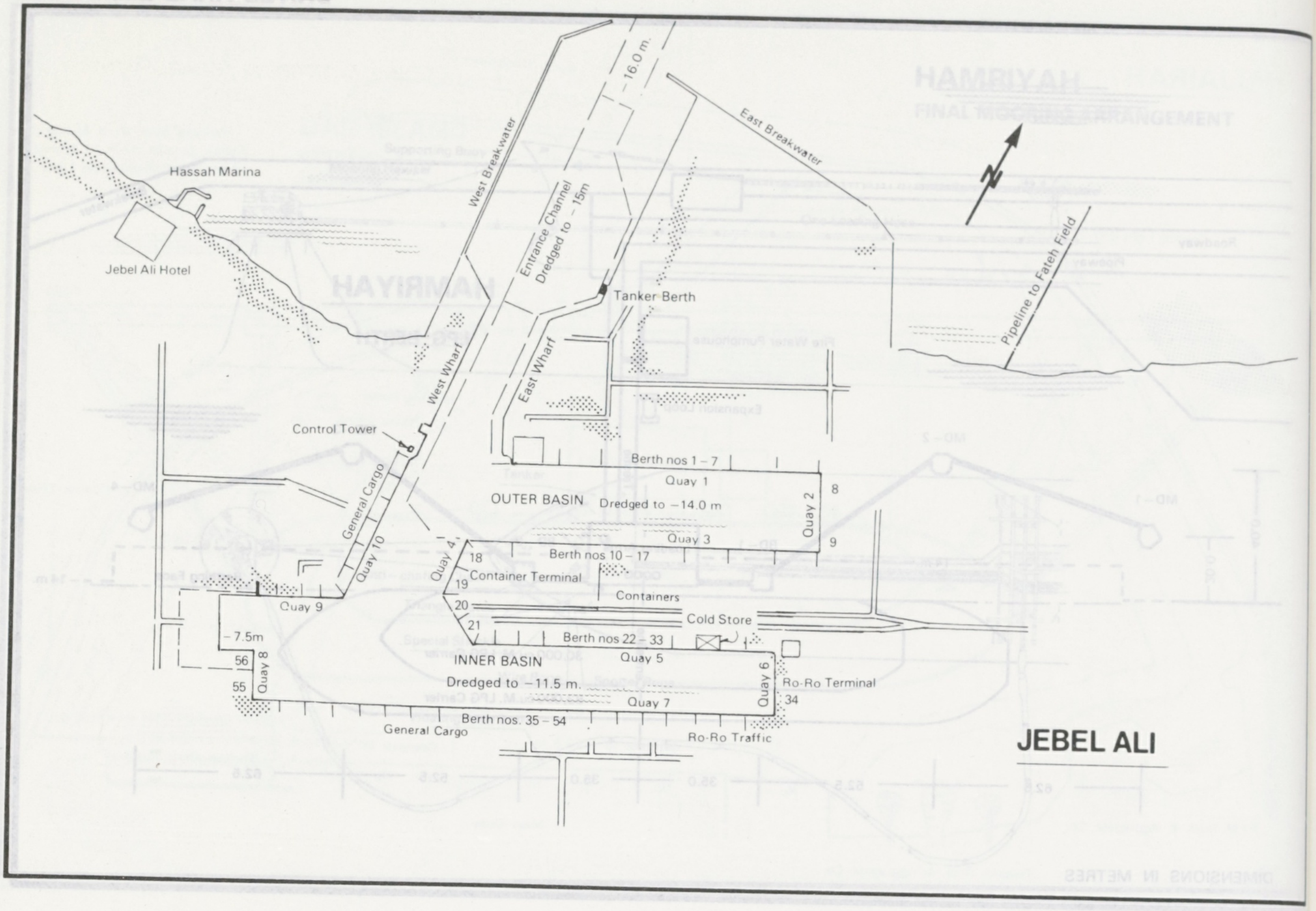

LPG BERTH & HARBOUR
Breakwater
Dredged to − 15 m.
LPG Berth
− 5 m.
Dredged to − 14 m.
− 5 m.
To be Reclaimed
LPG Terminal
LPG ARM WORKING RANGE
Working Area
Drifting Area
Flanging Area
Outboard Arm
Inboard Arm
Counterweight
Dock Level
Datum
Fender Face
Edge of Dock
23.4
6.8
4.0
6.0
2.5
17.7

HAMRIYAH

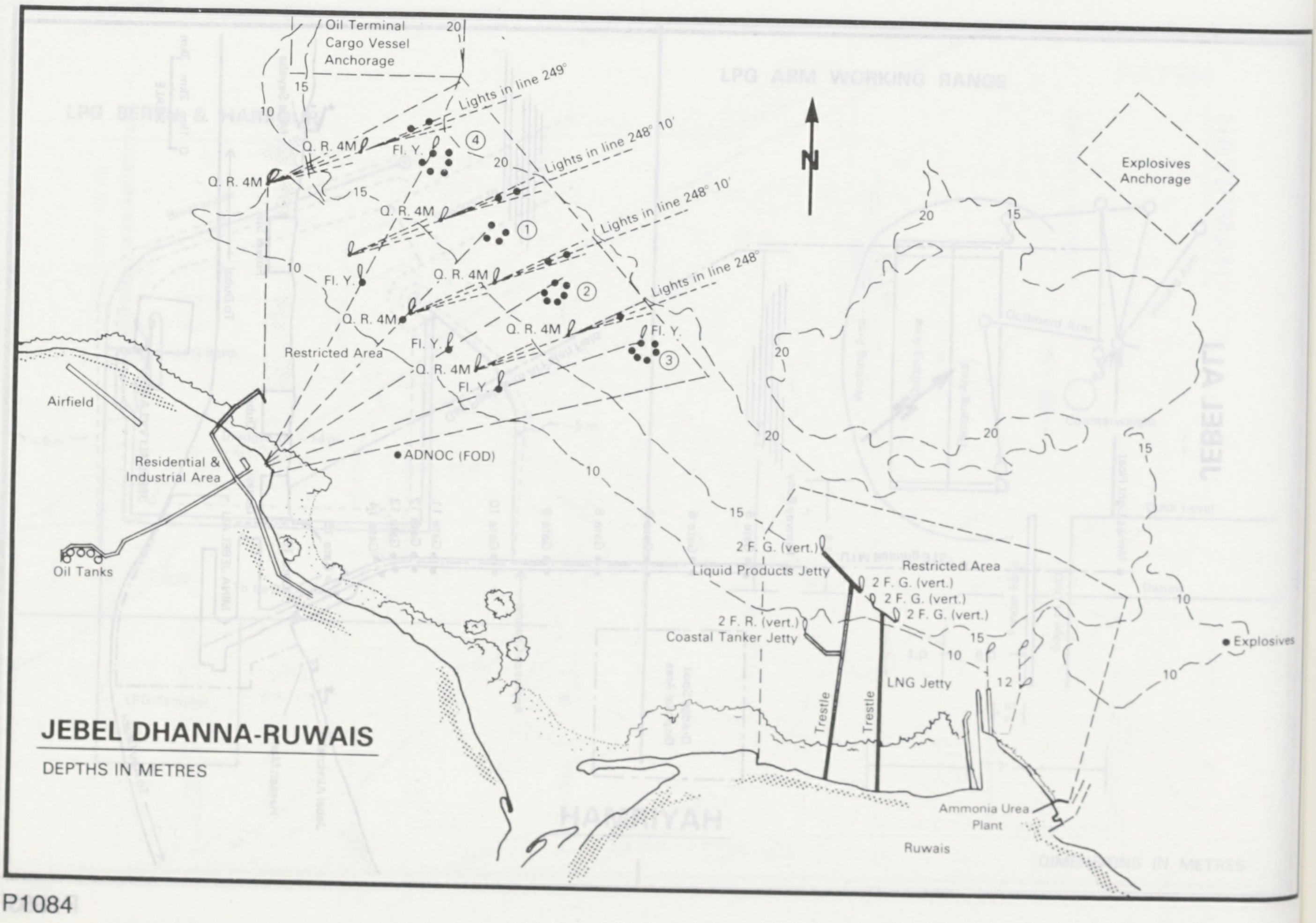
DIMENSIONS IN METRES


HAMRIYAH
LPG BERTH
Roadway
Pipeway
Breakwater
Fire Water Pumphouse
Expansion Loop
Trestle
MD – 1
MD – 2
MD – 3
MD – 4
BD – 1
BD – 2
Loading Arms
Berthing Face
– 14 m.
– 14 m.
40.0
20.0
Centreline
30,000 cu.M. LPG Carrier
83,000 cu.M. LPG Carrier
62.5
52.5
35.0
35.0
52.5
62.5
DIMENSIONS IN METRES


JEBEL ALI
N
Menas Light Float
UTM Bearing 315°
Fairway Buoy
Gate 5
Gate 6
Gate 7
Gate 8
Gate 9
Gate 10
Gate 11
Gate 12
Gate 13
Gate 14
Gate 15
Gate 16
Approach Channel
Dredge Spoil Disposal Area
Gas Pipeline to Al Fateh Field
MINA JEBEL ALI
Dugas
Dubal
Power Stn
Mina Seyaha
Jebel Ali Hotel
Hassah Marina
JEBEL ALI VILLAGE
To Dubai
To Abu Dhabi
0
1km
2km
3km
SCALE

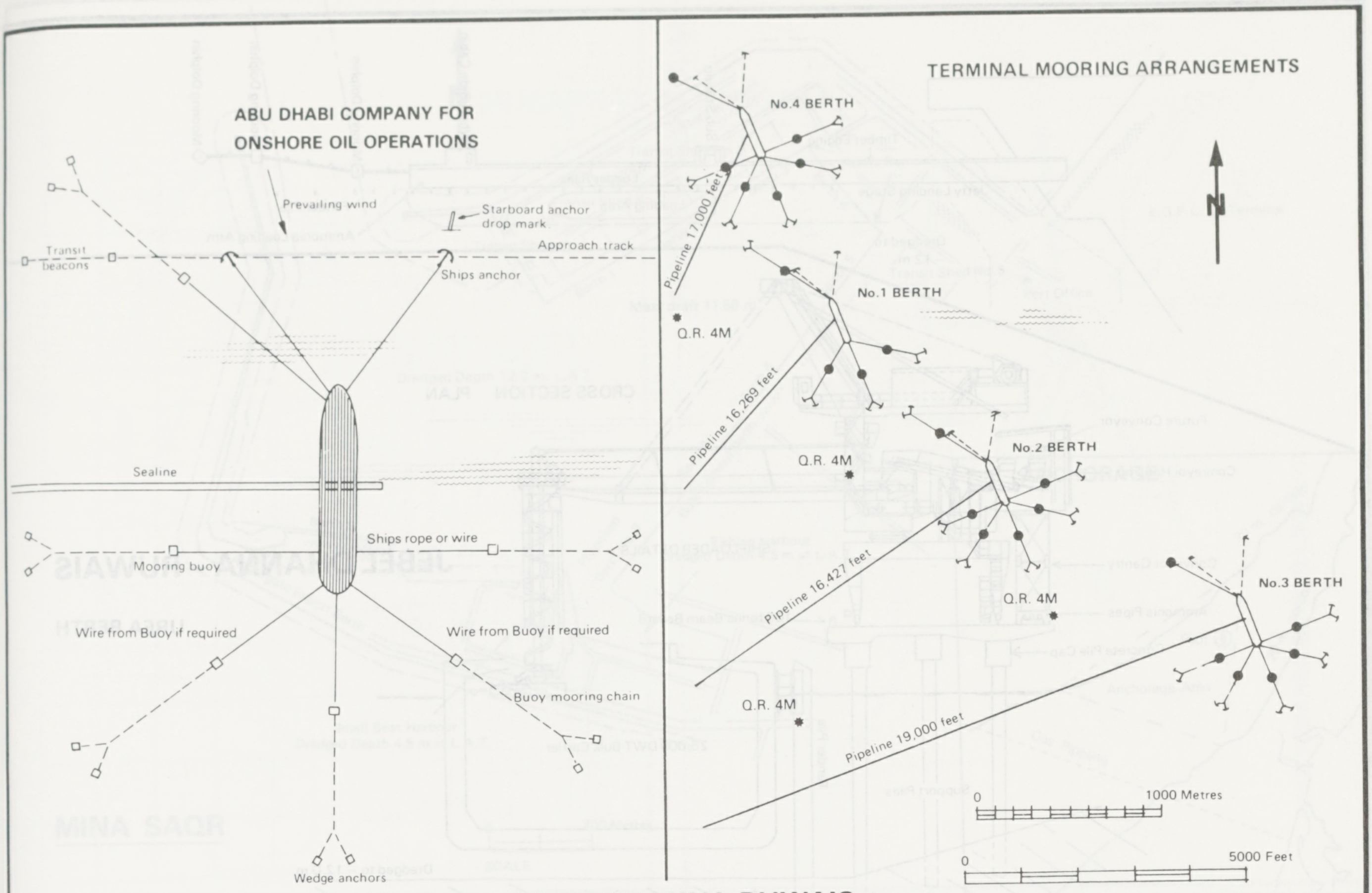

Hassah Marina
Jebel Ali Hotel
West Breakwater
-16.0 m.
East Breakwater
Entrance Channel Dredged to -15m
Tanker Berth
Pipeline to Fateh Field
West Wharf
East Wharf
Control Tower
General Cargo
Quay 10
Berth nos 1 - 7
Quay 1
OUTER BASIN
Dredged to -14.0 m
Quay 2
8
9
Quay 3
Quay 4
18
Berth nos 10 - 17
Container Terminal
19
20
21
Containers
Cold Store
Quay 9
-7.5m
56
55
Quay 8
Berth nos 22 - 33
Quay 5
INNER BASIN
Dredged to -11.5 m.
Quay 6
Ro-Ro Terminal
34
Quay 7
Berth nos. 35 - 54
General Cargo
Ro-Ro Traffic

JEBEL ALI

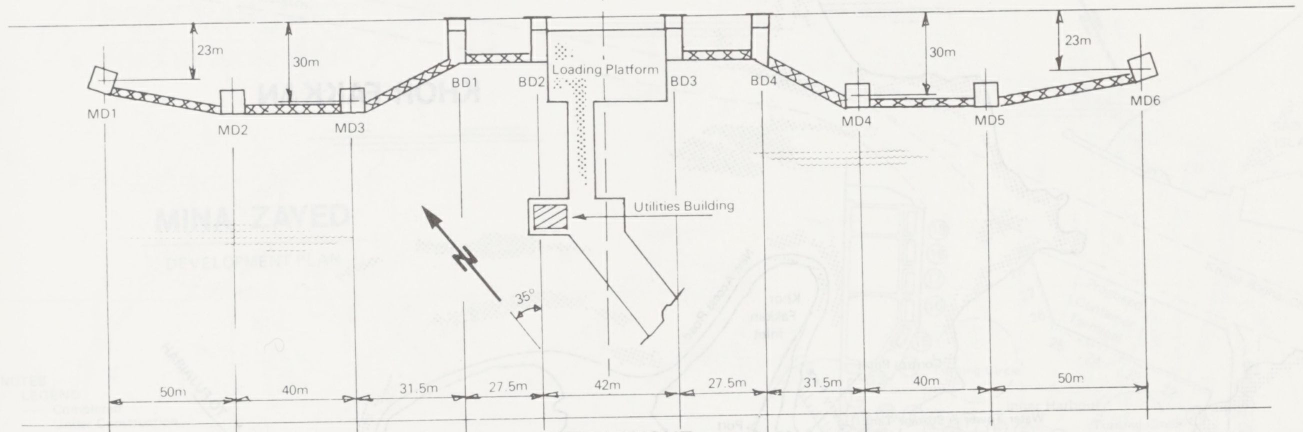

Oil Terminal Cargo Vessel Anchorage
20
15
10
Lights in line 249°
Q. R. 4M
Fl. Y.
④
Q. R. 4M
20
Lights in line 248° 10'
15
Q. R. 4M
Lights in line 248° 10'
①
10
Fl. Y.
Q. R. 4M
②
Lights in line 248°
Q. R. 4M
Q. R. 4M
Fl. Y.
③
Restricted Area
Fl. Y.
Q. R. 4M
Fl. Y.
Airfield
Residential & Industrial Area
ADNOC (FOD)
10
Oil Tanks
N
Explosives Anchorage
20
15
20
20
20
15
15
2 F. G. (vert.)
Liquid Products Jetty
Restricted Area
2 F. G. (vert.)
2 F. G. (vert.)
2 F. G. (vert.)
2 F. R. (vert.)
Coastal Tanker Jetty
15
10
12
10
10
Explosives
Trestle
Trestle
LNG Jetty
Ammonia Urea Plant
Ruwais

JEBEL DHANNA-RUWAIS

DEPTHS IN METRES


ABU DHABI COMPANY FOR ONSHORE OIL OPERATIONS
Prevailing wind
Starboard anchor drop mark
Transit beacons
Approach track
Ships anchor
Sealine
Ships rope or wire
Mooring buoy
Wire from Buoy if required
Wire from Buoy if required
Buoy mooring chain
Wedge anchors
TERMINAL MOORING ARRANGEMENTS
No.4 BERTH
N
Pipeline 17,000 feet
Q.R. 4M
No.1 BERTH
Pipeline 16,269 feet
Q.R. 4M
No.2 BERTH
Pipeline 16,427 feet
Q.R. 4M
No.3 BERTH
Q.R. 4M
Pipeline 19,000 feet
0
1000 Metres
0
5000 Feet

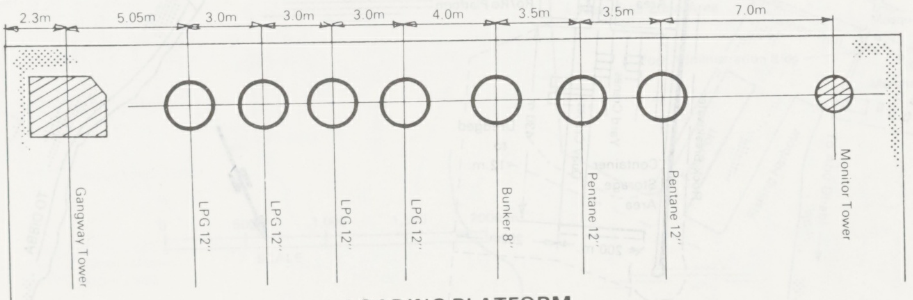
JEBEL DHANNA-RUWAIS


23m
30m
BD1
BD2
Loading Platform
BD3
BD4
30m
23m
MD1
MD2
MD3
MD4
MD5
MD6
Utilities Building
N
35°
50m
40m
31.5m
27.5m
42m
27.5m
31.5m
40m
50m

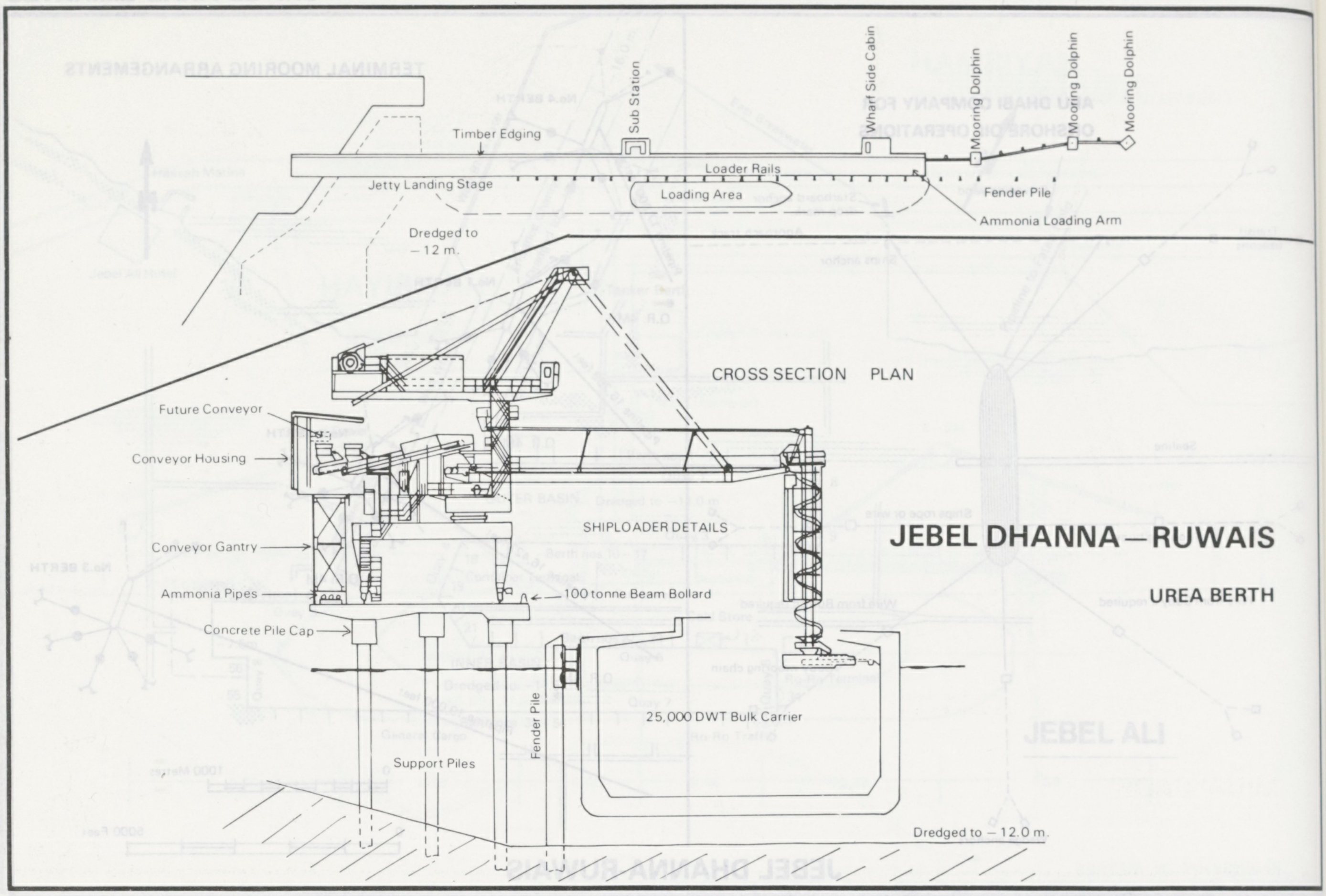
JETTY LAYOUT

JEBEL DHANNA – RUWAIS

GASCO OIL TERMINAL


2.3m
5.05m
3.0m
3.0m
3.0m
4.0m
3.5m
3.5m
7.0m
Gangway Tower
LPG 12"
LPG 12"
LPG 12"
LPG 12"
Bunker 8"
Pentane 12"
Pentane 12"
Monitor Tower

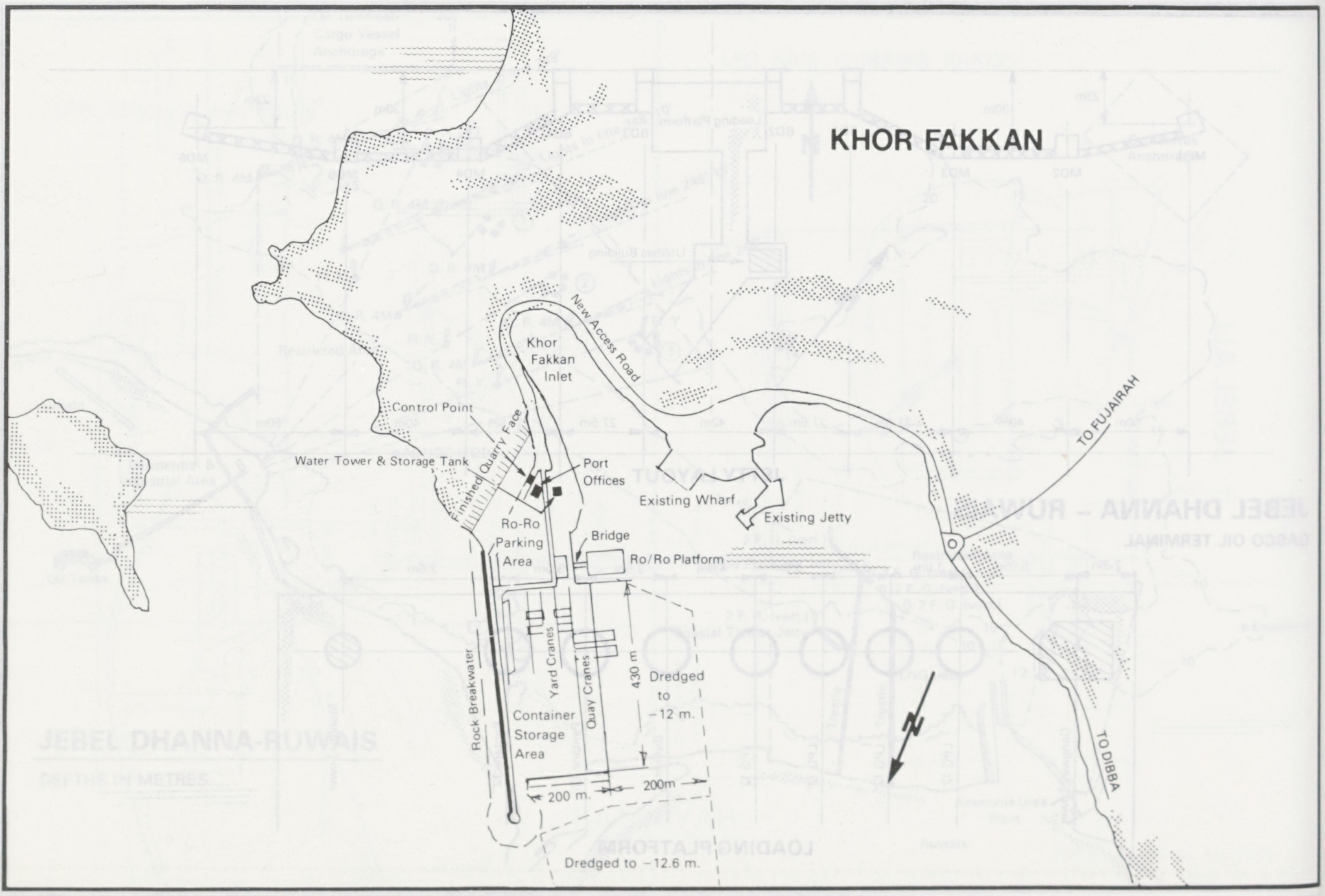
LOADING PLATFORM



JEBEL DHANNA—RUWAIS

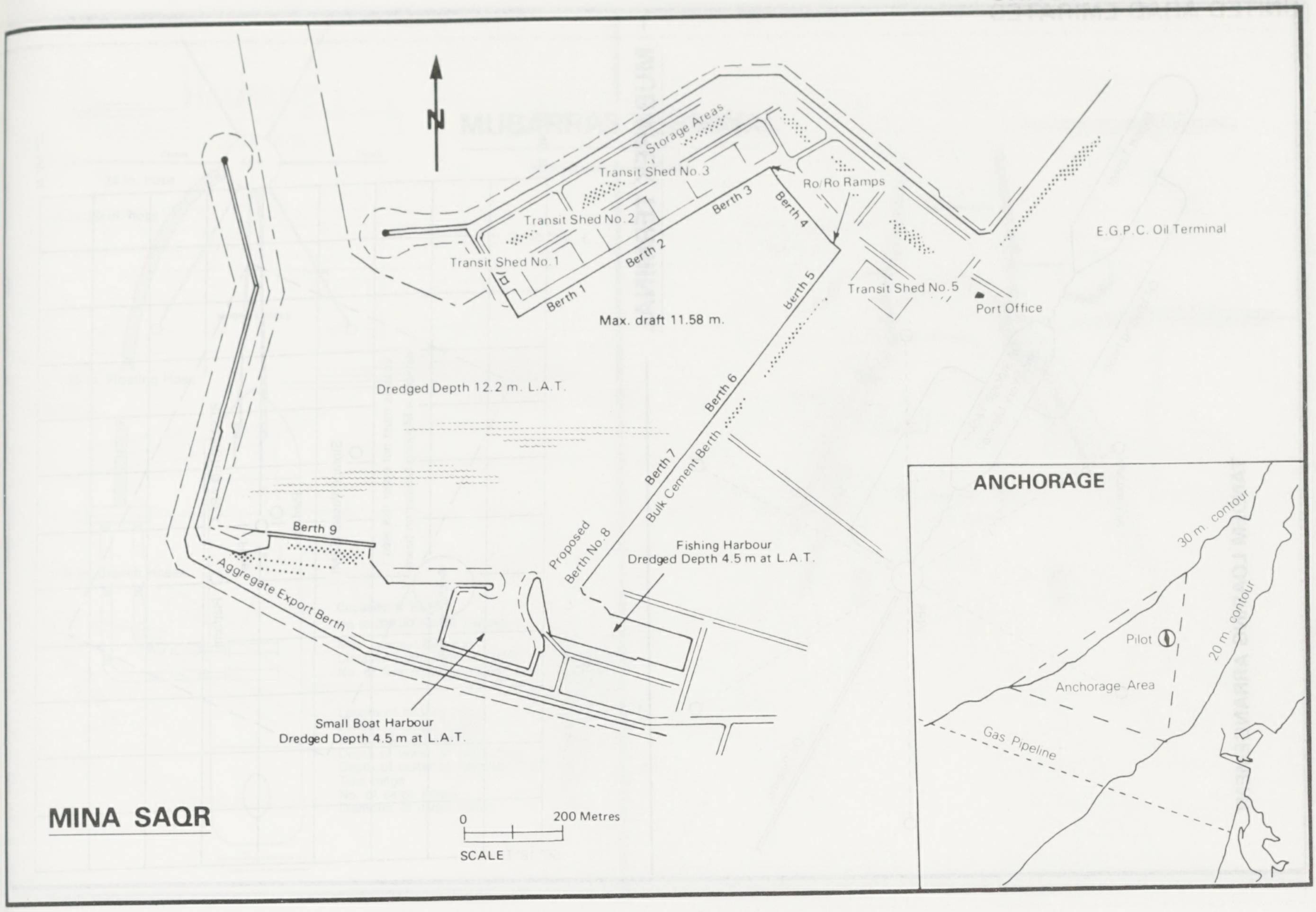
UREA BERTH

Timber Edging
Sub Station
Wharf Side Cabin
Mooring Dolphin
Mooring Dolphin
Mooring Dolphin
Loader Rails
Jetty Landing Stage
Loading Area
Fender Pile
Ammonia Loading Arm
Dredged to
– 12 m.
CROSS SECTION PLAN
Future Conveyor
Conveyor Housing
SHIPLOADER DETAILS
Conveyor Gantry
Ammonia Pipes
100 tonne Beam Bollard
Concrete Pile Cap
Fender Pile
25,000 DWT Bulk Carrier
Support Piles
Dredged to – 12.0 m.



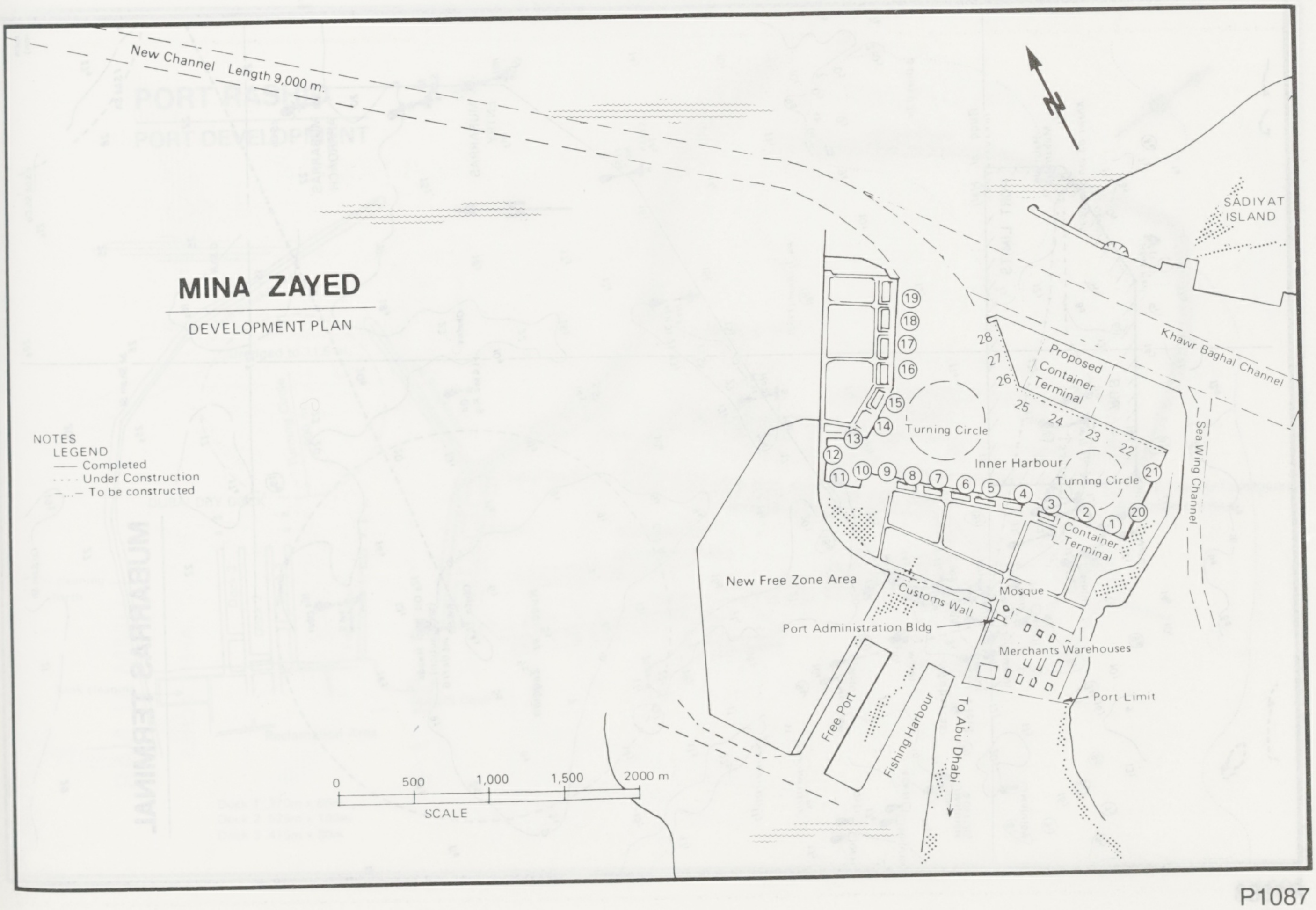
KHOR FAKKAN

Khor
Fakkan
Inlet
New Access Road
Control Point
Water Tower & Storage Tank
Finished Quarry Face
Port
Offices
Existing Wharf
Existing Jetty
Ro-Ro
Parking
Area
Bridge
Ro/Ro Platform
TO FUJAIRAH
Rock Breakwater
Yard Cranes
Quay Cranes
430 m.
Dredged
to
–12 m.
Container
Storage
Area
200 m.
200m
Dredged to –12.6 m.
TO DIBBA



MINA SAQR

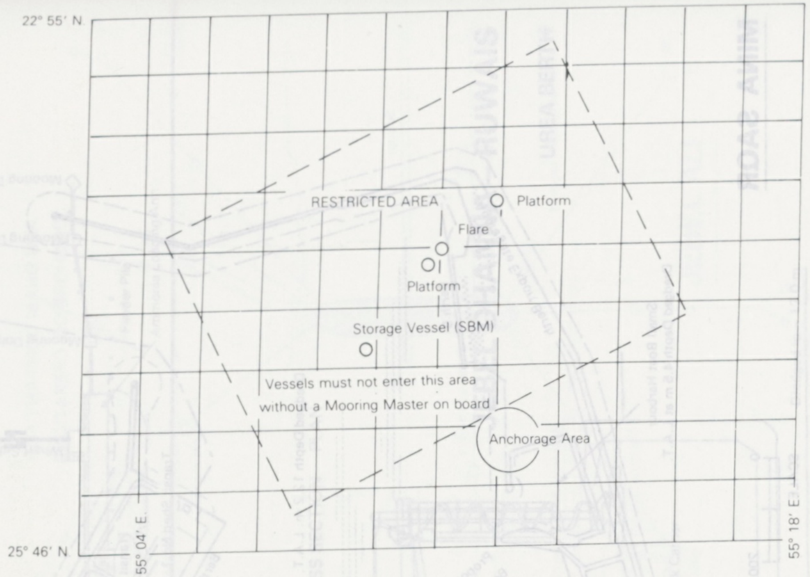
N
Storage Areas
Transit Shed No.3
Transit Shed No.2
Transit Shed No.1
Ro/Ro Ramps
Berth 1
Berth 2
Berth 3
Berth 4
Berth 5
Berth 6
Berth 7
Bulk Cement Berth
Proposed Berth No.8
Berth 9
Transit Shed No.5
Port Office
E.G.P.C. Oil Terminal
Max. draft 11.58 m.
Dredged Depth 12.2 m. L.A.T.
Fishing Harbour
Dredged Depth 4.5 m at L.A.T.
Aggregate Export Berth
Small Boat Harbour
Dredged Depth 4.5 m at L.A.T.
0
200 Metres
SCALE
ANCHORAGE
30 m. contour
20 m. contour
Pilot
Anchorage Area
Gas Pipeline



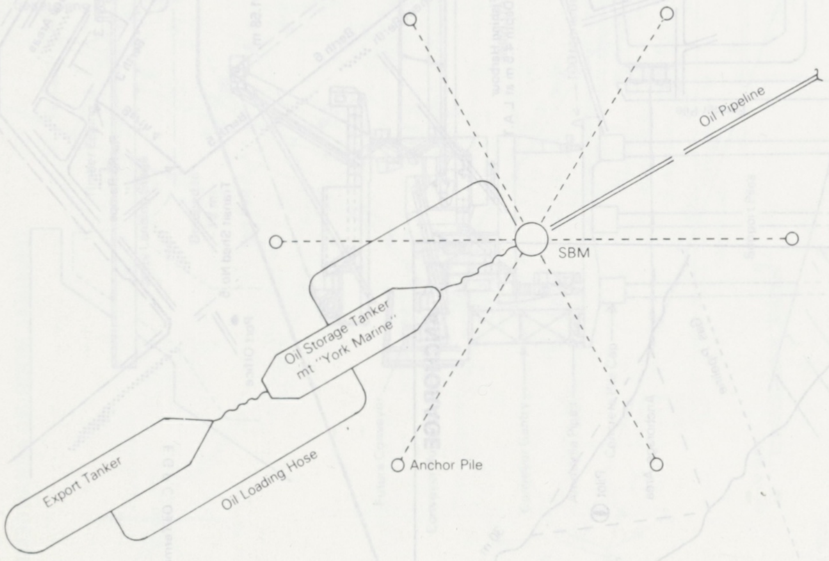
MINA ZAYED

DEVELOPMENT PLAN

New Channel Length 9,000 m.
N
SADIYAT ISLAND
Khawr Baghal Channel
Sea Wing Channel
Proposed Container Terminal
28
27
26
25
24
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
Turning Circle
Inner Harbour
Turning Circle
Container Terminal
New Free Zone Area
Customs Wall
Mosque
Port Administration Bldg
Merchants Warehouses
Port Limit
Free Port
Fishing Harbour
To Abu Dhabi
NOTES
LEGEND
—— Completed
· · · · Under Construction
–...– To be constructed
0
500
1,000
1,500
2000 m
SCALE

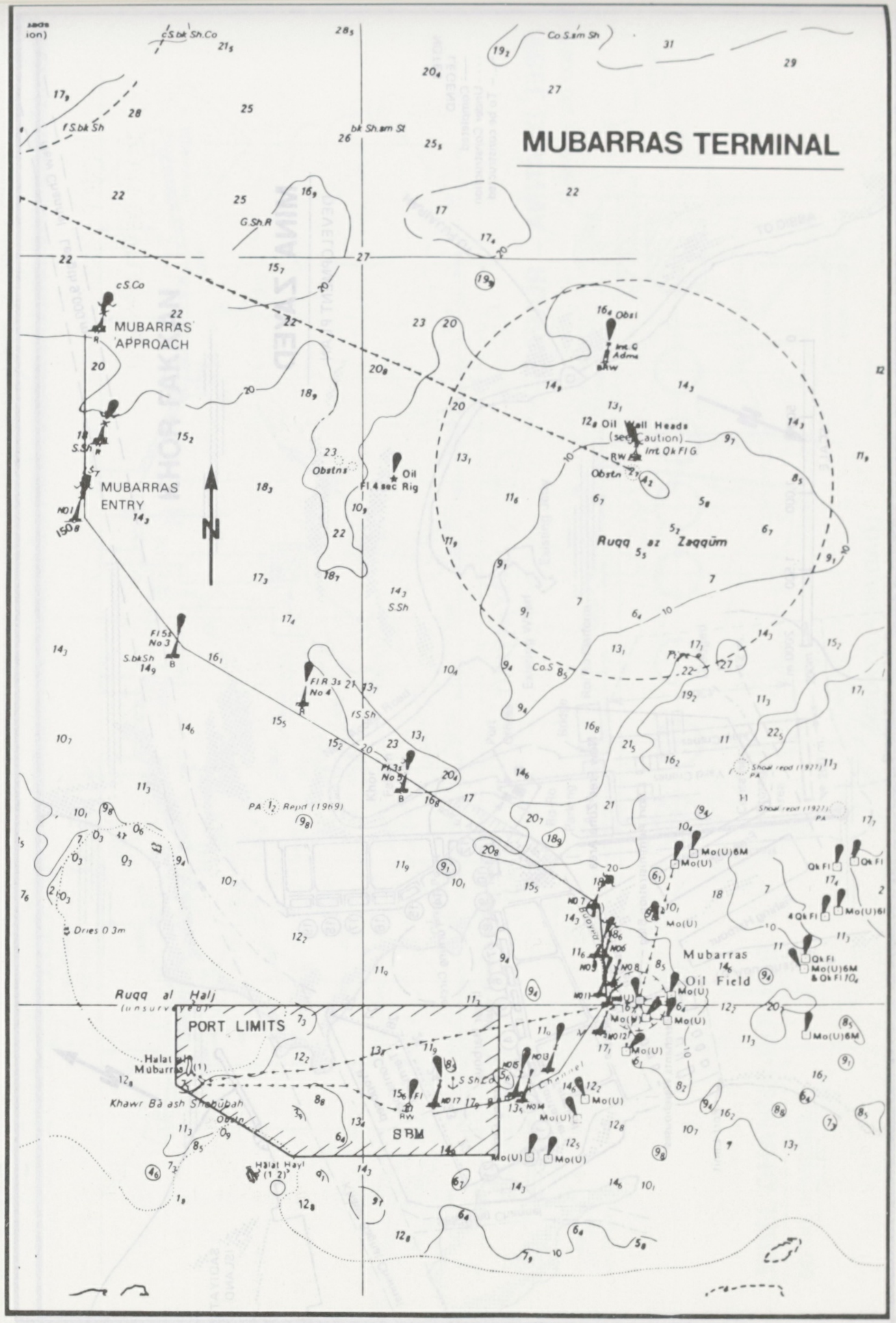

22° 55' N
25° 46' N
55° 04' E
55° 18' E
RESTRICTED AREA
Platform
Flare
Platform
Storage Vessel (SBM)
Vessels must not enter this area without a Mooring Master on board
Anchorage Area

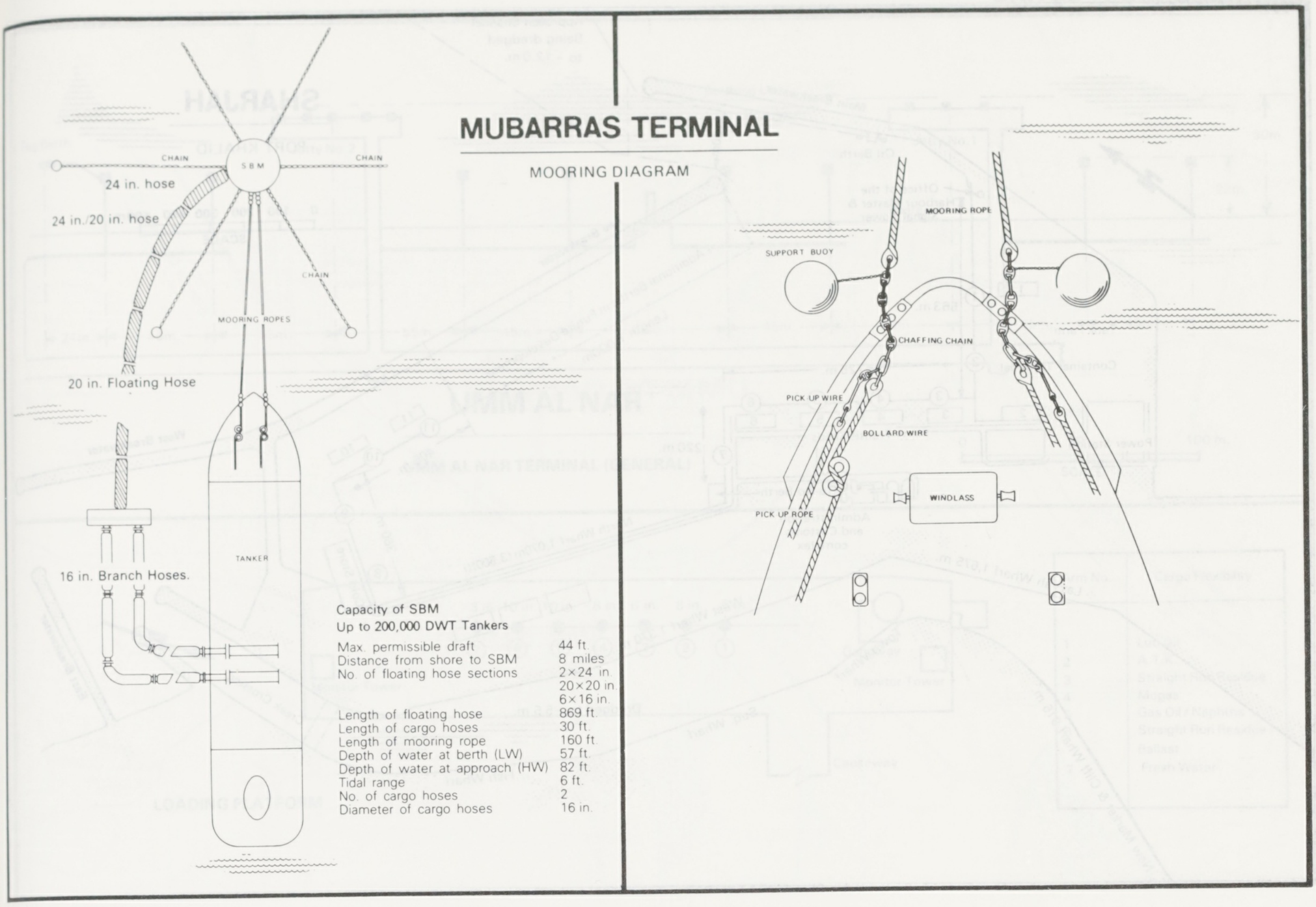
MUBAREK TERMINAL


Oil Pipeline
SBM
Oil Storage Tanker mt "York Marine"
Export Tanker
Oil Loading Hose
Anchor Pile

TANDEM LOADING ARRANGEMENT

MUBARRAS TERMINAL


MUBARRAS APPROACH
MUBARRAS ENTRY
Oil Rig
Oil Well Heads (see caution)
Ruqq az Zaqqūm
Mubarras Oil Field
Ruqq al Halj (unsurveyed)
PORT LIMITS
Halat al Mubarras
Khawr Bā ash Shubūbah
Halat Hayl
SBM
Dries 0.3m
N



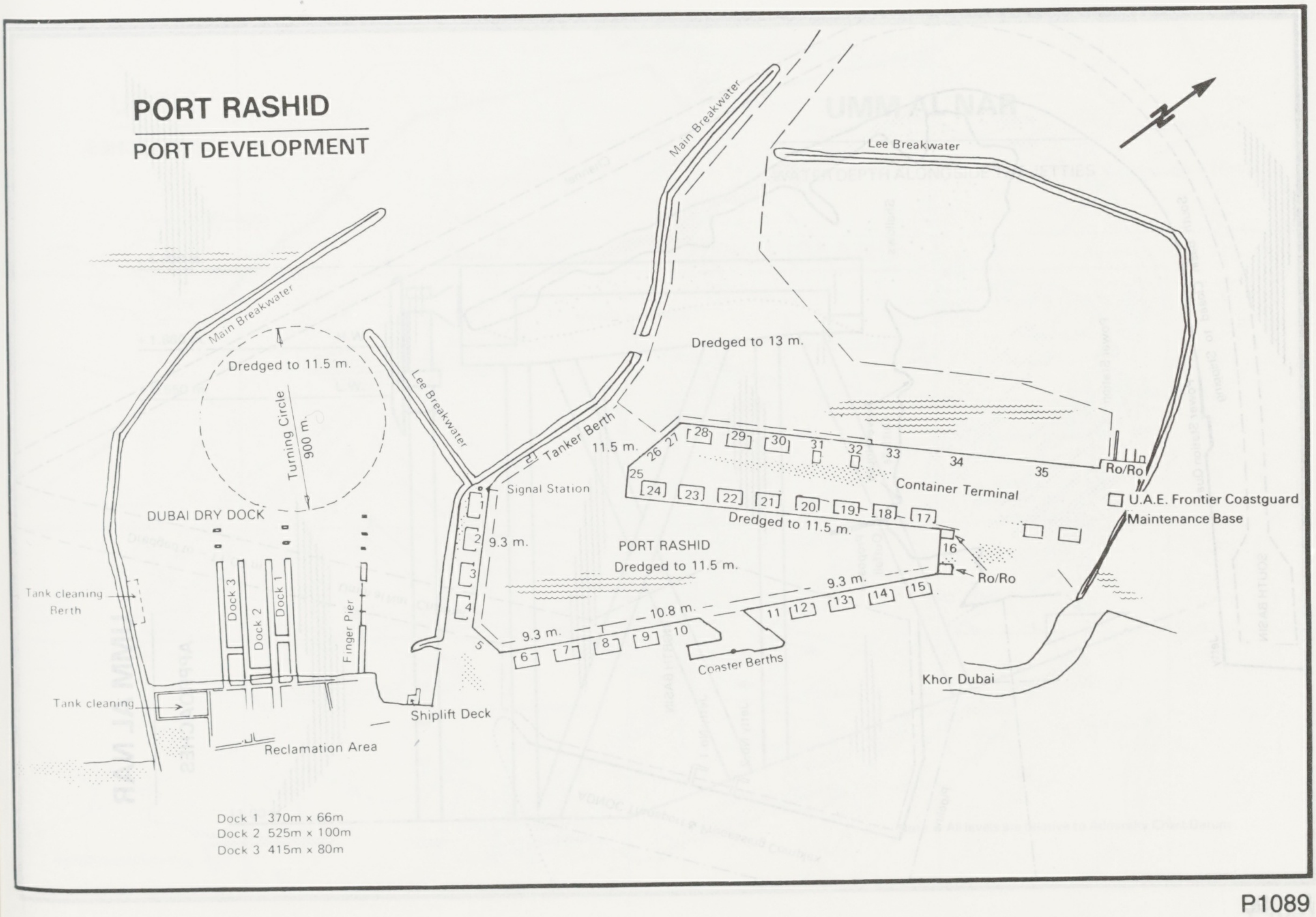
MUBARRAS TERMINAL

MOORING DIAGRAM

CHAIN
SBM
CHAIN
24 in. hose
24 in./20 in. hose
CHAIN
MOORING ROPES
20 in. Floating Hose
16 in. Branch Hoses.
TANKER
MOORING ROPE
SUPPORT BUOY
CHAFFING CHAIN
PICK UP WIRE
BOLLARD WIRE
WINDLASS
PICK UP ROPE

Capacity of SBM
Up to 200,000 DWT Tankers

Max. permissible draft	44 ft.
Distance from shore to SBM	8 miles
No. of floating hose sections	2×24 in. 20×20 in. 6×16 in.
Length of floating hose	869 ft.
Length of cargo hoses	30 ft.
Length of mooring rope	160 ft.
Depth of water at berth (LW)	57 ft.
Depth of water at approach (HW)	82 ft.
Tidal range	6 ft.
No. of cargo hoses	2
Diameter of cargo hoses	16 in.

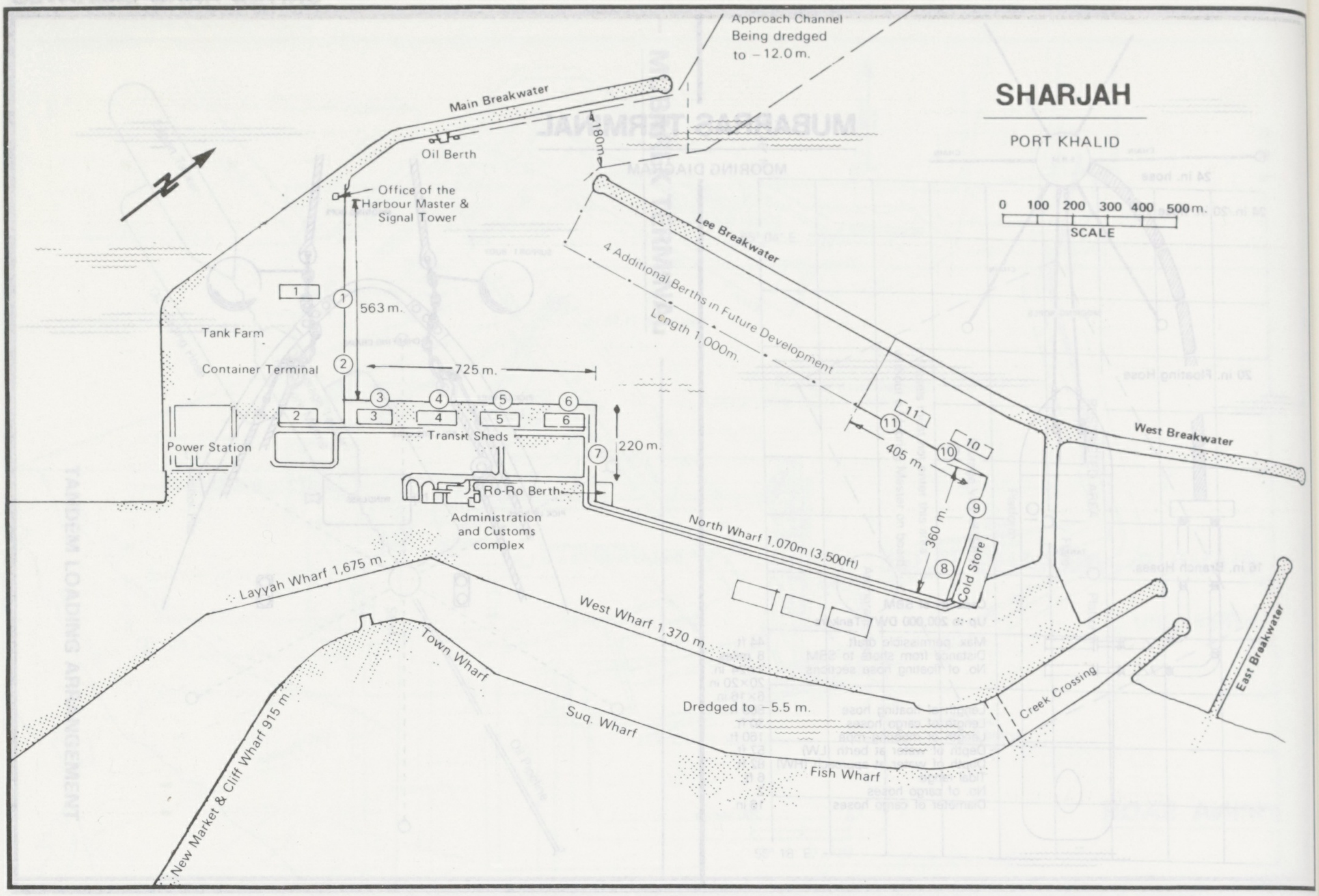


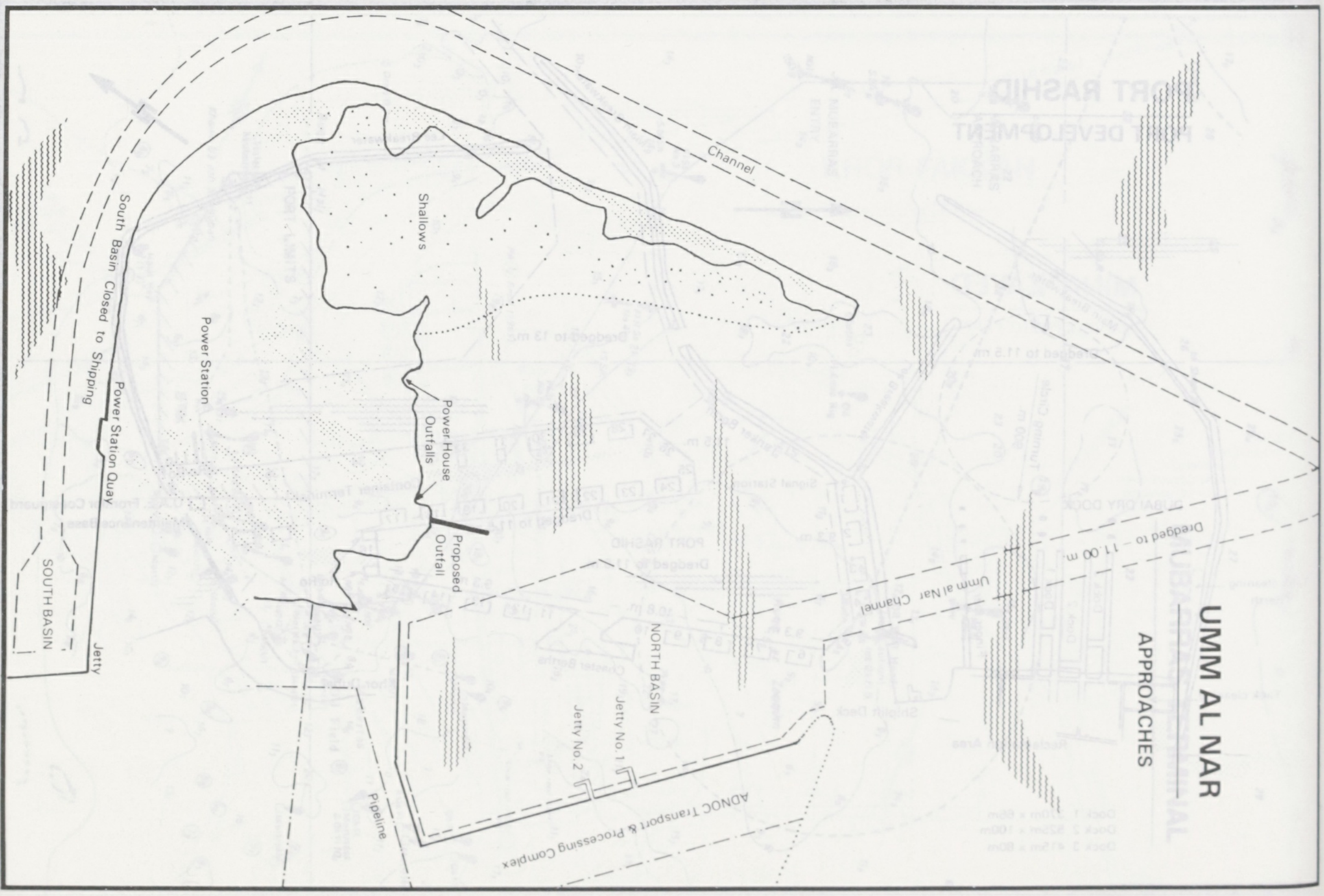
PORT RASHID

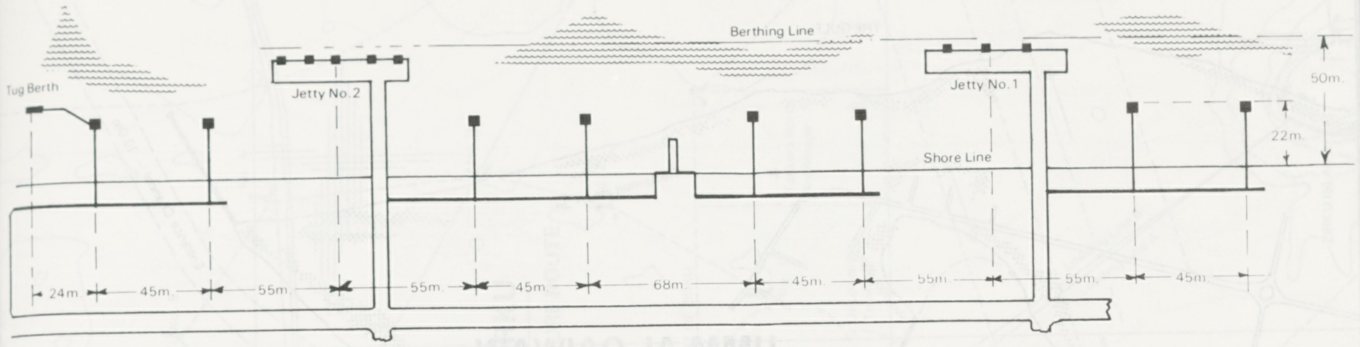
PORT DEVELOPMENT

Main Breakwater
Dredged to 11.5 m.
Turning Circle
900 m.
Lee Breakwater
Main Breakwater
Lee Breakwater
Dredged to 13 m.
Tanker Berth
11.5 m.
25
26
27
28
29
30
31
32
33
34
35
Ro/Ro
U.A.E. Frontier Coastguard
Maintenance Base
Container Terminal
24
23
22
21
20
19
18
17
Signal Station
Dredged to 11.5 m.
16
Ro/Ro
1
2
9.3 m.
3
4
PORT RASHID
Dredged to 11.5 m.
9.3 m.
15
14
13
12
11
5
9.3 m.
10.8 m.
6
7
8
9
10
Coaster Berths
Khor Dubai
DUBAI DRY DOCK
Tank cleaning
Berth
Dock 3
Dock 2
Dock 1
Finger Pier
Tank cleaning
Shiplift Deck
Reclamation Area

Dock 1 370m × 66m
Dock 2 525m × 100m
Dock 3 415m × 80m

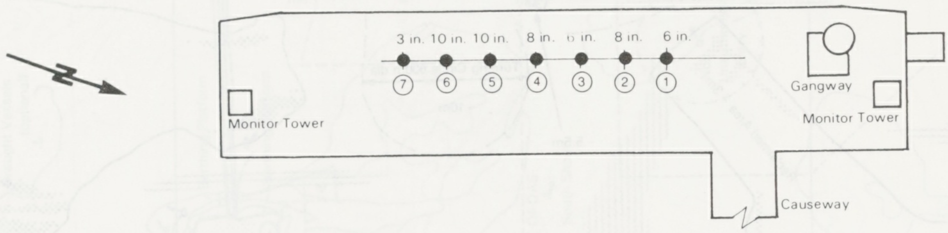

SHARJAH
PORT KHALID
0 100 200 300 400 500m.
SCALE
Approach Channel Being dredged to −12.0 m.
Main Breakwater
Oil Berth
180m
Office of the Harbour Master & Signal Tower
Lee Breakwater
4 Additional Berths in Future Development
Length 1,000m.
1
563 m.
Tank Farm
Container Terminal
725 m.
2
3
4
5
6
Transit Sheds
Power Station
7
220 m.
Ro-Ro Berth
Administration and Customs complex
North Wharf 1,070m (3,500ft)
11
10
405 m.
9
360 m
8
Cold Store
West Breakwater
East Breakwater
Creek Crossing
Layyah Wharf 1,675 m.
West Wharf 1,370 m.
Town Wharf
Suq. Wharf
Dredged to −5.5 m.
Fish Wharf
New Market & Cliff Wharf 915 m.


UMM AL NAR
APPROACHES
Channel
Shallows
Power Station
South Basin Closed to Shipping
Power Station Quay
SOUTH BASIN
Jetty
Power House Outfalls
Proposed Outfall
Umm al Nar Channel
Dredged to −11.00 m.
NORTH BASIN
Jetty No.1
Jetty No.2
Pipeline
ADNOC Transport & Processing Complex


Tug Berth
Jetty No.2
Berthing Line
Jetty No.1
50m.
22m.
Shore Line
24m.
45m.
55m.
55m.
45m.
68m.
45m
55m.
55m.
45m.
0
50
100 m.
SCALE

UMM AL NAR

UMM AL NAR TERMINAL (GENERAL)

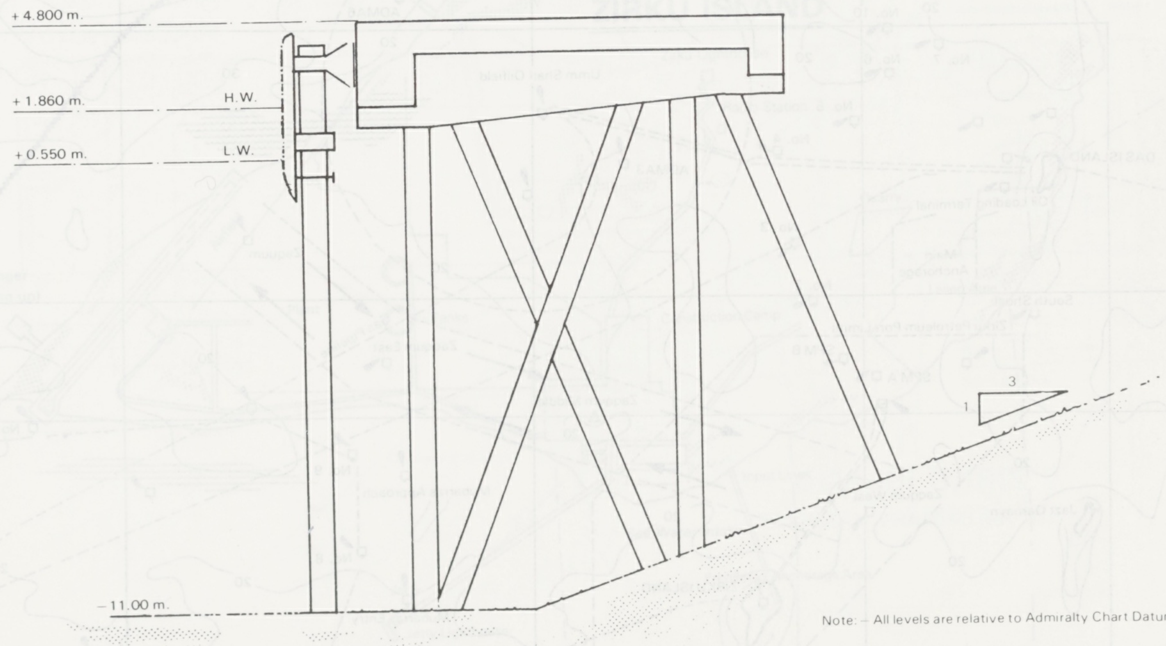

3 in.
10 in.
10 in.
8 in.
6 in.
8 in.
6 in.
⑦
⑥
⑤
④
③
②
①
Monitor Tower
Gangway
Monitor Tower
Causeway

Arm No.	Cargo Flexibility
1	Lub Oil
2	A.T.K.
3	Straight Run Residue
4	Mogas
5	Gas Oil / Naphtha
6	Straight Run Residue / Ballast
7	Fresh Water

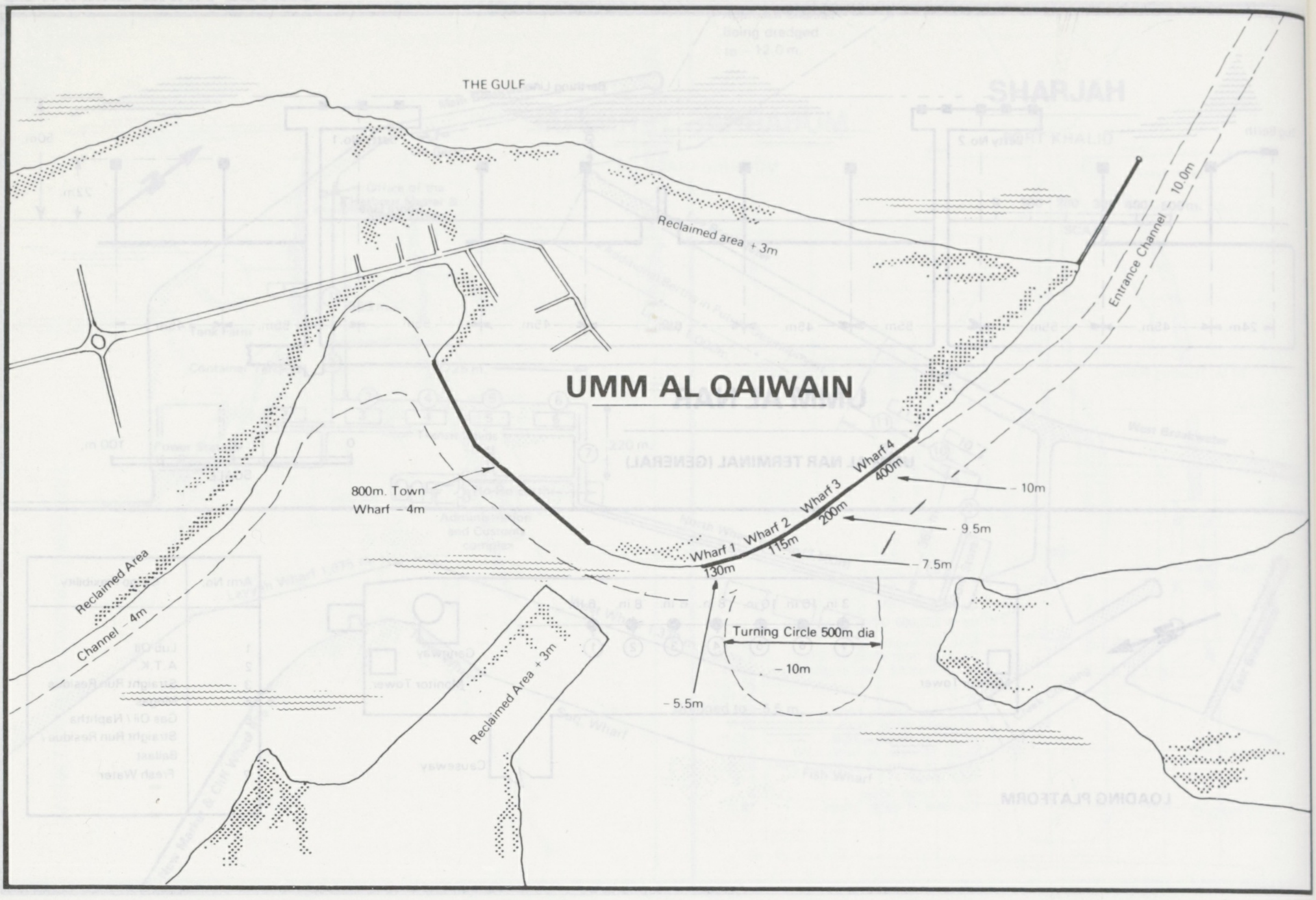
LOADING PLATFORM

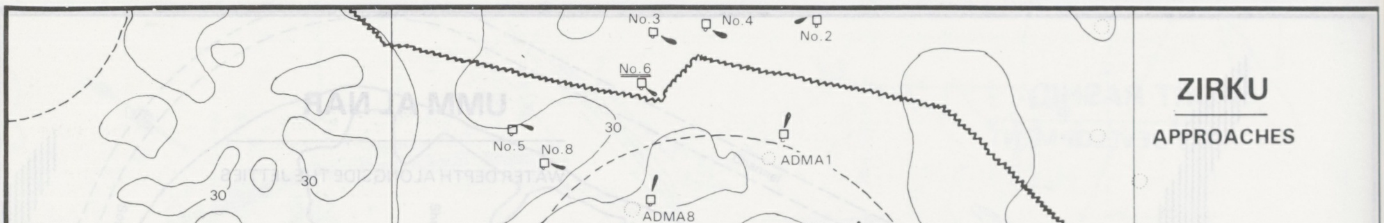
UMM AL NAR

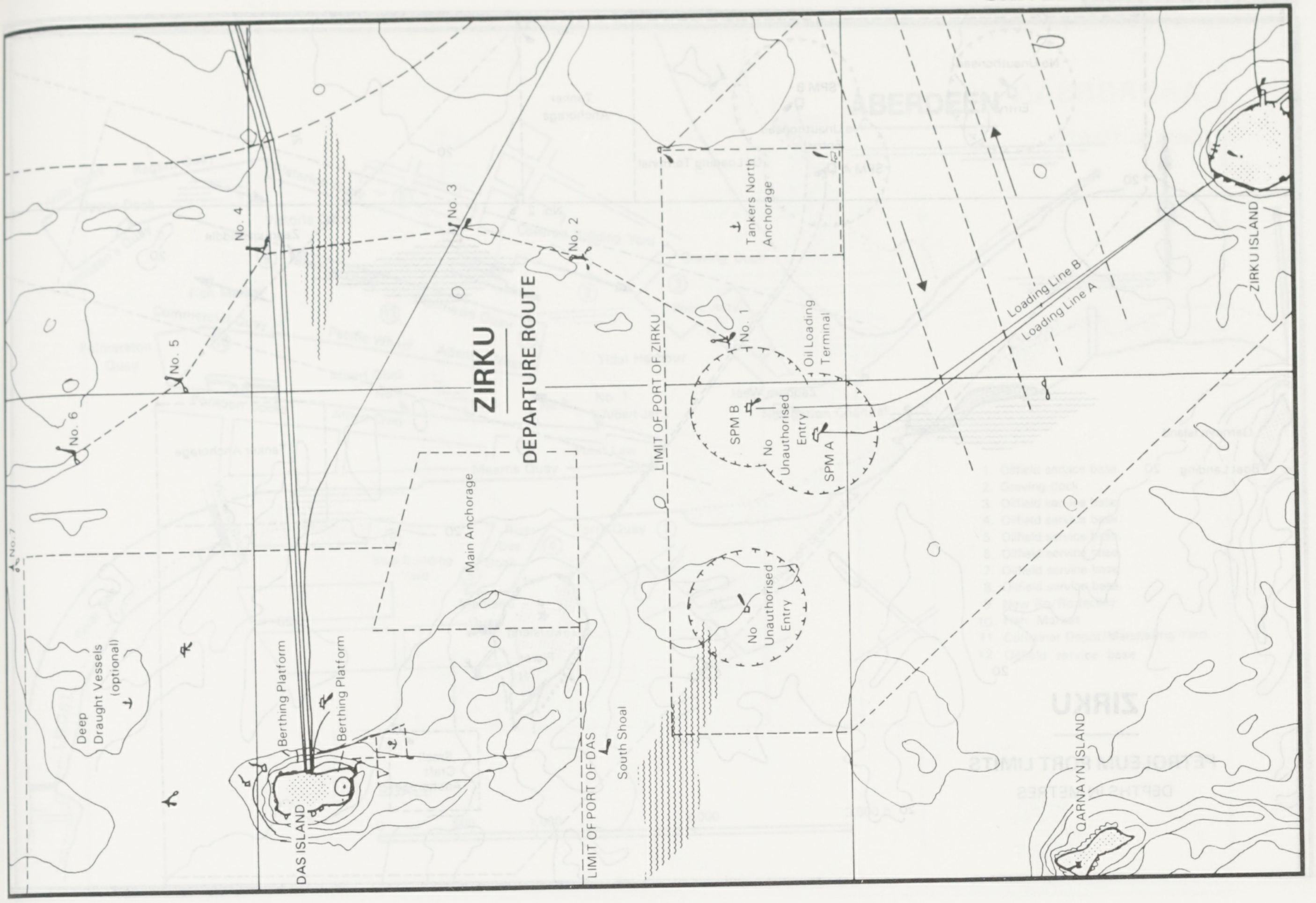
WATER DEPTH ALONGSIDE THE JETTIES

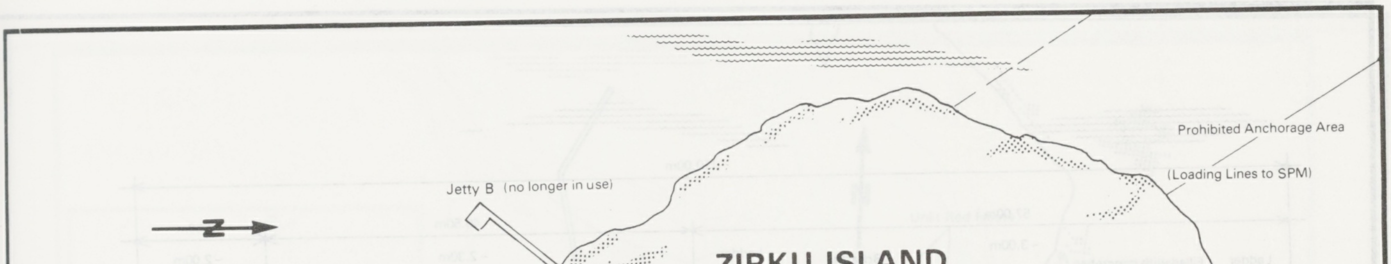

+ 4.800 m.
+ 1.860 m.
H.W.
+ 0.550 m.
L.W.
– 11.00 m.
3
1

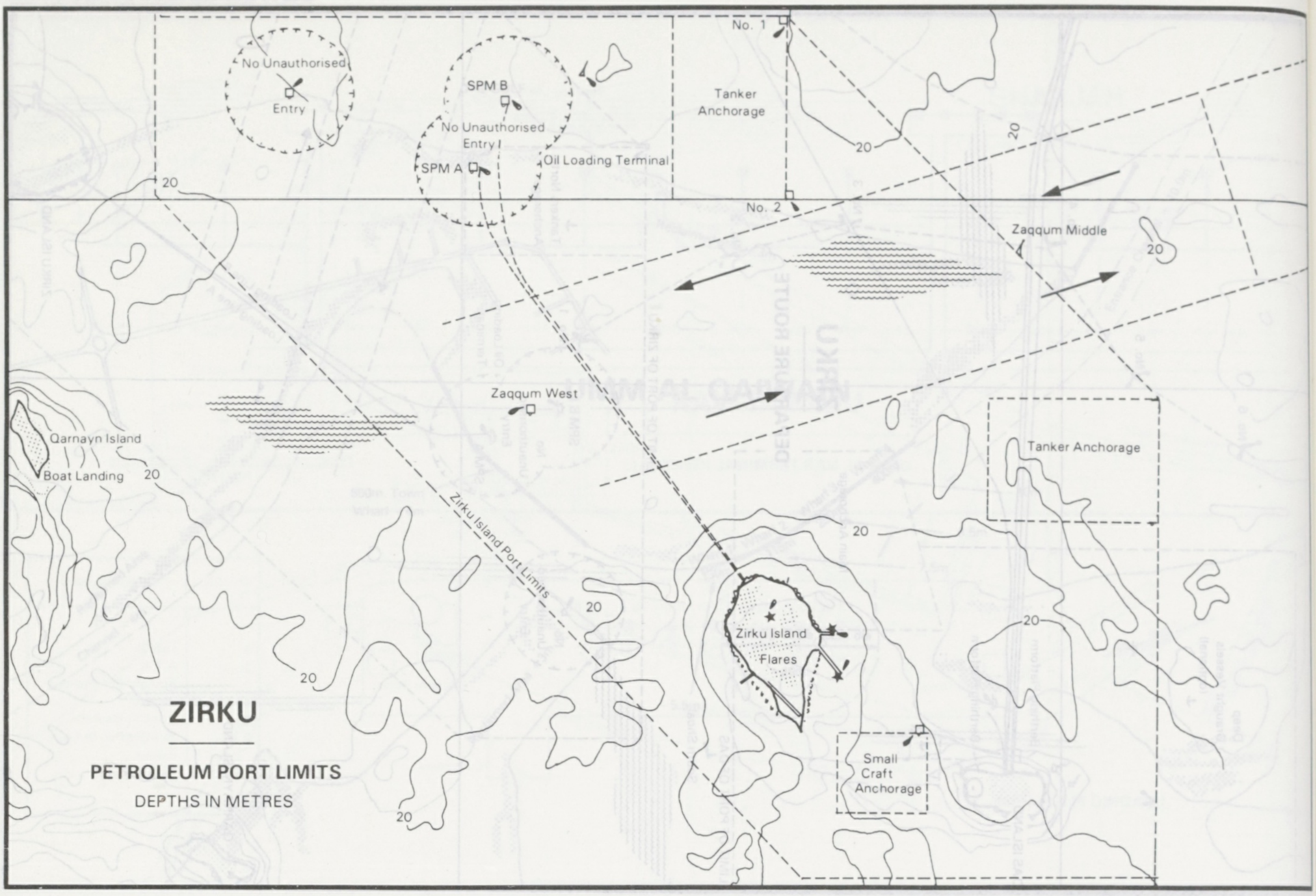
Note: – All levels are relative to Admiralty Chart Datum


THE GULF
UMM AL QAIWAIN
Reclaimed area +3m
Entrance Channel 10.0m
Wharf 4
Wharf 3
Wharf 2
Wharf 1
400m
200m
115m
130m
-10m
-9.5m
-7.5m
800m. Town
Wharf -4m
Reclaimed Area
Channel -4m
Reclaimed Area +3m
Turning Circle 500m dia
-10m
-5.5m


ZIRKU
APPROACHES
No. 3
No. 4
No. 2
No. 6
No. 5
No. 8
30
ADMA 1
ADMA8
ADMA6
No. 10
No. 7
No. 6
20
Umm Shaif Oilfield
No. 5
No. 4
DAS ISLAND
ADMA3
Oil Loading Terminal
No. 3
Main
Anchorage
Zaqum
South Shoal
No. 2
Gas Pipeline
Zirku Petroleum Port Limits
SPM B
Zaqqum East
SPM A
Zaqqum Middle
No. 11
No. 9
Mubarras Approach
Zaqqum West
Jazt Qarnayn
No. 8
ZIRKU ISLAND
Mubarras Entry
Zaqqum Oilfield


ZIRKU
DEPARTURE ROUTE
No. 1
No. 2
No. 3
No. 4
No. 5
No. 6
No. 7
Tankers North Anchorage
LIMIT OF PORT OF ZIRKU
Oil Loading Terminal
SPM B
No Unauthorised Entry
SPM A
Loading Line B
Loading Line A
ZIRKU ISLAND
Main Anchorage
No Unauthorised Entry
Deep Draught Vessels (optional)
Berthing Platform
Berthing Platform
DAS ISLAND
LIMIT OF PORT OF DAS
South Shoal
QARNAYN ISLAND


Prohibited Anchorage Area
(Loading Lines to SPM)
Jetty B (no longer in use)
N
ZIRKU ISLAND
Zirku Lighthouse
Radio Station
Quarry
Airfield
Jetty A (no longer used due silting up)
Plant
Tanks
Construction Camp
Living Area
Input Lines
Sea Water Intake
Prohibited Anchorage Area
Jetty
Jetty Lighthouse
F.Fl.G(1) 10 s
Temporary Waiting Area

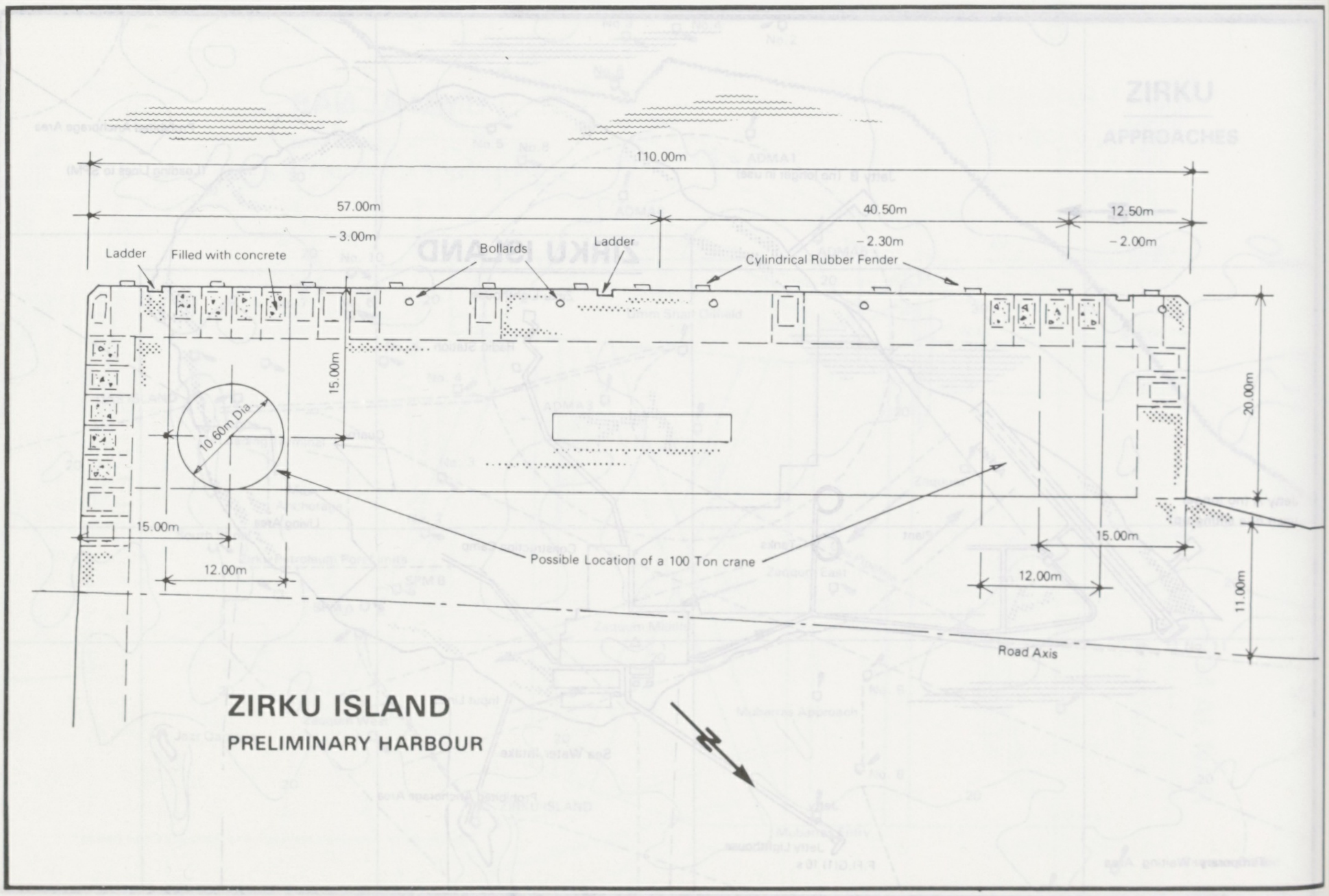


ZIRKU

PETROLEUM PORT LIMITS

DEPTHS IN METRES

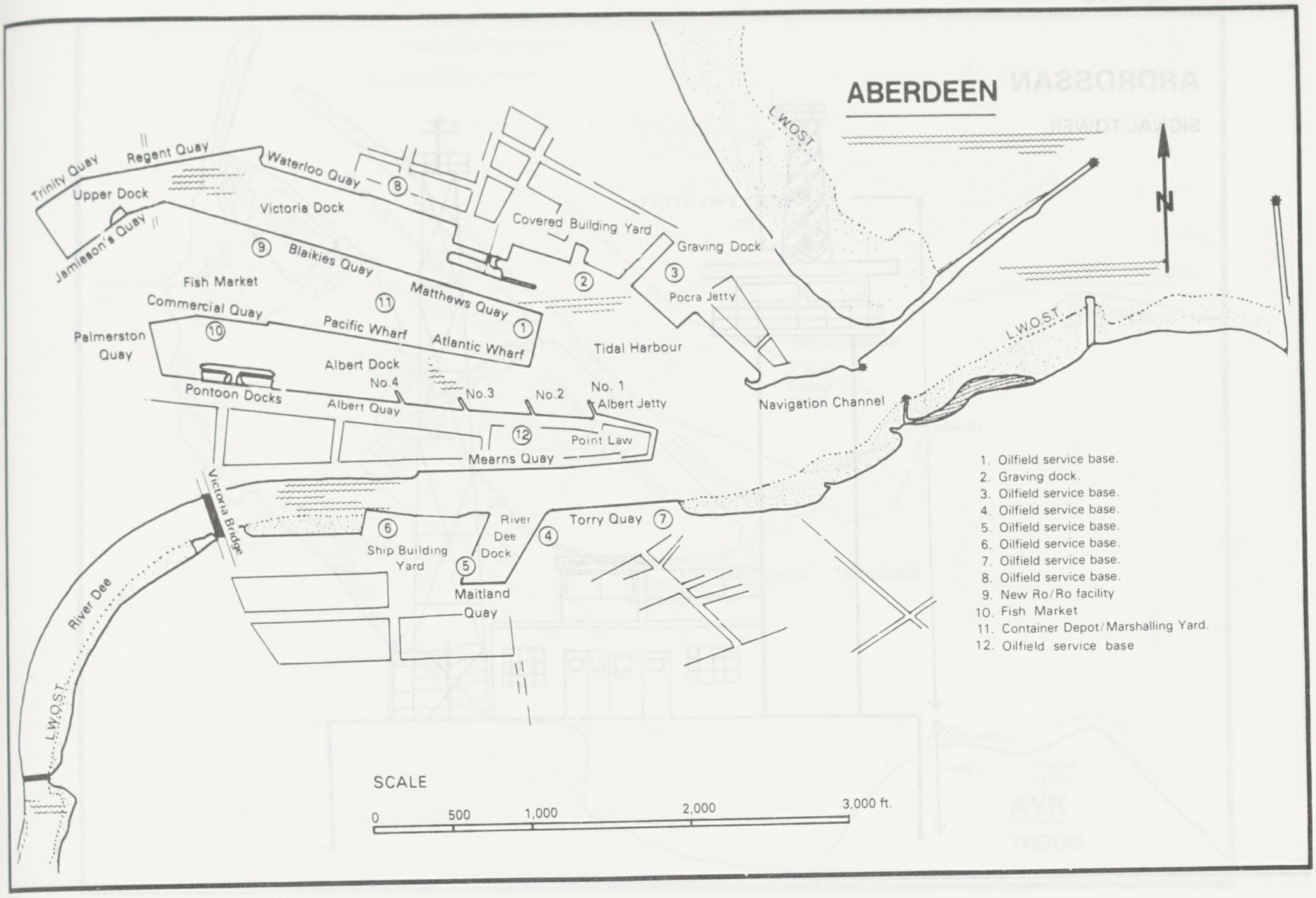
No Unauthorised
Entry
SPM B
No Unauthorised
Entry
SPM A
Oil Loading Terminal
No. 1
Tanker
Anchorage
No. 2
20
Zaqqum Middle
Zaqqum West
Qarnayn Island
Boat Landing
Zirku Island Port Limits
Tanker Anchorage
Zirku Island
Flares
Small
Craft
Anchorage



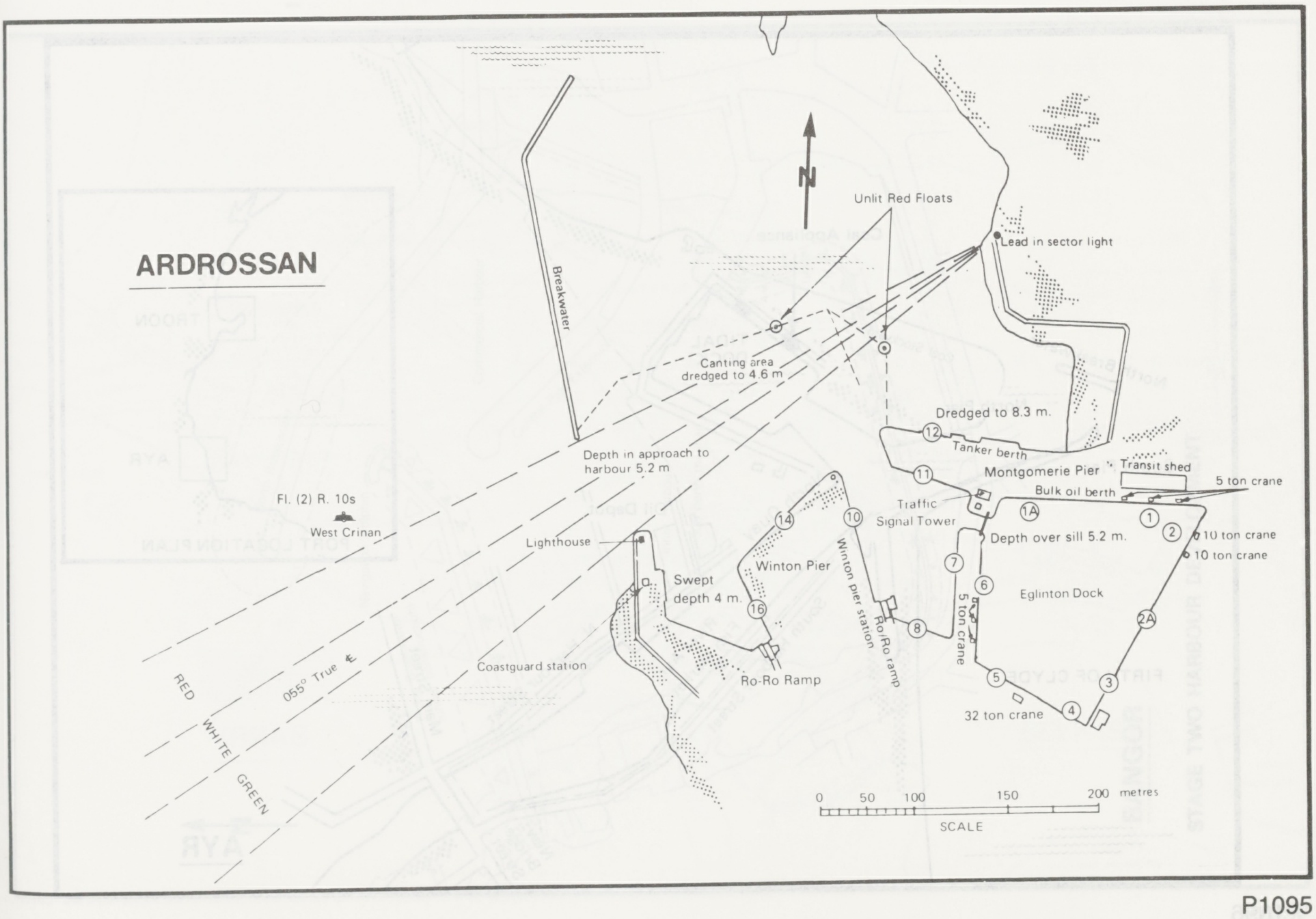
ZIRKU ISLAND

PRELIMINARY HARBOUR

110.00m
57.00m
40.50m
12.50m
– 3.00m
– 2.30m
– 2.00m
Ladder
Filled with concrete
Bollards
Ladder
Cylindrical Rubber Fender
15.00m
10.60m Dia
20.00m
15.00m
12.00m
Possible Location of a 100 Ton crane
15.00m
12.00m
11.00m
Road Axis
N

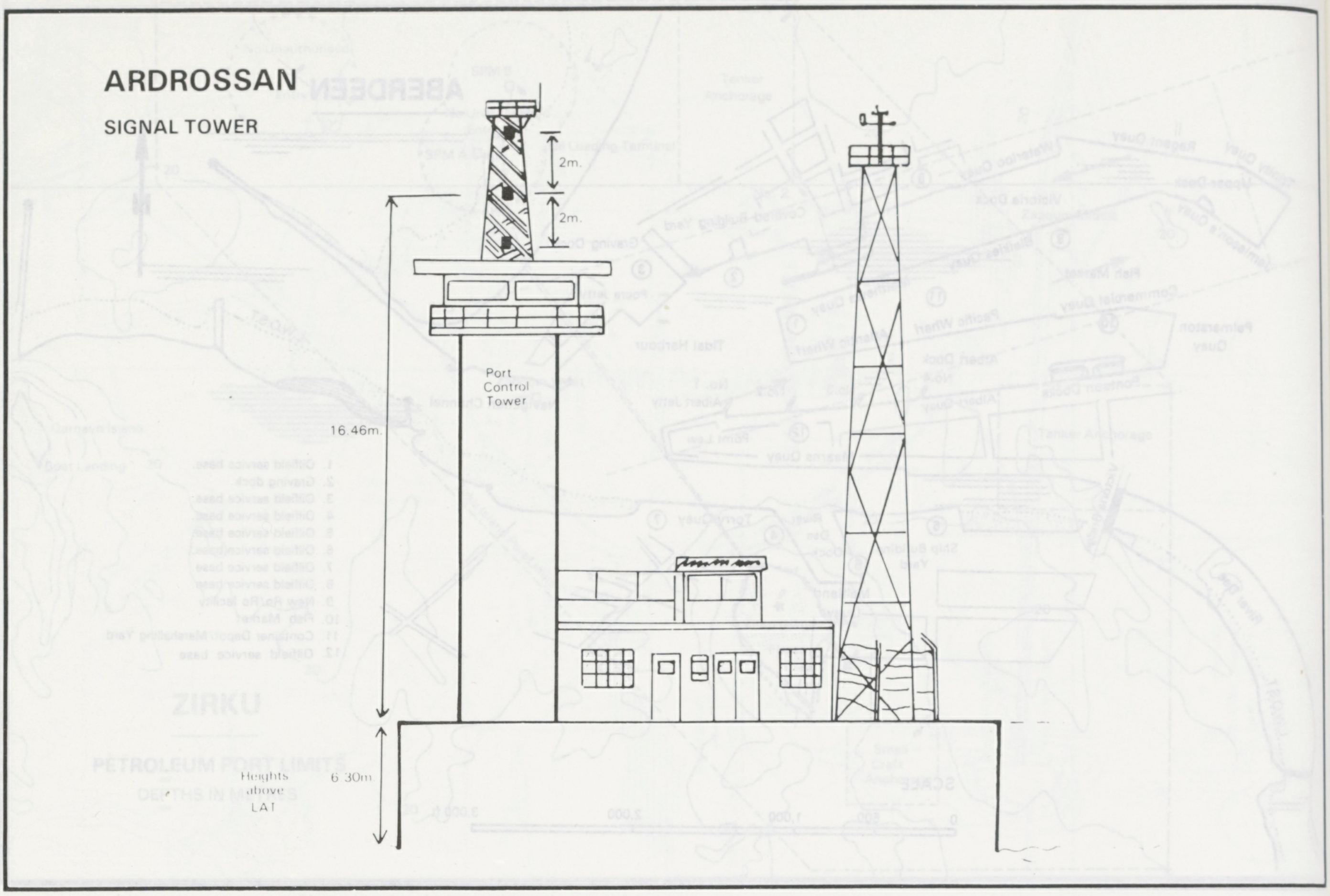

ABERDEEN
N
L.W.O.S.T.
Trinity Quay
Regent Quay
Upper Dock
Waterloo Quay
⑧
Victoria Dock
Jamieson's Quay
⑨
Blaikies Quay
Covered Building Yard
Graving Dock
③
②
Pocra Jetty
Fish Market
Commercial Quay
⑪
Matthews Quay
①
Palmerston Quay
⑩
Pacific Wharf
Atlantic Wharf
Tidal Harbour
Albert Dock
No.4
No.3
No.2
No. 1
Albert Jetty
Pontoon Docks
Albert Quay
Navigation Channel
⑫
Point Law
Mearns Quay
Victoria Bridge
⑥
River Dee Dock
④
Torry Quay
⑦
Ship Building Yard
⑤
Maitland Quay
River Dee
L.W.O.S.T.
SCALE
0
500
1,000
2,000
3,000 ft.

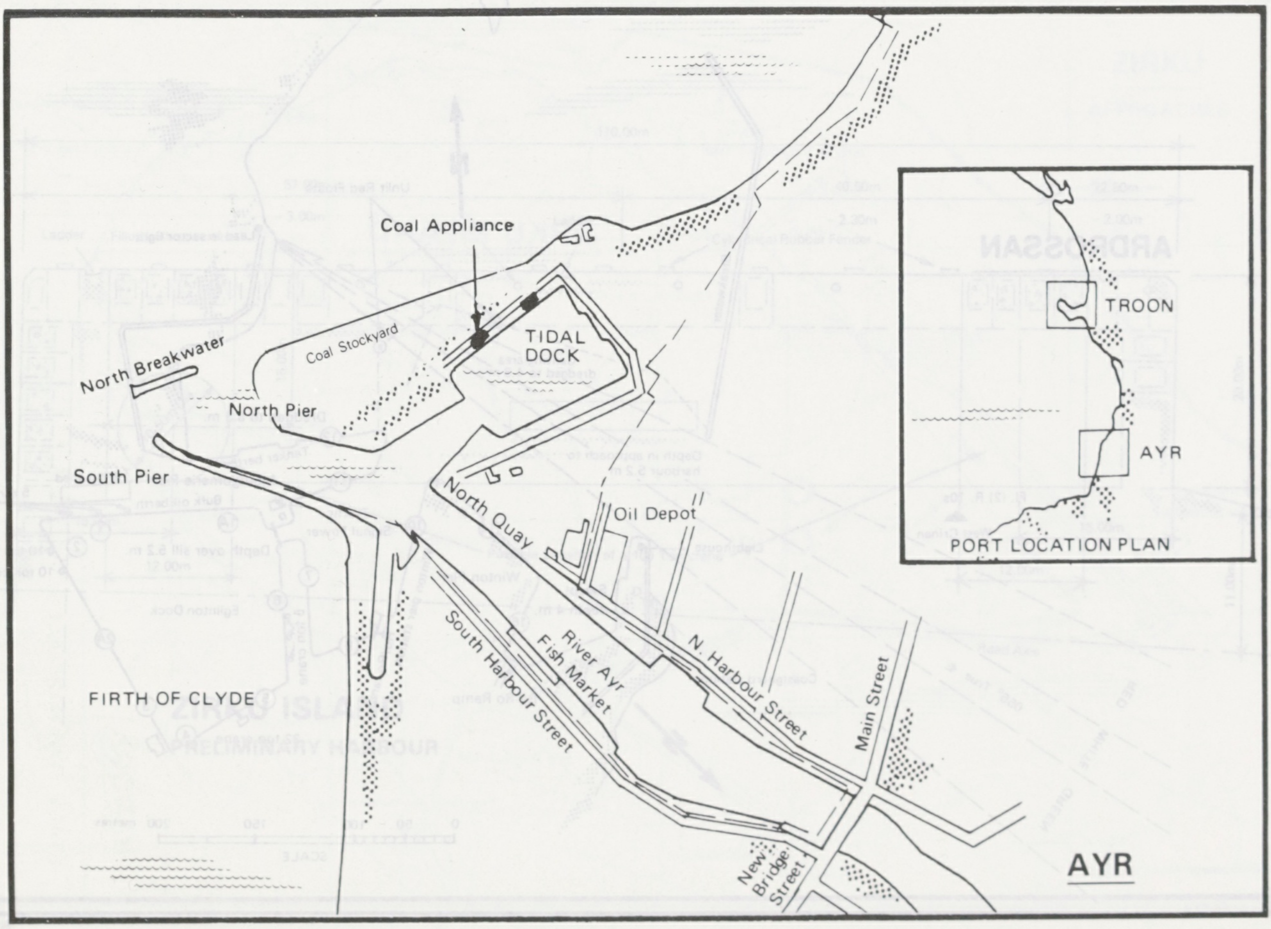
1. Oilfield service base.
2. Graving dock.
3. Oilfield service base.
4. Oilfield service base.
5. Oilfield service base.
6. Oilfield service base.
7. Oilfield service base.
8. Oilfield service base.
9. New Ro/Ro facility
10. Fish Market
11. Container Depot/Marshalling Yard.
12. Oilfield service base

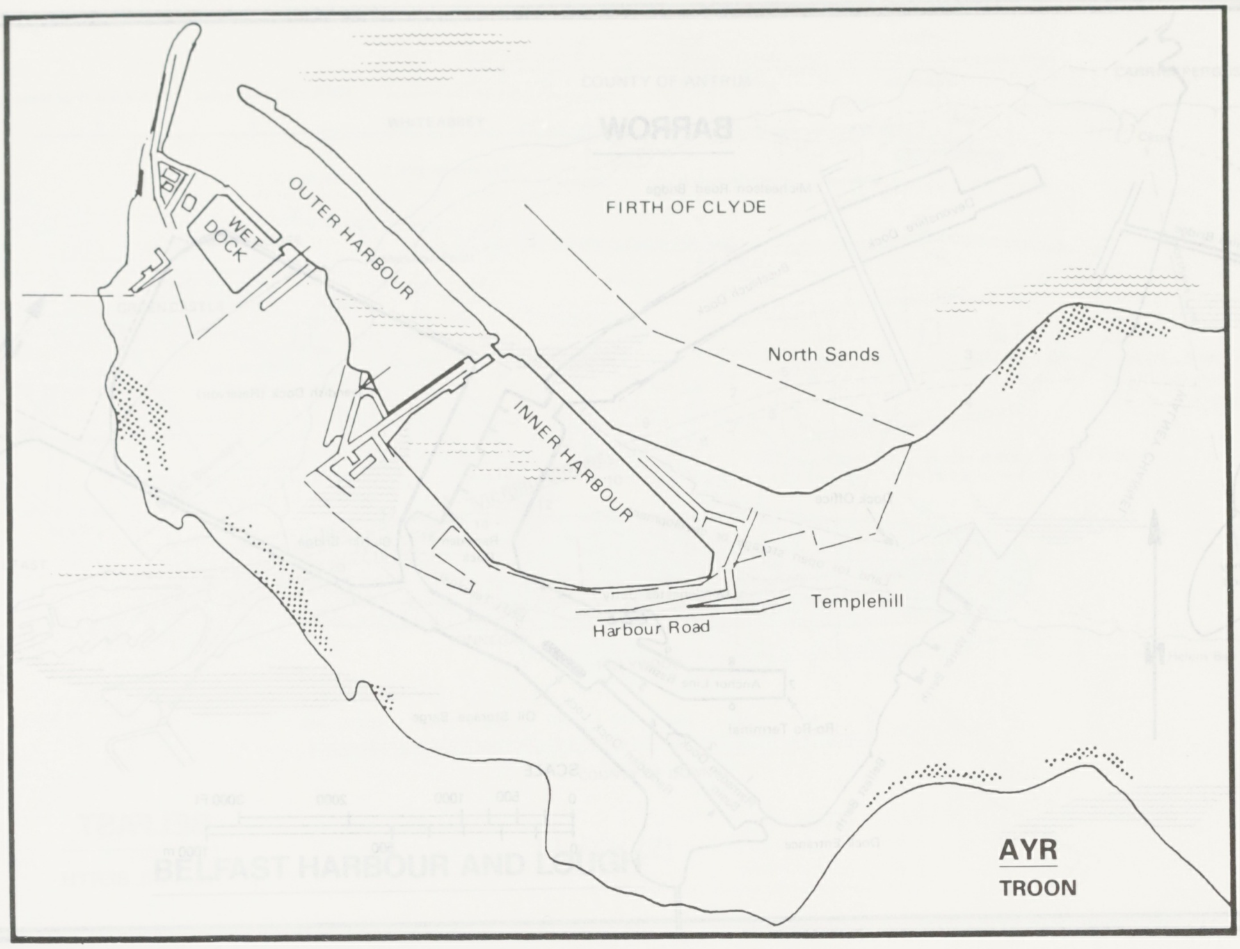

ARDROSSAN
N
Breakwater
Unlit Red Floats
Lead in sector light
Canting area dredged to 4.6 m
Dredged to 8.3 m.
⑫
Tanker berth
Transit shed
⑪
Montgomerie Pier
5 ton crane
Depth in approach to harbour 5.2 m
Bulk oil berth
Traffic Signal Tower
1A
①
②
10 ton crane
10 ton crane
Depth over sill 5.2 m.
Fl. (2) R. 10s
West Crinan
Lighthouse
⑩
⑭
Winton Pier
Winton pier station
⑦
⑥
Eglinton Dock
Swept depth 4 m.
⑯
Ro/Ro ramp
⑧
5 ton crane
2A
Coastguard station
Ro-Ro Ramp
⑤
③
④
32 ton crane
055° True
RED
WHITE
GREEN
0
50
100
150
200
metres
SCALE

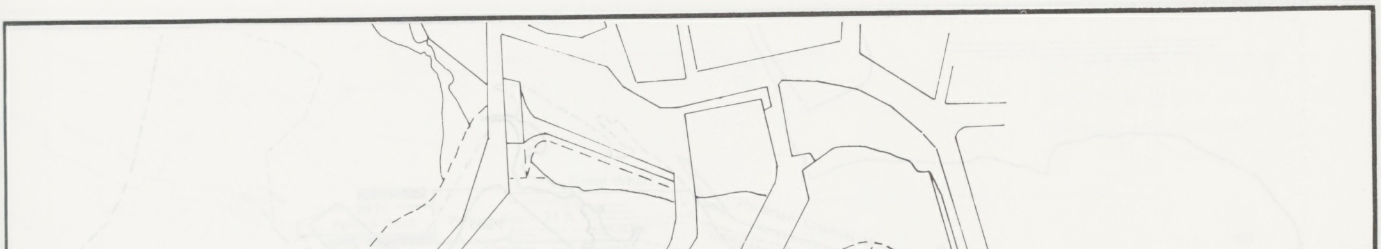
ARDROSSAN

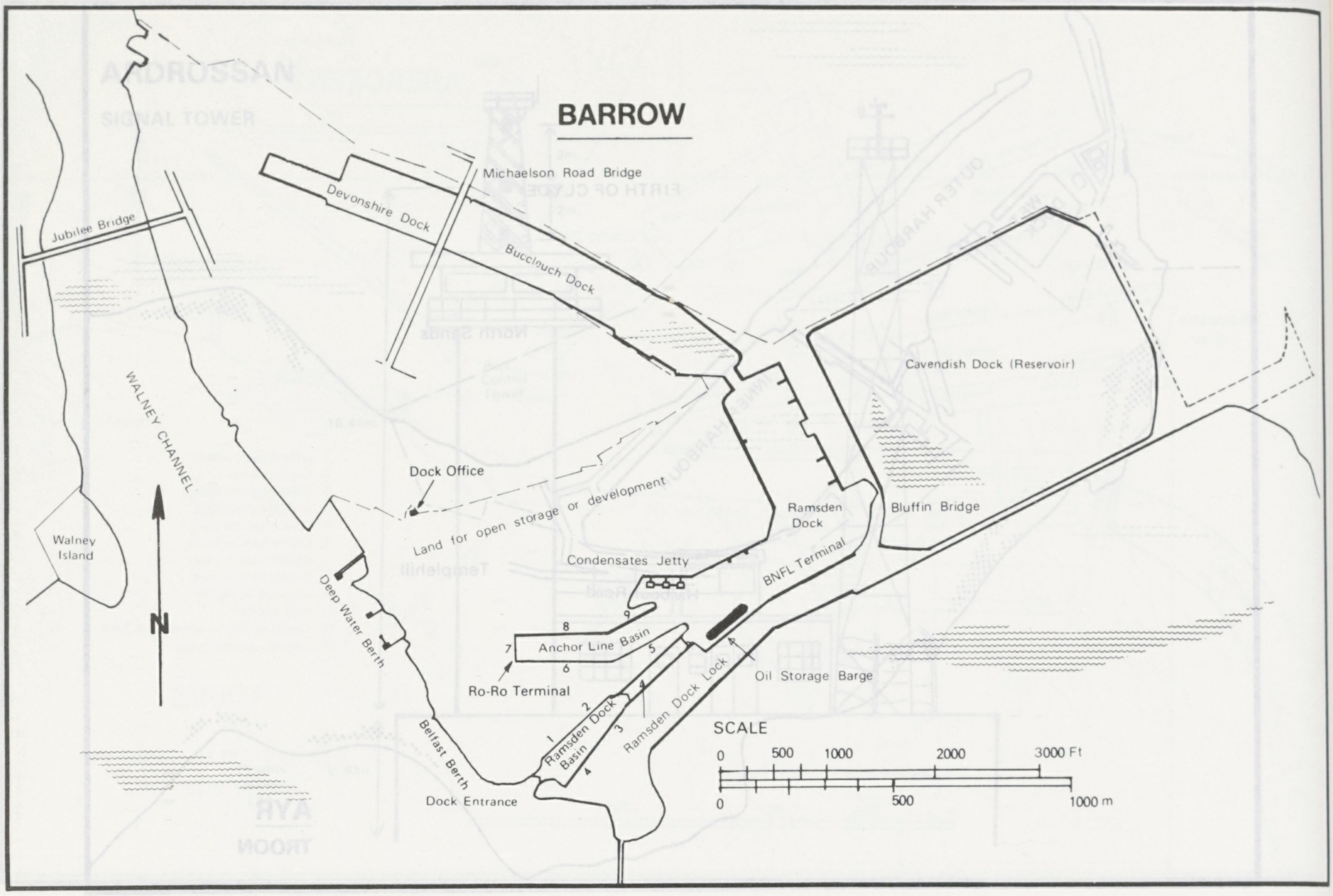
SIGNAL TOWER

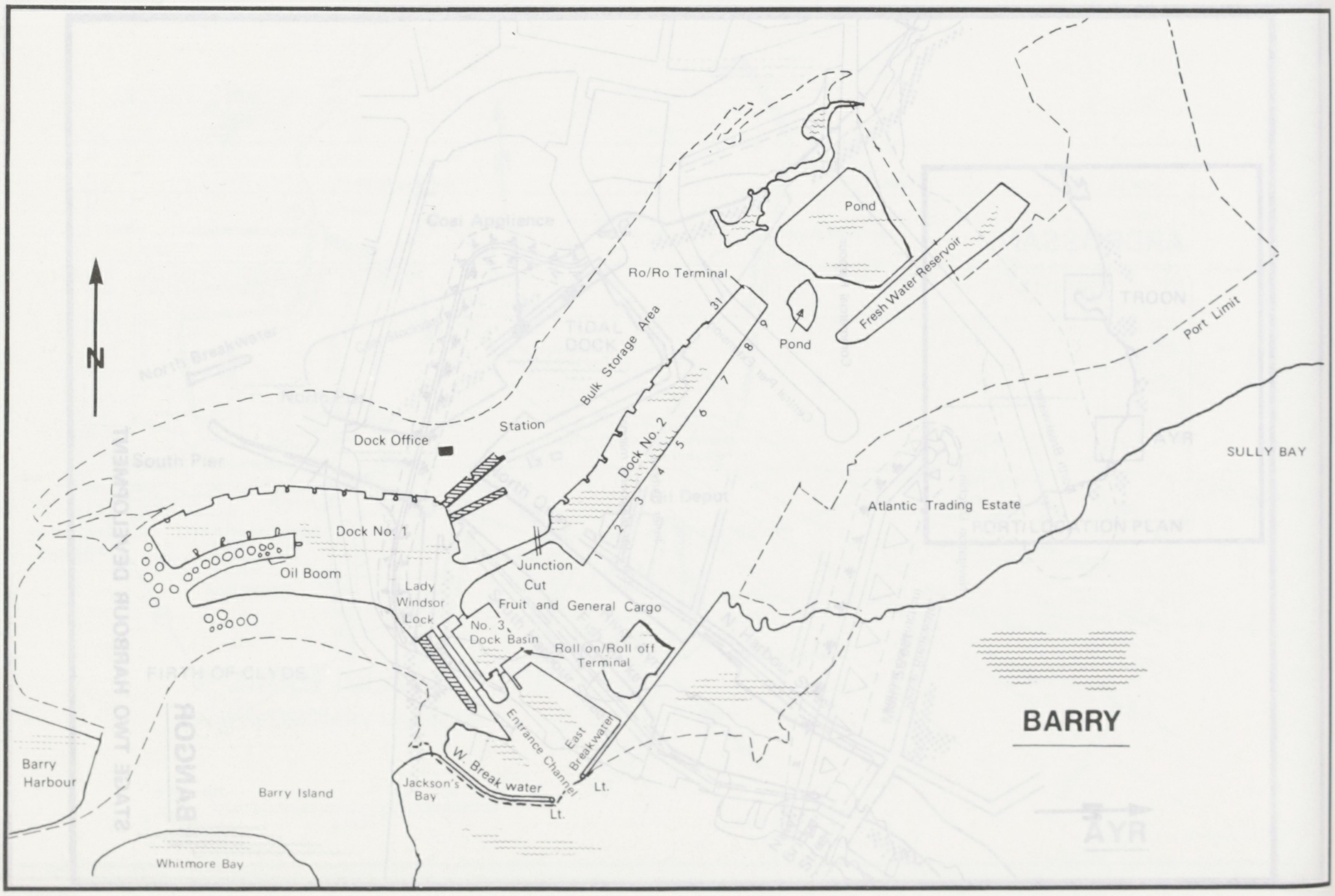

2m.
2m.
Port Control Tower
16.46m.
Heights above LAT
6.30m.

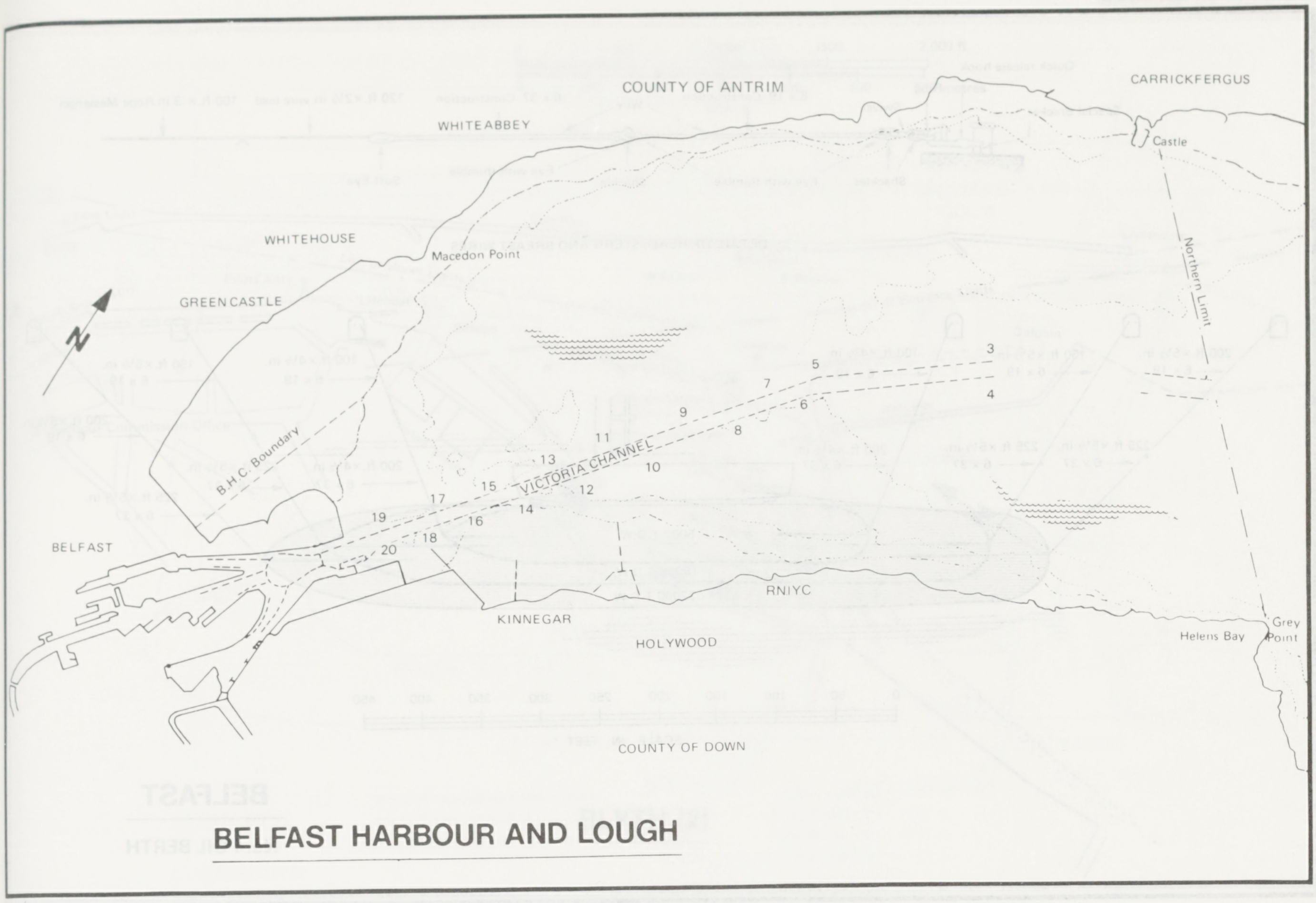

Coal Appliance
TIDAL DOCK
Coal Stockyard
North Breakwater
North Pier
South Pier
North Quay
Oil Depot
River Ayr
Fish Market
South Harbour Street
N. Harbour Street
Main Street
New Bridge Street
FIRTH OF CLYDE
TROON
AYR
PORT LOCATION PLAN
AYR


FIRTH OF CLYDE
WET DOCK
OUTER HARBOUR
INNER HARBOUR
North Sands
Templehill
Harbour Road
AYR
TROON

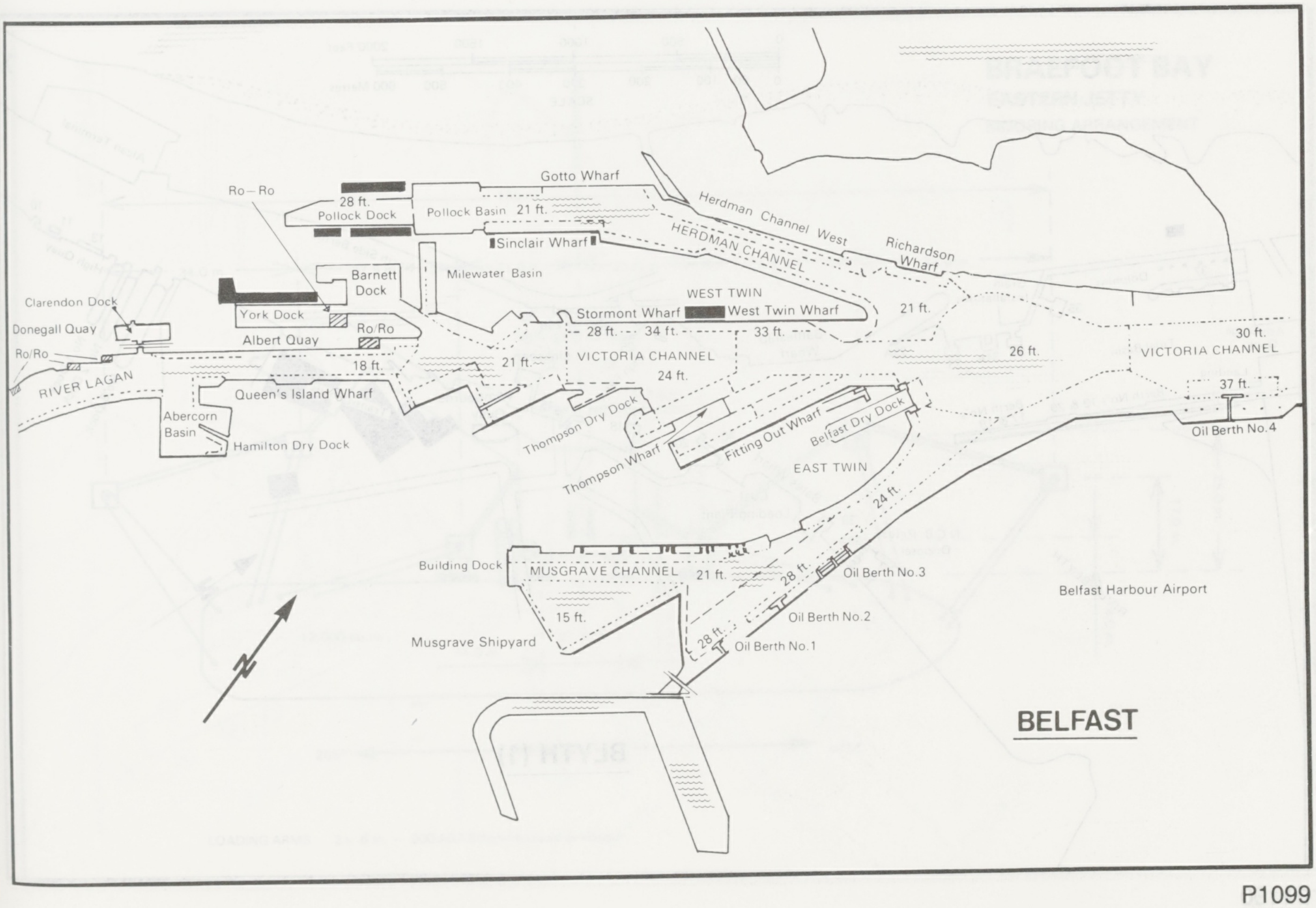

Commercial Harbour
Central Pier Extension
North Breakwater
Navigation Dolphin
Pickie Breakwater (under construction)
Inner Harbour (Site for 600 berth marina)
N
BANGOR
STAGE TWO HARBOUR DEVELOPMENT


BARROW
Michaelson Road Bridge
Devonshire Dock
Buccleuch Dock
Jubilee Bridge
WALNEY CHANNEL
Cavendish Dock (Reservoir)
Dock Office
Land for open storage or development
Ramsden Dock
Bluffin Bridge
Walney Island
N
Condensates Jetty
BNFL Terminal
Deep Water Berth
8
9
7
Anchor Line Basin
5
6
Oil Storage Barge
Ro-Ro Terminal
2
Ramsden Dock Lock
1
Ramsden Dock Basin
3
4
Belfast Berth
Dock Entrance
SCALE
0
500
1000
2000
3000 Ft
0
500
1000 m

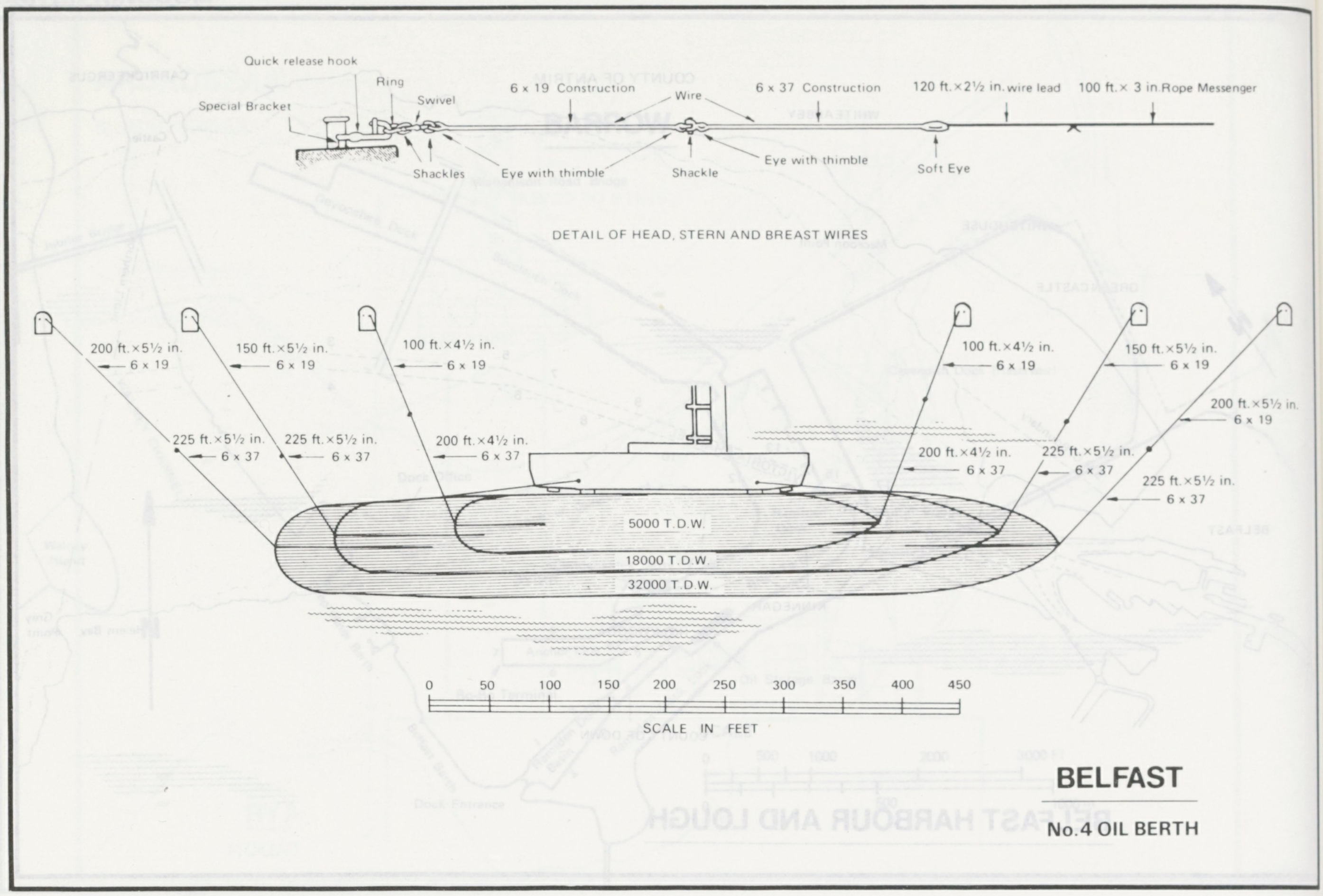

Pond
Fresh Water Reservoir
Ro/Ro Terminal
31
9
8
Pond
Bulk Storage Area
N
7
Port Limit
6
Station
5
Dock No. 2
4
Dock Office
3
SULLY BAY
2
Atlantic Trading Estate
1
Dock No. 1
Junction Cut
Oil Boom
Lady Windsor Lock
Fruit and General Cargo
No. 3 Dock Basin
Roll on/Roll off Terminal
Entrance Channel
East Breakwater
BARRY
Barry Harbour
W. Break water
Lt.
Barry Island
Jackson's Bay
Lt.
Whitmore Bay


COUNTY OF ANTRIM
CARRICKFERGUS
Castle
WHITEABBEY
WHITEHOUSE
Macedon Point
GREENCASTLE
Northern Limit
B.H.C. Boundary
VICTORIA CHANNEL
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
BELFAST
KINNEGAR
HOLYWOOD
RNIYC
Helens Bay
Grey Point
COUNTY OF DOWN

BELFAST HARBOUR AND LOUGH

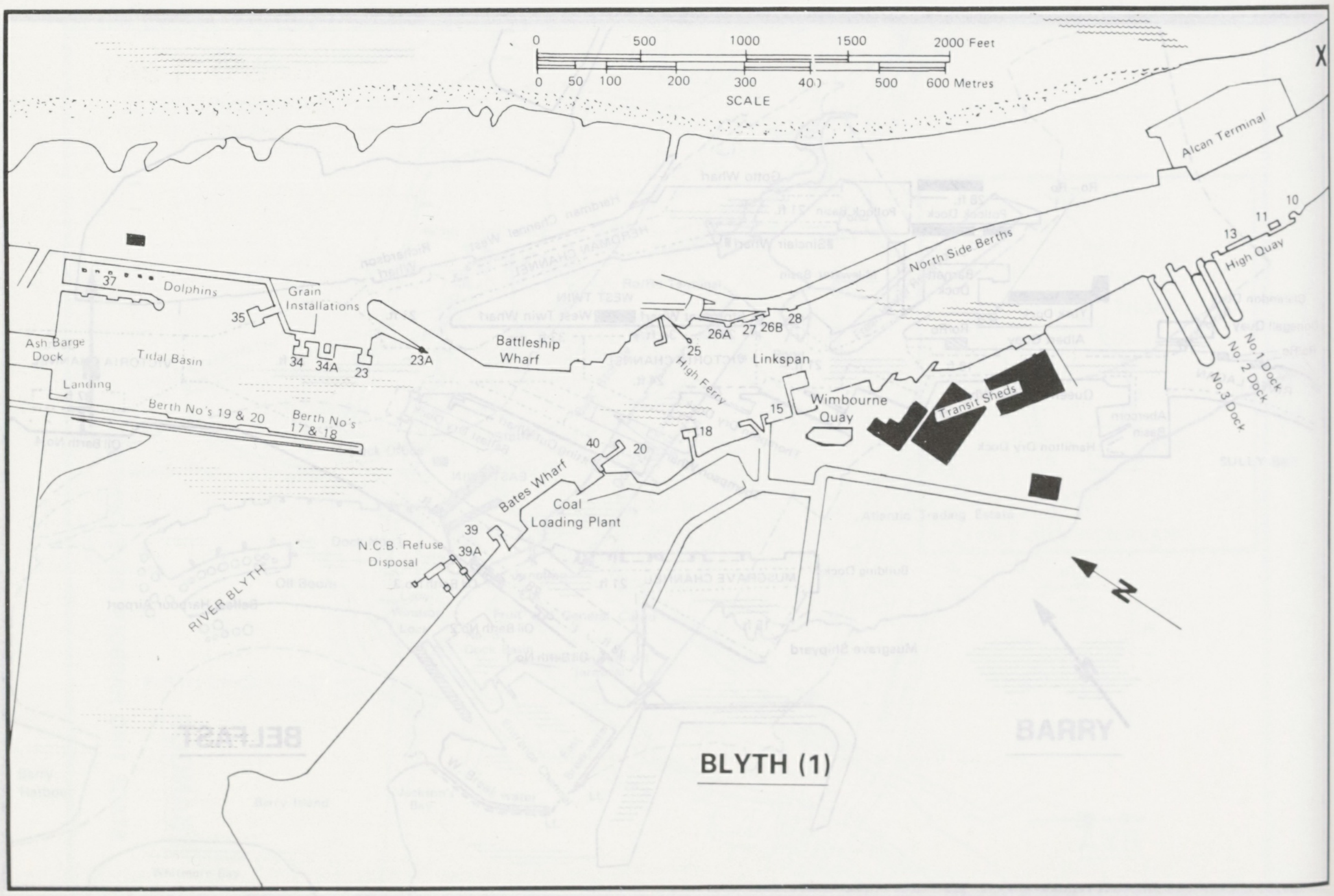

Ro – Ro
28 ft.
Pollock Dock
Pollock Basin
21 ft.
Gotto Wharf
Herdman Channel West
HERDMAN CHANNEL
Richardson Wharf
Sinclair Wharf
Milewater Basin
Barnett Dock
Clarendon Dock
Donegall Quay
Ro/Ro
York Dock
Albert Quay
Ro/Ro
18 ft.
21 ft.
RIVER LAGAN
Queen's Island Wharf
Abercorn Basin
Hamilton Dry Dock
WEST TWIN
Stormont Wharf
West Twin Wharf
28 ft.
34 ft.
33 ft.
21 ft.
VICTORIA CHANNEL
24 ft.
26 ft.
30 ft.
VICTORIA CHANNEL
37 ft.
Oil Berth No.4
Thompson Dry Dock
Thompson Wharf
Fitting Out Wharf
Belfast Dry Dock
EAST TWIN
24 ft.
Building Dock
MUSGRAVE CHANNEL
21 ft.
28 ft.
Oil Berth No.3
15 ft.
Oil Berth No.2
Musgrave Shipyard
28 ft.
Oil Berth No.1
Belfast Harbour Airport

BELFAST

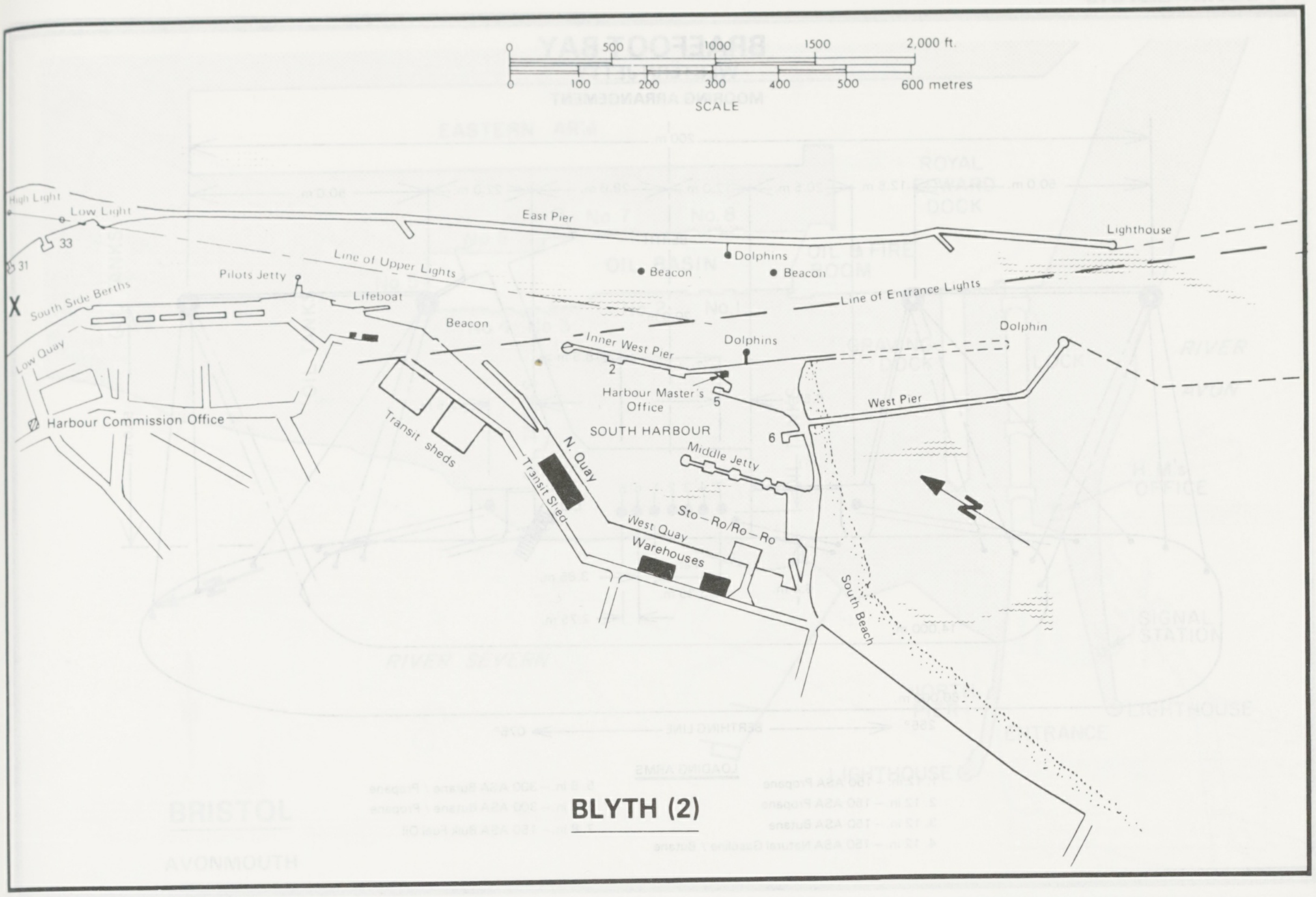

Quick release hook
Ring
Special Bracket
Swivel
6 x 19 Construction
Wire
6 x 37 Construction
120 ft.×2½ in. wire lead
100 ft.× 3 in. Rope Messenger
Shackles
Eye with thimble
Shackle
Eye with thimble
Soft Eye
DETAIL OF HEAD, STERN AND BREAST WIRES
200 ft.×5½ in. 6 x 19
150 ft.×5½ in. 6 x 19
100 ft.×4½ in. 6 x 19
100 ft.×4½ in. 6 x 19
150 ft.×5½ in. 6 x 19
200 ft.×5½ in. 6 x 19
225 ft.×5½ in. 6 x 37
225 ft.×5½ in. 6 x 37
200 ft.×4½ in. 6 x 37
200 ft.×4½ in. 6 x 37
225 ft.×5½ in. 6 x 37
225 ft.×5½ in. 6 x 37
5000 T.D.W.
18000 T.D.W.
32000 T.D.W.
0 50 100 150 200 250 300 350 400 450
SCALE IN FEET

BELFAST

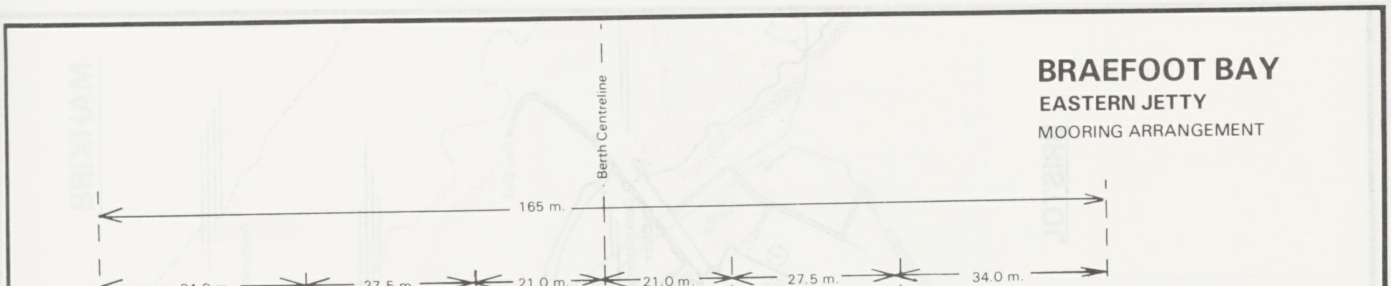
No.4 OIL BERTH


0 500 1000 1500 2000 Feet
0 50 100 200 300 400 500 600 Metres
SCALE
X
Alcan Terminal
10
11
13
High Quay
No. 1 Dock
No. 2 Dock
No. 3 Dock
North Side Berths
37
Dolphins
Grain Installations
35
Ash Barge Dock
Tidal Basin
34
34A
23
23A
Battleship Wharf
26A
27
26B
28
25
Linkspan
High Ferry
Landing
Berth No's 19 & 20
Berth No's 17 & 18
15
Wimbourne Quay
Transit Sheds
18
40
20
Bates Wharf
Coal Loading Plant
39
39A
N.C.B. Refuse Disposal
RIVER BLYTH
N

BLYTH (1)


0
500
1000
1500
2,000 ft.
100
200
300
400
500
600 metres
SCALE
High Light
Low Light
33
31
X
East Pier
Lighthouse
Line of Upper Lights
Dolphins
Beacon
Beacon
Pilots Jetty
South Side Berths
Lifeboat
Line of Entrance Lights
Low Quay
Beacon
Inner West Pier
Dolphins
Dolphin
2
Harbour Master's Office
5
West Pier
Harbour Commission Office
Transit sheds
SOUTH HARBOUR
6
N. Quay
Middle Jetty
Transit Shed
Sto – Ro/Ro – Ro
West Quay
Warehouses
South Beach
N

BLYTH (2)


Berth Centreline
165 m.
34.0 m.
27.5 m.
21.0 m.
21.0 m.
27.5 m.
34.0 m.
21.0 m.
3.0 m.
25.0 m.
17.0 m.
4.0 m.
7.0 m.
12,000 cu.m.
14.0 m.
255°
BERTHING LINE
075°

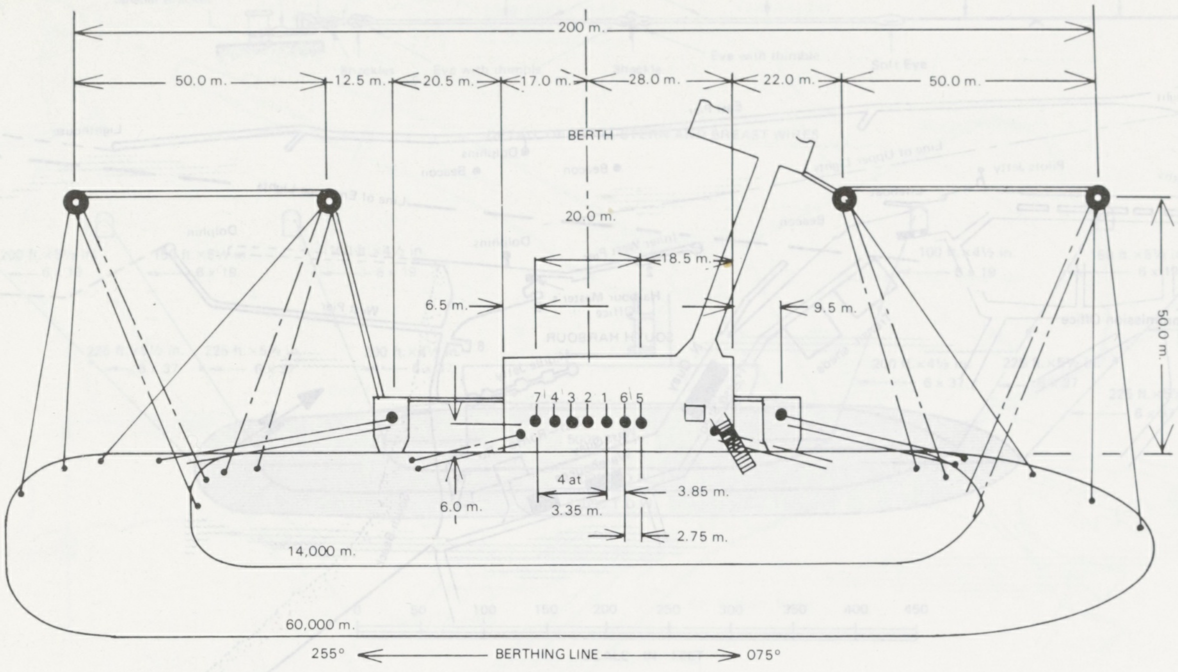
BRAEFOOT BAY

EASTERN JETTY

MOORING ARRANGEMENT

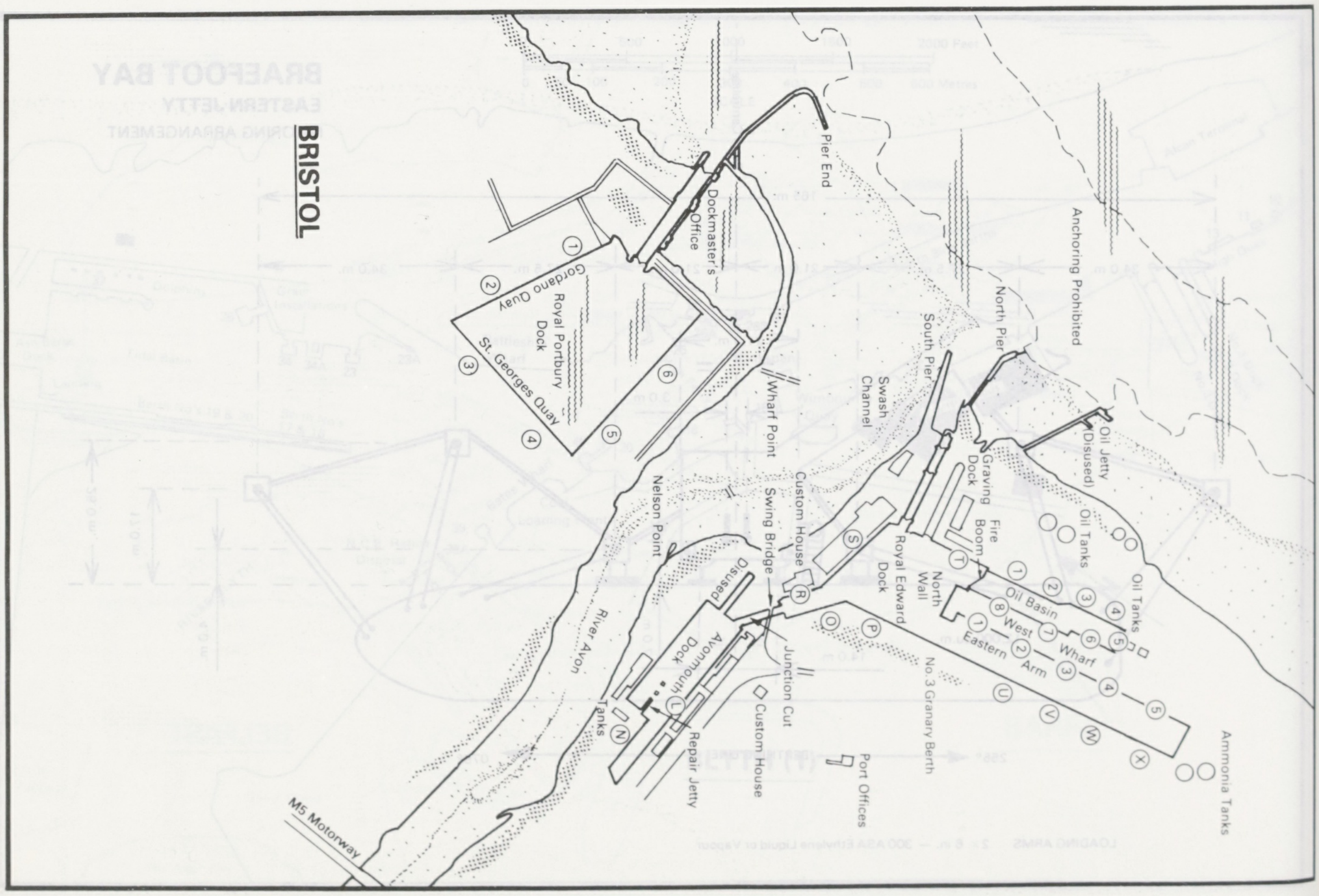
LOADING ARMS 2× 6 in. – 300 ASA Ethylene Liquid or Vapour

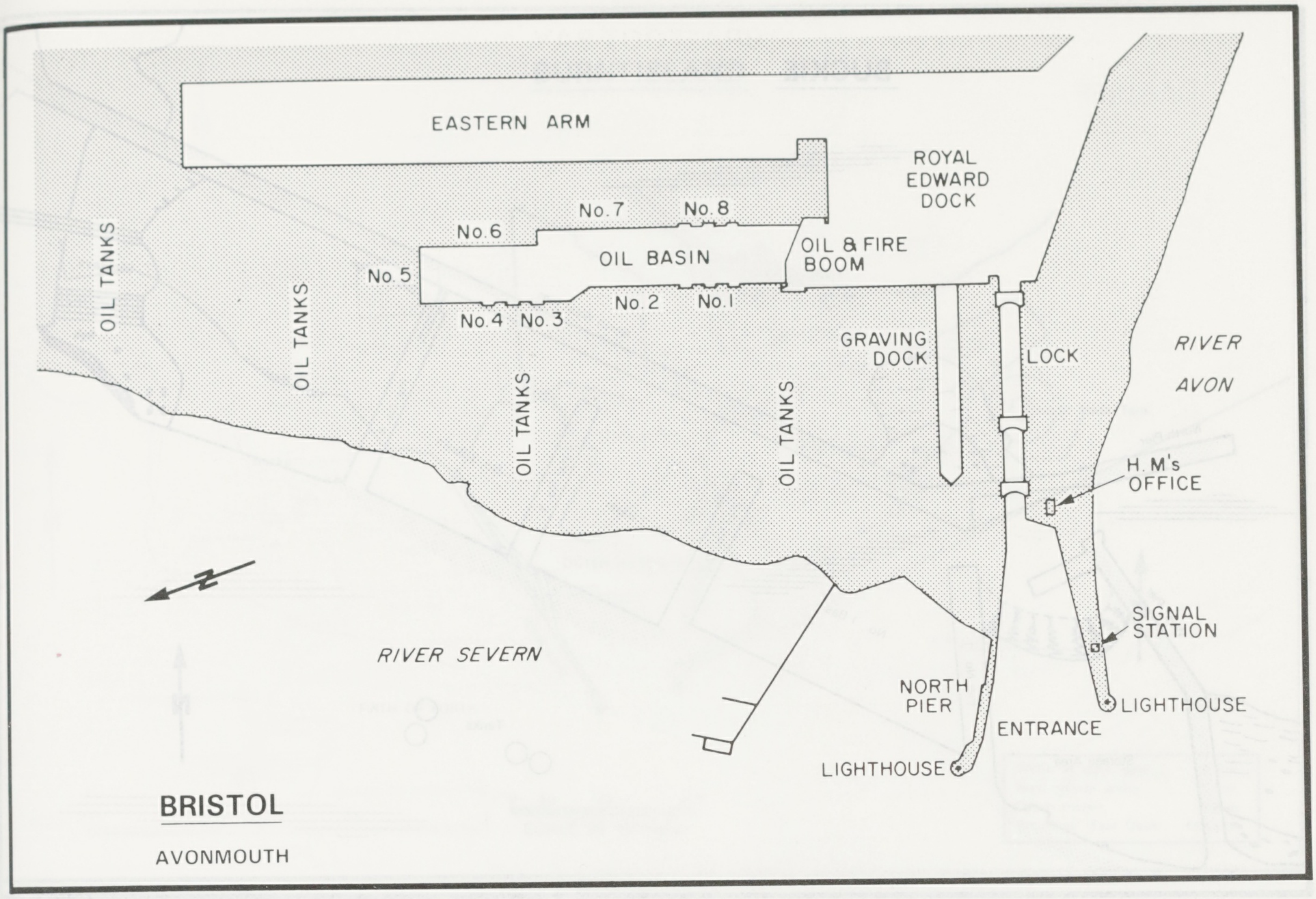
BRAEFOOT BAY
WESTERN JETTY
MOORING ARRANGEMENT


200 m.
50.0 m.
12.5 m.
20.5 m.
17.0 m.
28.0 m.
22.0 m.
50.0 m.
BERTH
20.0 m.
18.5 m.
6.5 m.
9.5 m.
50.0 m.
7 4 3 2 1 6 5
4 at
3.35 m.
3.85 m.
2.75 m.
6.0 m.
14,000 m.
60,000 m.
255°
BERTHING LINE
075°

LOADING ARMS

1. 12 in. – 150 ASA Propane
2. 12 in. – 150 ASA Propane
3. 12 in. – 150 ASA Butane
4. 12 in. – 150 ASA Natural Gasoline / Butane
5. 8 in. – 300 ASA Butane / Propane
6. 8 in. – 300 ASA Butane / Propane
7. 8 in. – 150 ASA Bulk Fuel Oil

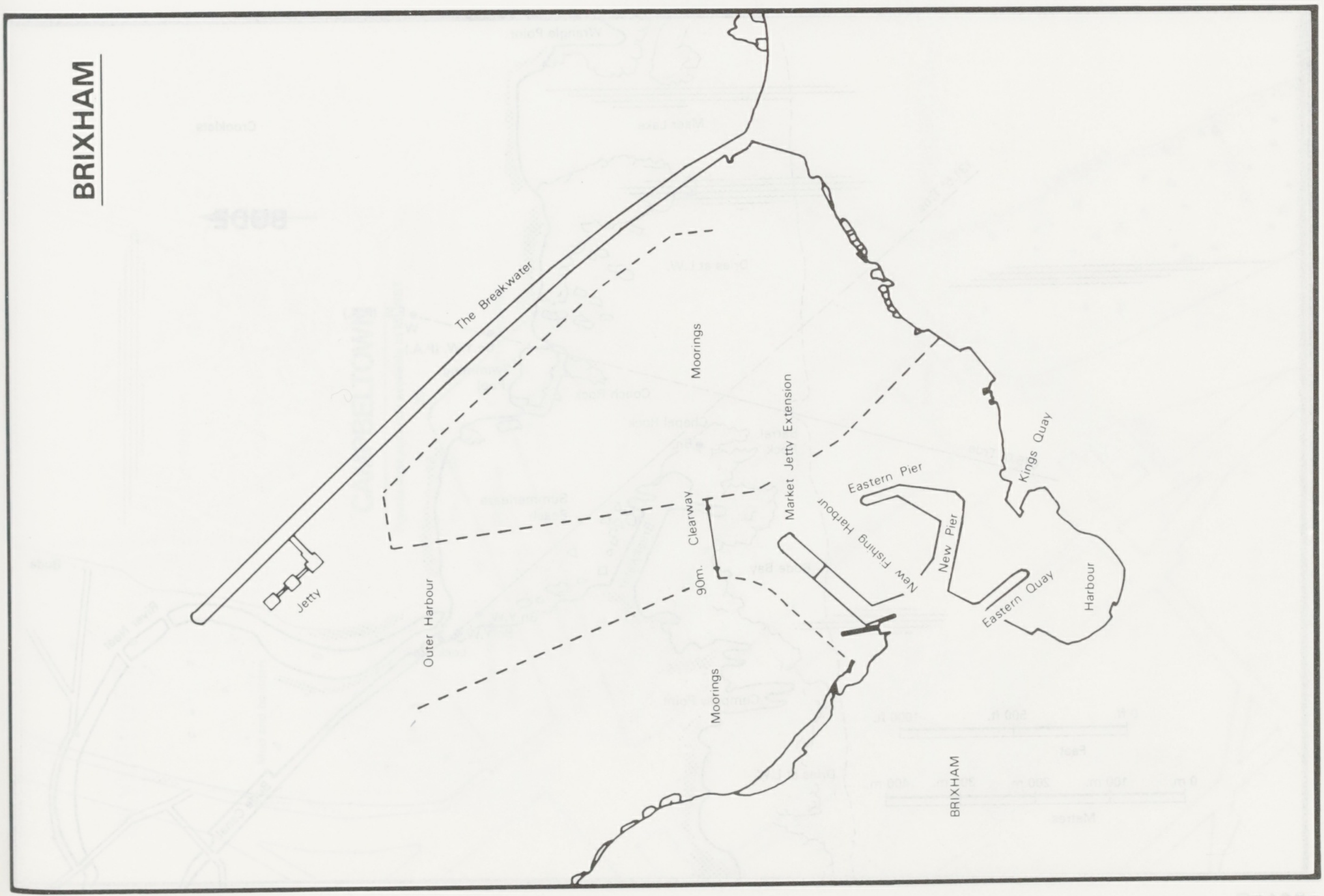

BRISTOL
Pier End
Dockmaster's Office
Gordano Quay
Royal Portbury Dock
St. Georges Quay
1
2
3
4
5
6
Wharf Point
Swash Channel
South Pier
North Pier
Anchoring Prohibited
Oil Jetty (Disused)
Graving Dock
Fire Boom
Oil Tanks
Oil Tanks
Oil Basin
West Wharf
Eastern Arm
Ammonia Tanks
Nelson Point
Custom House
Swing Bridge
Royal Edward Dock
North Wall
No. 3 Granary Berth
Junction Cut
Custom House
Port Offices
Disused
Avonmouth Dock
Repair Jetty
Tanks
River Avon
M5 Motorway
S
T
R
O
P
U
V
W
X
N
L
1
2
3
4
5
8
7
6
1
2
3
4
5



BRISTOL

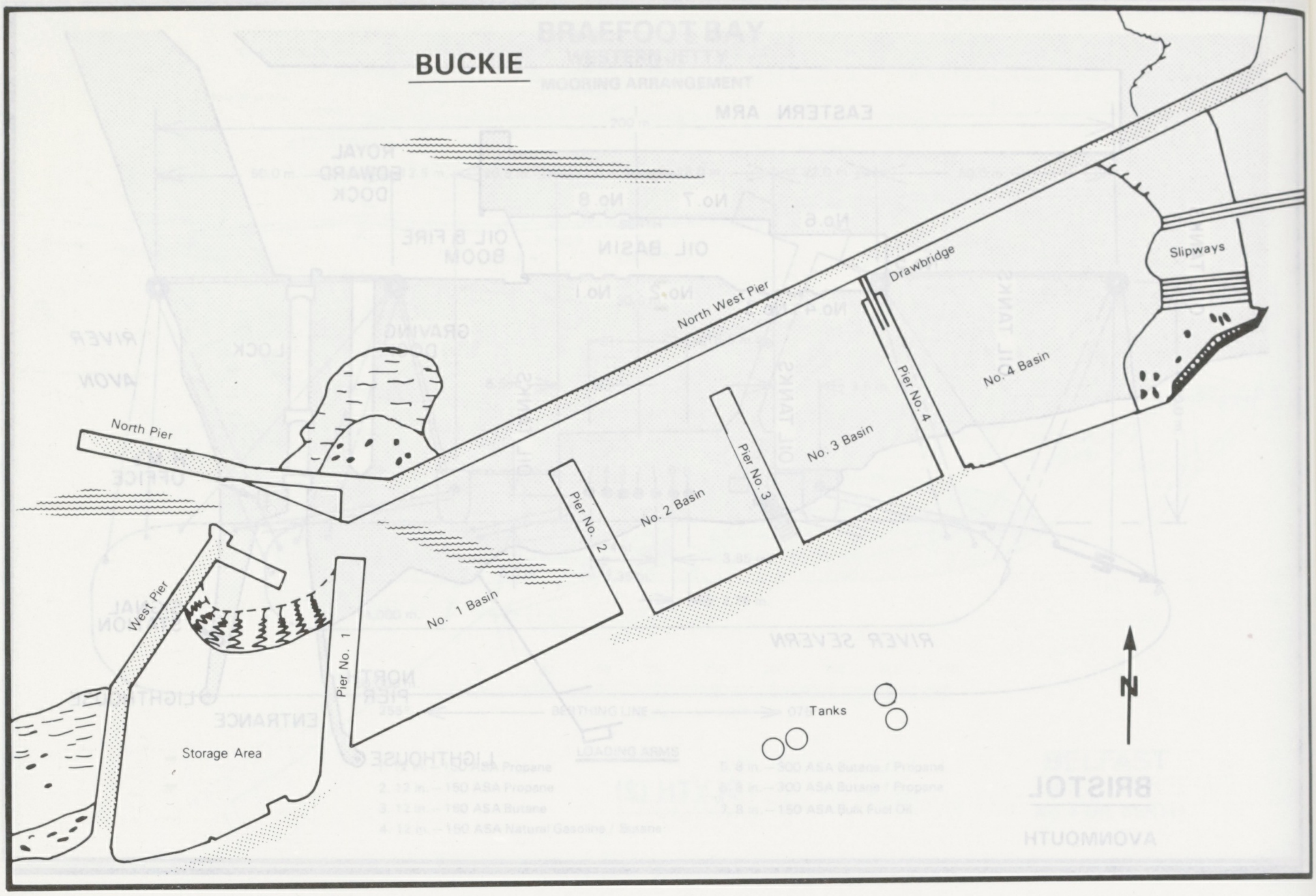
AVONMOUTH

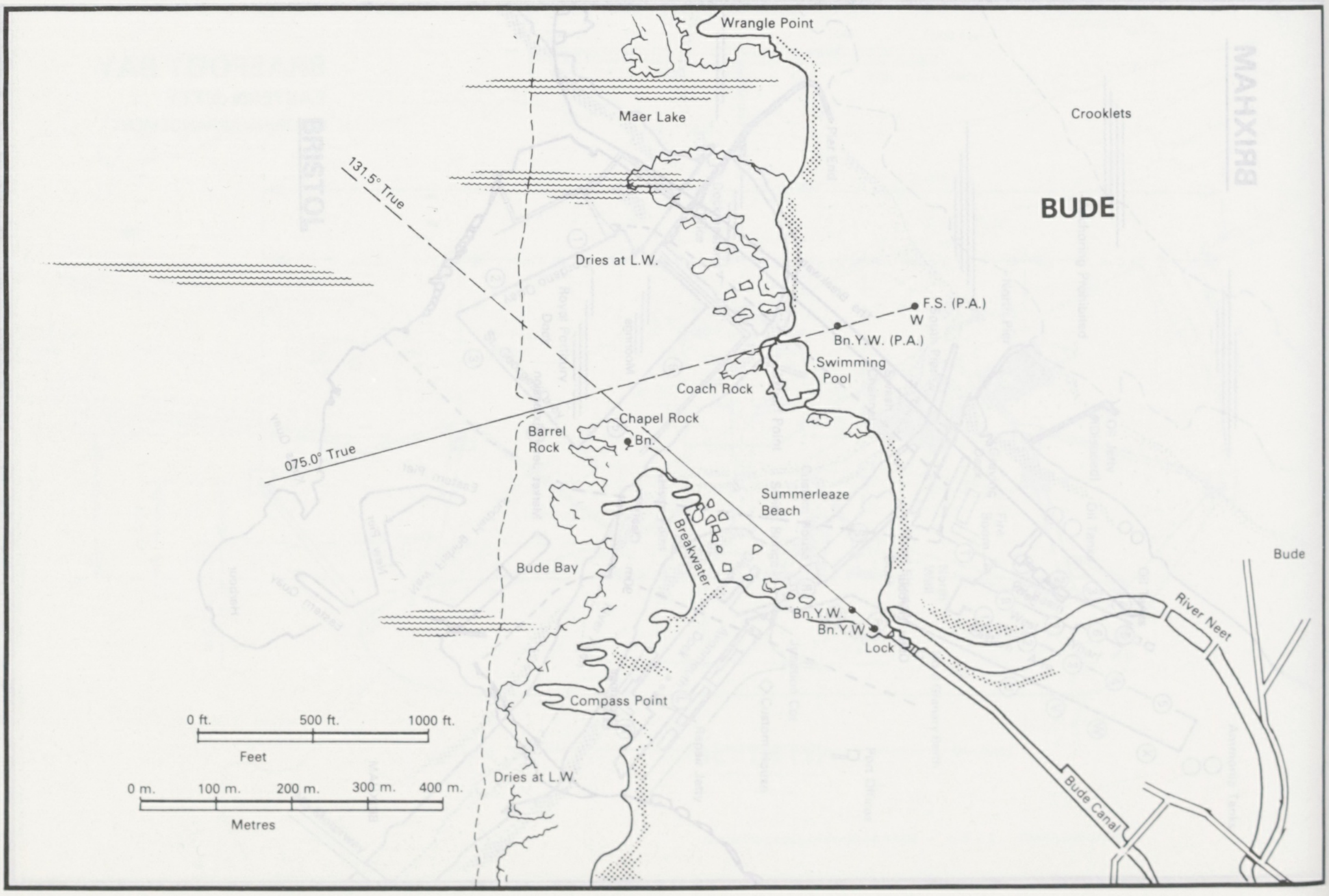
EASTERN ARM
ROYAL EDWARD DOCK
No.7
No.8
No.6
OIL BASIN
OIL & FIRE BOOM
No.5
No.2
No.1
No.4
No.3
OIL TANKS
OIL TANKS
OIL TANKS
OIL TANKS
GRAVING DOCK
LOCK
RIVER AVON
H. M's OFFICE
SIGNAL STATION
LIGHTHOUSE
RIVER SEVERN
NORTH PIER
ENTRANCE
LIGHTHOUSE



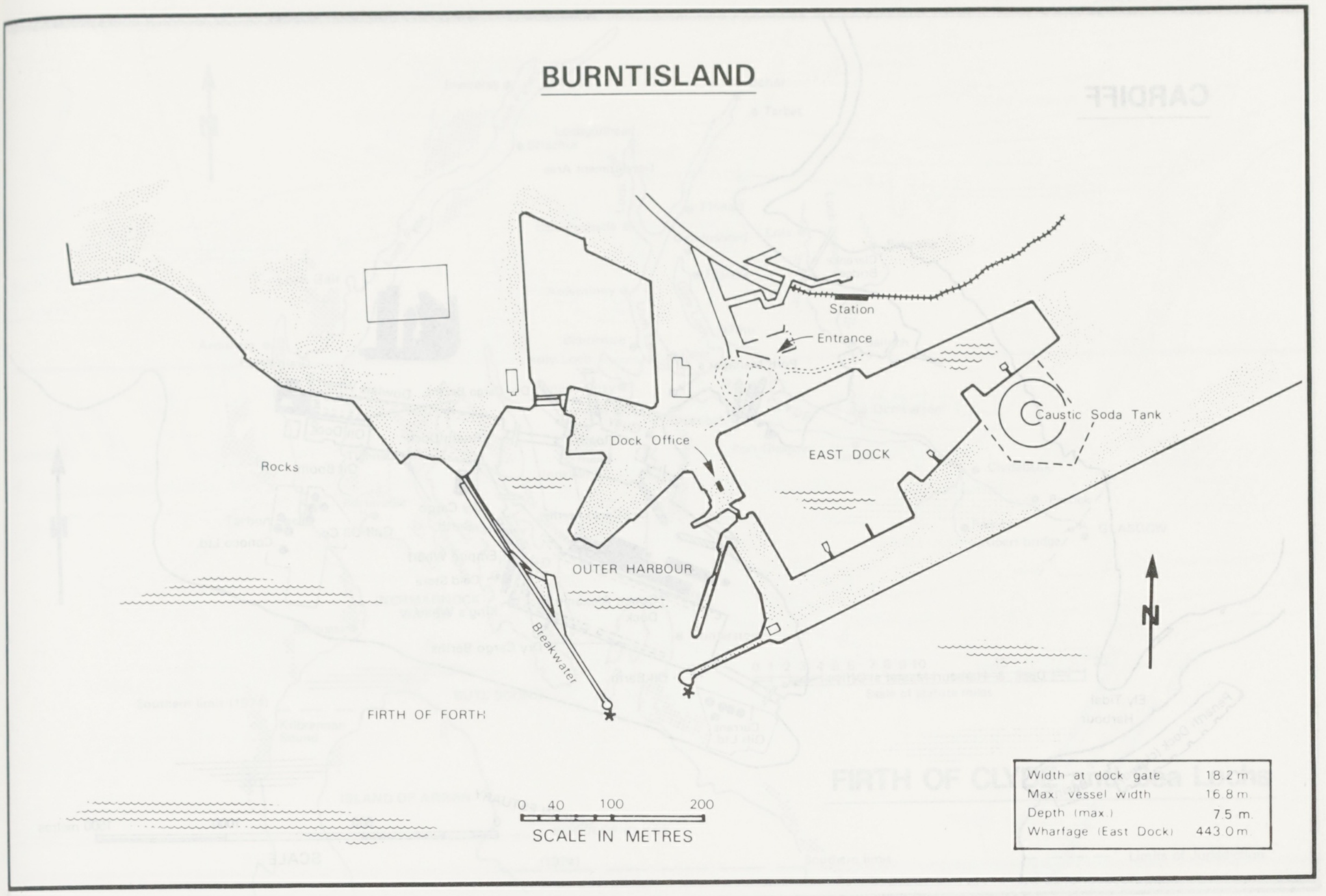
BRIXHAM

The Breakwater
Moorings
Market Jetty Extension
Eastern Pier
New Fishing Harbour
New Pier
Kings Quay
Eastern Quay
Harbour
Clearway
90m.
Jetty
Outer Harbour
Moorings
BRIXHAM


BUCKIE
North Pier
North West Pier
Drawbridge
Slipways
Pier No. 4
No. 4 Basin
Pier No. 3
No. 3 Basin
Pier No. 2
No. 2 Basin
West Pier
Pier No. 1
No. 1 Basin
Storage Area
Tanks
N


Wrangle Point
Maer Lake
Crooklets
BUDE
131.5° True
Dries at L.W.
F.S. (P.A.)
W
Bn.Y.W. (P.A.)
Swimming Pool
Coach Rock
Chapel Rock
Barrel Rock
Bn.
075.0° True
Summerleaze Beach
Breakwater
Bude Bay
Bn.Y.W.
Bn.Y.W
Lock
Bude
River Neet
Compass Point
Bude Canal
Dries at L.W.
0 ft.
500 ft.
1000 ft.
Feet
0 m.
100 m.
200 m.
300 m.
400 m.
Metres

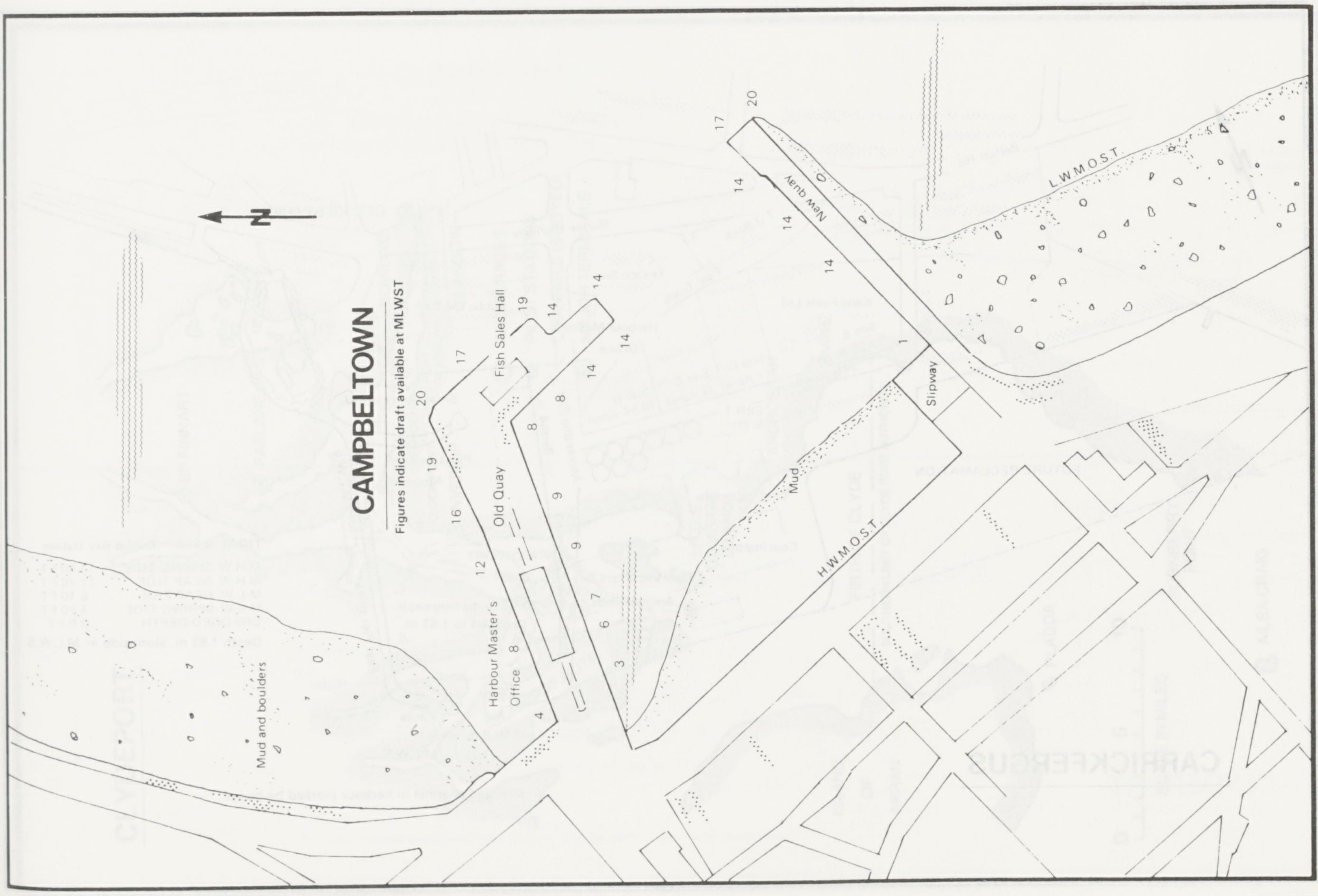
BURNTISLAND


Station
Entrance
Caustic Soda Tank
Dock Office
EAST DOCK
Rocks
OUTER HARBOUR
Breakwater
FIRTH OF FORTH
N
0 40 100 200
SCALE IN METRES

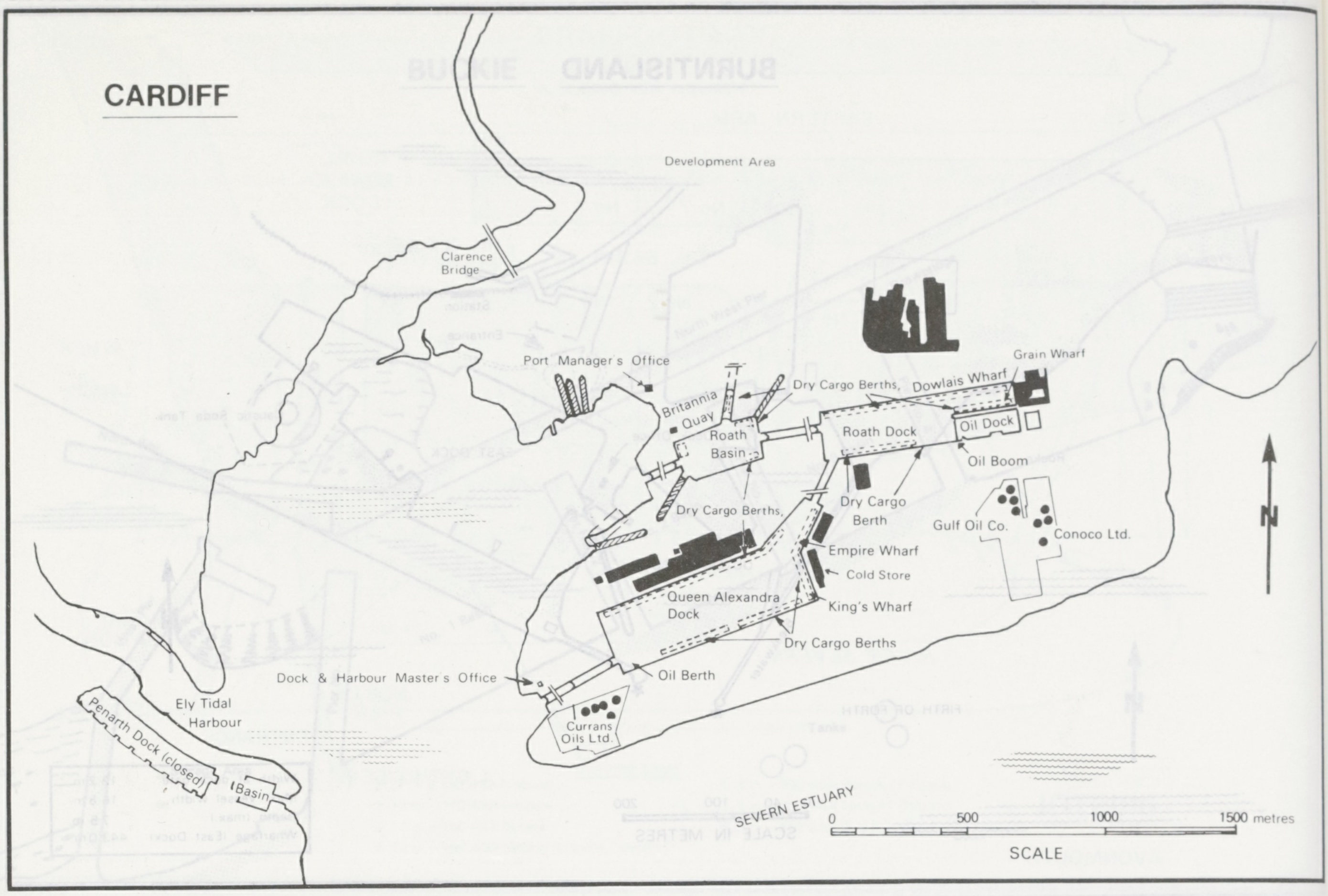
Width at dock gate	18.2 m
Max. vessel width	16.8 m
Depth (max.)	7.5 m.
Wharfage (East Dock)	443.0 m

CAMPBELTOWN

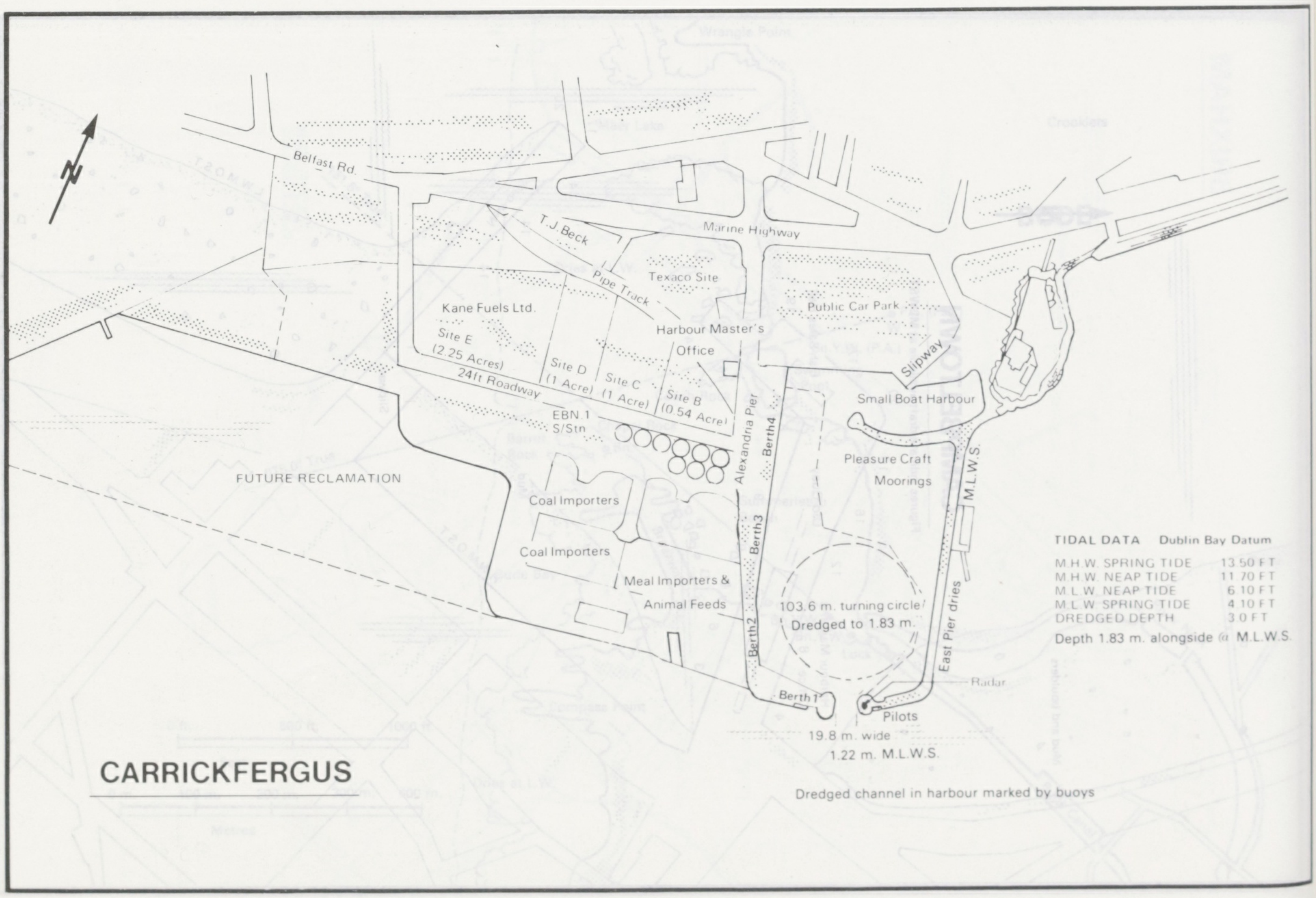
Figures indicate draft available at MLWST


N
New Quay
Slipway
LWMOST
HWMOST
Mud
Fish Sales Hall
Old Quay
Harbour Master's Office
Mud and boulders
20
17
14
14
14
1
19
14
14
14
8
8
9
9
7
6
3
20
19
16
12
8
4

CARDIFF

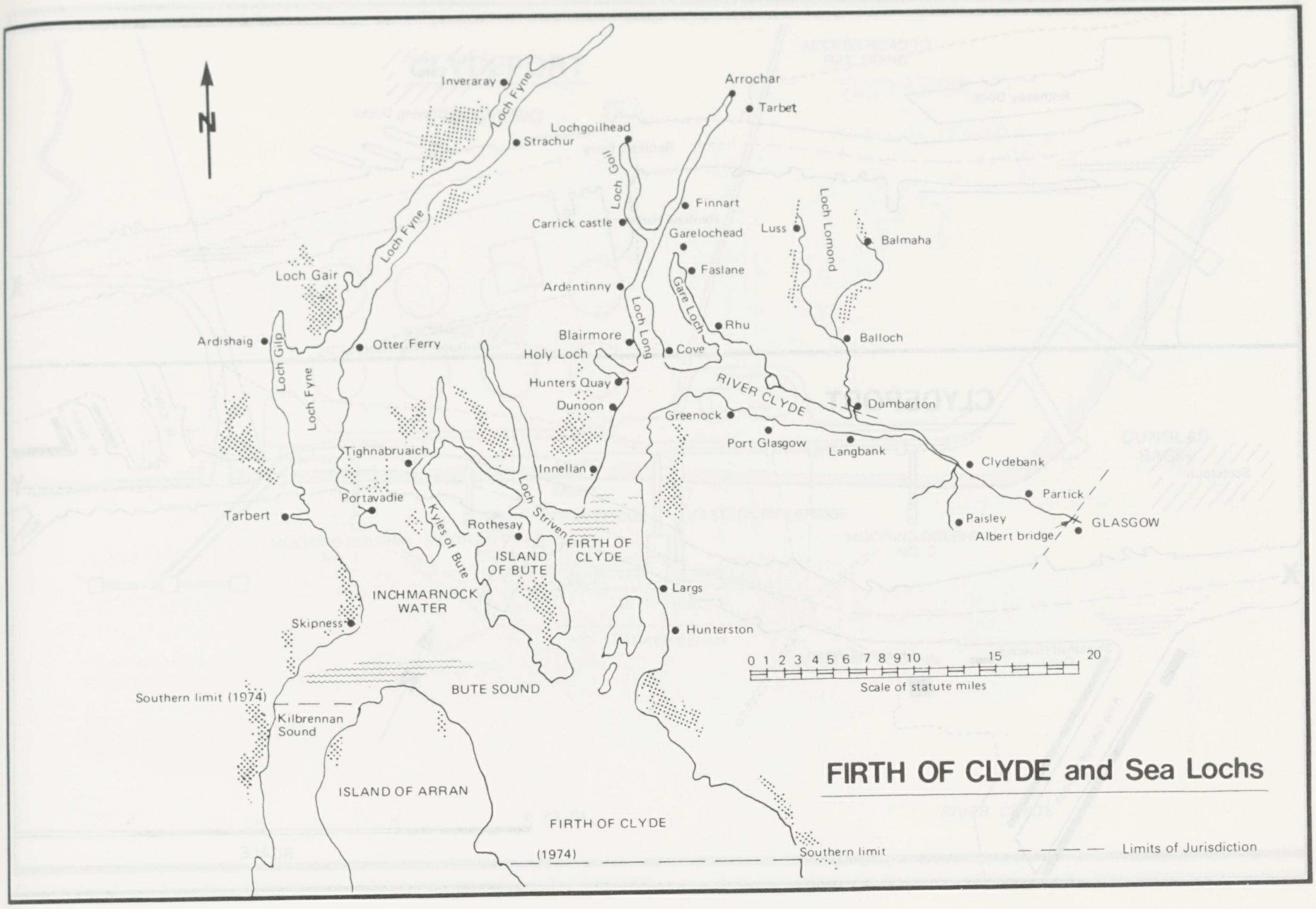

Development Area
Clarence Bridge
Port Manager's Office
Britannia Quay
Roath Basin
Dry Cargo Berths,
Dowlais Wharf
Grain Wharf
Roath Dock
Oil Dock
Oil Boom
Dry Cargo Berths,
Dry Cargo Berth
Gulf Oil Co.
Conoco Ltd.
Empire Wharf
Cold Store
Queen Alexandra Dock
King's Wharf
Dry Cargo Berths
Dock & Harbour Master's Office
Oil Berth
Ely Tidal Harbour
Currans Oils Ltd.
Penarth Dock (closed)
Basin
SEVERN ESTUARY
N
0
500
1000
1500 metres
SCALE

CARRICKFERGUS


N
Belfast Rd.
T.J. Beck
Marine Highway
Pipe Track
Texaco Site
Public Car Park
Kane Fuels Ltd.
Site E (2.25 Acres)
Site D (1 Acre)
Site C (1 Acre)
Site B (0.54 Acre)
Harbour Master's Office
24ft Roadway
Slipway
Small Boat Harbour
EBN 1 S/Stn
Alexandra Pier
Berth4
Pleasure Craft Moorings
M.L.W.S.
FUTURE RECLAMATION
Coal Importers
Coal Importers
Berth3
Meal Importers & Animal Feeds
103.6 m. turning circle/ Dredged to 1.83 m.
East Pier dries
Berth2
Radar
Berth1
Pilots
19.8 m. wide
1.22 m. M.L.W.S.
Dredged channel in harbour marked by buoys

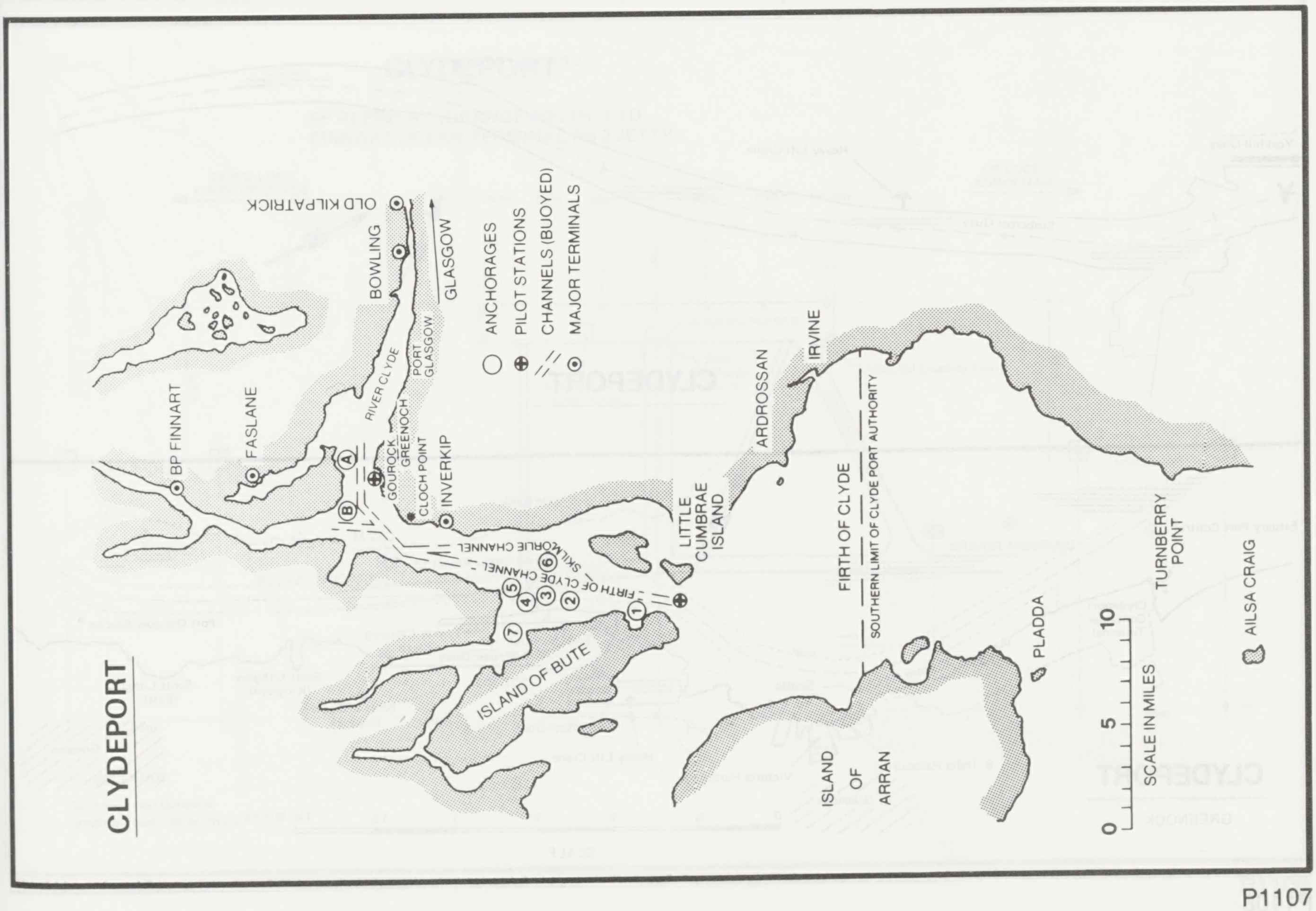
TIDAL DATA	Dublin Bay Datum
M.H.W. SPRING TIDE	13.50 F.T.
M.H.W. NEAP TIDE	11.70 F.T.
M.L.W. NEAP TIDE	6.10 F.T.
M.L.W. SPRING TIDE	4.10 F.T.
DREDGED DEPTH	3.0 F.T.

Depth 1.83 m. alongside @ M.L.W.S.



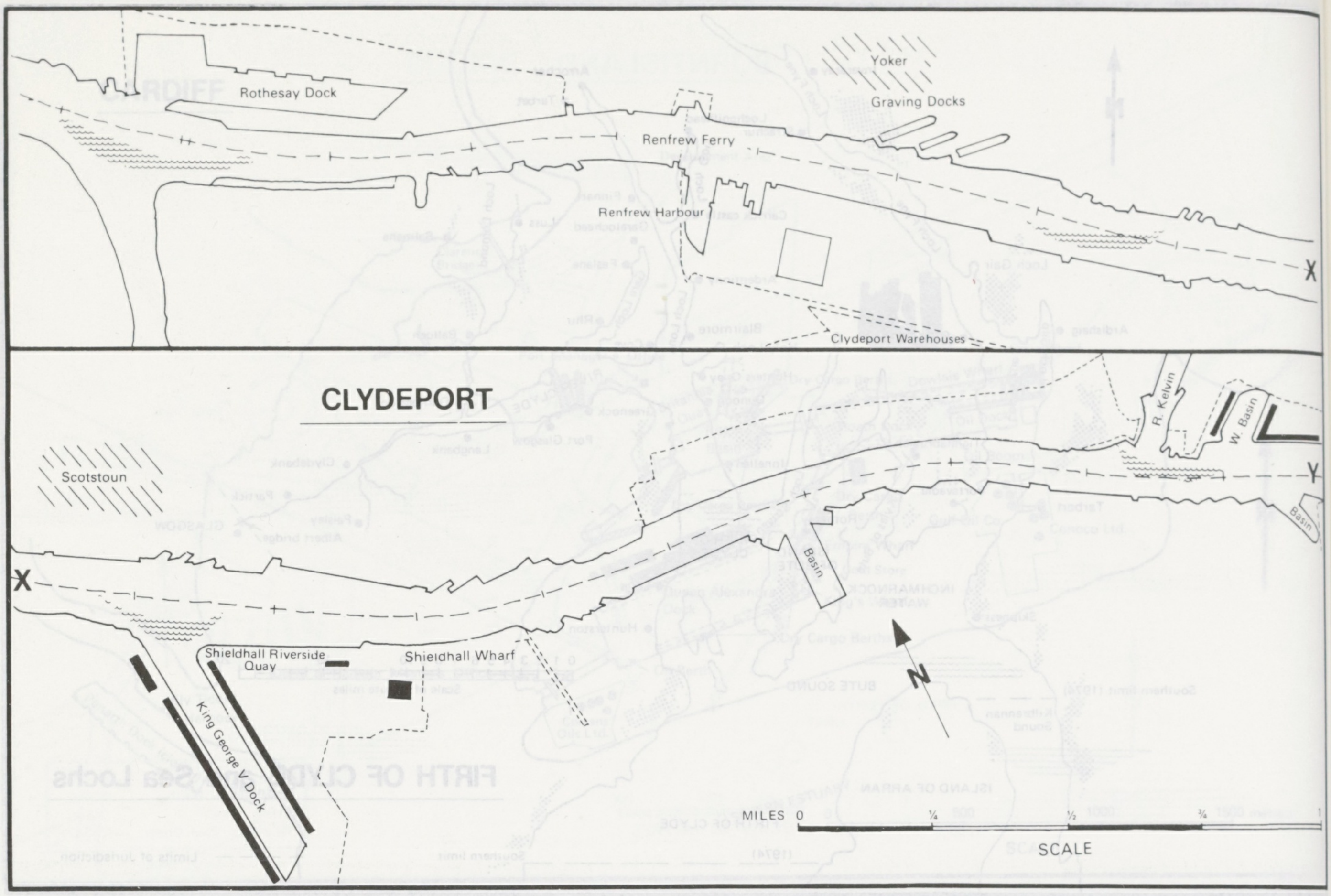
FIRTH OF CLYDE and Sea Lochs

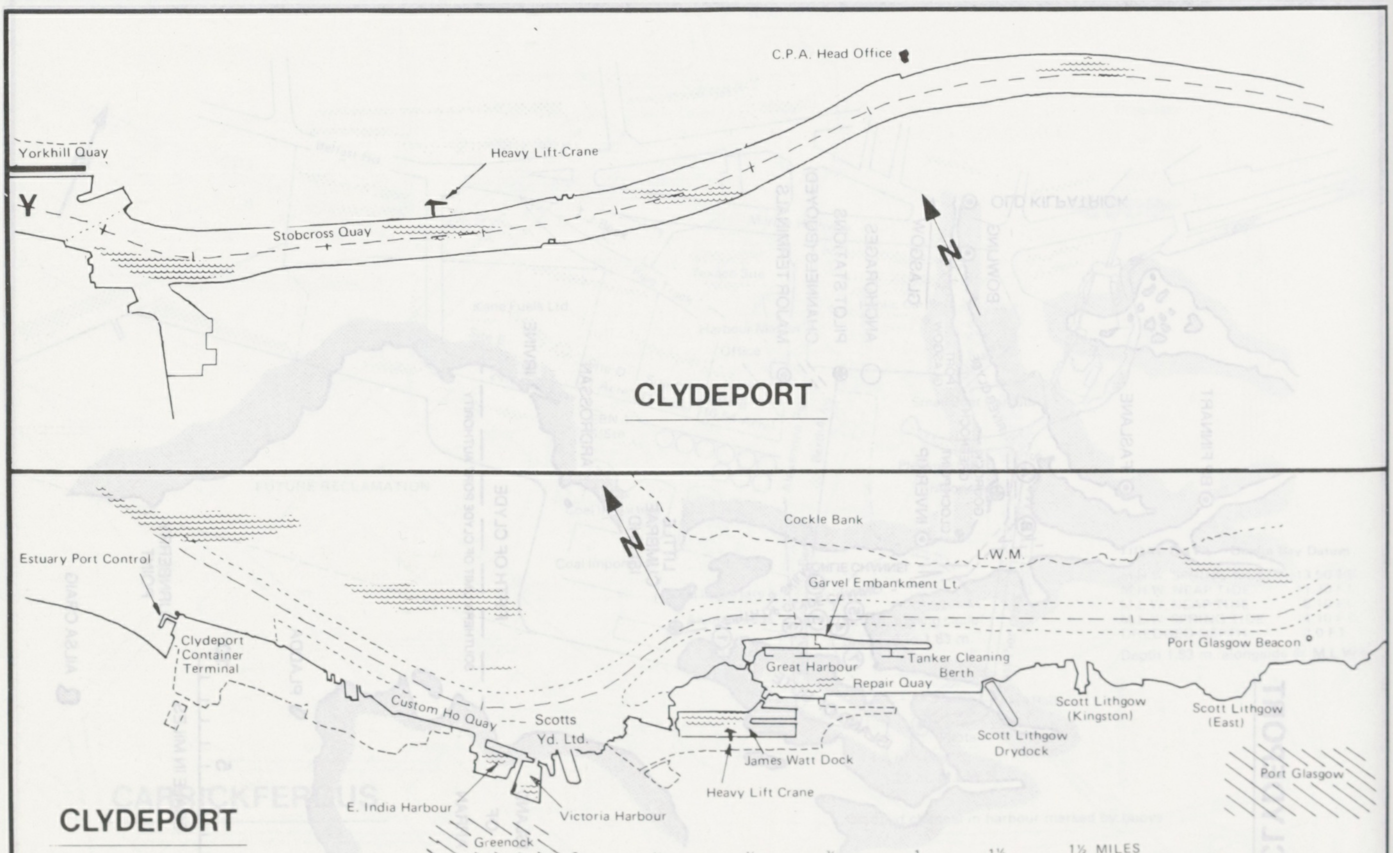
N
Inveraray
Loch Fyne
Strachur
Lochgoilhead
Arrochar
Tarbet
Loch Goil
Finnart
Carrick castle
Garelochead
Luss
Loch Lomond
Balmaha
Loch Gair
Faslane
Ardentinny
Gare Loch
Rhu
Ardishaig
Loch Gilp
Otter Ferry
Blairmore
Holy Loch
Loch Long
Cove
Balloch
Hunters Quay
River Clyde
Dumbarton
Dunoon
Greenock
Port Glasgow
Langbank
Tighnabruaich
Innellan
Clydebank
Partick
Portavadie
Kyles of Bute
Loch Striven
Tarbert
Rothesay
Firth of Clyde
Paisley
Albert bridge
GLASGOW
Island of Bute
Largs
Inchmarnock Water
Skipness
Hunterston
0 1 2 3 4 5 6 7 8 9 10 15 20
Scale of statute miles
Southern limit (1974)
Bute Sound
Kilbrennan Sound
Island of Arran
Firth of Clyde
(1974)
Southern limit
Limits of Jurisdiction

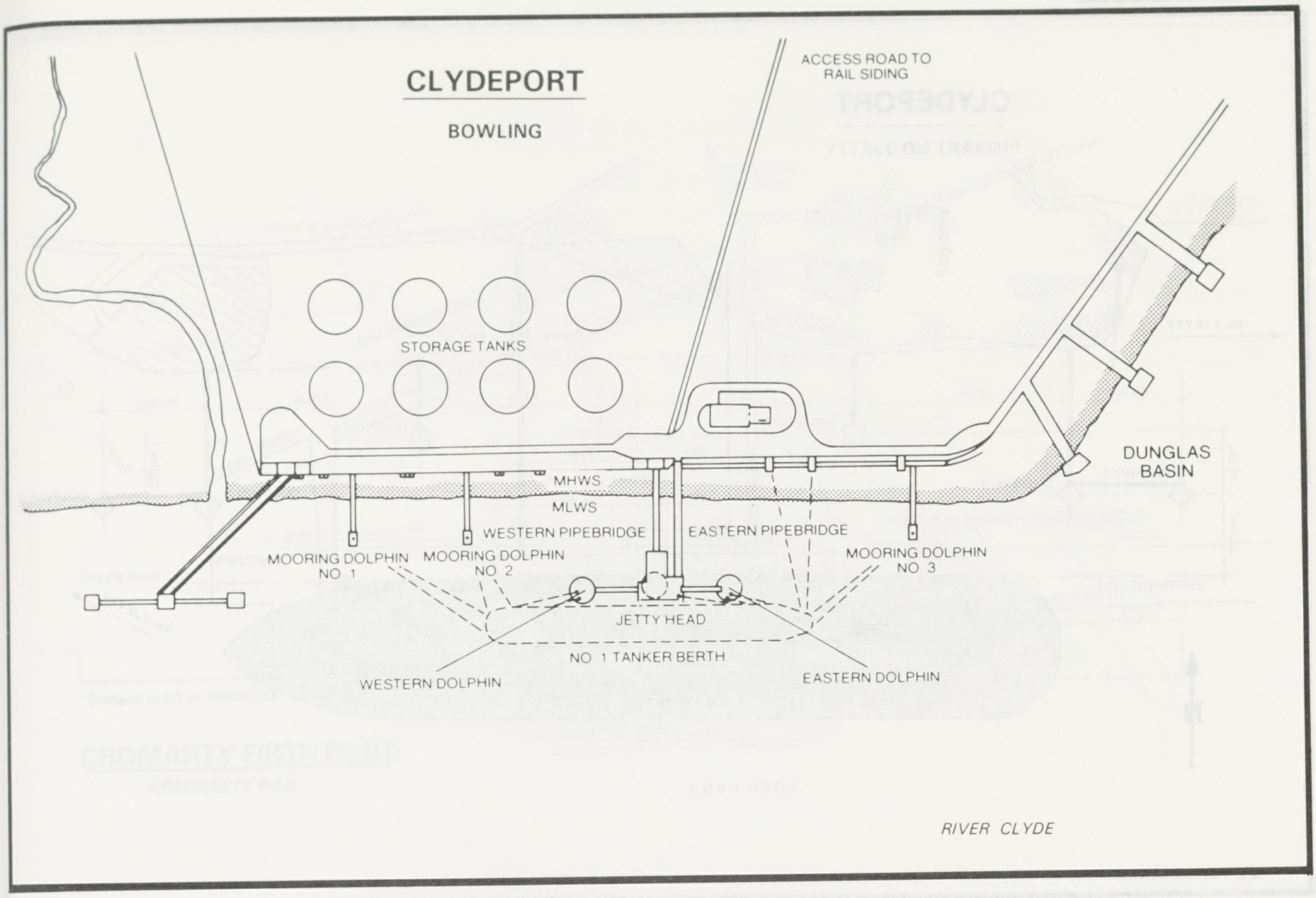


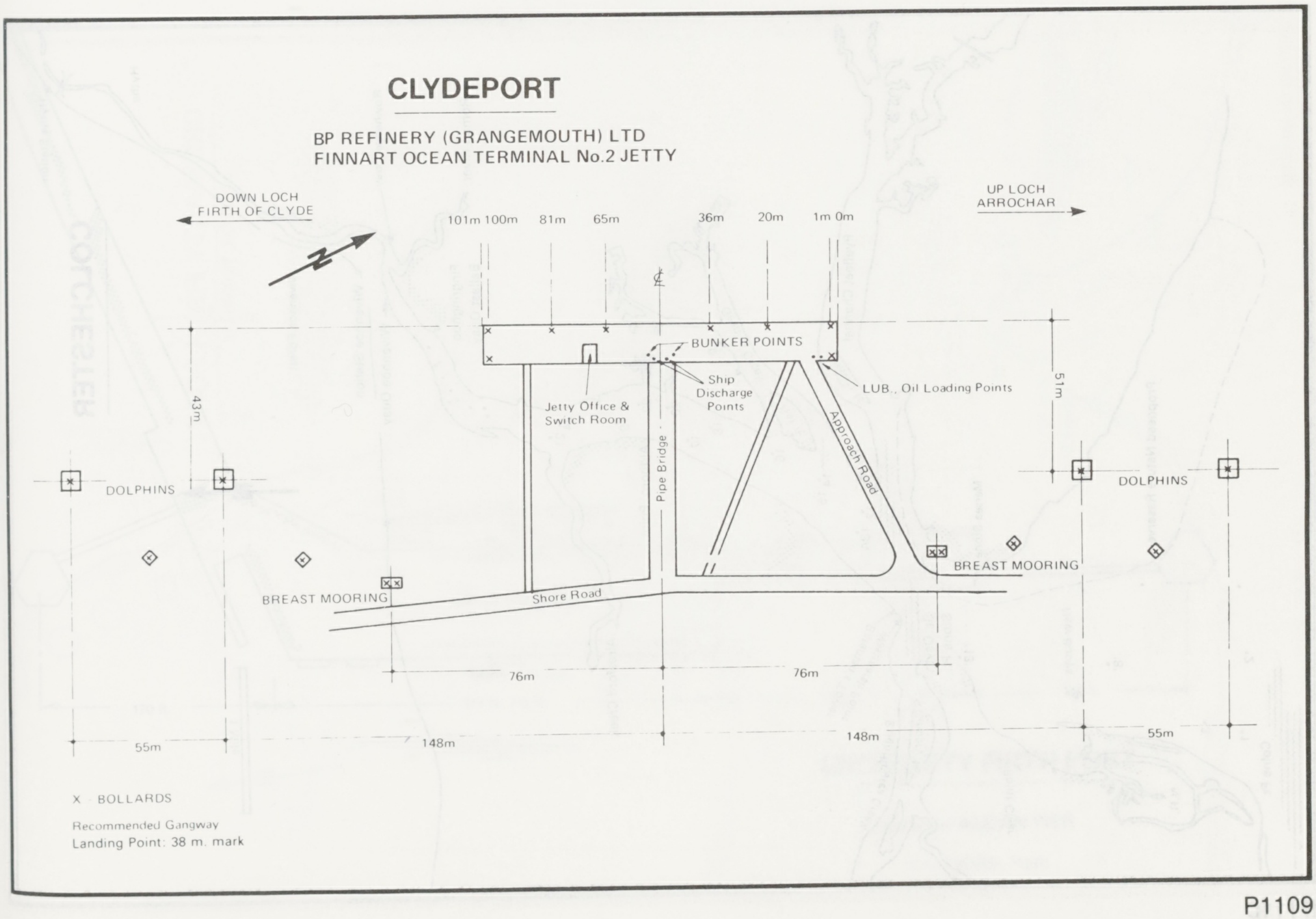
CLYDEPORT

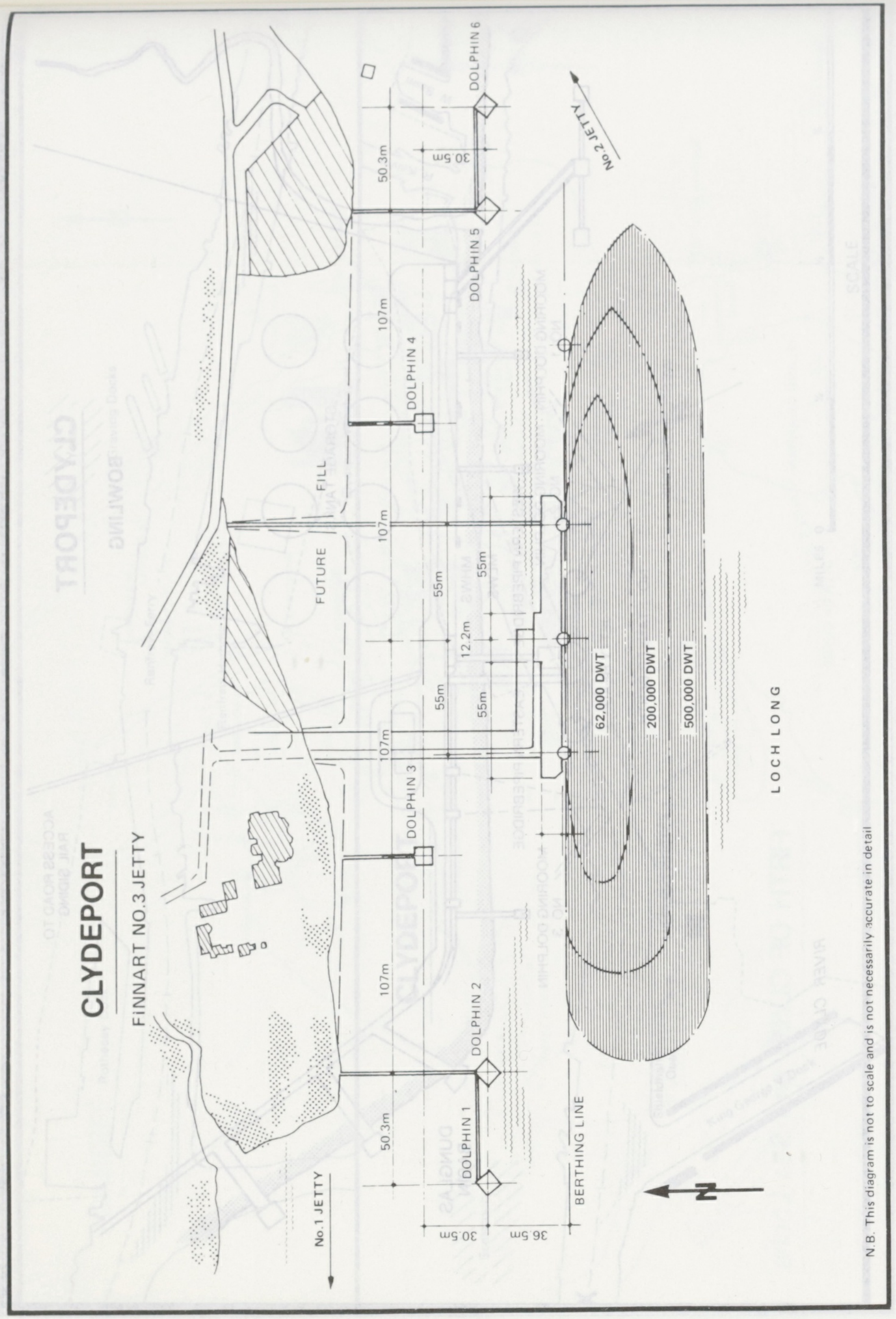
OLD KILPATRICK
BOWLING
GLASGOW
ANCHORAGES
PILOT STATIONS
CHANNELS (BUOYED)
MAJOR TERMINALS
BP FINNART
FASLANE
RIVER CLYDE
PORT GLASGOW
GREENOCK
GOUROCK
CLOCH POINT
INVERKIP
A
B
SKELMORLIE CHANNEL
FIRTH OF CLYDE CHANNEL
1
2
3
4
5
6
7
LITTLE CUMBRAE ISLAND
ARDROSSAN
IRVINE
FIRTH OF CLYDE
SOUTHERN LIMIT OF CLYDE PORT AUTHORITY
ISLAND OF BUTE
ISLAND OF ARRAN
PLADDA
TURNBERRY POINT
AILSA CRAIG
0 5 10
SCALE IN MILES


Rothesay Dock
Yoker
Graving Docks
Renfrew Ferry
Renfrew Harbour
X
Clydeport Warehouses
CLYDEPORT
R. Kelvin
W. Basin
Y
Basin
Scotstoun
X
Basin
Shieldhall Riverside Quay
Shieldhall Wharf
King George V Dock
N
MILES 0
¼
½
¾
1
SCALE

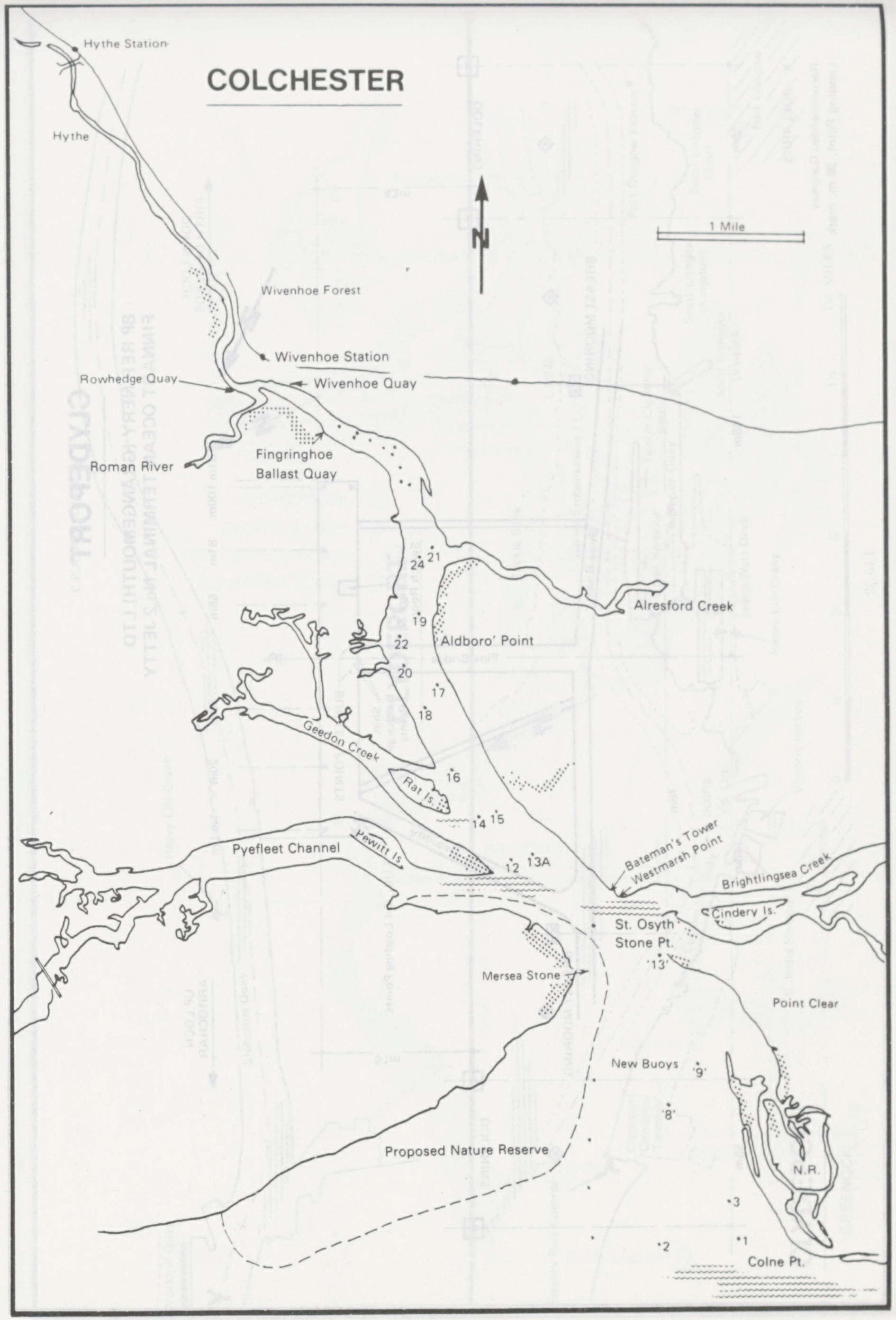

C.P.A. Head Office
Yorkhill Quay
Y
Heavy Lift Crane
Stobcross Quay
N
CLYDEPORT
N
Cockle Bank
L.W.M.
Estuary Port Control
Garvel Embankment Lt.
Clydeport Container Terminal
Great Harbour
Tanker Cleaning Berth
Repair Quay
Port Glasgow Beacon
Custom Ho Quay
Scotts Yd. Ltd.
Scott Lithgow (Kingston)
Scott Lithgow (East)
Scott Lithgow Drydock
James Watt Dock
Port Glasgow
Heavy Lift Crane
E. India Harbour
Victoria Harbour
Greenock
CLYDEPORT
GREENOCK
0
¼
½
¾
1
1¼
1½ MILES
SCALE

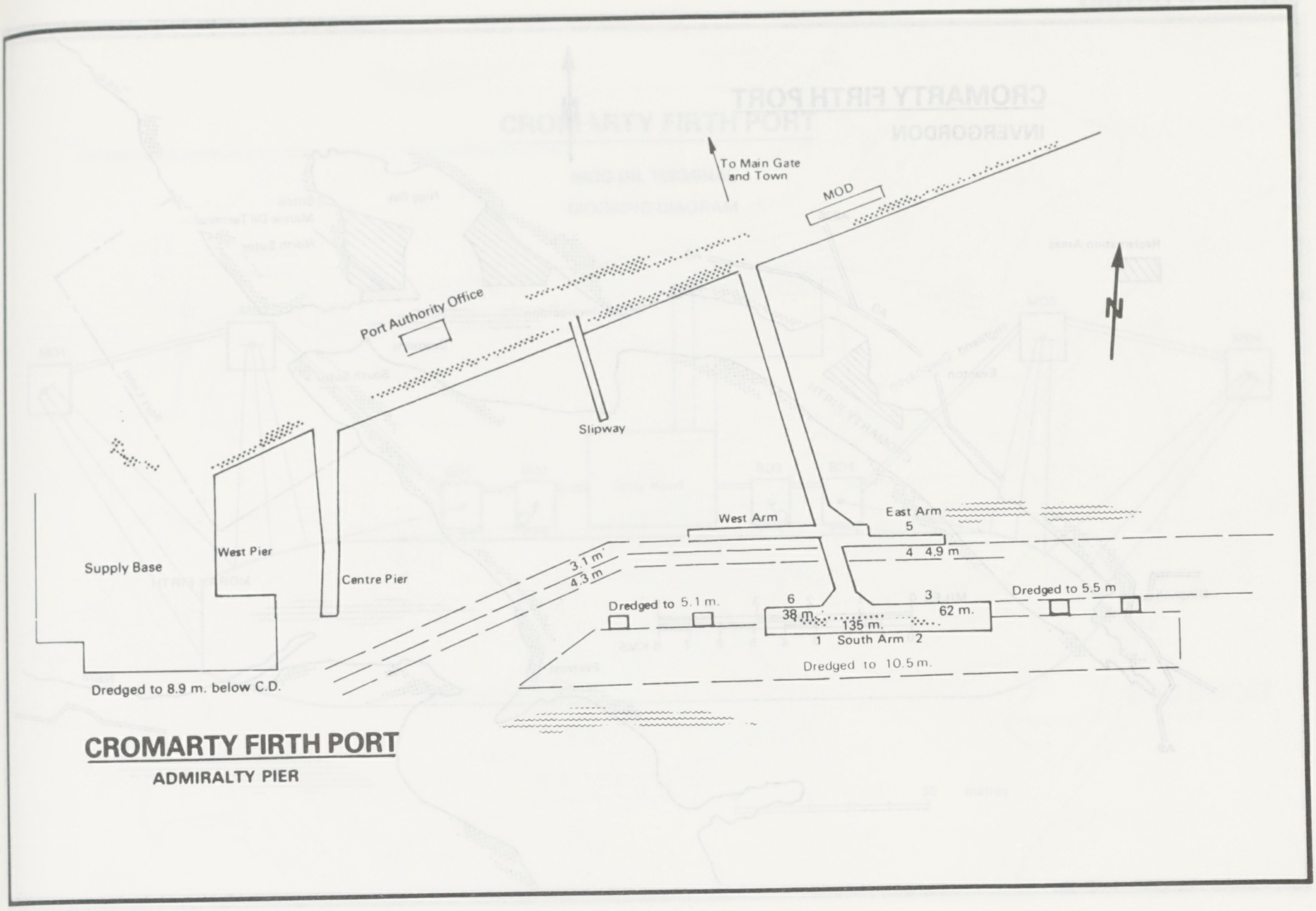

CLYDEPORT
BOWLING
ACCESS ROAD TO RAIL SIDING
STORAGE TANKS
DUNGLAS BASIN
MHWS
MLWS
WESTERN PIPEBRIDGE
EASTERN PIPEBRIDGE
MOORING DOLPHIN NO. 1
MOORING DOLPHIN NO. 2
MOORING DOLPHIN NO. 3
JETTY HEAD
NO. 1 TANKER BERTH
WESTERN DOLPHIN
EASTERN DOLPHIN
RIVER CLYDE


CLYDEPORT
BP REFINERY (GRANGEMOUTH) LTD
FINNART OCEAN TERMINAL No.2 JETTY
DOWN LOCH
FIRTH OF CLYDE
UP LOCH
ARROCHAR
N
101m
100m
81m
65m
36m
20m
1m
0m
℄
BUNKER POINTS
Ship Discharge Points
LUB., Oil Loading Points
Jetty Office & Switch Room
43m
51m
DOLPHINS
DOLPHINS
Pipe Bridge
Approach Road
BREAST MOORING
BREAST MOORING
Shore Road
76m
76m
55m
148m
148m
55m
X BOLLARDS
Recommended Gangway
Landing Point: 38 m. mark


CLYDEPORT
FINNART NO.3 JETTY
No.1 JETTY
DOLPHIN 1
DOLPHIN 2
DOLPHIN 3
DOLPHIN 4
DOLPHIN 5
DOLPHIN 6
No. 2 JETTY
50.3m
30.5m
36.5m
107m
107m
107m
107m
55m
55m
55m
55m
12.2m
50.3m
30.5m
FUTURE
FILL
BERTHING LINE
62,000 DWT
200,000 DWT
500,000 DWT
LOCH LONG
N

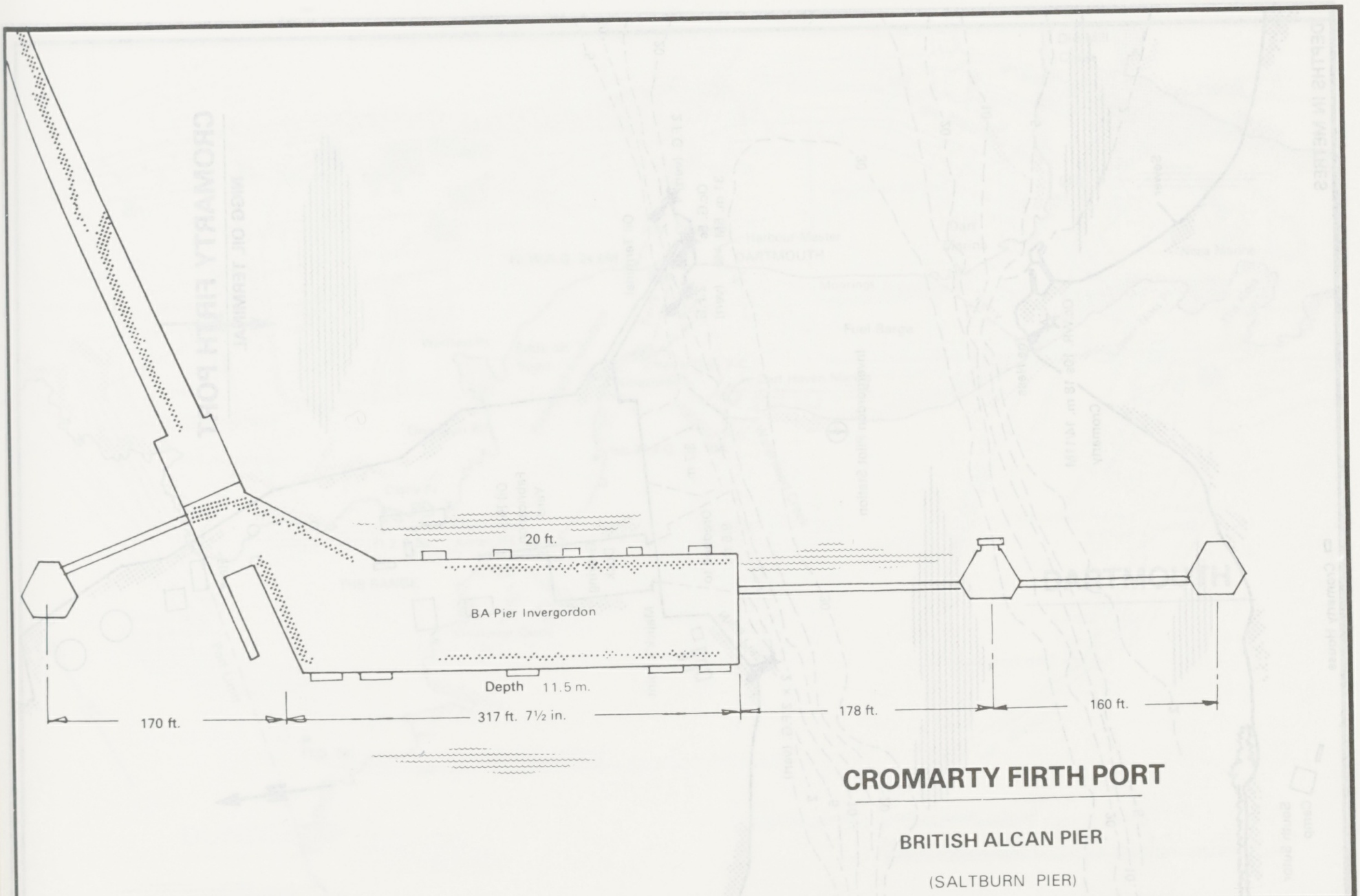
N.B. This diagram is not to scale and is not necessarily accurate in detail


COLCHESTER
Hythe Station
Hythe
N
1 Mile
Wivenhoe Forest
Wivenhoe Station
Rowhedge Quay
Wivenhoe Quay
Fingringhoe Ballast Quay
Roman River
24
21
Alresford Creek
19
22
Aldboro' Point
20
17
18
Geedon Creek
16
Rat Is.
14
15
Pyefleet Channel
Pewitt Is.
12
13A
Bateman's Tower
Westmarsh Point
Brightlingsea Creek
Cindery Is.
St. Osyth Stone Pt.
13
Mersea Stone
Point Clear
New Buoys
9
8
Proposed Nature Reserve
N.R.
3
1
2
Colne Pt.


To Main Gate and Town
MOD
Port Authority Office
Slipway
West Pier
Centre Pier
Supply Base
West Arm
East Arm
5
4 4.9 m
3.1 m
4.3 m
Dredged to 5.1 m.
6
38 m.
135 m.
1 South Arm 2
3
62 m.
Dredged to 5.5 m
Dredged to 10.5 m.
Dredged to 8.9 m. below C.D.

CROMARTY FIRTH PORT

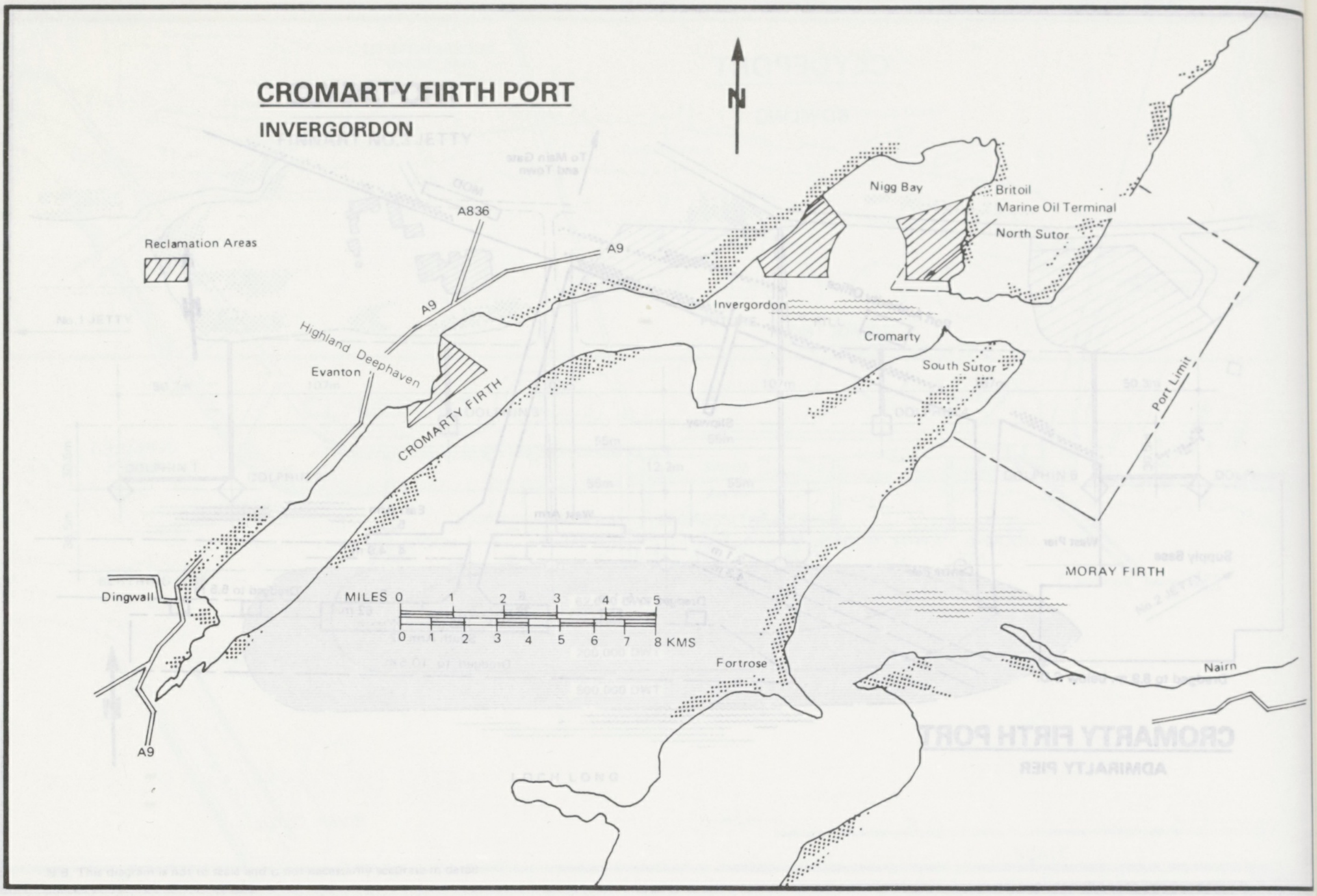
ADMIRALTY PIER

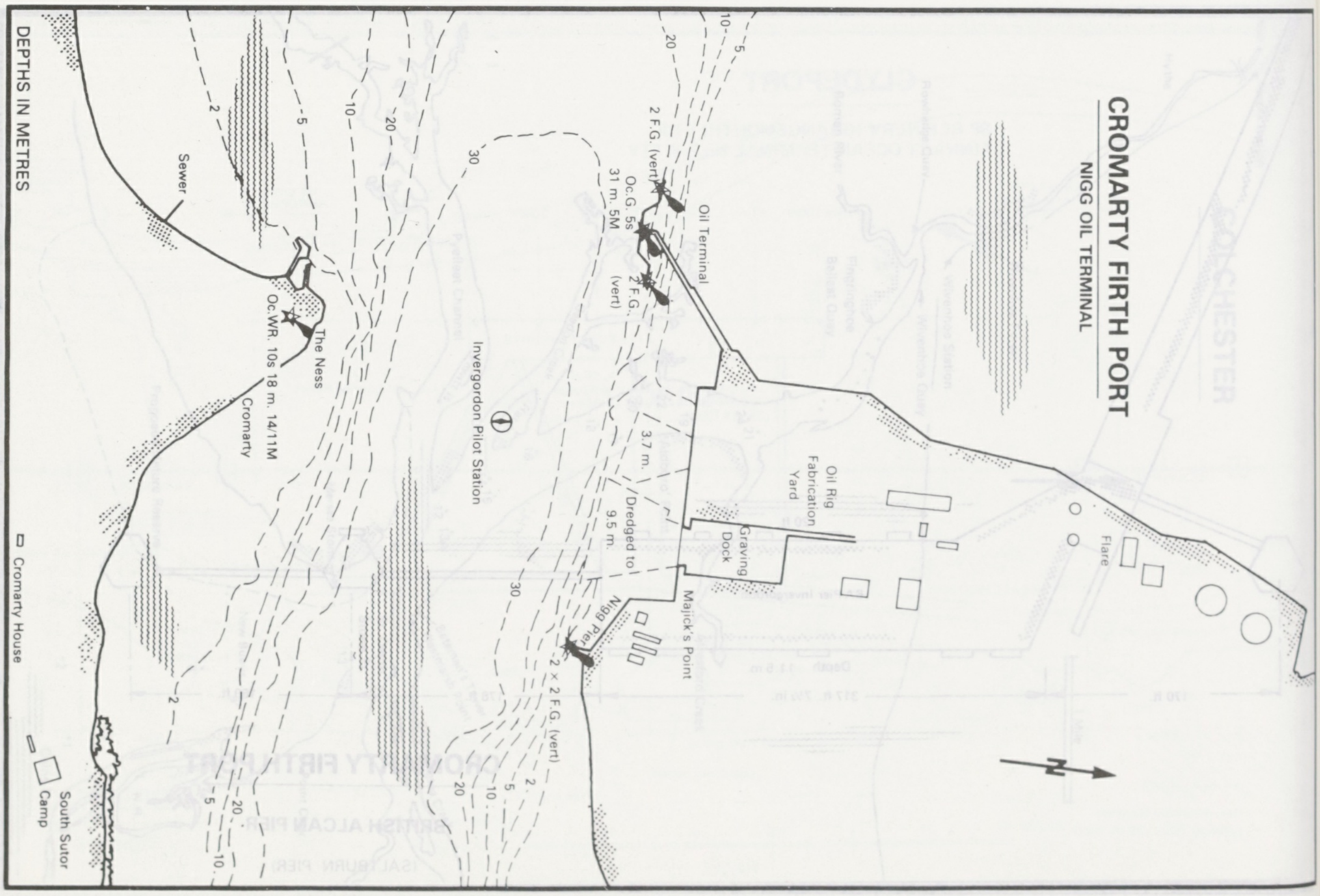

20 ft.
BA Pier Invergordon
Depth 11.5 m.
170 ft.
317 ft. 7½ in.
178 ft.
160 ft.

CROMARTY FIRTH PORT

BRITISH ALCAN PIER

(SALTBURN PIER)

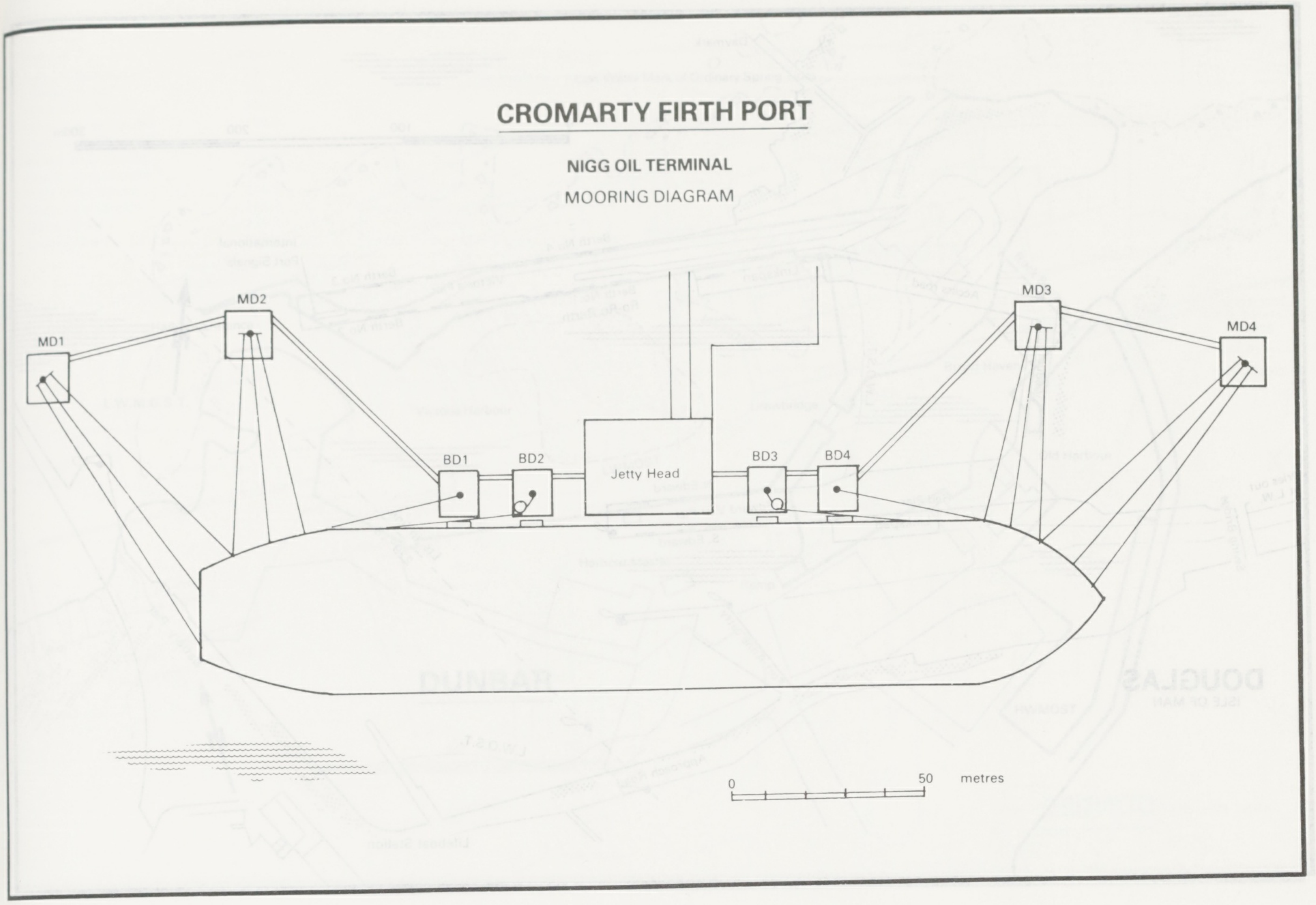

CROMARTY FIRTH PORT
INVERGORDON
N
Reclamation Areas
A836
A9
A9
Highland Deephaven
Evanton
CROMARTY FIRTH
Dingwall
A9
MILES 0 1 2 3 4 5
0 1 2 3 4 5 6 7 8 KMS
Nigg Bay
Britoil
Marine Oil Terminal
North Sutor
Invergordon
Cromarty
South Sutor
Port Limit
MORAY FIRTH
Fortrose
Nairn


CROMARTY FIRTH PORT
NIGG OIL TERMINAL
DEPTHS IN METRES
Sewer
The Ness
Oc.WR. 10s 18 m. 14/11M
Cromarty
Cromarty House
South Sutor Camp
Invergordon Pilot Station
Oil Terminal
2 F.G. (vert)
Oc.G. 5s 31 m. 5M
2 F.G. (vert)
3.7 m.
Dredged to 9.5 m.
Nigg Pier
2 x 2 F.G. (vert)
Majick's Point
Graving Dock
Oil Rig Fabrication Yard
Flare
N
2
5
10
20
30

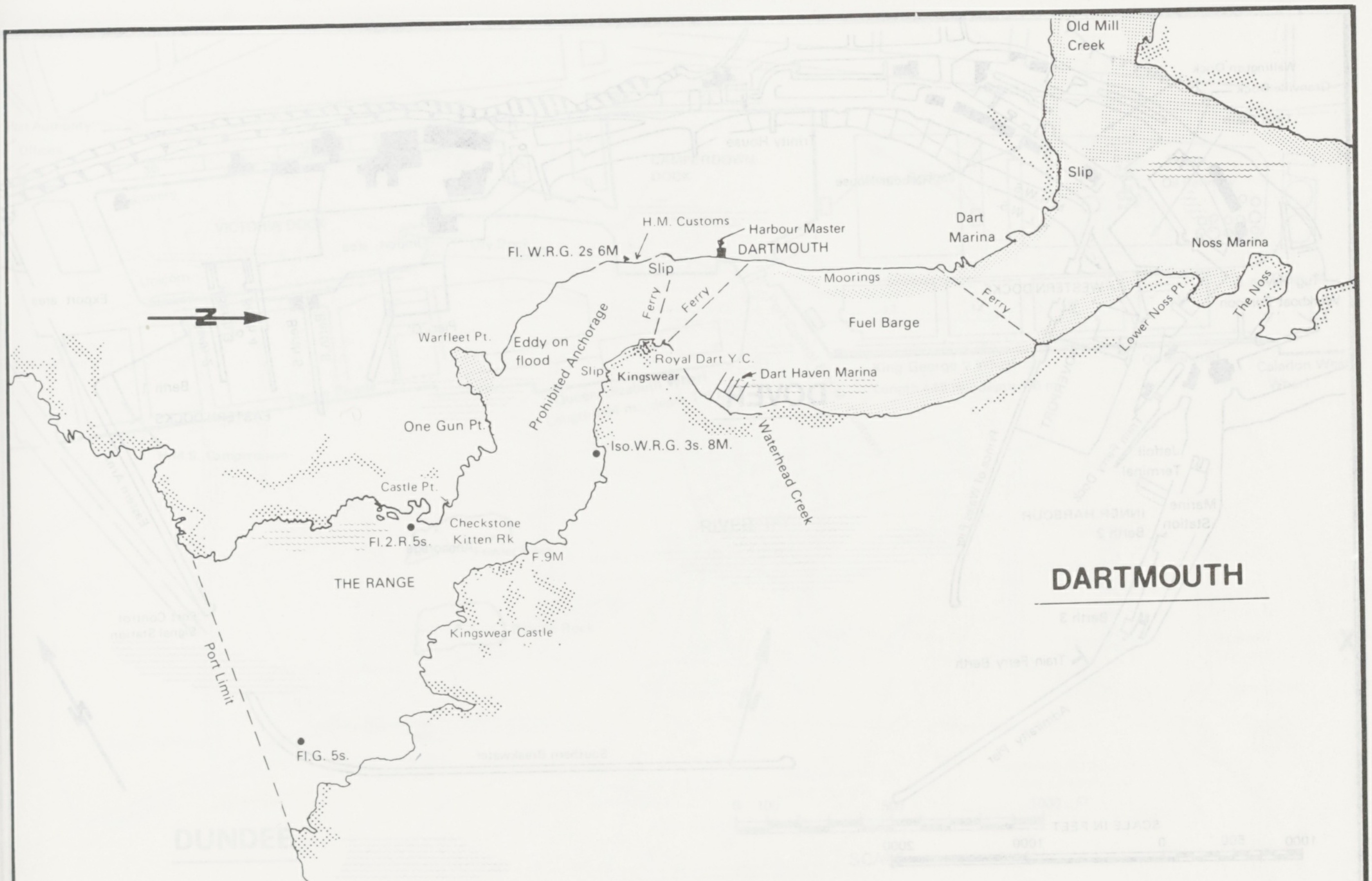
CROMARTY FIRTH PORT

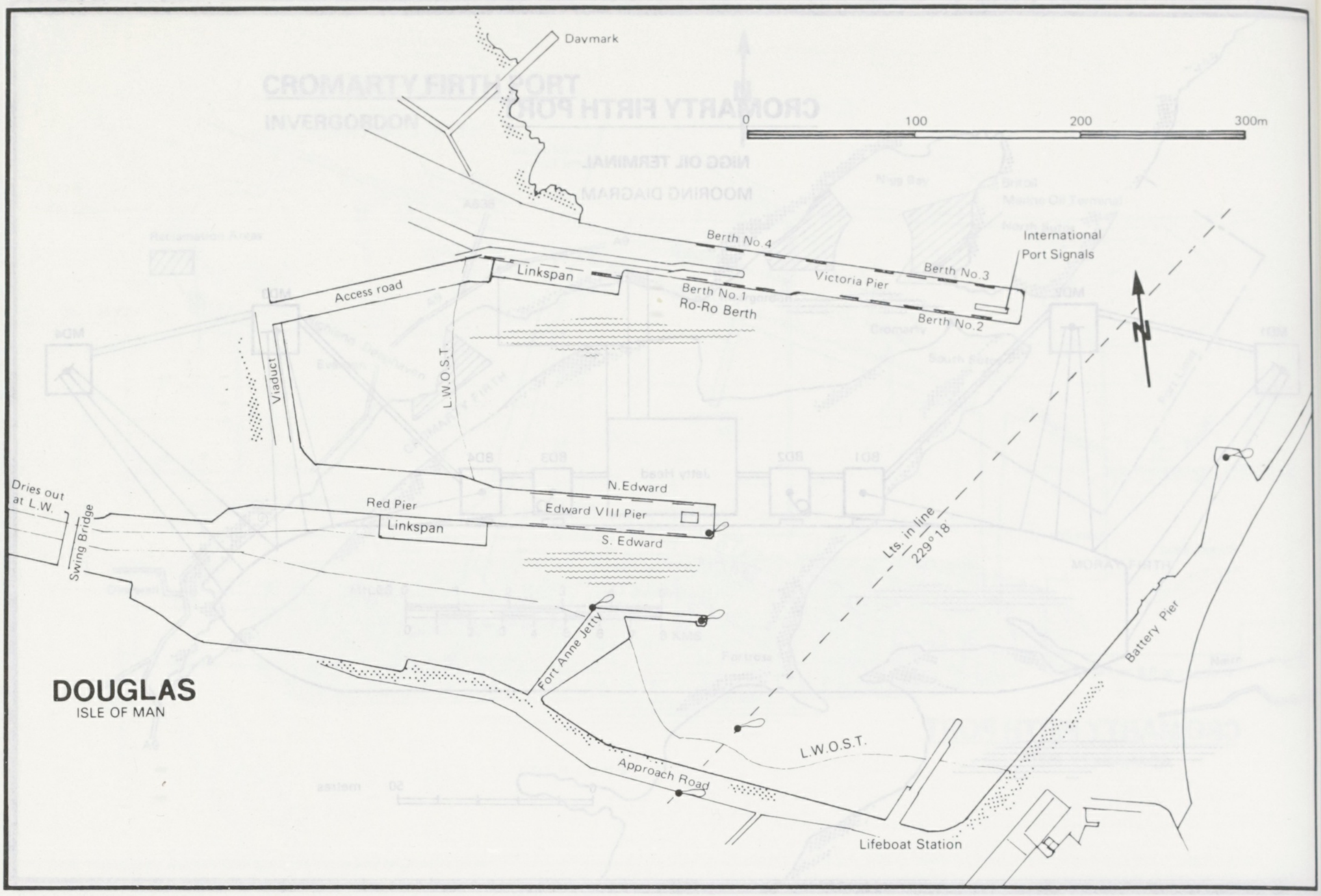
NIGG OIL TERMINAL

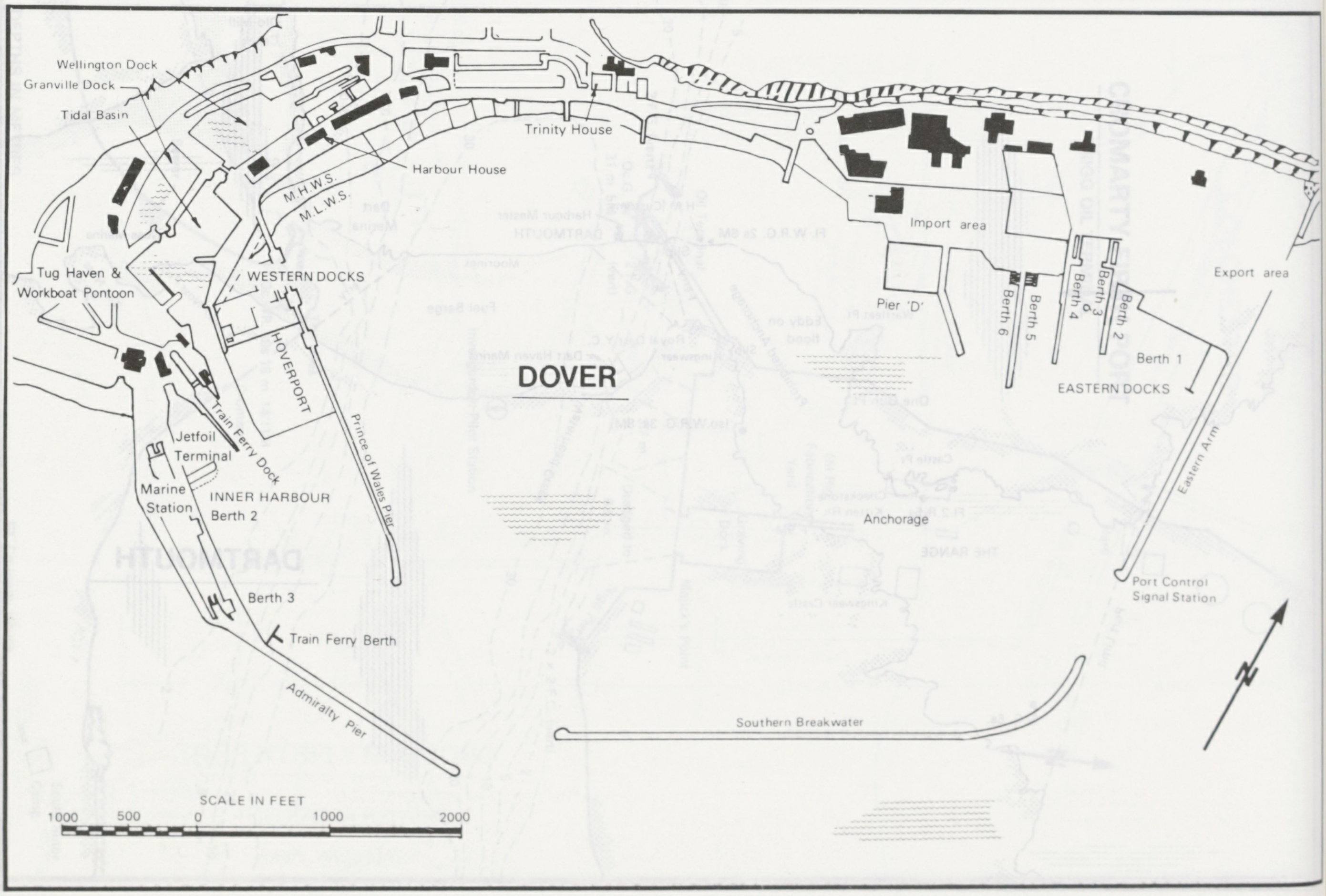
MOORING DIAGRAM

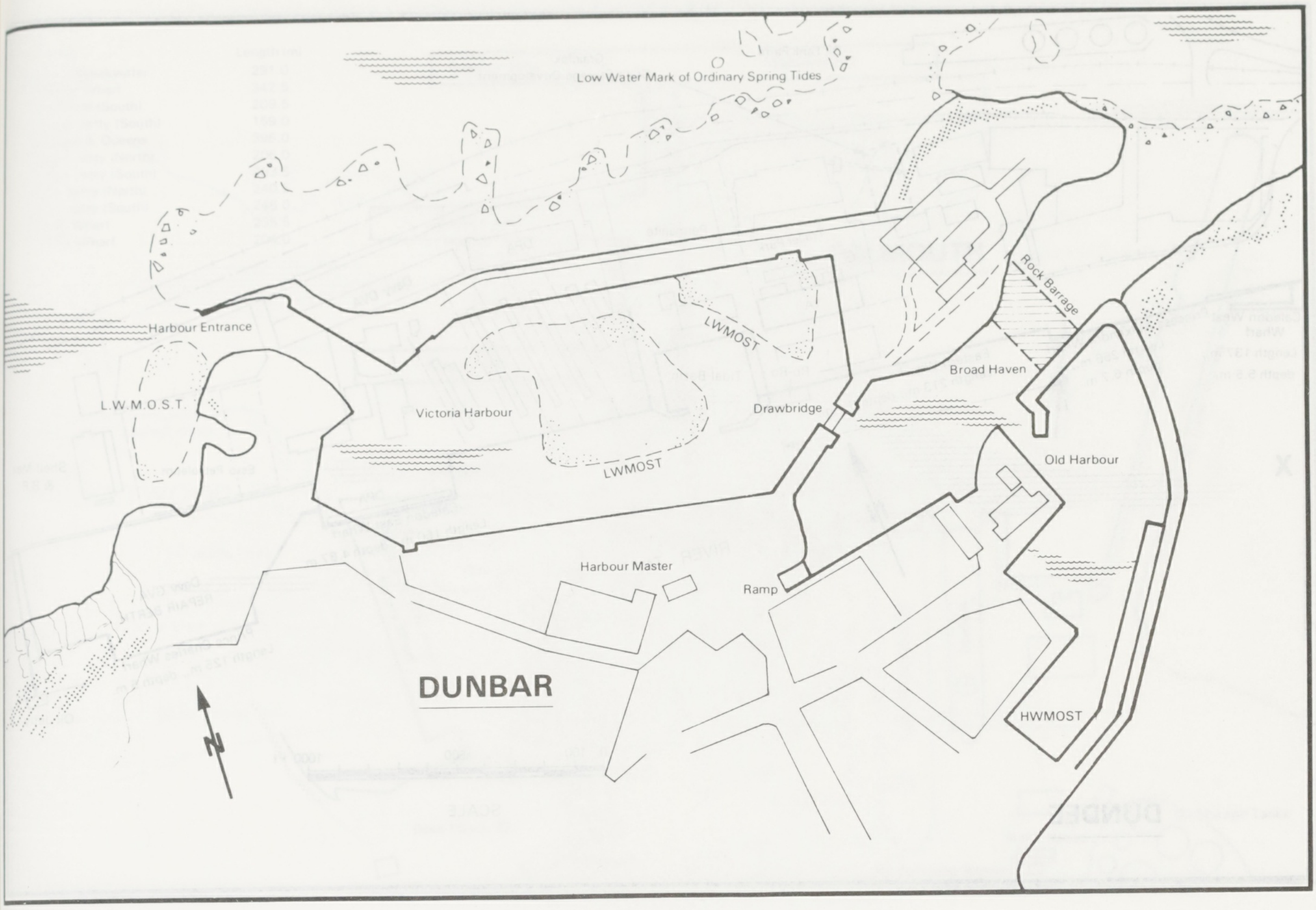

MD1
MD2
MD3
MD4
BD1
BD2
BD3
BD4
Jetty Head
0
50
metres

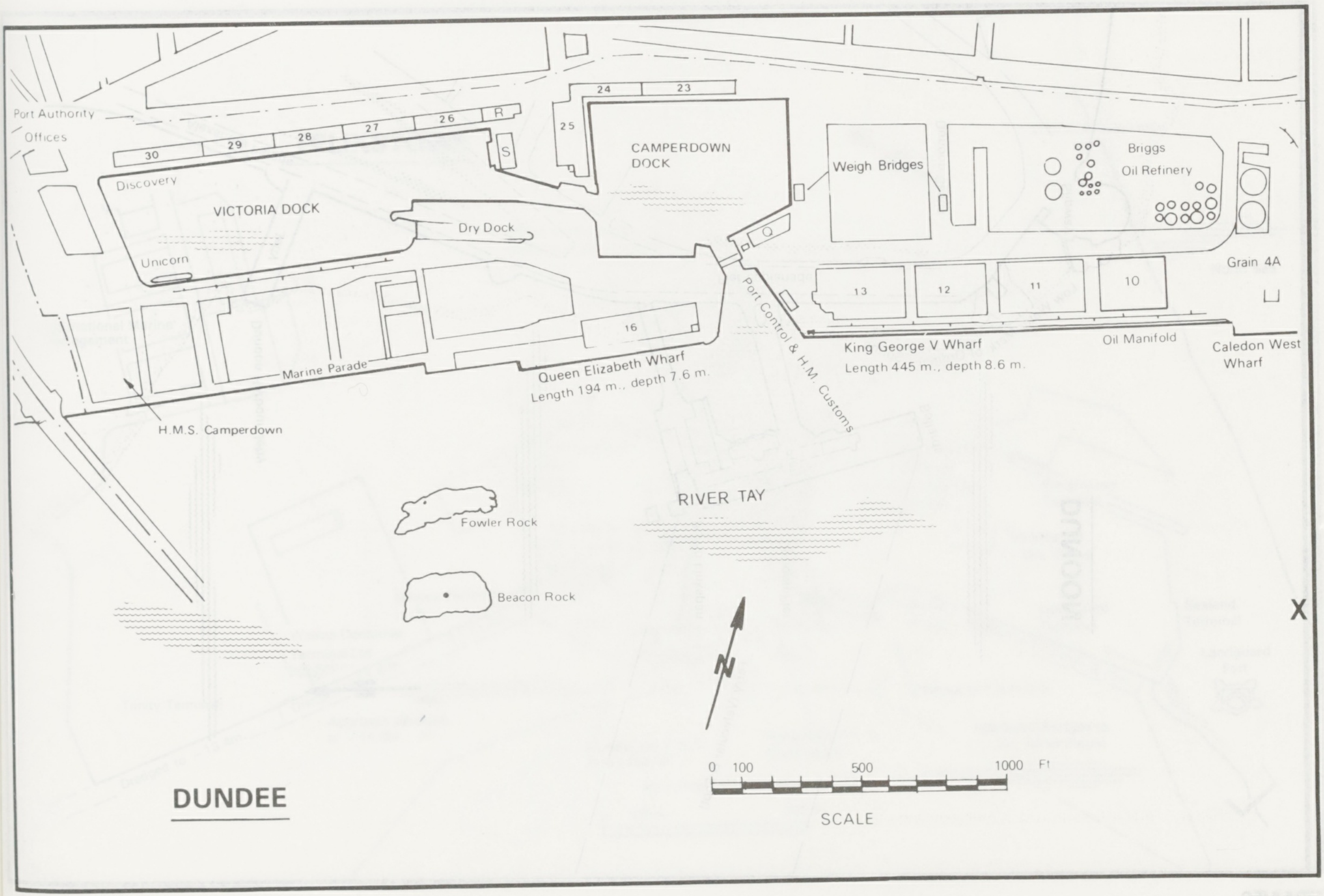
DARTMOUTH

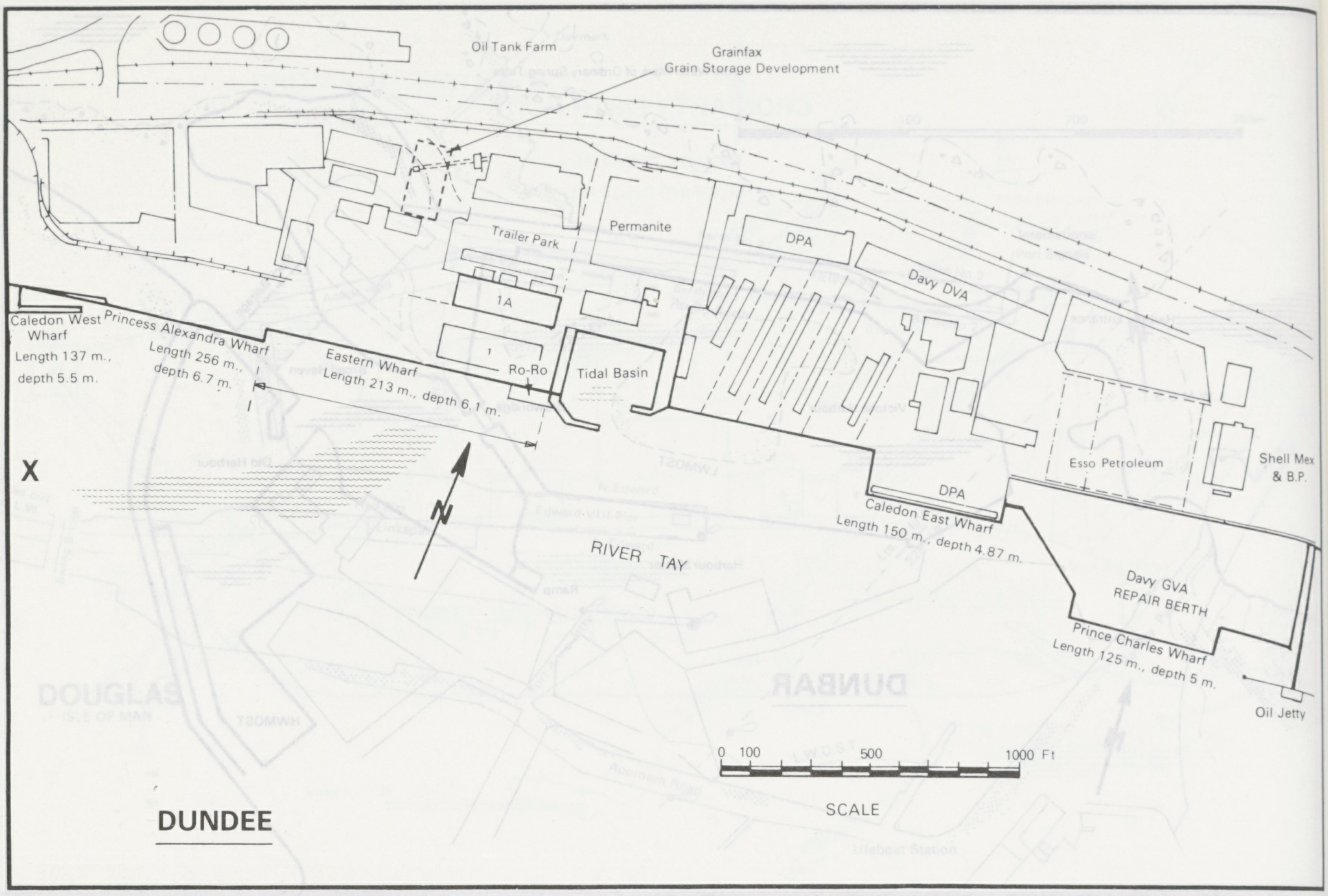

Old Mill Creek
Slip
Dart Marina
Noss Marina
Lower Noss Pt.
The Noss
H.M. Customs
Harbour Master
DARTMOUTH
Fl. W.R.G. 2s 6M
Slip
Ferry
Ferry
Moorings
Ferry
Fuel Barge
Warfleet Pt.
Eddy on flood
Prohibited Anchorage
Royal Dart Y.C.
Dart Haven Marina
Slip
Kingswear
Waterhead Creek
One Gun Pt.
Iso.W.R.G. 3s. 8M.
Castle Pt.
Checkstone
Kitten Rk
Fl.2.R.5s.
F.9M
THE RANGE
Kingswear Castle
Port Limit
Fl.G. 5s.
N

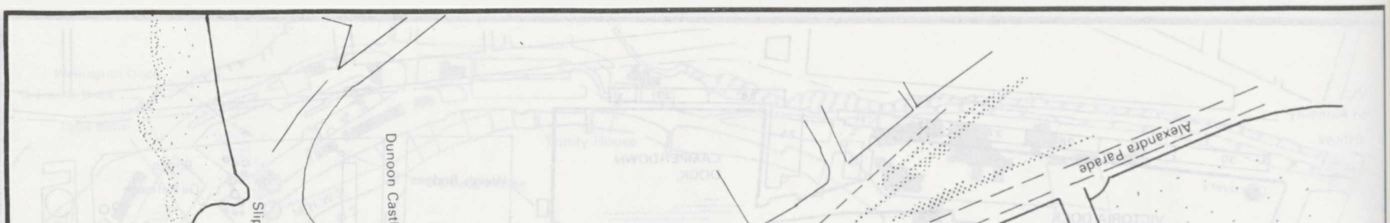

Davmark
0
100
200
300m
Berth No.4
International
Port Signals
Berth No.3
Victoria Pier
Linkspan
Berth No.1
Ro-Ro Berth
Berth No.2
Access road
Viaduct
L.W.O.S.T.
N
N.Edward
Edward VIII Pier
S. Edward
Red Pier
Linkspan
Dries out
at L.W.
Swing Bridge
Lts. in line
229°18'
Fort Anne Jetty
Battery Pier
DOUGLAS
ISLE OF MAN
L.W.O.S.T.
Approach Road
Lifeboat Station


Wellington Dock
Granville Dock
Tidal Basin
Trinity House
Harbour House
M.H.W.S.
M.L.W.S.
Import area
Tug Haven &
Workboat Pontoon
WESTERN DOCKS
HOVERPORT
Pier 'D'
Berth 6
Berth 5
Berth 4
Berth 3
Berth 2
Export area
Berth 1
EASTERN DOCKS
DOVER
Train Ferry Dock
Prince of Wales Pier
Jetfoil
Terminal
Marine
Station
INNER HARBOUR
Berth 2
Eastern Arm
Anchorage
Port Control
Signal Station
Berth 3
Train Ferry Berth
N
Southern Breakwater
Admiralty Pier
SCALE IN FEET
1000
500
0
1000
2000

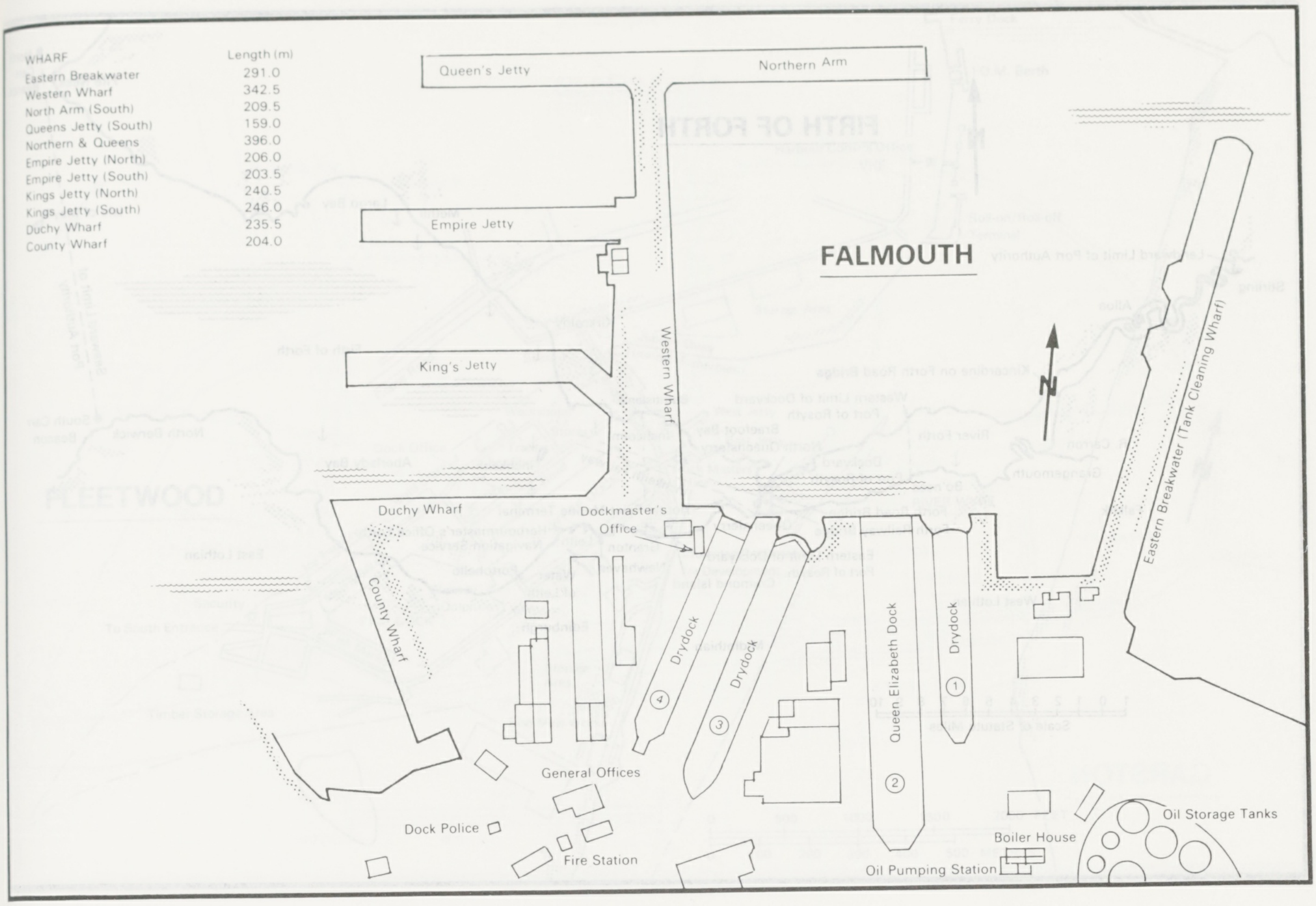

Low Water Mark of Ordinary Spring Tides
Harbour Entrance
L.W.M.O.S.T.
Victoria Harbour
LWMOST
LWMOST
Rock Barrage
Broad Haven
Drawbridge
Old Harbour
Harbour Master
Ramp
HWMOST
DUNBAR
N


Port Authority
Offices
30
29
28
27
26
R
24
23
25
S
Discovery
VICTORIA DOCK
Unicorn
Dry Dock
CAMPERDOWN
DOCK
Weigh Bridges
Briggs
Oil Refinery
Grain 4A
13
12
11
10
16
Port Control & H.M. Customs
King George V Wharf
Length 445 m., depth 8.6 m.
Oil Manifold
Caledon West
Wharf
Marine Parade
Queen Elizabeth Wharf
Length 194 m., depth 7.6 m.
H.M.S. Camperdown
RIVER TAY
Fowler Rock
Beacon Rock
N
X
0
100
500
1000
Ft
SCALE
DUNDEE


Oil Tank Farm
Grainfax
Grain Storage Development
Trailer Park
Permanite
DPA
Davy DVA
1A
Ro-Ro
Tidal Basin
Caledon West Wharf
Length 137 m., depth 5.5 m.
Princess Alexandra Wharf
Length 256 m., depth 6.7 m.
Eastern Wharf
Length 213 m., depth 6.1 m.
X
N
RIVER TAY
DPA
Caledon East Wharf
Length 150 m., depth 4.87 m.
Esso Petroleum
Shell Mex & B.P.
Davy GVA
REPAIR BERTH
Prince Charles Wharf
Length 125 m., depth 5 m.
Oil Jetty
0 100 500 1000 Ft
SCALE
DUNDEE


DUNOON
Dunoon Castle
Slipway
Low Water Mark of Ordinary Spring Tides
Pier Esplanade
Alexandra Parade
Jetty
Dunoon Harbour Jetty
Bollards
Pier
Dunoon Pier
Ro/Ro Linkspan
Ferry (Vehicular & Foot)
N

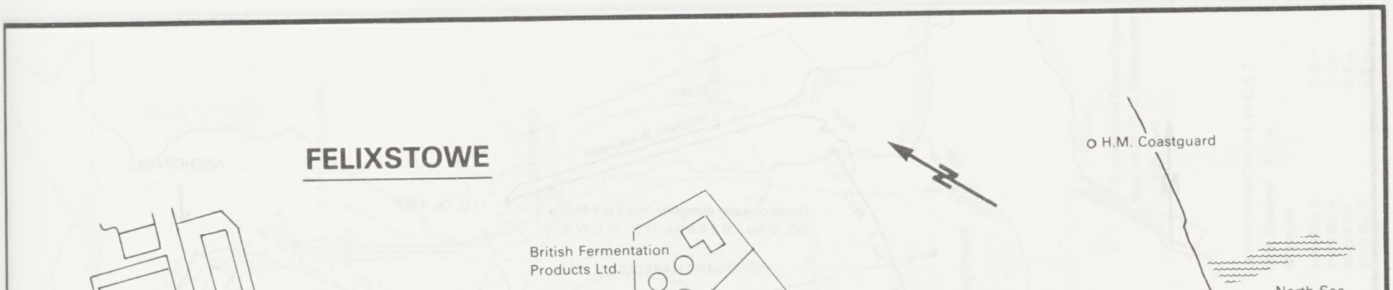
FALMOUTH



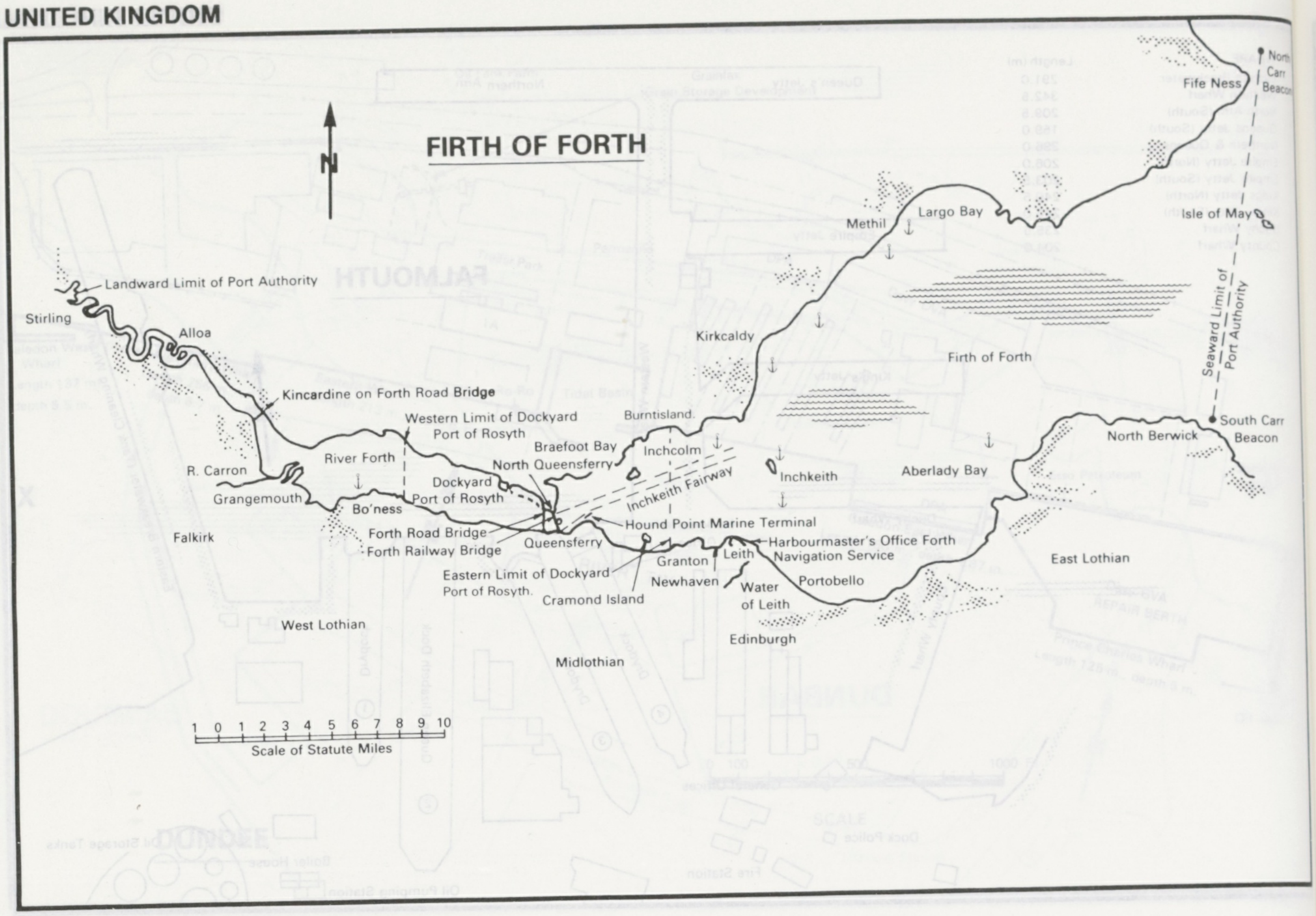
WHARF	Length (m)
Eastern Breakwater	291.0
Western Wharf	342.5
North Arm (South)	209.5
Queens Jetty (South)	159.0
Northern & Queens	396.0
Empire Jetty (North)	206.0
Empire Jetty (South)	203.5
Kings Jetty (North)	240.5
Kings Jetty (South)	246.0
Duchy Wharf	235.5
County Wharf	204.0

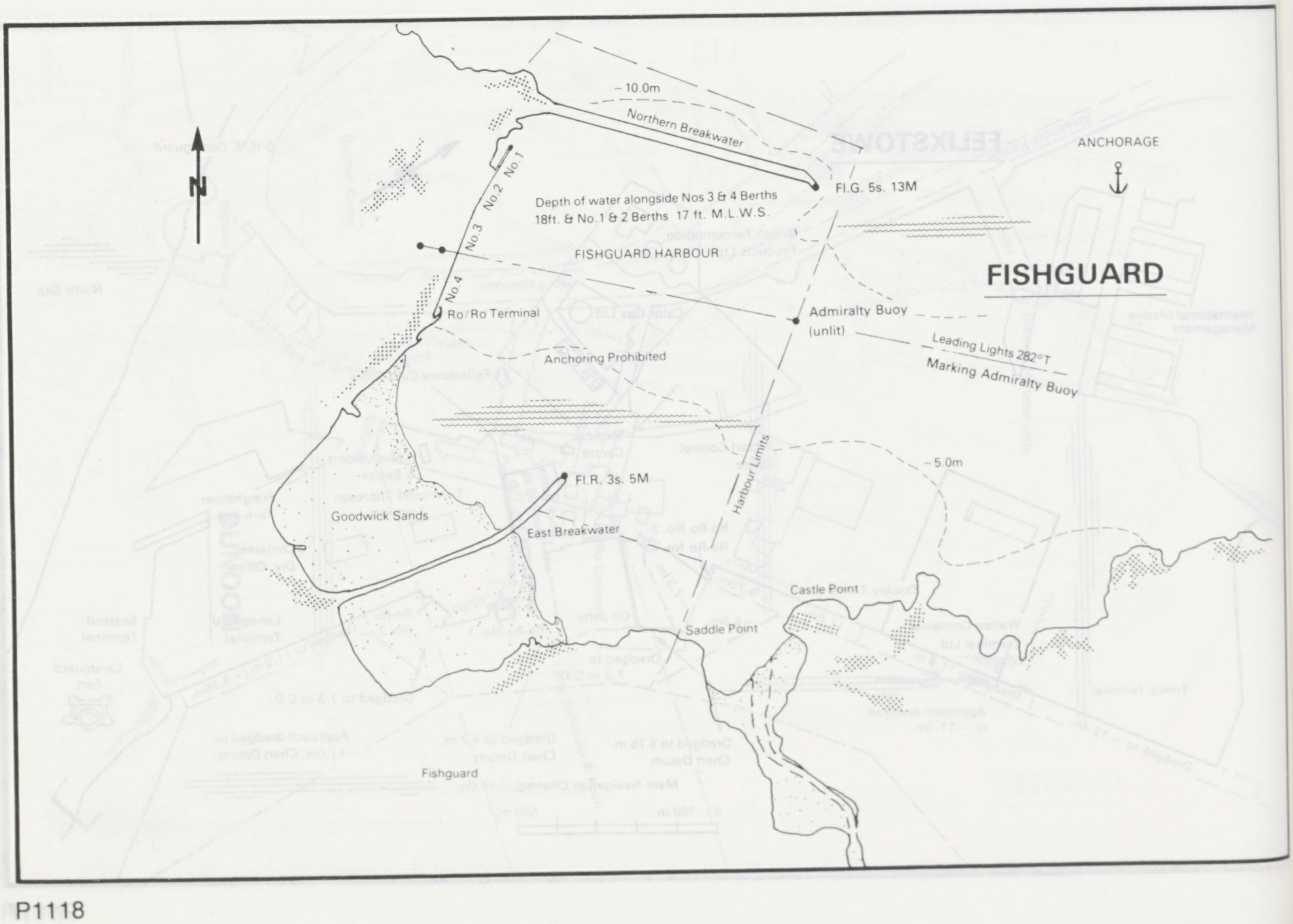
Queen's Jetty
Northern Arm
Empire Jetty
King's Jetty
Western Wharf
Eastern Breakwater (Tank Cleaning Wharf)
N
Duchy Wharf
Dockmaster's Office
County Wharf
Drydock ④
Drydock ③
Queen Elizabeth Dock ②
Drydock ①
General Offices
Dock Police
Fire Station
Boiler House
Oil Pumping Station
Oil Storage Tanks

FELIXSTOWE

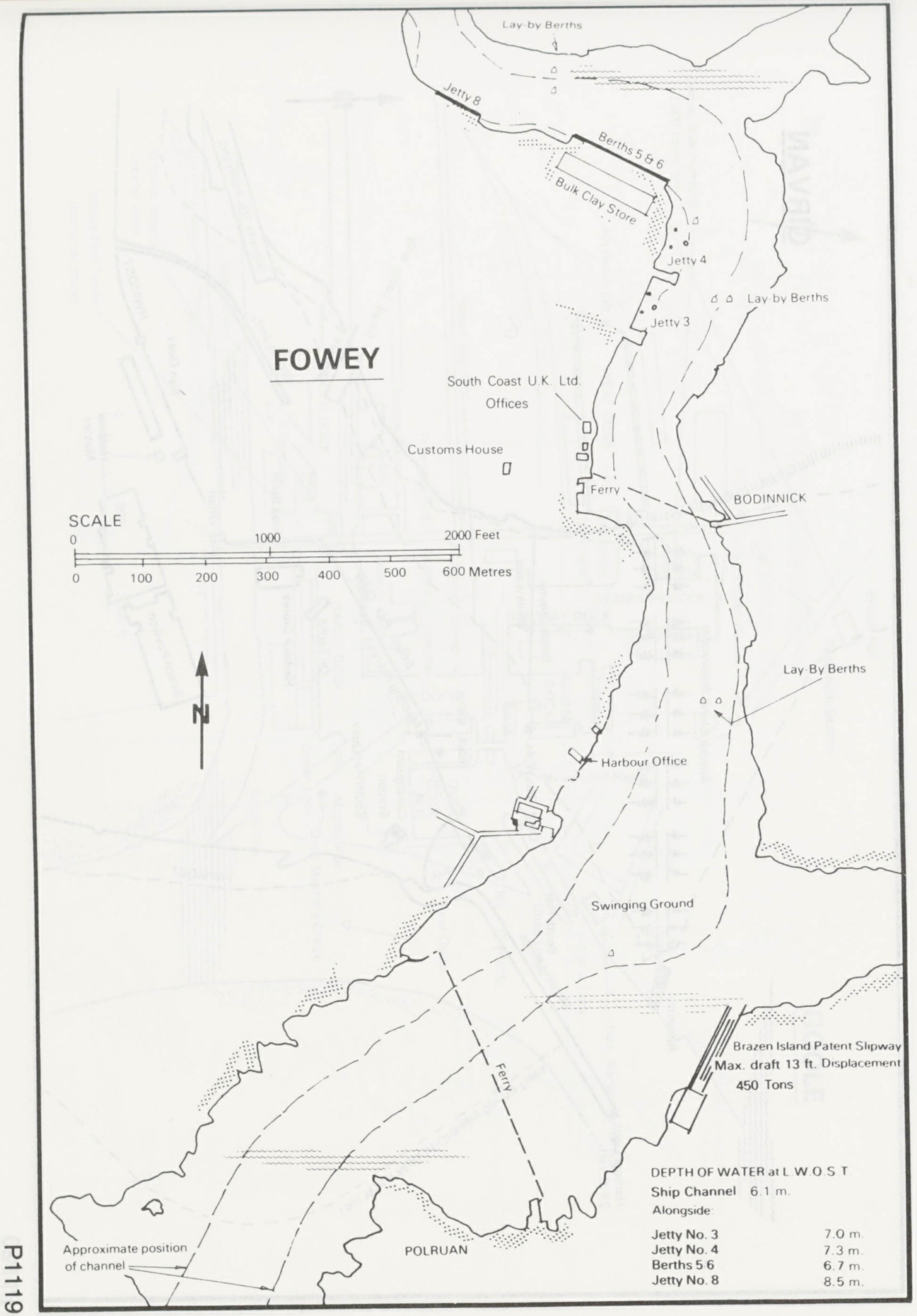


N
H.M. Coastguard
North Sea
British Fermentation Products Ltd.
Calor Gas Ltd.
Felixstowe Cold Store
International Marine Management
Medical Centre
Import Control Office
H.M. Customs & Excise
Townsend Thoresen Terminal
Freightliner Terminal
Container Div. Office
Dock Basin Dredged to 6.7 m. C.D.
Ro-Ro No. 3
Ro-Ro No. 4
—7.31m.
—9.75m.
—8.9m.
—11.6m.
Dooley Terminal
Oil Jetty
Ro-Ro No. 1
Ro-Ro No. 2
Landguard Terminal
Sealand Terminal
Landguard Fort
Walton Container Terminal Ltd
Dredged to 11.9 m.
Dredged to 7.3 m.C.D.
Dredged to 7.3 m.C.D.
Dredged to 11.9 m.
—9.75m.
Trinity Terminal
Approach dredged to —11.0m.
Dredged to —13.4m.
Dredged to 9.75 m. Chart Datum
Dredged to 6.7 m. Chart Datum
Approach dredged to —11.0m. Chart Datum
Main Navigation Channel —11.0m.
0 100 m. 500 m.


FIRTH OF FORTH
N
Landward Limit of Port Authority
Stirling
Alloa
Kincardine on Forth Road Bridge
Western Limit of Dockyard
Port of Rosyth
Burntisland.
Braefoot Bay
North Queensferry
Inchcolm
Inchkeith
Inchkeith Fairway
R. Carron
River Forth
Dockyard
Port of Rosyth
Grangemouth
Bo'ness
Falkirk
Forth Road Bridge
Forth Railway Bridge
Queensferry
Hound Point Marine Terminal
Harbourmaster's Office Forth
Navigation Service
Eastern Limit of Dockyard
Port of Rosyth.
Cramond Island
Granton
Leith
Newhaven
Portobello
Water
of Leith
Edinburgh
West Lothian
Midlothian
East Lothian
Methil
Largo Bay
Kirkcaldy
Firth of Forth
Aberlady Bay
North Berwick
South Carr
Beacon
Fife Ness
North
Carr
Beacon
Isle of May
Seaward Limit of
Port Authority
1 0 1 2 3 4 5 6 7 8 9 10
Scale of Statute Miles


N
–10.0m
Northern Breakwater
Fl.G. 5s. 13M
ANCHORAGE
No.1
No.2
No.3
No.4
Depth of water alongside Nos 3 & 4 Berths
18ft. & No.1 & 2 Berths 17 ft. M.L.W.S.
FISHGUARD HARBOUR
FISHGUARD
Ro/Ro Terminal
Admiralty Buoy
(unlit)
Leading Lights 282°T
Marking Admiralty Buoy
Anchoring Prohibited
Harbour Limits
–5.0m
Fl.R. 3s. 5M
Goodwick Sands
East Breakwater
Castle Point
Saddle Point
Fishguard

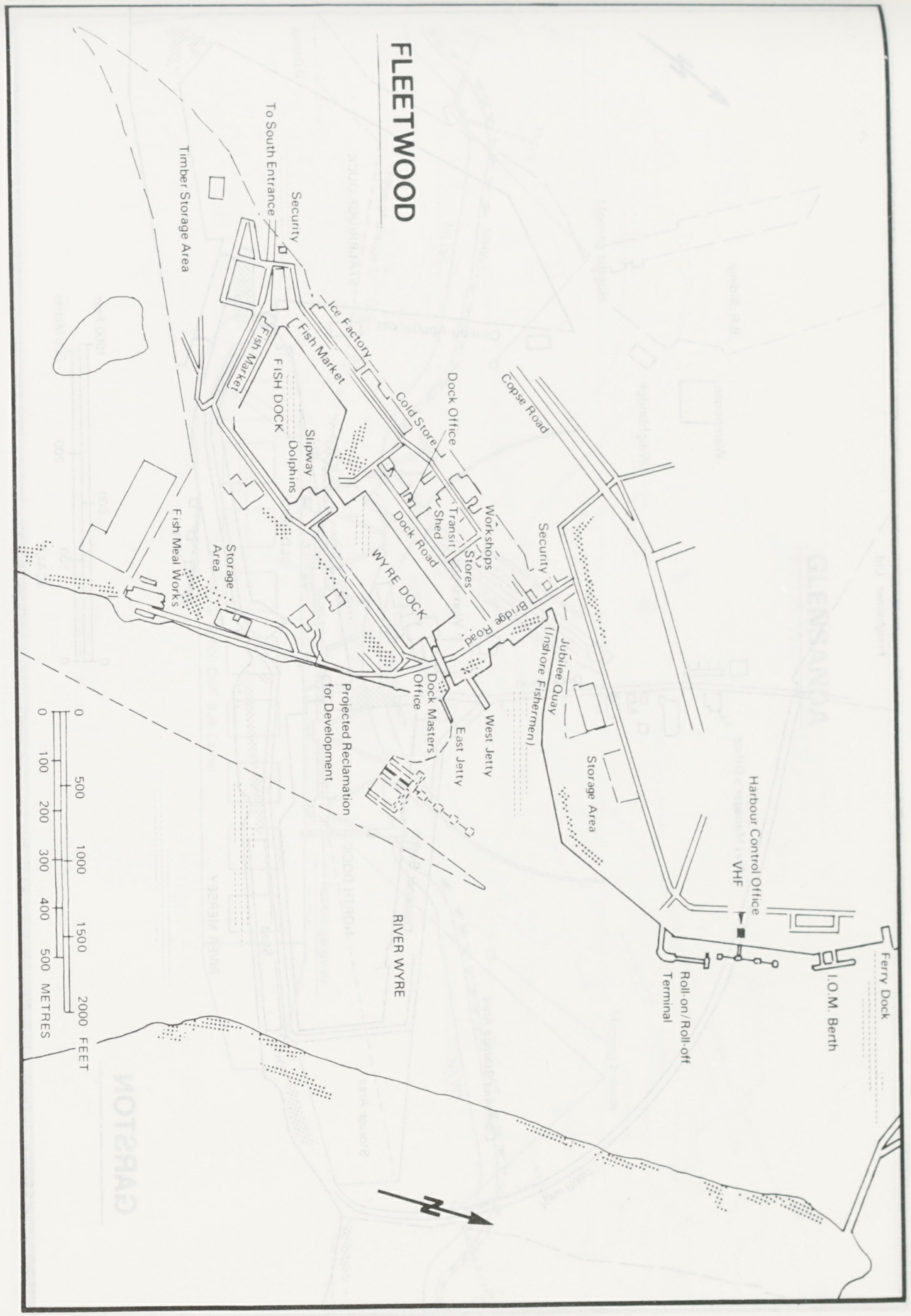
FOWEY

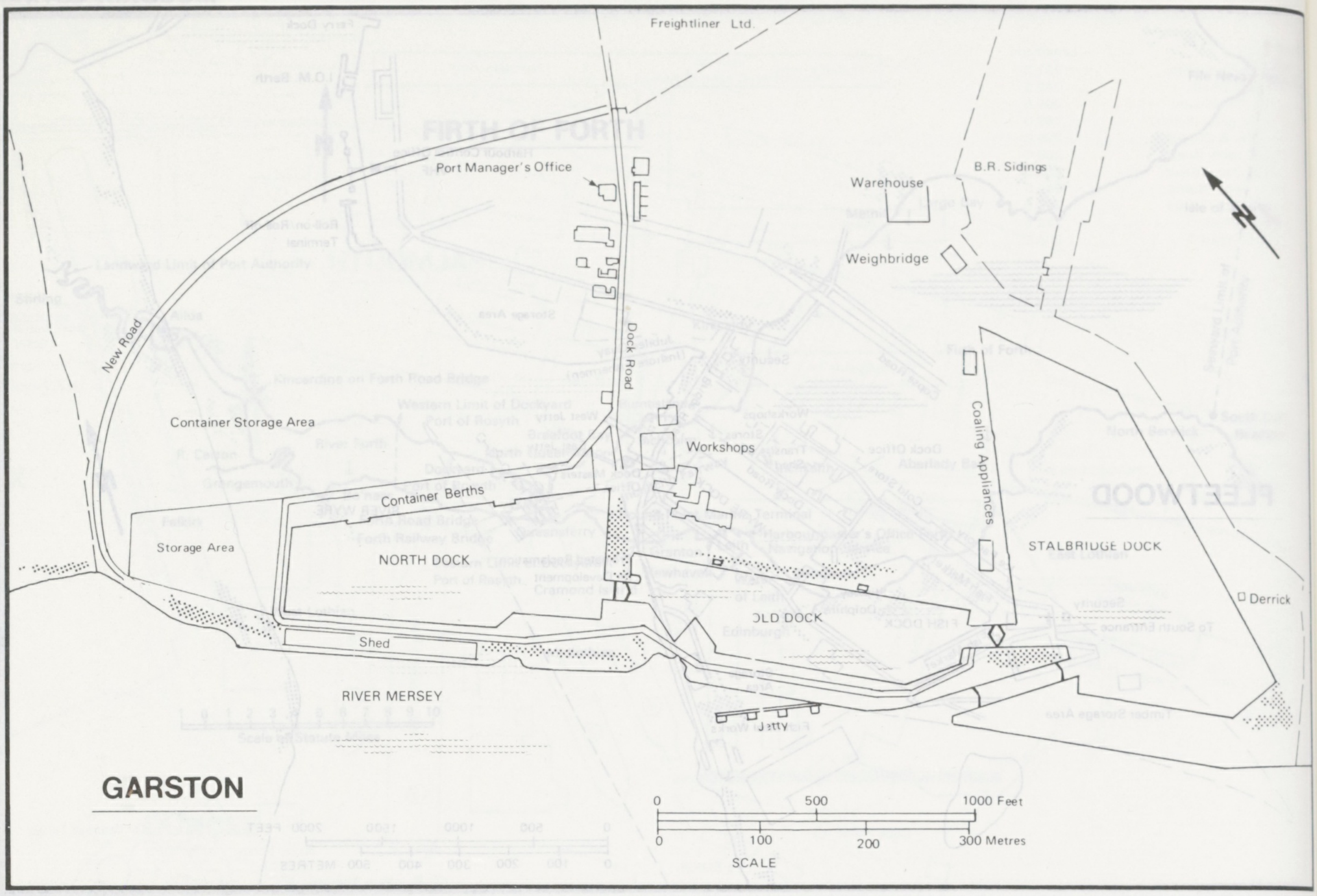

Lay-by Berths
Jetty 8
Berths 5 & 6
Bulk Clay Store
Jetty 4
Lay-by Berths
Jetty 3
South Coast U.K. Ltd. Offices
Customs House
Ferry
BODINNICK
SCALE
0
1000
2000 Feet
0
100
200
300
400
500
600 Metres
N
Lay-By Berths
Harbour Office
Swinging Ground
Brazen Island Patent Slipway
Max. draft 13 ft. Displacement
450 Tons
Ferry
POLRUAN
Approximate position of channel

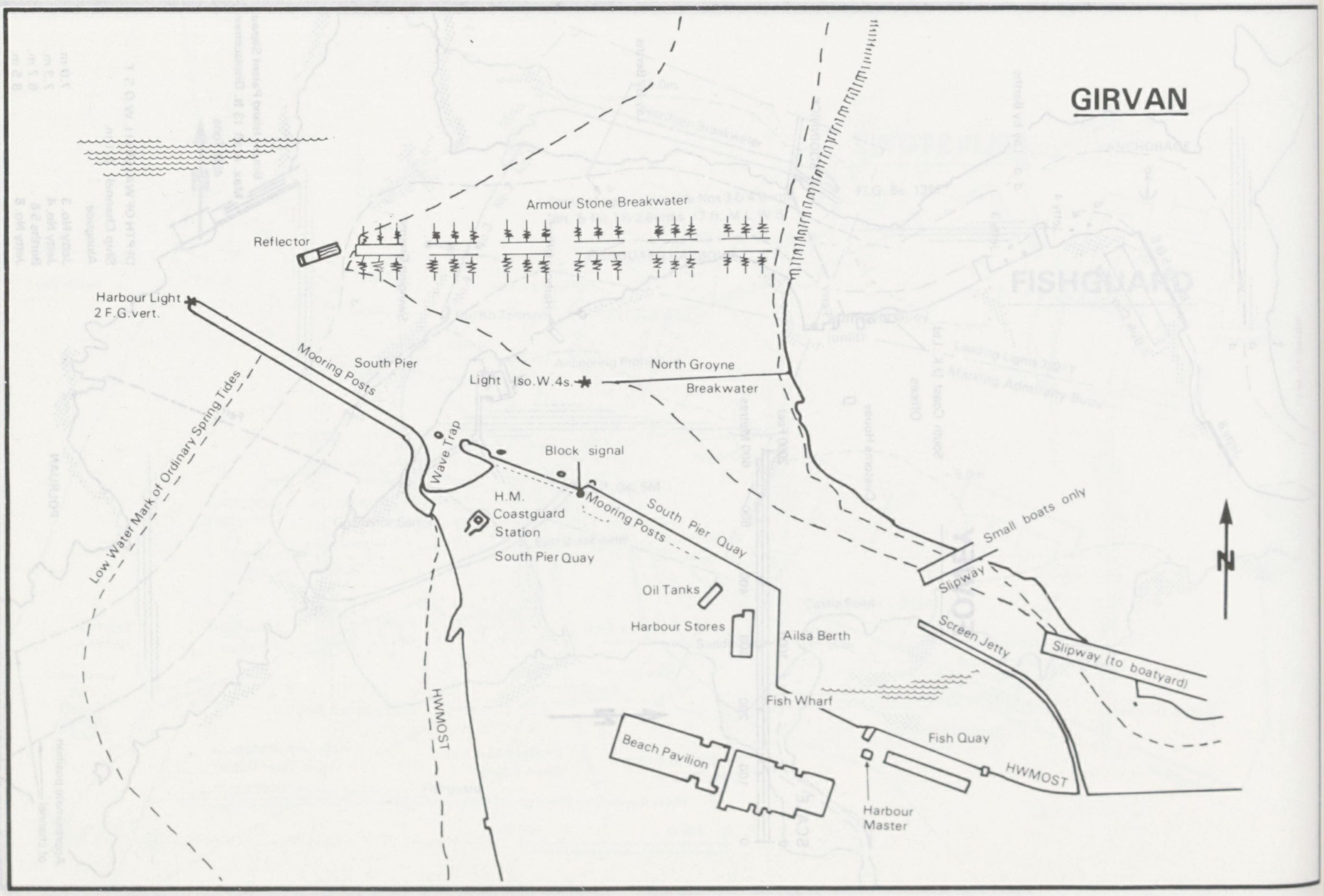
DEPTH OF WATER at L.W.O.S.T.

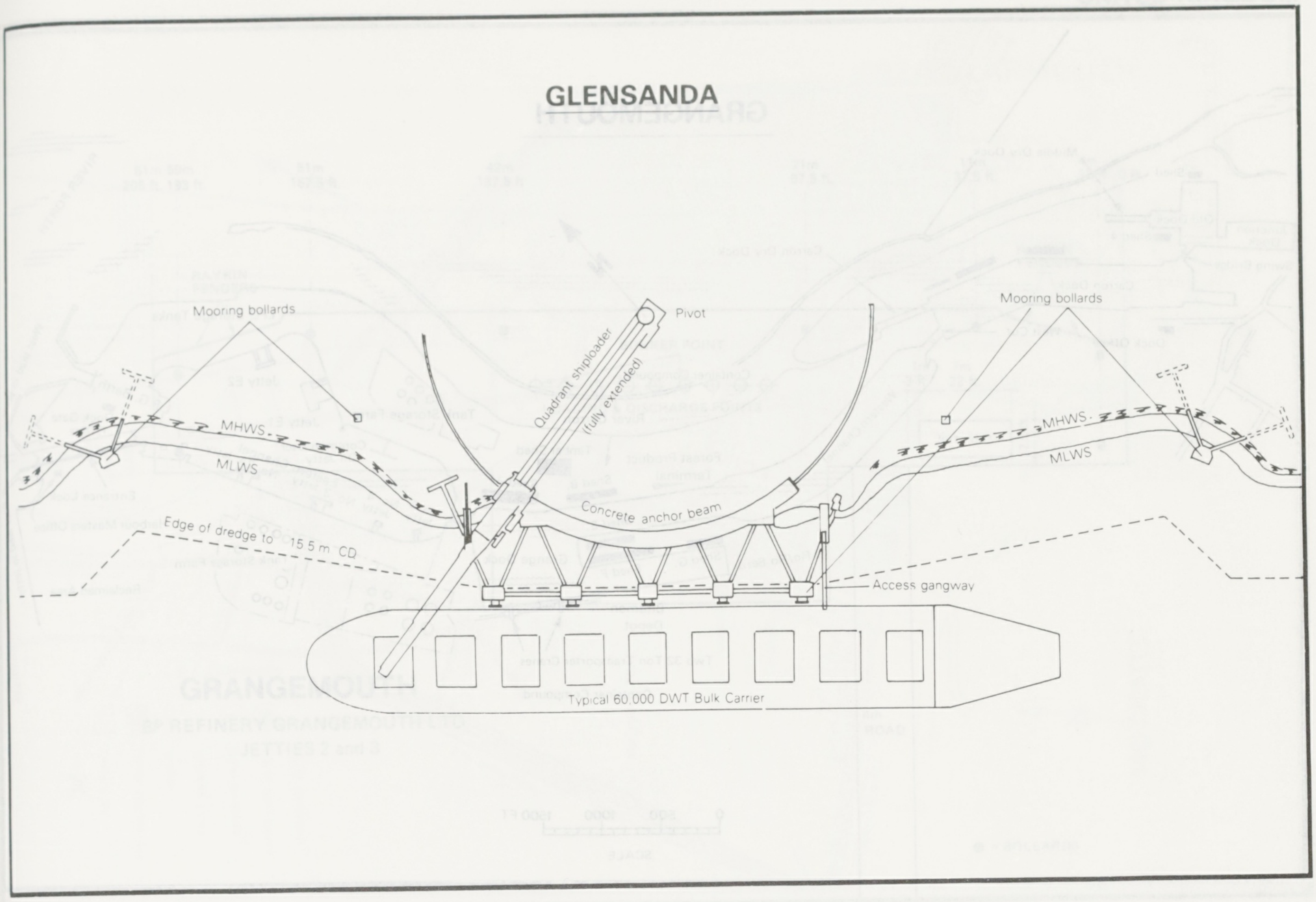
Ship Channel	6.1 m.
Alongside:	
Jetty No. 3	7.0 m.
Jetty No. 4	7.3 m.
Berths 5 6	6.7 m.
Jetty No. 8	8.5 m.

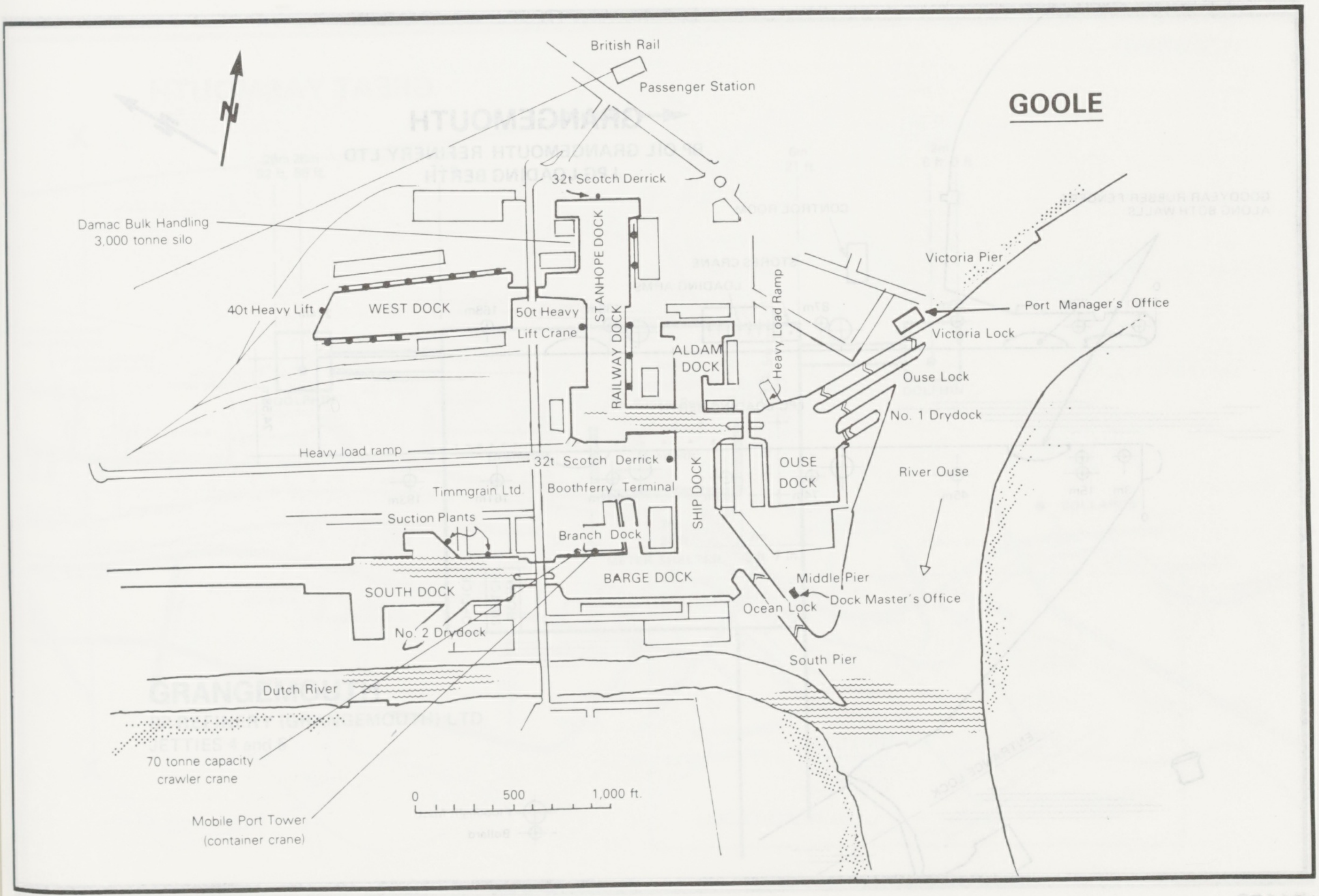
FLEETWOOD

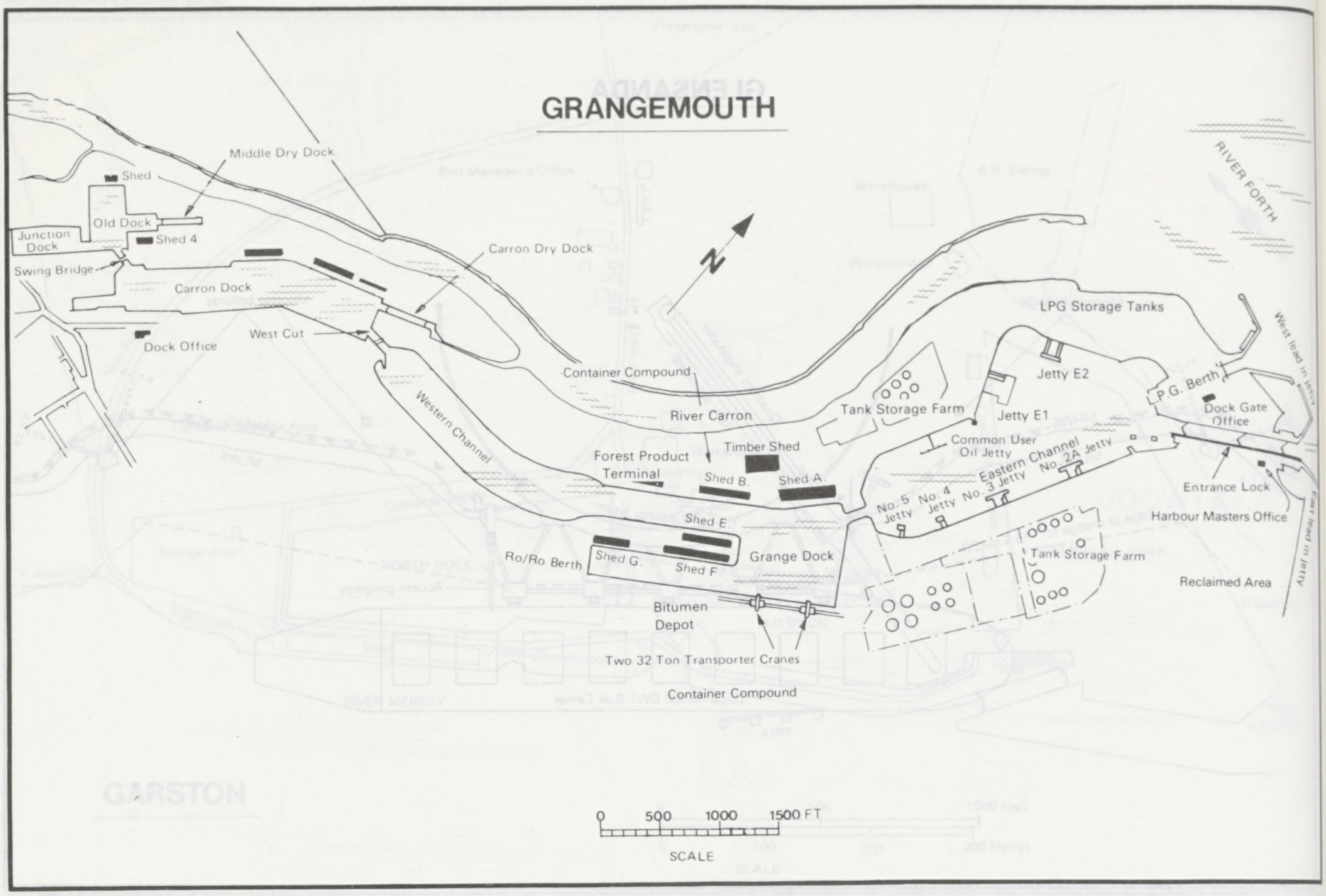

To South Entrance
Security
Timber Storage Area
Ice Factory
Fish Market
Fish Market
FISH DOCK
Cold Store
Dock Office
Copse Road
Slipway
Dolphins
Transit Shed
Workshops
Stores
Dock Road
WYRE DOCK
Security
Bridge Road
Fish Meal Works
Storage Area
Projected Reclamation for Development
Dock Masters Office
East Jetty
West Jetty
Jubilee Quay (Inshore Fishermen)
Storage Area
Harbour Control Office
VHF
RIVER WYRE
Roll-on/Roll-off Terminal
I.O.M. Berth
Ferry Dock
0
500
1000
1500
2000 FEET
0
100
200
300
400
500 METRES
N

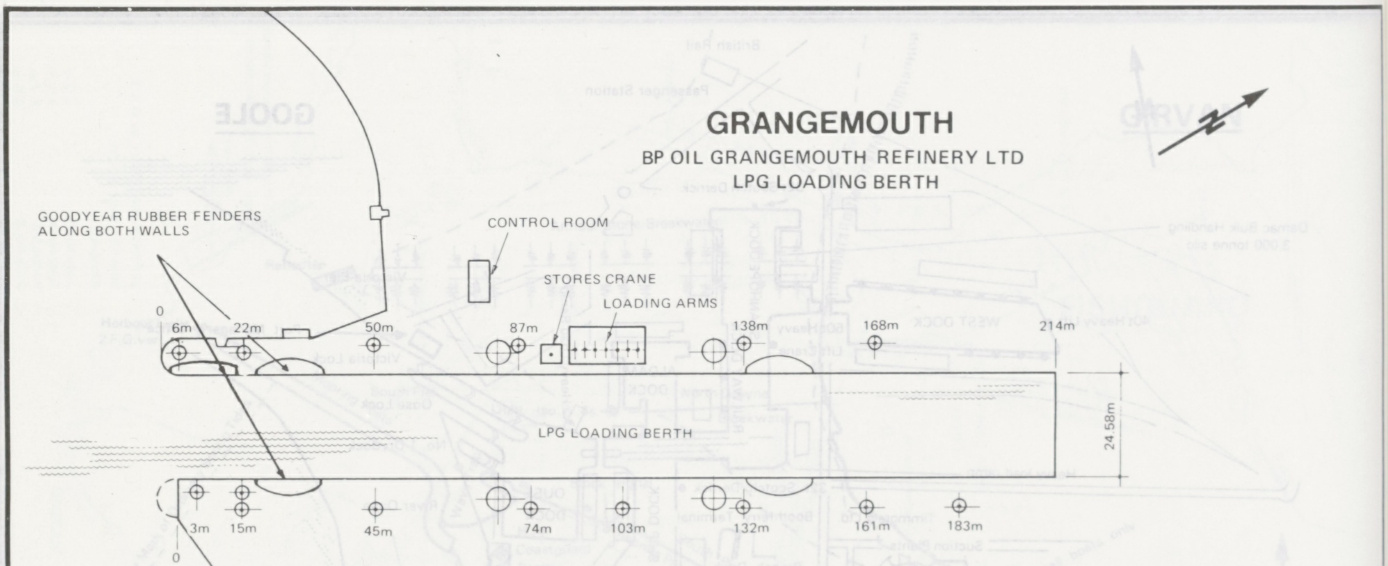

Freightliner Ltd.
Port Manager's Office
Warehouse
B.R. Sidings
Weighbridge
New Road
Dock Road
Container Storage Area
Workshops
Coaling Appliances
Container Berths
Storage Area
NORTH DOCK
STALBRIDGE DOCK
Derrick
OLD DOCK
Shed
RIVER MERSEY
Jetty
GARSTON
0
500
1000 Feet
0
100
200
300 Metres
SCALE

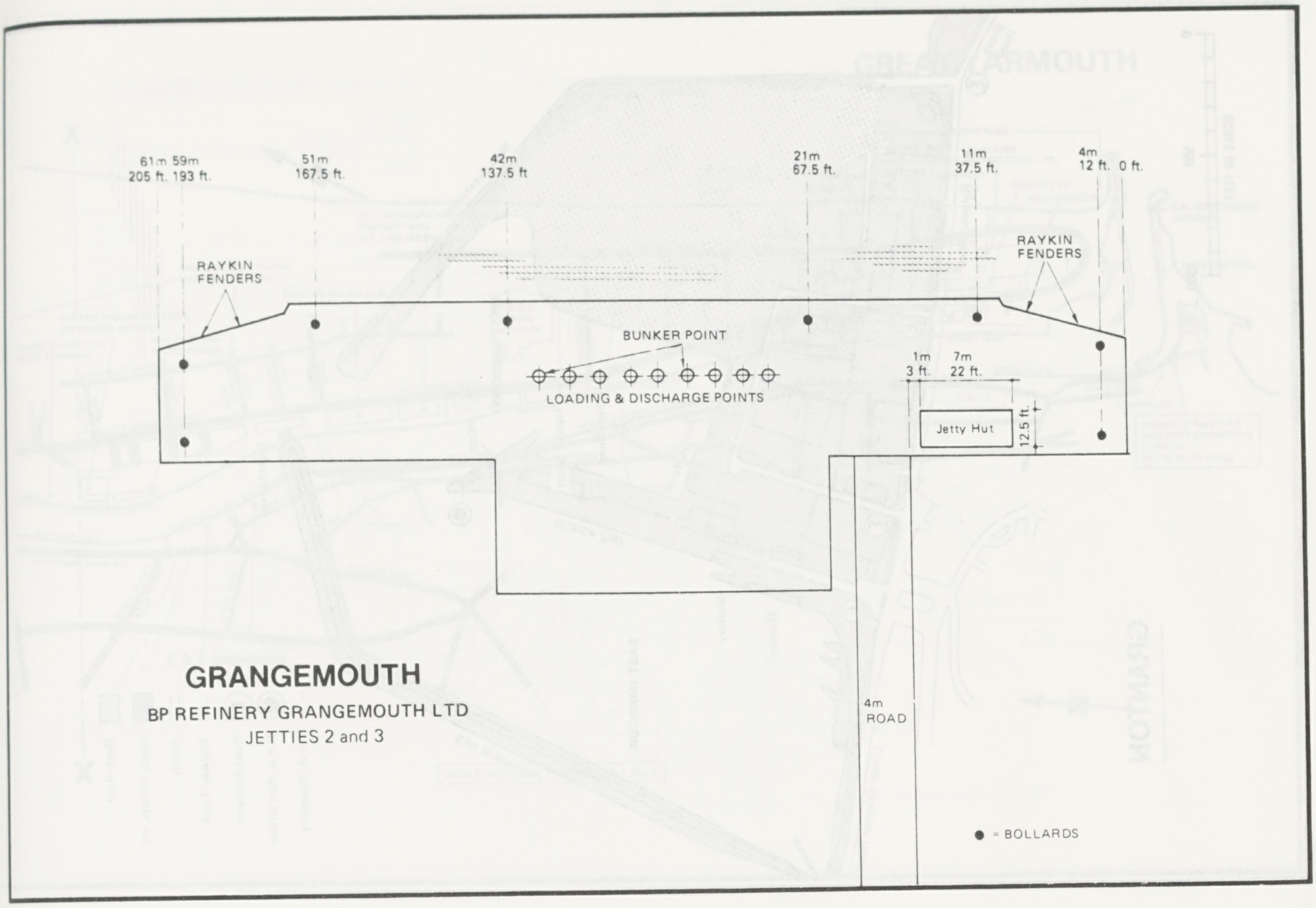

GIRVAN
Armour Stone Breakwater
Reflector
Harbour Light
2 F.G.vert.
South Pier
Mooring Posts
North Groyne
Light Iso.W.4s.
Breakwater
Low Water Mark of Ordinary Spring Tides
Wave Trap
Block signal
H.M. Coastguard Station
Mooring Posts
South Pier Quay
South Pier Quay
Small boats only
Slipway
Oil Tanks
Harbour Stores
Ailsa Berth
Screen Jetty
Slipway (to boatyard)
Fish Wharf
Fish Quay
Beach Pavilion
HWMOST
HWMOST
Harbour Master
N


GLENSANDA
Mooring bollards
Pivot
Quadrant shiploader (fully extended)
Mooring bollards
MHWS
MLWS
MHWS
MLWS
Concrete anchor beam
Edge of dredge to 15.5 m CD
Access gangway
Typical 60,000 DWT Bulk Carrier


GOOLE
N
British Rail
Passenger Station
32t Scotch Derrick
Damac Bulk Handling 3,000 tonne silo
STANHOPE DOCK
40t Heavy Lift
WEST DOCK
50t Heavy Lift Crane
RAILWAY DOCK
ALDAM DOCK
Heavy Load Ramp
Victoria Pier
Port Manager's Office
Victoria Lock
Ouse Lock
No. 1 Drydock
Heavy load ramp
32t Scotch Derrick
OUSE DOCK
River Ouse
Timmgrain Ltd
Boothferry Terminal
SHIP DOCK
Suction Plants
Branch Dock
BARGE DOCK
SOUTH DOCK
Middle Pier
Dock Master's Office
Ocean Lock
No. 2 Drydock
South Pier
Dutch River
70 tonne capacity crawler crane
0
500
1,000 ft.
Mobile Port Tower (container crane)

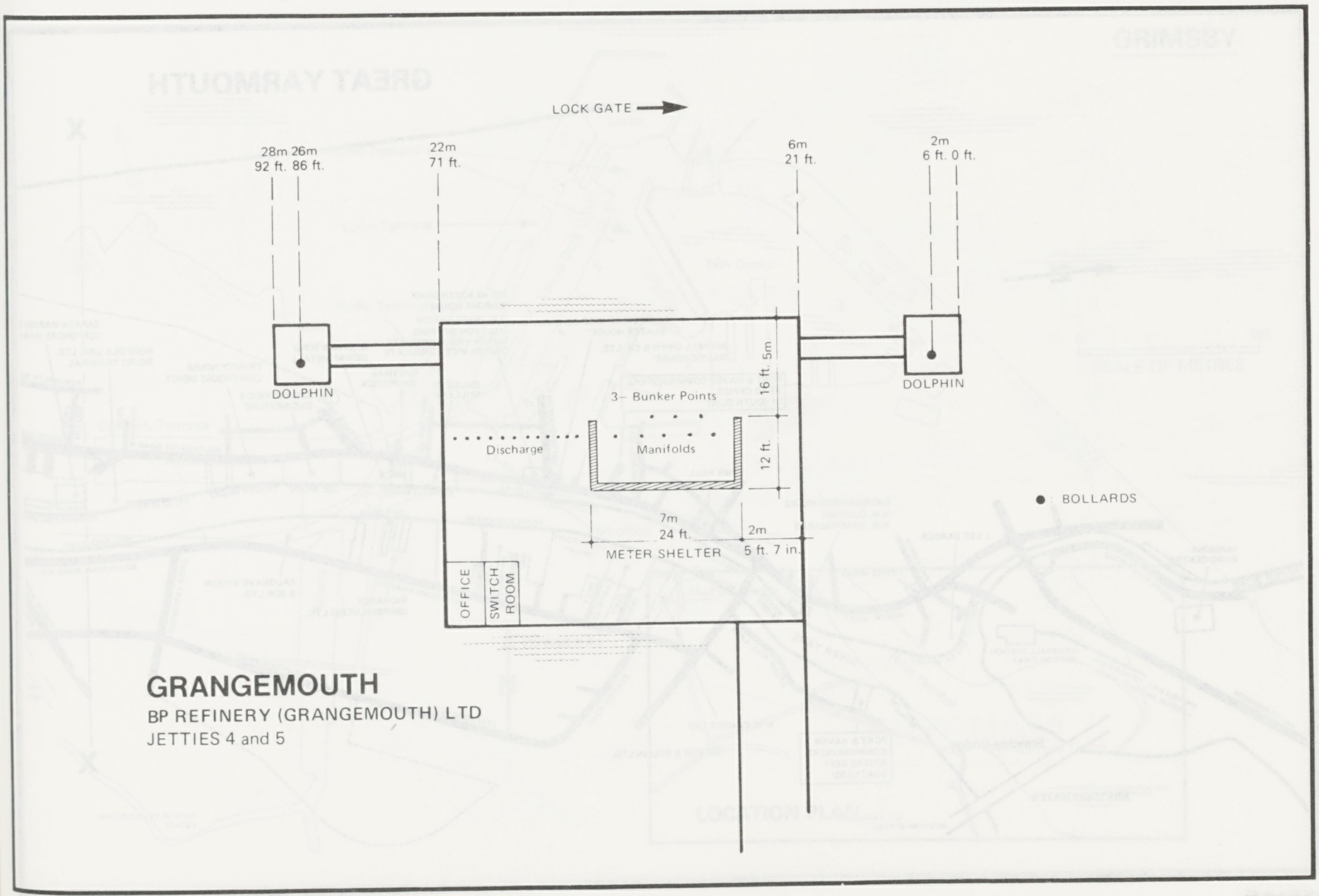

GRANGEMOUTH
Middle Dry Dock
Shed
Old Dock
Junction Dock
Shed 4
Swing Bridge
Carron Dock
Carron Dry Dock
Dock Office
West Cut
Western Channel
Container Compound
River Carron
Forest Product Terminal
Timber Shed
Shed B.
Shed A.
Shed E.
Shed G.
Shed F.
Ro/Ro Berth
Grange Dock
Bitumen Depot
Two 32 Ton Transporter Cranes
Container Compound
RIVER FORTH
LPG Storage Tanks
Jetty E2
Tank Storage Farm
Jetty E1
Common User Oil Jetty
P.G. Berth
Dock Gate Office
West lead in jetty
Eastern Channel
No. 2A Jetty
No. 3 Jetty
No. 4 Jetty
No. 5 Jetty
Tank Storage Farm
Entrance Lock
Harbour Masters Office
East lead in jetty
Reclaimed Area
0
500
1000
1500 FT
SCALE


GRANGEMOUTH
BP OIL GRANGEMOUTH REFINERY LTD
LPG LOADING BERTH
GOODYEAR RUBBER FENDERS ALONG BOTH WALLS
CONTROL ROOM
STORES CRANE
LOADING ARMS
0
6m
22m
50m
87m
138m
168m
214m
LPG LOADING BERTH
24.58m
3m
15m
45m
74m
103m
132m
161m
183m
0
ENTRANCE LOCK
Floodlight Mast
Bollard


61m 59m
205 ft. 193 ft.
51m
167.5 ft.
42m
137.5 ft
21m
67.5 ft.
11m
37.5 ft.
4m
12 ft. 0 ft.
RAYKIN FENDERS
RAYKIN FENDERS
BUNKER POINT
LOADING & DISCHARGE POINTS
1m
3 ft.
7m
22 ft.
Jetty Hut
12.5 ft.
4m ROAD
● = BOLLARDS

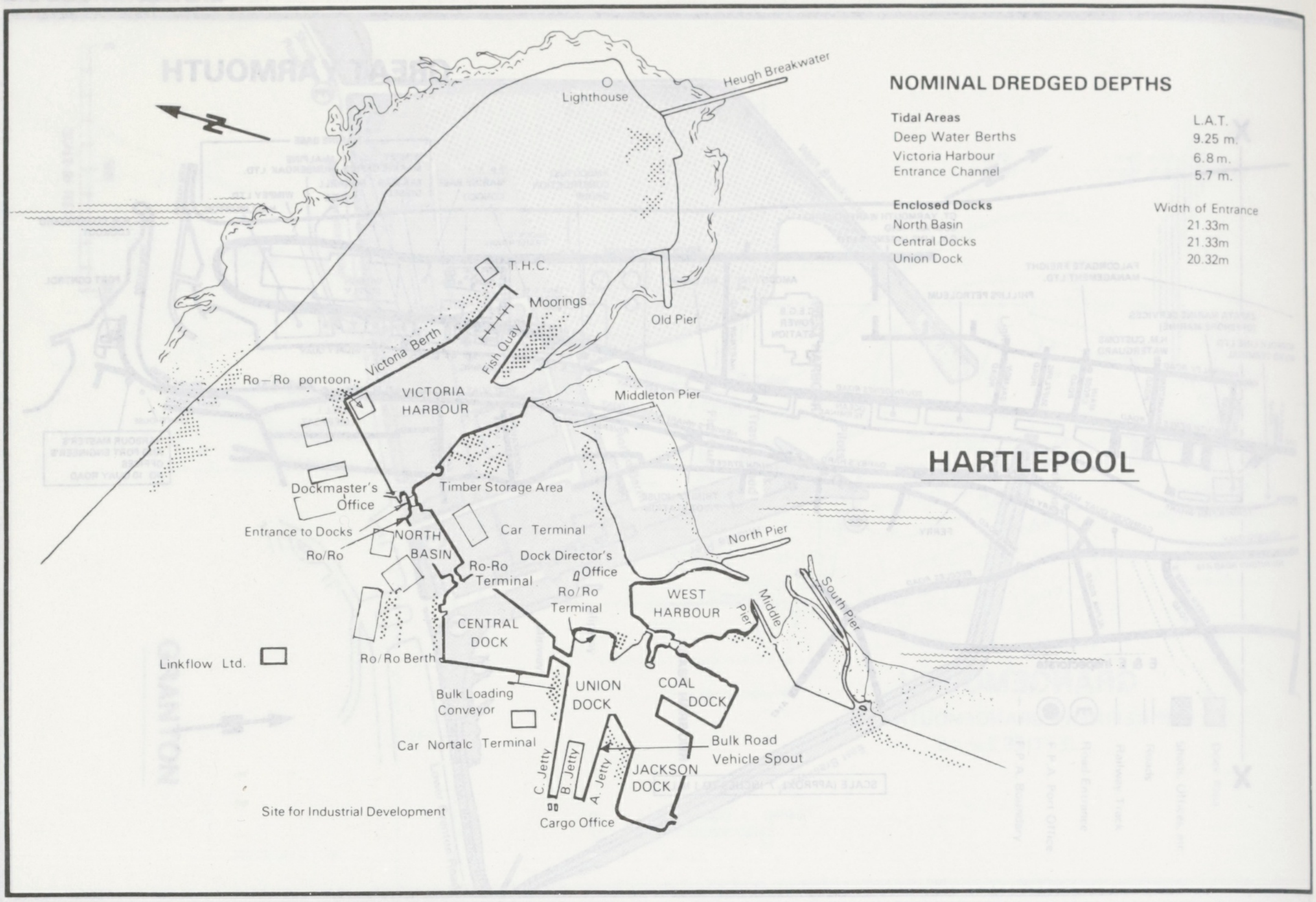
GRANGEMOUTH

BP REFINERY GRANGEMOUTH LTD
JETTIES 2 and 3


LOCK GATE
28m 26m
92 ft. 86 ft.
22m
71 ft.
6m
21 ft.
2m
6 ft. 0 ft.
DOLPHIN
DOLPHIN
16 ft. 5m
3– Bunker Points
Discharge
Manifolds
12 ft.
7m
24 ft.
2m
5 ft. 7 in.
METER SHELTER
OFFICE
SWITCH ROOM
● BOLLARDS

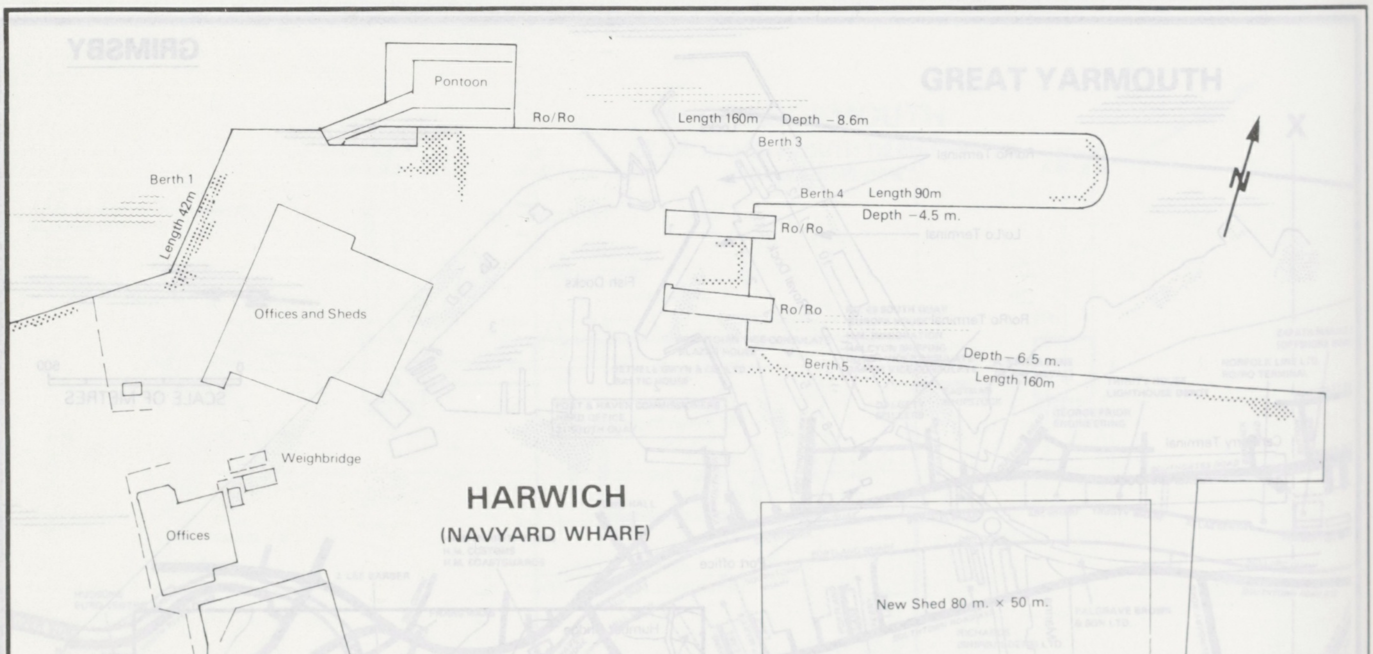
GRANGEMOUTH

BP REFINERY (GRANGEMOUTH) LTD
JETTIES 4 and 5


HARTLEPOOL
Heugh Breakwater
Lighthouse
T.H.C.
Moorings
Old Pier
Victoria Berth
Fish Quay
Ro–Ro pontoon
VICTORIA HARBOUR
Middleton Pier
Dockmaster's Office
Timber Storage Area
Entrance to Docks
NORTH BASIN
Car Terminal
Ro/Ro
Ro-Ro Terminal
Dock Director's Office
North Pier
Ro/Ro Terminal
WEST HARBOUR
Middle Pier
South Pier
CENTRAL DOCK
Linkflow Ltd.
Ro/Ro Berth
UNION DOCK
COAL DOCK
Bulk Loading Conveyor
Car Nortalc Terminal
Bulk Road Vehicle Spout
C. Jetty
B. Jetty
A. Jetty
JACKSON DOCK
Cargo Office
Site for Industrial Development

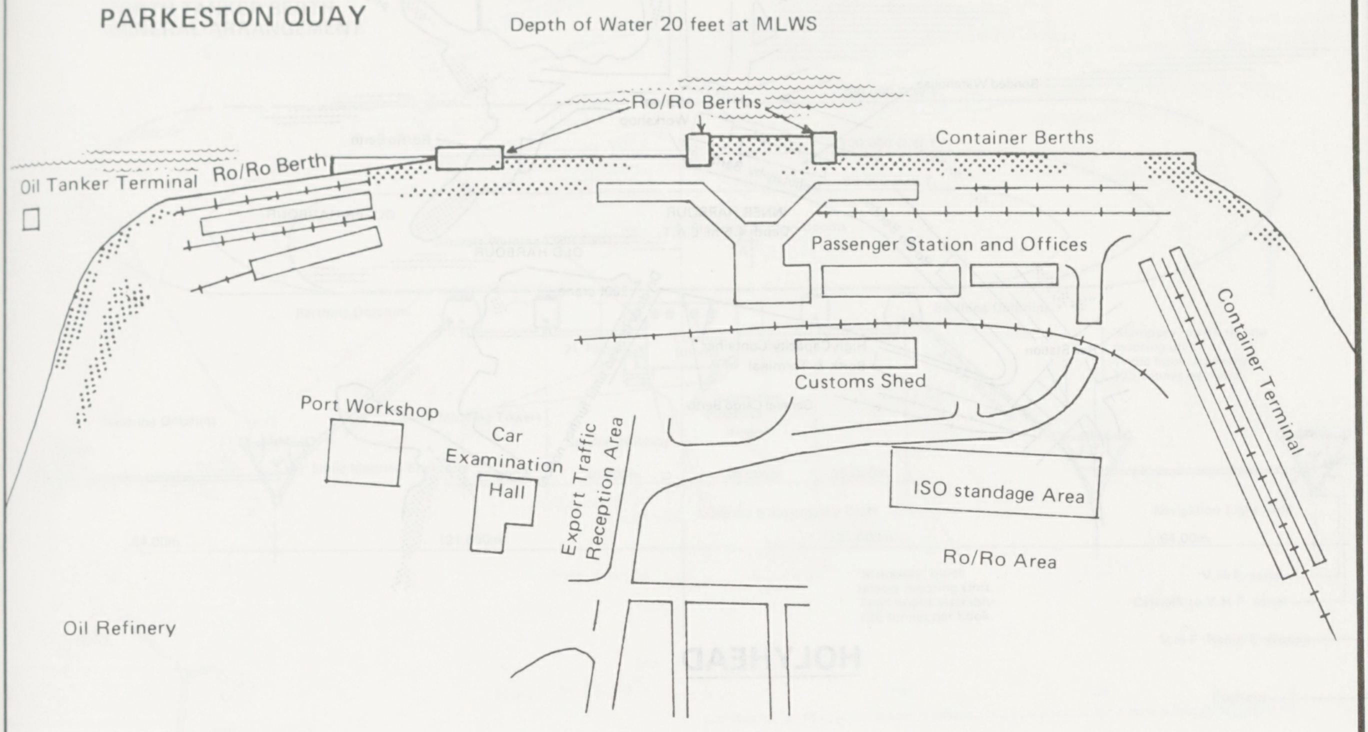
NOMINAL DREDGED DEPTHS

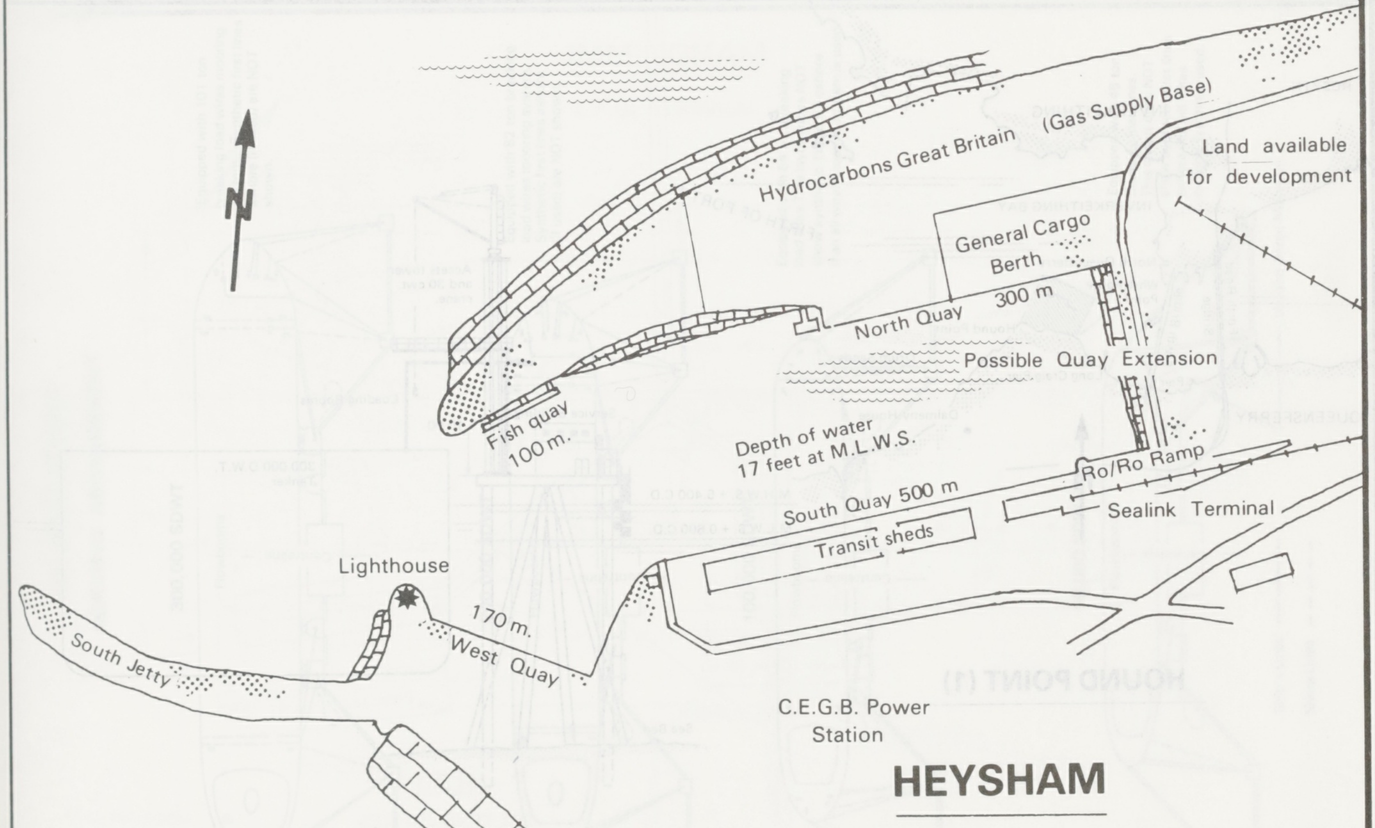
Tidal Areas	L.A.T.
Deep Water Berths	9.25 m.
Victoria Harbour	6.8 m.
Entrance Channel	5.7 m.
Enclosed Docks	Width of Entrance
North Basin	21.33m
Central Docks	21.33m
Union Dock	20.32m


Pontoon
Ro/Ro
Length 160m
Depth - 8.6m
Berth 3
Berth 1
Length 42m
Berth 4
Length 90m
Depth -4.5 m.
Ro/Ro
Ro/Ro
Offices and Sheds
Berth 5
Depth - 6.5 m.
Length 160m
Weighbridge
HARWICH
(NAVYARD WHARF)
Offices
New Shed 80 m. × 50 m.
Multi-storey Car Park

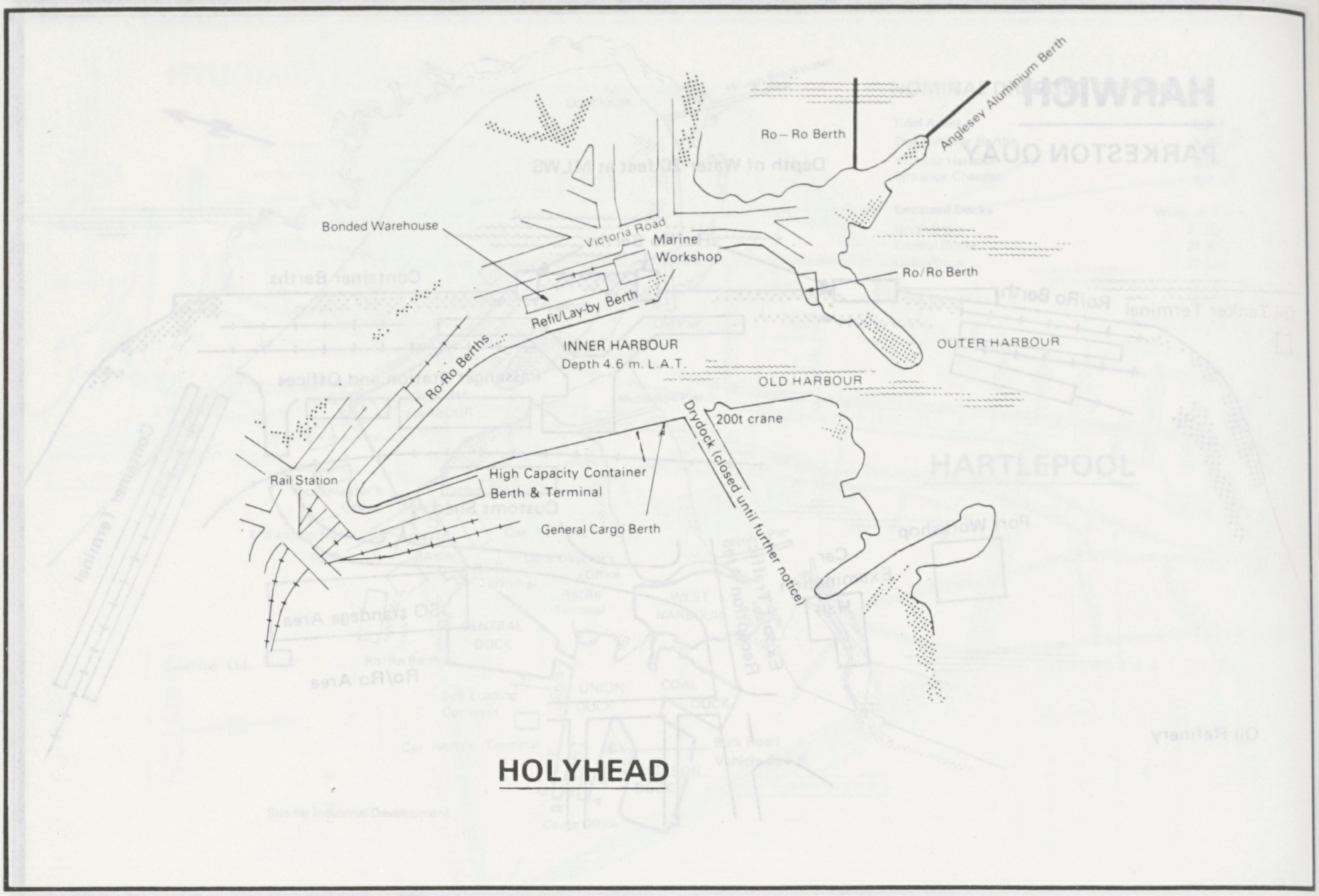
HARWICH

PARKESTON QUAY


Depth of Water 20 feet at MLWS
Ro/Ro Berths
Container Berths
Oil Tanker Terminal
Ro/Ro Berth
Passenger Station and Offices
Container Terminal
Customs Shed
Port Workshop
Car
Examination
Hall
Export Traffic
Reception Area
ISO standage Area
Ro/Ro Area
Oil Refinery

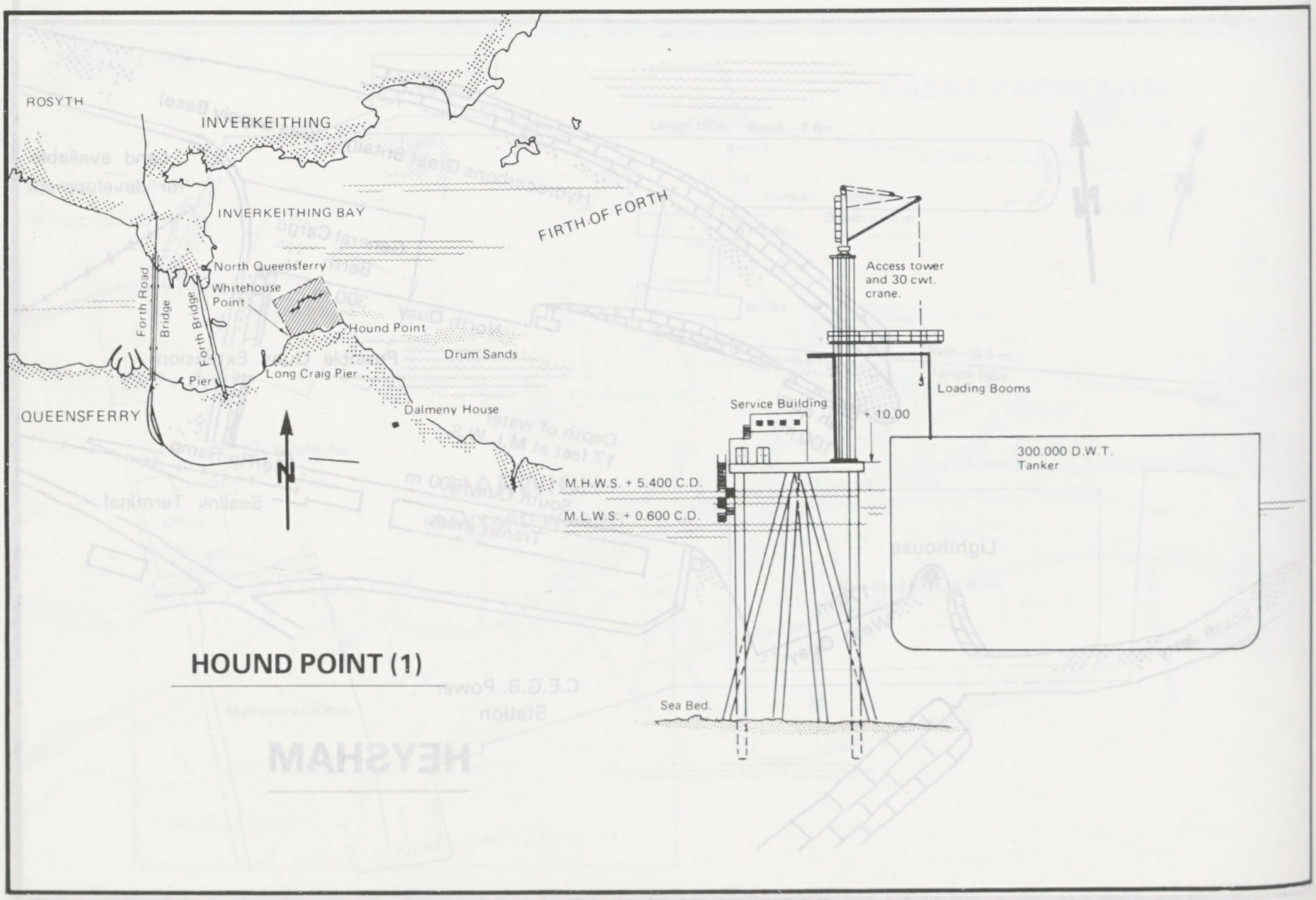

N
Hydrocarbons Great Britain
(Gas Supply Base)
Land available
for development
General Cargo
Berth
300 m
North Quay
Possible Quay Extension
Fish quay
100 m.
Depth of water
17 feet at M.L.W.S.
Ro/Ro Ramp
Sealink Terminal
South Quay 500 m
Transit sheds
Lighthouse
170 m.
West Quay
South Jetty
C.E.G.B. Power
Station

HEYSHAM



HOLYHEAD

Anglesey Aluminium Berth
Ro – Ro Berth
Bonded Warehouse
Victoria Road
Marine Workshop
Ro/Ro Berth
Refit/Lay-by Berth
INNER HARBOUR
Depth 4.6 m. L.A.T.
OUTER HARBOUR
Ro-Ro Berths
OLD HARBOUR
200t crane
Drydock (closed until further notice)
Rail Station
High Capacity Container Berth & Terminal
General Cargo Berth



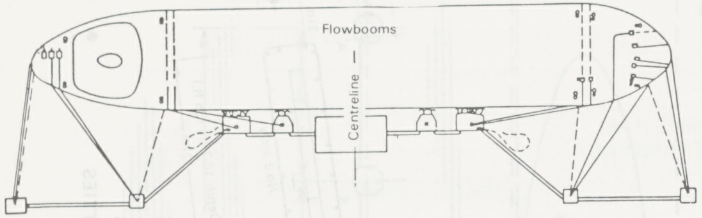
HOUND POINT (1)

ROSYTH
INVERKEITHING
INVERKEITHING BAY
FIRTH OF FORTH
North Queensferry
Whitehouse Point
Forth Road Bridge
Forth Bridge
Hound Point
Drum Sands
Pier
Long Craig Pier
QUEENSFERRY
Dalmeny House
N
Access tower and 30 cwt. crane.
Loading Booms
Service Building
+ 10.00
300.000 D.W.T. Tanker
M.H.W.S. + 5.400 C.D.
M.L.W.S. + 0.600 C.D.
Sea Bed.

HOUND POINT

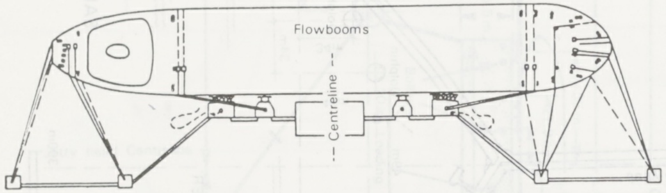
MOORING ARRANGEMENT

300,000 SDWT


Flowbooms
Centreline

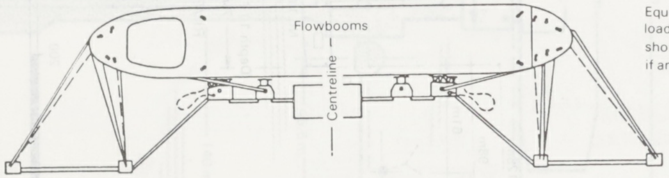
Equipped with 101 ton breaking load wires mooring system. Synthetic first lines ashore (if used) are NOT shown.

200,000 SDWT


Flowbooms
Centreline

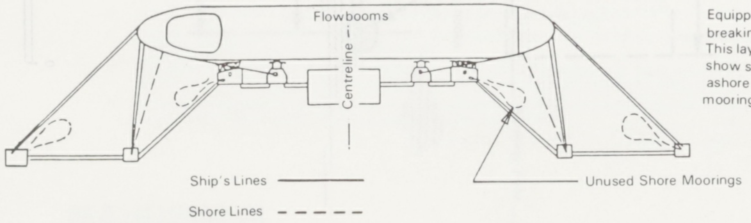
Equipped with 82 ton breaking load wires mooring system. Synthetic first lines ashore (if used) are NOT shown.

100,000 SDWT


Flowbooms
Centreline

Equipped with 64 ton breaking load lines. This layout does NOT show synthetic first lines ashore if an all wires mooring system is used.

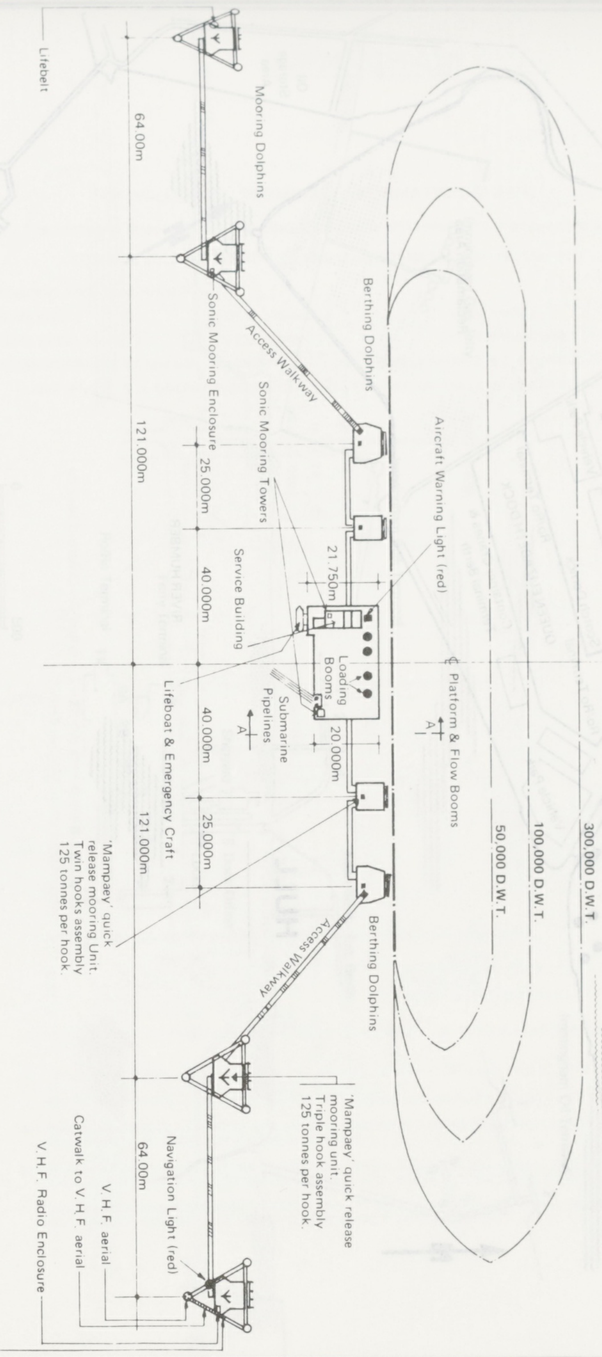
50,000 SDWT

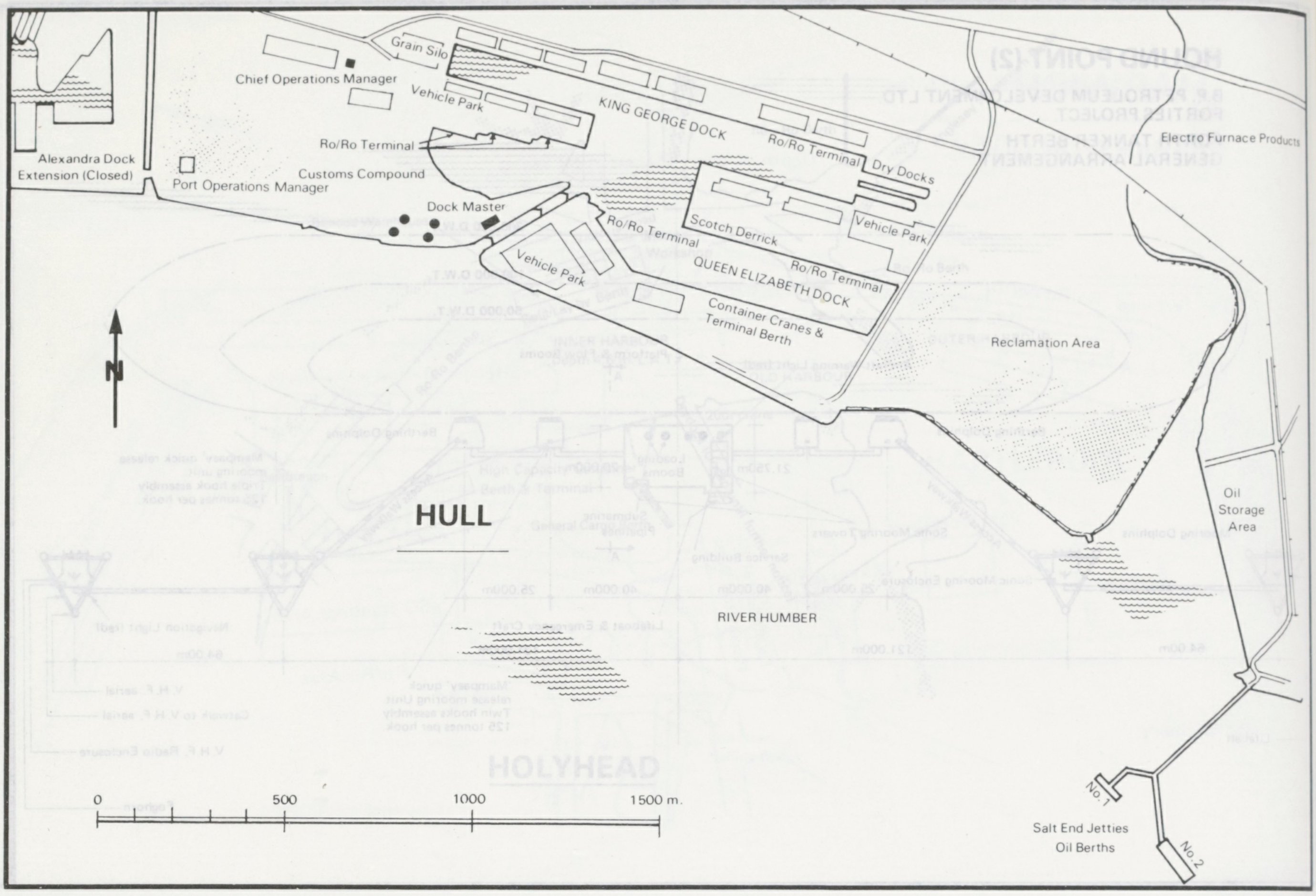

Flowbooms
Centreline
Ship's Lines
Shore Lines
Unused Shore Moorings

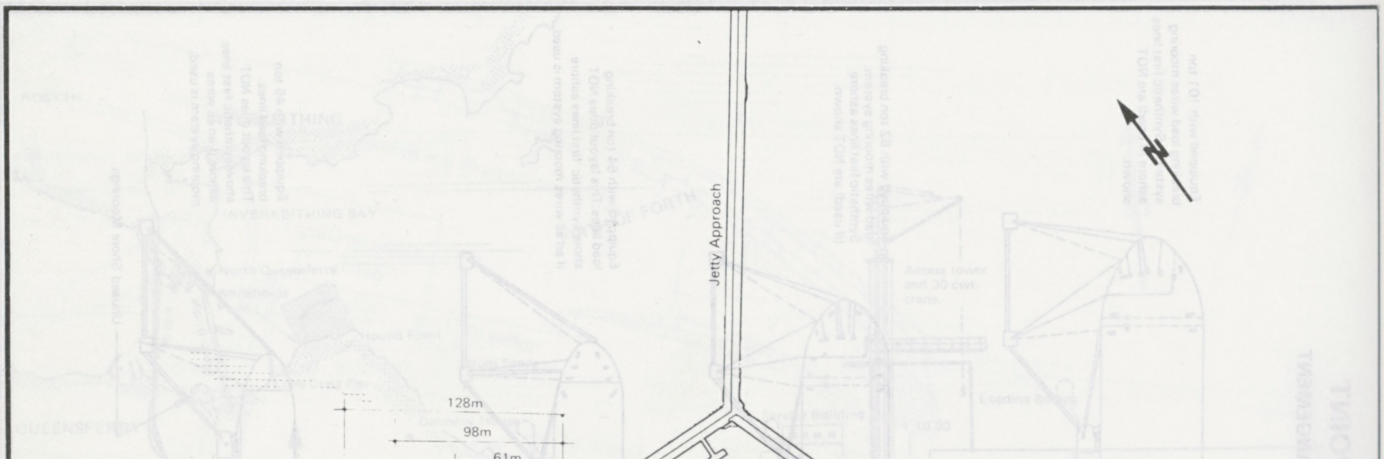
Equipped with 45 ton breaking load lines. This layout does NOT show synthetic first lines ashore if an all wires mooring system is used.

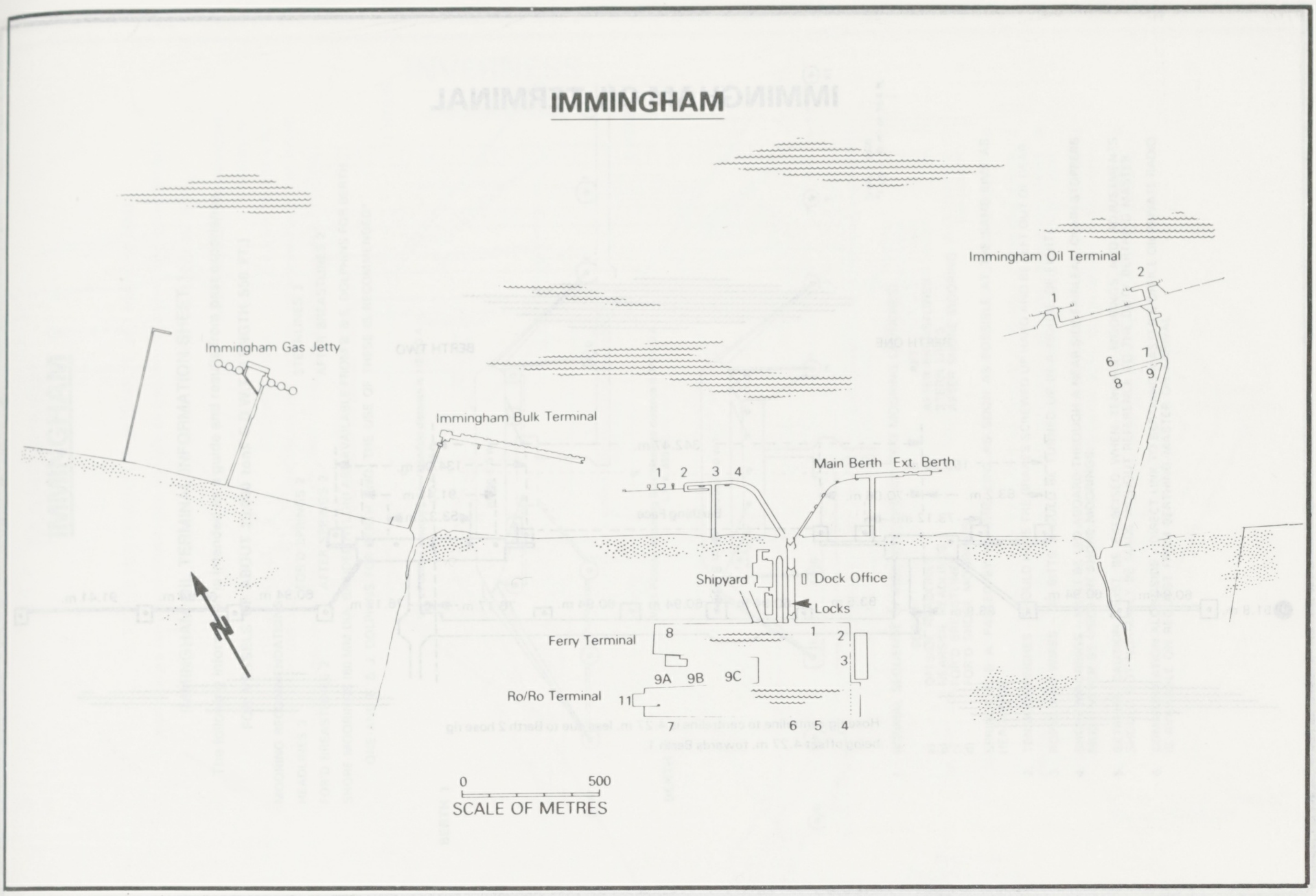
HOUND POINT (2)

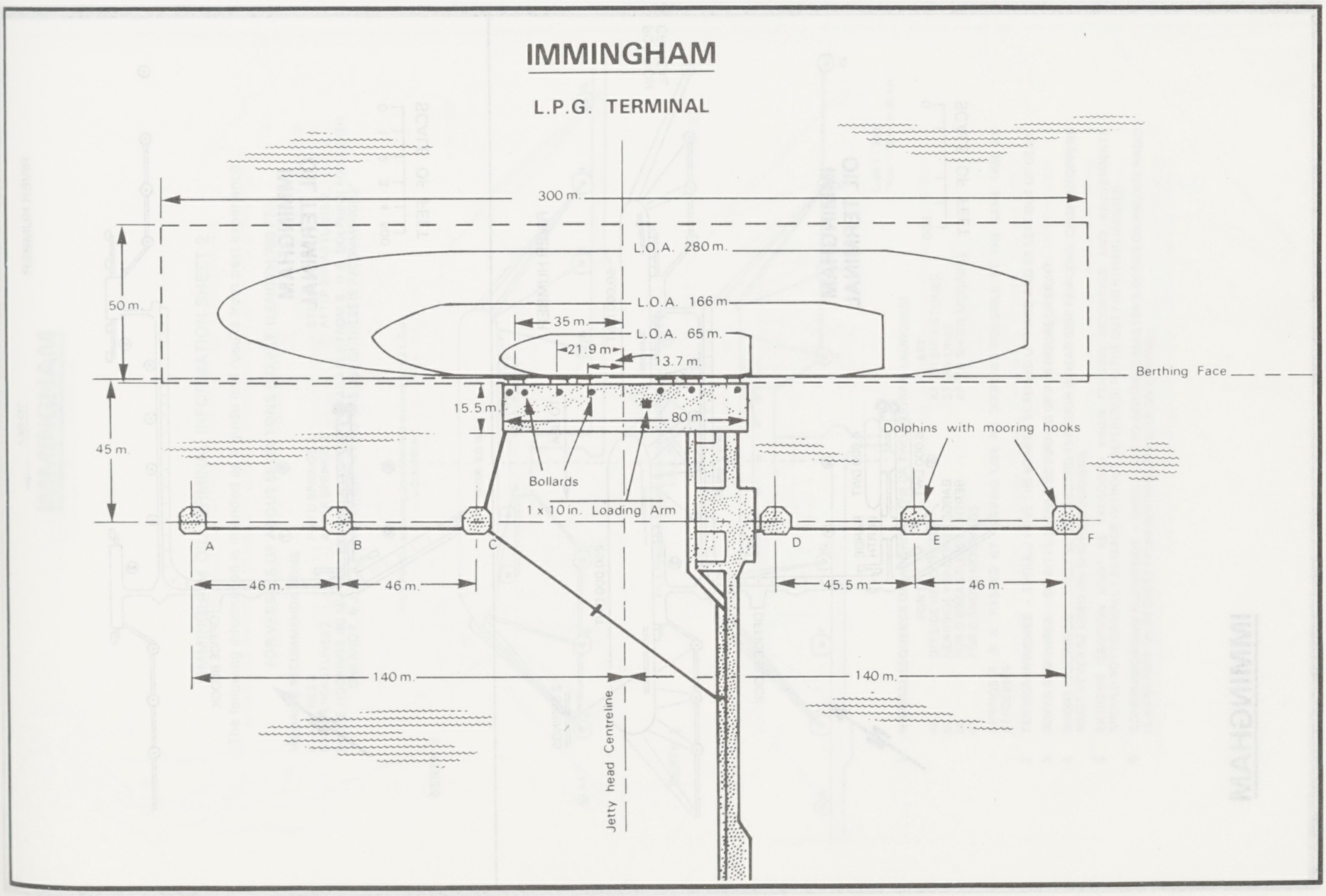
B.P. PETROLEUM DEVELOPMENT LTD.
FORTIES PROJECT
FORTH TANKER BERTH
GENERAL ARRANGEMENT

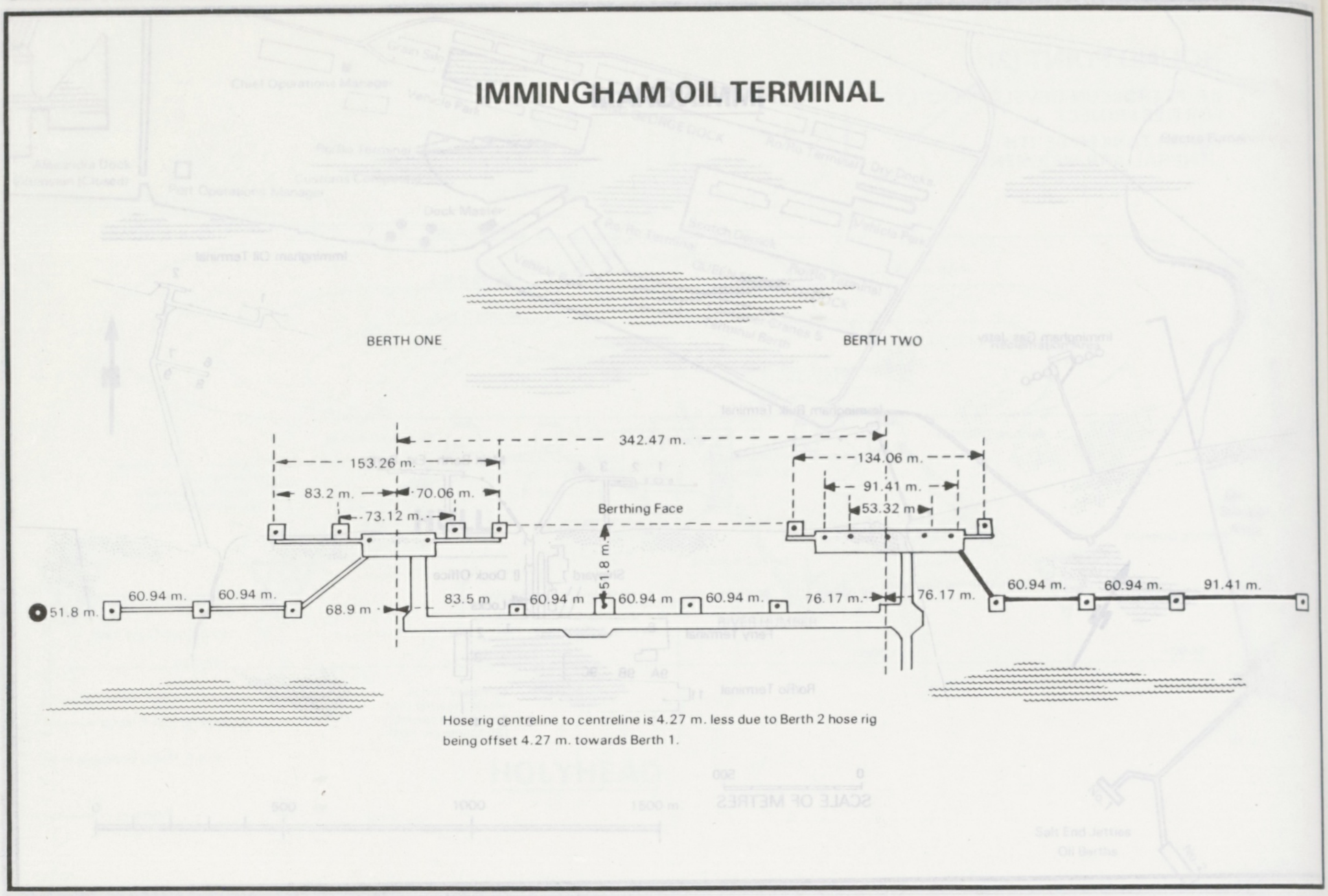

Mooring Dolphins
Lifebelt
64.00m
Berthing Dolphins
Access Walkway
Sonic Mooring Enclosure
Sonic Mooring Towers
Aircraft Warning Light (red)
121.000m
25.000m
40.000m
Service Building
21.750m
Loading Booms
℄ Platform & Flow Booms
Submarine Pipelines
A
A
20.000m
Lifeboat & Emergency Craft
40.000m
121.000m
25.000m
'Mampaey' quick release mooring Unit. Twin hooks assembly 125 tonnes per hook.
100,000 D.W.T.
50,000 D.W.T.
300,000 D.W.T.
Berthing Dolphins
Access Walkway
'Mampaey' quick release mooring unit. Triple hook assembly 125 tonnes per hook.
Navigation Light (red)
64.00m
V.H.F. aerial
Catwalk to V.H.F. aerial
V.H.F. Radio Enclosure
Foghorn


Grain Silo
Chief Operations Manager
Vehicle Park
KING GEORGE DOCK
Ro/Ro Terminal
Dry Docks
Electro Furnace Products
Alexandra Dock Extension (Closed)
Port Operations Manager
Customs Compound
Dock Master
Ro/Ro Terminal
Scotch Derrick
Vehicle Park
Vehicle Park
Ro/Ro Terminal
QUEEN ELIZABETH DOCK
Ro/Ro Terminal
Container Cranes & Terminal Berth
Reclamation Area
N
HULL
Oil Storage Area
RIVER HUMBER
0
500
1000
1500 m.
No. 1
No. 2
Salt End Jetties Oil Berths

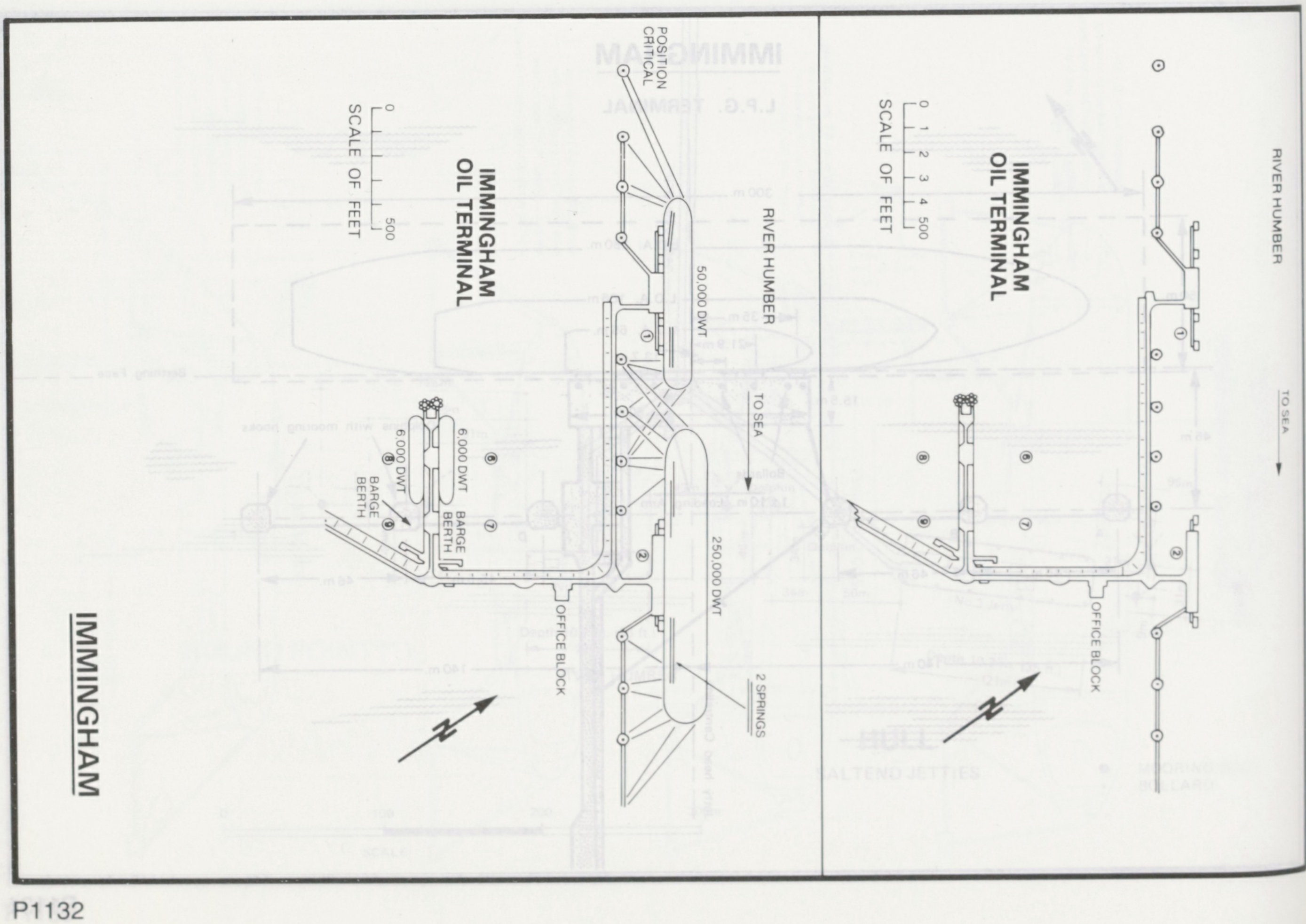

N
Jetty Approach
128m
98m
61m
46m
49m
Dolphin
Dolphin
46m
34m
34m
50m
95m
37m
31m
31m
9m
23m
No.1 Jetty
Depth 10.7 m. (35 ft.)
79m
No.3 Jetty
Depth 10.7 m. (35 ft.)
121m
RIVER HUMBER
HULL
SALTEND JETTIES
● MOORING BUOY BOLLARD
0
100
200
300m
SCALE


IMMINGHAM
Immingham Oil Terminal
1
2
6
7
8
9
Immingham Gas Jetty
Immingham Bulk Terminal
1
2
3
4
Main Berth
Ext. Berth
N
Shipyard
Dock Office
Locks
Ferry Terminal
8
1
2
3
9A
9B
9C
Ro/Ro Terminal
11
7
6
5
4
0
500
SCALE OF METRES


IMMINGHAM
L.P.G. TERMINAL
300 m.
L.O.A. 280 m.
50 m.
L.O.A. 166 m
35 m.
L.O.A. 65 m.
21.9 m
13.7 m.
Berthing Face
15.5 m.
80 m.
45 m.
Dolphins with mooring hooks
Bollards
1 x 10 in. Loading Arm
A
B
C
D
E
F
46 m.
46 m.
45.5 m.
46 m.
140 m.
140 m.
Jetty head Centreline


IMMINGHAM OIL TERMINAL
BERTH ONE
BERTH TWO
342.47 m.
153.26 m.
83.2 m.
70.06 m.
73.12 m.
Berthing Face
51.8 m.
134.06 m.
91.41 m.
53.32 m
51.8 m.
60.94 m.
60.94 m.
68.9 m
83.5 m
60.94 m
60.94 m
60.94 m.
76.17 m.
76.17 m.
60.94 m.
60.94 m.
91.41 m.

Hose rig centreline to centreline is 4.27 m. less due to Berth 2 hose rig being offset 4.27 m. towards Berth 1.


IMMINGHAM
IMMINGHAM OIL TERMINAL
SCALE OF FEET
0
500
POSITION CRITICAL
RIVER HUMBER
50,000 DWT
TO SEA
6,000 DWT
6,000 DWT
BARGE BERTH
BARGE BERTH
250,000 DWT
OFFICE BLOCK
2 SPRINGS
①
②
⑥
⑦
⑧
IMMINGHAM OIL TERMINAL
SCALE OF FEET
0 1 2 3 4 500
RIVER HUMBER
TO SEA
OFFICE BLOCK

IMMINGHAM

IMMINGHAM OIL TERMINAL INFORMATION SHEET 2

The following information is intended as a guide and results from past experience.

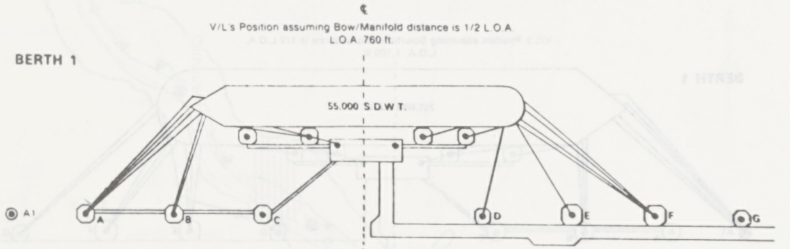
FOR VESSELS OF ABOUT 55,000 TONS S.D.W.T. (LENGTH 760 FT.)

MOORING RECOMMENDATIONS

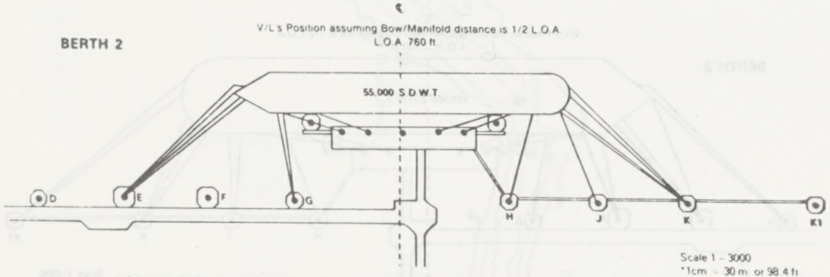
HEADLINES 4	FOR'D SPRINGS 2	STERNLINES 4
FOR'D BREASTLINES 2	AFTER SPRINGS 2	AFTER BREASTLINES 2

SHORE MOORINGS (80 MM DIA. BRAIDED NYLON) ARE AVAILABLE FROM B. & E. DOLPHINS FOR BERTH ONE AND F. & J. DOLPHINS FOR BERTH TWO. THE USE OF THESE IS RECOMMENDED*

BERTH 1


℄
V/L's Position assuming Bow/Manifold distance is 1/2 L.O.A.
L.O.A. 760 ft.
55,000 S.D.W.T.
A1
A
B
C
D
E
F
G

BERTH 2


℄
V/L's Position assuming Bow/Manifold distance is 1/2 L.O.A.
L.O.A. 760 ft.
55,000 S.D.W.T.
D
E
F
G
H
J
K
K1

Scale 1 - 3000
*1cm = 30 m. or 98.4 ft.

1. **NORMAL SEQUENCE OF MOORING** (ONE OR TWO MOORING LAUNCHES)

	FOR'D	AFT
A)	OFFSIDE HEADLINES	AFTER BREASTLINES
B)	NEARSIDE HEADLINES	STERN LINES
c)	FOR'D BREASTLINES	AFTER SHORE MOORING
d)	FOR'D SHORE MOORINGS	

SPRINGS F. & A. PASSED BY HEAVING LINE AS SOON AS POSSIBLE AT THE SAME TIME AS HEADLINES

2. **TENSION WINCHES** – SHOULD HAVE THE BRAKES SCREWED UP HARD AND BE LEFT OUT OF GEAR.
3. **ROPES AND WIRES** – ON BITTS SHOULD BE TURNED UP IN A FIGURE OF EIGHT.
4. **SHORE MOORINGS** – MUST BE LED ABOARD THROUGH A NEAR SIDE FAIRLEAD. **CHAIN STOPPERS MUST NEVER BE USED ON SHORE MOORINGS.**
5. **EXTREME CAUTION** MUST BE EXERCISED WHEN TENDING MOORINGS AND ADJUSTMENTS SHOULD NOT NORMALLY BE MADE WITHOUT REFERENCE TO THE DUTY BERTHING MASTER.
6. **COMMUNICATION ALONGSIDE** – DIRECT LINK TO BERTHING MASTER'S OFFICE ON PRIVATE RADIO IS AVAILABLE ON REQUEST FROM BERTHING MASTER ON ARRIVAL.

IMMINGHAM

IMMINGHAM OIL TERMINAL INFORMATION SHEET 1

The following information is intended as a guide and results from past experience.

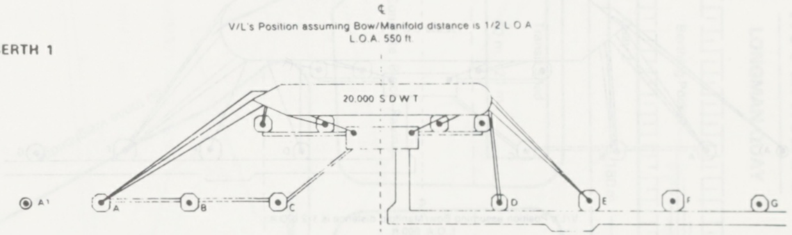
FOR VESSELS OF ABOUT 20,000 tons S.D.W.T (LENGTH 550 FT.)

MOORING RECOMMENDATIONS

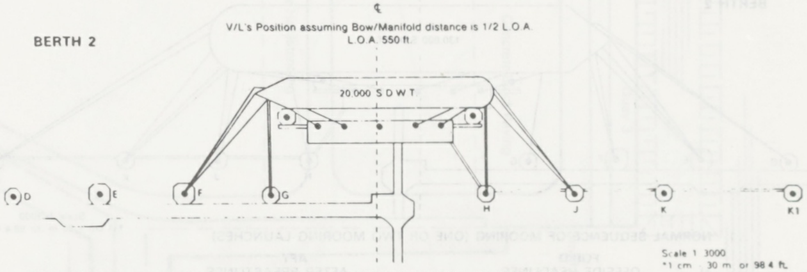
HEADLINES 3	FOR'D SPRINGS 2	STERNLINES 3
FOR'D BREASTLINES 2	AFTER SPRINGS 2	AFTER BREASTLINES 2

SHORE MOORINGS (80 MM DIA. BRAIDED NYLON) ARE AVAILABLE FROM B. & E. DOLPHINS FOR BERTH ONE AND F. & J. DOLPHINS FOR BERTH TWO. THE USE OF THESE IS RECOMMENDED*

BERTH 1


℄
V/L's Position assuming Bow/Manifold distance is 1/2 L.O.A.
L.O.A. 550 ft.
20,000 S.D.W.T.
A1
A
B
C
D
E
F
G

BERTH 2


℄
V/L's Position assuming Bow/Manifold distance is 1/2 L.O.A.
L.O.A. 550 ft.
20,000 S.D.W.T.
D
E
F
G
H
J
K
K1

Scale 1 3000
*1 cm 30 m. or 98.4 ft.

1. **NORMAL SEQUENCE OF MOORING** (ONE OR TWO MOORING LAUNCHES)

	FOR'D	AFT
a)	OFFSIDE HEADLINES	AFTER BREASTLINES
b)	NEARSIDE HEADLINES	STERN LINES
c)	FOR'D BREASTLINES	AFTER SHORE MOORING
d)	FOR'D SHORE MOORINGS	

SPRINGS F. & A. PASSED BY HEAVING LINE AS SOON AS POSSIBLE AT THE SAME TIME AS HEADLINES

2. **TENSION WINCHES** - SHOULD HAVE THE BRAKES SCREWED UP HARD AND BE LEFT OUT OF GEAR.
3. **ROPES AND WIRES** - ON BITTS SHOULD BE TURNED UP IN A FIGURE OF EIGHT.
4. **SHORE MOORINGS** - MUST BE LED ABOARD THROUGH A NEAR SIDE FAIRLEAD. **CHAIN STOPPERS MUST NEVER BE USED ON SHORE MOORINGS.**
5. **EXTREME CAUTION** MUST BE EXERCISED WHEN TENDING MOORINGS AND ADJUSTMENTS SHOULD NOT NORMALLY BE MADE WITHOUT REFERENCE TO THE DUTY BERTHING MASTER.
6. **COMMUNICATION ALONGSIDE** - DIRECT LINK TO BERTHING MASTER'S OFFICE ON PRIVATE RADIO IS AVAILABLE ON REQUEST FROM BERTHING MASTER ON ARRIVAL.

IMMINGHAM OIL TERMINAL INFORMATION SHEET 3

The following information is intended as a guide and results from past experience.

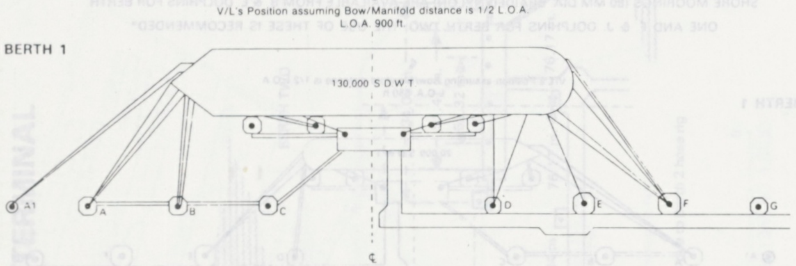
FOR VESSELS OF ABOUT 130,000 TONS S.D.W.T. (LENGTH 900 FT.)

MOORING RECOMMENDATIONS

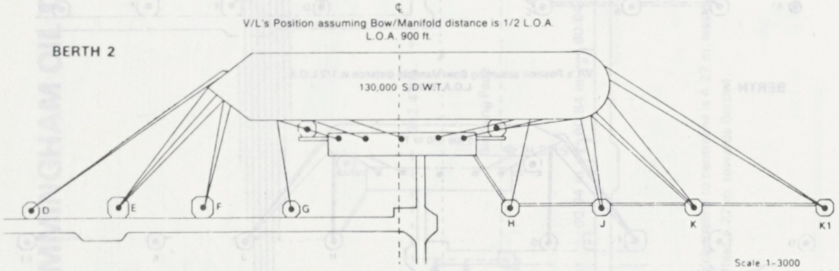
HEADLINES 5	FOR'D SPRINGS 3	STERNLINES 4/5
FOR'D BREASTLINES 3	AFTER SPRINGS 3	AFTER BREASTLINES 3

SHORE MOORINGS (80 MM DIA. BRAIDED NYLON) ARE AVAILABLE FROM B. & E. DOLPHINS FOR BERTH ONE AND F. & J. DOLPHINS FOR BERTH TWO. THE USE OF THESE IS RECOMMENDED*

BERTH 1


℄
V/L's Position assuming Bow/Manifold distance is 1/2 L.O.A.
L.O.A. 900 ft.
130,000 S.D.W.T.
A1
A
B
C
D
E
F
G

BERTH 2


℄
V/L's Position assuming Bow/Manifold distance is 1/2 L.O.A.
L.O.A. 900 ft.
130,000 S.D.W.T.
D
E
F
G
H
J
K
K1
Scale 1-3000
*(1 cm = 30 m or 98.4 ft)

1. NORMAL SEQUENCE OF MOORING (ONE OR TWO MOORING LAUNCHES)

FOR'D		AFT
a)	OFFSIDE HEADLINES	AFTER BREASTLINES
b)	NEARSIDE HEADLINES	STERN LINES
c)	FOR'D BREASTLINES	AFTER SHORE MOORING
d)	FOR'D SHORE MOORINGS	

SPRINGS F. & A. PASSED BY HEAVING LINE AS SOON AS POSSIBLE AT THE SAME TIME AS HEADLINES

2. **TENSION WINCHES** – SHOULD HAVE THE BRAKES SCREWED UP HARD AND BE LEFT OUT OF GEAR.
3. **ROPES AND WIRES** – ON BITTS SHOULD BE TURNED UP IN A FIGURE OF EIGHT.
4. **SHORE MOORINGS** – MUST BE LED ABOARD THROUGH A NEAR SIDE FAIRLEAD. **CHAIN STOPPERS MUST NEVER BE USED ON SHORE MOORINGS.**
5. **EXTREME CAUTION** MUST BE EXERCISED WHEN TENDING MOORINGS AND ADJUSTMENTS SHOULD NOT NORMALLY BE MADE WITHOUT REFERENCE TO THE DUTY BERTHING MASTER.
6. **COMMUNICATION ALONGSIDE** – DIRECT LINK TO BERTHING MASTER'S OFFICE ON PRIVATE RADIO IS AVAILABLE ON REQUEST FROM BERTHING MASTER ON ARRIVAL.

IMMINGHAM OIL TERMINAL INFORMATION SHEET 4

The following information is intended as a guide and results from past experience.

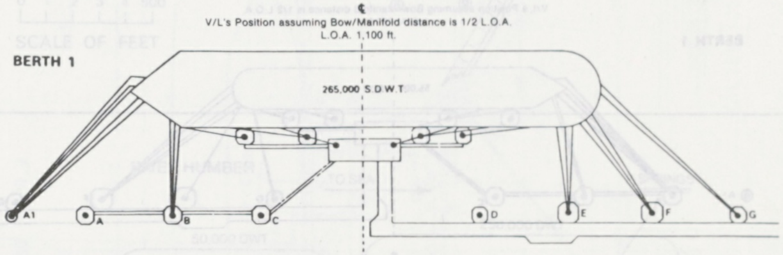
FOR VESSELS OF ABOUT 265,000 TONS S.D.W.T. (LENGTH 1100 FT.)

MOORING RECOMMENDATIONS

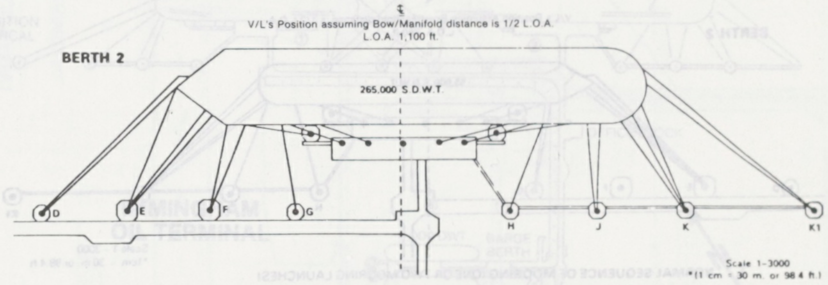
HEADLINES 5	FOR'D SPRINGS 3	STERNLINES 5
FOR'D BREASTLINES 3	AFTER SPRINGS 3	AFTER BREASTLINES 3

SHORE MOORINGS (80 MM DIA. BRAIDED NYLON) ARE AVAILABLE FROM B. & E. DOLPHINS FOR BERTH ONE AND F. & J. DOLPHINS FOR BERTH TWO. THE USE OF THESE IS RECOMMENDED*

BERTH 1


℄
V/L's Position assuming Bow/Manifold distance is 1/2 L.O.A.
L.O.A. 1,100 ft.
265,000 S.D.W.T.
A1
A
B
C
D
E
F
G

BERTH 2


℄
V/L's Position assuming Bow/Manifold distance is 1/2 L.O.A.
L.O.A. 1,100 ft.
265,000 S.D.W.T.
D
E
F
G
H
J
K
K1
Scale 1-3000
*(1 cm = 30 m. or 98.4 ft.)

1. NORMAL SEQUENCE OF MOORING (ONE OR TWO MOORING LAUNCHES)

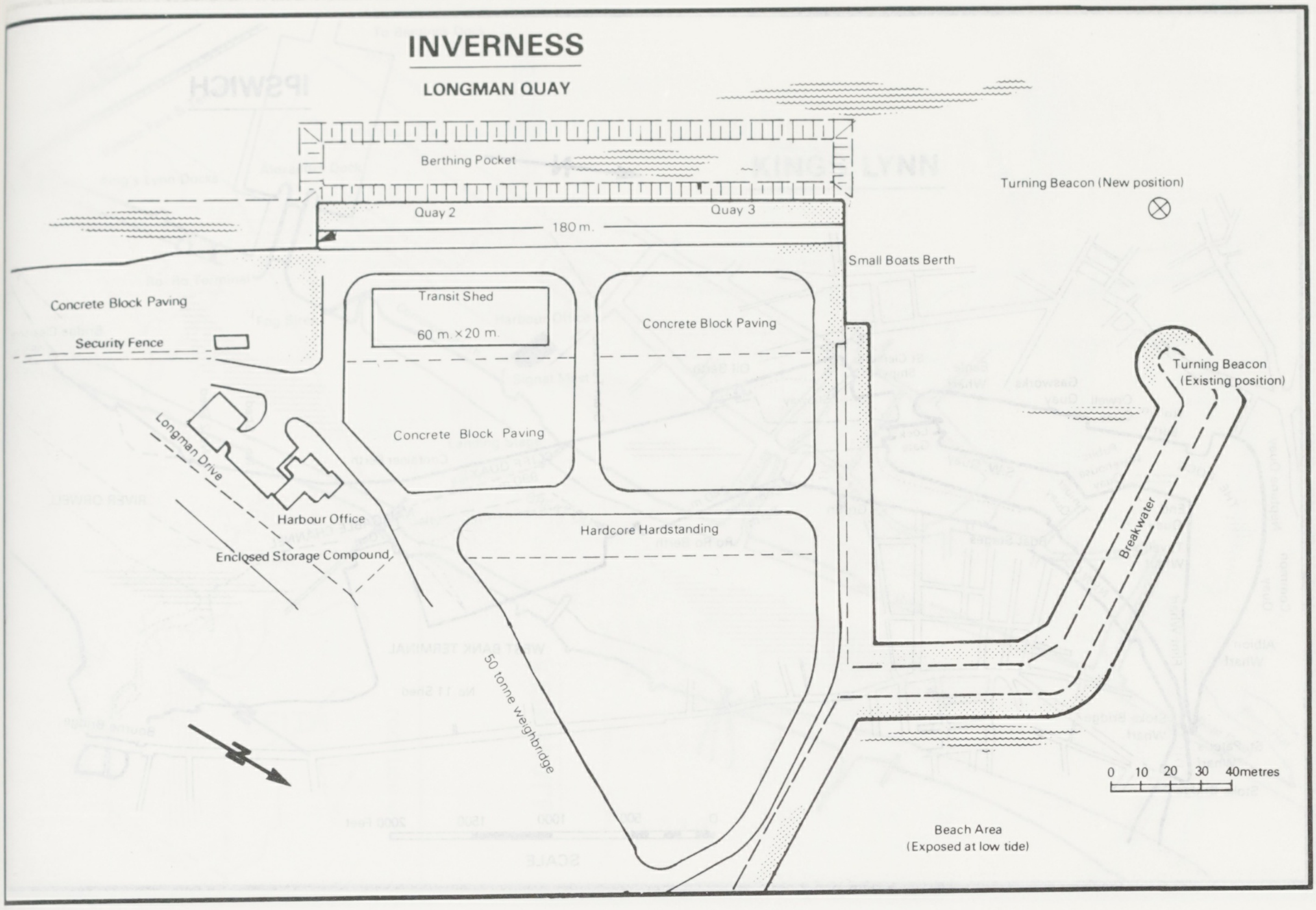
FOR'D		AFT
A)	OFFSIDE HEADLINES	AFTER BREASTLINES
B)	NEARSIDE HEADLINES	STERN LINES
c)	FOR'D BREASTLINES	AFTER SHORE MOORING
d)	FOR'D SHORE MOORINGS	

SPRINGS F. & A. PASSED BY HEAVING LINE AS SOON AS POSSIBLE AT THE SAME TIME AS HEADLINES

2. **TENSION WINCHES** – SHOULD HAVE THE BRAKES SCREWED UP HARD AND BE LEFT OUT OF GEAR.
3. **ROPES AND WIRES** – ON BITTS SHOULD BE TURNED UP IN A FIGURE OF EIGHT.
4. **SHORE MOORINGS** – MUST BE LED ABOARD THROUGH A NEAR SIDE FAIRLEAD. **CHAIN STOPPERS MUST NEVER BE USED ON SHORE MOORINGS.**
5. **EXTREME CAUTION** MUST BE EXERCISED WHEN TENDING MOORINGS AND ADJUSTMENTS SHOULD NOT NORMALLY BE MADE WITHOUT REFERENCE TO THE DUTY BERTHING MASTER.
6. **COMMUNICATION ALONGSIDE** – DIRECT LINK TO BERTHING MASTER'S OFFICE ON PRIVATE RADIO IS AVAILABLE ON REQUEST FROM BERTHING MASTER ON ARRIVAL.

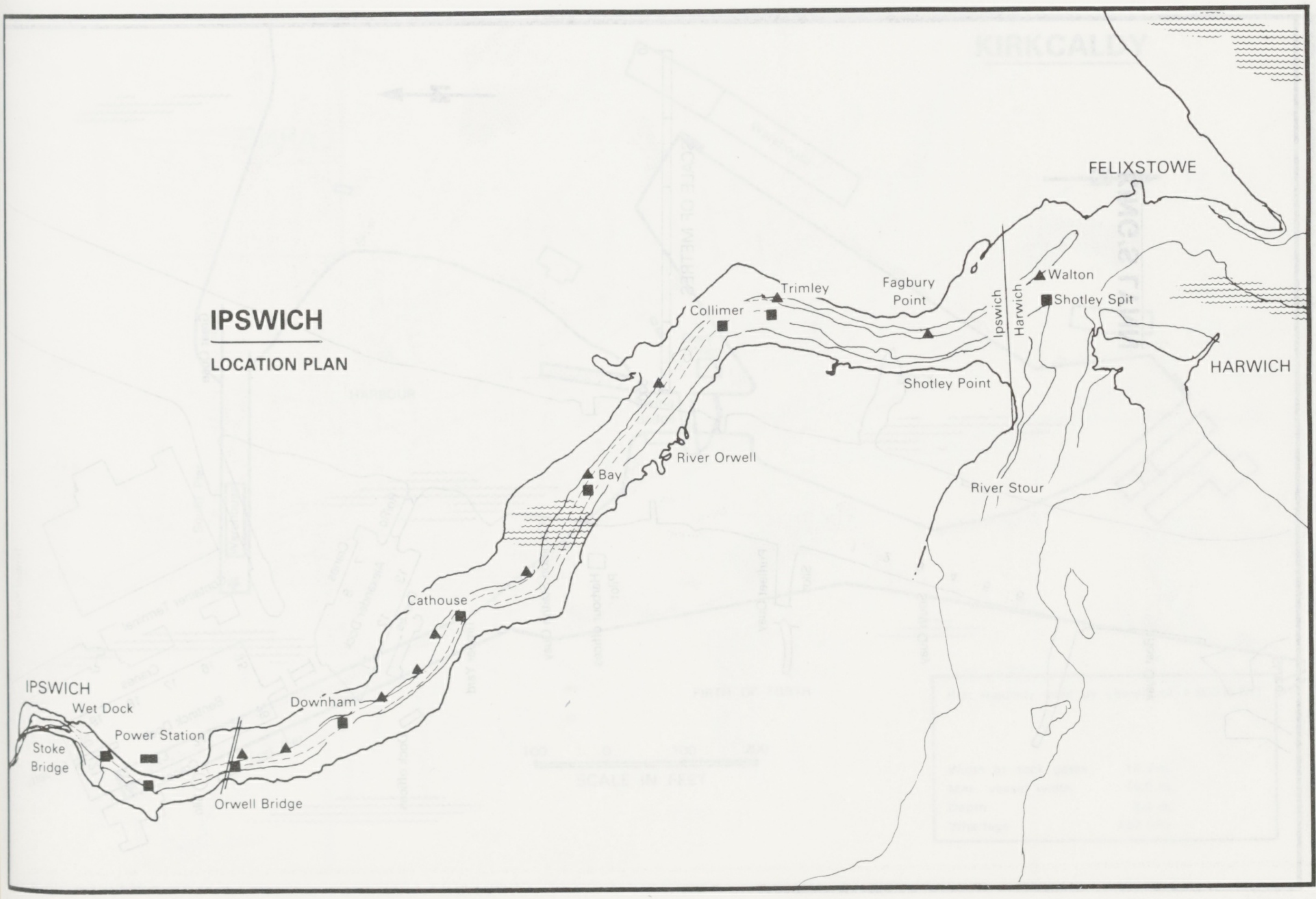
INVERNESS

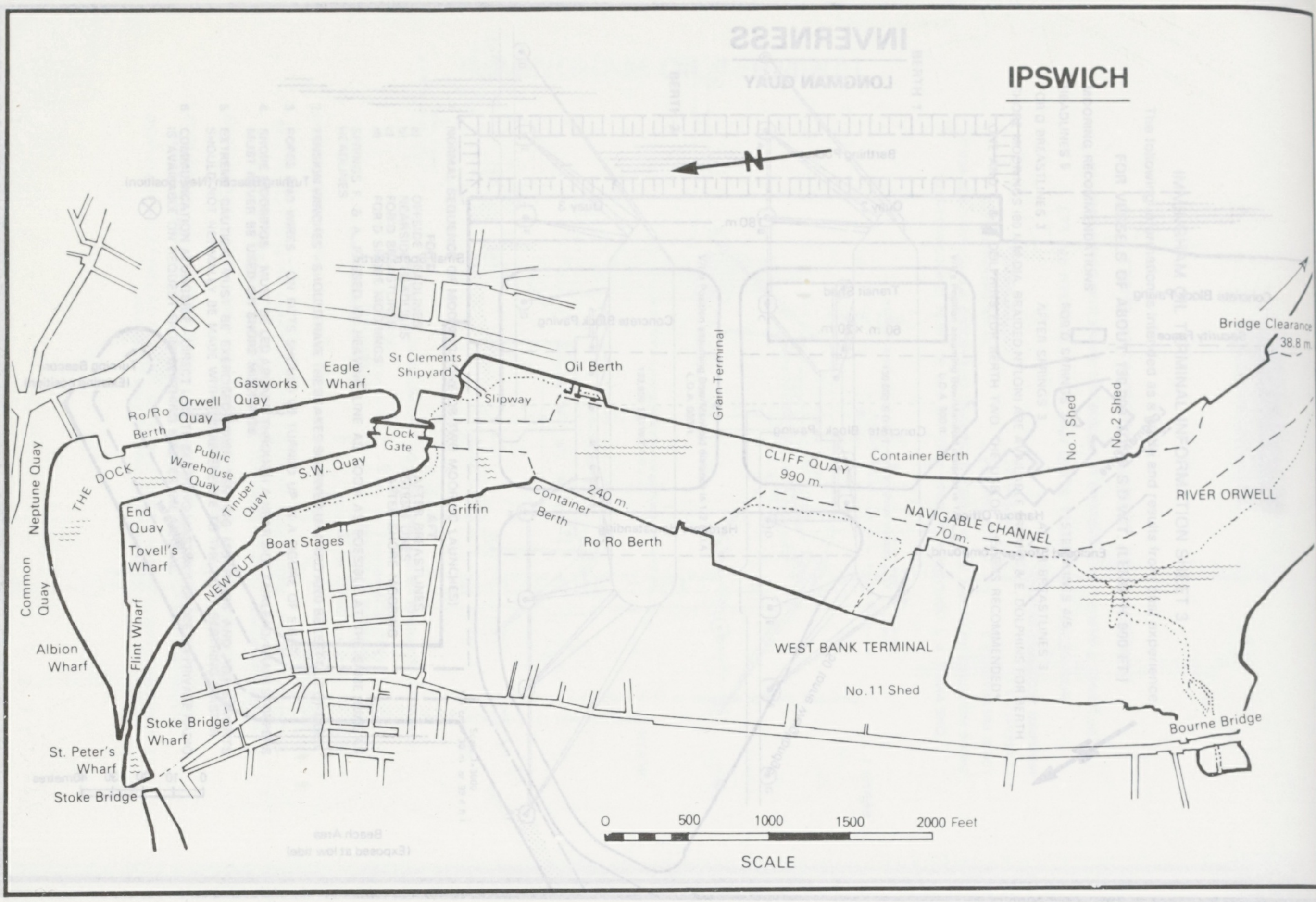
LONGMAN QUAY

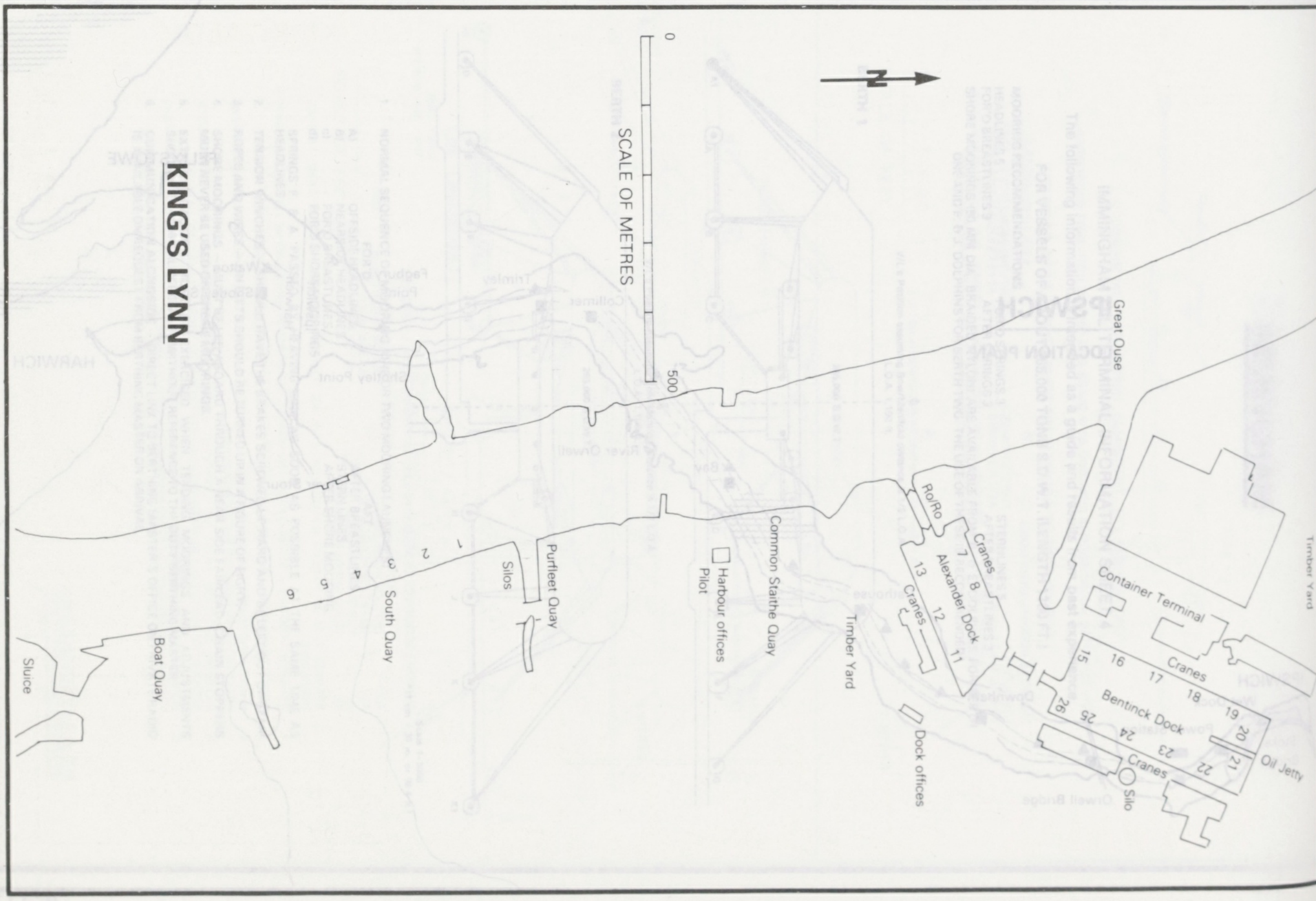

Berthing Pocket
Quay 2
Quay 3
180 m.
Turning Beacon (New position)
Small Boats Berth
Concrete Block Paving
Transit Shed
60 m. × 20 m.
Concrete Block Paving
Security Fence
Turning Beacon
(Existing position)
Longman Drive
Concrete Block Paving
Harbour Office
Hardcore Hardstanding
Enclosed Storage Compound
Breakwater
50 tonne weighbridge
0 10 20 30 40metres
Beach Area
(Exposed at low tide)

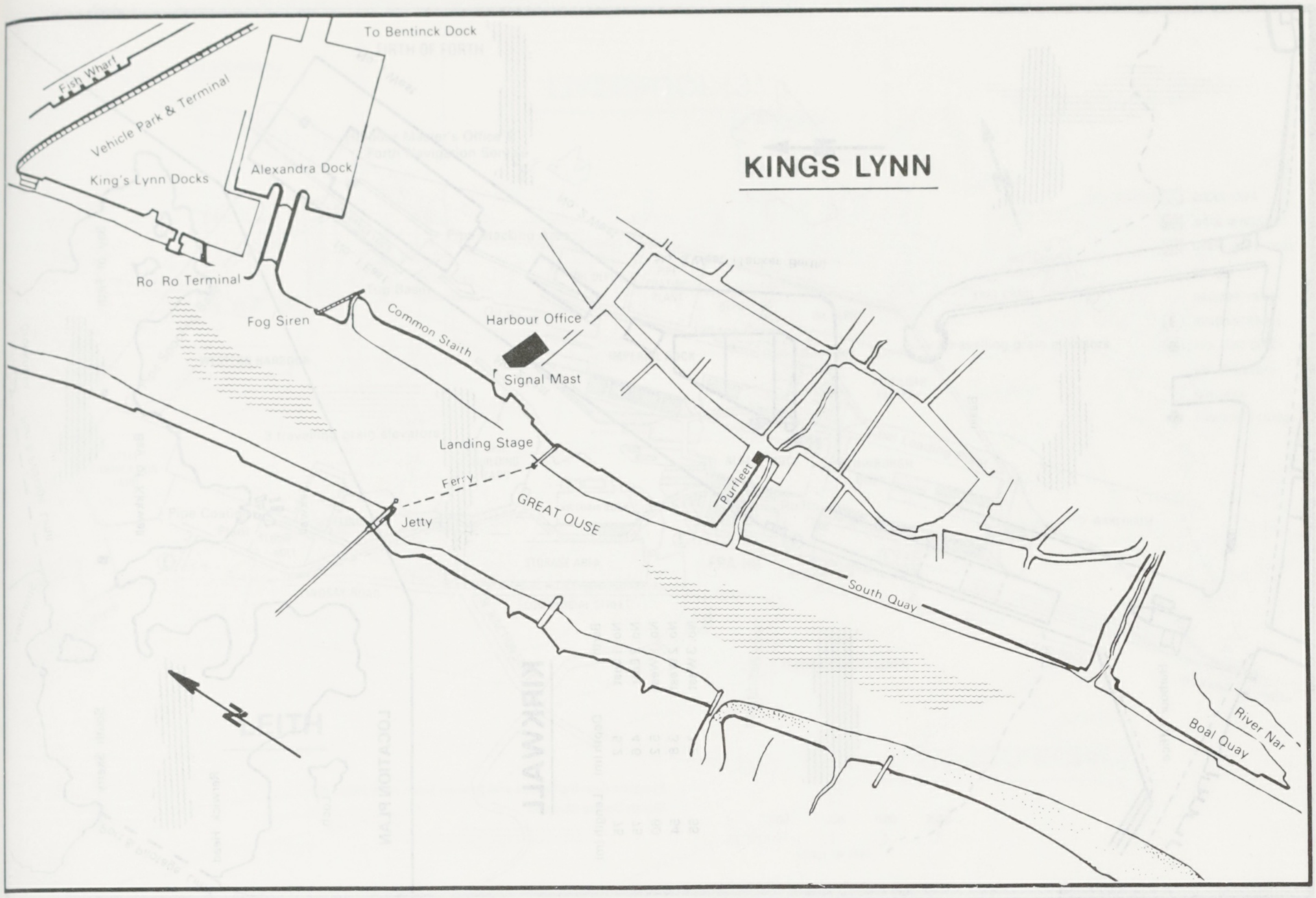
IPSWICH

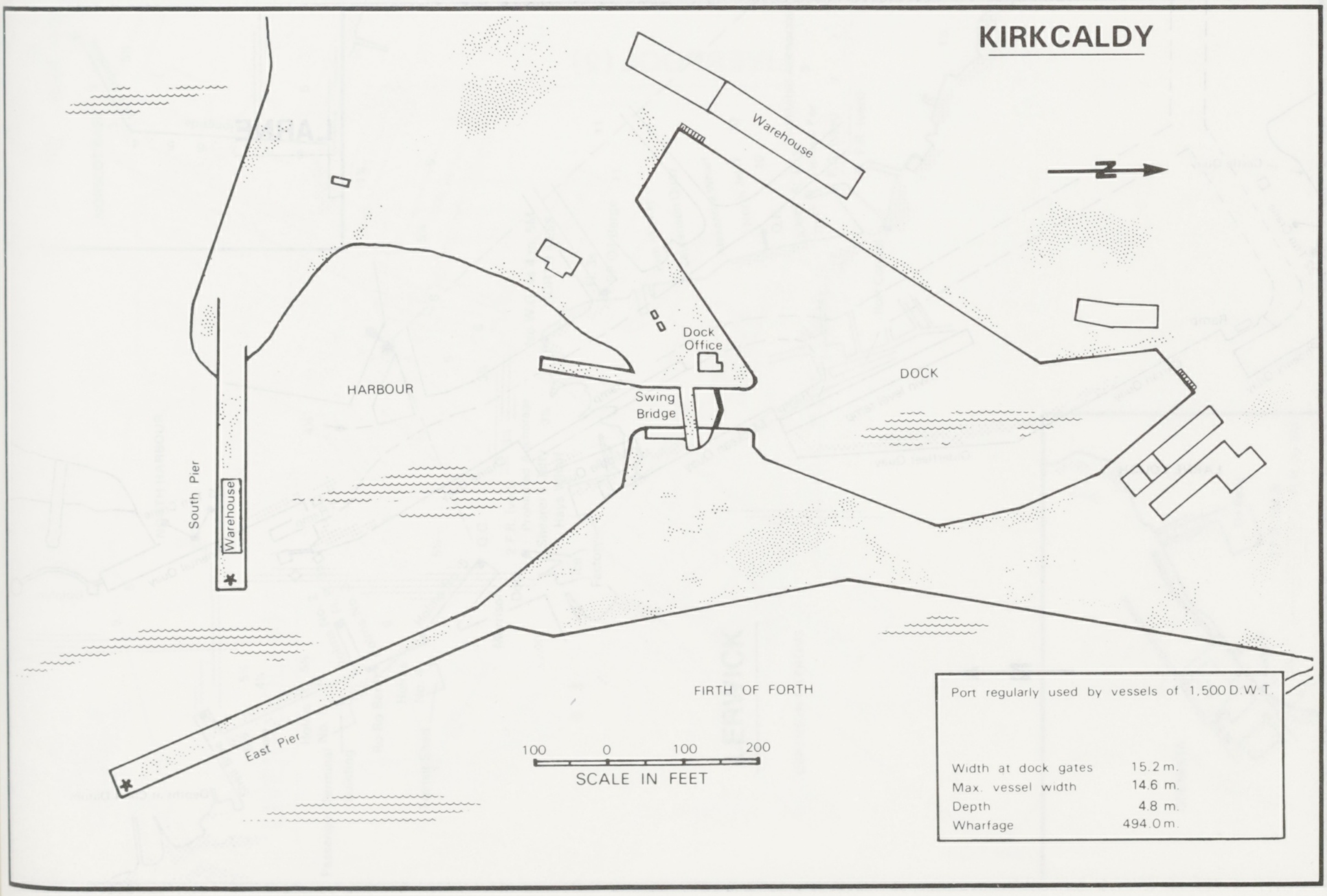
LOCATION PLAN


FELIXSTOWE
Walton
Shotley Spit
Trimley
Fagbury Point
Collimer
Ipswich
Harwich
HARWICH
Shotley Point
River Orwell
Bay
River Stour
Cathouse
IPSWICH
Wet Dock
Downham
Power Station
Stoke Bridge
Orwell Bridge


IPSWICH
N
Bridge Clearance 38.8 m.
No. 1 Shed
No. 2 Shed
RIVER ORWELL
Container Berth
CLIFF QUAY 990 m.
NAVIGABLE CHANNEL 70 m.
Grain Terminal
Oil Berth
St Clements Shipyard
Slipway
Eagle Wharf
Gasworks Quay
Orwell Quay
Ro/Ro Berth
Public Warehouse Quay
Lock Gate
S.W. Quay
Timber Quay
THE DOCK
Neptune Quay
Common Quay
End Quay
Tovell's Wharf
Albion Wharf
Flint Wharf
NEW CUT
Boat Stages
Griffin
Container Berth
240 m.
Ro Ro Berth
WEST BANK TERMINAL
No.11 Shed
Bourne Bridge
Stoke Bridge Wharf
St. Peter's Wharf
Stoke Bridge
0
500
1000
1500
2000 Feet
SCALE


KING'S LYNN
N
SCALE OF METRES
0
500
Great Ouse
Container Terminal
Cranes
15
16
17
18
19
20
21
Oil Jetty
Bentinck Dock
26
25
24
23
22
Cranes
Silo
Ro/Ro
Cranes
7
8
Alexander Dock
13
Cranes
12
11
Timber Yard
Dock offices
Common Staithe Quay
Harbour offices
Pilot
Purfleet Quay
Silos
1
2
3
South Quay
4
5
6
Boat Quay
Sluice

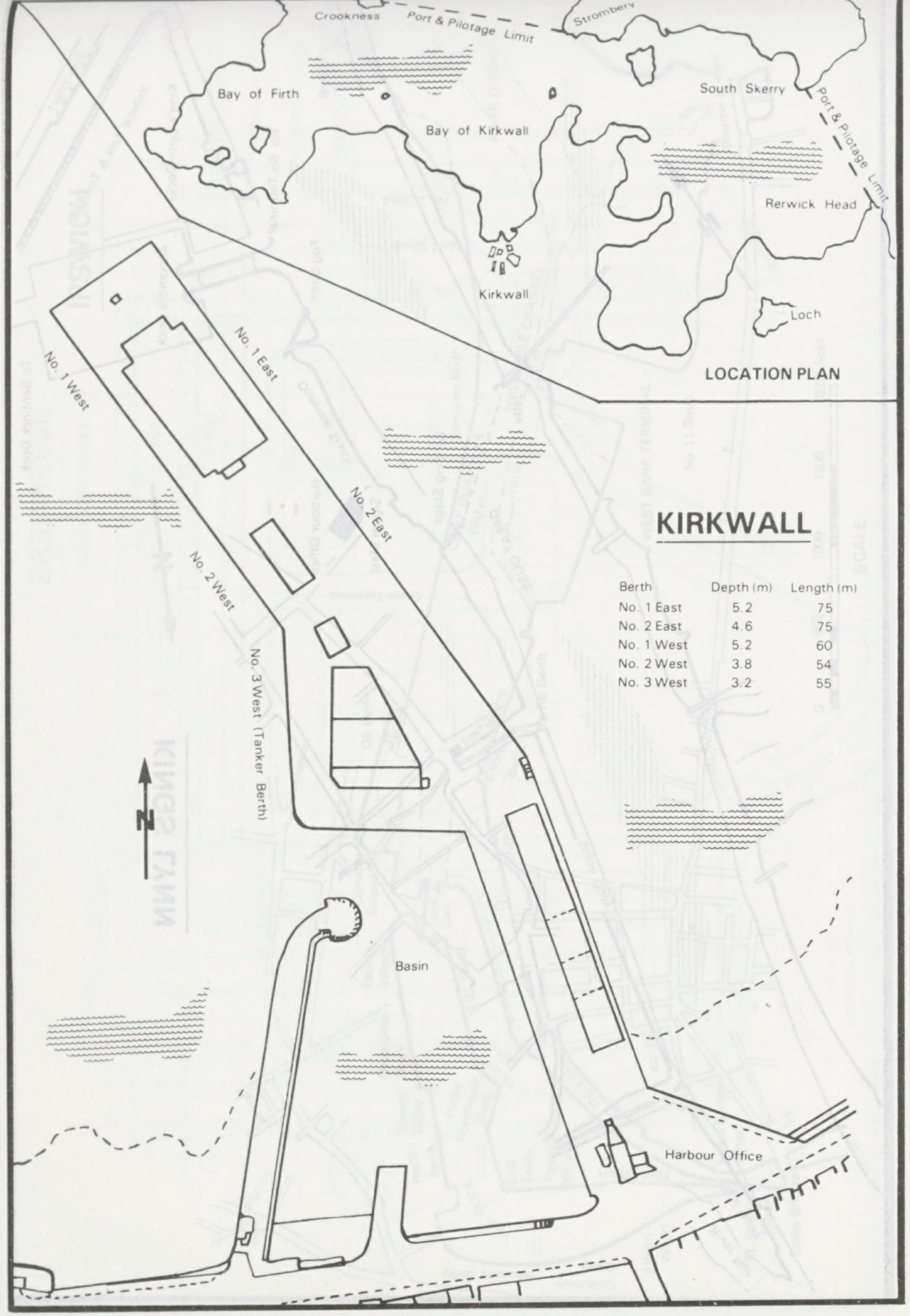

KINGS LYNN
To Bentinck Dock
Fish Wharf
Vehicle Park & Terminal
King's Lynn Docks
Alexandra Dock
Ro Ro Terminal
Fog Siren
Common Staith
Harbour Office
Signal Mast
Landing Stage
Ferry
Jetty
GREAT OUSE
Purfleet
South Quay
River Nar
Boal Quay
N


KIRKCALDY
N
Warehouse
Dock Office
Swing Bridge
HARBOUR
DOCK
South Pier
Warehouse
East Pier
FIRTH OF FORTH
100 0 100 200
SCALE IN FEET

Port regularly used by vessels of 1,500 D.W.T.

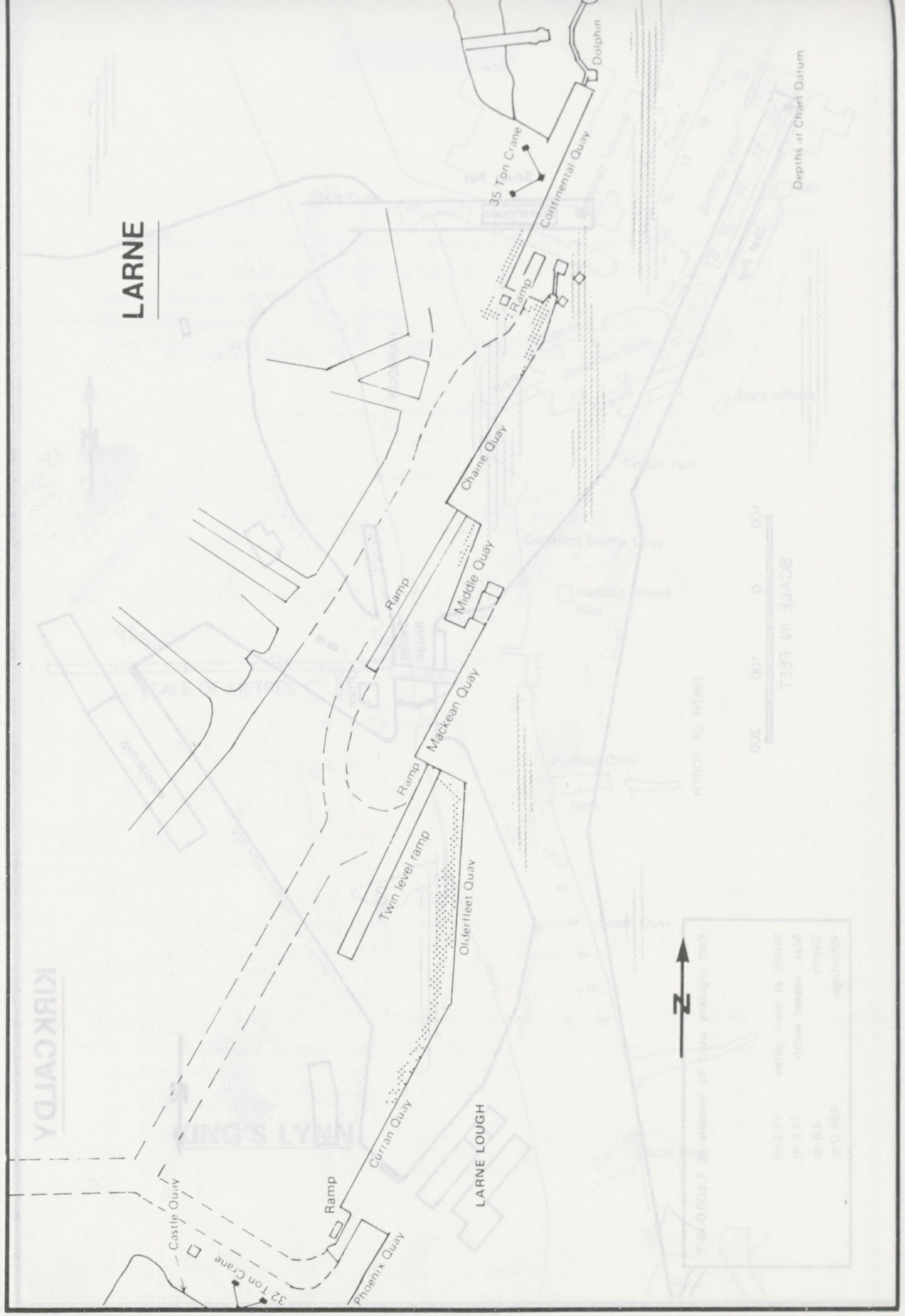
Width at dock gates	15.2 m.
Max. vessel width	14.6 m.
Depth	4.8 m.
Wharfage	494.0 m.

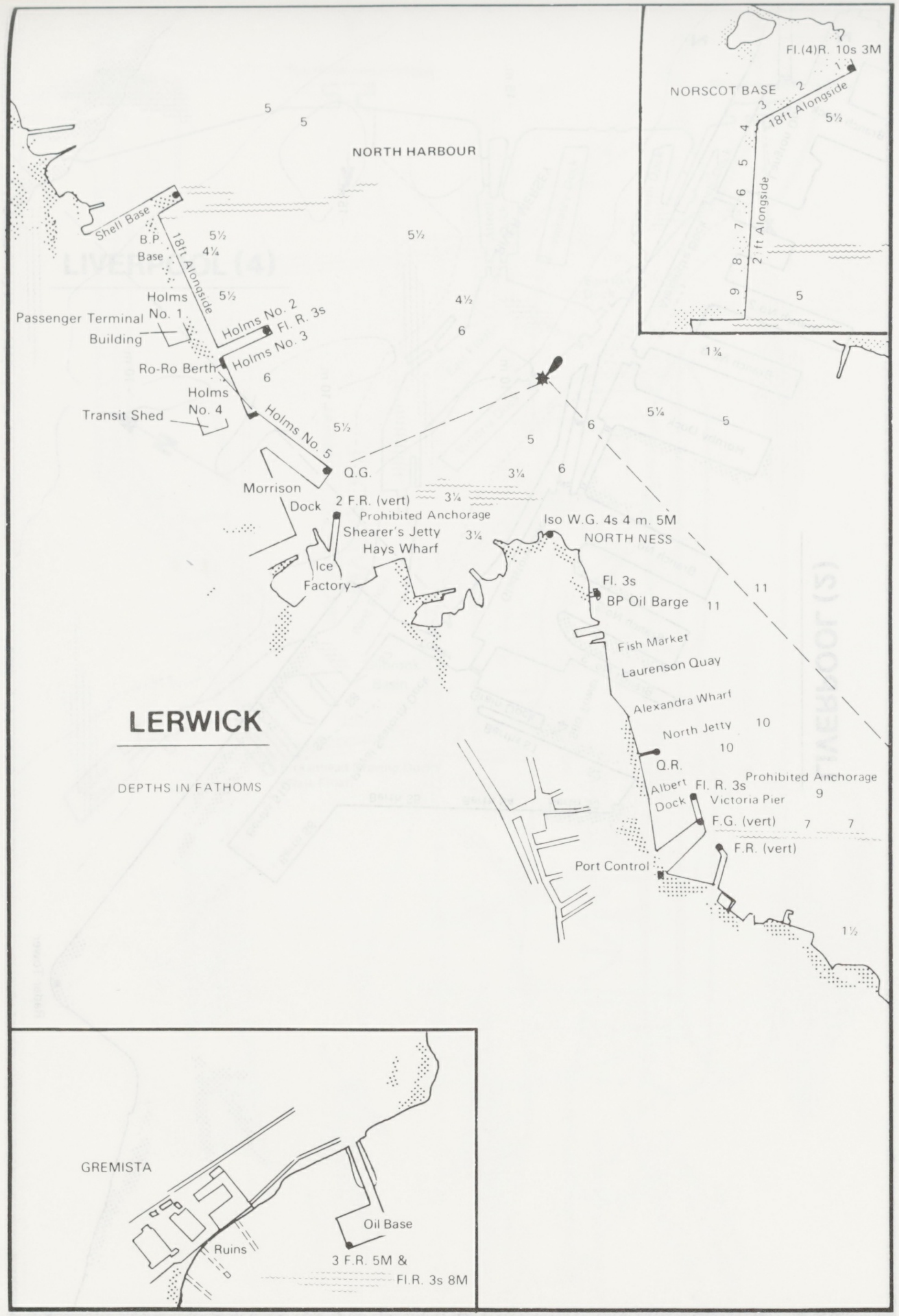
KIRKWALL

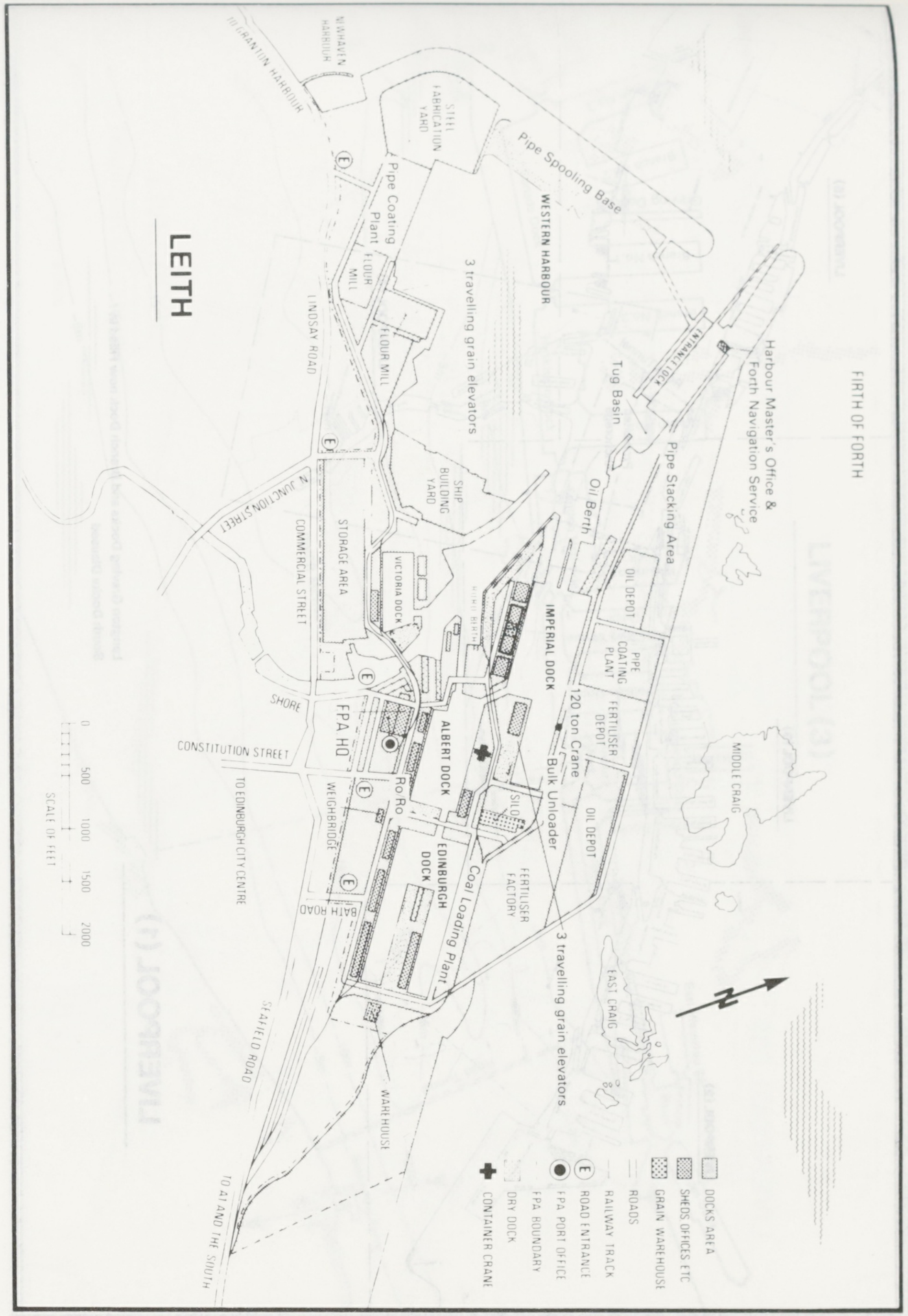

Crookness
Port & Pilotage Limit
Stromberry
Bay of Firth
Bay of Kirkwall
South Skerry
Port & Pilotage Limit
Rerwick Head
Kirkwall
Loch
LOCATION PLAN
No. 1 East
No. 1 West
No. 2 East
No. 2 West
No. 3 West (Tanker Berth)
N
Basin
Harbour Office

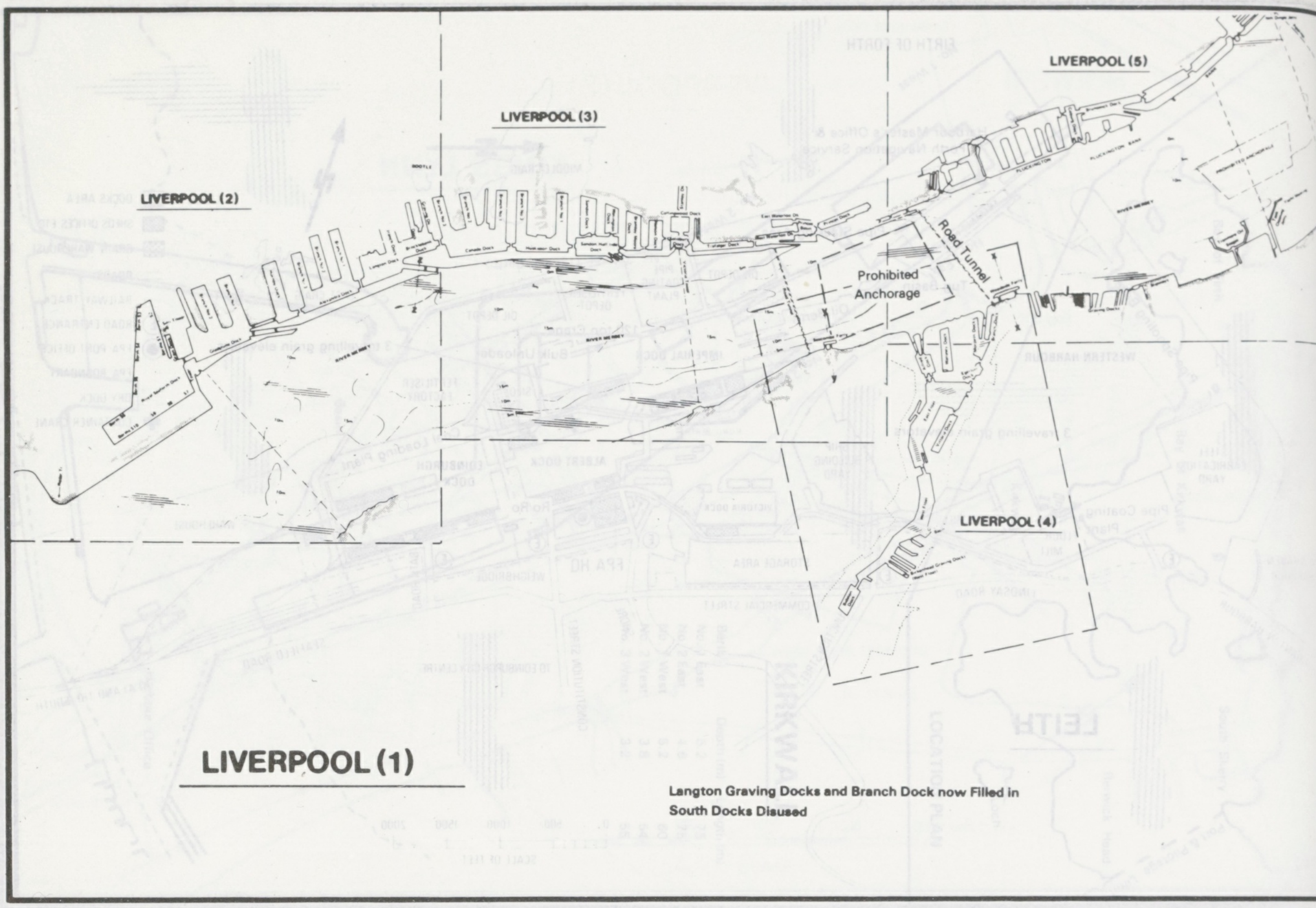
Berth	Depth (m)	Length (m)
No. 1 East	5.2	75
No. 2 East	4.6	75
No. 1 West	5.2	60
No. 2 West	3.8	54
No. 3 West	3.2	55

LARNE


Dolphin
Depths at Chart Datum
35 Ton Crane
Continental Quay
Ramp
Chaine Quay
Middle Quay
Ramp
Mackean Quay
Ramp
Twin level ramp
Olderfleet Quay
N
Curran Quay
LARNE LOUGH
Ramp
Phoenix Quay
Castle Quay
32 Ton Crane

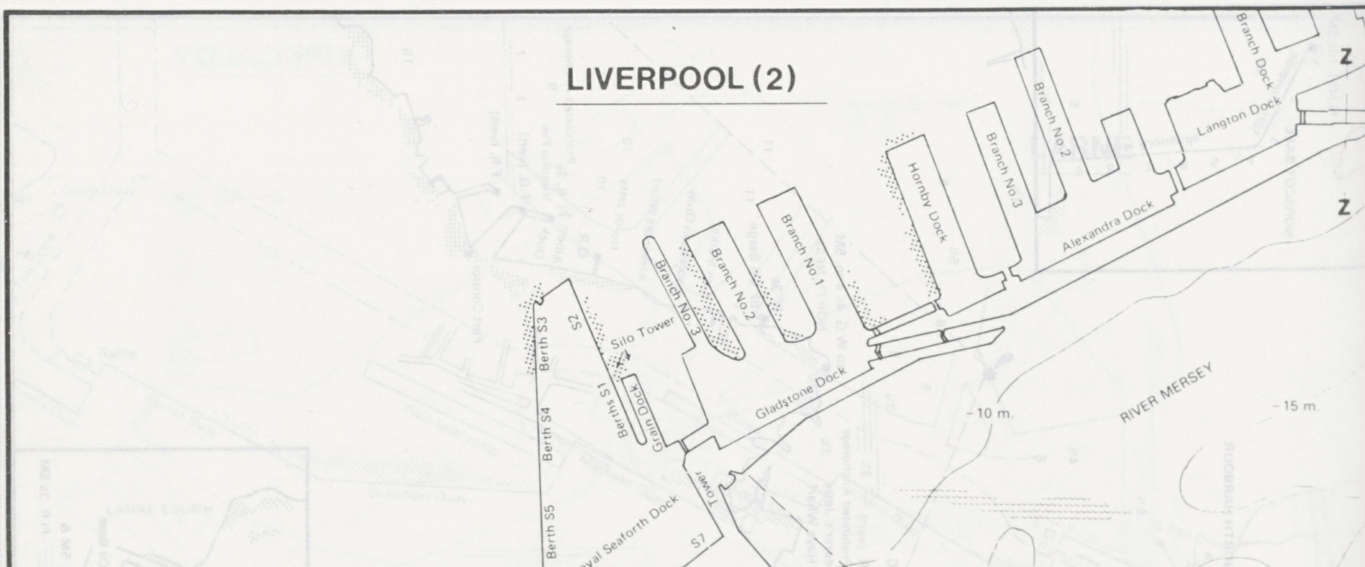

LERWICK
DEPTHS IN FATHOMS
NORTH HARBOUR
Shell Base
B.P. Base
18ft Alongside
Holms No. 1
Passenger Terminal Building
Holms No. 2
Fl. R. 3s
Holms No. 3
Ro-Ro Berth
Holms No. 4
Transit Shed
Holms No. 5
Q.G.
Morrison Dock
2 F.R. (vert)
Prohibited Anchorage
Shearer's Jetty
Hays Wharf
Ice Factory
Iso W.G. 4s 4 m. 5M
NORTH NESS
Fl. 3s
BP Oil Barge
Fish Market
Laurenson Quay
Alexandra Wharf
North Jetty
Q.R.
Albert Dock
Fl. R. 3s
Victoria Pier
Prohibited Anchorage
F.G. (vert)
F.R. (vert)
Port Control
NORSCOT BASE
Fl.(4)R. 10s 3M
18ft Alongside
2 ft Alongside
GREMISTA
Ruins
Oil Base
3 F.R. 5M &
Fl.R. 3s 8M


LEITH
FIRTH OF FORTH
TO GRANTON HARBOUR
NEWHAVEN HARBOUR
STEEL FABRICATION YARD
Pipe Spooling Base
Pipe Coating Plant
FLOUR MILL
FLOUR MILL
WESTERN HARBOUR
3 travelling grain elevators
ENTRANCE LOCK
Harbour Master's Office &
Forth Navigation Service
Tug Basin
Pipe Stacking Area
Oil Berth
SHIP BUILDING YARD
LINDSAY ROAD
N. JUNCTION STREET
COMMERCIAL STREET
STORAGE AREA
VICTORIA DOCK
IMPERIAL DOCK
OIL DEPOT
PIPE COATING PLANT
FERTILISER DEPOT
120 ton Crane
Bulk Unloader
SHORE
FPA HQ
CONSTITUTION STREET
ALBERT DOCK
Ro Ro
SILO
OIL DEPOT
TO EDINBURGH CITY CENTRE
WEIGHBRIDGE
EDINBURGH DOCK
Coal Loading Plant
FERTILISER FACTORY
3 travelling grain elevators
MIDDLE CRAIG
EAST CRAIG
BATH ROAD
SEAFIELD ROAD
WAREHOUSE
TO A1 AND THE SOUTH
0
500
1000
1500
2000
SCALE OF FEET
DOCKS AREA
SHEDS OFFICES ETC
GRAIN WAREHOUSE
ROADS
RAILWAY TRACK
ROAD ENTRANCE
FPA PORT OFFICE
FPA BOUNDARY
DRY DOCK
CONTAINER CRANE



LIVERPOOL (1)

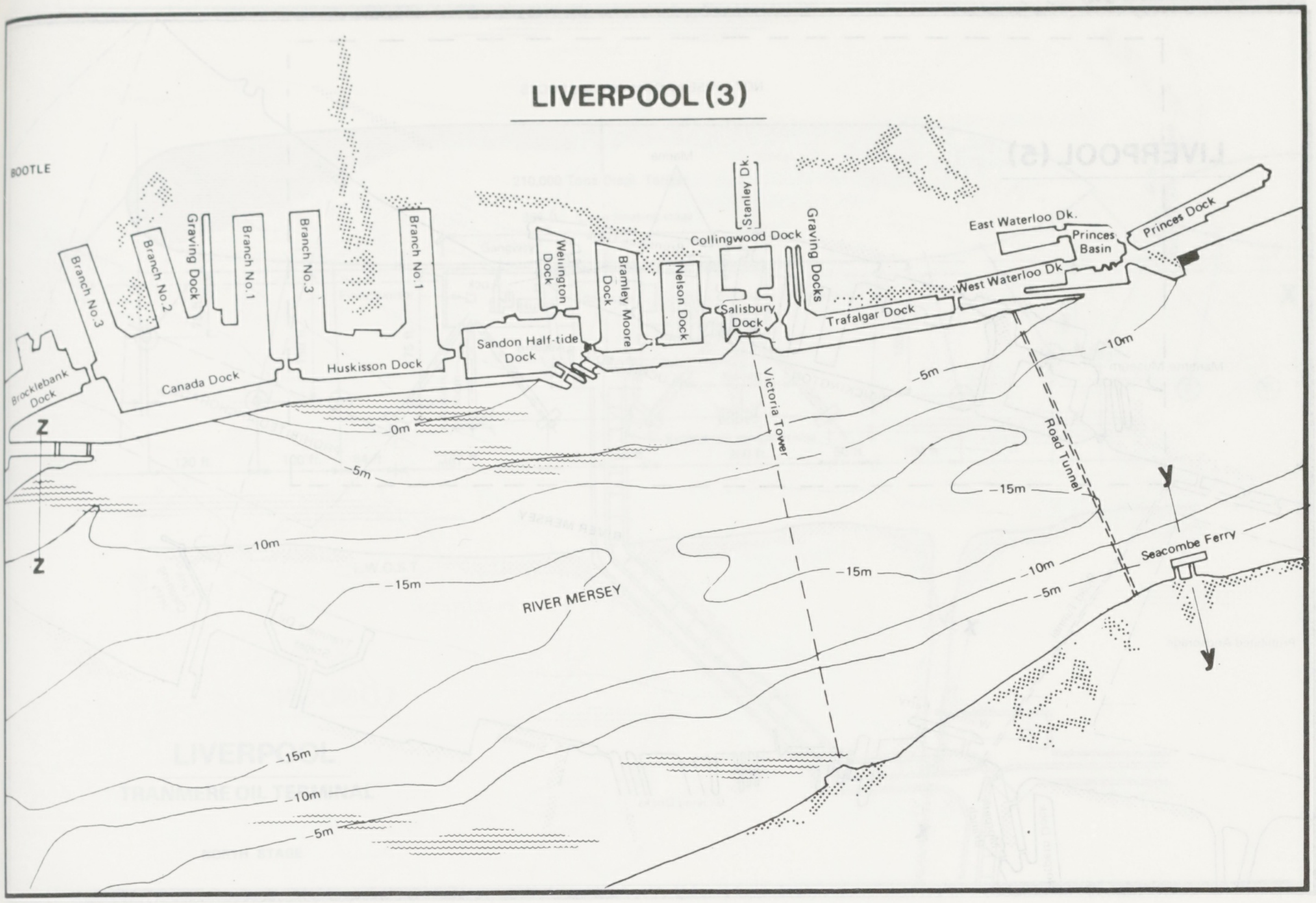
LIVERPOOL (2)
LIVERPOOL (3)
LIVERPOOL (5)
Road Tunnel
Prohibited Anchorage
LIVERPOOL (4)
Langton Graving Docks and Branch Dock now Filled in
South Docks Disused



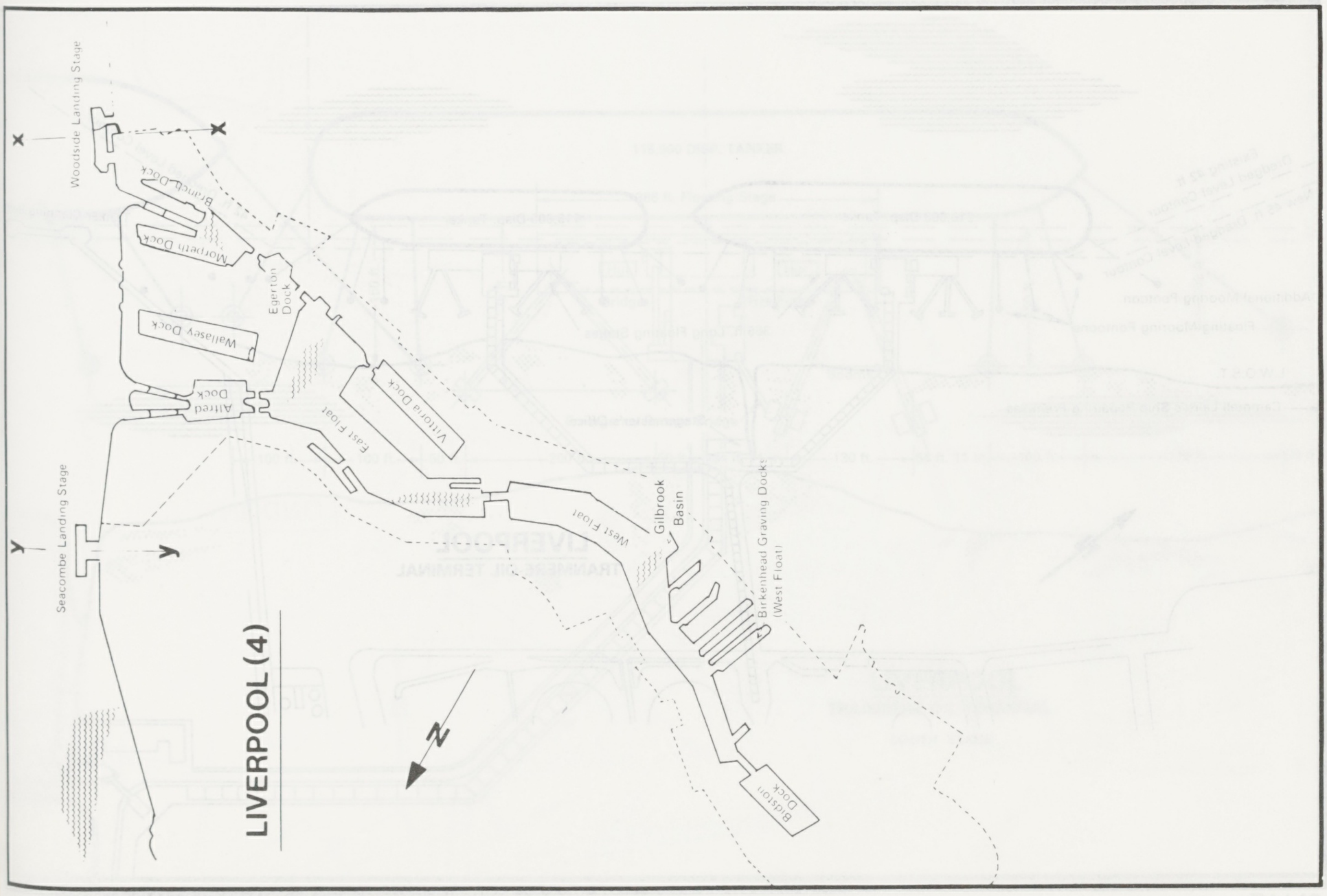
LIVERPOOL (2)

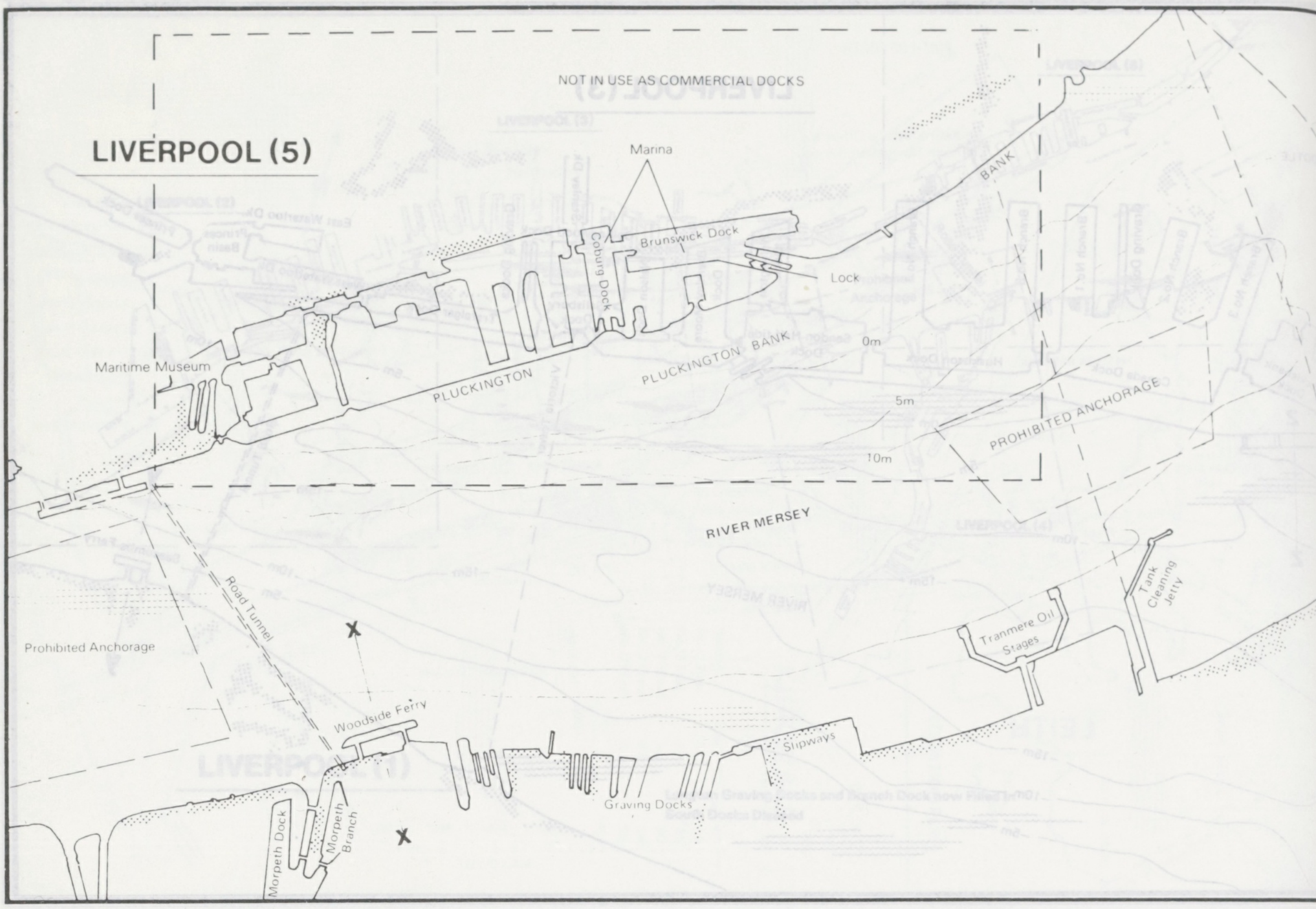
Branch Dock
Z
Langton Dock
Branch No.2
Branch No.3
Hornby Dock
Alexandra Dock
Z
Branch No.1
Branch No.2
Branch No.3
Silo Tower
Berth S3
S2
Berths S1
Grain Dock
Berth S4
Gladstone Dock
RIVER MERSEY
-10 m.
-15 m.
Tower
Berth S5
Royal Seaforth Dock
S7
S8
S9
Berth S6
Berths S10
-10 m.
-15 m.
-10 m.
Radar Tower

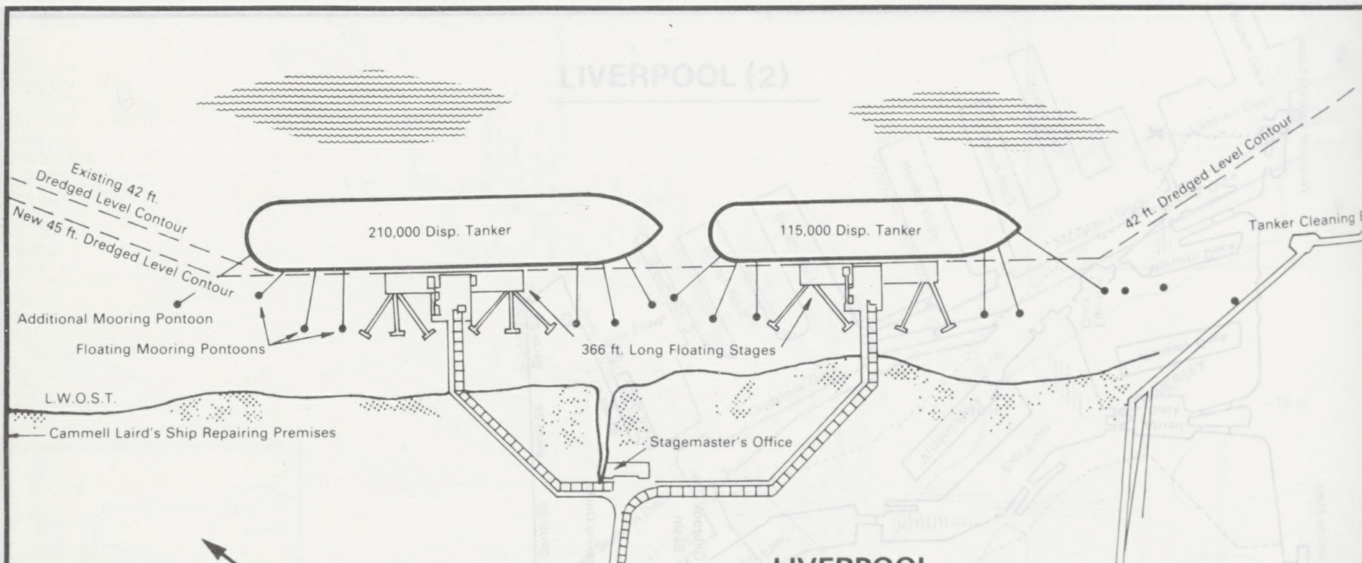
LIVERPOOL (3)

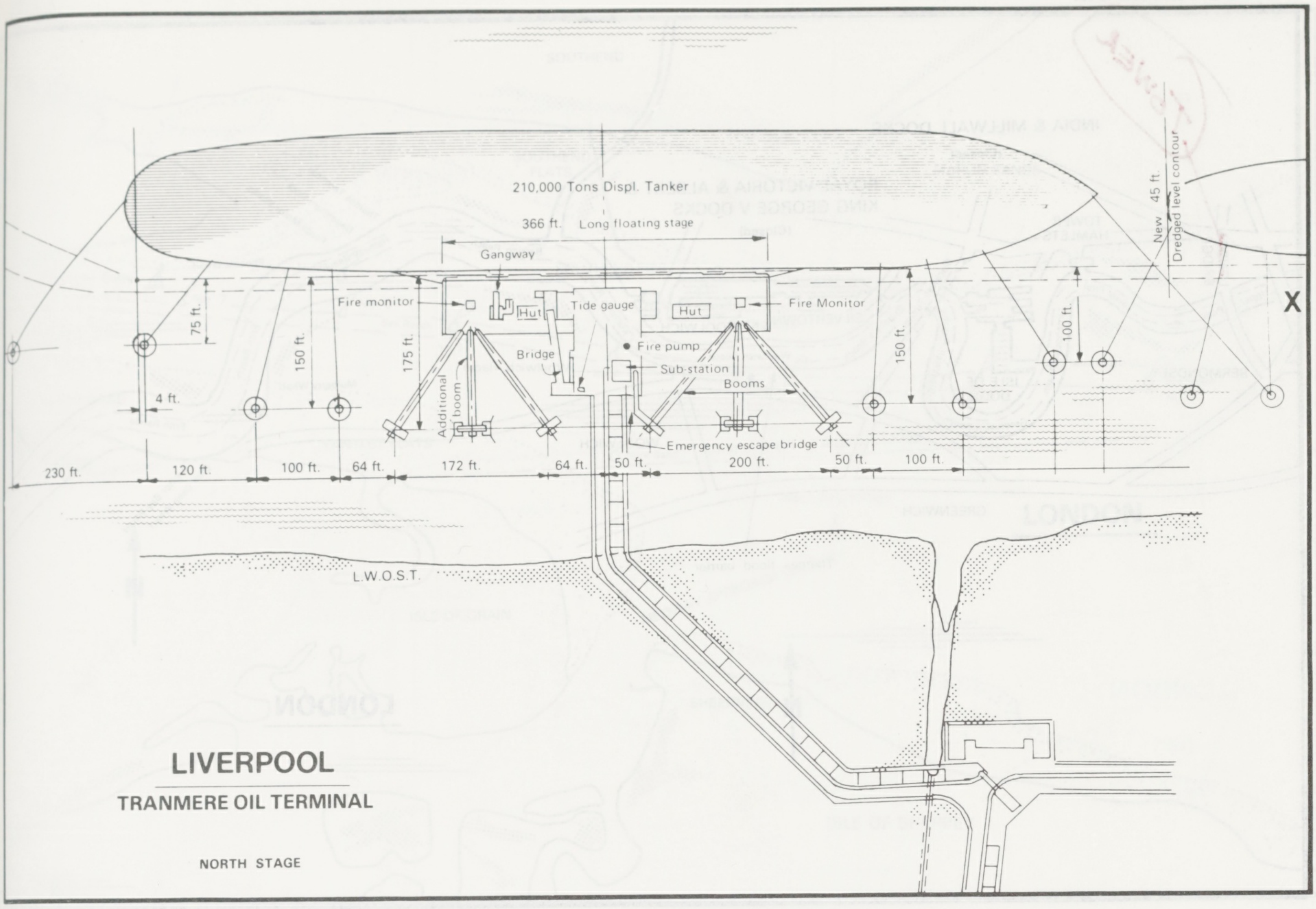

BOOTLE
Branch No.3
Branch No.2
Graving Dock
Branch No.1
Branch No.3
Branch No.1
Wellington Dock
Bramley Moore Dock
Nelson Dock
Stanley Dk.
Collingwood Dock
Graving Docks
Salisbury Dock
Trafalgar Dock
East Waterloo Dk.
Princes Basin
Princes Dock
West Waterloo Dk
Brocklebank Dock
Canada Dock
Huskisson Dock
Sandon Half-tide Dock
Victoria Tower
Road Tunnel
Z
Z
Y
Y
Seacombe Ferry
RIVER MERSEY
0m
5m
10m
15m
15m
15m
10m
5m
5m
10m
15m
10m
5m

LIVERPOOL (4)


Woodside Landing Stage
X
X
Branch Dock
Morpeth Dock
Egerton Dock
Wallasey Dock
Alfred Dock
Victoria Dock
East Float
West Float
Gilbrook Basin
Birkenhead Graving Docks (West Float)
Bidston Dock
Seacombe Landing Stage
Y
Y
N


NOT IN USE AS COMMERCIAL DOCKS
LIVERPOOL (5)
Marina
Brunswick Dock
Coburg Dock
Lock
BANK
Maritime Museum
PLUCKINGTON
PLUCKINGTON BANK
0m
5m
10m
PROHIBITED ANCHORAGE
RIVER MERSEY
Tank Cleaning Jetty
Tranmere Oil Stages
Prohibited Anchorage
Road Tunnel
X
Woodside Ferry
Slipways
Graving Docks
X
Morpeth Dock
Morpeth Branch

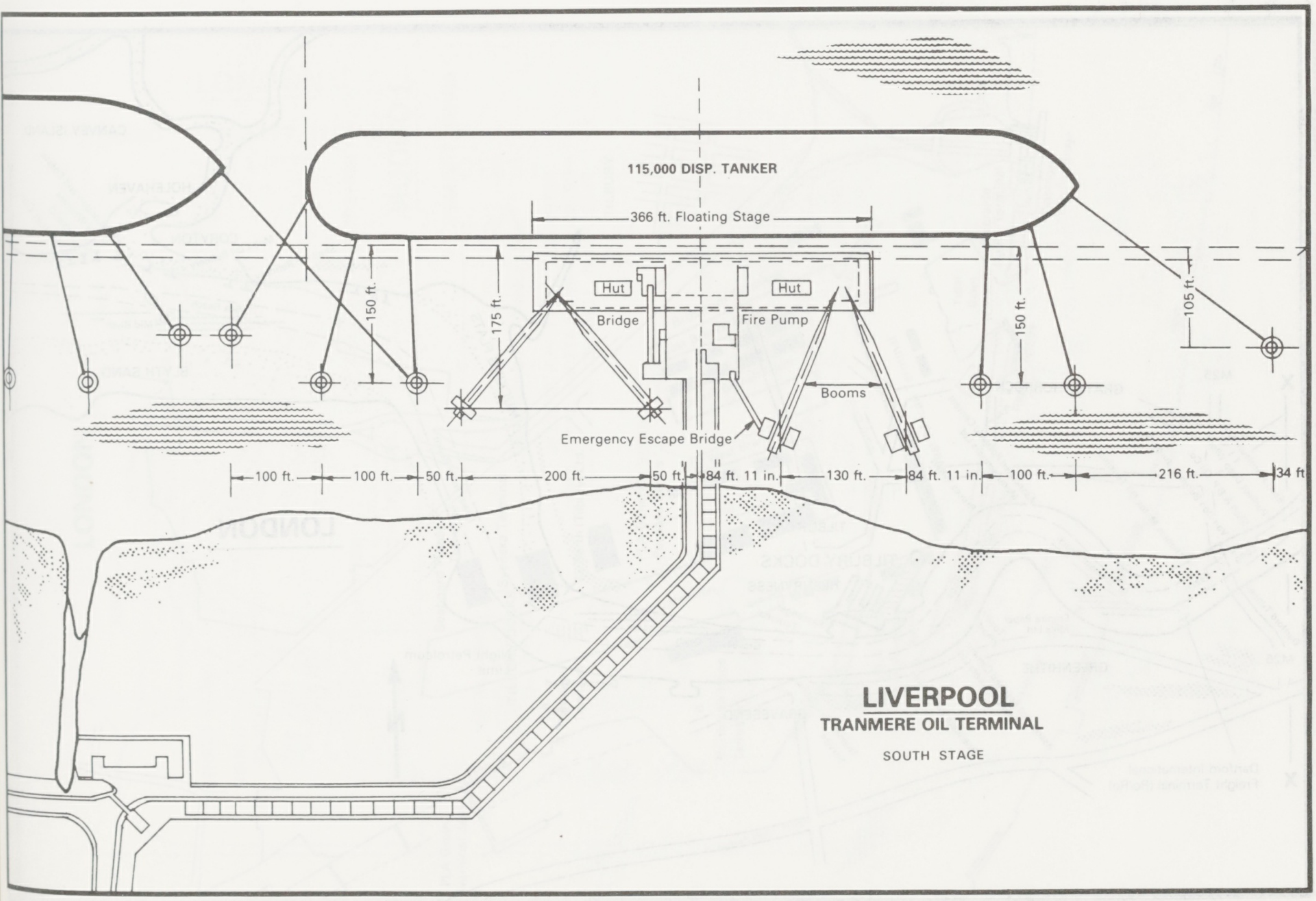

Existing 42 ft. Dredged Level Contour
New 45 ft. Dredged Level Contour
210,000 Disp. Tanker
115,000 Disp. Tanker
42 ft. Dredged Level Contour
Tanker Cleaning
Additional Mooring Pontoon
Floating Mooring Pontoons
366 ft. Long Floating Stages
L.W.O.S.T.
Cammell Laird's Ship Repairing Premises
Stagemaster's Office
LIVERPOOL
TRANMERE OIL TERMINAL


210,000 Tons Displ. Tanker
366 ft. Long floating stage
Gangway
Fire monitor
Hut
Tide gauge
Hut
Fire Monitor
Fire pump
Bridge
Sub station
Booms
Additional boom
Emergency escape bridge
75 ft.
150 ft.
175 ft.
150 ft.
100 ft.
4 ft.
New 45 ft. Dredged level contour
X
230 ft.
120 ft.
100 ft.
64 ft.
172 ft.
64 ft.
50 ft.
200 ft.
50 ft.
100 ft.
L.W.O.S.T.

LIVERPOOL

TRANMERE OIL TERMINAL

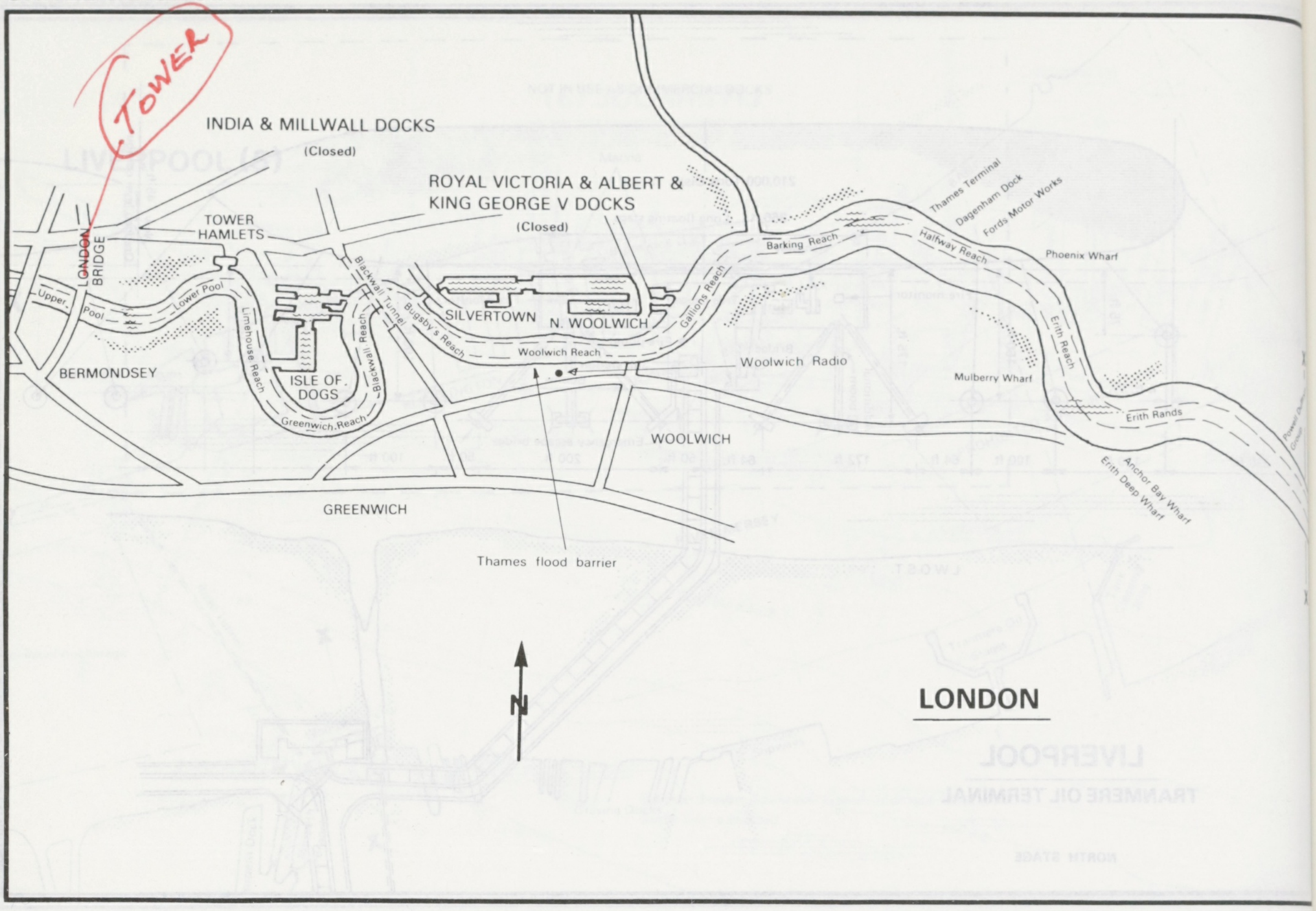
NORTH STAGE

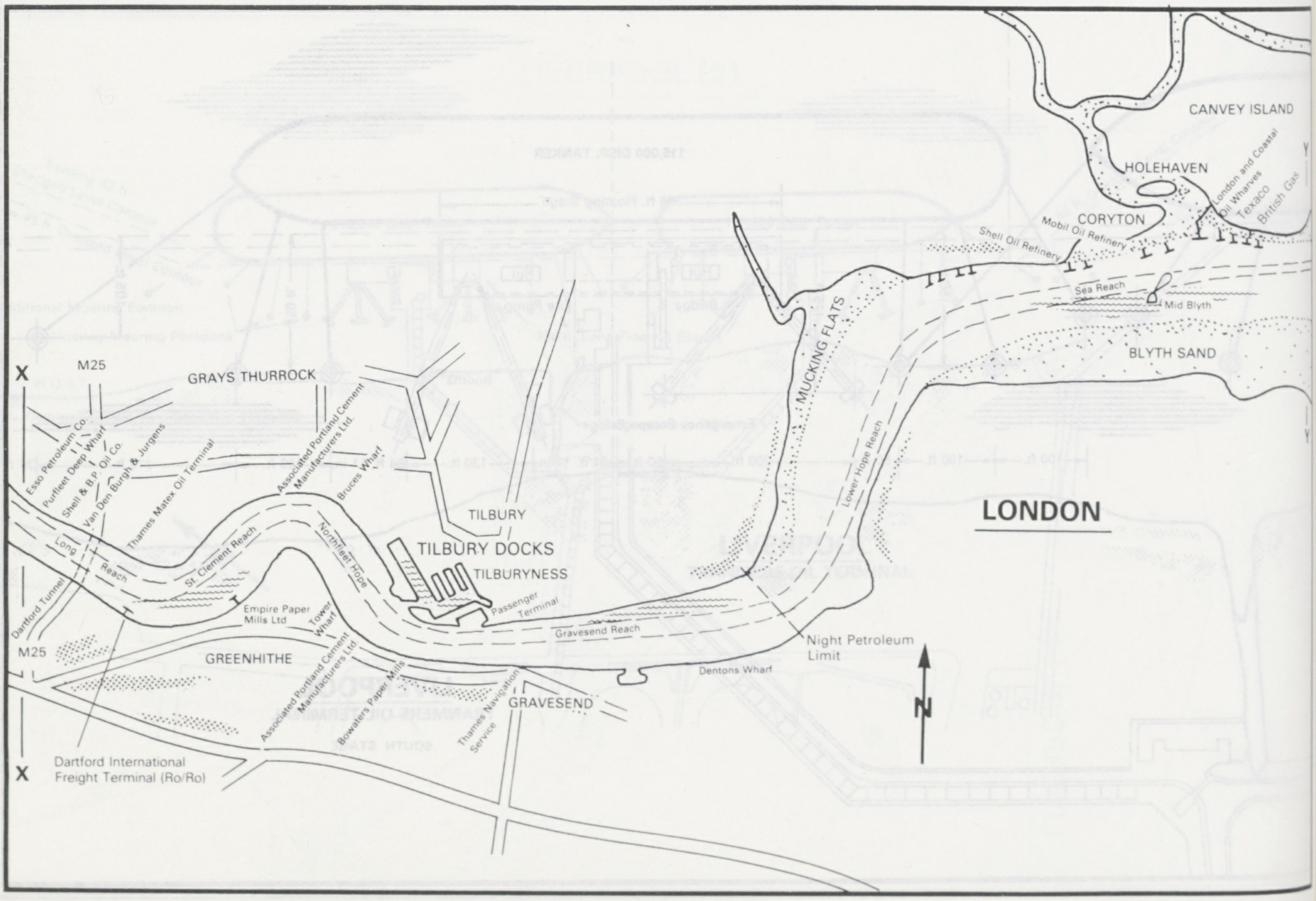

115,000 DISP. TANKER
366 ft. Floating Stage
Hut
Hut
Bridge
Fire Pump
Booms
Emergency Escape Bridge
150 ft.
175 ft.
150 ft.
105 ft.
100 ft.
100 ft.
50 ft.
200 ft.
50 ft.
84 ft. 11 in.
130 ft.
84 ft. 11 in.
100 ft.
216 ft.
34 ft

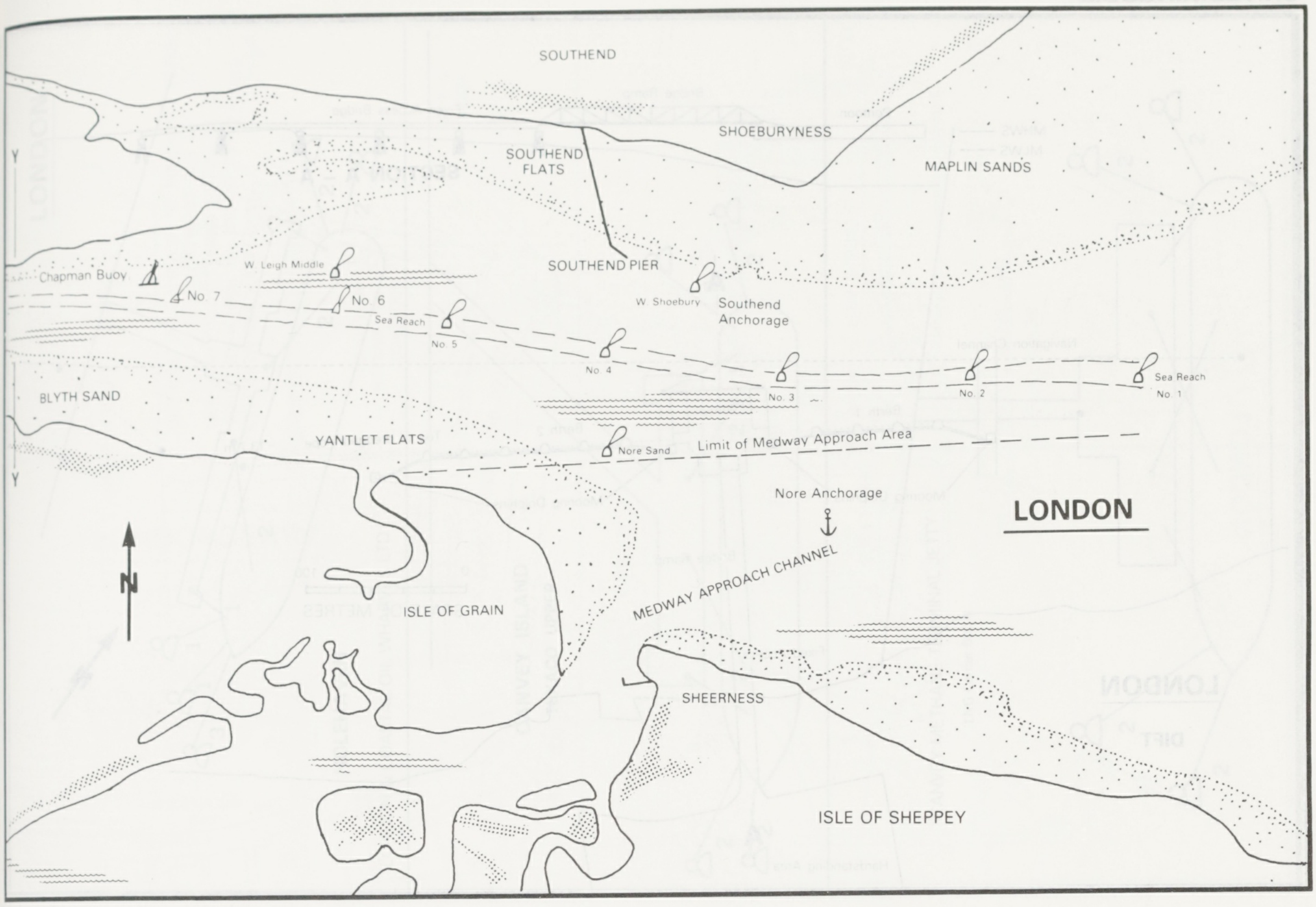
LIVERPOOL

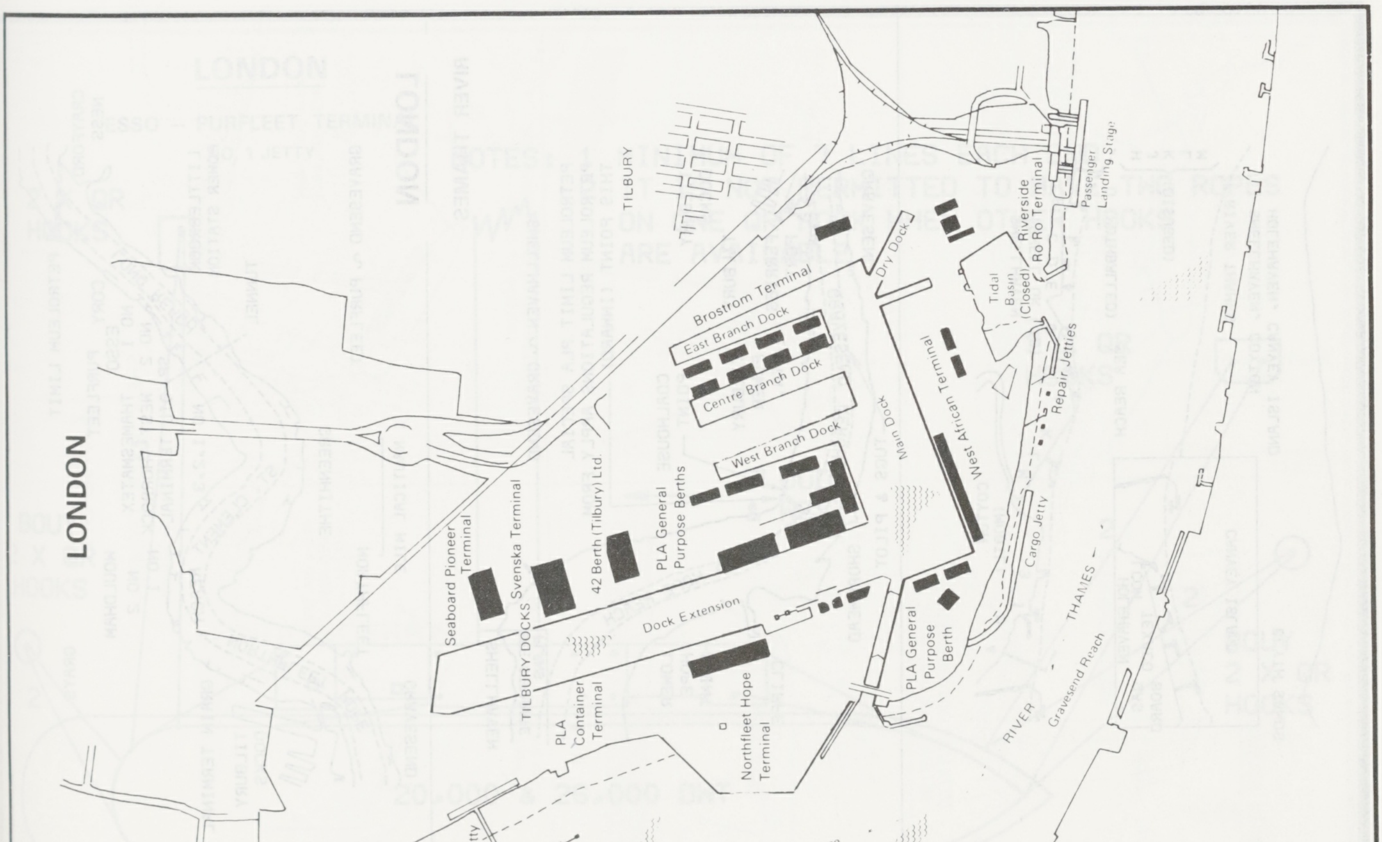
TRANMERE OIL TERMINAL

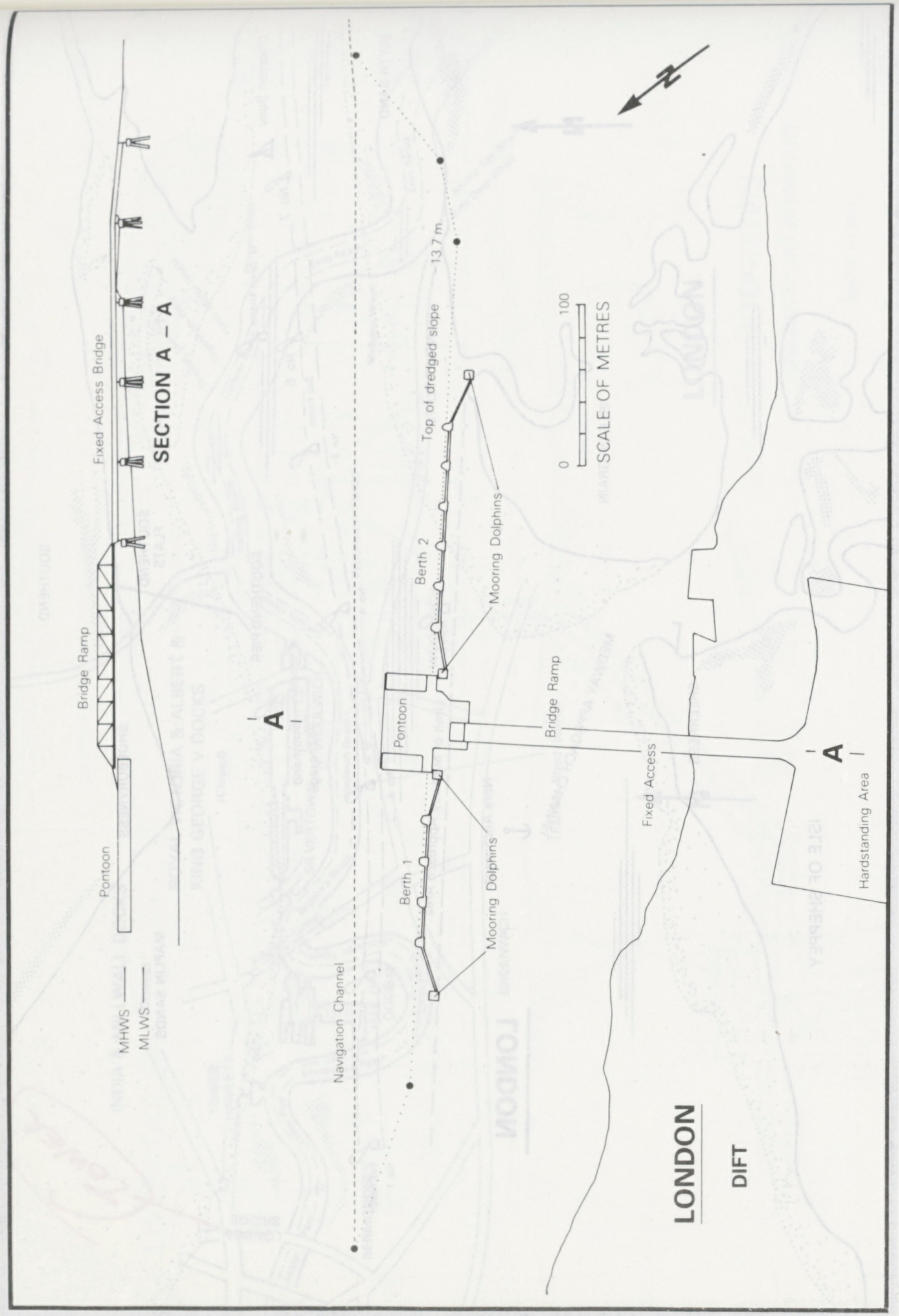
SOUTH STAGE


TOWER
INDIA & MILLWALL DOCKS
(Closed)
ROYAL VICTORIA & ALBERT & KING GEORGE V DOCKS
(Closed)
TOWER HAMLETS
LONDON BRIDGE
Upper Pool
Lower Pool
Limehouse Reach
Blackwall Tunnel
Blackwall Reach
Bugsby's Reach
SILVERTOWN
N. WOOLWICH
Woolwich Reach
Gallions Reach
Barking Reach
Thames Terminal
Dagenham Dock
Fords Motor Works
Halfway Reach
Phoenix Wharf
Erith Reach
Mulberry Wharf
Erith Rands
Anchor Bay Wharf
Erith Deep Wharf
Woolwich Radio
BERMONDSEY
ISLE OF DOGS
Greenwich Reach
WOOLWICH
GREENWICH
Thames flood barrier
N
LONDON


CANVEY ISLAND
HOLEHAVEN
London and Coastal Oil Wharves
Texaco
British Gas
CORYTON
Mobil Oil Refinery
Shell Oil Refinery
Sea Reach
Mid Blyth
BLYTH SAND
MUCKING FLATS
Lower Hope Reach
X
M25
GRAYS THURROCK
Esso Petroleum Co.
Purfleet Deep Wharf
Shell & B.P. Oil Co.
Van Den Burgh & Jurgens
Thames Matex Oil Terminal
Associated Portland Cement Manufacturers Ltd.
Bruces Wharf
TILBURY
TILBURY DOCKS
TILBURYNESS
LONDON
Long Reach
St. Clement Reach
Northfleet Hope
Passenger Terminal
Gravesend Reach
Dartford Tunnel
Empire Paper Mills Ltd
Tower Wharf
M25
GREENHITHE
Associated Portland Cement Manufacturers Ltd.
Bowaters Paper Mills
Thames Navigation Service
GRAVESEND
Dentons Wharf
Night Petroleum Limit
N
X
Dartford International Freight Terminal (Ro/Ro)

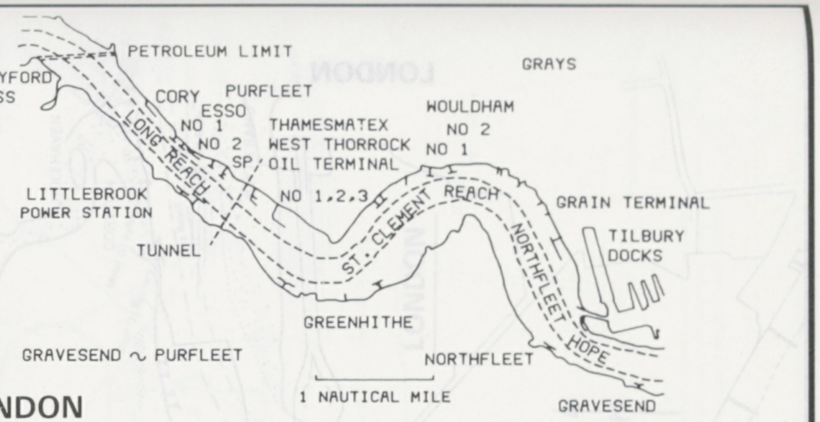

SOUTHEND
SHOEBURYNESS
MAPLIN SANDS
SOUTHEND FLATS
SOUTHEND PIER
Chapman Buoy
W. Leigh Middle
No 7
No 6
Sea Reach
No. 5
No. 4
W. Shoebury
Southend Anchorage
No. 3
No. 2
Sea Reach No. 1
BLYTH SAND
YANTLET FLATS
Nore Sand
Limit of Medway Approach Area
Nore Anchorage
LONDON
N
ISLE OF GRAIN
MEDWAY APPROACH CHANNEL
SHEERNESS
ISLE OF SHEPPEY

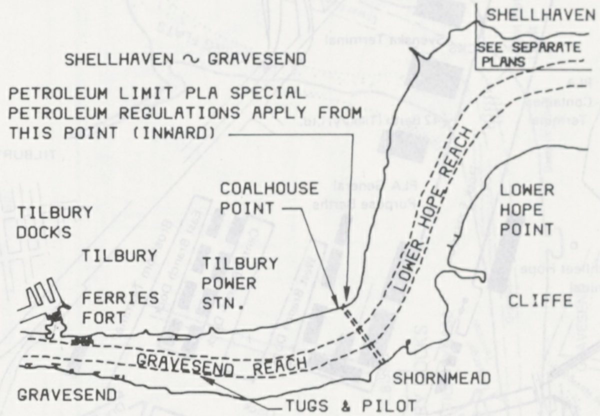

LONDON
TILBURY
Passenger Landing Stage
Riverside Ro Ro Terminal
Dry Dock
Brostrom Terminal
East Branch Dock
Centre Branch Dock
Tidal Basin (Closed)
Repair Jetties
West Branch Dock
Main Dock
West African Terminal
Seaboard Pioneer Terminal
Svenska Terminal
42 Berth (Tilbury) Ltd
PLA General Purpose Berths
TILBURY DOCKS
Dock Extension
Cargo Jetty
PLA Container Terminal
Northfleet Hope Terminal
PLA General Purpose Berth
RIVER
THAMES
Gravesend Reach
Northfleet Hope
PLA Grain Terminal Jetty

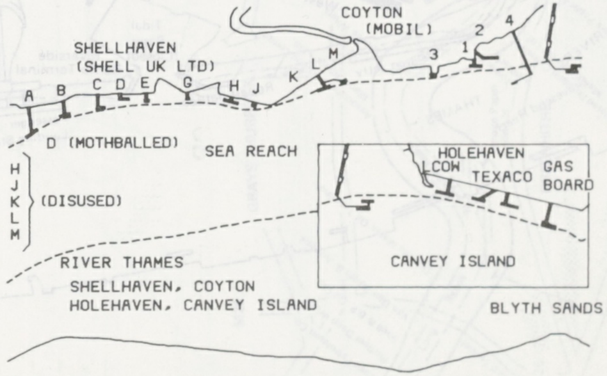

SECTION A – A
Fixed Access Bridge
Bridge Ramp
Pontoon
MHWS
MLWS
Navigation Channel
Berth 1
Berth 2
Mooring Dolphins
Mooring Dolphins
Top of dredged slope
13.7 m
0
100
SCALE OF METRES
Pontoon
Bridge Ramp
Fixed Access
Hardstanding Area
A
A
LONDON
DIFT

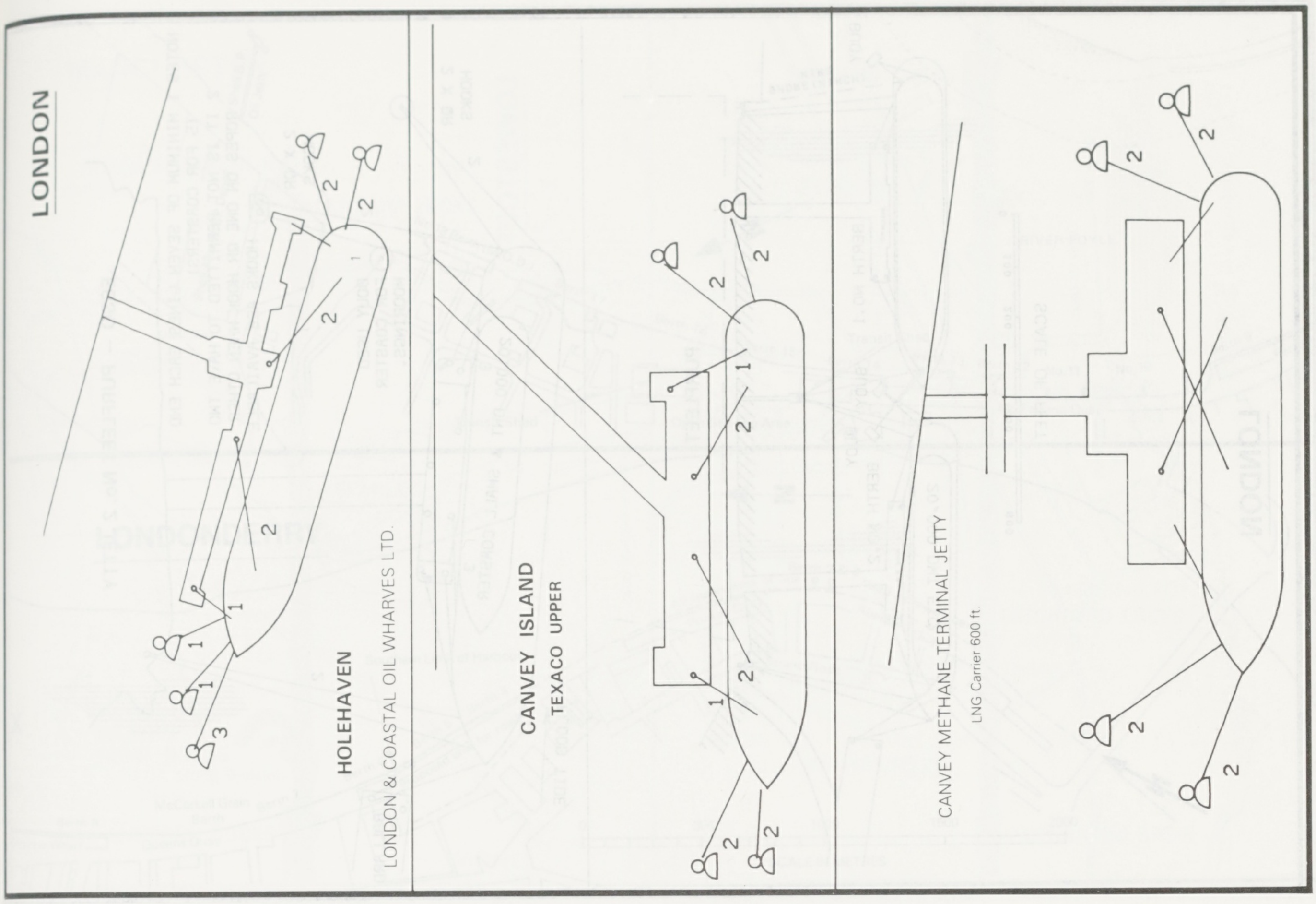
LONDON

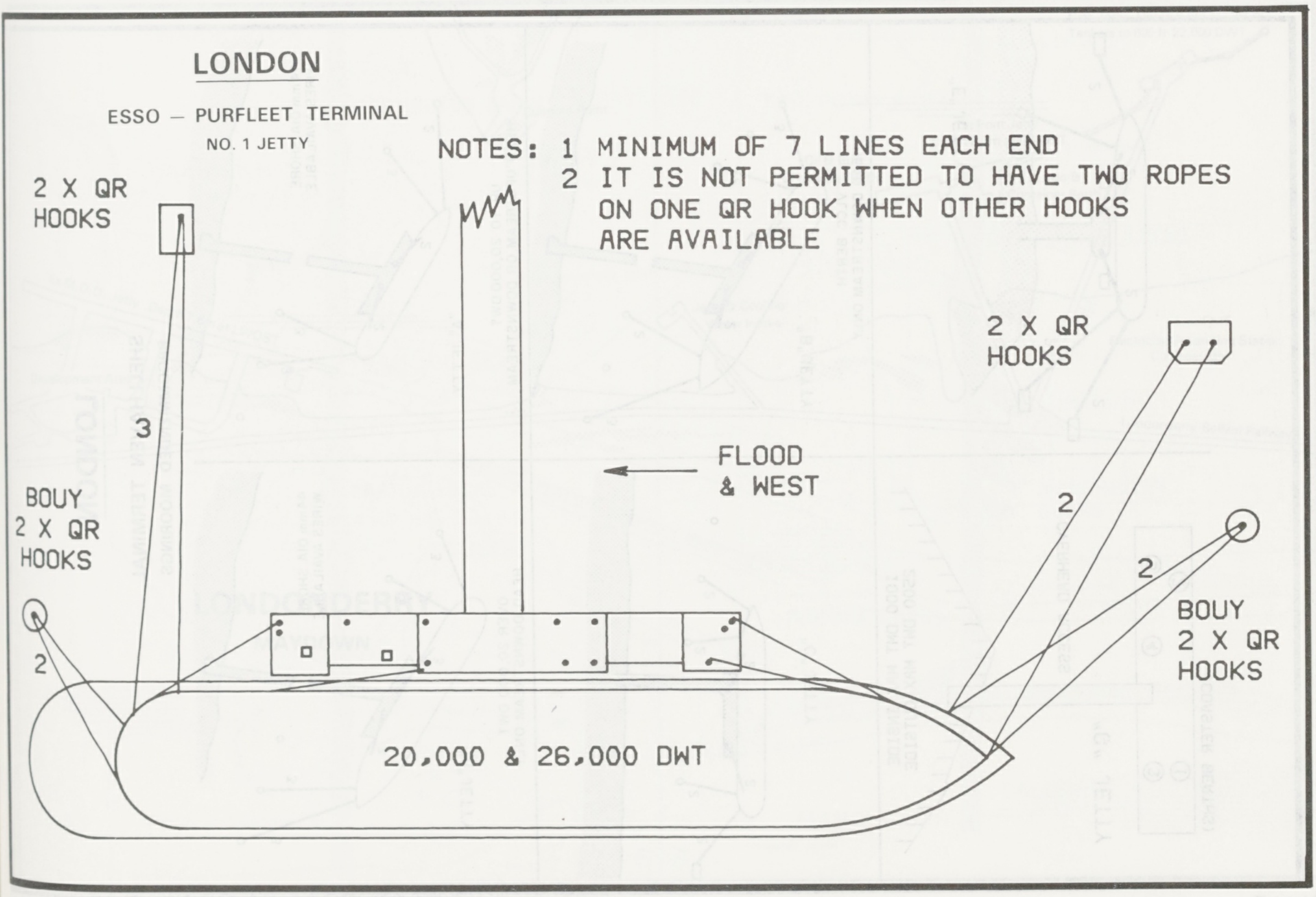
RIVER THAMES


PETROLEUM LIMIT
CRAYFORD NESS
CORY
PURFLEET
ESSO
NO 1
NO 2
SP
THAMESMATEX
WEST THORROCK
OIL TERMINAL
WOULDHAM
NO 2
NO 1
GRAYS
LONG REACH
ST. CLEMENT REACH
NORTHFLEET HOPE
LITTLEBROOK POWER STATION
NO 1,2,3
GRAIN TERMINAL
TILBURY DOCKS
TUNNEL
GREENHITHE
NORTHFLEET
GRAVESEND ~ PURFLEET
1 NAUTICAL MILE
GRAVESEND


SHELLHAVEN
SEE SEPARATE PLANS
SHELLHAVEN ~ GRAVESEND
PETROLEUM LIMIT PLA SPECIAL PETROLEUM REGULATIONS APPLY FROM THIS POINT (INWARD)
COALHOUSE POINT
LOWER HOPE POINT
TILBURY DOCKS
TILBURY
TILBURY POWER STN.
LOWER HOPE REACH
FERRIES
FORT
CLIFFE
GRAVESEND REACH
SHORNMEAD
GRAVESEND
TUGS & PILOT


COYTON (MOBIL)
SHELLHAVEN (SHELL UK LTD)
A
B
C
D
E
G
H
J
K
L
M
3
1
2
4
D (MOTHBALLED)
SEA REACH
H J K L M (DISUSED)
HOLEHAVEN
LCOW
TEXACO
GAS BOARD
CANVEY ISLAND
RIVER THAMES
SHELLHAVEN, COYTON HOLEHAVEN, CANVEY ISLAND
BLYTH SANDS


LONDON
HOLEHAVEN
LONDON & COASTAL OIL WHARVES LTD.
CANVEY ISLAND
TEXACO UPPER
CANVEY METHANE TERMINAL JETTY
LNG Carrier 600 ft.
2
2
1
2
2
1
1
1
3
2
2
2
1
2
2
1
2
2
2
2
2
2
2
2


LONDON

ESSO — PURFLEET TERMINAL

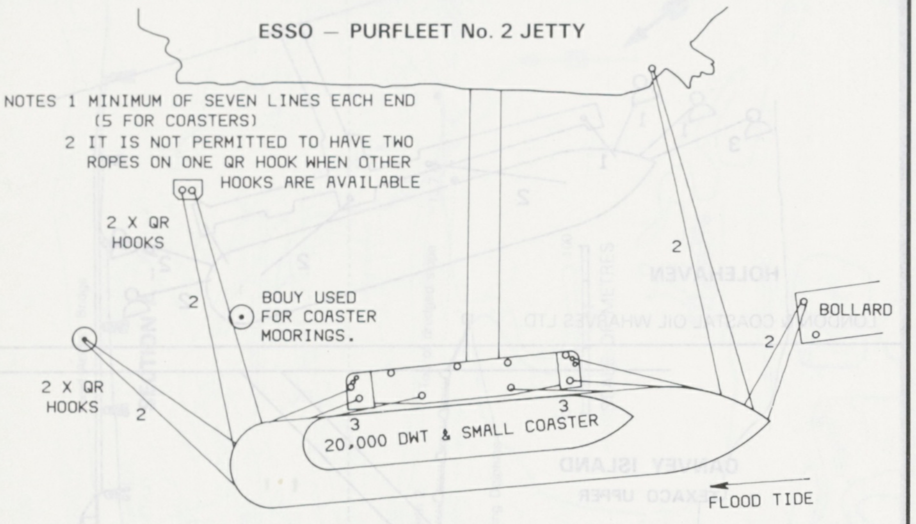
NO. 1 JETTY

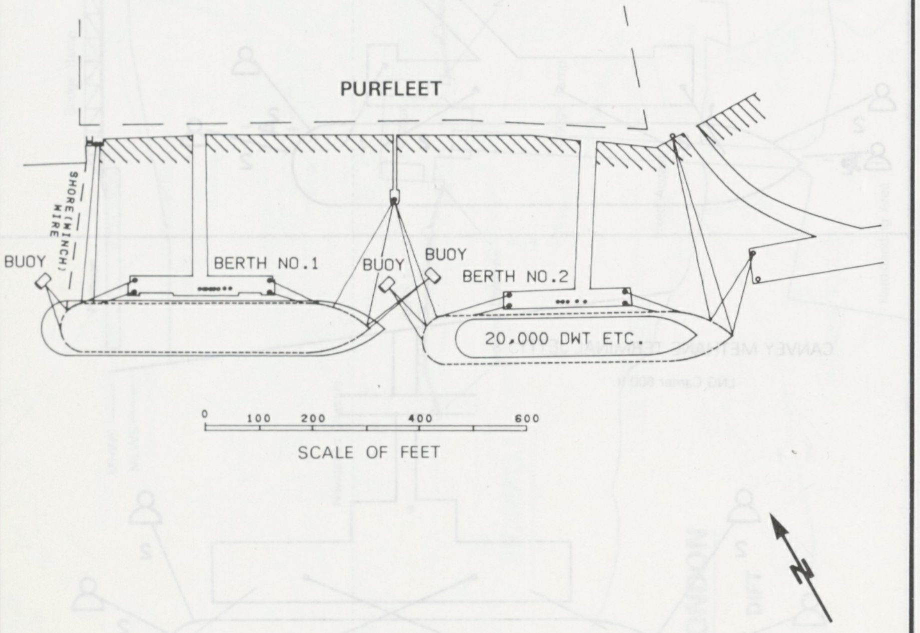
NOTES: 1 MINIMUM OF 7 LINES EACH END

2 IT IS NOT PERMITTED TO HAVE TWO ROPES ON ONE QR HOOK WHEN OTHER HOOKS ARE AVAILABLE

2 X QR HOOKS
BOUY 2 X QR HOOKS
3
2
FLOOD & WEST
2 X QR HOOKS
2
2
BOUY 2 X QR HOOKS
20,000 & 26,000 DWT

ESSO – PURFLEET No. 2 JETTY


NOTES 1 MINIMUM OF SEVEN LINES EACH END
(5 FOR COASTERS)
2 IT IS NOT PERMITTED TO HAVE TWO ROPES ON ONE QR HOOK WHEN OTHER HOOKS ARE AVAILABLE
2 X QR HOOKS
BOUY USED FOR COASTER MOORINGS.
BOLLARD
2 X QR HOOKS
2
2
2
2
3
3
20,000 DWT & SMALL COASTER
FLOOD TIDE

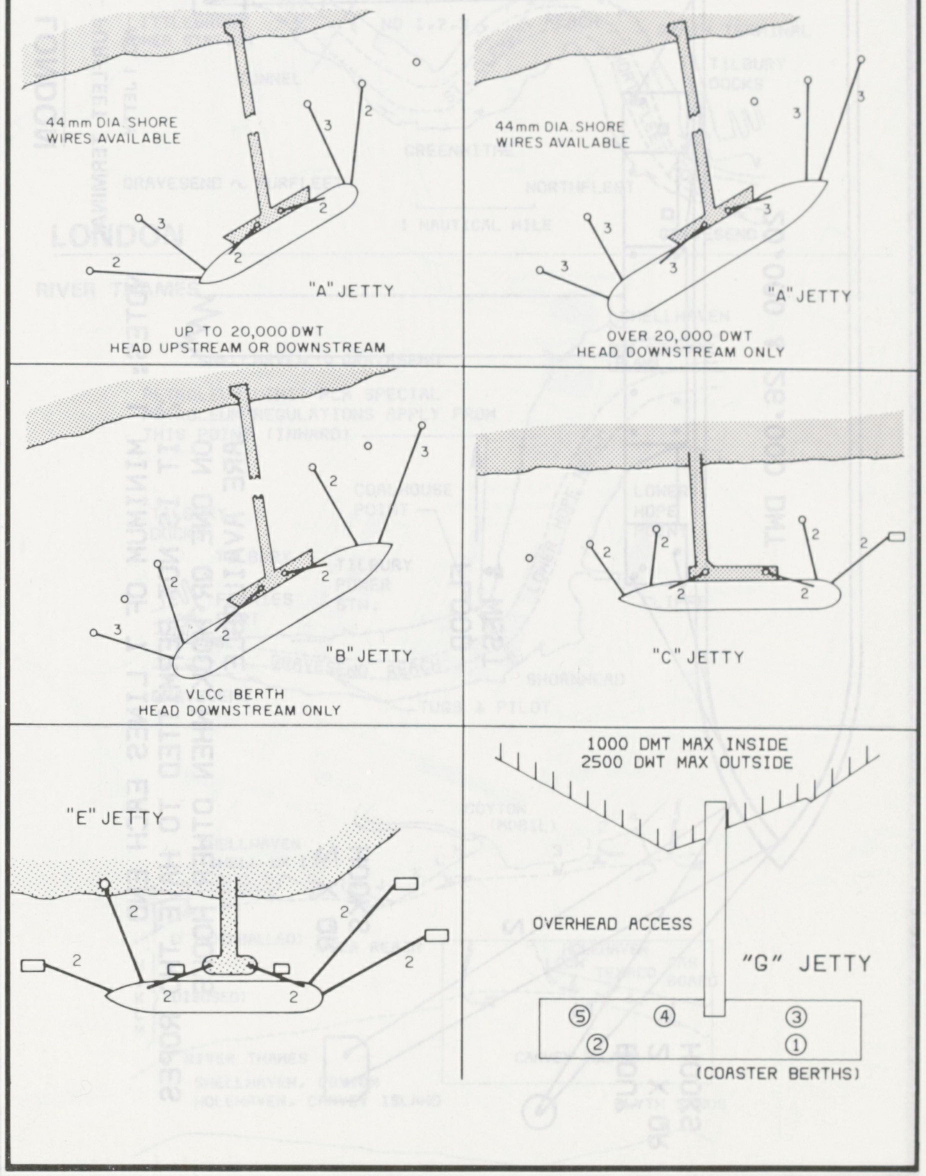

PURFLEET
SHORE(WINCH) WIRE
BUOY
BERTH NO.1
BUOY
BUOY
BERTH NO.2
20,000 DWT ETC.
0
100
200
400
600
SCALE OF FEET
N

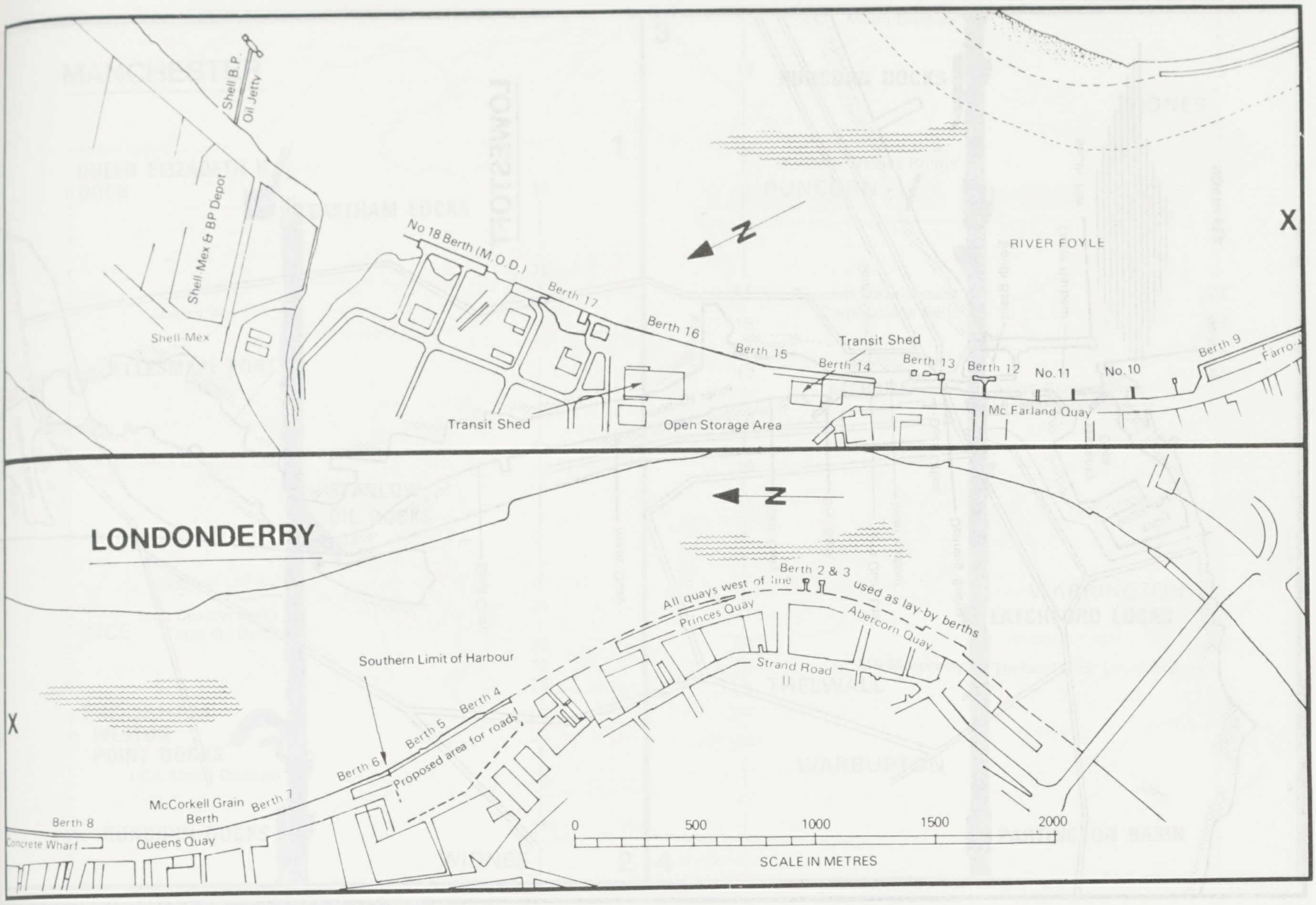
LONDON

LONDON

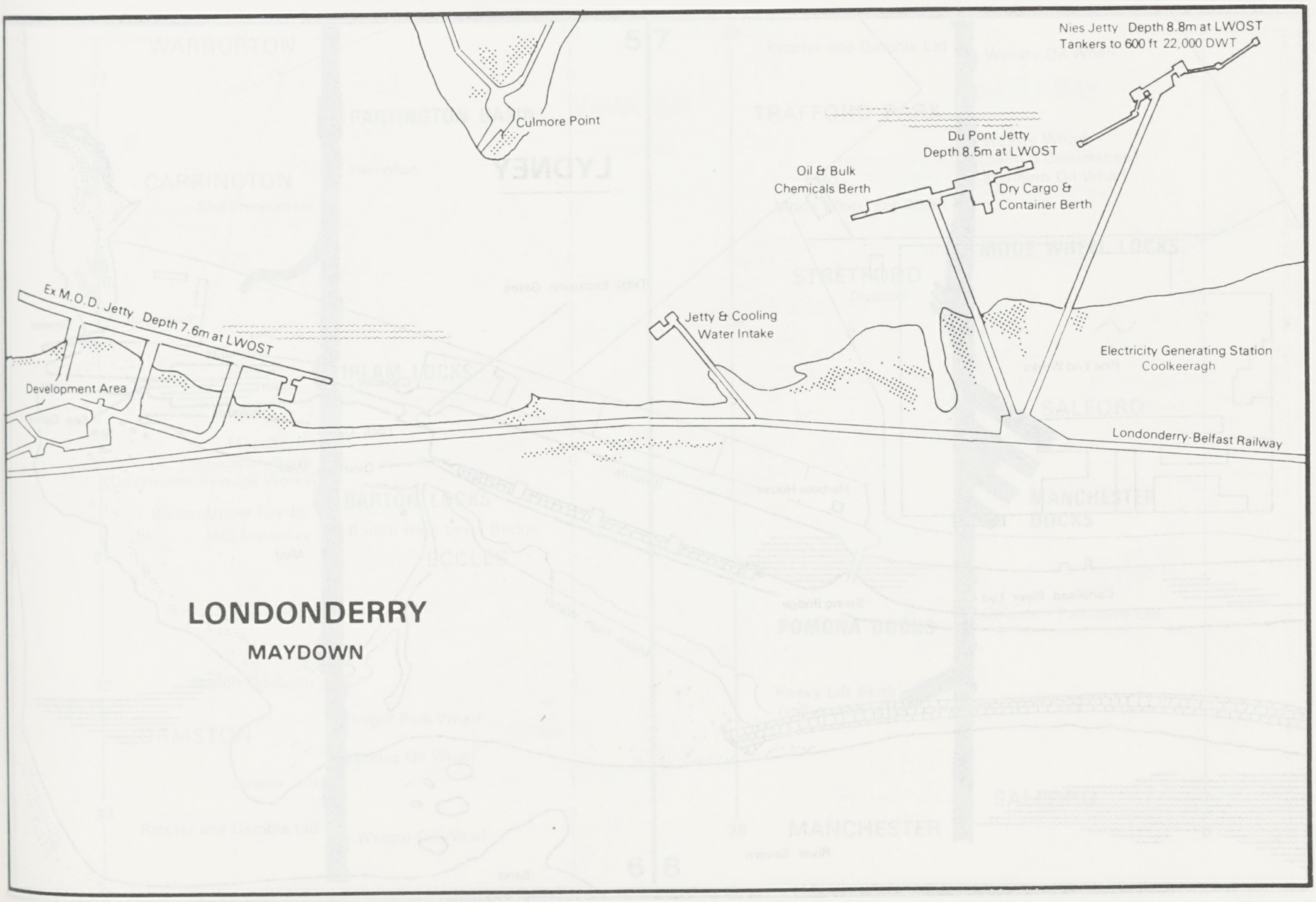
SHELLHAVEN TERMINAL

RECOMMENDED MOORINGS


44 mm DIA SHORE WIRES AVAILABLE
2
3
2
3
2
2
"A" JETTY
UP TO 20,000 DWT
HEAD UPSTREAM OR DOWNSTREAM
44 mm DIA SHORE WIRES AVAILABLE
3
3
3
3
3
3
"A" JETTY
OVER 20,000 DWT
HEAD DOWNSTREAM ONLY
3
2
2
2
2
3
"B" JETTY
VLCC BERTH
HEAD DOWNSTREAM ONLY
2
2
2
2
2
2
"C" JETTY
"E" JETTY
2
2
2
2
2
2
1000 DMT MAX INSIDE
2500 DWT MAX OUTSIDE
OVERHEAD ACCESS
"G" JETTY
⑤
④
③
②
①
(COASTER BERTHS)

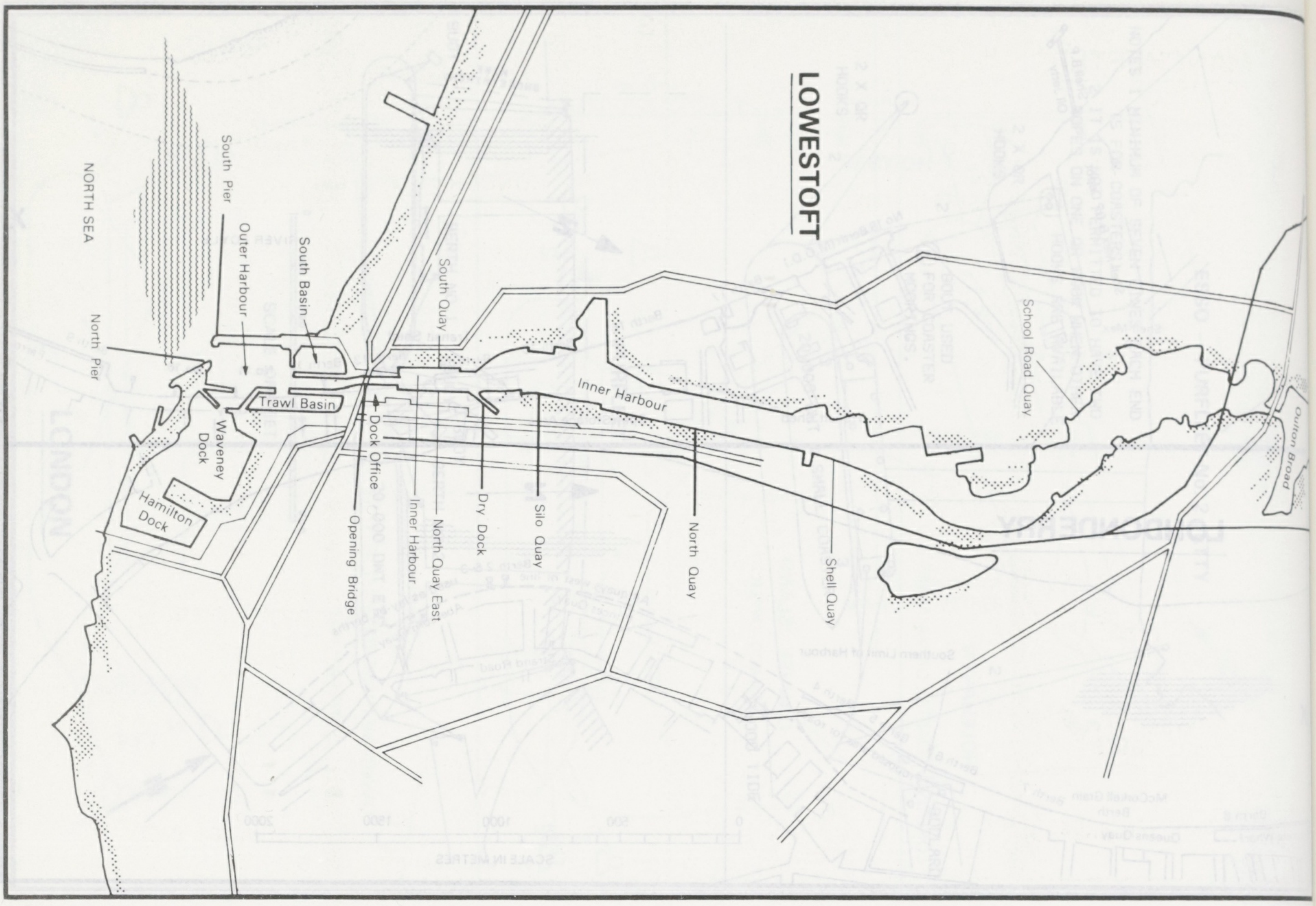

Shell B.P. Oil Jetty
Shell Mex & BP Depot
Shell Mex
No 18 Berth (M.O.D.)
Berth 17
Berth 16
Berth 15
Berth 14
Transit Shed
Berth 13
Berth 12
No.11
No.10
Berth 9
Farro
Mc Farland Quay
Transit Shed
Open Storage Area
RIVER FOYLE
N
X
N
Berth 2 & 3
All quays west of line used as lay-by berths
Princes Quay
Abercorn Quay
Strand Road
Southern Limit of Harbour
Berth 4
Berth 5
Berth 6
Proposed area for roads
Berth 7
McCorkell Grain Berth
Berth 8
Concrete Wharf
Queens Quay
X
0
500
1000
1500
2000
SCALE IN METRES

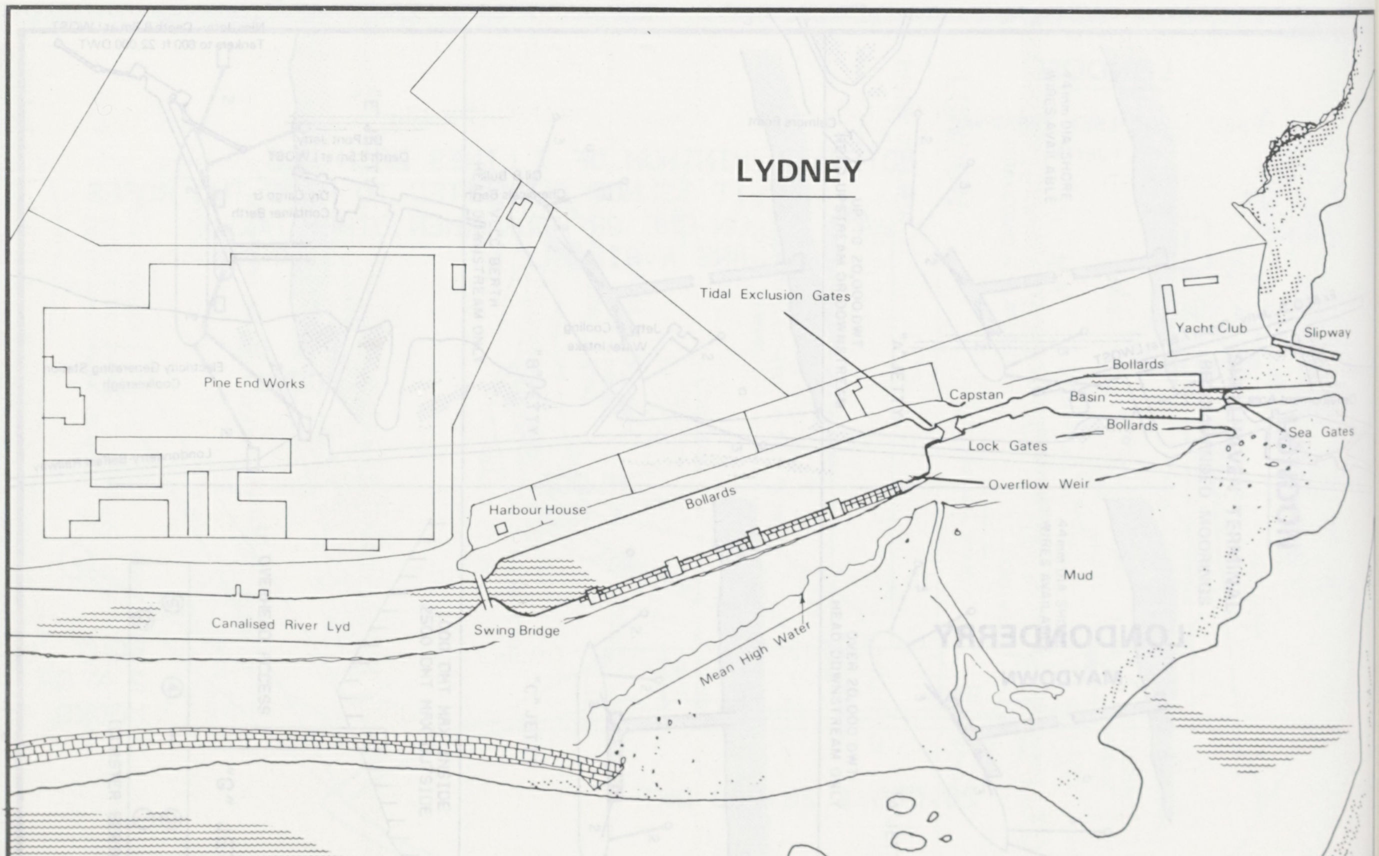
LONDONDERRY


Nies Jetty Depth 8.8m at LWOST
Tankers to 600 ft 22,000 DWT
Culmore Point
Du Pont Jetty
Depth 8.5m at LWOST
Oil & Bulk Chemicals Berth
Dry Cargo & Container Berth
Ex M.O.D. Jetty Depth 7.6m at LWOST
Development Area
Jetty & Cooling Water Intake
Electricity Generating Station
Coolkeeragh
Londonderry-Belfast Railway

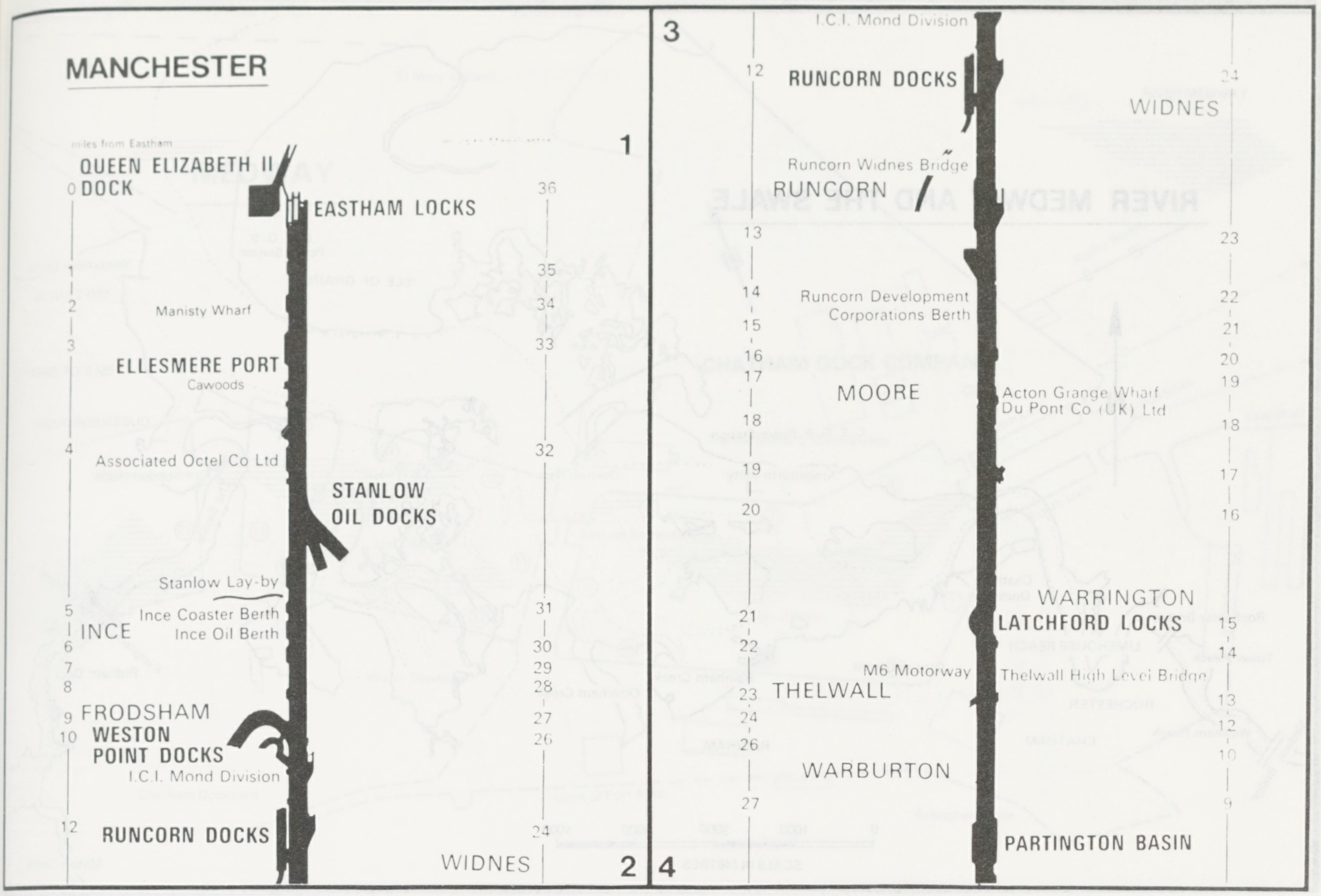
LONDONDERRY

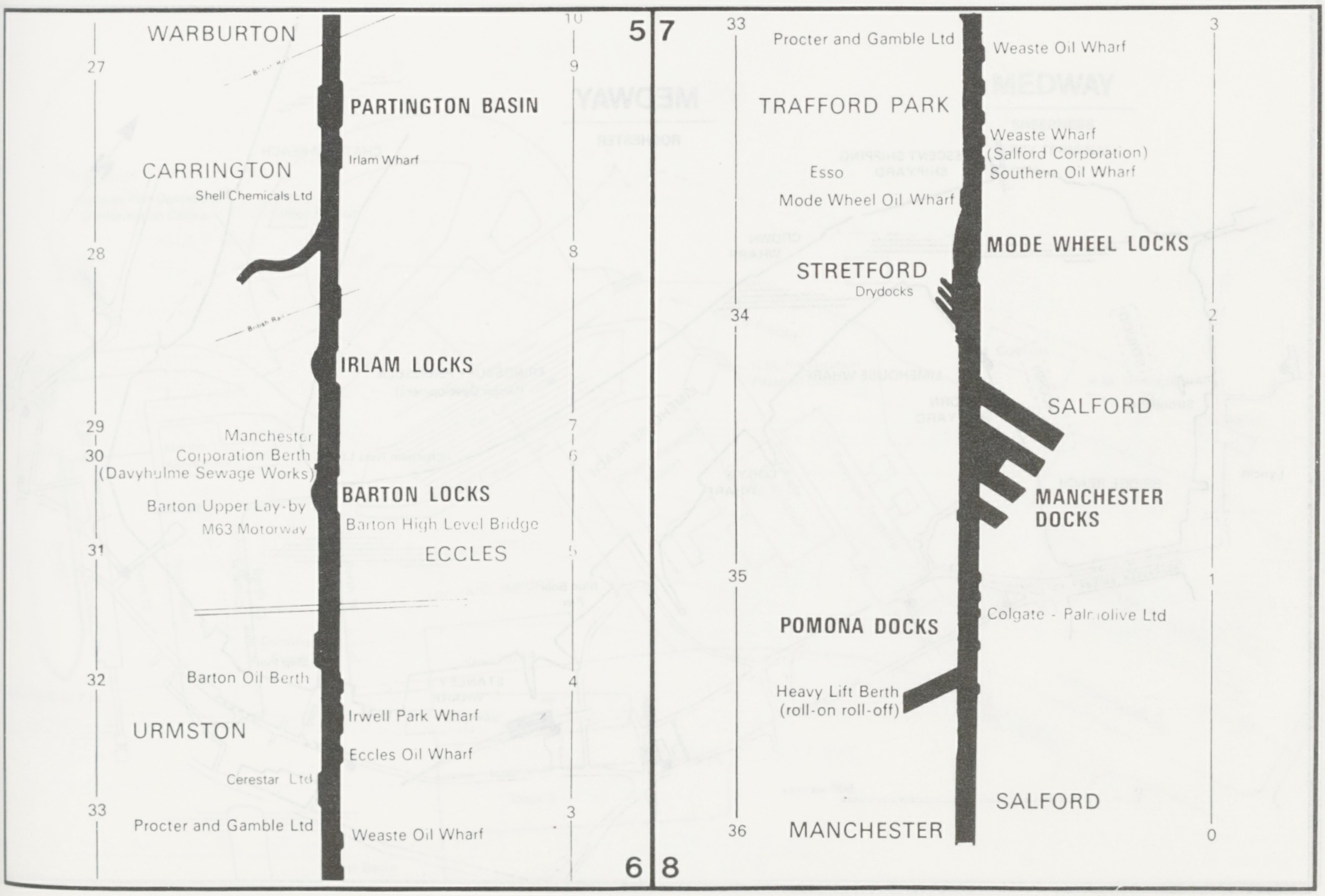
MAYDOWN

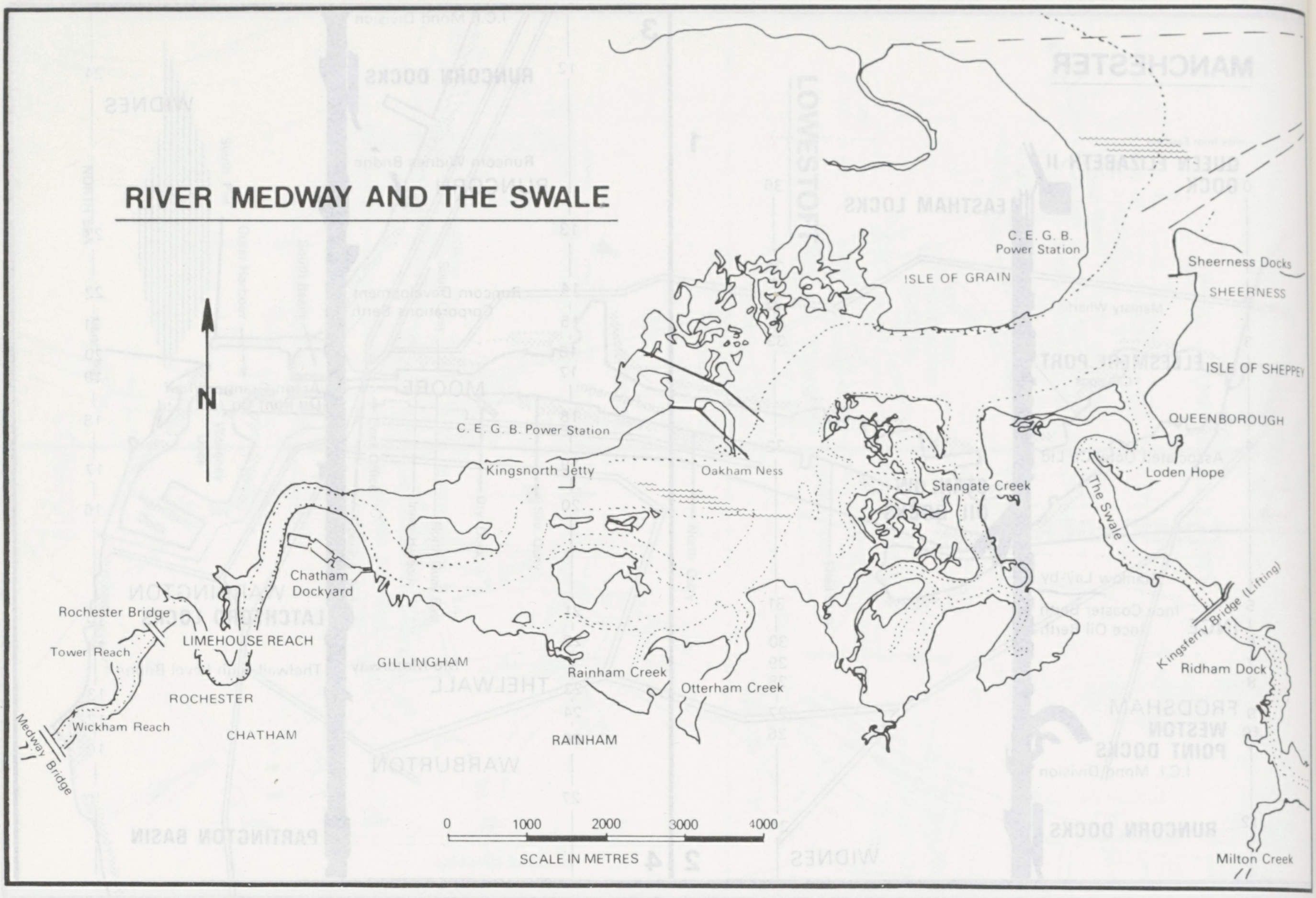

LOWESTOFT
NORTH SEA
South Pier
Outer Harbour
South Basin
South Quay
North Pier
Trawl Basin
Waveney Dock
Hamilton Dock
Dock Office
Opening Bridge
Inner Harbour
North Quay East
Dry Dock
Silo Quay
Inner Harbour
North Quay
Shell Quay
School Road Quay
Oulton Broad
2000
1500
1000
500
0
SCALE IN METRES


LYDNEY
Tidal Exclusion Gates
Yacht Club
Slipway
Bollards
Capstan
Basin
Bollards
Sea Gates
Lock Gates
Overflow Weir
Pine End Works
Harbour House
Bollards
Mud
Canalised River Lyd
Swing Bridge
Mean High Water
River Severn
Sand

MANCHESTER

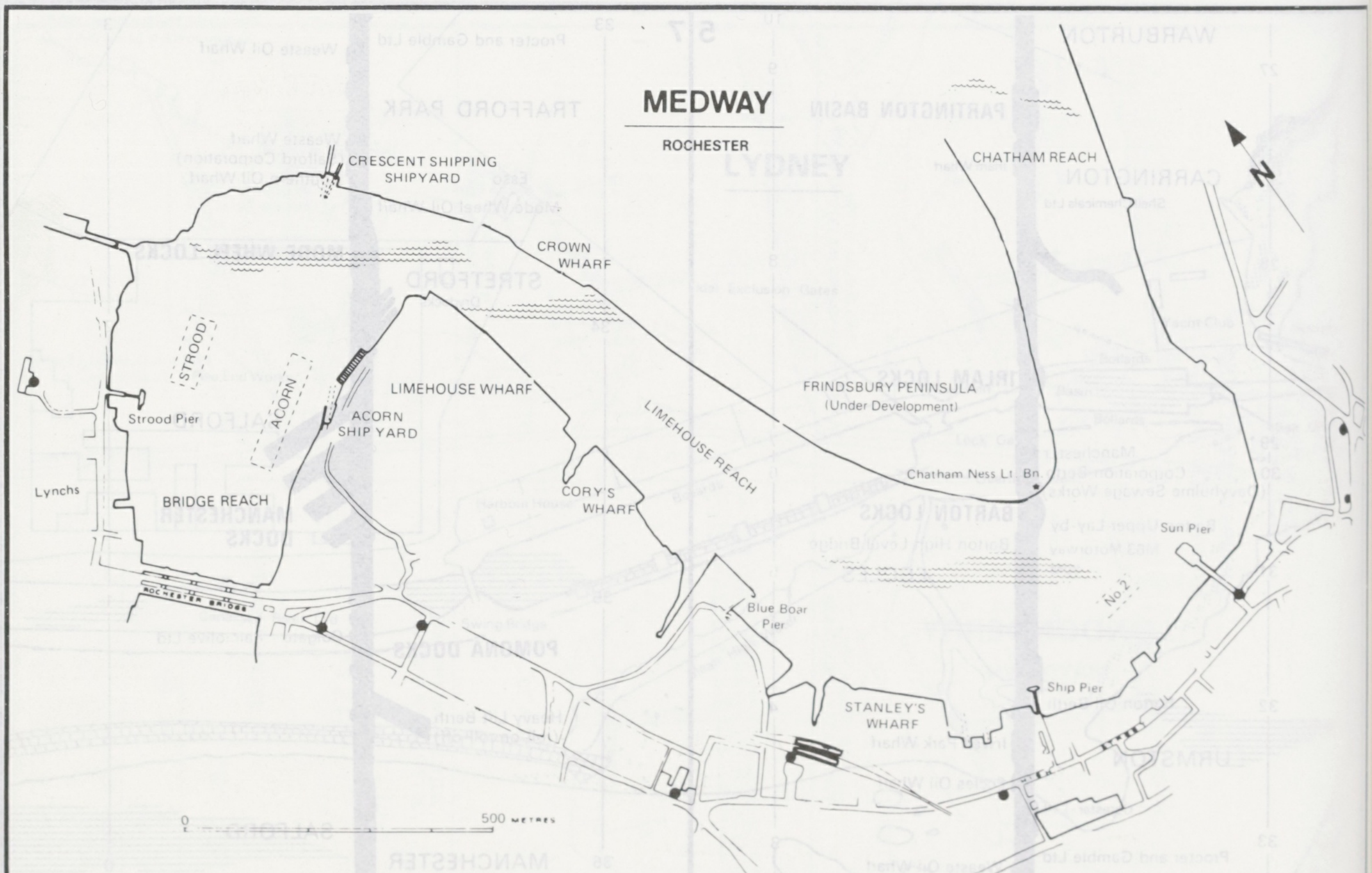

miles from Eastham
QUEEN ELIZABETH II DOCK
EASTHAM LOCKS
Manisty Wharf
ELLESMERE PORT
Cawoods
Associated Octel Co Ltd
STANLOW OIL DOCKS
Stanlow Lay-by
INCE
Ince Coaster Berth
Ince Oil Berth
FRODSHAM
WESTON POINT DOCKS
I.C.I. Mond Division
RUNCORN DOCKS
WIDNES
0
1
2
3
4
5
6
7
8
9
10
12
36
35
34
33
32
31
30
29
28
27
26
24
1
2
3
4
I.C.I. Mond Division
RUNCORN DOCKS
WIDNES
Runcorn Widnes Bridge
RUNCORN
Runcorn Development Corporations Berth
MOORE
Acton Grange Wharf
Du Pont Co (UK) Ltd
WARRINGTON
LATCHFORD LOCKS
M6 Motorway
Thelwall High Level Bridge
THELWALL
WARBURTON
PARTINGTON BASIN
12
13
14
15
16
17
18
19
20
21
22
23
24
26
27
24
23
22
21
20
19
18
17
16
15
14
13
12
10
9


WARBURTON
PARTINGTON BASIN
Irlam Wharf
CARRINGTON
Shell Chemicals Ltd
IRLAM LOCKS
Manchester Corporation Berth (Davyhulme Sewage Works)
BARTON LOCKS
Barton Upper Lay-by
Barton High Level Bridge
M63 Motorway
ECCLES
Barton Oil Berth
Irwell Park Wharf
URMSTON
Eccles Oil Wharf
Cerestar Ltd
Procter and Gamble Ltd
Weaste Oil Wharf
27
28
29
30
31
32
33
10
9
8
7
6
5
4
3
5
6
7
8
33
Procter and Gamble Ltd
Weaste Oil Wharf
TRAFFORD PARK
Weaste Wharf (Salford Corporation)
Esso
Southern Oil Wharf
Mode Wheel Oil Wharf
MODE WHEEL LOCKS
STRETFORD
Drydocks
34
SALFORD
MANCHESTER DOCKS
35
Colgate - Palmolive Ltd
POMONA DOCKS
Heavy Lift Berth (roll-on roll-off)
SALFORD
36
MANCHESTER
3
2
1
0



RIVER MEDWAY AND THE SWALE

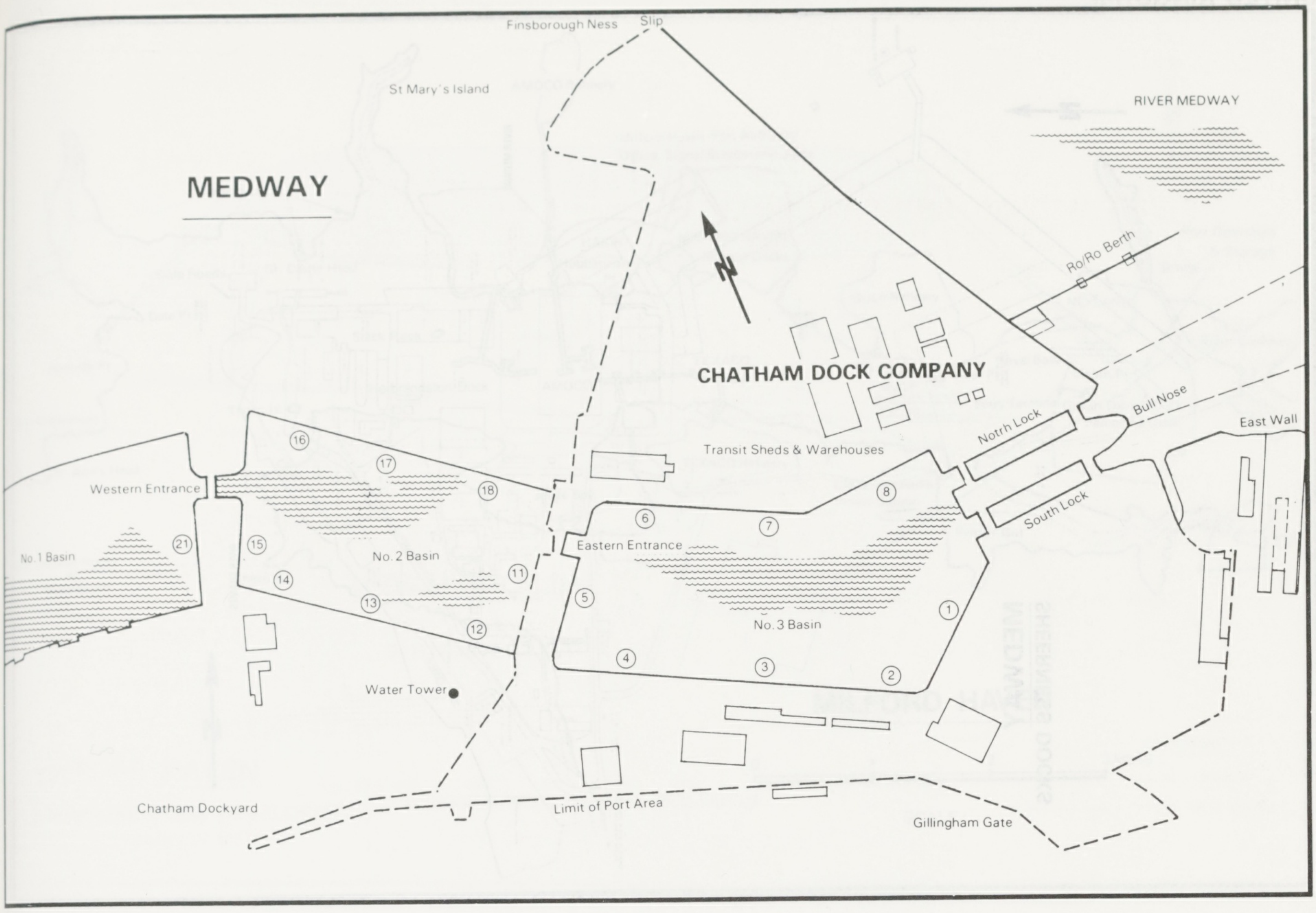
N
C.E.G.B.
Power Station
ISLE OF GRAIN
Sheerness Docks
SHEERNESS
ISLE OF SHEPPEY
QUEENBOROUGH
Loden Hope
Stangate Creek
The Swale
C. E. G. B. Power Station
Kingsnorth Jetty
Oakham Ness
Chatham
Dockyard
Rochester Bridge
LIMEHOUSE REACH
Tower Reach
GILLINGHAM
Rainham Creek
Otterham Creek
ROCHESTER
Wickham Reach
CHATHAM
Medway Bridge
RAINHAM
Kingsferry Bridge (Lifting)
Ridham Dock
Milton Creek
0
1000
2000
3000
4000
SCALE IN METRES

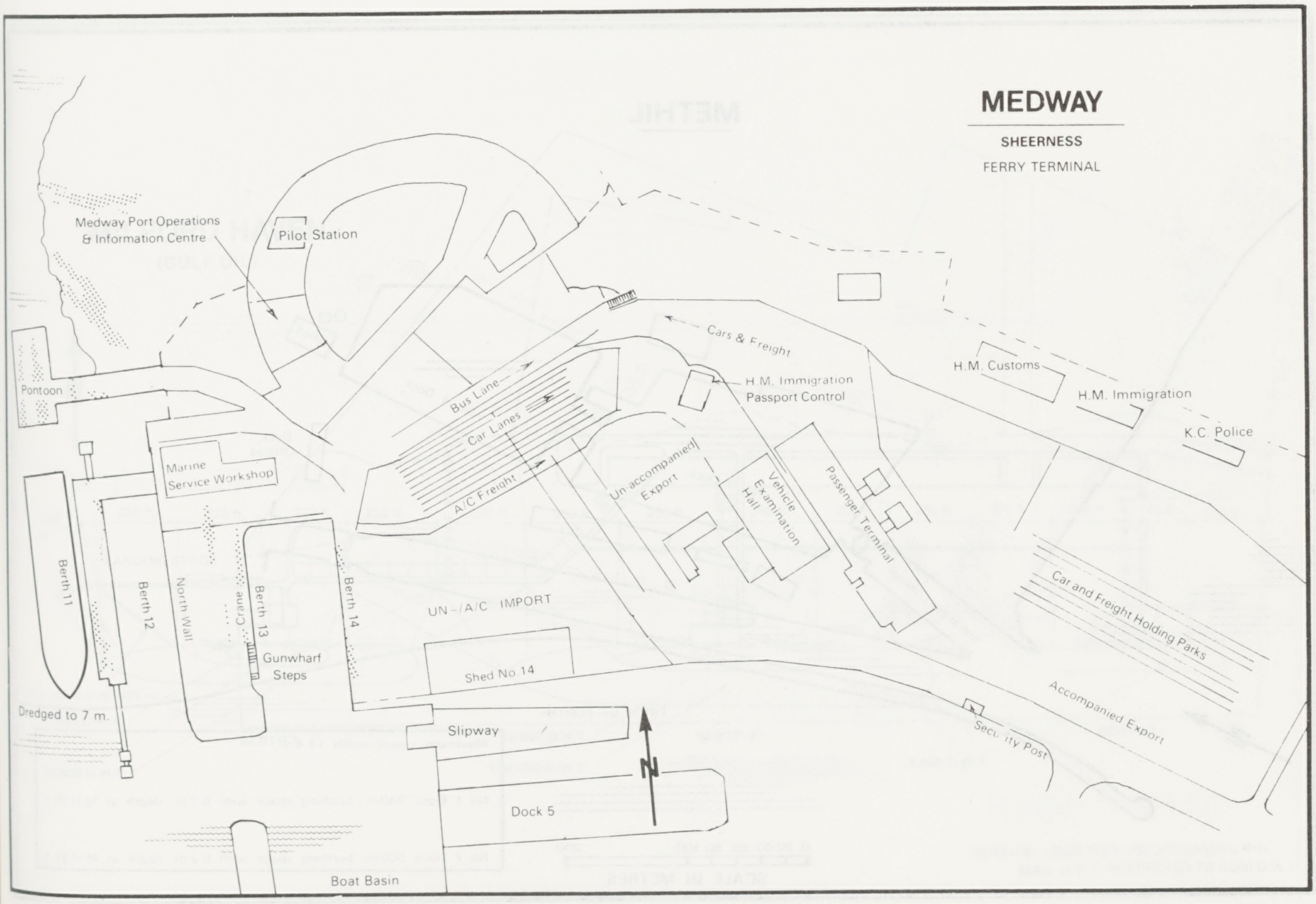


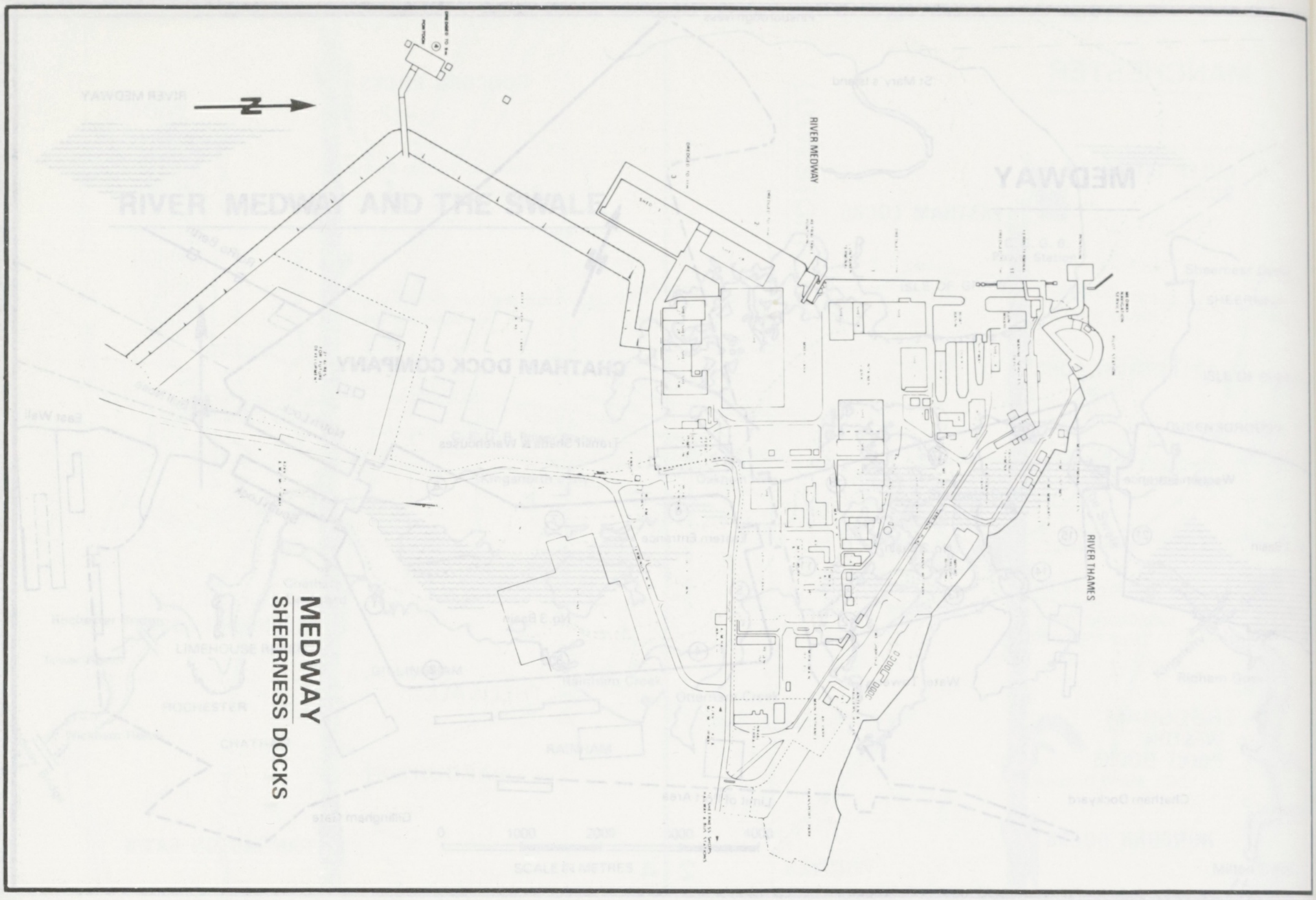
MEDWAY

ROCHESTER

CRESCENT SHIPPING
SHIPYARD
CHATHAM REACH
N
CROWN
WHARF
STROOD
ACORN
LIMEHOUSE WHARF
FRINDSBURY PENINSULA
(Under Development)
Strood Pier
ACORN
SHIP YARD
LIMEHOUSE REACH
Lynchs
BRIDGE REACH
CORY'S
WHARF
Chatham Ness Lt. Bn.
Sun Pier
ROCHESTER BRIDGE
No.2
Blue Boar
Pier
Ship Pier
STANLEY'S
WHARF
0
500 METRES

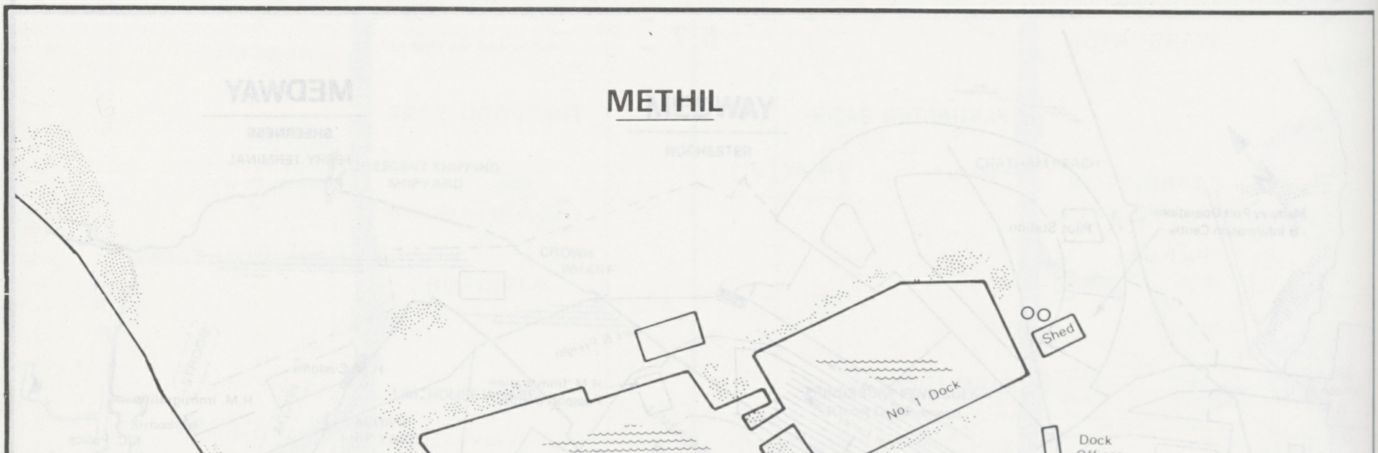

MEDWAY
Finsborough Ness
Slip
St Mary's Island
RIVER MEDWAY
N
Ro/Ro Berth
CHATHAM DOCK COMPANY
Bull Nose
Notrh Lock
East Wall
Transit Sheds & Warehouses
South Lock
Western Entrance
No. 1 Basin
No. 2 Basin
Eastern Entrance
No. 3 Basin
16
17
18
21
15
14
13
12
11
5
6
7
8
1
2
3
4
Water Tower
Chatham Dockyard
Limit of Port Area
Gillingham Gate


MEDWAY
SHEERNESS
FERRY TERMINAL
Medway Port Operations & Information Centre
Pilot Station
Cars & Freight
H.M. Immigration Passport Control
H.M. Customs
H.M. Immigration
K.C. Police
Pontoon
Bus Lane
Car Lanes
A/C Freight
Marine Service Workshop
Un-accompanied Export
Vehicle Examination Hall
Passenger Terminal
Car and Freight Holding Parks
Berth 11
Berth 12
North Wall
Crane
Berth 13
Berth 14
UN-/A/C IMPORT
Gunwharf Steps
Shed No.14
Accompanied Export
Security Post
Dredged to 7 m.
Slipway
N
Dock 5
Boat Basin



MEDWAY
SHEERNESS DOCKS

N
RIVER MEDWAY
RIVER THAMES



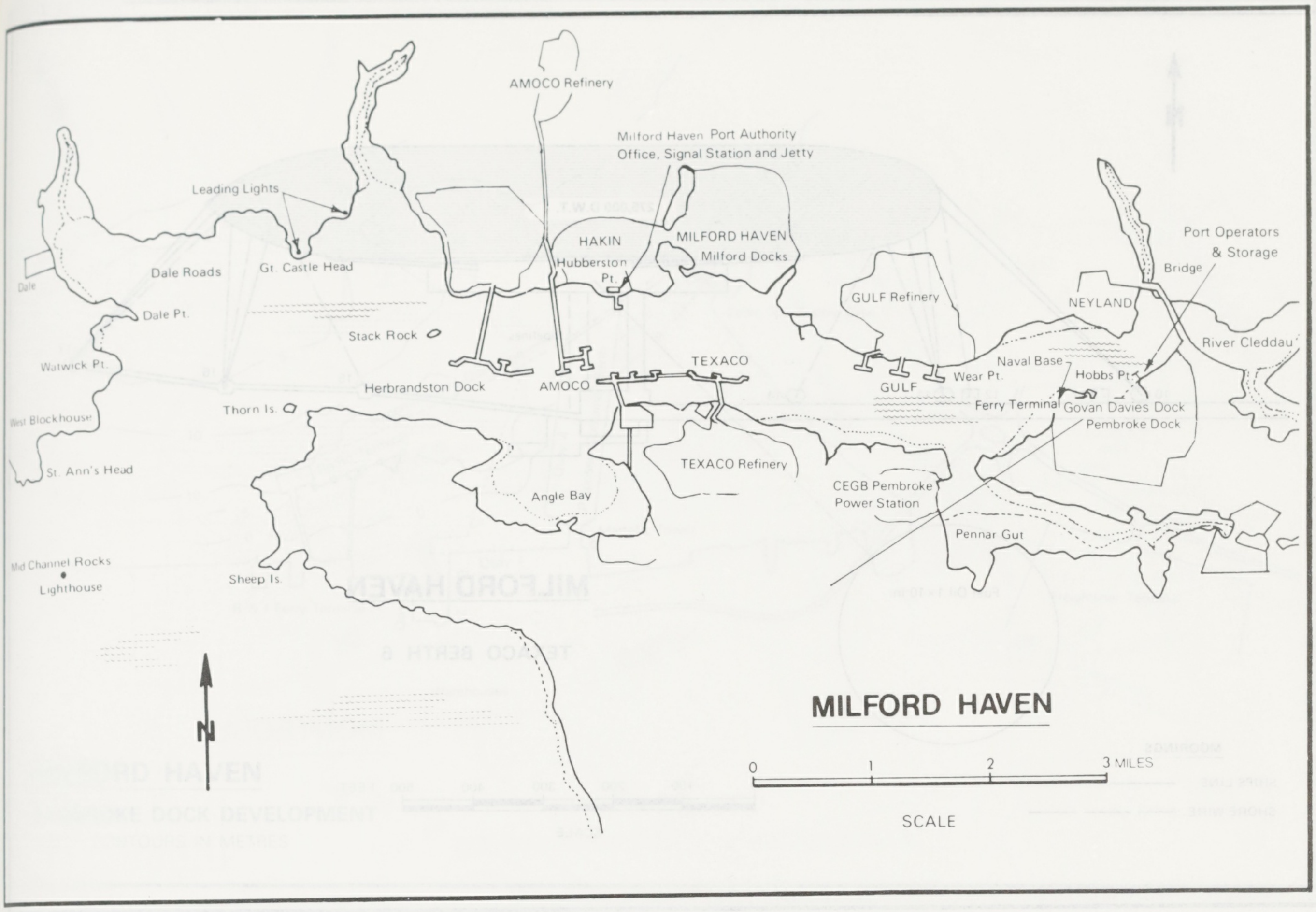
METHIL

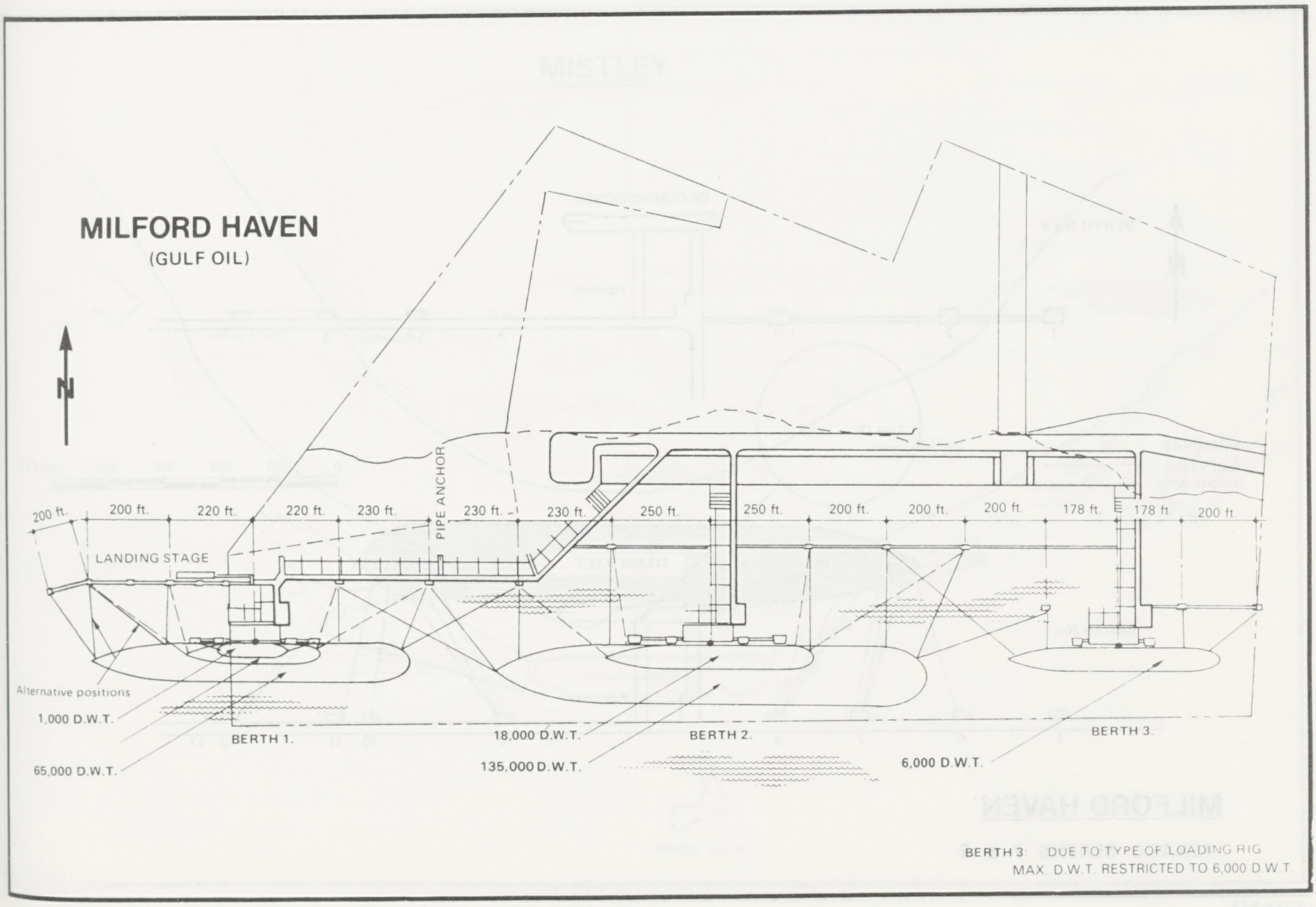
Shed
No. 1 Dock
Dock Offices
No. 2 Dock
Entrance Channel
FIRTH OF FORTH
N
0 20 40 60 80 100 200
SCALE IN METRES

Maximum vessel width 14.4 m.

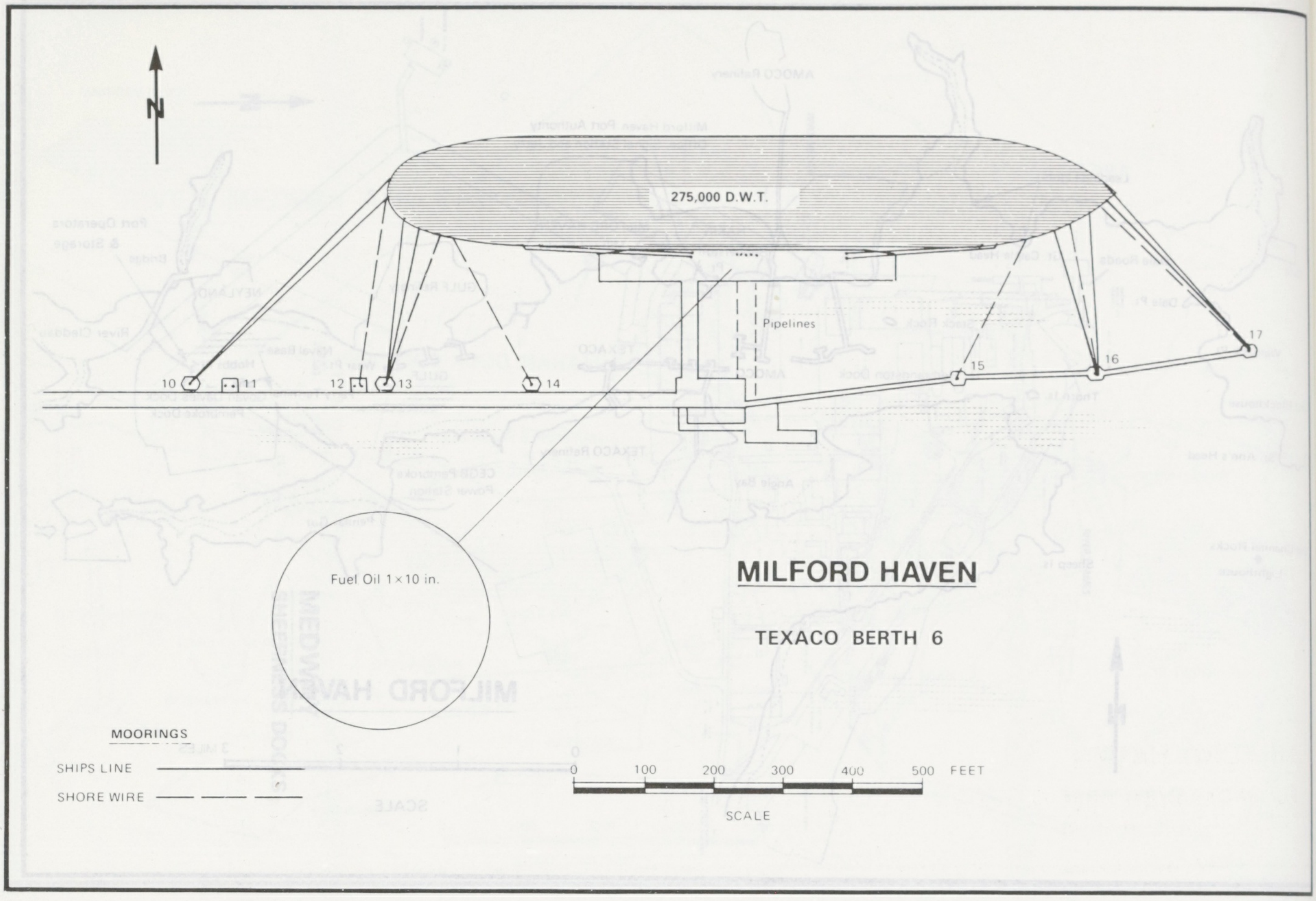
No. 1 Dock 340 m berthing space with 6.7 m depth at M.H.W.S.

No. 2 Dock 500 m berthing space with 8.2 m depth at M.H.W.S.


AMOCO Refinery
Milford Haven Port Authority
Office, Signal Station and Jetty
Leading Lights
HAKIN
MILFORD HAVEN
Milford Docks
Hubberston Pt.
Port Operators
& Storage
Bridge
Dale
Dale Roads
Gt. Castle Head
GULF Refinery
NEYLAND
Dale Pt.
Stack Rock
River Cleddau
Naval Base
Hobbs Pt.
Watwick Pt.
TEXACO
Herbrandston Dock
AMOCO
GULF
Wear Pt.
Ferry Terminal
Govan Davies Dock
Pembroke Dock
West Blockhouse
Thorn Is.
TEXACO Refinery
St. Ann's Head
Angle Bay
CEGB Pembroke
Power Station
Pennar Gut
Mid Channel Rocks
Lighthouse
Sheep Is.
N
MILFORD HAVEN
0
1
2
3 MILES
SCALE


MILFORD HAVEN
(GULF OIL)
N
200 ft.
200 ft.
220 ft.
220 ft.
230 ft.
PIPE ANCHOR
230 ft.
230 ft.
250 ft.
250 ft.
200 ft.
200 ft.
200 ft.
178 ft.
178 ft.
200 ft.
LANDING STAGE
Alternative positions
1,000 D.W.T.
65,000 D.W.T.
BERTH 1.
18,000 D.W.T.
135,000 D.W.T.
BERTH 2.
BERTH 3.
6,000 D.W.T.

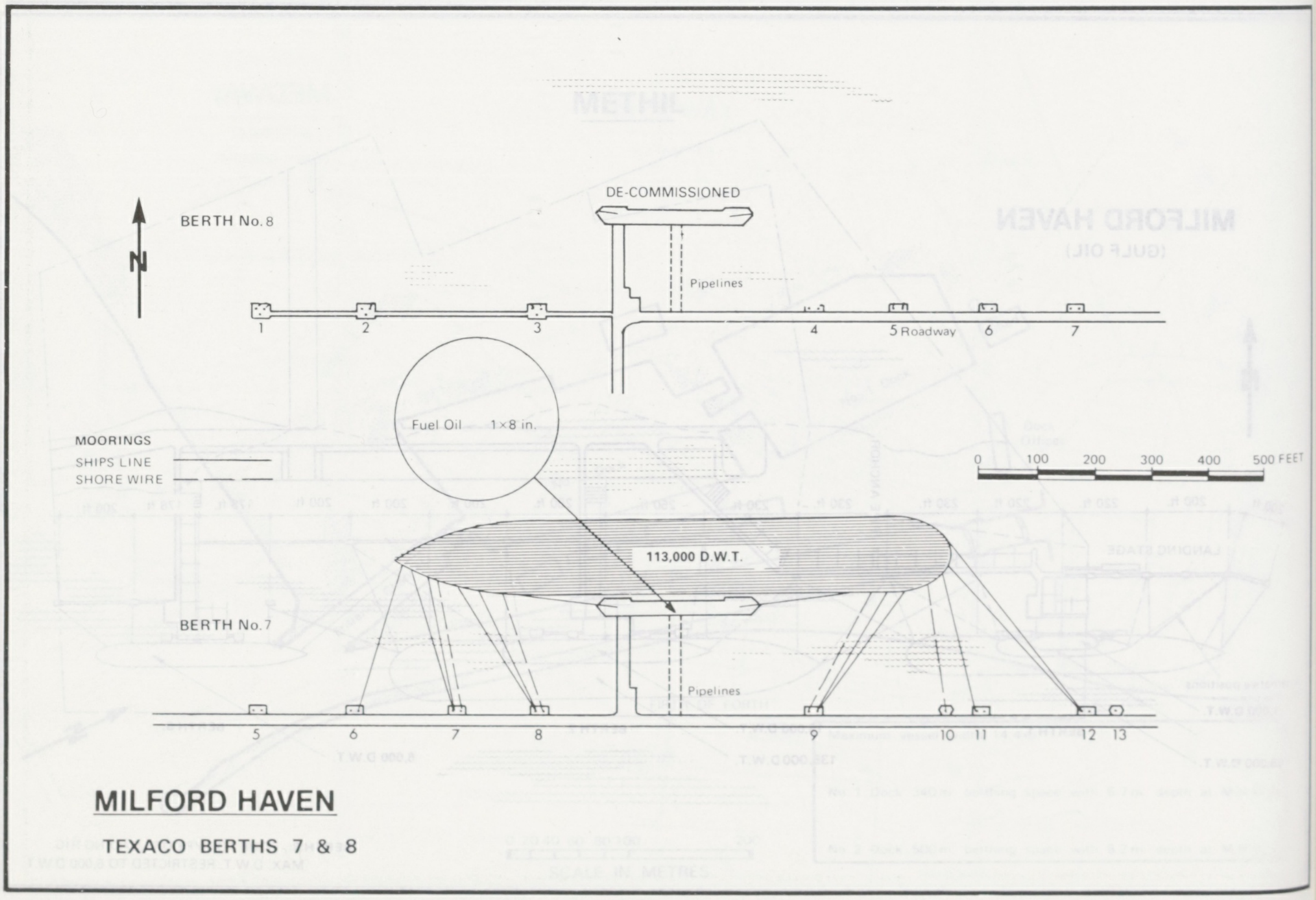
BERTH 3: DUE TO TYPE OF LOADING RIG
MAX. D.W.T. RESTRICTED TO 6,000 D.W.T.



MILFORD HAVEN

TEXACO BERTH 6

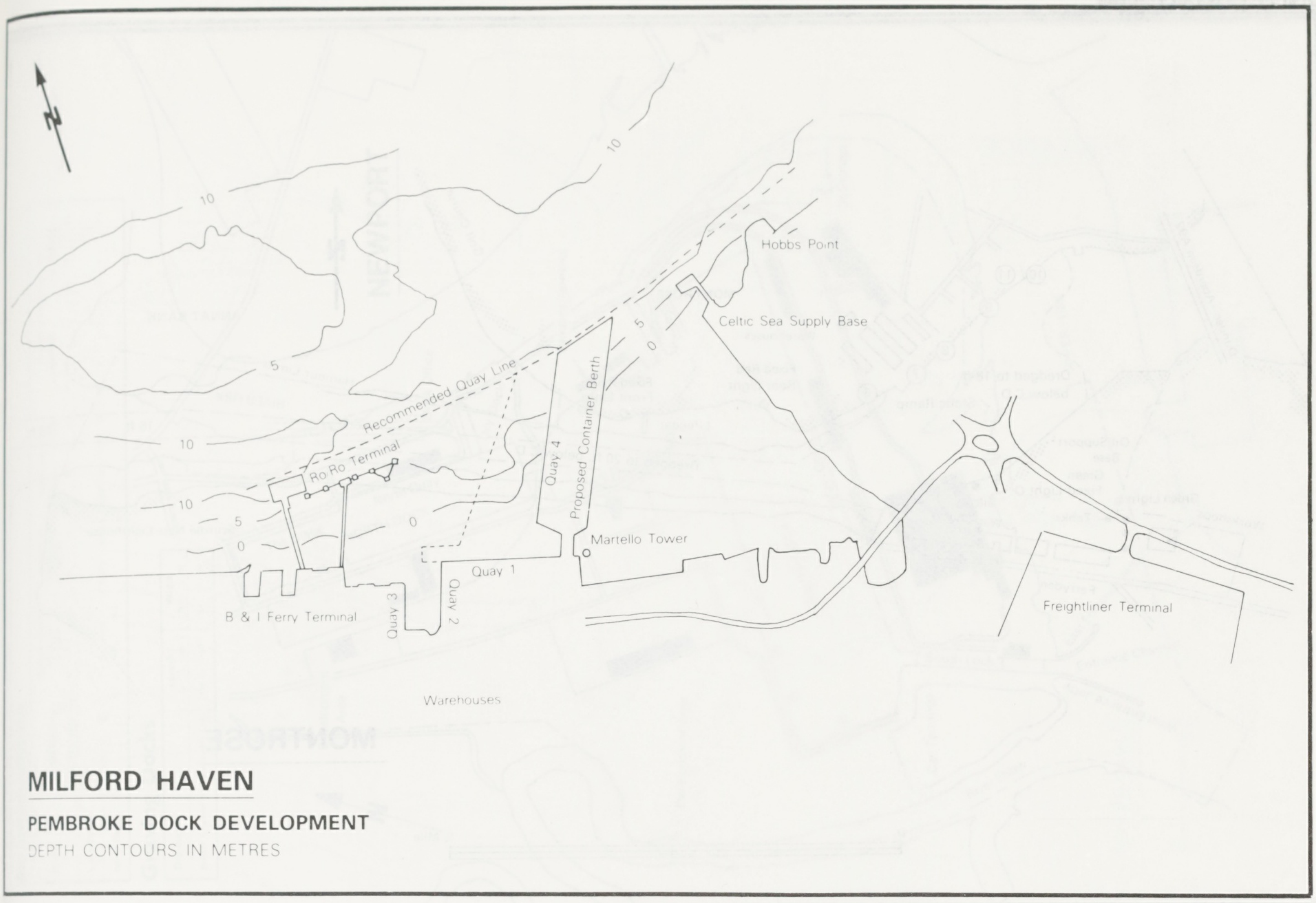
N
275,000 D.W.T.
Pipelines
10
11
12
13
14
15
16
17
Fuel Oil 1×10 in.
MOORINGS
SHIPS LINE
SHORE WIRE
0
100
200
300
400
500 FEET
SCALE



MILFORD HAVEN

TEXACO BERTHS 7 & 8

N
BERTH No.8
DE-COMMISSIONED
Pipelines
1
2
3
4
5 Roadway
6
7
Fuel Oil 1×8 in.
MOORINGS
SHIPS LINE
SHORE WIRE
0
100
200
300
400
500 FEET
113,000 D.W.T.
BERTH No.7
Pipelines
5
6
7
8
9
10
11
12
13

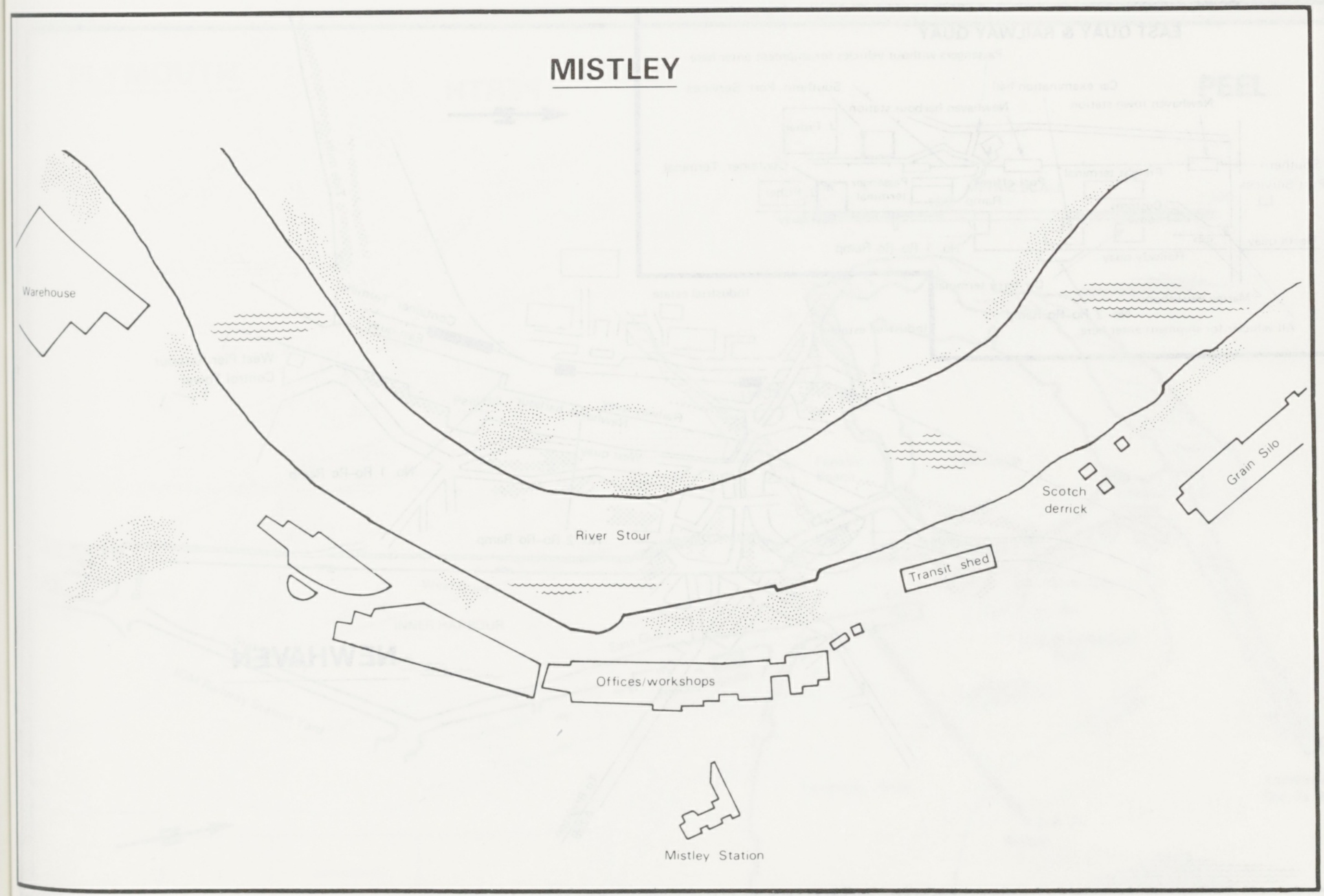


MILFORD HAVEN

PEMBROKE DOCK DEVELOPMENT

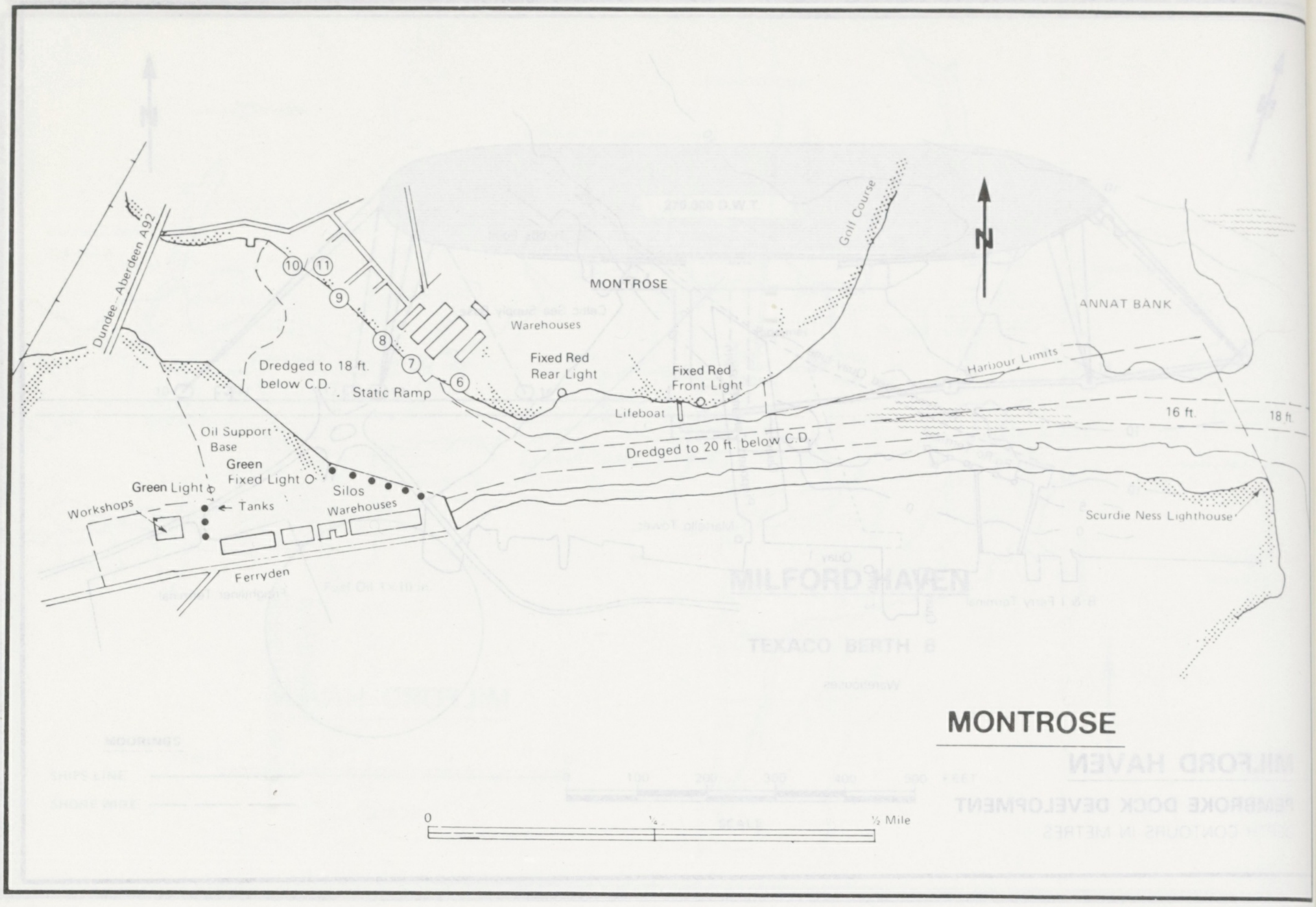
DEPTH CONTOURS IN METRES

N
10
10
Hobbs Point
5
Celtic Sea Supply Base
0
5
Recommended Quay Line
10
Ro Ro Terminal
Proposed Container Berth
Quay 4
10
5
0
0
Martello Tower
Quay 1
B & I Ferry Terminal
Quay 3
Quay 2
Freightliner Terminal
Warehouses

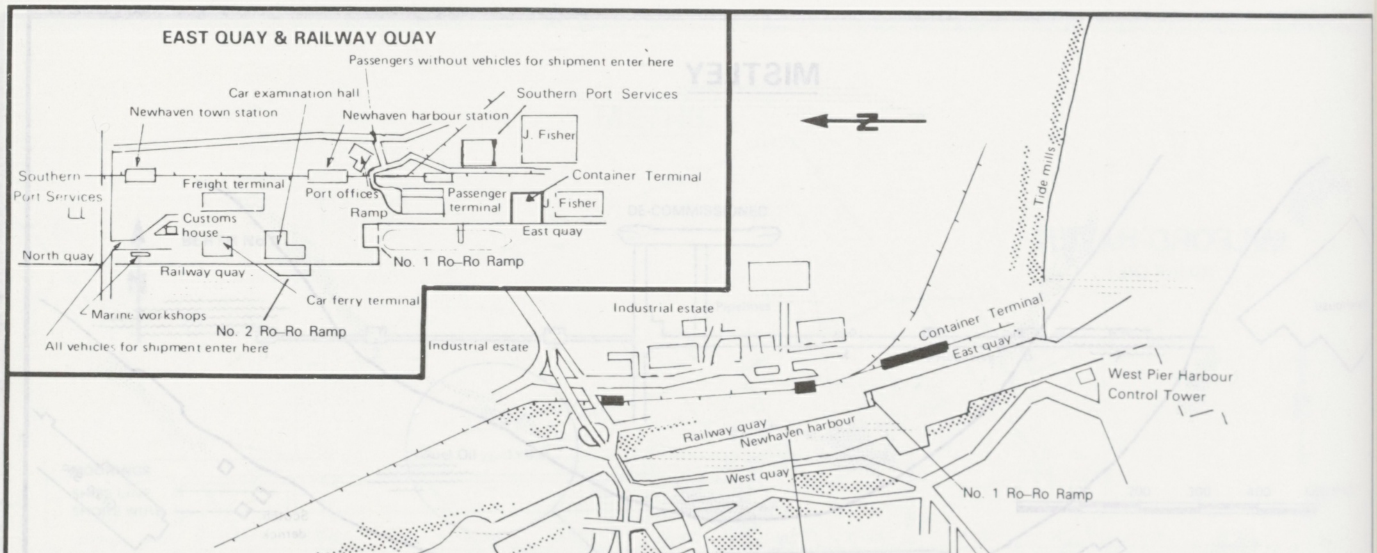


MISTLEY

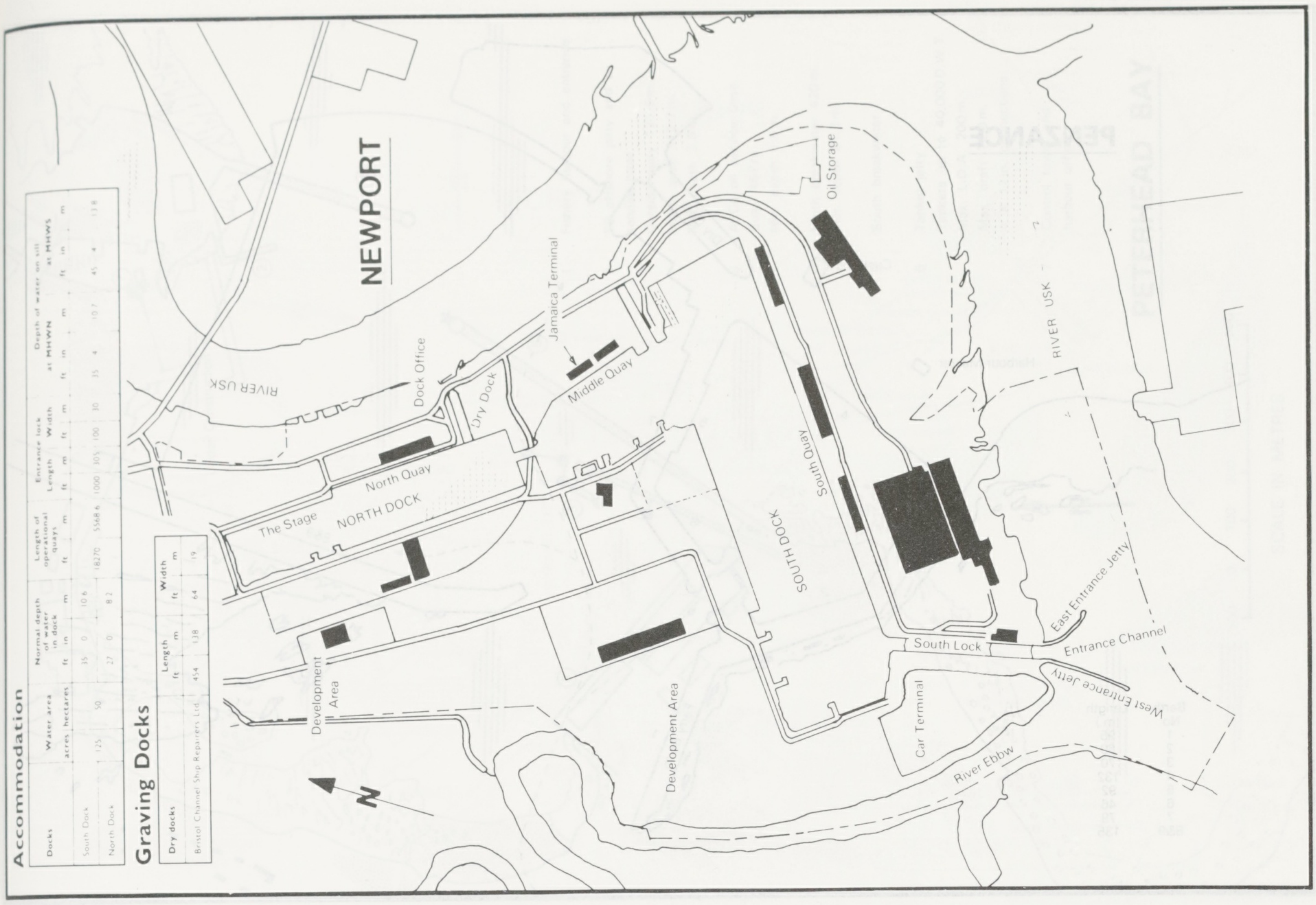
Warehouse
River Stour
Scotch derrick
Grain Silo
Transit shed
Offices/workshops
Mistley Station


Dundee–Aberdeen A92
10
11
9
8
7
6
MONTROSE
Warehouses
Golf Course
N
ANNAT BANK
Harbour Limits
Dredged to 18 ft. below C.D.
Static Ramp
Fixed Red Rear Light
Fixed Red Front Light
Lifeboat
16 ft.
18 ft.
Dredged to 20 ft. below C.D.
Oil Support Base
Green Fixed Light
Green Light
Tanks
Workshops
Silos
Warehouses
Ferryden
Scurdie Ness Lighthouse
0
¼
½ Mile

MONTROSE


EAST QUAY & RAILWAY QUAY
Passengers without vehicles for shipment enter here
Car examination hall
Southern Port Services
Newhaven town station
Newhaven harbour station
J. Fisher
Southern Port Services
Freight terminal
Port offices
Container Terminal
Passenger terminal
J. Fisher
Customs house
Ramp
East quay
North quay
Railway quay
No. 1 Ro-Ro Ramp
Car ferry terminal
Marine workshops
No. 2 Ro-Ro Ramp
All vehicles for shipment enter here
Industrial estate
Industrial estate
N
Tide mills
Container Terminal
East quay
West Pier Harbour Control Tower
Railway quay
Newhaven harbour
West quay
No. 1 Ro-Ro Ramp
River Ouse
No. 2 Ro-Ro Ramp
To Brighton A259

NEWHAVEN

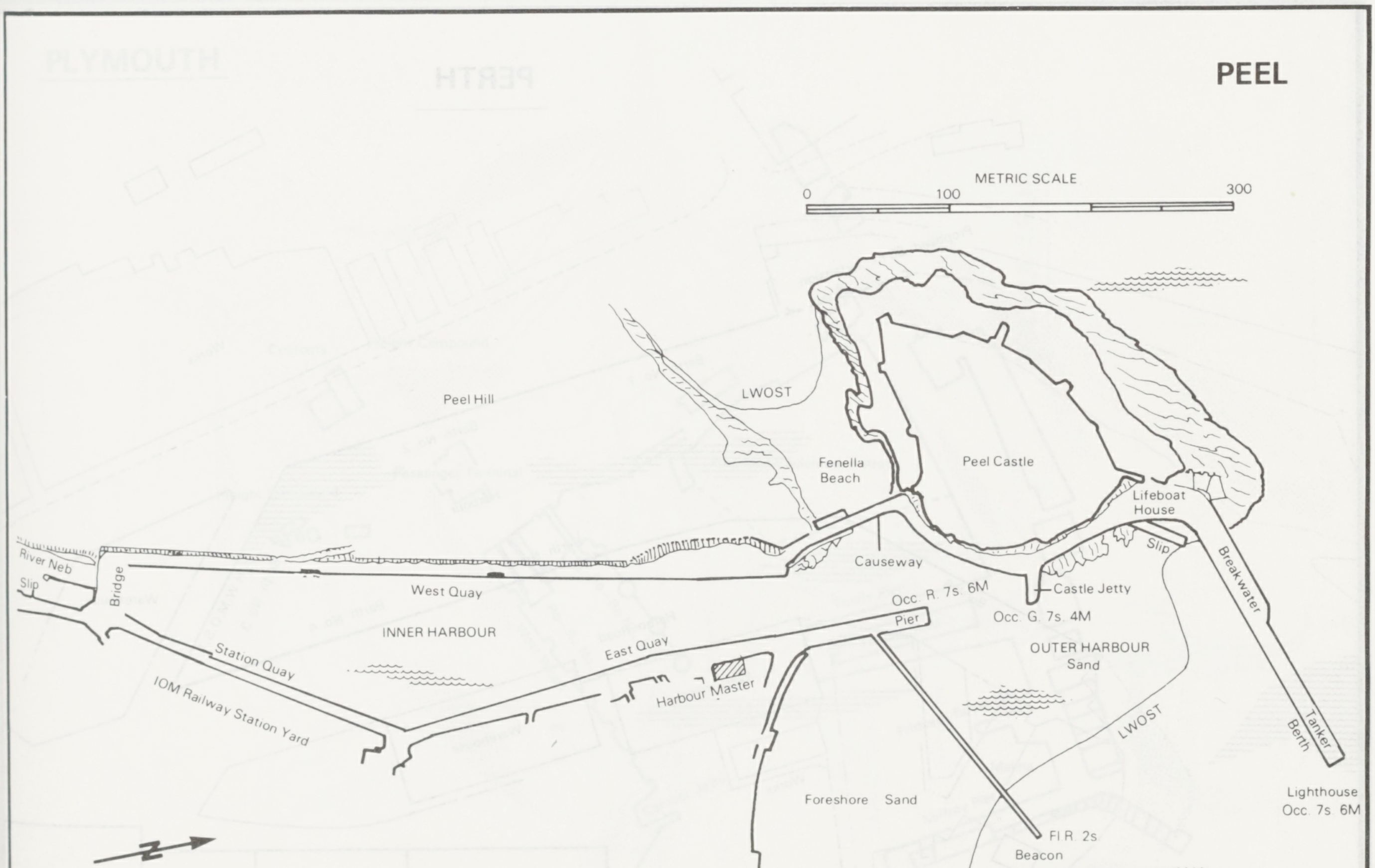

NEWPORT
RIVER USK
Dock Office
Dry Dock
Jamaica Terminal
Middle Quay
Oil Storage
RIVER USK
North Quay
The Stage
NORTH DOCK
South Quay
SOUTH DOCK
Development Area
Development Area
East Entrance Jetty
South Lock
Entrance Channel
West Entrance Jetty
Car Terminal
River Ebbw
N

Accommodation

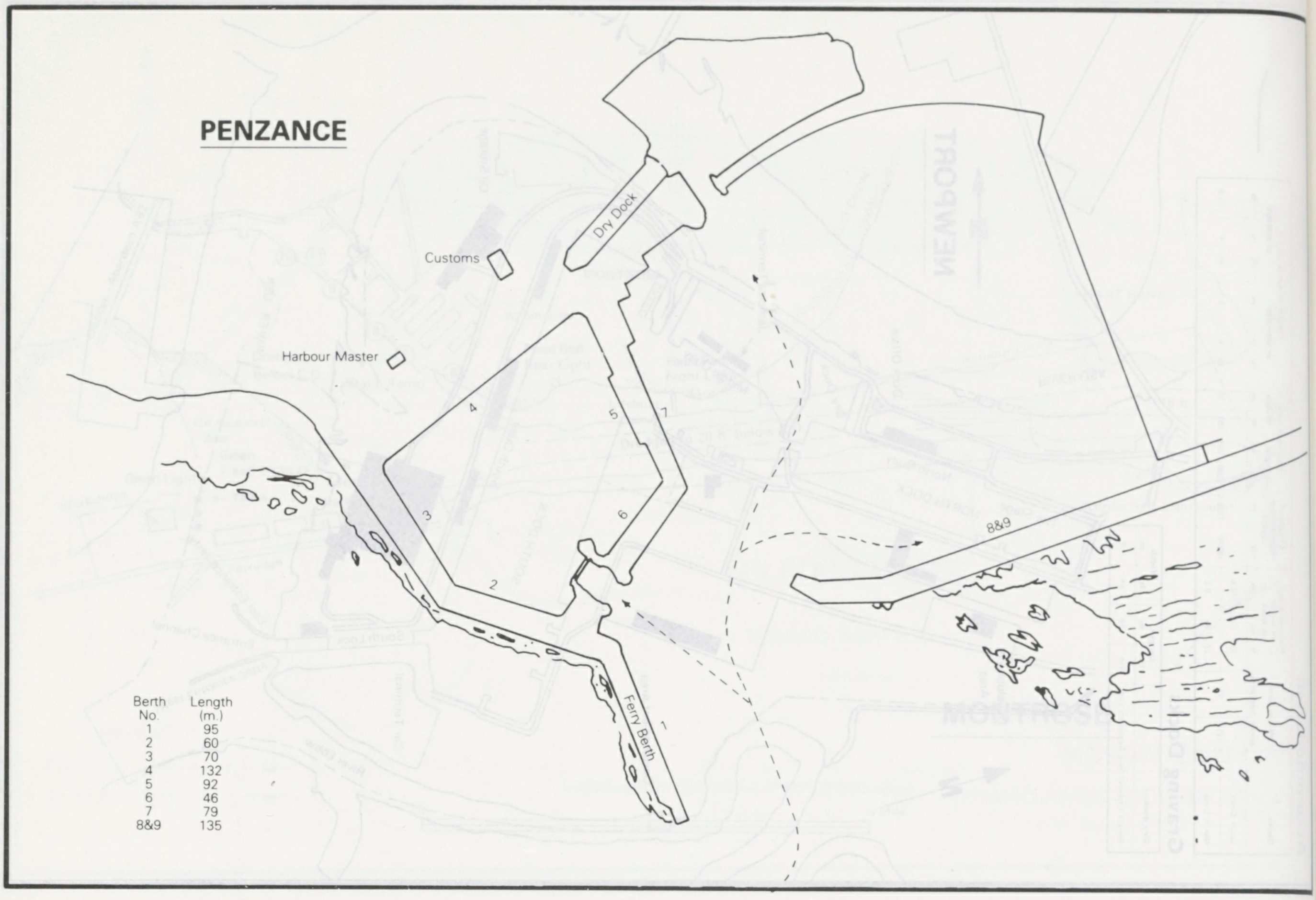
Docks	Water area acres	Water area hectares	Normal depth of water in dock ft	in	m	Length of operational quays ft	m	Entrance lock Length ft	m	Entrance lock Width ft	m	Depth of water on sill at MHWN ft	in	m	at MHWS ft	in	m
South Dock	125	50	35	0	10.6	18270	5568.6	1000	305	100	30	35	4	10.7	45	4	13.8
North Dock			27	0	8.2												

Graving Docks

Dry docks	Length ft	Length m	Width ft	Width m
Bristol Channel Ship Repairers Ltd	454	138	64	19

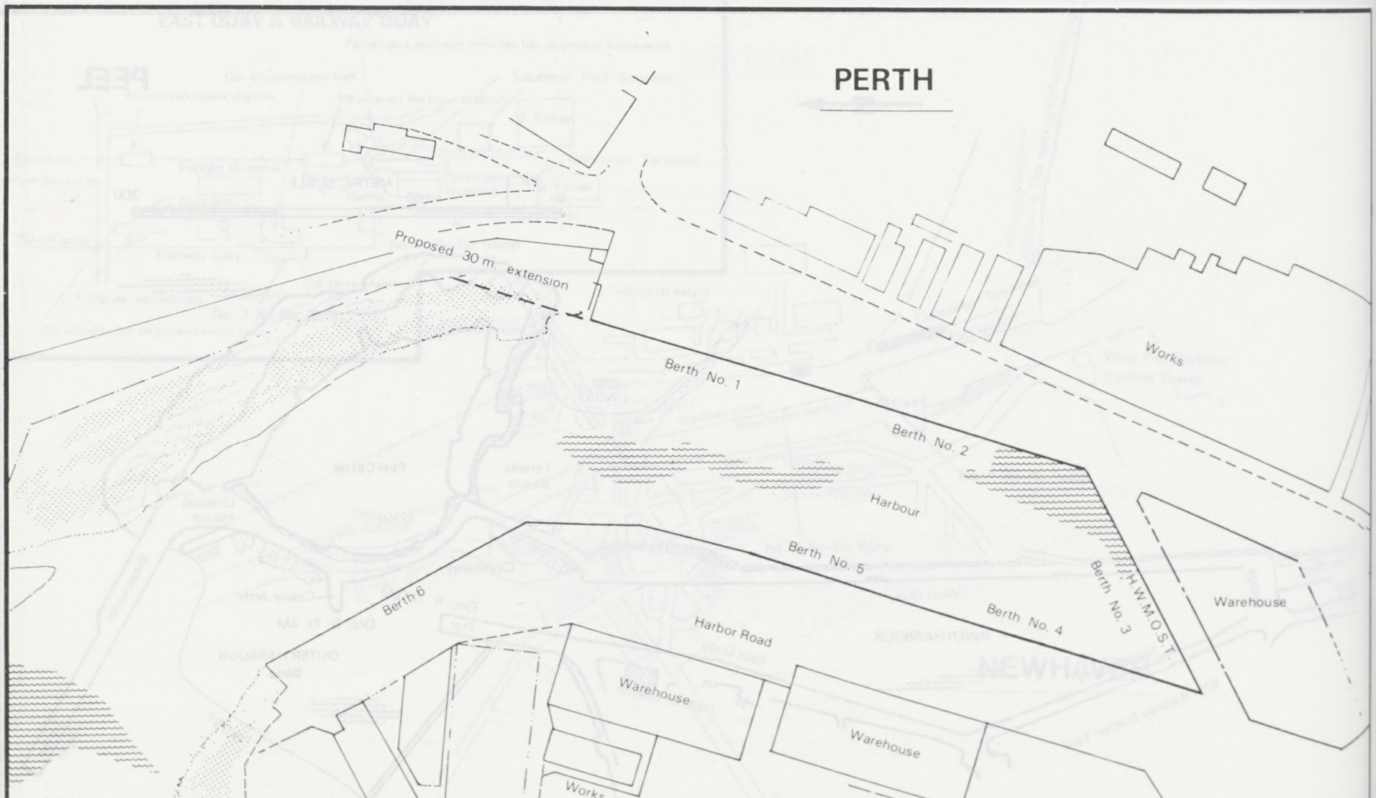

PEEL
METRIC SCALE
0
100
300
Peel Hill
LWOST
Fenella Beach
Peel Castle
Lifeboat House
Slip
Breakwater
Causeway
Castle Jetty
Occ. R. 7s. 6M
Occ. G. 7s. 4M
River Neb
Slip
Bridge
West Quay
INNER HARBOUR
Pier
OUTER HARBOUR
Sand
Station Quay
East Quay
IOM Railway Station Yard
Harbour Master
LWOST
Tanker Berth
Foreshore Sand
Fl.R. 2s.
Beacon
Lighthouse
Occ. 7s. 6M
N

PENZANCE

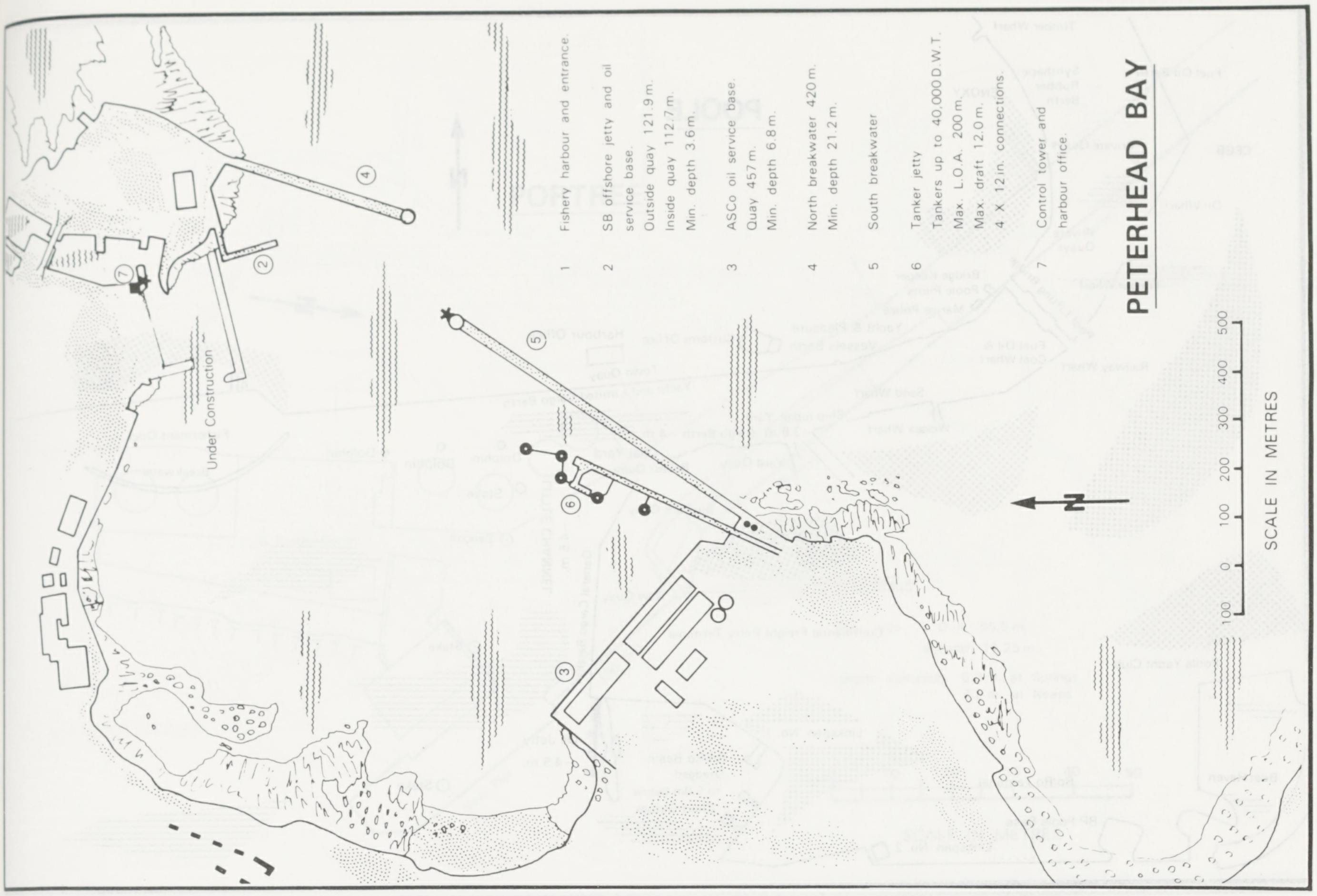

Customs
Harbour Master
Dry Dock
Ferry Berth
1
2
3
4
5
6
7
8&9

Berth No.	Length (m.)
1	95
2	60
3	70
4	132
5	92
6	46
7	79
8&9	135

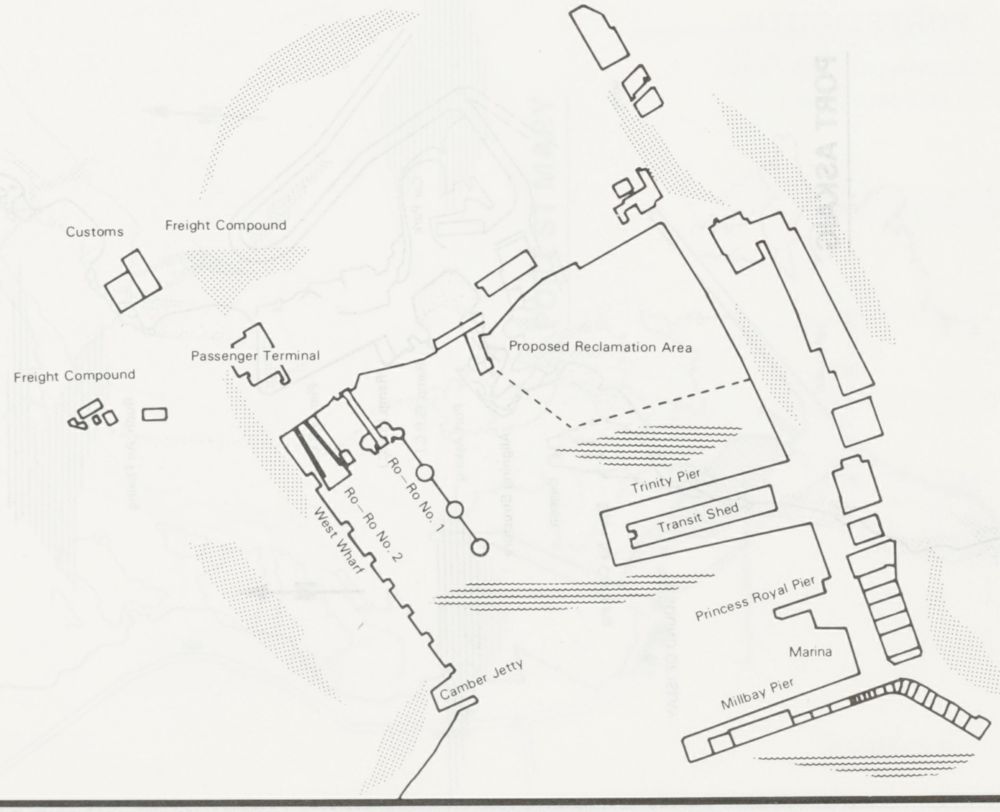
PERTH

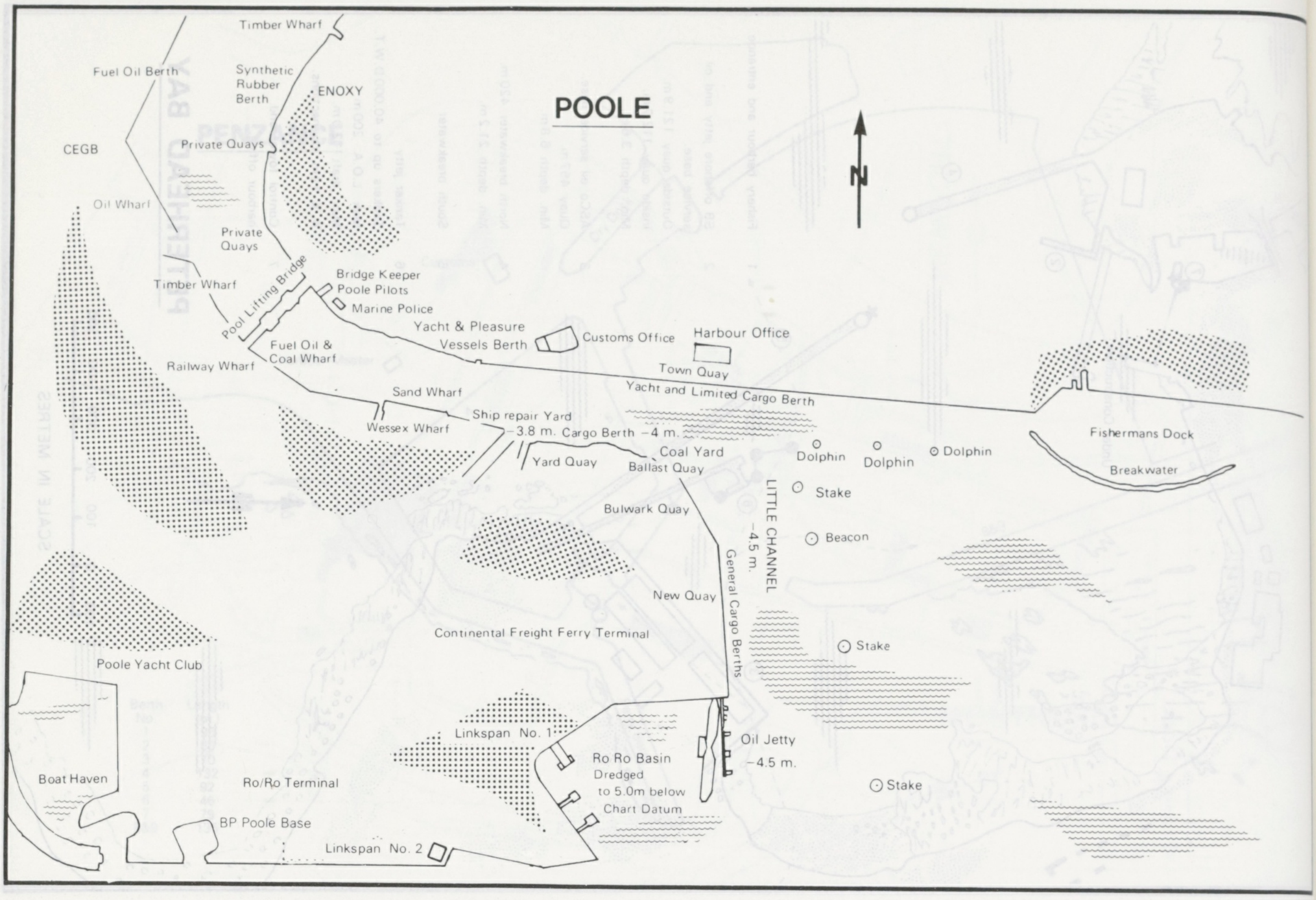

Proposed 30 m. extension
Berth No. 1
Berth No. 2
Harbour
Berth No. 5
Berth 6
Berth No. 4
Berth No. 3
H.W.M.O.S.T.
Works
Warehouse
Harbor Road
Warehouse
Warehouse
Works
Marine Works
Warehouses

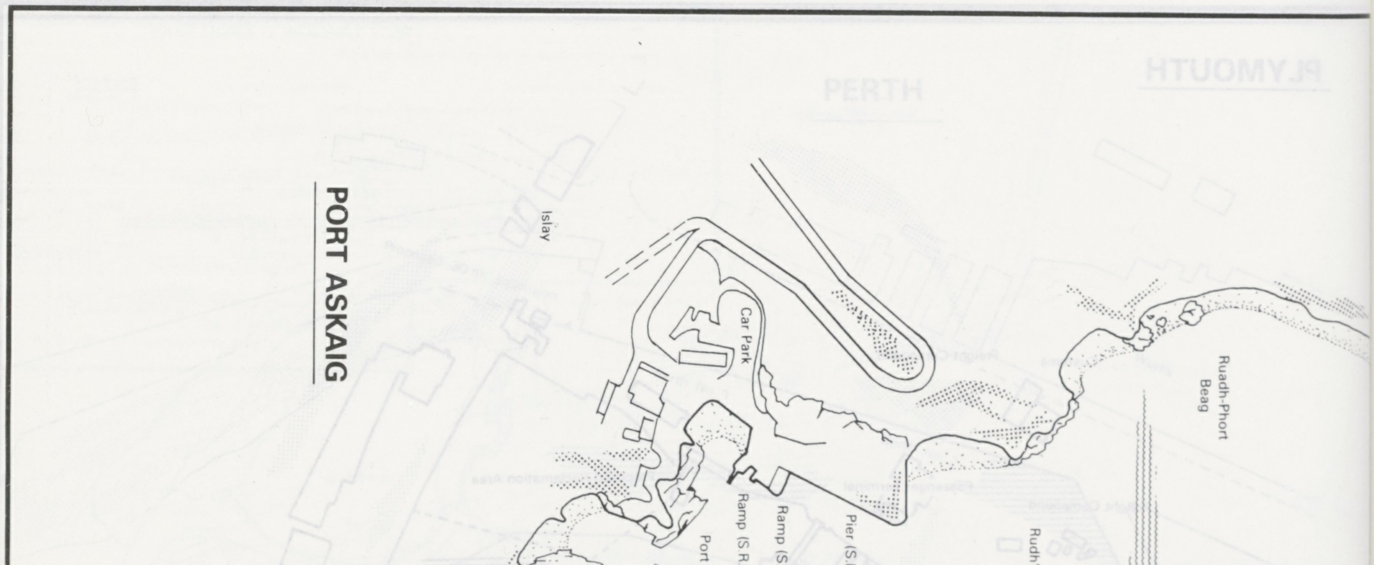
PETERHEAD BAY

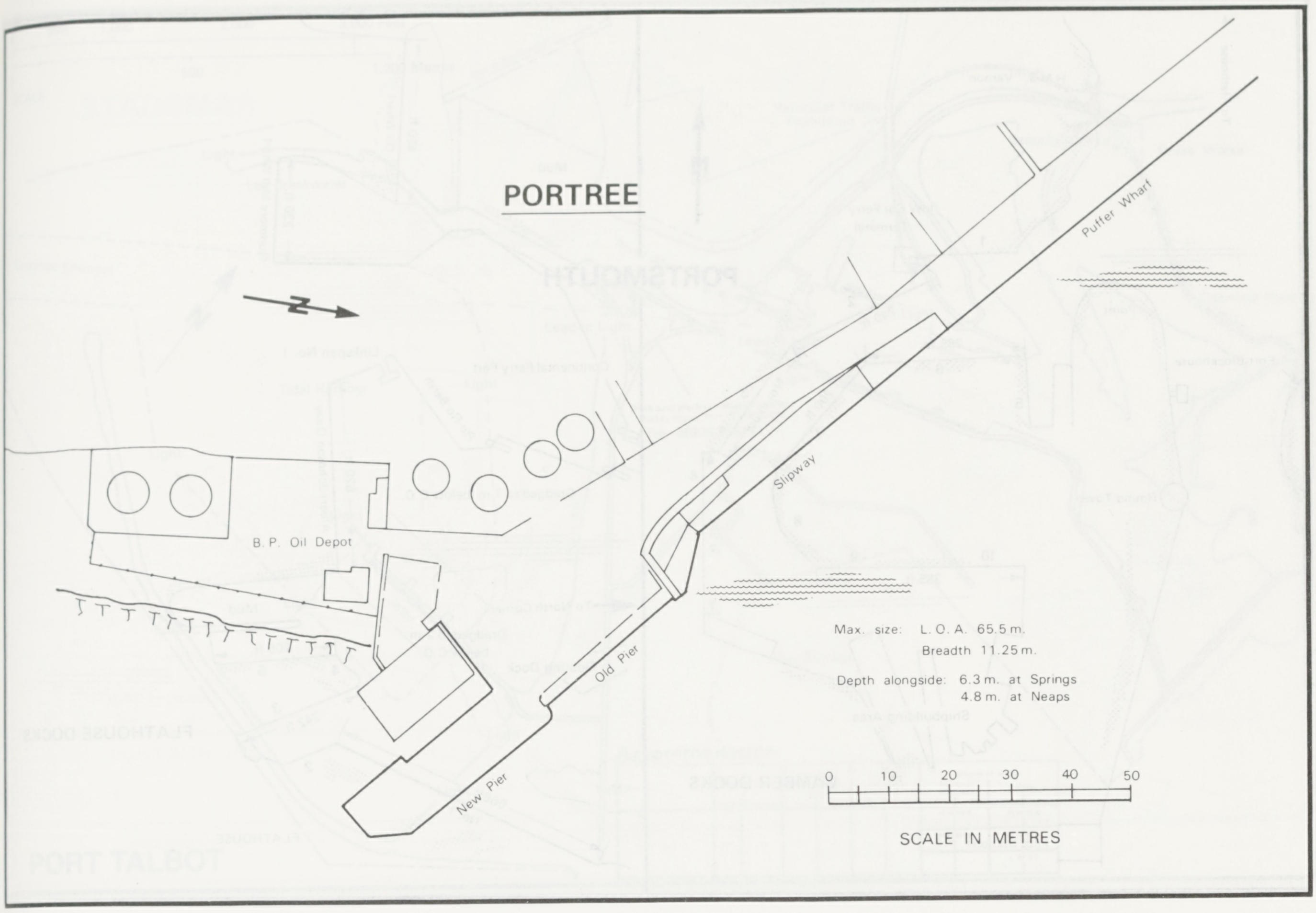

1 Fishery harbour and entrance.
2 SB offshore jetty and oil service base. Outside quay 121.9 m. Inside quay 112.7 m. Min. depth 3.6 m.
3 ASCo oil service base. Quay 457 m. Min. depth 6.8 m.
4 North breakwater 420 m. Min. depth 21.2 m.
5 South breakwater
6 Tanker jetty Tankers up to 40,000 D.W.T. Max. L.O.A. 200 m. Max. draft 12.0 m. 4 X 12 in. connections.
7 Control tower and harbour office.
Under Construction
N
SCALE IN METRES
100
0
100
200
300
400
500

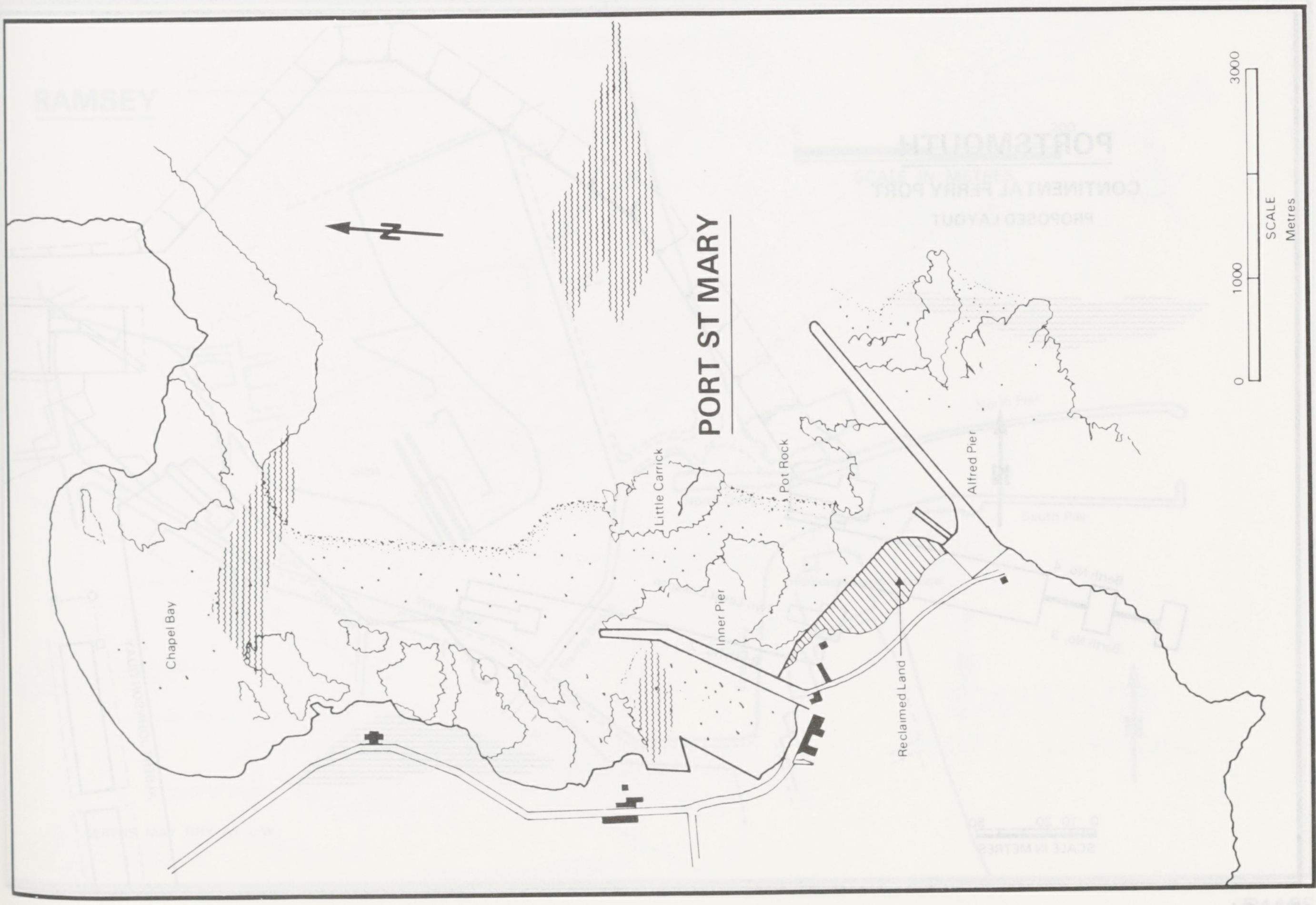
PLYMOUTH

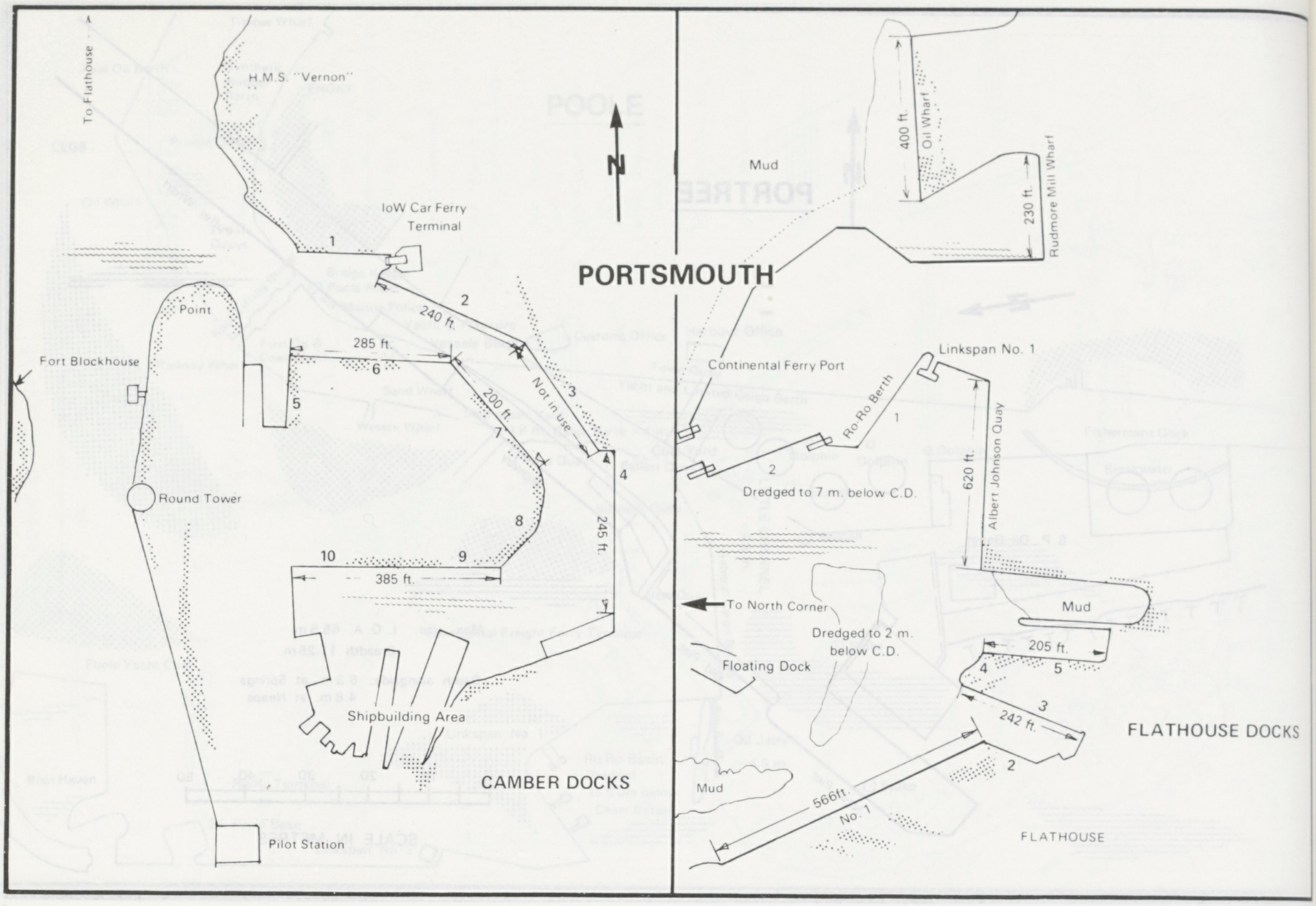

Customs
Freight Compound
Passenger Terminal
Freight Compound
Proposed Reclamation Area
Ro–Ro No. 1
Ro–Ro No. 2
West Wharf
Trinity Pier
Transit Shed
Princess Royal Pier
Marina
Millbay Pier
Camber Jetty

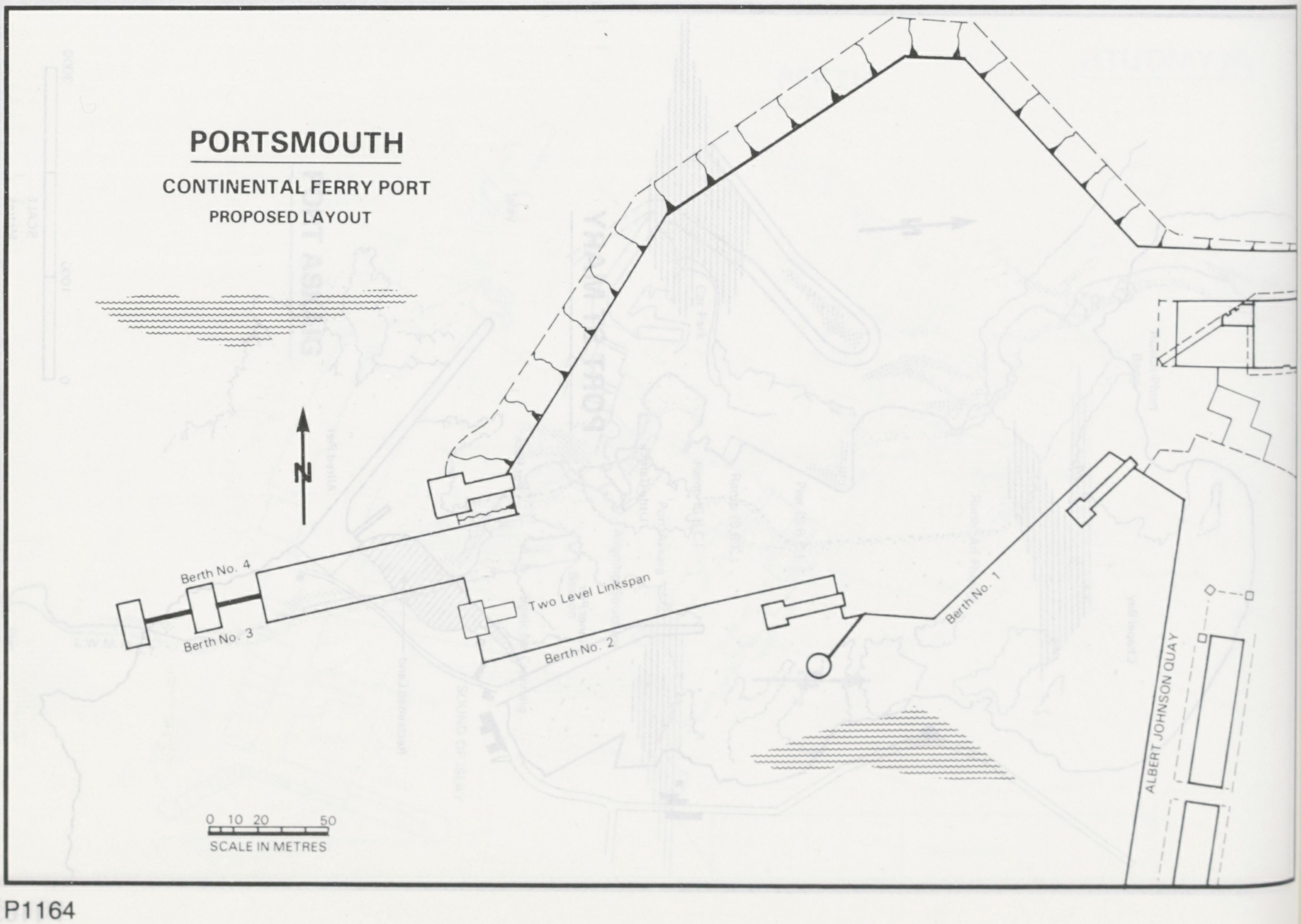

POOLE
N
Timber Wharf
Fuel Oil Berth
Synthetic Rubber Berth
ENOXY
CEGB
Private Quays
Oil Wharf
Private Quays
Timber Wharf
Pool Lifting Bridge
Bridge Keeper
Poole Pilots
Marine Police
Yacht & Pleasure Vessels Berth
Customs Office
Harbour Office
Fuel Oil & Coal Wharf
Railway Wharf
Town Quay
Yacht and Limited Cargo Berth
Sand Wharf
Wessex Wharf
Ship repair Yard
-3.8 m. Cargo Berth -4 m.
Yard Quay
Coal Yard
Ballast Quay
Dolphin
Dolphin
Dolphin
Fishermans Dock
Breakwater
Stake
LITTLE CHANNEL -4.5 m.
Beacon
Bulwark Quay
General Cargo Berths
New Quay
Continental Freight Ferry Terminal
Stake
Poole Yacht Club
Linkspan No. 1
Oil Jetty -4.5 m.
Ro Ro Basin Dredged to 5.0m below Chart Datum
Stake
Boat Haven
Ro/Ro Terminal
BP Poole Base
Linkspan No. 2


PORT ASKAIG
Islay
Car Park
Ruadh-Phort Beag
Rudh' An Fhaing
Pier (S.R.C.)
Ramp (S.R.C.)
Ramp (S.R.C.)
Port Askaig
Aligning Structure
Beacon
Sgeir Na Crannaig
SOUND OF ISLAY
N
L.W.M.O.S.T.
Pier

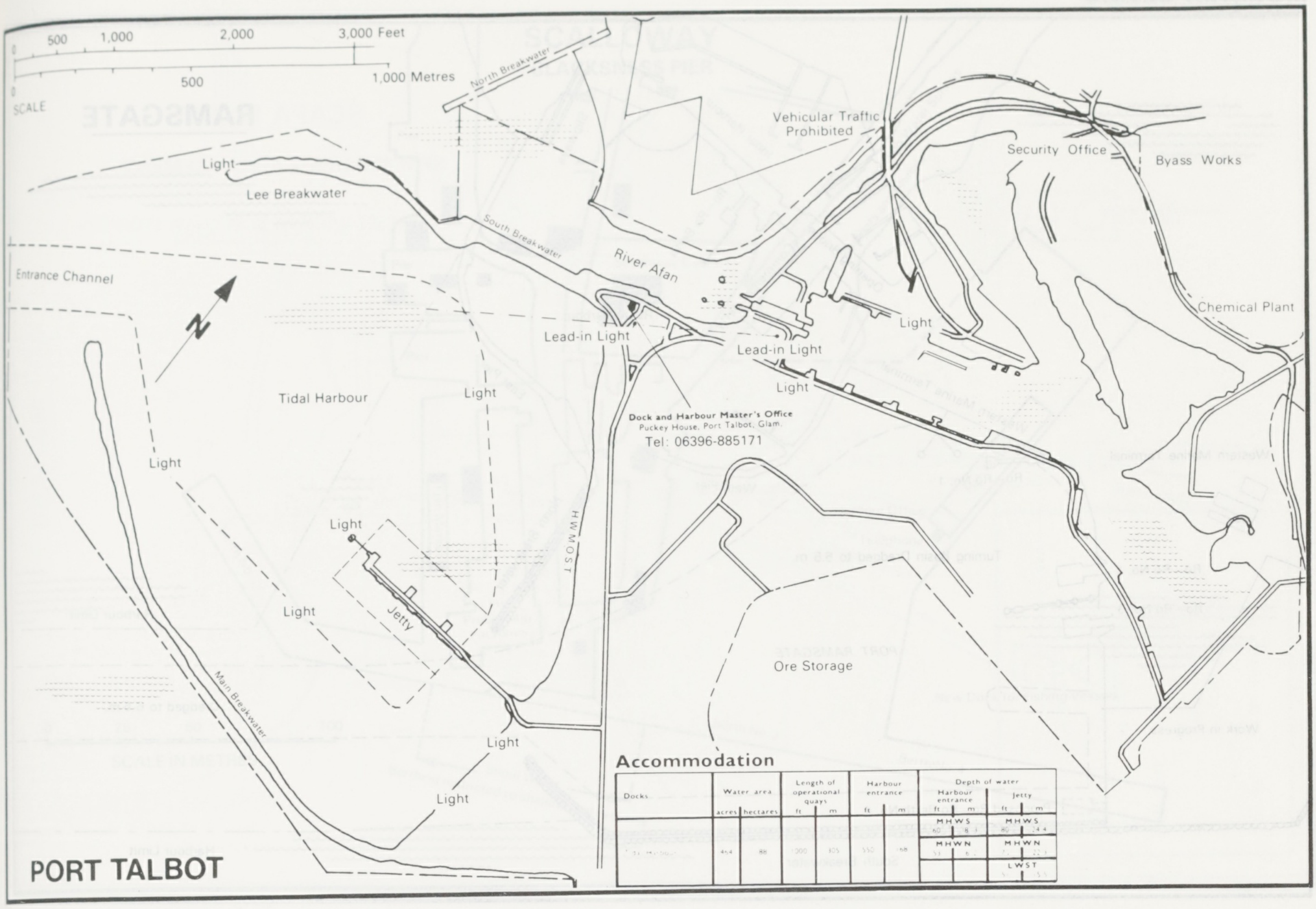

PORTREE
N
Puffer Wharf
Slipway
B. P. Oil Depot
Old Pier
New Pier
Max. size: L. O. A. 65.5 m.
Breadth 11.25 m.
Depth alongside: 6.3 m. at Springs
4.8 m. at Neaps
0
10
20
30
40
50
SCALE IN METRES


PORT ST MARY
N
Chapel Bay
Little Carrick
Pot Rock
Inner Pier
Alfred Pier
Reclaimed Land
0
1000
3000
SCALE
Metres


PORTSMOUTH
To Flathouse
H.M.S. "Vernon"
IoW Car Ferry Terminal
1
2
240 ft.
285 ft.
6
3
Not in use
200 ft.
7
Point
Fort Blockhouse
5
4
Round Tower
8
245 ft.
10
9
385 ft.
Shipbuilding Area
CAMBER DOCKS
Pilot Station
N
Mud
Oil Wharf
400 ft.
230 ft.
Rudmore Mill Wharf
Continental Ferry Port
Linkspan No. 1
Ro-Ro Berth
1
2
Dredged to 7 m. below C.D.
620 ft.
Albert Johnson Quay
Mud
To North Corner
Dredged to 2 m. below C.D.
Floating Dock
205 ft.
4
5
3
242 ft.
FLATHOUSE DOCKS
2
Mud
566ft.
No. 1
FLATHOUSE


PORTSMOUTH
CONTINENTAL FERRY PORT
PROPOSED LAYOUT
N
Berth No. 4
Berth No. 3
Two Level Linkspan
Berth No. 2
Berth No. 1
ALBERT JOHNSON QUAY
0 10 20 50
SCALE IN METRES

PORT TALBOT

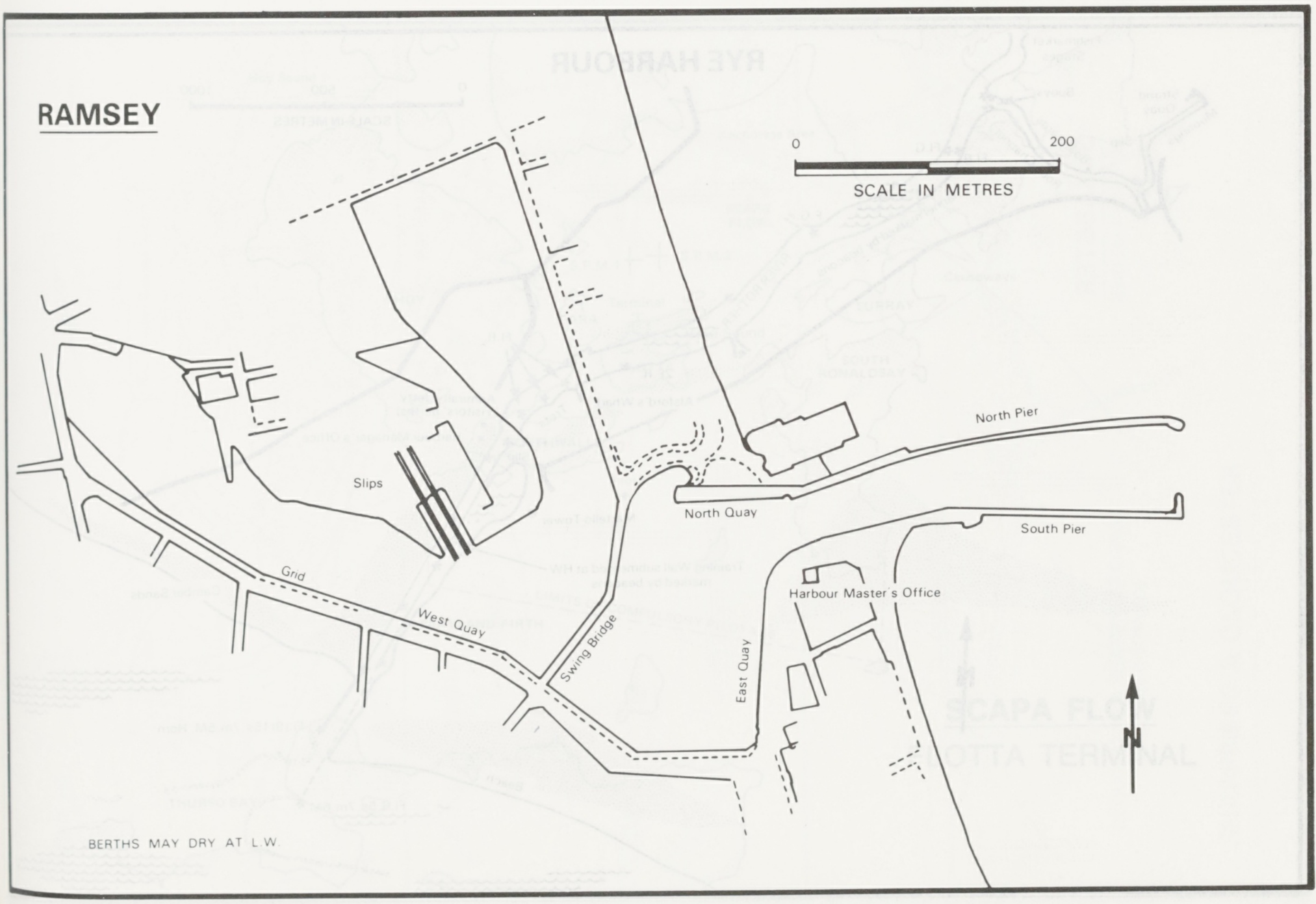

0 500 1,000 2,000 3,000 Feet
0 500 1,000 Metres
SCALE
North Breakwater
Vehicular Traffic Prohibited
Security Office
Byass Works
Light
Lee Breakwater
South Breakwater
River Afan
Entrance Channel
N
Lead-in Light
Lead-in Light
Light
Chemical Plant
Light
Tidal Harbour
Light
Light
Light
Jetty
H W M O S T
Light
Ore Storage
Main Breakwater
Light
Light
PORT TALBOT

Dock and Harbour Master's Office
Puckey House, Port Talbot, Glam.
Tel: 06396-885171

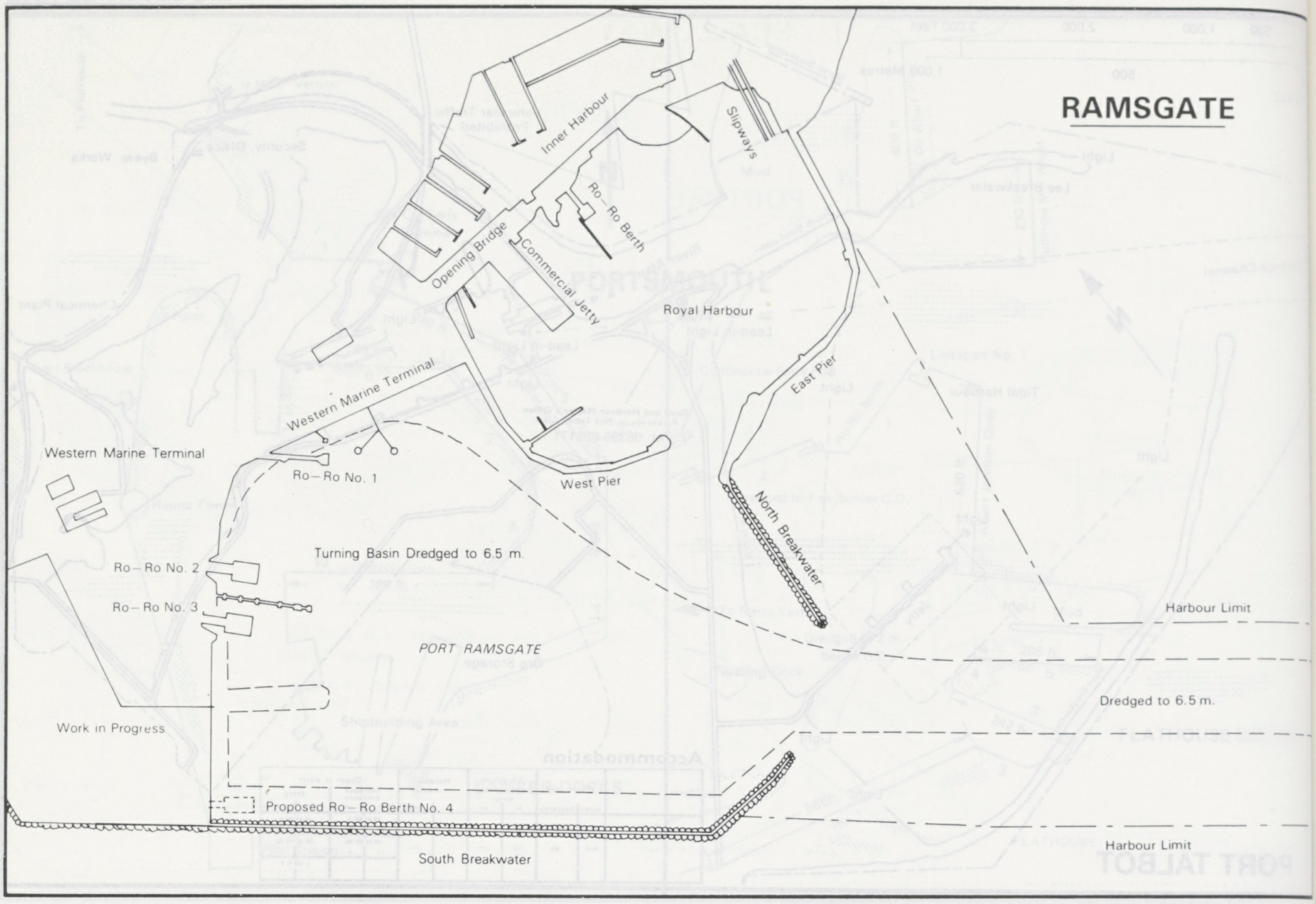
Accommodation

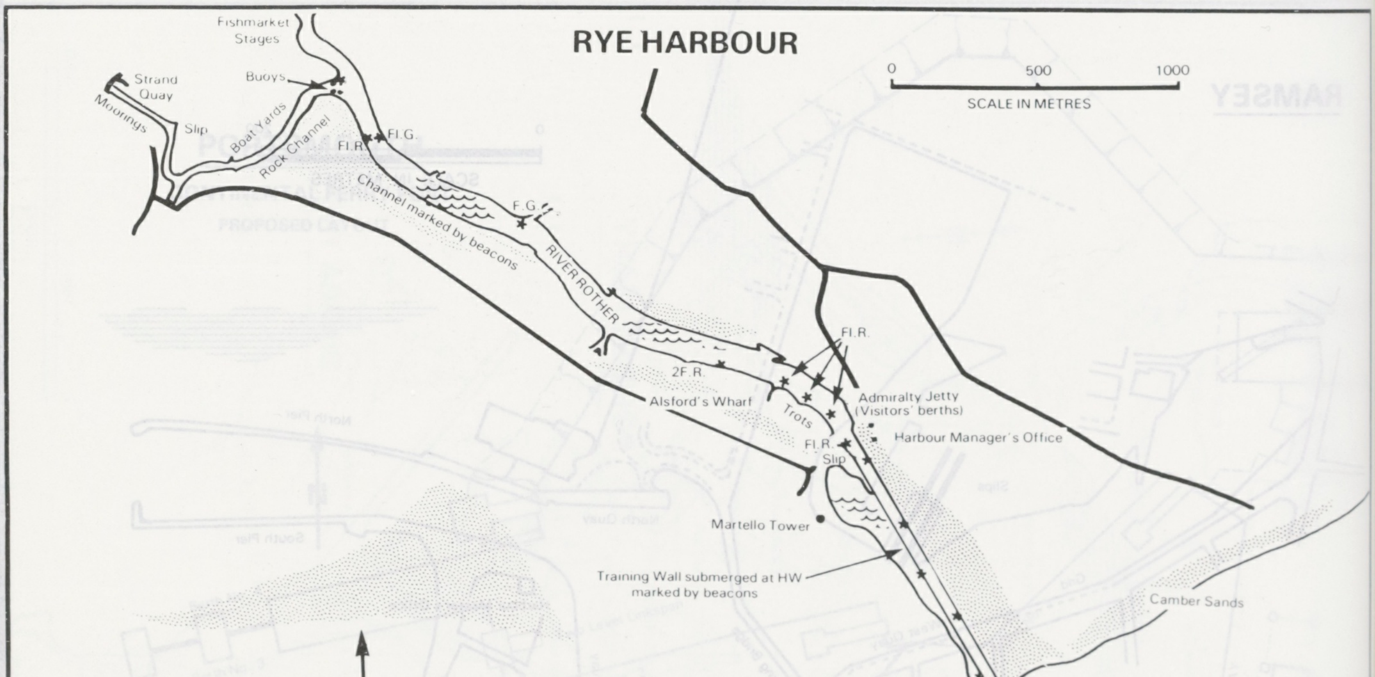
Docks	Water area		Length of operational quays		Harbour entrance		Depth of water			
							Harbour entrance		Jetty	
	acres	hectares	ft	m	ft	m	ft	m	ft	m
Tidal Harbour	464	188	1000	305	550	168	MHWS		MHWS	
							60	18.3	80	24.4
							MHWN		MHWN	
							53	16.2	73	22.3
									LWST	
									51	15.5

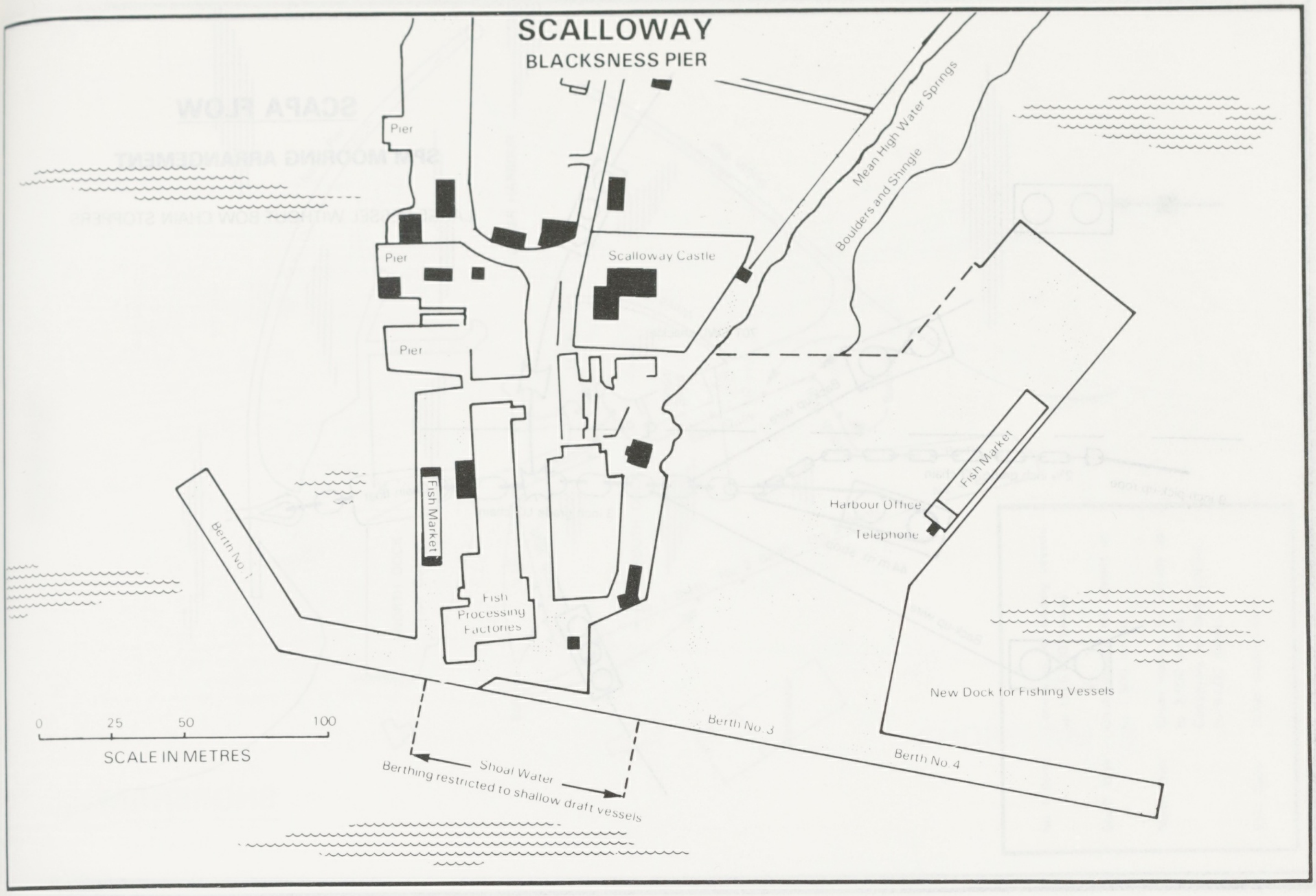
RAMSEY

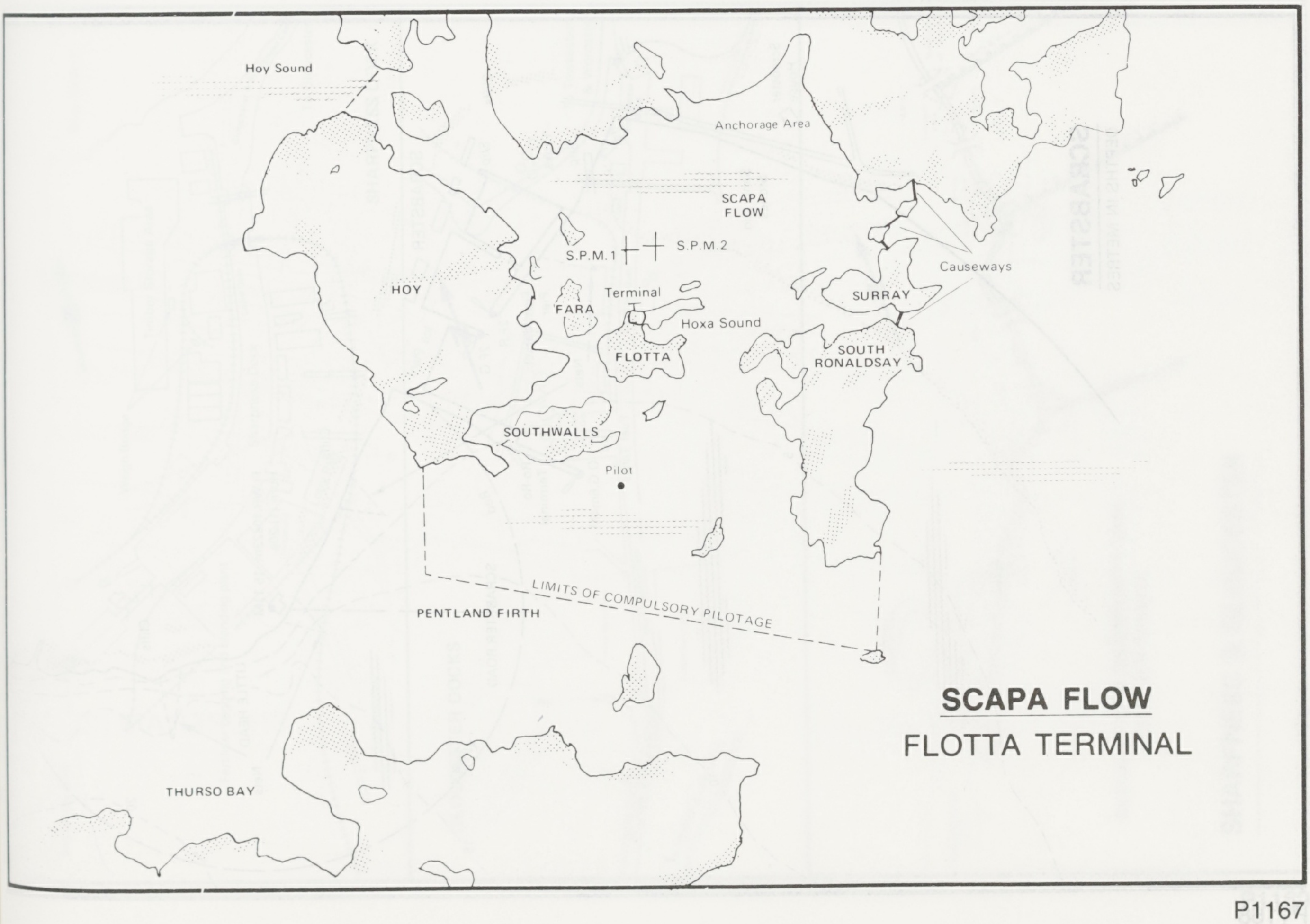

0 200
SCALE IN METRES
North Pier
Slips
North Quay
South Pier
Grid
Harbour Master's Office
West Quay
Swing Bridge
East Quay
N

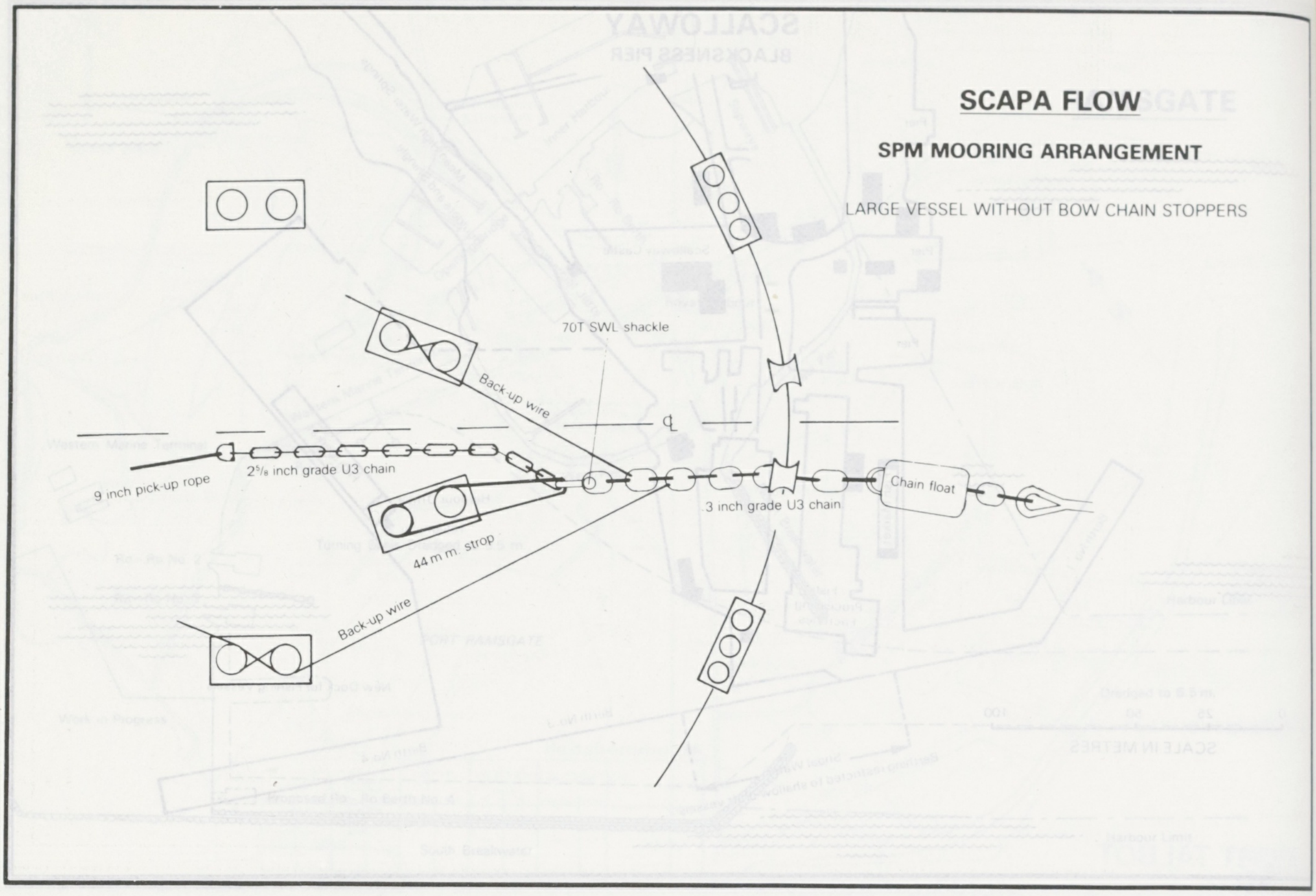
BERTHS MAY DRY AT L.W.


RAMSGATE
Inner Harbour
Slipways
Ro-Ro Berth
Opening Bridge
Commercial Jetty
Royal Harbour
East Pier
Western Marine Terminal
Western Marine Terminal
Ro-Ro No. 1
West Pier
North Breakwater
Turning Basin Dredged to 6.5 m.
Ro-Ro No. 2
Ro-Ro No. 3
PORT RAMSGATE
Harbour Limit
Dredged to 6.5 m.
Work in Progress
Proposed Ro-Ro Berth No. 4
South Breakwater
Harbour Limit


RYE HARBOUR
Fishmarket Stages
Strand Quay
Buoys
Moorings
Slip
Boat Yards
Rock Channel
Fl.G.
Fl.R.
Channel marked by beacons
F.G.
RIVER ROTHER
0
500
1000
SCALE IN METRES
Fl.R.
2F.R.
Alsford's Wharf
Trots
Admiralty Jetty (Visitors' berths)
Harbour Manager's Office
Fl.R.
Slip
Martello Tower
Training Wall submerged at HW marked by beacons
Camber Sands
N
Fl.(9) 15s.7m.5M. Horn
Beach
Fl.R.5s.7m.6M.


SCALLOWAY
BLACKSNESS PIER
Pier
Pier
Pier
Scalloway Castle
Mean High Water Springs
Boulders and Shingle
Fish Market
Fish Market
Harbour Office
Telephone
Fish Processing Factories
Berth No.1
Berth No.3
Berth No.4
New Dock for Fishing Vessels
Shoal Water
Berthing restricted to shallow draft vessels
0
25
50
100
SCALE IN METRES


SCAPA FLOW
FLOTTA TERMINAL
Hoy Sound
Anchorage Area
SCAPA FLOW
S.P.M.1
S.P.M.2
Causeways
HOY
FARA
Terminal
Hoxa Sound
SURRAY
FLOTTA
SOUTH RONALDSAY
SOUTHWALLS
Pilot
LIMITS OF COMPULSORY PILOTAGE
PENTLAND FIRTH
THURSO BAY

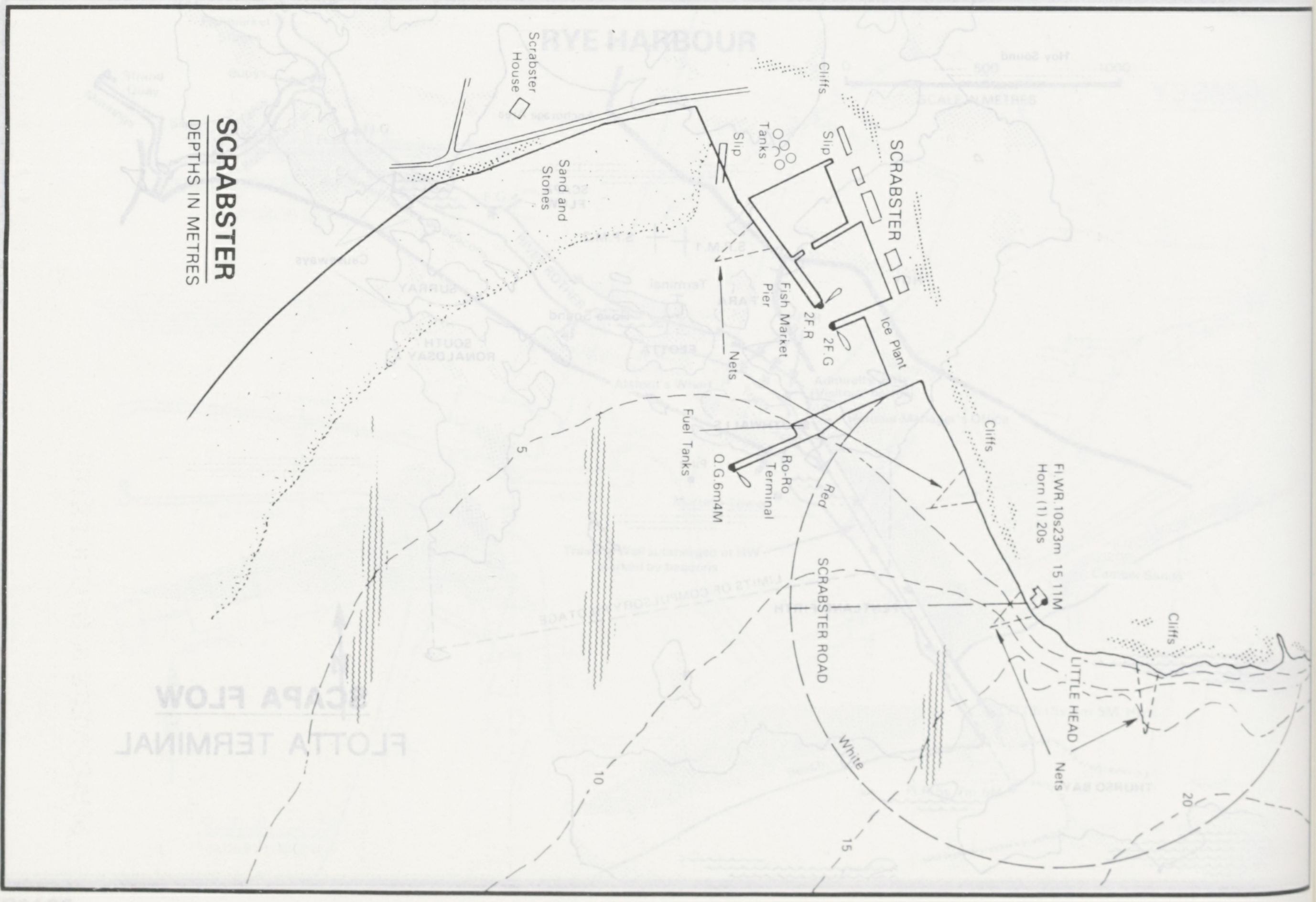


SCAPA FLOW

SPM MOORING ARRANGEMENT

LARGE VESSEL WITHOUT BOW CHAIN STOPPERS

70T SWL shackle
Back-up wire
℄
9 inch pick-up rope
2⁵/₈ inch grade U3 chain
3 inch grade U3 chain
Chain float
44 m m. strop
Back-up wire

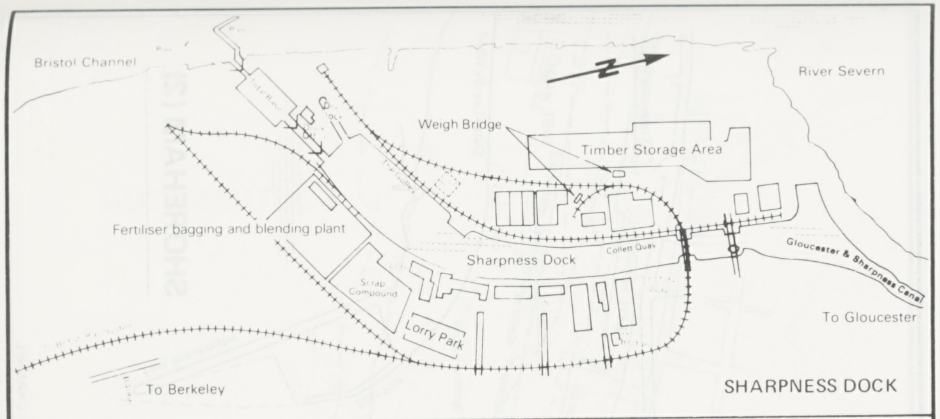


SCRABSTER

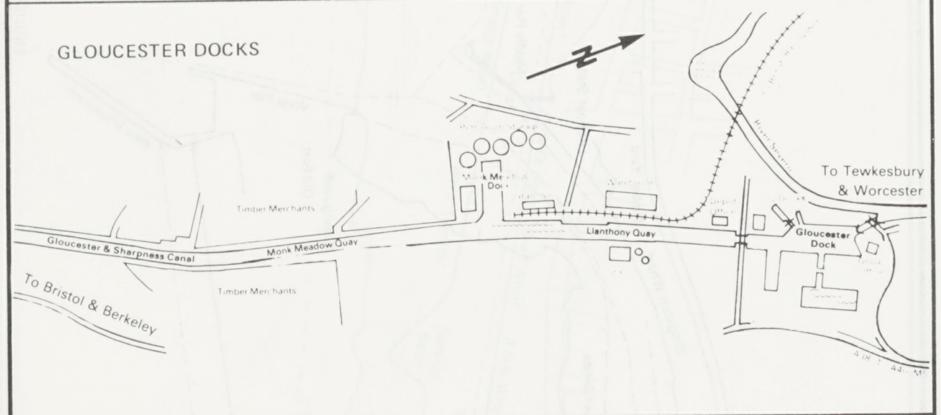
DEPTHS IN METRES

Scrabster House
Sand and Stones
Slip
Tanks
Slip
Cliffs
SCRABSTER
Fish Market Pier
2F R
2F G
Ice Plant
Nets
Fuel Tanks
Q G 6m4M
Ro-Ro Terminal
Rear
SCRABSTER ROAD
White
Cliffs
Fl WR 10s23m 15 11M
Horn (1) 20s
LITTLE HEAD
Nets
Cliffs
5
10
15
20

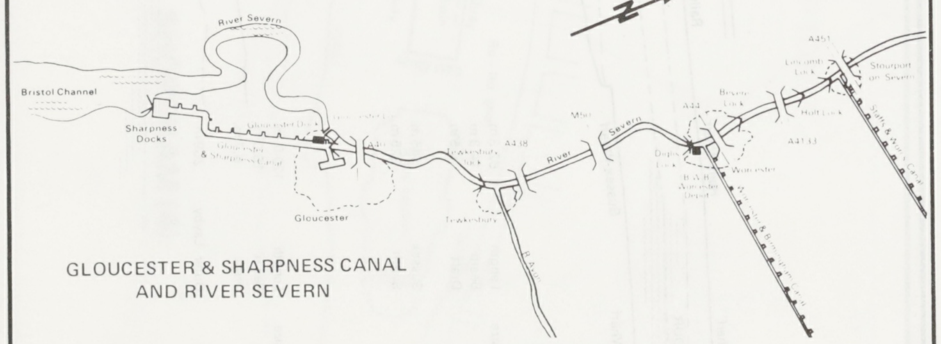
SHARPNESS & GLOUCESTER


Bristol Channel
River Severn
N
Weigh Bridge
Timber Storage Area
Fertiliser bagging and blending plant
Sharpness Dock
Collett Quay
Gloucester & Sharpness Canal
Scrap Compound
Lorry Park
To Gloucester
To Berkeley

SHARPNESS DOCK

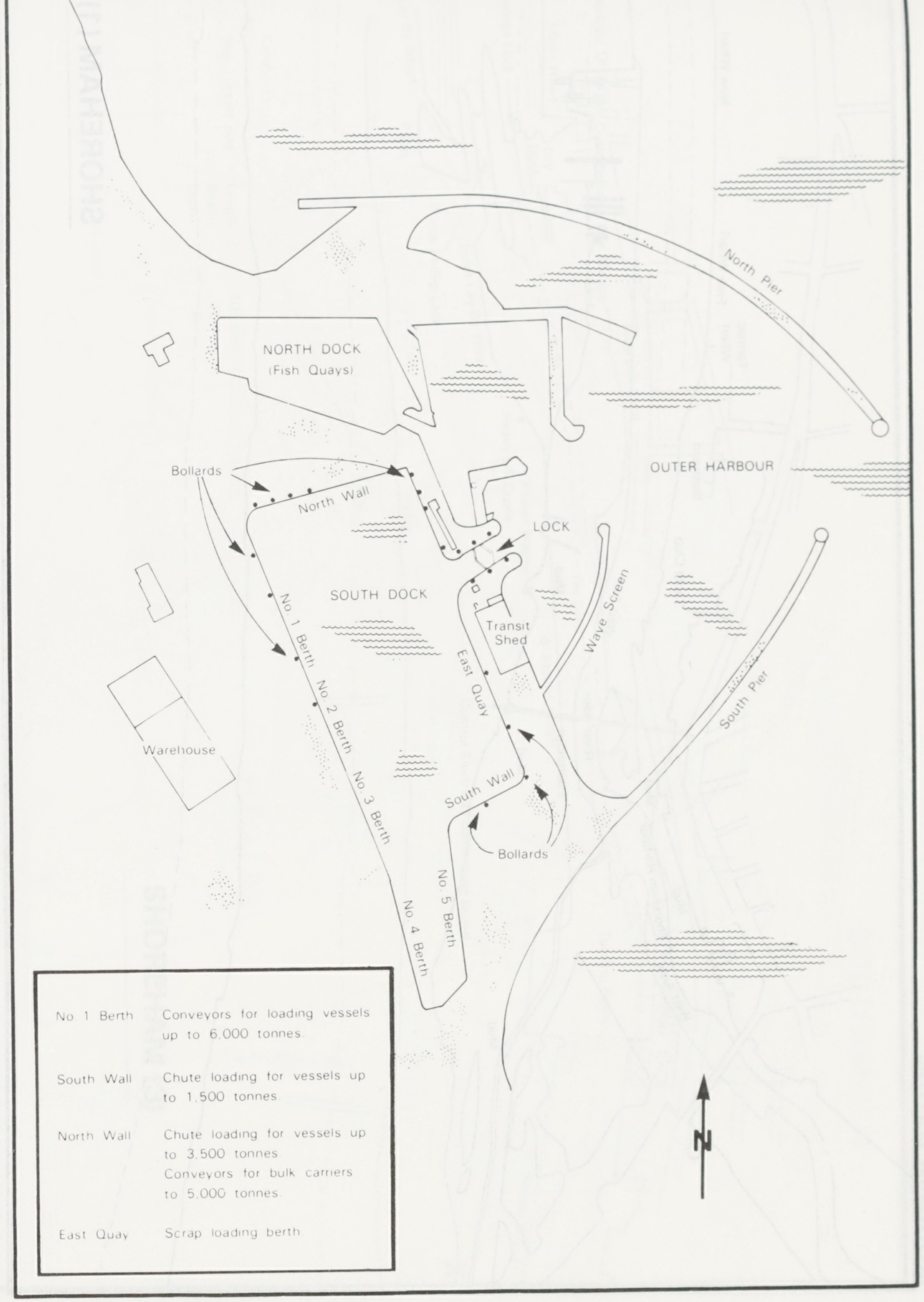

N
Monk Meadow Dock
Timber Merchants
Gloucester & Sharpness Canal
Monk Meadow Quay
Llanthony Quay
River Severn
Gloucester Dock
To Tewkesbury & Worcester
Timber Merchants
To Bristol & Berkeley

GLOUCESTER DOCKS

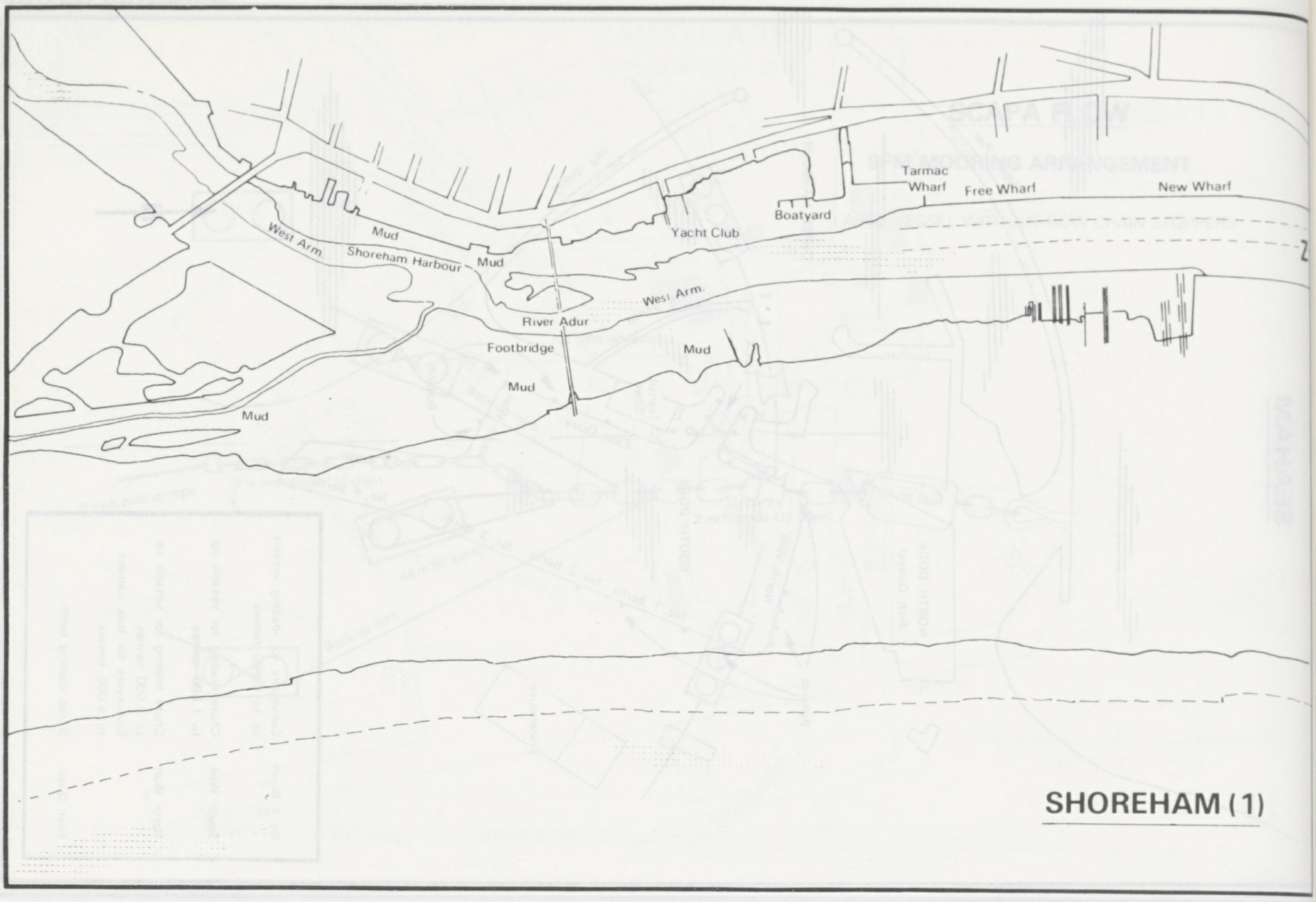

River Severn
N
Bristol Channel
Sharpness Docks
Gloucester Dock
Gloucester & Sharpness Canal
A40
Gloucester
Tewkesbury Lock
Tewkesbury
A438
R. Avon
M50
River Severn
A44
Diglis Lock
B.W.B. Worcester Depot
Worcester
Worcester & Birmingham Canal
Bevere Lock
Holt Lock
A4133
A451
Lincomb Lock
Stourport on Severn
Staffs & Worcs Canal

GLOUCESTER & SHARPNESS CANAL
AND RIVER SEVERN

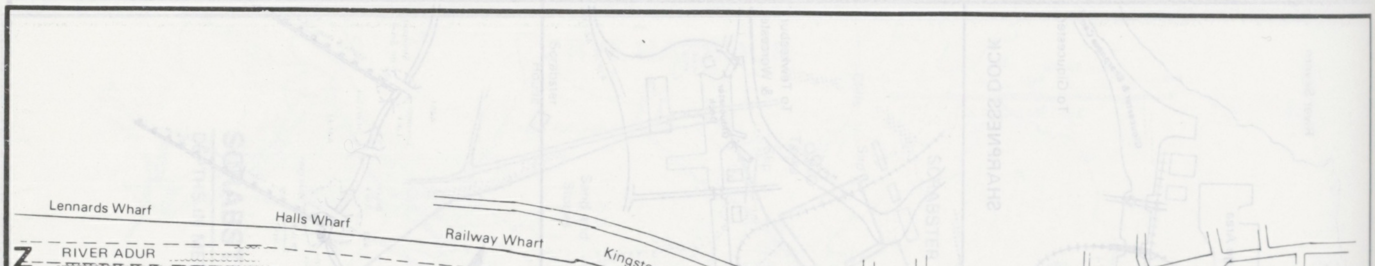
SEAHAM


North Pier
NORTH DOCK
(Fish Quays)
OUTER HARBOUR
Bollards
North Wall
LOCK
SOUTH DOCK
Transit Shed
Wave Screen
No 1 Berth
No 2 Berth
No 3 Berth
No 4 Berth
No 5 Berth
East Quay
South Wall
Bollards
South Pier
Warehouse
N

No 1 Berth	Conveyors for loading vessels up to 6,000 tonnes.
South Wall	Chute loading for vessels up to 1,500 tonnes.
North Wall	Chute loading for vessels up to 3,500 tonnes. Conveyors for bulk carriers to 5,000 tonnes.
East Quay	Scrap loading berth.

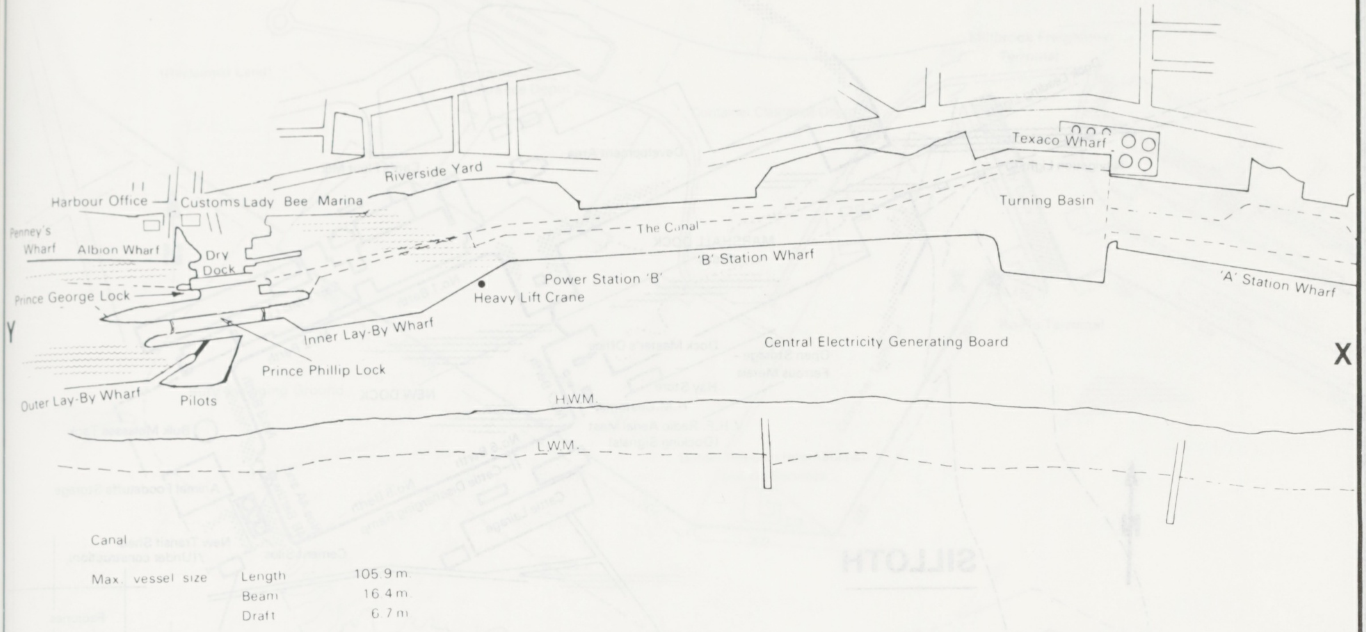

Tarmac Wharf
Free Wharf
New Wharf
Boatyard
Yacht Club
Mud
West Arm
Shoreham Harbour
Mud
West Arm
River Adur
Footbridge
Mud
Mud
Mud
Z

SHOREHAM (1)

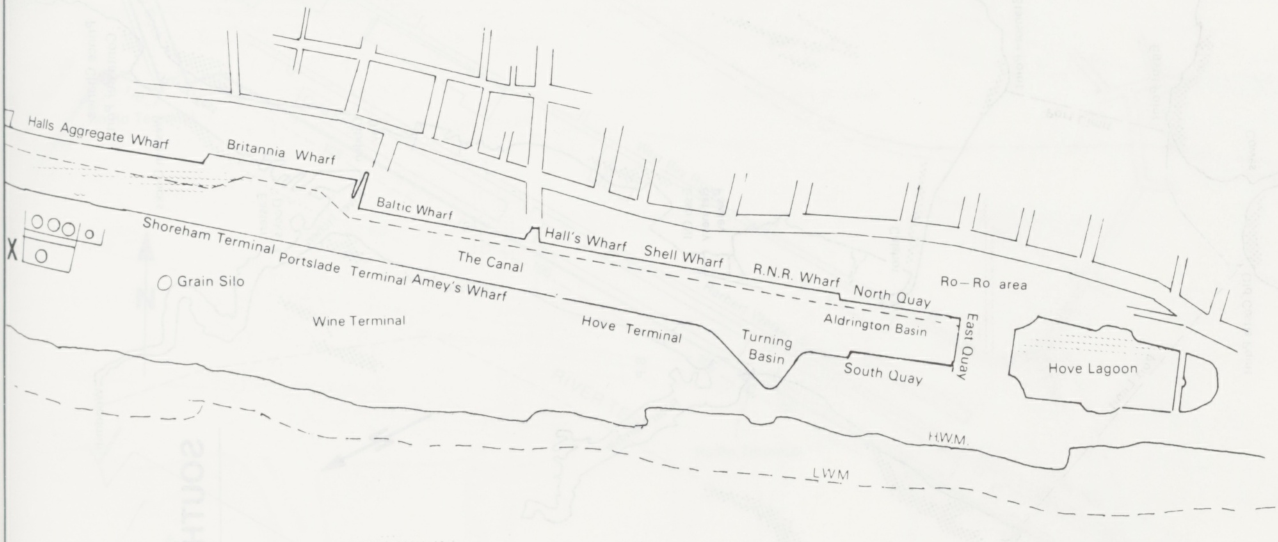

Lennards Wharf
Halls Wharf
Railway Wharf
Kingston Wharf
Timber Yard
Z
RIVER ADUR
South Wharf
Sussex Wharf
Silver Sands
Lifeboat Station
Turberville Wharf
EAST ARM
Y
Middle Pier
Outer Lay-By Wharf
East Pier
Coastguard
Old Fort
West Pier
East Breakwater
West Breakwater
ENGLISH CHANNEL

Western Arm		
Max. vessel size	Length	82.3 m.
	Beam	14.3 m.
	Draft	5.5 m.
Wharf Length	Sussex	345 m.
	South	225 m.
Eastern Arm		
Max. vessel size	Length	120.0 m.
	Beam	18.0 m.
	Draft	6.7 m.
Wharf Length	Outer Layby	259 m.

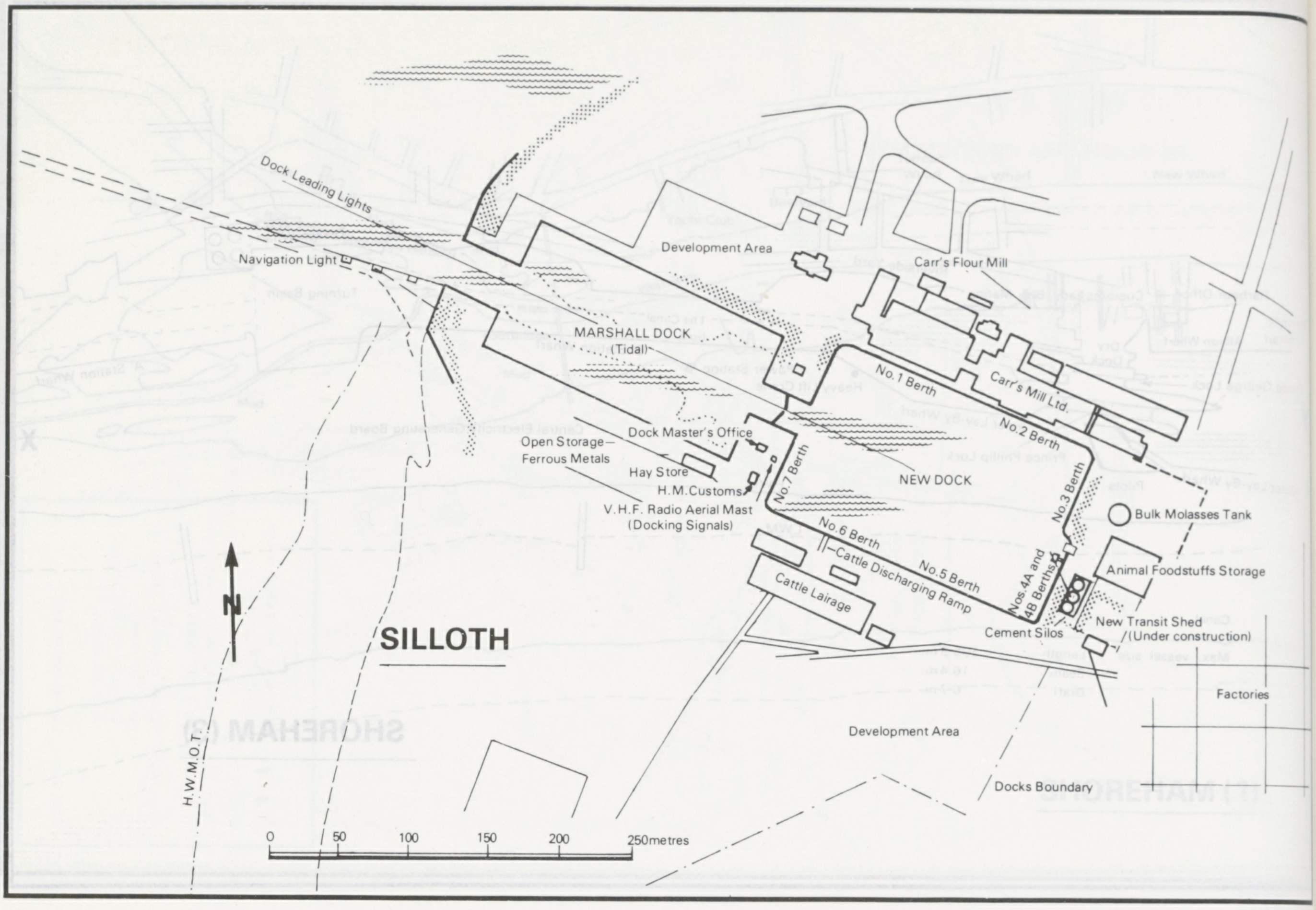
SHOREHAM (2)

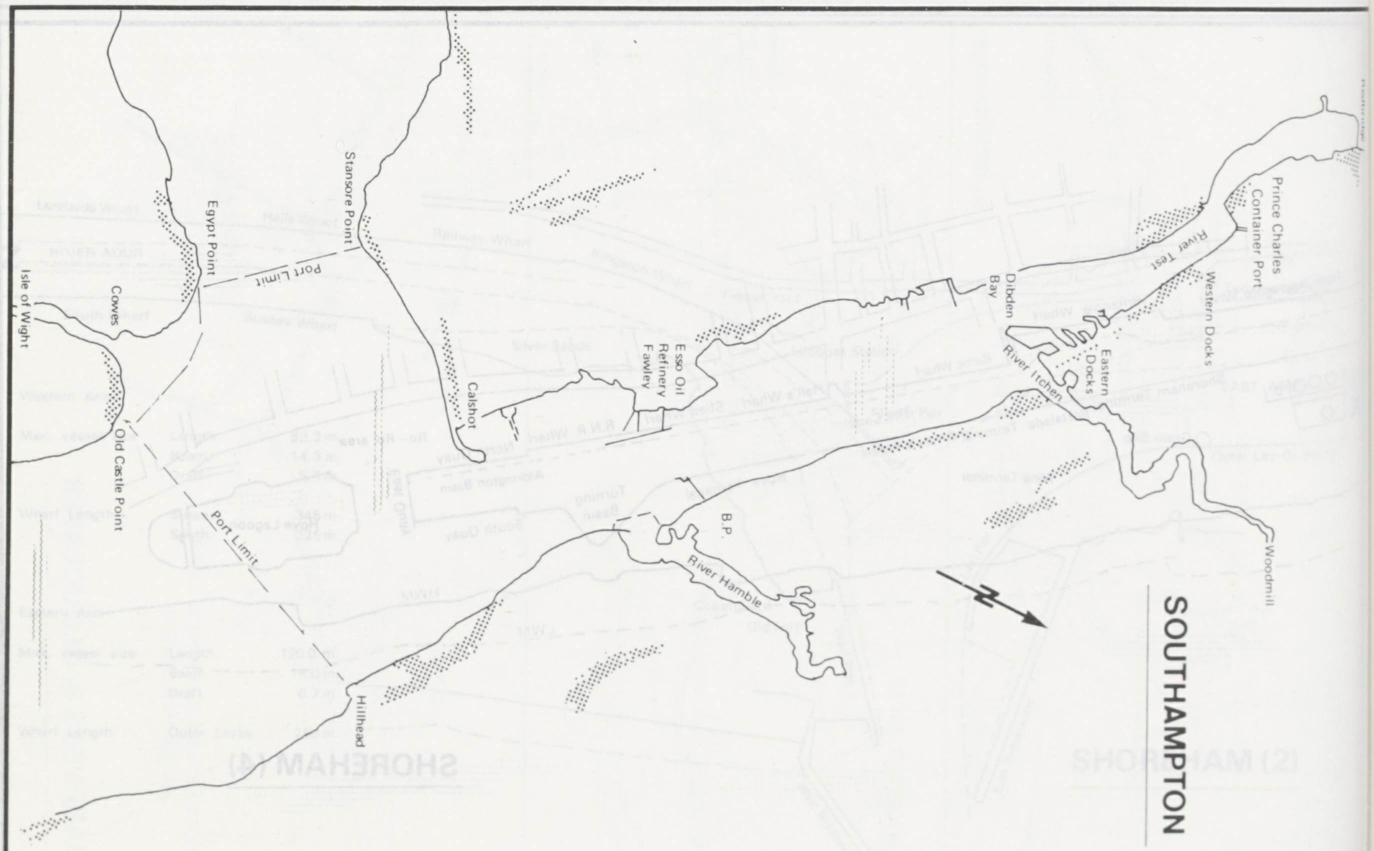

Harbour Office
Customs
Lady Bee Marina
Riverside Yard
Texaco Wharf
Turning Basin
Penney's Wharf
Albion Wharf
Dry Dock
The Canal
'B' Station Wharf
'A' Station Wharf
Prince George Lock
Power Station 'B'
Heavy Lift Crane
Y
Inner Lay-By Wharf
Central Electricity Generating Board
X
Prince Phillip Lock
Outer Lay-By Wharf
Pilots
H.W.M.
L.W.M.
Canal
Max. vessel size
Length 105.9 m
Beam 16.4 m
Draft 6.7 m

SHOREHAM (3)

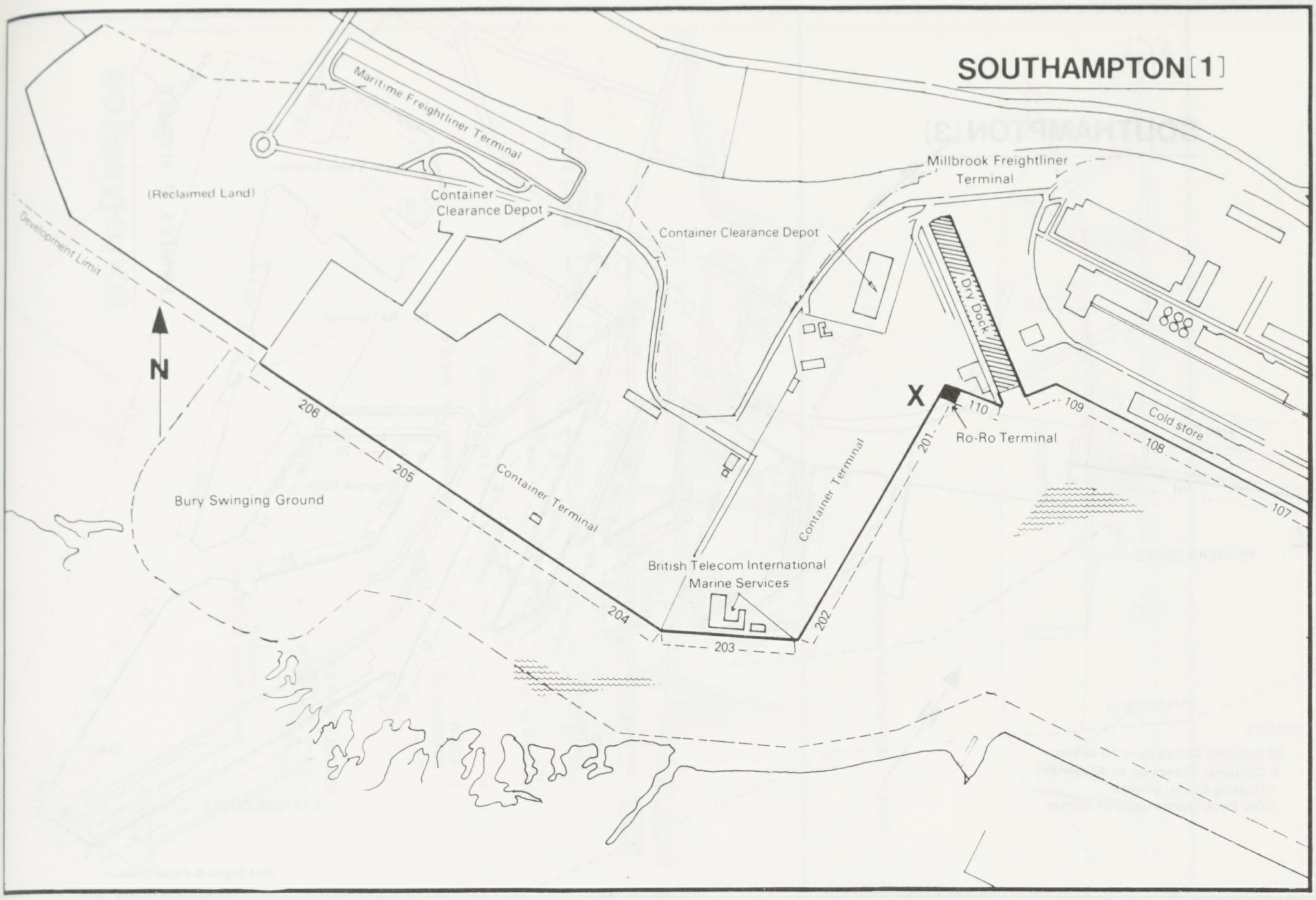

Halls Aggregate Wharf
Britannia Wharf
Baltic Wharf
X
Shoreham Terminal
Portslade Terminal
Amey's Wharf
The Canal
Hall's Wharf
Shell Wharf
R.N.R. Wharf
North Quay
Ro-Ro area
Grain Silo
Wine Terminal
Hove Terminal
Turning Basin
Aldrington Basin
East Quay
South Quay
Hove Lagoon
H.W.M.
L.W.M.

SHOREHAM (4)

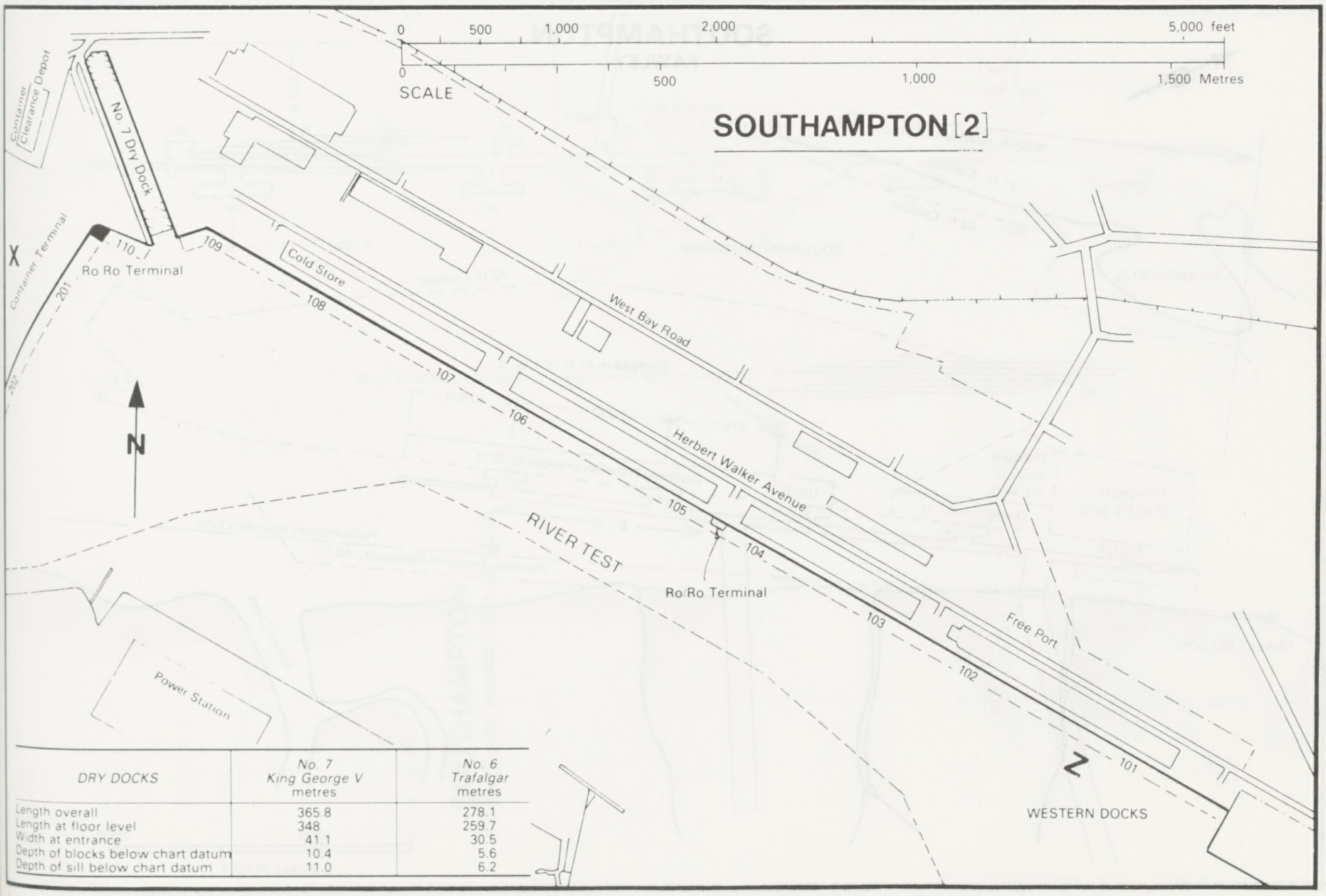

Dock Leading Lights
Navigation Light
Development Area
Carr's Flour Mill
MARSHALL DOCK
(Tidal)
No.1 Berth
Carr's Mill Ltd.
No.2 Berth
Dock Master's Office
Open Storage–
Ferrous Metals
Hay Store
H.M.Customs
V.H.F. Radio Aerial Mast
(Docking Signals)
No.7 Berth
NEW DOCK
No.3 Berth
Bulk Molasses Tank
No.6 Berth
Cattle Discharging Ramp
No.5 Berth
Nos.4A and
4B Berths
Animal Foodstuffs Storage
Cattle Lairage
Cement Silos
New Transit Shed
(Under construction)
Factories
N
SILLOTH
H.W.M.O.T.
Development Area
Docks Boundary
0
50
100
150
200
250metres


Isle of Wight
Cowes
Egypt Point
Stansore Point
Port Limit
Old Castle Point
Port Limit
Calshot
Esso Oil
Refinery
Fawley
Dibden
Bay
River Test
Prince Charles
Container Port
Western Docks
Eastern
Docks
River Itchen
Woodmill
B.P.
River Hamble
Hillhead
N
SOUTHAMPTON

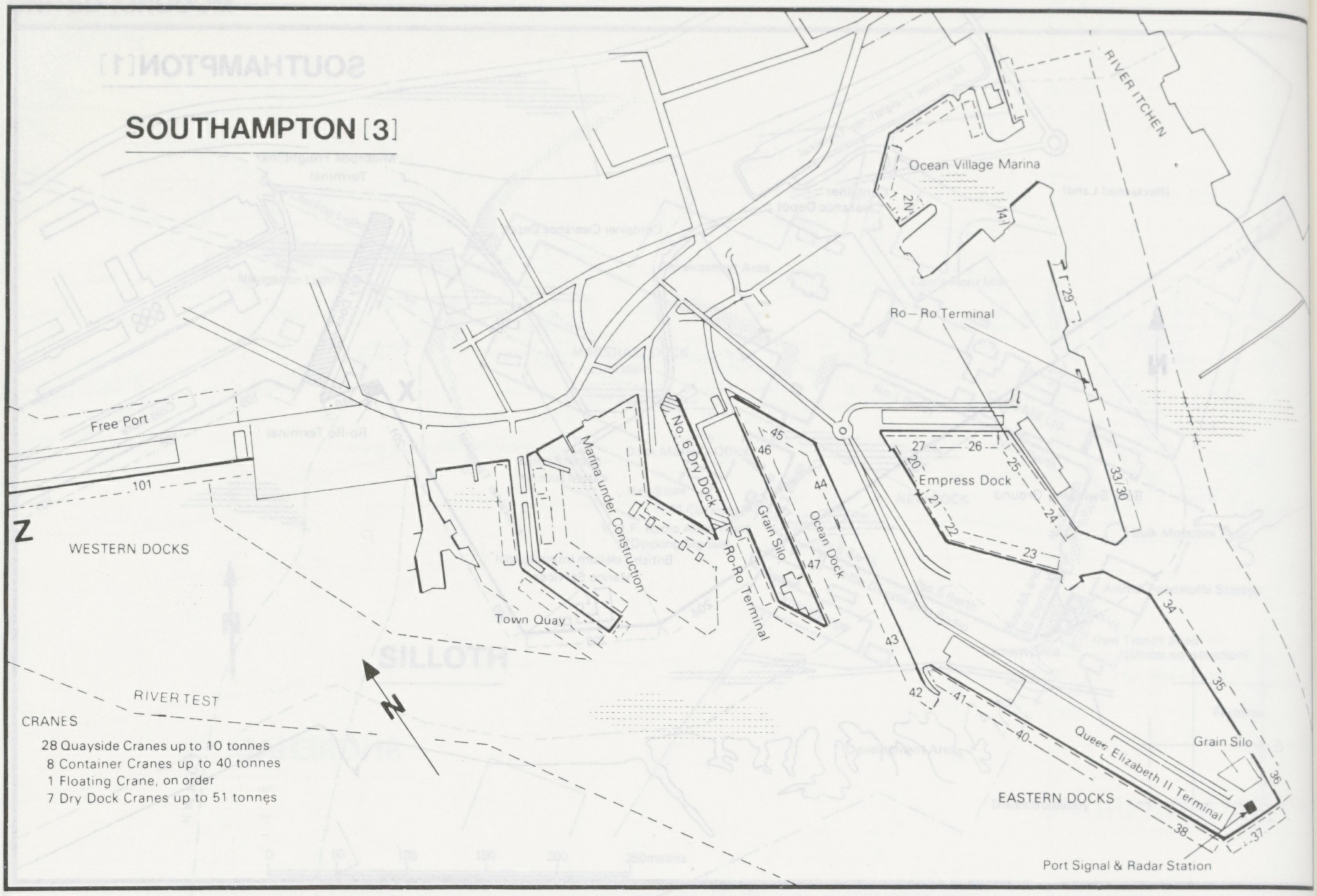
SOUTHAMPTON [1]

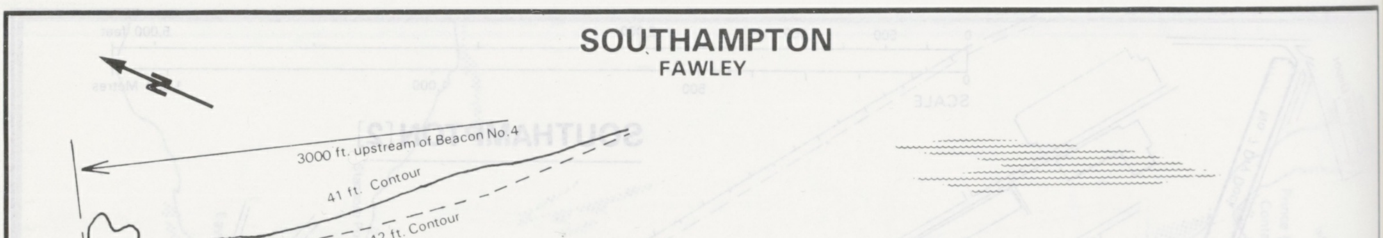

Maritime Freightliner Terminal
(Reclaimed Land)
Container Clearance Depot
Development Limit
Container Clearance Depot
Millbrook Freightliner Terminal
Dry Dock
N
X
110
109
Cold store
108
107
Ro-Ro Terminal
201
206
205
Container Terminal
Container Terminal
Bury Swinging Ground
British Telecom International Marine Services
204
203
202

SOUTHAMPTON [2]

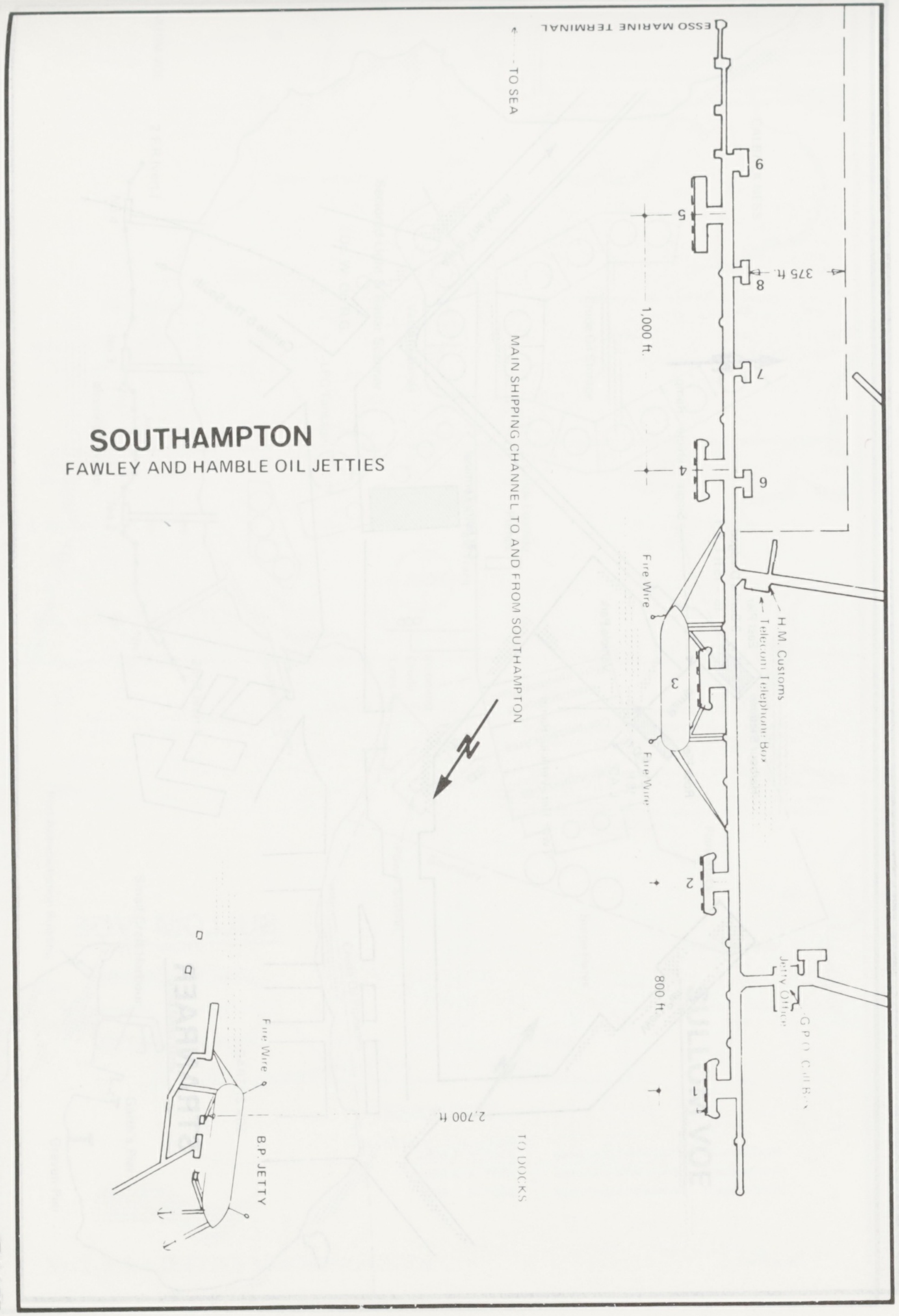

0
500
1,000
2,000
5,000 feet
0
500
1,000
1,500 Metres
SCALE
Container Clearance Depot
No. 7 Dry Dock
Container Terminal
X
110
109
Ro Ro Terminal
201
202
Cold Store
108
107
106
105
104
103
102
101
West Bay Road
Herbert Walker Avenue
N
RIVER TEST
Ro/Ro Terminal
Free Port
Power Station
Z
WESTERN DOCKS

DRY DOCKS	*No. 7* *King George V* metres	*No. 6* *Trafalgar* metres
Length overall	365.8	278.1
Length at floor level	348	259.7
Width at entrance	41.1	30.5
Depth of blocks below chart datum	10.4	5.6
Depth of sill below chart datum	11.0	6.2

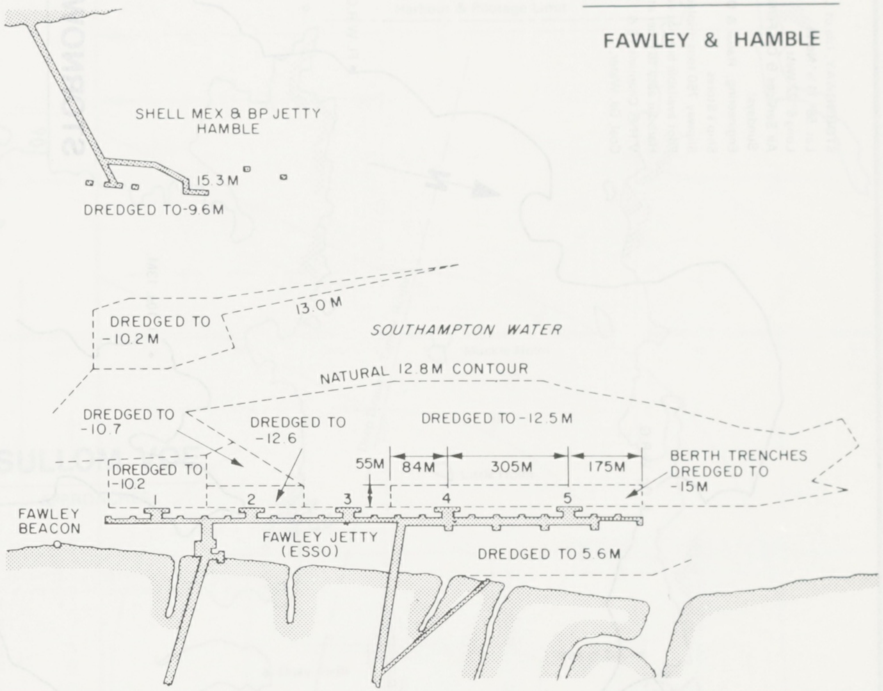

SOUTHAMPTON [3]
RIVER ITCHEN
Ocean Village Marina
24
14
29
Ro–Ro Terminal
Free Port
101
WESTERN DOCKS
Marina under Construction
No. 6 Dry Dock
45
46
44
Ocean Dock
Grain Silo
47
Ro-Ro Terminal
Town Quay
27
26
20
Empress Dock
25
21
22
24
23
33/30
34
43
42
41
40
Queen Elizabeth II Terminal
35
Grain Silo
36
37
38
EASTERN DOCKS
Port Signal & Radar Station
RIVER TEST
N
CRANES
28 Quayside Cranes up to 10 tonnes
8 Container Cranes up to 40 tonnes
1 Floating Crane, on order
7 Dry Dock Cranes up to 51 tonnes


SOUTHAMPTON
FAWLEY
N
3000 ft. upstream of Beacon No.4
41 ft. Contour
42 ft. Contour
SOUTHAMPTON WATER
Dredged to 41 ft.
42 ft. Contour
Dredged to 41 ft. P.L.W.D.
475 ft.
1000 ft.
575 ft.
Dredged to 35 ft. P.L.W.D.
Dredged to 33 ft. P.L.W.D.
Dredged to 37 ft.
100 ft.
Depthing Trenches Dredged to 48 ft.
1
2
3
4
5
6 · 9
Parliamentary Boundary Line
Depthing Trenches Dredged to 40 ft.
FAWLEY BEACON
Ashlett Creek
0
1000
3000
SCALE IN FEET

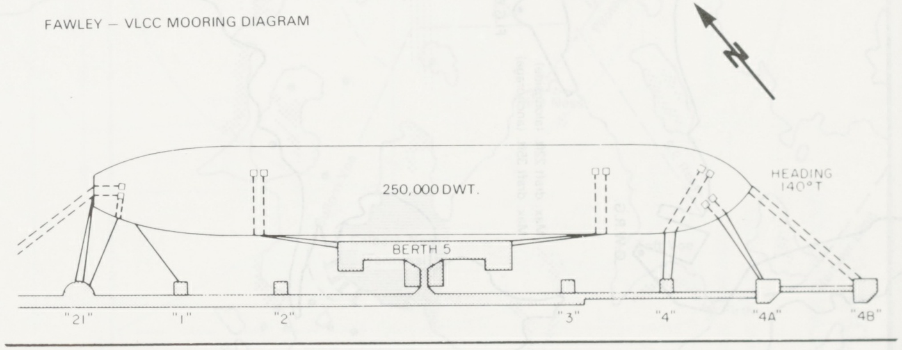
SOUTHAMPTON
FAWLEY AND HAMBLE OIL JETTIES

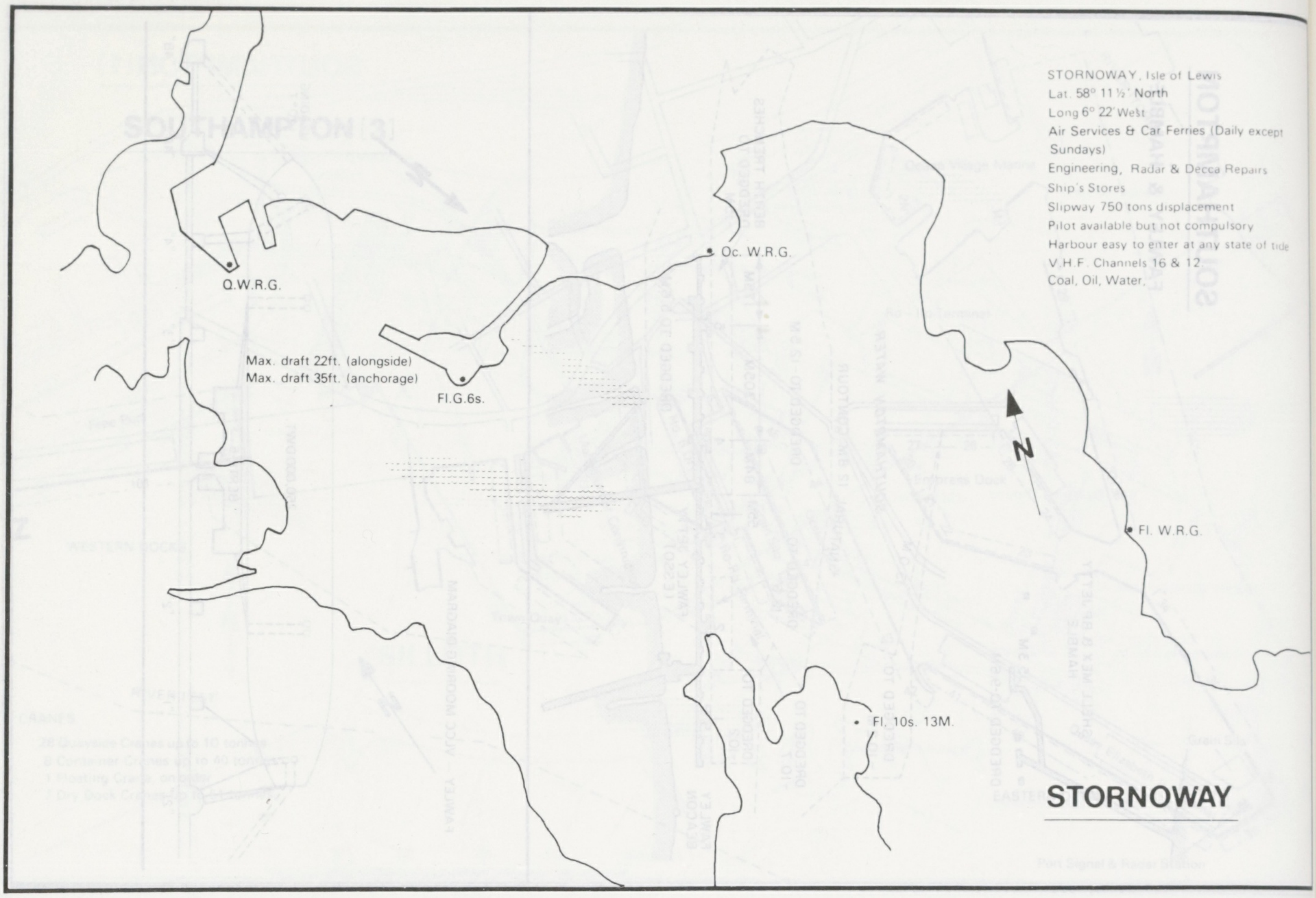

ESSO MARINE TERMINAL
TO SEA
9
5
8
375 ft.
1,000 ft.
7
4
6
MAIN SHIPPING CHANNEL TO AND FROM SOUTHAMPTON
Fire Wire
H.M. Customs
Telecom Telephone Box
3
Fire Wire
2
Jetty Office
G.P.O. Cables
800 ft.
1
2,700 ft
TO DOCKS
Fire Wire
B.P. JETTY

SOUTHAMPTON
FAWLEY & HAMBLE


SHELL MEX & BP JETTY
HAMBLE
15.3 M
DREDGED TO -9.6M
DREDGED TO
-10.2M
13.0 M
SOUTHAMPTON WATER
NATURAL 12.8M CONTOUR
DREDGED TO
-10.7
DREDGED TO
-12.6
DREDGED TO -12.5 M
55M
84M
305M
175M
BERTH TRENCHES
DREDGED TO
-15M
DREDGED TO
-10.2
1
2
3
4
5
FAWLEY
BEACON
FAWLEY JETTY
(ESSO)
DREDGED TO 5.6 M

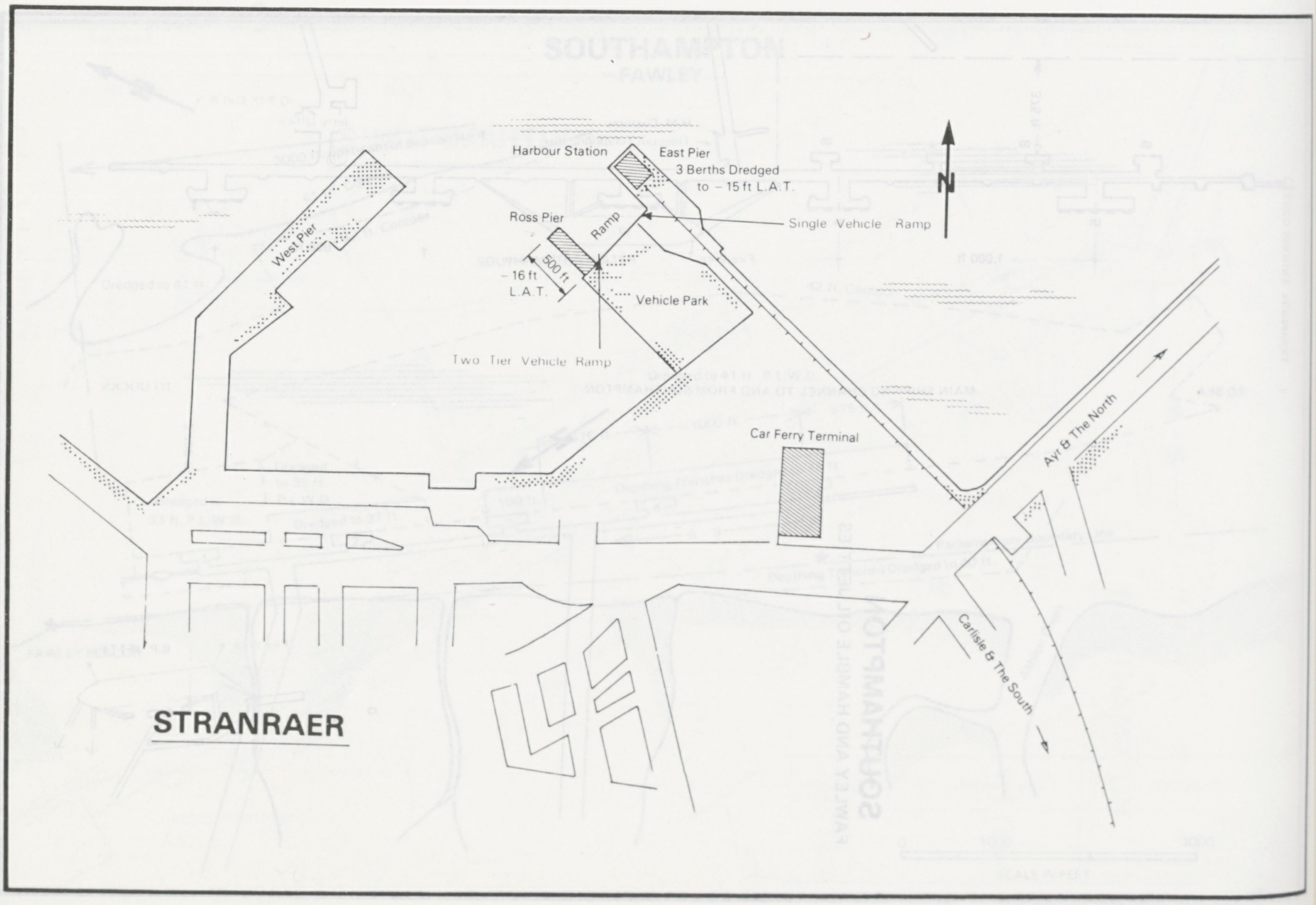
FAWLEY – VLCC MOORING DIAGRAM


250,000 DWT.
HEADING
140°T
BERTH 5
"21"
"1"
"2"
"3"
"4"
"4A"
"4B"

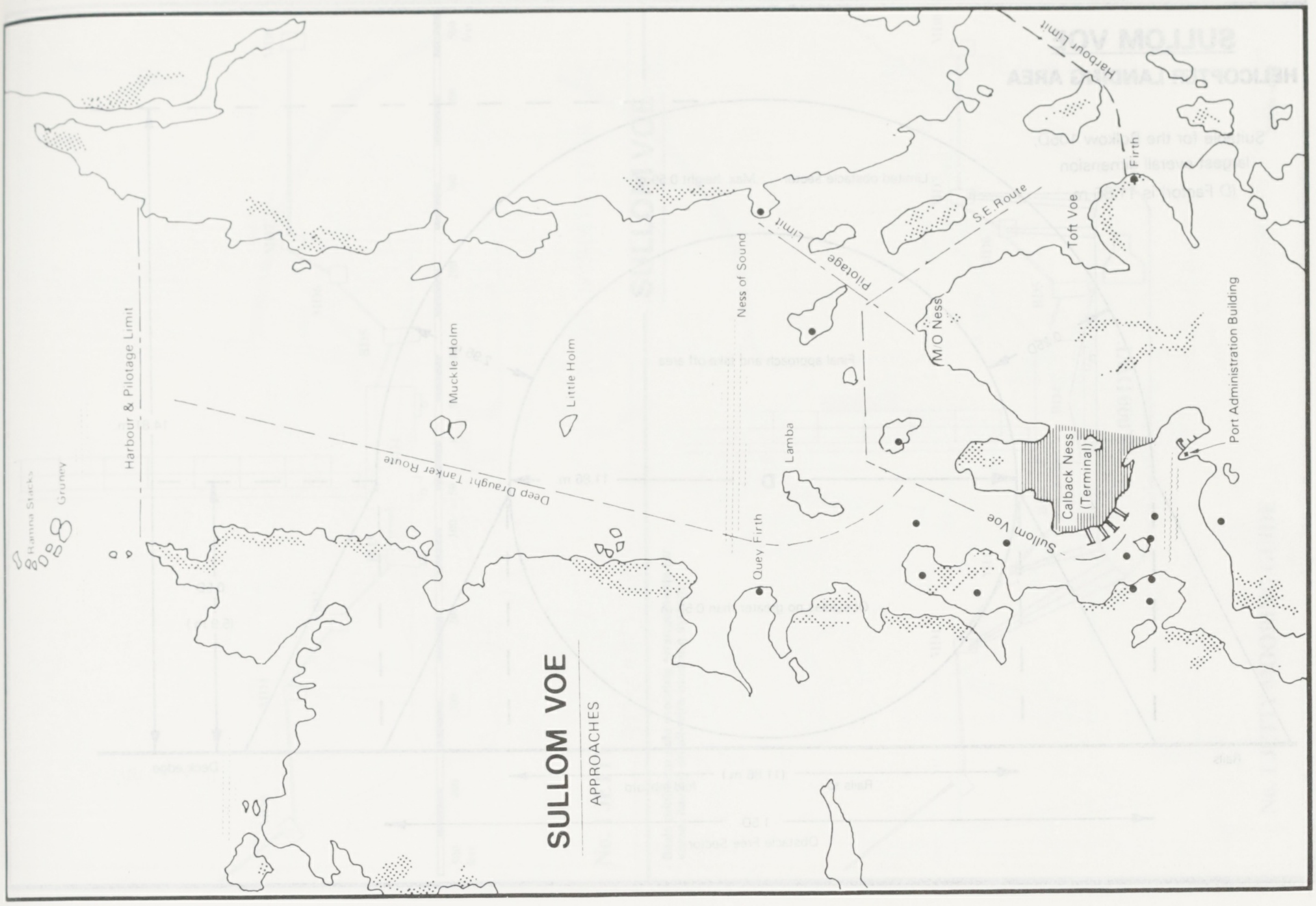


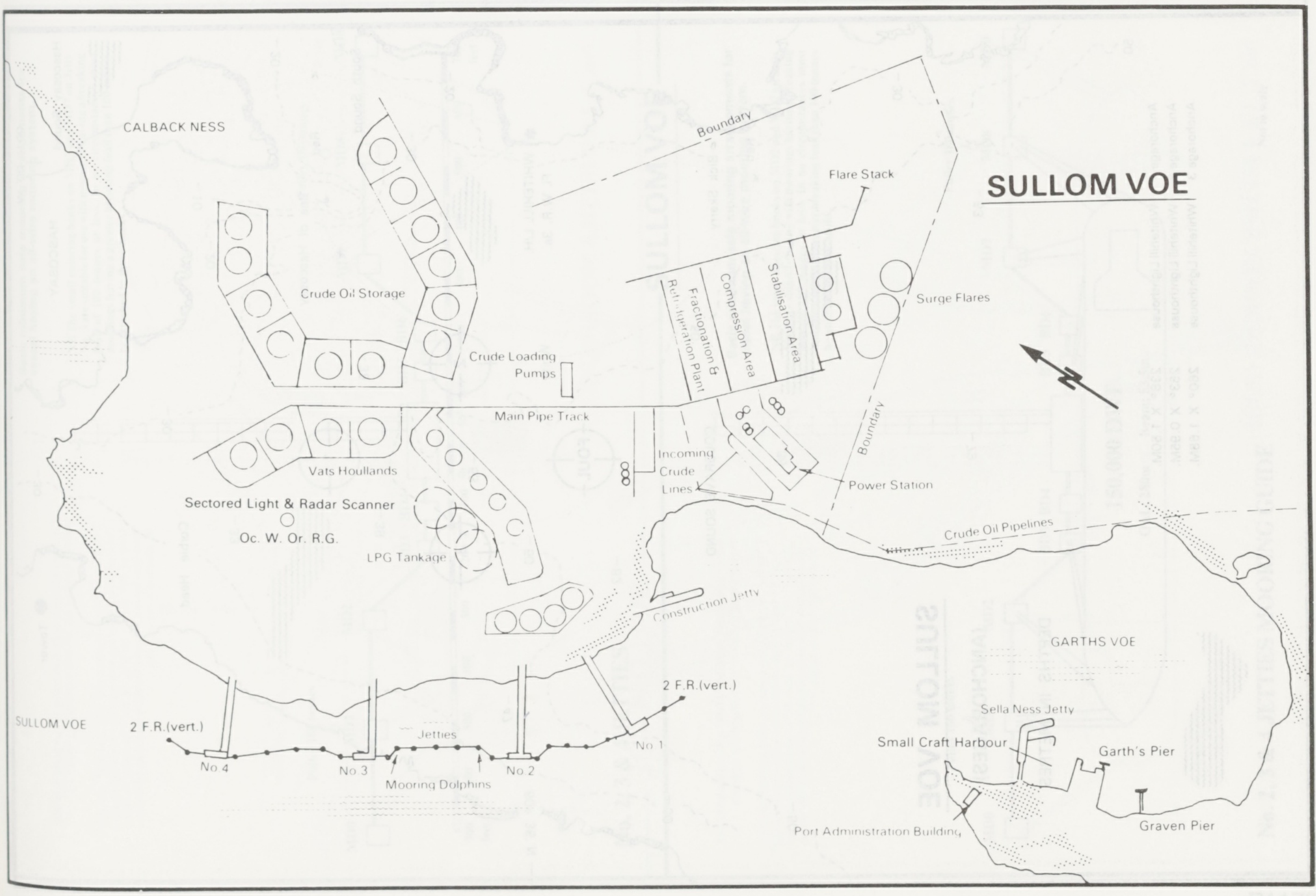
STORNOWAY, Isle of Lewis
Lat. 58° 11½' North
Long 6° 22' West
Air Services & Car Ferries (Daily except Sundays)
Engineering, Radar & Decca Repairs
Ship's Stores
Slipway 750 tons displacement
Pilot available but not compulsory
Harbour easy to enter at any state of tide
V.H.F. Channels 16 & 12.
Coal, Oil, Water,

Q.W.R.G.
Oc. W.R.G.
Max. draft 22ft. (alongside)
Max. draft 35ft. (anchorage)
Fl.G.6s.
N
Fl. W.R.G.
Fl. 10s. 13M.
STORNOWAY



Harbour Station
East Pier
3 Berths Dredged to – 15 ft L.A.T.
N
Ross Pier
Ramp
Single Vehicle Ramp
West Pier
500 ft
– 16 ft L.A.T.
Vehicle Park
Two Tier Vehicle Ramp
Car Ferry Terminal
Ayr & The North
Carlisle & The South
STRANRAER

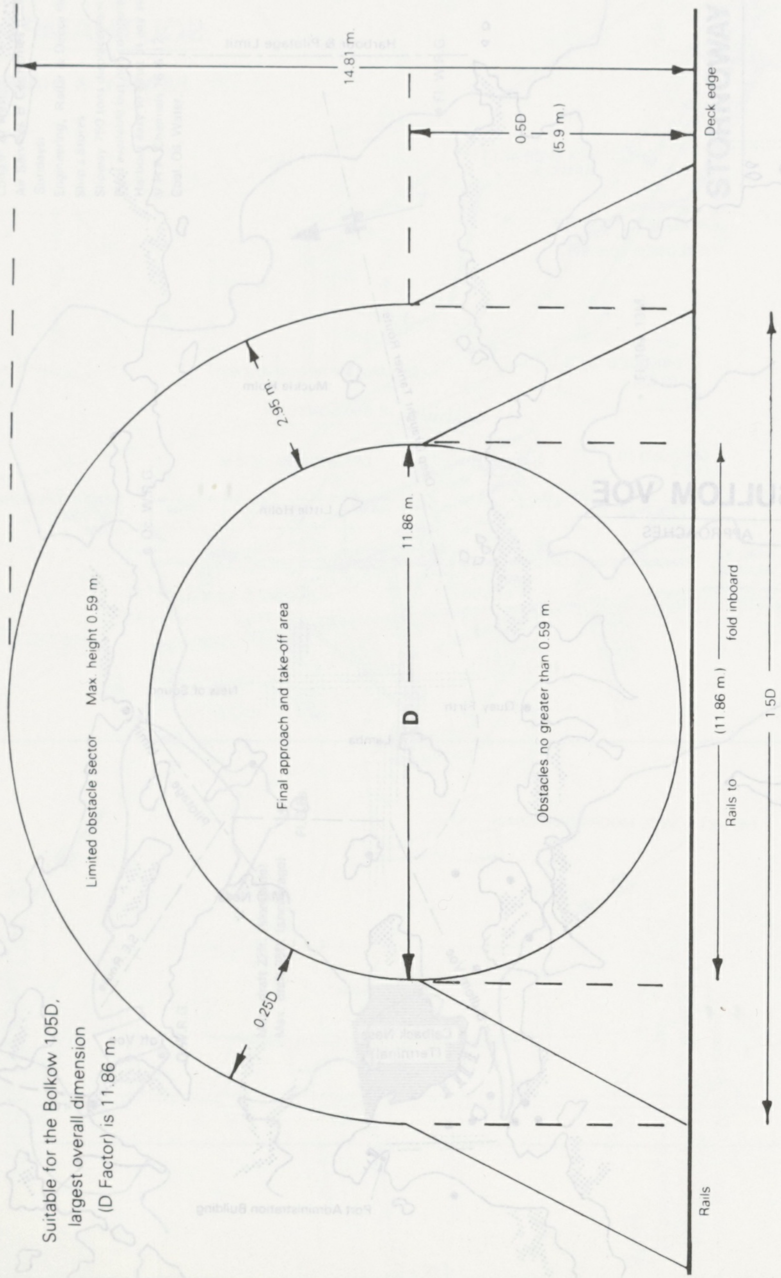

SULLOM VOE
APPROACHES
Harbour & Pilotage Limit
Ramna Stacks
Gruney
Muckle Holm
Little Holm
Deep Draught Tanker Route
Ness of Sound
Pilotage Limit
S.E. Route
M.O Ness
Lamba
Quey Firth
Calback Ness (Terminal)
Sullom Voe
Port Administration Building
Toft Voe
Firth
Harbour Limit

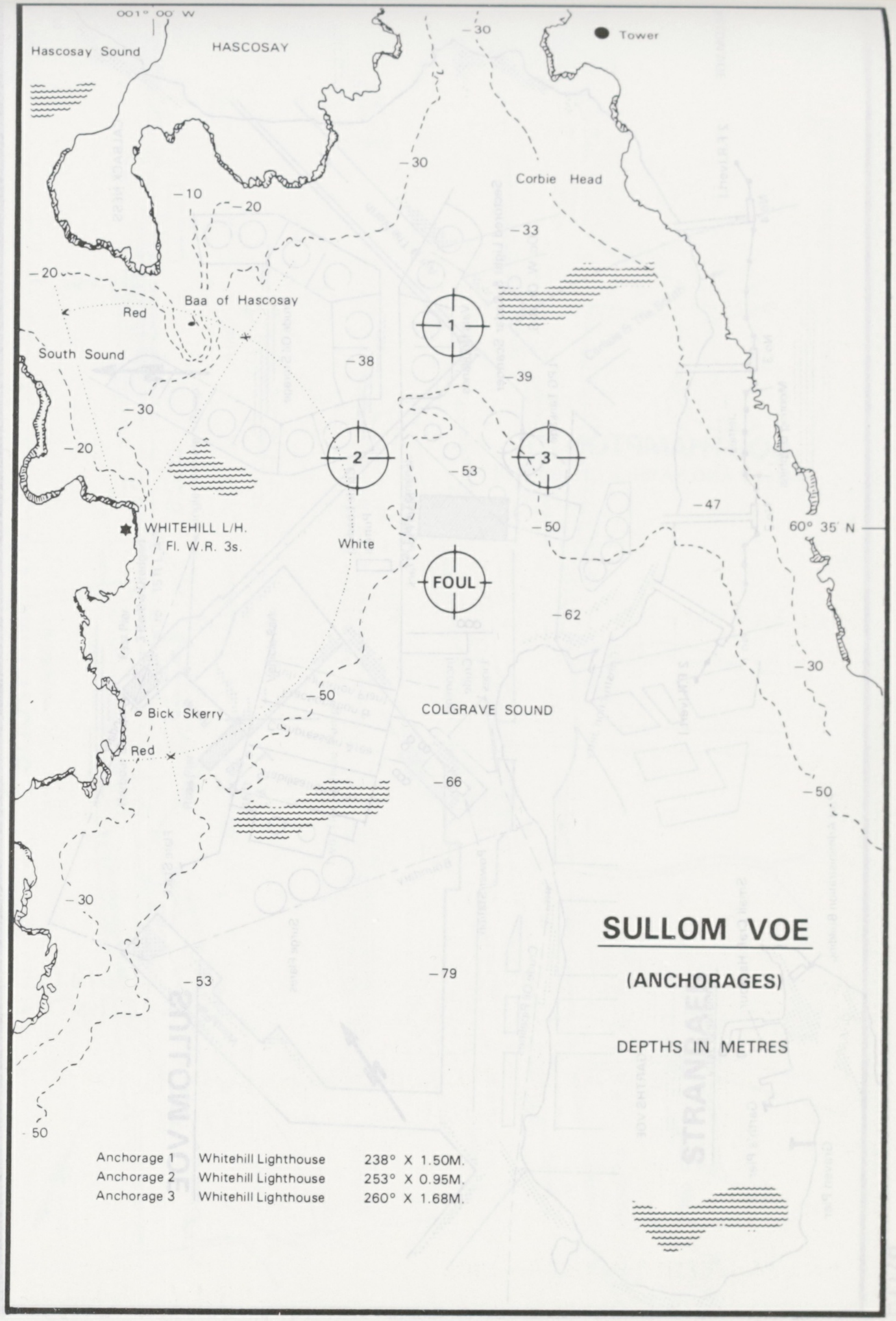

CALBACK NESS
Boundary
Flare Stack
SULLOM VOE
Surge Flares
Crude Oil Storage
Stabilisation Area
Compression Area
Fractionation & Refrigeration Plant
Crude Loading Pumps
Main Pipe Track
Vats Houllands
Incoming Crude Lines
Power Station
Boundary
Sectored Light & Radar Scanner
Oc. W. Or. R.G.
LPG Tankage
Crude Oil Pipelines
Construction Jetty
GARTHS VOE
2 F.R.(vert.)
SULLOM VOE
2 F.R.(vert.)
Jetties
No 4
No 3
No 2
No 1
Mooring Dolphins
Sella Ness Jetty
Small Craft Harbour
Garth's Pier
Port Administration Building
Graven Pier

SULLOM VOE

HELICOPTER LANDING AREA

Suitable for the Bolkow 105D, largest overall dimension (D Factor) is 11.86 m.


14.81 m
Deck edge
0.5D
(5.9 m)
2.95 m
0.25D
Limited obstacle sector
Max. height 0.59 m
Final approach and take-off area
11.86 m
D
Obstacles no greater than 0.59 m
Rails to (11.86 m) fold inboard
1.5D
Obstacle Free Sector
Rails


001° 00' W
Hascosay Sound
HASCOSAY
Tower
Corbie Head
Baa of Hascosay
Red
South Sound
WHITEHILL L/H.
Fl. W.R. 3s.
White
Bick Skerry
Red
1
2
3
FOUL
COLGRAVE SOUND
60° 35' N
-10
-20
-30
-33
-38
-39
-47
-50
-53
-62
-66
-79

SULLOM VOE

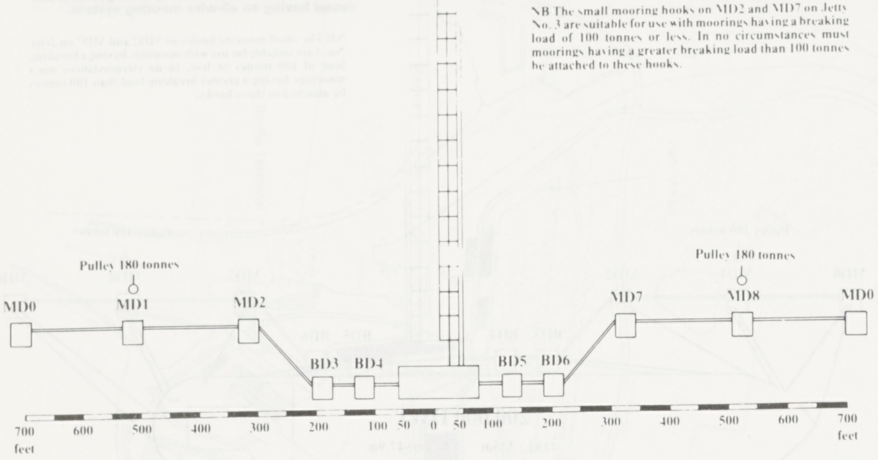
(ANCHORAGES)

DEPTHS IN METRES

Anchorage 1	Whitehill Lighthouse	238° X 1.50M.
Anchorage 2	Whitehill Lighthouse	253° X 0.95M.
Anchorage 3	Whitehill Lighthouse	260° X 1.68M.

Basic minimum safe mooring arrangements for vessel having an all-wire mooring system.

NB The small mooring hooks on MD2 and MD7 on Jetty No. 3 are suitable for use with moorings having a breaking load of 100 tonnes or less. In no circumstances must moorings having a greater breaking load than 100 tonnes be attached to these hooks.

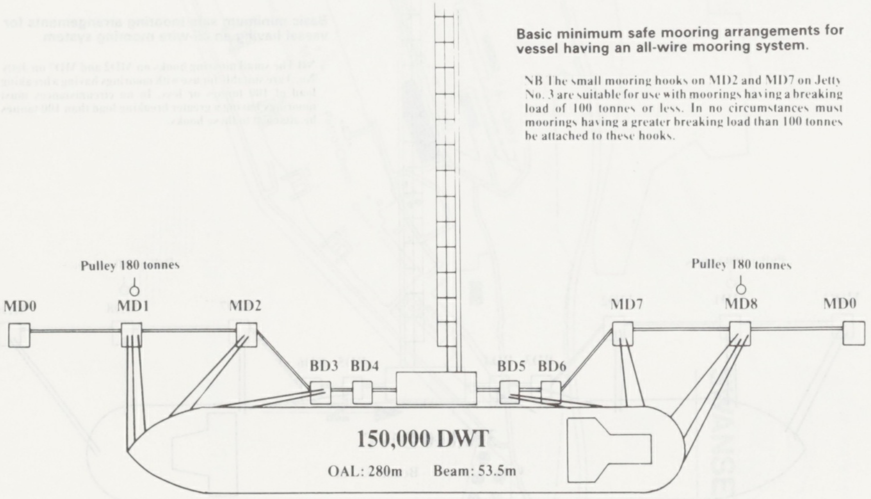

Pulley 180 tonnes
MD0
MD1
MD2
BD3
BD4
BD5
BD6
MD7
Pulley 180 tonnes
MD8
MD0
700 feet
600
500
400
300
200
100
50
0
50
100
200
300
400
500
600
700 feet

No. 2, 3 & 4 JETTIES

SULLOM VOE

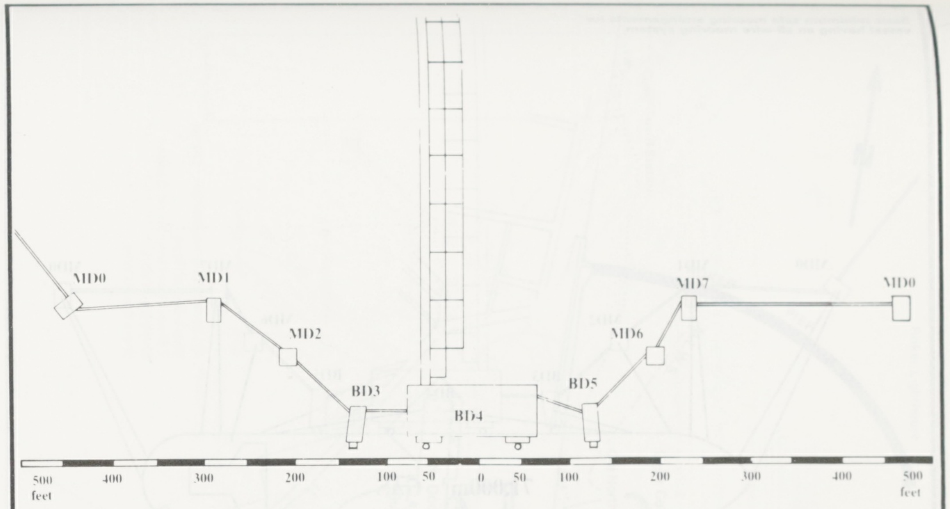
Basic minimum safe mooring arrangements for vessel having an all-wire mooring system.

NB The small mooring hooks on MD2 and MD7 on Jetty No. 3 are suitable for use with moorings having a breaking load of 100 tonnes or less. In no circumstances must moorings having a greater breaking load than 100 tonnes be attached to these hooks.


Pulley 180 tonnes
MD0
MD1
MD2
BD3
BD4
BD5
BD6
MD7
Pulley 180 tonnes
MD8
MD0
150,000 DWT
OAL: 280m
Beam: 53.5m

No. 2, 3 & 4 JETTIES MOORING GUIDE

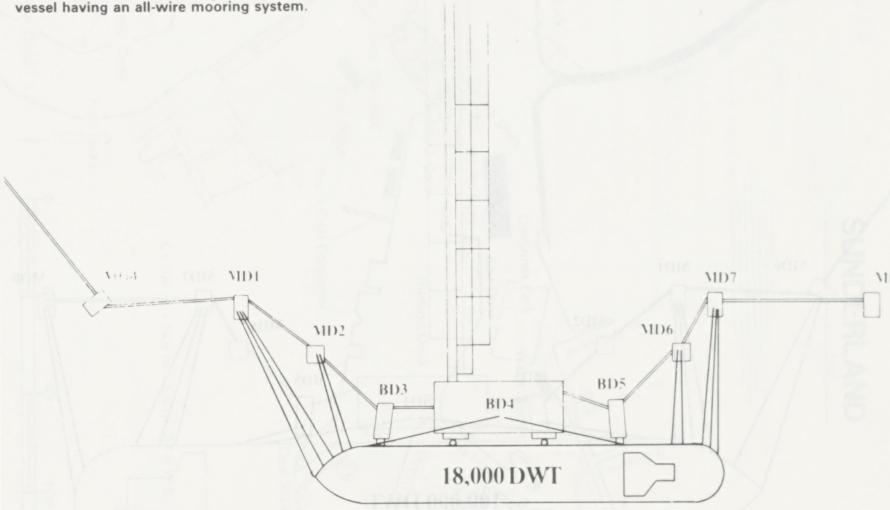
Not to scale


MD0
MD1
MD2
BD3
BD4
BD5
MD6
MD7
MD0
500 feet
400
300
200
100
50
0
50
100
200
300
400
500 feet

No. 1 JETTY

SULLOM VOE

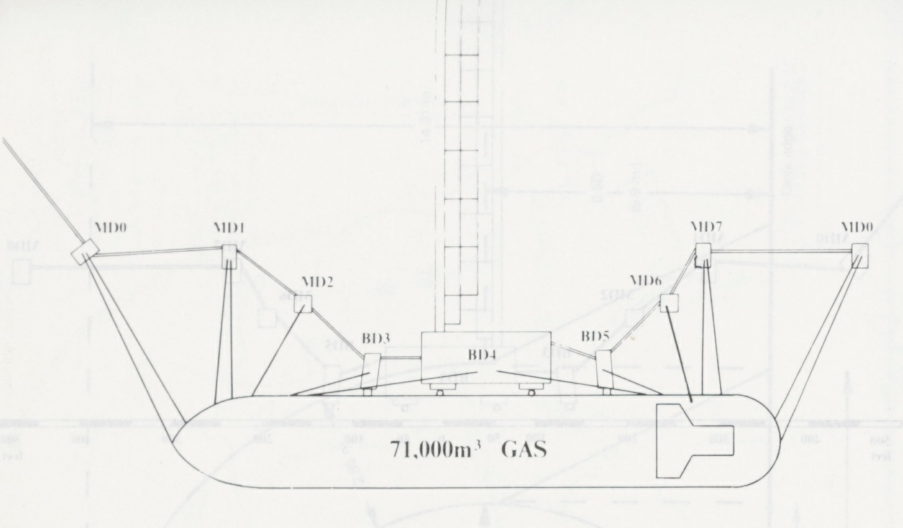
Basic minimum safe mooring arrangements for vessel having an all-wire mooring system.


MD1
MD2
BD3
BD4
BD5
MD6
MD7
MD0
18,000 DWT

No. 1 JETTY MOORING GUIDE

Not to scale

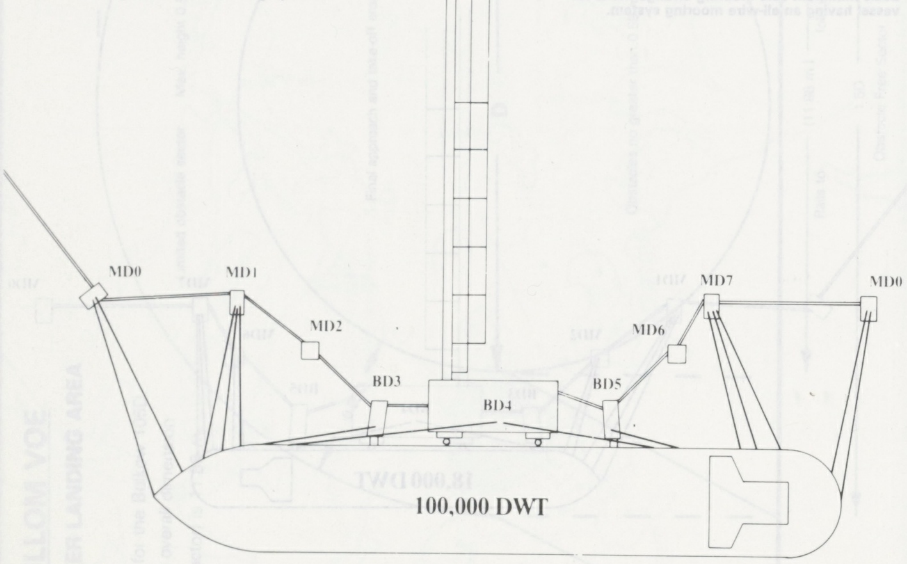
Basic minimum safe mooring arrangements for vessel having an all-wire mooring system.


MD0
MD1
MD2
BD3
BD4
BD5
MD6
MD7
MD0
71,000m³ GAS

No. 1 JETTY MOORING GUIDE

SULLOM VOE

Basic minimum safe mooring arrangements for vessel having an all-wire mooring system.

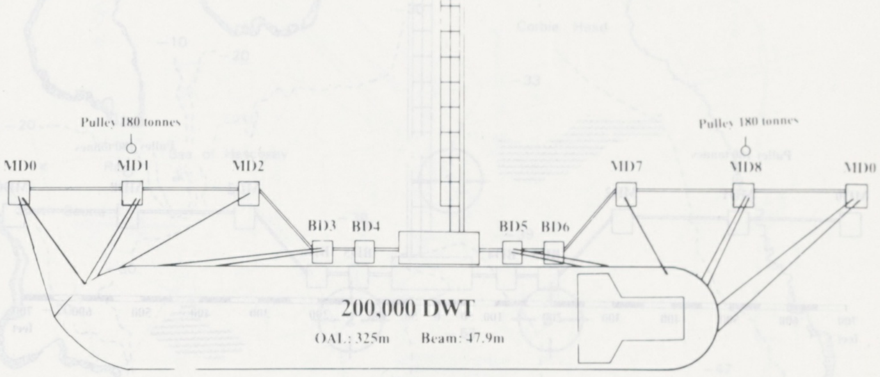

MD0
MD1
MD2
BD3
BD4
BD5
MD6
MD7
MD0
100,000 DWT

No. 1 JETTY MOORING GUIDE

Not to scale

Basic minimum safe mooring arrangements for vessel having an all-wire mooring system.

NB The small mooring hooks on MD2 and MD7 on Jetty No. 3 are suitable for use with moorings having a breaking load of 100 tonnes or less. In no circumstances must moorings having a greater breaking load than 100 tonnes be attached to these hooks.

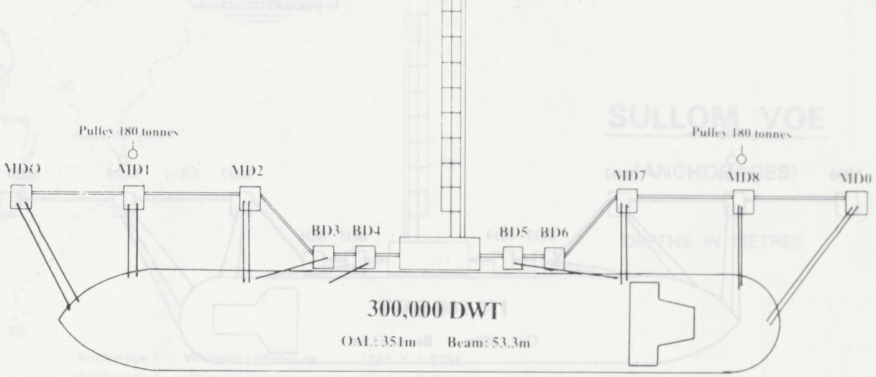

Pulley 180 tonnes
MD0
MD1
MD2
BD3
BD4
BD5
BD6
Pulley 180 tonnes
MD7
MD8
MD0
200,000 DWT
OAL: 325m
Beam: 47.9m

No. 2, 3 & 4 JETTIES MOORING GUIDE

SULLOM VOE

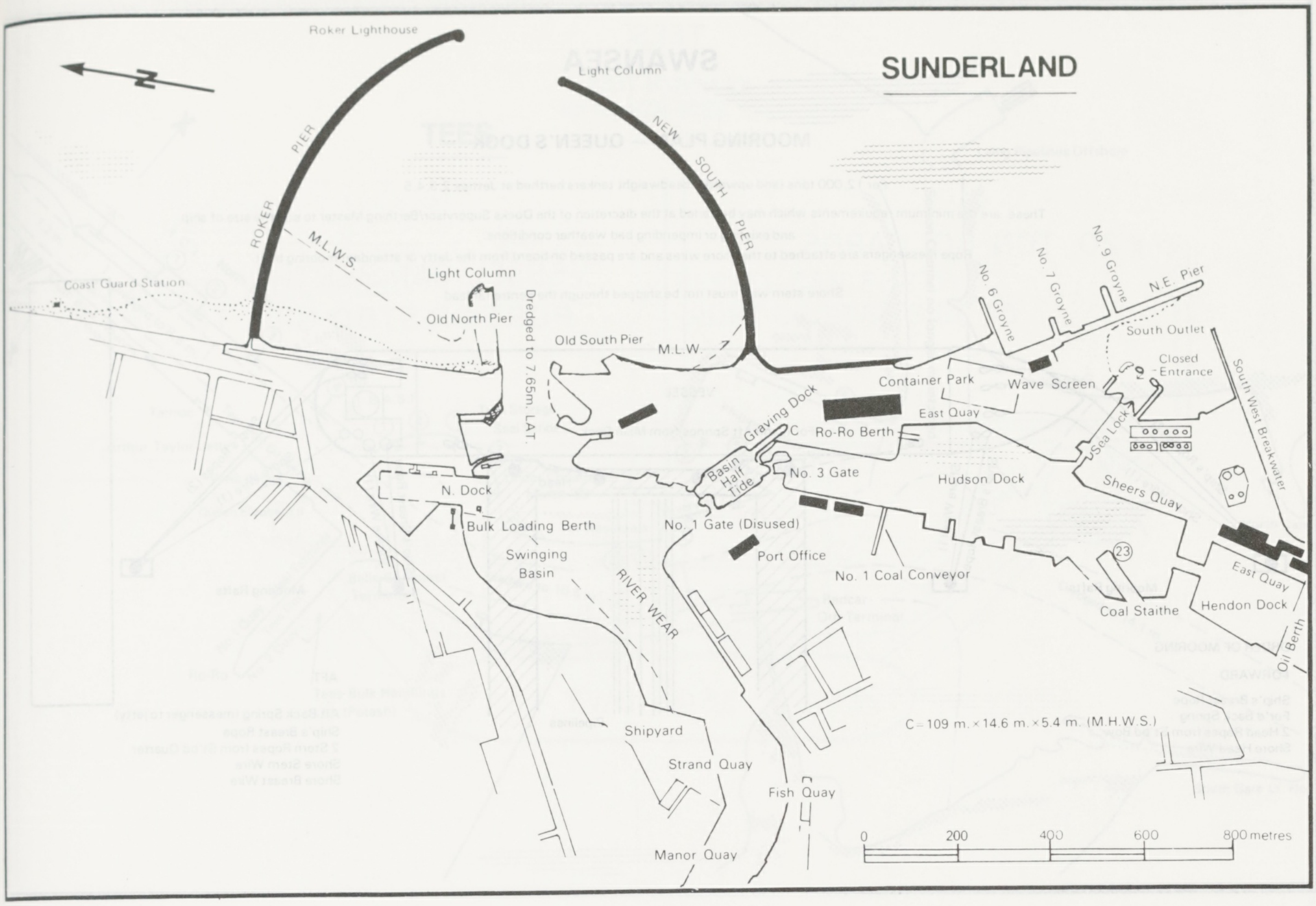
Basic minimum safe mooring arrangements for vessel having an all-wire mooring system.

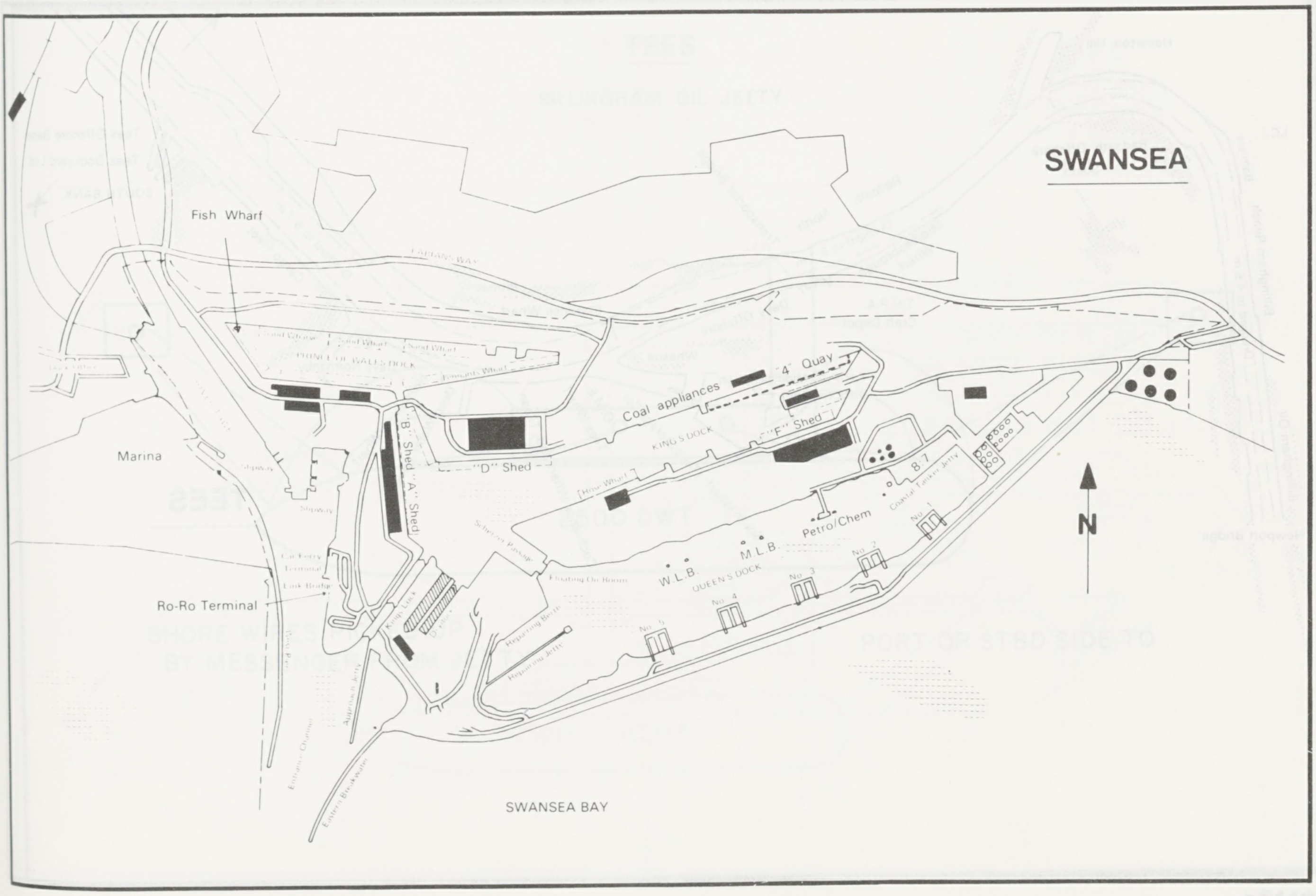
NB The small mooring hooks on MD2 and MD7 on Jetty No. 3 are suitable for use with moorings having a breaking load of 100 tonnes or less. In no circumstances must moorings having a greater breaking load than 100 tonnes be attached to these hooks.


Pulley 180 tonnes
MD0
MD1
MD2
BD3
BD4
BD5
BD6
Pulley 180 tonnes
MD7
MD8
MD0
300,000 DWT
OAL: 351m
Beam: 53.3m

No. 2, 3 & 4 JETTIES MOORING GUIDE

Not to scale


SUNDERLAND
N
Roker Lighthouse
Light Column
ROKER PIER
NEW SOUTH PIER
M.L.W.S.
Coast Guard Station
Light Column
Old North Pier
Dredged to 7.65m. LAT.
Old South Pier
M.L.W.
No 6 Groyne
No. 7 Groyne
No 9 Groyne
N.E. Pier
South Outlet
Closed Entrance
South West Breakwater
Container Park
Wave Screen
East Quay
Graving Dock
C
Ro-Ro Berth
Sea Lock
Basin Half Tide
No. 3 Gate
Hudson Dock
Sheers Quay
N. Dock
Bulk Loading Berth
No. 1 Gate (Disused)
Port Office
No. 1 Coal Conveyor
23
East Quay
Swinging Basin
RIVER WEAR
Coal Staithe
Hendon Dock
Oil Berth
C = 109 m. × 14.6 m. × 5.4 m. (M.H.W.S.)
Shipyard
Strand Quay
Fish Quay
Manor Quay
0
200
400
600
800 metres


SWANSEA
Fish Wharf
FABIANS WAY
Sand Wharf
Sand Wharf
Sand Wharf
PRINCE OF WALES DOCK
Tennants Wharf
Coal appliances
"4" Quay
"B" Shed
"A" Shed
"D" Shed
KING'S DOCK
"F" Shed
Marina
Slipway
Slipway
Rose Wharf
8.7
Coastal Tanker Jetty
Petro/Chem
M.L.B.
W.L.B.
QUEEN'S DOCK
No 1
No 2
No 3
No 4
No 5
Schelzer Passage
Floating Oil Boom
Car Ferry Terminal
Link Bridge
Ro-Ro Terminal
Kings Lock
Drydock
Repairing Berth
Repairing Jetty
Approach Jetty
Entrance Channel
Eastern Breakwater
SWANSEA BAY
N

SWANSEA

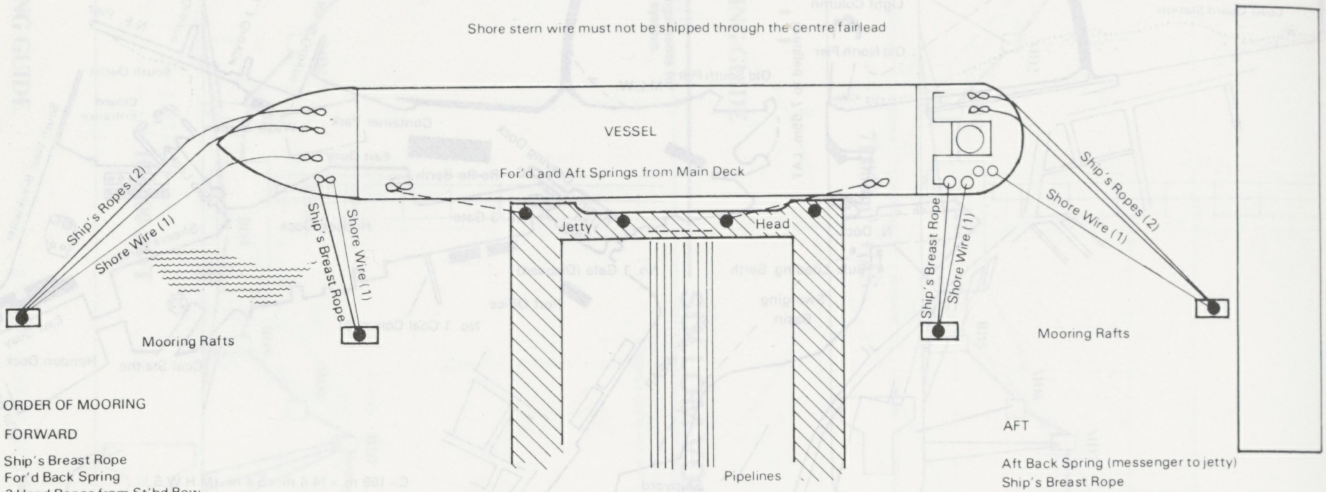
MOORING PLAN — QUEEN'S DOCK

For 12,000 tons (and upwards) deadweight tankers berthed at Jetties 2,3,4,5

These are the minimum requirements which may be varied at the discretion of the Docks Supervisor/Berthing Master to suit the size of ship and existing or impending bad weather conditions.

Rope messengers are attached to the shore wires and are passed on board from the Jetty or attendant mooring boat.

Shore stern wire must not be shipped through the centre fairlead



VESSEL
For'd and Aft Springs from Main Deck
Ship's Ropes (2)
Shore Wire (1)
Ship's Breast Rope
Shore Wire (1)
Mooring Rafts
Jetty
Head
Pipelines
Ship's Breast Rope
Shore Wire (1)
Ship's Ropes (2)
Shore Wire (1)
Mooring Rafts

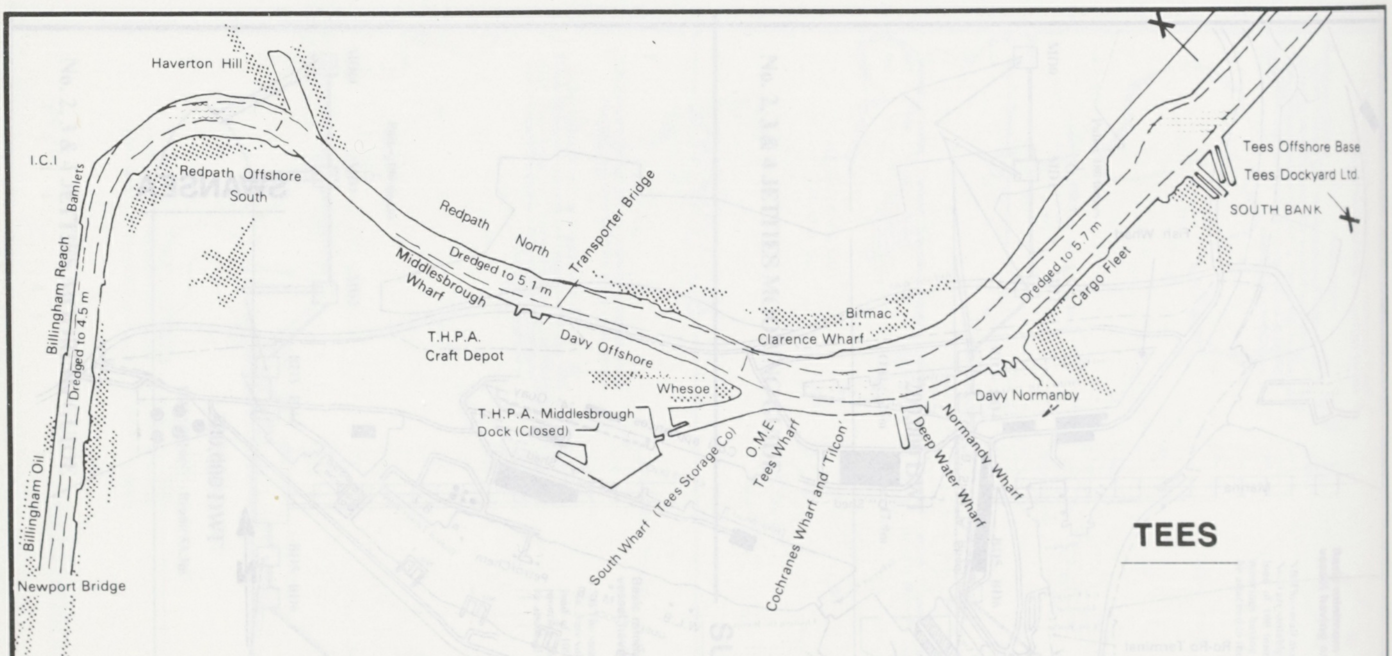
ORDER OF MOORING

FORWARD

Ship's Breast Rope
For'd Back Spring
2 Head Ropes from St'bd Bow
Shore Head Wire

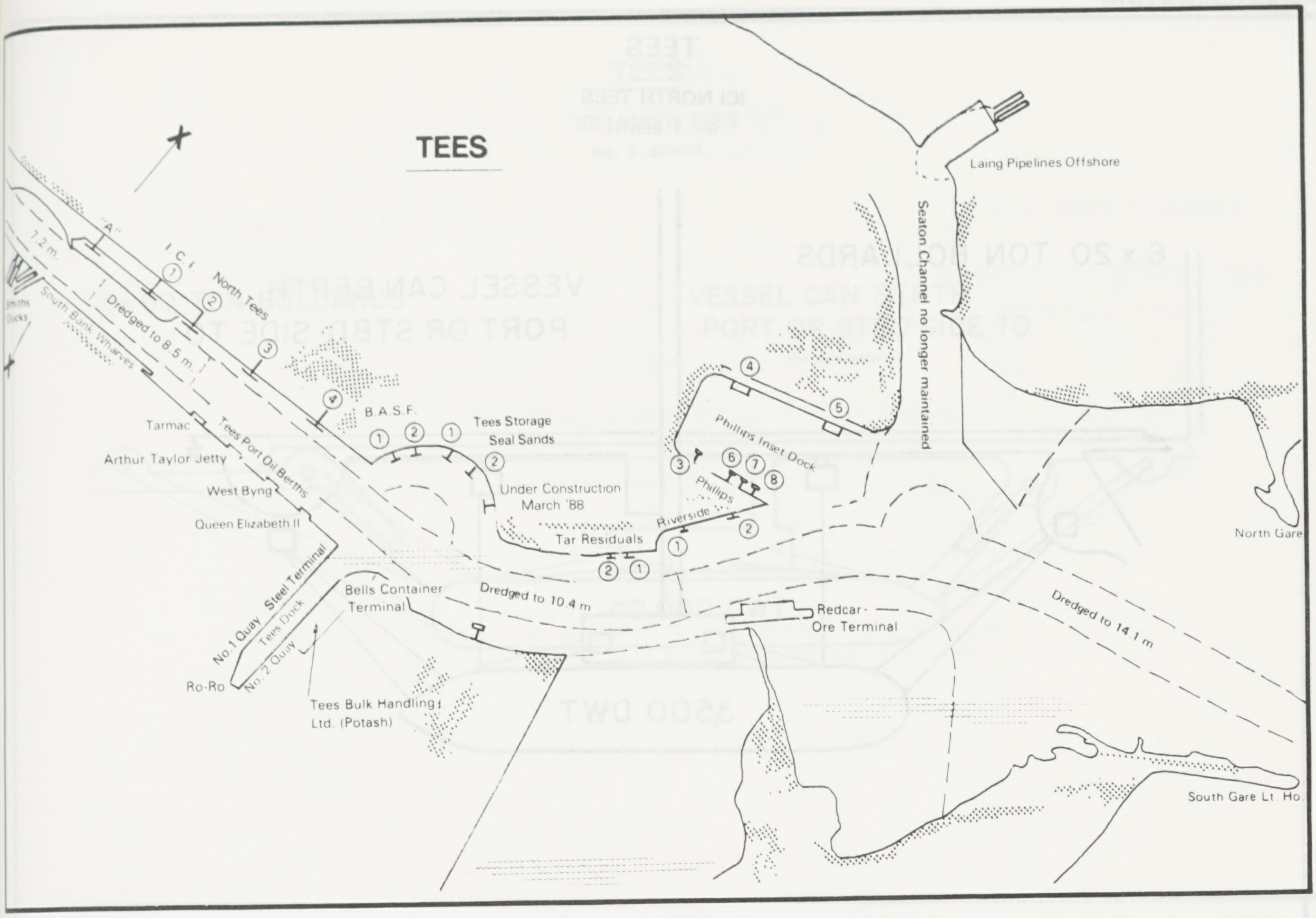
AFT

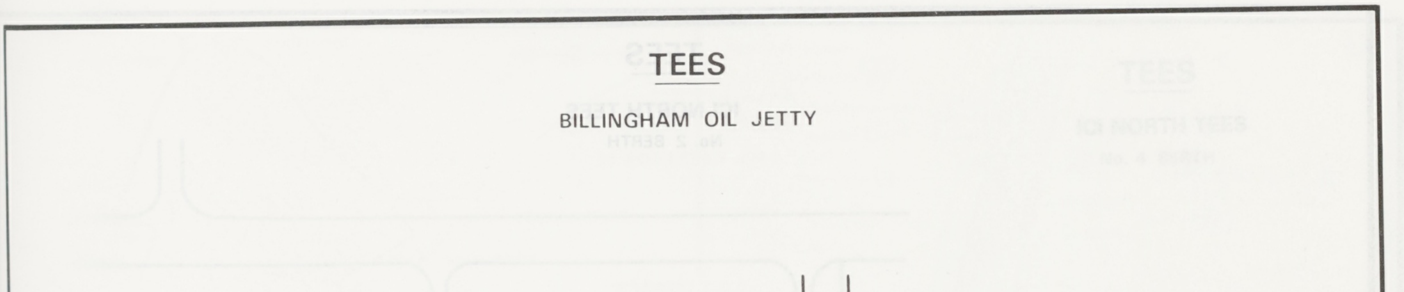
Aft Back Spring (messenger to jetty)
Ship's Breast Rope
2 Stern Ropes from St'bd Quarter
Shore Stern Wire
Shore Breast Wire



Haverton Hill
I.C.I
Bamlets
Redpath Offshore South
Billingham Reach
Dredged to 4.5 m
Billingham Oil
Newport Bridge
Redpath North
Transporter Bridge
Dredged to 5.1 m
Middlesbrough Wharf
T.H.P.A. Craft Depot
Davy Offshore
Whesoe
T.H.P.A. Middlesbrough Dock (Closed)
South Wharf (Tees Storage Co)
O.M.E. Tees Wharf
Cochranes Wharf and 'Tilcon'
Deep Water Wharf
Normandy Wharf
Davy Normanby
Clarence Wharf
Bitmac
Cargo Fleet
Dredged to 5.7 m
Tees Offshore Base
Tees Dockyard Ltd.
SOUTH BANK

TEES

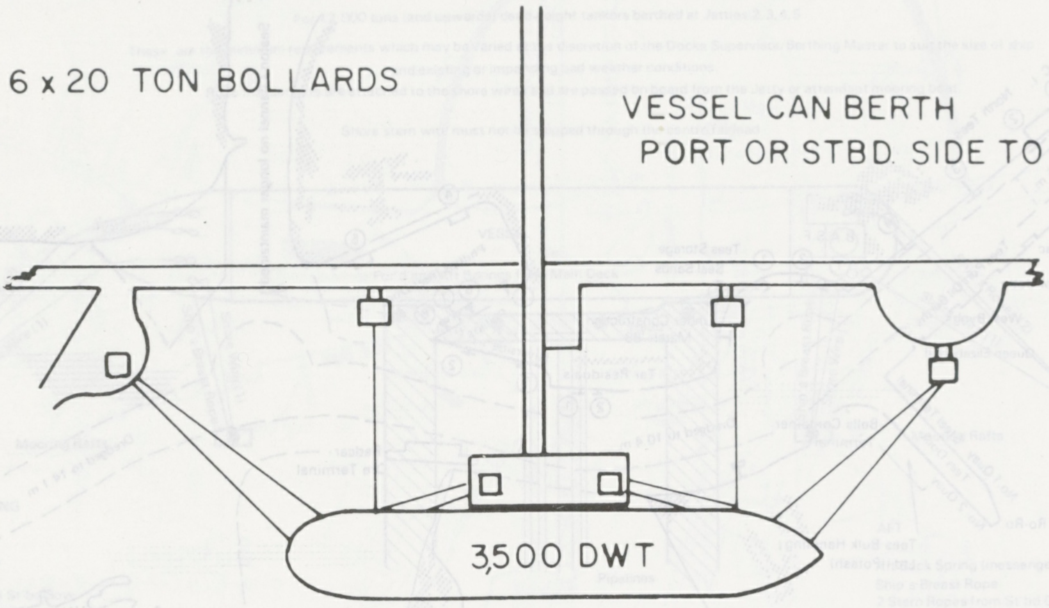

TEES
"A"
I C I
North Tees
7.2 m.
Smiths Docks
South Bank Wharves
Dredged to 8.5 m.
① ② ③ ④
B.A.S.F.
① ② ①
Tees Storage
Seal Sands
②
Tarmac
Tees Port Oil Berths
Arthur Taylor Jetty
West Byng
Queen Elizabeth II
Under Construction
March '88
Tar Residuals
② ①
Steel Terminal
No.1 Quay
Tees Dock
No.2 Quay
Ro-Ro
Bells Container
Terminal
Tees Bulk Handling
Ltd. (Potash)
Dredged to 10.4 m
Riverside
① ②
Phillips
Phillips Inset Dock
③ ④ ⑤ ⑥ ⑦ ⑧
Seaton Channel no longer maintained
Laing Pipelines Offshore
North Gare
Redcar
Ore Terminal
Dredged to 14.1 m
South Gare Lt. Ho.


TEES
BILLINGHAM OIL JETTY
2,500 DWT
SHORE WIRES PICKED UP
BY MESSENGER FROM JETTY
PORT OR STBD SIDE TO

TEES

ICI NORTH TEES

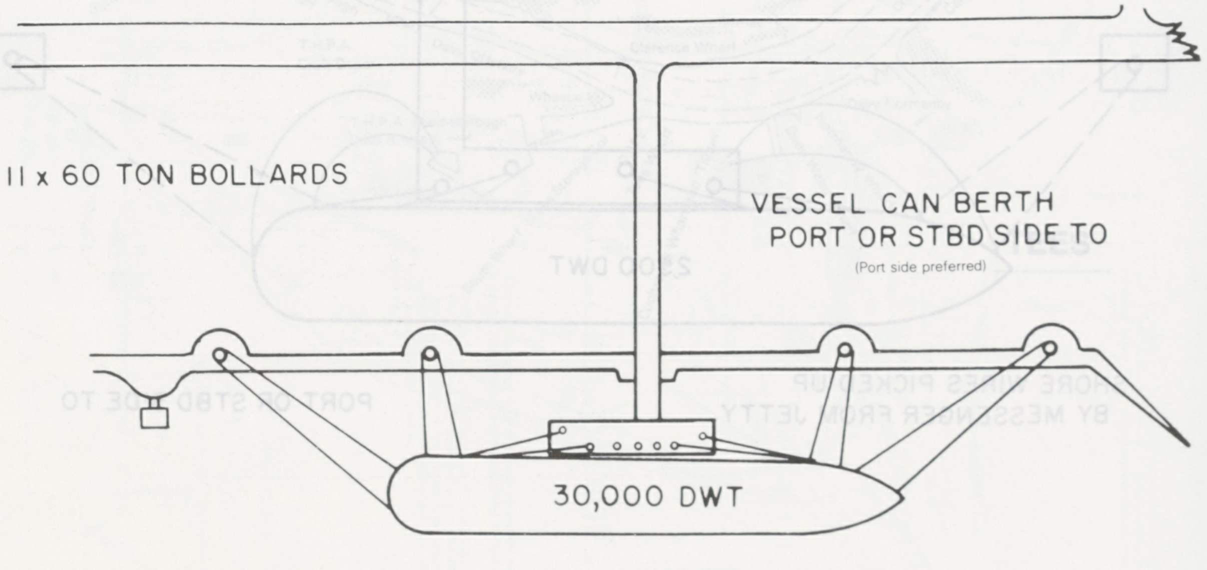
No. 1 BERTH

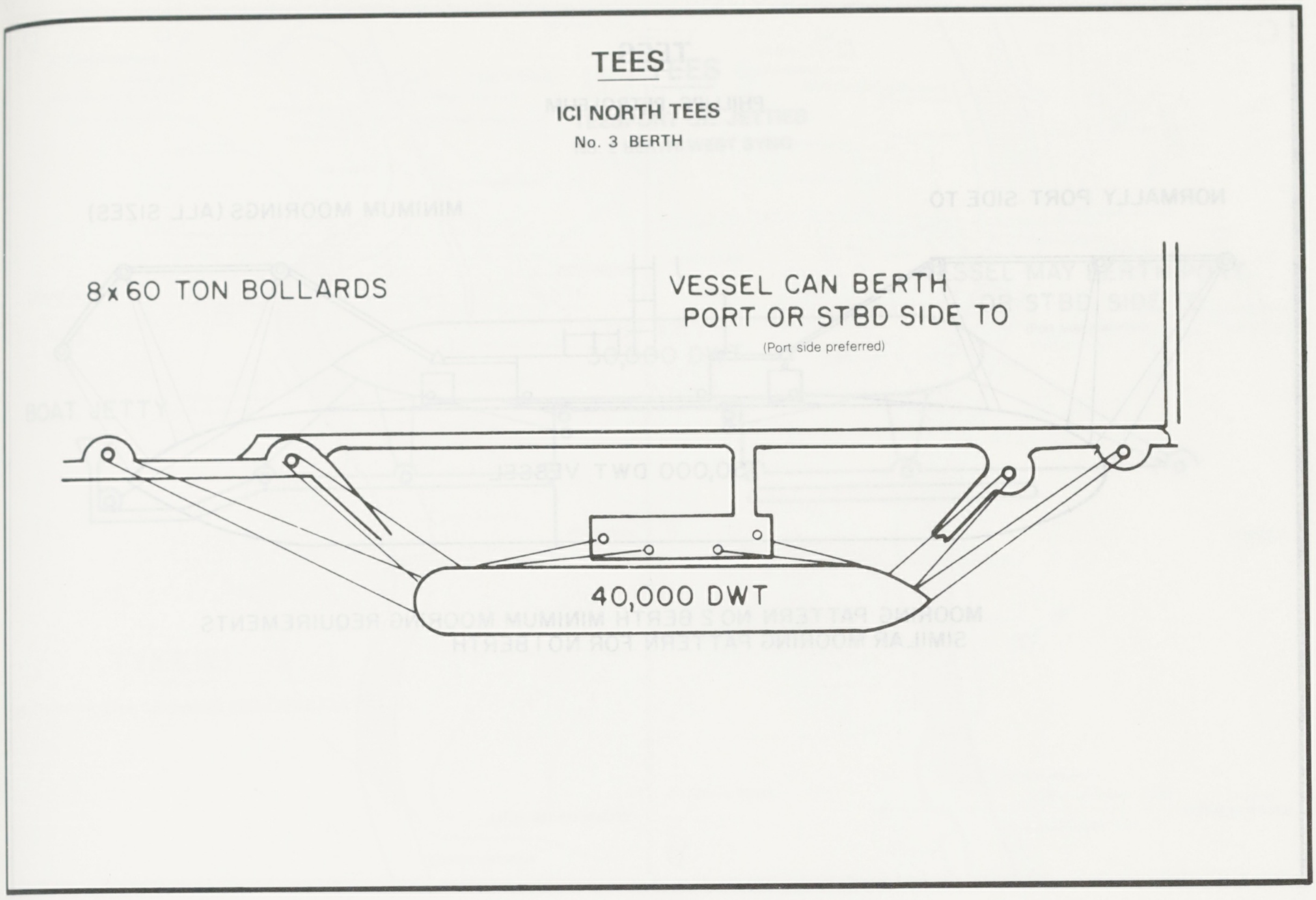

6 x 20 TON BOLLARDS
VESSEL CAN BERTH
PORT OR STBD. SIDE TO
3,500 DWT

TEES

ICI NORTH TEES

No. 2 BERTH


11 x 60 TON BOLLARDS
VESSEL CAN BERTH
PORT OR STBD SIDE TO
(Port side preferred)
30,000 DWT

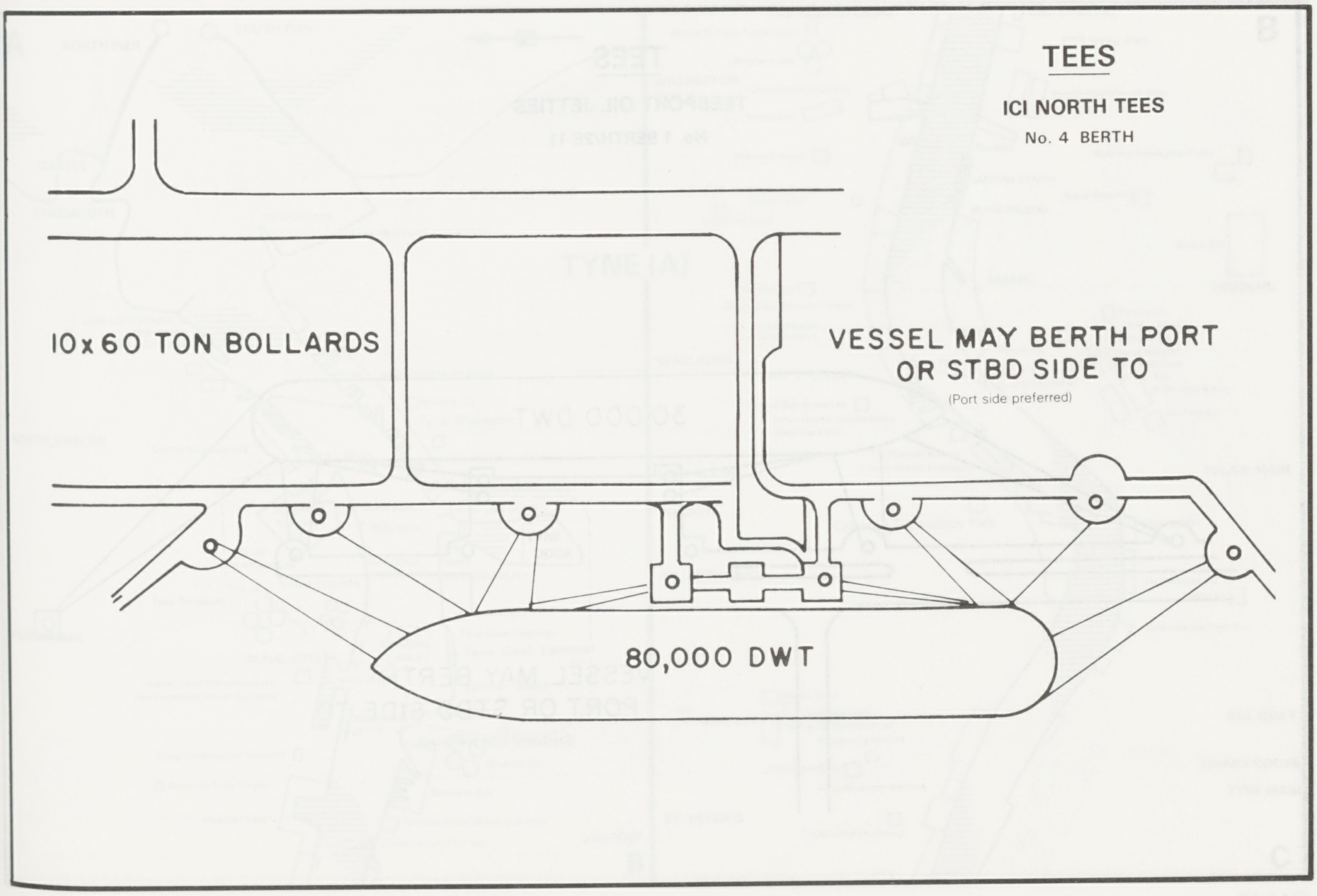


TEES

ICI NORTH TEES

No. 3 BERTH

8x60 TON BOLLARDS
VESSEL CAN BERTH PORT OR STBD SIDE TO
(Port side preferred)
40,000 DWT



TEES

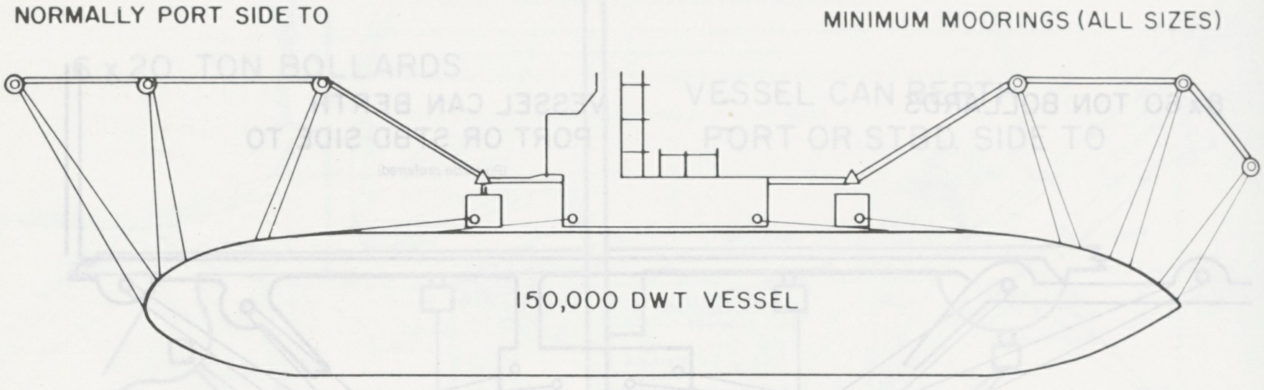
ICI NORTH TEES

No. 4 BERTH

10x60 TON BOLLARDS
VESSEL MAY BERTH PORT OR STBD SIDE TO
(Port side preferred)
80,000 DWT

TEES

PHILLIPS PETROLEUM

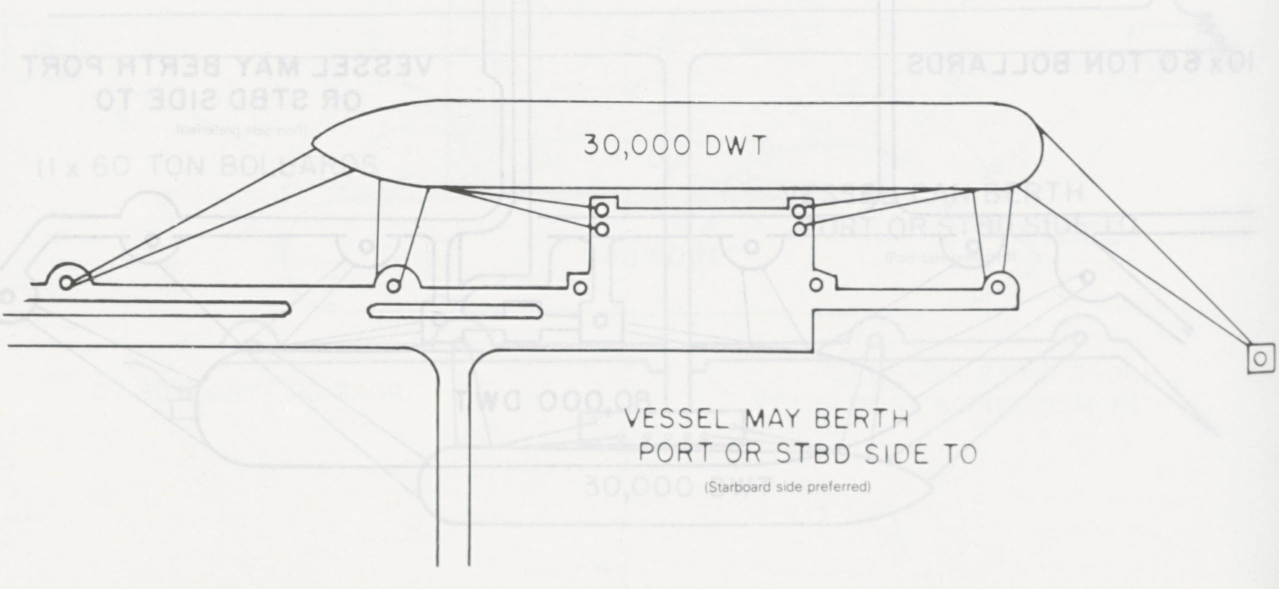

NORMALLY PORT SIDE TO
MINIMUM MOORINGS (ALL SIZES)
150,000 DWT VESSEL

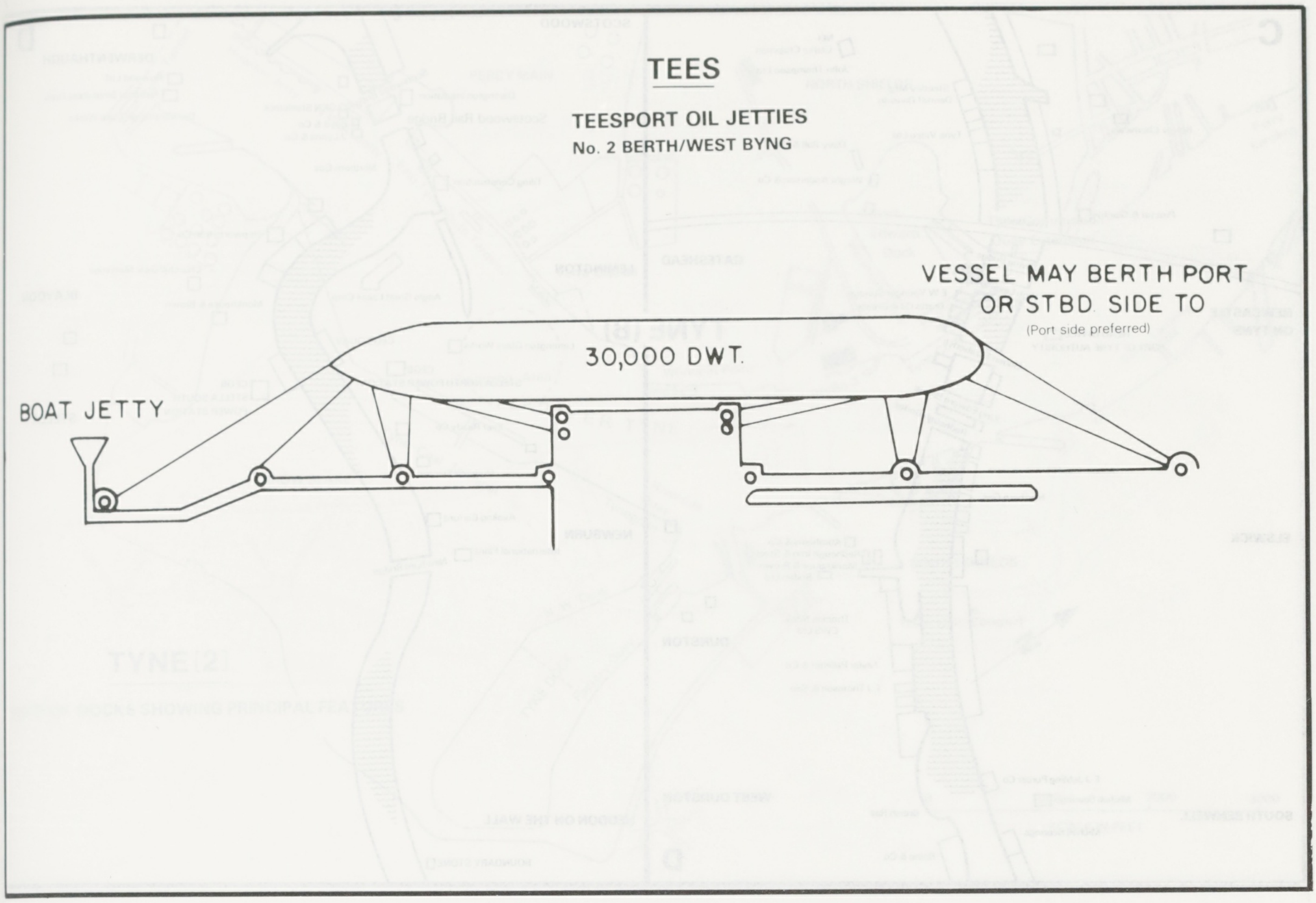
MOORING PATTERN NO 2 BERTH MINIMUM MOORING REQUIREMENTS
SIMILAR MOORING PATTERN FOR NO I BERTH

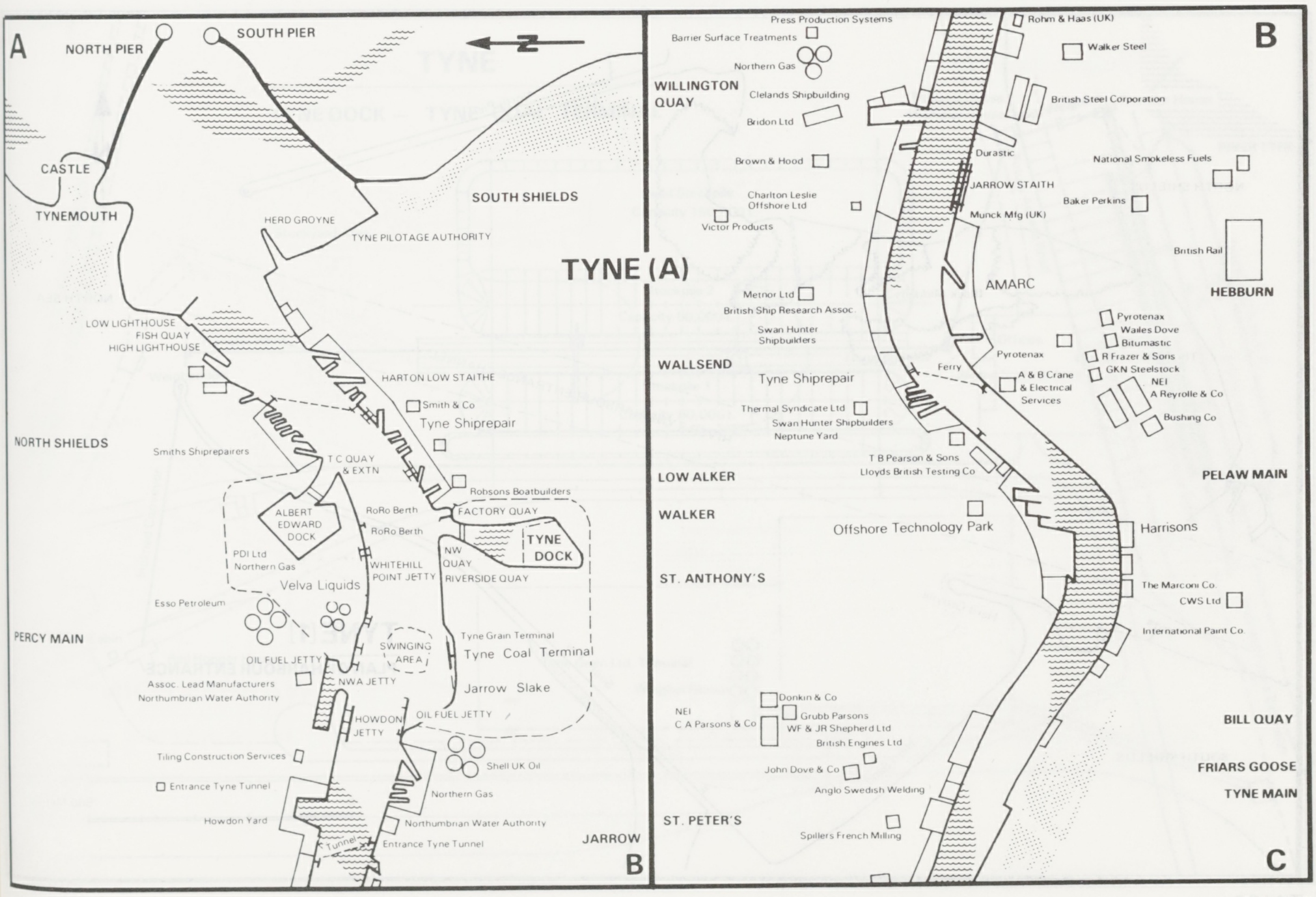
TEES

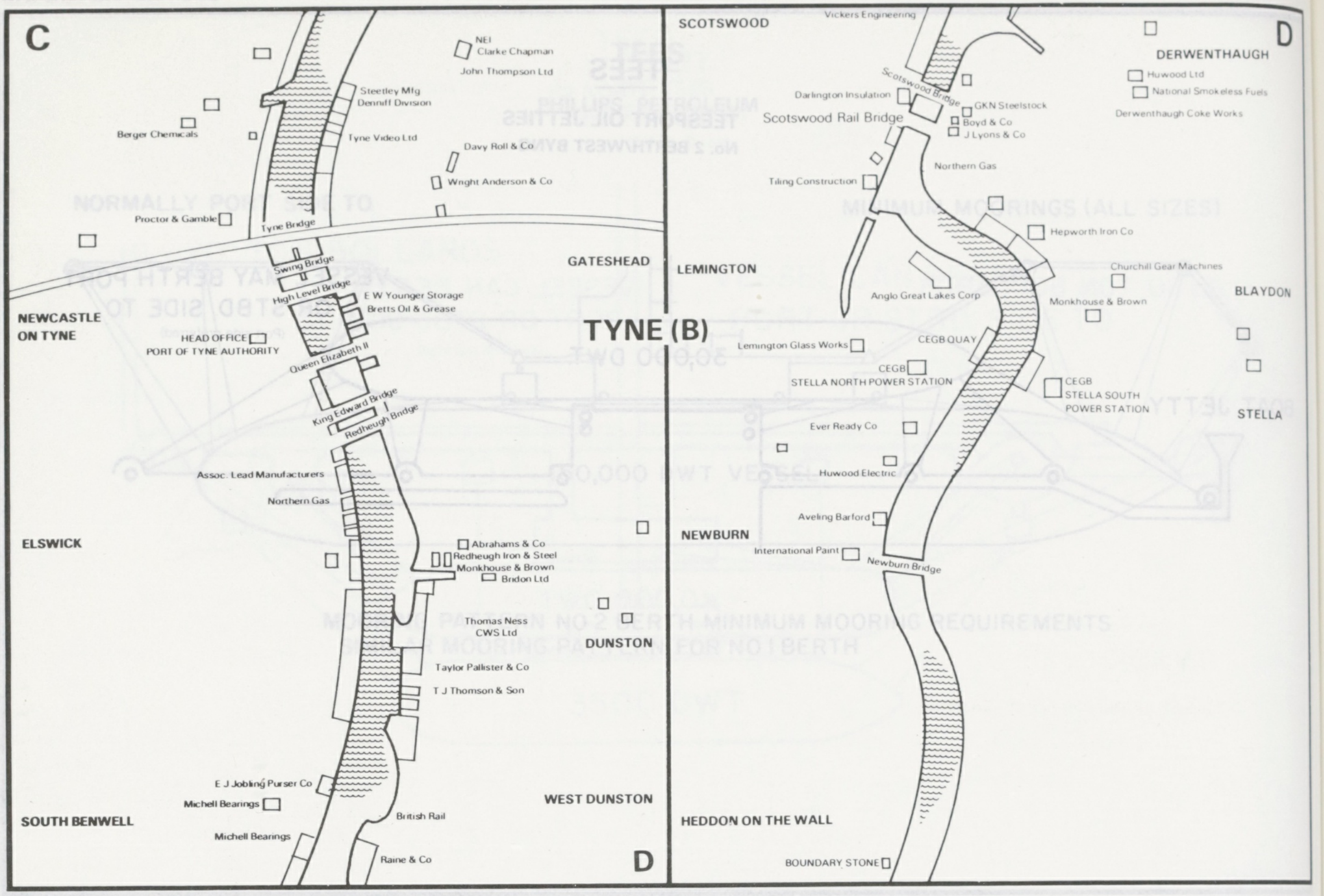
TEESPORT OIL JETTIES

No. 1 BERTH/2E 11

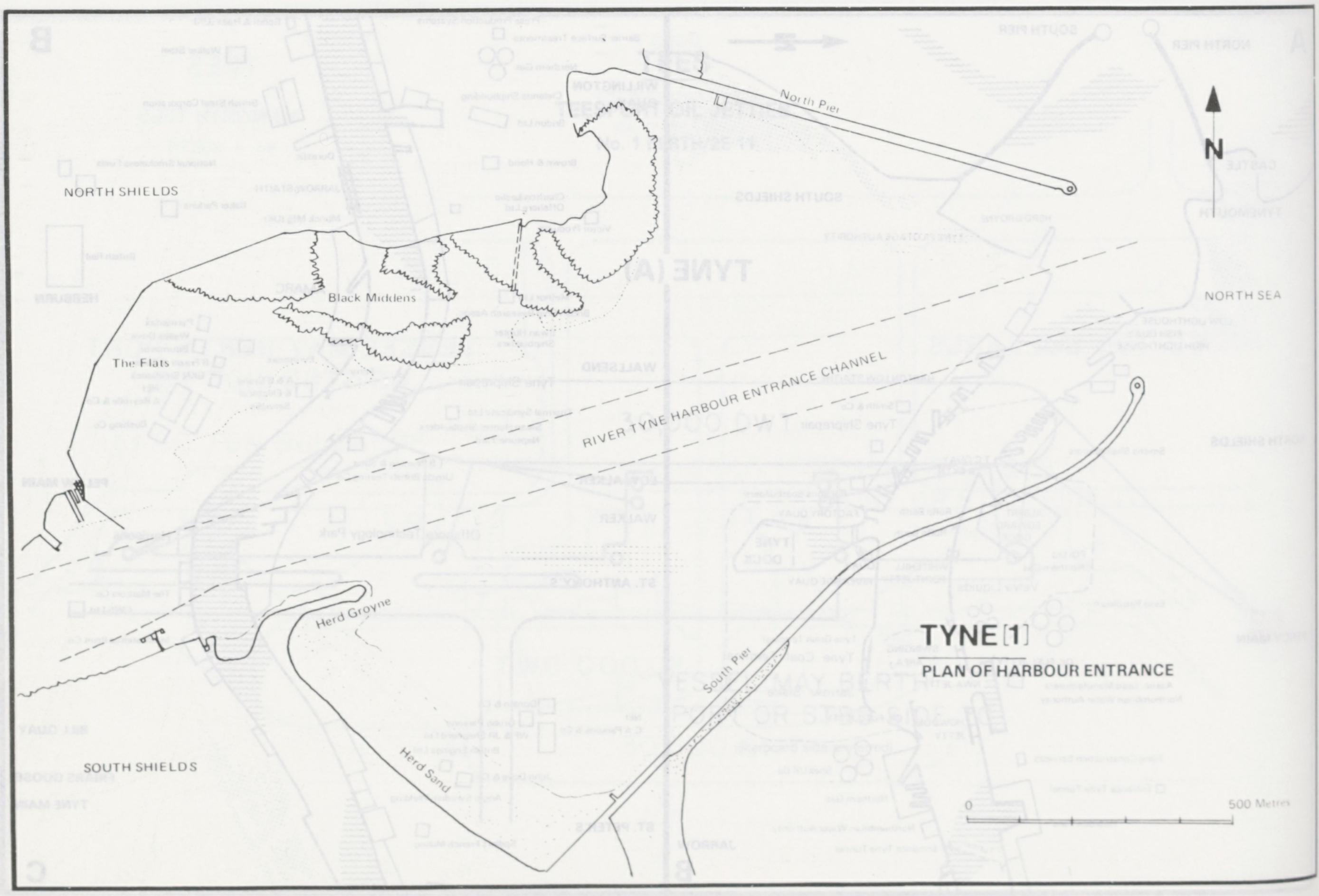

30,000 DWT
VESSEL MAY BERTH
PORT OR STBD SIDE TO
(Starboard side preferred)


TEES
TEESPORT OIL JETTIES
No. 2 BERTH/WEST BYNG
VESSEL MAY BERTH PORT OR STBD. SIDE TO
(Port side preferred)
30,000 DWT.
BOAT JETTY


TYNE (A)
A
NORTH PIER
SOUTH PIER
N
CASTLE
TYNEMOUTH
SOUTH SHIELDS
HERD GROYNE
TYNE PILOTAGE AUTHORITY
LOW LIGHTHOUSE
FISH QUAY
HIGH LIGHTHOUSE
HARTON LOW STAITHE
Smith & Co
Tyne Shiprepair
NORTH SHIELDS
Smiths Shiprepairers
T C QUAY & EXTN
Robsons Boatbuilders
ALBERT EDWARD DOCK
RoRo Berth
RoRo Berth
FACTORY QUAY
TYNE DOCK
PDI Ltd
Northern Gas
NW QUAY
WHITEHILL POINT JETTY
RIVERSIDE QUAY
Velva Liquids
Esso Petroleum
PERCY MAIN
SWINGING AREA
Tyne Grain Terminal
Tyne Coal Terminal
OIL FUEL JETTY
Assoc. Lead Manufacturers
Northumbrian Water Authority
NWA JETTY
Jarrow Slake
HOWDON JETTY
OIL FUEL JETTY
Tiling Construction Services
Shell UK Oil
Entrance Tyne Tunnel
Northern Gas
Howdon Yard
Northumbrian Water Authority
Tunnel
Entrance Tyne Tunnel
JARROW
B
Press Production Systems
Rohm & Haas (UK)
B
Barrier Surface Treatments
Walker Steel
Northern Gas
WILLINGTON QUAY
Clelands Shipbuilding
British Steel Corporation
Bridon Ltd
Durastic
National Smokeless Fuels
Brown & Hood
JARROW STAITH
Charlton Leslie Offshore Ltd
Baker Perkins
Munck Mfg (UK)
Victor Products
British Rail
AMARC
HEBBURN
Metnor Ltd
British Ship Research Assoc.
Swan Hunter Shipbuilders
Pyrotenax
Wailes Dove
Bitumastic
WALLSEND
Pyrotenax
R Frazer & Sons
Ferry
GKN Steelstock
A & B Crane & Electrical Services
NEI
A Reyrolle & Co
Tyne Shiprepair
Thermal Syndicate Ltd
Bushing Co
Swan Hunter Shipbuilders
Neptune Yard
T B Pearson & Sons
Lloyds British Testing Co
LOW ALKER
PELAW MAIN
WALKER
Offshore Technology Park
Harrisons
ST. ANTHONY'S
The Marconi Co.
CWS Ltd
International Paint Co
Donkin & Co
NEI
C A Parsons & Co
Grubb Parsons
WF & JR Shepherd Ltd
British Engines Ltd
BILL QUAY
John Dove & Co
FRIARS GOOSE
Anglo Swedish Welding
TYNE MAIN
ST. PETER'S
Spillers French Milling
C

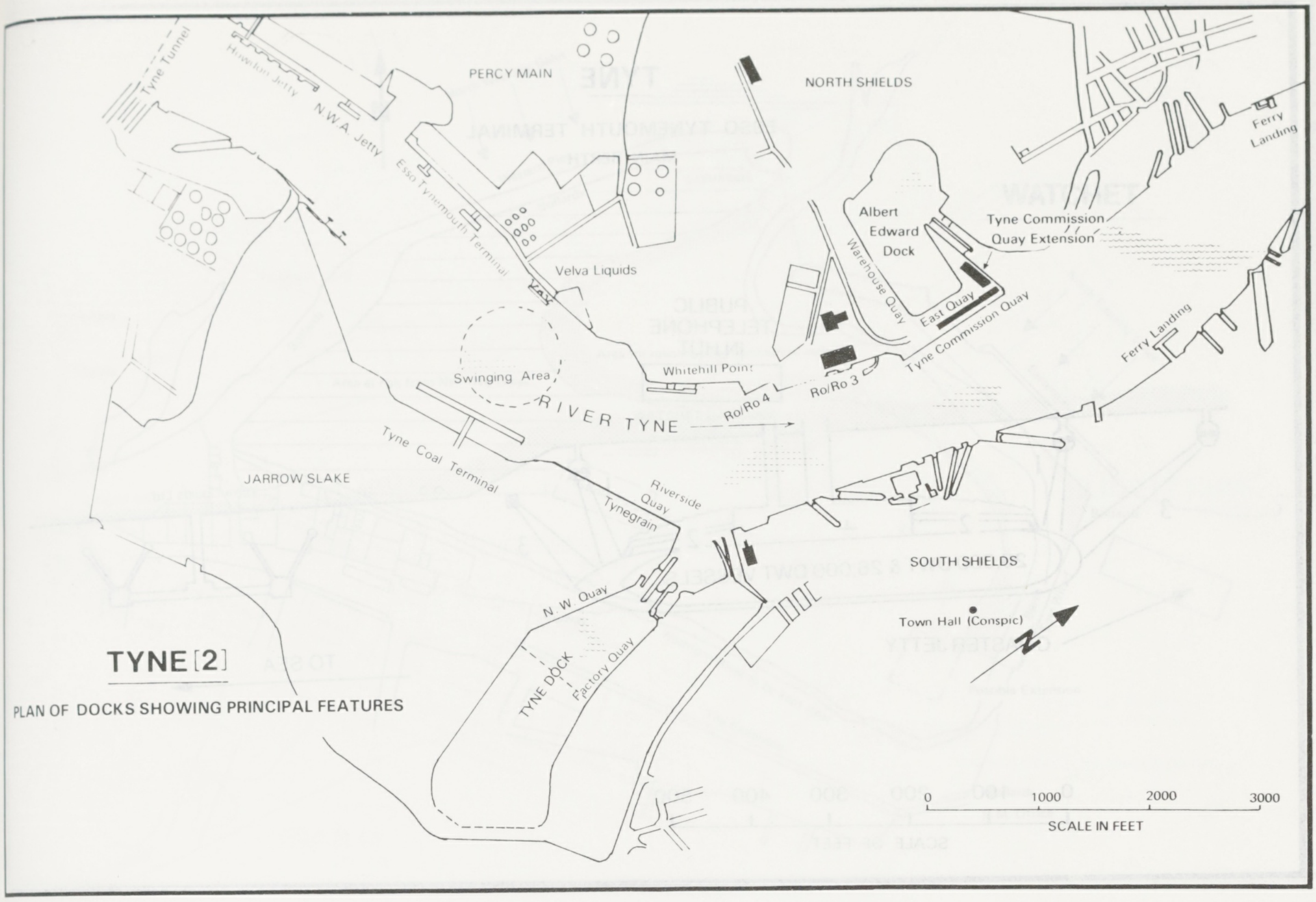

C
NEI
Clarke Chapman
John Thompson Ltd
Steetley Mfg
Denniff Division
Berger Chemicals
Tyne Video Ltd
Davy Roll & Co
Wright Anderson & Co
Proctor & Gamble
Tyne Bridge
Swing Bridge
High Level Bridge
GATESHEAD
E W Younger Storage
Bretts Oil & Grease
NEWCASTLE
ON TYNE
HEAD OFFICE
PORT OF TYNE AUTHORITY
Queen Elizabeth II
King Edward Bridge
Redheugh Bridge
Assoc. Lead Manufacturers
Northern Gas
ELSWICK
Abrahams & Co
Redheugh Iron & Steel
Monkhouse & Brown
Bridon Ltd
Thomas Ness
CWS Ltd
DUNSTON
Taylor Pallister & Co
T J Thomson & Son
E J Jobling Purser Co
Michell Bearings
SOUTH BENWELL
Michell Bearings
British Rail
WEST DUNSTON
Raine & Co
D
SCOTSWOOD
Vickers Engineering
D
DERWENTHAUGH
Huwood Ltd
National Smokeless Fuels
Derwenthaugh Coke Works
Darlington Insulation
Scotswood Bridge
GKN Steelstock
Boyd & Co
J Lyons & Co
Scotswood Rail Bridge
Northern Gas
Tiling Construction
Hepworth Iron Co
LEMINGTON
Churchill Gear Machines
Anglo Great Lakes Corp
Monkhouse & Brown
BLAYDON
Lemington Glass Works
CEGB QUAY
CEGB
STELLA NORTH POWER STATION
CEGB
STELLA SOUTH
POWER STATION
STELLA
Ever Ready Co
Huwood Electric
Aveling Barford
NEWBURN
International Paint
Newburn Bridge
HEDDON ON THE WALL
BOUNDARY STONE

TYNE (B)


North Pier
N
NORTH SHIELDS
Black Middens
The Flats
NORTH SEA
RIVER TYNE HARBOUR ENTRANCE CHANNEL
South Pier
Herd Groyne
SOUTH SHIELDS
Herd Sand
0
500 Metres

TYNE [1]

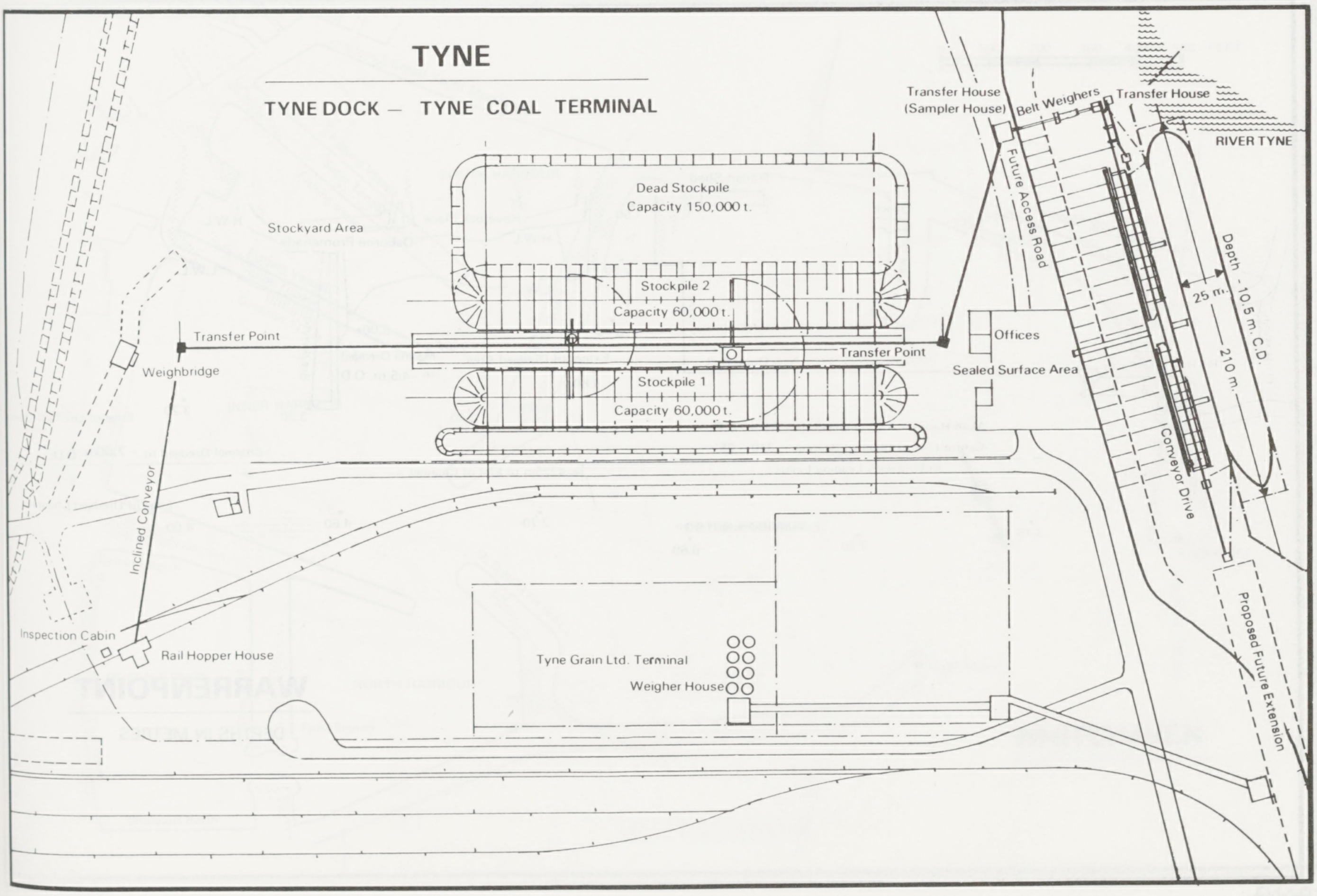
PLAN OF HARBOUR ENTRANCE



TYNE [2]

PLAN OF DOCKS SHOWING PRINCIPAL FEATURES

Tyne Tunnel
Howdon Jetty
N.W.A. Jetty
Esso Tynemouth Terminal
PERCY MAIN
NORTH SHIELDS
Ferry Landing
Albert
Edward
Dock
Tyne Commission
Quay Extension
Warehouse Quay
East Quay
Tyne Commission Quay
Velva Liquids
Swinging Area
Whitehill Point
Ro/Ro 4
Ro/Ro 3
Ferry Landing
RIVER TYNE
JARROW SLAKE
Tyne Coal Terminal
Riverside Quay
Tynegrain
SOUTH SHIELDS
N. W. Quay
Town Hall (Conspic)
N
TYNE DOCK
Factory Quay
0
1000
2000
3000
SCALE IN FEET



TYNE

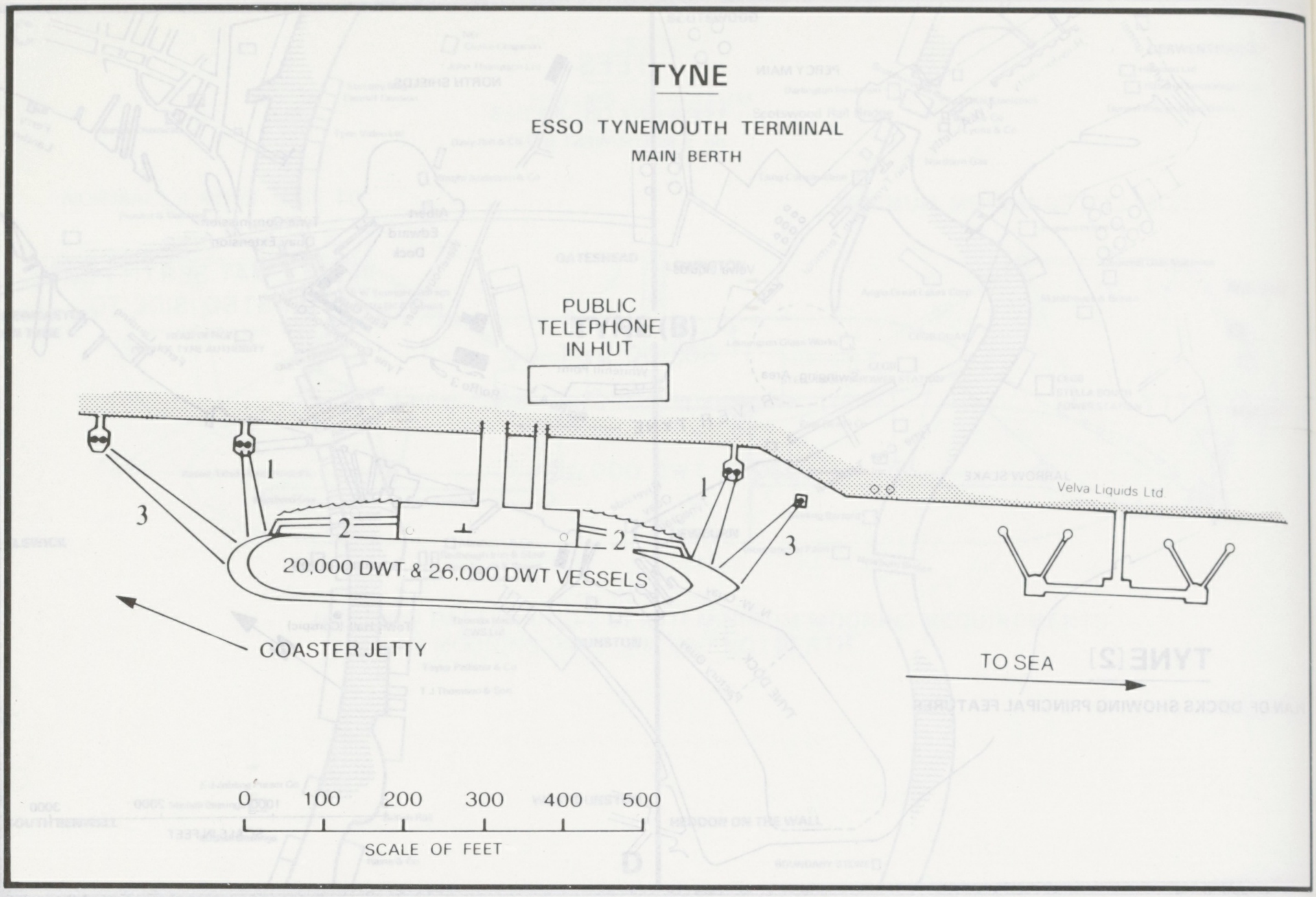
TYNE DOCK – TYNE COAL TERMINAL

Transfer House
(Sampler House)
Belt Weighers
Transfer House
RIVER TYNE
Dead Stockpile
Capacity 150,000 t.
Stockyard Area
Future Access Road
Stockpile 2
Capacity 60,000 t.
25 m.
Depth - 10.5 m. C.D.
Transfer Point
Offices
Weighbridge
Transfer Point
Sealed Surface Area
210 m.
Stockpile 1
Capacity 60,000 t.
Conveyor Drive
Inclined Conveyor
Inspection Cabin
Rail Hopper House
Tyne Grain Ltd. Terminal
Weigher House
Proposed Future Extension

TYNE

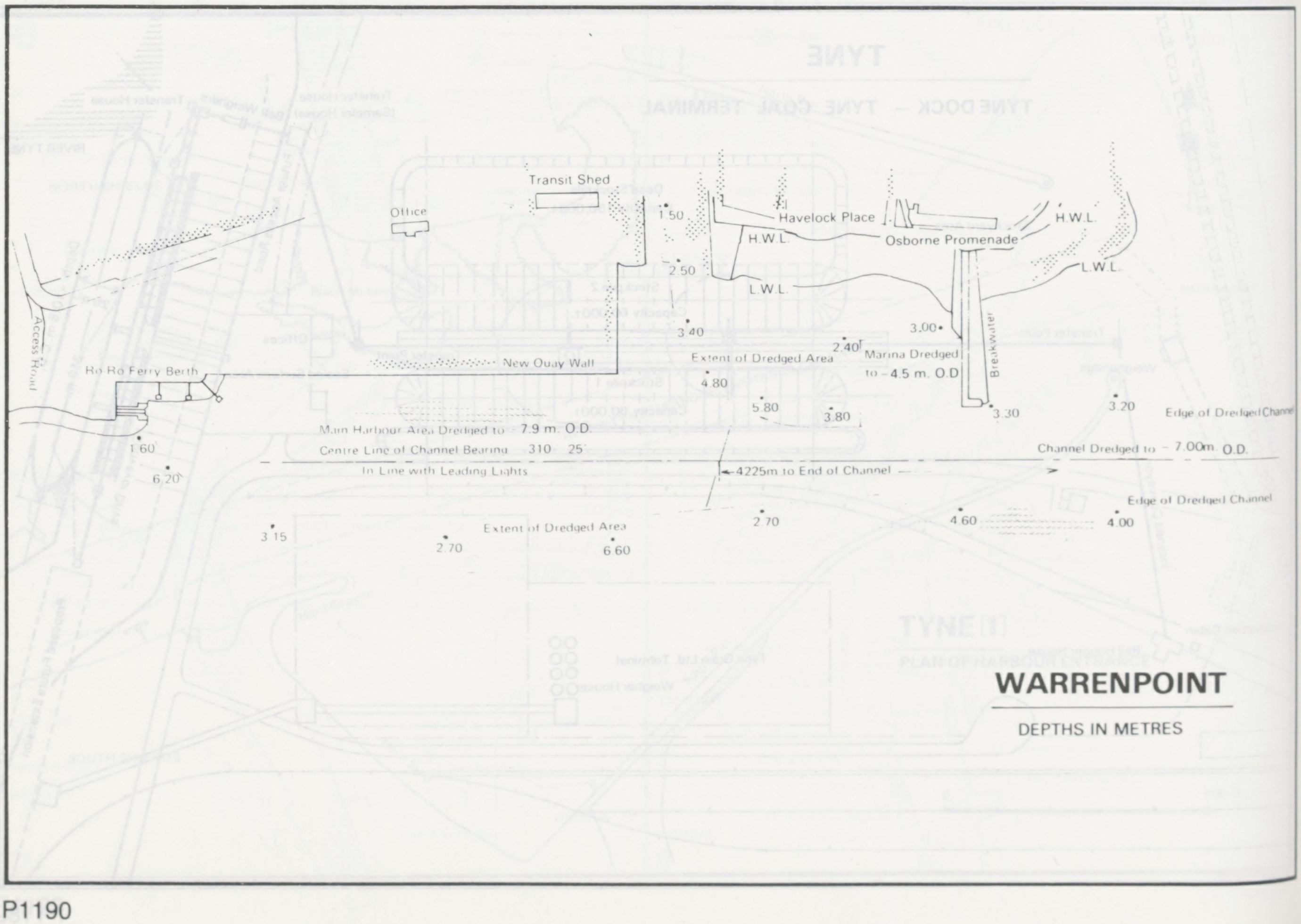
ESSO TYNEMOUTH TERMINAL

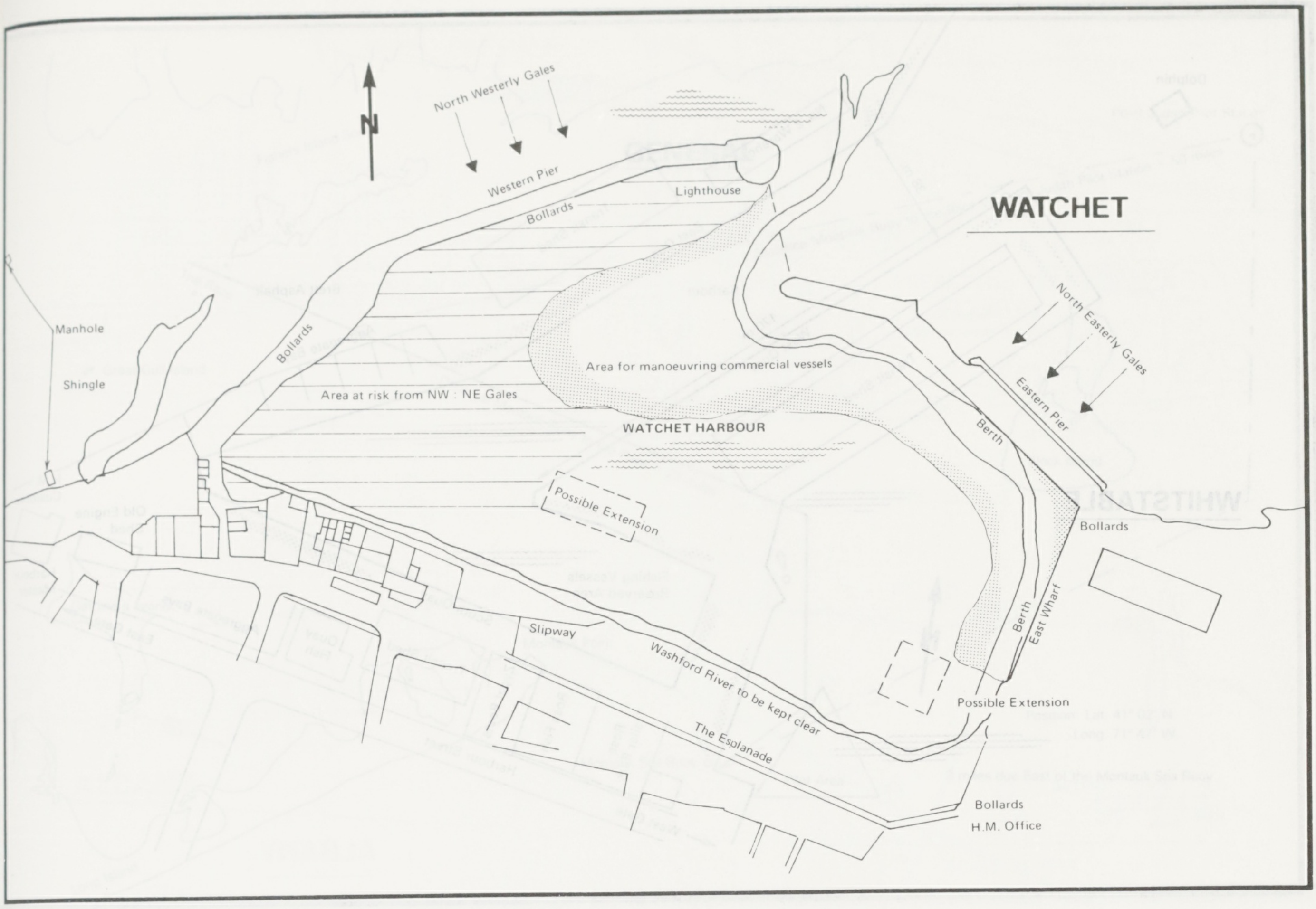
MAIN BERTH

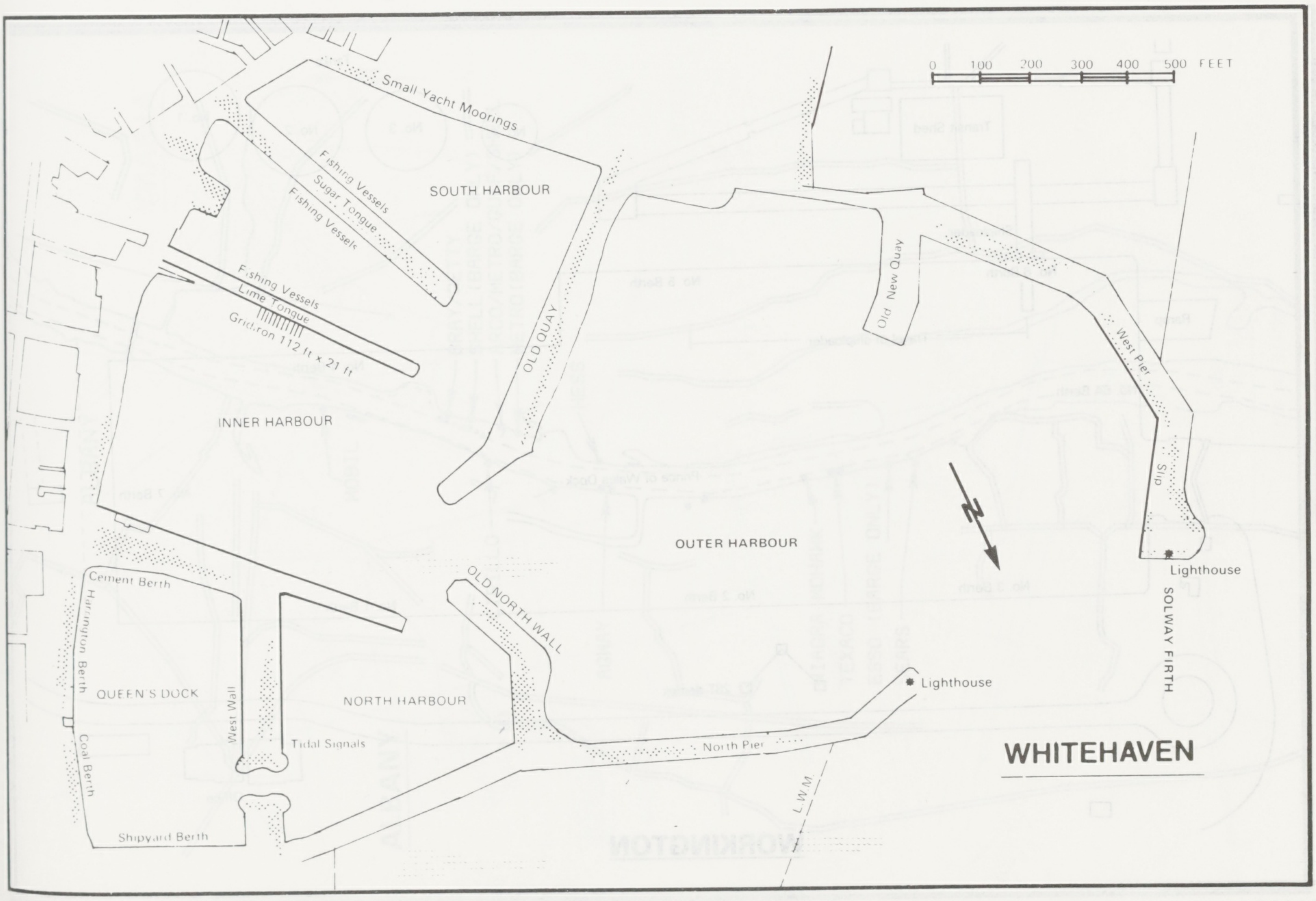

PUBLIC
TELEPHONE
IN HUT
1
3
2
2
1
3
20,000 DWT & 26,000 DWT VESSELS
COASTER JETTY
Velva Liquids Ltd
TO SEA
0
100
200
300
400
500
SCALE OF FEET

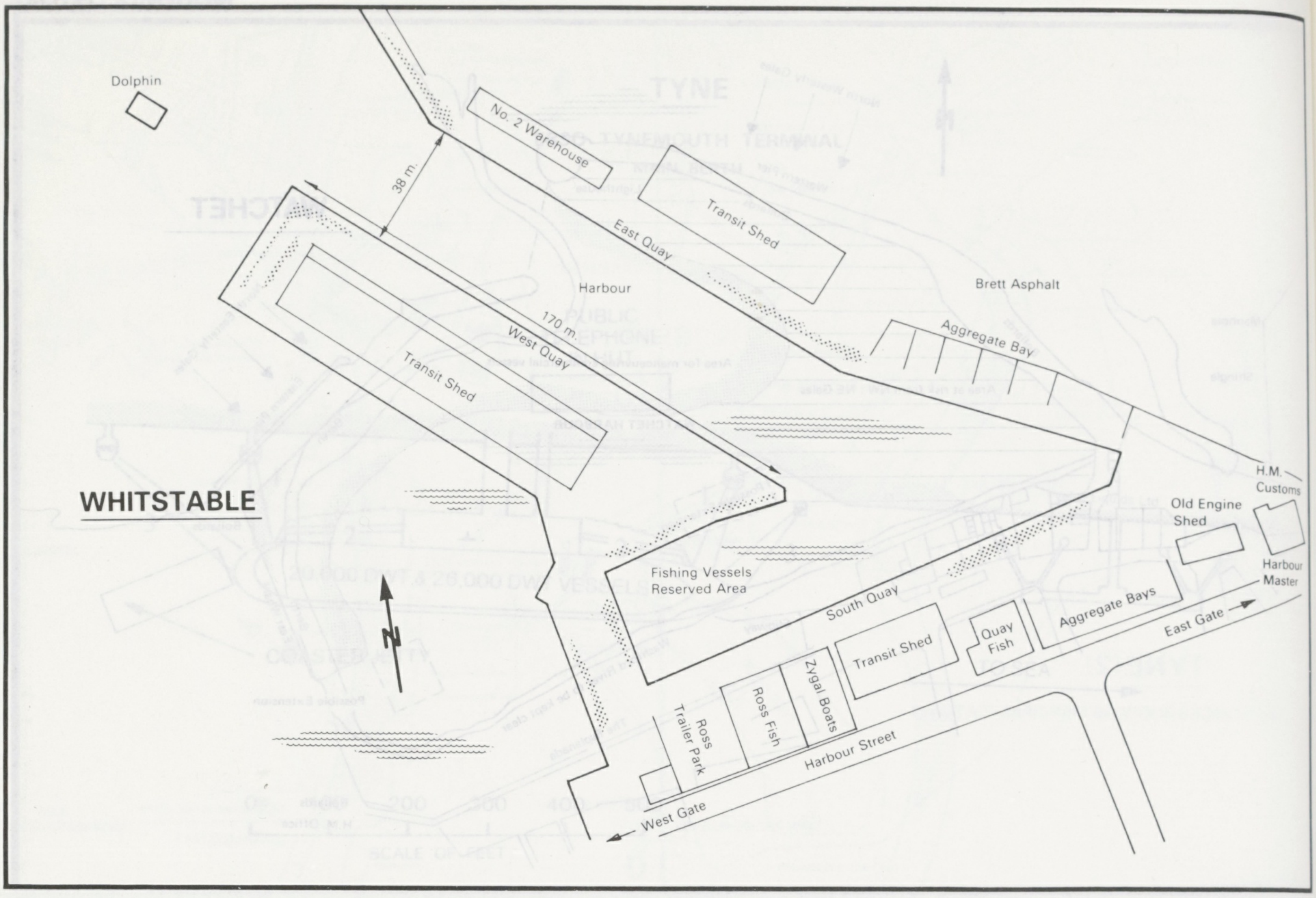
WARRENPOINT

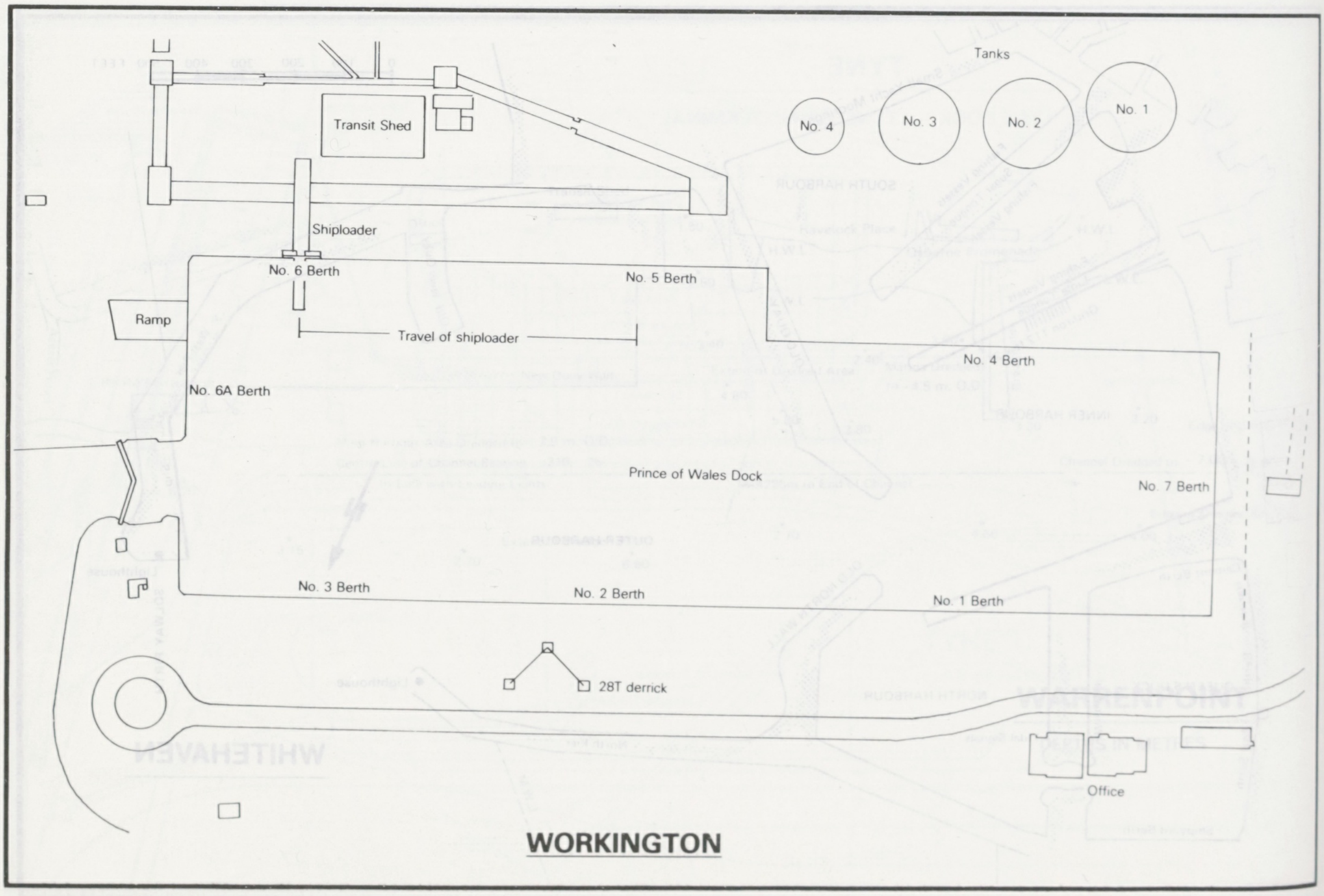
DEPTHS IN METRES


Transit Shed
Office
1.50
Havelock Place
H.W.L.
Osborne Promenade
H.W.L.
2.50
L.W.L.
L.W.L.
Access Road
3.40
3.00
Breakwater
2.40
Marina Dredged
to −4.5 m. O.D
Extent of Dredged Area
New Quay Wall
Ro Ro Ferry Berth
4.80
5.80
3.80
3.30
3.20
Edge of Dredged Channel
Main Harbour Area Dredged to 7.9 m. O.D.
Centre Line of Channel Bearing 310 25'
Channel Dredged to − 7.00m. O.D.
In Line with Leading Lights
4225m to End of Channel
1.60
6.20
Edge of Dredged Channel
3.15
2.70
Extent of Dredged Area
6.60
2.70
4.60
4.00

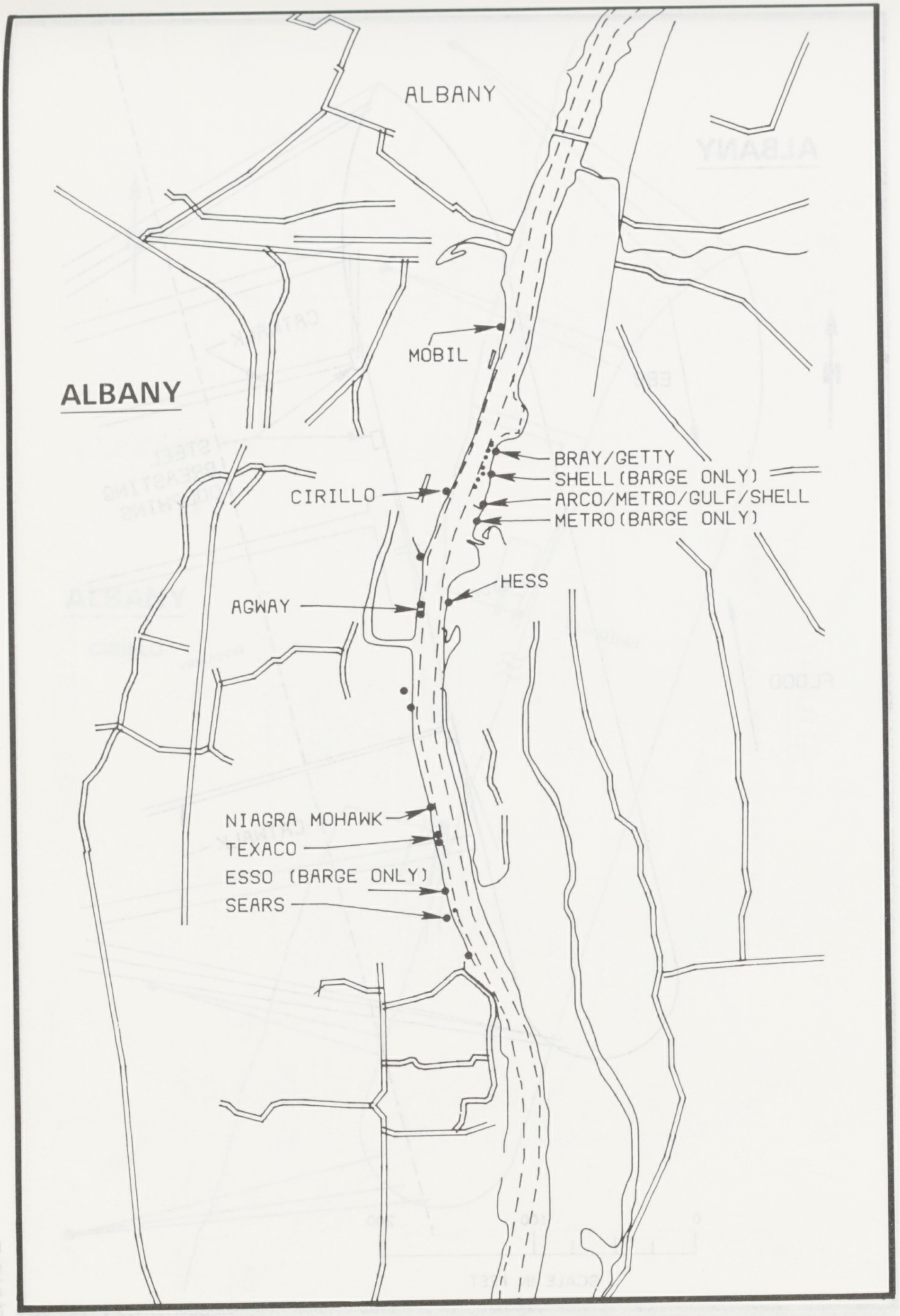

N
North Westerly Gales
Western Pier
Bollards
Lighthouse
WATCHET
Manhole
Shingle
Bollards
Area at risk from NW : NE Gales
Area for manoeuvring commercial vessels
WATCHET HARBOUR
North Easterly Gales
Eastern Pier
Berth
Possible Extension
Bollards
Slipway
Berth
East Wharf
Washford River to be kept clear
Possible Extension
The Esplanade
Bollards
H.M. Office


0 100 200 300 400 500 FEET
Small Yacht Moorings
Fishing Vessels
Sugar Tongue
Fishing Vessels
SOUTH HARBOUR
Fishing Vessels
Lime Tongue
Gridiron 112 ft x 21 ft
OLD QUAY
Old New Quay
West Pier
INNER HARBOUR
Slip
N
OUTER HARBOUR
Lighthouse
Cement Berth
Harrington Berth
QUEEN'S DOCK
West Wall
NORTH HARBOUR
OLD NORTH WALL
SOLWAY FIRTH
Lighthouse
Tidal Signals
North Pier
Coal Berth
WHITEHAVEN
L.W.M.
Shipyard Berth

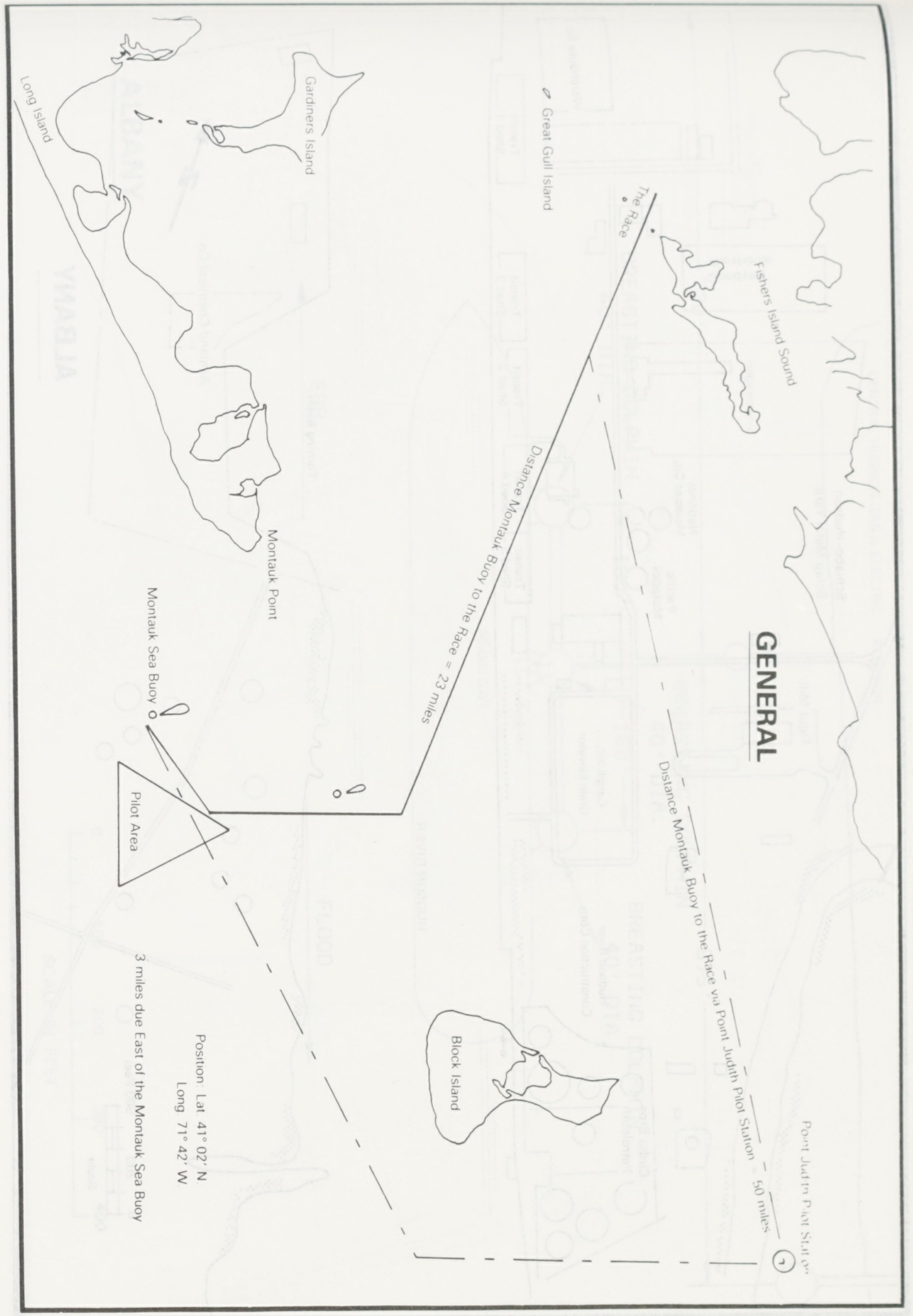

Dolphin
No. 2 Warehouse
38 m.
Transit Shed
East Quay
Harbour
Brett Asphalt
170 m.
West Quay
Transit Shed
Aggregate Bay
WHITSTABLE
H.M. Customs
Old Engine Shed
Harbour Master
Fishing Vessels Reserved Area
South Quay
Aggregate Bays
East Gate
N
Transit Shed
Quay Fish
Zygal Boats
Ross Fish
Ross Trailer Park
Harbour Street
West Gate


Tanks
No. 4
No. 3
No. 2
No. 1
Transit Shed
Shiploader
No. 6 Berth
No. 5 Berth
Ramp
Travel of shiploader
No. 4 Berth
No. 6A Berth
Prince of Wales Dock
No. 7 Berth
No. 3 Berth
No. 2 Berth
No. 1 Berth
28T derrick
Office
WORKINGTON

ALBANY

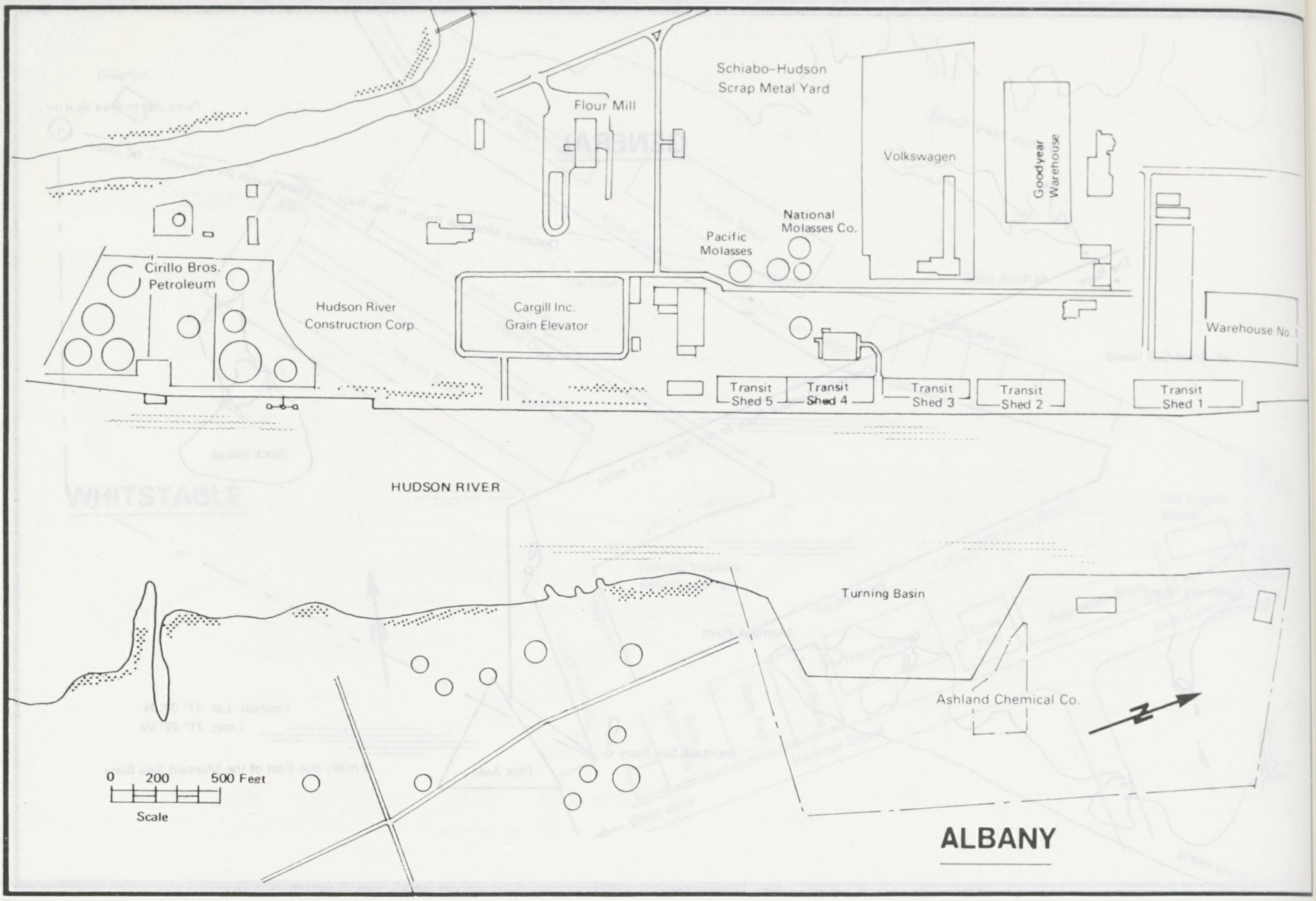

ALBANY
MOBIL
BRAY/GETTY
SHELL (BARGE ONLY)
CIRILLO
ARCO/METRO/GULF/SHELL
METRO (BARGE ONLY)
HESS
AGWAY
NIAGRA MOHAWK
TEXACO
ESSO (BARGE ONLY)
SEARS

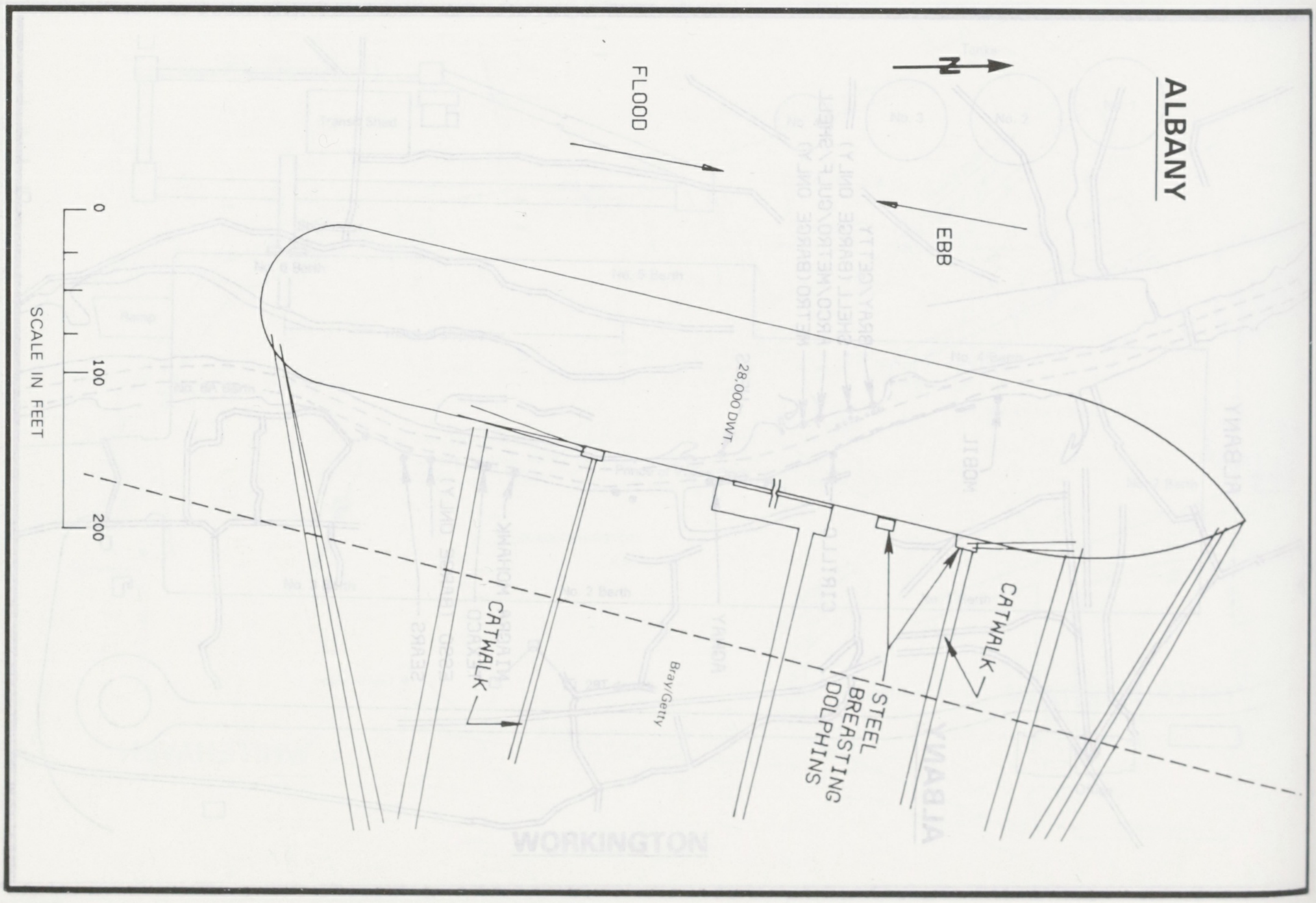
GENERAL

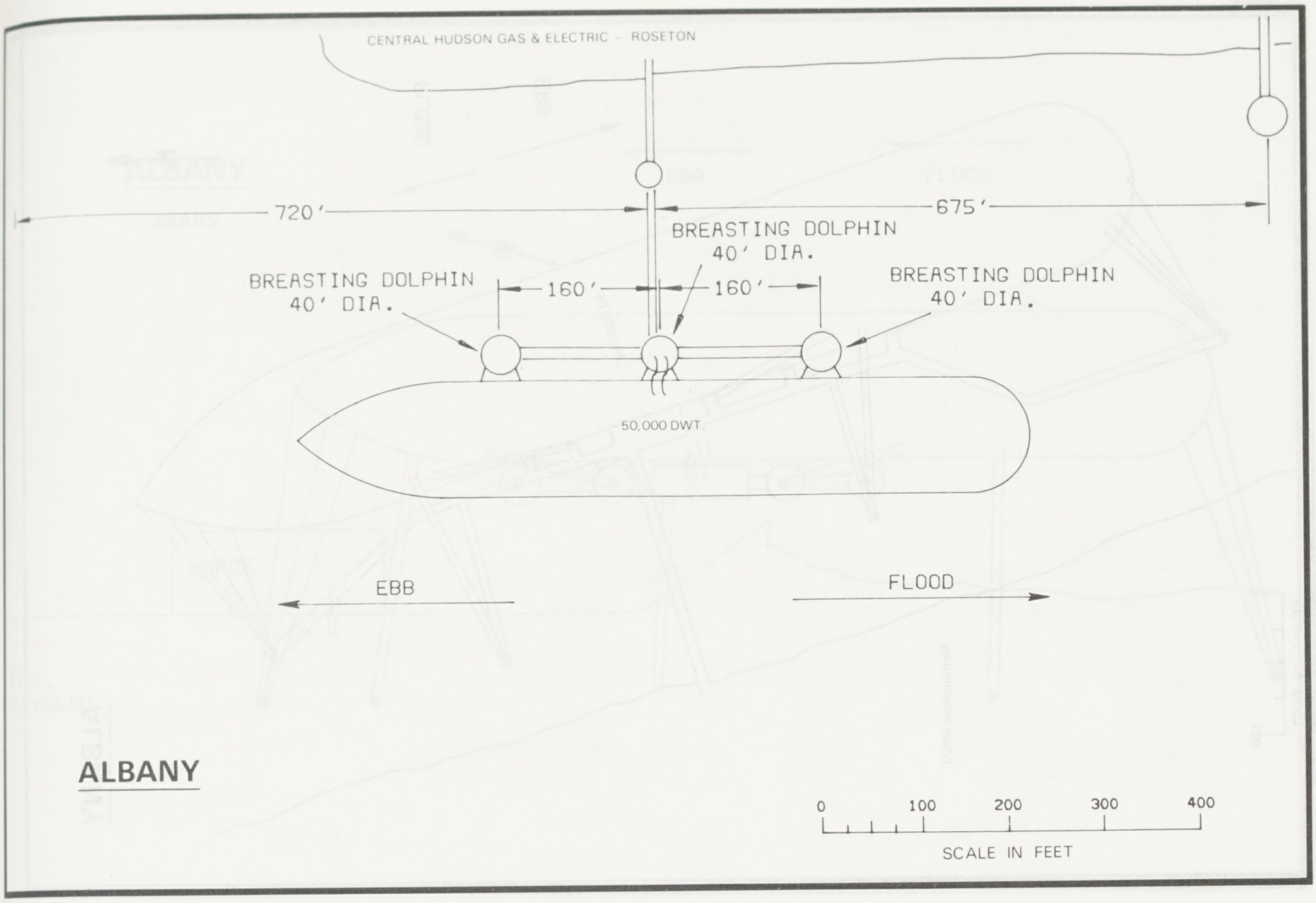

Long Island
Gardiners Island
Great Gull Island
The Race
Fishers Island Sound
Distance Montauk Buoy to the Race = 23 miles
Montauk Point
Montauk Sea Buoy
Pilot Area
Distance Montauk Buoy to the Race via Point Judith Pilot Station = 50 miles
Point Judith Pilot Station
Block Island

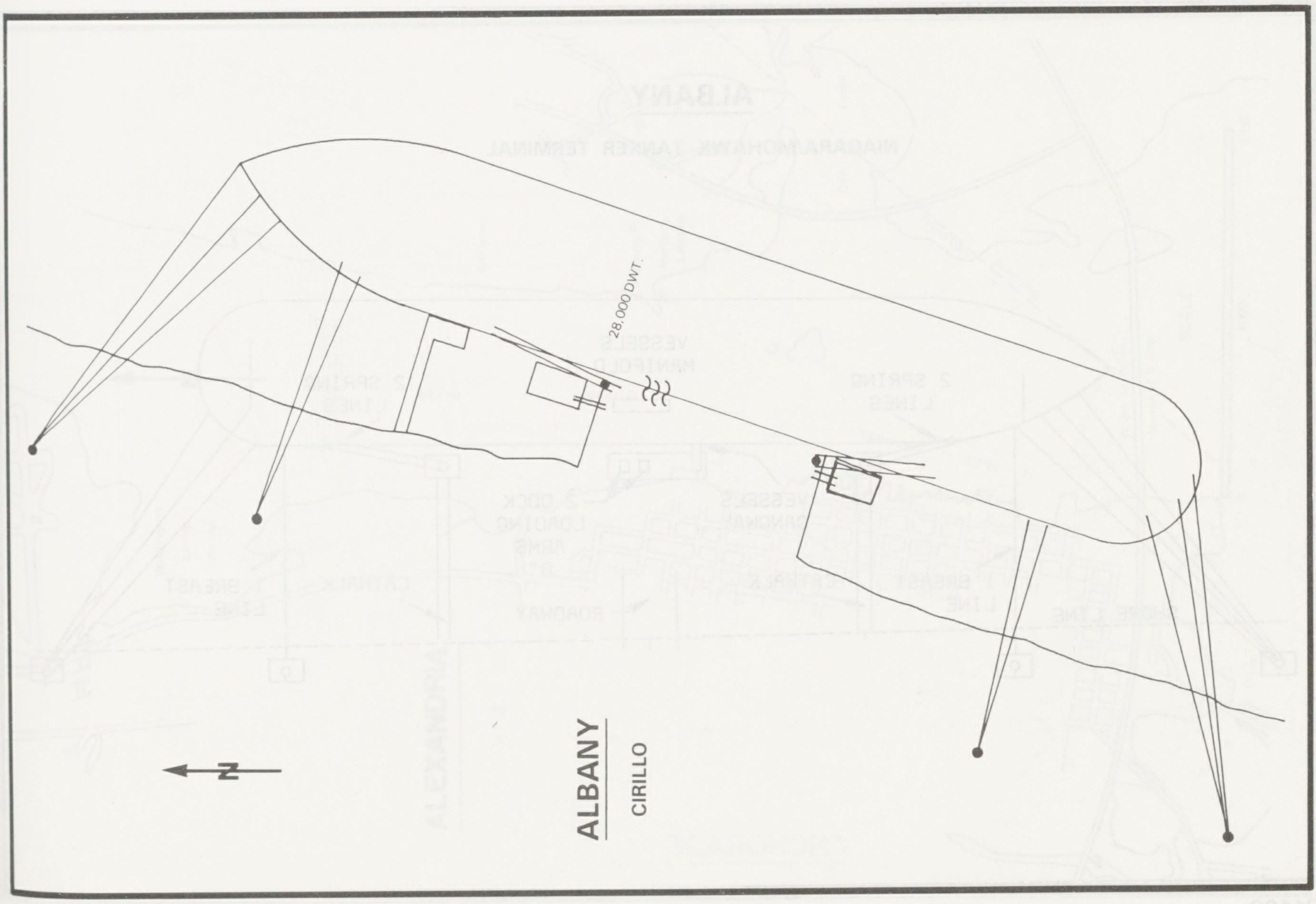
Position: Lat 41° 02' N
Long 71° 42' W

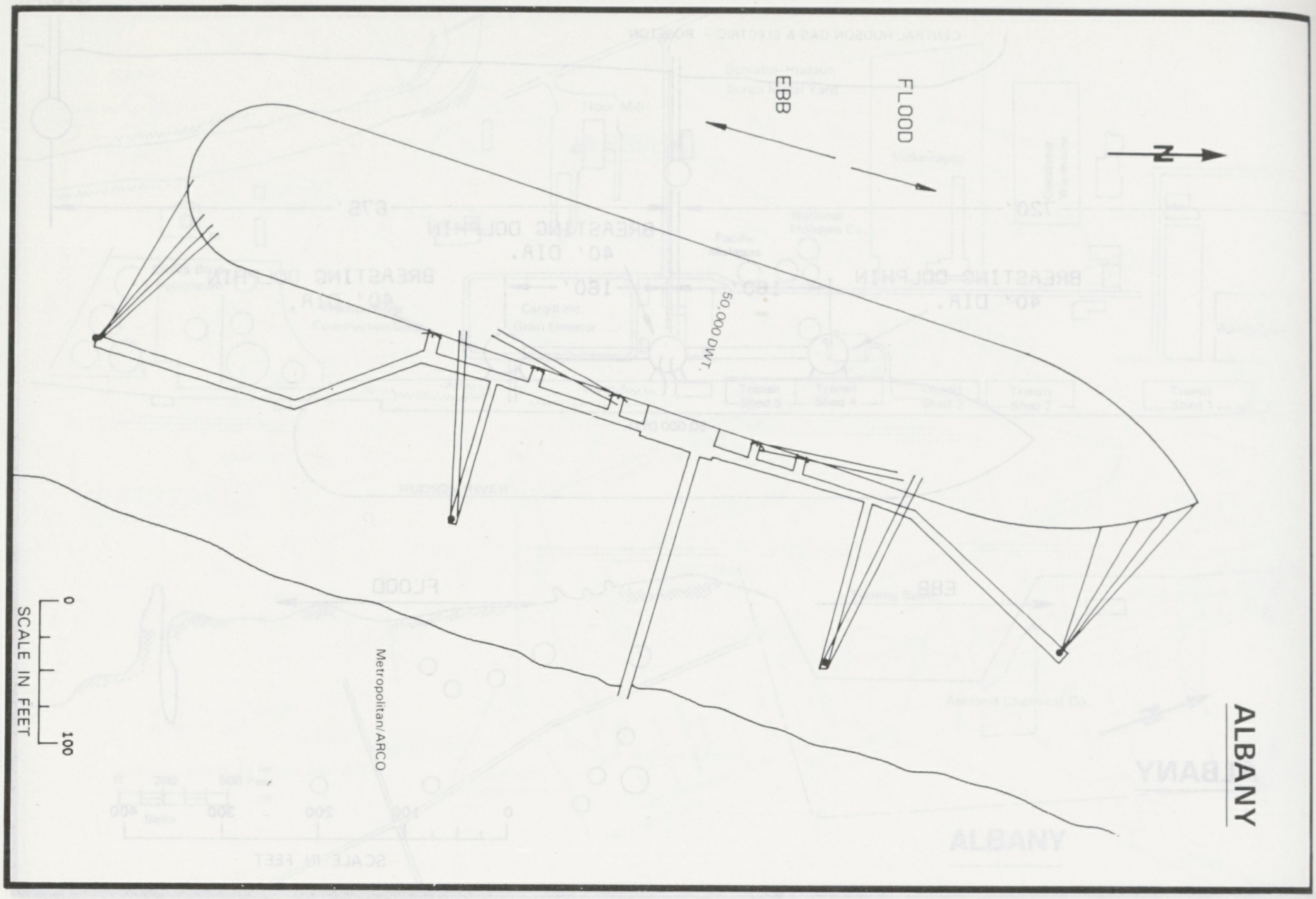
3 miles due East of the Montauk Sea Buoy


Schiabo–Hudson Scrap Metal Yard
Flour Mill
Volkswagen
Goodyear Warehouse
National Molasses Co.
Pacific Molasses
Cirillo Bros. Petroleum
Hudson River Construction Corp.
Cargill Inc. Grain Elevator
Warehouse No. 1
Transit Shed 5
Transit Shed 4
Transit Shed 3
Transit Shed 2
Transit Shed 1
HUDSON RIVER
Turning Basin
Ashland Chemical Co.
N
0
200
500 Feet
Scale
ALBANY


ALBANY
N
FLOOD
EBB
SCALE IN FEET
0
100
200
28,000 DWT.
CATWALK
STEEL BREASTING DOLPHINS
CATWALK

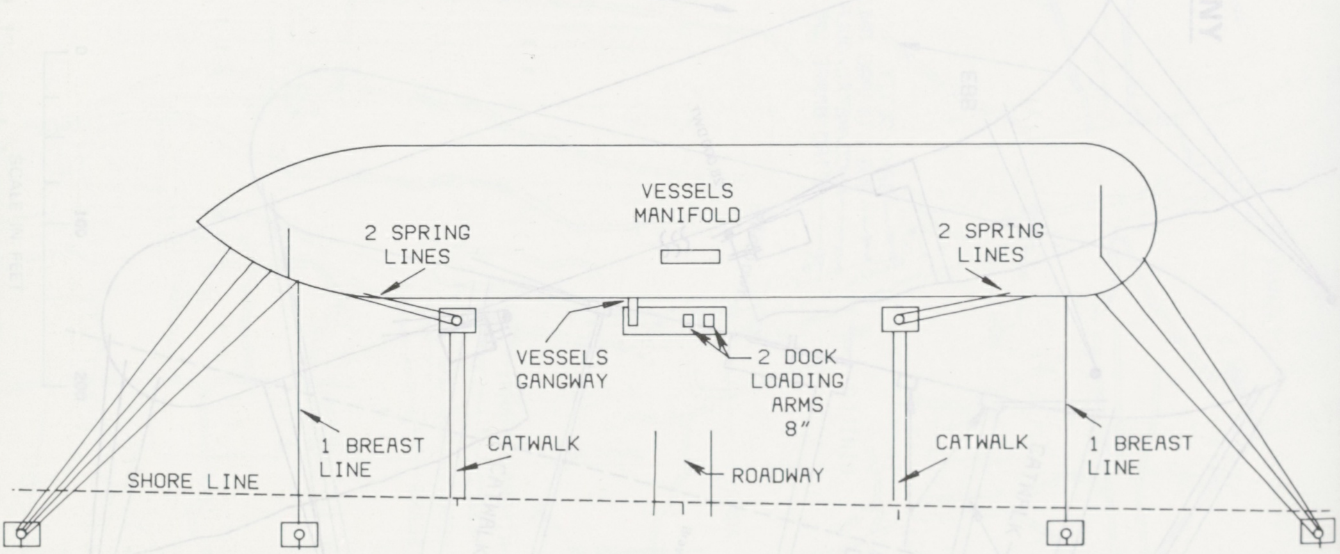

CENTRAL HUDSON GAS & ELECTRIC – ROSETON
720'
675'
BREASTING DOLPHIN 40' DIA.
BREASTING DOLPHIN 40' DIA.
BREASTING DOLPHIN 40' DIA.
160'
160'
50,000 DWT.
EBB
FLOOD
ALBANY
0
100
200
300
400
SCALE IN FEET


28,000 DWT.
N
ALBANY
CIRILLO


EBB
FLOOD
N
50,000 DWT.
Metropolitan/ARCO
SCALE IN FEET
0
100
ALBANY

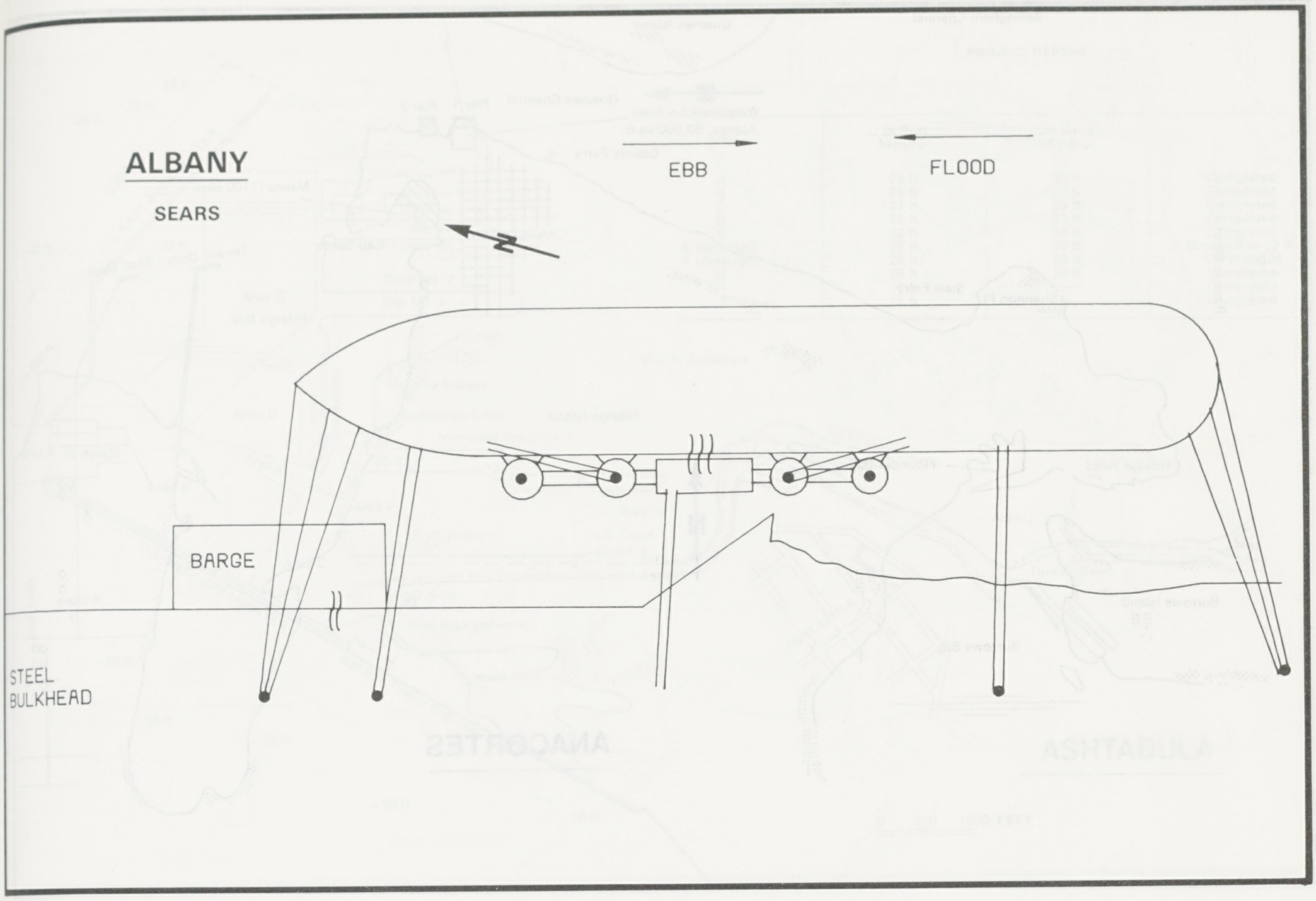
ALBANY

NIAGARA/MOHAWK TANKER TERMINAL

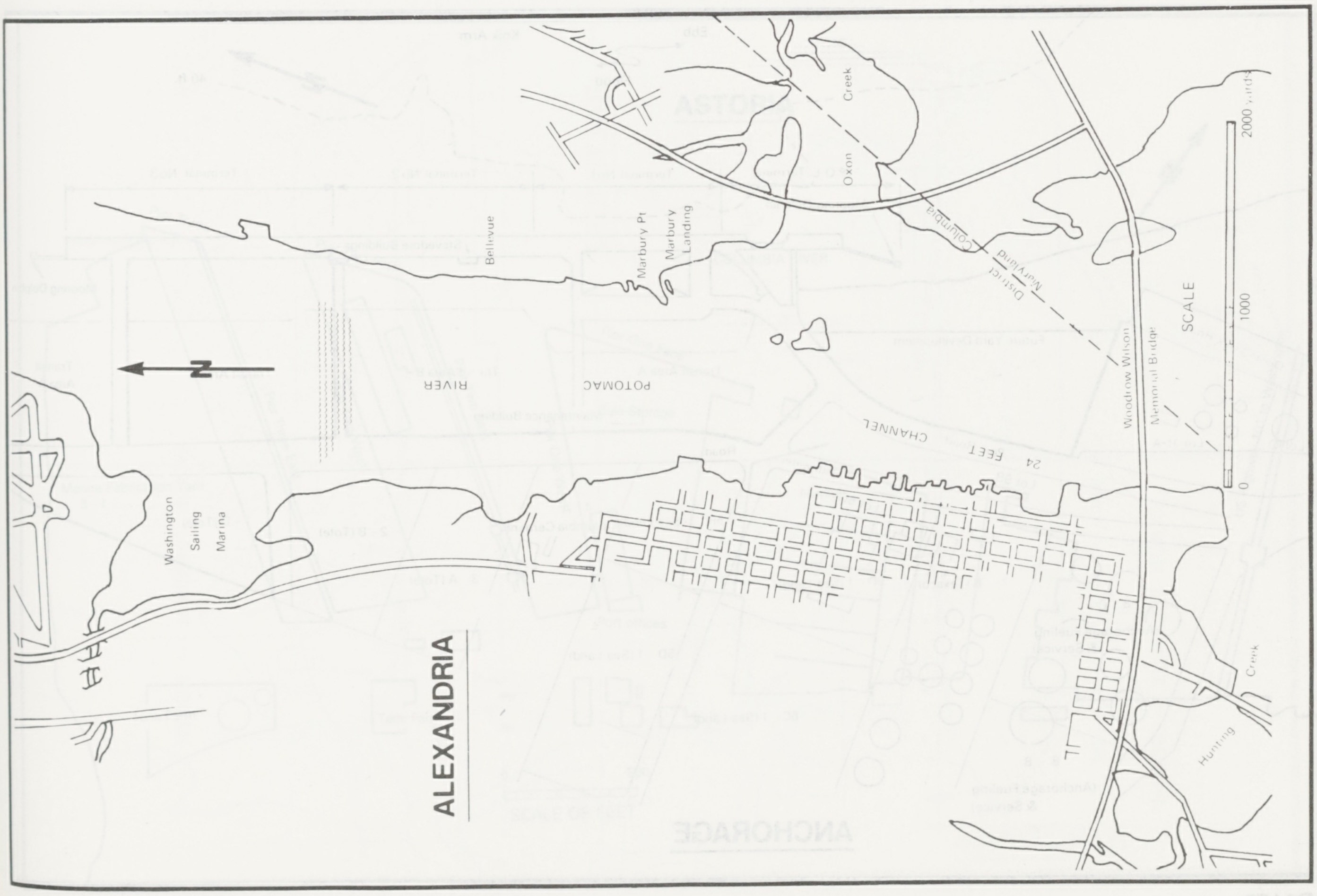

VESSELS
MANIFOLD
2 SPRING
LINES
2 SPRING
LINES
VESSELS
GANGWAY
2 DOCK
LOADING
ARMS
8"
1 BREAST
LINE
CATWALK
ROADWAY
CATWALK
1 BREAST
LINE
SHORE LINE

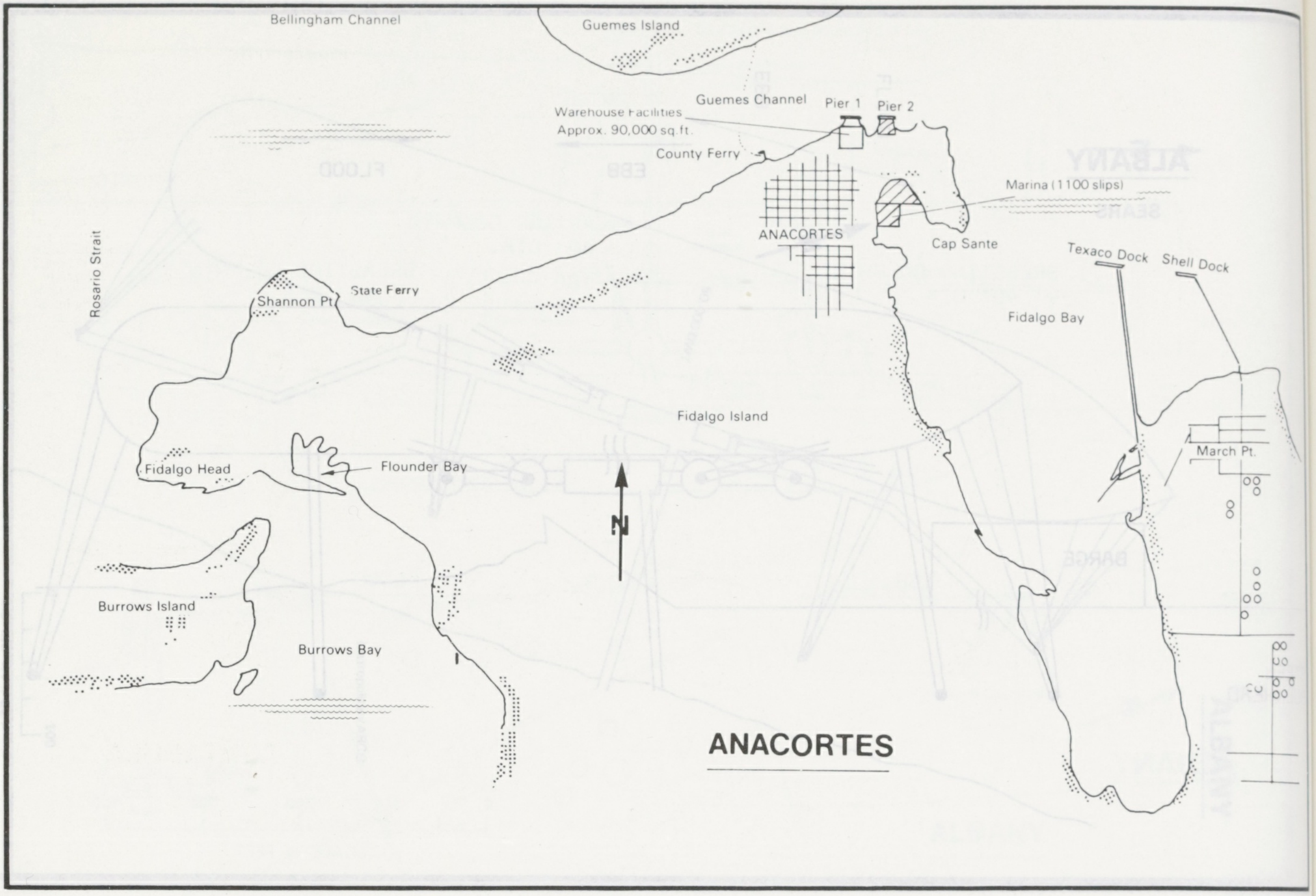
ALBANY

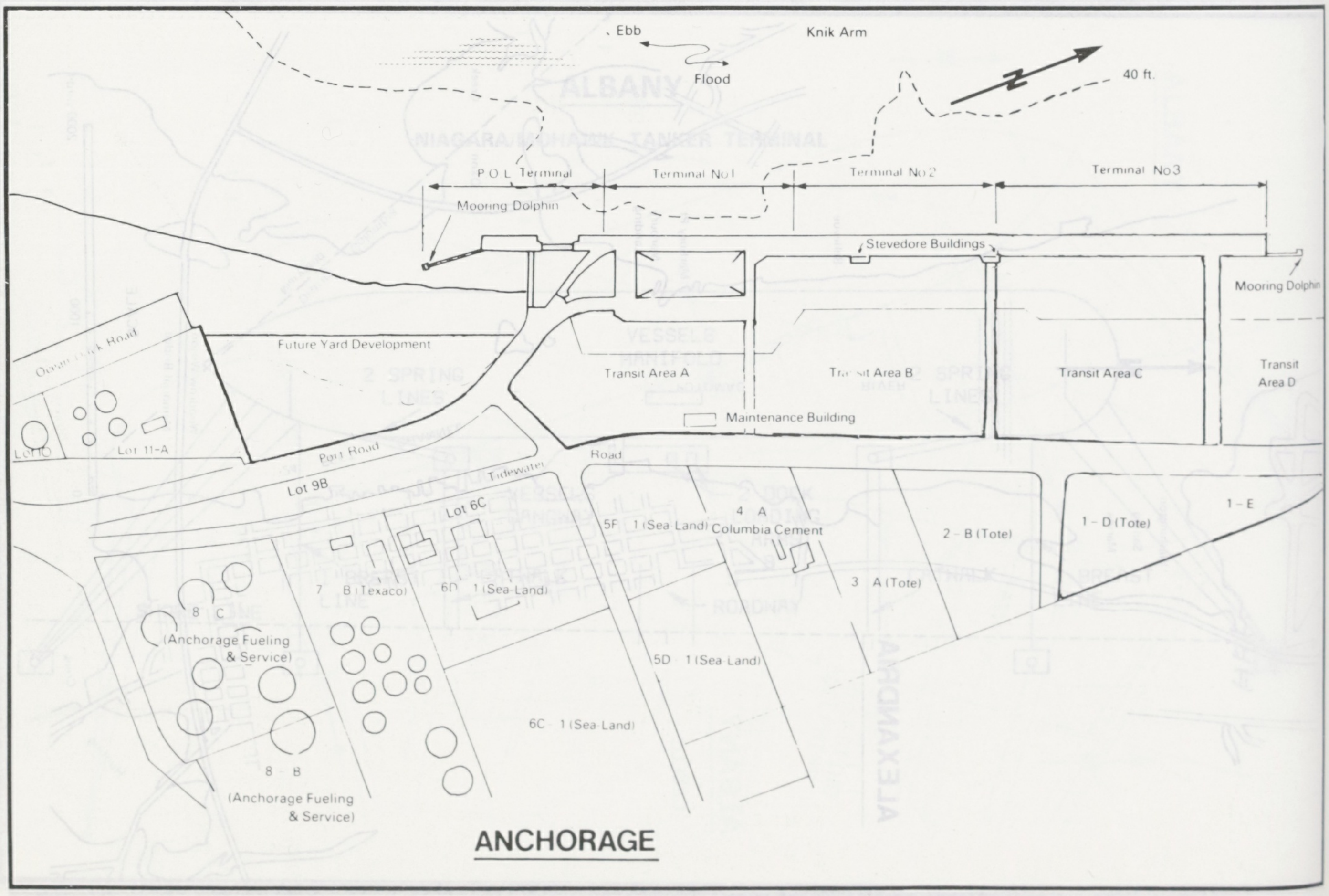
SEARS


EBB
FLOOD
N
BARGE
STEEL
BULKHEAD

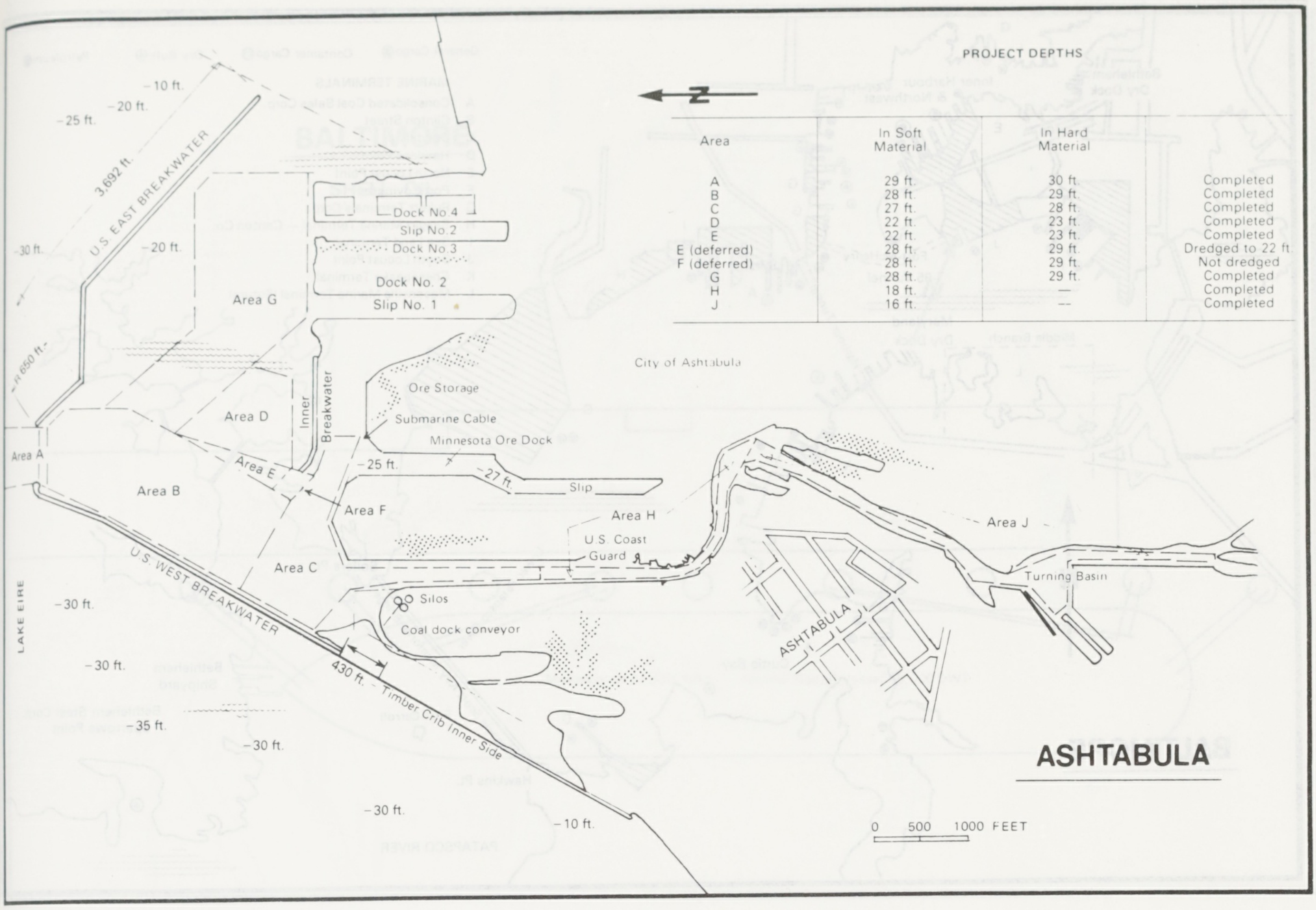
ALEXANDRIA


Bellevue
Marbury Pt
Marbury Landing
Oxon Creek
District
Columbia
Maryland
N
POTOMAC
RIVER
24 FEET CHANNEL
Woodrow Wilson Memorial Bridge
SCALE
0
1000
2000 yards
Washington Sailing Marina
Hunting Creek


Bellingham Channel
Guemes Island
Guemes Channel
Pier 1
Pier 2
Warehouse Facilities
Approx. 90,000 sq.ft.
County Ferry
Marina (1100 slips)
ANACORTES
Cap Sante
Texaco Dock
Shell Dock
Fidalgo Bay
Rosario Strait
Shannon Pt
State Ferry
Fidalgo Island
March Pt.
Fidalgo Head
Flounder Bay
N
Burrows Island
Burrows Bay
ANACORTES


Ebb
Knik Arm
Flood
40 ft.
P.O.L. Terminal
Terminal No1
Terminal No2
Terminal No3
Mooring Dolphin
Stevedore Buildings
Mooring Dolphin
Ocean Dock Road
Future Yard Development
Transit Area A
Transit Area B
Transit Area C
Transit Area D
Maintenance Building
Lot 10
Lot 11-A
Port Road
Road
Tidewater
Lot 9B
Lot 6C
5F 1 (Sea-Land)
4 A
Columbia Cement
2 - B (Tote)
1 - D (Tote)
1 - E
7 B (Texaco)
6D 1 (Sea-Land)
3 A (Tote)
8 C
(Anchorage Fueling & Service)
5D 1 (Sea-Land)
6C 1 (Sea-Land)
8 - B
(Anchorage Fueling & Service)
ANCHORAGE

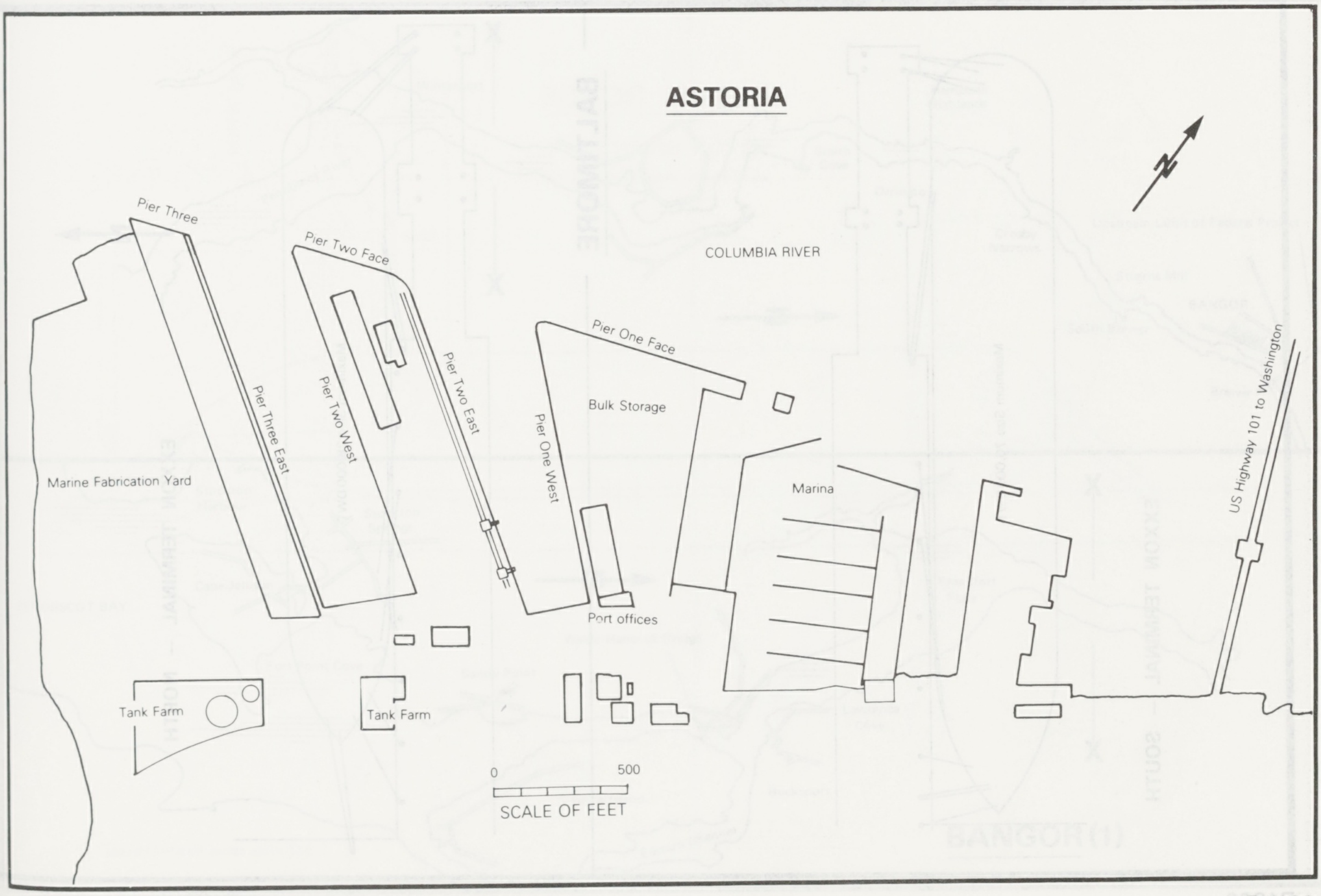
ASHTABULA

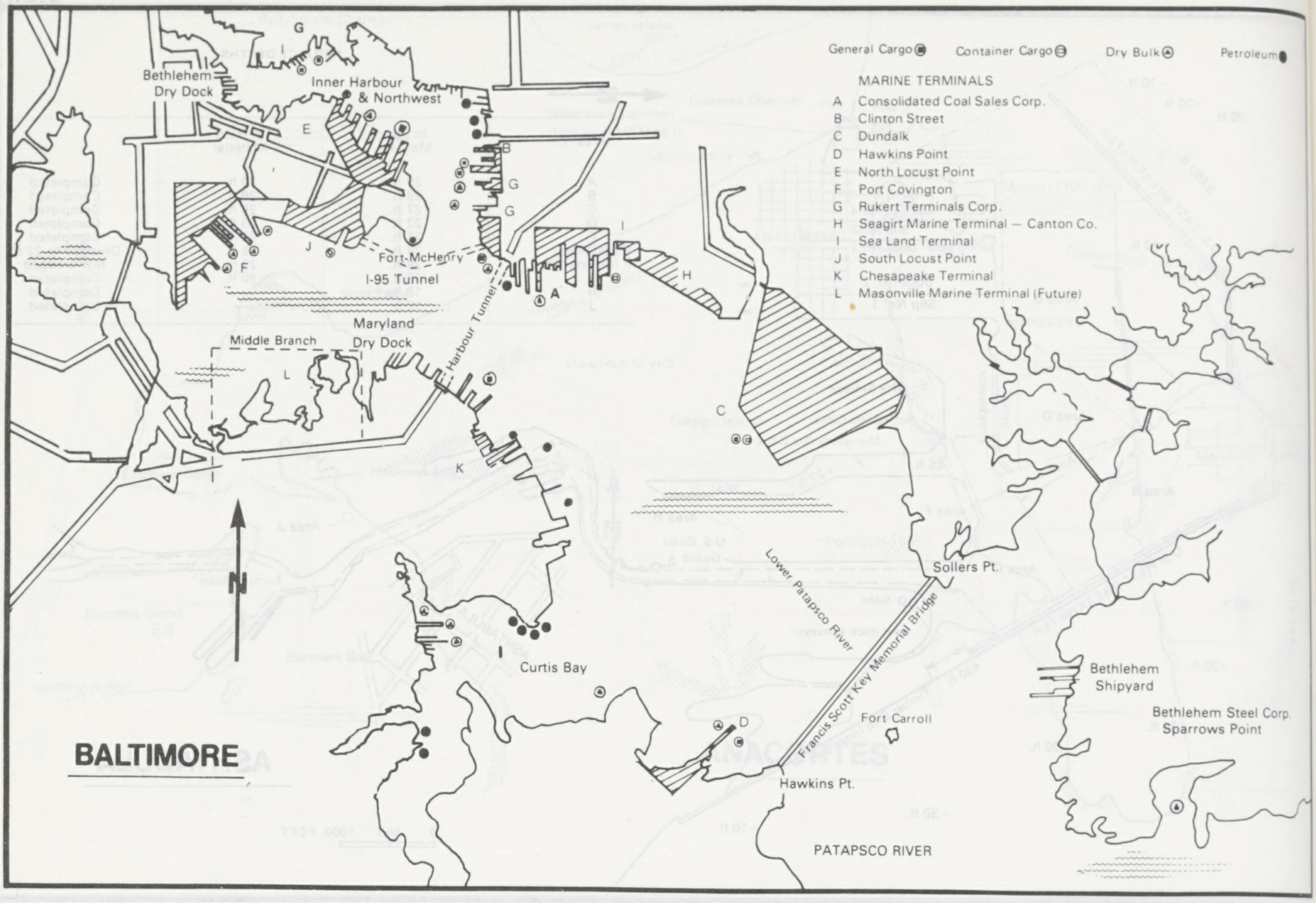

Z
- 10 ft.
- 20 ft.
- 25 ft.
3,692 ft.
U.S. EAST BREAKWATER
- 30 ft.
- 20 ft.
R 650 ft.
Dock No.4
Slip No.2
Dock No.3
Dock No. 2
Slip No. 1
Area G
Area D
Inner Breakwater
Area A
Area B
Area E
- 25 ft.
Area F
Area C
Ore Storage
Submarine Cable
Minnesota Ore Dock
- 27 ft.
Slip
City of Ashtabula
Area H
U.S. Coast Guard
Area J
Turning Basin
ASHTABULA
Silos
Coal dock conveyor
LAKE EIRE
- 30 ft.
U.S. WEST BREAKWATER
430 ft.
Timber Crib Inner Side
- 30 ft.
- 35 ft.
- 30 ft.
- 30 ft.
- 10 ft.
0 500 1000 FEET

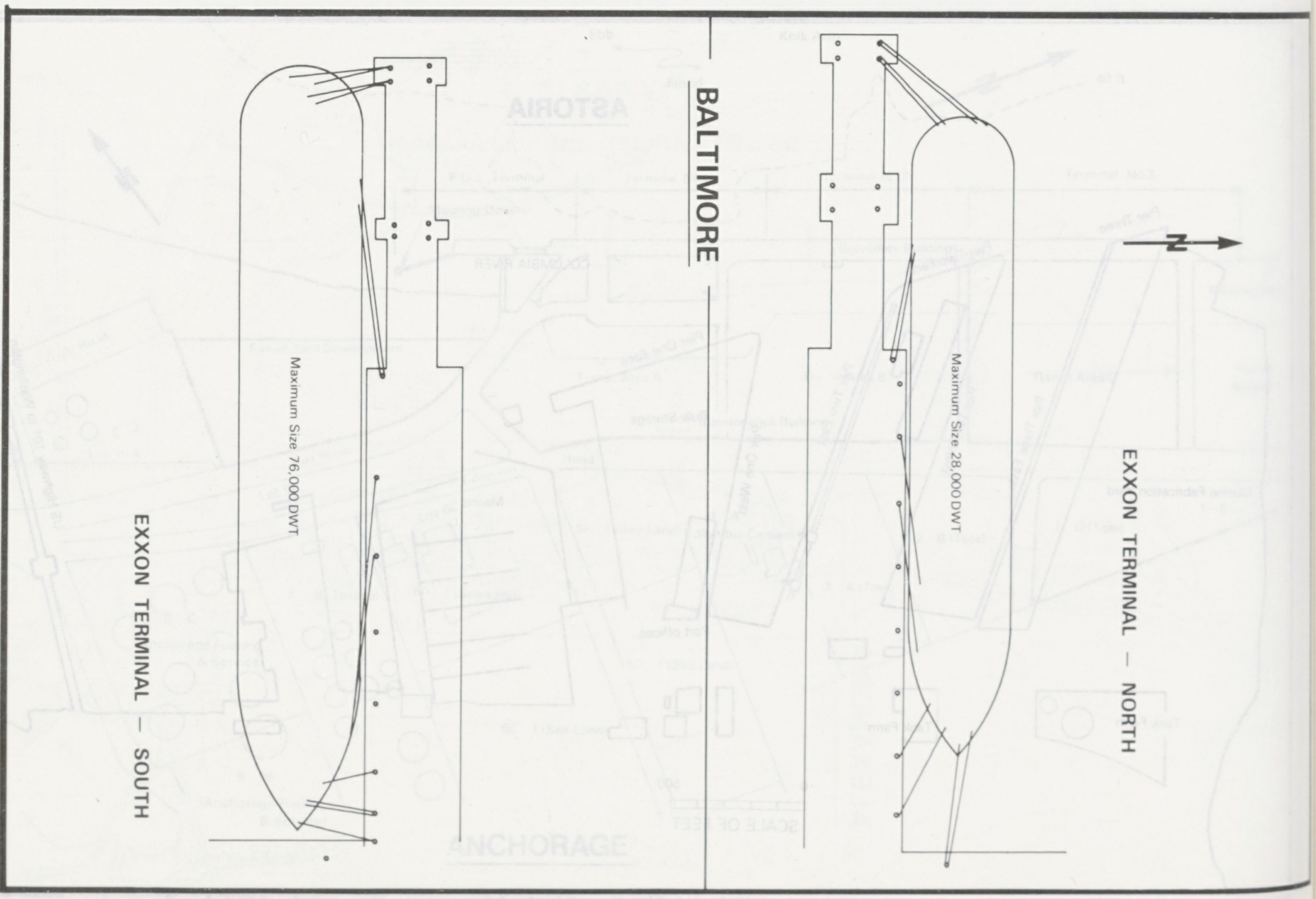
PROJECT DEPTHS

Area	In Soft Material	In Hard Material	
A	29 ft.	30 ft.	Completed
B	28 ft.	29 ft.	Completed
C	27 ft.	28 ft.	Completed
D	22 ft.	23 ft.	Completed
E	22 ft.	23 ft.	Completed
E (deferred)	28 ft.	29 ft.	Dredged to 22 ft.
F (deferred)	28 ft.	29 ft.	Not dredged
G	28 ft.	29 ft.	Completed
H	18 ft.	—	Completed
J	16 ft.	--	Completed

ASTORIA

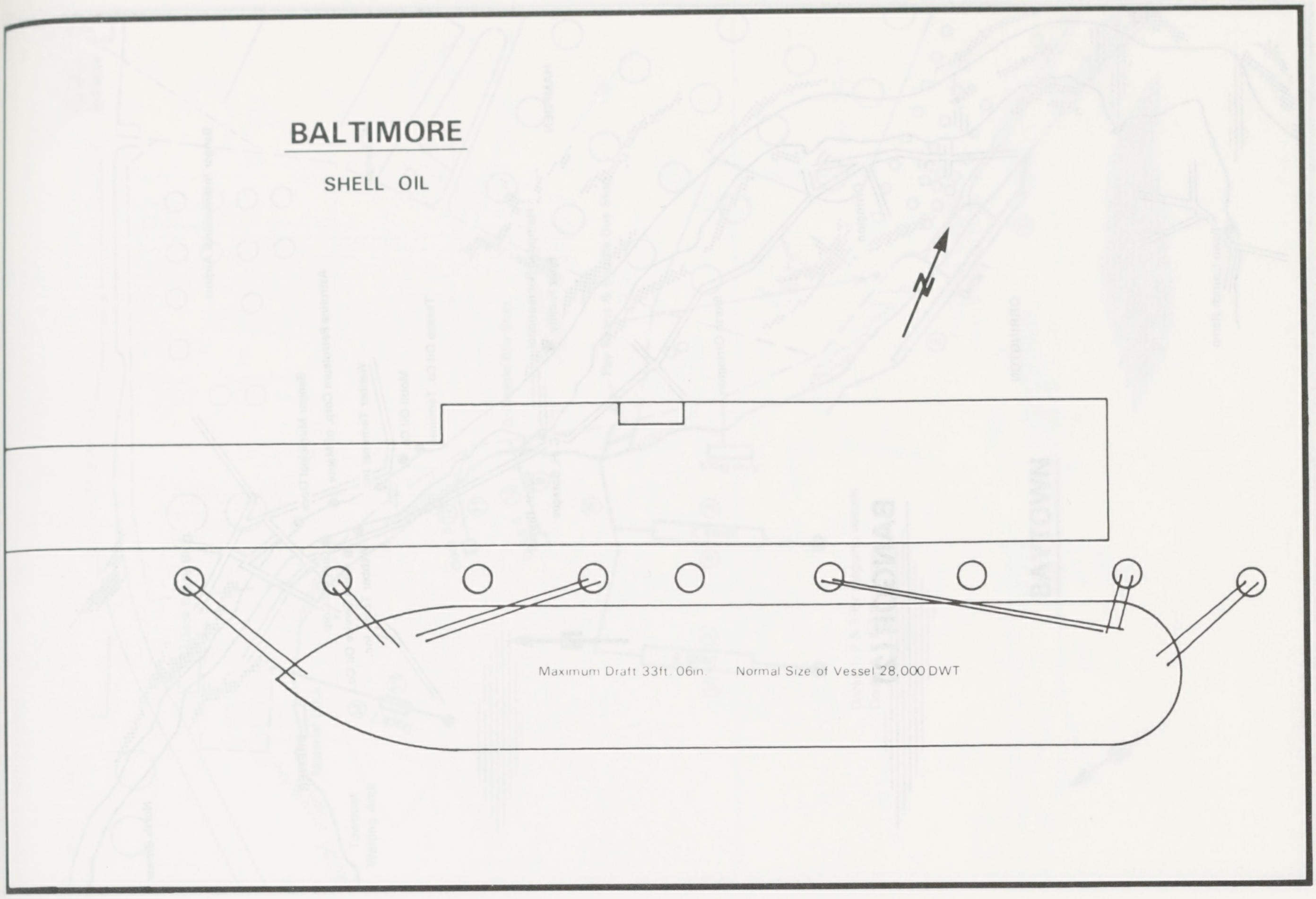

N
COLUMBIA RIVER
Pier Three
Pier Two Face
Pier Three East
Pier Two West
Pier Two East
Pier One Face
Pier One West
Bulk Storage
Marina
Marine Fabrication Yard
Port offices
Tank Farm
Tank Farm
US Highway 101 to Washington
0 500
SCALE OF FEET


General Cargo Ⓖ
Container Cargo Ⓒ
Dry Bulk Ⓐ
Petroleum ●
MARINE TERMINALS
A Consolidated Coal Sales Corp.
B Clinton Street
C Dundalk
D Hawkins Point
E North Locust Point
F Port Covington
G Rukert Terminals Corp.
H Seagirt Marine Terminal — Canton Co.
I Sea Land Terminal
J South Locust Point
K Chesapeake Terminal
L Masonville Marine Terminal (Future)
Bethlehem Dry Dock
Inner Harbour & Northwest
Fort-McHenry
I-95 Tunnel
Harbour Tunnel
Maryland Dry Dock
Middle Branch
Curtis Bay
Lower Patapsco River
Francis Scott Key Memorial Bridge
Sollers Pt.
Fort Carroll
Hawkins Pt.
PATAPSCO RIVER
Bethlehem Shipyard
Bethlehem Steel Corp. Sparrows Point
N
BALTIMORE

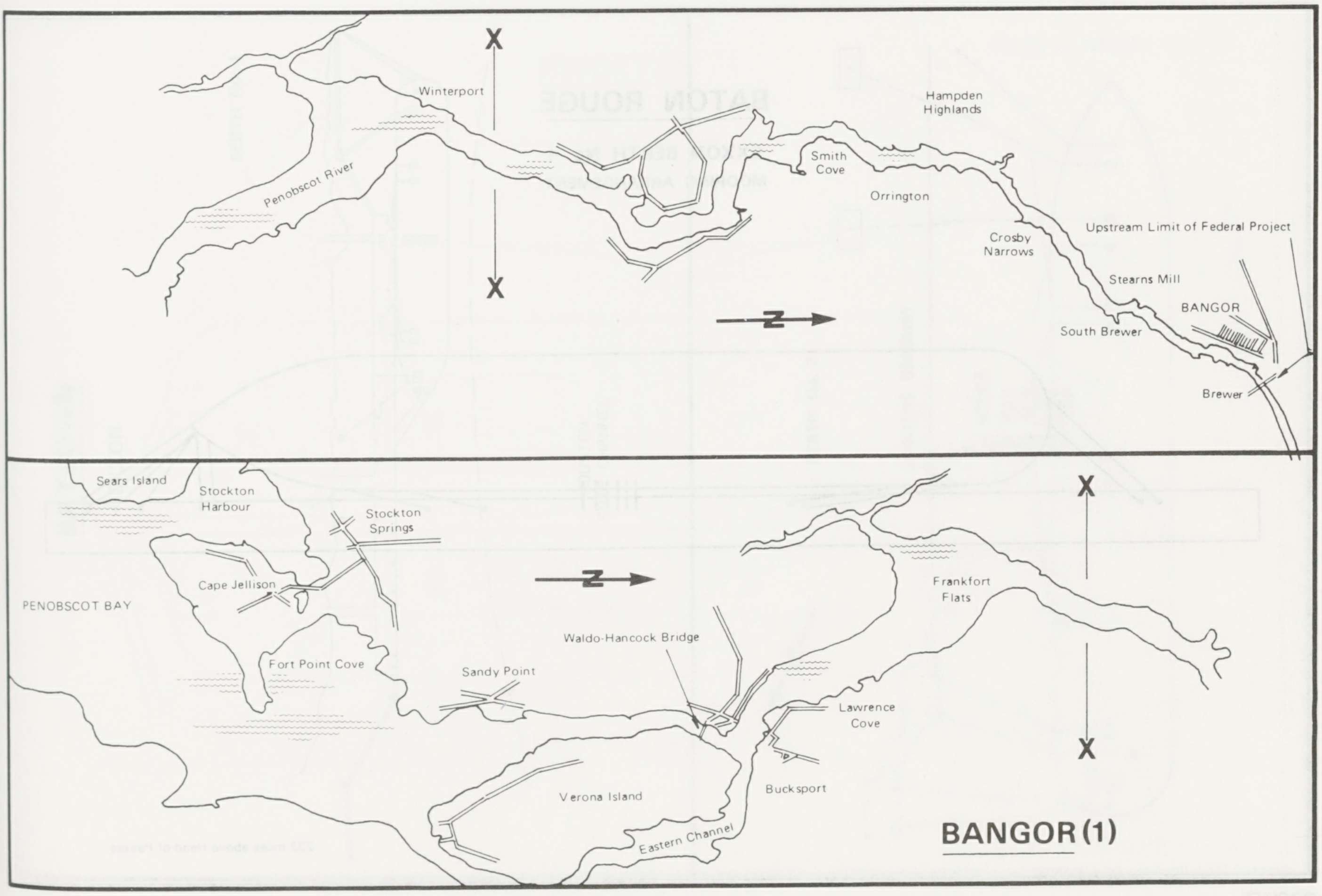

BALTIMORE
EXXON TERMINAL — SOUTH
Maximum Size 76,000 DWT
EXXON TERMINAL — NORTH
Maximum Size 28,000 DWT
N

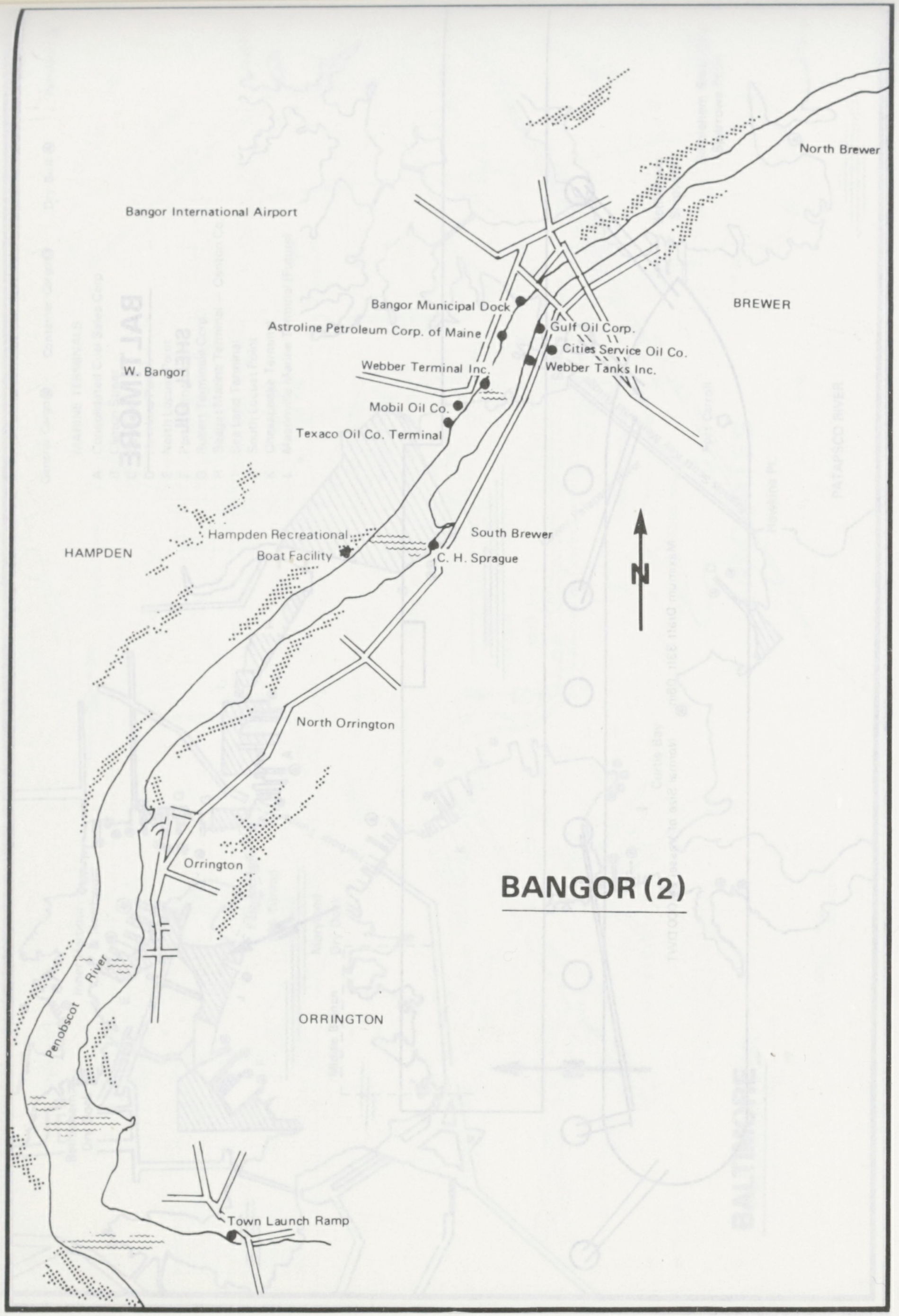
BALTIMORE

SHELL OIL

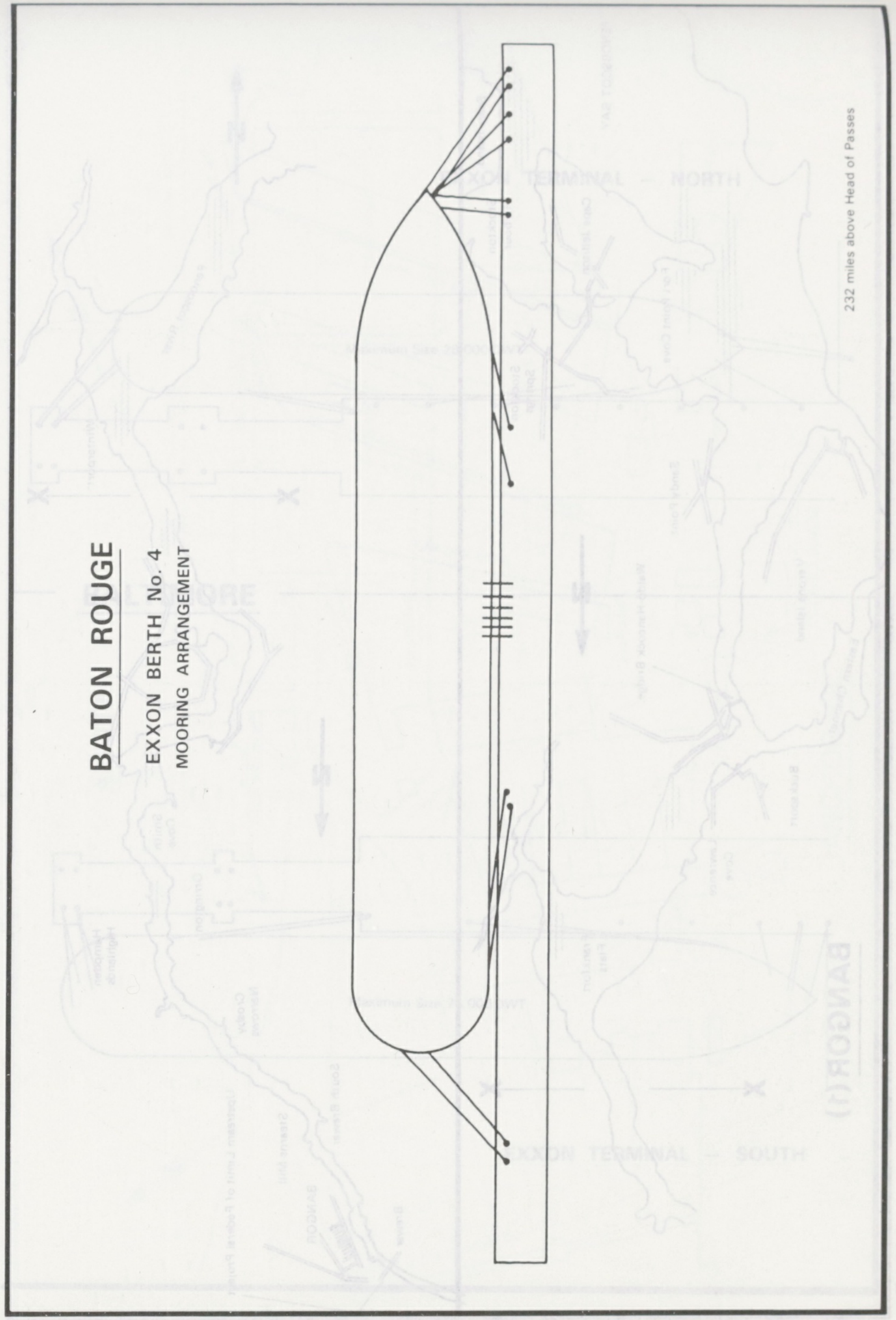

N
Maximum Draft 33ft. 06in.
Normal Size of Vessel 28,000 DWT

BANGOR (1)


X
X
Winterport
Penobscot River
Hampden
Highlands
Smith
Cove
Orrington
Crosby
Narrows
Upstream Limit of Federal Project
Stearns Mill
BANGOR
South Brewer
Brewer
N
Sears Island
Stockton
Harbour
Stockton
Springs
Cape Jellison
PENOBSCOT BAY
N
Fort Point Cove
Sandy Point
Waldo-Hancock Bridge
Frankfort
Flats
X
X
Lawrence
Cove
Bucksport
Verona Island
Eastern Channel


North Brewer
Bangor International Airport
BREWER
Bangor Municipal Dock
Astroline Petroleum Corp. of Maine
Gulf Oil Corp.
Cities Service Oil Co.
Webber Terminal Inc.
Webber Tanks Inc.
W. Bangor
Mobil Oil Co.
Texaco Oil Co. Terminal
Hampden Recreational
Boat Facility
South Brewer
C. H. Sprague
HAMPDEN
N
North Orrington
Orrington
Penobscot River
ORRINGTON
Town Launch Ramp

BANGOR (2)



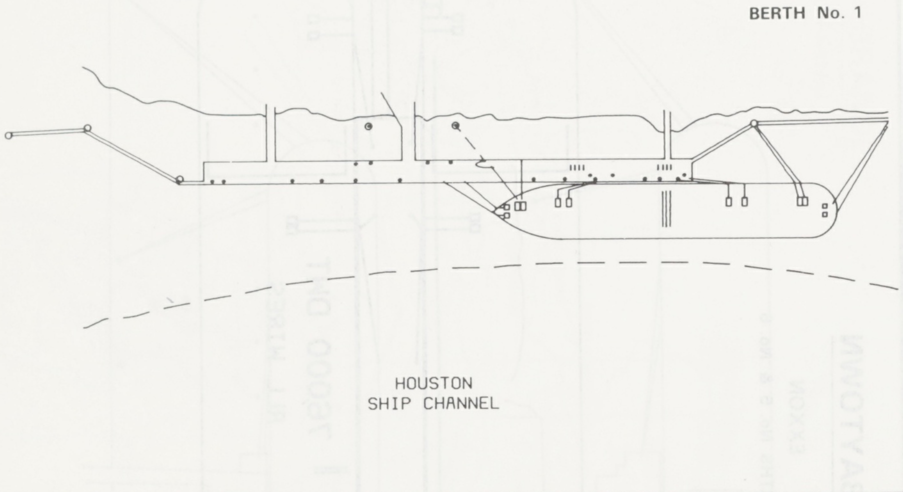
BATON ROUGE

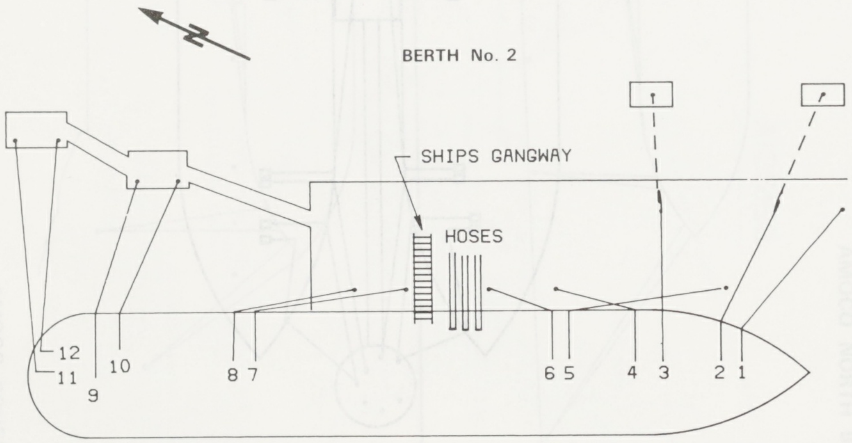
EXXON BERTH No. 4
MOORING ARRANGEMENT

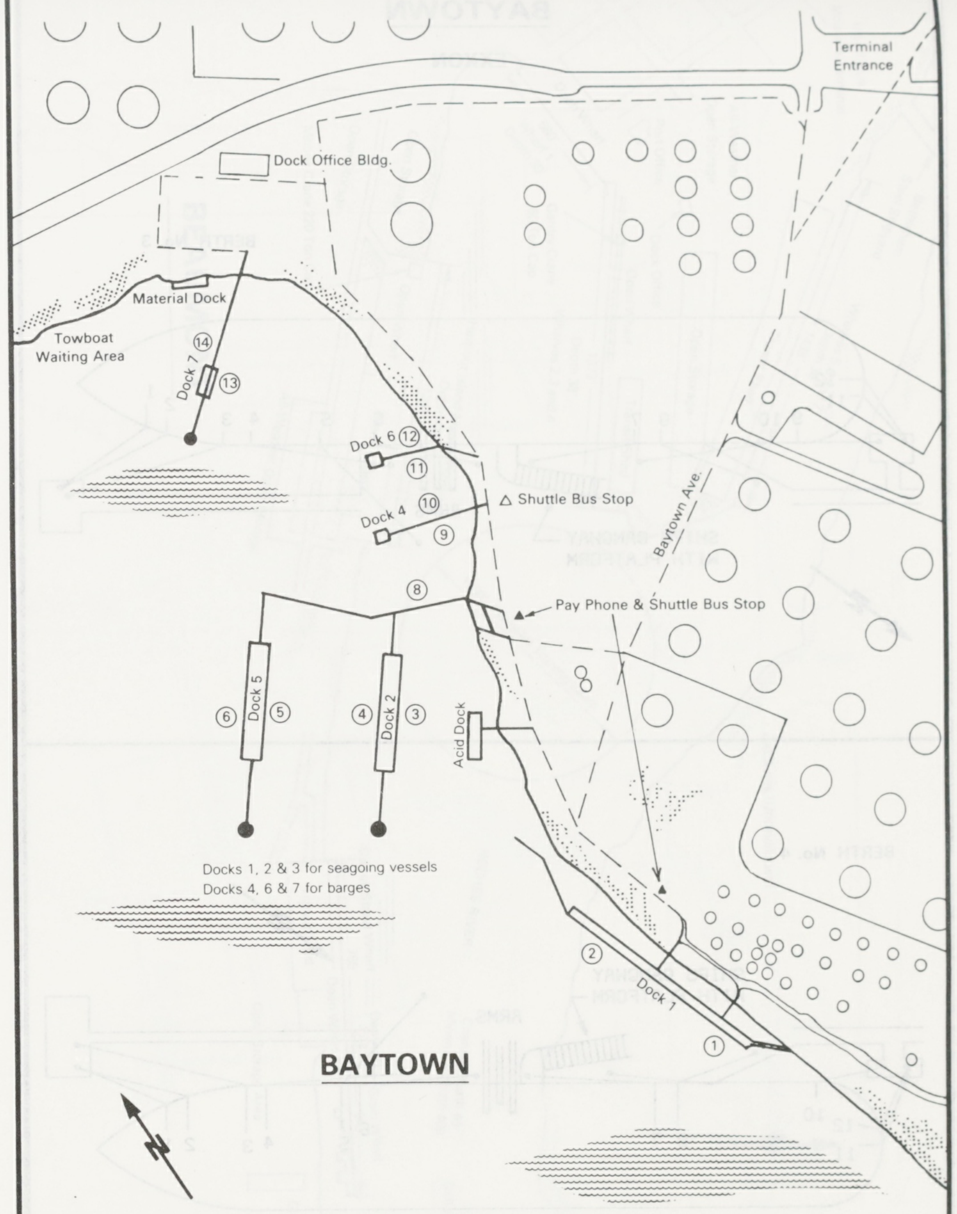
232 miles above Head of Passes

BAYTOWN

EXXON


BERTH No. 1
HOUSTON
SHIP CHANNEL

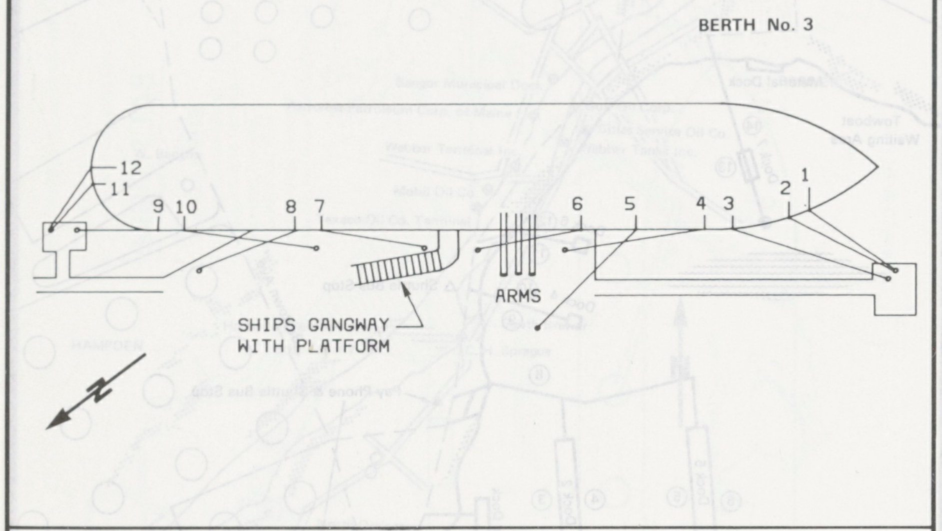

BERTH No. 2
SHIPS GANGWAY
HOSES
12
11
9
10
8 7
6 5
4 3
2 1

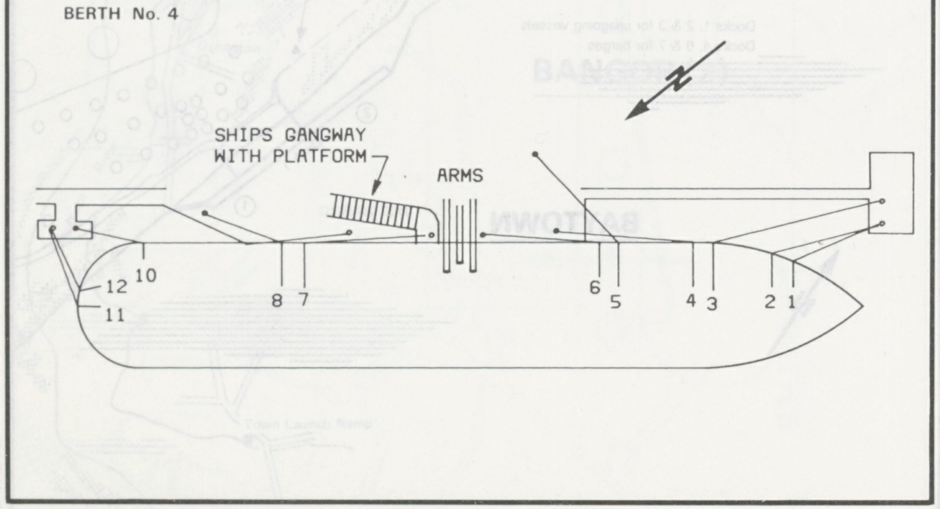

Terminal
Entrance
Dock Office Bldg.
Material Dock
Towboat
Waiting Area
Dock 7
⑭
⑬
Dock 6
⑫
⑪
⑩
Dock 4
⑨
△ Shuttle Bus Stop
Baytown Ave.
⑧
Pay Phone & Shuttle Bus Stop
⑥
Dock 5
⑤
④
Dock 2
③
Acid Dock
②
Dock 1
①
BAYTOWN

Docks 1, 2 & 3 for seagoing vessels
Docks 4, 6 & 7 for barges

BAYTOWN

EXXON

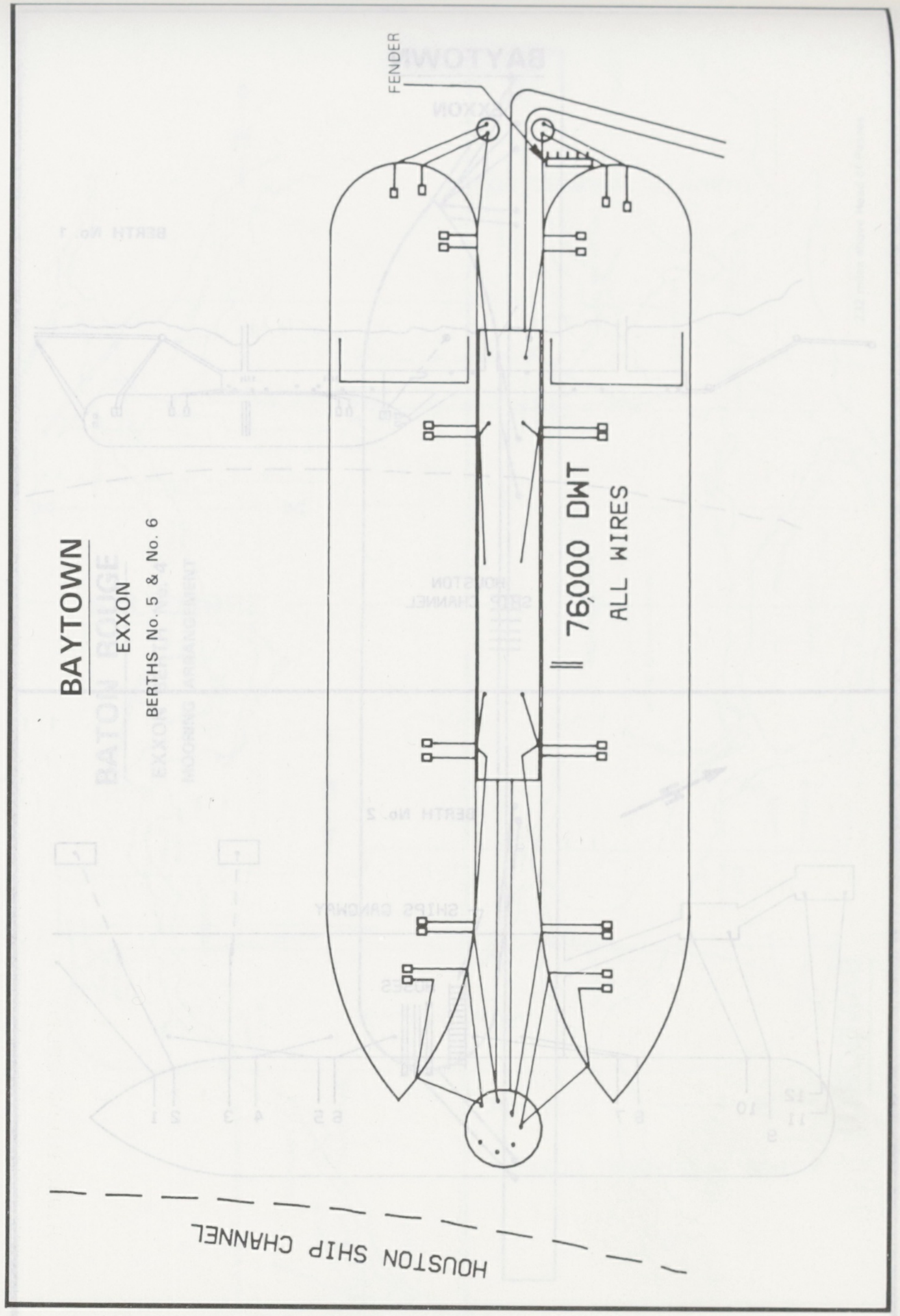

BERTH No. 3
12
11
9
10
8
7
6
5
4
3
2
1
ARMS
SHIPS GANGWAY
WITH PLATFORM

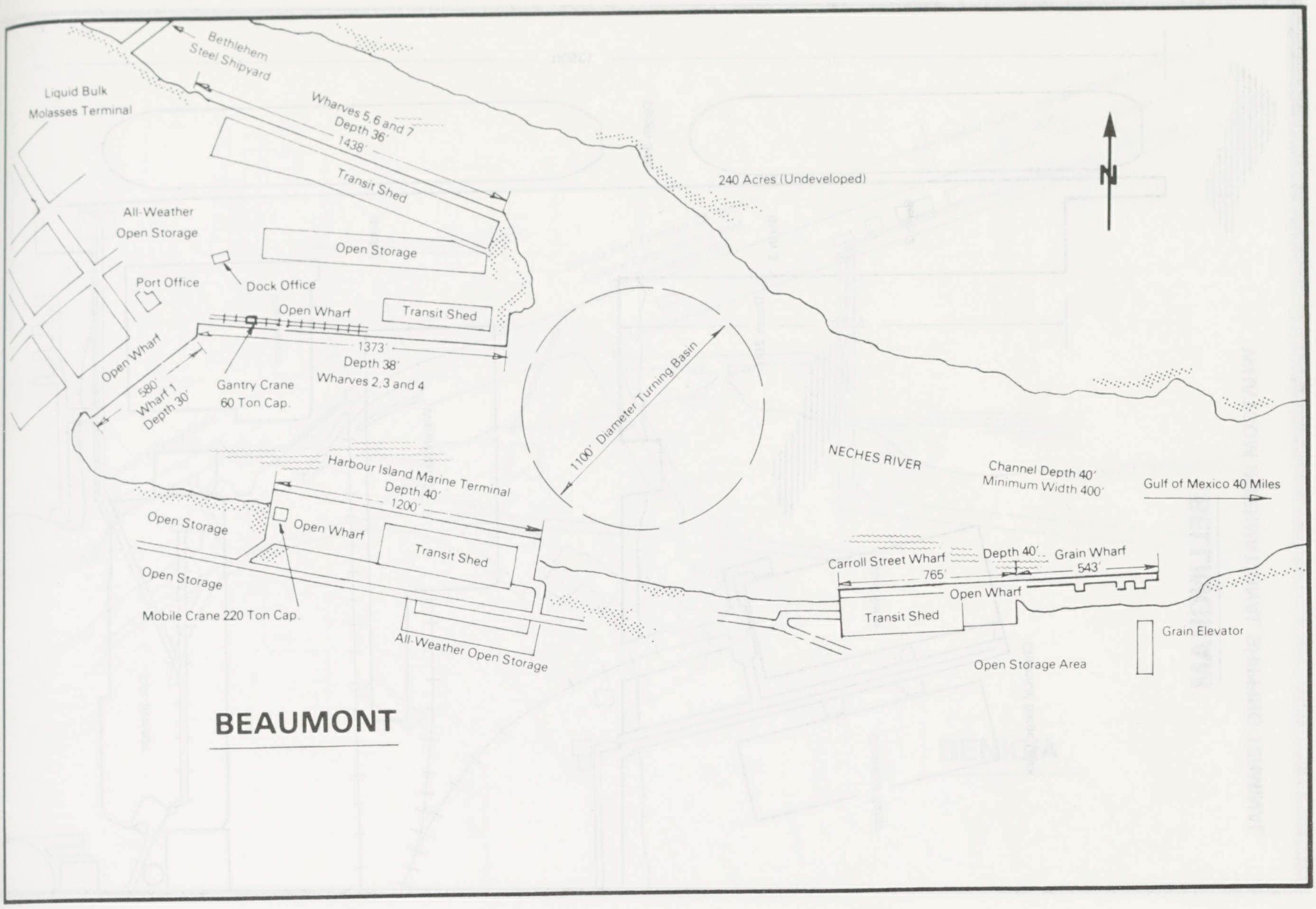

BERTH No. 4
SHIPS GANGWAY
WITH PLATFORM
ARMS
12
11
10
8
7
6
5
4
3
2
1

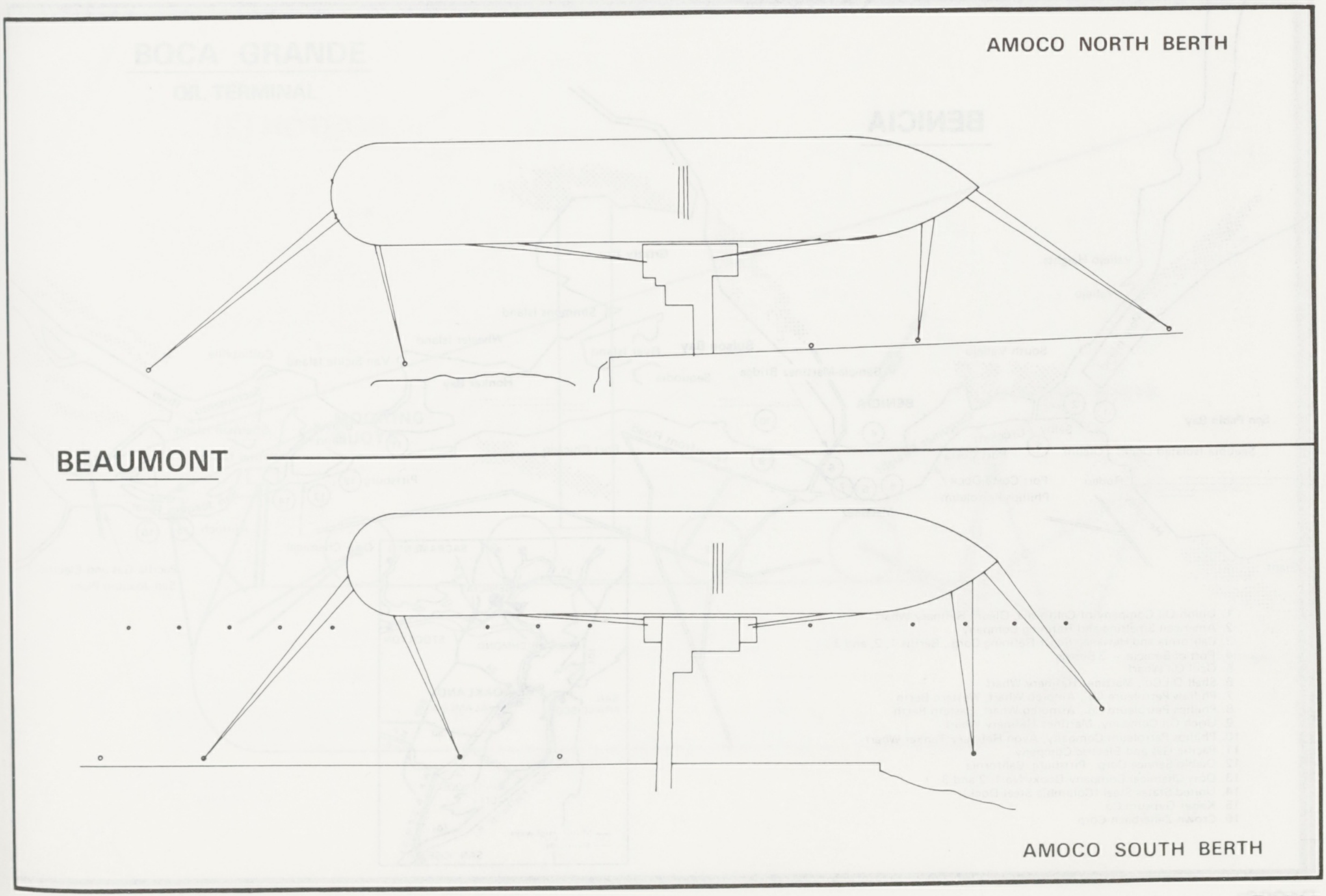
BAYTOWN

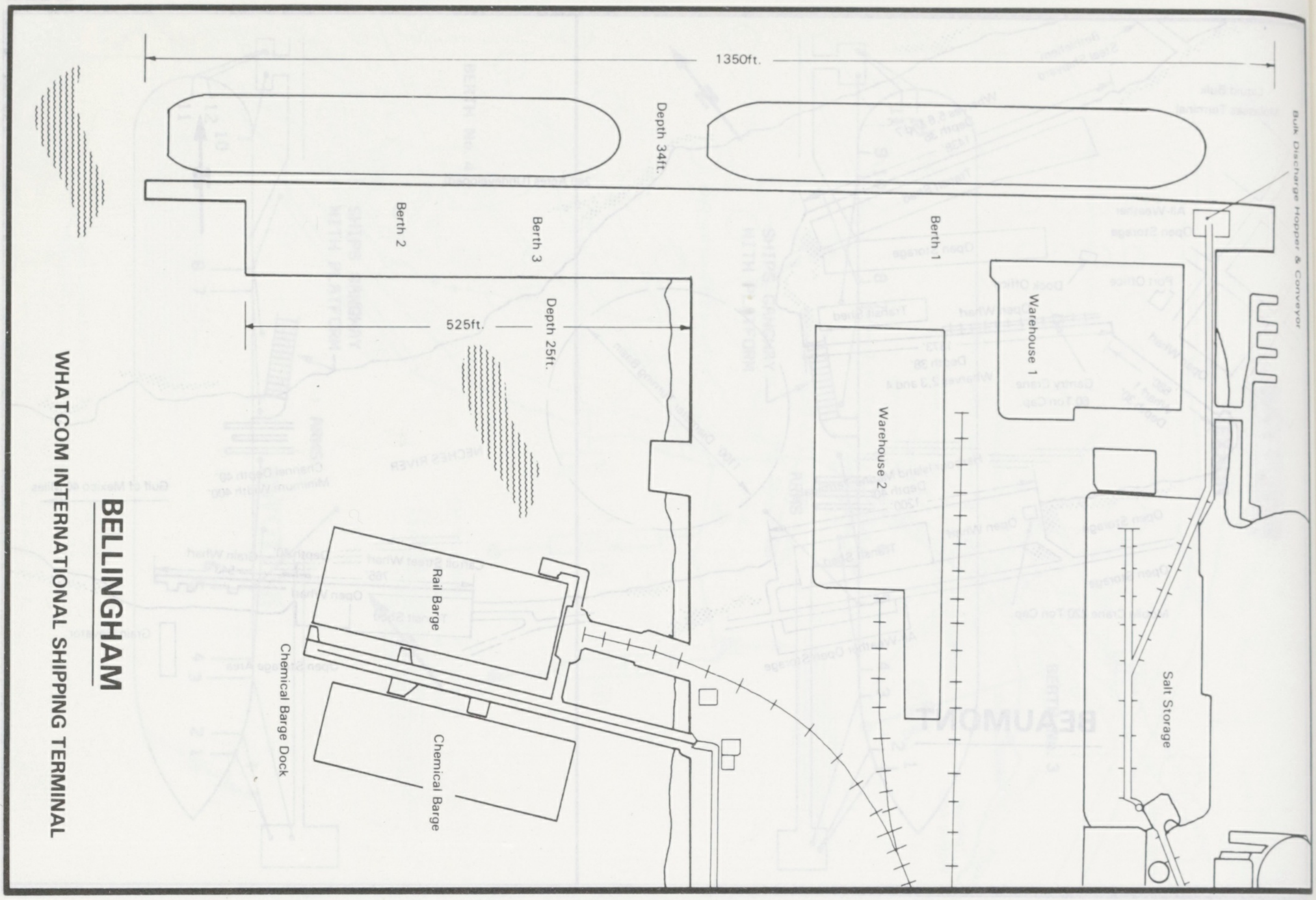
EXXON

BERTHS No. 5 & No. 6


FENDER
76,000 DWT
ALL WIRES
HOUSTON SHIP CHANNEL


Bethlehem Steel Shipyard
Liquid Bulk Molasses Terminal
Wharves 5,6 and 7
Depth 36'
1438'
Transit Shed
All-Weather Open Storage
Open Storage
Port Office
Dock Office
Open Wharf
Transit Shed
1373'
Depth 38'
Wharves 2,3 and 4
Gantry Crane 60 Ton Cap.
Open Wharf
580'
Wharf 1
Depth 30'
240 Acres (Undeveloped)
N
1100' Diameter Turning Basin
NECHES RIVER
Channel Depth 40'
Minimum Width 400'
Gulf of Mexico 40 Miles
Harbour Island Marine Terminal
Depth 40'
1200'
Open Storage
Open Wharf
Transit Shed
Open Storage
Mobile Crane 220 Ton Cap.
All-Weather Open Storage
Carroll Street Wharf
765'
Depth 40'
Grain Wharf
543'
Open Wharf
Transit Shed
Grain Elevator
Open Storage Area
BEAUMONT

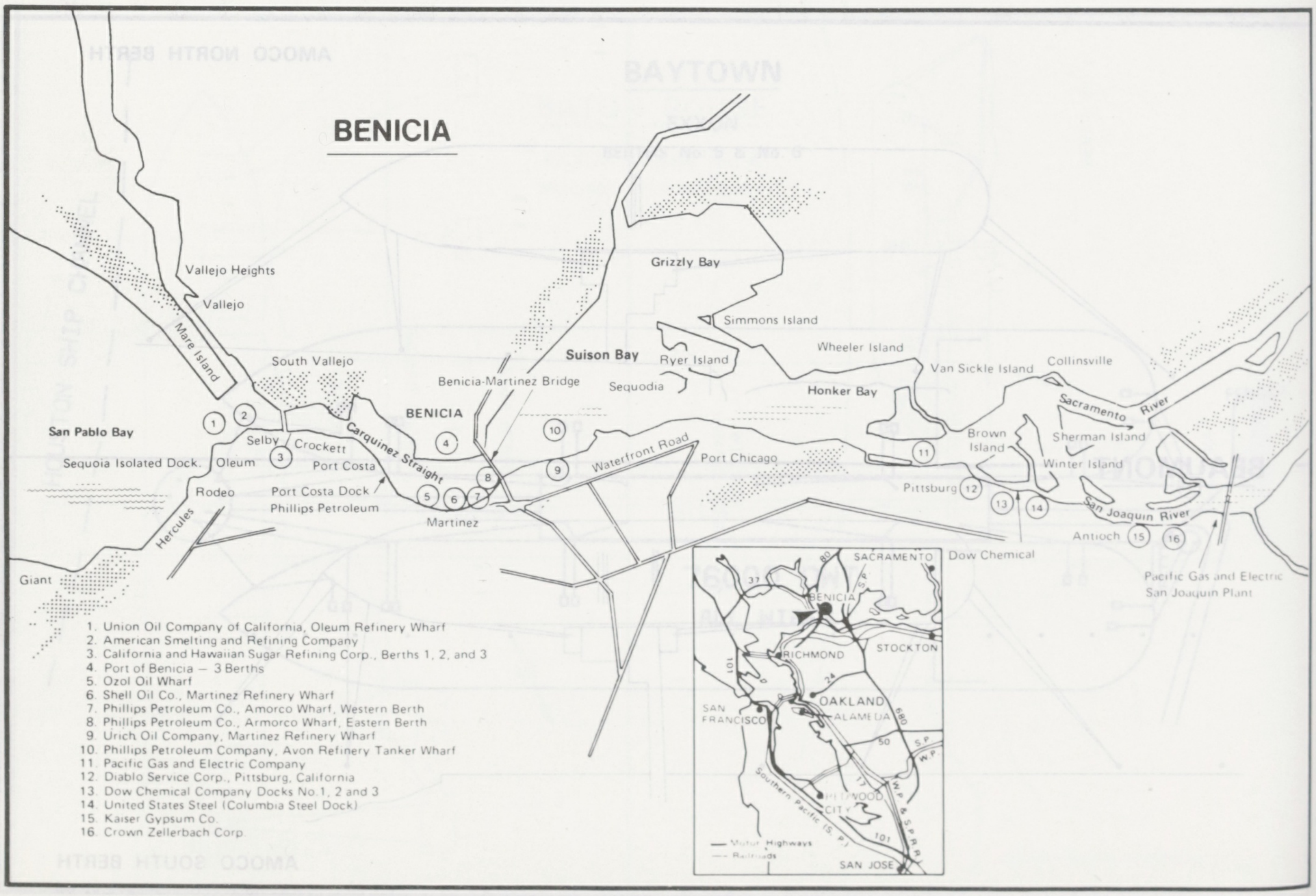

AMOCO NORTH BERTH
BEAUMONT
AMOCO SOUTH BERTH



BELLINGHAM

WHATCOM INTERNATIONAL SHIPPING TERMINAL

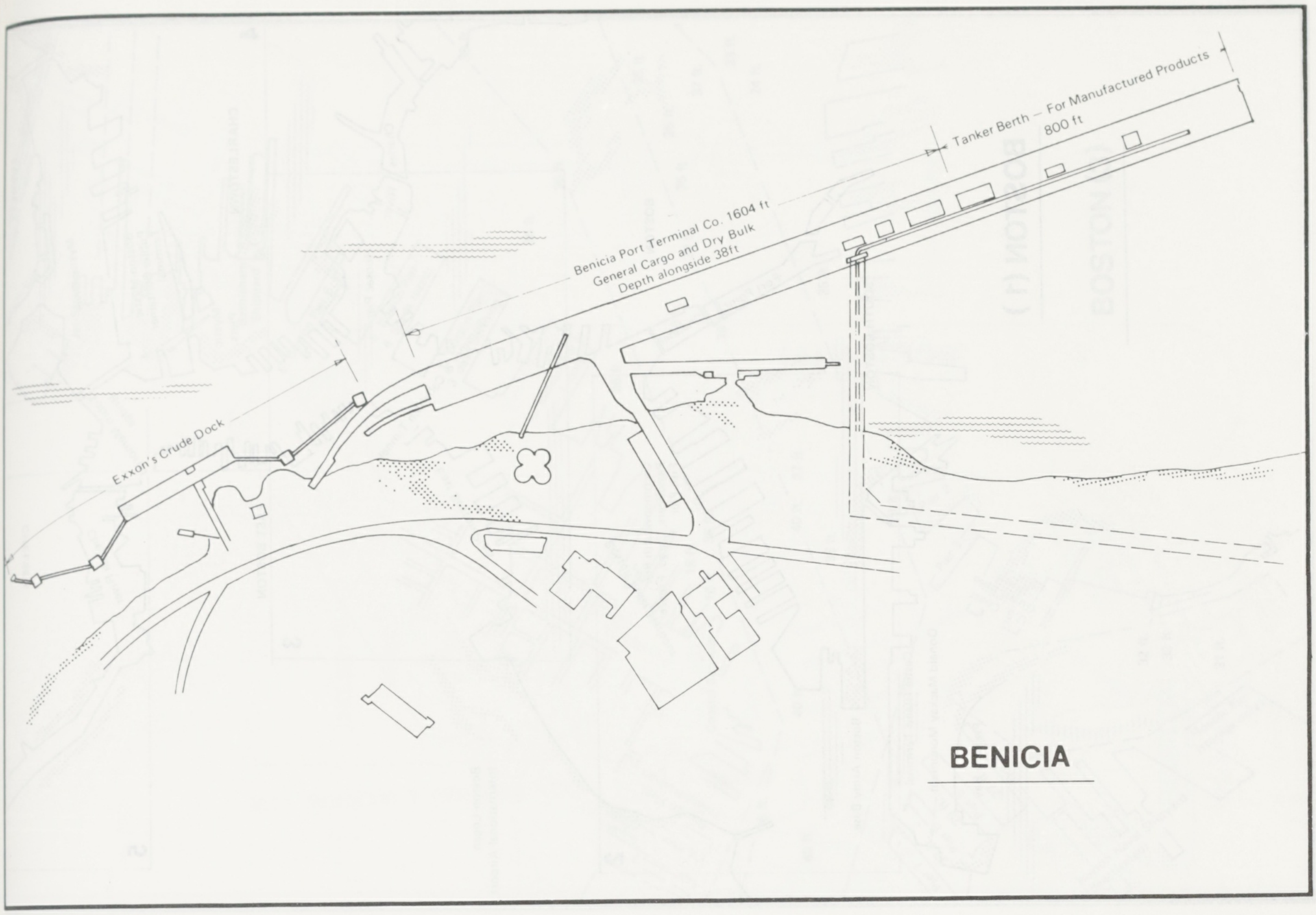
1350ft.
Depth 34ft.
Berth 2
Berth 3
Berth 1
525ft.
Depth 25ft.
Warehouse 1
Warehouse 2
Bulk Discharge Hopper & Conveyor
Salt Storage
Rail Barge
Chemical Barge Dock
Chemical Barge

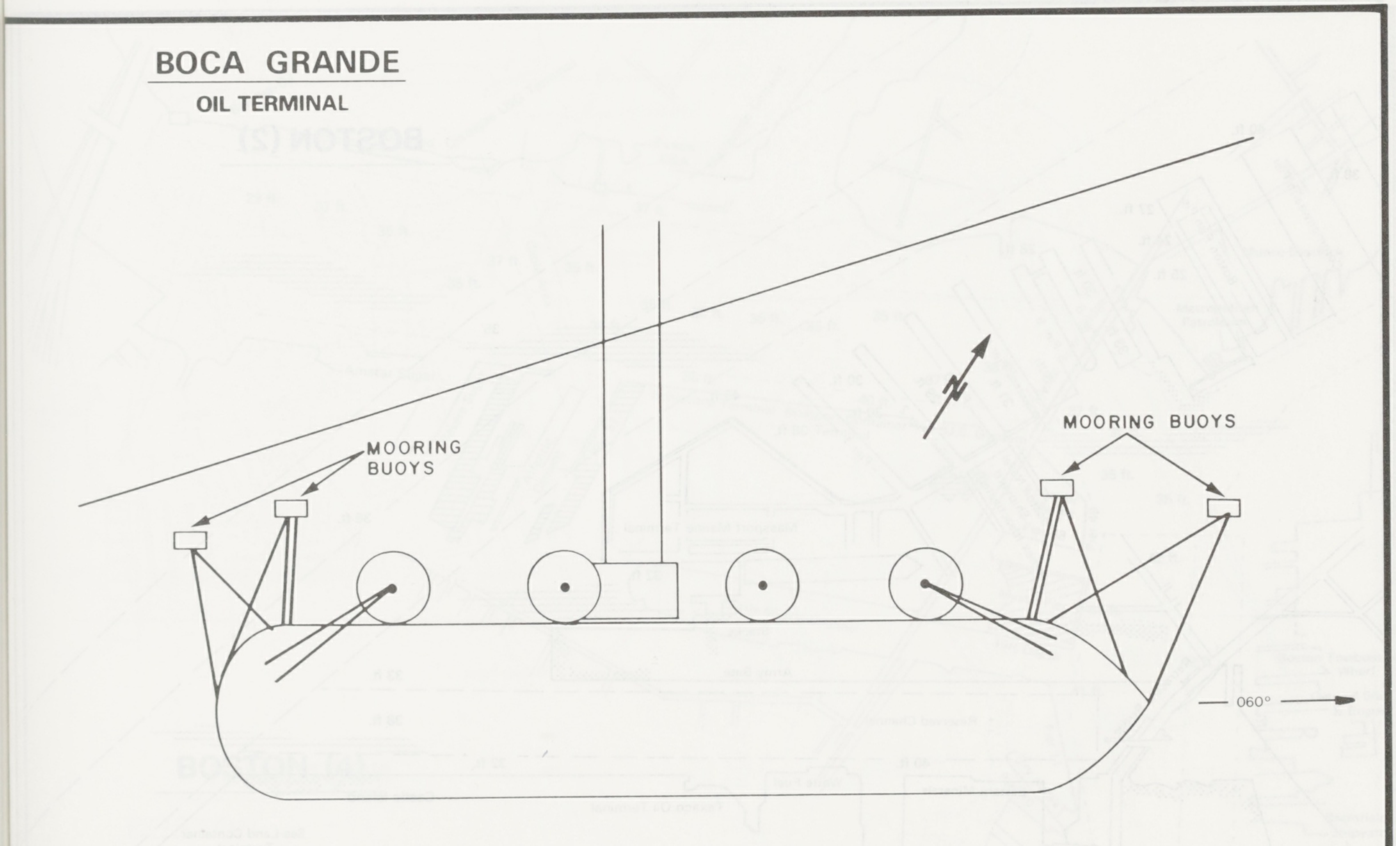


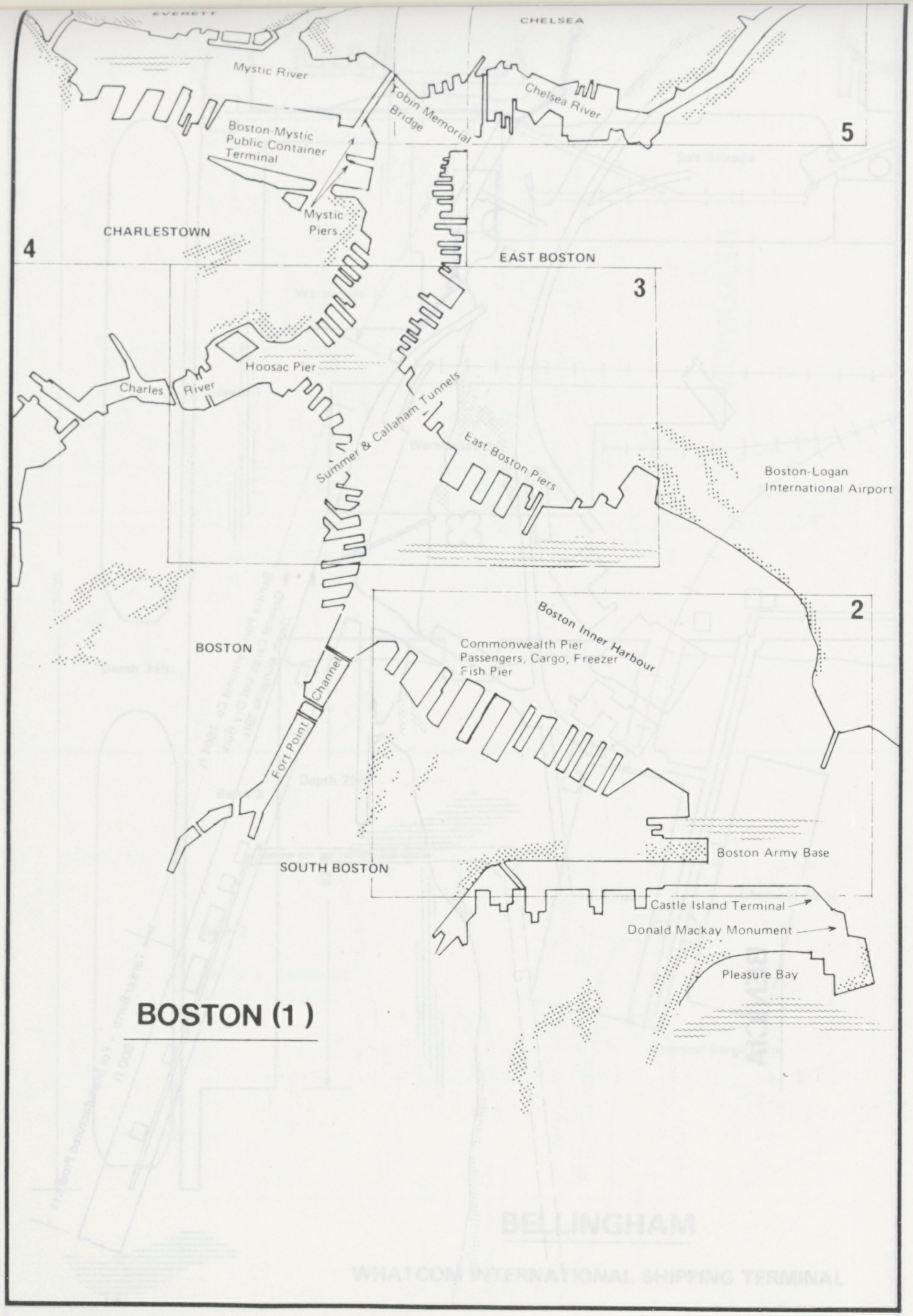
BENICIA

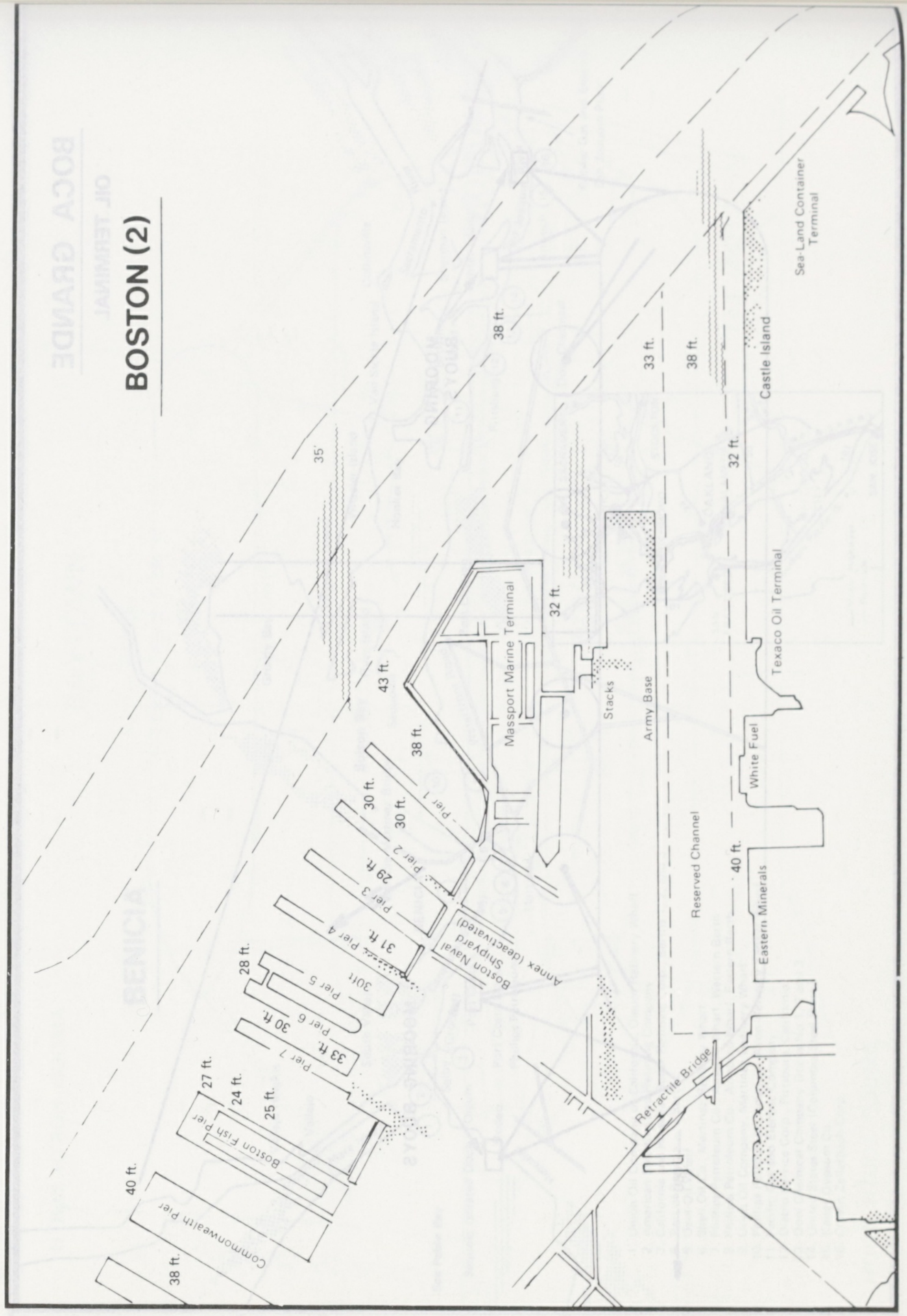
Vallejo Heights
Vallejo
Mare Island
South Vallejo
San Pablo Bay
Sequoia Isolated Dock.
Oleum
Selby
Crockett
Port Costa
Rodeo
Hercules
Giant
Port Costa Dock
Phillips Petroleum
Carquinez Straight
BENICIA
Martinez
Benicia-Martinez Bridge
Suison Bay
Grizzly Bay
Simmons Island
Ryer Island
Sequodia
Waterfront Road
Port Chicago
Wheeler Island
Honker Bay
Van Sickle Island
Collinsville
Sacramento River
Brown Island
Sherman Island
Winter Island
Pittsburg
San Joaquin River
Antioch
Dow Chemical
Pacific Gas and Electric San Joaquin Plant
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
SACRAMENTO
BENICIA
RICHMOND
STOCKTON
SAN FRANCISCO
OAKLAND
ALAMEDA
REDWOOD CITY
SAN JOSE
Southern Pacific (S.P.)
Motor Highways
Railroads

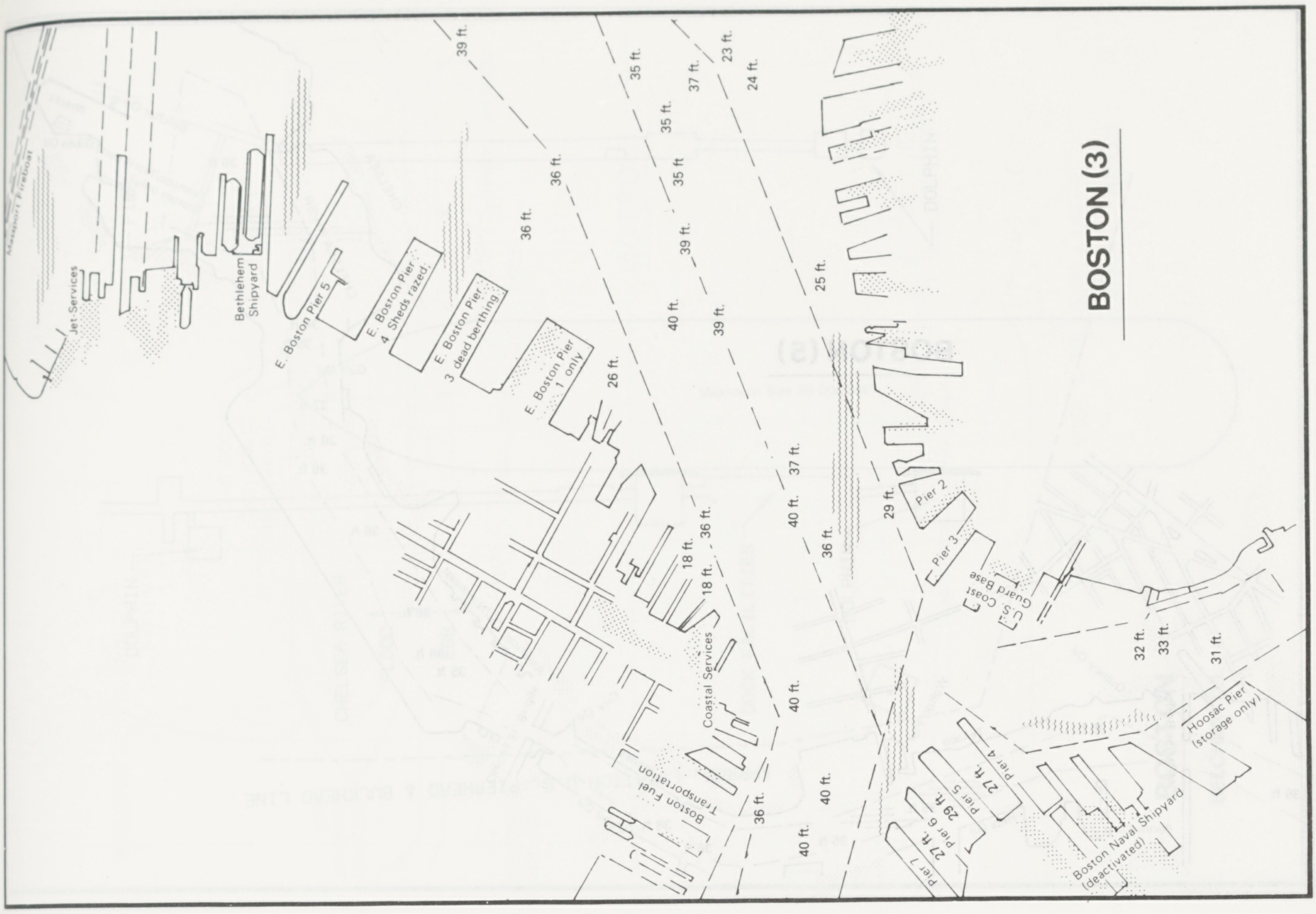
1. Union Oil Company of California, Oleum Refinery Wharf
2. American Smelting and Refining Company
3. California and Hawaiian Sugar Refining Corp., Berths 1, 2, and 3
4. Port of Benicia — 3 Berths
5. Ozol Oil Wharf
6. Shell Oil Co., Martinez Refinery Wharf
7. Phillips Petroleum Co., Amorco Wharf, Western Berth
8. Phillips Petroleum Co., Armorco Wharf, Eastern Berth
9. Urich Oil Company, Martinez Refinery Wharf
10. Phillips Petroleum Company, Avon Refinery Tanker Wharf
11. Pacific Gas and Electric Company
12. Diablo Service Corp., Pittsburg, California
13. Dow Chemical Company Docks No.1, 2 and 3
14. United States Steel (Columbia Steel Dock)
15. Kaiser Gypsum Co.
16. Crown Zellerbach Corp.

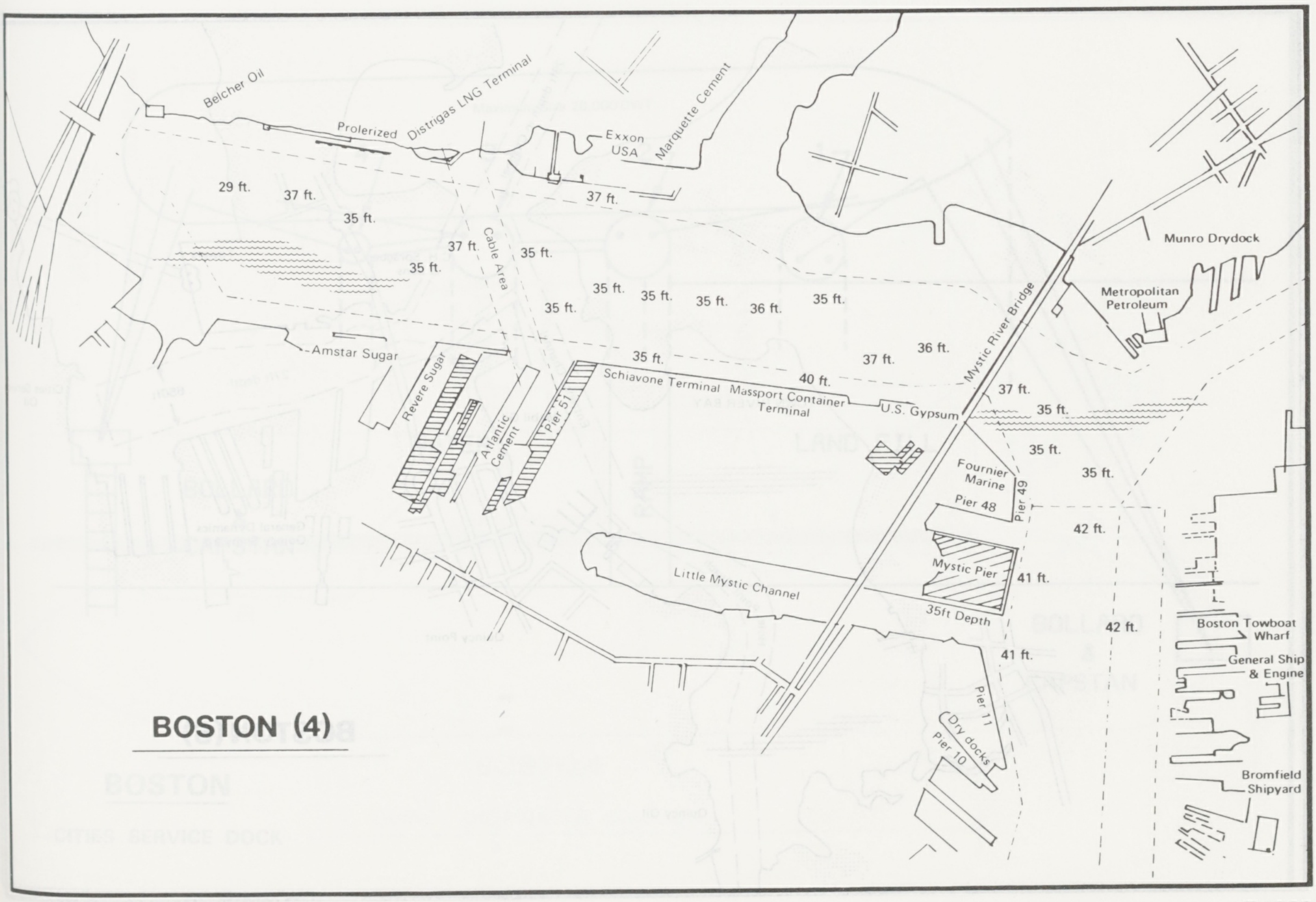

Exxon's Crude Dock
Benicia Port Terminal Co. 1604 ft
General Cargo and Dry Bulk
Depth alongside 38ft
Tanker Berth – For Manufactured Products
800 ft
BENICIA

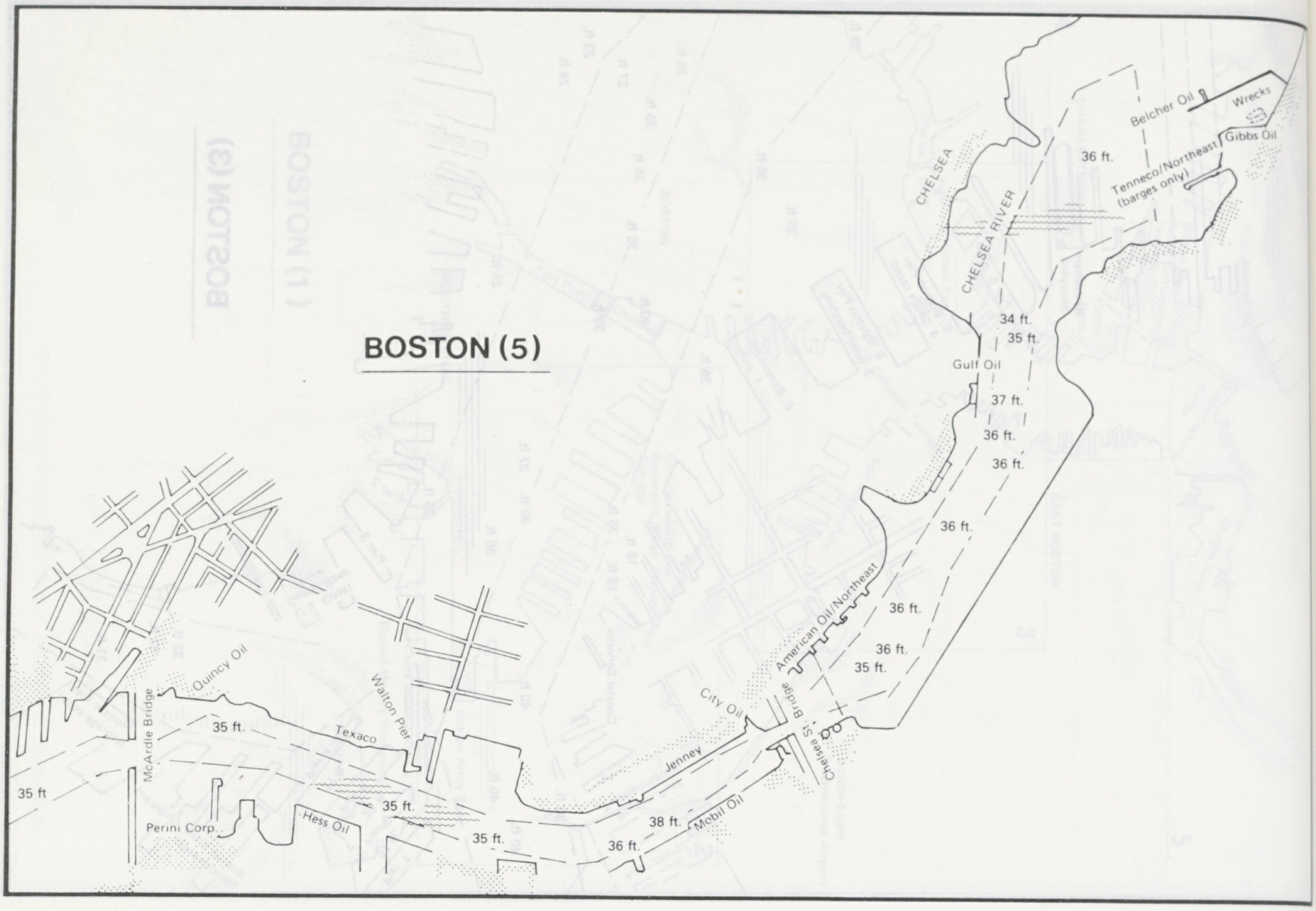

BOCA GRANDE
OIL TERMINAL
MOORING
BUOYS
MOORING BUOYS
060°

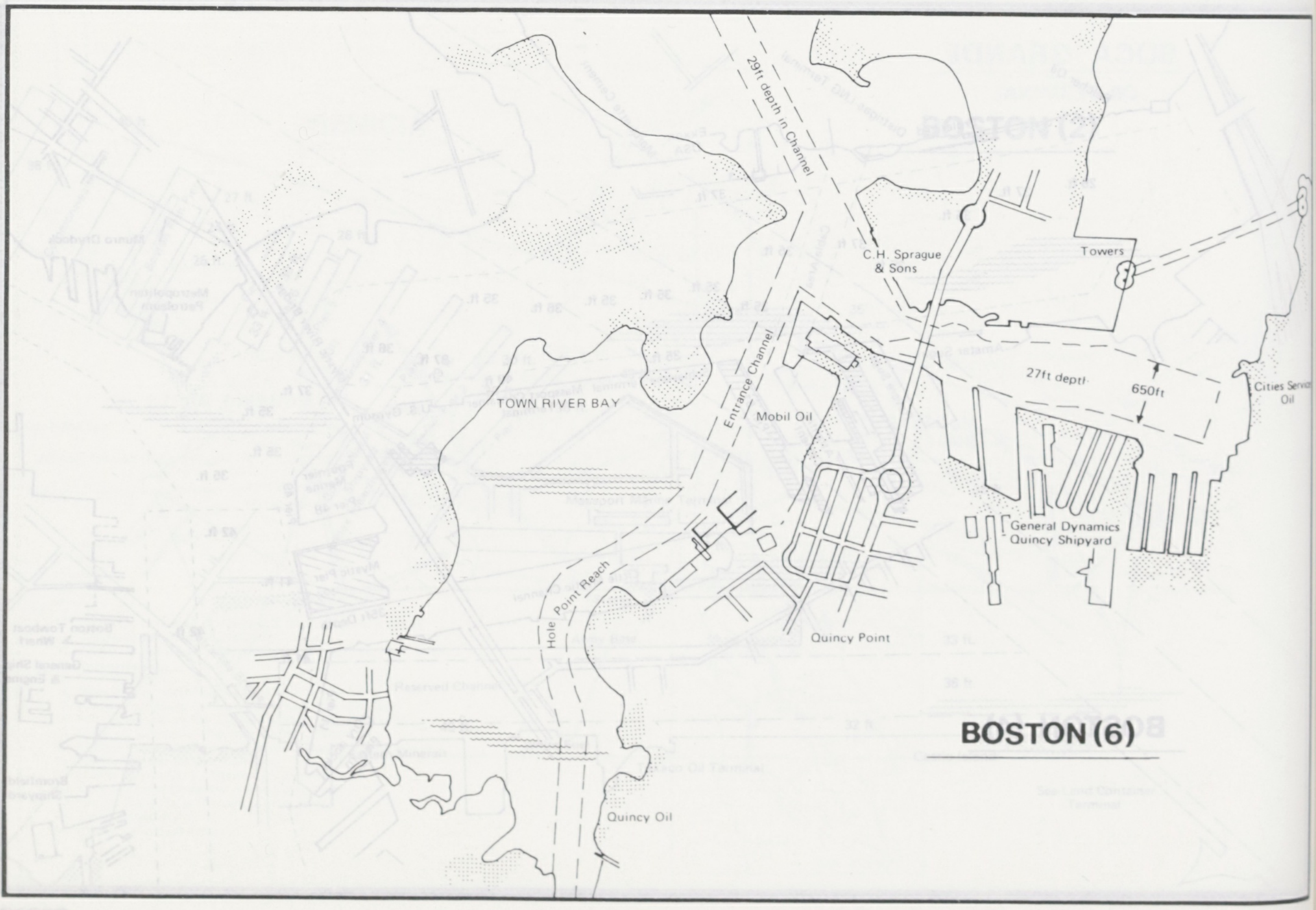

EVERETT
CHELSEA
Mystic River
Boston-Mystic Public Container Terminal
Tobin Memorial Bridge
Chelsea River
5
Mystic Piers
CHARLESTOWN
4
EAST BOSTON
3
Hoosac Pier
Charles River
Summer & Callaham Tunnels
East Boston Piers
Boston-Logan International Airport
2
Boston Inner Harbour
Commonwealth Pier Passengers, Cargo, Freezer Fish Pier
BOSTON
Fort Point Channel
Boston Army Base
SOUTH BOSTON
Castle Island Terminal
Donald Mackay Monument
Pleasure Bay
BOSTON (1)

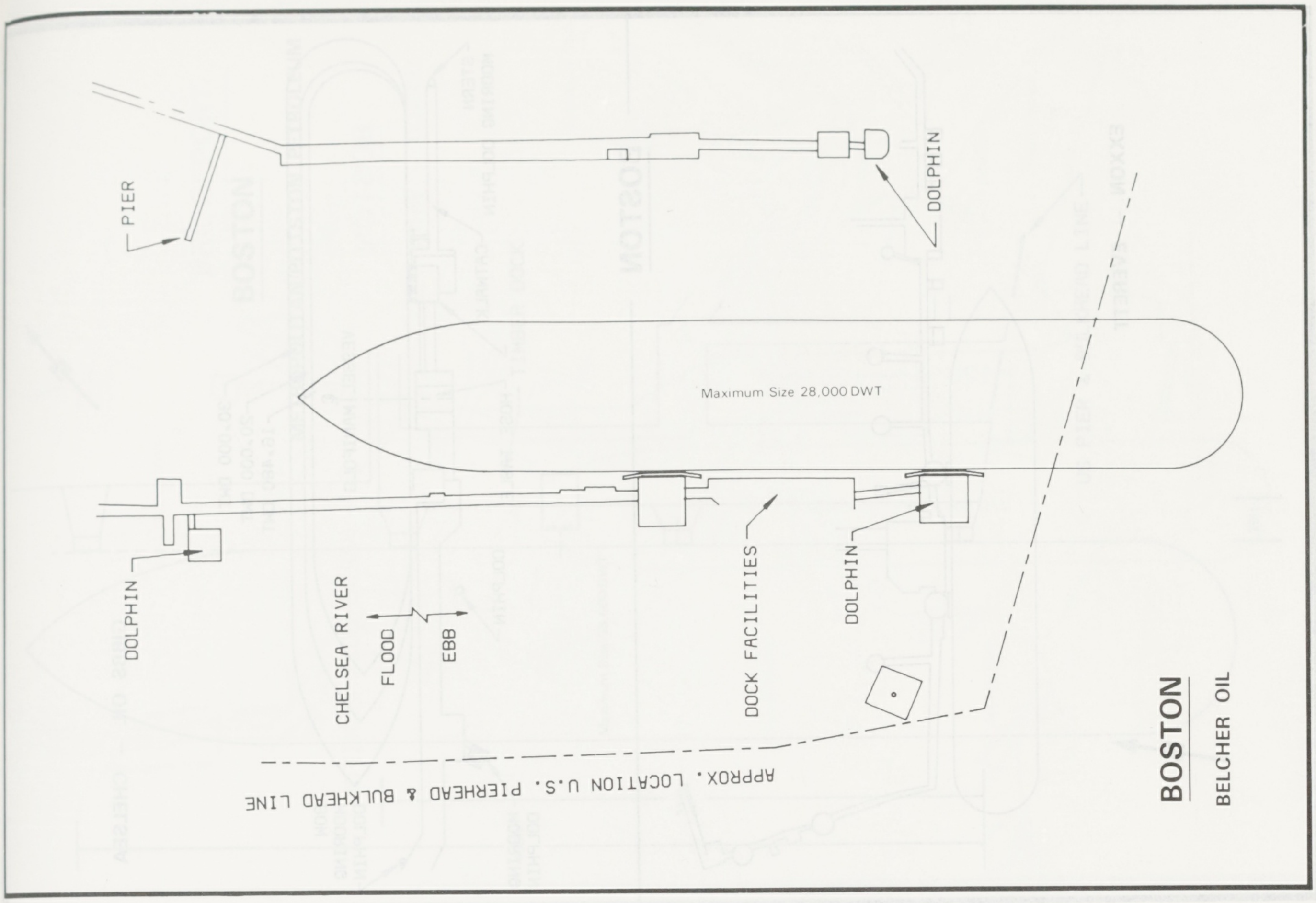

BOSTON (2)
35
38 ft.
33 ft.
38 ft.
Castle Island
Sea-Land Container Terminal
32 ft.
Massport Marine Terminal
32 ft.
Stacks
Army Base
Reserved Channel
Texaco Oil Terminal
White Fuel
40 ft.
Eastern Minerals
43 ft.
38 ft.
Pier 1
30 ft.
30 ft.
Pier 2
29 ft.
Pier 3
31 ft.
Pier 4
Boston Naval Shipyard Annex (deactivated)
28 ft.
30ft
Pier 5
30 ft.
Pier 6
33 ft.
Pier 7
27 ft.
24 ft.
25 ft.
Boston Fish Pier
40 ft.
Commonwealth Pier
38 ft.
Retractile Bridge


BOSTON (3)
Jet Services
Bethlehem Shipyard
E. Boston Pier 5
E. Boston Pier 4 Sheds razed.
E. Boston Pier 3 dead berthing
E. Boston Pier 1 only
39 ft.
36 ft.
36 ft.
36 ft.
26 ft.
35 ft.
35 ft.
35 ft.
37 ft.
23 ft.
24 ft.
39 ft.
40 ft.
39 ft.
25 ft.
37 ft.
40 ft.
36 ft.
29 ft.
Pier 2
Pier 3
U.S. Coast Guard Base
18 ft.
18 ft.
36 ft.
Coastal Services
Boston Fuel Transportation
40 ft.
36 ft.
40 ft.
40 ft.
32 ft.
33 ft.
31 ft.
Hoosac Pier (storage only)
Pier 4
27 ft.
Pier 5
29 ft.
Pier 6
27 ft.
Pier 7
Boston Naval Shipyard (deactivated)


Belcher Oil
Prolerized
Distrigas LNG Terminal
Exxon USA
Marquette Cement
29 ft.
37 ft.
35 ft.
37 ft.
37 ft.
35 ft.
35 ft.
Cable Area
35 ft.
35 ft.
35 ft.
35 ft.
36 ft.
35 ft.
Amstar Sugar
35 ft.
36 ft.
37 ft.
40 ft.
Mystic River Bridge
Munro Drydock
Metropolitan Petroleum
Revere Sugar
Atlantic Cement
Pier 51
Schiavone Terminal
Massport Container Terminal
U.S. Gypsum
37 ft.
35 ft.
35 ft.
35 ft.
Fournier Marine
Pier 48
Pier 49
42 ft.
Mystic Pier
41 ft.
Little Mystic Channel
35ft Depth
42 ft.
41 ft.
Boston Towboat Wharf
General Ship & Engine
Pier 11
Dry docks
Pier 10
Bromfield Shipyard
BOSTON (4)

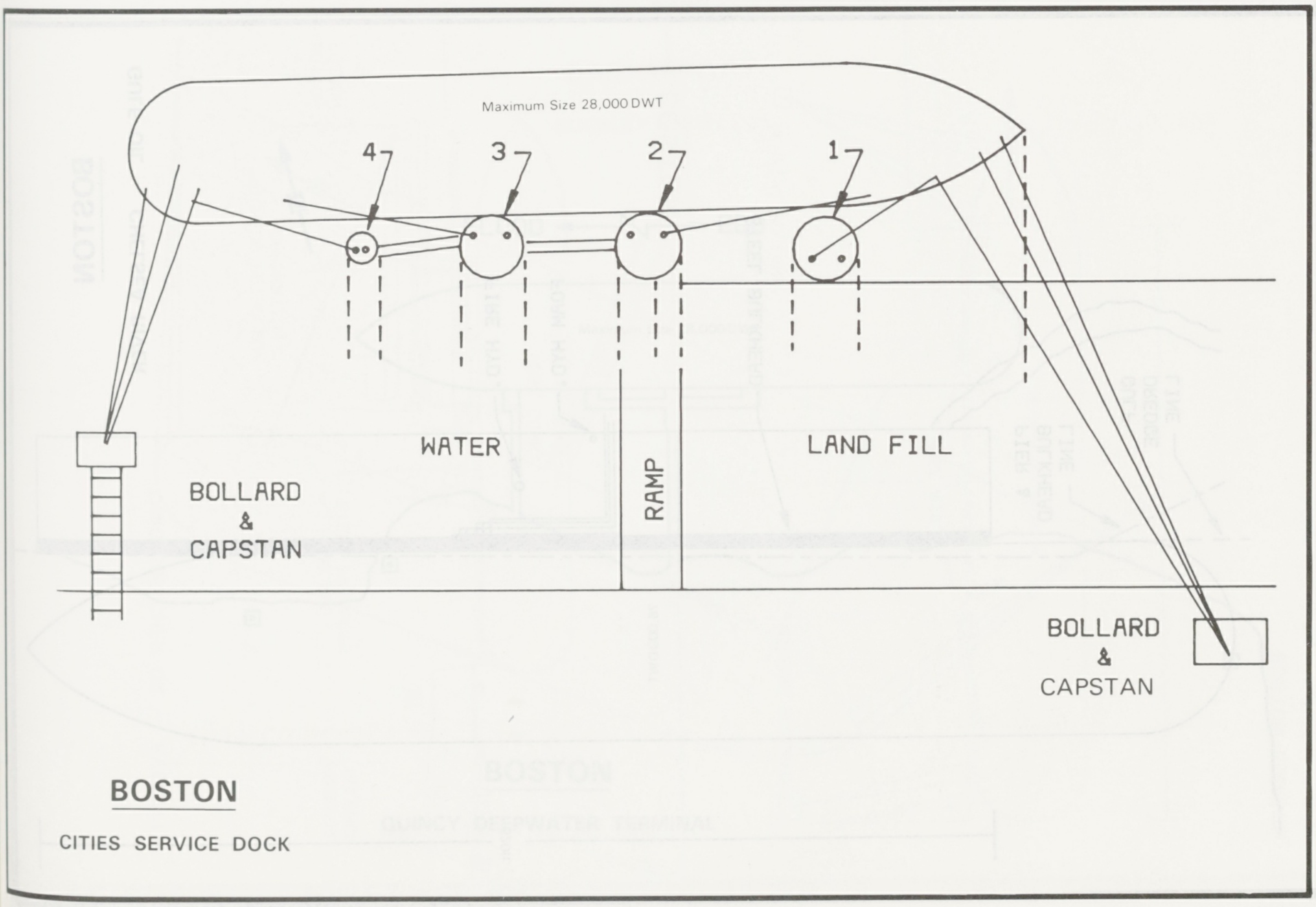

BOSTON (5)
Belcher Oil
Wrecks
Gibbs Oil
36 ft.
Tenneco/Northeast (barges only)
CHELSEA
CHELSEA RIVER
34 ft.
35 ft.
Gulf Oil
37 ft.
36 ft.
36 ft.
36 ft.
American Oil/Northeast
36 ft.
36 ft.
35 ft.
Chelsea St. Bridge
City Oil
Jenney
Mobil Oil
38 ft.
36 ft.
35 ft.
35 ft.
Hess Oil
Perini Corp.
Texaco
Walton Pier
35 ft.
Quincy Oil
McArdle Bridge
35 ft


29ft depth in Channel
C.H. Sprague & Sons
Towers
27ft depth
650ft
Cities Service Oil
TOWN RIVER BAY
Entrance Channel
Mobil Oil
General Dynamics Quincy Shipyard
Hole Point Reach
Quincy Point
BOSTON (6)
Quincy Oil


PIER
DOLPHIN
Maximum Size 28,000 DWT
DOLPHIN
CHELSEA RIVER
FLOOD
EBB
DOCK FACILITIES
DOLPHIN
APPROX. LOCATION U.S. PIERHEAD & BULKHEAD LINE

BOSTON

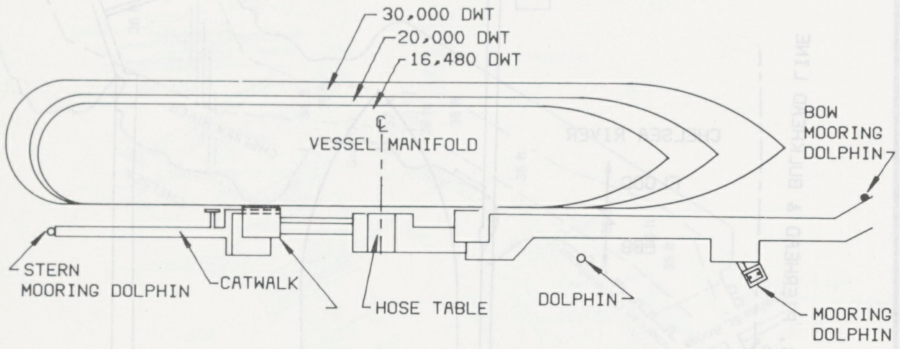
BELCHER OIL


Maximum Size 28,000 DWT
4
3
2
1
WATER
LAND FILL
RAMP
BOLLARD & CAPSTAN
BOLLARD & CAPSTAN

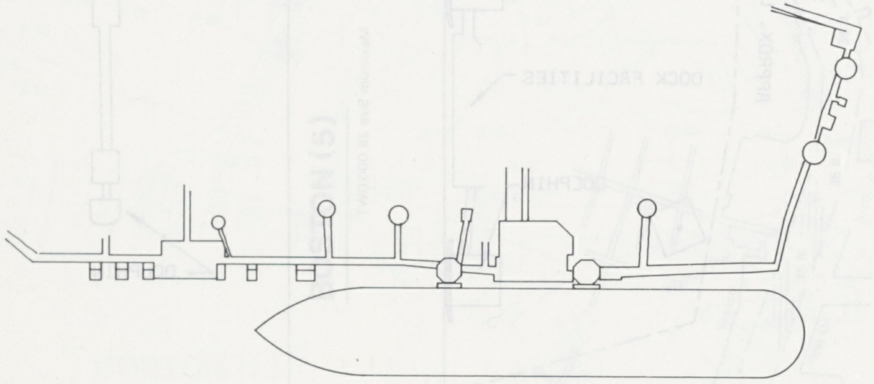
BOSTON

CITIES SERVICE DOCK

GIBBS OIL — CHELSEA


30,000 DWT
20,000 DWT
16,480 DWT
℄
VESSEL MANIFOLD
BOW MOORING DOLPHIN
STERN MOORING DOLPHIN
CATWALK
HOSE TABLE
DOLPHIN
MOORING DOLPHIN

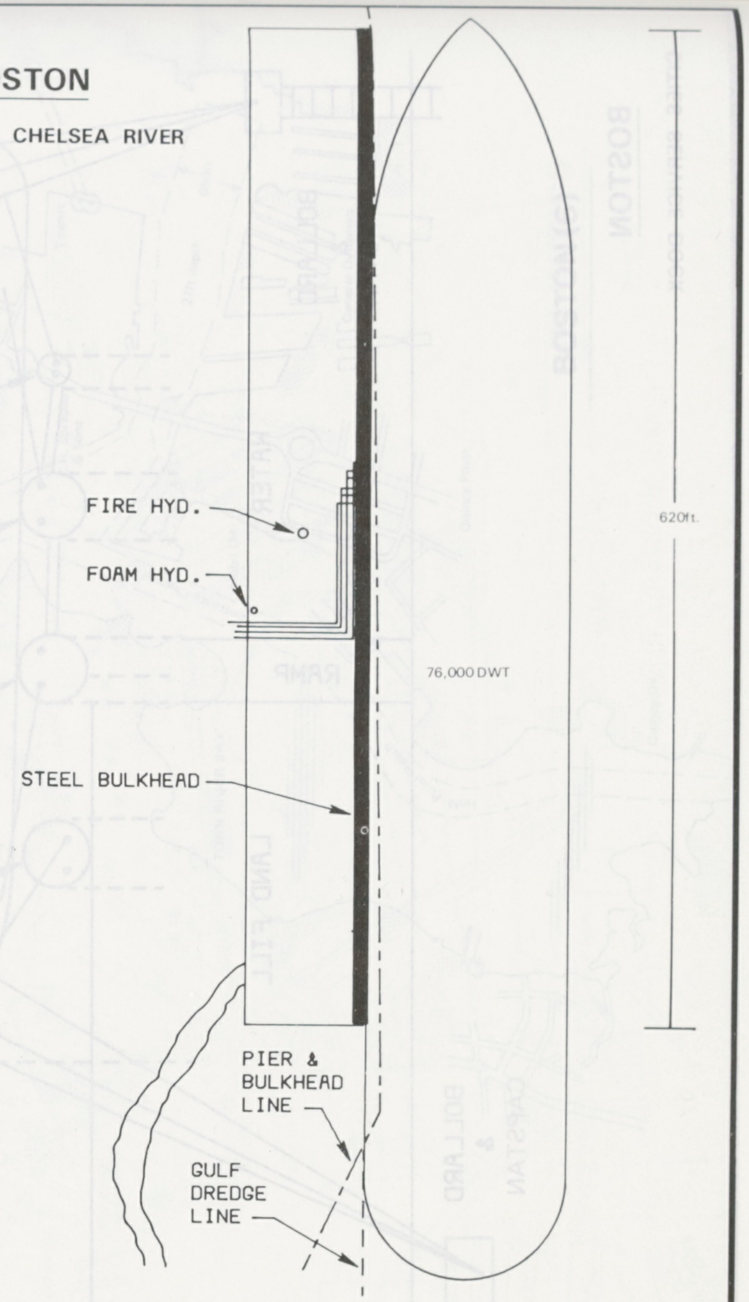
BOSTON

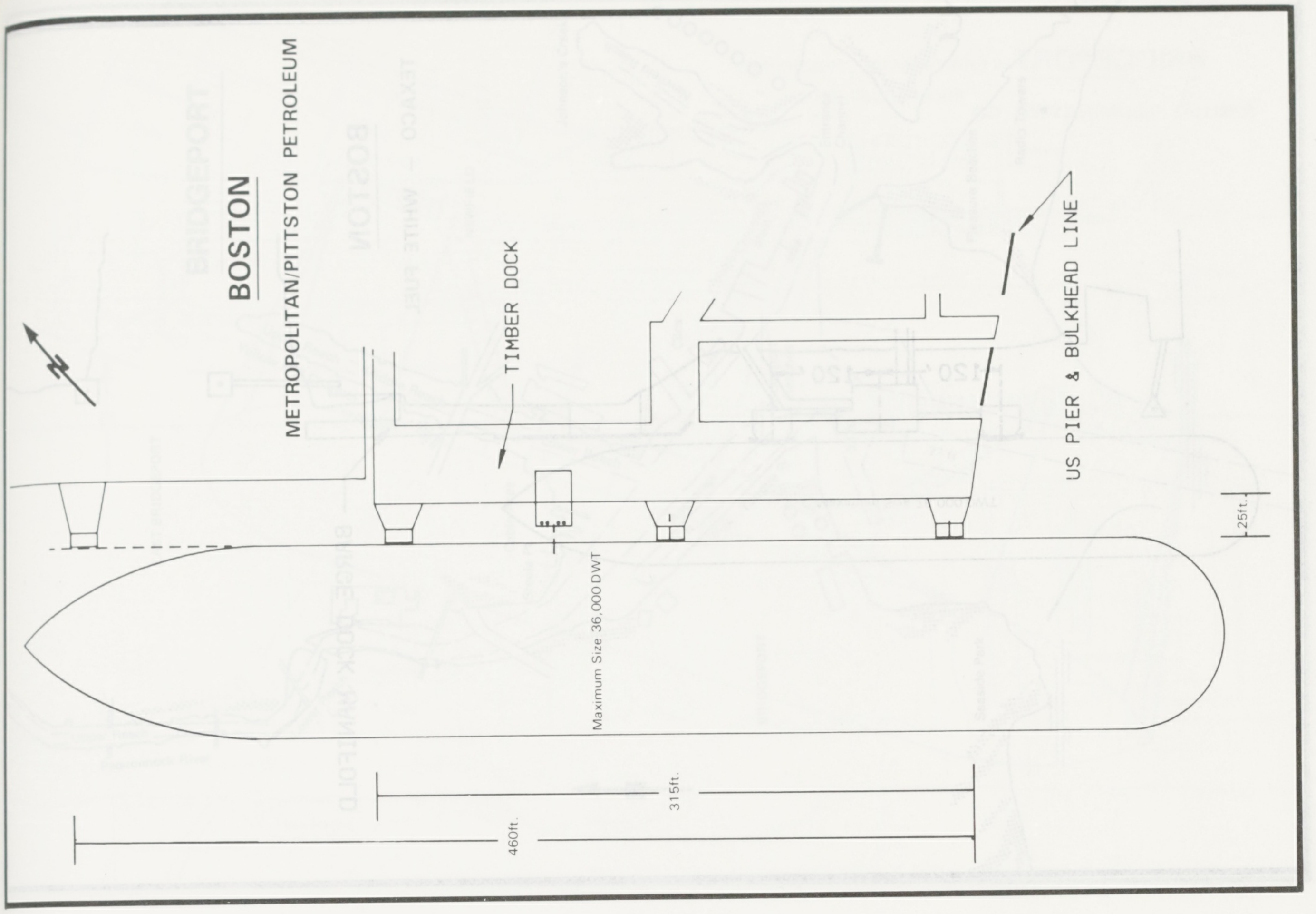


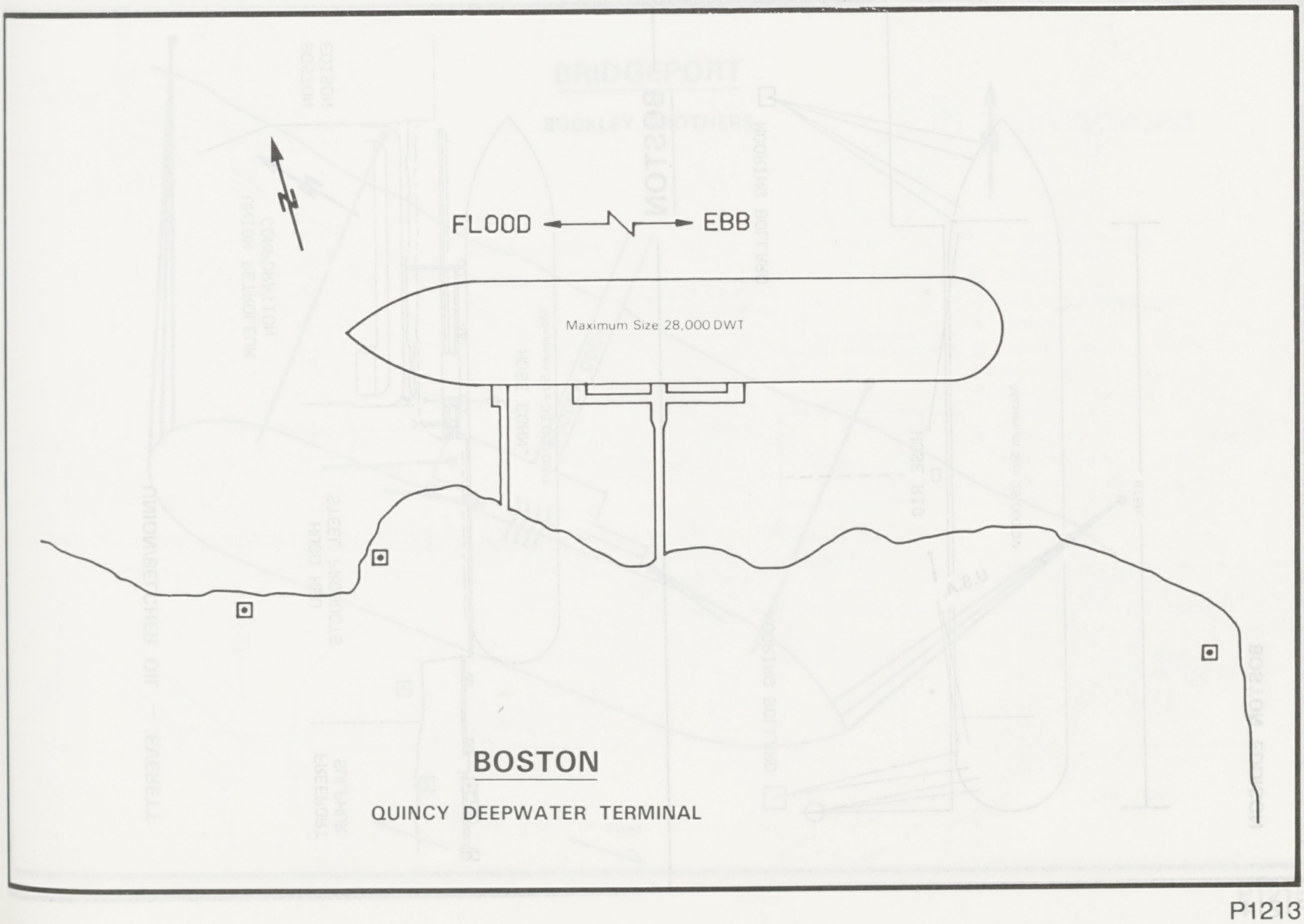
EXXON — EVERETT

BOSTON

GULF OIL — CHELSEA RIVER

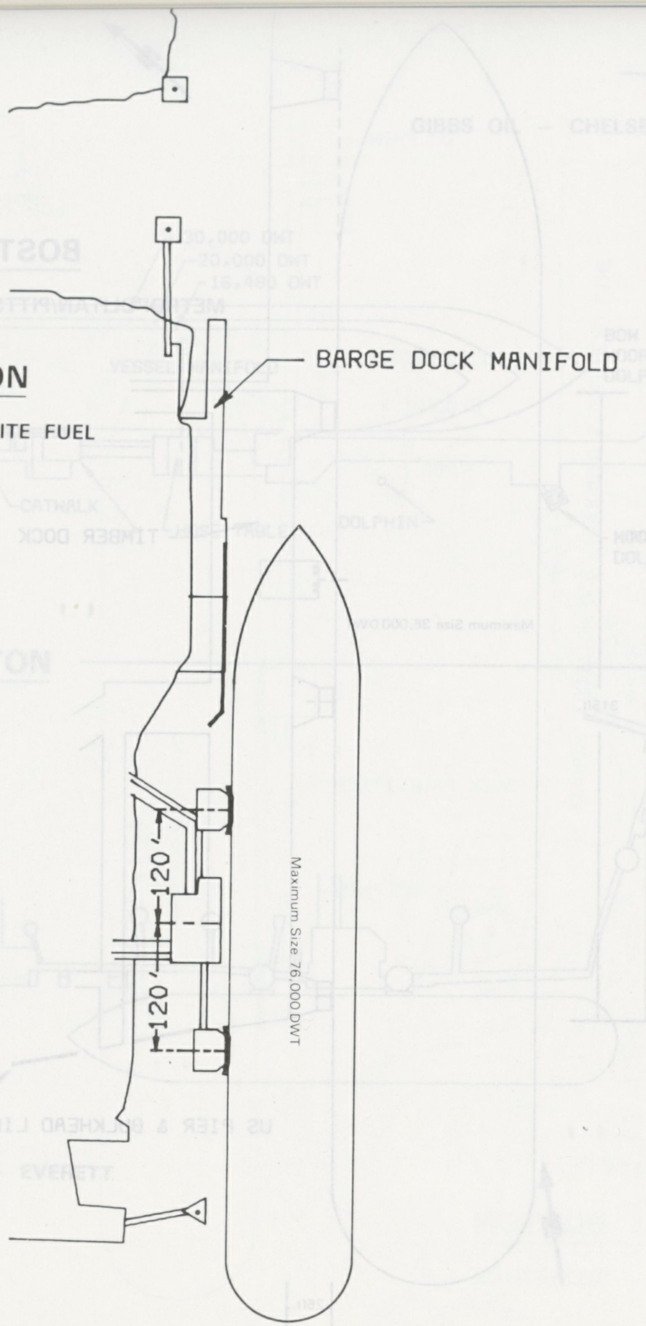

FIRE HYD.
FOAM HYD.
STEEL BULKHEAD
PIER & BULKHEAD LINE
GULF DREDGE LINE
76,000 DWT
620ft.


BOSTON
METROPOLITAN/PITTSTON PETROLEUM
TIMBER DOCK
US PIER & BULKHEAD LINE
25ft.
Maximum Size 36,000 DWT
315ft.
460ft.

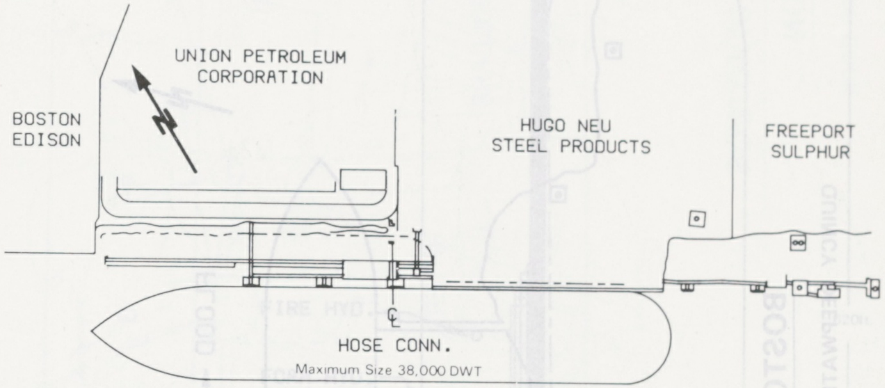

FLOOD
EBB
Maximum Size 28,000 DWT
BOSTON
QUINCY DEEPWATER TERMINAL

BOSTON

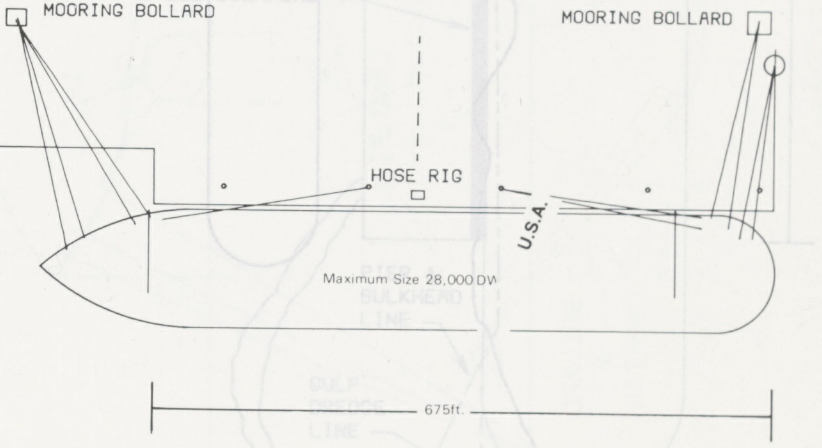
TEXACO — WHITE FUEL


BARGE DOCK MANIFOLD
120'
120'
120'
Maximum Size 76,000 DWT

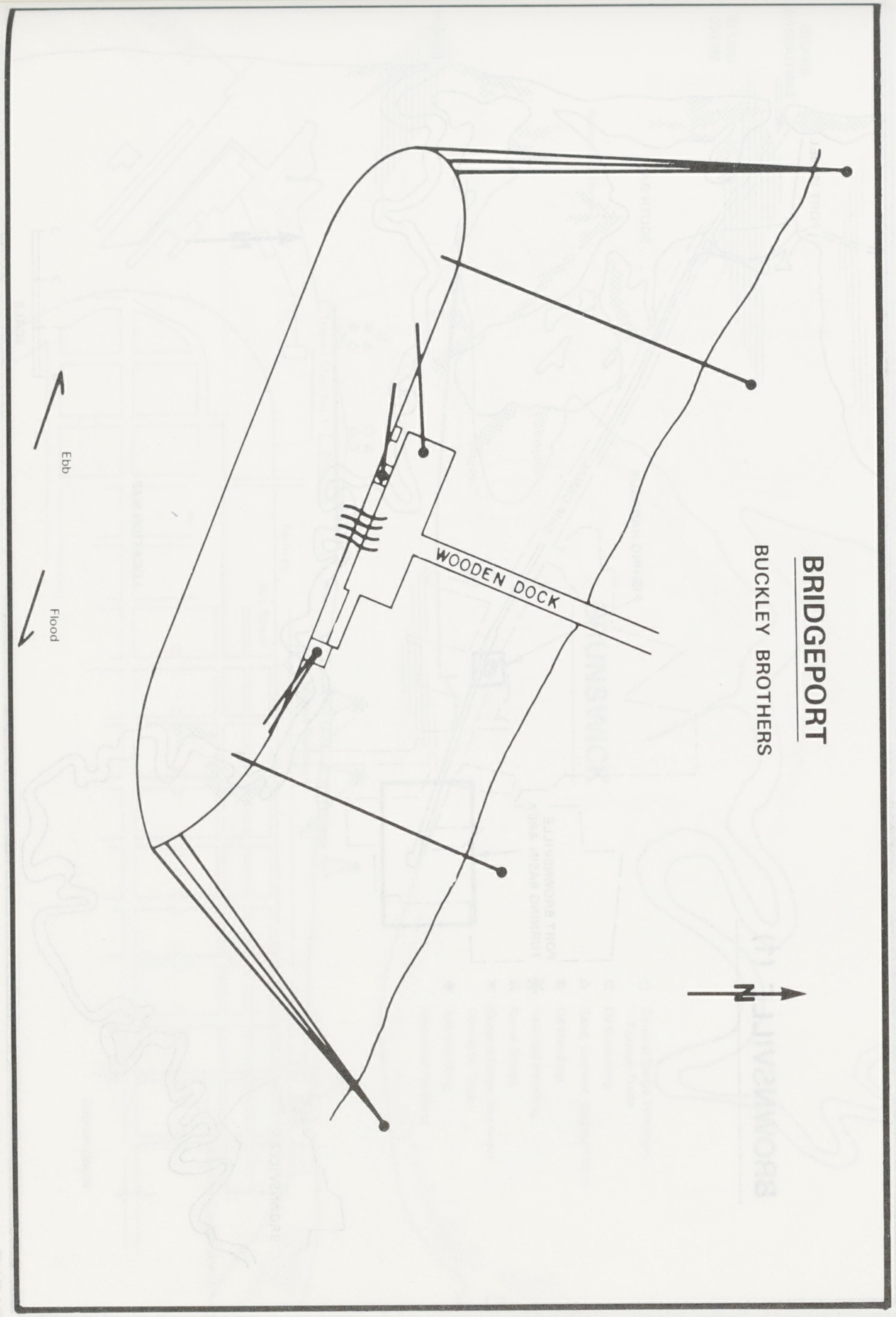
UNION/BELCHER OIL — EVERETT

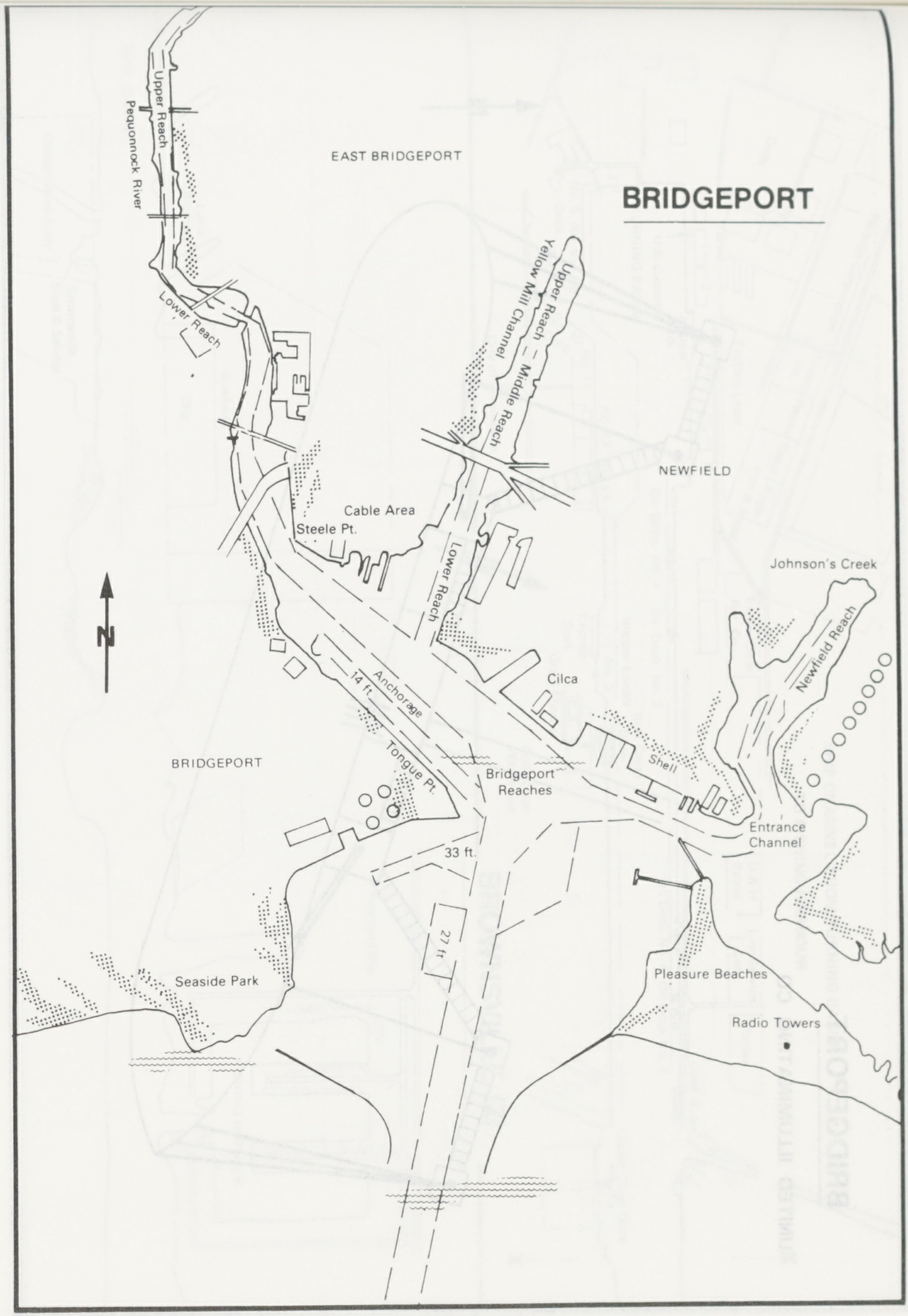

UNION PETROLEUM CORPORATION
BOSTON EDISON
HUGO NEU STEEL PRODUCTS
FREEPORT SULPHUR
HOSE CONN.
Maximum Size 38,000 DWT

BOSTON


MOORING BOLLARD
MOORING BOLLARD
HOSE RIG
U.S.A.
Maximum Size 28,000 DW
675ft.

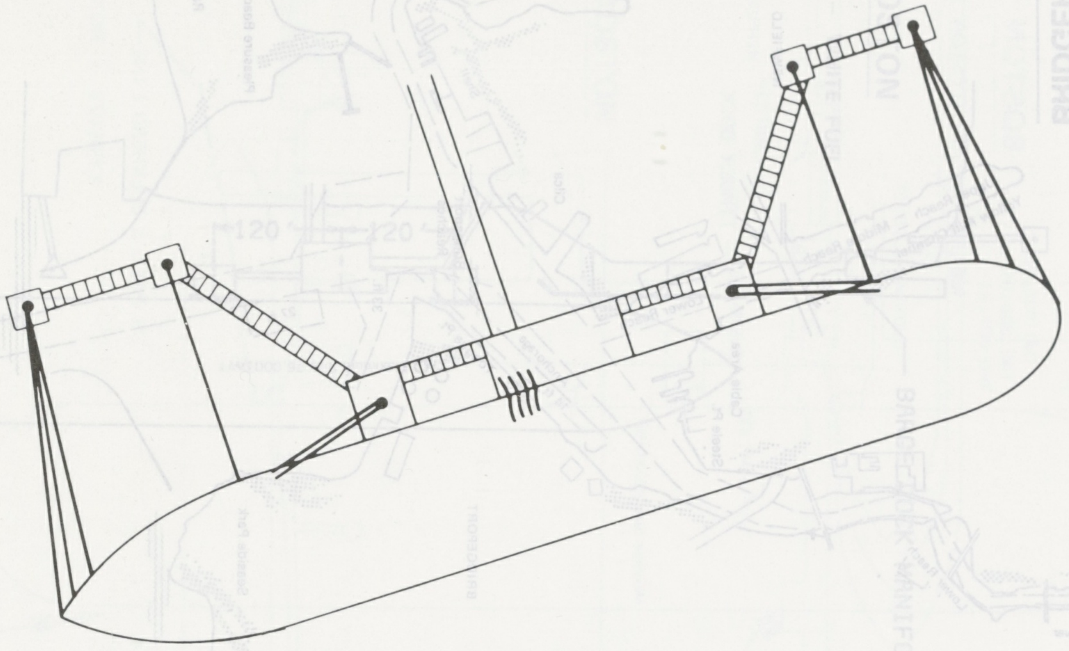
BOSTON EDDISON


BRIDGEPORT
BUCKLEY BROTHERS
WOODEN DOCK
Ebb
Flood
N

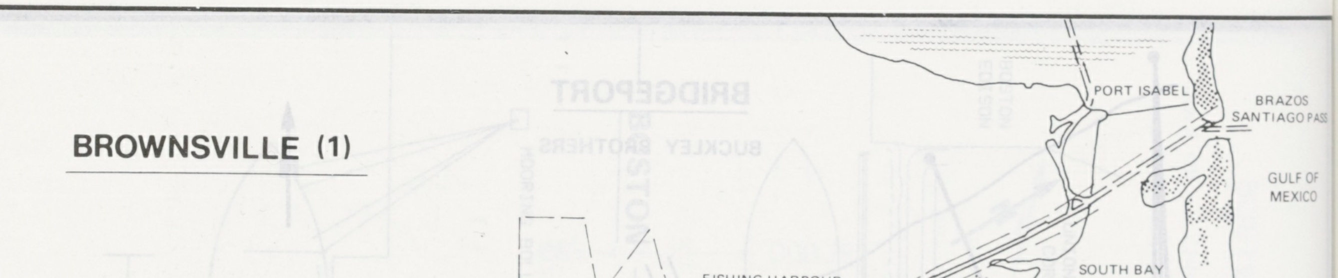

BRIDGEPORT
EAST BRIDGEPORT
Upper Reach
Pequonnock River
Lower Reach
Upper Reach – Middle Reach
Yellow Mill Channel
NEWFIELD
Cable Area
Steele Pt.
Lower Reach
Johnson's Creek
Newfield Reach
N
Cilca
Anchorage
14 ft.
Tongue Pt.
Shell
BRIDGEPORT
Bridgeport Reaches
Entrance Channel
33 ft.
27 ft
Seaside Park
Pleasure Beaches
Radio Towers

BRIDGEPORT

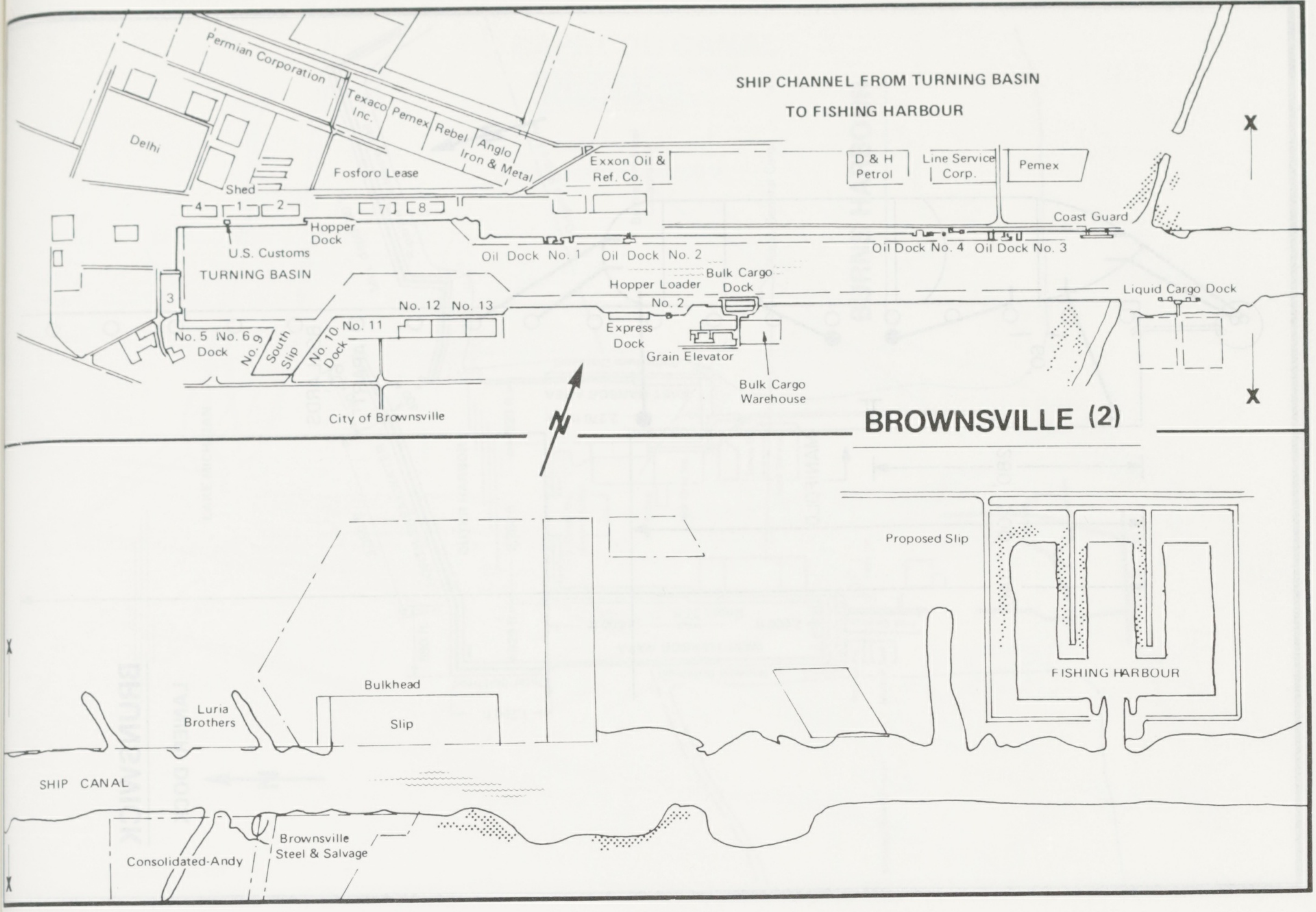
UNITED ILLUMINATING CO



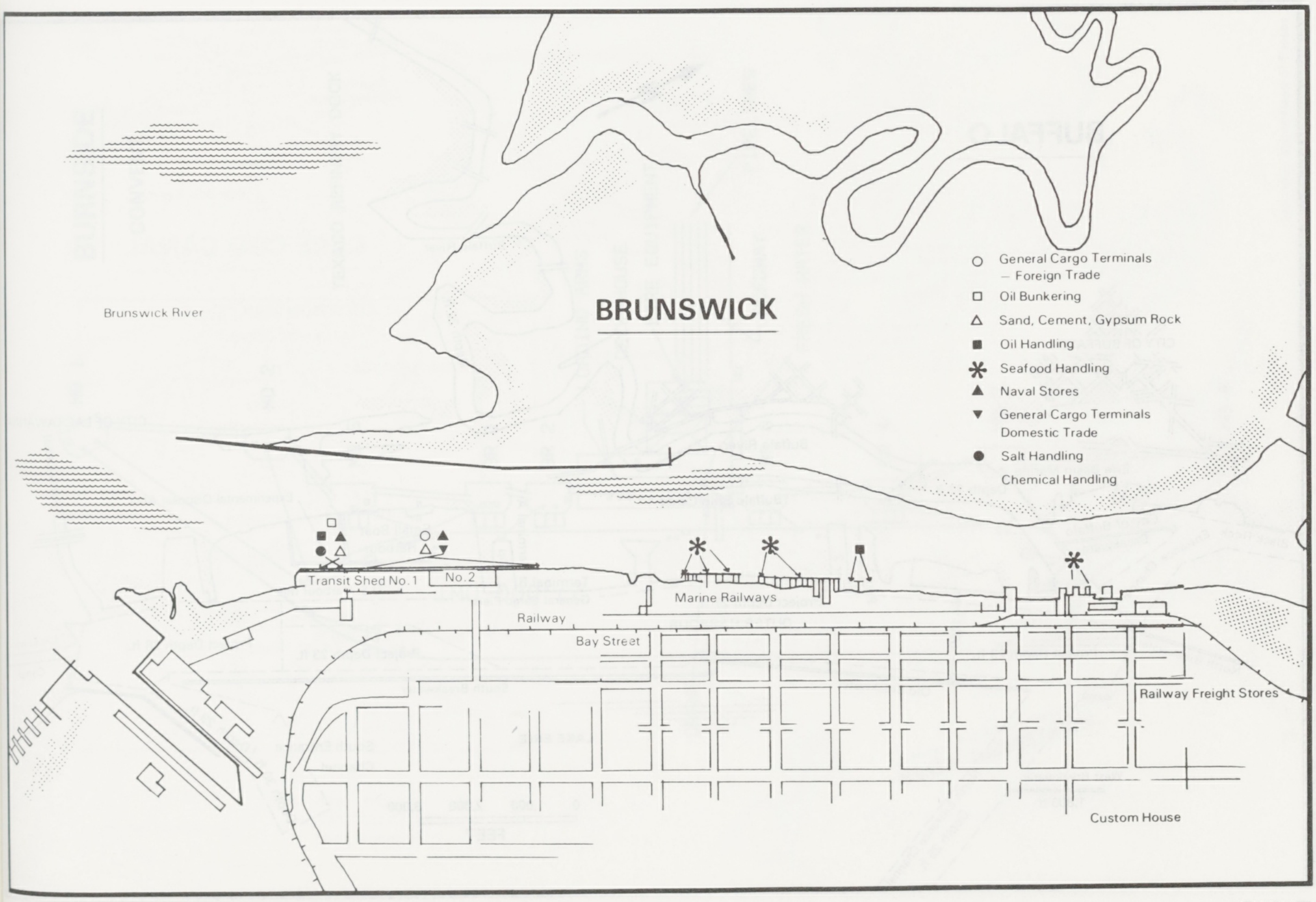
BROWNSVILLE (1)

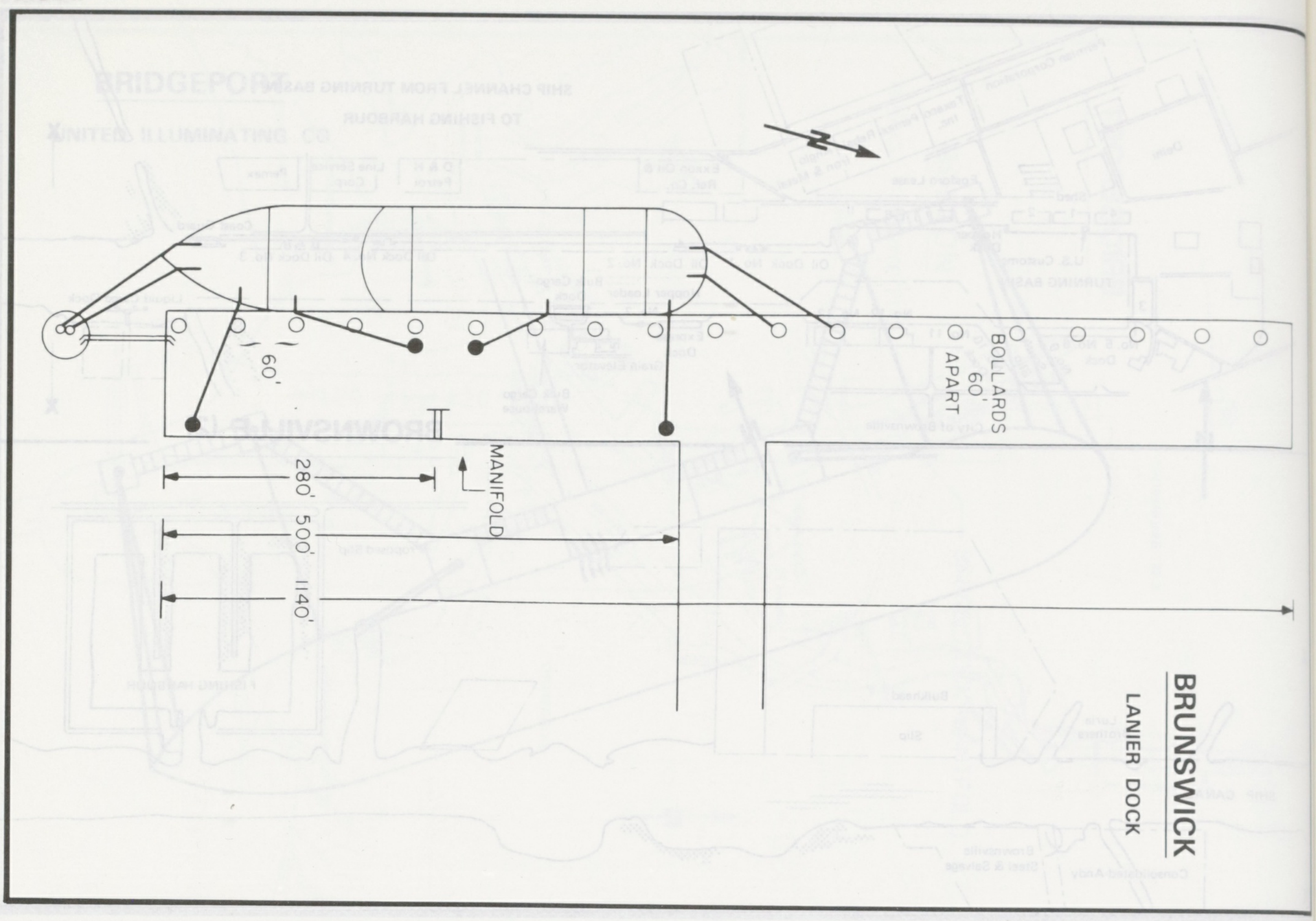

PORT ISABEL
BRAZOS SANTIAGO PASS
GULF OF MEXICO
SOUTH BAY
FISHING HARBOUR
SHIP CANAL
PORT BROWNSVILLE TURNING BASIN AREA
Rio Grand
BROWNSVILLE
N
LOCATION MAP
0
1
2
3
SCALE

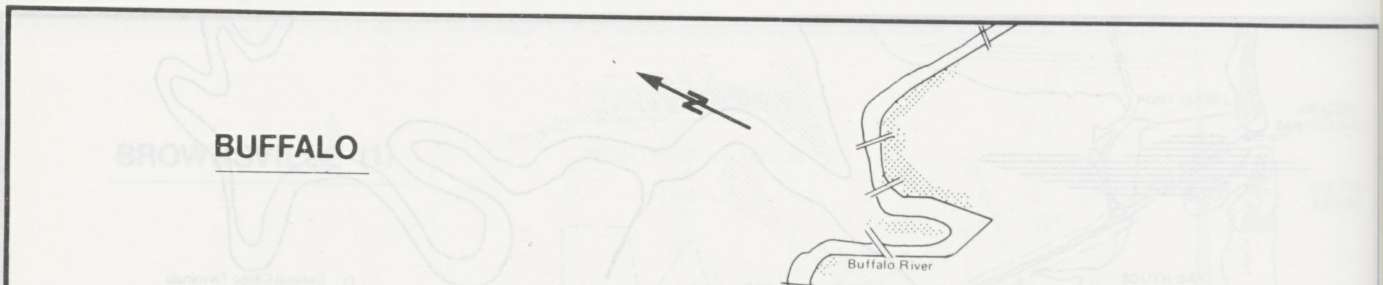
BROWNSVILLE (2)

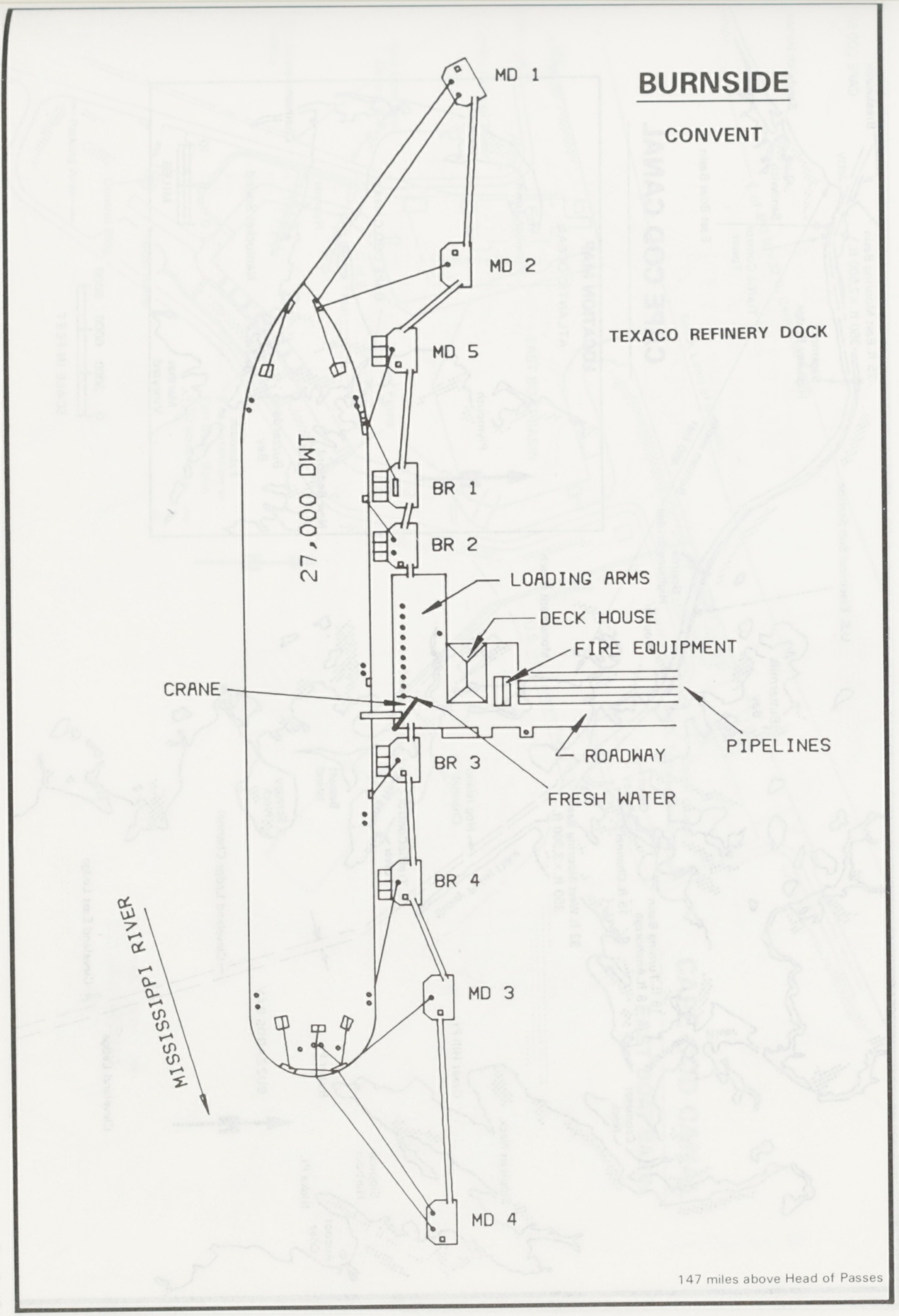

SHIP CHANNEL FROM TURNING BASIN
TO FISHING HARBOUR
Permian Corporation
Texaco Inc.
Pemex
Rebel
Anglo Iron & Metal
Delhi
Fosforo Lease
Shed
4
1
2
7
8
Exxon Oil & Ref. Co.
D & H Petrol
Line Service Corp.
Pemex
Coast Guard
Hopper Dock
U.S. Customs
TURNING BASIN
3
Oil Dock No. 1
Oil Dock No. 2
Oil Dock No. 4
Oil Dock No. 3
Hopper Loader
Bulk Cargo Dock
No. 2
Liquid Cargo Dock
No. 12
No. 13
No. 11
No. 5
No. 6
Dock
No. 9
South Slip
No. 10 Dock
Express Dock
Grain Elevator
Bulk Cargo Warehouse
City of Brownsville
X
Proposed Slip
FISHING HARBOUR
Bulkhead
Slip
Luria Brothers
SHIP CANAL
Brownsville Steel & Salvage
Consolidated-Andy

BRUNSWICK


Brunswick River
○ General Cargo Terminals — Foreign Trade
□ Oil Bunkering
△ Sand, Cement, Gypsum Rock
■ Oil Handling
✱ Seafood Handling
▲ Naval Stores
▼ General Cargo Terminals Domestic Trade
● Salt Handling
Chemical Handling
Transit Shed No. 1
No. 2
Marine Railways
Railway
Bay Street
Railway Freight Stores
Custom House


BRUNSWICK
LANIER DOCK
BOLLARDS 60' APART
60'
MANIFOLD
280'
500'
1140'


BUFFALO
Buffalo River
Depth 22 ft.
CITY OF BUFFALO
Buffalo River
Erie Basin Marina
Depth 22 ft.
Buffalo Ship Canal
City of Buffalo Breakwater
Black Rock Entrance Channel
Pier 1
Pier 2
Terminal A
Slip
Terminal B
General Cargo Piers
Small Boat Harbour
Experimental Disposal Area
CITY OF LACKAWANNA
Union Canal
Lackawanna Canal
U.S. Harbour line
Project Depth 27 ft.
OUTER HARBOUR
North Breakwater
Project Depth 23 ft.
1600
Old Breakwater
Project Depth 23 ft.
Project Depth 28 ft.
South Breakwater
LAKE ERIE
South Entrance Channel
Depth 29 ft.
Depth 30 ft.
West Breakwater
1,800 ft.
North Entrance Channel Depth 25 ft.
0
1,000
2,000
3,000
FEET

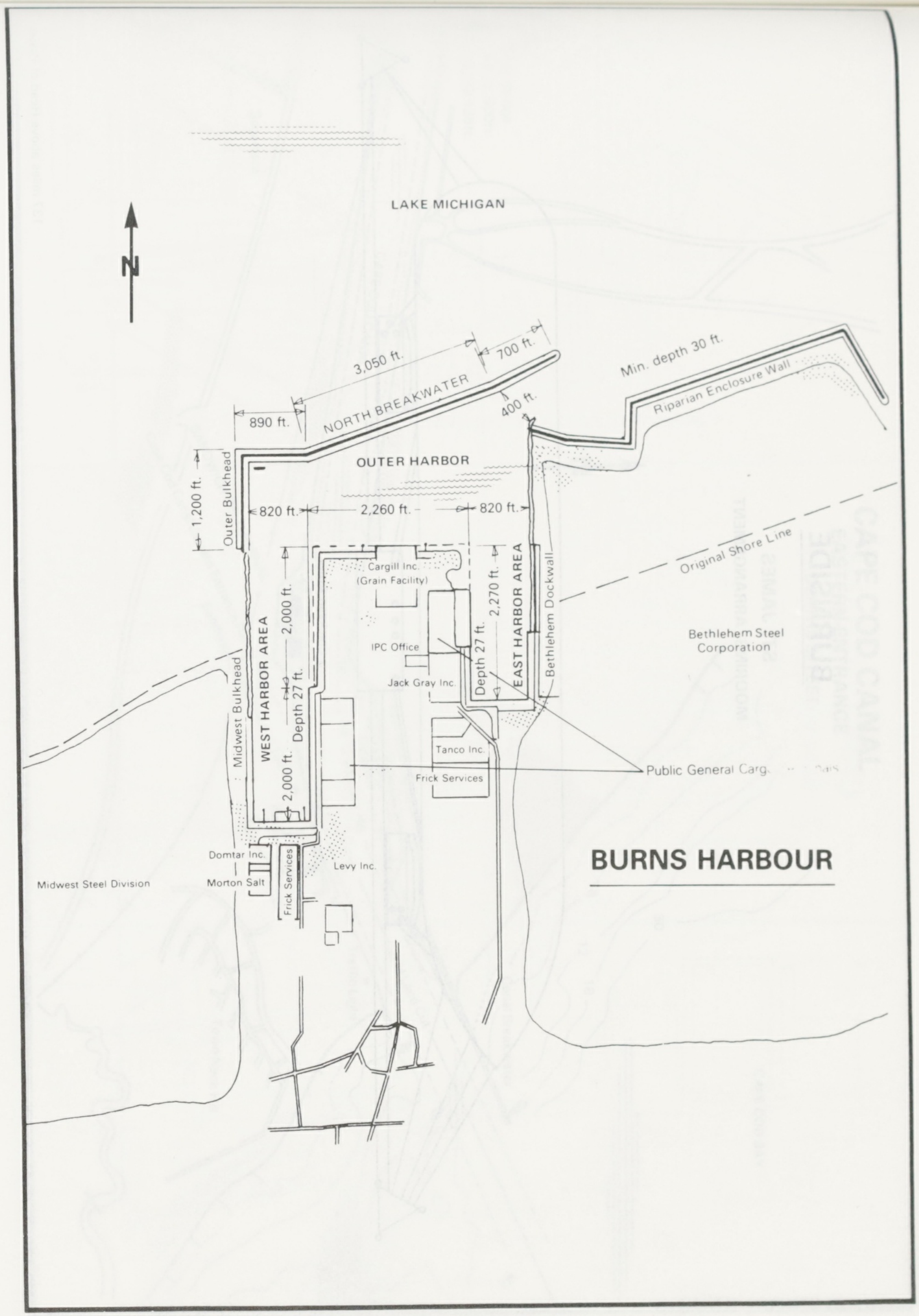


BURNSIDE

CONVENT

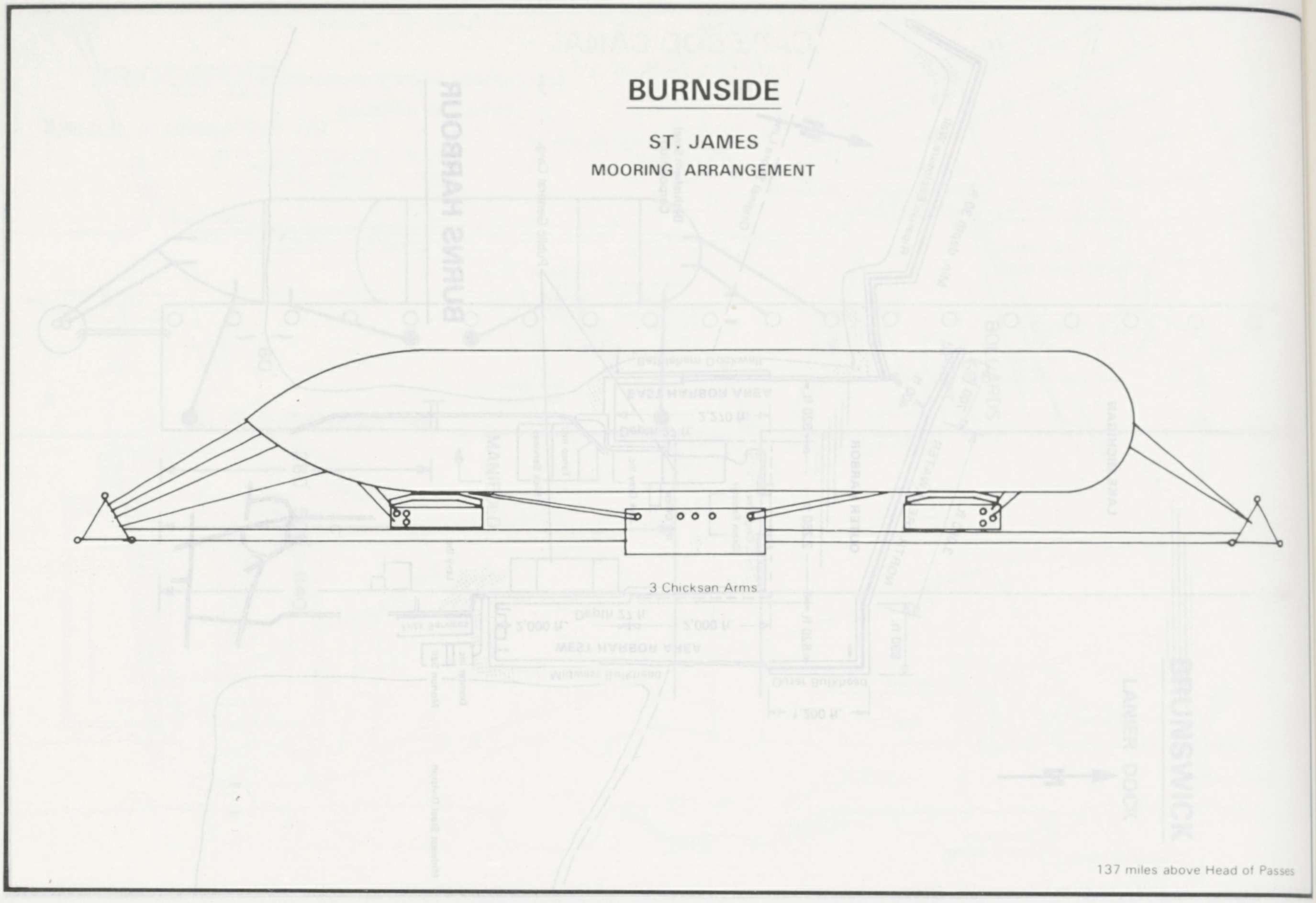
MD 1
MD 2
MD 5
BR 1
BR 2
BR 3
BR 4
MD 3
MD 4
TEXACO REFINERY DOCK
27,000 DWT
LOADING ARMS
DECK HOUSE
FIRE EQUIPMENT
CRANE
PIPELINES
ROADWAY
FRESH WATER
MISSISSIPPI RIVER

147 miles above Head of Passes



BURNS HARBOUR

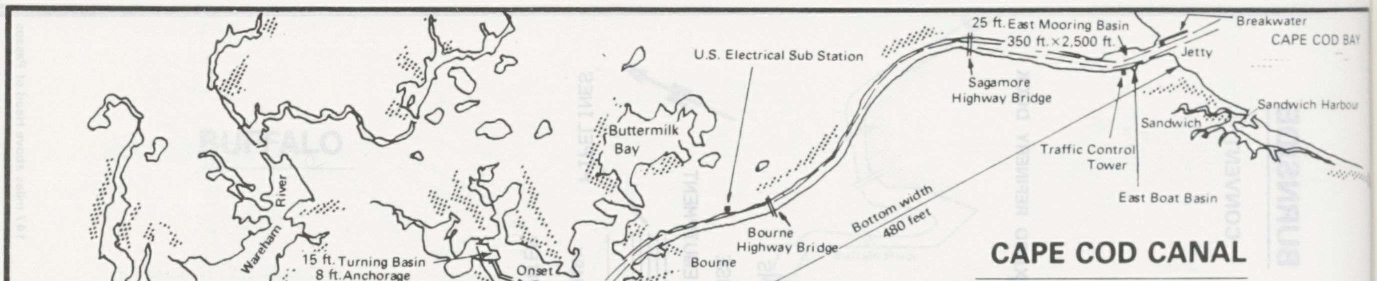
N
LAKE MICHIGAN
3,050 ft.
700 ft.
890 ft.
NORTH BREAKWATER
400 ft.
Min. depth 30 ft.
Riparian Enclosure Wall
OUTER HARBOR
1,200 ft.
Outer Bulkhead
820 ft.
2,260 ft.
820 ft.
Original Shore Line
Cargill Inc.
(Grain Facility)
2,000 ft.
2,270 ft.
WEST HARBOR AREA
EAST HARBOR AREA
Bethlehem Dockwall
Bethlehem Steel Corporation
IPC Office
Jack Gray Inc.
Depth 27 ft.
Depth 27 ft.
Midwest Bulkhead
Tanco Inc.
Frick Services
Public General Cargo Terminals
2,000 ft.
Domtar Inc.
Morton Salt
Frick Services
Levy Inc.
Midwest Steel Division



BURNSIDE

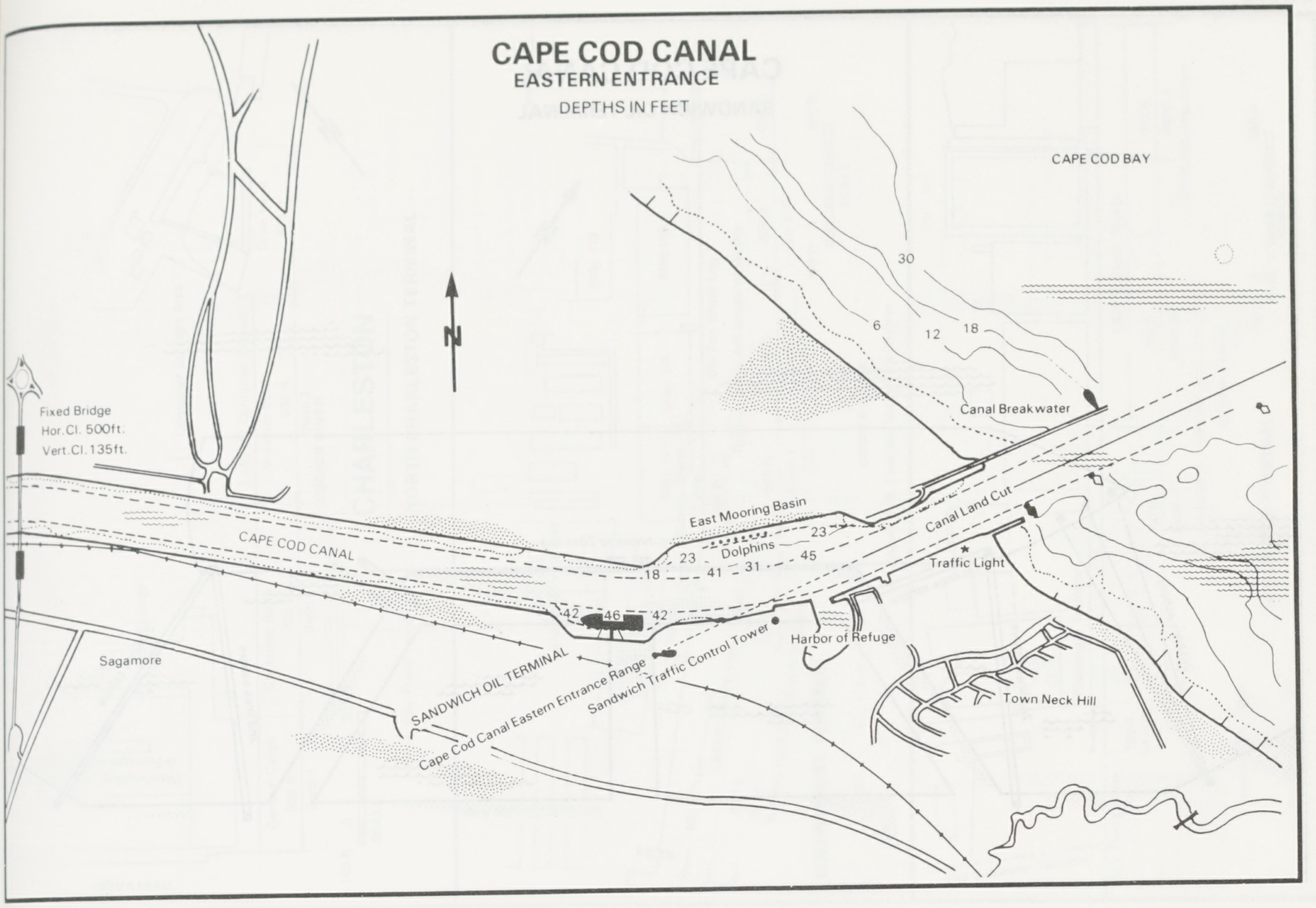
ST. JAMES
MOORING ARRANGEMENT

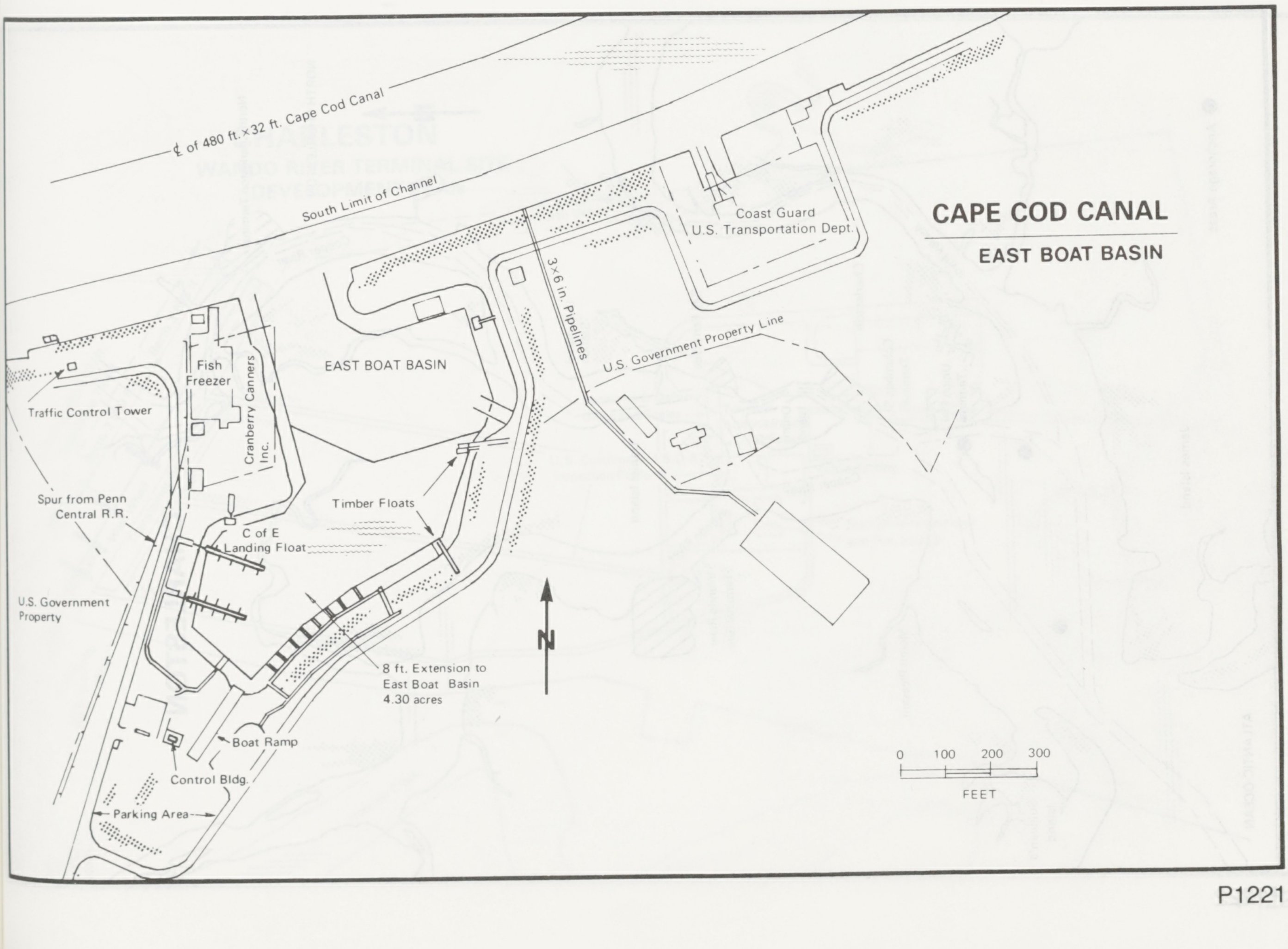
3 Chicksan Arms
137 miles above Head of Passes

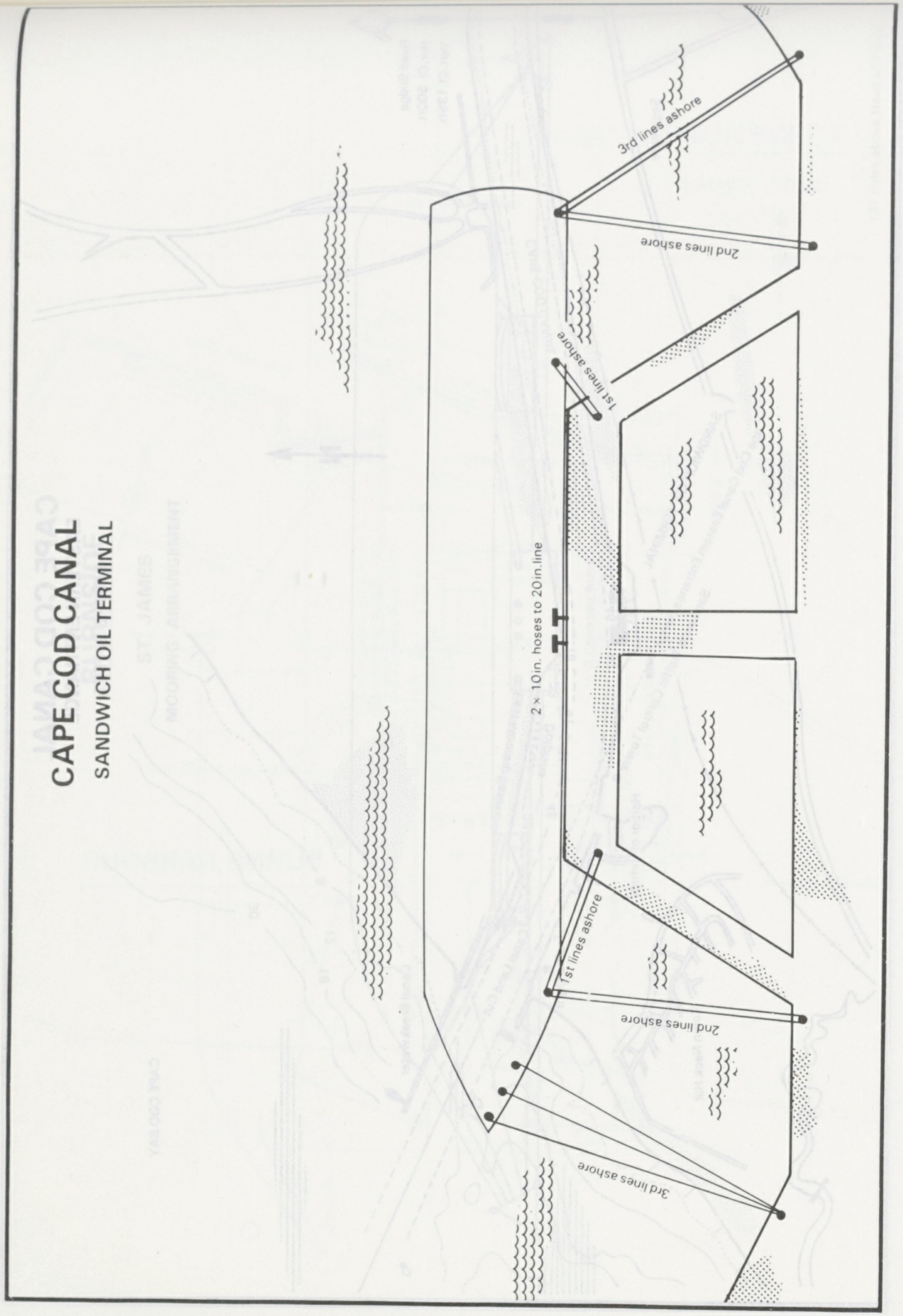


CAPE COD CANAL

25 ft. East Mooring Basin
350 ft. × 2,500 ft.
Breakwater
CAPE COD BAY
Jetty
U.S. Electrical Sub Station
Sagamore
Highway Bridge
Sandwich Harbour
Sandwich
Traffic Control
Tower
East Boat Basin
Buttermilk
Bay
Bourne
Highway Bridge
Bottom width
480 feet
Wareham
River
15 ft. Turning Basin
8 ft. Anchorage
Cromeset
Neck
Onset
Bay
Bourne
15 ft. Channel
32 ft. West Mooring Basin
350 ft. × 3,300 ft.
Monument Beach
Sippican Neck
Great Hill Pt.
Stony Point Dike
Hog Island
Channel
Traffic Control
Tower
Wing Neck
Sippican
Harbour
Aucoot
Cove
Blake Pt.
Butler Pt.
Bassett
Island
Scraggy
Neck
BUZZARDS BAY
N
Cleveland Ledge Channel
Cleveland Ledge
Cleveland East Ledge
0 3000 6000 9000
SCALE IN FEET
LOCATION MAP
ATLANTIC OCEAN
Province Town
Plymouth
Wellfleet
N
M A S S
CAPE COD CANAL
New Bedford
Hyannis
Buzzards
Bay
Chatham
Nantucket Sound
Falmouth
0 5 10
MILES
Marthas
Vineyard


CAPE COD CANAL
EASTERN ENTRANCE
DEPTHS IN FEET
CAPE COD BAY
N
30
6
12
18
Canal Breakwater
Fixed Bridge
Hor. Cl. 500ft.
Vert. Cl. 135ft.
East Mooring Basin
Canal Land Cut
CAPE COD CANAL
23
Dolphins
23
45
18
41
31
Traffic Light
42
46
42
Sagamore
SANDWICH OIL TERMINAL
Cape Cod Canal Eastern Entrance Range
Sandwich Traffic Control Tower
Harbor of Refuge
Town Neck Hill

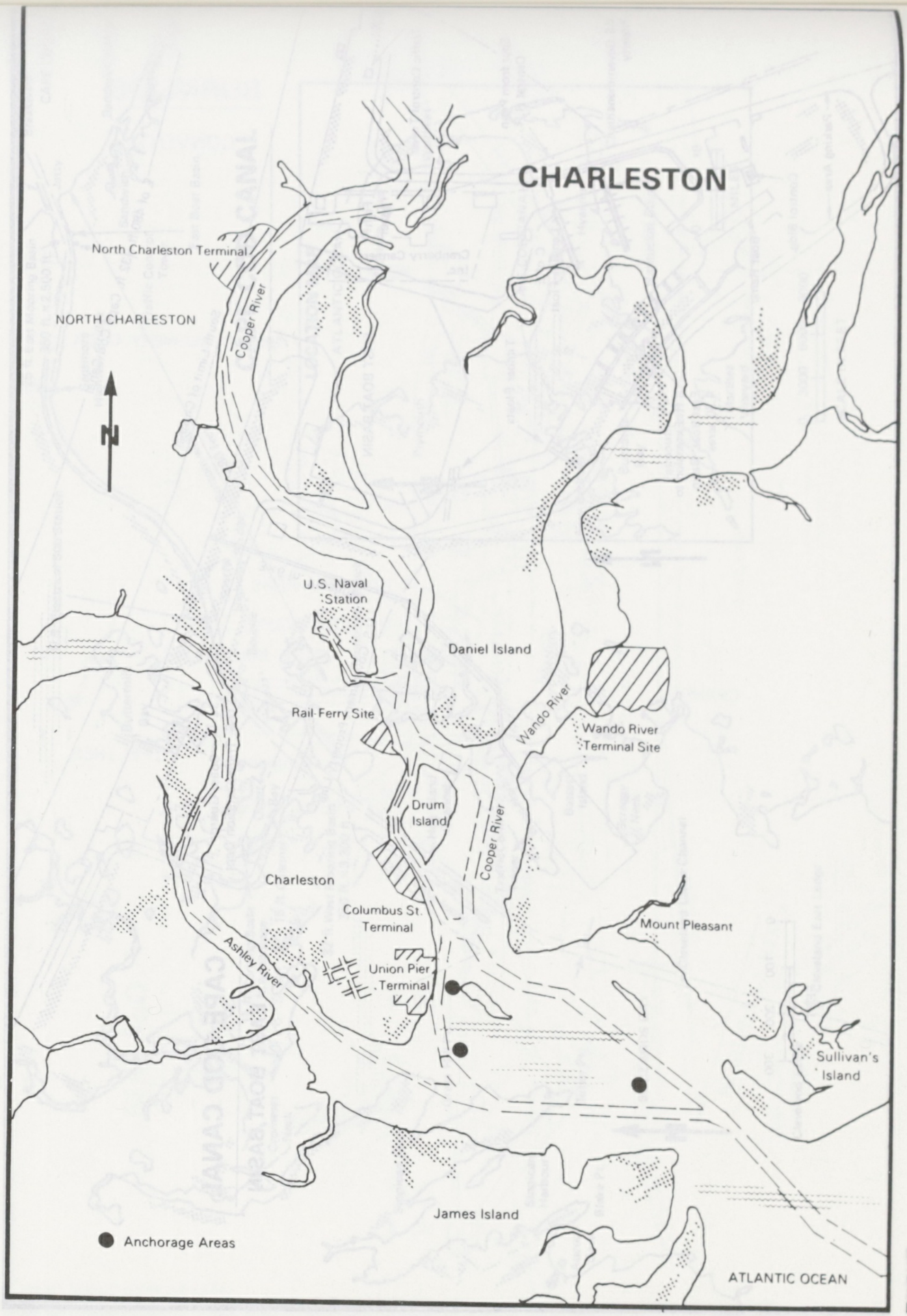

℄ of 480 ft. × 32 ft. Cape Cod Canal
South Limit of Channel
Coast Guard
U.S. Transportation Dept.
CAPE COD CANAL
EAST BOAT BASIN
3×6 in. Pipelines
U.S. Government Property Line
Fish
Freezer
Cranberry Canners Inc.
EAST BOAT BASIN
Traffic Control Tower
Spur from Penn Central R.R.
Timber Floats
C of E
Landing Float
U.S. Government
Property
N
8 ft. Extension to
East Boat Basin
4.30 acres
Boat Ramp
Control Bldg.
Parking Area
0
100
200
300
FEET



CAPE COD CANAL
SANDWICH OIL TERMINAL

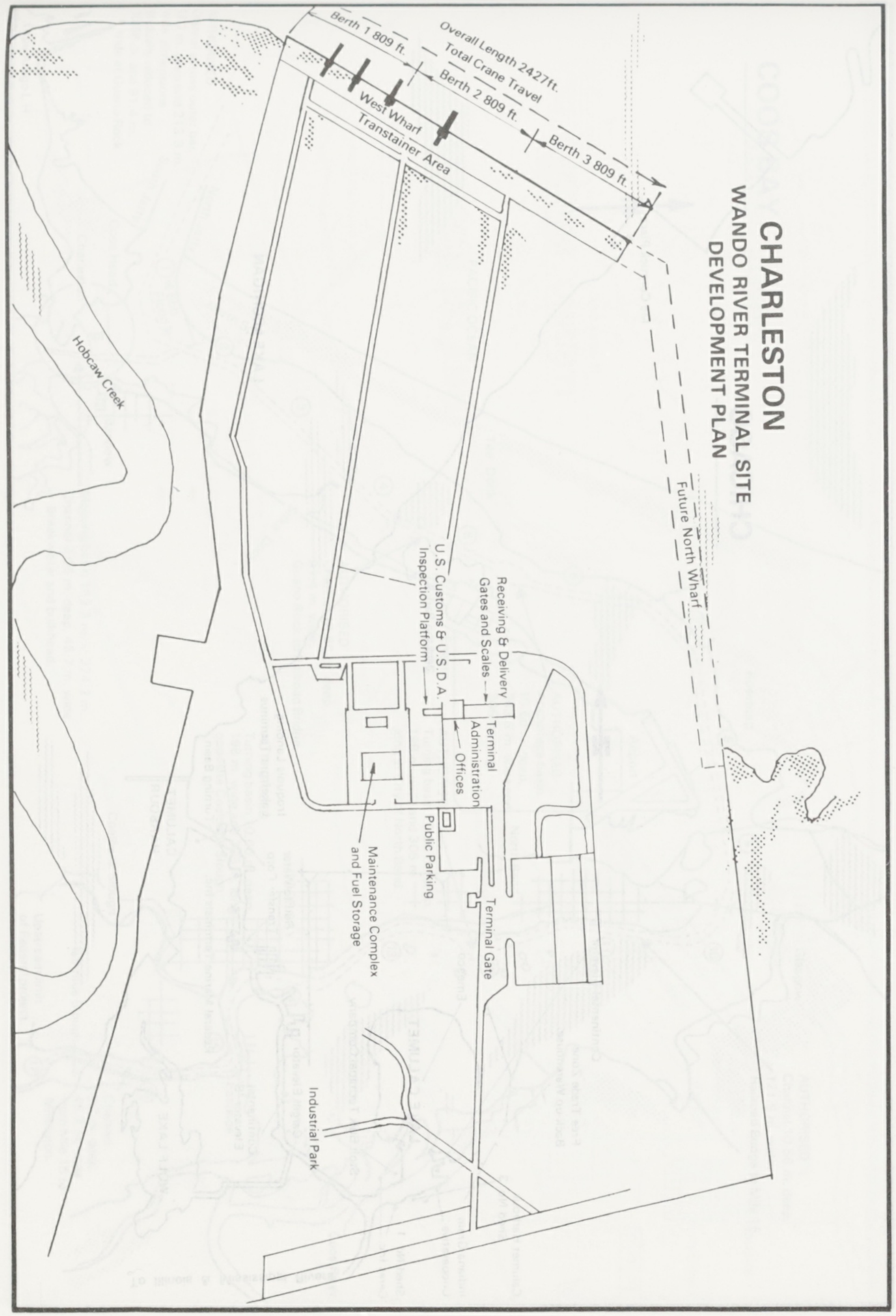
3rd lines ashore
2nd lines ashore
1st lines ashore
2 × 10in. hoses to 20in.line
1st lines ashore
2nd lines ashore
3rd lines ashore

"Plan supplied by Ship's Master"



CHARLESTON

North Charleston Terminal
NORTH CHARLESTON
Cooper River
N
U.S. Naval Station
Daniel Island
Rail-Ferry Site
Wando River
Wando River Terminal Site
Drum Island
Cooper River
Charleston
Columbus St. Terminal
Mount Pleasant
Ashley River
Union Pier Terminal
Sullivan's Island
James Island
● Anchorage Areas
ATLANTIC OCEAN

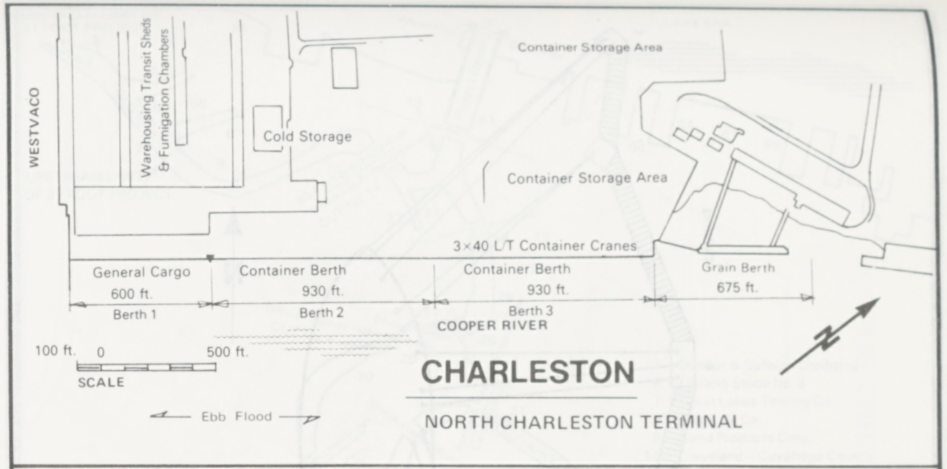


CHARLESTON
WANDO RIVER TERMINAL SITE
DEVELOPMENT PLAN

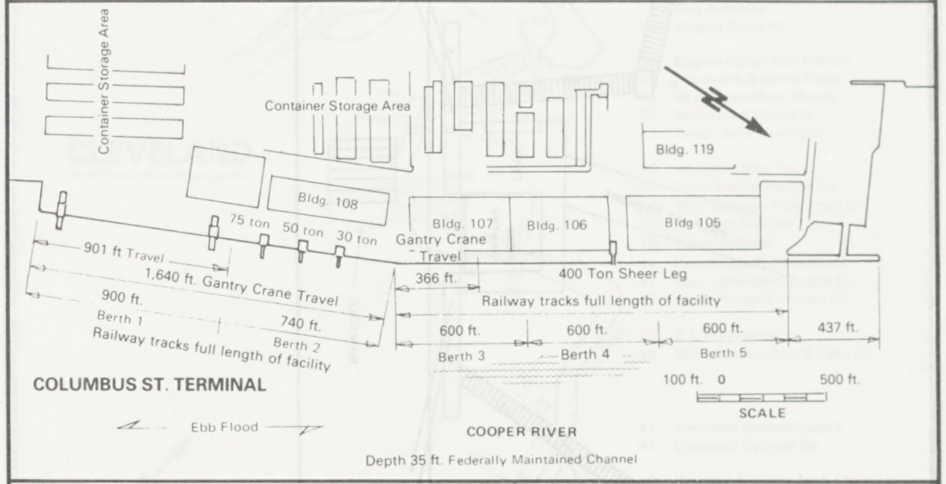
Berth 1 809 ft.
Overall Length 2427ft.
Total Crane Travel
Berth 2 809 ft.
Berth 3 809 ft.
West Wharf
Transtainer Area
Future North Wharf
Hobcaw Creek
Receiving & Delivery Gates and Scales
U.S. Customs & U.S.D.A. Inspection Platform
Terminal Administration
Offices
Public Parking
Maintenance Complex and Fuel Storage
Terminal Gate
Industrial Park

CHARLESTON

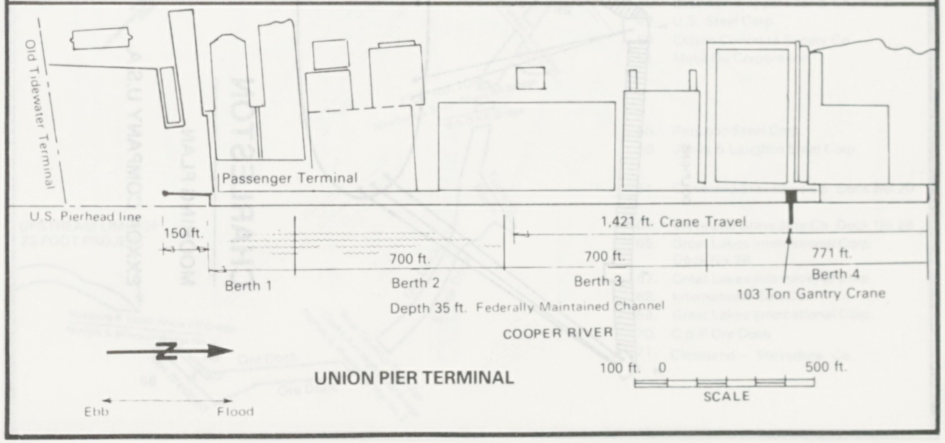
NORTH CHARLESTON TERMINAL

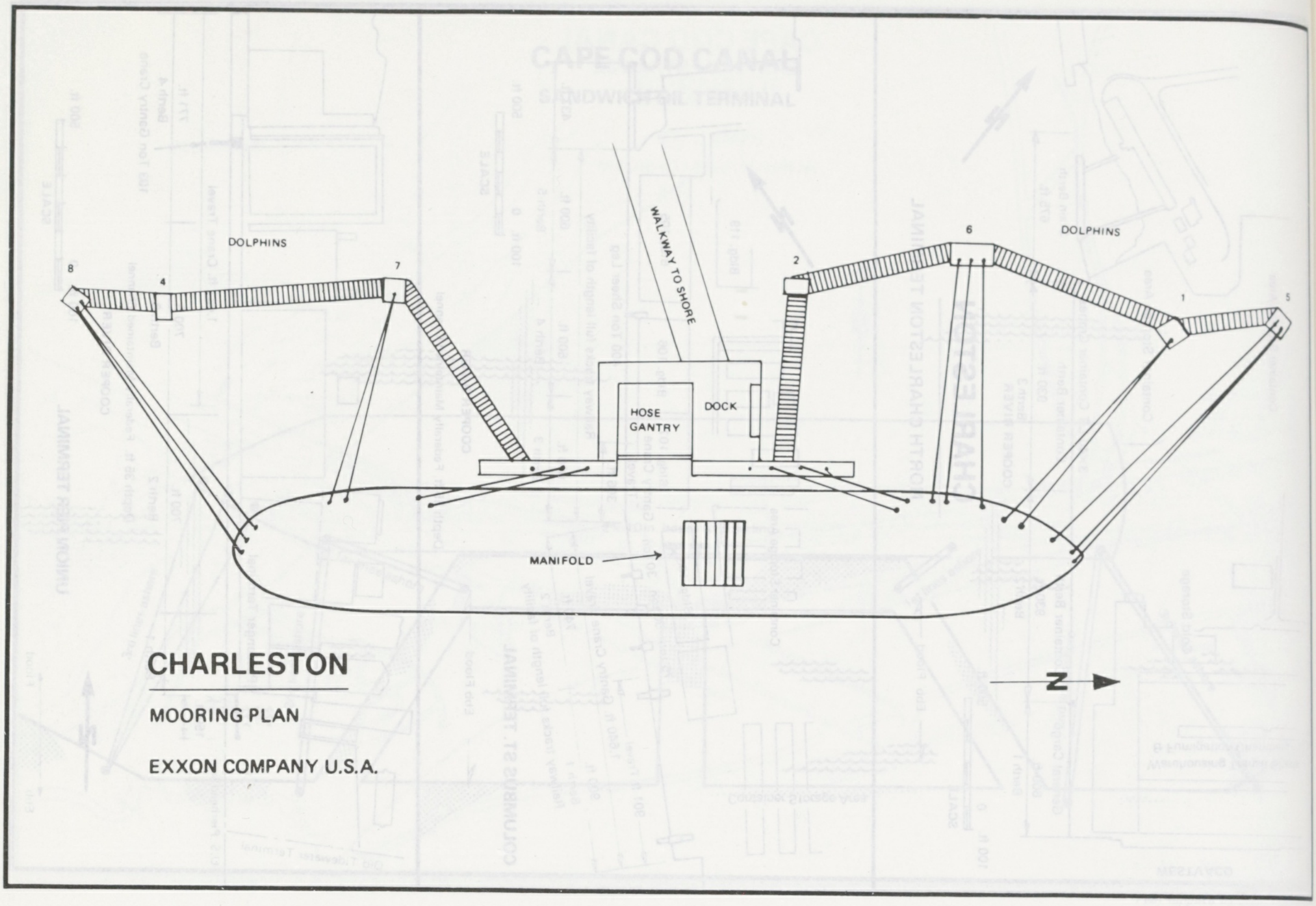

WESTVACO
Warehousing Transit Sheds & Fumigation Chambers
Cold Storage
Container Storage Area
Container Storage Area
3×40 L/T Container Cranes
General Cargo
600 ft.
Berth 1
Container Berth
930 ft.
Berth 2
Container Berth
930 ft.
Berth 3
Grain Berth
675 ft.
COOPER RIVER
100 ft. 0 500 ft.
SCALE
Ebb Flood
N

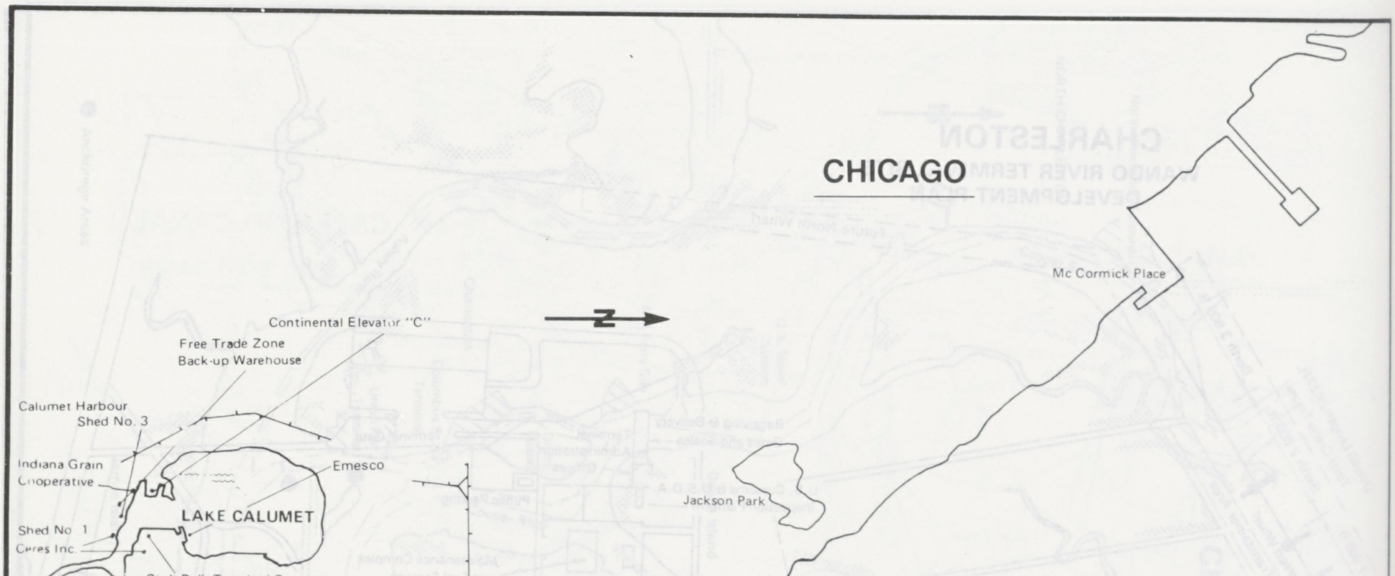
COLUMBUS ST. TERMINAL


Container Storage Area
Container Storage Area
Bldg. 119
Bldg. 108
Bldg. 107
Bldg. 106
Bldg. 105
75 ton
50 ton
30 ton
Gantry Crane Travel
901 ft Travel
1,640 ft. Gantry Crane Travel
366 ft.
400 Ton Sheer Leg
Railway tracks full length of facility
900 ft.
Berth 1
740 ft.
Berth 2
Railway tracks full length of facility
600 ft.
Berth 3
600 ft.
Berth 4
600 ft.
Berth 5
437 ft.
100 ft. 0 500 ft.
SCALE
Ebb Flood
COOPER RIVER
Depth 35 ft. Federally Maintained Channel
N

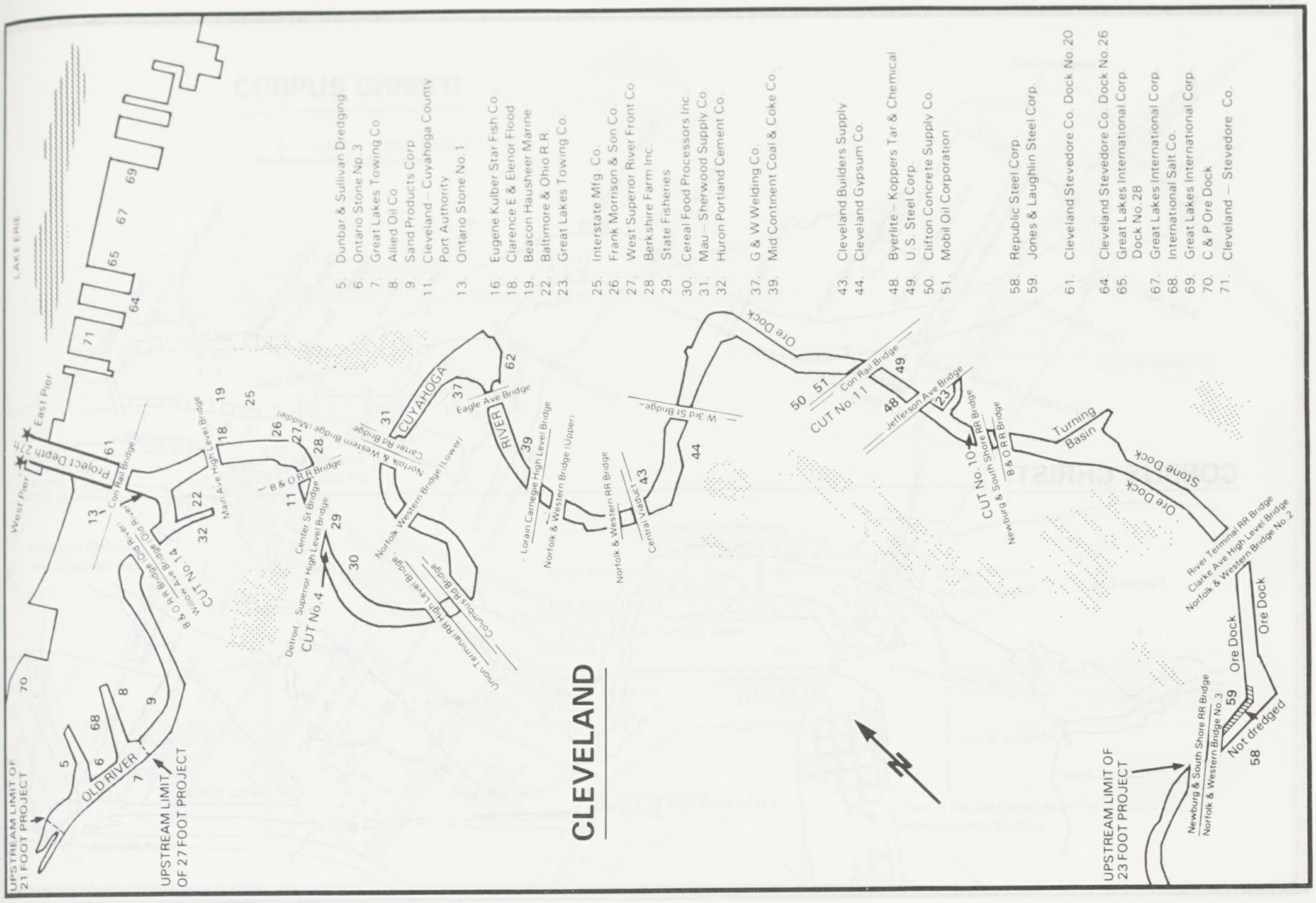
UNION PIER TERMINAL


Old Tidewater Terminal
Passenger Terminal
U.S. Pierhead line
150 ft.
1,421 ft. Crane Travel
700 ft.
700 ft.
771 ft.
Berth 1
Berth 2
Berth 3
Berth 4
103 Ton Gantry Crane
Depth 35 ft. Federally Maintained Channel
COOPER RIVER
N
100 ft. 0 500 ft.
SCALE
Ebb Flood

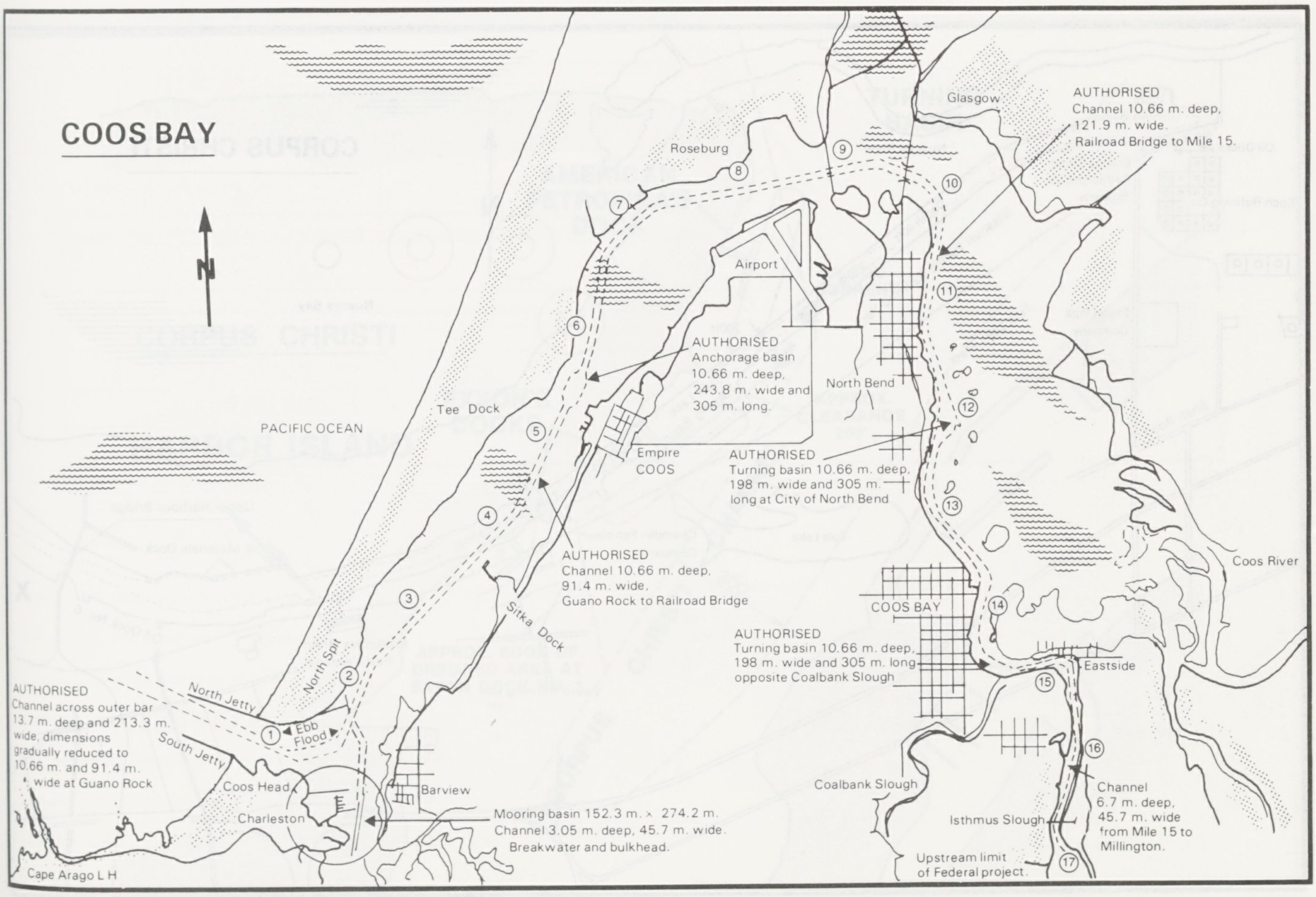

DOLPHINS
8
4
7
WALKWAY TO SHORE
2
6
DOLPHINS
1
5
HOSE GANTRY
DOCK
MANIFOLD
CHARLESTON
MOORING PLAN
EXXON COMPANY U.S.A.
N


CHICAGO
Mc Cormick Place
N
Continental Elevator "C"
Free Trade Zone Back-up Warehouse
Calumet Harbour Shed No. 3
Indiana Grain Cooperative
Emesco
LAKE CALUMET
Shed No 1
Ceres Inc.
Stolt Bulk Terminal Company
Jackson Park
Cargill Elevator
Rail to Water Transfer Corp
Iroquois Landing Lakefront Terminus
Continental Elevator 'B'
LAKE MICHIGAN
Federal Marine Terminals Inc.
Turning Basin
WOLF LAKE
CALUMET HARBOUR
To Illinois & Mississippi Rivers

CLEVELAND


LAKE ERIE
West Pier
East Pier
Project Depth 27ft
Con Rail Bridge
CUT No. 1
B & O R.R. Bridge (Old River)
Willow Ave Bridge
Main Ave High Level Bridge
Detroit Superior High Level Bridge
Center St Bridge
B & O R.R. Bridge
Norfolk & Western Bridge (Middle)
Carter Rd Bridge
Norfolk Western Bridge (Lower)
CUT No.4
Union Terminal RR High Level Bridge
Columbus Rd Bridge
Eagle Ave Bridge
CUYAHOGA
RIVER
Lorain Carnegie High Level Bridge
Norfolk & Western Bridge (Upper)
Norfolk & Western RR Bridge
Central Viaduct
W 3rd St Bridge
Ore Dock
CUT No.11
Con Rail Bridge
Jefferson Ave Bridge
CUT No 10
B & O R.R. Bridge
Newburg & South Shore RR Bridge
Turning Basin
Stone Dock
Ore Dock
River Terminal RR Bridge
Clarke Ave High Level Bridge
Norfolk & Western Bridge No.2
Ore Dock
Ore Dock
Not dredged
Newburg & South Shore RR Bridge
Norfolk & Western Bridge No.3
UPSTREAM LIMIT OF 23 FOOT PROJECT
UPSTREAM LIMIT OF 21 FOOT PROJECT
OLD RIVER
UPSTREAM LIMIT OF 27 FOOT PROJECT
5. Dunbar & Sullivan Dredging
6. Ontario Stone No.3
7. Great Lakes Towing Co.
8. Allied Oil Co.
9. Sand Products Corp.
11. Cleveland – Cuyahoga County Port Authority
13. Ontario Stone No.1
16. Eugene Kulber Star Fish Co.
18. Clarence E & Elenor Flood
19. Beacon Hausheer Marine
22. Baltimore & Ohio R.R.
23. Great Lakes Towing Co.
25. Interstate Mfg. Co.
26. Frank Morrison & Son Co.
27. West Superior River Front Co.
28. Berkshire Farm Inc.
29. State Fisheries
30. Cereal Food Processors Inc.
31. Mau – Sherwood Supply Co.
32. Huron Portland Cement Co.
37. G & W Welding Co.
39. Mid Continent Coal & Coke Co.
43. Cleveland Builders Supply
44. Cleveland Gypsum Co.
48. Byerlite – Koppers Tar & Chemical
49. U.S. Steel Corp.
50. Clifton Concrete Supply Co.
51. Mobil Oil Corporation
58. Republic Steel Corp.
59. Jones & Laughlin Steel Corp.
61. Cleveland Stevedore Co. Dock No.20
64. Cleveland Stevedore Co. Dock No.26
65. Great Lakes International Corp. Dock No.28
67. Great Lakes International Corp.
68. International Salt Co.
69. Great Lakes International Corp.
70. C & P Ore Dock
71. Cleveland – Stevedore Co.
N

COOS BAY


N
PACIFIC OCEAN
Tee Dock
Roseburg
Glasgow
Airport
North Bend
Empire
COOS
Sitka Dock
North Spit
North Jetty
South Jetty
Ebb
Flood
Coos Head
Charleston
Barview
Cape Arago L H
COOS BAY
Eastside
Coos River
Coalbank Slough
Isthmus Slough
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

AUTHORISED
Channel 10.66 m. deep,
121.9 m. wide.
Railroad Bridge to Mile 15.

AUTHORISED
Anchorage basin
10.66 m. deep,
243.8 m. wide and
305 m. long.

AUTHORISED
Turning basin 10.66 m. deep,
198 m. wide and 305 m.
long at City of North Bend

AUTHORISED
Channel 10.66 m. deep,
91.4 m. wide,
Guano Rock to Railroad Bridge

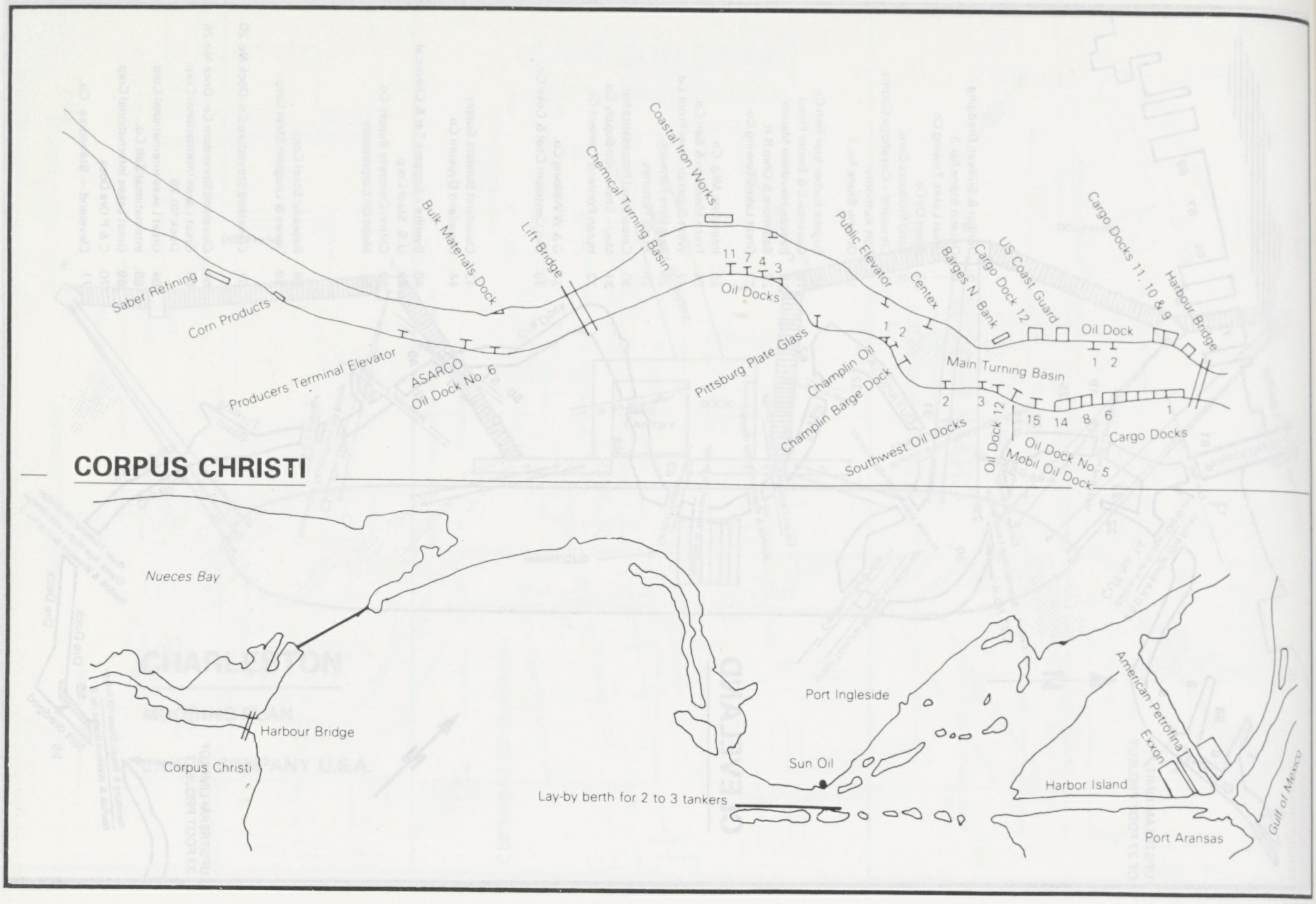
AUTHORISED
Turning basin 10.66 m. deep,
198 m. wide and 305 m. long
opposite Coalbank Slough

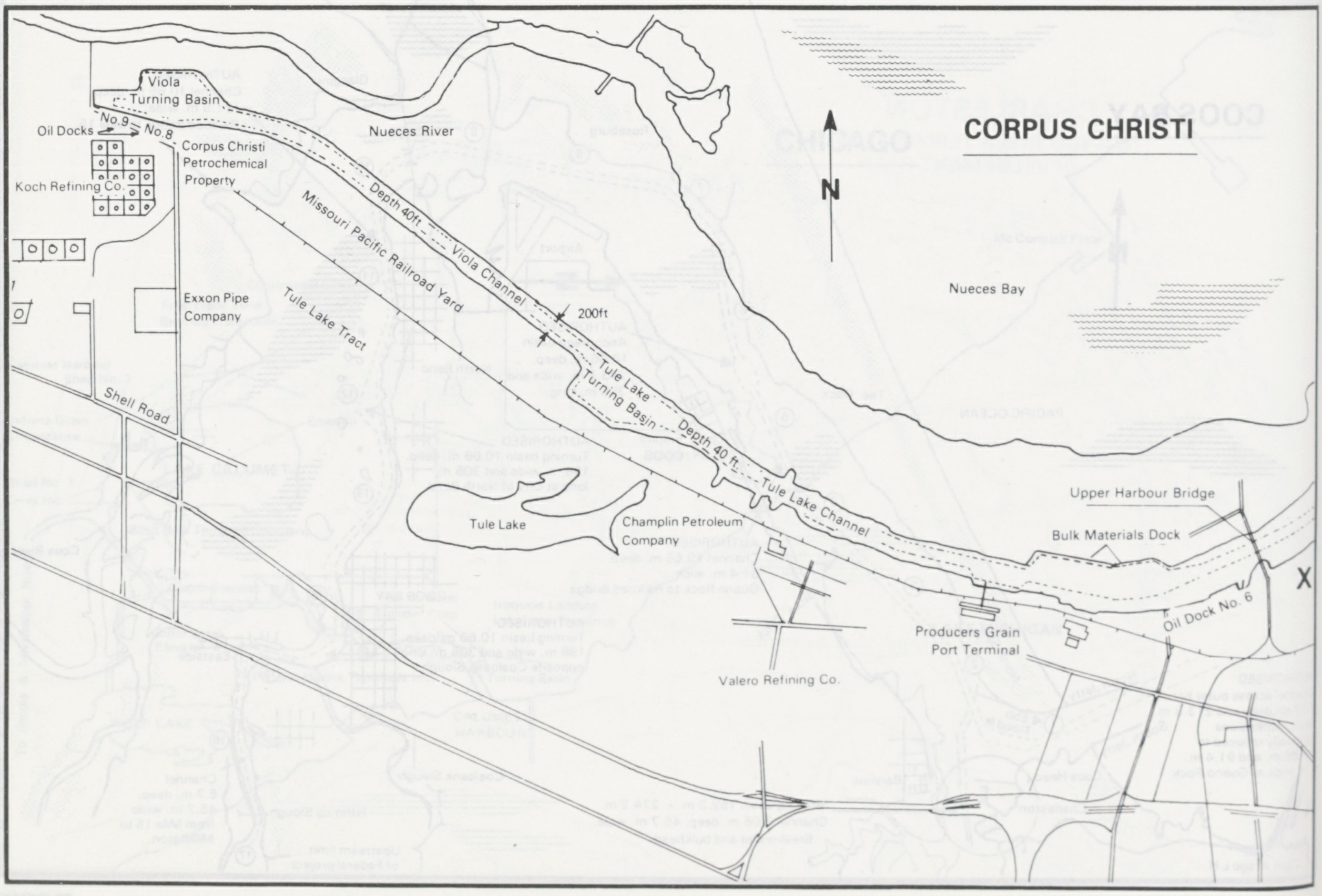
AUTHORISED
Channel across outer bar
13.7 m. deep and 213.3 m.
wide, dimensions
gradually reduced to
10.66 m. and 91.4 m.
wide at Guano Rock

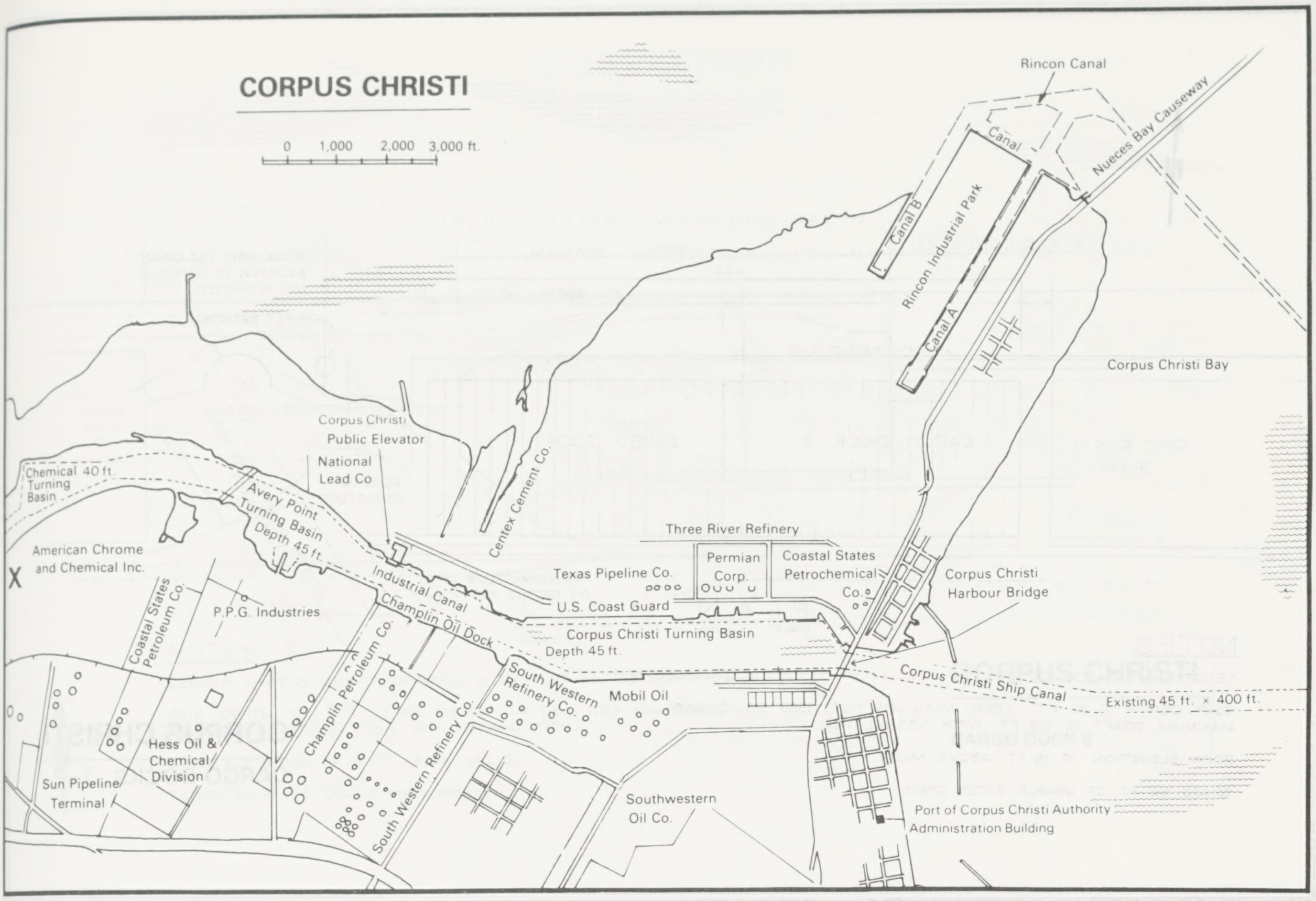
Mooring basin 152.3 m. × 274.2 m.
Channel 3.05 m. deep, 45.7 m. wide.
Breakwater and bulkhead.

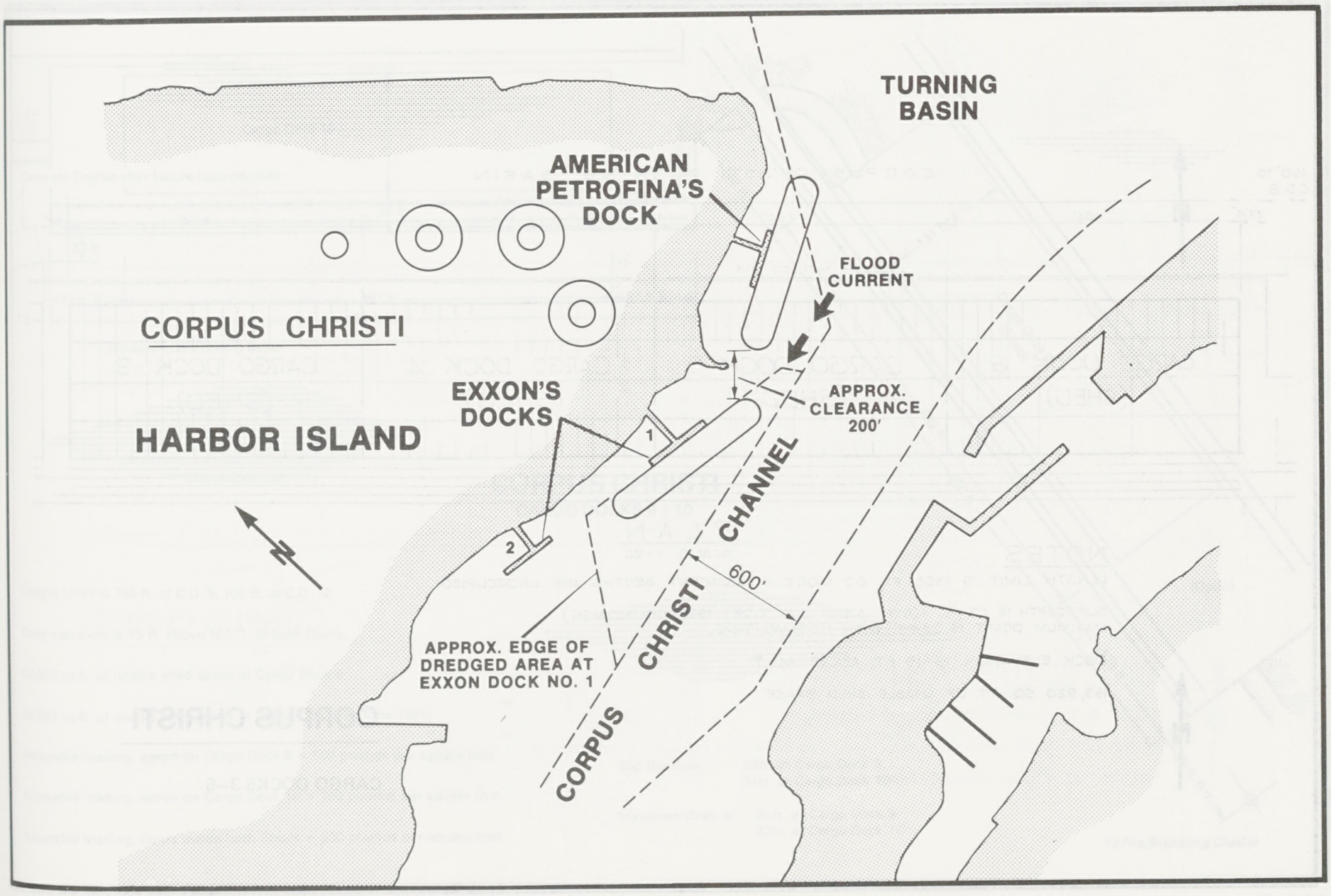
Channel
6.7 m. deep,
45.7 m. wide
from Mile 15 to
Millington.

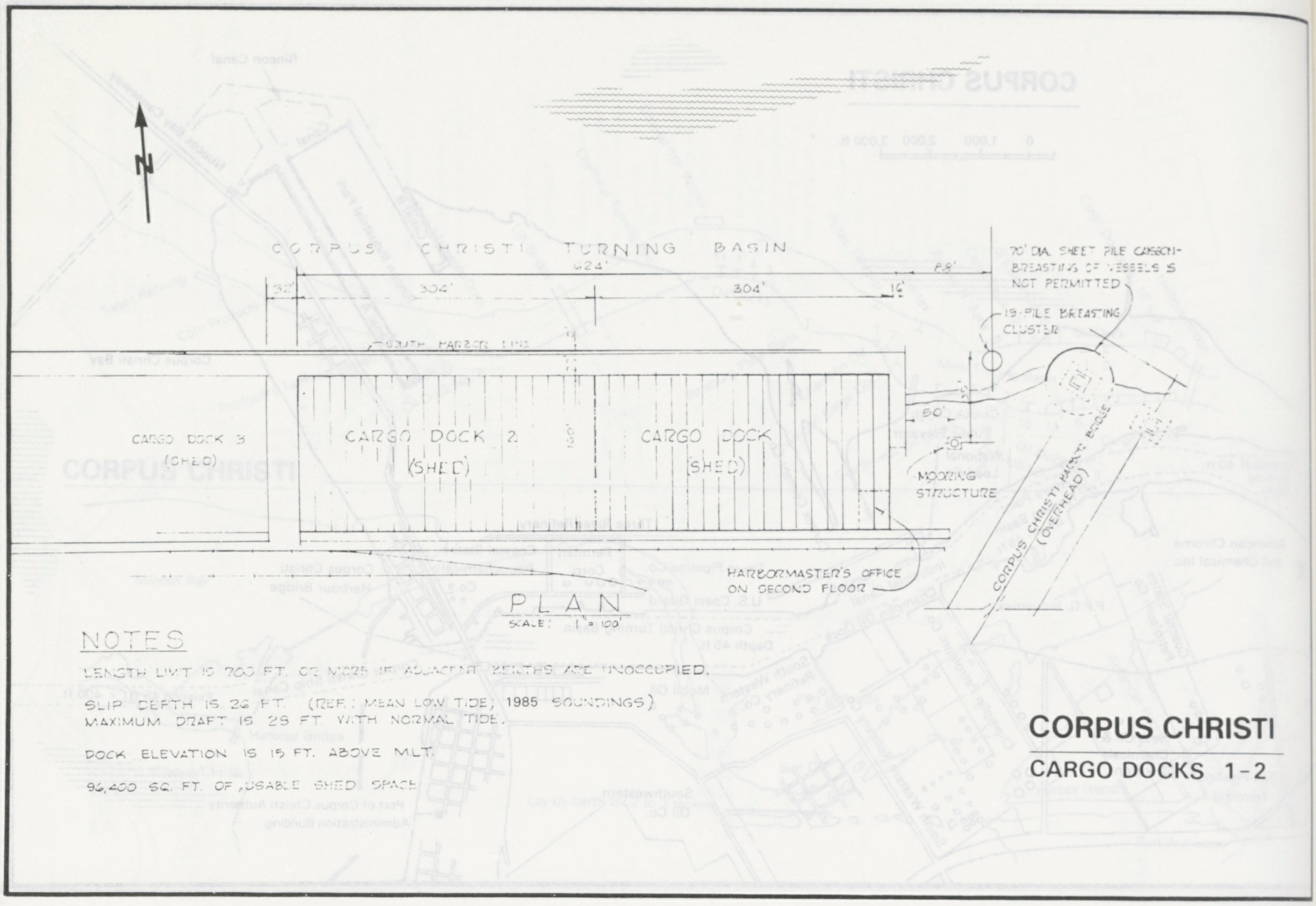
Upstream limit
of Federal project.


CORPUS CHRISTI
Saber Refining
Corn Products
Producers Terminal Elevator
ASARCO
Oil Dock No 6
Bulk Materials Dock
Lift Bridge
Chemical Turning Basin
Coastal Iron Works
11
7
4
3
Oil Docks
Pittsburg Plate Glass
Public Elevator
Champlin Oil
Champlin Barge Dock
1
2
Centex
Barges N. Bank
Cargo Dock 12
US Coast Guard
Cargo Docks 11, 10 & 9
Harbour Bridge
Oil Dock
1
2
Main Turning Basin
2
3
Oil Dock 12
15
14
8
6
1
Cargo Docks
Oil Dock No. 5
Mobil Oil Dock
Southwest Oil Docks
Nueces Bay
Harbour Bridge
Corpus Christi
Port Ingleside
Sun Oil
Lay-by berth for 2 to 3 tankers
American Petrofina
Exxon
Harbor Island
Port Aransas
Gulf of Mexico


CORPUS CHRISTI
N
Viola Turning Basin
No.9
No.8
Oil Docks
Corpus Christi Petrochemical Property
Koch Refining Co.
Nueces River
Depth 40ft
Viola Channel
Missouri Pacific Railroad Yard
Tule Lake Tract
Exxon Pipe Company
200ft
Shell Road
Tule Lake Turning Basin
Depth 40 ft
Tule Lake Channel
Nueces Bay
Tule Lake
Champlin Petroleum Company
Valero Refining Co.
Producers Grain Port Terminal
Oil Dock No. 6
Bulk Materials Dock
Upper Harbour Bridge
X


CORPUS CHRISTI
0 1,000 2,000 3,000 ft.
Rincon Canal
Nueces Bay Causeway
Canal
Canal B
Rincon Industrial Park
Canal A
Corpus Christi Bay
Corpus Christi Public Elevator
National Lead Co
Chemical 40 ft. Turning Basin
Avery Point Turning Basin Depth 45 ft.
American Chrome and Chemical Inc.
X
Centex Cement Co.
Three River Refinery
Permian Corp.
Coastal States Petrochemical Co.
Texas Pipeline Co.
Corpus Christi Harbour Bridge
Industrial Canal
U.S. Coast Guard
Coastal States Petroleum Co.
P.P.G. Industries
Champlin Oil Dock
Corpus Christi Turning Basin Depth 45 ft.
Corpus Christi Ship Canal
Existing 45 ft. × 400 ft.
Champlin Petroleum Co.
South Western Refinery Co.
Mobil Oil
Hess Oil & Chemical Division
Sun Pipeline Terminal
South Western Refinery Co.
Southwestern Oil Co.
Port of Corpus Christi Authority Administration Building


TURNING BASIN
AMERICAN PETROFINA'S DOCK
FLOOD CURRENT
CORPUS CHRISTI
EXXON'S DOCKS
APPROX. CLEARANCE 200'
HARBOR ISLAND
1
2
CORPUS CHRISTI CHANNEL
600'
N
APPROX. EDGE OF DREDGED AREA AT EXXON DOCK NO. 1


CORPUS CHRISTI TURNING BASIN
624'
32'
304'
304'
16'
68'
70' DIA. SHEET PILE CAISSON - BREASTING OF VESSELS IS NOT PERMITTED
19-PILE BREASTING CLUSTER
SOUTH HARBOR LINE
CARGO DOCK 3 (SHED)
CARGO DOCK 2 (SHED)
CARGO DOCK 1 (SHED)
180'
80'
MOORING STRUCTURE
CORPUS CHRISTI HARBOR BRIDGE (OVERHEAD)
HARBORMASTER'S OFFICE ON SECOND FLOOR
PLAN
SCALE: 1" = 100'
N

NOTES

LENGTH LIMIT IS 700 FT. OR MORE IF ADJACENT BERTHS ARE UNOCCUPIED.

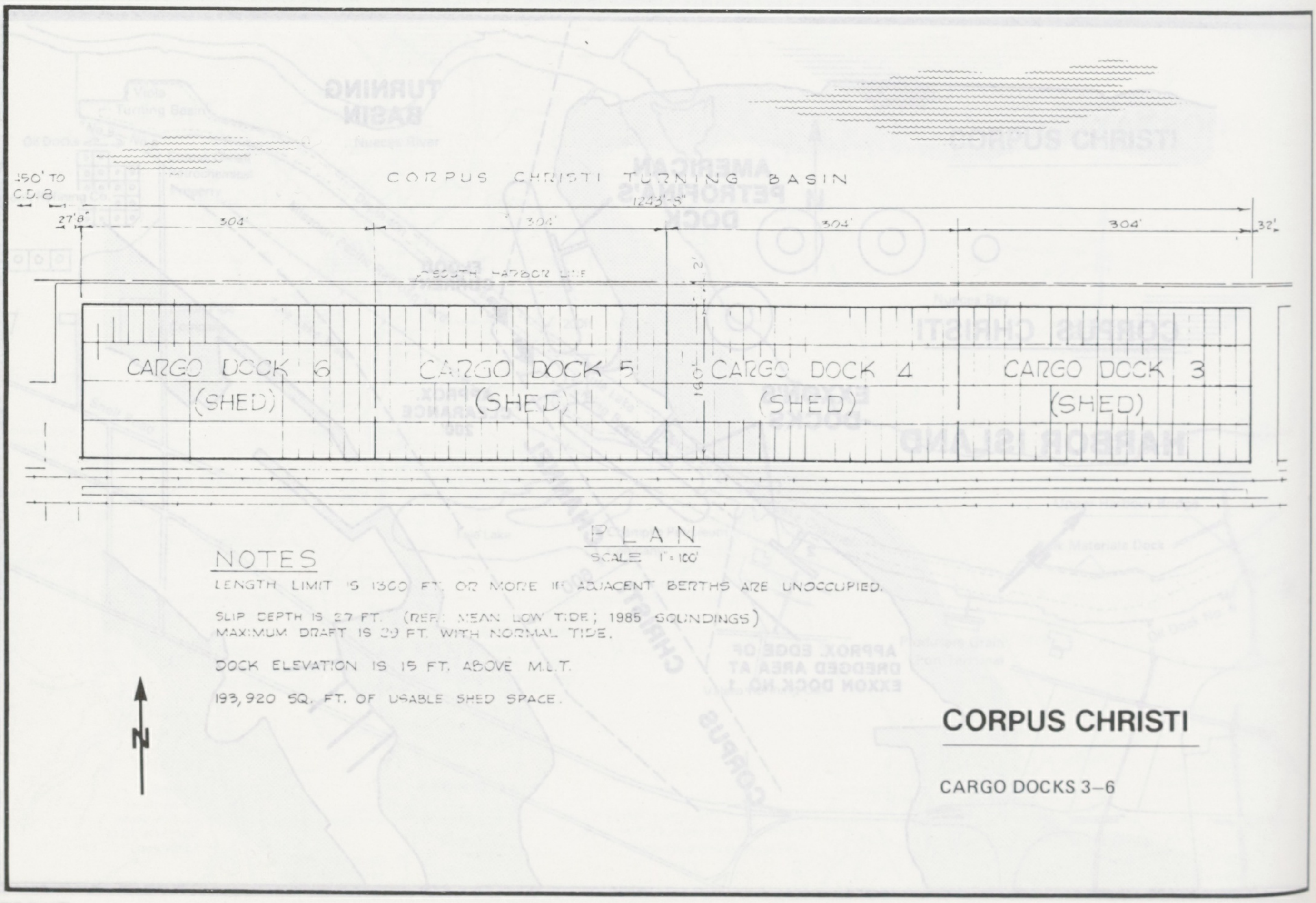
SLIP DEPTH IS 26 FT. (REF: MEAN LOW TIDE; 1985 SOUNDINGS)
MAXIMUM DRAFT IS 28 FT. WITH NORMAL TIDE.

DOCK ELEVATION IS 15 FT. ABOVE MLT.

96,400 SQ. FT. OF USABLE SHED SPACE

CORPUS CHRISTI

CARGO DOCKS 1–2


150' TO C.D. 8
CORPUS CHRISTI TURNING BASIN
1243'-8"
27'8"
304'
304'
304'
304'
32'
SOUTH HARBOR LINE
21'
180'
CARGO DOCK 6 (SHED)
CARGO DOCK 5 (SHED)
CARGO DOCK 4 (SHED)
CARGO DOCK 3 (SHED)
PLAN
SCALE 1" = 100'
N

NOTES

LENGTH LIMIT IS 1300 FT. OR MORE IF ADJACENT BERTHS ARE UNOCCUPIED.

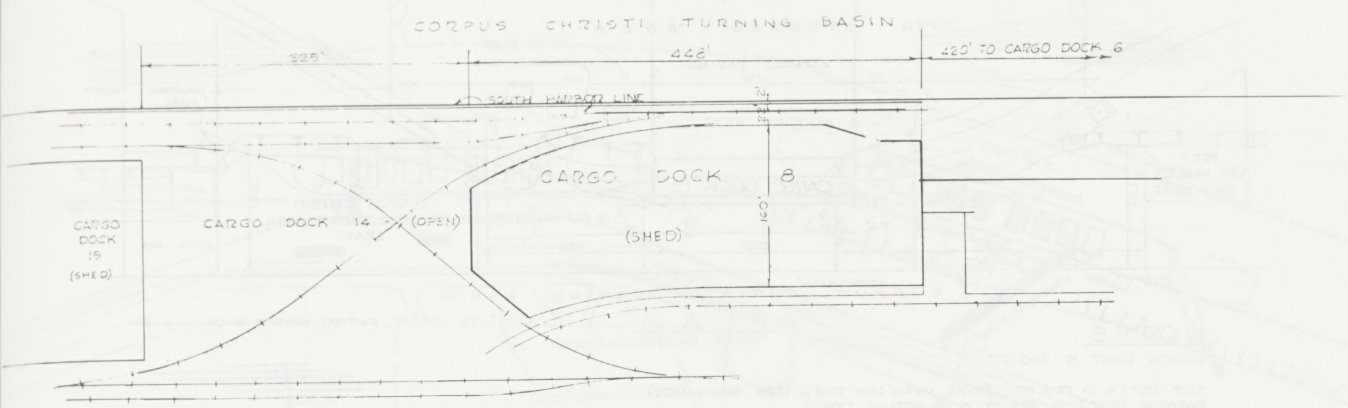
SLIP DEPTH IS 27 FT. (REF: MEAN LOW TIDE; 1985 SOUNDINGS)
MAXIMUM DRAFT IS 29 FT. WITH NORMAL TIDE.

DOCK ELEVATION IS 15 FT. ABOVE M.L.T.

193,920 SQ. FT. OF USABLE SHED SPACE.

CORPUS CHRISTI

CARGO DOCKS 3–6


CORPUS CHRISTI TURNING BASIN
325'
442'
420' TO CARGO DOCK 6
SOUTH HARBOR LINE
22'
CARGO DOCK 8
160'
(SHED)
CARGO DOCK 14
(OPEN)
CARGO DOCK 15
(SHED)

PLAN

SCALE: 1" = 100'

NOTES

LENGTH LIMIT IS 600 FT., OR MORE IF ADJACENT BERTHS ARE UNOCCUPIED.

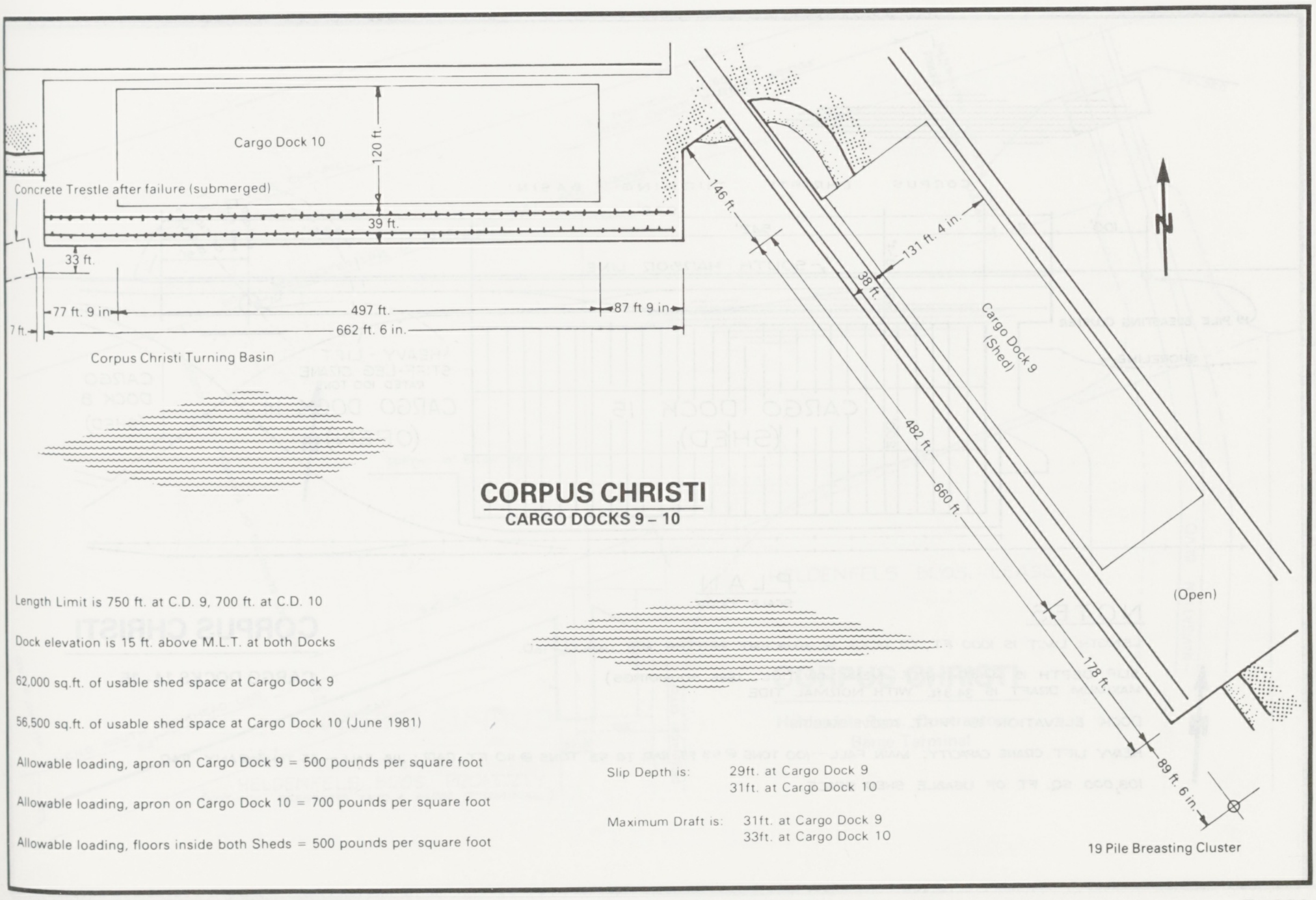
SLIP DEPTH IS 28 ft. (REF.: MEAN LOW TIDE; 1985 SOUNDINGS)
MAXIMUM DRAFT IS 30 ft. WITH NORMAL TIDE.

DOCK ELEVATION IS 15 FT. ABOVE M.L.T.

66,500 SQ. FT. OF USABLE SHED SPACE.

CORPUS CHRISTI

CARGO DOCK 8


Cargo Dock 10
120 ft.
Concrete Trestle after failure (submerged)
39 ft.
33 ft.
77 ft. 9 in
497 ft.
87 ft 9 in
7 ft.
662 ft. 6 in.
Corpus Christi Turning Basin
146 ft.
131 ft. 4 in.
38 ft.
Cargo Dock 9
(Shed)
482 ft.
660 ft.
(Open)
178 ft.
89 ft. 6 in.
19 Pile Breasting Cluster

CORPUS CHRISTI

CARGO DOCKS 9 – 10

Length Limit is 750 ft. at C.D. 9, 700 ft. at C.D. 10

Dock elevation is 15 ft. above M.L.T. at both Docks

62,000 sq.ft. of usable shed space at Cargo Dock 9

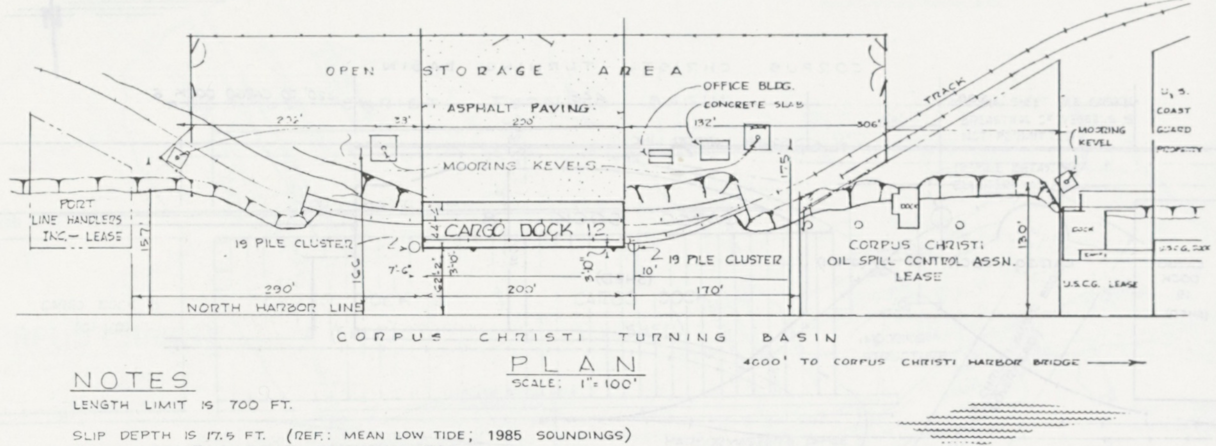
56,500 sq.ft. of usable shed space at Cargo Dock 10 (June 1981)

Allowable loading, apron on Cargo Dock 9 = 500 pounds per square foot

Allowable loading, apron on Cargo Dock 10 = 700 pounds per square foot

Allowable loading, floors inside both Sheds = 500 pounds per square foot

Slip Depth is:	29ft. at Cargo Dock 9 31ft. at Cargo Dock 10
Maximum Draft is:	31ft. at Cargo Dock 9 33ft. at Cargo Dock 10


OPEN STORAGE AREA
ASPHALT PAVING
OFFICE BLDG.
CONCRETE SLAB
TRACK
U. S. COAST GUARD PROPERTY
MOORING KEVEL
232'
23'
235'
132'
306'
MOORING KEVELS
PORT LINE HANDLERS INC.— LEASE
157'
19 PILE CLUSTER
CARGO DOCK 12
19 PILE CLUSTER
CORPUS CHRISTI OIL SPILL CONTROL ASSN. LEASE
130'
DOCK
U.S.C.G. DOCK
U.S.C.G. LEASE
7'-6"
10'
290'
200'
170'
NORTH HARBOR LINE
CORPUS CHRISTI TURNING BASIN
PLAN
SCALE: 1" = 100'
4600' TO CORPUS CHRISTI HARBOR BRIDGE

NOTES

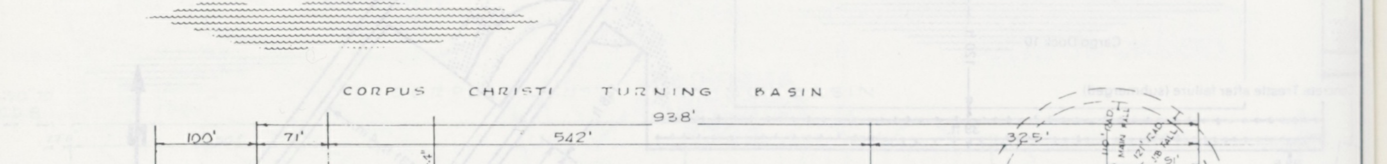
LENGTH LIMIT IS 700 FT.

SLIP DEPTH IS 17.5 FT. (REF: MEAN LOW TIDE; 1985 SOUNDINGS)
MAXIMUM DRAFT IS 19.5 FT. WITH NORMAL TIDE.

DOCK ELEVATION IS 12 FT. ABOVE M.L.T.

CORPUS CHRISTI

CARGO DOCK 12


CORPUS CHRISTI TURNING BASIN
938'
100'
71'
542'
325'
33.4'
SOUTH HARBOR LINE
49'
19 PILE BREASTING CLUSTER
SHORELINE
200'
CARGO DOCK 15 (SHED)
HEAVY - LIFT STIFF-LEG CRANE RATED 100 TONS
CARGO DOCK 14 (OPEN)
CARGO DOCK 8 (SHED)
PLAN
SCALE: 1"=100'

NOTES

LENGTH LIMIT IS 1000 FT., OR MORE IF ADJACENT BERTHS ARE UNOCCUPIED.

SLIP DEPTH IS 32.3 ft. (REF: MEAN LOW TIDE; 1985 SOUNDINGS)
MAXIMUM DRAFT IS 34.3 ft. WITH NORMAL TIDE

DOCK ELEVATION IS 15 FT. ABOVE M.L.T.

HEAVY LIFT CRANE CAPACITY: MAIN FALL—100 TONS @ 53 FT. RAD. TO 53 TONS @ 110 FT. RAD.; JIB FALL—25 TONS @ ANY RAD.

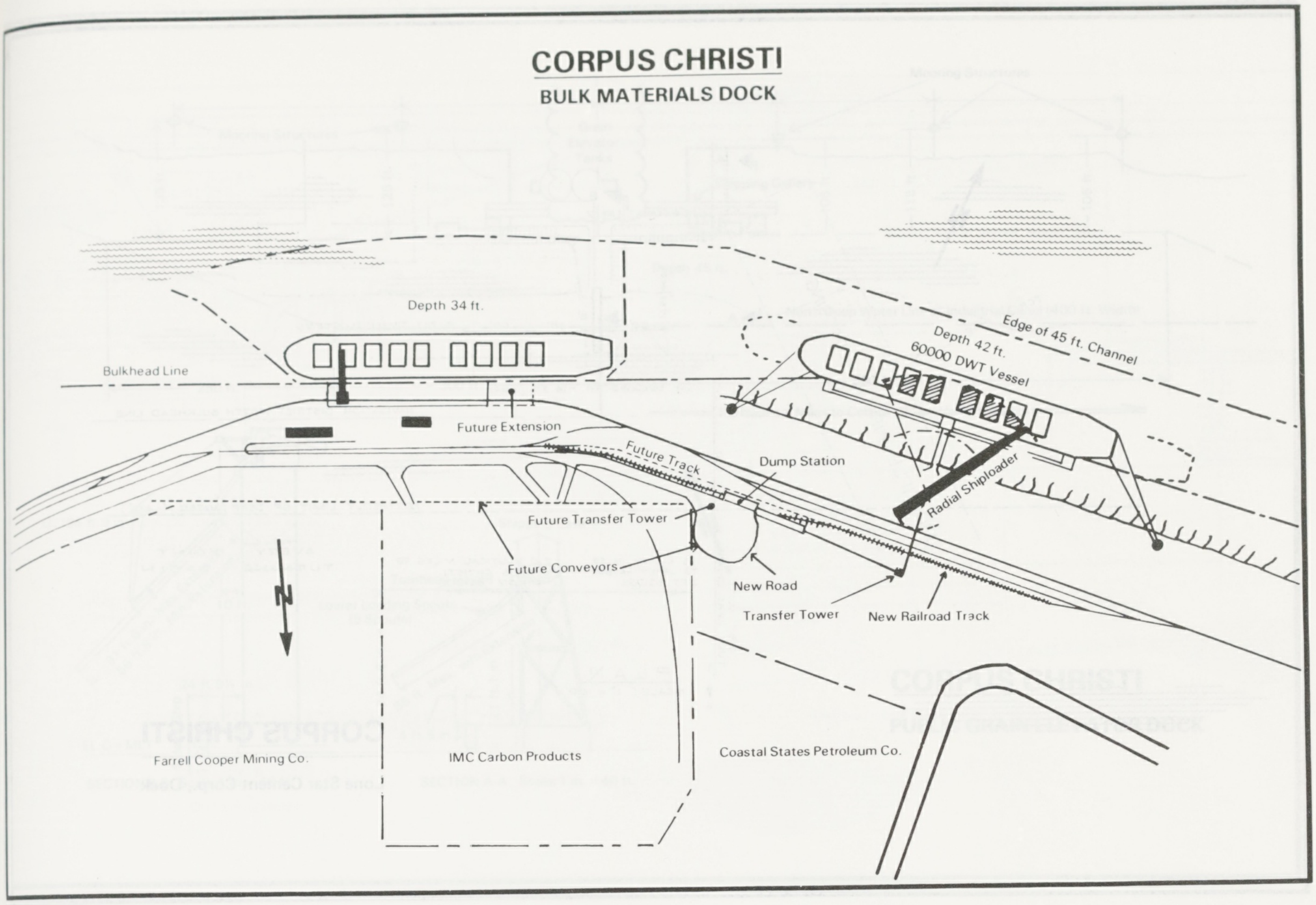
108,000 SQ. FT. OF USABLE SHED SPACE.

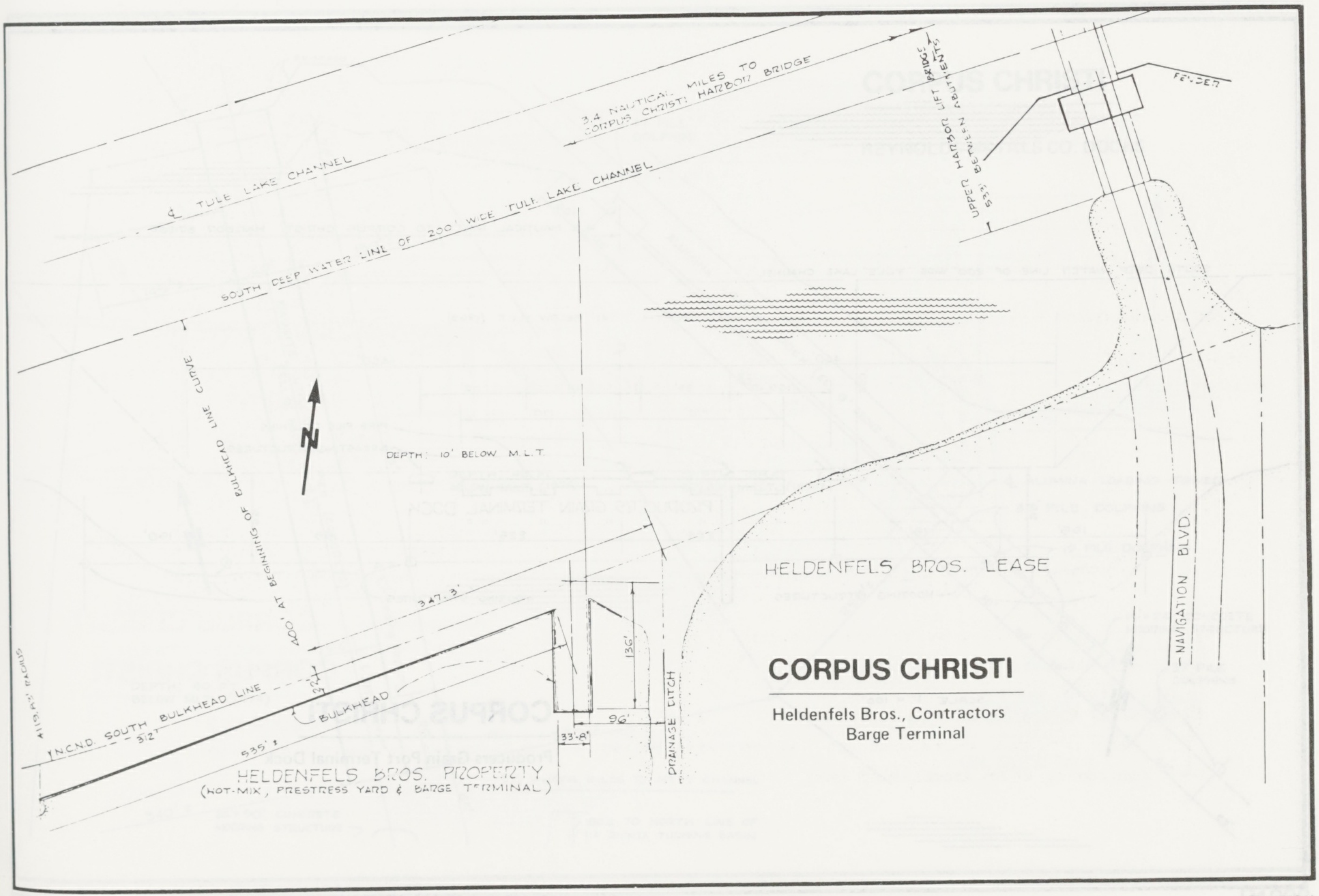
CORPUS CHRISTI

CARGO DOCKS 14–15

CORPUS CHRISTI

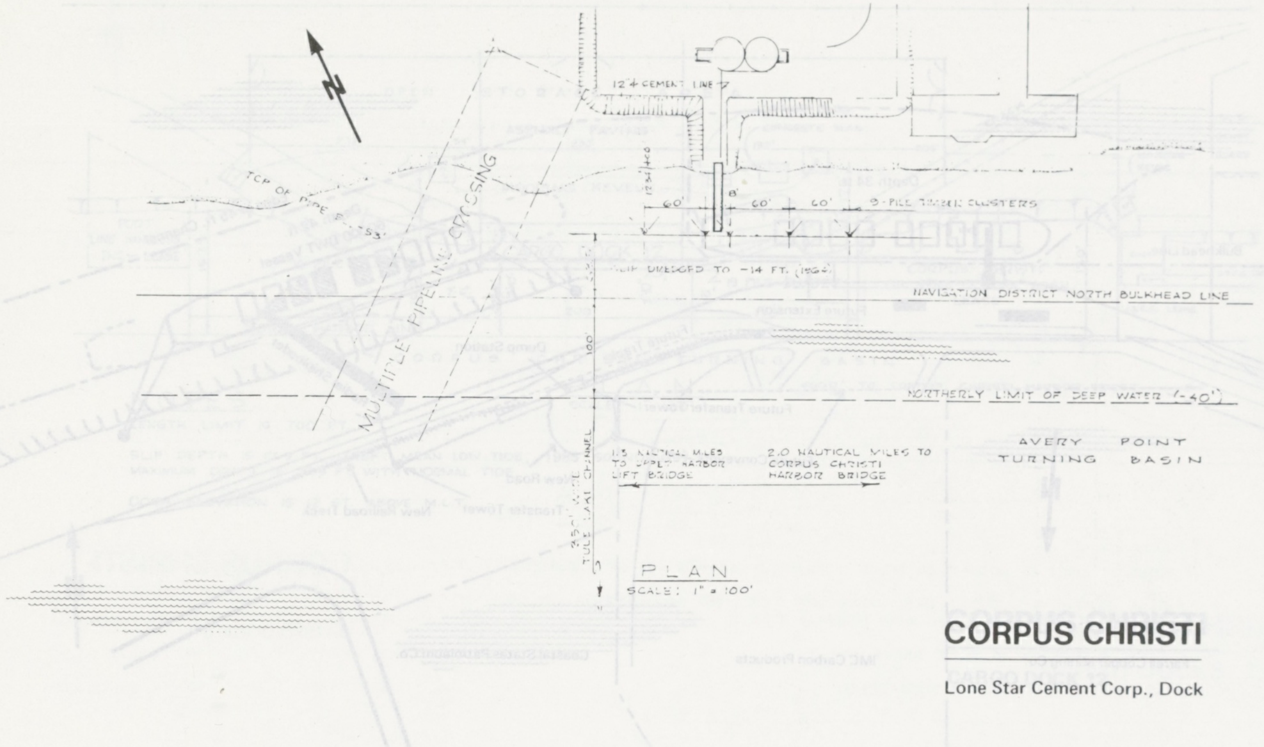
BULK MATERIALS DOCK


Depth 34 ft.
Bulkhead Line
Future Extension
Future Track
Dump Station
Depth 42 ft.
60000 DWT Vessel
Edge of 45 ft. Channel
Radial Shiploader
Future Transfer Tower
Future Conveyors
New Road
Transfer Tower
New Railroad Track
N
Farrell Cooper Mining Co.
IMC Carbon Products
Coastal States Petroleum Co.


3.4 NAUTICAL MILES TO CORPUS CHRISTI HARBOR BRIDGE
℄ TULE LAKE CHANNEL
SOUTH DEEP WATER LINE OF 200' WIDE TULE LAKE CHANNEL
UPPER HARBOR LIFT BRIDGE 535' BETWEEN ABUTMENTS
FENDER
N
400' AT BEGINNING OF BULKHEAD LINE CURVE
DEPTH 10' BELOW M.L.T.
HELDENFELS BROS. LEASE
NAVIGATION BLVD.
347.3'
BULKHEAD
TNGND SOUTH BULKHEAD LINE
312'
535'±
136'
96'
33'-8"
DRAINAGE DITCH
HELDENFELS BROS. PROPERTY
(HOT-MIX, PRESTRESS YARD & BARGE TERMINAL)

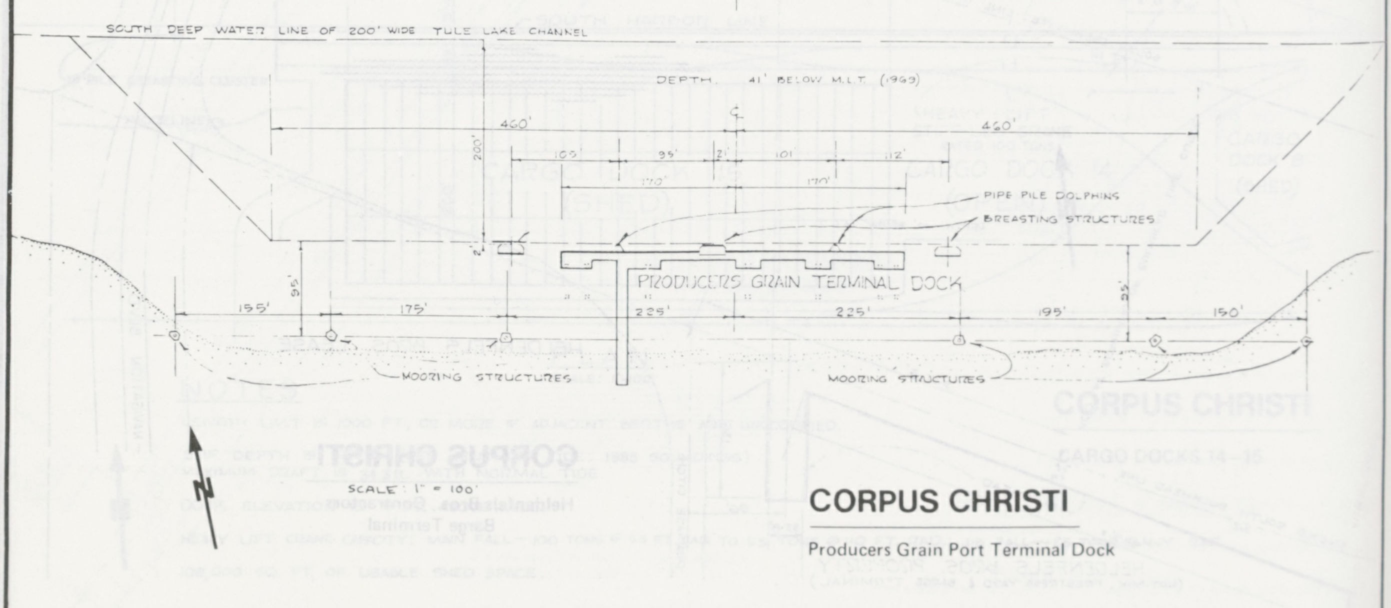
CORPUS CHRISTI

Heldenfels Bros., Contractors
Barge Terminal


12'4 CEMENT LINE
12+00
TOP OF PIPE EL -53'
MULTIPLE PIPELINE CROSSING
8'
60'
60'
60'
9-PILE TIMBER CLUSTERS
SLIP DREDGED TO -14 FT. (1964)
NAVIGATION DISTRICT NORTH BULKHEAD LINE
100'
NORTHERLY LIMIT OF DEEP WATER (-40')
350' WIDE TULE LAKE CHANNEL
1.5 NAUTICAL MILES TO UPPER HARBOR LIFT BRIDGE
2.0 NAUTICAL MILES TO CORPUS CHRISTI HARBOR BRIDGE
AVERY POINT TURNING BASIN
PLAN
SCALE: 1" = 100'
N

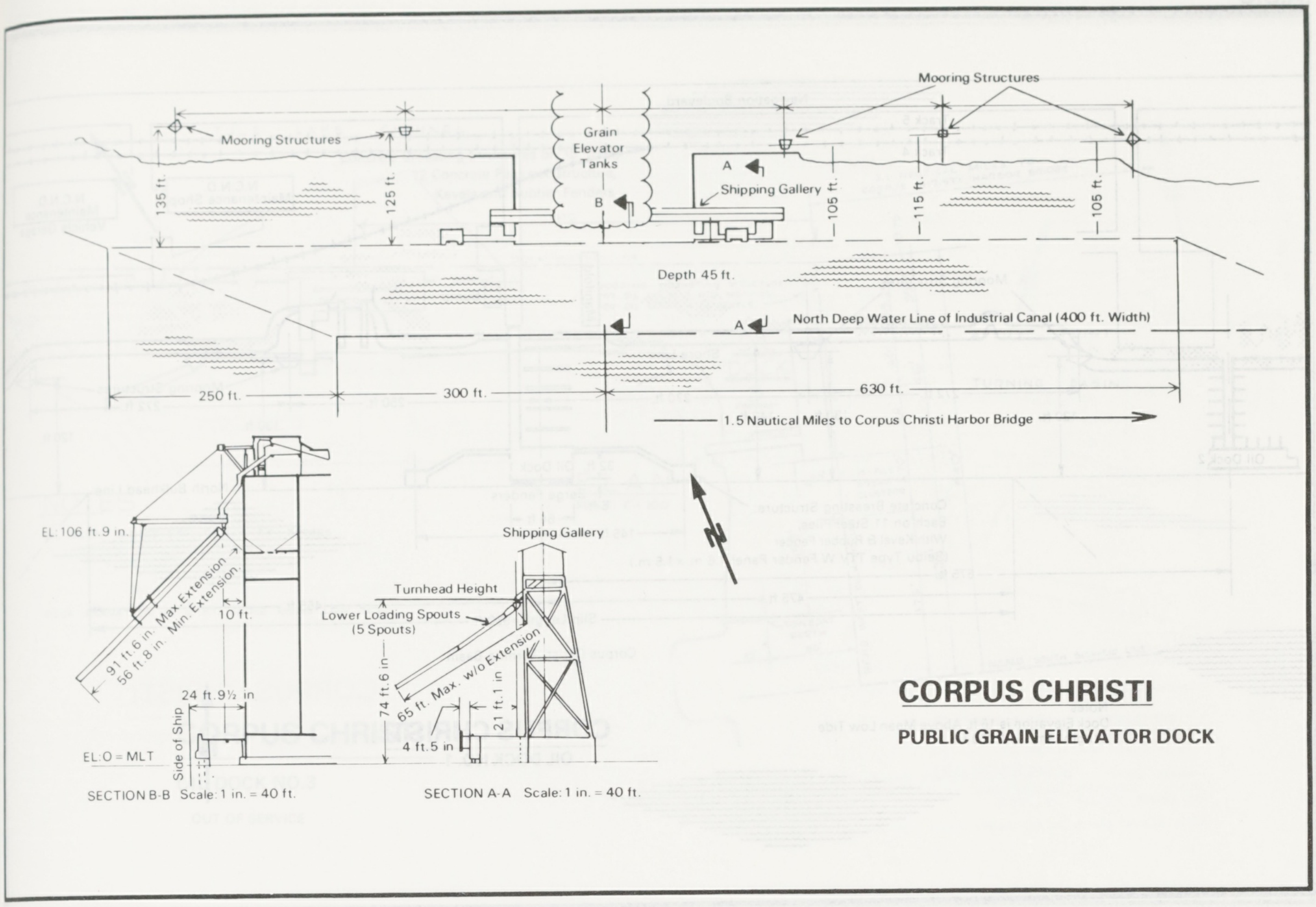
CORPUS CHRISTI

Lone Star Cement Corp., Dock


4.2 NAUTICAL MILES TO CORPUS CHRISTI HARBOR BRIDGE
SOUTH DEEP WATER LINE OF 200' WIDE TULE LAKE CHANNEL
DEPTH 41' BELOW M.L.T. (1969)
460'
460'
200'
105'
95'
21'
101'
112'
170'
170'
PIPE PILE DOLPHINS
BREASTING STRUCTURES
2'
95'
PRODUCERS GRAIN TERMINAL DOCK
155'
175'
225'
225'
195'
150'
95'
MOORING STRUCTURES
MOORING STRUCTURES
SCALE: 1" = 100'
N

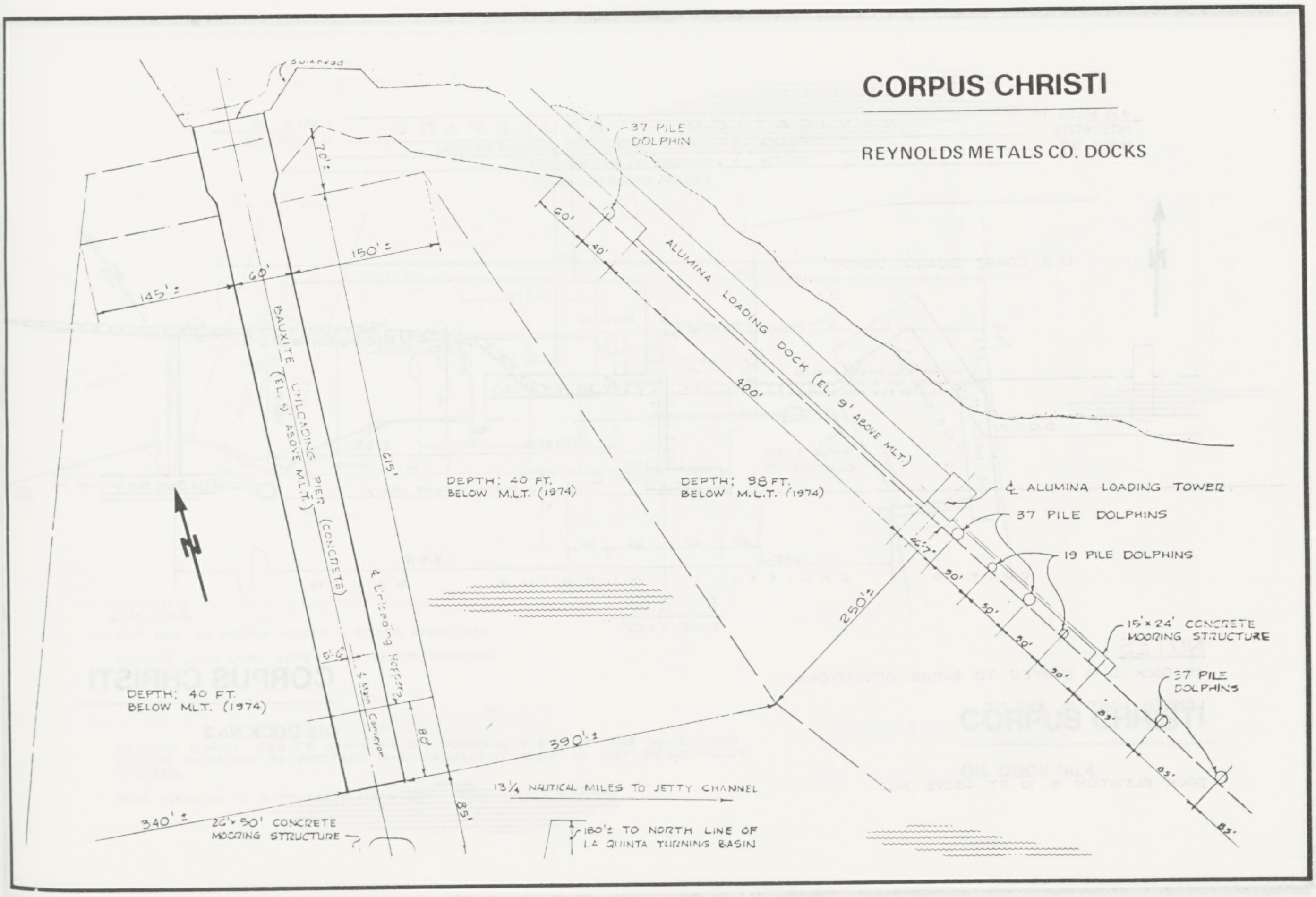
CORPUS CHRISTI

Producers Grain Port Terminal Dock


Mooring Structures
Mooring Structures
Grain Elevator Tanks
A
B
Shipping Gallery
135 ft.
125 ft.
105 ft.
115 ft.
105 ft.
Depth 45 ft.
A
North Deep Water Line of Industrial Canal (400 ft. Width)
250 ft.
300 ft.
630 ft.
1.5 Nautical Miles to Corpus Christi Harbor Bridge
N
EL:106 ft.9 in.
91 ft.6 in. Max Extension
56 ft.8 in. Min. Extension
10 ft.
24 ft.9½ in
Side of Ship
EL:0 = MLT
SECTION B-B Scale: 1 in. = 40 ft.
Shipping Gallery
Turnhead Height
Lower Loading Spouts (5 Spouts)
65 ft. Max. w/o Extension
74 ft.6 in
21 ft.1 in
4 ft.5 in
SECTION A-A Scale: 1 in. = 40 ft.

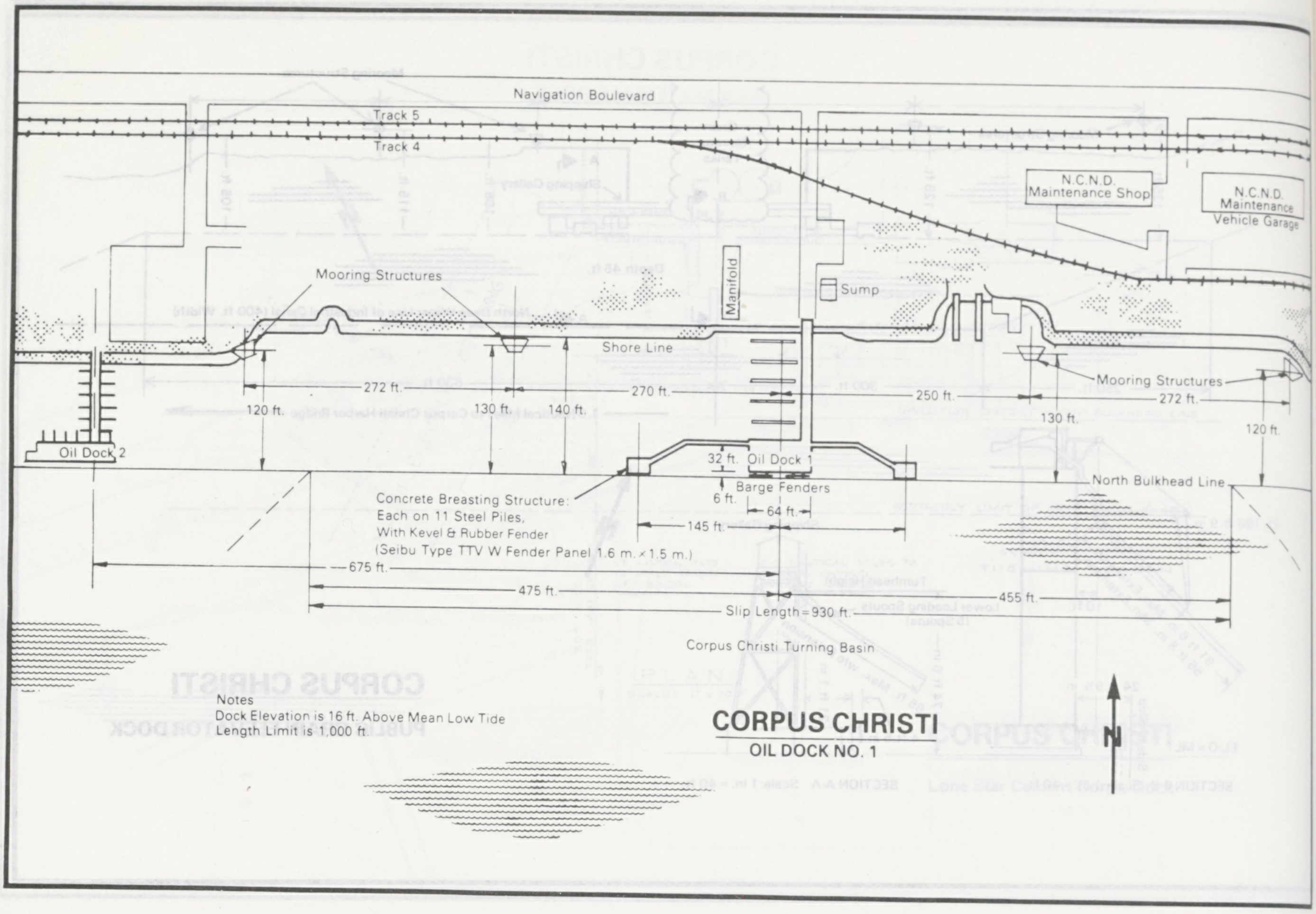
CORPUS CHRISTI

PUBLIC GRAIN ELEVATOR DOCK


BULKHEAD
-37 PILE DOLPHIN
70'±
60'
40'
150'±
145'±
60'
BAUXITE UNLOADING PIER (CONCRETE)
(EL. 9' ABOVE M.L.T.)
615'
℄ Unloading Conveyor
ALUMINA LOADING DOCK (EL. 9' ABOVE M.L.T.)
400'
DEPTH: 40 FT. BELOW M.L.T. (1974)
DEPTH: 38 FT. BELOW M.L.T. (1974)
℄ ALUMINA LOADING TOWER
37 PILE DOLPHINS
19 PILE DOLPHINS
15'×24' CONCRETE MOORING STRUCTURE
37 PILE DOLPHINS
40'7"
50'
50'
50'
50'
83'
83'
83'
250'±
N
DEPTH: 40 FT. BELOW MLT. (1974)
80'
390'±
85'
340'±
13/4 NAUTICAL MILES TO JETTY CHANNEL
26'×50' CONCRETE MOORING STRUCTURE
180'± TO NORTH LINE OF LA QUINTA TURNING BASIN

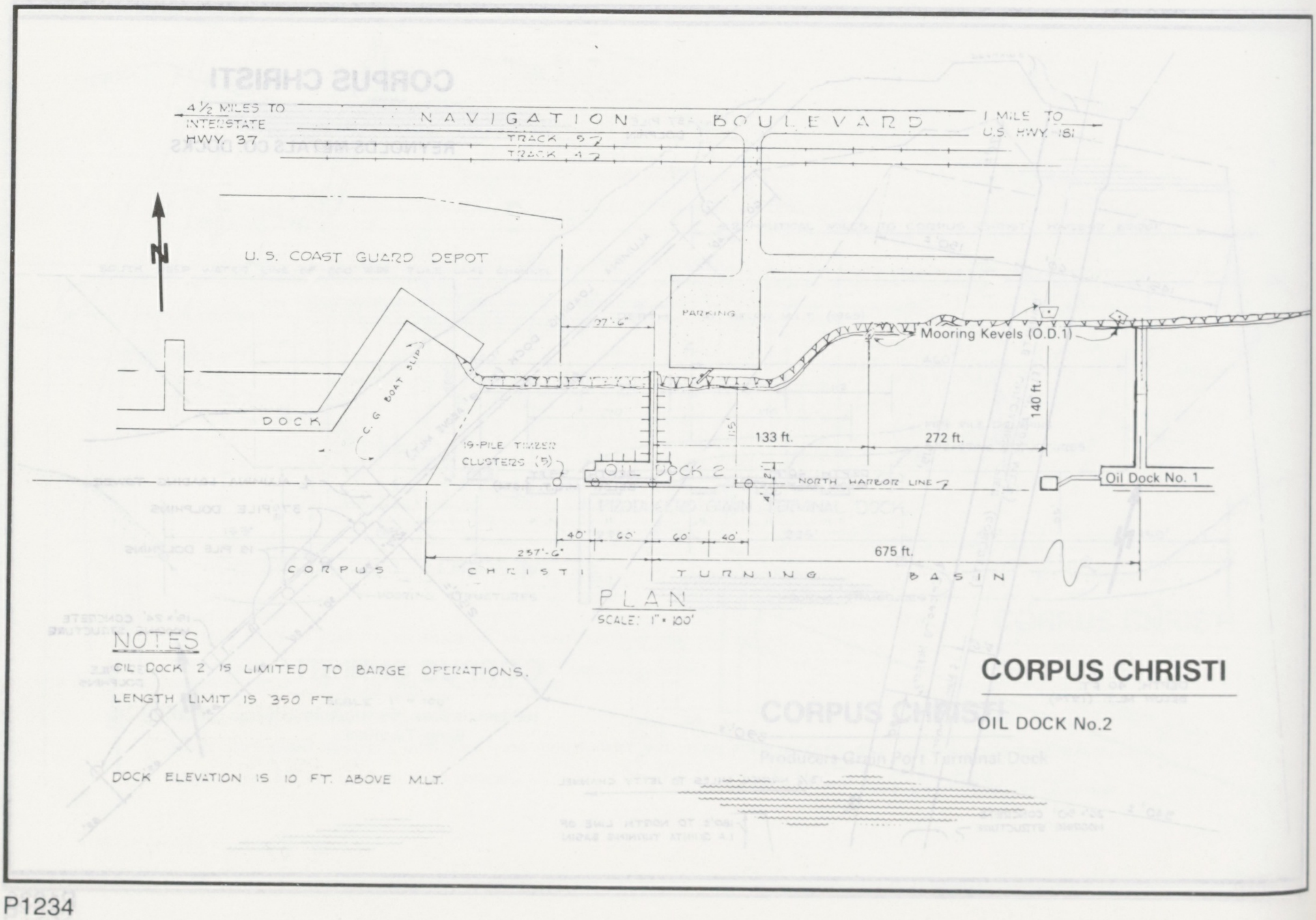
CORPUS CHRISTI

REYNOLDS METALS CO. DOCKS


Navigation Boulevard
Track 5
Track 4
N.C.N.D. Maintenance Shop
N.C.N.D. Maintenance Vehicle Garage
Manifold
Sump
Mooring Structures
Shore Line
Mooring Structures
272 ft.
270 ft.
250 ft.
272 ft.
120 ft.
130 ft.
140 ft.
130 ft.
120 ft.
Oil Dock 2
32 ft.
Oil Dock 1
Barge Fenders
6 ft.
64 ft.
145 ft.
North Bulkhead Line
Concrete Breasting Structure:
Each on 11 Steel Piles,
With Kevel & Rubber Fender
(Seibu Type TTV W Fender Panel 1.6 m. × 1.5 m.)
675 ft.
475 ft.
455 ft.
Slip Length = 930 ft.
Corpus Christi Turning Basin
N

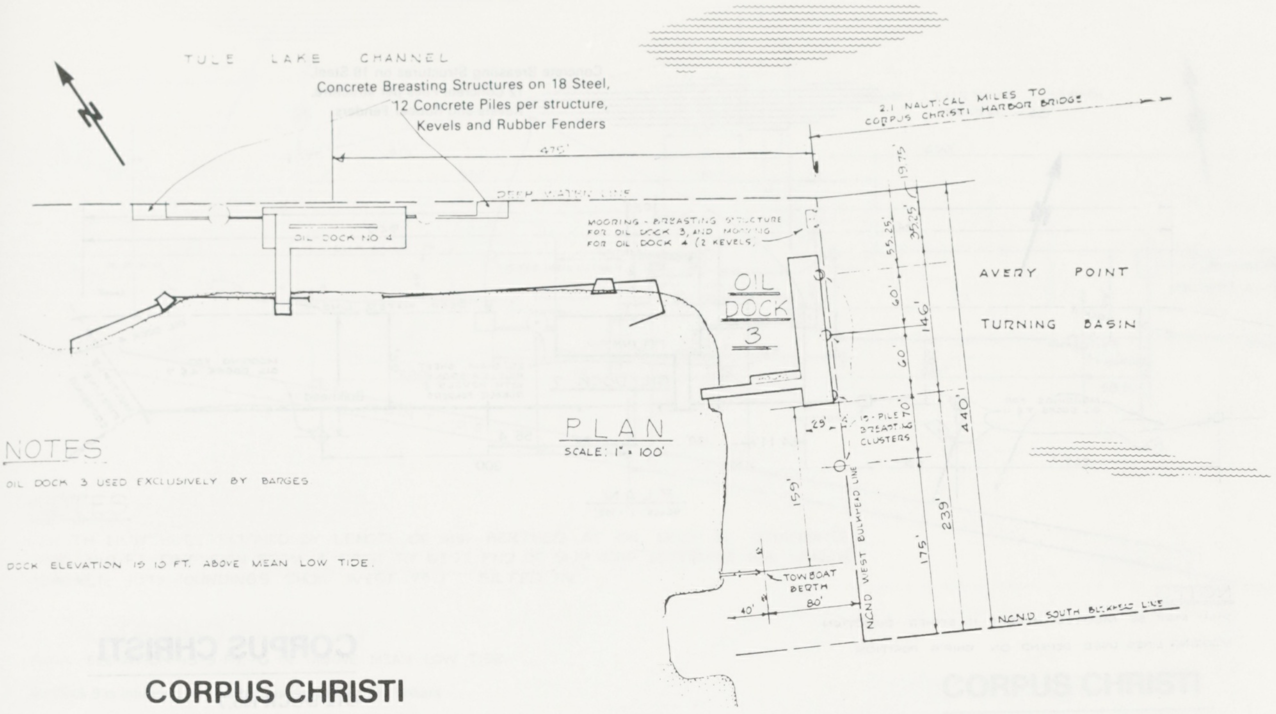
Notes
Dock Elevation is 16 ft. Above Mean Low Tide
Length Limit is 1,000 ft.

CORPUS CHRISTI
OIL DOCK NO. 1


4½ MILES TO INTERSTATE HWY. 37
NAVIGATION BOULEVARD
TRACK 5
TRACK 4
1 MILE TO U.S. HWY. 181
N
U. S. COAST GUARD DEPOT
PARKING
27'-6"
Mooring Kevels (O.D.1)
DOCK
C.G. BOAT SLIP
19-PILE TIMBER CLUSTERS (5)
OIL DOCK 2
133 ft.
272 ft.
140 ft.
NORTH HARBOR LINE
Oil Dock No. 1
40'
60'
60'
40'
257'-6"
675 ft.
CORPUS CHRISTI TURNING BASIN
PLAN
SCALE: 1" = 100'

NOTES
OIL DOCK 2 IS LIMITED TO BARGE OPERATIONS.
LENGTH LIMIT IS 350 FT.
DOCK ELEVATION IS 10 FT. ABOVE M.L.T.

CORPUS CHRISTI
OIL DOCK No.2


TULE LAKE CHANNEL
Concrete Breasting Structures on 18 Steel, 12 Concrete Piles per structure, Kevels and Rubber Fenders
475'
DEEP WATER LINE
OIL DOCK NO 4
2.1 NAUTICAL MILES TO CORPUS CHRISTI HARBOR BRIDGE
MOORING - BREASTING STRUCTURE FOR OIL DOCK 3, AND MOORING FOR OIL DOCK 4 (2 KEVELS)
19.75'
55.25'
35.25'
60'
60'
146'
70'
440'
239'
175'
159'
29'
15-PILE BREASTING CLUSTERS
OIL DOCK 3
AVERY POINT
TURNING BASIN
PLAN
SCALE: 1" = 100'
TOWBOAT BERTH
40'
80'
NCND WEST BULKHEAD LINE
NCND SOUTH BULKHEAD LINE

NOTES

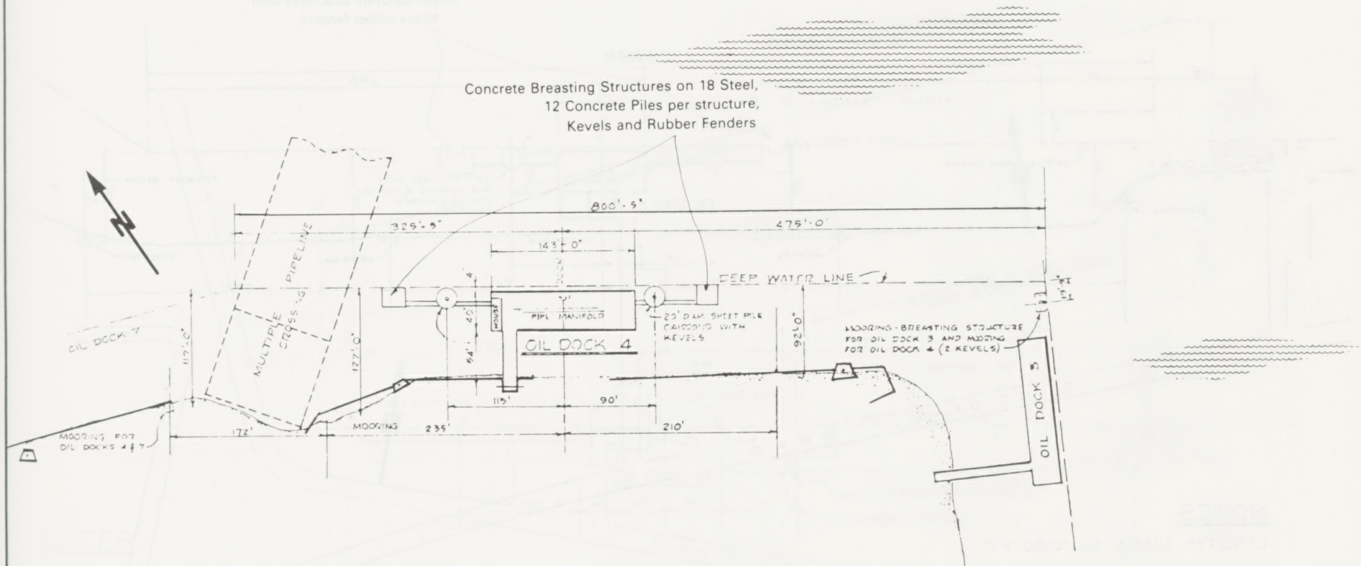
OIL DOCK 3 USED EXCLUSIVELY BY BARGES

DOCK ELEVATION IS 13 FT. ABOVE MEAN LOW TIDE.

CORPUS CHRISTI

OIL DOCK NO.3

OUT OF SERVICE


Concrete Breasting Structures on 18 Steel, 12 Concrete Piles per structure, Kevels and Rubber Fenders
800'-5"
325'-5"
475'-0"
143'-0"
DEEP WATER LINE
MULTIPLE PIPELINE CROSSING
OIL DOCK 7
117'-0"
127'-0"
40'
54'
HOUSE
PIPE MANIFOLD
20' DIAM. SHEET PILE CAISSONS WITH KEVELS
OIL DOCK 4
92'-0"
MOORING - BREASTING STRUCTURE FOR OIL DOCK 3 AND MOORING FOR OIL DOCK 4 (2 KEVELS)
OIL DOCK 3
115'
90'
MOORING FOR OIL DOCKS 4 & 7
172'
MOORING
235'
210'

NOTES

SHIP MAY BE MOORED HEADED IN EITHER DIRECTION.

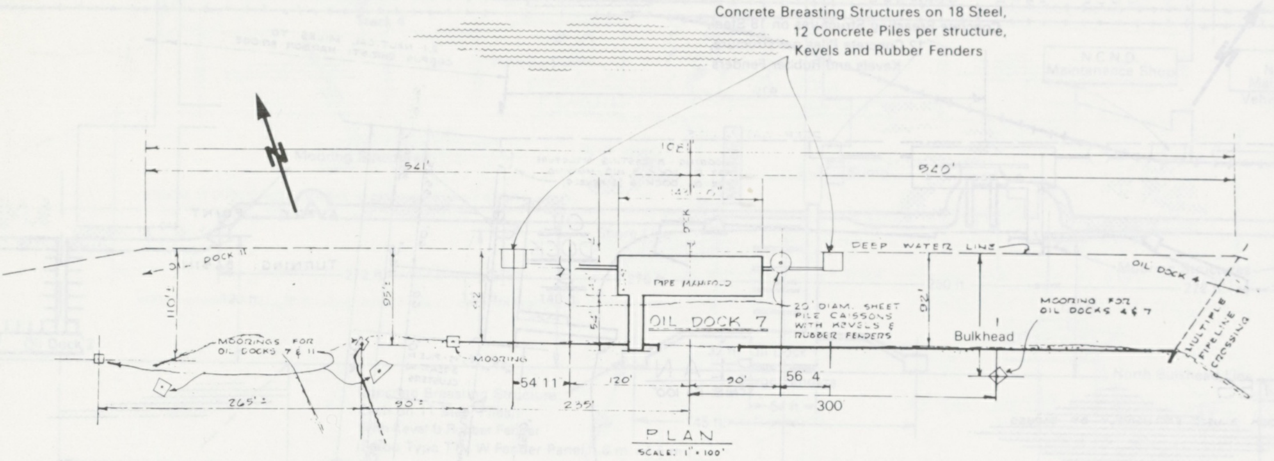
MOORING LINES USED DEPEND ON SHIP'S POSITION.

LENGTH LIMIT: 850 FT. SHIPS AT OIL DOCKS 4, 7 & 11 AT THE SAME TIME. LONGER SHIPS MAY BE BERTHED WHEN ADJACENT SLIP IS NOT BEING FULLY UTILIZED.

DOCK ELEVATION IS 16 FT. ABOVE MEAN LOW TIDE.

CORPUS CHRISTI

OIL DOCK No.4


Concrete Breasting Structures on 18 Steel, 12 Concrete Piles per structure, Kevels and Rubber Fenders
N
541'
940'
100'
43' 6"
DOCK 11
110'
95'
DEEP WATER LINE
OIL DOCK 4
PIPE MANIFOLD
OIL DOCK 7
20' DIAM. SHEET PILE CAISSONS WITH KEVELS & RUBBER FENDERS
MOORING FOR OIL DOCKS 4 & 7
MULTIPLE PIPELINE CROSSING
Bulkhead
MOORINGS FOR OIL DOCKS 7 & 11
MOORING
54 11
120'
90'
56 4
300
265'
90'
235'
PLAN
SCALE: 1" = 100'

NOTES

SHIP MAY BE MOORED HEADED IN EITHER DIRECTION.

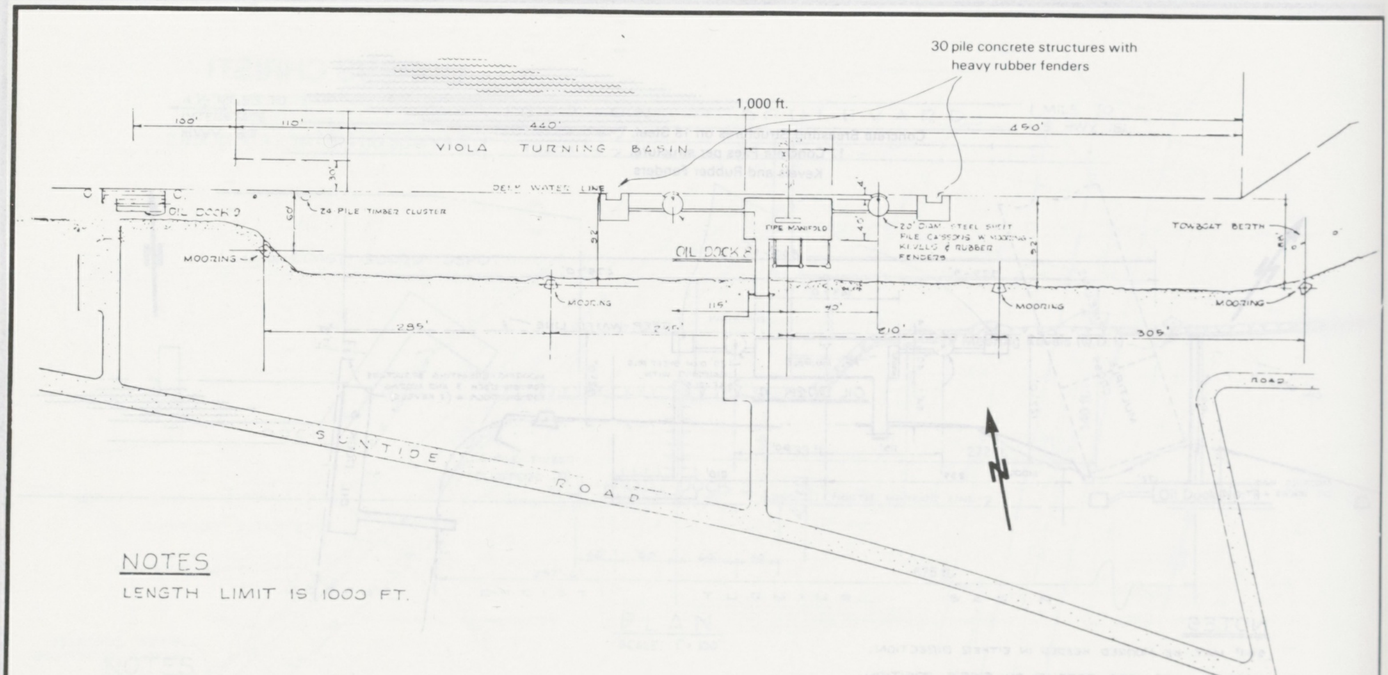
MOORING LINES USED DEPEND ON SHIP'S POSITION

LENGTH LIMIT: 850 FT. SHIPS AT OIL DOCKS 4, 7 & 11 AT THE SAME TIME. LONGER SHIPS MAY BE BERTHED WHEN ADJACENT SLIP IS NOT BEING FULLY UTILIZED.

DOCK ELEVATION IS 16 FT. ABOVE MEAN LOW TIDE.

CORPUS CHRISTI

OIL DOCK No.7


30 pile concrete structures with heavy rubber fenders
1,000 ft.
150'
110'
440'
450'
VIOLA TURNING BASIN
DEEP WATER LINE
OIL DOCK 9
24 PILE TIMBER CLUSTER
MOORINGS
PIPE MANIFOLD
OIL DOCK 8
20' DIAM. STEEL SHEET PILE CAISSONS W. MOORING KEVELS & RUBBER FENDERS
TOWBOAT BERTH
MOORING
285'
115'
90'
210'
305'
SUNTIDE ROAD
ROAD
N

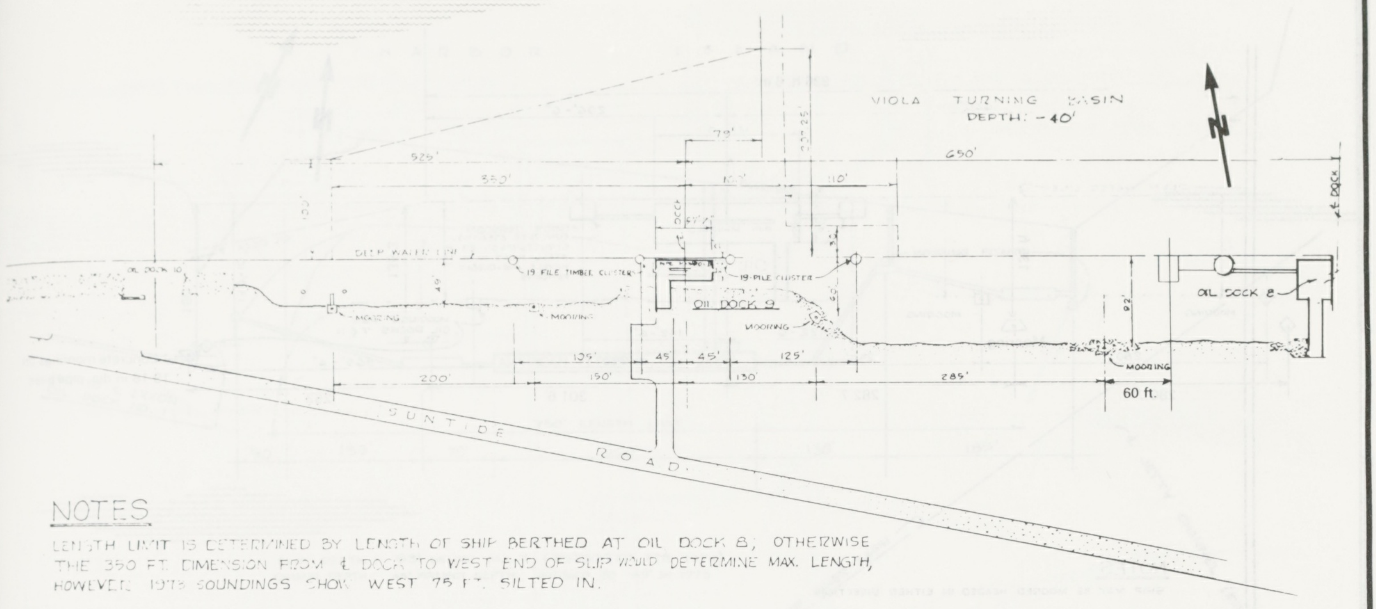
NOTES

LENGTH LIMIT IS 1000 FT.

DOCK ELEVATION IS 16 FT. ABOVE MEAN LOW TIDE.

CORPUS CHRISTI

OIL DOCK No.8


VIOLA TURNING BASIN
DEPTH: -40'
N
525'
350'
79'
10'
110'
650'
25'
DOCK
67'
DEEP WATER LINE
OIL DOCK 10
19 PILE TIMBER CLUSTERS
19-PILE CLUSTER
OIL DOCK 9
OIL DOCK 8
℄ DOCK
MOORING
MOORING
MOORING
MOORING
100'
49'
30'
60'
92'
105'
45'
45'
125'
200'
150'
130'
285'
60 ft.
SUNTIDE ROAD

NOTES

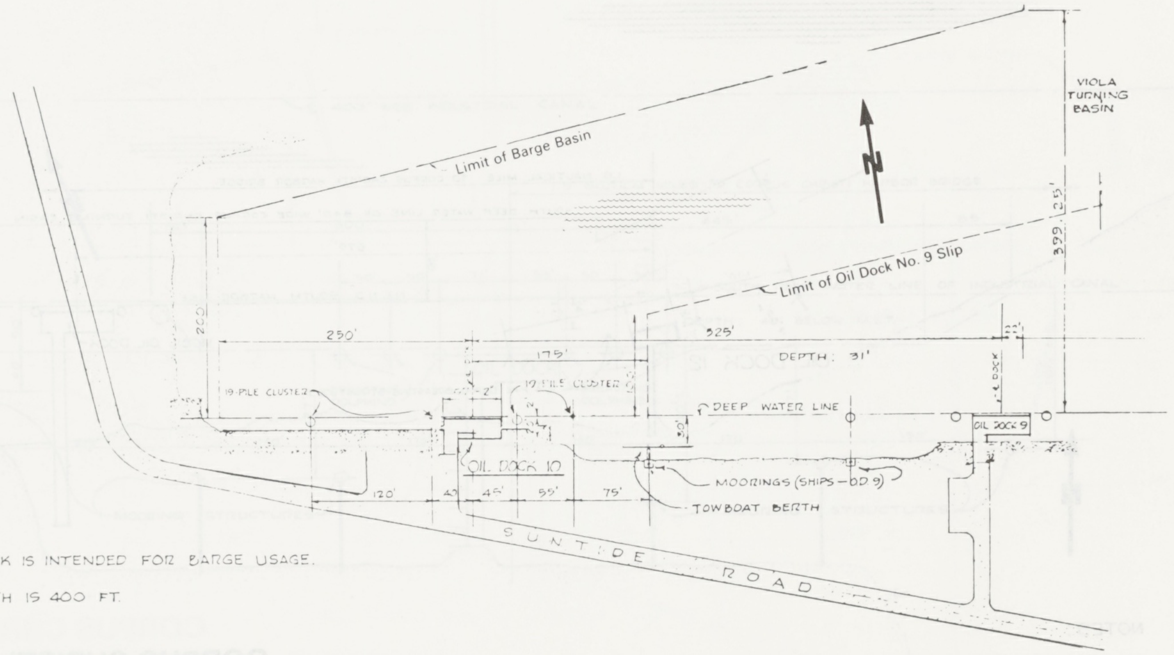
LENGTH LIMIT IS DETERMINED BY LENGTH OF SHIP BERTHED AT OIL DOCK 8, OTHERWISE THE 350 FT. DIMENSION FROM ℄ DOCK TO WEST END OF SLIP WOULD DETERMINE MAX. LENGTH, HOWEVER 1978 SOUNDINGS SHOW WEST 75 FT. SILTED IN.

DOCK ELEVATION IS 9 FT.-6 IN. ABOVE MEAN LOW TIDE.

Oil Dock 9 is intended for use by Barges and Small Tankers

CORPUS CHRISTI

OIL DOCK No.9


VIOLA TURNING BASIN
N
Limit of Barge Basin
Limit of Oil Dock No. 9 Slip
399'
25'
200'
250'
175'
525'
22'
DEPTH: 31'
℄ DOCK
19-PILE CLUSTER
19-PILE CLUSTER
2'
DEEP WATER LINE
OIL DOCK 9
30'
OIL DOCK 10
MOORINGS (SHIPS—OD 9)
TOWBOAT BERTH
120'
40'
45'
55'
75'
SUNTIDE ROAD

NOTES

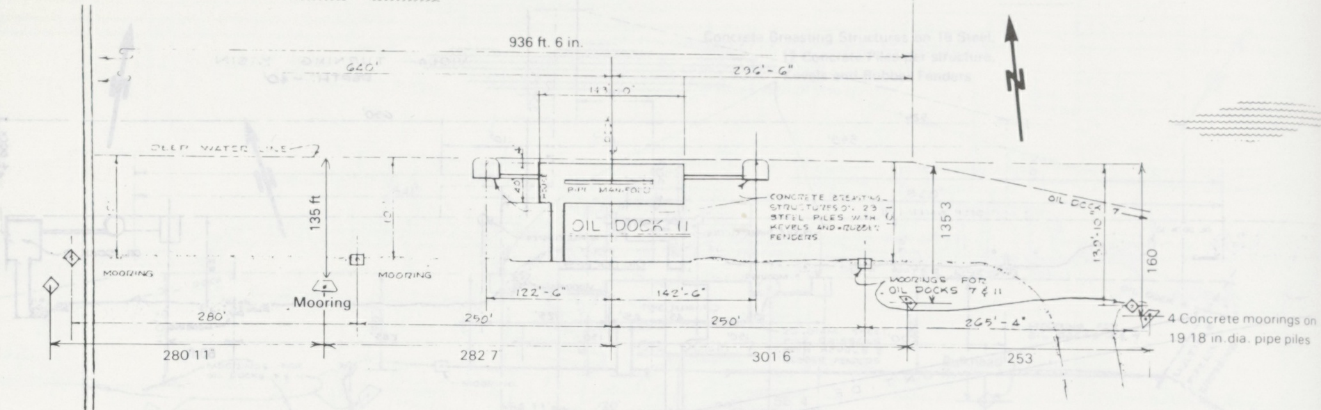
THIS OIL DOCK IS INTENDED FOR BARGE USAGE.

SLIP LENGTH IS 400 FT.

DOCK ELEVATION IS 9 FT., 6 IN. ABOVE MEAN LOW TIDE.

CORPUS CHRISTI

OIL DOCK No.10


936 ft. 6 in.
640'
296'-6"
143'-0"
DEEP WATER LINE
135 ft
PIPE MANIFOLD
OIL DOCK 11
CONCRETE BREASTING STRUCTURES ON 23 STEEL PILES WITH KEVELS AND RUBBER FENDERS
OIL DOCK 7
135 3
132'-10"
160
MOORING
Mooring
MOORING
MOORINGS FOR OIL DOCKS 7 & 11
122'-6"
142'-6"
280'
250'
250'
265'-4"
280 11
282 7
301 6
253
4 Concrete moorings on 19 18 in.dia. pipe piles
N

NOTES

SHIP MAY BE MOORED HEADED IN EITHER DIRECTION.

MOORING LINES USED DEPEND ON SHIP'S POSITION.

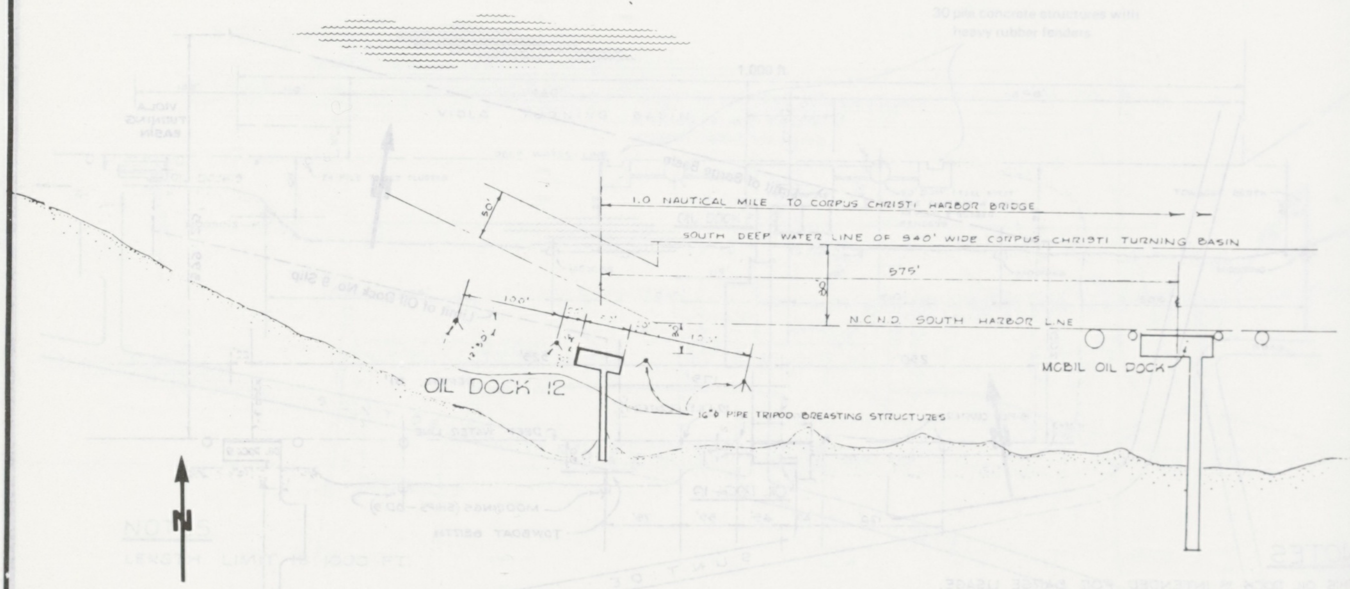
BEAM UNLIMITED.

LENGTH LIMIT: 950 FT. SHIPS AT OIL DOCKS 4, 7 & 11 AT THE SAME TIME. LONGER SHIPS MAY BE BERTHED WHEN ADJACENT SLIP IS NOT BEING FULLY UTILIZED.

DOCK ELEVATION IS 16 FT. ABOVE MEAN LOW TIDE.

CORPUS CHRISTI

OIL DOCK No.11


1.0 NAUTICAL MILE TO CORPUS CHRISTI HARBOR BRIDGE
SOUTH DEEP WATER LINE OF 940' WIDE CORPUS CHRISTI TURNING BASIN
50'
575'
100'
N.C.N.D. SOUTH HARBOR LINE
OIL DOCK 12
16"Ø PIPE TRIPOD BREASTING STRUCTURES
MOBIL OIL DOCK
N

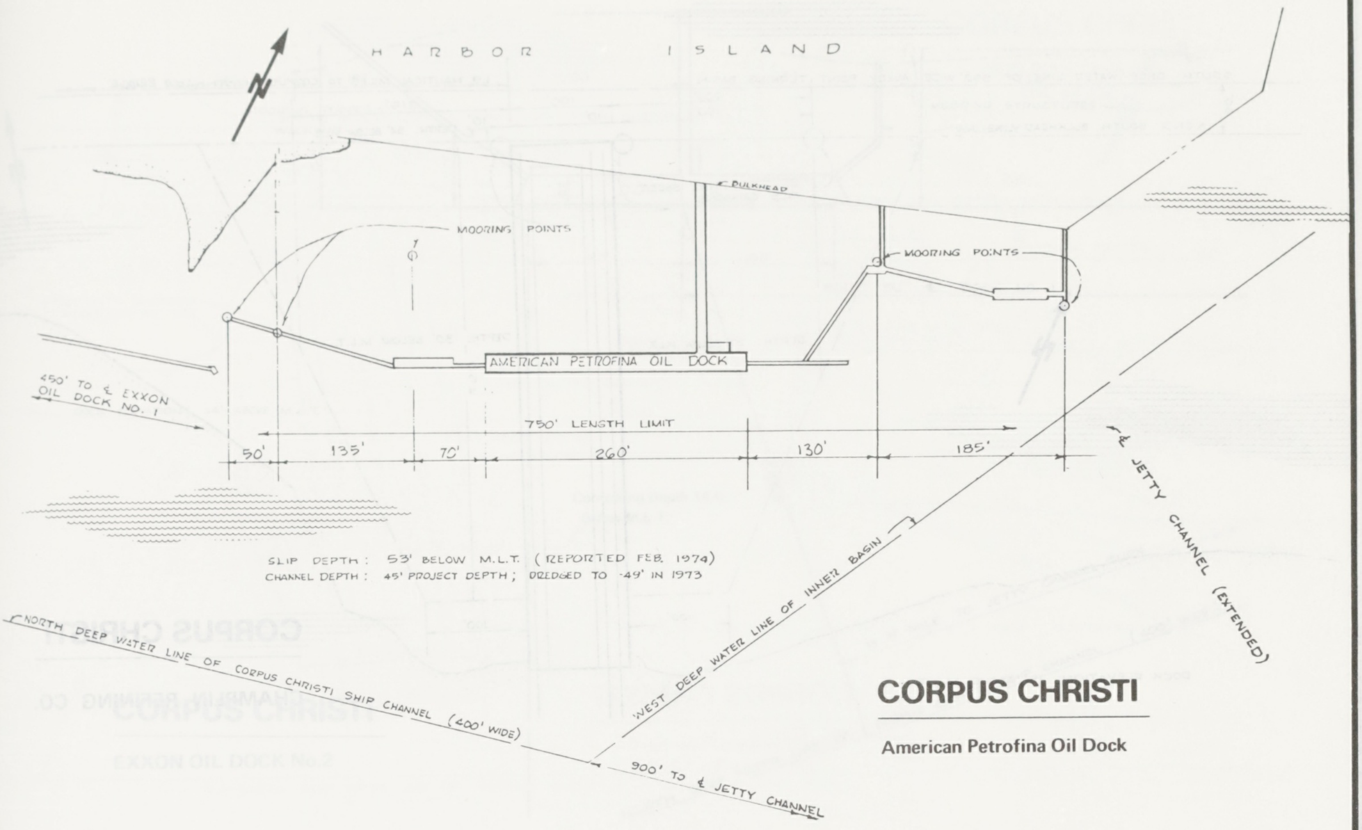
NOTES:

OIL DOCK 12 FOR BARGE USE ONLY.

DOCK ELEVATION IS 8 FT. ABOVE M.L.T.

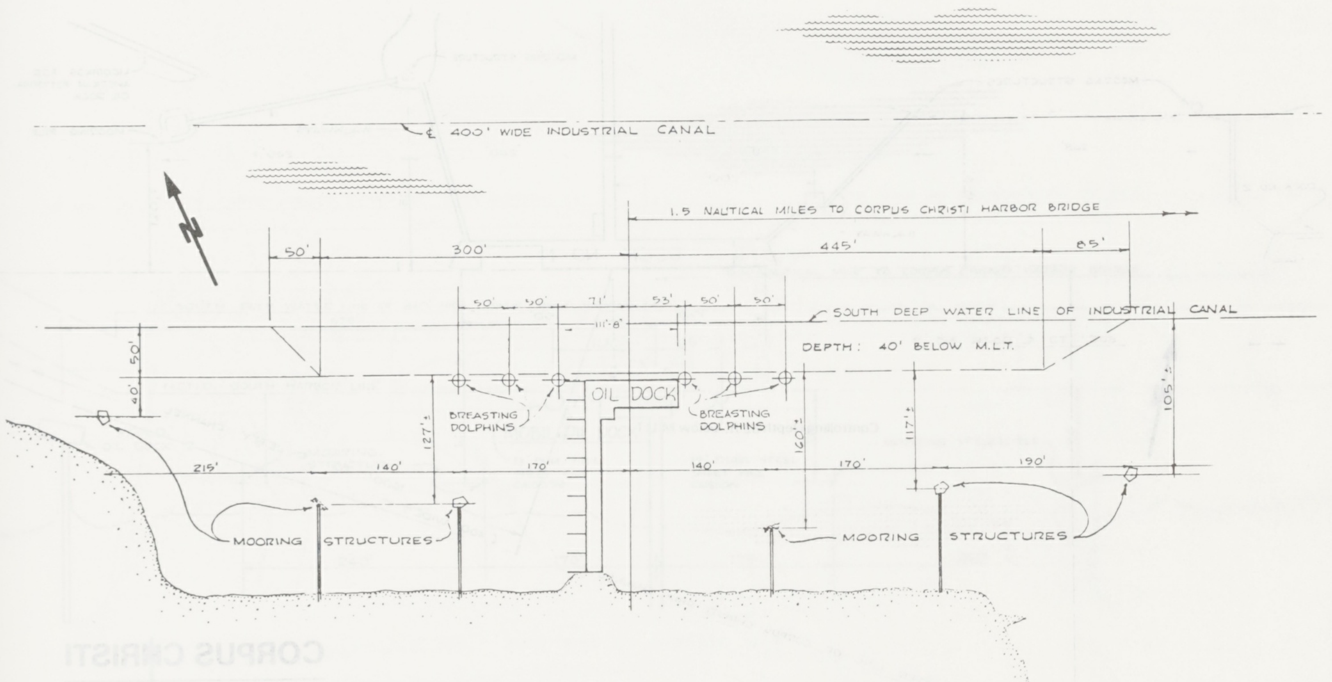
CORPUS CHRISTI

OIL DOCK No. 12


HARBOR ISLAND
N
BULKHEAD
MOORING POINTS
MOORING POINTS
AMERICAN PETROFINA OIL DOCK
450' TO ℄ EXXON OIL DOCK NO. 1
750' LENGTH LIMIT
50'
135'
70'
260'
130'
185'
℄ JETTY CHANNEL (EXTENDED)
SLIP DEPTH: 53' BELOW M.L.T. (REPORTED FEB. 1974)
CHANNEL DEPTH: 45' PROJECT DEPTH; DREDGED TO -49' IN 1973
WEST DEEP WATER LINE OF INNER BASIN
NORTH DEEP WATER LINE OF CORPUS CHRISTI SHIP CHANNEL (400' WIDE)
900' TO ℄ JETTY CHANNEL

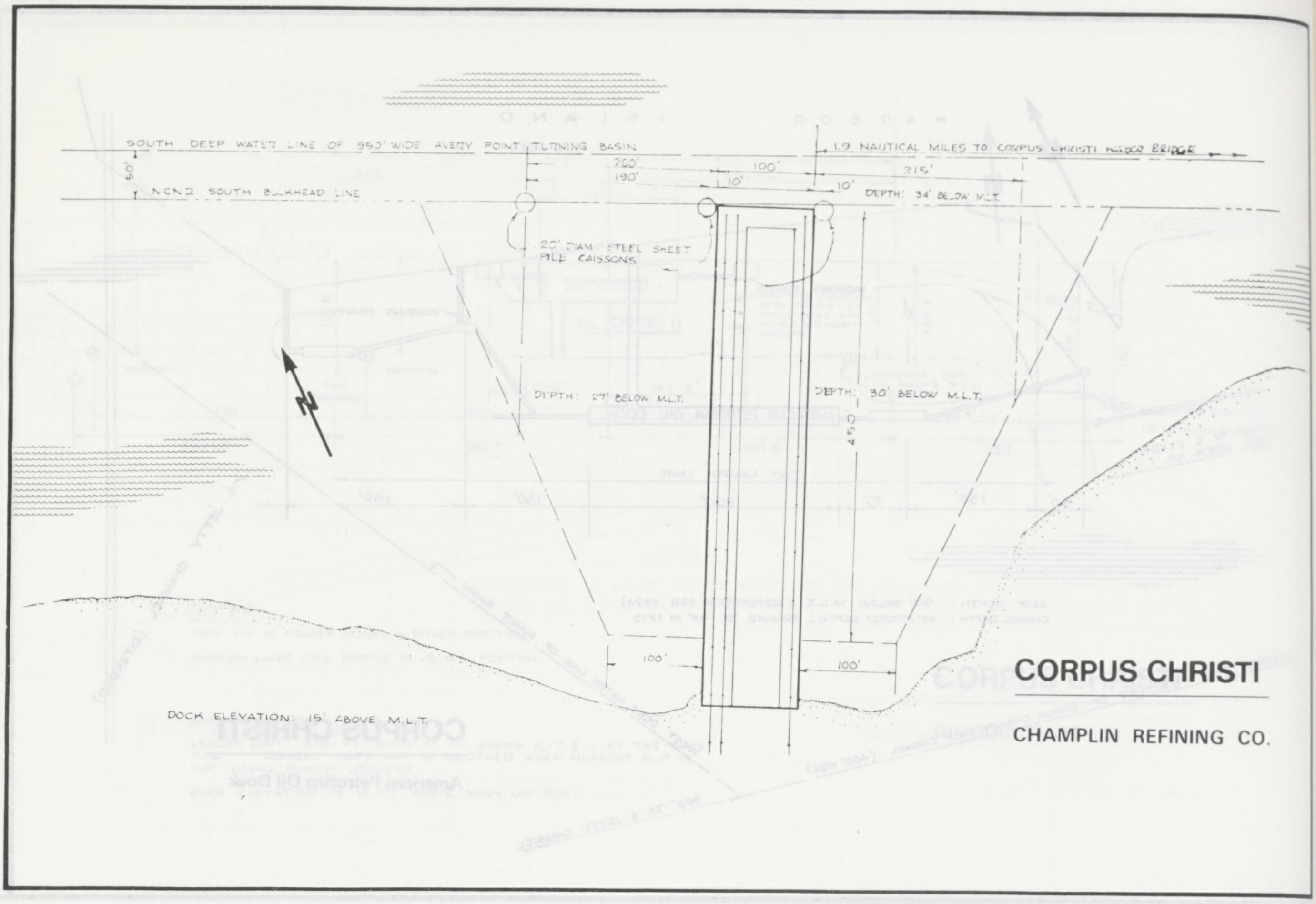
CORPUS CHRISTI

American Petrofina Oil Dock


℄ 400' WIDE INDUSTRIAL CANAL
N
1.5 NAUTICAL MILES TO CORPUS CHRISTI HARBOR BRIDGE
50'
300'
445'
85'
50'
50'
71'
53'
50'
50'
111'-8"
SOUTH DEEP WATER LINE OF INDUSTRIAL CANAL
DEPTH: 40' BELOW M.L.T.
50'
40'
OIL DOCK
BREASTING DOLPHINS
BREASTING DOLPHINS
127'±
160'±
117'±
105'±
215'
140'
170'
140'
170'
190'
MOORING STRUCTURES
MOORING STRUCTURES
DOCK ELEVATION: 14' ABOVE M.L.T.

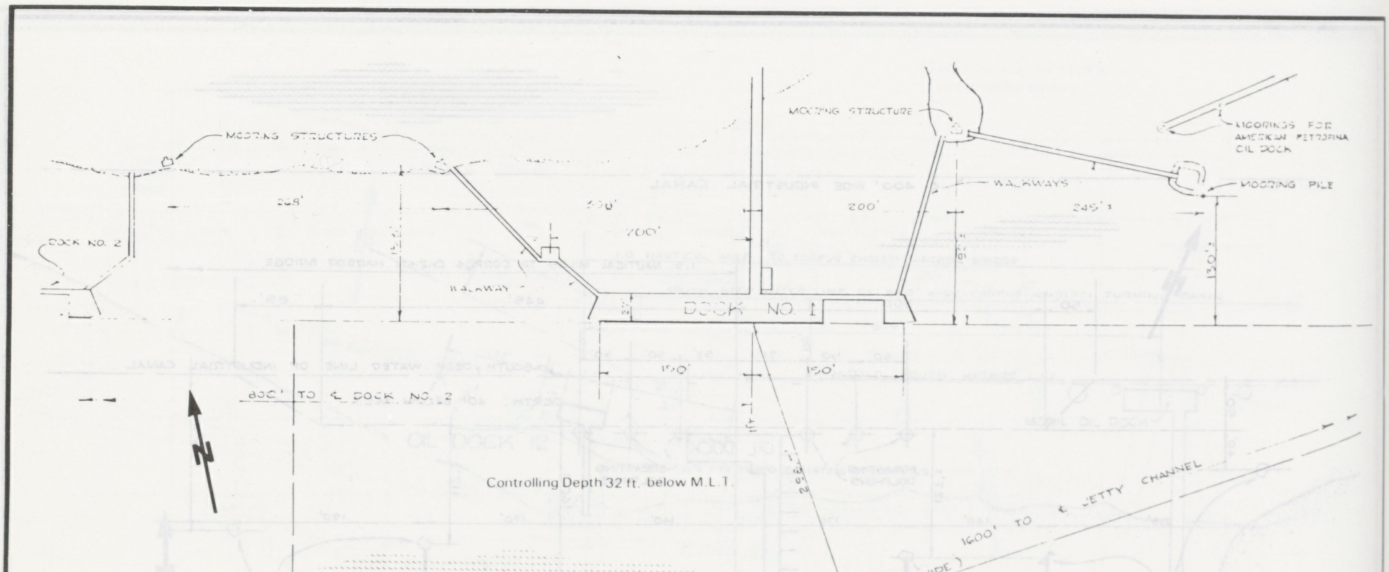
CORPUS CHRISTI

Champlin Petroleum Co.
Oil Dock


SOUTH DEEP WATER LINE OF 950' WIDE AVERY POINT TURNING BASIN
1.9 NAUTICAL MILES TO CORPUS CHRISTI HARBOR BRIDGE
50'
NCNG SOUTH BULKHEAD LINE
200'
190'
100'
10'
10'
315'
DEPTH: 34' BELOW M.L.T.
20' DIAM. STEEL SHEET PILE CAISSONS
DEPTH: 27' BELOW M.L.T.
DEPTH: 30' BELOW M.L.T.
450'
N
100'
100'
DOCK ELEVATION: 15' ABOVE M.L.T.

CORPUS CHRISTI

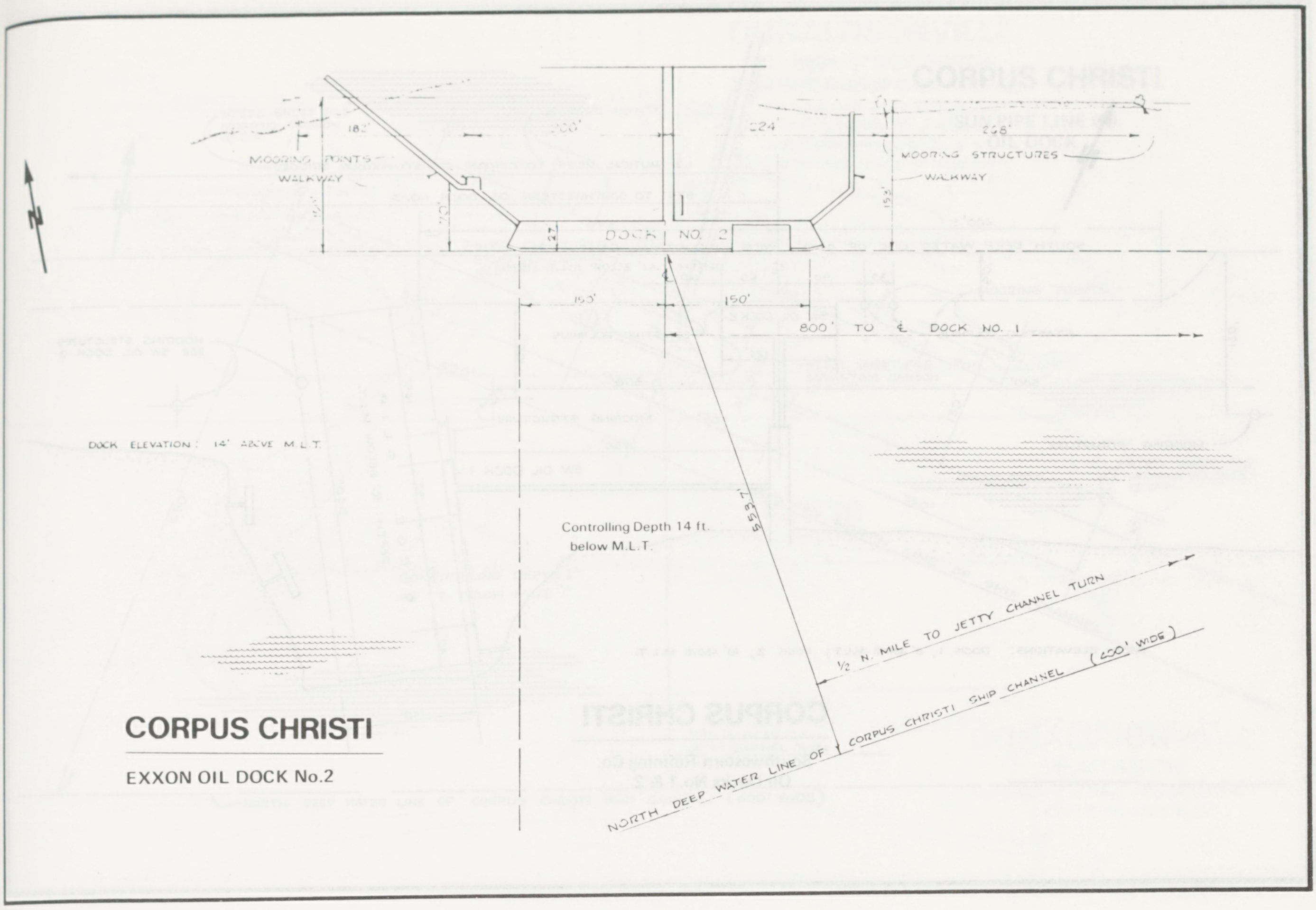
CHAMPLIN REFINING CO.


MOORING STRUCTURES
DOCK NO. 2
268'
300'
200'
WALKWAY
DOCK NO. 1
150'
150'
800' TO ℄ DOCK NO. 2
N
MOORING STRUCTURE
MOORINGS FOR AMERICAN PETROFINA OIL DOCK
WALKWAYS
MOORING PILE
200'
245' ±
130' ±
(400' WIDE)
1600' TO ℄ JETTY CHANNEL
NORTH DEEP WATER LINE OF CORPUS CHRISTI SHIP CHANNEL

Controlling Depth 32 ft. below M.L.T.

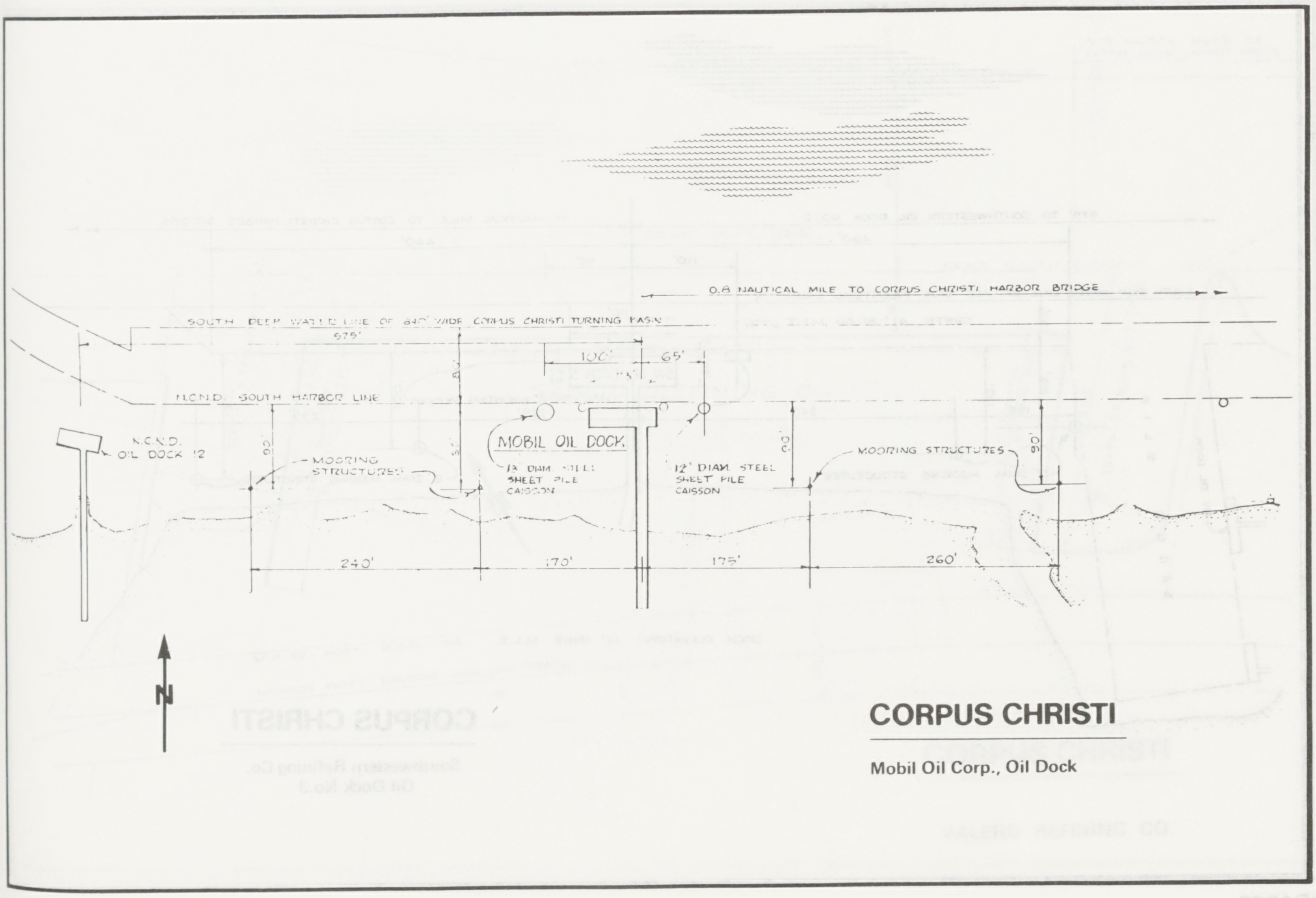
CORPUS CHRISTI

EXXON OIL DOCK No.1


182'
200'
224'
226'
MOORING POINTS
WALKWAY
150'
70'
27'
DOCK NO. 2
MOORING STRUCTURES
WALKWAY
152'
150'
150'
800' TO ℄ DOCK NO. 1
DOCK ELEVATION: 14' ABOVE M.L.T.
Controlling Depth 14 ft. below M.L.T.
553.7'
1/2 N. MILE TO JETTY CHANNEL TURN
NORTH DEEP WATER LINE OF CORPUS CHRISTI SHIP CHANNEL (400' WIDE)
N

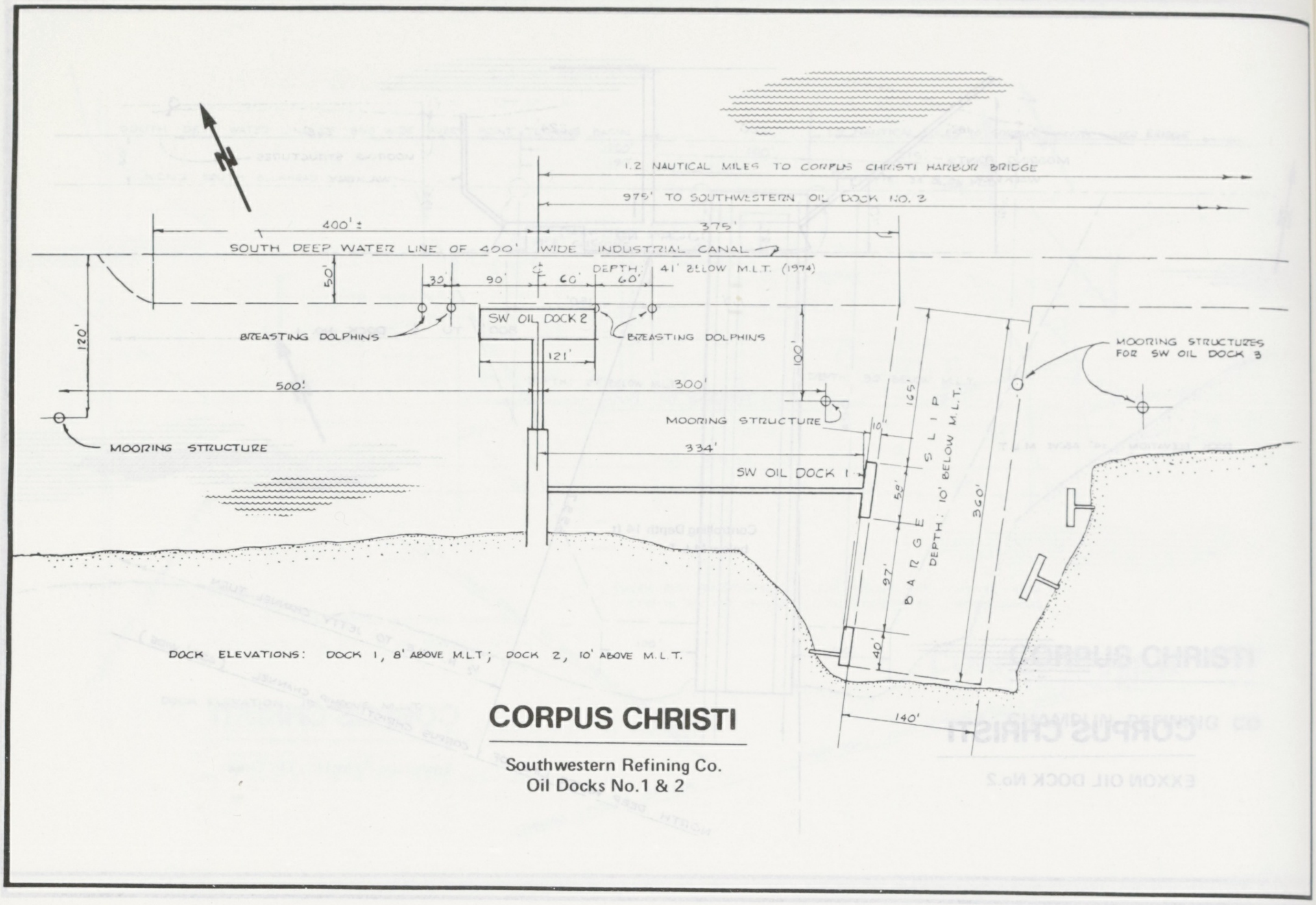
CORPUS CHRISTI

EXXON OIL DOCK No.2


0.8 NAUTICAL MILE TO CORPUS CHRISTI HARBOR BRIDGE
SOUTH DEEP WATER LINE OF 600' WIDE CORPUS CHRISTI TURNING BASIN
975'
100'
65'
N.C.N.D. SOUTH HARBOR LINE
N.C.N.D. OIL DOCK 12
92'
MOORING STRUCTURES
MOBIL OIL DOCK
13' DIAM. STEEL SHEET PILE CAISSON
12' DIAM. STEEL SHEET PILE CAISSON
90'
MOORING STRUCTURES
90'
240'
170'
175'
260'
N

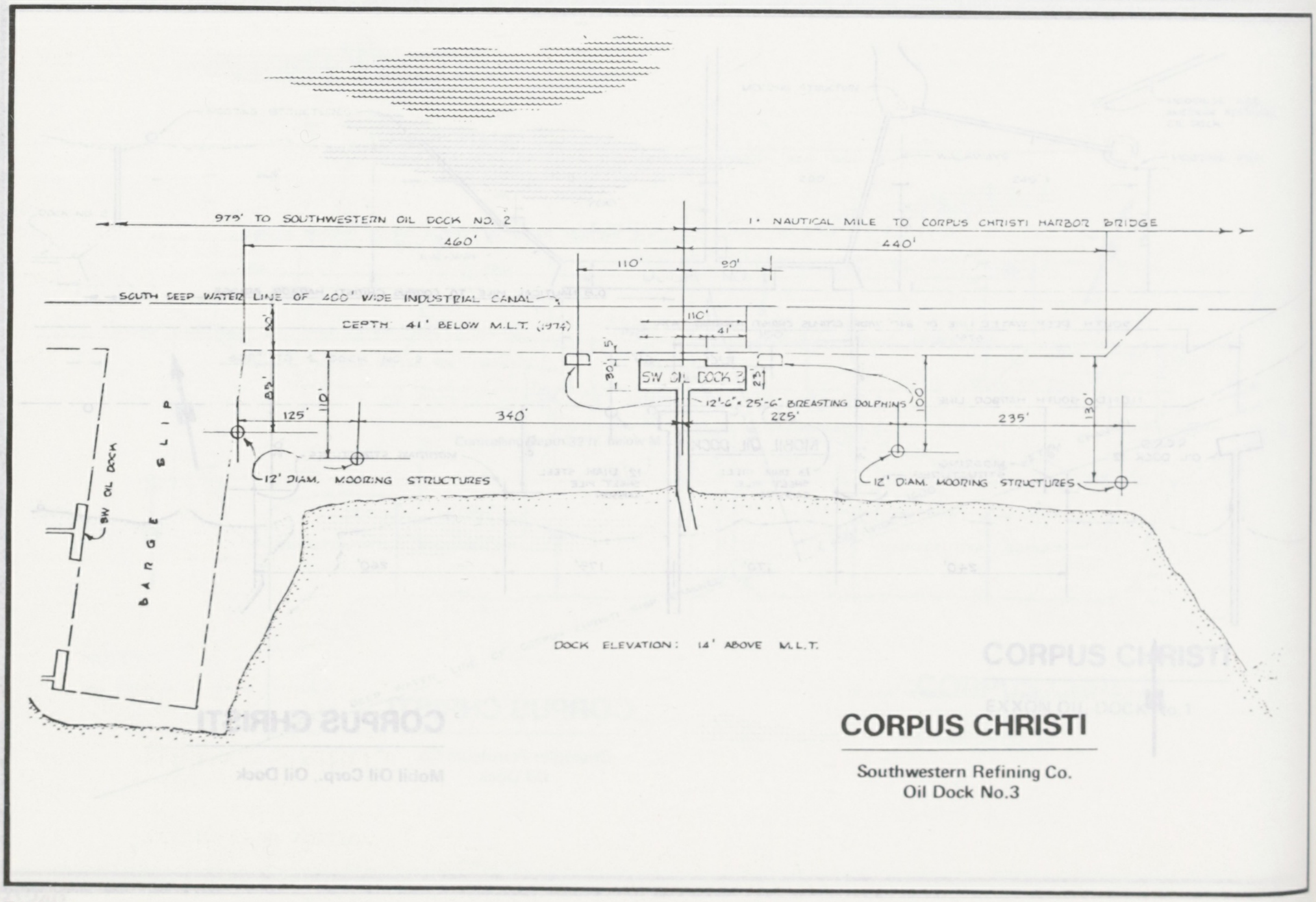
CORPUS CHRISTI

Mobil Oil Corp., Oil Dock


N
1.2 NAUTICAL MILES TO CORPUS CHRISTI HARBOR BRIDGE
975' TO SOUTHWESTERN OIL DOCK NO. 3
400' ±
375'
SOUTH DEEP WATER LINE OF 400' WIDE INDUSTRIAL CANAL
DEPTH: 41' BELOW M.L.T. (1974)
50'
30'
90'
℄
60'
60'
SW OIL DOCK 2
BREASTING DOLPHINS
BREASTING DOLPHINS
120'
121'
100'
500'
300'
MOORING STRUCTURE
MOORING STRUCTURE
334'
SW OIL DOCK 1
165'
10'
58'
97'
40'
360'
140'
BARGE SLIP
DEPTH: 10' BELOW M.L.T.
MOORING STRUCTURES FOR SW OIL DOCK 3
DOCK ELEVATIONS: DOCK 1, 8' ABOVE M.L.T; DOCK 2, 10' ABOVE M.L.T.

CORPUS CHRISTI

Southwestern Refining Co.
Oil Docks No.1 & 2

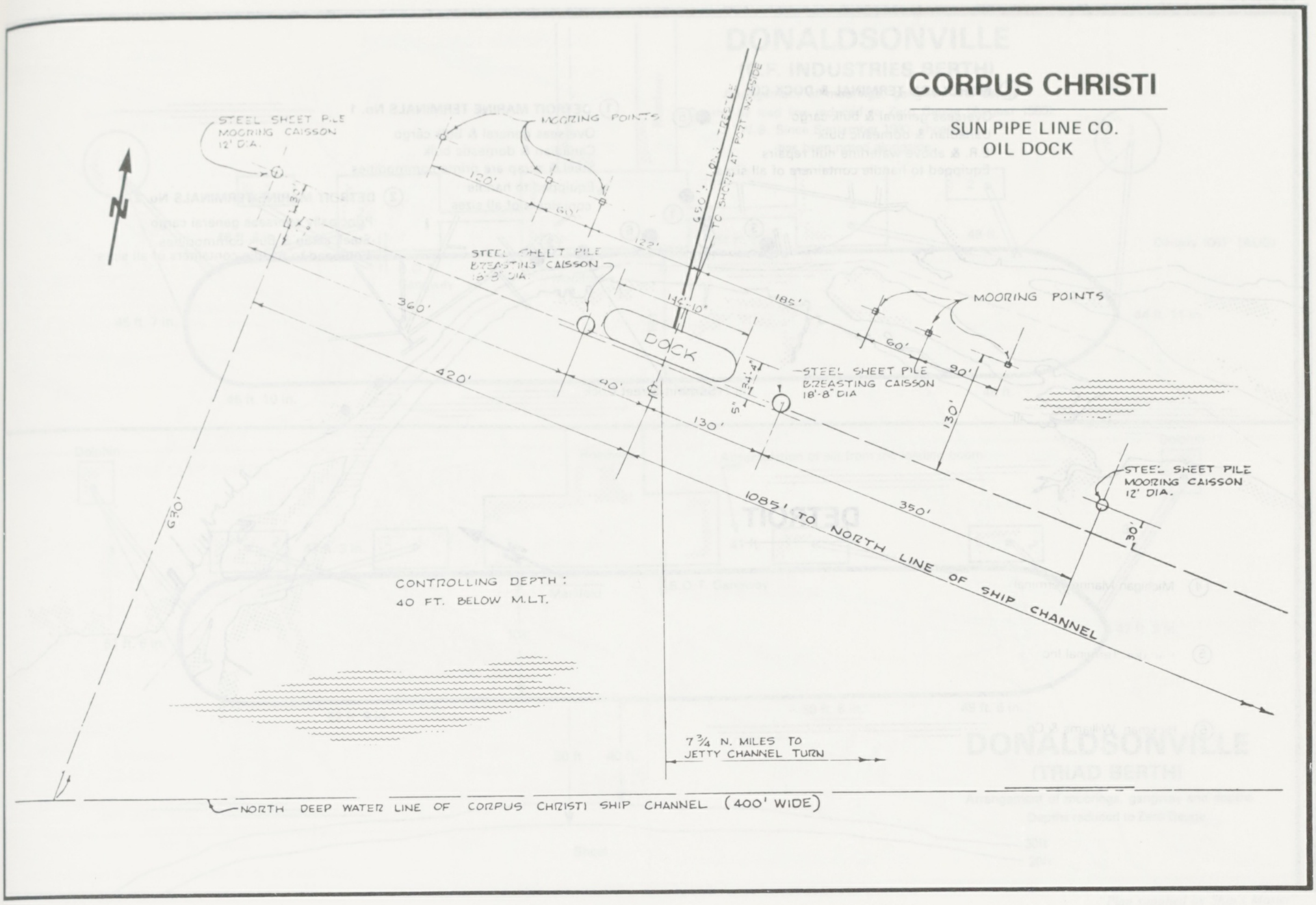

975' TO SOUTHWESTERN OIL DOCK NO. 2
1± NAUTICAL MILE TO CORPUS CHRISTI HARBOR BRIDGE
460'
440'
110'
90'
SOUTH DEEP WATER LINE OF 400' WIDE INDUSTRIAL CANAL
DEPTH 41' BELOW M.L.T. (1974)
110'
41'
5'
30'
25'
SW OIL DOCK 3
12'-6" × 25'-6" BREASTING DOLPHINS
20'
85'
110'
125'
340'
225'
100'
235'
130'
12' DIAM. MOORING STRUCTURES
12' DIAM. MOORING STRUCTURES
SW OIL DOCK
BARGE SLIP
DOCK ELEVATION: 14' ABOVE M.L.T.

CORPUS CHRISTI

Southwestern Refining Co.
Oil Dock No.3

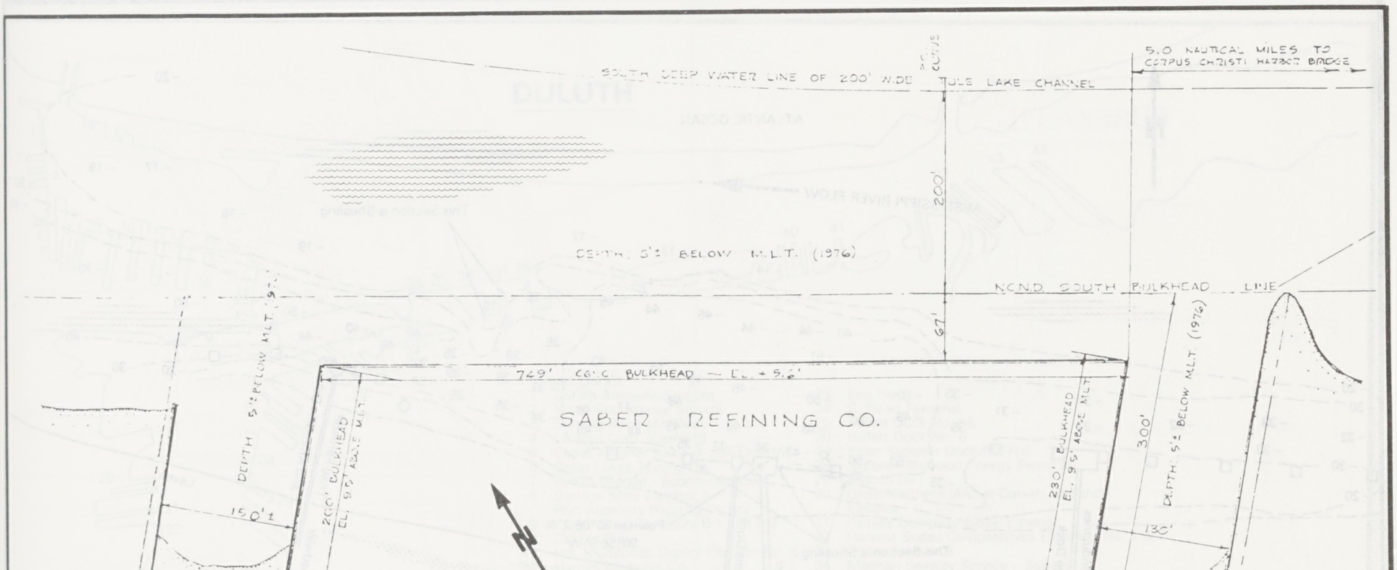
CORPUS CHRISTI

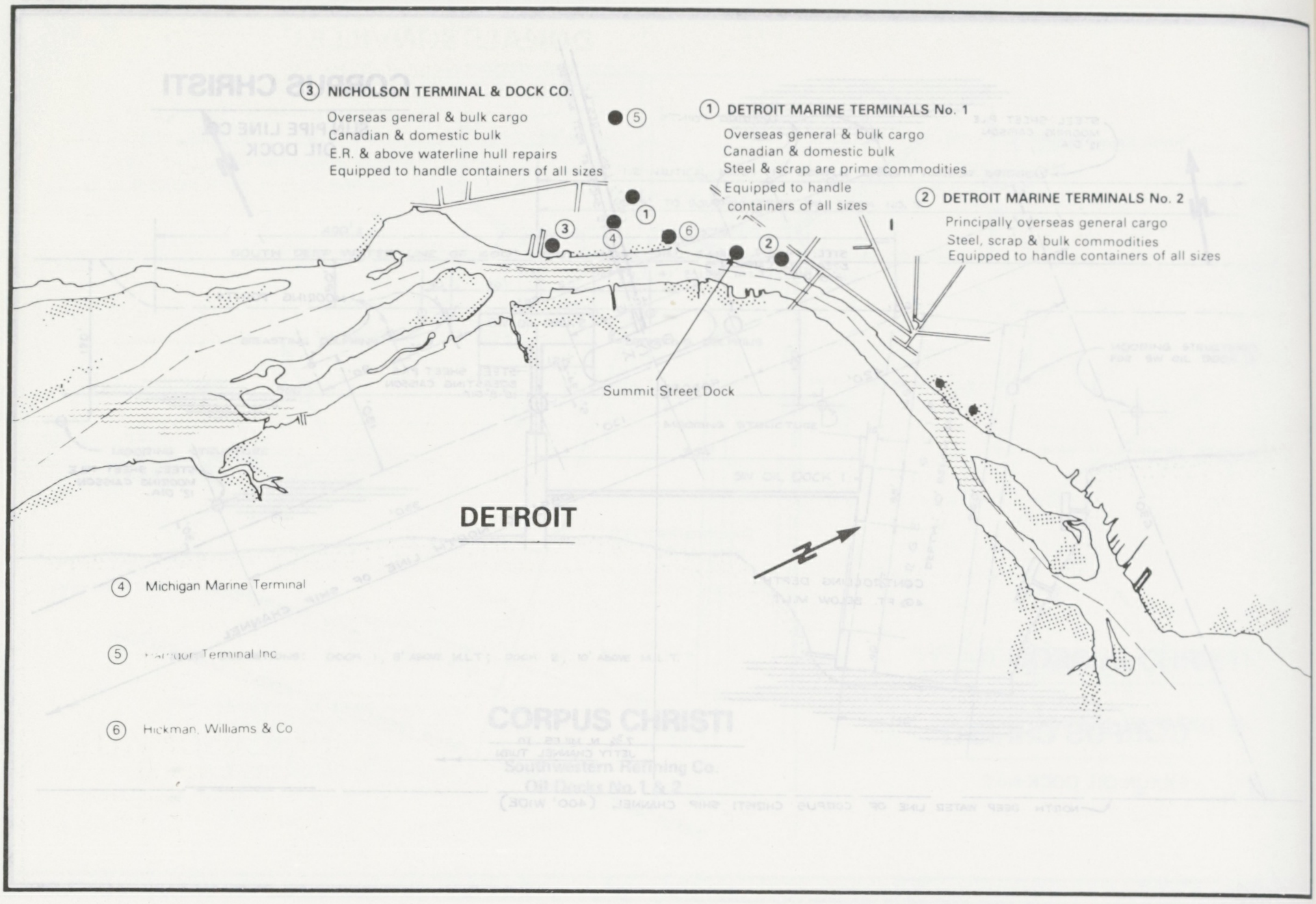
SUN PIPE LINE CO.
OIL DOCK

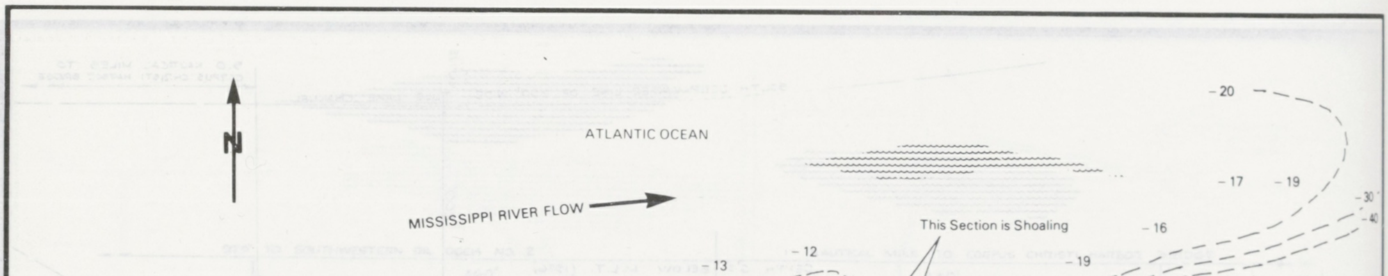

STEEL SHEET PILE MOORING CAISSON 12' DIA.
MOORING POINTS
120'
60'
122'
650' LOW TRESTLE TO SHORE AT PORT INGLESIDE
STEEL SHEET PILE BREASTING CAISSON 18'-8" DIA
146'-10"
185'
360'
DOCK
420'
90'
130'
34'
STEEL SHEET PILE BREASTING CAISSON 18'-8" DIA
MOORING POINTS
60'
90'
130'
STEEL SHEET PILE MOORING CAISSON 12' DIA.
30'
350'
1085' TO NORTH LINE OF SHIP CHANNEL
630'
N
CONTROLLING DEPTH: 40 FT. BELOW M.L.T.
7¾ N. MILES TO JETTY CHANNEL TURN
NORTH DEEP WATER LINE OF CORPUS CHRISTI SHIP CHANNEL (400' WIDE)

CORPUS CHRISTI

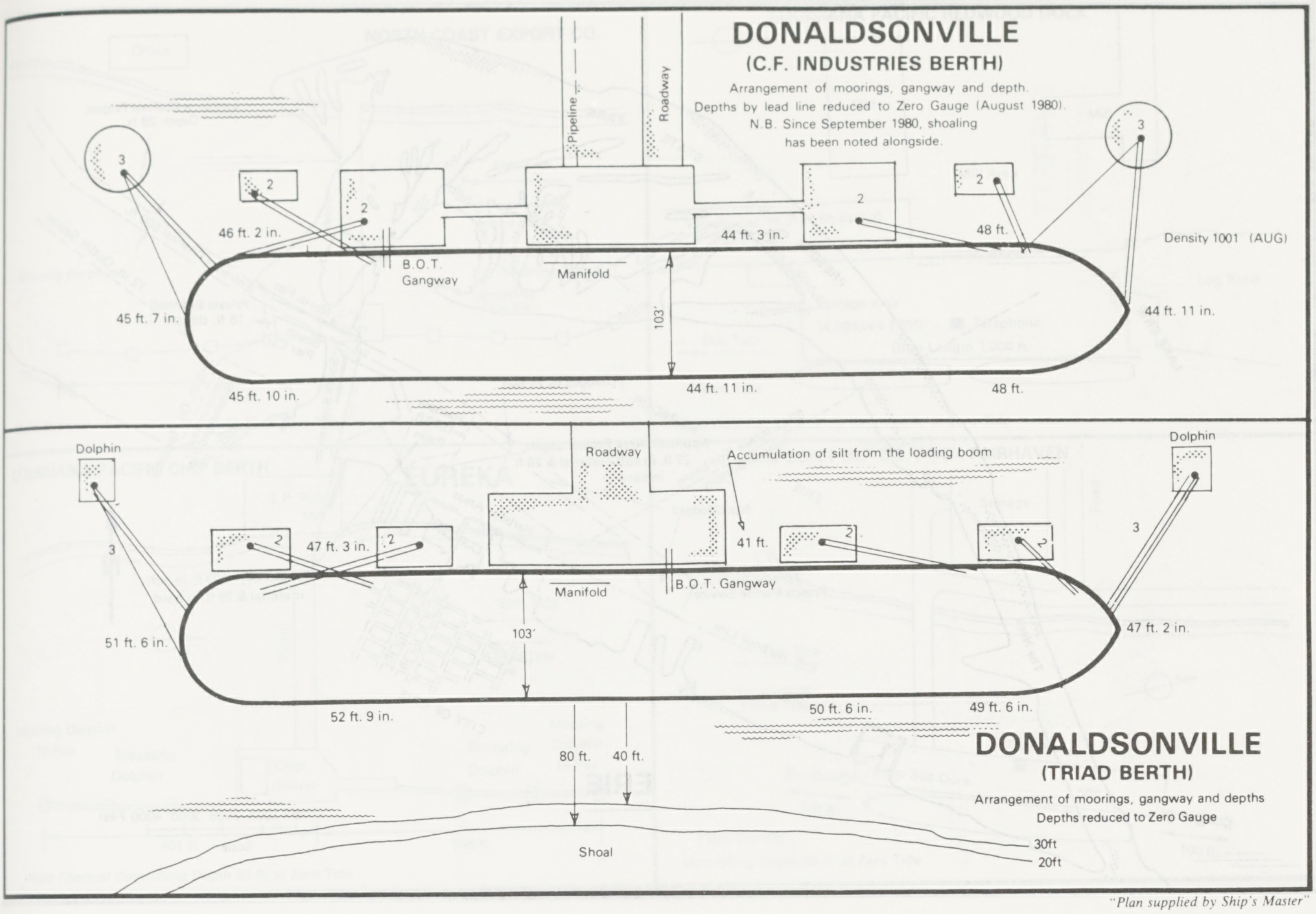
VALERO REFINING CO.


5.0 NAUTICAL MILES TO CORPUS CHRISTI HARBOR BRIDGE
SOUTH DEEP WATER LINE OF 200' WIDE TULE LAKE CHANNEL
200'
DEPTH 5' BELOW M.L.T. (1976)
NCND SOUTH BULKHEAD LINE
67'
749' C to C BULKHEAD — EL. + 5.2'
SABER REFINING CO.
DEPTH 5' BELOW M.L.T.
200' BULKHEAD EL. 9.5' ABOVE M.L.T.
150'±
N
230' BULKHEAD EL. 9.5' ABOVE M.L.T.
300'
DEPTH 5' BELOW M.L.T. (1976)
130'
50'
50'
M.P. RR. NORTH R.O.W. LINE
MISSOURI PACIFIC RAILROAD MAIN LINE TRACK
P.T.


③ NICHOLSON TERMINAL & DOCK CO.
Overseas general & bulk cargo
Canadian & domestic bulk
E.R. & above waterline hull repairs
Equipped to handle containers of all sizes
① DETROIT MARINE TERMINALS No. 1
Overseas general & bulk cargo
Canadian & domestic bulk
Steel & scrap are prime commodities
Equipped to handle
containers of all sizes
② DETROIT MARINE TERMINALS No. 2
Principally overseas general cargo
Steel, scrap & bulk commodities
Equipped to handle containers of all sizes
⑤
①
③
④
⑥
②
Summit Street Dock
DETROIT
N
④ Michigan Marine Terminal
⑤ Harbor Terminal Inc
⑥ Hickman, Williams & Co


N
ATLANTIC OCEAN
MISSISSIPPI RIVER FLOW
This Section is Shoaling
– 20
– 17
– 19
– 30
– 40
– 16
– 12
– 13
– 19
– 14
– 70
– 29
– 19
– 46
– 44
– 45
– 40
– 44
– 44
– 50
– 52
– 60
– 40
– 51
– 35
– 40
– 49
– 44
– 40
– 43
– 46
– 39
– 35
– 39
– 20
– 30
– 45
– 37
– 38
– 39
– 36
– 20
– 30
– 35
– 50
– 50
– 48
– 47
– 46
– 34
– 35
– 31
– 31
– 49
– 50
– 48
– 46
– 45
– 44
– 45
– 32
– 33
– 32
– 31
– 35
– 33
– 50
– 50
– 32
– 43
– 34
– 42
– 35
– 30
– 35
– 20
Position 30°06.2′ N
90°56.9′ W
This Section is Shoaling
C.F. Industries
Barge Dock
C.F. Industries Bulk Fertilizer
and Amhydrous Ammonia Dock
Triad Fertilizer
and Ammonia Dock
Roadway
Levee
Levee
Milepost 173.7
Above Head of Passes
Central Farmers Industries
DONALDSONVILLE
DEPTHS IN FEET

"Plan supplied by Ship's Master"



DONALDSONVILLE
(C.F. INDUSTRIES BERTH)

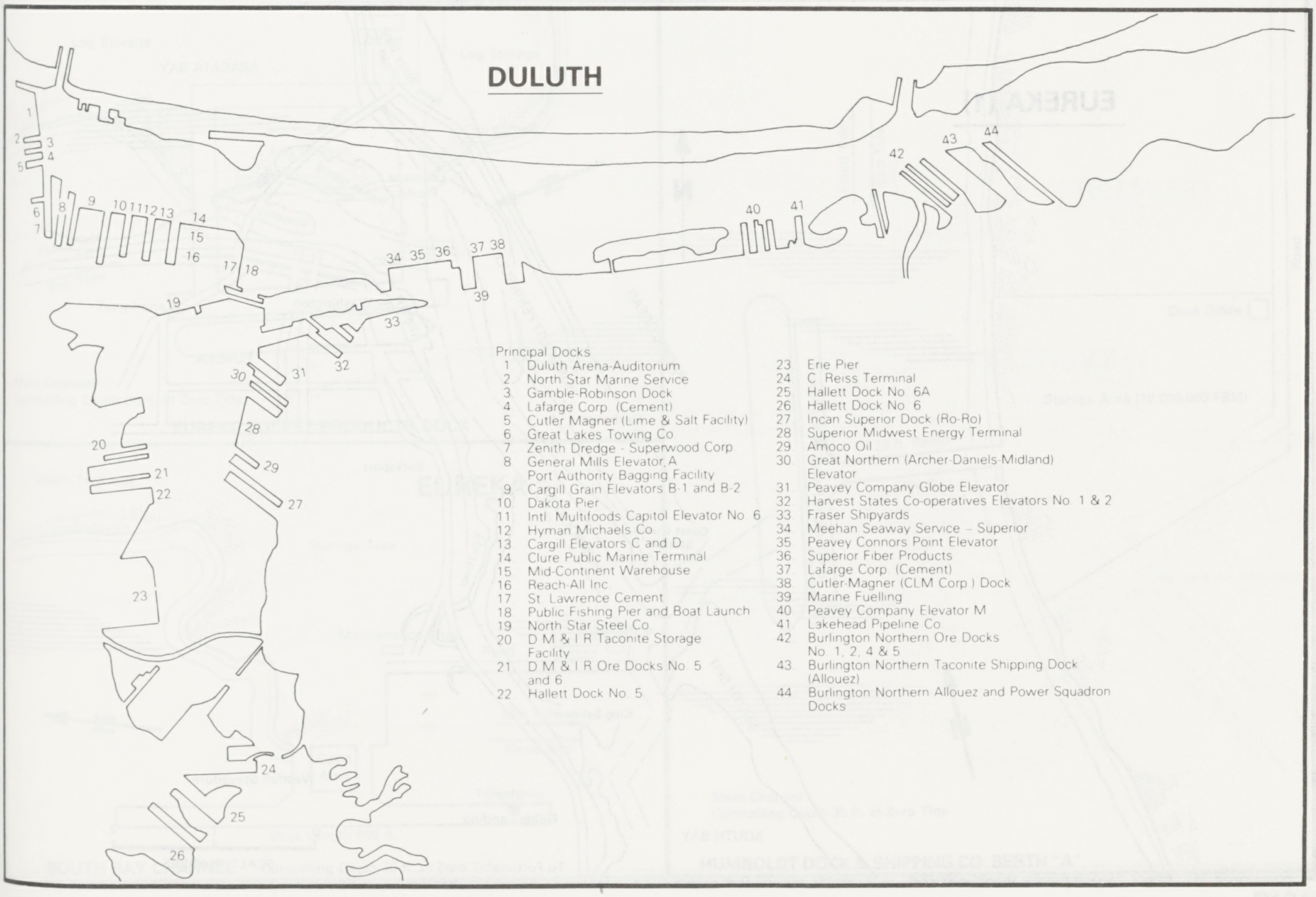
Arrangement of moorings, gangway and depth.
Depths by lead line reduced to Zero Gauge (August 1980).
N.B. Since September 1980, shoaling
has been noted alongside.

Pipeline
Roadway
3
2
2
2
2
3
46 ft. 2 in.
44 ft. 3 in.
48 ft.
Density 1001 (AUG)
B.O.T. Gangway
Manifold
103'
45 ft. 7 in.
44 ft. 11 in.
45 ft. 10 in.
44 ft. 11 in.
48 ft.
Dolphin
Roadway
Accumulation of silt from the loading boom
Dolphin
3
2
47 ft. 3 in.
2
41 ft.
2
2
3
Manifold
B.O.T. Gangway
51 ft. 6 in.
103'
47 ft. 2 in.
52 ft. 9 in.
50 ft. 6 in.
49 ft. 6 in.
80 ft.
40 ft.
Shoal
30ft
20ft

DONALDSONVILLE
(TRIAD BERTH)

Arrangement of moorings, gangway and depths
Depths reduced to Zero Gauge

"Plan supplied by Ship's Master"

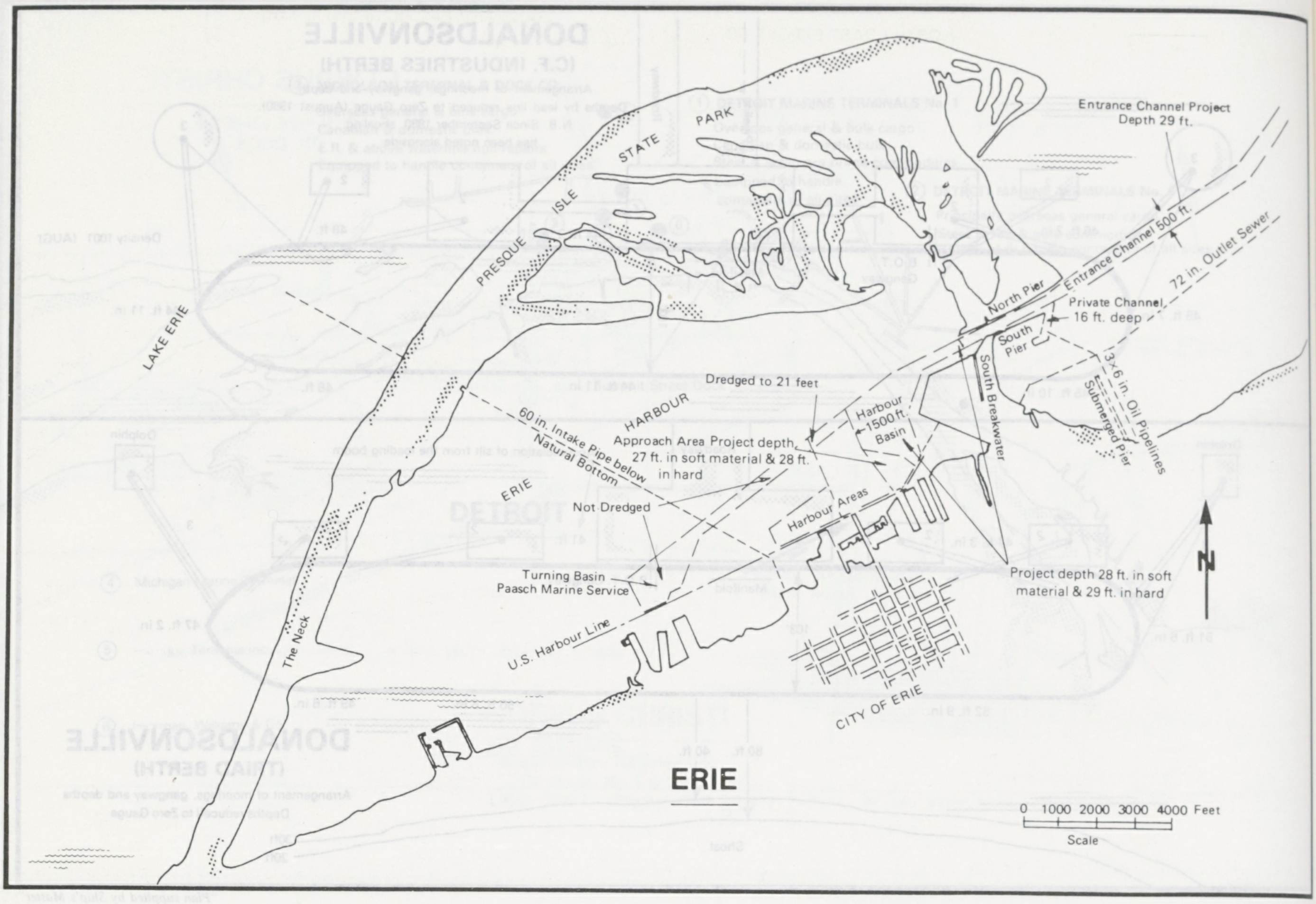


DULUTH

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44

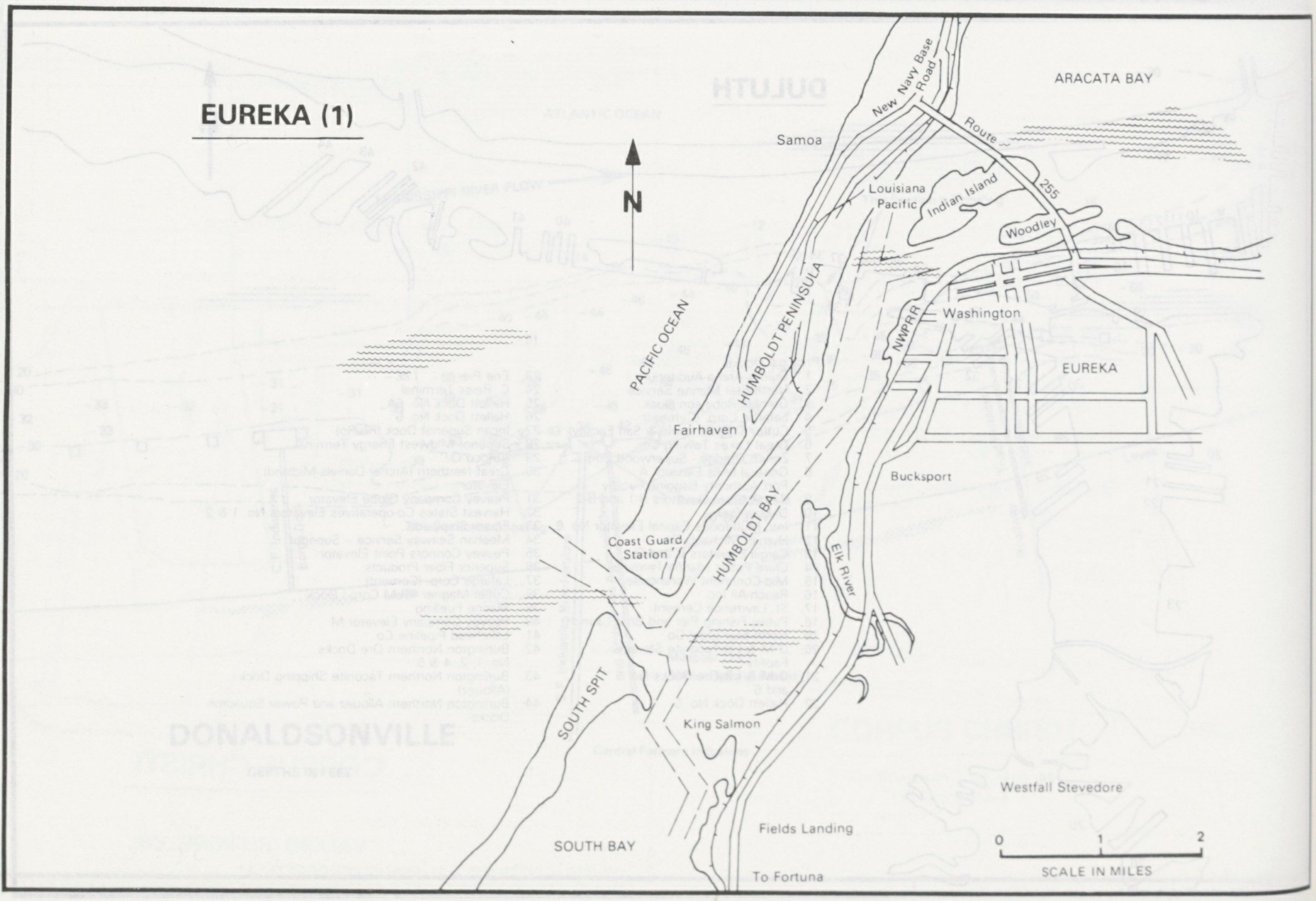
Principal Docks

1	Duluth Arena-Auditorium
2	North Star Marine Service
3	Gamble-Robinson Dock
4	Lafarge Corp. (Cement)
5	Cutler Magner (Lime & Salt Facility)
6	Great Lakes Towing Co
7	Zenith Dredge - Superwood Corp
8	General Mills Elevator A Port Authority Bagging Facility
9	Cargill Grain Elevators B-1 and B-2
10	Dakota Pier
11	Intl. Multifoods Capitol Elevator No. 6
12	Hyman Michaels Co
13	Cargill Elevators C and D
14	Clure Public Marine Terminal
15	Mid-Continent Warehouse
16	Reach-All Inc
17	St. Lawrence Cement
18	Public Fishing Pier and Boat Launch
19	North Star Steel Co
20	D M & I R Taconite Storage Facility
21	D M & I R Ore Docks No. 5 and 6
22	Hallett Dock No. 5
23	Erie Pier
24	C. Reiss Terminal
25	Hallett Dock No. 6A
26	Hallett Dock No. 6
27	Incan Superior Dock (Ro-Ro)
28	Superior Midwest Energy Terminal
29	Amoco Oil
30	Great Northern (Archer-Daniels-Midland) Elevator
31	Peavey Company Globe Elevator
32	Harvest States Co-operatives Elevators No. 1 & 2
33	Fraser Shipyards
34	Meehan Seaway Service – Superior
35	Peavey Connors Point Elevator
36	Superior Fiber Products
37	Lafarge Corp. (Cement)
38	Cutler-Magner (CLM Corp.) Dock
39	Marine Fuelling
40	Peavey Company Elevator M
41	Lakehead Pipeline Co
42	Burlington Northern Ore Docks No. 1, 2, 4 & 5
43	Burlington Northern Taconite Shipping Dock (Allouez)
44	Burlington Northern Allouez and Power Squadron Docks



ERIE

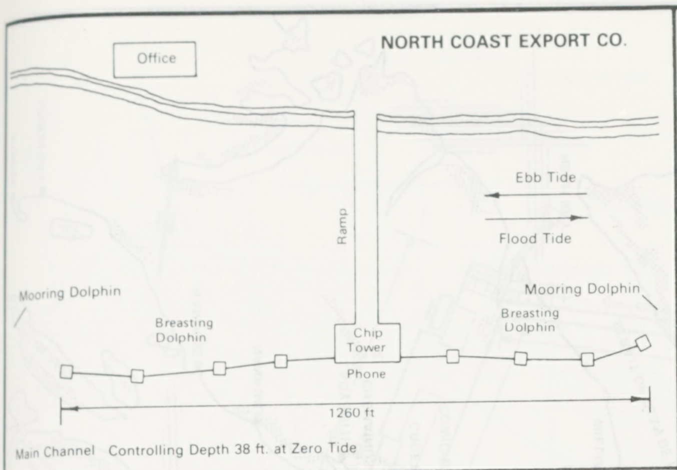
PRESQUE ISLE STATE PARK
LAKE ERIE
The Neck
ERIE HARBOUR
60 in. Intake Pipe below Natural Bottom
Entrance Channel Project Depth 29 ft.
Entrance Channel 500 ft.
72 in. Outlet Sewer
North Pier
South Pier
Private Channel, 16 ft. deep
3 x 6 in. Oil Pipelines
Submerged Pier
South Breakwater
Dredged to 21 feet
Harbour 1500 ft. Basin
Approach Area Project depth 27 ft. in soft material & 28 ft. in hard
Not Dredged
Harbour Areas
Turning Basin
Paasch Marine Service
U.S. Harbour Line
Project depth 28 ft. in soft material & 29 ft. in hard
CITY OF ERIE
N
0 1000 2000 3000 4000 Feet
Scale



EUREKA (1)

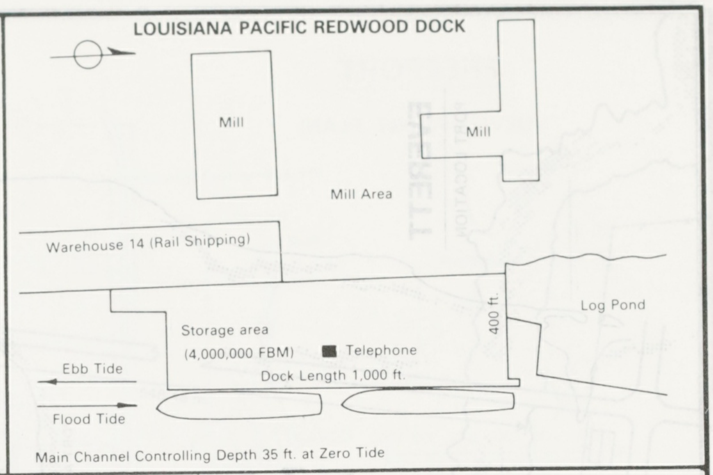
N
ARACATA BAY
New Navy Base Road
Route 255
Samoa
Louisiana Pacific
Indian Island
Woodley
Washington
EUREKA
NWPRR
PACIFIC OCEAN
HUMBOLDT PENINSULA
HUMBOLDT BAY
Fairhaven
Bucksport
Elk River
Coast Guard Station
SOUTH SPIT
King Salmon
Westfall Stevedore
Fields Landing
SOUTH BAY
To Fortuna
0 1 2
SCALE IN MILES

NORTH COAST EXPORT CO.


Office
Ebb Tide
Flood Tide
Ramp
Mooring Dolphin
Breasting Dolphin
Chip Tower
Breasting Dolphin
Mooring Dolphin
Phone
1260 ft

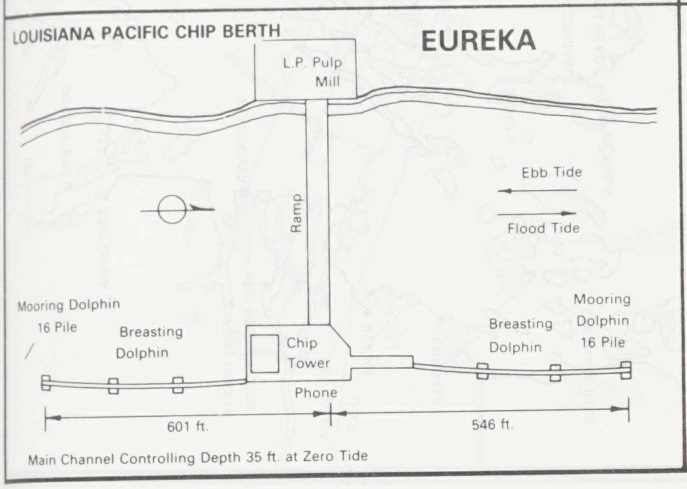
Main Channel Controlling Depth 38 ft. at Zero Tide

LOUISIANA PACIFIC REDWOOD DOCK


Mill
Mill
Mill Area
Warehouse 14 (Rail Shipping)
400 ft.
Log Pond
Storage area
(4,000,000 FBM)
Telephone
Ebb Tide
Dock Length 1,000 ft.
Flood Tide

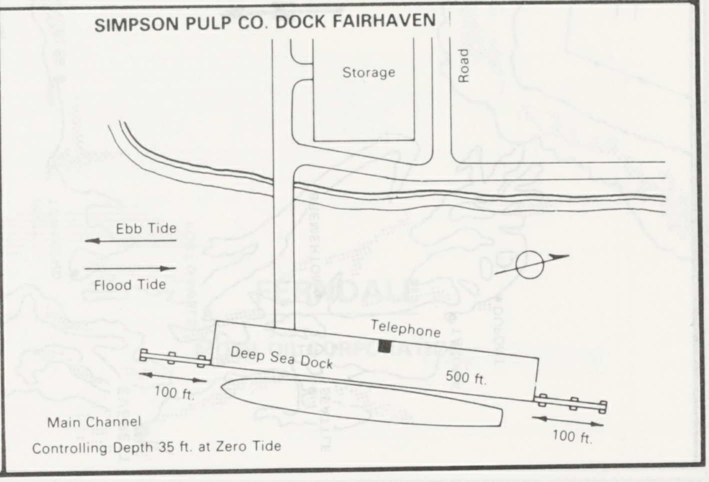
Main Channel Controlling Depth 35 ft. at Zero Tide

LOUISIANA PACIFIC CHIP BERTH

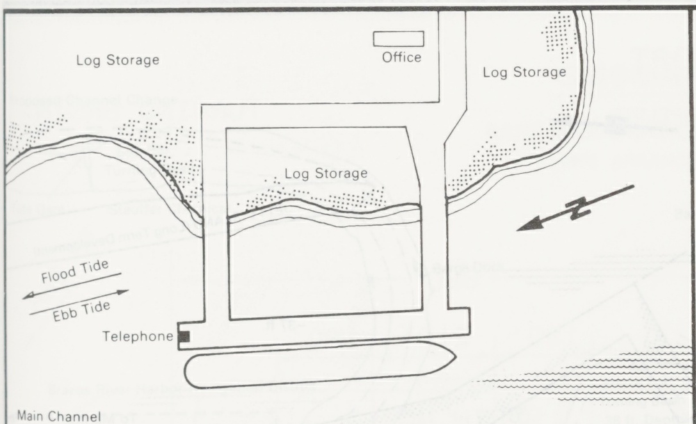

EUREKA
L.P. Pulp Mill
Ebb Tide
Flood Tide
Ramp
Mooring Dolphin
16 Pile
Breasting Dolphin
Chip Tower
Breasting Dolphin
Mooring Dolphin
16 Pile
Phone
601 ft.
546 ft.

Main Channel Controlling Depth 35 ft. at Zero Tide

SIMPSON PULP CO. DOCK FAIRHAVEN

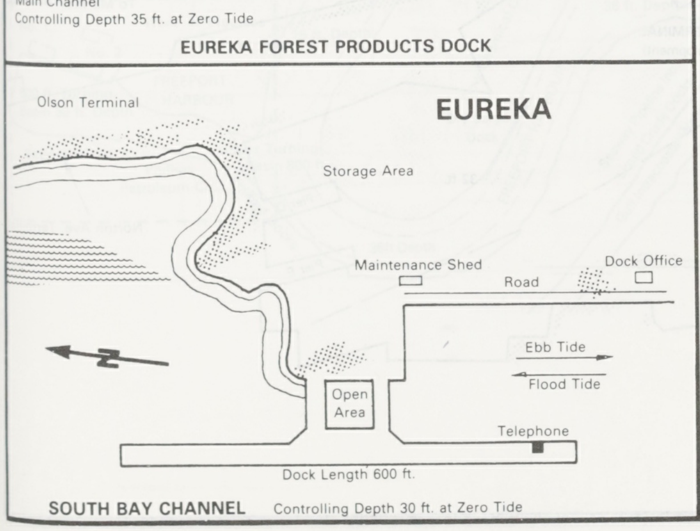

Storage
Road
Ebb Tide
Flood Tide
Telephone
Deep Sea Dock
500 ft.
100 ft.
100 ft.

Main Channel
Controlling Depth 35 ft. at Zero Tide


Log Storage
Office
Log Storage
Log Storage
Flood Tide
Ebb Tide
Telephone

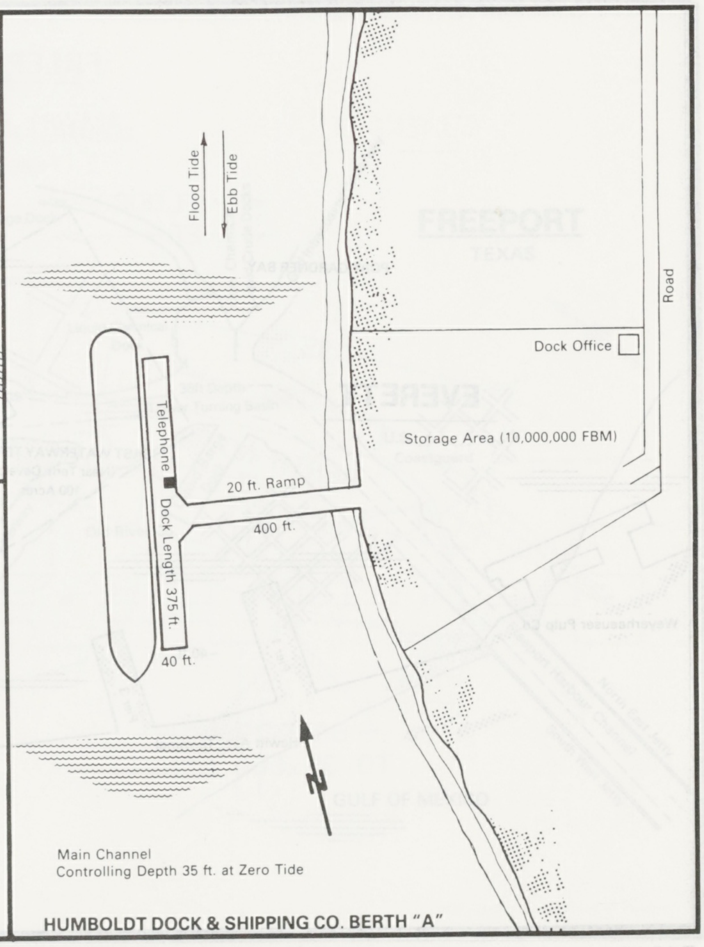
Main Channel
Controlling Depth 35 ft. at Zero Tide

EUREKA FOREST PRODUCTS DOCK


EUREKA
Olson Terminal
Storage Area
Maintenance Shed
Dock Office
Road
Ebb Tide
Flood Tide
Open Area
Telephone
Dock Length 600 ft.

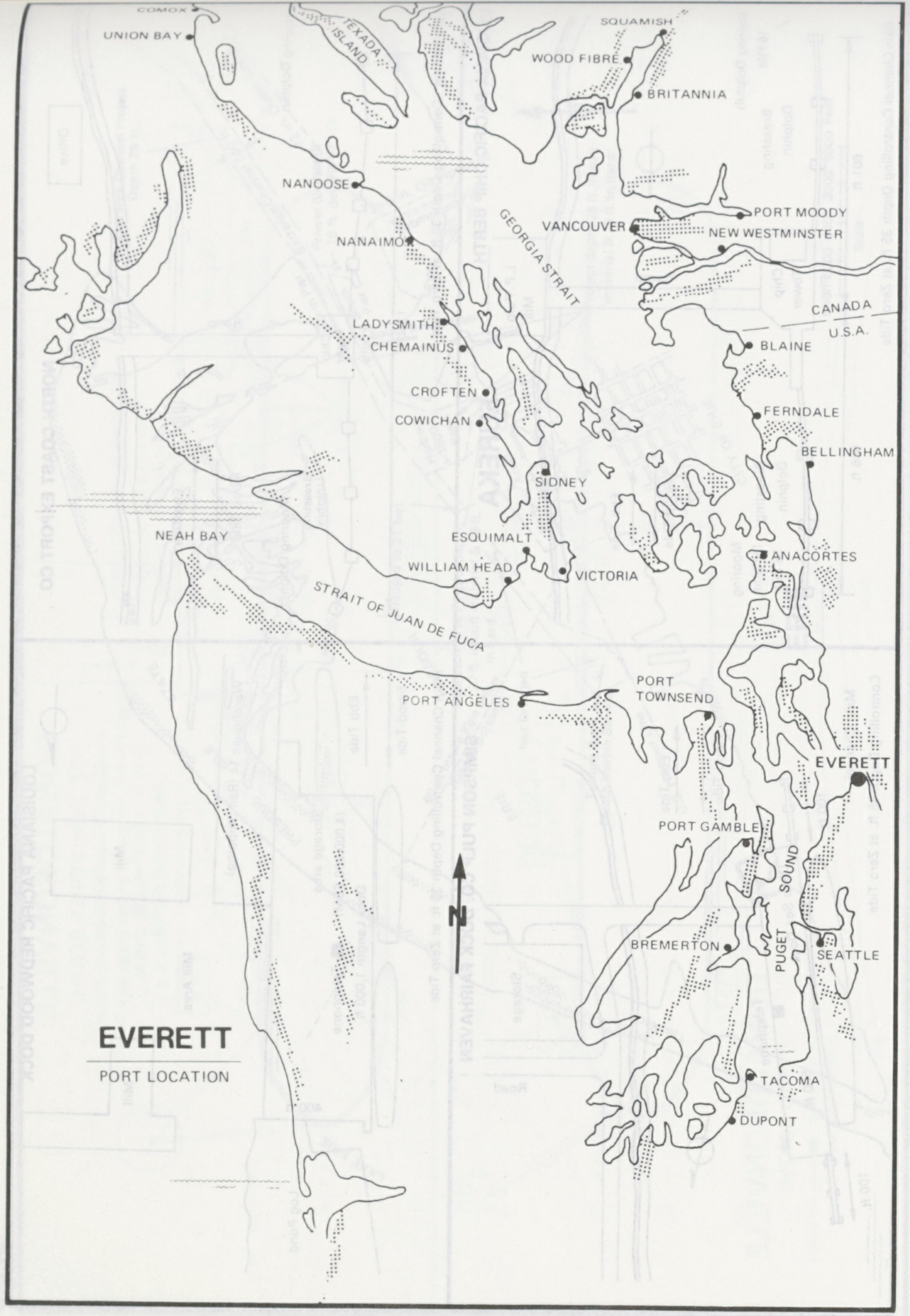
SOUTH BAY CHANNEL

Controlling Depth 30 ft. at Zero Tide


Flood Tide
Ebb Tide
Road
Dock Office
Telephone
Storage Area (10,000,000 FBM)
20 ft. Ramp
400 ft.
Dock Length 375 ft.
40 ft.

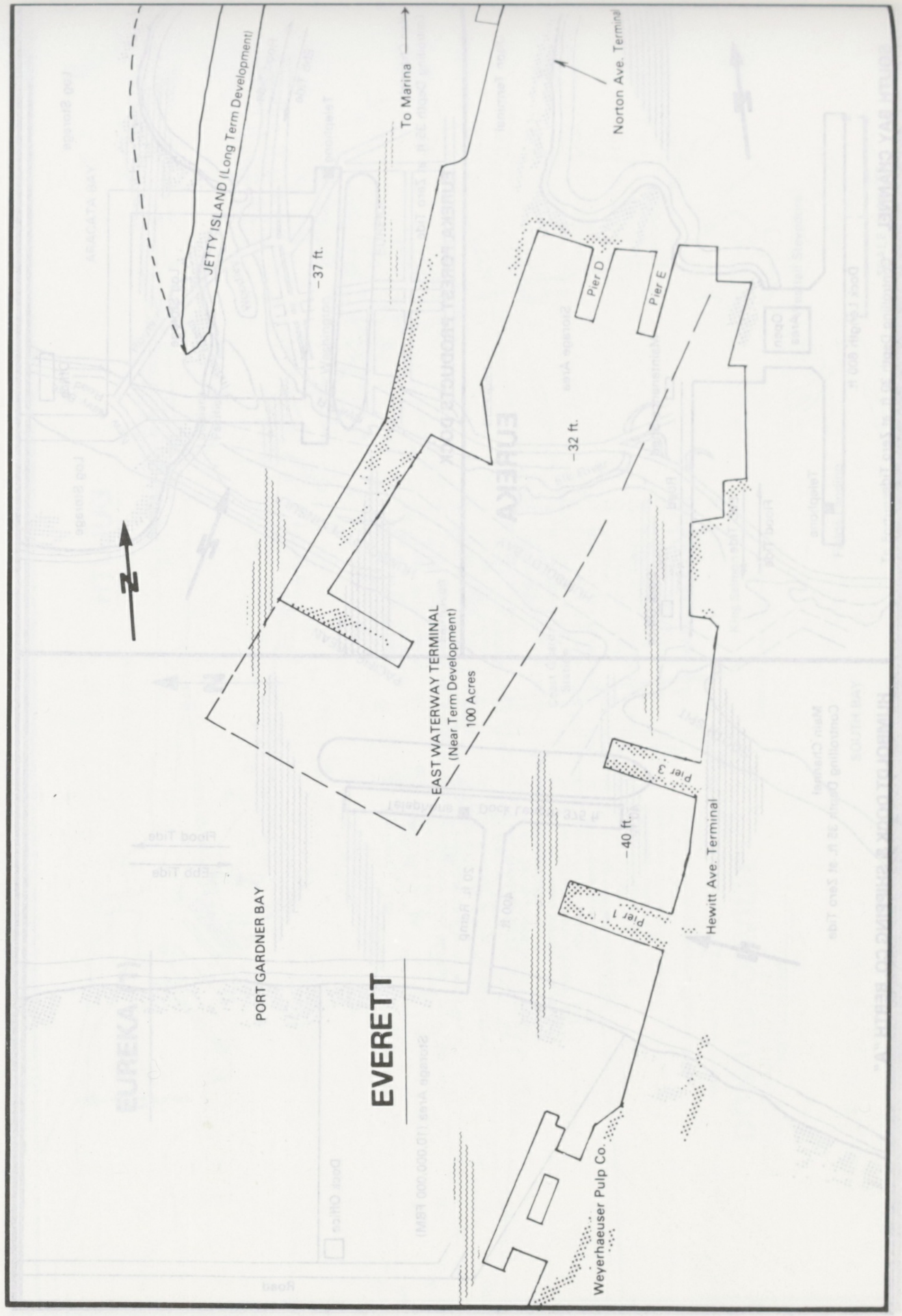
Main Channel
Controlling Depth 35 ft. at Zero Tide

HUMBOLDT DOCK & SHIPPING CO. BERTH "A"

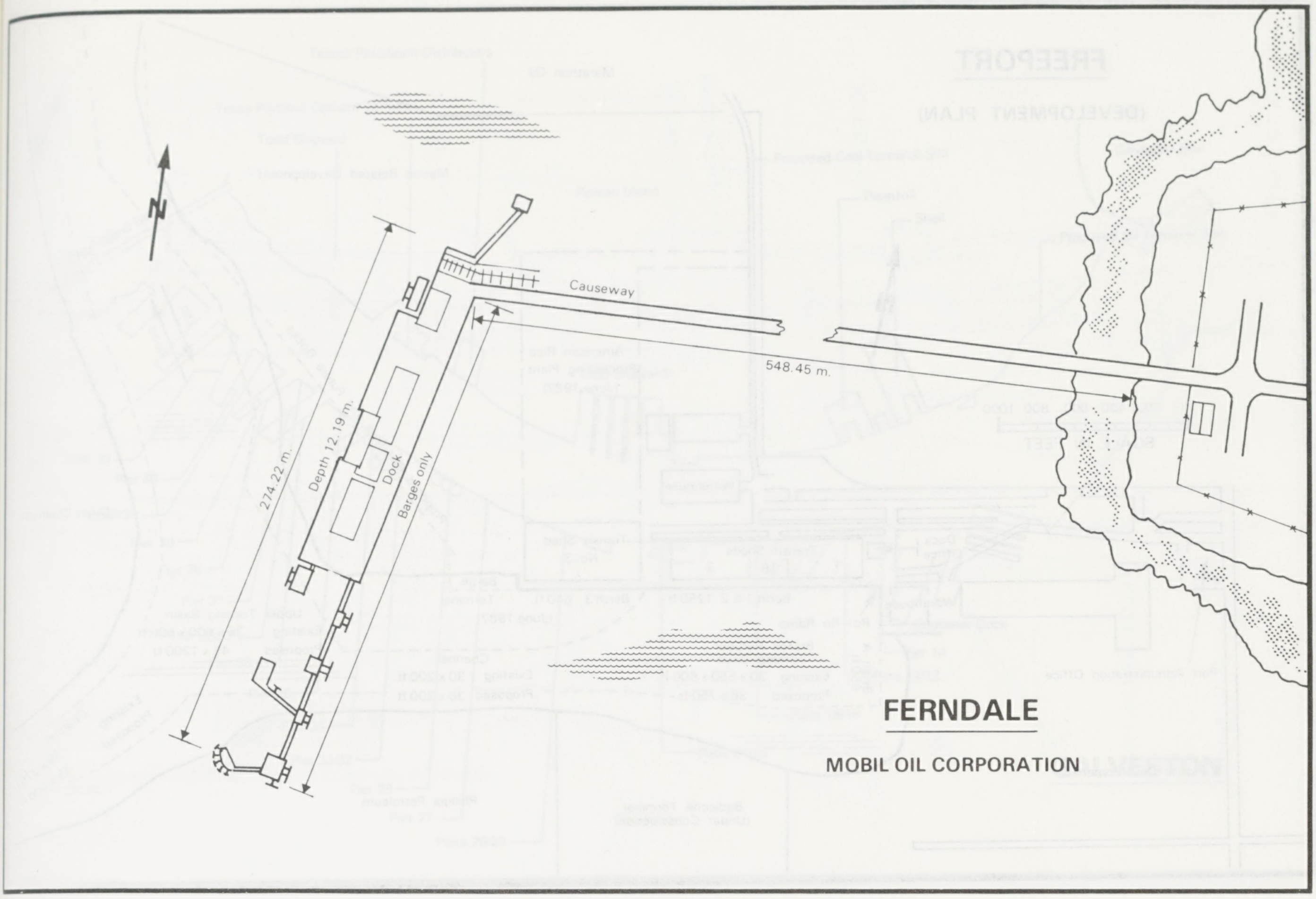

COMOX
UNION BAY
TEXADA ISLAND
SQUAMISH
WOOD FIBRE
BRITANNIA
NANOOSE
PORT MOODY
VANCOUVER
NEW WESTMINSTER
NANAIMO
GEORGIA STRAIT
CANADA
U.S.A.
LADYSMITH
CHEMAINUS
BLAINE
CROFTEN
FERNDALE
COWICHAN
BELLINGHAM
SIDNEY
NEAH BAY
ESQUIMALT
ANACORTES
WILLIAM HEAD
VICTORIA
STRAIT OF JUAN DE FUCA
PORT TOWNSEND
PORT ANGELES
EVERETT
PORT GAMBLE
N
SOUND
PUGET
BREMERTON
SEATTLE
TACOMA
DUPONT

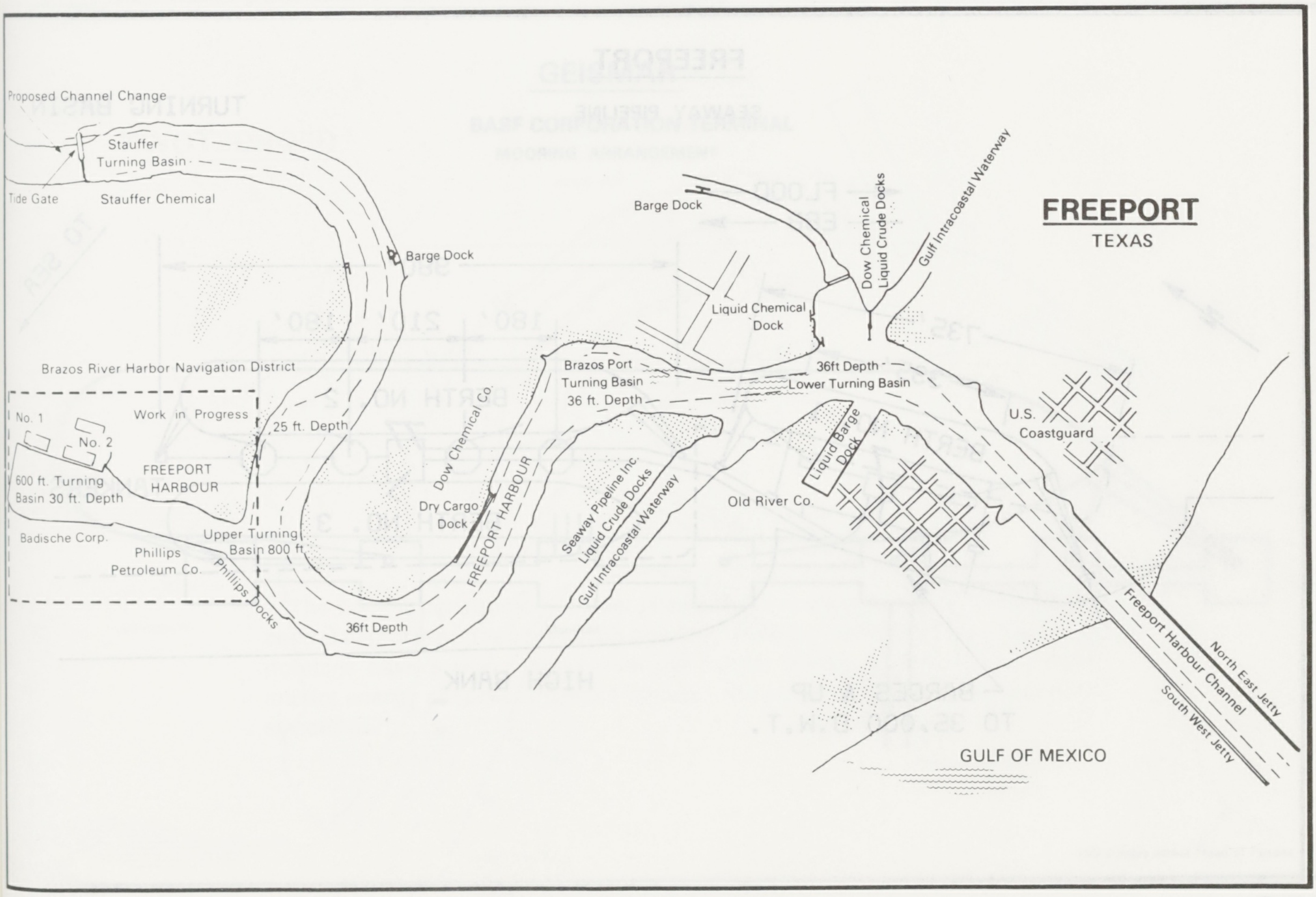
EVERETT

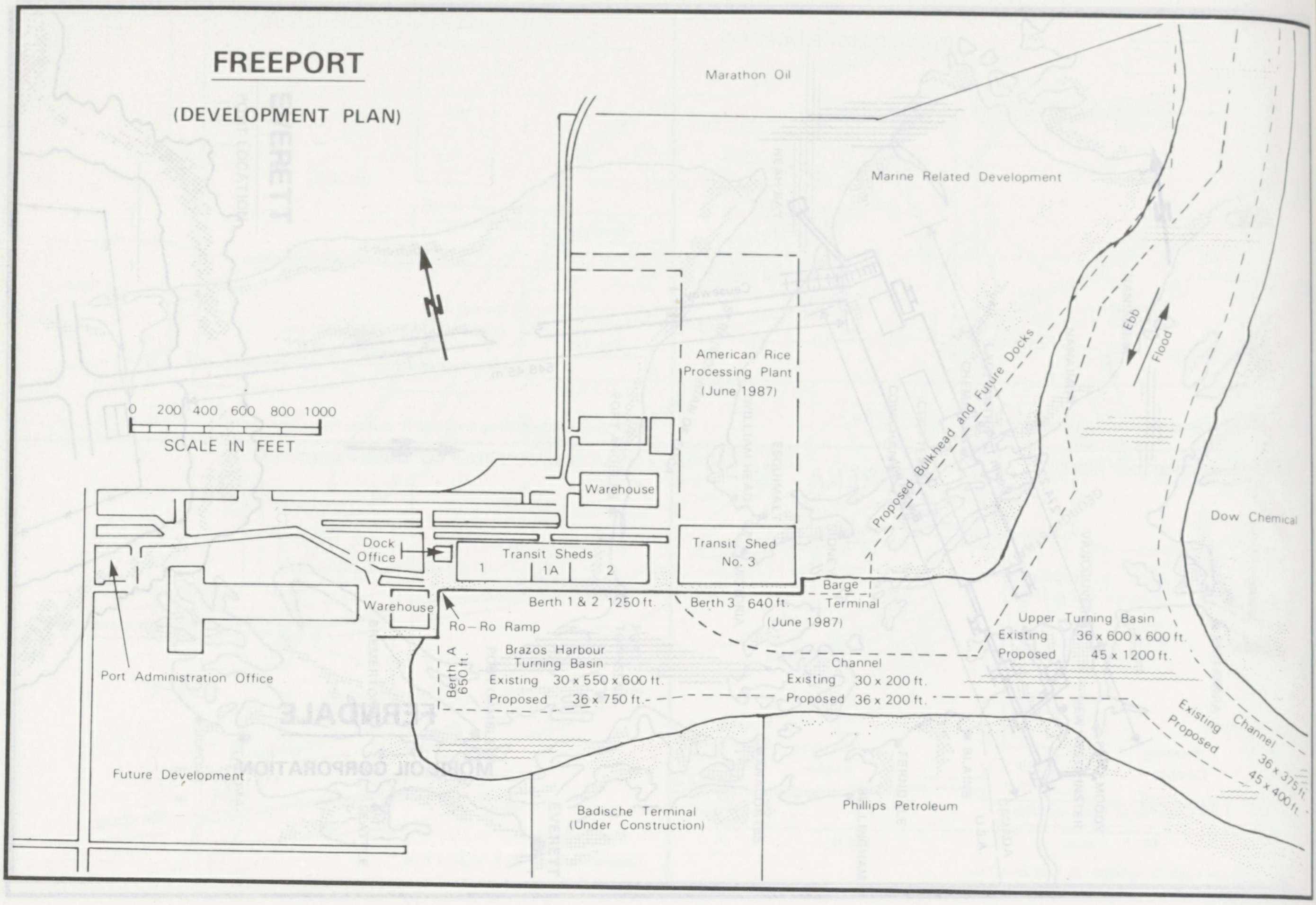
PORT LOCATION

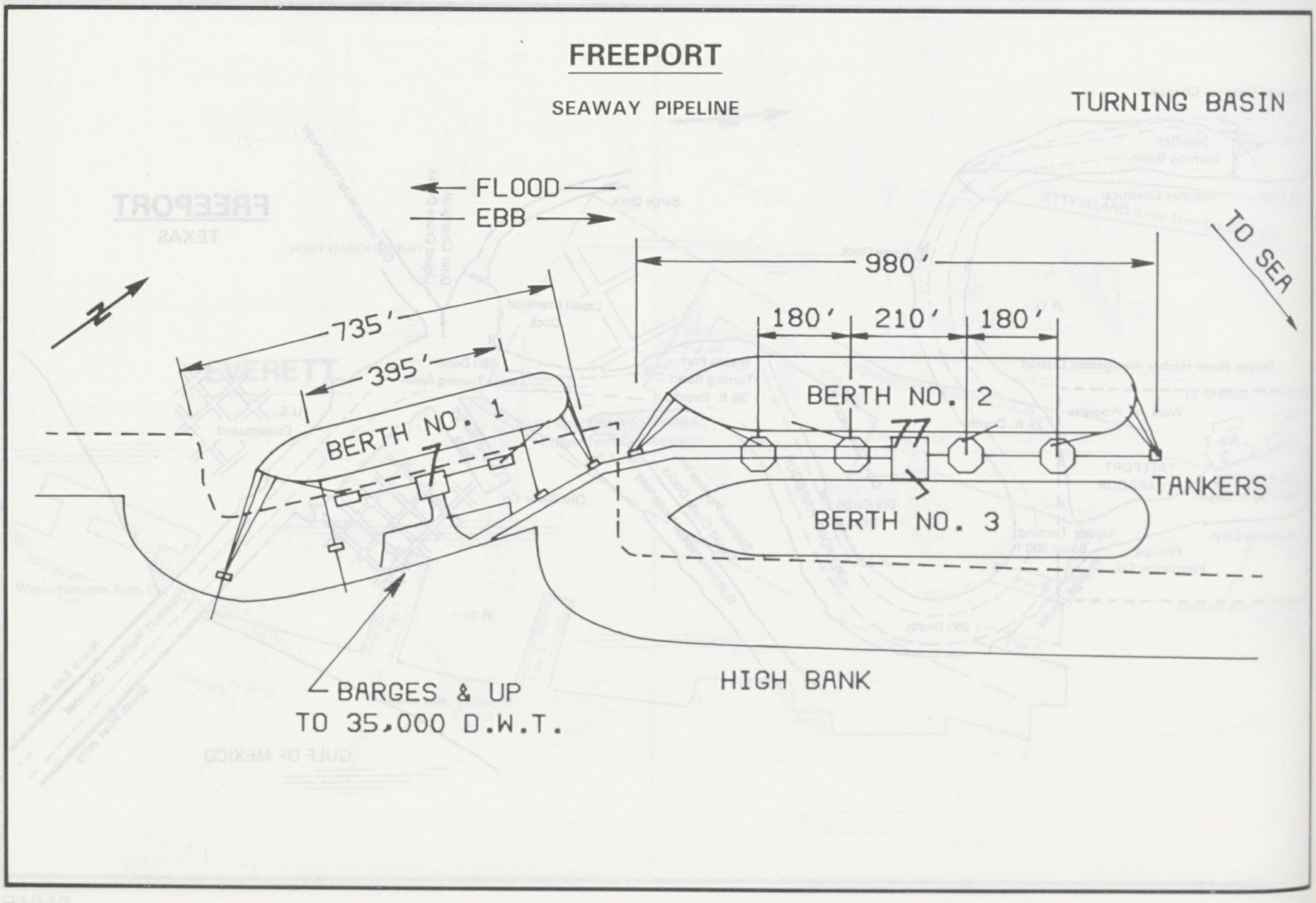

JETTY ISLAND (Long Term Development)
To Marina
Norton Ave. Terminal
–37 ft.
Pier D
Pier E
–32 ft.
N
EAST WATERWAY TERMINAL
(Near Term Development)
100 Acres
Pier 3
–40 ft.
Hewitt Ave. Terminal
Pier 1
PORT GARDNER BAY
Weyerhaeuser Pulp Co.

EVERETT

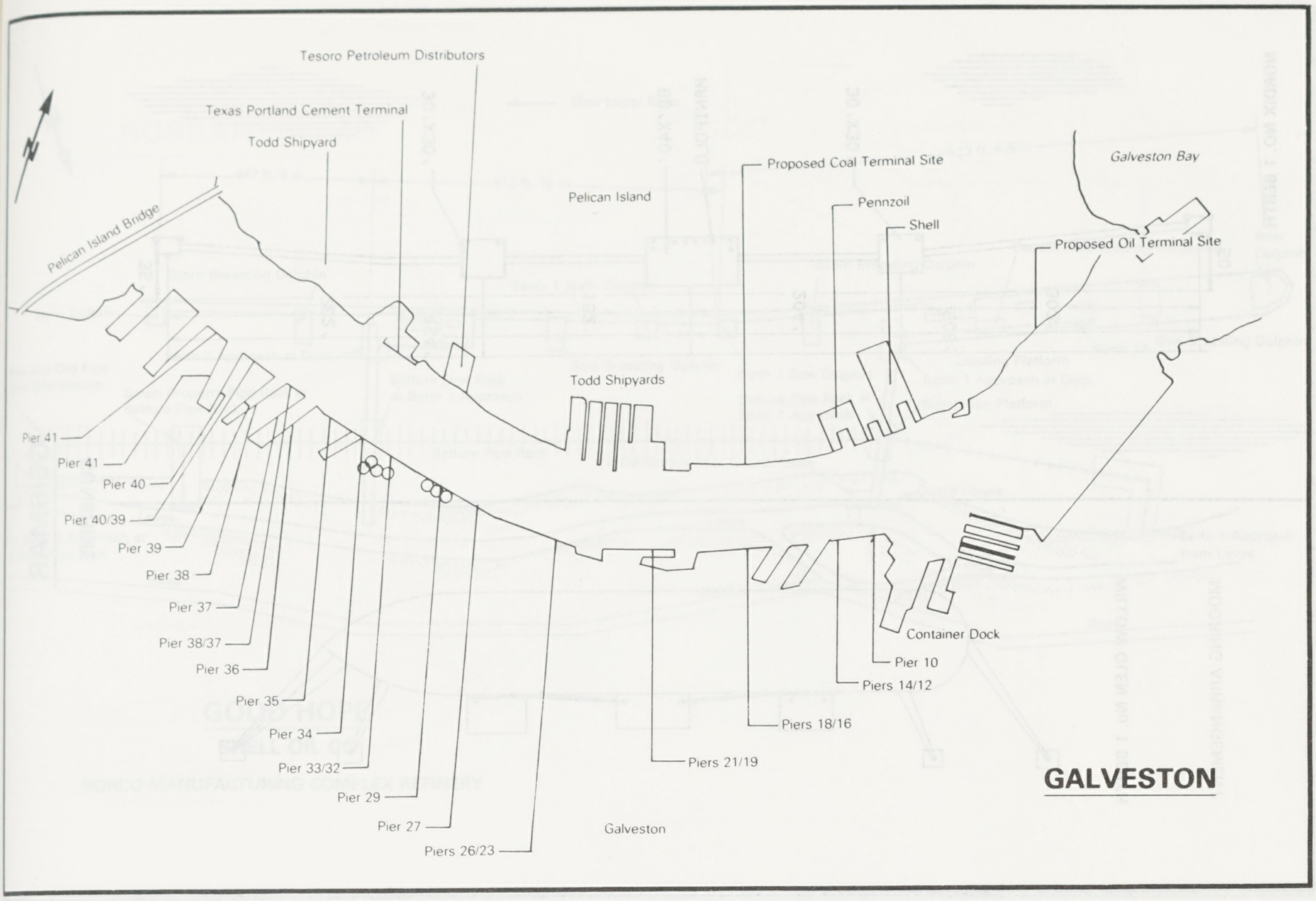

Causeway
548.45 m.
274.22 m.
Depth 12.19 m.
Dock
Barges only
FERNDALE
MOBIL OIL CORPORATION


FREEPORT
TEXAS
Proposed Channel Change
Stauffer Turning Basin
Tide Gate
Stauffer Chemical
Barge Dock
Brazos River Harbor Navigation District
No. 1
No. 2
Work in Progress
25 ft. Depth
600 ft. Turning Basin 30 ft. Depth
FREEPORT HARBOUR
Badische Corp.
Phillips Petroleum Co.
Upper Turning Basin 800 ft
Phillips Docks
36ft Depth
Dow Chemical Co.
Dry Cargo Dock
FREEPORT HARBOUR
Brazos Port Turning Basin 36 ft. Depth
Seaway Pipeline Inc. Liquid Crude Docks
Gulf Intracoastal Waterway
Barge Dock
Liquid Chemical Dock
Dow Chemical Liquid Crude Docks
Gulf Intracoastal Waterway
36ft Depth
Lower Turning Basin
Liquid Barge Dock
Old River Co.
U.S. Coastguard
Freeport Harbour Channel
North East Jetty
South West Jetty
GULF OF MEXICO


FREEPORT
(DEVELOPMENT PLAN)
N
0 200 400 600 800 1000
SCALE IN FEET
Marathon Oil
Marine Related Development
American Rice Processing Plant (June 1987)
Warehouse
Dock Office
Transit Sheds
1
1A
2
Transit Shed No. 3
Barge Terminal (June 1987)
Proposed Bulkhead and Future Docks
Ebb
Flood
Dow Chemical
Warehouse
Ro–Ro Ramp
Berth 1 & 2 1250 ft.
Berth 3 640 ft.
Berth A 650 ft.
Port Administration Office
Brazos Harbour Turning Basin
Existing 30 x 550 x 600 ft.
Proposed 36 x 750 ft.
Channel
Existing 30 x 200 ft.
Proposed 36 x 200 ft.
Upper Turning Basin
Existing 36 x 600 x 600 ft.
Proposed 45 x 1200 ft.
Existing
Proposed
Channel
36 x 375 ft.
45 x 400 ft.
Future Development
Badische Terminal (Under Construction)
Phillips Petroleum


FREEPORT
SEAWAY PIPELINE
TURNING BASIN
FLOOD
EBB
TO SEA
N
735′
395′
980′
180′
210′
180′
BERTH NO. 1
BERTH NO. 2
BERTH NO. 3
TANKERS
BARGES & UP TO 35,000 D.W.T.
HIGH BANK

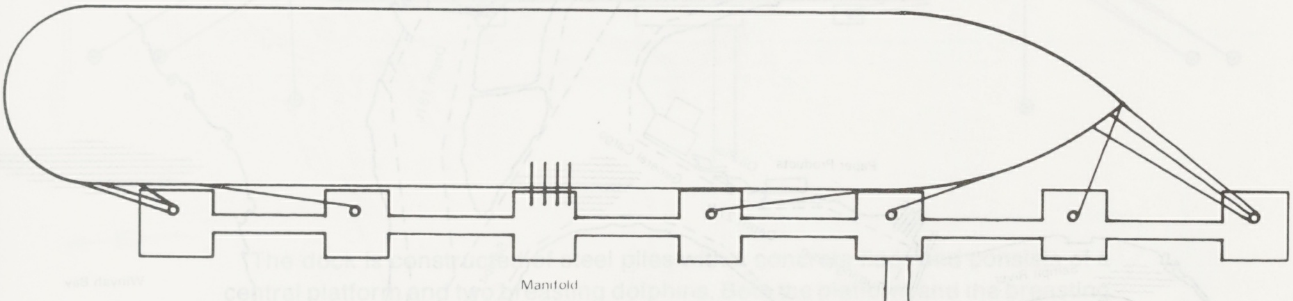
GALVESTON


Tesoro Petroleum Distributors
Texas Portland Cement Terminal
Todd Shipyard
Pelican Island Bridge
Pelican Island
Proposed Coal Terminal Site
Pennzoil
Shell
Galveston Bay
Proposed Oil Terminal Site
Todd Shipyards
Pier 41
Pier 41
Pier 40
Pier 40/39
Pier 39
Pier 38
Pier 37
Pier 38/37
Pier 36
Pier 35
Pier 34
Pier 33/32
Pier 29
Pier 27
Piers 26/23
Galveston
Piers 21/19
Piers 18/16
Piers 14/12
Pier 10
Container Dock
GALVESTON

GEISMAR

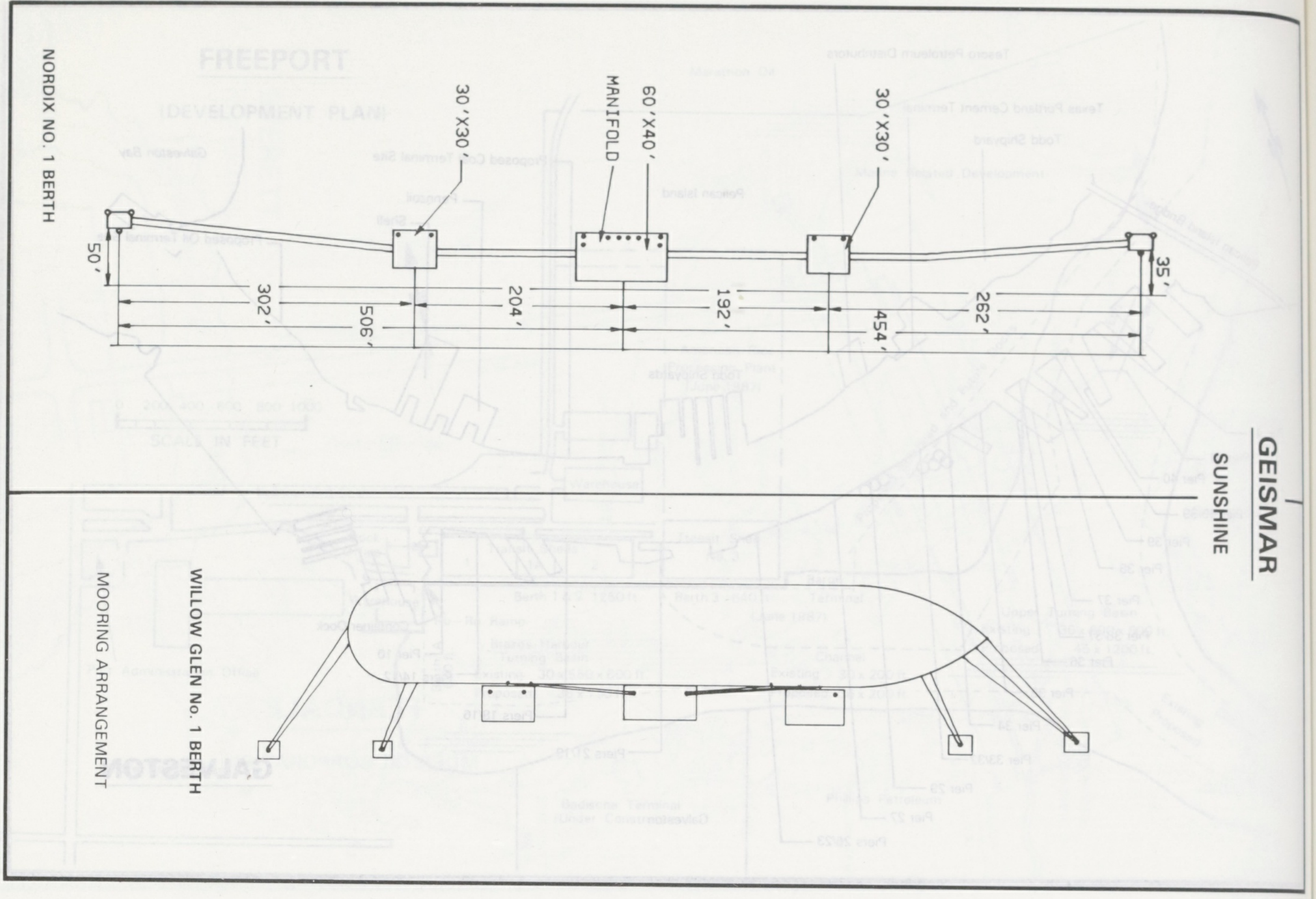
BASF CORPORATION TERMINAL

MOORING ARRANGEMENT

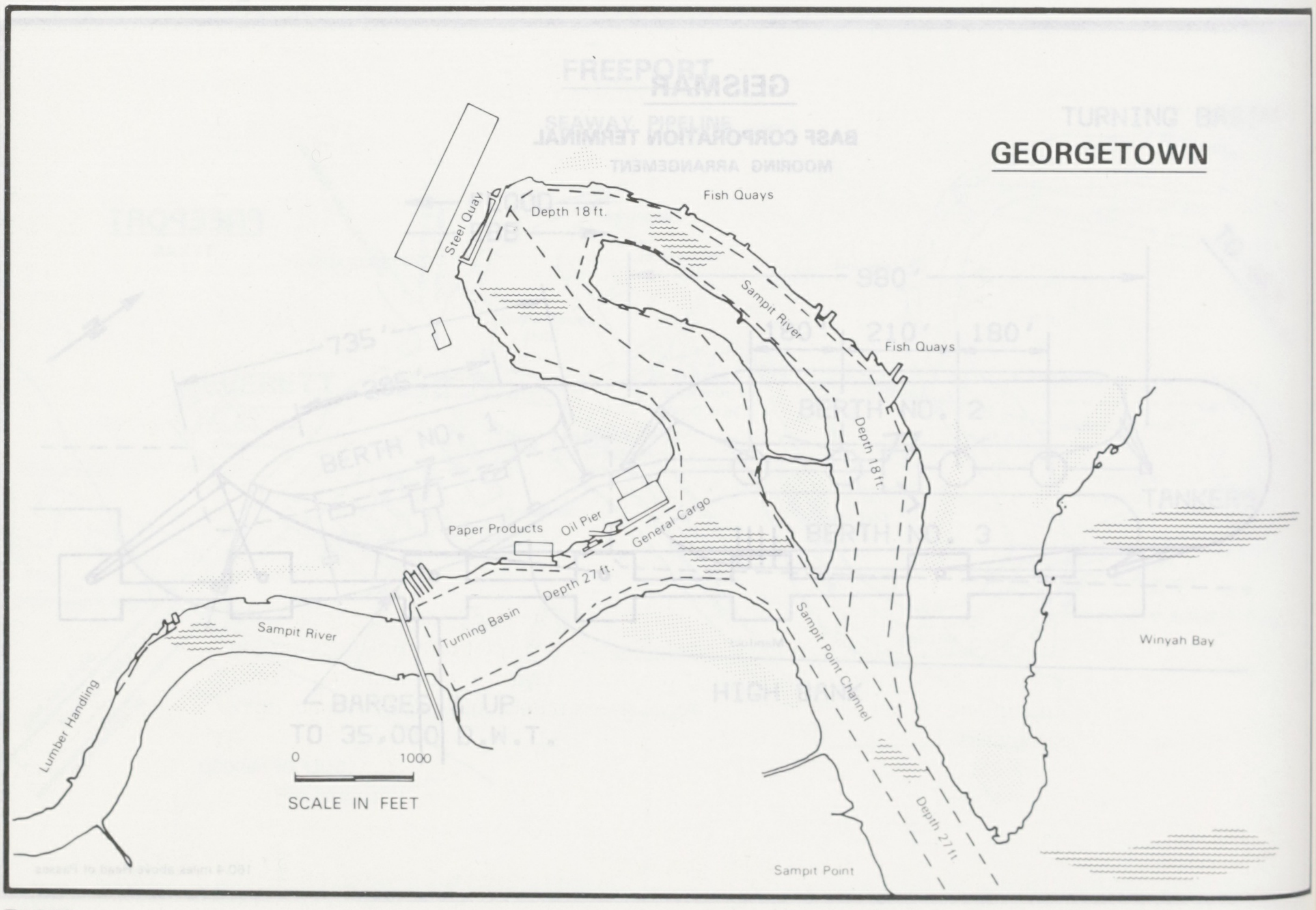


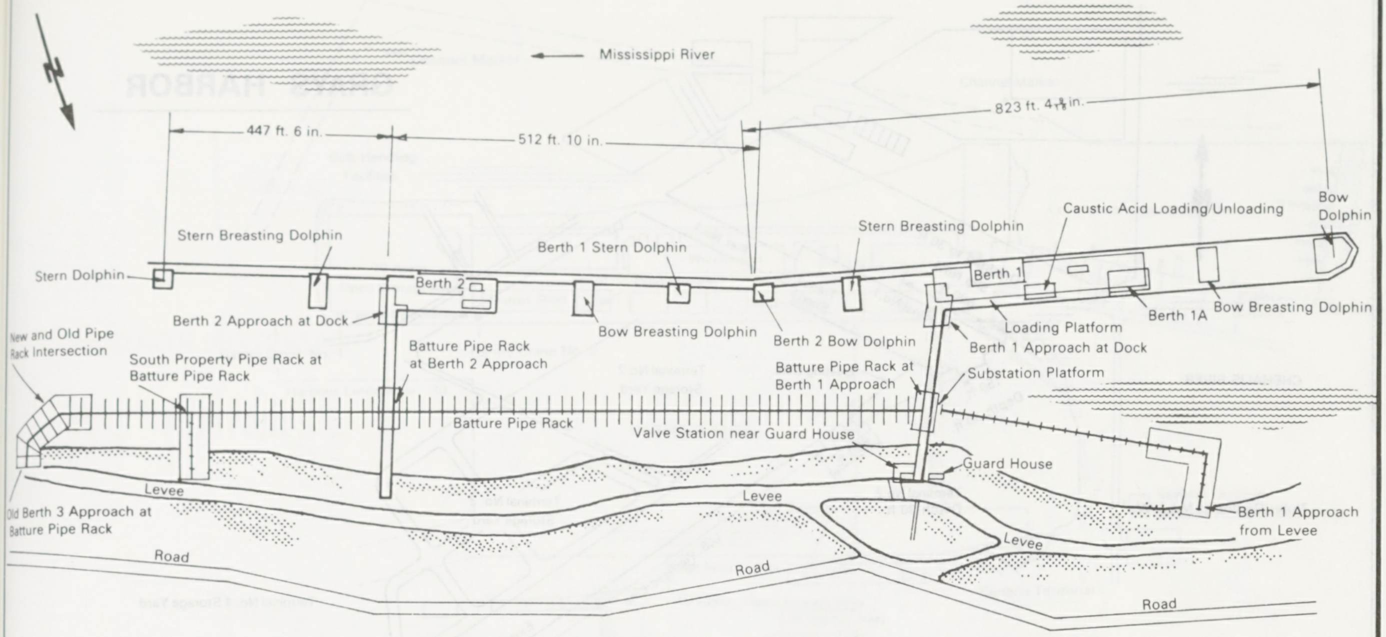
160.4 miles above Head of Passes

GEISMAR


SUNSHINE
NORDIX NO. 1 BERTH
30'X30'
MANIFOLD
60'X40'
30'X30'
50'
302'
506'
204'
192'
454'
262'
35'
WILLOW GLEN No. 1 BERTH
MOORING ARRANGEMENT

GEORGETOWN


Steel Quay
Depth 18 ft.
Fish Quays
Sampit River
Fish Quays
Depth 18 ft
Paper Products
Oil Pier
General Cargo
Depth 27 ft.
Turning Basin
Sampit River
Sampit Point Channel
Winyah Bay
Lumber Handling
0
1000
SCALE IN FEET
Depth 27 ft
Sampit Point


Mississippi River
447 ft. 6 in.
512 ft. 10 in.
823 ft. $4\frac{9}{16}$ in.
Bow Dolphin
Caustic Acid Loading/Unloading
Stern Breasting Dolphin
Stern Breasting Dolphin
Berth 1 Stern Dolphin
Stern Dolphin
Berth 2
Berth 1
Berth 2 Approach at Dock
Bow Breasting Dolphin
Berth 2 Bow Dolphin
Loading Platform
Berth 1A
Bow Breasting Dolphin
Berth 1 Approach at Dock
New and Old Pipe Rack Intersection
South Property Pipe Rack at Batture Pipe Rack
Batture Pipe Rack at Berth 2 Approach
Batture Pipe Rack at Berth 1 Approach
Substation Platform
Batture Pipe Rack
Valve Station near Guard House
Guard House
Levee
Levee
Levee
Berth 1 Approach from Levee
Old Berth 3 Approach at Batture Pipe Rack
Road
Road
Road

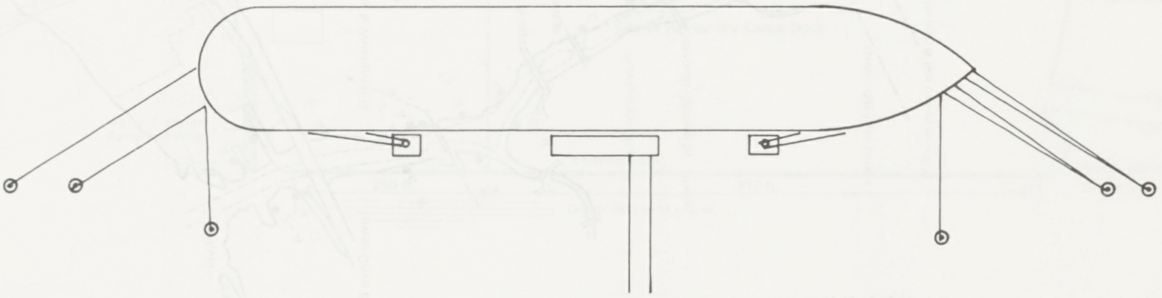
GOOD HOPE

SHELL OIL CO

NORCO MANUFACTURING COMPLEX REFINERY

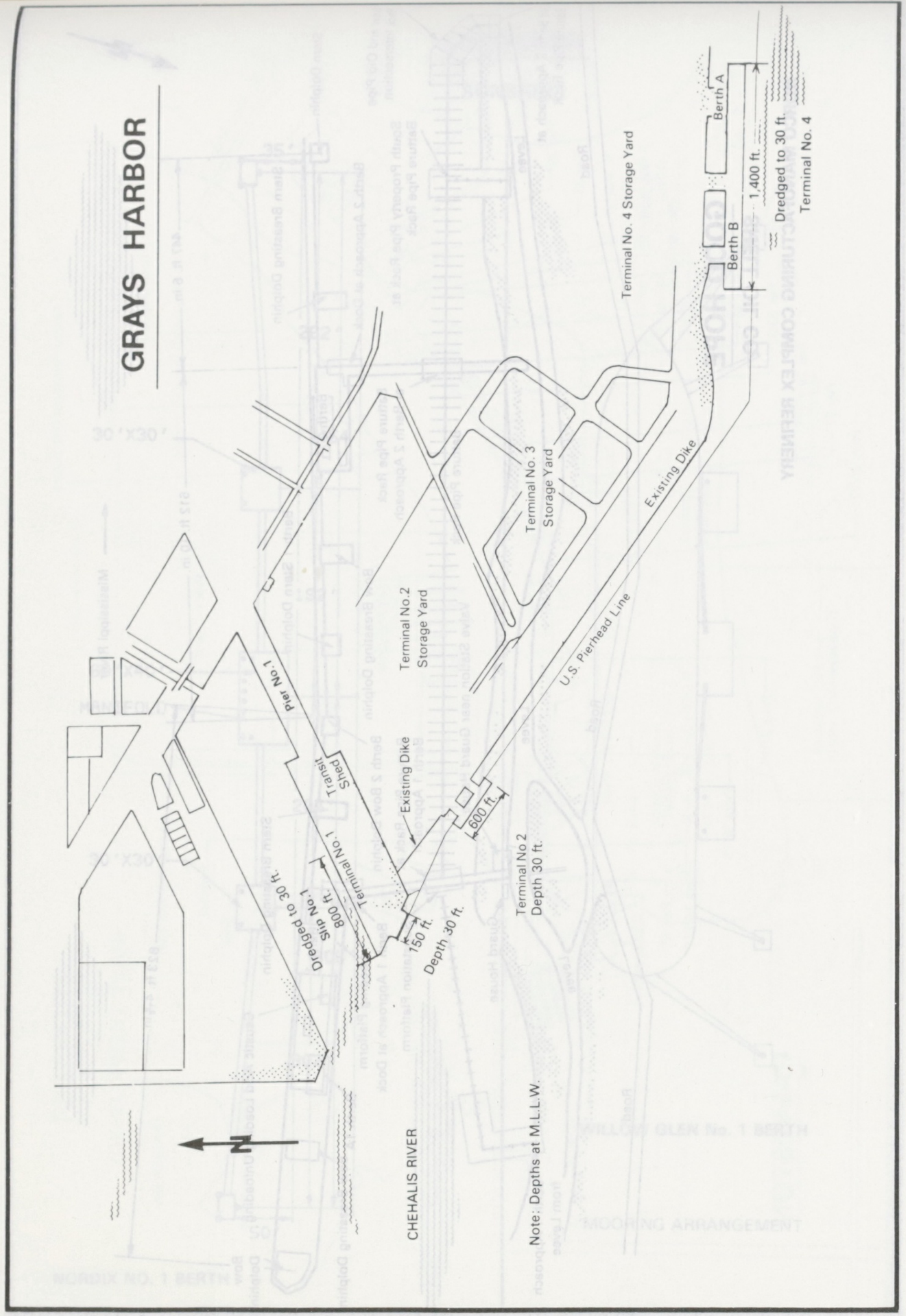
GOOD HOPE

GATX

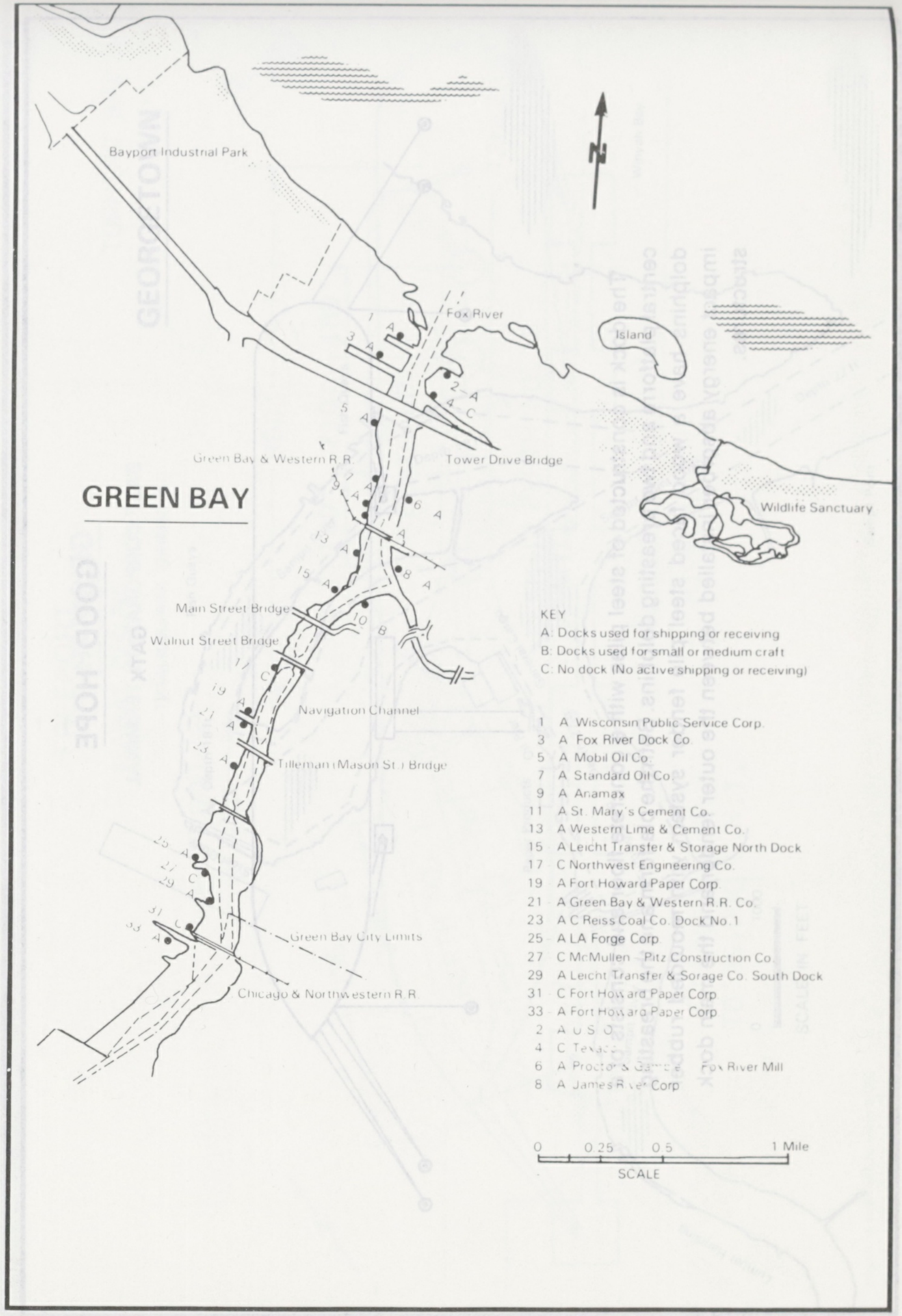


The dock is constructed of steel piles with a concrete floor and consists of a central platform and two breasting dolphins. Both the platform and the breasting dolphins have a wood faced steel pile fender system with moulded rubber impact energy absorber installed between the outer fender and the main dock structures.

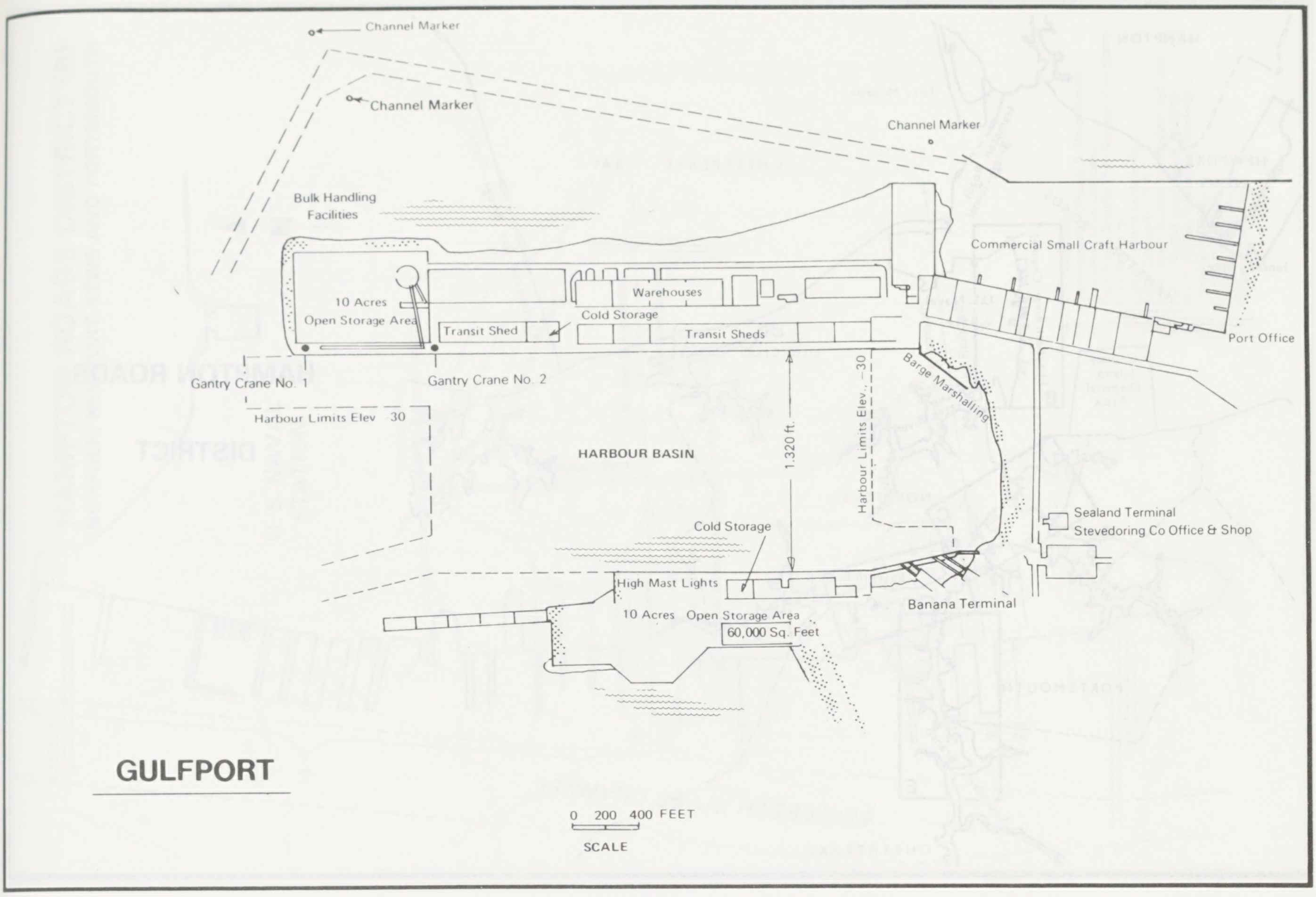
GRAYS HARBOR


Berth A
Berth B
1,400 ft.
Dredged to 30 ft.
Terminal No. 4
Terminal No. 4 Storage Yard
Terminal No. 3
Storage Yard
Existing Dike
Terminal No.2
Storage Yard
U.S. Pierhead Line
Pier No. 1
Transit Shed
Terminal No. 1
Existing Dike
600 ft.
Dredged to 30 ft.
Slip No.1
800 ft.
150 ft.
Depth 30 ft.
Terminal No 2
Depth 30 ft.
N
CHEHALIS RIVER
Note: Depths at M.L.L.W.

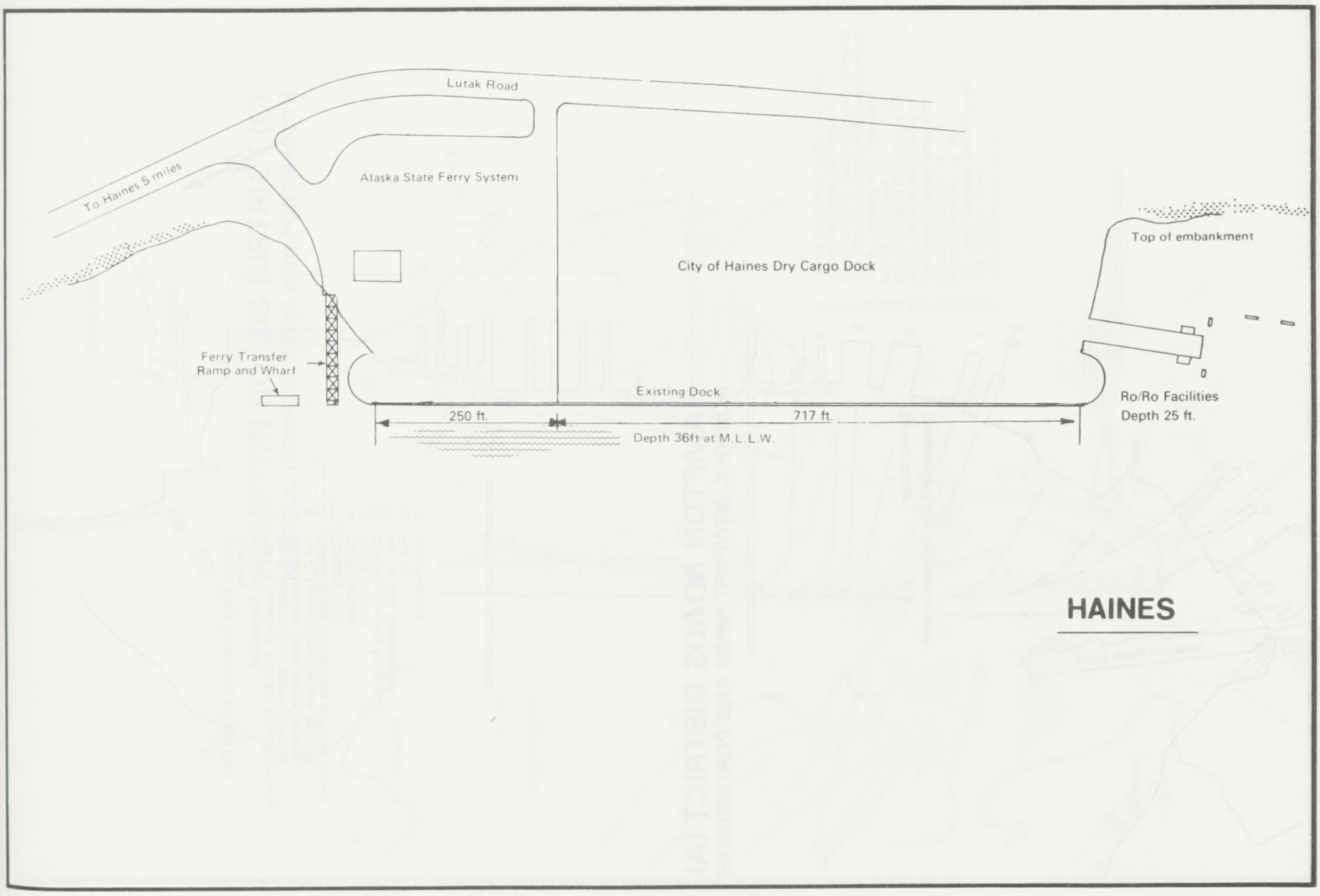
GREEN BAY

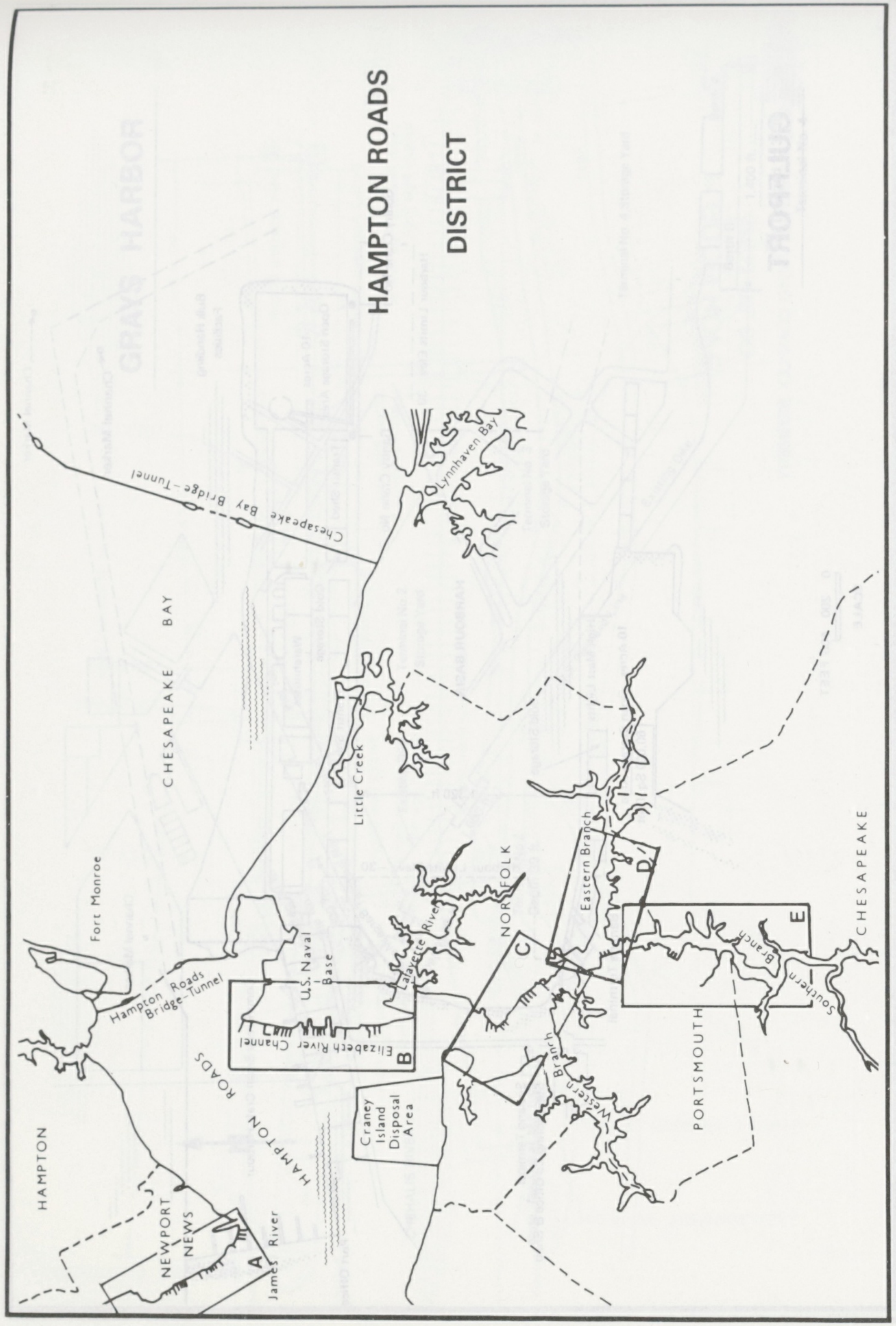

N
Bayport Industrial Park
Fox River
Island
Tower Drive Bridge
Wildlife Sanctuary
Green Bay & Western R.R.
Main Street Bridge
Walnut Street Bridge
Navigation Channel
Tilleman (Mason St.) Bridge
Green Bay City Limits
Chicago & Northwestern R.R.
1 A
3 A
2 A
4 C
5 A
7 A
9 A
6 A
11
13 A
15 A
8 A
10
17 C
19
21 A
23 A
25 A
27 C
29 A
31 C
33 A
KEY
A: Docks used for shipping or receiving
B: Docks used for small or medium craft
C: No dock (No active shipping or receiving)
1 A Wisconsin Public Service Corp.
3 A Fox River Dock Co.
5 A Mobil Oil Co.
7 A Standard Oil Co.
9 A Anamax
11 A St. Mary's Cement Co.
13 A Western Lime & Cement Co.
15 A Leicht Transfer & Storage North Dock
17 C Northwest Engineering Co.
19 A Fort Howard Paper Corp.
21 A Green Bay & Western R.R. Co.
23 A C Reiss Coal Co. Dock No.1
25 A LA Forge Corp.
27 C McMullen - Pitz Construction Co.
29 A Leicht Transfer & Sorage Co. South Dock
31 C Fort Howard Paper Corp
33 A Fort Howard Paper Corp
2 A U.S.O.
4 C Texaco
6 A Proctor & Gamble — Fox River Mill
8 A James River Corp
0 0.25 0.5 1 Mile
SCALE

GULFPORT


Channel Marker
Channel Marker
Channel Marker
Bulk Handling Facilities
Commercial Small Craft Harbour
Warehouses
10 Acres Open Storage Area
Cold Storage
Transit Shed
Transit Sheds
Port Office
Gantry Crane No. 1
Gantry Crane No. 2
Barge Marshalling
Harbour Limits Elev 30
Harbour Limits Elev., −30
HARBOUR BASIN
1.320 ft.
Sealand Terminal
Stevedoring Co Office & Shop
Cold Storage
High Mast Lights
Banana Terminal
10 Acres Open Storage Area
60,000 Sq. Feet
0 200 400 FEET
SCALE

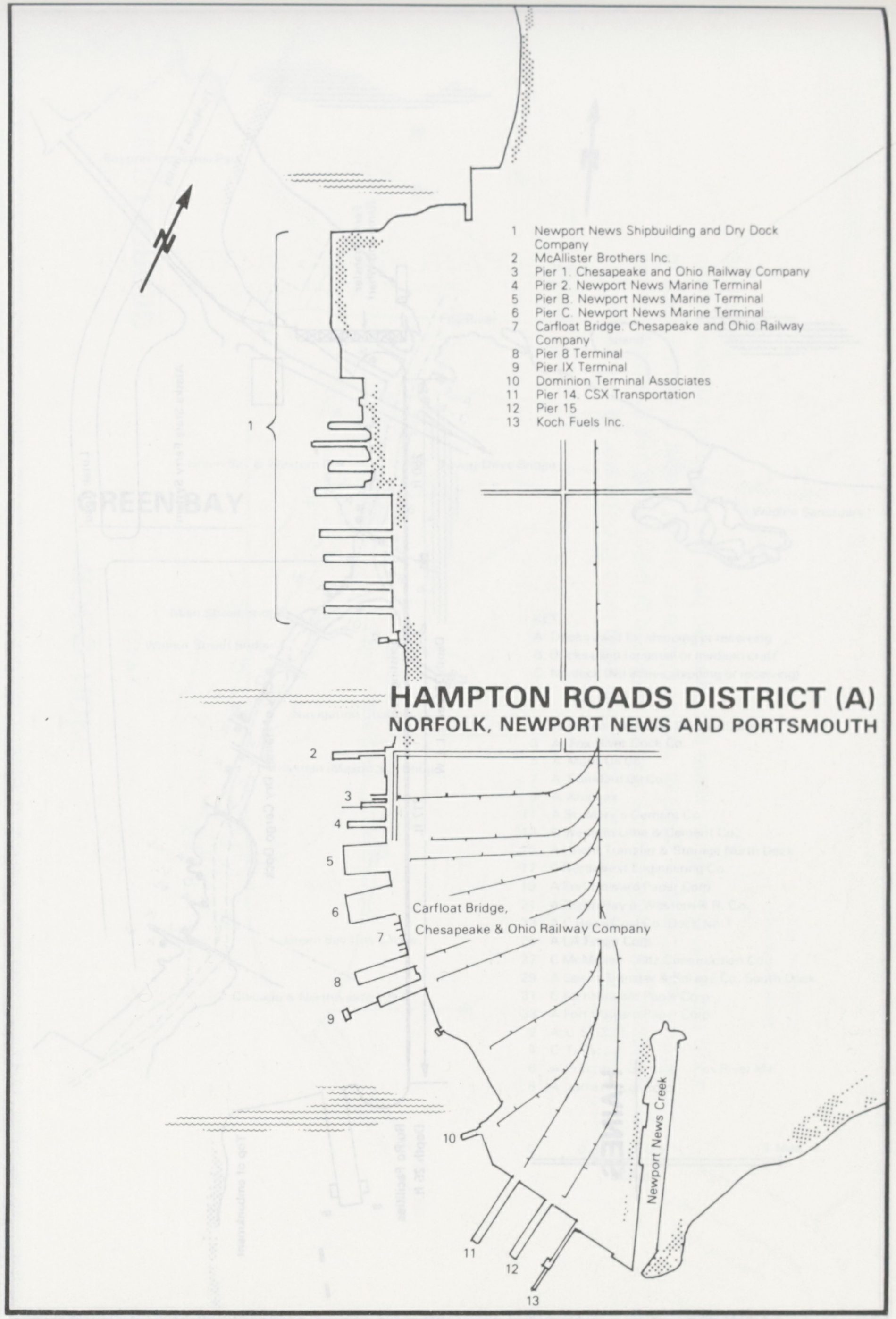
HAINES


Lutak Road
To Haines 5 miles
Alaska State Ferry System
City of Haines Dry Cargo Dock
Top of embankment
Ferry Transfer Ramp and Wharf
Existing Dock
250 ft.
717 ft.
Depth 36ft at M.L.L.W.
Ro/Ro Facilities
Depth 25 ft.



HAMPTON ROADS DISTRICT

CHESAPEAKE BAY
Chesapeake Bay Bridge–Tunnel
Lynnhaven Bay
Little Creek
HAMPTON
Fort Monroe
Hampton Roads Bridge–Tunnel
HAMPTON ROADS
NEWPORT NEWS
James River
U.S. Naval Base
Elizabeth River Channel
Lafayette River
NORFOLK
Eastern Branch
Southern Branch
Western Branch
PORTSMOUTH
Craney Island Disposal Area
CHESAPEAKE
A
B
C
D
E

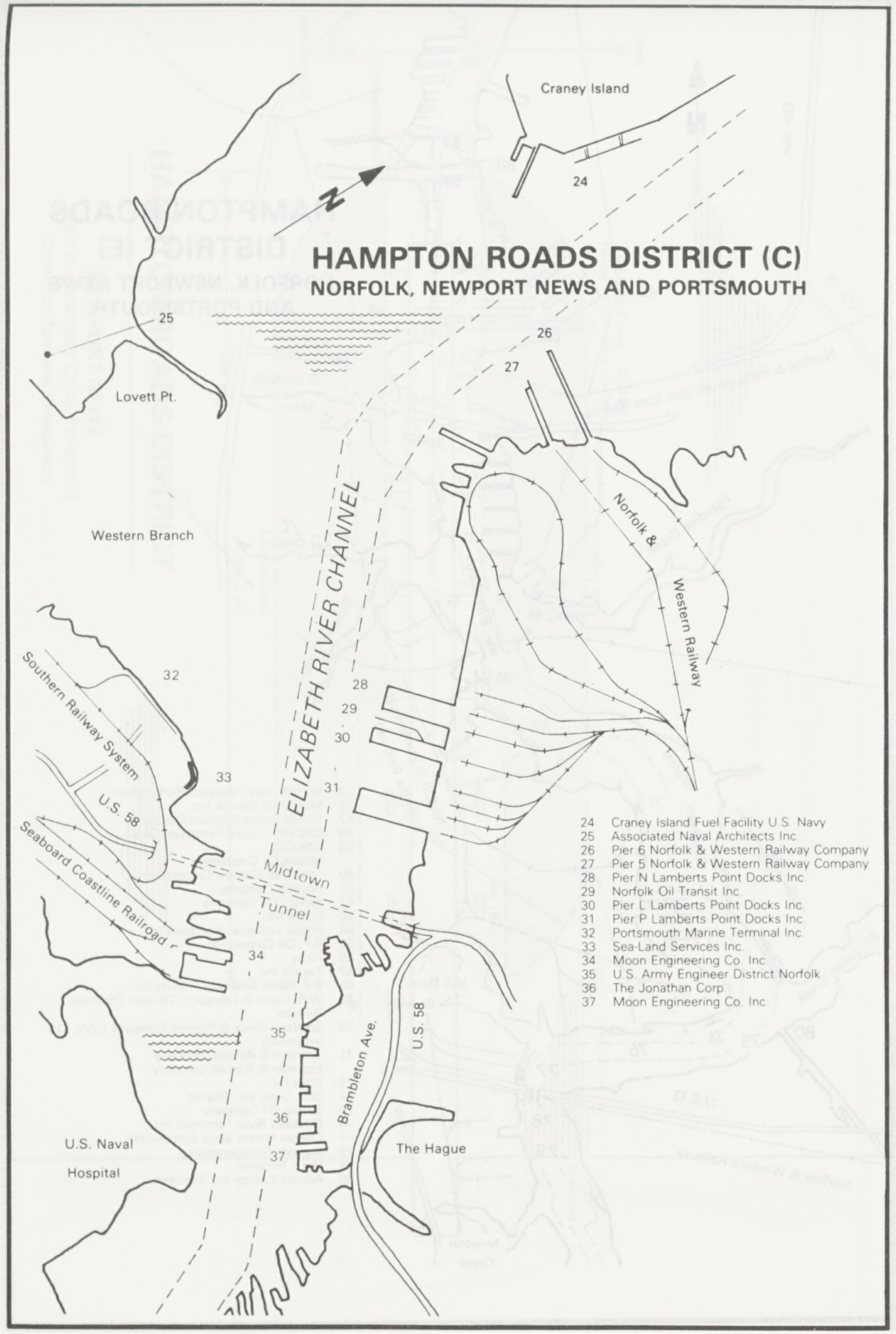


HAMPTON ROADS DISTRICT (A)
NORFOLK, NEWPORT NEWS AND PORTSMOUTH

1 Newport News Shipbuilding and Dry Dock Company
2 McAllister Brothers Inc.
3 Pier 1. Chesapeake and Ohio Railway Company
4 Pier 2. Newport News Marine Terminal
5 Pier B. Newport News Marine Terminal
6 Pier C. Newport News Marine Terminal
7 Carfloat Bridge. Chesapeake and Ohio Railway Company
8 Pier B Terminal
9 Pier IX Terminal
10 Dominion Terminal Associates
11 Pier 14. CSX Transportation
12 Pier 15
13 Koch Fuels Inc.

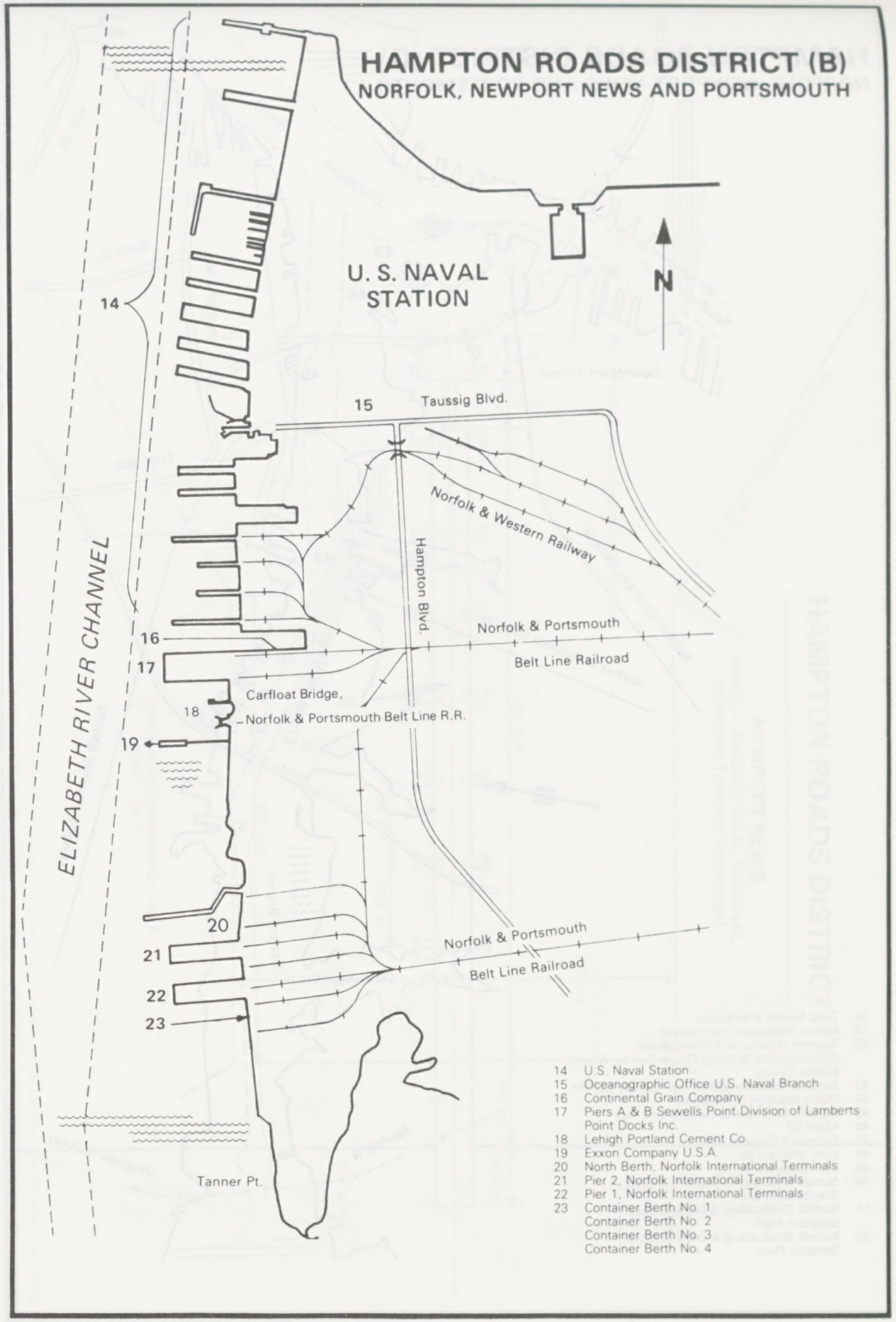
Carfloat Bridge, Chesapeake & Ohio Railway Company
Newport News Creek
1
2
3
4
5
6
7
8
9
10
11
12
13

HAMPTON ROADS DISTRICT (C)
NORFOLK, NEWPORT NEWS AND PORTSMOUTH


Craney Island
N
24
25
Lovett Pt.
26
27
Western Branch
ELIZABETH RIVER CHANNEL
Norfolk & Western Railway
32
Southern Railway System
33
U.S. 58
Seaboard Coastline Railroad
28
29
30
31
Midtown Tunnel
34
35
36
37
Brambleton Ave.
U.S. 58
The Hague
U.S. Naval Hospital

24	Craney Island Fuel Facility U.S. Navy
25	Associated Naval Architects Inc.
26	Pier 6 Norfolk & Western Railway Company
27	Pier 5 Norfolk & Western Railway Company
28	Pier N Lamberts Point Docks Inc.
29	Norfolk Oil Transit Inc.
30	Pier L Lamberts Point Docks Inc.
31	Pier P Lamberts Point Docks Inc.
32	Portsmouth Marine Terminal Inc.
33	Sea-Land Services Inc.
34	Moon Engineering Co. Inc.
35	U.S. Army Engineer District Norfolk
36	The Jonathan Corp.
37	Moon Engineering Co. Inc.

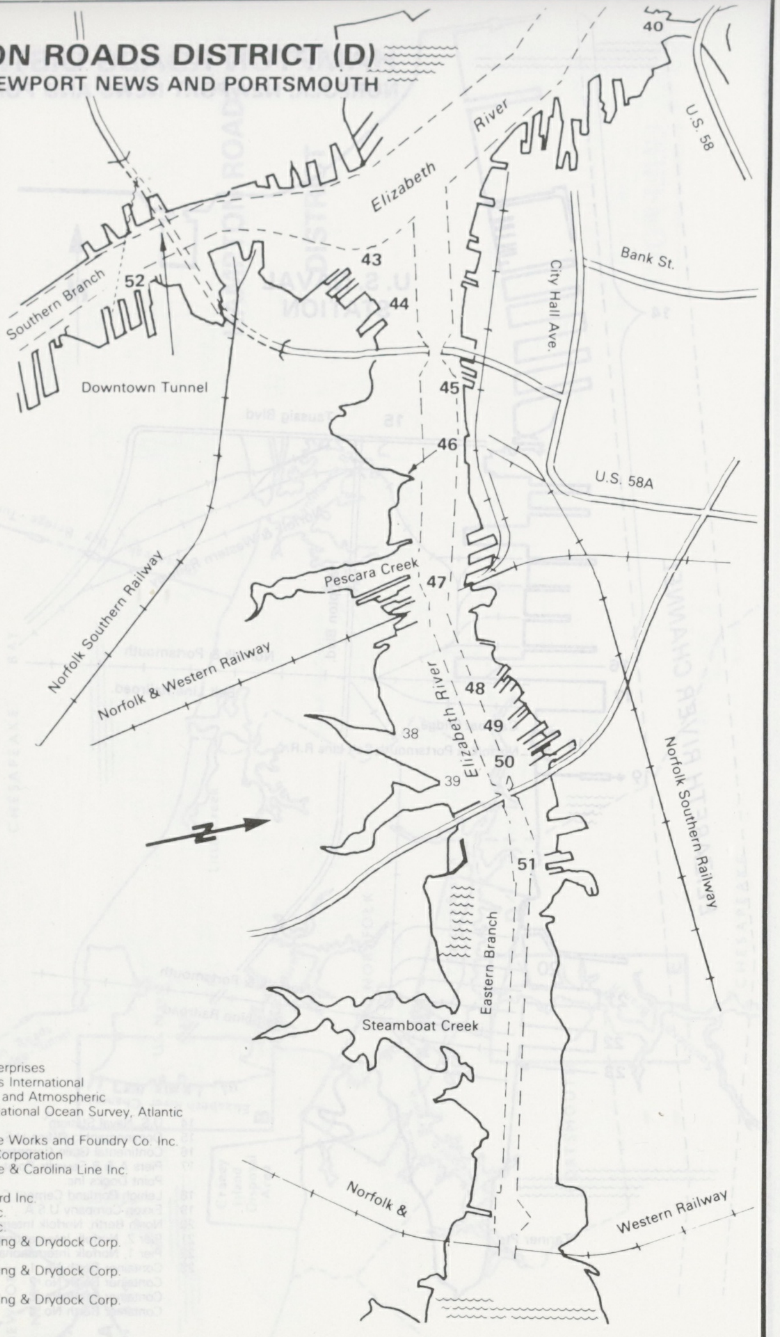
HAMPTON ROADS DISTRICT (B)
NORFOLK, NEWPORT NEWS AND PORTSMOUTH


U. S. NAVAL STATION
N
14
15
Taussig Blvd.
Norfolk & Western Railway
Hampton Blvd.
ELIZABETH RIVER CHANNEL
16
17
Norfolk & Portsmouth Belt Line Railroad
Carfloat Bridge,
18
Norfolk & Portsmouth Belt Line R.R.
19
20
21
22
23
Norfolk & Portsmouth Belt Line Railroad
Tanner Pt.

14	U.S. Naval Station
15	Oceanographic Office U.S. Naval Branch
16	Continental Grain Company
17	Piers A & B Sewells Point Division of Lamberts Point Docks Inc.
18	Lehigh Portland Cement Co.
19	Exxon Company U.S.A.
20	North Berth, Norfolk International Terminals
21	Pier 2, Norfolk International Terminals
22	Pier 1, Norfolk International Terminals
23	Container Berth No. 1 Container Berth No. 2 Container Berth No. 3 Container Berth No. 4

HAMPTON ROADS DISTRICT (D)

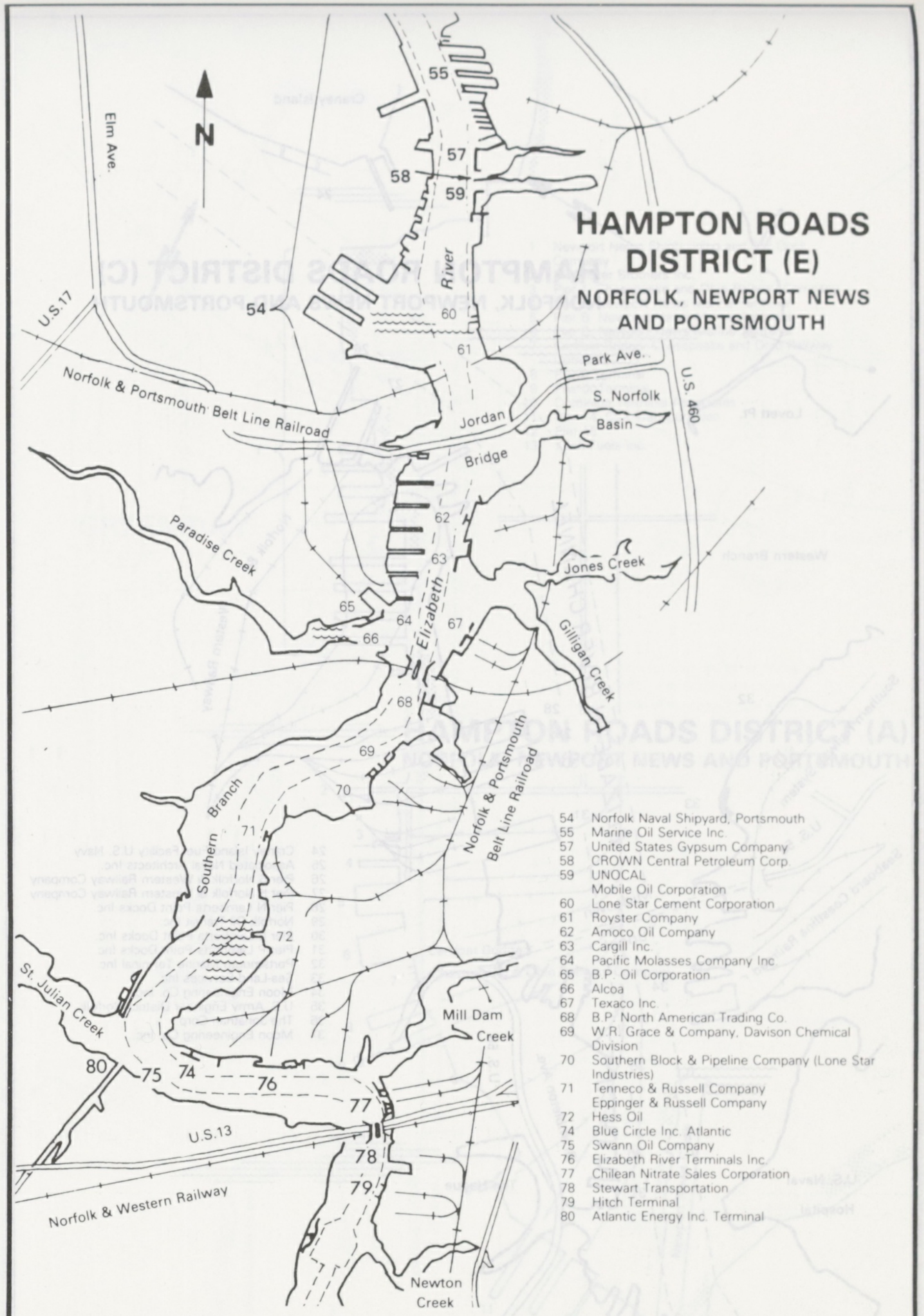
NORFOLK, NEWPORT NEWS AND PORTSMOUTH


40
U.S. 58
Elizabeth River
Bank St.
43
44
52
Southern Branch
Downtown Tunnel
City Hall Ave.
45
46
U.S. 58A
Pescara Creek
47
Norfolk Southern Railway
Norfolk & Western Railway
48
49
50
38
39
Elizabeth River
Norfolk Southern Railway
N
51
Eastern Branch
Steamboat Creek
Norfolk &
Western Railway

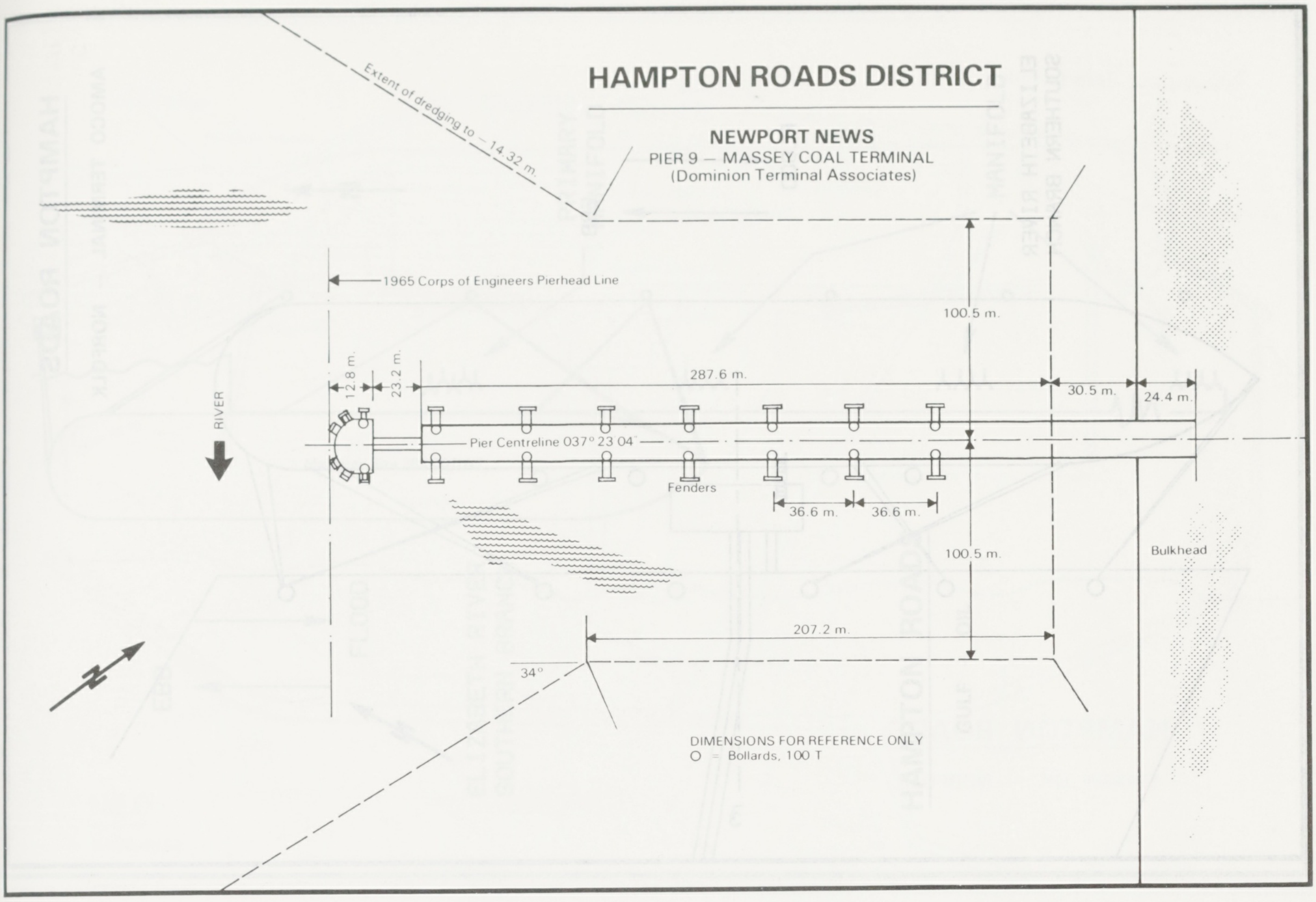
38	Todd Marine Enterprises
39	Marine Hydraulics International
40	National Oceanic and Atmospheric Administration, National Ocean Survey, Atlantic Marine Centre.
43	Berkeley Machine Works and Foundry Co. Inc.
44	Metro Machine Corporation
45	Norfolk, Baltimore & Carolina Line Inc.
46	Miller Oil
47	Colonna's Shipyard Inc.
48	Lyon Shipyard Inc.
49	Lyon Shipyard Inc.
50	Norfolk Shipbuilding & Drydock Corp. Brambleton Plant
51	Norfolk Shipbuilding & Drydock Corp. Southern Plant
52	Norfolk Shipbuilding & Drydock Corp. Berkeley Plant.

HAMPTON ROADS DISTRICT (E)

NORFOLK, NEWPORT NEWS AND PORTSMOUTH


N
Elm Ave.
55
57
58
59
U.S.17
54
60
61
River
Park Ave.
U.S. 460
S. Norfolk Basin
Jordan Bridge
Norfolk & Portsmouth Belt Line Railroad
Paradise Creek
62
63
Jones Creek
65
64
66
67
Elizabeth
Gilligan Creek
68
69
Norfolk & Portsmouth Belt Line Railroad
70
71
Southern Branch
72
St. Julian Creek
Mill Dam Creek
80
75
74
76
77
U.S.13
78
79
Norfolk & Western Railway
Newton Creek

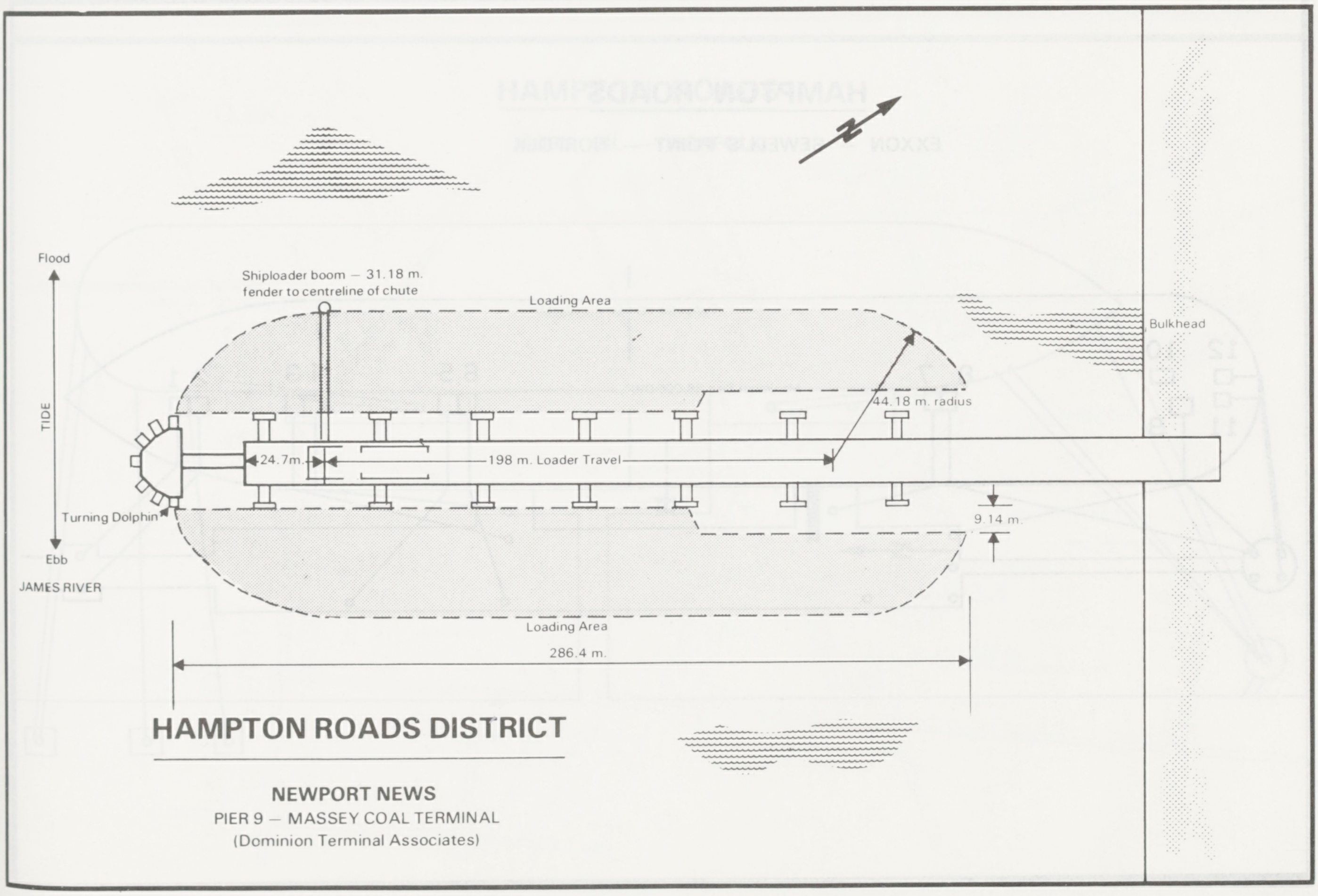
54	Norfolk Naval Shipyard, Portsmouth
55	Marine Oil Service Inc.
57	United States Gypsum Company
58	CROWN Central Petroleum Corp.
59	UNOCAL Mobile Oil Corporation
60	Lone Star Cement Corporation
61	Royster Company
62	Amoco Oil Company
63	Cargill Inc.
64	Pacific Molasses Company Inc.
65	B.P. Oil Corporation
66	Alcoa
67	Texaco Inc.
68	B.P. North American Trading Co.
69	W.R. Grace & Company, Davison Chemical Division
70	Southern Block & Pipeline Company (Lone Star Industries)
71	Tenneco & Russell Company Eppinger & Russell Company
72	Hess Oil
74	Blue Circle Inc. Atlantic
75	Swann Oil Company
76	Elizabeth River Terminals Inc.
77	Chilean Nitrate Sales Corporation
78	Stewart Transportation
79	Hitch Terminal
80	Atlantic Energy Inc. Terminal



HAMPTON ROADS DISTRICT

NEWPORT NEWS
PIER 9 — MASSEY COAL TERMINAL
(Dominion Terminal Associates)

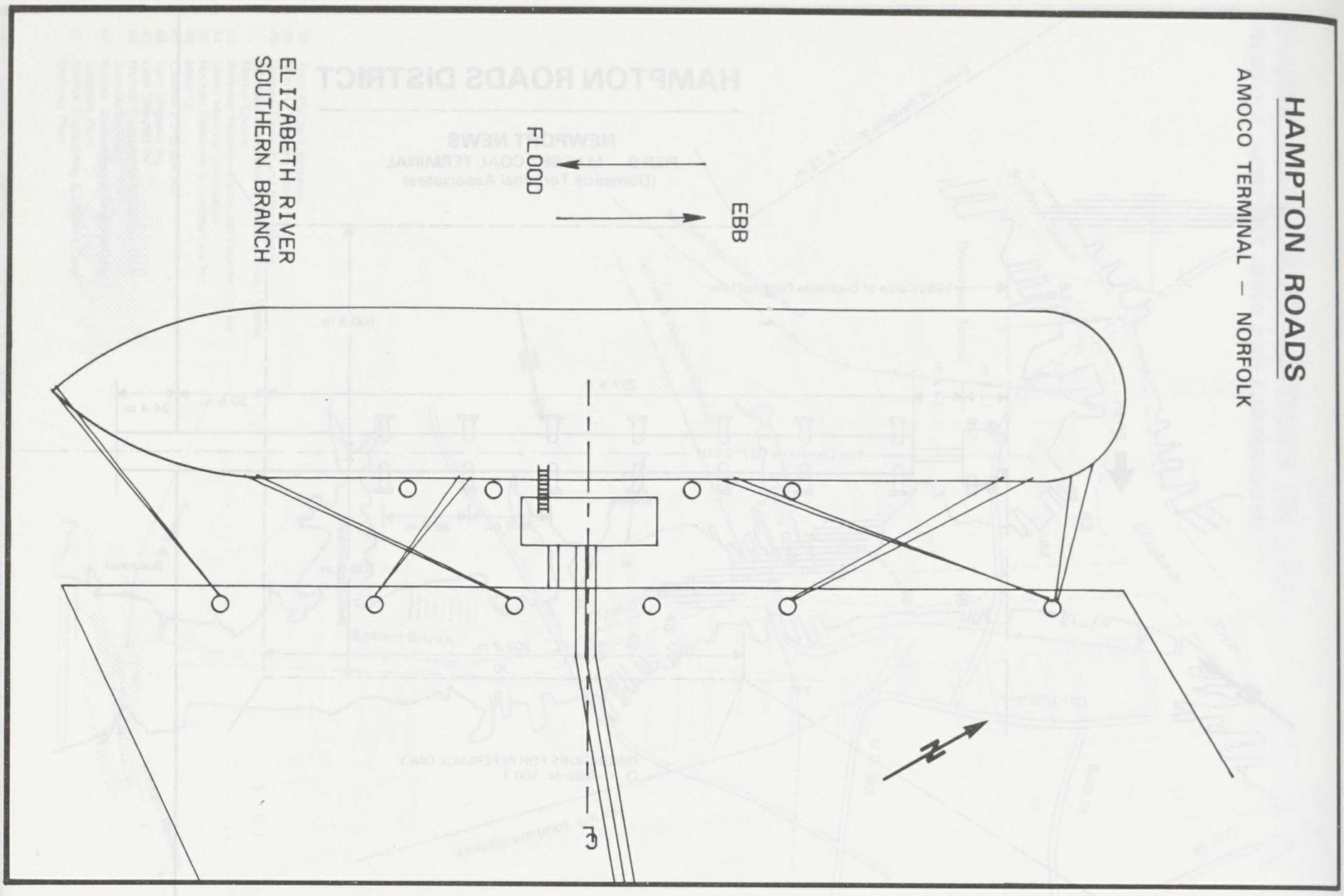
Extent of dredging to – 14.32 m.
1965 Corps of Engineers Pierhead Line
100.5 m.
12.8 m.
23.2 m.
287.6 m.
30.5 m.
24.4 m.
RIVER
Pier Centreline 037° 23 04"
Fenders
36.6 m.
36.6 m.
100.5 m.
Bulkhead
207.2 m.
34°
DIMENSIONS FOR REFERENCE ONLY
○ = Bollards, 100 T



Flood
TIDE
Ebb
JAMES RIVER
Turning Dolphin
Shiploader boom — 31.18 m.
fender to centreline of chute
Loading Area
44.18 m. radius
24.7m.
198 m. Loader Travel
9.14 m.
Bulkhead
Loading Area
286.4 m.

HAMPTON ROADS DISTRICT

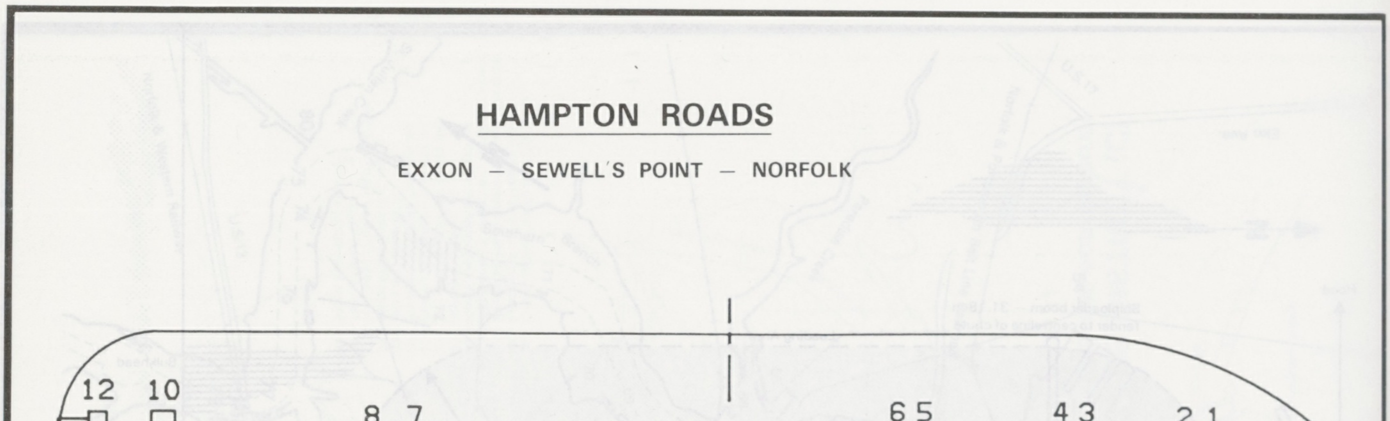
NEWPORT NEWS
PIER 9 — MASSEY COAL TERMINAL
(Dominion Terminal Associates)



HAMPTON ROADS

AMOCO TERMINAL – NORFOLK

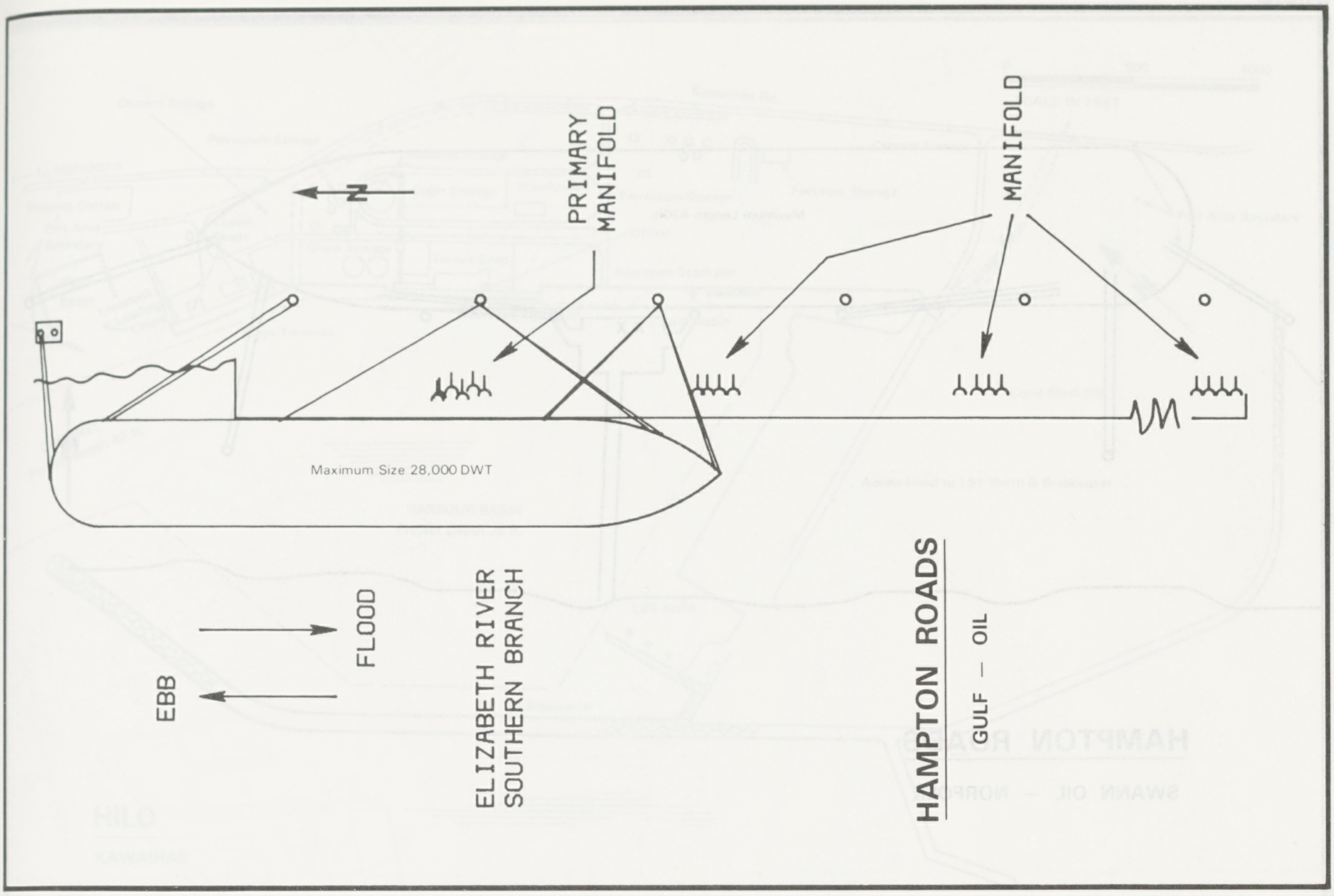
ELIZABETH RIVER
SOUTHERN BRANCH
FLOOD
EBB
℄

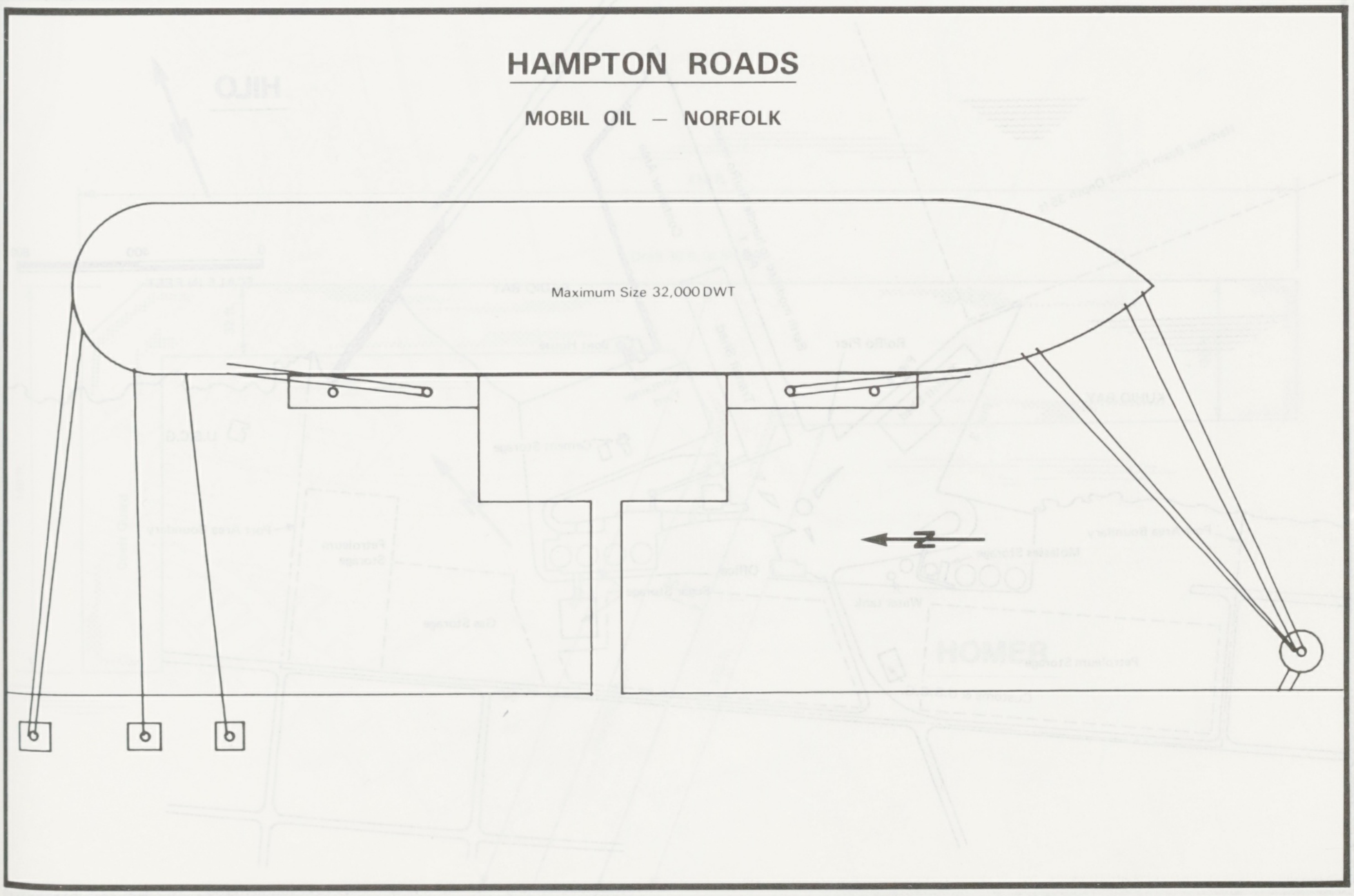


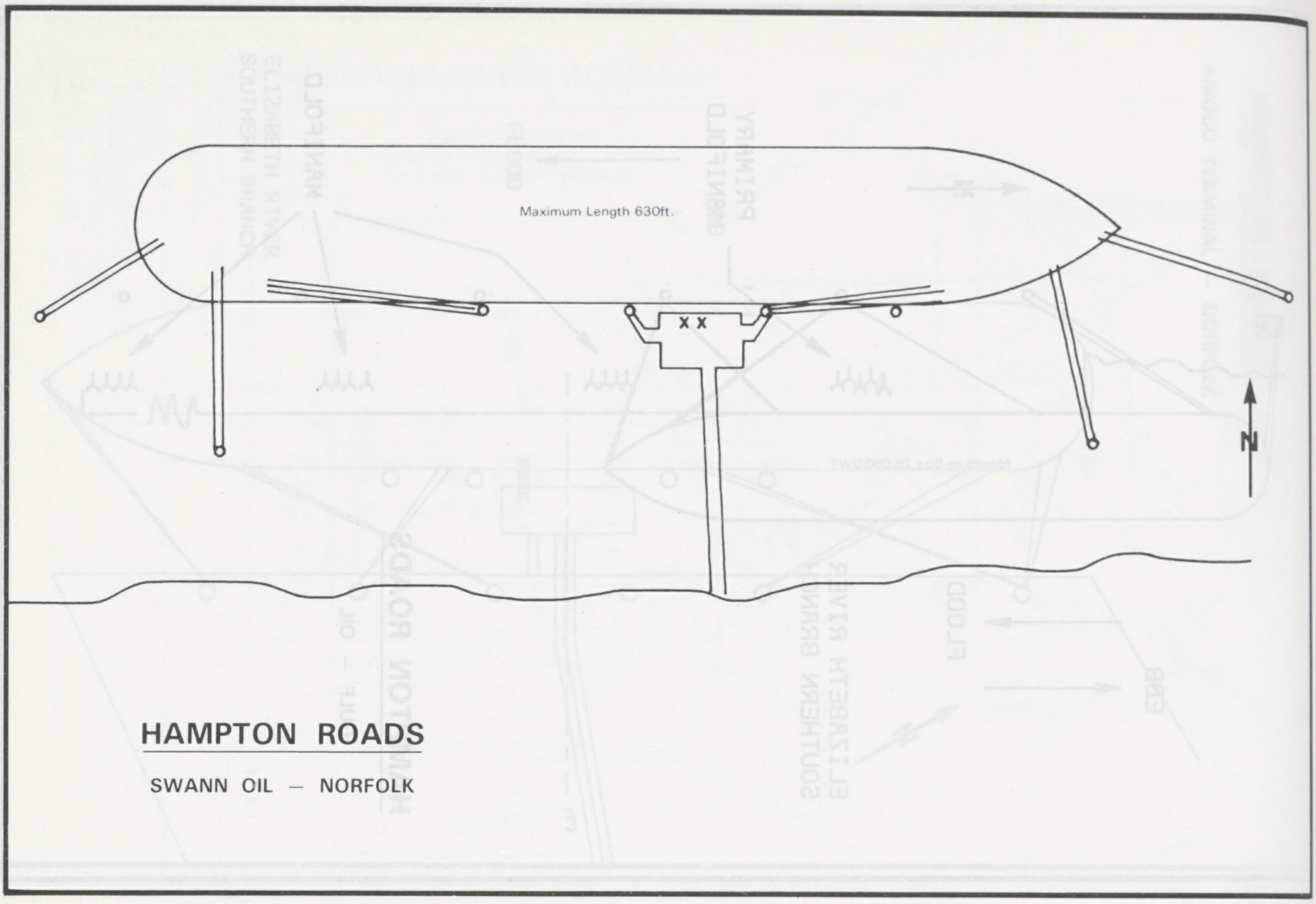
HAMPTON ROADS

EXXON – SEWELL'S POINT – NORFOLK

Maximum Size 88,000 DWT
12
10
11
9
8
7
6
5
4
3
2
1

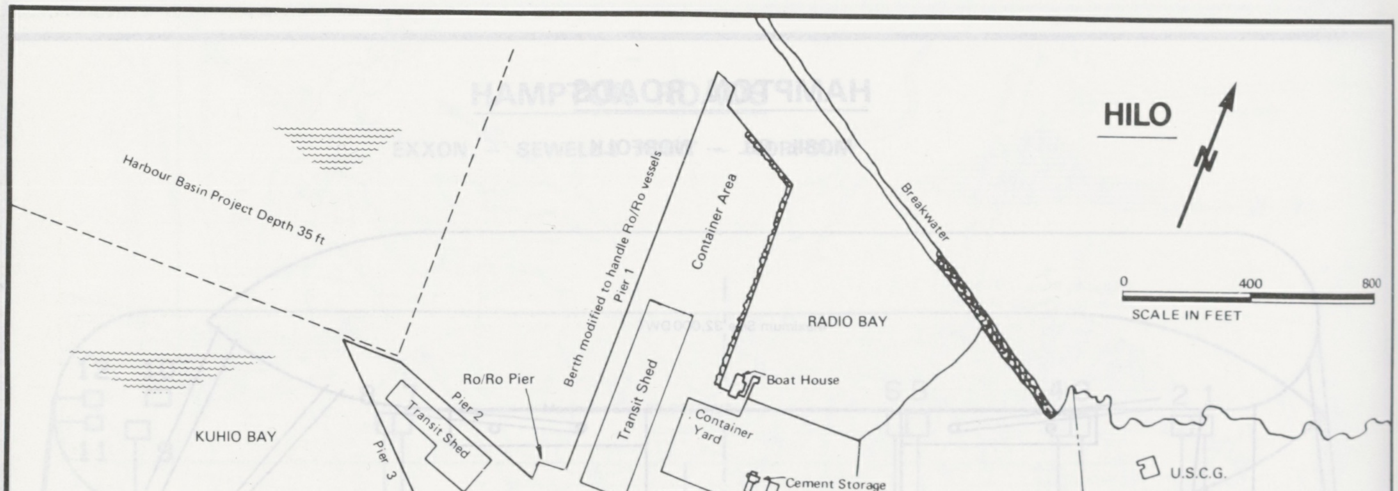

HAMPTON ROADS
GULF — OIL
PRIMARY MANIFOLD
MANIFOLD
N
Maximum Size 28,000 DWT
ELIZABETH RIVER SOUTHERN BRANCH
FLOOD
EBB


HAMPTON ROADS
MOBIL OIL — NORFOLK
Maximum Size 32,000 DWT
N

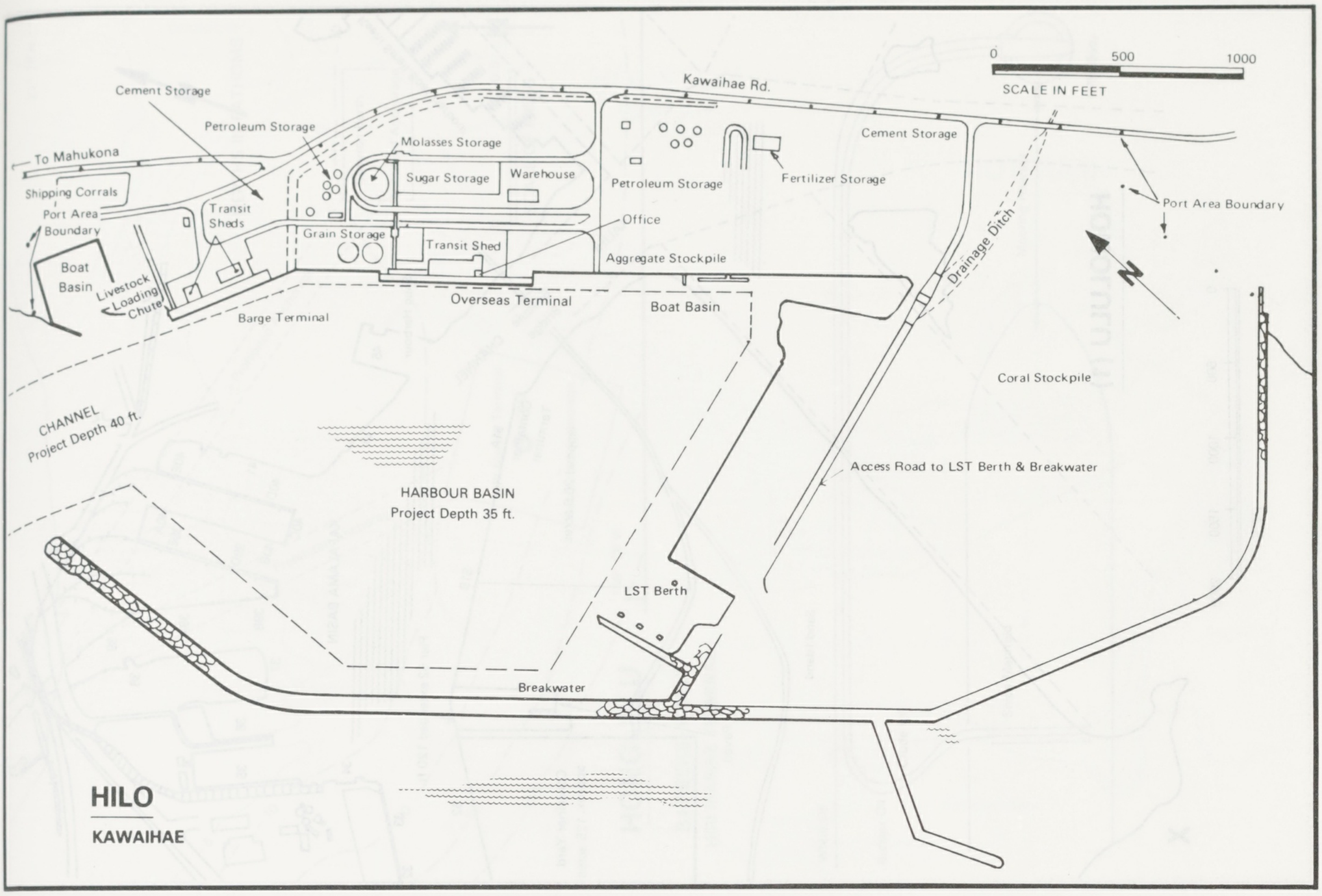

Maximum Length 630ft.
X X
N

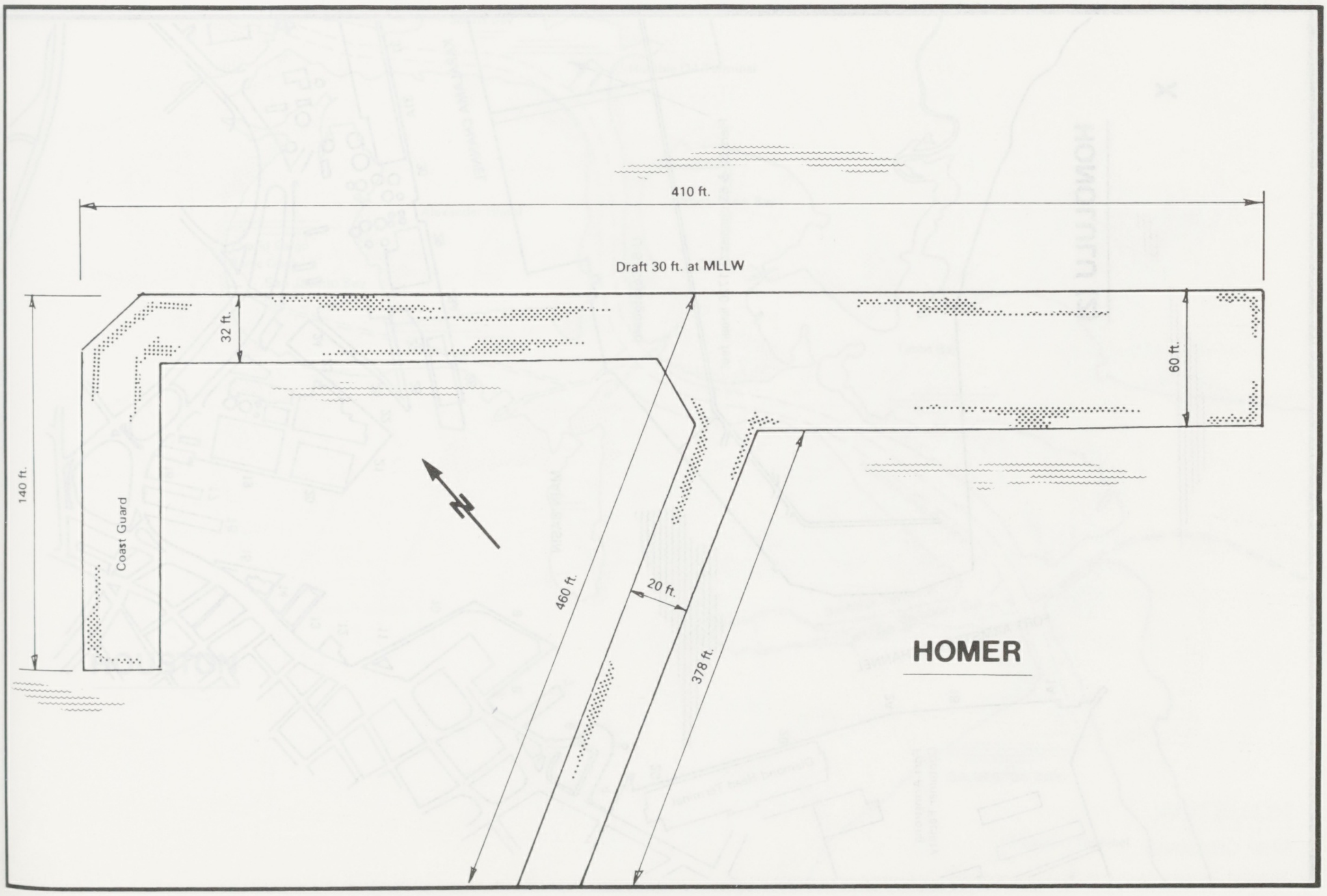
HAMPTON ROADS

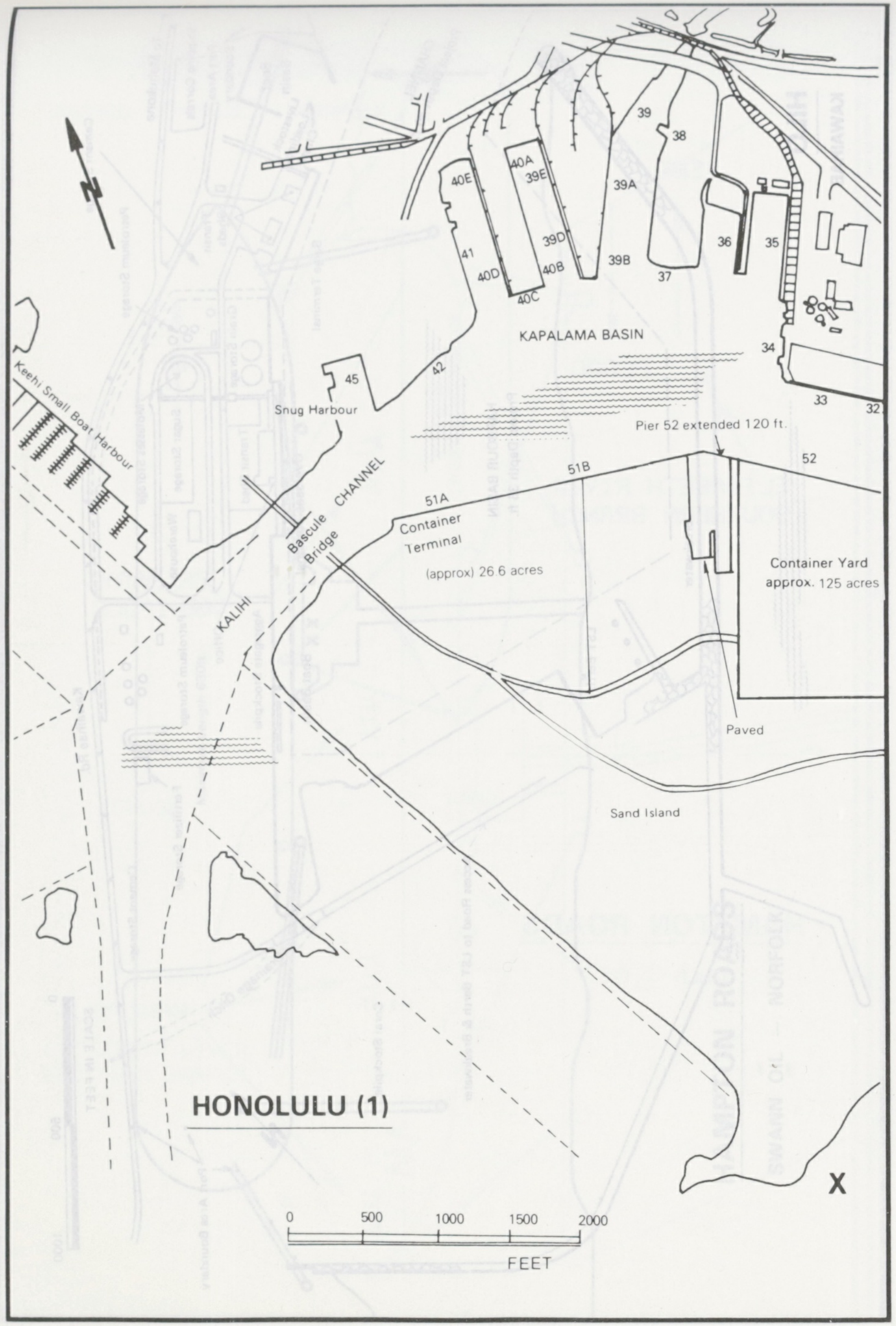
SWANN OIL — NORFOLK


N
0
400
800
SCALE IN FEET
Harbour Basin Project Depth 35 ft
Berth modified to handle Ro/Ro vessels
Pier 1
Container Area
Breakwater
RADIO BAY
Ro/Ro Pier
Pier 2
Transit Shed
Transit Shed
Boat House
Container Yard
KUHIO BAY
Pier 3
Cement Storage
U.S.C.G.
Port Area Boundary
Port Area Boundary
Molasses Storage
Office
Water tank
Sugar Storage
Petroleum Storage
Gas Storage
Petroleum Storage
Customs & U.S.C.G.

HILO

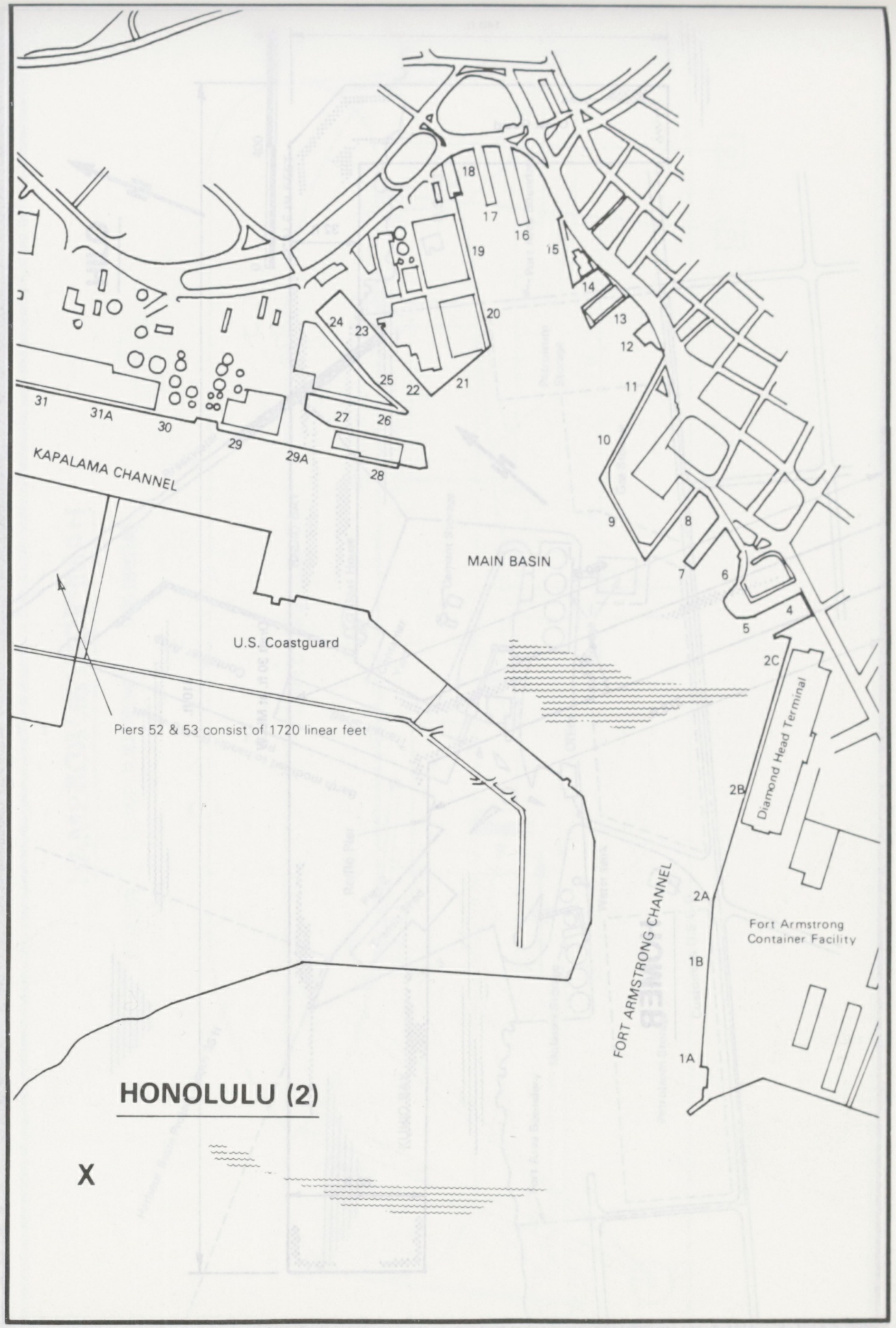

0
500
1000
SCALE IN FEET
Kawaihae Rd.
Cement Storage
Petroleum Storage
To Mahukona
Shipping Corrals
Port Area Boundary
Boat Basin
Livestock Loading Chute
Transit Sheds
Molasses Storage
Sugar Storage
Warehouse
Grain Storage
Transit Shed
Office
Petroleum Storage
Fertilizer Storage
Cement Storage
Aggregate Stockpile
Port Area Boundary
Drainage Ditch
N
Barge Terminal
Overseas Terminal
Boat Basin
Coral Stockpile
CHANNEL
Project Depth 40 ft.
HARBOUR BASIN
Project Depth 35 ft.
Access Road to LST Berth & Breakwater
LST Berth
Breakwater
HILO
KAWAIHAE


410 ft.
Draft 30 ft. at MLLW
32 ft.
60 ft.
140 ft.
Coast Guard
N
460 ft.
20 ft.
378 ft.
HOMER



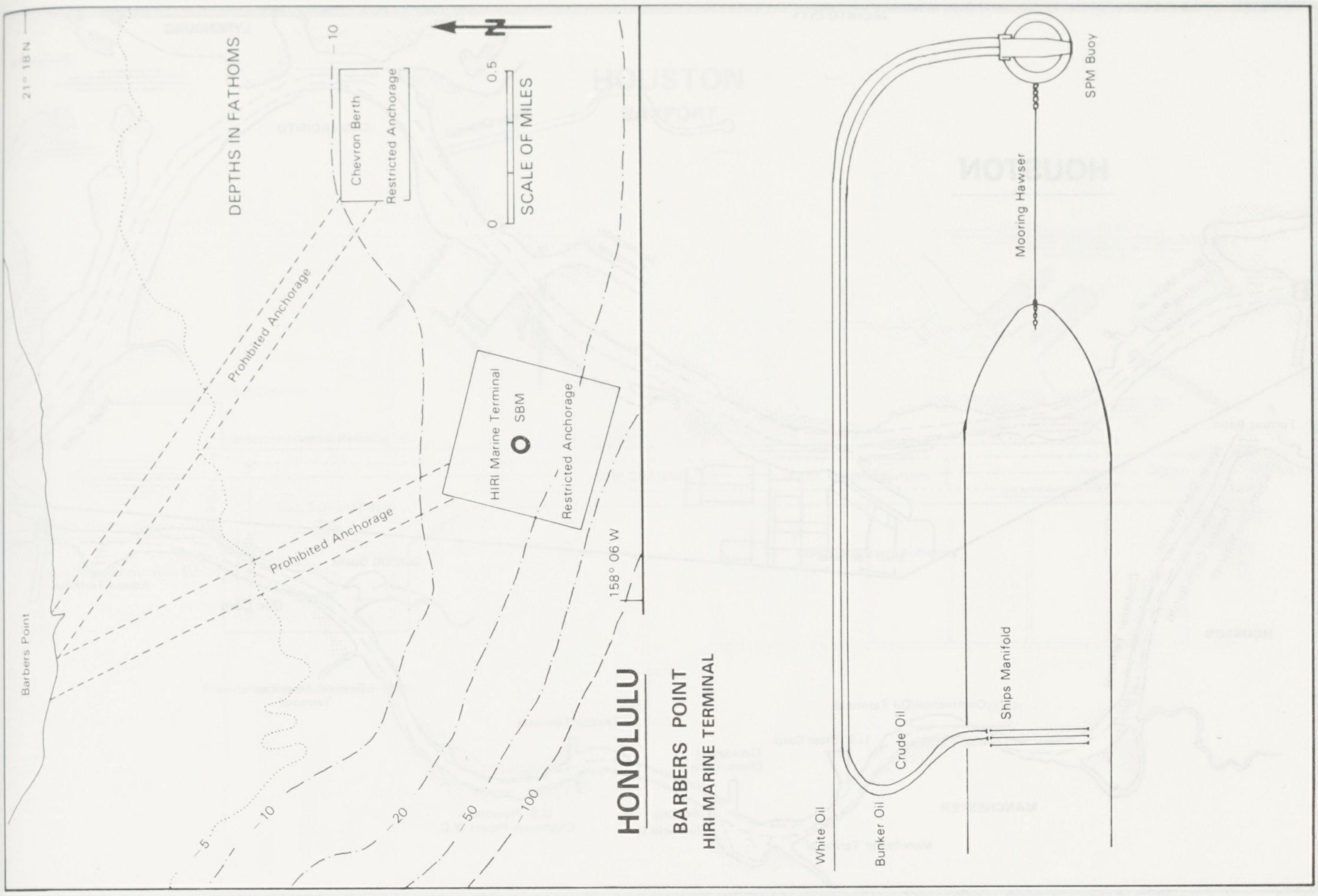
HONOLULU (1)

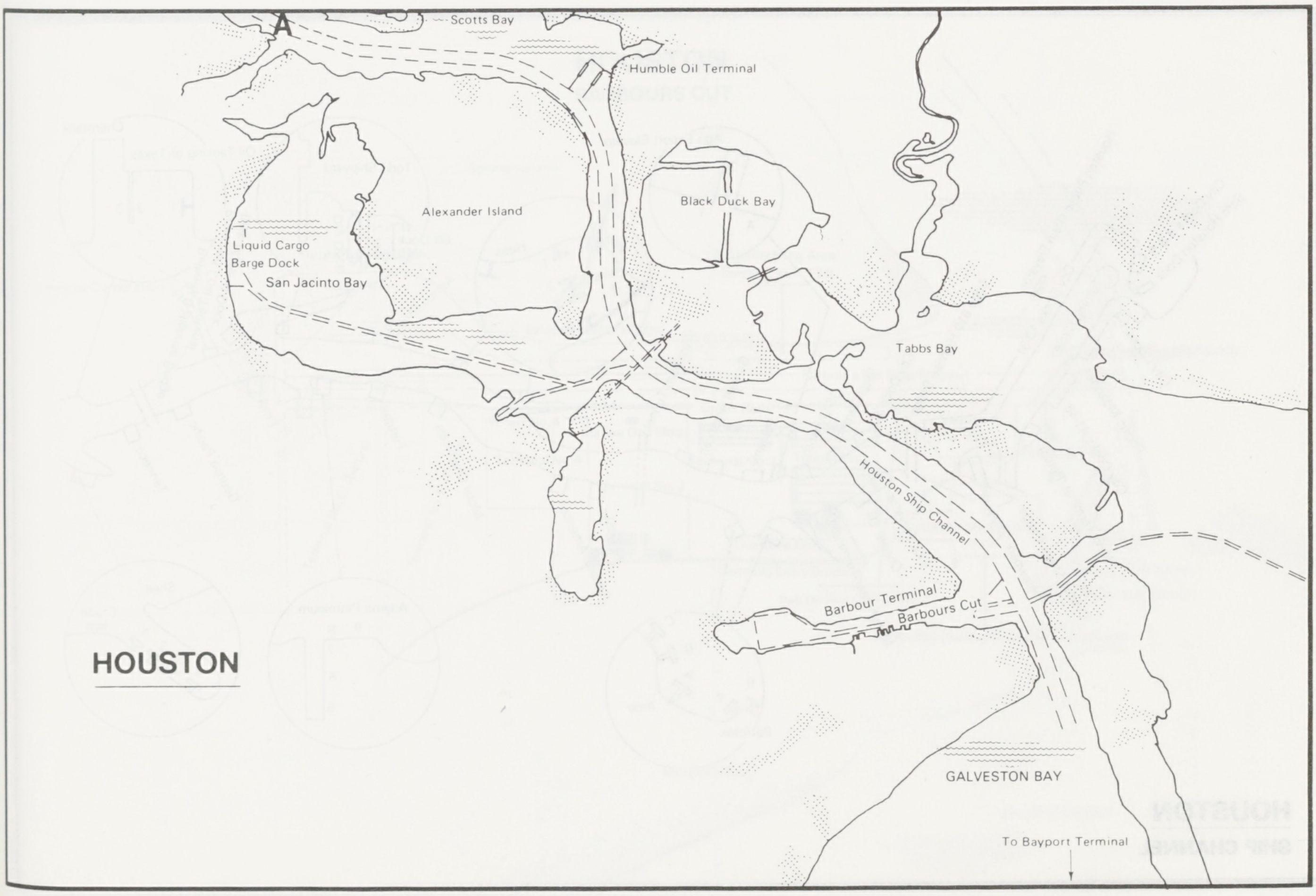
N
KAPALAMA BASIN
39
38
40E
40A
39E
39A
39D
41
40D
40B
40C
39B
37
36
35
34
33
32
42
45
Snug Harbour
Keehi Small Boat Harbour
Pier 52 extended 120 ft.
52
51B
51A
CHANNEL
Bascule Bridge
Container Terminal
(approx) 26.6 acres
Container Yard approx. 125 acres
KALIHI
Paved
Sand Island
X
0
500
1000
1500
2000
FEET

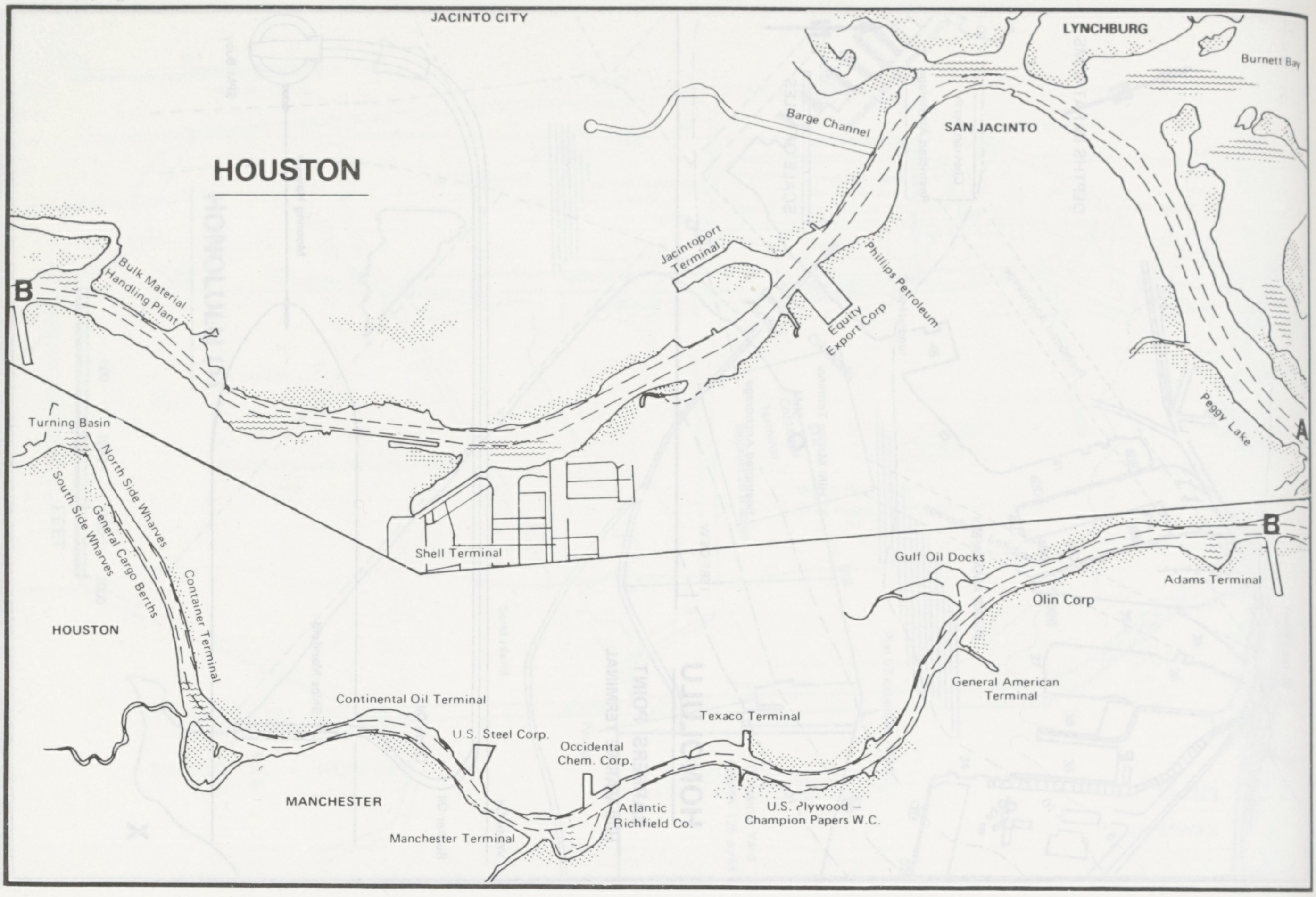


HONOLULU (2)

18
17
16
15
19
14
13
12
11
10
9
8
7
6
5
4
20
24
23
25
22
21
31
31A
30
29
29A
27
26
28
KAPALAMA CHANNEL
MAIN BASIN
U.S. Coastguard
Piers 52 & 53 consist of 1720 linear feet
2C
Diamond Head Terminal
2B
2A
1B
1A
FORT ARMSTRONG CHANNEL
Fort Armstrong Container Facility
X

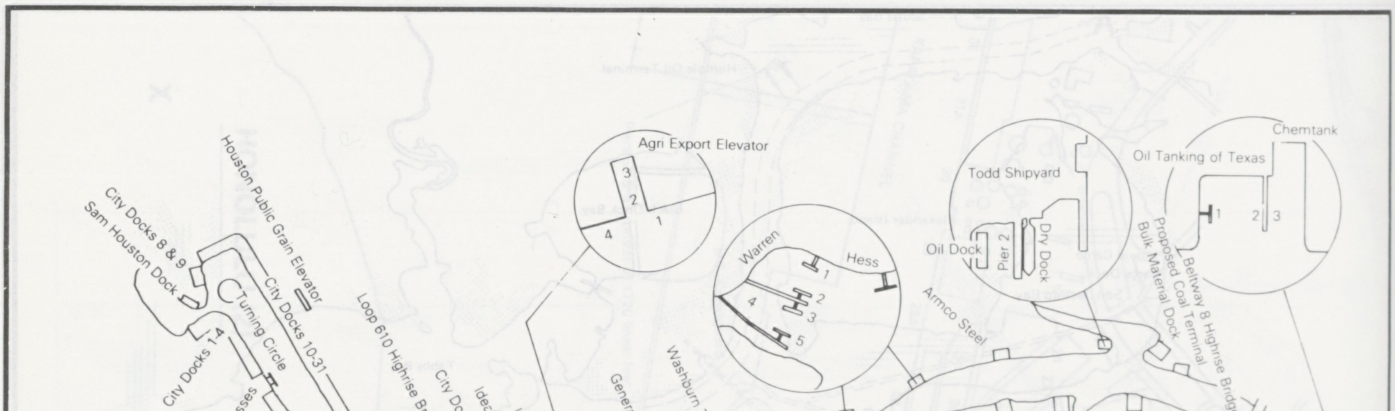

HONOLULU
BARBERS POINT
HIRI MARINE TERMINAL
DEPTHS IN FATHOMS
SCALE OF MILES
0
0.5
N
21° 18 N
158° 06 W
Barbers Point
Chevron Berth
Restricted Anchorage
Prohibited Anchorage
Prohibited Anchorage
HIRI Marine Terminal
SBM
Restricted Anchorage
5
10
10
20
50
100
SPM Buoy
Mooring Hawser
Ships Manifold
White Oil
Bunker Oil
Crude Oil


HOUSTON
A
Scotts Bay
Humble Oil Terminal
Alexander Island
Black Duck Bay
Liquid Cargo
Barge Dock
San Jacinto Bay
Tabbs Bay
Houston Ship Channel
Barbour Terminal
Barbours Cut
GALVESTON BAY
To Bayport Terminal



HOUSTON

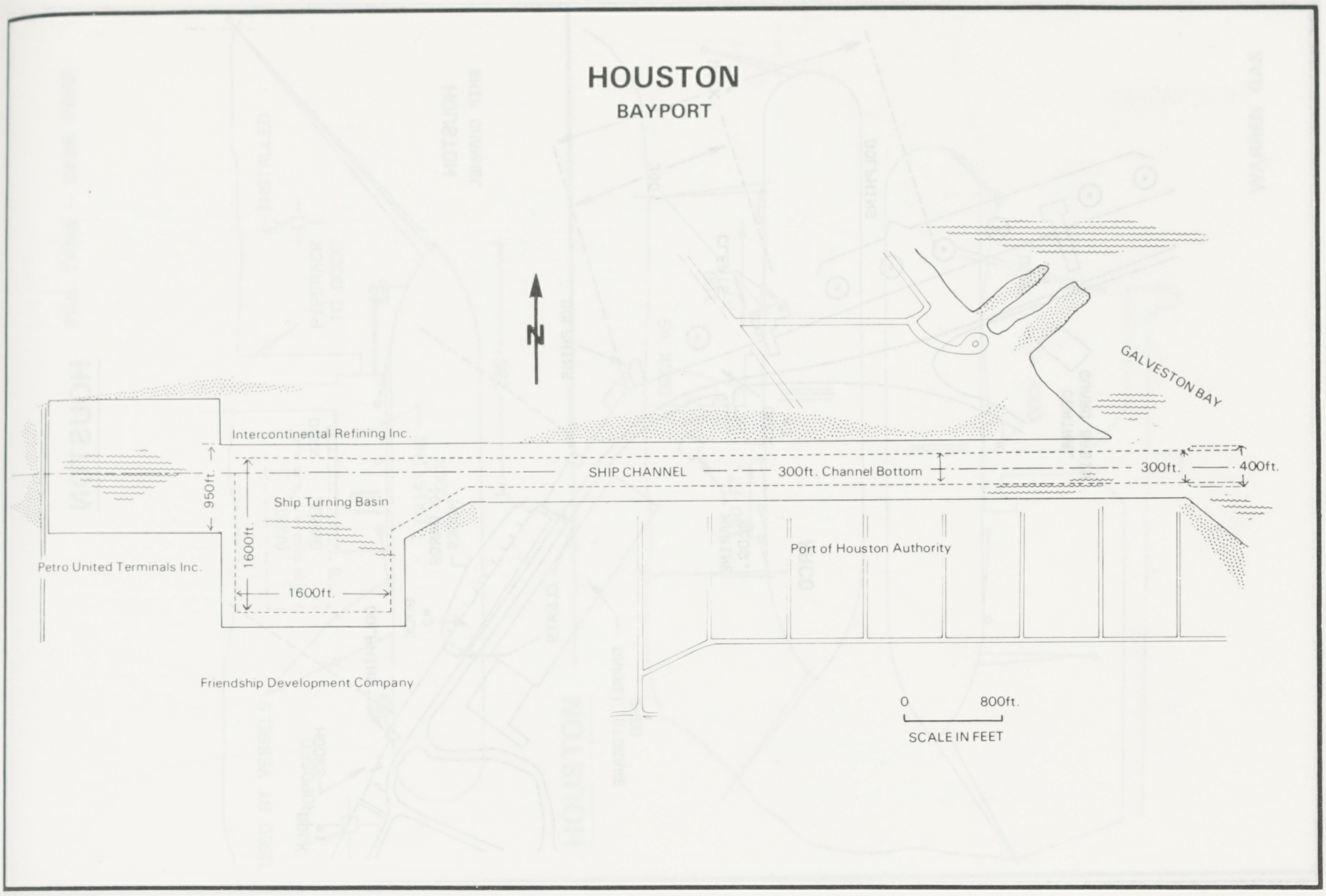
JACINTO CITY
LYNCHBURG
Burnett Bay
Barge Channel
SAN JACINTO
Jacintoport Terminal
Phillips Petroleum
Equity Export Corp
Bulk Material Handling Plant
B
Peggy Lake
A
Turning Basin
North Side Wharves
General Cargo Berths
South Side Wharves
HOUSTON
Container Terminal
Shell Terminal
B
Gulf Oil Docks
Adams Terminal
Olin Corp
General American Terminal
Continental Oil Terminal
U.S. Steel Corp.
Texaco Terminal
Occidental Chem. Corp.
Atlantic Richfield Co.
U.S. Plywood – Champion Papers W.C.
MANCHESTER
Manchester Terminal

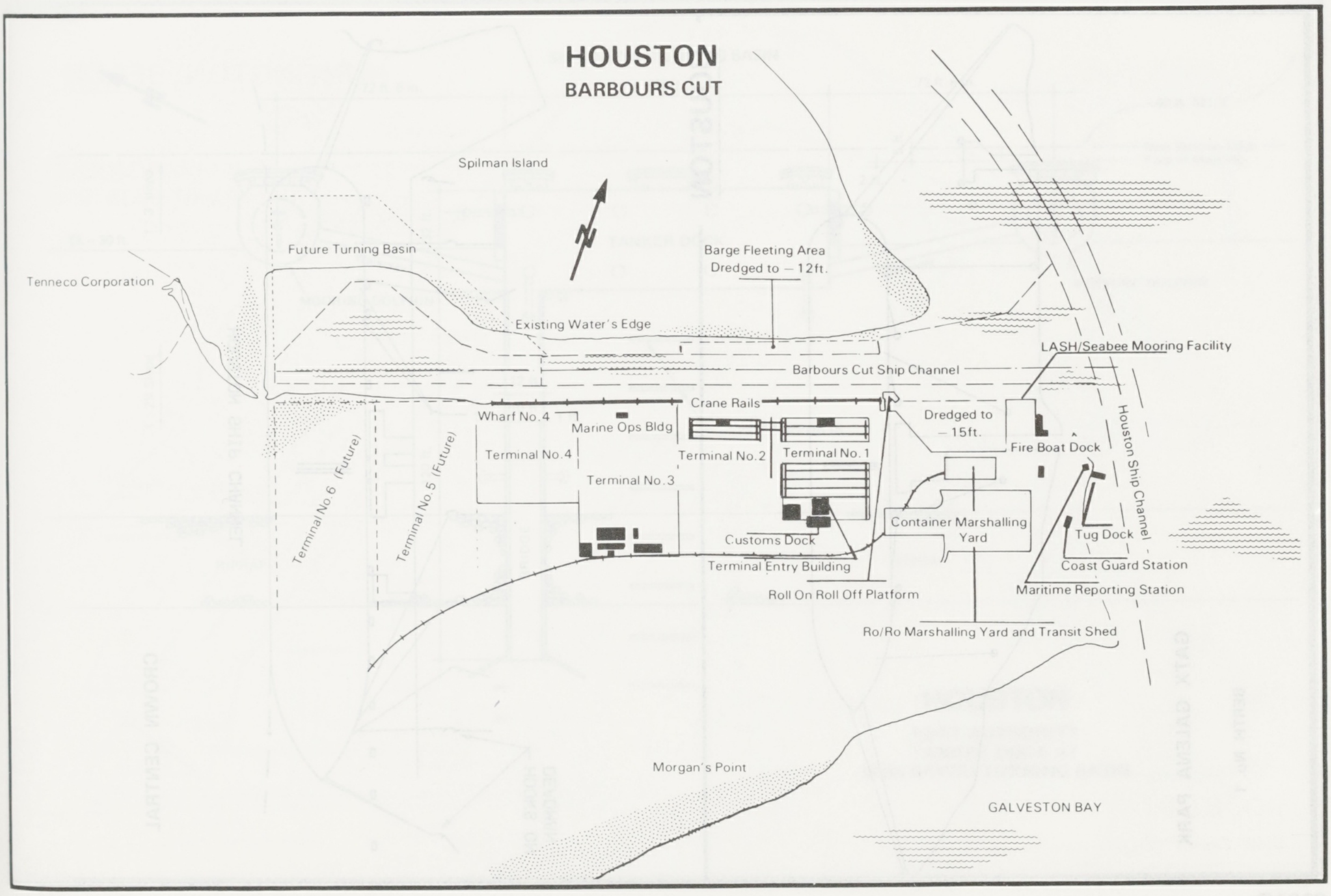


HOUSTON

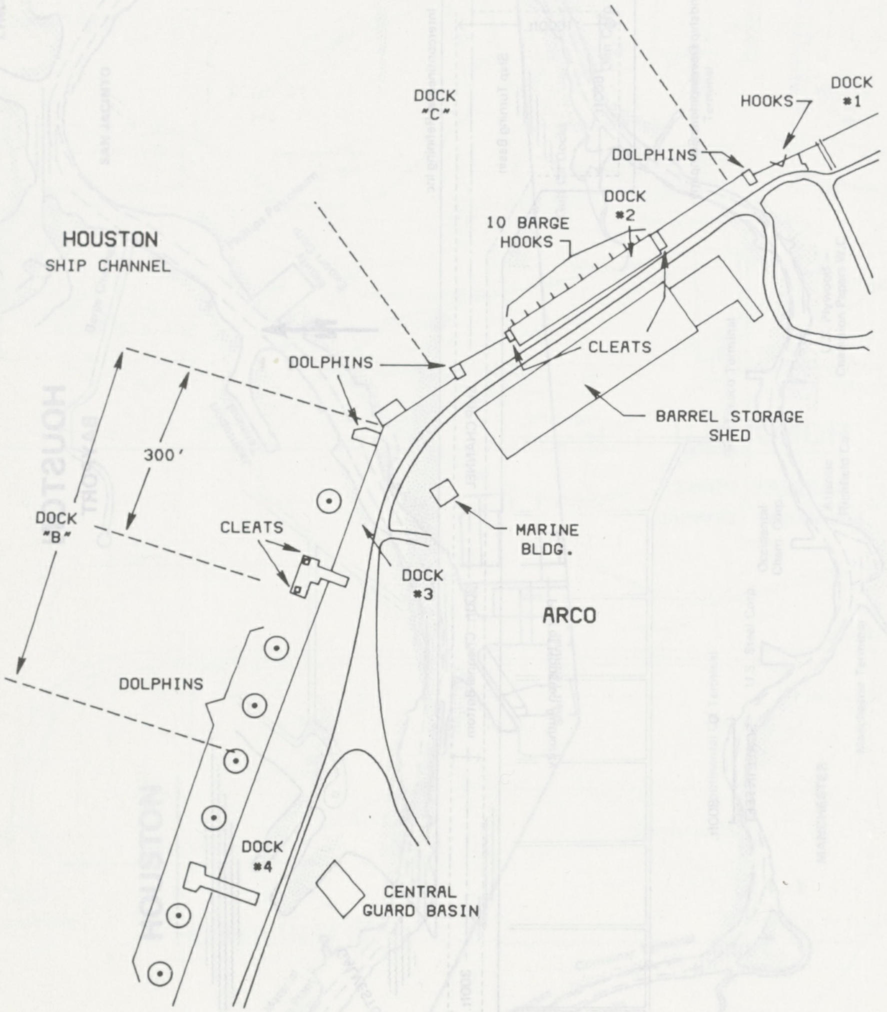
SHIP CHANNEL

City Docks 8 & 9
Sam Houston Dock
Houston Public Grain Elevator
City Docks 10-31
Turning Circle
City Docks 1-4
Pacific Molasses
City Docks 41-48
New Terminal (Petco)
Cyprus Street Bridge
Newpark Shipyard
Loop 610 Highrise Bridge
City Dock 32
Idecl Cement
US Gypsum
Elco Elevator
Charter Oil
Manchester Terminal
Paktank
General American
Washburn Tunnel
Crown
General American
Agri Export Elevator
3
2
1
4
Warren
Hess
1
2
3
4
5
Armco Steel
Mobil Chemicals
Femtex
Todd Shipyard
Oil Dock
Pier 2
Dry Dock
Ethyl
Chemtank
Oil Tanking of Texas
1
2
3
Beltway 8 Highrise Bridge
Proposed Coal Terminal
Bulk Material Dock
Georgia Pacific
Tenneco
C
B
A
B
A
Arco
Petrotex
Adams Petroleum
9
8
7
6
5
Shell
Crude
4
3
2
1

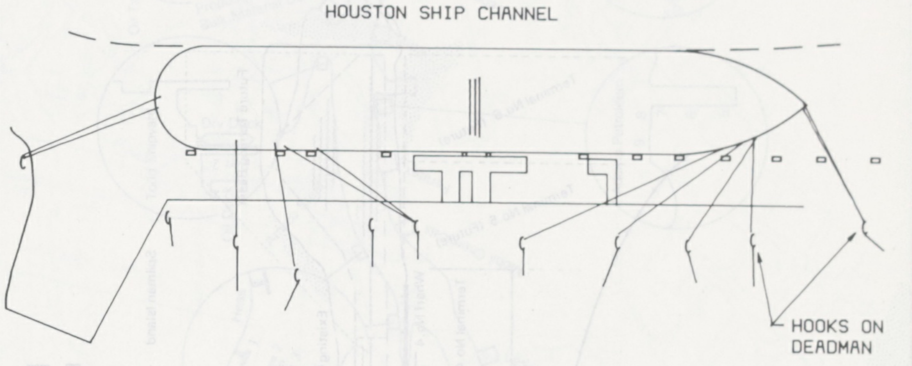

HOUSTON
BAYPORT
N
GALVESTON BAY
Intercontinental Refining Inc.
SHIP CHANNEL
300ft. Channel Bottom
300ft.
400ft.
950ft.
Ship Turning Basin
1600ft.
1600ft.
Petro United Terminals Inc.
Port of Houston Authority
Friendship Development Company
0
800ft.
SCALE IN FEET


HOUSTON
BARBOURS CUT
Spilman Island
Future Turning Basin
Tenneco Corporation
Barge Fleeting Area
Dredged to − 12ft.
Existing Water's Edge
LASH/Seabee Mooring Facility
Barbours Cut Ship Channel
Crane Rails
Wharf No. 4
Marine Ops Bldg
Dredged to
− 15ft.
Terminal No. 4
Terminal No. 2
Terminal No. 1
Fire Boat Dock
Terminal No. 6 (Future)
Terminal No. 5 (Future)
Terminal No. 3
Houston Ship Channel
Container Marshalling
Yard
Customs Dock
Tug Dock
Terminal Entry Building
Coast Guard Station
Roll On Roll Off Platform
Maritime Reporting Station
Ro/Ro Marshalling Yard and Transit Shed
Morgan's Point
GALVESTON BAY

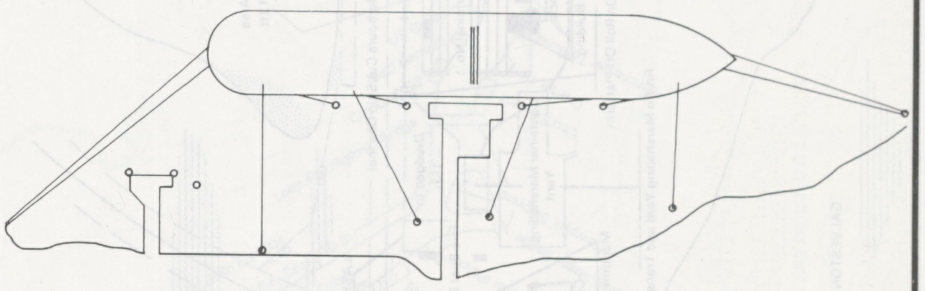
HOUSTON


DOCK "C"
HOOKS
DOCK #1
DOLPHINS
DOCK #2
10 BARGE HOOKS
HOUSTON SHIP CHANNEL
CLEATS
DOLPHINS
BARREL STORAGE SHED
300'
DOCK "B"
CLEATS
MARINE BLDG.
DOCK #3
ARCO
DOLPHINS
DOCK #4
CENTRAL GUARD BASIN

CROWN CENTRAL

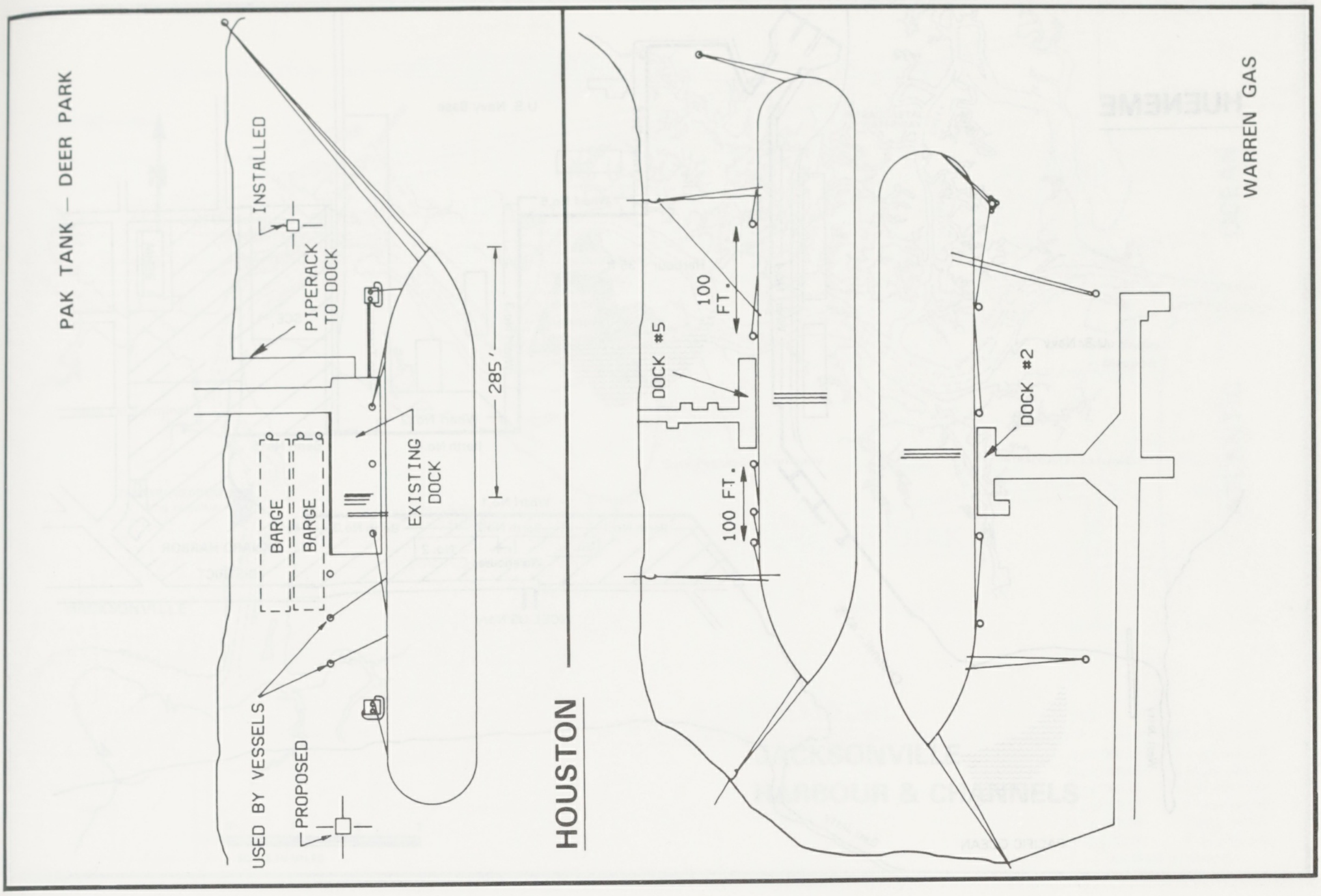

HOUSTON SHIP CHANNEL
HOOKS ON DEADMAN

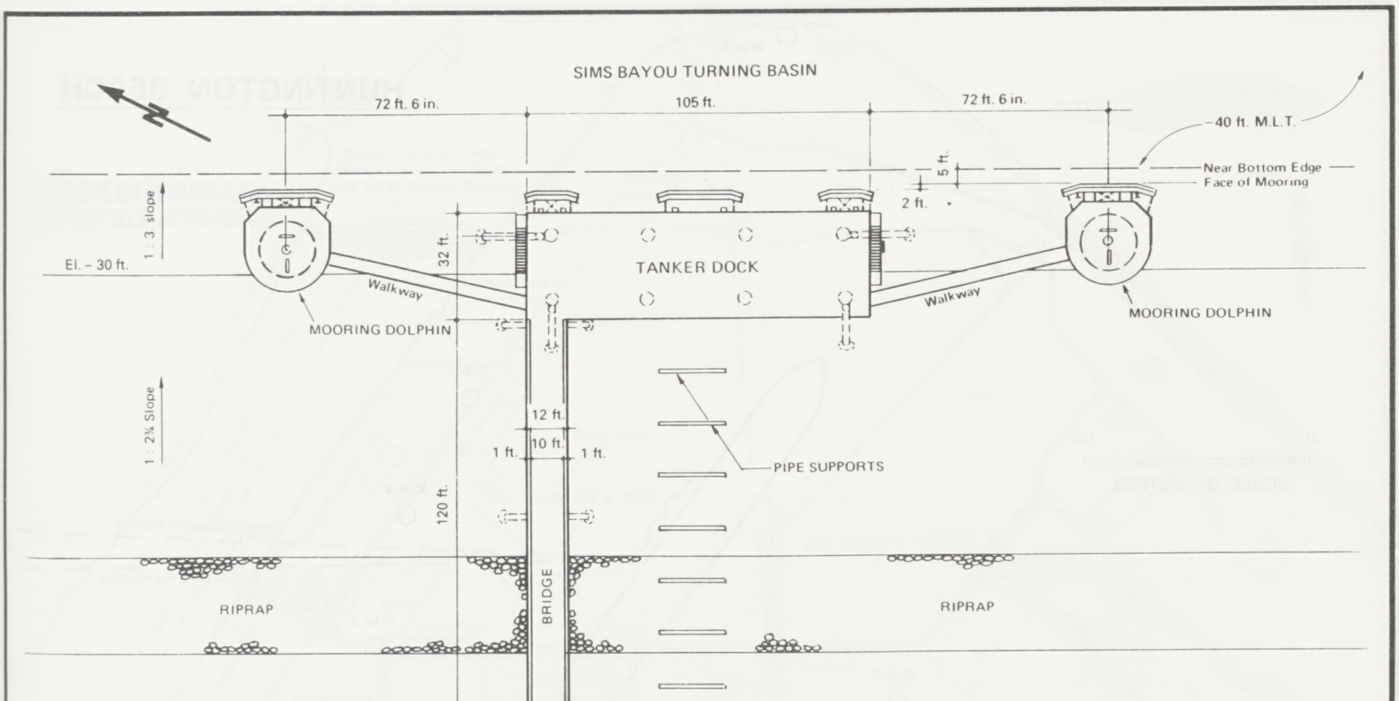
HOUSTON



GATX GALENA PARK

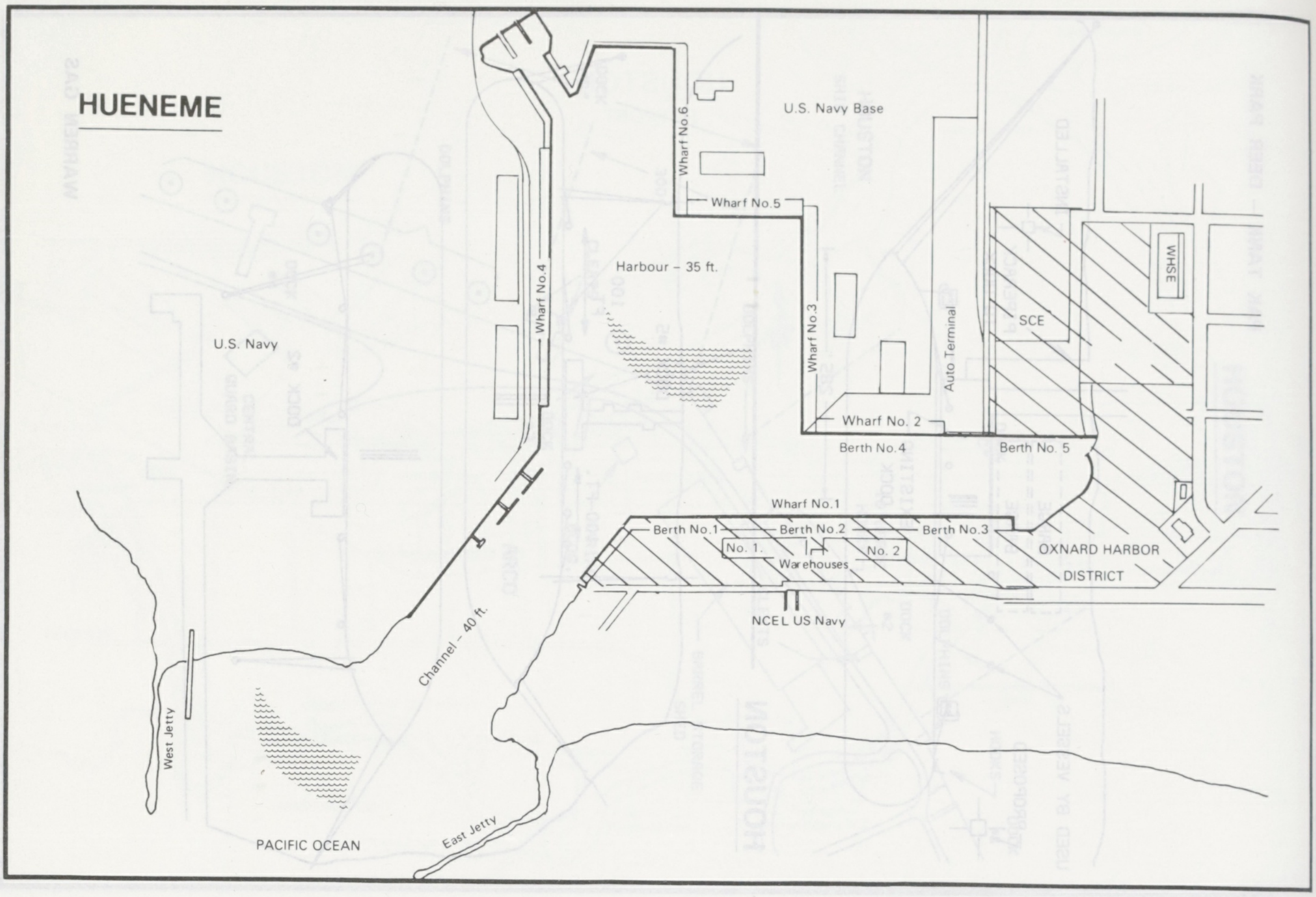
BERTH No. 1

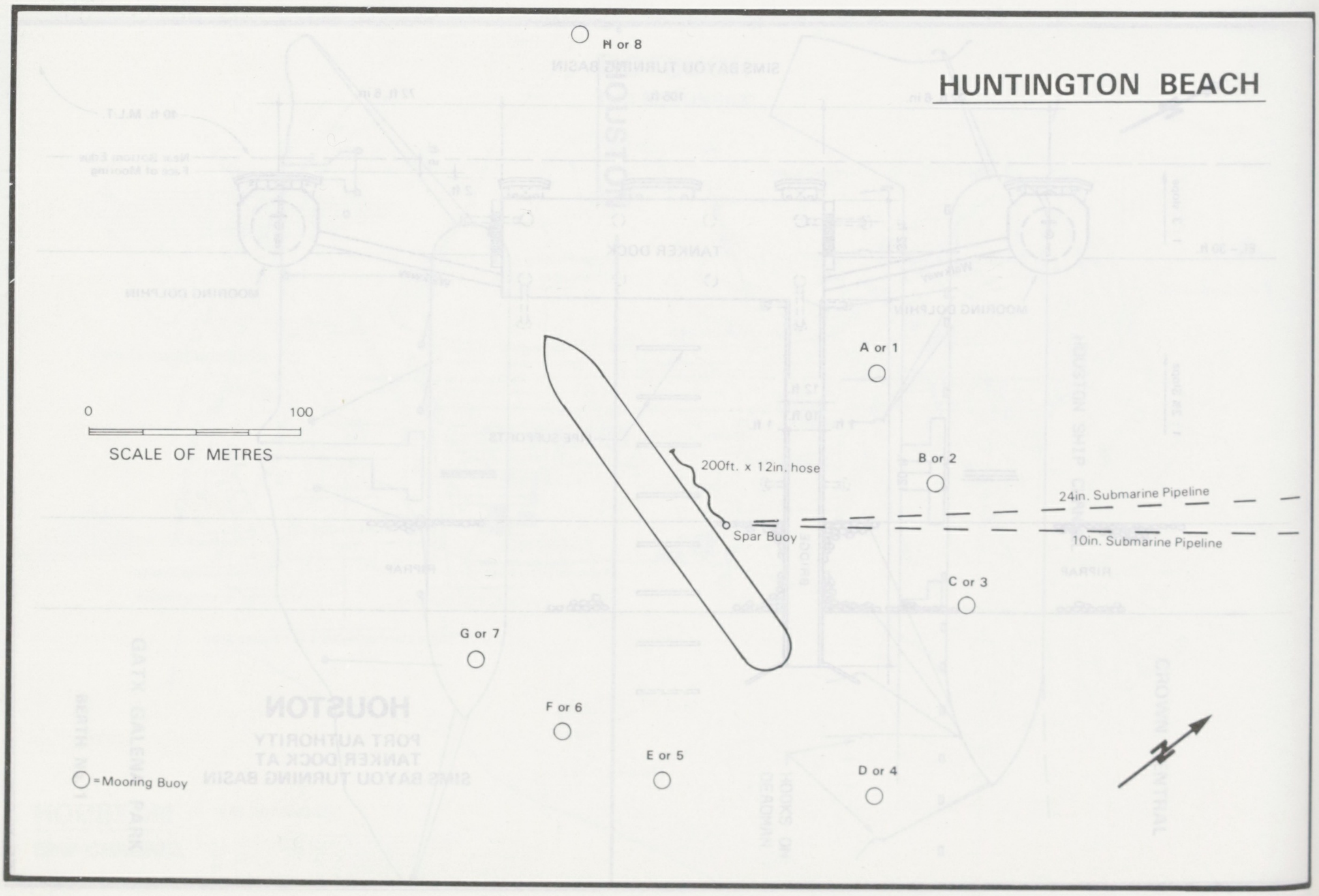

PAK TANK – DEER PARK
INSTALLED
PIPERACK TO DOCK
285'
EXISTING DOCK
BARGE
BARGE
USED BY VESSELS
PROPOSED
HOUSTON
DOCK #5
100 FT.
100 FT.
DOCK #2
WARREN GAS

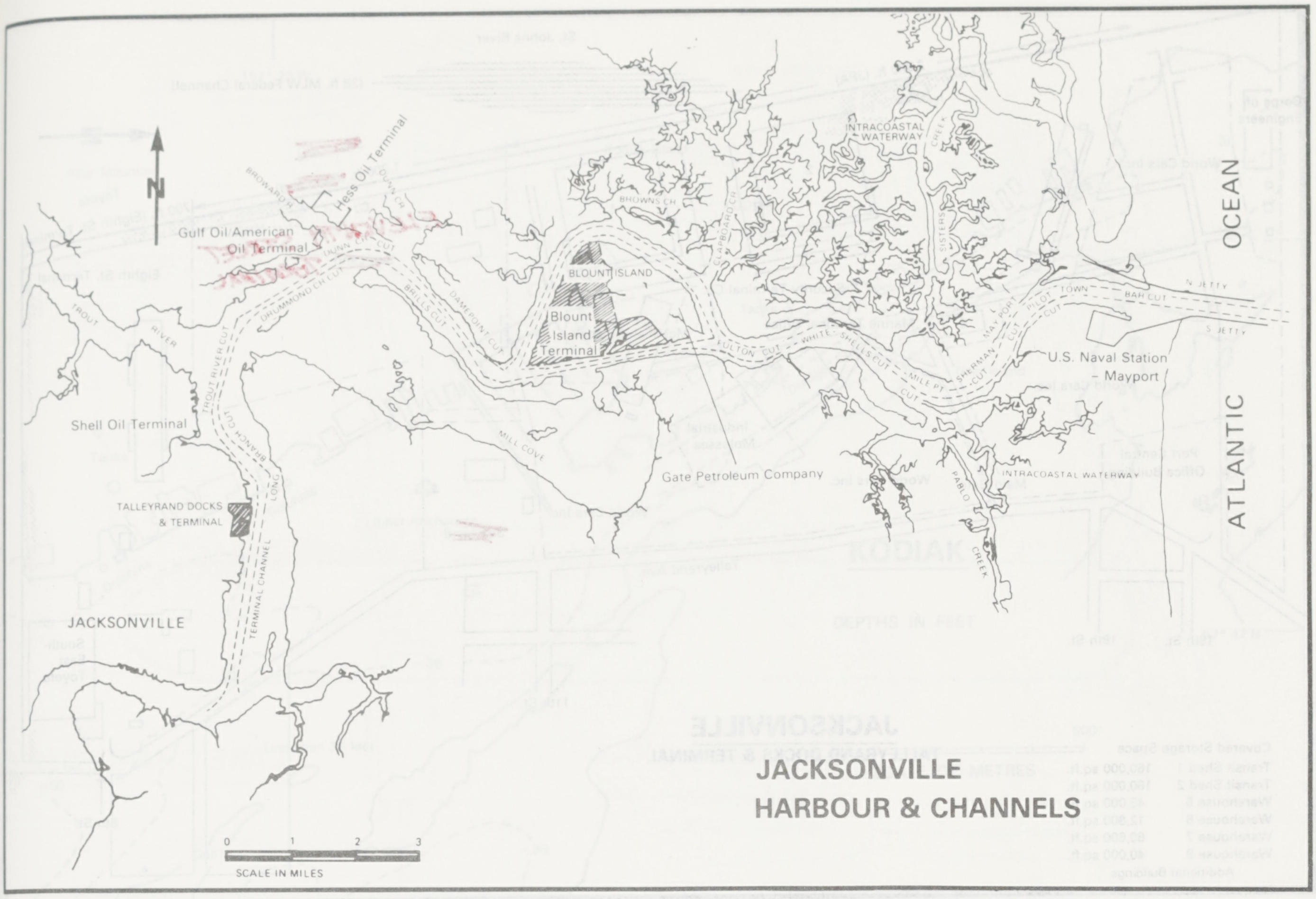

SIMS BAYOU TURNING BASIN
72 ft. 6 in.
105 ft.
72 ft. 6 in.
–40 ft. M.L.T.
5 ft.
Near Bottom Edge
Face of Mooring
2 ft.
1 : 3 slope
El. – 30 ft.
32 ft.
TANKER DOCK
Walkway
Walkway
MOORING DOLPHIN
MOORING DOLPHIN
1 : 2½ Slope
12 ft.
10 ft.
1 ft.
1 ft.
PIPE SUPPORTS
120 ft.
RIPRAP
BRIDGE
RIPRAP

HOUSTON

PORT AUTHORITY
TANKER DOCK AT
SIMS BAYOU TURNING BASIN

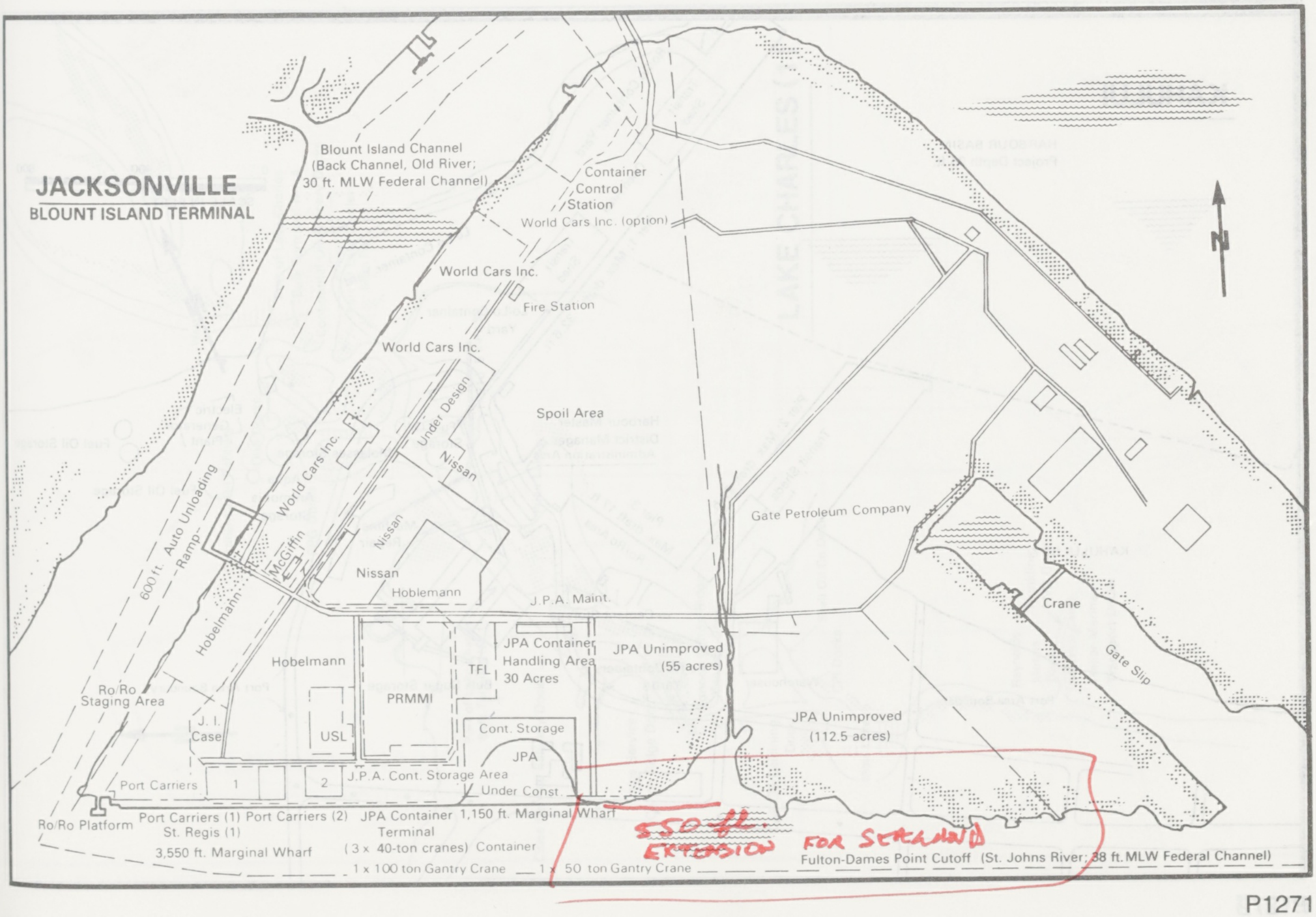

HUENEME
U.S. Navy Base
Wharf No.6
Wharf No.5
Wharf No.4
Harbour - 35 ft.
Wharf No.3
Auto Terminal
SCE
WHSE
U.S. Navy
Wharf No. 2
Berth No.4
Berth No. 5
Wharf No.1
Berth No.1
Berth No.2
Berth No.3
No. 1.
No. 2
Warehouses
OXNARD HARBOR
DISTRICT
NCEL US Navy
Channel - 40 ft.
West Jetty
East Jetty
PACIFIC OCEAN


H or 8
HUNTINGTON BEACH
A or 1
0
100
SCALE OF METRES
B or 2
200ft. x 12in. hose
24in. Submarine Pipeline
Spar Buoy
10in. Submarine Pipeline
C or 3
G or 7
F or 6
E or 5
D or 4
○ = Mooring Buoy



JACKSONVILLE
HARBOUR & CHANNELS

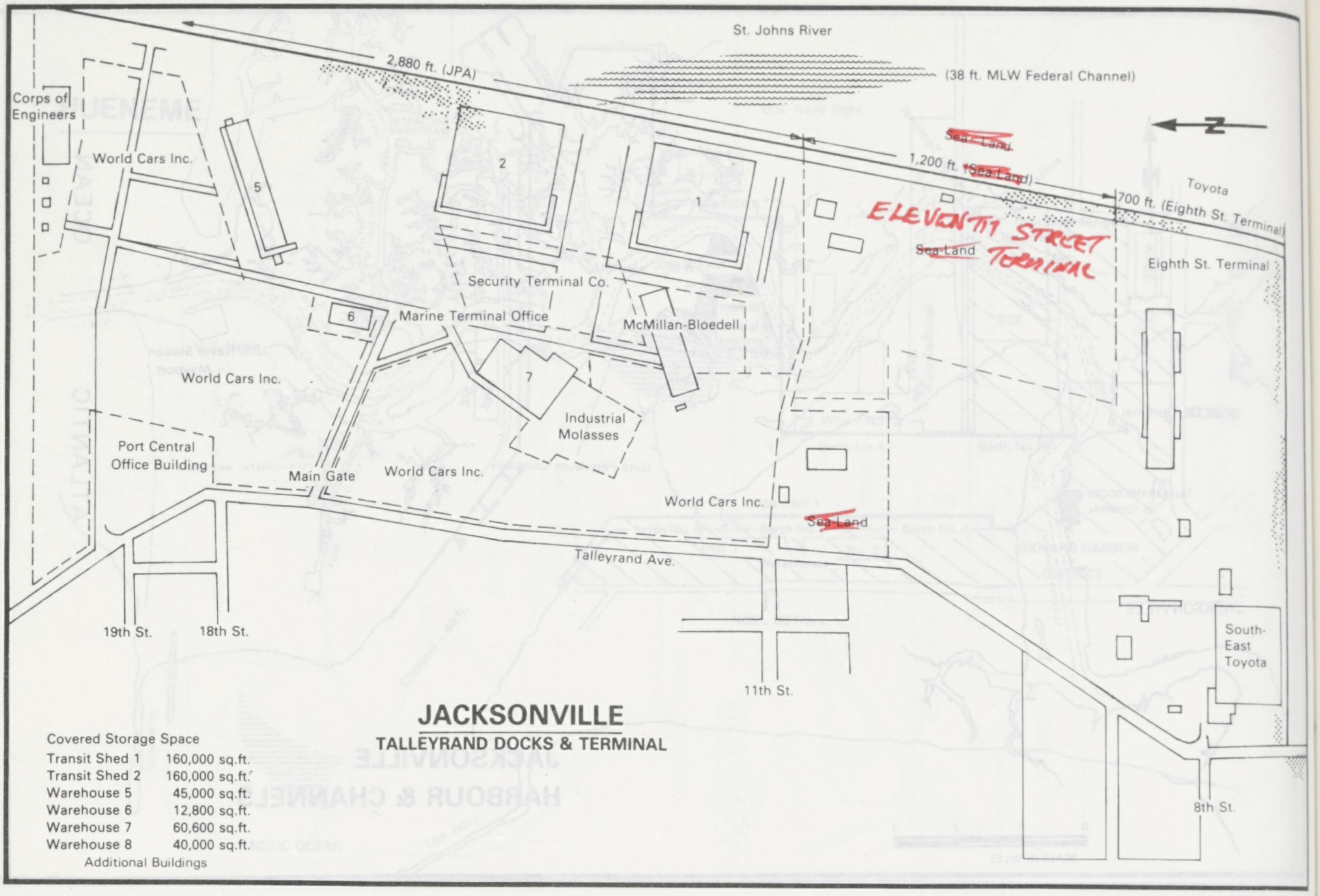
N
Hess Oil Terminal
Gulf Oil American Oil Terminal
BROWARD R.
TROUT RIVER
DRUMMOND CR. CUT
TROUT RIVER CUT
BRILLS CUT
DAME POINT CUT
BROWNS CH.
BLOUNT ISLAND
Blount Island Terminal
CLAPBOARD CR.
INTRACOASTAL WATERWAY
CREEK
SISTERS
FULTON CUT
WHITE SHELL CUT
MILE PT.
SHERMAN CUT
STA. PORT
PILOT TOWN CUT
BAR CUT
N. JETTY
S. JETTY
U.S. Naval Station – Mayport
ATLANTIC
OCEAN
Shell Oil Terminal
BRANCH CUT
LONG
TALLEYRAND DOCKS & TERMINAL
TERMINAL CHANNEL
MILL COVE
Gate Petroleum Company
INTRACOASTAL WATERWAY
PABLO CREEK
JACKSONVILLE
0
1
2
3
SCALE IN MILES



JACKSONVILLE
BLOUNT ISLAND TERMINAL

Blount Island Channel (Back Channel, Old River; 30 ft. MLW Federal Channel)
Container Control Station
World Cars Inc. (option)
World Cars Inc.
Fire Station
World Cars Inc.
Under Design
Nissan
Spoil Area
600 ft. Auto Unloading Ramp
World Cars Inc.
McGiffin
Nissan
Nissan
Hoblemann
Hobelmann
Gate Petroleum Company
J.P.A. Maint.
Hobelmann
TFL
JPA Container Handling Area 30 Acres
JPA Unimproved (55 acres)
Crane
Gate Slip
Ro/Ro Staging Area
PRMMI
J. I. Case
USL
Cont. Storage
JPA
JPA Unimproved (112.5 acres)
Port Carriers
1
2
J.P.A. Cont. Storage Area
Under Const.
Ro/Ro Platform
Port Carriers (1) Port Carriers (2)
St. Regis (1)
JPA Container Terminal
(3 x 40-ton cranes)
1,150 ft. Marginal Wharf
Container
3,550 ft. Marginal Wharf
1 x 100 ton Gantry Crane
1 x 50 ton Gantry Crane
Fulton-Dames Point Cutoff (St. Johns River; 38 ft. MLW Federal Channel)
N

550 ft. EXTENSION FOR SEALAND


St. Johns River
2,880 ft. (JPA)
(38 ft. MLW Federal Channel)
~~Sea-Land~~
1,200 ft. (~~Sea-Land~~)
Toyota
700 ft. (Eighth St. Terminal)
ELEVENTH STREET TERMINAL
~~Sea-Land~~
Eighth St. Terminal
Corps of Engineers
World Cars Inc.
5
2
1
Security Terminal Co.
6
Marine Terminal Office
McMillan-Bloedell
World Cars Inc.
7
Industrial Molasses
Port Central Office Building
Main Gate
World Cars Inc.
World Cars Inc.
~~Sea-Land~~
Talleyrand Ave.
19th St.
18th St.
11th St.
South-East Toyota
8th St.

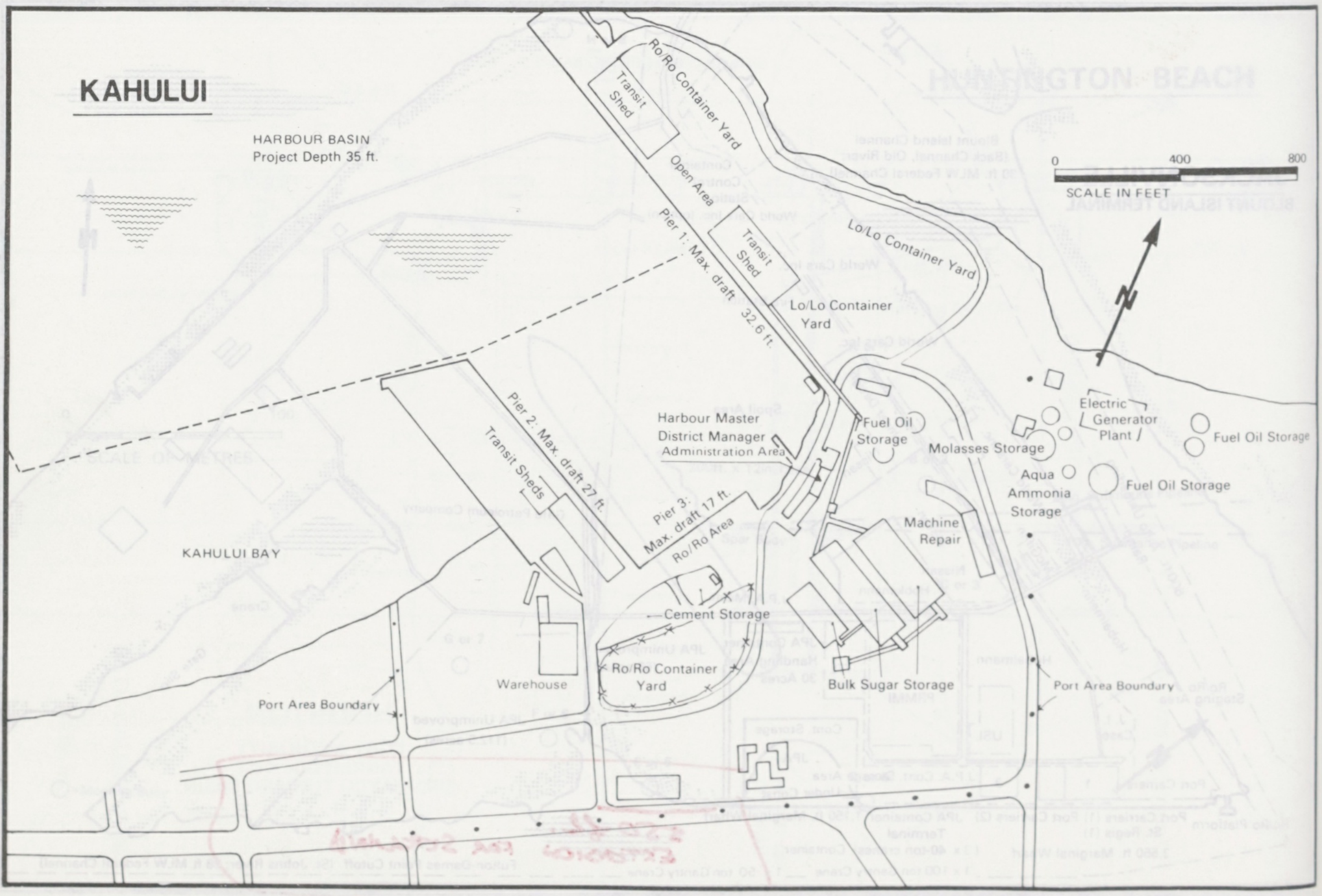
JACKSONVILLE
TALLEYRAND DOCKS & TERMINAL

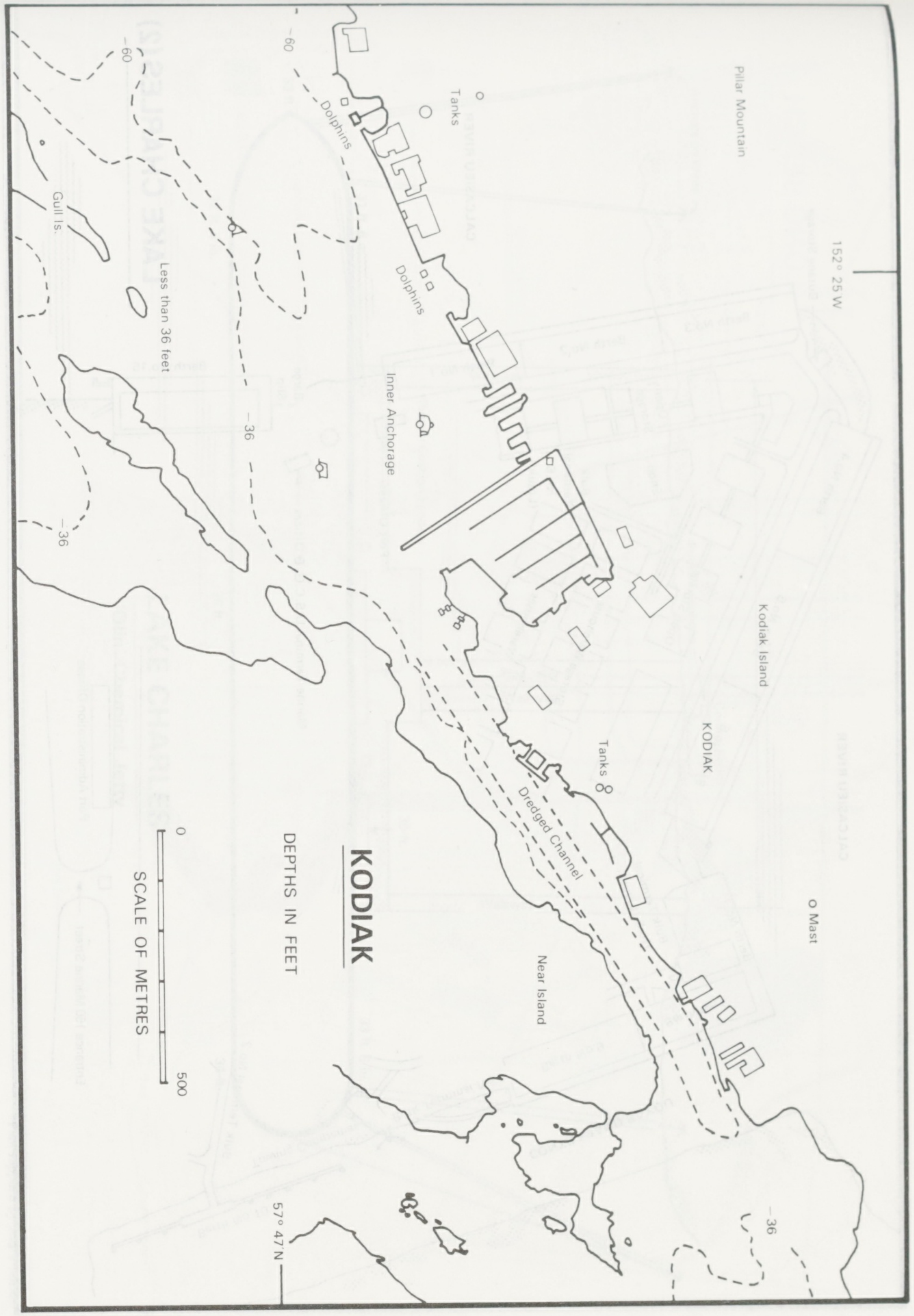
Covered Storage Space

Transit Shed 1	160,000 sq.ft.
Transit Shed 2	160,000 sq.ft.
Warehouse 5	45,000 sq.ft.
Warehouse 6	12,800 sq.ft.
Warehouse 7	60,600 sq.ft.
Warehouse 8	40,000 sq.ft.

Additional Buildings

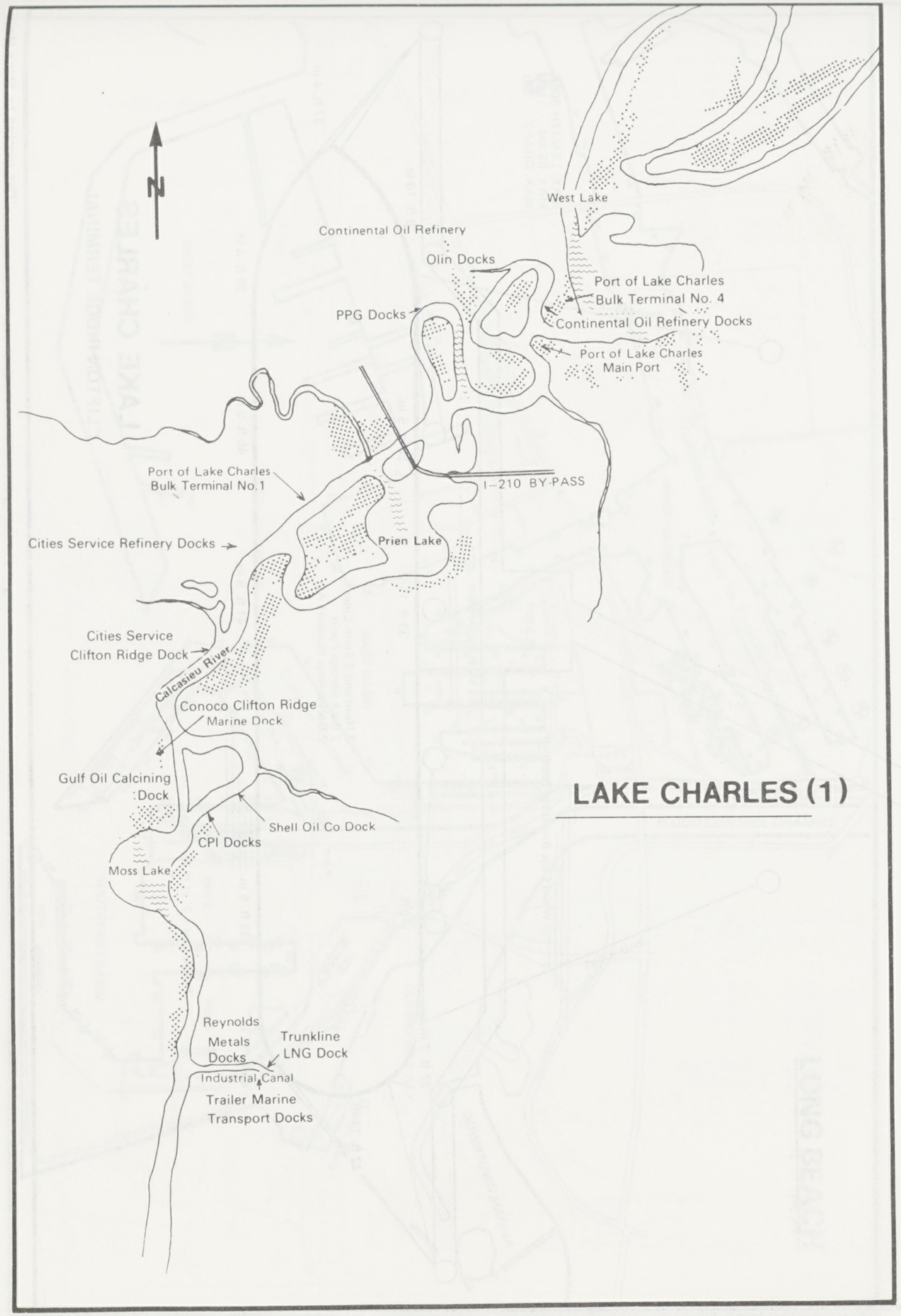
KAHULUI


HARBOUR BASIN
Project Depth 35 ft.
Ro/Ro Container Yard
Transit Shed
Open Area
Pier 1: Max. draft 32.6 ft.
Transit Shed
Lo/Lo Container Yard
Lo/Lo Container Yard
0
400
800
SCALE IN FEET
N
Electric Generator Plant
Fuel Oil Storage
Fuel Oil Storage
Molasses Storage
Aqua Ammonia Storage
Fuel Oil Storage
Fuel Oil Storage
Harbour Master
District Manager
Administration Area
Pier 2: Max. draft 27 ft.
Transit Sheds
Pier 3: Max. draft 17 ft.
Ro/Ro Area
Machine Repair
KAHULUI BAY
Cement Storage
Ro/Ro Container Yard
Warehouse
Bulk Sugar Storage
Port Area Boundary
Port Area Boundary



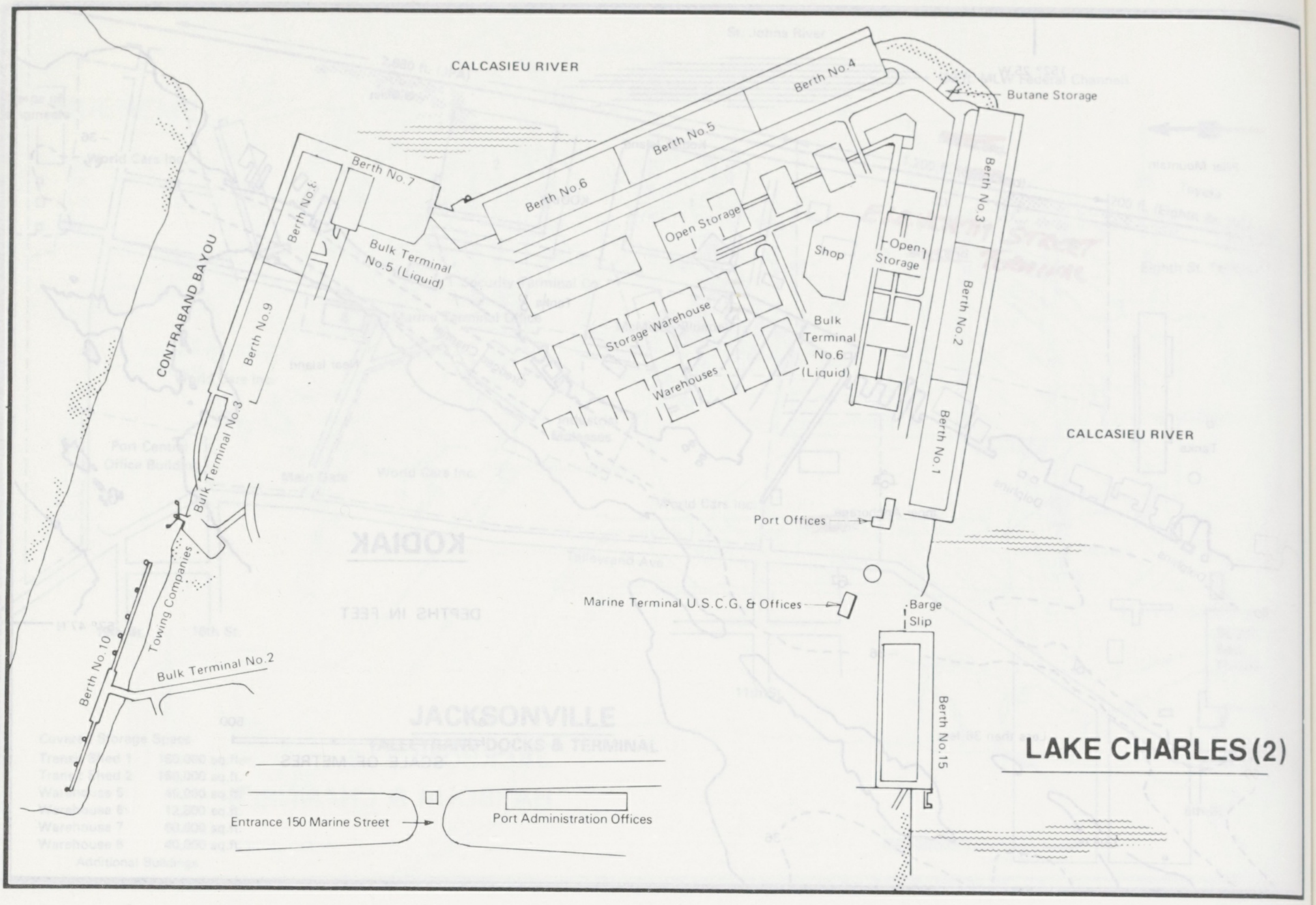
KODIAK

DEPTHS IN FEET
SCALE OF METRES
0
500
Pillar Mountain
Tanks
152° 25 W
Dolphins
Dolphins
Inner Anchorage
Gull Is.
Less than 36 feet
60
60
36
36
36
Kodiak Island
KODIAK
Tanks
Dredged Channel
Near Island
Mast
57° 47 N

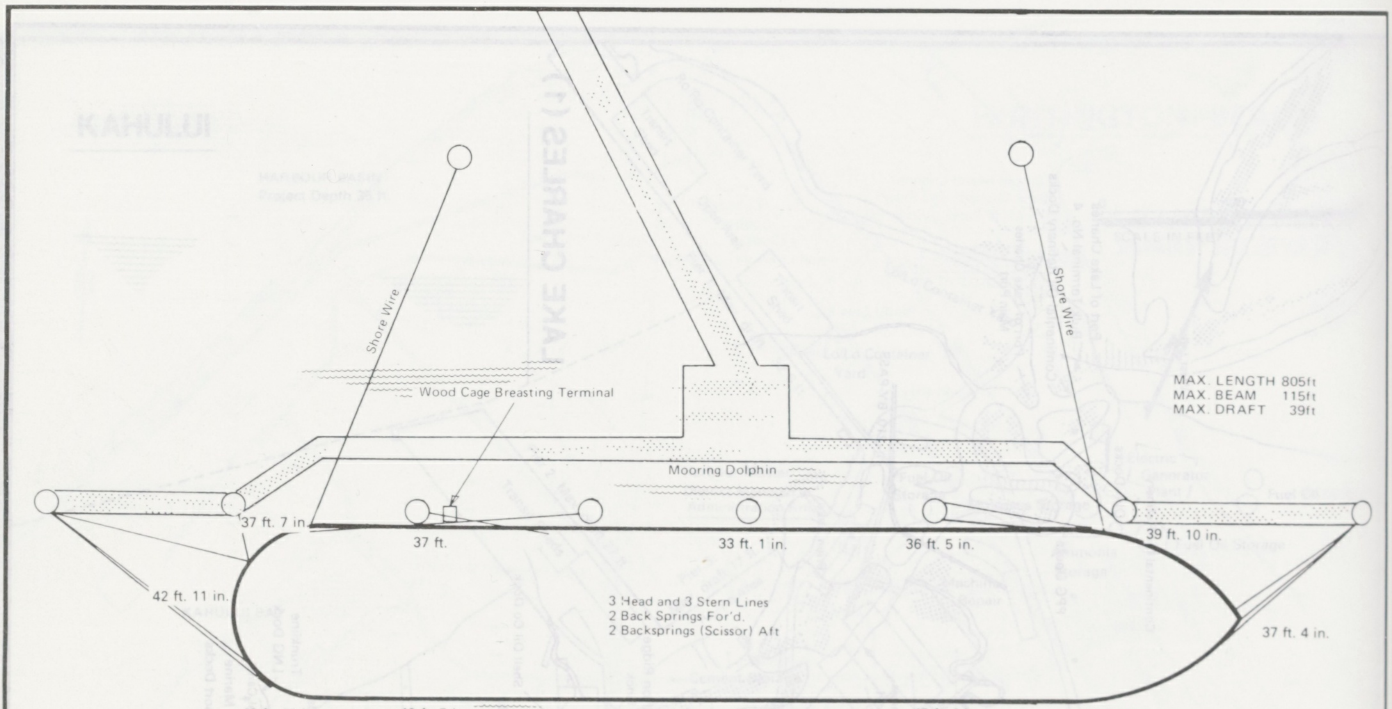


LAKE CHARLES (1)

N
West Lake
Continental Oil Refinery
Olin Docks
Port of Lake Charles
Bulk Terminal No. 4
PPG Docks
Continental Oil Refinery Docks
Port of Lake Charles
Main Port
Port of Lake Charles
Bulk Terminal No.1
I-210 BY-PASS
Cities Service Refinery Docks
Prien Lake
Cities Service
Clifton Ridge Dock
Calcasieu River
Conoco Clifton Ridge
Marine Dock
Gulf Oil Calcining
Dock
Shell Oil Co Dock
CPI Docks
Moss Lake
Reynolds
Metals
Docks
Trunkline
LNG Dock
Industrial Canal
Trailer Marine
Transport Docks


CALCASIEU RIVER
Berth No.4
Butane Storage
Berth No.5
Berth No.3
Berth No.7
Berth No.6
Berth No.8
Open Storage
Shop
Open Storage
Bulk Terminal No.5 (Liquid)
Berth No.2
Berth No.9
Storage Warehouse
Bulk Terminal No.6 (Liquid)
CONTRABAND BAYOU
Warehouses
Bulk Terminal No.3
Berth No.1
CALCASIEU RIVER
Port Offices
Towing Companies
Marine Terminal U.S.C.G. & Offices
Barge Slip
Berth No.10
Bulk Terminal No.2
Berth No.15
Entrance 150 Marine Street
Port Administration Offices

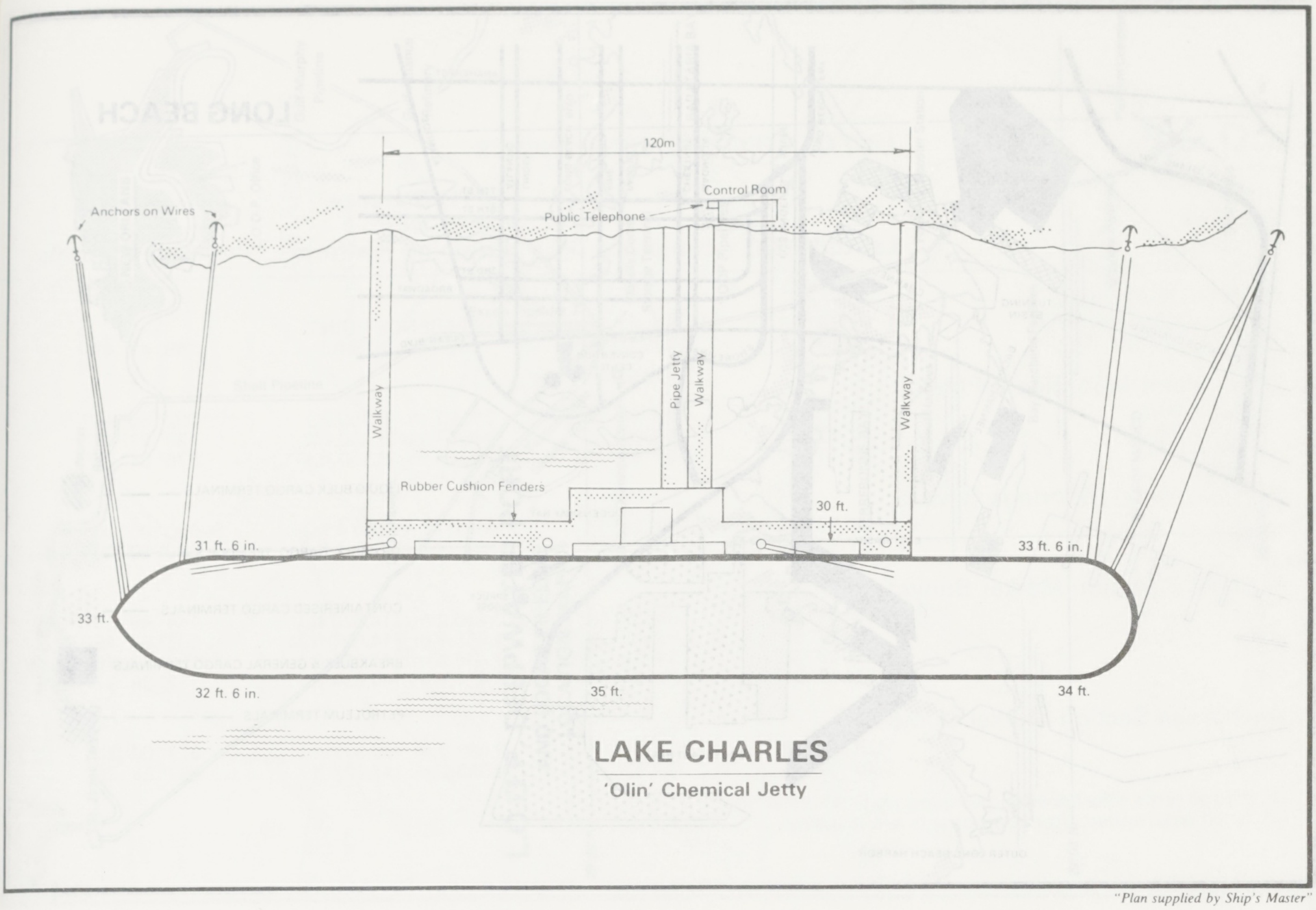
LAKE CHARLES (2)


Shore Wire
Shore Wire
Wood Cage Breasting Terminal
MAX. LENGTH 805ft
MAX. BEAM 115ft
MAX. DRAFT 39ft
Mooring Dolphin
37 ft. 7 in.
37 ft.
33 ft. 1 in.
36 ft. 5 in.
39 ft. 10 in.
42 ft. 11 in.
3 Head and 3 Stern Lines
2 Back Springs For'd.
2 Backsprings (Scissor) Aft
37 ft. 4 in.
42 ft. 11 in.
43 ft. 5 in.
41 ft. 8 in.
45 ft. 6 in.
39 ft. 4 in.
Tide Guage + 2' at H.W.

LAKE CHARLES

CLIFTON RIDGE TERMINAL

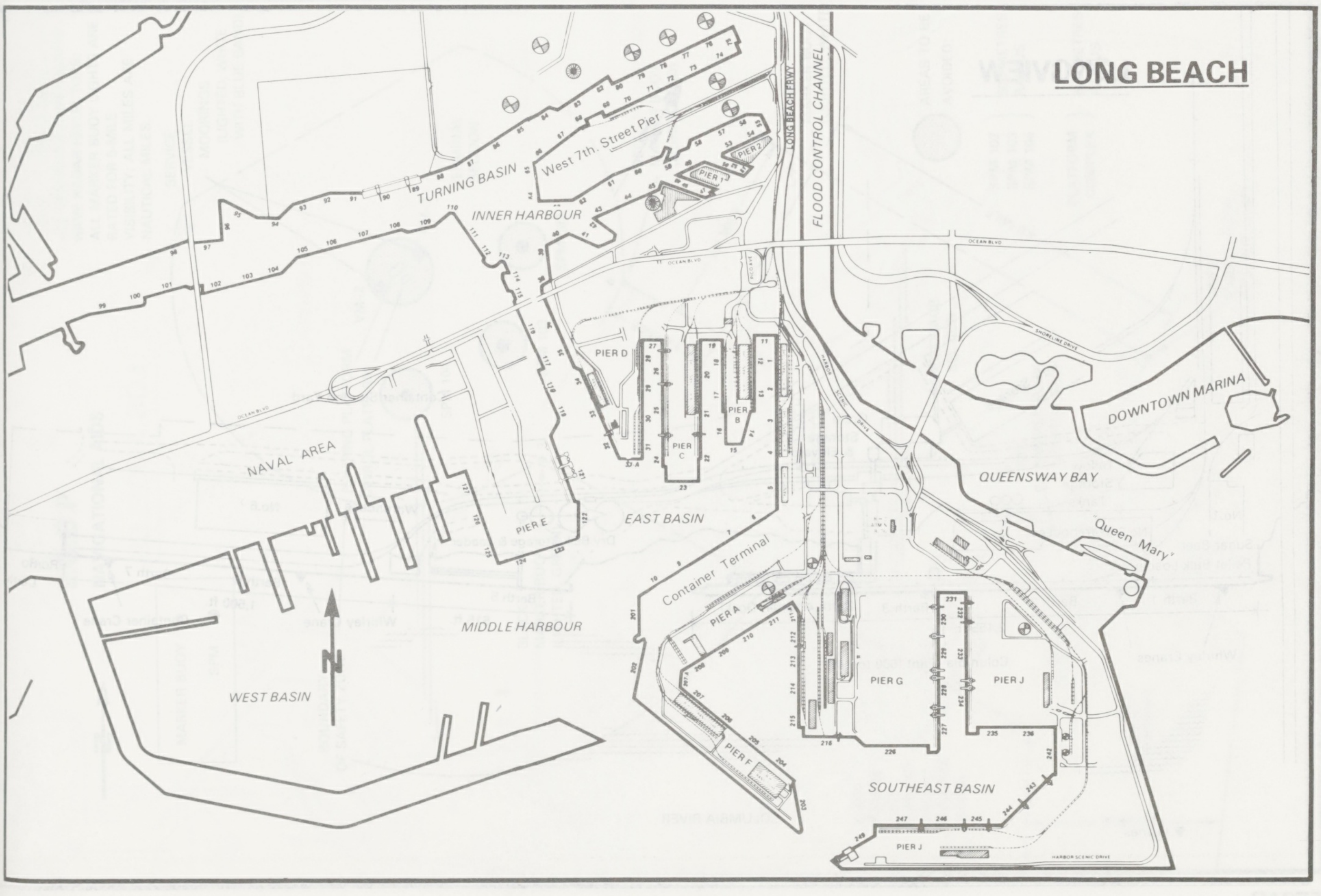
"Plan supplied by Ship's Master"

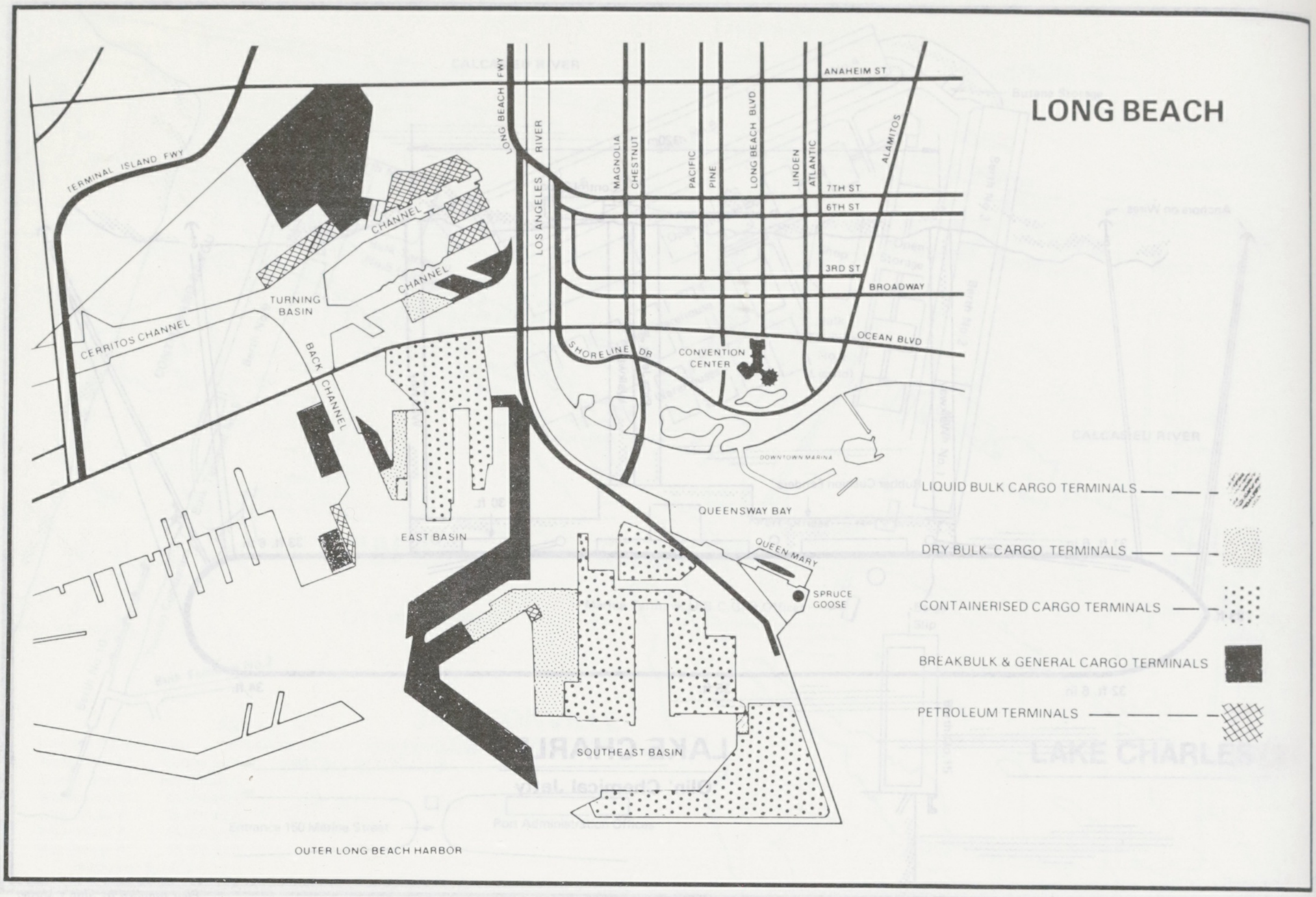

120m
Control Room
Public Telephone
Anchors on Wires
Walkway
Pipe Jetty
Walkway
Walkway
Rubber Cushion Fenders
30 ft.
31 ft. 6 in.
33 ft. 6 in.
33 ft.
32 ft. 6 in.
35 ft.
34 ft.

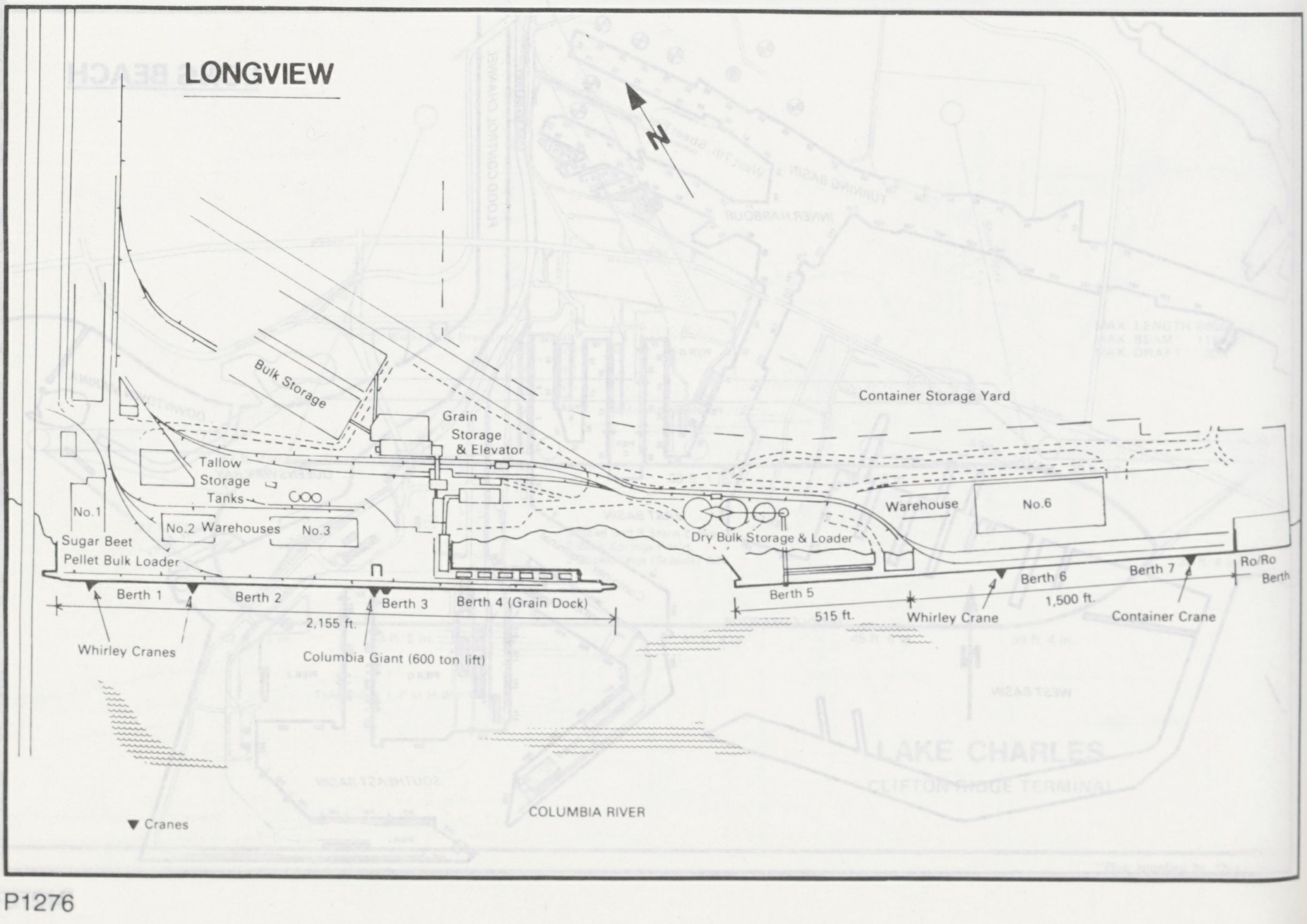
LAKE CHARLES

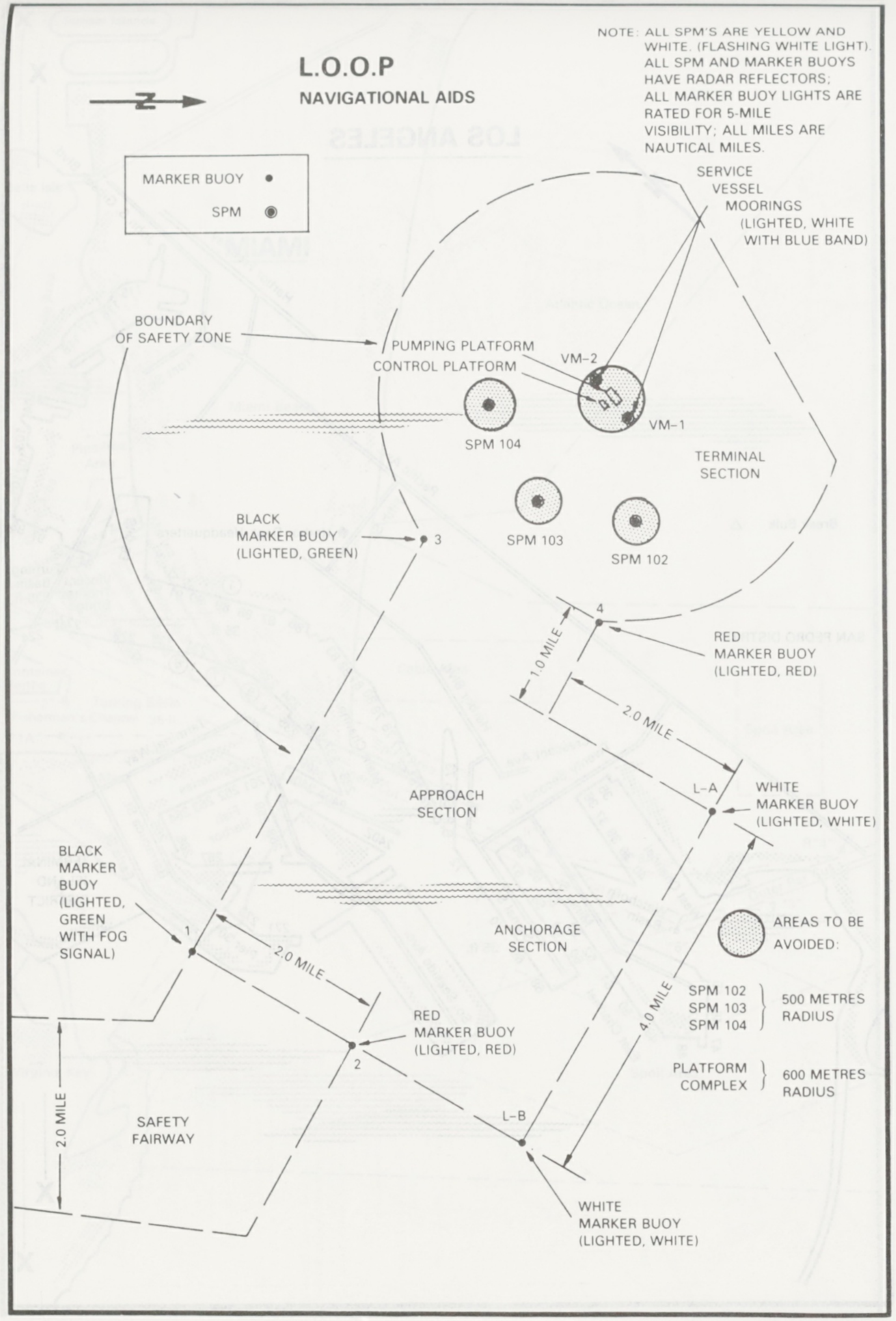
'Olin' Chemical Jetty

"Plan supplied by Ship's Master"


LONG BEACH
FLOOD CONTROL CHANNEL
LONG BEACH FWY
TURNING BASIN
West 7th. Street Pier
PIER 1
PIER 2
INNER HARBOUR
OCEAN BLVD
SHORELINE DRIVE
PIER D
PIER C
PIER B
PIER E
NAVAL AREA
EAST BASIN
Container Terminal
PIER A
MIDDLE HARBOUR
WEST BASIN
N
PIER F
PIER G
PIER J
SOUTHEAST BASIN
PIER J
DOWNTOWN MARINA
QUEENSWAY BAY
Queen Mary
HARBOR SCENIC DRIVE


LONG BEACH
ANAHEIM ST
LONG BEACH FWY
LOS ANGELES RIVER
MAGNOLIA
CHESTNUT
PACIFIC
PINE
LONG BEACH BLVD
LINDEN
ATLANTIC
ALAMITOS
7TH ST
6TH ST
3RD ST
BROADWAY
OCEAN BLVD
SHORELINE DR
CONVENTION CENTER
DOWNTOWN MARINA
TERMINAL ISLAND FWY
CHANNEL
CHANNEL
TURNING BASIN
CERRITOS CHANNEL
BACK CHANNEL
EAST BASIN
QUEENSWAY BAY
QUEEN MARY
SPRUCE GOOSE
SOUTHEAST BASIN
OUTER LONG BEACH HARBOR
LIQUID BULK CARGO TERMINALS
DRY BULK CARGO TERMINALS
CONTAINERISED CARGO TERMINALS
BREAKBULK & GENERAL CARGO TERMINALS
PETROLEUM TERMINALS

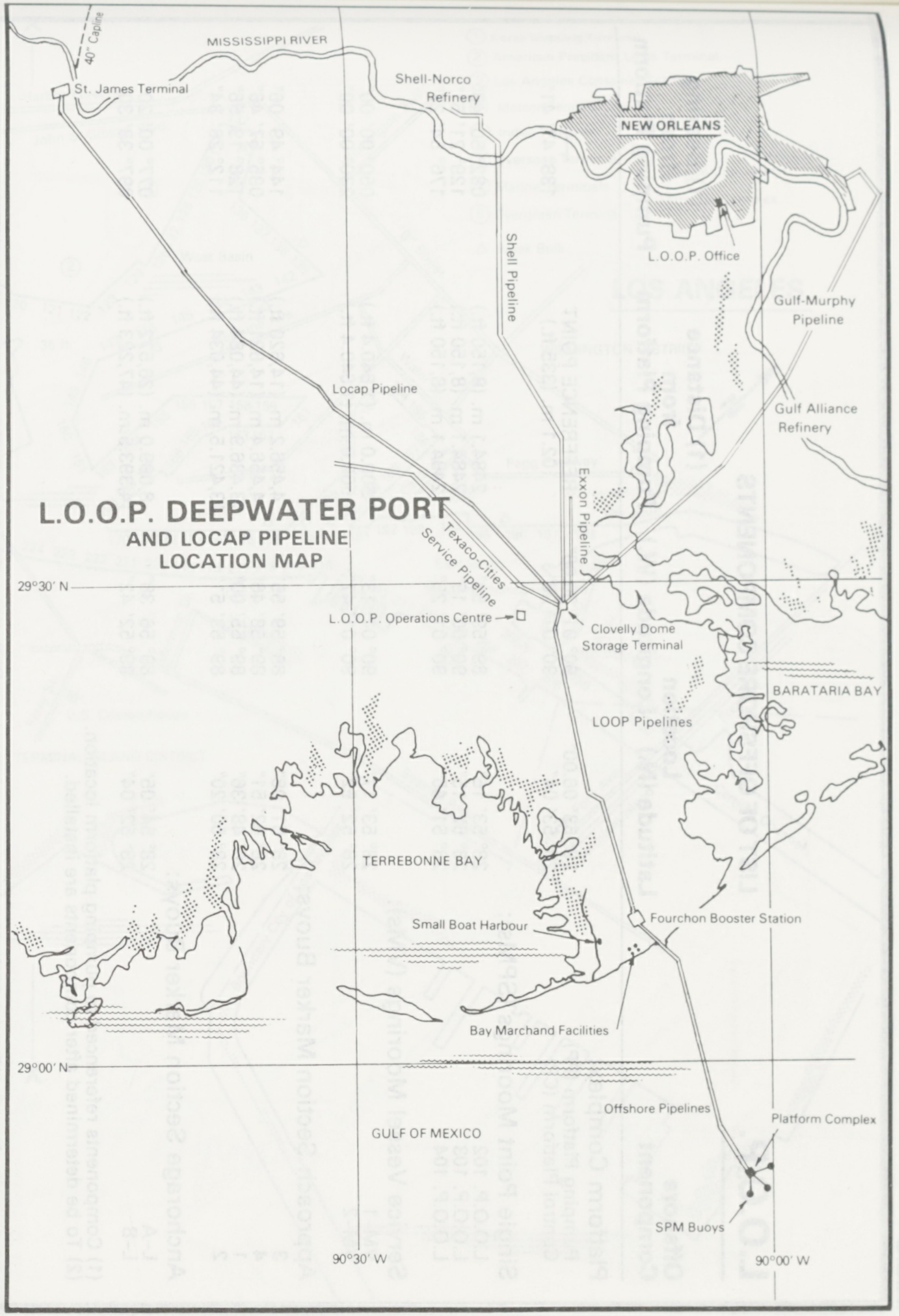

LONGVIEW
N
Bulk Storage
Grain Storage & Elevator
Container Storage Yard
Tallow Storage Tanks
No.1
No.2
Warehouses
No.3
Sugar Beet Pellet Bulk Loader
Dry Bulk Storage & Loader
Warehouse
No.6
Berth 1
Berth 2
Berth 3
Berth 4 (Grain Dock)
Berth 5
Berth 6
Berth 7
Ro/Ro Berth
2,155 ft.
515 ft.
1,500 ft.
Whirley Cranes
Columbia Giant (600 ton lift)
Whirley Crane
Container Crane
COLUMBIA RIVER
▼ Cranes



L.O.O.P
NAVIGATIONAL AIDS

NOTE: ALL SPM'S ARE YELLOW AND WHITE. (FLASHING WHITE LIGHT). ALL SPM AND MARKER BUOYS HAVE RADAR REFLECTORS; ALL MARKER BUOY LIGHTS ARE RATED FOR 5-MILE VISIBILITY; ALL MILES ARE NAUTICAL MILES.

N
MARKER BUOY ●
SPM ◉
SERVICE VESSEL MOORINGS (LIGHTED, WHITE WITH BLUE BAND)
BOUNDARY OF SAFETY ZONE
PUMPING PLATFORM
CONTROL PLATFORM
VM–2
VM–1
SPM 104
TERMINAL SECTION
SPM 103
SPM 102
BLACK MARKER BUOY (LIGHTED, GREEN)
3
4
RED MARKER BUOY (LIGHTED, RED)
1.0 MILE
2.0 MILE
L–A
WHITE MARKER BUOY (LIGHTED, WHITE)
APPROACH SECTION
BLACK MARKER BUOY (LIGHTED, GREEN WITH FOG SIGNAL)
1
ANCHORAGE SECTION
2.0 MILE
AREAS TO BE AVOIDED:
4.0 MILE
SPM 102
SPM 103
SPM 104
500 METRES RADIUS
RED MARKER BUOY (LIGHTED, RED)
2
PLATFORM COMPLEX
600 METRES RADIUS
2.0 MILE
SAFETY FAIRWAY
L–B
WHITE MARKER BUOY (LIGHTED, WHITE)



L.O.O.P. DEEPWATER PORT
AND LOCAP PIPELINE
LOCATION MAP

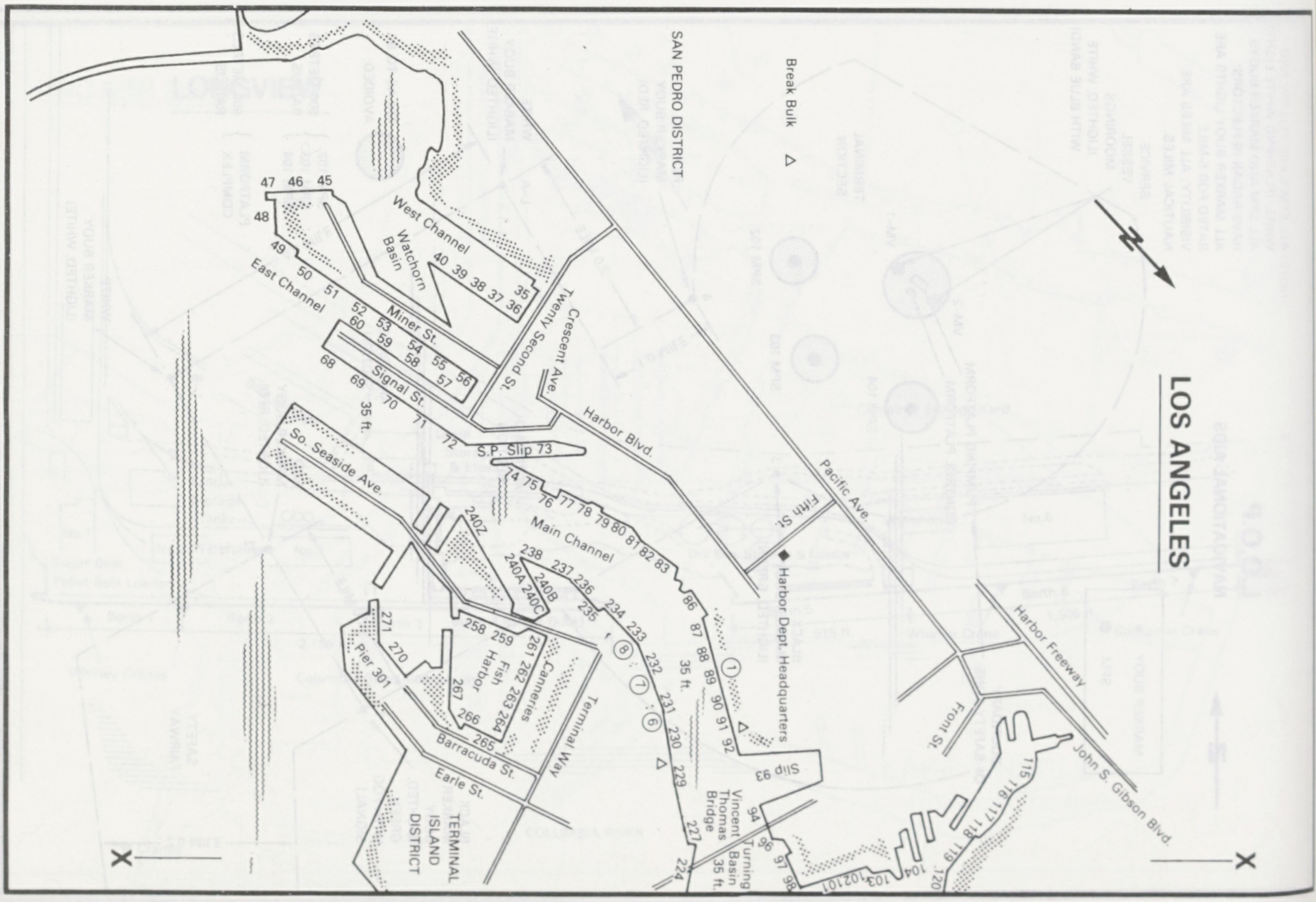
40" Capline
MISSISSIPPI RIVER
St. James Terminal
Shell-Norco Refinery
NEW ORLEANS
Shell Pipeline
L.O.O.P. Office
Gulf-Murphy Pipeline
Locap Pipeline
Gulf Alliance Refinery
Exxon Pipeline
Texaco-Cities Service Pipeline
29°30′ N
L.O.O.P. Operations Centre
Clovelly Dome Storage Terminal
BARATARIA BAY
LOOP Pipelines
TERREBONNE BAY
Small Boat Harbour
Fourchon Booster Station
Bay Marchand Facilities
29°00′ N
Offshore Pipelines
Platform Complex
GULF OF MEXICO
SPM Buoys
90°30′ W
90°00′ W

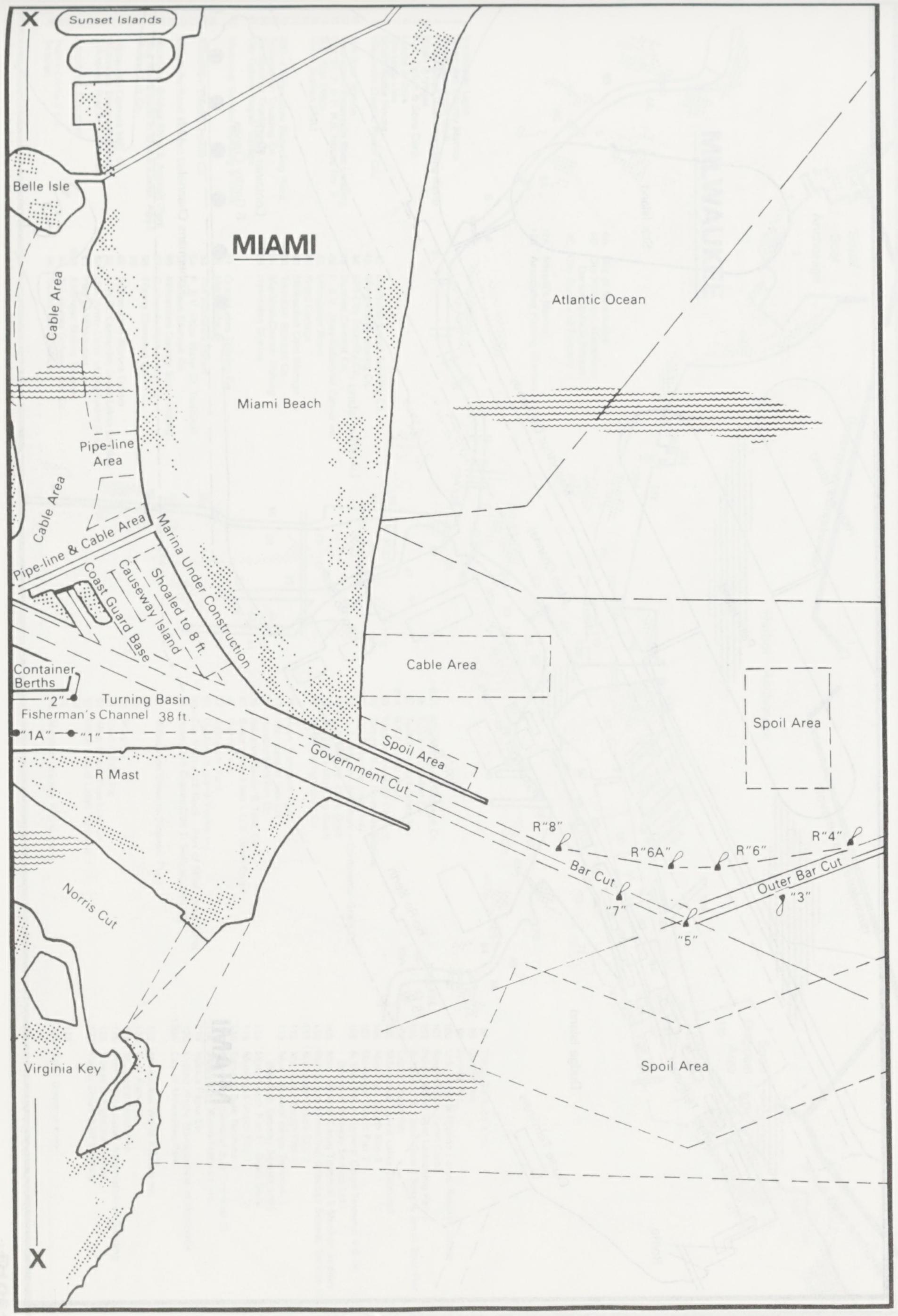
L.O.O.P.

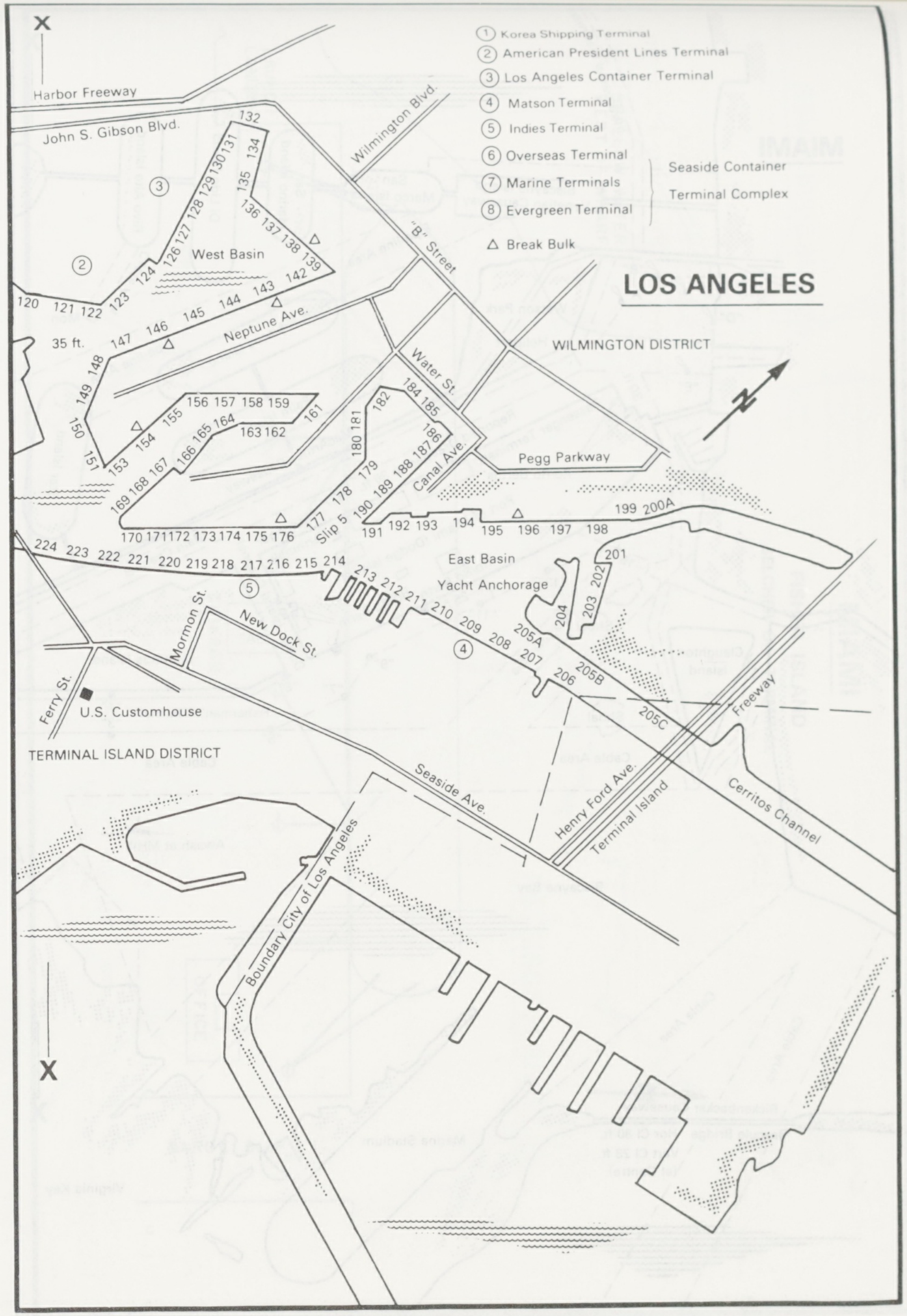
LIST OF OFFSHORE COMPONENTS

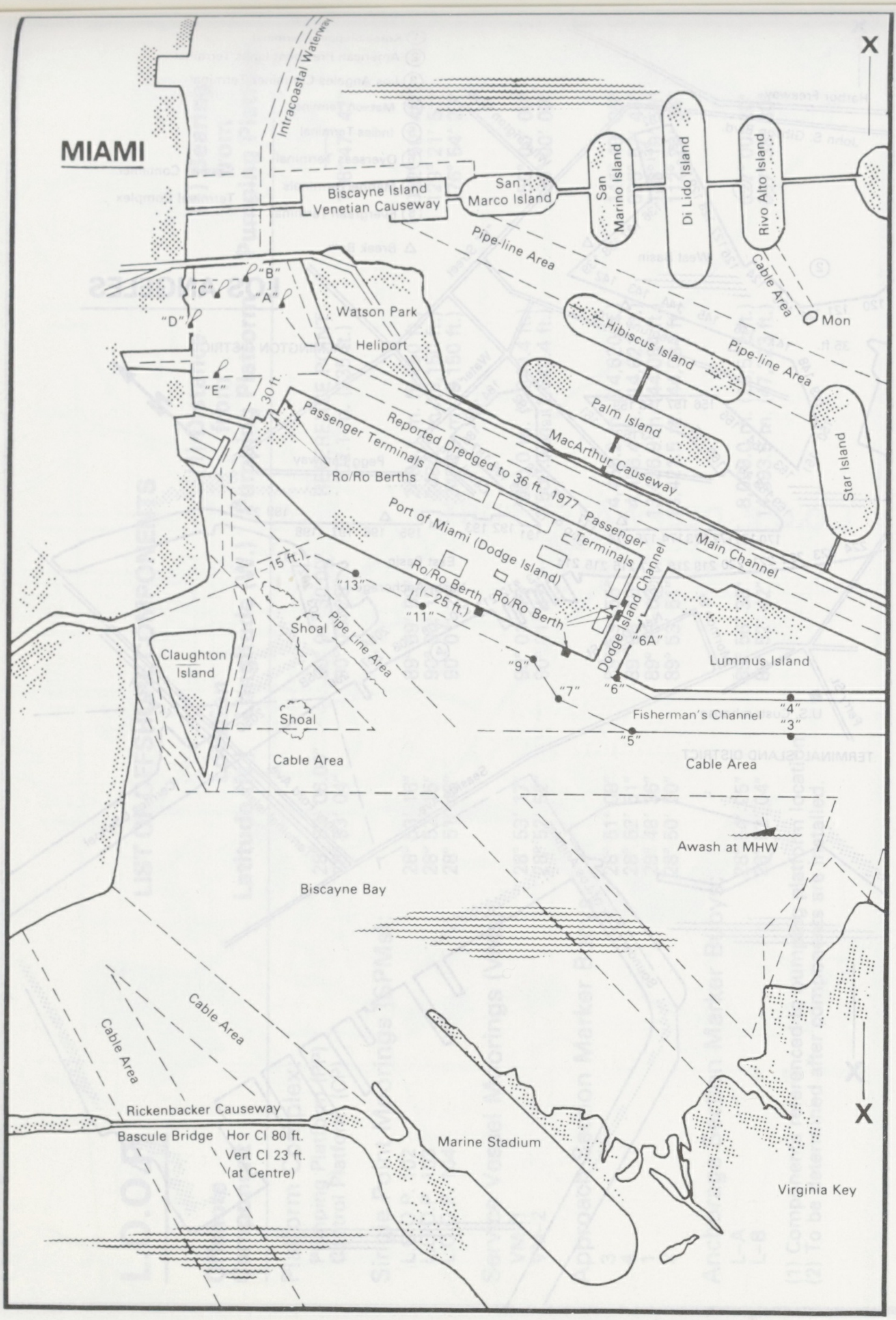
Offshore Component	Location Latitude (N.)	Location Longitude (W.)	(1) Distance from Pumping Platform	(1) Bearing from Pumping Platform
Platform Complex:				
Pumping Platform (PP)	28° 53′ 06.00″	90° 01′ 30.00″	REFERENCE POINT	—
Control Platform (CP)	28° 53′ 04″	90° 01′ 28″	102.1 m. (335 ft.)	138° 47′ 41″
Single Point Moorings (SPMs):				
L.O.O.P. 102	28° 53′ 16″	89° 59′ 59″	2484.1 m. (8,150 ft.)	082° 50′ 48″
L.O.O.P. 103	28° 52′ 15″	90° 00′ 19″	2484.1 m. (8,150 ft.)	129° 21′ 51″
L.O.O.P. 104	28° 51′ 45″	90° 01′ 25″	2484.1 m. (8,150 ft.)	176° 54′ 27″
Service Vessel Moorings (VMs):				
VM–1	28° 53′ 17″	90° 01′ 13″	500.0 m. (1,640.4 ft.)	050° 00′ 00″
VM–2	28° 52′ 52″	90° 01′ 47″	500.0 m. (1,640.4 ft.)	230° 00′ 00″
Approach Section Marker Buoys:				
3	28° 51′ 08″	89° 59′ 55″	4,456.2 m. (14,620 ft.)	144° 49′ 06″
4	28° 52′ 51″	89° 58′ 46″	4,456.4 m. (14,621 ft.)	095° 57′ 46″
1	28° 48′ 36″	89° 55′ 00″	13,436.9 m. (44,084 ft.)	128° 19′ 56″
2	28° 50′ 20″	89° 53′ 51″	13,421.5 m. (44,034 ft.)	112° 26′ 34″
Anchorage Section Marker Buoys:				
L–A	28° 54′ 05″	89° 56′ 38″	8,099.0 m. (26,572 ft.)	077° 00′ 20″
L–B	28° 52′ 04″	89° 52′ 42″	14,393.5 m. (47,223 ft.)	097° 38′ 30″

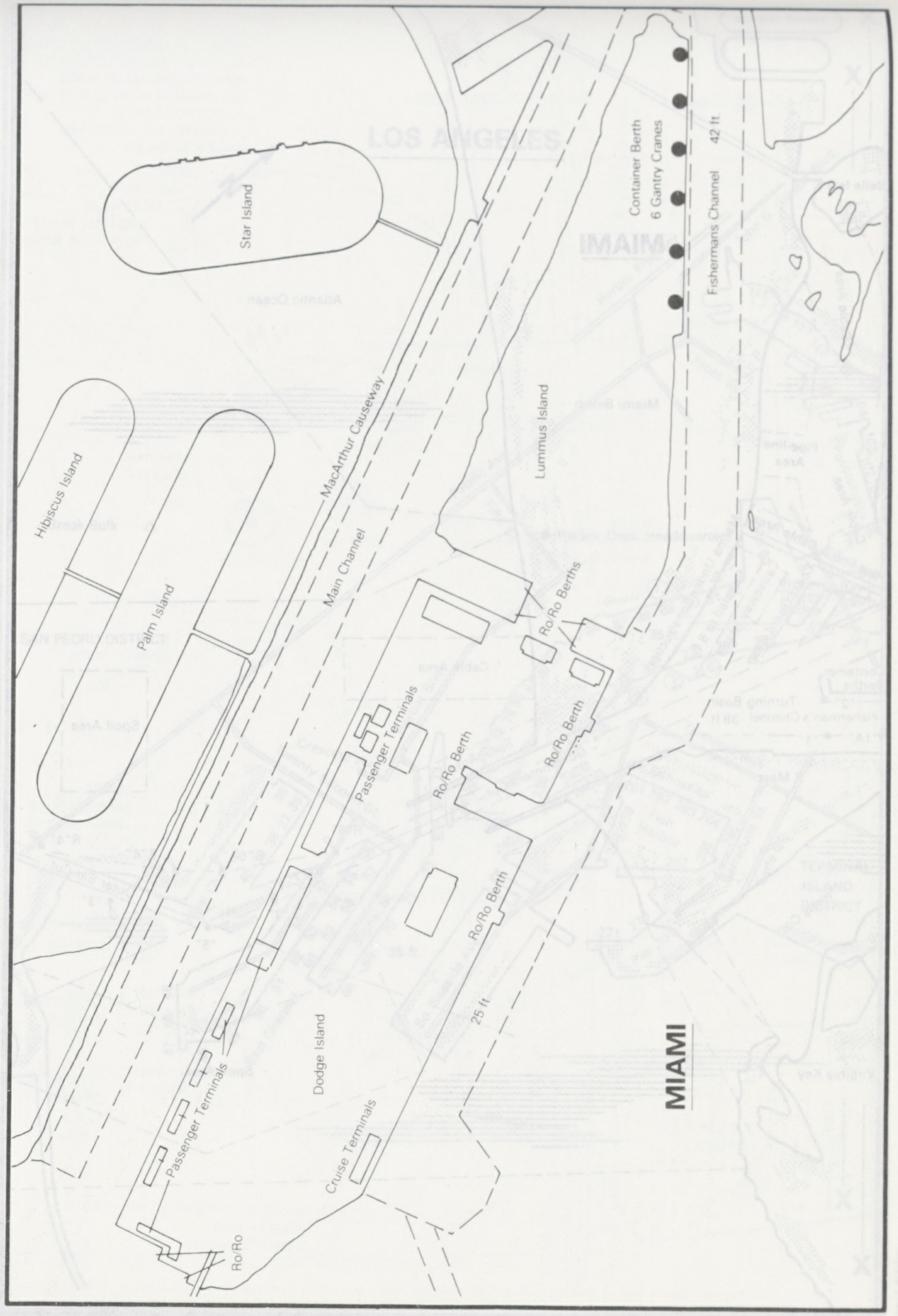
(1) Components referenced to pumping platform location.
(2) To be determined after components are installed.

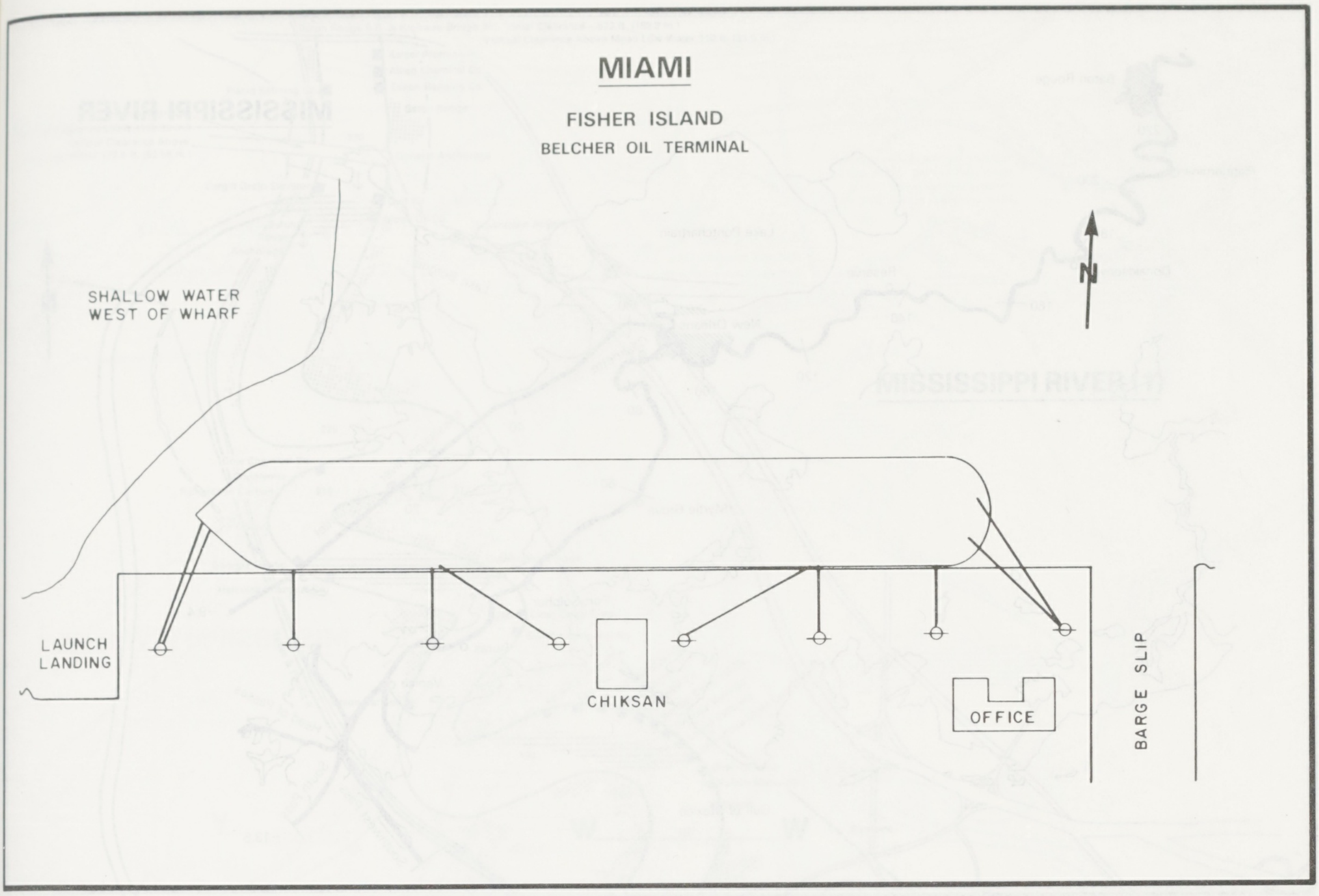

LOS ANGELES
SAN PEDRO DISTRICT
Break Bulk
West Channel
Watchorn Basin
East Channel
Miner St.
Signal St.
Twenty Second St.
Crescent Ave.
Harbor Blvd
Pacific Ave.
Fifth St.
Harbor Dept. Headquarters
Harbor Freeway
Front St.
John S. Gibson Blvd
S.P. Slip 73
So. Seaside Ave.
Main Channel
Canneries
Fish Harbor
Terminal Way
Barracuda St.
Earle St.
TERMINAL ISLAND DISTRICT
Pier 301
Vincent Thomas Bridge
Turning Basin 35 ft.
Slip 93
35 ft.
35 ft.
35 ft.
45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60
35 36 37 38 39 40
68 69 70 71 72
74 75 76 77 78 79 80 81 82 83
86 87 88 89 90 91 92
94 96 97 98
101 102 103 104
115 116 117 118 119 120
224 227 229 230 231 232 233 234 235 236 237 238
240B 240C 240A 240Z
258 259 261 262 263 264 265 266 267
270 271
① ⑥ ⑦ ⑧
X
X

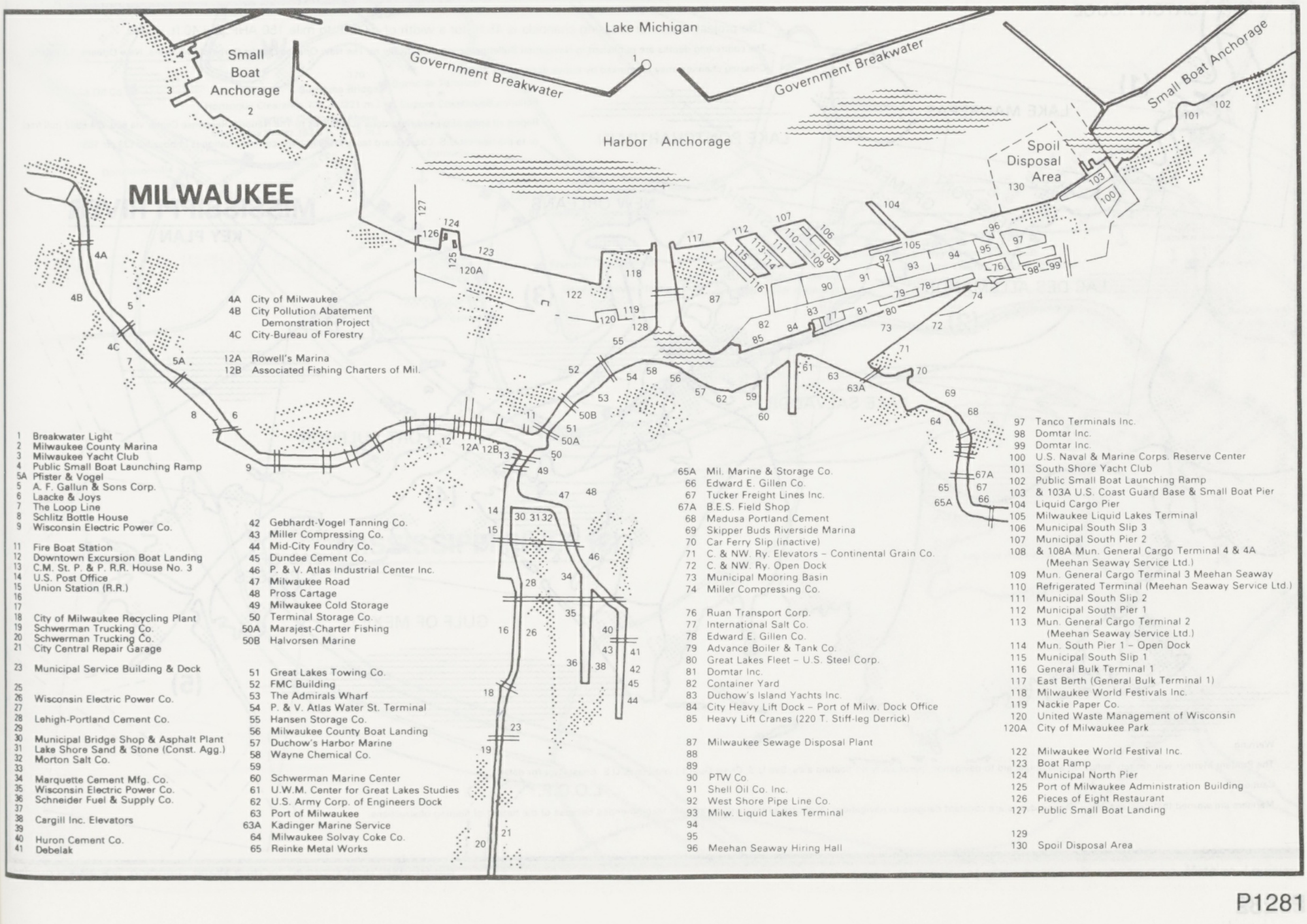

MIAMI
X
Sunset Islands
Belle Isle
Cable Area
Miami Beach
Pipe-line Area
Cable Area
Pipe-line & Cable Area
Marina Under Construction
Shoaled to 8 ft.
Causeway Island
Coast Guard Base
Container Berths
"2"
Turning Basin
Fisherman's Channel 38 ft.
"1A"
"1"
R Mast
Government Cut
Spoil Area
Atlantic Ocean
Cable Area
Spoil Area
R"8"
R"6A"
R"6"
R"4"
Bar Cut
Outer Bar Cut
"7"
"5"
"3"
Norris Cut
Virginia Key
Spoil Area
X


LOS ANGELES
X
① Korea Shipping Terminal
② American President Lines Terminal
③ Los Angeles Container Terminal
④ Matson Terminal
⑤ Indies Terminal
⑥ Overseas Terminal
⑦ Marine Terminals
⑧ Evergreen Terminal
Seaside Container Terminal Complex
△ Break Bulk
Harbor Freeway
John S. Gibson Blvd.
Wilmington Blvd.
"B" Street
West Basin
35 ft.
120 121 122 123 124 126 127 128 129 130 131 132 134 135 136 137 138 139 142 143 144 145 146 147 148 149 150 151
Neptune Ave.
153 154 155 156 157 158 159 161 162 163 164 165 166 167 168 169
170 171 172 173 174 175 176 177 178 179 180 181 182
184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200A
Slip 5
Water St.
Canal Ave.
Pegg Parkway
WILMINGTON DISTRICT
East Basin
Yacht Anchorage
201 202 203 204
224 223 222 221 220 219 218 217 216 215 214 213 212 211 210 209 208 207 206 205A 205B 205C
Mormon St.
New Dock St.
Ferry St.
U.S. Customhouse
TERMINAL ISLAND DISTRICT
Seaside Ave.
Henry Ford Ave.
Terminal Island Freeway
Cerritos Channel
Boundary City of Los Angeles
X

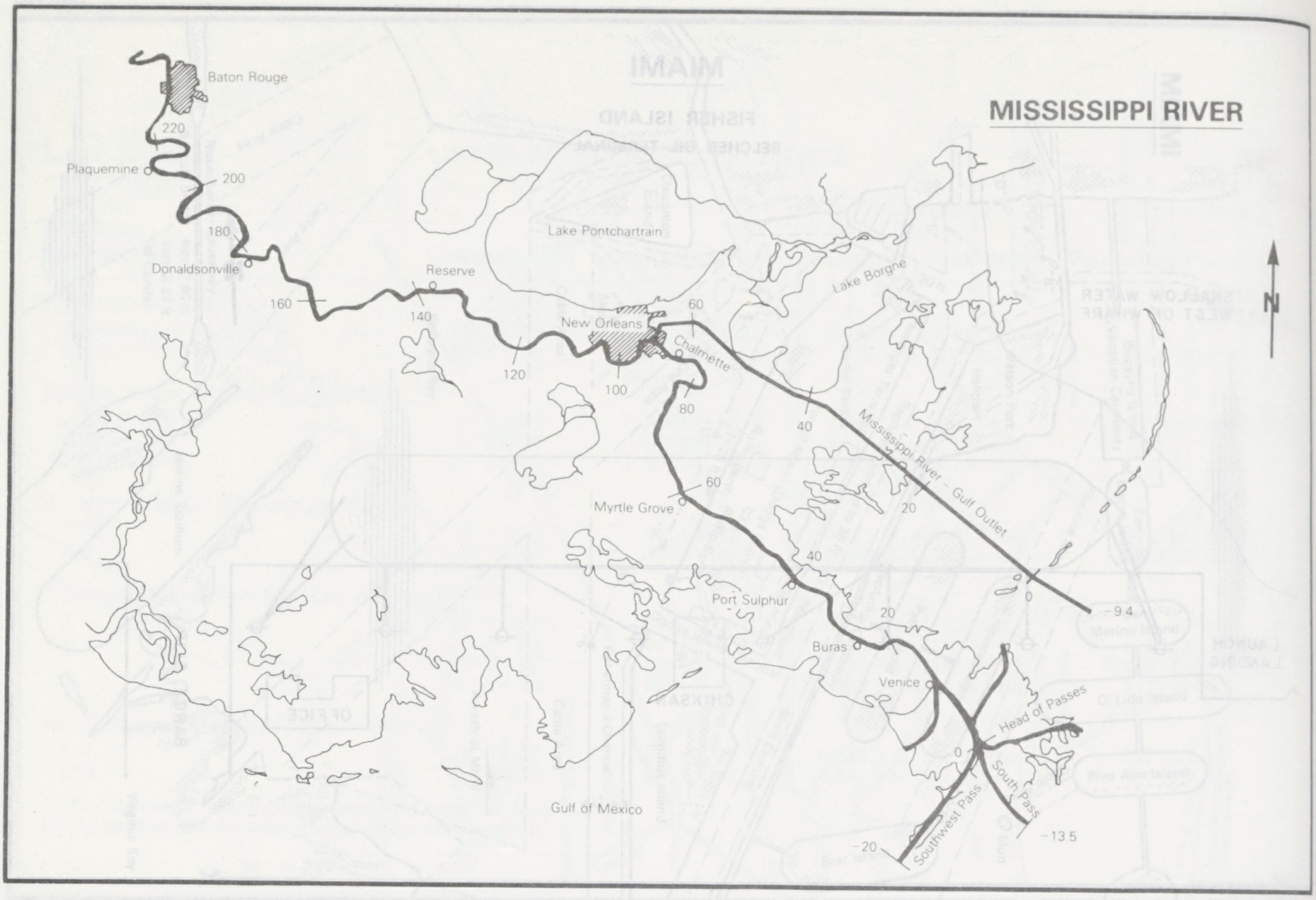

MIAMI
Intracoastal Waterway
Biscayne Island
Venetian Causeway
San Marco Island
San Marino Island
Di Lido Island
Rivo Alto Island
Pipe-line Area
Cable Area
Mon
"B"
"A"
"D"
"E"
30 ft.
Watson Park
Heliport
Hibiscus Island
Pipe-line Area
Palm Island
Star Island
MacArthur Causeway
Passenger Terminals
Reported Dredged to 36 ft. 1977
Ro/Ro Berths
Passenger Terminals
Main Channel
Port of Miami (Dodge Island)
Dodge Island Channel
(−15 ft.)
"13"
Ro/Ro Berth
Ro/Ro Berth
(−25 ft.)
"11"
"6A"
Shoal
Pipe Line Area
Lummus Island
Claughton Island
"9"
"7"
"6"
"4"
"3"
Fisherman's Channel
"5"
Shoal
Cable Area
Cable Area
Awash at MHW
Biscayne Bay
Cable Area
Cable Area
Rickenbacker Causeway
Bascule Bridge
Hor Cl 80 ft.
Vert Cl 23 ft.
(at Centre)
Marine Stadium
Virginia Key
X
X

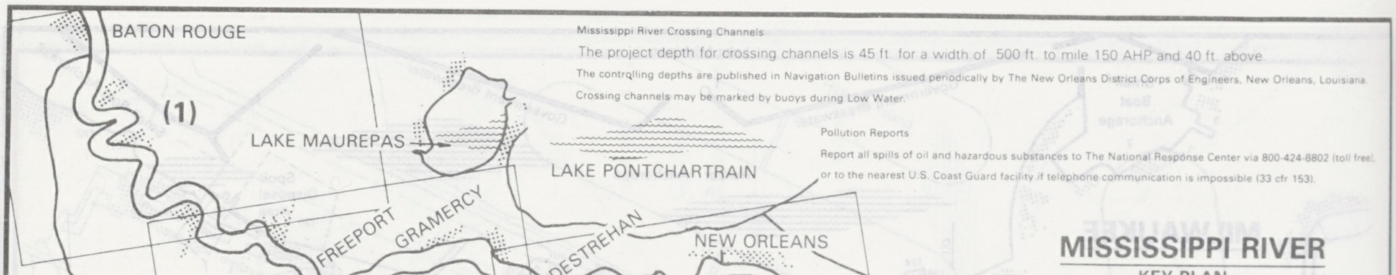

MIAMI
Star Island
Hibiscus Island
Palm Island
MacArthur Causeway
Main Channel
Lummus Island
Container Berth
6 Gantry Cranes
Fishermans Channel
42 ft.
Ro/Ro Berths
Ro/Ro Berth
Passenger Terminals
Ro/Ro Berth
Ro/Ro Berth
25 ft.
Dodge Island
Passenger Terminals
Cruise Terminals
Ro/Ro





1	Breakwater Light
2	Milwaukee County Marina
3	Milwaukee Yacht Club
4	Public Small Boat Launching Ramp
5A	Pfister & Vogel
5	A. F. Gallun & Sons Corp.
6	Laacke & Joys
7	The Loop Line
8	Schlitz Bottle House
9	Wisconsin Electric Power Co.
11	Fire Boat Station
12	Downtown Excursion Boat Landing
13	C.M. St. P. & P. R.R. House No. 3
14	U.S. Post Office
15	Union Station (R.R.)
16	
17	
18	City of Milwaukee Recycling Plant
19	Schwerman Trucking Co.
20	Schwerman Trucking Co.
21	City Central Repair Garage
23	Municipal Service Building & Dock
25	
26	Wisconsin Electric Power Co.
27	
28	Lehigh-Portland Cement Co.
29	
30	Municipal Bridge Shop & Asphalt Plant
31	Lake Shore Sand & Stone (Const. Agg.)
32	Morton Salt Co.
33	
34	Marquette Cement Mfg. Co.
35	Wisconsin Electric Power Co.
36	Schneider Fuel & Supply Co.
37	
38	Cargill Inc. Elevators
39	
40	Huron Cement Co.
41	Debelak
4A	City of Milwaukee
4B	City Pollution Abatement Demonstration Project
4C	City-Bureau of Forestry
12A	Rowell's Marina
12B	Associated Fishing Charters of Mil.
42	Gebhardt-Vogel Tanning Co.
43	Miller Compressing Co.
44	Mid-City Foundry Co.
45	Dundee Cement Co.
46	P. & V. Atlas Industrial Center Inc.
47	Milwaukee Road
48	Pross Cartage
49	Milwaukee Cold Storage
50	Terminal Storage Co.
50A	Marajest-Charter Fishing
50B	Halvorsen Marine
51	Great Lakes Towing Co.
52	FMC Building
53	The Admirals Wharf
54	P. & V. Atlas Water St. Terminal
55	Hansen Storage Co.
56	Milwaukee County Boat Landing
57	Duchow's Harbor Marine
58	Wayne Chemical Co.
59	
60	Schwerman Marine Center
61	U.W.M. Center for Great Lakes Studies
62	U.S. Army Corp. of Engineers Dock
63	Port of Milwaukee
63A	Kadinger Marine Service
64	Milwaukee Solvay Coke Co.
65	Reinke Metal Works
65A	Mil. Marine & Storage Co.
66	Edward E. Gillen Co.
67	Tucker Freight Lines Inc.
67A	B.E.S. Field Shop
68	Medusa Portland Cement
69	Skipper Buds Riverside Marina
70	Car Ferry Slip (inactive)
71	C. & NW. Ry. Elevators – Continental Grain Co.
72	C. & NW. Ry. Open Dock
73	Municipal Mooring Basin
74	Miller Compressing Co.
76	Ruan Transport Corp.
77	International Salt Co.
78	Edward E. Gillen Co.
79	Advance Boiler & Tank Co.
80	Great Lakes Fleet – U.S. Steel Corp.
81	Domtar Inc.
82	Container Yard
83	Duchow's Island Yachts Inc.
84	City Heavy Lift Dock – Port of Milw. Dock Office
85	Heavy Lift Cranes (220 T. Stiff-leg Derrick)
87	Milwaukee Sewage Disposal Plant
88	
89	
90	PTW Co.
91	Shell Oil Co. Inc.
92	West Shore Pipe Line Co.
93	Milw. Liquid Lakes Terminal
94	
95	
96	Meehan Seaway Hiring Hall
97	Tanco Terminals Inc.
98	Domtar Inc.
99	Domtar Inc.
100	U.S. Naval & Marine Corps. Reserve Center
101	South Shore Yacht Club
102	Public Small Boat Launching Ramp
103	& 103A U.S. Coast Guard Base & Small Boat Pier
104	Liquid Cargo Pier
105	Milwaukee Liquid Lakes Terminal
106	Municipal South Slip 3
107	Municipal South Pier 2
108	& 108A Mun. General Cargo Terminal 4 & 4A (Meehan Seaway Service Ltd.)
109	Mun. General Cargo Terminal 3 Meehan Seaway
110	Refrigerated Terminal (Meehan Seaway Service Ltd.)
111	Municipal South Slip 2
112	Municipal South Pier 1
113	Mun. General Cargo Terminal 2 (Meehan Seaway Service Ltd.)
114	Mun. South Pier 1 – Open Dock
115	Municipal South Slip 1
116	General Bulk Terminal 1
117	East Berth (General Bulk Terminal 1)
118	Milwaukee World Festivals Inc.
119	Nackie Paper Co.
120	United Waste Management of Wisconsin
120A	City of Milwaukee Park
122	Milwaukee World Festival Inc.
123	Boat Ramp
124	Municipal North Pier
125	Port of Milwaukee Administration Building
126	Pieces of Eight Restaurant
127	Public Small Boat Landing
129	
130	Spoil Disposal Area


MISSISSIPPI RIVER
Baton Rouge
220
Plaquemine
200
180
Donaldsonville
160
Reserve
140
120
Lake Pontchartrain
New Orleans
100
60
Chalmette
80
Lake Borgne
40
Mississippi River – Gulf Outlet
20
0
−9.4
60
Myrtle Grove
40
Port Sulphur
20
Buras
Venice
Head of Passes
0
South Pass
Southwest Pass
−20
−13.5
Gulf of Mexico
N


BATON ROUGE
(1)
LAKE MAUREPAS
LAKE PONTCHARTRAIN
FREEPORT
GRAMERCY
DESTREHAN
NEW ORLEANS
LAC DES ALLEMANDS
(2)
(3)
LAKE SALVADOR
PORT SULPHUR
(4)
HEAD OF PASSES
GULF OF MEXICO
(5)
L.O.O.P.

MISSISSIPPI RIVER

KEY PLAN

Mississippi River Crossing Channels

The project depth for crossing channels is 45 ft. for a width of 500 ft. to mile 150 AHP and 40 ft. above.

The controlling depths are published in Navigation Bulletins issued periodically by The New Orleans District Corps of Engineers, New Orleans, Louisiana.

Crossing channels may be marked by buoys during Low Water.

Pollution Reports

Report all spills of oil and hazardous substances to The National Response Center via 800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 cfr 153).

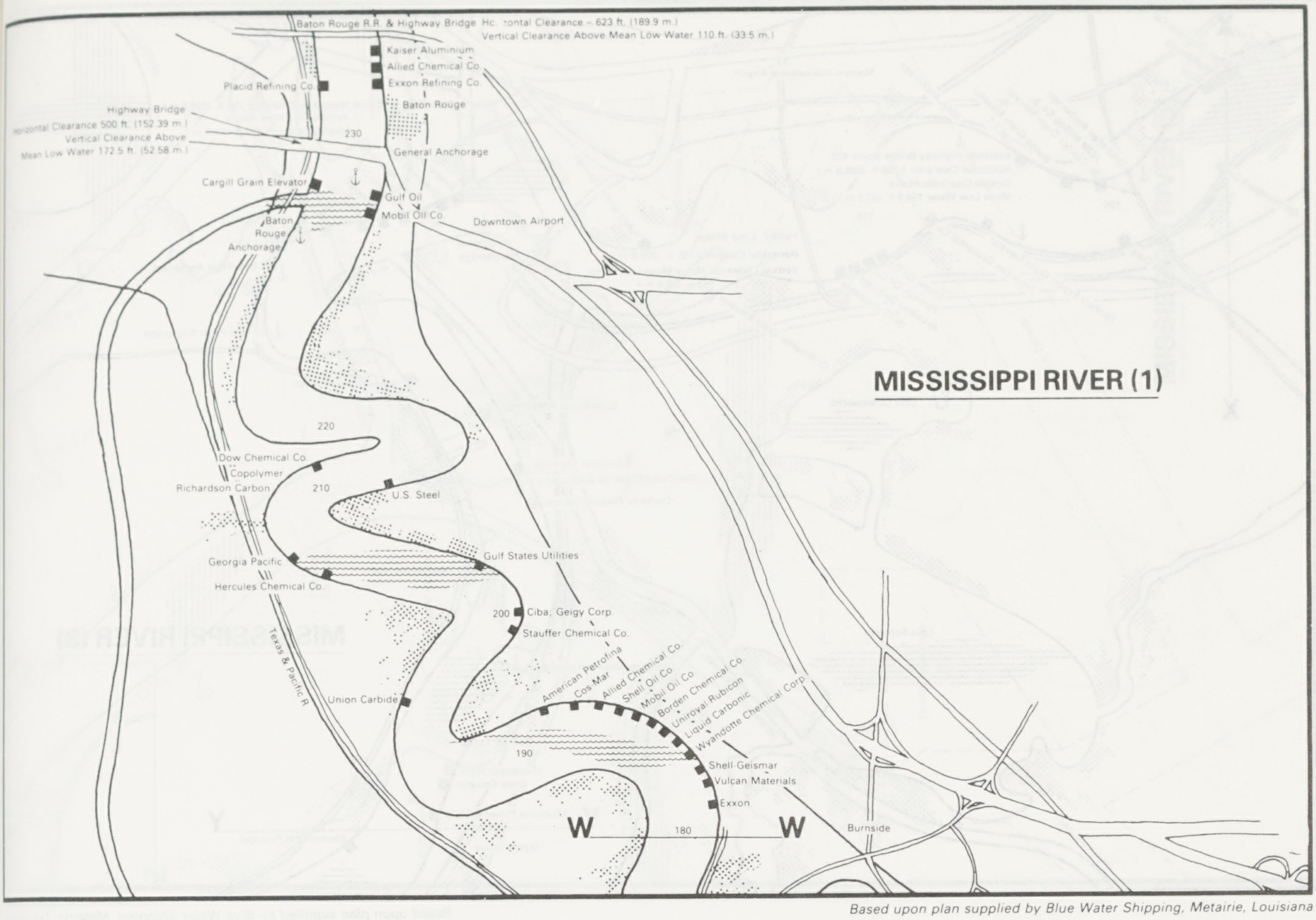
Warning

The Prudent Mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List & U.S. Coast Pilot for details.

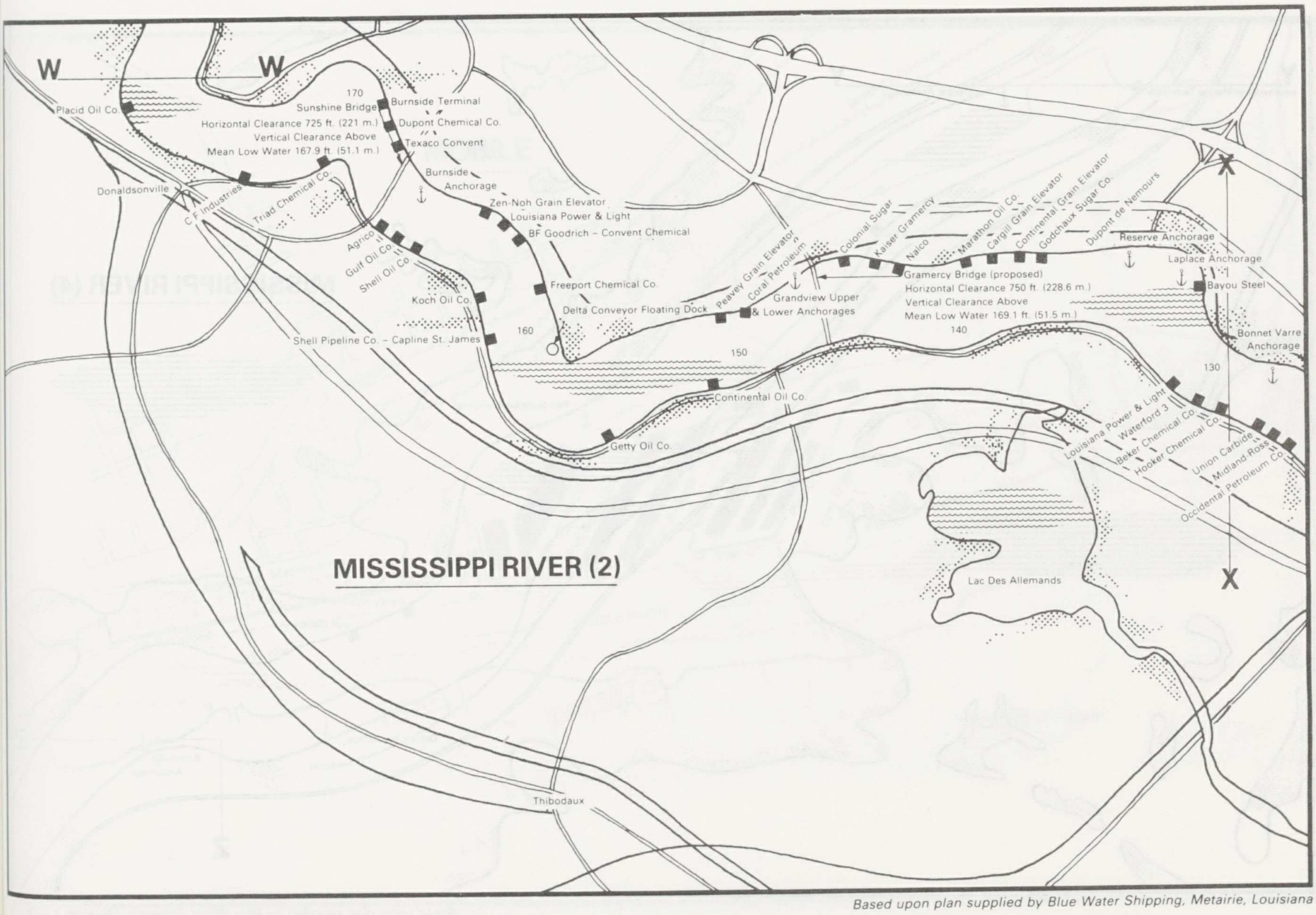
Caution

Mariners are warned that logs and other floating debris are constant dangers to navigations. Night travel by small craft is not recommended because of the hazard of floating obstructions.

Based upon plan supplied by Blue Water Shipping, Metairie, Louisiana

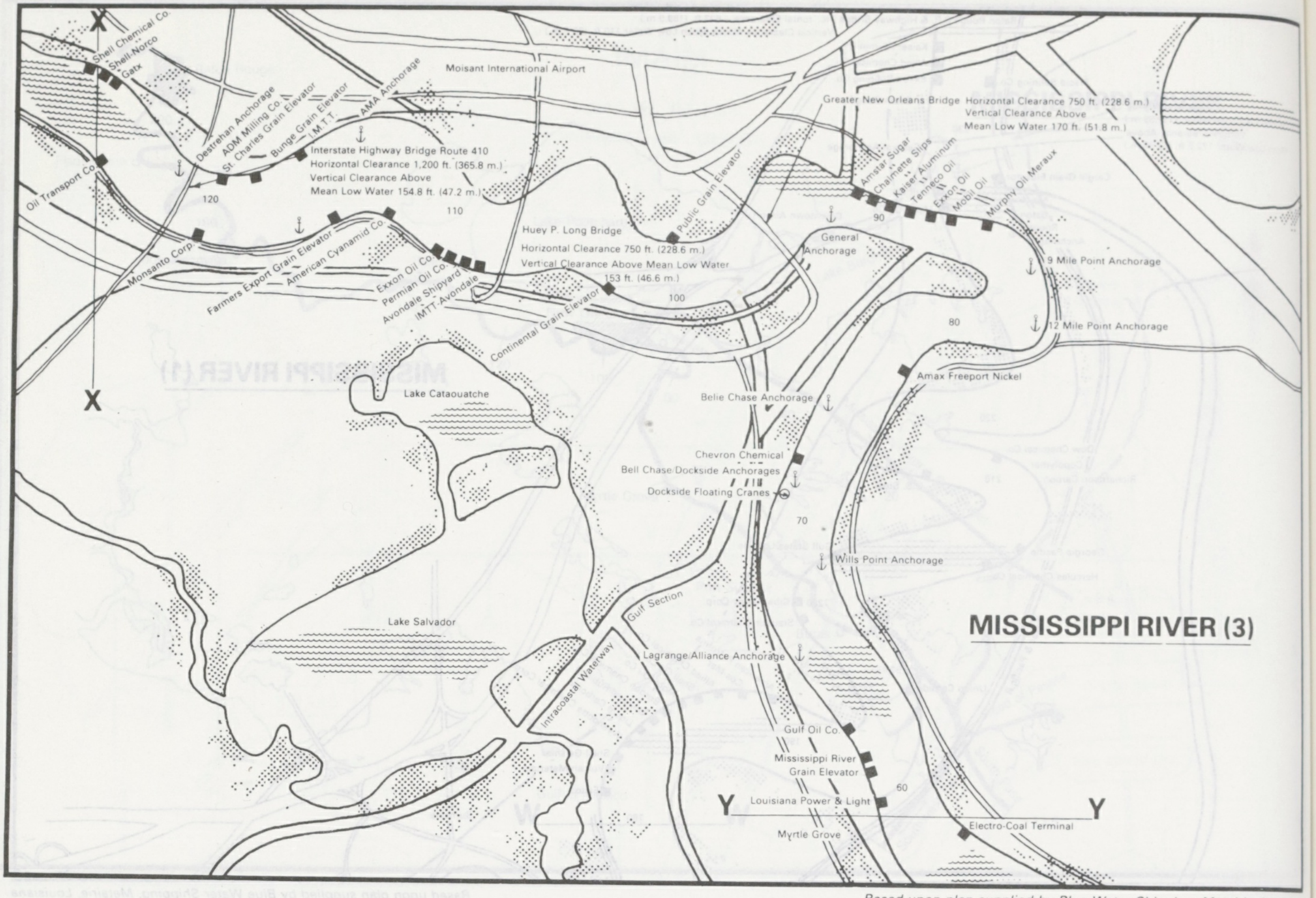

Baton Rouge R.R. & Highway Bridge Hc. :ontal Clearance – 623 ft. (189.9 m.)
Vertical Clearance Above Mean Low Water 110 ft. (33.5 m.)
Kaiser Aluminium
Allied Chemical Co.
Exxon Refining Co.
Placid Refining Co.
Baton Rouge
Highway Bridge
Horizontal Clearance 500 ft. (152.39 m.)
Vertical Clearance Above
Mean Low Water 172.5 ft. (52.58 m.)
230
General Anchorage
Cargill Grain Elevator
Gulf Oil
Mobil Oil Co.
Baton
Rouge
Anchorage
Downtown Airport
MISSISSIPPI RIVER (1)
220
Dow Chemical Co.
Copolymer
Richardson Carbon
210
U.S. Steel
Georgia Pacific
Hercules Chemical Co.
Gulf States Utilities
200
Ciba, Geigy Corp.
Stauffer Chemical Co.
Texas & Pacific R
American Petrofina
Cos-Mar
Allied Chemical Co.
Shell Oil Co.
Mobil Oil Co.
Borden Chemical Co.
Uniroyal Rubicon
Liquid Carbonic
Wyandotte Chemical Corp.
Union Carbide
190
Shell-Geismar
Vulcan Materials
Exxon
W
180
W
Burnside

Based upon plan supplied by Blue Water Shipping, Metairie, Louisiana


W
W
170
Placid Oil Co.
Sunshine Bridge
Horizontal Clearance 725 ft. (221 m.)
Vertical Clearance Above
Mean Low Water 167.9 ft. (51.1 m.)
Burnside Terminal
Dupont Chemical Co.
Texaco Convent
Burnside
Anchorage
Donaldsonville
C F Industries
Triad Chemical Co.
Zen-Noh Grain Elevator
Louisiana Power & Light
BF Goodrich – Convent Chemical
Agrico
Gulf Oil Co.
Shell Oil Co.
Freeport Chemical Co.
Koch Oil Co.
Delta Conveyor Floating Dock
Shell Pipeline Co. – Capline St. James
160
Peavey Grain Elevator
Coral Petroleum
Grandview Upper
& Lower Anchorages
Colonial Sugar
Kaiser Gramercy
Nalco
Marathon Oil Co.
Cargill Grain Elevator
Continental Grain Elevator
Godchaux Sugar Co.
Dupont de Nemours
Gramercy Bridge (proposed)
Horizontal Clearance 750 ft. (228.6 m.)
Vertical Clearance Above
Mean Low Water 169.1 ft. (51.5 m.)
Reserve Anchorage
Laplace Anchorage
Bayou Steel
X
140
150
Bonnet Varre
Anchorage
130
Continental Oil Co.
Getty Oil Co.
Louisiana Power & Light
Waterford 3
Beker Chemical Co.
Hooker Chemical Co.
Union Carbide
Midland-Ross
Occidental Petroleum Co.
MISSISSIPPI RIVER (2)
Lac Des Allemands
X
Thibodaux

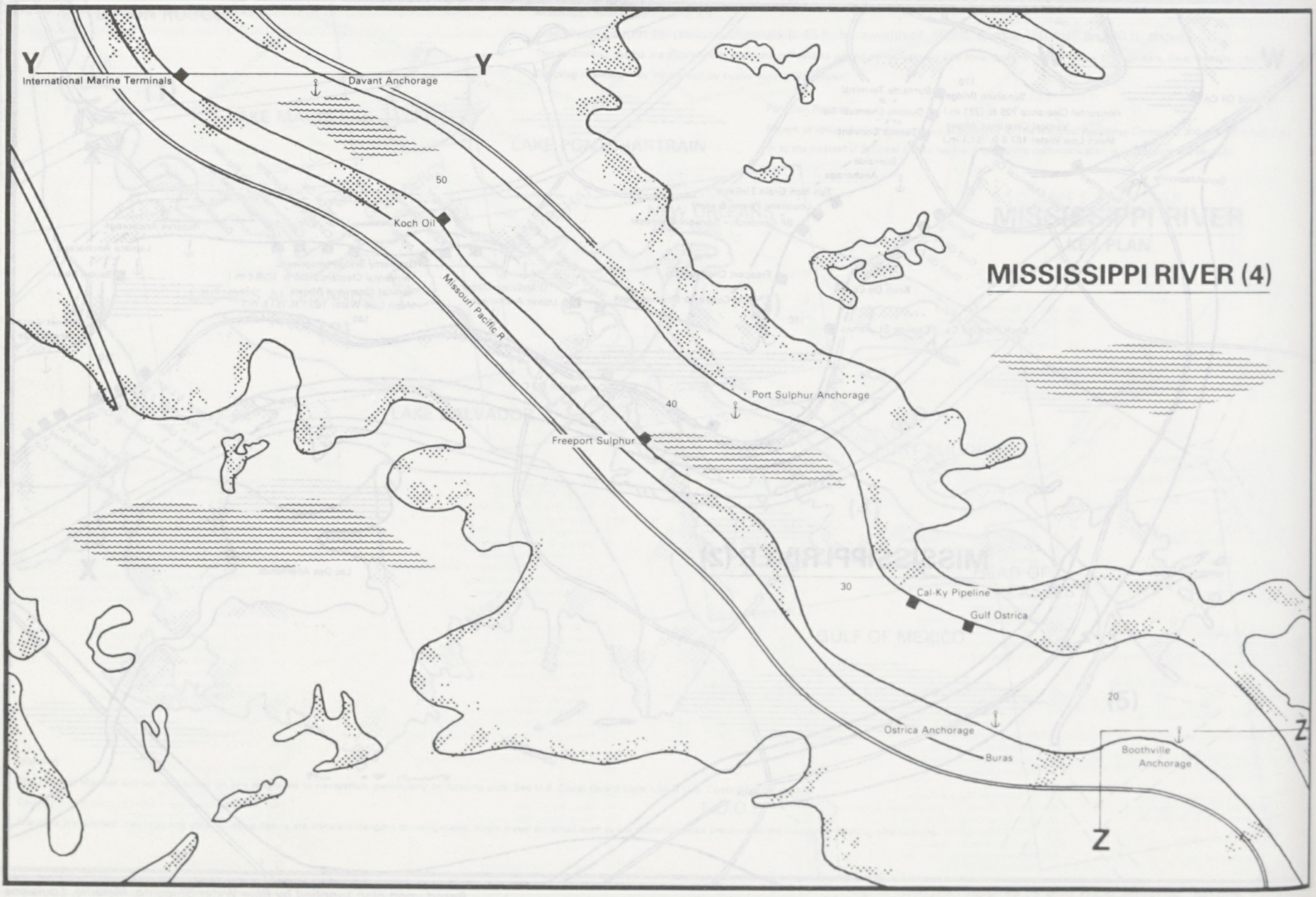
Based upon plan supplied by Blue Water Shipping, Metairie, Louisiana

MISSISSIPPI RIVER (3)

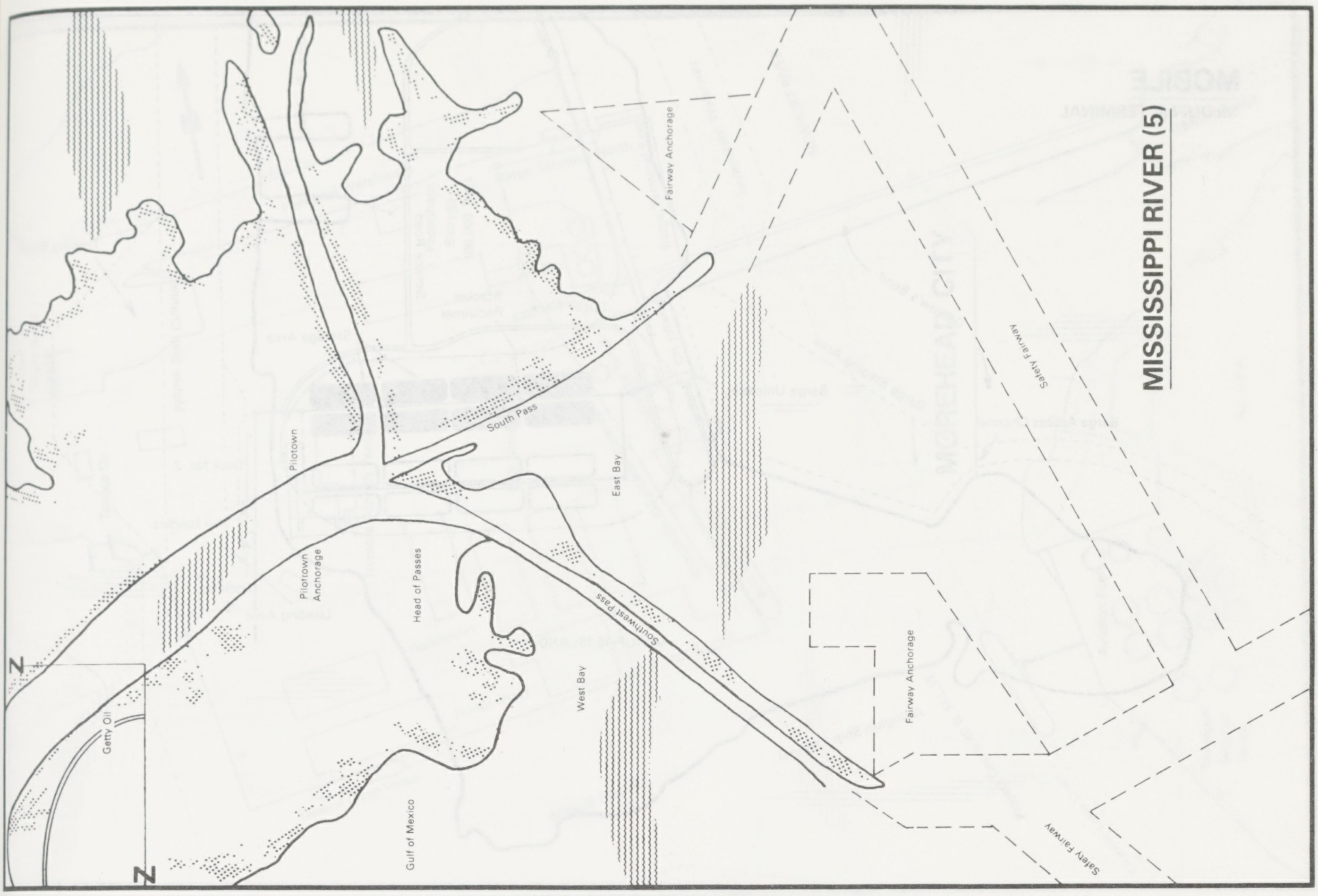

X
Shell Chemical Co.
Shell-Norco
Gatx
Destrehan Anchorage
ADM Milling Co.
St. Charles Grain Elevator
Bunge Grain Elevator
I.M.T.T.
AMA Anchorage
Moisant International Airport
Interstate Highway Bridge Route 410
Horizontal Clearance 1,200 ft. (365.8 m.)
Vertical Clearance Above
Mean Low Water 154.8 ft. (47.2 m.)
Oil Transport Co.
120
110
Monsanto Corp.
Farmers Export Grain Elevator
American Cyanamid Co.
Exxon Oil Co.
Permian Oil Co.
Avondale Shipyard
IMTT Avondale
Huey P. Long Bridge
Horizontal Clearance 750 ft. (228.6 m.)
Vertical Clearance Above Mean Low Water
153 ft. (46.6 m.)
100
Continental Grain Elevator
Public Grain Elevator
Greater New Orleans Bridge
Horizontal Clearance 750 ft. (228.6 m.)
Vertical Clearance Above
Mean Low Water 170 ft. (51.8 m.)
Amstar Sugar
Chalmette Slips
Kaiser Aluminum
Tenneco Oil
Exxon Oil
Mobil Oil
Murphy Oil Meraux
90
General Anchorage
9 Mile Point Anchorage
12 Mile Point Anchorage
80
Amax Freeport Nickel
X
Lake Cataouatche
Belle Chase Anchorage
Chevron Chemical
Bell Chase Dockside Anchorages
Dockside Floating Cranes
70
Wills Point Anchorage
Gulf Section
Lake Salvador
Intracoastal Waterway
Lagrange Alliance Anchorage
Gulf Oil Co.
Mississippi River Grain Elevator
Louisiana Power & Light
60
Y
Y
Electro-Coal Terminal
Myrtle Grove

Based upon plan supplied by Blue Water Shipping, Metairie, Louisiana

MISSISSIPPI RIVER (4)

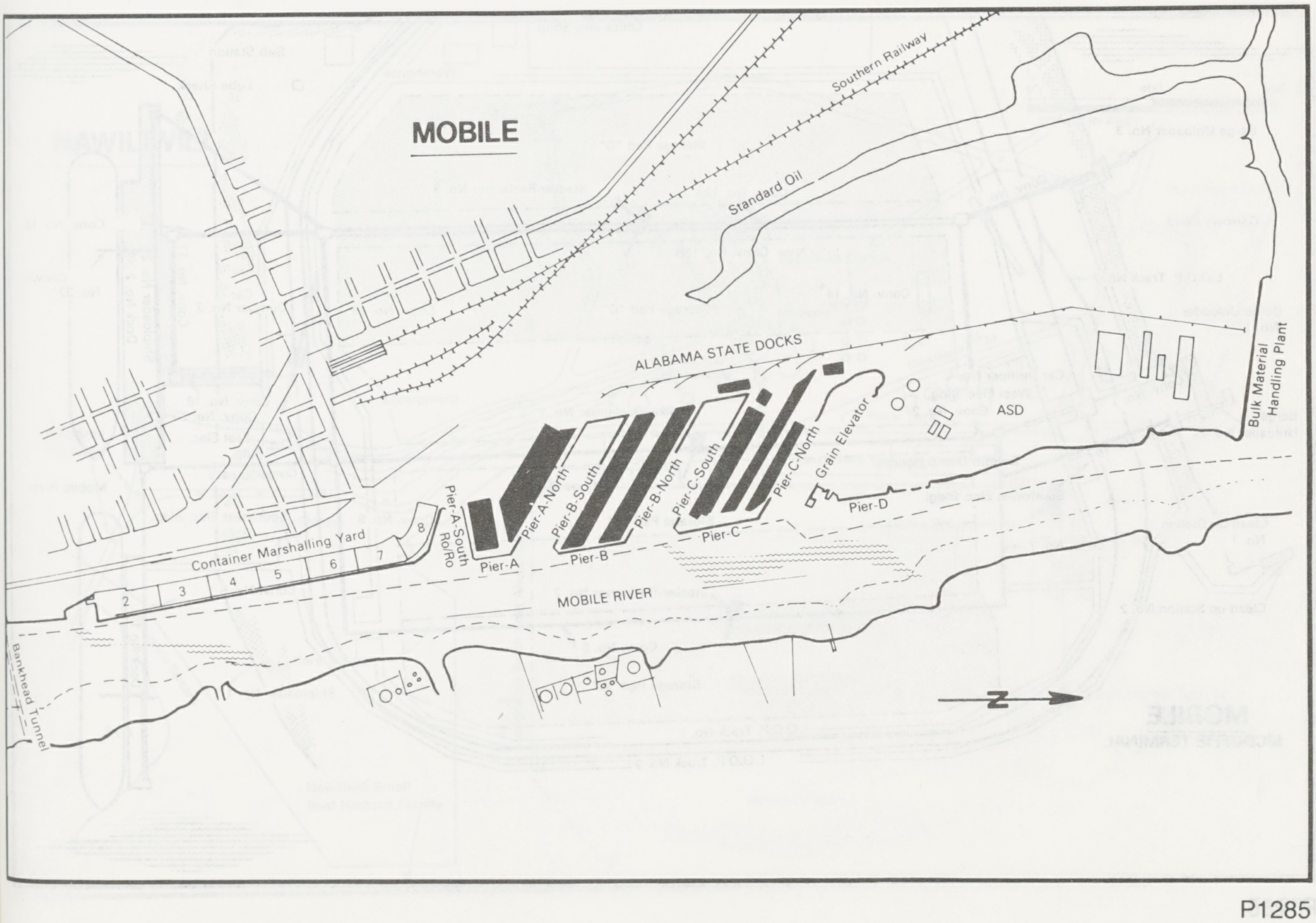

Y
International Marine Terminals
Davant Anchorage
Y
50
Koch Oil
Missouri Pacific R.
Port Sulphur Anchorage
40
Freeport Sulphur
30
Cal-Ky Pipeline
Gulf Ostrica
20
Ostrica Anchorage
Buras
Boothville Anchorage
Z
Z

Based upon plan supplied by Blue Water Shipping, Metairie, Louisiana

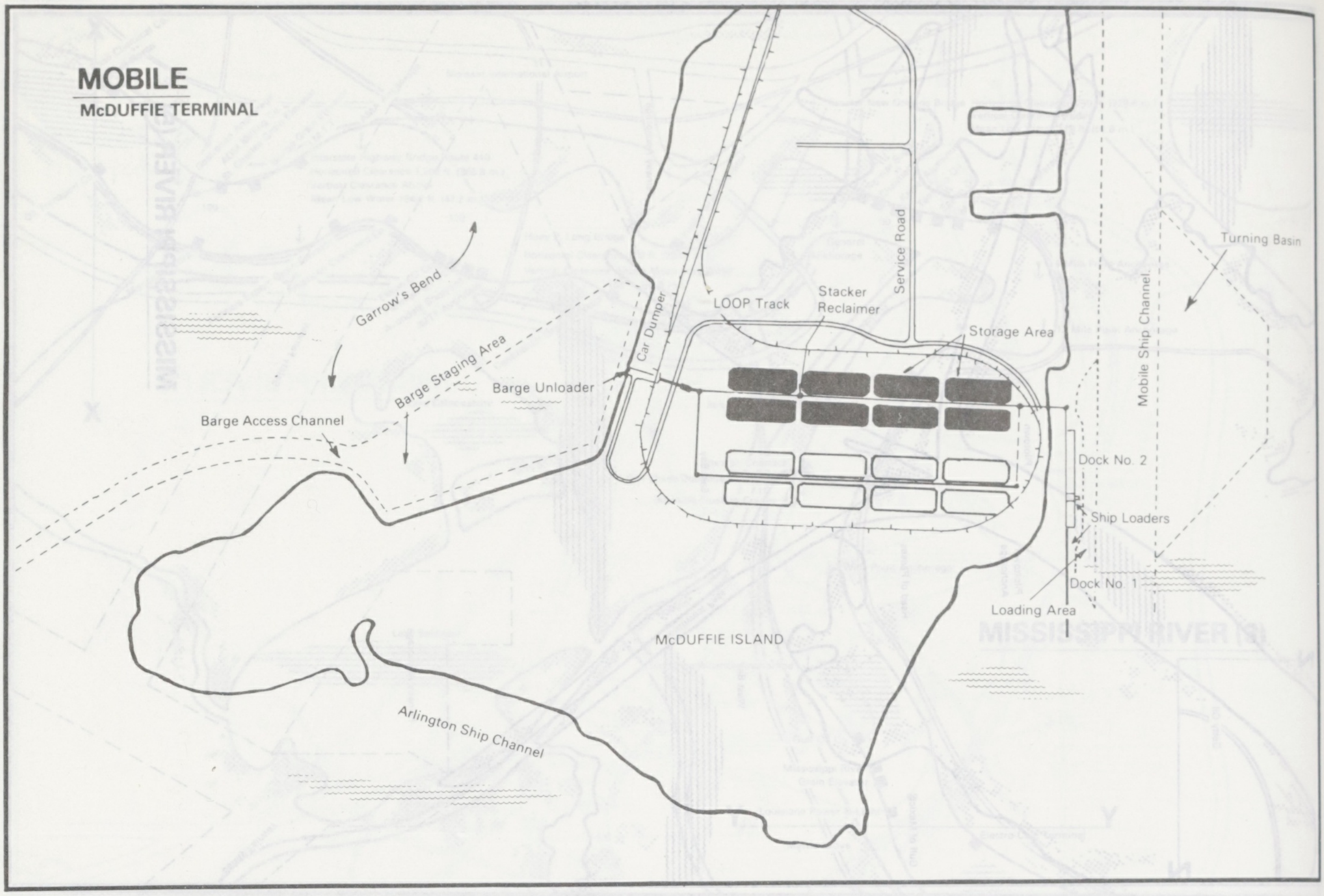

Pilotown
South Pass
East Bay
Pilottown Anchorage
Head of Passes
Southwest Pass
West Bay
Gulf of Mexico
Getty Oil
Fairway Anchorage
Fairway Anchorage
Safety Fairway
Safety Fairway
N
N

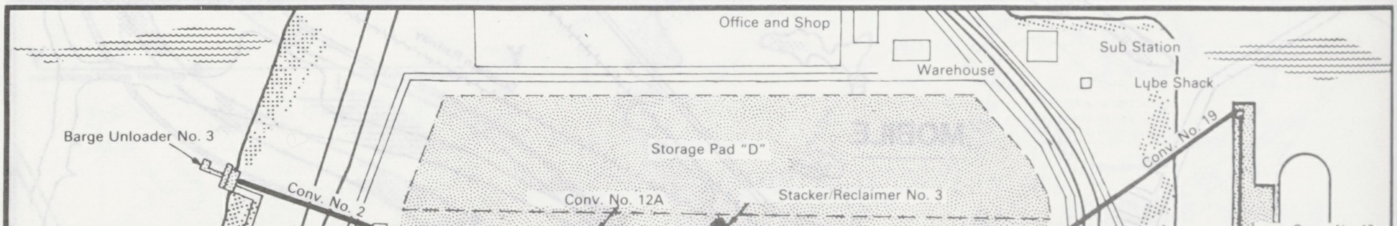
MISSISSIPPI RIVER (5)

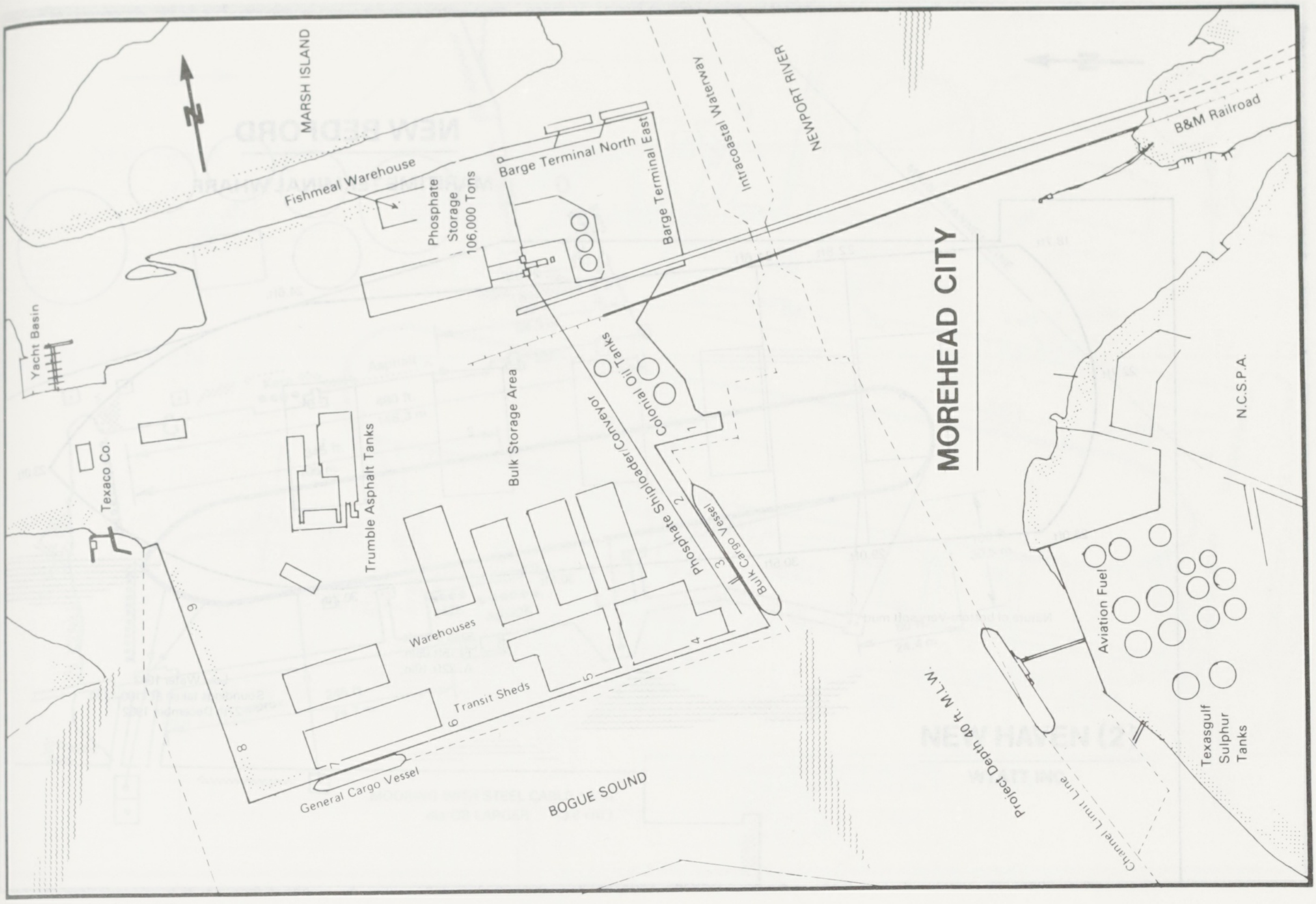
Based upon plan supplied by Blue Water Shipping, Metairie, Louisiana

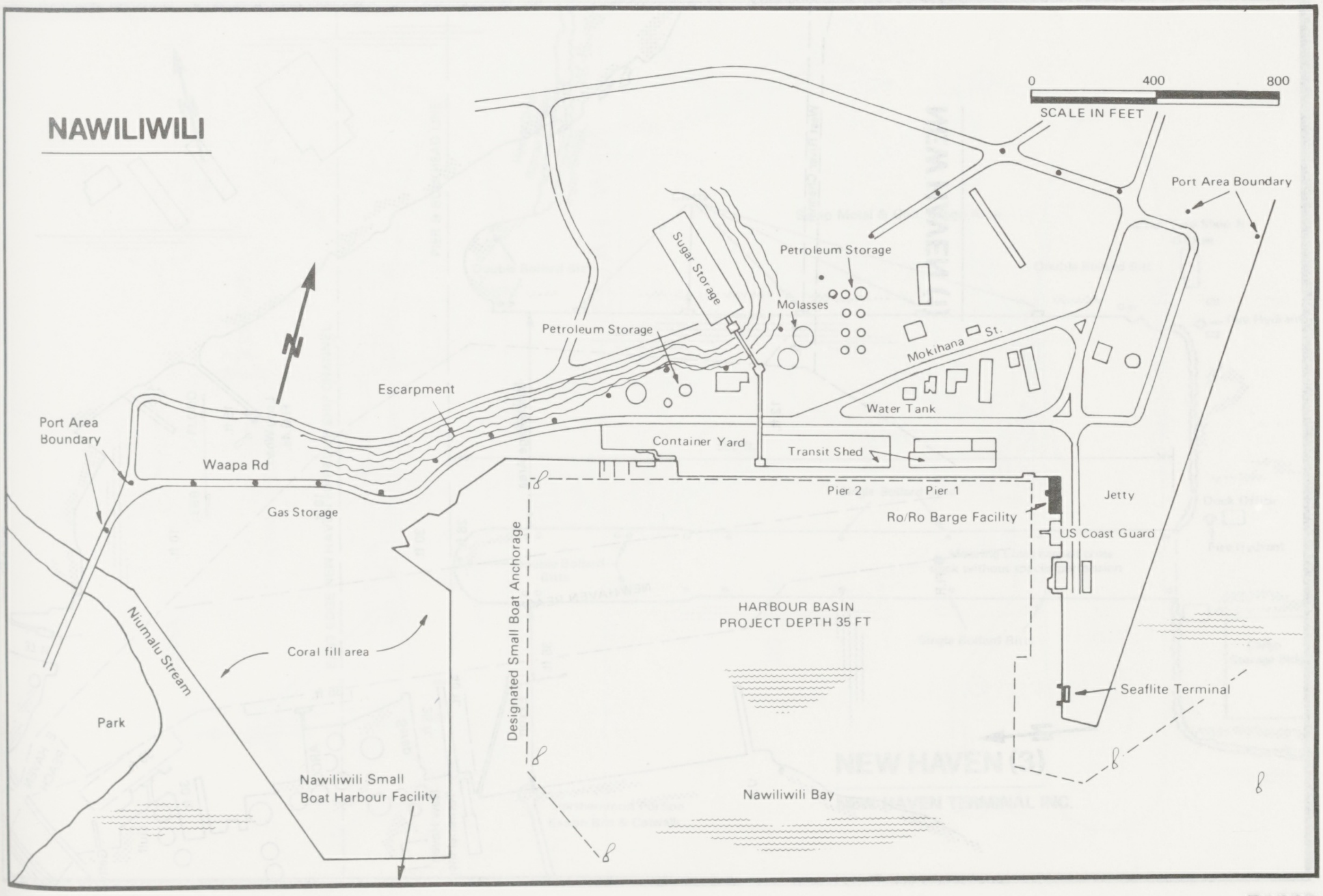

Southern Railway
Standard Oil
ALABAMA STATE DOCKS
ASD
Bulk Material Handling Plant
Grain Elevator
Pier-C-North
Pier-C-South
Pier-B-North
Pier-B-South
Pier-A-North
Pier-A-South Ro/Ro
Pier-A
Pier-B
Pier-C
Pier-D
Container Marshalling Yard
2
3
4
5
6
7
8
MOBILE RIVER
Bankhead Tunnel
N

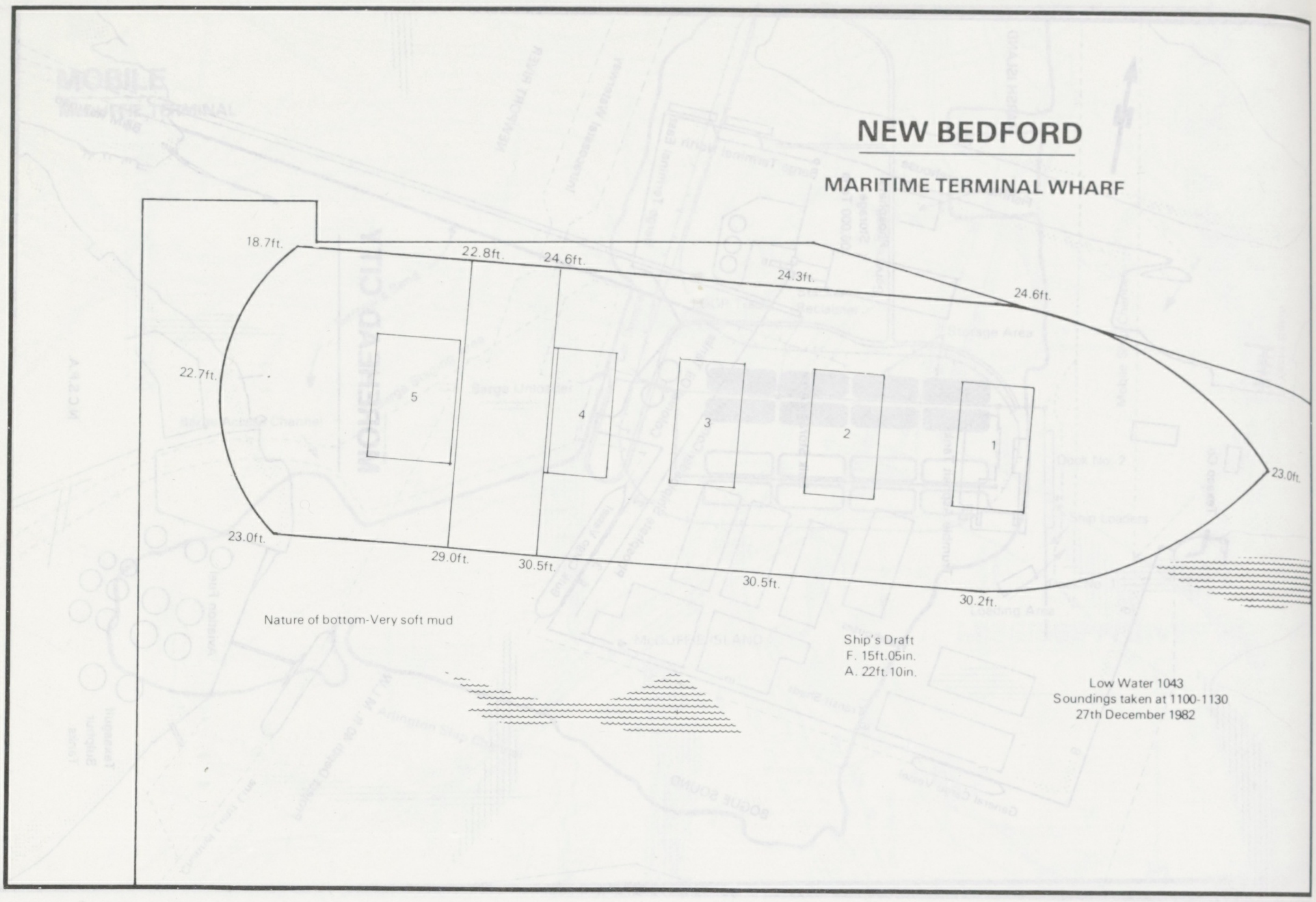
MOBILE


MOBILE
McDUFFIE TERMINAL
Garrow's Bend
Barge Staging Area
Barge Access Channel
Barge Unloader
Car Dumper
LOOP Track
Stacker Reclaimer
Service Road
Storage Area
Turning Basin
Mobile Ship Channel
Dock No. 2
Ship Loaders
Dock No. 1
Loading Area
McDUFFIE ISLAND
Arlington Ship Channel

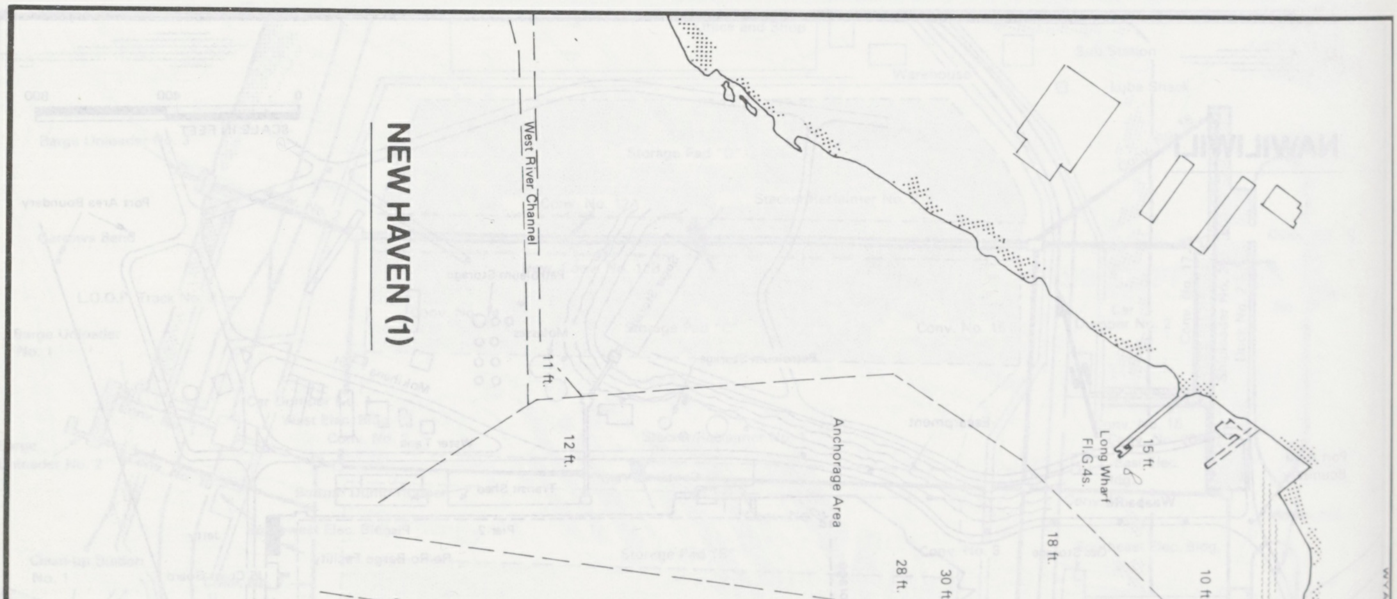

Office and Shop
Warehouse
Sub Station
Lube Shack
Barge Unloader No. 3
Conv. No. 2
Conv. No. 12A
Stacker/Reclaimer No. 3
Storage Pad "D"
Conv. No. 19
Conv. No. 18
Garrows Bend
New. Conv. No. 12B
L.O.O.P. Track No. 2
Conv. No. 14
Storage Pad "C"
Conv. No. 15
Car Dumper No. 2
Conv. No. 17
Shiploader No. 2
Dock No. 2
Conv. No. 22
Barge Unloader No. 1
Conv. No. 1
Car Dumper No. 1
West Elec. Bldg.
Conv. No. 2
Barge Unloader No. 2
Conv. No. 10
Stacker/Reclaimer No. 1
Conv. No. 16
Conv. No. 20
East Elec. Bldg.
Bottom Dump Hopper
Conv. No. 3
Conv. No. 4
Mobile River
Southwest Elec. Bldg.
Clean-up Station No. 1
Storage Pad "B"
Conv. No. 9
Southeast Elec. Bldg.
Conv. No. 7
Conv. No. 5
Clean-up Station No. 2
Stacker/Reclaimer No. 2
Conv. No. 8
Dock No 1
Storage Pad "A"
Shiploader No. 1
MOBILE
MCDUFFIE TERMINAL
L.O.O.P. Track No. 1
L.O.O.P. Track No. 2

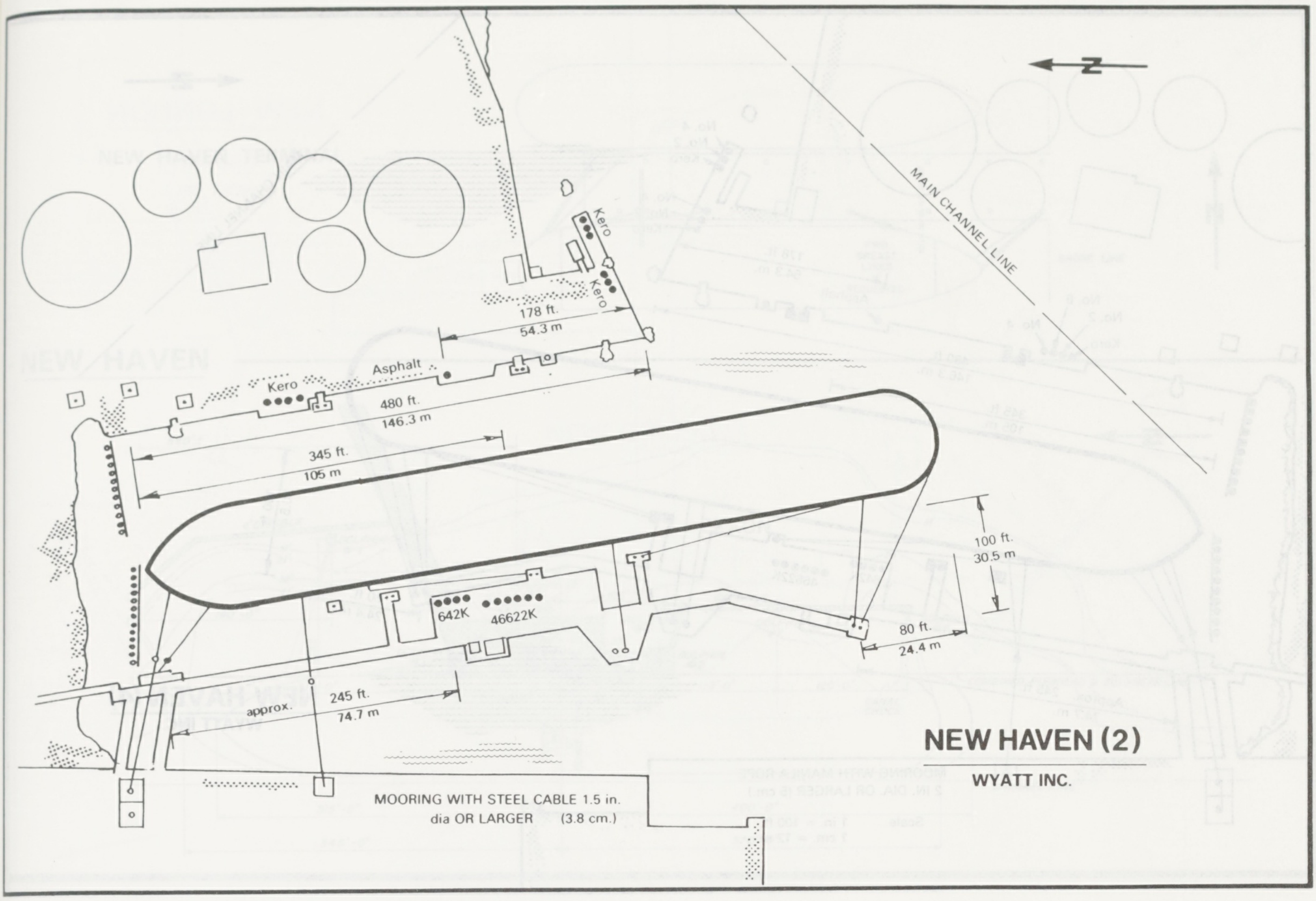

MOREHEAD CITY
N
MARSH ISLAND
Fishmeal Warehouse
Phosphate Storage 106,000 Tons
Barge Terminal North
Barge Terminal East
Intracoastal Waterway
NEWPORT RIVER
B&M Railroad
Yacht Basin
Texaco Co.
Trumble Asphalt Tanks
Bulk Storage Area
Colonial Oil Tanks
Phosphate Shiploader Conveyor
Bulk Cargo Vessel
1
2
3
4
5
6
7
8
9
Warehouses
Transit Sheds
General Cargo Vessel
BOGUE SOUND
Project Depth 40 ft. M.L.W.
Channel Limit Line
Aviation Fuel
Texasgulf Sulphur Tanks
N.C.S.P.A.


NAWILIWILI
0
400
800
SCALE IN FEET
N
Port Area Boundary
Petroleum Storage
Sugar Storage
Molasses
Petroleum Storage
Mokihana St.
Water Tank
Escarpment
Container Yard
Transit Shed
Pier 2
Pier 1
Jetty
Ro/Ro Barge Facility
US Coast Guard
Port Area Boundary
Waapa Rd
Gas Storage
Niumalu Stream
Coral fill area
Park
Designated Small Boat Anchorage
HARBOUR BASIN
PROJECT DEPTH 35 FT
Seaflite Terminal
Nawiliwili Small Boat Harbour Facility
Nawiliwili Bay


NEW BEDFORD
MARITIME TERMINAL WHARF
18.7ft.
22.8ft.
24.6ft.
24.3ft.
24.6ft.
22.7ft.
5
4
3
2
1
23.0ft.
23.0ft.
29.0ft.
30.5ft.
30.5ft.
30.2ft.
Nature of bottom-Very soft mud
Ship's Draft
F. 15ft.05in.
A. 22ft.10in.
Low Water 1043
Soundings taken at 1100-1130
27th December 1982

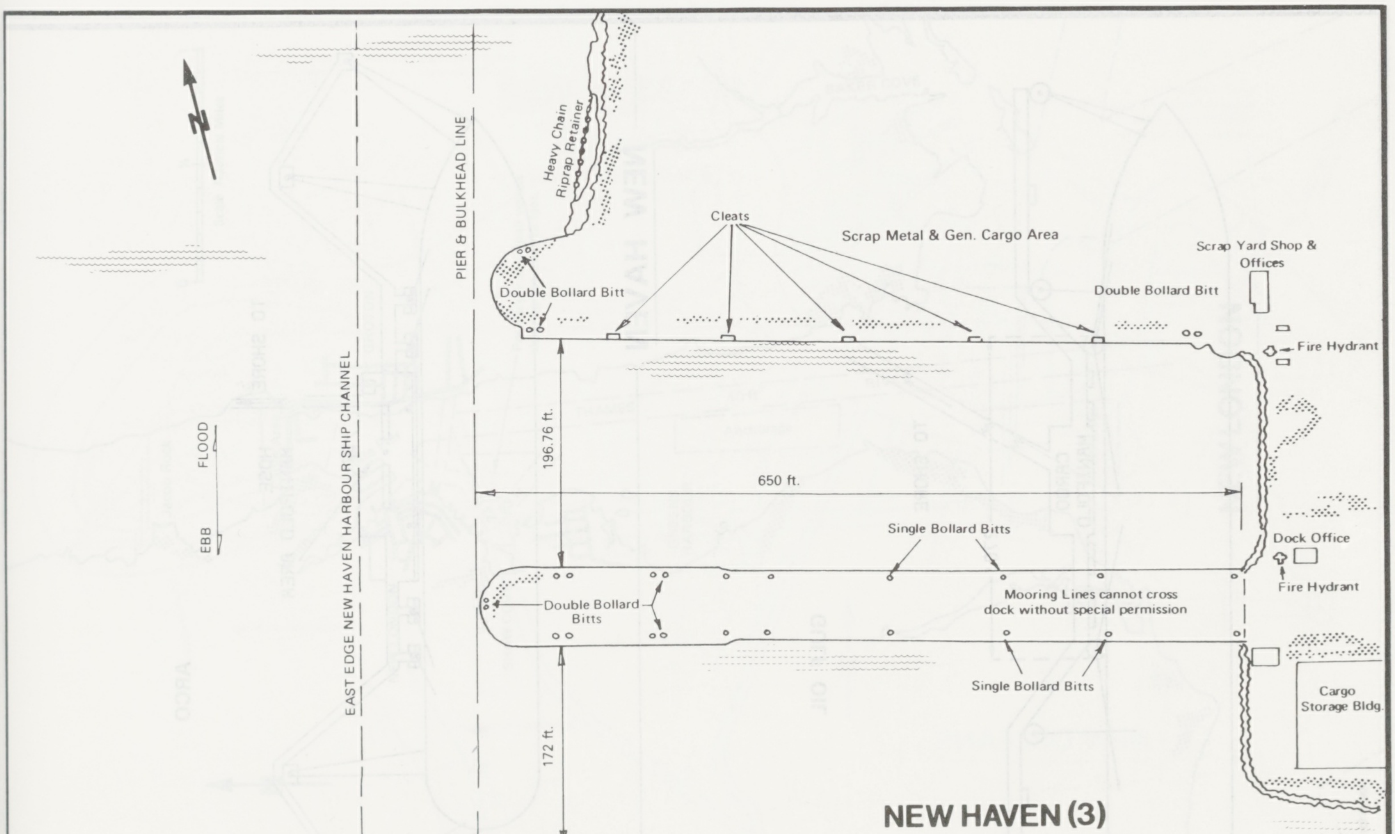
"Plan supplied by Ship's Master"


NEW HAVEN (1)
West River Channel
11 ft.
12 ft.
Anchorage Area
Long Wharf
Fl.G.4s.
15 ft.
18 ft.
10 ft.
28 ft.
30 ft.
NEW HAVEN REACH
Fl.R.
35 ft.
Exxon
40 ft.
35 ft.
Scrap
ARCO
35 ft.
New Haven Terminal Inc.
30 ft.
Gulf
Getty
35 ft.
E. HAVEN REACH
37 ft.
U.I.
N


N
MAIN CHANNEL LINE
Kero
Kero
178 ft.
54.3 m
Asphalt
Kero
480 ft.
146.3 m
345 ft.
105 m
100 ft.
30.5 m
642K
46622K
80 ft.
24.4 m
approx.
245 ft.
74.7 m
MOORING WITH STEEL CABLE 1.5 in.
dia OR LARGER (3.8 cm.)

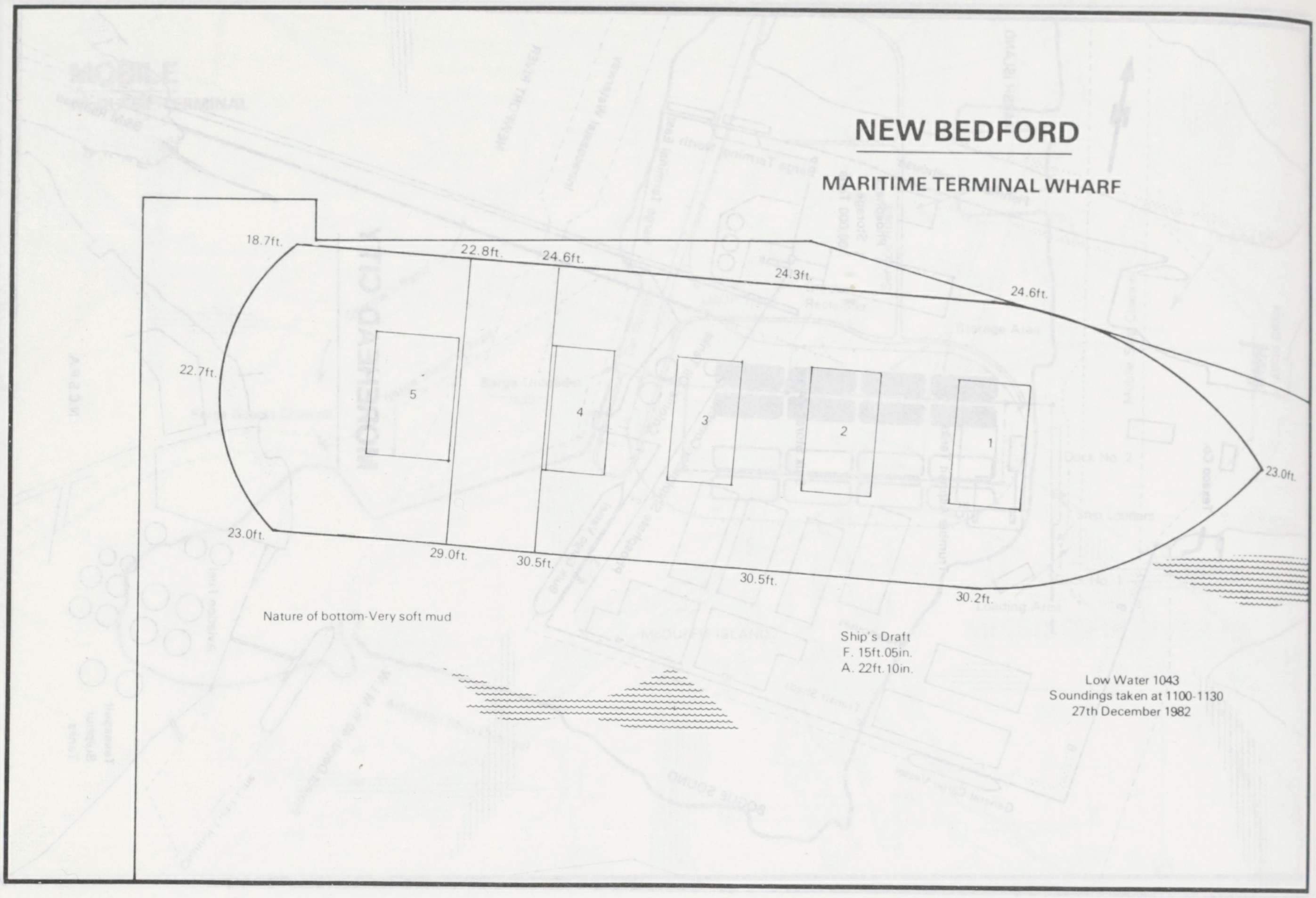
NEW HAVEN (2)

WYATT INC.

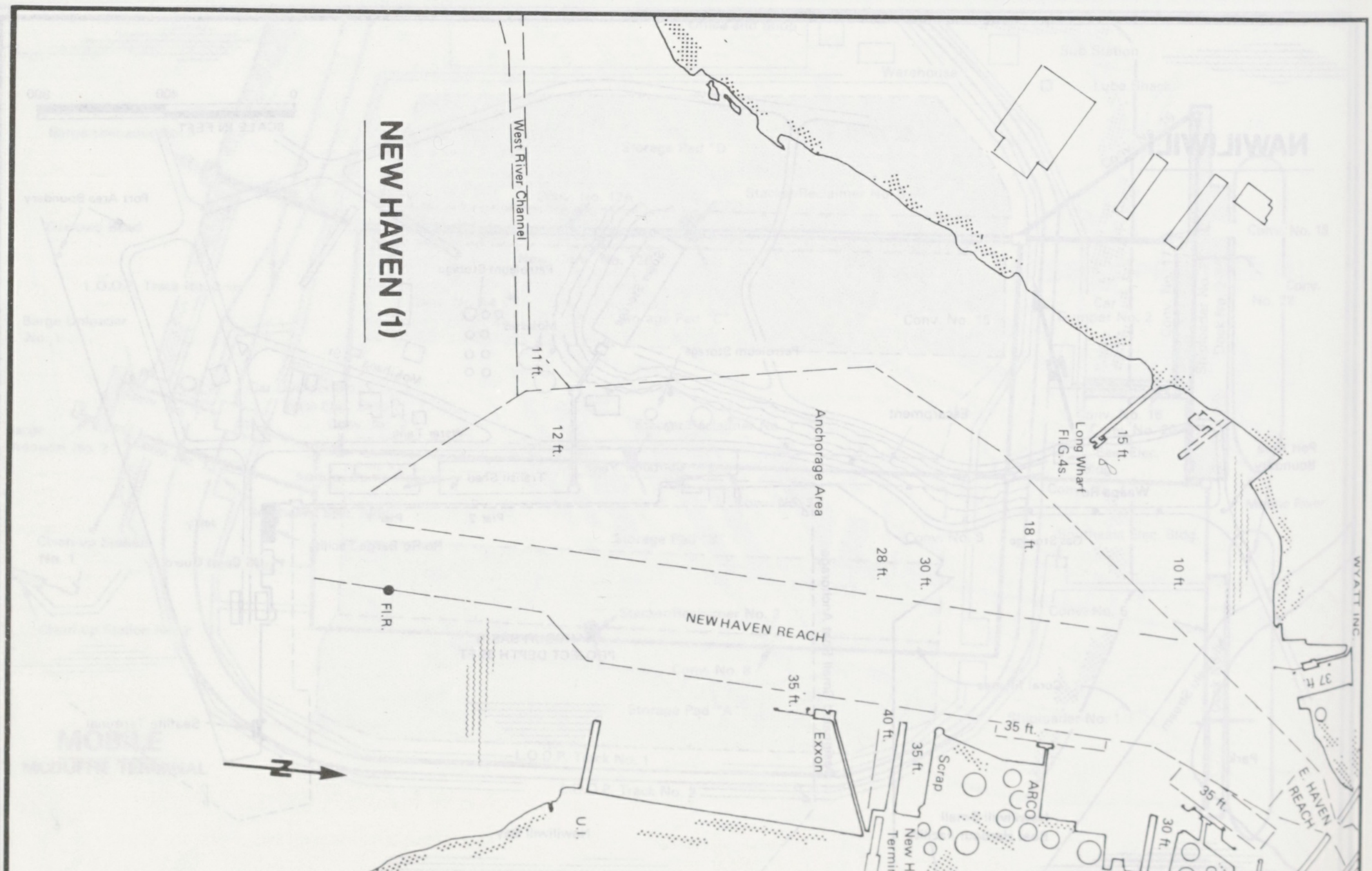

N
FLOOD
EBB
EAST EDGE NEW HAVEN HARBOUR SHIP CHANNEL
PIER & BULKHEAD LINE
Heavy Chain
Riprap Retainer
Cleats
Scrap Metal & Gen. Cargo Area
Scrap Yard Shop &
Offices
Double Bollard Bitt
Double Bollard Bitt
Fire Hydrant
196.76 ft.
650 ft.
Single Bollard Bitts
Dock Office
Fire Hydrant
Double Bollard
Bitts
Mooring Lines cannot cross
dock without special permission
Single Bollard Bitts
Cargo
Storage Bldg.
172 ft.
Northernmost Portion
Exxon Bitt & Catwalk

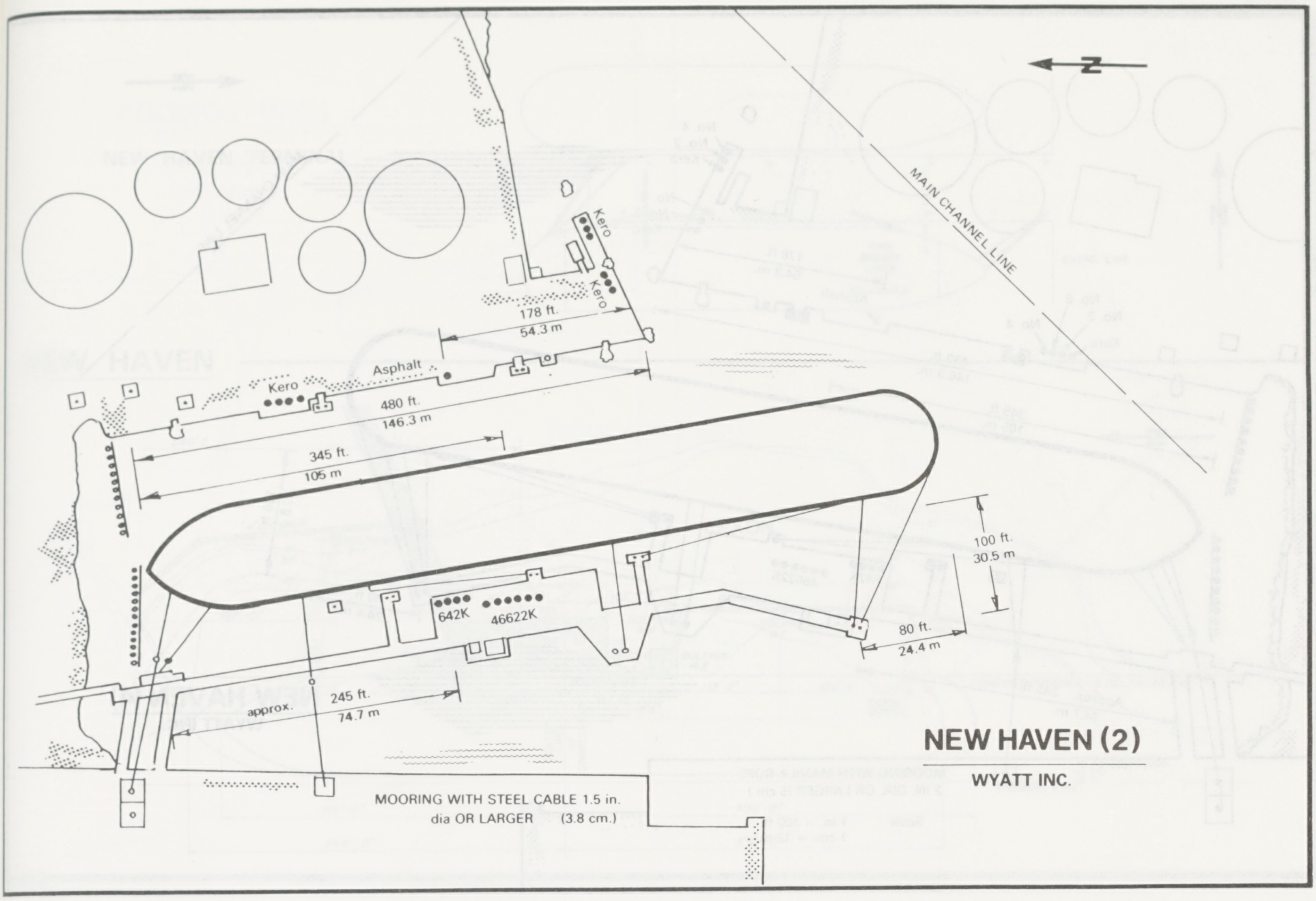
NEW HAVEN (3)

NEW HAVEN TERMINAL INC.


NEW BEDFORD
MARITIME TERMINAL WHARF
18.7ft.
22.8ft.
24.6ft.
24.3ft.
24.6ft.
22.7ft.
5
4
3
2
1
23.0ft.
23.0ft.
29.0ft.
30.5ft.
30.5ft.
30.2ft.
Nature of bottom-Very soft mud
Ship's Draft
F. 15ft.05in.
A. 22ft.10in.
Low Water 1043
Soundings taken at 1100-1130
27th December 1982

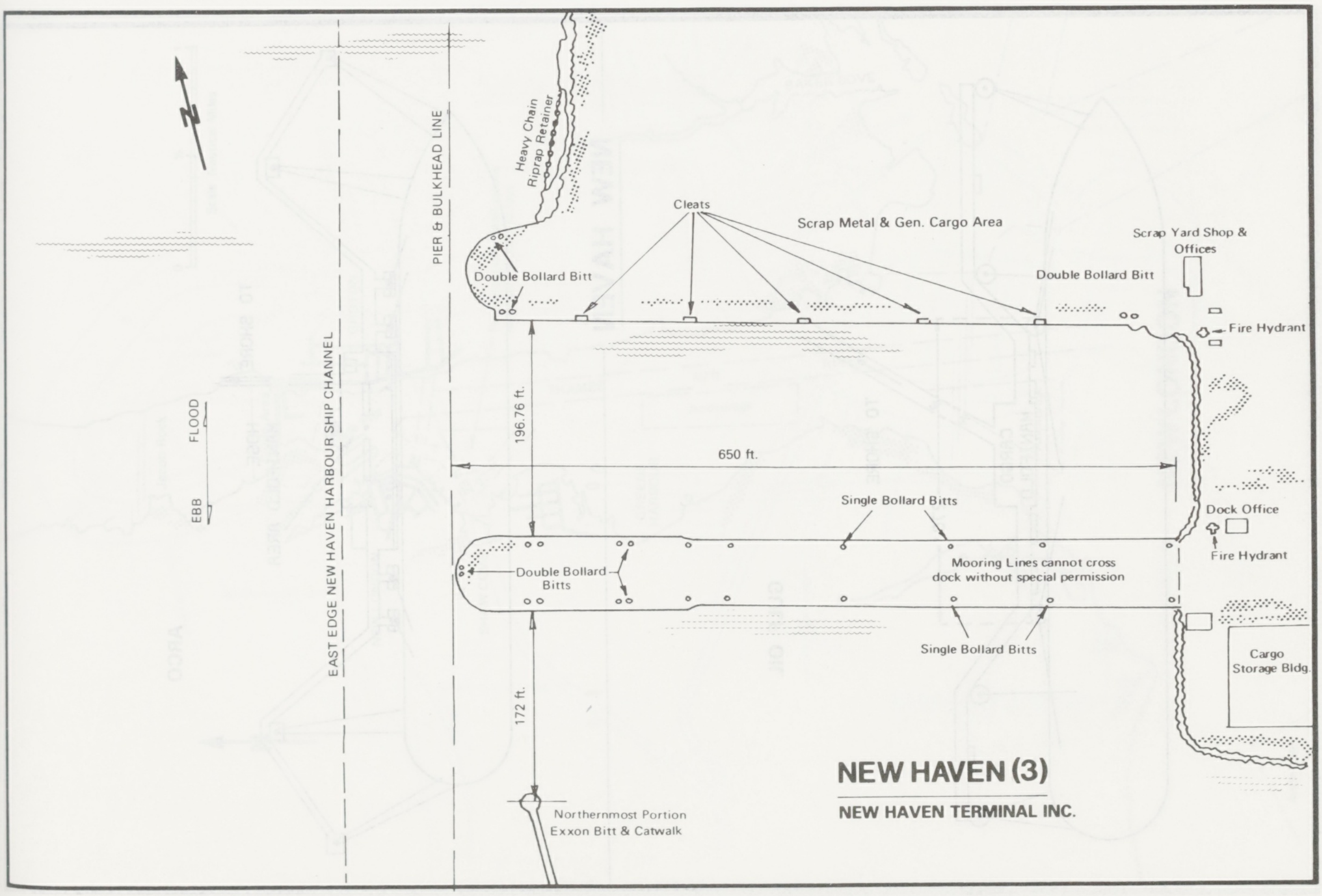
"Plan supplied by Ship's Master"


NEW HAVEN (1)
West River Channel
11 ft.
12 ft.
Anchorage Area
Long Wharf
Fl.G 4s.
15 ft.
18 ft.
10 ft.
28 ft.
30 ft.
F.R.
NEW HAVEN REACH
35 ft.
40 ft.
35 ft.
35 ft.
Exxon
Scrap
ARCO
New Haven Terminal Inc.
U.I.
30 ft.
Gulf
Getty
35 ft.
E. HAVEN REACH
37 ft.
WYATT INC.
N


N
MAIN CHANNEL LINE
Kero
Kero
178 ft.
54.3 m
Asphalt
Kero
480 ft.
146.3 m
345 ft.
105 m
100 ft.
30.5 m
642K
46622K
80 ft.
24.4 m
approx.
245 ft.
74.7 m
MOORING WITH STEEL CABLE 1.5 in.
dia OR LARGER (3.8 cm.)

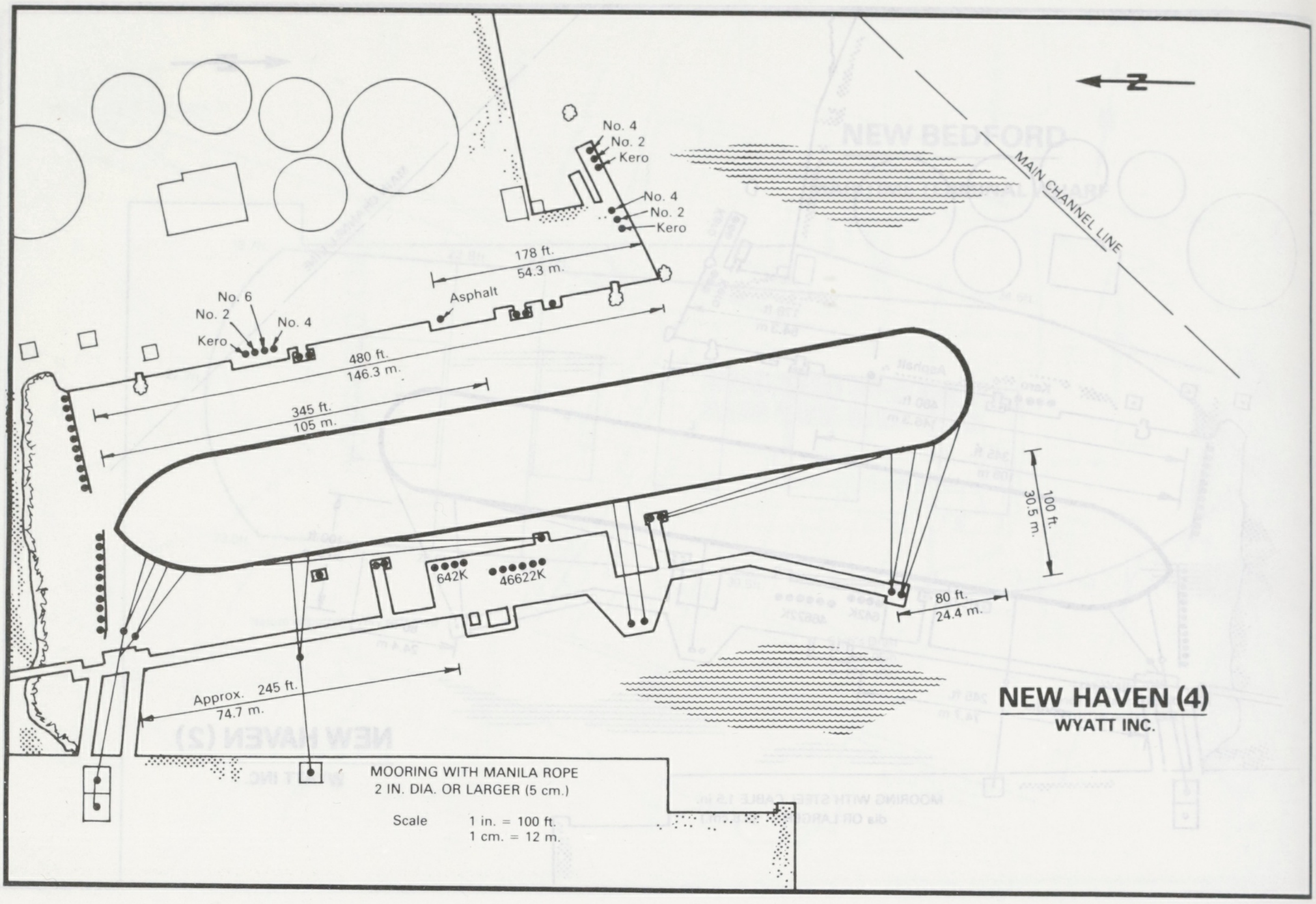
NEW HAVEN (2)

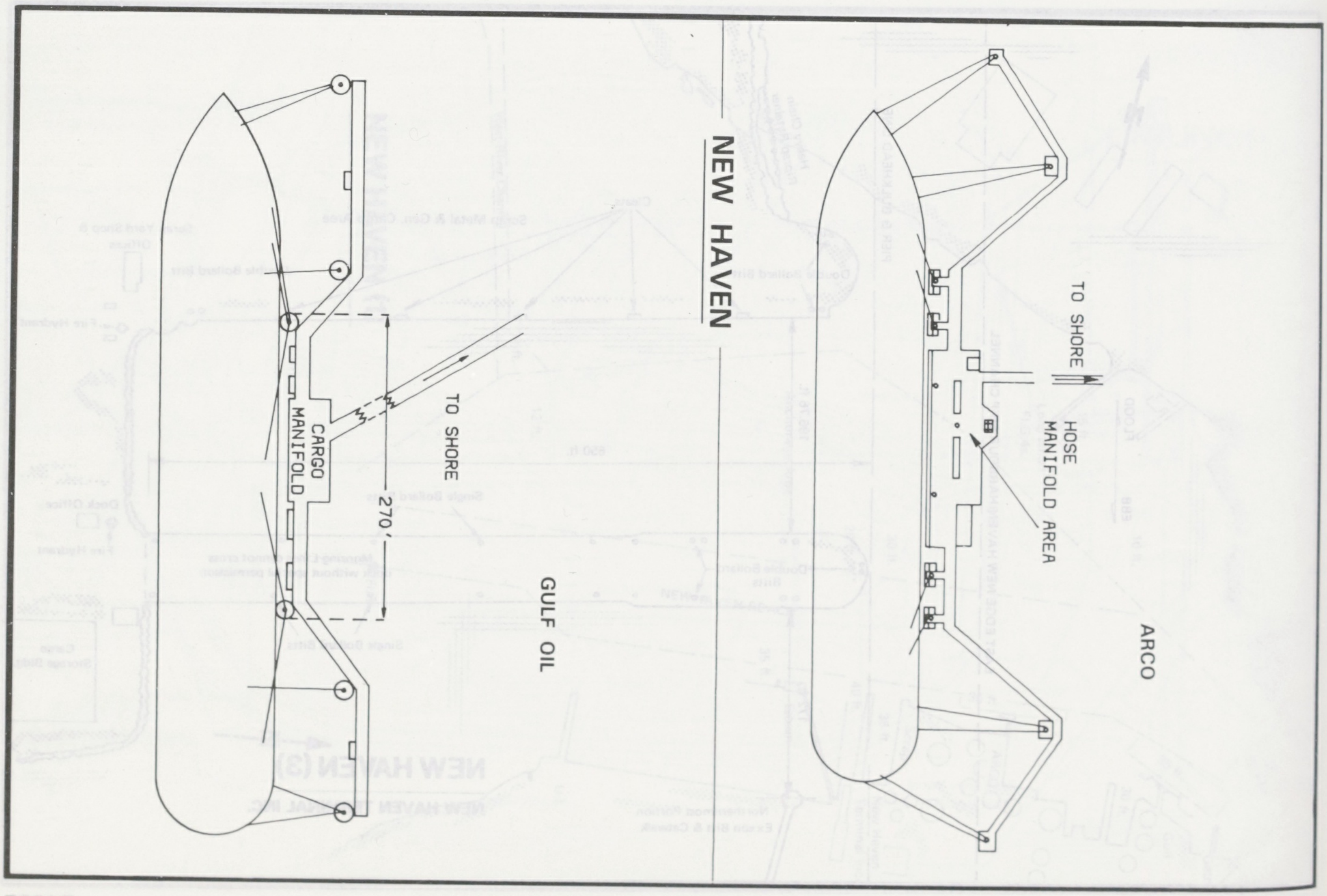
WYATT INC.


N
FLOOD
EBB
EAST EDGE NEW HAVEN HARBOUR SHIP CHANNEL
PIER & BULKHEAD LINE
Heavy Chain
Riprap Retainer
Cleats
Scrap Metal & Gen. Cargo Area
Scrap Yard Shop &
Offices
Double Bollard Bitt
Double Bollard Bitt
Fire Hydrant
196.76 ft.
650 ft.
Single Bollard Bitts
Dock Office
Fire Hydrant
Double Bollard
Bitts
Mooring Lines cannot cross
dock without special permission
Single Bollard Bitts
Cargo
Storage Bldg.
172 ft.
Northernmost Portion
Exxon Bitt & Catwalk

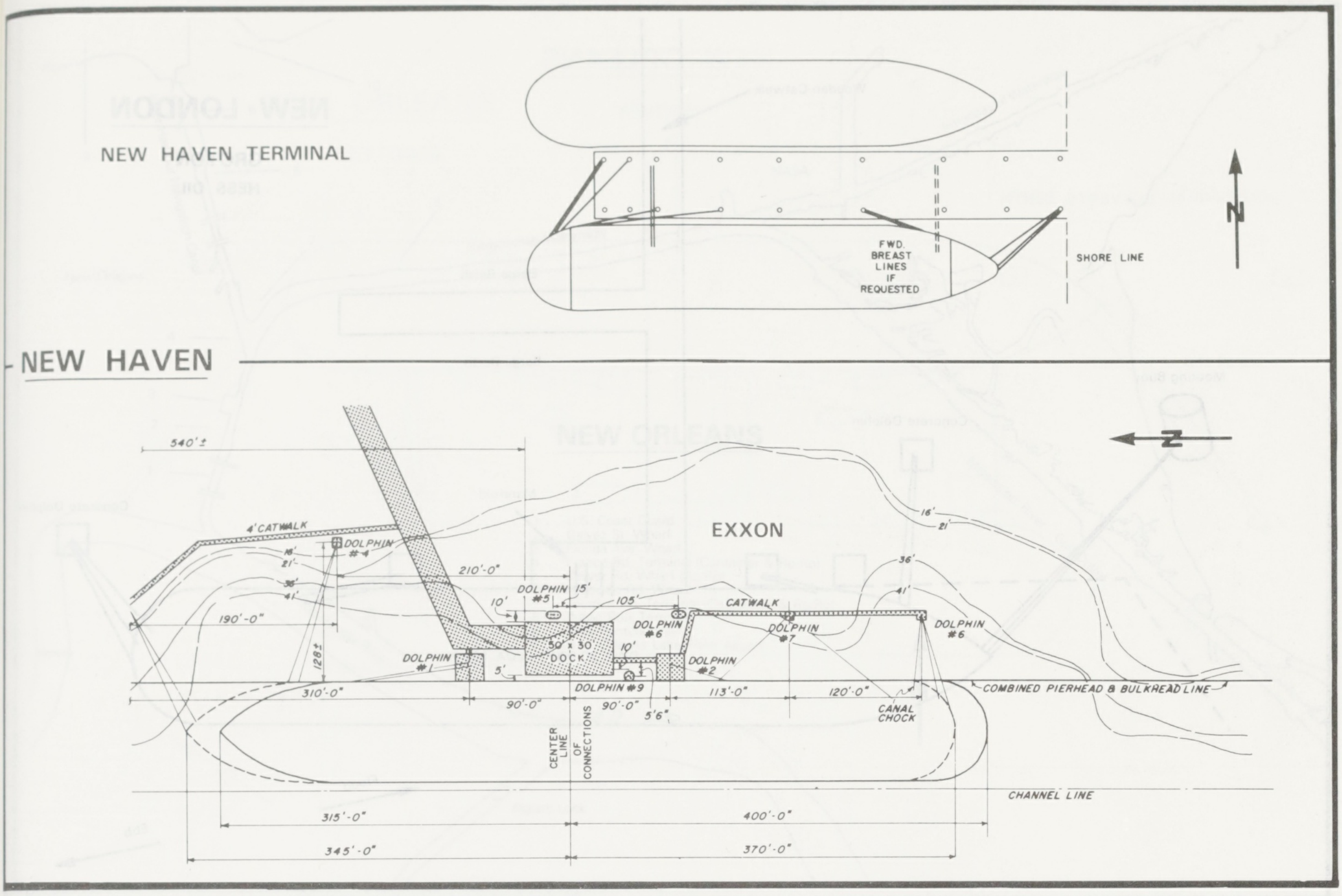
NEW HAVEN (3)

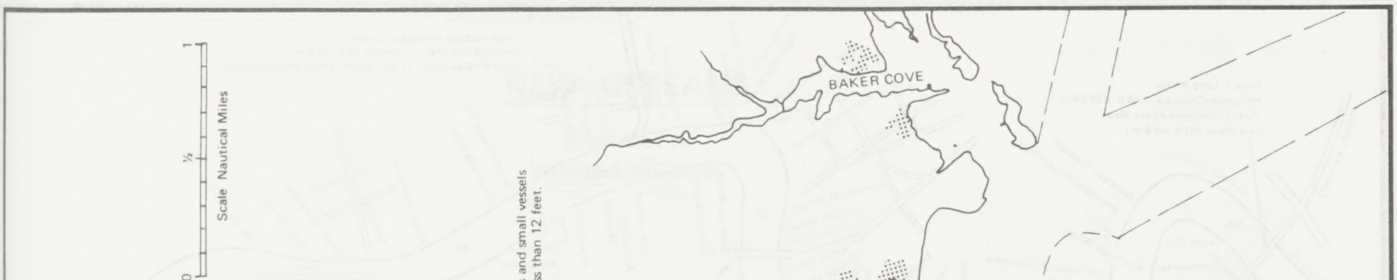
NEW HAVEN TERMINAL INC.

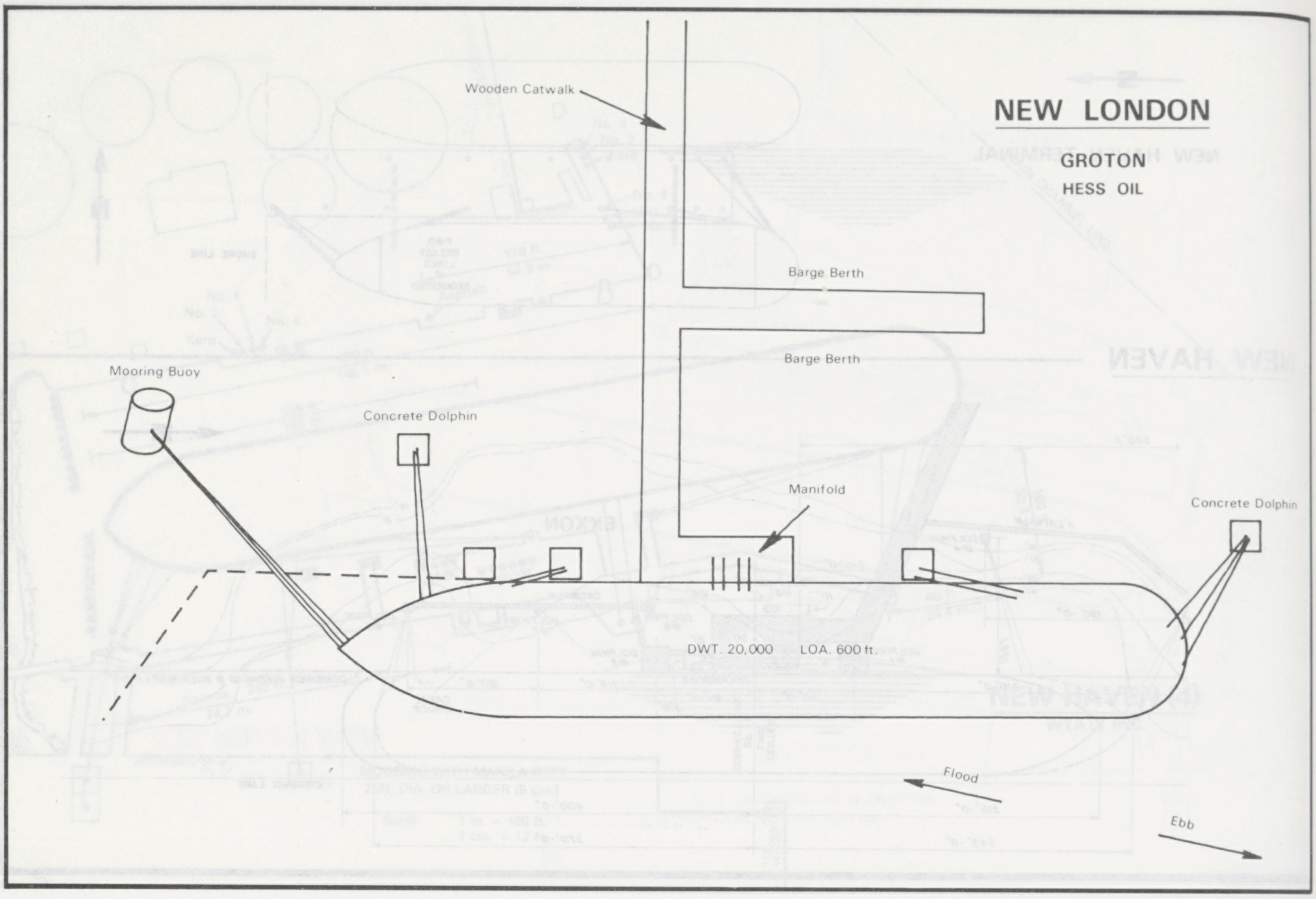

N
MAIN CHANNEL LINE
No. 4
No. 2
Kero
No. 4
No. 2
Kero
178 ft.
54.3 m.
Asphalt
No. 6
No. 2
No. 4
Kero
480 ft.
146.3 m.
345 ft.
105 m.
100 ft.
30.5 m.
642K
46622K
80 ft.
24.4 m.
Approx. 245 ft.
74.7 m.
NEW HAVEN (4)
WYATT INC.
MOORING WITH MANILA ROPE
2 IN. DIA. OR LARGER (5 cm.)
Scale 1 in. = 100 ft.
1 cm. = 12 m.

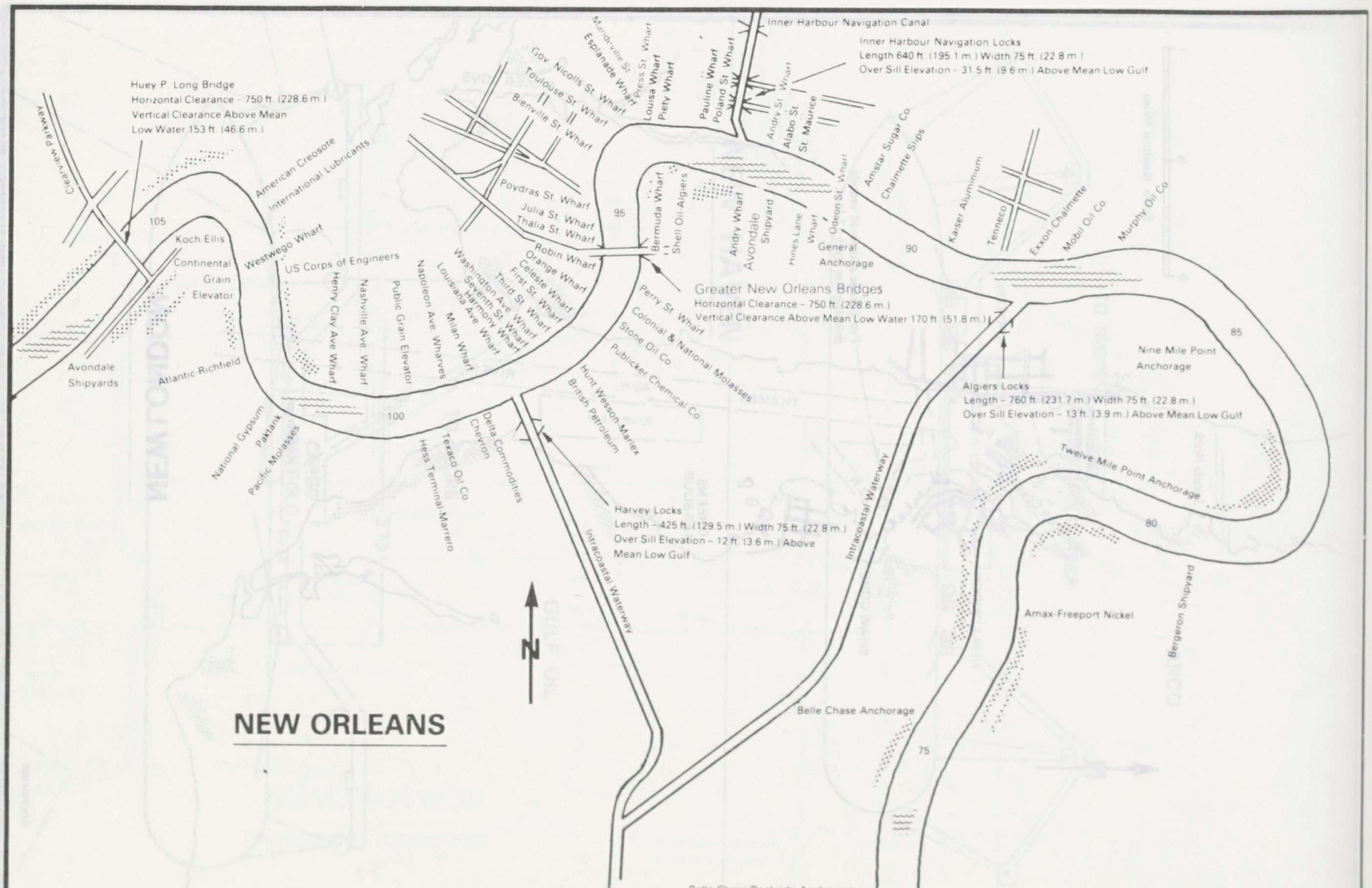

NEW HAVEN
CARGO MANIFOLD
TO SHORE
270'
GULF OIL
TO SHORE
HOSE MANIFOLD AREA
ARCO

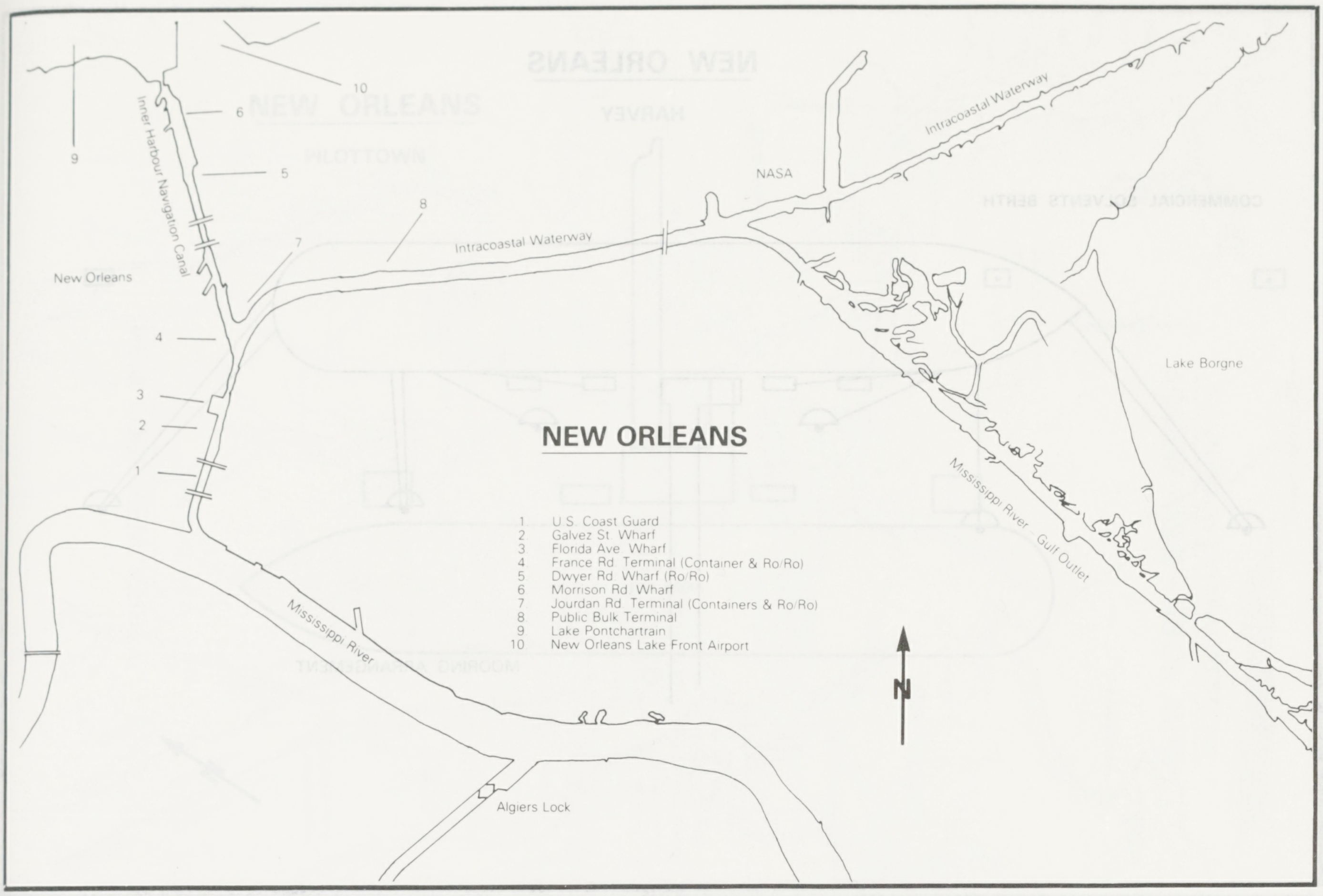
NEW HAVEN

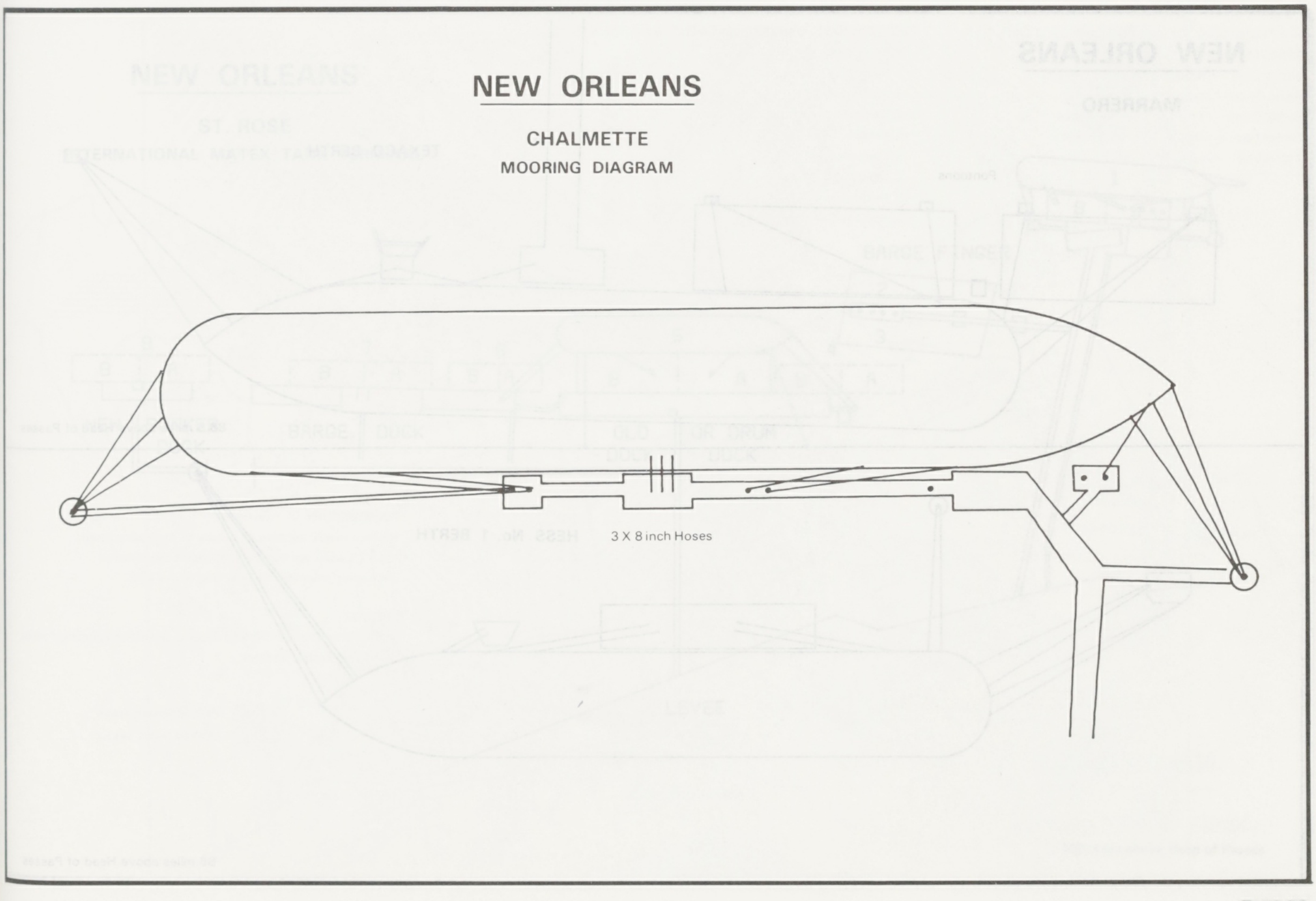

NEW HAVEN TERMINAL
FWD. BREAST LINES IF REQUESTED
SHORE LINE
N
540'±
4' CATWALK
DOLPHIN #4
16'
21'
36'
41'
210'-0"
DOLPHIN #5
15'
10'
105'
190'-0"
128±
DOLPHIN #1
50' x 30 DOCK
5'
10'
DOLPHIN #6
CATWALK
DOLPHIN #7
DOLPHIN #6
DOLPHIN #2
DOLPHIN #9
EXXON
310'-0"
90'-0"
90'-0"
5'6"
113'-0"
120'-0"
CANAL CHOCK
COMBINED PIERHEAD & BULKHEAD LINE
CENTER LINE OF CONNECTIONS
CHANNEL LINE
315'-0"
400'-0"
345'-0"
370'-0"

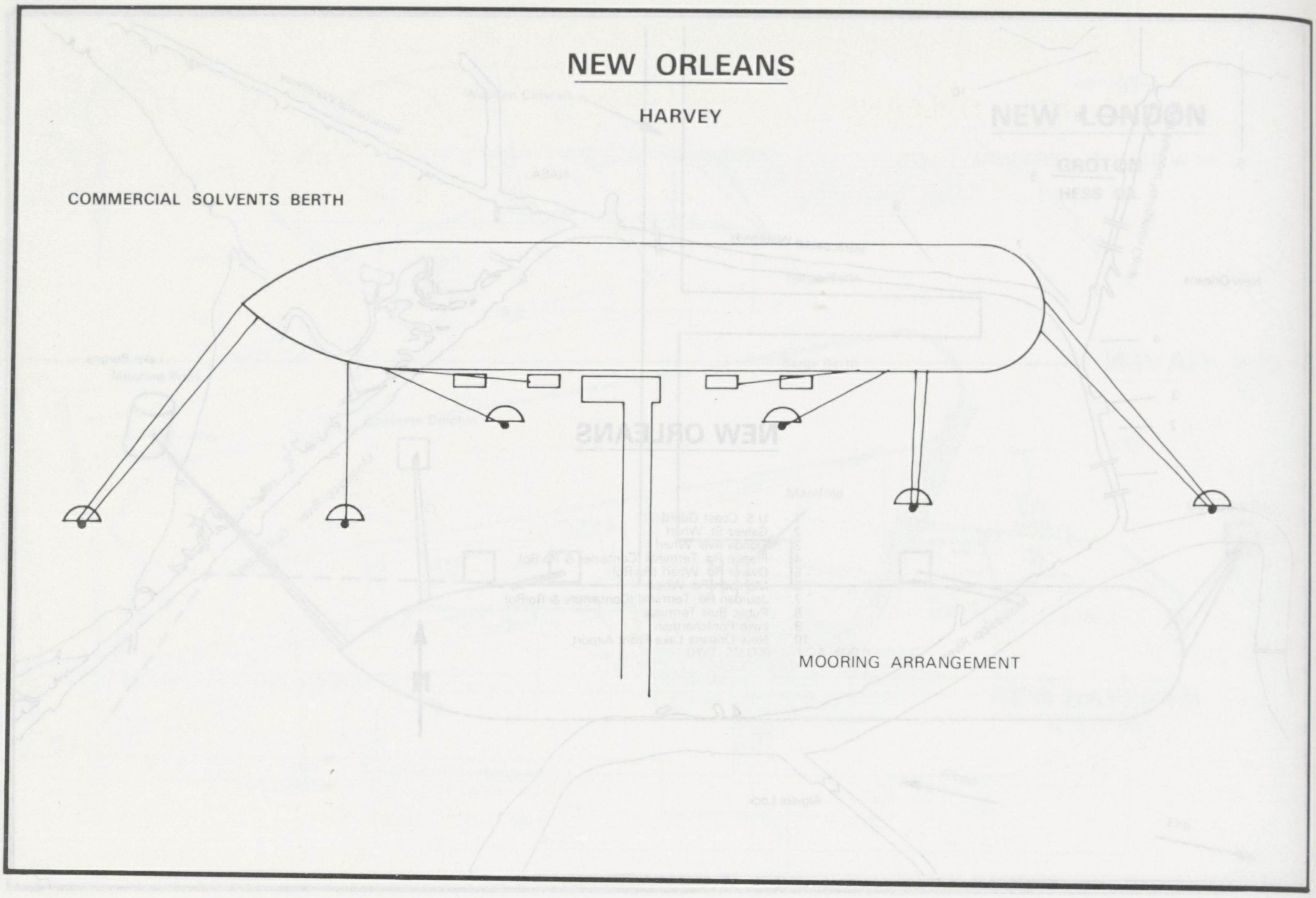

Scale Nautical Miles
0
½
1
For Barges and small vessels drawing less than 12 feet.
GROTON
BAKER COVE
THAMES RIVER
40 ft.
Anchorage
Anchorage
Cable Area
State Pier
Jacob Rock
Winthrop Cove
23 ft.
23 ft.
NEW LONDON
SHAW COVE
GREENS HARBOUR
NEW LONDON
N
Anchorage

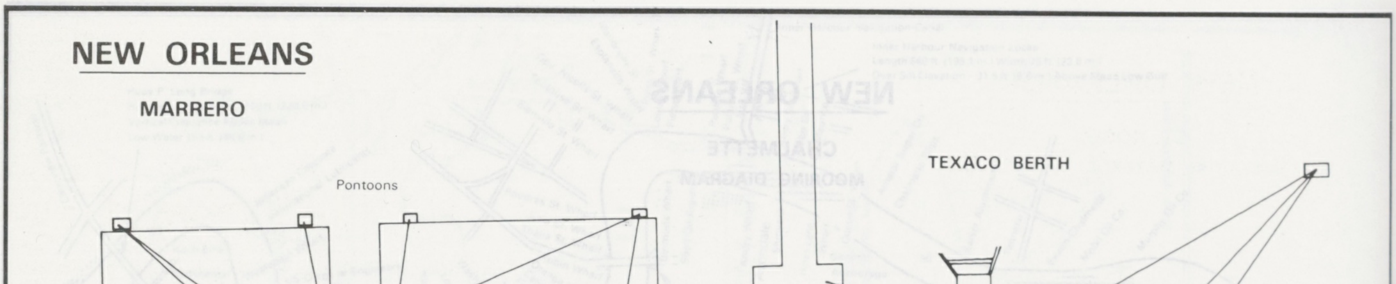

NEW LONDON
GROTON
HESS OIL
Wooden Catwalk
Barge Berth
Barge Berth
Mooring Buoy
Concrete Dolphin
Manifold
Concrete Dolphin
DWT. 20,000
LOA. 600 ft.
Flood
Ebb


Huey P. Long Bridge
Horizontal Clearance – 750 ft. (228.6 m.)
Vertical Clearance Above Mean
Low Water 153 ft. (46.6 m.)
Clearview Parkway
American Creosote
International Lubricants
105
Koch-Ellis
Continental
Grain
Elevator
Westwego Wharf
US Corps of Engineers
Avondale
Shipyards
Atlantic-Richfield
Henry Clay Ave Wharf
Nashville Ave. Wharf
Public Grain Elevator
Napoleon Ave. Wharves
Milan Wharf
Louisiana Ave. Wharf
Washington Ave Wharf
Seventh St. Wharf
Harmony Wharf
Third St. Wharf
First St. Wharf
Celeste Wharf
Orange Wharf
Robin Wharf
Thalia St. Wharf
Julia St. Wharf
Poydras St. Wharf
Bienville St. Wharf
Toulouse St. Wharf
Gov. Nicolls St. Wharf
Esplanade Wharf
Mandeville St
Press St. Wharf
Louisa Wharf
Piety Wharf
Pauline Wharf
Poland St. Wharf
Inner Harbour Navigation Canal
Inner Harbour Navigation Locks
Length 640 ft. (195.1 m.) Width 75 ft. (22.8 m.)
Over Sill Elevation – 31.5 ft. (9.6 m.) Above Mean Low Gulf
Andry St. Wharf
Alabo St.
St. Maurice
95
Bermuda Wharf
Shell Oil-Algiers
Andry Wharf
Avondale
Shipyard
Hines Lane
Wharf
Odeon St. Wharf
General
Anchorage
Amstar Sugar Co.
Chalmette Slips
90
Kaiser Aluminium
Tenneco
Exxon-Chalmette
Mobil Oil Co
Murphy Oil Co
Greater New Orleans Bridges
Horizontal Clearance – 750 ft. (228.6 m.)
Vertical Clearance Above Mean Low Water 170 ft. (51.8 m.)
Perry St. Wharf
Colonial & National Molasses
Stone Oil Co.
Publicker Chemical Co
Hunt Wesson-Marlex
British Petroleum
100
National Gypsum
Paktank
Pacific Molasses
Hess Terminal-Marrero
Texaco Oil Co.
Chevron
Delta Commodities
Harvey Locks
Length – 425 ft. (129.5 m.) Width 75 ft. (22.8 m.)
Over Sill Elevation – 12 ft. (3.6 m.) Above
Mean Low Gulf
Intracoastal Waterway
N
Intracoastal Waterway
85
Nine Mile Point
Anchorage
Algiers Locks
Length – 760 ft. (231.7 m.) Width 75 ft. (22.8 m.)
Over Sill Elevation – 13 ft. (3.9 m.) Above Mean Low Gulf
Twelve Mile Point Anchorage
80
Amax-Freeport Nickel
Bergeron Shipyard
Belle Chase Anchorage
75
Belle Chase Dockside Anchorage
NEW ORLEANS


NEW ORLEANS
1 U.S. Coast Guard
2 Galvez St. Wharf
3 Florida Ave. Wharf
4 France Rd. Terminal (Container & Ro/Ro)
5 Dwyer Rd. Wharf (Ro/Ro)
6 Morrison Rd. Wharf
7 Jourdan Rd. Terminal (Containers & Ro/Ro)
8 Public Bulk Terminal
9 Lake Pontchartrain
10 New Orleans Lake Front Airport
10
6
9
5
Inner Harbour Navigation Canal
8
7
New Orleans
4
3
2
1
Intracoastal Waterway
NASA
Intracoastal Waterway
Lake Borgne
Mississippi River - Gulf Outlet
Mississippi River
Algiers Lock
N

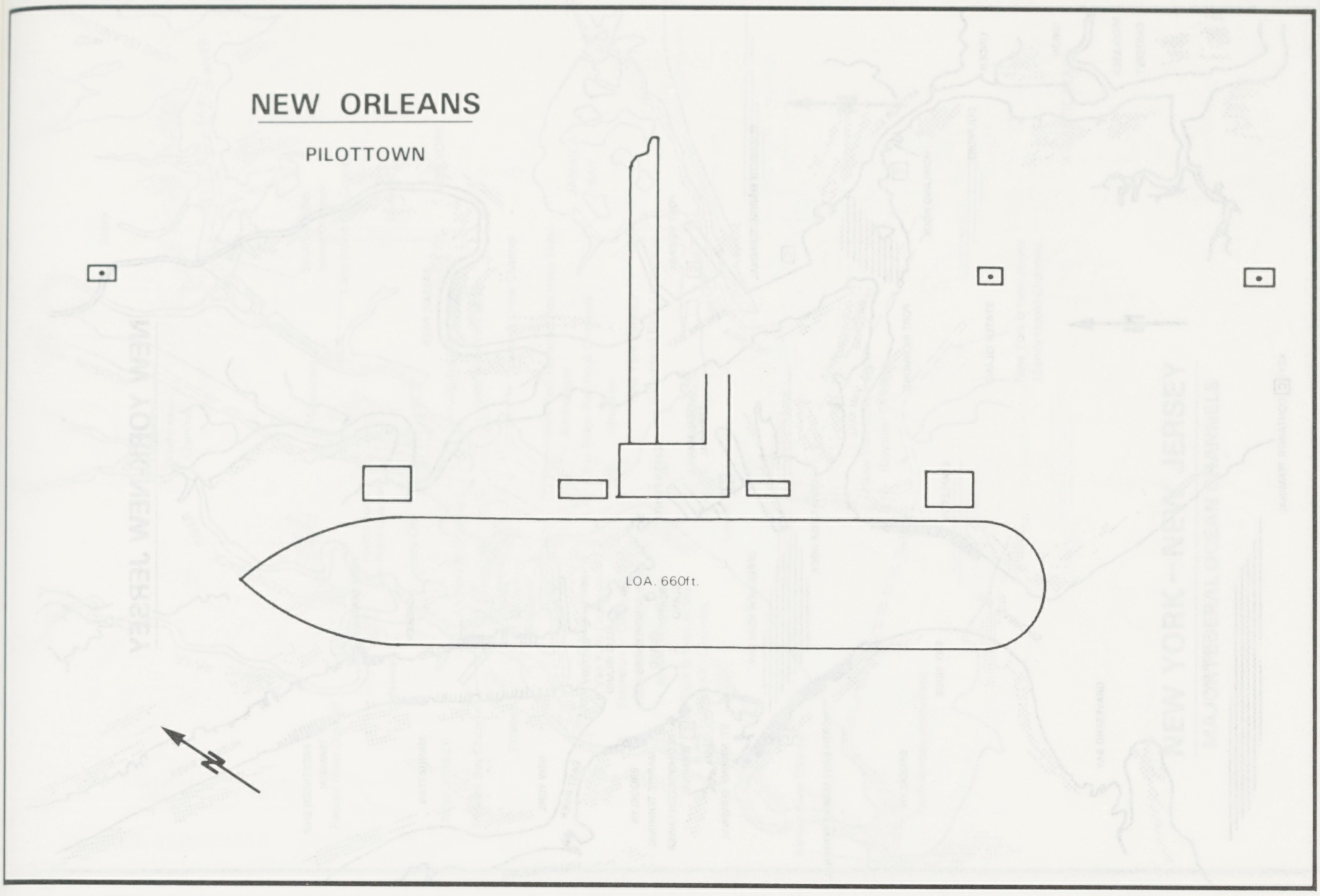

NEW ORLEANS
CHALMETTE
MOORING DIAGRAM
3 X 8 inch Hoses


NEW ORLEANS
HARVEY
COMMERCIAL SOLVENTS BERTH
MOORING ARRANGEMENT


NEW ORLEANS
MARRERO
Pontoons
TEXACO BERTH
86.5 miles above Head of Passes
HESS No. 1 BERTH
86 miles above Head of Passes

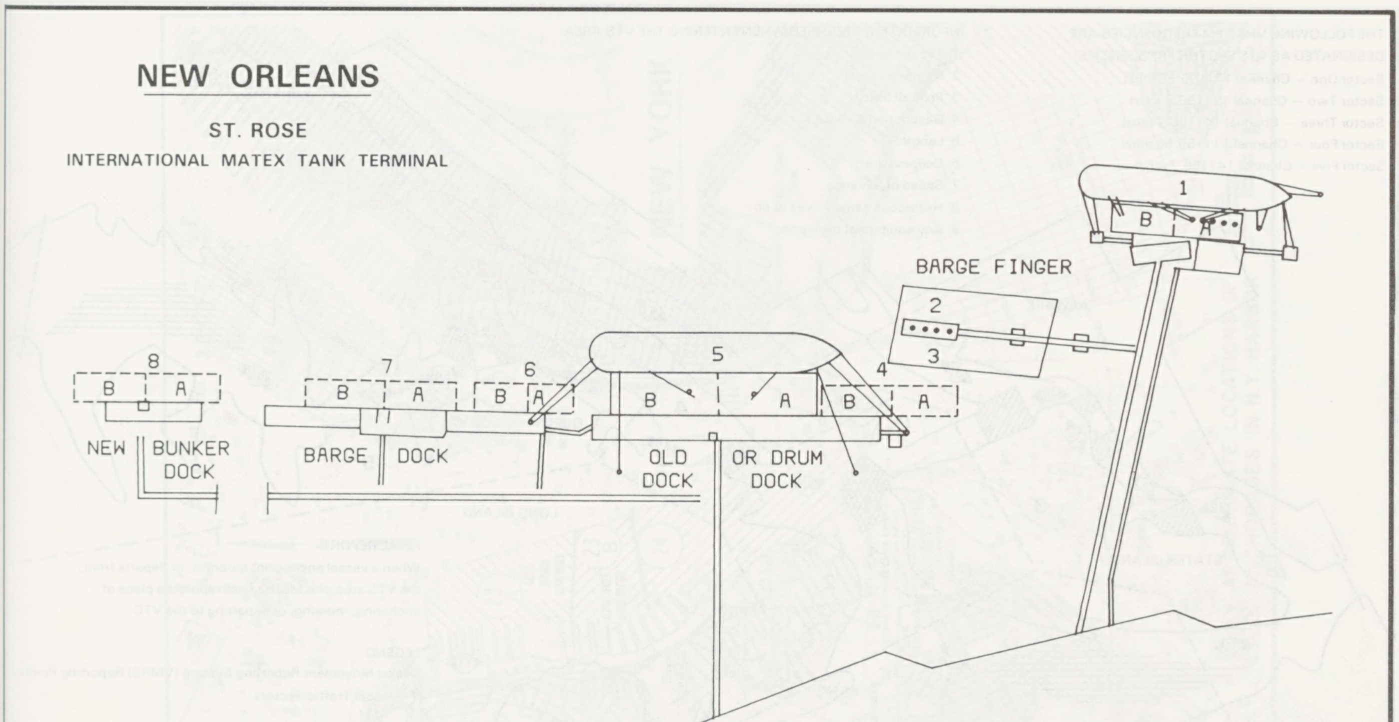
NEW ORLEANS

PILOTTOWN

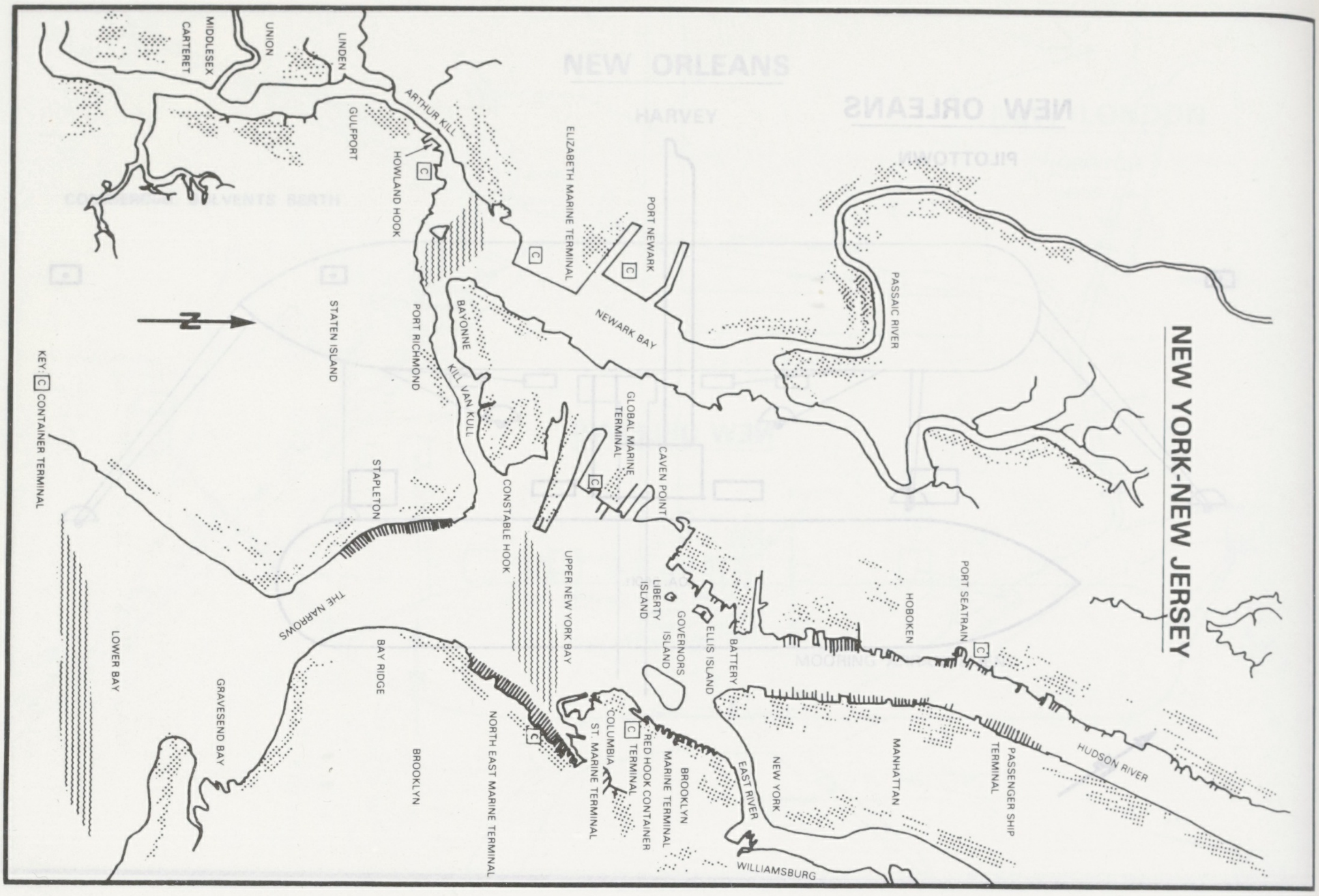


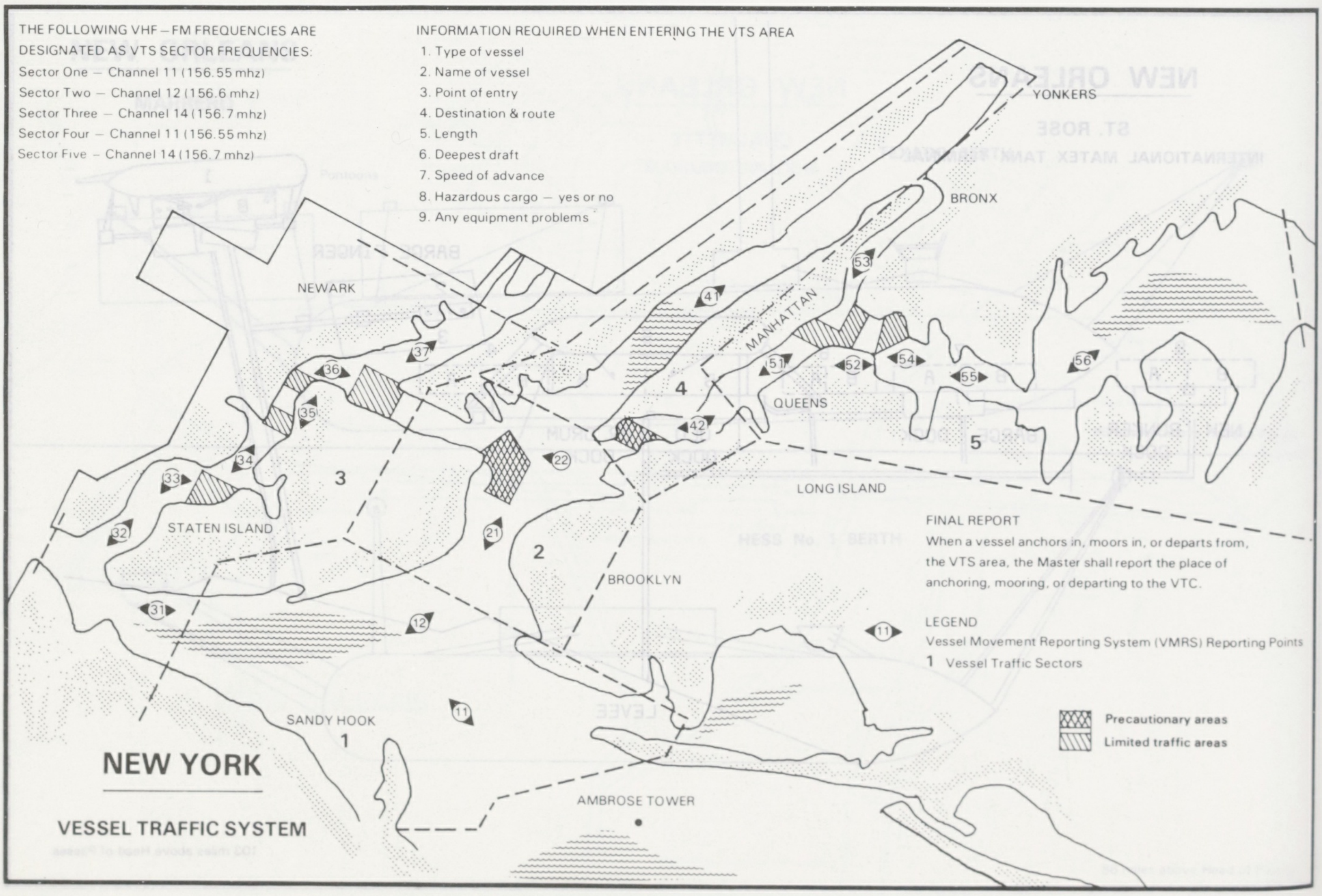
NEW ORLEANS

ST. ROSE
INTERNATIONAL MATEX TANK TERMINAL


1
B
A
BARGE FINGER
2
3
5
B
A
4
B
A
6
B
A
7
B
A
8
B
A
NEW BUNKER DOCK
BARGE DOCK
OLD DOCK
OR DRUM DOCK
LEVEE

103 miles above Head of Passes


NEW YORK-NEW JERSEY
MIDDLESEX
CARTERET
UNION
LINDEN
ARTHUR KILL
GULFPORT
HOWLAND HOOK
C
ELIZABETH MARINE TERMINAL
PORT NEWARK
NEWARK BAY
PASSAIC RIVER
N
STATEN ISLAND
PORT RICHMOND
BAYONNE
KILL VAN KULL
GLOBAL MARINE TERMINAL
CAVEN POINT
CONSTABLE HOOK
STAPLETON
UPPER NEW YORK BAY
LIBERTY ISLAND
GOVERNORS ISLAND
ELLIS ISLAND
BATTERY
HOBOKEN
PORT SEATRAIN
HUDSON RIVER
PASSENGER SHIP TERMINAL
MANHATTAN
NEW YORK
EAST RIVER
WILLIAMSBURG
BROOKLYN
RED HOOK CONTAINER TERMINAL
COLUMBIA ST. MARINE TERMINAL
NORTH EAST MARINE TERMINAL
BROOKLYN
BAY RIDGE
THE NARROWS
GRAVESEND BAY
LOWER BAY
KEY: C CONTAINER TERMINAL


YONKERS
BRONX
NEWARK
MANHATTAN
QUEENS
LONG ISLAND
STATEN ISLAND
BROOKLYN
SANDY HOOK
AMBROSE TOWER
1
2
3
4
5
11
12
21
22
31
32
33
34
35
36
37
41
42
51
52
53
54
55
56
NEW YORK
VESSEL TRAFFIC SYSTEM

THE FOLLOWING VHF – FM FREQUENCIES ARE DESIGNATED AS VTS SECTOR FREQUENCIES:

Sector One – Channel 11 (156.55 mhz)
Sector Two – Channel 12 (156.6 mhz)
Sector Three – Channel 14 (156.7 mhz)
Sector Four – Channel 11 (156.55 mhz)
Sector Five – Channel 14 (156.7 mhz)

INFORMATION REQUIRED WHEN ENTERING THE VTS AREA

1. Type of vessel
2. Name of vessel
3. Point of entry
4. Destination & route
5. Length
6. Deepest draft
7. Speed of advance
8. Hazardous cargo – yes or no
9. Any equipment problems

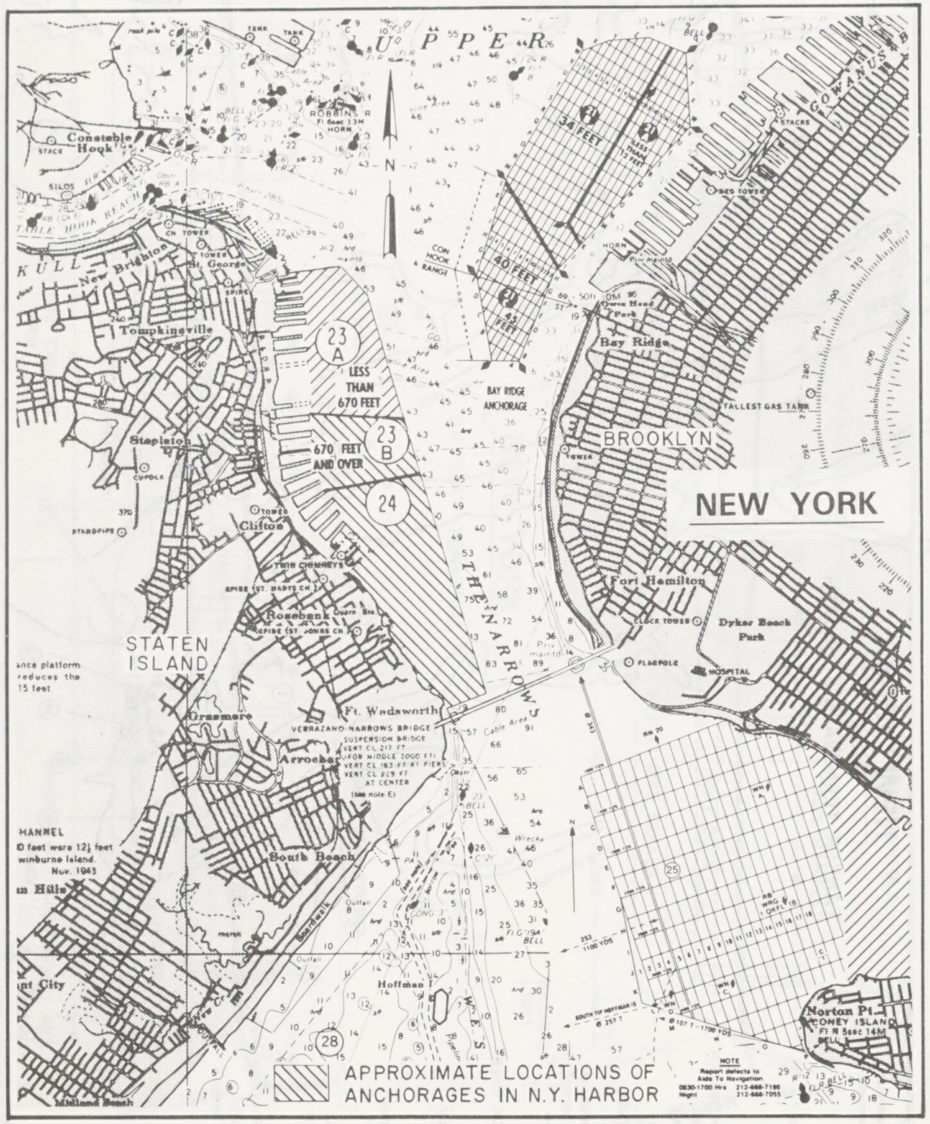
FINAL REPORT

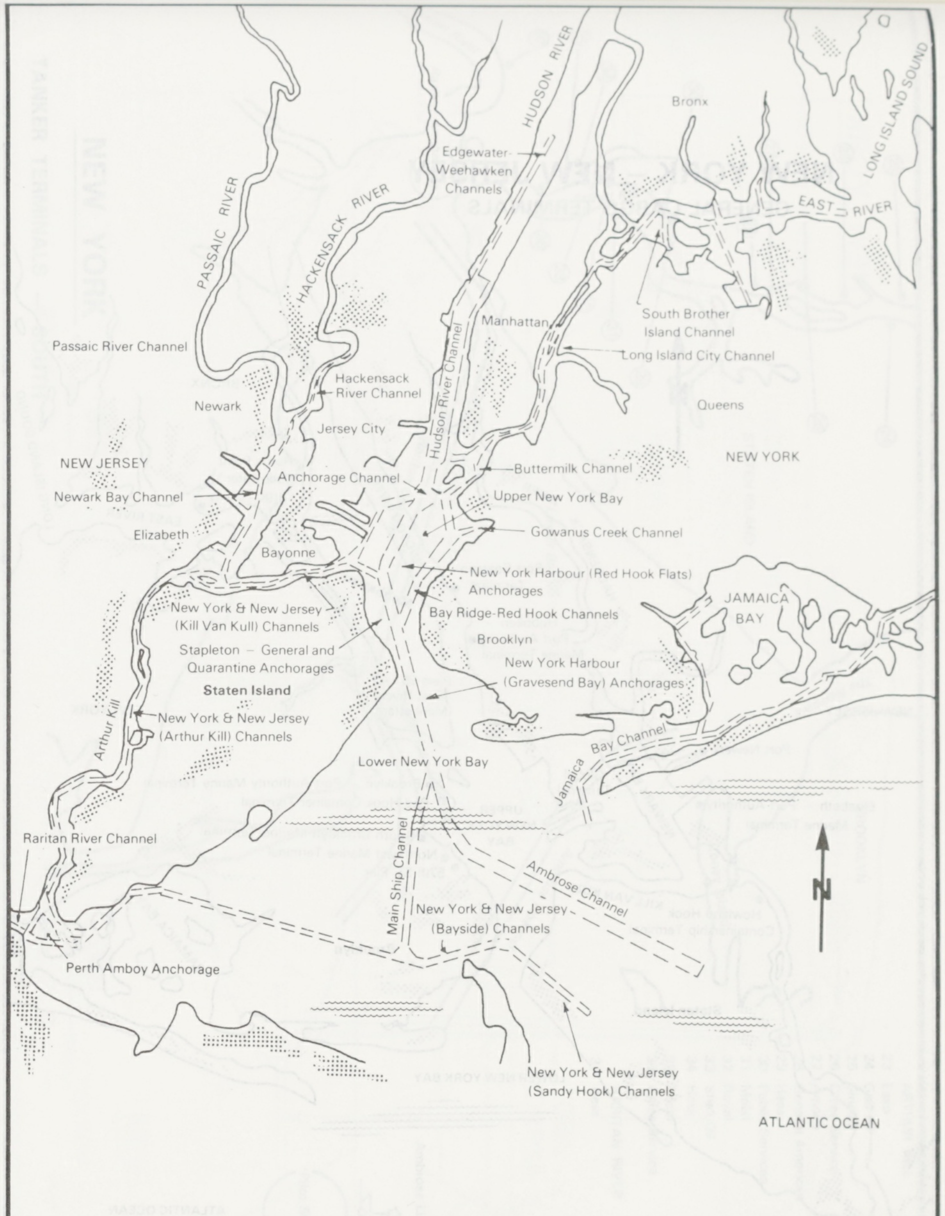
When a vessel anchors in, moors in, or departs from, the VTS area, the Master shall report the place of anchoring, mooring, or departing to the VTC.

LEGEND

⑪ Vessel Movement Reporting System (VMRS) Reporting Points
1 Vessel Traffic Sectors

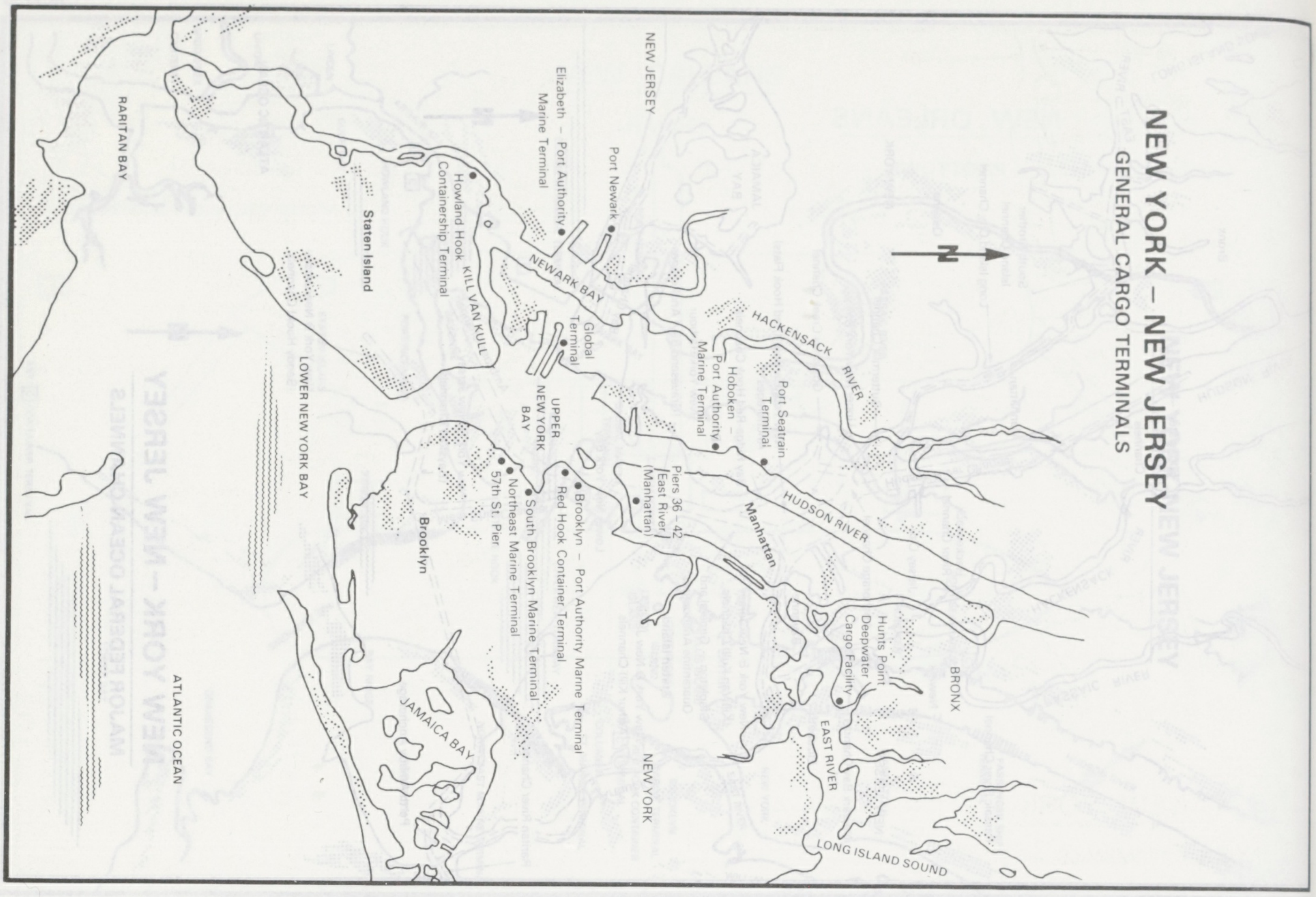
▩ Precautionary areas
▨ Limited traffic areas

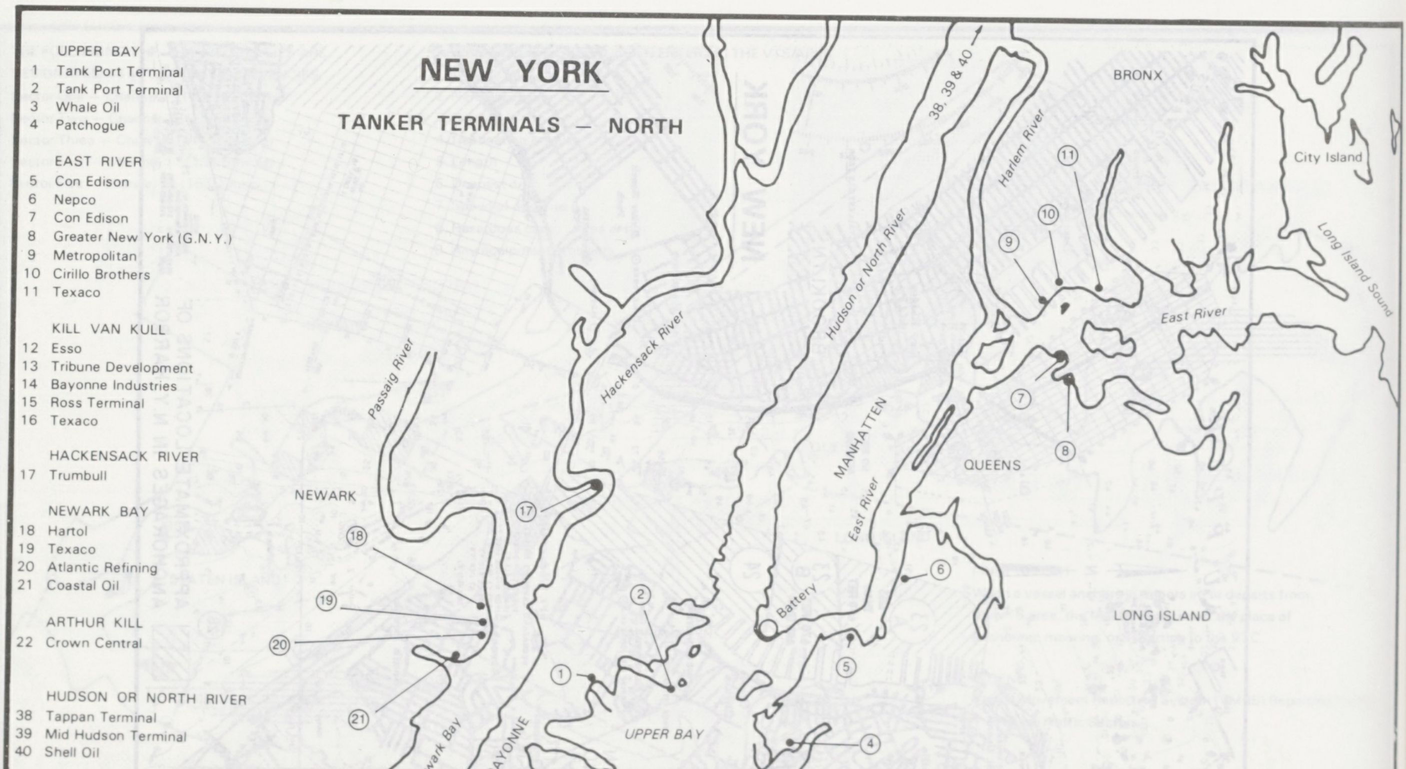

UPPER
N
Constable Hook
KULL
New Brighton
St. George
Tompkinsville
Stapleton
Clifton
Rosebank
STATEN ISLAND
Grasmere
Arrochar
South Beach
Ft. Wadsworth
VERRAZANO-NARROWS BRIDGE
ROBBINS R
34 FEET
40 FEET
43 FEET
23 A
LESS THAN 670 FEET
23 B
670 FEET AND OVER
24
25
28
BAY RIDGE ANCHORAGE
THE NARROWS
GOWANUS
Bay Ridge
BROOKLYN
NEW YORK
Fort Hamilton
Dyker Beach Park
TALLEST GAS TANK
HOSPITAL
FLAGPOLE
Hoffman I
Norton Pt.
CONEY ISLAND
Midland Beach
APPROXIMATE LOCATIONS OF ANCHORAGES IN N.Y. HARBOR

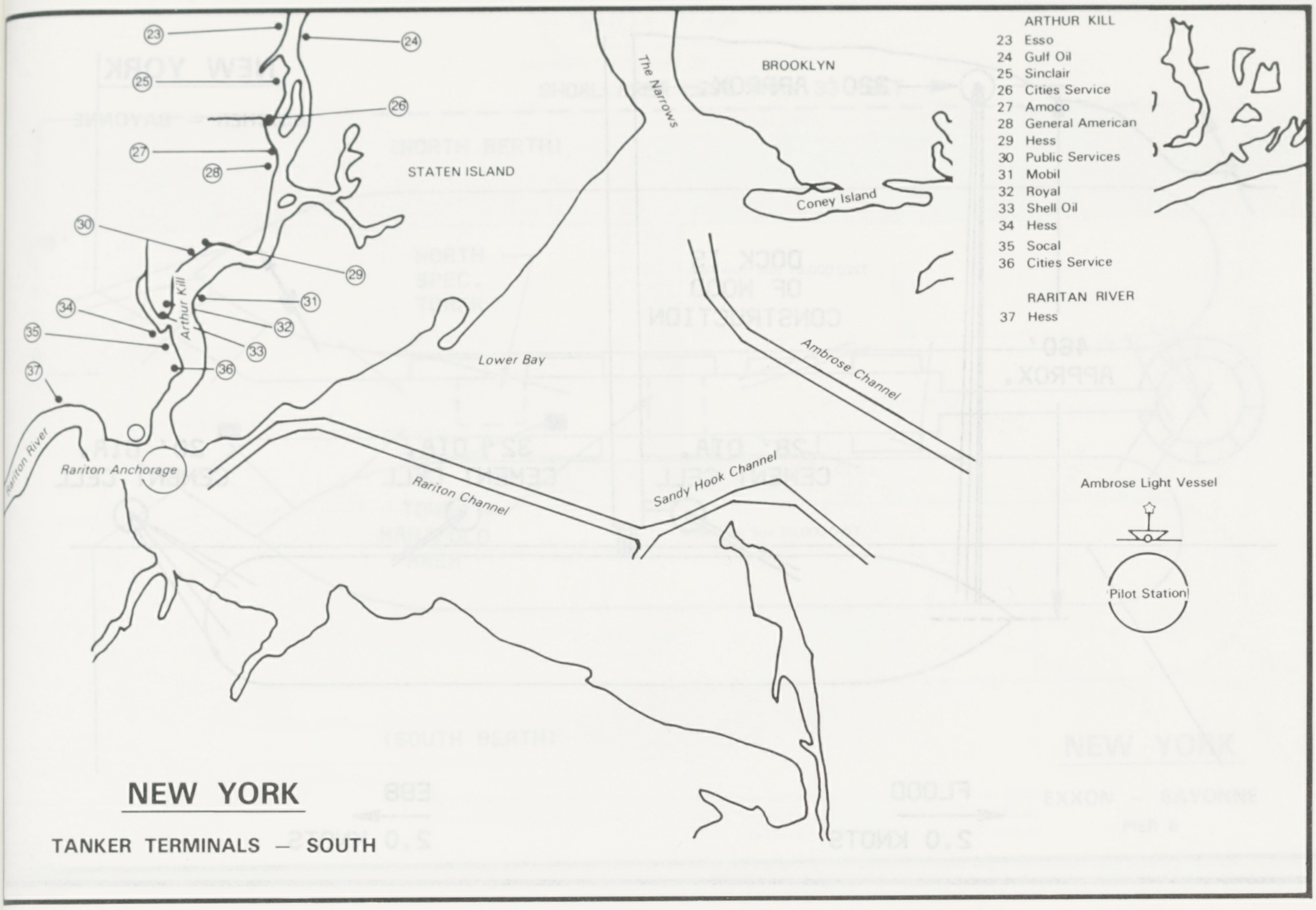

HUDSON RIVER
PASSAIC RIVER
HACKENSACK RIVER
Bronx
LONG ISLAND SOUND
EAST RIVER
Edgewater-Weehawken Channels
Manhattan
South Brother Island Channel
Long Island City Channel
Queens
Passaic River Channel
Hackensack River Channel
Hudson River Channel
Newark
Jersey City
NEW JERSEY
NEW YORK
Buttermilk Channel
Anchorage Channel
Newark Bay Channel
Upper New York Bay
Elizabeth
Gowanus Creek Channel
Bayonne
New York Harbour (Red Hook Flats) Anchorages
New York & New Jersey (Kill Van Kull) Channels
Bay Ridge-Red Hook Channels
JAMAICA BAY
Brooklyn
Stapleton – General and Quarantine Anchorages
New York Harbour (Gravesend Bay) Anchorages
Staten Island
Arthur Kill
New York & New Jersey (Arthur Kill) Channels
Jamaica Bay Channel
Lower New York Bay
Raritan River Channel
Main Ship Channel
Ambrose Channel
N
New York & New Jersey (Bayside) Channels
Perth Amboy Anchorage
New York & New Jersey (Sandy Hook) Channels
ATLANTIC OCEAN

NEW YORK—NEW JERSEY

MAJOR FEDERAL OCEAN CHANNELS

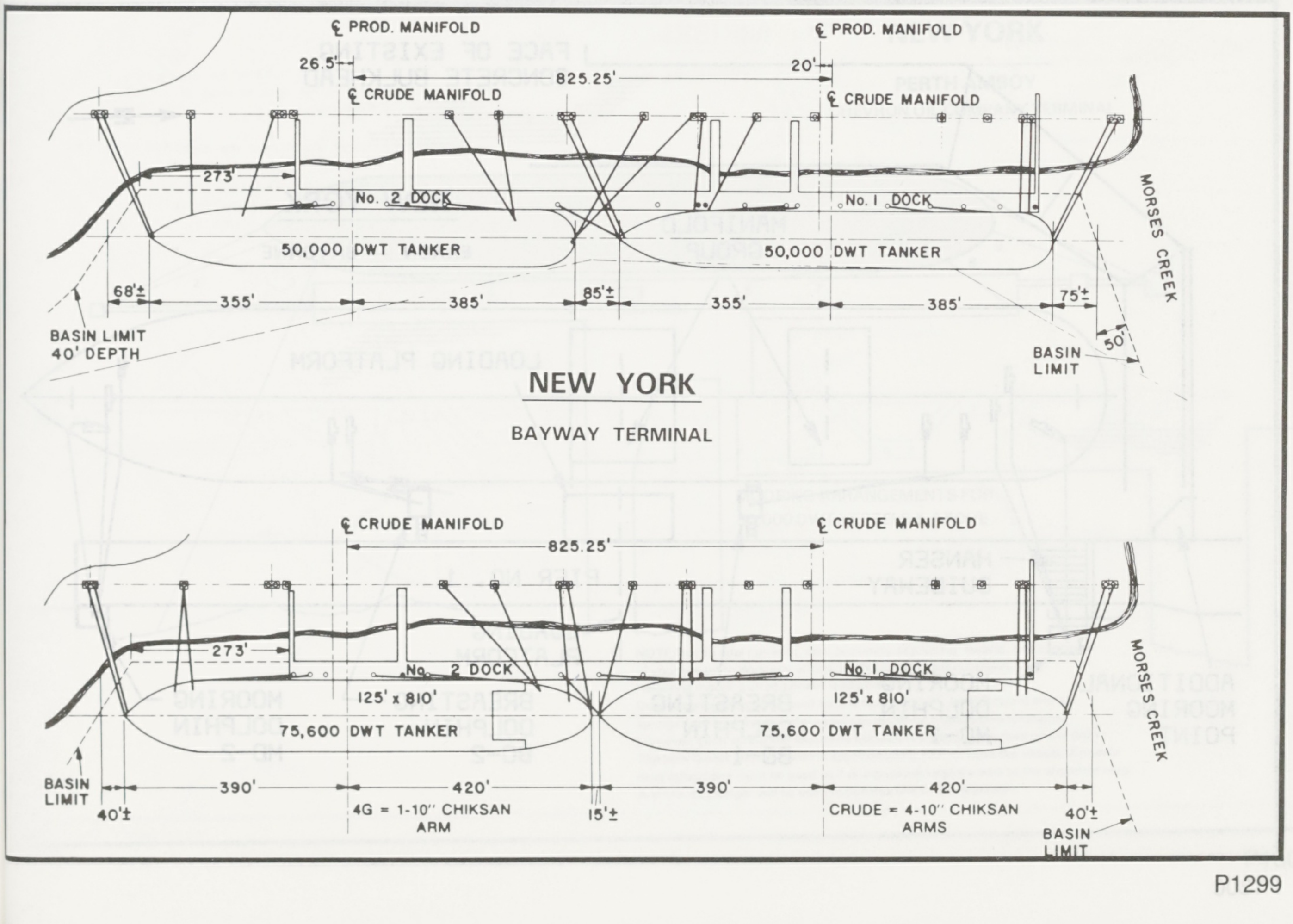

NEW YORK – NEW JERSEY
GENERAL CARGO TERMINALS
N
NEW JERSEY
Port Newark
Elizabeth – Port Authority Marine Terminal
Howland Hook Containership Terminal
KILL VAN KULL
NEWARK BAY
Global Terminal
HACKENSACK RIVER
Hoboken – Port Authority Marine Terminal
Port Seatrain Terminal
HUDSON RIVER
Manhattan
Piers 36 - 42 East River (Manhattan)
UPPER NEW YORK BAY
Brooklyn – Port Authority Marine Terminal
Red Hook Container Terminal
South Brooklyn Marine Terminal
Northeast Marine Terminal
57th St. Pier
Brooklyn
RARITAN BAY
Staten Island
LOWER NEW YORK BAY
ATLANTIC OCEAN
JAMAICA BAY
NEW YORK
Hunts Point Deepwater Cargo Facility
BRONX
EAST RIVER
LONG ISLAND SOUND


NEW YORK
TANKER TERMINALS — NORTH
UPPER BAY
1 Tank Port Terminal
2 Tank Port Terminal
3 Whale Oil
4 Patchogue
EAST RIVER
5 Con Edison
6 Nepco
7 Con Edison
8 Greater New York (G.N.Y.)
9 Metropolitan
10 Cirillo Brothers
11 Texaco
KILL VAN KULL
12 Esso
13 Tribune Development
14 Bayonne Industries
15 Ross Terminal
16 Texaco
HACKENSACK RIVER
17 Trumbull
NEWARK BAY
18 Hartol
19 Texaco
20 Atlantic Refining
21 Coastal Oil
ARTHUR KILL
22 Crown Central
HUDSON OR NORTH RIVER
38 Tappan Terminal
39 Mid Hudson Terminal
40 Shell Oil
38, 39 & 40
Hudson or North River
Harlem River
BRONX
City Island
Long Island Sound
East River
Hackensack River
Passaic River
MANHATTEN
East River
QUEENS
NEWARK
Battery
LONG ISLAND
UPPER BAY
Newark Bay
BAYONNE
ELIZABETH
Kill Van Kull
Stapleton Anchorage
BROOKLYN
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22


ARTHUR KILL
23 Esso
24 Gulf Oil
25 Sinclair
26 Cities Service
27 Amoco
28 General American
29 Hess
30 Public Services
31 Mobil
32 Royal
33 Shell Oil
34 Hess
35 Socal
36 Cities Service
RARITAN RIVER
37 Hess
BROOKLYN
The Narrows
STATEN ISLAND
Coney Island
Arthur Kill
Lower Bay
Ambrose Channel
Raritan River
Rariton Anchorage
Rariton Channel
Sandy Hook Channel
Ambrose Light Vessel
Pilot Station

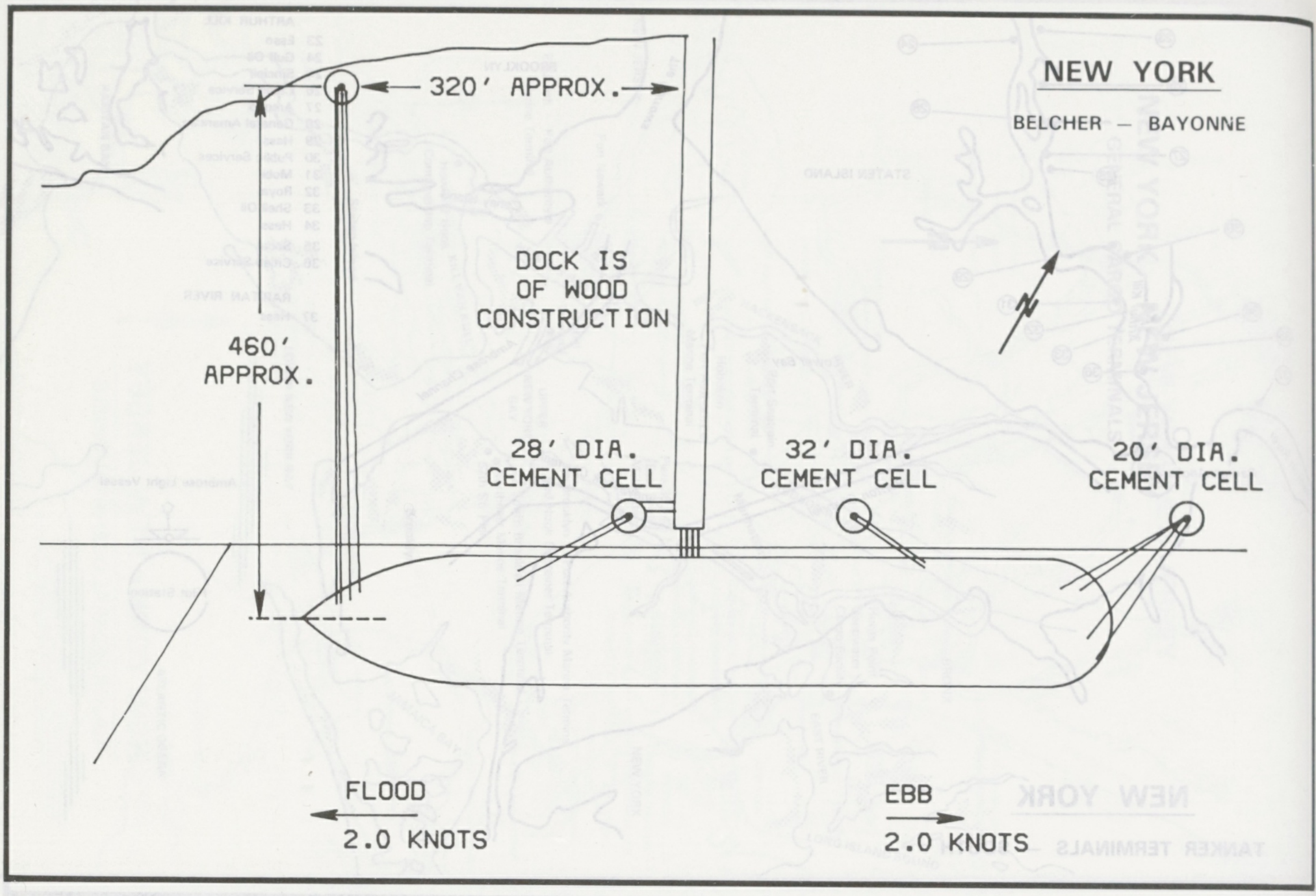
NEW YORK

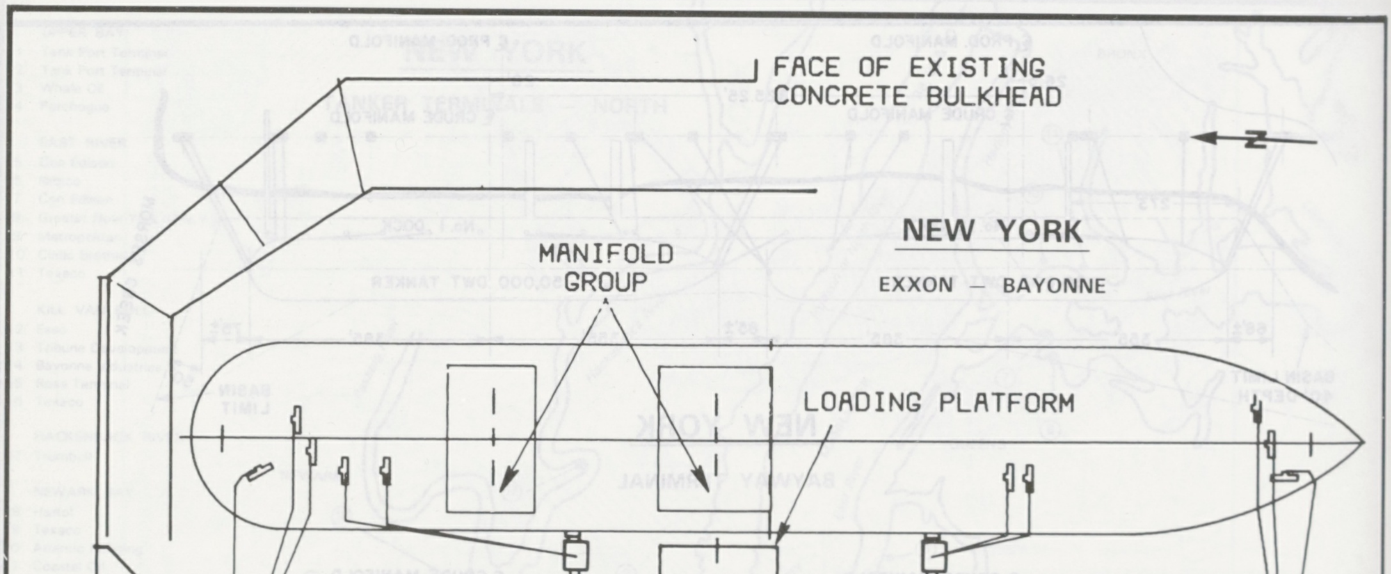
TANKER TERMINALS — SOUTH

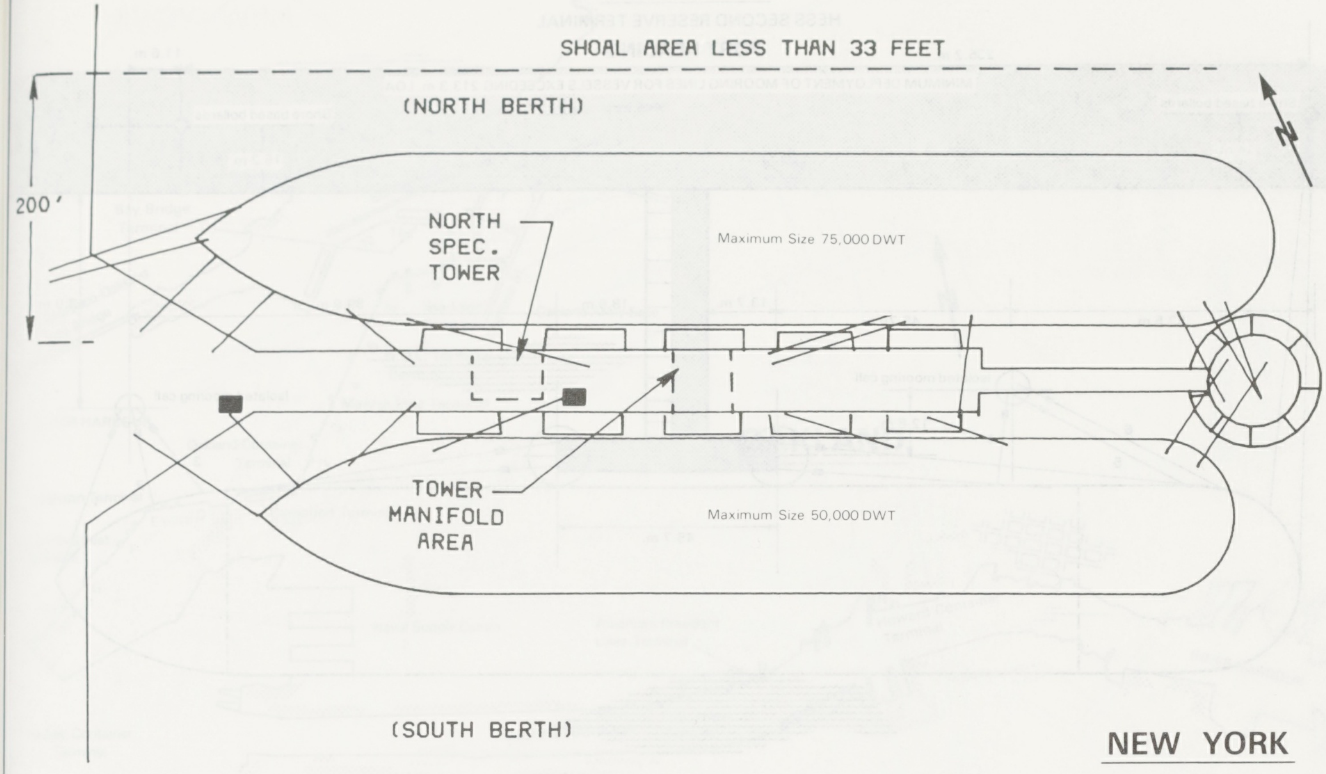

℄ PROD. MANIFOLD
26.5'
825.25'
℄ CRUDE MANIFOLD
℄ PROD. MANIFOLD
20'
℄ CRUDE MANIFOLD
273'
No. 2 DOCK
No. 1 DOCK
50,000 DWT TANKER
50,000 DWT TANKER
MORSES CREEK
68'±
355'
385'
85'±
355'
385'
75'±
50'
BASIN LIMIT 40' DEPTH
BASIN LIMIT
℄ CRUDE MANIFOLD
825.25'
℄ CRUDE MANIFOLD
273'
No. 2 DOCK
No. 1 DOCK
125' x 810'
125' x 810'
75,600 DWT TANKER
75,600 DWT TANKER
MORSES CREEK
BASIN LIMIT
40'±
390'
420'
15'±
390'
420'
40'±
4G = 1-10" CHIKSAN ARM
CRUDE = 4-10" CHIKSAN ARMS
BASIN LIMIT

NEW YORK

BAYWAY TERMINAL


NEW YORK
BELCHER – BAYONNE
320′ APPROX.
460′ APPROX.
DOCK IS OF WOOD CONSTRUCTION
28′ DIA. CEMENT CELL
32′ DIA. CEMENT CELL
20′ DIA. CEMENT CELL
FLOOD
2.0 KNOTS
EBB
2.0 KNOTS


FACE OF EXISTING CONCRETE BULKHEAD
NEW YORK
EXXON – BAYONNE
MANIFOLD GROUP
LOADING PLATFORM
HANSER GUIDEWAY
PIER NO. 1
LOADING PLATFORM
ADDITIONAL MOORING POINT
MOORING DOLPHIN MD-1
BREASTING DOLPHIN BD-1
BREASTING DOLPHIN BD-2
MOORING DOLPHIN MD-2


SHOAL AREA LESS THAN 33 FEET
(NORTH BERTH)
200′
NORTH
SPEC.
TOWER
Maximum Size 75,000 DWT
TOWER
MANIFOLD
AREA
Maximum Size 50,000 DWT
N
(SOUTH BERTH)

NEW YORK

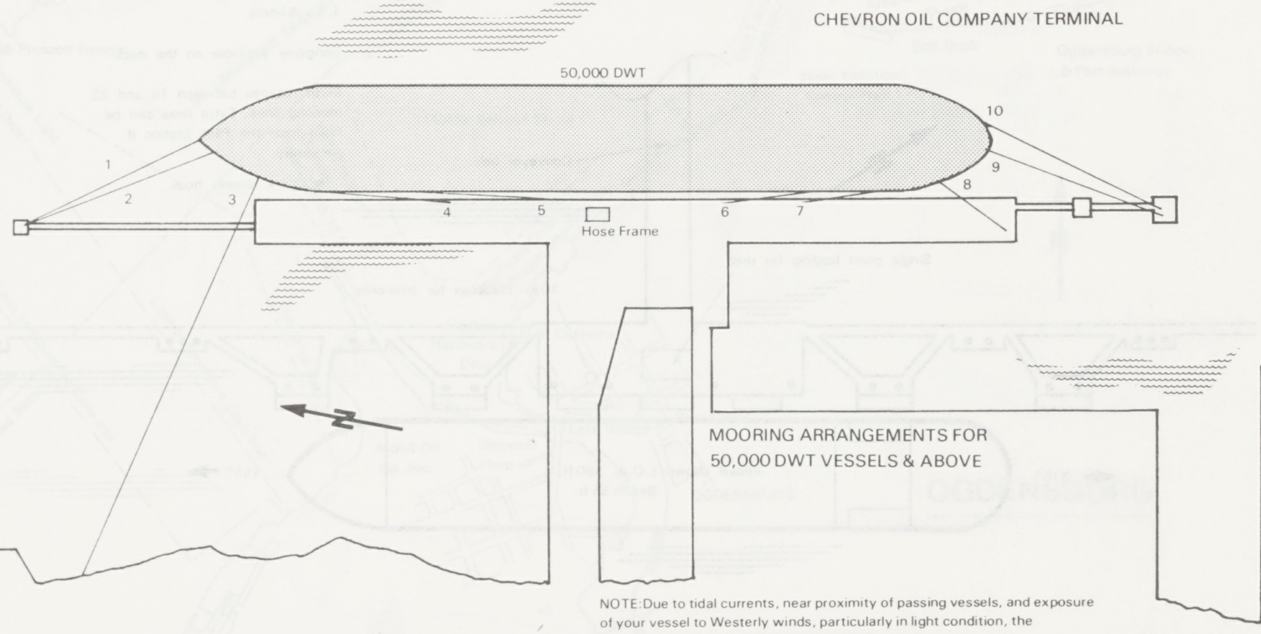
EXXON — BAYONNE

PIER 6

NEW YORK

PERTH AMBOY

CHEVRON OIL COMPANY TERMINAL


50,000 DWT
1
2
3
4
5
Hose Frame
6
7
8
9
10
N
MOORING ARRANGEMENTS FOR
50,000 DWT VESSELS & ABOVE

NOTE: Due to tidal currents, near proximity of passing vessels, and exposure of your vessel to Westerly winds, particularly in light condition, the following mooring arrangement is required.

Double spring lines to be used both forward and aft. Both forward and aft springs may lead through the same chocks at their respective locations, however, each spring line should be secured to a separate bollard on the dock.

The bow breast line deadman is approximately 137 m. from the vessel. A manila or synthetic line must be used as it is impossible to pull a wire to the shoreline here.

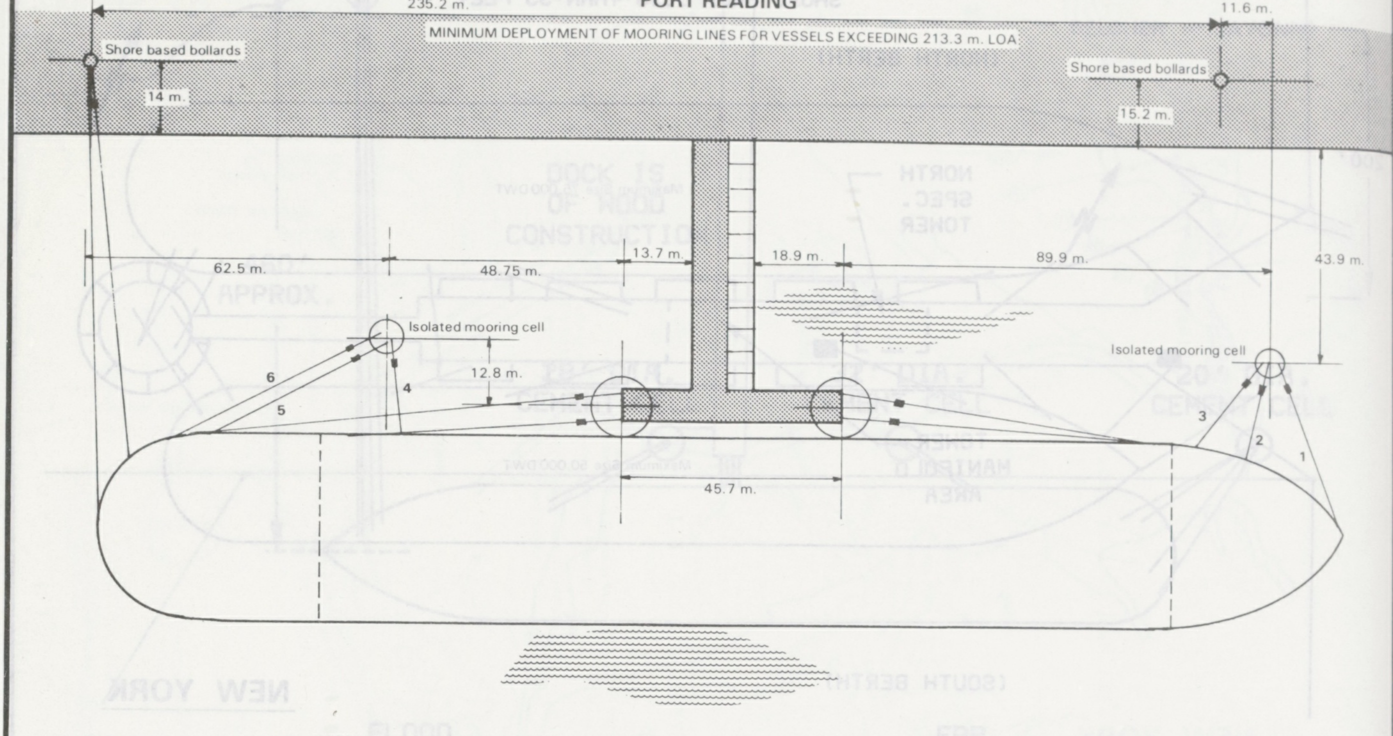
A shore messenger will be used to pull this line to the deadman.

NEW YORK

HESS SECOND RESERVE TERMINAL

PORT READING

MINIMUM DEPLOYMENT OF MOORING LINES FOR VESSELS EXCEEDING 213.3 m. LOA


235.2 m.
11.6 m.
Shore based bollards
14 m.
Shore based bollards
15.2 m.
62.5 m.
48.75 m.
13.7 m.
18.9 m.
89.9 m.
43.9 m.
Isolated mooring cell
12.8 m.
6
5
4
Isolated mooring cell
3
2
1
45.7 m.

NOTE: Lines, numbered 1,2,3 from foremost isolated mooring cell and, lines, numbered 4,5,6 from the isolated mooring cell positioned southward of the jetty, are shore based polypropylene moorings. All other lines have to be provided by the vessel.

NIKISKI

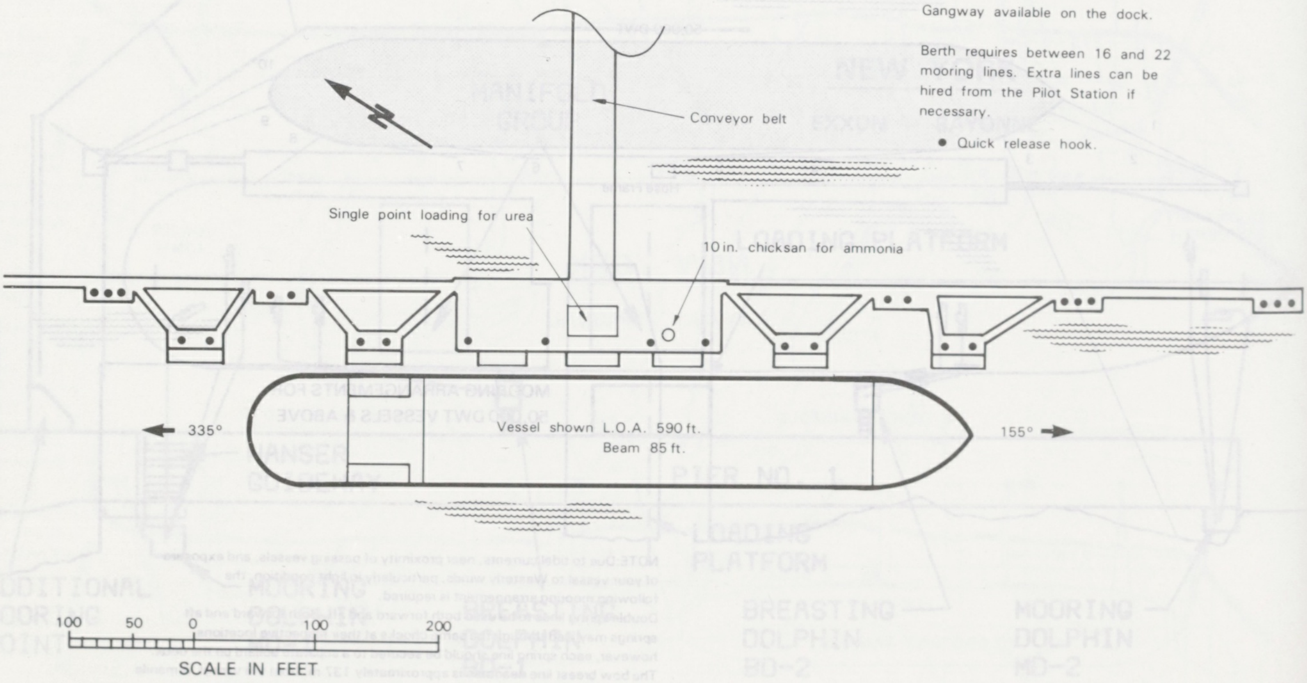
UNION CHEMICAL DOCK

Flood and ebb currents are usually parallel to the dock at rates of 1.5 – 6 knots.

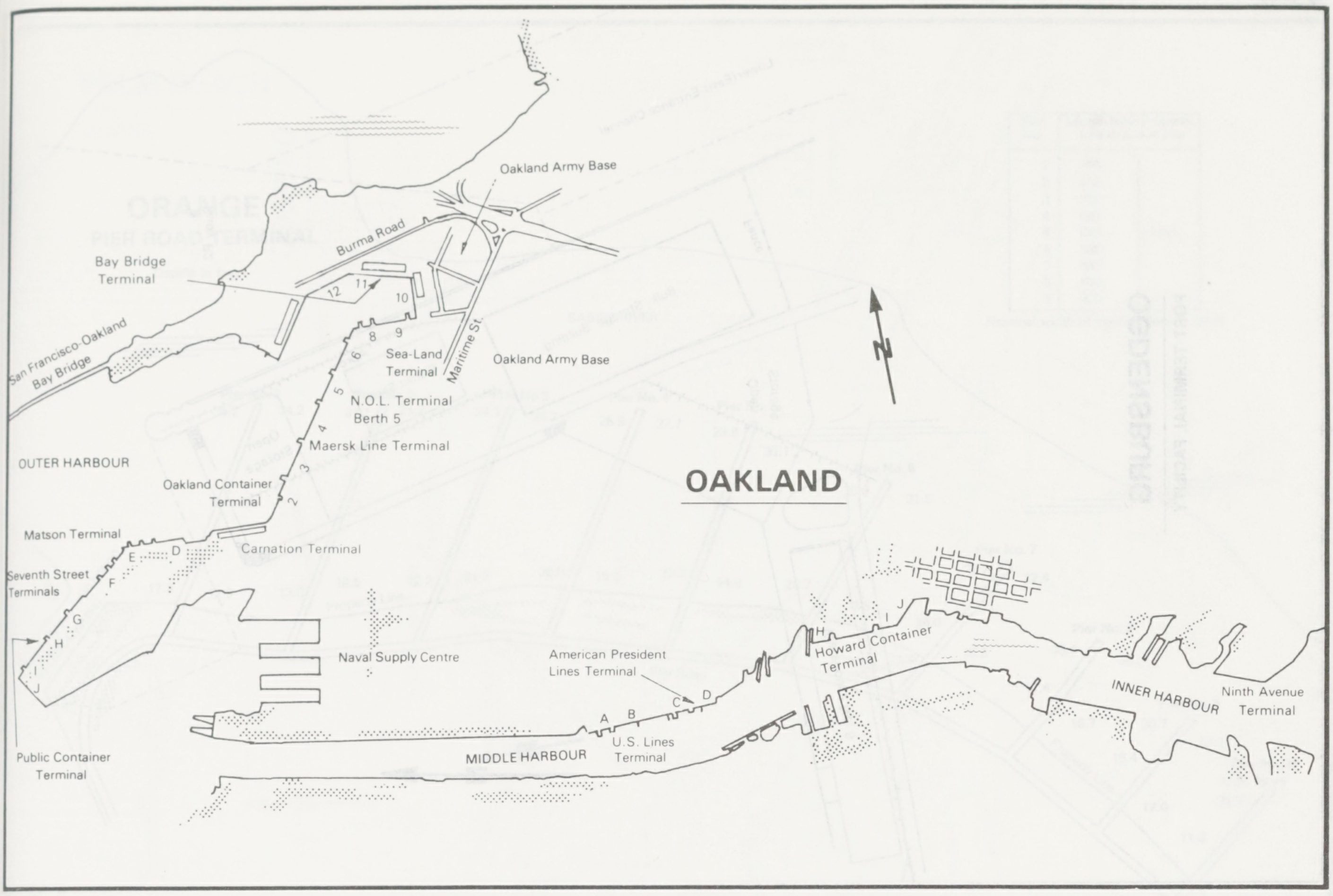
Gangway available on the dock.

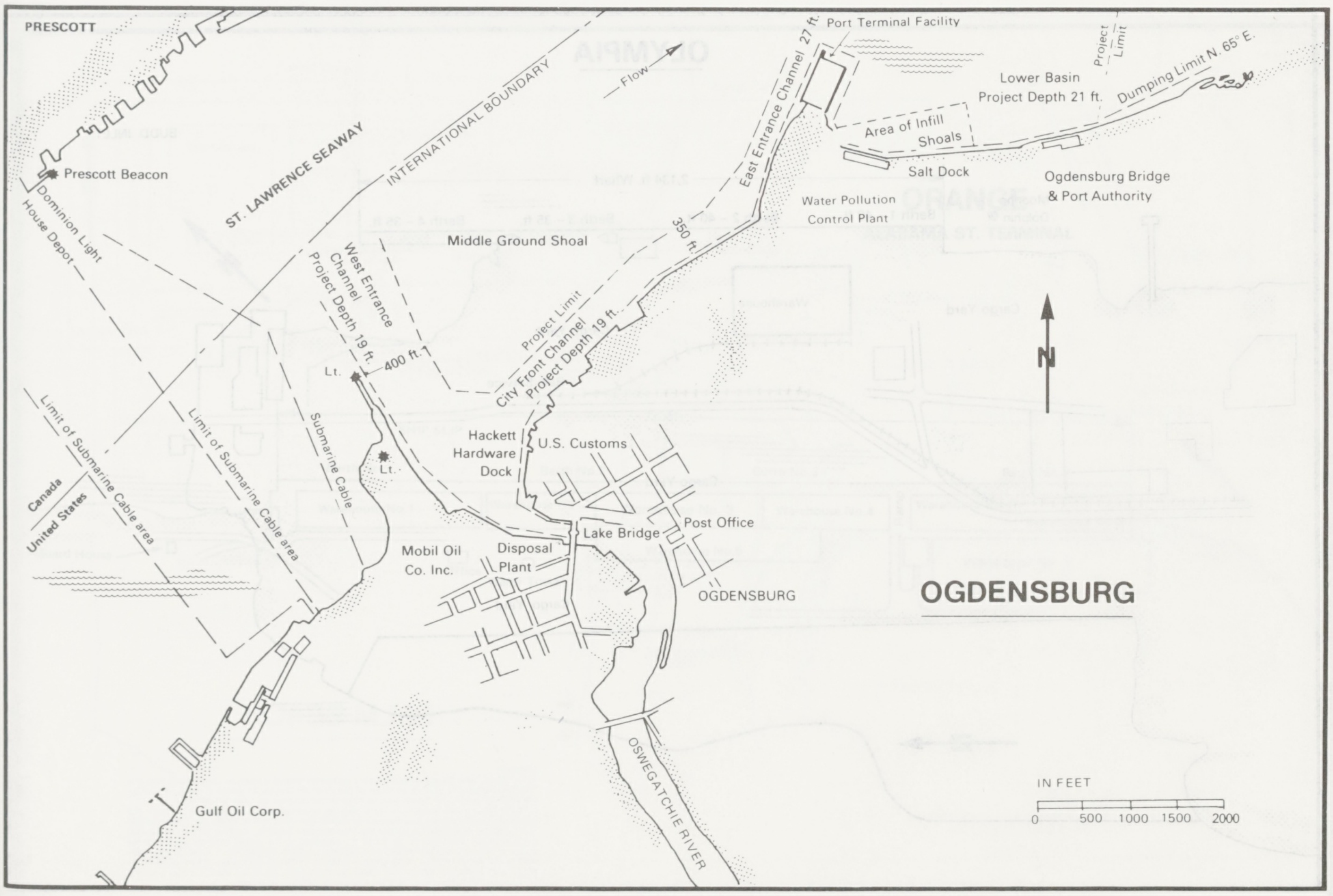
Berth requires between 16 and 22 mooring lines. Extra lines can be hired from the Pilot Station if necessary.

- ● Quick release hook.


Conveyor belt
Single point loading for urea
10 in. chicksan for ammonia
335°
Vessel shown L.O.A. 590 ft.
Beam 85 ft.
155°
100
50
0
100
200
SCALE IN FEET

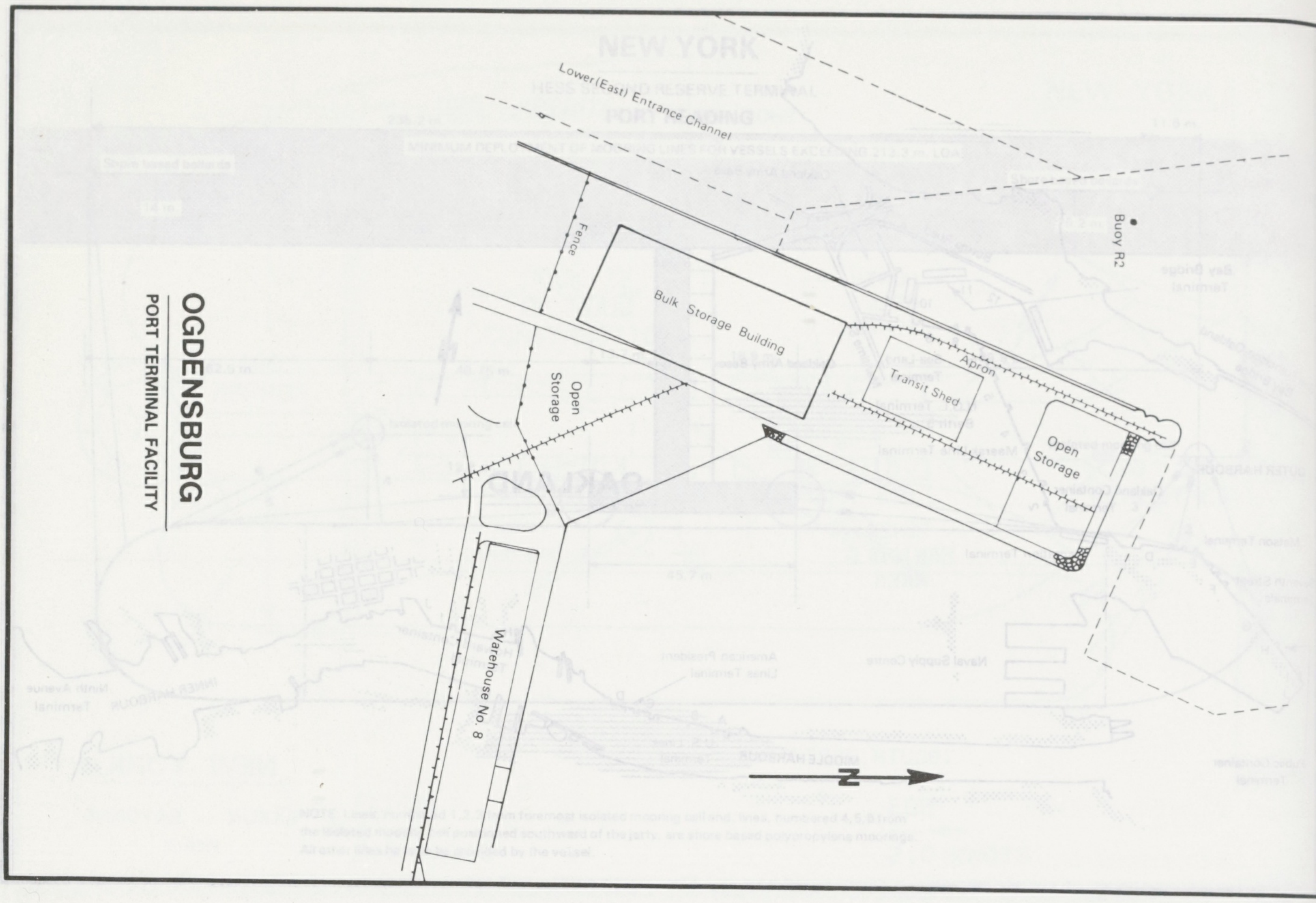
"Plan supplied by Ship's Master"


Oakland Army Base
Burma Road
Bay Bridge Terminal
12
11
10
8
9
6
5
4
3
2
San Francisco-Oakland Bay Bridge
Sea-Land Terminal
Maritime St.
Oakland Army Base
N.O.L. Terminal Berth 5
Maersk Line Terminal
OUTER HARBOUR
Oakland Container Terminal
Matson Terminal
Carnation Terminal
E
D
F
Seventh Street Terminals
G
H
I
J
Naval Supply Centre
American President Lines Terminal
A
B
C
D
U.S. Lines Terminal
MIDDLE HARBOUR
Public Container Terminal
H
I
J
Howard Container Terminal
INNER HARBOUR
Ninth Avenue Terminal
N
OAKLAND

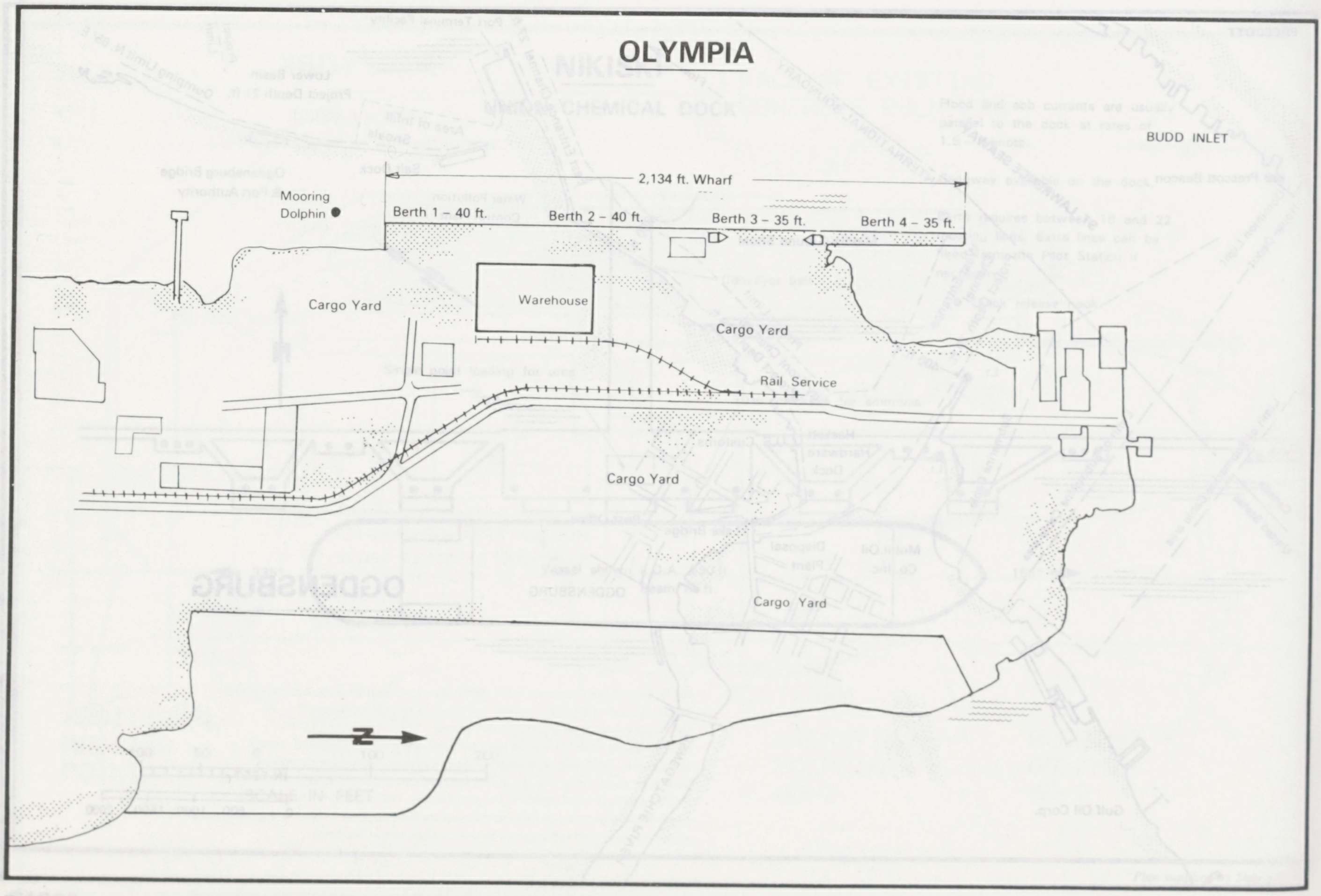

PRESCOTT
Prescott Beacon
Dominion Light House Depot
ST. LAWRENCE SEAWAY
INTERNATIONAL BOUNDARY
Flow
Port Terminal Facility
East Entrance Channel 27 ft.
Project Limit
Lower Basin Project Depth 21 ft.
Dumping Limit N. 65° E.
Area of Infill Shoals
Salt Dock
Ogdensburg Bridge & Port Authority
Water Pollution Control Plant
Middle Ground Shoal
350 ft.
West Entrance Channel Project Depth 19 ft.
400 ft.
Lt.
Project Limit
City Front Channel Project Depth 19 ft.
Limit of Submarine Cable area
Limit of Submarine Cable area
Submarine Cable
Canada
United States
Lt.
Hackett Hardware Dock
U.S. Customs
Lake Bridge
Post Office
Mobil Oil Co. Inc.
Disposal Plant
OGDENSBURG
OSWEGATCHIE RIVER
Gulf Oil Corp.
N
IN FEET
0
500
1000
1500
2000
OGDENSBURG

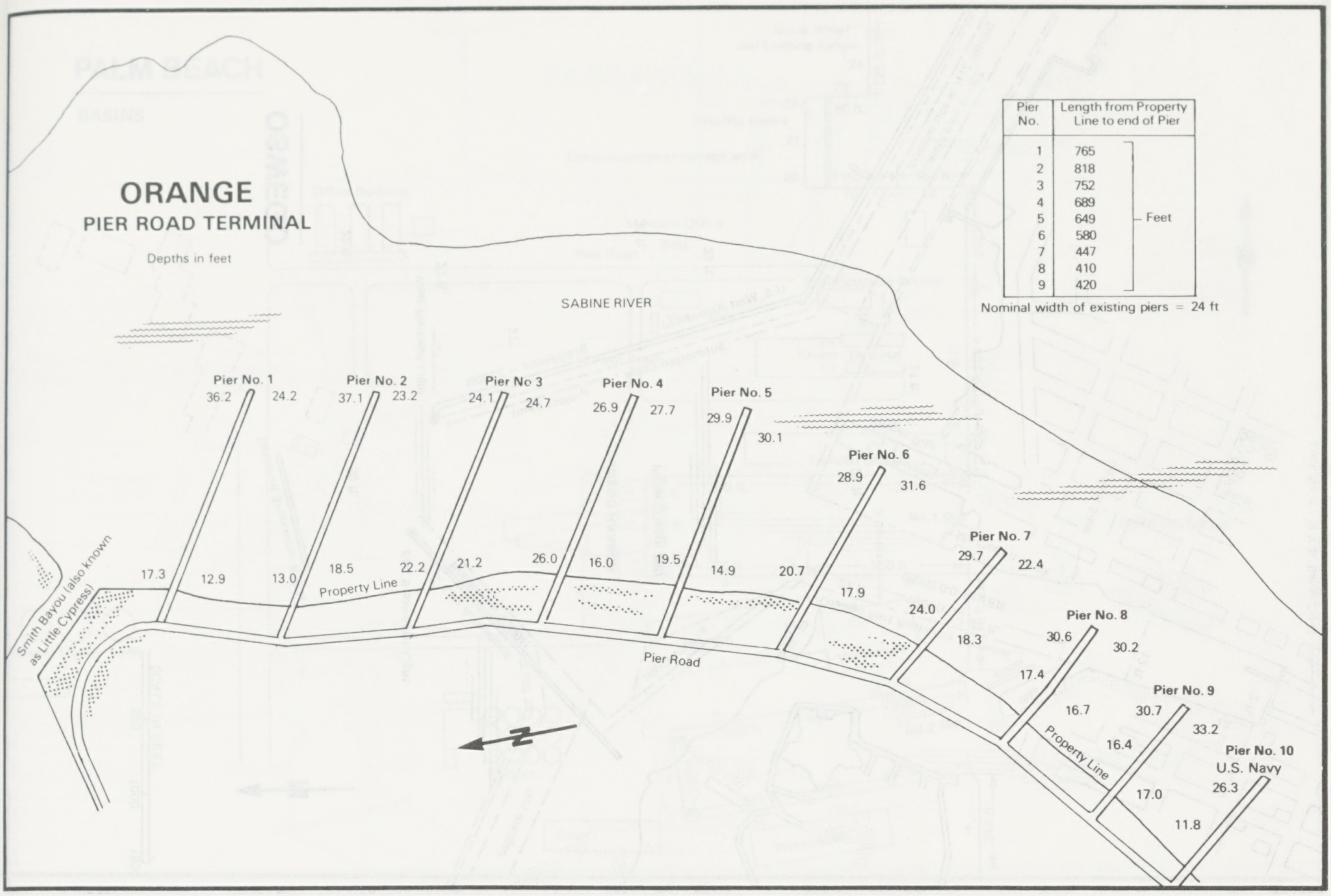
OGDENSBURG

PORT TERMINAL FACILITY


Lower(East) Entrance Channel
Buoy R2
Fence
Bulk Storage Building
Apron
Transit Shed
Open Storage
Open Storage
Warehouse No. 8
N

OLYMPIA

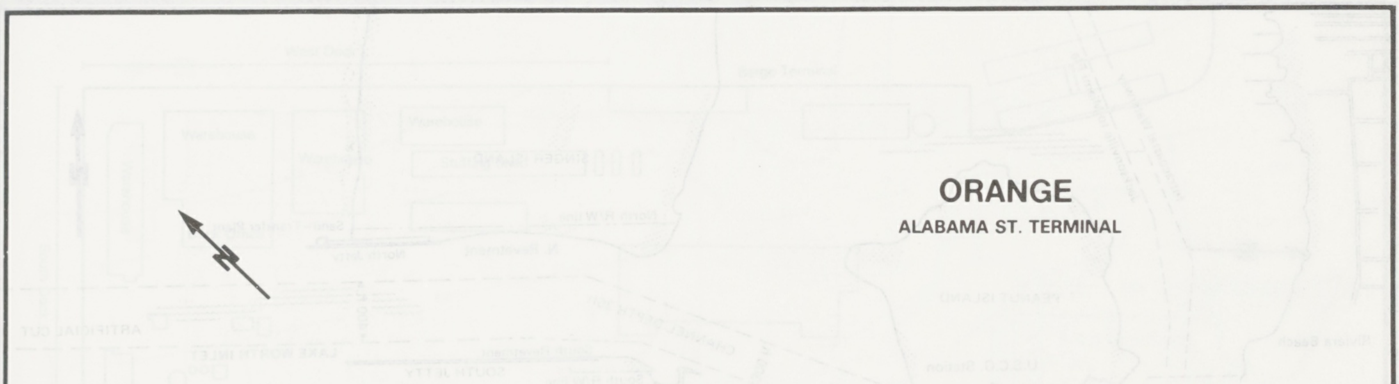

BUDD INLET
2,134 ft. Wharf
Mooring Dolphin
Berth 1 – 40 ft.
Berth 2 – 40 ft.
Berth 3 – 35 ft.
Berth 4 – 35 ft.
Cargo Yard
Warehouse
Cargo Yard
Rail Service
Cargo Yard
Cargo Yard
N

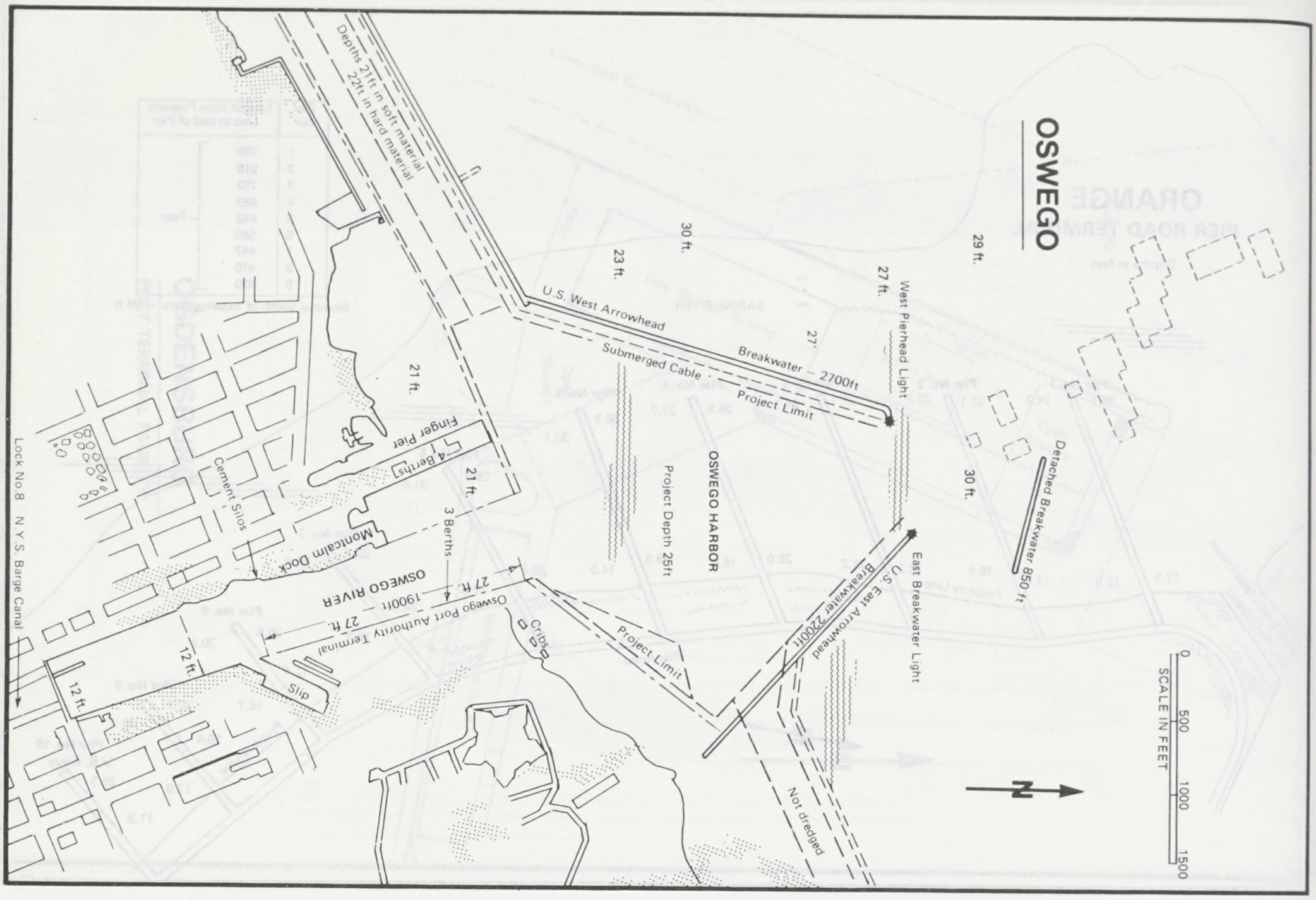

ORANGE
PIER ROAD TERMINAL
Depths in feet
SABINE RIVER
Pier No. 1
36.2
24.2
Pier No. 2
37.1
23.2
Pier No 3
24.1
24.7
Pier No. 4
26.9
27.7
Pier No. 5
29.9
30.1
Pier No. 6
28.9
31.6
Pier No. 7
29.7
22.4
Pier No. 8
30.6
30.2
Pier No. 9
30.7
33.2
Pier No. 10
U.S. Navy
26.3
17.3
12.9
13.0
18.5
22.2
21.2
26.0
16.0
19.5
14.9
20.7
17.9
24.0
18.3
17.4
16.7
16.4
17.0
11.8
Property Line
Pier Road
Property Line
Smith Bayou (also known as Little Cypress)

Pier No.	Length from Property Line to end of Pier
1	765
2	818
3	752
4	689
5	649
6	580
7	447
8	410
9	420

Feet

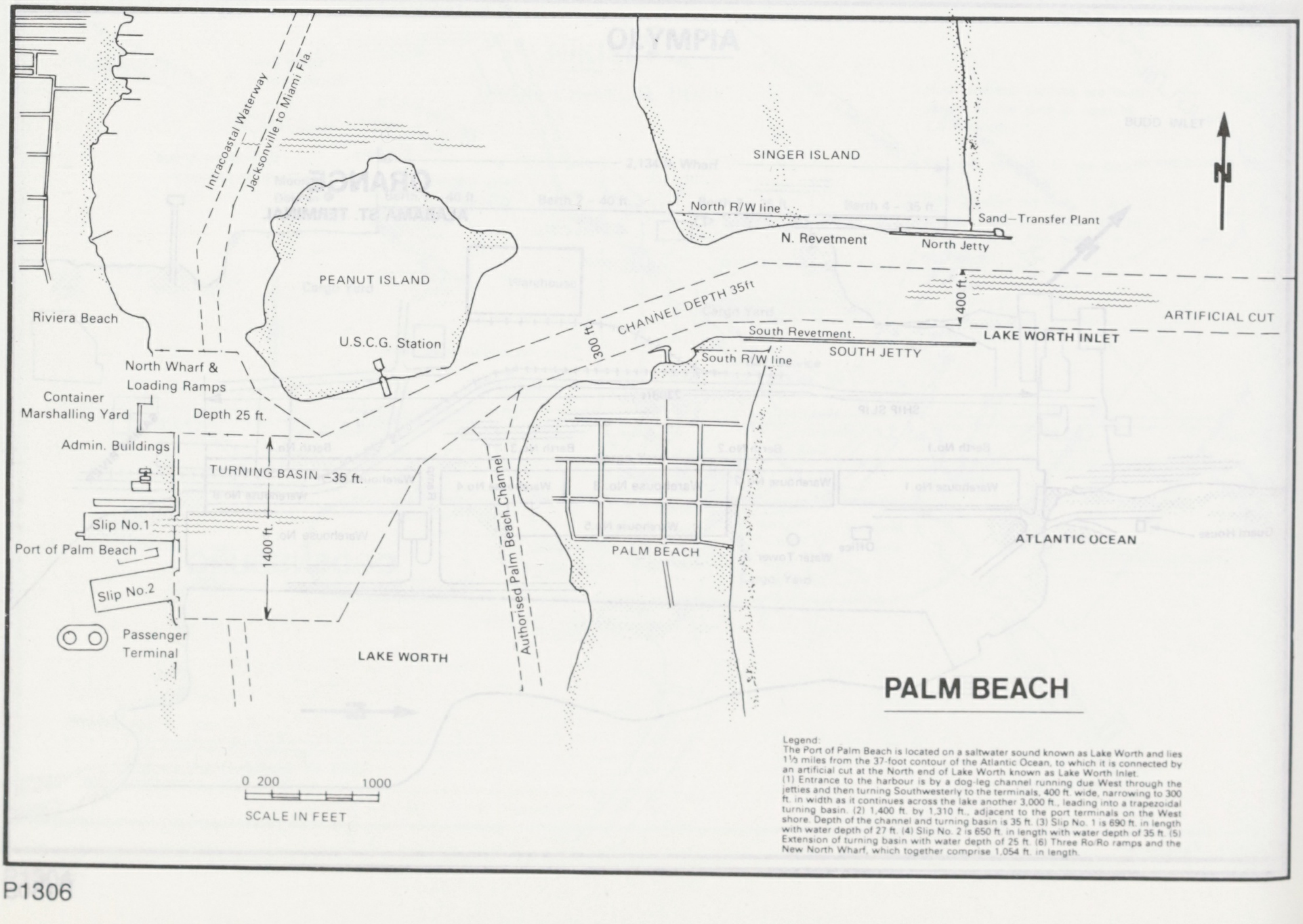
Nominal width of existing piers = 24 ft


ORANGE
ALABAMA ST. TERMINAL
2308ft
SHIP SLIP
Berth No.1
Berth No.2
Berth No.3
Berth No.4
Warehouse No.1
Warehouse No.2
Warehouse No. 3
Warehouse No.4
Ramp
Warehouse No.7
Warehouse No.8
Warehouse No.5
Warehouse No. 6
Guard House
Office
Water Tower
SABINE RIVER



OSWEGO

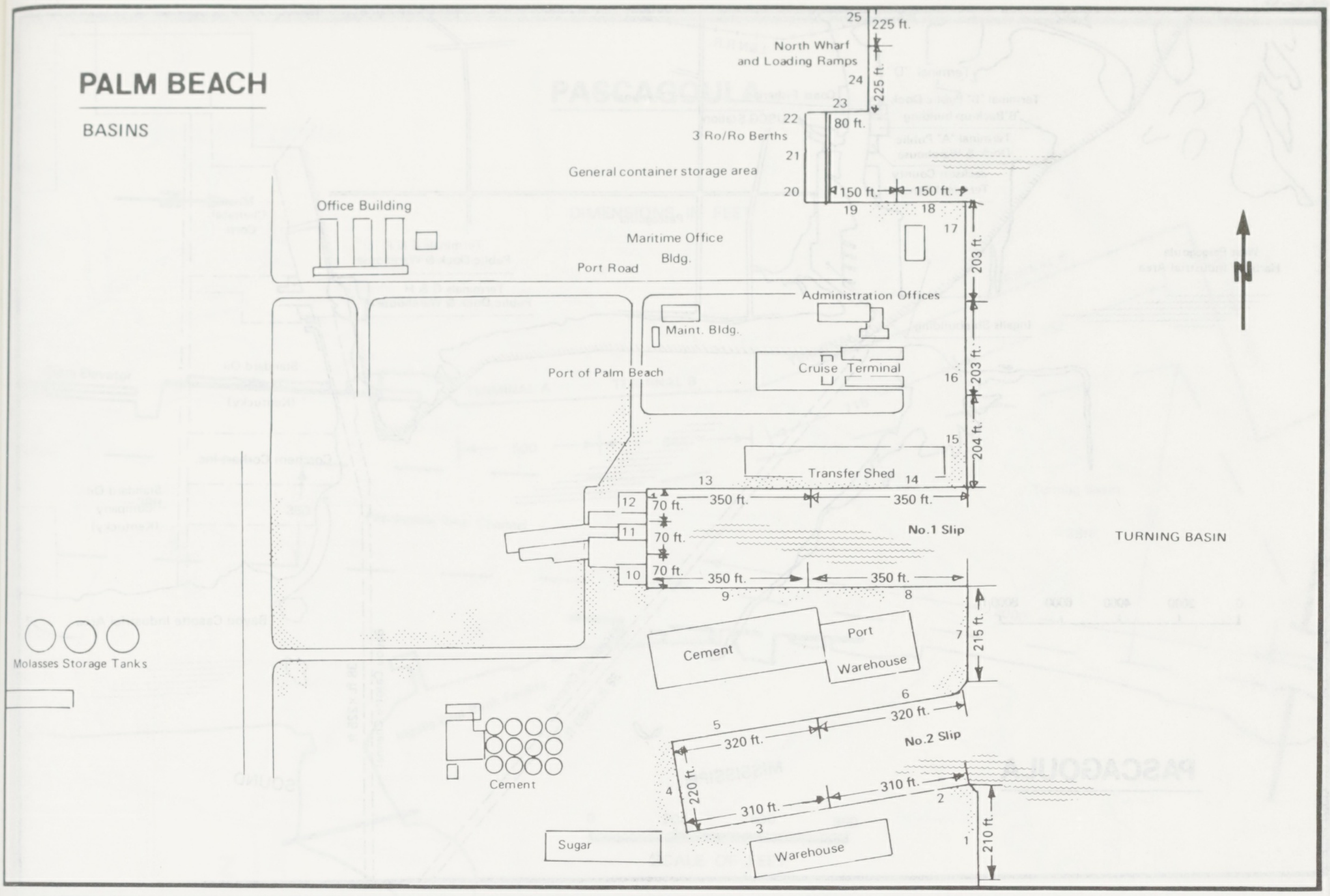
Depths 21ft in soft material
22ft in hard material
U.S. West Arrowhead
Breakwater – 2700ft
Submerged Cable
Project Limit
West Pierhead Light
30 ft.
23 ft.
27 ft.
27'
29 ft.
21 ft.
21 ft.
Finger Pier
4 Berths
3 Berths
Montcalm Dock
Cement Silos
OSWEGO RIVER
1900ft
27 ft.
27 ft.
Oswego Port Authority Terminal
Slip
12 ft.
12 ft.
Cribs
Project Limit
Lock No 8 N.Y.S. Barge Canal
Project Depth 25ft
OSWEGO HARBOR
U.S. East Arrowhead
Breakwater 2200ft
East Breakwater Light
Not dredged
30 ft.
Detached Breakwater 850 ft
N
SCALE IN FEET
0
500
1000
1500



Intracoastal Waterway
Jacksonville to Miami Fla.
SINGER ISLAND
North R/W line
N. Revetment
North Jetty
Sand–Transfer Plant
N
PEANUT ISLAND
U.S.C.G. Station
CHANNEL DEPTH 35ft
300 ft
400 ft
ARTIFICIAL CUT
South Revetment.
LAKE WORTH INLET
SOUTH JETTY
South R/W line
Riviera Beach
North Wharf &
Loading Ramps
Container
Marshalling Yard
Depth 25 ft.
Admin. Buildings
TURNING BASIN –35 ft.
Slip No.1
Port of Palm Beach
1400 ft.
Slip No.2
Passenger
Terminal
LAKE WORTH
Authorised Palm Beach Channel
PALM BEACH
ATLANTIC OCEAN
0 200
1000
SCALE IN FEET

PALM BEACH

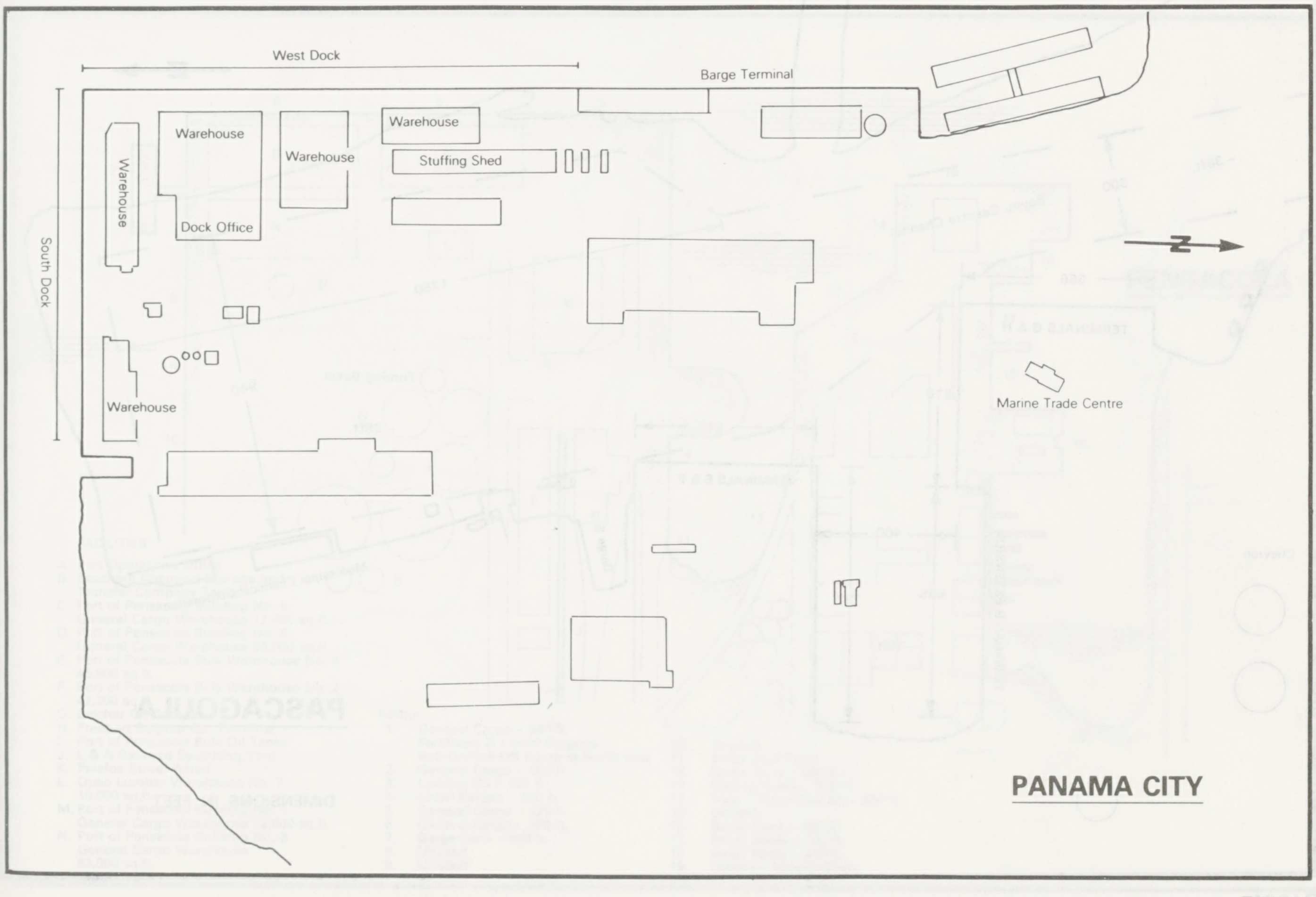
Legend:
The Port of Palm Beach is located on a saltwater sound known as Lake Worth and lies 1⅓ miles from the 37-foot contour of the Atlantic Ocean, to which it is connected by an artificial cut at the North end of Lake Worth known as Lake Worth Inlet.
(1) Entrance to the harbour is by a dog-leg channel running due West through the jetties and then turning Southwesterly to the terminals, 400 ft. wide, narrowing to 300 ft. in width as it continues across the lake another 3,000 ft., leading into a trapezoidal turning basin. (2) 1,400 ft. by 1,310 ft., adjacent to the port terminals on the West shore. Depth of the channel and turning basin is 35 ft. (3) Slip No. 1 is 690 ft. in length with water depth of 27 ft. (4) Slip No. 2 is 650 ft. in length with water depth of 35 ft. (5) Extension of turning basin with water depth of 25 ft. (6) Three Ro/Ro ramps and the New North Wharf, which together comprise 1,054 ft. in length.



PALM BEACH

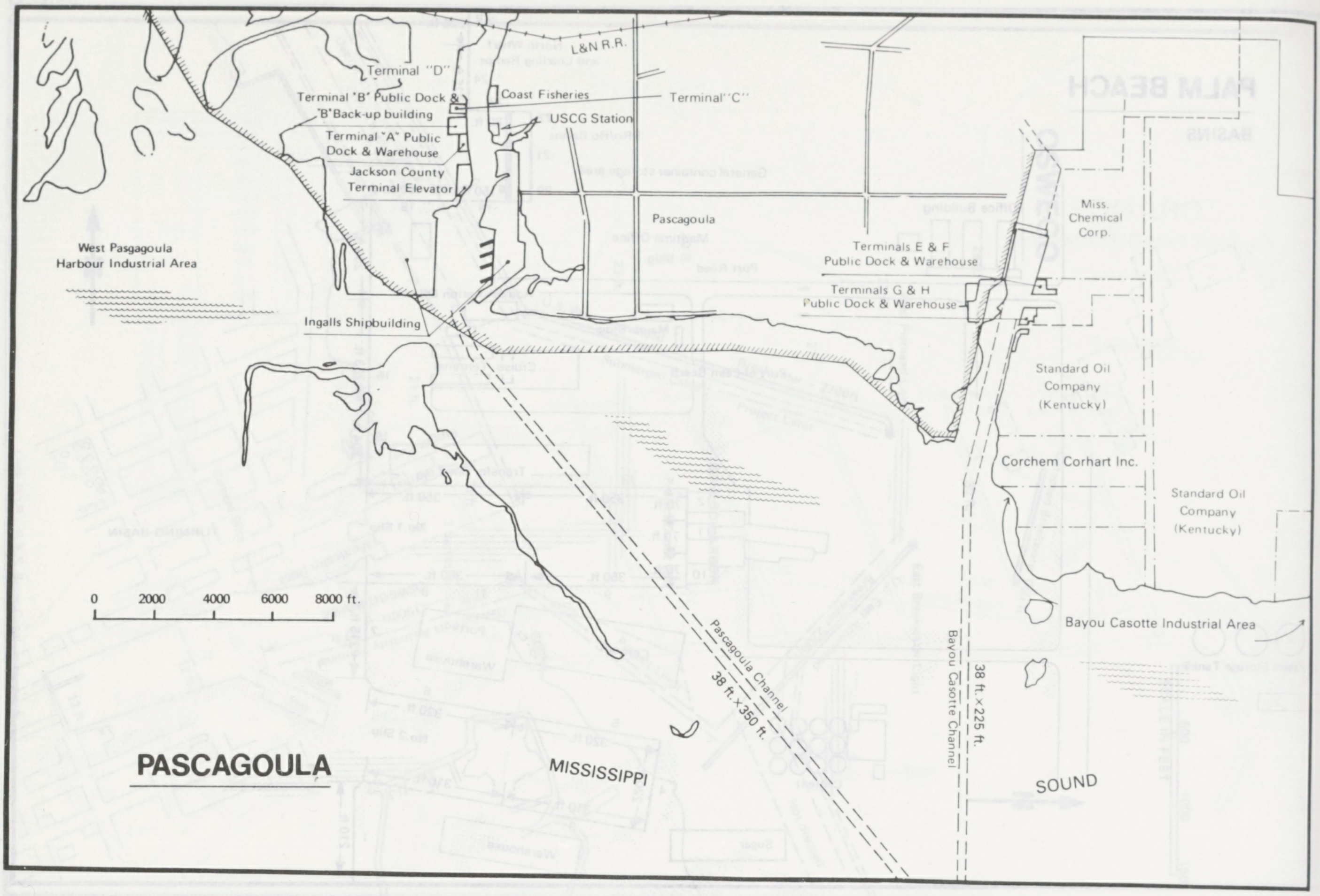
BASINS

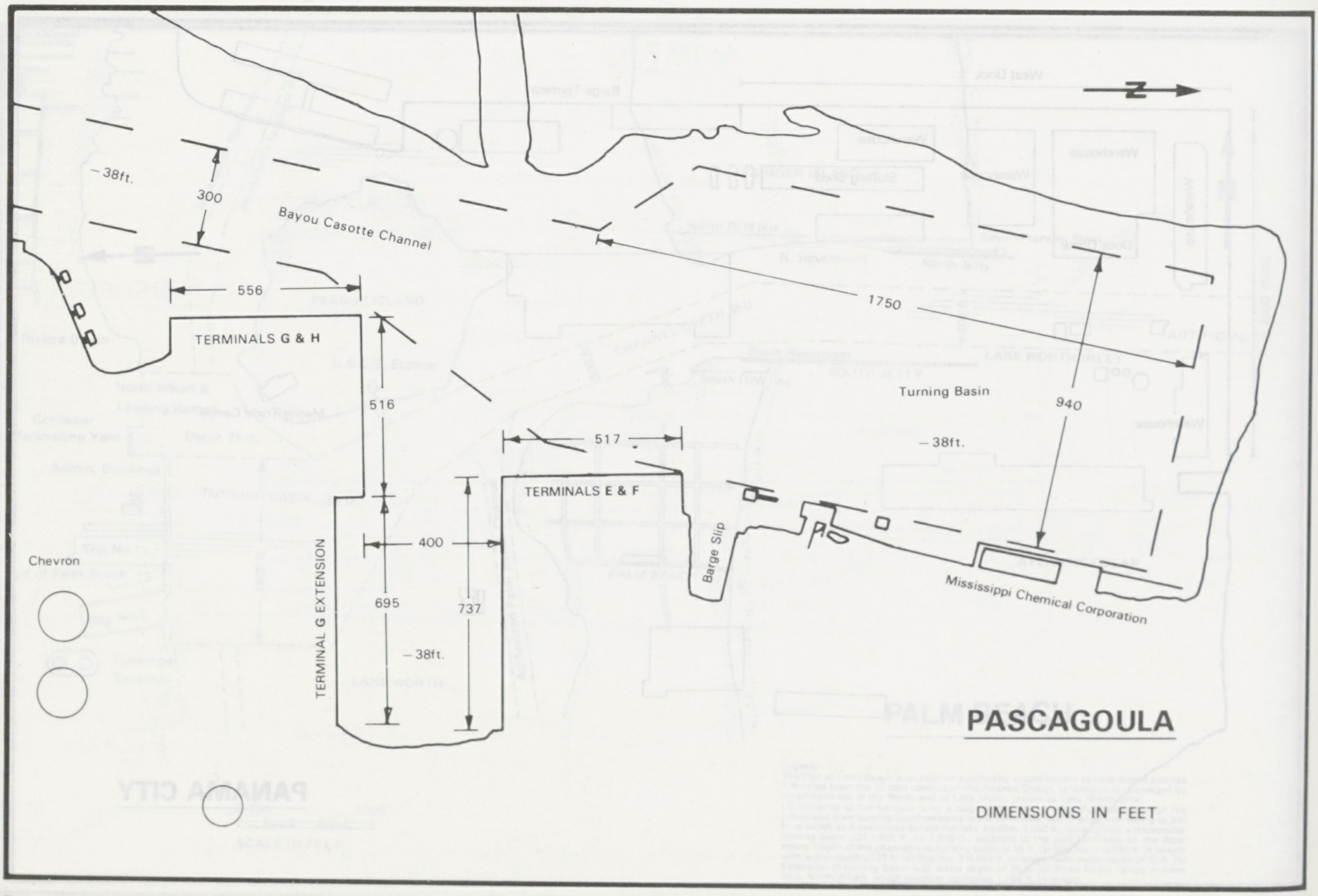
North Wharf and Loading Ramps
25
225 ft.
24
225 ft.
23
22
80 ft.
3 Ro/Ro Berths
21
General container storage area
20
150 ft.
150 ft.
19
18
17
Office Building
Maritime Office Bldg.
Port Road
203 ft.
Administration Offices
Maint. Bldg.
Cruise Terminal
Port of Palm Beach
16
203 ft.
15
204 ft.
Transfer Shed
13
14
12
70 ft.
350 ft.
350 ft.
11
70 ft.
No.1 Slip
TURNING BASIN
10
70 ft.
350 ft.
350 ft.
9
8
Molasses Storage Tanks
Cement
Port Warehouse
7
215 ft.
6
5
320 ft.
320 ft.
No.2 Slip
Cement
4
220 ft.
310 ft.
310 ft.
2
3
1
210 ft.
Sugar
Warehouse
N



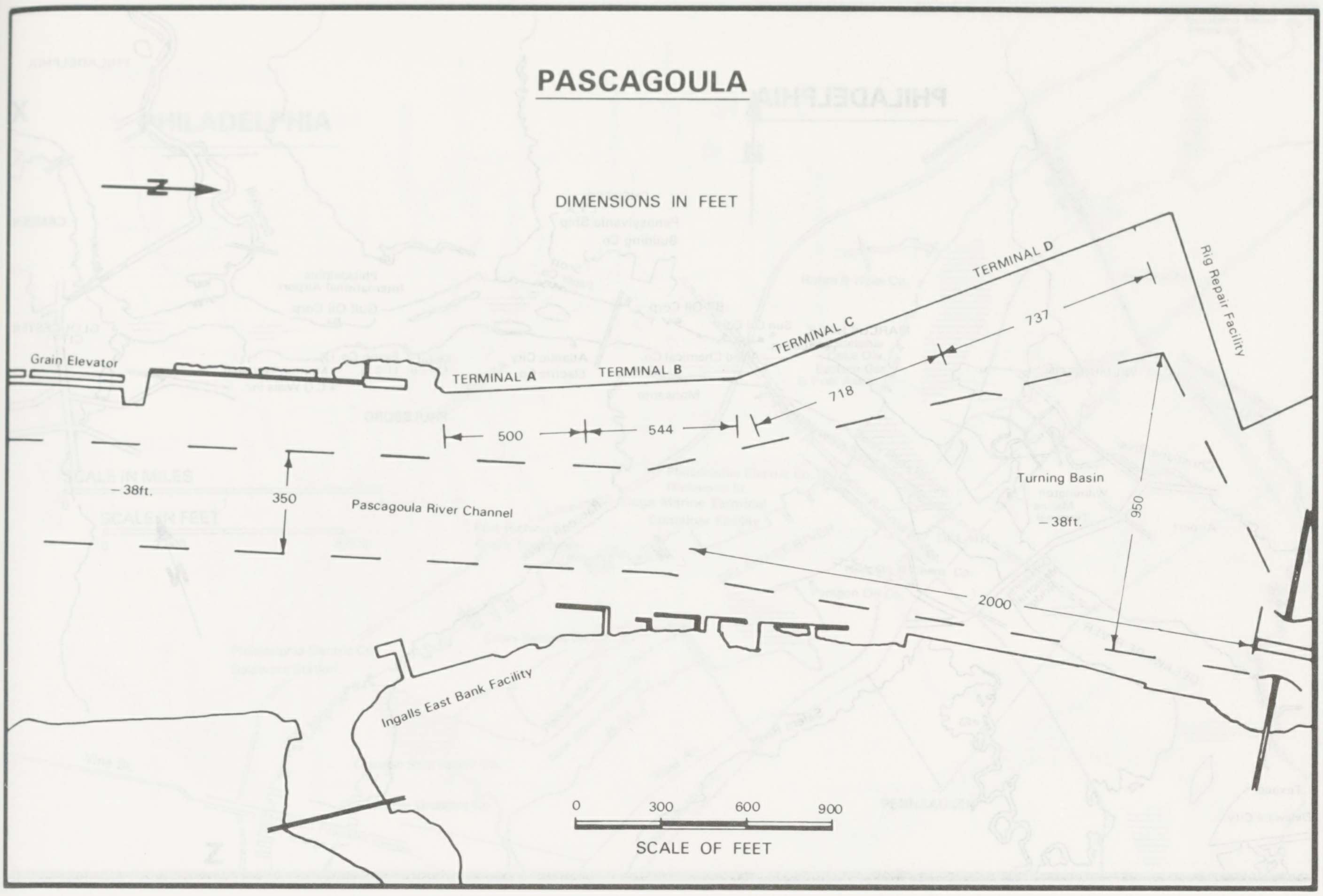
PANAMA CITY

West Dock
Barge Terminal
Warehouse
Warehouse
Warehouse
Warehouse
Stuffing Shed
Dock Office
South Dock
Warehouse
N
Marine Trade Centre

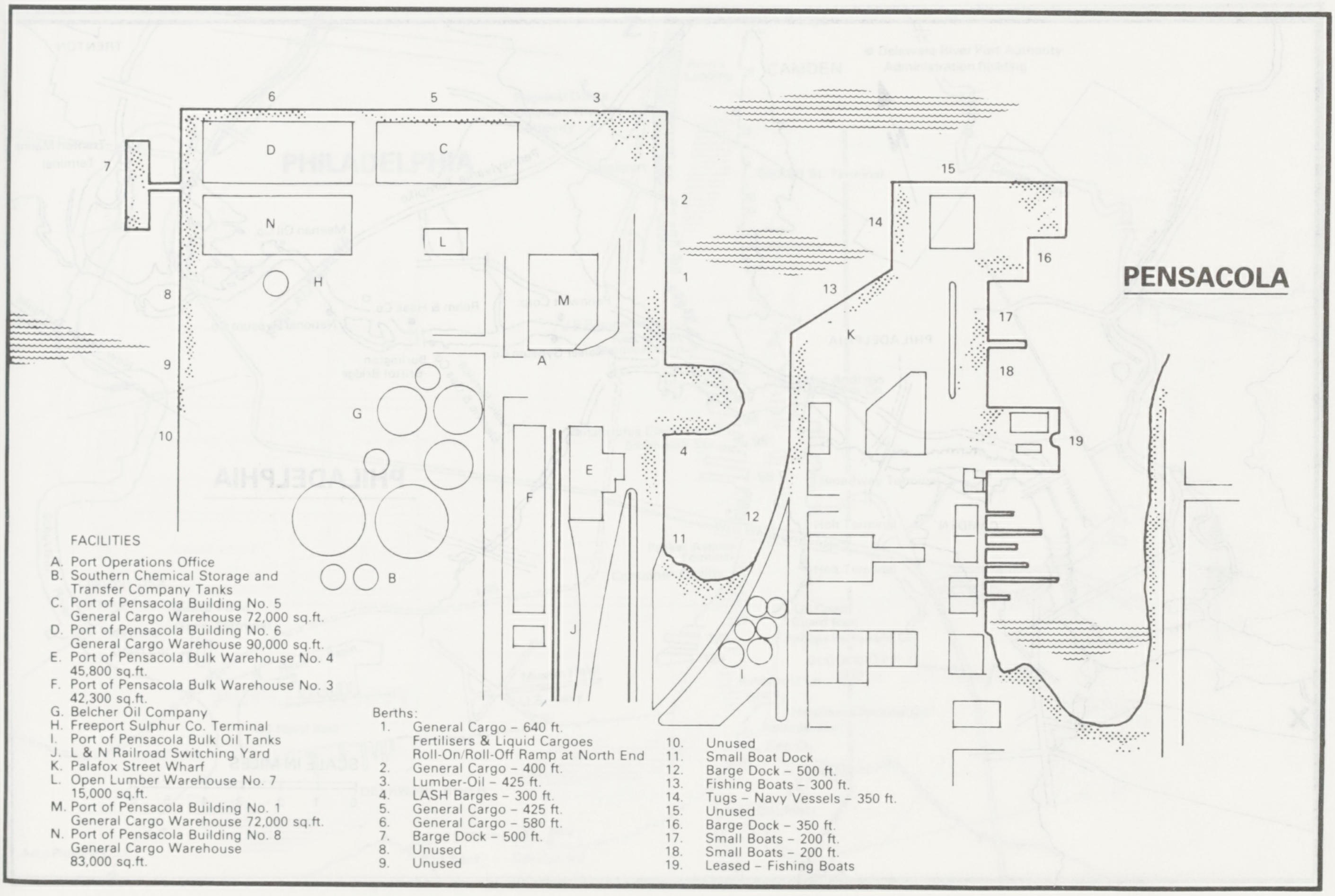

L&N R.R.
Terminal "D"
Terminal "B" Public Dock & "B" Back-up building
Coast Fisheries
Terminal "C"
USCG Station
Terminal "A" Public Dock & Warehouse
Jackson County Terminal Elevator
Pascagoula
West Pasgagoula Harbour Industrial Area
Miss. Chemical Corp.
Terminals E & F Public Dock & Warehouse
Terminals G & H Public Dock & Warehouse
Ingalls Shipbuilding
Standard Oil Company (Kentucky)
Corchem Corhart Inc.
Standard Oil Company (Kentucky)
0 2000 4000 6000 8000 ft.
Bayou Casotte Industrial Area
Pascagoula Channel
38 ft. × 350 ft.
38 ft. × 225 ft.
Bayou Casotte Channel
PASCAGOULA
MISSISSIPPI
SOUND


N
−38ft.
300
Bayou Casotte Channel
556
TERMINALS G & H
1750
516
Turning Basin
940
517
−38ft.
TERMINALS E & F
400
Barge Slip
Chevron
TERMINAL G EXTENSION
695
737
−38ft.
Mississippi Chemical Corporation
PASCAGOULA
DIMENSIONS IN FEET

PASCAGOULA


N
DIMENSIONS IN FEET
Grain Elevator
TERMINAL A
TERMINAL B
TERMINAL C
TERMINAL D
Rig Repair Facility
500
544
718
737
−38ft.
350
Pascagoula River Channel
Turning Basin
−38ft.
950
2000
Ingalls East Bank Facility
0
300
600
900
SCALE OF FEET

PENSACOLA

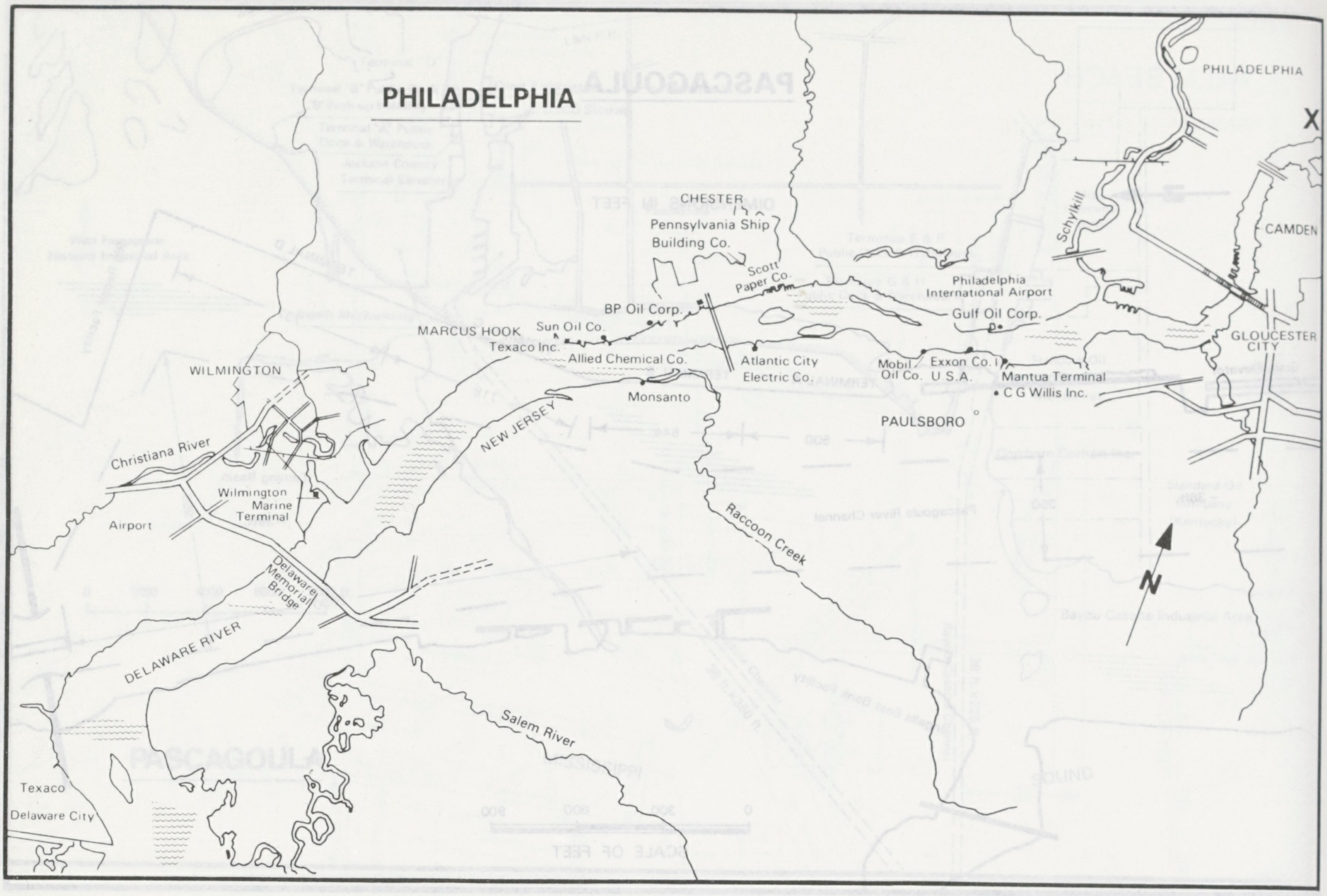

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
A
B
C
D
E
F
G
H
I
J
K
L
M
N

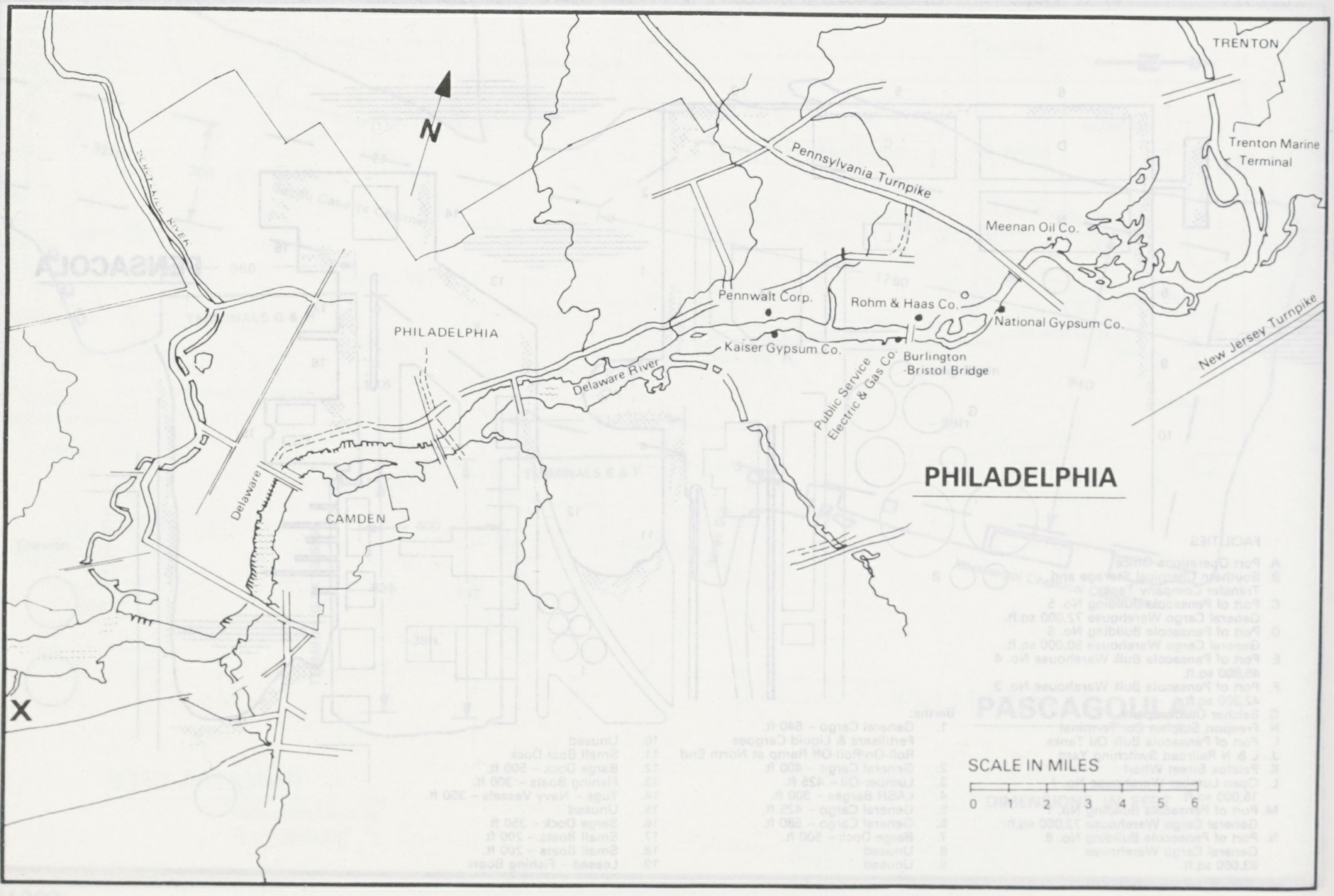
FACILITIES

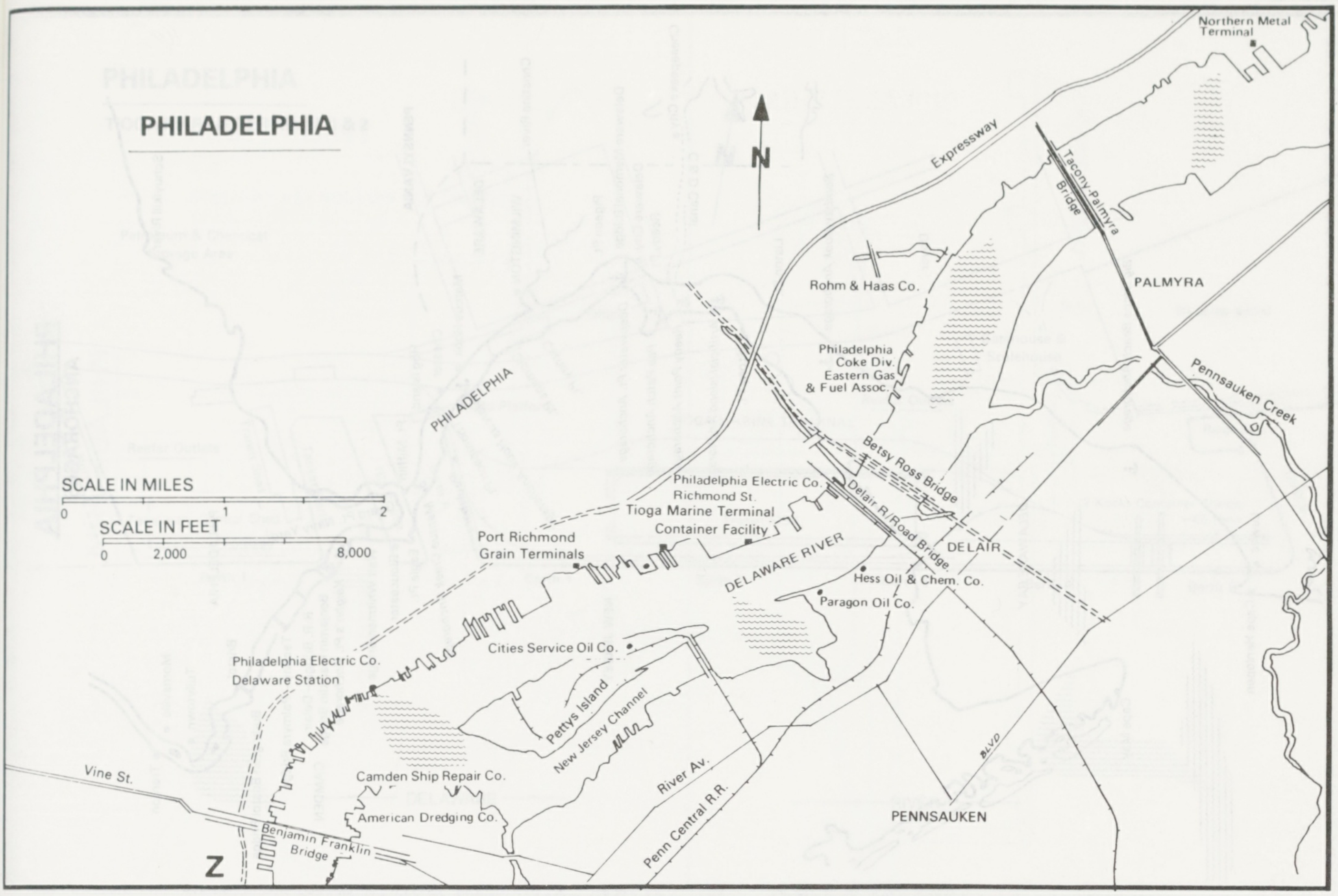
- A. Port Operations Office
- B. Southern Chemical Storage and Transfer Company Tanks
- C. Port of Pensacola Building No. 5 General Cargo Warehouse 72,000 sq.ft.
- D. Port of Pensacola Building No. 6 General Cargo Warehouse 90,000 sq.ft.
- E. Port of Pensacola Bulk Warehouse No. 4 45,800 sq.ft.
- F. Port of Pensacola Bulk Warehouse No. 3 42,300 sq.ft.
- G. Belcher Oil Company
- H. Freeport Sulphur Co. Terminal
- I. Port of Pensacola Bulk Oil Tanks
- J. L & N Railroad Switching Yard
- K. Palafox Street Wharf
- L. Open Lumber Warehouse No. 7 15,000 sq.ft.
- M. Port of Pensacola Building No. 1 General Cargo Warehouse 72,000 sq.ft.
- N. Port of Pensacola Building No. 8 General Cargo Warehouse 83,000 sq.ft.

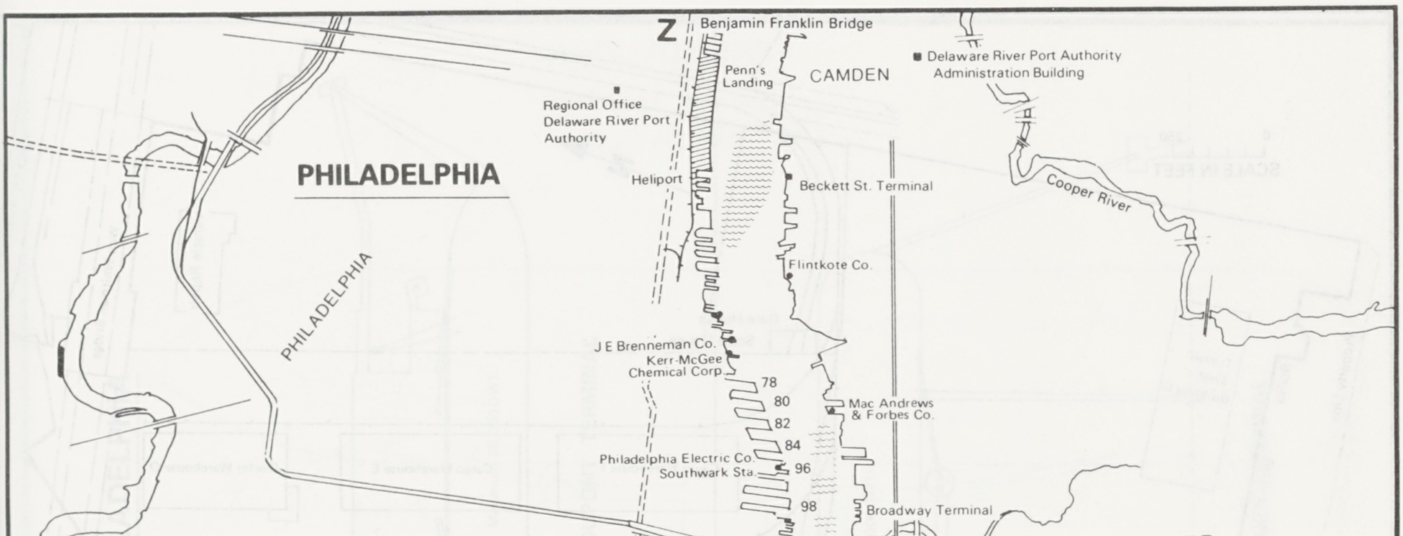
Berths:

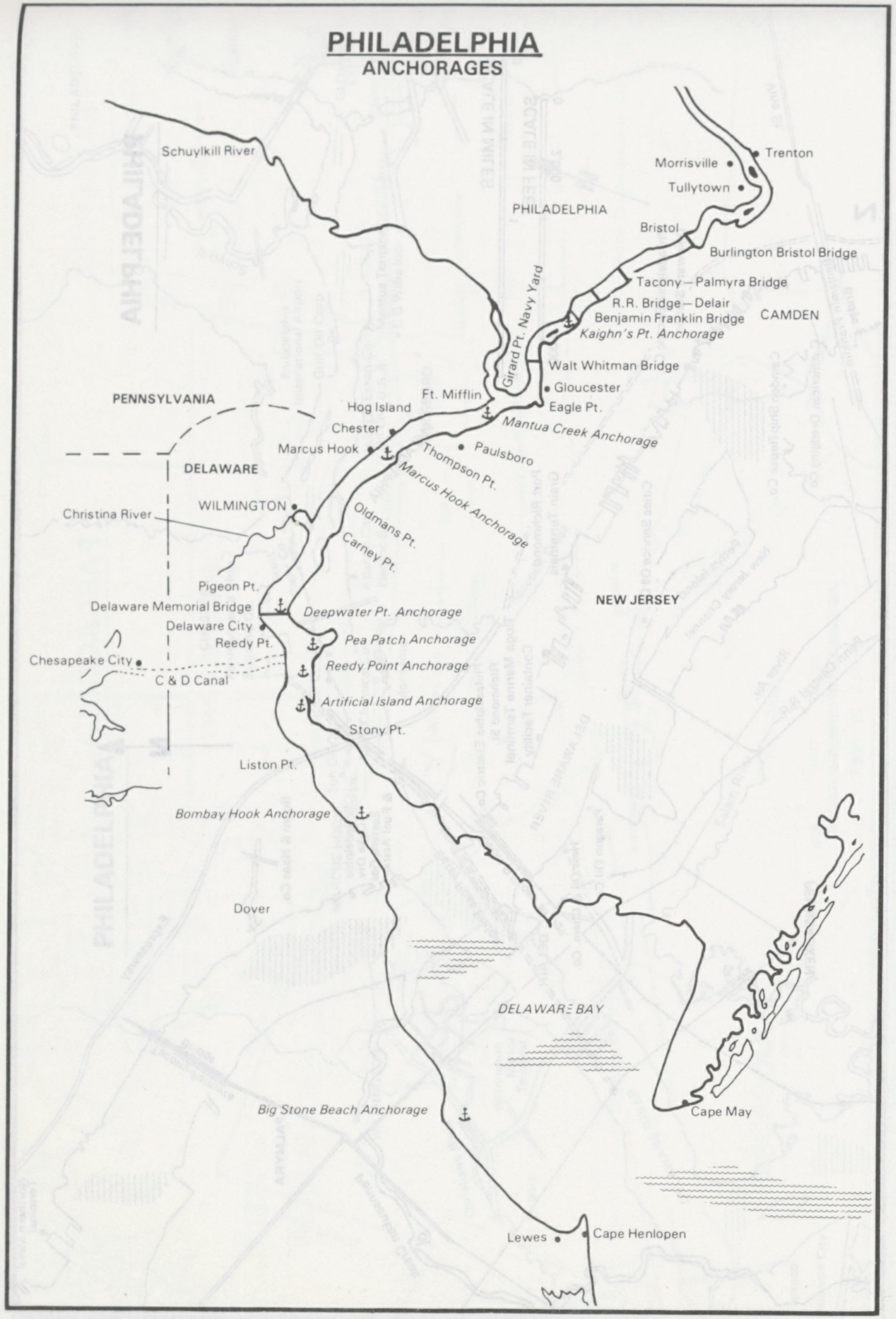
1. General Cargo – 640 ft. Fertilisers & Liquid Cargoes Roll-On/Roll-Off Ramp at North End
2. General Cargo – 400 ft.
3. Lumber-Oil – 425 ft.
4. LASH Barges – 300 ft.
5. General Cargo – 425 ft.
6. General Cargo – 580 ft.
7. Barge Dock – 500 ft.
8. Unused
9. Unused
10. Unused
11. Small Boat Dock
12. Barge Dock – 500 ft.
13. Fishing Boats – 300 ft.
14. Tugs – Navy Vessels – 350 ft.
15. Unused
16. Barge Dock – 350 ft.
17. Small Boats – 200 ft.
18. Small Boats – 200 ft.
19. Leased – Fishing Boats

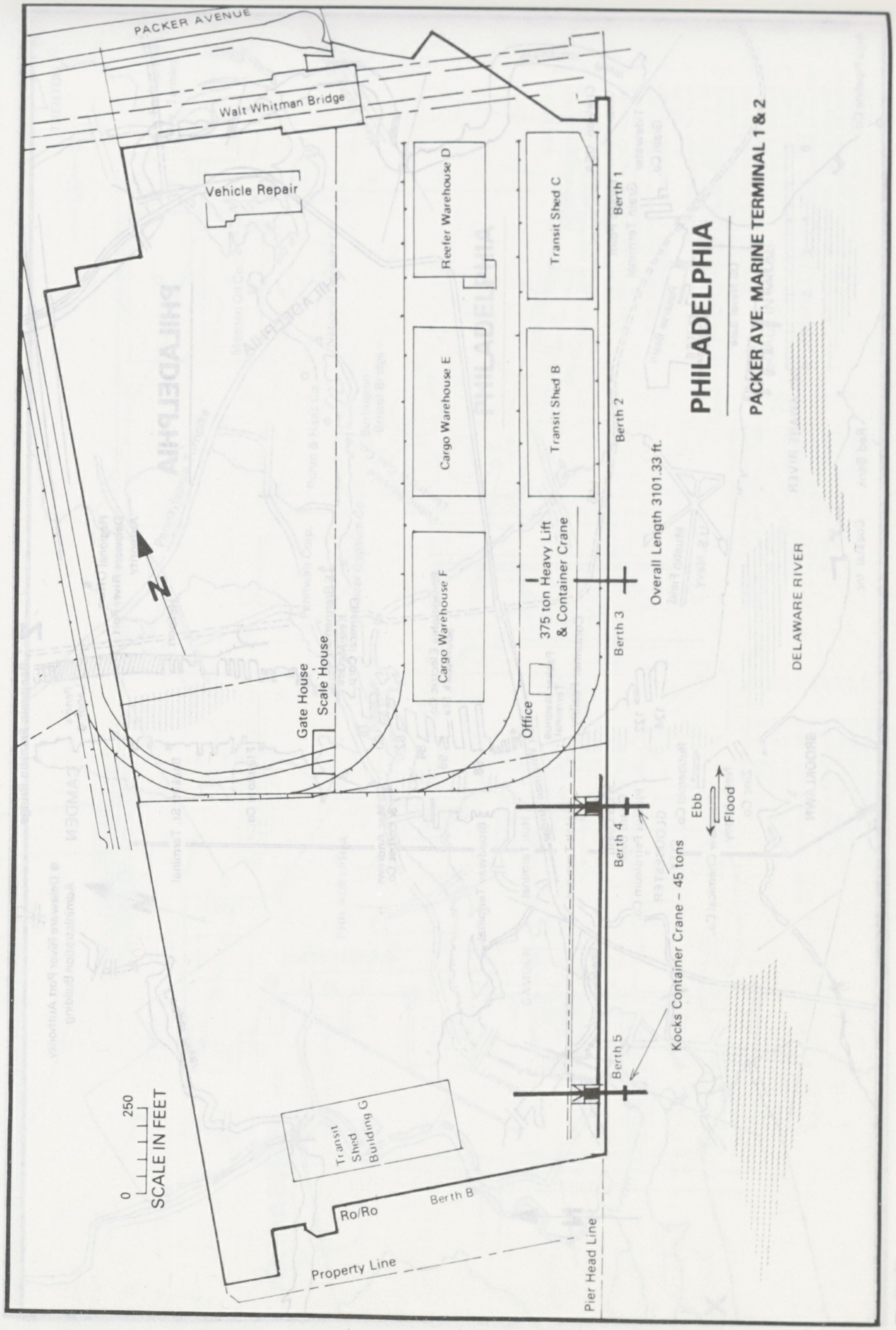

PHILADELPHIA
CHESTER
Pennsylvania Ship Building Co.
Scott Paper Co.
Philadelphia International Airport
Gulf Oil Corp.
BP Oil Corp.
MARCUS HOOK
Sun Oil Co.
Texaco Inc.
Allied Chemical Co.
Atlantic City Electric Co.
Mobil Oil Co.
Exxon Co. U.S.A.
Mantua Terminal
C G Willis Inc.
PAULSBORO
Monsanto
WILMINGTON
Christiana River
Wilmington Marine Terminal
Airport
NEW JERSEY
Delaware Memorial Bridge
DELAWARE RIVER
Raccoon Creek
Salem River
Texaco
Delaware City
PHILADELPHIA
X
Schylkill
CAMDEN
GLOUCESTER CITY
N

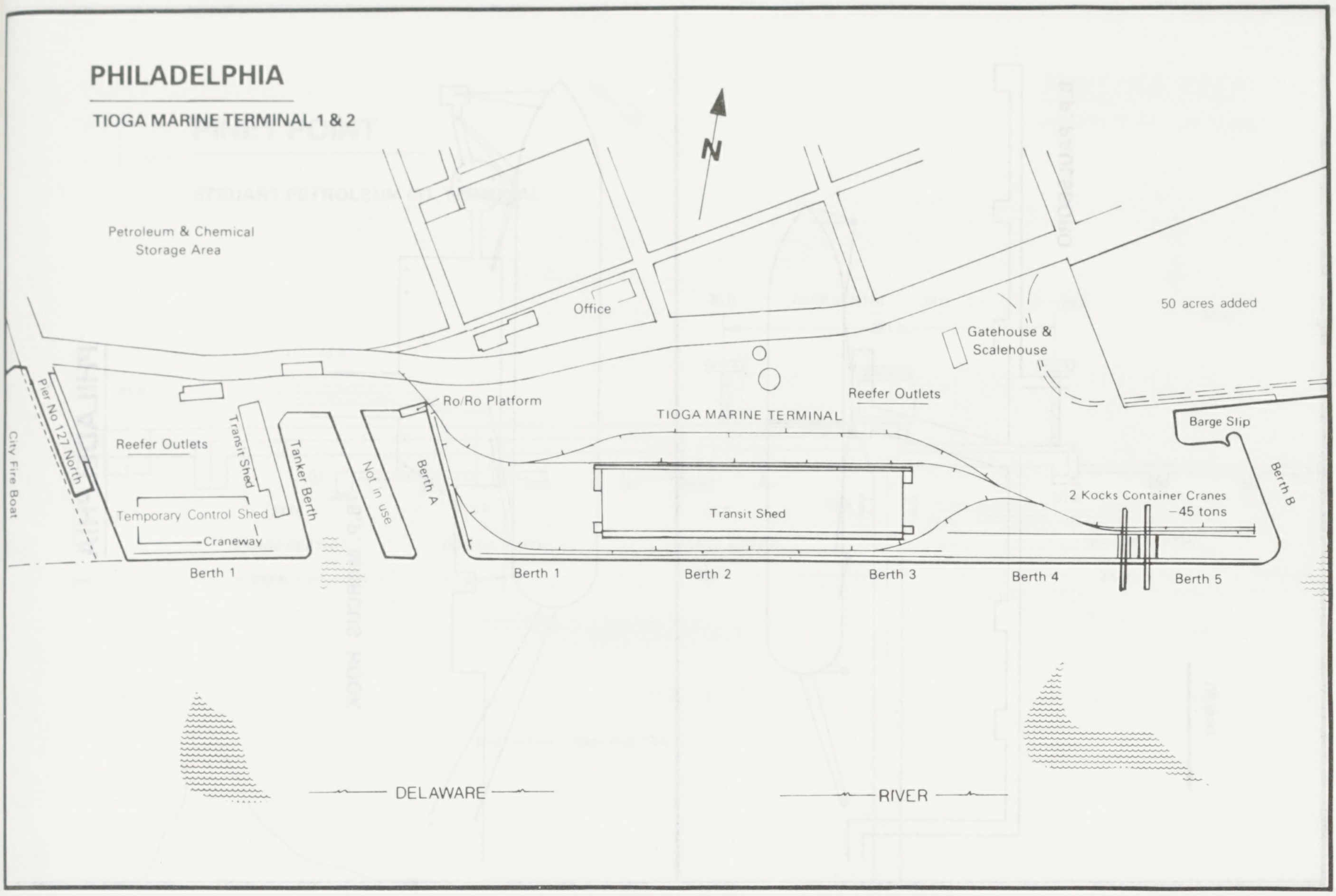

N
PHILADELPHIA
Pennsylvania Turnpike
TRENTON
Trenton Marine Terminal
Meenan Oil Co.
Pennwalt Corp.
Rohm & Haas Co.
National Gypsum Co.
Kaiser Gypsum Co.
Burlington Bristol Bridge
Delaware River
Public Service Electric & Gas Co.
New Jersey Turnpike
Delaware
CAMDEN
PHILADELPHIA
X
SCALE IN MILES
0 1 2 3 4 5 6

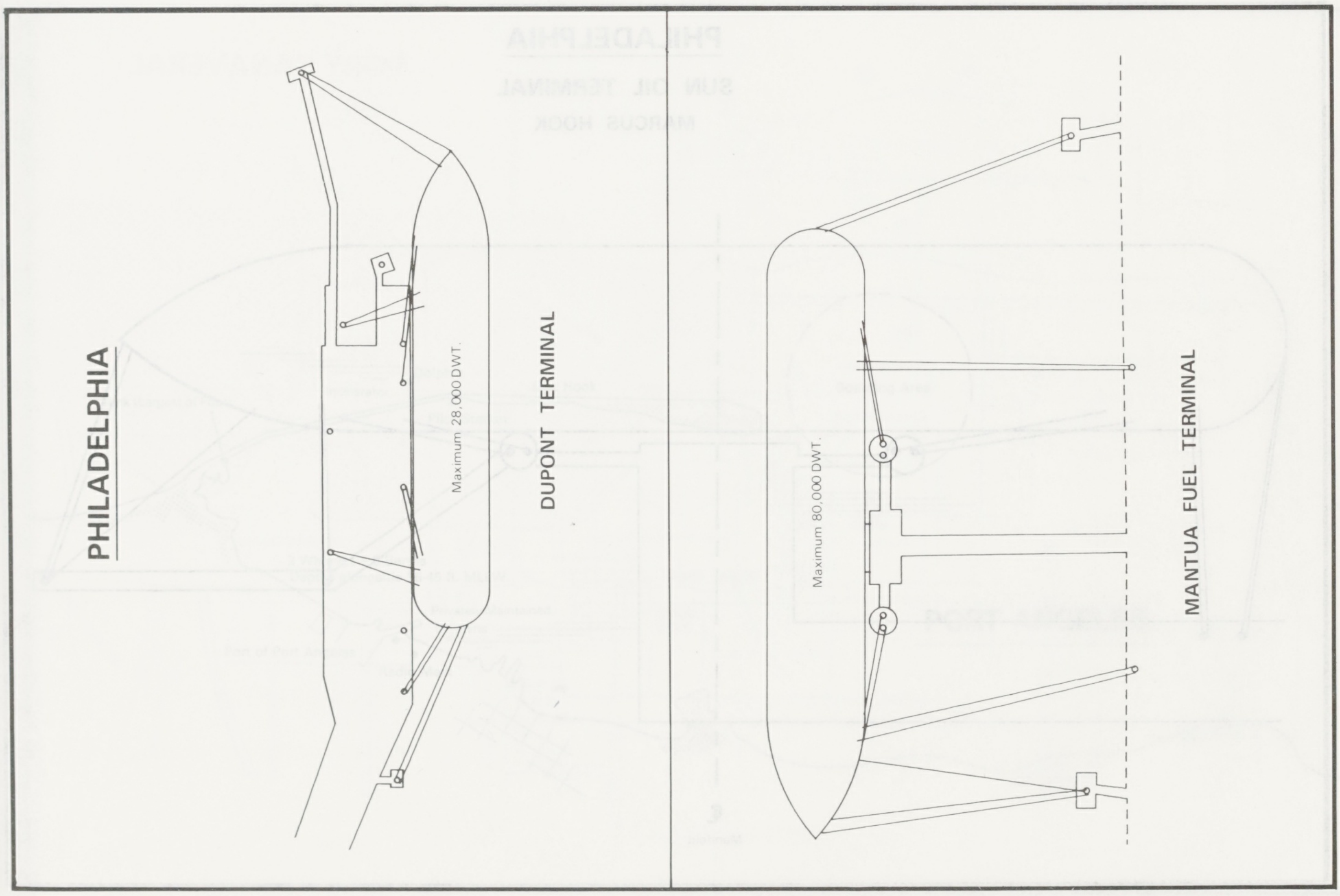

PHILADELPHIA
N
SCALE IN MILES
0
1
2
SCALE IN FEET
0
2,000
8,000
Northern Metal Terminal
Expressway
Tacony-Palmyra Bridge
PALMYRA
Rohm & Haas Co.
Philadelphia Coke Div. Eastern Gas & Fuel Assoc.
Pennsauken Creek
PHILADELPHIA
Betsy Ross Bridge
Philadelphia Electric Co. Richmond St.
Delair R/Road Bridge
Tioga Marine Terminal Container Facility
DELAIR
Port Richmond Grain Terminals
DELAWARE RIVER
Hess Oil & Chem. Co.
Paragon Oil Co.
Cities Service Oil Co.
Philadelphia Electric Co. Delaware Station
Pettys Island
New Jersey Channel
BLVD
Vine St.
Camden Ship Repair Co.
River Av.
American Dredging Co.
Penn Central R.R.
PENNSAUKEN
Benjamin Franklin Bridge
Z

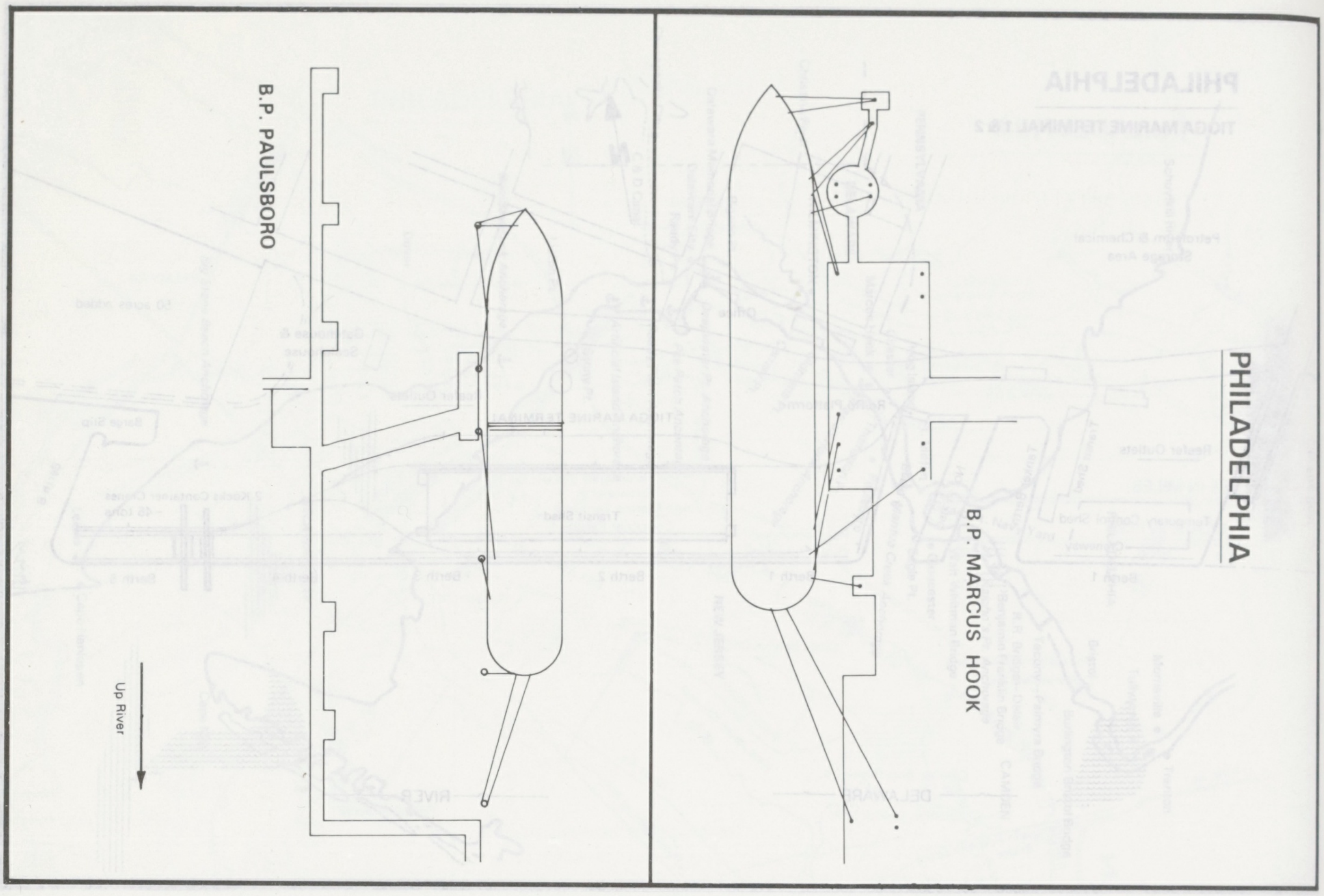

Z
Benjamin Franklin Bridge
Penn's Landing
CAMDEN
Delaware River Port Authority Administration Building
Regional Office Delaware River Port Authority
PHILADELPHIA
Heliport
Beckett St. Terminal
Cooper River
PHILADELPHIA
Flintkote Co.
J E Brenneman Co.
Kerr-McGee Chemical Corp.
78
80
82
84
Mac Andrews & Forbes Co.
Philadelphia Electric Co. Southwark Sta.
96
98
Broadway Terminal
Holt Terminal
Walt Whitman Bridge
Packer Avenue Terminal Container Facility
Holt Terminal
N
Newton Creek
Schuylkill River
Chevron USA Corp.
Girard Point Grain Terminal
I-95
US Coast Guard Base
Phillips Petroleum Co.
Tidewater Grain Co.
122
124
GLOUCESTER CITY
Reserve Basin
Mustin Field U.S. Navy
Rubberoid Co.
Harshaw Chemical Co.
US Naval Base
New Jersey Zinc Co.
DELAWARE RIVER
BROOKLAWN
Arco Pipeline Co.
Red Bank
Coastal Inc.


PHILADELPHIA
ANCHORAGES
Schuylkill River
Trenton
Morrisville
Tullytown
PHILADELPHIA
Bristol
Burlington Bristol Bridge
Tacony – Palmyra Bridge
R.R. Bridge – Delair
Benjamin Franklin Bridge
Kaighn's Pt. Anchorage
CAMDEN
Girard Pt. Navy Yard
Walt Whitman Bridge
Gloucester
Eagle Pt.
Ft. Mifflin
PENNSYLVANIA
Hog Island
Chester
Mantua Creek Anchorage
Marcus Hook
Paulsboro
Thompson Pt.
Marcus Hook Anchorage
DELAWARE
WILMINGTON
Christina River
Oldmans Pt.
Carney Pt.
Pigeon Pt.
NEW JERSEY
Delaware Memorial Bridge
Deepwater Pt. Anchorage
Delaware City
Pea Patch Anchorage
Reedy Pt.
Chesapeake City
Reedy Point Anchorage
C & D Canal
Artificial Island Anchorage
Stony Pt.
Liston Pt.
Bombay Hook Anchorage
Dover
DELAWARE BAY
Big Stone Beach Anchorage
Cape May
Lewes
Cape Henlopen


PHILADELPHIA
PACKER AVE. MARINE TERMINAL 1 & 2
PACKER AVENUE
Walt Whitman Bridge
Vehicle Repair
Reefer Warehouse D
Transit Shed C
Berth 1
Cargo Warehouse E
Transit Shed B
Berth 2
Cargo Warehouse F
375 ton Heavy Lift & Container Crane
Overall Length 3101.33 ft.
Berth 3
N
Gate House
Scale House
Office
Berth 4
Ebb
Flood
Kocks Container Crane – 45 tons
Berth 5
DELAWARE RIVER
Transit Shed Building G
0
250
SCALE IN FEET
Ro/Ro
Berth B
Property Line
Pier Head Line


PHILADELPHIA
TIOGA MARINE TERMINAL 1 & 2
N
Petroleum & Chemical Storage Area
Office
Gatehouse & Scalehouse
50 acres added
Pier No 127 North
City Fire Boat
Reefer Outlets
Transit Shed
Temporary Control Shed
Craneway
Tanker Berth
Not in use
Berth A
Ro/Ro Platform
TIOGA MARINE TERMINAL
Reefer Outlets
Barge Slip
Berth B
Transit Shed
2 Kocks Container Cranes –45 tons
Berth 1
Berth 1
Berth 2
Berth 3
Berth 4
Berth 5
DELAWARE
RIVER

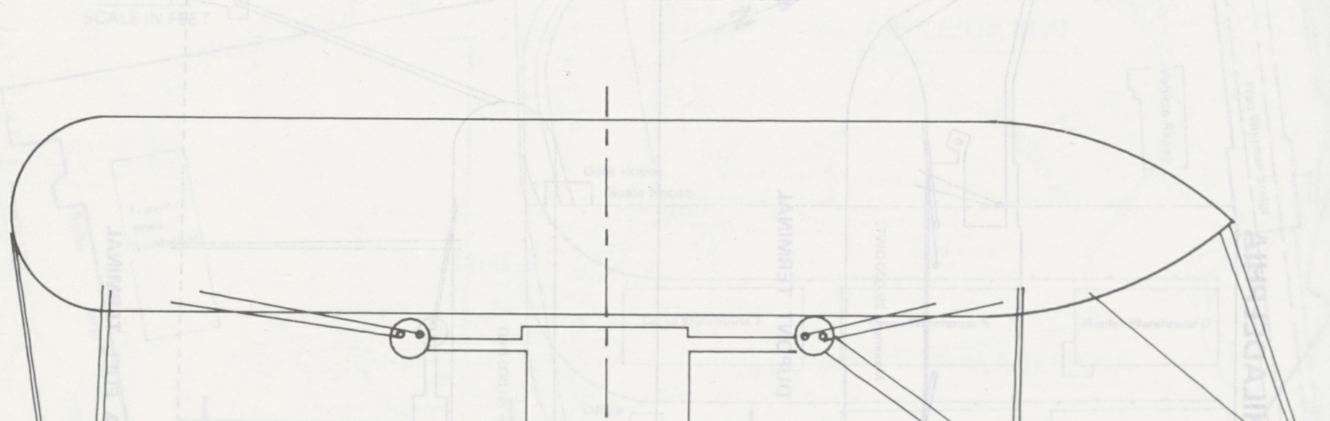

PHILADELPHIA
Maximum 28,000 DWT.
DUPONT TERMINAL
Maximum 80,000 DWT.
MANTUA FUEL TERMINAL

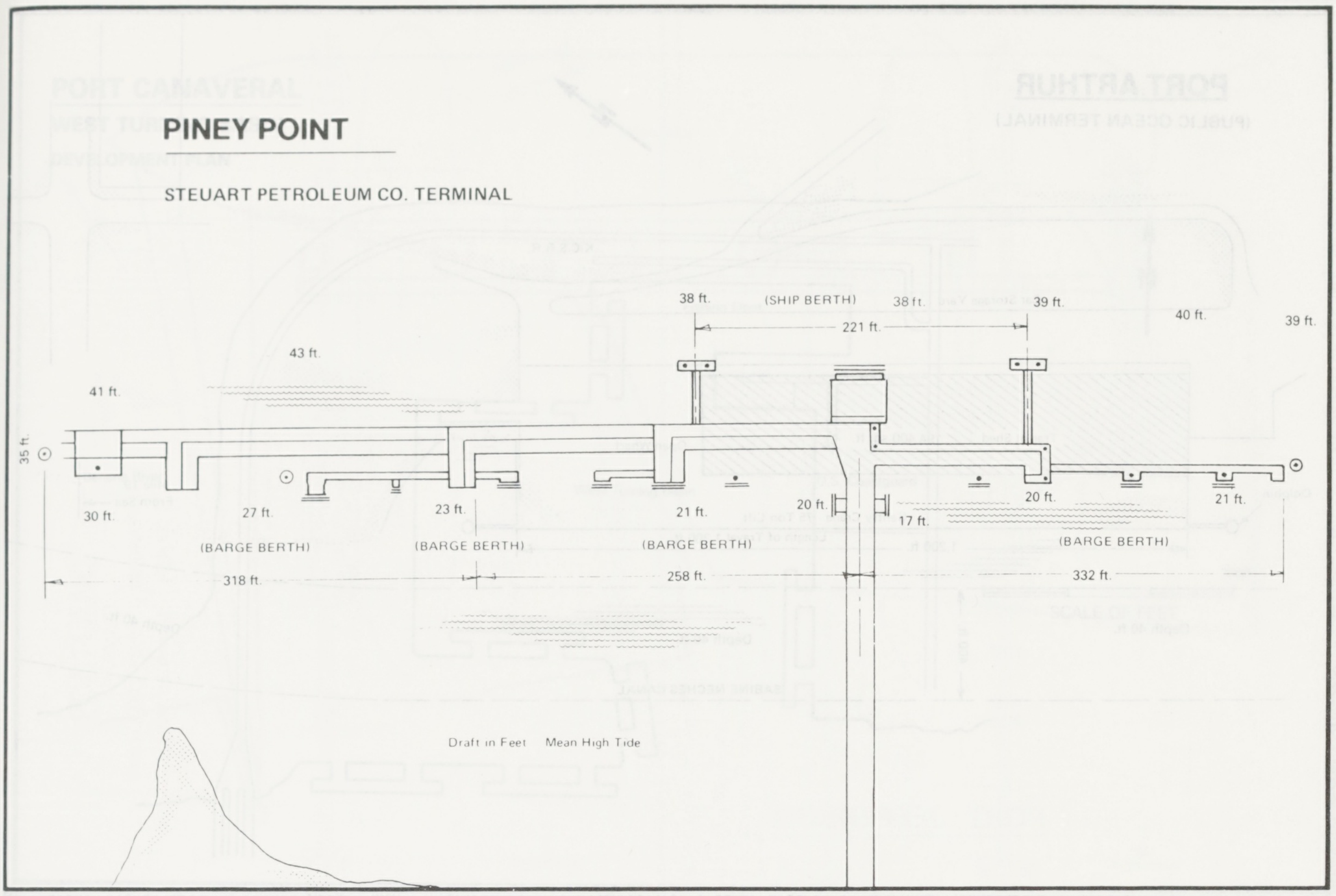

PHILADELPHIA
B.P. PAULSBORO
B.P. MARCUS HOOK
Up River

PHILADELPHIA

SUN OIL TERMINAL

MARCUS HOOK



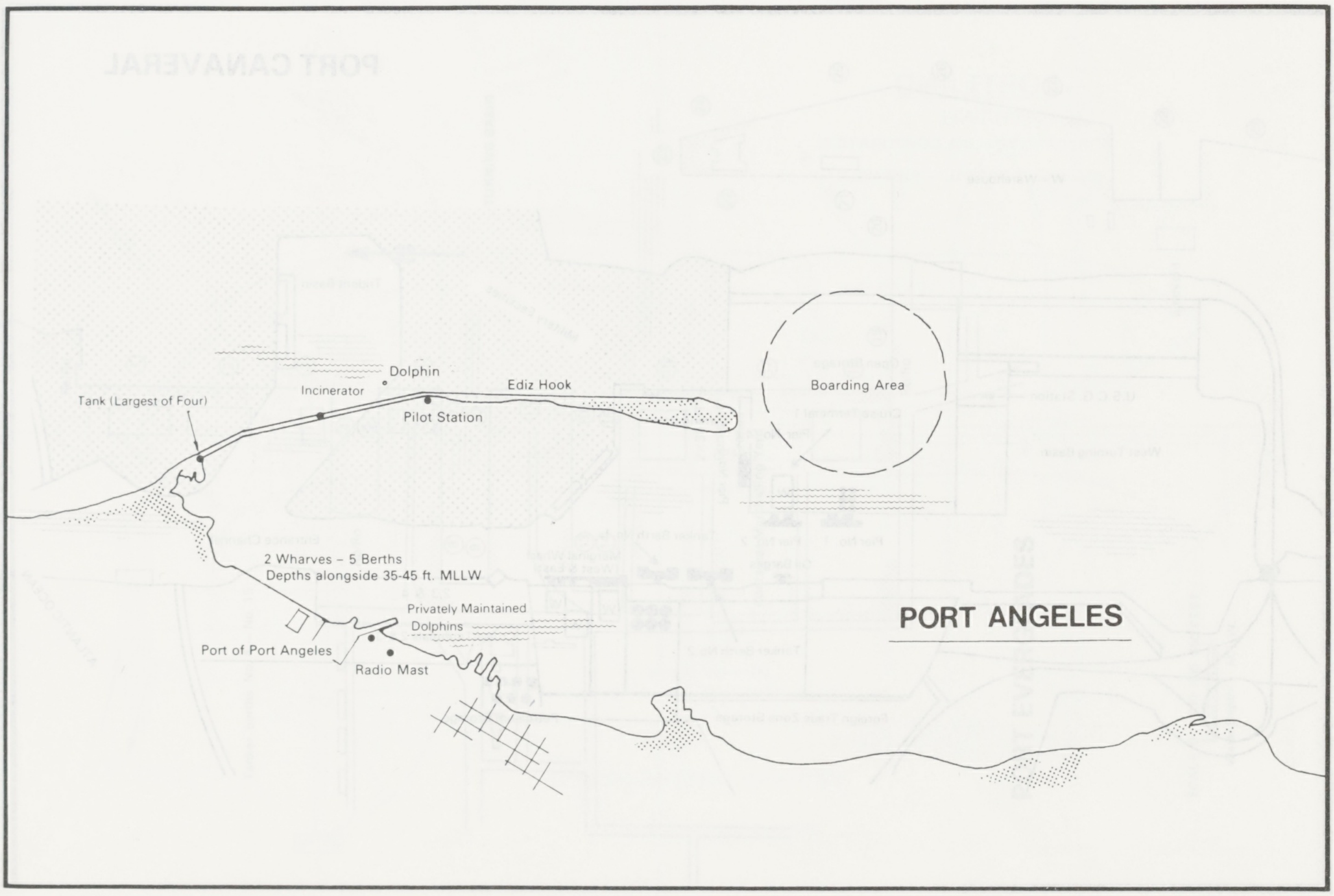


PINEY POINT

STEUART PETROLEUM CO. TERMINAL

38 ft.
(SHIP BERTH)
38 ft.
39 ft.
221 ft.
40 ft.
39 ft.
43 ft.
41 ft.
35 ft.
30 ft.
27 ft.
23 ft.
21 ft.
20 ft.
17 ft.
20 ft.
21 ft.
(BARGE BERTH)
(BARGE BERTH)
(BARGE BERTH)
(BARGE BERTH)
318 ft.
258 ft.
332 ft.

Draft in Feet   Mean High Tide

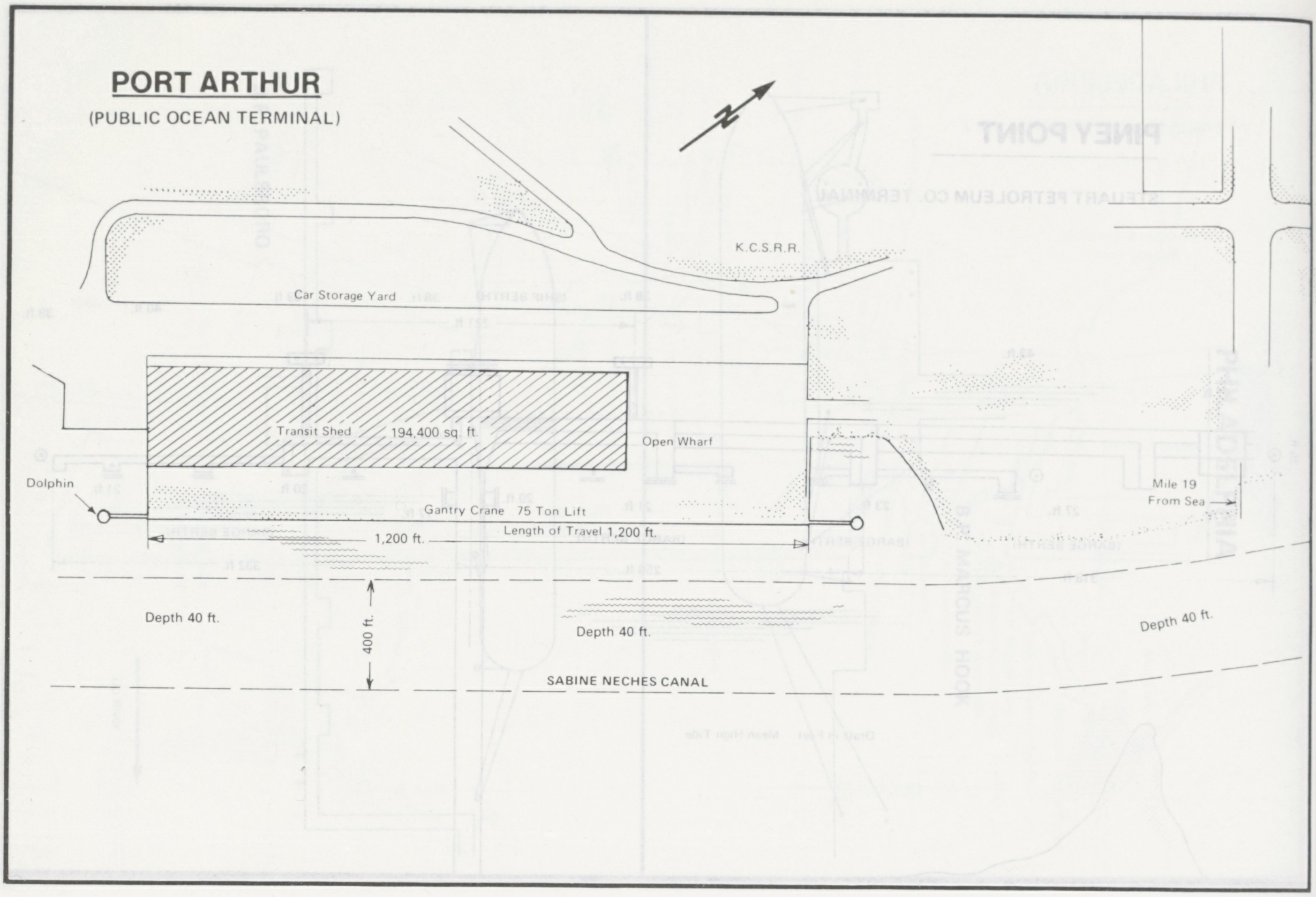


PORT ANGELES

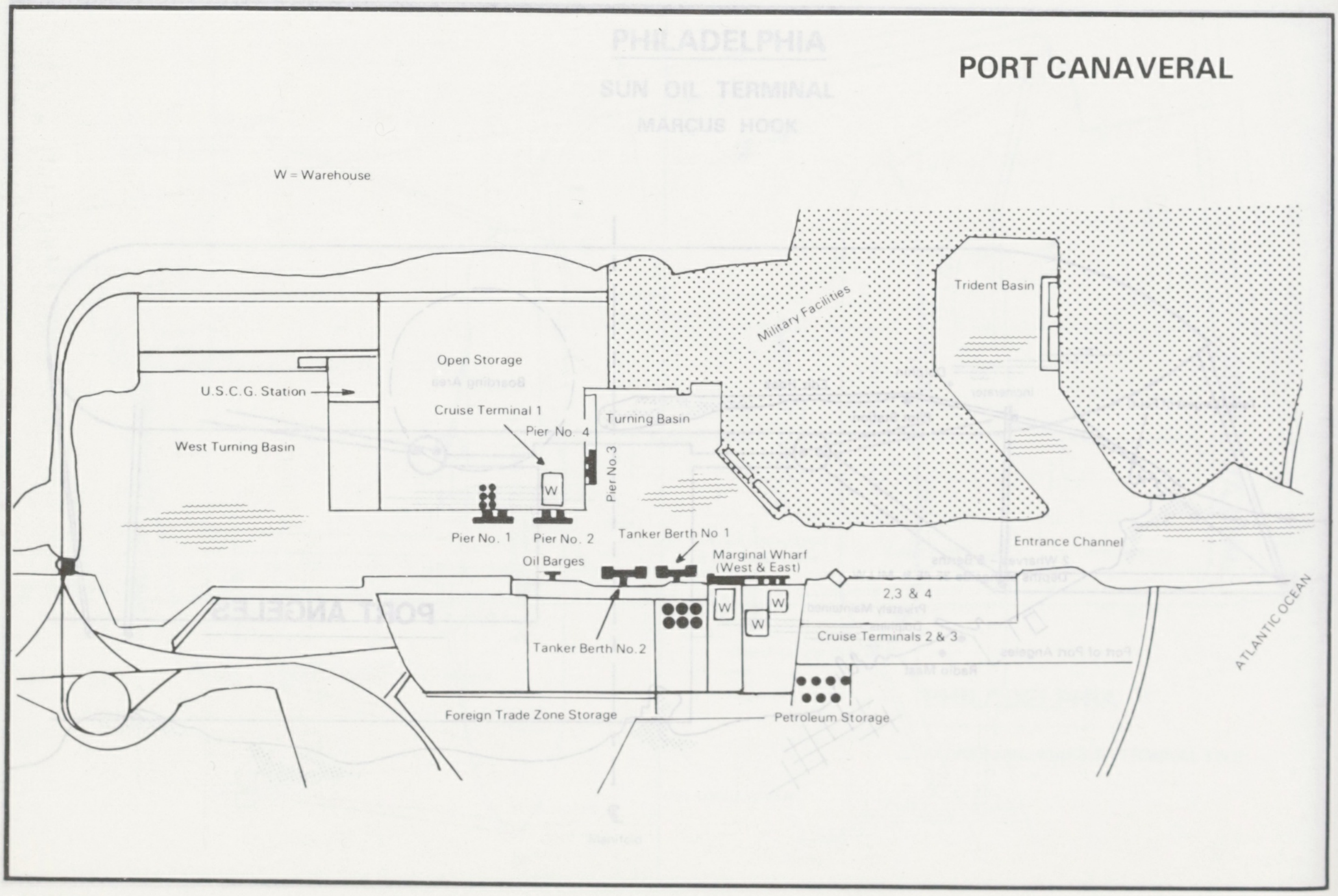
Dolphin
Incinerator
Ediz Hook
Tank (Largest of Four)
Pilot Station
Boarding Area
2 Wharves – 5 Berths
Depths alongside 35-45 ft. MLLW
Privately Maintained
Dolphins
Port of Port Angeles
Radio Mast

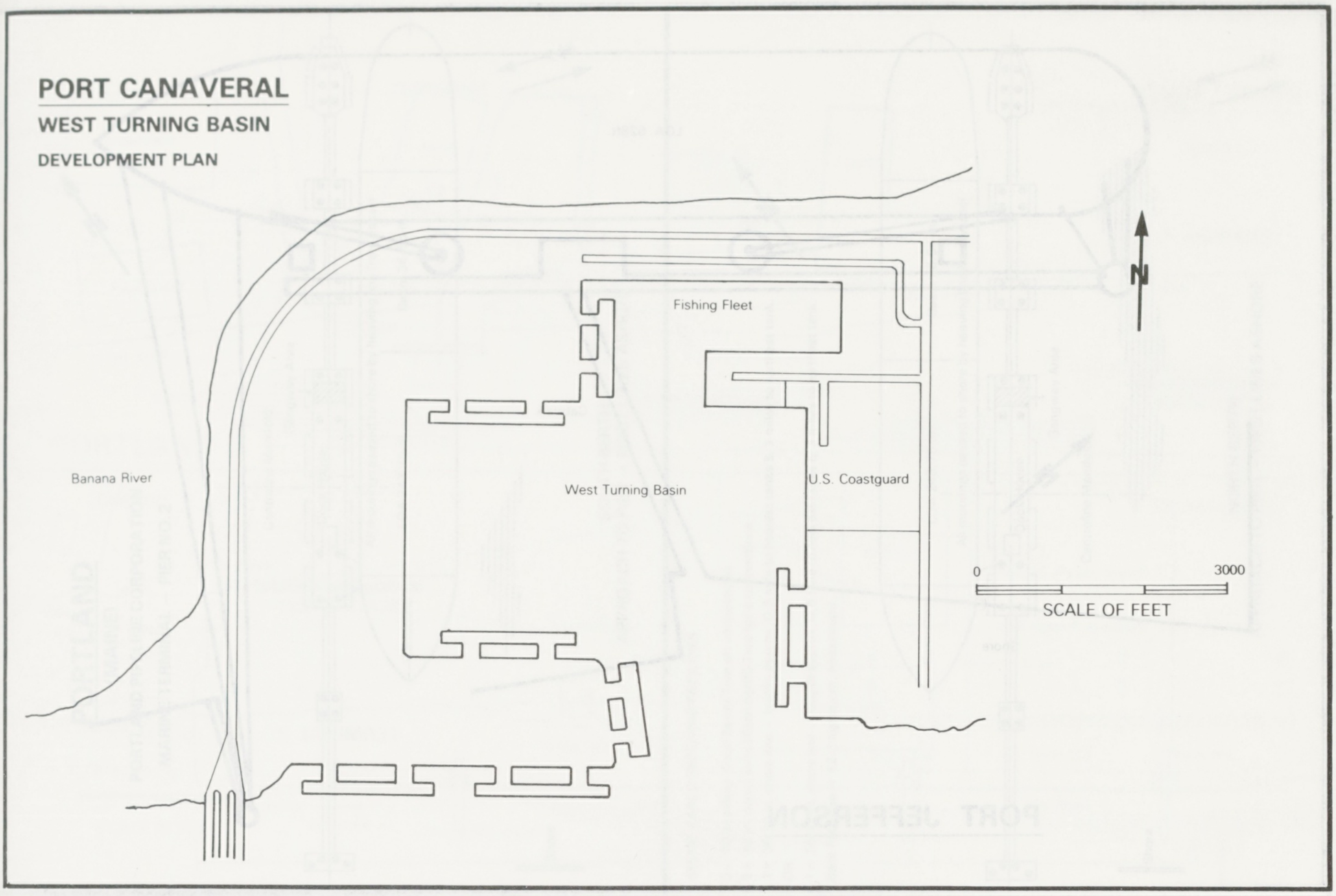
PORT ARTHUR

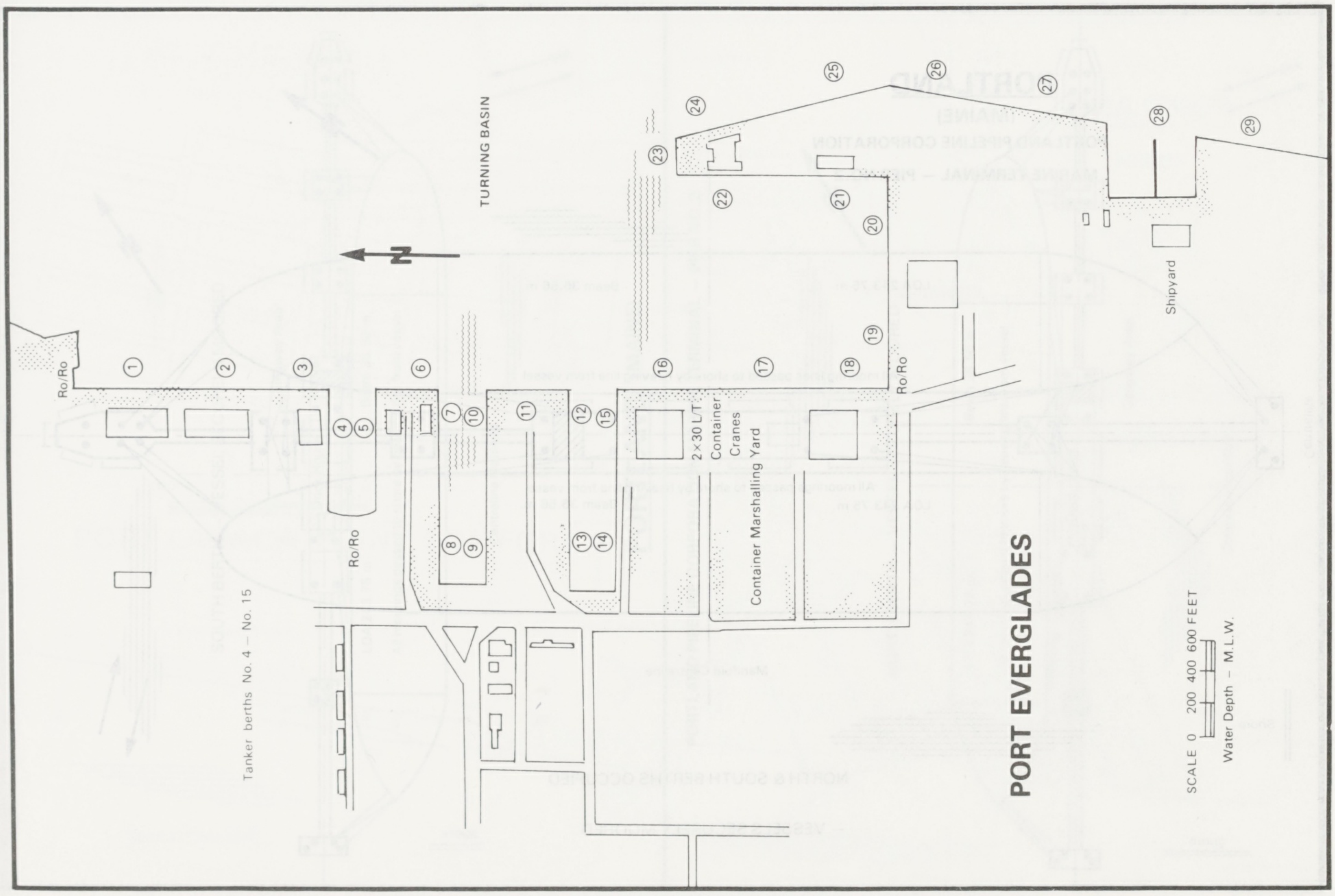
(PUBLIC OCEAN TERMINAL)

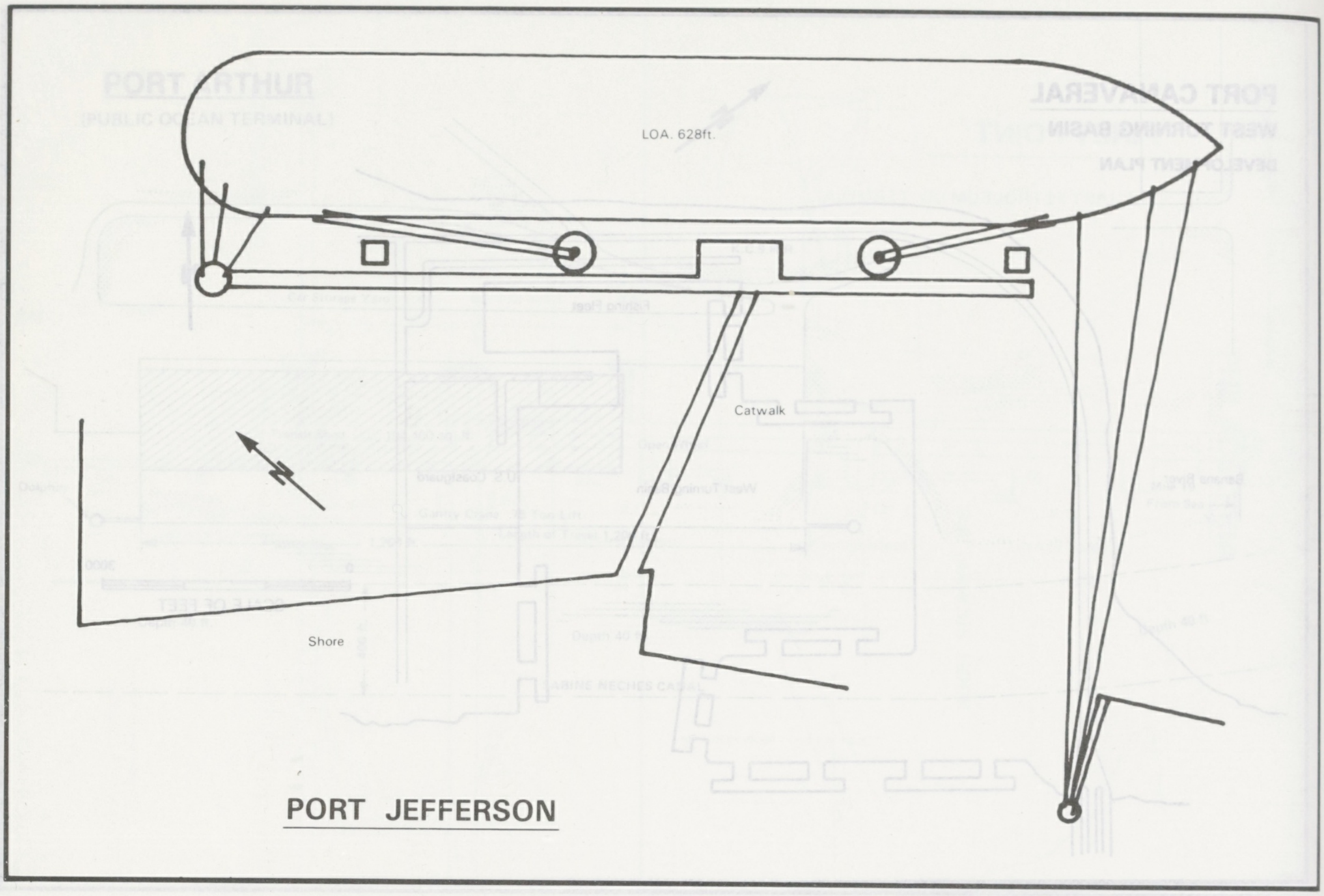

K.C.S.R.R.
Car Storage Yard
Transit Shed 194,400 sq. ft.
Open Wharf
Dolphin
Gantry Crane 75 Ton Lift
1,200 ft.
Length of Travel 1,200 ft.
Mile 19
From Sea
Depth 40 ft.
400 ft.
Depth 40 ft.
Depth 40 ft.
SABINE NECHES CANAL

PORT CANAVERAL

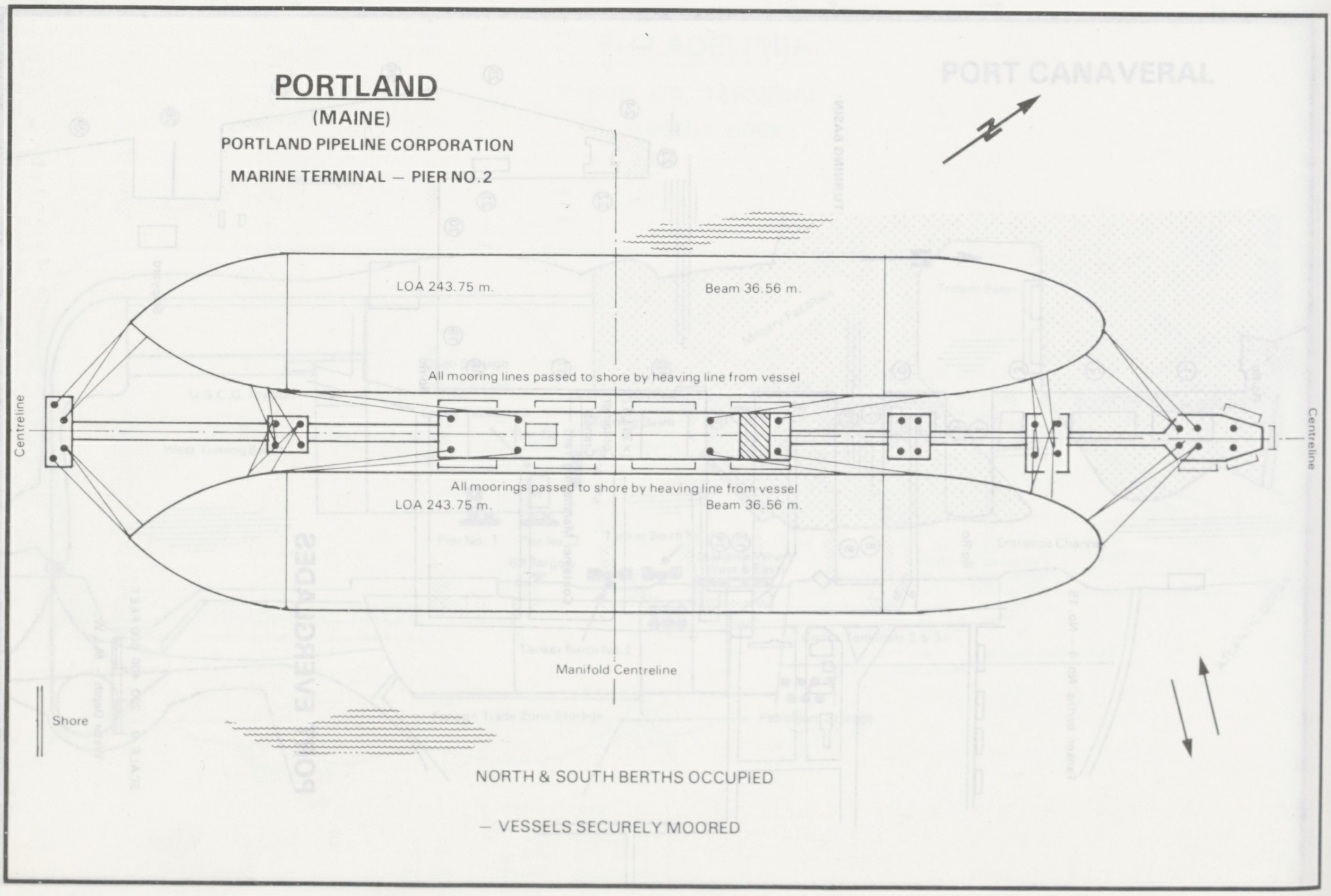

W = Warehouse
Military Facilities
Trident Basin
Open Storage
U.S.C.G. Station
Cruise Terminal 1
Pier No. 4
Turning Basin
West Turning Basin
Pier No.3
W
Pier No. 1
Pier No. 2
Tanker Berth No 1
Entrance Channel
Oil Barges
Marginal Wharf (West & East)
W
W
W
2,3 & 4
Cruise Terminals 2 & 3
Tanker Berth No.2
ATLANTIC OCEAN
Foreign Trade Zone Storage
Petroleum Storage


PORT CANAVERAL
WEST TURNING BASIN
DEVELOPMENT PLAN
Fishing Fleet
Banana River
West Turning Basin
U.S. Coastguard
N
0
3000
SCALE OF FEET


PORT EVERGLADES
TURNING BASIN
N
Ro/Ro
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
⑰
⑱
⑲
⑳
Ro/Ro
Ro/Ro
2×30 L/T Container Cranes
Container Marshalling Yard
㉑
㉒
㉓
㉔
㉕
㉖
㉗
㉘
㉙
Shipyard
Tanker berths No. 4 – No. 15
SCALE 0 200 400 600 FEET
Water Depth – M.L.W.


LOA. 628ft.
Catwalk
Shore

PORT JEFFERSON



PORTLAND

(MAINE)

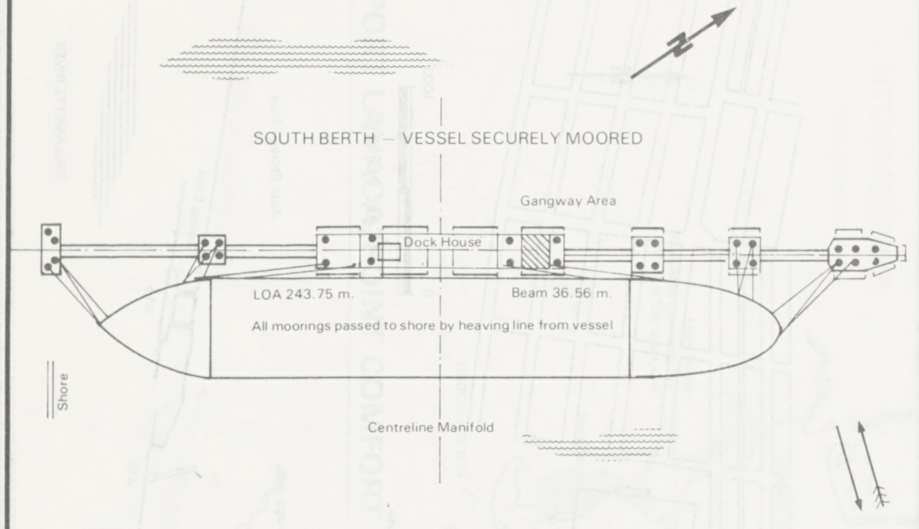
PORTLAND PIPELINE CORPORATION

MARINE TERMINAL – PIER NO.2

LOA 243.75 m.
Beam 36.56 m.
All mooring lines passed to shore by heaving line from vessel
Centreline
Centreline
All moorings passed to shore by heaving line from vessel
LOA 243.75 m.
Beam 36.56 m.
Manifold Centreline
Shore

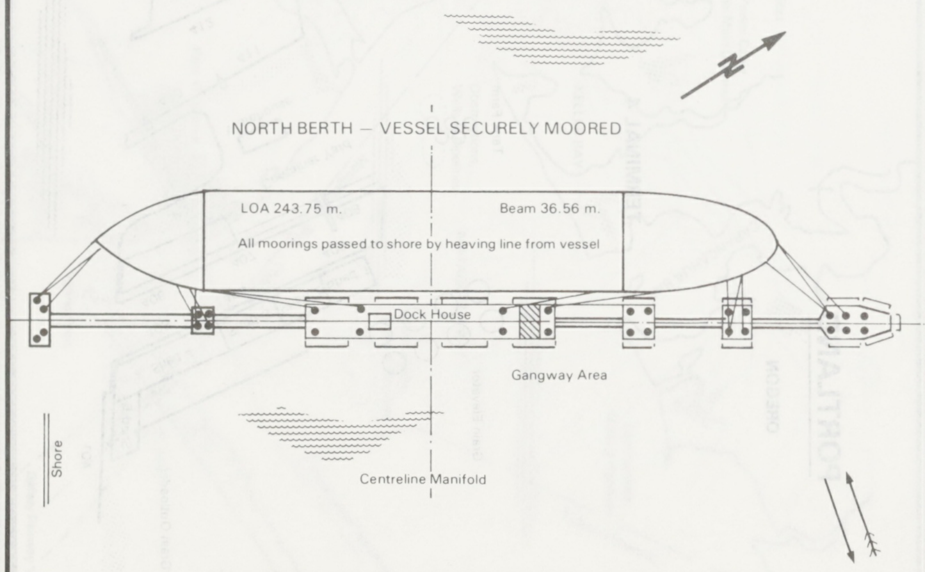
NORTH & SOUTH BERTHS OCCUPIED

– VESSELS SECURELY MOORED

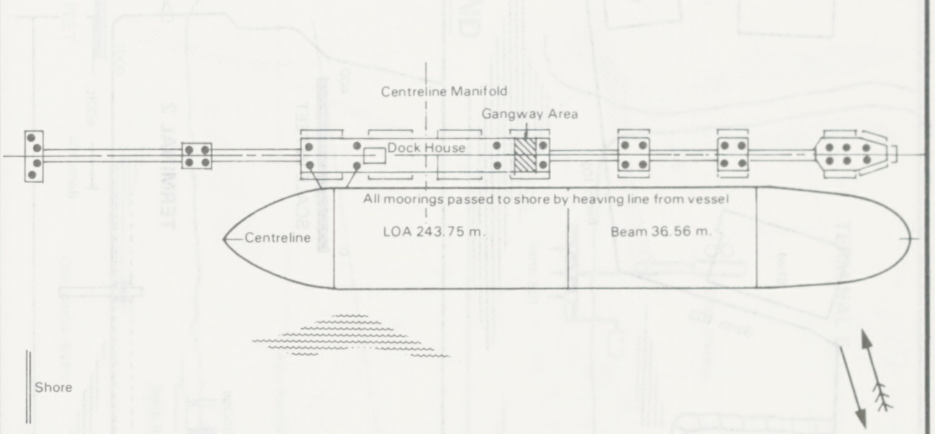

SOUTH BERTH — VESSEL SECURELY MOORED
Gangway Area
Dock House
LOA 243.75 m.
Beam 36.56 m.
All moorings passed to shore by heaving line from vessel
Shore
Centreline Manifold

PORTLAND (MAINE)

PORTLAND PIPELINE CORPORATION MARINE TERMINAL — PIER NO.2


NORTH BERTH — VESSEL SECURELY MOORED
LOA 243.75 m.
Beam 36.56 m.
All moorings passed to shore by heaving line from vessel
Dock House
Gangway Area
Shore
Centreline Manifold

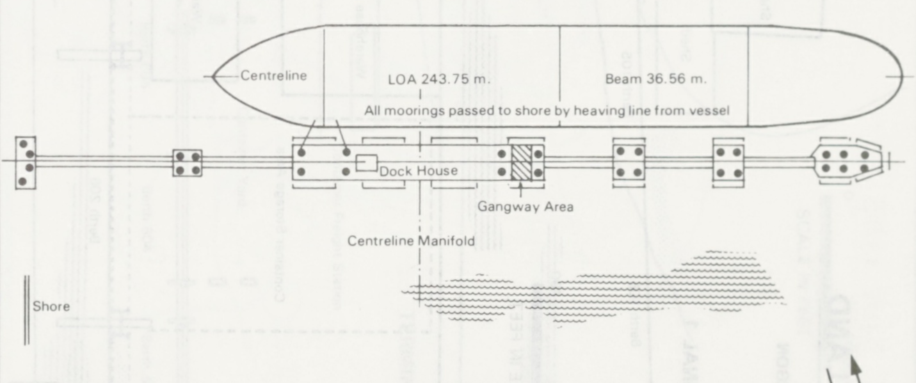
PORTLAND
(MAINE)
PORTLAND PIPELINE CORPORATION
MARINE TERMINAL — PIER NO.2


Centreline Manifold
Gangway Area
Dock House
All moorings passed to shore by heaving line from vessel
Centreline
LOA 243.75 m.
Beam 36.56 m.
Shore

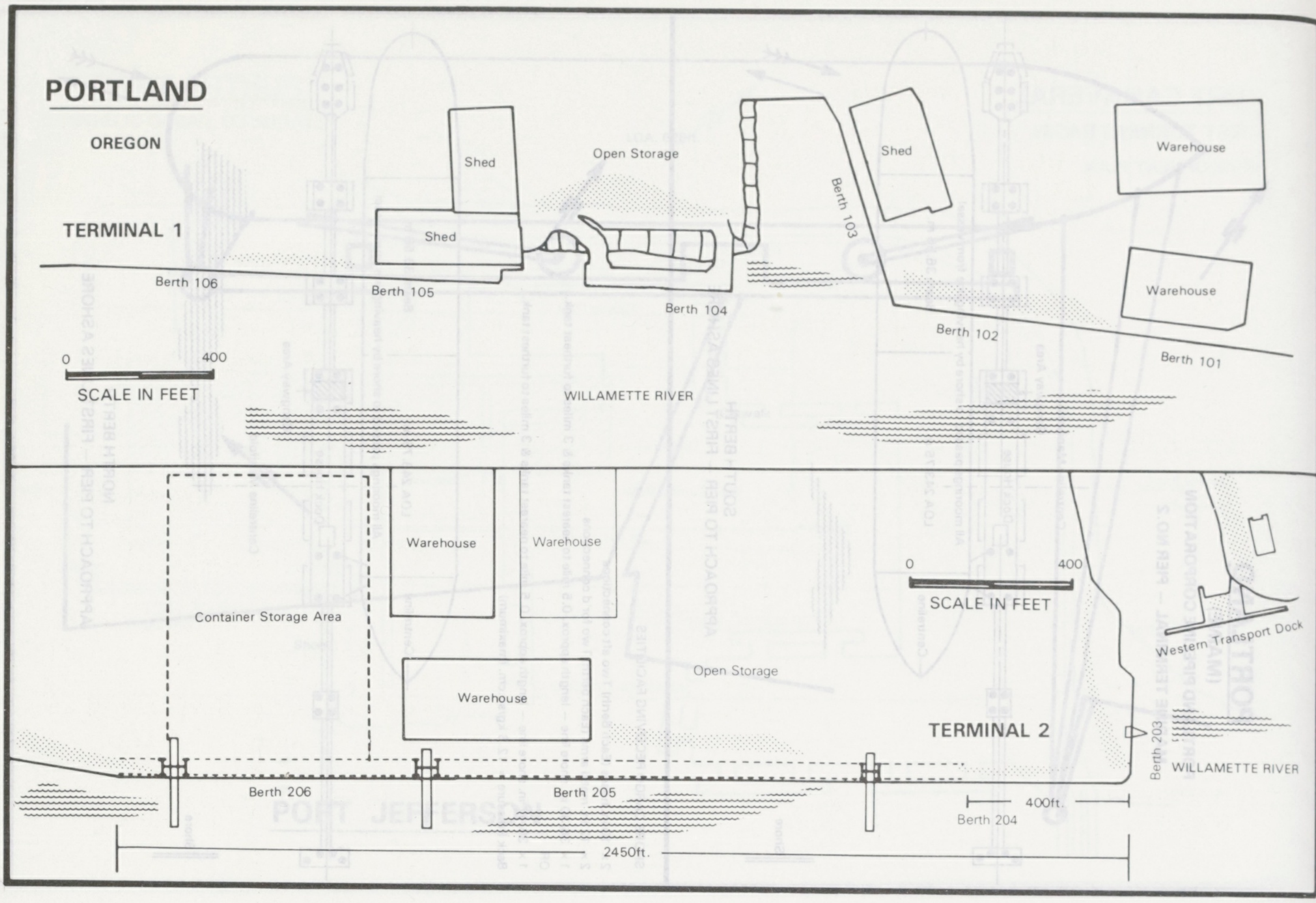
SOUTH BERTH
APPROACH TO PIER — FIRST LINES ASHORE

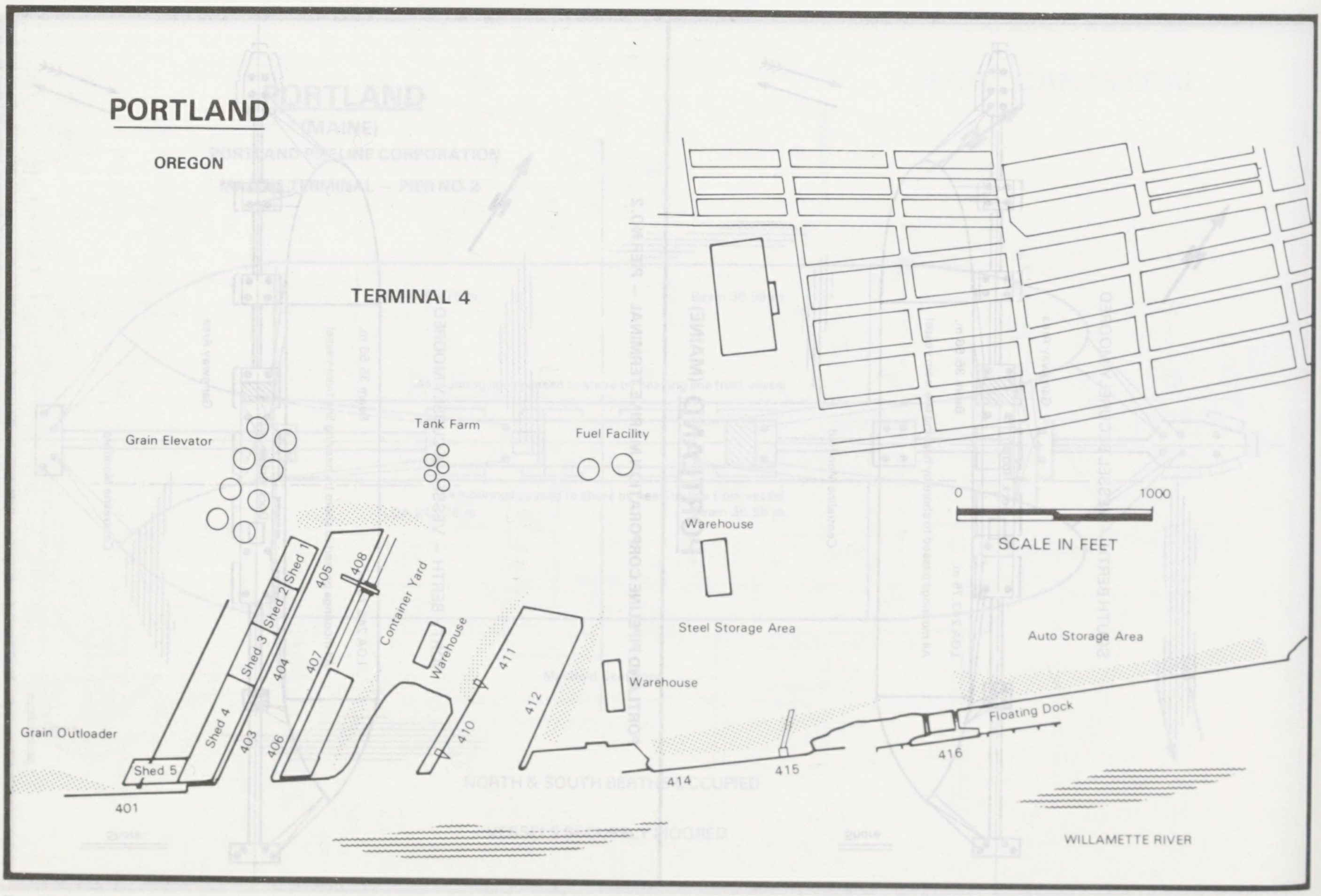
SHORE CARGO RECEIVING FACILITIES

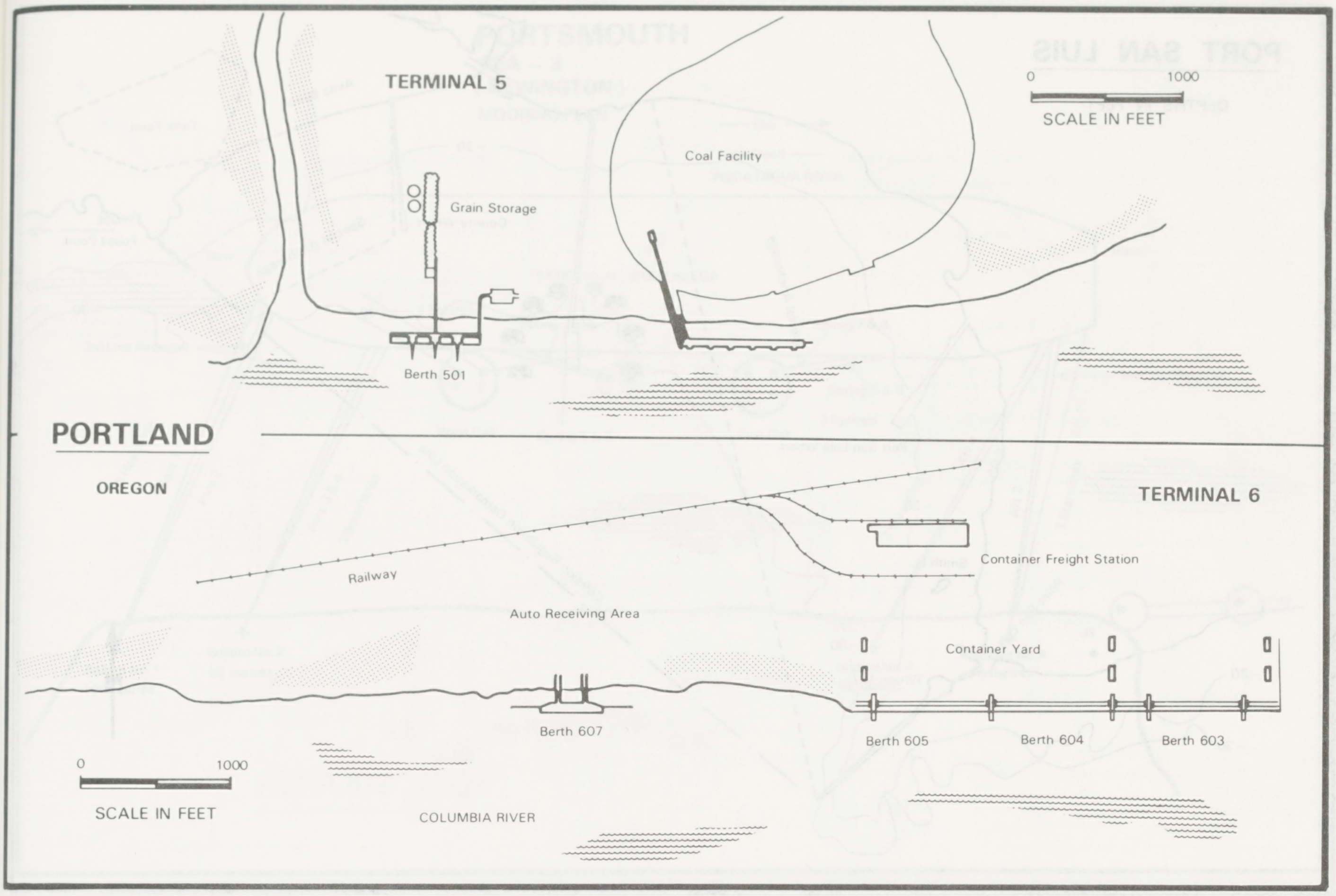
2 × 10 in. hoses (Each Berth) Two aft connections
2 × 12 in. metal arms (Each berth) Two for'd connections
1 × 36/30 in. shore line — length approx. 0.5 mile to nearest tanks & 3 miles to furthest tank.
OR
1 × 36/42 in. shore line — length approx. 0.5 mile to nearest tanks & 3 miles to furthest tank.
Back Pressure = 12.3 kg/sq.cm. (maximum)

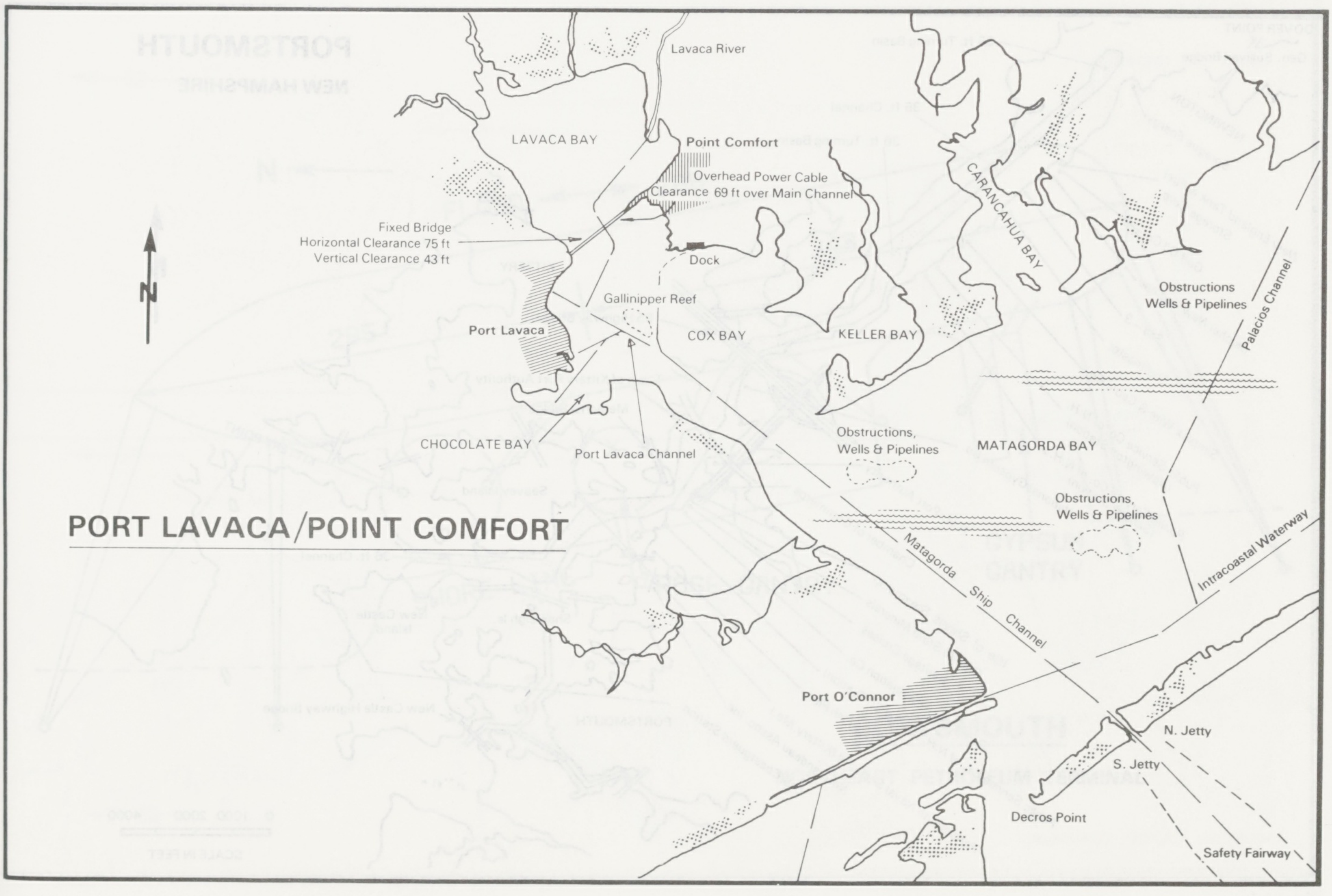

Centreline
LOA 243.75 m.
Beam 36.56 m.
All moorings passed to shore by heaving line from vessel
Dock House
Gangway Area
Centreline Manifold
Shore

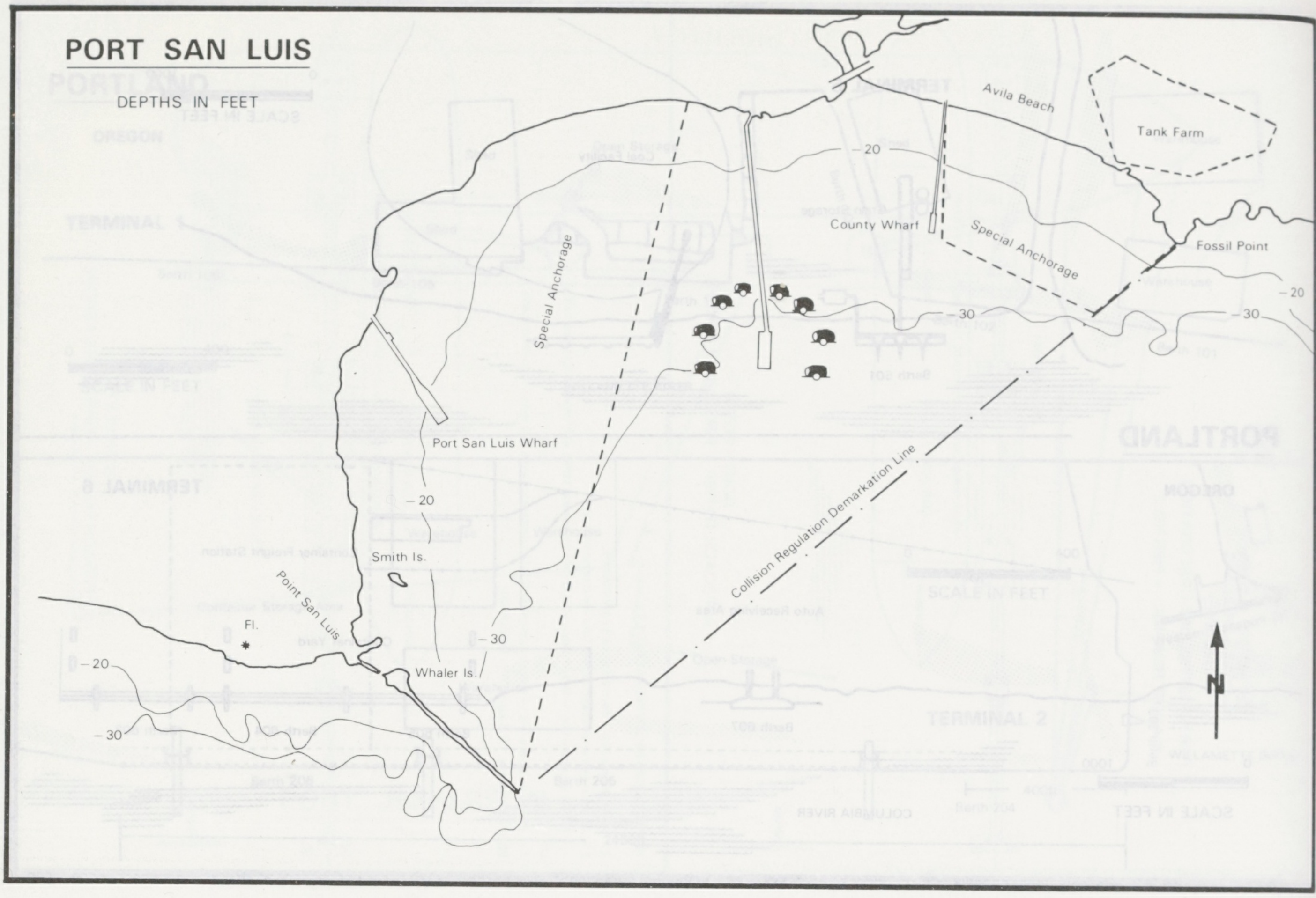
NORTH BERTH
APPROACH TO PIER — FIRST LINES ASHORE

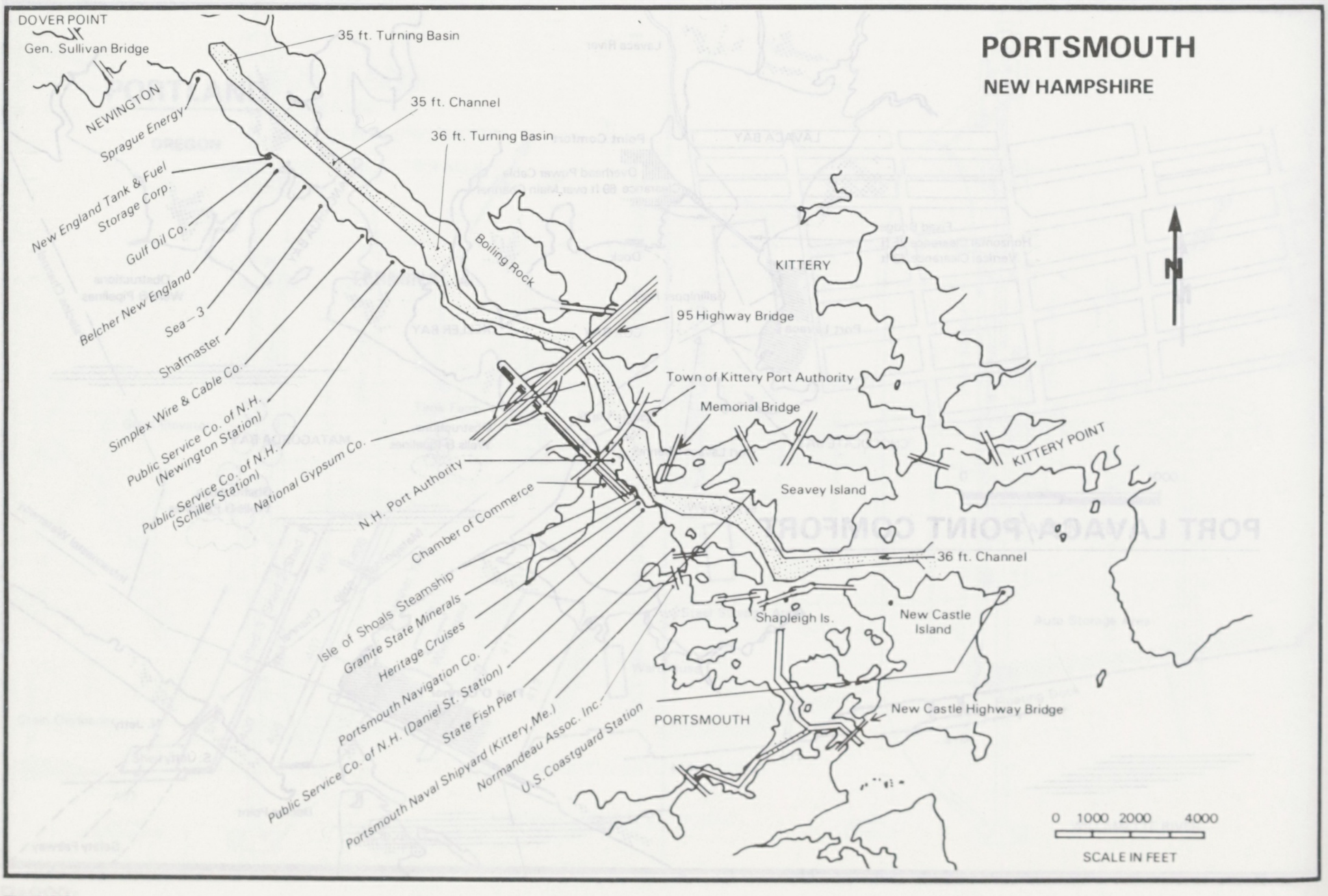

PORTLAND
OREGON
TERMINAL 1
Shed
Shed
Open Storage
Shed
Warehouse
Warehouse
Berth 106
Berth 105
Berth 104
Berth 103
Berth 102
Berth 101
0
400
SCALE IN FEET
WILLAMETTE RIVER
Container Storage Area
Warehouse
Warehouse
Warehouse
Open Storage
0
400
SCALE IN FEET
Western Transport Dock
TERMINAL 2
Berth 203
WILLAMETTE RIVER
Berth 206
Berth 205
400ft.
Berth 204
2450ft.

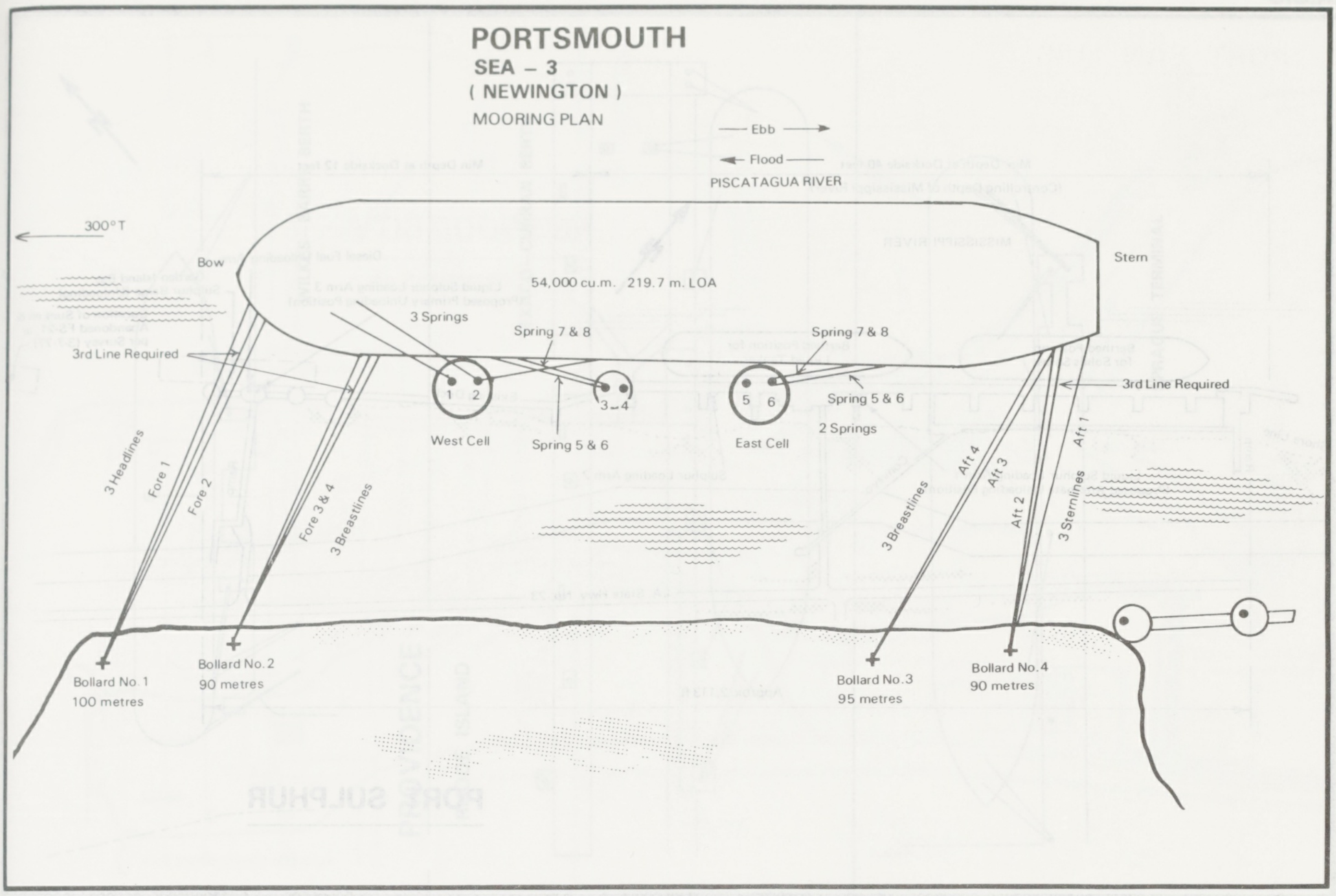

PORTLAND
OREGON
TERMINAL 4
Grain Elevator
Tank Farm
Fuel Facility
Warehouse
0
1000
SCALE IN FEET
Shed 1
Shed 2
Shed 3
Shed 4
Shed 5
405
408
404
407
403
406
Container Yard
Warehouse
411
410
412
Steel Storage Area
Warehouse
Auto Storage Area
Floating Dock
Grain Outloader
401
414
415
416
WILLAMETTE RIVER


TERMINAL 5
0
1000
SCALE IN FEET
Coal Facility
Grain Storage
Berth 501
PORTLAND
OREGON
TERMINAL 6
Container Freight Station
Railway
Auto Receiving Area
Container Yard
Berth 607
Berth 605
Berth 604
Berth 603
0
1000
SCALE IN FEET
COLUMBIA RIVER


Lavaca River
LAVACA BAY
Point Comfort
Overhead Power Cable
Clearance 69 ft over Main Channel
Fixed Bridge
Horizontal Clearance 75 ft
Vertical Clearance 43 ft
N
Dock
Gallinipper Reef
Port Lavaca
COX BAY
KELLER BAY
CARANCAHUA BAY
Obstructions
Wells & Pipelines
Palacios Channel
CHOCOLATE BAY
Port Lavaca Channel
Obstructions,
Wells & Pipelines
MATAGORDA BAY
Obstructions,
Wells & Pipelines
PORT LAVACA/POINT COMFORT
Matagorda Ship Channel
Intracoastal Waterway
Port O'Connor
N. Jetty
S. Jetty
Decros Point
Safety Fairway


PORT SAN LUIS
DEPTHS IN FEET
Avila Beach
Tank Farm
County Wharf
Special Anchorage
Fossil Point
Special Anchorage
Port San Luis Wharf
Smith Is.
Point San Luis
Fl.
Whaler Is.
Collision Regulation Demarkation Line
–20
–30


PORTSMOUTH
NEW HAMPSHIRE
DOVER POINT
Gen. Sullivan Bridge
NEWINGTON
35 ft. Turning Basin
35 ft. Channel
36 ft. Turning Basin
Sprague Energy
New England Tank & Fuel Storage Corp.
Gulf Oil Co.
Belcher New England
Sea – 3
Shafmaster
Simplex Wire & Cable Co.
Public Service Co. of N.H. (Newington Station)
Public Service Co. of N.H. (Schiller Station)
National Gypsum Co.
Boiling Rock
KITTERY
95 Highway Bridge
Town of Kittery Port Authority
Memorial Bridge
KITTERY POINT
Seavey Island
N.H. Port Authority
Chamber of Commerce
Isle of Shoals Steamship
Granite State Minerals
Heritage Cruises
Portsmouth Navigation Co.
Public Service Co. of N.H. (Daniel St. Station)
State Fish Pier
Portsmouth Naval Shipyard (Kittery, Me.)
Normandeau Assoc. Inc.
U.S. Coastguard Station
36 ft. Channel
Shapleigh Is.
New Castle Island
PORTSMOUTH
New Castle Highway Bridge
0 1000 2000 4000
SCALE IN FEET



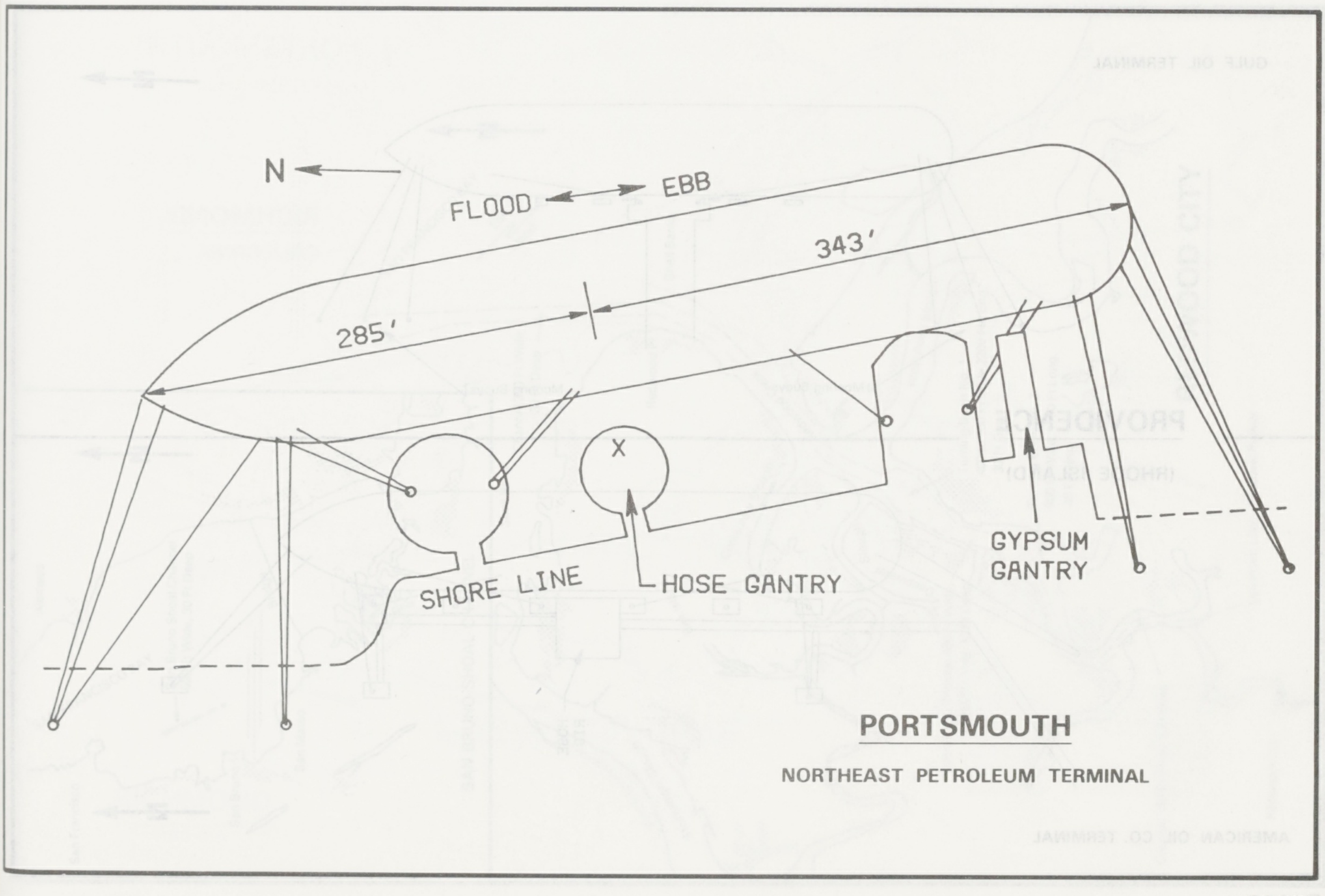
PORTSMOUTH

SEA – 3

(NEWINGTON)

MOORING PLAN

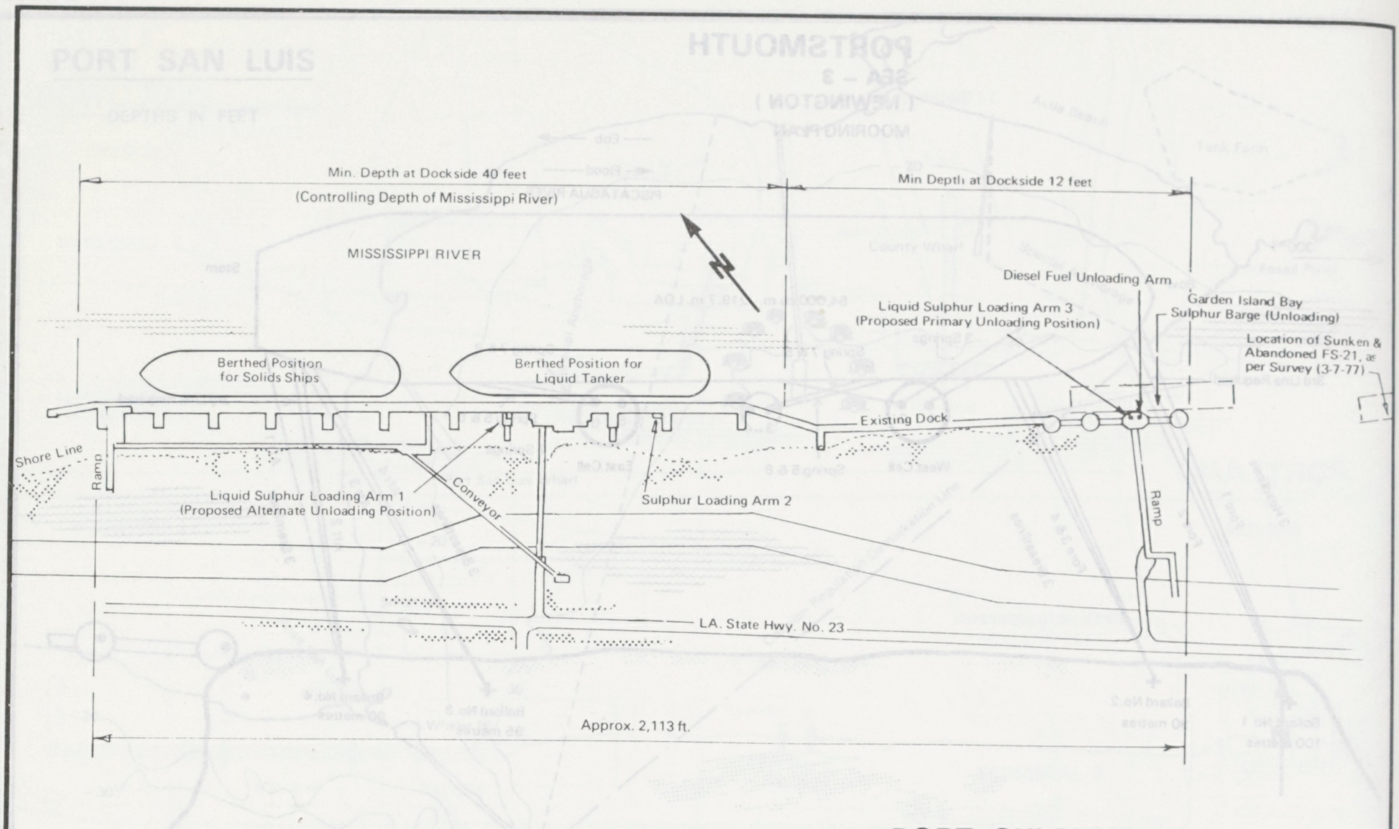
Ebb
Flood
PISCATAGUA RIVER
300° T
Bow
54,000 cu.m. 219.7 m. LOA
Stern
3 Springs
Spring 7 & 8
Spring 7 & 8
3rd Line Required
3rd Line Required
1 2
3 – 4
5 6
West Cell
Spring 5 & 6
East Cell
Spring 5 & 6
2 Springs
3 Headlines
Fore 1
Fore 2
Fore 3 & 4
3 Breastlines
3 Breastlines
Aft 4
Aft 3
Aft 2
Aft 1
3 Sternlines
Bollard No. 1
100 metres
Bollard No. 2
90 metres
Bollard No. 3
95 metres
Bollard No. 4
90 metres



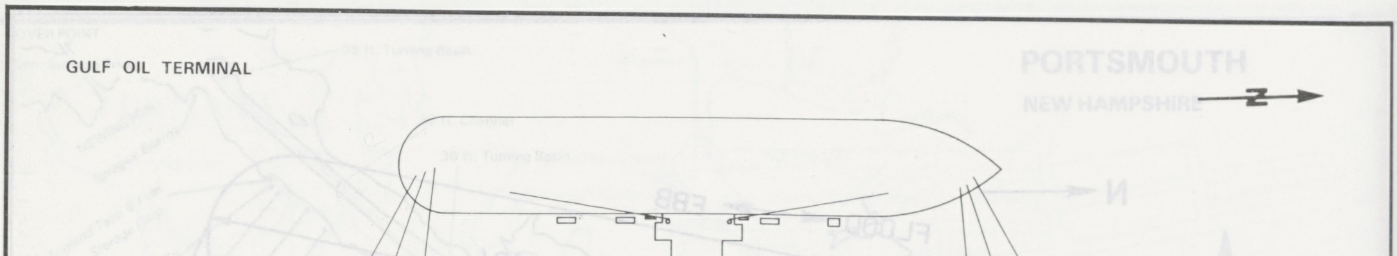
N
FLOOD
EBB
343′
285′
X
SHORE LINE
HOSE GANTRY
GYPSUM
GANTRY

PORTSMOUTH

NORTHEAST PETROLEUM TERMINAL


Min. Depth at Dockside 40 feet
(Controlling Depth of Mississippi River)
Min Depth at Dockside 12 feet
MISSISSIPPI RIVER
N
Diesel Fuel Unloading Arm
Liquid Sulphur Loading Arm 3
(Proposed Primary Unloading Position)
Garden Island Bay
Sulphur Barge (Unloading)
Location of Sunken & Abandoned FS-21, as per Survey (3-7-77)
Berthed Position for Solids Ships
Berthed Position for Liquid Tanker
Existing Dock
Shore Line
Ramp
Conveyor
Liquid Sulphur Loading Arm 1
(Proposed Alternate Unloading Position)
Sulphur Loading Arm 2
Ramp
LA. State Hwy. No. 23
Approx. 2,113 ft.

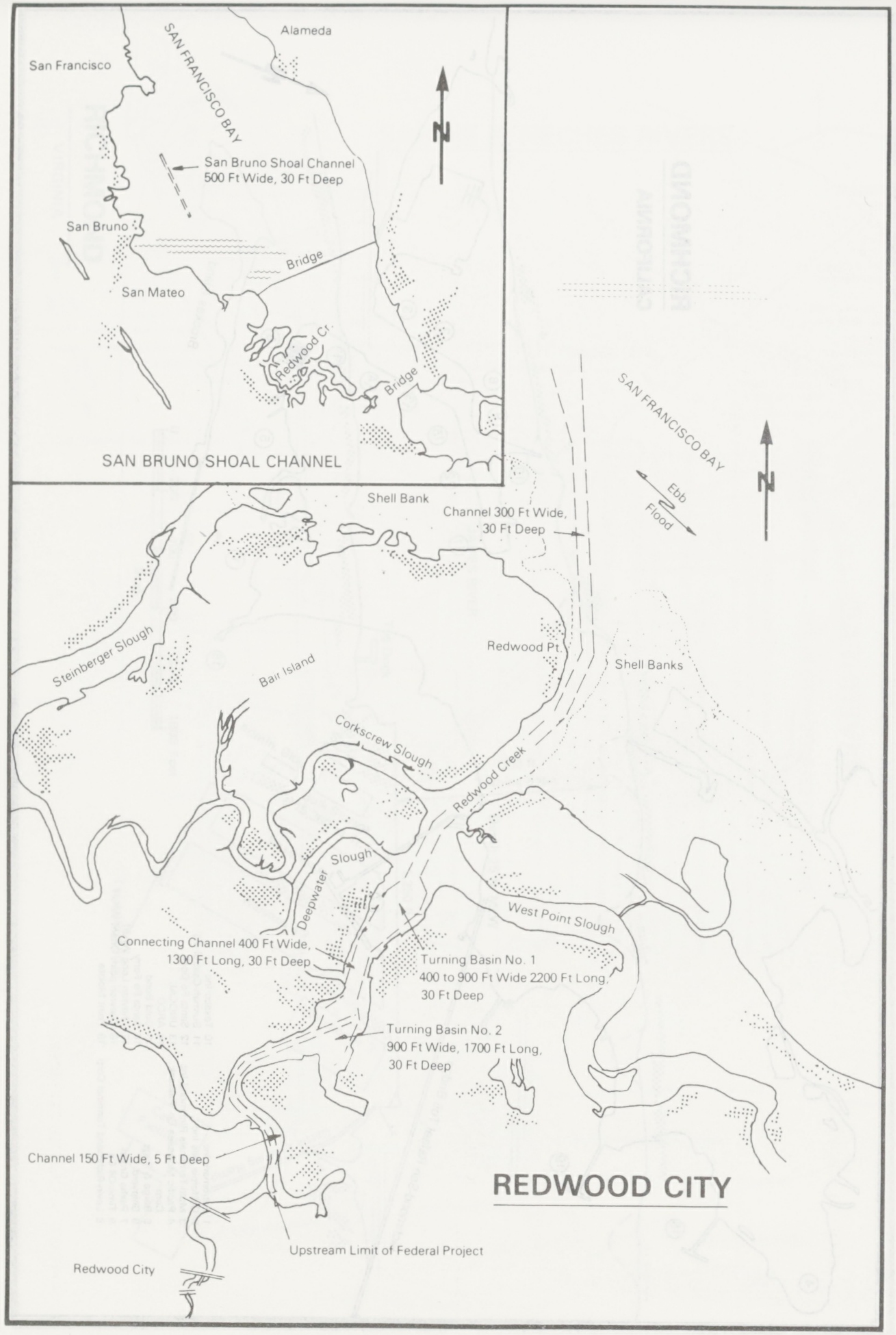
PORT SULPHUR


GULF OIL TERMINAL
N
Mooring Buoys
Mooring Buoys
HOSE RIG
AMERICAN OIL CO. TERMINAL
N

PROVIDENCE

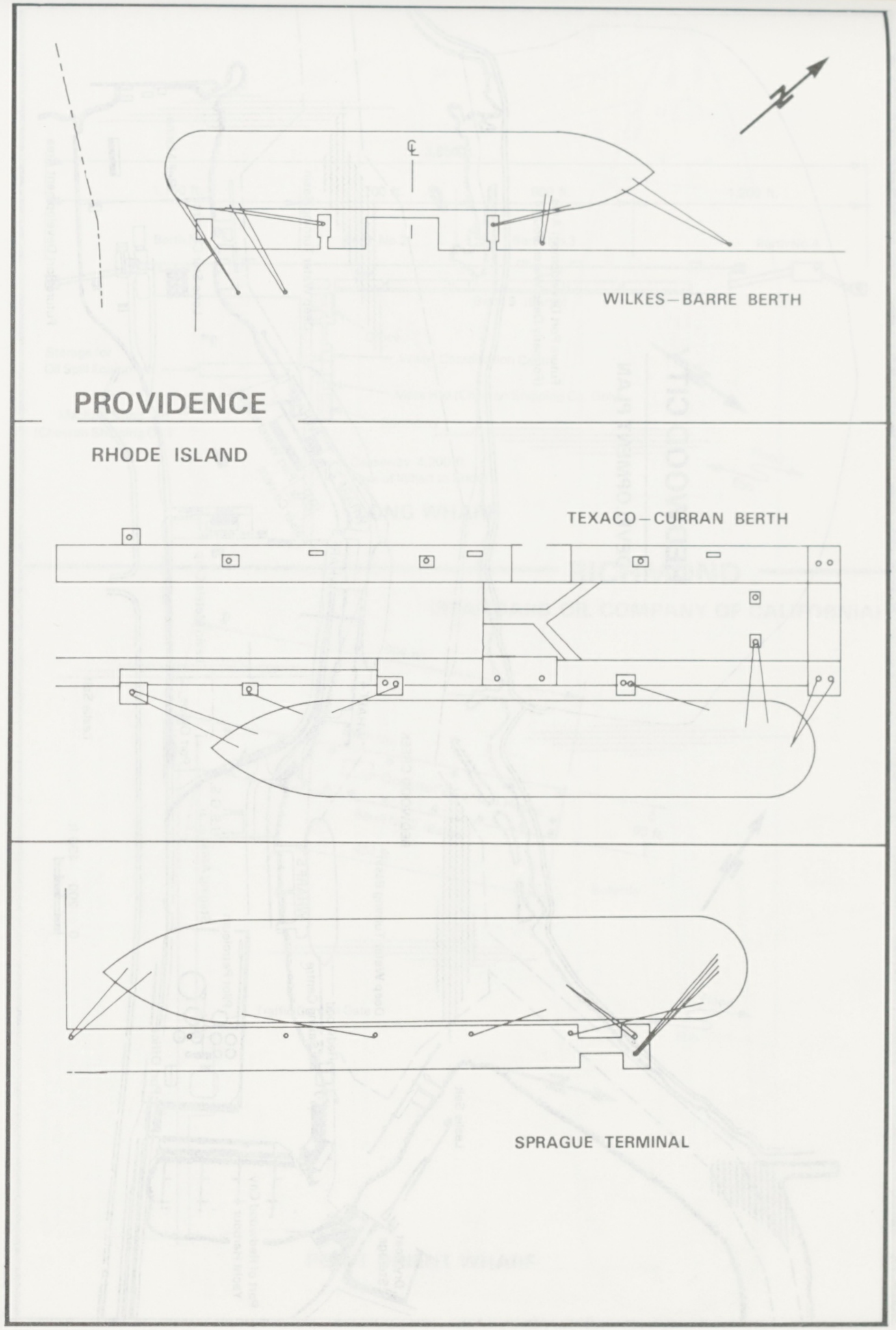
(RHODE ISLAND)

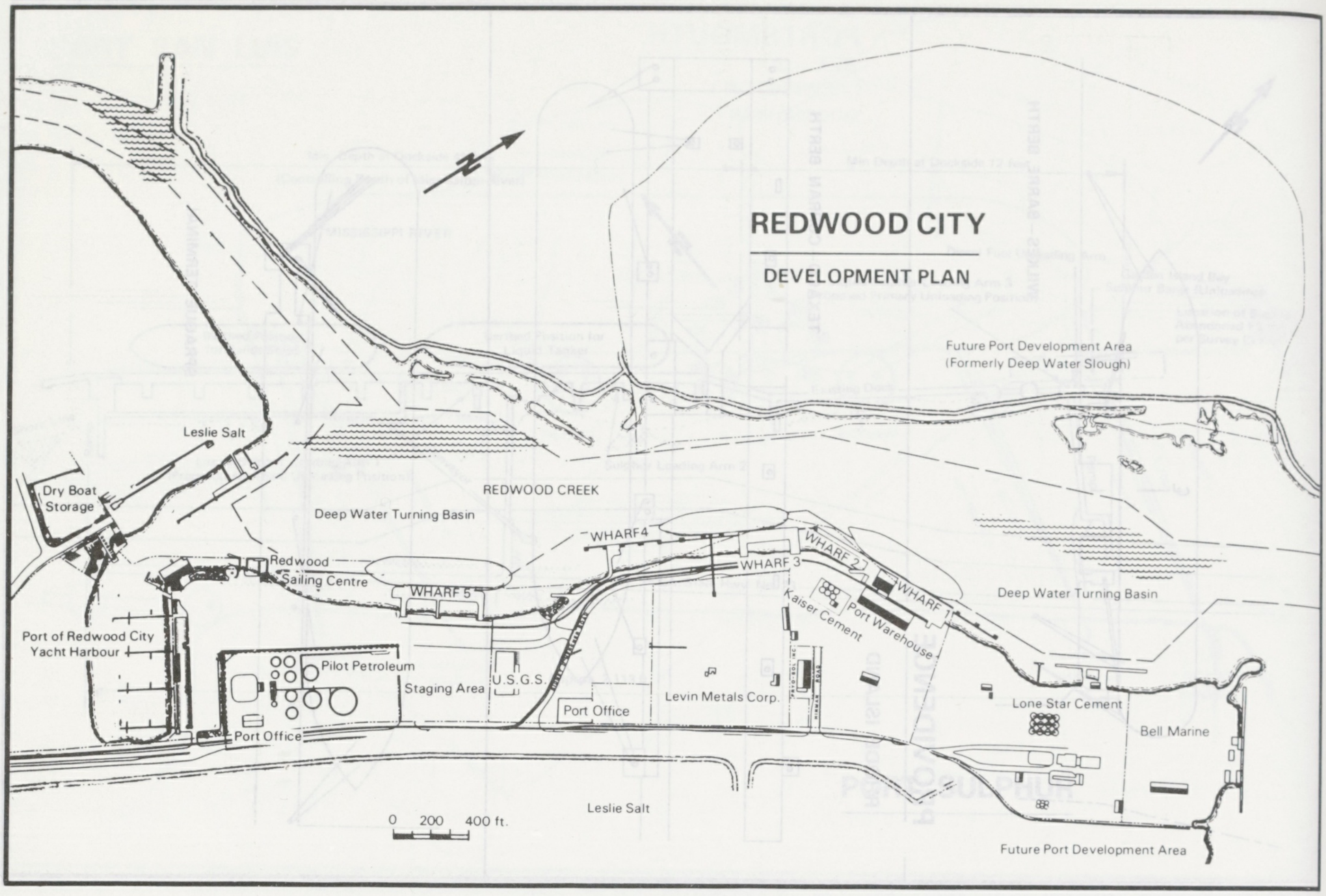
REDWOOD CITY

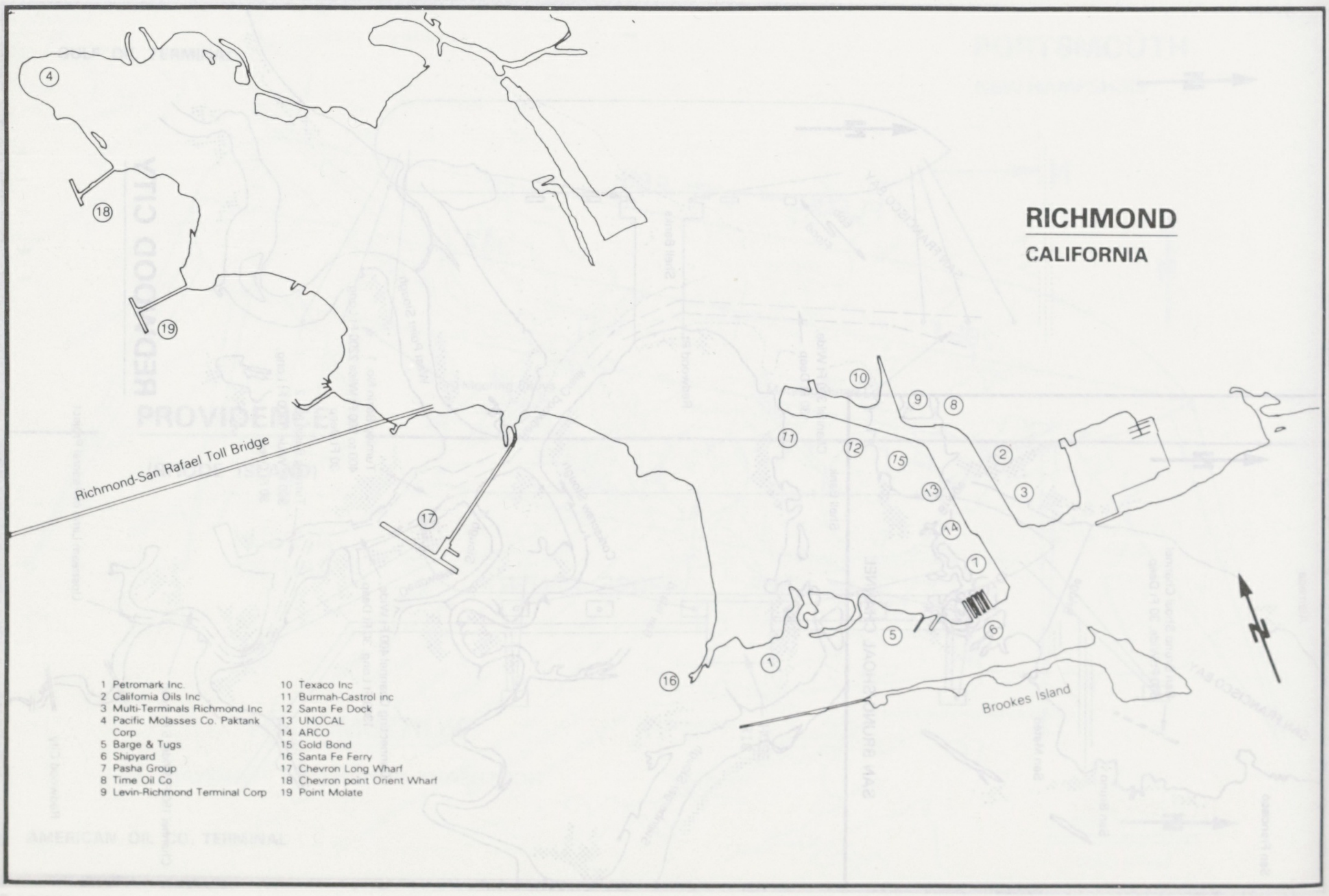

SAN BRUNO SHOAL CHANNEL
Alameda
San Francisco
SAN FRANCISCO BAY
N
San Bruno Shoal Channel
500 Ft Wide, 30 Ft Deep
San Bruno
Bridge
San Mateo
Redwood Cr.
Bridge
SAN FRANCISCO BAY
N
Ebb
Flood
Shell Bank
Channel 300 Ft Wide,
30 Ft Deep
Redwood Pt.
Shell Banks
Steinberger Slough
Bair Island
Corkscrew Slough
Redwood Creek
Deepwater Slough
West Point Slough
Connecting Channel 400 Ft Wide,
1300 Ft Long, 30 Ft Deep
Turning Basin No. 1
400 to 900 Ft Wide 2200 Ft Long,
30 Ft Deep
Turning Basin No. 2
900 Ft Wide, 1700 Ft Long,
30 Ft Deep
Channel 150 Ft Wide, 5 Ft Deep
Upstream Limit of Federal Project
Redwood City

PROVIDENCE

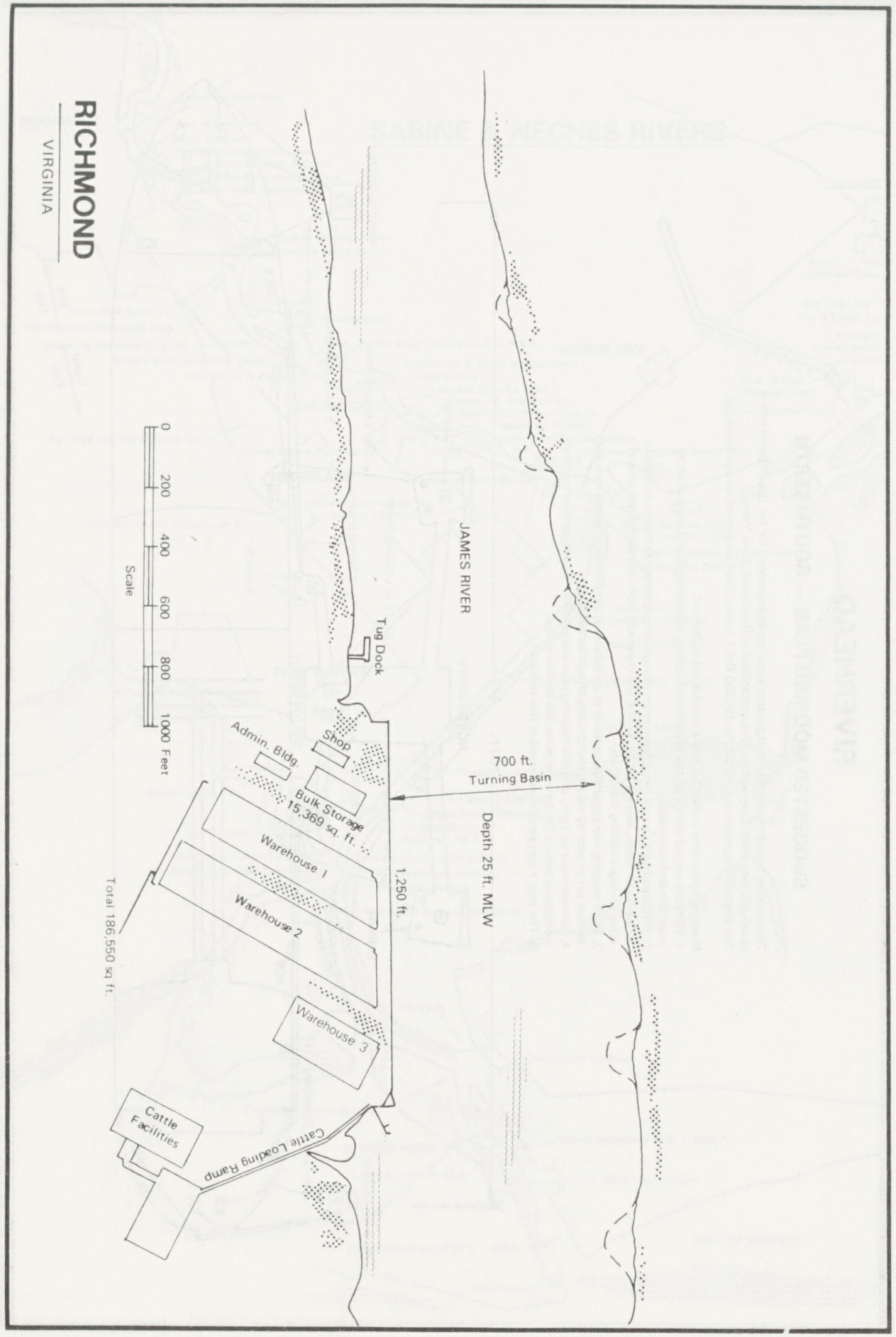
RHODE ISLAND


N
℄
WILKES – BARRE BERTH
TEXACO – CURRAN BERTH
SPRAGUE TERMINAL


REDWOOD CITY
DEVELOPMENT PLAN
Future Port Development Area
(Formerly Deep Water Slough)
Leslie Salt
Dry Boat Storage
REDWOOD CREEK
Deep Water Turning Basin
WHARF4
WHARF 3
WHARF 2
WHARF 1
WHARF 5
Redwood Sailing Centre
Kaiser Cement
Port Warehouse
Deep Water Turning Basin
Port of Redwood City Yacht Harbour
Pilot Petroleum
Staging Area
U.S.G.S.
Port Office
Levin Metals Corp.
Lone Star Cement
Bell Marine
Port Office
0 200 400 ft.
Leslie Salt
Future Port Development Area

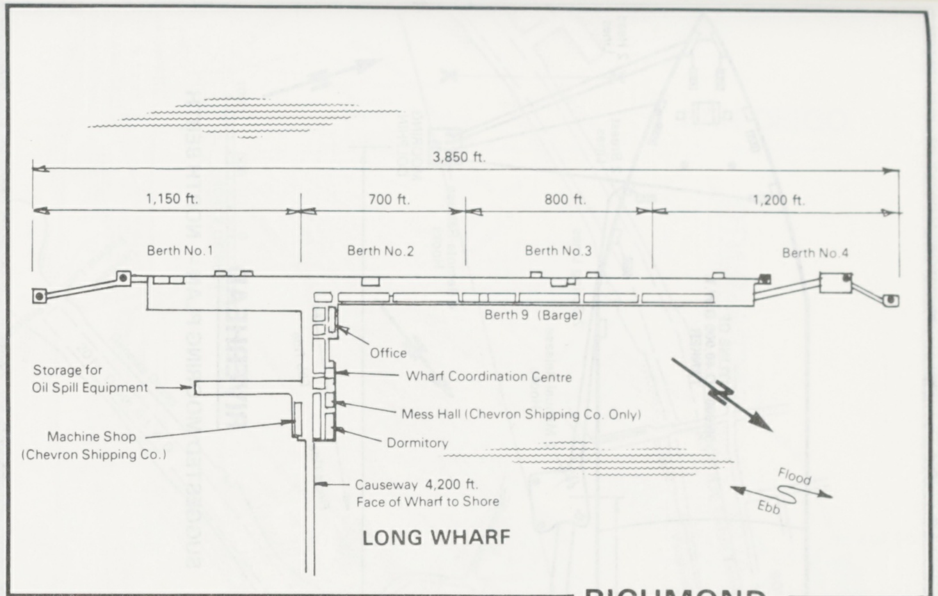

RICHMOND
CALIFORNIA
Richmond-San Rafael Toll Bridge
Brookes Island
1 Petromark Inc.
2 California Oils Inc
3 Multi-Terminals Richmond Inc
4 Pacific Molasses Co. Paktank Corp
5 Barge & Tugs
6 Shipyard
7 Pasha Group
8 Time Oil Co
9 Levin-Richmond Terminal Corp
10 Texaco Inc
11 Burmah-Castrol inc
12 Santa Fe Dock
13 UNOCAL
14 ARCO
15 Gold Bond
16 Santa Fe Ferry
17 Chevron Long Wharf
18 Chevron point Orient Wharf
19 Point Molate

RICHMOND
VIRGINIA



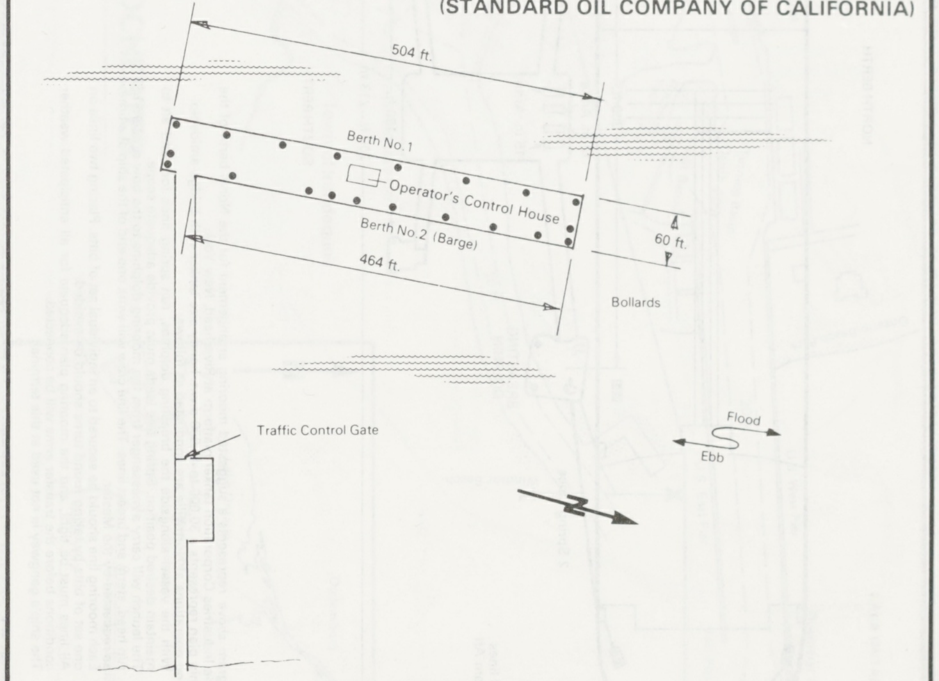
JAMES RIVER
Tug Dock
700 ft.
Turning Basin
Depth 25 ft. MLW
1,250 ft.
Shop
Admin. Bldg.
Bulk Storage
15,369 sq. ft.
Warehouse 1
Warehouse 2
Warehouse 3
Total 186,550 sq ft.
Cattle Facilities
Cattle Loading Ramp
0
200
400
600
800
1000 Feet
Scale

RICHMOND
(STANDARD OIL COMPANY OF CALIFORNIA)



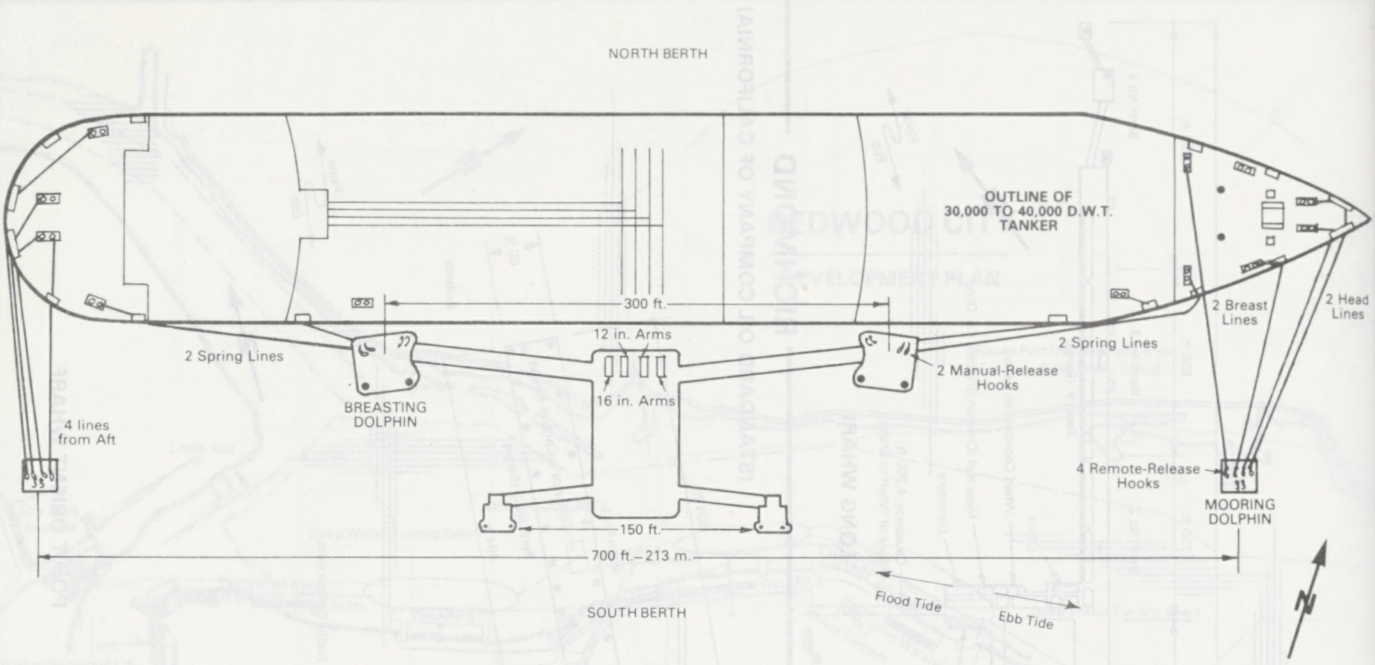
3,850 ft.
1,150 ft.
700 ft.
800 ft.
1,200 ft.
Berth No.1
Berth No.2
Berth No.3
Berth No.4
Berth 9 (Barge)
Office
Wharf Coordination Centre
Mess Hall (Chevron Shipping Co. Only)
Dormitory
Storage for
Oil Spill Equipment
Machine Shop
(Chevron Shipping Co.)
Causeway 4,200 ft.
Face of Wharf to Shore
Flood
Ebb

LONG WHARF



504 ft.
Berth No.1
Operator's Control House
Berth No.2 (Barge)
464 ft.
60 ft.
Bollards
Traffic Control Gate
Flood
Ebb

POINT ORIENT WHARF


NORTH BERTH
OUTLINE OF 30,000 TO 40,000 D.W.T. TANKER
300 ft.
12 in. Arms
16 in. Arms
2 Spring Lines
BREASTING DOLPHIN
2 Spring Lines
2 Manual-Release Hooks
2 Breast Lines
2 Head Lines
4 lines from Aft
4 Remote-Release Hooks
MOORING DOLPHIN
150 ft.
700 ft.–213 m.
SOUTH BERTH
Flood Tide
Ebb Tide
N

RIVERHEAD

SUGGESTED MOORING PLAN — NORTH BERTH

The diagram above represents a suggested mooring arrangement for the North berth of the Northville Industries Corporation tanker platform at Riverhead, New York.

The ship plan represents a 30,000 to 40,000 d.w.t. handy size tanker with bridge amidship.

Mooring operations at Northville are conducted as follows:

1. With the vessel alongside the breasting dolphins, run spring lines fore and aft to maintain desired position. Spring line leads must provide adequate scope.
2. The launch will carry a messenger from the mooring dolphins to the bow or stern to run head, stern, and breast lines. The line crew will work one end of the ship at a time, as requested by the Master.
3. Each mooring line should be secured to an individual set of bitts. Placing two lines on one set of bitts by taking round turns should be avoided.
4. All lines must be tight, and the mooring plan adequate for all anticipated weather conditions before the transfer arms will be connected.
5. The ship's gangway is not used at this terminal.

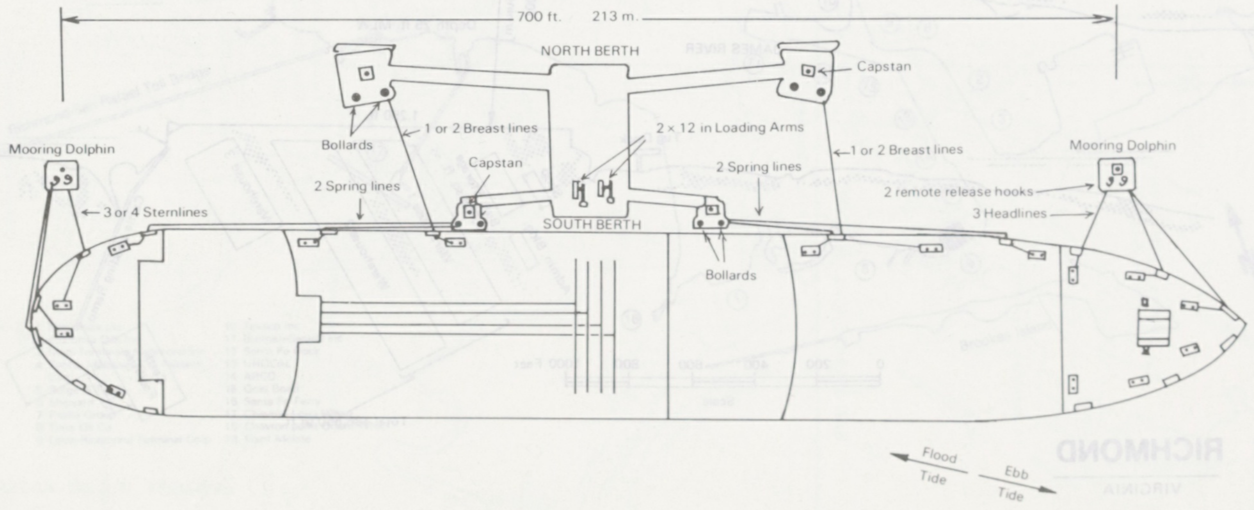
RIVERHEAD

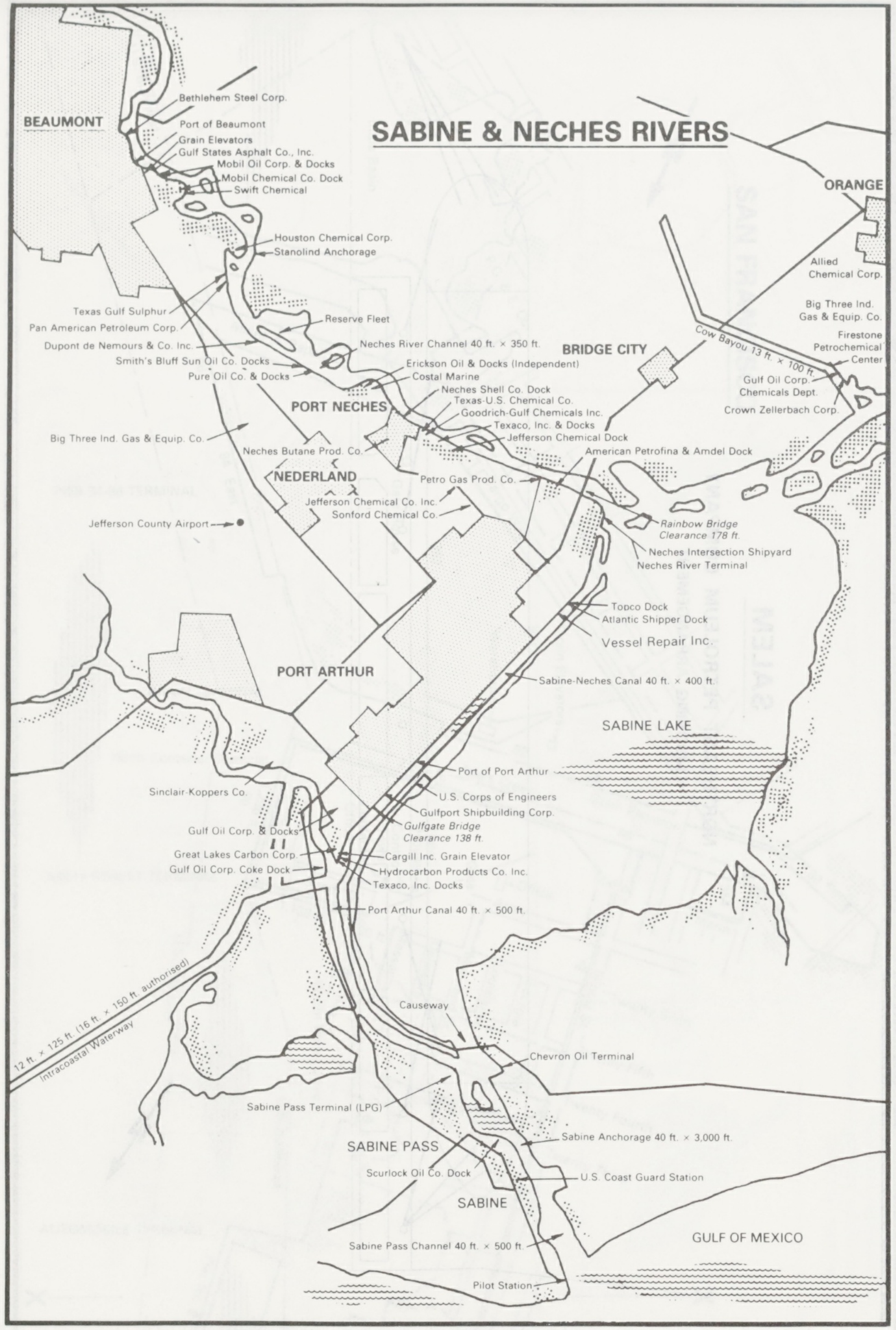
SUGGESTED MOORING PLAN — SOUTH BERTH

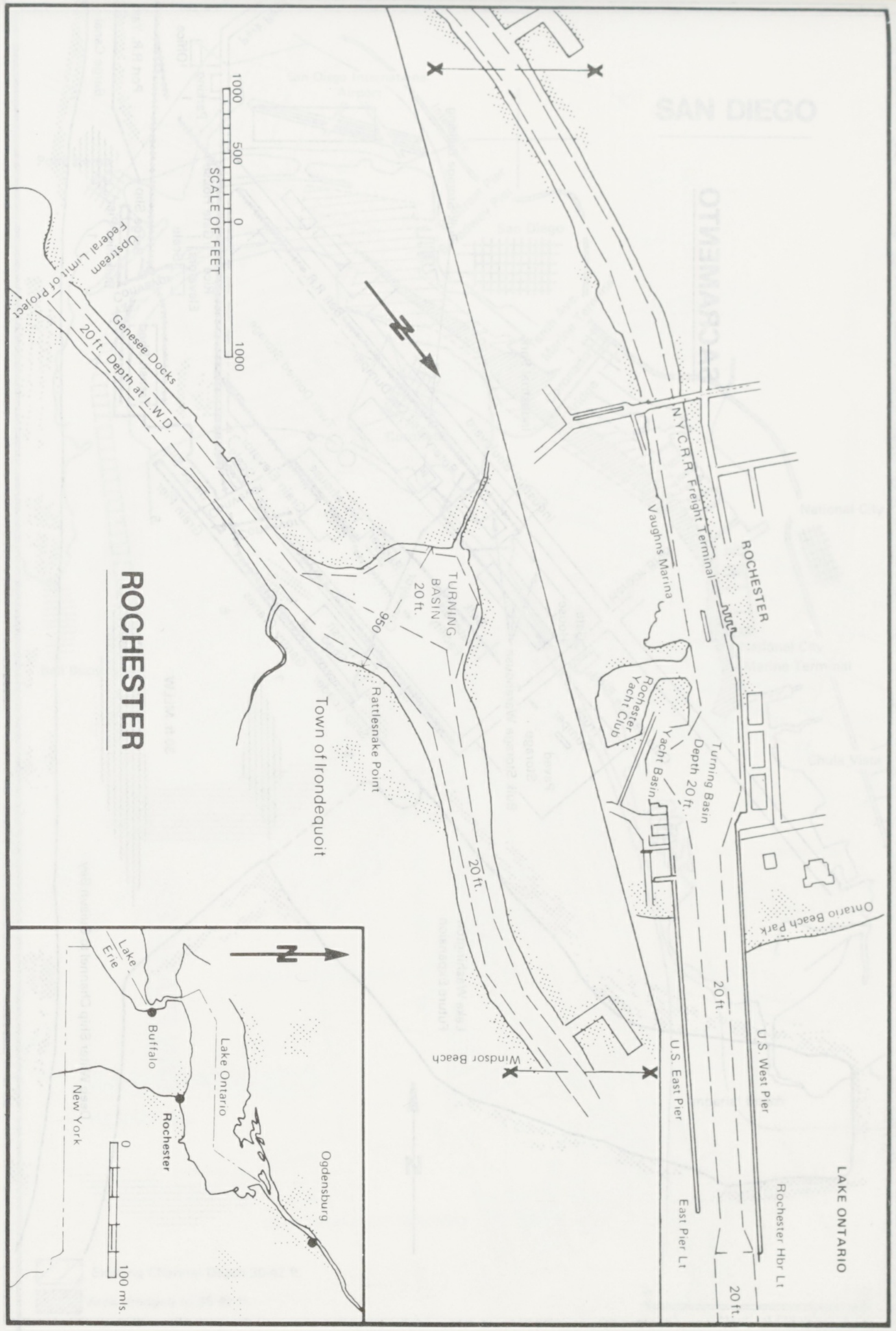
The diagram below represents a suggested mooring arrangement for the South Berth of the Northville Industries Corporation tanker platform at Riverhead, New York.
The ship plan represents a 30,000 to 40,000 DWT handy size tanker with bridge amidship.

Mooring operations at Northville are conducted as follows:

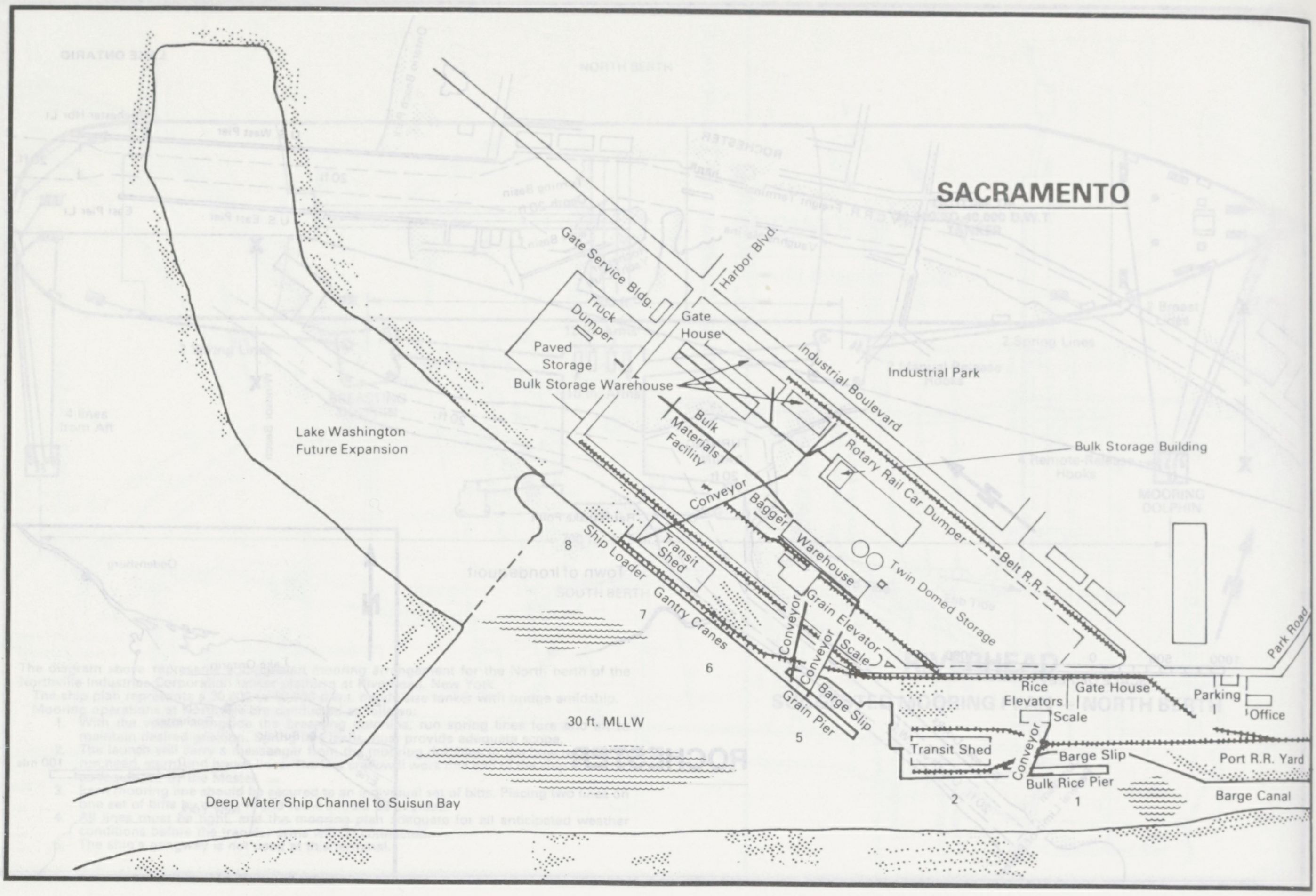
1. With the vessel alongside the breasting dolphins, run spring lines fore and aft to maintain desired position.
2. The launch will carry a messenger from the mooring dolphins to the bow or stern to run head, stern, and breast lines. The line crew will work one end of the ship at a time, as requested by the Master.
3. Each mooring line should be secured to an individual set of bitts. Placing two lines on one set of bitts by taking round turns should be avoided.
4. All lines must be tight, and the mooring plan adequate for all anticipated weather conditions before the transfer arms will be connected.
5. The ship's gangway is not used at this terminal.


700 ft. 213 m.
NORTH BERTH
Capstan
Bollards
1 or 2 Breast lines
2 × 12 in Loading Arms
1 or 2 Breast lines
Mooring Dolphin
Capstan
Mooring Dolphin
2 Spring lines
2 Spring lines
2 remote release hooks
3 or 4 Sternlines
SOUTH BERTH
3 Headlines
Bollards
Flood Tide
Ebb Tide


SABINE & NECHES RIVERS
BEAUMONT
Bethlehem Steel Corp.
Port of Beaumont
Grain Elevators
Gulf States Asphalt Co., Inc.
Mobil Oil Corp. & Docks
Mobil Chemical Co. Dock
Swift Chemical
Houston Chemical Corp.
Stanolind Anchorage
Texas Gulf Sulphur
Pan American Petroleum Corp.
Dupont de Nemours & Co. Inc.
Reserve Fleet
Neches River Channel 40 ft. × 350 ft.
Smith's Bluff Sun Oil Co. Docks
Pure Oil Co. & Docks
Erickson Oil & Docks (Independent)
Costal Marine
Neches Shell Co. Dock
Texas-U.S. Chemical Co.
Goodrich-Gulf Chemicals Inc.
Texaco, Inc. & Docks
Jefferson Chemical Dock
PORT NECHES
Big Three Ind. Gas & Equip. Co.
Neches Butane Prod. Co.
NEDERLAND
American Petrofina & Amdel Dock
Petro Gas Prod. Co.
Jefferson Chemical Co. Inc.
Sonford Chemical Co.
Jefferson County Airport
ORANGE
Allied Chemical Corp.
Big Three Ind. Gas & Equip. Co.
Firestone Petrochemical Center
BRIDGE CITY
Cow Bayou 13 ft. × 100 ft.
Gulf Oil Corp. Chemicals Dept.
Crown Zellerbach Corp.
Rainbow Bridge
Clearance 178 ft.
Neches Intersection Shipyard
Neches River Terminal
Topco Dock
Atlantic Shipper Dock
Vessel Repair Inc.
PORT ARTHUR
Sabine-Neches Canal 40 ft. × 400 ft.
SABINE LAKE
Port of Port Arthur
U.S. Corps of Engineers
Gulfport Shipbuilding Corp.
Gulfgate Bridge
Clearance 138 ft.
Sinclair-Koppers Co.
Gulf Oil Corp. & Docks
Great Lakes Carbon Corp.
Gulf Oil Corp. Coke Dock
Cargill Inc. Grain Elevator
Hydrocarbon Products Co. Inc.
Texaco, Inc. Docks
Port Arthur Canal 40 ft. × 500 ft.
12 ft. × 125 ft. (16 ft. × 150 ft. authorised)
Intracoastal Waterway
Causeway
Chevron Oil Terminal
Sabine Pass Terminal (LPG)
SABINE PASS
Sabine Anchorage 40 ft. × 3,000 ft.
Scurlock Oil Co. Dock
U.S. Coast Guard Station
SABINE
GULF OF MEXICO
Sabine Pass Channel 40 ft. × 500 ft.
Pilot Station

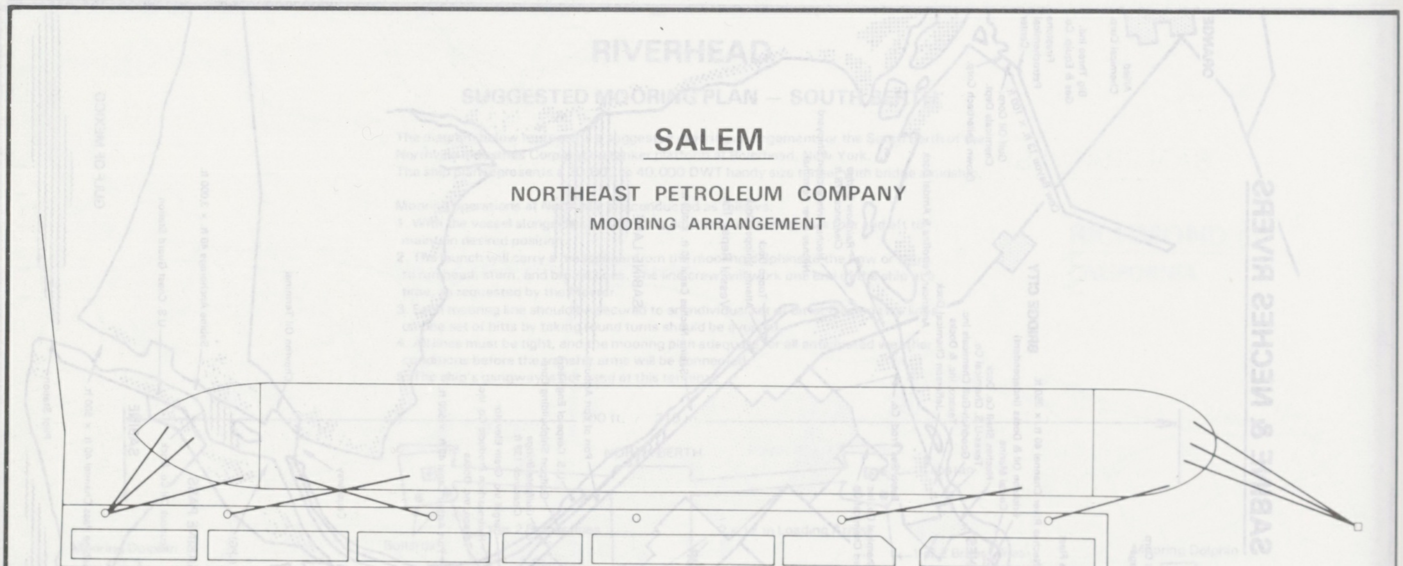

ROCHESTER
1000
500
0
1000
SCALE OF FEET
N
Upstream Federal Limit of Project
Genesee Docks
20 ft. Depth at L.W.D.
TURNING BASIN 20 ft.
950
Rattlesnake Point
Town of Irondequoit
20 ft.
N.Y.C.R.R. Freight Terminal
Vaughns Marina
ROCHESTER
Rochester Yacht Club
Yacht Basin
Turning Basin Depth 20 ft.
Ontario Beach Park
20 ft.
U.S. West Pier
U.S. East Pier
Windsor Beach
East Pier Lt
Rochester Hbr Lt
LAKE ONTARIO
20 ft.
N
Lake Erie
Buffalo
Lake Ontario
Rochester
New York
Ogdensburg
0
100 mls.

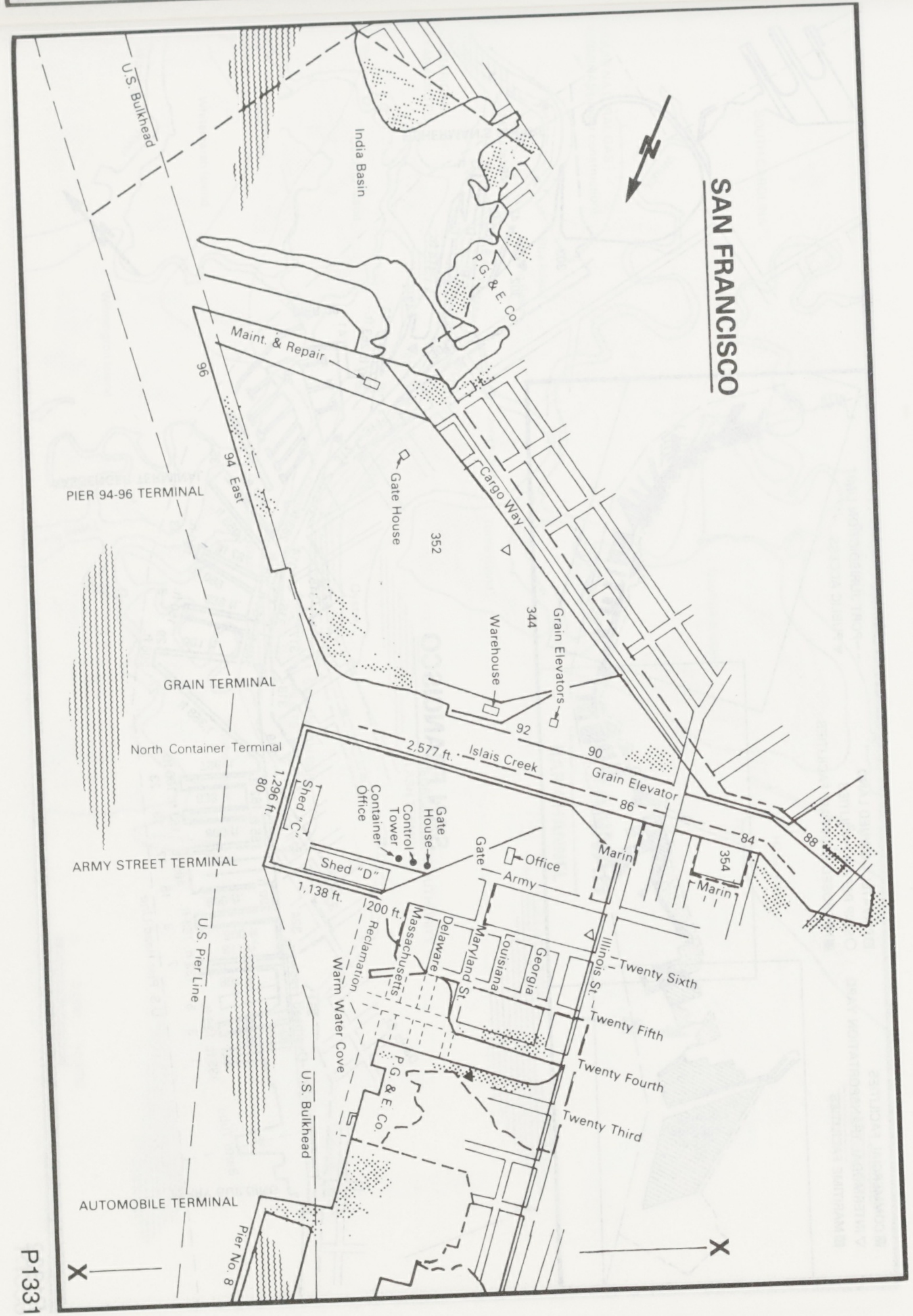
SACRAMENTO

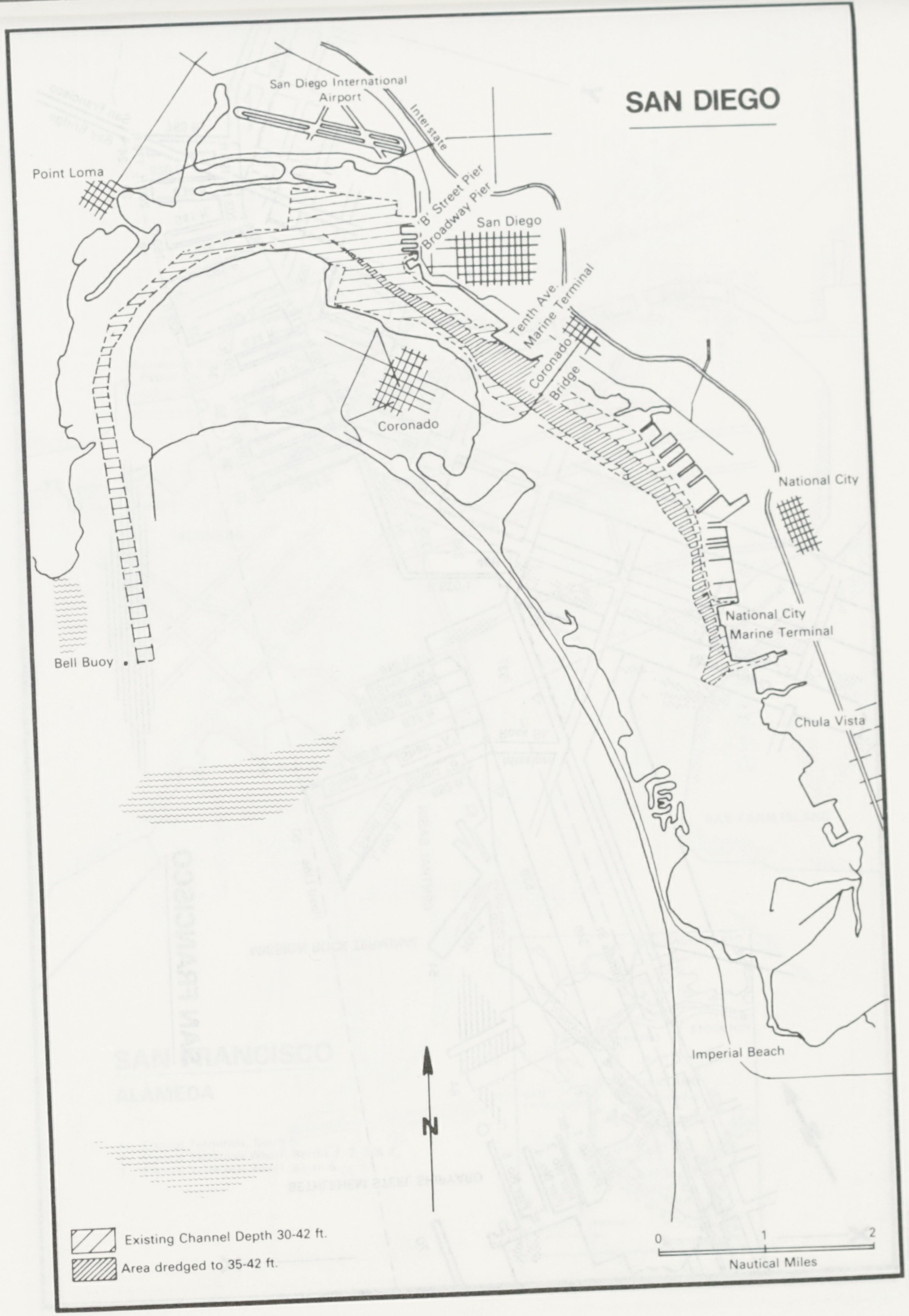

Harbor Blvd.
Gate Service Bldg.
Truck Dumper
Gate House
Paved Storage
Bulk Storage Warehouse
Industrial Boulevard
Industrial Park
Bulk Materials Facility
Lake Washington Future Expansion
Rotary Rail Car Dumper
Bulk Storage Building
Conveyor
Bagger
Belt R.R.
Warehouse
Transit Shed
Ship Loader
8
Twin Domed Storage
Park Road
Gantry Cranes
7
Conveyor
Grain Elevator
Scale
Conveyor
Barge Slip
Grain Pier
6
Rice Elevators
Gate House
Parking
Office
Scale
30 ft. MLLW
5
Transit Shed
Conveyor
Barge Slip
Port R.R. Yard
Bulk Rice Pier
2
1
Barge Canal
Deep Water Ship Channel to Suisun Bay

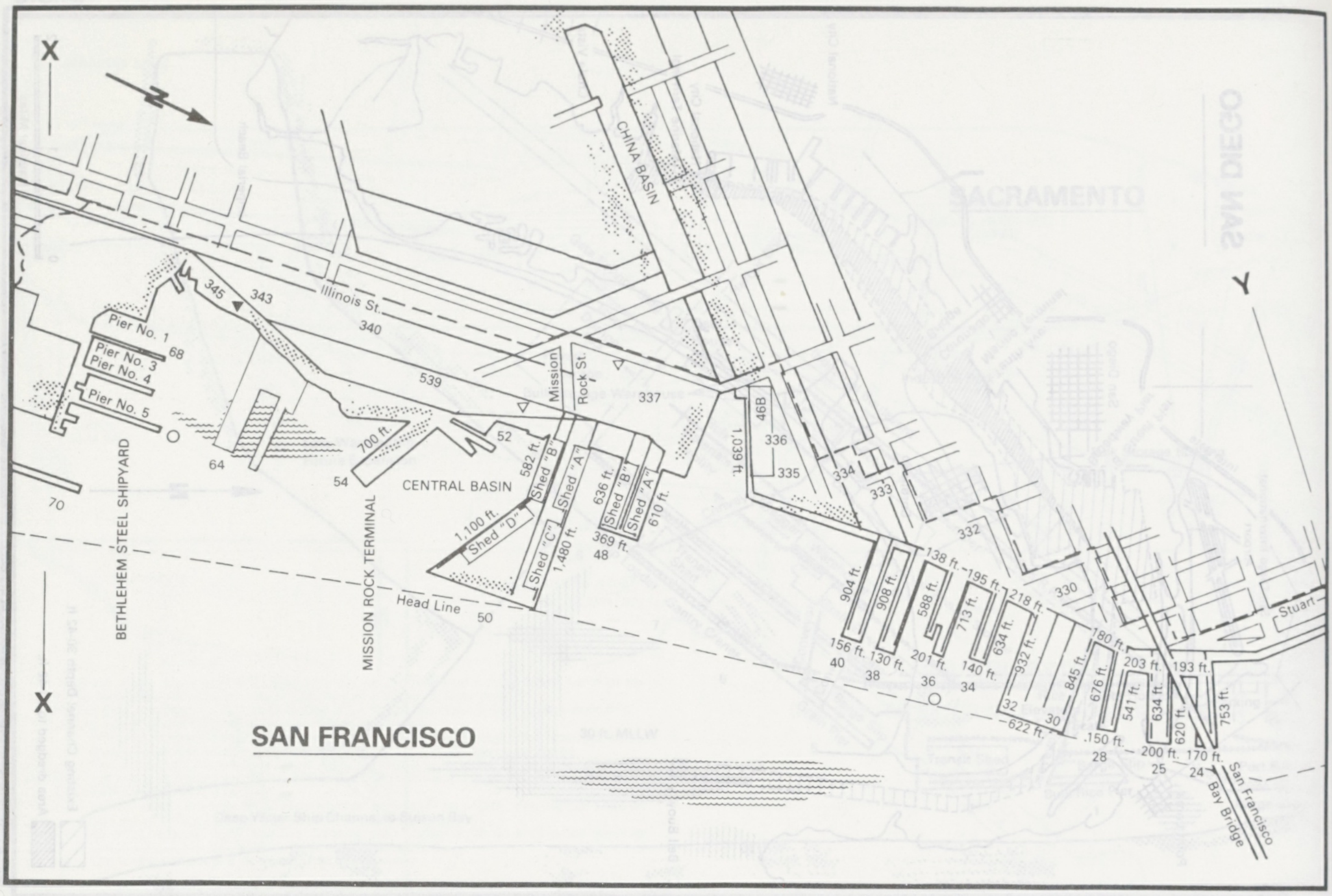
SALEM

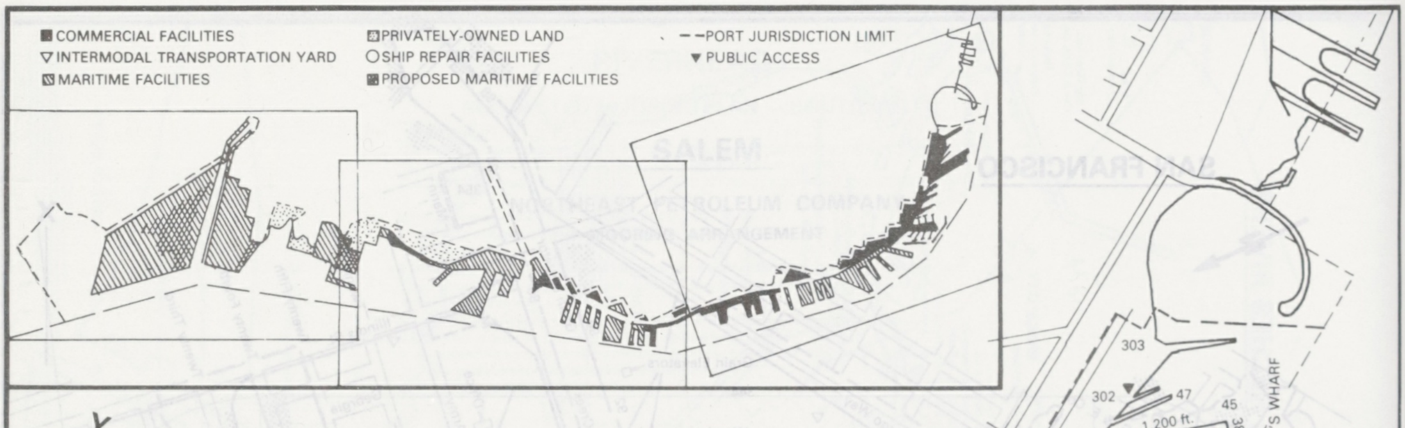
NORTHEAST PETROLEUM COMPANY MOORING ARRANGEMENT

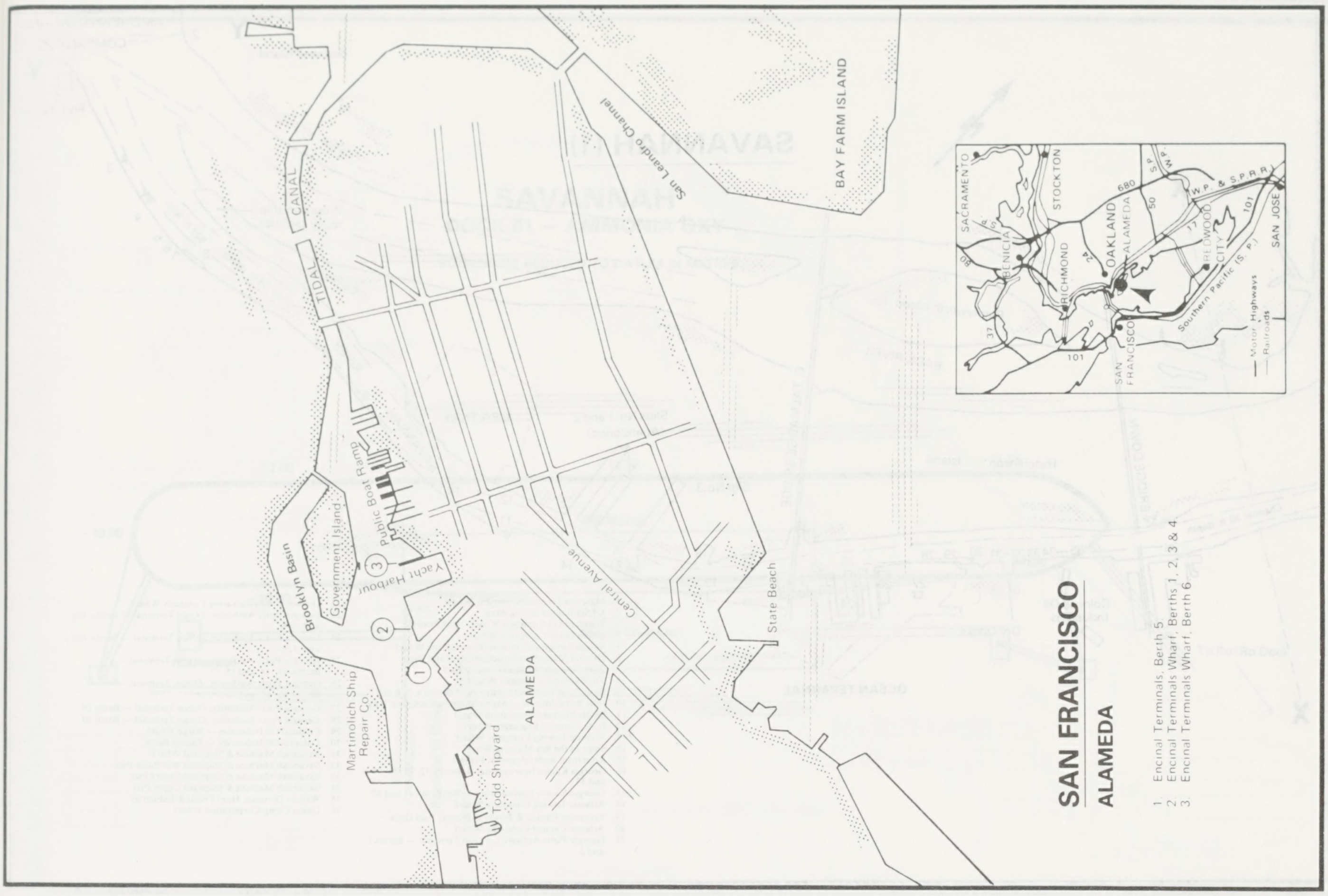


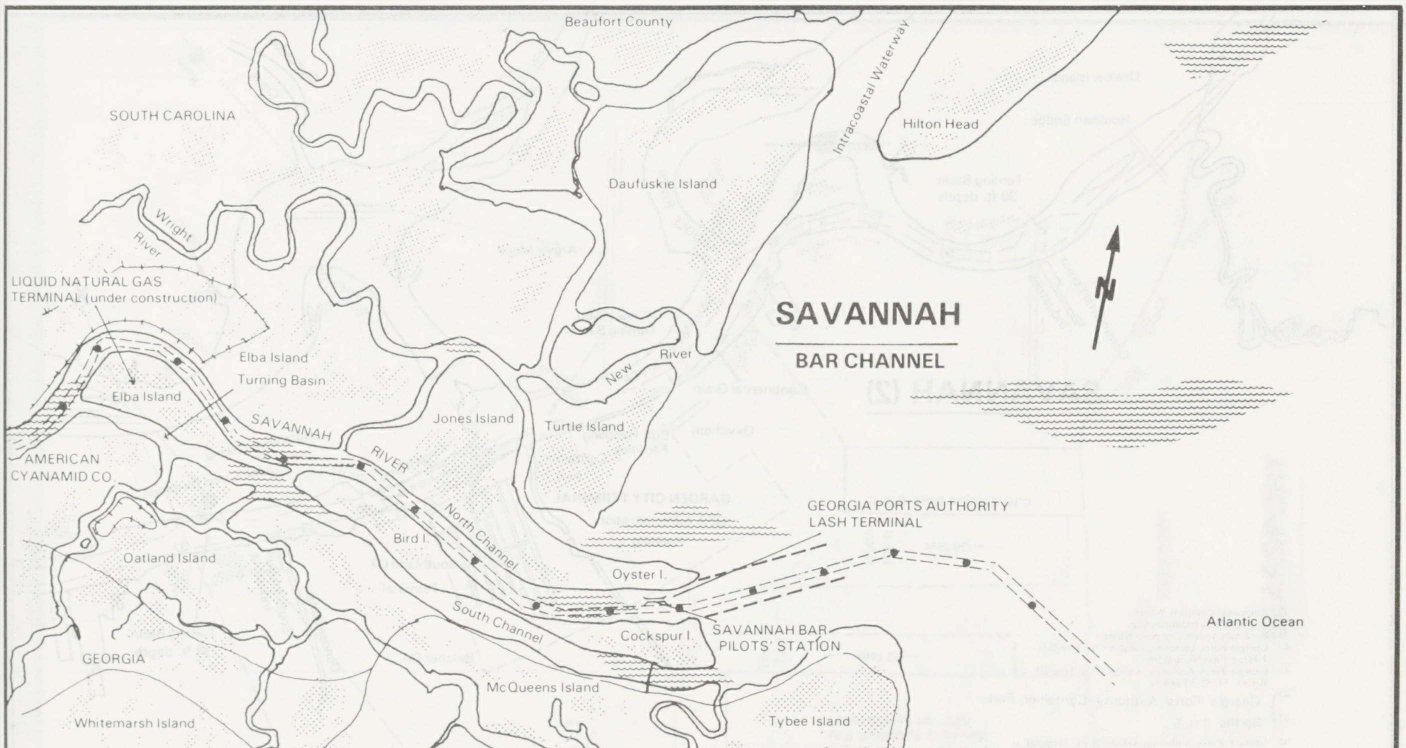

SAN FRANCISCO
U.S. Bulkhead
India Basin
P.G. & E. Co.
Maint. & Repair
96
94 East
PIER 94-96 TERMINAL
Gate House
Cargo Way
352
344
Warehouse
Grain Elevators
GRAIN TERMINAL
92
90
2,577 ft.
Islais Creek
Grain Elevator
North Container Terminal
1,296 ft.
80
Shed "C"
Container Office
Control Tower
Gate House
Gate
Office
86
84
88
Marin
354
Marin
ARMY STREET TERMINAL
Shed "D"
Army
1,138 ft.
1200 ft.
Massachusetts
Delaware
Maryland St.
Louisiana
Georgia
Illinois St.
Twenty Sixth
Twenty Fifth
Twenty Fourth
Twenty Third
Reclamation
Warm Water Cove
U.S. Pier Line
U.S. Bulkhead
P.G. & E. Co.
AUTOMOBILE TERMINAL
Pier No. 8
X
X

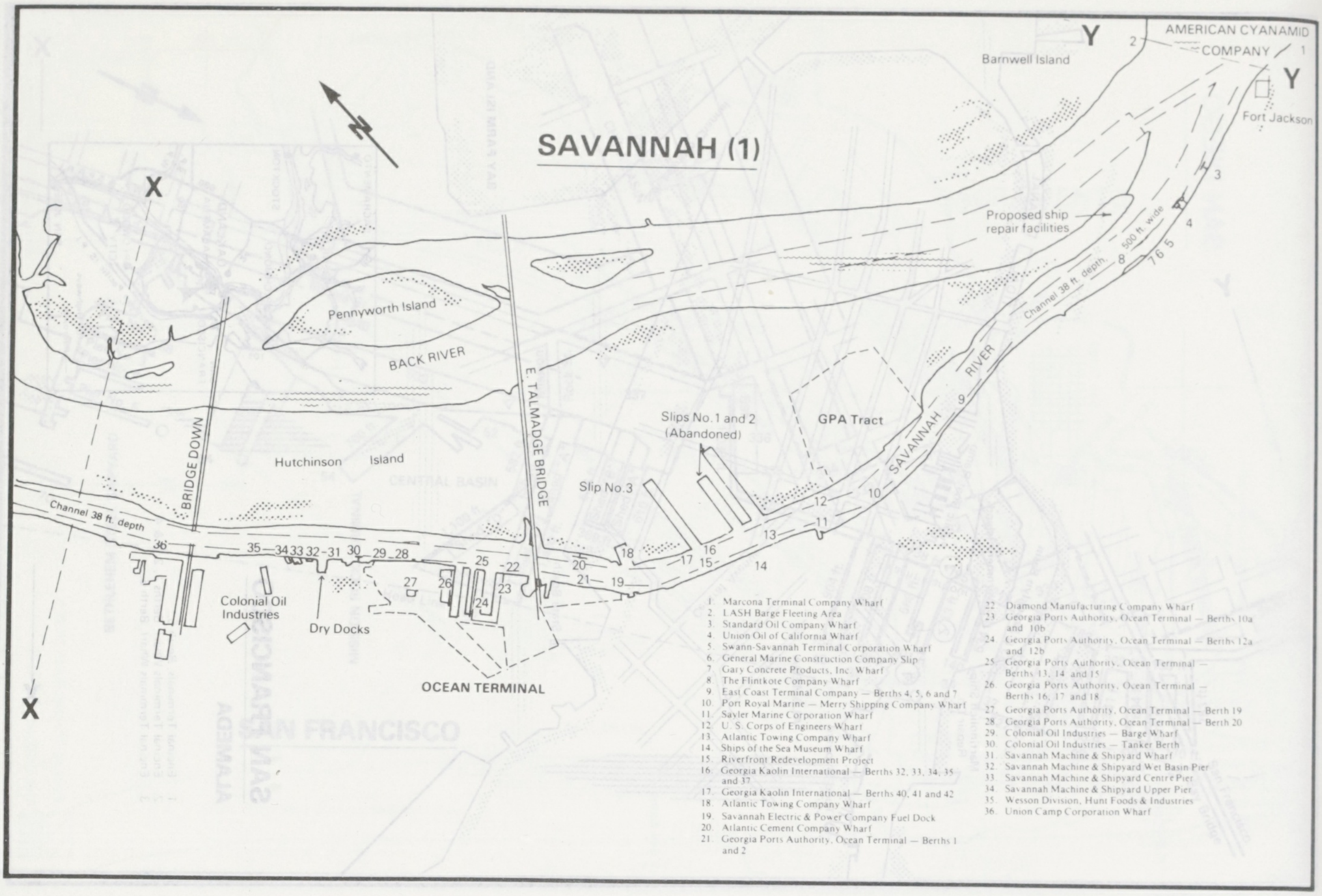

SAN DIEGO
San Diego International Airport
Interstate
Point Loma
'B' Street Pier
Broadway Pier
San Diego
Tenth Ave. Marine Terminal
Coronado Bridge
Coronado
National City
National City Marine Terminal
Bell Buoy
Chula Vista
Imperial Beach
N
Existing Channel Depth 30-42 ft.
Area dredged to 35-42 ft.
0
1
2
Nautical Miles


X
CHINA BASIN
Illinois St.
345
343
340
539
337
Pier No. 1
Pier No. 3
Pier No. 4
Pier No. 5
68
64
54
70
700 ft.
52
Mission
Rock St.
CENTRAL BASIN
582 ft.
Shed "B"
Shed "A"
636 ft.
Shed "B"
Shed "A"
610 ft.
1,100 ft.
Shed "D"
Shed "C"
1,480 ft.
369 ft.
48
50
Head Line
46B
336
335
1,039 ft.
334
333
332
330
Stuart
904 ft.
908 ft.
138 ft.
588 ft.
195 ft.
713 ft.
218 ft.
634 ft.
932 ft.
845 ft.
180 ft.
676 ft.
203 ft.
193 ft.
541 ft.
634 ft.
620 ft.
753 ft.
156 ft.
130 ft.
201 ft.
140 ft.
40
38
36
34
32
30
622 ft.
150 ft.
28
200 ft.
170 ft.
25
24
Bay Bridge
San Francisco
BETHLEHEM STEEL SHIPYARD
MISSION ROCK TERMINAL
X
SAN FRANCISCO
Y


■ COMMERCIAL FACILITIES
▽ INTERMODAL TRANSPORTATION YARD
▨ MARITIME FACILITIES
▨ PRIVATELY-OWNED LAND
○ SHIP REPAIR FACILITIES
▨ PROPOSED MARITIME FACILITIES
– – PORT JURISDICTION LIMIT
▼ PUBLIC ACCESS
Y
SAN FRANCISCO
Davis St.
351
The Embarcadero–Overhead Freeway
322
322
321
324
319
318
317
316
315
314
313
312
311
301
303
302
47
45
1,200 ft.
B
D
A
C
382 ft.
1,314 ft.
43½
43
300 ft.
263 ft.
41
39
PIER 39
FISHERMAN'S WHARF
199 ft.
706 ft.
804 ft.
817 ft.
800 ft.
200 ft.
800 ft.
155 ft.
182 ft.
800 ft.
638 ft.
796 ft.
1,358 ft.
256 ft.
264 ft.
200 ft.
801 ft.
638 ft.
680 ft.
787 ft.
1,053 ft.
283 ft.
802 ft.
135 ft.
138 ft.
1
3
5
133 ft.
153 ft.
7
9
15
485 ft.
17
153 ft.
160 ft.
19
23
27
206 ft.
29
150 ft.
31
150 ft.
33
35
FERRY BUILDING
Bartd Tube
U.S. Pier Head Line
PASSENGER TERMINAL

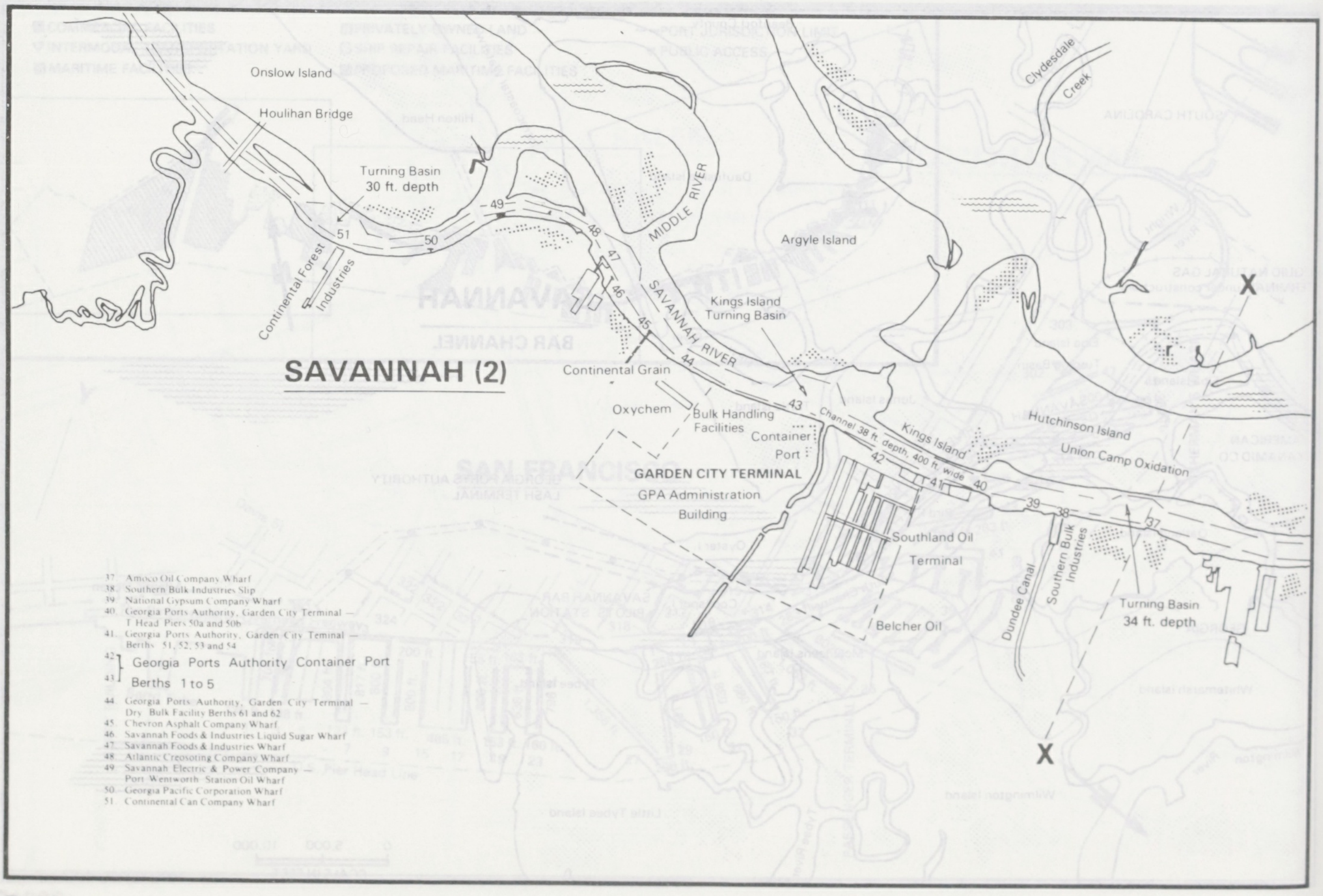

SAN FRANCISCO
ALAMEDA
1. Encinal Terminals, Berth 5
2. Encinal Terminals Wharf, Berths 1, 2, 3 & 4
3. Encinal Terminals Wharf, Berth 6
San Leandro Channel
BAY FARM ISLAND
TIDAL
CANAL
Public Boat Ramp
Government Island
Brooklyn Basin
Yacht Harbour
Martinolich Ship Repair Co.
Todd Shipyard
ALAMEDA
Central Avenue
State Beach
1
2
3
SACRAMENTO
STOCKTON
BENICIA
RICHMOND
OAKLAND
ALAMEDA
SAN FRANCISCO
REDWOOD CITY
SAN JOSE
680
80
37
24
50
17
101
S.P.
W.P.
W.P. & S.P.R.R.
Southern Pacific (S.P.)
Motor Highways
Railroads


SAVANNAH
BAR CHANNEL
Beaufort County
SOUTH CAROLINA
Intracoastal Waterway
Hilton Head
Daufuskie Island
Wright River
LIQUID NATURAL GAS TERMINAL (under construction)
Elba Island
Turning Basin
Elba Island
New River
Jones Island
Turtle Island
SAVANNAH RIVER
AMERICAN CYANAMID CO
North Channel
Bird I.
GEORGIA PORTS AUTHORITY LASH TERMINAL
Oatland Island
Oyster I.
South Channel
Cockspur I.
SAVANNAH BAR PILOTS' STATION
Atlantic Ocean
GEORGIA
McQueens Island
Whitemarsh Island
Tybee Island
Wilmington River
Wilmington Island
Tybee River
Little Tybee Island
0
5,000
10,000
SCALE IN FEET


Y
2
AMERICAN CYANAMID COMPANY
1
Y
Barnwell Island
Fort Jackson
X
Pennyworth Island
BACK RIVER
Hutchinson Island
BRIDGE DOWN
E. TALMADGE BRIDGE
Proposed ship repair facilities
Channel 38 ft. depth, 500 ft. wide
3
4
5
6
7
8
9
SAVANNAH RIVER
GPA Tract
Slips No.1 and 2 (Abandoned)
Slip No.3
Channel 38 ft. depth
36
35
34
33
32
31
30
29
28
27
26
25
24
23
22
21
20
19
18
17
16
15
14
13
12
11
10
Colonial Oil Industries
Dry Docks
OCEAN TERMINAL
X

SAVANNAH (1)

1. Marcona Terminal Company Wharf
2. LASH Barge Fleeting Area
3. Standard Oil Company Wharf
4. Union Oil of California Wharf
5. Swann-Savannah Terminal Corporation Wharf
6. General Marine Construction Company Slip
7. Gary Concrete Products, Inc. Wharf
8. The Flintkote Company Wharf
9. East Coast Terminal Company — Berths 4, 5, 6 and 7
10. Port Royal Marine — Merry Shipping Company Wharf
11. Sayler Marine Corporation Wharf
12. U. S. Corps of Engineers Wharf
13. Atlantic Towing Company Wharf
14. Ships of the Sea Museum Wharf
15. Riverfront Redevelopment Project
16. Georgia Kaolin International — Berths 32, 33, 34, 35 and 37
17. Georgia Kaolin International — Berths 40, 41 and 42
18. Atlantic Towing Company Wharf
19. Savannah Electric & Power Company Fuel Dock
20. Atlantic Cement Company Wharf
21. Georgia Ports Authority, Ocean Terminal — Berths 1 and 2
22. Diamond Manufacturing Company Wharf
23. Georgia Ports Authority, Ocean Terminal — Berths 10a and 10b
24. Georgia Ports Authority, Ocean Terminal — Berths 12a and 12b
25. Georgia Ports Authority, Ocean Terminal — Berths 13, 14 and 15
26. Georgia Ports Authority, Ocean Terminal — Berths 16, 17 and 18
27. Georgia Ports Authority, Ocean Terminal — Berth 19
28. Georgia Ports Authority, Ocean Terminal — Berth 20
29. Colonial Oil Industries — Barge Wharf
30. Colonial Oil Industries — Tanker Berth
31. Savannah Machine & Shipyard Wharf
32. Savannah Machine & Shipyard Wet Basin Pier
33. Savannah Machine & Shipyard Centre Pier
34. Savannah Machine & Shipyard Upper Pier
35. Wesson Division, Hunt Foods & Industries
36. Union Camp Corporation Wharf

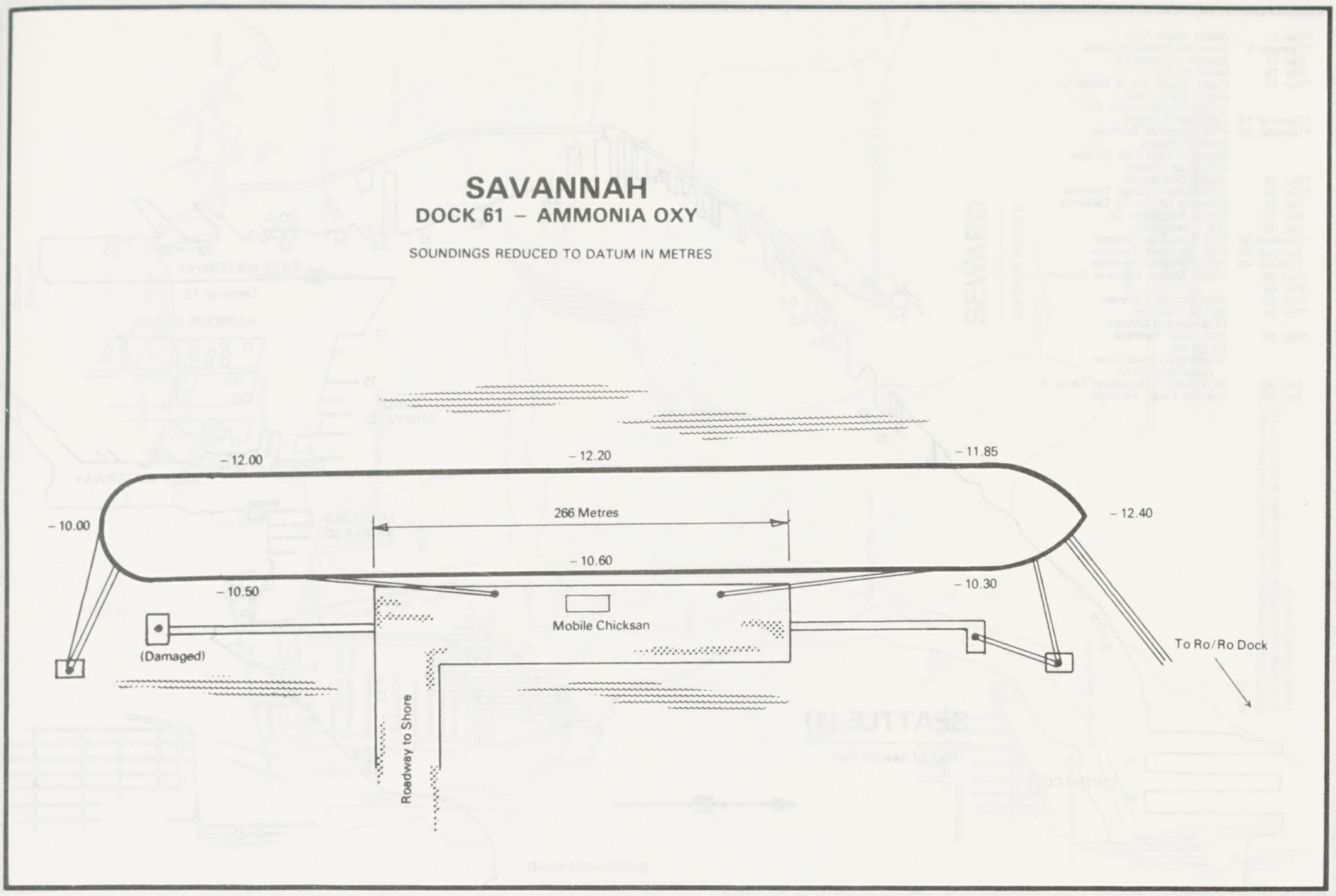

Onslow Island
Houlihan Bridge
Turning Basin 30 ft. depth
51
50
49
48
47
46
45
44
Continental Forest Industries
MIDDLE RIVER
SAVANNAH RIVER
Clydesdale Creek
Argyle Island
Kings Island Turning Basin
Continental Grain
Oxychem
Bulk Handling Facilities
Container Port
GARDEN CITY TERMINAL
GPA Administration Building
43
Channel 38 ft. depth, 400 ft. wide
Kings Island
42
41
40
39
38
37
Hutchinson Island
Union Camp Oxidation
Southland Oil Terminal
Belcher Oil
Dundee Canal
Southern Bulk Industries
Turning Basin 34 ft. depth
X
X

SAVANNAH (2)

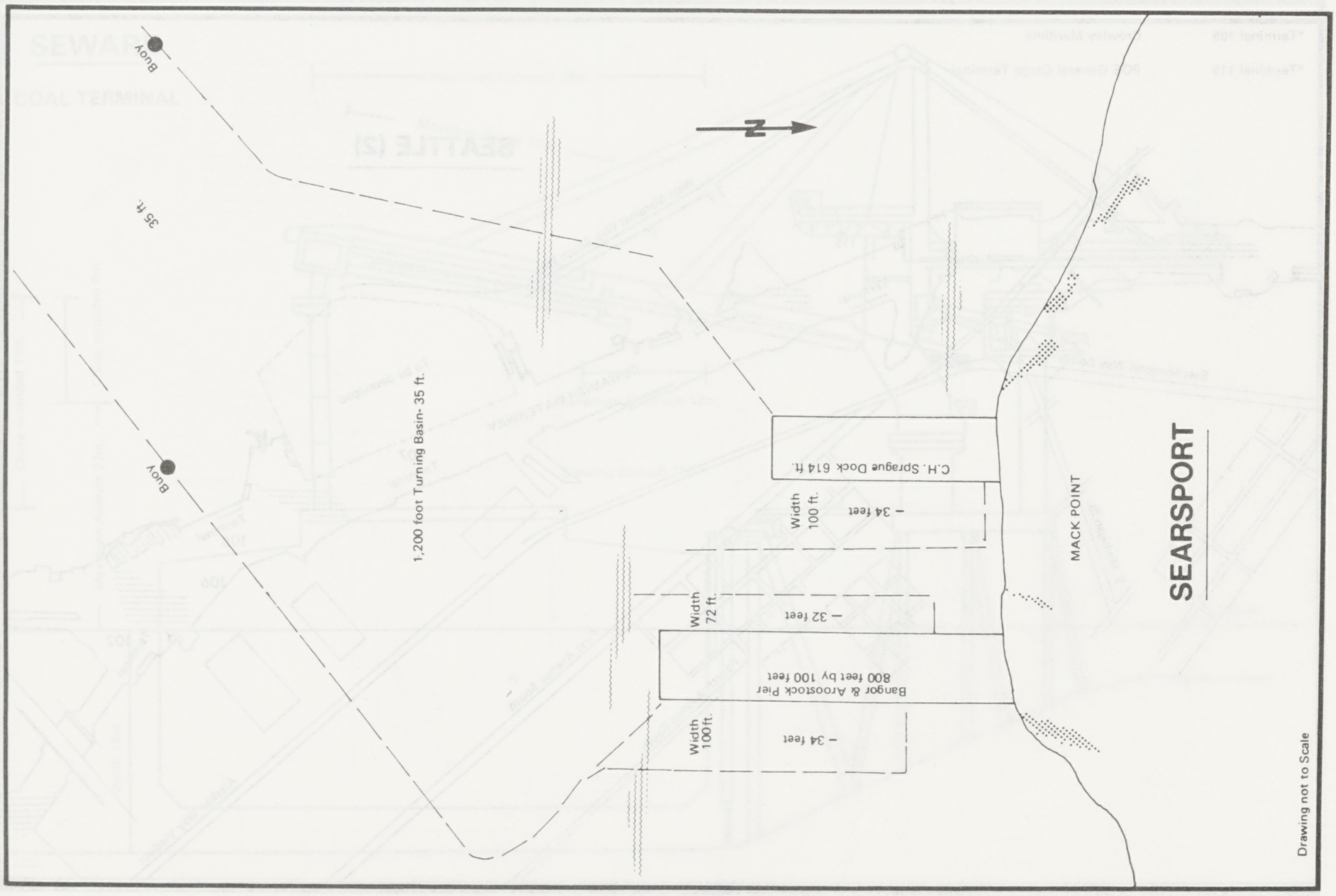
37. Amoco Oil Company Wharf
38. Southern Bulk Industries Slip
39. National Gypsum Company Wharf
40. Georgia Ports Authority, Garden City Terminal — T Head Piers 50a and 50b
41. Georgia Ports Authority, Garden City Terminal — Berths 51, 52, 53 and 54

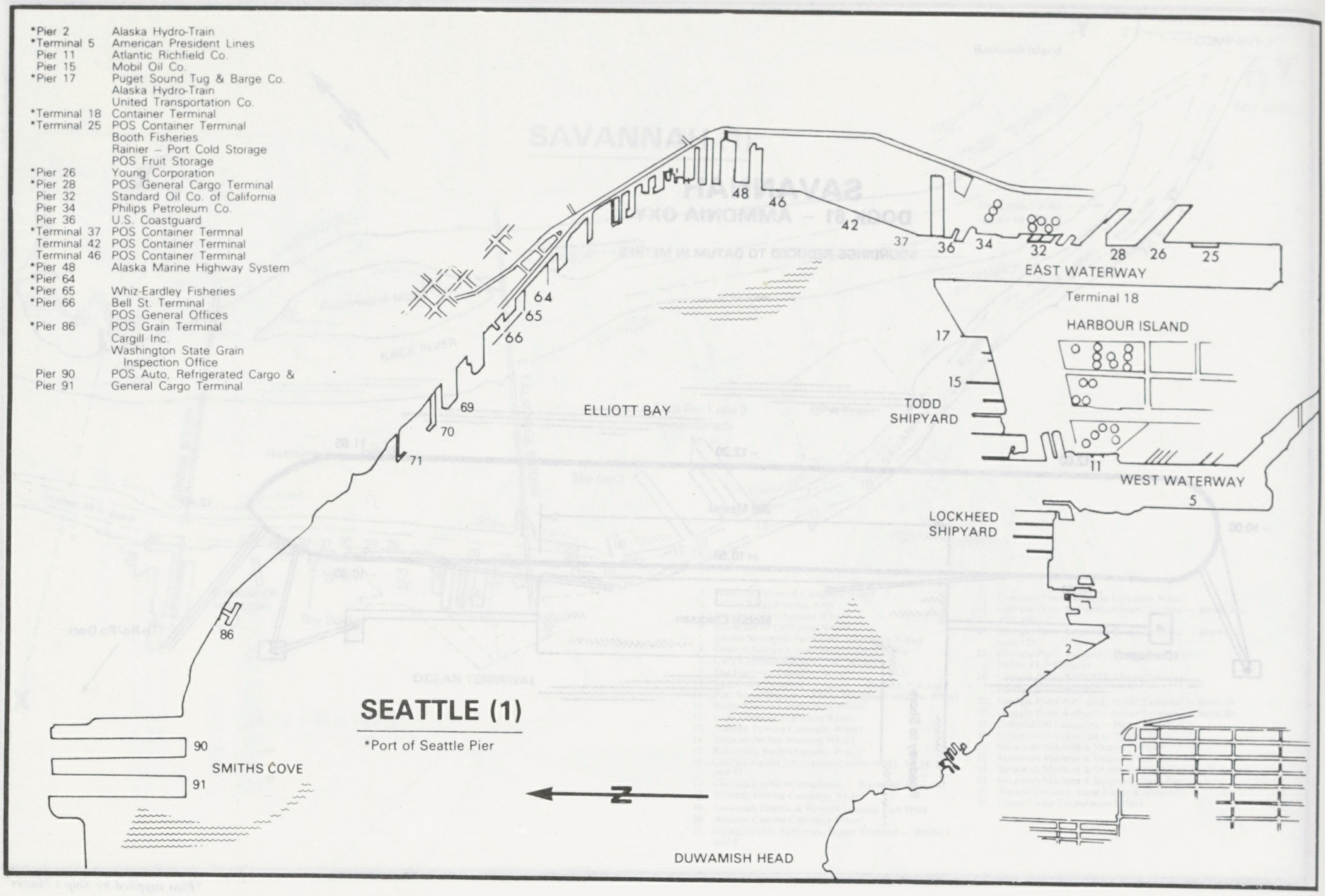
42, 43 } Georgia Ports Authority Container Port Berths 1 to 5

44. Georgia Ports Authority, Garden City Terminal — Dry Bulk Facility Berths 61 and 62
45. Chevron Asphalt Company Wharf
46. Savannah Foods & Industries Liquid Sugar Wharf
47. Savannah Foods & Industries Wharf
48. Atlantic Creosoting Company Wharf
49. Savannah Electric & Power Company — Port Wentworth Station Oil Wharf
50. Georgia Pacific Corporation Wharf
51. Continental Can Company Wharf


SAVANNAH
DOCK 61 – AMMONIA OXY
SOUNDINGS REDUCED TO DATUM IN METRES
– 12.00
– 12.20
– 11.85
– 10.00
266 Metres
– 12.40
– 10.60
– 10.50
– 10.30
Mobile Chicksan
(Damaged)
To Ro/Ro Dock
Roadway to Shore

"Plan supplied by Ship's Master"

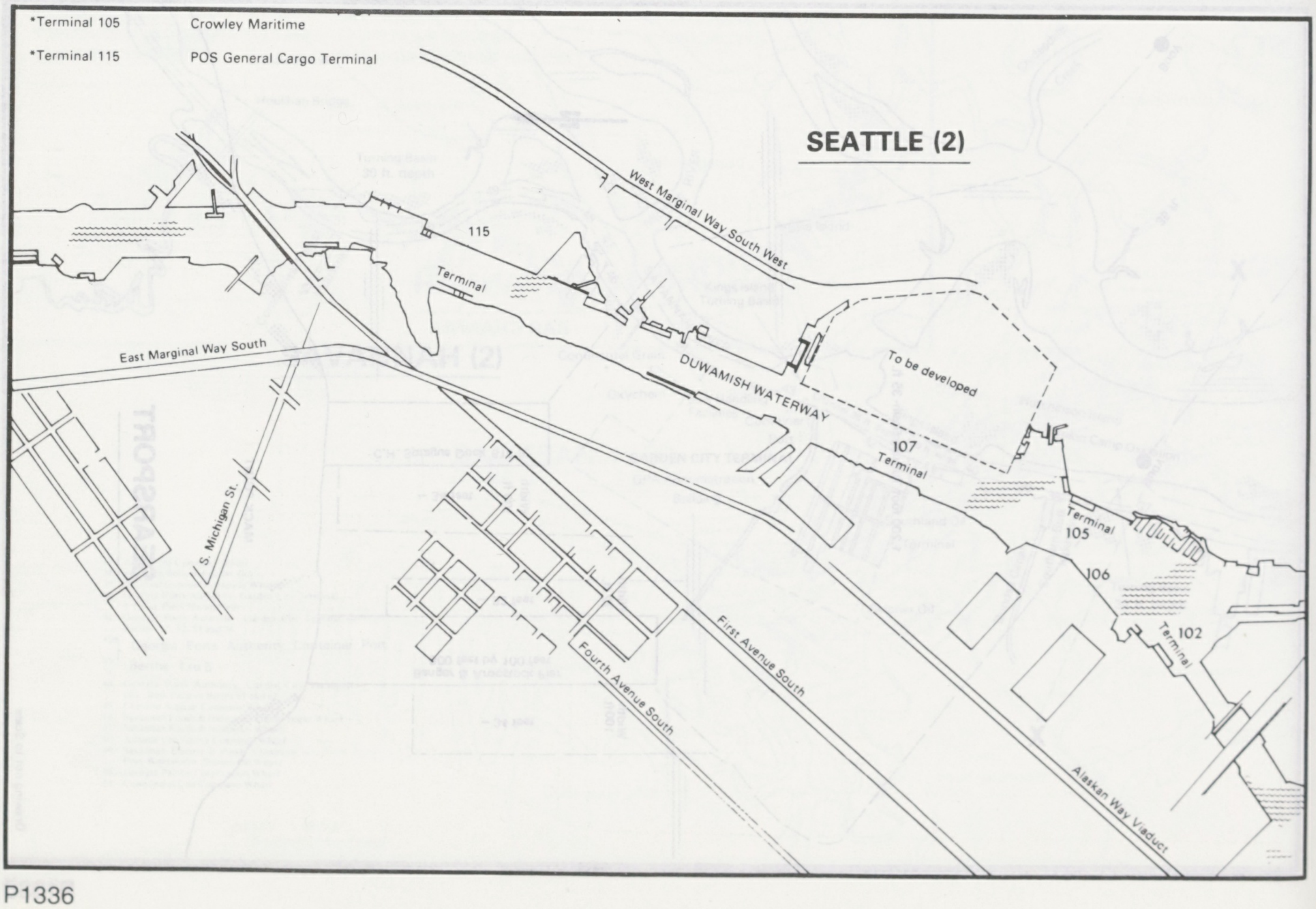

Buoy
35 ft.
N
1,200 foot Turning Basin- 35 ft.
Buoy
C.H. Sprague Dock 614 ft.
Width 100 ft.
– 34 feet
Width 72 ft.
– 32 feet
Bangor & Aroostock Pier 800 feet by 100 feet
Width 100ft.
– 34 feet
MACK POINT
SEARSPORT
Drawing not to Scale


48
46
42
37
36
34
32
28
26
25
EAST WATERWAY
Terminal 18
64
65
66
HARBOUR ISLAND
17
15
TODD SHIPYARD
69
70
71
ELLIOTT BAY
11
WEST WATERWAY
5
LOCKHEED SHIPYARD
2
86
90
SMITHS COVE
91
N
DUWAMISH HEAD

SEATTLE (1)

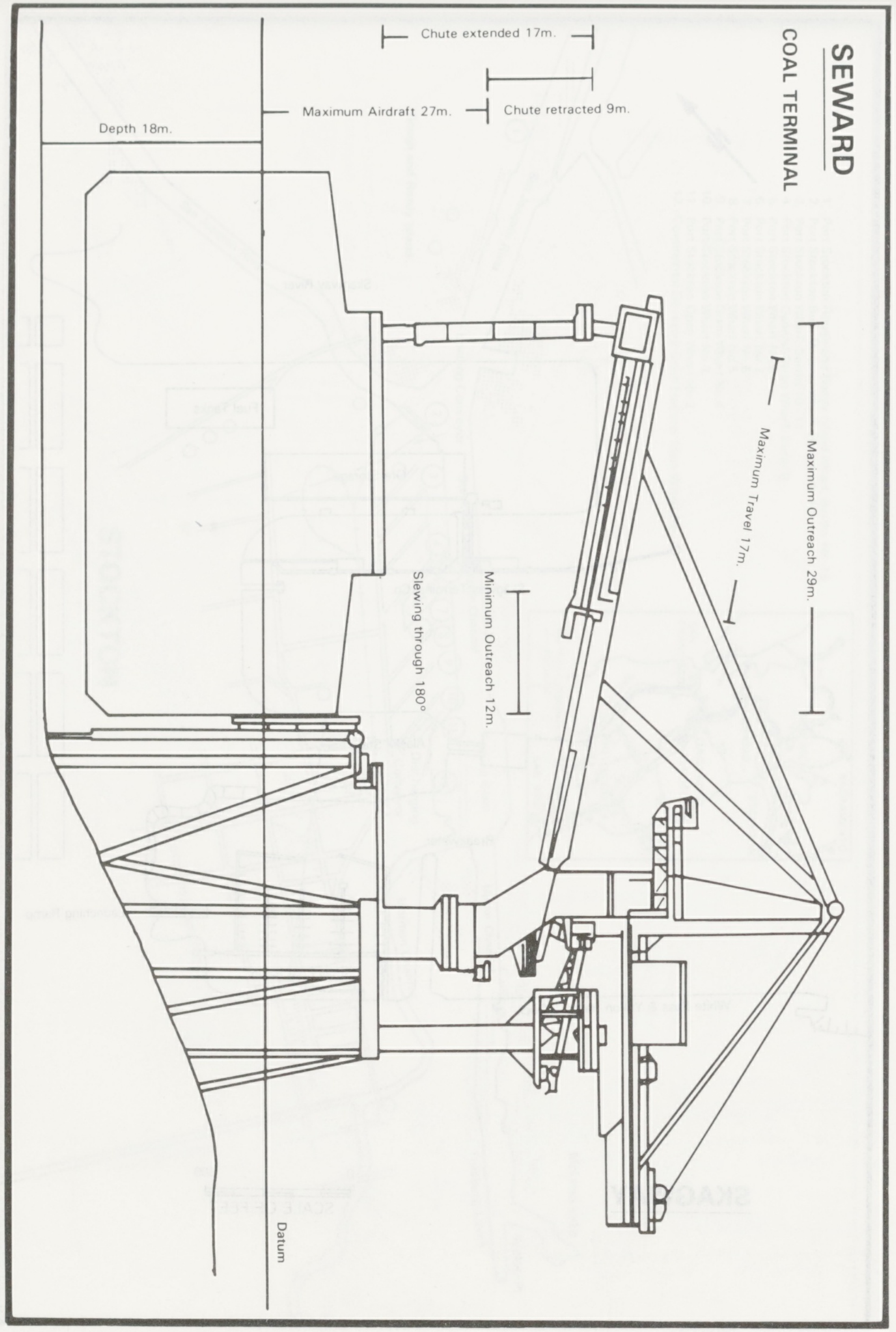
*Pier 2	Alaska Hydro-Train
*Terminal 5	American President Lines
Pier 11	Atlantic Richfield Co.
Pier 15	Mobil Oil Co.
*Pier 17	Puget Sound Tug & Barge Co. Alaska Hydro-Train United Transportation Co.
*Terminal 18	Container Terminal
*Terminal 25	POS Container Terminal Booth Fisheries Rainier – Port Cold Storage POS Fruit Storage
*Pier 26	Young Corporation
*Pier 28	POS General Cargo Terminal
Pier 32	Standard Oil Co. of California
Pier 34	Philips Petroleum Co.
Pier 36	U.S. Coastguard
*Terminal 37	POS Container Termnal
Terminal 42	POS Container Terminal
Terminal 46	POS Container Terminal
*Pier 48	Alaska Marine Highway System
*Pier 64	
*Pier 65	Whiz-Eardley Fisheries
*Pier 66	Bell St. Terminal POS General Offices
*Pier 86	POS Grain Terminal Cargill Inc. Washington State Grain Inspection Office
Pier 90 Pier 91	POS Auto, Refrigerated Cargo & General Cargo Terminal

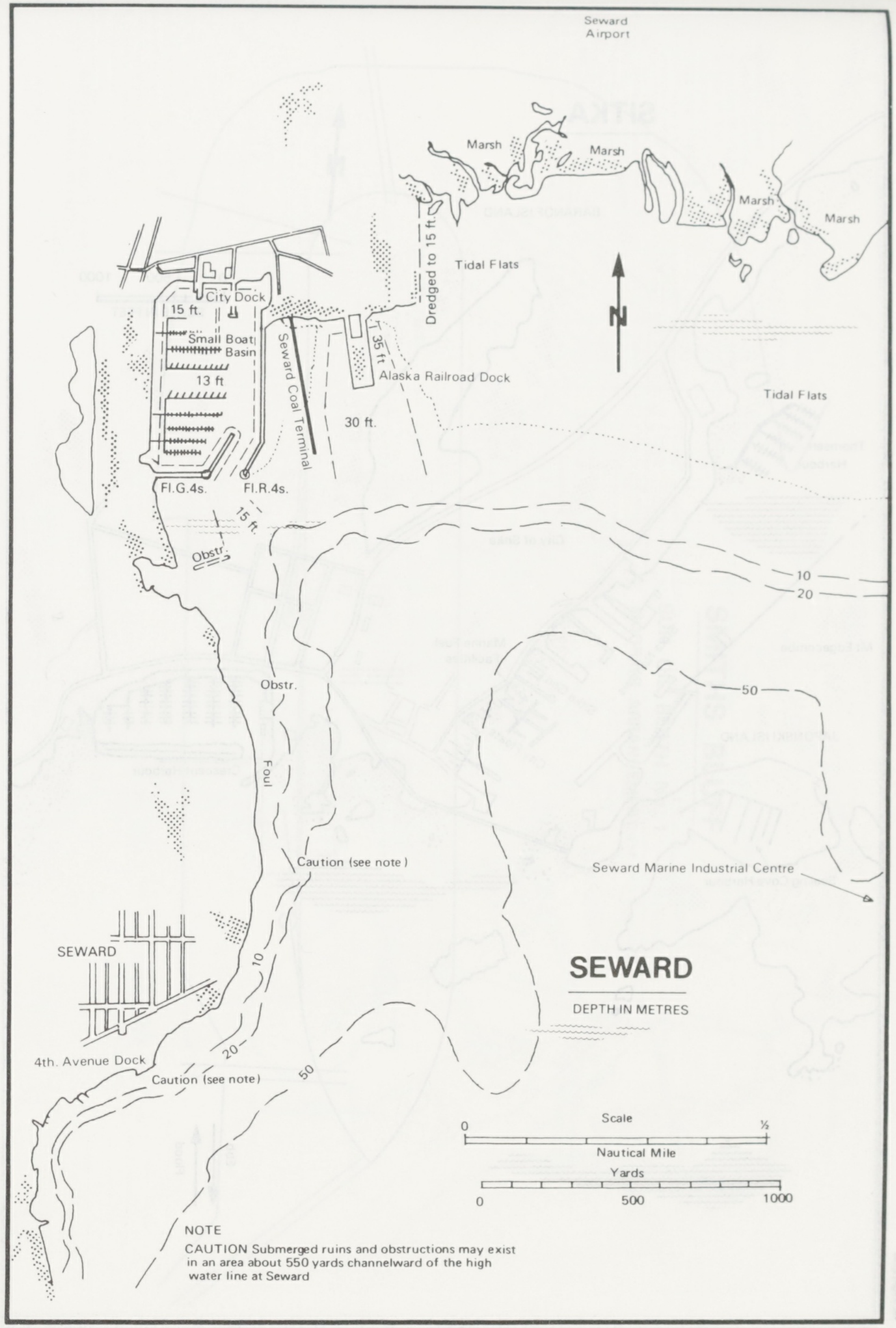
*Port of Seattle Pier


115
Terminal
West Marginal Way South West
East Marginal Way South
DUWAMISH WATERWAY
To be developed
107
Terminal
Terminal
105
106
102
Terminal
S. Michigan St.
First Avenue South
Fourth Avenue South
Alaskan Way Viaduct

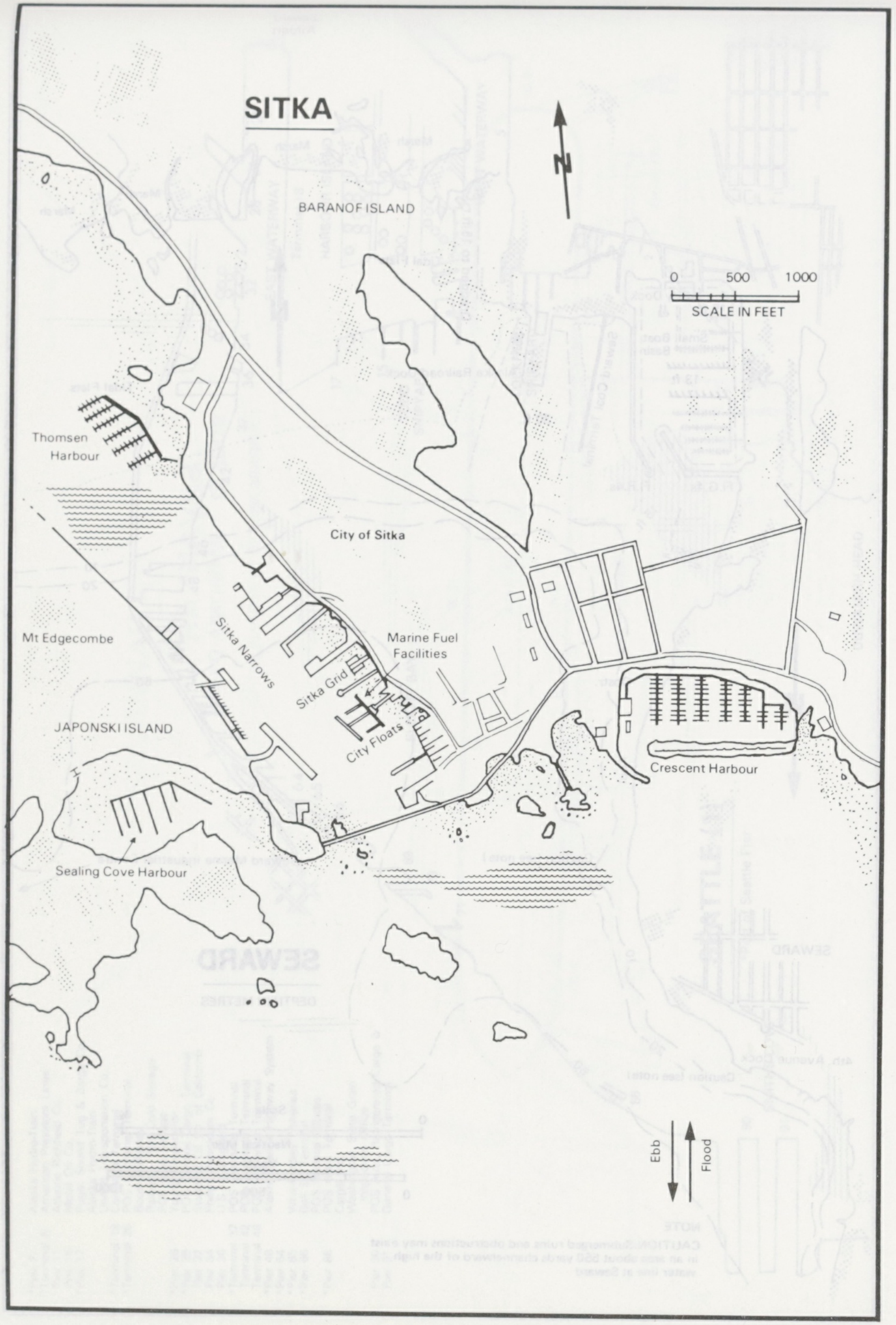
SEATTLE (2)

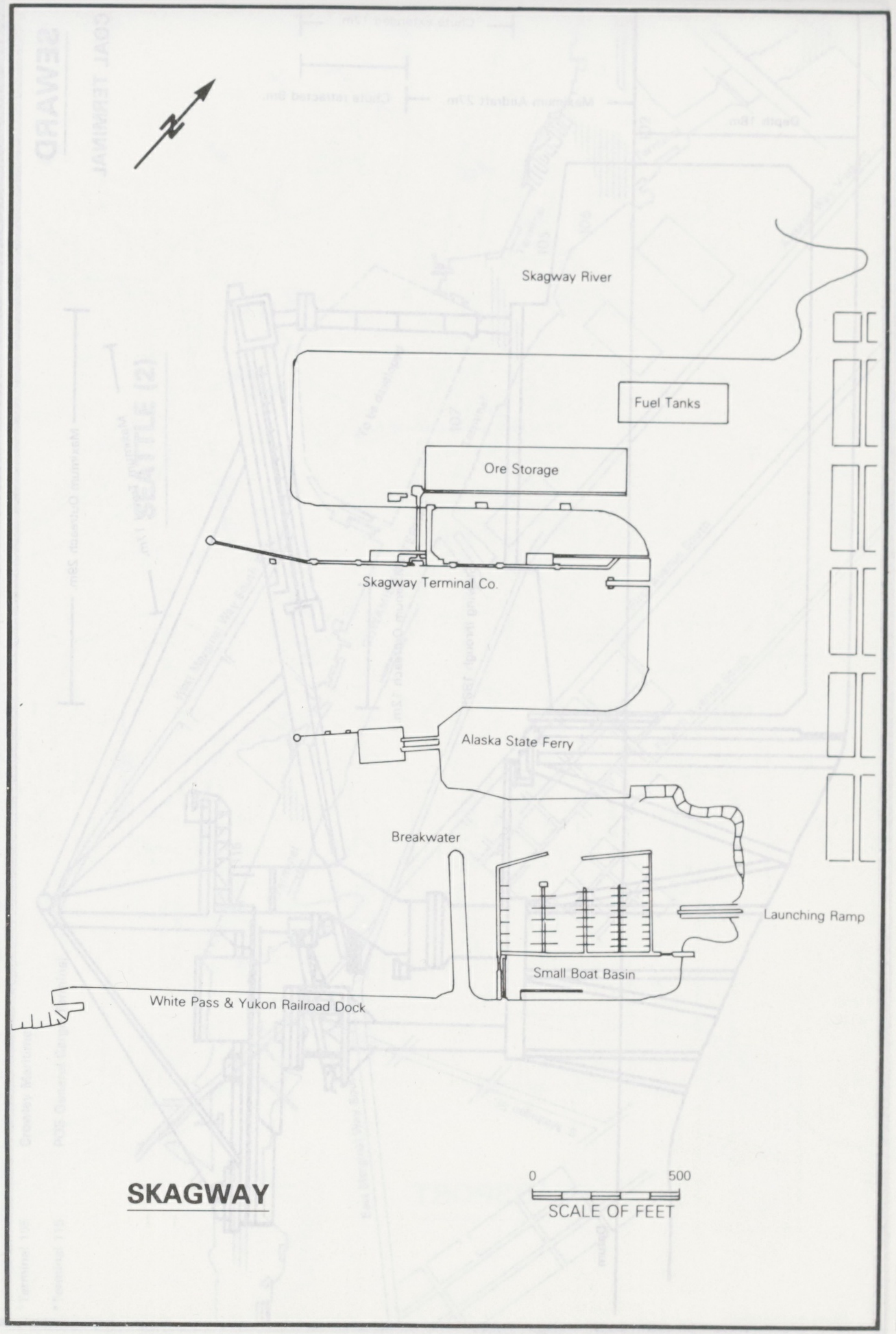
*Terminal 105	Crowley Maritime
*Terminal 115	POS General Cargo Terminal

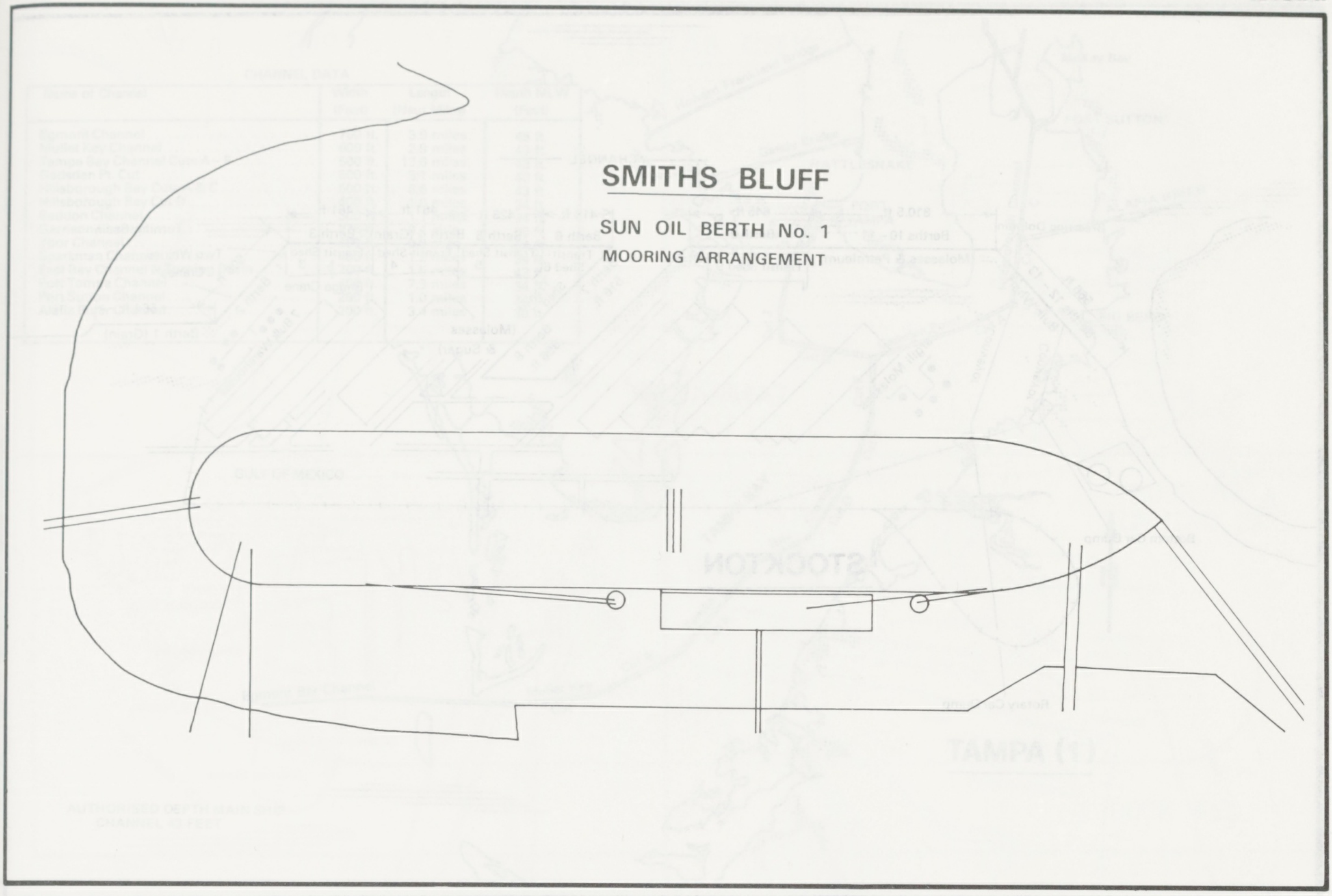

SEWARD
COAL TERMINAL
Chute extended 17m.
Chute retracted 9m.
Maximum Airdraft 27m.
Depth 18m.
Maximum Outreach 29m.
Maximum Travel 17m.
Minimum Outreach 12m.
Slewing through 180°
Datum


Seward Airport
Marsh
Marsh
Marsh
Marsh
Dredged to 15 ft.
Tidal Flats
N
City Dock
15 ft.
Small Boat Basin
13 ft
Seward Coal Terminal
35 ft
Alaska Railroad Dock
30 ft.
Tidal Flats
Fl.G.4s.
Fl.R.4s.
15 ft.
Obstr.
10
20
50
Obstr.
Foul
Caution (see note)
Seward Marine Industrial Centre
SEWARD
10
4th. Avenue Dock
20
Caution (see note)
50
SEWARD
DEPTH IN METRES
Scale
0
½
Nautical Mile
Yards
0
500
1000

NOTE
CAUTION Submerged ruins and obstructions may exist in an area about 550 yards channelward of the high water line at Seward


SITKA
BARANOF ISLAND
N
0 500 1000
SCALE IN FEET
Thomsen Harbour
City of Sitka
Mt Edgecombe
Sitka Narrows
Marine Fuel Facilities
Sitka Grid
City Floats
JAPONSKI ISLAND
Crescent Harbour
Sealing Cove Harbour
Ebb
Flood

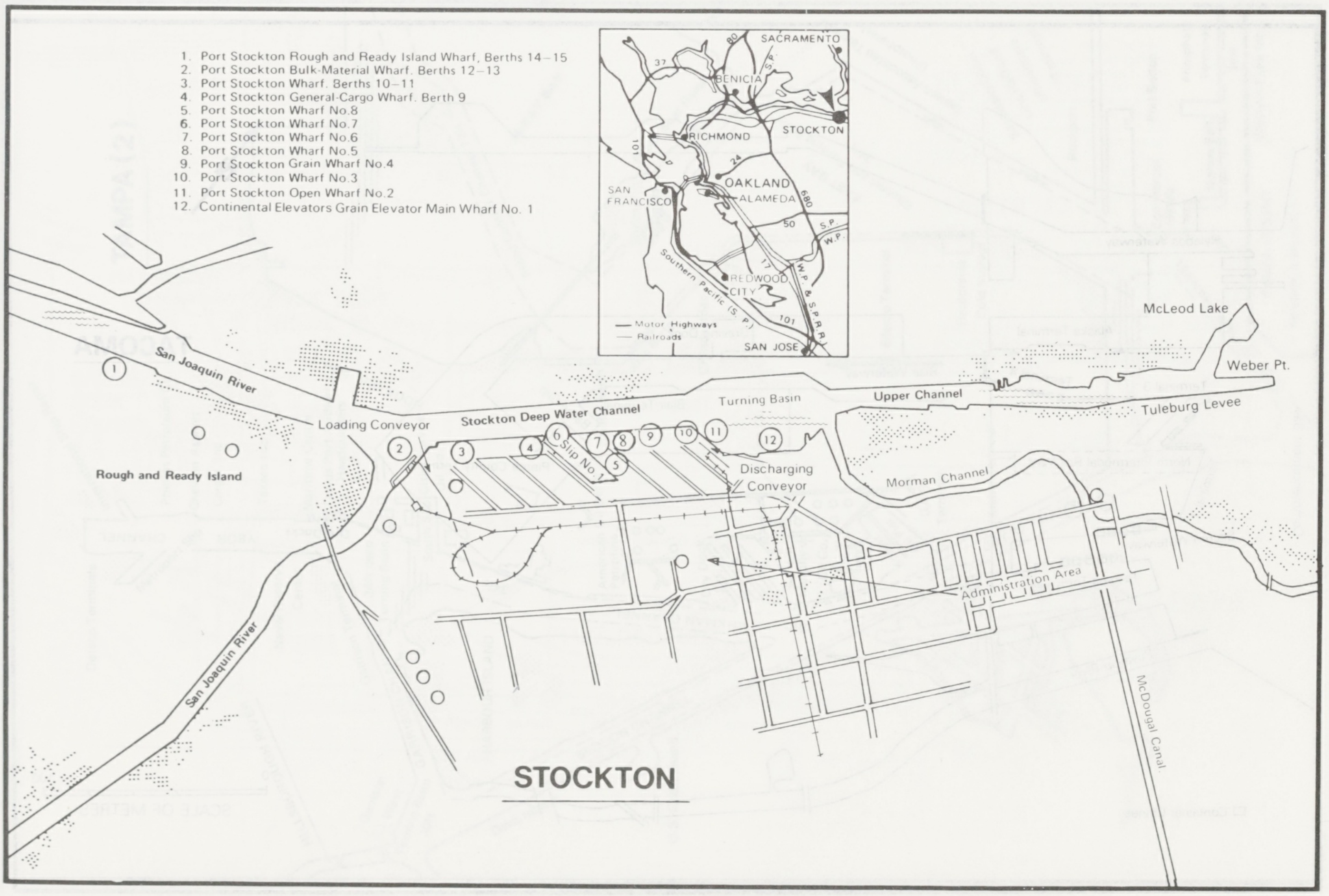

N
Skagway River
Fuel Tanks
Ore Storage
Skagway Terminal Co.
Alaska State Ferry
Breakwater
Launching Ramp
Small Boat Basin
White Pass & Yukon Railroad Dock
SKAGWAY
0 500
SCALE OF FEET



SMITHS BLUFF

SUN OIL BERTH No. 1

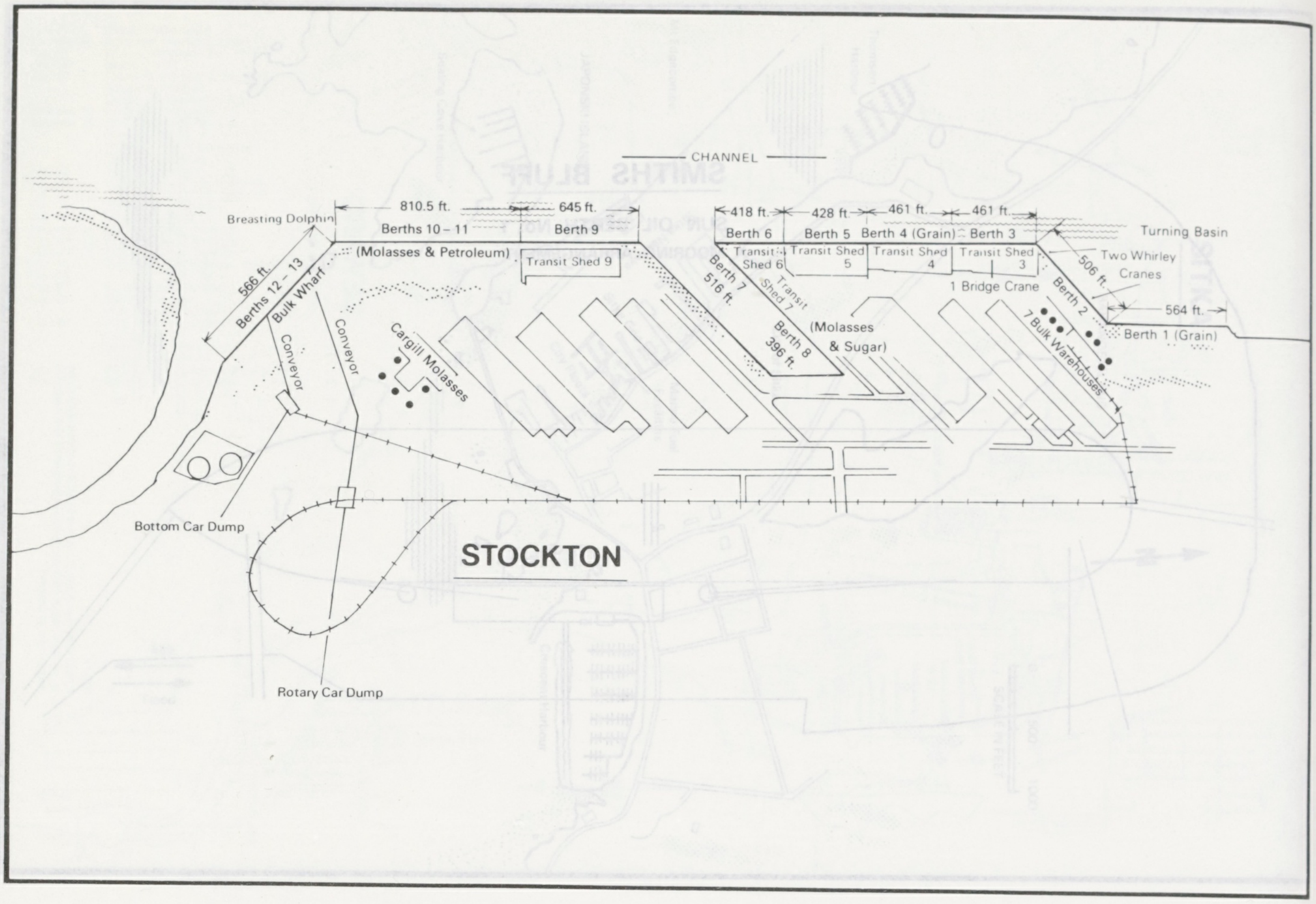
MOORING ARRANGEMENT

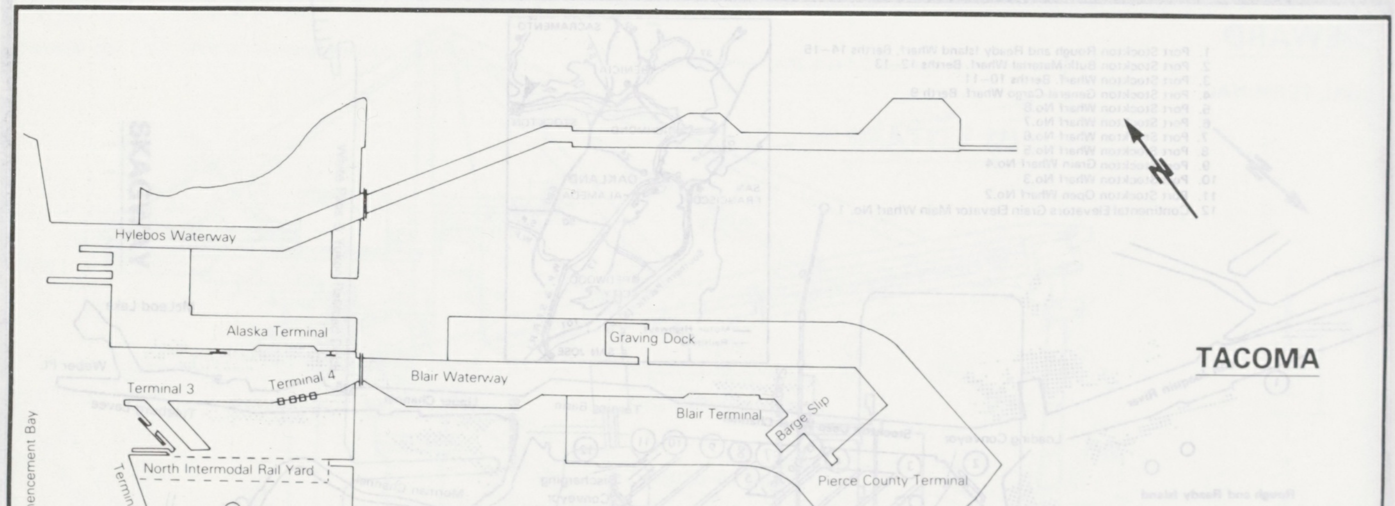


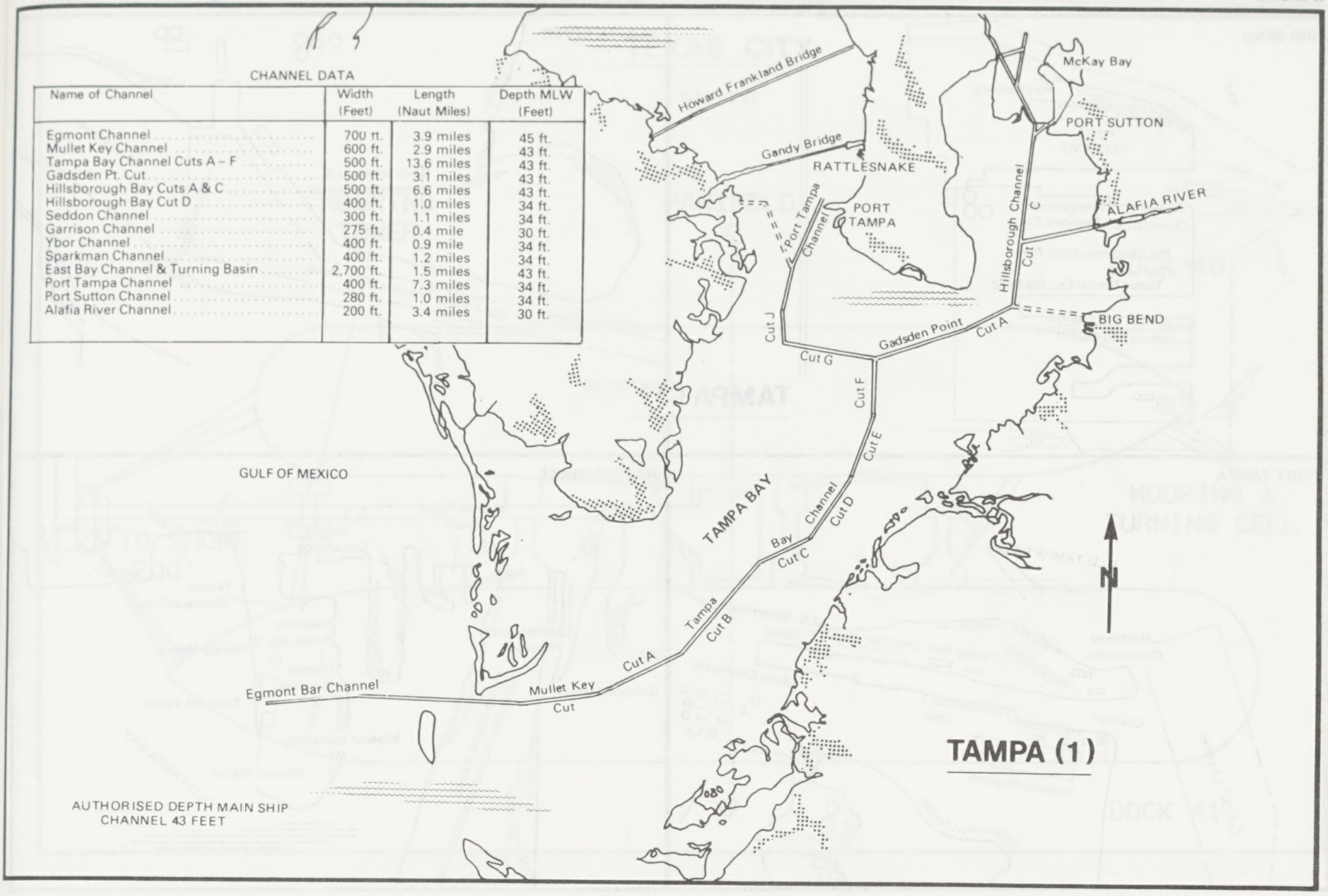
1. Port Stockton Rough and Ready Island Wharf, Berths 14–15
2. Port Stockton Bulk-Material Wharf, Berths 12–13
3. Port Stockton Wharf, Berths 10–11
4. Port Stockton General-Cargo Wharf, Berth 9
5. Port Stockton Wharf No.8
6. Port Stockton Wharf No.7
7. Port Stockton Wharf No.6
8. Port Stockton Wharf No.5
9. Port Stockton Grain Wharf No.4
10. Port Stockton Wharf No.3
11. Port Stockton Open Wharf No.2
12. Continental Elevators Grain Elevator Main Wharf No. 1

SACRAMENTO
80
37
BENICIA
S.P.
STOCKTON
RICHMOND
101
24
SAN FRANCISCO
OAKLAND
ALAMEDA
680
50
S.P.
W.P.
Southern Pacific (S.P.)
17
W.P. & S.P.R.R.
REDWOOD CITY
101
SAN JOSE
Motor Highways
Railroads
San Joaquin River
Rough and Ready Island
Loading Conveyor
Stockton Deep Water Channel
Turning Basin
Upper Channel
McLeod Lake
Weber Pt.
Tuleburg Levee
Slip No 1
Discharging Conveyor
Morman Channel
Administration Area
McDougal Canal
San Joaquin River
1
2
3
4
5
6
7
8
9
10
11
12

STOCKTON


CHANNEL
Breasting Dolphin
810.5 ft.
645 ft.
418 ft.
428 ft.
461 ft.
461 ft.
Turning Basin
Berths 10 – 11
(Molasses & Petroleum)
Berth 9
Transit Shed 9
Berth 6
Transit Shed 6
Berth 5
Transit Shed 5
Berth 4 (Grain)
Transit Shed 4
Berth 3
Transit Shed 3
Two Whirley Cranes
1 Bridge Crane
506 ft.
Berth 2
564 ft.
Berth 1 (Grain)
7 Bulk Warehouses
Berth 7 516 ft.
Transit Shed 7
Berth 8 396 ft.
(Molasses & Sugar)
566 ft.
Berths 12 – 13
Bulk Wharf
Conveyor
Conveyor
Cargill Molasses
Bottom Car Dump
STOCKTON
Rotary Car Dump


Hylebos Waterway
Alaska Terminal
Graving Dock
TACOMA
Terminal 3
Terminal 4
Blair Waterway
Blair Terminal
Barge Slip
Commencement Bay
Terminal 7
North Intermodal Rail Yard
Pierce County Terminal
Sitcum Waterway
Tacoma Terminals
Puyallup River
□ Container Cranes
0
100
SCALE OF METRES

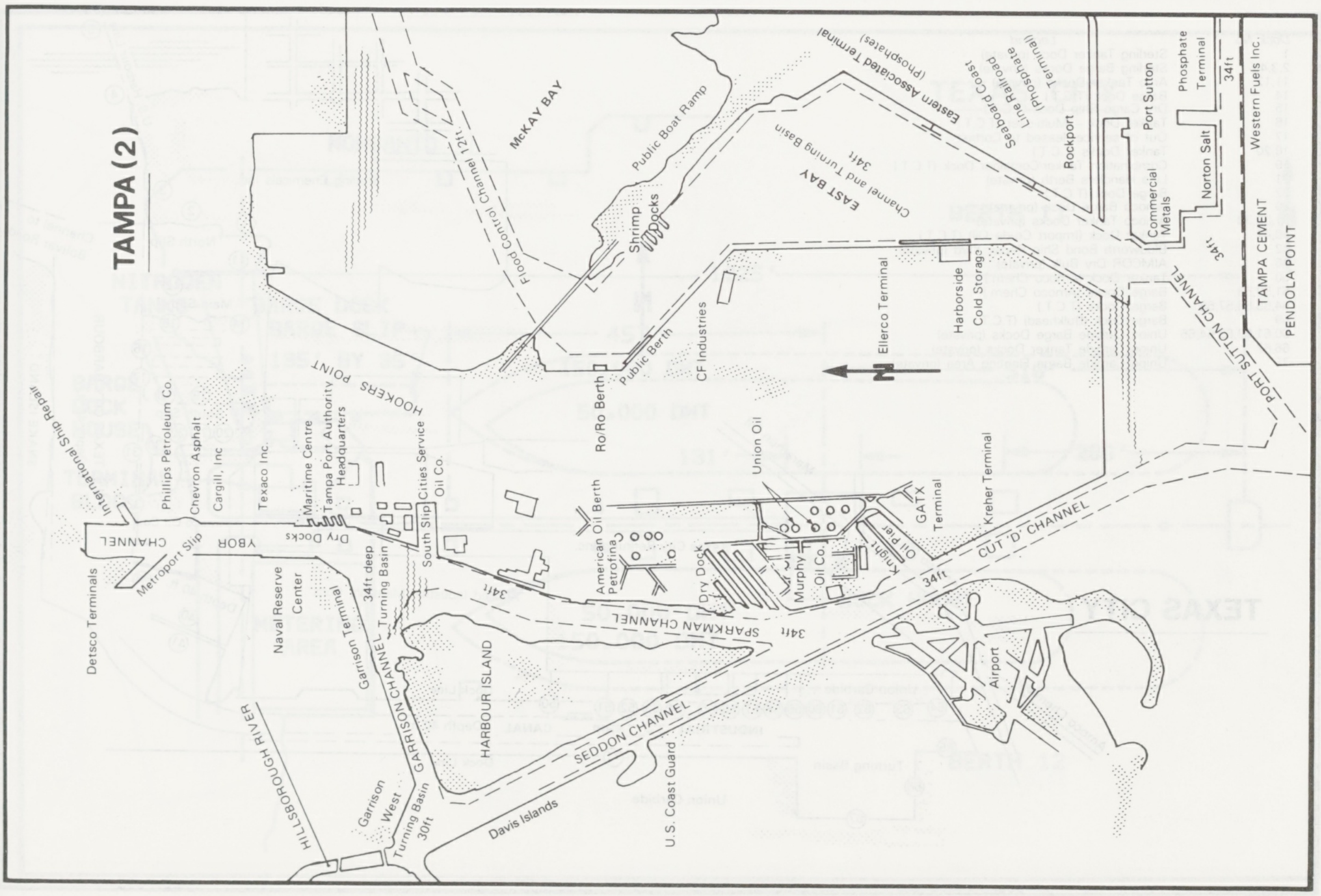

Howard Frankland Bridge
Gandy Bridge
RATTLESNAKE
PORT TAMPA
Port Tampa Channel
McKay Bay
PORT SUTTON
ALAFIA RIVER
Hillsborough Channel
Cut C
BIG BEND
Cut J
Cut G
Gadsden Point
Cut A
Cut F
Cut E
Cut D
Cut C
Cut B
Cut A
Tampa Bay Channel
TAMPA BAY
GULF OF MEXICO
Egmont Bar Channel
Mullet Key Cut
N

CHANNEL DATA

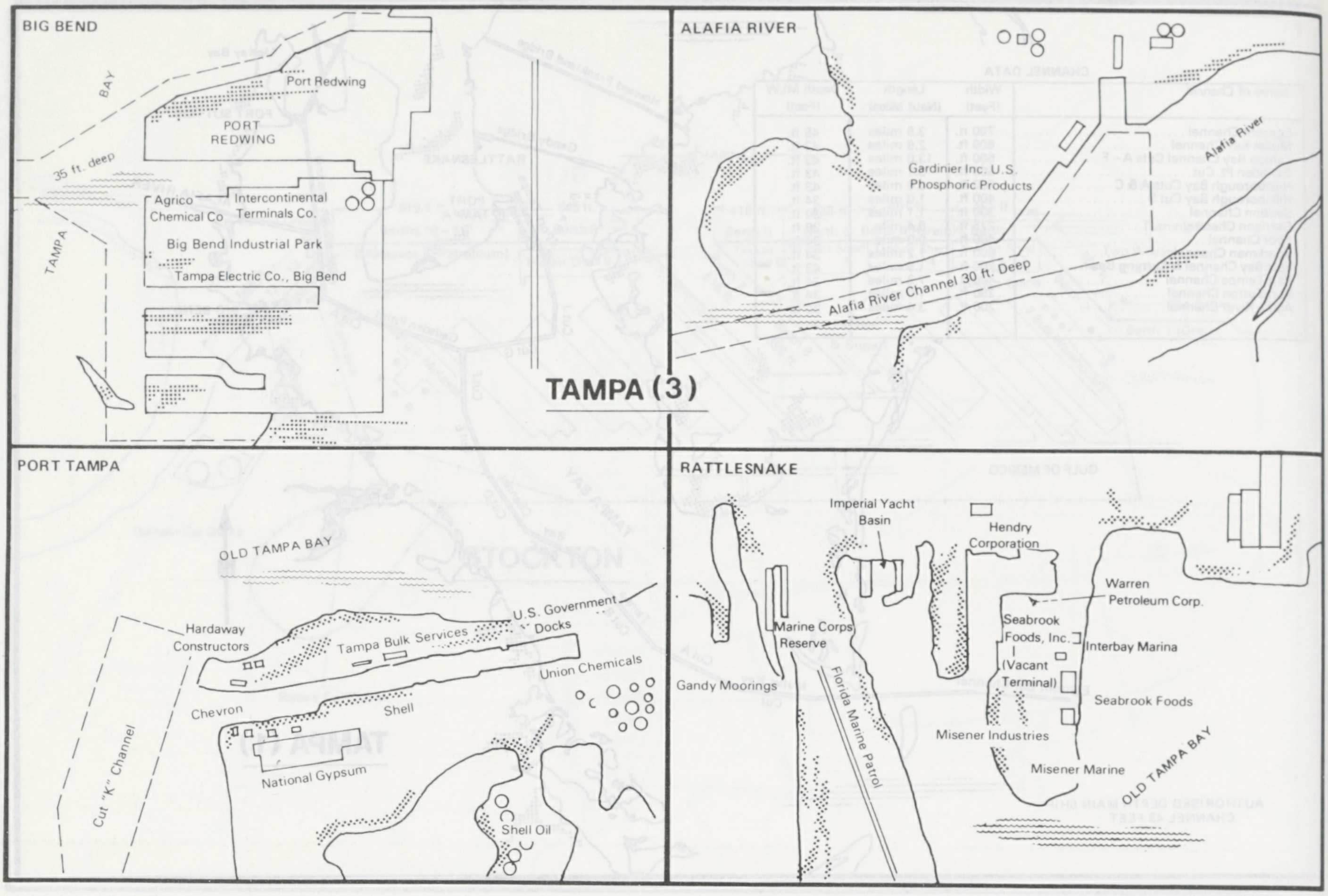
Name of Channel	Width (Feet)	Length (Naut Miles)	Depth MLW (Feet)
Egmont Channel	700 ft.	3.9 miles	45 ft.
Mullet Key Channel	600 ft.	2.9 miles	43 ft.
Tampa Bay Channel Cuts A – F	500 ft.	13.6 miles	43 ft.
Gadsden Pt. Cut	500 ft.	3.1 miles	43 ft.
Hillsborough Bay Cuts A & C	500 ft.	6.6 miles	43 ft.
Hillsborough Bay Cut D	400 ft.	1.0 miles	34 ft.
Seddon Channel	300 ft.	1.1 miles	34 ft.
Garrison Channel	275 ft.	0.4 mile	30 ft.
Ybor Channel	400 ft.	0.9 mile	34 ft.
Sparkman Channel	400 ft.	1.2 miles	34 ft.
East Bay Channel & Turning Basin	2,700 ft.	1.5 miles	43 ft.
Port Tampa Channel	400 ft.	7.3 miles	34 ft.
Port Sutton Channel	280 ft.	1.0 miles	34 ft.
Alafia River Channel	200 ft.	3.4 miles	30 ft.

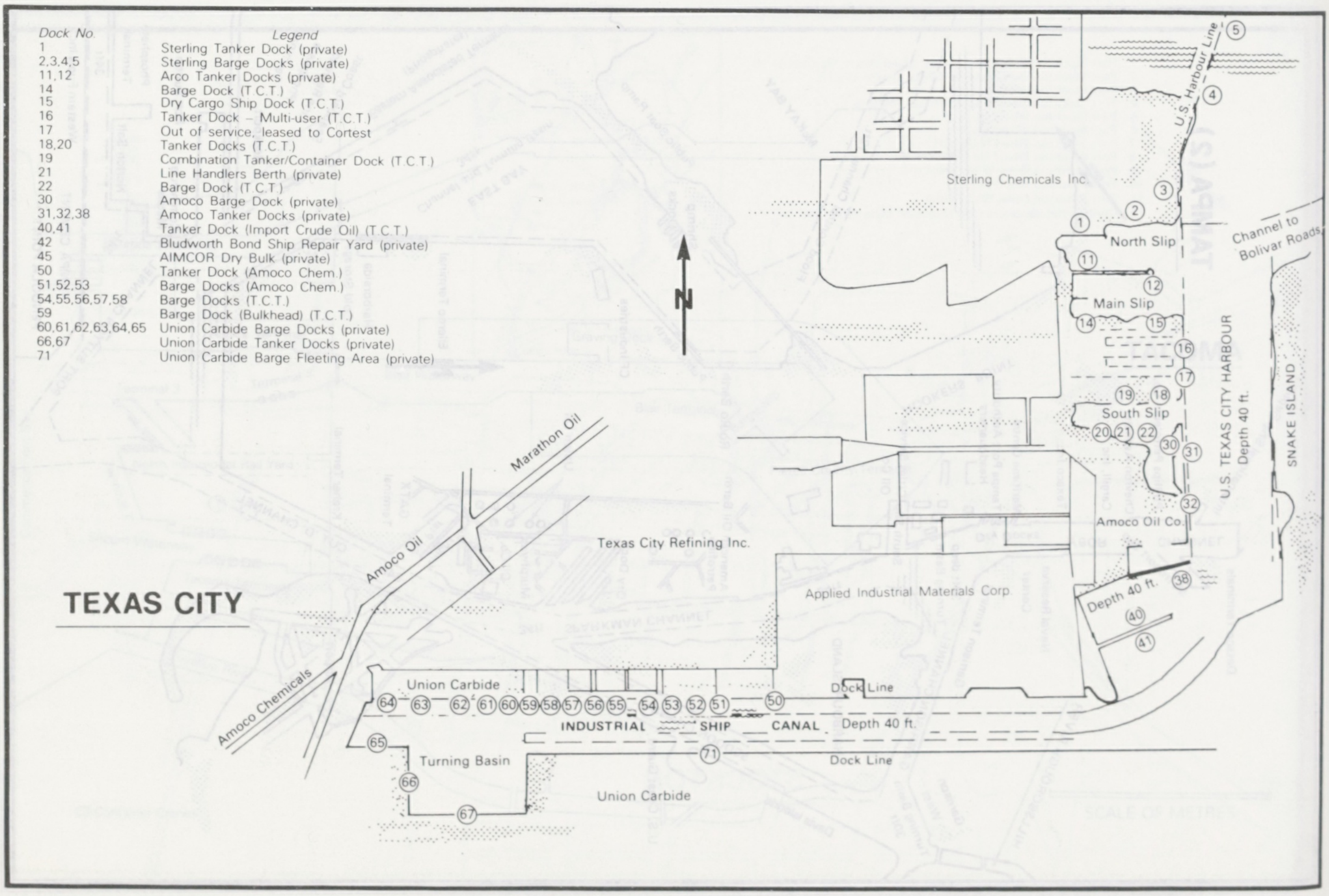
AUTHORISED DEPTH MAIN SHIP CHANNEL 43 FEET

TAMPA (1)


Eastern Associated Terminal (Phosphates)
Seaboard Coast Line Railroad (Phosphate Terminal)
Rockport
Port Sutton
Phosphate Terminal
Commercial Metals
Norton Salt
34ft
Western Fuels Inc.
TAMPA CEMENT
PENDOLA POINT
PORT SUTTON CHANNEL
34ft
McKAY BAY
Flood Control Channel 12ft
Public Boat Ramp
Shrimp Docks
EAST BAY
Channel and Turning Basin 34ft
Ellerco Terminal
Harborside Cold Storage
N
HOOKERS POINT
Ro/Ro Berth
Public Berth
CF Industries
Union Oil
International Ship Repair
Phillips Petroleum Co.
Chevron Asphalt
Cargill, Inc
Texaco Inc.
Maritime Centre
Tampa Port Authority Headquarters
Cities Service Oil Co.
American Oil Berth
Petrofina
Kreher Terminal
GATX Terminal
Knight Oil Pier
Murphy Oil Co.
Dry Dock
CUT 'D' CHANNEL
34ft
YBOR CHANNEL
Metroport Slip
Dry Docks
South Slip
34ft deep Turning Basin
34ft
SPARKMAN CHANNEL
34ft
Detsco Terminals
Naval Reserve Center
Garrison Terminal
GARRISON CHANNEL
HARBOUR ISLAND
Airport
SEDDON CHANNEL
HILLSBOROUGH RIVER
Garrison West Turning Basin 30ft
Davis Islands
U.S. Coast Guard

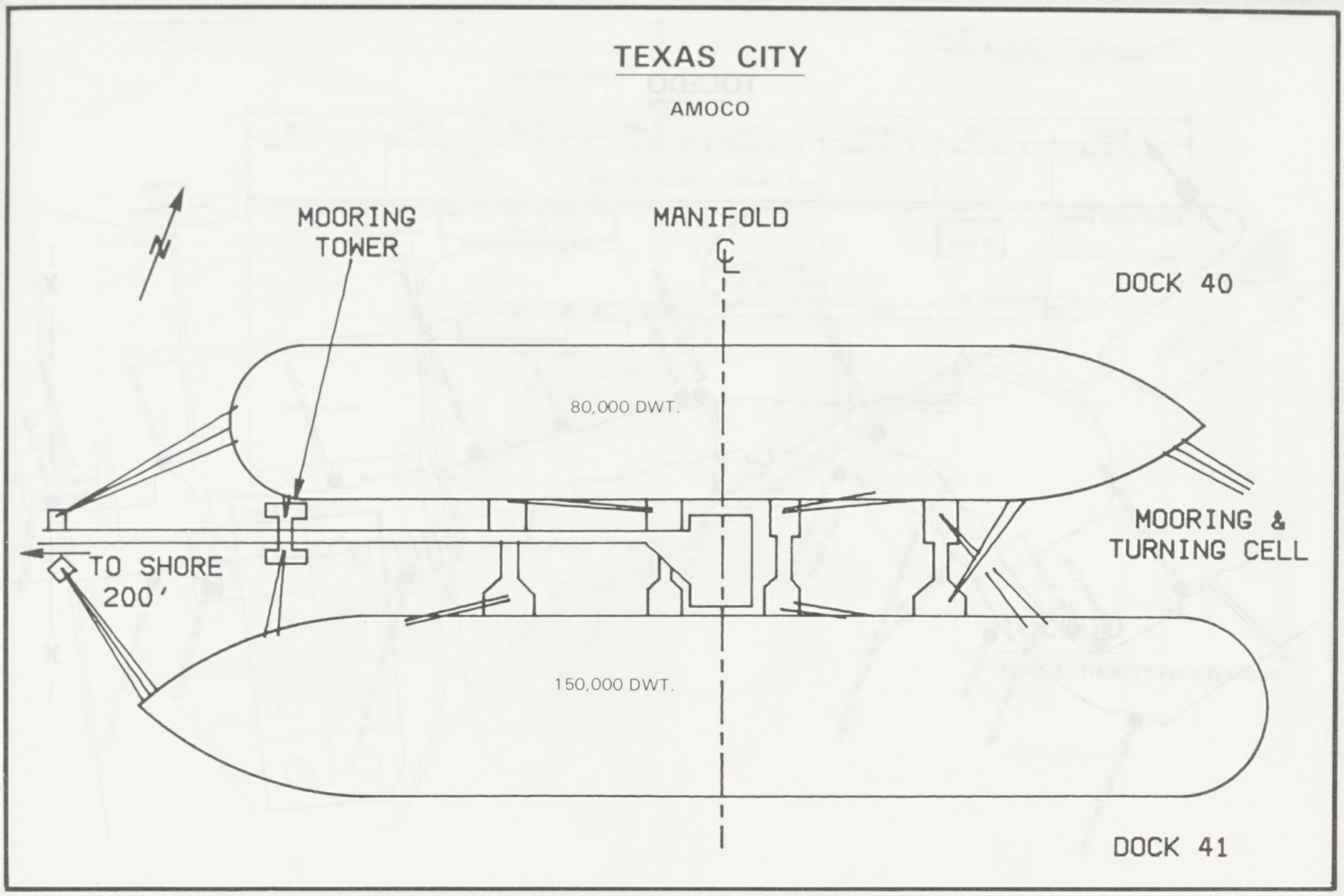
TAMPA (2)

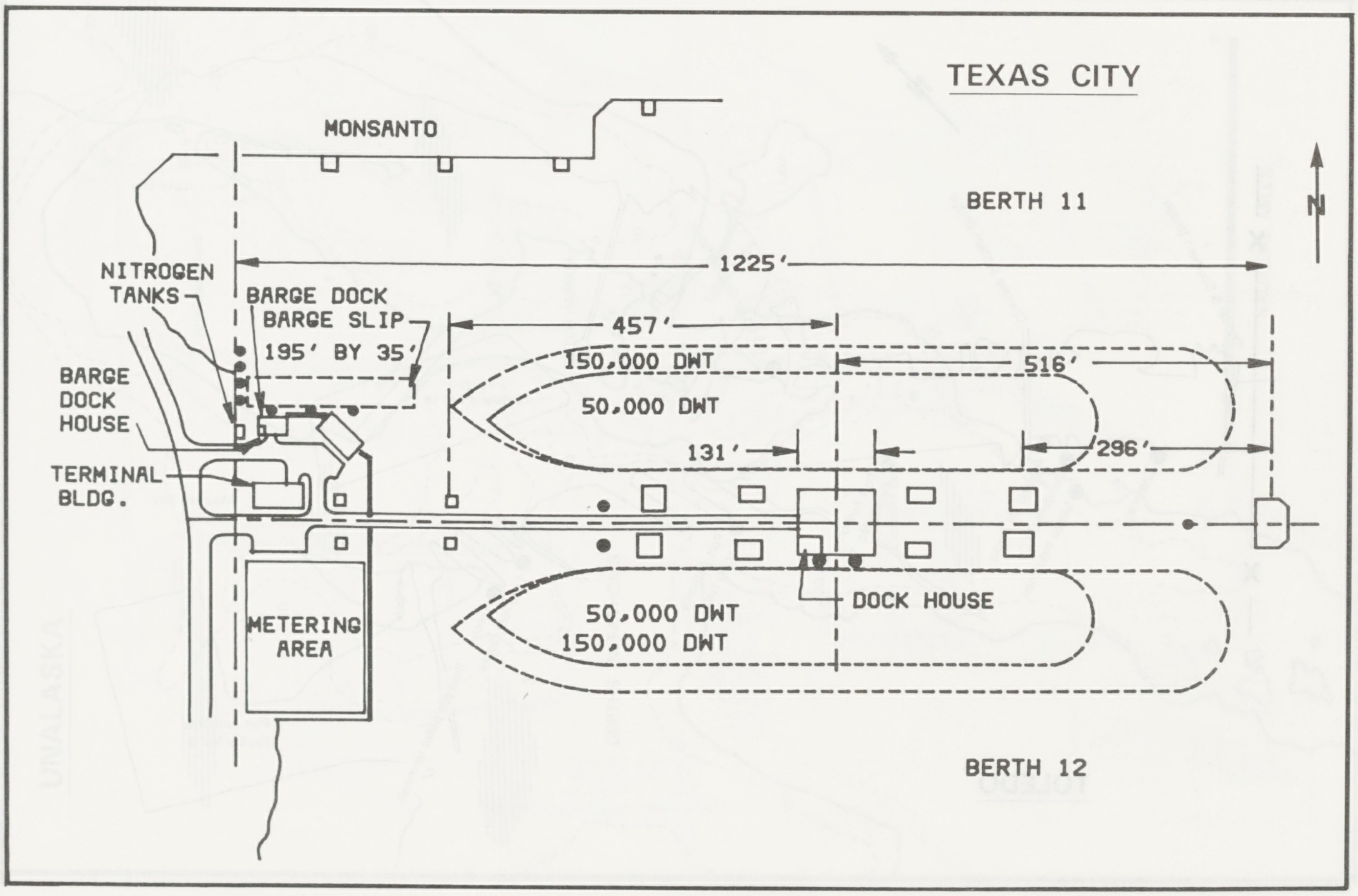

TAMPA (3)
BIG BEND
BAY
Port Redwing
PORT
REDWING
35 ft. deep
Agrico
Chemical Co.
Intercontinental
Terminals Co.
Big Bend Industrial Park
Tampa Electric Co., Big Bend
TAMPA
ALAFIA RIVER
Gardinier Inc. U.S.
Phosphoric Products
Alafia River
Alafia River Channel 30 ft. Deep
PORT TAMPA
OLD TAMPA BAY
Hardaway
Constructors
Tampa Bulk Services
U.S. Government
Docks
Union Chemicals
Chevron
Shell
National Gypsum
Shell Oil
Cut "K" Channel
RATTLESNAKE
Imperial Yacht
Basin
Hendry
Corporation
Warren
Petroleum Corp.
Seabrook
Foods, Inc.
Interbay Marina
(Vacant
Terminal)
Seabrook Foods
Marine Corps
Reserve
Gandy Moorings
Florida Marine Patrol
Misener Industries
Misener Marine
OLD TAMPA BAY

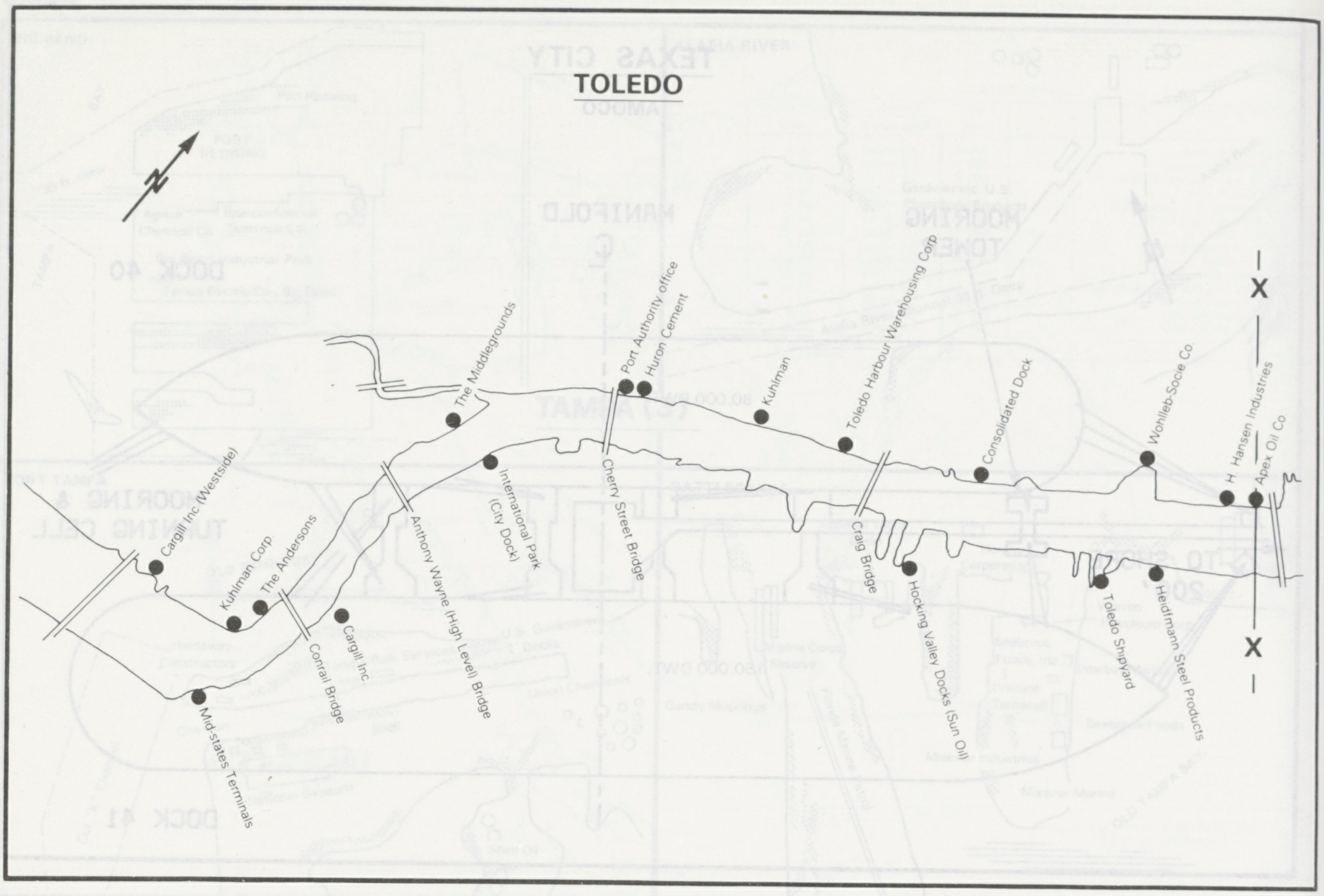


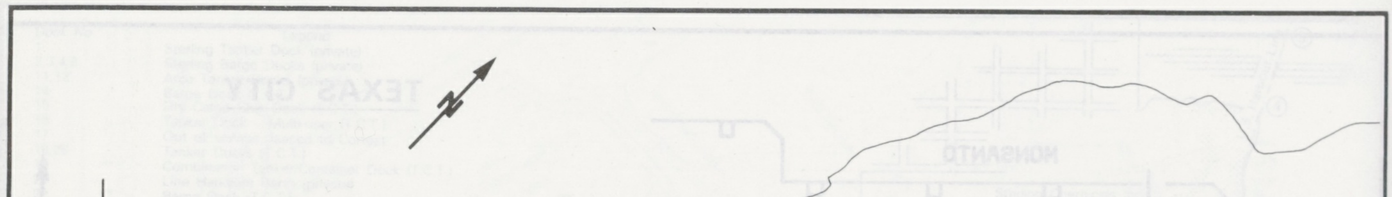
Dock No.	*Legend*
1	Sterling Tanker Dock (private)
2,3,4,5	Sterling Barge Docks (private)
11,12	Arco Tanker Docks (private)
14	Barge Dock (T.C.T.)
15	Dry Cargo Ship Dock (T.C.T.)
16	Tanker Dock – Multi-user (T.C.T.)
17	Out of service, leased to Cortest
18,20	Tanker Docks (T.C.T.)
19	Combination Tanker/Container Dock (T.C.T.)
21	Line Handlers Berth (private)
22	Barge Dock (T.C.T.)
30	Amoco Barge Dock (private)
31,32,38	Amoco Tanker Docks (private)
40,41	Tanker Dock (Import Crude Oil) (T.C.T.)
42	Bludworth Bond Ship Repair Yard (private)
45	AIMCOR Dry Bulk (private)
50	Tanker Dock (Amoco Chem.)
51,52,53	Barge Docks (Amoco Chem.)
54,55,56,57,58	Barge Docks (T.C.T.)
59	Barge Dock (Bulkhead) (T.C.T.)
60,61,62,63,64,65	Union Carbide Barge Docks (private)
66,67	Union Carbide Tanker Docks (private)
71	Union Carbide Barge Fleeting Area (private)

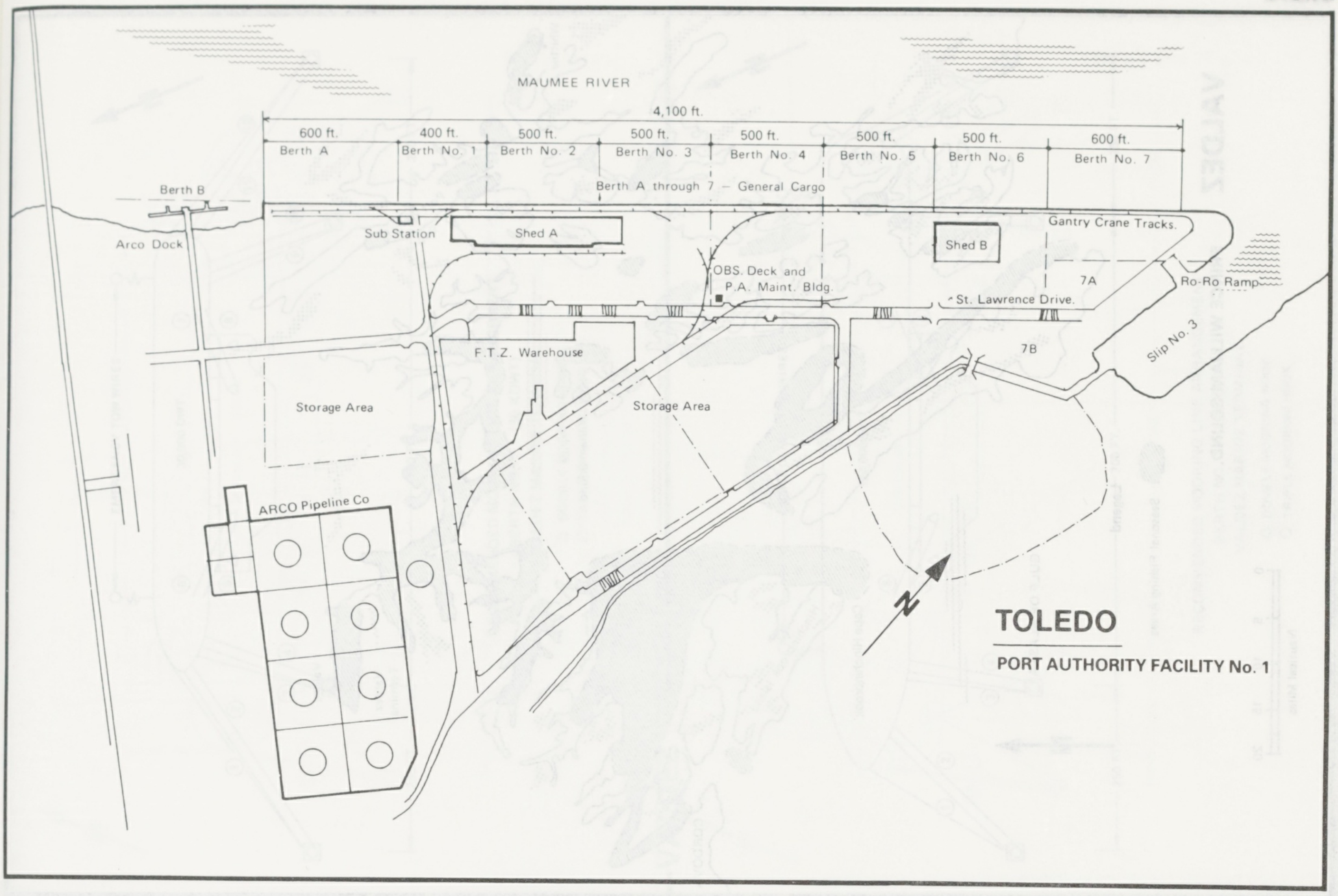
TEXAS CITY
N
Sterling Chemicals Inc.
U.S. Harbour Line
Channel to
Bolivar Roads
North Slip
Main Slip
South Slip
U.S. TEXAS CITY HARBOUR
Depth 40 ft.
SNAKE ISLAND
Amoco Oil Co.
Depth 40 ft.
Marathon Oil
Amoco Oil
Texas City Refining Inc.
Applied Industrial Materials Corp.
Amoco Chemicals
Union Carbide
Dock Line
INDUSTRIAL SHIP CANAL
Depth 40 ft.
Turning Basin
Dock Line
Union Carbide
⑤
④
③
②
①
⑪
⑫
⑭
⑮
⑯
⑰
⑲
⑱
⑳
㉑
㉒
㉚
㉛
㉜
㊳
㊵
㊶
㊿
(51)
(52)
(53)
(54)
(55)
(56)
(57)
(58)
(59)
(60)
(61)
(62)
(63)
(64)
(65)
(66)
(67)
(71)


TEXAS CITY
AMOCO
N
MOORING TOWER
MANIFOLD
℄
DOCK 40
80,000 DWT.
MOORING & TURNING CELL
TO SHORE 200′
150,000 DWT.
DOCK 41


TEXAS CITY
MONSANTO
BERTH 11
N
1225′
NITROGEN TANKS
BARGE DOCK
BARGE SLIP
195′ BY 35′
457′
150,000 DWT
516′
BARGE DOCK HOUSE
50,000 DWT
131′
296′
TERMINAL BLDG.
DOCK HOUSE
METERING AREA
50,000 DWT
150,000 DWT
BERTH 12

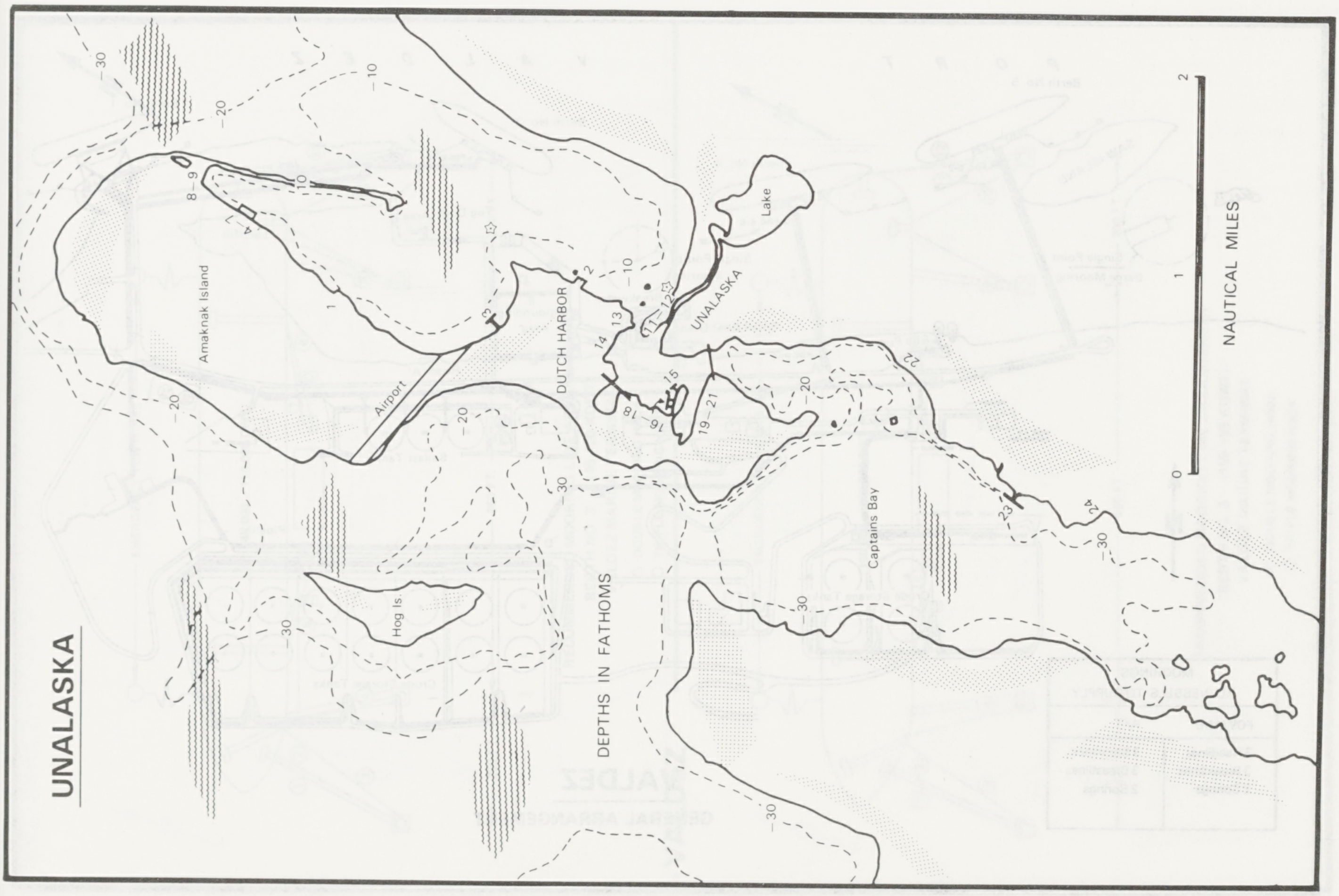

TOLEDO
Cargill Inc (Westside)
Kuhlman Corp
The Andersons
Conrail Bridge
Cargill Inc
Mid-states Terminals
Anthony Wayne (High Level) Bridge
The Middlegrounds
International Park (City Dock)
Cherry Street Bridge
Port Authority office
Huron Cement
Kuhlman
Toledo Harbour Warehousing Corp
Craig Bridge
Hocking Valley Docks (Sun Oil)
Consolidated Dock
Toledo Shipyard
Wohlleb-Socie Co
Heidtmann Steel Products
H. Hansen Industries
Apex Oil Co
X
X


X
X
Norfolk & Southern Bridge
Chessie System Bridge
Chevron
Standard Oil Co
Merce Industries
Ashland Oil Docks
Port Authority Facility No. 1
US Coast Guard Station
Port Authority Facility No. 2
Island No. 18
Lake Erie
Maumee Bay
Lakefront Docks
Torco
(Iron ore pellet terminal)
Port Authority Facility No. 3
TOLEDO

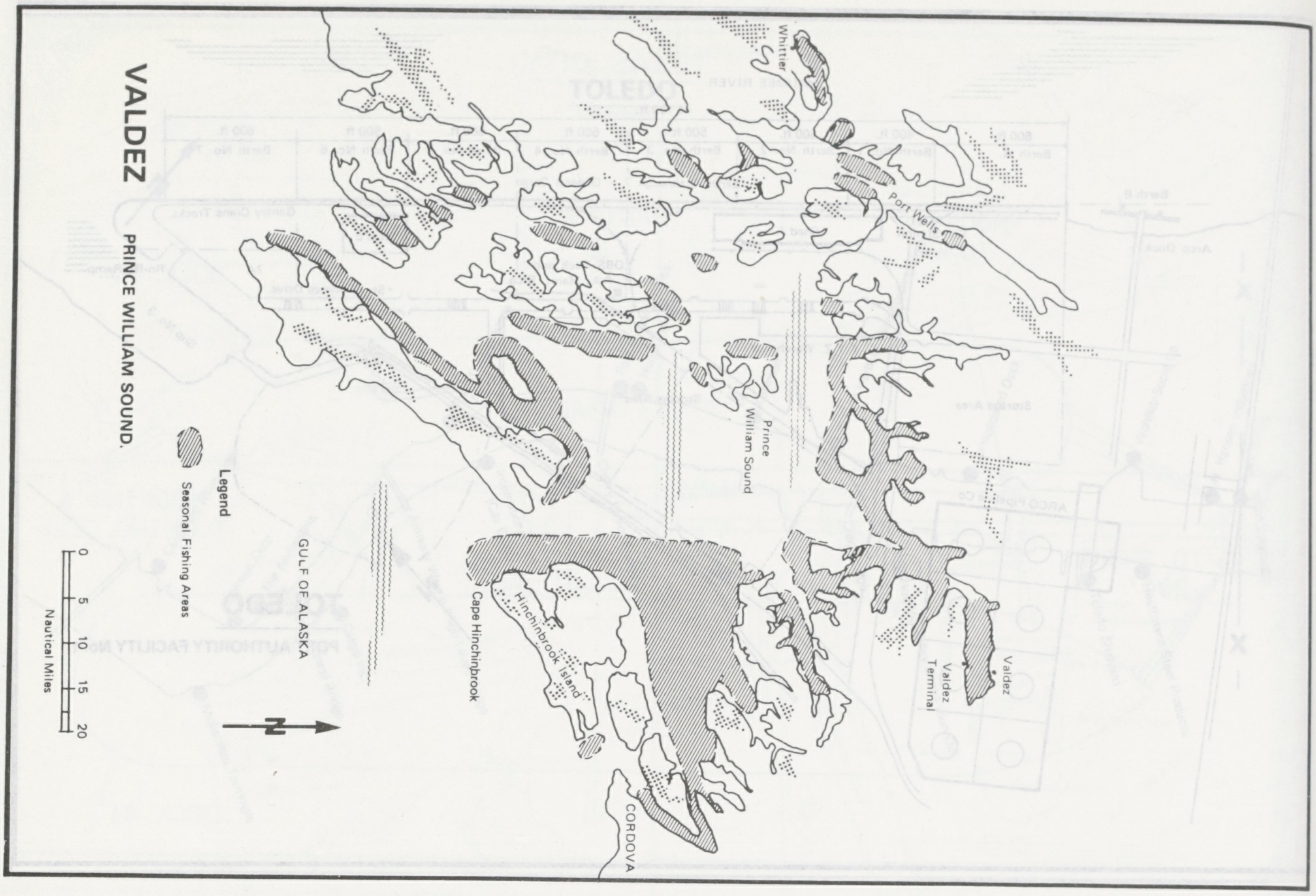

MAUMEE RIVER
4,100 ft.
600 ft.
Berth A
400 ft.
Berth No. 1
500 ft.
Berth No. 2
500 ft.
Berth No. 3
500 ft.
Berth No. 4
500 ft.
Berth No. 5
500 ft.
Berth No. 6
600 ft.
Berth No. 7
Berth A through 7 – General Cargo
Berth B
Arco Dock
Sub Station
Shed A
Shed B
Gantry Crane Tracks.
OBS. Deck and
P.A. Maint. Bldg.
St. Lawrence Drive.
7A
7B
Ro-Ro Ramp
Slip No. 3
F.T.Z. Warehouse
Storage Area
Storage Area
ARCO Pipeline Co
N

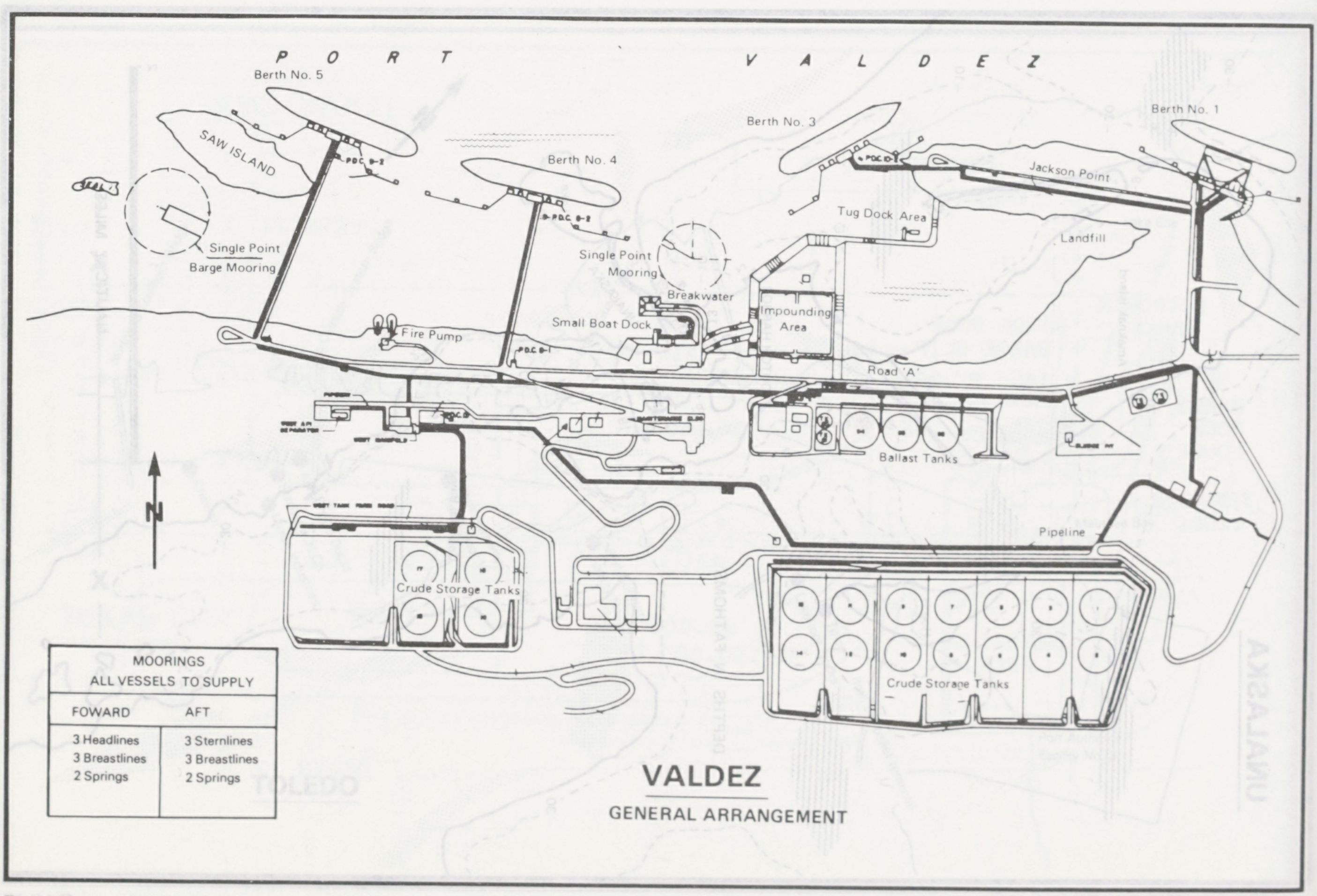
TOLEDO

PORT AUTHORITY FACILITY No. 1


Amaknak Island
Airport
DUTCH HARBOR
UNALASKA
Lake
Captains Bay
Hog Is.
1
2
3
4–7
8–9
10
11–12
13
14
15
16–18
19–21
22
23
24
–10
–20
–30
0
1
2
NAUTICAL MILES
DEPTHS IN FATHOMS

UNALASKA

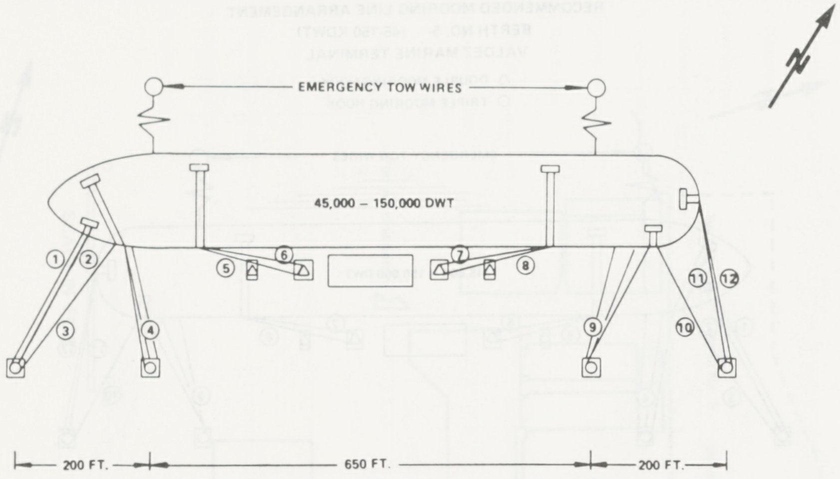

VALDEZ
PRINCE WILLIAM SOUND.
Legend
Seasonal Fishing Areas
0
5
10
15
20
Nautical Miles
N
GULF OF ALASKA
Cape Hinchinbrook
Hinchinbrook Island
CORDOVA
Prince William Sound
Whittier
Port Wells
Valdez
Valdez Terminal


P O R T
V A L D E Z
Berth No. 5
Berth No. 4
Berth No. 3
Berth No. 1
SAW ISLAND
Jackson Point
Single Point Barge Mooring
Single Point Mooring
Tug Dock Area
Landfill
Breakwater
Impounding Area
Small Boat Dock
Fire Pump
Road 'A'
Ballast Tanks
Pipeline
Crude Storage Tanks
Crude Storage Tanks
N

MOORINGS ALL VESSELS TO SUPPLY	
FOWARD	AFT
3 Headlines 3 Breastlines 2 Springs	3 Sternlines 3 Breastlines 2 Springs

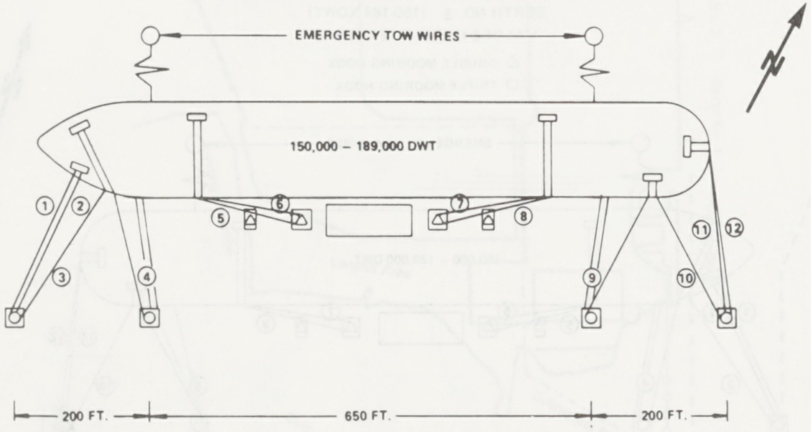
VALDEZ

GENERAL ARRANGEMENT


EMERGENCY TOW WIRES
45,000 – 150,000 DWT
1
2
3
4
5
6
7
8
9
10
11
12
200 FT.
650 FT.
200 FT.

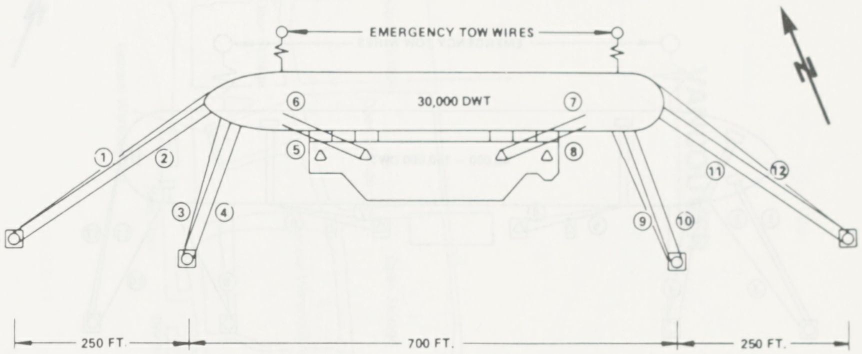
RECOMMENDED MOORING LINE ARRANGEMENT
BERTH NO. 3 (45-150 KDWT)
VALDEZ MARINE TERMINAL

△ DOUBLE MOORING HOOK
○ TRIPLE MOORING HOOK


EMERGENCY TOW WIRES
150,000 – 189,000 DWT
1
2
3
4
5
6
7
8
9
10
11
12
200 FT.
650 FT.
200 FT.

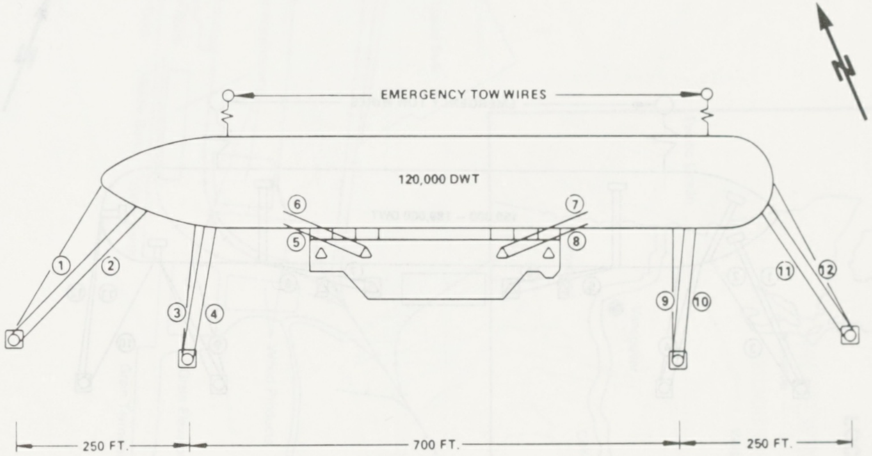
RECOMMENDED MOORING LINE ARRANGEMENT
BERTH NO. 3 (150-189 KDWT)
VALDEZ MARINE TERMINAL

△ DOUBLE MOORING HOOK
○ TRIPLE MOORING HOOK


EMERGENCY TOW WIRES
30,000 DWT
1
2
3
4
5
6
7
8
9
10
11
12
250 FT.
700 FT.
250 FT.

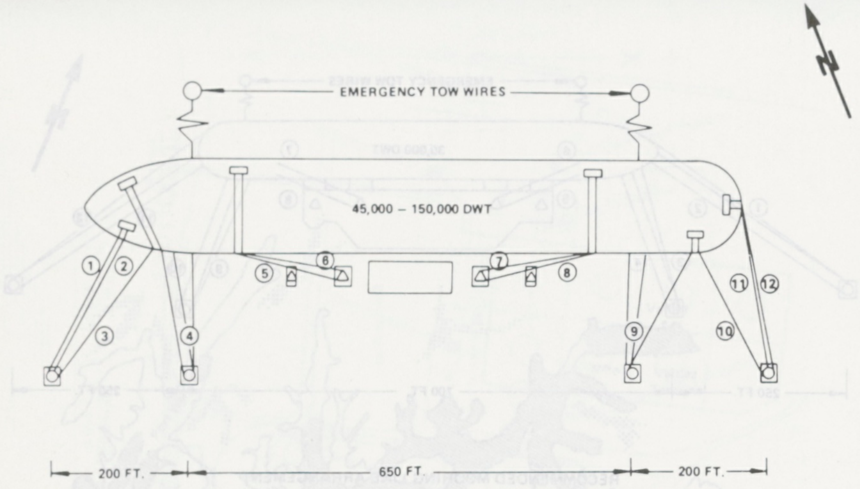
RECOMMENDED MOORING LINE ARRANGEMENT
BERTH NO. 1 (30 KDWT)
VALDEZ MARINE TERMINAL

△ DOUBLE MOORING HOOK
○ TRIPLE MOORING HOOK


EMERGENCY TOW WIRES
120,000 DWT
1
2
3
4
5
6
7
8
9
10
11
12
250 FT.
700 FT.
250 FT.

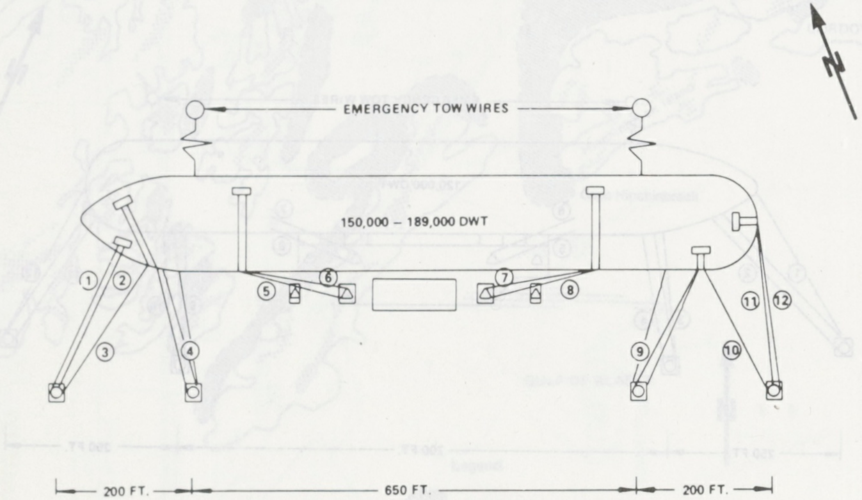
RECOMMENDED MOORING LINE ARRANGEMENT
BERTH NO. 1 (120 KDWT)
VALDEZ MARINE TERMINAL

△ DOUBLE MOORING HOOK
○ TRIPLE MOORING HOOK


EMERGENCY TOW WIRES
45,000 – 150,000 DWT
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫
200 FT.
650 FT.
200 FT.
N

RECOMMENDED MOORING LINE ARRANGEMENT
BERTH NO. 4 (45-150 KDWT)
VALDEZ MARINE TERMINAL

△ DOUBLE MOORING HOOK
○ TRIPLE MOORING HOOK

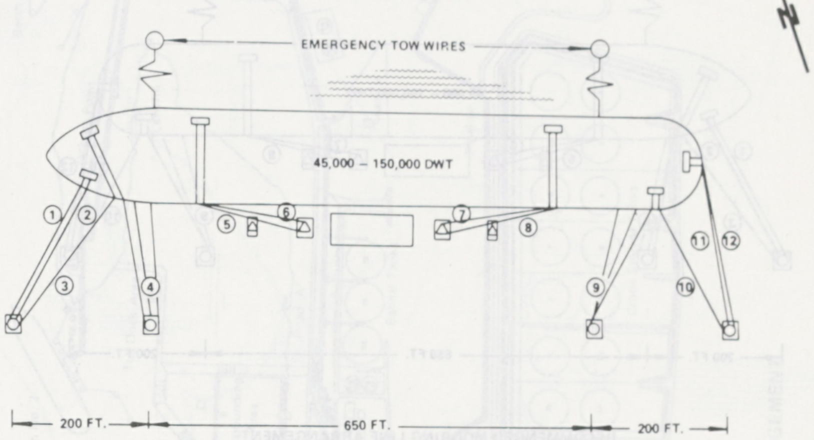

EMERGENCY TOW WIRES
150,000 – 189,000 DWT
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫
200 FT.
650 FT.
200 FT.
N

RECOMMENDED MOORING LINE ARRANGEMENT
BERTH NO. 4 (150-189 KDWT)
VALDEZ MARINE TERMINAL

△ DOUBLE MOORING HOOK
○ TRIPLE MOORING HOOK

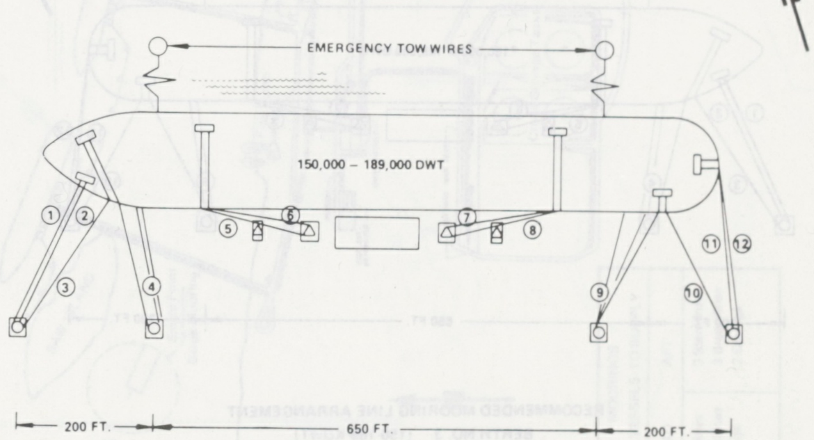
RECOMMENDED MOORING LINE ARRANGEMENT
BERTH NO. 5 (45-150 KDWT)
VALDEZ MARINE TERMINAL

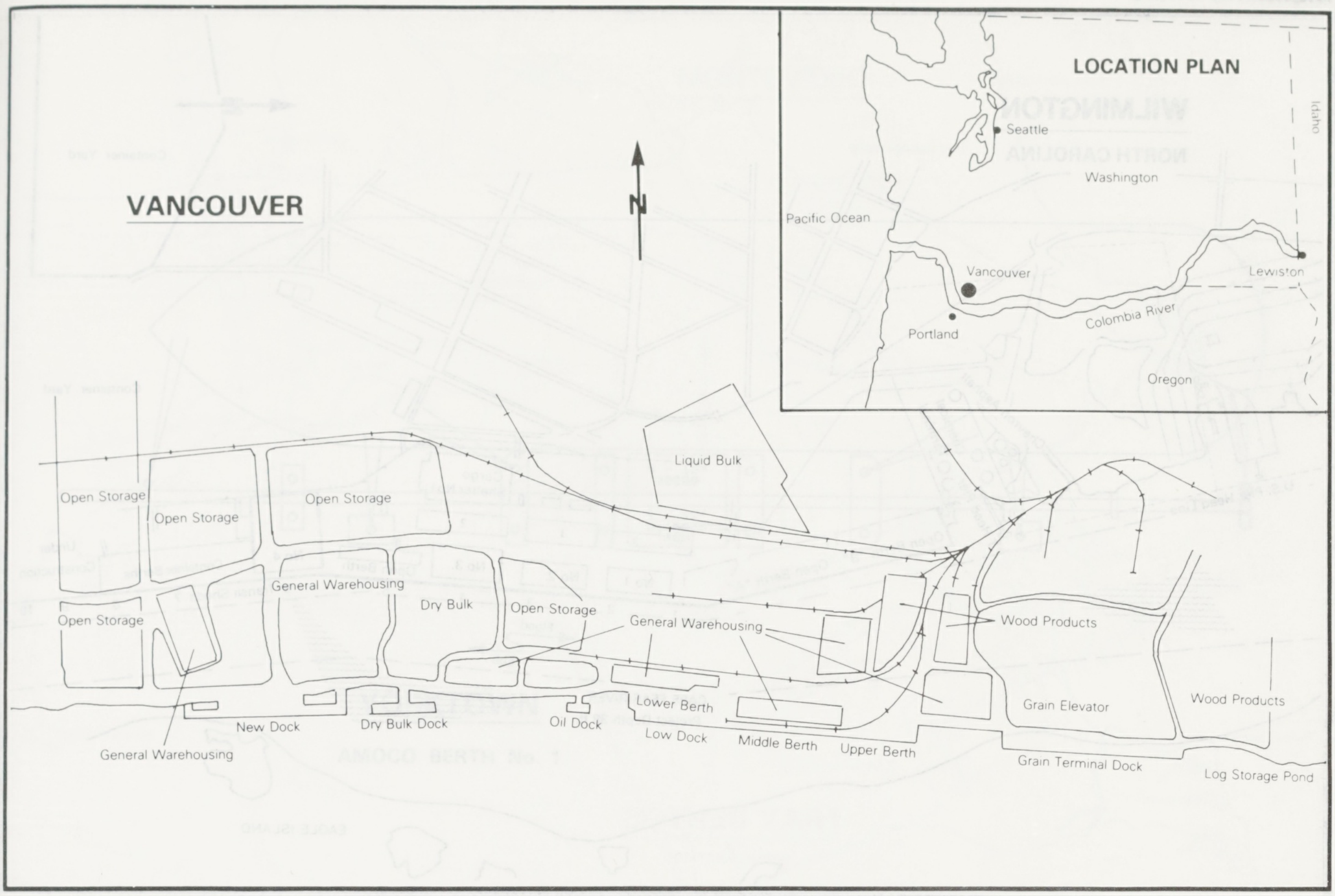
△ DOUBLE MOORING HOOK
○ TRIPLE MOORING HOOK

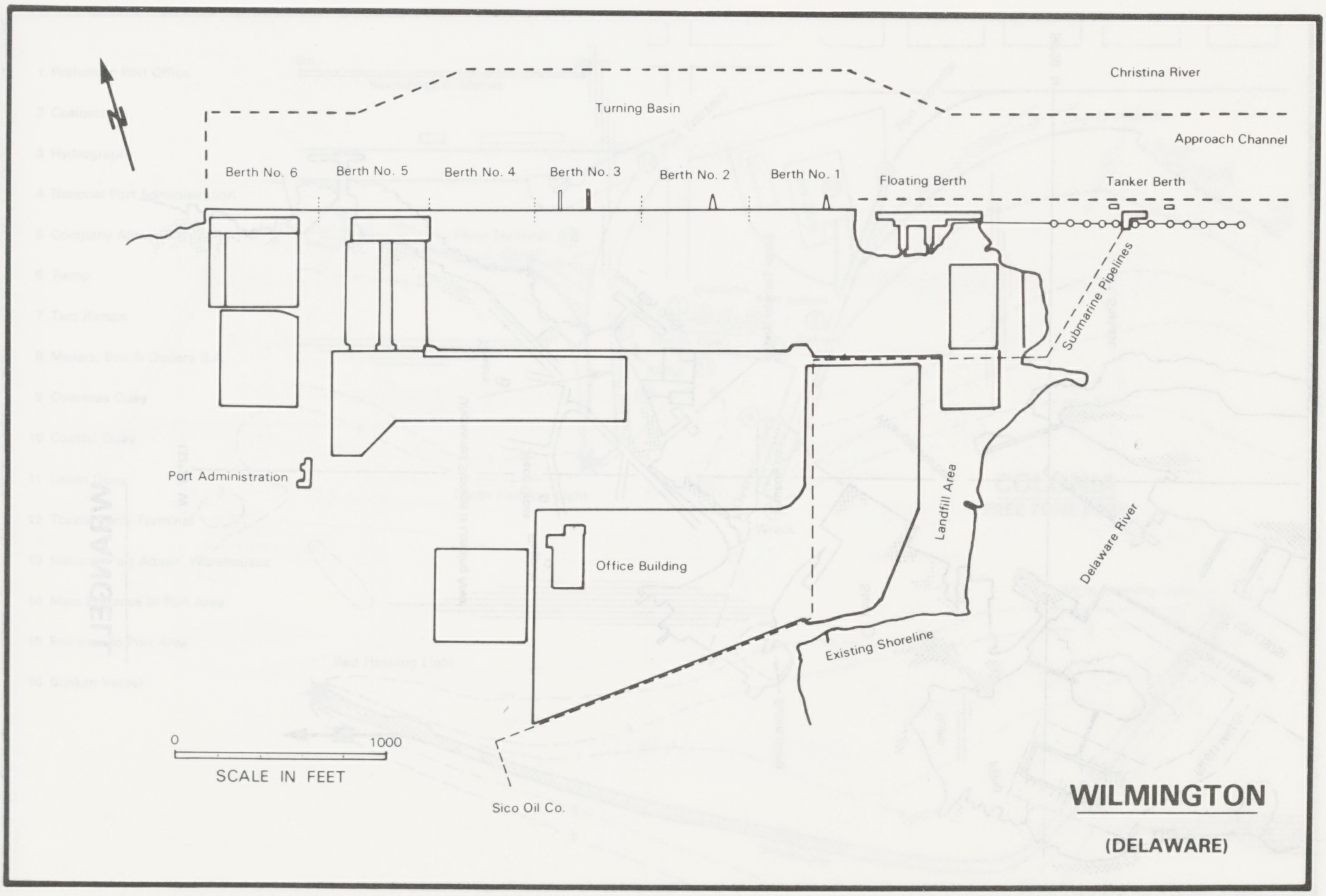

EMERGENCY TOW WIRES
45,000 – 150,000 DWT
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫
200 FT.
650 FT.
200 FT.
N

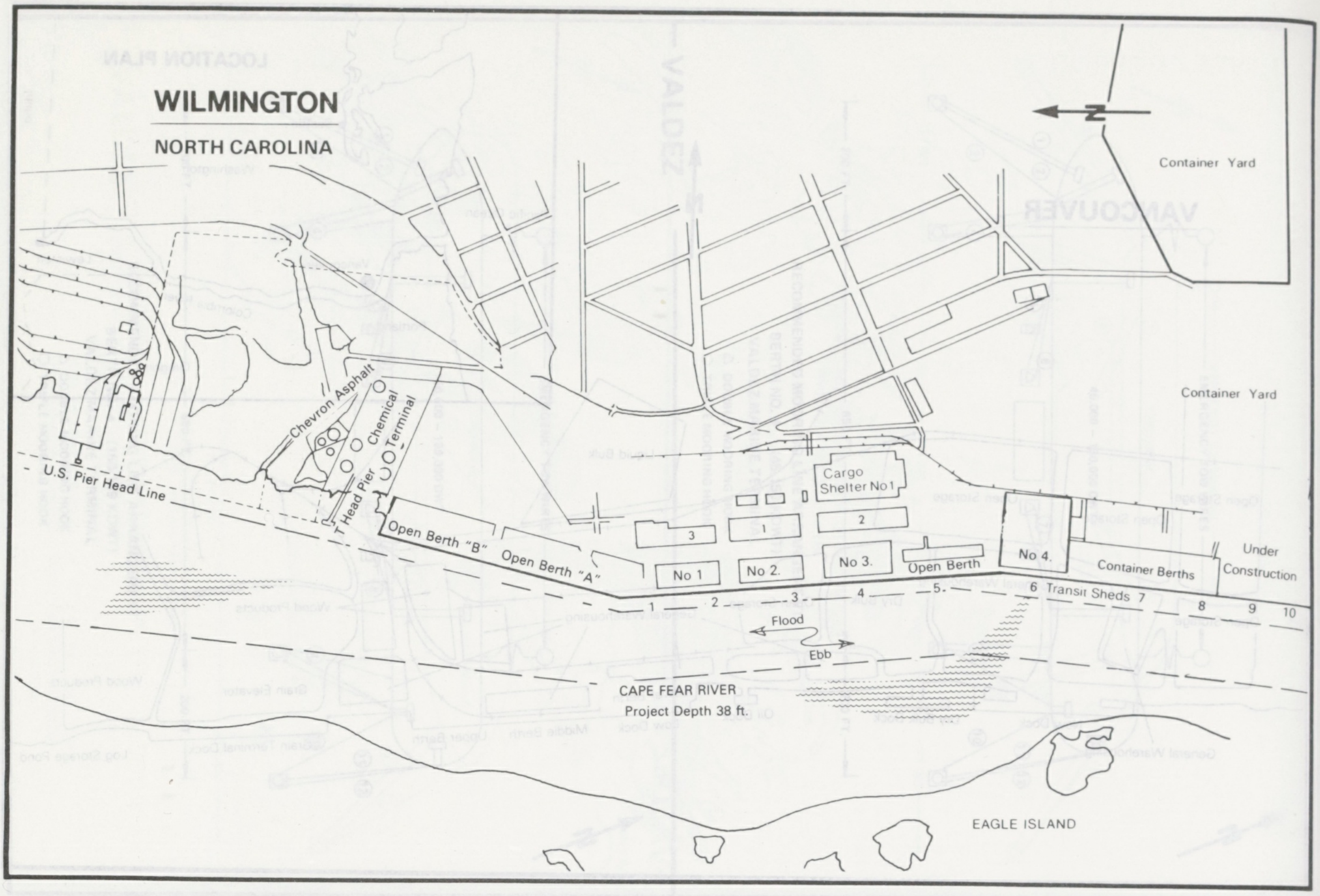
RECOMMENDED MOORING LINE ARRANGEMENT
BERTH NO. 5 (150-189 KDWT)
VALDEZ MARINE TERMINAL

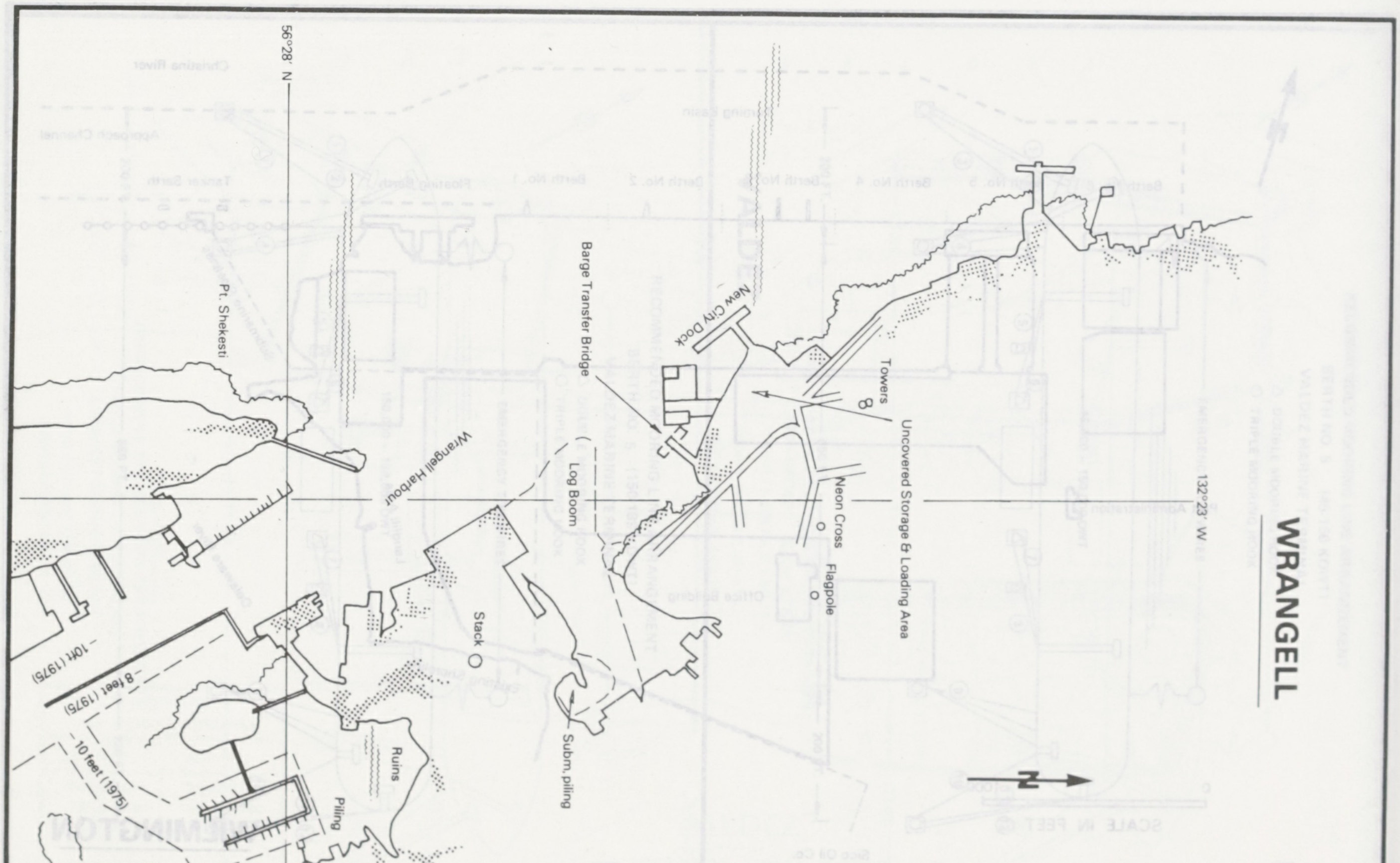
△ DOUBLE MOORING HOOK
○ TRIPLE MOORING HOOK

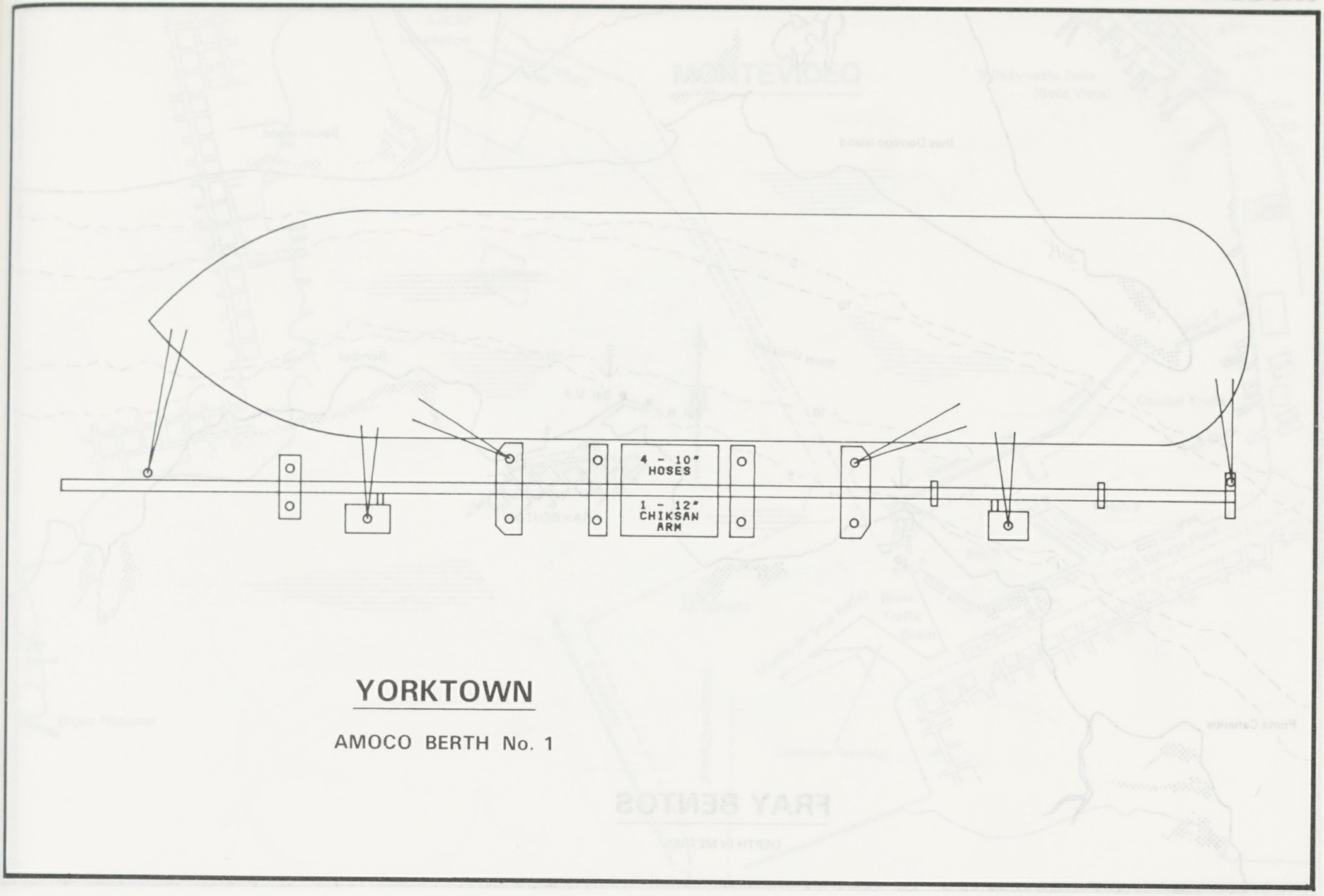

EMERGENCY TOW WIRES
150,000 – 189,000 DWT
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫
200 FT.
650 FT.
200 FT.
N


VANCOUVER
N
LOCATION PLAN
Seattle
Washington
Idaho
Pacific Ocean
Vancouver
Lewiston
Portland
Colombia River
Oregon
Liquid Bulk
Open Storage
Open Storage
Open Storage
Open Storage
General Warehousing
Dry Bulk
Open Storage
General Warehousing
Wood Products
Wood Products
Grain Elevator
New Dock
Dry Bulk Dock
Oil Dock
Lower Berth
Low Dock
Middle Berth
Upper Berth
Grain Terminal Dock
Log Storage Pond
General Warehousing


N
Christina River
Turning Basin
Approach Channel
Berth No. 6
Berth No. 5
Berth No. 4
Berth No. 3
Berth No. 2
Berth No. 1
Floating Berth
Tanker Berth
Submarine Pipelines
Port Administration
Landfill Area
Delaware River
Office Building
Existing Shoreline
0
1000
SCALE IN FEET
Sico Oil Co.
WILMINGTON
(DELAWARE)

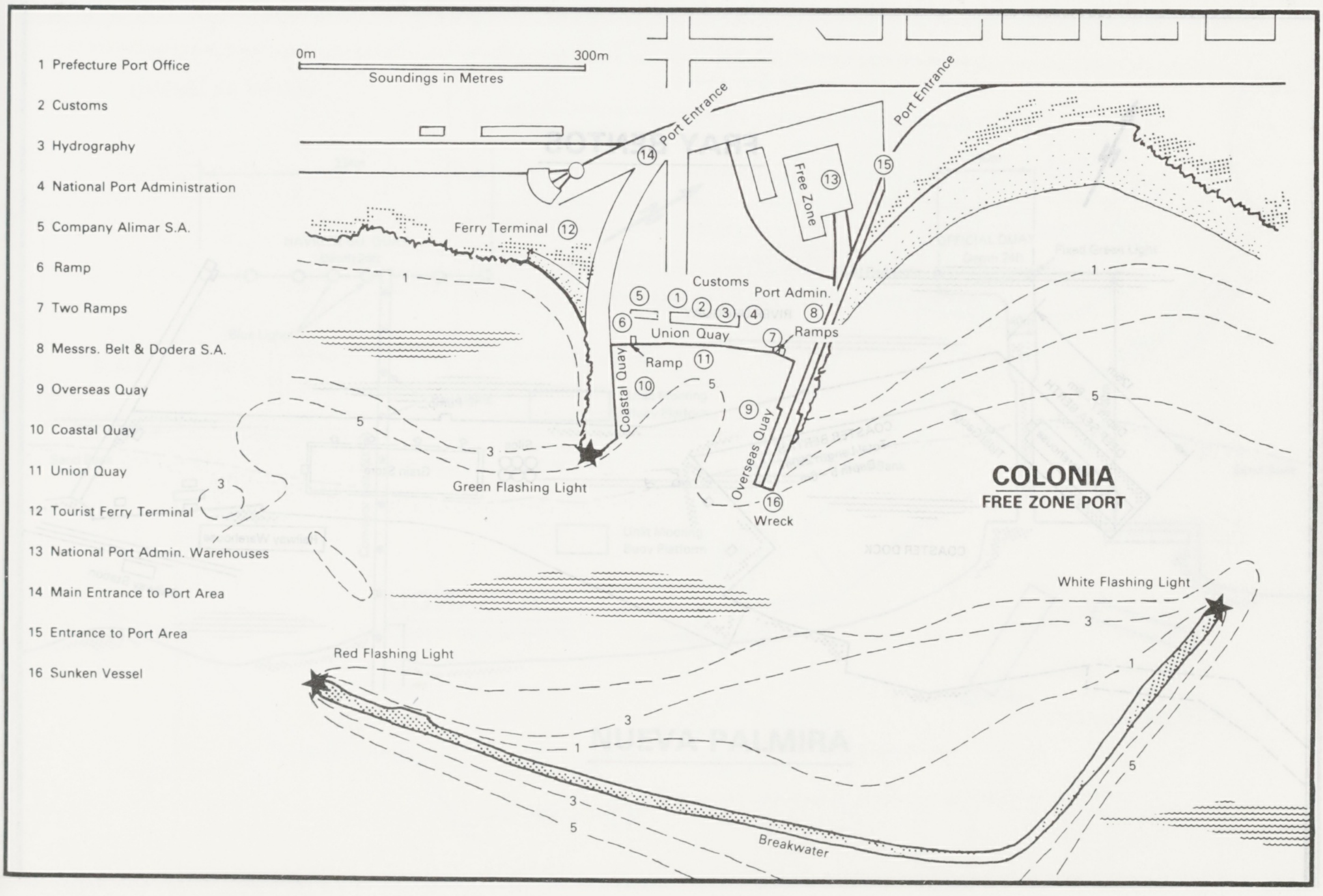

WILMINGTON
NORTH CAROLINA
N
Container Yard
Container Yard
Chevron Asphalt
Chemical
Terminal
T Head Pier
U.S. Pier Head Line
Open Berth "B"
Open Berth "A"
Cargo
Shelter No1
3
1
2
No 1
No 2.
No 3.
Open Berth
No 4.
Container Berths
Under
Construction
1
2
3
4
5
6
Transit Sheds
7
8
9
10
Flood
Ebb
CAPE FEAR RIVER
Project Depth 38 ft.
EAGLE ISLAND


WRANGELL
56°28' N
132°23' W
N
Pt. Shekesti
Wrangell Harbour
Barge Transfer Bridge
New City Dock
Towers
Uncovered Storage & Loading Area
Neon Cross
Flagpole
Log Boom
Stack
Ruins
Piling
Subm. piling
10ft (1975)
8 feet (1975)
10 feet (1975)


4 - 10" HOSES
1 - 12" CHIKSAN ARM

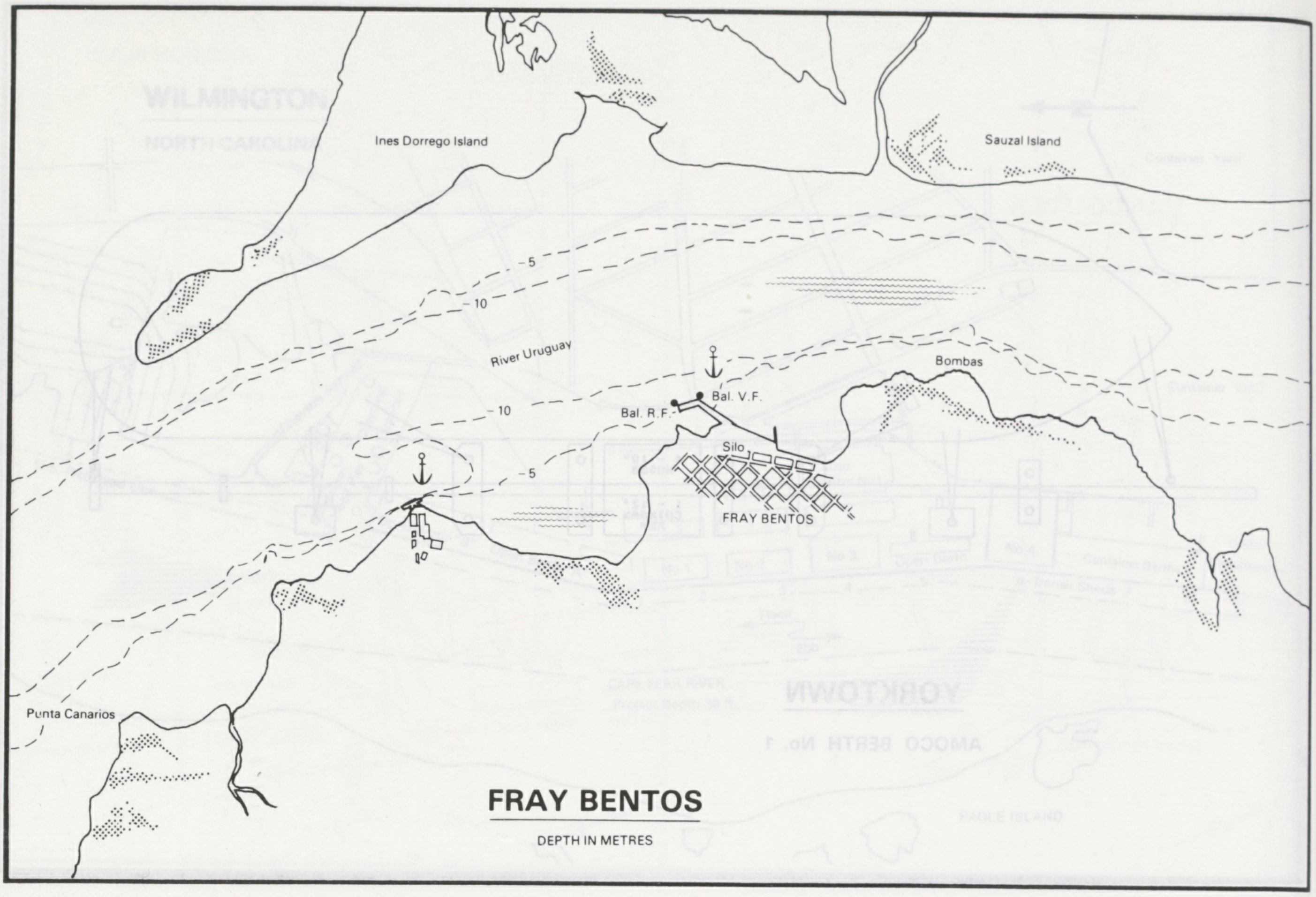
YORKTOWN

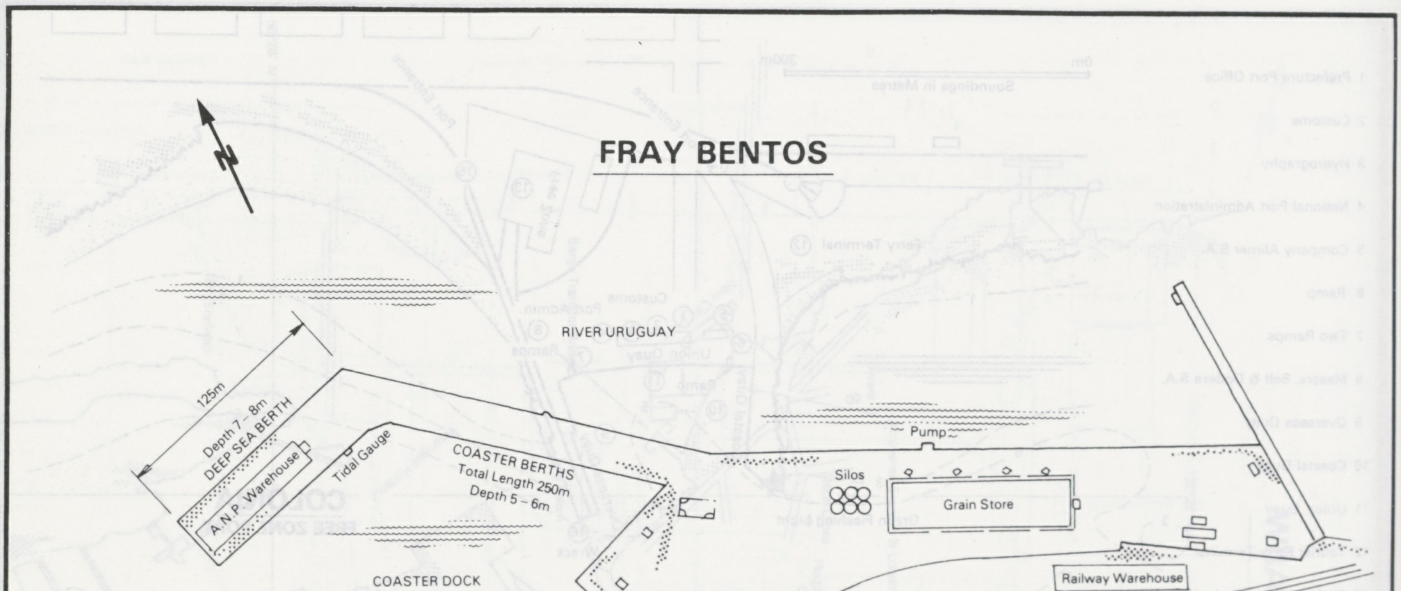
AMOCO BERTH No. 1

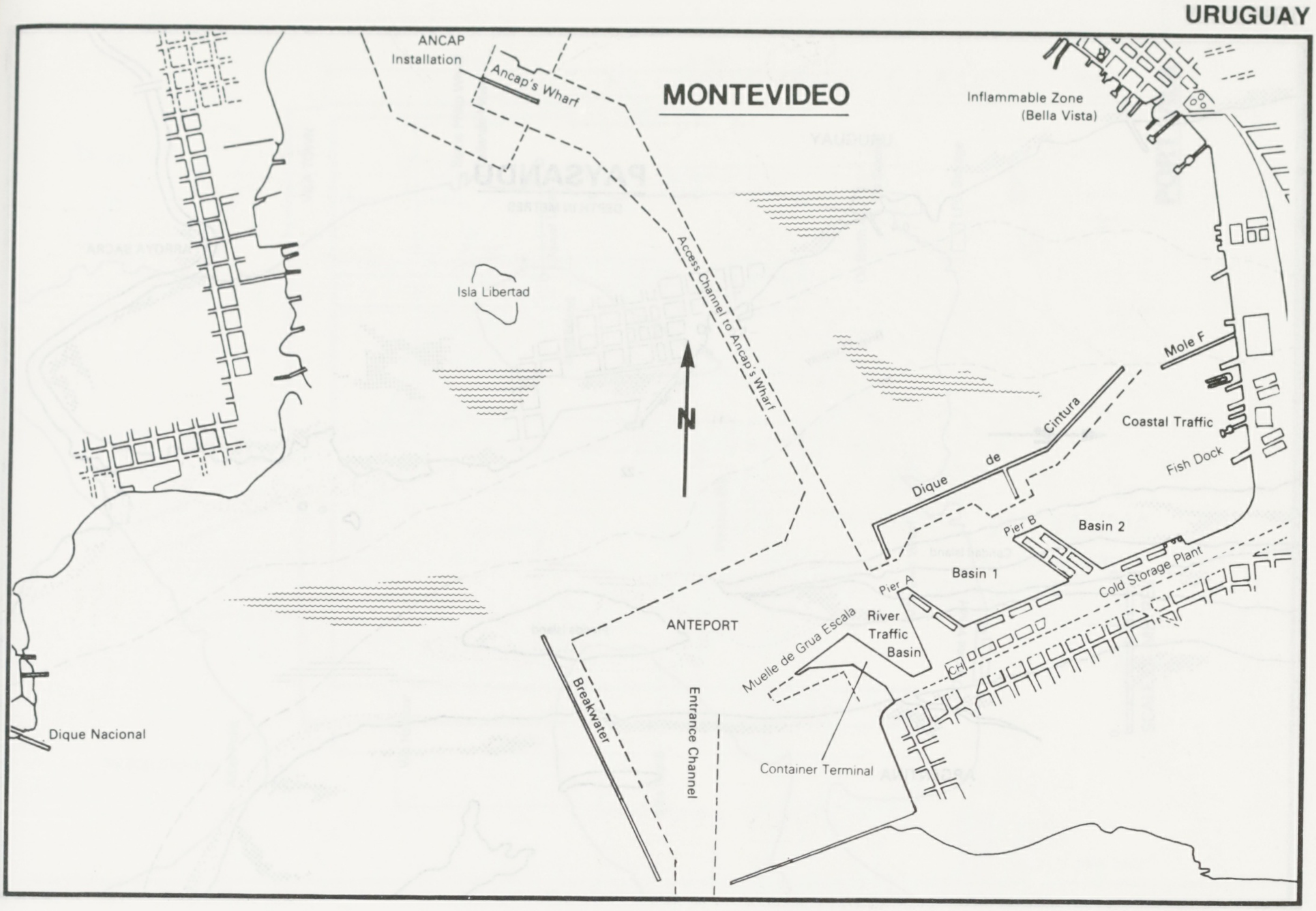

1 Prefecture Port Office
2 Customs
3 Hydrography
4 National Port Administration
5 Company Alimar S.A.
6 Ramp
7 Two Ramps
8 Messrs. Belt & Dodera S.A.
9 Overseas Quay
10 Coastal Quay
11 Union Quay
12 Tourist Ferry Terminal
13 National Port Admin. Warehouses
14 Main Entrance to Port Area
15 Entrance to Port Area
16 Sunken Vessel
0m
300m
Soundings in Metres
Port Entrance
Port Entrance
Free Zone
Ferry Terminal
Customs
Port Admin.
Union Quay
Ramps
Ramp
Coastal Quay
Overseas Quay
Wreck
Green Flashing Light
White Flashing Light
Red Flashing Light
Breakwater
1
3
5

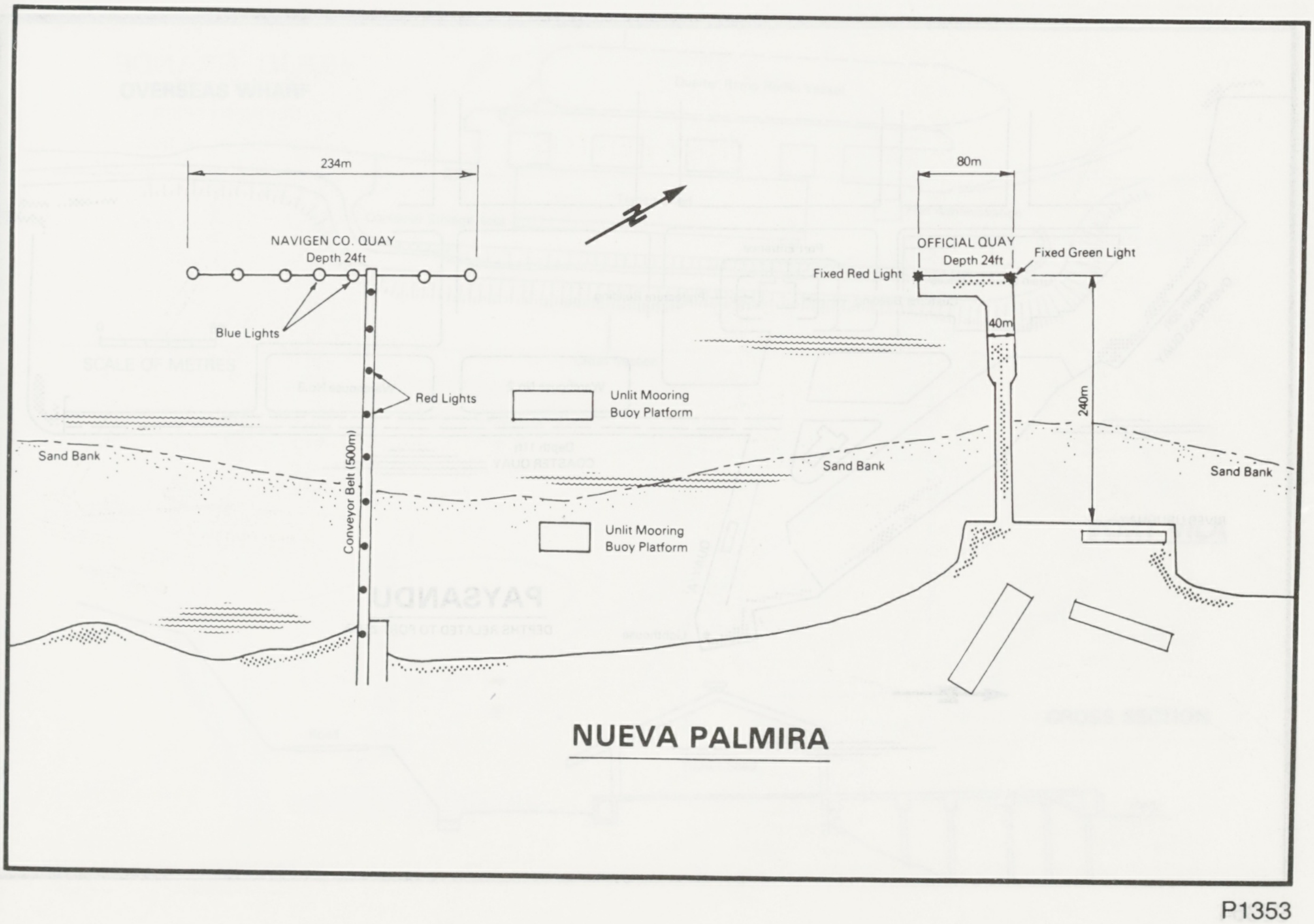
COLONIA

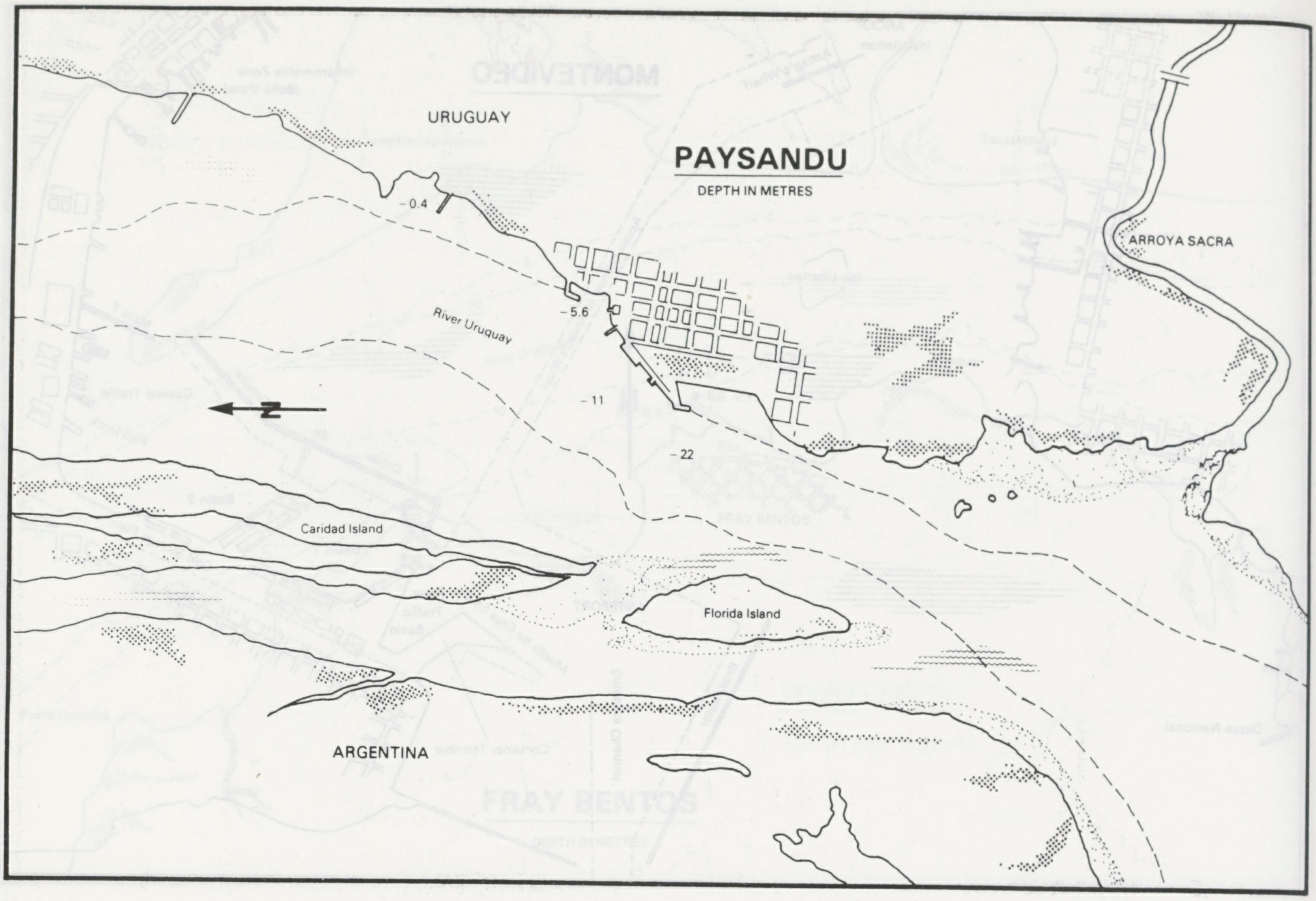
FREE ZONE PORT

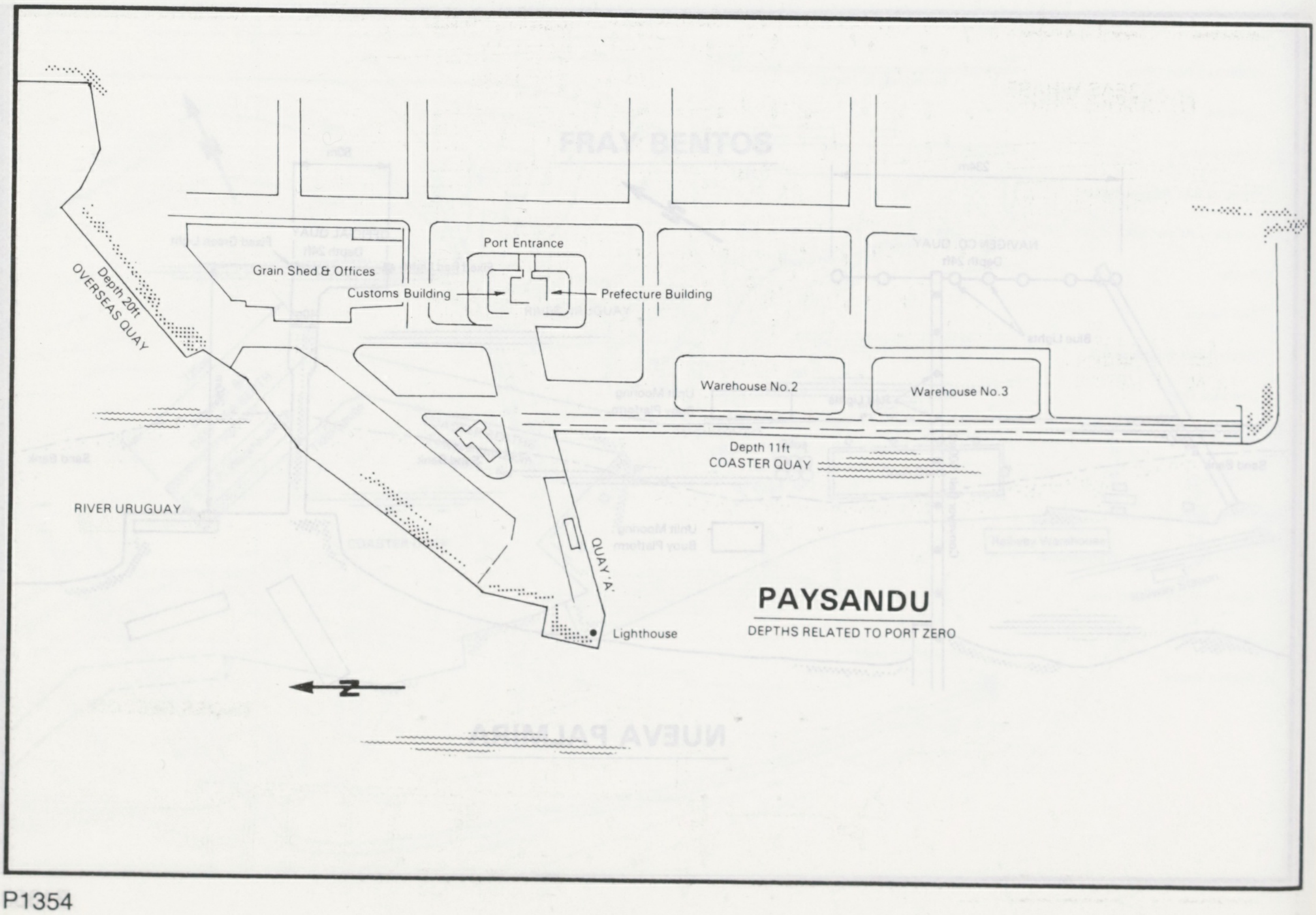

Ines Dorrego Island
Sauzal Island
-5
-10
River Uruguay
-10
-5
Bombas
Bal. V.F.
Bal. R.F.
Silo
FRAY BENTOS
Punta Canarios
FRAY BENTOS
DEPTH IN METRES

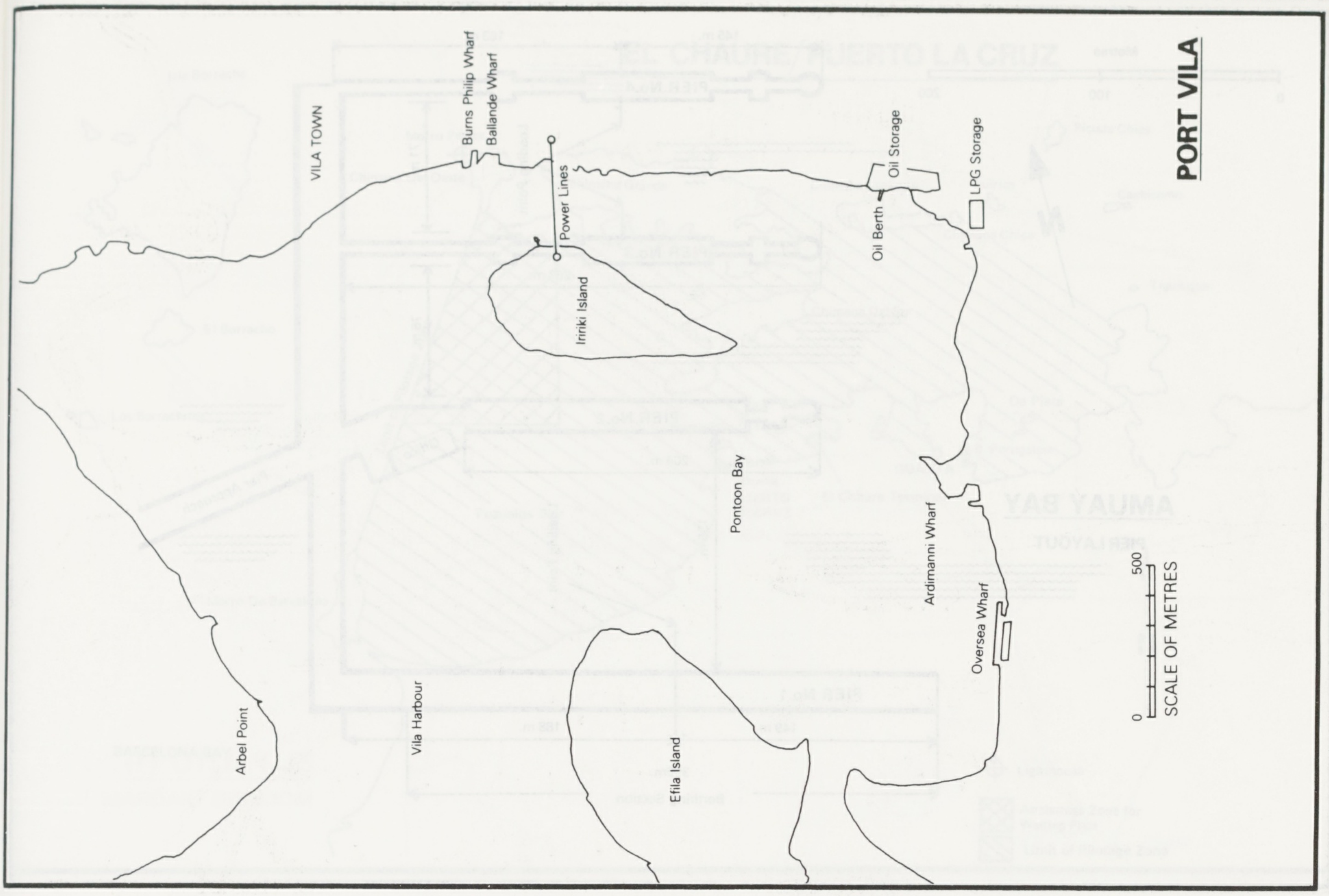

FRAY BENTOS
N
RIVER URUGUAY
125m
Depth 7 – 8m
DEEP SEA BERTH
A.N.P. Warehouse
Tidal Gauge
COASTER BERTHS
Total Length 250m
Depth 5 – 6m
COASTER DOCK
Pump
Silos
Grain Store
Railway Warehouse
Railway Station

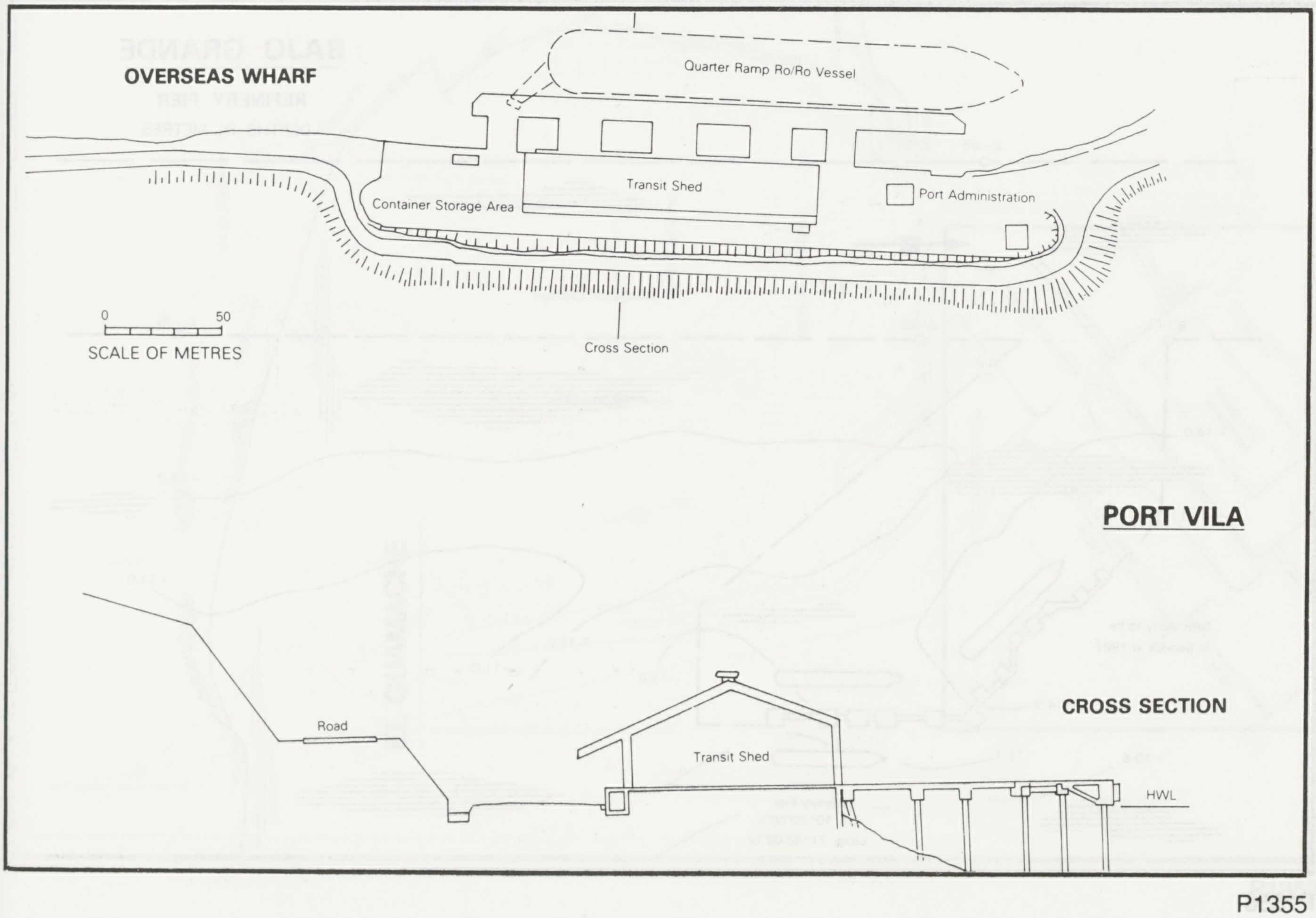

MONTEVIDEO
ANCAP Installation
Ancap's Wharf
Access Channel to Ancap's Wharf
Inflammable Zone (Bella Vista)
Isla Libertad
N
Mole F
Coastal Traffic
Fish Dock
Dique de Cintura
Basin 2
Pier B
Basin 1
Cold Storage Plant
Pier A
River Traffic Basin
Muelle de Grua Escala
ANTEPORT
CH
Breakwater
Entrance Channel
Container Terminal
Dique Nacional

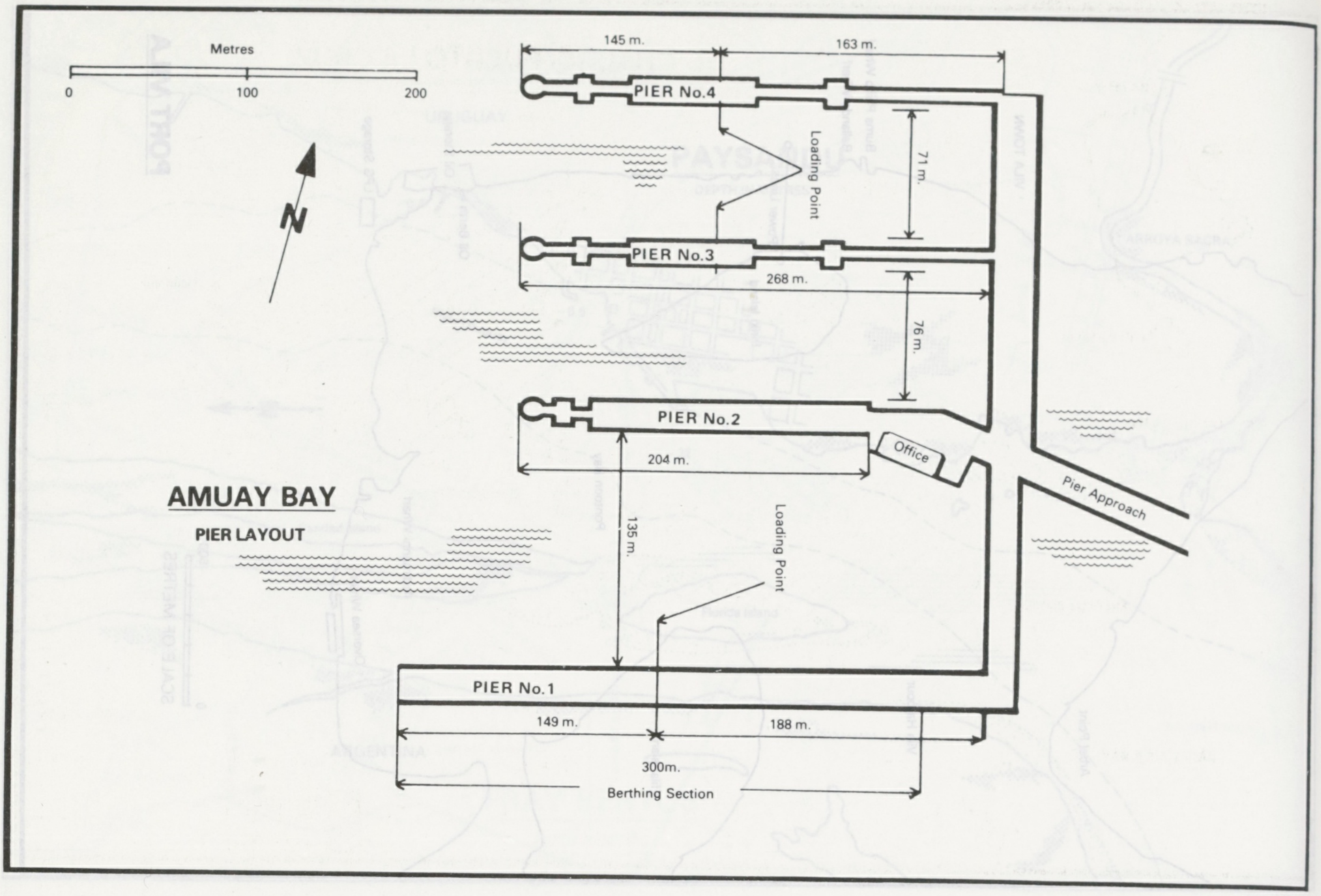

234m
N
80m
NAVIGEN CO. QUAY
Depth 24ft
OFFICIAL QUAY
Depth 24ft
Fixed Green Light
Fixed Red Light
Blue Lights
40m
Red Lights
Unlit Mooring Buoy Platform
240m
Sand Bank
Sand Bank
Sand Bank
Conveyor Belt (500m)
Unlit Mooring Buoy Platform
NUEVA PALMIRA


PAYSANDU
DEPTH IN METRES
URUGUAY
ARGENTINA
ARROYA SACRA
River Uruguay
Caridad Island
Florida Island
N
-0.4
-5.6
-11
-22


PAYSANDU
DEPTHS RELATED TO PORT ZERO
Port Entrance
Grain Shed & Offices
Customs Building
Prefecture Building
Depth 20ft
OVERSEAS QUAY
Warehouse No.2
Warehouse No.3
Depth 11ft
COASTER QUAY
RIVER URUGUAY
QUAY 'A'
Lighthouse
N

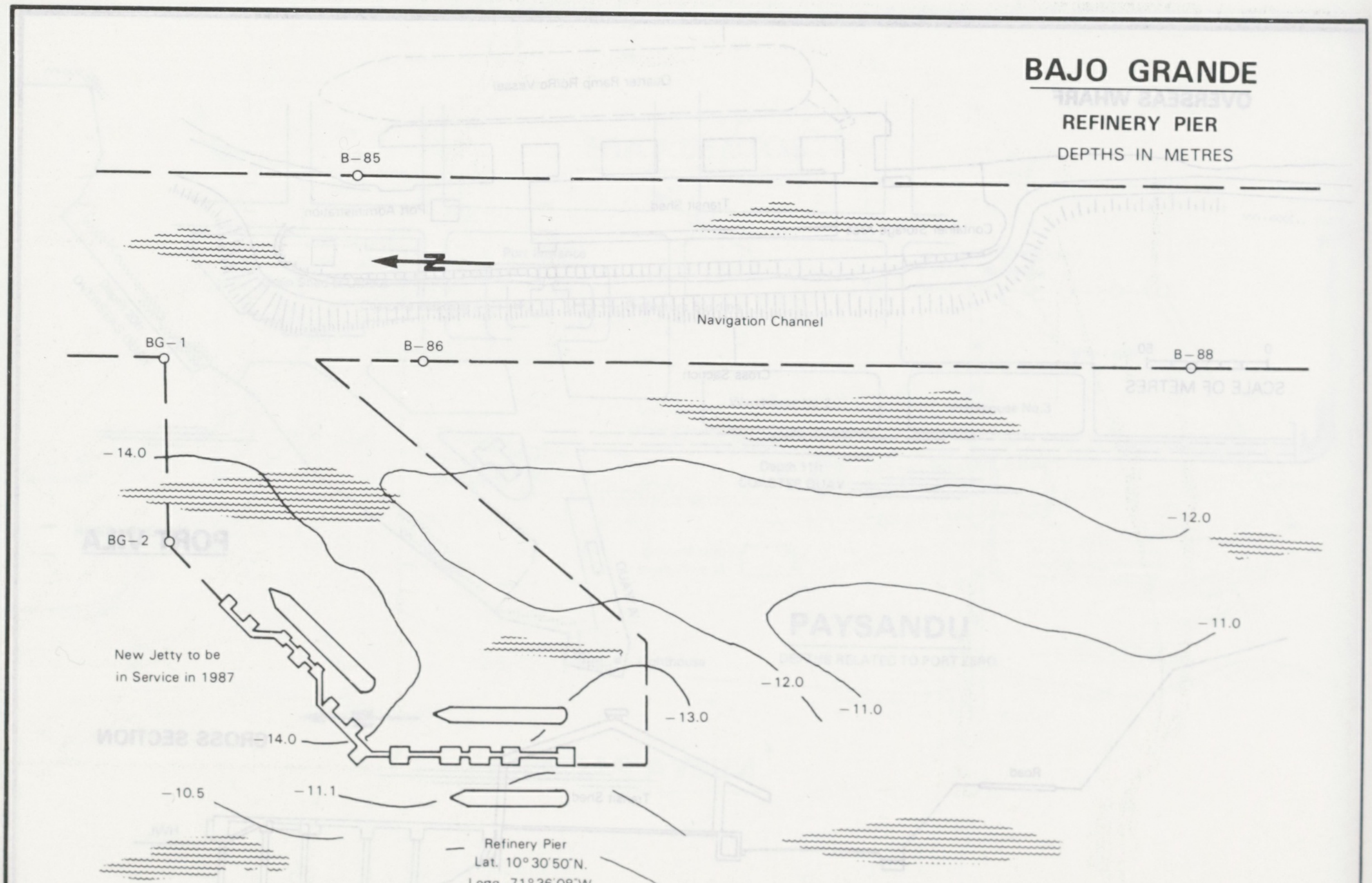

PORT VILA
VILA TOWN
Burns Philip Wharf
Ballande Wharf
Power Lines
Iririki Island
Oil Storage
LPG Storage
Oil Berth
Pontoon Bay
Ardimanni Wharf
Oversea Wharf
Vila Harbour
Efila Island
Arbel Point
0
500
SCALE OF METRES


OVERSEAS WHARF
Quarter Ramp Ro/Ro Vessel
Transit Shed
Container Storage Area
Port Administration
Cross Section
0
50
SCALE OF METRES
PORT VILA
CROSS SECTION
Road
Transit Shed
HWL


AMUAY BAY

PIER LAYOUT

Metres
0
100
200
N
145 m.
163 m.
PIER No.4
Loading Point
71 m.
PIER No.3
268 m.
76 m.
PIER No.2
Office
204 m.
Pier Approach
135 m.
Loading Point
PIER No.1
149 m.
188 m.
300m.
Berthing Section


BAJO GRANDE

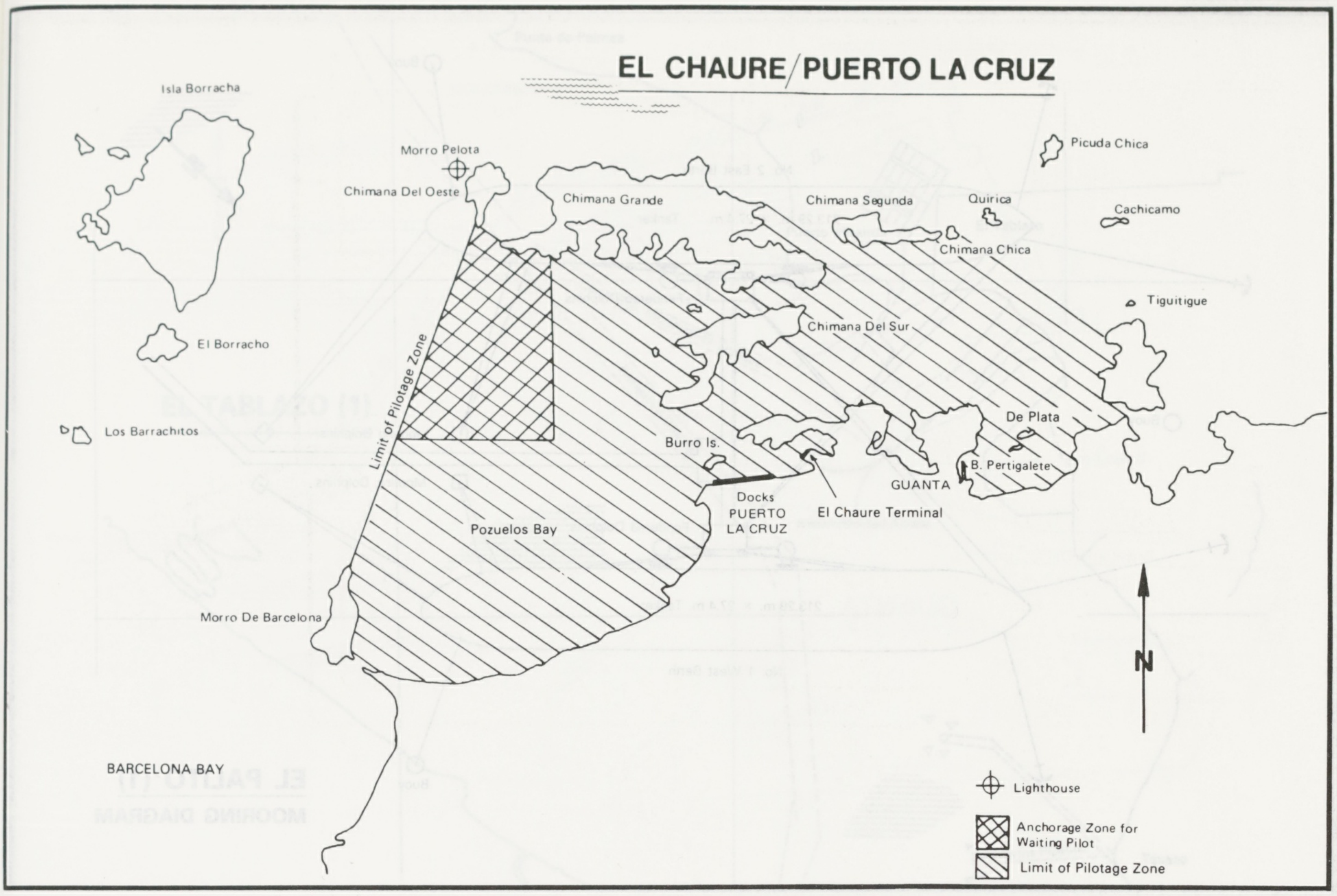
REFINERY PIER

DEPTHS IN METRES

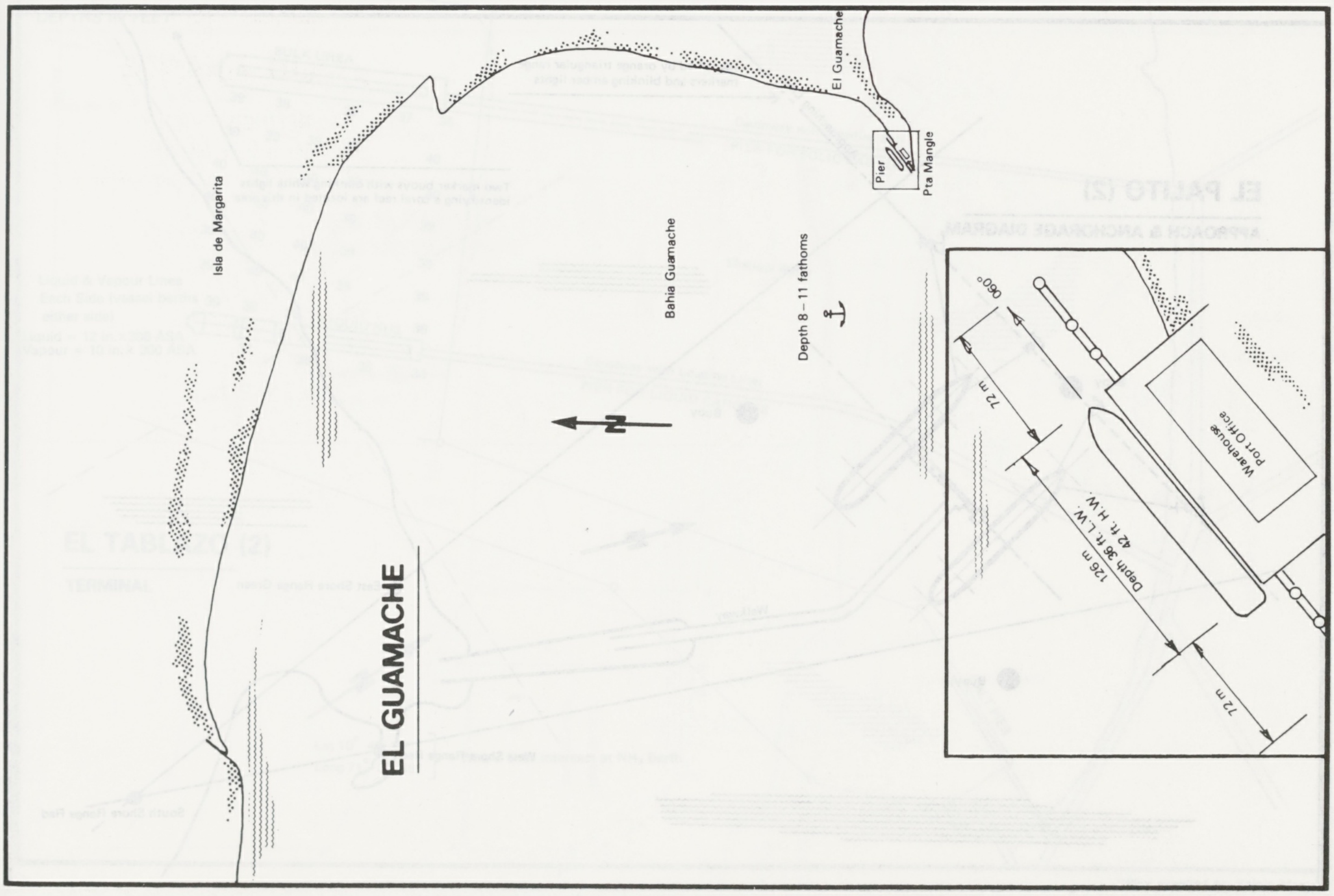
B–85
N
Navigation Channel
BG–1
B–86
B–88
–14.0
BG–2
–12.0
New Jetty to be in Service in 1987
–11.0
–12.0
–11.0
–13.0
–14.0
–10.5
–11.1

Refinery Pier
Lat. 10°30'50"N.
Long. 71°36'08"W.

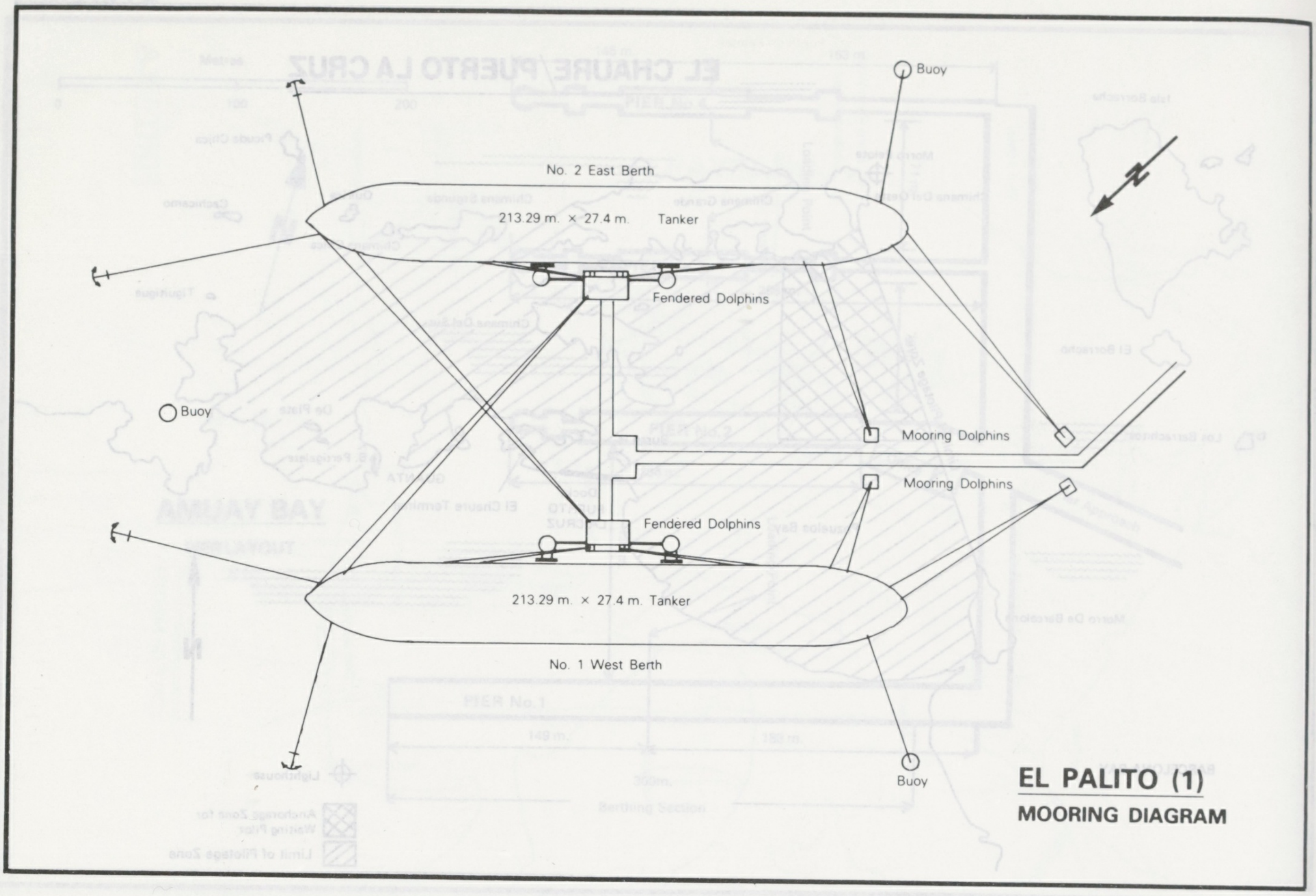
EL CHAURE/PUERTO LA CRUZ


Isla Borracha
Morro Pelota
Chimana Del Oeste
Chimana Grande
Chimana Segunda
Quirica
Picuda Chica
Cachicamo
Chimana Chica
Tiguitigue
Chimana Del Sur
El Borracho
Limit of Pilotage Zone
Los Barrachitos
De Plata
Burro Is.
B. Pertigalete
GUANTA
Docks
PUERTO
LA CRUZ
El Chaure Terminal
Pozuelos Bay
Morro De Barcelona
N
BARCELONA BAY
Lighthouse
Anchorage Zone for Waiting Pilot
Limit of Pilotage Zone

EL GUAMACHE

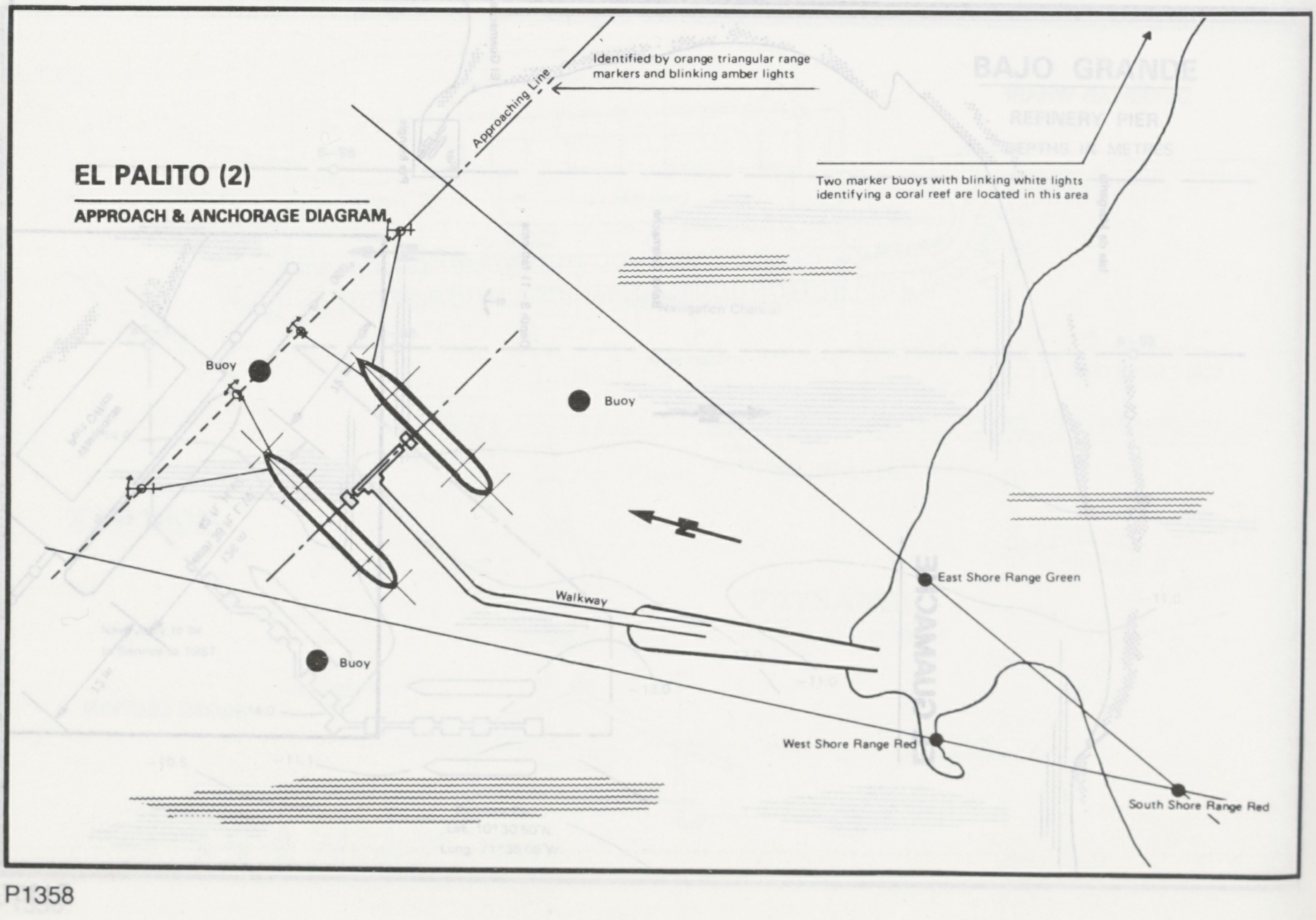

El Guamache
Pier
Pta Mangle
Isla de Margarita
Bahia Guamache
Depth 8 – 11 fathoms
N
090°
72 m
Warehouse
Port Office
126 m
Depth 36 ft. L.W.
42 ft. H.W.
72 m

"Plan supplied by Ship's Master"


Buoy
No. 2 East Berth
213.29 m. × 27.4 m. Tanker
Fendered Dolphins
Buoy
Mooring Dolphins
Mooring Dolphins
Fendered Dolphins
213.29 m. × 27.4 m. Tanker
No. 1 West Berth
Buoy

EL PALITO (1)

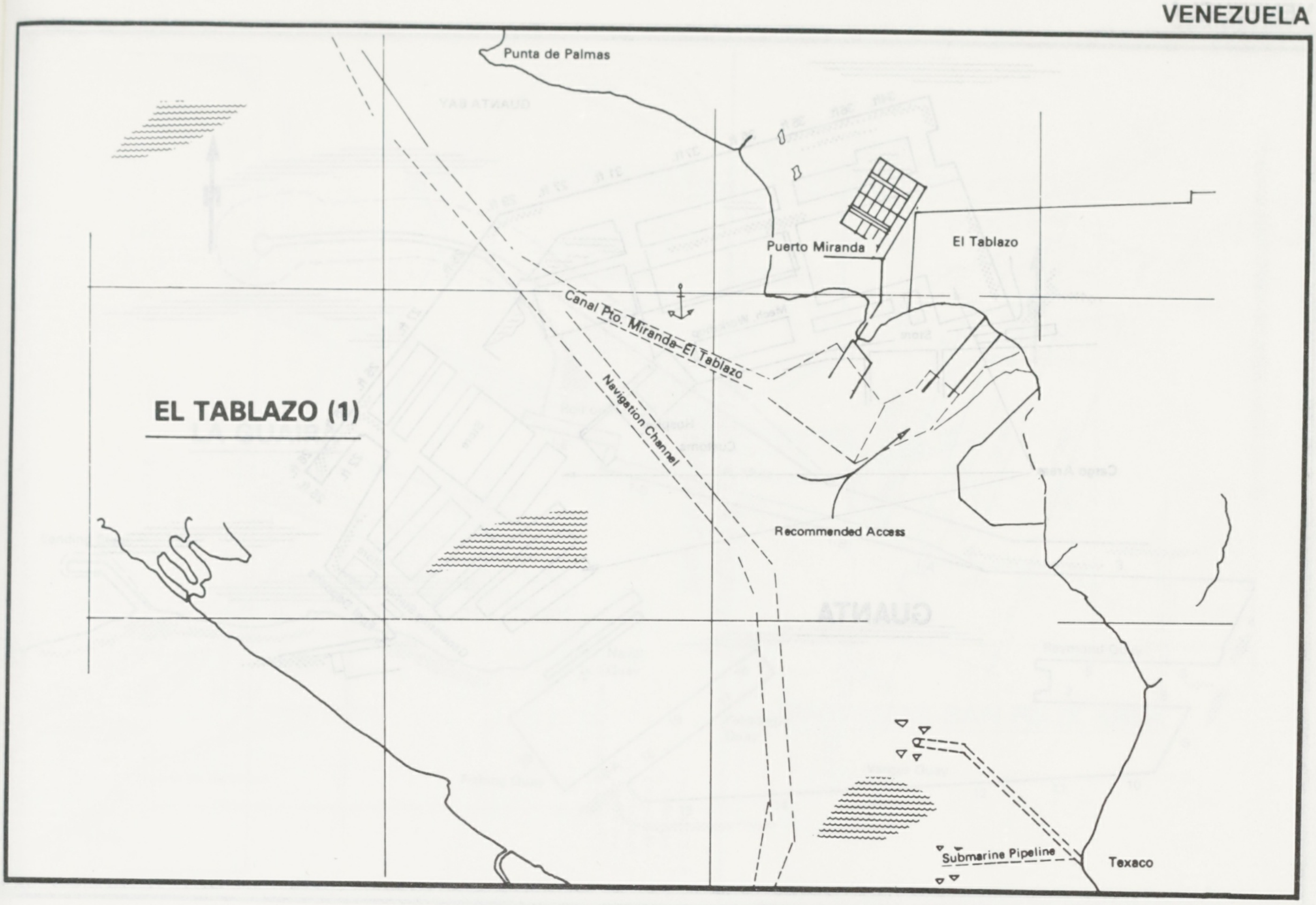
MOORING DIAGRAM


Identified by orange triangular range markers and blinking amber lights
Approaching Line
Two marker buoys with blinking white lights identifying a coral reef are located in this area
Buoy
Buoy
Walkway
East Shore Range Green
Buoy
West Shore Range Red
South Shore Range Red

EL PALITO (2)

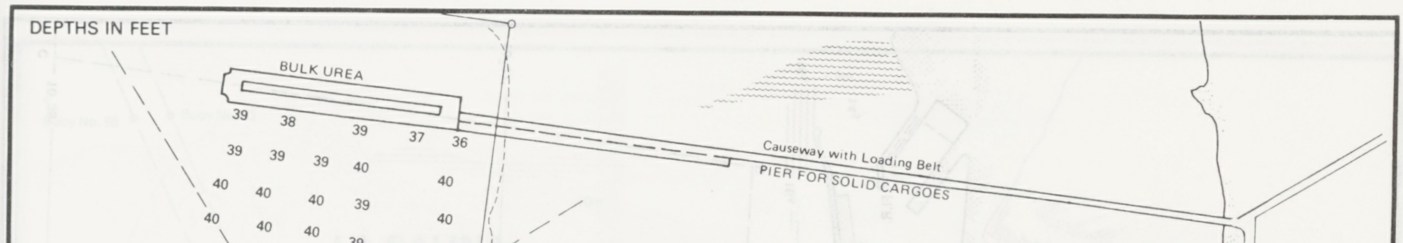
APPROACH & ANCHORAGE DIAGRAM

EL TABLAZO (1)


Punta de Palmas
Puerto Miranda
El Tablazo
Canal Pto. Miranda–El Tablazo
Navigation Channel
Recommended Access
Submarine Pipeline
Texaco

EL TABLAZO (2)

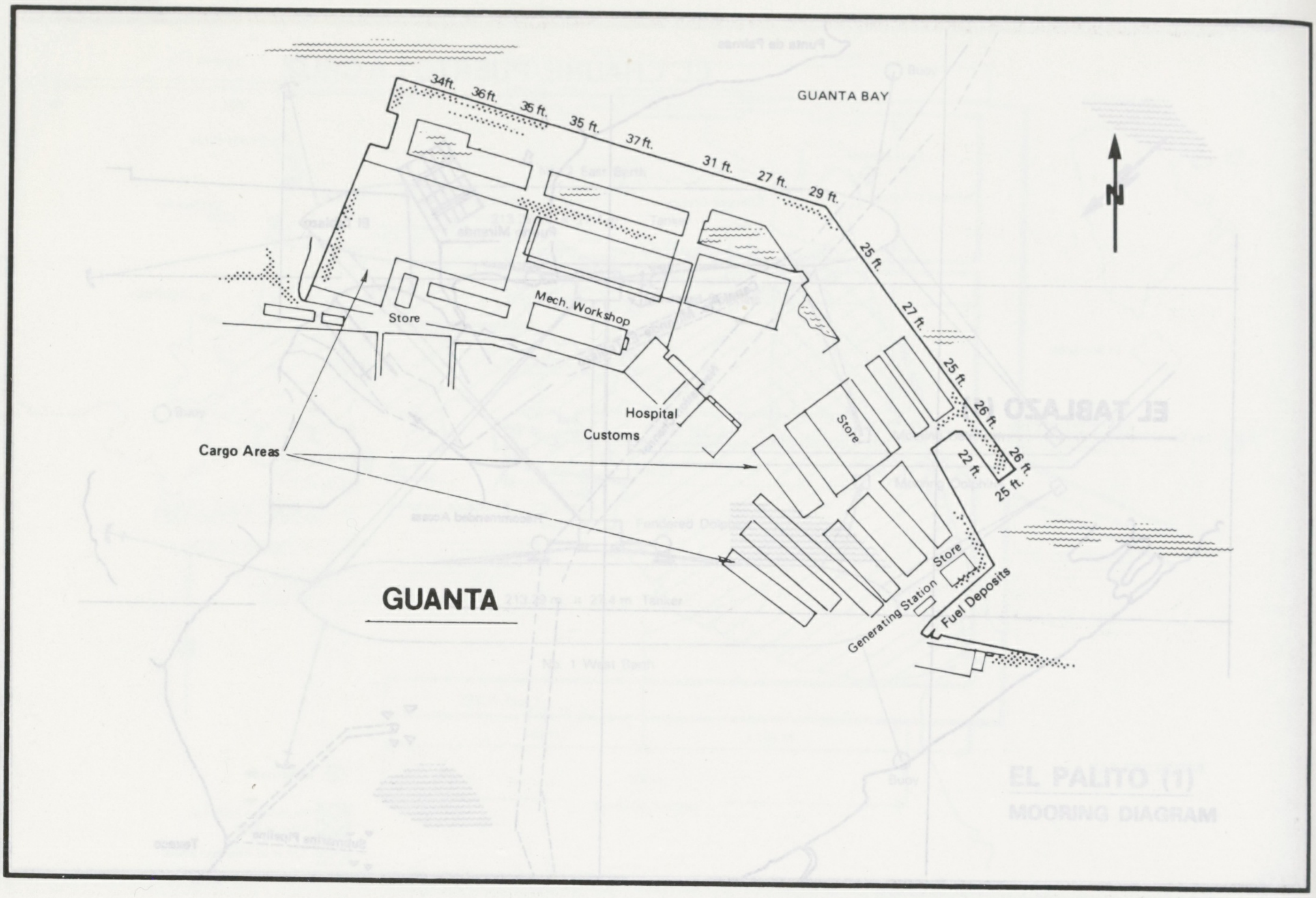
TERMINAL

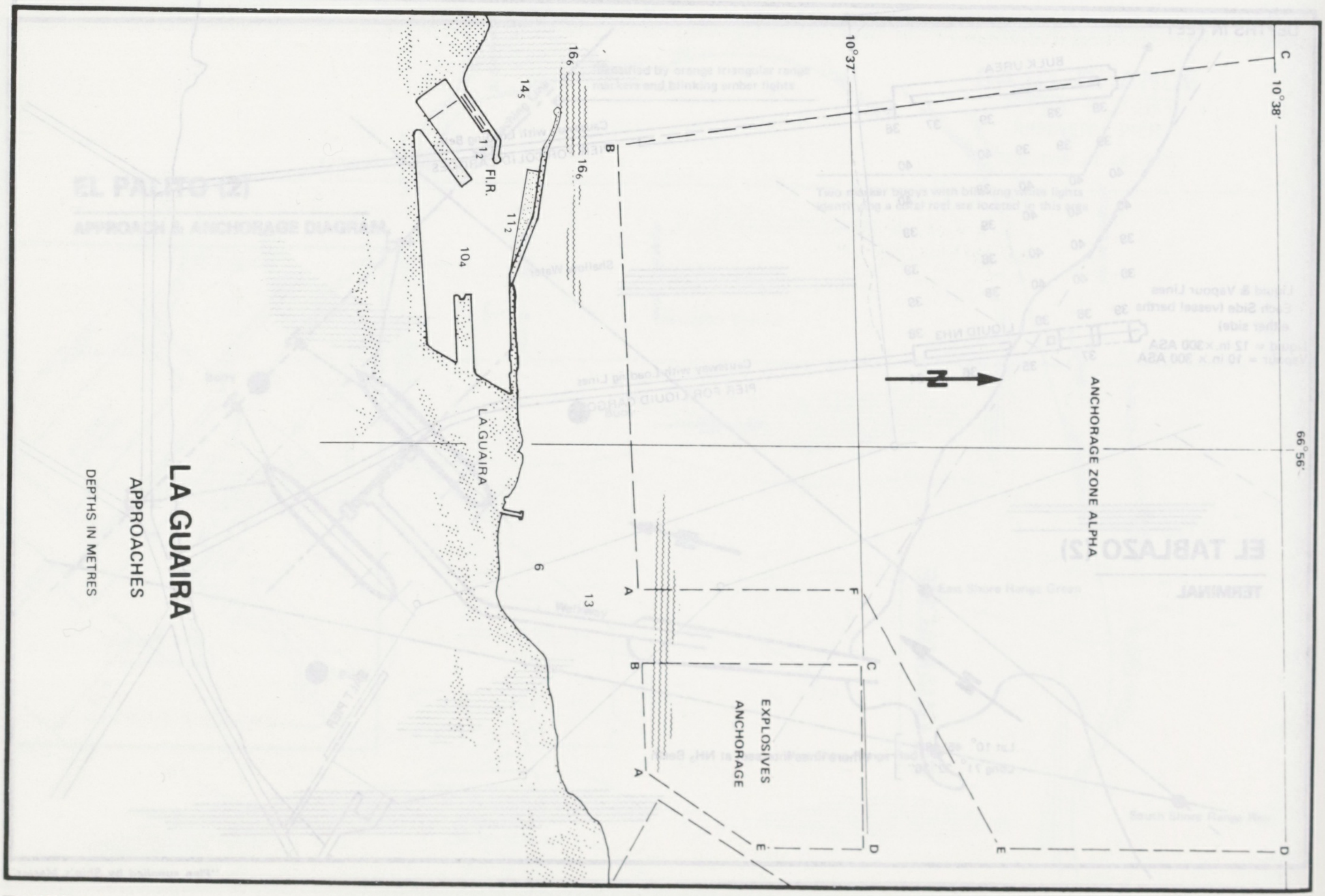

DEPTHS IN FEET
BULK UREA
39
38
39
37
36
39
39
39
40
40
40
40
40
39
40
40
40
40
39
40
39
40
40
39
39
40
40
38
39
40
40
38
39
39
38
39
LIQUID NH3
38
37
35
36
34
Causeway with Loading Belt
PIER FOR SOLID CARGOES
Shallow Water
Causeway with Loading Lines
PIER FOR LIQUID CARGOES
SALT PIER
N

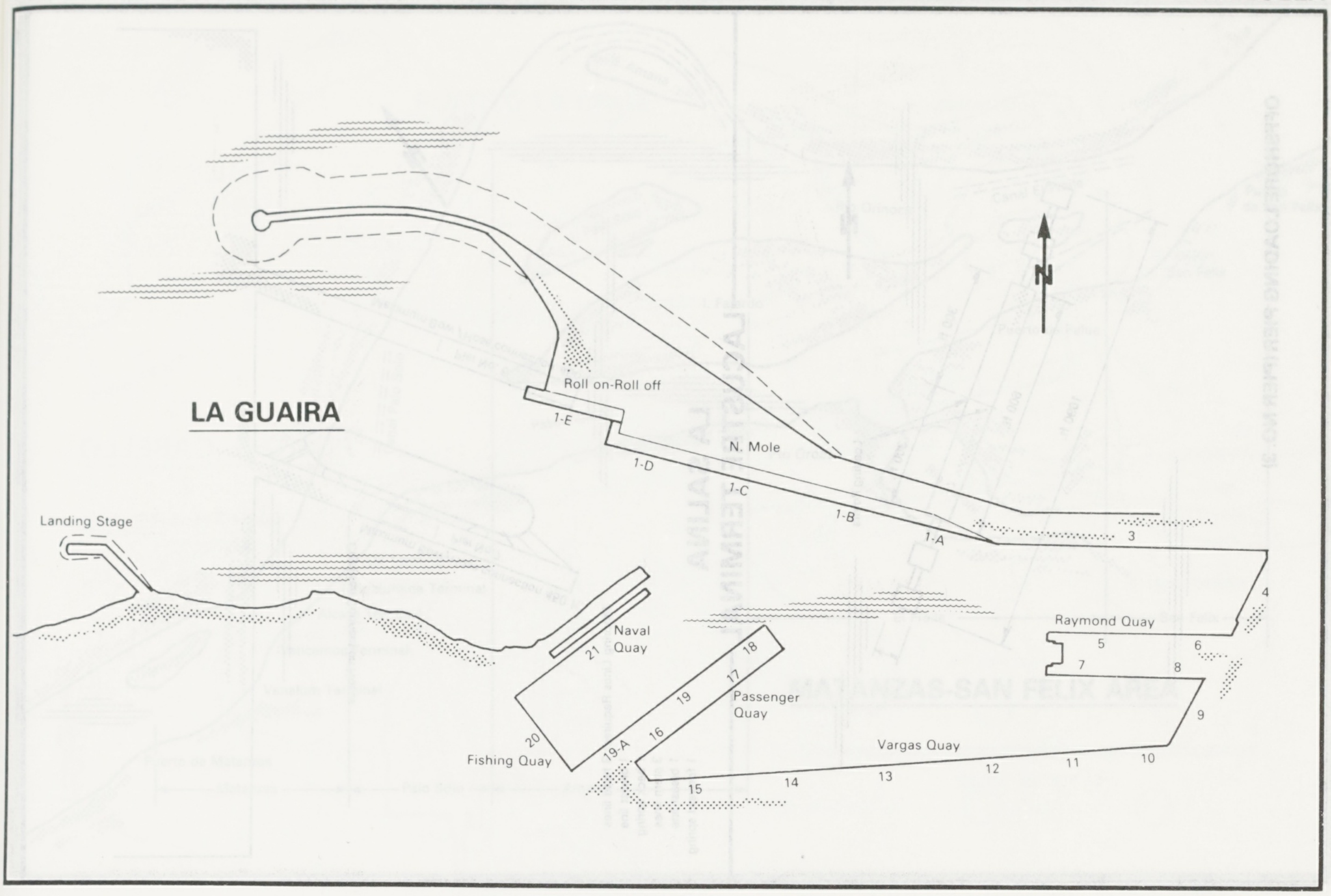
Liquid & Vapour Lines
Each Side (vessel berths either side)
Liquid = 12 in.×300 ASA
Vapour = 10 in.× 300 ASA

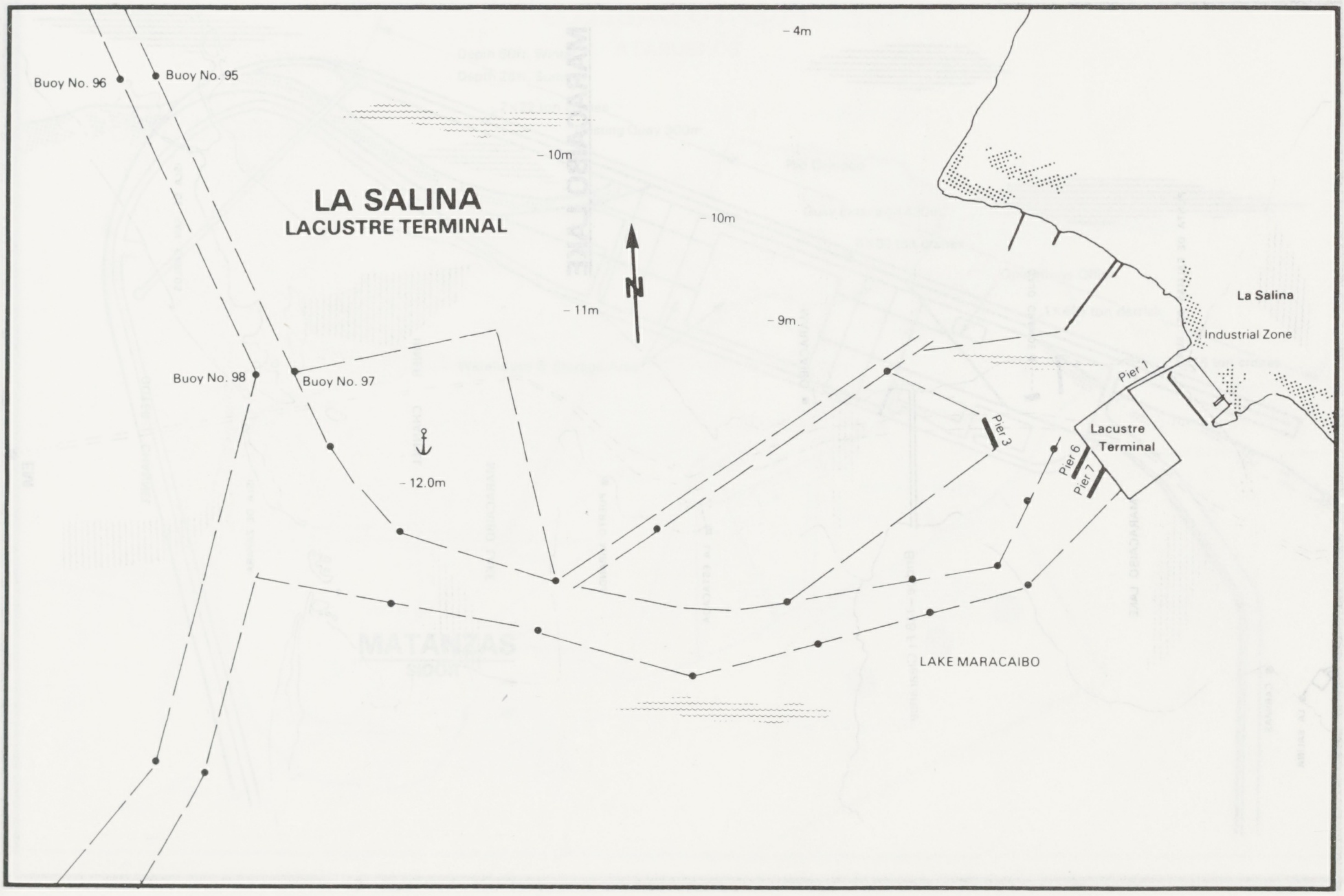
Lat 10° 45′ 18″
Long 71° 32′ 36″
Where lines intersect at NH_3 Berth

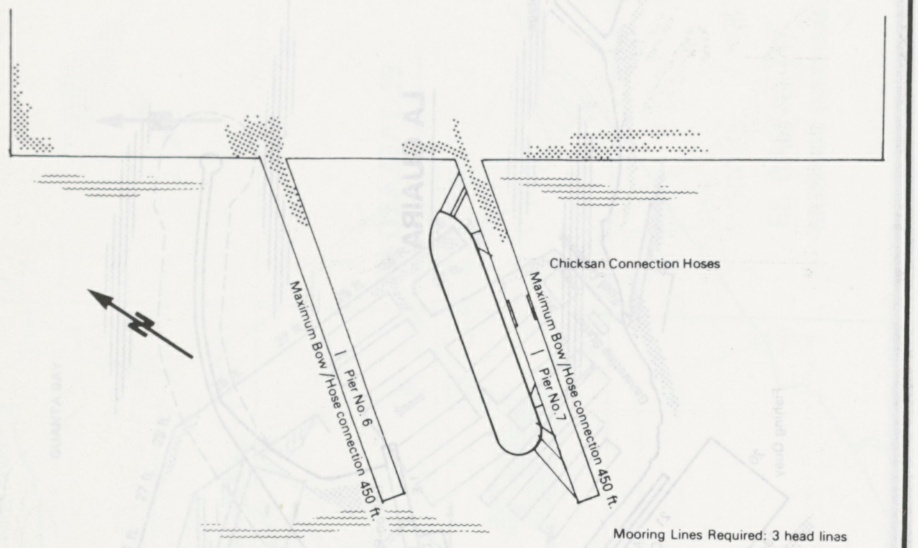
"Plan supplied by Ship's Master"


GUANTA
GUANTA BAY
N
34ft.
36 ft.
35 ft.
35 ft.
37 ft.
31 ft.
27 ft.
29 ft.
25 ft.
27 ft.
25 ft.
26 ft.
26 ft.
22 ft.
25 ft.
Store
Mech. Workshop
Hospital
Customs
Cargo Areas
Store
Store
Generating Station
Fuel Deposits


LA GUAIRA
APPROACHES
DEPTHS IN METRES
LA GUAIRA
F.I.R.
16_6
14_5
16_6
11_1
11_2
10_4
6
13
10°37'
10°38'
66°56'
N
ANCHORAGE ZONE ALPHA
EXPLOSIVES ANCHORAGE
A
B
C
D
E
F
A
B
C
D
E

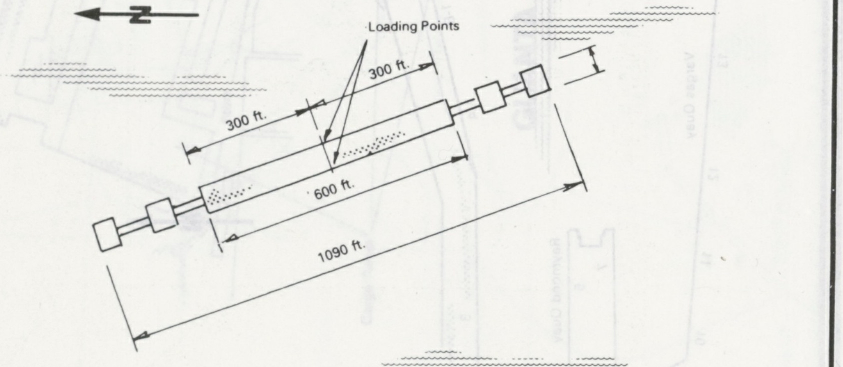

LA GUAIRA
Roll on-Roll off
1-E
N. Mole
1-D
1-C
1-B
1-A
3
4
Landing Stage
Naval Quay
21
Raymond Quay
5
6
7
8
9
18
17
19
Passenger Quay
20
Fishing Quay
19-A
16
15
14
13
12
11
10
Vargas Quay
N


LA SALINA
LACUSTRE TERMINAL
Buoy No. 96
Buoy No. 95
– 4m
– 10m
– 10m
– 11m
– 9m
N
Buoy No. 98
Buoy No. 97
– 12.0m
Pier 3
La Salina
Industrial Zone
Pier 1
Lacustre Terminal
Pier 6
Pier 7
LAKE MARACAIBO


Chicksan Connection Hoses
Pier No. 6
Maximum Bow/Hose connection 450 ft.
Pier No. 7
Maximum Bow/Hose connection 450 ft.
N

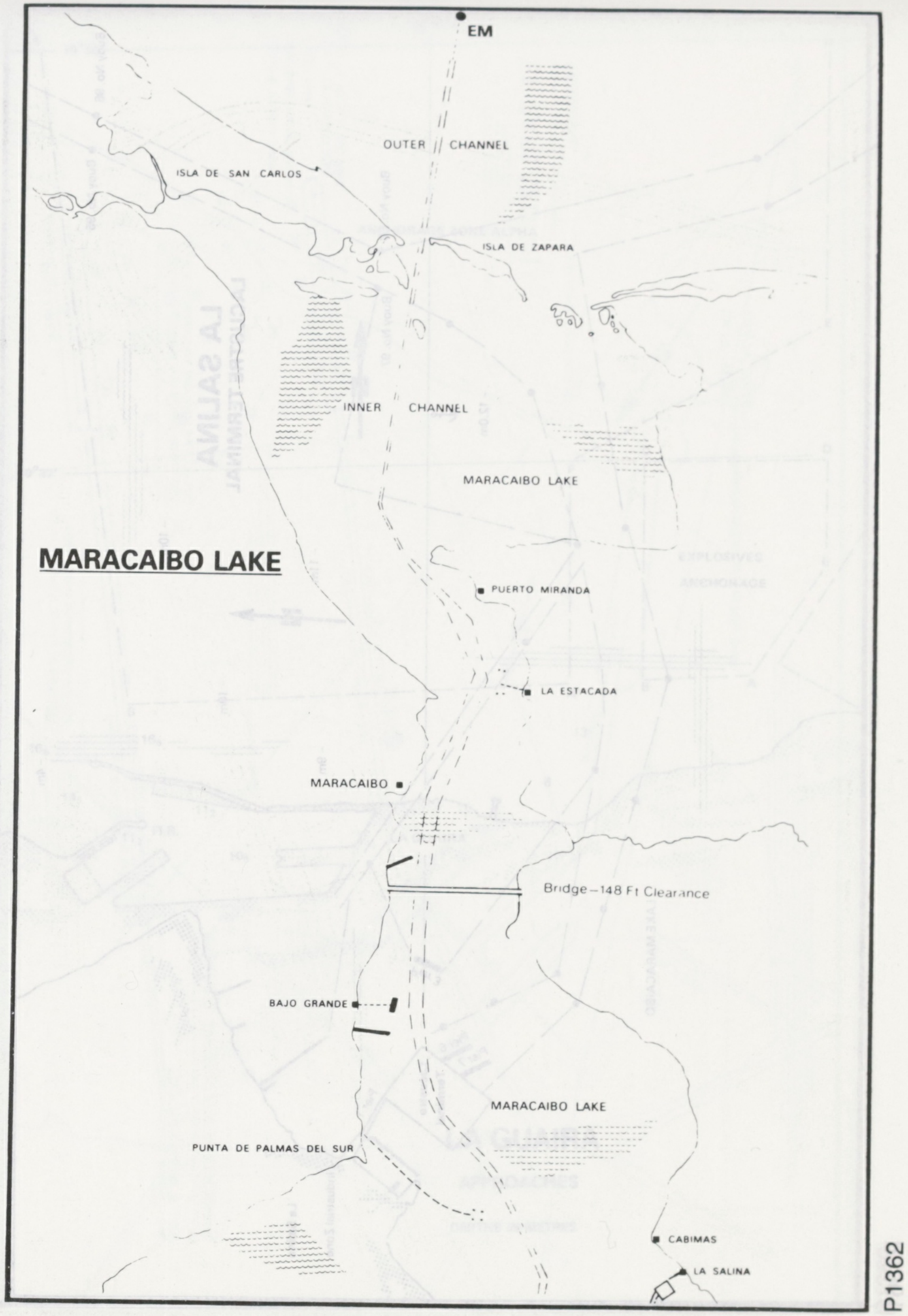
Mooring Lines Required: 3 head linas
1 breast line
1 back spring
3 stern lines
1 breast line
1 forward spring

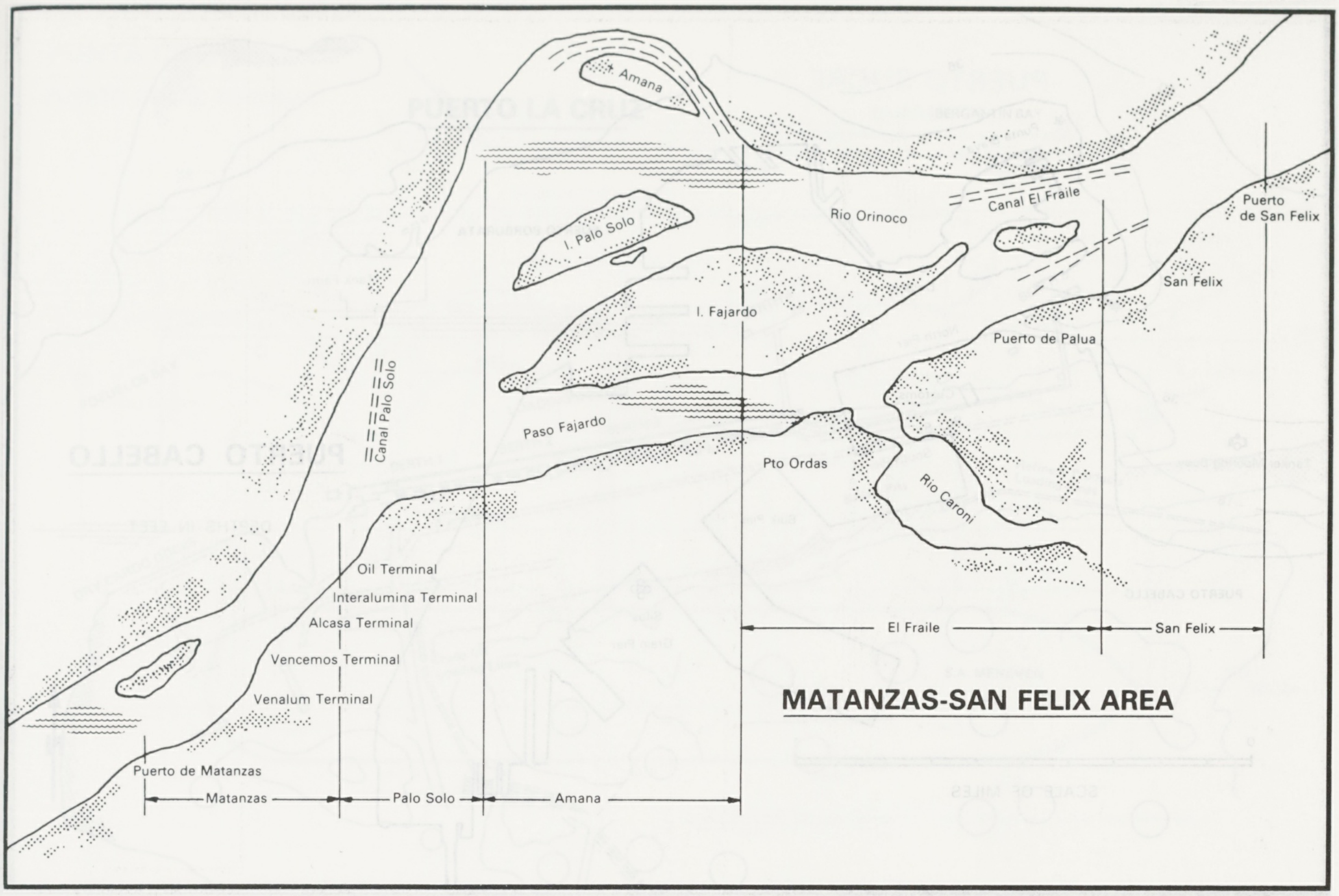
LA SALINA
LACUSTRE TERMINAL

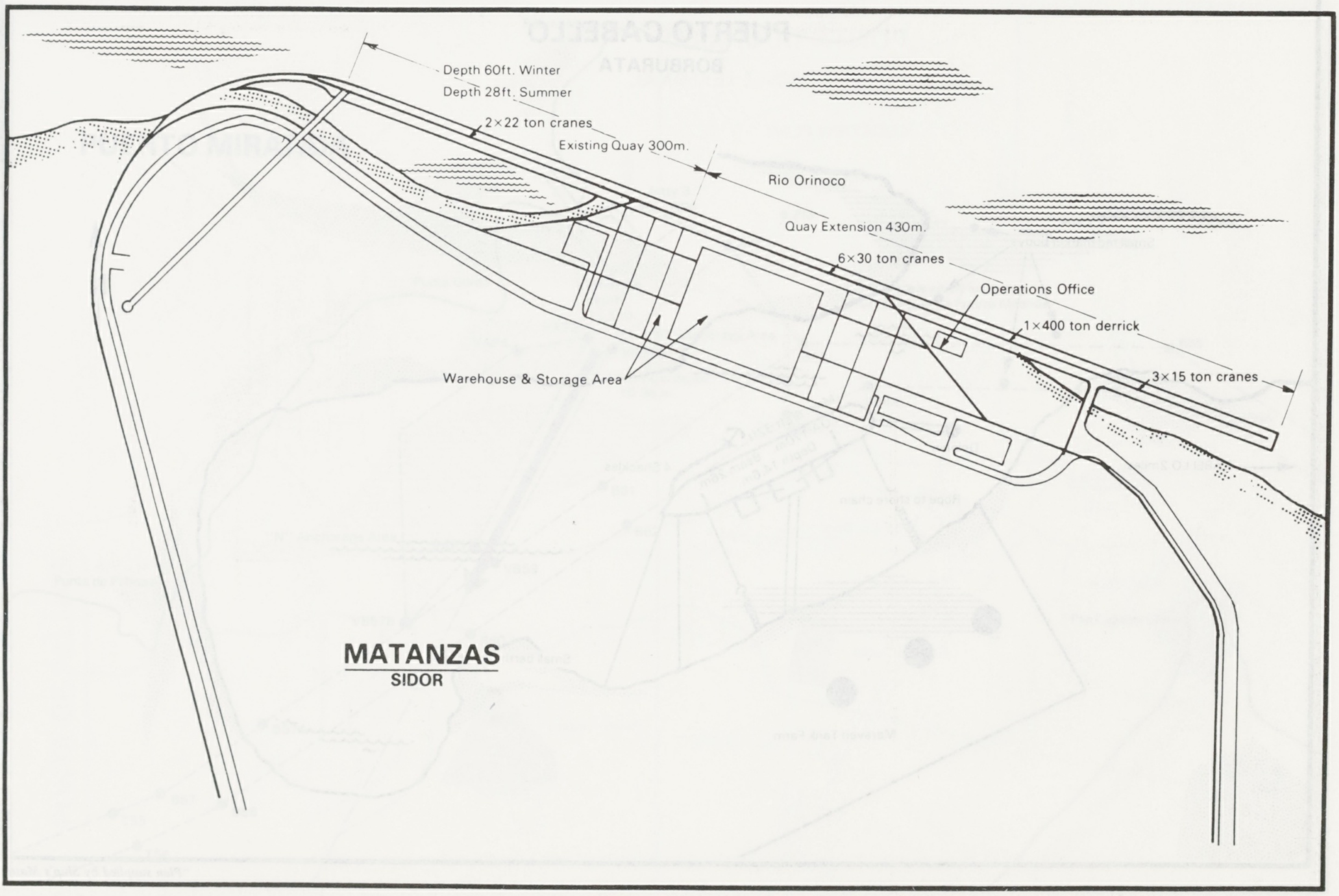

N
Loading Points
300 ft.
300 ft.
600 ft.
1090 ft.

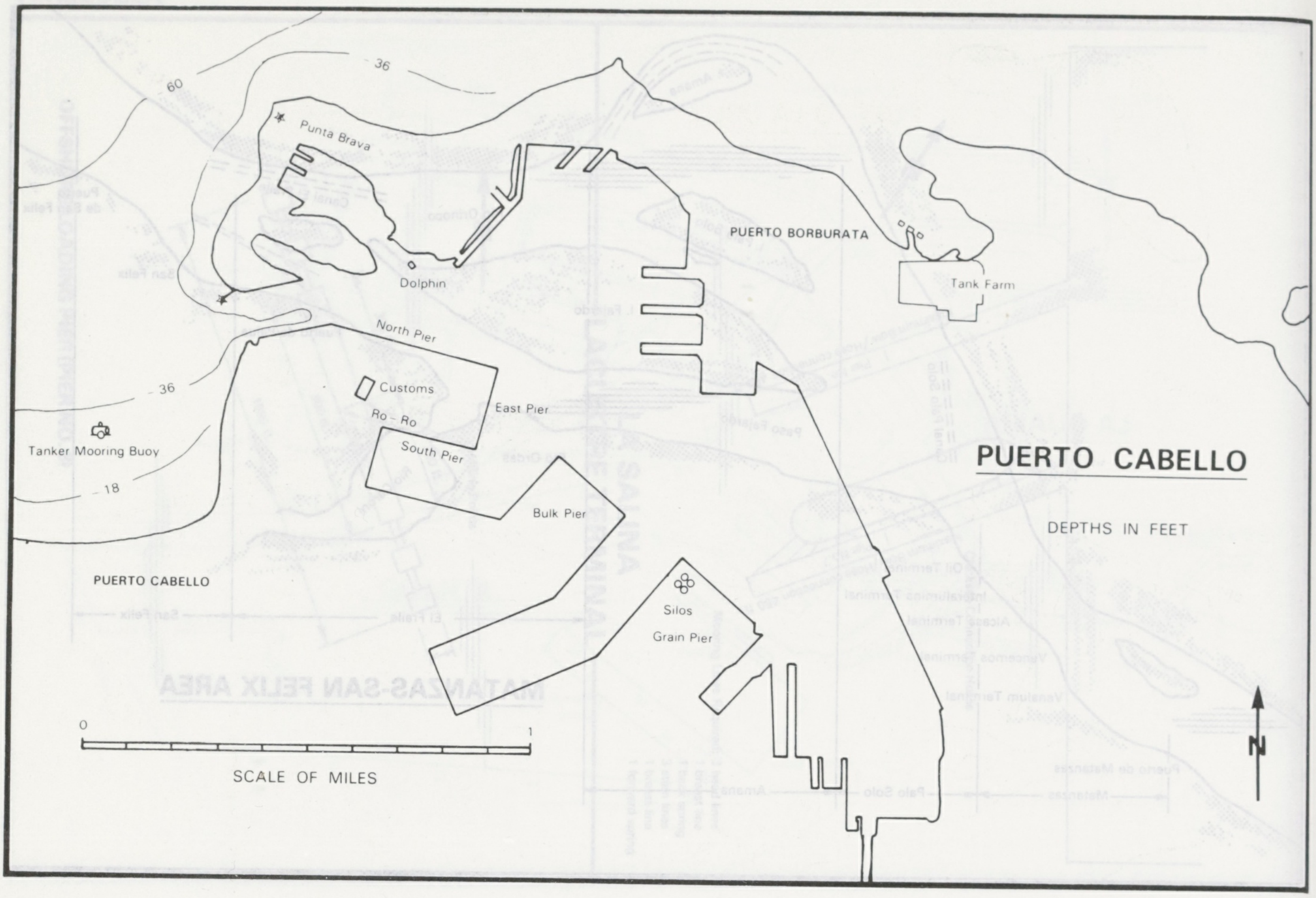
OFFSHORE LOADING PIER (PIER NO. 3)

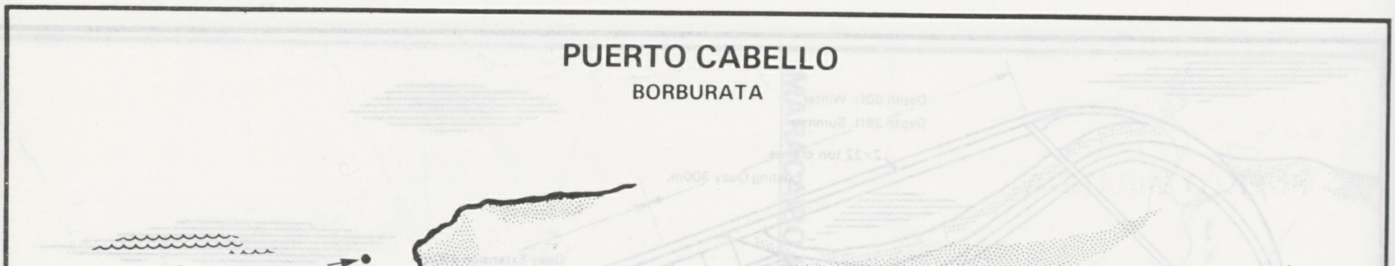
MARACAIBO LAKE


EM
OUTER CHANNEL
ISLA DE SAN CARLOS
ISLA DE ZAPARA
INNER CHANNEL
MARACAIBO LAKE
PUERTO MIRANDA
LA ESTACADA
MARACAIBO
Bridge – 148 Ft Clearance
BAJO GRANDE
MARACAIBO LAKE
PUNTA DE PALMAS DEL SUR
CABIMAS
LA SALINA

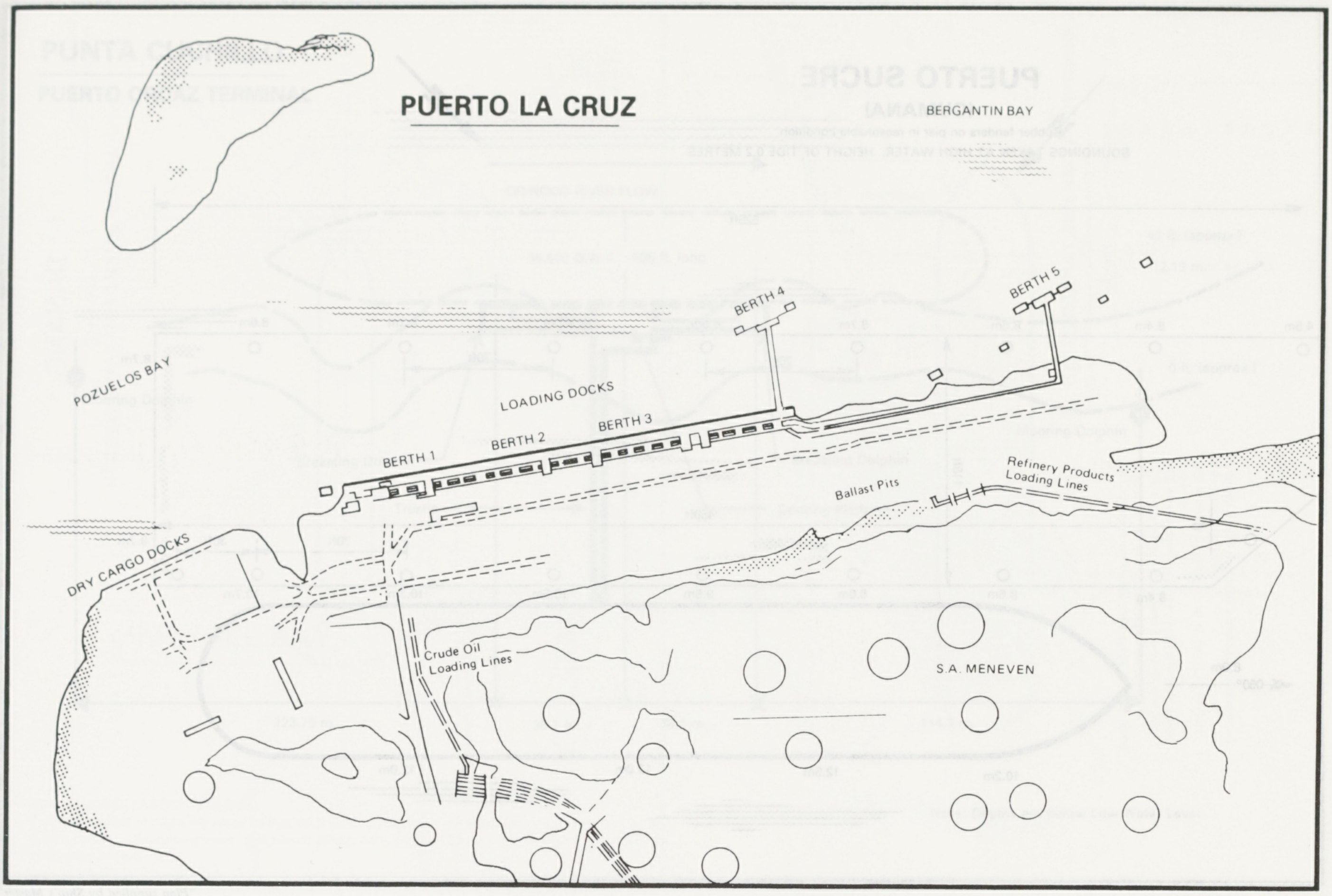

I. Amana
Canal Palo Solo
I. Palo Solo
I. Fajardo
Rio Orinoco
Canal El Fraile
Puerto de San Felix
San Felix
Puerto de Palua
Paso Fajardo
Pto Ordas
Rio Caroni
Oil Terminal
Interalumina Terminal
Alcasa Terminal
Vencemos Terminal
Venalum Terminal
Puerto de Matanzas
Matanzas
Palo Solo
Amana
El Fraile
San Felix
MATANZAS-SAN FELIX AREA

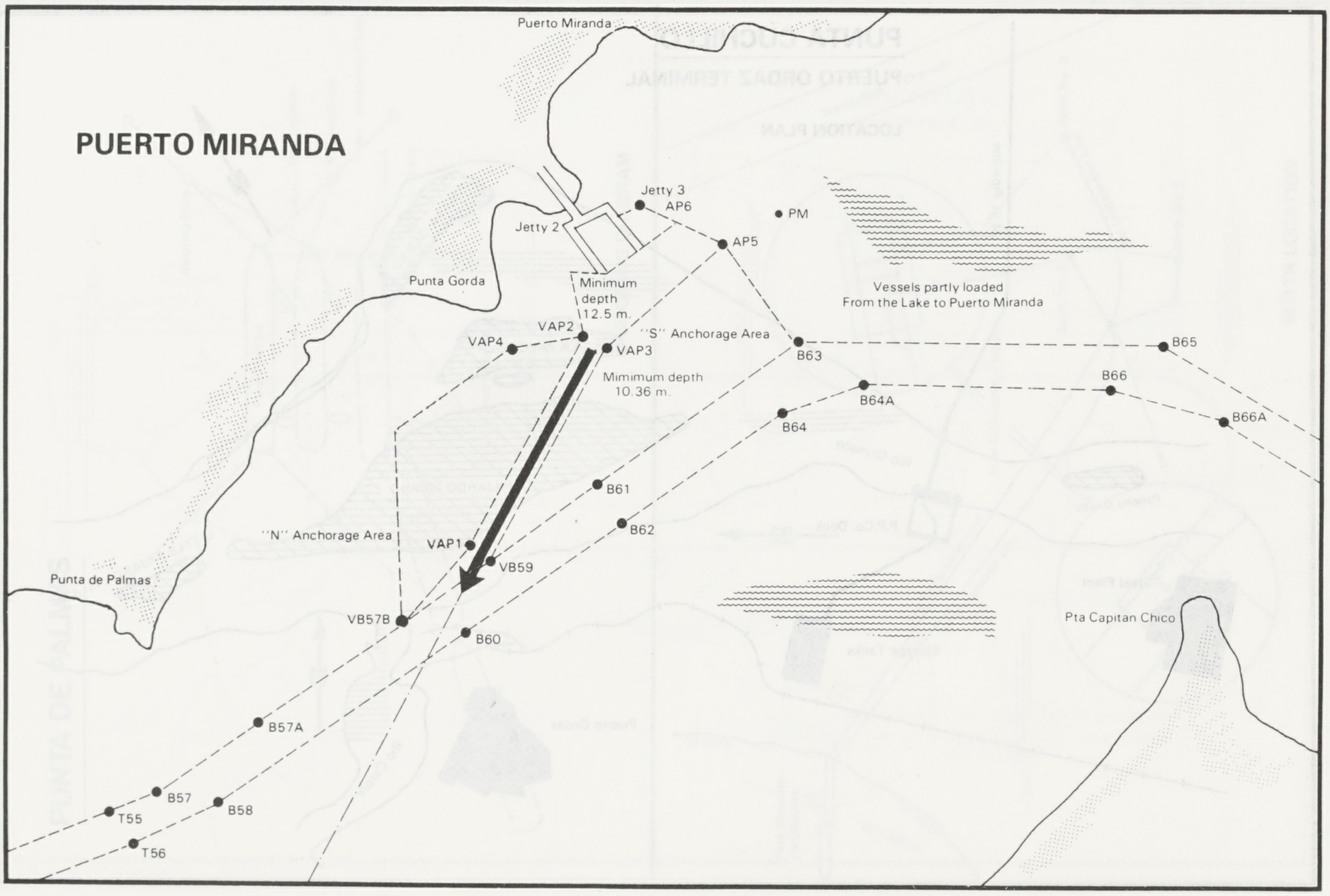

Depth 60ft. Winter
Depth 28ft. Summer
2×22 ton cranes
Existing Quay 300m.
Rio Orinoco
Quay Extension 430m.
6×30 ton cranes
Operations Office
1×400 ton derrick
3×15 ton cranes
Warehouse & Storage Area
MATANZAS
SIDOR

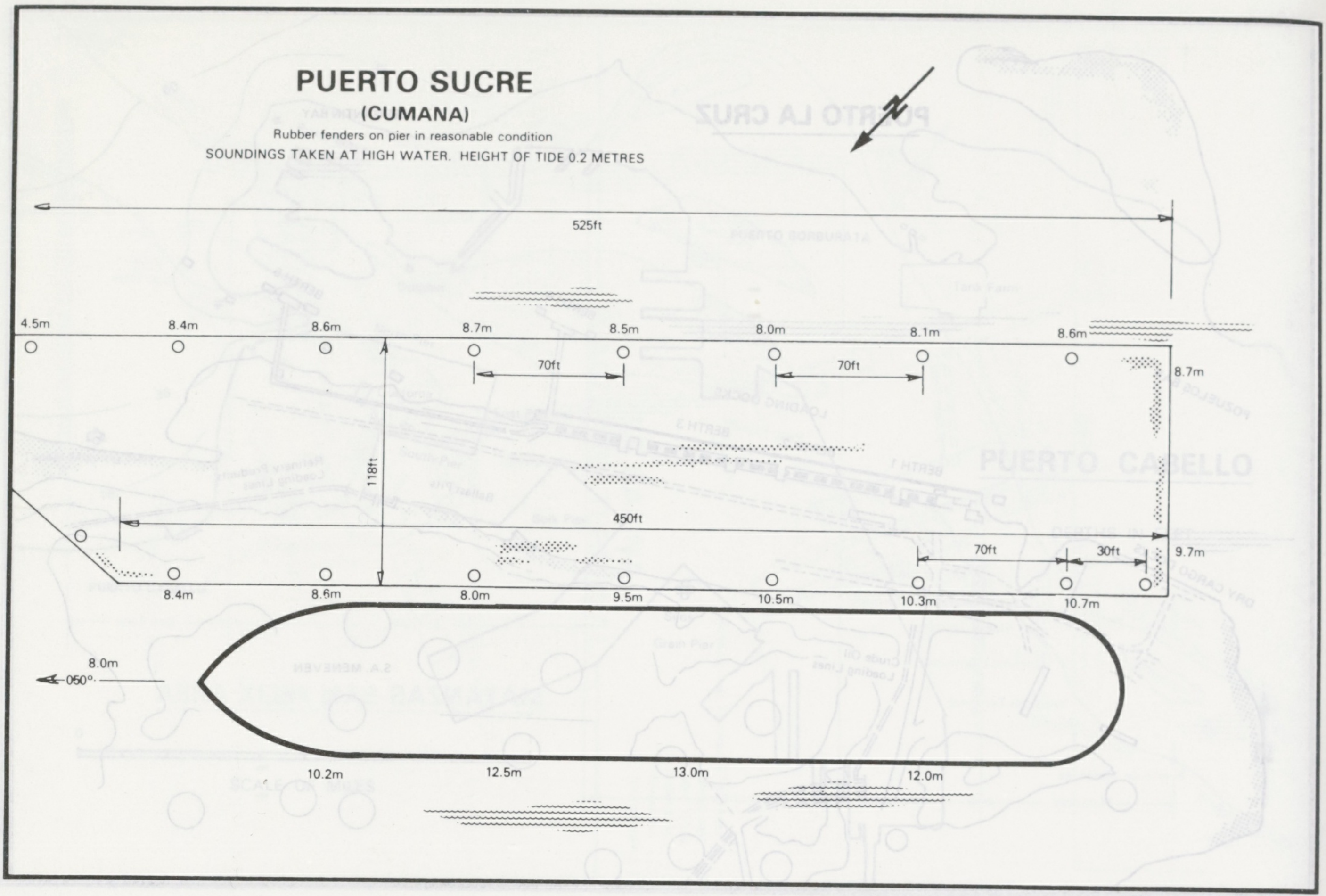

36
60
Punta Brava
Dolphin
PUERTO BORBURATA
Tank Farm
North Pier
Customs
East Pier
Ro - Ro
South Pier
Bulk Pier
36
Tanker Mooring Buoy
18
PUERTO CABELLO
Silos
Grain Pier
PUERTO CABELLO
DEPTHS IN FEET
N
0
1
SCALE OF MILES


PUERTO CABELLO
BORBURATA
Small red marker buoys
N
Dolphin
Max. draft 32ft.
LOA 170m.
Beam 26m.
Depth 14.6m.
4 Shackles
CABELLO 2miles
Rope to shore chain
Small berth for lighters
Maraven Tank Farm

"Plan supplied by Ship's Master"


PUERTO LA CRUZ
BERGANTIN BAY
BERTH 4
BERTH 5
POZUELOS BAY
LOADING DOCKS
BERTH 3
BERTH 2
BERTH 1
Refinery Products Loading Lines
Ballast Pits
DRY CARGO DOCKS
Crude Oil Loading Lines
S.A. MENEVEN


Puerto Miranda
PUERTO MIRANDA
Jetty 3
AP6
PM
Jetty 2
AP5
Punta Gorda
Minimum depth 12.5 m.
Vessels partly loaded From the Lake to Puerto Miranda
VAP4
VAP2
"S" Anchorage Area
VAP3
B63
B65
Mimimum depth 10.36 m.
B66
B64A
B64
B66A
B61
B62
"N" Anchorage Area
VAP1
VB59
Punta de Palmas
VB57B
B60
Pta Capitan Chico
B57A
B57
B58
T55
T56



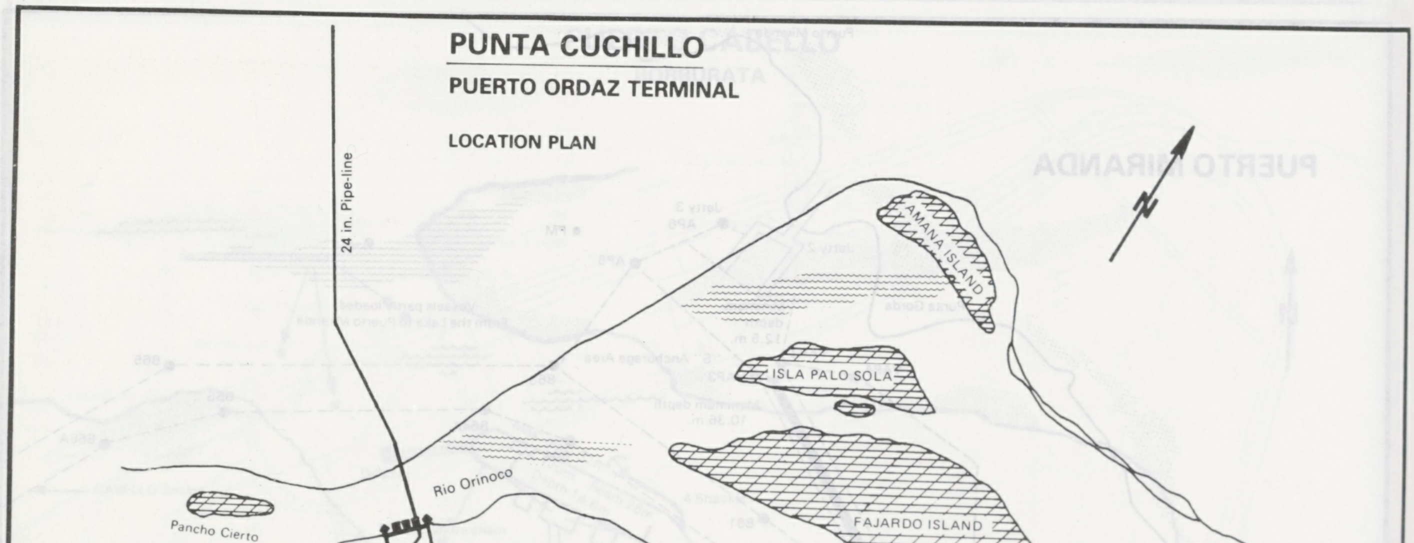
PUERTO SUCRE
(CUMANA)

Rubber fenders on pier in reasonable condition

SOUNDINGS TAKEN AT HIGH WATER. HEIGHT OF TIDE 0.2 METRES

525ft
4.5m
8.4m
8.6m
8.7m
8.5m
8.0m
8.1m
8.6m
70ft
70ft
8.7m
118ft
450ft
70ft
30ft
9.7m
8.4m
8.6m
8.0m
9.5m
10.5m
10.3m
10.7m
8.0m
050°
10.2m
12.5m
13.0m
12.0m

"Plan supplied by Ship's Master"



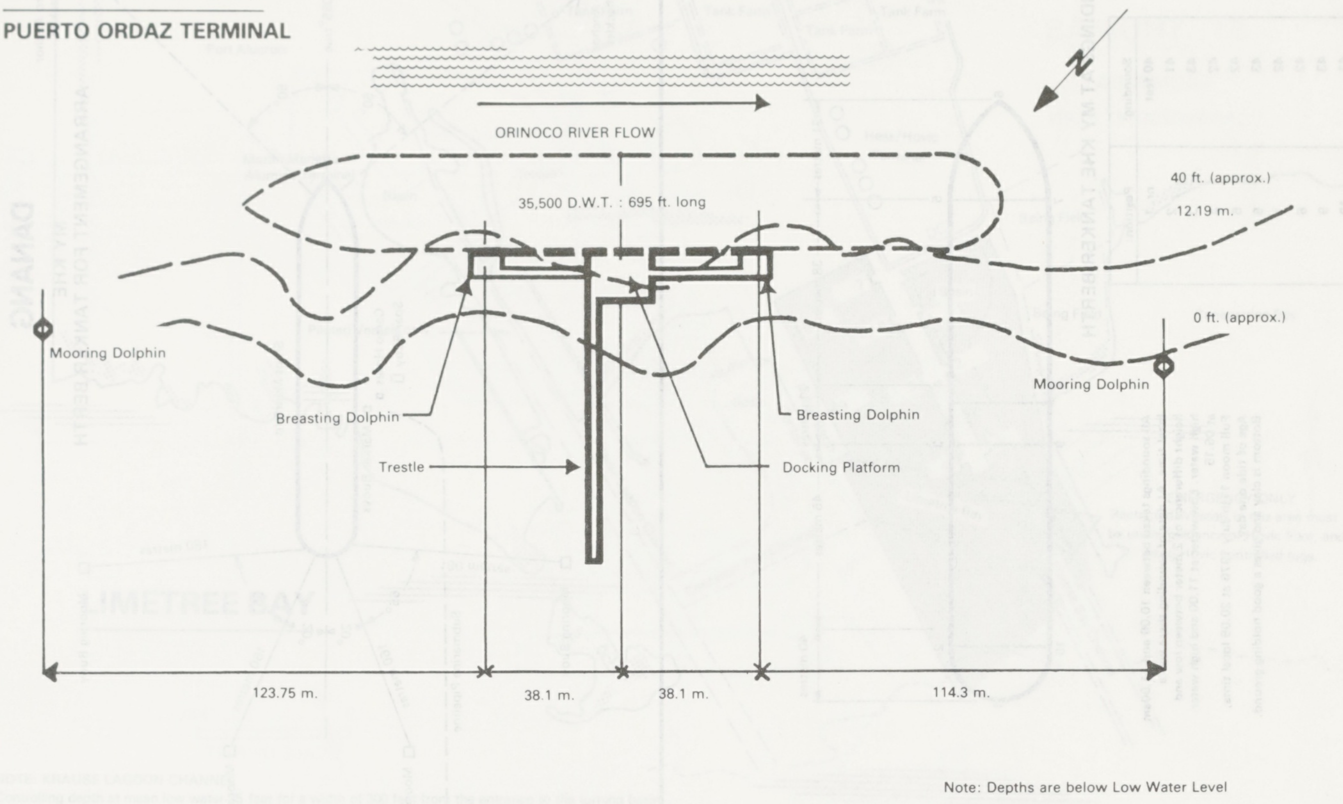
PUNTA CUCHILLO
PUERTO ORDAZ TERMINAL

LOCATION PLAN

24 in. Pipe-line
AMANA ISLAND
ISLA PALO SOLA
FAJARDO ISLAND
LITTLE FAJARDO ISLAND
Rio Orinoco
Pancho Cierto
P.P.Co. Dock
Steel Plant
Storage Tanks
Puerto Ordaz
Rio Caroni

PUNTA CUCHILLO

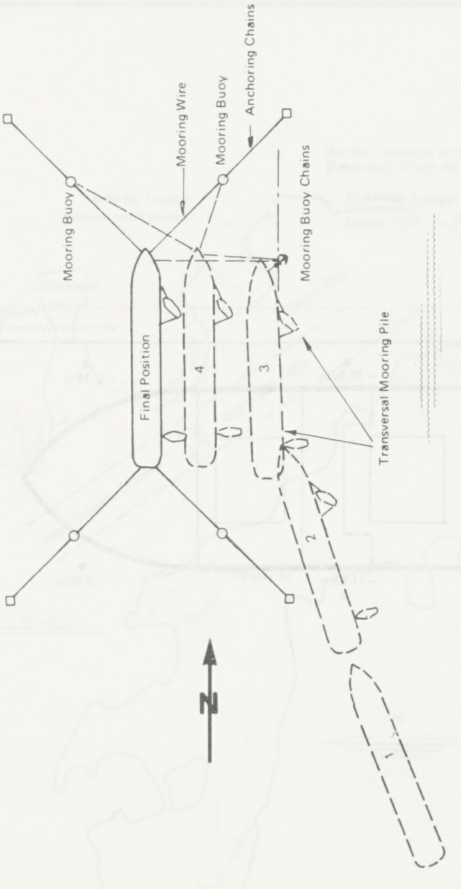
PUERTO ORDAZ TERMINAL


ORINOCO RIVER FLOW
35,500 D.W.T. : 695 ft. long
N
40 ft. (approx.)
12.19 m.
0 ft. (approx.)
Mooring Dolphin
Mooring Dolphin
Breasting Dolphin
Breasting Dolphin
Trestle
Docking Platform
123.75 m.
38.1 m.
38.1 m.
114.3 m.

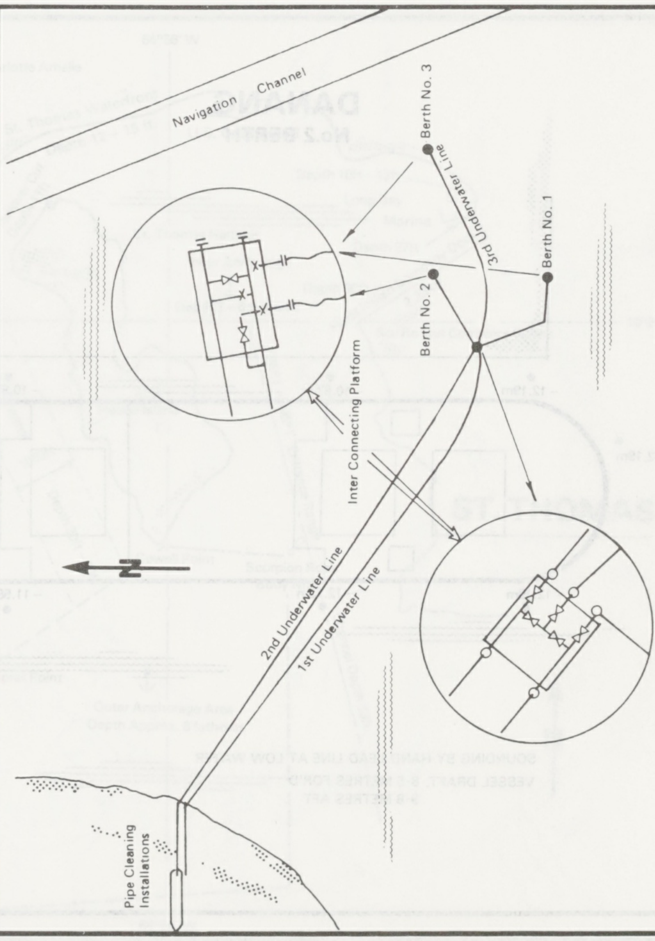
Note: Depths are below Low Water Level

PUNTA DE PALMAS

MOORING DIAGRAM

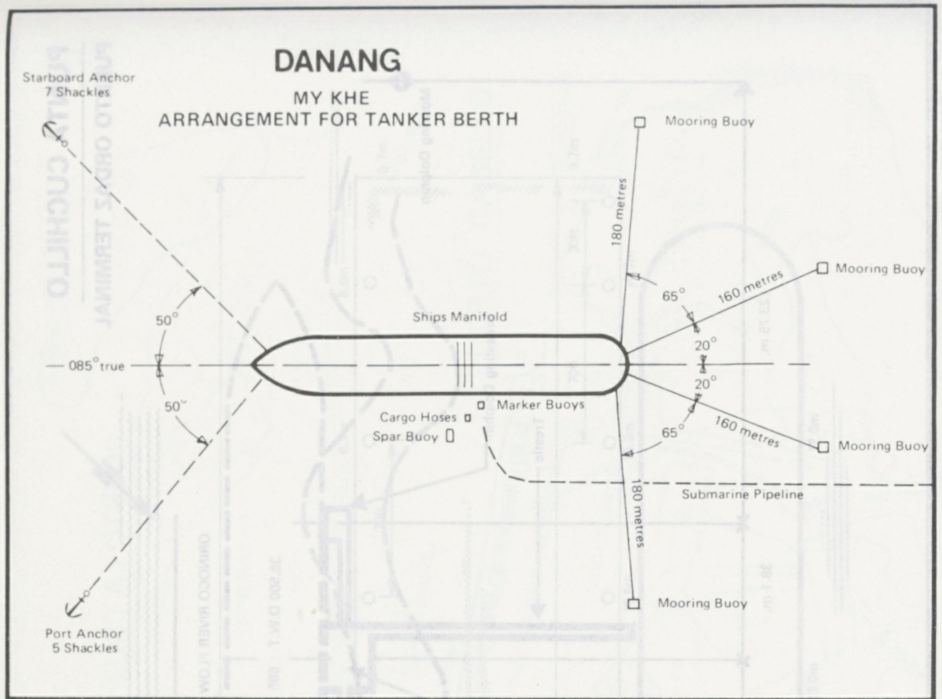

Mooring Buoy
Mooring Wire
Mooring Buoy
Anchoring Chains
Mooring Buoy Chains
Final Position
4
3
2
1
Transversal Mooring Pile
N

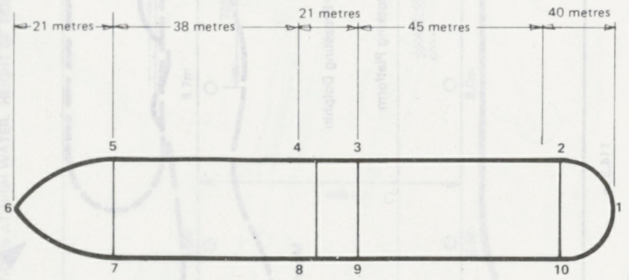
BERTH LOCATION


Navigation Channel
Berth No. 3
3rd Underwater Line
Berth No. 1
Berth No. 2
Inter Connecting Platform
N
2nd Underwater Line
1st Underwater Line
Pipe Cleaning Installations

DANANG

MY KHE
ARRANGEMENT FOR TANKER BERTH


Starboard Anchor
7 Shackles
Mooring Buoy
180 metres
65°
160 metres
Mooring Buoy
Ships Manifold
50°
085° true
20°
20°
50°
Marker Buoys
Cargo Hoses
Spar Buoy
65°
160 metres
Mooring Buoy
180 metres
Submarine Pipeline
Mooring Buoy
Port Anchor
5 Shackles


21 metres
38 metres
21 metres
45 metres
40 metres
5
4
3
2
6
1
7
8
9
10

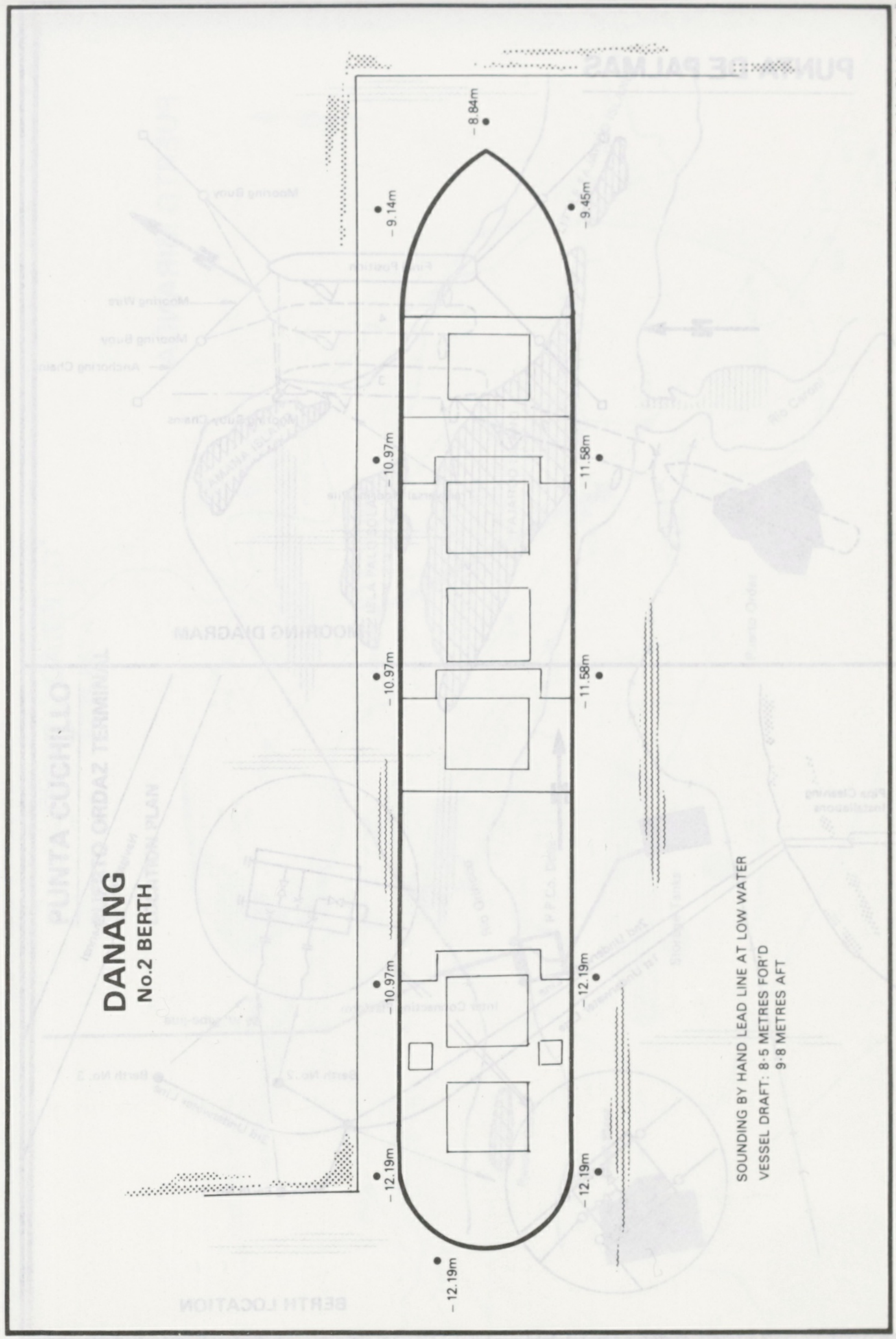
SOUNDINGS AT MY KHE TANKER BERTH

Sounding:	Position:
40 feet	nr. 1
41	2
43	3
42	4
42	5
43	6
42	7
42	8
43	9
41	10

All soundings taken between 10.00 and 11.00am local time. At date of sounding there was a height difference of 2 meter between low and high water. Low water at 11.00 and high water at 06.15
Full moon 11th July 1976 at 20.09 local time,
Age of tide one day.
Bottom is clay and gives a good holding ground.

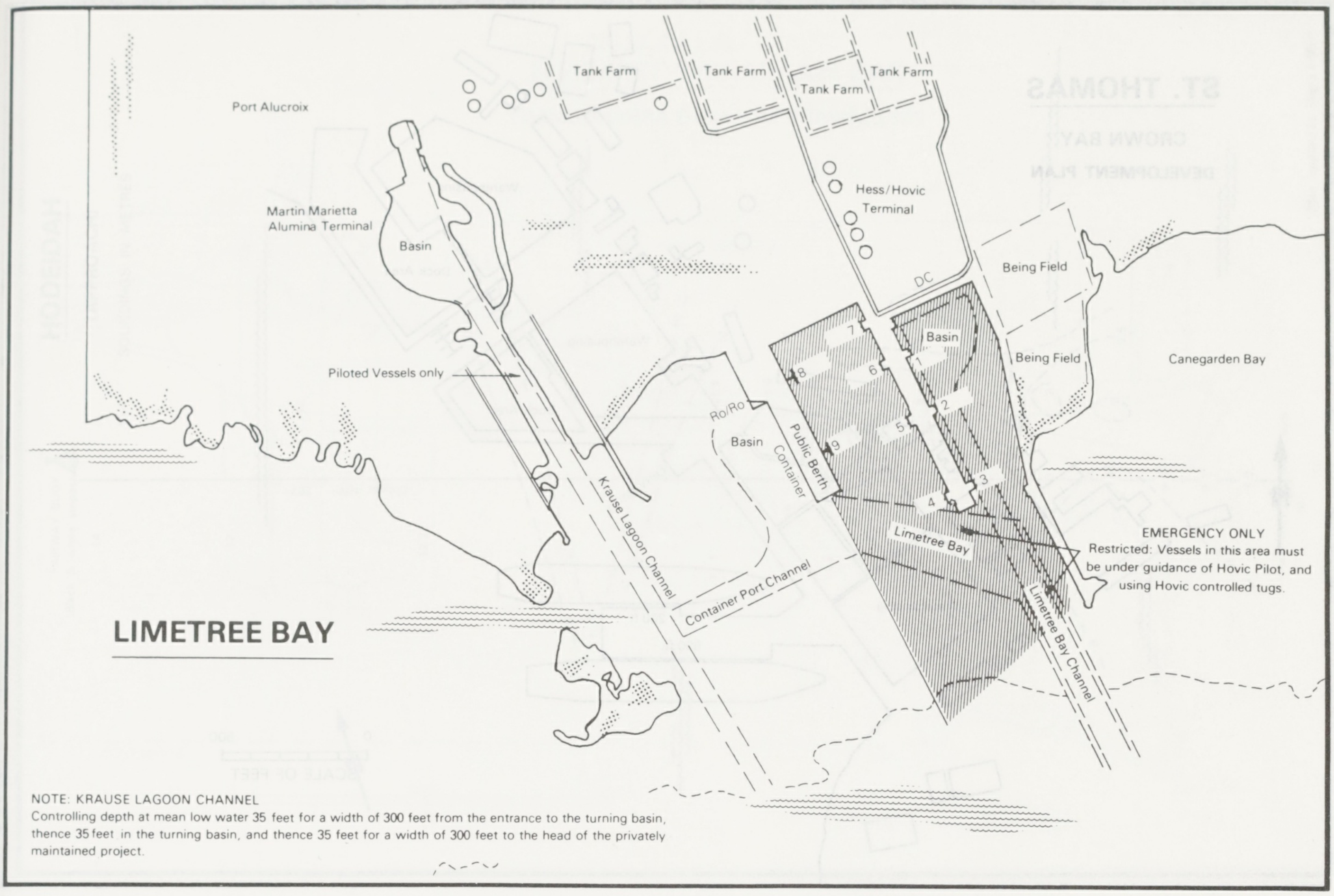
"Plan supplied by Ship's Master"

DANANG
No.2 BERTH

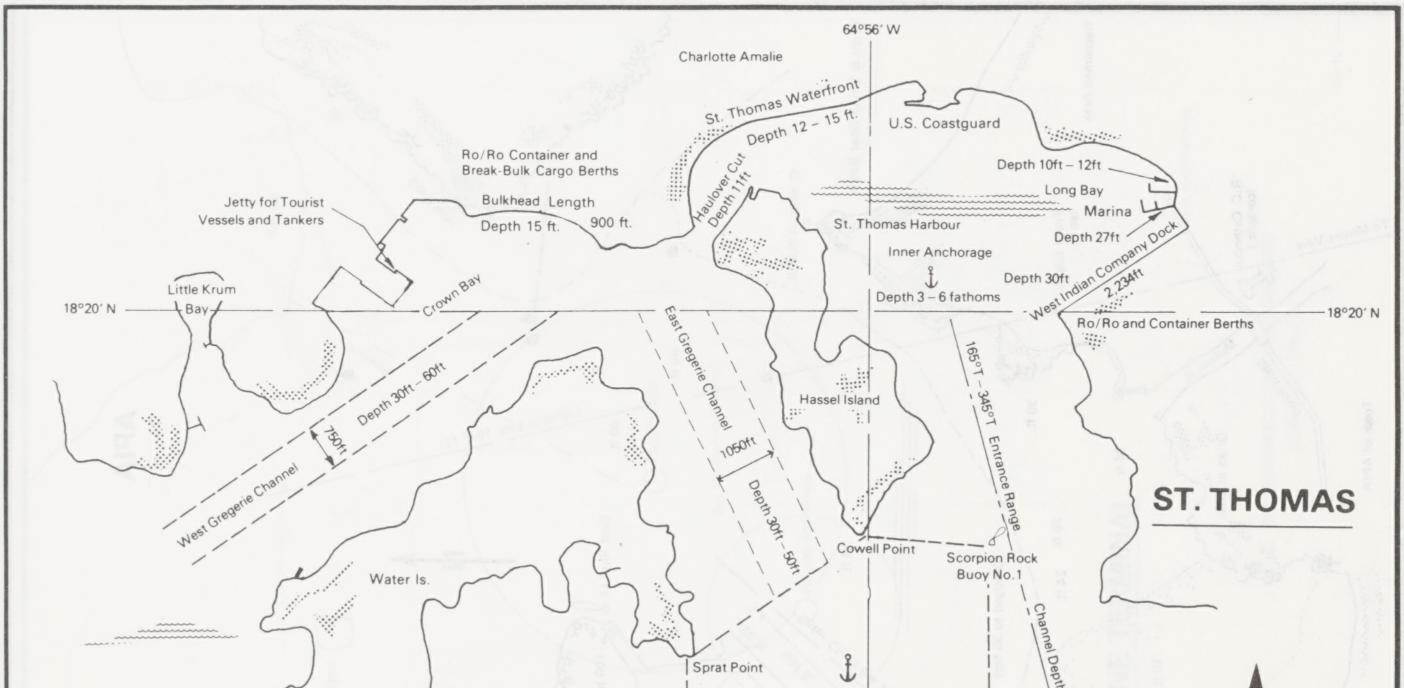

– 8.84m
– 9.14m
– 9.45m
– 10.97m
– 11.58m
– 10.97m
– 11.58m
– 10.97m
– 12.19m
– 12.19m
– 12.19m
– 12.19m

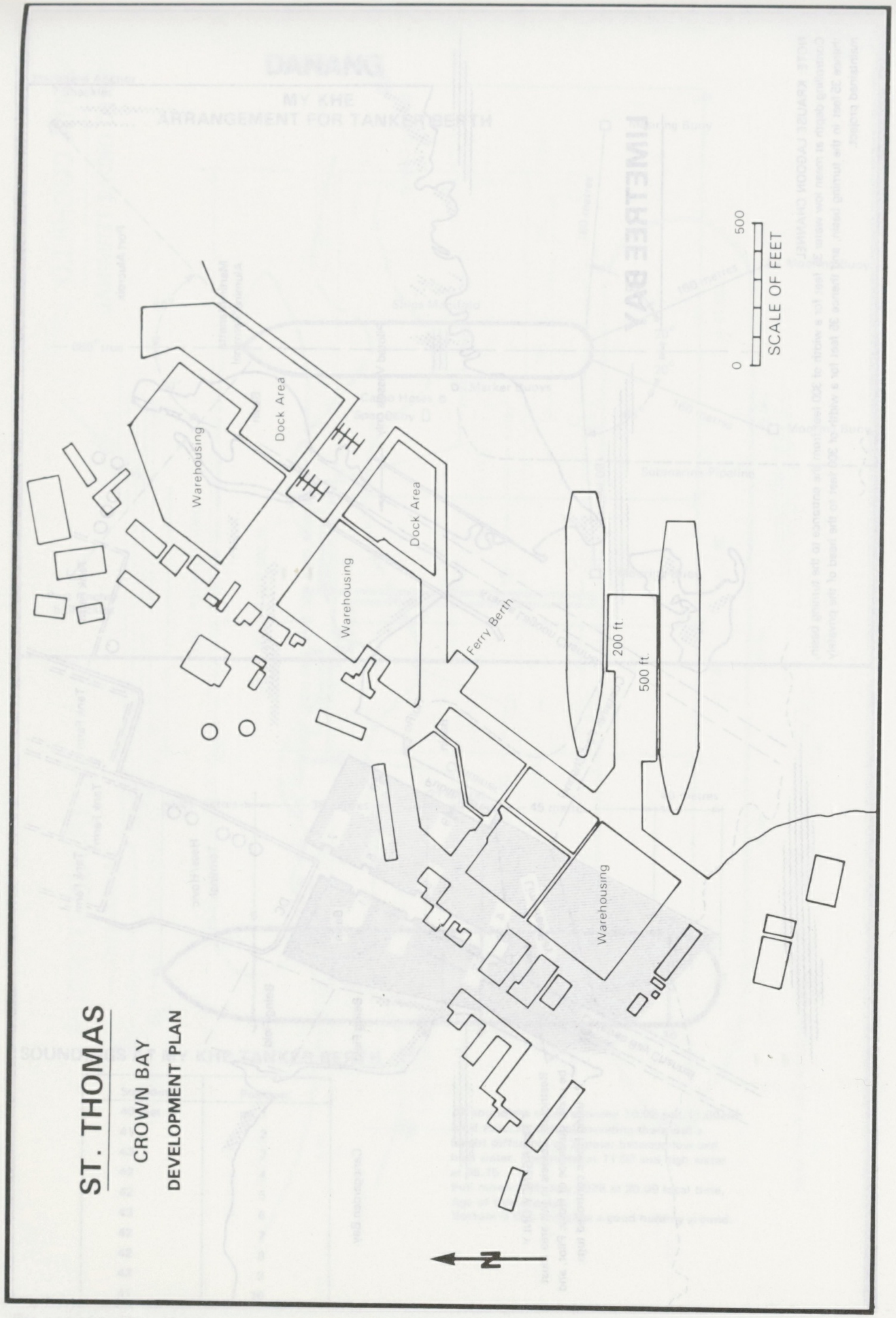
SOUNDING BY HAND LEAD LINE AT LOW WATER
VESSEL DRAFT: 8·5 METRES FOR'D
9·8 METRES AFT

"Plan supplied by Ship's Master"


Port Alucroix
Tank Farm
Tank Farm
Tank Farm
Tank Farm
Martin Marietta Alumina Terminal
Basin
Hess/Hovic Terminal
DC
Being Field
Being Field
Canegarden Bay
Basin
1
2
3
4
5
6
7
8
9
Piloted Vessels only
Ro/Ro
Basin
Public Berth
Container
Krause Lagoon Channel
Container Port Channel
Limetree Bay
Limetree Bay Channel
EMERGENCY ONLY
Restricted: Vessels in this area must be under guidance of Hovic Pilot, and using Hovic controlled tugs.
LIMETREE BAY

NOTE: KRAUSE LAGOON CHANNEL
Controlling depth at mean low water 35 feet for a width of 300 feet from the entrance to the turning basin, thence 35 feet in the turning basin, and thence 35 feet for a width of 300 feet to the head of the privately maintained project.


64°56′ W
Charlotte Amalie
St. Thomas Waterfront
Depth 12 – 15 ft.
U.S. Coastguard
Ro/Ro Container and Break-Bulk Cargo Berths
Bulkhead Length
Depth 15 ft.
900 ft.
Haulover Cut Depth 11ft
Depth 10ft – 12ft
Long Bay
Marina
Depth 27ft
St. Thomas Harbour
Inner Anchorage
Depth 3 – 6 fathoms
Depth 30ft
West Indian Company Dock
2,234ft
Ro/Ro and Container Berths
Jetty for Tourist Vessels and Tankers
Little Krum Bay
18°20′ N
Crown Bay
18°20′ N
East Gregerie Channel
Depth 30ft – 60ft
750ft
West Gregerie Channel
1050ft
Depth 30ft – 50ft
Hassel Island
165°T – 345°T Entrance Range
ST. THOMAS
Cowell Point
Scorpion Rock Buoy No.1
Channel Depth 33ft
Water Is.
Sprat Point
Outer Anchorage Area Depth Approx. 8 fathoms
N
Flamingo Pt.
64°56′ W

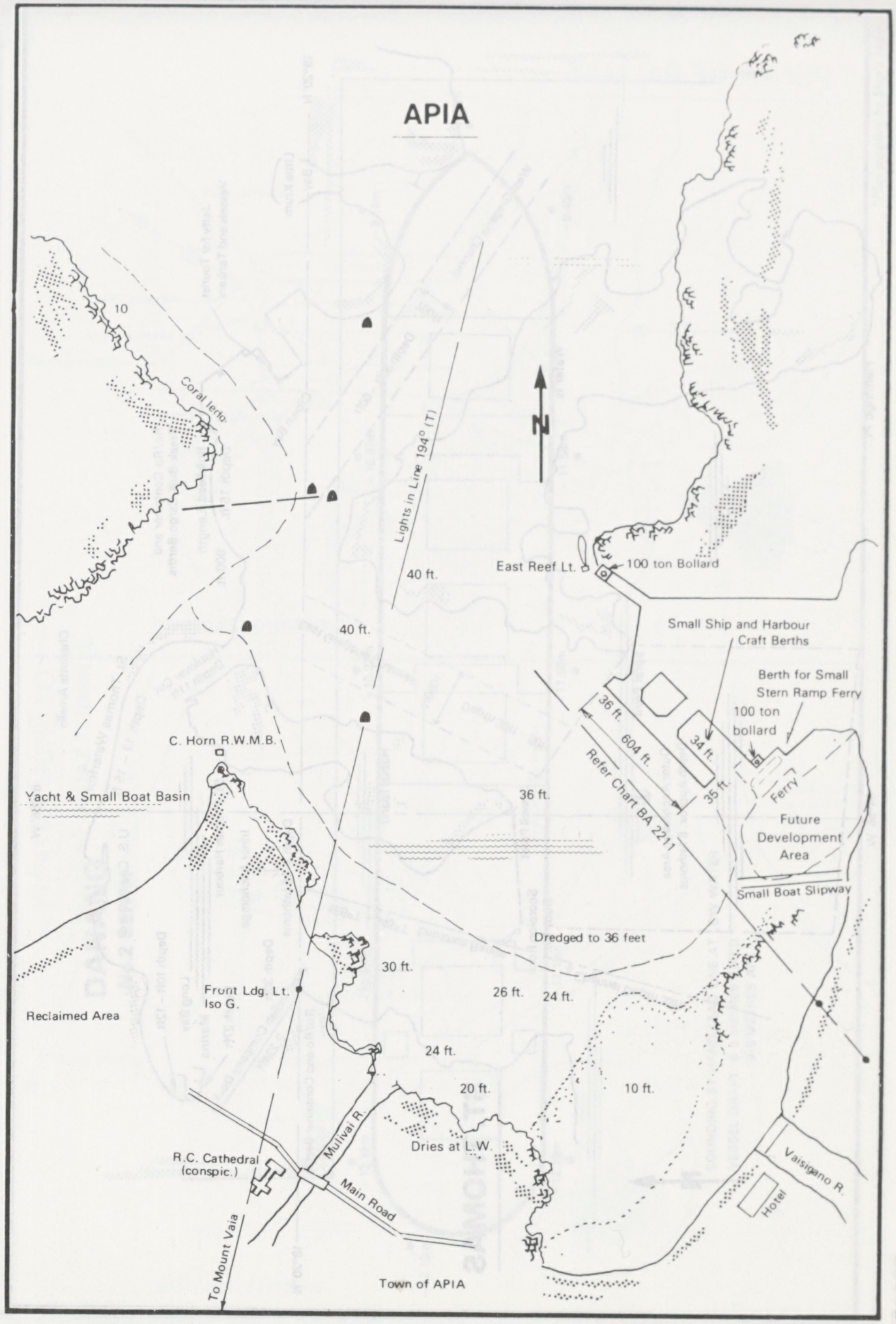


ST. THOMAS

CROWN BAY

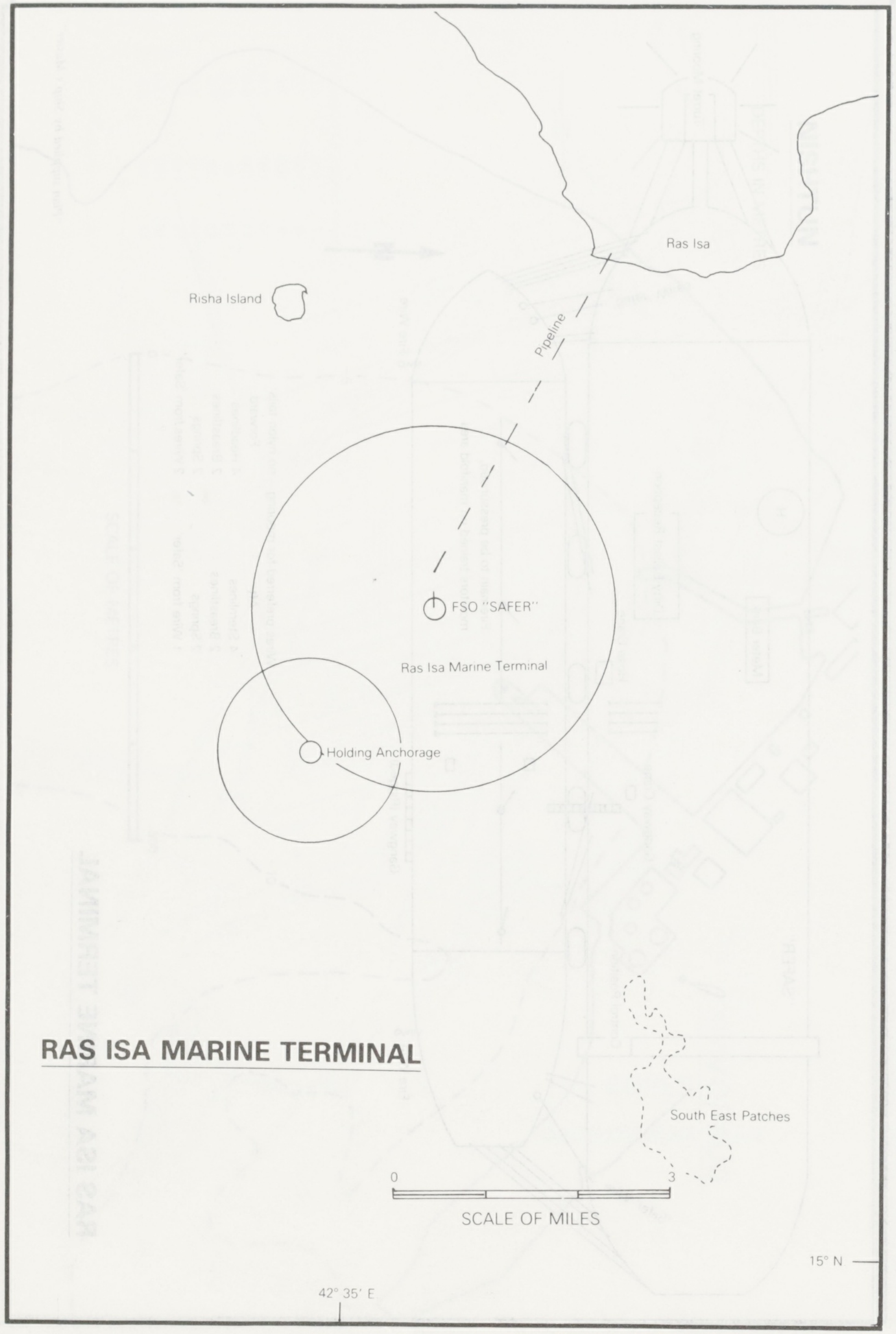
DEVELOPMENT PLAN

Warehousing
Dock Area
Dock Area
Warehousing
Ferry Berth
200 ft.
500 ft.
Warehousing
0
500
SCALE OF FEET
N

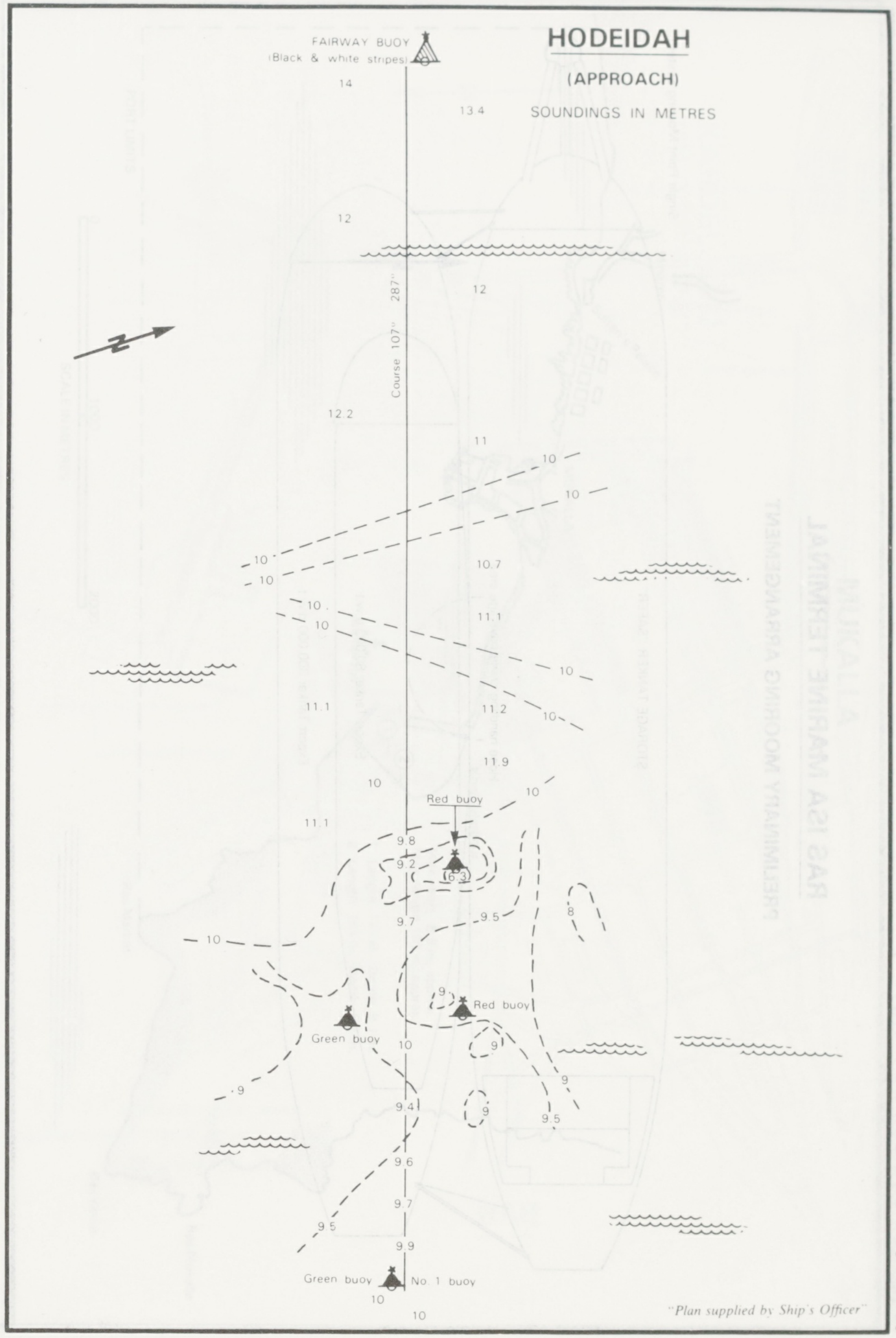


APIA

10
Coral ledge
Lights in Line 194° (T)
N
East Reef Lt.
100 ton Bollard
40 ft.
40 ft.
Small Ship and Harbour Craft Berths
Berth for Small Stern Ramp Ferry
100 ton bollard
36 ft.
604 ft.
34 ft.
35 ft.
Ferry
Refer Chart BA 2211
C. Horn R.W.M.B.
Yacht & Small Boat Basin
36 ft.
Future Development Area
Small Boat Slipway
Dredged to 36 feet
30 ft.
Front Ldg. Lt. Iso G.
26 ft.
24 ft.
Reclaimed Area
24 ft.
20 ft.
10 ft.
Mulivai R.
Dries at L.W.
R.C. Cathedral (conspic.)
Main Road
Vaisigano R.
Hotel
To Mount Vaia
Town of APIA


Ras Isa
Risha Island
Pipeline
FSO "SAFER"
Ras Isa Marine Terminal
Holding Anchorage
South East Patches
0
3
SCALE OF MILES
15° N
42° 35′ E

RAS ISA MARINE TERMINAL


FAIRWAY BUOY
(Black & white stripes)
14
13.4
12
12
Course 107° 287°
12.2
11
10
10
10
10
10.7
10
10
11.1
10
11.1
11.2
10
11.9
10
10
Red buoy
11.1
9.8
9.2
6.3
9.7
9.5
8
10
9
Red buoy
Green buoy
10
9
9
.9
9.4
9
9.5
9.6
9.7
9.5
9.9
Green buoy
No 1 buoy
10
10

HODEIDAH

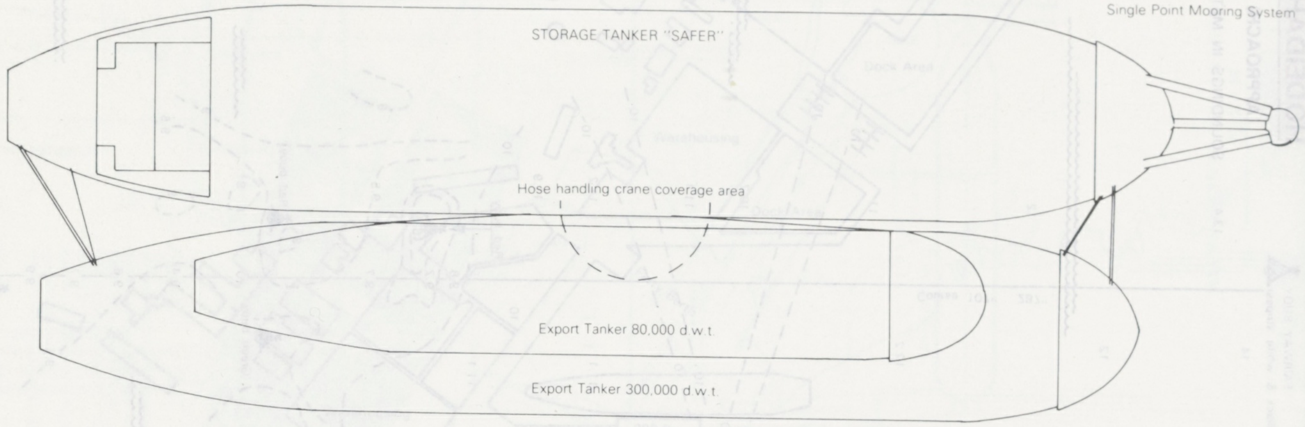
(APPROACH)

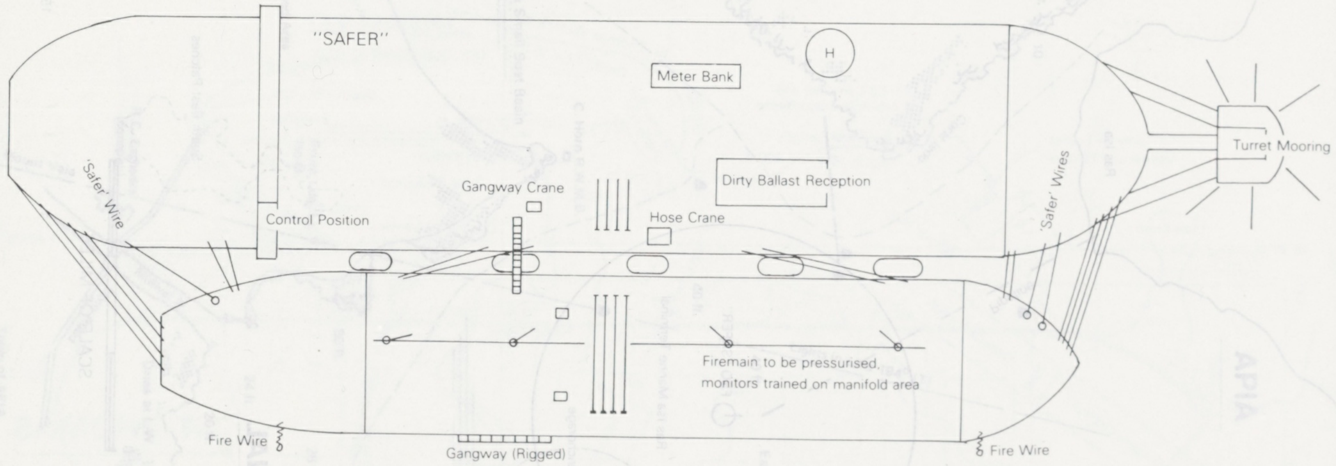
SOUNDINGS IN METRES

"Plan supplied by Ship's Officer"

RAS ISA MARINE TERMINAL

PRELIMINARY MOORING ARRANGEMENT


STORAGE TANKER "SAFER"
Single Point Mooring System
Hose handling crane coverage area
Export Tanker 80,000 d.w.t.
Export Tanker 300,000 d.w.t.


"SAFER"
H
Meter Bank
Turret Mooring
'Safer' Wire
Dirty Ballast Reception
'Safer' Wires
Gangway Crane
Hose Crane
Control Position
Firemain to be pressurised,
monitors trained on manifold area
Fire Wire
Gangway (Rigged)
Fire Wire

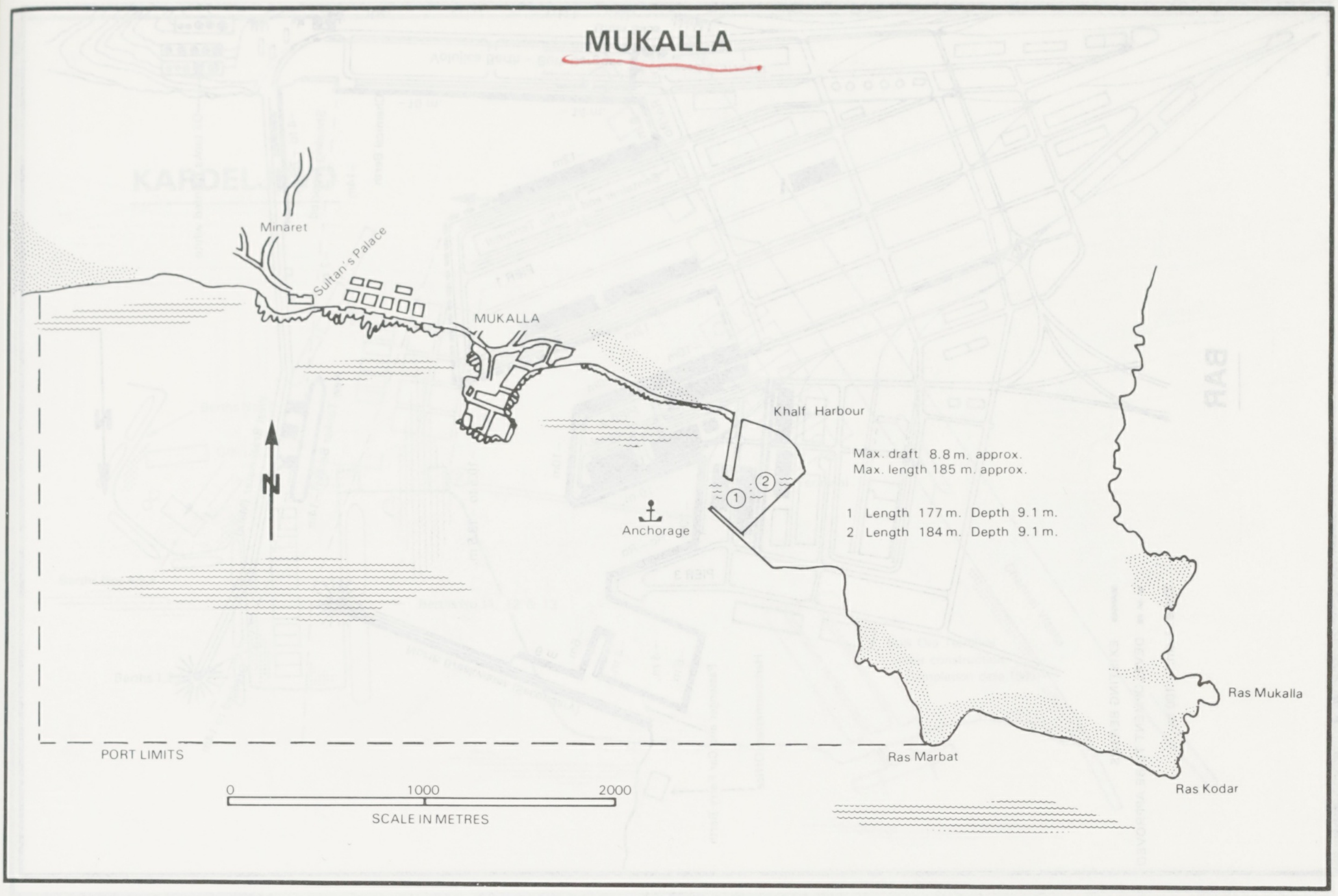
Wires preferred for mooring – no nylon tails

Aft	Forward
4 Sternlines	4 Headlines
2 Breastlines	2 Breastlines
2 Springs	2 Springs
1 Wire from 'Safer'	2 Wires from 'Safer'

RAS ISA MARINE TERMINAL

"Plan supplied by Ship's Master"

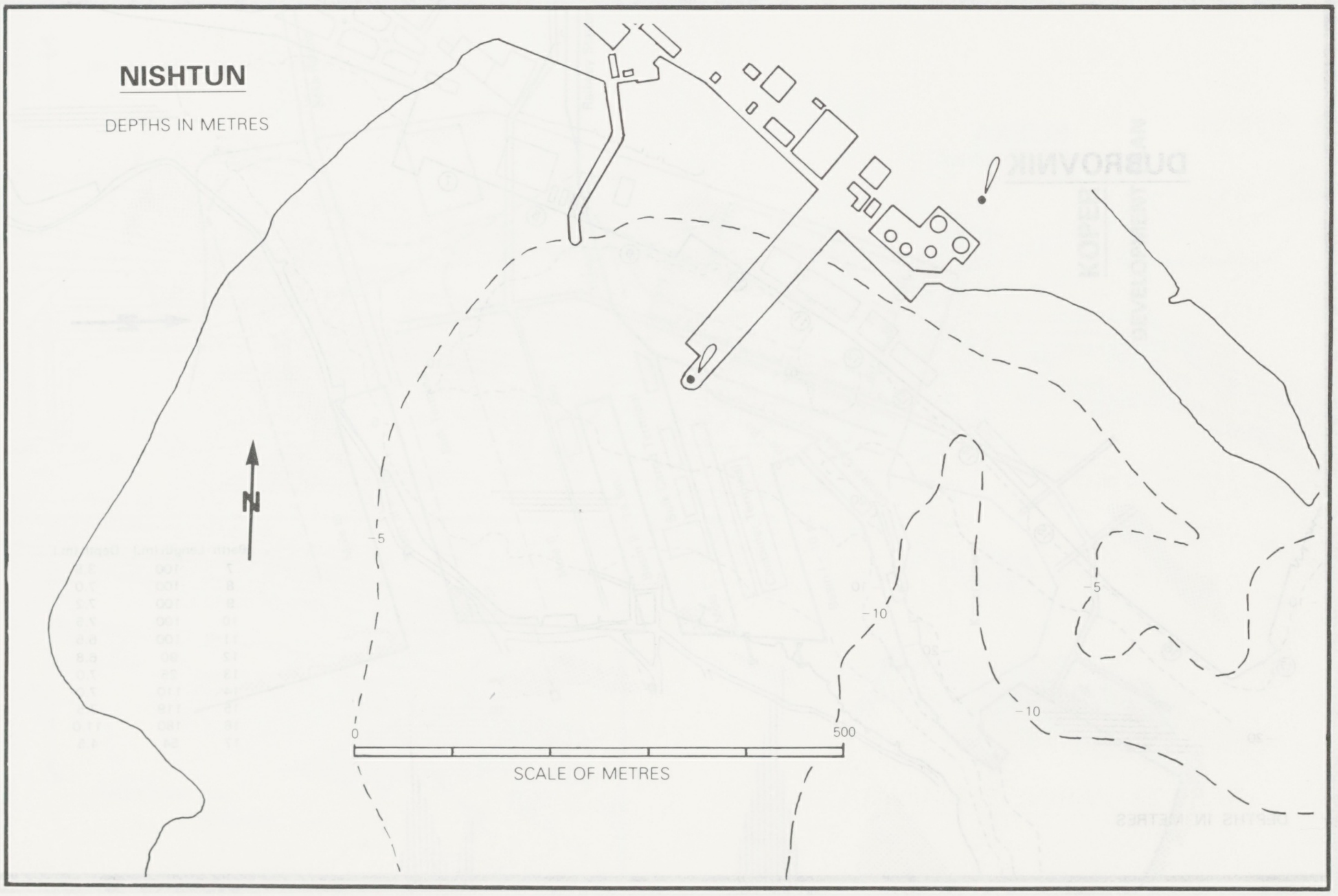
MUKALLA

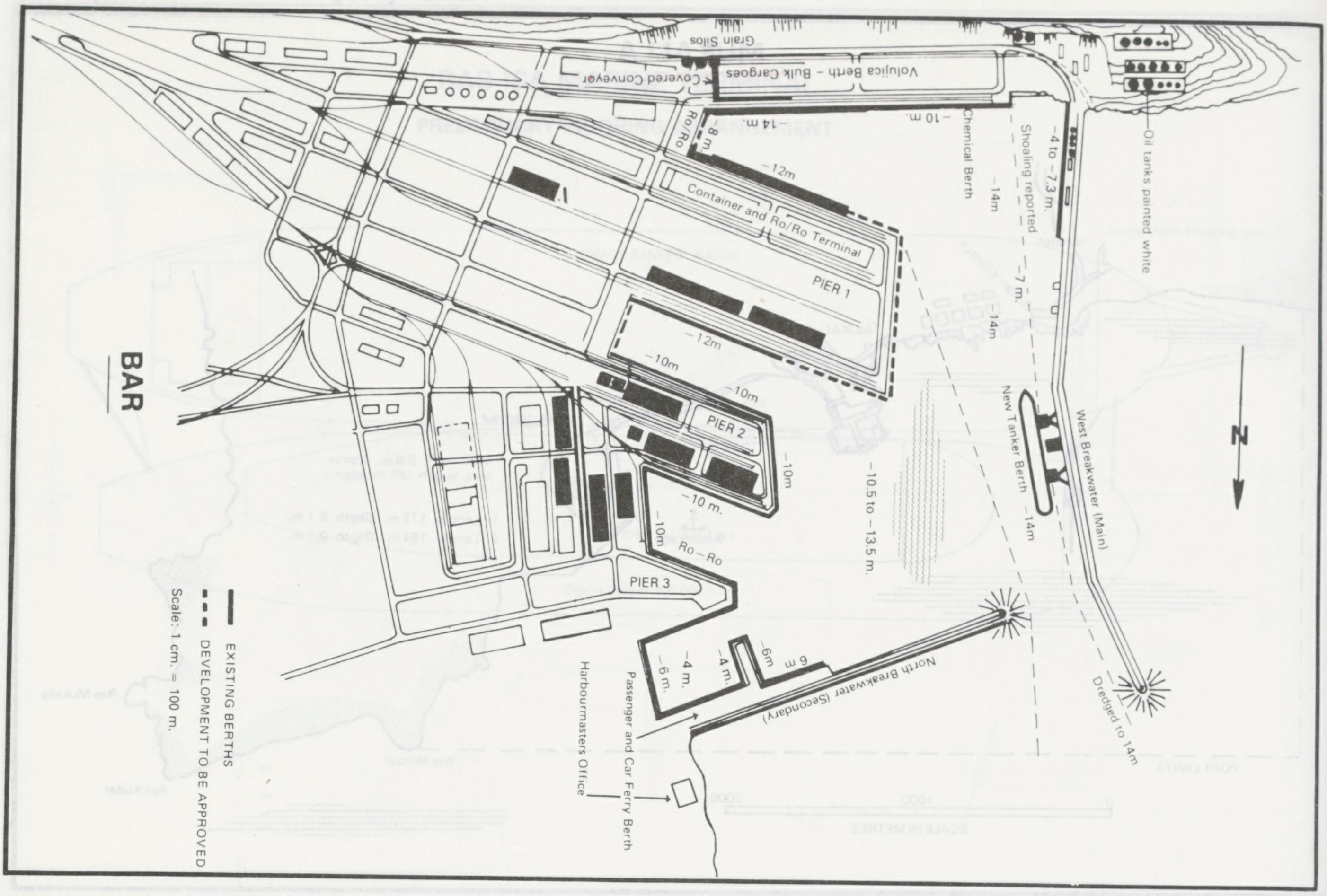

Minaret
Sultan's Palace
MUKALLA
Khalf Harbour
Max. draft 8.8 m. approx.
Max. length 185 m. approx.
1 Length 177 m. Depth 9.1 m.
2 Length 184 m. Depth 9.1 m.
①
②
Anchorage
N
Ras Mukalla
Ras Marbat
Ras Kodar
PORT LIMITS
0
1000
2000
SCALE IN METRES

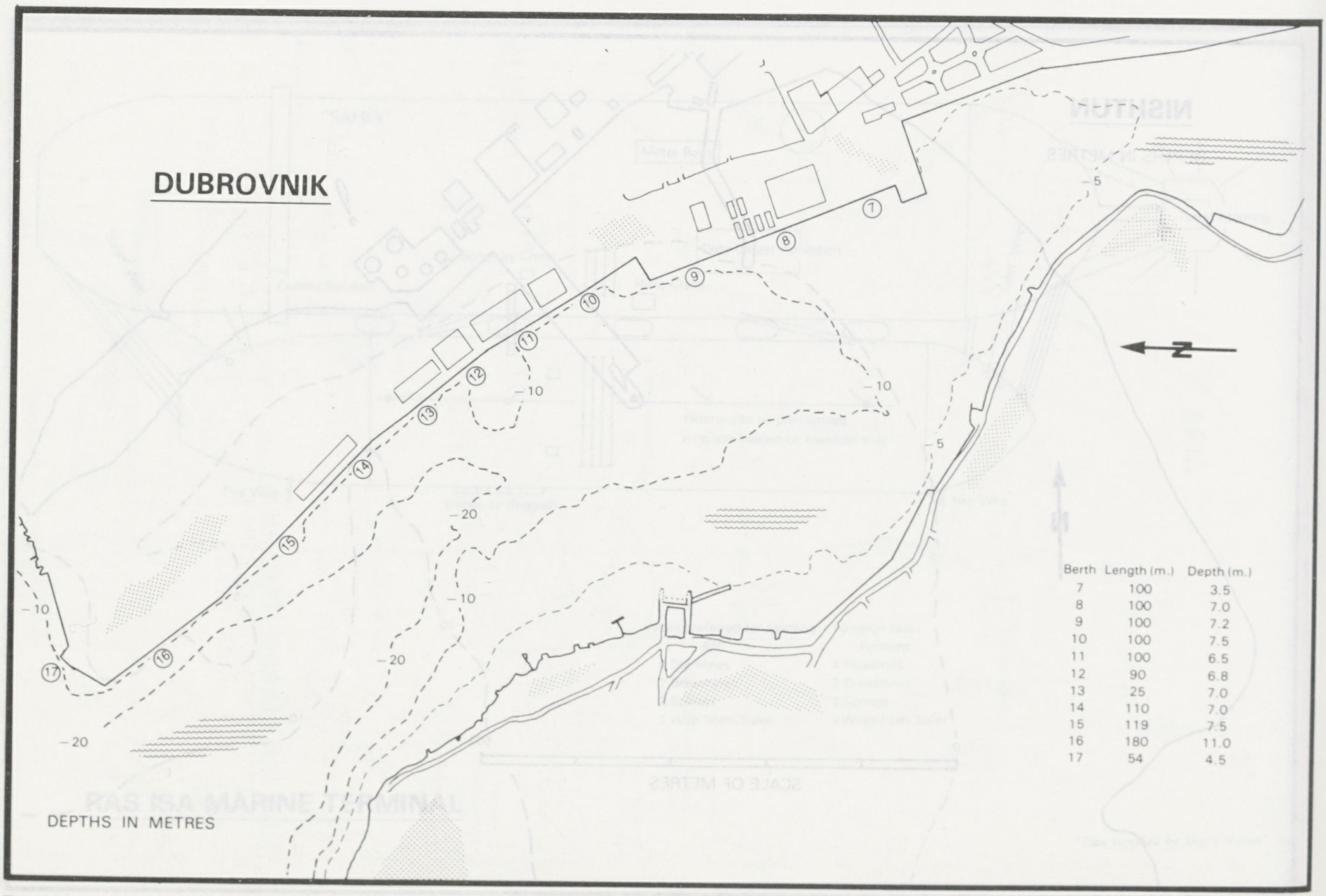
"Plan supplied by Ship's Master"

NISHTUN

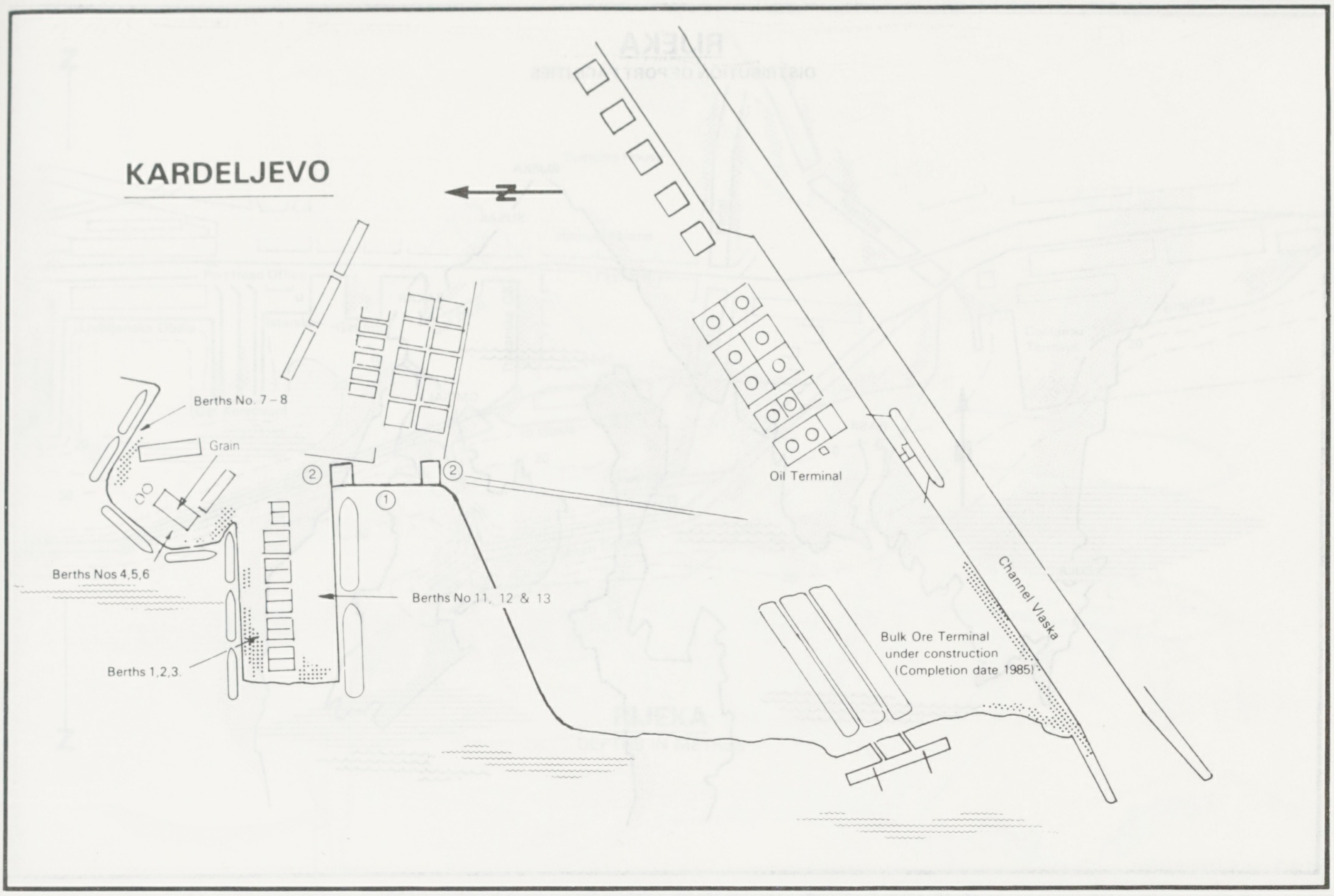
DEPTHS IN METRES

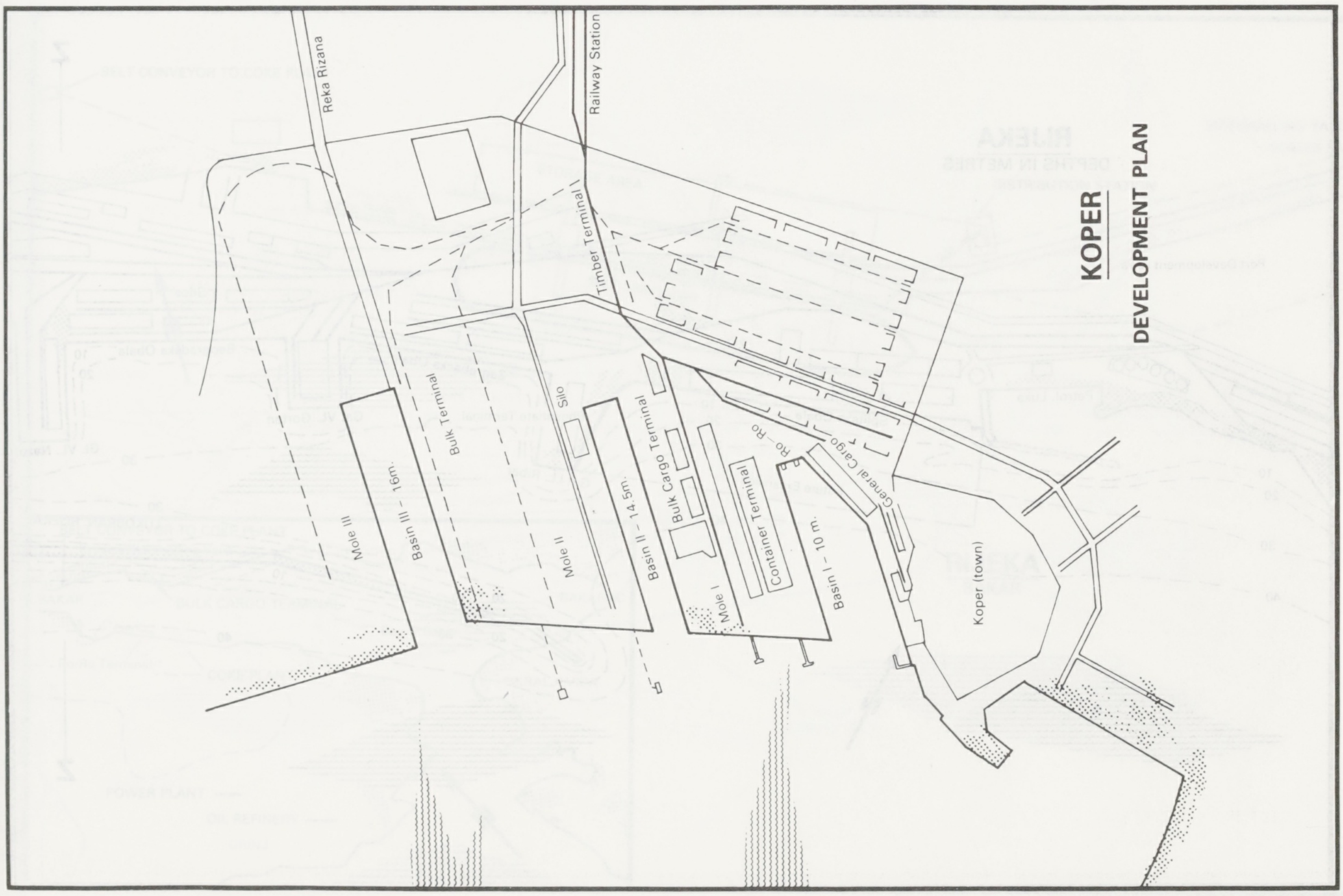

N
-5
-10
-10
-5
0
500
SCALE OF METRES

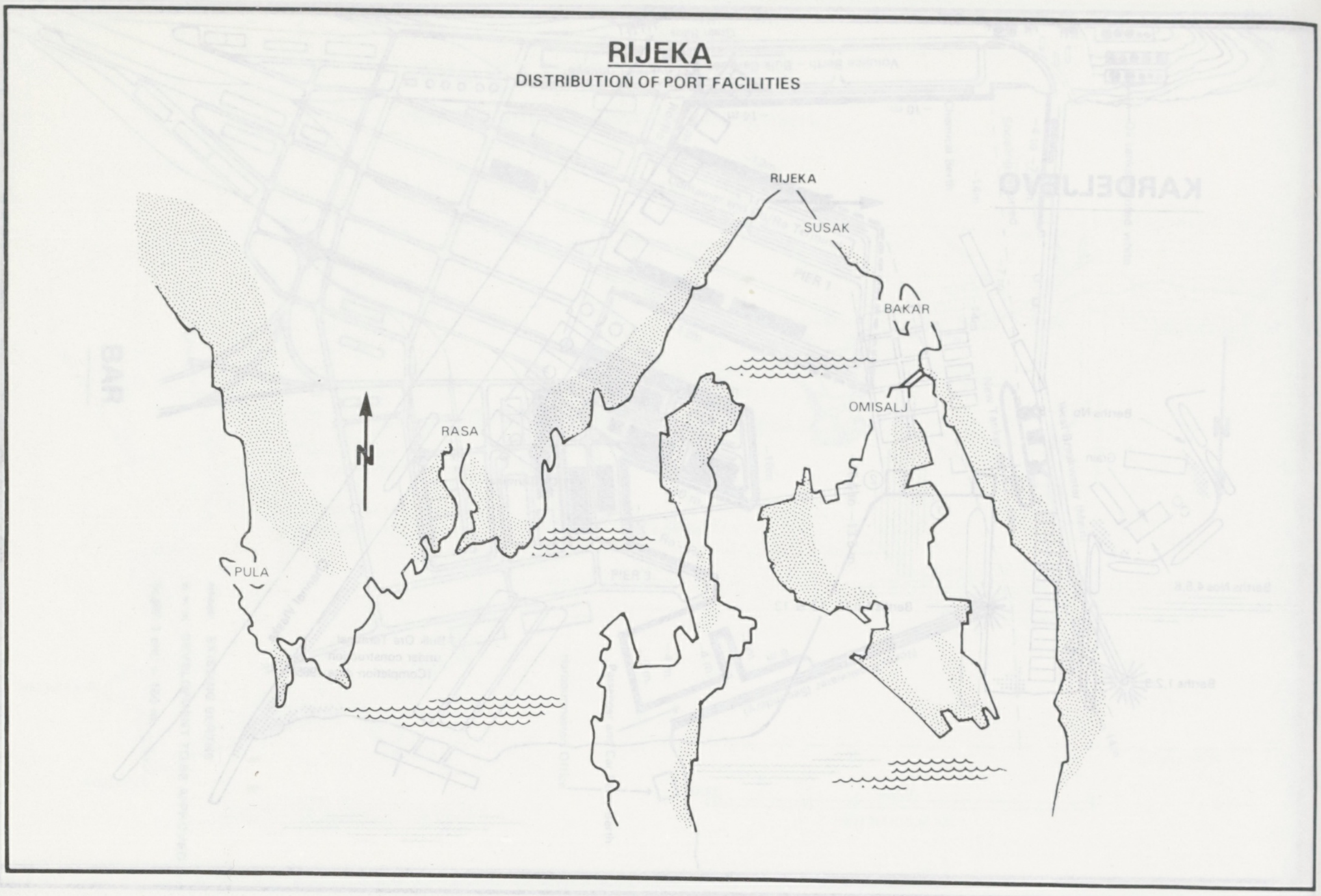

BAR
EXISTING BERTHS
DEVELOPMENT TO BE APPROVED
Scale: 1 cm. = 100 m.
Grain Silos
Covered Conveyor
Volujica Berth – Bulk Cargoes
–14 m.
–10 m.
Ro/Ro
–8 m
–12m
Container and Ro/Ro Terminal
PIER 1
Chemical Berth
Shoaling reported
–4 to –7.3 m.
–14m
–7 m.
–14m
Oil tanks painted white
–12m
–10m
–10m
PIER 2
–10m
–10 m.
–10m
Ro – Ro
PIER 3
–6m
6 m
–4 m.
–4 m.
–6 m.
North Breakwater (Secondary)
Passenger and Car Ferry Berth
Harbourmasters Office
–10.5 to –13.5 m.
New Tanker Berth
–14m
West Breakwater (Main)
Dredged to 14m
N

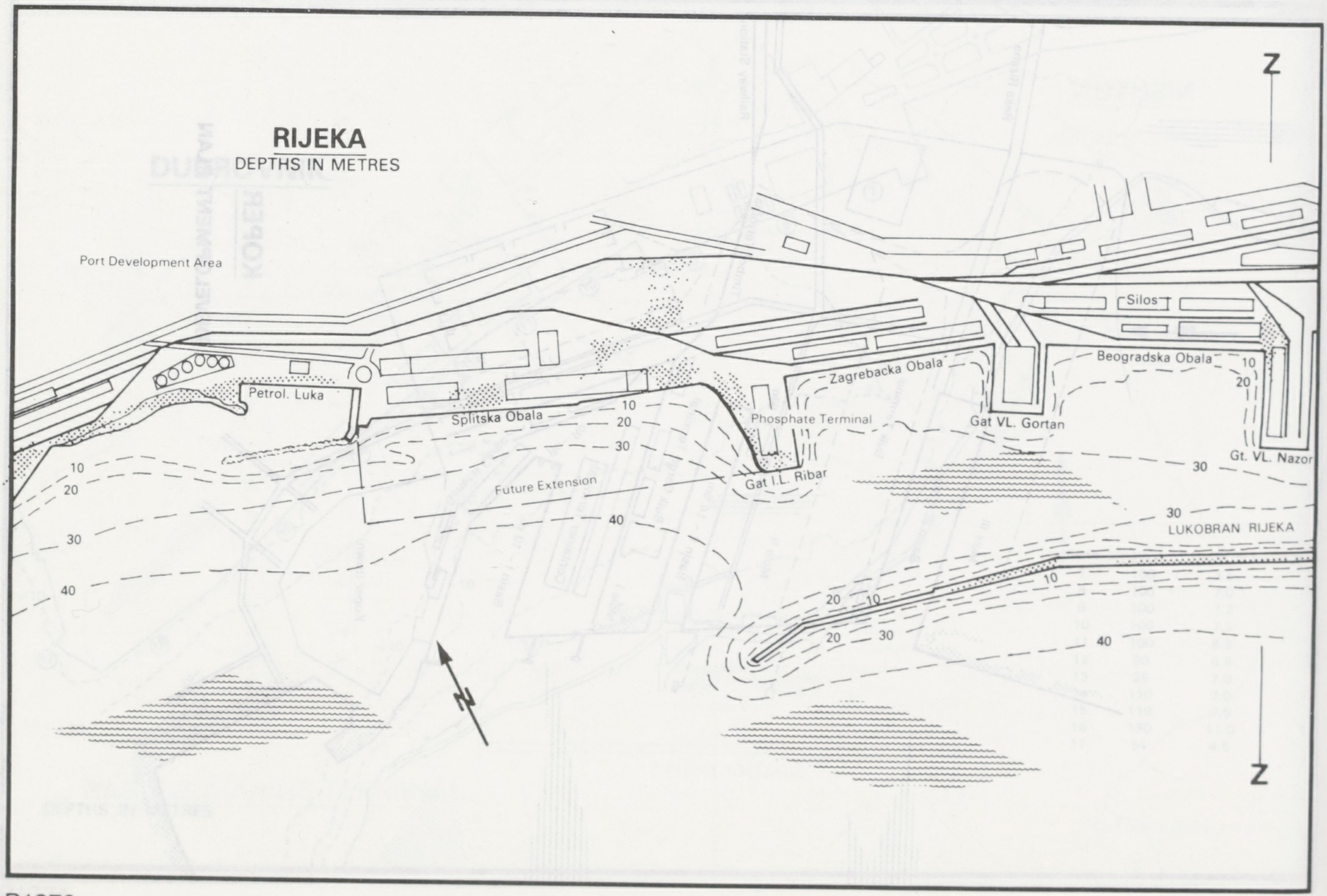

DUBROVNIK
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
⑰
–5
–10
–10
–5
–20
–10
–20
–10
–20
N
DEPTHS IN METRES

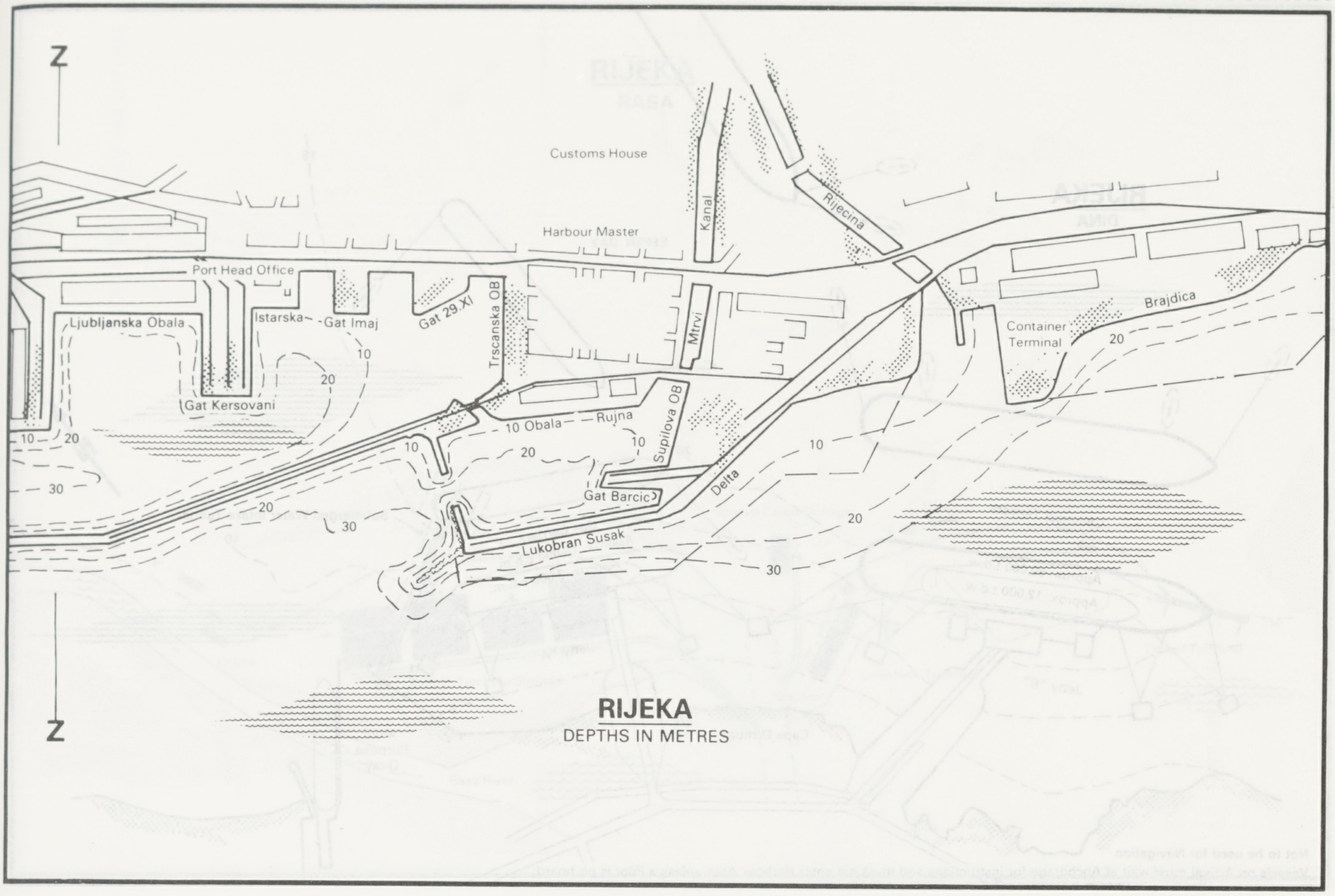
Berth	Length (m.)	Depth (m.)
7	100	3.5
8	100	7.0
9	100	7.2
10	100	7.5
11	100	6.5
12	90	6.8
13	25	7.0
14	110	7.0
15	119	7.5
16	180	11.0
17	54	4.5

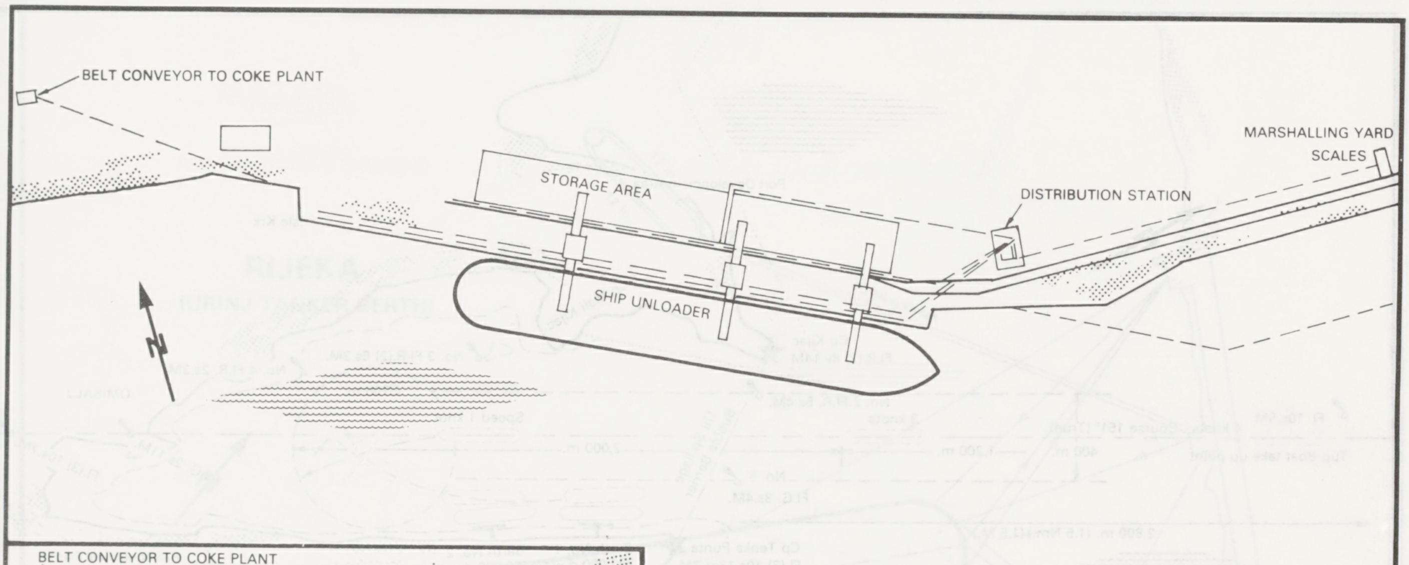

KARDELJEVO
N
Berths No. 7 – 8
Grain
Berths Nos 4,5,6
Berths 1,2,3.
Berths No 11, 12 & 13
②
①
②
Oil Terminal
Channel Vlaska
Bulk Ore Terminal
under construction
(Completion date 1985)

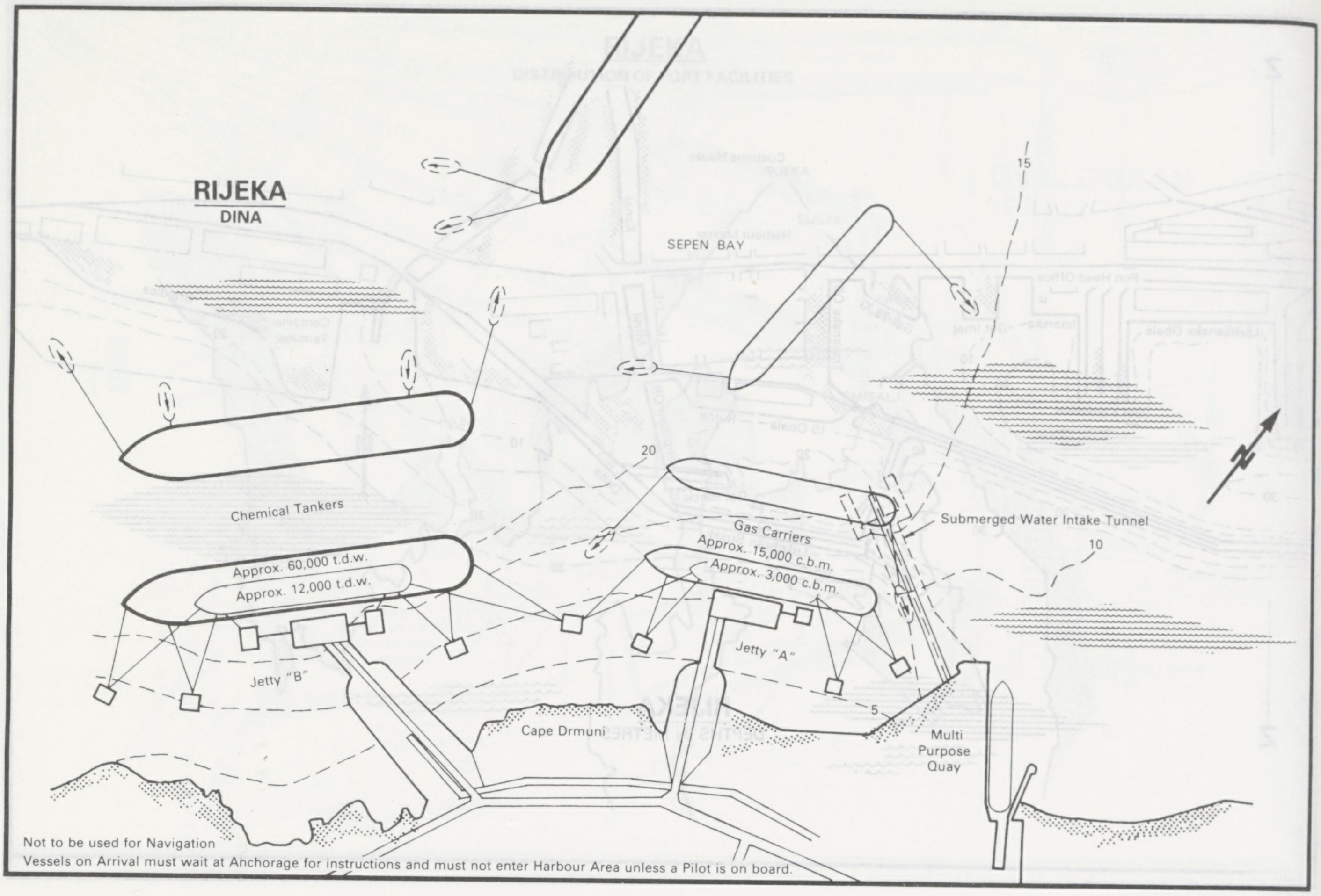

KOPER
DEVELOPMENT PLAN
Reka Rizana
Railway Station
Timber Terminal
Bulk Terminal
Silo
Bulk Cargo Terminal
Ro-Ro
General Cargo
Mole III
Basin III – 16m.
Mole II
Basin II – 14.5m.
Mole I
Container Terminal
Basin I – 10 m.
Koper (town)


RIJEKA
DISTRIBUTION OF PORT FACILITIES
RIJEKA
SUSAK
BAKAR
OMISALJ
RASA
N
PULA


Z
RIJEKA
DEPTHS IN METRES
Port Development Area
Silos
Petrol. Luka
Zagrebacka Obala
Beogradska Obala
10
20
Splitska Obala
10
20
Phosphate Terminal
Gat VL. Gortan
30
Gt. VL. Nazor
10
20
Gat I.L. Ribar
30
Future Extension
30
LUKOBRAN RIJEKA
40
30
10
40
20
10
20
30
40
N
Z


Z
Customs House
Kanal
Rijecina
Harbour Master
Port Head Office
Ljubljanska Obala
Istarska
Gat Imaj
Gat 29.XI
Trscanska OB
Mtrvi
Brajdica
Container Terminal
Gat Kersovani
10
20
30
10 Obala
Rujna
Supilova OB
Gat Barcic
Delta
Lukobran Susak
RIJEKA
DEPTHS IN METRES
Z

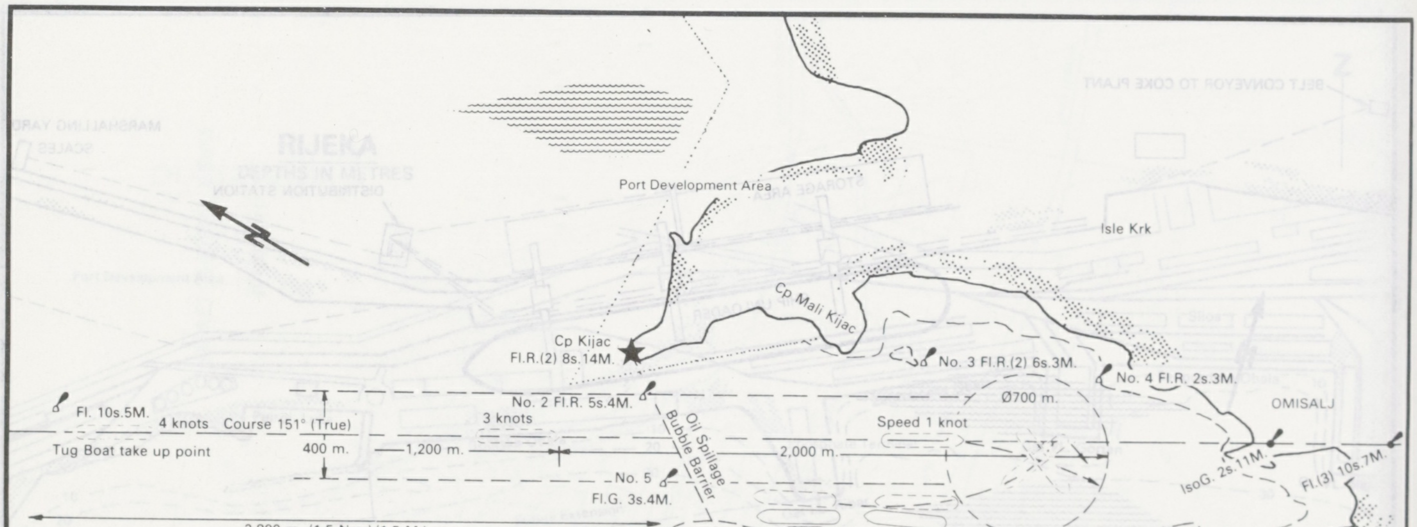

BELT CONVEYOR TO COKE PLANT
STORAGE AREA
MARSHALLING YARD
SCALES
DISTRIBUTION STATION
SHIP UNLOADER
N
RIJEKA
BAKAR
BELT CONVEYOR TO COKE PLANT
Krasica Marshalling Yard
BAKAR
BULK CARGO TERMINAL
BAKARAC
Bay of Bakar
Ro/Ro Terminal
COKE PLANT
KRALJEVICA
POWER PLANT
OIL REFINERY
URINJ
N



RIJEKA
DINA

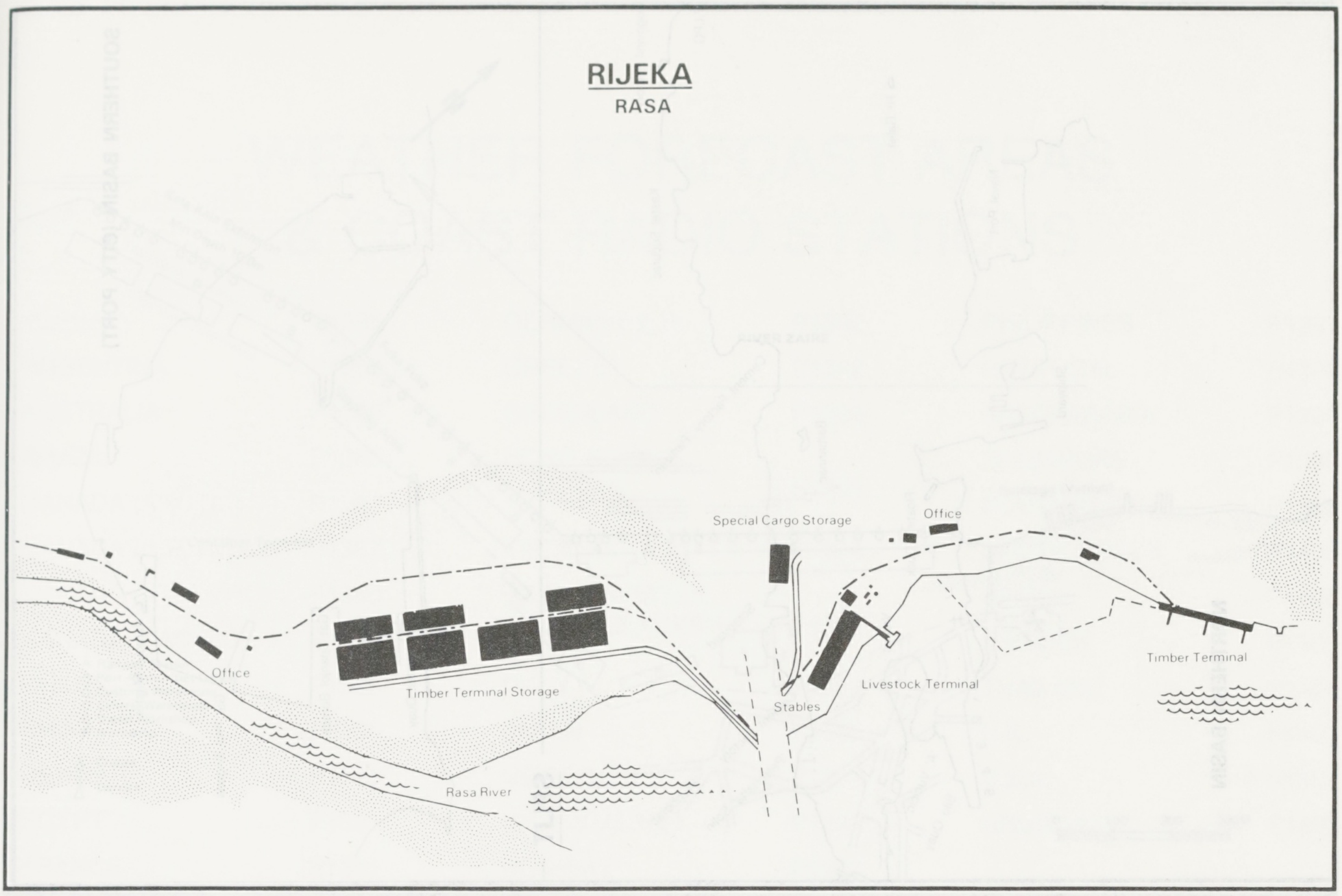
SEPEN BAY
15
10
20
5
Chemical Tankers
Approx. 60,000 t.d.w.
Approx. 12,000 t.d.w.
Gas Carriers
Approx. 15,000 c.b.m.
Approx. 3,000 c.b.m.
Submerged Water Intake Tunnel
10
Jetty "A"
Jetty "B"
Cape Drmuni
Multi Purpose Quay

Not to be used for Navigation
Vessels on Arrival must wait at Anchorage for instructions and must not enter Harbour Area unless a Pilot is on board.



RIJEKA
OMISALJ OIL TERMINAL

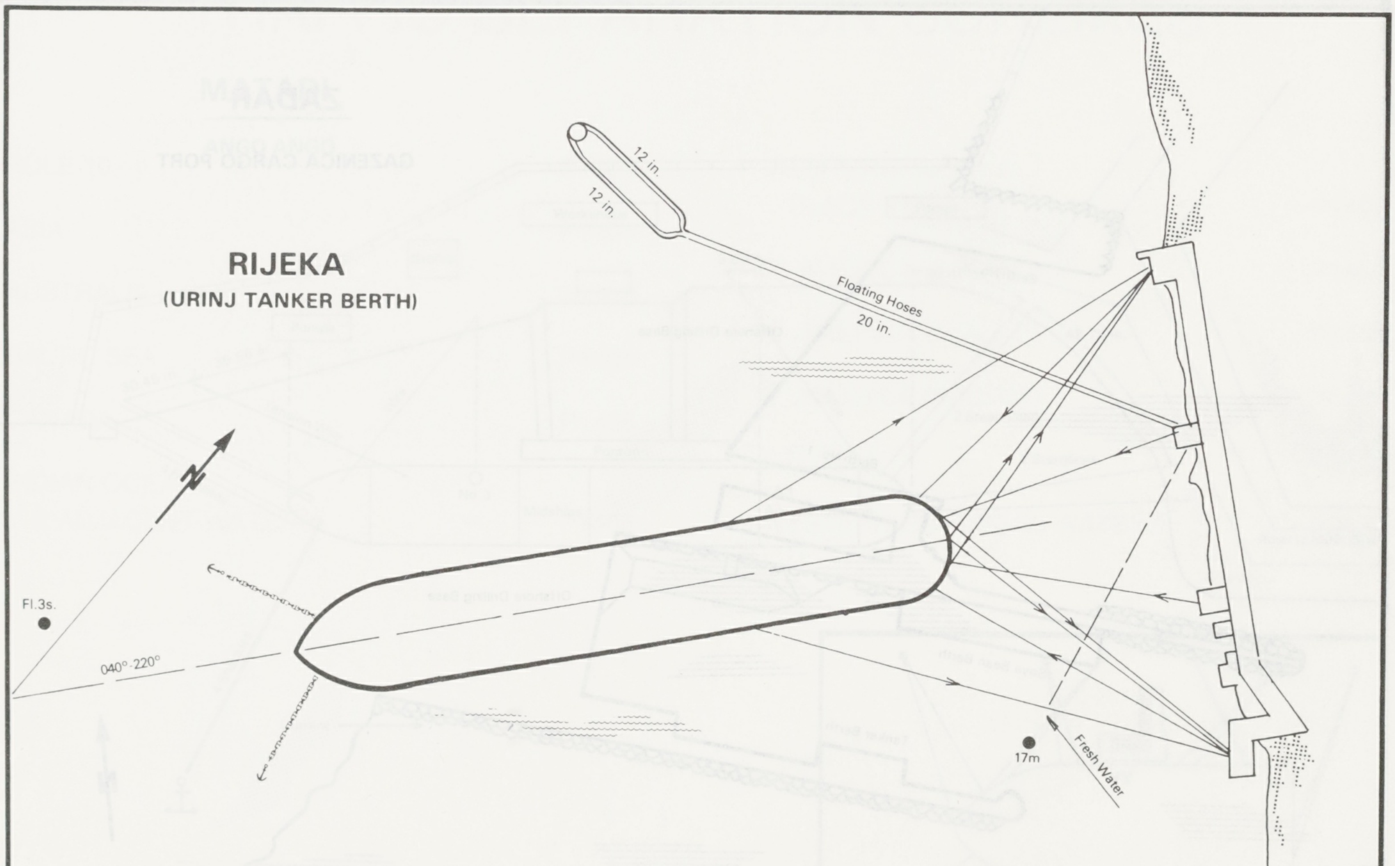
Port Development Area
Isle Krk
Cp Mali Kijac
Cp Kijac
Fl.R.(2) 8s.14M.
No. 3 Fl.R.(2) 6s.3M.
No. 4 Fl.R. 2s.3M.
No. 2 Fl.R. 5s.4M.
Ø700 m.
OMISALJ
Fl. 10s.5M.
4 knots
Course 151° (True)
3 knots
Tug Boat take up point
400 m.
1,200 m.
2,000 m.
Speed 1 knot
Oil Spillage Bubble Barrier
No. 5
Fl.G. 3s.4M.
IsoG. 2s.11M.
Fl.(3) 10s.7M.
2,800 m. (1.5 Nm.) (1.5 M.)
Cp Tenka Punta
Fl.(3) 10s.13m.7M.
Berth No. 1
350,000 d.w.t.
Berth No. 2
350,000 d.w.t.
Petrochemical Plant
Peninsula Tenka Punta
No. 6
Fl.(2) 10s.4M.
SEPEN BAY



RIJEKA

RASA

Special Cargo Storage
Office
Office
Timber Terminal Storage
Stables
Livestock Terminal
Timber Terminal
Rasa River

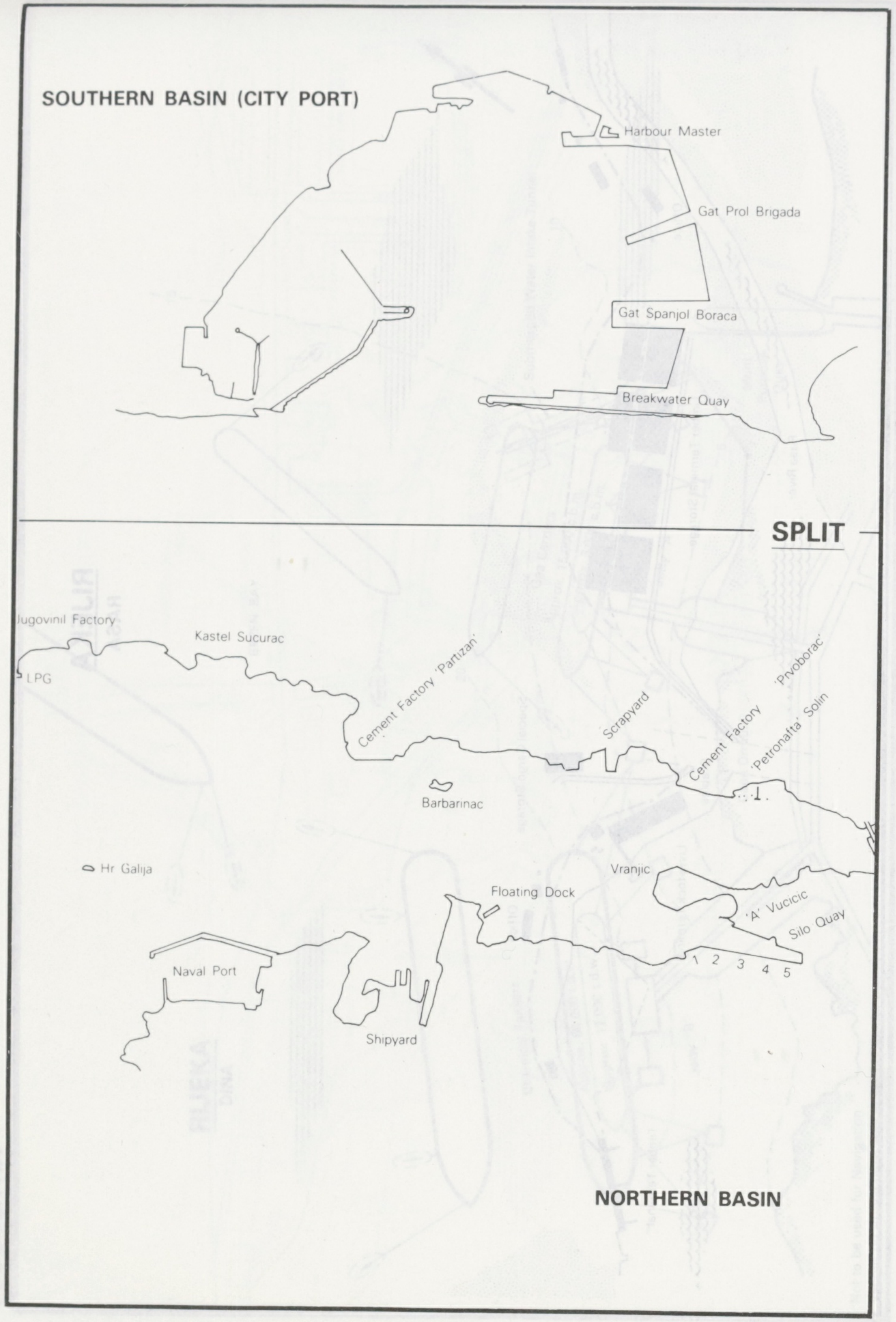


RIJEKA

(URINJ TANKER BERTH)

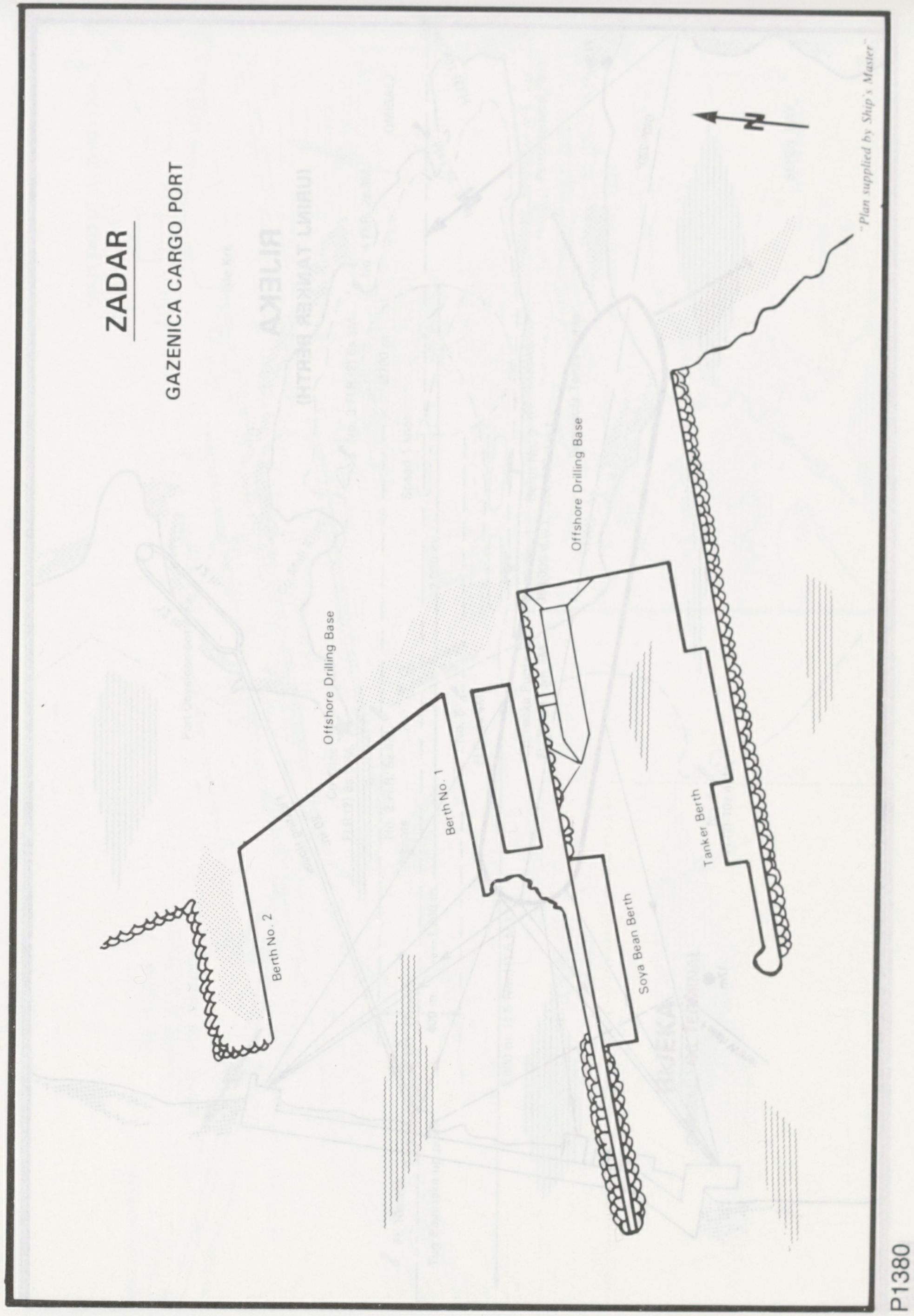
12 in.
12 in.
Floating Hoses
20 in.
Fl.3s.
040°-220°
17m
Fresh Water

SPLIT

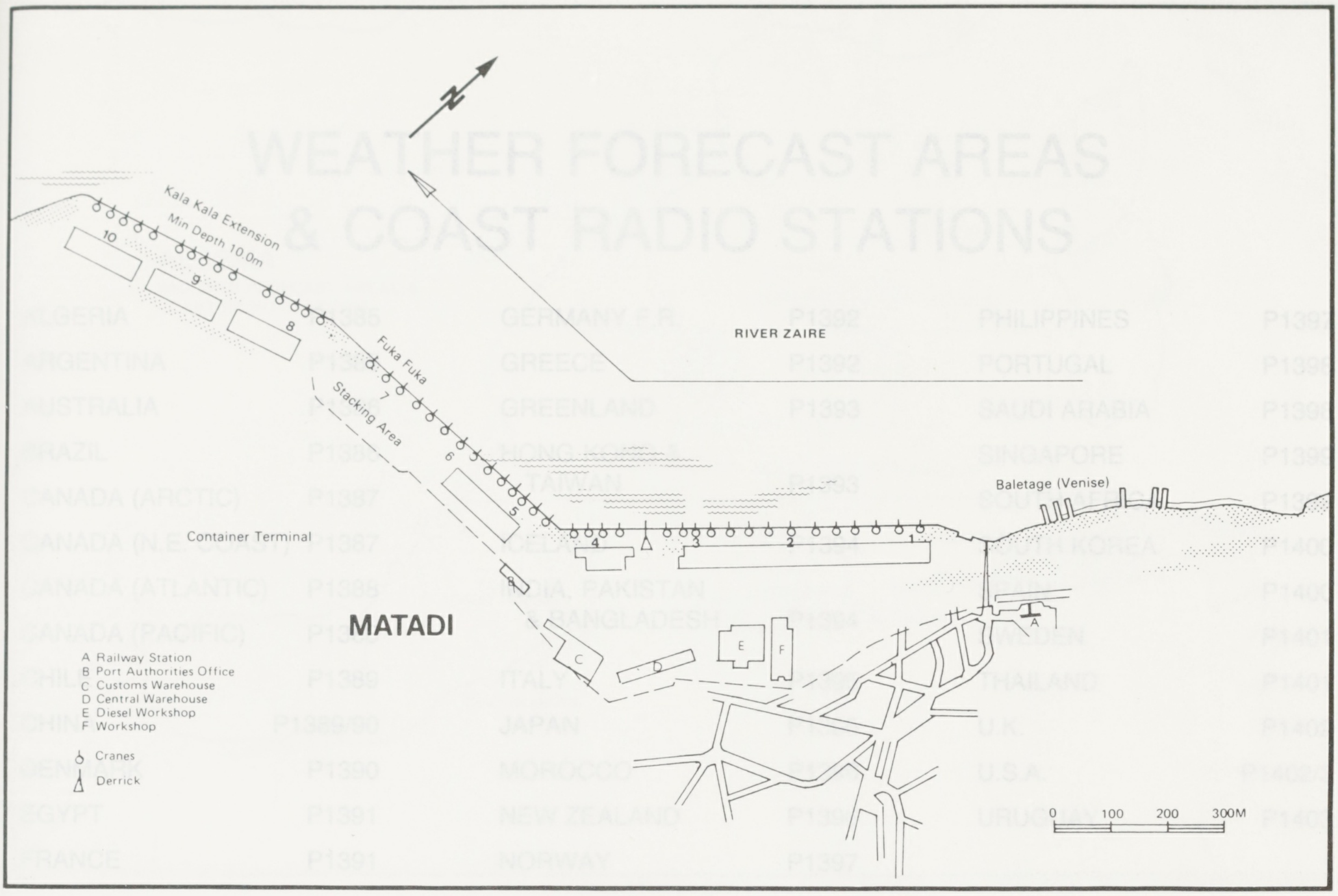

SOUTHERN BASIN (CITY PORT)
Harbour Master
Gat Prol Brigada
Gat Spanjol Boraca
Breakwater Quay
Jugovinil Factory
Kastel Sucurac
LPG
Cement Factory 'Partizan'
Scrapyard
Cement Factory 'Prvoborac'
'Petronafta' Solin
Barbarinac
Hr Galija
Vranjic
Floating Dock
'A' Vucicic
Silo Quay
1
2
3
4
5
Naval Port
Shipyard
NORTHERN BASIN

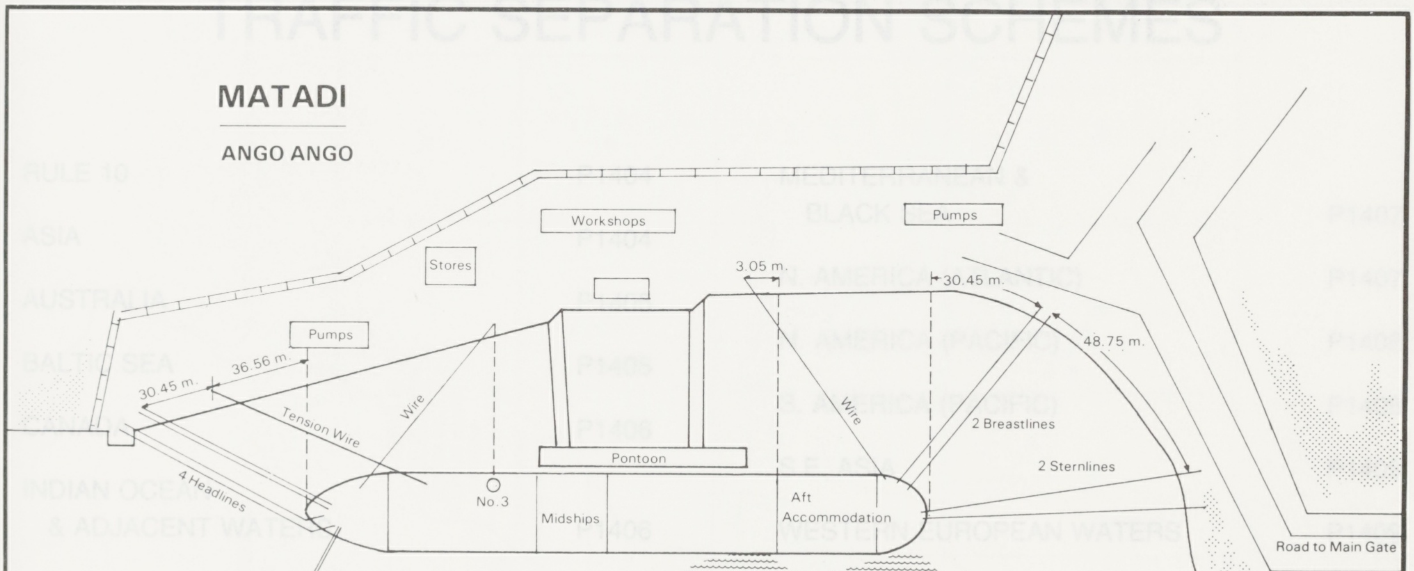
ZADAR

GAZENICA CARGO PORT


N
Offshore Drilling Base
Offshore Drilling Base
Berth No. 1
Berth No. 2
Tanker Berth
Soya Bean Berth

"Plan supplied by Ship's Master"


MATADI
RIVER ZAIRE
Kala Kala Extension
Min Depth 10.0m
Fuka Fuka
Stacking Area
Container Terminal
Baletage (Venise)
10
9
8
7
6
5
4
3
2
1
A
B
C
D
E
F
A Railway Station
B Port Authorities Office
C Customs Warehouse
D Central Warehouse
E Diesel Workshop
F Workshop
Cranes
Derrick
N
0
100
200
300M

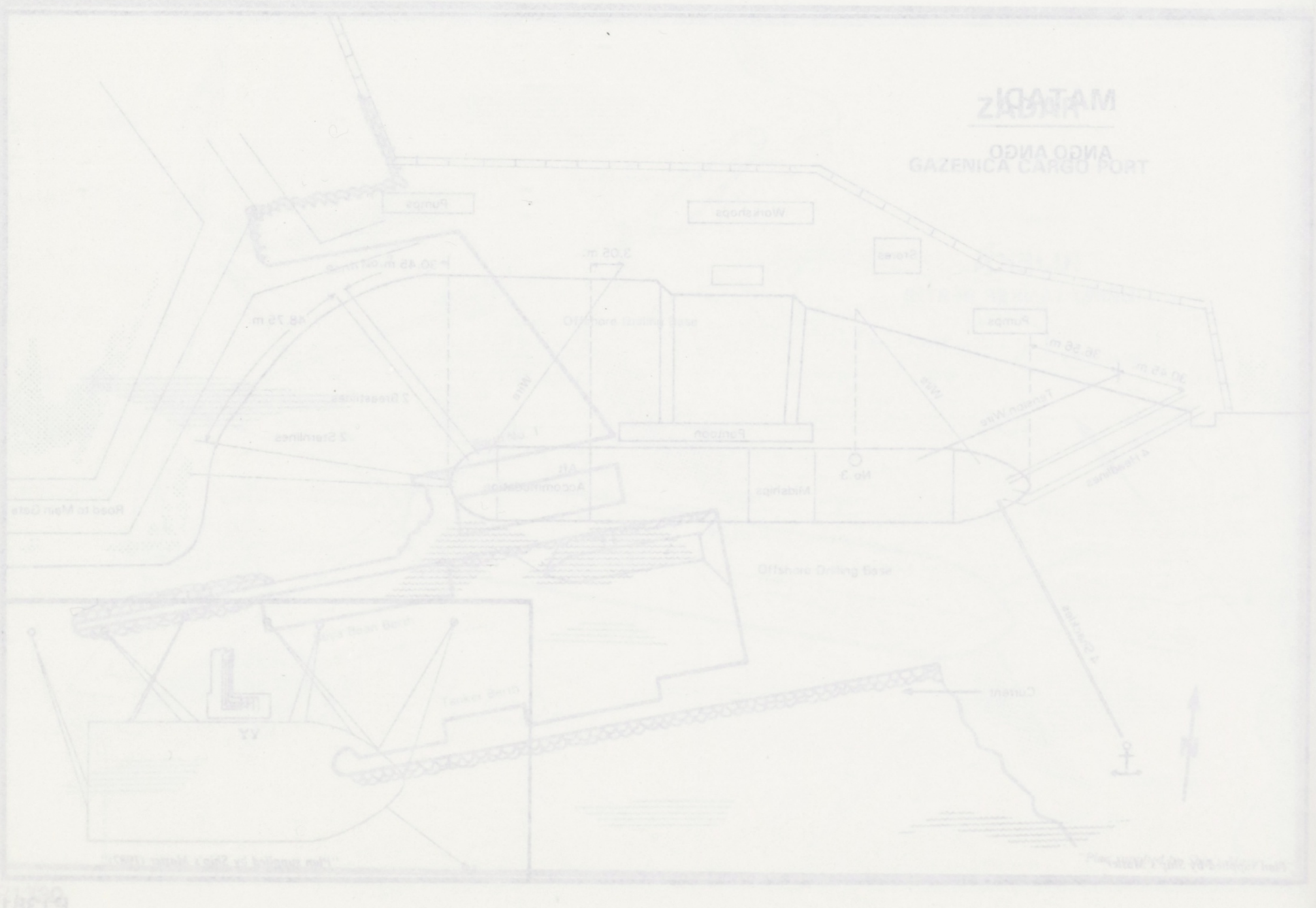

MATADI
ANGO ANGO
Workshops
Stores
Pumps
Pumps
3.05 m.
30.45 m.
48.75 m.
36.56 m.
30.45 m.
Tension Wire
Wire
Wire
2 Breastlines
2 Sternlines
4 Headlines
Pontoon
No.3
Midships
Aft
Accommodation
Road to Main Gate
4 Shackles
Current
YY

"Plan supplied by Ship's Master"

"Plan supplied by Ship's Master (1987)"

SPLIT
NORTHERN BASIN
SOUTHERN BASIN (CITY PORT)

ZADAR
GAZENICA CARGO PORT

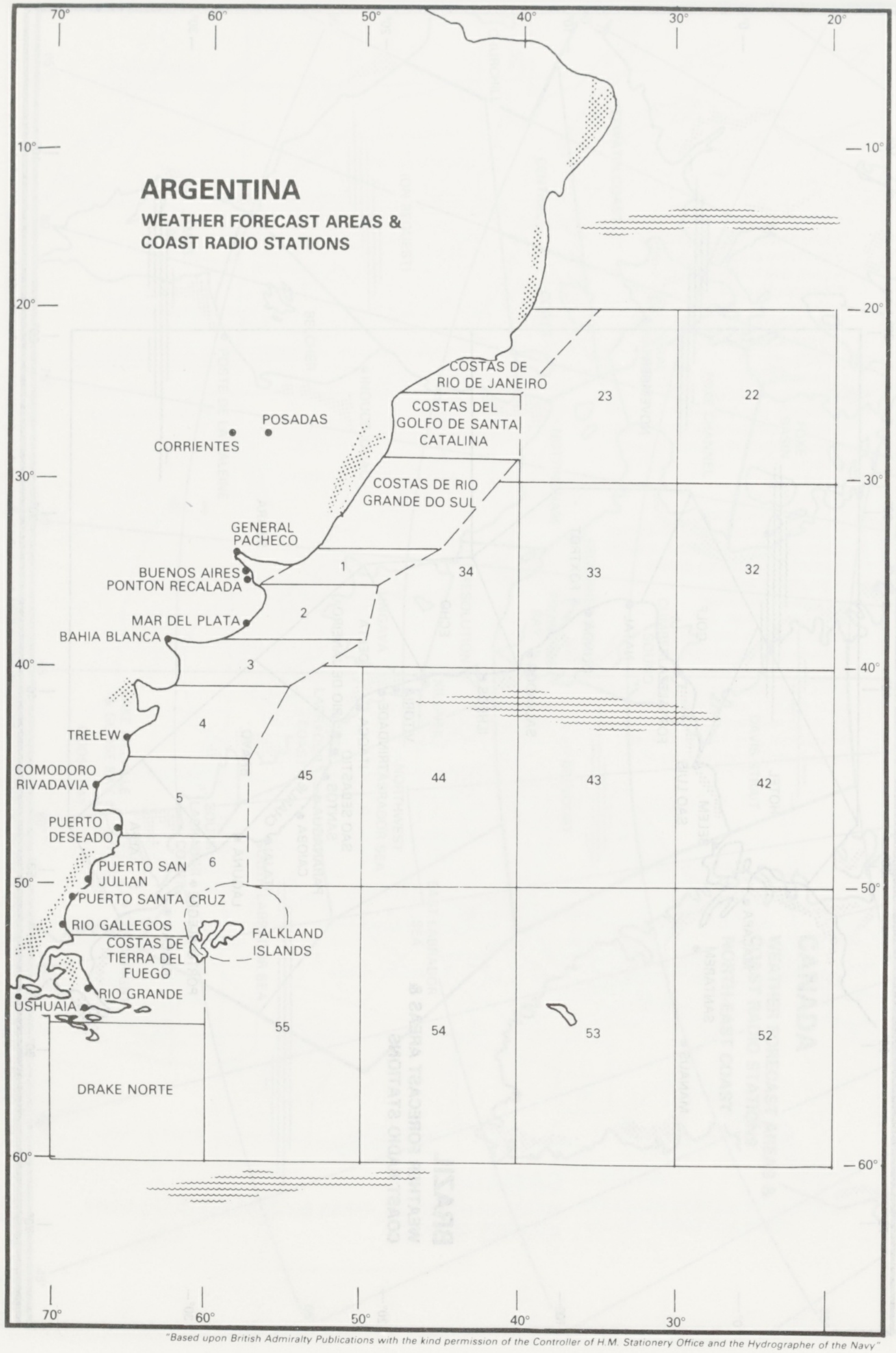


WEATHER FORECAST AREAS & COAST RADIO STATIONS

ALGERIA P1385
ARGENTINA P1385
AUSTRALIA P1386
BRAZIL P1386
CANADA (ARCTIC) P1387
CANADA (N.E. COAST) P1387
CANADA (ATLANTIC) P1388
CANADA (PACIFIC) P1388
CHILE P1389
CHINA P1389/90
DENMARK P1390
EGYPT P1391
FRANCE P1391
GERMANY F.R. P1392
GREECE P1392
GREENLAND P1393
HONG KONG & TAIWAN P1393
ICELAND P1394
INDIA, PAKISTAN & BANGLADESH P1394
ITALY P1395
JAPAN P1395
MOROCCO P1396
NEW ZEALAND P1396
NORWAY P1397
PHILIPPINES P1397
PORTUGAL P1398
SAUDI ARABIA P1398
SINGAPORE P1399
SOUTH AFRICA P1399
SOUTH KOREA P1400
SPAIN P1400
SWEDEN P1401
THAILAND P1401
U.K. P1402
U.S.A. P1402/3
URUGUAY P1403

TRAFFIC SEPARATION SCHEMES

RULE 10 P1404
ASIA P1404
AUSTRALIA P1405
BALTIC SEA P1405
CANADA P1406
INDIAN OCEAN & ADJACENT WATERS P1406
MEDITERRANEAN & BLACK SEA P1407
N. AMERICA (ATLANTIC) P1407
N. AMERICA (PACIFIC) P1408
S. AMERICA (PACIFIC) P1408
S.E. ASIA P1409
WESTERN EUROPEAN WATERS P1409

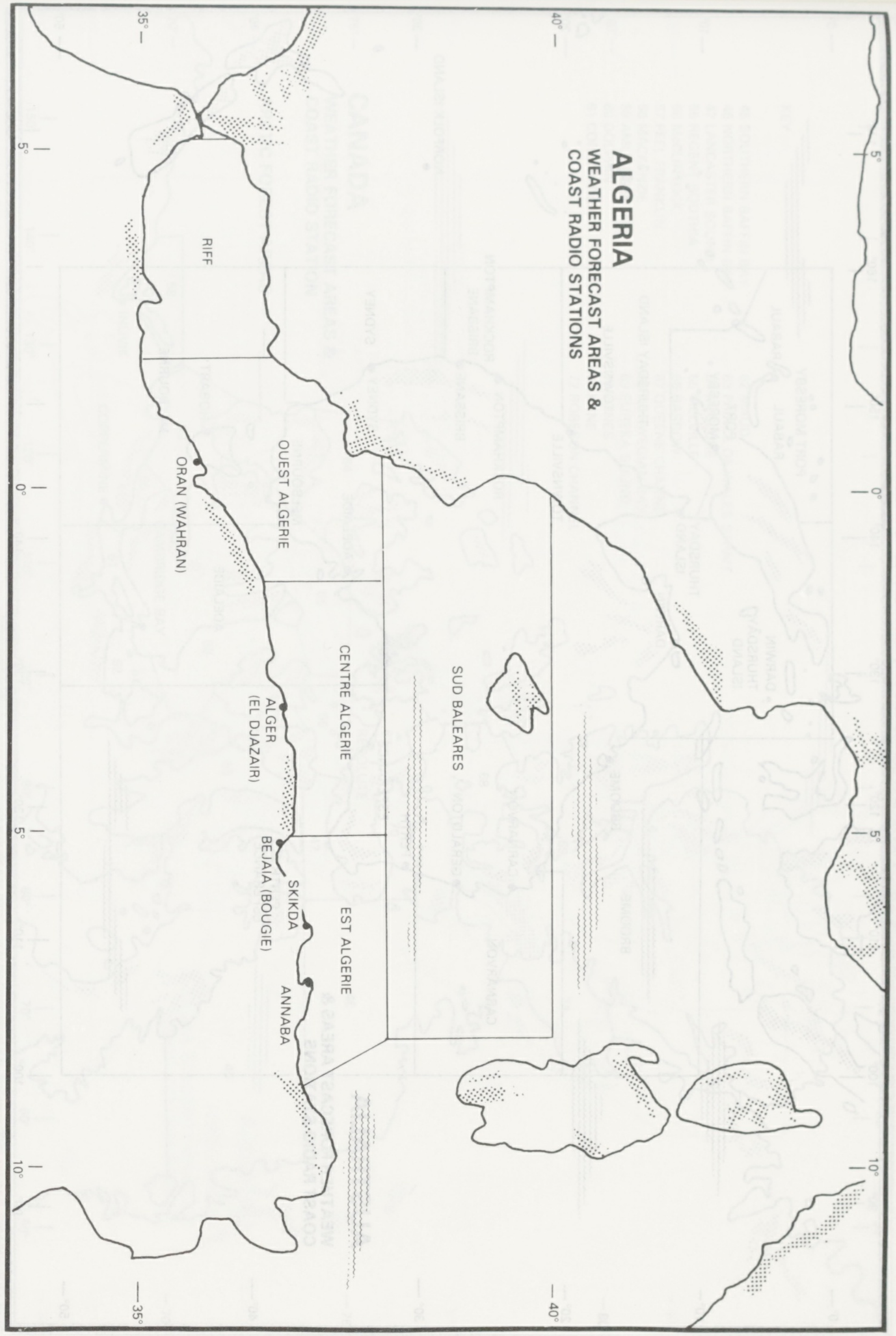


ARGENTINA

WEATHER FORECAST AREAS & COAST RADIO STATIONS

70°
60°
50°
40°
30°
20°
10°
20°
30°
40°
50°
60°
COSTAS DE RIO DE JANEIRO
COSTAS DEL GOLFO DE SANTA CATALINA
COSTAS DE RIO GRANDE DO SUL
23
22
POSADAS
CORRIENTES
GENERAL PACHECO
BUENOS AIRES
PONTON RECALADA
MAR DEL PLATA
BAHIA BLANCA
1
34
33
32
2
3
4
TRELEW
COMODORO RIVADAVIA
5
45
44
43
42
PUERTO DESEADO
PUERTO SAN JULIAN
6
PUERTO SANTA CRUZ
RIO GALLEGOS
FALKLAND ISLANDS
COSTAS DE TIERRA DEL FUEGO
RIO GRANDE
USHUAIA
55
54
53
52
DRAKE NORTE

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office and the Hydrographer of the Navy"

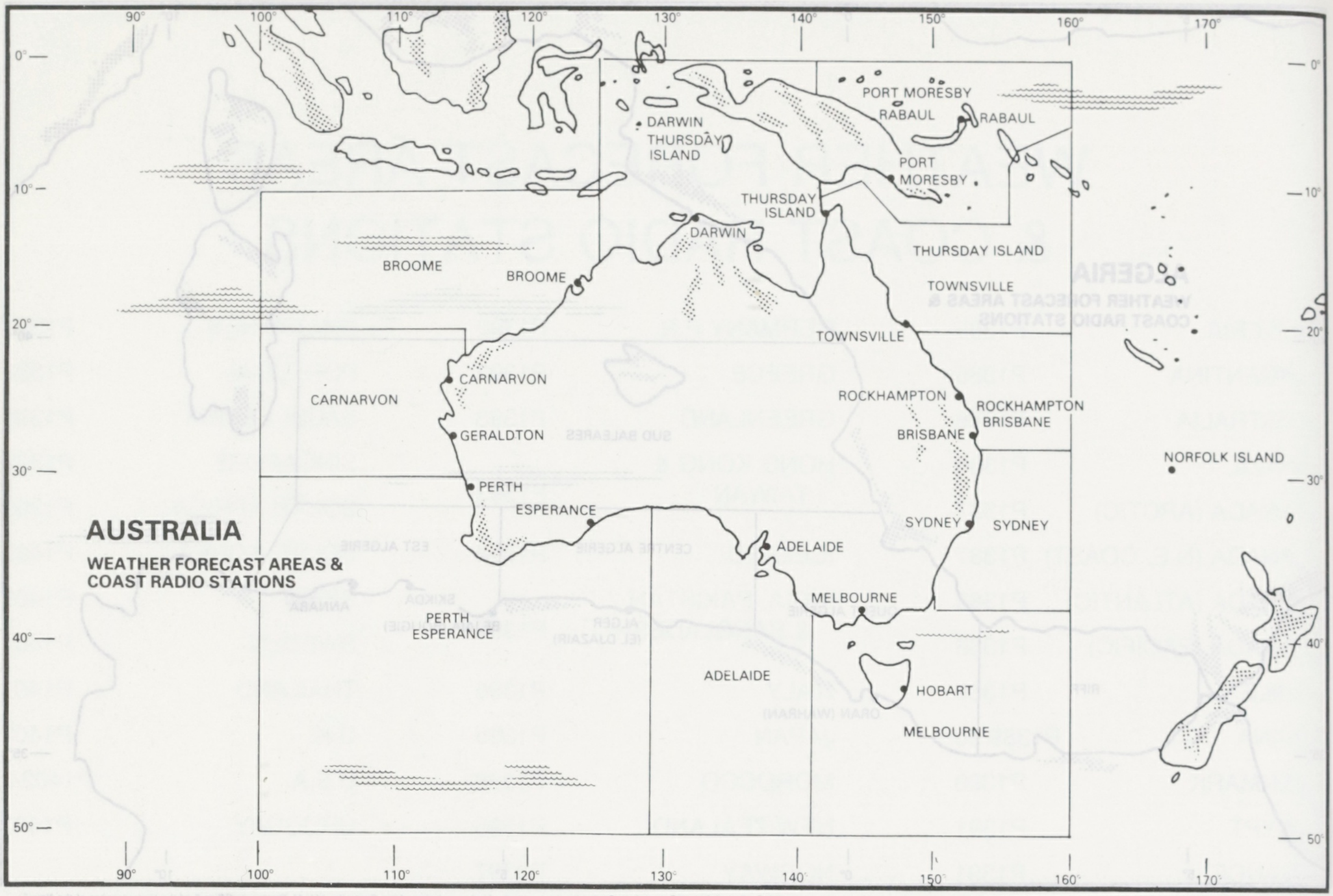


ALGERIA

WEATHER FORECAST AREAS & COAST RADIO STATIONS

35°
40°
5°
0°
5°
10°
RIFF
OUEST ALGERIE
ORAN (WAHRAN)
CENTRE ALGERIE
SUD BALEARES
ALGER (EL DJAZAIR)
BEJAIA (BOUGIE)
SKIKDA
EST ALGERIE
ANNABA

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"

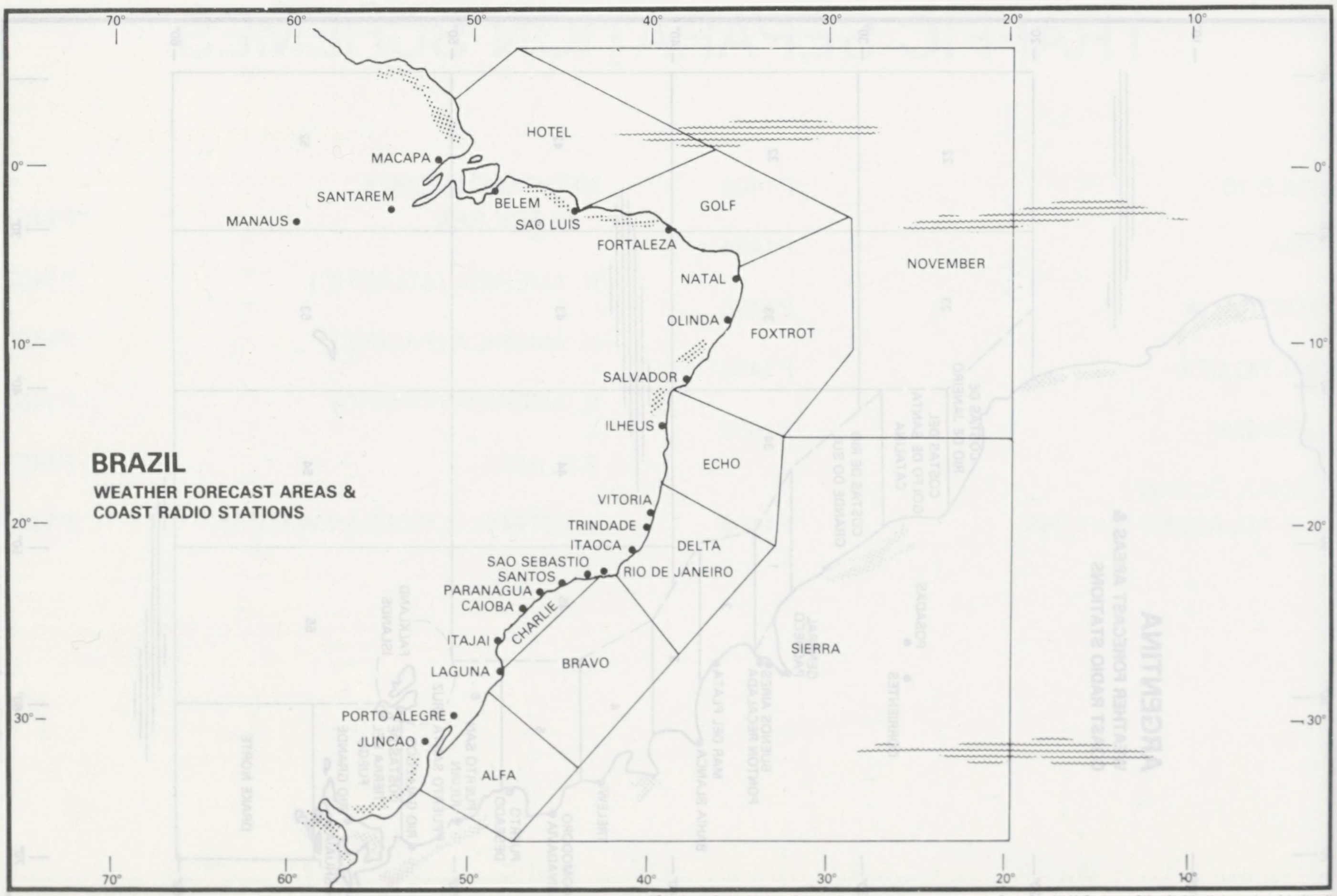


AUSTRALIA

WEATHER FORECAST AREAS & COAST RADIO STATIONS

90°
100°
110°
120°
130°
140°
150°
160°
170°
0°
10°
20°
30°
40°
50°
DARWIN
THURSDAY ISLAND
PORT MORESBY
RABAUL
RABAUL
PORT MORESBY
THURSDAY ISLAND
DARWIN
THURSDAY ISLAND
BROOME
BROOME
TOWNSVILLE
TOWNSVILLE
CARNARVON
CARNARVON
GERALDTON
ROCKHAMPTON
ROCKHAMPTON
BRISBANE
BRISBANE
NORFOLK ISLAND
PERTH
ESPERANCE
SYDNEY
SYDNEY
ADELAIDE
MELBOURNE
PERTH
ESPERANCE
ADELAIDE
HOBART
MELBOURNE

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"

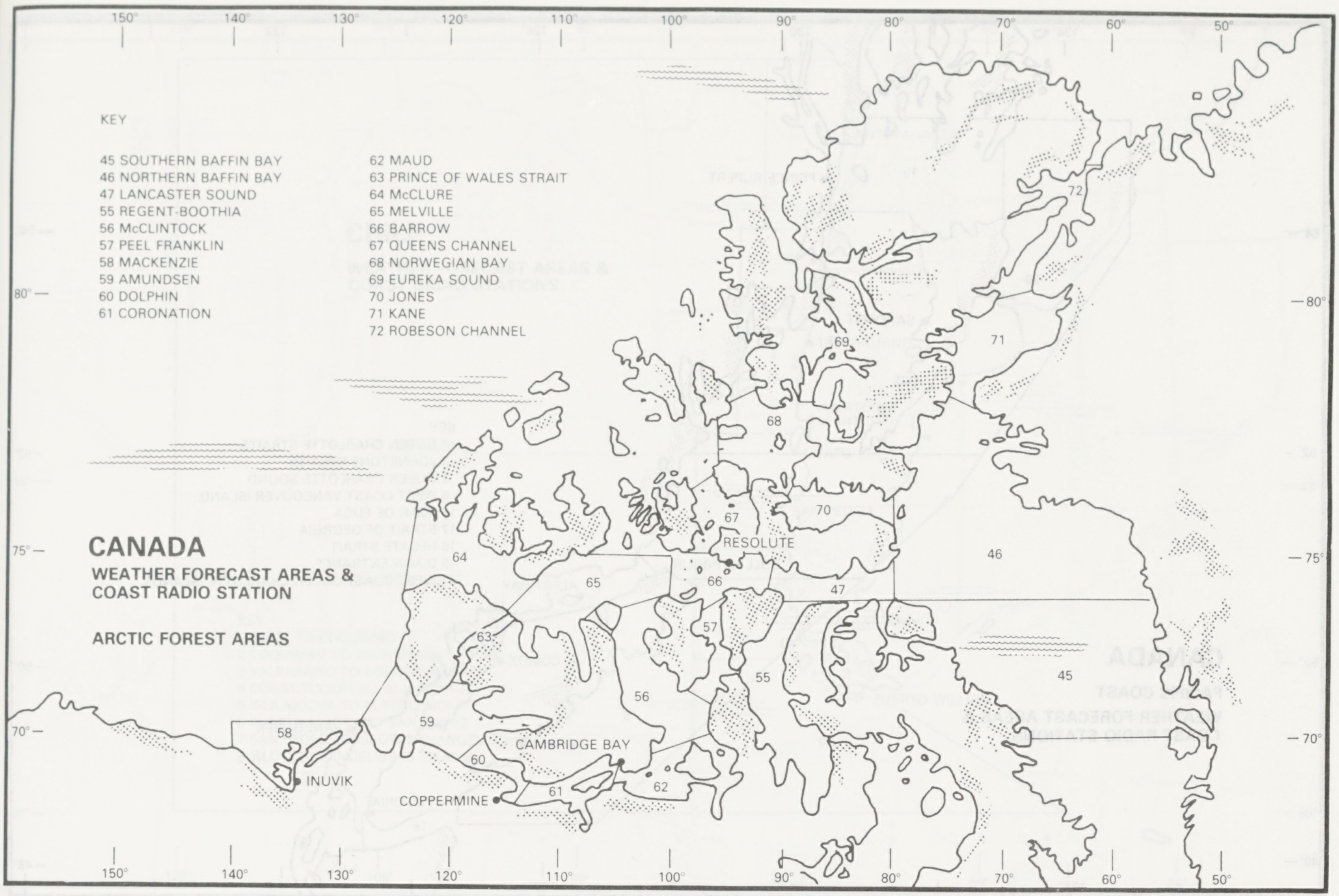


BRAZIL

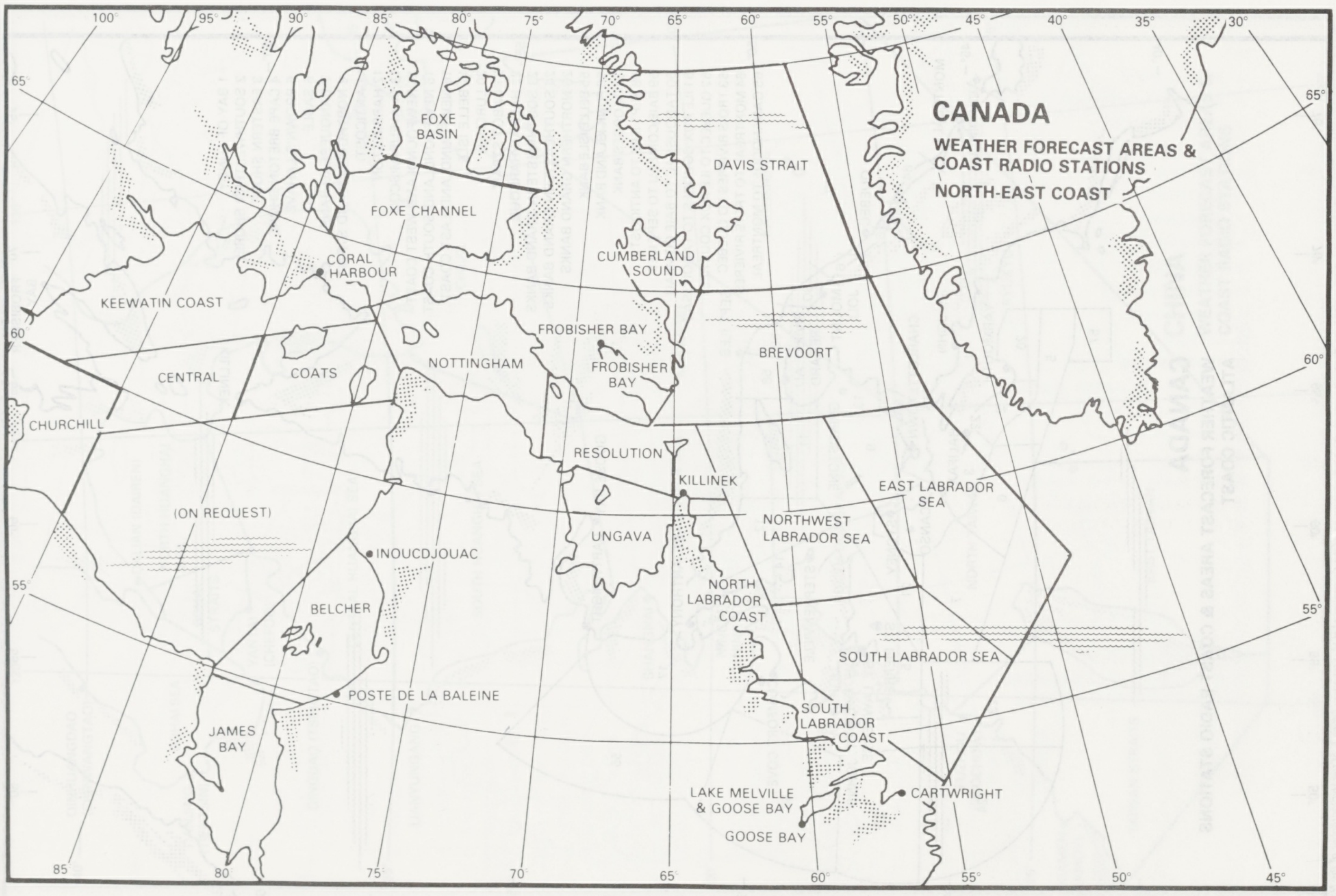
WEATHER FORECAST AREAS & COAST RADIO STATIONS

70°
60°
50°
40°
30°
20°
10°
0°
10°
20°
30°
HOTEL
MACAPA
SANTAREM
MANAUS
BELEM
SAO LUIS
GOLF
FORTALEZA
NATAL
NOVEMBER
OLINDA
FOXTROT
SALVADOR
ILHEUS
ECHO
VITORIA
TRINDADE
ITAOCA
DELTA
SAO SEBASTIO
SANTOS
RIO DE JANEIRO
PARANAGUA
CAIOBA
CHARLIE
ITAJAI
SIERRA
BRAVO
LAGUNA
PORTO ALEGRE
JUNCAO
ALFA

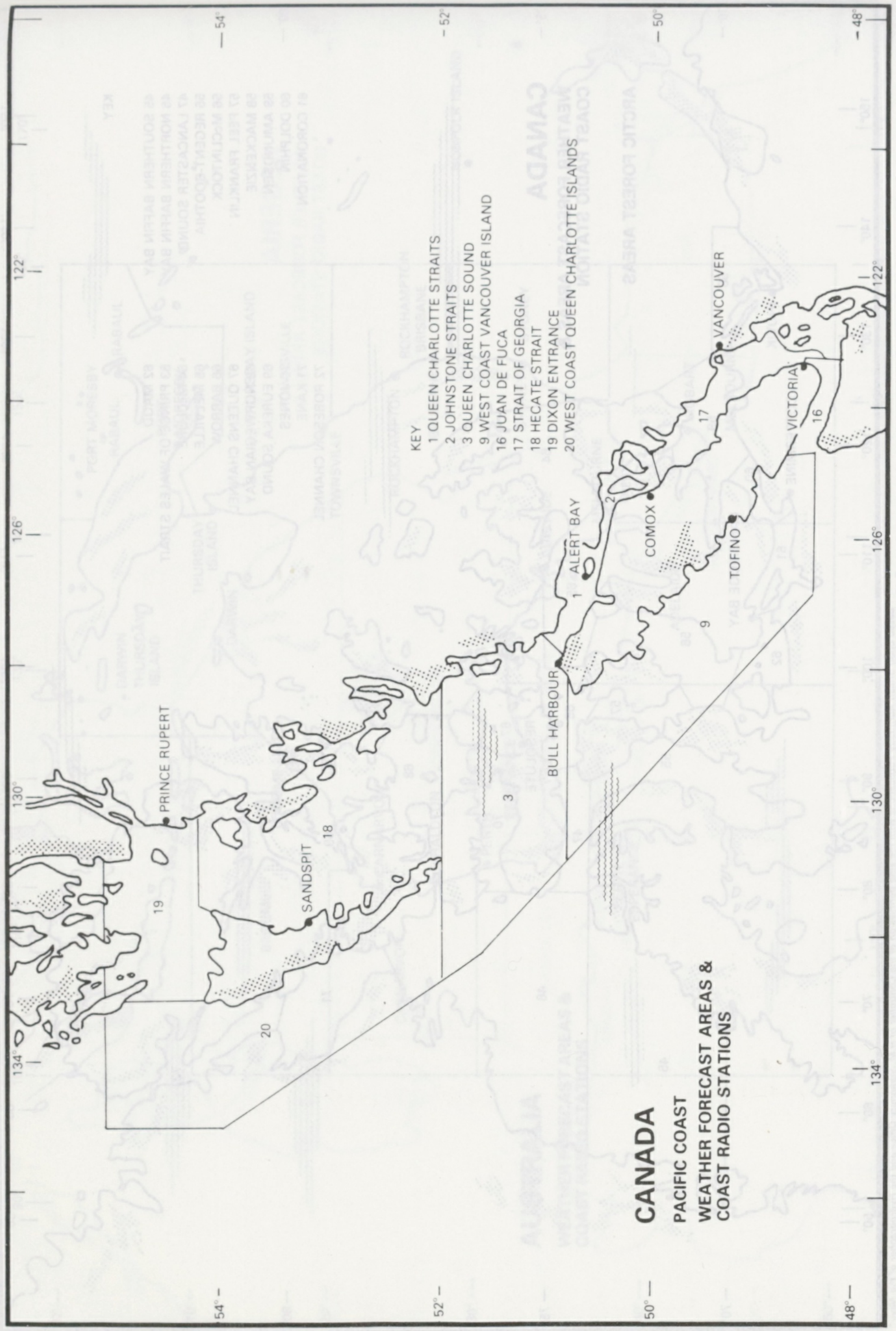
"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"


CANADA
WEATHER FORECAST AREAS & COAST RADIO STATION
ARCTIC FOREST AREAS
KEY
45 SOUTHERN BAFFIN BAY
46 NORTHERN BAFFIN BAY
47 LANCASTER SOUND
55 REGENT-BOOTHIA
56 McCLINTOCK
57 PEEL FRANKLIN
58 MACKENZIE
59 AMUNDSEN
60 DOLPHIN
61 CORONATION
62 MAUD
63 PRINCE OF WALES STRAIT
64 McCLURE
65 MELVILLE
66 BARROW
67 QUEENS CHANNEL
68 NORWEGIAN BAY
69 EUREKA SOUND
70 JONES
71 KANE
72 ROBESON CHANNEL
RESOLUTE
CAMBRIDGE BAY
INUVIK
COPPERMINE
150°
140°
130°
120°
110°
100°
90°
80°
70°
60°
50°
80°
75°
70°

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office and the Hydrographer of the Navy"


CANADA
WEATHER FORECAST AREAS & COAST RADIO STATIONS
NORTH-EAST COAST
FOXE BASIN
DAVIS STRAIT
FOXE CHANNEL
CORAL HARBOUR
CUMBERLAND SOUND
KEEWATIN COAST
FROBISHER BAY
BREVOORT
CENTRAL
COATS
NOTTINGHAM
FROBISHER BAY
CHURCHILL
RESOLUTION
KILLINEK
EAST LABRADOR SEA
(ON REQUEST)
NORTHWEST LABRADOR SEA
UNGAVA
INOUCDJOUAC
NORTH LABRADOR COAST
BELCHER
SOUTH LABRADOR SEA
POSTE DE LA BALEINE
SOUTH LABRADOR COAST
JAMES BAY
LAKE MELVILLE & GOOSE BAY
CARTWRIGHT
GOOSE BAY
100°
95°
90°
85°
80°
75°
70°
65°
60°
55°
50°
45°
40°
35°
30°
65°
60°
55°

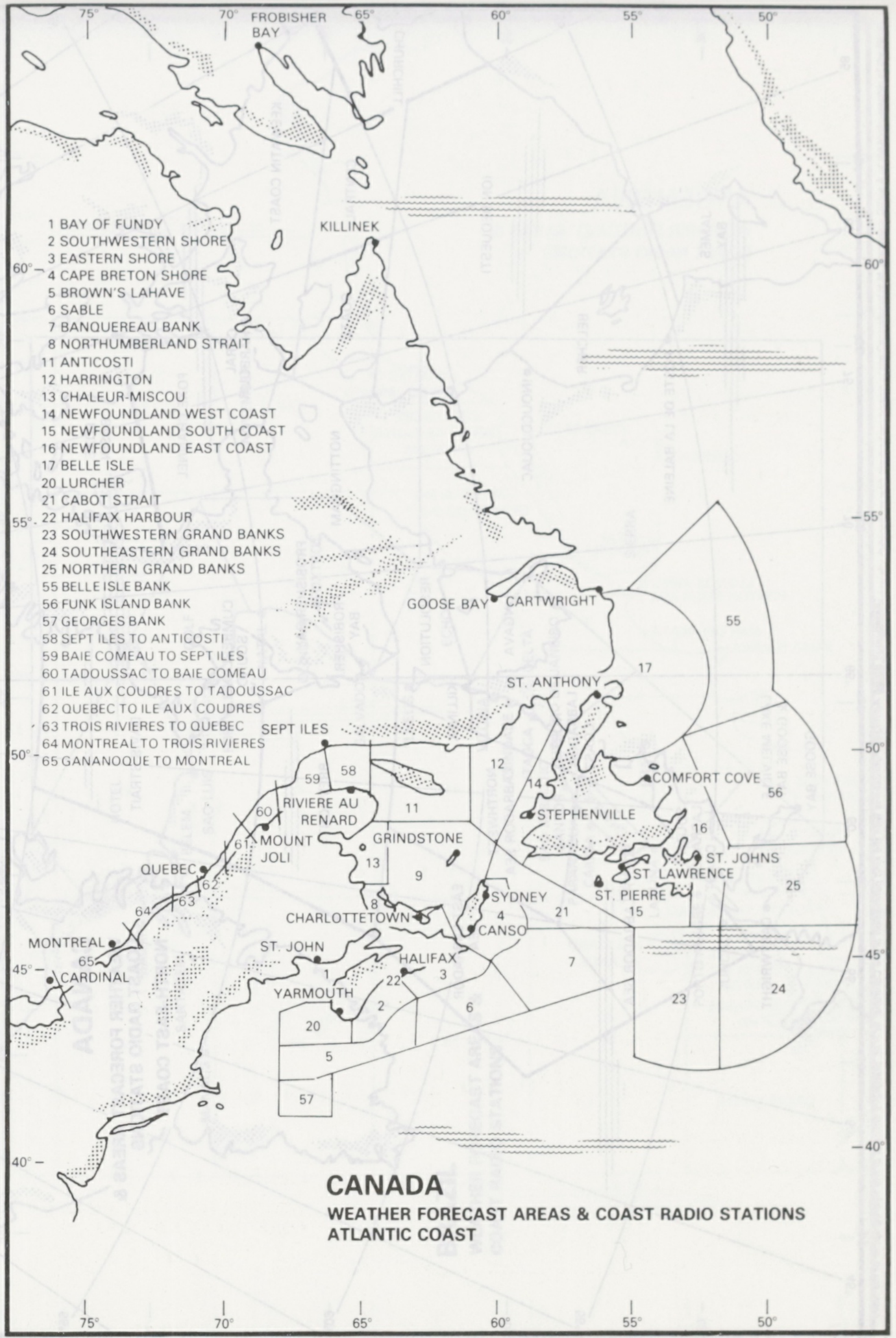
"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"


KEY
1 QUEEN CHARLOTTE STRAITS
2 JOHNSTONE STRAITS
3 QUEEN CHARLOTTE SOUND
9 WEST COAST VANCOUVER ISLAND
16 JUAN DE FUCA
17 STRAIT OF GEORGIA
18 HECATE STRAIT
19 DIXON ENTRANCE
20 WEST COAST QUEEN CHARLOTTE ISLANDS
PRINCE RUPERT
SANDSPIT
BULL HARBOUR
ALERT BAY
COMOX
TOFINO
VANCOUVER
VICTORIA
1
2
3
9
16
17
18
19
20
54°
52°
50°
48°
122°
126°
130°
134°

CANADA

PACIFIC COAST
WEATHER FORECAST AREAS & COAST RADIO STATIONS

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"

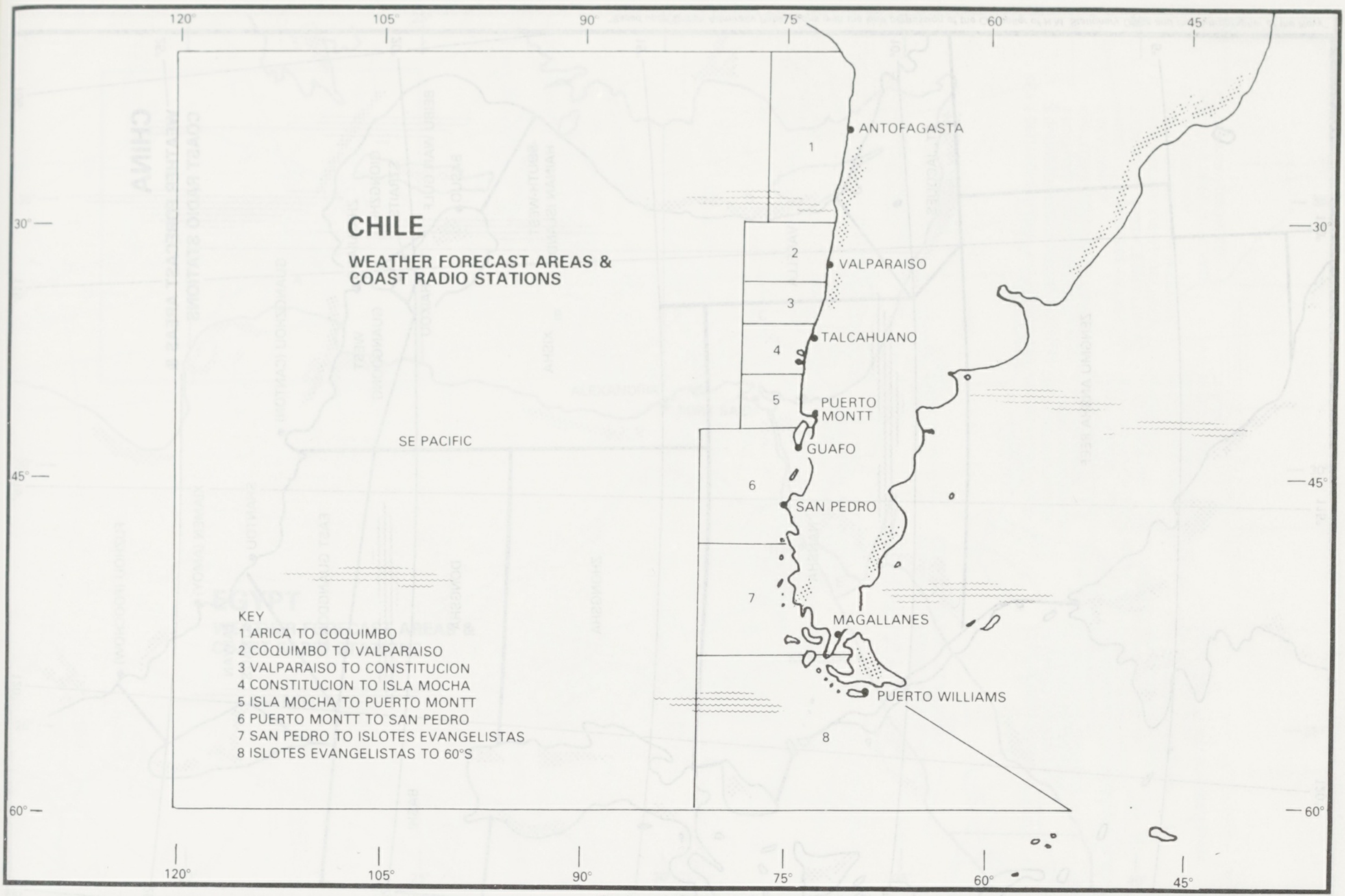

1 BAY OF FUNDY
2 SOUTHWESTERN SHORE
3 EASTERN SHORE
4 CAPE BRETON SHORE
5 BROWN'S LAHAVE
6 SABLE
7 BANQUEREAU BANK
8 NORTHUMBERLAND STRAIT
11 ANTICOSTI
12 HARRINGTON
13 CHALEUR-MISCOU
14 NEWFOUNDLAND WEST COAST
15 NEWFOUNDLAND SOUTH COAST
16 NEWFOUNDLAND EAST COAST
17 BELLE ISLE
20 LURCHER
21 CABOT STRAIT
22 HALIFAX HARBOUR
23 SOUTHWESTERN GRAND BANKS
24 SOUTHEASTERN GRAND BANKS
25 NORTHERN GRAND BANKS
55 BELLE ISLE BANK
56 FUNK ISLAND BANK
57 GEORGES BANK
58 SEPT ILES TO ANTICOSTI
59 BAIE COMEAU TO SEPT ILES
60 TADOUSSAC TO BAIE COMEAU
61 ILE AUX COUDRES TO TADOUSSAC
62 QUEBEC TO ILE AUX COUDRES
63 TROIS RIVIERES TO QUEBEC
64 MONTREAL TO TROIS RIVIERES
65 GANANOQUE TO MONTREAL
FROBISHER BAY
KILLINEK
GOOSE BAY
CARTWRIGHT
ST. ANTHONY
SEPT ILES
COMFORT COVE
STEPHENVILLE
RIVIERE AU RENARD
MOUNT JOLI
GRINDSTONE
QUEBEC
ST. JOHNS
ST LAWRENCE
ST. PIERRE
SYDNEY
CHARLOTTETOWN
CANSO
MONTREAL
ST. JOHN
HALIFAX
CARDINAL
YARMOUTH
75°
70°
65°
60°
55°
50°
60°
55°
50°
45°
40°

CANADA

WEATHER FORECAST AREAS & COAST RADIO STATIONS
ATLANTIC COAST

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"

P1388



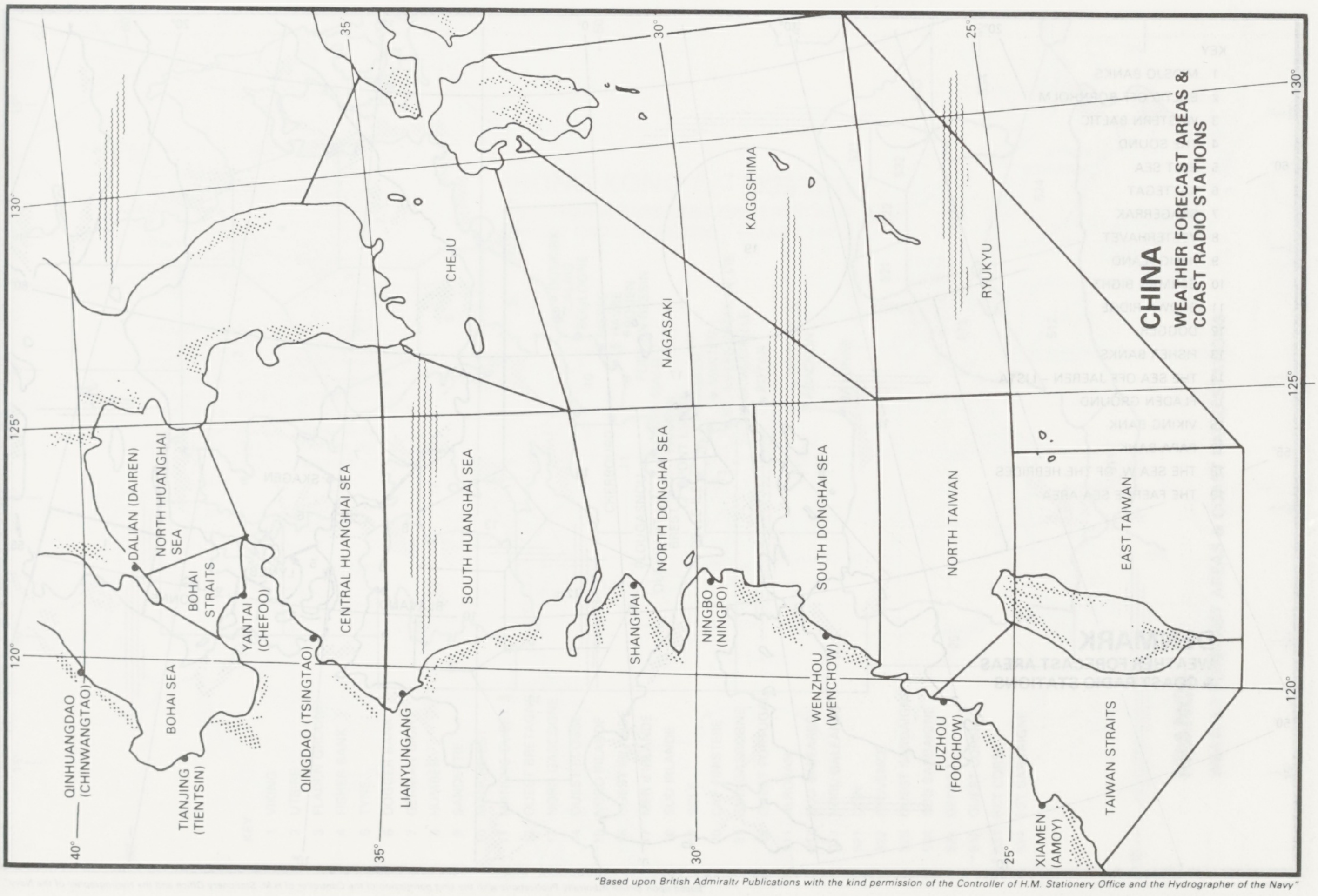
CHILE

WEATHER FORECAST AREAS & COAST RADIO STATIONS

KEY
1 ARICA TO COQUIMBO
2 COQUIMBO TO VALPARAISO
3 VALPARAISO TO CONSTITUCION
4 CONSTITUCION TO ISLA MOCHA
5 ISLA MOCHA TO PUERTO MONTT
6 PUERTO MONTT TO SAN PEDRO
7 SAN PEDRO TO ISLOTES EVANGELISTAS
8 ISLOTES EVANGELISTAS TO 60°S

120°
105°
90°
75°
60°
45°
30°
45°
60°
ANTOFAGASTA
VALPARAISO
TALCAHUANO
PUERTO MONTT
GUAFO
SAN PEDRO
MAGALLANES
PUERTO WILLIAMS
SE PACIFIC
1
2
3
4
5
6
7
8

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"

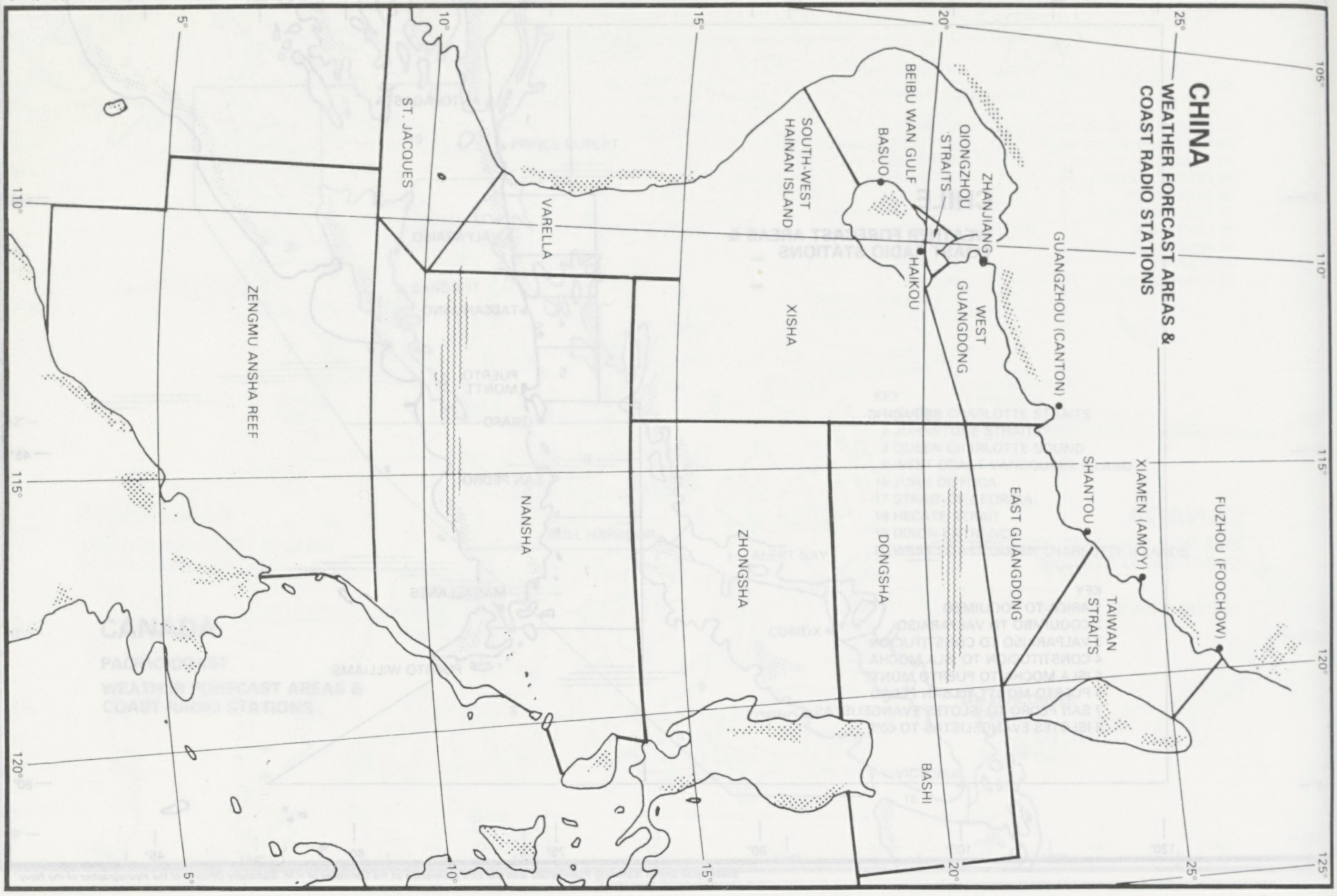


CHINA

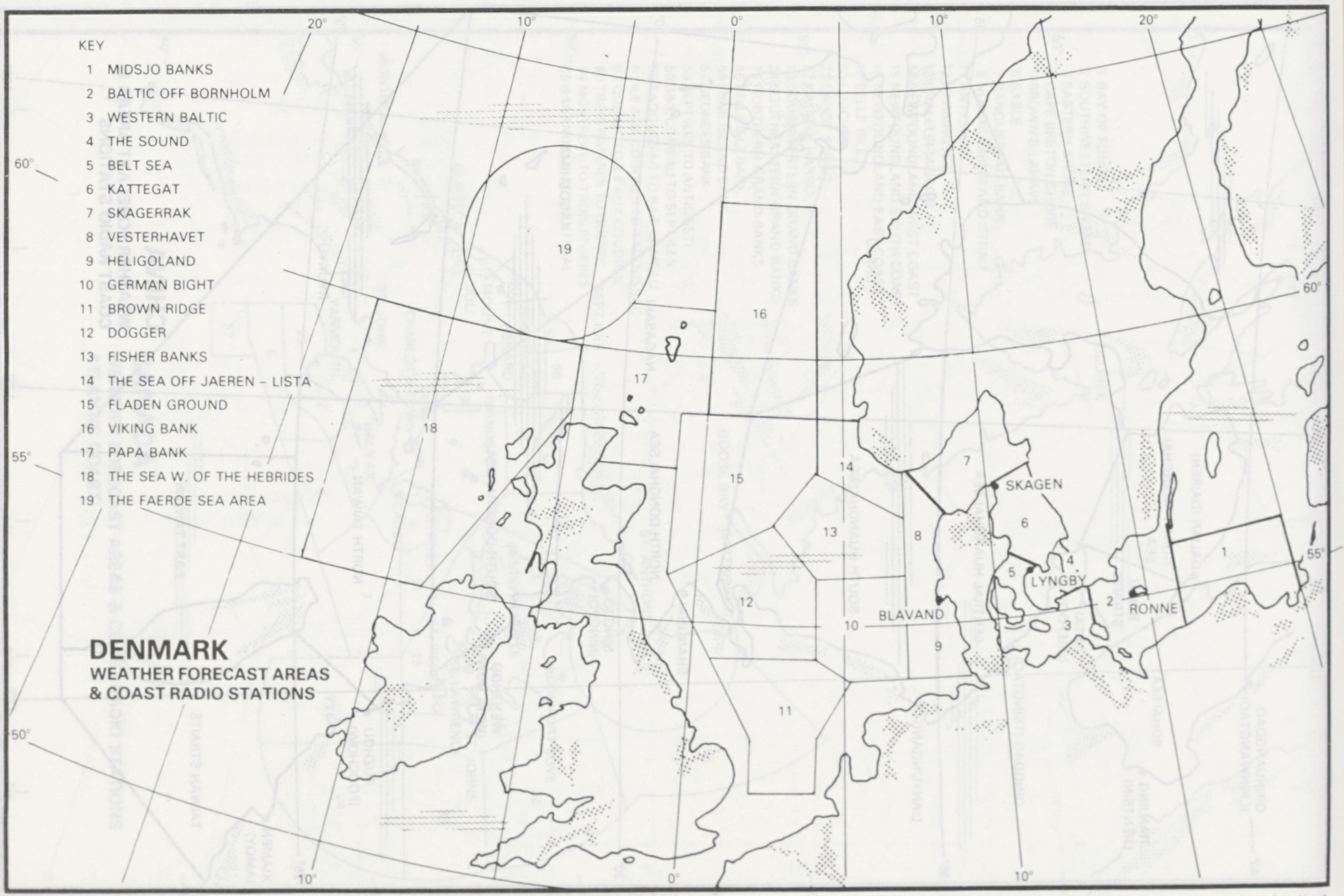
WEATHER FORECAST AREAS & COAST RADIO STATIONS

130°
125°
120°
40°
35°
30°
25°
QINHUANGDAO (CHINWANGTAO)
TIANJING (TIENTSIN)
BOHAI SEA
DALIAN (DAIREN)
NORTH HUANGHAI SEA
BOHAI STRAITS
YANTAI (CHEFOO)
QINGDAO (TSINGTAO)
CENTRAL HUANGHAI SEA
LIANYUNGANG
SOUTH HUANGHAI SEA
CHEJU
SHANGHAI
NAGASAKI
NORTH DONGHAI SEA
NINGBO (NINGPO)
KAGOSHIMA
SOUTH DONGHAI SEA
WENZHOU (WENCHOW)
RYUKYU
NORTH TAIWAN
FUZHOU (FOOCHOW)
EAST TAIWAN
TAIWAN STRAITS
XIAMEN (AMOY)

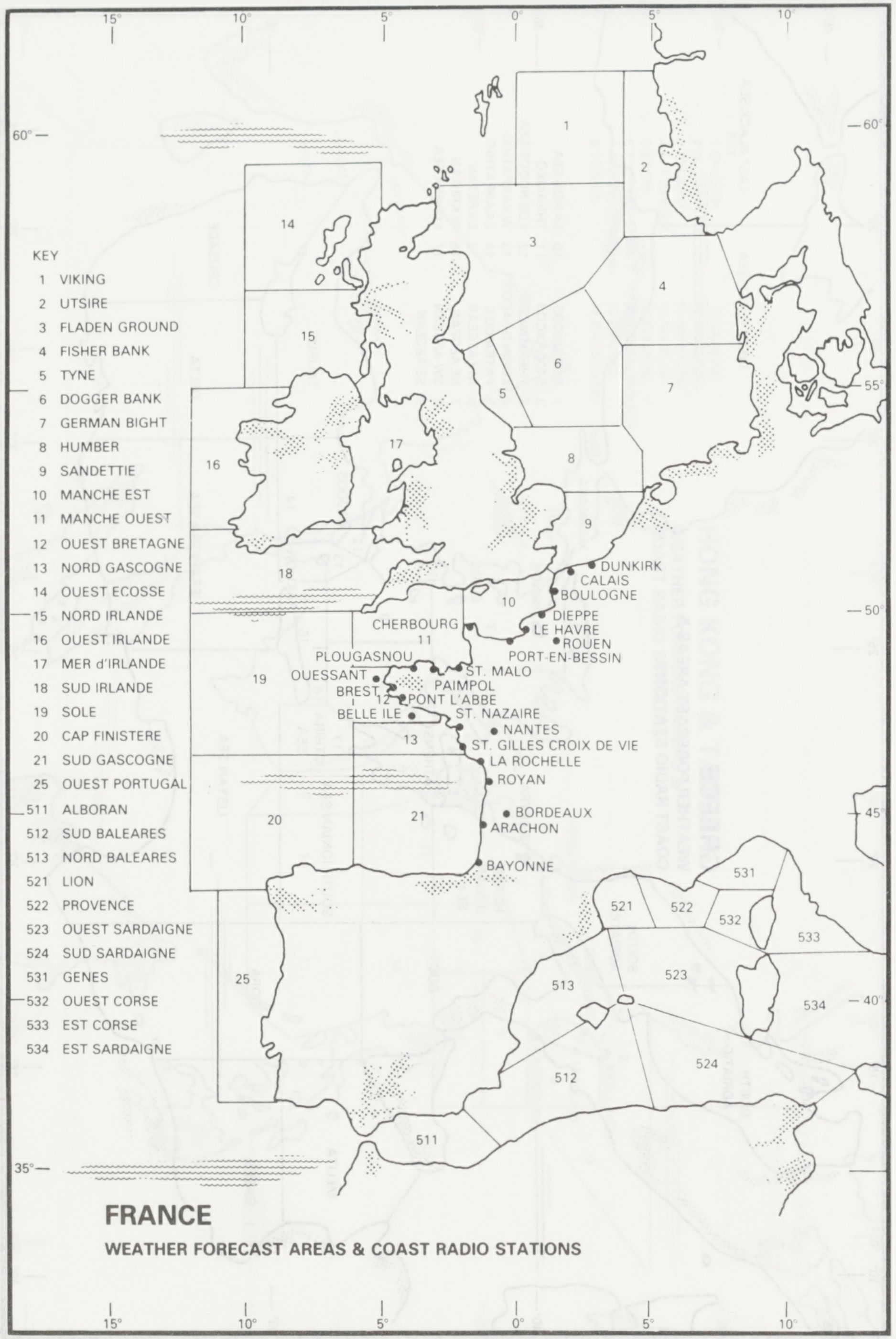
"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office and the Hydrographer of the Navy"


CHINA
WEATHER FORECAST AREAS &
COAST RADIO STATIONS
FUZHOU (FOOCHOW)
XIAMEN (AMOY)
SHANTOU
GUANGZHOU (CANTON)
ZHANJIANG
QIONGZHOU STRAITS
BEIBU WAN GULF
BASUO
HAIKOU
WEST GUANGDONG
EAST GUANGDONG
TAIWAN STRAITS
DONGSHA
BASHI
SOUTH-WEST HAINAN ISLAND
XISHA
ZHONGSHA
NANSHA
VARELLA
ST. JACQUES
ZENGMU ANSHA REEF
5°
10°
15°
20°
25°
105°
110°
115°
120°
125°

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office and the Hydrographer of the Navy"


KEY
1 MIDSJO BANKS
2 BALTIC OFF BORNHOLM
3 WESTERN BALTIC
4 THE SOUND
5 BELT SEA
6 KATTEGAT
7 SKAGERRAK
8 VESTERHAVET
9 HELIGOLAND
10 GERMAN BIGHT
11 BROWN RIDGE
12 DOGGER
13 FISHER BANKS
14 THE SEA OFF JAEREN – LISTA
15 FLADEN GROUND
16 VIKING BANK
17 PAPA BANK
18 THE SEA W. OF THE HEBRIDES
19 THE FAEROE SEA AREA
DENMARK
WEATHER FORECAST AREAS
& COAST RADIO STATIONS
SKAGEN
LYNGBY
BLAVAND
RONNE
20°
10°
0°
10°
20°
60°
55°
50°

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office and the Hydrographer of the Navy"

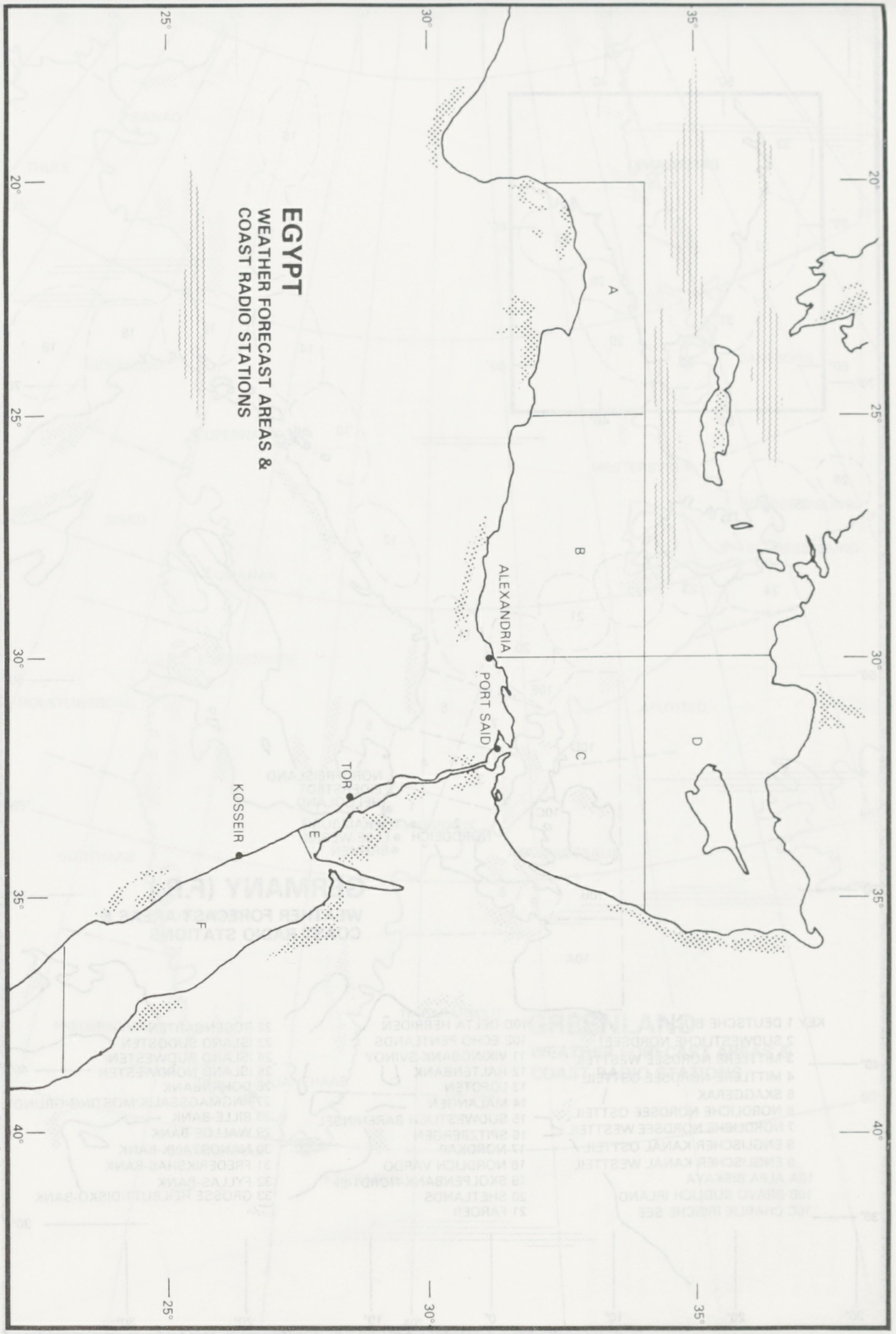

KEY
1 VIKING
2 UTSIRE
3 FLADEN GROUND
4 FISHER BANK
5 TYNE
6 DOGGER BANK
7 GERMAN BIGHT
8 HUMBER
9 SANDETTIE
10 MANCHE EST
11 MANCHE OUEST
12 OUEST BRETAGNE
13 NORD GASCOGNE
14 OUEST ECOSSE
15 NORD IRLANDE
16 OUEST IRLANDE
17 MER d'IRLANDE
18 SUD IRLANDE
19 SOLE
20 CAP FINISTERE
21 SUD GASCOGNE
25 OUEST PORTUGAL
511 ALBORAN
512 SUD BALEARES
513 NORD BALEARES
521 LION
522 PROVENCE
523 OUEST SARDAIGNE
524 SUD SARDAIGNE
531 GENES
532 OUEST CORSE
533 EST CORSE
534 EST SARDAIGNE
DUNKIRK
CALAIS
BOULOGNE
DIEPPE
LE HAVRE
ROUEN
PORT-EN-BESSIN
CHERBOURG
PLOUGASNOU
OUESSANT
ST. MALO
PAIMPOL
BREST
PONT L'ABBE
BELLE ILE
ST. NAZAIRE
NANTES
ST. GILLES CROIX DE VIE
LA ROCHELLE
ROYAN
BORDEAUX
ARACHON
BAYONNE
15°
10°
5°
0°
5°
10°
60°
55°
50°
45°
40°
35°

FRANCE

WEATHER FORECAST AREAS & COAST RADIO STATIONS

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office and the Hydrographer of the Navy"

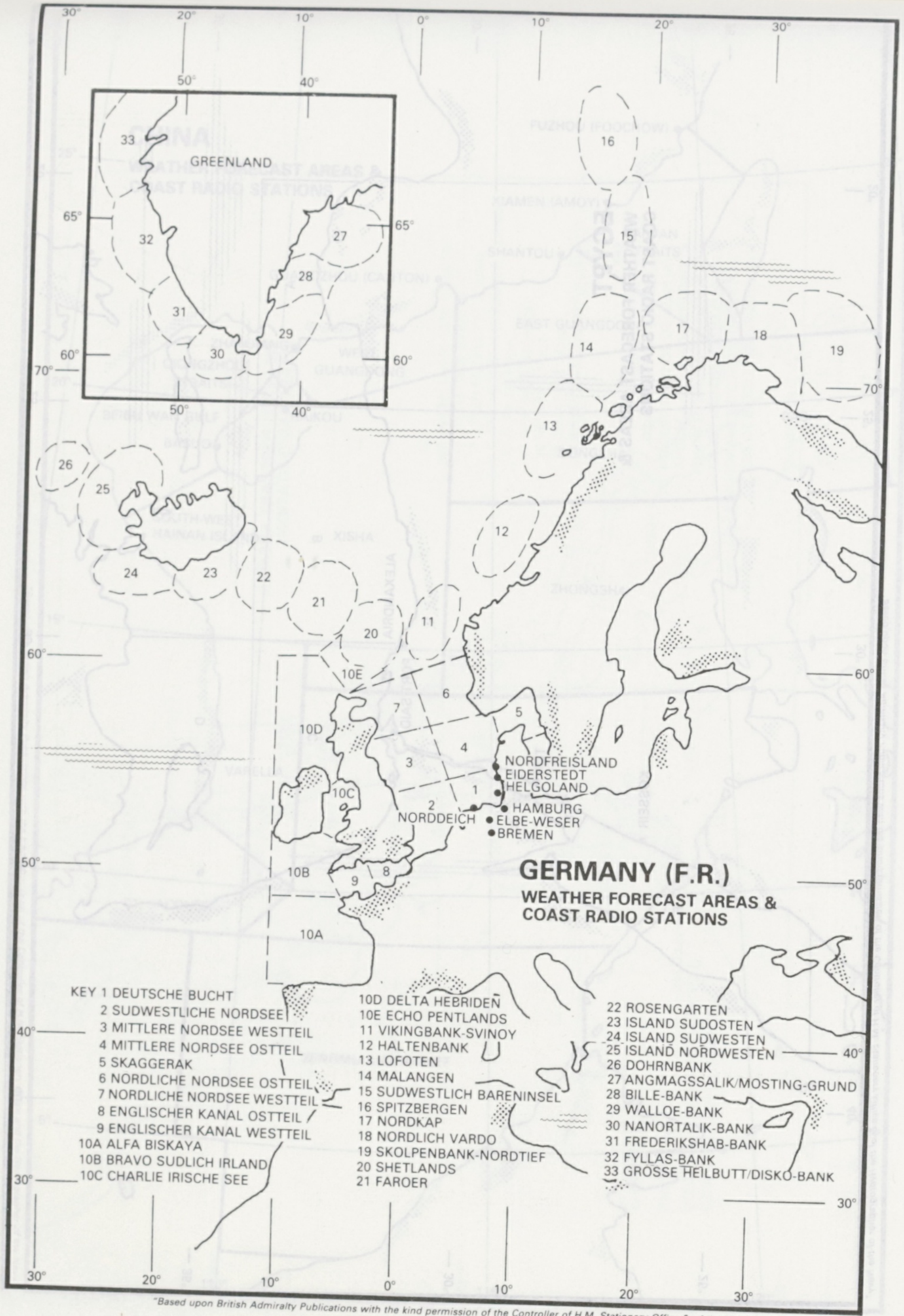
P1391


ALEXANDRIA
PORT SAID
TOR
KOSSEIR
A
B
C
D
E
F
25°
30°
35°
20°
25°
30°
35°
40°

EGYPT

WEATHER FORECAST AREAS & COAST RADIO STATIONS

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"

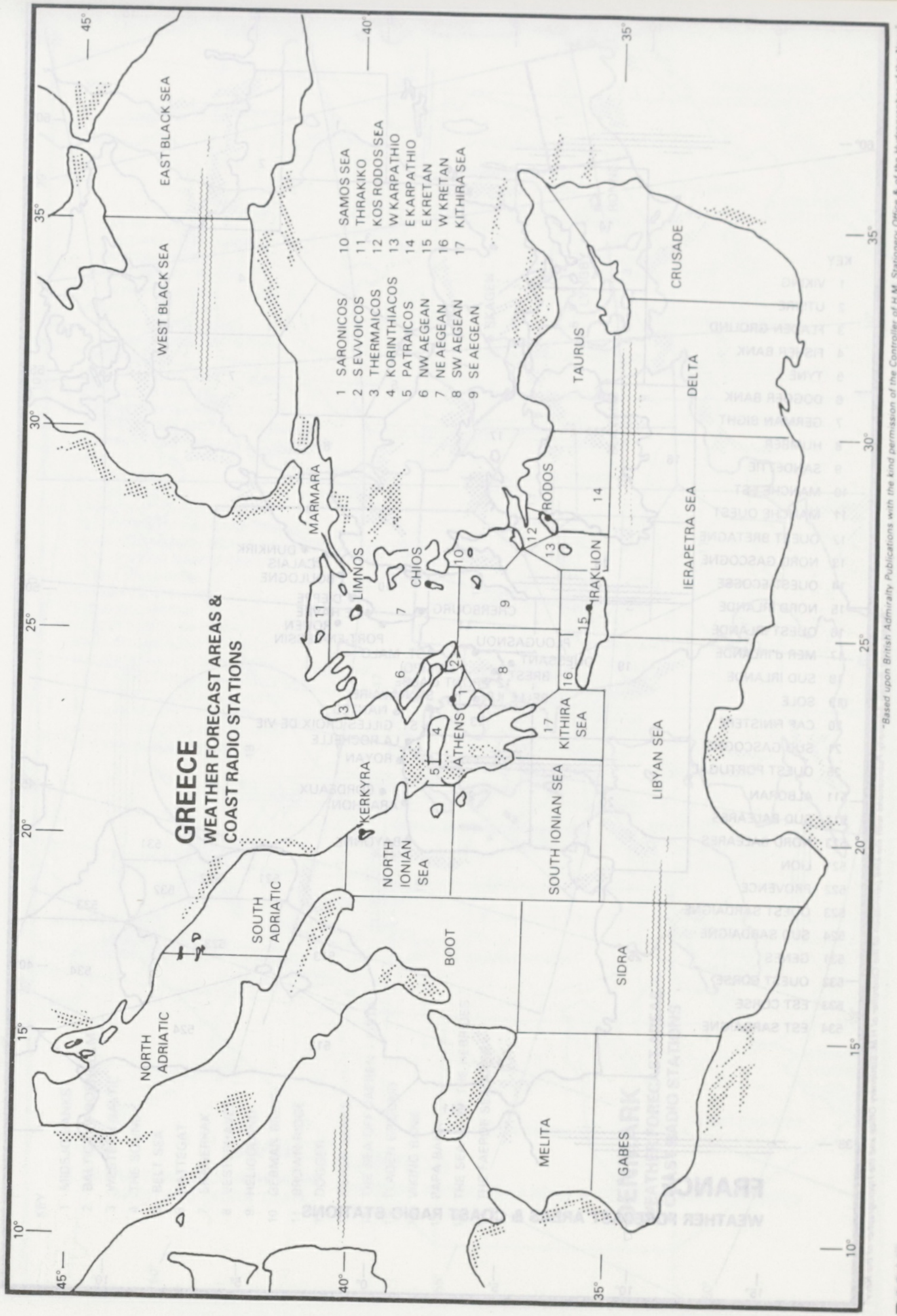

GREENLAND
NORDFREISLAND
EIDERSTEDT
HELGOLAND
HAMBURG
NORDDEICH
ELBE-WESER
BREMEN
1
2
3
4
5
6
7
8
9
10A
10B
10C
10D
10E
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
30°
20°
10°
0°
50°
40°
60°
65°
70°

GERMANY (F.R.)

WEATHER FORECAST AREAS & COAST RADIO STATIONS

KEY 1 DEUTSCHE BUCHT
2 SUDWESTLICHE NORDSEE
3 MITTLERE NORDSEE WESTTEIL
4 MITTLERE NORDSEE OSTTEIL
5 SKAGGERAK
6 NORDLICHE NORDSEE OSTTEIL
7 NORDLICHE NORDSEE WESTTEIL
8 ENGLISCHER KANAL OSTTEIL
9 ENGLISCHER KANAL WESTTEIL
10A ALFA BISKAYA
10B BRAVO SUDLICH IRLAND
10C CHARLIE IRISCHE SEE
10D DELTA HEBRIDEN
10E ECHO PENTLANDS
11 VIKINGBANK-SVINOY
12 HALTENBANK
13 LOFOTEN
14 MALANGEN
15 SUDWESTLICH BARENINSEL
16 SPITZBERGEN
17 NORDKAP
18 NORDLICH VARDO
19 SKOLPENBANK-NORDTIEF
20 SHETLANDS
21 FAROER
22 ROSENGARTEN
23 ISLAND SUDOSTEN
24 ISLAND SUDWESTEN
25 ISLAND NORDWESTEN
26 DOHRNBANK
27 ANGMAGSSALIK/MOSTING-GRUND
28 BILLE-BANK
29 WALLOE-BANK
30 NANORTALIK-BANK
31 FREDERIKSHAB-BANK
32 FYLLAS-BANK
33 GROSSE HEILBUTT/DISKO-BANK

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"

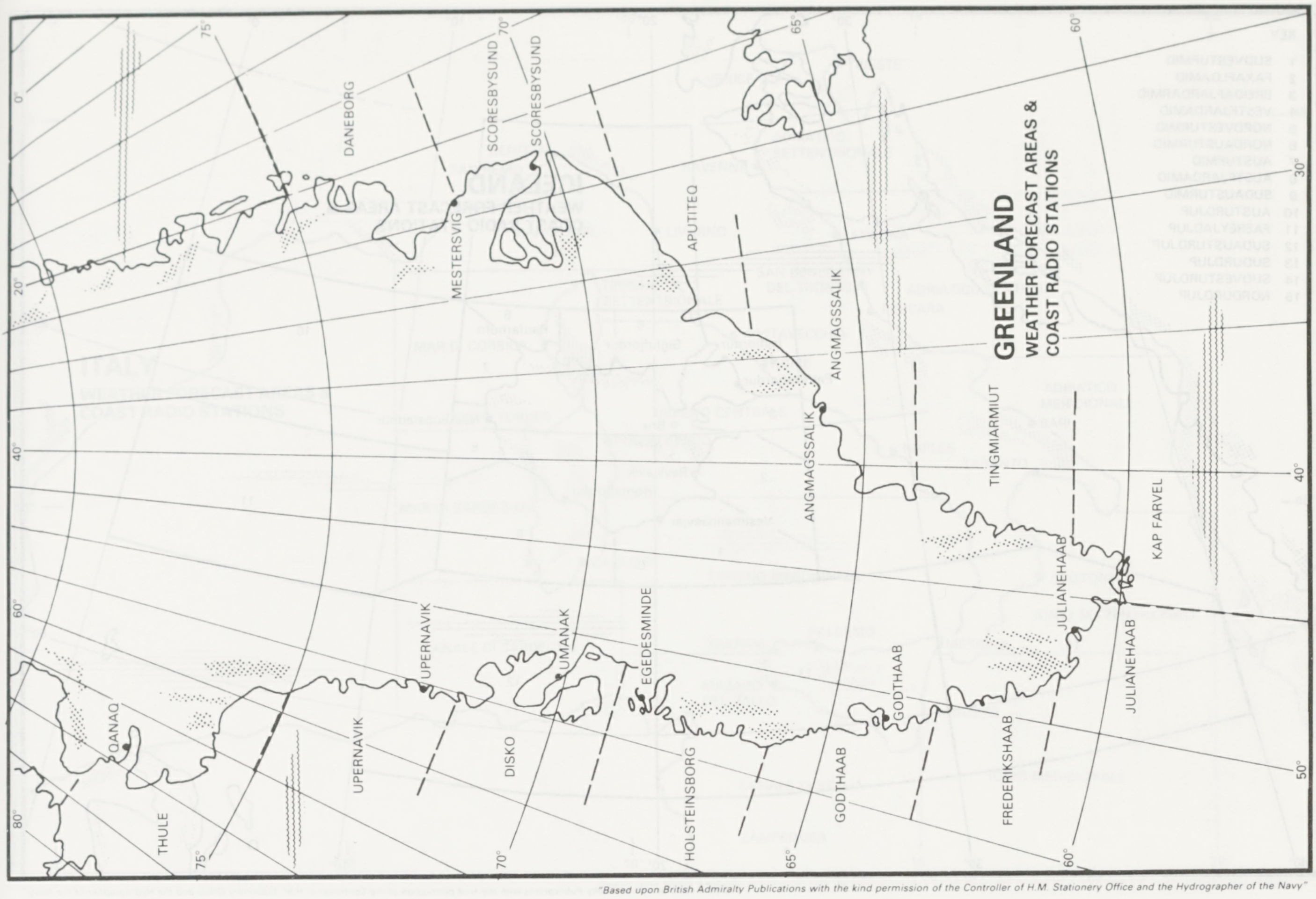

EAST BLACK SEA
WEST BLACK SEA
MARMARA
LIMNOS
CHIOS
RODOS
IRAKLION
ATHENS
KERKYRA
CRUSADE
TAURUS
DELTA
IERAPETRA SEA
LIBYAN SEA
KITHIRA SEA
SOUTH IONIAN SEA
NORTH IONIAN SEA
SOUTH ADRIATIC
NORTH ADRIATIC
BOOT
SIDRA
MELITA
GABES
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
45°
40°
35°
30°
25°
20°
15°
10°

GREECE

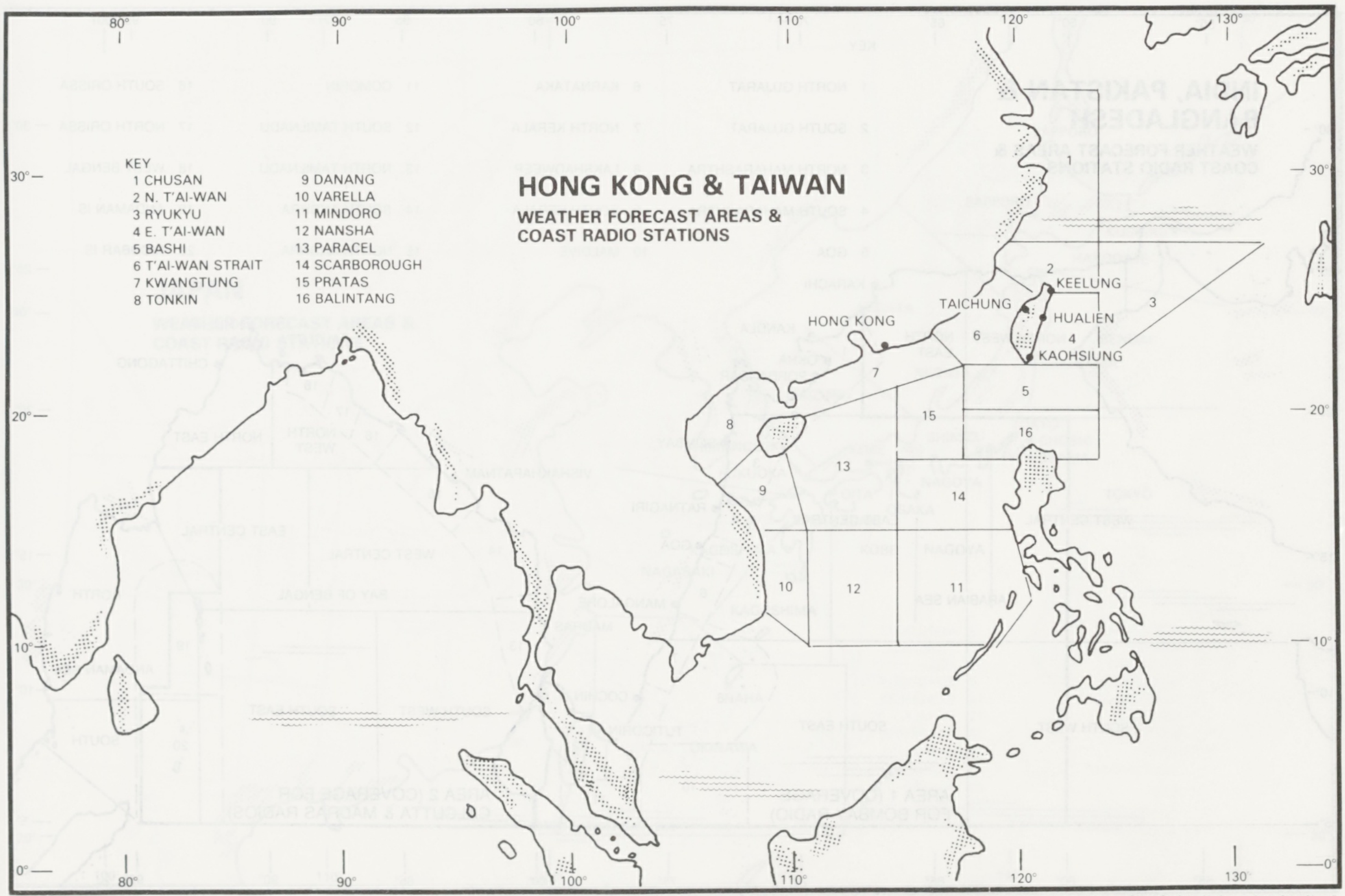
WEATHER FORECAST AREAS & COAST RADIO STATIONS

1 SARONICOS
2 S EVVOICOS
3 THERMAICOS
4 KORINTHIACOS
5 PATRAICOS
6 NW AEGEAN
7 NE AEGEAN
8 SW AEGEAN
9 SE AEGEAN
10 SAMOS SEA
11 THRAKIKO
12 KOS RODOS SEA
13 W KARPATHIO
14 E KARPATHIO
15 E KRETAN
16 W KRETAN
17 KITHIRA SEA

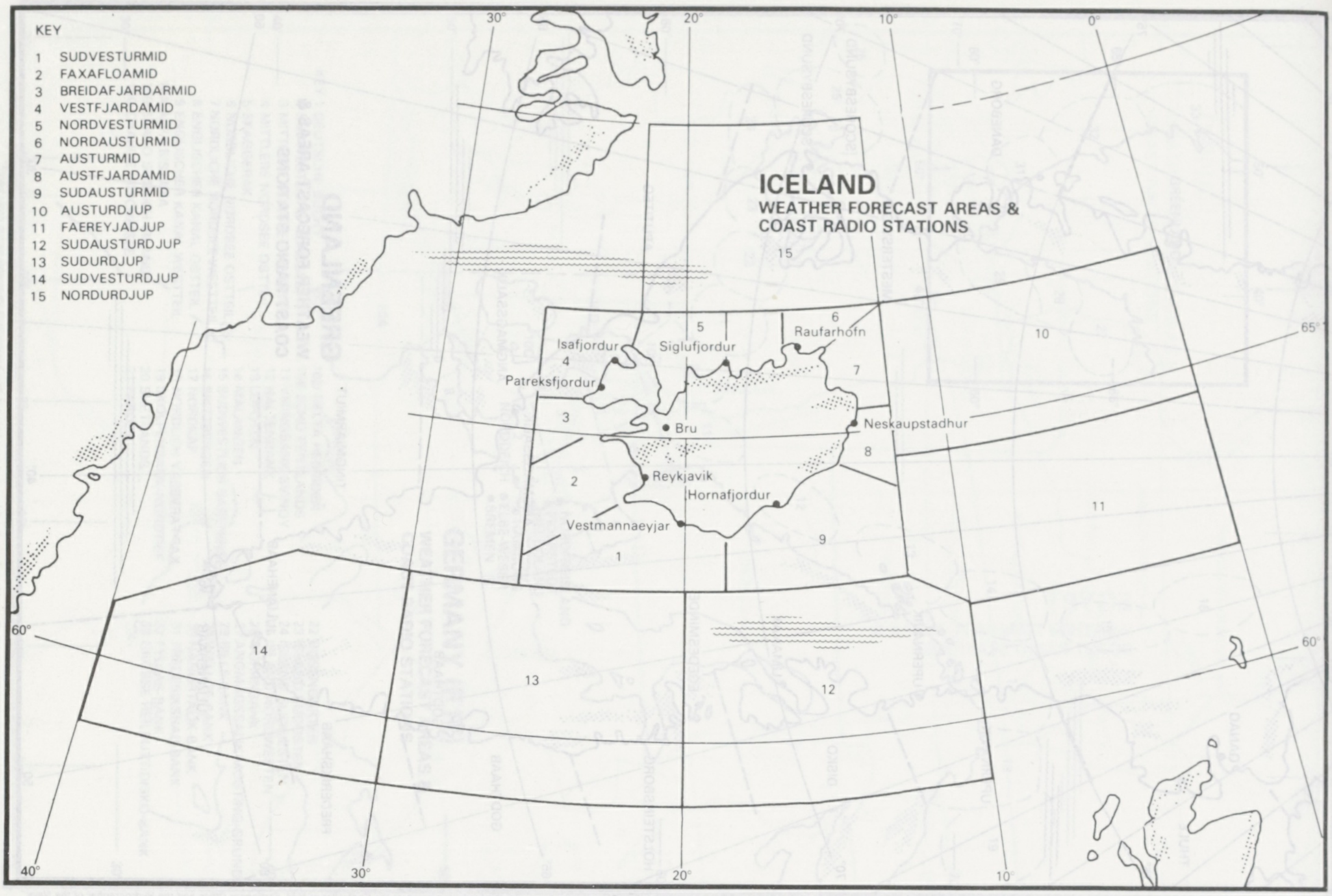
"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"


GREENLAND
WEATHER FORECAST AREAS & COAST RADIO STATIONS
DANEBORG
SCORESBYSUND
SCORESBYSUND
MESTERSVIG
APUTITEQ
ANGMAGSSALIK
ANGMAGSSALIK
TINGMIARMIUT
KAP FARVEL
JULIANEHAAB
JULIANEHAAB
UPERNAVIK
UMANAK
EGEDESMINDE
GODTHAAB
QANAQ
THULE
UPERNAVIK
DISKO
HOLSTEINSBORG
GODTHAAB
FREDERIKSHAAB
75°
70°
65°
60°
0°
20°
40°
60°
80°
30°
40°
50°

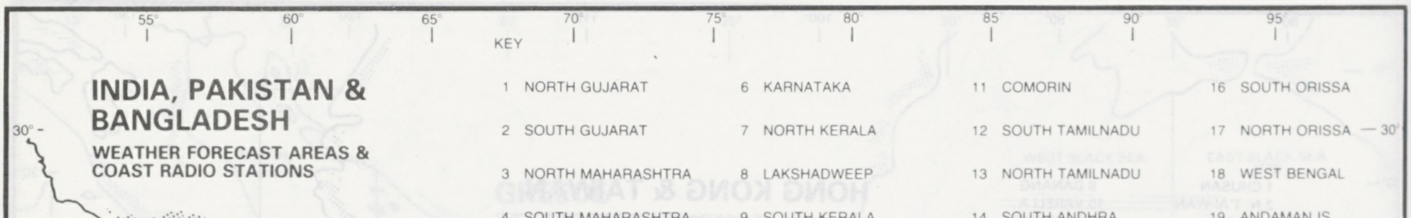
"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office and the Hydrographer of the Navy"


HONG KONG & TAIWAN
WEATHER FORECAST AREAS & COAST RADIO STATIONS
KEY
1 CHUSAN
2 N. T'AI-WAN
3 RYUKYU
4 E. T'AI-WAN
5 BASHI
6 T'AI-WAN STRAIT
7 KWANGTUNG
8 TONKIN
9 DANANG
10 VARELLA
11 MINDORO
12 NANSHA
13 PARACEL
14 SCARBOROUGH
15 PRATAS
16 BALINTANG
HONG KONG
TAICHUNG
KEELUNG
HUALIEN
KAOHSIUNG
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
80°
90°
100°
110°
120°
130°
30°
20°
10°
0°

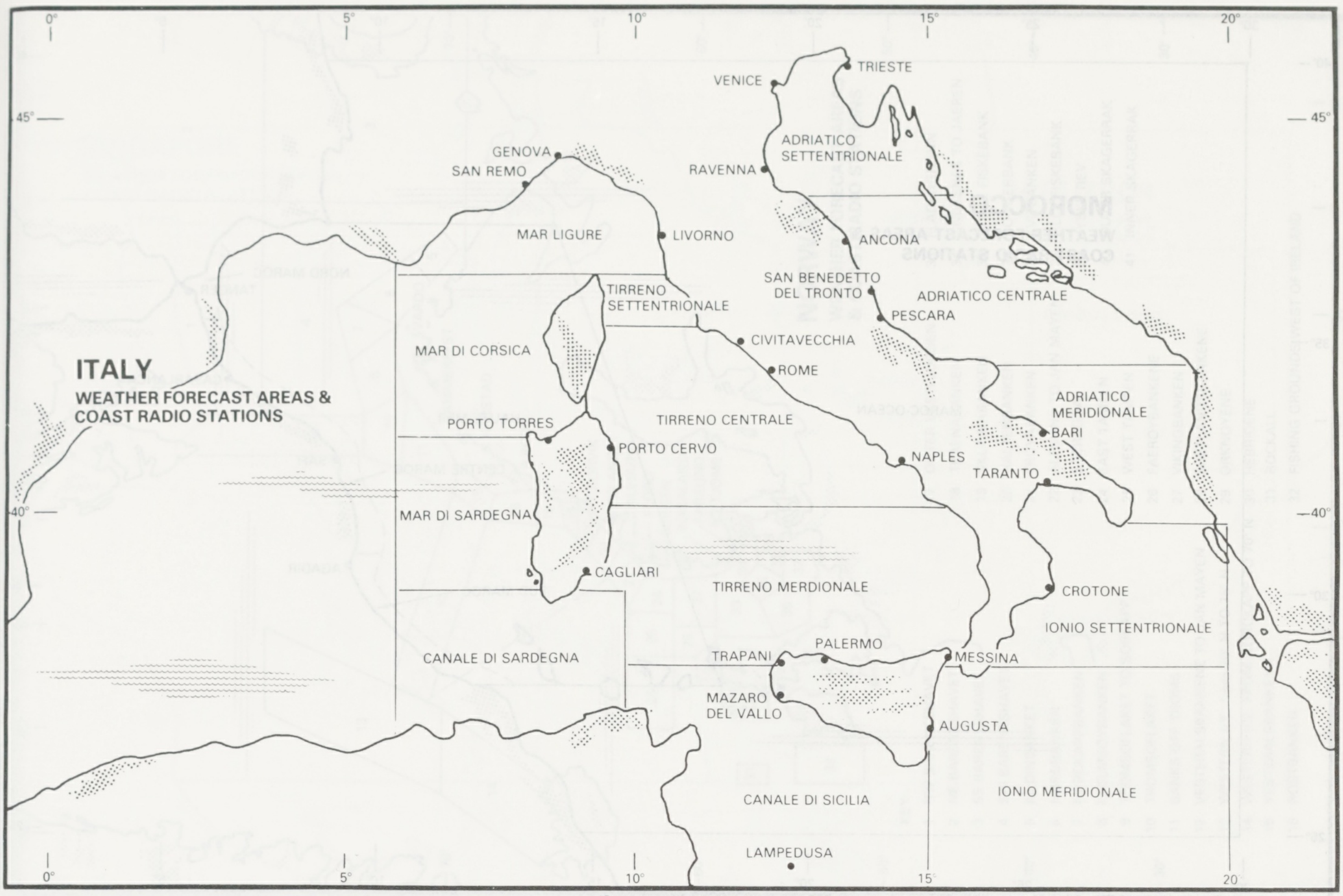
"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"


ICELAND
WEATHER FORECAST AREAS & COAST RADIO STATIONS
KEY
1 SUDVESTURMID
2 FAXAFLOAMID
3 BREIDAFJARDARMID
4 VESTFJARDAMID
5 NORDVESTURMID
6 NORDAUSTURMID
7 AUSTURMID
8 AUSTFJARDAMID
9 SUDAUSTURMID
10 AUSTURDJUP
11 FAEREYJADJUP
12 SUDAUSTURDJUP
13 SUDURDJUP
14 SUDVESTURDJUP
15 NORDURDJUP
Isafjordur
Siglufjordur
Raufarhofn
Patreksfjordur
Bru
Neskaupstadhur
Reykjavik
Hornafjordur
Vestmannaeyjar
30°
20°
10°
0°
65°
60°
40°
30°
20°
10°

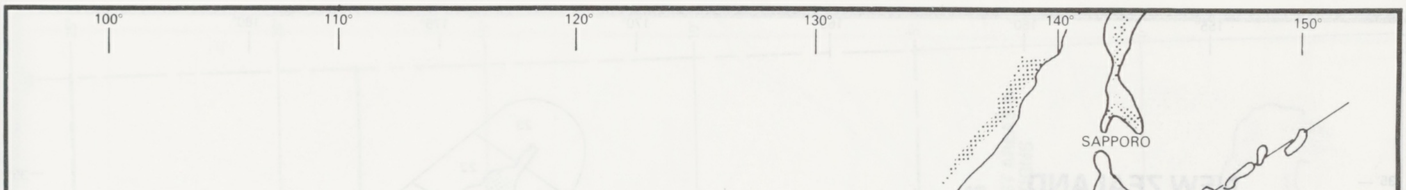
"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office and the Hydrographer of the Navy"


INDIA, PAKISTAN & BANGLADESH
WEATHER FORECAST AREAS & COAST RADIO STATIONS
KEY
1 NORTH GUJARAT
2 SOUTH GUJARAT
3 NORTH MAHARASHTRA
4 SOUTH MAHARASHTRA
5 GOA
6 KARNATAKA
7 NORTH KERALA
8 LAKSHADWEEP
9 SOUTH KERALA
10 MALDIVE
11 COMORIN
12 SOUTH TAMILNADU
13 NORTH TAMILNADU
14 SOUTH ANDHRA
15 NORTH ANDHRA
16 SOUTH ORISSA
17 NORTH ORISSA
18 WEST BENGAL
19 ANDAMAN IS.
20 NICOBAR IS.
KARACHI
KANDLA
OKHA
PORBANDAR
BOMBAY
RATNAGIRI
GOA
MANGALORE
COCHIN
TUTICORIN
MADRAS
VISHAKHAPATNAM
CALCUTTA
KHULNA
CHITTAGONG
NORTH WEST
NORTH EAST
WEST CENTRAL
EAST CENTRAL
ARABIAN SEA
SOUTH WEST
SOUTH EAST
BAY OF BENGAL
NORTH
ANDAMAN SEA
SOUTH
AREA 1 (COVERAGE FOR BOMBAY RADIO)
AREA 2 (COVERAGE FOR CALCUTTA & MADRAS RADIOS)
55°
60°
65°
70°
75°
80°
85°
90°
95°
30°
25°
20°
15°
10°
5°

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"


ITALY
WEATHER FORECAST AREAS & COAST RADIO STATIONS
0°
5°
10°
15°
20°
45°
40°
TRIESTE
VENICE
ADRIATICO SETTENTRIONALE
GENOVA
SAN REMO
RAVENNA
MAR LIGURE
LIVORNO
ANCONA
SAN BENEDETTO DEL TRONTO
ADRIATICO CENTRALE
TIRRENO SETTENTRIONALE
PESCARA
CIVITAVECCHIA
MAR DI CORSICA
ROME
ADRIATICO MERIDIONALE
PORTO TORRES
TIRRENO CENTRALE
BARI
PORTO CERVO
NAPLES
TARANTO
MAR DI SARDEGNA
CAGLIARI
CROTONE
TIRRENO MERDIONALE
IONIO SETTENTRIONALE
PALERMO
TRAPANI
MESSINA
CANALE DI SARDEGNA
MAZARO DEL VALLO
AUGUSTA
IONIO MERIDIONALE
CANALE DI SICILIA
LAMPEDUSA

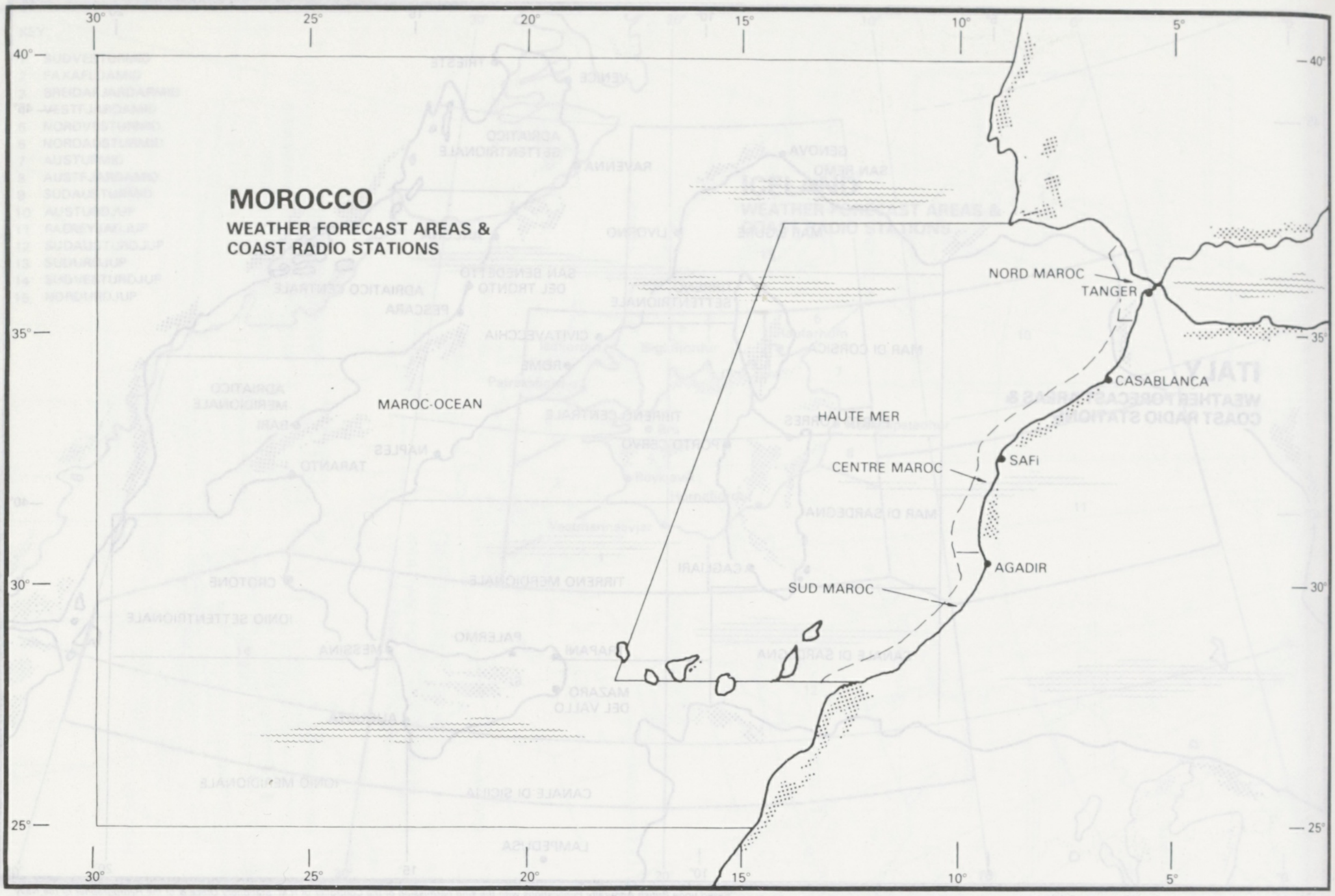
"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"


JAPAN
WEATHER FORECAST AREAS & COAST RADIO STATIONS
100°
110°
120°
130°
140°
150°
40°
30°
20°
SAPPORO
SAPPORO
KUSHIRO
HAKODATE
NIIGATA
SENDAI
NIIGATA
SHIOGAMA
MAIZURU
TOKYO
SHIMONOSEKI
KOBE
SHIMIZU
CHOSHI
YOKOHAMA
FUKUOKA
NAGOYA
MOJI
OITA
OSAKA
TOKYO
NAGASAKI
KAGOSHIMA
KOBE
NAGOYA
NAGASAKI
KAGOSHIMA
NAHA
OKINAWA

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"

MOROCCO

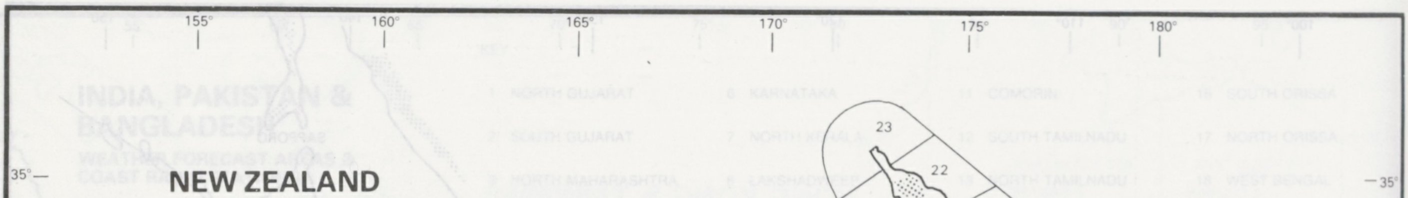
WEATHER FORECAST AREAS & COAST RADIO STATIONS


30°
25°
20°
15°
10°
5°
40°
35°
30°
25°
MAROC-OCEAN
HAUTE MER
NORD MAROC
TANGER
CASABLANCA
SAFI
CENTRE MAROC
AGADIR
SUD MAROC

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"

NEW ZEALAND

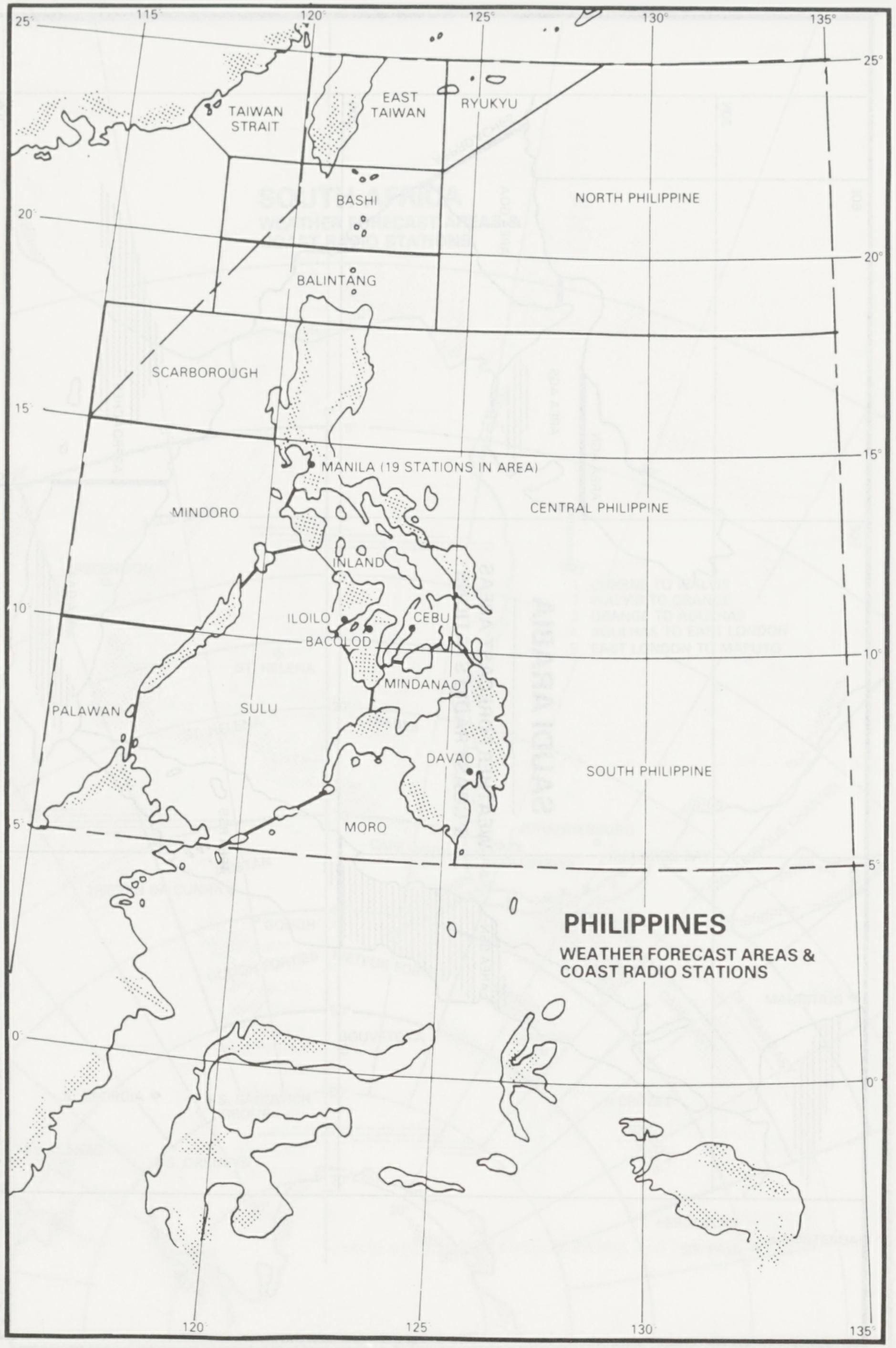
WEATHER FORECAST AREAS & COAST RADIO STATIONS


155°
160°
165°
170°
175°
180°
35°
40°
45°
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
AUCKLAND
WELLINGTON
AWARUA
CHATHAM ISLAND

KEY

1	HOKIANGA	2	MANUKAU
3	KAWHIA	4	FAREWELL
5	FOULWIND	6	FOX
7	MILFORD	8	PUYSEGUR
9	FOVEAUX	10	CHALMERS
11	WAITAKI	12	RAKAIA
13	PEGASUS	14	CLARENCE
15	COOK	16	DURVILLE
17	CASTLEPOINT	18	KIDNAPPERS
19	NICK	20	PLENTY
21	COROMANDEL	22	BRETT
23	REINGA		

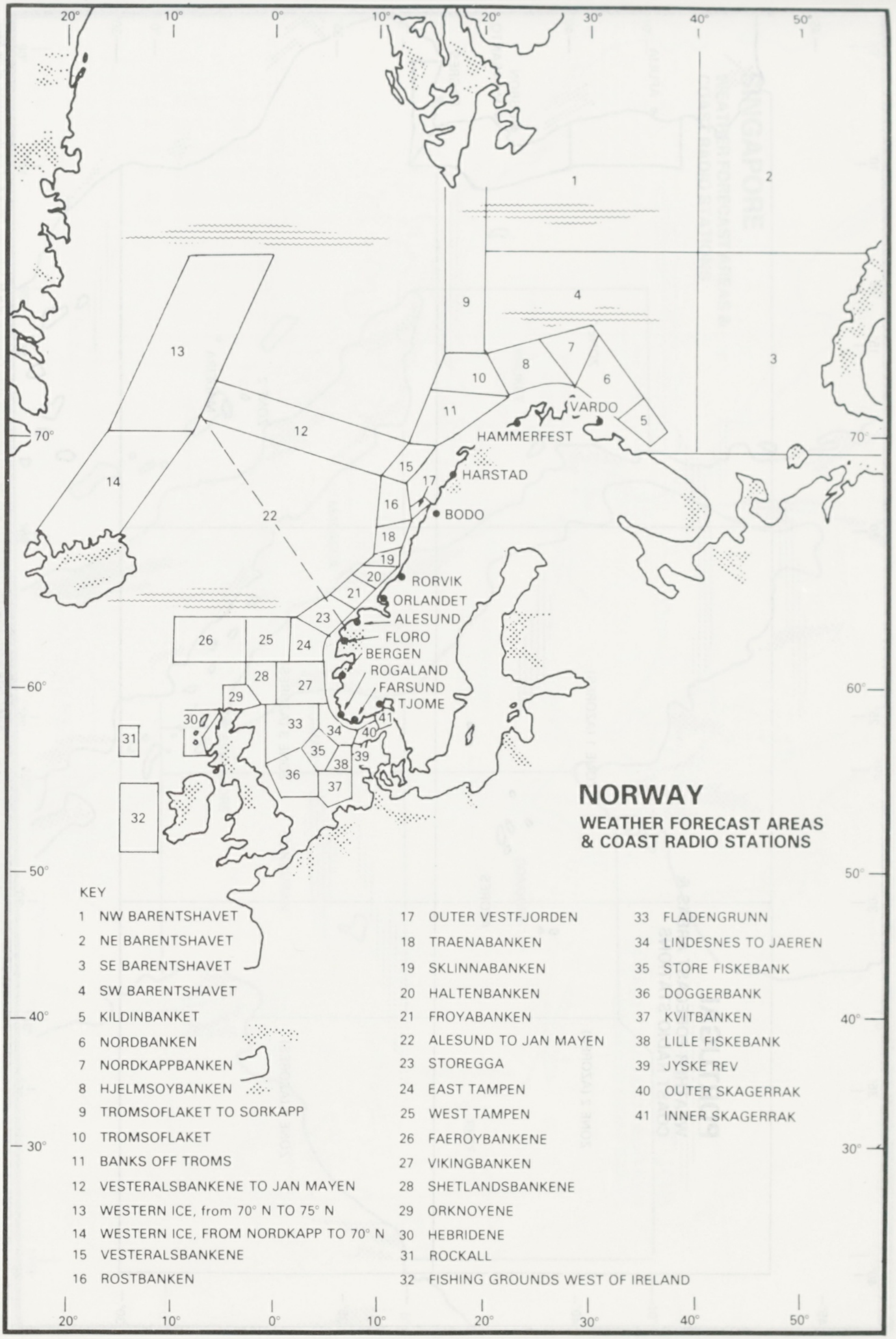
"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"


25°
115°
120°
125°
130°
135°
TAIWAN STRAIT
EAST TAIWAN
RYUKYU
BASHI
NORTH PHILIPPINE
20°
BALINTANG
SCARBOROUGH
15°
MANILA (19 STATIONS IN AREA)
MINDORO
CENTRAL PHILIPPINE
INLAND
ILOILO
CEBU
BACOLOD
10°
MINDANAO
PALAWAN
SULU
DAVAO
SOUTH PHILIPPINE
MORO
5°
0°

PHILIPPINES
WEATHER FORECAST AREAS & COAST RADIO STATIONS

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"

P1397

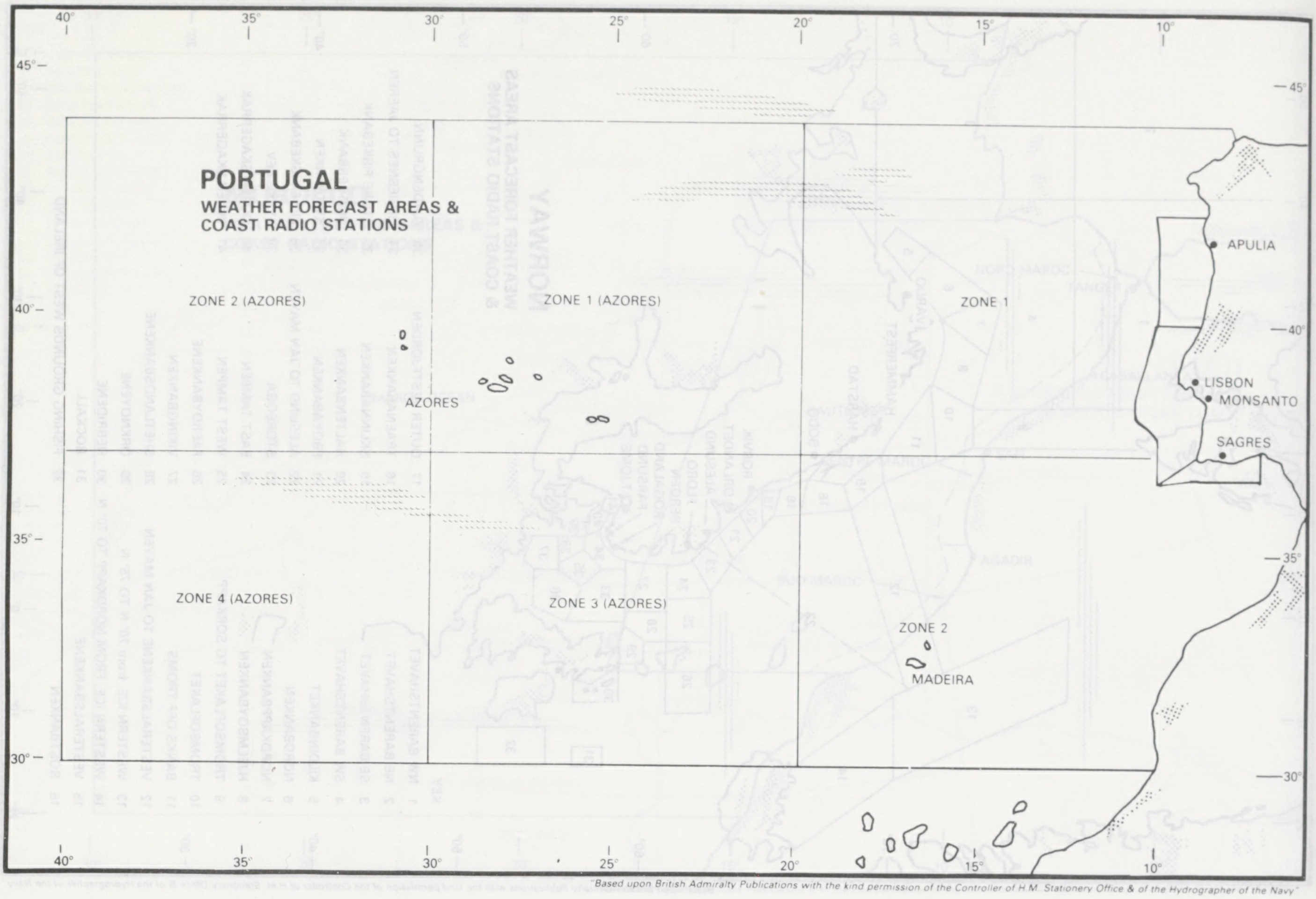

20°
10°
0°
10°
20°
30°
40°
50°
70°
60°
50°
40°
30°
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
VARDO
HAMMERFEST
HARSTAD
BODO
RORVIK
ORLANDET
ALESUND
FLORO
BERGEN
ROGALAND
FARSUND
TJOME

NORWAY
WEATHER FORECAST AREAS & COAST RADIO STATIONS

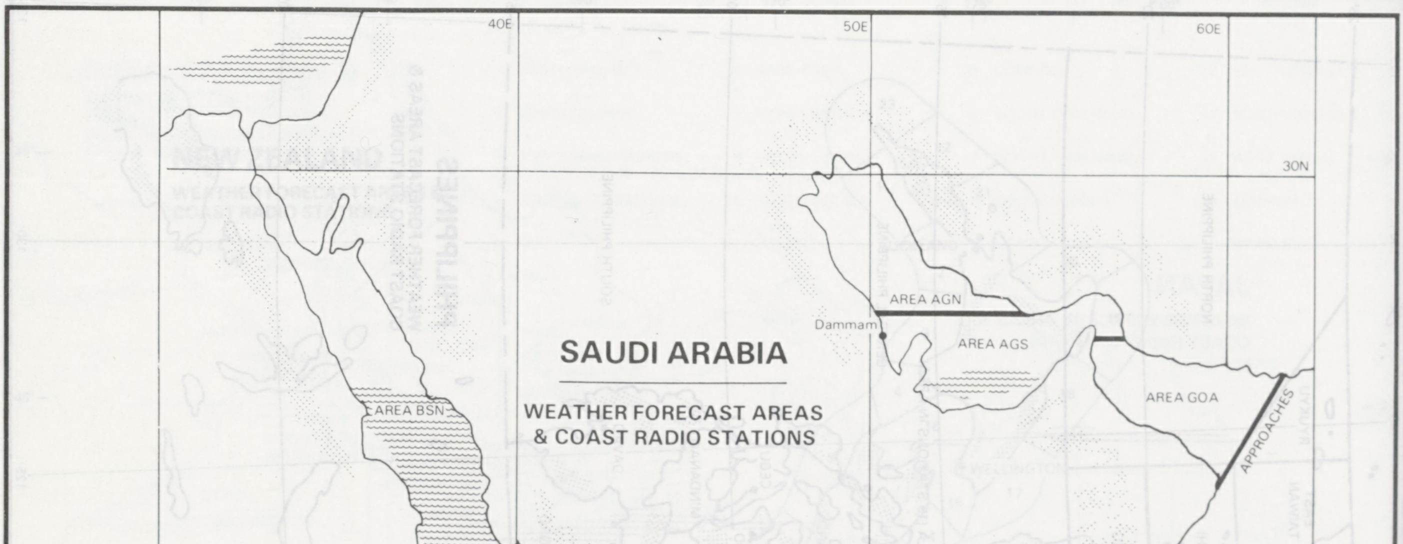
KEY

1	NW BARENTSHAVET
2	NE BARENTSHAVET
3	SE BARENTSHAVET
4	SW BARENTSHAVET
5	KILDINBANKET
6	NORDBANKEN
7	NORDKAPPBANKEN
8	HJELMSOYBANKEN
9	TROMSOFLAKET TO SORKAPP
10	TROMSOFLAKET
11	BANKS OFF TROMS
12	VESTERALSBANKENE TO JAN MAYEN
13	WESTERN ICE, from 70° N TO 75° N
14	WESTERN ICE, FROM NORDKAPP TO 70° N
15	VESTERALSBANKENE
16	ROSTBANKEN
17	OUTER VESTFJORDEN
18	TRAENABANKEN
19	SKLINNABANKEN
20	HALTENBANKEN
21	FROYABANKEN
22	ALESUND TO JAN MAYEN
23	STOREGGA
24	EAST TAMPEN
25	WEST TAMPEN
26	FAEROYBANKENE
27	VIKINGBANKEN
28	SHETLANDSBANKENE
29	ORKNOYENE
30	HEBRIDENE
31	ROCKALL
32	FISHING GROUNDS WEST OF IRELAND
33	FLADENGRUNN
34	LINDESNES TO JAEREN
35	STORE FISKEBANK
36	DOGGERBANK
37	KVITBANKEN
38	LILLE FISKEBANK
39	JYSKE REV
40	OUTER SKAGERRAK
41	INNER SKAGERRAK

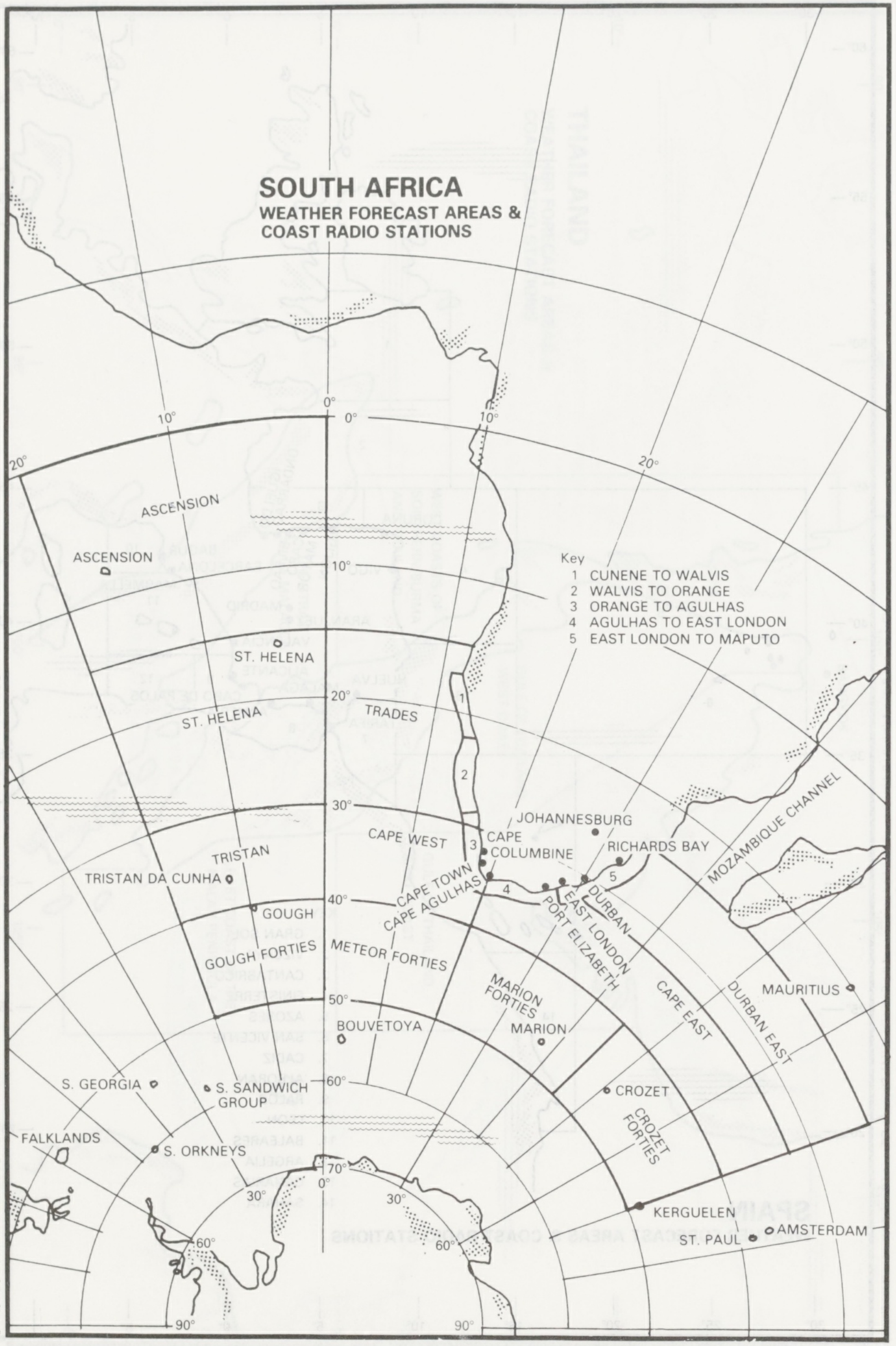
"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"


PORTUGAL
WEATHER FORECAST AREAS & COAST RADIO STATIONS
ZONE 2 (AZORES)
ZONE 1 (AZORES)
ZONE 1
AZORES
APULIA
LISBON
MONSANTO
SAGRES
ZONE 4 (AZORES)
ZONE 3 (AZORES)
ZONE 2
MADEIRA
40°
35°
30°
25°
20°
15°
10°
45°
40°
35°
30°

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"

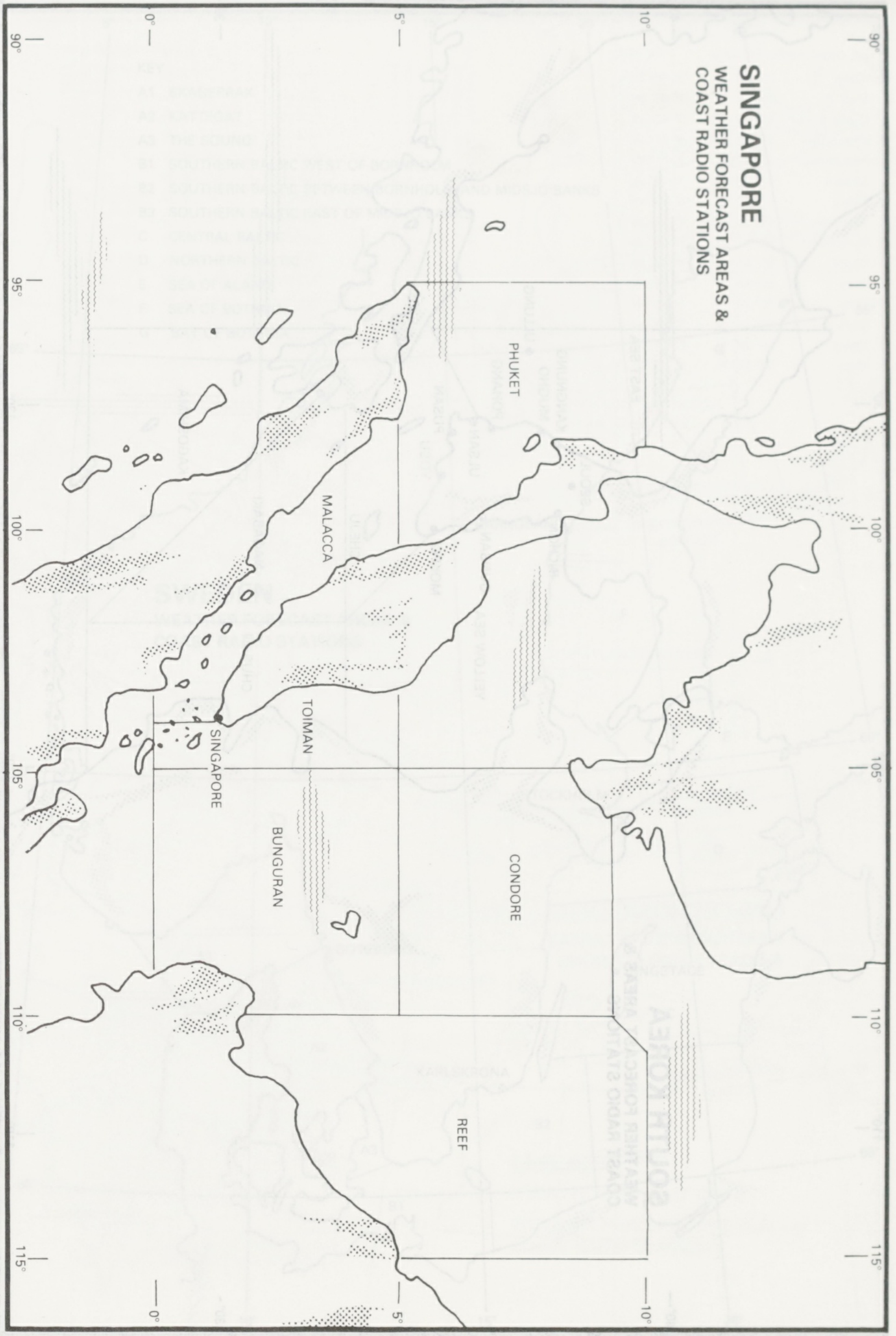

SAUDI ARABIA
WEATHER FORECAST AREAS & COAST RADIO STATIONS
40E
50E
60E
30N
20N
10N
AREA AGN
Dammam
AREA AGS
AREA GOA
APPROACHES
AREA BSN
AREA RSS
APPROACHES
AREA GAA

SOUTH AFRICA
WEATHER FORECAST AREAS & COAST RADIO STATIONS

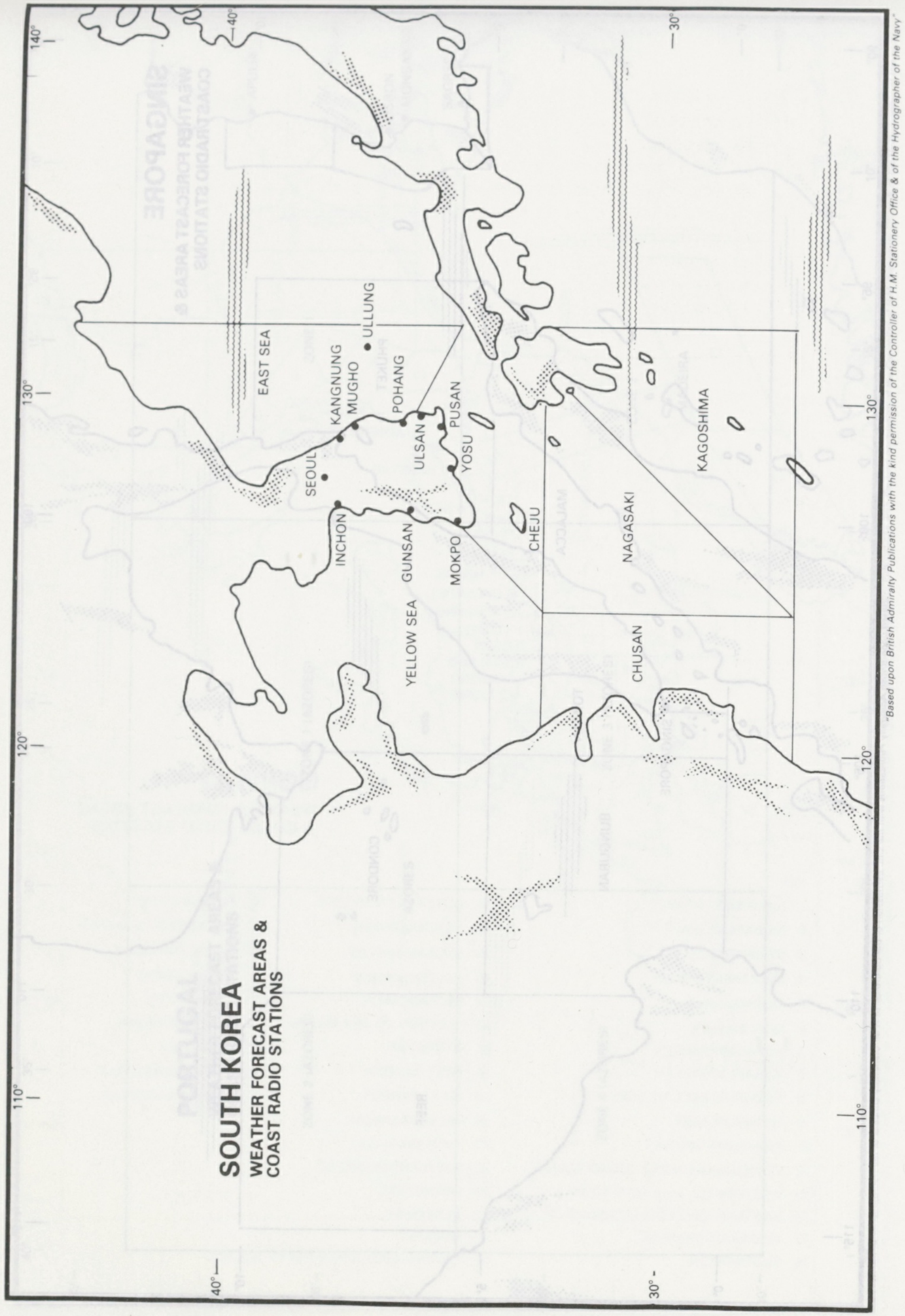

Key
1 CUNENE TO WALVIS
2 WALVIS TO ORANGE
3 ORANGE TO AGULHAS
4 AGULHAS TO EAST LONDON
5 EAST LONDON TO MAPUTO
ASCENSION
ST. HELENA
TRADES
CAPE WEST
TRISTAN
TRISTAN DA CUNHA
GOUGH
GOUGH FORTIES
METEOR FORTIES
MARION FORTIES
MARION
BOUVETOYA
CAPE EAST
DURBAN EAST
MOZAMBIQUE CHANNEL
MAURITIUS
CROZET
CROZET FORTIES
KERGUELEN
AMSTERDAM
ST. PAUL
S. GEORGIA
S. SANDWICH GROUP
S. ORKNEYS
FALKLANDS
JOHANNESBURG
CAPE COLUMBINE
CAPE TOWN
CAPE AGULHAS
PORT ELIZABETH
EAST LONDON
DURBAN
RICHARDS BAY
1
2
3
4
5
0°
10°
20°
30°
40°
50°
60°
70°
90°

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"

SINGAPORE
WEATHER FORECAST AREAS & COAST RADIO STATIONS


PHUKET
MALACCA
TIOMAN
SINGAPORE
BUNGURAN
CONDORE
REEF
90°
95°
100°
105°
110°
115°
0°
5°
10°

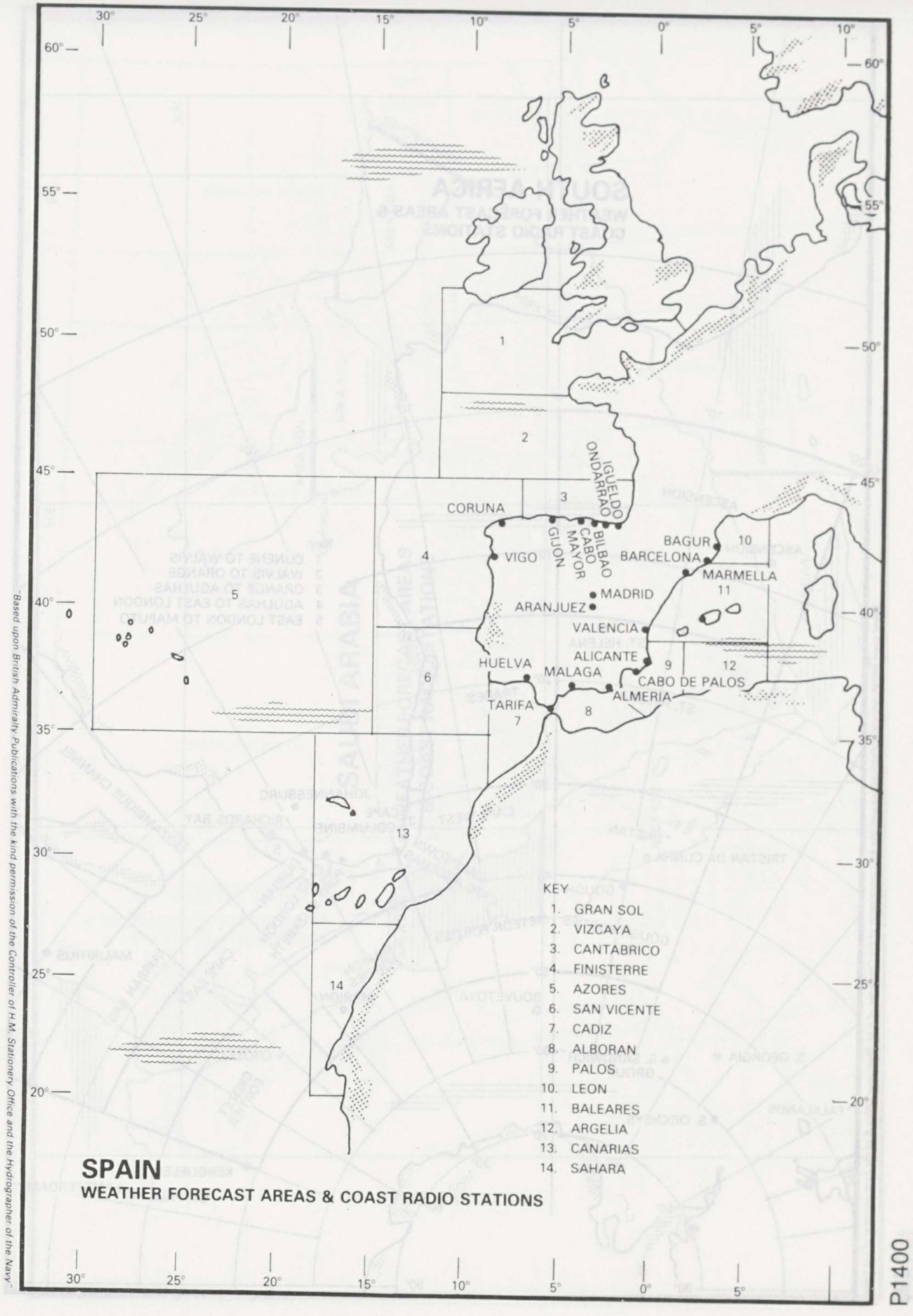
"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"


140°
130°
120°
110°
40°
30°
EAST SEA
ULLUNG
KANGNUNG
MUGHO
POHANG
PUSAN
ULSAN
YOSU
SEOUL
INCHON
GUNSAN
MOKPO
CHEJU
YELLOW SEA
NAGASAKI
KAGOSHIMA
CHUSAN

SOUTH KOREA

WEATHER FORECAST AREAS & COAST RADIO STATIONS

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"

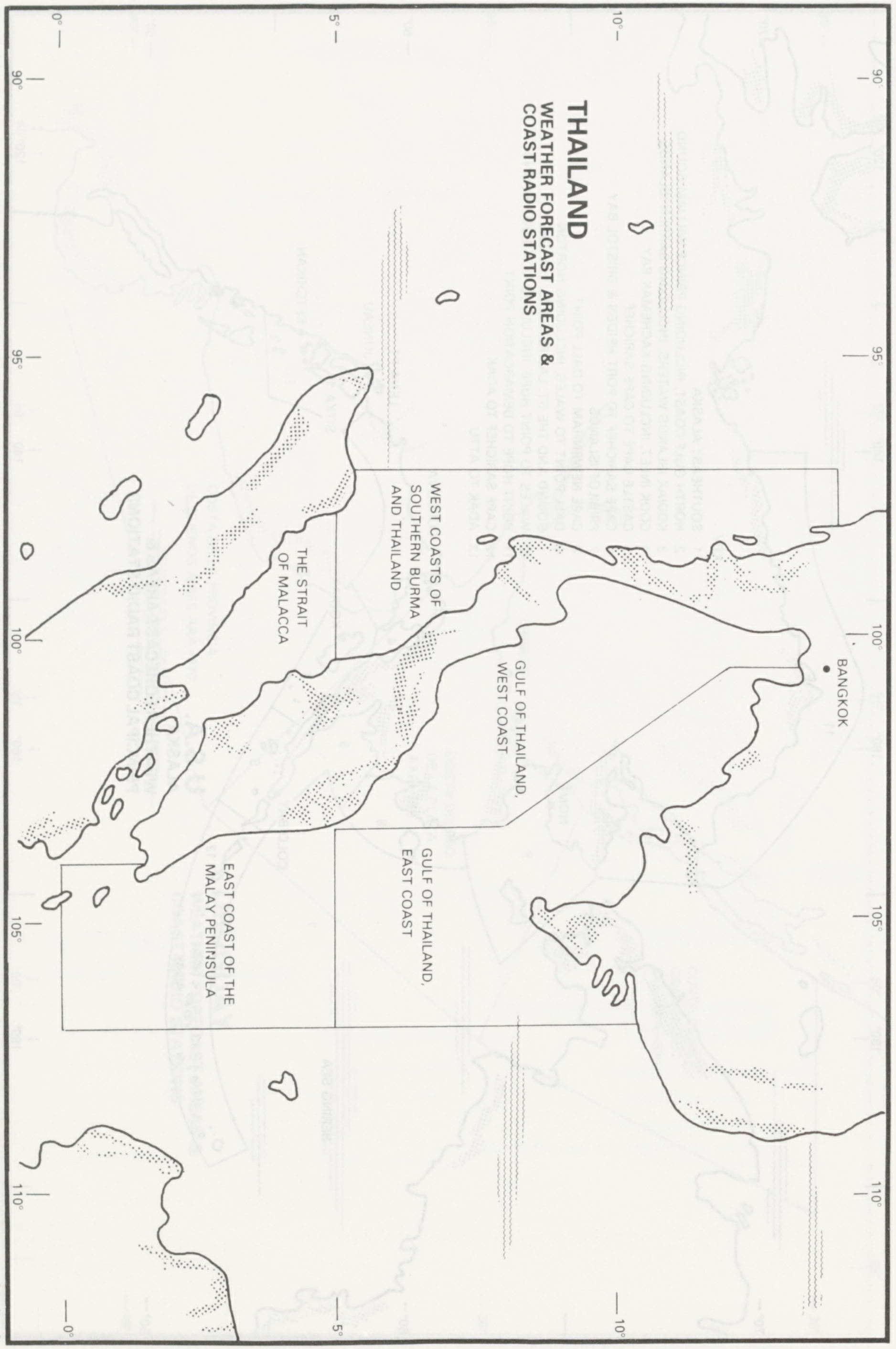

30°
25°
20°
15°
10°
5°
0°
5°
10°
60°
55°
50°
45°
40°
35°
30°
25°
20°
1
2
3
4
5
6
7
8
9
10
11
12
13
14
CORUNA
VIGO
GIJON
CABO MAYOR
BILBAO
ONDARRAO
IGUELDO
MADRID
ARANJUEZ
BAGUR
BARCELONA
MARMELLA
VALENCIA
ALICANTE
CABO DE PALOS
HUELVA
MALAGA
ALMERIA
TARIFA

KEY
1. GRAN SOL
2. VIZCAYA
3. CANTABRICO
4. FINISTERRE
5. AZORES
6. SAN VICENTE
7. CADIZ
8. ALBORAN
9. PALOS
10. LEON
11. BALEARES
12. ARGELIA
13. CANARIAS
14. SAHARA

SPAIN

WEATHER FORECAST AREAS & COAST RADIO STATIONS

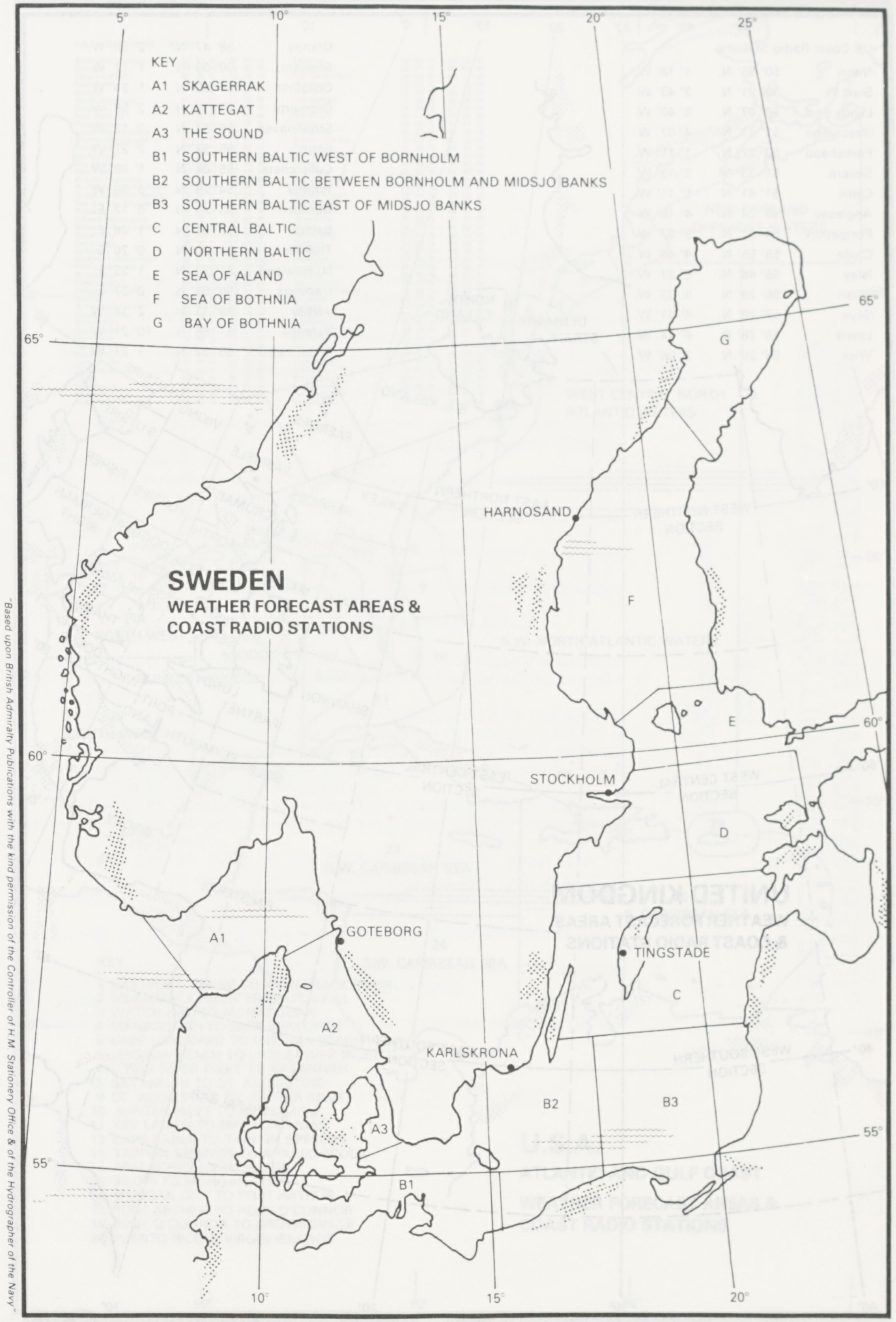
"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office and the Hydrographer of the Navy"



THAILAND
WEATHER FORECAST AREAS & COAST RADIO STATIONS

BANGKOK
GULF OF THAILAND, WEST COAST
GULF OF THAILAND, EAST COAST
EAST COAST OF THE MALAY PENINSULA
THE STRAIT OF MALACCA
WEST COASTS OF SOUTHERN BURMA AND THAILAND
90°
95°
100°
105°
110°
0°
5°
10°

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"



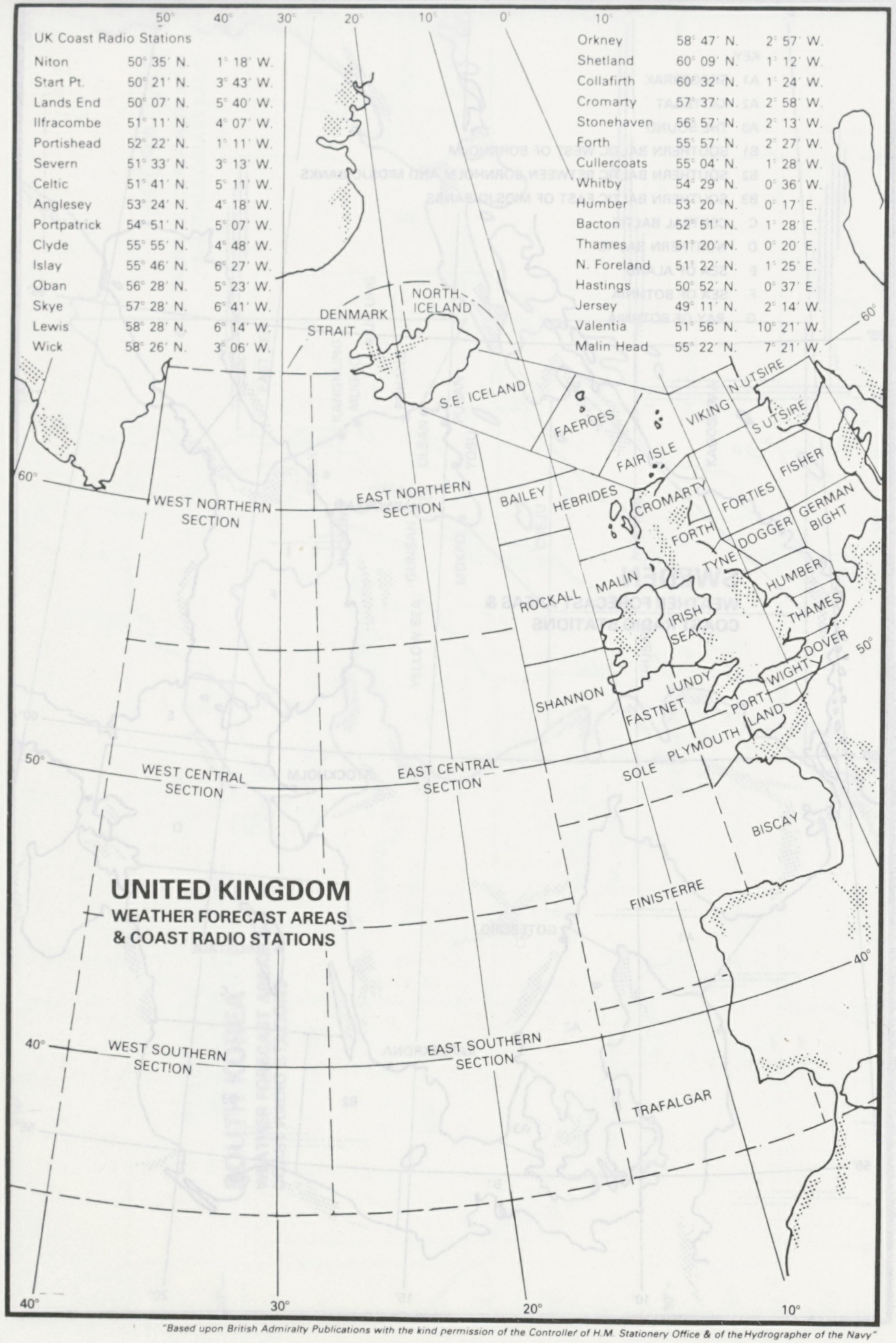
SWEDEN
WEATHER FORECAST AREAS & COAST RADIO STATIONS

KEY

A1	SKAGERRAK
A2	KATTEGAT
A3	THE SOUND
B1	SOUTHERN BALTIC WEST OF BORNHOLM
B2	SOUTHERN BALTIC BETWEEN BORNHOLM AND MIDSJO BANKS
B3	SOUTHERN BALTIC EAST OF MIDSJO BANKS
C	CENTRAL BALTIC
D	NORTHERN BALTIC
E	SEA OF ALAND
F	SEA OF BOTHNIA
G	BAY OF BOTHNIA

HARNOSAND
STOCKHOLM
GOTEBORG
TINGSTADE
KARLSKRONA
A1
A2
A3
B1
B2
B3
C
D
E
F
G
5°
10°
15°
20°
25°
65°
60°
55°

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"


50°
40°
30°
20°
10°
0°
10°
60°
50°
40°
DENMARK STRAIT
NORTH ICELAND
S.E. ICELAND
FAEROES
VIKING
N UTSIRE
S UTSIRE
FAIR ISLE
FISHER
WEST NORTHERN SECTION
EAST NORTHERN SECTION
BAILEY
HEBRIDES
CROMARTY
FORTIES
GERMAN BIGHT
FORTH
DOGGER
TYNE
HUMBER
MALIN
ROCKALL
IRISH SEA
THAMES
DOVER
WIGHT
LUNDY
SHANNON
FASTNET
PORTLAND
PLYMOUTH
SOLE
WEST CENTRAL SECTION
EAST CENTRAL SECTION
BISCAY
FINISTERRE
WEST SOUTHERN SECTION
EAST SOUTHERN SECTION
TRAFALGAR
40°
30°
20°
10°

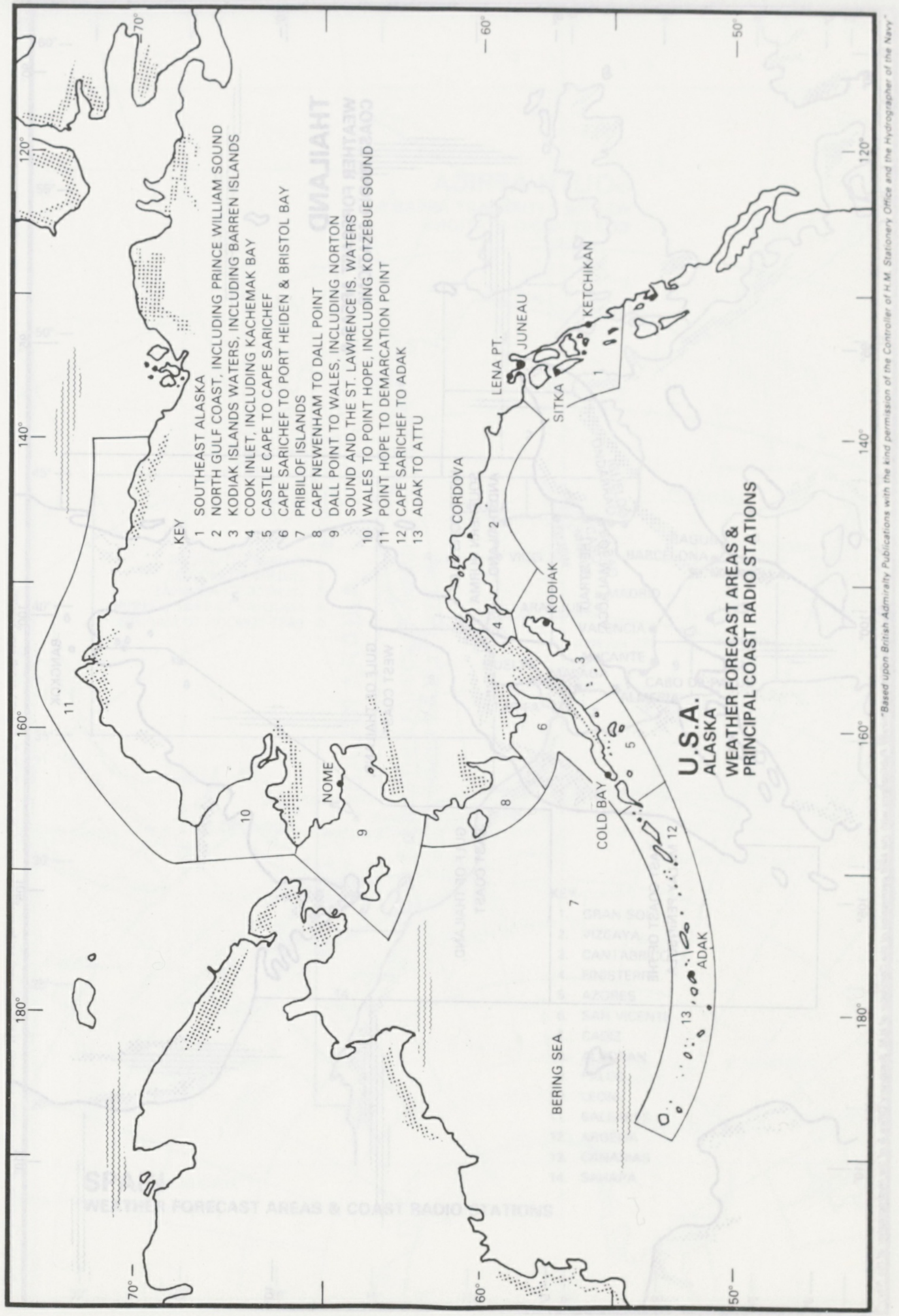
UK Coast Radio Stations

Niton	50° 35′ N.	1° 18′ W.
Start Pt.	50° 21′ N.	3° 43′ W.
Lands End	50° 07′ N.	5° 40′ W.
Ilfracombe	51° 11′ N.	4° 07′ W.
Portishead	52° 22′ N.	1° 11′ W.
Severn	51° 33′ N.	3° 13′ W.
Celtic	51° 41′ N.	5° 11′ W.
Anglesey	53° 24′ N.	4° 18′ W.
Portpatrick	54° 51′ N.	5° 07′ W.
Clyde	55° 55′ N.	4° 48′ W.
Islay	55° 46′ N.	6° 27′ W.
Oban	56° 28′ N.	5° 23′ W.
Skye	57° 28′ N.	6° 41′ W.
Lewis	58° 28′ N.	6° 14′ W.
Wick	58° 26′ N.	3° 06′ W.
Orkney	58° 47′ N.	2° 57′ W.
Shetland	60° 09′ N.	1° 12′ W.
Collafirth	60° 32′ N.	1° 24′ W.
Cromarty	57° 37′ N.	2° 58′ W.
Stonehaven	56° 57′ N.	2° 13′ W.
Forth	55° 57′ N.	2° 27′ W.
Cullercoats	55° 04′ N.	1° 28′ W.
Whitby	54° 29′ N.	0° 36′ W.
Humber	53° 20′ N.	0° 17′ E.
Bacton	52° 51′ N.	1° 28′ E.
Thames	51° 20′ N.	0° 20′ E.
N. Foreland	51° 22′ N.	1° 25′ E.
Hastings	50° 52′ N.	0° 37′ E.
Jersey	49° 11′ N.	2° 14′ W.
Valentia	51° 56′ N.	10° 21′ W.
Malin Head	55° 22′ N.	7° 21′ W.

UNITED KINGDOM

WEATHER FORECAST AREAS
& COAST RADIO STATIONS

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office & of the Hydrographer of the Navy"


70°
60°
50°
120°
140°
160°
180°
LENA PT.
JUNEAU
KETCHIKAN
SITKA
CORDOVA
KODIAK
NOME
COLD BAY
ADAK
BERING SEA
1
2
3
4
5
6
7
8
9
10
11
12
13

KEY

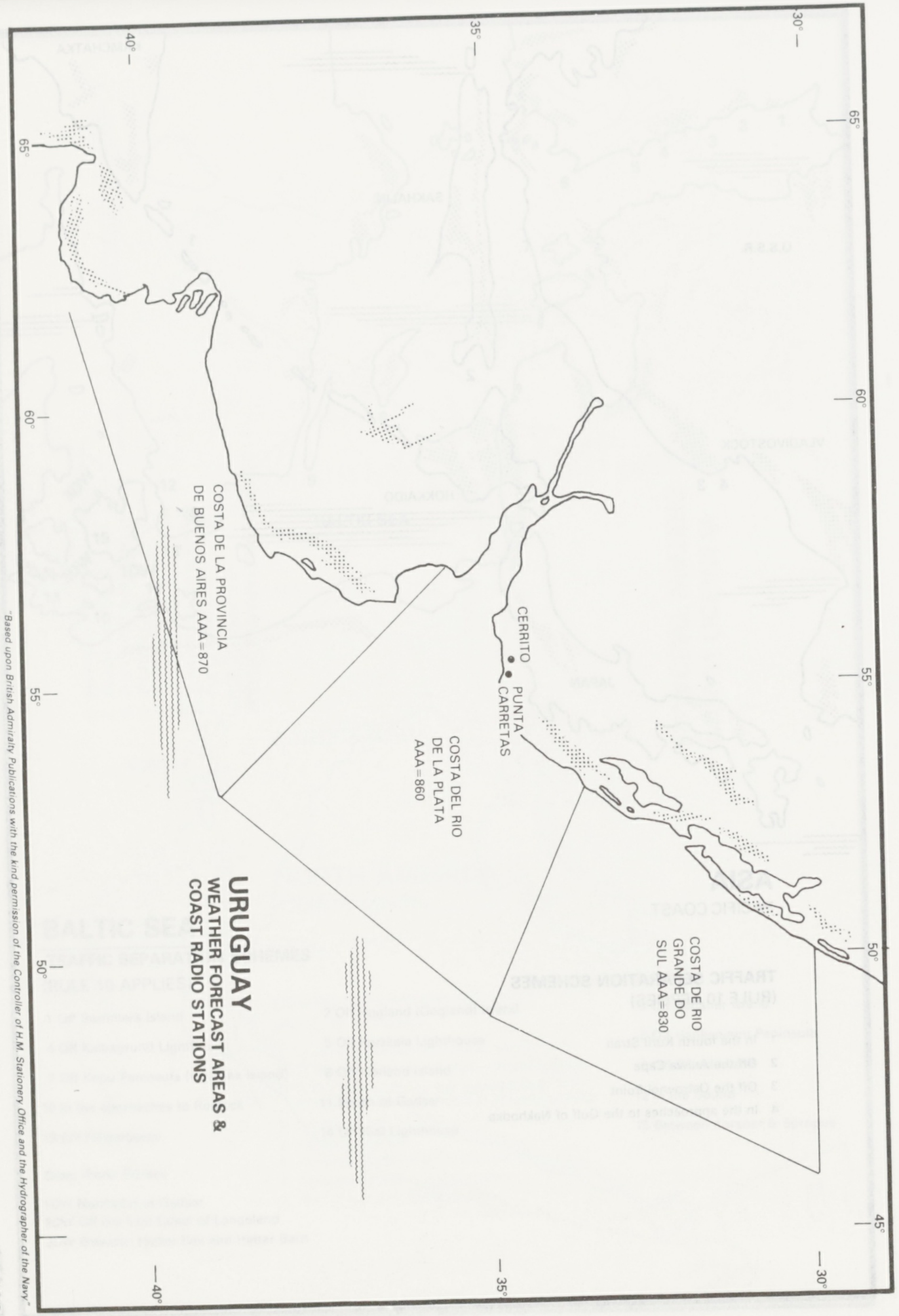
1. SOUTHEAST ALASKA
2. NORTH GULF COAST, INCLUDING PRINCE WILLIAM SOUND
3. KODIAK ISLANDS WATERS, INCLUDING BARREN ISLANDS
4. COOK INLET, INCLUDING KACHEMAK BAY
5. CASTLE CAPE TO CAPE SARICHEF
6. CAPE SARICHEF TO PORT HEIDEN & BRISTOL BAY
7. PRIBILOF ISLANDS
8. CAPE NEWENHAM TO DALL POINT
9. DALL POINT TO WALES, INCLUDING NORTON SOUND AND THE ST. LAWRENCE IS. WATERS
10. WALES TO POINT HOPE, INCLUDING KOTZEBUE SOUND
11. POINT HOPE TO DEMARCATION POINT
12. CAPE SARICHEF TO ADAK
13. ADAK TO ATTU

U.S.A.

ALASKA
WEATHER FORECAST AREAS &
PRINCIPAL COAST RADIO STATIONS

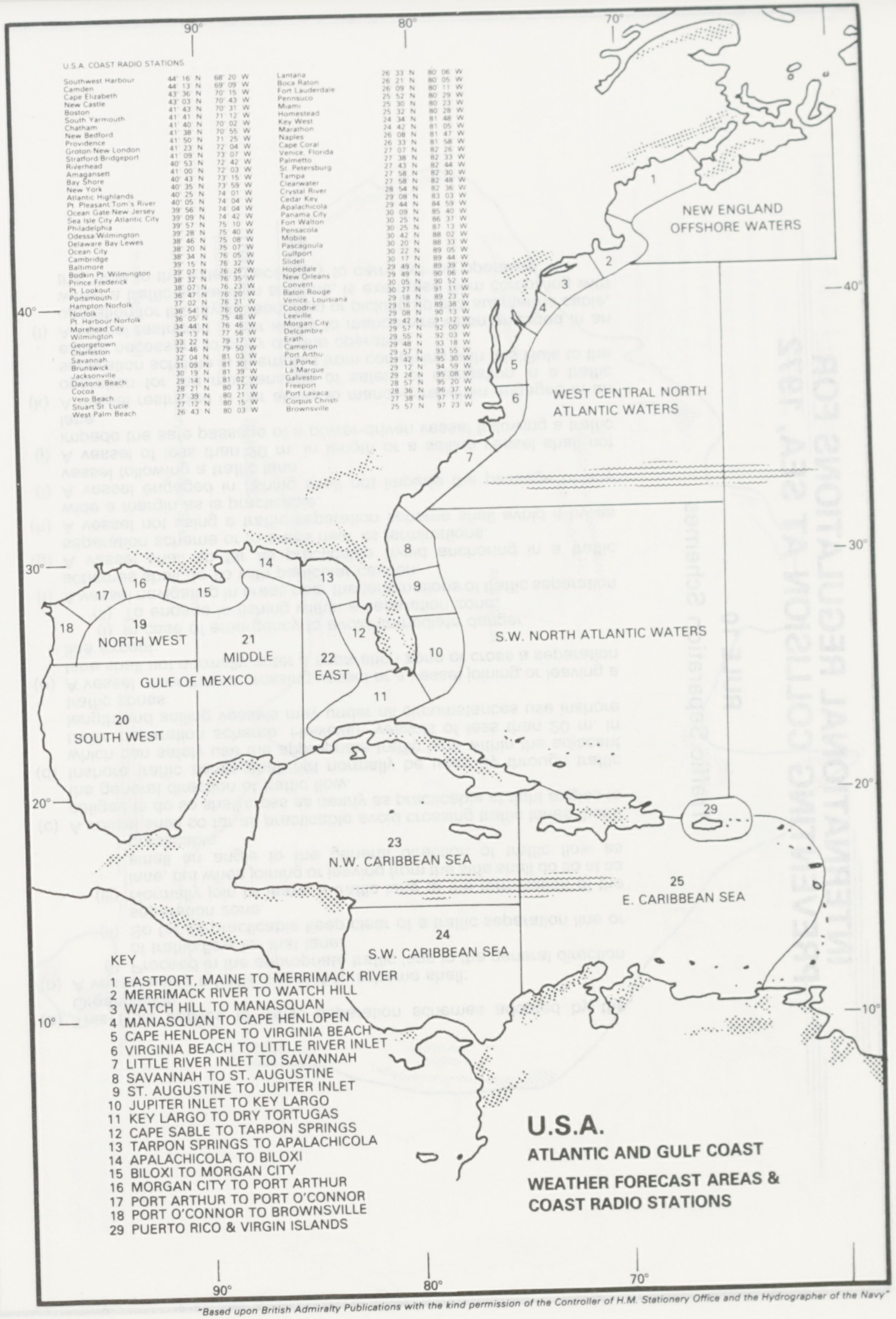
"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office and the Hydrographer of the Navy"

P1402


40°
35°
30°
65°
60°
55°
50°
45°
COSTA DE LA PROVINCIA DE BUENOS AIRES AAA=870
CERRITO
PUNTA CARRETAS
COSTA DEL RIO DE LA PLATA AAA=860
COSTA DE RIO GRANDE DO SUL AAA=830

URUGUAY
WEATHER FORECAST AREAS & COAST RADIO STATIONS

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office and the Hydrographer of the Navy"


90°
80°
70°
40°
30°
20°
10°
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
29
NEW ENGLAND OFFSHORE WATERS
WEST CENTRAL NORTH ATLANTIC WATERS
S.W. NORTH ATLANTIC WATERS
NORTH WEST
MIDDLE
EAST
GULF OF MEXICO
SOUTH WEST
N.W. CARIBBEAN SEA
E. CARIBBEAN SEA
S.W. CARIBBEAN SEA

U.S.A. COAST RADIO STATIONS

Southwest Harbour	44° 16′ N	68° 20′ W	Lantana	26° 33′ N	80° 06′ W
Camden	44° 13′ N	69° 09′ W	Boca Raton	26° 21′ N	80° 05′ W
Cape Elizabeth	43° 36′ N	70° 15′ W	Fort Lauderdale	26° 09′ N	80° 11′ W
New Castle	43° 03′ N	70° 43′ W	Pennsuco	25° 52′ N	80° 29′ W
Boston	41° 43′ N	70° 31′ W	Miami	25° 30′ N	80° 23′ W
South Yarmouth	41° 41′ N	71° 12′ W	Homestead	25° 32′ N	80° 28′ W
Chatham	41° 40′ N	70° 02′ W	Key West	24° 34′ N	81° 48′ W
New Bedford	41° 38′ N	70° 55′ W	Marathon	24° 42′ N	81° 05′ W
Providence	41° 50′ N	71° 25′ W	Naples	26° 08′ N	81° 47′ W
Groton New London	41° 23′ N	72° 04′ W	Cape Coral	26° 33′ N	81° 58′ W
Stratford Bridgeport	41° 09′ N	73° 07′ W	Venice, Florida	27° 07′ N	82° 26′ W
Riverhead	40° 53′ N	72° 42′ W	Palmetto	27° 38′ N	82° 33′ W
Amagansett	41° 00′ N	72° 03′ W	St. Petersburg	27° 43′ N	82° 44′ W
Bay Shore	40° 43′ N	73° 15′ W	Tampa	27° 58′ N	82° 30′ W
New York	40° 35′ N	73° 59′ W	Clearwater	27° 58′ N	82° 48′ W
Atlantic Highlands	40° 25′ N	74° 01′ W	Crystal River	28° 54′ N	82° 36′ W
Pt. Pleasant Tom's River	40° 05′ N	74° 04′ W	Cedar Key	29° 08′ N	83° 03′ W
Ocean Gate New Jersey	39° 56′ N	74° 04′ W	Apalachicola	29° 44′ N	84° 59′ W
Sea Isle City Atlantic City	39° 09′ N	74° 42′ W	Panama City	30° 09′ N	85° 40′ W
Philadelphia	39° 57′ N	75° 10′ W	Fort Walton	30° 25′ N	86° 37′ W
Odessa Wilmington	39° 28′ N	75° 40′ W	Pensacola	30° 25′ N	87° 13′ W
Delaware Bay Lewes	38° 46′ N	75° 08′ W	Mobile	30° 42′ N	88° 02′ W
Ocean City	38° 20′ N	75° 07′ W	Pascagoula	30° 20′ N	88° 33′ W
Cambridge	38° 34′ N	76° 05′ W	Gulfport	30° 22′ N	89° 05′ W
Baltimore	39° 15′ N	76° 32′ W	Slidell	30° 17′ N	89° 44′ W
Bodkin Pt. Wilmington	39° 07′ N	76° 26′ W	Hopedale	29° 49′ N	89° 39′ W
Prince Frederick	38° 32′ N	76° 35′ W	New Orleans	29° 49′ N	90° 06′ W
Pt. Lookout	38° 07′ N	76° 23′ W	Convent	30° 05′ N	90° 52′ W
Portsmouth	36° 47′ N	76° 20′ W	Baton Rouge	30° 27′ N	91° 11′ W
Hampton Norfolk	37° 02′ N	76° 21′ W	Venice, Louisiana	29° 18′ N	89° 23′ W
Norfolk	36° 54′ N	76° 00′ W	Cocodrie	29° 16′ N	89° 38′ W
Pt. Harbour Norfolk	36° 05′ N	75° 48′ W	Leeville	29° 08′ N	90° 13′ W
Morehead City	34° 44′ N	76° 46′ W	Morgan City	29° 42′ N	91° 12′ W
Wilmington	34° 13′ N	77° 56′ W	Delcambre	29° 57′ N	92° 00′ W
Georgetown	33° 22′ N	79° 17′ W	Erath	29° 55′ N	92° 03′ W
Charleston	32° 46′ N	79° 50′ W	Cameron	29° 48′ N	93° 18′ W
Savannah	32° 04′ N	81° 03′ W	Port Arthur	29° 57′ N	93° 55′ W
Brunswick	31° 09′ N	81° 30′ W	La Porte	29° 42′ N	95° 30′ W
Jacksonville	30° 19′ N	81° 39′ W	La Marque	29° 12′ N	94° 59′ W
Daytona Beach	29° 14′ N	81° 02′ W	Galveston	29° 24′ N	95° 08′ W
Cocoa	28° 21′ N	80° 37′ W	Freeport	28° 57′ N	95° 20′ W
Vero Beach	27° 39′ N	80° 21′ W	Port Lavaca	28° 36′ N	96° 37′ W
Stuart St. Lucie	27° 12′ N	80° 15′ W	Corpus Christi	27° 38′ N	97° 17′ W
West Palm Beach	26° 43′ N	80° 03′ W	Brownsville	25° 57′ N	97° 23′ W

KEY
1 EASTPORT, MAINE TO MERRIMACK RIVER
2 MERRIMACK RIVER TO WATCH HILL
3 WATCH HILL TO MANASQUAN
4 MANASQUAN TO CAPE HENLOPEN
5 CAPE HENLOPEN TO VIRGINIA BEACH
6 VIRGINIA BEACH TO LITTLE RIVER INLET
7 LITTLE RIVER INLET TO SAVANNAH
8 SAVANNAH TO ST. AUGUSTINE
9 ST. AUGUSTINE TO JUPITER INLET
10 JUPITER INLET TO KEY LARGO
11 KEY LARGO TO DRY TORTUGAS
12 CAPE SABLE TO TARPON SPRINGS
13 TARPON SPRINGS TO APALACHICOLA
14 APALACHICOLA TO BILOXI
15 BILOXI TO MORGAN CITY
16 MORGAN CITY TO PORT ARTHUR
17 PORT ARTHUR TO PORT O'CONNOR
18 PORT O'CONNOR TO BROWNSVILLE
29 PUERTO RICO & VIRGIN ISLANDS

U.S.A.
ATLANTIC AND GULF COAST WEATHER FORECAST AREAS & COAST RADIO STATIONS

"Based upon British Admiralty Publications with the kind permission of the Controller of H.M. Stationery Office and the Hydrographer of the Navy"

INTERNATIONAL REGULATIONS FOR PREVENTING COLLISION AT SEA, 1972

RULE 10

Traffic Separation Schemes

(a) This Rule applies to traffic separation schemes adopted by the Organisation.

(b) A vessel using a traffic separation scheme shall:

- (i) Proceed in the appropriate traffic lane in the general direction of traffic flow for that lane.
- (ii) So far as practicable keep clear of a traffic separation line or separation zone.
- (iii) Normally join or leave a traffic lane at the termination of the lane, but when joining or leaving from the side shall do so at as small an angle to the general direction of traffic flow as practicable.

(c) A vessel shall so far as practicable avoid crossing traffic lanes, but if obliged to do so shall cross as nearly as practicable at right angles to the general direction of traffic flow.

(d) Inshore traffic zones shall not normally be used by through traffic which can safely use the appropriate traffic lane within the adjacent traffic separation scheme. However, vessels of less than 20 m. in length and sailing vessels may under all circumstances use inshore traffic zones.

(e) A vessel other than a crossing vessei or a vessel joining or leaving a lane shall not normally enter a separation zone or cross a separation line except:

- (i) In case of emergency to avoid immediate danger.
- (ii) To engage in fishing within a separation zone.

(f) A vessel navigating in areas near the terminations of traffic separation schemes shall do so with particular caution.

(g) A vessel shall so far as practicable avoid anchoring in a traffic separation scheme or in areas near its terminations.

(h) A vessel not using a traffic separation scheme shall avoid it by as wide a margin as is practicable.

(i) A vessel engaged in fishing shall not impede the passage of any vessel following a traffic lane.

(j) A vessel of less than 20 m. in length or a sailing vessel shall not impede the safe passage of a power-driven vessel following a traffic lane.

(k) A vessel restricted in her ability to manoeuvre when engaged in an operation for the maintenance of safety of navigation in a traffic separation scheme is exempted from complying with this Rule to the extent necessary to carry out the operation.

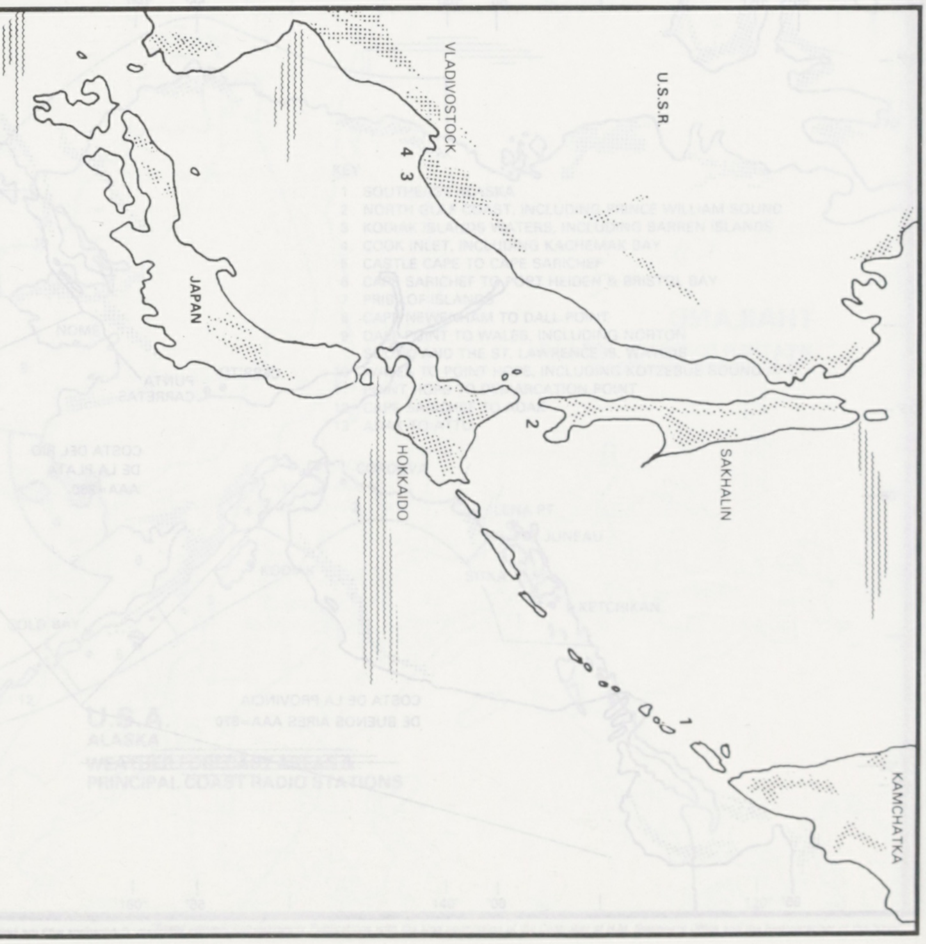
(l) A vessel restricted in her ability to manoeuvre when engaged in an operation for the laying, servicing or picking up of a submarine cable, within a traffic separation scheme, is exempted from complying with this Rule to the extent necessary to carry out the operation.

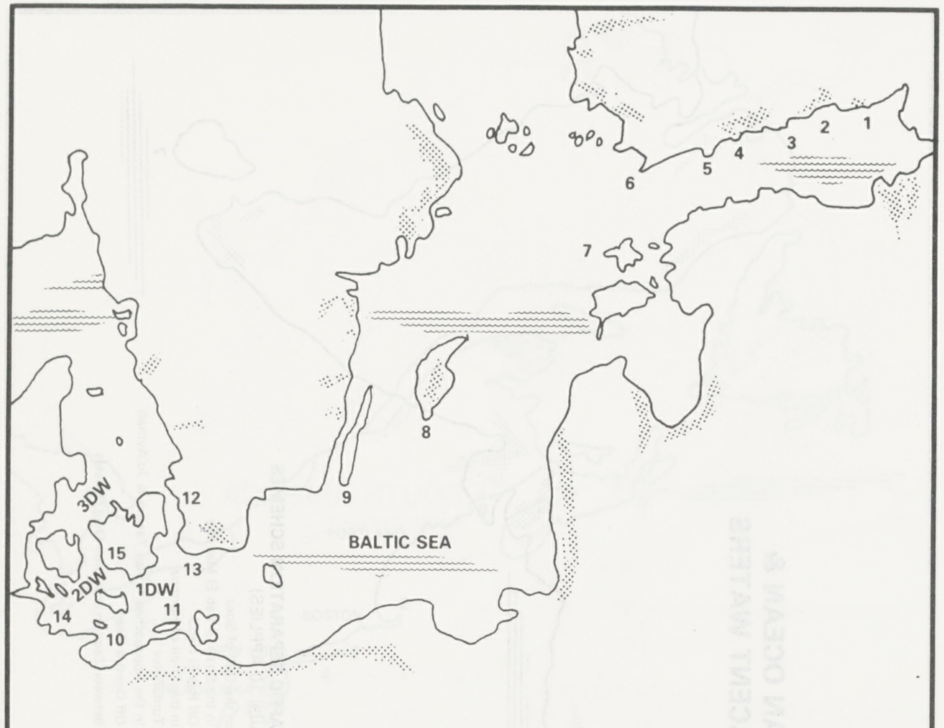
ASIA

PACIFIC COAST

TRAFFIC SEPARATION SCHEMES
(RULE 10 APPLIES)

1 In the fourth Kuril Strait
2 Off the Aniwa Cape
3 Off the Ostrovnoi Point
4 In the approaches to the Gulf of Nakhodka





BALTIC SEA

TRAFFIC SEPARATION SCHEMES

(RULE 10 APPLIES)

1 Off Sommers Island
2 Off Hogland (Gogland) Island
3 Off Rodsher Island
4 Off Kalbagrund Lighthouse
5 Off Porkkala Lighthouse
6 Off Hankoniemi Peninsula
7 Off Kopu Peninsula (Hiiumaa Island)
8 Off Gotland Island
9 Off Oland Island
10 In the approaches to Rostock
11 South of Gedser
12 In the Sound
13 Off Falsterborev
14 Off Kiel Lighthouse
15 Between Korsoer & Sprogoe

Deep Water Routes

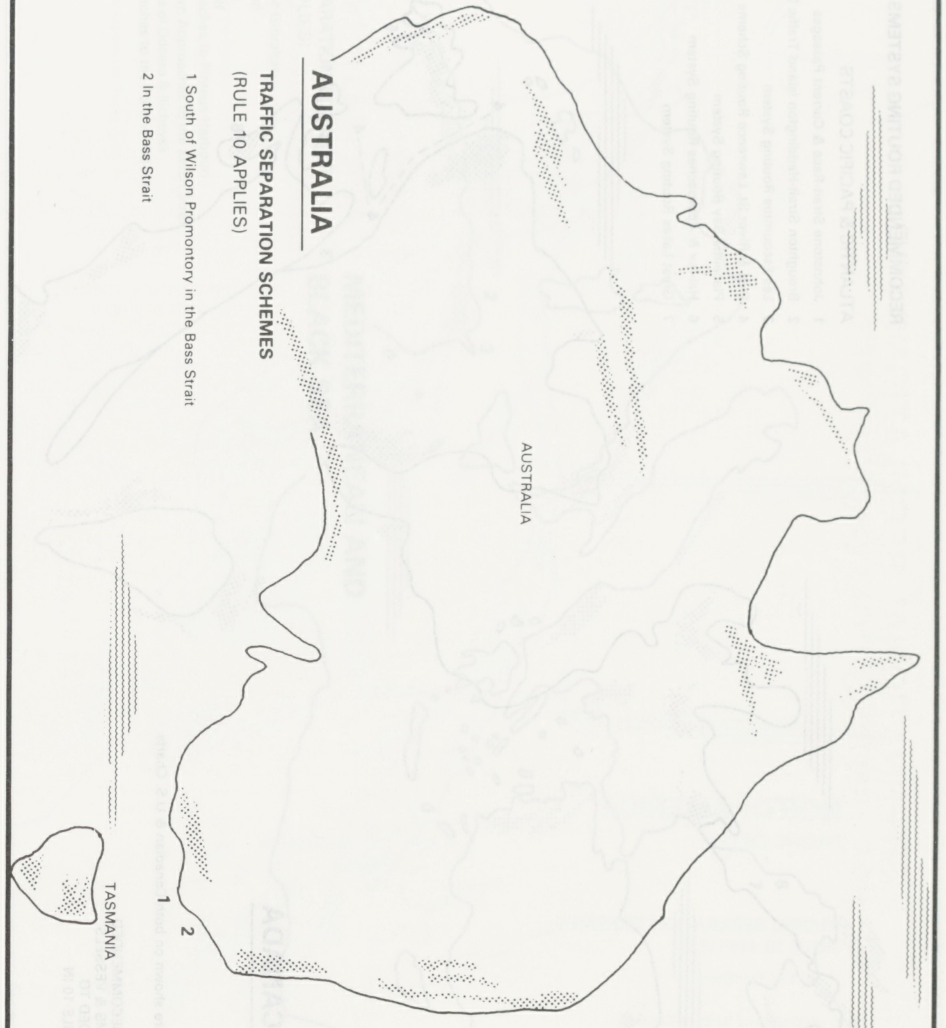
1DW Northeast of Gedser
2DW Off the East Coast of Langeland
3DW Between Hatter Rev and Hatter Barn

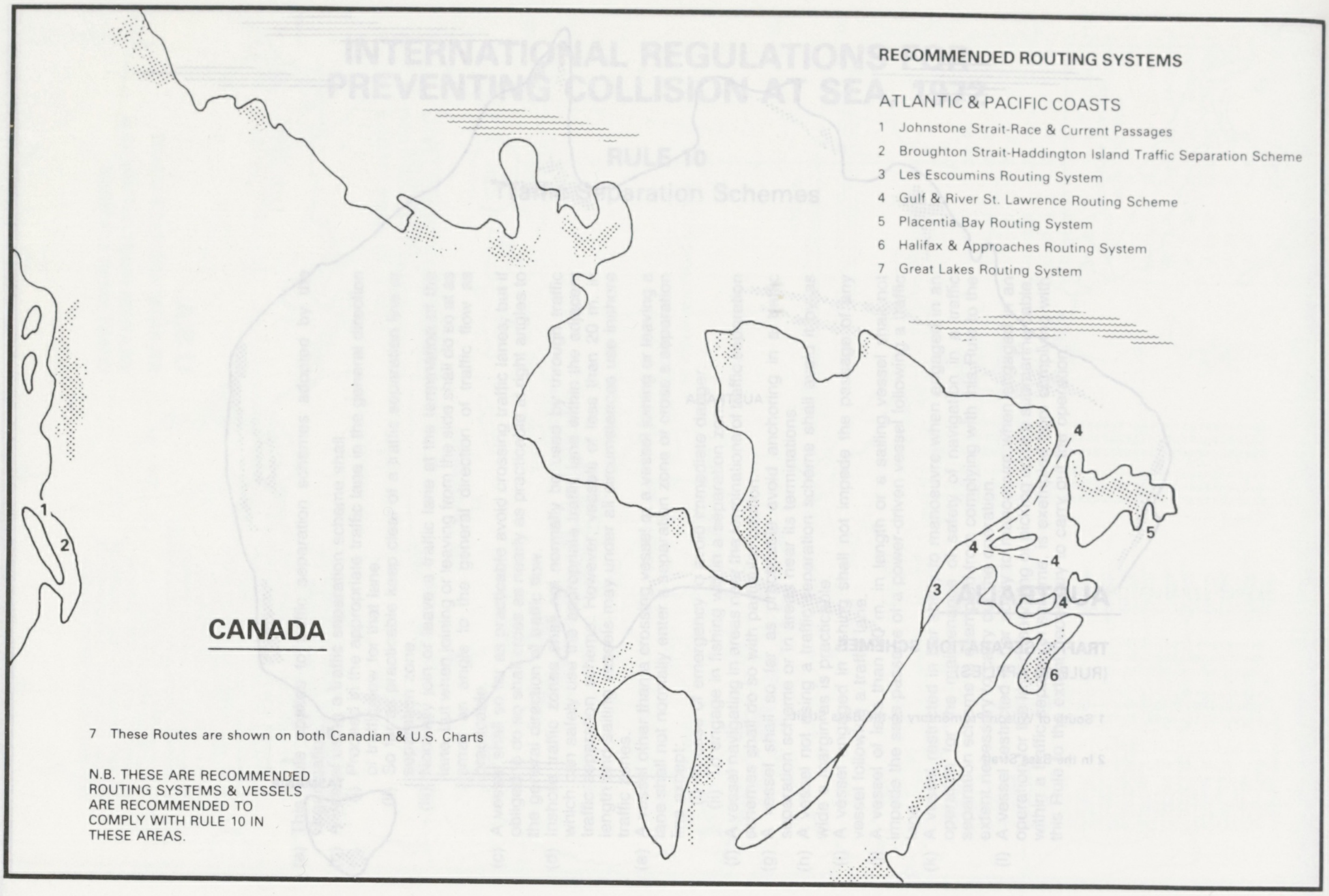
AUSTRALIA

TRAFFIC SEPARATION SCHEMES

(RULE 10 APPLIES)

1 South of Wilson Promontory in the Bass Strait
2 In the Bass Strait





CANADA

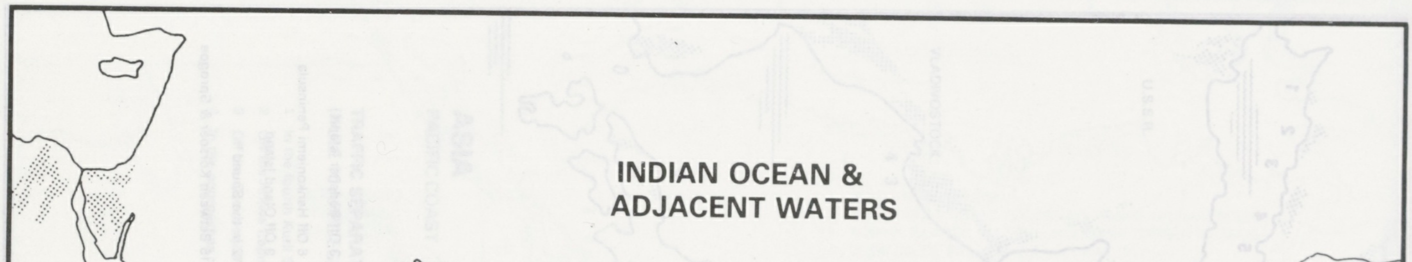
RECOMMENDED ROUTING SYSTEMS

ATLANTIC & PACIFIC COASTS

1 Johnstone Strait-Race & Current Passages
2 Broughton Strait-Haddington Island Traffic Separation Scheme
3 Les Escoumins Routing System
4 Gulf & River St. Lawrence Routing Scheme
5 Placentia Bay Routing System
6 Halifax & Approaches Routing System
7 Great Lakes Routing System

7 These Routes are shown on both Canadian & U.S. Charts

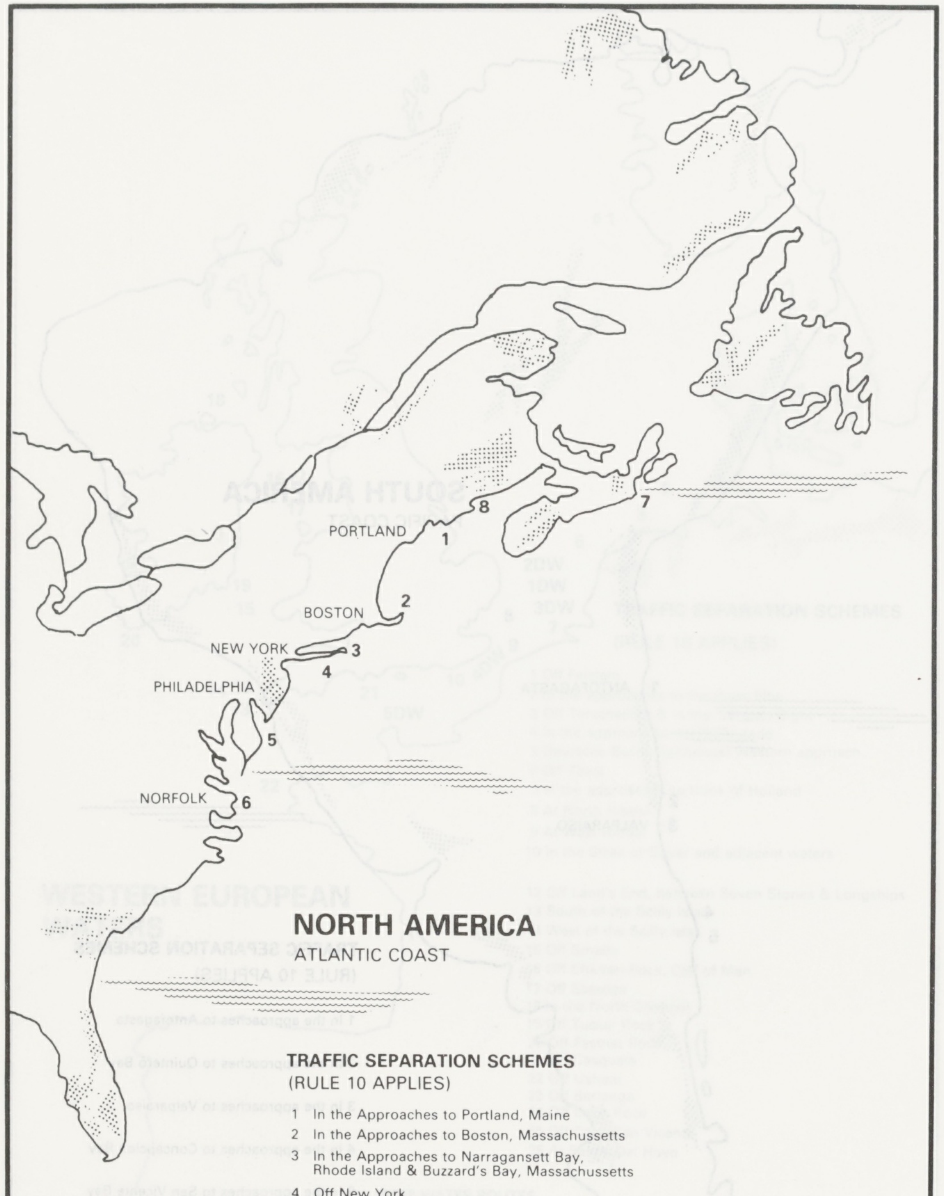
N.B. THESE ARE RECOMMENDED ROUTING SYSTEMS & VESSELS ARE RECOMMENDED TO COMPLY WITH RULE 10 IN THESE AREAS.



INDIAN OCEAN & ADJACENT WATERS

TRAFFIC SEPARATION SCHEMES
(RULE 10 APPLIES)

1 In the Gulf of Suez
2 In the Strait of Bab El Mandeb
3 Off Ras El Hadd
4 In the Strait of Hormuz
5 Tunb-Farur
6 In the Approaches to Ras Tanura & Ju'Aymah
7 Off Dondra Head
8 Between Zaqqum and Umm Shaif Oilfields



NORTH AMERICA

ATLANTIC COAST

TRAFFIC SEPARATION SCHEMES

(RULE 10 APPLIES)

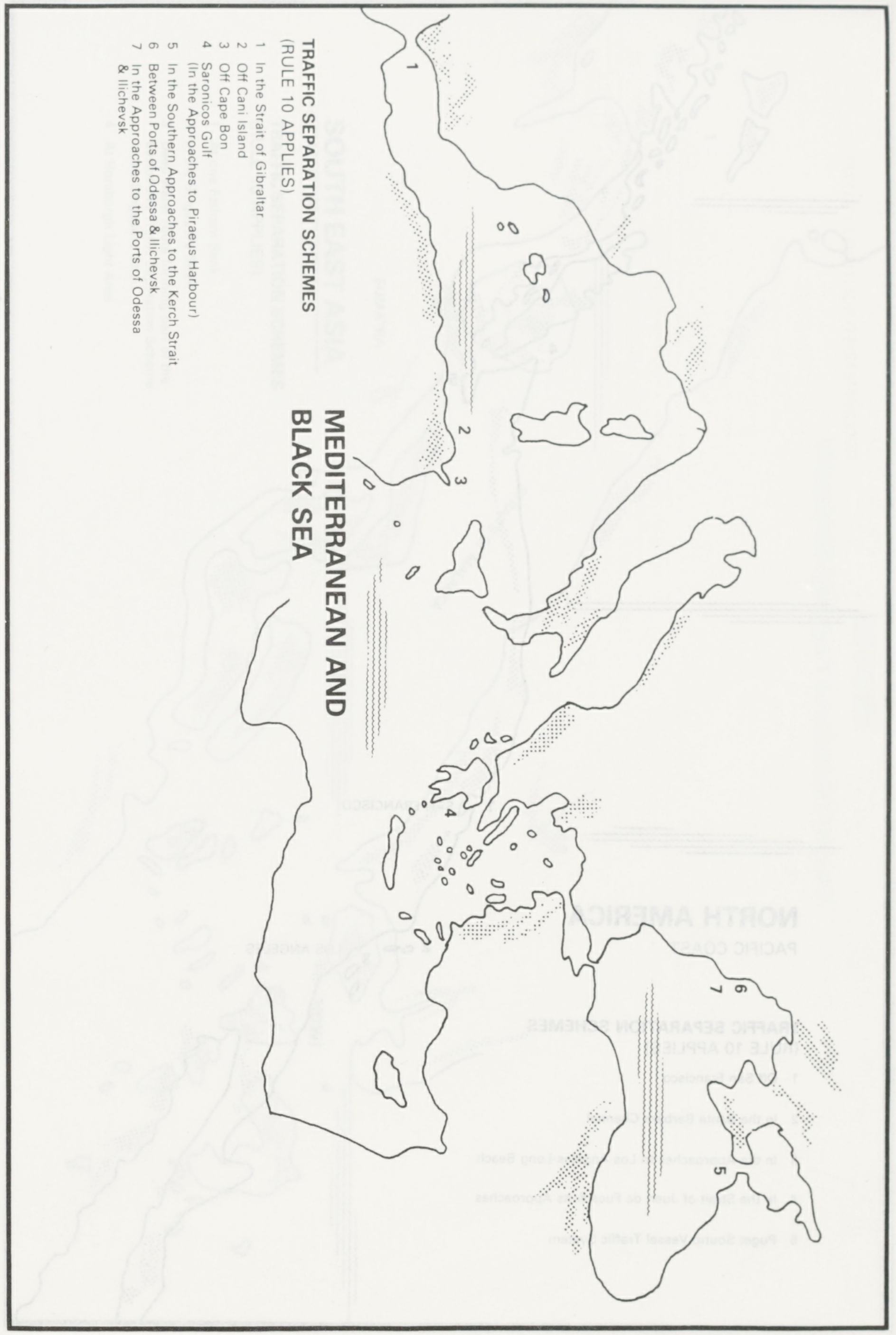
1 In the Approaches to Portland, Maine
2 In the Approaches to Boston, Massachussetts
3 In the Approaches to Narragansett Bay, Rhode Island & Buzzard's Bay, Massachussetts
4 Off New York
5 Off Delaware Bay
6 In the Approaches to Chesapeake Bay
7 Chedabucto Bay and Approaches
8 Bay of Fundy & Approaches

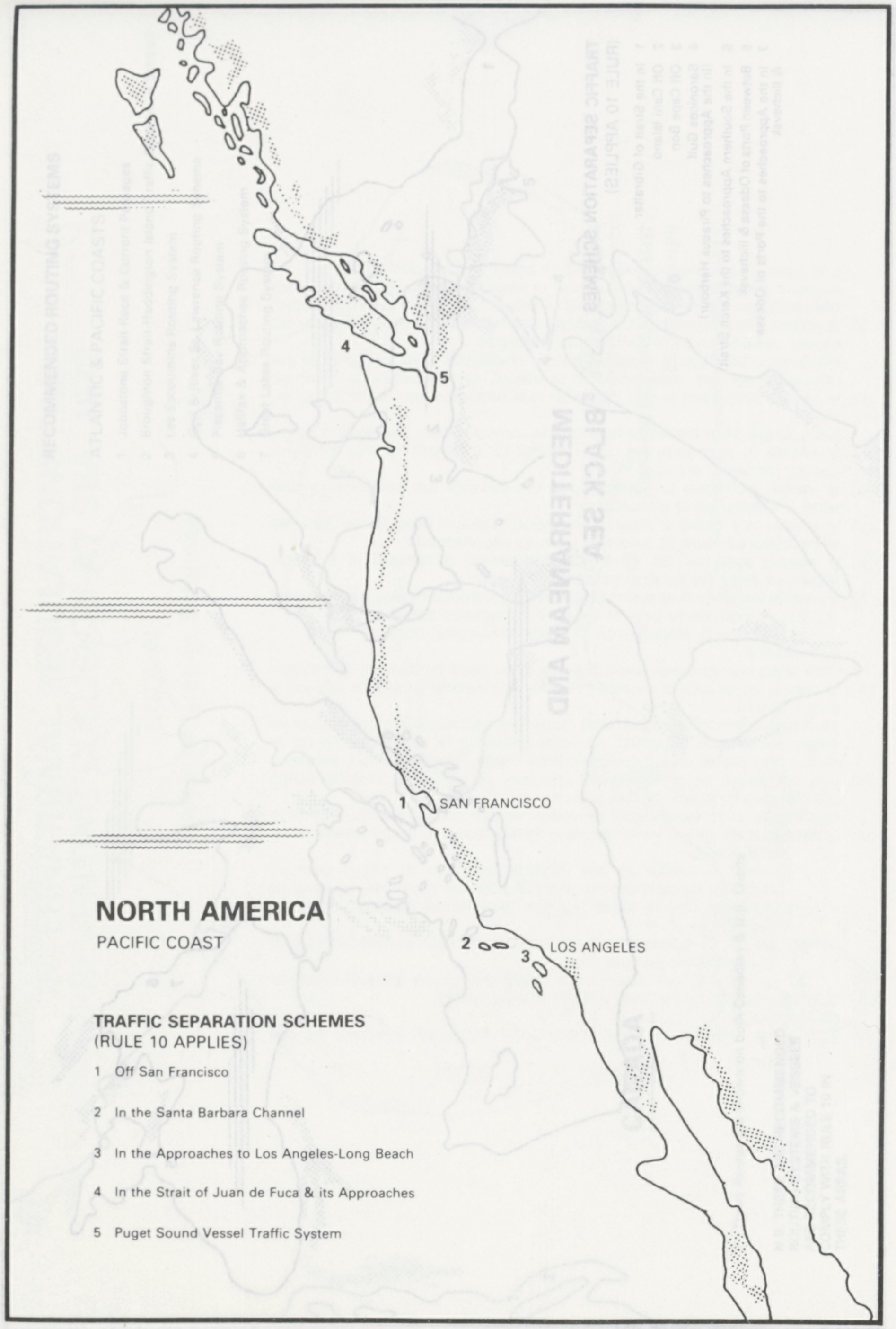
MEDITERRANEAN AND BLACK SEA

TRAFFIC SEPARATION SCHEMES

(RULE 10 APPLIES)

1 In the Strait of Gibraltar
2 Off Cani Island
3 Off Cape Bon
4 Saronicos Gulf (In the Approaches to Piraeus Harbour)
5 In the Southern Approaches to the Kerch Strait
6 Between Ports of Odessa & Ilichevsk
7 In the Approaches to the Ports of Odessa & Ilichevsk




4
5
1 SAN FRANCISCO
2
3
LOS ANGELES

NORTH AMERICA

PACIFIC COAST

TRAFFIC SEPARATION SCHEMES
(RULE 10 APPLIES)

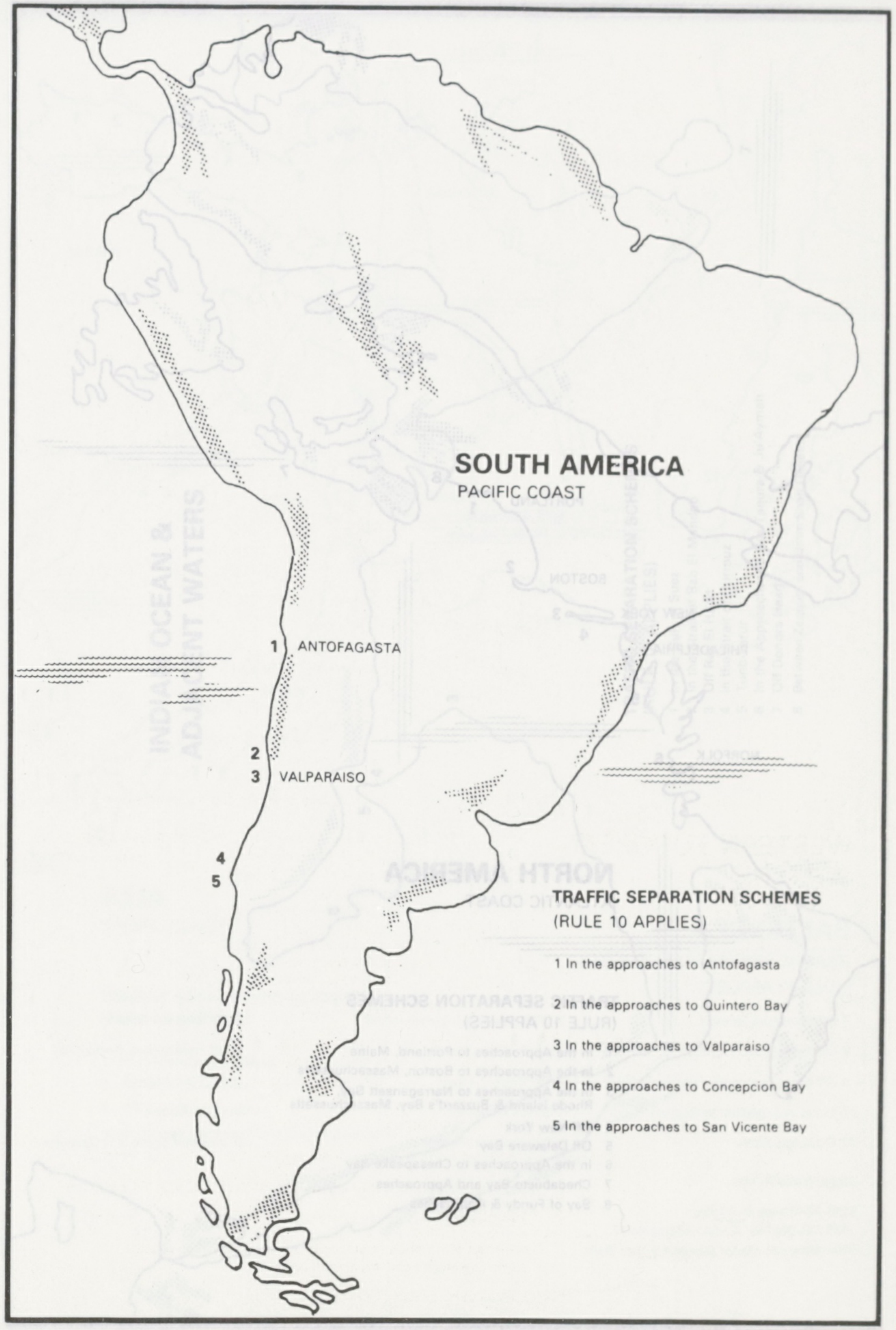
1 Off San Francisco

2 In the Santa Barbara Channel

3 In the Approaches to Los Angeles-Long Beach

4 In the Strait of Juan de Fuca & its Approaches

5 Puget Sound Vessel Traffic System


1 ANTOFAGASTA
2
3 VALPARAISO
4
5

SOUTH AMERICA

PACIFIC COAST

TRAFFIC SEPARATION SCHEMES
(RULE 10 APPLIES)

1 In the approaches to Antofagasta

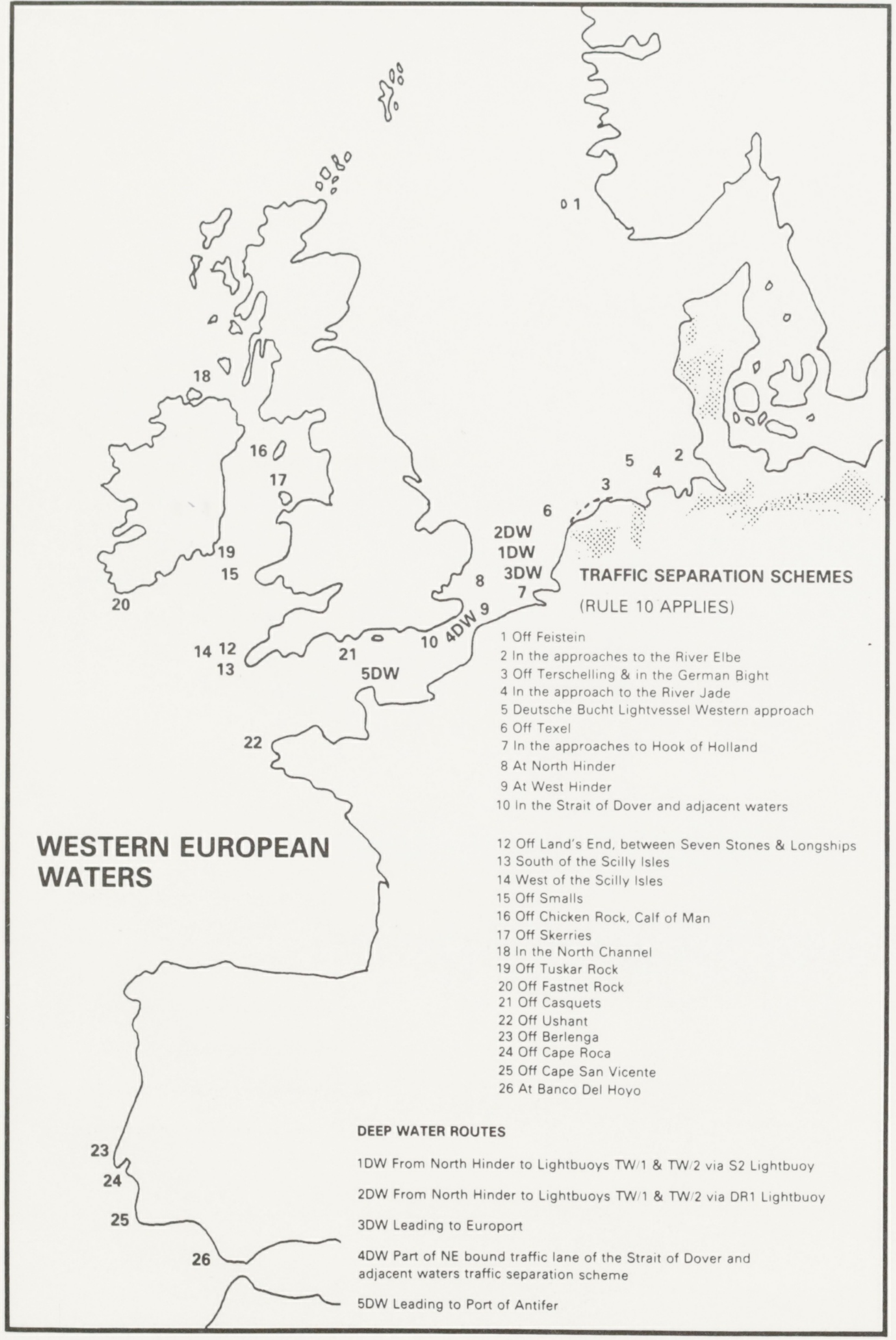
2 In the approaches to Quintero Bay

3 In the approaches to Valparaiso

4 In the approaches to Concepcion Bay

5 In the approaches to San Vicente Bay

P1408



WESTERN EUROPEAN WATERS

TRAFFIC SEPARATION SCHEMES

(RULE 10 APPLIES)

1 Off Feistein
2 In the approaches to the River Elbe
3 Off Terschelling & in the German Bight
4 In the approach to the River Jade
5 Deutsche Bucht Lightvessel Western approach
6 Off Texel
7 In the approaches to Hook of Holland
8 At North Hinder
9 At West Hinder
10 In the Strait of Dover and adjacent waters

12 Off Land's End, between Seven Stones & Longships
13 South of the Scilly Isles
14 West of the Scilly Isles
15 Off Smalls
16 Off Chicken Rock, Calf of Man
17 Off Skerries
18 In the North Channel
19 Off Tuskar Rock
20 Off Fastnet Rock
21 Off Casquets
22 Off Ushant
23 Off Berlenga
24 Off Cape Roca
25 Off Cape San Vicente
26 At Banco Del Hoyo

DEEP WATER ROUTES

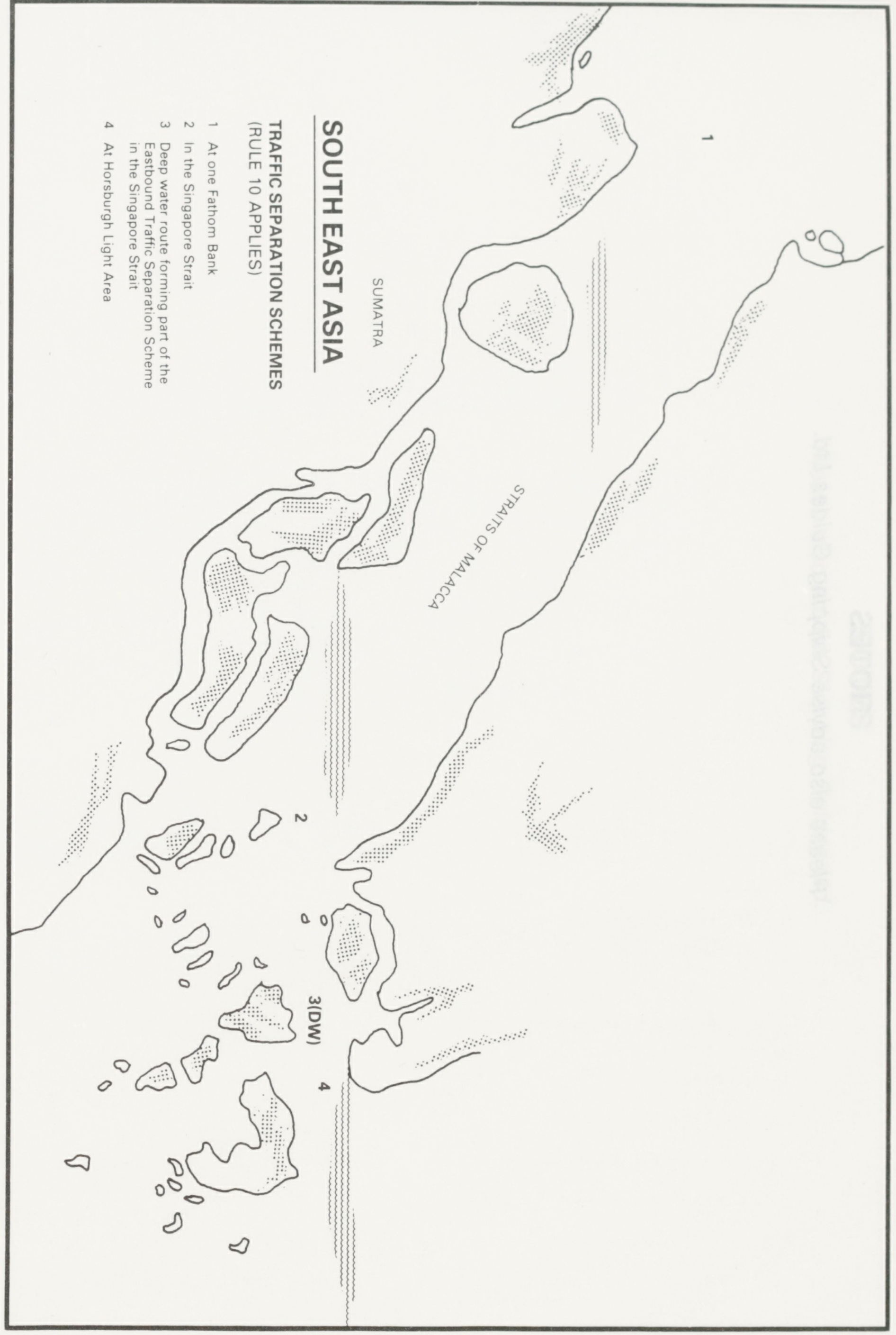
1DW From North Hinder to Lightbuoys TW/1 & TW/2 via S2 Lightbuoy

2DW From North Hinder to Lightbuoys TW/1 & TW/2 via DR1 Lightbuoy

3DW Leading to Europort

4DW Part of NE bound traffic lane of the Strait of Dover and adjacent waters traffic separation scheme

5DW Leading to Port of Antifer



SOUTH EAST ASIA

TRAFFIC SEPARATION SCHEMES
(RULE 10 APPLIES)

1 At one Fathom Bank
2 In the Singapore Strait
3 Deep water route forming part of the Eastbound Traffic Separation Scheme in the Singapore Strait
4 At Horsburgh Light Area

NOTES

Please also advise Shipping Guides Ltd.

NOTES

Please also advise Shipping Guides Ltd.

NOTES

Please also advise Shipping Guides Ltd.

NOTES

Please also advise Shipping Guides Ltd.

NOTES

Please also advise Shipping Guides Ltd.

PLAN INDEX

A

Aabenraa P284
Aalborg P284
Aarhus P285
Abbot Point P25
Aberdeen P1095
Abidjan P592
Abu-Al-Bu-Khoosh P1077
Acajutla P338
Adabiya, see Suez P323
Adelaide P27
Aeroskobing P286
Agadir P729
Aghuilas P944
Agia Trias, see Megara P449
Agioi Theodoroi P444
Agotnes P794
Aguadulce P818
Ahus P979
Ain Sukhna P316
Aioi P598
Aitape P834
Ajaccio P363
Ajos Harbour, see Kemi P348
Akita P598
Akureyri P474
Alameda, see San Francisco P1331
Alanya P1040
Al Bakr Terminal P530
Alba Marine Facility, see Sitra P101
Albany, Western Australia P28
Albany, New York P1193
Alesund P795
Alexandria, Egypt P317
Alexandria, Virginia, U.S.A. P1197
Algeciras P945
Algeria P1
Algiers P1
Aliaga P1041
Alicante P947
Almeria 948
Almirante, Panama P819
Almirante Soares Dutra Terminal, see Tramandai P151
Alotau P835
Alumar P116
Amagasaki P599
Ambes, see Bordeaux P364
Amherstburg P168
Amsterdam, P736
also see North Sea Canal P742
Amuay Bay P1356
Anacortes P1198
Anchorage P1198
Ancona P548
Anewa Bay P835
Angle Bay, see Milford Haven P1155
Ango Ango, see Matadi P1381
Angola P6
Angra Dos Reis P118
Antalya P1041
Antan Terminal P785
Antibes P363
Antifer, see Le Havre P382
Antigua P10
Antilla P261
Antimonan P851
Antofagasta P224
Antonina P120
Antwerp P106
Aparri P851
Apia P1370
Apra, see Guam P458
Aqaba P660
Aracaju P121
Aratu P121
Arbatax P551
Arctic Canada Traffic Zone P162
Ardalstangen P795
Ardjuna P487
Ardrossan, Australia P29
Ardrossan, U.K. P1095
Areia Branca P122
Arendal P796
Argentina P10
Arguineguin P219
Arhus, see Aarhus P285
Arica P255
Art Island, see Noumea P763
Arun Terminal, see Lhokseumawe P508
Arzanah Island P1078
Arzew P1
Arzew El Djedid P2
Arzew El Jedid, see Arzew El Djedid P2
Ascension Island P24
Ashdod P544
Ashtabula P1199
Ashtart P1034
Asnaes P286
Aspropyrgos P444
Asry Dry Dock, see Mina Sulman P100
Assab P340
Assens P287
Astoria P1199
Auckland P771
Augusta P551
Ausrep (Australian Ship Reporting Area) P25
Australia P24
Avarua, see Avatiu P257
Avatiu P257
Aveiro P883
Aviles P948
Avonmouth, see Bristol P1102
Ayr P1096
Azores P96

B

Baddeck P168
Bagnoli P556
Bahamas P97
Bahia Blanca, Galvan P11
Bahia Blanca, Ingeniero White P11
Bahia Honda, see Mariel P267
Bahia Las Minas P820
Bahia Portete, see Puerto Bolivar P254
Bahrain P100
Bajo Grande, P1356
also see Maracaibo Lake P1362
Bakar, see Rijeka P1376
Balao P313
Balboa P820
Ballast Head P29
Ballybricken Point, see Cork P531
Baltic Entrance P279
Baltimore P1200
Bandar Abbas P520
Bandar Imam Khomeini P521
Bandar Mahshahr P522
Bandholm P287
Bandirma P1042
Bangkok P1025
Bangladesh P104
Bangor, U.K. P1097
Bangor, U.S.A. P1201
Banias P1019
Banjul P416
Bantry Bay P530
Banyuwangi P489
Bar, also see Late Plans P1374
Baracoa P262
Barbados P105
Barbours Cut, see Houston P1265
Barcadera P755
Barcelona P949
Bari P556
Barra do Riacho P122
Barranquilla P245
Barrow-in-Furness P1098
Barrow Island P30
Barry P1098
Basle P1018
Bassens, see Bordeaux P364
Basse Terre, Guadeloupe P457
Basseterre, St. Kitts P900
Bata P339
Bataan P853
Batangas P854
Baton Rouge P1202
also see Mississippi River and Late Plans P1282
Batsfjord P796
Batumi P1059
Bay of Fundy Vessel Traffic Management Zone P162
Bayonne P364
Bayport, see Houston P1265
Bay Roberts P169
Baytown P1203
Beaumont, P1205
also see Sabine & Neches Rivers P1329
Beauty Point, see Launceston P64
Becancour P170
Beilun, see Ningbo P241
Beira P734
Bejaia P3
Belawan P489
Belekeri P479
Belem P123
Belfast P1099
Belgium P106
Belgorod-Dnestrovsky P1059
Belize P112
Bell Bay, see Launceston P64
Bellingham P1206
Bengkulu P490
Benicia P1206
Benin P113
Benoa P490
Berbera P938
Berdyansk P1060
Bergen P797
Bermuda P114
Betio, see Tarawa P664
Biak P491
Bilbao P950
Bima Marine Terminal P491
Bintulu, see Late Plans
Bintulu Marine Terminal P698
Birkenhead, see Liverpool P1140
Birsfelden, see Basle P1018
Bitung P493
Bizerte P1035
Blang Lancang, see Lhokseumawe P508
Blaye, see Bordeaux P364
Bluff P771
Blyth P1100
Boca Grande P1207
Bombay P479
Bonaire P755
Bonny P786
Boqueron, see Guantanamo P264
Borburata, see Puerto Cabello P1364
Bordeaux P364
Borj Islam P1019
Borusan P1042
Bosphorus P1039
Boston P1208
Bota, see Limbe/Bota P160
Botany Bay P31
Botas, see Golovasi P1045
Botwood P170
Bougie, see Bejaia P3
Boulogne P369
Bourgas P157
Bouri, see Late Plans
Bowen P32
Braakman Harbour, see Terneuzen P750
Braefoot Bay P1101
Brake P418
Brasil, see Bonaire P755
Brass River P786
Brazil P116

PLAN INDEX

Bremen P419
Bremerhaven P419
Brest P369
Brevik P797
Bridgeport P1215
Bridgetown P105
Bridgewater P171
Brisbane P32
Bristol P1102
Brixham P1103
Brofjorden P979
Broome P38
Brownsville P1216
Brunei P155
Brunsbuttel P420
Brunswick P1217
Brussels P107
Buchanan P682
Buckie P1104
Bude P1104
Buenaventura P247
Buenos Aires P12
Buffalo P1218
Buka P836
Bukpyung P667
Bulgaria P157
Bullen Bay P756
Bunbury P39
Bundaberg P39
Bunyu P493
Burma P158
Burnie P40
Burns Harbour P1219
Burnside, P1219
also see Mississippi River P1282
Burntisland P1105
Burutu P788
Bushire P522
Butcher Island, see Bombay P479
Butterworth, see Penang P707
Butzfleth P423

C

Cabanas, see Mariel P267
Cabedelo P124
Cabinda P6
Cabo Negro, see Punta Arenas, Chile P232
Cadiz P955
Caen P370
Cagayan De Oro P855
Cagliari P558
Caimanero, see Guantanamo P264
Cairns P41
Calabar P788
Calais P371
Calcutta P481
Caldera P258
Callao P844
Calvi P371
Cameroon Republic P158
Campana P13
Campbeltown P1105
Canada P162
Canary Islands P219
Cape Cod Canal P1220
Cape Cuvier, see Carnarvon P42
Cape Flattery P41
Cape Lopez P410
Cape Town P940
Cape Verde Islands P221
Cap Haitien P465
Caraquet P171
Cardenas P262
Cardiff P1106
Carmopolis P124
Carnarvon P42
Caronte, see Marseilles P387
Carrickfergus P1106
Cartagena, Colombia P249
Cartagena, Spain P958
Casablanca P729
Casilda Bay, see Cienfuegos P263
Castellon de la Plana P959
Castletown Bere P531
Castries P902
Catania P560
Catbalogan, see Tacloban P875
Cayman Brac P223
Cayman Islands P223
Cayo Arcas P718
Cayo Juan Claro, see Puerto Padre P271
Cebu P856
Ceiba Hueca, see Manzanillo P265
Ceuta P959
Ceyhan, see Golovasi P1045
Chacabuco P225
Chalna, see Mongla P104
Chancay P845
Chandler P172
Char Bahar P523
Charleston P1222
Charlottetown P172
Chatham, see Medway P1152
Chekaa P677
Cherbourg P372
Chiba P599
Chicago P1224
Chicoutimi P173
Chile P224
Chile Search & Maritime Rescue Areas P224
Chimbote P845
China (Chinese People's Rep.) P239
Chioggia P560
Chiwan P240
Chiriqui Grande P821
Christmas Island P244
Chungjin P665
Churchill P173
Cienfuegos P263
Cilacap P494
Cinta Terminal P495
Cirebon P497
Ciro Marina P561
Civitivecchia P561
Cleveland P1225
Clifton Ridge Terminal, see Lake Charles P1273
Clydeport P1107
Colchester P1110
Colombia P245
Colombo P976
Colon P823
Colonia P1351
Come By Chance P174
Conakry P462
Concarneau P372
Concepcion del Uruguay P13
Congo P256
Constantza P898
Contrecoeur P174
Cook Islands P257
Coos Bay P1225
Copenhagen P288
Coquimbo P226
Corinth, see Isthmia P446
Corinto P784
Cork P531
Coronel P226
Corpus Christi P1226
Corunna P960
Costa Rica P258
Cotonou P113
Covenas P252
Cowichan Bay P175
Cristobal P823
Cromarty Firth Port P1111
Cronstadt Island P1031
Cuba P261
Cul de Sac Bay P903
Cumana, see Puerto Sucre P1366
Curacao P757
Cuxhaven P423
Cyprus P275
Cyrus Terminal P523

D

Dadiangas P857
Dairen, see Dalian P240
Dakar P922
Dalhousie P176
Dalian P240
Dalrymple Bay, see Hay Point P58
Damietta P318
Dammam P905
Dampier P44
Danang P1368
Dardanelles P1039
Dar es Salaam P1023
Darius Terminal, see Kharg Island P524
Dartmouth, U.K. P1113
Daru P836
Darwin P47
Das Island P1079
Davao P858
Deauville, see Trouville P410
Dekheila, see Alexandria P317
Delfzijl P738
Dellys P3
Denmark P279
Derby P47
Derince P1043
Derna P684
Destrehan, see Mississippi River P1282
Detroit P1244
Devonport, Tasmania P48
Dhekelia P275
Diamante P14
Dieppe P373
Digby P176
Dilli P497
Dina, see Rijeka P1376
Djakarta, see Jakarta P504
Djeno P256
Djibouti P311
Dominica P311
Dominican Republic P312
Donaldsonville, P1244
also see Mississippi River P1282
Donges, see Nantes-St. Nazaire P391
Dordrecht P739
Douala P158
Douglas P1114
Dover P1114
Drammen P798
Dubai Dry Dock, see Port Rashid P1089
Dublin P535
Dubrovnik P1374
Duisburg-Ruhrort P424
Duluth P1245
Dumai P498
Dunbar P1115
Dundee P1115
Dunedin, see Otago P775
Dunkirk P374
Dun Laoghaire P537
Dunoon P1116
Durban P940

E

Easter Island P227
Eastern Canada Traffic Zone P163
East London P941
Eckernforde P425
Ecuador P313
Eden P48
Eemshaven P739
Egypt P316
Eilat P545
Elbe Pilotage/Helicopter Service P436
Elbe Terminal, see Brunsbuttel P420
El Chaure P1357
El Dekheila, see Alexandria P317
El Djazair, see Algiers P1
Eleusis P445
El Guamache P1357
El Hornillo, see Aghuilas P944
El Jadida P730
El Palito P1358
El Salvador P338
El Tablazo P1359

Emden P426
English Bay, see Ascension Island P24
Ensted P290
Equatorial Guinea P339
Eregli P1043
Erie P1246
Esbjerg P291
Escravos P789
Esmeraldas P314
Esperance P49
Espoir P593
Es Sider P684
Etajima P601
Ethiopia P340
Eureka P1246
Europoort/Rotterdam P743
Everett P1248
Exmouth P49

F

Fagernes, see Narvik P808
Falkland Islands P340
Falmouth P1117
Famagusta P276
Faroe Islands P341
Fateh Terminal P1080
Fawley, see Southampton P1172
Fecamp P376
Felixstowe P1117
Felton, see Antilla P261
Ferndale P1249
Ferrol P960
Fiborgtangen P798
Figueira da Foz P884
Fiji P342
Finland P343
Finnart, see Clydeport P1107
Firth of Clyde P1107
Firth of Forth P1118
Fishguard P1118
Fiumicino P562
Fleetwood P1119
Flensburg P426
Floro P799
Flotta, see Scapa Flow P1167
Flushing P740
Flying Fish Cove,
see Christmas Island P244
Foca, see Nemrut Bay P1052
Forcados P790
Forno P127
Fortaleza P128
Fort de France, also see Late Plans P715
Fos, see Marseilles P387
Fowey P1119
Foynes Island,
see Shannon Estuary P539
Frafjord P800
France P363
Fraser Port P177
Fray Bentos P1352
Fredericia P292
Frederikshavn P293
Frederiksskans, see Gavle P981
Frederikstad P800
Freeport, Bahamas P97
Freeport, Bermuda P114
Freeport, Texas P1249
Freetown P923
Fremantle P50
Froland, see Uddevalla P1013
Fujairah P1081
Fukuyama P601
Funchal P697
Futtsu, see Kimitsu/Kisarazu P617

G

Gabes P1036
Gabon P410
Gaeta P562
Galeota Point P1031
Galle P977
Galvan, see Bahia Blanca P11
Galveston P1251
Galway P538
Gamba and Lucina P411
Gambia P416
Gandia P961
Garrucha P961
Garston P1120
Gaspe P178
Gastria Bay, see Kalecik P277
Gavle P981
Gdansk P881
Gdynia P882
Gebe Island P503
Gedser P293
Geelong P53
Geismar P1251
Geisum Marine Terminal P319
Gemikonagi P276
Gemlik P1044
General San Martin P846
General Santos City, see Dadiangas P857
Genoa P563
Georgetown, Ascension Island P24
Georgetown, Cayman Islands P223
Georgetown, Guyana, also see Late Plans
P465
Georgetown, U.S.A. P1252
Geraldton P54
Germany (Dem. Rep.) P417
Germany (Fed. Rep.) P418
Ghana P442
Ghannouche, see Gabes P1036
Ghazaouet P4
Ghent P109
Gibraltar P443
Gijon P962
Giresun P1044
Girvan P1120
Gisborne P772
Gizan P907
Gladstone P55
Glasgow, see Clydeport P1107
Glensanda P1121
Gloucester,
see Sharpness & Gloucester P1169
Golfito P259
Golovasi, also see Late Plans P1045
Good Hope, P1253
also see Mississippi River P1282
Goole P1121
Gothenburg P984
Gove P57
Gramercy, see Mississippi River P1282
Grand Bank P178
Grand Turk P1058
Grangemouth, P1122
also see Firth of Forth P1118
Granton, P1124
also see Firth of Forth P1118
Granudden, see Gavle P981
Granville P376
Grays Harbor P1254
Great Yarmouth 1124
Greece P444
Green Bay P1254
Greenock, see Clydeport P1107
Greenland P455
Gregorio, see Punta Arenas, Chile P232
Grenaa P294
Grenada P456
Gresik P503
Grimsby P1125
Groningen P741
Groote Eylandt P58
Guadeloupe P457
Guam P458
Guanta P1360
Guantanamo P264
Guatemala P459
Guayabal, see Santa Cruz del Sur P272
Guayacan P227
Guayanilla P889
Guayaquil P314
Guaymas P719
Guinea (Rep. of) P462
Gulfhavn P294
Gulfport P1255
Guyana P465

H

Hachinohe P603
Hadera P546
Hafnarfjordur P475
Haifa P547
Haines P1255
Haiti P465
Hakata P604
Halden P801
Haldia P482
Halifax P179
Halifax Vessel Traffic Management Zone P163
Hallstavik P986
Halmstad P987
Halul Island P893
Hamble, see Southampton P1172
Hamburg P427
Hamilton, Bermuda P114
Hamilton, Ontario P182
Hamina P343
Hammerfest P801
Hampton Roads P1256
Hamrawein P320
Hamriyah P1081
Hanko P344
Hannan, see Sakai P635
Hantsport P183
Haraholmen, see Pitea P1002
Harstad P802
Hartlepool P1126
Harwich P1126
Haugesund P802
Havana P264
Hay Point P58
Helsingborg P987
Helsingor P295
Helsinki P345
Heroya P803
Heungnam P665
Heysham P1127
Hibikinada P604
Hilo P1262
Himeji P606
Hiroshima P607
Hobart P61
Hodeidah P1371
Hoganas P989
Holbaek P295
Holtenau P430
Holyhead P1128
Homer P1263
Honduras P467
Honfleur P377
Hong Kong, also see Late Plans P470
Honiara P938
Honolulu P1264
Hopa P1048
Hornefors P989
Hornillo, see Aghuilas P944
Horsens P296
Horta P96
Hound Point, P1128
also see Firth of Forth P1118
Houston P1265
Hualien P1021
Huasco P228
Hudiksvall P990
Huelva P963
Hueneme P1270
Hull P1130
Hunterston, see Firth of Clyde P1107
Huntington Beach P1270
Husnes P803
Husum P990

I

Ibiza P963
Iceland P474
Igarka P1060
Ijmuiden, see Ymuiden P754
Ilheus P128
Ilichevsk P1061
Iligan P865
Ilo P847
Iloilo P866
Imabari P608

PLAN INDEX

Imbituba P129
Immingham P1131
Inchon P668
India P478
Indonesia P487
Ingeniero White, see Bahia Blanca P11
Inspection Head, see Launceston P64
Invergordon, see Cromarty Firth Port P1111
Inverness P1135
Ipswich P1135
Iquique P230
Iraklion P445
Iran P520
Iraq P530
Ireland P530
Isabela de Sagua P265
Isdemir P1049
Iskenderun P1049
Isle of Grain, see Medway P1152
Isle of Pines, see Noumea P763
Israel P544
Istanbul P1050
Isthmia P446
Itajai P129
Italy P548
Itaqui, see Sao Luis P149
Itzehoe P431
Ivory Coast P592
Izmail P1062

J

Jabiru P64
Jacksonville P1271
Jade Radar Chain, see Wilhemshaven P437
Jakarta P504
Jakobstad P347
Jamaica P594
Jamestown P900
Japan P597
Jebel Ali P1083
Jebel Dhanna-Ruwais P1084
Jeddah P908
Jizan, see Gizan P907
Jolo P867
Jordan P660
Jorf Lasfar P731
Jose Panganiban P867
Ju'aymah, also see Ras Tanura P908
Jubail P909
Jurong, see Singapore P924

K

Kagoshima P608
Kahului P1272
Kakogawa P609
Kalamaki P446
Kalamata P447
Kalecik P277
Kalmar P991
Kalundborg P296
Kamaishi P609
Kanda P610
Kandla P482
Kanmon-Ko P597
Kanokawa P610
Kaohsiung P1021
Karavostassi, see Gemikonagi P276
Kardeljevo P1375
Karlshamn P992
Karlstad P993
Karrebaeksminde, see Naestved P301
Karsar, see Gavle P981
Karsto P804
Karwar P483
Kashima P611
Kasim Terminal P504
Kaskinen P348
Kasko, see Kaskinen P348
Katakolon P447
Katsunan, see Chiba P599
Kavieng P837
Kawaihae, see Hilo P1262
Kawasaki P611
Keelung P1022
Kemi P348
Kenya P662
Kerteh Terminal P699
Khanom P1026
Kharg Island P524
Khemco Terminal, see Kharg Island P524
Kherson P1062
Kholmsk P1063
Khor Fakkan P1086
Kiel P431
Kiel Canal P432
Kieta P837
Kiire P612
Kijang P505
Kikuma P613
Kilia P1063
Killybegs P538
Kimbe P838
Kimitsu/Kisarazu P617
King's Lynn P1136
Kingston P594
Kingstown P904
Kinuura P613
Kin Wan P614
Kiribati P664
Kirkcaldy P1137
Kirkwall P1138
Kisarazu/Kimitsu P617
Kitimat P183
Klaipeda P1064
Klakksvik P341
Kleinhueningen, see Basle P1018
Klintehamn P993
Kobe P617
Kobe & Osaka Area P617
Kobe, Port Island P617
Kobe, Rokko Island P617
Kodiak P1273
Koge P298
Koko P790
Kokkola P349
Kokura P620
Kolding P299
Kole P159
Komatsushima P621
Koper P1375
Koping P994
Korea (P.D.R.) P665
Korea (South) P667
Korsor P299
Kota Kinabalu P701
Kotka P349
Kouaoua, see Noumea P763
Kpeme P1029
Krabi, see Late Plans
Kralendijk P757
Kribi P159
Kristiansand P805
Kristinehamn P994
Krueng Geukueh, see Lhokseumawe P508
Kuantan P702
Kuching P703
Kudamatsu P622
Kudat, see Sabah P710
Kunak P704
Kure P622
Kuto, see Noumea, Isle of Pines P763
Kuwait P674
Kwinana, see Fremantle P50
Kymassi P448
Kyndby P300
Kyrenia P277

L

Labuan P705
Labuantring Bay P506
La Ciotat P377
Lacustre Terminal, see La Salina P1361
Lae P839
Laem Chabang, see Sriracha P1028
Lagos P791
La Goulette P1037
La Guaira P1360
Laguna P130
Lahad Datu, see Sabah P710
Lake Charles P1273
Lakehead Harbour, see Thunder Bay P211
La Libertad P315
Landskrona P995
La Nouvelle P378
La Pallice/La Rochelle P379
La Plata P14
Larnaca P278
Larne P1138
La Rochelle P378
La Rochelle/La Pallice P379
Larvik P805
La Salina P1361
La Seine P381
La Seyne Bregaillon, see Toulon P408
La Skhirra P1038
Las Mareas P890
Las Palmas P220
La Spezia P567
Lattakia P1020
Launceston P64
La Union P338
Lautoka P342
Lavan Island P528
Lavera, see Marseilles P387
Lavrion P449
Lawi Lawi P507
Lazaro Cardenas P719
Lebanon P677
Legazpi P868
Leghorn, see Livorno P567
Le Havre P382
Leith, P1139
also see Firth of Forth P1118
Leixoes P884
Leningrad P1065
Lerwick P1139
Les Sables D'Olonne P386
Levuka P342
Lhokseumawe P508
Liberia P682
Libya P684
Lifou Island, see Noumea P763
Limbe/Bota P160
Limbe/Tiko P160
Limerick P539
Limetree Bay P1369
Limhamn, see Malmo P996
Lirquen, see Talcahuano P236
Lisbon P885
Liverpool P1140
Livorno P567
Lome P1030
London P1144
Londonderry P1149
Long Beach P1275
Longview P1276
L.O.O.P. Terminal P1277
Lorengau P840
Lorient P387
Los Angeles P1278
Loudden, see Stockholm P1007
Louisiana Offshore Oil Port, see L.O.O.P. Terminal P1277
Lovisa P350
Lowestoft P1150
Lubeck P433
Lucina P411
Lucinda P67
Luderitz P735
Lulea P995
Lumut P155
Lutong, see Miri P705
Lydney P1150
Lysekil P996
Lyttelton P772

M

Maaloy P806
Maasin, see Tacloban P875
Macassar P511
Maceio P130
Mackay P68
Macquarie Harbour, see Strahan P87
Madang P841
Madinat, see Yanbu P919

Madeira P697
Madras P483
Madre De Deus Terminal,
  see Salvador P141
Madryn, see Puerto Madryn P16
Mahon P964
Malaga P964
Malagasy Republic P698
Malaysia P698
Malhado, see Ilheus P128
Malili/Mangkasa P511
Malmo P996
Malongo Terminal, see Cabinda P6
Malta P713
Mamonal, see Cartagena, Colombia P249
Manati, see Puerto Padre P271
Manaus P131
Manchester P1151
Mandji, see Port Gentil P415
Manfredonia P570
Mangkasa/Malili P511
Manila P869
Manta P315
Manzanillo, Cuba P265
Manzanillo, Mexico P720
Maracaibo Lake P1362
Maranhao, see Sao Luis P149
Mar del Plata P15
Mare Island, see Noumea P763
Marianas (North) P714
Mariehamn P350
Mariel P267
Marin P965
Marino Point, see Cork P531
Marmorilik P455
Marsa al Hariga P686
Marsa Badr, see Suez P323
Marsa el Brega P687
Marsaxlokk, see Valletta P713
Marsden Point,
  see Whangerei P781
Marseilles P387
Martinique P715
Maryborough P69
Masao, see Nasipit P871
Masbate P870
Masinloc P871
Matadi P1381
Matanzas, Cuba P268
Matanzas, Venezuela P1363
Matanzas-San Felix, Venezuela P1363
Matarani P848
Matsushima P623
Matsuyama P623
Mauritania P715
Mauritius P718
McDuffie Terminal,
  see Mobile P1285
Media Luna, see Manzanillo P265
Medway P1152
Megara P449
Mejillones P231
Melbourne P70
Melilla P966
Mersin P1051
Messina P571
Methil P1154
Mexico P718
Miami P1279
Micronesia P728
Middelfart P300
Middlesbrough, see Tees P1182
Milaki P450
Milazzo P571
Milford Haven P1155
Milner Bay, see Groote Eylandt P58
Milos Island P450
Milwaukee P1281
Mina Abdulla P674
Mina al Ahmadi P675
Mina-al-Fahal P816
Mina Jebel Ali, see Jebel Ali P1083
Minamata P624
Mina Qaboos, see Port Qaboos P817
Mina Raysut, see Port Raysut P817
Mina Saqr P1087
Mina Saud P675
Mina Sulman P100
Mina Zayed P1087
Miragoane P466
Miri P705
Mississippi River P1282
Mistley P1157
Misumi P624
Misurata P688
Mitylene P452
Miyako P625
Mizushima P625
Mkoani P1024
Moa, see Baracoa P262
Mobile P1285
Mocamedes P7
Mogadiscio P939
Mohammedia P732
Moin Bay, see Puerto Limon P259
Moji P626
Mombasa P662
Monaco P728
Monfalcone P572
Mongla P104
Mongstad P806
Moni P279
Monrovia P683
Montego Bay P595
Montevideo P1353
Montoir,
  see Nantes-St. Nazaire P391
Montreal P184
Montrose P1158
Morehead City P1287
Mori Port, see Tanabe P643
Mormugao P484
Morocco P729
Morphou Bay, see Gemikonagi P276
Morro Redondo P722
Mosjoen P807
Mossel Bay P941
Mostaganem P4
Motril P966
Moudi Marine Terminal P161
Mount Maunganui, see Tauranga P777
Mourilyan P72
Mozambique P734
Mtwara P1024
Muara P156
Mubarek Terminal P1088
Mubarras Terminal P1088
Mukalla P1373
Mukho P668
Multedo Oil Terminal,
  see Genoa P563
Murmansk P1065
My Khe, see Danang P1368
Myrtle Grove,
  see Mississippi River P1282
Mytilene, see Mitylene P452

N

Naantali P351
Naestved P301
Nagapattinam P485
Nagasaki P628
Nagoya P628
Naha P629
Nakanoseki, see Late Plans
Nakhodka P1066
Nakskov P301
Namibia P735
Namikata P629
Nampo P666
Namsos P807
Nanaimo P185
Nanisivik P186
Nantes/St. Nazaire P391
Napier P773
Naples P572
Narvik P808
Nasipit P871
Nassau P98
Natal P131
Nauru P736
Nawiliwili P1287
Nederland,
  see Sabine & Neches Rivers P1329
Nelson P773
Nemrut Bay P1052
Nepoui, see Noumea P763
Netherlands P736
Netherlands Antilles P755
Nevelsk P1067
New Bedford P1288
New Caledonia P763
Newcastle, N.S.W. P73
Newcastle, U.K., see Tyne P1187
Newhaven, U.K. P1158
New Haven, U.S.A., 1288
  also see Late Plans
Newington,
  see Portsmouth, N.H., U.S.A. P1322
New London P1291
New Mangalore P485
New Orleans, P1292
  also see Mississippi River P1282
New Plymouth P774
Newport, Gwent, U.K. P1159
Newport News,
  see Hampton Roads P1256
New Richmond P187
New Westminster, B.C.,
  see Fraser Port 177P
New York/New Jersey 1296P
New Zealand P771
Nicaragua P784
Nicaro, see Antilla P261
Nice P395
Nieuwpoort P110
Nigeria P785
Nigg Oil Terminal,
  see Cromarty Firth Port P1111
Niihama P630
Nikiski P1302
Ningbo P241
Nipe Bay, see Antilla P261
Niquero, see Manzanillo P265
Nishihara P630
Nishtun P1373
Norco, see Good Hope P1253
Nordenham P434
Norfolk, see Hampton Roads P1256
Norrkoping P997
Norrsundet P998
North Sea Canal P742
North Sydney, Canada P188
Northville, see Riverhead P1328
Norway P794
Nouadhibou P715
Nouakchott P716
Noumea P763
Novorossiysk P1067
Nueva Gerona P268
Nueva Palmira P1353
Nuevitas P269
Nuku'Alofa P1030
Nykobing P302
Nykoping P999
Nynashamn P999

O

Oakland P1303
Odense P302
Odessa P1068
Ofunato P631
Ogdensburg P1303
Oghishima, see Kawasaki P611
  and Yokohama P655
Oguendjo P413
Oita P632
Olbia P575
Olympia P1304
Oman P816
Omisalj, see Rijeka P1376
Onega P1068
Onehunga P774
Onomichi P632
Opua P775
Orange, P1305
  also see Sabine & Neches Rivers P1329
Oranjestad P758
Orehoved P303
Oristano P575
Ornskoldsvik P1000
Oro Bay P841
Osaka, P633
  also see Kobe P617
Oshawa P188
Oskarshamn P1000

PLAN INDEX

Oslo P811
Ostend P111
Ostermoor, see Brunsbuttel P420
Ostrica, see Mississippi River P1282
Oswego P1306
Otago P775
Otaru P634
Otterbacken P1001
Ouistreham, see Caen P370
Oulu P352
Ouvea Island, see Noumea P763
Ovendo, also see Late Plans P414
Oxelosund P1001

P

Paagoumene, see Noumea P763
Pachi P452
Paita P848
Pakistan P818
Palamos P967
Palanca Terminal P7
Palermo P576
Palma P967
Palm Beach P1306
Palmeira P221
Pampus Harbour, see Norrkoping P997
Panama P818
Panama Canal P824
Panama City, U.S.A. P1307
Pangkalbalam P512
Panjang P513
Papeete P937
Papenburg P435
Papua New Guinea P834
Para, see Belem P123
Paradip P486
Parana and Uruguay Rivers P10
Paranagua P132
Pargas P354
Paris P396
Pasajes P968
Pascagoula P1308
Pasir Gudang P706
Paspebiac P189
Pateniemi P354
Patras P453
Pauillac St. Estephe, see Bordeaux P364
Paysandu P1354
Pedregal P827
Peel P1159
Pelabuhan, see Lhokseumawe P508
Pelotas P132
Penang P707
Penco, see Talcahuano P236
Pennington Terminal P791
Pensacola P1309
Penzance P1160
Perth P1160
Peru P844
Peterhead P1161
Philadelphia P1310
Philippines P851
Philipsburg P759
Picton P776
Pilon, see Manzanillo P265
Pimentel P849
Piney Point P1315
Piombino P576
Piraeus P453
Pitea P1002
Placentia Bay Vessel Traffic Management Zone P164
Ploce, see Kardeljevo P1375
Plymouth P1161
Pohang P669
Point Central, see Nouadhibou P715
Point Comfort/Port Lavaca P1321
Pointe a Pierre P1032
Pointe a Pitre P457
Pointe Clairette, see Cape Lopez P410
Pointe des Galets P897
Pointe Noire P257
Point Fortin P1032
Point Tupper, see Port Hawkesbury P195
Poland P881
Polloc P873
Pomalaa P513
Ponce P891
Ponta da Madeira P133
Ponta Delgada P96
Poole P1162
Pori P355
Porkkala P356
Poro, see Noumea P763
Port Aisen, see Chacabuco P225
Port Alberni P189
Port Alfred P190
Port Alice P191
Port Alma, see Rockhampton P85
Port Angeles P1315
Port Antonio P595
Port Arthur, P1316
also see Sabine & Neches Rivers P1329
Port Askaig P1162
Port au Prince P467
Port aux Basques Vessel Traffic Management Zone P164
Port Bin Qasim P818
Port Bonython P75
Port Canaveral P1316
Port Cartier P191
Port Chalmers, see Otago P775
Port Dalhousie P194
Port Dampier, see Dampier P44
Port Elizabeth P942
Port Esquivel P596
Port Everglades P1317
Port Gentil P415
Port Hawkesbury/Point Tupper P195
Port Hedland P76
Port Huon P77
Port Irene, see Aparri P851
Port Jefferson P1318
Port Jerome, see Rouen P398
Port Kamsar P464
Port Kelang P708
Port Kembla P78
Port Kennedy, see Thursday Island P89
Port Khalid, see Sharjah P1090
Portland, Australia P80
Portland, Maine, U.S.A. P1318
Portland, Oregon, U.S.A. P1320
Port Latta P80
Port Lavaca/Point Comfort P1321
Port Lincoln P81
Port Louis P718
Port Moresby P842
Port Neches, see Sabine & Neches Rivers P1329
Port Nolloth P942
Porto Alegre P135
Portocel, see Barra do Riacho P122
Porto Corsini, see Ravenna P578
Porto Empedocle P577
Port-of-Spain P1033
Porto Grande, see St Vincent, Cape Verde Islands P222
Porto Marghera, see Venice P590
Porto Trombetas P136
Porto Vesme P577
Port Percy, see Punta Arenas, Chile P232
Port Pirie P82
Port Qaboos P817
Port Rashid P1089
Port Raysut P817
Portree P1163
Port Rhoades P596
Port Said P320
Port St. Louis du Rhone, see St. Louis de Rhone P404
Port St. Mary P1163
Port San Luis P1322
Portsmouth, Dominica P311
Portsmouth, U.K. P1164
Portsmouth, N.H., U.S.A. P1322
Portsmouth, Va., U.S.A., see Hampton Roads P1256
Port Stanley P340
Port Stanvac P82
Port Sudan P978
Port Sulphur, P1324
also see Mississippi River P1282
Port Talbot P1165
Port Taranaki, see New Plymouth P774
Portugal P883
Port Vauban, see Antibes P363
Port Vendres P396
Port Victoria P923
Port Vila P1355
Port Walcott P83
Porvoo P357
Poti P1069
Powell River P196
Pozos Colorados P253
Praia Mole Harbour, see Tubarao P152
Prescott P197
Preston, see Antilla P261
Prince Rupert P197
Progresso P723
Propriano P397
Providence P1324
Puerto Armuelles P827
Puerto Bayovar P849
Puerto Bolivar, Colombia P254
Puerto Cabello P1364
Puerto Castilla P467
Puerto Cortes P468
Puerto Deseado P15
Puerto Galvan, see Bahia Blanca P11
Puerto Ingeniero White, see Bahia Blanca P11
Puerto La Cruz P1365
Puerto Limon P259
Puerto Madero P723
Puerto Madryn P16
Puerto Miranda P1365
Puerto Moin P260
Puerto Montt P232
Puerto Nuevo, see Bata P339
Puerto Ordaz, see Punta Cuchillo P1366
Puerto Padre P271
Puerto Princesa P873
Puerto Quetzal P459
Puerto Rico P889
Puerto Sandino P785
Puerto Sucre P1366
Pulau Baai, see Bengkulu P490
Pulupandan P874
Punta Arenas, Chile P232
Punta Colorado P16
Punta Cuchillo P1366
Punta de Palmas P1367
Punta Gorda, see Baracoa P262
Punta Quilla P17
Puntarenas, Costa Rica P260
Punta Umbria, see Huelva P963
Pyarnu P1069

Q

Qasr Ahmed, see Misurata P688
Qatar P893
Qingdao P242
Qinhuangtao P243
Qua Iboe Terminal P793
Quebec P199
Quequen P17
Quiliano Terminal P578
Quinfuquena, also see Late Plans P8
Quintero P234
Quiriquina Island, see Talcahuano P236

R

Raahe P359
Rabaul P842
Ramallo P18
Ramsey P1165
Ramsgate P1166
Randers P304
Rangoon P158
Rasa, see Rijeka P1376
Ras-al-Khafji P909
Ras al Mishab P914
Ras Bahregan P529
Ras Budran P321
Ras Isa Marine Terminal P1371
Ras Lanuf P690

Ras Shukheir P321
Ras Tanura/Ju'aymah P914
Rauma P359
Rautaruukki, see Raahe P359
Ravenna P578
Recife P137
Redcar, see Tees P1182
Redwood City P1325
Rendsberg P435
Reni P1070
Reposaari, see Pori P355
Reunion Island P897
Reykjavik P475
Richards Bay P943
Richmond, California P1326
Richmond, Virginia P1327
Ridley Island, see Prince Rupert P197
Riga P1070
Rijeka P1376
Rio de Janeiro P137
Rio Grande P141
Rio Haina P312
Risavika, see Sola P814
Risdon, see Hobart P61
River Elbe P436
Riverhead P1328
River Plate P18
Roberts Bank, see Vancouver P213
Rochefort sur Mer P397
Rochester, U.K., see Medway P1152
Rochester, U.S.A. P1329
Rockhampton P85
Rodby P304
Rodney Terminal, see Saint John P200
Romania P898
Ronne P305
Ronneby P1003
Rosario, Argentina P19
Rosario, Philippines, see Manila P869
Rosarito P724
Rosas P968
Roscoff P398
Roseau P312
Rosslare P539
Rostock P417
Rotterdam/Europoort P743
Rouen P398
Ruhrort, see Duisburg-Ruhrort P424
Rumoi P635
Ruwais, see Jebel Dhanna-Ruwais P1084
Rye P1166

S

Sabah P710
Sabang P515
Sabine & Neches Rivers P1329
Sacramento P1330
Sagunto P969
Saimaa Canal P360
St. Andrews, N.B. P200
St. Eustatius P760
St. George's, Bermuda P115
St. George's, Grenada P456
St. Helena P900
St. Johann, see Basle P1018
Saint John, N.B. P200
St. John's, Antigua P10
St. John's, Newfoundland P202
St. John's Vessel Traffic Management Zone P165
St. Kitts P900
St. Lawrence Seaway P901
St. Lawrence – Vessel Traffic Management P167
St. Louis du Rhone P404
St. Lucia P902
St. Malo P405
St. Nazaire, see Nantes/St. Nazaire P391
St. Pierre P904
St. Pierre & Miquelon P904
St. Thomas P1369
St. Vincent P904
St. Vincent, Cape Verde Islands P222
Saipan P714
Sakai P635
Sakaide P637
Sakata P637
Salaverry P850
Salawati P515
Saldanha Bay P943
Salem P1330
Salerno P580
Salina Cruz P724
Saltend, see Hull P1130
Salvador P141
Samarai P843
Samcheog Hang P670
Samcheon Po P670
Sam Chuck, see Samcheog Hang P670
Samsun P1055
San Antonio P235
San Antonio Este P19
San Carlos P725
San Ciprian P969
Sandakan P711
San Diego P1331
Sandwich Oil Terminal, see Cape Cod Canal 1220P
San Fernando P874
San Francisco P1331
San Jose, Guatemala P461
San Jose, Philippines, see Tacloban P875
San Juan, Puerto Rico P892
San Juan de la Costa P725
San Julian P20
San Lorenzo, Argentina P20
San Lorenzo, Honduras P469
San Martin, Argentina P20
San Nicolas, Argentina P21
San Nicolas, Aruba, Netherlands Antilles P761
San Nicolas, Peru P850
San Pedro, Argentina P21
San Pedro, Ivory Coast P594
San Sebastian, see Sao Sebastiao P149
Santa Ana, see Davao P858
Santa Cruz, Argentina, see Punta Quilla P17
Santa Cruz del Sur P272
Santa Cruz de Tenerife P220
Santa Fe P22
Santa Marta P255
Santana P143
Santan Terminal P516
Santander P970
Santarem P144
Sant Carles De La Rapita P970
Santiago de Cuba P274
Sant Feliu de Guixols P971
Santo Domingo P313
Santos P145
Santo Tomas de Castilla P461
San Vicente, Chile P235
San Vicente, Philippines, see Aparri P851
Sao Francisco do Sul P147
Sao Luis P149
Sao Sebastiao P149
Sapele P793
Sasa, see Davao P858
Sasebo P638
Sattahip P1027
Sauda P812
Saudi Arabia P905
Sault Ste. Marie P203
Savannah P1333
Savona P581
Scalloway P1167
Scapa Flow P1167
Scheveningen P750
Scrabster P1168
Seaham P1169
Seal Sands, see Tees P1182
Searsport P1335
Seattle P1336
Semarang P517
Sembawang, see Singapore P924
Semporna, see Sabah P710
Senboku, see Sakai P635
Senegal P922
Senipah Terminal P517
Sepetiba P150
Sept Iles P203
Sete, also see Late Plans P406
Setubal P888
Seville P971
Seward P1337
Seychelles P923
Shannon Estuary P539
Sharjah P1090
Sharpness & Gloucester P1169
Sheerness, see Medway P1152
Sheet Harbour P207
Shimizu P638
Shimonoseki P639
Shiogama P640
Shippegan P207
Shoreham P1170
Shuaiba P676
Shuwaikh P676
Sibu P712
Sidi Kerir P322
Sidon P678
Sierra Leone P923
Siglufjord P476
Silloth P1172
Sines P888
Singapore P924
Sirri Island P529
Sirtica Terminal, see Ras Lanuf P690
Sitka P1338
Sitra P101
Skaelskor P305
Skaerbaek P306
Skagen P306
Skagway P1338
Skelleftehamn P1003
Skikda P5
Skoldvik, see Porvoo P357
Slagen P812
Smith's Bluff P1339
also see Sabine & Neches River P1329
Sochi P1071
Society Islands P937
Soderhamn P1004
Sodertalje P1005
Sola P814
Solomon Islands P938
Solvesborg P1005
Somali Republic P938
Sonderborg P307
Sorel P208
Sorong, see Kasim Terminal P504
Sourabaja P518
South Africa P940
Southampton P1172
South Riding Point P99
Spain P944
Split P1380
Spring Bay P86
Sri Lanka P976
Sriracha P1028
Stanley P86
Statia Terminals, see St. Eustatius P760
Stavanger P815
Stege P307
Stenungsund P1006
Stephenville P208
Stigsnaes P308
Stockholm P1007
Stockton, California P1339
Stornoway P1176
Storugns P1011
Strahan P87
Strait of Canso Vessel Traffic Management Zone P165
Stralsund P417
Stranraer P1176
Strasbourg P407
Straumsvik P477
Studstrup P308
Sture, see Late Plans
Suao P1022
Sudan P978
Suez P323
Suez Canal P324
Sukhumi P1072
Sulina P899
Sullom Voe P1177
Summerside P209
Sunderland P1181
Sundsvall P1011
Surabaja, see Sourabaja P518
Suva P343
Svendborg P309
Swale, see Medway P1152

PLAN INDEX

Swansea P1181
Sweden P979
Swinoujscie, see Szczecin P882
Switzerland P1018
Sydney, Australia P87
Sydney, Canada P209
Syria P1019
Szczecin P882

T

Tabaco P875
Tacloban P875
Tacoma P1340
Tadine, see Noumea, Mare Island P763
Tagonoura P642
Tahkoluoto, see Pori P355
Taichung P1023
Taiwan P1021
Takoradi P442
Talcahuano P236
Tallaboa Bay, see Guayanilla P889
Tallinn P1072
Taltal P237
Tamatave, see Toamasina P698
Tampa P1341
Tampico P726
Tanabe P643
Tanamo P274
Tananger, see Sola P814
Tanauan P878
Tandjong Lepee, see Pomalaa P513
Tandjong Perak, see Sourabaja P518
Tangier P734
Tanjung Priok, see Jakarta P504
Tanzania P1023
Taranaki, see New Plymouth P774
Taranto P582
Tarawa P664
Tarbert Island, see Limerick P539
Tarragona P972
Tartous P1020
Tauranga P777
Tawau P712
Tazerka P1039
Tees P1182
Tefran, see Sao Francisco do Sul P147
Tela P470
Teluk Bayur P519
Tema P442
Ternate P519
Terneuzen P750
Texas City P1342
Thailand P1025
Thessaloniki P454
Thevenard P89
Thio, see Noumea P763
Three Rivers, see Trois Rivieres P212
Thunder Bay P211
Thursday Island P89
Tiko, see Limbe/Tiko P160
Timaru P778
Tjilatjap, see Cilacap P494
Toamasina P698
Tobata P643
Tocopilla P238
Tofino Vessel Traffic Management Zone P166
Togo P1029
Tokyo P644
Toledo P1344
Tomakomai P649
Tomil Harbour P728
Tonga P1030
Tonnay-Charente P408
Topolobampo P726
Tornio P361
Toronto P212
Torre Annunziata P583
Tors Harbour, see Gothenburg P984
Touho Bay, see Noumea P763
Toulon P408
Townsville P90
Tramandai, Almirante Soares
  Dutra Terminal P151
Tranmere, see Liverpool P1140
Travemunde, see Lubeck P433
Trelleborg P1012
Trieste P583
Trincomalee P978
Trinidad P1031
Tripoli, Lebanon P680
Trois-Rivieres P212
Trondheim P815
Troon, see Ayr P1096
Trouville P410
Tsingtao, see Qingdao P242
Tuapse P1073
Tubarao P152
Tuborg P309
Tunas de Zaza, see Cienfuegos P263
Tunisia P1034
Turkey P1039
Turks and Caicos Islands P1058
Tutuncifilik P1056
Twillingate P213
Tyne P1187

U

Ube P650
Ubu P153
Uddevalla P1013
Ujung Pandang, see Macassar P511
Ulsan P671
Umea P1014
Umm al Nar P1090
Umm al Qaiwain P1092
Umm Said P895
Unalaska P1345
U.S.S.R. P1059
United Arab Emirates P1077
United Kingdom P1095
United States of America P1193
Urangan, see Maryborough P69
Uruguay P1351
Ushuaia P22
Ust-Dunaysk P1073

V

Vaasa P362
Vacamonte P833
Vado Ligure, see Savona P581
Vadso P816
Valdez P1346
Valencia P973
Valletta P713
Vallvik P1014
Valparaiso P239
Vancouver, Canada P213
Vancouver Vessel Traffic
  Management Zone P166
Vancouver, U.S.A. P1349
Vanimo P843
Vanuatu P1355
Varanus Island Terminal P90
Varberg P1015
Varna P157
Vasteras P1015
Veitsiluoto P362
Vejle P310
Venezuela P1356
Venice P590
Ventspils P1074
Vera Cruz P727
Verdon, see Bordeaux P364
Vestmannaeyjar P477
Viana do Castelo P889
Victoria, Canada P217
Victoria Harbour, see Labuan P705
Vietnam P1368
Vieux Fort, see Castries P902
Vigo P973
Vila do Conde P154
Vilanova I La Geltru P975
Villa Constitucion P23
Villagarcia De Arosa P976
Villanueva P878
Villa Ramallo, see Ramallo P18
Vinapu Roads, see Easter Island P227
Virgin Islands P1369
Visakhapatnam P486
Visby P1016
Vita P275
Vitoria P154
Volos P454
Voltri, see Genoa P563
Vordingborg P310
Voudhia Bay, see Milos Island P450
Vyborg P1075

W

Wadrilla, see Noumea, Ouvea Island P763
Wakamatsu P651
Wakayama P652
Wala, see Noumea, Art Island P763
Wallaroo P91
Wallhamn P1017
Walvis Bay P735
Wanganui P778
Warrenpoint P1190
Warri P794
Watchet P1191
Waterford P543
We, see Noumea, Lifou Island P763
Weipa P92
Wellington P779
Western Port P92
Western Samoa P1370
Westport P780
Wewak P844
Weymouth, Canada P218
Whangerei P781
Whitehaven P1191
Whitstable P1192
Whyalla P94
Wilhelmshaven P437
Willemstad P763
Wilmington, Del. P1349
Wilmington, N.C. P1350
Windsor P218
Wismar P418
Woodfibre P219
Workington P1192
Wrangell P1350
Wyndham P95

Y

Yabucoa P892
Yakacik, see Isdemir P1049
Yali P455
Yalta P1075
Yanbu P919
Yarimca, P1057
  also see Tutuncifilik P1057
Yatsushiro P658
Yawata P654
Yemen, Arab Republic P1371
**Yemen, People's Democratic
  Republic of** P1373
Ymuiden, P754
  also see North Sea Canal P742
Yokkaichi P654
Yokohama P655
Yokosuka P659
Yorktown P1351
Yosu P672
Ystad P1017
Yugoslavia P1374
Yuzhnyy P1076

Z

Zaandam P754
Zaanstad, see Zaandam P754
Zadar P1380
Zahrani, see Sidon P678
Zaire P1381
Zamboanga P881
Zanzibar P1025
Zarate P23
Zeebrugge, also see Late Plans P111
Zeit Bay P337
Zhanjiang P244
Zhdanov P1077
Zirku Island P1092
Zueitina P694

LATE REPORTS

ALGERIA	Algiers
ANGOLA	Cabinda
	Quinfuquena
AUSTRALIA	Barrow Island
	Melbourne
	Sydney
CHILE	General
	Antofagasta
	Arica
	Barquito
	Caldera
	Calderilla
	Chacabuco
	Chanaral
	Coquimbo
	Coronel
	Guayacan
	Huasco
	Iquique
	Lota
	Puerto Montt
	Punta Arenas
	Quintero
	San Vicente
	Talcahuano
	Valparaiso
CHINA, People's Republic of	Basuo
	Haikou
	Sanya
	Yingkou
CYPRUS	Limassol
ECUADOR	General
EGYPT	Hamrawein
	Suez Canal
FRANCE	Dunkirk
	Le Havre
	Marseilles
	Sete
GABON	Ovendo
GERMANY F.R.	Hamburg
GHANA	General
GUINEA BISSAU	Bissau
GUYANA	Georgetown
HONG KONG	Hong Kong
INDONESIA	Lhokseumawe
IRAN	Bandar Abbas
	Kharg Island
	Lavan Island
	Sirri Island
ITALY	La Spezia
	Salerno
	Taranto
JAPAN	Nakanoseki
JORDAN	Aqaba
KOREA, Republic of	Busan
LIBYA	Bouri
MALAYSIA	Bintulu
MARTINIQUE	Fort de France
MOROCCO	Mohammedia
NETHERLANDS	Rotterdam
NORWAY	Aaheim
	Heroya
	Sture
OMAN	Port Qaboos
PAKISTAN	Port Muhammed Bin Qasim
PERU	General
	Callao
PHILIPPINES	Villanueva
SAO TOME	Sao Tome
SAUDI ARABIA	Rabigh
SINGAPORE	Singapore
SWEDEN	Stenungsund
THAILAND	Krabi
TURKEY	Golovasi
UNITED KINGDOM	New Holland
UNITED STATES OF AMERICA	Baton Rouge
	New Haven
VENEZUELA	Orinoco
VIETNAM	Ho Chi Min City
	Vung Tau
YEMEN A.R.	Ras Isa Marine Terminal

LATE PLANS

ANGOLA	Quinfuquena
BELGIUM	Zeebrugge
FRANCE	Sete
GABON	Ovendo
GUYANA	Georgetown
HONG KONG	Hong Kong
JAPAN	Nakanoseki
LIBYA	Bouri
MALAYSIA	Bintulu
MARTINIQUE	Fort de France
NORWAY	Sture
THAILAND	Krabi
TURKEY	Golovasi
UNITED STATES OF AMERICA	Baton Rouge
	New Haven
YUGOSLAVIA	Bar

Algeria

ALGIERS: (Also see page 2)

SHIPMASTER'S REPORT: September 1988.
Documents: Vaccination List only required if vessel arriving from an infected area.

All money must be declared, but need not be locked up.
Restrictions: Entry possible day and night.
Officials: As soon as vessel is anchored, Customs and Coast Guard board the vessel.

Beer and wine are not sealed.

Coast Guard inspects Load Line Certificate, Safety Construction Certificate, Safety Radio Certificate and Safety Equipment Certificate (including Liferaft Certificates).
Fresh Water: Fresh water available at anchorage at short notice by barge of 80 tonnes capacity.

SHIPMASTER'S REPORT: February 1989.

There are no buoys marking the Northern limits of the anchorages. Ships anchor as they please, regardless of size of vessel.

Pilotage is available around the clock.

The Unknown Soldier Monument is very conspicuous and is a good landmark for finding the head of the South Entrance Breakwater if, by any chance, it is impossible to distinguish it, due to congestion at the anchorage.

Angola

CABINDA: (Also see page 12)

SINGLE BUOY MOORING (LPG): LPG Berth.

Please note that the "Berge Sisar" (75,680 cu.m.) is to be replaced by the "Berge Troll" (71,300 cu.m.).

QUINFUQUENA: (Also see page 19) (See Late Plans)

PILOTAGE: *Delete 1st paragraph and substitute:* Pilotage is compulsory. The pilot boarding area is inside the anchorage circle North of the loading points (See "Anchorage" and "Late Plans").
ANCHORAGE: *Delete and substitute:*

Vessels awaiting mooring are requested to anchor inside an imaginary circle of 2 nautical miles diameter centred on Point "A" (See "Late Plan") where:

SPM bearing is 225°
RMD bearing is 135°
Essungo flare bearing is 327°

This will place all anchoring vessels at a minimum of 1.5 nautical miles from each of the surrounding sea lines.

At times the pilot may alter the anchorage location for one reason or another.

The pilot's requests will always overrule anything written therein.

The sea bottom in the area is sand and mud. Strict attention must be paid to all of the offshore installations in the area.

In addition to the loading points, these installations include the Essungo and Cuntala Platforms, the 18 in. oil sealine from Essungo to shore, the 20 in. oil sealine from shore to the R.M.D., the 30 in. oil sealine from the R.M.D. to the S.P.M., the 8 in. oil sealine from Cuntala to shore, the 16 in. oil sealine between the S.P.M. and Essungo Platform and the 16 in. sealine from the Southern Block Two Fields to the S.P.M.

These facilities are all marked on the British Admiralty Charts and all vessels bound for Quinfuquena Terminal must have on board the British Admiralty Charts No. 3206 and No. 638.

Anchoring is prohibited within a distance of 1.5 nautical miles from any of the offshore installations. All traffic is prohibited within a distance of 1 nautical mile of the loading points.
MAX. SIZE: *Add:*
Characteristics of Acceptable Vessels:

	S.P.M.	R.M.D.
Deadweight tons – maximum.	250,000 tons	150,000 tons
Distance – Bow to Manifold – maximum.	160 m.	150 m.
Draft at Loaded Condition.	72 ft.	47 ft.
Segregated Ballast Tanks.	Required	Required
Inert Gas System.	Required	Required
Derricks – minimum SWL.	10 tons	10 tons

RADIO: *Delete and substitute:*
Initial Message: Companies intending to lift crude oil from Quinfuquena Terminal will have to notify Fina Petroleos de Angola – Operations by telex (Telex No. 3246 Petrol An), 7 days prior to the anticipated arrival date.

This notification shall contain the following information:
Name of tanker.
Flag.
Gross tonnage.
Nett tonnage.
Deadweight tons.
Distance – bow to manifold.
Anticipated draft at loaded condition.
Nominated cargo quantity.
Shippers.
Agent.
Consignee.
Destination.
ETA QQ Terminal.
Deballasting time, if required.

Subsequent Updated Messages: Vessels bound for Soyo Quinfuquena Terminal must give their ETA 72 hours, 48 hours and 24 hours before arrival, addressed to Fina Petroleos de Angola, Soyo.

This can be transmitted via Portishead Radio (GKB) if addressed to M/V "Oil Panther, call sign GYEM for Fina Marine Superintendent Soyo".

Alternatively, ETA can be sent through INMARSAT to M/V "Oil Puma" or by telex to Fina Petroleos de Angola – Operations (Telex No. 3246 Petrol An).

The message should contain:
Vessel's name and Flag.
Master's name.
ETA at loading Terminal.
Arrival draft.
Last port of call.
Deballasting time, if any.

48 hours before arrival, radio contact can be made with Fina Petroleos de Angola Marine Office in Soyo on S.S.B. 8,291.1 kHz between 0900 hrs. and 0930 hrs. GMT.

A 24 hour radio watch is maintained on VHF Channel 11 at the Mooring Master's Office, call sign "Quinfuquena Pilot".

Ships are usually able to make VHF contact at a distance of 30 miles from the loading buoy.
VHF: *Add:* A 24 hour radio watch is required on VHF Channel 11.
MOORING: *Amend:*

Notice of Readiness accepted between 0600 hrs. and 1700 hrs.

The bitts are to be located not less than 3 m. and not more than 10 m. from the centre Panama Lead and capable of handling 56 mm. diameter wires.

Once the vessel is moored to the loading point, the floating hose is brought alongside and connected to the manifold by the ship's crew. The floating hose is equipped with a 12 in. Camlock connection. The floating hose at both the R.M.D. and the S.P.M. is 16 in. The bow to manifold distance should not exceed 150 m. for the R.M.D. or 160 m. for the S.P.M.
LOADING: *Add:*

As the oil to be loaded may contain hydrogen sulphide, it is recommended to keep breathing apparatus and resuscitators readily available during cargo operations.

Australia

BARROW ISLAND: (Also see page 62)

MOORING EQUIPMENT (TANKER):
Bow Anchors: Delete and substitute:
The anchors shall:

- (a) be located one each port and starboard bow;
- (b) have a minimum of 10 shackles (shots) of chain in tankers up to 50,000 tonnes load displacement and a minimum of 12 shackles in tankers over 50,000 tonnes load displacement;
- (c) comply with a classification society recognised by the Australian Department of Transport and Communications.

LOADING EQUIPMENT:
Note: During the first quarter of 1989 the Operator intends to change the hose connection method from the indirect method, using adaptors, deck hose and overside working platform, to the direct method, where the tail hose of the submarine hose string is bolted to the ship's manifold.

The Operator has incorporated a quick release coupling, to enable the hose to be disconnected and dropped quickly in the event of an emergency. It is felt that this method will be easier to use on a common-user basis.

(See "BALLAST – REPORT")

MELBOURNE: (Also see page 99)

DOCUMENTS: *Shipmaster's Report:* October 1988.
4 Crew Lists.
1 Ship's Stores Consumed.
1 List of Crew's Possessions.
4 Ports of Call Lists.
1 Animals in Cargo List ("Nil" return not required).
1 Ship's Pets List ("Nil" return not required).
2 Shipmaster's Bond.
2 Health Reports.
All Ship's Certificates required.
All the above to be filled in on Australian forms.

SYDNEY: (Also see page 122)

DOCUMENTS: *Add:*
Shipmaster's Report: October 1988.
First Port: See "Melbourne".
Second Port: 3 Crew Lists.
2 Ports of Call Lists.

Chile

GENERAL (Also see page 319)

DOCUMENTS: *Add:*
Ship's Officer's Report: The following documents are required at the second and subsequent ports:
4 copies Crew List.
4 copies Crew Personal Effects List.
4 copies Ship's Stores Declaration.

The following information supersedes the information on pages 319-339 for the specific ports and headings mentioned hereunder.

ANTOFAGASTA: (Also see page 321)

DOCUMENTS:
Customs:
General Ship's Manifest.
Cargo Manifest for the port.
Crew and Passenger List.
Personal Effects List.
Stores List.
General Declaration.
Maritime Authority:
Ship's Clearance from Last Port.
Crew List.
Passenger List.
Weapons Declaration.
Dangerous Cargo Declaration.
National Health Service:
Health Declaration.
Derat Certificate.
Agriculture Department:
Stores List.
General Declaration.
Interpol:
Crew List.
Passenger List.

PILOTAGE: Compulsory. Vessels calling at Antofagasta and willing to berth on arrival must proceed to the pilotage boarding station. Vessels that are to wait because of congestion or any other reason, are to anchor in the anchorage zone. Pilot will travel to and from the vessel in a launch specially assigned for this purpose. The launch is also used for mooring, and has VHF radio.

In order to have the vessel authorisation for manoeuvring, the ship must have:
(a) Two bower anchors with not less than 7 shackles of chain on each.
(b) Four mooring lines and two springs.

For vessels and port safety, in all berthing and/or unberthing, the assistance of one tug is compulsory. Vessels of less than 75 m. LOA do not need to comply with the above mentioned rule.

Two tugs wil be required for ships over 220 m. LOA.

Two tugs will also be required under the following special situations:
(a) Pier No. 4: Berthing of ships starboard side to, when other ships are docked at Piers No. 3 and No. 5.
(b) Pier No. 5: Unberthing of vessels docked starboard side to with no anchor in water.

Because of other ships in port, weather conditions or any other special situation, it is up to the Pilot to request a second tug.

All ships manoeuvring must request permission 4 hours in advance. 24 hours before arrival, vessels must inform the Maritime Authority their ETA, name, call sign, nationality, draft, last port of call and if there is any sickness on board.

Pilot Boarding Station:
The boarding area is within the following geographical points:
(1) Lat. 23° 37′ 37″ S., Long. 70° 24′ 37″ W.
(2) Lat. 23° 37′ 37″ S., Long. 70° 24′ 18″ W.
(3) Lat. 23° 38′ 07″ S., Long. 70° 24′ 18″ W.
(4) Lat. 23° 38′ 07″ S., Long. 70° 24′ 37″ W.

APPROACHES: *Traffic Separation Scheme:* A separation scheme exists at the entrance to the port, one mile wide, covering following geographical points:
(a) Lat. 23° 37′ 52″ S., Long. 70° 25′ 31″ W.
(b) Lat. 23° 37′ 52″ S., Long. 70° 28′ 50″ W.

There is one-way traffic for ships sailing West, located between the mentioned separation scheme and a line between the following geographical points.
(a) Lat. 23° 36′ 23″ S., Long. 70° 25′ 31″ W.
(b) Lat. 23° 35′ 30″ S., Long. 70° 26′ 58″ W.

There is one-way traffic for ships sailing East, located between the mentioned separation scheme and a line between the following geographical points:
(a) Lat. 23° 39′ 22″ S., Long. 70° 25′ 32″ W.
(b) Lat. 23° 40′ 22″ S., Long. 70° 26′ 30″ W.

Principal traffic course is 090° – 270°.

ANCHORAGE: Located outside the harbour between Paita Rocks and Cobre Norte Cove, with a depth from 25 m. to 40 m., with a good sand and mud seabed.

MAX. SIZE: Max. LOA 220 m. Max. draft 30 ft. With pontoon (10.0 m.) between vessel and quay max. draft of 35 ft. 09 in. is permitted.

Also see "Tankers".

RADIO: Antofagasta Radio Station, call sign CBA-3, attends 24 hours on following frequencies:

Service	*Emission*	*Maritime Zone*
500 kHz	A1A A2A	A1 A2
518 kHz	F1B	
2182 kHz	H3E J3E	
8461 kHz	A1A	
C – 421	J3E	
C – 16	G3E	
C – 26	G3E	

Emission of urgent messages for ships (NURNAV) and meteorological information are provided on following frequencies and hours.

Service	*Emission*	*Times*
476 kHz	A1A	1405 & 0205
2738 kHz	J3E	1415 & 0215
C – 14	G3E	1430 & 0230

Security frequencies are attended as follows:

2182 kHz	Night Service	2200 & 1200
C – 421	Day Service	1200 & 2200

Navtex international emission:
Covering "A" Zone:
Time table (UTC) 0000 – 0010 0400 – 0410 0800 – 0810
1200 – 1210 1600 – 1610 2000 – 2010

Traffic list emission on 476 kHz and C – 401, will be H+50 of every even hour.

HF telephonic frequency in bands of maritime mobile service will be attended via Playa Ancha "CBV" Radio.

VHF: Harbour Master and Pilot on Channel 16 throughout 24 hours.

TUGS: 3 tugs available, 970 h.p., 1,440 h.p. and 4,100 h.p.

Also see "Pilotage".

Tankers: Vessels in excess of 75 m. LOA mooring at the buoys will require the assistance of 1 tug.

BERTHING:

Pier	*Length* (m.)	*Max. Draft* (ft.)	(in.)
Fishing zone	205	24	00
Pier 1	220	30	00
Pier 2	165	30	00
Pier 3	165	30	00
Wharf zone	130	16	00
Pier 4	185	28	07
Pier 5	185	28	06
Pier 6	100	Under repair	
Pier 7	250	Under repair	
With separation raft at 10.0 m. from the pier.			
Pier 4	185	34	08
Pier 5	185	35	09

CRANES:
Pier No. 1, 2 and 3: 6×12 tons and 4×5 tons. Pier No. 4 and 5: 4×7 tons. Pier No. 6 and 7: Under repair.

TANKERS: There are 3 tanker terminals in the North part of Antofagasta Bay.

Esso Terminal:
Owner: Esso Standard Oil Co., Chile.
Max. Length: 235 m.
Max. Draft: 60 ft.
Products Handled: Petroleum and clean products.

Mooring Facilities: The terminal has 3 buoys, painted white, buoys are named "North Buoy", "South Buoy" and "Manoeuvring Buoy".

General: For positioning of anchors there are leading marks on the shore. They are 2 metal circles, painted orange with black crosses in the centre.

Vessels must have at least 2 mooring lines of 220 m. each for sending to each buoy.

All buoys have slip hooks.

When mooring, the vessel will be berthed on a heading of 235°. Vessels are to use both anchors, with 8 shackles on the starboard anchor and 6 shackles on the port anchor.

Vessels cannot moor when the swell covers the tops of the rocks or if the wind is Force 4 or over.

The assistance of a tug is required for mooring.

Mooring is only carried out during daylight hours. Unmooring is possible at night, weather permitting.

Hoses: 3×12 in. flexible hoses are used for unloading.

Codelco Terminal:
Owner: Codelco Chile Div. Chuquicamata.
Max. Length: 235 m. Max. Draft: 60 ft.
Products handled: Petroleum and clean products.

Mooring facilities: The terminal has 3 buoys painted yellow. Mooring operation is similar to the "Esso Terminal" above.

Hoses: Diesel and petroleum products are discharged through flexible hoses. Length of hoses 670 m.

Shell Terminal:
Owner: Shell Chile Ltda.
Max. Length: 235 m.
Max. Draft: 40 ft.
Products handled: Clean products and lubricating oils.

General: The mooring facilities consist of 3 buoys, painted yellow.

On the shore there are 3 metallic circles painted orange to assist with lining up of vessel.

For mooring, vessels must have at least 2 mooring lines of 220 m. for each buoy. All buoys have slip hooks.

Mooring in daylight only. Unmooring possible during night time, weather permitting.

When vessel is in the moored position the heading is 235° True. Both anchors used for mooring, 8 shackles used on starboard anchor and 6 shackles used on port anchor.

Hoses: Clean products are discharged through 12 in. flexible hoses.

Chimba Cove:

Emalco Gas Terminal:
Owner: Empresa Nacional de Petroleo.
Operator: Emalco.
Max. Length: 110 m.
Max. Draft: 27 ft.
Product Handled: LNG.

General: Vessels moor using 2 anchor, 2 buoys and 1 bollard on the shore on Guaman Island.

There are two orange circles on the shore which are the leading lines for dropping the anchors.

Vessels moor with 2 mooring lines, length 220 m. each, to each buoy and 2 mooring lines from the port side to the bollard on Guaman Island.

When moored, the vessel is on a heading of 330°.

Vessels can only moor during daylight.

Both anchors required for mooring, each with 6 shackles out.

Hoses: Gas is discharged by 8 in. diameter flexible hoses.

FRESH WATER: Fresh water available at all berths at approximate rate of 25 t.p.h. Vessels at anchor and vessels at buoys can obtain small quantities of fresh water from tugs.

FUEL: Fuel oil and diesel oil, in small quantities, can be supplied at all berths by tank trucks. Large orders can be tendered through the oil terminal, rate of delivery for fuel oil 80 t.p.h. and for diesel oil 300 t.p.h.

GANGWAY/DECK WATCHMEN: Supplied by Agent.

OPENING/CLOSING HATCHES: By ship's crew.

CERTIFICATES:
Safety Construction Certificate.
Safety Equipment Certificate.
Safety Radio Certificate.
Load Line Certificate.
Oil Record Book.
Light Dues.
Tonnage Register Certificate.
Oil Pollution Certificate.

CUSTOMS ALLOWANCES: Each crew member is allowed 400 cigarettes per week and 2.5 litres of wine or spirits per week.

IDENTIFICATION CARDS: All crew are supplied with a shore pass. These passes are collected prior to sailing.

CONSULS: Argentina, Belgium, Bolivia, Denmark, France, Germany F.R., Greece, Italy, Jordan, Netherlands, Peru and Yugoslavia.

REPAIRS: There are 3 workshops for minor repairs:
Castro: Tel. 225501.
Ljubetic: Tel. 251547, 223268.
Corssen: Tel. 222331.

DRY DOCKS: None available.

SURVEYORS: Lloyd's Register, Societe Generale Sourveyance (S.G.S.), International Inspection Service (I.I.S.) and Centro de Estudios, Medicion y Certificacion de Calidad (CESMEC).

TIME: GMT minus 4 hours. Clocks are advanced one hour on the second Saturday in October until the second Saturday in March.

EMERGENCY CO-ORDINATION CENTRE: Search and Rescue Service: Antofagasta Maritime Authority. Tel. 222294, 221908, 223587.

POLICE/AMBULANCE/FIRE: Police: Tel. 133. Ambulance: Tel. 222370. Fire Brigade: Tel. 221212.

SERVICES: Compass adjusting, radar repair, radio repairs, gyro compass repairs and all other types of electronic repairs possible.

HOLIDAYS: New Year's Day (January 1st), Holy week (April 1st and 2nd), Labour Day (May 1st), Iquique's Fleet Action (May 21st), Corpus Christi Day (September 11th), Saint Peter and Paul (June 29th), Ascension del Senor (August 15th), Freedom Day (September 11th), National Day (September 18th and 19th), Discovery of America (October 12th), All Saints Day (November 1st), Immaculate Concepcion (December 8th), Christmas Day (December 25th).

AUTHORITY: Empresa Portuaria de Chile, Av. Grecia S/N, P.O. Box 190, Antofagasta, Chile. *Tel:* 223171, 251737, 223176. *Telex:* 225232.

ARICA: (Also see page 321)

PORT LIMITS: Seaward limits are:
Lat. 18° 28.6′ S., Long. 70° 19.9′ W.
Lat. 18° 27.2′ S., Long. 70° 20.5′ W.
Lat. 18° 26.7′ S., Long. 70° 19.6′ W.
Lat. 18° 28.1′ S., Long. 70° 18.9′ W.

DOCUMENTS:

Port Captain:
1 copy General Declaration.
1 copy Last Port Clearance.
1 copy Passenger List for the port, and in-transit, (even if nil).
1 copy Crew List.
1 copy Dangerous Cargo List for the port, and/or in-transit.

Customs:
2 copies General Declaration.
6 copies Cargo Manifest for the port.
10 copies Cargo Manifest in-transit to Bolivia.
10 copies Cargo Manifest in-transit to Tacna, Peru.
2 copies Crew List.
2 copies Crew Effects List.
2 copies General Stores List.
2 copies Bazaar List.
2 copies Mail List.
2 copies Passenger List for the port, or in-transit.
1 copy General Chilean Cargo Manifest, which is stamped by Customs and returned on board.

Immigration:
1 copy General Declaration.
2 copies Passenger List for the port and/or in-transit.
1 copy Crew List.

Health Department:
1 copy Sanitary Declaration.
1 copy General Declaration.
1 copy Passenger List for the port and/or in-transit.
1 copy Crew List.

Agriculture Department:
1 copy General Declaration.
1 copy Cargo Manifest for the port.
1 copy Cargo Manifest in-transit to Peru and Bolivia.
1 copy General Stores List.

Agency:
10 copies Cargo Manifest for the port.
10 copies Cargo Manifest in-transit to Peru and Bolivia.
1 set of Bills of Lading for the cargo to Arica, Peru and Bolivia.
1 copy General Declaration.
3 copies Passenger List for the port, or in-transit.
3 copies Crew List.
1 copy Dangerous Cargo List for the port and/or in-transit.
1 copy General Stores List.
1 copy Bazaar List.
1 copy Mail List.

If the ship does not take cargo, passengers or mail for the port or in-transit to Peru and/or Bolivia, the Master must in all cases present the same "negative" documents.

PILOTAGE: Pilotage is compulsory for all vessels, except vessels of Chilean flag under 1,000 Gross Register Tons.

Ships approaching port should fly international signal flag "G" to request Pilot. Pilot boat is a small craft, painted red or white, with "H" flag on the mast.

Pilot boards incoming vessels within the following area:
(1) Lat. 18° 27.2′ S., Long. 70° 20.5′ W.
(2) Lat. 18° 26.7′ S., Long. 70° 19.5′ W.
(3) Lat. 18° 27.1′ S., Long. 70° 19.3′ W.
(4) Lat. 18° 27.7′ S., Long. 70° 20.3′ W.

Pilot Station maintains VHF watch on Channel 16. Telex No. 221084.

ANCHORAGE: Safe anchorage for vessels arriving during the day and after sunset can be found to the North West of the Pilot boarding area in depths of 9 – 10 fathoms.

RESTRICTIONS: Ships docked and undocked at any time, weather permitting, if application presented in advance to Port Captain.

MAX. SIZE: In the Port Area the maximum permissible draft is 34 ft. and max. length 700 ft.

Bolivian Export Buoy: Vessels up to 60,000 d.w.t. Max. draft 43 ft.

San Martin Cove Buoy: Vessels up to 54,000 d.w.t. Max. draft 45 ft.

HEALTH: In case of fever or suspected diseases on board, Master must send a telex or radio message to Port Captain advising the situation. Upon arrival, vessels will be anchored and inspected by Health Department according to international procedures and will be declared in quarantine if necessary. If arriving from another Chilean port, pratique is automatic.

RADIO: Use "Maritgob Arica", telex No. 221084. Coastal Radio Station CBA2, permanent listening watch on VHF Channel 16 and 2182 kHz and 421 kHz (HF) listening watch in daytime between 0800 hrs. and 1800 hrs.

VHF: Call "Arica Radio". Listening watch on Channel 16. Vessels approaching the port must advise Arica Pilot Station of the ETA. Arica Radio has radio telephone service on Channel 26 (duplex). Request this service by Channel 16.

When manoeuvring within the port area, the Pilot will advise which channel to use.

RADAR: No Port Radio Service.

TUGS: 1×550 h.p. and 1×850 h.p. Tugs normally join vessels at the end of the breakwater.

Tugs are compulsory for berthing and unberthing in the following cases:
One tug for vessels over 90 m. length.
Two tugs for vessels over 140 m. length.
Not compulsory for vessels of 90 m. length or less.

BERTHING:

Berth No.	*Length* (m.)	*Max. Permissible Draft at LW* (ft.)
2	314	18.0
3		28.0
4	514	32.0
5		34.0
6		34.0

Loading and discharging normally by ship's gear.

CRANES: Berths No. 4, 5 and 6: 2×3 tons and 2×5 tons.

BULK CARGO FACILITIES: Four conveyor belts and loaders for bulk ores, grain, coal, etc., at approximate rate of 100 t.p.h. per conveyor.

SPECIALISED CARGO-HANDLING FACILITIES: Containers are handled with conventional gear, the port has a container yard of 115,936 sq.m., served by railroad and a bridge crane capable of lifting 40 tons. Service for containers includes 10 ton fork-lift trucks, mobile cranes with 12 tons' capacity, and specially designed wagons for their proper transportation.

BRIDGES: None.

STEVEDORES: The stevedores are nominated the day before ship arrives, according to ETA, by the Agent. Also nomination can be made during the day. Working in the port is in three shifts: 0800 hrs.–1530 hrs., 1530 hrs.–2300 hrs. and 2300 hrs.–0630 hrs.

MEDICAL: Medical assistance can be obtained at any time without advance notice.

TANKERS: *Bolivian Export Buoy:* Belongs to Yacimientos Petroliferos Fiscales Bolivianos; position 039° True, 6 cables from breakwater light. Can handle vessels up to 60,000 d.w.t., 43 ft. maximum draft; 12 in. hose connection. Loading rate 9,000 bbls./hr. No deballasting facilities. Mooring in daylight. Vessels moor to 3 stern buoys.

San Martin Cove Buoy: Used for discharge of Bunker C and clean products for the city services. 45 ft. maximum draft, 54,000 d.w.t., 8 in. hose connection, vessels moor to 3 stern buoys. No wires may be used.

FUEL: Diesel oil available by tank truck, advanced notice to Agent required.

FIRE PRECAUTIONS: No special fire precautions at the tanker terminal, only those that are internationally required.

CONSULS: The following countries are represented in Arica:

Argentina
Belgium
Bolivia
Costa Rica
Denmark
El Salvador
Germany F.R.
Great Britain
Italy
Norway
Peru
Spain

REPAIRS: Only small repairs can be performed in Arica, mechanical and electrical.

DRY DOCK: There are two dry docks intended for fishing boats, maximum capacity 800 tons and 45 m. length.

SURVEYORS: Naviera Portuaria Arica represent Lloyd's Register.

OPENING/CLOSING HATCHES: This service will be attended by the stevedores. Nomination is by number of hatches working.

CUSTOMS ALLOWANCES: Two and a half cartons of cigarettes per man, two and a half bottles of wine/spirits per man.

CARGO GEAR: Normally load/discharge effected by ship's gear.

AIRPORT: Distance to airport 7 miles. One flight to Miami weekly, two flights to Bolivia weekly. Domestic flights are available at the rate of two per day, to Iquique, Antofagasta, Santiago; from Santiago to other cities in the South of Chile.

TIME: GMT minus 4 hours. Clocks advanced one hour from September to March.

HOLIDAYS: January 1st; First Friday and Saturday of April; May 1st and 21st.; June 2nd and 29th; August 15th; September 11th, 18th and 19th; October 12th; November 1st; December 8th and 25th. Cargo can be arranged at all holidays, except December 24th, from 1800 hrs. to December 25th, 1530 hrs. and December 31st from 1800 hrs. to January 1st, 1530 hrs.

EMERGENCY CO-ORDINATION CENTRE: Call Arica Radio: See "Radio" and "VHF".

SERVICES: Supply of Chilean charts and nautical publications.

BANKS:

Name	*Address*	*Tel.*	*Telex*
Centrobanco	21 de Mayo 172	31021	221027
Banco de Chile	21 de Mayo 330	31746	221030
Banco de Santiago	21 de Mayo 212	31979	221117
Banco del Trabajo	21 de Mayo 345	32497	221034
Banco Espanol Chile	21 de Mayo 298	51648	221109
Banco Sudamericano	21 de Mayo 187	32685	221056
Banco Central de Chile	Colon 336	32116	221005
Banco de Credito e Inversiones	Bolognesi 221	32086	221004

SHIP SUPPLY SERVICE: All supplies can be obtained through the Agent.

DELAYS: No delays under normal conditions. Port congestion causes ships to wait at anchorage 24 hours or more, depending on unusual factors such as heavy swell, or lack of room to bring vessels alongside when 5 ships are docked.

AUTHORITY: Empresa Portuaria de Chile, P.O. Box 923, Arica. *Tel:* 32284. *Telex:* 221012. *Contact:* Domingo Ormazabal Gonzalez, Port Administrator.

BARQUITO: (Also see page 322)

Delete entry (See "Chanaral").

CALDERA: (Also see page 323)

DOCUMENTS:

Quarantine: Completed Declaration of Health (Q.S.I.).
Valid Derating Certificate.
International Vaccination Certificates.
Customs: Crew Declaration (Y.14).
Ship's Stores (E.1), 3 copies.
Inward Report (A.6).
Complete copy of each Manifest for goods to be discharged in Caldera/Calderilla.
Port Captain: Clearance from Last Port.
Crew List, 3 copies.
Copy of Manifest, Transit Cargo.
Immigration: Crew List, 2 copies.
Passenger Manifest for passengers not disembarking.
Immigration Control Cards for each person.

PILOTAGE: Compulsory. The owner, Master or Agent of a vessel must report via any coast station, by R/T or W/T, the vessel's ETA, 24 hours and 12 hours in advance of ETA. ETAs must be confirmed or corrected not less than 3 hours prior to arrival. Time in ETA message must be GMT. The following information must be included in the message:

(1) Name and call sign of vessel.
(2) Nationality.
(3) Length, draft and G.R.T.

Pilot Boarding Station: All vessels must wait for the Pilot in position Lat. 27° 03′ 00″ S., Long. 70° 50′ 13″ W. between Point Fuerte and Pointe Caleta.

Caldera Radio on standby on VHF Channel 16. Tel: 276.

ANCHORAGE: Vessels anchor with the Iron Ore Quay bearing 220°, 5 shackles in the water is sufficient.

MAX. SIZE: Vessels up to 44 ft. draft with a max. length of 240 m. can moor at the Ore Quay.

TUGS: 1×1,800 h.p. and 1×1,400 h.p.

BERTHING: *Dicaser Pier* (Ex-Fiscal Mole): Small vessels with max. LOA 110 m. and max. draft 3.5 m. berth alongside.

Vessels of any length, and draft of less than 8.0 m. can berth with stern to the mole, using 4 lines to bollards at a distance of 80 m.

Vessels with a draft of 10.0 m. will moor 120 m. off the mole.

In both cases, 6 or 7 shackles of cable is required on the starboard anchor. Vessel's head will be 360° when moored.

This position is recommended for loading general cargo transferred from the pier by lighters to the ship.

BULK HANDLING FACILITIES: *Iron Ore Berth:* (Out of order since April 1981).

Max. length 240 m. Max. draft 44 ft. The loading arm is fixed, hence vessels must shift to position each hatch under the tower. All cranes or derricks must be swung out to starboard prior to mooring. Vessels berth port side to, using 7 mooring buoys for head and stern ropes, and 2 dolphins for springs. Loading rate 1,200 t.p.h.

TANKERS: *COPEC Terminal:* Tankers moor to 2 stern buoys, using both anchors. Water depth 39 ft. Max. length 200 m. Hose connection 12 in. Day time and night time berthing.

Leading lights are installed to assist with dropping of anchors.

DENSITY: 1025.3.

FRESH WATER: Available from tugs.

CALDERILLA: (Also see page 323)

Vessels bound for Calderilla must first call at Caldera for pilot and official clearance.

DOCUMENTS: See "Caldera".

PILOTAGE: See "Caldera".

ANCHORAGE: Vessels less than 150 m. in length can await a berth 2 cables N.N.E. of the Mechanical Pier in 45 ft. of well sheltered water. Larger vessels must anchor in Caldera Bay.

MAX. SIZE: 60,000 d.w.t. Max. LOA 240 m. Max. draft 40 ft. Also see "Berthing".

BERTHING: "*Sademi*" *Mechanical Pier:* A mechanical loading belt has been built to the N.E. of the Peninsula. There are 2 loading arms each 50 m. long that can load at 1,000 t.p.h. The arms are fixed and vessels must shift to place each hatch under the tower. Vessels moor to 7 buoys, 3 forward and 4 aft. Entry can be made by day only.

Playa Blanca Terminal:

(a) A small pier for fishing boats, length 40 m., is installed on the N.W. side of the bay, for discharge operations and supply to the factory.
(b) Pontoon "URO", length 90 m., bearing 340° from the pier and anchored with 6 anchors and chains (3 forward and 3 aft). Vessels alongside the Pontoon head 215° or 035°. Max. draft: 30 ft. Max. length 200 m. Max. d.w.t. 35,000.
(c) 4 Mooring buoys for the ships berthing alongside (2 North side and 2 South side).

MEDICAL: First aid available in Caldera (5 km.). Hospital at Copiapo (80 km.).

FRESH WATER: Only available by tug.

CHACABUCO: (Also see page 323)

PORT LIMITS: A line joining Punta Weste and Peninsula Fontaine (North West point).

DOCUMENTS:

1 Clearance.
1 Light Dues Certificate.
7 Port Cargo Manifests.
4 General Cargo Manifests.
7 Transhipment Cargo Manifests.
3 Passenger Lists for the Port.
3 Passenger Lists for in-transit passengers.
18 Crew Lists.
1 Personal Effects List.
Passenger Baggage Declaration (2 per passenger).
1 Fumigation Certificate.

PILOTAGE: Compulsory for foreign vessels. Pilotage can be done by the Channel Pilot who is on board the ship.

Not compulsory for Chilean vessels.

ANCHORAGES: Anchorage point is Lat. 45° 28′ 45″ S., Long. 72° 50′ 10″ W.

RESTRICTIONS: Vessels over 70 m. LOA berth in daylight hours only.

MAX. SIZE: Max. LOA 165 m. Max. draft 25 ft. (forward), 32 ft. (aft). Max. displacement 15,000 tons.

HEALTH: If from a Chilean port, Free Pratique is granted by the Port Captain.

If arriving from overseas, Free Pratique can be granted by the Port Captain after the inspection of the Health Inspector, International Police, Customs and Agriculture Inspector.

RADIO: Naval radio station of Aysen at Aysen Port. Call sign CHY-2. Station receives and transmits on 2182 kHz and VHF Channel 16.

VHF: Chacabuco Naval Radio Station on Channel 16.

BERTHING: New quay: Length 52 m. Depth alongside 7.7 m. – 9.2 m. Fresh water available at a rate of 20 cu.m.p.h.

CRANES: 2×5 tons, 1×20 tons.

BULK CARGO FACILITIES: 1 conveyor belt belonging to "Minera El Toqui".

SPECIALISED CARGO HANDLING FACILITIES: To the N.W. of the new quay, there is a Ro/Ro terminal for coastal car ferries.

TANKERS: *Fuel Terminal:* Vessels of 10,000 tons displacement discharge fuel via a submarine pipeline. Pilotage compulsory for foreign vessels. Daylight berthing and unberthing.

Gas Terminal: Vessels in the range 750 – 1,000 tons displacement discharge liquid gas via submarine pipeline. Pilotage compulsory for foreign vessels. Daylight berthing and unberthing.

STEVEDORES: 3 stevedoring companies with 50 persons each.

MEDICAL: There is a hospital at Puerto Aysen.

FRESH WATER: Available, no restriction on amount.

FUEL: Fuel is available from Copec S.A. and Shell Chile.

GANGWAY/DECK WATCHMEN: Available and required by law.

OPENING/CLOSING HATCHES: To be carried out by the stevedores.

CUSTOMS ALLOWANCE: No unusual restrictions.

IDENTIFICATION CARDS: Required.

CONSULS: None.

REPAIRS: No repair facilities available.

DRY DOCKS: None.

REPATRIATION: Facilities available.

AIRPORT: Balmaceda National Airport is 120 km. from Chacabuco, national flights. Coyhaique Airport is 80 km. from Chacabuco, flights to Puerto Montt.

TIME: Local time: October to March, GMT minus 3 hours and March to October, GMT minus 4 hours.

HOLIDAYS: See "General" before first port.

SERVICES: Charts can be obtained from Naval Radio Station Aysen.

SHORE LEAVE: Allowed.

PORT REGULATIONS: It is strictly prohibited to dismantle the main engine or effect repairs to the engines without previous notification and authorisation from the maritime authorities. Also, to deballast petroleum, pump bilges, throw overboard waste or refuse in the port.

CHANARAL (including Barquito): (Also see page 323)

DOCUMENTS:

Health:
Completed Declaration of Health (Q.S.I.).
Valid Derating Certificate.
International Vaccination Certificates.

Customs:
Crew Declaration (Y.14)
3 Ship's Stores (E.I.).
Inward Report (A.6).
Complete copy of each Manifest for goods to be discharged in Chanaral, and Transit Cargo.
Clearance from Last Port.

Immigration:
2 Immigration Crew Lists (200).
3 Passenger Manifests for Passengers not disembarking.
Immigration Control Cards or Passports for each person.

PILOTAGE: Compulsory. To avoid a delay in obtaining a Pilot, the owner, Master or Agent of a ship, must report via any coast station by R/T or W/T the vessel's ETA, 24 hours and 12 hours in advance of arrival. ETA must be confirmed or corrected not less than 3 hours prior to arrival. Time must be GMT.

The following information must be included in the ETA message:
(1) Name and call sign of vessel.
(2) Nationality.
(3) Length, draft and G.R.T.

Pilotage is compulsory for shifting and unberthing. Port Captain and tugs require 2 hours notice through the local agent.

Pilot Boarding Station: Lat. 26° 21′ 18″ S., Long. 70° 41′ 20″ W. Chanaral Radio stands by on VHF Channel 16 and 2182 kHz for giving information to the port authorities.

ANCHORAGE: In position Lat. 26° 20′ S., Long. 70° 40′ W. with Point Piedra Blanca bearing 118° – 1.5 miles. Depth of water 78 ft.

MAX. SIZE: LOA 250 m. Draft 40 ft.

Also see "Tankers".

TUGS: 2 tugs available.

BERTHING: *Codelco Pier:* New structure at Chanaral for loading general cargo. Length 39 m., width 39 m. Depth alongside 40 ft.

Codelco Mechanised Quay: At Point Piedra Blanca there is a mechanised pier, property of Codelco, for loading bulk iron ores. 60 m. long by 10 m. wide, with 14.5 m. depth; sand and mud bottom. Ores transported by means of a conveyor belt to a loading tower from which it is loaded direct to ship's hatches. At present, loading tower is fixed so that vessels have to be moved to change hatches. Loading rate is 1,000 t.p.h. Vessels up to 250 m. length, 40 ft. draft have loaded. Vessels moor at head of quay, which has 7 buoys (3 forward and 4 aft). In addition the quay is provided with bitts to secure mooring ropes, fore and aft.

Barquito:

Buoy No. 4: Suitable for mooring large vessels for loading of lighters only (general cargo). Vessels moor stern onto the buoy and discharge into lighters, which in turn discharge at the Pier Head (Barquito Pier).

Position of Buoy: Barquito Pier bearing 046° – 850 m.

Lines: 2 lines × 150 m. each required.

TANKERS: Buoys No. 1, 2 and 3 at Barquito are for the Oil Terminal.

The hose marker buoy is in position – Barquito Pier bearing 182° 400 m. Vessel's use starboard anchor to pivot onto the 2 stern buoys. The hose connection will then be made on the port side. Max. draft 50 ft. Max. length 250 m.

Lines: Forward: 2 lines × 150 m. length.
Aft: 4 lines × 200 m. length.

FRESH WATER: Available from tugs only, rate 30 t.p.h.

FUEL: Small amounts of diesel oil available by tug, rate 2.5 cu.m.p.h.

GANGWAY/DECK WATCHMEN: Usually ship's crew.

OPENING/CLOSING HATCHES: By ship's crew or stevedores, whichever to ship's advantage.

CERTIFICATES:
Safety Construction Certificate.
Safety Equipment Certificate.
Safety Radio Certificate.
Lights and Beacons Certificate (Chilean coast).
Pollution Certificate.

CUSTOMS ALLOWANCES: No fixed limits.

REPAIRS: No facilities for major repairs. Two shipyards to repair tugs and lighters only.

AIRPORT: The airport for small planes is located 2 km. North of Chanaral. Commercial airport 150 km. away.

TIME: GMT minus 4 hours between March and October. From October to March GMT minus 3 hours.

POLICE/AMBULANCE/FIRE: Maritime police, Tel: 80047 or VHF Channel 16 or 2182 kHz.

AUTHORITY: Codelco Chile, P.O. Box No. 48, Chanaral, Chile. *Tel:* 80031. *Cables:* Codelco Chile. *Contact:* Rene Acevedo Ginstinianovic, Maritime Agent, Codelco.

COQUIMBO: (Also see page 324)

PORT LIMITS: An area limited by parallel of Latitude 29° 56′ S., meridium of Longitude 71° 20′ W., and the shoreline of Peninsula Coquimbo.

DOCUMENTS: Documents required from a vessel are:
8 copies Crew List.
4 copies Passenger List.
1 copy Vaccination List.
2 copies Personal Effects List.
1 copy General Manifest.
5 copies Manifests for the Port.
4 copies Dangerous Cargo List.
3 copies Stores List.
1 copy Sanitation Certificate.
3 copies General Information.
1 copy Clearance from Last Port.
Ship's Documents and Certificates.

PILOTAGE: Pilotage is compulsory for all vessels proceeding to quay. Service is requested through Agent. Pilot boarding point is about 1 mile East of Punta Tortuga Lighthouse. Pilot boat is a small commercial motor boat or launch. As vessels approach heading South, boarding is effected on the port side.

ANCHORAGES: Good anchorages can be found N.N.E. to E.N.E. from the quay at distances from 0.6 miles to 1.2 miles, with depths varying from 10 m. to 23 m. A forbidden zone, surrounding the quay, is shown on charts.

RESTRICTIONS: No night time or tidal restrictions for mooring. Vessels can berth and unberth 24 hours a day.

MAX. SIZE: No restriction on length or breadth, unless other vessel at the quay. Draft restrictions are 27 ft. 6 in. for Berth No. 1 (the Southernmost) and 29 ft. 6 in. for Berth No. 2. Some allowance may be permitted in special cases, according to tide height.

HEALTH: Vessels must obtain Pratique in every port of call in Chile. Pratique is requested and coordinated by the Agent. In case of any suspected disease or fever onboard, proper and timely notice must be sent to Port Captain and Agent.

RADIO: The main coastal station is Playa Ancha Radio, call sign CBV. The Station is connected to the other coastal stations and is provided with a Telex system for ships, No. 01860. Vessels can also contact their Agent by satellite system, on the telex.

VHF: There is a local VHF station, operated by the Port Captain, call sign is "Coquimbo Radio". It can be contacted through Channel 16. It also broadcasts local weather reports.

RADAR: No Port Radar Service.

TUGS: There are 2 tugs for assisting with berthing. Assistance is compulsory under certain conditions, these are stated in the Port Regulations. Ship's or tug's lines may be used, no additional charge if tug's lines used.

BERTHING: There is one quay 378 m. long, having 2 berths of approximately 180 m. usable length each. Permitted drafts are 27 ft. 6 in. for Berth No. 1 and 29 ft. 6 in. for Berth No. 2, both in salt water.

Loading and discharging operations can be performed either with ship's gear or shore equipment, depending on conditions.

Grain cargoes are handled at Berth No. 2, while general cargo can be handled at any berth.

CRANES: There are 6 electrical, rail mounted cranes, with 5 tons lifting capacity and 17 m. reach, that can operate through both berths. There also exists a heavy lift truck crane, with 27 tons capacity at 3.5 m. reach. At greater outreach the capacity decreases.

BULK CARGO FACILITIES: Berth No. 2 and adjacent yards and warehouses are scheduled for bulk cargo handling. Max. permitted draft is 29 ft. 6 in., with some allowance in tidal height for special cases.

Shore equipment for bulk cargo handling consists of 2.0 cu.m. grabs, 3.0 cu.m. trays and 2 movable electrical conveyor belts with a max. airdraft of 8.5 m. on ship's side.

Handling rates are approximately 60 t.p.h. for grabs and trays, and 200 t.p.h. for conveyor belts. These rates vary according to nature of product being handled.

Bulk cargoes normally handled at this port are manganese, copper ore, copper concentrate, coal, fishmeal and wheat grain.

SPECIALISED CARGO HANDLING FACILITIES: No facilities. However, spacious yards are available for the storing of containers.

STEVEDORES: Stevedore services are arranged by Agent, based on customary ETA notice and ship's needs.

Labour time is 24 hours a day, with a 3-shift system, for general cargo as well as for bulk cargoes.

MEDICAL: Advance notice to obtain medical care is not normally required, unless some urgency arises. Medical and dental care is available, as well as hospital facilities, both in Coquimbo and La Serena, a city nearby.

Normal vaccination required is International Yellow Fever. No vaccinations available in Coquimbo.

TANKERS: No oil piers in Coquimbo.

DENSITY: Average density is 1025.5.

FRESH WATER: Fresh water is available for ships alongside from shore connections. Ship's hoses must be used. Approximate delivery rate is 7 t.p.h. at a cost of US$0.25 per ton.

FUEL: Vessels alongside can take diesel oil only, from trucks. 72 hours notice to Agent is required.

FIRE PRECAUTIONS: Normal precautions to be taken.

CONSULS: Sweden, Spain, Italy, Peru.

REPAIRS: Minor mechanical and electrical repairs only. Diver services available.

DRY DOCKS: No dry docks for merchant vessels. A landing ramp for fishing and special craft is available.

SURVEYORS: Independent cargo surveyors available. No surveyors from classification societies, but they can be appointed from Valparaiso, with an advance notice.

GANGWAY WATCHMAN: Available, at Master's option and request.

HATCHES: Opening and closing by ship's crew.

CUSTOMS ALLOWANCES: Reasonable amounts of tobacco and spirits for personal use permitted out of bond.

CARGO GEAR: Loading and discharging operations can be performed by ship's gear or shore equipment.

REPATRIATION: Crew changes and repatriations can be effected through Santiago International Airport, 450 km. to the South.

AIRPORT: 20 km. from Coquimbo is located La Florida domestic airport, served by daily flights. In Santiago, the capital, international connections can be found to different countries.

TIME: Official time zone is GMT minus 4 hours. Summertime (GMT minus 3 hours) is kept from October to April.

HOLIDAYS: January 1st; Holy Week (Friday, Saturday and Sunday, at the end of March or beginning of April); May 21st; June 29th; August 15th; September 18th and 19th; October 12th; November 1st; December 8th and 25th.

POLICE/AMBULANCE/FIRE: Telephone numbers are:

Police	311111
Ambulance	311101
Fire	311371

EMERGENCY COORDINATION CENTRE: Port Captain. Tel: 311055. VHF Channel 16.

TELEPHONES: No ship connections.

SERVICES: No special services or specialised nautical supplies. Some minor electronic repairs and compass adjusting available.

BANKS: A number of Chilean banks are established in Coquimbo.

STORING: Available. In small quantities, supplies can be delivered by motor boat. Mainly, storing is carried out by trucks alongside, shore personnel and fork lifts available to assist.

Customs Regulations are ship chandler's matter.

SHIP SUPPLY SERVICE: There are ship chandlers in Coquimbo. They can be appointed through Agents.

SHORE LEAVE: Permitted.

IDENTIFICATION CARDS: Every crew member going ashore must carry his shore pass, issued by Immigration.

DELAYS: Some delays can be expected during Summer season, as traffic is greatly increased by fruit exports. During the rest of the year there are no delays.

DEVELOPMENTS: No developments planned in the near future.

GENERAL: As a result of the increase in fruit exports, reefer warehouse capacity has been increased.

CORONEL: (Also see page 324)

BERTHING: *Mechanical Pier:* Depth 40 ft. Max. LOA 220 m. There are 3 mooring buoys, and the vessel berths starboard size alongside. Port anchor is used with up to 8 shackles. Loading rate 200 t.p.h. Vessel will be required to shift so that each hatch is under the loading arm. Vessel will berth alongside 4 dolphins and head lines and stern lines will be made fast to 2 pylons. The berth is exposed to Northwesterly winds and vessels should be ready to sail at short notice.

FRESH WATER: Available at a rate of 140 tons per day.

GUAYACAN: (Also see page 325)

PORT LIMITS: A line joining Punta Miedo on Northern side of entrance and Punta Herradura on Southern side.

DOCUMENTS: See "Coquimbo".

PILOTAGE: Compulsory. All foreign vessels must pick up Pilot in Coquimbo. Chilean vessels can proceed to Guayacan and pick up Pilot inside the port limits. Pilotage service is requested through Agent.

ANCHORAGES: The bay is well sheltered and has good holding ground. Best place to anchor can be found heading on the entrance leading marks (140° True) and dropping anchor in 33 m. depth. Nevertheless, vessels awaiting berth must proceed to Coquimbo for an anchorage.

RESTRICTIONS: No night-time or tidal restrictions. Vessels can moor 24 hours day.

MAX. SIZE: *Ore Pier:* LOA 315 m., beam 50 m., draft 16.20 m. and 200,000 d.w.t.

Oil Pier: LOA 190 m., draft 12.0 m. and 41,000 d.w.t.

HEALTH: See "Coquimbo".

RADIO: See "Coquimbo".

VHF: See "Coquimbo".

RADAR: No service available.

TUGS: No tugs available.

TANKERS: There is an oil terminal with 2 mooring buoys for the discharge of clean products. Max. permitted draft is 12.0 m. Discharge is performed with ship's pumps.

Hose connection to the oil terminal is 8 in. diameter and is connected on the starboard side. Max. working pressure is 80 p.s.i., which makes an approximaste average delivery rate of 450 cu.m./hr.

No slop or ballast storage capability. No special equipment for spill control.

Vessels use both anchors and 2 buoys on the port and starboard quarter.

MEDICAL: See "Coquimbo".

DENSITY: 1025.5.

FRESH WATER: Not available.

FUEL: Diesel oil available at the Ore Pier by truck. Agent required 72 hours' prior notice.

FIRE PRECAUTIONS: Usual precautions for tankers.

CONSULS: See "Coquimbo".

REPAIRS: See "Coquimbo".

DRY DOCKS: None.

SURVEYORS: See "Coquimbo".

GANGWAY/DECK WATCHMEN: Available, at Master's option.

HATCHES: Opening and closing by ship's crew.

CUSTOMS ALLOWANCES: See "Coquimbo".

CARGO GEAR: Shore gear used at Ore Pier.

REPATRIATION: See "Coquimbo".

AIRPORT: See "Coquimbo".

HOLIDAYS: See "Coquimbo".

POLICE/AMBULANCE/FIRE: See "Coquimbo".

EMERGENCY CO-ORDINATION CENTRE: See "Coquimbo".

TELEPHONES: No ship connecitons.

SERVICES: See "Coquimbo".

BANKS: See "Coquimbo".

STORING: See "Coquimbo".

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Issued by Immigration.

DELAYS: Usually no delays.

AUTHORITY:

Ore Pier: Cia. Minera de Pacifico, Pedro Pablo Munoz 675, La Serena, Chile. *Tel:* 215505. *Telex:* 220022 CMP LS CL.

Oil Terminal: Cia. de Petroleos de Chile, Camino La Herradura s/n, Coquimbo, Chile. *Tel:* 312424. *Telex:* 240048 COPEC CL.

HUASCO: (Also see page 325)

DOCUMENTS:

Amend:	6 Passenger Lists, or 3 No Passenger Lists. 3 Per Passenger, Baggage Declarations.
Add:	2 Cargo Manifests of Dangerous Elements.

PILOTAGE: Compulsory for every vessel mooring at Guacolda I and at Guacolda II.

Vessels wait for Pilot within area below:

(1) Lat. 28° 26′ 59″ S., Long. 71° 14′ 34″ W.
(2) Lat. 28° 26′ 52″ S., Long. 71° 14′ 10″ W.
(3) Lat. 28° 27′ 13″ S., Long. 71° 14′ 02″ W.
(4) Lat. 28° 27′ 20″ S., Long. 71° 14′ 20″ W.

ANCHORAGES: Large vessels' anchoring ground is 2.0 cables N.N.E. of Cayo Isle in 24 m. – 26 m., sandy bottom. Small vessels can anchorage 2.0 cables 090° from Cayo Isle in 12 m. of water, sandy bottom.

Depth is generally moderate and level with a sand and shell bottom. While at the maritime terminals of Guacolda I and II it is quite deep, around 16 m. to 50 m., which has to be taken into account when anchoring. The bottom at these terminals is mud, offering good holding ground.

Vessels can anchor without Pilot in the "Pilot Waiting Area". Pilot is compulsory for anchoring in the anchorage.

RADIO: *Amend:* Category – H3E.
Schedule – H24.

VHF: Vessels can communicate with the Port Captain to advise their arrival and must call the Pilot Station 2 hours before arrival through Channel 16.

BERTHING: There are 2 cargo terminals in service, Guacolda I for general cargo and Guacolda II, the mechanised one, for loading iron ore and "pellets", both are the property of Compania Minera del Pacifico. The particulars of these installations are:

	Guacolda I	*Guacolda II*
Max. LOA	260.0 m.	315.0 m.
Max. Draft	13.5 m.	25.0 m.
Max. Air Draft	—	23.6 m.
Max. Loading Rate	—	6,000 t.p.h.
Loading Arm Reach	—	42 m.

The cargo terminal of Santa Barbara is at present out of order.

Guacolda I Terminal: Normally used to discharge fuel, coal and general cargo for the Pellet Plant of Huasco.

The installation of the old mechanised system is being dismantled and only part of the shiploader is left standing.

Guacolda II Terminal: Used for loading iron ore in "pellets".

Warping the Vessels: Vessels docking at Guacolda I must have at least 8 lines of 260 m. and 7 lines of 220 m. For docking at Guacolda II, vessels must have 12 lines of 260 m. and 6 lines of 220 m.

STEVEDORES: There are 86 stevedores for doing the work on board. Working hours are 0800 – 1530, 1530 – 2300 and 2300 – 0800.

MEDICAL: Hospital at Huasco with specialist services. 2 dentists and 2 doctors also available. There is a more specialised hospital in Vallenar, about 50 km. from Huasco.

DENSITY: 1026.

TANKERS: Tankers berth at Guacolda I, see "Berthing".

FUEL: Diesel oil available at Guacolda I.

OPENING/CLOSING HATCHES: By crew or stevedores.

IDENTIFICATION CARDS: Passport or Seaman's Book.

CONSULS: None.

CERTIFICATES:
Safety Construction Certificate.
Safety Equipment Certificate.
Safety Radio Certificate.
Load Line Certificate (1969).
Oil Record Book.
Responsibility for Pollution of Water Certificate.

Gas Free Certificate: Compulsory for OBO type vessels when the last cargo was fuel. The inspection must be requested from Port Captain, who sends an inspector and makes the certification.

REPATRIATION: Crew changes and repatriation possible.

EMERGENCY CO-ORDINATION CENTRE: Capitania de Puerto Huasco. VHF Channel 16; HF 2182 kHz. Telephone No. 11.

HOLIDAYS: New Year's Day, Christmas, Hispano America's Day, Independence Day, Army Day, Navy Day, Saint Peter and Paul's Day, September 11th, Assumption Day, November 1st, Memorial Day, Corpus Christi and Immaculate Conception.

CUSTOMS ALLOWANCES: Tobacco: Each man 500 cigarettes per week. Wine and spirits: Each man 2 bottles of wine or spirits per week.

STORES: It is possible to obtain provisions in limited form. Requisition must be made in advance.

AUTHORITY: Armada de Chile, Direccion General del Territorio Maritimo y de Marina Mercant, Capitania de Puerto Huasco, Chile.
Contact: Capitan de Puerto de Huasco.

IQUIQUE: (also see page 326)

PORT LIMITS: The area inside the following geographical points:
(1) Lat. 20° 11′ 10″ S., Long. 70° 09′ 30″ W.
(2) Lat. 20° 11′ 10″ S., Long. 70° 08′ 09″ W.
(3) Lat. 20° 12′ 05″ S., Long. 70° 09′ 30″ W.

PILOTAGE: Compulsory. During the day, the Pilot cutter displays the "H" flag of the International Code, and at night the lights prescribed by the International Regulations.

There is a pilot boarding area between the following geographical points:
(1) Lat. 20° 11′ 10″ S., Long. 70° 09′ 30″ W.
(2) Lat. 20° 11′ 10″ S., Long. 70° 09′ 11″ W.
(3) Lat. 20° 11′ 25″ S., Long. 70° 09′ 11″ W.
(4) Lat. 20° 11′ 25″ S., Long. 70° 09′ 30″ W.

There is no restriction on berthing and unberthing. Manoeuvres take place 24 hours.

The telegraphic address for the Pilot is "Maritgob Iquique TLX 323156 IQQ CK". It is necessary to give prior notice of Pilot requirement 72 hours and 24 hours ahead of arrival, indicating maximum draft.

Channel for calling the Pilot is VHF Channel 16, working is on Channel 8. The Pilot Boarding Area is beyond the port limits.

ANCHORAGES: *Access:* Access to the bay is not difficult. The entrance and/or exit of the port has intense fishing boat traffic.

Anchorages: There are 3 established anchorages which can be used without a pilot onboard.

The anchorage locations are as follows (bearing and distance from lighthouse Molo de Abrigo).

Anchorage	*Demarcation*	*Distance* (cables)	*Depth* (m.)
A	325°	7.0	42
B	303°	9.5	45
C	290°	5.0	26

Note: Anchorage "C" has a draft limitation due to a near sounding line of 12.7 m.

To the West part of these anchorages, vessel may anchor freely, as the depth varies from 20 m. – 60 m.

MAX. SIZE:
Berths No. 1 and 2: Max. draft 8.5 m.
Berths No. 4 and 5: Max. draft 8.6 m.
Berths No. 6 and 7: Max. draft 9.0 m.
Also see "Berthing" and "Tankers".

RADIO: *Amend Line 3:* Via Playa Ancha Radio – CBV.

VHF: "Iquique Radio" controls the maritime traffic and there is VHF equipment to facilitate communications between vessel and Pilot, calling up on Channel 16. The Pilot and tug use walkie talkies which have Channel 16 and Channel 8.

TUGS: 1×1,200 h.p. and 1× 620 h.p.

BERTHING: Inside the breakwater are Berths No. 1, 2 and 3. No. 3 is permanently used by deepsea fishing vessels. On the mooring pier on the West side are Berths No. 4 and 5, and on the East side Berths No. 6 and 7.

Loading and discharging is by cranes and/or ship's derricks.
Berths No. 1 and 2: Length 270 m.
Berths No. 4 and 5: Length 330 m.
Berths No. 6 and 7: Length 270 m.

Patillos Cove: It is situated 33 miles South of Iquique. Vessels berth to 5 buoys, but must move to present each hatch to the port loader. Mooring and unmooring operations must be carried out during daylight hours.

The use of Pilot is compulsory.

The loading of salt is carried out by means of a mechanical, stationary conveyor with capacity of 550 t.p.h.

Max. Size:

Max. LOA:	200 m.
Max. beam:	30 m.
Max. draft:	12 m.
Max. d.w.t.:	40,000 tonnes

Port Limits: Comprise a limited area between a line joining Point Cotitira and Point Patillo.

Waiting Zone for Pilot:
Comprised of an area within the following geographical points:
(1) Lat. 20° 44′ 18″ S., Long. 70° 11′ 56″ W.
(2) Lat. 20° 44′ 20″ S., Long. 70° 11′ 43″ W.
(3) Lat. 20° 44′ 38″ S., Long. 70° 11′ 46″ W.
(4) Lat. 20° 44′ 36″ S., Long. 70° 11′ 59″ W.

CRANES: *Delete 2nd line.*

MEDICAL: In the event of any serious case or an emergency it is necessary to advise the Agent, otherwise advice should be by VHF Channel 16. Iquique port has a modern hospital and clinics with sufficient medical resources where crew members can be treated.

STEVEDORES: Gangs of stevedores for ship and shore must be requested from the Port Authority who will give the final instructions.

The port works 3 shifts, in the following schedules:

1st shift:	0800 hrs. – 1530 hrs.
2nd shift:	1530 hrs. – 2300 hrs.
3rd shift:	2300 hrs. – 0630 hrs.

TANKERS: Loading and discharging is by submarine line. There are no deballasting facilities in the Port. In front of El Colorado Beach there are three groups of buoys, each with 3 buoys, for mooring tankers.

The North group is for the Esso Terminal, for loading or discharging clean or dirty products, and the South group is for the Copec Terminal for loading and discharging clean or dirty products.

Esso Buoy: Located to the North, and with the following limitations:

Max. draft allowed:	10.0 m.
Max. LOA:	170.0 m.
GRT:	15,000
DWT:	26,000

Copec Buoy: Located to the South part, and with the following limitations:

Max. draft allowed:	12.6 m.
Max. LOA:	228.0 m.
GRT:	40,000
DWT:	70,000

Vessels which moor at the tanker buoys, either Copec or Esso, must berth with the bow heading 270°. Mooring must be made in daylight, unmooring anytime.

FRESH WATER: Small quantities available by truck.

FUEL: Quantities of less than 300 tonnes can be delivered by truck. If greater quantities required, vessel should proceed to the Esso or Copec buoys (see "Tankers").

CONSULS: *Add:* Netherlands.

SURVEYORS: *Add:* Bureau Veritas and A.B.S.

GANGWAY/DECK WATCHMEN: It is necessary and compulsory for all vessels to have secuirty guard at the gangway, and in case of hazardous cargo the Maritime Authority requires a second guard.

OPENING/CLOSING HATCHES: Crew or stevedores.

DRY DOCKS: *Amend:* 1 dry dock.

HOLIDAYS: 1st January (New Year's Day); 1st May (Labour Day); 21st May (Navy Day); 2nd June (Corpus Christi); 29th June (Saint Peter and Paul); 15th August (Assumption); 11th September (Liberation National Day); 18th September (Independence); 19th September (Army Day); 12th October (Race Day); 1st November (All Saints' Day); 8th December (Immaculate Conception) and 25th December (Christmas).

There is also Holy Week which is a movable holiday between end March and middle of April.

LOTA: (Also see page 328)

PILOTAGE: Compulsory. The Pilot should be requested at Talcahuano.
MAX. SIZE: Max. LOA 110 m. Max. draft 27 ft.
BERTHING: Vessels moor to 4 buoys, using both anchors, and lie with their bows heading 190°. The pier is 227 m. long, depth varies from 29 ft. at the head to 23 ft. at the 149 m. mark.

Loading rate for coal 300 t.p.h. – 400 t.p.h.

FRESH WATER: Available at a rate of 65 tons per day.
CONSULS: At Concepcion.

PUERTO MONTT: (Also see page 328)

PORT LIMITS: Between the meridian that crosses the head of "Muelle del Frigorifico" to 72° 59′ W. and from the parallel 41° 29′ 42″ S. to the North coast in Reloncavi Bay.
DOCUMENTS: The documents to be presented to the Authorites are:
General Declaration.
Crew List.
Personal Effects Declaration.
Cargo Manifest.
IMO Goods Manifest.
Safety Radio Certificate.
Safety Equipment Certificate.
PILOTAGE: Pilotage is compulsory and must be ordered by Agent on receipt of vessels's ETA at least 24 hours in advance. Otherwise request directly to Port Captain, cable address "Capitania de Puerto de Puerto Montt". Vessels should anchor as indicated below and exhibit code flag "G". Pilot boards from a motor boat at the anchorage. Pilot boat equipped with VHF.

If vessel is arriving without a channel Pilot, then Pilot must be requested at least 48 hours in advance and Pilot boards from a motor boat at the Ancud Port Anchorage, Pilot boat equipped with VHF.

ANCHORAGE: Vessels of any size can anchor in the outer roads of the port. Recommended positions are at 4 cables 172° of the light on the head of "Muelle de Pasajeros" (Lat. 41° 28′ 50″ S., Long. 72° 56′ 52″ W.). and 7 cables 085° from point of Tenglo Island. (Lat. 41° 29′ 42″ S., Long. 72° 56′ 45″ W.). Anchorage is 35 m. deep and bottom is sand.
RESTRICTIONS/MAX. SIZE: Vessels must turn inside "Canal Tenglo" before leaving. Vessels less than 120 m. in length are not restricted. Vessels over 120 m., but less than 172 m. in length must turn inside "Canal Tenglo", during daylight hours only and with the flood tide. Vessels over 172 m. but less than 200 m. enter the port and leave during daylight hours only. Vessels over 200 m. can enter the port and leave, but during the flood tide in daylight hours only. All manoeuvring is effected in favourable weather. Max. draft permitted is 8.0 m. plus the minimum height of the low tide, during vessel's stay in port.
HEALTH: All ships are boarded by the Authorities on arrival, unless they are coming from another Chilean port.
RADIO: Puerto Montt Coastal Station operates 24 hours on HF (H3E/ J3E0) and VHF channels.

Telex Address: VTR 370064 CBP/CK.
Tlxch: 270038 CBP/CL.

VHF: Port Captain VHF Station operates on VHF Channels 16 and 14 between 0730 hrs. and 2400 hrs.
TUGS: There is a tug of 720 h.p. owned by Sud Americana Agencias Aereas y Maritimas (SAAM), and another small tug of 360 h.p. owned by Agemar.
CRANES: 4×3 tons capacity.
OPENING/CLOSING HATCHES: Ship's crew or stevedores.
POLICE/AMBULANCE/FIRE; Police Tel: 252240. Fire Tel: 252222. Ambulance Tel: 253991.
AUTHORITY: Gobernacion Maritima de Puerto Montt, Diego Portales Av. 2300, Puerto Montt, Chile. *Tel:* 252389-253051. *Telex:* 270007. *Contact:* Sergio Swett Soto, Maritime Governor.

PUNTA ARENAS: (Also see page 329) (Including Lenadura, Cabo Negro, Clarence Cove, Gregorio, Pecket).

DOCUMENTS: See "General" before first port.
PILOTAGE: Compulsory for foreign vessels. Vessels entering from Pacific will usually embark Pilots in Valparaiso or Ancud or Laitec. Vessels coming from the Atlantic embark Pilots in Bahia Possession, 30 miles to the West side of the Eastern entrance of Magellan Strait, Pilot boats have radio telephone frequencies of 2,182 kHz and 2,638 kHz and VHF Channel 16. Four hours before arrival of the vessel, the pilot boat keeps watch on Channel 16. Pilot boat carries International Pilot lights; ETA at Bahia Possession has to be given at least 24 hours in advance. In bad weather, vessel has to anchor and wait in a circular area of one mile of radius with the centre placed at 216° – 2.7 miles off Possession Lighthouse.

Pilots usually board and disembark off the lighthouse of Punta Delgada.

The Pilot for West-bound vessels travels to Bahia Possession by air from Valparaiso. It is therefore important to order the Pilot through Valparaiso Agent with as much advance notice as possible, and keep Agent closely advised of vessel's ETA.

For vessels transitting Magellan Straits Westbound, the Pilot will disembark at Valparaiso or Ancud or Laitec. Pilot's travelling expenses from and to Valparaiso are included in pilotage charges.

It is advisable to have accommodation ladder rigged as the Port Authorities will board prior to berthing if cargo work is to commence immediately.

ANCHORAGE: Anchor berths A – G are situated East and Southeast of Muelle Prat. Anchorage is prohibited within 1,300 m. of the Fiscal Quay. Vessels should be ready to leave the anchorage on orders from the Port Captain, or in the event of bad weather from the East.
RESTRICTIONS: No tidal restrictions, vessels can come alongside day or night. Max. length 170 m.
MAX. SIZE: *Delete last sentence.*
HEALTH: At first Chilean port, doctor will come aboard with Authorities. In other Chilean ports, there is no need to ask for Pratique or hoist the "Q" flag as Pratique is automatic.
RADIO: The Radio Station Magallanes Radio (CBM) keeps a permanent watch on 500 kHz (A1A, A2A), 2,182 kHz (H3E) and 156.8 MHz (Channel 16 VHF).

All the communication services are included in the List of Coast Stations and List of Radio determinations and special services of the ITU.

To the West of the Magellan Strait there are 2 Radio Stations:

Radio Station Evangelista (CBM-3) has permanent watch on 2,182 kHz (H3E) and 156.8 MHz (Channel 16 VHF).

Radio Station Felix (CBX) has permanent watch on 500 kHz (A1A, A2A), 2,182 kHz (H3E) and 156.8 MHz (Channel 16 VHF).

All ships must give identification on request of the Radio Stations, Chilean Warships or merchant vessels operating with Chilean Pilots.

To the East of the Magellan Strait exists Radio Station Punta Delgada which keeps permanent watch on 2,182 kHz (H3E) and 156.8 MHz (Channel 16 VHF).

It also has a Radar Control System which assists with safety of all ships operating from Dungenes to First Narrow.

TUGS: Used to go alongside in Punta Arenas tanker terminals, ship's lines used.
BERTHING: A berth should be requested 24 hours before arrival. The pier is 372 m. long with 27 ft. – 26 ft. on the North side and 22 ft. on the South side (depth at the seaward end). Depth reduces on both sides towards the land. Vessels berth bow first and care must be taken to avoid the shallow patches on both sides of the jetty about 120 ft. off. Normally, 4 head lines, 4 stern lines and 2 or 4 springs are used.

Rest of text unchanged.

BULK HANDLING FACILITIES: *Pecket:* (Coal). Position Lat. 52° 56′ S., Long. 71° 13′ W. Max. length 220 m. Max. draft 14 m. Displacement 80,000 tonnes, final heading 260° T. There are 2 buoys; 4 lines sent to forward buoy and 3 lines to stern buoy. Starboard anchor will be used. Vessel port side alongside to the jetty and 2 lines to the Duke of Alba No.1; 2 lines to the Duke of Alba No. 2; 4 spring lines to the Duke of Alba No. 3 and 4 lines to the Duke of Alba No. 4. Tug assistance is compulsory for mooring and unmooring. Ship's loader rate is 2,000 tonnes p.h.
TANKERS:
Lenadura: Amend size: Max. length 175 m., draft 23 ft. displacement 20,000 tons.
Cabo Negro: Position Lat. 53° 01′ S., Long. 70° 51′ W. Max. length 200 m. Draft 42 ft. Vessels berth port side alongside, using the starboard anchor. The manifold hose is 10 in. Gas is loaded at 1,000 t.p.h. A tug is compulsory for berthing.

Cabo Negro Pier has been improved to handle ships up to 45,000 d.w.t.

Clarence Cove: Amend Size: Max. length 250 m.
Gregorio: Amend Size: Max. length 250 m. Max. draft 49 ft. (subject to tidal conditions). 75,000 tons displacement.
MEDICAL: No advance notice to Agent required. There is a hospital with all facilities.
CONSULS: *Delete:* France, Greece, Italy, Norway, Paraguay and Spain.
REPAIRS/DRY DOCKS: "Asmar" (Astilleros de la Armada) has a shipyard for small vessels up to 1,500 tons as well as a good workshop to effect floating repairs. Some marine spares can be obtained.

Asmar Ovalle Moore have a small dry dock, maximum capacity 4,000 short tons and 130 m length.

DEVELOPMENTS: Berths No. 1 (North) and No. 1 (South) are being dredged to 33 ft.

QUINTERO: (Also see page 330)

PILOTAGE: *Delete:* Pilot usually boards between 0700 hrs. and 2200 hrs.

SAN VICENTE: (Also see page 332)

RESTRICTIONS: Berthing or unberthing from 0000 hrs. to 2400 hrs., weather permitting. For tankers, daylight only.
BERTHING: *Amend:*
Cap Pier: North, draft 32 ft. 06 in. ....
South, draft 26 ft. ....
General Cargo Berths:
Pier 1: Length 215 m., draft 37 ft. ....
Pier 2: Length 225 m., draft 39 ft. at any time, 1 crane for bulk cargoes, ...
ENAP Berth "B": 1 hose with 18 in. connection.......
ENAP Berth "C": ....8 shackles starboard side.......
2 hoses with 12 in. and 16 in. connections.......
FUEL: Diesel available by truck.
CARGO GEAR: Ship's gear. 1 crane for bulk cargoes, rate 200 t.p.h. Heavy lift crane with 50 tons' capacity.

TALCAHUANO: (Also see page 332)

PILOTAGE: Compulsory. Pilot boards 3 cables off Belen Lighthouse.
ANCHORAGES:
Anchorage Positions:
(1) Lat. 36° 42′ 00″ S., Long. 73° 05′ 14″ W.
(2) Lat. 36° 42′ 00″ S., Long. 73° 04′ 51″ W.
(3) Lat. 36° 42′ 18″ S., Long. 73° 04′ 51″ W.
(4) Lat. 36° 42′ 18″ S., Long. 73° 05′ 14″ W.
Explosives Buoy: Lat. 36° 06′ S., Long. 73° 05′ 14″ W.
Quarantine Anchorage: Vessels in quarantine must anchor 182° from Belen Lighthouse and 7 cables off.

Vessels that transport explosives are anchored in the same direction but 9 cables from Belen Lighthouse.

MAX. SIZE: Vessel that arrives with a draft of 29 ft. and length 180 m. can dock on the East side of the Government Pier.

RADIO: Talcahuano Radio, call sign CBT (Category S).

Frequency MHz	*Type*	*Receives* kHz	*Transmits* kHz	*Remarks*
5	A-1	500	500	24 hours
5	A-1	512	512	Working frequency
2	A3J	2182	2182	24 hours
4	A3J	4043.6	4143.6	Vessel request
	A3J	4063.0	4357.4	
	A3J	4125.0	4419.4	
6	A3J	6218.6	6218.6	

TUGS: 2×1,500 h.p. and 1×900 h.p.

The shipyard (Asmar) has 3 tugs; 2×285 h.p. and 1×1,000 h.p.

BERTHING: *Amend all before Passenger Mole:*
Government Pier: Berth No. 1 – Length 156 m. Berth No. 2 – Length 205 m.
Berth No. 1 – Max. draft 20 ft., Berth No. 2 – Max. draft 22 ft. Max. LOA 100 m.
Mole 500: (Naval base) Max. length 230 m., max. draft 27 ft.

Vessels moor with 4 head lines, 4 stern lines and 2 springs. Loading and discharging by ship's gear.

FRESH WATER: Available at Berths No. 1 and No. 2

VALPARAISO: (also see page 334)

PILOTAGE: Compulsory. Waiting area is with Punta de Angeles Lighthouse bearing 095°×2.02 miles.

ANCHORAGES: Outside the harbour and close by, vessels find good anchorage in 25 – 15 fathoms of water. it is always prudent to secure a good anchorage, owing to possible strong winds during all periods of the year which cause heavy swells.

In Winter, vessels anchor with one anchor with full chain and have another ready for emergencies. During Winter, it is not convenient to anchor near the coast due to the risk of dragging, during Summer the near to coast, the better.

The anchorge is marked on Chart No. 511, with Pier Baron bearing 168°, at a distance of not less than 600 m. Vessels under 100 m. LOA can anchor between Pier Baron and the breakwater head, position also indicated on chart.

RADIO/VHF: *Amend 1st paragraph to read:*
Maritime Radio Station of Valparaiso in Playa Ancha which attends the public maritime service. Coastal Radio Service (SRC) with its station situated in the Port Captaincy Building, attends the maritime service to receive information regarding arrival and departure and also provides information on safety of navigation, (call sign CBV-20).

TUGS: *Amend:* .....6 tugs.....

BERTHING:

Berth No.	1	2	3	4	5	6	7	8	9	10
Length (m.)	180	180	220	200	160	170	110	180	125	205
Depth (m.)	8.2	8.4	9.5	9.3	9.0	8.9	6.5	7.8	8.8	9.0
Quay cranes	5	5	4	—	—	4	—	—	—	—
Telephone	1	1	1	1	1	1	—	1	1	—

Berthing 24 hours.
Earthquake 1985: All berths are operational and cranes are in use.

FUEL: Copec, Shell Chile, or Esso Standard Oil deliver petroleum or diesel oil in any quantity needed by pipe-line at Salinas, approximately 5 miles North of the port, mooring vessel in 7 fathoms water to special buoys and embarking a Pilot at Valparaiso Port. Delivery is at a rate of 180-200 t.p.h. Diesel can be delivered by truck and by pipe at the quay.

GANGWAY/DECK WATCHMEN: Available.

OPENING/CLOSING HATCHES: Carried out by the stevedores or by ship's crew.

People's Republic of China

BASUO: 19.06 N. 108.37 E.

PILOTAGE: Compulsory. Pilotage is undertaken day and night. Pilot boards in the Quarantine Anchorage.

RESTRICTIONS: Entry and sailing possible after sunset.

MAX. SIZE: Max. draft in channel and in berths is 9.0 m.
Range of tide: 0.03 m. – 3.28 m.

VHF: Call sign XSH. Station on Channel 16 throughout 24 hours.

TUGS: 1×1,960 h.p., 1×1,670 h.p. and 1×980 h.p.

BERTHING:

District	*Berth* No.	*Length* (m.)	*Max. LOA* (m.)	*Max. Draft* (m.)	*Remarks*
No. 1	1 & 2	368	371	9.0	Ore
No. 2	3 & 4	320	360	9.0	General cargo

Warehouse and Open Store Space:

Warehouse	10,015 sq.m.
Open store space	60,000 sq.m.

Main Import and Export Cargo:
Imports: Fertiliser, cement, rice, equipment and coal.
Exports: Salt, ore, quartz, sand and local products.

STEVEDORES:
Working hours: 0730 – 1130 hrs. and 1430 – 1730 hrs.(Sundays and holidays included).

FRESH WATER: Available.

FUEL: Not available.

GENERAL: *Stores:* Provisions available from Basuo Ocean Shipping Supply Corporation.
Floating Cranes: None available.

HAIKOU: 20.01 N. 110.16 E.

PILOTAGE: Compulsory. Pilotage is undertaken day and night. Pilot boards vessel at quarantine anchorage.
Also see "Anchorage".

ANCHORAGE: Depth 4.0 m. – 18.0 m. Can accommodate vessels 20,000 d.w.t. – 25,000 d.w.t.
Pilotage Anchorage: Between Lat. 20° 05′ 14″ N. and Lat. 20° 05′ 36″ N. and Long. 110° 16′ 08″ E. and Long. 110° 16′ 51″ E.
Depth 15 m. – 18 m. Bottom: Mud and sand.

RESTRICTIONS: Entry and sailing after sunset is possible.

MAX. SIZE: Max. draft in channel 6.0 m.
Tidal range: 0.5 m. – 2.4 m. at Spring tides. 1.1 m. – 2.0 m. at Neap tides.
Also see "Berthing".

VHF: Haikou Radio on Channel 16 (24 hours). Penavico on Channel 9 (24 hours).

TUGS: 1×1,440 h.p., 1×1,320 h.p., 1×900 h.p. and 1×600 h.p.

BERTHING: For ocean-going vessels.

District	*Berth* No.	*Length* (m.)	*Max. LOA* (m.)	*Max. Draft* (m.)	*Remarks*
2nd District	9 – 11	340	120	6.0	General cargo
	14 – 18	440	150	8.0	Bulk
	15 – 16	230	50	4.0	General

Vessels arriving with a draft of over 6.2 m. are normally required to lighter at anchorage or await a suitable tide.
Warehouse and Open Store Space:

Warehouse	29,000 sq.m.
Open store space	86,000 sq.m.

Main Import and Export Cargoes:
Ore, local products and general cargo.

STEVEDORES: Work throughout 24 hours, 7 days a week.

FRESH WATER: Supplied by Haikou branch of China Marine Bunker Supply Company.

FUEL: Supplied by Haikou branch of China Marine Bunker Supply Company.

GENERAL: *Stores:* Supplied by Haikou Ocean Shipping Supply Company.
Floating Cranes: Not available.

SANYA: 18.14 N. 109.30 E.

PILOTAGE: Compulsory. Pilot boards in Quarantine/Pilot anchorage.
ANCHORAGE: *Quarantine/Pilot Anchorage:* Depth 20 m. – 28 m. Bottom: Mud. Max. Size: 50,000 d.w.t.
Sheltered Anchorage: Depth: 5.0 m. –16.0 m. Bottom: Mud and sand. Max. size: 50,000 d.w.t.
Loading/Discharging Anchorage: Depth 8.0 m. – 16.0 m. Bottom: Mud. Max. size: 50,000 d.w.t.
RESTRICTIONS: Entry and departure possible day and night. Depth in channel 7.0 m.
Tidal Range: 0.06 m. – 2.26 m.
VHF: Sanya Radio on Channel 16 (24 hours).
TUGS: 2×248 h.p., 1×400 h.p. and 1×300 h.p.
GENERAL: *Floating Cranes:* Available if notified in advance.
Supply Services: Arranged by Hainan Autonomous Prefective Sanya Ocean Shipping Supply Corporation.
Stevedores Working Hours: As per advanced arrangement with Haikou.
Warehouse and Open Store Space:

Warehouse:	9,034 sq.m.
Store Space:	51,000 sq.m.

Main Imports and Exports:
Imports: Grain, cement, chemical, fertilisers, coal and steel.
Exports: Salt, sugar, rubber and local products.

YINGKOU (Including Ba Yu Quan): 40.41 N. 122.15 E.

LOCATION:
Yingkou Working District: 40° 41′ N., 122° 15′ E.
Ba Yu Quan Working District: 40° 17′ N., 122° 06′ E.
PILOTAGE: Compulsory. Pilotage is undertaken day and night. Pilot boards vessel at Pilot/Quarantine Anchorage and (or) Lightening Anchorage.
ANCHORAGE: *Lightening Anchorage:* Depth: 9.0 m. – 12.0 m. Max. size: 30,000 d.w.t.
Ba Yu Quan Working Anchorage: Depth 11.0 m. – 12.0 m.
VHF: Harbour Bureau on Channels 16 and 18 (24 hours). Penavico on Channel 14.
TUGS: 1×3,600 h.p., 1×1,600 h.p., 2×980 h.p., 1×600 h.p., 1×428 h.p., 1×240 h.p. and 2×150 h.p.
Ice breaker of 3,000 h.p. available.
BERTHING:

Working District	*Name of Berth*	*Length* (m.)	*Permissible Draft* (m.)	*Cargo Handled*
Yingkou	No. 2 North	60.0	6.5	Oil
	No. 2 Middle	100.0	6.5	General Cargo
	No. 2 South	125.9	6.5	General Cargo
	No. 2 Grain	85.8	6.5	Grain
	No. 3	244.2	6.8	General Cargo
	No. 4	80.0	6.3	General Cargo
Ba Yu	Coal/General Cargo Berth	289.0	11.0 (depth)	Coal/General Cargo

Warehouses and Open Store Space:

	Warehouse	Open Store Space
Yingkou	270,000 sq.m.	240,000 sq.m.
Ba Yu Quan	77,000 sq.m.	—

Main Imports and Exports:
Exports: Maize and magnesium.
Imports: Steel, fertiliser, waste paper, cars and general cargo.
FUEL: Not available.
GENERAL: *Barges:* 3×1,000 tons (self propelled), 7×2,000 tons and 2×1,000 tons.
Floating Crane: Not available.
Supplies: Available from Foreign Shipping Supply Corporation.

Cyprus

LIMASSOL: (Also see page 415)

DOCUMENTS: *Add:*
Shipmaster's Report: October 1988.
Customs: 2 copies Entry Outward and Clearance.
2 copies Ship's Stores Declaration.
1 copy Crew Personal Effects Declaration.
Police: 1 copy Port and Marine Police Form.
Quarantine: 1 Maritime Declaration of Health.
Port Authority: 1 copy Arrival Declaration.
5 copies Crew List.
Agent: 1 copy Crew List.
1 copy Mail List.

Ecuador

GENERAL: (Also see page 451)

REPORTING: *Delete and substitute:*
Shipmaster's Report: January 1989.
The following telex was received whilst on passage to Ecuador.

REPORTING SYSTEM IN ECUADORIAN WATERS

Re: Resolution 088-87 – Comando de Guardacostas (COGUAR).
As per 1st July 1987, all vessels have to comply with Resolution 088-87, published Registro Oficial 8/6, i.e.:
– to report to Coast Guard (COGUAR) via coastal station "Guayaquil Radio" (HG) on international frequencies MF and HF:

Arrival (FR), Position (PR), Sailing (SP), Passing (Paso Inocente) (WP) with following formats:
ARRIVAL:
Shiprep
(a) FR (for arrival).
(b) Vessel's Name/Flag/Call Sign.
(c) Date + Local Hour. (6 figures)
(d) Last port.
(e) ——
(f) Actual course. (3 figures)
(g) Speed in knots. (2 figures)
(h) Next port. (Ecuador)
(i) ETA Ecuadorian Port. (Day/Hour/Min. – 6 figures)
SAILING:
Shiprep
(a) SP. (for sailing)
(b) Vessel's Name/Flag/Call Sign.
(c) Date + Local Hour. (6 figures)
(d) Next port.
(e) 4 figures for Lat. (N or S) + 5 figures for Long. (E or W).
(f) Actual course. (3 figures)
(g) Speed in knots. (2 figures)
(h) Last port.
(i) ETA next port.
POSITION:
Shiprep
(a) PR. (for position)
(b) Vessel's Name/Flag/Call Sign.
(c) Date + Local Hour (6 figures)
(d) ——
(e) 4 figures for Lat. (N or S) + 5 figures for Long. (E or W).
(f) Actual course. (3 figures)
(g) Speed in knots. 2 figures)
(h) ——
(i) ——
PASO INOCENTE:
Shiprep
(a) WP. (for paso inocente)
(b) Vessel's Name/Flag/Call Sign.
(c) Date + Local Hour. (6 figures)
(d) Last port.
(e) 4 figures for Lat. (N or S) + 5 figures for Long. (E or W).
(f) Actual course. (3 figures)
(g) Speed in knots. (2 figures)
(h) Next port.
(i) ETA next port.

The timing for the messages has to be done as follows:
FR – Entering the national waters, latest 12 hours before arrival at the port.
SP – Immediately after sailing.
PR – Twice daily, at 0800 hrs. and 2000 hrs.
WP – 3 hours before entering and 3 hours before leaving Ecuadorian waters.

Scope/area involved according Resolution 088-87:
Entering the 200 miles of territorial seas and the waters between the mainland and the Galapagos Islands.

NON-COMPLIANCE WILL PROVOKE FINES

Egypt

HAMRAWEIN: (Also see page 468)

SHIPMASTER'S REPORT: January 1989.
Location: Lat. 26° 15.5′ N., Long. 34° 12.2′ E.
Hamrawein Phosphate Terminal has a single jetty of 67 m. length and belongs to Misr Phosphate Company, Hamrawein. There are 2 mooring buoys. There are no leading beacons as mentioned in NP.64. All mooring operations and pilot are arranged by the shippers (Misr Phosphate).
Port Limits: 4 nautical miles off the coast.

Documents: Register, Safety Construction Certificate, Load Line Certificate, I.O.P.P., Safety Equipment and Safety Radio Certificates. 4 copies Crew List. 2 copies Stores List. 2 copies Crew Declaration. 2 copies Currency Declaration.

Free Pratique is usually granted after berthing when vessel boarded by Quarantine Officials.

Pilotage: Pilot is compulsory and boards 2-3 cables North of the North Mooring Buoy. The vessel is then turned around and re-approaches the North Mooring Buoy.

Approaches: Vessel should approach from sea, heading for the North Mooring Buoy. Vessel sets South towards the dangerous reefs which can be visually seen or picked-up on radar when at close range. The reefs are not marked by buoys, etc., but can be recognised by change in water colour.

Anchorage: The only anchorage available is one mile East of Kossier, as marked on B.A. Chart 3043.

Maximum Size: Vessels drawing 33 ft. can be accommodated.

Radio: Kossier Radio, call sign SUK, is recommended for all communications with agents, shippers, etc.

There is no VHF or WT station at the Terminal. There is no contact with pilot as pilot boat is not equipped with a radio. The pilot boarded from a rowing mooring boat with the pilot flag hoisted. The pilot boat was out of order.

Tugs: Not available.

Berthing: Vessel heads for the North end of the breakwater, keeping close to the North Mooring Buoy on the starboard side. When 30 m. off the breakwater, starboard anchor is let go to 4 shackles in water and vessel is swung around to make fast port side alongside. Mooring boat is used for sending lines ashore. A line is also made fast to the South Mooring Buoy. This assists when leaving the berth.

Loading: Two chutes are available with a good outreach, but only one can be used at a time. Vessel has to be shifted fore and aft frequently to place holds in position for the fore and aft chutes. Loading rate is high and a maximum rate of 7,000 tonnes per day can easily be achieved.

Medical: Seamen can be sent to doctor at Kossier or Safaga, after special permission granted by Immigration. Advance notice required.

Density: Average 1029.

Fresh Water: Not available at berth. Water has to be ordered from Safaga by barge. Rate US$22.00 per tonne, with minimum supply of 200 tonnes.

Fuel: Not available locally. Any requirements to be obtained from Safaga.

Repairs: No facilities available.

Customs Allowance: 200 cigarettes. Beer allowed. No liquor except wines allowed.

Watches, clocks, radios, cassette recorders, cameras, T.V. and videos are placed under seal by Customs.

Repatriation: Facilities exist for repatriation and for crew changes.

Airport: Nearest airport at Hurghada, which has regular flights to Cairo.

Time: GMT plus 2 hours. Daylight saving time, GMT plus 3 hours from March to September.

Shore Leave: Generally no shore leave allowed. If permitted, shore passes required.

Provisions: Fresh provisions and meat available and supplied by ship chandler from Kossier. No bonded items available.

Authority: Misr Phosphate Company, Hamrawein (Red Sea), Egypt. Tel: (Kossier) 39. Cables: Hamerpho, Kossier.

Agent: Damanhour, Safaga. Cables: Canal Shipping Safaga.

SUEZ CANAL: (Also see page 473)

DOCUMENTS: *Add:*

Shipmaster's Report: October 1988.

The following documents are required for Suez Canal transit:

Agent: 1 copy Crew List.
State Agent: 1 copy Vessel Information Form.
5 copies Crew List.
1 copy Navigability Form.
1 copy Cargo List.
1 copy Shipping Agency Inward/Outward Form.
1 copy Liferaft Certificate.
1 copy CO2 Certificates.
Vessel's Safety Certificates.
Customs: Free Zone Certificate.
Quarantine: Quarantine Questionnaire.
1 copy Crew List.
1 copy Clearance from Last Port.
1 copy Vaccination List.
Suez Canal Authority: 1 copy Crew List.
1 copy Vessel Information Form.
1 copy Double Bottoms Tank Capacity Form.

The following documents are required for vessels berthing at Port Said:

Agent: 1 copy Crew List.
Immigration: 2 copies Crew List. (Shore passes and Passports obligatory).
Quarantine: 1 copy Clearance from Last Port.
1 copy Quarantine Questionnaire.

MAX. SIZE: Last line: *Delete:* 5,000
Insert: 5,500

SUEZ CANAL – RULES OF NAVIGATION: (Also see page 480)

CHAPTER III: CONVOY SYSTEM (Page 486)
SECTION I: Article 49.
(c) ***Third Convoy (N2).***

Line 2: *Delete:* Max. draft 35 ft., max. beam 115 ft.
Insert: Max. draft 38 ft., max. beam 141 ft.

Circular No. 54/85: **Transit of VLCC's:** (Page 487).
Last line: *Delete:* 5,000
Insert: 5,500

Suez Canal – Southbound Second Convoy

For your guidance, vessels carrying chemicals in bulk respectively radio-active substances under IMDG Group 2 are now allowed to transit with the second Southbound Convoy (which makes fast at Ballah Loop) under conditions stated in S.C.A. Circular No. 154506 dated October 30th 1988.

CLARIFICATION TO ARTICLE 49 REGARDING VESSELS CARRYING CHEMICALS IN BULK.

Reference to our Rules of Navigation, edition January 1986, Article 49, concerning:

A. Vessels carrying chemicals in bulk.
Allowed to join N.2 Convoy, if having double bottom tanks.
B. Vessels carrying radio-active substances.
1. Allowed to join N.2 Convoy, if carrying IMDG group two.
2. Not allowed to join N.2 Convoy, if carrying IMDG group one.

With regard to para (A) above, we have received the following clarification concerning chemical tankers carrying liquid bulk chemicals:

Not allowed: to join N.2 Convoy if flash point is below 23°.

Allowed: to join N.2 Convoy if flash point is above 23° provided vessel has complete double bottom tanks and vessels must cable SCA Ismailia (via their agent) of their wishes to join the 2nd Convoy, giving details of cargo on board and flash point.

NOTICE: *Suez Canal Authority Circular No. 434150:*

Reference S.C.A. Rules of Navigation Article 50 and Circular No. 433659 dated 1/4/87.

In order to reduce ship's waiting time to a minimum, the following arrival times at anchor will be applied:

A. **Port Said**

1. Southbound Convoy (N.1):
As per Rules of Navigation, limit time of arrival is 1800 hrs.
Above mentioned time was extended by Circular No. 433659 dated 1/4/1987 to 1900 hrs.
As an additional facility, vessels arriving from 1900 hrs. to 2100 hrs., may join first Southbound Convoy (N.1), against an additional charge of 10% of the canal dues.
2. Southbound Convoy (N.2) – vessels fulfilling No. 2 specifications.
As per Rules of Navigation, limit time of arrival is 0200 hrs.
Above mentioned time was extended by Circular No. 433659 dated 1/4/1987 to 0300 hrs.
As an additional facility, vessels arriving from 0300 hrs. to 0400 hrs., may join second Southbound Convoy (N.2), against an additional charge of 10% of the canal dues.

B. **Suez**

1. Tanker Group (i.e. LPG and LNG loaded or NGF, third generation containerships, vessels over 38 ft. draft and loaded tankers):
As per Rules of Navigation, limit time of arrival is 0000 hrs.
Above mentioned time was extended by Circular No. 433659 dated 1/4/1987 to 0100 hrs.
As an additional facility, vessels arriving from 0100 hrs. to 0300 hrs., may join tanker group against an additional charge of 10% of the canal dues.
2. Other Vessels.
As per Rules of Navigation, limit time of arrival is 0200 hrs.
Above mentioned time was extended by Circular No. 433659 dated 1/4/1987 to 0300 hrs.
No time extension is permissible due to the formation of the convoy.

Note:
1. The limit time of arrival is the actual time of anchoring at the respective anchorage area stated in the Rules of Navigation.
2. This circular will be in force as from 1st December 1988.

Also see Article 49 (page 486), Notices (page 486) and Article 50 (page 488).

NOTICES:

Circular No. 93/88:

We append hereunder, free translation of Circular letter dated 2.10.1988 No. 434128 issued by the Director of Transit, Suez Canal Authority, Ismailia, which reads as follows:

> "Please ask Owners to advise Masters of vessels proceeding to transit Suez Canal to be kind enough and let us know directly and soonest possible of any ship carrying Waste Chemicals or if they observe any sign of Pollution, so that we may act accordingly for their own safety and the safety of the region."
>
> The above is commended to your kind attention.

Circular No. 94/88:

With reference to our Circular No. 11/86 of February 13th 1986, concerning the necessity of ensuring the efficiency of vessel's gear and derricks used for heaving and lowering mooring launches and searchlights.

We now wish to advise that a letter from the Canal Mooring and Lights, copied to the Director of Transit, Suez Canal Authority, was received on 17.10.1988 to the effect that it has been recently noticed the repetition of accidents sustained to mooring boats and their crew which are due to:-

- The high speed of vessels whilst heaving up or lowering the mooring launches.
- The necessity of ensuring the capability of vessel's wires and winches before such operations are done.

Therefore, the Canal Mooring and Lights Co., draw your kind attention to the above, and request your goodselves to put these operations under the supervision of an officer, and to be kind enough to report any negligence on the part of mooring men in putting on Life Jackets while heaving up or lowering their boats, avoiding such incidents for the sake of protecting their lives.

France

DUNKIRK: (Also see page 542)

SHIPMASTER'S REPORT: December 1988.

Pilotage: The pilot cutter cruises South of Dunkirk light-float when vessel is expected. The pilot boards from a small launch. Alternatively the pilot can board at Calais. Pilot on VHF Channels 16, 6 and 72. Pilot Office Telex No. 820902.

If vessel wishes to order a pilot for leaving, a minimum of 2 hours notice is required.

The transit time, including lock time, from time of pilot boarding until alongside in Stocknord (Mardyck Basin) is about 3 hours. Only one pilot used.

Anchorage: The anchor is 1.2 miles N.W. of Dunkirk light-float. The anchorage is exposed and the holding ground is poor. Vessels are to report to Dunkirk Pilot befcre anchoring.

Approaches: The approaches to the East Port are well buoyed. For large vessels the entrance is narrow, especially when swinging to starboard to enter Charles de Gaulle Lock.

Maximum size for entering the Lock: LOA 285 m., beam 45 m. and max. draft 14.2 m.

Tugs: Compulsory. Number of tugs required depends on size of vessel. Tugs meet vessel outside the breakwaters. Tugs require 4 hours notice and 2 hours cancellation notice at night, otherwise a charge is made.

Berthing: Stocknord and C.R.D. Berths for handling LPG in Bassin de Mardyck.

Stocknord is the Western of the 2 piers. The berth is capable of accepting the largest gas and product carriers. Vessel berthed head in.

Ethylene is handled at Berth No. 4 at the North West end of Stocknord Pier. A mooring boat is available for running lines. Vessel berthed with 2 headlines and 2 springs, fore and aft.

Cargo: Ethylene storage 5,000 cu.m. C2, C3 and C4 are imported and exported. The shore liquid arm is 8 in. (150 ASA) with automatic disconnect coupling fitted with a 6 in. (300 ASA) reducer. The vapour return line is a 6 in. (150 ASA) flexible hose. Shore supply the reducer and connect/disconnect the lines. The rate of discharge varies according to what the plant is doing with production. Sometimes one pump is used and at other times 5 pumps are used.

The shore plant places a telephone on board for communication with the Loading Master.

The surveyor, who came from Terneuzen, stays on board most of the time.

Fresh Water: Available.

LE HAVRE: (Also see page 548)

SHIPMASTER'S REPORT: December 1988.

The following is an update of Shipmaster's Report, dated June 1987, on page 552.

Anchorage: Waiting Area No. 1 is a small area for a port the size of Le Havre. The anchorage runs into Rouen Anchorage. Do not anchor within 1 mile of Le Havre Fairway which is radar controlled. The anchorage is exposed to all winds.

Pilotage: Small vessels without tugs are allowed to berth in very low visibility, dependent on Pilot/Master and vessel's radar. Vessels requiring tugs must have 250 m. visibility.

Tugs: Tugs not required in or out for smaller vessels, except if there are high winds. The tugs are powerful and the tug wire is used. One hour's notice required.

Locks: Vessels can also proceed to Gonfreville by way of the old locks at Rochemont/Vetillart (max. LOA 160 m., max. beam 22 m. and max. draft 8.0 m.) and Canal du Havre. The time taken from Buoy LH05 to Berth ATO2 via the old system is 3 hours.

Berthing: Vessels can also berth starboard side to at Berth AT02, but landing gangway is difficult.

Chemical Chicksans also available on berth. Max. loading rate 250 t.p.h.

General: Telephone: Nearest public telephone is at Sogestrol Office or at the car loading facility, about 1 mile down the road towards the lock.

It is possible to telephone the agent or the chandler from the jetty office.

Airport: Le Havre Airport is about 30 minutes by road from the berth. There are daily flights to and from Gatwick.

Rail Link: There is a good rail link with Paris, time of journey about 90 minutes.

MARSEILLES: (Also see page 554)

(b) PORT DE BOUC: (Also see page 556)

SHIPMASTER'S REPORT: December 1988.

The following is an update on Shipmaster's Report, dated October 1987, on page 558.

Berthing: Good fendering at both berths, except at A1 Berth, one fender aft has a steel face which can cause damage.

At A1 Berth vessels berth head-in starboard side alongside. At A4 Berth vessels usually berth starboard side alongside.

Cargo: At A1 Berth, the VRL for ethylene is now a 6 in. flexible steel hose.

Fuel: Gas Oil available from shore line at A1 Berth. Bunkering not allowed during cargo operations, but may be allowed during cooling down, depends on Shift Supervisor.

(c) FOS: (Also see page 558)

DOCUMENTS: *Add:*

Shipmaster's Report: October 1988.

1 copy Inward Declaration.
1 copy Outward Declaration.
1 copy Cargo Manifest.
1 copy Ship's Register.
6 copies Crew List.
3 copies Passenger List.
1 copy Maritime Declaration of Health.
2 copies Personal Effects Declaration.
2 copies Stores List.
2 copies Transit Cargo List.

SETE: 43.24 N. 03.42 E. **(See Late Plans)**

THE FOLLOWING INFORMATION SUPERSEDES THE ENTRY ON PAGE 568.

PORT LIMITS: The seaward boundaries of the Port within which a vessel is considered to be an "Arrived Vessel" are indicated as follows: To the South by a line with the red light of Eastward end of breakwater bearing 257°; to the East by a line with the church tower of Frontignan bearing 005°; to the North by coastline.

A second zone is a circle of 1 mile radius centered on a point located on the bearing 310° and at 2.8 nautical miles from Eastward end (Red Light) of breakwater. This zone is connected from a landing buoy (Lat. 43° 14.9′ N., Long. 03° 53.7′ E.) by a channel 1 nautical mile wide steering 326°. This channel is compulsory for tankers and chemical carriers who must report to French Navy (Toulon) before entering or leaving.

DOCUMENTS:
Cargo Manifest or Manifest of Ballast.
Certificate of Cargo Space.
Bills of Lading.
Ship's Register.
3 Crew Lists.
4 Passenger Lists.
Health Declaration, eventually vaccination list.
Derat Certificate or Exemption.
Declaration of Crew Personal Effects.
2 Provision Lists.
IOPP Certificate – National Certificate of Insurance for Oil Pollution Damage for tankers and "Fitness Certificate" for chemical carriers.

PILOTAGE: Request Pilot by international signals (sound, flags, light signals) or telephone through Marseilles Radio or VHF Channel 19, Tel: 91.25.26.24 (or pilot boat VHF Channel 12). Description of pilot boats; motor launch with black hull, white band, white anchor on hull at bow. Pilot embarks between 1 and 2 miles South of breakwater in good weather. In bad weather he embarks in the shelter of l'Epi Delon (Eastern Entrance). In any case, permission to enter is to be requested by VHF Channel 12 to "Sete Port Traffic".

ANCHORAGE: In Roads from 0.5 miles to 3 miles to South of breakwater. (See "Port Limits" and "Tankers").

RESTRICTIONS: *Commercial Harbour:* In the Canal Maritime, length max. 145 m., breadth 20 m., draft 7.0 m. (23 ft.).

Bassin a Petrole – see "Berthing".

MAX. SIZE: C.B.M.: Tankers up to 100,000 d.w.t., lightened draft 13.1 m. (43 ft.).

Bassin a Petrole: New Tanker Berth (P2) – 35,000 d.w.t., length 225 m., draft 11 m. (36 ft.) P1 – length 140 m., draft 33 ft. P3 – Barges.

Darse No. 2 for ore carriers 225 m. length; 13.18 m. draft (43 ft. 2 in.)

Commercial Harbour up to 11.0 m. draft (36 ft.).

Commercial Harbour in the Canal Maritime: max. length 140 m.; breadth 20 m., draft 6.85 m. (22 ft. 6 in.).

HEALTH: Pratique given by Health Officers or by Custom's Officers who board on arrival. If any case of suspected disease on board or any reason why vessel should not receive Free Pratique, Master should radio Agent before arrival, advising full details.

RADIO: Marseille Radio VHF Channel 19. Sete Port Traffic on VHF Channel 12. Port Authority Telex No. 480220.

TUGS: 3 tugs (2×1,200 h.p. and 1×2,200 h.p.) to be ordered from Compagnie Setoise de Remorguage. Tel: 67.74.64.49 or VHF Channel 12. Tow line to be furnished by ships. Vessels taken in tow near the breakwaters on the North side.

BERTHING:

Bassin du Midi:

North Quay: Berths No. 16, 17, 18, 19 and 20
Draft 6.50 m. (21 ft. 04 in.)
Cranes: 4 Fives Lille, 7.5 tons at 22 m. with scoop and hook.
All berths: Ore.

South Quay: Berth No. 14 Draft 7 m.
15 Draft 6.10 m. Ro/Ro
Cranes: 2 Fives Lille, 7.5 tons at 22 m.
All berths: Livestock and general cargo.

Canal Maritime:

Quai Paul Riquet: Berth No. 10 Draft 5.50 m.
11 Draft 6.40 m.
12 Draft 6.40 m.
13 Draft 6.10 m.
All berths: Wine and general cargo.
Cranes: Nil.

Quai Vauban: Berth No. 24 Draft 3.70 m.
25 Draft 4.60 m.
26 Draft 4.10 m.
Berths No. 25 and 26: Wine.
Cranes: Nil.

Quai Francois Maillol: Berth No. 27 Draft 5.80 m.
28 Draft 5.20 m.
29 Draft 5.20 m.
All berths: Wine.
Cranes: Nil.

Quai d'Orient: Berth No. 7 Draft 5.50 m.
8 Draft 5.50 m.
9 Draft 5.50 m.
5 Draft 5.00 m.
6 Draft 4.60 m.
Restriction:
Berths No. 5 and 6: Breadth = 15 m.
All berths: Wine and general cargo.
Cranes: Nil.

Quai de la Republique: Berth No. 30A Draft 5.20 m.
30B Draft 4.30 m.
All berths: Wine.
Berths No. 31 and 32 – Tugs.
Berth No. 33 – Fishing repairs.
Cranes: Nil.

Quai d'Alger (Algier Quay): Berth No. 34 Draft 8.20 m.
35 Draft 8.20 m.
36 Draft 8.20 m.
All berths: Wine.
Passenger Quay:
Length 200 m., draft 8.20 m.
For example: German m.v. Europa.

Quai du Maroc (Morocco Quay): Berth No. 37 Draft 7.60 m.
(Ro/Ro) Length 130 m.
Passengers and wine.
Line: Morocco.

Bassin Orsetti: Max. Length: 170 m.
Berth B1 Draft 8.25 m.
B2 Draft 8.25 m. Ro/Ro
B1 and B2: Passengers
General cargo.
B2 Ro/Ro Gare Maritime Orsetti.
Line: Baleares (Spring and Summer).
Cranes: 1 Fives Lille, 6 tons at 22 m.
Berths: D1 Draft 8.55 m.
D2 Draft 8.55 m.
D3 Draft 8.25 m. Length 152 m. Ro/Ro.
All berths: General cargo.
Cranes: 4 Caillard 6 tons at 22 m.

Mole Masselin: Cereals
1 berth on 180 m. of quay.
Draft: 10.36 m.
1 loading gantry of a capacity of 550 t.p.h.
2 storage silos of 22,000 tons capacity. (annual 100,000 tonnes).

Dock No. 1 or Colbert Dock: Berth E3 Draft 10.40 m. Ro/Ro.
E2 Draft 10.40 m.
E1 Draft 11.00 m.
All berths: Containers – general cargo. Wood pulp and sawn timbers.
Cranes: 3 Caillard 6 tons at 22 m.
9 tons at 19 m.
7.5 tons at 22 m.
1 container gantry crane 35 tons at 35 m.
Berth G1 Draft 7.50 m. Ro/Ro.
G2 Draft 11.00 m.
G3 Draft 11.00 m. Ro/Ro.
All berths: Sawn timbers – logs and general cargo.
Cranes: 3 Callaird and 2 Peiner
7.5 tons at 22 m.; 8 tons at 30 m.

Dock No. 2 or New Dock: Berth H2 Draft 13.18 m. Ro/Ro.
No crane.
Berth I3 Draft 13.18 m. Ro/Ro.
Named berth for all ponderous bulk cargoes.
Max. length 235 m. (Panamax).
Cranes: 1 Delattre Levivier 20 tons at 44 m., 2 Peiner 12 tons at 30 m. – all with scoop and hook.

Also see "Developments".

TANKERS: Frontignan Sea Line Terminal North Berth (C.B.M.) 1 berth for tankers up to 100,000 d.w.t. lightened draft 13.1 m. (43 ft.). 2×12 in. hoses for crude oil discharge. Submarine pipe-line 28 in. diameter.

Commercial Port: 1 berth for tankers up to 35,000 d.w.t. draft 11 m. (36 ft.). 3 loading/unloading arms for refined products, 1 unloading arm for methanol and 1 unloading arm for slops and dirty ballast. 1 old berth for tankers up to 140 m. length or 10,000 d.w.t., draft 10.1 m. (33 ft.). Slop disposal facilities available up to 1,000 cu.m.p.h. Also see "Max. Size".

Shipmaster's Report: March 1985.
Berth: Vessel berthed at C.B.M. berth which is a multiple buoy mooring just outside the East Harbour Entrance in position: Lat. 43° 24.3′ N., Long. 03° 44.6′ E.

Pilot boards just S.E. of the yellow light buoy (Lat. 43° 22.2′ N., Long. 03° 46.8′ E.), together with Mobil Representative, Cargo Surveyor and a mooring gang of 7 men. At the same time, 3 slings of equipment are placed on board on the port side, including chain stoppers for mooring aft and discharge monitoring equipment.

One tug is used, through the centre lead aft; using ship's lines (2). Vessel approaches the berth on course of approximately 030°; ship's log was used for assessment of ship's speed, the Pilot preferring to drop the first anchor at a speed of between 1.0 – 1.5 knots.

Starboard anchor is dropped first and allowed to run to 10 shackles on deck as the vessel is canted to starboard to a heading of 045°. When about 10 shackles have run, the port anchor is let go and then engine and tug used to manoeuvre the stern towards a group of 3 mooring buoys. 3×42 mm. diameter wires are picked up from these buoys, then 2 further wires from submerged clumps and finally 2×42 mm. wires from submerged clumps are secured forward. Both anchors are then hove in to about 8.5 shackles each to tension the moorings aft, vessel's head being finally 135°. Moorings, distances and dimensions are as per the berth drawing in *Guide to Port Entry* – "Plans". Mooring was very competently accomplished, the anchors being very accurately placed close to 2 small marker buoys (not on chart).
Discharge: The berth has very recently been converted to clean products only. 2×12 in. hoses are connected to the port side manifolds. Each of these is fitted with a butterfly valve, however, a noticeable amount of the previous cargo ran into the drip trays while the hoses were being connected. Connection of hoses was made by the mooring gang.

The sea bed line is 28 in. and maximum pressure permitted is 9 bar. This line has previously received crude oil at rates of up to 5,000 tonnes/p.h. so it was not surprising when vessel did not make this pressure, even at full speed. Discharge of 30,000 tonnes took a total of 15.8 hours, giving a final rate of 1,900 tonnes/p.h. This included approximately 2 hours slow pumping at the start and all the stripping time.

A 30 minute water plug was requested before discharge commenced. Mobil normally expect a vessel to be ballasted within 6 hours of completion of discharge; on this occasion, extra ballast was taken as the vessel would be unmooring in a 30 knot wind.

The Mobil Representative, Cargo Surveyor, Pilot and the 7 man mooring gang all remain on board until after completion of unmooring. Meals and accommodation should be provided.
General: Charterer's Agent, Mobil Oil Francaise, is in Paris (Telex: 610417). Agent attended on berthing and for remainder of stay contact was maintained by portable VHF which proved to be quite satisfactory.

Up to 6 boats per day for shore leave, etc. can be provided; if all 6 boats are taken the cost is high – 7,000 francs. However, for vessel's requirements some boats were required in any case.

Port Health, Immigration and Customs did not attend at any time, all their paper work being carried out by the Agent.
BRIDGES: To proceed to or leave, the Bassin du Midi bridges have to be opened. Request to be made to Capitainerie du Port (Tel: 67.74.88.20/67.46.00.81) before 1700 hrs. Friday, when arrival or departure is expected during weekends.
FRESH WATER: Available on most quays or by lighter of 140 tons capacity during working hours. Advance notice required for Saturdays and Sundays.
FUEL: All qualities available subject to advance notice given.
REPAIRS: Claverie: Tel: 67.48.62.52 – Mechanical workshop for heavy repairs and boiler repairs.
Di Biase: Tel: 67.74.32.12 – general repairs.
C.R.M.: Tel: 67.74.06.83 – Electronic and radio aids to navigation repairs.
Touat: Tel: 67.48.62.37 – Electrical and generator repairs.
Farre: Tel: 67.53.41.28 – Under water work.
CONSULS:

Denmark	Tel: 67.74.30.20	Norway	Tel: 67.74.31.83
Finland	Tel: 67.48.63.16	Sweden	Tel: 67.48.63.16
Netherlands	Tel: 67.48.63.16		

Others at Marseilles.
WATCHMEN: Service necessary for ships loading or unloading dangerous merchandise. Optional for other ships. (Tel: 67.80.22.02).
CUSTOMS ALLOWANCES: 40 grammes tobacco per day per man (calculated in accordance with the length of voyage undertaken by the ship). Amount of alcohol fixed by Customs in accordance with the crew, and length of ship's stay in port. It is a matter of tolerance and not of right.
REPATRIATION: Repatriation and crew changes are easily arranged.
AIRPORT: Airport (Class B) at Montpellier-Frejorgues, located 30 km. from Sete, (30 minutes by car on the motorway), and has services to Paris, Nice, Bordeaux, Clermont-Ferrand and London. The international airport of Marseilles-Marignane is 160 km.
IDENTIFICATION CARDS: Crew men going ashore should carry passport or identity card.
TIME: GMT plus 1 hour – alteration from end of March to end of September to GMT plus 2 hours.

HOLIDAYS: No labour days: 1st May and St. Louis Day (late August). Days with possibility of labour at overtime rates: 1st January, Easter Monday, Ascension Day, Whit Monday, National Day (14th July), Assumption Day (15th August), All Saints' Day (1st November), Armistice Day (11th November), Christmas Day (25th December). N.B. Every Sunday and days with possibility of labour at overtime rates can be worked at the rate of 100%.

DEVELOPMENTS: Berth J in Dock No. 2, for oil products, will be available in September 1989 (length 130 m. depth 9.0 m.)

A signal mast is to be erected near the Eastern Entrance and is expected to be operational late 1989.

AUTHORITY: Capitainerie du Port de Sete, Quai du Maroc, 34207 Sete, France. *Tel:* 67.74.88.20. *Telex:* 480220. *Contact:* Commandant Pierre Guillard, Commandant du Port de Sete (Harbour Master).

Gabon

OVENDO: (Also see page 579)

SHIPMASTER'S REPORT: February 1989.

PILOTAGE: 2 pilots (French) available for berthing and unberthing.

On arrival, Pilot boards at the Fairway Buoy position. This has to be arranged by the Charterer or Owner. Many ships, shallow draft or regular traders, do not take the Pilot at the Fairway Buoy position.

APPROACHES: All the buoys in the Channel, including the Fairway Buoy, are missing and they are unlikely to be replaced, according to the Pilot. During the transit to the berth all positions are by radar, due to lack of visual points. Arrival and departure should be in daylight.

Great care must be taken on arrival off the Fairway Buoy position as some of the points of land do not show up well.

The sailing draft of 10.4 m. is governed by the depth in the channel. There are several 9 m. patches and banks. The best plan is to leave the berth at LW, in order to avoid the 5 knot current during unberthing, then anchor off the berth until about 1 hour before HW, then proceed outward. This gives the vessel the benefit of 1.7 m. – 2.0 m. rise in tide.

TUGS: One tug assists with berthing and unberthing.

BERTHING: *New Ore Berth:* This is a single "T" jetty with dolphins. We were the second vessel to berth here. There is a single loading arm that covers the whole 6 hatches, without ship having to shift. Loading rate is about 3,000 t.p.h. when in full operation. During our stay, technicians were still working on varous items. Manganese Ore is either supplied ex-stock or directly from wagons.

Vessel berths port or starboard side to, with one tug assisting. Moorings consisted of 3/2/2 each end and no wires if possible. One anchor is let go on approach.

The berth is situated just down river from the Port of Ovendo. The port itself handles large vessels and has a depth alongside of about 8.0 m.

FRESH WATER: Not available ex-berth.

FUEL: Not available ex-berth.

REPATRIATION: Possible. One crew member landed ashore for medical treatment and repatriation.

SHORE LEAVE: Difficult, as launches are required and they are expensive. The town of Libreville is some distance from the port.

GENERAL: *Officials:* Boarding party boarded on arrival. Usual paperwork required. The bond was not sealed.

Communications: The telephone and telex service to the Agent's office was good.

Draft Survey: This is undertaken by ship's staff. The shippers require a loading plan prior to arrival. The Bill of Lading figures were the same as the ship's figures.

Supplies: There is no ship chandler at the port. There is an excellent supermarket in Libreville which is of European standard but items are very expensive.

Federal Republic of Germany

HAMBURG: (Also see page 597)

DOCUMENTS: *Add:*

Shipmaster's Report: October 1988.

Customs: No documents required as port is a Free Port.

Water Police: 2 copies Crew List.

1 copy Maritime Declaration of Health.

Agent: 1 copy Crew List.

Ghana

GENERAL: (Also see page 611)

DOCUMENTS: On 15th November 1988 the Ghana Ports and Harbours Authority announced that all Cargo Manifests must be received by the GPHA 7 days prior to the arrival of vessel, failing which there will be no berthing for the vessel.

Republic of Guinea Bissau

BISSAU: (Also see page 650)

SHIPMASTER'S REPORT: December 1988.

Vessel proceeded from Las Palmas to Bissau. Speed 13 knots. Draft 5.8 m.

Report on the River Entrance to Bissau: Steer true course 177° until vessel crosses the 100 fathom line at position Lat. 12° 26′ N., Long. 17° 30′ W. From this point steer true course 148° until the vessel again crosses the 100 fathom line at position Lat. 12° 11′ N., Long. 17° 20′ W. From this position steer true course 124° to Buoy Geba-A (Fairway Buoy).

From position Lat. 12° 11′ N., Long. 17° 20′ W. vessel's position was ascertained by radar, using Cabo Roxo which was visible on the radar up to 40 miles; the Baixos do Rio Grande light, which was visible on radar up to 30 miles; Ilha da Jeta which was visible up to 30 miles and the Buoy Geba-A (Fairway Buoy) which was visible on radar at 12 miles.

On reaching the Fairway Buoy, vessel alters course towards the pilot station at Caio Island. The minimum depth by echo sounder under the keel was 4.5 m. Strong currents of up to 5.5 knots were experienced.

The pilot station at Caio Island has no means of communication with either the vessel or the Port of Bissau. River Pilots are therefore never advised of vessel's arrival in advance.

When the vessel arrives at the pilot station, the vessel's lifeboat/rescue boat, is to be used to pick-up the pilot as the pilot boat has frequent engine breakdowns. The approach to Caio Island is very dangerous due to many breakers, wrecks and strong currents.

The River Pilot only speaks "Crioulo" (Creole), which is a local dialect, and a very few words of Portuguese. He is therefore unable to give proper orders to the helmsmen.

All navigation in the Canal do Geba has to be done by the ship's Master. The pilot does not assist in any way.

Entry and departure from Bissau is dangerous, especially at night, as the East Cardinal buoy off Banco do Meio is missing and most other buoys are unlit.

On arrival, vessels anchor at Bissau Inner Roads, which are 4 cables Northeast of the jetty, and await the harbour pilot.

The harbour pilot was able to communicate in English but was unable to show on the chart where the vessel was to berth.

Berthing/unberthing is preferred on the flood tide.

Vessel anchored in the Roads at 1930 hrs. and berthed alongside at 2300 hrs.

All jetties are unlit, so vessel had to use Suez Canal searchlight when approaching the berth.

Minimum depth under the keel when approaching the berth was 2.0 m. Currents alongside the berth are up to 3.5 knots and range of tide up to 5.0 m.

The vessel has to provide a cabin for the River Pilot as he stays on board the vessel during the whole time alongside.

When vessel was due to leave, the Harbour Pilot was standing-by on another vessel so we left port without a Harbour Pilot. On approaching Caio Island we again had to use our lifeboat/rescue boat to land the River Pilot.

Pilotage: Compulsory. Request for pilot to be made to the vessel's local agent. The pilot station is located at Ilheu do Caio which is about 50 nautical miles West of Bissau.

Anchorage: The Canal do Geba has good holding ground and plenty of room.

Restrictions: Night navigation is not recommended as most of the lights are either missing or unlit.

Tugs: None available.

Berthing: The old cargo jetty is 131 m. in length and has a minimum depth alongside of 6.3 m.

The new cargo jetty, which is soon to be operational, has a length of approximately 280 m.

Cargo Handling Facilities: Ship's cranes or derricks are to be used. 1 forklift of low capacity available. General cargo can be loaded on to the quay but all containers must be loaded direct on to trucks.

Stevedores: The working hours are from 0800 hrs. to 2300 hrs. Night work is possible, but pilferage increases considerably during night time.

Repairs: Not possible.

Agent: Messrs. Guinemar S.A., Rua Guerra Mendes 4/4a, Bissau. Tel: 213022/3. Telex: 0969-276.

Note: Only the agent has VHF in Bissau (range up to 30 nautical miles).

Guyana

GEORGETOWN: (Also see page 651) **(See Late Plans)**

SHIP'S OFFICER'S REPORT: September 1988.

During vessel's stay in Georgetown I was able to gather the following information:

In a major step towards promoting the export of Bauxite, the Guyanese government has charted the Panamanian flag vessel M.V. "Arrowcane II", for an initial period of 5 years. This vessel will be a silo ship for transhipment of Bauxite.

She will be permanently moored in position Lat. 06° 49′ N., Long. 58° 10.5′ W. (approximate), heading North (see "Plan").

The "Arrowcane II" has been converted into a self-loading/discharging silo ship. She has an arrangement for discharging barges on her port side using on-board grabs, and then loading larger ships on her starboard side using a conveyor belt. She also has "Yokohama type" fenders on her starboard side.

Initially there was a draft restriction for vessels loading Bauxite at Linden (06° 01′ N., 58° 18′ W.) (up the Demerara River), so it was not possible for large vessels to take a full load. With the establishment of this silo ship at the mouth of the river it will be possible to load vessels to a deeper draft.

It was not possible to get other details about the loading draft restrictions, loading rates, etc., as the silo ship was still not operational when we left Georgetown. The 4 buoys have been laid and M.V. "Arrowcane II" was to carry out the "mooring operation" within a few days and become fully operational after 2 weeks.

Hong Kong

HONG KONG: (Also see page 662)

DOCUMENTS: *Add:*
Shipmaster's Report: October 1988.
To be sent from last port of call before Hong Kong:
1 Hong Kong Official Crew List.
1 List of Ports of Call.
Copies of: Ship's Register
Safety Equipment Certificate.
Safety Construction Certificate.
Safety Load Line Certificate.
Safety Radio Certificate.
Derat Exemption Certificate.
Agent: All Certificates.
1 Safety Manning Certificate.
Clearance from Last Port.
1 copy ordinary Crew List.
1 copy Stores List.
Quarantine: 1 Maritime Declaration of Health.
1 ordinary Crew List.
Immigration: On arrival: 1 set of Hong Kong Crew Lists.
5 copies ordinary Crew Lists.
On departure: 2 copies ordinary Crew Lists.
Police: 1 copy Arms and Ammunition List.
Customs: 2 copies Stores List.

Indonesia

LHOKSEUMAWE: (Also see page 739)

RADIO: *Add:* Lhokseumawe Radio Station, Telex No. 51696.
SHIPMASTER'S REPORT: September 1983.
Radio: Amend: Send ETA to Lhokseumawe Radio Station, Telex No. 51696 (Station operated by Pertamina).

Iran

BANDAR ABBAS: (Also see page 767)

SHIPMASTER'S REPORT: February 1989.
Port: Bandar Abbas (Shahid Rejaie).
Arrival: On arrival at the anchorage, contact Port Control on VHF Channel 16 and give arrival information. Port Control are of little assistance with regard to berthing information. The agent is the best person to supply this advice. The State Shipping Agents "ShippingCo" maintain a watch on VHF Channel 16.

The vessel may also be contacted by the Iranian Coast Guard on entering the outer anchorage.

Boarding Party: The boarding party of Customs and Immigration Officers boarded at the anchorage 24 hours after arrival. Normal paperwork is required.

All cabins were searched for alcohol, etc. and the bond was sealed. The vessel is also searched for stowaways prior to departure by Customs Officials.

Communications: The radio room is sealed. VHF telephone calls can be made via Bandar Abbas Radio or Muscat Radio.

Berthing: The vessel berthed at Shahid Rejaie which is about 1 hour from the outer anchorage. There is no suitable Admiralty Chart for this area.

Shahid Rejaie is a large, modern and well planned port with about 30 berths. The maximum draft is probably in excess of 12.0 m.

This vessel discharged barley in bulk at a rate of approximately 3,400 tonnes per day, utilising evacuators and lorries ashore. The ship's cranes are required for suspending the suction hose.

There are no shore cranes or grabs for discharge of bulk cargoes. Container vessels use small mobile cranes.

Fresh Water: Available.
Fuel: Available.
Repairs: Mechanical, radar and navigation equipment repairs are possible. However, no spares are available.
Repatriation: Possible.
Shore Leave: Not allowed.
General: Mail: It is possible to send mail. The vessel received courier mail from overseas.

Spares: It is not advisable to receive spares, due to delays at Customs and paper work, etc.

Supplies: Fresh provisions available but quality was poor and they were very expensive.

Fumigation: Hatches with grain cargoes require fumigation. Crew have to stay on board. If only a few hatches require fumigation they are sealed and stevedores continue to work on other hatches.

KHARG ISLAND: (Also see page 774)

RADIO: *Add:*
Kharg Island – Arrival Information:
We quote below text of the letter dated October 24th 1988, received by Gulf Agency Co. (Iran) Ltd., Tehran, from NIOC, Crude and Product Operation Division, Tehran.

"Further to our previous instructions, please note all the vessels under that agency which are intended to load at Kharg Island have to give information below, 36 hours before their arrival to the Area Manager of Kharg Island. Otherwise we shall not be responsible for any delay and demurrage or any other costs and expenses occurred to those vessels in this respect.

Required information:
1. Cargo requirements and supplier.
2. Deballasting time.
3. Loading rate.
4. ETA Kharg Anchorage.
5. Arrival and departure drafts.
6. Radio Free Pratique by quarantine message addressed to Port Health, Kharg, Iran.

Please also note the following:
(a) There are oil pollution patrols by launch around Kharg, ensure clean ballast and pipelines. No oily discharge from any source allowed.
(b) All cargo tank openings must be closed while tugs alongside.
(c) Port safety regulations rigorously enforced.
(d) After anchoring telex/cable anchoring time and position.
(e) If loading two grades of oil, indicate which necessary to load first.
(f) Note that diesel bunkers are not available at Kharg Island.
(g) Early Departure Procedure is available.
(h) Vessels using EDP to telex/cable ship's figures within 12 hours of sailing.
(i) Ensure that all exhausts and uptakes are clean before berthing to prevent funnel sparking alongside.
(j) Propeller turning alongside berth to be kept to minimum and must be strictly watched.
(k) Intership VHF traffic to be kept clear of Channels 16, 12, 10 and 77 while in Kharg Anchorage and alongside."

LAVAN ISLAND: (Also see page 782)

RADIO: *Add:*
14 Point Questionnaire:
A 14 point questionnaire has to be completed and sent to NIOC by principals prior to appointment of a vessel for loading cargo at Lavan Island as follows:
1. Overall length of vessel.
2. Moulded depth of vessel.
3. Mean draft in light condition, ready to load (i.e. with only permanent ballast on board).
4. Can vessel discharge permanent ballast concurrent with cargo loading?
5. If any clean ballast is carried in the cargo tanks, can this be segregated and discharged concurrent with cargo loading?
6. If answer to (5) above is "Yes" what will be the mean draft with permanent ballast and clean cargo tank ballast on board?
7. What will be the maximum loading draft? Is this Summer or Tropical mark?
8. What is required "Owners Clearance" under keel in loaded condition?
9. Height of loading valve manifold connections above the deck.
10. Distance of loading valve manifold centre from the bow.
11. What is spacing (on centres) between loading valve manifold connections and how many connections are available for this loading?
12. Distance of loading valve connection from side of ship.
13. Advise if Lavan Island is first or second loading port.
14. If second loading port, how much cargo will be on board on arrival and what will be the arrival draft, fore and aft?

SIRRI ISLAND: (Also see page 786)

RADIO: *Add:*
14 Point Questionnaire:

A 14 Point Questionnaire has to be completed and sent to NIOC by principals prior to appointment of a vessel for loading cargo at Sirri Terminal as follows:

1. Overall length of vessel.
2. Moulded depth of vessel.
3. Mean draft in light condition, ready to load (i.e. with only permanent ballast on board).
4. Can vessel discharge permanent ballast concurrent with cargo loading?
5. If any clean ballast is carried in the cargo tanks, can this be segregated and discharged concurrent with cargo loading?
6. If answer to (5) above is "Yes" what will be the mean draft with permanent ballast and clean cargo tank ballast on board?
7. What will be the maximum loading draft? Is this Summer or Tropical mark?
8. What is required "Owners Clearance" under keel in loaded condition?
9. Height of loading valve manifold connections above the deck.
10. Distance of loading valve manifold centre from the bow.
11. What is spacing (on centres) between loading valve manifold connections and how many connections are available for this loading?
12. Distance of loading valve connection from side of ship.
13. Advise if Sirri is first or second loading port.
14. If second loading port, how much cargo will be on board on arrival and what will be the arrival draft, fore and aft?

Italy

LA SPEZIA: (Also see page 826)

DOCUMENTS: *Add:*
Shipmaster's Report: November 1988.
3 copies Crew List.
3 copies Passenger List.
2 copies Stores List.
1 copy Parcel List (if any).
1 copy Cargo Manifest.
1 set Bills of Lading.
Oil Record Book.
Ship's Certificates.
1 Statement of Amount of Lubricating Oil on board.

SALERNO: (Also see page 843)

DOCUMENTS: *Add:*
Shipmaster's Report: November 1988.
5 copies Crew List.
2 copies Ship's Information.
1 copy Application for Ship's Clearance.
1 copy Stores List.
1 copy Cargo Manifest.
1 copy Maritime Declaration of Health.
Oil Record Book.
Cargo Gear Certificates.

TARANTO: (Also see page 845)

SHIPMASTER'S REPORT: December 1988.

The following Information Sheet was supplied to the Master by the Agent on vessel's arrival.

VHF:

Commercial calls	:	Channel 16 via Bari Radio.
Harbour Master/Pilot	:	Channel 12.
Launch service	:	Channel 10.

All vessels anchored in the roads must keep watch on Channel 12 from the 15th to the 20th minute of each hour for the purpose of receiving orders, or news of their interest, if any, from the Harbour Master.

Pilotage/Linesmen/Towage: Pilotage and linesmen service are compulsory for all vessels over 500 g.r.t.; however vessels up to 2,000 g.r.t. may avail themselves of VHF Pilot service at a 60% reduced rate.

Towage service is compulsory for all vessels over 20,000 g.r.t. (at least 3 tugs up to 40,000 g.r.t. and then 4 tugs) whilst, for tankers, tugs are compulsory as follows:

2,000 to 5,000 g.r.t.	:	1 tug (minimum)	
5,000 to 15,000 g.r.t.	:	2 tugs	"
15,000 to 30,000 g.r.t.	:	3 tugs	"
over 30,000 g.r.t.	:	4 tugs	"

Towage of vessels with inactive engines is subject to 40% increase.

Towage lasting more than one hour (two if canal crossing involved) is subject to 30% increase for each subsequent half an hour or portion thereof.

Safety in Roads: When a vessel is anchored in Mar Grande Roads, it should be borne in mind that the nature of bottom is mainly clay/mud and offers very bad holding ground; therefore, under strong S./S.E. winds (which occasionally blow in Taranto) the anchors may drag and consequently, danger to the vessel arises.

Robbery/Pilferage: Night watching service by crew members or authorised sworn watchmen is recommended in view of robberies having occurred in the past on board vessels berthed or anchored, especially concerning paints and ropes.

Bonded Goods: Upon arrival in port, Customs grant for crew consumption purposes, 50 cigarettes for each crew member and 1 bottle of spirits for every 10 crew members, which should be used within 48 hours of vessel's arrival.

Crew Lists: According to IMO International Convention 19/10/1971, upon arrival and departure, Harbour Master requires an updated Crew List on IMO approved forms.

Ship's Documents: We take the liberty to remind the Master that Outward Clearance granting, is subject to following certificates being valid:
Safety Equipment.
Safety Radio.
Safety Construction.
Load Line (including annual survey).
Deratting Exemption.

Launch Service: Vessel's launches cannot be used for connection with shore. Boat service is made available by an authorised firm at an official rate, which is increased by 70% from 1700 hrs. to 2400 hrs. weekdays and from 1200 hrs. to 1700 hrs. on Saturdays; by 100% from 0700 hrs. to 2400 hrs. on holidays and 1700 hrs. to 2400 hrs. on Saturdays; and by 200% from 0000 hrs. to 0700 hrs. any day.

Bunkering: Bunkering operations may be carried out only by barge. While bunkering, an engineer and a fire watchman (sent onboard by the Harbour Master on signing the bunkering authorisation) must stand-by and hose area must be properly lighted during night-time.

Any spillage on deck must be immediately cleaned up.

Water Pollution: Port Authority closely watches this matter and Masters are kindly invited to take all necessary steps to avoid any possible pollution. Also vessels discharging ore/coal are not allowed to wash decks in port (including roads).

Should any pollution be caused and vessel's responsibility proved, all expenses involved in carrying out the cleaning will be for vessel's account (to be paid for prior to departure) or Master shall be sued by Court.

Garbage Collection: Daily collection of garbage from vessels is compulsory and is carried out by the authorised firm (Nigromare) by means of a motorboat, and a supporting slip must be signed each time, even if no garbage is given.

Note: The service covers only galley and crew garbage collection. Disposal of other ship's waste is subject to a charge, to be agreed each time.

Water Supply: Water is only available by barge (except Pier No. 1 in Commercial Port). Minimum charge is for 25 tons. At least 24 hours notice should be given to Agent.

Provisions/Stores: Provisions and stores to be delivered by barge only.

Cash Money Request: Cash must be requested 24 hours prior to being needed.

No foreign currency available unless remitted directly to Master from abroad and sufficient notice is given to Agent to arrange collection in due time.

Repairs: Authorisation to carry out repairs of any kind is subject to an application to Harbour Master, on forms obtainable from Agent.

Hot work (involving naked flames) in the engine room, is always subject to Port Chemist's attendance.

Tankers, including OBO/OOC vessels, must also obtain a "Gas-free Certificate" for the area affected by the repairs (even if carrying iron ore/coal). When above vessels are performing loading/unloading operations, authorisation is also subject to Master's Declaration that vessel is always ready to shift with her own engines at any time.

Landing Spares: Any landing of spares for repairs and/or shipment must be authorised by Customs, through Agent.

Seamen Signing-off for Repatriation: Please note that, according to Italian law, seamen signing-off for repatriation are not allowed to take any bonded goods out of the harbour area. Inspection of baggage is usually carried out by Customs Officers when landing. Furthermore, owing to Italian Money Exchange Regulations, a crew member leaving the country, is not allowed to take abroad more than 200,000 Italian lire, while no limitation exists on foreign currency exportation, if crew member can provide valid evidence of how currency obtained.

Japan ✓

E

NAKANOSEKI: 34.00 N. 131.34 W. (See Late Plans)

SHIPMASTER'S REPORT: December 1988.

DOCUMENTS:
Ship's Register.
Last Port Clearance.
5 copies of Crew List, including Passport Numbers.
3 copies of Lists of Ports of Call.
1 copy Stores List.
1 copy Through Cargo Manifest.

Please note that Nakanoseki was not the first Port of Call in Japan. If such is the case then at least one Declaration of Crew's Baggage and one Maritime Declaration of Health will probably be required.

Officials:

Customs:	Stationed in Nakanoseki.
Maritime Safety Office:	Stationed in Nakanoseki.
Quarantine:	Not stationed in Nakanoseki. Free Pratique is to be obtained through Tokuyama, Ube and/or Mutsure Quarantine Station prior to proceeding to Nakanoseki.
Immigration:	Officials stationed at Tokuyama Office.
Port Authority:	Stationed in Nakanoseki.

Port Status: Open Port (Mitajiri – Nakanoseki Port).

PILOTAGE: Available, but not compulsory.

According to information received by the vessel prior to arrival off the port, Harbour Pilot boards in the vicinity of a 250 m. radius circle (true bearing 159°, 1,590 m. from Nakanoseki Lighthouse), depth of water approximately 11.10 m. This boarding area is used for vessels with a deadweight in excess of 10,000 tons or if the LOA exceeds 150 m.

Information was also received from the vessel's Agent prior to arrival regarding the pilot boarding area. They advised me that the Pilot would board in position Lat. 33° 58′ N., Long. 131° 33′ E. (090°, 2.0 miles from Saba Shima Lighthouse). In my opinion this is the more practical of the 2 boarding areas as it keeps the vessel well clear of the numerous fish havens in the vicinity of the channel entrance and allows plenty of room to manoeuvre to seaward should the vessel have to drift and await the Pilot during periods of high winds.

If required, Inland Sea Pilotage service is available either from Sekisaki, Kobe, Hesaki, Tokuyama and/or Kadamatsu Pilot Station.

The Pilot boarded the vessel using one of the local tugs.

The Pilot advised me that during flood tide a current of up to 1.2 knots can be experienced across the channel entrance, flowing from East to West. During ebb tide the flow is in the opposite direction.

ANCHORAGES: There is no suitable waiting anchorage for vessels of this size (PCC/Lumber Carrier, 33,000 g.r.t.). Vessels are requested to adjust their ETA so that they arrive at the Pilot Station without having to anchor. I questioned the Pilot as to why it was not permissible to anchor in the vicinity of the Pilot boarding ground and he advised me that it was because of the numerous fishing havens in the area and objections received from local fishermen.

Should the vessel be compelled to anchor for any reason, the Pilot advised a position 138°, 3,000 m. from Ryugu Saki Light. Care must be taken when anchoring in this position due to the close proximity of underwater cables.

RESTRICTIONS: Berthing is carried out between sunrise and sunset.

Unberthing is carried out between sunrise and one hour before sunset.

MAX. SIZE: Dependent on height of tide. Vessel must have 10% under keel clearance in the approaches, where the depth of water is 10.50 m.

VHF: During the early morning approach to the port the vessel was unable to contact the Pilot by VHF.

TUGS: Available as required. Stationed at Tokuyama Port. This vessel used 2 tugs for berthing and 1 tug for unberthing. Vessel is equipped with bow thruster and was berthed starboard side to, head out.

BERTHING: Nakanoseki Wharf No. 3 (Owned/Controlled by Yamaguchi Prefecture).

The berth is used exclusively for Mazda vehicles/CKD but occasionally for Log/Plant carriers.

Depth of water in approaches:	10.50 m.
Depth of water alongside:	12.00 m.
Length of Wharf:	240 m.
Side alongside:	Basically port side to, but starboard side to is also acceptable.

The berth is very exposed to the W/N.W. and strong winds blowing from this direction could prove to be a problem for high-sided PCC type vessels.

STEVEDORES: For loading Mazda cars/CKD.

Nippon Express Company Limited, Hofu Branch.
Mazda Logistics Service Company Limited, Hofu Branch.
Naigai Unyu Company Limited, Hofu Branch.

Loading Rate: Approximately 80 units per gang hour, subject to stowage.

Labour: Basically 3 or 4 gangs, but a maximum of 6 gangs are available.

FRESH WATER: Available from shore hydrant, rate approximately 10 tonnes per hour. The basic charge is 275 Yen per tonne. Barge supply is also available, but this must be brought up from Tokuyama Port.

GENERAL: *Charts:* There is no large scale BA. Chart of the area available at present. For the purpose of our visit, Japanese Chart No. 1134 was purchased.

Jordan

AQABA: (Also see page 950)

DOCUMENTS: *Add:*

Shipmaster's Report: November 1988.

Customs: 3 copies Crew List.
1 copy Bonded Stores List.
1 copy Crew Declaration.

Agent: 3 copies Crew List.

Quarantine: 3 copies Crew List.
1 copy Maritime Declaration of Health.
2 copies Vaccination List.

Immigration: Photograph for shore passes (compulsory).

Republic of Korea

BUSAN (Pusan): (Also see page 964)

DOCUMENTS: *Add:*

Shipmaster's Report: November 1988.

3 copies Transit Cargo Manifest.
8 copies Crew List (Customs).
10 copies Crew List (Immigration).
8 copies Passenger List, (if any).
2 copies Arms/Narcotic List.
2 copies Currency List.
2 copies Stores List.
2 copies Crew Personal Effects List.
2 copies Ports of Call List.

Quarantine:
1 copy Maritime Declaration of Health.
1 copy Vaccination List.

Immigration: Keep record of times of departure and returning to the ship of all crew members for handing over to Immigration.

Socialist People's Libyan Arab Jamahiriya

BOURI: 33.54 N. 12.39 E. (See Late Plans)

LOCATION: The position of the AGIP NAME FSO "Sloug" is:
Lat. 33° 54′ 32.94″ N., Long. 12° 39′ 19″ E.

The FSO is moored to a single point mooring structure by a rigid bracket. The water depth is 166 m.

FSO "Sloug": LOA 348.9 m.; Length between perpendiculars – 330.7 m.; Moulded depth 25.5 m.; Moulded breadth 51.8 m.; Max. draft 20.012 m. and Minimum draft 10.0 m.

DOCUMENTS: Documents required to obtain clearance are as follows:

5 copies Crew List.
5 copies Passenger List.
2 copies Tobacco/Spirits Declaration.
2 copies Personal Effects Declaration.
2 copies Stores Declaration.

Following certificates will also be inspected by the Libyan authorities:

Clearance from Last Port.
International Maritime Health Declaration.
Animal List, with proper Health Declaration.
Entering and Leaving Territorial Waters Certificate.
Report Inwards Certificate.
Report Outwards Certificate.
Boycott Certificates.
Tankers Characteristics Certificate.
Certificate of Discharge, signed by the discharge port authorities, of the last port (cargo) loaded in Libya.
Tovalop Certificate.

Port Entry: Offtaking Vessel's Free Pratique, Customs Entry and Clearance, Immigration inspection and documentation for the loading operation will be arranged by vessel's agents.

Agency: An Agency representative is stationed on the FSO for ship's Clearance.

PILOTAGE: The Mooring Master will board the Offtaking Vessel in the "Waiting Area" which is located 2 miles South of the FSO. Depth of water 166 m.

Also see "Mooring/Unmooring".

APPROACHES: Two production platforms (DP4, DP3) are situated respectively in position Lat. 33° 55′ 23.38″ N., Long. 12° 40′ 50.96″ E. and Lat. 33° 53′ 39.45″ N., Long. 12° 36′ 23.83″ E.

Subsea lines run between the 2 platforms and the FSO. All ships are warned that it is strictly forbidden to anchor within 0.5 miles of the line joining the two platforms. Furthermore it is forbidden to steam across the same line.

No ship should approach any of the structures closer than 0.5 miles and should proceed to the "Waiting Area" (2 miles South of the FSO) adhering strictly to this regulation, and await for further instructions from the FSO.

RESTRICTIONS: Mooring operations normally take place during daylight.

MAX. SIZE: 35,000 d.w.t. – 150,000 d.w.t. Max. LOA 283.0 m. Max. beam 44.0 m. Draft – no limit.

RADIO/VHF: *ETA:* Vessels will inform "Agip Name Tripoli", through their local agents, of their ETA at the designated "Waiting Area" located about 2 miles South of the FSO "Sloug" Terminal.

Notices Procedure: All vessels destined to load Crude Oil at the Bouri Field are requested to inform "Agip Name Tripoli" of their ETA 72 hours, 48 hours and 24 hours prior to their arrival at the "Waiting Area".

The "72 hour notification" must include the following information:

1. Firm ETA (local time and date).
2. Name of tanker and Master's name.
3. Flag.
4. Gross tonnage.
5. Nett tonnage.
6. DWT.
7. Quantity of cargo required.
8. Confirm 2×16 in. connections (ASA 150) on port side manifold.
9. Confirm existence of a Smit Bracket forward.
10. LOA and Draft.
11. Distance from bow to manifold and stern to manifold.
12. Minimum vessel's speed and equivalent RPM.

13. Confirm availability of at least 6 mooring lines forward and 6 mooring lines aft (mooring lines should be suitable for the intended service).
14. Shipper.
15. Agent.
16. Consignee.
17. Destination.
18. Last port of call.
19. Any requirements needing early attention.
20. Confirm inert gas system operating correctly and that vessel will maintain a maximum oxygen content of 8% in the tanks throughout berthing, deballasting, loading and unberthing operations.

The 48 hour and the 24 hour notification shall specify only the latest ETA, plus any amendments to the details already advised under the "72 hour Notification".

After the initial notification has been made, any change in ETA of more than 12 hours must be immediately communicated to "Agip Name Tripoli" through the ship's agent.

Radio Contact with the FSO "Sloug": Vessels in VHF range of the FSO will call "Bouri Terminal" on Channel 16, working on Channel 17. Once in contact, a mutually agreed upon channel will be used.

A private channel will normally be used between the FSO and the Offtaking Vessel during operations. The Mooring Master will supply portable sets equipped with this channel for operations use.

Communications during Loading Operations: Medium and high frequency radio systems are to be shut down during cargo transfer and deballasting.

Communications Failure: Should communications fail during any part of the operation (mooring, cargo transfer, unmooring), the party affected shall sound the International Code Signal "K" on her whistle and cargo operations, if in progress, will be stopped until normal communications are re-established.

MOORING/UNMOORING: To ensure coordination between the FSO and Offtaking Vessel, a Mooring/Loading Master will be in attendance to advise the operational procedures necessary to ensure a safe, accident and pollution-free operation.

Mooring Master: The Mooring Master will board the Offtaking Vessel at the "Waiting Area" by a tug that will remain in attendance. Necessary mooring gear (when applicable) will be transferred to the Offtaking Vessel.

Lifting Gear: The Offtaking Vessel must have her own lifting gear rigged and ready for use on her port side *but not swung out.*

Accommodation Ladder: The Offtaking Vessel must have her accommodation ladder and pilot ladder, rigged in combination, on her starboard side and lowered to about 1.5 m. above the water level. Crews in attendance should be in radio contact with the vessel's bridge.

Lee Side: The Offtaking Vessel shall manoeuvre in a way to make a lee on her starboard side, to allow the Mooring Master and other Terminal personnel to board the vessel.

Mooring Master's Station: The Mooring Master shall be stationed on the bridge of the Offtaking Vessel and advise the Master on the mooring procedures. Safety Check List(s) must be signed by the vessel's Master prior to the beginning of any operation.

Aborting of Mooring Operation: The Mooring Master will always be prepared to abort the mooring operation, either on his own initiative or upon instructions of the Master of the Offtaking Vessel. The decision should be taken in ample time whilst the situation is still under control. If, for any reason, the Operations Head on the FSO requires to abort the operation, he will inform the Offtaking Ship immediately.

Mooring Master's Duty: The advisory service of the Mooring Master will continue until the Offtaking Vessel is safely secured to the FSO, either alongside or in tandem and will resume during the unmooring and departure operations, until the Offtaking Vessel is at a safe distance from the FSO (i.e. in the Waiting Area).

Mooring Monitoring on the FSO: A second Mooring Master, based on the FSO, will monitor the mooring of the Offtaking Vessel until vessel is securely tied-up and preparations for loading have begun. At that time he will assume the advisory control of the operation, including the rigging and connection of the FSO loading arms/hoses.

Fenders: The fendering system of the FSO consists of 5 "Yokohama" rubber fenders, secured to the FSO's side prior to the beginning of the operation. Offtaking Vessel must be ready to use her own secondary fenders.

Mooring Operations Hours: Mooring operations will normally take place in daylight hours only. In special cases the Terminal Superintendent may authorise the Operations Head to perform mooring operations during night hours.

Mooring Manoeuvre (Side to Side): The Offtaking Vessel will manoeuvre in a safe way so as to approach the FSO's starboard side, making use of her engines and *if necessary* utilising the services of the tug in attendance, under the Mooring Master's advice. A rope suitable for towing should be made ready and lowered from the starboard bow to the water level when approaching the FSO until securely moored, to be used by the tug *if necessary.*

Caution: No anchors must be used. Anchors must be secured in such a way as to avoid accidental release.

Line Throwing Device: A pneumatic line throwing apparatus will be, *if necessary,* used by the FSO to establish contact with the Offtaking Vessel.

Number of Mooring Lines (Side to Side): A minimum of 6 suitable lines will be secured fore and 6 aft, 2 of them must be spring lines at each end.

Unmooring Manoeuvre (Side to Side): The unmooring manoeuvre will again be monitored by one of the Mooring Masters, stationed on the FSO. The tug will be in attendance. A rope suitable for towing should be made ready and lowered, from the Offtaking Vessel's starboard bow, to the water level, to be used by the tug *if necessary.*

Mooring Manoeuvre (Tandem): The Offtaking Vessel will manoeuvre in a safe way so as to approach the FSO's stern, making use of her engines and, *if necessary,* utilising the services of the tug in attendance under the Mooring Master's advice.

Caution: No anchors must be used. Anchors must be secured in such a way as to avoid accidental release. A rope, suitable for towing, should be made ready and lowered from the stern central fairlead to about 1.0 m. from the water level, but *no further,* unless so instructed.

The tandem mooring assembly floating pick-up rope will be heaved up from the Offtaking Vessel's bow Panama Fairlead by a polypropelene messenger rope of 1.5 in. diameter and at least 300 ft. long, that must be made ready while approaching. The Mooring assembly will then be heaved up and the chafing chain stoppered in the bow Smit Bracket. In case no suitable Smit Bracket is available, the chafing chain will be stoppered by 2 wire snotters made fast on the ship's bollards (wire snotters and necessary gear will be supplied by the FSO when the vessel is at the "Waiting Area").

Immediately after the chafing chain is made fast, the tug will pick-up the stern towing rope, which should be paid out until ordered to be made fast to one of the stern bollards.

Care should be taken not to move the propeller during this operation. The towing rope must be of a "floating" type.

The tug will remain in attendance during the whole time the vessel is in "tandem", in order to avoid any contact between the Offtaking Vessel and the FSO's stern.

Caution (Tandem and Side-to-Side Mooring): Offtaking ship's main engines must be ready to manoeuvre on 10 minutes notice during the whole time spent moored at the FSO.

Tandem Mooring Assembly Composition: The system is composed of:

1. About 30 ft.×3.5 in. diameter chafing chain, stoppered by a Smit Bracket on the FSO

   connected to

2. About 200 ft.×20 in. circumference nylon rope

   connected to

3. About 30 ft.×3.5 in. chafing chain that will be stoppered on the Offtaking Vessel by a Smit Bracket or by 2×2.75 in. diameter (approx.) wire snotters. The chafing chain is held afloat by a metalic buoy connected by a 1 in. "O" Chain, about 9 ft. long, to the extremity of it

   connected to

4. About 600 ft.×15 in. polypropelene floating pick-up line.

LOADING: Max. loading rate 9,000 cu.m.p.h. (56,610 bbl.p.h.).

Crude Oil:	Name: Bouri.	Pour Point: About 21°C.
	API: 23.5.	Loading Temp: +40°C. or more.

Hydrogen Sulphide: Masters are warned that Bouri Crude might contain Hydrogen Sulphide (H_2S). Crew members involved in cargo operations should be warned of the hazard that can be faced and how to deal with it.

Loading Operations at the FSO: Loading operations will be carried out either:

1. Side-by-Side: Export tanker moored to the FSO's starboard side by her own mooring lines (minimum 6 lines forward and 6 lines aft, of which 2 must be spring lines each end)

   or

2. Tandem: Export tanker moored to the FSO's stern by the FSO's mooring assembly. Export tankers should have a Smit Bracket fitted. In case no Smit Bracket is available, suitable wire snotters and ancilliary equipment will be supplied by the FSO to allow the mooring.

Check List: Before commencing any loading operations a Check List will be completed and signed by the Offtaking Vessel's Master and retained by the Mooring Master.

Mooring Arms or (alternative) Hoses: The FSO is equipped with 2×16 in. (150 ASA) loading arms and alternatively with 2 suspended 16 in. (150 ASA) hoses strings. The Offtaking Vessel could be requested to use her own lifting gear to connect and hold suspended the (alternative) cargo hoses.

Stern Loading Hose: The FSO is equipped with 1×16 in. hose floating string, about 950 ft. long, connected to the stern for "Tandem loading". The string end will be picked-up after the completion of stern mooring, by the ship's own lifting gear and connected to the port side manifold.

Deballasting: The Offtaking Vessel must be able to load while discharging ballast from her clean ballast tanks to the sea. In case the Offtaking Vessel could not load while discharging ballast, she should be prepared to load part cargo before discharging ballast, in order to maintain a proper draft and trim, while always ensuring that no oil pollution could arise.

Commencement of Loading: Loading operations will start as soon as the mooring arms (or hoses) are connected and as soon as agreed between the Offtaking Vessel's Master/Chief Officer and the Mooring Master, who will assist with the whole operation.

Loading Rate: Loading will start at low pumping rate to ensure the tightness of the system and will then be brought to the maximum *previously agreed upon* rate.

Watches during Loading: Manifolds and mooring line watches will be continuously kept on the Offtaking Vessel during the whole loading operation.

Lack of Communications: Communications between the Offtaking Vessel and the FSO will be ensured by means of portable radio sets supplied by the Mooring Master. In no case should there be a breakdown in communications during the loading operations. In event of such breakdown, the International Morse Signals, letter "K", will be blown by the Offtaking Vessel or by the FSO whistle. Loading operations will be stopped until communications have been re-established.

Completion of Loading: As soon as the loading operation is completed the loading arms/hoses will be disconnected and the Offtaking Vessel will be unmoored and sailed to a safe distance from the FSO, with the advisory services of the Mooring Master. Cargo documents will be brought to the vessel later by the tug, unless an "Early Departure Procedure" has been agreed upon.

Early Departure Procedure: Masters will be asked to agree to the "Early Departure Procedure". Should they accept they will be requested to sign in advance all "Bills of Lading" and other shipping documents, in blank. Cargo figures and other entries to be filled in the cargo papers will be communicated later, either by VHF, telex or radio message. This procedure will expedite ship's departure.

BALLAST: There are no facilities for receiving clean/dirty ballast at the Terminal. Only clean ballast can be discharged overboard.

MEDICAL: In case of need of medical attention, the following information should be sent to the Agents:

1. Name, rank, nationality and passport number of the crew member.
2. General symptoms and/or any particular requirements.

FRESH WATER/FUEL: Available in cases of emergency only.

SHORE LEAVE: Crews are not allowed shore leave, however sick crew members can be repatriated or go ashore for medical attention. In case of repatriation, the Master must agree the correct procedure with his agents.

WEATHER: *Winds:* Radial distribution shows an increase of wind blowing from N.W. and a decrease when blowing from E.S.E. Maximum observed wind speed can reach gale Force 8 (sometimes more) from N.W. during Winter time.

Waves: Waves are mainly from West to North and from East to S.E.

Waves generated by cyclonic disturbances come from N.W. to S.E. across the Thyrrenean Sea. High pressure in the Bouri area direct waves from E.S.E. to North.

Currents: The prevailing current is flowing Eastward with a maximum rate of about 1.5 knots.

Miscellaneous:

Max. sea surface temperature:	31°C.
Min. sea surface temperature:	7°C.
Max. air temperature:	33.5°C.
Min. air temperature:	5°C.

Rain:

Annual average is about 381 mm. Significant periods are January – February with 68 mm. and November – December with 80 mm.

Max. tide range: 0.95 m.

Bottom conditions: 18 m., thick top silty carbonate sand.

GENERAL: *Flag:* All ships calling at Bouri Field must fly the Libyan flag and the Quarantine signal must be displayed upon the authorities visit.

Gangway: Normally no gangway will be rigged between the FSO and the Offtaking Vessel. Should one be used, a safety net must be fitted underneath.

Visitors: Unauthorised personnel are not allowed to visit the FSO or the Offtaking Vessel.

OPERATOR: AGIP, Tripoli. *Telex:* 20282 Agip Ly.

Malaysia

BINTULU, Sarawak: 03.16 N. 112.59 E.

(See Late Plans)

PORT LIMITS: Following the arc of a circle with a radius of 10 nautical miles radiating from Tanjong Kidurong Point in position Lat. 03° 16.1′ N., Long. 113° 03.20′ E.

Fairway Buoy: Lat. 03° 16.35′ N., Long. 112° 59.0′ E.

DOCUMENTS: The required documents are:

4 copies Last Port Clearance/Shipping Arrival Report.
1 original Maritime Declaration of Health.
6 copies Crew List.
4 copies Voyage Memorandum.
6 copies Passenger List.
3 copies Vaccination/Cholera List.
3 copies Personal Declaration.
1 original Bonded Stores List, Ex-Customs.
5 copies Provisions List.
3 copies Engine Stores List.
3 copies Arms and Ammunition List.
3 copies Transit Manifest.

PILOTAGE: Pilotage is compulsory and available day and night.

Notification of Arrival: 24 hours notice of ETA required.

LNG/LPG/Ammonia vessels to give 72 hours notice.

Pilot Boarding Ground: Lat. 03° 18.0′ N., Long. 112° 58.5′ E.

VHF: All vessels shall contact Port Control by VHF Channel 12 at least 3 hours before arrival at the Pilot Boarding Ground or as soon as VHF contact can be established.

APPROACHES: The approach channel is a dredged channel 5.7 km. long, 240 m. wide with a depth of 15.0 m. at Chart Datum and is provided with leading lights and buoys. All navigational aids are reliable. For prominent points refer to B.A. Chart 2100. Current runs at 2 knots and tidal range is 2.2 m.

ANCHORAGE: Depth at anchorages varies from 12.0 m. to 26.0 m.

There are different anchorages within the Bintulu Port water limits:

Areas	*Depths*
(a) General Cargo Anchorage	5.0 m. – 22.0 m.
(b) Waiting Anchorage	24.0 m. – 28.0 m.
(c) Gas Tanker Anchorage	24.0 m. – 26.0 m.
(d) Petroleum Anchorage	21.0 m. – 25.0 m.
(e) Explosives Anchorage	7.0 m. – 21.0 m.

RESTRICTIONS: Depth at General Cargo Wharf is 10.5 m. Depth at Bulk Cargo Wharf is 13.5 m. Depth at LNG Jetty is 15.0 m.

No berthing after sunset at LNG Jetty.

MAX. SIZE: Max. draft for general cargo vessels is 10.0 m.

HEALTH: Maritime Declaration of Health is to be completed on arrival in accordance with International Sanitary Convention, 1944.

VHF: Receiving channels used within Bintulu Port are as follows:

Channel 12 – Working channel.
Channel 14 – Port Operations.
Channel 16 – International calling.
Port offers 24 hours service.

Vessels are required to establish contact with Port Authority Control Tower, call sign "Mike Kilo" (MK) on Channel 12 for pilots, etc., at least 3 hours before the expected time of arrival and departure from the port.

TUGS: Use of tugs is compulsory and depends on the size/length of the vessel:

Particulars of 3 Steerable Thruster Tugs:

LOA:	37 m.
Length of Design Waterline:	35.5 m.
Breadth (moulded):	11.0 m.
Depth (moulded):	4.20 m.
Main Engines:	MWM TBD 441 V12 2×1,956 h.p. @ 900 RPM each. Engine couple to Liaaen CP compass thruster type TCN 92/68-230.
Auxilliary Engines:	3×MWM D232V8 85KW/415V/50 HE.
Speed	13.5 knots.
Bollard pull:	42 tonnes.

Particulars of 2 Twin-Screw Tugs:

LOA:	27 m.
Length of Design Waterline:	26.5 m.
Breadth (moulded):	8.00 m.
Main Engines:	2×MWM TBD 440-6. 2×929 HP @ 900 RPM.
Auxilliary Engines:	2×MWM TD 232 V8.
Speed:	11.5 knots.
Bollard pull:	23 tonnes.

BERTHING: 3 berths with a total length 514.5 m. for general cargo.

1 berth of 270 m. for bulk cargoes.
1 Ro/Ro Ramp of 25.5 m.
1 LNG Jetty for LNG vessels only.
1 Jetty for petroleum products.

The wharf apron for the General Cargo Wharf is 24 m. and for the Bulk Cargo Wharf it is 30 m. The depth alongside the General Cargo Wharf is 10.5 m. and alongside the Bulk Cargo Wharf it is 13.5 m.

CRANES: 1 Gottwald mobile crane with 100 tonnes lifting capacity and 2 mobile cranes with 30 tonnes lifting capacity at 10 m. radius.

STEVEDORES: Stevedores and cargo handlers are obtainable from the Port Authority Traffic Department.

TANKERS: There is a Petroleum Jetty which could accommodate vessels of 30,000 d.w.t. With the present depth of 9.0 m. it can only accommodate vessel of 10,000 d.w.t. However, the area can be dredged further to accommodate 30,000 d.w.t. vessels.

Also see "Bintulu Terminal", page 1031.

DENSITY: Average 1009 – 1025.

FRESH WATER: Available at berth. No limitation as to vessel's requirement. Rate approximately 35 – 40 tonnes per hour.

FUEL: High speed diesel available. Price varies from time to time. The supply is by bunker barge and tank trucks at all berths. Other fuel as well as marine lubricants can be obtained through suppliers.

REPAIRS: Deck and engine not attended. Minor repair facilities exist.

SURVEYORS: Kinabalu Adjusters and Surveyors Sdn. Bhd., Mr. Mathews G. Ingan. Tel. 086-34620. Kinabalu Adjusters and Surveyors Sdn Bhd., includes insurance for cargo and cargo claims, etc.

Class survey – available by special arrangement.

GANGWAY/DECK WATCHMEN: Usually ship's crew and ship's gangway.

OPENING/CLOSING HATCHES: Stevedores or ship's crew, whichever to ship's advantage.

CUSTOMS ALLOWANCES:

25 sticks cigarettes per day per man.
1 quart beer/stout/wine per day per man.
One-eighth quart spirit per day per man.
8 sticks cigars per day per man.
1 oz. tobacco per day per man.

CARGO GEAR: Cargo gear is available for loading/discharging, etc., for heavy lifts up to 100 tonnes.

REPATRIATION: Crew changes and repatriation possible.

AIRPORT: Distance 20 km., served by Malaysian Airline System (MAS).

TIME: Local time is GMT plus 8 hours.

HOLIDAYS:

(a) First Day of Chinese New Year.
(b) First Day of Hari Gawai (1st June).
(c) First Day of Hari Raya Puasa.
(d) National Day (31st August).
(e) Christmas (25th December).

POLICE/AMBULANCE/FIRE: Dial 999 and ask for service required.

TELEPHONES: Connecting points available at berth.

BANKS:

1. Bank Bumiputra Malaysia Bhd., Bangunan BDA, Bintulu. Tel: 086-31320.
2. Bank Utama Malaysia Bhd., Jln. Sommerville, Bintulu. Tel: 086-31133.
3. Hock Hua Bank Bhd., 23 Jln. Sommerville, Bintulu. Tel: 086-31433.
4. Malayan Banking Bhd., 24 Jln. Abang Galau, Bintulu. Tel: 086-31635.
5. Standard Chartered, 89 Jln. Keppel, Bintulu. Tel: 086-31272.
6. Malayan United Bank Bhd., 186 Taman Sri Dagang, Bintulu. Tel: 086-32393.

DELAYS: Vessels generally berth on a "first come first served" basis, irrespective of day or night. No delays experienced so far at Bintulu Port.

SHIP SUPPLY SERVICE: Pau Chiong Tai is the local ship chandler. Prices are reasonable.

SHORE LEAVE: Shore leave is normally allowed up to 1800 hrs., according to Immigration bye-law.

GENERAL: The port is an "all weather port" and the most modern port in Sarawak. When a vessel is within the port limits, extra precautions must be taken to avoid oil spillages, etc.

When vessel is lying at berth no rubbish should be thrown overboard.

The Port Safety Officer will board vessel, under normal circumstances, to inspect the ship prior to loading.

Preventive measures must be taken to avoid the risk of fire whilst at Bintulu Port Authority's wharf.

AUTHORITY: Bintulu Port Authority, P.O. Box 296, 97007 Bintulu, Sarawak, Malaysia. *Tel:* 51001/5 (5 lines). *Telex:* Biport Ma 73179. *FAX:* 086-52929. *Contact:* En. Ramli Abu Samah, General Manager.

Martinique

FORT DE FRANCE: (Also see page 1066)

SHIPMASTER'S REPORT: December 1988.

Belle Fontaine: (See "Late Plans").

Vessel: LOA 150 m. Beam 21.0 m. Summer draft 9.05 m. 10,330 g.r.t. 5,584 n.r.t. 3 hatches.

After completion of cargo operations at Fort de France, the pilot boarded and vessel sailed for Belle Fontaine.

The Master takes command from Fort de France pilot station to about 1.5 miles before the berth at Belle Fontaine, when the pilot again assists. The regular pilot boat follows with additional crew from Fort de France and assists in taking the ropes to the dolphins and the jetty. Usually, and preferably, the pilot berths the vessel port side alongside against a slight current. The berthing is also done, preferably, in the early morning, due to absence of wind. The starboard anchor is dropped to 2 shackles on deck when the vessel is about 4 to 3 cables from the berth and is slacked away as required. The anchor is not of use for berthing but is for assisting unberthing. Under normal condition the vessel makes fast with 2 long headlines and 2 stern lines to the dolphins and 2 springs each, forward and aft.

The berth is built of concrete on a solid foundation, the sea bottom is rock covered with boulders. The berth is very well fendered with 8 large tube-type rubber fenders of about 1.20 m. diameter and 1.50 m. length. Both corners of the berth are additionally protected with 4 smaller tube-type fenders on each side.

The berth is fitted with 2 modern loading arms for receiving fuel for the power station, to which the berth belongs. The berth is also used to receive equipment and spares for the power station, as well as shipping used parts. We loaded 150 tons of general, consisting mainly of oversized and heavy material, also some 40 ft. containers of up to 30 tons each. The space on the berth is limited and if the vessel has to work on a second hatch it has to shift. There is sufficient room to manoeuvre with 40 ft. trailers. The stevedores come from Fort de France.

If vessels are berthing at Belle Fontaine and come directly from overseas, the customs broker takes all documents to Fort de France to obtain Clearance. Usually the authorities do not come on board.

The pilot has to be ordered from Fort de France, and will await the vessel 1 mile Northwest of the berth. All regulations valid for Fort de France are valid for this berth. The official name of the berth is: Fort de France, berth Belle Fontaine.

If repairs or stores are requested it has to be organised through Fort de France companies. In an emergency small amounts of fresh water can be taken by a 1 in. pipeline.

The position of the berth taken by bearings and from official sources (B.A. Chart No. 371) differs slightly from the position taken from the satellite. The latitude shows no difference but the longitude obtained by satellite is 61° 10.47′ W., whereas the position on the chart shows 61° 08.7′ W.

600 m. inshore of the berth is a new power station with 2 conspicuous chimneys. They are illuminated at night by white lights and make a good landmark by day and night. The chimneys are in line 055°.

Morocco

MOHAMMEDIA: (Also see page 1099).

SHIPMASTER'S REPORT: December 1988.

The following is an update of the Shipmaster's Report, dated April 1988 on page 1099.

Tugs: An additional tug of 2,500 h.p. is available.

Large tankers berthing at the Outer Harbour may require the assistance of an additional tug from Casablanca.

Berthing: Additional spring lines required if there is a large swell.

Daylight berthing only for LPG carriers. Product carriers berth between 0500 hrs. and 2200 hrs. Time depends on draft, but usually at or near HW.

Vessels at Berth No. 6 can sail at any time, depending on draft, but generally 3 hours either side of HW.

Pilot often unavailable between 2200 hrs. and 0600 hrs. (in December 1988 we sailed at 0100 hrs.).

Berth No. 1 used for chemicals and refined products.

Berth No. 2, inside of Berth No. 1, is used for refined products and loading salt. Depth about 7.0 m.

Cargo: Chicksan cooled with ship's condensate.

Watchman: Onboard throughout vessel's stay.

Officials: No Clearance at anchorage. In rare cases, crew changes are permitted at the anchorage.

Time: Summertime, GMT plus 1 hour, from June to September.

Airport: About 30 minutes by motorway to airport which is S.E. of Casablanca. West Europeans need "Negative Visas".

Netherlands

ROTTERDAM: (Also see page 1117)

DOCUMENTS:

Shipmaster's Report: November 1988.

River Police: 2 copies Crew List on arrival, and 2 copies Crew List on departure.

Agent: 1 copy Stores List.
1 copy Personal Effects List.
Customs: copy Personal Effects List.

SHIPMASTER'S REPORT: September 1988, (received January 1988).

Berth: Akzo Zout Chemie, Botlek.

Pilotage: Call "Maas Pilot" when approaching pilot boarding ground. The Pilot boards from a small boat which is sent from the large pilot cutter, or from a yellow launch in the vicinity of the Maas Centre Buoy.

Anchorage: The anchorage used by small vessels is to the South of the Maas Centre Buoy, outside the separation zone.

Tugs: Tugs not used.

Berthing: Akzo Zout Chemie, Botlek, is located in Chemiehaven. This is the South arm within the Botlek complex, on the East side. The berth is well fendered and low and is mainly used by small vessels and barges. Good leads for mooring lines are available.

The vessel is swung off the berth using the port anchor and berths starboard side to. Care should be taken when berthing as ships/barges are berthed at the Stolt (Panocean) Berths on the opposite side of the dock. Mooring usually consists of 2 head/stern lines and 1 spring at each end.

Cargo Operations: Initially the vessel had to purge with nitrogen. This was done on the berth, but with the nitrogen being supplied by Hoek Loes from trucks. The nitrogen was heated, both within the truck and by a heater at the manifold, to approximately 50°C. They can supply at 80°C if they can get trucks nearer to the ship. The nitrogen was supplied at 700 cu.m.p.h., but they can supply at up to 2,000 cu.m.p.h. if requested, but with corresponding drop in temperature.

Vessel loaded VCM through 4 in. (300 ASA) liquid line and 3 in. (300 ASA) vapour line (flexible hose attached to side of liquid arm). Shore supply and connect all reducers. Initially they required 1 ft. to be loaded into the tank, after which samples are taken. Analysis of each tank takes approximately 1.5 hours. As soon as first tank is cleared, vessel can commence loading, but only into that tank. Once all tanks are cleared, it is required that each tank is loaded individually so that the inhibitor can be added in the correct quantities. This takes approximately 2 minutes for each tank.

The maximum rate that shore can supply is 220 t.p.h. Cargo can be supplied at ambient temperature from pressure storage, or fully refrigerated.

Due to a mix-up between Charterers, cargo was initially supplied at ambient temperature and final 30 minutes at ambient temperature, due to the lack of refrigerated cargo. Refrigerated cargo was loaded at −15°C at the manifold and the final tank temperatures were −11.8°C.

Vapour is returned ashore and is passed through a scrubber before being vented. However, due to the size of the line (2 in. on the jetty) throughput is low. To increase this and reduce the tank pressures from 2 Bar down to 300 mb. prior to sailing, for the last 3 hours of loading, 2 compressors blowing ashore were used.

There is a control room at the head of the jetty which may be contacted by radio. Most communications were by word of mouth.

Caleb Brett have a surveyor permanently stationed within the plant. He handles all surveys and samples and the adding of inhibitor. In addition to taking samples at commencement of loading (first foot), samples are also taken when each tank is completed.

A telephone is placed on board the vessel.

Fresh Water: Available by barge.

General: Stores have to be manhandled along the jetty, but shore crane can be used to place large items aboard the vessel.

SHIPMASTER'S REPORT: December 1988.

Moerdijk:

The following is an update on Shipmaster's Report, dated June 1987, on page 1127.

Berthing: Max. draft 7.8 m. (not 9.0 m.)

Vessels with a draft of 7.5 m. (not 6.5 m.) can navigate at any state of the tide.

Normally vessels berth starboard side to at Berth No. 2 and port side to at Berth No. 3 without use of tug. Vessels can berth starboard side to at Berth No. 3 if a tug is used.

Cargo: Rate of discharge for ethylene is 110 t.p.h.

Generally, there is no surveyor. The terminal will not sign ullage sheet.

Make sure that the Loading Master signs the Statement of Fact on completion.

Time between completion and sailing is over 3 hours.

General: Lay-by berth at Shell is suitable for vessels 100 m. LOA and 8.0 m. draft.

Developments: Loading/discharging facilities to be upgraded in 1989 with extra ethylene lines for faster turnarounds.

Norway

AAHEIM: 62.02 N. 05.32 E.

SHIPMASTER'S REPORT: January 1989.

LOCATION: Aaheim, a small ore exporting village, lies in the Vanelvs Fjord. The berth is well sheltered by the islet of Torvhl in the West and the mainland to the South and East.

DOCUMENTS:

Ship's Register.
Stores List, 2 copies.
Private Property List, 2 copies.
Crew List, 2 copies.
Maritime Declaration of Health.

PILOTAGE: Give 24 hours notice of ETA to Kristiansund Pilots. (See "Notice"). When approaching from the South, the Pilot boards in position Lat. 62° 12′ N., Long. 05° 18′ E. When approaching from the North, the Pilot boards off Runde Island.

ANCHORAGE: None available outside. If due to strong winds vessel is unable to berth, then it is possible to anchor about 0.5 miles West of Fiskaahl Light (North of Slagnes).

MAX. SIZE: Max. permissible draft 13.5 m.

TUGS: One tug is available at all times. If a second tug is required, it may be called from Alesund.

BERTHING: Vessels normally berth port side to. The length of the quay available for loading is limited. Hence one shore fibre line has to be picked up and made fast at the stern. This acts as a stern line. As the stern extends outside the jetty, the remaining lines are all back springs. At least one breast line should be given due to the possibility of strong offshore winds.

LOADING: For loading lump olivine, only one shore loader is available, which runs on rails over a length of 75 m. The loader has an outreach of 16 m. The vessel has to be shifted frequently to enable loading at all hatches. The rate is claimed to be 1,000 tonnes p.h. but averages about 800 tonnes p.h. due to frequent conveyor breakdowns. For the finer grades (0 – 3 mm.) a rate of 2,500 tonnes p.h. can be achieved.

DENSITY: 1025.

FRESH WATER: Excellent drinking water available. No charge. Shore hoses available.

FUEL: Not available.

REPAIRS: Only minor repairs possible.

REPATRIATION: By taxi to Alesund and a 45 minute flight to Oslo.

CUSTOMS ALLOWANCE: 1 bottle spirits and 200 cigarettes per person.

GENERAL: Olivin (Magnesium Silicate + 7% Iron Ore). The world's largest deposit is found in Norway.

The annual world consumption of olivin is about 5 million tonnes and 2.1 million tonnes is shipped every year from Norway, thereby meeting almost 40% to 45% of the world's needs.

Holds/Tunnel Wash: No restrictions. Possible to wash down cargo holds and tunnel when alongside. However, the Agent has to be informed.

Stores: Not available.

NOTICE: Dated: July 1988.

INFORMATION ABOUT THE PILOT SERVICE IN MORE AND TRONDELAG:

The Coast Directorate has established new Regulations regarding ordering of pilot services.

As it will take some time before an official translation into English language is ready for distribution from the central authorities, we give below some information about the main points:

Vessels approaching from the sea, and vessels in port, which desire a pilot or due to national regulations are enjoined to use pilot in restricted areas, shall order the pilot with at least 24 hours notice.

The order shall be confirmed 6 hours before arrival/departure and a final confirmation should be given 2 hours before arrival at the pilot station (boarding ground) or departure port.

When ordering a pilot the following information should be given about the vessel:

(a) Name.
(b) Call sign.
(c) Nationality.
(d) LOA and beam, or gross registered tonnage.
(e) Draft.
(f) Type of cargo.
(g) Destination.
(h) Purpose of call.
(i) ETA pilot station (boarding ground)/ETD port.
(j) Whether one or two pilots are required.

If the pilot has been ordered to report to a certain place at a certain time, but has to wait for the ship, waiting money has to be paid according to the Regulations for Coastal fees.

If long waiting time occurs, the pilot may be called back, due to lack of available pilots. A new pilot must then be ordered.

The new Regulations are implemented 1st August 1988.

More and Trondelag Pilot District include the pilot stations Trondheim, Kristiansund N., Aalesund and Runde. The office is situated in Kristiansund and ordering of pilots from the stations mentioned should be given to Kristiansund.

Post address: Losoldermannen i More og Trondelag,
Kaibakken 1,
6500 Kristiansund N.,
Norway.

Telephone: 073 – 70800.

Out of office hours the pilot cutter, if the cutter is in port, receives orders for pilot on the same telephone number. If she is at sea, mobile telephone number 090 – 32997 may be used.

For direct communication between vessels and pilot cutter, maritime VHF radio-telephone may be used.

Signed: Pilot Master.

HEROYA: (Also see page 1201)

SHIPMASTER'S REPORT: December 1988.

Pilotage: Pilot boards about 2 miles South of Langoytangen Lighthouse (near Langesund), from a fast sea cutter painted orange. Call "Brevik Control" on VHF Channel 80, working Channel 13.

One pilot is used for the complete passage into Frierfjord, which serves Rafnes, Porsgrunn and Heroya.

When unberthing or sailing from the inner anchorage, the pilot and tugs require 2 hours notice through "Brevik Control".

Anchorage: The anchorage is located in Frierfjord off Versvik, in a depth of 20 fathoms. The anchorage is sheltered.

It is difficult to anchor outside the Pilot Limits as the water is deep and the coast is exposed to the prevailing winds.

The pilot advised that the only suitable anchorage outside is at Sasteinflak Bank, about 2.7 miles S.W. of Langoytangen Lighthouse. This anchorage is exposed to S.W. winds and swell. If vessel anchors at this location it is to report to "Brevik Control" prior to anchoring.

Approaches: The pilotage time to Rafnes via Brevik Fjord for vessels with a draft of less than 32 ft. is 1 hour. Due to restrictions at Kjortingen Passage and Brevik Bridge, vessels in excess of 32 ft. draft use Kalven Passage to the East of Brevikfjord. However, vessels can only go as far as Brevik.

The Pilot reports that the waters never ice over as the water is salt and currents are always running.

Tankers which are not gas free must have a minimum visibility of 1.0 nautical miles in order to make a passage.

Tugs: A safety tug is compulsory for all tankers which are not gas free. Large vessels require 2 tugs.

Tugs join vessels off Aroy Island and make fast astern with 2 ship's lines from the centre lead.

Fire wires are required, forward and aft, when proceeding from the pilot station to Rafnes, and vice versa.

There are 4×3,500 h.p. tugs available and one is always on stand-by at Rafnes when tankers are alongside. When vessels are alongside and not loading or unloading (cooling down does not count as loading) a charge of about £60.00 per hour is made for the stand-by tug and this is for the vessel's account.

Berthing: There are 3 berths for gas and product tankers at the Norsk Hydro Refinery at Rafnes, on the West side of the Fjord.

Largest vessel handled 32,000 cu.m. (gas vessel).

The main imports are propane and butane and the main exports are ethane, sodium and sulphuric acid.

The berths are No. 1, No. 2 and No. 3, from North to South. Berths No. 2 and No. 3 have a depth of 12.0 m. The berths are well constructed and have good fenders. The berths are 'T' shaped jetties with mooring dolphins connected by catwalks either side of the jetty.

Vessels normally berth port side alongside. Shore gangway provided.

There is a fairly strong South flowing current along the line of the jetties.

Cargo: Ethylene is loaded at Berth No. 3 from ethane Chicksan, at about 150 t.p.h. at −100°C.

The liquid and vapour Chicksans are 6 in. (150 ASA).

As handling of ethane and ethylene is through the same Chicksans, a period of 18 hours is required for shore line purge between products.

Ethylene is stored at −95°C. and is further cooled through expansion valves to −100.5°C. in order to arrive at the ship's rail at −100°C.

Stoppages for "First Foot" and "75% samples" varies due to shore loading requirement. We did not stop, due requirement for cold product and in order to avoid line heating.

Vapour return by ship's compressor, mainly at 100% compressor loading.

Ethylene is not normally exported, although it is sometimes imported. It is used for VCM, but not at the present time due to VCM cracker explosion.

Vessels are not normally allowed to stay alongside for cooling down as other vessels are usually waiting and there is a charge for a stand-by tug.

General: VHF: Whilst at anchor Tjome Radio, VHF Channels 25 and 62, was used.

Stores: Stores are expensive.

STURE: 60.37 N. 04.51 E. (See Late Plans)

LOCATION: The Sture Crude Oil Terminal is located at Hjeltefjorden on the East side of Alvoy in the position Lat. 60° 37.2′ N., Long. 04° 51.5′ E.

The terminal is owned by a consortium of companies, and is operated by Norsk Hydro a.s.

The Sture harbour area is defined as the terminal's jetties with facilities, and the total sea area inside the seaward safety zone.

DOCUMENTS: See "Mongstad".

PILOTAGE: Pilotage is compulsory for all foreign vessels calling at the terminal. The pilot will embark in the vicinity of Fedje or Holmengra.

The terminal recommends that all Norwegian and NIS vessels also use a pilot.

ANCHORAGE: There is no safe anchorage in the vicinity of the terminal. If the jetties are occupied, arriving vessels must wait outside the pilot area. Further particulars may be obtained from the pilot station.

APPROACHES: Two approach channels with very deep water, give good access to the Sture Terminal. The main approach is through Fedjeosen, South of Fedje. The other approach is North of Holmengra.

RESTRICTIONS: Berthing and unberthing during daylight only. All ships shall comply with IMO and Terminal Regulations. All ships calling at the terminal must confirm that they are fully I.T.F. approved.

The following ship types can be accepted:

1. Conventional tankers and product/crude combination carriers in the range from 30,000 d.w.t. to 300,000 d.w.t.
2. Combination carriers of O.B.O. and O.O. type which have used same tanks and lines for bulk liquids as will be used at the Sture Terminal, for the last three voyages.

The vessel shall be able to accept a minimum bulk loading rate per hour:

For vessels of up to 89,999 tons s.d.w.t.: 7.5% of s.d.w.t. per hour.

For vessels of between 90,000 tons s.d.w.t. and 179,999 tons s.d.w.t.: 6.6% of s.d.w.t. per hour.

For vessels of 180,000 tons s.d.w.t. and above: 5.8% of s.d.w.t. per hour.

Traffic Regulations: No vessel, regardless of size, is permitted to move inside the Sture Harbour Area, unless authorised by the terminal.

MAX. SIZE: The terminal's berthing facilities consist of 2 jetties for handling of crude oil.

Jetty No. 1:	DWT min/max:	30,000 d.w.t. – 300,000 d.w.t.
	Depth alongside:	26 m.
	Max. allowed draft:	23 m.
Jetty No. 2:	DWT min/max:	50,000 d.w.t. – 150,000 d.w.t.
	Depth alongside:	26 m.
	Max. allowed draft:	23 m.

~~Jetty No. 2 is expected to be in operation from 1st September 1989~~.

HEALTH: See "Mongstad".

RADIO: An arriving vessel must give proper notice through the agent or directly to the terminal by cable or telex.

The vessel must have received approval from the terminal to proceed inside Fedjeosen or Holmengra to the dedicated jetty.

Vessels proceeding inwards should be in constant communication with the terminal on VHF Channel 14.

During berthing operations, the vessel is in communication with the Shift Supervisor on VHF Channel 14 through the pilot's radio.

Pre-Arrival Information: 72 hours before arrival, the Master shall inform the terminal about the following, either via his agent or direct to the terminal on Telex No. 40192.

(a) Ship's name and call sign.
(b) Flag.
(c) Name of Master.
(d) Cargo number.
(e) Gross registered tonnage.
(f) Summer deadweight.
(g) Draft, fore and aft.
(h) Last port of call.
(i) Confirm ETA (local time and date).
(j) Whether loaded/part loaded or in ballast. If loaded, nature and quantity of cargo, if ballasted, type (segregated/oily) and quantity to be discharged ashore and estimated deballasting time.
(k) Quantity of cargo to be loaded, and requested loading rate.
(l) Length overall and beam, number, size, distance from bow to connections and position (above water line and from ship's side) of vessel's manifold connections.
(m) Defects in vessel or equipment affecting discharging/loading performance or manoeuverability.
(n) Confirmation that an Inert Gas System is fitted, fully operational, and that the oxygen content of all tanks does not exceed 8% by volume.
(o) Last three cargoes.
(p) Mooring equipment.

Also see "VHF".

VHF: The Sture Crude Oil Terminal will be manned 24 hours a day and can be contacted on VHF Channel 14.

V.T.S. in operation on Channel 9.

When moored alongside the jetty, a vessel will communicate with the terminal by means of a UHF radio handset provided by the terminal.

The Terminal Control Building is equipped with coin-operated telephones for public use. The agent can supply mobile telephone if required.

Each jetty is equipped with two telephones for internal use.

Communications: A portable radio hand set will be supplied by the terminal to the vessel for use during loading operation. A receipt will be required for the radio hand set. The radio will be used for contact with the Jetty Operator during normal loading operations and for notification of an emergency condition. The radio must be returned to the terminal operator when the documents are delivered onboard.

TUGS: There are 2, stern drive type, tugs available for handling berthing/unberthing operations at all times. Each tug has a bollard pull of approximately 50 tons. Under normal circumstances, tugs towing hawsers will be used. Both tugs have fire fighting and oil recovery equipment.

Two mooring boats are available for handling of mooring lines.

BERTHING: *Mooring Facilities:* The loading platforms and mooring dolphins are equipped with (high capacity) mooring hooks and pulleys. The hooks and pulleys have quick release facilities and capstans to haul in mooring lines. The release can be done locally or remotely from the control room.

The jetties are equipped with monitoring systems comprising:

(a) Wind and sea current sensors, detecting speed and direction.
(b) Berthing aid system, monitoring the tanker's approach velocity, distance to jetty and angle of approach during the final stage of berthing.
    Approach velocity max. 0.10 m./sec.
    Approach angle max. 7°.
(c) Sensor in the mooring gear to detect mooring line loads.
(d) Measurement of tanker surge movements and sway, when the loading arms are connected.
(e) Closed circuit television cameras.
(f) Area radar display.
(g) VHF/UHF radios.

All data from the monitoring systems are routed to the control room.

The berthing aid data becomes available when the ship is at a distance of approximately 100 m. from the jetty.

Mooring Arrangements: It is of the utmost importance for safe operation that ships are securely moored and maintained in the correct position at all times.

The Master of the vessel shall ensure that his vessel's moorings are closely watched and tended as required to prevent undue movement of the vessel. Ensure that all moorings on self-tension winches are secured with winch brakes in locked position. Use of self-tension winches in automatic position is strictly forbidden.

All mooring lines in the same direction shall be of the same type and have the same working strength.

All mooring wires shall have rope tail ends, with minimum the same working strength as the wires.

Mooring diagrams for small, medium and large size vessels are shown in the "Late Plan Section".

Safety Towing Wires: Vessels, while secured alongside the jetty, must provide and rig towing wires with sufficient length and strength on seaward bow and quarter, with eyes maintained just above the water level, ready for emergency towing.

The wires must be securely fastened to the ship's bollards.

LOADING: *Jetty Details:* Each jetty has 4 loading arms which can be either locally operated from a fixed jetty head console or from a portable remote control panel.

Each loading arm is equipped with the following facilities:

(a) Loading arm stripping pump with 30 cu.m.p.h. design capacity.
(b) Hydraulically operated valves, couplings and quick release ("PERC") arrangements.

Loading Arms Flange Sizes and Safe Working Ranges:

Loading arms are equipped with adjustable flanges in the range of 12 in. – 16 in.

Ship's manifold connection must meet loading arm envelope configuration and must provide space and support on which to place loading arm support legs.

	Min.	Max.
Unencumbered distance from ship's side:	1.145 m.	8.145 m.
Height of centreline to deck or suitable working platform:	1.3 m.	2.4 m.

Min./Max. Loading Rates:

Loading rates:	Min.	800 cu.m.p.h.
	Max.	15,000 cu.m.p.h.
Loading arm design capacity:		3,750 cu.m.p.h.

Also see "Restrictions".

Pre-Operational Meeting and Inspection: Before any operations commence, a Pre-operational Meeting will take place between the terminal representative and the Master or the officer-in-charge of cargo operations. They will:

(a) Complete and sign the Ship/Shore Safety Check List.
(b) Discuss any deficiencies shown up by the above Check List and agree on any additional precautions required.
    The terminal reserves the right to refuse to load a vessel if the requirements are not met.
(c) Discuss and agree on procedures for taking ballast tank samples (see "Ballast"), and inert gas samples (see "Inert Gas Systems").
(d) Agree on a loading/discharging programme that includes:
    Quantities of cargo to be loaded.
    Loading rates.
    Deballasting procedures and rates.
    Procedures for emergency shut-down of operation.
(e) Discuss and agree on the means of communication to be used during the operation.
(f) Discuss and agree on connecting/disconnecting procedures.
(g) Discuss actions to be taken in the event of an emergency. This should include both communication and emergency procedures.

Operational Procedures: Loading/discharging will not commence until all the safety checks have been carried out to the satisfaction of the terminal representative and the Master or the officer-in-charge.

(a) Before any operation is carried out, the ship will be earthed.
(b) The jetty operator will be responsible for connecting the loading arms to the vessel's manifold as indicated by the officer-in-charge.
(c) The jetty operator and the ship's officer-in-charge must agree that systems are correctly lined up before operations can begin.
(d) Loading operations will be closely watched from the terminal control room.
(e) The vessel must give at least 10 minutes notice if required to stop or start any operation, unless under emergency conditions.
(f) The jetty operators will empty the loading arms onboard before disconnecting.
(g) A representative from the terminal and/or independent surveyors will witness the ship's dip/ullage/water dip/temperature/samples and quantity loaded according to ship figures.
(h) Preferably the ship must give notice to the terminal control room before any shut down operation is carried out.

Cargo Quantity Calculations: The cargo loaded will primarily be calculated according to the shore metering system, and the same figures will be entered on cargo documents.

Emergency Shut-down: If the vessel is loading, and it becomes necessary to manually initiate an emergency shut-down, the jetty system should, if possible, be used.

In the event of an emergency, jetty personnel should immediately be alerted to the situation, and the emergency stop, which is placed on the gangway, activated.

Manifold valves should not be closed until so advised by jetty personnel.

Inert Gas Systems: All vessels calling at the Sture Terminal must have a fully operational Inert Gas System. Prior to arrival, the vessel must confirm that all empty cargo tanks and those containing dirty ballast have been fully inerted and have an oxygen content of 8% or less by volume.

Random samples will be taken, and provided these are found to have an oxygen content of no more than 8% by volume, the vessel will be permitted to commence operations.

If the random samples indicate an oxygen content in excess of 8% by volume, then the oxygen content of all tanks will be checked.

If it is established that the vessel does not comply with these regulations, then she will be required to vacate the berth without delay and return to sea until an assurance can be given to the terminal that the required oxygen level has been achieved.

In such an event, Notice of Readiness will have to be re-tendered prior to re-entering the port.

Weather Precautions: Operations shall be stopped during severe electrical storms and all cargo valves and valves in the gas line riser shall be closed.

During periods of high winds and on the instructions of the Terminal Manager or Shift Supervisor, operations shall be stopped and loading arms disconnected.

BALLAST: Only clean ballast water contained in segregated ballast tanks will be permitted to be discharged into the waters in the terminal area. Random samples can be taken from segregated ballast tanks.

Contaminated ballast water, defined as such according to Norwegian law, will not be permitted to be pumped overboard in the vicinity of the terminal or into Norwegian waters, but will have to be pumped ashore to the terminal ballast tank. In order to minimise the de-ballasting time, Masters are requested to arrive with minimum ballast on board for safe navigation.

MEDICAL: Only limited services are available at the terminal. Any medical requirements for ship's personnel upon arrival should be arranged through the vessel's agent prior to arrival. Emergency medical services while berthed at the terminal may be arranged through either the vessel's agent or terminal operating personnel.

DENSITY: 1025.

FRESH WATER: Potable water can be delivered at a rate of 30 tonnes p.h. Ship's hoses are to be used.

FUEL: No bunkers of any kind are obtainable at the terminal.

FIRE PRECAUTIONS: In case of fire on board, the ship's responsible officer should:

1. Activate the ship's fire alarm.
2. Notify the terminal by UHF/VHF or other established line of communication.
3. Make a signal in the form of a series of prolonged blasts on the vessel's whistle.

In case of fire on the jetty or the terminal, the jetty operator will inform the ship's responsible officer accordingly.

In all events of fire, whether on board or onshore, all jetty operations will cease and loading arms be prepared for disconnection.

Fire Fighting Equipment on Jetties: Each jetty is equipped with 4 infra-red detectors which will automatically stop loading pumps on the outbreak of fire. These monitors are electrically powered and remotely controlled, either from the main jetty fire fighting control panel, or a local control panel located on the jetty causeway.

Additionally each jetty is equipped with 4 remotely controlled fire foam/water monitors. Fire hydrants for water/foam with international ship/shore connection, and dry powder extinguishers both 12 kilos and 50 kilos are available.

CONSULS: At Bergen, 60 km.

REPAIRS: Hot work or any other repair work including tube cleaning, chipping and scraping, hull painting, testing or servicing of electrical equipment (including radar, radio and domestic electrical equipment), is prohibited on the vessel unless a written application, specifying the repair work to be carried out, has been submitted to the Terminal Manager and written permission granted.

If permission is granted, a list of specific repairs and a list of shore workmen employed on the vessel, must be given to the Terminal Manager before work commences.

Repairs and other work which may immobilise the vessel, must not be commenced without prior approval, in writing, from the Terminal Manager.

In all cases, adequate fire fighting equipment should be ready for immediate use.

SURVEYORS: S.G.S. Surveyor based at the terminal.

CUSTOMS ALLOWANCES: See "Mongstad".

REPATRIATION: Possible.

AIRPORT: Bergen, 60 km.

TIME: Norway uses Central European Time, therefore local time is one hour ahead of coordinated universal time (UTC). During the Summer period Norway uses local Summer time, which is 2 hours ahead of UTC.

STORING: Stores must preferably be handled before or after cargo operations. Only small items of ship's stores, if carried by hand, may be taken on board during cargo operations.

Vehicles will only be allowed on the jetty approach roadway or jetty head after permission from the terminal.

Close to the jetties there are designated parking areas for visiting vehicles.

SHORE LEAVE: *Access to Restricted Area:* The Master shall arrange for a current Crew List to be deposited with the terminal representative on arrival, and shall, when possible, include the names of all persons expected to visit the ship.

Only authorised persons, ship's crew, visitors or others with entry permits issued by the Terminal Manager, shall be allowed access to the external restricted area, and they must comply with any restrictions imposed upon them.

The terminal also reserves the right to require that unannounced visitors, or persons whose sobriety or conduct present a hazard to the terminal's property be personally identified by a responsible officer and escorted while in the restricted area.

WEATHER: *Tides:* Tide is semi-diurnal.

Normal tidal variance is of the order 0.9 m. – 1.0 m.

Max. astronomical tidal difference is in the order of 1.6 m.

Highest difference between extreme high and extreme low water is 2.6 m.

Tidal Currents: Tidal-generated currents in Hjeltefjorden have a maximum rate of 1.2 knots. The average rate is 0.4 knots. The dominant directions of the current are from South-Southeast and North-Northwest.

Wind: Prevailing winds are from South-Southeast and North-Northwest.

GENERAL:

Movement of Tugs and Other Craft: During operations, no vessel or small craft shall be allowed alongside the vessel unless authorised by the Terminal Manager or Shift Supervisor and agreed by the Master.

When tugs or authorised craft are alongside or assisting a vessel, all cargo system openings must be closed unless all tanks are gas free.

Damaged Vessels: The Master of an arriving vessel:

(a) which has sustained damage outside the entrances to Hjeltefjorden that affects or is likely to affect her seaworthiness;

or

(b) from which petroleum or any dangerous or flammable substance is escaping or is likely to escape;

shall give notice thereof to the Sture Terminal and the vessel shall not enter the entrances to Hjeltefjorden except with the permission of the Terminal Manager/Shift Supervisor and in accordance with his directions.

AUTHORITY: Sture Crude Oil Terminal, 5330 Tjelsto, Norway. *Tel:* (05) 386000. *Telex:* 40192 Hydro N. *Contact:* F. Werner Johansen, Terminal Manager.

010-47

Sultanate of Oman

PORT QABOOS: (Also see page 1221)

SHIPMASTER'S REPORT: December 1988.

Pilotage: Inward pilot boards from a tug. The pilot ladder must be 2.0 m. from the water. According to local Regulations, the vessel's freeboard should not be greater than 8.0 m. if pilot ladder only is to be utilised. If the freeboard is greater than 8.0 m., the gangway should be rigged in conjunction with the pilot ladder.

Shore Leave: If ship's crew are granted permission to leave the port area (this permission is not automatically given) in order to visit the town or city, this permission is restricted to the hours between 0700 hrs. – 1900 hrs. These times are strictly enforced.

Each individual officer and rating must present himself, with passport, at the Immigration/Police desk in the Port Quarantine Office, for written approval to issue a pass. This initial authority can cover more than one person.

The Authority for Approval is then taken to a Marine Police Station at the main gate, where the Authority of Approval and passports are handed over and the crew member is given a Royal Oman Police Coast Guard Pass to complete. This pass is retained by the crew member until the day of departure and must be stamped and signed at the main gate, each day before leaving the port. All passports are retained by the police until such time as an individual makes his final return to the vessel from ashore, at which time the pass is exchanged for the passport.

If individuals are unable to leave the vessel to exchange their passports for the Gate Passes the agent will usually do this on their behalf.

The wearing of shorts of any description (i.e. showing bare legs) is not permitted outside the port enclosure.

Smoking is not permitted in any area where cargo is worked either ashore or aboard vessels.

Crew members are not permitted to wear "Seaman's Knives" whilst on deck.

Stevedores: The official cargo working hours are 0700 hrs. – 1500 hrs., with a 1 hour break for a meal, not always taken, and 1500 hrs. – 2300 hrs.

Telephones: Not placed on board.

Departure Pilotage: The Pilot requires 2 hours Notice of Departure via the vessel's agent. Vessel is to call pilot 30 minutes prior to departure on VHF Channel 16/12. At this time the pilot will wish to know the vessel's Outward Customs Clearance Number.

Pakistan

PORT MUHAMMAD BIN QASIM: (Also see page 1227)

NOTICE:

Notice to Mariners: 173(T) – Port Muhammed Bin Qasim – Permissible Draft from 1st October 1988 – 31st December 1988.

Maximum permissible drafts for ships calling at Port Muhammed Bin Qasim between 1st October 1988 and 31st December 1988 will be as follows:-

Period	*Berths*	*Max. Draft* (m.)	*Max. LOA* (m.)	*Max. Beam* (m.)
1st October 1988 to 31st December 1988.	IOC Berth	11.0	225.0	32.2
	M.W. Berth 1	9.5	183.0	25.0
	M.W. Berth 2 – 4	10.0	183.0	25.0
	M.W. Berth 5 – 7	10.5	183.0	25.0

2. Ships on arrival at outer anchorage to intimate drafts and specification of the vessel.
3. Cancel PNM No. 150(T)/88 on 30th September 1988.

Peru

GENERAL: (Also see page 1257)

SHIP REPORTING: The following is a copy of a telex received by a vessel in December 1988 and supersedes information on pages 1257 and 1258.

Re: Shiprep Rules in Peruvian Waters:

Following revised rules re "shiprep" messages are immediately effective, applying to all national vessels above 350 g.r.t. and to all foreign vessels irrespective of tonnage and type, as per Circular 102/87 from Peruvian Naval Authorities.

"ALL PREVIOUS CIRCULARS ON THIS MATTER ARE OBSOLETE"

SHIPREP messages are now required as follows:

EPW – On entering Peruvian waters.
PR – Position Report twice daily – 0800 hrs. and 2000 hrs. local time.
FR – Final Report – 1 hour prior to arrival at port (anchorage or port jurisdiction area).
DPW – On departing Peruvian waters.

The details to be given are as follows:

(a) The abbreviation applicable (EPW/PR/FR or DPW).
(b) Name/Call sign/Flag of vessel.
(c) Date/Hour/Minutes – 6 figures group.
(d) Last Port.
(e) Position – Lat. – 5 figures/Long. – 6 figures.
(f) True course – 3 figures.
(g) Speed in Knots – 2 figures.
(h) Port of Destination.
(i) ETA – Date/Hour/Minutes – 6 figures.

EPW – Message requires all points above.
PR – Message requires A/B/C/E/F/G/H/I.
FR – Message requires A/B/C/H (point C give ETA group).
DPW – Message requires A/B/C/E/H.

Coastal Radio Stations to be used:

Station	Call Sign	Transmits	Receives	Emission	Hours of Service
Paita	OBY2	8527	8363.2-8366.4	A1A	24
		2182/2738	2182	H3E/J3E	
		156.70	Ch.14	F3E	
		156.80	Ch.16	F3E	
Callao	OBC3	460 – 500	500	A1A	24
		8546	8363.2-8366.4	A1A	
		13015.5	12544.8-12549.6	A1A	
		2182/2738	2182	H3E/J3E	
		156.60	Ch.12	F3E	
		156.70	Ch.14	F3E	
		156.80	Ch.16	F3E	
Mollendo	OBF4	8290	8363.2-8366.4	A1A	24
		2182-2738	2182	J3E/H3E	
		156.70	Ch.14	F3E	
		156.80	Ch.16	F3E	

Remarks:

If you cannot make contact with any of these 3 stations, which handle messages free of charge, you may use any foreign coast station, addressing message:

"Costera Callao, Telex 26069 PE" (reserve Telex 20143).

Or, for ships with satellite telex, transmit directly to that number your "Shiprep" message through any acceptable channel. The main objective is to pass the message through any channel to avoid the stiff fines of U.S.$1,000.00 – 5,000.00. If all methods fail, a detailed explanation should be made in the ship's radio log and a copy hereof given to the Port Captain on arrival in port.

Additionally a Sailing Plan has to be prepared by Master prior to departure from Peruvian ports.

The local agent will provide the form and then present it to the Port Captain.

CALLAO: (Also see page 1258)

SHIPMASTER'S REPORT: December 1988.

The following is part of the telex received with the above ("SHIP REPORTING").

Re: Port of Callao

The Port Captaincy of Callao has appointed the following official anchorage places for arriving vessels:

	Latitude:	Longitude	
1.	12° 02′ 00.0″ S.	77° 11′ 49.5″ W.	(These are the corner
2.	12° 02′ 11.3″ S.	77° 10′ 41.5″ W.	points of Anchorage "A",
3.	12° 01′ 10.0″ S.	77° 11′ 41.5″ W.	as per B.A. Chart
4.	12° 01′ 21.0″ S.	77° 10′ 33.5″ W.	No. 1853)

NON-FULFILLMENT OF THESE INSTRUCTIONS WILL BE HEAVILY FINED.

Vessel's Certificates:

All vessels arriving at Callao must have updated certificates, this refers especially, and as per MARPOL agreement, to Oil Pollution Certificate and Engine Log Book.

In case these certificates are not in order, the vessel will be heavily fined.

Philippines

VILLANUEVA: (Also see page 1297)

SHIPMASTER'S REPORT: December 1988.

The vessel arrived at Villanueva for loading Iron Ore Sinter for discharging at Sparrows Point, Baltimore, U.S.A. The information pertaining to port facilities and conditions have been collected and compiled during this call.

General: The Philippine Sinter Corporation (PSC) is one of the biggest single foreign investments in the Philippines today. This industrial joint venture between Kawasaki Steel Corporation of Japan and PSC was incorporated in 1974. Sinter production started in April 1977.

Mindanao Sinter Plant – Product and the Process:

The "Sintering" consists essentially of mixing fine iron ore with solid fuel, normally coke and flux such as limestone, and burning the mixture under controlled conditions to produce hard but permeable lumps which are ideal blast furnace feed. The mixture is spread evenly over a continuous train of pallets of the sinter machine in a uniform bed thickness and ignited under induced pressure provided by huge blowers. The blended material is agglomerated into big blocks of sintered ore. A hot crusher breaks these blocks into 150 mm. lumps, which are then cooled. The rest of the process involves screening to remove mediums and fines which are recycled.

PSC is diversifying into a new project which involves construction of drying plant to treat pineapple pulp into suitable cattle feed. The drying plant is located adjacent to existing sinter plant and will utilise the recovered waste heat from the sinter plant.

The Mindanao Sinter Plant has three main components.

1. The Ore Yard.
2. The Sintering Facilities.
3. The Port Facilities.

1. THE ORE YARD:

The 18 hectare ore yard is made up of 4×45,000 sq.m. yards with an aggregate storage capacity of 1,500,000 tons. The yards are equipped with a Wing stacker and reclaimer, etc.

The ore yard facilties are:

4 Ore yards, (50 m.×900 m.), for iron ore, sintered ore, limestone and coke breeze.
2 Stacker-Reclaimers, 3,600–6,000 t.p.h. and 3,600–1,500 t.p.h., rail mounted.
1 Wing stacker, 800 t.p.h., single wing and rail mounted.
8 Bulldozers.
6 Mobile truck cranes.

2. THE SINTERING FACILITIES:

These consist of one sinter machine with a 450 m. grate area, rated at 5 million tons per year and other ancillary equipment for limestone crushing, screening, coke grinding, materials blending, mixing, storing, feeding and processing.

The equipment of the sintering facilities is:

14 Blending Hoppers, 600 cu.m. capacity.
1 Sinter Machine, 450 sq.m. grate area, Dwight-Lloyd type (90 m.×5 m.).
1 Sinter cooler, 400 sq.m. bed area, 15,000 cu.m./minute circular type.
2 Main blowers, 18,000 cu.m./minute, double suction type.

In addition other facilities include:

a. Dedusting system equipment.
b. Power equipment.
c. Fuel tanks and deepwell.
d. Maintenance shop for mechanical, electrical and instrumentation works.
e. Laboratory for physical, chemical, bacteriological and environmental analysis.
f. Instrumentation and control facilities.
g. Communication facilities.

3. THE PORT FACILITIES:

The port has a main berth and a cargo berth. The 351 m. long main berth has a depth of 25 m. It can easily accommodate 300,000 d.w.t. bulk carriers and is equipped with 2 bulk unloaders with a capacity of 1,800 t.p.h. each and 1 shiploader with a capacity of 6,000 t.p.h. The cargo berth is 230 m. long with a depth of 5.5 m.

The following floating equipment is available:

2 tugs of 3,200 b.h.p., twin screw Z-peller.
2 tugs (pusher boats) of 3,200 b.h.p., twin screw.
2 barges each 6,000 d.w.t.
1 lineboat, 390 b.h.p., twin screw.

PORT INFORMATION:

Location: The Port of Villanueva is situated on the North coast of Mindanao Island, in Macalajar Bay, on the Eastern side in position Lat. 08° 34′ 45″ N., Long. 124° 44′ 22″ E.

Charts:

B.A. Chart No. 3811 – this chart is small scale for approaches.

U.S. Chart No. 92290 – this chart is fairly large scale and more useful.

Philippine Charts No. 4648 and 4649 – these charts were published by PC&GS in 1976 and are available from Philippine Sinter Corporation and may be obtained through Villanueva or Manila agents.

Port Limits: There is no specific demarcated port limit. Southern half of Macalajar Bay could be considered within port limits. However, entire bay is under control of Harbour Master of Cagayan De Oro Port, which is located on the Western side of the bay.

Pilotage: The Pilot and at times Quarantine Officers board vessels in position Lat. 08° 35′ N., Long. 124° 40′ E., by launch from Cagayan De Oro. Pilotage of Villanueva is carried out by pilots of Cagayan De Oro and is controlled by its Harbour Master.

Presently, there are 4 pilots at Cagayan De Oro for both ports. Usual arrival messages to be sent to Agent. VHF station at Cagayan De Oro keeps 24 hours' watch on VHF Channel 16. At least 6 hours prior to arrival, contact should be made with Port Authorities, calling "Cagayan Pilot Station" and give ETA, etc. Pilot boards vessel anytime, day or night, unless weather is bad, due to strong wind and rough seas hampering motor launch manoeuverability. Anchoring, berthing and unberthing at Villanueva is carried out anytime day or night on a 24 hour basis.

Anchorage: The Bay of Macalajar is a deep water bay. A strip of shallow water extends generally less than 0.5 miles off the coast. The Villanueva Anchorge is about 3 miles to the North of the berth, along the Eastern side of the bay. The recommended anchorage is in the vicinity of approximately 8 to 9 cables due West of position Lat. 08° 37′ N., Long. 124° 45.5′ E. In this area there is room for only 3 large vessels from Panamax size to 300,000 d.w.t. for safe distances whilst at anchor. The depth of water in this area is from 70 m. to 150 m. Anchoring is carried out by pilots anytime, day or night, however, it is preferable to anchor in daylight hours. On account of close proximity of coastline, during Northerly or North-Westerly winds, added precautions and vigilance would be needed to remain safely at anchorage.

While approaching the anchorage area, starboard anchor was lowered to 4 shackles in the water and the windlass was kept in gear. Vessel approached to within 1.15 miles of the coastline in position Lat. 08° 38′ N., Long. 124° 44.5′ E., ship heading 093° True, when echo sounder showed depth of 157 m. When vessel reached 0.77 miles off the coastline, cable was gradually lowered in gear up to 8 shackles in the water and subsequently was brought up when 0.68 miles off the coastline and water depth was 140 m. After swinging around with vessel heading on a Westerly bearing, water depth showed about 90 m. Holding ground was found to be good. There are no lights or buoys for checking anchor bearing. One has to improvise, using certain landmarks and conspicuous shore objects for ascertaining position by radar.

Approaches: Passage from East through Surigao Strait is safe as there is deep water. Most of the lights are either not working or are on low power. The passage through these waters can be made with good radar for night transits and impaired visibility periods during rain squalls. Numerous fishing vessels are encountered throughout the area, as well as coastal traffic. Also large vessels make use of Surigao Strait to and from Pacific.

Documents: The following documents were required and prepared by vessel:

10 copies Crew Lists.
4 copies Personal Declaration.
4 copies Stores List.
2 copies Vaccination List.
1 copy Maritime Declaration of Health.

In addition, there were other documents and Philippine forms which Agent had prepared in advance for Master's signature.

Vaccination List was not required by the Quarantine Officer.

Visaed Crew List: As informed by Agent, Visaed Crew List is a requirement. Prior to arrival at previous port, a telex message was received from Manila Agent advising that Crew List should be visaed by Philippine Embassy or Consulate. Therefore, 3 copies of Philippine Crew List forms were obtained from Philippine Embassy through Agent, which were then duly completed and sent for Visa. The visaed Crew List was forwarded by Agent to Villanueva in due course. Although it did not reach Villanueva when vessel arrived, Immigration authorities issued shore passes to crew without difficulty. Visaed Crew List reached Agent's office on day of departure (sent from Japan).

Health: Usual Radio Pratique message to be sent to Agent for presenting to Quarantine Officials. However, Pratique was granted by Quarantine Officer who boarded the vessel upon anchoring.

Boarding Formalities: Upon anchoring, 23 persons boarded the vessel, which comprises agents and representatives of various authorities:

Quarantine	1
Agents	3
Immigration	4
Customs	7
Plant and Animal	4
Coast Guard	4

Agent requested lunch and refreshments for all above officials.

Restrictions: There are no restrictions. Vessels up to 300 m. LOA and 250,000 d.w.t. are berthed at Villanueva for discharging iron ore and loading iron ore sinter. Maximum draft alongside berth is 25 m.

Radio/VHF: There is no radio or VHF station at Villanueva. Cagayan De Oro has a VHF station which keeps continuous watch. Vessels should send ETA messages through Manila Agent or directly by telex to Villanueva Agent.

At least 6 hours prior to arrival, contact should be made with "Cagayan Pilot Station" (Channel 16) for ETA notices and instructions.

Berthing Facilities: There are 4 motor launches for pilots at Cagayan De Oro which are painted red and are numbered "M.L. Pilot No. 2". "M.L. Pilot No. 3", "M.L. Pilot No. 4" and "M.L. Pilot No. 5". Launch No. 1 has been scrapped. There are 2 tugs of 3,200 b.h.p. and 2 pusher tugs of 3,200 b.h.p. There is 1 line boat of 390 b.h.p.

The main berth is 351 m. long with berthing capacity for vessels up to 300,000 d.w.t. and water depth of 25 m.

The main berth is used for discharging and loading operations. Berth is in position Lat. 08° 34.45′ N., Long. 124° 44.22′ E. and is aligned 050°/230°. The berth is protected by 7 "Yokohama" balloon type fenders. For discharging vessels there is no preference for docking starboard side to or port side to, whereas for vessels loading, docking with port side to is required due to location and movement of shiploader. Mooring lines are usually 4-2-2 at each end.

Cargo Facilities: For discharging there are 2 grab unloaders, rail mounted rope trolley type, each with a capacity of 1,800 t.p.h. These unloaders are adjacent to each other and are located on the Southwesterly side (i.e. after the shiploader).

For loading, there is one shiploader, rail-mounted luffing shuttling type, with a capacity of 6,000 t.p.h. However, in practice, average loading rate was found to be 4,500 t.p.h.

Air draft at berth is 40 ft. No shifting required while loading for Panamax size vessels. Iron ore sinter cargo stowage factor is 23 to 24 cu.ft. per ton. The cargo which was loaded was found to be very dusty, containing white-grey coloured powder (presumably limestone). Upon sailing, this powder was found to be sticking to hatch covers, main deck, pipelines, etc. and at some places use of scrapers was required as it could not be removed by hose washing. The dry powder remains could be swept more easily than removing when wet as it became sticky and hardened with water.

Fuel: HFO and DO can be supplied by trucks only, in any quantity. There is no pipeline facility for bunker supply at Villanueva.

Medical: Cagayan Medical Centre at Cagayan De Oro City is equipped with full medical and hospital facilities.

Stores and Provisions: A limited variety of deck, engine and catering stores are supplied from Cagayan, small quantities only can be supplied. Fresh provisions are also available at Cagayan De Oro. Prices of most items are normal, however certain items are expensive.

Surveyors: A.B.S. are stationed at Cebu. Surveyors of other Classification Societies are available from Manila with sufficient notice. Cargo surveyors at P.S.C. plant at Villanueva are from PNKKK, for carrying out draft surveys, etc.

Watchman and Safety: At anchorage, very efficient deck patrolling is necessary as pirates board unguarded vessels in dark hours. Loss of private property, ship's stores, ropes, paints, etc. are often reported. In addition to crew on deck, 3 armed guards, supplied by the Agents, patrol at night whilst at the anchorage.

Holidays: Government Offices, including Immigration and Customs, work 5 days a week. Agents and other commercial offices work half days on Saturdays.

Mail Service: Delays of up to 10 days to 15 days are normal as all mail is routed through Manila.

Telephones: Telephones are not provided on ship at berth. However, P.S.C. office located near the main berth has telephone for making domestic and International calls. Long delays for any International telephone calls from Villanueva, as well as Cagayan De Oro are normal.

Telex: Telex services to and from Villanueva were found to be normal.

Shore Leave: Immigration Authorities issue shore passes for crew to go ashore and crew can go to Cagayan De Oro. Agents arrange minibus for transportation to and from ship to Cagayan. Private taxis are also available. Travelling alone at night is not very safe.

Airport: Cagayan Airport is located 10 km. from Cagayan De Oro City and about 40 km. from Villanueva. Regular domestic flights are operated to and from Manila and Cebu.

Repatriation: Crew joining and leaving is possible, via Manila.

Time: GMT plus 8 hours throughout the year.

Consuls: Consulates of most countries are located in Manila and a few are located at Cebu.

Radio and TV Stations: AM/FM radio stations. Two TV channels from 1100 hrs. – 0000 hrs., programmes are in English and Tagalog.

Languages: English is widely understood and spoken. Visayas is the main language spoken on Mindanao Island. Tagalog, Spanish and English are taught in schools. Tagalog is the main language of Luzon (Manila).

Currency: The peso is the currency of Philippines. Exchange rate is linked to the U.S. Dollar. During ship's call, the exchange rate was U.S.$ 1.00=21.20 Pesos. However, in shops and stores, exchange was available at 20 pesos to U.S.$ 1.00

Republic of Sao Tome and Principe

SAO TOME: (Also see page 1342)

SHIPMASTER'S REPORT: January 1989.

PILOTAGE: Not available.

ANCHORAGE: The anchorage is on the leading line shown on the chart, about 5 cables from the breakwater. The minimum depth of water is 10.0 m. and the holding ground is good. The vessel swings with the tide but generally heads in a South-Southeasterly or North-Northwesterly direction.

RADIO: Sao Tome Naval Radio Station is the local station, but is not regularly attended. None of the operators understands English. They will only reply if the vessel calls in the Portuguese language.

There is a manual telex connection with Europe, however ETA should be sent via a major coast station.

BERTHING: The length of the jetty is 200 m. and the maximum depth alongside at LW is said to be approximately 2.50 m.

CARGO HANDLING FACILITIES: Ocean-going vessels load and unload at anchor. There is a long Southeasterly swell and this makes operations dangerous. Vessel must have sufficient fenders for carrying out cargo operations.

The local stevedores are able to handle conventional derricks, but it is not recommended that they be allowed to handle sophisticated container cranes or other modern cargo handling gear.

There are approximately 10 lighters available for handling cargo of vessels at anchor and if only one vessel is discharging, a rate of up to 300 tonnes per day for breakbulk cargo can be achieved.

There are 4 lighters which are capable of carrying 1×20 ft. container at any one time and 1 lighter capable of carrying 1×40 ft. container.

The jetty is equipped with a fixed crane with 23 tonnes capacity and a mobile crane of 5 tonnes capacity.

There is only one lorry capable of carrying 40 ft. containers, therefore the discharge rate for 40 ft. containers is a maximum of 5×40 ft. containers per day. The discharge rate for 20 ft. containers is a maximum of 20×20 ft. containers per day.

As there is a lack of lorries to handle containers the harbour can become congested.

SHORE LEAVE: Crew members are allowed ashore, but must return aboard the vessel before 2300 hrs. Whilst on shore, crew must carry their Seaman's Books.

GENERAL: Sao Tome is a suitable place for conventional vessels, but is not recommended for pure container vessels, especially if they are not equipped with a powerful bow thruster, in order to work against the swell while unloading containers by own cranes.

Saudi Arabia

RABIGH: (Also see page 1361)

Saudi Arabia's newest refinery, the Petromin/Petrola joint venture refinery at Rabigh, will begin start-up procedures in late February or early March 1989.

Rabigh Refinery officials said that the refinery will begin start-up at that time. Actual production will begin only after the process of testing the refinery equipment is finished. At that time, test production runs will be performed. Then, commercial production will commence.

The Rabigh Refinery will be Petromin's largest refinery, with a 335,000 barrels per day capacity. The two other joint venture refineries, the Petromin-Shell Refinery in Jubail, and the Petromin-Mobil Refinery in Yanbu, both process approximately 275,000 barrels per day of crude oil. Both are fed by pipeline. The Rabigh Refinery, on the other hand, has to ship in its oil.

The Rabigh Refinery, which is 50% owned by Petrola of Greece, is a relatively simple topping refinery, using the atmospheric pipe distillation process. Experts say its design favours production of fuel oil, but this can be altered.

Rabigh has its own port facilities for shipping in its crude oil, and exporting its finished products.

Singapore

SINGAPORE: (Also see page 1395)

DOCUMENTS: *Add:*
Shipmaster's Report: November 1988.
2 copies Passenger List.
2 copies Crew List.
2 copies Stores List.
1 copy Stowaways List.
1 copy Arms/Ammunition List.
1 copy Vaccinations List.
1 copy Maritime Declaration of Health.

NOTICES:
Toxic Waste: We quote below text of circular received from the Port of Singapore Authority:

"We would like to remind port users that importation of toxic waste into Singapore is not allowed by the Ministry of the Environment. Vessels carrying toxic waste may not be permitted entry into Singapore port waters. Shipping lines should exercise care in accepting chemicals for shipment to Singapore that can come under the classification of toxic waste."

Piracy Attack: The following is text of a letter received from Singapore National Shipping Association:

"We have received a report from a shipowner that one of their feeder container vessels, trading Singapore, Jakarta and Bangkok, was attacked by pirates on November 4, 1988, between 0000 hrs. and 0300 hrs. in the vicinity of Horsburgh Lighthouse. The ship's Master was reported being kidnapped and there is still no news of his whereabouts.

Members are kindly requested to alert their Masters to take additional precautions when passing through the area."

Sweden

STENUNGSUND: (Also see page 1499)

SHIPMASTER'S REPORT: January 1989.
Pilotage: On approaching the port, call 'Marstrand Pilot' on VHF Channel 11. The pilot usually boards between Hatteberget Light Tower and Astol Island to the N.W., from a fast launch painted orange. The water in the approaches is deep. The Racon on Hatteberget Light is usually visible when passing the Skaw. It takes approximately 1.0 hours – 1.5 hours to reach the Statoil berths.

Anchorage: There are no safe anchorages outside the fjord. If vessel is awaiting a berth it is usual to anchor to the West of the berths. An alternative anchorage is in the area 6 miles North of Algon Island, which is within the pilotage waters.

Max. Size: Powerboard Terminal: On the North side of the jetty the maximum draft is 12.6 m. and on the South side 10.6 m.

Statoil Terminal: Max. size 36,000 d.w.t. Max. LOA 210 m. Max. draft 10.4 m. This berth is to be dredged to 14.0 m.

Tugs: There are no tugs stationed at Stenungsund. If tugs are required they have to be ordered from Gothenburg, which is 2.5 hours away by sea. 5 hours notice is required. Tugs normally join vessel at the 'S' bend at Tjornbron Bridge. Vessels of 32,000 cu.m. capacity require 2 tugs for berthing and one for unberthing.

Berths: Powerboard Terminal: Lat. 58° 05.3′ N., Long. 11° 49.2′ E.

The finger pier is located on the East side of Askero Fjord and is aligned in an East/West direction. The pier is 1 mile North of Stenungsund.

The jetty is used for the import of oil for the power station and for import of LPG and ethylene for oil companies.

Approach to the berth is difficult in strong S./S.W. winds.

Vessels berth head-in, starboard side alongside, on the North side of the jetty and port side alongside on the South side. The offshore anchor is often used when berthing.

On the North Berth, vessels should be well secured at the stern when S./S.W. winds are blowing and well secured at the South Berth when N.W./N. winds are blowing.

Statoil Terminal: The berth is located on the North side of Havden Peninsula, to the West of Stenungsund. Vessels are swung to starboard and then pushed slowly into the berth. The stern overhangs when alongside, so good moorings are required aft when S./S.W. winds are blowing. The leads for the after moorings are poor and the leads for the headlines are long.

Cargo: Powerboard Terminal: Ethylene is handled on both sides of the jetty, dependent on the receiver. Neste use the North side and Statoil use the South side. The North side berth is equipped with an 8 in. hydraulic arm (150 ASA) with clamps and automatic disconnect mechanism. The South side berth is also equipped with an 8 in. (150 ASA) hydraulic arm, but without clamps. Shore supply the necessary reducers. No VRL connected.

Initially small amounts of cargo are pumped ashore from each tank in turn, so that samples can be taken on the jetty. Analysis takes about 2 hours. The cargo temperature is to be at least −100°C. and usually colder temperatures required. If the temperatures are correct, the shore facility can usually handle rates up to 500 cu.m.p.h. on the North side and 200 cu.m.p.h. on the South side. Hot gas required on completion. It usually takes about 20 minutes to clear line, so about 40 mb. is required in the tanks. The jetty has a steam/hot water line for de-icing. Local surveyor used.

Statoil Terminal: LPG handled at this berth. Discharge is by 10 in. (150 ASA) non-hydraulic arm. Shore supply the necessary reducer, no VRL. Samples are taken prior to arm being connected. Analysis takes 3 hours. Once lines are cool, the rate can be increased to maximum. Cargo goes into cavern storage so any rate can be accepted without difficulty. There was very little contact with the shore once discharge had commenced.

A surveyor from the terminal and SGS are available for figures. Terminal surveyor will use density from sample for calculations.

General: Powerboard Terminal: There is an electric crane with 4 ton SWL on the North side. No trucks allowed on jetty. Trolleys available for the 300 m. haul from the roadway.

Statoil Terminal: Stores can be manhandled from the barrier which is approximately 300 m. from the ship. A hand driven shore crane can be used for loading stores. There is a telephone in the cabin on the jetty. Fresh water is available. All medical facilities are available locally. Stores are expensive.

Thailand

KRABI: (Also see page 1531). (See Late Plans)

SHIPMASTER'S REPORT: December 1988.

DOCUMENTS: See "Bangkok".

A large party of Customs and Immigration Officials, etc. will board by launch when moored at the berth. Formalities quite straightforward.

PILOTAGE: No licensed Pilot as such, but a local "Berthing Master" may assist in berthing. This is recommended because the vessel has to pass between the mooring buoys, a number of which are below the sea surface. The ship's Master will have to manoeuvre himself. Depths are in excess of 14.0 m. during the approach manoeuvres.

ANCHORAGE: About 1 mile from the berth in position Lat. 08° 04.4′N., Long. 98° 43.7′E. Depth of water 11 fathoms – 15 fathoms. The holding ground is good.

BERTHING: *Berth Position:* Lat. 08° 04.5′ N., Long. 98° 44.6′ E., about 1.55 nautical miles from Ko Kwang. Name of berth: Leamplong Jetty. Depth at berth: 12 m. minimum at LLWS. The berth consists of 7 mooring buoys.

Mooring Arrangment: Port anchor to be used. The vessel will have to prepare 5 light floating hawsers of 220 m. forward and 6 similar lines aft.

Two launches are used to assist with the mooring operation, which may be quite lengthy, because of the poor condition of some mooring buoys. On our visit 3 of the buoys were half submerged, necessitating the assistance of good swimmers/divers. Therefore, no attempt should be made to moor during a squall or when a strong tidal stream is running, it may reach 2 knots at times. No mooring during night time.

LOADING: *Air Draft:* Strict maximum of 11.0 m., to the top of the hatch coamings.

Loading Facility: The only commodity handled at this port is natural gypsum in bulk. A long flight of conveyor belts terminates on a wooden platform on steel piles. These piles are quite dilapidated and on no account may the ship's side rest against them. The final piece of conveyor belt, about 15 m. long is held aloft by the ship's cranes. Therefore only geared bulk carriers are suitable to load here. Minimum SWL of ship's gear to be 12 tons.

The vessel will have to shift with her mooring lines in order to present each hold in front of the conveyor system. Trimming is done with a small bulldozer.

Loading rate: 350 tonnes per hour (conveyor capacity). The daily loading rate is about 7,000 tonnes, depending on stoppages for shifting the vessel. Regular and careful check of the draft is necessary as there are no weighing facilities ashore.

Working hours: 24 hours per day, Saturday and Sunday included.

Cargo: This natural gypsum has a stowage factor of about 0.82 cu.m./ton and has a water content as it is stowed in the open. Within 24 hours to 48 hours of completion of a hold, the bilges will already be full.

GENERAL:

Facilities/Shore Leave: Small quantities of fresh fish may be purchased locally, but very little else.

All access to and from the vessel is by launch and the starboard gangway.

The small town of Krabi is said to be 35 km. from the Leamplong Jetty, all by dirt road. Access is reportedly difficult during monsoonal rain.

Shore leave is permitted but should be restricted in view of road conditions.

The local agent, charterer's representative and one draft surveyor have to be accommodated on board during the whole stay.

Airport: The nearest airport is on the island resort of Phuket, which is connected by a regular boat service to the small town of Krabi. Phuket has several daily flights to and from Bangkok and several International flights.

Charts: BA. 3941. No large scale chart available.

Turkey

GOLOVASI: (Also see page 1563)

SECTION (C) (See page 1566). **(See Late Plans)**

DELTA TERMINAL: (Dortyol/Yesil).

LOCATION: Lat. 36° 51.05′ N., Long. 36° 09.18′ E.

PORT LIMITS: The Delta Terminal is operated under the authority of Iskenderun Harbour Master's Office, where the mooring/unmooring operations are under the monopoly of Golovasi Botas (Ceyhan) Terminal.

DOCUMENTS:

7 copies Crew List.
2 copies Stores List.
2 copies Crew Declaration.
1 copy Free Pratique.
Last Port Clearance.
Load Line, Safety Construction, Safety Radio, Safety Equipment and Class Certificates.

Agent has to take the last five certificates to the Harbour Master.

Clearance: For clearance on arrival, the vessel has to call at Iskenderun first. However, depending on the weather conditions and availability of clearance team, the Agent may arrange berthing at Delta Terminal and then arrange clearance. This is why Masters are advised to contact the agent 3 – 4 hours prior to arrival in order to get the final instructions for mooring.

Free Pratique is not granted by radio as it might be in some countries, but after boarding of the Sanitary Officer.

PILOTAGE: Pilotage is compulsory for mooring and unmooring. Pilot will be taken from Botas Terminal (see "Golovasi"). It is requested that the pilot ladder be of an approved pattern and securely rigged.

ANCHORAGE: In the event of berth not being available on arrival, and after the clearance, the vessel is to anchor in the anchorage zone of Botas Terminal (1 mile off Botas Terminal).

RESTRICTIONS: Mooring is carried out during daylight only. Unmooring is carried out around the clock.

Terminal does not accept any vessel not consigned for agency to

Ets. A. Boutros and Fils,
Ataturk Blvd., Unsal Bldg., 1st Floor,
31200 Iskenderun.
Telex: 68123 sail tr/68131 sail tr/68214 imoc tr/68202 eeb tr/
68203 bson tr.
Telephone: (90) (881) 15170.
Telefax: (90) (881) 12036.
Cables: Boutros – Iskenderun.

MAX. SIZE: The Terminal accepts vessels up to 40,000 d.w.t. or 220 m. LOA. For vessels over these sizes, special acceptance can be granted depending on the cargo, season, etc.

Depth is 12.6 m. at low tide.

RADIO: It is essential that tankers bound for Delta Terminal communicate with the agent at least 72 hours, 48 hours and 24 hours before arrival and state:

ETA.
Quantity of cargo required.
Max. loading rate.
Number and diameter of manifolds.
S.W.L. of derricks.
Quantity of ballast on board and time required for deballasting.
Whether the vessel is gas free or not.
Max. draft after loading.

VHF: Delta Terminal and the agent monitor Channel 16. Masters should contact the agent 3 – 4 hours prior to arrival in order to get final instructions for mooring. Once the vessel is moored, operations channel is agreed between the vessel and terminal.

RADAR: There is a Gulf Control Radar at the entrance of the Gulf of Iskenderun, however it is not always on watch. From time to time Control may call a vessel entering or leaving the Gulf, on Channel 16, to ask some questions. The approach to or leaving the Gulf can be made without difficulty as the coast line provides very good fixes.

TUGS: Tugs are supplied by Botas Terminal at the discretion of the Master and Pilot. Generally one tug is used for mooring and unmooring. Botas Terminal has 3 tugs of 2,600 h.p. and 1 tug of 1,200 h.p.

BERTHING: There are 3 berths. Each berth consists of 3 buoys (one portside ahead and 2 aft):

Outer Berth: For clean products only.

Inner Berth: For dirty and clean products. (See "Operator's Report" dated April 1988 on page 1566).

Bunker Berth: For vessels up to 5,000 d.w.t., for dirty products and LPG.

LOADING:

Clean products: 2×8 in. hoses, 1,200 t.p.h.
Dirty products: 2×10 in. hoses, 2,000 t.p.h.

All ship's valves should be closed or blanked, except those required for loading and water circulation purposes.

Ship's crew with an officer in charge will assist in all operations, as advised by the terminal representative. This includes lifting, connecting, disconnecting, lowering of hoses and tending moorings.

Max. loading rate is requested by Master.

Cranes: No cranes available, vessels are required to use their own equipment.

Lighting: Manifolds should be lit to enable night loading operations to be carried out with safety. Sea area around the ship is to be illuminated.

Notice of Readiness: Notice of Readiness should be tendered at the time of arrival, it will be received by the terminal representative after mooring.

Deck Watch: A responsible ship's officer shall be on watch at the point near the ship's tanks which are receiving cargo during the process of loading, with a Loading Master from the terminal.

Capable members of the ship's crew shall be stationed by the ship's tank valves which are receiving oil, during process of loading.

BALLAST: There are no dirty ballast facilities. The vessel must arrive with clean ballast.

MEDICAL: Master to inform agent by cable or telex if urgent medical assistance is required upon arrival, indicating if possible, seriousness of case in order that adequate steps may be taken.

Hospital and doctor are available at Dortyol 10 km., Iskenderun 40 km. and Adana 100 km. distance from the terminal.

DENSITY: Salinity about 39 p.p.m.

FRESH WATER: Fresh water is not available. Tankers to be supplied with fresh water are to call at Iskenderun before or after loading. Fresh water is supplied by the state-owned port company at Iskenderun, by means of a 200 ton capacity barge. The price is U.S.$4.00 per 1,000 kg., including 'petties'. Fresh water is supplied on a round the clock basis. There is an additional charge of U.S.$50.00/100.00 for fresh water supplied between midnight and daybreak. A minimum charge is made for 20 tons.

Arrangements to be made through Agent.

CONSULS: Consuls for Norway, Spain, Germany F.R., U.K., France, Netherlands, Greece and Italy are located in Iskenderun.

REPAIRS: Most radar/radio and engine repairs can be carried out.

SURVEYORS:

SGS. Tel: (90) (881) 11072.
Marine Survey Bureau. Tel: (90) (881) 18729 – 19751.
Atlantic. Tel: (90) (881) 21479.

GANGWAY/DECK WATCHMEN: There is no watchmen service.

CUSTOMS ALLOWANCES: 40 cigarettes for each crew member going ashore. On board the vessel each crew member may hold 200 cigarettes and 1 open bottle wine/spirits out of bond.

AIRPORT: Adana Airport, served only by domestic lines, with routes to Istanbul and Ankara. Airport is situated 100 km. from Delta Terminal. Twice daily services to Istanbul and Ankara for international connections.

TIME: LMT is GMT plus 2 hours in Winter time and GMT plus 3 hours in Summer time.

HOLIDAYS: New Year's Day, 31st December (noon) and 1st January; Commemoration of Ataturk & Children's Holiday, 23rd April; Youth and Sports Day, 19th May; Seker Bayrami (3.5 days), changeable – after Ramadan feast; Kurban Bayrami (4.5 days), changeable – Festival of Sacrifice; Victory Day, 30th August; Independence Day, 28th October (noon) and 29th October.

POLICE/AMBULANCE: Can be contacted through the local agent (Boutros).

TELEPHONES: Cannot be connected on board.

SHORE LEAVE: Crew permitted to go ashore with shore passes which can be arranged through the local agent.

IDENTIFICATION CARDS: Seaman's Book is sufficient for shore leave. Embarking or disembarking crew members must hold a valid passport (and depending on citizenship, a visa).

GENERAL: The main engines of all vessels while tied up to the buoys shall be ready for immediate use. Deck power (steam) is to be maintained on deck at all times and water pressure shall be maintained on the fire fighting system.

The Master shall at all times retain on board sufficient crew to work the vessel.

No craft, other than one having on board the pilot or Port Health Officer, may approach any vessel entering the port and no other person until Free Pratique has been granted.

Whistle or siren to be available at all times.

Stores/Provisions: Vessels may store at the anchorage or while they are at berth with permission of the terminal and the Customs authorities.

SAFETY: *Tanker Safety:* Masters are at all times responsible for the application of all safety precautions. One boat of the terminal is at all times alongside the vessel for safety.

Safety Check List: The tanker Safety Check List must be completed after inspection of each item, prior to commencement of loading. The berth operator is authorised to stop all loading operations should he consider safety and property to be endangered.

Signals: The following signals must be shown when vessel is in port.

By day: Flag "B" of the International Code of Signals. At night: 1 clear red light visible all around.

Fire Fighting Equipment: Vessels must be adequately manned for fire fighting and vacating the berth in case of emergency.

The following fire-fighting precautions must be taken.

(a) Fire hoses must be run out fore and aft or monitors be ready.
(b) Fire mains must be under pressure.
(c) 1 dry chemical extinguisher must be stationed on either side of the ship's manifold.

Fire Fighting Equipment at Buoys: One boat available alongside the vessel for fire-fighting when vessel is loading.

Action in Case of Emergency: In the event of a fire, oil spillage or other emergency on the vessel.

The emergency and fire signal is: 1 or more blasts of the ship's whistle, each blast of not less than 10 seconds duration, supplemented by a continuous sounding of the general alarm system.

United Kingdom

NEW HOLLAND: 53.12 N. 00.21 W.

PILOTAGE, DOCUMENTS, ANCHORAGES, ETC.: See "Hull".

RESTRICTIONS: Vessels arrive and depart on high water. Vessel always aground (N.A.A.B.S.A.).

MAX. SIZE: Max. size 5,000 d.w.t. Max. LOA 110 m. No restriction on beam or air draft. Max. draft at Spring tide 7.0 m. – 7.5 m.

TUGS: Not necessary.

BERTHING:

Imports: The Terminal specialises in the import of feeding stuffs, fertilisers, coals, cokes, etc. The import route has been designed to off-load cargo, from ship to storage or direct to carrier, efficiently and fast and offers via drop-scale and weighbridge, full documentary control and management.

Terminal: With two berths, an inner berth for vessels of 2,500 d.w.t. and an outer berth with a maximum capacity of 5,000 d.w.t., the Terminal reaches into deep water channels of the River Humber and enjoys the advantage of only requiring one Pilot from Spurn Point. Unloading by grab discharge direct to covered conveyor belts, the import route is rated at a capacity of between 200 – 250 tonnes per hour and incorporates full bypass facilities.

Weighing: Grains and derivatives can be passed through a drop-scale with a capacity of 250 tonnes per hour; coals, cokes and other bulk commodities moving from the site are weighed by means of 2×60 tonne road and/or 100 tonne rail weighbridges.

Storage: Grains and derivatives can be passed by the conveyor systems direct to 2 flatstores with an approximate capacity of 25,000 tonnes, both with movable inner partitions. Coals, etc., are directed to open storage for ease of distribution.

Distribution: Direct ship to road haulage is made possible by 2 overhead lorry hoppers. Recovery from the flatstore is by means of Front End Loaders, and if required, import commodities can be loaded via the export system, weighed or unweighed.

Exports: The Terminal has a dual capability for simultaneous import and export and has been designed for the export of grains and other bulk commodities.

The export route has many features unique to Humberside, and with full weight control and documentation offers the ideal export venue for any product.

Terminal: With two export berths, an outer berth of 5,000 d.w.t. capacity and an inner berth with a maximum capacity of about 1,500 d.w.t., loading is rated at 400 tonnes per hour via the covered conveyor belt which feeds 4 loading spouts, direct to the ship's cargo holds. Vessels approaching New Holland from the North Sea need only one pilot in and outward, thereby reducing costs.

Reception: The Terminal is the only specially designed export terminal in Humberside that can receive grain direct from railcars. With extensive private sidings and shunting locomotive, full train loads can be handled in intake pits. Road haulage delivery is either by intake pit or direct to open compound. Reception of grains also includes a grain testing station for quality control.

Direct or Indirect Loading: Grain intake can either be pre-assembled into 5 silos with an approximate overall capacity of 3,500 tonnes and then loaded directly to ship. Coals, coke, etc., are fed directly to the main export belt from their pre-collected storage areas.

Weighing: All commodities entering the site are weighed by fully computerised weighbridges, 2×60 tonne road and 1×100 tonne rail weighbridges. Export of grain related products is also monitored by 2 dropscales weighbridges prior to being loaded onto export vessels.

CRANES: 2×8 ton electric rail mounted cranes.

STEVEDORES: Work around the clock, from Monday 0600 hrs. – Saturday 0600 hrs.

Sunday work by arrangement.

FRESH WATER: Available at 5 t.p.h. No charge, included in jetty dues.

FUEL: Available by barge from Hull.

REPAIRS: Local shipyard can undertake minor repairs.

HATCHES: Opening and closing by ship's crew.

AIRPORT: Humberside Airport is 15 minutes away by road. Flights to London, Amsterdam and Bergen.

TELEPHONES: No shore connections. Public telephone available on pier.

GENERAL: The New Holland Bulk Terminal is situated on the South bank of the River Humber, about 4 miles East of the Humber Bridge, and about 20 miles inland from Spurn Point. Close proximity to the U.K.'s motorway and dual carriageway network gives the terminal a competitive and strategic position for the import and export of bulk commodities. Close connections to the M1, A1, M18 and A15 Humber Bridge link road ensure optimal North/South connections with the M180, M62 and A6 offering good East/West connections. The terminal has its own railway sidings, connected directly to the British Rail network.

AUTHORITY: New Holland Bulk Services Ltd., Old Ferry Terminal, New Holland, P.O. Box 1, Barrow upon Humber, South Humberside, DN19 7SD. *Tel:* Barrow upon Humber (0469) 31102. *Telex:* 527466 NH Bulk G. *FAX:* (0469) 31966. *Contact:* H. van Velzen, General Manager. J. Lyne, Operations Manager.

United States of America

BATON ROUGE: (Also see page 1777).

The following information was received fom Exxon Shipping Company in February 1989.

ANCHORAGES: *Add:*

Report:

Anchorages within the river are limited; therefore, whenever possible, vessels should utilise the large anchorage area located East of the entrance of Southwest Pass.

MISSISSIPPI RIVER DESIGNATED PERMANENT ANCHORAGES:

Pilottown Anchorage: An area extending from Mile 1.5 to Mile 6.7 AHP along the right descending bank and having a width of 1,600 ft. at its upper and lower limits.

Boothville Anchorage: An area extending from Mile 12.2 to Mile 18.5 AHP along the right descending bank and having a width of 1,000 ft. at its upper and lower limits.

Ostrica Anchorage: An area extending from Mile 23.5 to Mile 24.4 AHP along the right descending bank and having a width of 800 ft. at its upper and lower limits.

Port Sulphur Anchorage: An area extending from Mile 37.5 to Mile 39.7 AHP along the left descending bank and having a width of 800 ft. at its upper and lower limits.

Magnolia Anchorage: An area extending from Mile 45.5 to Mile 46.9 AHP on the right descending bank, having a width of 1,100 ft. measured from the Low Water Reference Plane from Mile 45.5 to 46.3, and 600 ft. measured from 500 ft. riverward of the Low Water Reference Plane from Mile 46.3 to 46.9.

Davant Anchorage: An area extending from Mile 53.5 to Mile 54.5 AHP along the left descending bank and having a width of 800 ft. at its upper and lower limits.

Alliance Anchorage: An area extending from Mile 63.6 to Mile 65.8 AHP along the right descending bank and having a width of 800 ft. at its upper and lower limits.

Wills Point Anchorage: An area extending from Mile 66.5 to Mile 67.6 AHP along the left descending bank and having a width of 800 ft. at its upper and lower limits.

Cedar Grove Anchorage: An area extending from Mile 69.9 to Mile 70.6 AHP on the right descending bank, 700 ft. wide with a Western limit 400 ft. from the Low Water Reference Plane on the right descending bank.

Belle Chase Anchorage: An area extending from Mile 73.1 to Mile 75.2 AHP along the right descending bank and having a width of 1,000 ft. at its upper and lower limits.

Lower 12 Mile Point Anchorage: An area extending from Mile 78.5 to Mile 80.8 AHP along the right descending bank and having a width of 800 ft. at its upper and lower limits.

Lower 9 Mile Point Anchorage: An area extending from Mile 82.7 to Mile 85.0 AHP along the right descending bank and having a width of 800 ft. at its upper and lower limits.

New Orleans General Anchorage: An area extending from Mile 89.3 to Mile 90.5 AHP along the right descending bank and having a width of 800 ft. at its upper and lower limits. (See Appendix, paragraph 8).

Quarantine Anchorage: An area extending from Mile 90.9 to Mile 91.6 AHP along the right descending bank and having a width of 800 ft. at its upper and lower limits (See Appendix, paragraphs 6, 8 and 9).

Kenner Band Anchorage: An area extending from Mile 115.1 to Mile 115.6 AHP along the right descending bank and having a width of 700 ft. at its upper and lower limits.

Ama Anchorage: An area extending from Mile 115.7 to Mile 117.2 AHP along the left descending bank and having a width of 700 ft. at its upper and lower limits.

Bonnet Carre Anchorage: An area extending from Mile 127.3 to Mile 128.8 AHP along the left descending bank and having a width of 600 ft. at its upper and lower limits. (See Appendix, paragraph 10).

La Place Anchorage: An area extending from Mile 134.7 to Mile 135 AHP along the left descending bank and having a width of 600 ft. at its upper and lower limits.

Reserve Anchorage: An area extending from Mile 137.0 to Mile 137.5 AHP along the right descending bank and having a width of 800 ft. at its upper and lower limits.

Lower Grandview Reach Anchorage: An area extending from Mile 146.5 to Mile 147.1 AHP along the left descending bank and having a width of 700 ft. at its upper and lower limits.

Upper Grandview Reach Anchorage: An area extending from Mile 147.7 to Mile 148.8 AHP along the left descending bank and having a width of 700 ft. at its upper and lower limits.

Lower Sunshine Anchorage: An area extending from Mile 165.0 to Mile 165.9 AHP along the left descending bank and having a width of 800 ft. at its upper and lower limits.

Upper Sunshine Anchorage: An area extending from Mile 166.3 to Mile 167.0 AHP along the left descending bank and having a width of 800 ft. at its upper and lower limits.

Baton Rouge General Anchorage: An area extending from Mile 225.8 to Mile 227.3 AHP along the right descending bank and having a width of 1,400 ft. at its upper and lower limits. Less than 27 ft. draft.

Lower Baton Rouge Anchorage: An area extending from Mile 228.5 to Mile 229.0 AHP along the left descending bank and having a width of 700 ft. at its upper and lower limits. Light draft.

Middle Baton Rouge Anchorage: An area extending from Mile 229.6 to Mile 229.8 AHP along the left descending bank and having a width of 700 ft. at its upper and lower limits. Light draft.

Upper Baton Rouge Anchorage: An area extending from Mile 230.6 to Mile 231.0 AHP along the left descending bank and having a width of 1,075 ft. at its upper limit and 1,200 ft. at its lower limit. Light draft.

Note 1: Loaded vessels are not allowed to use Middle and Upper Baton Rouge Anchorages.

Note 2: An explosives anchorage, approximately 1,000 ft. wide, is located on the West side of the river 1.4 miles upstream of Oak Point Light (63.0 miles AHP) and cannot be used by any vessel without previous approval from the Commander, Eighth Coast Guard District.

All anchorages have mud bottoms and are protected by the Mississippi River banks on each side. Vessel's position should be monitored continuously for dragging while anchored. No specific distances are required between anchored vessels. Caution is advised if required to anchor off Baton Rouge Docks, due to proximity of submerged pipeline crossing just South of docks.

The Coast Guard advises that during high water conditions, Mariners should give anchored vessels a particularly wide berth. Fast river currents may cause anchored vessels to swing in wide arcs. Under these conditions, it is important that the Mariner beware of anchor chains.

APPENDIX:

Regulations Concerning Designated Anchorages have been extracted from 33 CFR 110.195.

(1) Anchoring is prohibited outside of established anchorages except in cases of emergency. In an emergency, if it becomes necessary to anchor a vessel outside an established anchorage, the vessel shall be anchored so that it does not interfere with or endanger any facility or other vessel. The Master or person-in-charge of the vessel shall notify the Captain of the Port of the location of the emergency anchoring by the most expeditious means and shall move the vessel as soon as the emergency is over.

(2) In an emergency, if it becomes necessary to anchor a vessel in Southwest Pass, the vessel shall be positioned as close to the left descending bank as possible.

(3) No vessel may be anchored unless it maintains a bridge watch, guard and answer VHF Channel 16, maintains an accurate position plot and can take appropriate action to ensure the safety of the vessel, structure, and other vessels.

(4) When anchoring individually or in fleets, vessels shall be anchored with sufficient anchors or secured with sufficient lines, to ensure their remaining in place and withstanding the action of winds, currents and the suction of passing vessels.

(5) No vessels may be anchored over revetted banks of the river or within any cable or pipeline area. The locations of revetted areas and cable and pipeline areas may be obtained from the District Engineer, Corps of Engineers, New Orleans.

(6) The intentions to transfer any cargo while in an anchorage shall be reported to the Captain of the Port, giving particulars as to name of ships involved, quantity and type of cargo, and expected duration of the operation. The Captain of the Port shall be notified upon completion of operations. Cargo transfer operations are not permitted in the New Orleans General or Quarantine Anchorages. Bunkering and similar operations related to ship's stores are exempt from reporting requirements.

Note: Activities conducted within a designated anchorage (e.g. cargo transfer, tank cleaning, stack blowing, etc.), may be restricted by other Federal, State or local Regulations. Owners, or persons in charge of any vessel should consider all safety and/or environmental regulations prior to engaging in any activity within designated anchorges.

(7) Nothing in this section relieves the owner or person-in-charge of any vessel from the penalties for obstructing or interfering with navigation or navigational aids or for failing to comply with the navigation laws for lights, day shapes, or fog signals and any other applicable laws and regulations.

(8) Vessels carrying cargoes of particular hazard as defined in 33 CFR 126.10 or cargoes of petroleum products in bulk may not be anchored in the New Orleans General Anchorage or Quarantine Anchorage without permission from the Captain of the Port.

(9) Except when required by the United States Public Health Service for quarantine inspection, the Quarantine Anchorage may be used as a general anchorage.

(10) When the Bonnet Carre Spillway is open, no vessel may be anchored in the Bonnet Carre Anchorage.

RESTRICTIONS: *Add:*

Caution should be exercised when anchoring in the vicinity of pipelines.

MAX. SIZE: Federal Project Depth of 45 ft., from the entrance to the jetties to Head of the Passes and up to Mile 180, is obtained through continuous maintenance dredging.

Exxon Terminal: LOA 810 ft. (246.8 m.); Beam, no restriction; Displacement, 90,000 ton; Draft, normally 45 ft. alongside.

RADIO: *Add:*

If destined for Exxon Terminal, send ETA messages to "Stanship Baton Rouge"; 72 hours, 48 hours and 24 hours in advance of arrival at Southwest Pass. Telex: 510-993-3575, Answerback: HOBRM. Also, contact Exxon Docks (KZA 891) on VHF Channel 16, 3 hours prior to berthing. Berthing instructions will be provided on Channels 9 or 18.

TUGS: *Add:*

At Exxon, 2 tugs are required for all vessels in excess of 12,000 d.w.t., for docking and undocking.

TANKERS: *Delete 1st paragraph and substitute:*

Exxon Refinery Terminal: 4 tanker berths available with 2,260 ft. of berthing space. Normally handles 3 tanker simultaneously. See "Max. size".

Oil slop facilities available, but 48 hours advance notice required to be given to terminal.

Baton Rouge Port Authority: 2 berths; 238 m. and 410 m.; Apex Oil – heavy fuel oil; and Westway – Molasses.

Placid Oil Company: Crude and products, 330 m. berthing space.

Formosa Plastics: Caustic soda, ethylene dichloride, 240 m. berthing space.

FRESH WATER: *Delete 2nd sentence and substitute:*

At Exxon, water available for flat fee, presently $300.

FUEL: *Add:*

No fuel available at Exxon.

FIRE PRECAUTIONS: *Add:*

Ship's fire plan should be available at gangway.

REPAIRS: *Add:*

At Exxon, no repairs allowed without permission from terminal. Vessels shall be able to get underway as soon as possible.

DELAYS: *Add:*

Vessels loading Isopropanol Alchohol must have tanks approved before berthing.

NEW HAVEN: (Also see page 1848)

BERTHING: Delete: *T.A.D. Jones:* and text.

Insert:

Gateway Terminal: Gateway Terminal is an independent deep-water marine terminal owner and operator, handling various types of dry and liquid bulk cargoes. It features its own petroleum transfer and oil storage tank farm (4 tanks), with an aggregate capacity of approximately 500,000 barrels. The fuel transfer facility is connected to the Buckeye-Jet line Pipeline System servicing central Massachusetts, and has a working arrangement with Gulf Oil to utilise a number of their immediately adjacent facility components, including their T – dock.

Gateway Terminal has a newly constructed concrete pier, 750 ft. length by 60 ft. width, which is at a 90° angle to the main channel. The pier provides up to 3 berths and can accommodate on the South side 40,000 d.w.t. tankers and dry cargo vessels up to 700 ft. LOA, 120 ft. beam and 35 ft. draft at MLW. Smaller vessels and barges with up to 30 ft. draft at MLW use the North side. Also available are 3×9,000 ton elevators for cement storage. The pier provides a timber/rubber cushion 50 ft. on centre fendering system. Two high speed gantry cranes with capacity 40 tons are on the pier and additional mobile cranes with capacity 25 tons are available. Advanced truck loading and weigh stations are immediately adjacent to the pier. Ships can berth port or starboard side to.

Bunkers, petroleum products and fresh water are available at all times.

Venezuela

ORINOCO RIVER: (Also see page 1968)

SHIPMASTER'S REPORT: January 1989.

Vessel proceeding to Matanzas.

Apparently the entrance to the River Orinoco at Boca Grande had been upgraded.

All the buoys now have solar energy cells as well as photo-cells to activate them at dusk.

The North entrance no longer exists, only the South Dredged Channel is used. A Racon had been installed on Mile 0.1 (Sea Buoy). Current entrance information is given by Puerto Ordaz Radio Station (YVM), with which vessels should make contact as soon as possible. As usual, pilots board the vessel between Miles 27-28. It is advisable to reduce speed beforehand, to be able to embark the pilot before Mile 28, as pilot boat is not fast and there is a considerable bend at Mile 28. Also it is advisable to familiarise yourself with the buoys and ranges up to Mile 30 while entering, as the down-bound pilot usually disembarks between Mile 30-31 and there are 3 short distance bends before Mile 28. On our passage as many as 4 buoys were out of position, one buoy was unlit at the first range, and Sea Buoy (0.1) Racon was inoperative.

Socialist Republic of Vietnam

HO CHI MIN CITY (Saigon Port): (Also see page 1984)

SHIPMASTER'S REPORT: January 1989.

Approaching from South, Mui Vung Tau (ex-Cap St. Jacques) observed on radar from about 15 miles with all details.

Anchorage extends from Lat. 10° 19′ N., Northward to Buoy No. 2. If anchoring South of Lat. 10° 19′ N., vessel will be requested to come closer in order to be boarded and cleared by Authorities.

Anchorage well protected during N.E. monsoon, no swell.

Pilot boarding ground at position Lat. 10° 20.4′ N., Long. 107° 03.2′ E. However, vessels are requested to enter and anchor at Vung Tau without the pilot. Pilot station can be contacted on VHF Channel 16.

Watch on VHF Channel 16 should be maintained from 1000 hrs. – 1200 hrs. and 1400 hrs. – 1600 hrs., usually notice is given when vessel is to leave Vung Tau.

Buoys generally not reliable, and missing buoys apparently will not be replaced in near future.

No. 1 Buoy (previously in position Lat. 10° 18.7′ N., Long. 107° 03.8′ E.) no longer exists.

No. 3 Buoy is now in position Lat. 10° 19.5′ N., Long. 107° 04.1′ E., but is liable to drift (Pilot's information).

No. 7 Buoy in position Lat. 10° 20.25′ N., Long. 107° 03.8′ E., is wrecked and marked by a float. Very difficult to observe.

No. 8 Buoy, formerly in position Lat. 10° 21.55′ N., Long. 107° 02.05′ E., no longer exists.

No. 2 Buoy now in position Lat. 10° 22.4′ N., Long. 107° 02.7′ E.

No other buoys observed in this area.

All existing buoys unlighted, rusty and it is practically impossible to determine original colour or marks.

Buoy No. 2 is the Northern limit of the area where pilot not required.

Lighthouses on shore reliable and working.

Distances and bearings, taken by radar, reliable.

There are numerous fishing traps, extending from, or in the vicinity of the shore, but not obstructing navigation.

Previous information concerning the maximum size and draft is still valid.

From Vung Tau Anchorage to Saigon Port, most of the river is without any marks. Inbound or outbound ships transit the river during the day time only.

Authorities from Vung Tau board the vessel on anchoring, but only North of Lat. 10° 19′ N.

There are about 10 – 12 officials, representing Immigration, Customs, Port Authorities, Port Health and Agents. Vessels bound for Saigon (Ho Chi Min City), if waiting at anchorage, are also cleared by Authorities and one set of documents remains on board to be handed to Authorities in Saigon.

Usually 2 Police Officers remain on board for security reasons, but this is not sufficient to prevent problems with thieves boarding the vessel during the night and crew must keep sharp lookout. The same problem is encountered in the Port of Saigon.

In addition to the numerous forms given on arrival by Authorities to be filled in, following documents are required:

Clearance from Last Port.
12 copies Crew List (minimum).
2 copies Crew Personal Effects Declaration.
2 copies Ship's Stores Declaration.
2 copies Arms and Ammunition Declaration.
2 copies Medical Narcotics Declaration.
2 copies Crew Vaccination List (if expired, crew will be revaccinated).
2 copies Foreign Currency Declaration (crew and vessel's).
6 copies Cargo Manifest.
6 copies Cargo Plan.

Additional copies of Crew List, Cargo Plan and Cargo Manifest are requested on arrival at Saigon Port.

All ship's certificates checked by Port Authorities.

Crew Passports/Seaman's Books usually taken ashore at Vung Tau to obtain shore passes and brought on board in Saigon.

Radio room sealed, if necessary to operate, permission must be obtained from Police Officer on board.

Fresh water available by barge (100 tons) in Port of Saigon, but 2 days notice required through Agents.

Fresh fruit and vegetables can be obtained, prices low and negotiable, medium quality.

VUNG TAU: (Also see page 1985)

See "Report" above.

Yemen Arab Republic

RAS ISA MARINE TERMINAL: 15.08 N. 42.36 E. (See Plan on P1371)

LOCATION:

a. The Floating Storage and Offloading Terminal (FSO) "Safer" (400,000 d.w.t.) is located approximately 4.8 nautical miles offshore from Ras Isa in position: Lat. 15° 07′ N., Long. 42° 36′ E.

b. An area designated as the Holding Anchorage for vessels waiting to load at the Ras Isa Marine Terminal is located to the Southwest of the Terminal and is a circle of 1 mile radius centered on position: Lat. 15° 05.5′ N., Long. 42° 34.5′ E.

Yemen Hunt Oil Company (YHOC) is the only operator of the Ras Isa Marine Terminal.

Also see "Notice".

NOTICE: B.A. Notice – Week No. 8/88

Issued by Port and Marine Affairs Corporation, Yemen Arab Republic.

Ras Isa Storage and Offloading Terminal is situated 3.5 miles SSE of Rashshah (11.53). The terminal consists of the 400,000 d.w.t. tanker "Safer" moored permanently to a tanker mooring buoy. A *restricted area*, 2 miles in radius, is centred on the tanker.

A waiting anchorage, whose limits can be seen on the chart, is situated 6.5 miles South of Rashshah.

Before proceeding to the anchorage or terminal, vessels must contact the terminal and Al Hudaydah Port Authority on VHF for anchoring and Pilot boarding instructions.

PILOTAGE: Vessels proceeding to and leaving the Ras Isa Marine Terminal (except for small launches and other craft regularly plying within the Marine Terminal Area) must utilise the service of a licensed Pilot provided by the General Corporation for Ports and Marine Affairs in Hodeidah, Y.A.R., which the Terminal will arrange.

Masters of ships coming from sea may anchor or if proceeding to sea may leave from the Holding Anchorage without the assistance of a Pilot.

Masters must sign the Pilot's Indemnity Certificate before the vessel gets underway or manoeuvring commences. Ships using Ras Isa Marine Terminal will be liable for any damage caused by the ship to the Terminal or to any of YEPC's property or to any other vessel lying therein, whether or not a Pilot was assisting at the time.

Pilot Embarking/Disembarking: For ships not located alongside the Terminal the Pilot shall embark or disembark by means of a pilot ladder when the freeboard does not exceed 9 m. (30 ft.), when the freeboard exceeds such measurement, by a combination of accommodation ladder and pilot ladder. It is the responsibility of the ship to ensure that ladder arrangements shall conform to the requirements of SOLAS 1974 Chapter V, Regulation 17. A Pilot may refuse to board a ship if the means of access does not conform to the above.

If the Pilot agrees, a pilot hoist may be used in lieu of an accommodation ladder and pilot ladder but a standard pilot ladder shall be immediately available in the event of a failure of the pilot hoist. Ship's engines must be stopped while the Pilot is transferring from the tug or launch to the ship or vice versa. As a general rule, the Pilot will board the vessel about 2 miles off the Ras Isa Marine Terminal.

Emergency Pilot Ladder: As soon as vessel is berthed, a pilot ladder should be rigged over her starboard side just forward of the poop and end must be kept just above water level throughout the stay alongside, so that in an emergency which makes boarding from the Terminal impossible, the Berthing Master could board the ship.

NOTICE OF READINESS: The ship's Notice of Readiness (N.O.R.) will be signed by the Loading Master upon mooring of the export tanker, for acceptance if the time tendered is consistent with the time the Pilot embarked, and for receipt only if an earlier time is tendered.

If it is subsequently found that the export tanker was not, in all respects, ready to load due to, for example, high O_2 readings in inert gas in cargo tanks or due to excessive deballasting time or other preparation for the nominated cargo a Note of Protest will be delivered to the export tanker which will automaticaly cancel operator's initial acceptance of the Notice of Readiness. In such cases, the export tanker must prepare a revised N.O.R., cancelling the first one and stating a time tendered in accordance with its actual readiness.

APPROACHES: *Permission to Enter Ras Isa Marine Terminal Area:* No ship, tug, barge, launch or other craft shall enter the Ras Isa Marine Terminal Area, including the Holding Anchorage, without first obtaining the permission of the Oil Movements Control Centre aboard the Terminal (call "YHOC Marine" on VHF Channel 16).

ANCHORAGE: A water depth of about 20 fathoms (37 m.) is available at the Holding Anchorage. Should "YHOC Marine Sana'a" by cable/telex or "YHOC Marine" by VHF advise the export tanker or any other vessel to anchor on arrival, the ship shall anchor only in the Holding Anchorage. The Holding Anchorage may, with the prior agreement of YHOC, be used to carry out repairs requiring shore labour or the attendance of shore representatives or surveyors and for ships storing.

RADIO: *ETA Requirements:* Export tankers shall advise their ETA upon departure from their last load or discharge port or other port or if at sea as soon as orders are received to proceed to Ras Isa and repeat at 72 hours, 48 hours and 24 hours in advance of arrival via Hodeidah Radio Station to the Cable Address "YHOC Marine Sana'a" or Telex No. 4013. Vessels equipped with INMARSAT Satellite Communications may address their telex(es) to "YHOC Marine" INMARSAT Telex No. 873-1104125 and shall call the Terminal on VHF Channel 16 when within range.

See "Pre-Arrival Information Required" on cargo and ballast operations below.

If a ship seeking to enter the Terminal has received damage and/or is leaking oil, this must be advised in the ETA advice so that the ship can be inspected by YHOC before entering the Terminal Area.

Pre-Arrival Information Required: All export tankers scheduled to load at the Ras Isa Marine Terminal will receive the following telex:

Telex to Master

Master____________________
We hold your nomination for approximate____________________
bbls. at 60° ALIF Crude for discharge____________________
Approximate API__________
Following information needed:

AAA	Cargo quantity you able to load.
BBB	Last cargo carried and if crude, source of origin.
CCC	Quantity and grade of any transit cargo on board.
DDD	Quantity of dirty ballast to pump to terminal and estimated time to deballast via 1×16 in. hose (max. pressure at rail 70 p.s.i.)
EEE	Quantity and type of slop onboard to lot, segregate on board or pump to terminal.
FFF	Maximum acceptable loading rate.
GGG	Arrival draft (trim not to exceed 10 ft. or 3 m. by stern).
HHH	Deepest sailing draft.

III Advise ability to simultaneously load and deballast with double valve separation throughout.

JJJ Confirm latest edition of I.S.G.O.T.T. Safety Guide and OCIMF Ship to Ship Transfer Guide are onboard.

Repeat your ETA 72, 48 and 24 hours in advance of arrival via Hodeidah Radio to "YHOC Sana'a" or to "YHOC Marine" via INMARSAT.

Satellite to Telex No. 873-1473102. When within range contact YHOC Marine on VHF Channel 16.

On arrival have your pilot ladder ready on starboard side for Berthing Master boarding and your port boom (SWL rating of minimum 10 tons) rigged for 16 in. hoses handling purposes.

Confirm your Inert Gas System is in good working condition, maintaining O_2 content less than 8% by volume in cargo tanks.

Operational/Safety Check Lists as per OCIMF Ship to Ship Transfer Guide will be followed when VHF contact is established.

Terminal requires readiness of 4×16 in. ASA manifold connections.

Signed
Ras Isa Terminal

Ship's Master should radio the requested information as promptly as possible and comply with Terminal's instructions accordingly.

TUGS: Tugs are provided by the Terminal and their use, when required by the Pilot, is compulsory. Towlines are provided by the tugs. Before the tugs are made fast, Masters must sign the Tug Services Report and Agreement presented by the Pilot on boarding.

Communications Between Ships and Tugs: Communications between ships and tugs during manoeuvring are normally carried out on VHF Channel 12, the English language being used.

In case of a loss of VHF contact the following signals can be made on the ship's whistle or siren:

Forward Tugs (alongside or on hook):
1 short blast –
Tug alongside the starboard side – push against the hull
Tug on hook – pull bow to port.

2 short blasts –
Tug alongside starboard side – pull on beam (backing)
Tug on hook – pull to starboard.

3 or more short blasts – stop tug engines.

Aft Tugs (alongside, or on hook):
1 prolonged blast followed by 1 short blast –
Tug alongside starboard quarter – push against the hull
Tug on hook – pull stern to port.

1 prolonged blast followed by 2 short blasts –
Tug alongside starboard side – pull on beam (backing)

1 prolonged blast followed by 3 or more short blasts –
Stop tug engines.

It is emphasised that whistle signal form of communication between ship and tugs is for emergency use only and that, if possible, manoeuvres should be aborted or suspended until VHF contact is again possible.

BERTHING: *Use of Anchors:* The anchors will not normally be used in the berthing/unberthing manoeuvring operation. The anchors should be ready to the extent that the "at sea lashings" are removed but riding pawls remain engaged on the anchor chains and the windlass/wildcat brakes are hardened up tight.

Berthing Operations: The export tanker will moor with its port side alongside the starboard side of the Terminal. For this purpose the Terminal has been fitted with 5 large heavy duty pneumatic fenders and may also use smaller secondary fenders positioned forward and aft of the large size fender string. The mooring method is of conventional design with the ship passing its own lines to the Terminal. See "Plan" for a typical mooring diagram.

Prior to berthing, the Terminal Loading Master will inspect the export tanker's mooring equipment and jointly with the Pilot discuss the berthing and mooring operations with the Master and ascertain that the export tanker is fully manoeuverable. Mooring wires fitted with 10 m. length synthetic tails connected to the wires by means of a Mandal or Toensberg type shackle are preferred. An all synthetic mooring line arrangement may be accepted subject to an assessment of rope elasticity, strength characteristics and wear and tear. The vessel shall have heaving lines ready, including at least 1×4 in. circumference messenger line on the portside foredeck and on the poop.

After ensuring that the manoeuvring area is clear of other traffic and that weather and sea conditions are suitable, the export tanker will be manoeuvred for approach to the Terminal. The heading of the export tanker will normally be such that she will have the wind ahead but tidal current effects may have to be taken into account. 2 tugs of about 60 tons and 40 tons bollard pull will normally assist in the berthing/unberthing manoeuvres.

Safety of Moorings: The export tanker must be securely moored to the satisfaction of the Terminal. No cargo/ballast hoses will be connected until the export tanker is securely moored. Moorings on winch drums shall be securely braked off; self-tensioning devices are not allowed. Export tankers which use self-stowing mooring winches must ensure that the wires are correctly reeled to assist the brake. On split drum winches the number of layers or wire on the working drum shall not exceed 2, when the wire is taut and the export tanker in a fully loaded condition. Moorings of a different type (e.g. one wire line and one synthetic line) shall not be sent out to the same set of bollards because of the different elasticity. Moorings shall be monitored and kept taut by the export tanker crew and the export tanker maintained in her correct position and in contact with the berth fendering throughout deballasting/loading operations. The Terminal Loading Master is fully authorised to stop operations and disconnect cargo hoses if moorings are seen to require attention or if the export tanker is not kept in position and in contact with the fendering or if the export tanker violates any other safe mooring practices.

Emergency Towing Off Wires: On completion of mooring alongside the Terminal, the export tanker shall provide 2 towing wires of adequate strength and condition.

The towing wires will be secured to the offside bow and quarter bollards respectively, with eyes run out and maintained at or near the waterline.

Synthetic ropes are not acceptable as replacement for emergency towing-off wires.

Gangway and Accommodation Ladder: The Terminal may supply a gangway of approximately 18 m. length and a safety net which will be rigged to provide safe access between the Terminal and the export tanker.

The export tanker should have its starboard side accommodation ladder ready for lowering out and use for both the embarkation of the Pilot on arrival in conjunction with a pilot ladder where the freeboard exceeds 9 m. and for contingency use while alongside the Terminal.

The Operator will not be liable for accidents to ship's personnel and visitors while using the Terminal gangway. If, for any reason, the Terminal gangway is not available, the ship may be required to use her gangway or accommodation ladder. This requires close consultation between the export tanker and Terminal Loading Master.

State of Readiness of Export Tanker and Any Other Ship Alongside: No repairs or work which will make the export tanker and or other ship unable to move under its own power may be commenced without the written consent of the Terminal Loading Master or his authorised deputy. In general, such consent will be refused as, for the safety of the terminal, it is essential that the export tanker and any other ship maintain their propulsion, steering and other equipment required for unmooring and manoeuvring fully operational throughout their stay alongside. In cases where, through Force Majeure, a ship becomes immobilised while alongside, the Master must immediately advise the Terminal Loading Master and "YHOC Marine" by VHF or UHF of the facts so that a decision may be made on the advisability of continuing with cargo operations and so that special precautions can be taken.

Ship/Terminal Communications While Alongside: The Pilot or the Loading Master on boarding before berthing, will bring with him a portable UHF radio set (walkie talkie) which he will use during the mooring operation and, before leaving the ship, will place it under the care of the export tanker Master. This set will remain on board throughout the export tanker's stay alongside and must then be handed back to the Pilot who sails the ship.

The UHF set is to remain open so that the export tanker and the Terminal can make radio contact on a dedicated radio frequency at all times. The set can also be used to advise time ballast is discharged, tank inspection is required, standby or stopping loading pumps, etc. The set must not be used for communicating with other parties and must be used responsibly. Should the set be damaged or lost while under the care of the ship, the cost of a replacement will be billed to the ship's owner. The export tanker should call the Terminal Loading Master if there is evidence that the battery is getting low or the set is operating unsatisfactorily.

LOADING: *Manifold Requirements:* Ships whose cargo manifolds conform to the OCIMF "Standards for Tanker Manifolds and Associated Equipment" should have no difficulty at the Marine Terminal. Basic requirements for manifolds at the Marine Terminal are 4×16 in. ASA steel cargo manifolds.

Note: All bolted flange connections shall be fully bolted. Skip bolting is not permitted.

Connecting Hoses/Cargo Boom Readiness: The port side cargo boom (derrick or crane) with a SWL rating of at least 10 tonnes shall be rigged and centered over the manifold prior to berthing alongside. The ship's crew shall connect the hoses assisted by Terminal hose handling personnel. The FSO "Safer" has a 25 tonne SWL rating crane which will lift up to 3×16 in. hoses.

Cargo Meeting: Upon the export tanker's arrival alongside the Terminal, a cargo meeting will be held between Terminal representative and ship's Master (or his appointed representative) and the Chief Officer on deballasting/cargo operations procedures, tanks inspection before/after deballasting, cargo calculations and preparation of documentation involved.

No deballasting/cargo loading should start until both parties agree on items discussed in this meeting.

Tank Inspection Before Loading: Before loading or before deballasting overboard, tanks will be inspected by a Marine Terminal representative, who, with the assistance of ship's personnel, will dip the tanks, check for water content and calculate the ROB (Remaining on Board).

The Marine Terminal representative will fill in the appropriate forms, which will be submitted to the ship's Master for acceptance and signature. Copy of such documents will be left onboard the vessel.

No Dry Certificate will be issued by the Terminal representative.

OBO Ships – Precautions in Cargo and Ballast Handling: Because of the frequently encountered large free surfaces of cargo tanks (holds) onboard combination carriers, particular care should be exercised when loading cargo or discharging ballast, in order to ensure that total free surface effect of cargo/ballast tanks is kept within safety limits.

Stability data on loading and deballasting instructions should be available onboard and discussed upon vessel's arrival between ship's Master and Terminal Loading Master.

In addition to the above, a pre-arrival plan of trim and transverse stability during cargo and ballast operations should be prepared by the Master and cabled to "YHOC Marine" upon request by the Terminal.

Plan of operations should include data on loading rate limitations, manifolds size and characteristics, deballasting rates and IGS operability.

It will be ship's Master's responsibility to maintain the vessel with no list while loading cargo/discharging ballast.

Safety conventional measures for combination carriers are applicable and Ship's Master should refer to the I.C.S./O.C.I.M.F. "International Safety Guide for Oil Tankers and Terminals", Chapter Eleven.

Loading Operations: All loading operations are conducted using pumps, therefore ship's Masters are warned of the serious consequences of closing or partially closing valves against the incoming oil flow.

At all times during loading operations, a responsible officer shall be in charge of operations onboard the export tankers, either on deck or in the cargo control room. On export tankers with a cargo control room, the deck must be continuously patrolled by a watchman in contact with the cargo control room.

When the export tanker is in all respects ready to receive cargo, the Terminal should be notified. Cargo loading will start at low rate until ship's officer will confirm that cargo is flowing into the appropriate tanks. At this time the flow will be increased until the agreed rate is reached.

Cargo oil transfer will not be started unless the export tanker and the terminal manifold stations are manned.

Maximum Loading Rate that may be Reached: FSO "Safer" pumping via 3×16 in. hoses – 100,000 bbls./hour.

The actual loading rate will depend on the agreed maximum rate, the quantity of cargo to be loaded and other operational factors such as the export tanker cargo tank venting capacity.

The loading rate can be reduced at any time (i.e. during topping-off of tanks or any other circumstance). At least a 10 minute "stand-by" notice should be given by the export tanker when loading nears completion.

Emergency Stopping of Pumps: During loading operations, upon request from export tanker personnel, if an emergency arises, Loading Master will stop pumping. Terminal pumps, in emergency, can be stopped almost immediately.

During deballasting operations, the export tanker should be able at any time to immediately stop her pump(s) in emergency, upon request by the Terminal or when situation warrants.

As communications between the parties involved are extremely important, UHF radio contact should be frequently checked.

If contact between Terminal and export tanker is lost, all operations should be stopped until corrective action is taken and communications restored.

Cargo Measurement:

a) The Terminal uses the measurement standards published in the:
   Manual of Petroleum
   Measurement Standards
   Chapter 17 – Marine Measurement
   Section 1 – Guidelines for Marine Cargo Inspection
   Second Edition, January 1986
   American Petroleum Institute
   The guidelines presented in the above publication are intended to encourage the use of uniform petroleum cargo measurements for crude export cargoes through the Ras Isa Marine Terminal.

b) The Terminal will use Table 6A – API Standard 2540 (equivalents: IP200, ASTM D1250 and ANSI/ASTM D1250) for calculations of measured quantities of crude pumped into the export tanker. Export tankers should have the following publication available onboard:
   Manual of Petroleum
   Measurement Standards
   Chapter 11.1 Volume Correction Factors
   Volume 1
   Table 5A
   Table 6A
   API Standard 2540
   First Edition, August 1980
   American Petroleum Institute

c) Immediately after completion of loading, the export tanker's cargo figures should be calculated by the ship's officer-in-charge.

d) A Marine Terminal representative will witness such operations (i.e. ullaging, temperature control, etc.) and he will fill in all documents involved. Copy of such documents will be left onboard.

Logging Times of Operations: All operations will be logged and a "time log" sheet will be filled in before the export tanker's departure and signed by the Master and the Terminal representative. Both parties will keep a copy of such "time log".

Early Departure Procedures: At present Early Departure Procedure will not be carried out. It is however the Terminal's intention to use this service, which provides a quick departure and permits a faster turnaround, in the near future.

BALLAST: *Ballast and Loaded Draft Requirements:* Export tankers in ballast or in partly laden condition shall arrive, for safe handling in all normal weather conditions, with sufficient draft for full immersion of the propeller(s) and a trim not exceeding 10 ft. (3.0 m.) by the stern. Any angle of list will not be accepted. Export tankers sailing with a part cargo are also recommended to conform to the above draft and trim condition.

In special circumstances and in very good weather conditions it may be possible to safely handle export tankers with less draft and/or a different trim than those recommended above. In these cases Masters should consult with the Ras Isa Marine Terminal Oil Movement Control Centre by VHF call to "YHOC Marine".

Deballasting Facilities: After February 29th, 1988, all dirty ballast must be discharged into the Terminal dirty ballast reception tanks or retained aboard; however the capacity of the reception facilities is limited to about 50,000 metric tons maximum. All clean, oil-free ballast should be discharged overboard; the responsibility for avoiding oil pollution rests with the export tanker. The ballast in cargo tanks and segregated ballast tanks for overboard discharge will be inspected and sampled by the Terminal representative before permission is granted for deballasting to commence. The ballast samples will be checked for oil in water content and the findings advised to the ship's Master. An oil in water content exceeding 15 p.p.m. will result in a "Dirty Ballast" Declaration with no overboard discharge permitted. YHOC will not entertain any claims for deadfreight so caused. Export tankers may be required by their operators/charterers to arrive with clean ballast and consolidated slops.

Inert Gas Systems: All export tankers loading crude oil at the Marine Terminal must have an effectively working Inert Gas System in compliance with SOLAS 1974 Convention, Chapter II, Part D and the Master shall confirm before berthing that the Inert Gas System is working correctly, i.e. maintaining positive pressure on all tanks with the oxygen content of the inert gas less than 8% by volume. On arrival alongside export tankers will be asked to depressurise tanks sufficiently to allow up to 3 ullage ports to be open at any one time for the purpose of gauging, sampling, waterfinding, temperature taking, tank inspection, etc., but ullage ports must be re-secured before cargo or ballast handling is commenced.

Export tankers equipped with Vapour Lock tank dipping/sounding devices are not required to depressurise the tanks when gauging, temperature taking and water finding. During deballasting, the IGS must be capable of producing sufficient inert gas of 8% or less oxygen quality to prevent air from entering the tanks.

If the IGS is not operable, deballasting from cargo oil tanks will not be allowed to commence. If during deballasting, the IGS fails, the deballasting must be stopped until the plant is again operational; if this repair is likely to take more than 24 hours, the ships' owners and/or charterers must be contacted and a safe deballasting/loading plan should be agreed by both parties, before operations are resumed.

When loading or deballasting into an inerted tank, the inert gas displaced must be vented through the ship's vent system and not the ullage ports.

Maximum Allowable Pressure: The export tanker must never exceed the maximum allowable pressure on its cargo piping system and make sure the loading rate is fully agreed. While discharging ballast to the Terminal, the export tanker should not exceed 70 p.s.i. at its manifold.

MEDICAL: No doctor or clinic, however, in emergencies, Terminal will attempt to assist.

Also see "Helicopter".

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: None locally.

REPAIRS: No facilities available.

REPATRIATION: No facilities available.

SHORE LEAVE: Not permitted.

HELICOPTER: *Helicopter Operations/Precautions:* Helicopter service for embarking/disembarking a Pilot or any other personnel from the export tanker and any other vessel is not available.

Transfer of personnel by helicopter from ships located within the Terminal area may be carried out only in emergency (i.e. evacuation of injured crew member) and subject to availability of a helicopter. The helicopter service will be for account of the export tanker.

The ship's Master requesting helicopter service for emergency evacuation of injured crew member should:

1. Contact the Terminal Oil Movement Control Room by UHF/VHF and ask for emergency medical evacuation.
2. Give to Terminal the information listed under "Addendum A" hereto. The Terminal will pass this to the doctor located ashore.
3. Provide continuous radio watch on VHF Channel 16, VHF-FM (156.8 MHz) or 2182 kHz. Voice contact with helicopter should be established as soon as helicopter approaches the area.
4. Ensure the selected hoist area onboard the vessel is clear, advise the helicopter of the pick-up area before it arrives.
5. If alongside the terminal, stop all deballasting/loading operations upon previous agreement with the terminal, before the helicopter approaches.
6. If the hoist is at night, light the pick-up area as well as possible. Do not shine any lights on the helicopter because they will blind the Pilot.
7. Ensure all operational requirements on deck are as per guidelines issued by the "International Chamber of Shipping – Guide to Helicopter/Ship Operations".

"Addendum A"
Information on patient needed for medical evacuation.

1. What are the symptoms of the illness? (Or give a description of injury).
2. When did they start (or occur)?
3. Can the patient walk?
4. Temperature or pulse readings?
5. Any vomiting or diarrhoea?
6. Any swelling or pain? (Give location).
7. What medication have you given?
8. What is the general condition of the patient?
9. What have you done for the patient and what first aid equipment/medicine do you have onboard?
10. Age, name and nationality of the patient.

SECURITY: *General:* The Terminal will take prudent and reasonable security measures consistent with security threats and risk inherent in each particular situation.

Security Area: The security area covered is indicated by the encircled area on the map, (see "Plan").

Access Control: Access to the Terminal, the export tanker(s) or any other vessel will be controlled by:

1. Employee and visitor pass system.
2. Property pass system (spare parts, stores, provisions and other material).
3. Random search of personnel and vessels if necessary.

Communications: In addition to the use of the ship-to-shore radio telephone system, the Terminal will utilise walkie talkies for communications with the YHOC shore staff and local law enforcement authorities.

Responsibilities of the Export Tanker: The responsibilities of the export tanker or any other ship should at a minimum be along the following lines:

The Master of the export tanker is responsible for gangway access control to the vessel, surveillance onboard the vessel and surveillance of the water surrounding the vessel. It is his responsibility to provide the Terminal Manager with a manifest of crew members and list of authorised visitors to the vessel. The Master should also institute a system of package control to include the issuance of appropriate property passes for items authorised to leave his vessel.

Throughout the vessel's stay alongside, a gangway watch should be maintained. The gangway security watchmen should ensure:

(a) Unauthorised persons are excluded from the vessel.
(b) Authorised persons are logged on and off the vessel.
(c) If necessary, conduct checks of baggage and packages being brought on to or taken off the vessel.

Responsibilities of the Terminal: The Manager of the Terminal is responsible for all Security activities in the Terminal area. The Terminal will advise the Master of the vessel of his responsibilities.

It is important that the Terminal advise the Master as soon as possible of any special circumstances which might necessitate special Security precautions. Conversely, the Master of the vessel should also inform the Terminal of the Security status procedures onboard in accordance with the Vessel Security Guidelines.

GENERAL: *Services:* The Terminal is located offshore, and the only means of transportation available to the shore is by Terminal Support Craft to the Port of Hodeidah situated about 30 nautical miles to the South. Therefore, the Terminal can offer no logistical support. At present there are no facilities for providing provisions, stores or spare parts.

Only authorised personnel are permitted to board export tankers and any other ship while berthed.

Export tankers requiring urgent services (Owner's items) should establish contact with local Port Agents at the Port of Hodeidah for delivery offshore and at the Holding Anchorage, which if the latter is utilised should be reported to "YHOC Marine" via VHF radio telephone for clearance to use this anchorage.

Charts: Charts covering the approach to and from the area of the Ras Isa Marine Terminal are: British Admiralty Nos. 141, 542, 548 and U.S. Hydrographic Office Nos. 62285, 62290, 62292.

Tides and Current: It is suggested that vessels consult the British Admiralty Pilot Book N.P. 64, Twelfth Edition 1980, with supplements.

Weather and Sea Conditions: It is suggested that vessels consult the British Admiralty Pilot Book N.P. 64, Twelfth Edition 1980, with supplements.

Strong Winds: When mean speeds exceed 30 knots on the Marine Terminal anemometer, ships will, depending on the wind direction and general weather synopsis, be alerted that cargo/deballasting operations may have to be suspended and hoses disconnected. The Terminal has the responsibility of determining when wind conditions are reaching the limit of the design criteria for continued operations.

Inspection: Any authorised representative of YHOC shall have the right to board any vessel within the Marine Terminal Area at any time, for the purpose of ensuring that Regulations are being observed.

Ship to Vacate Berth on Request by YHOC: As a condition of entry into Ras Isa Marine Terminal Area, the export tanker and any other ship must agree to vacate the berth promptly on being requested by YHOC.

SHIPMASTER'S REPORT: May 1988.

Ras Isa Terminal is an offshore loading port located in the Yemen Arab Republic at the Southern end of the Red Sea, East of the Zubair Islands and a little North of Hodeidah (See B.A. Chart No. 143).

The Terminal consists of a purpose-converted Floating Storage and Offloading (FSO) vessel, FSO 'Safer'. This vessel is 400,000 tonnes d.w.t. (ex-'Esso Japan'), and permanently moored in position Lat. 15° 07′ N., Long. 42° 36′ E. The 'Safer' is under the Yemen flag, and permanently connected by pipeline to the production field via a turret-mooring (6 anchors), and submarine line to shore at Ras Isa, 4.4 miles to the N.E. Production Field is some 420 km. inland, in the Marrib area of Yemen, and production is understood to be some 150,000 barrels per day. 'Safer' takes production on a continuous basis and supplies export vessels as required.

Product is Yemen Alif Crude; typical API, 39.0 to 41.0, typical temperature at loading, 30°C to 38°C, dependent on local sea temperature. The 'Safer' is on a swivel mooring system and will normally lie head to wind, with some influence from tide. Terminal is operated by a Yemeni/American combine, the Yemen Hunt Oil Corp. (YHOC), and vessel is operated (at time of writing) with Italian officers, Yemeni crew, together with American supervisors and Yemen Government representatives. Product suppliers are Yemen Oil and Mineral Resources Corporation. (YOMINCO).

Communications/ETA: (See Appendix "A").

On receipt of instructions to proceed to Ras Isa, then 72 hours, 48 hours and 24 hours prior, advise ETA and other details as listed. Hodeidah Ports and Marine Affairs Corporation (Hodeidah Port Authority) *must* be advised via Hodeidah Radio (4WD), in addition to any telex contact, as they advise the Yemen military authorities, who maintain a radar watch on all vessels entering or leaving Yemen waters. Likewise on departure, vessel must advise Hodeidah Port Authority (per format supplied by Pilot) to be marked-up on military radar screen – otherwise vessel may be intercepted; also via 4WD on 500 kHz.

'Safer' Sat. Telex 1473120 Safa-X (IOR); after initial and 72 hour messages, only requires updated ETA. On approach use VHF Channels 16 and 74.

On receipt of ship's message, 'Safer' will respond with nomination and request ship's details (See Appendix "B").

YHOC Marine: Telex 4013 or via 4WD to YHOC Marine Sanaa.

Port Authority: Telex 5565 and via 4WD.

YHOC Marine, Port Authority and Agents require message per Appendix "A" to be repeated in each ETA notice.

Approaches and Anchorage: See B.A. Charts No. 143, 548, 542 and Appendix "C" and "Plan".

Approach to Ras Isa Terminal is straightforward and clear of dangers. However, due to lack of soundings and age of survey, it would be prudent to approach from seawards rather than coasting.

From North: Follow usual courses down Red Sea, to position 15° 30′ N., 41° 45′ E., 4.5 miles S.W. of Jabal at Tair. Thence course 120° T., distance 52 miles gives a clear run to the Holding Anchorage, passing 7 miles N.E. of Quoin and Haycock Islands in the Zubair group. Once into soundings, least depths are 40 m. – 49 m. Clematis Shoal will lie approximately 11 miles to the North of track when some 17 miles N.W. of Terminal.

Rashshah Island, 4 miles North of Terminal, is low and sandy and has a light (3M) Fl. 10s. 8 miles; both island and light are very poor, both visually and as a radar echo and will not be sighted until within 6 miles of terminal, if at all. Terminal ('Safer'), is well lit and a good radar target, and was located at 14 miles. There is a disused SPM to the East of 'Safer', which may have a tug lying close-by, these echoes tend to confuse the actual terminal position.

From South: Leaving Abu Ail Channel, course should be made to position 14° 25′ N., 42° 30′ E. (avoiding Avocet Rock), before turning North towards Holding Anchorage. Least depths on this approach appear to be 31 m., but survey soundings are old. On approach good fixed positions are necessary, due to Penguin Shoal to West, and S.E. Patches to East, the latter being actually in vicinity of anchorage.

Holding anchorage is established approximately 3.2 miles to S.W. of 'Safer'; vessels may enter and leave from/to sea without pilot, but the total area from shore, out to anchorage is restricted, and vessel must be under pilotage within this area. Depths in anchorage average 38 m. to 44 m., mud/sand bottom, holding-ground good.

Berthing and Operations: See "Plan".

Pilots (2) are British. There are 2 Smit tugs (1×40 ton and 1×60 ton bollard-pull), and tugs lines are used. Tugs are not ideal as they are primarily salvage tugs. Berthing daylight only, unberthing any time, dependent on weather conditions; if wind speed above 20 knots terminal is usually closed for berthing. Any size of vessel up to 400,000 tonnes d.w.t. can be accommodated. Depth at terminal is 33 m.

Berthing is vessel's port side to 'Safer' starboard side. Terminal prefer all wire moorings, but accept rope headlines and sternlines. Tails must be removed from wires. Moorings are 4 headlines/wires, 2 breast wires, 2 spring wires, 4 sternlines/wires, 2 aft breast wires, 2 aft spring wires, – usual firewires required. Usually springs first, followed by breasts, followed by head/stern lines. 'Safer' then supplies 2 'shore' wires to fo'cstle, and one 'shore' wire to poop. Messengers are required. Tugs make fast in 'push-pull' position on starboard forward main deck and aft main deck for berthing, and on long lines starboard bow and starboard quarter on sailing. Tugs lines are very heavy.

While alongside, vessel must maintain starboard accommodation ladder in lowered position. Current international safety rules, check lists, regulations and procedures are in use, and practised. IGS must be positive and always less than 8%. Vessel must arrive with clean ballast, and ballast samples are laboratory tested before deballasting allowed. Portable radio is supplied by Terminal for inter-ship communications.

'Safer' will normally supply 2×16 in. hoses, using combination of ship's lifting gear and her own crane. Her max. rate is 70,000 barrels per hour. 'Safer' provides inter-ship gangway and connects/disconnects hoses.

'Safer' has cargo metering equipment, but this is still at proving stage, and vessel will 'ship-stop'. She will also in future be able to accept up to 50,000 cu.m. of dirty ballast, but this system is still to be commissioned.

Documentation usually takes 3 to 4 hours after completion. Pilot and any surveyors will stay aboard vessel loading. Tugs stand-by while operations are in progress.

Ras Isa commenced operations in December 1987 and 'Safer' came on stream in March 1988. There are currently an average of 6 export liftings per month from the terminal. As at present time, there are no port or customs or health formalities; ship's Agent requires 2 copies Crew List, and pilot asks of state of health. It is understood that the usual formalities will be instated in the near future, in which case the usual rules for entry into Muslim Arab countries are expected to apply.

The Yemen flag must be flown. It consists of red-white-black horizontal stripes with green central star, flown with red stripe uppermost.

There are no facilities or services available. No bunkers or water or repairs. It is apparently possible in urgent cases to obtain services via ship's Agent from Hodeidah, to the holding anchorage, with terminal permission. This would be very expensive as Hodeidah is some 30 km. away down the coast. Transport to/from 'Safer' is by launch or helicopter, Agent boards vessel on arrival. Pilot issues Port Clearance and takes off any timesheets and arrival/sailing figures for Agent if requested. Terminal will do their best to assist if urgent medical attention required, but in general vessel must be totally self-sufficient in this port.

'Safer' has 5 large Yokohama fenders and sundry smaller fenders and protection is good. Vessel's berthing (ballasted) trim must not exceed 3.0 m., with propeller immersed.

A comprehensive port-information book is issued to each arriving vessel. On boarding, Pilot will require Master to sign an indemnity absolving Pilot/Terminal from almost everything, and also pilotage timesheets, port log and tugs time of hire.

APPENDIX A:

Export tankers shall advise their ETA upon departure from its last load or discharge or other port or if at sea as soon as orders received to proceed to Ras Isa and repeat at 72, 48 and 24 hours in advance of arrival via Hodeidah Radio Station to the cable address "YHOC Marine Sanaa Telex No. 4013". Vessels equipped with Inmarsat satellite communications may address their telex(s) to "YHOC Marine" Inmarsat Telex No. 1473120 (IOR) and shall call the terminal on VHF Channel 16 when within range (then VHF Channel 74 for working).

For your information Ports and Marine Affairs Corporation, Hodeidah requires the following information from vessels stemed for Ras Isa Terminal to be sent to them either by telex (5565 Mawani YE) or via Hodeidah Radio (4WD) 72/48/24 hours prior to vessel's arrival:-

AA ETA Ras Isa Terminal.
BB Nationality of ship.
CC Summer deadweight.
DD Length overall.
EE Number of crew and state of health.
FF Cargo required.
GG Arrival draft – fore and aft.
HH Name of Agents.

Master tanker to adhere to these requirements, under copy to Agent to avoid imposition of fines.

APPENDIX B:

We hold your nomination for approximate ..... bbls at 60° F. Yemen Alif Crude approximate API 40.5.

Following information needed:

AAA Cargo quantity you able to load.
BBB Last cargo carried and if crude, source of origin.
CCC Quantity and grade of any transit cargo on board.
DDD Quantity of ballast and estimated deballast time.
EEE Quantity and type of slop onboard to lot of segregate on board.
FFF Maximum acceptable loading rate.
GGG Arrival draft (trim not to exceed 10 ft. or 3 m. by stern).
HHH Deepest sailing draft.
III Advised ability to simultaneously load and deballast with double valve segregation throughout.
JJJ Confirm latest edition of I.S.G.T.T. Safety Guide and OCIMF Ship-to-Ship Transfer Guide are onboard.

Repeat your ETA 72, 48 and 24 hours in advance of arrival to:

YHOC Terminal (via Inmarsat Indian Ocean Telex No. 1473120 Safa X).

Port Authority (Telex 5565 Mawani YE).

When within range contact YHOC Marine on VHF Channel 16 working Channel will be 74.

On arrival have your pilot ladder ready on starboard side for Berthing Master boarding and your port boom (SWL rating of minimum 10 tons) rigged for 16 in. hoses handling purposes.

Confirm your inert gas system is in good working condition. Maintaining oxygen content less than 8% by volume in cargo tanks.

Operational/Safety Check List as per OCIMF Ship-to-Ship Transfer Guide will be followed when VHF contact will be established. Please report also full name of Master.

Signed. . . . . /Cargo Custody Transfer Coordinator
Ras Isa Marine Terminal

APPENDIX C:

On arrival vessel has to anchor at the holding anchorage. The area designated as the holding anchorage for vessels waiting for loading at Ras Isa Marine Terminal is located to the Southwest of the terminal in following position: (N.B. Vessels may only enter this area from sea, or sail to sea, without Pilot. Any other movement must be under pilotage.)

15° 05′ N. 42° 32′ E.	15° 03′ N. 42° 32′ E.
15° 05′ N. 42° 36′ E.	15° 03′ N. 42° 36′ E.

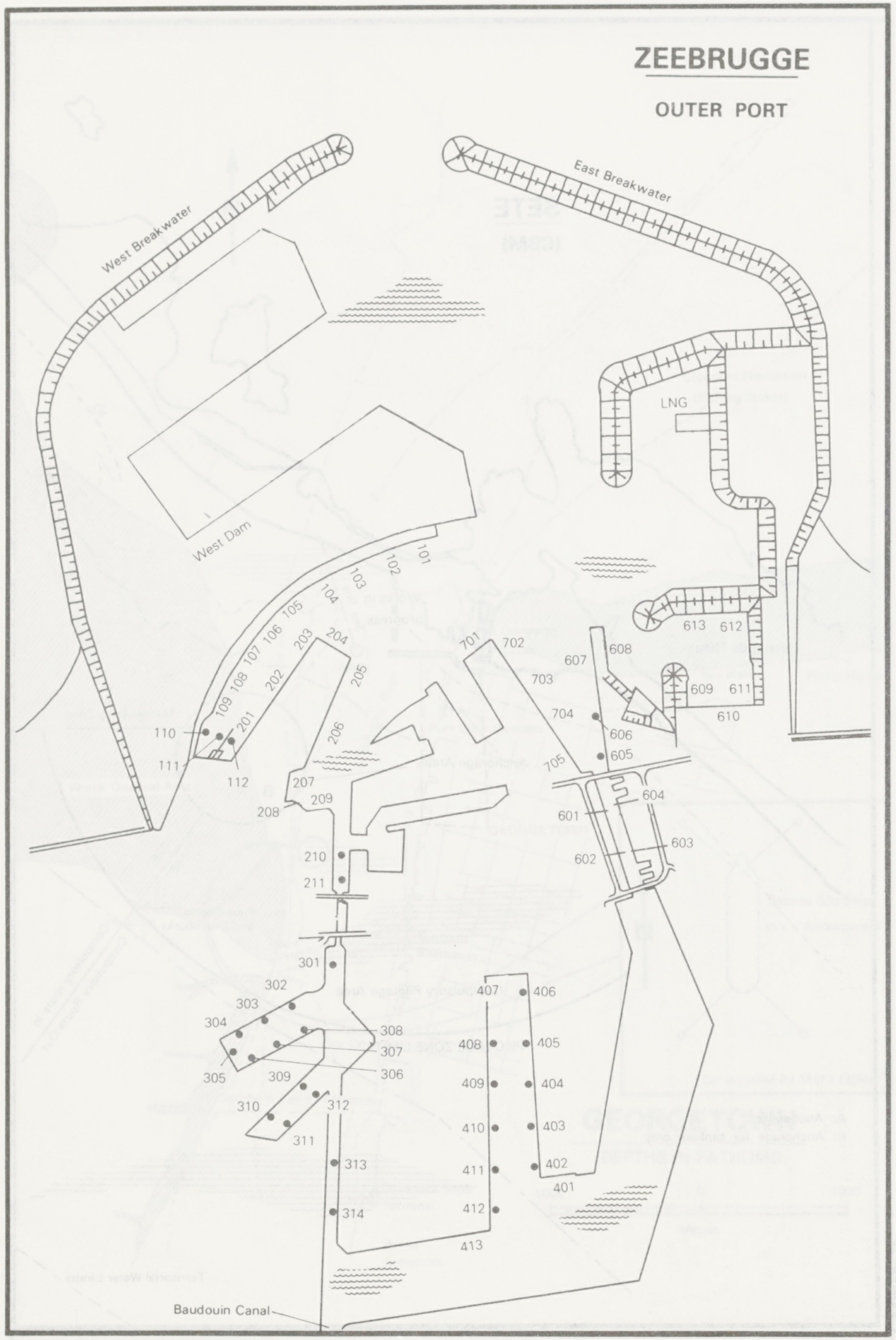
The permanent floating storage and offloading terminal (FSO) "Safer" (400,000 d.w.t.) is located approximately 4.8 nautical miles offshore Ras Isa in position:

Latitude 15° 07′ North   Longitude 42° 36′ East
in the Red Sea territorial waters of the Yemen Arab Republic.

AUTHORITY: Yemen Exploration and Production Co., (Yemen Hunt Oil Company, as Operator) P.O.Box 481, Sana'a, Yemen Arab Republic. *Tel:* Hodeidah Office: 967-3-217994, Sana'a Office: 967-2-216080. *Telex:* 4013 YHOC YE. *FAX:* 967-2-216079. *Cables:* YHOC Sana'a, Y.A.R.

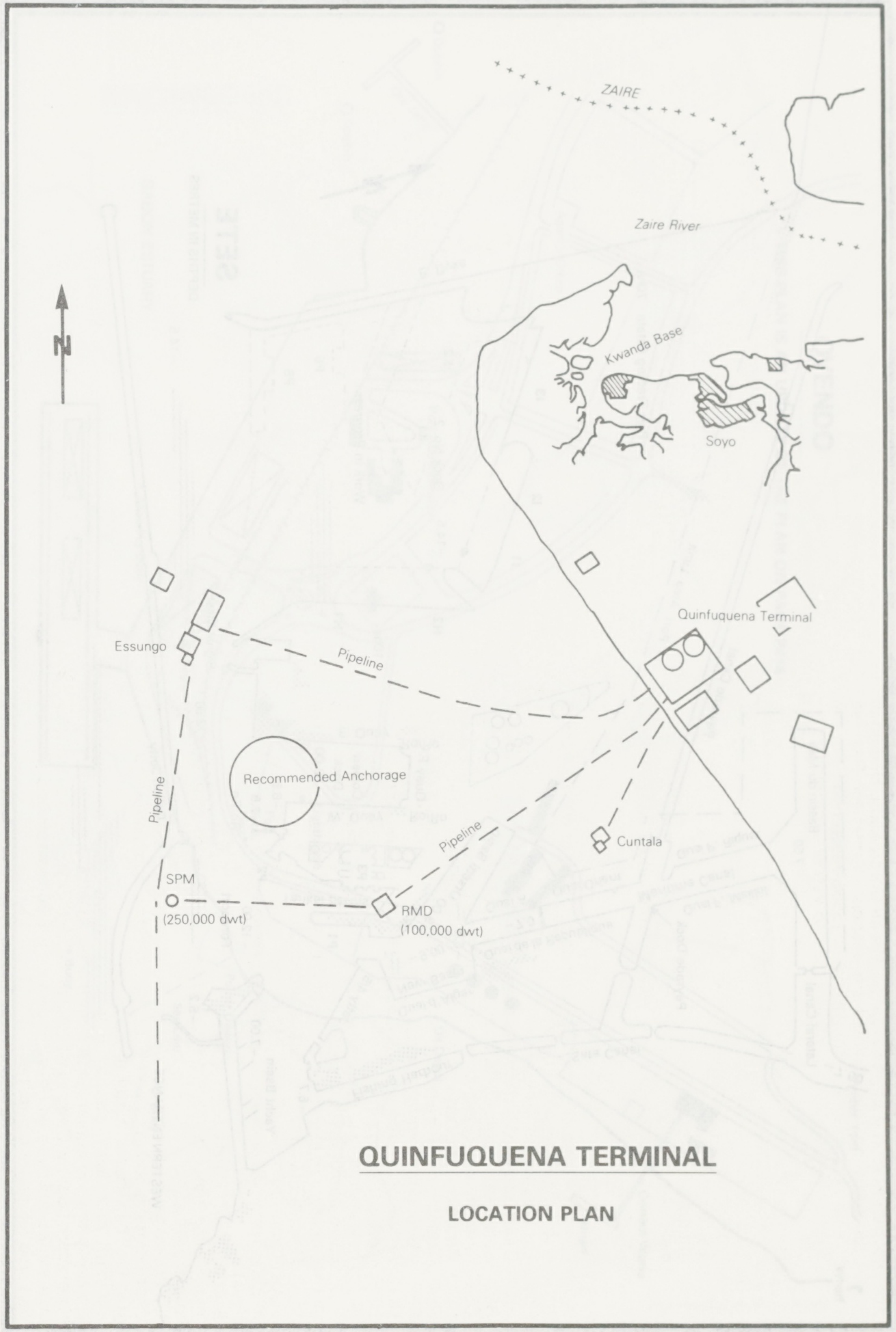
ZEEBRUGGE

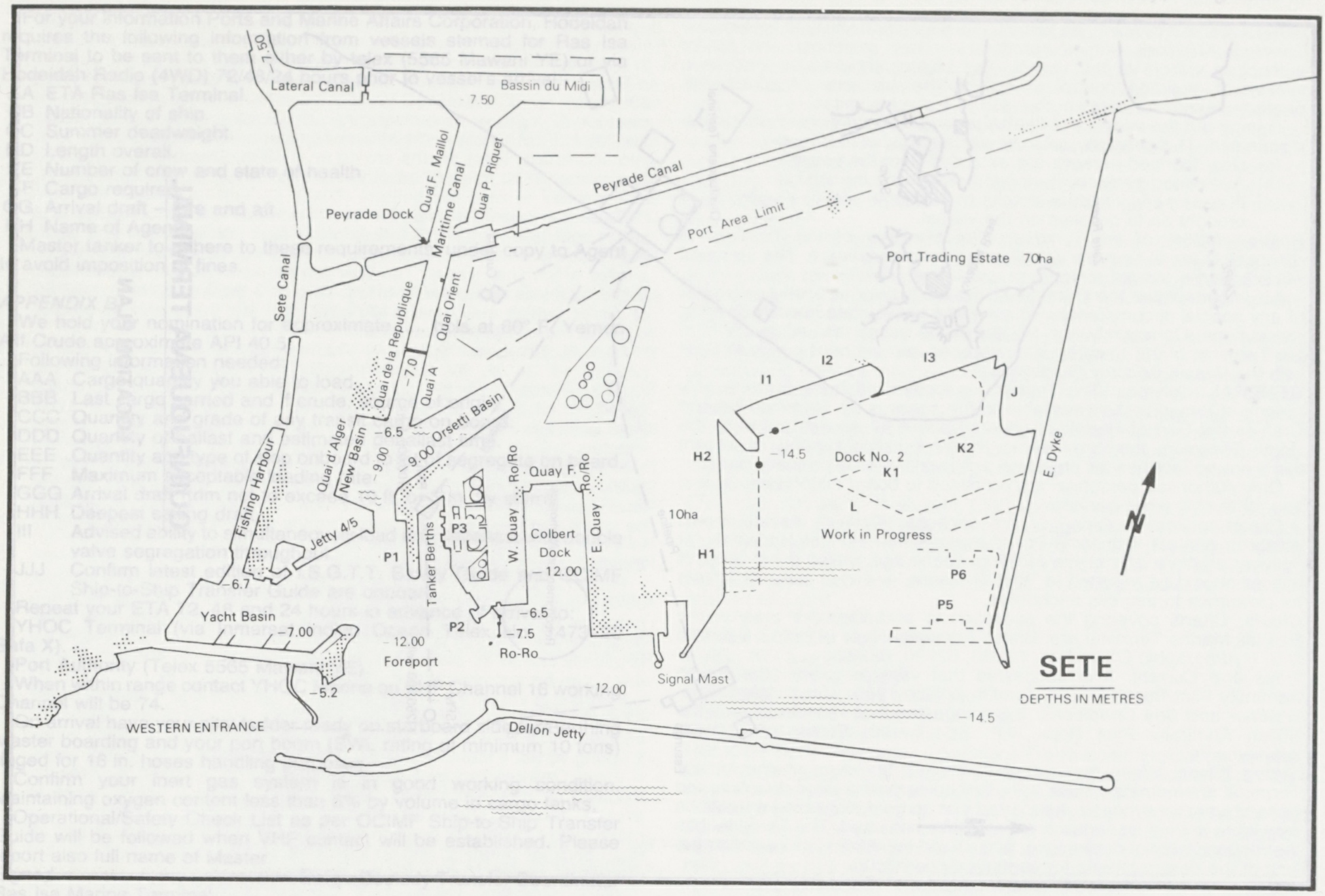
OUTER PORT


West Breakwater
East Breakwater
West Dam
LNG
101
102
103
104
105
106
107
108
109
110
111
112
201
202
203
204
205
206
207
208
209
210
211
301
302
303
304
305
306
307
308
309
310
311
312
313
314
401
402
403
404
405
406
407
408
409
410
411
412
413
601
602
603
604
605
606
607
608
609
610
611
612
613
701
702
703
704
705
Baudouin Canal

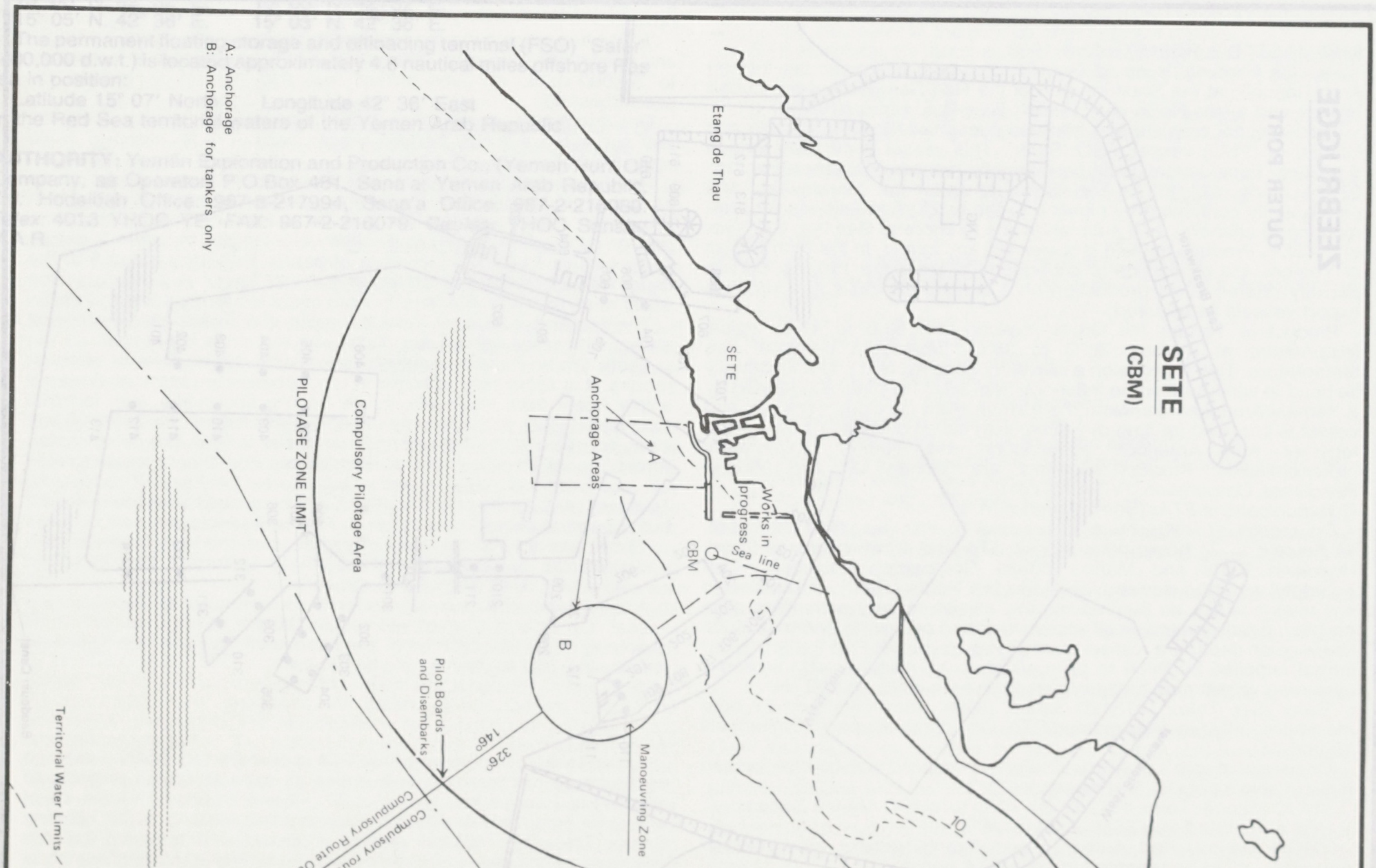
QUINFUQUENA TERMINAL

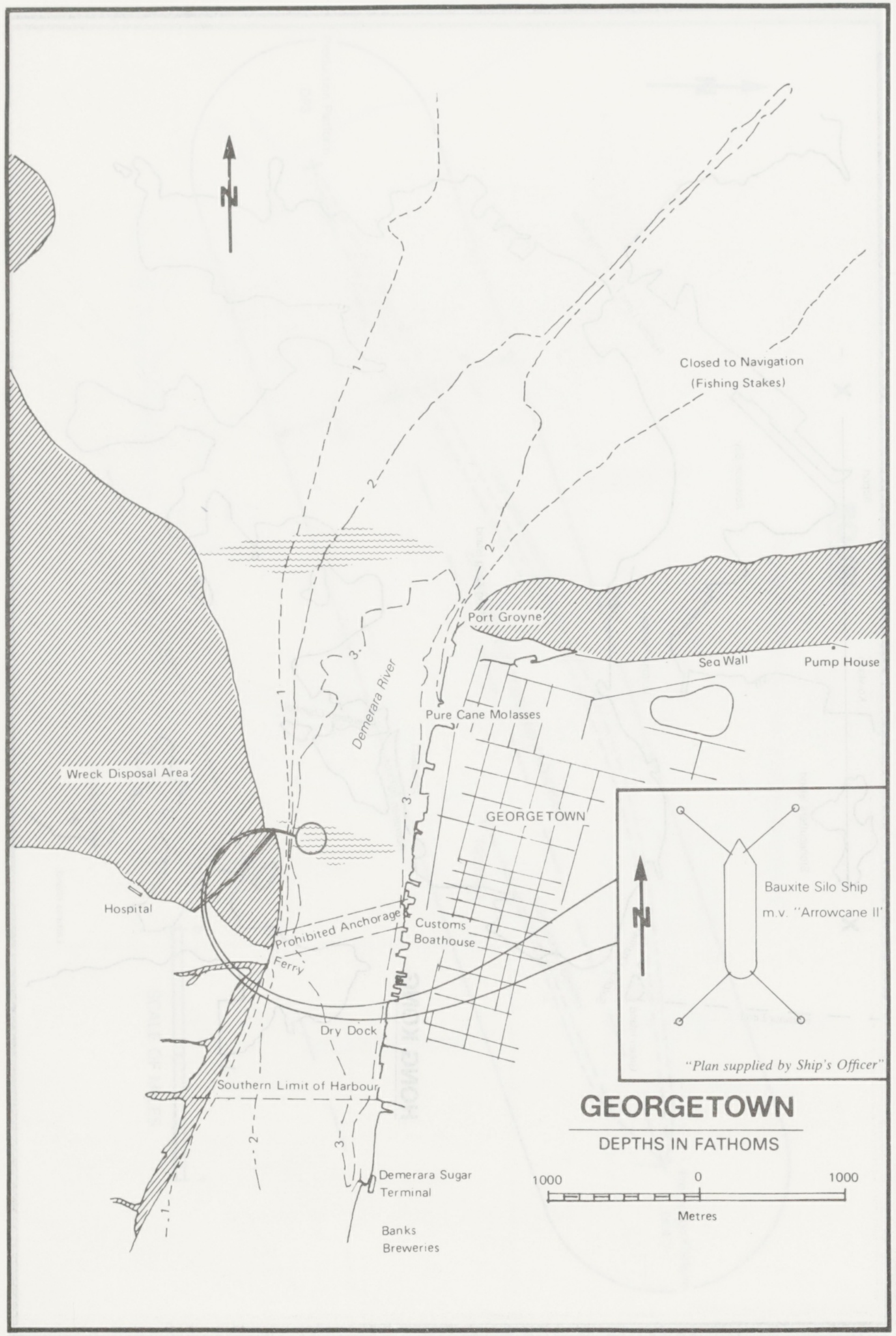
LOCATION PLAN


N
ZAIRE
Zaire River
Kwanda Base
Soyo
Quinfuquena Terminal
Essungo
Pipeline
Pipeline
Pipeline
Recommended Anchorage
Cuntala
SPM
(250,000 dwt)
RMD
(100,000 dwt)


Lateral Canal
Bassin du Midi
7.5
7.50
Quai F. Mailloi
Maritime Canal
Quai P. Riquet
Peyrade Canal
Peyrade Dock
Port Area Limit
Port Trading Estate 70ha
Sete Canal
Quai de la Republique
Quai Orient
7.0
Quai A
Orsetti Basin
Quai d'Alger
New Basin
9.00
9.00
−6.5
Fishing Harbour
Jetty 4/5
P1
P3
P2
Tanker Berths
W. Quay Ro-Ro
E. Quay Ro-Ro
Quay F.
Colbert Dock
−12.00
−6.5
−7.5
Ro-Ro
−6.7
Yacht Basin
−7.00
−12.00
Foreport
−5.2
−12.00
WESTERN ENTRANCE
Dellon Jetty
Signal Mast
10ha
H1
H2
I1
I2
I3
J
K1
K2
L
−14.5
Dock No. 2
Work in Progress
P5
P6
E. Dyke
N
−14.5
SETE
DEPTHS IN METRES

FRANCE

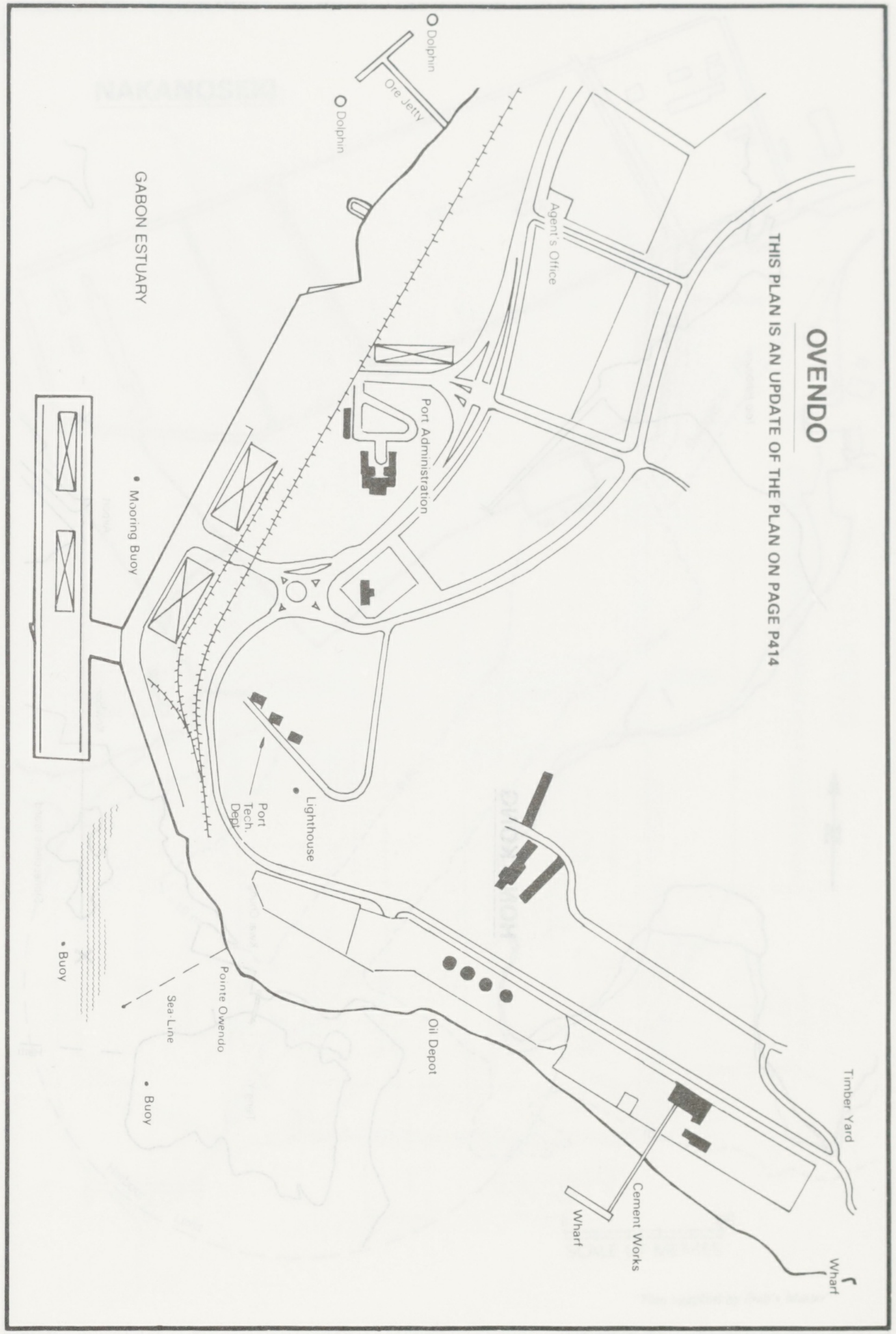

A. Anchorage
B. Anchorage for tankers only
Etang de Thau
SETE
SETE
(CBM)
Compulsory Pilotage Area
PILOTAGE ZONE LIMIT
Anchorage Areas
A
Works in progress
Sea line
CBM
B
Pilot Boards and Disembarks
146°
326°
Manoeuvring Zone
Compulsory Route In
Compulsory Route Out
Territorial Water Limits
10
20


N
Closed to Navigation
(Fishing Stakes)
1
2
2
3
Port Groyne
Sea Wall
Pump House
Demerara River
Pure Cane Molasses
Wreck Disposal Area
3
GEORGETOWN
Bauxite Silo Ship
m.v. "Arrowcane II"
N
Hospital
Prohibited Anchorage
Customs
Boathouse
Ferry
Dry Dock
Southern Limit of Harbour
2
3
1
Demerara Sugar
Terminal
Banks
Breweries
1000
0
1000
Metres

"Plan supplied by Ship's Officer"

GEORGETOWN

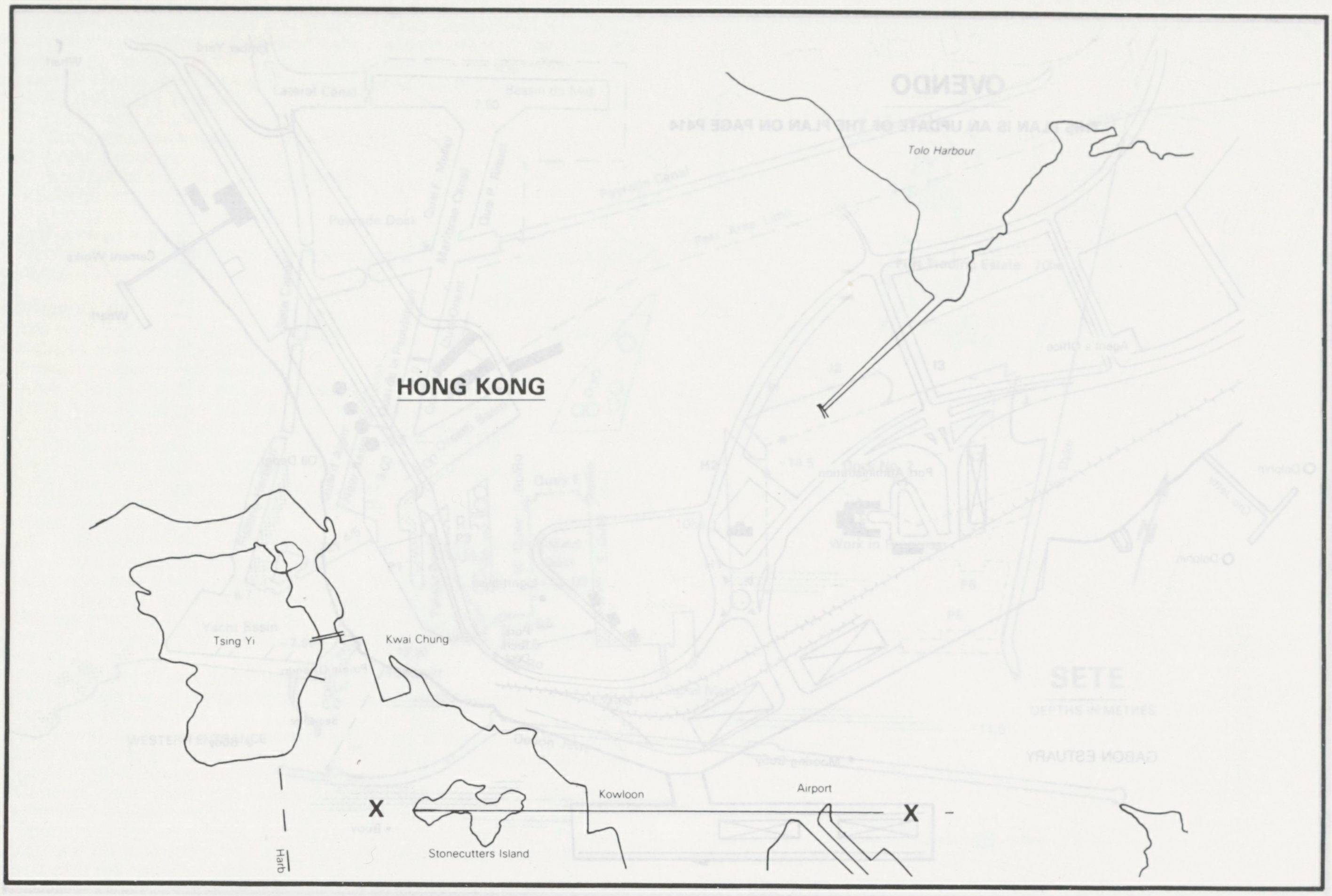
DEPTHS IN FATHOMS


Dolphin
Ore Jetty
Dolphin
GABON ESTUARY
Agent's Office
Port Administration
Mooring Buoy
Port
Tech.
Dept
Lighthouse
Buoy
Pointe Owendo
Sea Line
Buoy
Oil Depot
Timber Yard
Cement Works
Wharf
Wharf

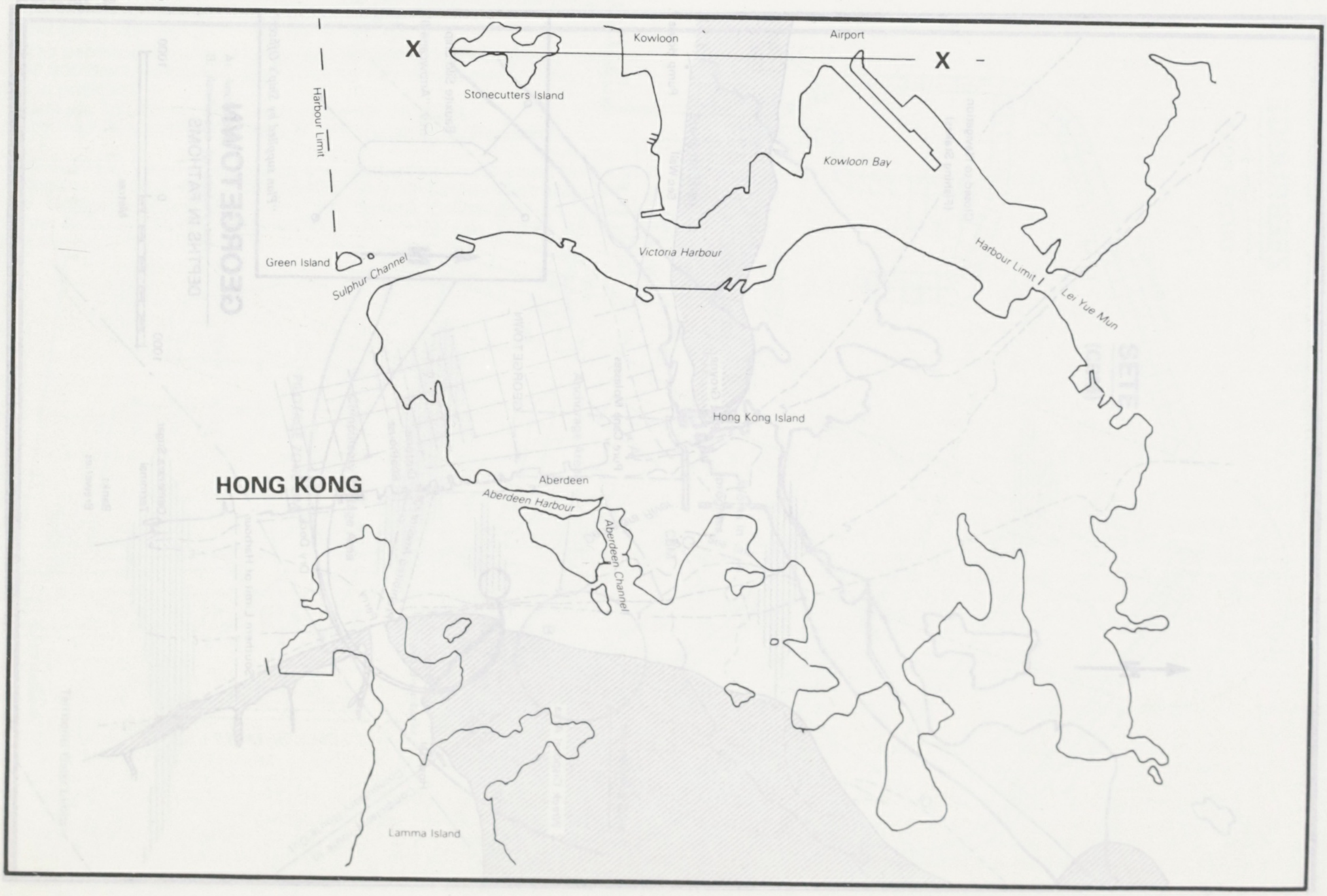
OVENDO

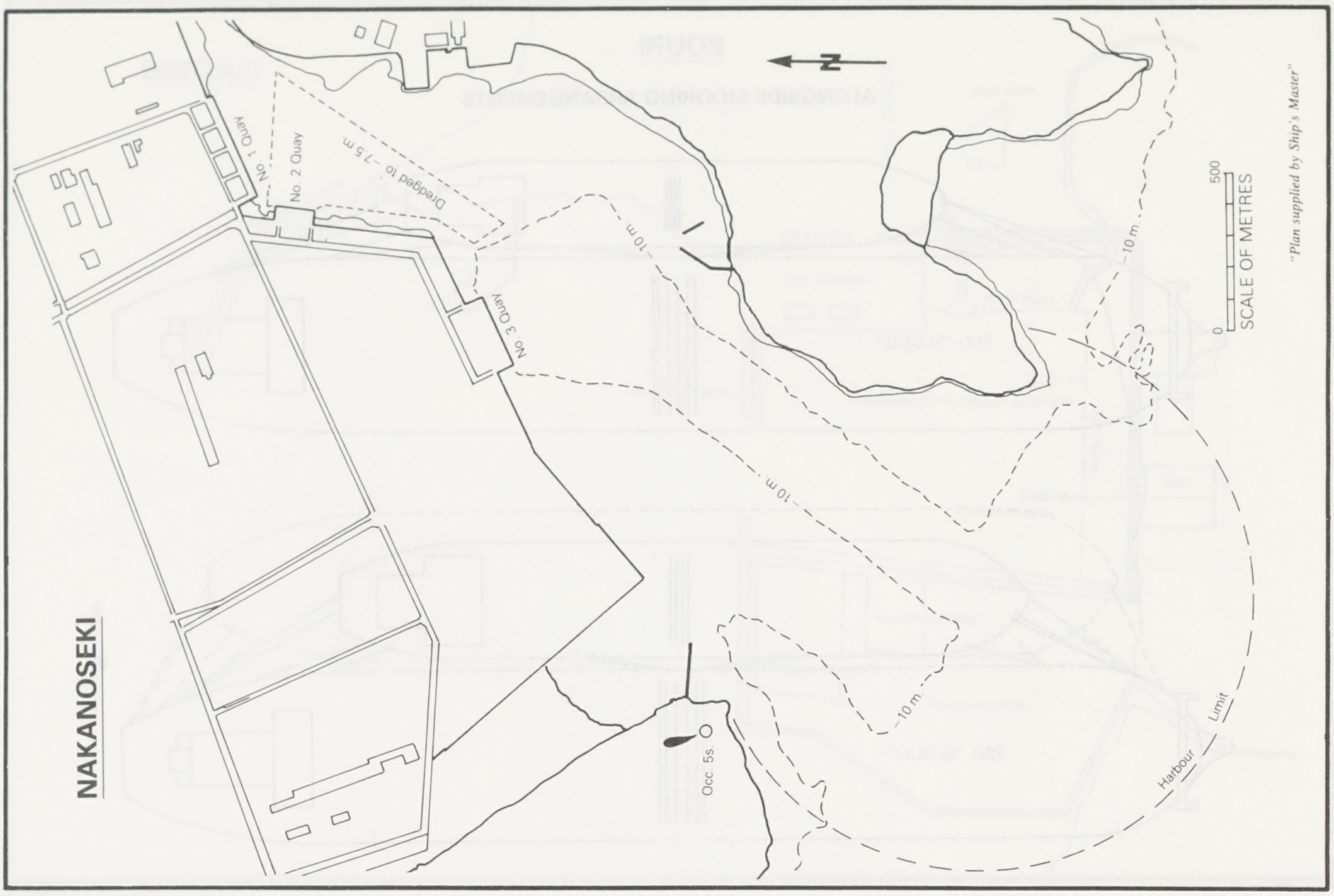
THIS PLAN IS AN UPDATE OF THE PLAN ON PAGE P414

HONG KONG


Tolo Harbour
HONG KONG
Tsing Yi
Kwai Chung
X
Kowloon
Airport
X
Stonecutters Island
Harb

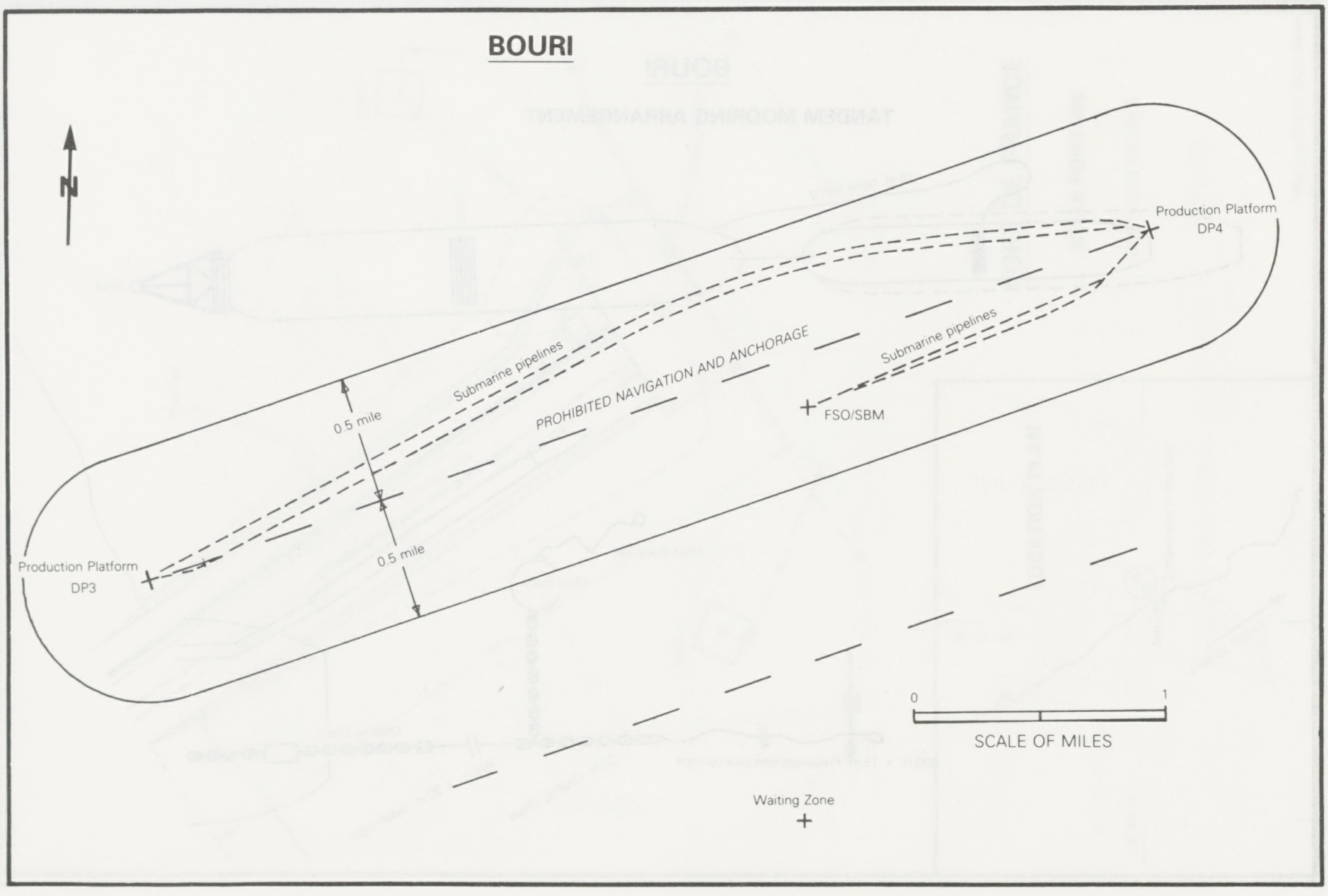
HONG KONG


X
Kowloon
Airport
X
Stonecutters Island
Harbour Limit
Kowloon Bay
Green Island
Sulphur Channel
Victoria Harbour
Harbour Limit
Lei Yue Mun
Hong Kong Island
HONG KONG
Aberdeen
Aberdeen Harbour
Aberdeen Channel
Lamma Island


NAKANOSEKI
N
No. 1 Quay
No. 2 Quay
Dredged to 7.5 m
No. 3 Quay
10 m
10 m
10 m
10 m
Occ. 5s.
Harbour Limit
500
0
SCALE OF METRES

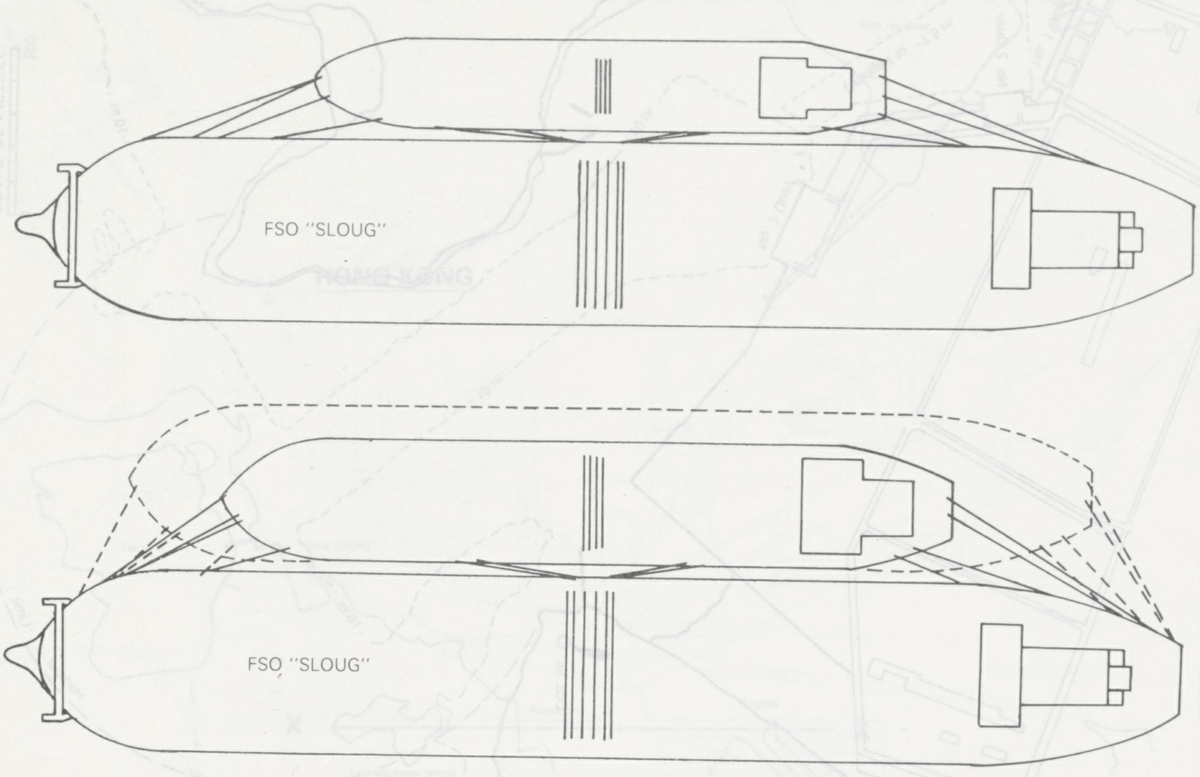
"Plan supplied by Ship's Master"

LIBYA


BOURI
N
Production Platform
DP4
Production Platform
DP3
Submarine pipelines
Submarine pipelines
PROHIBITED NAVIGATION AND ANCHORAGE
0.5 mile
0.5 mile
FSO/SBM
0
1
SCALE OF MILES
Waiting Zone

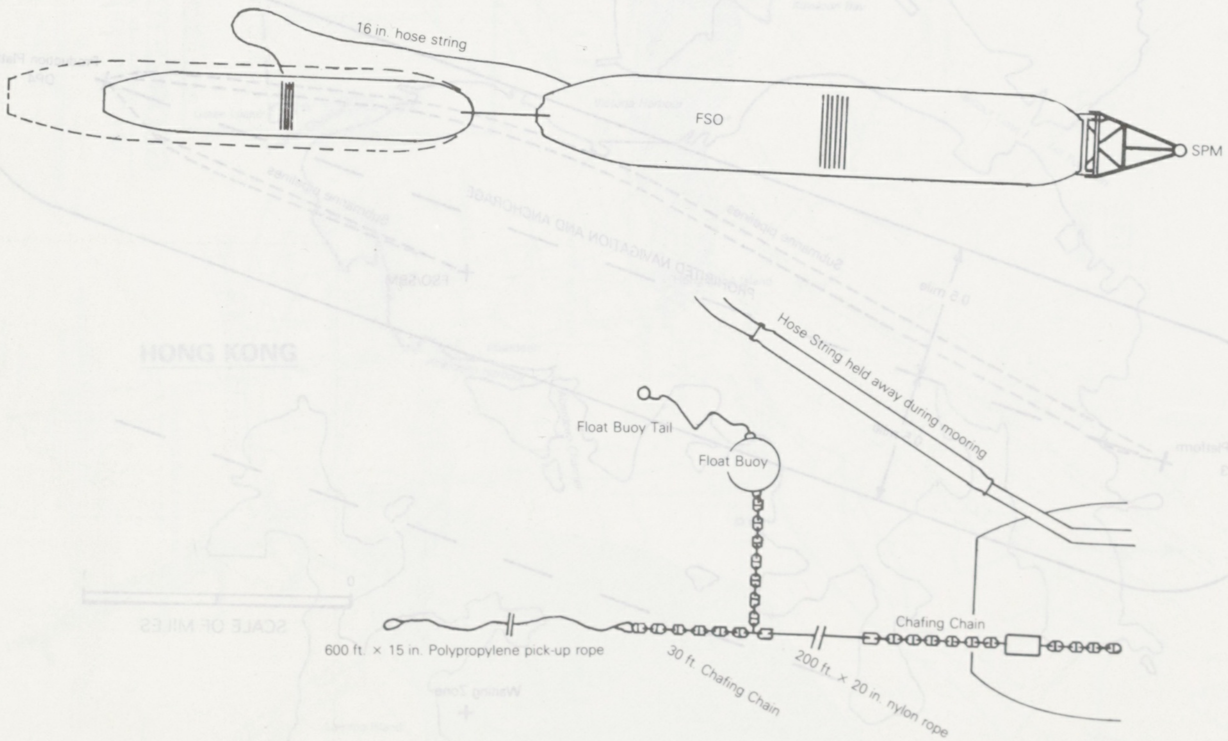
BOURI

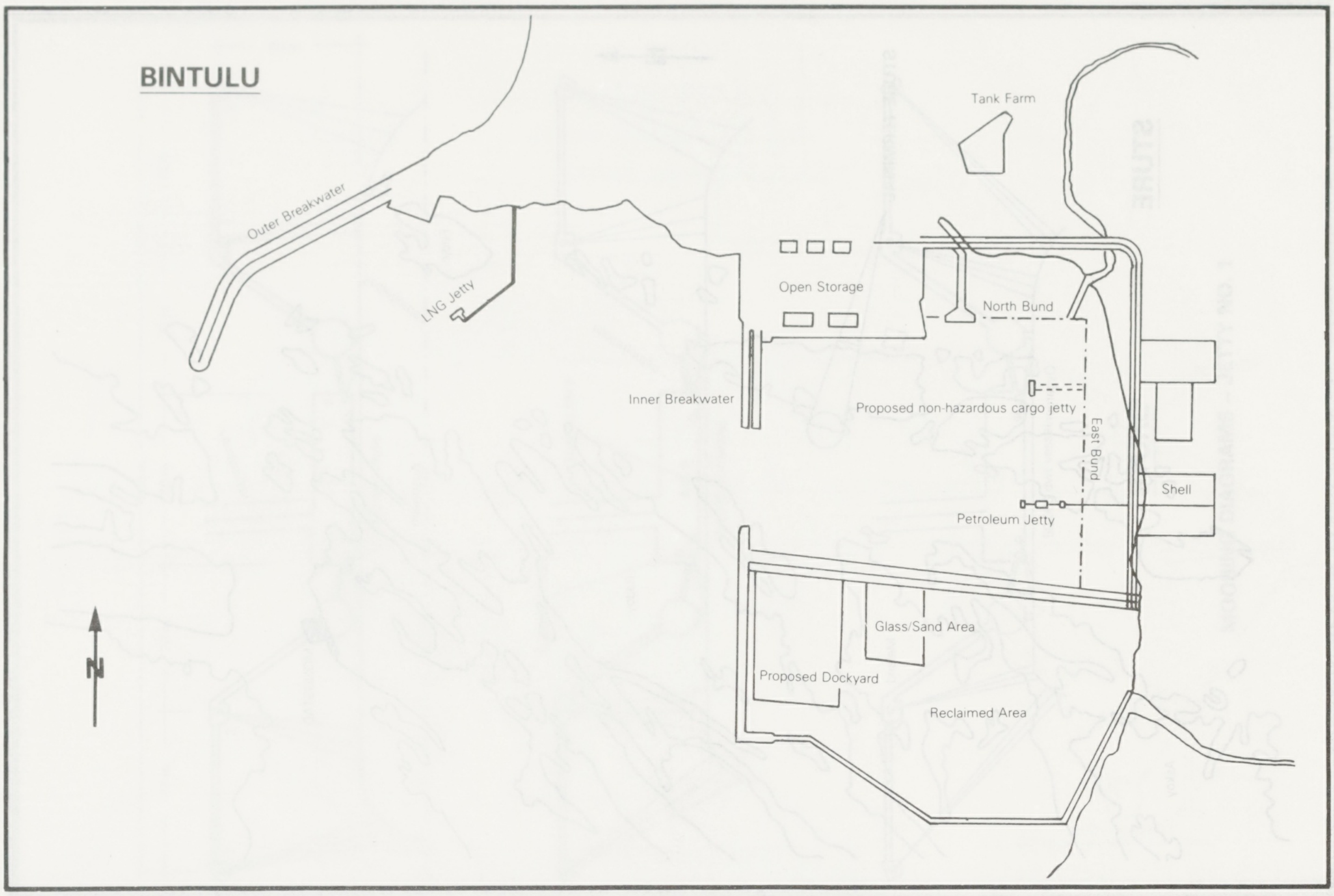
ALONGSIDE MOORING ARRANGEMENTS


FSO "SLOUG"
FSO "SLOUG"

BOURI

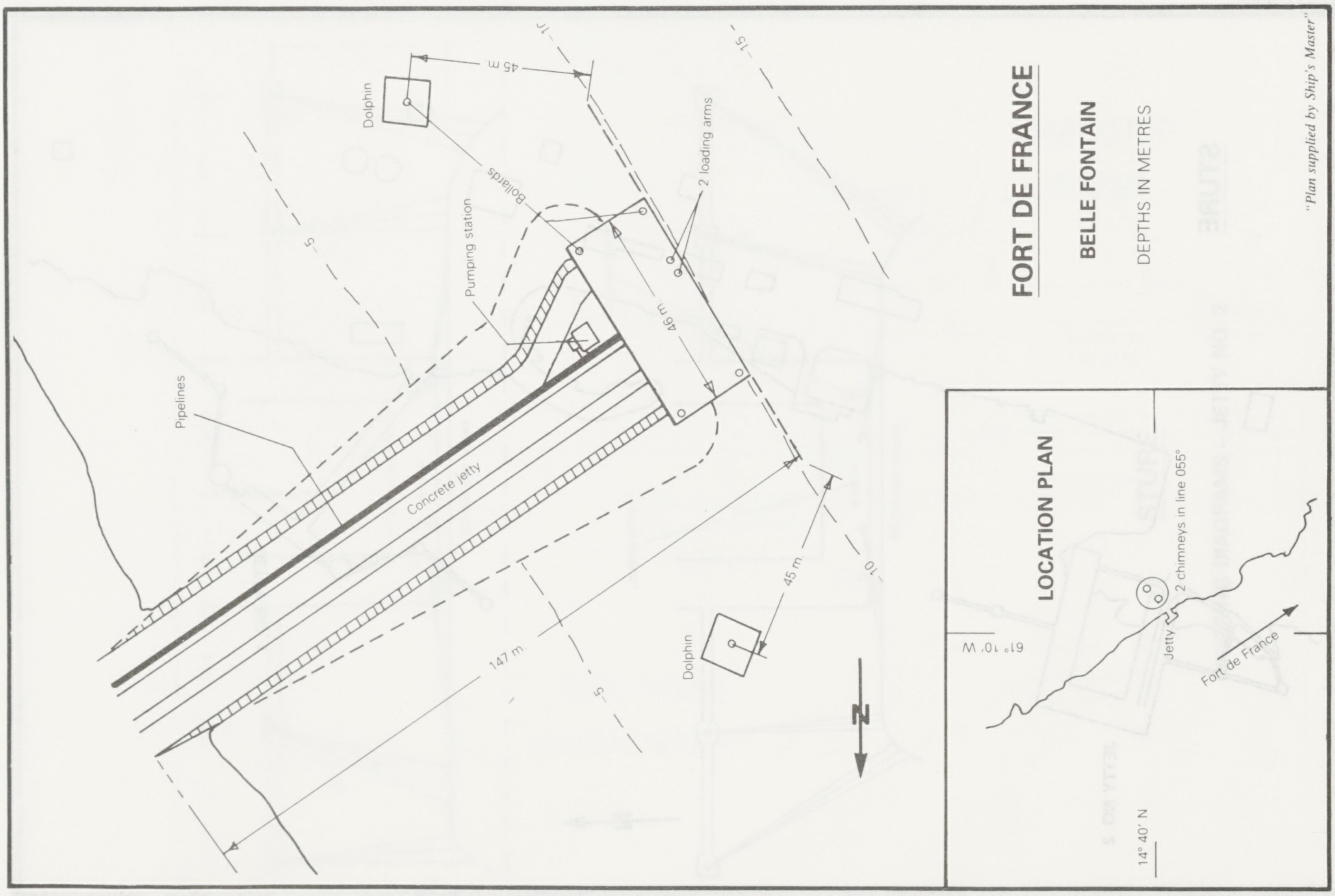
TANDEM MOORING ARRANGEMENT


16 in. hose string
FSO
SPM
Hose String held away during mooring
Float Buoy Tail
Float Buoy
Chafing Chain
600 ft. × 15 in. Polypropylene pick-up rope
30 ft. Chafing Chain
200 ft. × 20 in. nylon rope



BINTULU

Tank Farm
Outer Breakwater
LNG Jetty
Open Storage
North Bund
Inner Breakwater
Proposed non-hazardous cargo jetty
East Bund
Shell
Petroleum Jetty
Glass/Sand Area
Proposed Dockyard
Reclaimed Area
N



FORT DE FRANCE

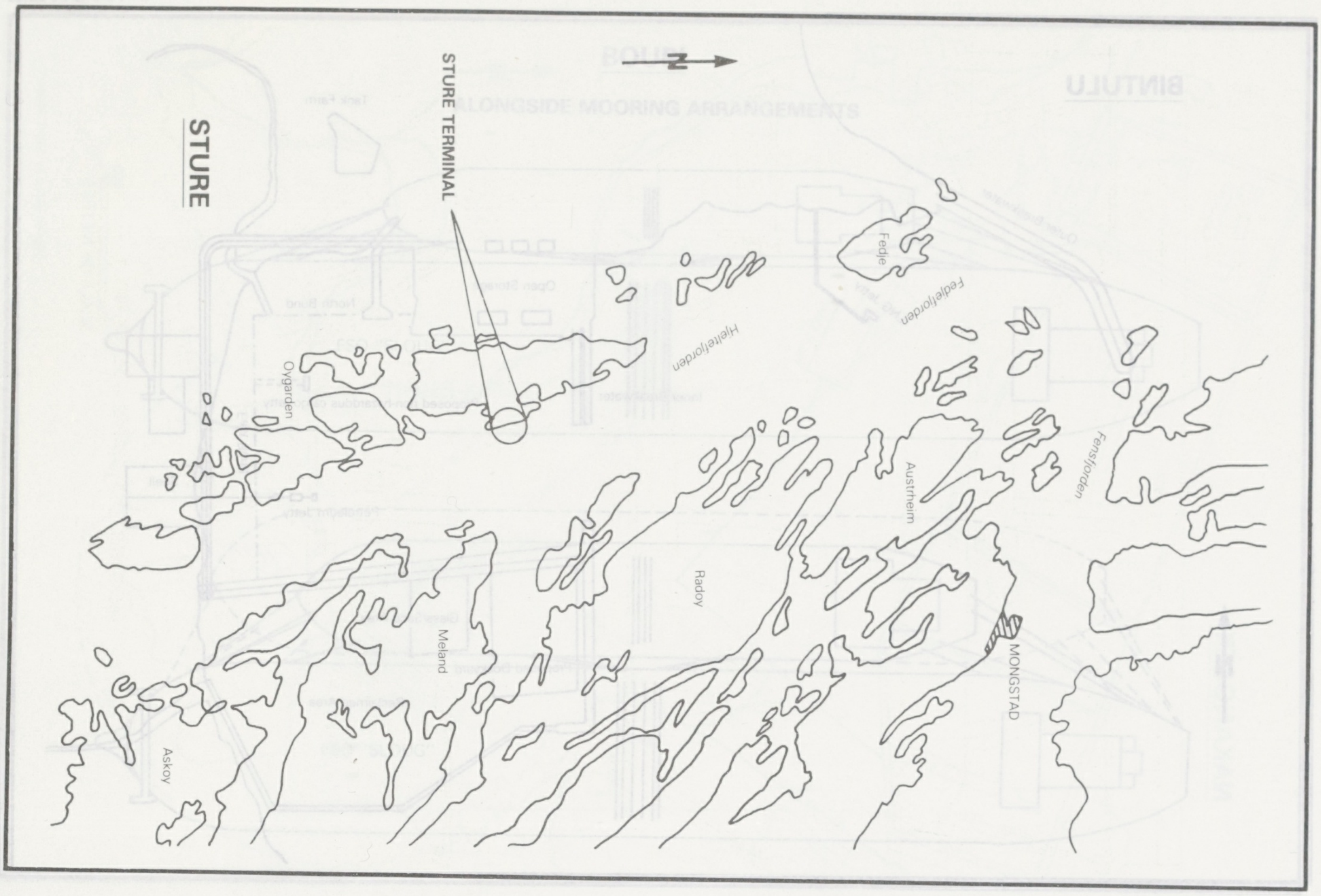
BELLE FONTAIN

DEPTHS IN METRES

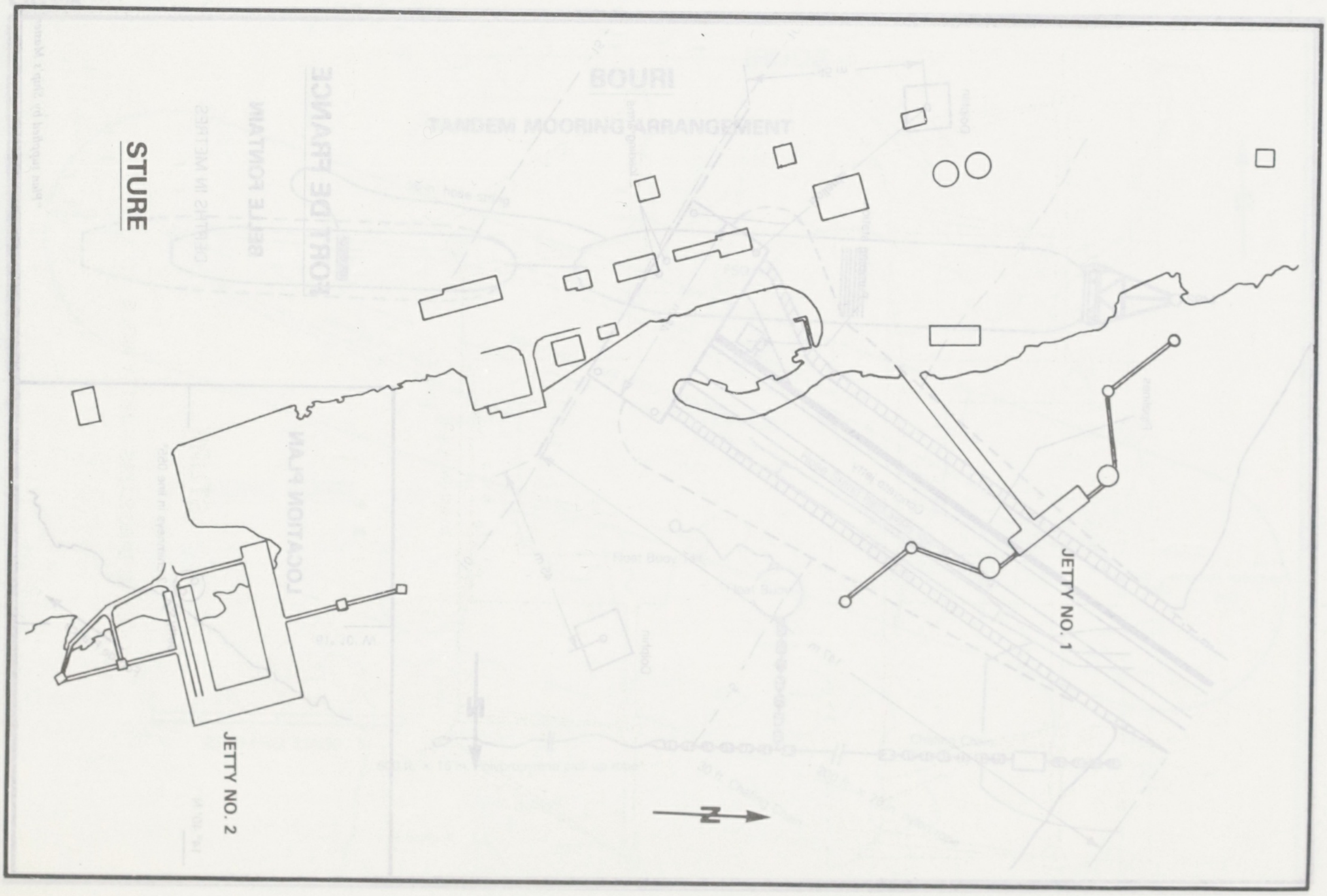
"Plan supplied by Ship's Master"

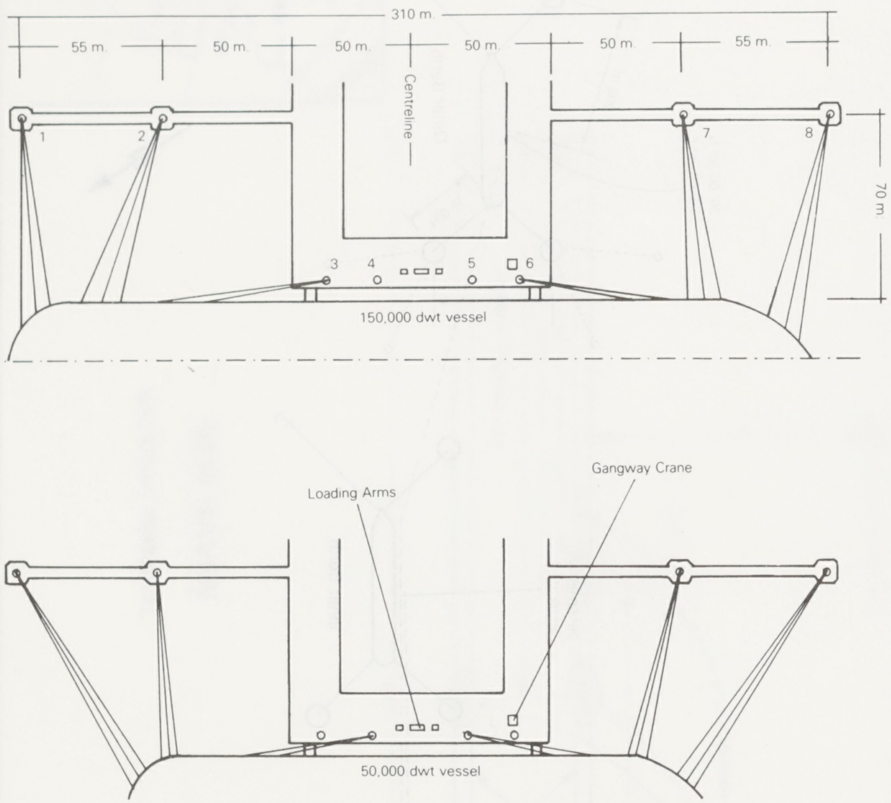
Dolphin
45 m
10
15
Bollards
2 loading arms
Pumping station
46 m
Pipelines
Concrete jetty
5
45 m
10
Dolphin
147 m
5
N
LOCATION PLAN
61° 10' W
14° 40' N
2 chimneys in line 055°
Jetty
Fort de France

NORWAY


STURE
STURE TERMINAL
N
Fedje
Fedjefjorden
Hjeltefjorden
Oygarden
Austrheim
Fensfjorden
Radoy
Meland
MONGSTAD
Askoy

NORWAY

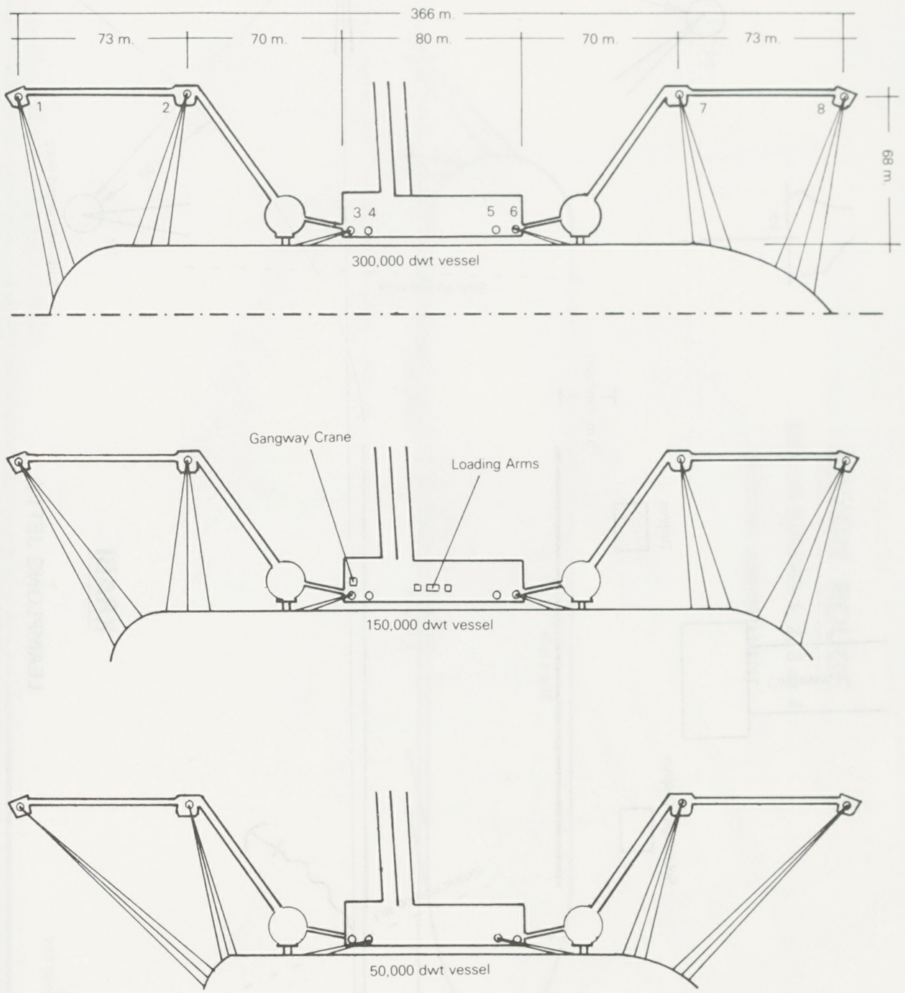

STURE
JETTY NO. 1
JETTY NO. 2
N


310 m.
55 m.
50 m.
50 m.
50 m.
50 m.
55 m.
Centreline
70 m.
1
2
3
4
5
6
7
8
150,000 dwt vessel
Loading Arms
Gangway Crane
50,000 dwt vessel

STURE

MOORING DIAGRAMS – JETTY NO. 2

NORWAY

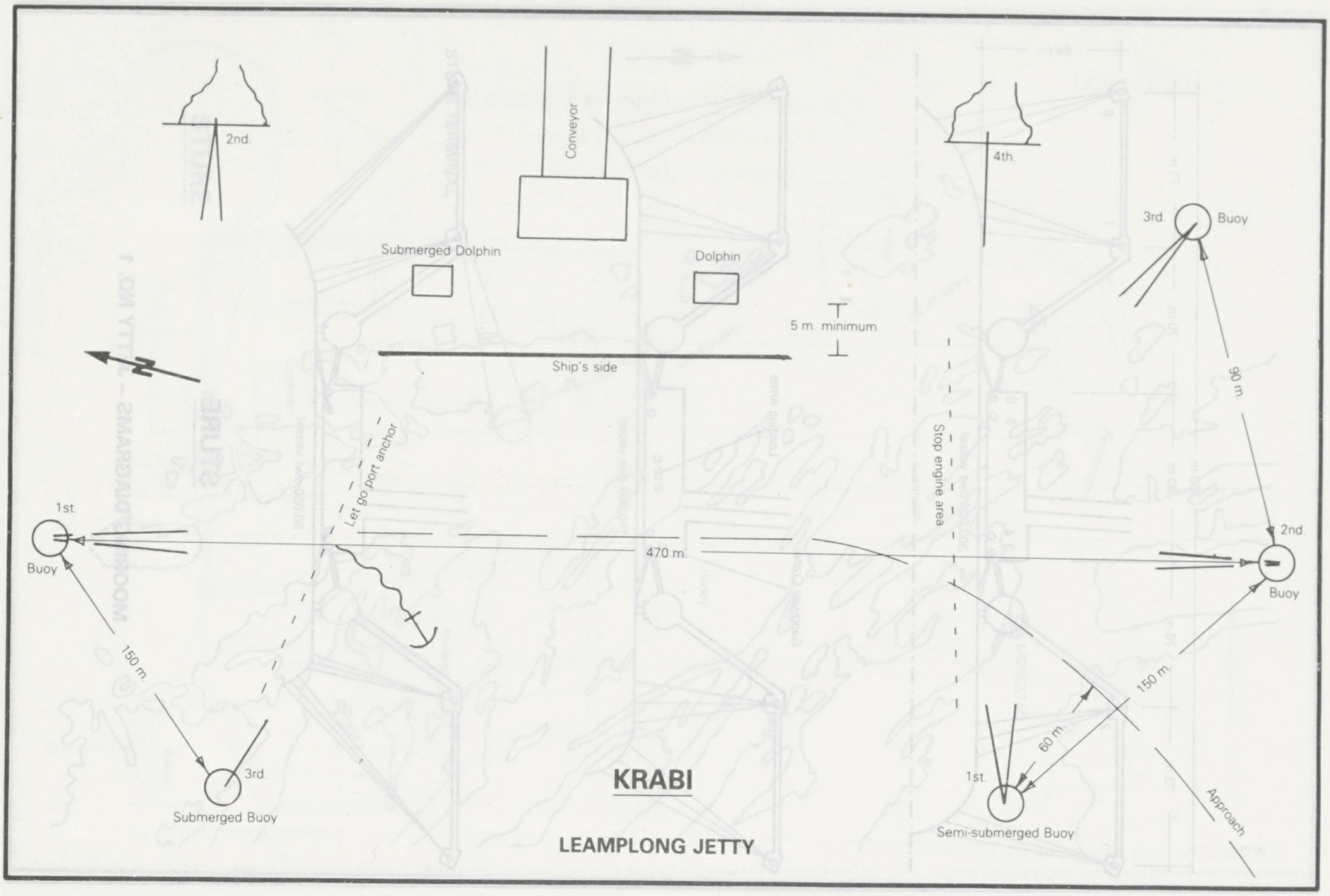

366 m.
73 m.
70 m.
80 m.
70 m.
73 m.
68 m.
1
2
3 4
5 6
7
8
300,000 dwt vessel
Gangway Crane
Loading Arms
150,000 dwt vessel
50,000 dwt vessel

STURE

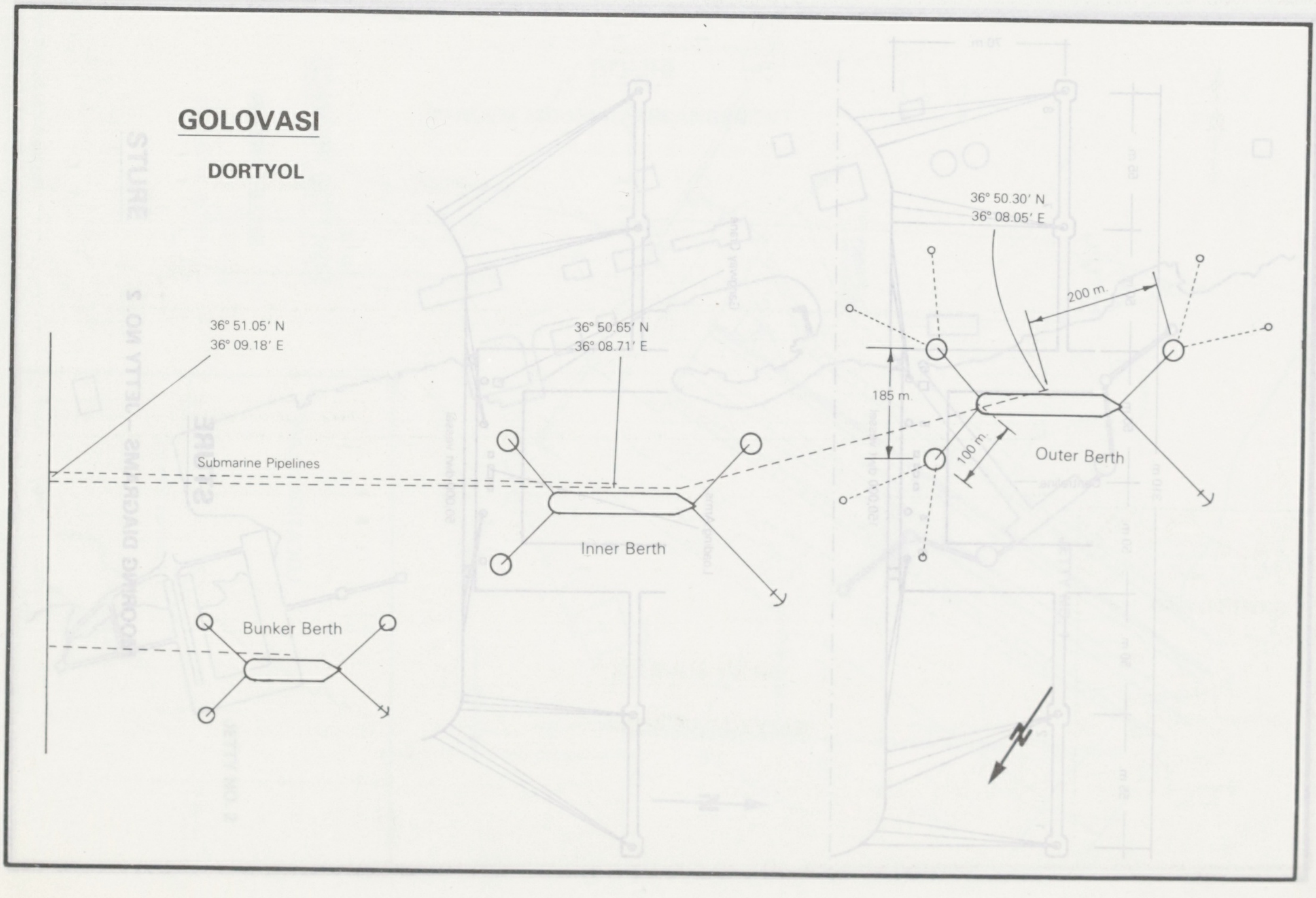
MOORING DIAGRAMS – JETTY NO. 1

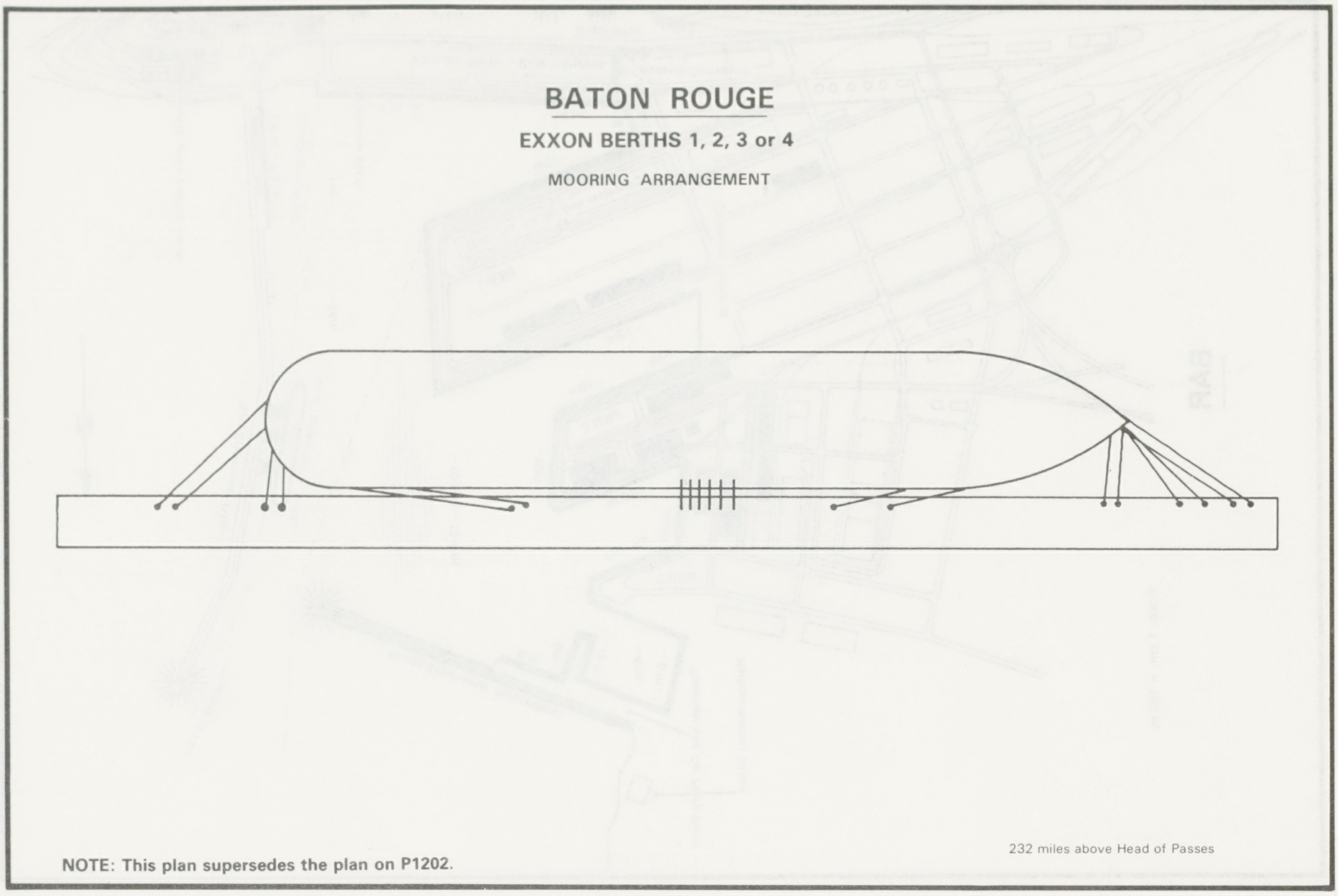
NORWAY

THAILAND


KRABI
LEAMPLONG JETTY
Conveyor
Submerged Dolphin
Dolphin
5 m. minimum
Ship's side
Let go port anchor
Stop engine area
470 m.
150 m.
60 m.
90 m.
Approach
1st.
Buoy
2nd.
Buoy
3rd.
Buoy
3rd.
Submerged Buoy
1st.
Semi-submerged Buoy
2nd.
4th.
N

TURKEY


GOLOVASI
DORTYOL
36° 51.05' N
36° 09.18' E
36° 50.65' N
36° 08.71' E
36° 50.30' N
36° 08.05' E
Submarine Pipelines
Inner Berth
Outer Berth
Bunker Berth
200 m.
185 m.
100 m.
N



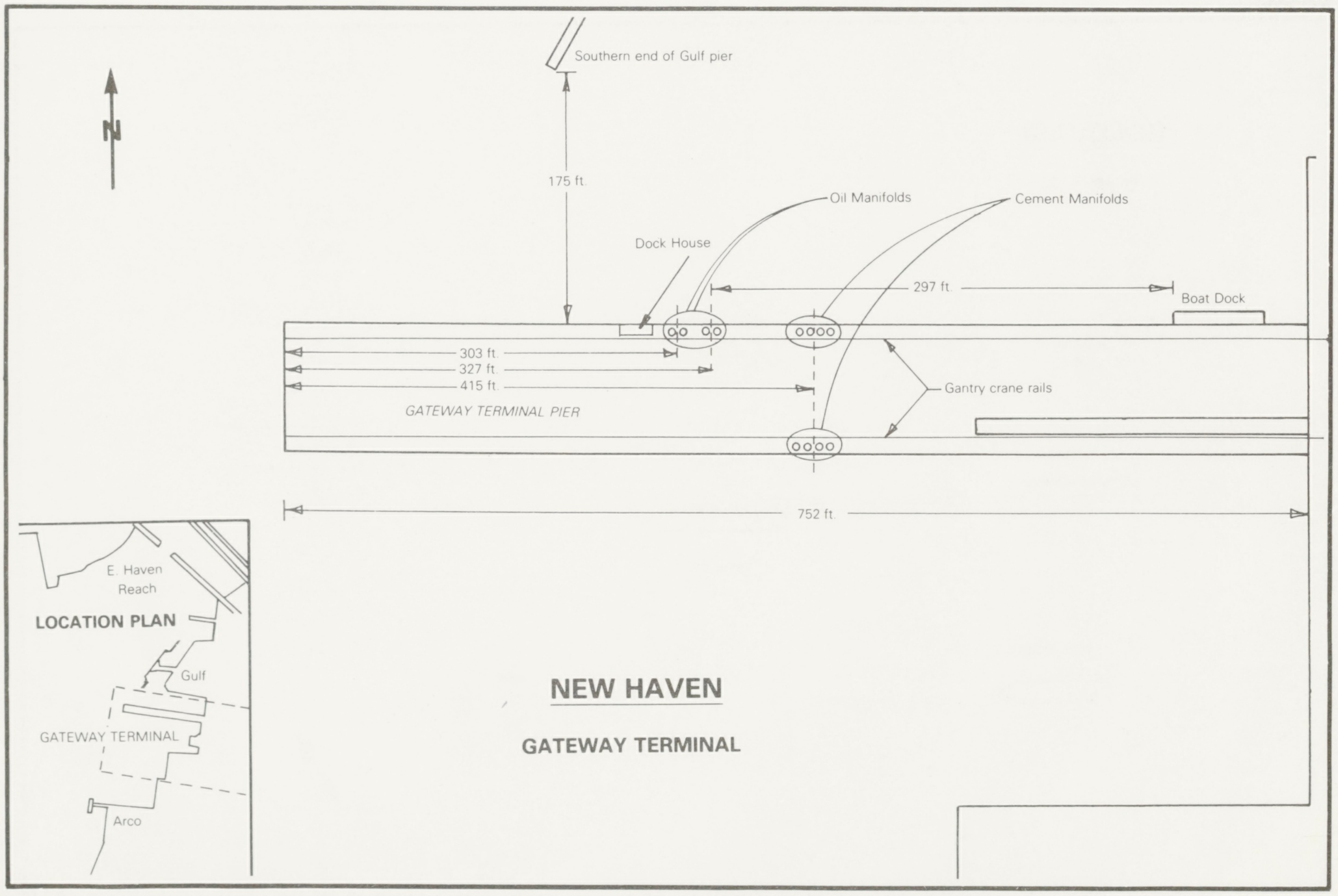
BATON ROUGE

EXXON BERTHS 1, 2, 3 or 4

MOORING ARRANGEMENT

NOTE: This plan supersedes the plan on P1202.

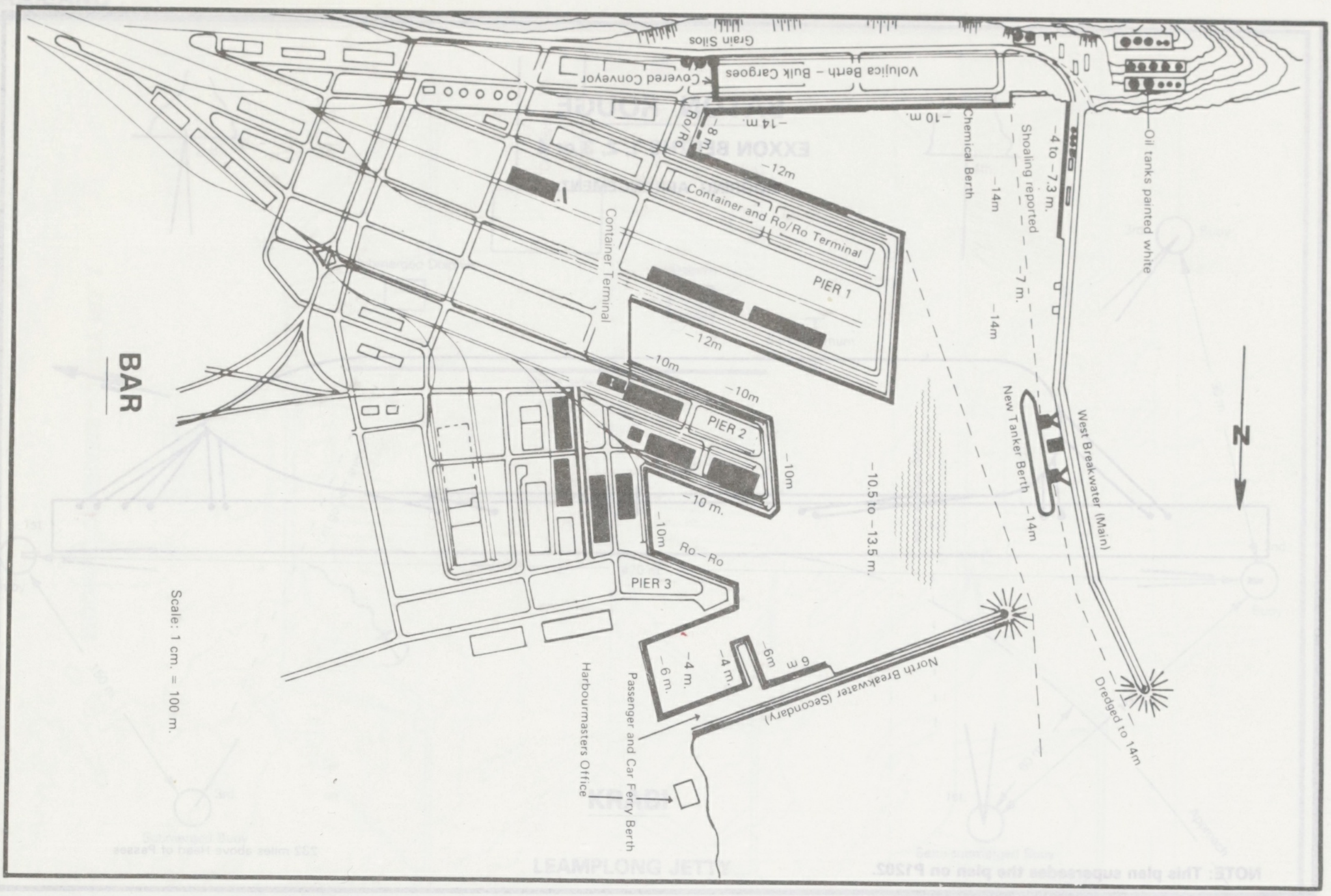
232 miles above Head of Passes



NEW HAVEN

GATEWAY TERMINAL

N
Southern end of Gulf pier
175 ft.
Oil Manifolds
Cement Manifolds
Dock House
297 ft.
Boat Dock
303 ft.
327 ft.
415 ft.
Gantry crane rails
GATEWAY TERMINAL PIER
752 ft.
E. Haven Reach
LOCATION PLAN
Gulf
GATEWAY TERMINAL
Arco


BAR
Grain Silos
Volujica Berth – Bulk Cargoes
Covered Conveyor
Ro/Ro
–8 m
–14 m.
–10 m.
Chemical Berth
Shoaling reported
–4 to –7.3 m.
Oil tanks painted white
–12m
Container and Ro/Ro Terminal
Container Terminal
PIER 1
–14m
–7 m.
–14m
–12m
–10m
–10m
PIER 2
–10m
–10 m.
–10m
Ro – Ro
PIER 3
–10.5 to –13.5 m.
New Tanker Berth
–14m
West Breakwater (Main)
N
North Breakwater (Secondary)
–6m
6 m
–4 m
–4 m
–6 m.
Passenger and Car Ferry Berth
Harbourmasters Office
Dredged to 14m
Scale: 1 cm. = 100 m.